



**BUILDING
ON VISION**
UNIVERSITY OF ALBERTA

SECTOR PLANS LONG RANGE DEVELOPMENT PLAN

SECTOR PLAN 3 AND 4

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SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN
SECTOR PLAN 3 AND 4

TABLE OF CONTENTS

iii

| | | | | | | | | |
|------------|--------------------------------------------------------------------------------------------------------|-----------|------------|--------------------------------------------------------------------|-----------|-------------------------------------------|-------------------------------------------|------------|
| 1.0 | INTRODUCTION | 1 | 4.4 | Nodes | 50 | 5.25 | Assiniboia Hall | 110 |
| 1.1 | Background | 3 | 4.4.1 | University Gateways | 53 | 5.26 | Computing Science Centre / Athabasca Hall | 111 |
| 1.2 | Sector Structure | 4 | 4.4.2 | Primary Exterior Nodes | 55 | 5.27 | Pembina Hall | 112 |
| 1.3 | Sector Plan Organization | 5 | 4.4.3 | Secondary Exterior Nodes | 59 | 5.28 | SUB | 113 |
| | | | 4.4.4 | Tertiary Nodes | 59 | 5.29 | Chemistry Centre (West & East) | 114 |
| 2.0 | SECTOR CHARACTERISTICS & VISION | 7 | 4.4.5 | Interior Nodes | 60 | 5.30 | CAB | 115 |
| 2.1 | Sector Characteristics | 9 | 4.5 | Landmarks | 60 | 5.31 | Earth Sciences | 116 |
| 2.2 | Sector Vision | 11 | 4.5.1 | Existing Landmarks | 60 | 5.32 | Arts | 117 |
| | | | 4.5.2 | Opportunities for Landmarks | 60 | 5.33 | North Power Plant | 118 |
| 3.0 | VISUAL & PHYSICAL INVENTORY | 13 | 4.5.3 | Tertiary Landmarks | 62 | 5.34 | Tory Lecture Theatres | 119 |
| 3.1 | Districts | 15 | | | | 5.35 | Rutherford Library (North & South) | 120 |
| 3.2 | Pathways | 21 | 5.0 | SITE SPECIFIC GUIDELINES | 63 | | | |
| 3.3 | Edges | 25 | 5.1 | Industrial Design Studio | 67 | | | |
| 3.4 | Nodes | 26 | 5.2 | Physics / CCIS Proposed Site (at existing V-Wing Lecture Theatres) | 69 | APPENDIX A: CAMPUS-WIDE GUIDELINES | | 121 |
| 3.5 | Landmarks | 30 | 5.3 | Biological Sciences (underground addition) | 72 | APPENDIX B: SECTOR IMPLEMENTATION | | 131 |
| 4.0 | SECTOR DEVELOPMENT GUIDELINES | 31 | 5.4 | Administration | 74 | APPENDIX C: GLOSSARY | | 137 |
| 4.1 | Districts | 33 | 5.5 | Riverfront Site | 76 | | | |
| 4.1.1 | West Academic District | 33 | 5.6 | H. M. Tory Building / Business (addition) | 78 | | | |
| 4.1.2 | River Valley District | 35 | 5.7 | Civil/Electrical Engineering | 81 | | | |
| 4.1.3 | North Campus Quad District | 35 | 5.8 | Dentistry/Pharmacy (south wing to be preserved) | 84 | | | |
| 4.1.4 | East Academic District | 36 | 5.9 | The HUB | 87 | | | |
| 4.2 | Pathways | 37 | 5.10 | RCMS | 89 | | | |
| 4.2.1 | Vehicular Pathways | 41 | 5.11 | Centre for Subatomic Research | 91 | | | |
| 4.2.1.1 | 116 Street | 41 | 5.12 | Cameron Library | 93 | | | |
| 4.2.1.2 | Saskatchewan Drive | 42 | 5.13 | South Lab | 95 | | | |
| 4.2.1.3 | 89 Avenue | 42 | 5.14 | Human Ecology | 97 | | | |
| 4.2.2 | Service Vehicle Pathways | 43 | 5.15 | Windsor Car Park | 100 | | | |
| 4.2.3 | Pedestrian Pathways with Service Vehicle Access | 44 | 5.16 | NINT Building | 101 | | | |
| 4.2.4 | Existing and Proposed Drop-off Loops | 44 | 5.17 | Chemical & Materials Engineering | 102 | | | |
| 4.2.5 | Existing Primary Pedestrian Pathways | 45 | 5.18 | ECERF / ETLIC | 103 | | | |
| 4.2.6 | Existing Secondary Pedestrian Pathways | 46 | 5.19 | NREF | 104 | | | |
| 4.2.7 | Existing Tertiary Pedestrian Pathways | 47 | 5.20 | General Services Building | 105 | | | |
| 4.2.8 | Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors) | 47 | 5.21 | Stadium Car Park | 106 | | | |
| | | | 5.22 | Agriculture / Forestry Building | 107 | | | |
| 4.3 | Edges | 48 | 5.23 | Morrison Structural Engineering Lab | 108 | | | |
| | | | 5.24 | Mechanical Engineering | 109 | | | |

Note:

The illustrations depicted in the Sector Plans are conceptual only and are intended to graphically describe the intent of the guidelines. The actual character and details of a specific development will be determined during the design stage of that development.

SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN
SECTOR PLAN 3 AND 4

LIST OF FIGURES

| | | | | | | | | |
|------------|--------------------------------------------------------------------------------------|----|------------|--------------------------------------------------------------------------------------------------------|----|------------|---------------------------------------------------------------------------------------------------------------------|----|
| Figure 1: | Location of Sectors 3 & 4 within the University of Alberta North Campus | 3 | Figure 18: | north side of Cameron Library Looking north-west toward CAB from the south-west corner of South Lab | 20 | Figure 35: | the Comp. Science Cntr. & Pembina Hall Looking north-east toward Business Building and to the north side of Arts | 29 |
| Figure 2: | Strategic Planning Structure | 4 | Figure 19: | 116 Street, looking south from 91 Avenue | 22 | Figure 36: | Looking east along 89 Avenue from 'The Dove' at Celebration Plaza | 30 |
| Figure 3: | Sector Pattern | 4 | Figure 20: | Saskatchewan Drive, looking east from Biological Sciences | 22 | Figure 37: | Districts | 34 |
| Figure 4: | Campus Structure | 10 | Figure 21: | Looking east along 89 Avenue from the 114 Street intersection | 22 | Figure 38: | Pathways (Vehicular / Pedestrian) | 38 |
| Figure 5: | Looking north at pedway between General Services Building and Agriculture / Forestry | 15 | Figure 22: | Looking north between SUB and the Administration Building | 23 | Figure 39: | Future Service Pathways | 39 |
| Figure 6: | Looking east, south of SUB toward 89 Avenue | 16 | Figure 23: | Looking east toward Pembina Hall, north of SUB | 23 | Figure 40: | Pathways (Pedestrian) | 40 |
| Figure 7: | Looking north-east from the Computing Science Centre | 16 | Figure 24: | North-west corner of Mechanical Engineering Building | 23 | Figure 41: | Pedestrian and Vehicular Pathways - 116 Street (Conceptual Sketch) | 41 |
| Figure 8: | Looking east, from the north-west wing of Biological Sciences, along Sask. Dr. | 16 | Figure 25: | Looking east toward Assiniboia and Athabasca Halls | 23 | Figure 42: | Victoria Promenade, Downtown Edmonton | 42 |
| Figure 9: | Looking south-east from Saskatchewan Drive toward Earth Sciences and the Tory Tower | 17 | Figure 26: | Looking north toward HUB from 112 Street at Fine Arts Building | 26 | Figure 43: | Looking east, south of SUB toward Celebration Plaza – Conceptual Sketch | 43 |
| Figure 10: | Looking south-west, from Saskatchewan Drive toward Biological Sciences | 17 | Figure 27: | North Campus Quad from the south-west | 26 | Figure 44: | Service / Pedestrian Pathway Intersection – Conceptual Sketch | 43 |
| Figure 11: | Looking west from the east side of North Campus Quad | 18 | Figure 28: | Looking north-west toward Celebration Plaza from the 114 St. / 89 Ave. intersection | 26 | Figure 45: | Pedestrian Pathways – Conceptual Sketch of Hierarchy of Layout & Materials | 45 |
| Figure 12: | Panorama looking south-west, from Arts toward the North Power Plant | 18 | Figure 29: | East Academic Quad from the north-east | 27 | Figure 46: | West HUB Walk – Conceptual Sketch | 46 |
| Figure 13: | Looking east between Chemical & Materials Eng. and ECERF/ETLC from 116 St. | 19 | Figure 30: | Looking north-east toward Assiniboia Hall from the Computing Science Centre | 27 | Figure 47: | University of Alberta Alumni Walk – Design Concept | 46 |
| Figure 14: | Looking west at pedway between Chemical & Materials Eng. and ECERF/ETLC | 20 | Figure 31: | Looking north-east toward Rutherford Library from the south-east corner of Dentistry / Pharmacy | 27 | Figure 48: | Edges | 49 |
| Figure 15: | Earth Sciences from the north-west at service road | 20 | Figure 32: | North HUB entry panorama (including Rutherford House) | 28 | Figure 49: | Nodes | 51 |
| Figure 16: | Biological Sciences from the south-west | 20 | Figure 33: | Looking east along 89 Avenue from the west side of 116 Street | 28 | Figure 50: | Nodes and Pedestrian Pathways Overlay | 52 |
| Figure 17: | Looking east toward the Arts Building from the | | Figure 34: | View north of SUB toward Agriculture / Forestry, | | Figure 51: | West Academic Quad – Conceptual Sketch | 54 |

SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN

SECTOR PLAN 3 AND 4

| | | | | | |
|----------------------------------|--------------------------------------------------------------------|-----|--------------|-------------------------------------------|-----|
| Figure 57: | Sketch | 56 | Figure 5.22: | Agriculture / Forestry Building | 107 |
| | Dentistry / Pharmacy Entry – Conceptual Rendering | 57 | Figure 5.23: | Morrison Structural Engineering Lab | 108 |
| Figure 58: | Power Plant Precinct – Precedent Images | 58 | Figure 5.24: | Mechanical Engineering | 109 |
| Figure 59: | Tertiary Node – Conceptual Sketch | 59 | Figure 5.25: | Assiniboia Hall | 110 |
| Figure 60: | Landmarks | 61 | Figure 5.26: | Computing Science Centre / Athabasca Hall | 111 |
| Site Specific Guidelines: | | | Figure 5.27: | Pembina Hall | 112 |
| Figure 5.1: | Industrial Design Studio | 67 | Figure 5.28: | SUB | 113 |
| Figure 5.2: | Physics / CCIS Proposed Site (at existing V-Wing Lecture Theatres) | 69 | Figure 5.29: | Chemistry Centre (West & East) | 114 |
| Figure 5.3: | Biological Sciences (underground addition) | 72 | Figure 5.30: | CAB | 115 |
| Figure 5.4: | Administration | 74 | Figure 5.31: | Earth Sciences | 116 |
| Figure 5.5: | Riverfront Site | 76 | Figure 5.32: | Arts | 117 |
| Figure 5.6: | H. M. Tory Building / Business (addition) | 78 | Figure 5.33: | North Power Plant | 118 |
| Figure 5.7: | Civil / Electrical Engineering | 81 | Figure 5.34: | Tory Lecture Theatres | 119 |
| Figure 5.8: | Dentistry / Pharmacy (south wing and elevation to be preserved) | 84 | Figure 5.35: | Rutherford Library – (North & South) | 120 |
| Figure 5.9: | The HUB | 87 | | | |
| Figure 5.10: | RCMS | 89 | | | |
| Figure 5.11: | Centre for Subatomic Research | 91 | | | |
| Figure 5.12: | Cameron Library | 93 | | | |
| Figure 5.13: | South Lab | 95 | | | |
| Figure 5.14: | Human Ecology | 97 | | | |
| Figure 5.15: | Windsor Car Park | 100 | | | |
| Figure 5.16: | NINT Building | 101 | | | |
| Figure 5.17: | Chemical & Materials Engineering | 102 | | | |
| Figure 5.18: | ECERF / ETLIC | 103 | | | |
| Figure 5.19: | NREF | 104 | | | |
| Figure 5.20: | General Services Building | 105 | | | |
| Figure 5.21: | Stadium Car Park | 106 | | | |

SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN
SECTOR PLAN 3 AND 4

I n t r o d u c t i o n

1.0 INTRODUCTION

1.1 Background

In June 2002, the Board of Governors of the University of Alberta adopted a Long Range Development Plan (LRDP) for the University, establishing a vision for shaping and guiding future growth, development and redevelopment at the four Campus sites of the University (North Campus, South Campus, Michener Park and Faculté Saint-Jean) to the year 2030.

The LRDP provides a flexible set of strategic planning principles that support the growth of new research, teaching and student support facilities, as well as upgrades or replacement of existing structures on University lands. The LRDP also identifies how University lands and facilities should be developed, and outlines operational planning principles, initiatives and guidelines that direct appropriate and sustainable growth for the University. The LRDP's principles, initiatives and guidelines recognize the existing unique characteristics and attributes of the University and promote future development that:

- Fosters desirable Campus life.
- Supports teaching and research.
- Uses physical and financial resources efficiently and effectively.
- Creates, preserves and enhances significant physical assets for the University.
- Provides the flexibility to respond to future trends and growth.
- Recognizes and values the planning initiatives of its neighbours and partners.

Within the Campus sites, 19 Sectors have been identified -11 Sectors within the North Campus, three Sectors within the South Campus, two Sectors in Michener Park and one Sector at each of Faculté Saint-Jean, Augustana College and the Devonian Botanical Garden. The University has identified

the need to establish specific Sector Plans for each of these Sectors. This document specifically addresses Sectors 3 and 4 on the North Campus. (Refer to Figure 1). The purposes for the Sector Plans are:

- To develop a vision for development and redevelopment compatible with the principles of the LRDP.
- To identify potential development and redevelopment sites that address Faculty, University services and other expansion requirements.
- To outline guidelines for effective and compatible development and redevelopment activities within and between Sectors.
- To identify the required physical links to adjacent Sectors and the interface with adjacent neighbours and University partners.

The LRDP and Sector Plans are important components that guide future planning and development for the University. This document has been created for use by the University of Alberta and its design, planning and programming consultants and the construction industry. These plans are based on extensive public and faculty participation, and evaluation and approval by University Review Boards. The University, through Strategic Planning (SPPI - a division of the Planning and Infrastructure Department), will use the Sector Plans, in conjunction with the LRDP, to assess future planning and development initiatives within each Sector and to determine if individually proposed development or redevelopment projects comply with the directions and guidelines provided. Interpretation of these plans is the responsibility of SPPI. Refer to Figure 2 for the Strategic Planning Structure used for all proposed development or redevelopment projects.



Figure 1 - Locations of Sectors 3 & 4 within the University of Alberta North Campus

1.2 Sector Structure

The character and physical qualities of each of the University of Alberta Campuses are determined and influenced by various components. The visual quality or legibility of these components dictates the organization and recognition of a coherent, liveable Campus through distinct Sector 'patterns'.

Legibility is a crucial concept in the structuring of a coherent Sector 'pattern'. A legible Sector is one where **districts** (areas exhibiting a recognizable and common character), **landmarks** (reference points), **nodes** (focal points), **edges** (natural and built boundaries) and **pathways** (urban channels – roads, walkways, public transit, bicycle routes, etc.) are easily identified and grouped into an overall 'pattern'. (Refer to Figure 3). These pattern elements structure and harmonize the urban environment, establishing and clarifying points of entry, movement, visual reference, ambient character, and social space – in short, they create a 'sense of place'.

In order to create a distinctive 'sense of place' for each University Campus and Sector, it is important to establish comprehensive, implementable guidelines that identify, and respond to the existing and potential interaction between pattern elements. A 'sense of place' is physically and cognitively created through these pattern elements. In more detail, these are:

Districts:

Areas having a typical character and/or land use based on a combination of elements such as: culture, history, built-form, natural areas or specific social activity.

Pathways:

Key vehicular (public, public transit, service-oriented), pedestrian and multi-use (e.g. bicycles) routes and their spatial qualities (e.g. landscape treatment and way-finding systems).

Edges:

Natural boundaries (e.g. a ravine or shelterbelt) and built form boundaries (i.e. the density, massing, setback and façade treatment of buildings; key roadway boundaries and seams; and streetscape features – treed boulevards, lighting, furnishings, etc.).

Nodes:

Key vehicular and pedestrian intersections; public transit links, stations and stops; and areas with a higher concentration of activity.

Landmarks:

Significant natural, built form or other urban features that act as visual references.

Working with these pattern elements to define the legibility and quality of the physical environment, as well as to ensure the compatibility of the Sector with human purposes and activity, will lead to a unique and desirable 'sense of place'.

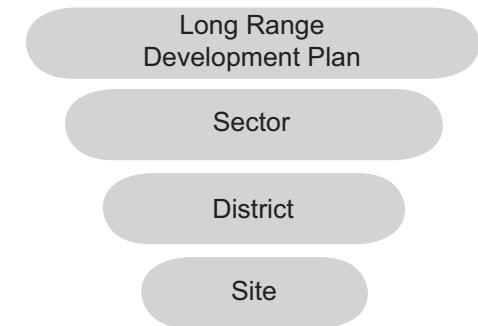


Figure 2 - Strategic Planning Structure

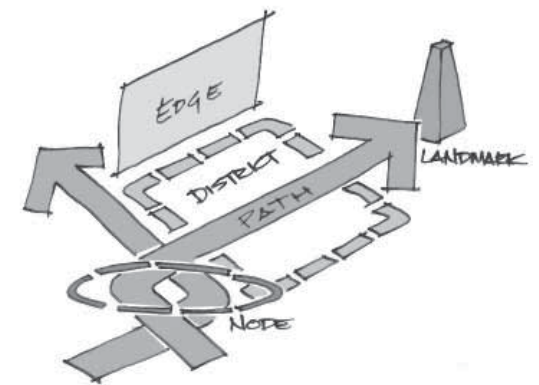


Figure 3 - Sector Pattern

1.3 Sector Plan Organization

Sectors 3 and 4 have several components that are integrally linked. In response, this Sector Plan has combined Sectors 3 and 4 into one planning unit. The Sector Plan has been organized into the following seven sections:

1. Sector Characteristics & Vision

This section provides an overview of each Sector's location within the Campus and their distinctive features. This section also presents the proposed vision for each Sector and specific development and redevelopment strategies that will aid in achieving each vision.

2. Visual and Physical Inventory

This section provides a 'snapshot' of key analysis and inventory information obtained from the LRDP, other support documentation, and a photographic inventory of the Sector. The inventory is presented and assessed based on Sector structure characteristics – Districts, Pathways, Edges, Nodes and Landmarks.

3. Sector Development Guidelines

This section presents and illustrates guidelines for future Sector development and redevelopment based on Sector structure characteristics - Districts, Pathways, Edges, Nodes and Landmarks. Key items addressed include the following:

- Key elements and features that create a sense of place and continuity in the Sector.
- Development and redevelopment sites.
- Full development and redevelopment potential in the Sector.
- Acceptable uses for specific development and redevelopment sites.
- Compatibility issues with surrounding development.

- Relationship to services.
- Physical linkages to adjacent Sectors (pedestrian, bicycle, road linkages identified in the LRDP).
- Transition/ compatibility to adjacent lands.
- Required open space elements, including what should be preserved and expanded.
- Way-finding and signage.

Figures within this section provide conceptual examples of Sector Development Guidelines.

4. Site Specific Guidelines

This section provides site constraints, opportunities and guidelines for development and redevelopment zones within each Sector. Key items addressed include the following:

- Site dimensions and areas.
- Site coverage (%).
- Floor Area Ratio (FAR).
- Permitted building heights.
- Site specific development requirements.
- Zones of Responsibility.
- A list of related Sector Specific Guidelines.

Figures within this section provide conceptual examples of the Site Specific Guidelines.

5. Appendix A: Campus-Wide Guidelines

This appendix presents a broader based set of guidelines that should be acknowledged and integrated within each Sector of the Campus. Key items addressed include the following:

- Visual Quality and Design
- Sector Identifier and Colour(s)
- Landscape Treatment

- Natural Areas
- Screening
- Public Art
- Signage
- Lighting
- Street Amenities
- Architectural and Open Space
- Sustainability
- Utilities
- Parking and Loading/Manoeuvring Areas

6. Appendix B: Sector Implementation

This section discusses principles and strategies to be observed during the development or redevelopment of the Sector, and further activities required prior to, or during, future development.

7. Glossary

This section provides a glossary of key Sector development terminology.

SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN
SECTOR PLAN 3 AND 4

**Sector Characteristics
& Vision**

2.0 SECTOR CHARACTERISTICS & VISION

2.1 Sector Characteristics

While the Sector Plan deals with Sectors 3 and 4 as integral planning units, they are unique with respect to many characteristics as described below. (Refer to Figure 4 – Campus Structure).

Sector 3:

Sector 3 is located in the north-west section of North Campus (Refer to Figure 4). The Sector has a high density of development which includes National Institute for Nanotechnology (NINT), Centre for Subatomic Research, Chemical & Materials Engineering (CME), Electrical & Computer Engineering Research Facility (ECERF), Engineering Teaching & Learning Complex (ETLC), Mechanical Engineering, Morrison Structural Engineering, Computer Science Centre, Natural Resources Engineering Facility (NREF), Industrial Design Studio, Agriculture/Forestry, Human Ecology, Student Union Building, Physical Plant Shop (RCMS), General Services, Stadium Car Park and the Windsor Car Park. The footprint of development covers approximately 55,260m² on a land base of approximately 133,970m², for a 41% building site coverage. The overall FAR for Sector 3 is approximately 1.74.

The Sector boundary is formed by 116 Street (west), the Windsor Car Park (north), the rear of Assiniboia, Athabasca and Pembina Halls (east), and 89 Avenue (south). This Sector includes the new buildings of NINT, ECERF, ETLC, NREF, and expansion of Windsor Car Park.

The area is primarily accessed by vehicle from 116 Street and the Windsor and Stadium Car Parks. Service and pedestrian access and movement through the Sector is presently scattered, resulting in incoherent patterns of circulation, a poor hierarchy of pedestrian routes and orientation, and a proliferation of routes for service and emergency vehicle access which

conflict with pedestrians. 116 Street is a gateway and boundary to the Campus that links the Campus and River Valley and provides a transitional zone between the low-density residential neighbourhood (Windsor Park) to the west and Sector 3 to the east.

With the exception of 116 Street, the area directly south of Mechanical Engineering, and the area west of Pembina Hall, open space within the Sector is limited due to the density of buildings and the narrow passages created between these buildings. The resulting character of open space within the Sector has little function, appeal or comfort for pedestrians – this contrasts with the relatively more open and softer landscape appeal of much of the open space in Sector 4.

Sector 4:

Sector 4 is located in the north-central section of North Campus and is the symbolic ‘heart’ of Campus. (Refer to Figure 4). The Sector has a medium to high density of development which includes Biological Sciences, Assiniboia Hall, Athabasca Hall, Pembina Hall, Administration, Avadh Bhatia Physics Lab, V-Wing Lecture Theatres, Chemistry Centre West, Chemistry Centre East, Central Academic Building (CAB), Civil/ Electrical Engineering, Dentistry/Pharmacy, Power Plant, South Lab, Cameron Library, Earth Sciences, Greenhouse, Tory Lecture Theatres, the HUB, Rutherford Library (North & South), H. M. Tory, Business and University Station. Several of these buildings may be removed and redeveloped in the future, including, but not limited to, Avadh Bhatia Physics Lab, V-Wing Lecture Theatres, Civil/ Electrical Engineering, parts of Dentistry/Pharmacy, and the Greenhouse. The total footprint of development is approximately 69,013m² on a land base of approximately 204,924m², for a building site coverage of 34%. The overall FAR for Sector 4 is approximately 1.46.

The Sector boundary is formed by Assiniboia Hall, Athabasca Hall, Pembina Hall and SUB (west), Saskatchewan Drive (north), the HUB (east) and 89 Avenue (south).

The Sector is accessed by vehicles along Saskatchewan Drive with on-street parking and a drop-off at the north end of the HUB and Parking Lot E (118 stalls) north of Earth Sciences. The University Station LRT and transit hub along 89 Avenue is a major Campus access point. Service access is predominantly from Saskatchewan Drive and 89 Avenue. Pedestrian access and movement throughout the Sector is presently scattered, resulting in incoherent patterns of circulation and a poor hierarchy of pedestrian routes and orientation.

Although the Sector includes a dense cluster of buildings at its centre—Cameron Library, CAB, Arts, South Lab, North Power Plant, Civil/Electrical Engineering and Dentistry/Pharmacy—several significant, well-defined internal open spaces offset this density. These include the North Campus Quad (‘the Quad’), the East Academic Quad (east of the Arts Building) and the open space south of Rutherford Library. At the north end of the Sector, along Saskatchewan Drive, the open spaces adjacent to Biological Sciences and Earth Sciences do not have the rectilinear ‘wall’ definition of the internal open spaces and therefore feel more ‘park-like’ – a character further enhanced and complemented by their adjacency to the North Saskatchewan River Valley.

Sector 4 includes several buildings with heritage and aesthetic value. It was here that the University of Alberta Campus first came into being. Assiniboia, Athabasca, and Pembina Halls on the west side of the North Campus Quad, and the Dentistry/Pharmacy building are the built legacy of the early Campus and contribute significantly to the character of this sector.

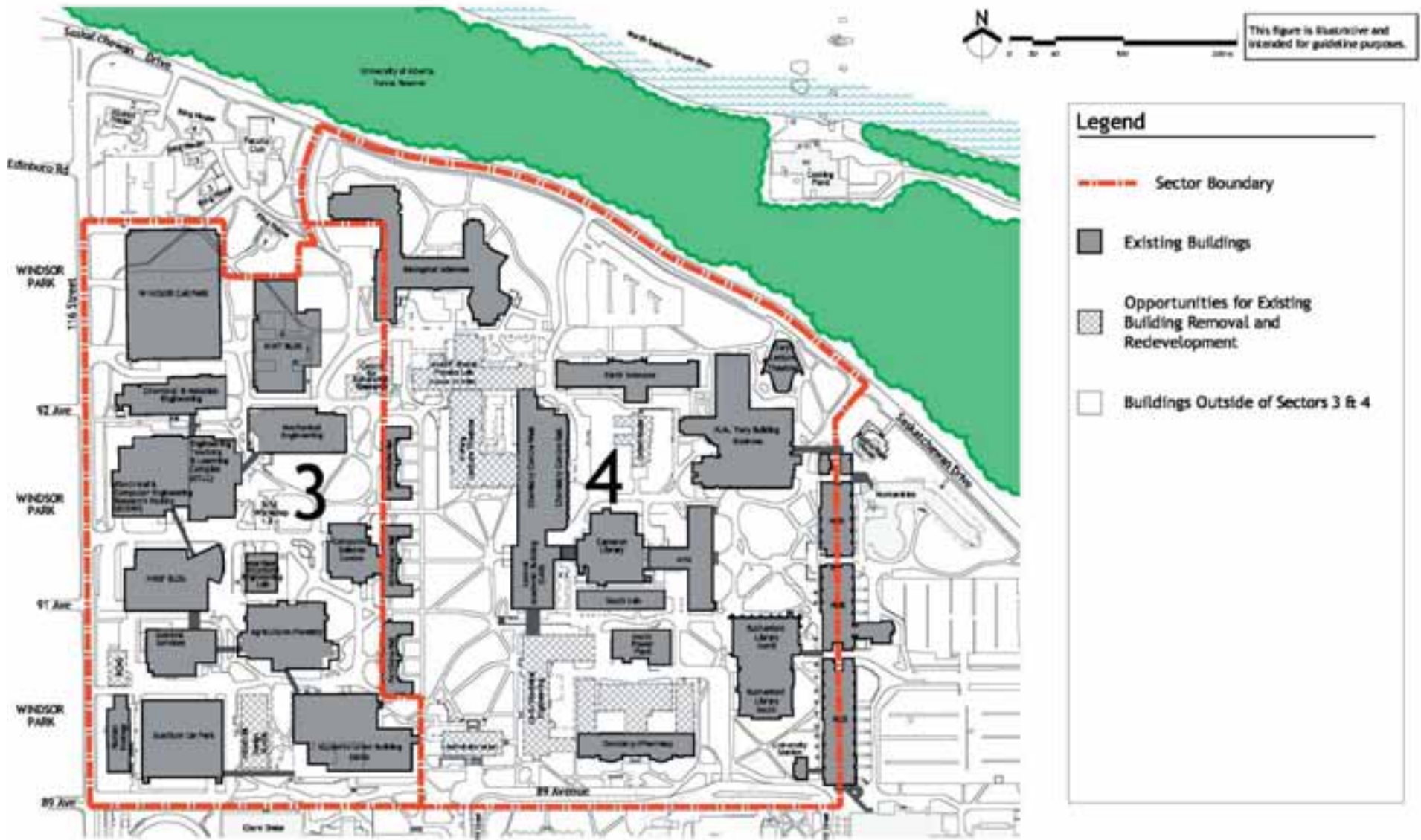


Figure 4 - Campus Structure

University of Alberta - North Campus Academic Sectors 3 & 4

March 2005

2.2 Sector Vision

Sectors 3 and 4 will continue to be the essential core of North Campus, incorporating improvements that contribute to a coherent academic and research environment, balanced through the integration of well-designed, linked buildings, open space, and pathway connections. Key development strategies include:

- Developing new, and reinforcing existing, pathways (both interior and exterior) within a hierarchy that creates: distinct zones for pedestrian and/or vehicular access and movement; ease of way-finding; desirable Campus character development; and appropriate interfaces with other University Sectors and neighbourhoods.
 - Maintaining the North Campus Quad and its green space character as the symbolic heart of North Campus, providing a focus for major Campus events and celebrating and recognizing the University's past, present and future achievements, alumni and history.
 - Strengthening Saskatchewan Drive to articulate and celebrate its importance as a major entry into the North Campus, and to create a stronger visual and physical connection between the Sectors and the North Saskatchewan River Valley.
 - Enhancing the West Academic Quad in Sector 3 (south of Mechanical Engineering) as a central open space area and focal point, providing a venue for events, activity and gathering.
 - Introducing pedestrian pathway, node and landmark enhancements that promote interaction, animation, interpretation, accessibility, way-finding, and activity within a safe, secure, attractive and pedestrian-scaled environment, internally and externally.
- Using “broad strokes of green” (e.g. treed allées), site furnishings, lighting, surface material use, public art and other features to define pathways and nodes.
 - Introducing streetscape improvements (e.g. wider sidewalks, site furnishings, pedestrian scaled lighting, etc.) along 116 Street to enhance its importance as a primary gateway and boundary to the North Campus, while maintaining the existing character and transitional qualities with the Windsor Park neighbourhood.
 - Introducing features, internally and externally, such as public art and way-finding kiosks, to promote, interpret and celebrate the uniqueness of academic programs offered, and research being done, in the Sector.
 - Improving the open space environment to respond to daily and year-round use, safety and security.
 - Implementation of the principles of sustainability, wellness, flexibility, adaptability, manageability, safety, and universal accessibility (including a strategic servicing strategy) in the design and development of Sector buildings, pathways and open space.
 - Development of strong and meaningful visual and physical connections between interior and exterior space that define and enrich public space, create focal and activity points, and enhance way-finding.
 - Directing new development to under-utilized sites.
 - The enhancement, extension and clarification of a comprehensive internal pathway system.

SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN
SECTOR PLAN 3 AND 4

**V i s u a l
& P h y s i c a l
I n v e n t o r y**

3.0 VISUAL & PHYSICAL INVENTORY

The following provides a ‘snapshot’ of key analysis and inventory information obtained for Sectors 3 and 4. This information has been combined into one planning unit and is presented and assessed based on Sector structure characteristics – Districts, Pathways, Edges, Nodes and Landmarks. Also established in this section is a framework of nomenclature for specific Districts, Pathways, Edges, Nodes and Landmarks. This nomenclature is carried into Section 4.0 – Sector Development Guidelines.

3.1 Districts

Districts – built form areas that integrate with open spaces and social patterns of life to create areas of geographic and visual reference.

Existing Inventory

District A - West Academic District:

The proposed West Academic District encompasses all of Sector 3. It includes some of the largest structures on North Campus, including two major car parks (Windsor and Stadium Car Park) and buildings that form the ‘engineering cluster’. Major new facilities include the NREF, ECERF/ETLC and NINT buildings. Also included in the District are Human Ecology, the Student’s Union Building (SUB), General Services, Agriculture/ Forestry, Centre for Subatomic Research, I. F. Morrison Structural Engineering Lab, Industrial Design Studio and the Computing Science Centre. (Refer to Figure 5). The District’s west and south boundaries are clearly defined by 116 Street and 89 Avenue, respectively. (Refer to Figures 6, 21 and 33 for existing views of 89 Avenue). The west boundary, neighbouring Windsor Park, is extensively landscaped and the buildings are well set back from 116 Street to provide a buffer for the adjacent residential area. A major open space lies south of

Mechanical Engineering (the proposed West Academic Quad). (Refer to Figure 7).

District B - River Valley District:

The proposed River Valley District includes all University lands within Sector 4 north of Avadh Bhatia Physics Lab, Earth Sciences and the Tory Building, to the edge of Saskatchewan Drive. The River Valley District’s prominent facilities are Biological Sciences, Earth Sciences, the Tory Building and lecture theatres, and Parking Lot E north of Earth Sciences. The District’s green and open character is enhanced by its

proximity to the North Saskatchewan River Valley. (Refer to Figure 8). The District visually ‘borrows’ space from the river valley. For the most part, the District has a more relaxed and park-like character when compared with the higher development intensity of other Districts in Sectors 3 and 4. Pedestrian and vehicular traffic flows easily within the District. (Refer to Figures 9 and 10).



Figure 5 - Looking north at pedway between General Services Building and Agriculture / Forestry



Figure 6 - Looking east, south of SUB toward 89 Avenue



Figure 7 - Looking north-east from the Computing Science Centre



Figure 8 - Looking east, from the north-west wing of Biological Sciences, along Saskatchewan Drive



Figure 9 - Looking south-east from Saskatchewan Drive toward Earth Sciences and the Tory Tower



Figure 10 - Looking south-west from Saskatchewan Drive toward Biological Sciences



Figure 11 - Looking west from the east side of North Campus Quad



Figure 12 - Panorama looking south-west from Arts toward the North Power Plant

District C - North Campus Quad District:

The North Campus Quad District is the heart of the North Campus and includes the largest open space – North Campus Quad – as well as Celebration Plaza. Although it is formally defined on all four sides by buildings, the Quad retains a relaxed, informal character due to the many criss-crossing pathways and extensive landscaping and mature trees around its perimeter. (Refer to Figure 11). The architecture of the Pembina, Athabasca and Assiniboia Halls along the west edge of the Quad contributes significantly to the ‘traditional’ campus atmosphere and sense of place in the District. Much of the visual and spatial impact of the District is derived from the relatively narrow ‘entrances’ into the space from other areas of Sectors 3 and 4. Within this District, one has a sense of having ‘arrived’ on Campus, particularly when classes are in session and the space is animated by pedestrians.

District D - East Academic District:

The proposed East Academic District includes all University lands within Sector 4 that are south of Earth Sciences and the Tory Building, west of HUB, north of 89 Avenue, and east of the North Campus Quad District. The East Academic District is difficult to characterize, due to the varying scale of its built form and open spaces. It is strongly bounded on the east (by the HUB) and west (Chemistry, CAB and Civil/Electrical Engineering) sides and has many well-defined but poorly connected open spaces and pathways. The Chemistry Centre East, the Business Building, Cameron Library, Arts, South Lab, North Power Plant (refer to Figure 12), Dentistry/Pharmacy, Rutherford Library and the west side of HUB are all included in the District. The District includes University Station and the 89 Avenue/112 Street intersection, and thus serves as a main entry into the University.

Analysis

West Academic District:

The scale and density of much of the built form in the District overpowers the pedestrian, and impedes a clear sense of way-finding. Some passages between buildings seem cavernous. Recent improvements that ‘knit’ open spaces together has occurred around the ECERF/ETLC complex, serving as an example of how meaningful, pedestrian-scale, and aesthetic connections can be made between buildings and within the constricted spaces of the District (Refer to Figures 13 and 14). Goals and objectives of future development or redevelopment within the District should be directed toward:

- introducing a more pedestrian scale
- improving way-finding, and
- creating more cohesive and integrated relationships between open spaces and built form.



Figure 13 - Looking east between Chemical & Materials Engineering and ECERF/ETLC from 116 Street

River Valley District:

There is a stark contrast between the way the Biological Sciences and Earth Sciences buildings address their surroundings. Earth Sciences literally reflects its green surroundings (with mirrored glazing), seemingly disappearing, and giving the illusion of more park-like space. (Refer to Figure 15). Conversely, the architecture and scale of Biological Sciences make it an imposition on the edge of the valley. (Refer to Figure 16). In combination with the Tory Tower, Biological Sciences is one of the most visible University landmarks from the north side of the river valley.

Goals and objectives of future development or redevelopment within the District should be directed toward:

- respecting and celebrating the natural beauty and ecological integrity of the river valley
- maintaining the scenic qualities of the District, and
- animating the District by creating destinations (nodes).

North Campus Quad District:

Generally, this District works well – it has a high degree of integration with social patterns, and acts as a strong geographic and visual reference. While the contrast between

the older buildings on the west side of the Quad with the relatively newer structures on the other three sides may not contribute to an overall sense of architectural continuity, it does give the observer a sense of the evolution and history of built form on the North Campus. Goals and objectives of future development or redevelopment within the District should be directed toward:

- maintaining and enhancing access
- protecting the Quad from encroachment
- maintaining and enhancing the heritage value and characteristics of Assiniboia, Athabasca and Pembina Halls and the North Campus Quad.

East Academic District:

This District is characterized by a series of open spaces – ‘courtyards’ and ‘quads’ – defined by disparate built form, and many of which seem to have developed accidentally or in isolation. Many of the spaces and connections between buildings combine to create areas of visual and geographic reference, but these do not coalesce to provide a sense of continuity, cohesiveness or ease of way-finding. (Refer to Figures 17 and 18). Goals and objectives of future development or redevelopment within the District should be directed toward:

- introducing a more pedestrian scale
- improving way-finding
- creating more cohesive and integrated relationships between open spaces and built form
- creating nodes (focal points) with a sense of place that accommodate and foster a range of campus activities.



Figure 14 - Looking west at pedway between Chemical & Materials Engineering and ECERF/ETLC



Figure 16 - Biological Sciences from the south-west



Figure 15 - Earth Sciences from the northwest at service road



Figure 17 - Looking east toward the Arts Building from the north side of Cameron Library



Figure 18 - Looking north-west toward CAB from the south-west corner of South Lab

3.2 Pathways

Pathways – key vehicular and pedestrian routes.

Pathways

Existing pathways are discussed below in terms of the following categories: vehicular/pedestrian pathways; service vehicle pathways; a hierarchy of primary, secondary, and tertiary multi-use pedestrian pathways (for bikes, joggers, walkers, in-line skaters, etc.) and interior pathways and links/pedways. The pedestrian pathway hierarchy is based on a combination of the perceived relative amount of 'traffic' that each pathway accommodates, and its relative length. The hierarchy and terminology in this section are also used in Section 4.0.

Vehicular/Pedestrian Pathways:

- 116 Street is the major north-south vehicular route defining the west boundary of Sector 3 and the University, giving access to the two major car parks as well as service access to Sector 3. (Refer to Figure 19). It is a significant pedestrian and bicycle pathway into the Campus, especially at 89 Avenue. 116 Street is generally successful as a pathway in the transition zone between the Campus and Windsor Park residential area. This street is an appropriate and pleasant pathway for motorists, pedestrians and neighbourhood residents alike. The quality experience on this street is further enhanced by limited on-street parking.
- Saskatchewan Drive carries significant local vehicular traffic and defines the north boundary of North Campus, acting as a terminus for several north-south pathways. (Refer to Figure 20). It separates the Campus from the North Saskatchewan River Valley, a significant natural feature. It provides service access to the north end of both Sectors and the HUB, as well as access to parking lots

north of Earth Sciences. It is scenic, but the arrangement of buildings, limited pathway access to, and lack of node development along, the south side of Saskatchewan Drive results in a low intensity of pedestrian activity. Existing pathways on the north side of Saskatchewan Drive are part of the network of river valley pathways and accommodate a significant number of recreational users (e.g. joggers, in-line skaters, etc.). Existing on-street parking diminishes the safety of the street, restricts pedestrian crossings and interferes with the transition to, and integration of, the river valley.

- 89 Avenue is the major east-west pedestrian and bicycle pathway. (Refer to Figure 21). This pathway includes public and service vehicle access from 116 Street to the south-east corner of Stadium Car Park and one-way, east to west, transit/service vehicle access from 112 Street to 114 Street, including a bus terminal adjacent to the University Station. The section from 114 Street to the Stadium Car Park is primarily pedestrian but also includes service vehicle access. Pedestrians arriving at University Station as well as those being dropped-off at 114 Street and 112 Street make the east section of 89 Avenue the most intensely used pathway in Sectors 3 and 4. A multi-nodal, expansive pedestrian mall between 112 Street and 114 Street sets a successful precedent for other major pedestrian areas on Campus. Decorative, durable, paved areas and an emphasis on street trees (as opposed to shrub beds) provides a clean, safe, open and sustainable landscape comfortably accommodating both vehicular and pedestrian traffic. Celebration Plaza provides a gateway into the heart of Campus from 89 Avenue. Closer to 116 Street, the quality of the pedestrian environment declines somewhat, as defined pedestrian paths give way to dominant vehicular pathways.

Service Vehicle Pathways:

- Ample service pathways exist to all buildings in both Sectors. Aside from the 'core' area of Sectors 3 and 4 (centered on the North Campus Quad), service access lacking a pedestrian-oriented 'feel' and structure tends to dominate the pathways – particularly in the south portion of Sector 3. Generally, where service roads exist, they are obtrusive and not well integrated with pedestrian movement, degrading the quality and character of the pedestrian environment. (Refer to Figures 22, 23 and 24).

Primary Pedestrian Pathways:

The North Campus has an extensive network of interior and exterior pedestrian pathways. The following provides an overview of existing pedestrian pathways and some differentiation of their hierarchy of use and importance:

- The central primary pathway connecting Sectors 3 and 4 runs directly west from the north-west corner of Rutherford Library, along the south side of South Lab, continues west through the North Campus Quad (between Pembina and Athabasca Halls), then north-west between the Computing Science Centre and Morrison Structural Engineering Lab, through the open space south of Mechanical Engineering and under the pedway connecting ETLC and Mechanical Engineering, where it continues north past the Windsor Car Park, connecting to Saskatchewan Drive and the river valley.
- A primary north-south pathway runs from Saskatchewan Drive along the west side of HUB to 112 Street.
- Pathways along the east and west sides of the North Campus Quad running south to 89 Avenue are primary pathways. These walks form part of the proposed Alumni



Figure 19 - 116 Street looking south from 91 Avenue



Figure 20 - Saskatchewan Drive looking east from Biological Sciences



Figure 21 - Looking east along 89 Avenue from the 114 Street intersection

Walk, as well as the Heritage Walk – interpretive walks at the heart of Sectors 3 and 4.

- A primary pathway originates along Saskatchewan Drive, west of Earth Sciences, and runs south-east through the open space north of Cameron Library, between the Business Building and Arts, then directly south along the east façade of Arts and the west façade of the Rutherford Library to 89 Avenue.

Secondary Pedestrian Pathways:

- Several secondary pathways—most running east-west—provide the necessary connectors between primary pathways. One such pathway originates east of ETLC, and runs east-west through the open space south of Mechanical Engineering, then east between Athabasca and Assiniboia Halls, then south-east through the North Campus Quad, to the CAB Building. (Refer to Figure 25).

Tertiary Pedestrian Pathways:

- Numerous tertiary pathways exist within Sectors 3 and 4. These pathways are integral to the overall pedestrian network. These include the extensive network of paths that have been developed to accommodate the ‘desire lines’ of pedestrians and cyclists. The surface treatments and pathway widths vary considerably, creating a visually unappealing system of pathways.



Figure 22 - Looking north between SUB and the Administration Building



Figure 24 - North-west corner of Mechanical Engineering Building



Figure 23 - Looking east toward Pembina Hall, north of SUB



Figure 25 - Looking east toward Assiniboia and Athabasca Halls

Interior Pedestrian Pathways:

Several contiguous interior pathways exist in Sectors 3 and 4, providing direct access through buildings and from building to building via links and pedways:

- The Engineering buildings (Chemical and Materials Engineering, Mechanical Engineering, ECERF, ETLC and NREF) are connected and link to an interior pathway to General Services, Ag/Forestry and SUB; SUB is connected to the Stadium Car Park via a pedway.
- University Station links with HUB; HUB links with Rutherford Library to the west, as well as Business and the Tory Tower to the north. HUB also links with Fine Arts (FAB) to the south (outside Sector 4).
- Dentistry/Pharmacy links north to Civil/Electrical Engineering, CAB, Chemistry Centre West and the Avadh Bhatia Physics Lab.

Analysis

While there is adequate pedestrian access throughout both Sectors, the physical and aesthetic quality of the pedestrian environment varies greatly, is generally disjointed, and lacks legibility. Most pedestrian pathways suffer from having been determined from the spaces 'left over' after buildings have been erected, as opposed to being a planned network of pathways and circulation coinciding with building development.

Future development or redevelopment of pathways should consider the following:

- Stronger articulation of the nodes at east-west pathways along 116 Street leading into Sector 3;

- Stronger connections—both physical and visual—to the river valley along Saskatchewan Drive;
- The extension of the 89 Avenue pedestrian mall along the entire south end of Sectors 3 and 4;
- The articulation of a primary east-west pathway linking both Sectors;
- The articulation of one or more primary north-south pathways from 89 Avenue, linking to the river valley.
- The development of well-defined drop-off areas at the Sector edges related to the primary pathways;
- The integration of the interpretive Heritage and Alumni walks into the overall pathway system;
- The redevelopment of service/pedestrian pathways to be more pedestrian oriented/scaled and less like 'roads'.
- The redevelopment of primary, secondary and tertiary pathways to reflect the hierarchy of use.
- The improvement and extension of interior pathways.
- The improvement of universal accessibility throughout Sectors 3 and 4 and other adjacent sectors.
- The establishment of integrated service points at the Sector edges that decrease the interface between service vehicles and pedestrians.

3.3 Edges

Edges – Natural and built form boundaries that form spaces.

116 Street Edge

116 Street forms the west boundary of Sector 3 and the Campus. A well defined north-south edge is created by the consistent planting of street trees along both sides of 116 Street, as well as the smaller scale of the homes in the residential area to the west (Windsor Park), juxtaposed against the larger massing of University facilities.

89 Street Edge

This edge is formed by the relatively dense spacing of built form and large canopy trees along the south side of Sectors 3 and 4 against the wide 89 Avenue pedestrian-vehicular corridor.

River Valley Edge

Saskatchewan Drive forms the north boundary of Sector 4. There is an architectural edge formed by the Biological Sciences, Earth Sciences and Tory buildings, including a narrow sidewalk with street trees.

The HUB Edge

The HUB is a very strong architectural edge, clearly demarcating the majority of the east boundary of Sector 4 in a straight line north to south. This edge provides the east 'wall' for the East Academic Quad and the open space surrounding the access to University Station.

Analysis

The edges described above give Sectors 3 and 4 a strong sense of legibility with respect to their boundaries. With the exception of the way the HUB acts as a barrier between Sector 4 and Sector 7, these edges make a positive contribution to the overall structure of Sectors 3 and 4 and should be maintained.

3.4 Nodes



Figure 26 - Looking north toward HUB from 112 Street at Fine Arts Building



Figure 27 - North Campus Quad from the south-west



Figure 28 - Looking north-west toward Celebration Plaza from the 114 St. / 89 Ave. intersection

Nodes – Areas where pathways intersect that have a high concentration of activity and/or a high degree of importance with respect to one or a combination of the following: way-finding, social interaction and aesthetic quality.

Gateways and Nodes

University Gateways have a high degree of importance as entrances into the University. Interior and exterior nodes are discussed in terms of a hierarchy (primary, secondary and

tertiary), based on their perceived relative importance and/or intensity with respect to activity, way-finding, social interaction and aesthetic quality. The hierarchy and terminology in this section are also used in Section 4.0.

University Gateway

- The 112 Street/89 Avenue area is a gateway for people arriving on Campus by LRT and bus. This area anchors the east end of the 89 Avenue pedestrian mall and includes

University Station (LRT) and the major entrance into the HUB. (Refer to Figure 26).

Primary Nodes

- North Campus Quad: The largest, most recognizable and legible node on North Campus. This area accommodates activity well and serves as a major social and informal recreational space on Campus. (Refer to Figure 27).



Figure 29 - East Academic Quad from the north-east



Figure 30 - Looking north-east toward Assiniboia Hall from the Computing Science Centre



Figure 31 - Looking north-east toward Rutherford Library from the south-east corner of Dentistry / Pharmacy

- Celebration Plaza is directly south of the North Campus Quad. This node is well articulated by columns, seating and decorative paving for pedestrians moving into the heart of the Campus. Presently, it terminates the west end of the 89 Avenue pedestrian mall at 114 Street. (Refer to Figure 28).
- The East Academic Quad—the open space defined by the Business Building (north), Rutherford Library North (on the south), HUB (east) and Arts (west)—includes some of the most mature soft landscaping on Campus. Although a relatively large open space, the area has a ‘cloistered’ feel because of the enclosure provided by the buildings listed above. (Refer to Figure 29).
- The West Academic Quad—the open space defined by Mechanical Engineering (north), ETLC (west) and Assiniboia Hall (east)—the East Academic Quad—is well defined, but the pathways that intersect within it dissect the space and detract from the ‘sense of place’. (Refer to Figure 30). Pathways from this node to the ETLC, and between ETLC and Mechanical Engineering, are excellent – they are aesthetically and sensitively designed.
- The node south of Rutherford Library (Rutherford Square) includes activity generated by University LRT Station, the bus mall and HUB. This is a major node for arrival into the University. (Refer to Figure 31).

Secondary Nodes

- The node at the north end of HUB is an access for service vehicles, as well as a drop-off zone for students and faculty. This node is well defined architecturally – it is centered on the north façade of the HUB and framed from Saskatchewan Drive by Rutherford House and the Tory Lecture Theatres. (Refer to Figure 32).



Figure 32 - North HUB entry panorama (including Rutherford House)



Figure 33 - Looking east along 89 Avenue from the west side of 116 Street

- The area including the intersection of 89 Avenue/116 Street, extending east to include the area south of the Stadium Car Park is a major node serving as a drop-off zone and an entry point for a significant number of pedestrians and vehicles. (Refer to Figure 33).
- The North Power Plant and South Lab anchor the centre of a node in the south end of Sector 4 made up of a series of relatively small and/or narrow spaces defined by the 'back' of Dentistry/Pharmacy, Civil/Electrical Engineering, Cameron Library and Arts.
- The node between Biological Sciences and Earth

Sciences, extending to Saskatchewan Drive, serves both vehicles and pedestrians and provides access into Parking Lot E north of Earth Sciences and the center of Sector 4.

- The node bounded by the Computing Science Centre, SUB, Athabasca and Pembina Halls and Agriculture/Forestry is well landscaped and well defined by the surrounding buildings. This node suffers somewhat from the dominance of service roads and the lack of a walkway designated specifically for pedestrians. (Refer to Figure 34).
- The node north of Cameron Library makes connections with CAB, Arts, Business and Chemistry Centre East.

The presence of the Greenhouse compresses this node and, combined with the service-oriented 'backsides' of the surrounding buildings, make it feel like an 'alley' or forgotten space on Campus. The somewhat enclosed portion of this node on the north-west side of Arts is more pleasant – this area includes seating amid mature trees and landscaping. (Refer to Figure 35).

- A busy node is located between SUB and the Van Vliet Centre along 89 Avenue.
- The node in front of Dentistry/Pharmacy connects with access to the University Station and the 89 Avenue pedestrian mall.

Tertiary Nodes

- Numerous tertiary nodes exist throughout Sectors 3 and 4. Notable tertiary nodes, exemplary in their articulation, design and function are those at the north-west and north-east corners of the ECERF/ETLC complex, as well as the forecourts of Athabasca, Assiniboia and Pembina Halls.

Interior Nodes

- Several key interior nodes exist in Sectors 3 and 4. These include: the H. M. Tory/Business galleria, SUB, CAB, the North Power Plant, the Rutherford galleria, the ETLC atrium and the HUB. These nodes are closely related with food/drink and student support services.

Analysis

Primary and secondary nodes (both interior and exterior) are places to pass through, as well as to pause for socializing, studying and passing the time in a pleasant environment. All future development or redevelopment should be predicated



Figure 34 - View north of SUB toward Agriculture / Forestry, the Computing Science Centre and Pembina Hall



Figure 35 - Looking north-east toward Business Building and to the north side of Arts

on the importance of recognizing nodes as the places where Campus life and activity is most intense, and where aesthetic, comfortable relationships between exterior and interior spaces must be defined and articulated in an enduring and sustainable manner.

Some of the existing nodes, such as the North Campus Quad and Celebration Plaza work relatively well; others, such as the open space south of Mechanical Engineering (West Academic Courtyard) require more physical definition and enhancement. Generally, all nodes on Campus suffer in quality due to: inconsistent and/or inappropriate and aging or vandalized hard surface treatment and site furnishings; poorly maintained planting/sodded areas; and a general lack of design quality. All

nodes on Campus could be improved by the integration of a more consistent and visible interpretive programme.

In general, in consideration of the long term maintenance implications, future development or redevelopment of nodes should:

- emphasize consistent, durable hard surface treatments;
- favour tree plantings (both deciduous and coniferous) over shrub plantings for their long term impact, viability and relative ease of care.

Specifically, future development or redevelopment of nodes should consider:

- the consolidation of the North Campus Quad as the most

important and largest primary node on the North Campus with a key interpretive role for the University's history;

- the creation of a well-defined primary node south of Mechanical Engineering - the West Academic Quad;
- the creation of a well-defined primary node south of the Rutherford Library, integrated with the transit centre and University Station (LRT) – Rutherford Square;
- the creation of a secondary node north-east of Biological Sciences to provide a 'destination' with a strong relationship to the river valley, and accommodate pedestrian and vehicular traffic gaining access to Campus via Saskatchewan Drive;
- the creation of a secondary node related to potential future redevelopment of the Business Building (extending it to the west) and the utilization of space made available by the proposed demolition of Trailer Complex 1 and the Greenhouse incorporating the area between the north and west wings of Arts;
- the enhancement of existing, and the development of new, internal nodes (e.g., the proposed CCIS building; additions to Civil/Electrical Engineering and Dentistry/Pharmacy; Riverfront building development; Engineering buildings cluster, etc.) that integrate with existing and proposed interior pathways and exterior (primary, secondary, and tertiary) pathway and node enhancements (as noted above).

3.5 Landmarks

Landmarks – Important natural, built form, and other urban features.

Listed below are buildings and places that play a significant role in: defining memorable experiences of the U of A Campus; contributing to a sense of the University's evolution and history; and providing a framework for ordering spatial experience and way-finding. Landmarks play a role in our daily lives that is different for each individual. More than any other 'pattern element' (districts, pathways, edges and nodes), the significance and/or importance of landmarks is subjective.

Existing Landmarks

- Heritage Buildings:
 - Pembina Hall (east façade)
 - Athabasca Hall (east façade)
 - Assiniboia Hall (east façade)
 - North Power Plant
 - Arts Building
 - Dentistry/Pharmacy (south façade)
 - Rutherford Library South (north façade within galleria – interior landmark)
 - South Lab
- Places:
 - Celebration Plaza (including 'The Dove' – refer to Figure 36)
 - Earth Sciences (north façade)
 - SUB Entrance
 - 89 Avenue Mall
 - North Campus Quad
 - East Academic Quad

Other tertiary landmarks include numerous sculptures, trees of significance (memorial trees and rare species) and way-finding features. Currently, these are not comprehensively mapped

and/or identified by the University to include in this plan.

Analysis

Heritage buildings should be significant landmarks within Sector 4. Where they occur, these buildings impart a sense of the traditional scale, detail and feeling of traditional university architecture that is a part of Western culture. Future planning and development must recognize and capitalize upon the architectural, historical and aesthetic value of these buildings.

Many of the 'Places' listed as landmarks are well established and are significant for their role in creating a 'sense of place' on the North Campus. Future development and redevelopment should conserve and continue to enhance these places. In addition, development or redevelopment of existing and/or new nodes within Sectors 3 and 4 should emphasize the suitability and importance of these places as potential landmark opportunities.

With respect to tertiary landmarks, many sculptures dot the landscape of Sectors 3 and 4 but go unnoticed because of poor orientation to pathways and little, if any, interpretive information. Freestanding sculpture on Campus could potentially make a stronger statement if it were grouped and interpreted collectively in a 'sculpture court' within a node such as the North-East Academic Quad. The location of public art on Campus is not well documented - a comprehensive inventory and mapping of all public art on the Campus is recommended.

Several exotic tree species and memorial trees have been planted on the Campus. Relatively few of the trees have been labelled to indicate the species, significance, etc. Consistent and comprehensive labelling/interpretive signage would better identify these trees. In some cases, future development and redevelopment may require the relocation of significant trees,

but every effort should be made to preserve the trees in their existing locations to ensure their longevity, and to enhance open space and interpretive opportunities. The location of existing vegetation is not well documented - a comprehensive inventory and mapping of all significant trees and shrubs or other plant material (perennials, etc.) is recommended.



Figure 36 - Looking east along 89 Avenue from "The Dove" at Celebration Plaza

SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN
SECTOR PLAN 3 AND 4

S e c t o r
D e v e l o p m e n t
G u i d e l i n e s

4.0 SECTOR DEVELOPMENT GUIDELINES

4.1 Districts

Objectives:

- .1 To establish four integrated districts that create and define the heart of North Campus. (Refer to Figure 37):
 - West Academic District
 - River Valley District
 - North Campus Quad District
 - East Academic District

General Guidelines

- .1 Existing and future development should be integrated with open space and (interior and exterior) pathway development with the aim of defining a more aesthetic and functional character that establishes stronger visual and physical connections, enhances way-finding and connectivity, reduces inward-looking buildings and mitigates harsh micro-climate conditions at pedestrian/street level.
- .2 Sectors 3 and 4 and their Districts are linked through a series of existing pathways and open space. The Districts should be redeveloped to enhance and better define circulation patterns, way-finding, the utilization and definition of open space, and establish stronger, more meaningful connections between interior and exterior spaces. These additions would enhance a sense of connectivity and community and establish an aesthetic and appropriate setting for study, work, socializing, celebration and recreation.

The following are District specific guidelines. These guidelines interrelate with District and additional pathways, edges, nodes and landmark guidelines (Sections 4.2 to 4.5), as well as Appendix A – Campus-Wide Guidelines. Site specific guidelines are provided in Section 5.

4.1.1 West Academic District

Objective:

- .1 To balance the existing high intensity of academic facilities and services in the West Academic District with a more comfortable, pedestrian-scaled environment with engaging, well defined and diverse open spaces that visually and physically enhance the linkages to other University districts and sectors.

Guidelines:

- .1 Existing and future development should be better integrated with open space and multi-use pathway improvements to enhance the District's character and aesthetics.
- .2 Existing and future development should establish stronger visual and physical connections to the North Saskatchewan River Valley, surrounding districts and neighbourhoods.
- .3 Existing and future development should resolve conflicts between pedestrian and vehicular traffic with innovative, safe, cost-effective and aesthetic solutions.
- .4 No further infill or encroachment on open space should be permitted.
- .5 Similar to the North Campus Quad, the open space south of Mechanical Engineering (The West Academic Quad) should be more clearly defined and articulated as a central 'quad' space serving the West Academic District, providing opportunities for gathering, socializing, study, interpretation, commemoration and celebration. The old Arts workshop should be demolished as soon as NREF construction is complete so that this area may become a part of the open space.

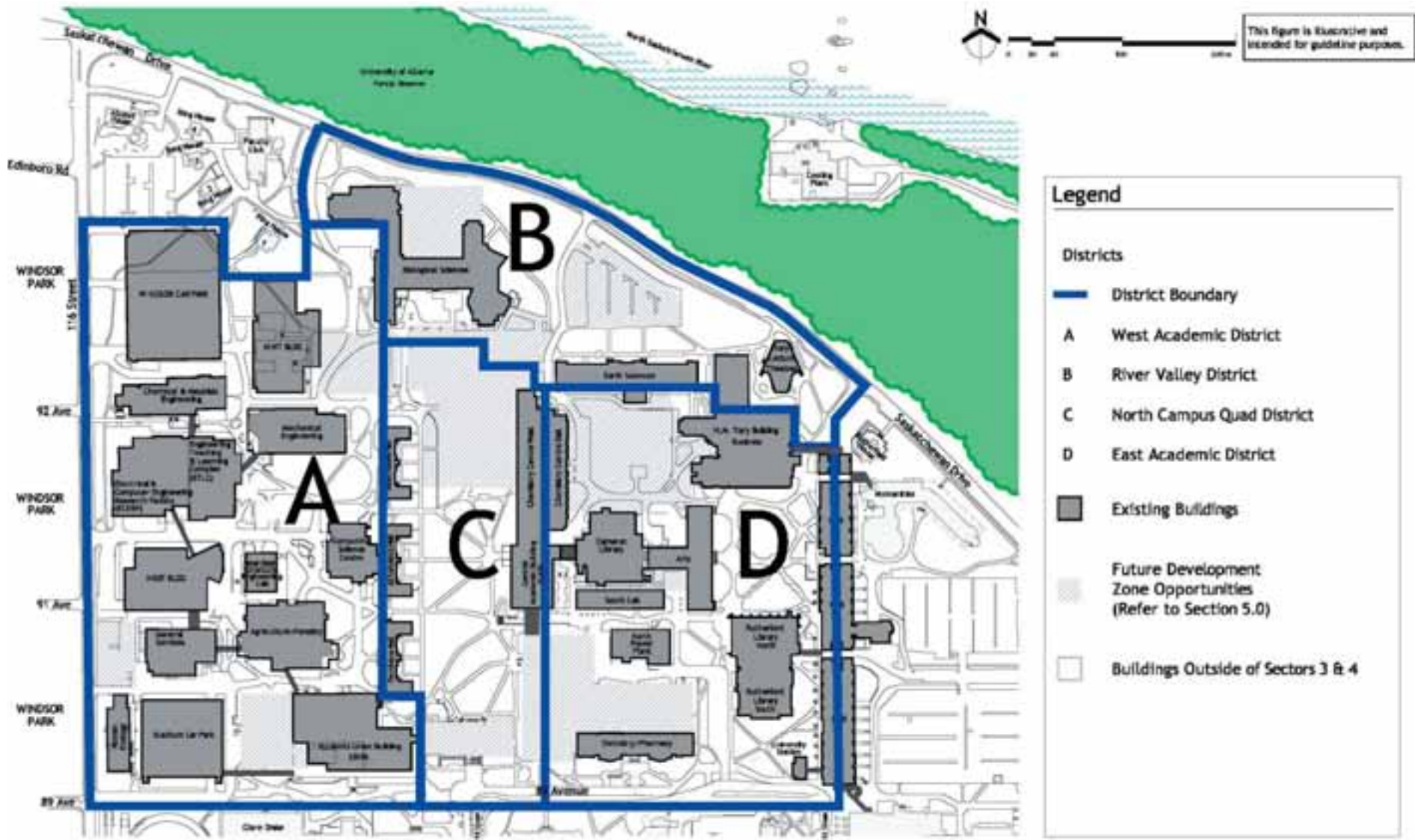


Figure 37 - DISTRICTS

March 2025

University of Alberta - North Campus Academic Sectors 3 & 4

- .6 Maintain and enhance the existing characteristics of 116 Street as an appropriate transition between the Campus and the Windsor Park neighbourhood.
- .7 Future development and redevelopment should incorporate architectural and site design elements that provide for a comfortable and aesthetically pleasing Campus in all seasons.

4.1.2 River Valley District

Objective:

- .1 To maintain the River Valley District's park-like character, defined by its mature trees and adjacency to the North Saskatchewan River Valley.

Guidelines:

- .1 Future building development should respect the existing setting, characterized by existing mature trees and open space and views to the river valley and downtown.
- .2 The existing open space and pathway network should be enhanced and extended to provide better connection to the river valley via defined Saskatchewan Drive crossings, as well as node/viewpoint development.

4.1.3 North Campus Quad District

Objective:

- .1 To maintain the North Campus Quad District's role and physical definition as the physical and symbolic heart of the North Campus.
- .2 To ensure that the North Campus Quad and Celebration Plaza provide passive open space during a typical Campus day, with the flexibility of becoming central, active spaces during special events and ceremonies.

Guidelines:

- .1 Future development or redevelopment should reinforce and complete the Quad's rectangular configuration – i.e., not 'penetrate' into the Quad as the V-Wing Lecture Theatres currently do, disrupting the continuity of the architectural enclosure that defines this space.
- .2 The Alumni and Heritage Walks should be introduced into the District, providing the opportunity for University interpretation.
- .3 All future development or redevelopment should, through its form and character, provide a sense of continuity to the District, respecting and acknowledging the evolution and history of the University of Alberta.
- .4 The heritage character of Assiniboia, Athabasca and Pembina Halls should be enhanced, conserved and celebrated, including the provision of permanent interpretive information in the exterior courtyards.
- .5 Future tree planting and pathway redevelopment should reinforce the rectilinear geometry and formality of the quad without compromising typical Campus gatherings and activities.

4.1.4 East Academic District

- .6 Future development and redevelopment should improve the sense of continuity as well as the cohesiveness and ease of way-finding through enhancement of open spaces and pathways.
- .7 Develop a hierarchical network of comfortable, aesthetic, safe and well-defined pathways.

Objective:

- .1 To balance the existing intensity of academic facilities and services in the East Academic District with a more comfortable, pedestrian-scaled environment with engaging, well defined and diverse open spaces that visually and physically enhance linkages to other University districts and sectors.

Guidelines:

- .1 Future development and redevelopment should be better integrated with open space and multi-use pathway improvements to enhance the District's character and aesthetics.
- .2 Future development and redevelopment should improve the sense of continuity as well as the cohesiveness and ease of way-finding through enhancements of open spaces and pathways.
- .3 Develop a hierarchical network of comfortable, aesthetic, safe and well-defined pathways.
- .4 Future development and redevelopment should provide for a diversity (e.g. quad, plaza and courtyards) of engaging open space (e.g., at the Power Plant Precinct, refer to Section 4.4).
- .5 To achieve the above guideline, the Greenhouse should be demolished to provide space for a new primary node, i.e., the North-East Academic Quad (see Section 4.4.2.5).
- .6 Future development and redevelopment should establish stronger visual and physical connections/way-finding to surrounding Districts and Sectors.

- .7 The heritage character of the North Power Plant, South Lab, Arts and the south facade of Dentistry/Pharmacy should be enhanced, conserved and celebrated, including the provision of permanent interpretive information in suitable locations.
- .8 Existing and future development should resolve conflicts between pedestrian and vehicular traffic with innovative, safe, cost-effective and aesthetic solutions

4.2 Pathways

Objective:

- .1 Develop a hierarchy of pathways (i.e. primary, secondary, tertiary) that link key nodes, districts, and sites within the Sectors to the surrounding Campus, neighbourhoods and the river valley; improve way-finding; and contribute to the overall quality and 'sense of place' within the North Campus.
- .2 Develop a hierarchy of safe, aesthetic, accessible and comfortable pathways.
- .3 Establish an improved interior network of pathways for pedestrians.
- .4 Identify opportunities for the development of an integrated service point network that reduces the overall impact of service vehicles on the pedestrian environment.

General Guidelines

- .1 The pathway hierarchy should be established as follows. (Refer to Figures 38, 39 and 40):
 1. Vehicular Pathways:
 - a) 116 Street
 - b) Saskatchewan Drive
 - c) 89 Avenue (116 St to Stadium Car Park; and 114 St. to 112 St. - exclusively for transit and service vehicles only)
 2. Primary Service Vehicle Pathways (various)
 3. Pedestrian Pathways with Service Vehicle Access
 4. Existing and Proposed Drop-off Loops
 5. Exterior Primary Pedestrian Pathways
 - a) 89 Avenue
 - b) Windsor Rutherford Promenade
 - c) East Academic Promenade
 - d) West HUB Walk
 - e) Alumni Walk (Interpretive)

- f) Heritage Walk (Interpretive)
2. Exterior Secondary Pedestrian Pathways
3. Exterior Tertiary Pedestrian Pathways
4. Interior Pedestrian Pathways
 - a) Existing Interior Pedestrian Pathways
 - b) Existing Enclosed Links (Pedways)
 - c) Proposed Interior Pedestrian Pathways
 - d) Proposed Enclosed Links (Pedways)

- .2 Pathways should enhance movement; incorporate gathering spaces; and successfully integrate with and highlight building entrances and nodes.
- .3 The following considerations should be applied to pathway development:
 - Vandal-proof design
 - Multi-use activity (walking, biking, in-line skating)
 - Physical and perceived safety, security, and comfort (CPTED)
 - Visual experience and aesthetics
 - Optimum operations and maintenance
 - Universal accessibility
 - Flexibility
 - Sustainability
- .4 A pathway hierarchy should be designed to define specific pedestrian versus service vehicle routes or integrate the two uses in an improved pedestrian-oriented structure and character.
- .5 Design materials should complement and extend the architectural character into and along the pathway right-of-way and accommodate all potential types of vehicle use.
- .6 The condition of existing shrub beds along pathways should be assessed and either rejuvenated or removed (in whole or in part) in relationship to aesthetics, operation/

maintenance capabilities and the way in which the shrub beds contribute to or detract from the form and function of the space.

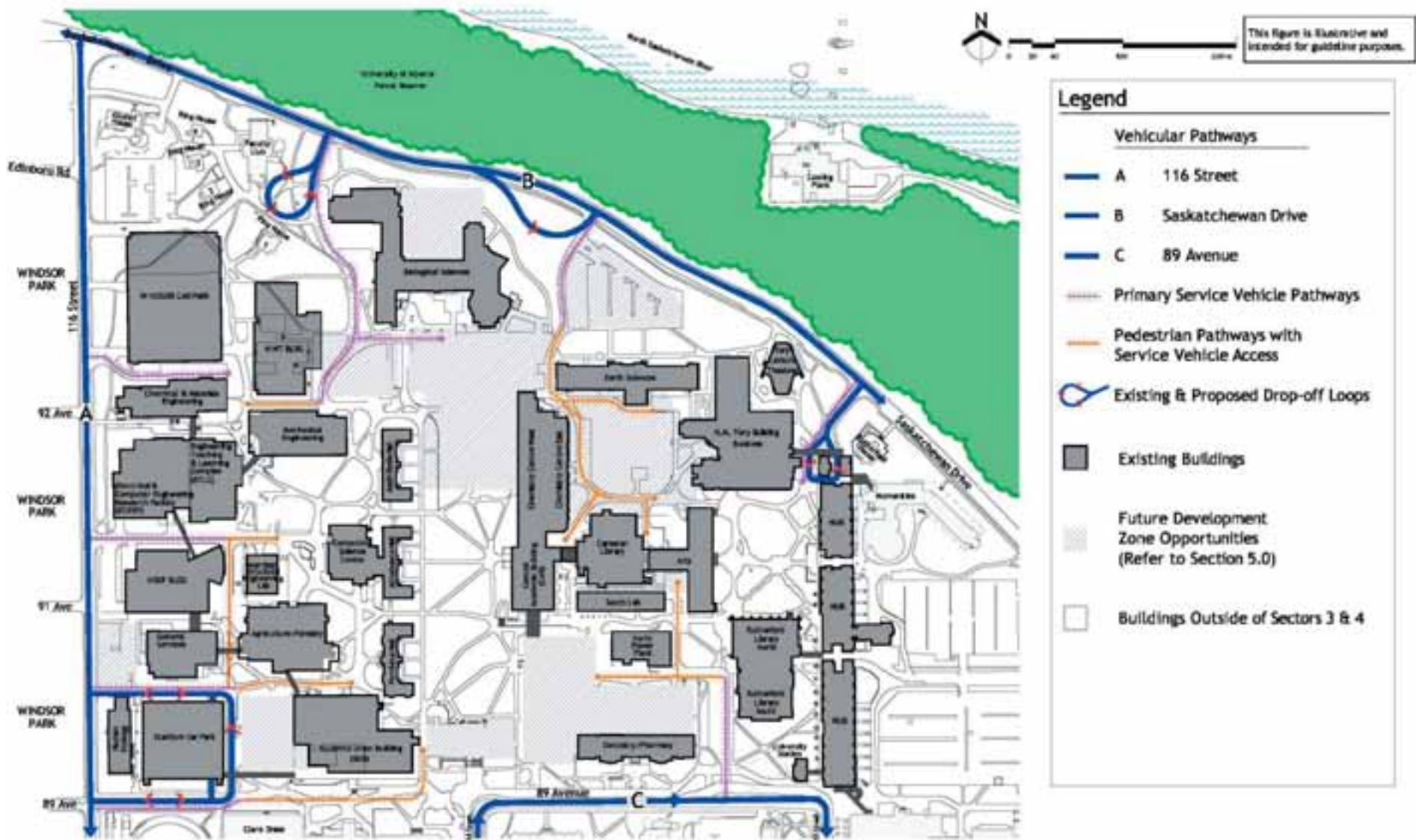


Figure 38 - PATHWAYS (Vehicular/Pedestrian) March 2008
 University of Alberta - North Campus Academic Sectors 3 & 4

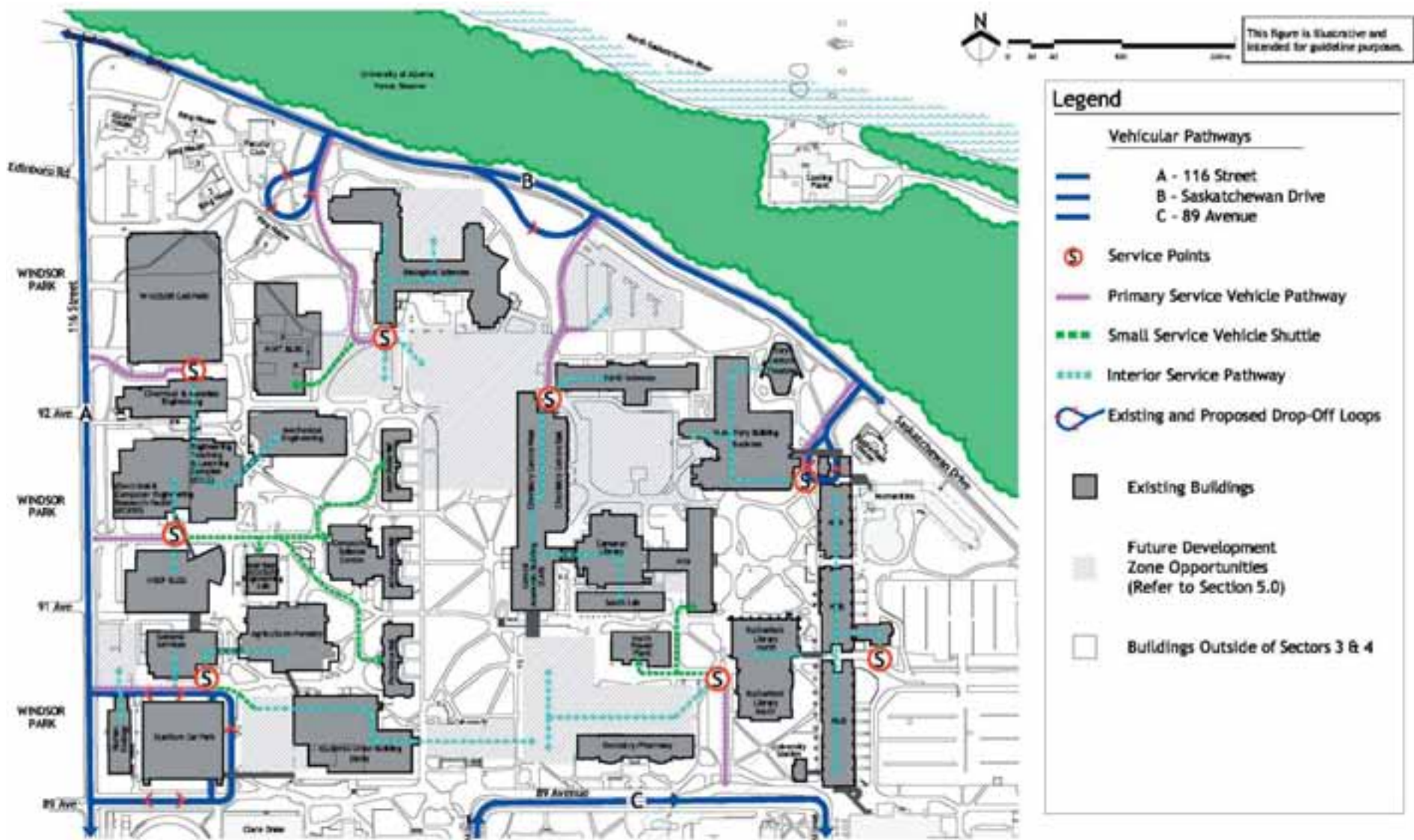


Figure 39 - FUTURE SERVICE PATHWAYS

March 2008

University of Alberta - North Campus Academic Sectors 3 & 4

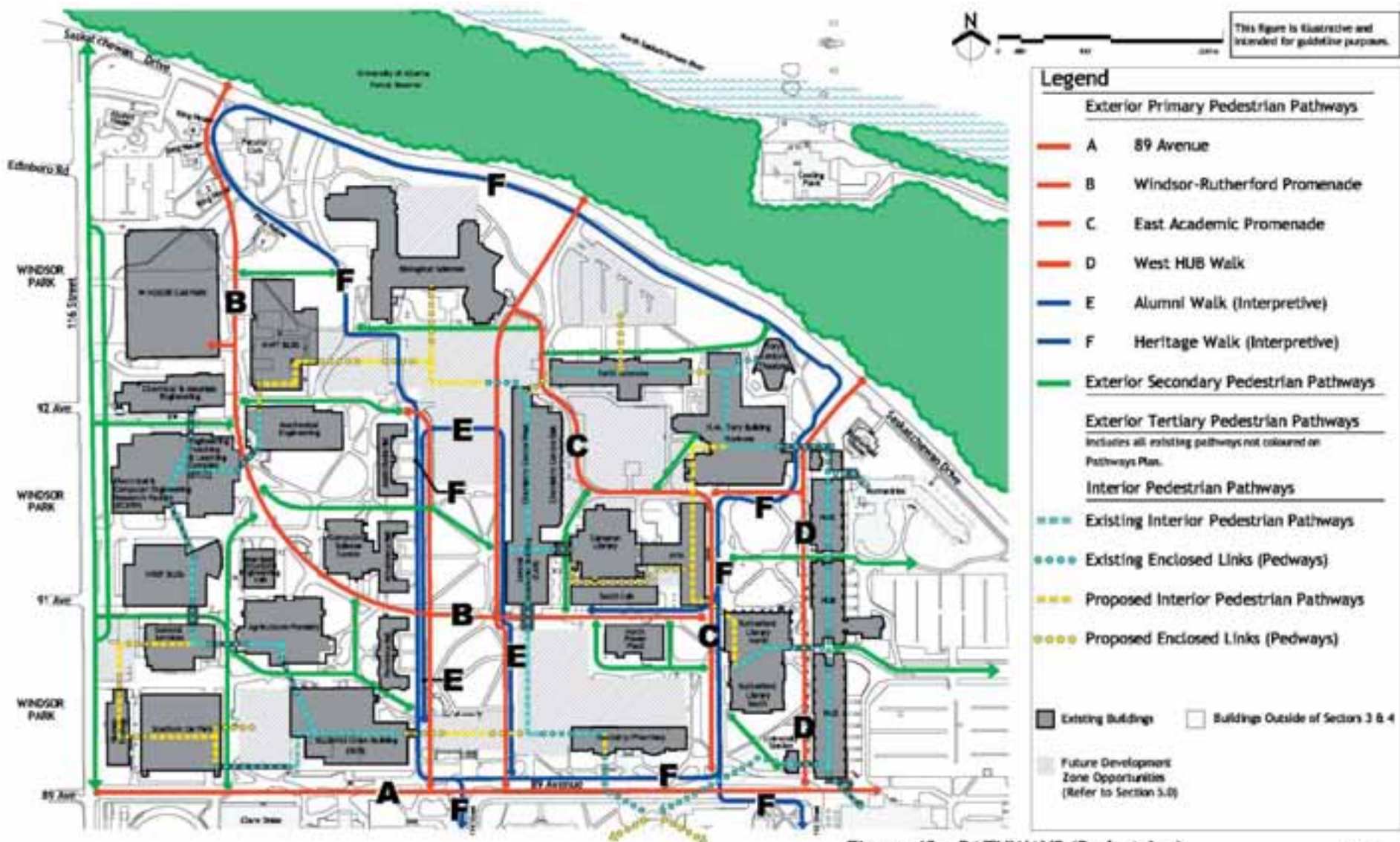


Figure 40 - PATHWAYS (Pedestrian)

March 2020

University of Alberta - North Campus Academic Sectors 3 & 4

4.2.1 Vehicular Pathways

4.2.1.1 116 Street

Objective:

- .1 116 Street is the major north-south route defining the west boundary of Sector 3 and should be enhanced with streetscape improvements to celebrate its importance as a major entry corridor into the Campus, while maintaining the existing character and transitional qualities with the Windsor Park neighbourhood.

Guidelines:

Key guidelines include:

- .1 In collaboration with the City, replace monolithic sidewalks with a wider 2.5 metre boulevard sidewalk (if feasible without disturbing mature tree plantings) and incorporate boulevard tree plantings. (Refer to Figure 41).
- .2 Incorporate with sidewalk modifications a comprehensive street furnishing and lighting design (refer to Campus-Wide Guidelines) to create a distinct pedestrian-scaled environment.
- .3 Extend the north-south secondary sidewalk alignment, incorporated with the development of facilities and lands, along the entire length of 116 Street (where feasible).
- .4 Introduce intersection enhancements (e.g. special surface treatments, landmark features, etc.) with tertiary node development (i.e. seating, way-finding features, public art, etc.) along 116 Street, while maintaining clear sight lines for drivers and pedestrians.
- .5 Preserve mature trees.

- .6 Maintain and enhance the existing loop from 116 Street, along 89 Avenue, encircling the Stadium Car Park.

Note: 116 Street enhancements should correspond with potential future gateway development at 116 Street and Saskatchewan Drive.



Figure 41 - Pedestrian and Vehicular Pathways (116 Street - Conceptual Sketch)

4.2.1.2 Saskatchewan Drive

Objective:

- .1 Encourage promenade development along Saskatchewan Drive to connect to scenic viewpoints along the North Saskatchewan River Valley.

Guidelines:

Key guidelines include:

- .1 Collaborate with the City to develop a 4m width promenade and defined viewpoints on the north side of Saskatchewan Drive. The promenade should integrate with the City of Edmonton's river valley/bikeway network and other Sector pathways to accommodate multi-use. The Victoria Promenade, on the north bank of the river, is a successful precedent for potential development along Saskatchewan Drive. (Refer to Figure 42).
- .2 Establish defined crosswalk locations to connect to the north side of Saskatchewan Drive from Campus.
- .3 Incorporate streetscape features (seating, waste receptacles, banners, etc.), public art, interpretive/directional signage and pedestrian-scaled lighting.
- .4 Preserve existing mature trees and views to the river valley.
- .5 Future pathway enhancement should incorporate the hierarchy of nodes existing and proposed along the length of Saskatchewan Drive (refer to Section 4.4 - Nodes).
- .6 Establish two (2) new one-way drop-off loops west and east of Biological Sciences from Saskatchewan Drive and enhance the existing drop-off north of the HUB.

4.2.1.3 89 Avenue

Note: 89 Avenue is a combined vehicular, transit and pedestrian pathway fed from 116 Street, as well as 112 Street and 114 Street - which are main north-south routes into Sectors 3 and 4.

Objective:

- .1 Create a unified pathway along the south edge of Sectors 3 and 4 that extends the existing characteristics of 89 Avenue (between 112 Street and 114 Street) to accommodate pedestrians and vehicles in defined areas.

Guidelines:

- .1 Modify the existing asphalt roadway cross-section, between Celebration Plaza and 116 Street to incorporate patterned/textured surfacing, streetscape features, and lighting consistent with the materials and features in the transit hub section of 89 Avenue. (Refer to Figure 43).
- .2 Restrict service vehicle access along 89 Avenue from the Stadium Car Park to the south-east corner of SUB.



Figure 42 - Victoria Promenade, Downtown Edmonton

4.2.2 Service Vehicle Pathways

Objective:

- .1 Define primary vehicle pathways into Sectors 3 and 4 from 116 Street, Saskatchewan Drive and 89 Avenue, with the goal of establishing strategic service points in relation to a network of future interior service pathways and a potential system of small service vehicle shuttles. (Refer to Figure 38).

Guidelines:

- .1 In the short term, define primary service vehicle pathways and pedestrian pathways with service vehicle access as shown in Figure 38.
- .2 Over the long term, reduce service vehicle access into the core of Sectors 3 and 4 through the introduction of strategic service points and integrated, accessible interior service pathways, in combination with small service vehicle shuttles. (Refer to Figure 39).
- .3 The development of strategic service points should consider, yet not be limited to, the following:
 - Easy access to all types of service/delivery vehicles.
 - Secure storage enclosures incorporated within existing facilities or an architecturally integrated structure.
 - Service point locations should be selected to maximize existing service facilities and capabilities and connect to interior pathways. (Refer to Figure 39 for conceptual service point locations.)
 - Service points should be integrated to minimize direct impact on pedestrian pathways.
 - Service points should be well landscaped, complete with the use of decorative screens and architectural features.



Figure 43 - Looking east, south of SUB toward Celebration Plaza - Conceptual Sketch

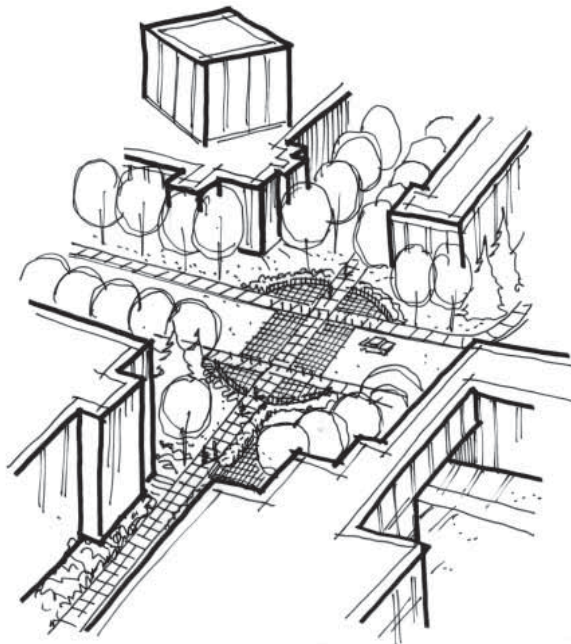


Figure 44 - Service / Pedestrian Pathway Intersection - Conceptual Sketch

- .3 The intersection of 112 Street and 89 Avenue—at the entrance/exit from University Station (LRT) should be developed as a University Gateway. A formal plaza and landmark component should be developed to highlight and reinforce the importance of this area as an entry into the University from the LRT and transit (bus) system.
- .4 Future pathway enhancement should incorporate the hierarchy of nodes existing and proposed along the length of 89 Avenue (refer to Section 4.4 - Nodes).

- .4 Pedestrian intersections along primary service vehicle pathways should be raised and textured paving should be used to create a visual and physical separation and demarcate their importance. These intersections should also include way-finding kiosks and/or markers, signage, bollards, seating areas, and tree/shrub plantings. (Refer to Figure 44).
- .5 Existing trees should be preserved. Additional trees should be introduced along these pathways.
- .6 Maintain a safe and secure environment along all service vehicle pathways, following the design principles of CPTED (Crime Prevention Through Environmental Design).

4.2.3 Pedestrian Pathways with Service Vehicle Access

Objective:

- .1 Consolidate and retrofit existing non-primary service vehicle pathways (i.e., asphalt roads, concrete curbs, service areas, etc.) with pedestrian-oriented pathway improvements (e.g., decorative surface treatments, furnishings, light standards, etc.). Refer to Figure 38.

Guidelines:

- .1 Over the long term, consolidate and retrofit existing non-primary service vehicle pathways as either primary or secondary pedestrian pathways, as shown in Figure 40.
- .2 Existing trees should be preserved. Additional trees should be introduced along these pathways.
- .3 Maintain a safe and secure environment along all service vehicle pathways, following the design principles of CPTED (Crime Prevention Through Environmental Design).

4.2.3 Existing and Proposed Drop-off Loops

Objective:

- .1 Enhance existing and create new drop-off loops in Sectors 3 and 4 to better accommodate access to, and traffic flow within, the Campus.

Guidelines:

- .1 Enhance existing and create new drop-off loops as illustrated in Figures 38 and 39, with the characteristics identified for the following secondary nodes in Section 4.4:
 - Riverfront Green
 - North HUB Entry
 - West 89 Avenue Entry

Note: The drop-off loop illustrated west of Biological Sciences is accessed from within Sector 3; however, the loop is situated within Sector 2. Refer to Sector 2 for specific development guidelines.

4.2.5 Exterior Primary Pedestrian Pathways

Objectives (refer to Figure 40):

- .1 Enhance and extend the physical and visual characteristics of 89 Avenue (between 112 Street and 114 Street) to 116 Street to accommodate pedestrians and vehicles in defined areas.
- .2 Establish a distinctive exterior primary pedestrian pathway--the Windsor-Rutherford Promenade--for multi-use (e.g. pedestrian, bicycle, joggers, etc.) that connects Sectors 3 and 4 from east to west and Sector 2 (Faculty Club) and the river valley.
- .3 Establish a distinctive exterior primary pedestrian pathway--the East Academic Promenade--for multi-use (e.g. pedestrian, bicycle, joggers, etc.) that connects Sector 4 from 89 Avenue to the North Saskatchewan River Valley.
- .4 Establish a distinctive exterior primary pedestrian pathway--the West HUB Walk--for multi-use (e.g. pedestrian, bicycles, joggers, etc.) that connects the proposed secondary node (located at the north end of the HUB) to 89 Avenue.
- .5 Establish a walk--Alumni Walk--that uses architectural and landscape elements to celebrate University history and alumni; create a welcoming point-of-interest for visitors, alumni, students and staff, and to enhance the experience and qualities of the North Campus Quad.
- .6 As identified in the LRDP (Section 7.7.1), The "Heritage Walk" should be integrated with the pedestrian system and be used to guide new students, alumni, and visitors on an interpretive tour of the University's heritage.

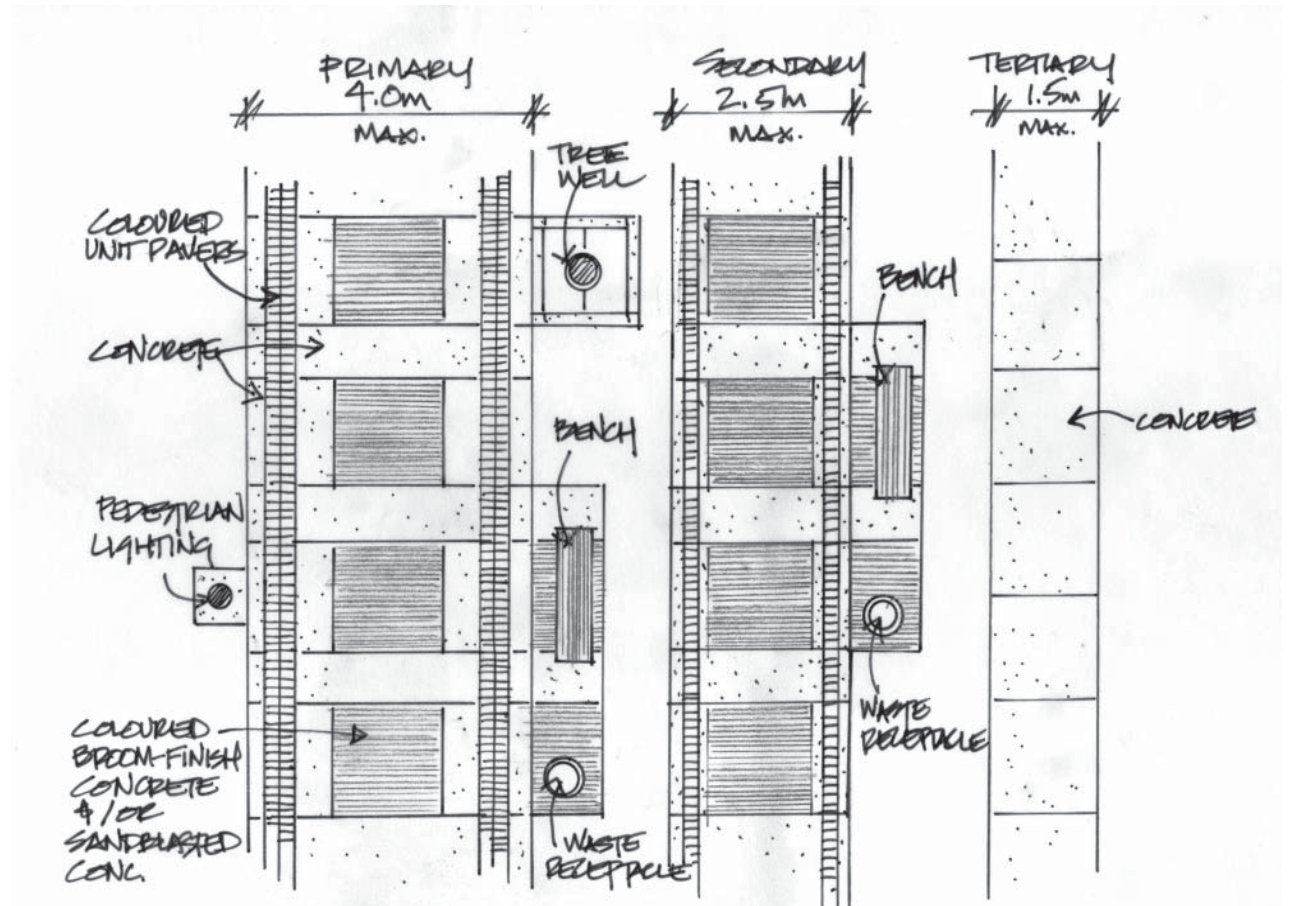


Figure 45 - Pedestrian Pathways - Conceptual Sketch of Hierarchy of Layout & Materials

Guidelines (refer to Figure 40):

- .1 Exterior primary pedestrian pathways should be developed with a 4m width hard-surfaced walkway, pedestrian-scale lighting, shade trees, benches, waste receptacles and signage. (Refer to Figure 45). Exterior primary pathways should be distinct from, but complement

and be compatible with, the design of secondary and tertiary pedestrian pathways.

- .2 Exterior primary pedestrian pathway enhancement and development should preserve all mature trees and be integrated into existing and proposed nodes and landscapes.

- .3 A consistent sequence of markers should be established for each exterior primary pedestrian pathway to define its alignment and aid in way-finding.
- .4 All proposed improvements contributing to the West HUB Walk should incorporate façade and foundation enhancements to the HUB that improve pedestrian-oriented use (e.g., shelter, seating, waste receptacles, etc.). (Refer to Figure 46).
- .5 Refer to the Strategic Planning Principles of the LRDP and the *University of Alberta – Alumni Walk* (June 2003) design brief for specific Alumni Walk guidelines.



Figure 46 - West HUB Walk - Conceptual Sketch

- .6 The Alumni Walk should be extended around the perimeter of the North Campus Quad. (Refer to Figure 47).
- .7 The Heritage Walk should incorporate site furnishings, signage, public art, lighting, and interpretive information on University history, points of interest, and notable alumni, staff, research and achievements.

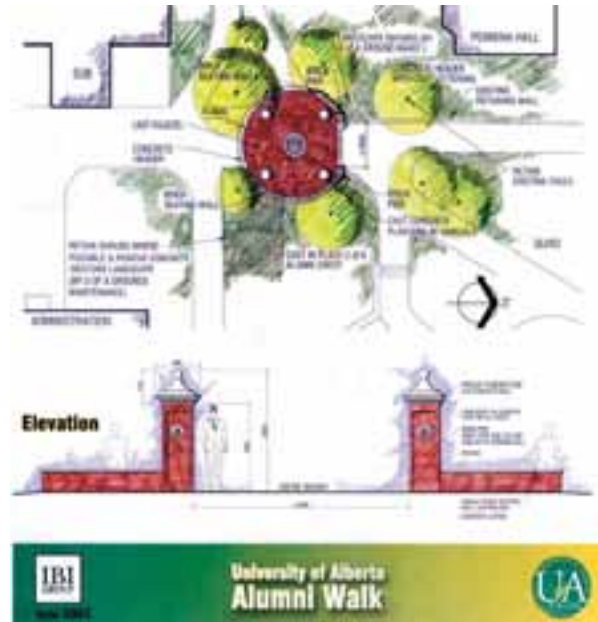


Figure 47 - University of Alberta Alumni Walk - Design Concept

4.2.6 Exterior Secondary Pedestrian Pathways

Objective:

- .1 Establish exterior secondary pedestrian pathways for multi-use (e.g. pedestrian, bicycles, joggers, etc.) that effectively mesh together Sectors 3 and 4, enhancing way-finding, connectivity and the overall pedestrian domain

Guidelines:

- .1 All exterior secondary pedestrian pathways should be developed with a 2.5m hard-surfaced walkway, pedestrian-scale lighting, shade trees, benches, waste receptacles And signage. (Refer to Figure 45).
- .2 All exterior secondary pedestrian pathways should be integrated into other pathway systems with a visually consistent sequence of markers and node development to define their alignment and aid in way-finding.
- .3 All proposed improvements to secondary pedestrian pathways should preserve mature trees.

4.2.7 Exterior Tertiary Pedestrian Pathways

Objective:

- .1 Establish and define a tertiary level of pathways to improve way-finding, connectivity and the pedestrian domain.

Guidelines:

- .1 All exterior tertiary pedestrian pathways are integral to the cohesiveness of each Sector and interconnection of building entrances. All existing and future tertiary pathways should serve to connect, without compromising the integrity and character of open spaces.
- .2 All exterior tertiary pedestrian pathways should be developed with a consistent 1.5m width hard-surfaced walkway. (Refer to Figure 45).
- .3 All exterior tertiary pedestrian pathways should preserve mature trees and be incorporated into existing and proposed district pathways, nodes, and landscapes.
- .4 All exterior tertiary pedestrian pathway rights-of-way should incorporate a consistent format of site furnishings, signage and lighting consistent with the district they traverse.

4.2.8 Interior Pedestrian Pathways & Pedways (Covered, Uncovered, Underground and Above Ground Connectors)

Objectives:

- .1 Maintain, enhance, and expand internal building pathways and pedway connections to provide safe, weather-protected, efficient and convenient links between buildings within the Sector.
- .2 Establish a comprehensive system of universally accessible internal pathways with the aim of providing dual pedestrian and service access.
- .3 Develop clearly identifiable systems for way-finding and self-location within facilities.

Guidelines:

- .1 Where appropriate and desirable, existing internal pathways should be retained and enhanced to provide direct, spacious, day-lit pathways within, and between, buildings. They should be supported by a series of various gathering areas, complete with staff, student and visitor services (i.e., coffee shops, vending areas, etc).
- .2 Internal pathways should be established with universal accessibility. These could potentially accommodate the movement of good and services from strategic exterior service points.
- .3 Internal pathways should be easy to navigate and provide clarity in way-finding with well-placed landmarks that help the user to way-find. Internal pathways should be a minimum width of 3.0 m.
- .4 Internal pathways should link seamlessly to the exterior at key nodes and pathways. These links should be developed to enhance and define building entrances and should utilize transparency (glazing) to create a strong visual relationship between interior and exterior space.

- .5 Wherever possible, internal pathways should provide transparent views to the exterior to assist in way-finding.
- .6 Future pedways may consider the potential of providing additional rooms or spaces (interior and exterior) to buildings, for reading, gathering, commercial/food services and other support opportunities.
- .7 Pedways (above grade) should be designed to minimize their visual and microclimatic impact. This can be achieved by a combination of design elements (e.g. transparency, orientation/relationship to the circulation routes below, compatibility with existing architectural materials and form, etc.).
- .8 A maximum of one pedway (above grade) crossing should be permitted between nodes (major intersections of the Sector framework) to minimize visual disruption and create a favourable micro-climate.
- .9 Pedway and underground pathways should be safe, efficient and provide convenient pedestrian circulation and integration with building uses. The existing pedway between ETLC and Chemical & Materials Engineering is an example of well-designed pedway development. (Refer to Figure 13).

4.3 Edges

Objective:

- .1 To promote edge development or enhancements that establish appropriate transitions to surrounding Campus Sectors and the Windsor Park neighbourhood.
- .2 Maintain an intensity of development within the Sector that limits edge impacts – i.e. the impact on neighbouring residential areas.

Guidelines (refer to Figure 48):

- .1 The existing edge conditions along 116 Street should be enhanced with sidewalk improvements, a comprehensive street furnishing and lighting approach and node and intersection development. Future building development and/or enhancements should respect the existing quality and character of edge conditions established by mature tree plantings, building setbacks and resulting open space between 116 Street and University buildings.
- .2 Future redevelopment around the General Services Building and Stadium Car Park should be a maximum of 4 storeys to maintain the existing transition with the adjacent Windsor Park neighbourhood. (Refer to Section 5.1.4).
- .3 Existing edge conditions along 89 Avenue should be enhanced with modifications to the alignment between Celebration Plaza and 116 Street. Future building development and/or redevelopment along this edge should define the public realm and respect the surrounding context; create a pedestrian-scaled environment; and provide a balance of mixed-use (e.g. ground level public facilities – upper level academic/support services) that supports a dynamic and engaging pedestrian-oriented environment along 89 Avenue.
- .4 Existing conditions along the River Valley edge should be enhanced with defined crossing locations and promenade and viewpoint development. Proposed buildings, parking, and node development/redevelopment should respect and further define the connection between North Campus and the North Saskatchewan River Valley.
- .5 The west elevation of HUB should be enhanced to provide an improved interface with the East Academic Quad, Rutherford Square, University Station / HUB Gateway and primary pathways and nodes. Improvements should include pathway and node development, aesthetic and integrated architectural treatment of service/loading areas, and building entrance/façade enhancements at pedestrian level.

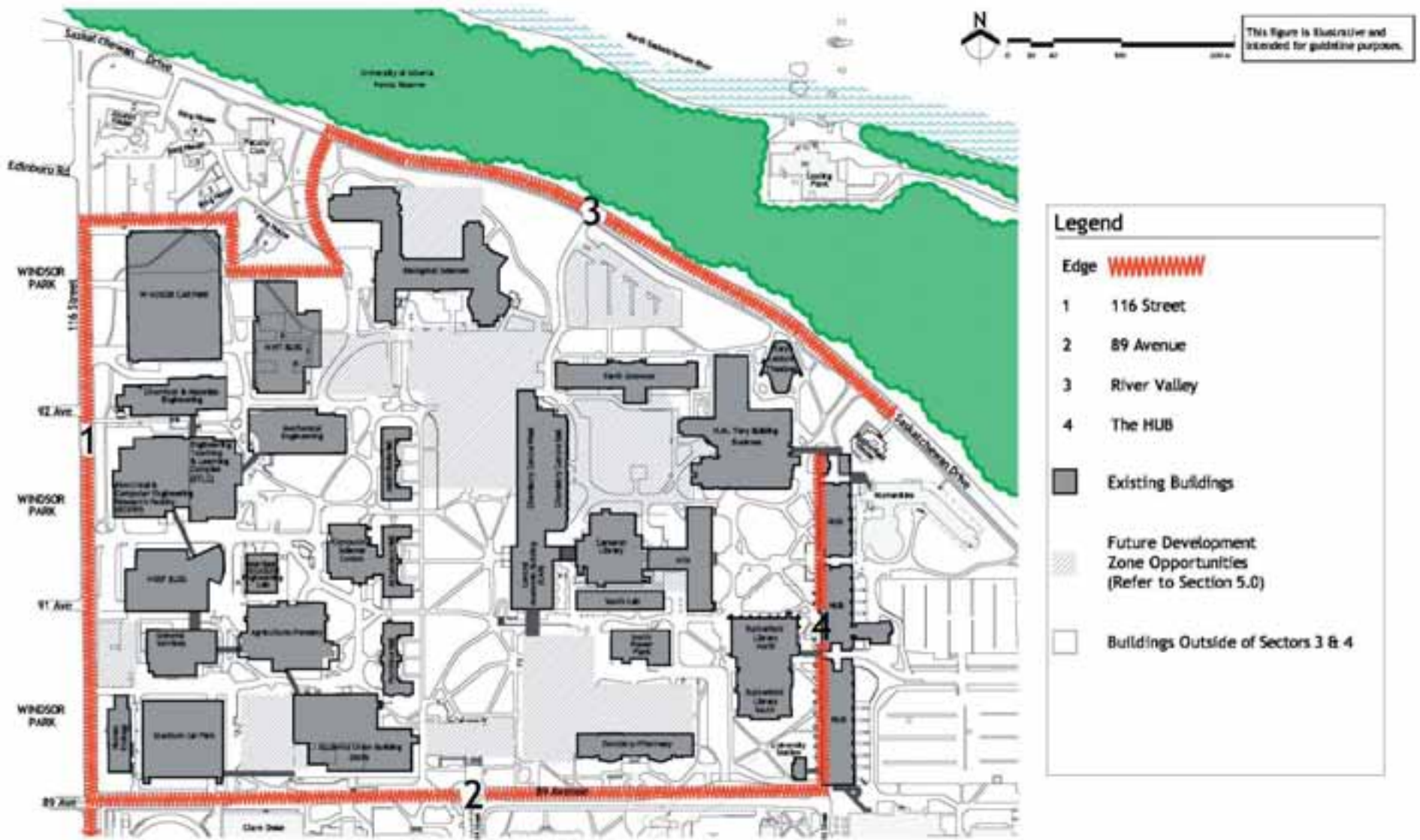


Figure 48 - EDGES

March 2008

University of Alberta - North Campus Academic Sectors 3 & 4

4.4 Nodes

Objective:

- .1 Create a hierarchy of interior and exterior primary, secondary, and tertiary nodes to define entry, enhance way-finding, establish gathering and activity areas, promote wellness, and reinforce the overall pedestrian-oriented character envisioned for the Sectors.
- .2 To better define a University gateway at the University Station (LRT) and HUB entrance at 89 Avenue and 112 Street that celebrates arrival to the Campus.

General Guidelines (refer to Figures 49 and 50):

- .1 Features that should be considered in relation to node development include:
 - Pedestrian-scaled lighting.
 - Universal access.
 - Emergency phones.
 - The use of a consistent identifier and colour scheme to create a distinct visual quality within each District.
 - Banners and integrated signage.
 - Kiosks, directories and way-finding devices.
 - Integrated, durable and stylistically consistent site furnishings (e.g. benches, receptacles, bus shelters, transit stops/stations, telephone booths, newspaper boxes, bicycle racks, tree grates/guards, bollards, etc.).
 - Public art.
 - 'Gateway' devices (e.g. pavilions, colonnades, arbours, trellises, formal tree plantings, monuments, etc.).
 - Intersection treatments to identify nodes (e.g. special surface treatments, dedication plaques, public art, landmarks, etc.).

- .2 A hierarchy of nodes should be established as follows:

University Gateways:

University Station / HUB Gateway

Primary Exterior Nodes:

- North Campus Quad
- West Academic Quad
- East Academic Quad
- Celebration Plaza
- Rutherford Square

Secondary Exterior Nodes:

- North-East Academic Quad
- Riverfront Green
- North HUB Entry
- West 89 Avenue Entry
- NINT Plaza
- West Academic Courtyard
- Earth Sciences Plaza
- CCIS Plaza
- CCIS/Biological Sciences Courtyard
- SUB Entry
- Dentistry/Pharmacy Entry
- Power Plant Precinct

Tertiary Nodes:

- At key gathering and activity areas.

Primary Interior Nodes:

- The HUB Mall
- North Power Plant
- Central Academic Building (CAB)
- Students' Union Building (SUB)
- Future CCIS Building

Secondary Interior Nodes:

- ETLC Atrium
- Rutherford Library Galleria
- H. M. Tory Building / Business Galleria
- Future 'Riverfront Building'
- Future redevelopment of Civil/Electrical Building
- Future redevelopment of Dentistry/Pharmacy

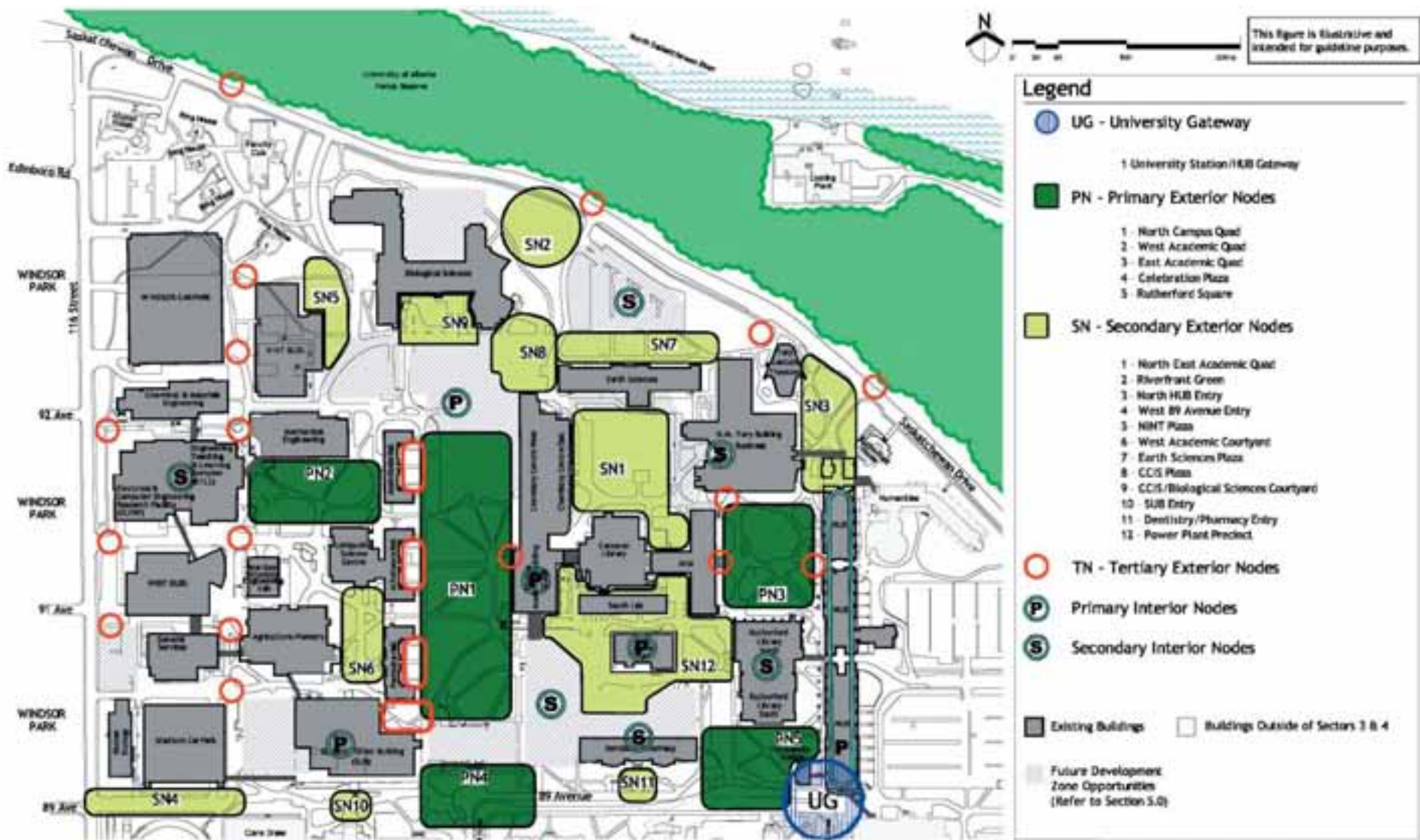


Figure 49 - NODES

March 2020

University of Alberta - North Campus Academic Sectors 3 & 4

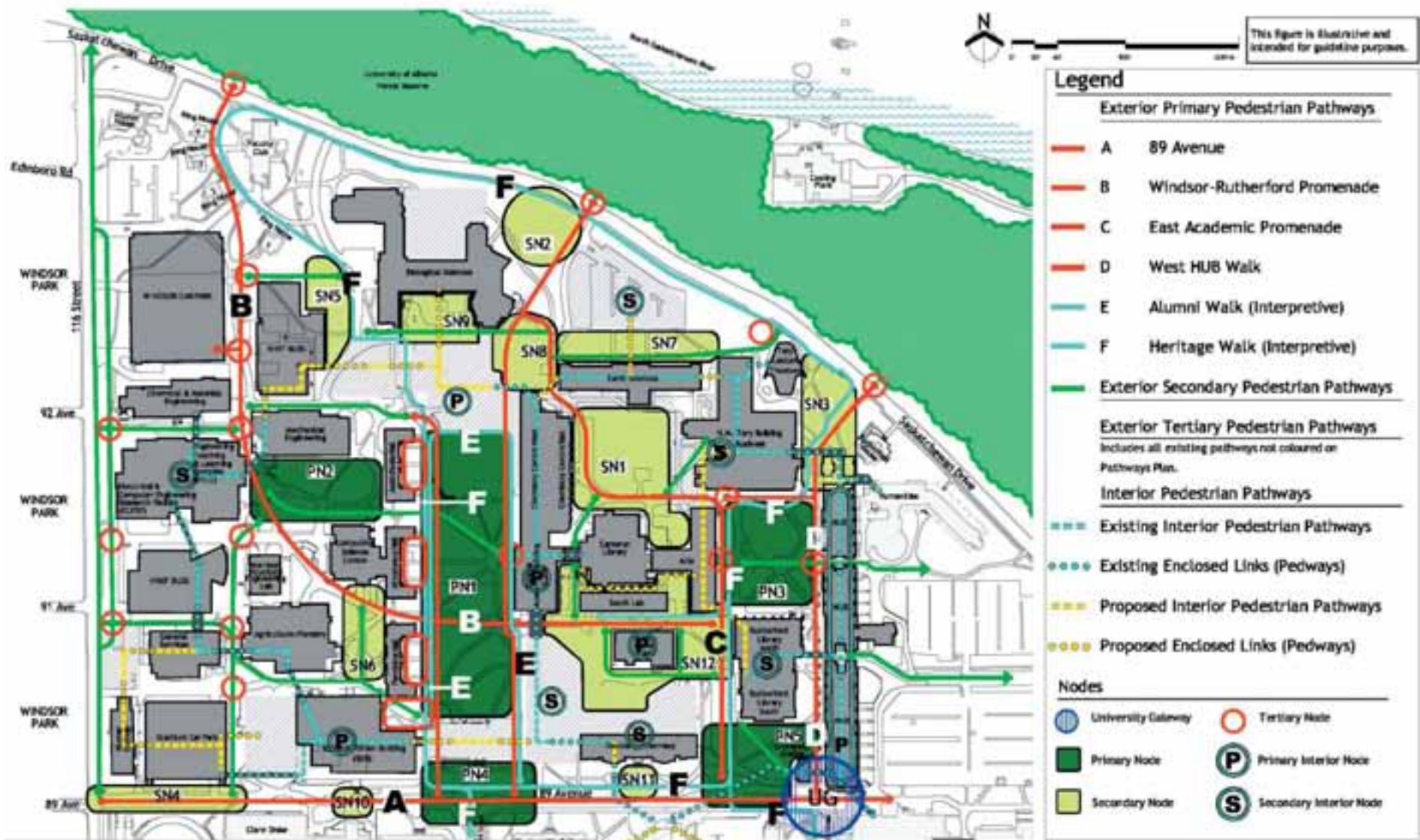


Figure 50 - Nodes & Pedestrian Pathways Overlay
University of Alberta - North Campus Academic Sectors 3 & 4

March 2025

4.4.1 University Station / HUB Gateway

Objective:

- .1 To improve the University Station / HUB Gateway as a defined gathering area, and to better celebrate entry into Sectors 3 and 4 and the North Campus.

Guidelines:

- .1 The University Station / HUB Gateway is a prominent entry point into the North Campus and a major multi-use zone for public transit/LRT and pedestrian movement. The area should be colourful and vibrant, and enhanced to celebrate its prominence, articulate a sense of arrival, and provide visual reference and direction. Rutherford Square and the FAB Courtyard are key areas that should be incorporated and/or integrated into gateway enhancements. Other improvements identified in Sector 7 that influence gateway development in this area include:
 - Implement the previously proposed new entrance into the Fine Arts building, at the north-west corner oriented toward the main LRT station, and create an outdoor exhibition space.
 - Remove the stairway under the HUB/FAB elevated walkway to enlarge the width of the walkway between the two buildings. Note: any future revisions to the pedway link should be assessed in relationship to future building redevelopment strategies.

4.4.2 Primary Exterior Nodes

Objective:

- .1 To better define and physically articulate existing, large and highly visible open spaces to accommodate a range of activities, amenities, features and information. Primary nodes should include places for major gatherings and celebration, study, recreation and interpretation.

Guidelines:

- .1 Maintain and further articulate primary node development in the following locations:
 - North Campus Quad
 - West Academic Quad
 - East Academic Quad
 - Celebration Plaza
 - Rutherford Square
- .2 Primary nodes are to include, or have the potential to include, sites integrated with the Heritage Walk and other primary pathways for the recognition, commemoration and celebration of the University's history and development
- .3 North Campus Quad

This quad is the heart of North Campus and the most recognizable and legible node. Proposed future additions, such as the Alumni and Heritage Walks, and the reconfiguration of buildings at the north and south edges of this quad should improve the articulation and function of this important Campus space. The proposed removal of the V-Wing Lecture Theatres will help the Quad to regain the integrity lost when this structure was built. The addition of feature areas such as the Alumni and Heritage Walks and mini-plazas together with the Pembina, Athabasca and Assiniboia Hall courtyards would improve way-finding and provide more intimate gathering places.

The condition of existing shrub beds should be assessed and either rejuvenated or removed in relationship to aesthetics, operation/maintenance opportunities, and the form and function of the space. All future additions should respect the existing context and character of this quad and several landmark buildings. Refer to other North Campus Quad guidelines identified in Section 4.1.3 – Districts.

.4 West Academic Quad

The West Academic Courtyard is the largest open space in Sector 3 and presently functions more as an 'intersection' than a significant open space and focal point. Improvements to this quad should include; increased plantings along the north side of the node; redefined pathways that provide direct movement through the node and connection to passive node seating areas; a better interface and relationship to surrounding buildings, spaces and pathways (e.g. the space west of Computing Sciences, the front entrance to ETLC, the West Academic Courtyard and North Campus Quad) and amenity and interpretive additions (e.g. site furnishings, signage, lighting, etc.). (Refer to Figure 51 - from *Engineering Precinct Master Plan and ECERF + ETLC Schematic Design Phase*, University of Alberta, February 2000).

.5 East Academic Quad

The East Academic Quad is a well-defined and cloistered space that offers a mature landscape and intimate character that complements and contrasts with the proposed enhancement of the North-East Academic Quad, Power Plant Precinct and Rutherford Square. Improvements to this quad should include: redefined pathways which better integrate and connect with key quad access points and building entrances; an improved interface with, and acknowledgment of, building entrances

through the use of hard and soft landscaping that promotes gathering and interaction; and the addition of an integrated site furnishing, lighting, and signage approach.

The condition of existing shrub beds should be assessed and either rejuvenated or removed in relationship to aesthetics, operation/maintenance opportunities, and the form and function of the space (e.g., pathways and building entrances). All future additions should respect the existing context and character of this quad which is defined by both traditional and Late Modern campus architecture.

.6 Rutherford Square

This node should be formally redeveloped to amalgamate with proposed primary pathway (89 Avenue / Heritage Walk / University Station/HUB Gateway) development and complement and contrast with the proposed enhancement of the North-East Academic Quad, East Academic Quad, and Power Plant Precinct. Key design considerations include the development of a hard surfaced plaza articulated by grade change and formal tree and pergola development. (Refer to Figure 52).

.7 Celebration Plaza

Celebration Plaza should be maintained and incorporated into future pathway enhancements along 89 Avenue and the redevelopment of the Administration Building site. The conditions of existing shrub beds should be assessed and either rejuvenated or removed in relationship to aesthetics, operation/maintenance opportunities, and the form and function of the space. Given the commemorative importance of this node, it is appropriate that the space be defined with the development of a well-conceived garden that could provide year-round vibrancy, colour and interest.



Figure 51 - West Academic Quad - Conceptual Sketch

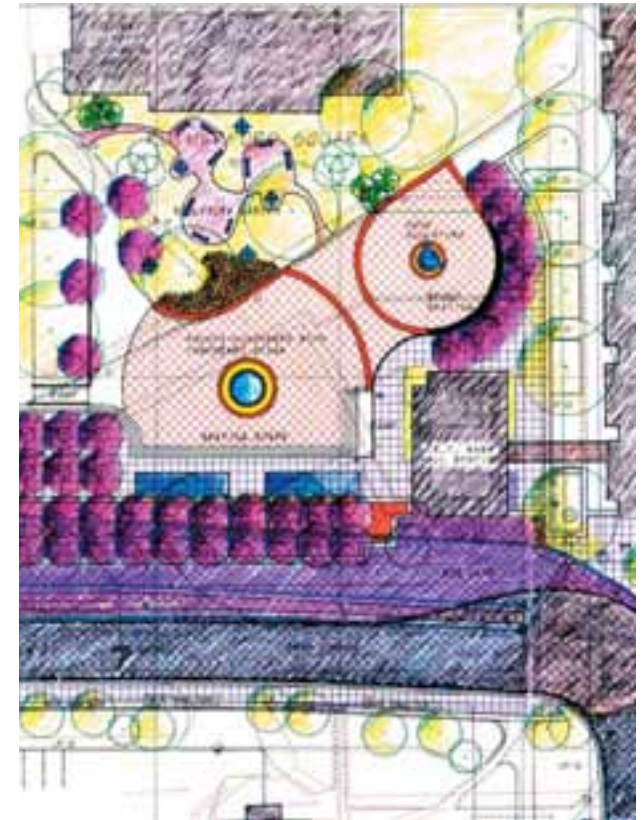


Figure 52 - Rutherford Square - Design Concept
(KGLA Concept - February 1992)

4.4.3 Secondary Exterior Nodes

Objective:

- .1 To better define and physically articulate secondary nodes to accommodate a range of activities, amenities, features and information. Secondary nodes should include places for gathering, transition, movement, and the articulation of building entrances.

Guidelines:

- .1 Preserve, develop and articulate secondary nodes in the following locations:

- North-East Academic Quad
- Riverfront Green
- North HUB Entry
- West 89 Avenue Entry
- NINT Plaza
- West Academic Courtyard
- Earth Sciences Plaza
- CCIS Plaza
- CCIS/Biological Sciences Courtyard
- SUB Entry
- Dentistry/Pharmacy Entry
- Power Plant Precinct

- .1 North-East Academic Quad

The North-East Academic Quad was originally designed as a 'backyard' service area for surrounding buildings. This space should be transformed to accommodate expansion to the Business Building and to provide an open space that complements and contrasts with

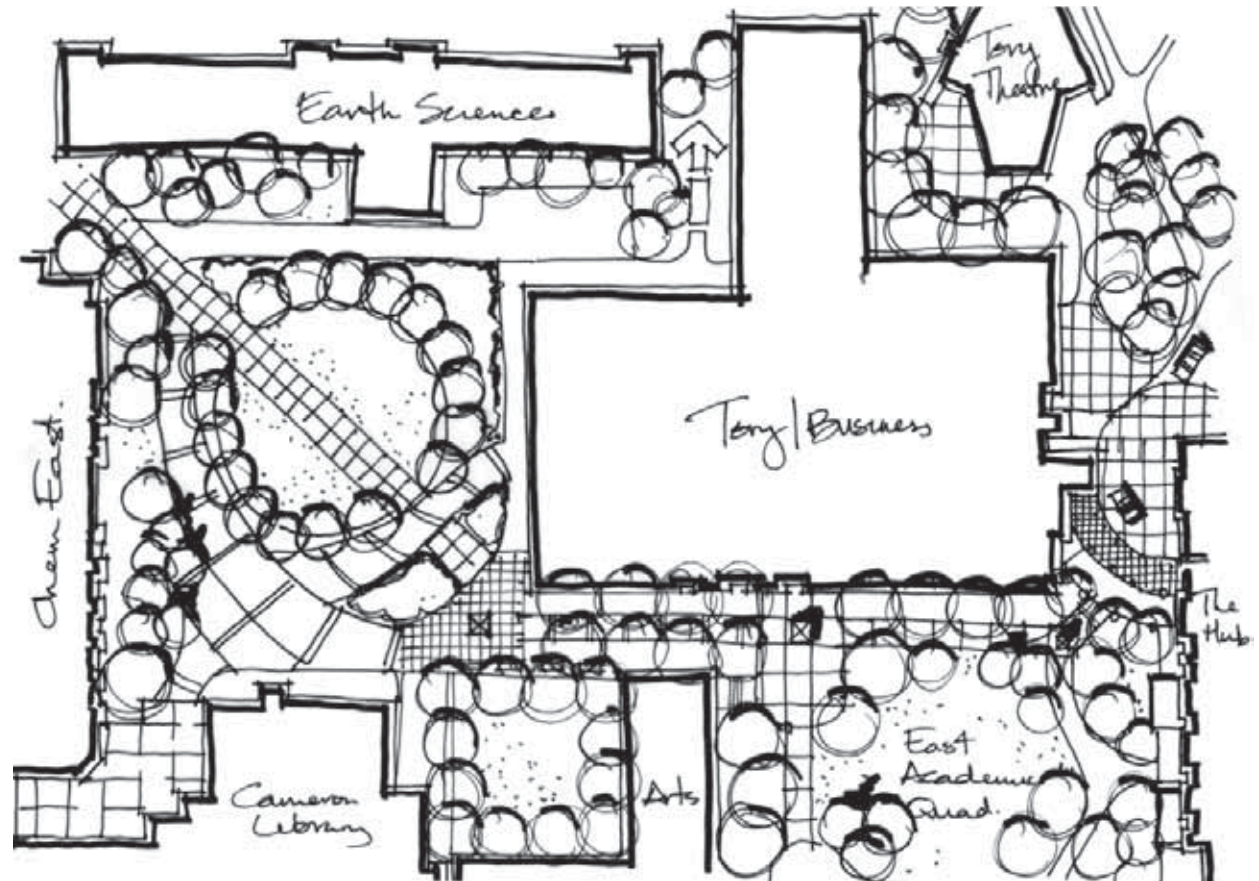


Figure 53 - North-East Academic Quad - Conceptual Sketch

the character of the East Academic Quad, the plaza development proposed around the Power Plant Precinct and Rutherford Square. Key design considerations that should be incorporated into this quad include a central open lawn area surrounded by formal tree plantings and decorative hard surface pathways that accommodate service vehicle access, yet are predominantly pedestrian

oriented. Way-finding markers should be provided at key entry points into the space. Tree plantings should help define the quad and partially screen surrounding buildings and service loading areas.

The small, tranquil and secluded area within this node, directly west of the north wing of Arts, should be

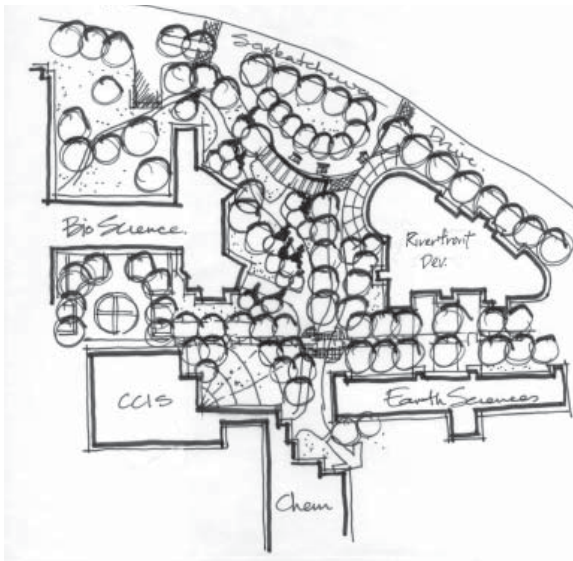


Figure 54 - Riverfront Green - Conceptual Sketch

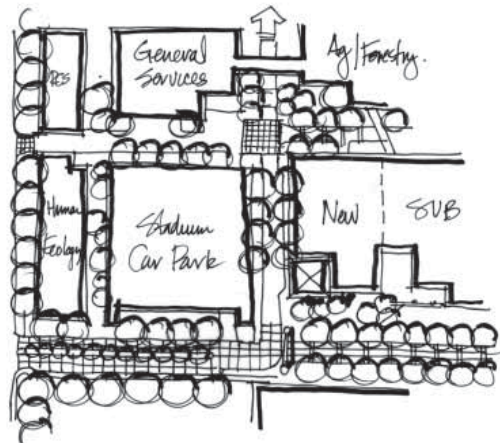


Figure 55 - West 89 Avenue Entry - Conceptual Sketch

incorporated into the future development of the North-East Academic Quad. Existing parking should be removed, but the area's central lawn and trees retained. The condition of existing shrub beds should be assessed and either rejuvenated or removed in relationship to aesthetics, operation/maintenance opportunities, and the form and function of the space. All future building additions should respect the existing context and character of this quad. (Refer to Figure 53).

.2 Riverfront Green

Riverfront Green should be developed to serve as a major drop-off for students, staff and visitors; and to provide a formal connection to the river valley and promenade. Key design considerations that should be incorporated into Riverfront Green include: a defined access and drop-off area from Saskatchewan Drive; landmark features; textured crosswalks across Saskatchewan Drive that link to the river valley pathway system; formal tree planting and drop-off amenities (i.e. seating, shelter, directory/signage, bicycle parking, etc.). (Refer to Figure 54).

.3 North HUB Entry

The North HUB Entry should be better articulated to create a sense of arrival and sense of place. Key design considerations should include the redevelopment of the existing access and drop-off area along with place-making features which include, but are not limited to, landmark and textured crosswalks that demarcate the space and link to the river valley; tree plantings and drop-off features (i.e. seating, shelter, directory/signage, bicycle parking, etc.); and architectural enhancements to the pedway and in front of the north service area of the HUB (i.e. colour, signage, public art, screening, plantings, etc.).

.4 West 89 Avenue Entry

The West 89 Avenue Entry should be better articulated to create a sense of arrival. Key design considerations should include pedestrian-scaled improvements such as surface treatments, decorative lighting, sidewalk widening (south side) and bulbing, textured crosswalks, gateway arches, intensification of tree plantings, directory/signage, shelters bicycle parking, seating and other decorative furnishings. (Refer to Figure 55).

.5 NINT Plaza

This node should be developed as a forecourt to NINT. Key design considerations should include a plaza that integrates with the existing context—in particular, a strong sensitivity to the adjacent Ring House 1—and incorporates the Heritage Walk and its interpretive features.

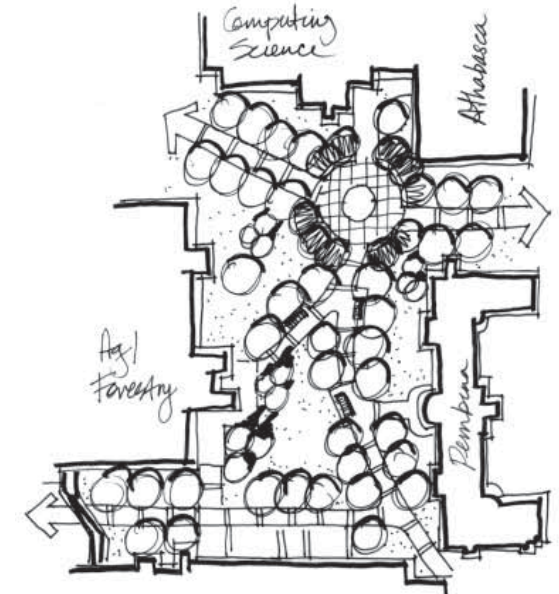


Figure 56 - West Academic Courtyard - Conceptual Sketch

.6 West Academic Courtyard

This node should be transformed from a service-oriented zone to a 'green' courtyard connection between Sector 3 and 4. Key design considerations include the retention of existing landscape, the removal of service related asphalt and introduction of pedestrian-oriented pathways and courtyard features. (Refer to Figure 56).

.7 Earth Sciences Plaza

In conjunction with potential 'Riverfront' building development, this node should be developed into a formal plaza that retains the existing mature Elm trees which are beautifully reflected on the mirrored north façade of Earth Sciences.

.8 CCIS Plaza

This future plaza should be developed in conjunction with the CCIS Building to establish a 'hub' which strengthens pathway links to primary and secondary nodes and the river valley, while accommodating access to a future service point proposed for north of the Chemistry Centre. (Refer to Figure 54).

.9 CCIS/Biological Sciences Courtyard

With the future development of the CCIS building (potentially 8 floors) and the existing heavy mass of the Biological Sciences Building, it is important that future courtyard development be bright, dynamic, open, colourful and legible. The courtyard should accommodate raised seat-walls/shrub beds, public art, trees (limited to the perimeter of the space) and decorative hard surface treatments (texture, pattern, and colour).

.10 SUB Entry

This active node is the main access point into SUB and should be better defined through the addition of a seating area that integrates with proposed pathway enhancements along 89 Avenue and the existing connection to the Van Vliet Centre. This node offers a prime opportunity for public art and/or an interpretive feature along the 89 Avenue axis.

.11 Dentistry/Pharmacy Entry

This node should incorporate forecourt development features to accentuate the front entry to Dentistry/ Pharmacy and to provide a gathering place for Campus/ public transit use. Key additions should include furnishings, shelter, seat-walls, public art and directory/ signage. (Refer to Figure 57- from *Reconstruction of 89 Avenue: Proposed Development Plan*, University of Alberta, 1992).



Figure 57- Dentistry / Pharmacy Entry - Conceptual Rendering

.12 Power Plant Precinct

This unique area should be redeveloped to offer a diverse mix of academic, retail, arts and entertainment, and support service development on Campus. The style and texture of materials and features, in conjunction with existing and proposed buildings, should evoke a dynamic and animated urban village atmosphere. Precinct redevelopment should incorporate the area defined by the North Campus Quad (to the west), South Lab (to the north), Rutherford Library (to the east), and Dentistry/Pharmacy (to the south). Redevelopment should include an interior pathway connection in the narrow space between Cameron Library and South Lab, leading to Arts and the east section of the North Campus. Redevelopment should also seek to resolve existing issues such as the underutilization of the CAB sunken courtyard, the poor transition from this area into the North Campus Quad and the visual and physical dominance of service access and use. (Refer to Figure 58).



Figure 58 - Power Plant Precinct - Precedent Images

4.4.4 Tertiary Nodes

Guidelines:

- .1 Recognize and accentuate tertiary nodes at key gathering and activity areas. The nodes should be functional and incorporated into surrounding building and site development to promote indoor/outdoor integration and provide opportunities for passive recreational activity. (Refer to Figure 59). The nodes should be well defined through the incorporation of architectural devices, furnishings, lighting, signage, interpretive information (especially along the Alumni and Heritage Walks) and public art.
- .2 Pedestrian intersections along service corridors should be raised to create a visual and physical separation, and should include way-finding kiosks and/or markers, bollards, seating areas, and tree/shrub plantings.

4.4.5 Interior Nodes

Guidelines:

- .1 Recognize existing primary and secondary interior nodes and incorporate new nodes with the future evolution of building and interior pathway development to offer a diverse range of student, staff and visitor services, as well as information and gathering opportunities. Refer to Section 4.2.8 Interior Pedestrian Pathways.4.7

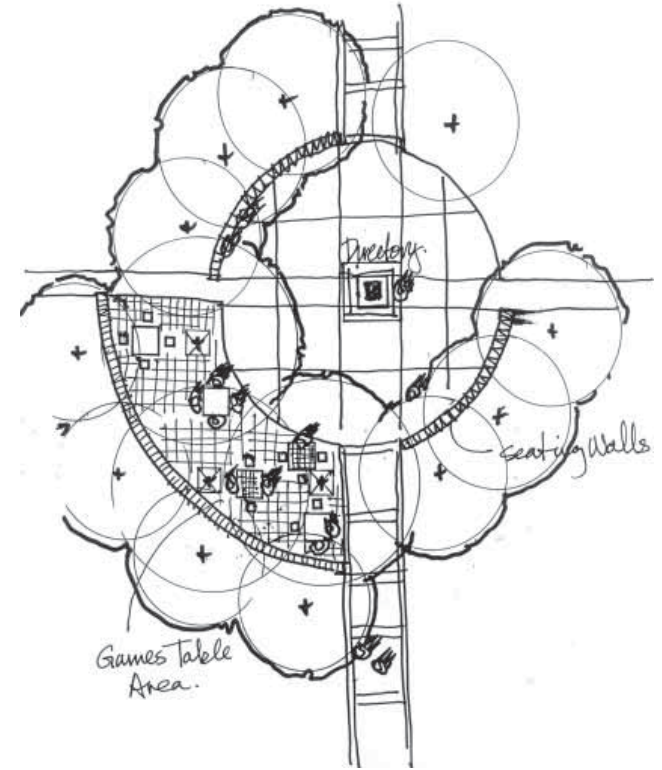


Figure 59 - Tertiary Node - Conceptual Sketch

4.5 Landmarks

Listed below are buildings and places that play a significant role in: defining memorable experiences of the U of A Campus; contributing to a sense of the University's evolution and history; and providing a framework for way-finding. Landmarks play a role in our daily lives that is different for each individual. More than any other 'pattern element' (districts, pathways, edges and nodes), the significance and/or importance of landmarks is subjective.

Objective:

- .1 To recognize and celebrate the University's history and heritage sites.
- .2 To recognize and celebrate landmarks which contribute to creating a 'sense of place'; promote a sense of movement and connection; and emphasize and enhance nodes within the Sectors.

Note: The inclusion of any given feature as a 'landmark' in these guidelines does not imply that it is to be preserved or protected beyond normal expectations for the built and/or natural environment on the University Campus. Rather, in the context of development or redevelopment, landmarks should be carefully considered and taken into account with respect to their roles as described above.

4.5.1 Existing Landmarks

Guidelines (refer to Figure 60):

- .1 Primary landmarks should be recognized, celebrated and respected for their role in creating memorable experiences and legibility within the Campus. Their importance should be highlighted in future proposed pathway, node, and building development throughout Sectors 3 and 4. Primary landmarks are defined in two major categories – 'Heritage Buildings' and 'Places'. These include:
 - Heritage Buildings:
 - Pembina Hall (east façade)
 - Athabasca Hall (east façade)
 - Assiniboia Hall (east façade)
 - North Power Plant
 - Arts Building
 - Dentistry/Pharmacy (south façade)
 - South Lab
 - Places:
 - Celebration Plaza
 - Earth Sciences (north façade)
 - SUB Entrance
 - 89 Avenue Mall
 - North Campus Quad
 - East Academic Quad

4.5.2 Opportunities for Landmarks

Opportunities exist in key locations—University Gateway and Primary/Secondary Nodes—to establish landmarks which, in addition to improving way-finding, could play a significant role in enhancing and defining special places, and in interpreting, commemorating and celebrating the history and growth of the University of Alberta.

Landmark opportunities could be fulfilled by integrating public art and/or commemorative features into new node and building (re)development, or by creating signature architecture and landscape architecture.

These opportunities should be recognized and incorporated into future Pathway, Node and building development throughout Sectors 3 and 4.

Guidelines:

Potential locations for landmark development include, but are not limited to, the following:

University Gateway:

- .1 University Station / HUB Gateway: A landmark that anchors the east end of the 89 Avenue Mall, as well as acts as a welcoming feature from 112 Street (and complements FAB and the Timms Centre for the Arts) should be developed in this key location.

Primary Nodes:

- .2 North Campus Quad: Landmarks located beside, or integral to, potential redevelopment at the north and south ends of the quad should be created to enhance the most important open space on the North Campus.
- .3 West Academic Courtyard: With the removal of the Arts Workshop and the recently completed facilities to the west

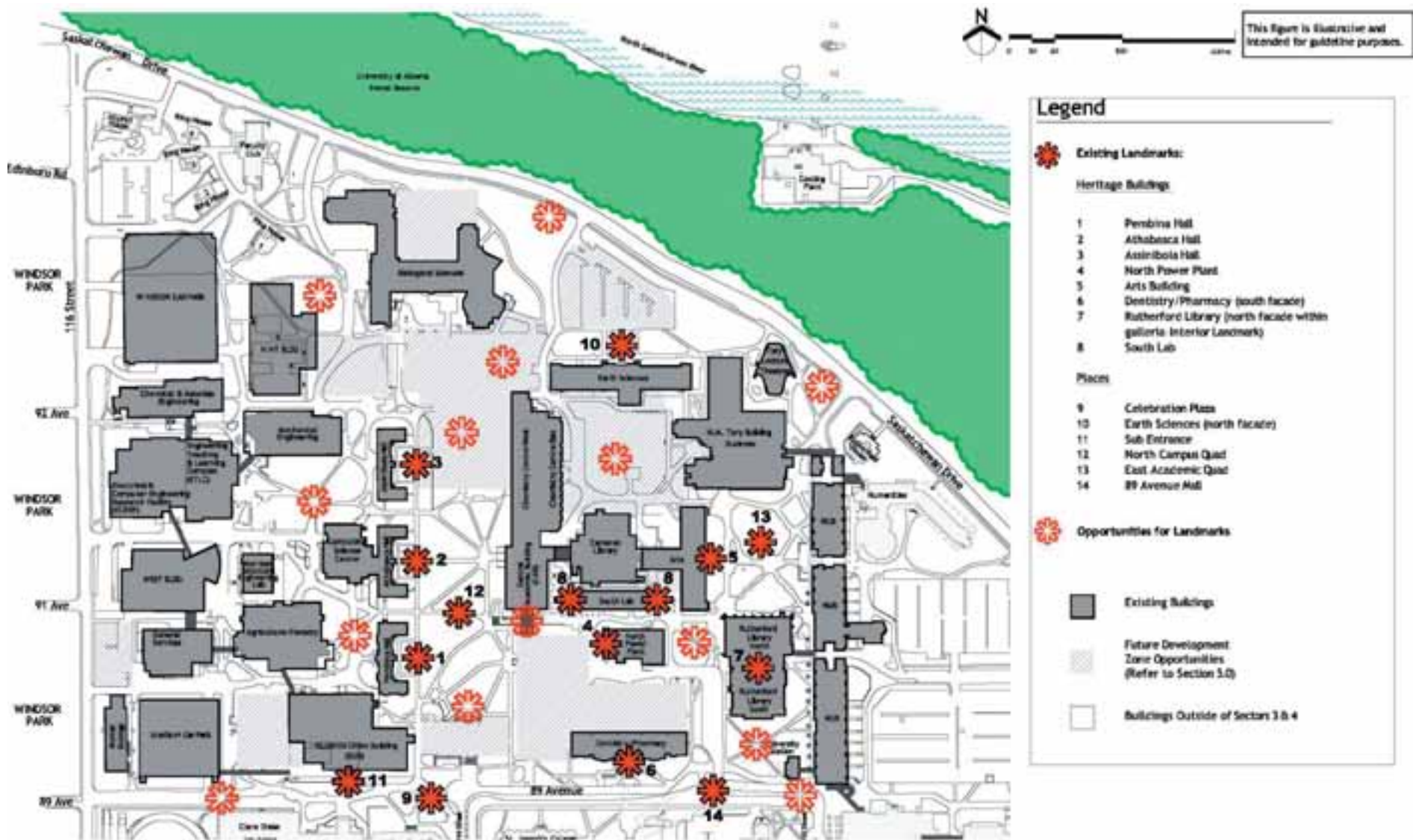


Figure 60 - LANDMARKS

March 2008

University of Alberta - North Campus Academic Sectors 3 & 4

4.5.3 Tertiary Landmarks

of this site (and NINT to be completed to the north in the near future), the area has gained prominence. A landmark should be developed that helps to unify, and recognize the importance of, this open space.

- .4 Rutherford Square: Located strategically by the interface of the LRT station/transit mall, several entrances to HUB, and the 89 Avenue Mall, this open space should be enhanced with a landmark that capitalizes on this highly visible and important location.

Secondary Nodes:

- .5 As with Primary Nodes, Secondary Nodes identified in this Sector Plan provide key opportunities for landmark development. The following sites should be considered important places for integrating public art and/or commemorative features into new node and building (re)development, as well as for creating signature architecture and landscape architecture:

- Power Plant Precinct
- North-East Academic Quad
- Riverfront Green
- CCIS Plaza
- NINT Plaza
- West Academic Courtyard
- 89 Avenue Mall

Tertiary landmarks include numerous sculptures, trees of significance (memorial trees and rare species) and way-finding features. Currently, these are not comprehensively mapped and/or identified by the University to include in this Sector Plan

Guidelines:

- .1 Tertiary landmarks should be incorporated within nodes to create a consistent identifier/way-finding format.
- .2 A tree inventory and interpretive program should be established to identify unique and exotic tree species.
- .3 The existing siting and interpretation of public art should be inventoried and assessed to determine how these features contribute or detract from the fabric of districts, pathways, and nodes, so that they may be better utilized in conjunction with future development.

SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN
SECTOR PLAN 3 AND 4

**S i t e S p e c i f i c
G u i d e l i n e s**

5.0 SITE SPECIFIC GUIDELINES

Site Specific Development Guidelines

The following section identifies those facilities or lands in Sectors 3 and 4 that could potentially be developed or redeveloped during the next 30 years as well as existing facilities and their property lines, Zones of Responsibility and related Sector Guidelines that should apply to any future renovations or additions. Each future development or redevelopment site is described as follows:

- Site Constraints.
- Site Opportunities.
- Site Specific Guidelines.
- Related Sector Guidelines.

Each site is illustrated with a site boundary, a proposed development zone (for future redevelopment/ development areas identified within Sectors 3 and 4), and support dimensions.

The LRDP defines the targets for North Campus at:

- 50% site coverage
- FAR (floor/ area ratio) 1.5; refer to LRDP Section 7.5

Heritage

Consistent with the LRDP, the University should develop criteria to assess and establish heritage buildings and sites. Several buildings widely valued for their aesthetic and historical values are listed as 'heritage buildings' in this plan. It is recommended that no development or redevelopment of these sites take place without a complete evaluation of each to determine its long term disposition, using developed criteria by a qualified consultant. This plan has identified the following buildings as having heritage value: Pembina, Athabasca and Assiniboia Halls, North Power Plant, Arts Building, South Lab and Dentistry/Pharmacy."

Building Life Cycle

Where the expected life cycle of a given building exceeds 30 years, no redevelopment or expansion is anticipated and therefore no site specific guidelines are provided. If determined through an audit that a given building has reached its life expectancy and should be replaced, the Sector Plan guidelines apply. At that time, before detailed planning and programming commences, specific guidelines will be developed.

Car Parks

All existing car park facilities are maximized. No expansion of existing facilities will be permitted.

Refer to Appendix A: Campus-Wide Guidelines for general development and redevelopment guidelines that apply to all existing and future facilities.

Sectors 3 & 4 Facilities

The following existing facilities/lands are defined for future redevelopment/ development. On the following graphics the current building names are retained for ease of reference within the text. However, this does not imply that new facilities at these locations will be created for current occupancies. Use of these facilities is discretionary, within the requirements of each specific development guideline.

- 5.1 Industrial Design Studio
- 5.2 Physics/CCIS Proposed Site (at existing V-Wing Lecture Theatres)
- 5.3 Biological Sciences (underground addition)
- 5.4 Administration
- 5.5 Riverfront Site
- 5.6 H. M. Tory Building/Business (addition)
- 5.7 Civil/Electrical Engineering

- 5.8 Dentistry/Pharmacy (south wing to be preserved)
- 5.9 The HUB
- 5.10 RCMS
- 5.11 Centre for Subatomic Research
- 5.12 Cameron Library
- 5.13 South Lab

Existing Facilities – where life expectancy exceeds 30 years or is a potential heritage site requiring evaluation:

- 5.14 Human Ecology
- 5.15 Windsor Car Park
- 5.16 NINT Building
- 5.17 Chemical & Materials Engineering
- 5.18 ECERF/ETLC
- 5.19 NREF
- 5.20 General Services Building
- 5.21 Stadium Car Park
- 5.22 Agriculture/Forestry
- 5.23 Morrison Structural Engineering Lab
- 5.24 Mechanical Engineering
- 5.25 Assiniboia Hall
- 5.26 Computing Science Centre/Athabasca Hall
- 5.27 Pembina Hall
- 5.28 SUB
- 5.29 Chemistry Centre (West & East)
- 5.30 CAB
- 5.31 Earth Sciences
- 5.32 Arts
- 5.33 North Power Plant
- 5.34 Tory Lecture Theatres
- 5.35 Rutherford Library (North & South)

Definitions:

1. **Site Constraints:** the existing context of surrounding buildings and landform that negatively influence development or redevelopment of the site.
2. **Site Opportunities:** site and surrounding context additions that could positively influence site redevelopment or development and the Campus.
3. **Site Specific Guidelines:** guidelines that relate to the LRDP and the envisioned FAR, site coverage, building height, and design of future site/ building redevelopment and/or development.
4. **Zone of Responsibility (ZOR)** the area that each facility is responsible to develop*
5. **Site Coverage:** Building Footprint Area/Site Area
6. **FAR (Floor Area Ratio):** Total Floor Area : Site Area

Site boundaries or property lines have been developed to demarcate a site and ZOR. They do not represent actual titled properties. In most cases, the site lines and ZOR's have been established using distances from existing facilities.

5.1 Industrial Design Studio

Refer to Figure 5.1.

Site Constraints

- .1 This is a complex site, completely internal to the Campus, enclosed on four sides by existing buildings. It is anticipated that within the 30 year period of this LRDP, none of the surrounding sites is likely to be redeveloped.
- .2 The site can be accessed by internal roadway from the west side of the site, from 116 Street. This is a major vehicular service route that accesses Stadium Carpark, Clare Drake Arena, GSB, and service lane to Pembina Hall and SUB. As a busy access point, central drop-off, and charter bus loading zone, this route cannot be compromised.
- .3 The northerly service lane leading to SUB, Pembina Hall, and Athabasca Hall must remain available, until such time as a central service zone is established.
- .4 The 89 Avenue major pedestrian spine of North Campus bounds the site to the south, which should be enhanced in its surfacing, landscaping, and activity areas. Sufficient distance should be maintained to this pathway to enhance sunlight penetration, landscaped verges, space that does not feel confined, and some views from the pathway to nearby and some distant facilities. The pathway should engender senses of continuity, anticipation, and integrity, without further encroachment or constraint from facilities.
- .5 As a complex location, several points of entry or access may be needed. Careful investigation of pedestrian movements will determine precise locations for entries, some of which may be duplicated by internal connections.

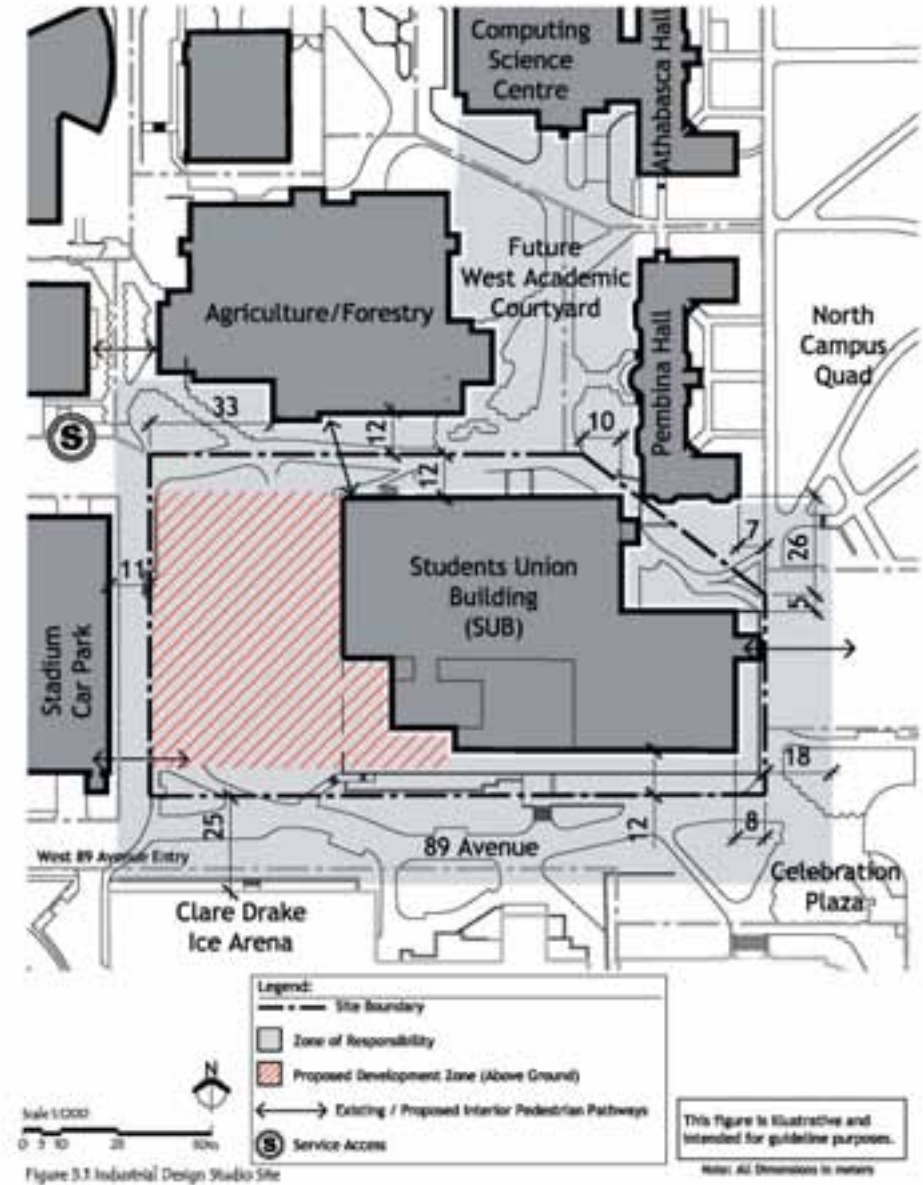


Figure 5.1 Industrial Design Studio Site

Site Opportunities

- .1 Consideration should be given to the development of a central servicing point in a new facility to service, via interior pathways, SUB, Ag Forestry, Pembina Hall, and possibly GSB.
- .2 A new facility can incorporate the existing pedway connection from Stadium carpark to SUB. Consideration should be given to resolving the floor level change within the walkway, to enhance barrier-free access.
- .3 A new facility could improve the orientation and pedway connection to Agriculture/ Forestry.
- .4 Landscaping elements could be incorporated along the west, north or south faces of a new facility, to improve the pedestrian experience, and safety. Consideration should be given to replace effectively, in another, potentially more suitable location, the intimate green space that currently exists between Industrial Design and SUB, and create a more actively used area.
- .5 This is a gateway to the North Campus, the pedestrian culmination point of the 89 Avenue spine. The sense of gateway should be explored, and developed to provide a landmark quality to those entering Campus from the west.

Site Specific Guidelines

- .1 The site should be developed to respect the intents of the Long Range Development Plan, as pertains to Floor-Area-Ratio, and site coverage. Above-grade FAR should range from 1.5-1.8, and site coverage should range from 50-60%. Proposed building height should be no more than 5 storeys, although sensitive design of more storeys may be considered by SPPI and the University Architect. Open dialogue is recommended in the early pre-design/

scope confirmation phase of the design project.

- .2 This site should be used for expansion to SUB. Discretionary uses include students' commons, student services and associations, and commercial uses that serve the Campus population.
- .3 The existing service access to the west, north and south (89 Avenue) of the building site should be enhanced to create a more pedestrian-friendly environment with the long-term intent of eliminating service access to the north and south by developing a strategic service point and interior service pathways.
- .4 The building should be architecturally responsive to the site, to the pedestrian scale of this environment.
- .5 Consideration should be given to a base with stepped-back upper floors, to control scale, massing, aesthetics, and light penetration to surrounding sites, and to establish a comfortable pedestrian scale and microclimate along 89 Avenue.
- .6 All entrances should be clearly visible and ground floor development should create a pedestrian-scaled environment, promoting gathering, social interaction and transparency to internal activities.
- .7 The facility must reflect the sense that there are no 'front' or 'back' facades to it. All sides of the facility are significant to the Campus.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.1 116 Street
 - 4.2.1.3 89 Avenue
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
- 4.3 Edges
- 4.4 Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
- 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks

APPENDIX A Campus-Wide Guidelines

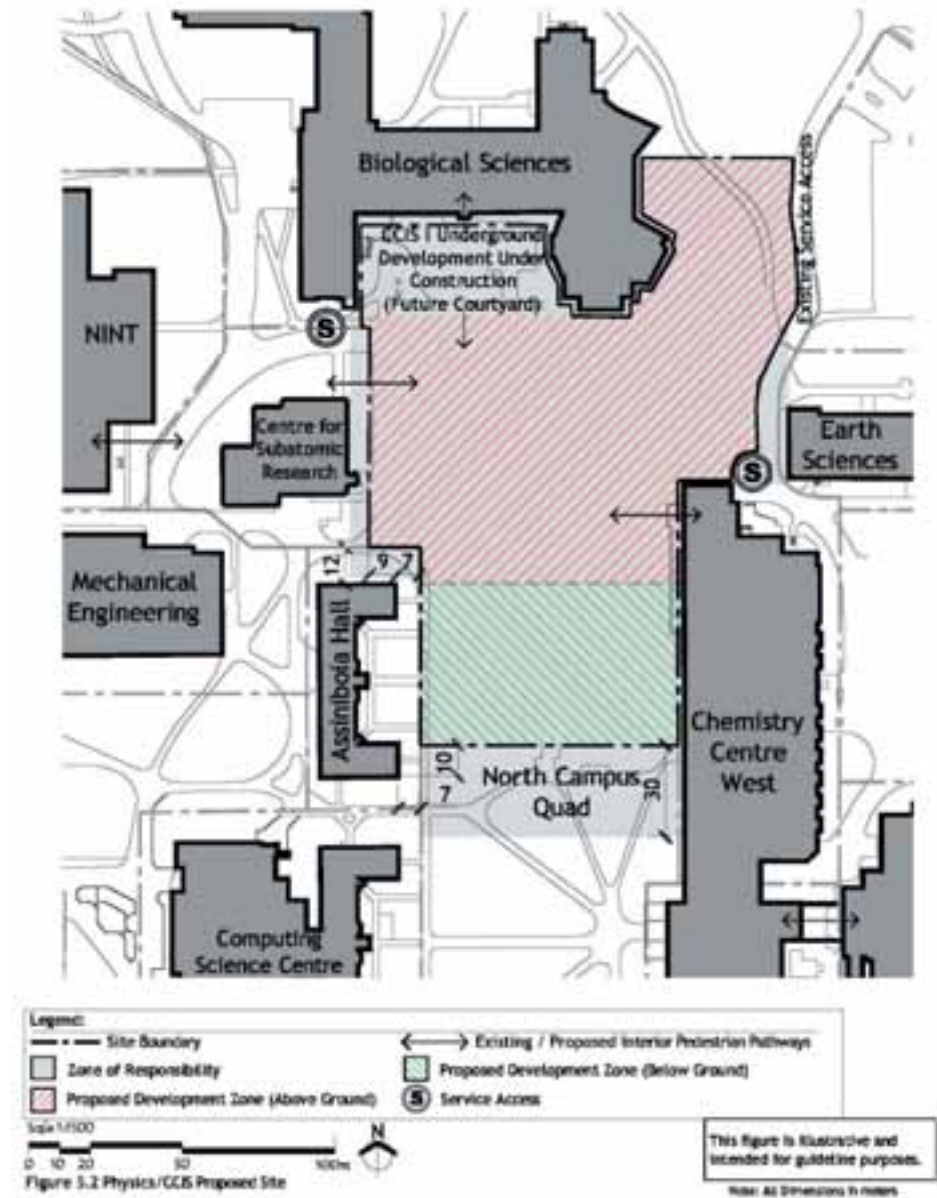
5.2 Physics/Centennial Centre for Interdisciplinary Science (CCIS)

(V-Wing Lecture Theatres)

Refer to Figure 5.2.

Site Constraints

1. This is a complex site, completely internal to the Campus, enclosed on three sides by existing buildings. It is anticipated that within the 30 year period of this LRDP, the Centre for Subatomic Research site is likely to be the only adjacent site to be redeveloped.
2. There are limited potential access points for service vehicles. The site can be accessed by internal roadway from the west side of the site north of Subatomic Research. While there is a roadway on the east side of the site, its use for servicing will interfere significantly with the major pedestrian entrance to Biological Sciences. Sensibly, site service access should be limited to the northwest.
3. The eastern roadway now penetrates significantly into the Campus, in a very narrow area between buildings (Chemistry and Earth Sciences) at this point. New development should help to alleviate the congestion, and conflict of pedestrian and vehicle in this location.
4. CCIS Phase I is constructed underground between the wings of Biological Sciences. This should not be built over, but retained as a site amenity, developed as a courtyard space.
5. The North Campus Quadrangle abuts the south edge of the site. This must be respected and enhanced.
6. Assiniboia Hall abuts the west boundary of the site. As one of the earliest structures on Campus, and slated to remain, new development must respect its integrity and aesthetic, while maintaining a comfortable setback from it. It is recommended that a setback in the order of 25-30



metres be used.

7. The major north-south walkway of the North Campus abuts the westerly edge of the site. Slated as part of the heritage, and alumni walks, sufficient distance should be maintained to the walkway to allow full potential for sunlight at all seasons, landscaped verges, space that does not feel confined, and some views from the pathway to nearby and some distant facilities. The pathway should engender senses of continuity, anticipation, and integrity, without further encroachment or constraint from facilities.
8. Chemistry is likely to abut directly onto any new development. Care should be taken to ensure its integrity is not disturbed; however, within reason, a new facility can be built directly to the building.
9. BioSciences abuts the north side of the site. Care must be taken to ensure its integrity is not disturbed.
10. This site has no river-view potential, although views of the quadrangle will be advantageous, and should be exploited wherever possible within the facility.
11. As a complex location, many points of entry or access will be needed, from the quadrangle, from the west, from the east and from the north. Careful investigation of pedestrian movements will determine precise locations for entries, some of which may be duplicated by internal connections. See pathway discussions within Section 4.

Site Opportunities

1. Potentially, a single point service node could be developed on the west side of the site to accommodate several buildings. Conversely, there may be the opportunity to utilize the existing service bay in Biological Sciences to service this site as well.

2. The northerly section of the site, enclosed by the wings of Bio Sciences, should be developed as an intimate courtyard space, with significant green-scape, and building transparency to this open space. An enclosure for the green space will be considered.
3. This development offers the opportunity to connect Science facilities and Engineering facilities directly, which will benefit the overall connectivity of the North Campus. Specifically, this facility should consider connections to BioSciences, Chemistry, and Sub-Atomic Research site redevelopment (thereby to NINT and Mechanical Engineering).
4. This portion of the Campus is limited in its study, gathering and food service locations. This development offers a strategic location to accommodate these needs.
5. This facility should aid in developing a stronger sense of arrival and entry to BioSciences as well as to the new CCIS.
6. With the considered removal of V-Wing, as well as Physics, there is an opportunity to develop large underground spaces into the quadrangle, while respecting the façade of Assiniboia Hall.

Site Specific Guidelines

- .1 This site may be considered to be currently under-utilized. The site should be developed to respect the intent of the Long Range Development Plan, as pertains to Floor-Area-Ratio and site coverage. Above-grade FAR should range from 1.5-2.0, and site coverage should range from 35-50%. The proposed building height should be no more than 8 storeys, although sensitive design of more storeys may be considered by SPPI and the University Architect. Open dialogue is recommended in the early

pre-design/ scope confirmation phase of the design project.

- .2 The building should be architecturally responsive to the site and to the pedestrian scale of this environment. Consideration should be given to a base, with subsequent upper floors set back to control scale and massing.
- .3 All entrances should be clearly visible and ground floor development should create a pedestrian-scaled environment, promoting gathering, social interaction and transparency to internal activities.
- .4 The building should articulate and address the importance of the North Campus Quad and surrounding buildings with a sensitive edge and architectural landmark qualities. The building should be built to a southern edge that does not obstruct the open view to Assiniboia Hall.
- .5 Above-ground development should leave the full front face of Assiniboia Hall unobstructed. Underground development may occur to the south site line, within the footprint of the existing V-Wing. Any further encroachment into the North Campus Quad would be at the discretion of SPPI and the University Architect.
- .6 Development should incorporate the development of all key pathways and nodes within the Zone of Responsibility, including a portion of the North Campus Quad. See further discussion in the Campus-wide Guidelines, and Section 4.
- .7 The facility should include a significant internal activity node, wellness centre, connecting pathways and links to NINT, Biological Sciences, and Chemistry.
- .8 The facility should orient its major entrance to the North Campus Quad, with prominent secondary entrances to

the north, east and west. All entries shall be universally accessible.

- .9 The facility should provide transparency between the interior and exterior spaces in significant locations, particularly on the first floor, to assist in general transition from one to the other, day-lit spaces, and way-finding.
- .10 The facility must reflect the sense that there are no 'front' or 'back' facades to it. All sides of the facility are significant to the Campus.
- .11 The primary (easterly) pathway of the Quad must continue through the facility if it is built onto Chemistry. This pathway connection must be transparent, clear to follow, direct, and directly connected northward to Saskatchewan Drive.
- .12 Development in concert with the Sub-Atomic Research site may be considered, as long as the guidelines of the Sector Plan are respected.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
 - 4.1.2 River Valley District
 - 4.1.3 North Campus Quad District
 - 4.1.4 East Academic District
 - 4.2 Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.4 Nodes
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.4.5 Interior Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines

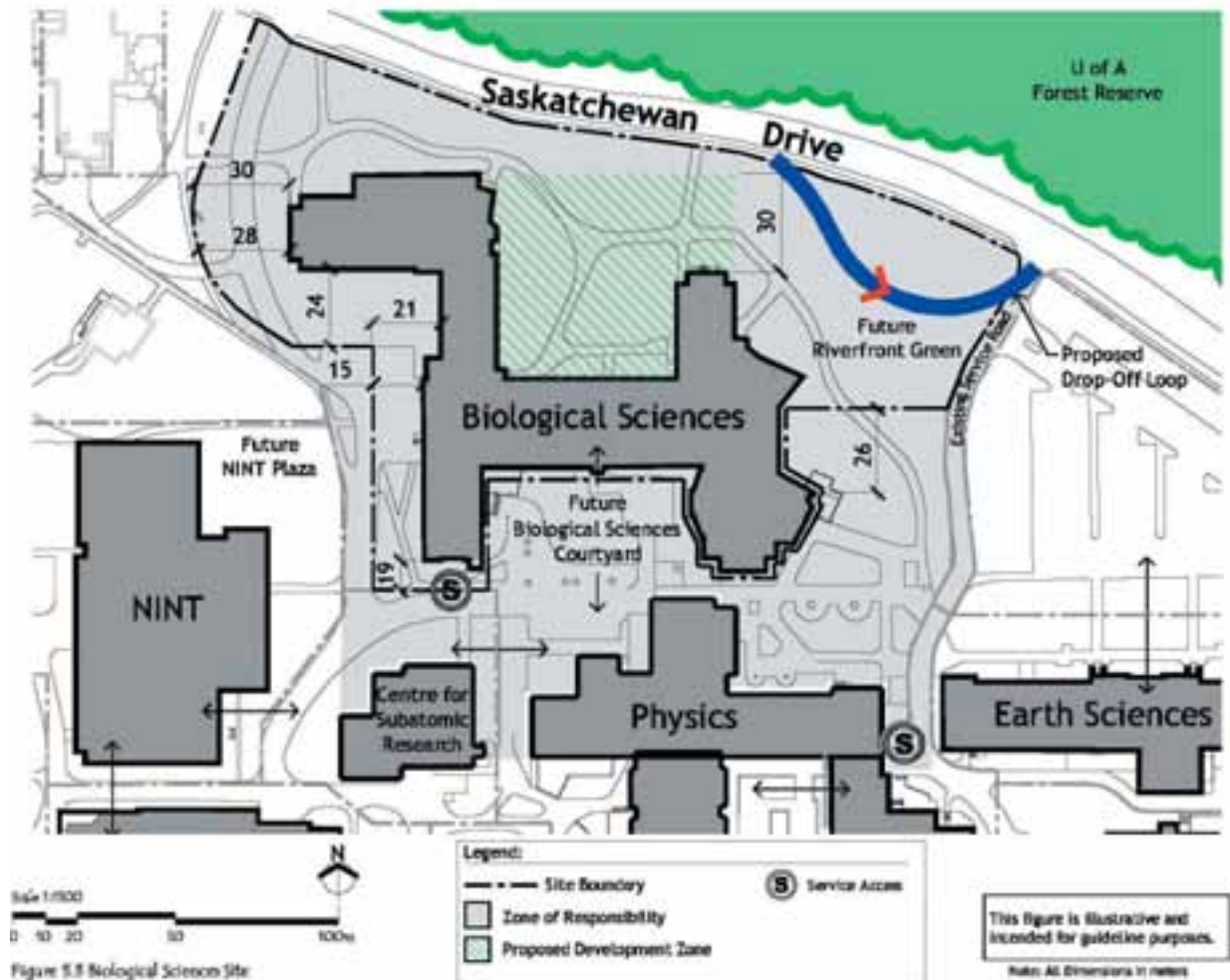
5.3 Biological Sciences

Refer to Figure 5.3.

Although not identified in the LRDP as a potential development site, the Sector Plan has acknowledged that within the 30 year period of this LRDP Biological Sciences will not be demolished nor that the site will be redeveloped. However, it is possible that an underground addition may be contemplated. The site specific guidelines refer directly to a possible underground addition.

Site Constraints

- 1 Service access should be limited to the existing servicing bay on the east side of the building. The addition cannot be accessed directly for vehicular service.
- 2 This site is located along the riverbank and Saskatchewan Drive, and thus affords views to and views from the river valley. It harbours significant mature trees that should be protected and nurtured.
- 3 CCIS Phase I is constructed underground between the southerly wings of Biological Sciences. This should not be built over, but retained as a site amenity, developed as a courtyard space. To the east, is an under-stated green space, that should be enhanced and enlivened to create a desirable, green activity space.
- 4 The major north-south walkways of the North Campus abut the westerly and easterly edges of the site, in their continuation from the quad to Saskatchewan Drive. Slated as part of the Heritage Walk, sufficient distance should be maintained to the walkway to allow full potential for sunlight at all seasons, landscaped verges, space that does not feel confined, and some views from the pathway to nearby and some distant facilities. The pathway should engender senses of continuity, anticipation, and integrity, without further encroachment or constraint from



facilities.

- .5 The site is bounded to the east and west by service roads. To the west, consideration should be given to limit the penetration of the service road, by creating a single service point at either Bio-Sciences, CCIS, or NINT, with linkages to the other facilities serviced currently by this road. To the east, this service road is a key link to internal Campus sites, and therefore, is likely to remain intact. Further investigation should be made to determine if a single point of servicing can be achieved for the buildings currently served.
- .6 Current accesses to the building are generally difficult to find. (Re)development should consider enhancement and better definition of entrances. Careful investigation of pedestrian movements will determine precise areas for improvement, redevelopment of entry, or new entry points.

Site Opportunities

- .1 The Saskatchewan Drive pedestrian interface should be enhanced, to improve safety, and the pedestrian experience. Connections to the river valley walk should be created formally at the major service access point east of the building.
- .2 Internal connection to CCIS should be created, protected and respected internally and externally, to further the indoor network of linkages throughout Campus facilities. The northerly section of the site, enclosed by the wings of Bio Sciences, should be developed as an intimate courtyard space, with significant green-scape, and building transparency to this open space. An enclosure for the green space will be considered.

- .3 This portion of the Campus is limited in its study, gathering and food service locations. This facility should link with CCIS in which these activities may be serviced.

Site Specific Guidelines

- .1 Further development (underground) should respect the intents of the Long Range Development Plan, as pertains to Floor-Area-Ratio and site coverage. Above-grade FAR should continue at its current 1.5, and above-grade site coverage should be retained at its current 25%. Building height should remain at 11 storeys. Underground depths and floors will be determined by geotechnical investigation, in a cost-effective manner, in consultation with SPPI and the University Architect. Open dialogue is recommended in the early pre-design/ scope confirmation phase of the design project.
- .2 The proposed site use is discretionary, however academic use will be favoured.
- .3 Future additions should address the proposed development of the Riverfront Green node.
- .4 The future addition should be fully integrated into Biological Sciences, although other uses may be considered that require separation from the functions of Bio-Sciences. In the latter case, the addition should be linked by pedway to Bio-Sciences.
- .5 Future additions should be well designed and landscaped integrating with, and responding to, the river valley character. All entrances should be clearly visible. Streetscape additions (e.g. pathways, benches, lighting, etc.) should be incorporated to provide safe, secure, and accessible links into the Campus.

- .6 All redevelopment of the site should maintain the existing allée of elm trees along Saskatchewan Drive.
- .7 Development should incorporate the creation/ improvement of all key pathways and nodes within the Zone of Responsibility, including a portion of the North Campus Quad. See further discussion in the Campus-wide Guidelines.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.2 River Valley District
 - 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.2 Saskatchewan Drive
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines

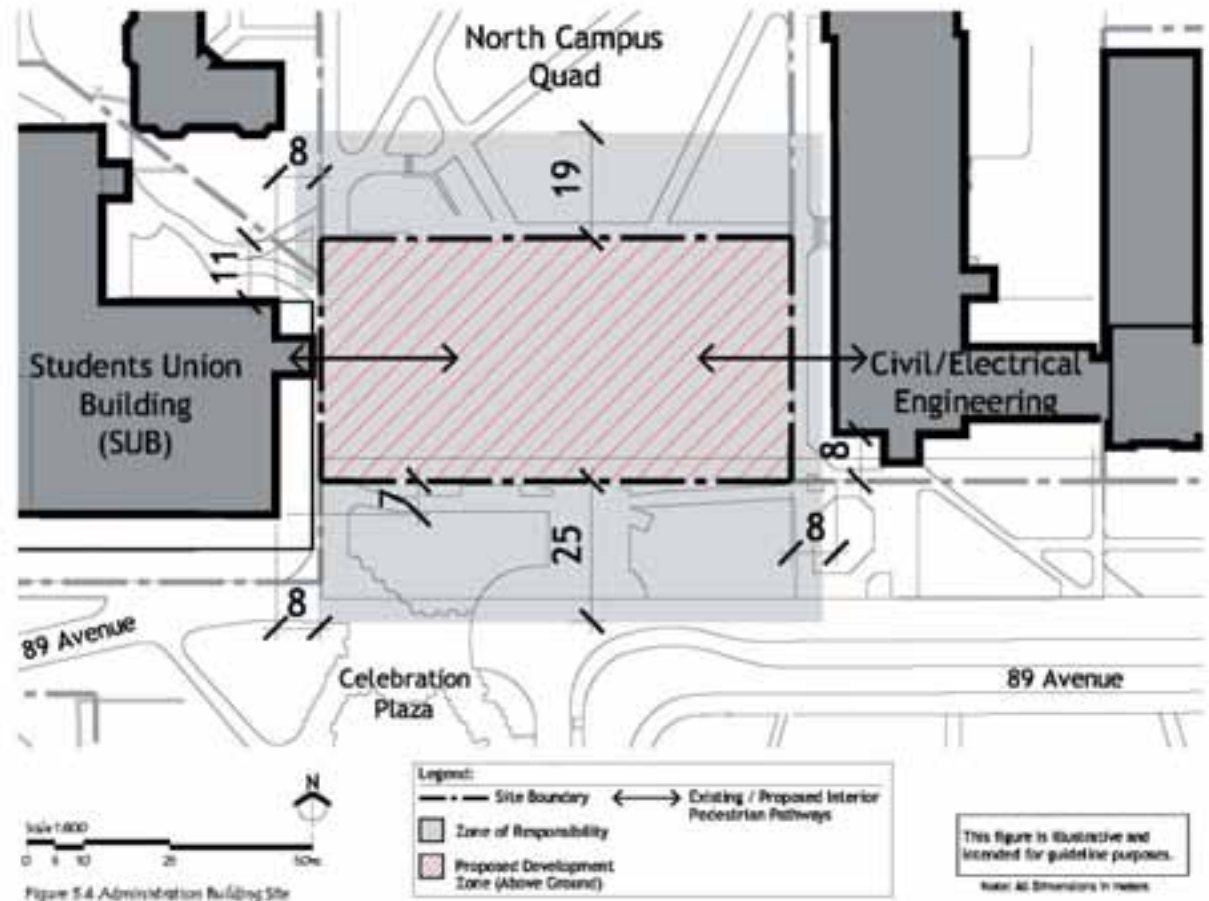
5.4 Administration

Refer to Figure 5.4.

Preference is given conceptually to the removal of this building and this site from development potential. It is preferred that this building be demolished and the area left open to the North Campus Quad so that views and access into the Quad are immediate to 89 Avenue. Consideration should be given to the expansion of the building site for the redevelopment of the Civil/Electrical Engineering facility (Figure 5.7) to the east, that will allow increased building area, but the retention of an open space to the Quad. However, in the event of proposed development on this site, the following shall guide the planning.

Site Constraints

- .1 This site occupies a key location on Campus, at the head of 114 Street, as it joins 89 Avenue, and is visible for some distance to the south. It faces a significant node of Campus, adjacent to the sculpture "The Dove", to the Memorial Garden, and to Celebration Plaza. 89 Avenue has been redeveloped and enhanced as the major east-west spine of Campus, such improvements culminating in front of this site. The site is bounded by the North Campus Quad to its north. Intrusion into either the 89 Avenue walkways or into the North Campus Quad are not permitted, although a sensitive urban plan may be considered by SPPI and the University Architect.
- .2 It is anticipated that the 89/114 roadways will remain throughout the duration of the LRDP, at least in the form of transit and pedestrian ways.
- .3 The site is bounded by SUB to the west, and Civil-Electrical building (CEB) to the east. The CEB is a potential redevelopment site for the Campus. SUB is likely to remain for 30 years.
- .4 The site is accessed poorly, through a combined pedestrian/ service lane along 89 Avenue from the west, commencing at 116 St. The westerly edge of the building/ site combines service access with the most significantly traveled pedestrian pathway on Campus, often creating congestion and conflict between the modes of transportation. Closing this area to pedestrians is not an option. This Campus walkway begins the Alumni Walk, at Celebration Plaza.
- .5 SUB, at this interface, provides a large parking area for bicycles, that is very well used.



.6 The site is surrounded by pedestrian movement and walkways, with very little variance in importance. This movement must be respected and enhanced, to create a comfortable, safe, aesthetic, and pedestrian-scaled environment.

Site Opportunities

- .1 Consideration should be given to the development of a central servicing point either in facilities to the east (east side of Dentistry/ Pharmacy) or west (west side of SUB), so that any new development of this site will be accessible through internal connections to service receiving and loading.
- .2 Views and access into the quad can be improved by the demolition of Administration and the site's redevelopment.
- .3 Urban design elements could be incorporated along the west, east, north and south faces of a new facility to improve the pedestrian experience and safety.

Site Specific Guidelines

- .1 Ideally, the site should be redeveloped as green space to connect the North Campus Quad physically and visually to 89 Ave and 114 St. Moderate portions of the site may be considered in the redevelopment of the CEB site to increase its effective floor area and gross area. The specific extent will be determined in consultation with SPPI and the University Architect. Expansion to SUB may be considered in consultation with SPPI and the University Architect, as long as such expansion respects the key nodal and pathway components existing beside it.
- .2 The site should be developed to respect the intents of the Long Range Development Plan, as pertains to Floor-Area-Ratio, and site coverage. Above-grade FAR

should range up to 1.5 and site coverage should range from 40-50%. Proposed building height should be no more than 4 storeys, although sensitive design of more storeys may be considered in consultation with SPPI and the University Architect. Open dialogue is recommended in the early pre-design/ scope confirmation phase of the design project.

- .3 The building should be architecturally responsive to the site and to the pedestrian scale of this environment.
- .4 Consideration should be given to a base with stepped-back upper floors, to control scale, massing, aesthetics, and light penetration to surrounding sites and to establish a comfortable pedestrian scale and microclimate along 89 Avenue.
- .5 All entrances should be clearly visible and ground floor development should create a pedestrian-scaled environment, promoting gathering, social interaction and transparency that articulates and responds to Celebration Plaza, SUB, and North Campus Quad.
- .6 The facility must reflect the sense that there are no 'front' or 'back' facades to it. All sides of the facility are significant to the Campus.
- .7 Any new development must not encroach upon the area south of the existing south elevation. The building should not project into the established rectangular perimeter of the open space defined by the Quad. Sensitive design that encroaches into the North Campus Quad may be considered in consultation with and at the discretion of SPPI and the University Architect.
- .8 The building should provide an interior link between SUB and Civil/ Electrical Engineering. This pedway connection should be architecturally designed to create

a gateway between Celebration Plaza or 89 Avenue, and the North Campus Quad. The pedway should incorporate the design guidelines and programming opportunities identified in Section 4.2.8 – Interior Pedestrian Pathways.

.9 Use is discretionary; however, the site should be used for student-accessed services or for academic use.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
 - 4.1.3 North Campus Quad District
 - 4.1.4 East Academic District
 - 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.3 89 Avenue
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.2 Primary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines

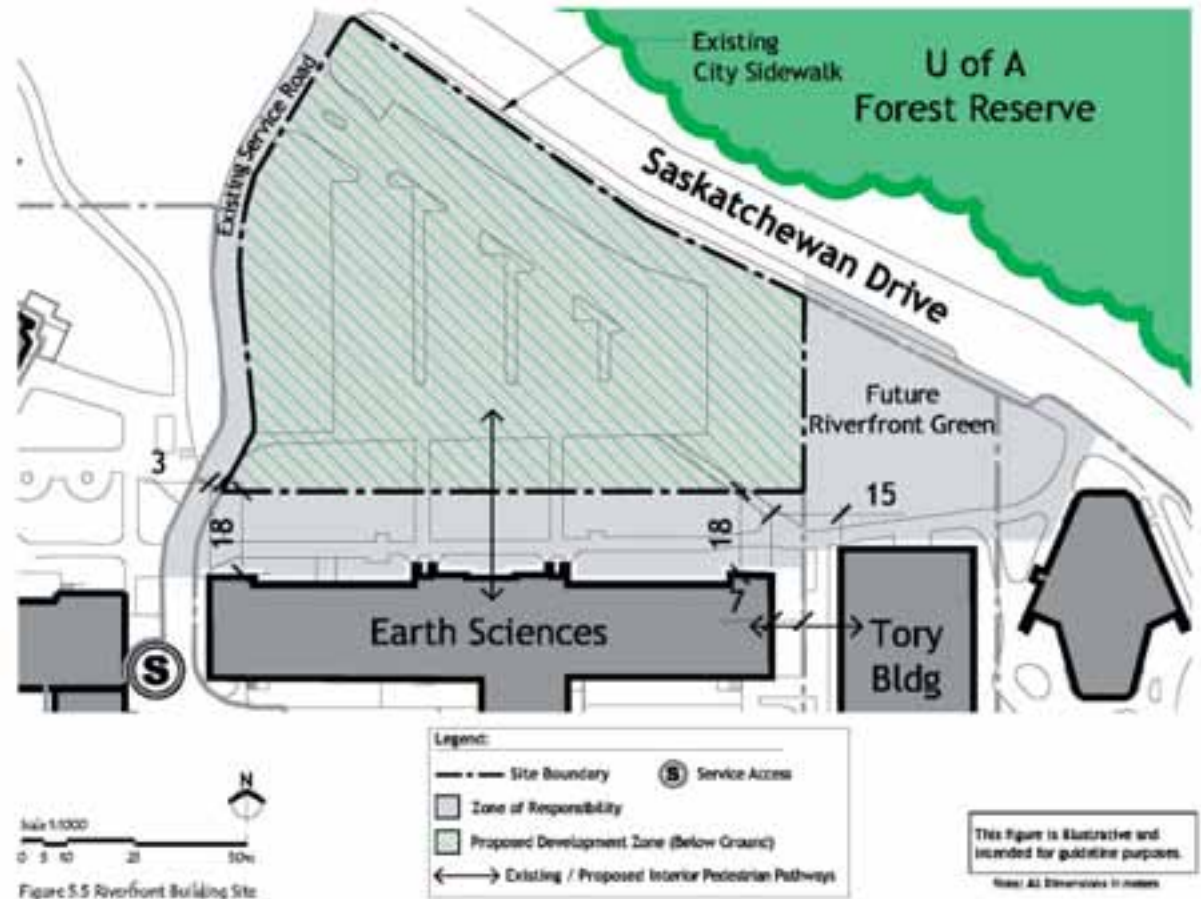
5.5 Riverfront Site

Refer to Figure 5.5.

Consideration should be given to development of this site as an underground facility, so that views to the Earth Sciences Building are not obscured.

Site Constraints

- .1 Access to this site is excellent. Service access should be limited to the service roadway to the west. Conversely, consideration should be given to its servicing via either Earth Sciences Building (ESB) or Biological Sciences building.
- .2 This site is located on Saskatchewan Drive, and thus affords views to and views from the river valley. It harbours significant mature trees that should be protected and nurtured.
- .3 Development of this site poses a conflict with views to Earth Sciences Building, whose redevelopment has created a signature landmark on North Campus. As a result, building development on this site should be limited to an underground facility.
- .4 The allée of mature trees along the face of ESB must be preserved.
- .5 One of the major north-south walkways of the North Campus abuts the westerly edge of the site, and part of the Heritage Walk abuts its edge along Saskatchewan Drive. Sufficient distance should be maintained to the walkways to allow full potential for sunlight at all seasons, landscaped verges, space that does not feel confined, and some views from the pathway to nearby and some distant facilities. The pathway should engender senses of continuity, anticipation, and integrity, without further encroachment or constraint from facilities.



- .6 The site is currently occupied by parking. As one of the few lots servicing the northerly edge of Campus, careful consideration must be given to its relocation or loss. The Travel Demand Management Study should be referenced for information.

Site Opportunities

- .1 Consideration should be given to the potential to create a central servicing node for those buildings connected by the westerly service road, thereby reducing the conflict between vehicles and pedestrians in this area of Campus. Any development on this site should be linked,

- underground to the service node, probably through Earth Sciences or Biological Sciences.
- .2 The Saskatchewan Drive pedestrian interface should be enhanced to improve safety and the pedestrian experience. Connections to the river valley walk should be created formally at the major service access point west of the building.
- .3 Internal connections should be created, to further the indoor network of linkages throughout Campus facilities.
- .4 This portion of the Campus is limited in its study, gathering and food service locations. This facility should link, at least indirectly, with CCIS in which these activities may be serviced.

Site Specific Guidelines

- .1 Should development be permitted above grade, in consultation with and at the discretion of SPPI and the University Architect, development should respect the intents of the Long Range Development Plan, as pertains to Floor-Area-Ratio, and site coverage. Above-grade FAR should be limited to 1.0-1.5, and above-grade site coverage should be limited to 35-45%. Building height should not exceed 3 storeys. Underground depths and floors will be determined by geotechnical investigation, in a cost-effective manner, in consultation with SPPI and the University Architect. Open dialogue is recommended in the early pre-design/ scope confirmation phase of the design project.
- .2 The proposed site use is discretionary.

- .3 The building should be massed to reduce microclimatic impacts and to provide an appropriate scale and visual relationship between the building and district/ river valley features.
- .4 The footprint for the future building should be contained within the existing parking lots to reduce disturbance to existing mature trees.
- .5 The building should be integrated into the district, respecting and addressing the North Saskatchewan River Valley.
- .6 The building should be oriented and configured such that sightlines to Earth Sciences from Saskatchewan Drive are maintained.
- .7 Any development should address the creation of a formal Riverfront Green node.
- .8 Site and building development should be well designed and landscaped integrating with, and responding to, the river valley character. All entrances should be clearly visible. Streetscape additions (e.g. pathways, benches, lighting, etc.) should be incorporated to provide safe, secure, and accessible links into the Campus.
- .9 All redevelopment of the site should maintain the existing allée of Elm trees along Saskatchewan Drive.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.2 River Valley District
 - 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.2 Saskatchewan Drive
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines

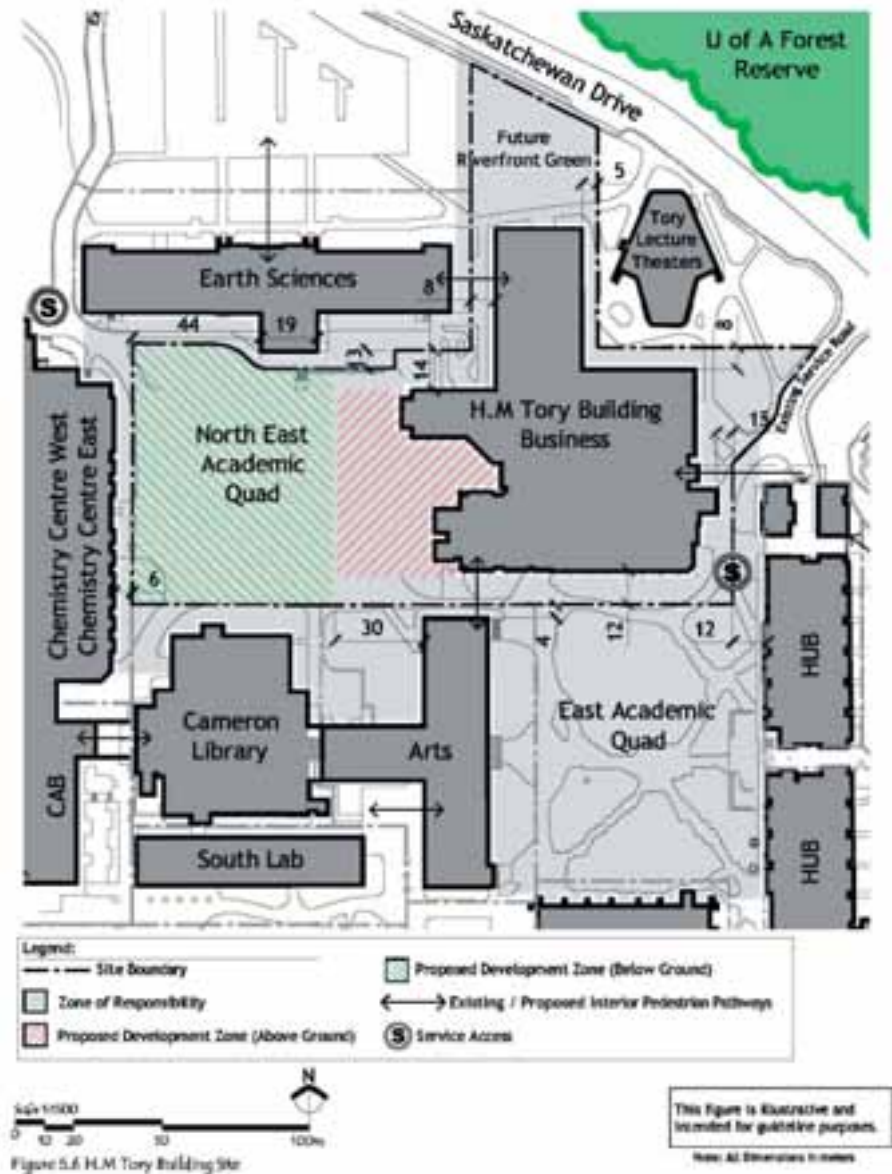
5.6 H. M. Tory Building /Business

Refer to Figure 5.6.

Neither Tory nor Business are anticipated to be demolished within the duration of the LRDP, however, there is the potential to create an addition to Business to its west.

Site Constraints

- .1 Service vehicular access to Tory/ Business should be limited to the existing servicing lane and bays on the east side of the building. The addition cannot be accessed directly for vehicular service, but should be connected directly internally, to utilize the existing service bays. This service zone services HUB, Tory, Business, and Tory Lecture Theatre.
- .2 This site is located along Saskatchewan Drive, and thus affords views to and views from the river valley. It harbours significant mature trees that should be protected and nurtured.
- .3 A secondary walkway running north-south from 89 Avenue along the face of HUB abuts this facility. As a portion of the Heritage Walk runs by the north, east and south faces of the building, sufficient distance should be maintained to the walkway to allow full potential for sunlight at all seasons, landscaped verges, space that does not feel confined, and some views from the pathway to nearby and some distant facilities. The pathway should engender senses of continuity, anticipation, and integrity, without further encroachment or constraint from facilities.
- .4 The site is bounded on its south by the East Academic Quad, which boundary should be protected and not encroached.



- .5 Current accesses to the building are multiple: the Tory Breezeway on the west offers direct entrance to the Galleria, and thence to both Tory and Business. An addition would be likely to block this entrance, and therefore a new entrance must provide direct linkage to the Galleria, from the northeast quad. The Business entrance to the south provides well-defined access from the East Academic Quad. The northern Tory entrance is easily found from Saskatchewan Drive, but is not friendly nor welcoming, nor emphasized as a point of entry. (Re)development should consider enhancement of entrances. Careful investigation of pedestrian movements will determine precise areas for redevelopment of entry, and new entry points.
- .6 The facility is located adjacent to Arts, which is a key historic facility on Campus, particularly the northerly façade with its bay window. Further encroachment to the south will not be permitted, so that the character of the Arts facades may remain visible.

Site Opportunities

- .1 The site borders on the proposed North East Academic Quad, allowing for its development as part of this facility expansion. A significant portion of the area should remain as structured open space, providing landscaped areas, courtyards, and activity node.
- .2 The Saskatchewan Drive pedestrian interface should be enhanced to improve safety, and the pedestrian experience. Connections to the river valley walk should be created formally at the major service access point east of the building.
- .3 Internal connections exist from the Galleria to HUB, providing access to social gathering, study, and food services, as well as to libraries and academic facilities.

Connection to Earth Sciences should be encouraged, to further the internal network of linkages across Campus.

Site Specific Guidelines

- .1 The proposed site for above-grade development should provide expansion space to the existing facilities, and not be a separate building. However, consideration may be given to a separate underground facility under the North East Academic Quad or as a combination of the two.
- .2 Further development should respect the intents of the Long Range Development Plan, as pertains to Floor-Area-Ratio and site coverage. Above-grade FAR should not be in excess of 2.0-2.5 and above-grade site coverage should occur in the order of 60-70%. Building height for the addition should be limited to 5 storeys, to reflect the scale of the current Business Building. Underground depths and floors will be determined by geotechnical investigation, in a cost-effective manner, in consultation with SPPI and the University Architect. Open dialogue is recommended in the early pre-design/ scope confirmation phase of the design project.
- .3 The proposed site use is discretionary.
- .4 Future addition should address the proposed development of the Riverfront Green node and the North east Quad.
- .5 The future addition should be fully integrated into Business and/or the Galleria/ Breezeway.
- .6 Future additions should be well designed and landscaped integrating with, and responding to, the North-East Academic Quad character. All entrances should be clearly visible. Streetscape additions (e.g. pathways, benches, lighting, etc.) should be incorporated to provide

- .7 safe, secure, and accessible links into the Campus. All redevelopment of the site should maintain the existing allée of Elm trees along Saskatchewan Drive.
- .8 Development should incorporate the creation/ improvement of all key pathways and nodes within the Zone of Responsibility, including a portion of the North Campus Quad.
- .9 The building and main entrance should be oriented to integrate and architecturally define the east edge of the proposed North-East Academic Quad, creating a dynamic, safe and comfortable pedestrian-scaled environment and forecourt area for gathering and socializing.
- .10 Presently, the ground floor of the building is open, allowing views, and light penetration, through the building at the galleria. The addition should be designed to maintain these existing conditions.
- .11 The setback between Earth Sciences and Tory/ Business defines the absolute minimum setback allowable between these buildings.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.2 River Valley District
 - 4.1.4 East Academic District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.2 Saskatchewan Drive
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways

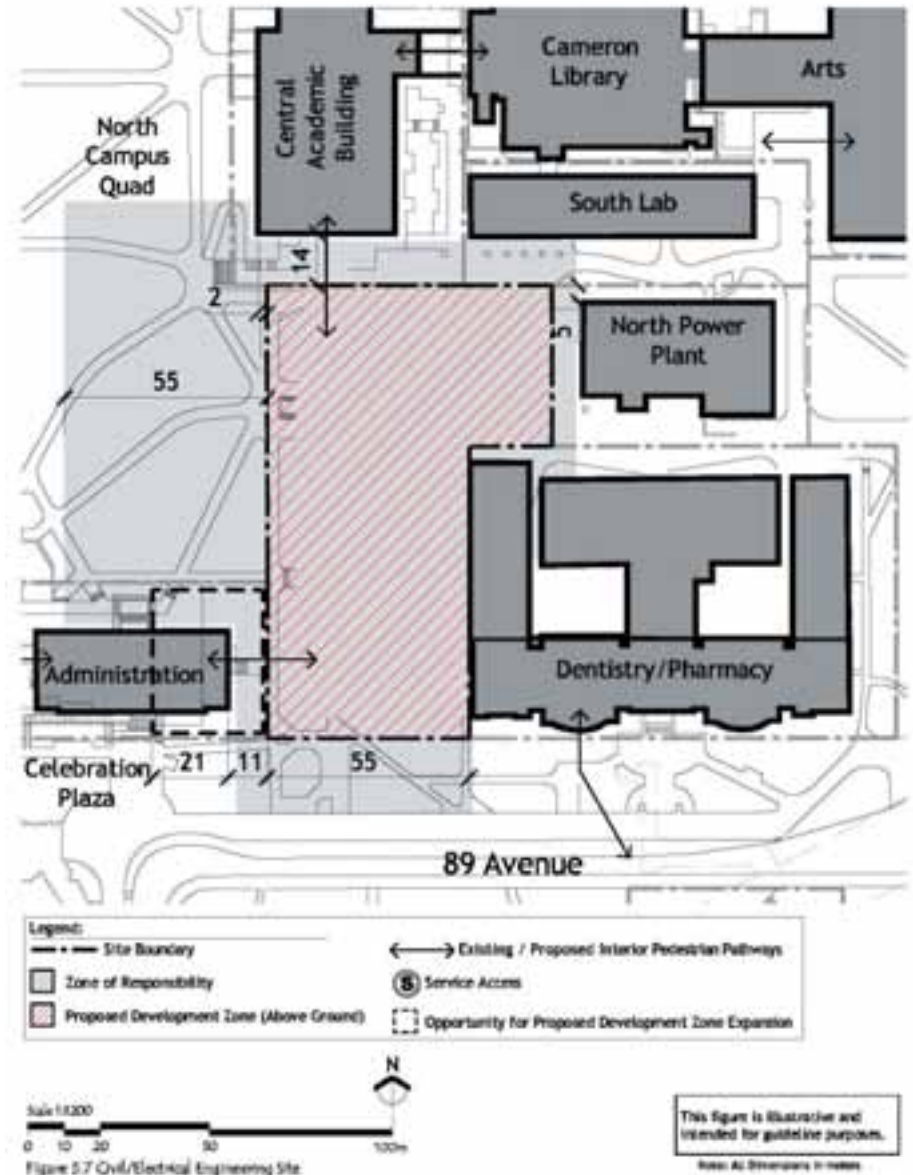
- 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered /
Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.4.5 Interior Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines

5.7 Civil/Electrical Engineering

Refer to Figure 5.7

Site Constraints

- .1 This site occupies an important location on Campus, along the major pedestrian and transit spine of 89 Avenue. The street and sidewalks have been improved, and provide the best surfaces and comprehensive planning of the North Campus. The site abuts the North Campus Quad to its west, and the Windsor-Rutherford promenade on its north. Intrusion into the 89 Avenue area, or into the North Campus quad, or into the promenade are not permitted. A sensitive urban plan may be considered by SPPI and the University Architect.
- .2 89 avenue will be retained for transit and pedestrian movement.
- .3 The site is bounded by Administration to the west, Dentistry-Pharmacy to the east, and CAB to the north. Administration is a proposed redevelopment site (review Section 5.4), portions of the Dentistry-Pharmacy site will accommodate redevelopment (review section 5.8), and CAB is likely to remain for the duration of the LRDP.
- .4 Cameron Library, the North Power Plant, and South Lab are in close proximity, and all facilities will remain. As North Power Plant and South Lab are some of the earliest structures on Campus, and slated to remain, new development must respect their integrity and aesthetic, while maintaining a comfortable setback from each. It is recommended that a setback in the order of 25-30 metres be maintained. External connections to these buildings must be maintained, and direct, with potential improvement to current way-finding.
- .5 The site has a poor service access through a combined pedestrian/ service lane to its east boundary, from 89 Avenue at Rutherford Library. There can be conflict



and congestion between the modes of transportation in the area between the North Power Plant and Dentistry-Pharmacy and CEB. Closing this area to pedestrians is not an option.

- .6 The site is surrounded on three sides and part of the fourth, by pedestrian movement and walkways. This movement must be respected and enhanced to create a comfortable, safe, aesthetic, and pedestrian-scaled environment.

Site Opportunities

- .1 CEB is linked to Central Academic Building to the north, across the promenade. Redevelopment offers the opportunity to improve and enhance this linkage, to create a visually aesthetic landmark on the Promenade, and to improve internal functionality.
- .2 Consideration should be given to the development of a central servicing point in facilities to the east, so that any new development of this site will be accessible through internal connections to service receiving and loading.
- .3 Direct connections into Dentistry-Pharmacy can be improved and clarified with redevelopment.
- .4 Landscaping elements could be incorporated along the west, north and south faces of a new facility, to improve the pedestrian experience and safety.

Site Specific Guidelines

- .1 The site may be expanded to include a portion of the current Administration site (see section 5.4), at the discretion of and in consultation with SPPI and the University Architect. Such expansion will include a corresponding expansion of the Zone of Responsibility.

- .2 The site should be developed to respect the intents of the Long Range Development Plan, as pertains to Floor-Area-Ratio and site coverage. Above-grade FAR may range up to 2.0-2.5 and site coverage should range from 60-70%. Proposed building height may range from 8-10 storeys, depending upon consistency with the FAR and site coverage. The sensitive design of more storeys may be considered in consultation with and at the discretion of SPPI and the University Architect. Open dialogue is recommended in the early pre-design/ scope confirmation phase of the design project.

- .3 The building should be architecturally responsive to the site and to the pedestrian scale of this environment.
- .4 Consideration should be given to a base with stepped-back upper floors, to control scale, massing, aesthetics, and light penetration to surrounding sites, and to establish a comfortable pedestrian scale and microclimate along 89 Avenue. The facility should not exceed the height of Dentistry-Pharmacy along 89 Avenue. Connection to Dentistry-Pharmacy may be considered at grade, as per the current configuration, as long as the aesthetics of Dentistry-Pharmacy are respected and development is compatible with it.
- .5 All entrances should be clearly visible and ground floor development should create a pedestrian-scaled environment, promoting gathering, social interaction and transparency that articulates and responds to the North Campus Quad. Entrances should be focussed to 89 Avenue and the North Campus Quad.

- .6 The facility must reflect the sense that there are no 'front' or 'back' facades to it. All sides of the facility are significant to the Campus.
- .7 The building footprint should not extend beyond the existing south face of Dentistry/ Pharmacy. The building

should not project into the established rectangular perimeter of the open space defined by the North Campus Quad. Sensitive design that encroaches into the North Campus Quad may be considered in consultation with and at the discretion of SPPI and the University Architect.

- .8 If a portion of the Administration site is permitted, the continuity of the westerly north-south pathway of the Quad must be maintained to 89 Avenue.
- .9 Use is discretionary.
- .10 The building's west façade should articulate pathway and node development and site lines into the North Campus Quad. This elevation should correspond with the character of the district, providing an aesthetic edge condition and a sense of occupancy, activity and gathering.
- .11 Building elevations that face onto the Windsor-Rutherford Promenade and Power Plant Precinct should relate to and enhance the proposed character of the area. Ground level development should support diverse mixtures of academic, retail, arts and entertainment, and support services. The style and texture of architectural materials and features should evoke a 'village' environment and create a year-round 'people place'. Canopies, arcades, awnings, etc. should be incorporated to create a comfortable and seasonal pedestrian environment that extends the outdoors indoors, and vice versa.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.3 North Campus Quad District
 - 4.1.4 East Academic District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.3 89 Avenue
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
- 4.3 Edges
- 4.4 Nodes
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.4.5 Interior Nodes
- 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks

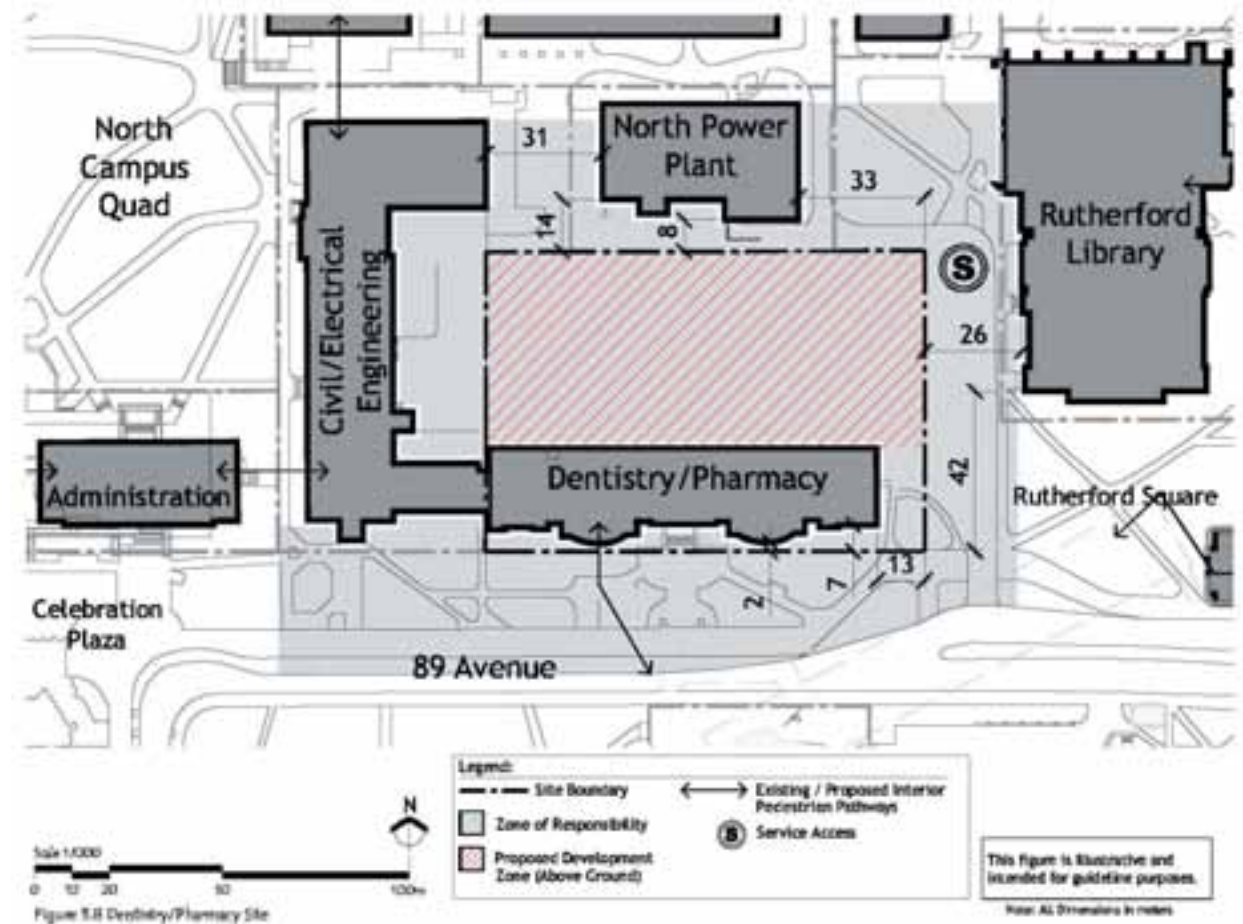
APPENDIX A Campus-Wide Guidelines

5.8 Dentistry/Pharmacy

Refer to Figure 5.8

Site Constraints

- .1 This site occupies an important location on Campus, along the major pedestrian and transit spine of 89 Avenue. The street and sidewalks have been improved, and provide the best surfaces and comprehensive planning of the North Campus. The facility has a developed activity node at its entrance on the south as part of the avenue development. Further, the staircase entry to LRT underground lies in the south “yard” of Dentistry/ Pharmacy. Intrusion into the 89 Avenue area is not permitted.
- .2 The south wing of the existing building marks one of the earliest facilities on North Campus. New development must respect its integrity and aesthetic. Connection of a new facility expansion to this wing must be handled with care and development must be consistent and compatible with the existing building.
- .3 89 avenue will be retained for transit and pedestrian movement.
- .4 The site is bounded by CEB to the west, Rutherford Library and Rutherford Square to the east, and by North Power Plant to the north. CEB is a proposed redevelopment site (review section 5.7). Rutherford Library and North Power Plant are likely to remain for the duration of the LRDP.
- .5 A portion of Rutherford Library, and North Power Plant, are in close proximity; as they are some of the earliest structures on Campus. New development must respect their integrity and aesthetic, while maintaining a comfortable setback from each. It is recommended that a setback in the order of 25-30 metres be maintained.
- .6 The site is accessed well for servicing, through a combined pedestrian/ service lane to its east boundary, from 89 Avenue. This service lane should be retained,



Sensitive design may permit the reduction of a setback, at the discretion of and in consultation with SPPI and the University Architect.

but should be redeveloped to enhance the pedestrian experience through this area. As a major route to Rutherford Library and to the LRT/ transit zone, it is well-used. There can be conflict and congestion between the modes of transportation in the area between the North Power Plant and Dentistry-Pharmacy. Closing this area to pedestrians is not an option.

- .7 The site is surrounded on three sides by pedestrian movement and walkways. This movement must be respected and enhanced to create a comfortable, safe, aesthetic, and pedestrian-scaled environment.

Site Opportunities

- .1 Although further investigation is required, it has been anticipated that the rear wings of the Dentistry/ Pharmacy will be demolished and redeveloped. There is potential to consider internal and external functions and movement within a broader context to include CEB. Improved building circulation and space definition can be planned within the context of the redevelopment.
- .2 This site could include consideration of the development of a central servicing point, providing service access through internal connections to CEB, Administration, CAB, the North Power Plant, Arts, and Rutherford Library.
- .3 Direct connections into CEB can be improved and clarified with redevelopment.
- .4 Provision has been made in the LRT Station for a direct link into Dentistry/ Pharmacy. Redevelopment should consider the completion of that underground link.
- .5 Landscaping elements could be incorporated along the east, north and south faces of a new facility to improve the pedestrian experience and safety.

Site Specific Guidelines

- .1 Building development must retain and incorporate the existing south wing of Dentistry/ Pharmacy and its relationship with 89 Avenue. The existing building should be included in the evaluation of potential heritage building sites to determine its long-term disposition and the extent

of potential selective demolition and redevelopment.

- .2 The site should be developed to respect the intents of the Long Range Development Plan, as pertains to Floor-Area-Ratio and site coverage. Above-grade FAR may range up to 1.5-2.0 and site coverage should maintain about 50-70%. Proposed building height may be limited to 7 storeys, or the height of Dentistry/ Pharmacy, especially the south wing, depending upon consistency with the FAR and site coverage. Sensitive design of more storeys may be considered in consultation with and at the discretion of SPPI and the University Architect. Open dialogue is recommended in the early pre-design/ scope confirmation phase of the design project.
- .3 The building should be architecturally responsive to the site, to the pedestrian scale of this environment, and to the historic value of the south wing.
- .4 Consideration should be given to a base with stepped-back upper floors, to control scale, massing, aesthetics, and light penetration to surrounding sites, and to establish a comfortable pedestrian scale and microclimate along 89 Avenue, and along the Windsor-Rutherford Promenade. The facility should not exceed the height of Dentistry-Pharmacy south wing along 89 Avenue. Connection to CEB may be considered at grade, as per the current configuration, as long as the aesthetics of Dentistry/ Pharmacy are respected and development is compatible with it.
- .5 Building elevations that face onto the Windsor-Rutherford Promenade, the Power Plant Precinct and Rutherford Square should relate to and enhance the proposed character of the area. Ground level development may consider diverse mixtures of academic, retail, arts and entertainment, and support services. The style and texture of architectural materials and features should

evoke a 'village' environment and create a year-round 'people place'. Canopies, arcades, awnings, etc. should be incorporated to create a comfortable and seasonal pedestrian environment that extends the outdoors indoors, and vice versa.

- .6 All entrances should be clearly visible and ground floor development should create a pedestrian-scaled environment, promoting gathering, social interaction and transparency wherever possible. Entrances should be focussed to 89 Avenue and toward the Windsor-Rutherford Promenade.
- .7 The facility must reflect the sense that there are no 'front' or 'back' facades to it. All sides of the facility are significant to the Campus.
- .8 The building footprint must be restricted to the north of the existing south wing.
- .9 Use is discretionary.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.4 East Academic District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.3 89 Avenue
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
- 4.3 Edges

- 4.4 Nodes
 - 4.4.1 University Station / HUB Gateway
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.4.5 Interior Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines

5.9 The HUB

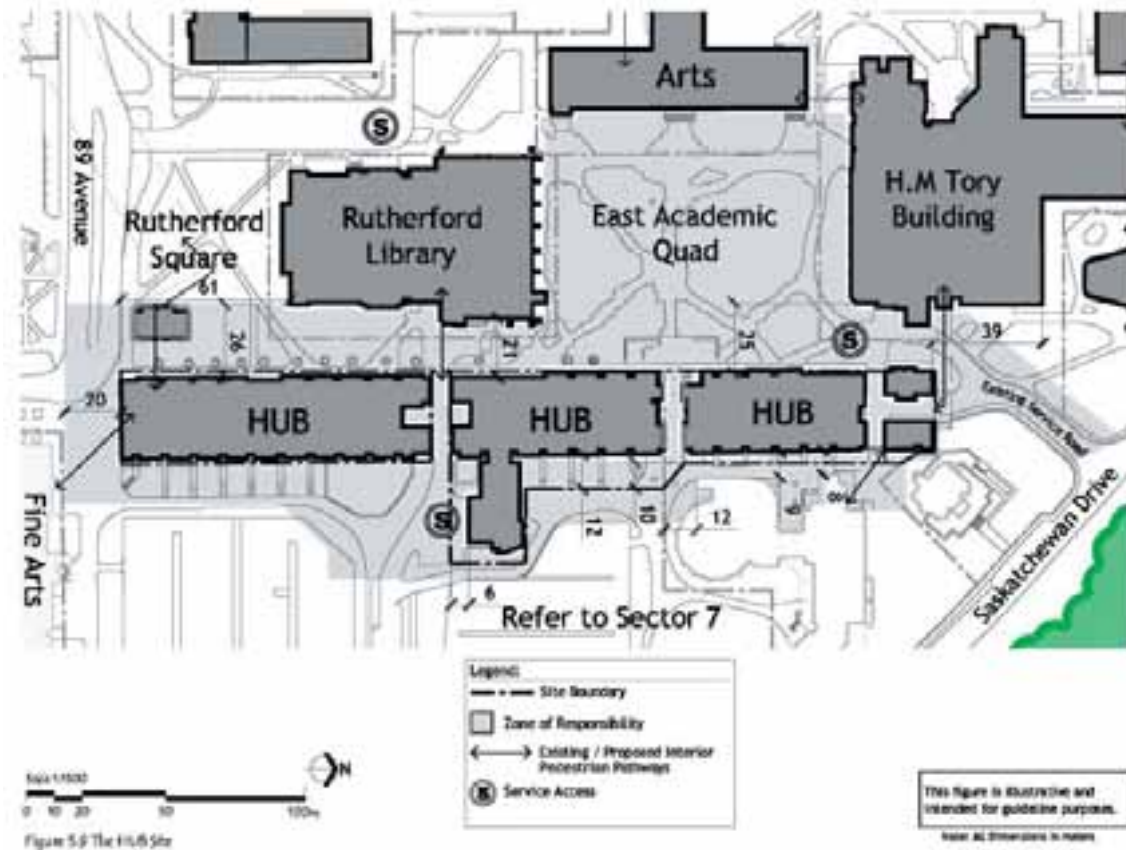
Refer to Figure 5.9.

HUB forms the boundary between two Sectors – 4 and 7. This site specific description speaks to the facilities and lands largely to the west of HUB. For greater detail on the easterly connections, please review Sector 7.

Site Constraints

The HUB should be included in the proposed heritage building evaluation. Key considerations in evaluating the HUB include its current Facility Condition Index (FCI), the comparative costs of bringing the existing facility to current code and physical condition in comparison to the replacement cost and its importance in the design community as an acclaimed and innovative work of Canadian Architecture. Refer to Sector 7 for redevelopment recommendations.

- .1 Vehicular access to the HUB site should be limited to the existing servicing lane and bays on the east side of the building.
- .2 This site is located along the original 112 Street right-of-way between Saskatchewan Drive and 89 Avenue.
- .3 A secondary walkway runs north-south from 89 Avenue along the face of HUB. The pathway should be improved to engender a sense of continuity, anticipation, and integrity, without further encroachment or constraint from facilities, as well as developing places of activity and gathering.
- .4 The site is bounded on its south by the 89 Avenue primary east-west pathway of Campus. This southern boundary should be respected in future development to allow for greater width, landscaping, comfort, and safety for the pedestrian.



- .5 Current accesses to the building are multiple: they occur at regular points along the east and west faces to service “street addresses” for current residence units. There is no strong sense of entry for the building - particularly for the Mall itself. Internal connections to LRT, Rutherford Library, Humanities, Business Galleria, and Fine Arts provide the clearest forms of entry. Way-finding into and within the facility is difficult. (Re)development should consider appropriate locations of entrances. Careful investigation of pedestrian movements will determine

precise areas for redevelopment of entries and the establishment of new entry points.

- .6 The facility is located adjacent to Arts and Rutherford Library, which are key historic facilities on Campus. Careful setbacks should continue to be observed to these facilities, and the East Academic Quad edge should be respected and enhanced.

Site Opportunities

- .1 The site borders on the proposed East Academic Quad, allowing for its improvement as part of this facility redevelopment. A significant portion of the area should remain as structured open space, providing landscaped areas, courtyards, and activity nodes.
- .2 The Saskatchewan drive pedestrian interface should be enhanced to improve safety and the pedestrian experience. Connections to the river valley walk should be created formally at the major service access point north of the building.
- .3 Internal connections exist from many buildings to HUB, providing access to social gathering, study, and food services, as well as to libraries and other academic facilities, through this site. Redevelopment should continue to provide the linkages to these facilities and to the new facilities planned east of the site's location.
- .4 The current access at the south end of the building up to the Fine Arts pedway forms a barrier to travel from east to west of the HUB. Redevelopment should consider the removal of this barrier, and the re-creation of an entry to HUB that complements both the 89 Avenue walkway, HUB, and the experience of entry to HUB.

Site Specific Guidelines

- .1 The site may be developed as one or several facilities. Development should respect the intents of the Long Range Development Plan, as pertains to Floor-Area-Ratio and site coverage. FAR and site coverage should be determined in consultation with SPPI and the University Architect. Open dialogue is recommended in the early pre-design/ scope confirmation phase of the design project.
- .2 The proposed site use is discretionary.
- .3 Main entry should be prominent and enhanced from current configurations. Pedestrian movements should be studied to determine appropriate entrance locations. The continuing width and character of 89 Avenue should be respected, and the south façade should not infringe upon this width, preferably as defined by Dentistry-Pharmacy. A clear passage past the development should be created to allow for uninterrupted flow into the academic areas east of HUB and Fine Arts.
- .4 Clear passage should be created through, between, or under the development from the East Academic Quad to development east of the HUB site.
- .5 Space should be created at the north end of the site to augment the drop-off facilities by Business and Tory.
- .6 A node should be created at the south face of the development extending to 89 Avenue, the LRT station, and Fine Arts. Clear transition should occur into Rutherford Square, creating differing activity spaces and experiences.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.2 River Valley District
 - 4.1.4 East Academic District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.2 Saskatchewan Drive
 - 4.2.1.3 89 Avenue
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.1 University Station / HUB Gateway
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.4.5 Interior Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks

APPENDIX A Campus-Wide Guidelines

5.10 RCMS

Refer to Figure 5.10.

Site Constraints

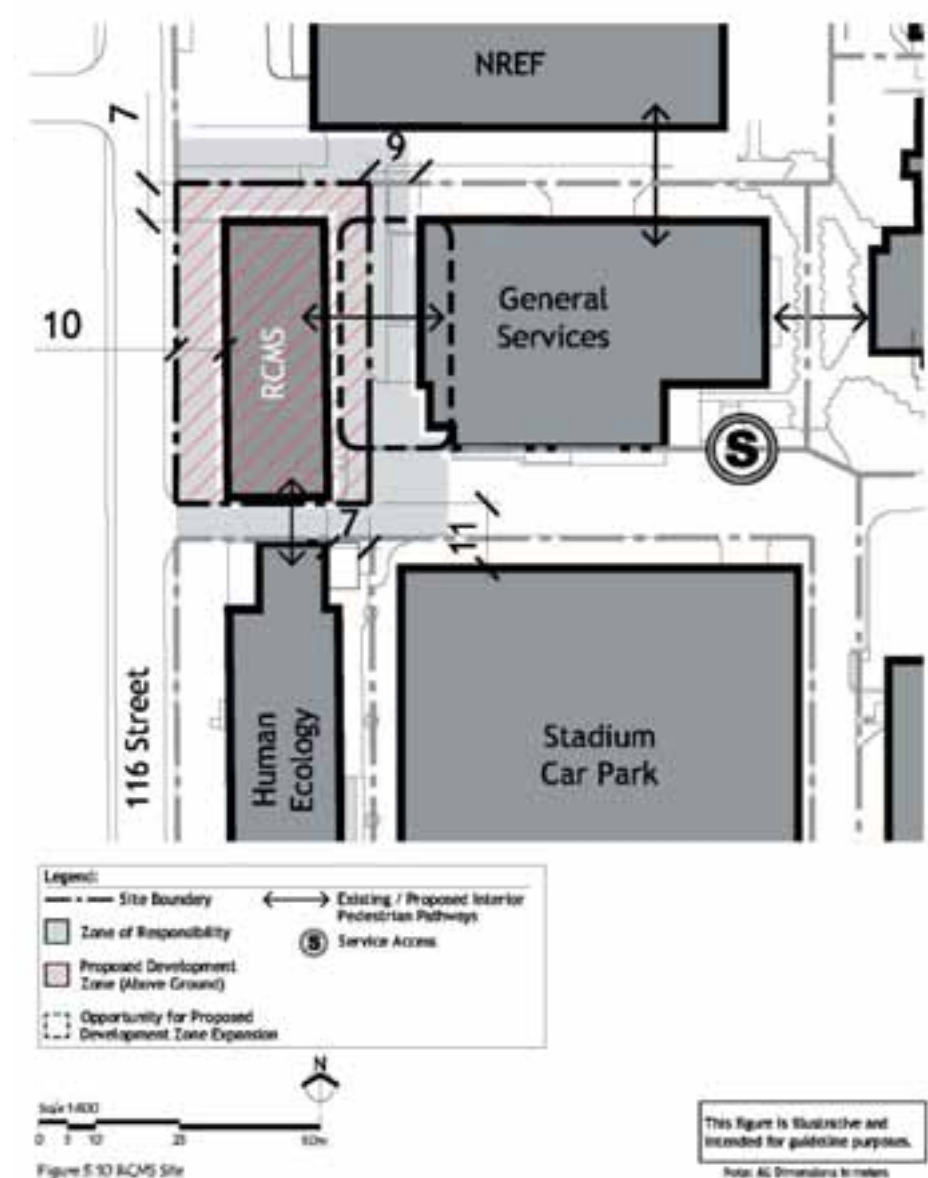
- .1 This site is located along 116 Street, adjacent to a residential neighbourhood. Development scale should respect the character and nature of the neighbourhood.
- .2 Servicing is excellent in this location, with access along the major service roadway loop (to the site's south) by GSB and Stadium Carpark. Servicing may be connected directly at the facility at its east side, or preferably through a single service point created on the "loop", to serve SUB, Ag-Forestry, GSB, Human Ecology, and the RCMS site.
- .3 The current building is small and entry is difficult to find. The dichotomy of a street access and a Campus access make it hard to determine the best location for formal entry. Both aspects must be considered when planning the site.
- .4 The site is located very close to General Services. The site will allow for limited development, while respecting an appropriate setback to GSB. As a standalone, the current distance/ setback to GSB will be considered the minimum allowable.

Site Opportunities

- .1 A new facility at this location will allow for a pedway connection to be constructed to Human Ecology, and to GSB, thus furthering the network of linkages on Campus.

Site Specific Guidelines

- .1 Preference is given to development of expansion space to GSB. Development of a 'stand-alone' building may be considered in consultation with and at the discretion of



SPPI and the University Architect.

- .2 Development should respect the intents of the Long Range Development Plan, as pertains to Floor-Area-Ratio and site coverage. Above-grade FAR may develop up to 1.5 and above-grade site coverage may develop to 50%. Building height may match GSB as an expansion. In a stand-alone facility, height should be restricted to 3 storeys, to match Human Ecology and respect the neighbourhood.
- .3 The proposed site use is discretionary.
- .4 The building should be architecturally responsive to the site and to the pedestrian scale of this environment. Consideration should be given to a base, with subsequent upper floors set back, particularly from 116 Street, to control scale, massing, and light penetration to adjacent sites.
- .5 As expansion to GSB, the development should be fully integrated. Pedway connections should be created to Human Ecology, through GSB, to SUB and other facilities.
- .6 Building elevations and landscape development along 116 Street should be well designed, transitional to, and responding to, the district character. All entrances should be clearly visible. The main entrance should include a forecourt area for street level gathering and socializing.
- .7 Access/ egress from and onto 116 Street should be safe and provide clear sightlines.

The Zone of Responsibility includes the following Sector guideline requirements:

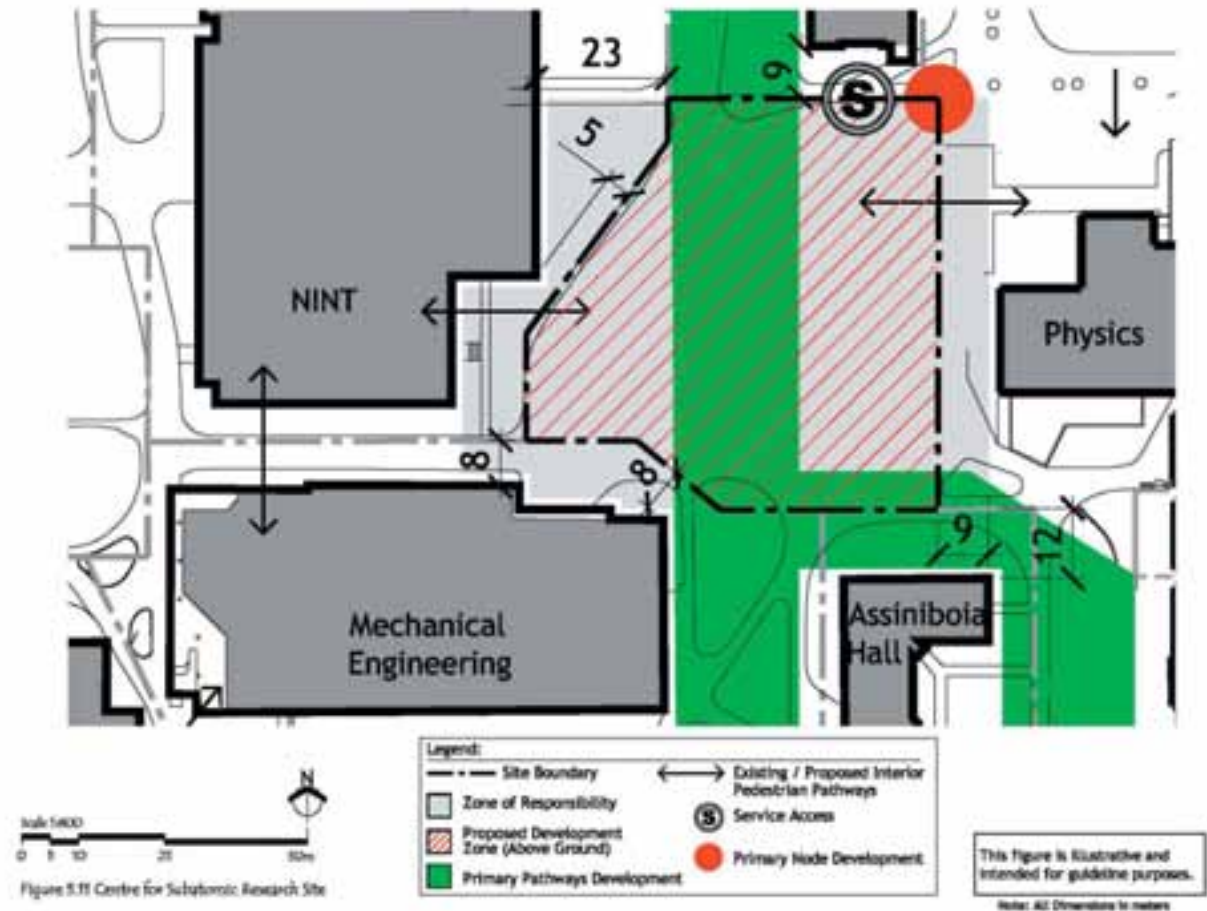
- 4.1 Districts
 - 4.1.1 West Academic District
 - 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.1 116 Street
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines

5.11 Centre for Subatomic Research

Refer to Figure 5.11

Site Constraints

- .1 This is a small but complex site, completely internal to the campus, enclosed on all sides by existing buildings. It is anticipated that within the 30 year period of this LRDP, only the Physics/CCIS site is likely to be redeveloped.
- .2 This is a very small site in a very dense part of the campus. Should NINT and CCIS expand into this site, careful and considered design attention must be given to the spaces between buildings. Heights alone could affect the microclimate dramatically, creating an unpleasant, dim, and cold pedestrian environment through the space.
- .3 There are limited potential access points for service vehicles. The site can be accessed by internal roadway only from the north side of the site, to Saskatchewan Drive.
- .4 Assiniboia Hall abuts the south boundary of the site. As one of the earliest structures on campus, and slated to remain, new development must respect its integrity and aesthetic, while maintaining a comfortable setback from it. It is recommended that a setback in the order of 25-30 metres be used.
- .5 The major north-south walkway of the north campus abuts the easterly edge of the site. Slated as part of the heritage, and alumni walks, sufficient distance should be maintained to the walkway to allow full potential for sunlight at all seasons, landscaped verges, space that does not feel confined, and some views from the pathway to nearby and some distant facilities. The pathway should engender senses of continuity, anticipation, and integrity, without further encroachment or constraint from facilities.



- .6 BioSciences abuts the north side of the site. Care must be taken to ensure its integrity is not disturbed.
- .7 NINT is located very close to the west side of the site, as will be CCIS to the east. Assiniboia Hall, Mechanical Engineering and BioSciences are also very close to the south and north respectively. It is not recommended that this site be developed for a stand-alone building. Should this be desirable, investigation should proceed in

consultation with SPPI and the University Architect.

- .8 Redevelopment must preserve service access to Mechanical Engineering and Assiniboia Hall until servicing issues are resolved differently.
- .9 This area of the north campus provides no open space. Consideration should be given to provision of an open space that is tied to the Quad, and Engineering Quad.

Site Opportunities:

- .1 Potentially, a single point service node could be developed on the north side of the site to accommodate several buildings, including Bio-Sciences, NINT, CCIS, Mechanical Engineering, Assiniboia Hall. Conversely, there may be the opportunity to utilize the existing service bay in Biological Sciences to service these sites as well.
- .2 This development offers the opportunity to connect Science facilities and Engineering facilities directly, which will benefit the overall connectivity of the north campus. Specifically, this site should consider connections to BioSciences, NINT, CCIS, and Mechanical Engineering.
- .3 This site provides opportunity for expansion of the contiguous open space network through to Saskatchewan Drive. Further study should be undertaken.

Site Specific Guidelines:

- .1 It is recommended that only portions of the site be redeveloped as indicated in the accompanying Figure 5.11, as modest expansion potentials for both NINT and CCIS. In this way, the continuity and quality of the environment of the pedestrian link is protected, particularly as part of the Heritage Walk. Nevertheless, careful design must enhance the pedestrian open space and corridor through this area, as per the qualities noted in .8 below.
- .2 The site should be developed to respect the intents of the Long Range Development Plan, as pertains to Floor-Area-Ratio, and site coverage. If used for expansion to either NINT or CCIS, FAR and site coverage should not exceed the limits for these sites. Proposed building height should be no more than 5 storeys, although sensitive design of more storeys may be considered by SPPI and the University Architect. Open dialogue is recommended

in the early pre-design/scope confirmation phase of the design project.

- .3 The redevelopment should be architecturally responsive to the sector, to the pedestrian scale of this environment. Consideration should be given to a base, with subsequent upper floors set back to control scale, massing, and light penetration to adjacent facilities and lands.
- .4 All entrances should be clearly visible. Careful investigation of pedestrian movements will be needed to determine precise locations for entries, some of which may be duplicated by internal connections. Careful review of pedestrian movements to entrances of adjacent facilities, and of pedestrian movements through the area must also be considered and enhanced.
- .5 The building should articulate and address the importance of Assiniboia Hall with a sensitive edge and architectural landmark qualities.
- .6 Development should incorporate the development of all key pathways and nodes within the Zone of Responsibility. See further discussion in the campus-wide guidelines.
- .7 The facility must reflect the sense that there are no 'front' or 'back' facades to it. All sides of the facility are significant to the campus.
- .8 The primary (westerly) pathway of the Quad must continue past the redevelopment. This pathway connection must be transparent, clear to follow, direct, and directly connected northward to Saskatchewan Drive. Sufficient distance should be maintained to the walkway to allow full potential for sunlight at all seasons, landscaped verges, space that does not feel confined, and some views from the pathway to nearby and some

distant facilities. The pathway should engender senses of continuity, anticipation, and integrity, without further encroachment or constraint from facilities.

- .9 Southerly development should not extend further south than the face of NINT. The southerly pathway should widen into a node as it accesses the Heritage trail.
- .10 Easterly development should not extend further east than the westerly face of BioSciences. Westerly development should not extend further west than the easterly face of Mechanical Engineering. Northerly development should not extend further north than the northerly face of CCIS (II), creating a tertiary node at the entry into the BioSciences courtyard.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
 - 4.1.2 River Valley District
 - 4.1.3 North Campus Quad District
 - 4.2 Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.4 Nodes
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines

5.12 Cameron Library (Galleria Addition)

Refer to Figure 5.12.

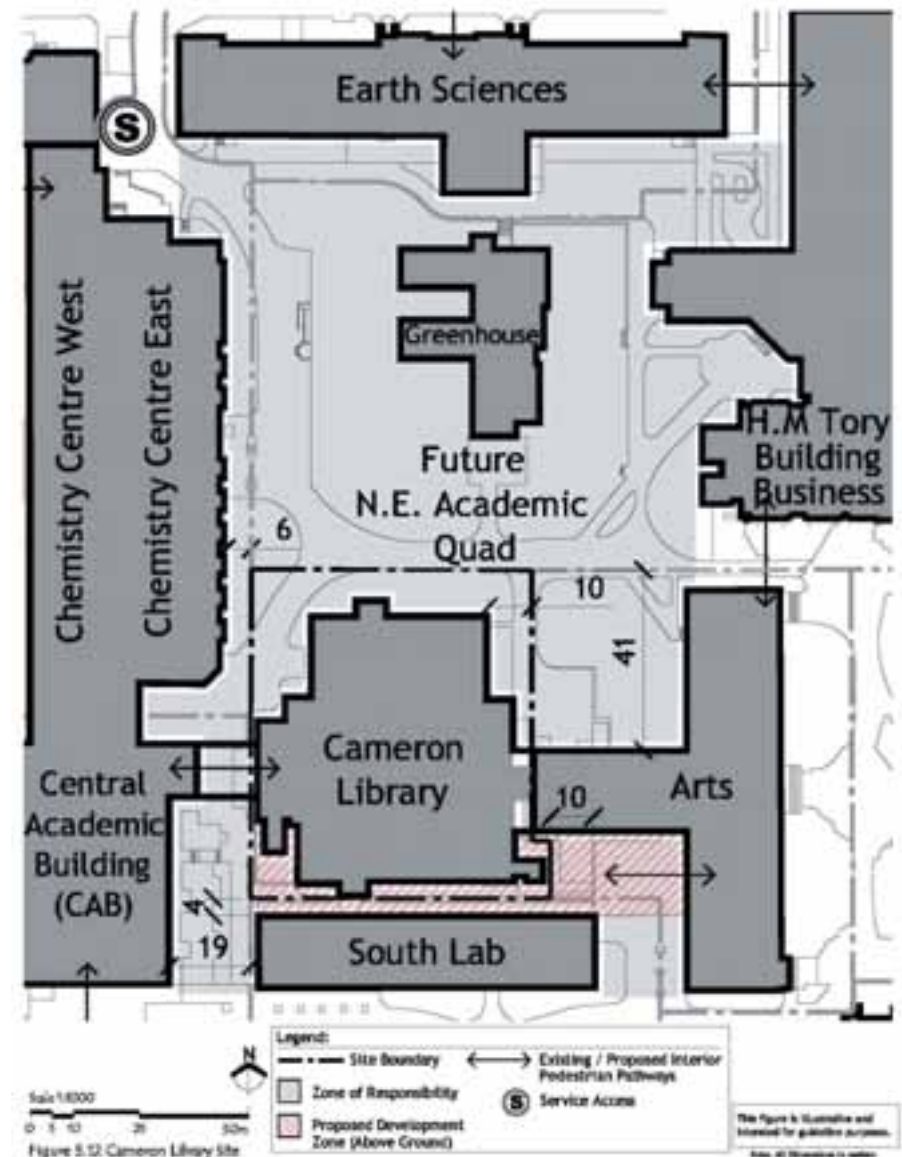
These guidelines review the potential to expand the Library to the south linking to South Lab and Arts

Site Constraints

1. This site is completely internal to the Campus, with limited vehicular access and a very high pedestrian volume by it. The southerly walkway (Windsor-Rutherford Promenade) nearby is a significant outdoor connection for the Campus, and should be developed for greater aesthetic, comfort, safety, and flexibility, as well as to handle the volumes.
2. To the north is the service access road to a service bay on the east side.
3. To the west, the site is bounded by CAB, which is located very close, with an overgrown depressed formal plaza/ garden space, allowing space only for a pathway to Cameron Library. There is no facility development potential in this direction.
4. Arts (Convocation Hall) abuts Cameron Library to the east, forming a small service courtyard to the north, and small parking area to the south. A small walkway separates these buildings.

Site Opportunities

1. To the south is South Lab, with an active, but unprepossessing walkway between the two. The area is poorly lit, of limited pedestrian scale. While this duplicates the Windsor-Rutherford Promenade on the south side of South Lab, it does provide opportunity to capture the space as an internal expansion for both South Lab and the Library.



- .2 The area north of Cameron is proposed to be developed into the North-East Academic Quad, providing landscaped green space, courtyards, and activity space for social gathering, wellness, and spontaneous activity. Cameron should not be expanded into this area.

Site Specific Guidelines

- .1 The site should be developed to respect the intents of the Long Range Development Plan, as pertains to Floor-Area-Ratio and site coverage. FAR and site coverage should be consistent with those for South Lab and Cameron Library. Proposed building height should be no more than 5 storeys, or the height of Cameron Library, although sensitive design of more storeys may be considered by SPPI and the University Architect. Open dialogue is recommended in the early pre-design/ scope confirmation phase of the design project.
- .2 Vehicular access should be limited to the loading area, and short term parking should be eliminated, unless no alternatives can be found for servicing CAB.
- .3 Use is discretionary, although preference will be given to augmenting services in Cameron Library, or in South Lab, like study space, student gathering space, or stacks.
- .4 Natural Light should be introduced into this space at the ground level.
- .5 Internal pathways should allow for use, on some levels, outside of Library security. Internal connections should occur between South Lab, Arts (if feasible) and Cameron Library.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.3 North Campus Quad District
 - 4.1.4 East Academic District
 - 4.2 Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.4 Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines

5.13 South Lab (Addition)

Refer to Figure 5.13.

These guidelines review the potential to expand the Library to the south linking to South Lab.

Site Constraints

- .1 This site is completely internal to the Campus, with limited vehicular access, and a very high pedestrian volume by it. The southerly walkway (Windsor-Rutherford Promenade) is a significant outdoor connection for the Campus, and should be developed for greater aesthetic, comfort, safety, and flexibility, as well as to handle the volumes.
- .2 To the west, the site is bounded by CAB, which is located very close, with an overgrown depressed formal plaza/ garden space, allowing space only for a pathway to Cameron Library. There is no facility development potential in this direction.
- .3 Arts (Convocation Hall) abuts South Lab to the east, forming a small service courtyard and small parking area. South Lab does not contain actual service facilities. The existing public doors are used for service access.
- .4 As one of the earliest structures on Campus, and slated to remain, new development must respect its integrity and aesthetic. While it is recommended generally that a setback in the order of 25-30 metres be used to these facilities. The current dimension to North Power Plant is only 18 metres for the Promenade. This cannot be narrowed, nor can the separation to Arts.

Site Opportunities

- .1 To the north is Cameron Library, with an active, but unprepossessing walkway between the two. The area

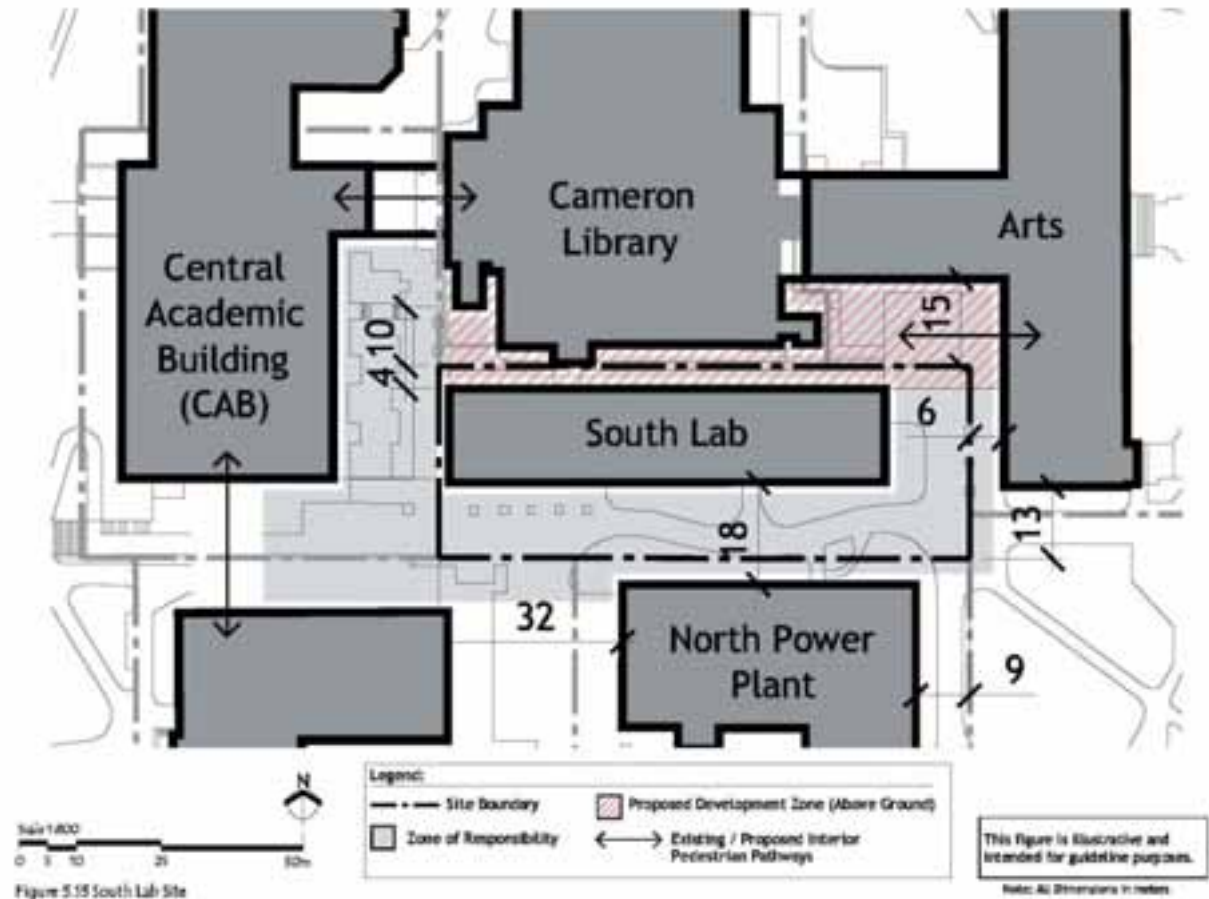


Figure 5.13 South Lab Site

is poorly lit, of limited pedestrian scale. While this duplicates the Windsor-Rutherford Promenade on the south side, it does provide opportunity to capture the space as an internal expansion for both South Lab and the Library.

- .2 Opportunity then develops to link Cameron Library, South Lab and Arts (if feasible) internally.

Site Specific Guidelines

- .1 The expansion area should be developed to respect the intents of the Long Range Development Plan, as pertains

to Floor-Area-Ratio and site coverage. FAR and site coverage should be consistent with those for South Lab and Cameron Library. Proposed building height should be no more than 5 storeys, or the height of Cameron Library, although sensitive design of more storeys may be considered by SPPI and the University Architect. Open dialogue is recommended in the early pre-design/ scope confirmation phase of the design project.

- .2 Vehicular access should be limited to the east end of the building, until a centralized servicing area can be developed and linked to South Lab's expansion.
- .3 Use is discretionary, although preference will be given to augmenting services in Cameron Library, or in South Lab, like study space, student gathering space, or stacks.
- .4 Natural Light should be introduced into this expansion space, at the ground level.
- .5 Internal pathways should allow for use, on some levels, outside of Library security. Internal connections should occur between South Lab, Arts (if feasible) and Cameron Library.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.3 North Campus Quad District
 - 4.1.4 East Academic District
- 4.2 Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
- 4.4 Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
- 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks

APPENDIX A Campus-Wide Guidelines

The following existing facilities – 5.14 to 5.35 – have a life expectancy of greater than 30 years. These facilities remain in relatively good physical condition, are likely to be able to continue to accommodate the functional needs of the University, and therefore are unlikely to be redeveloped wholly. Several are of historical interest and may become heritage sites on North Campus.

5.14 Human Ecology

Refer to Figure 5.14.

Site Constraints

1. This site is on the edge of North Campus, along 116 Street. It falls within the transitional zone from residential neighbourhood to University. As a result, development on this site should remain at a low scale, and no closer to the street.
2. The site is limited on north and south sides by major University access points for parking, service vehicles, bicycles, and pedestrians. Refer to the Sector guidelines for more information on their improvement and enhancement. Pedestrian access on the northerly side should be provided with separation from vehicles.
3. The east building face is very close to Stadium Carpark and should be no closer. This pathway is important to access to the existing building and should be retained, and wherever possible, enhanced. Consideration could be given to its enclosure, however, the open face to the Carpark is imperative to operation of its ventilation.

Site Opportunities

1. Loading is provided at the northeast corner of the site, along the service spine. In the future, there may be potential to create a single point of service access near GSB, that can link, through internal corridors to this building and others.
2. Internal linkages can be made to a future building site to the north.

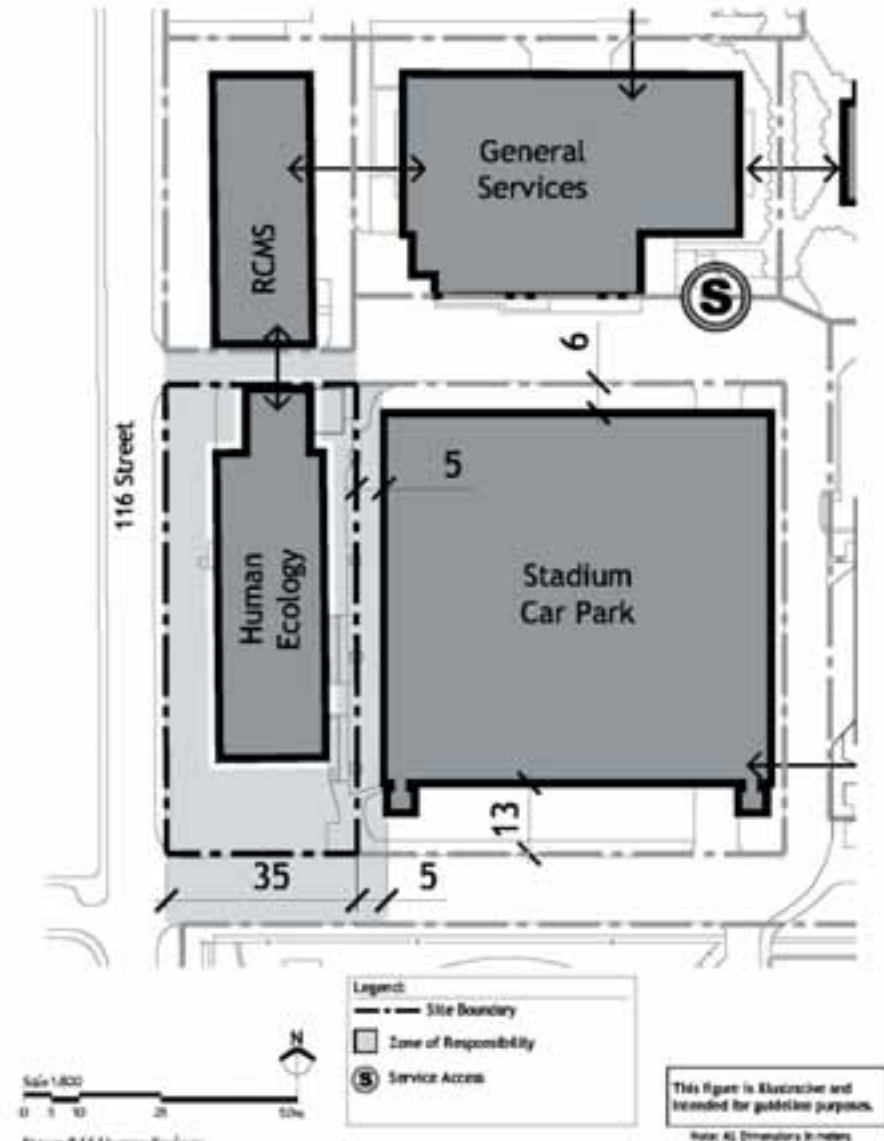


Figure 5.14 Human Ecology

Site Specific Guidelines

1. The FAR and site coverage for this site should remain at current levels, with an FAR of 1.2 (small site defined) and site coverage of 40%
2. Building height will continue to be limited to 3 storeys.
3. Building entry should be enhanced and more clearly focused through walkway and landscape treatments.
4. The site should respect and complement the guidelines for 116 Street and 89 Avenue corridors.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
 - 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.1 116 Street
 - 4.2.1.3 89 Avenue
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines

5.15 Windsor Car Park

Refer to Figure 5.15.

Site Constraints

1. This site is on the edge of North Campus, along 116 Street. It falls within the transitional zone from residential neighbourhood to University. As a result, development on this site should remain at a lower scale.
2. The south access to the car park shares access with the loading zone access to Chemical Materials Building. Both are imperative to the area's operations and cannot be compromised.
3. The northerly boundary of the site includes access to the car park, to the faculty club parking, and to the pedestrian/ limited vehicle access laneway by the Ring Houses and Faculty Club. This shared pathway should be retained. Enhancement is encouraged to improve vehicular awareness of pedestrian flows.

Site Opportunities

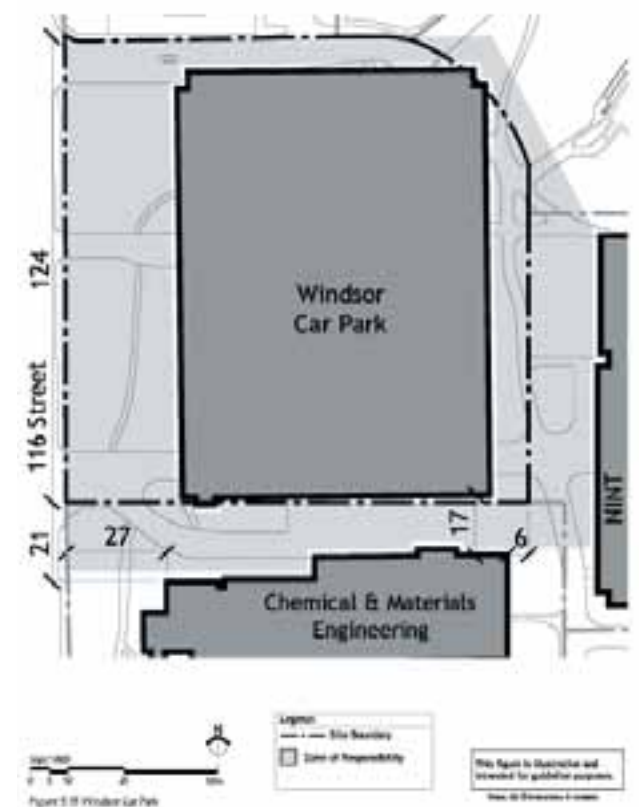
Site Specific Guidelines

1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 1.5 and site coverage of 62%.
2. No expansion of or on this site should be permitted. Site development has been maximized. Additional access/ egress at this point from/ to 116 Street will aggravate growing congestion in peak hours.
3. The site should respect and complement the guidelines for 116 Street and 89 Avenue corridors.
4. The site should respect and complement the major

pathway on the east side of the building.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
 - 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.1 116 Street
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.3 Edges
 - 4.4 Nodes
 - 4.5 Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.16 NINT Building

Refer to Figure 5.16.

Site Constraints

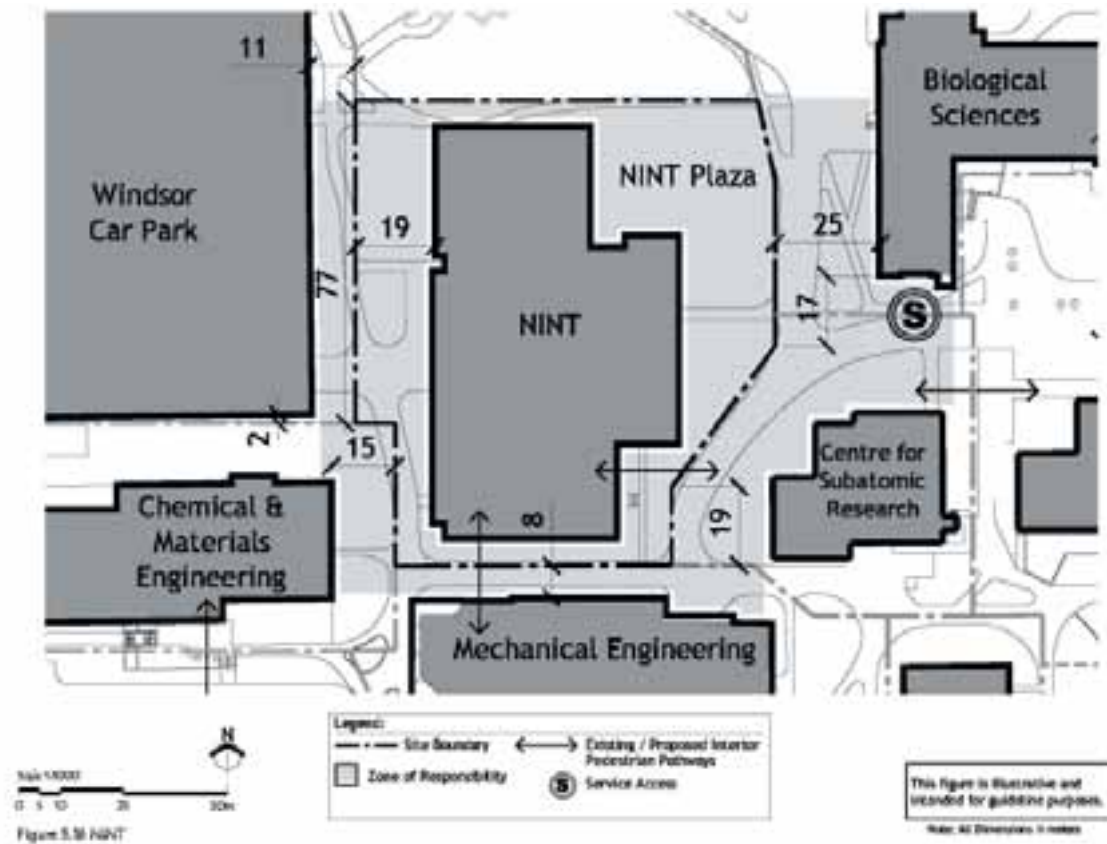
1. This site is completely internal to the Campus, with limited vehicular access and a high pedestrian volume by it on its west and east. The westerly pathway should be respected and complemented by any development of this site.
2. This site and building are as close to Mechanical Engineering to the south as can be permitted. The pathway at grade should be improved for pedestrian safety and comfort. Emergency vehicle access must be able to use this route.

Site Opportunities

1. Development of the plaza to the northeast provides an opportunity to transition into the heritage nature of the Ring Houses to the north and add to enhance the pedestrian experience toward the river valley to the north.

Site Specific Guidelines

1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 2.3 and site coverage of 46%, with a maximum height of 7 storeys.
2. Expansion of this site may occur only to the east, utilizing all or a portion of the Subatomic Research site (5.11), without compromising service access to Assiniboia Hall and Mechanical Engineering.
3. Expansion on this site should not be permitted. Site development has been maximized.



The Zone of Responsibility includes the following Sector guideline requirements:

| | | | |
|-------|-------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------|
| 4.1 | Districts | 4.2.7 | Existing Tertiary Pedestrian Pathways |
| 4.1.1 | West Academic District | 4.2.8 | Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors) |
| 4.2 | Pathways | 4.3 | Edges |
| 4.2.2 | Service Vehicle Pathways | 4.4 | Nodes |
| 4.2.3 | Pedestrian Pathways with Service Vehicle Access | 4.4.3 | Secondary Exterior Nodes |
| 4.2.4 | Existing and Proposed Drop-off Loops | 4.4.4 | Tertiary Nodes |
| 4.2.5 | Existing Primary Pedestrian Pathways | 4.5 | Landmarks |
| 4.2.6 | Existing Secondary Pedestrian Pathways | 4.5.2 | Opportunities for Landmarks |
| | | 4.5.3 | Tertiary Landmarks |

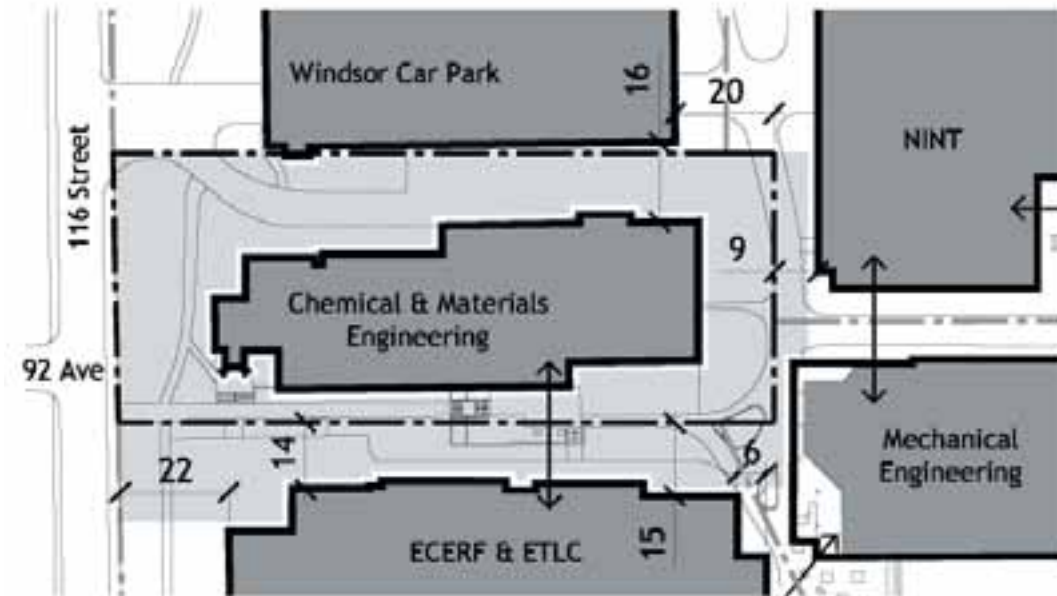
APPENDIX A Campus-Wide Guidelines

5.17 Chemical & Materials Engineering

Refer to Figure 5.17.

Site Constraints

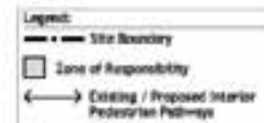
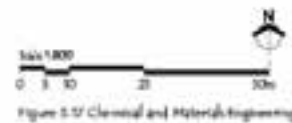
1. This complex site lies along 116 Street to the west, upon which it cannot encroach, and among newer buildings to its north, east and south. None of the sites in this district are likely to be redeveloped within the timeframe of the LRDP, thus setting significant constraints on building form, edge, scale, size, and aesthetic.
2. This site is on the edge of North Campus, along 116 Street. It falls within the transnational zone from residential neighbourhood to University. As a result, development on this site should remain at a lower scale.
3. The northerly loading zone access shares access with Windsor Carpark. Both are imperative to the area's operations and cannot be compromised.



Site Opportunities

Site Specific Guidelines

1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 2.3 and site coverage of 37%, with a maximum height comparable to the existing building height.
2. No expansion of or on this site should be permitted. Site development has been maximized.
3. The site should respect and complement the guidelines for 116 Street and for the pathway to the building's south side.



This figure is illustrative and intended for guideline purposes.
Note: All dimensions in meters.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.1 116 Street
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways

- 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines

5.18 ECERF/ETLC

Refer to Figure 5.18.

Site Constraints

1. This complex site lies along 116 Street to the west, upon which it cannot encroach, and among newer buildings to its north, east and south. None of the sites in this district are likely to be redeveloped within the timeframe of the LRDP, thus setting significant constraints on building form, edge, scale, size, and aesthetic.

Site Opportunities

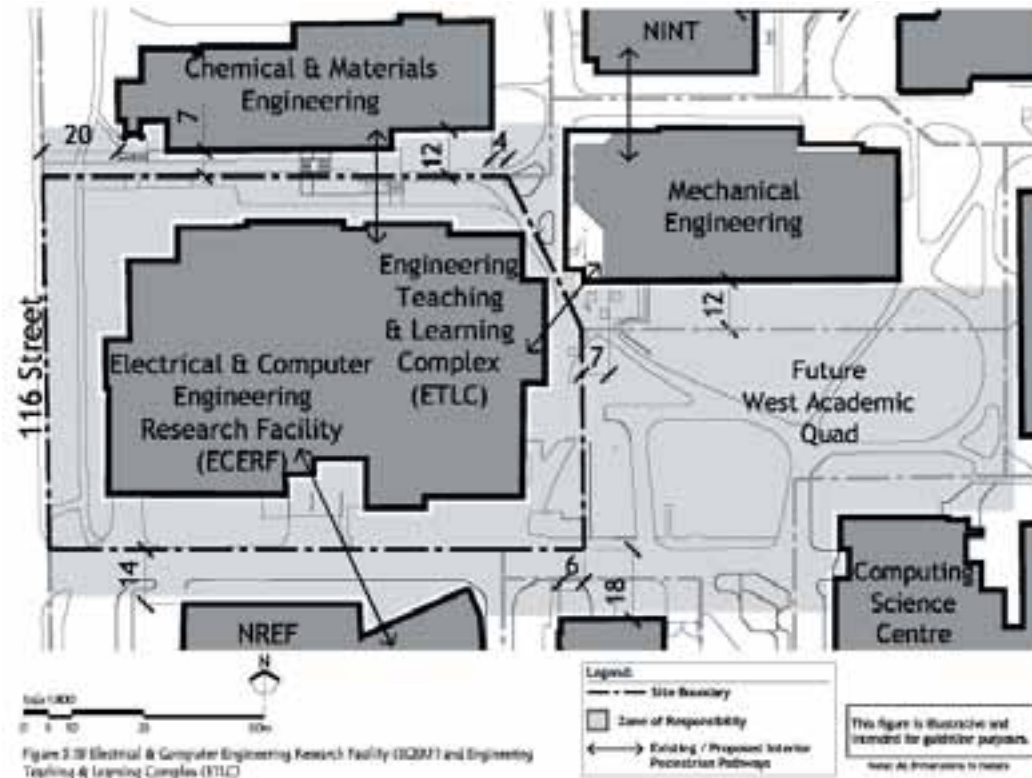
Site Specific Guidelines

1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 2.6 and site coverage of 55%, with a maximum height of 7 storeys.
2. No expansion of this site should be permitted. Site development has been maximized.
3. The West Academic Quad should be developed as activity space for this district.
4. The site should respect and complement the guidelines for 116 Street and for the pathway to the building's south side.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.1 116 Street
 - 4.2.2 Service Vehicle Pathways

- 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.19 NREF

Refer to Figure 5.19.

Site Constraints

1. This complex site lies along 116 Street to the west, upon which it cannot encroach, and among newer buildings to its north, east and south. None of the sites in this district are likely to be redeveloped within the timeframe of the LRDP, thus setting significant constraints on building form, edge, scale, size, and aesthetic.
2. The pathway to the east is a combined service/ pedestrian route that should be retained and enhanced.

Site Opportunities

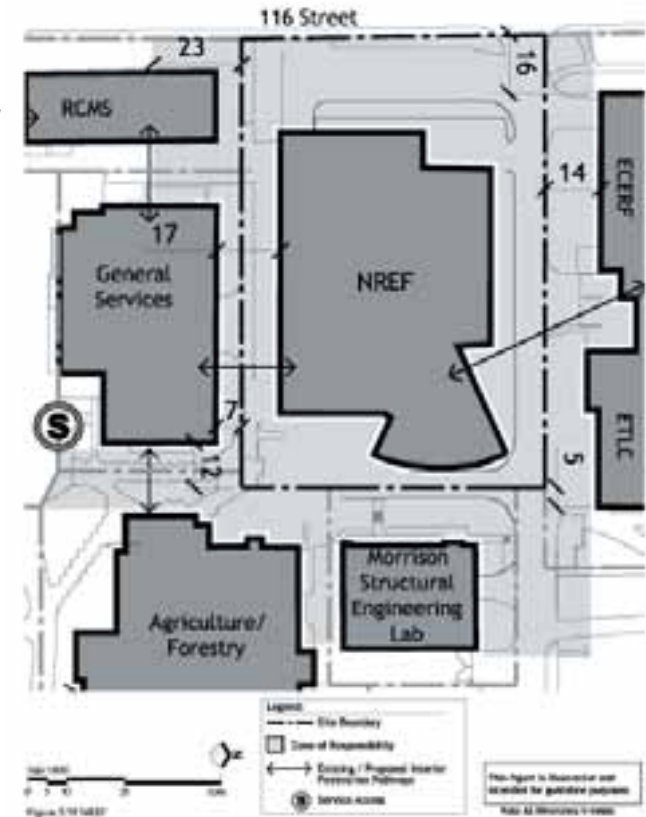
Site Specific Guidelines

1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 3.6 and site coverage of 45%, with a maximum height of 7 storeys.
2. No expansion of or on this site should be permitted. Site development has been maximized.
3. The site should respect and complement the guidelines for 116 Street and for the pathway to the building's south and east sides.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.1 116 Street
 - 4.2.2 Service Vehicle Pathways

- 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.20 General Services Building

Refer to Figure 5.20.

Site Constraints

1. This complex site is fully surrounded by University facilities. The sites to the north, east and south are not likely to be redeveloped within the timeframe of the LRDP, thus setting significant constraints on building form, edge, scale, size, and aesthetic. The site to the west and southeast may be redeveloped within 30 years.
2. The site is adjacent to a major service access route to its south that constricts any development in that direction.
3. The east edge of the site abuts a major north-south pedestrian route of Campus, which edges should be enhanced to create a safe and comfortable pedestrian environment. The north edge of the existing building abuts a tertiary pedestrian route, which should not be encroached, but enhanced for a safe and comfortable pedestrian environment.
4. Linkages to NREF, and Ag-Forestry must be maintained.

Site Opportunities

1. The site should respect and complement the guidelines for 116 Street and for the pathway to the building's south side.
2. Linkage potentials exist to the west, and from that site to the south for indoor pedways.
3. Consideration should be given to the creation of a single service/ loading point for the buildings in this district, that can be linked by indoor pedways.

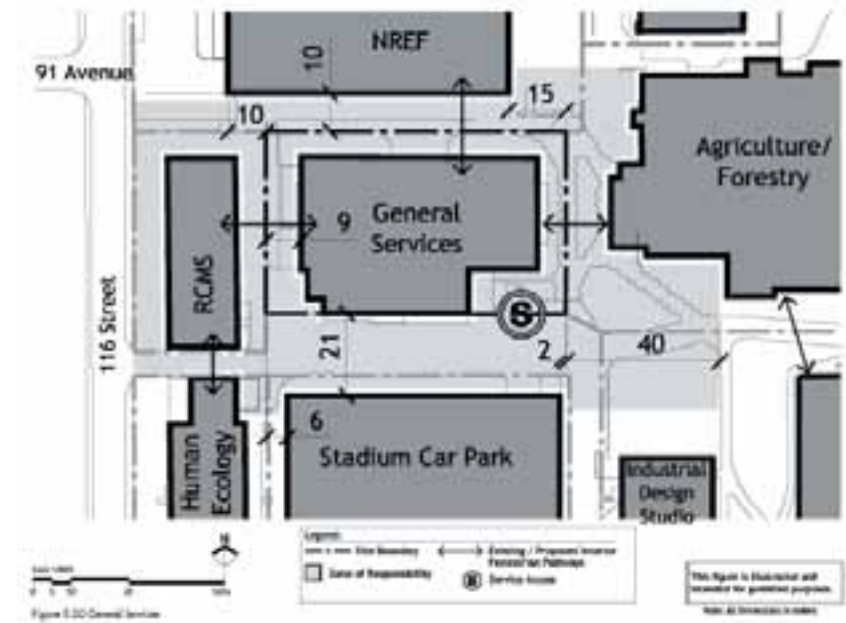
Site Specific Guidelines

1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 2.3 and site coverage of 37%, with a maximum height comparable to the existing facility
2. No expansion on this site should be permitted. Site development has been maximized. However, expansion may occur through incorporation of the site to the west, following site specific guidelines in section 5.10.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
- 4.1.1 West Academic District
- 4.2 Pathways

- 4.2.1 Vehicular Pathways
 - 4.2.1.1 116 Street
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.4 Tertiary Nodes
 - 4.4.5 Interior Nodes
 - 4.5 Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.21 Stadium Car Park

Refer to Figure 5.21.

Site Constraints

1. This site is internal, but near the edge of North Campus, close to 116 Street. Access is provided by the major service route around the building/ site to the south, east, and north. This route must be retained and should be enhanced for pedestrian safety and comfort.
2. Both accesses to the car park share access with loading zones to nearby facilities. Both are imperative to the operations of GSB, RCMS, SUB, Van Vliet, HEB.
3. The site abuts the major east-west pedestrian spine of the North Campus culminating at 116 Street.
4. The west side of the site abuts a tertiary pathway that provides access to Human Ecology.

Site Opportunities

1. All sides of the site have been designed to allow for natural ventilation to all levels of the car park, including the underground floors. Improvements should be made to the landscaping of these planes.

Site Specific Guidelines

1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 4.1 (or less in the event of redevelopment) and site coverage of 61%.
2. No expansion of or on this site should be permitted. Site development has been maximized. Access/ egress from/ to 116 Street should remain a dualized function to avoid increased congestion in this district and onto 116 Street. Access points should remain to the east end of the

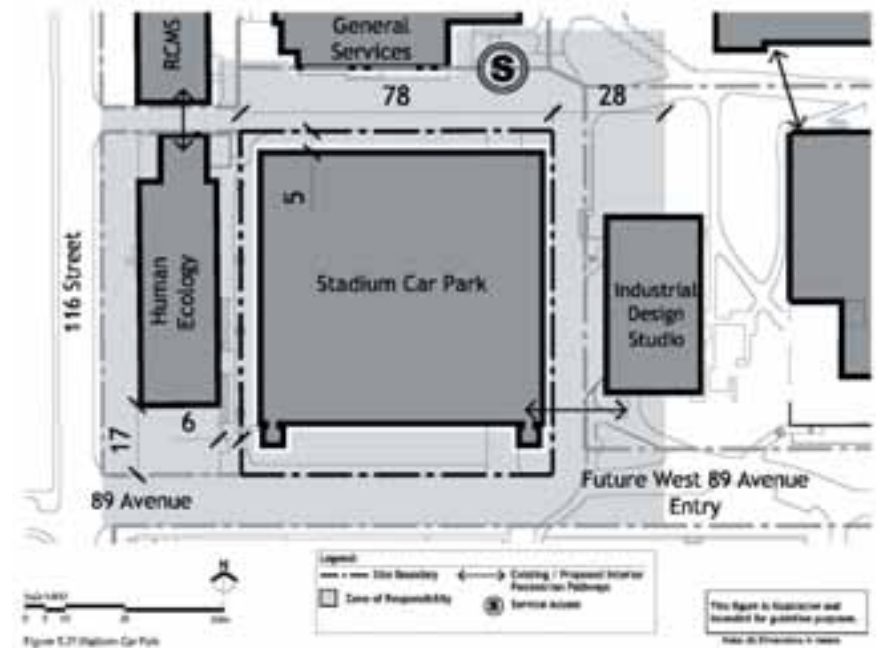
building, to allow for queuing room into the car park.

3. The site should respect and complement the guidelines for 116 Street and 89 Avenue corridors. Consideration should be given to improvements to these pedestrian routes.
4. The site should respect and enhance the pathways on all sides of the building.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways

- 4.2.1.1 116 Street
 - 4.2.1.3 89 Avenue
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.22 Agriculture/Forestry

Refer to Figure 5.22.

Site Constraints

1. This site is completely internal to the Campus with good vehicular access on its northwest edge.
2. The site abuts two facilities of historic interest to its east and therefore acts as a transition in massing and height from the higher facilities to the west.

Site Opportunities

1. The site abuts a service route to its south that accesses SUB and Pembina Hall. As per section 5.1, consideration should be given to a central service point in this district (GSB, IDS) that will service several buildings by internal linkages. There is future potential for a well-developed and landscaped node and pathway system along the south and east faces of the building with a courtyard to its northeast.

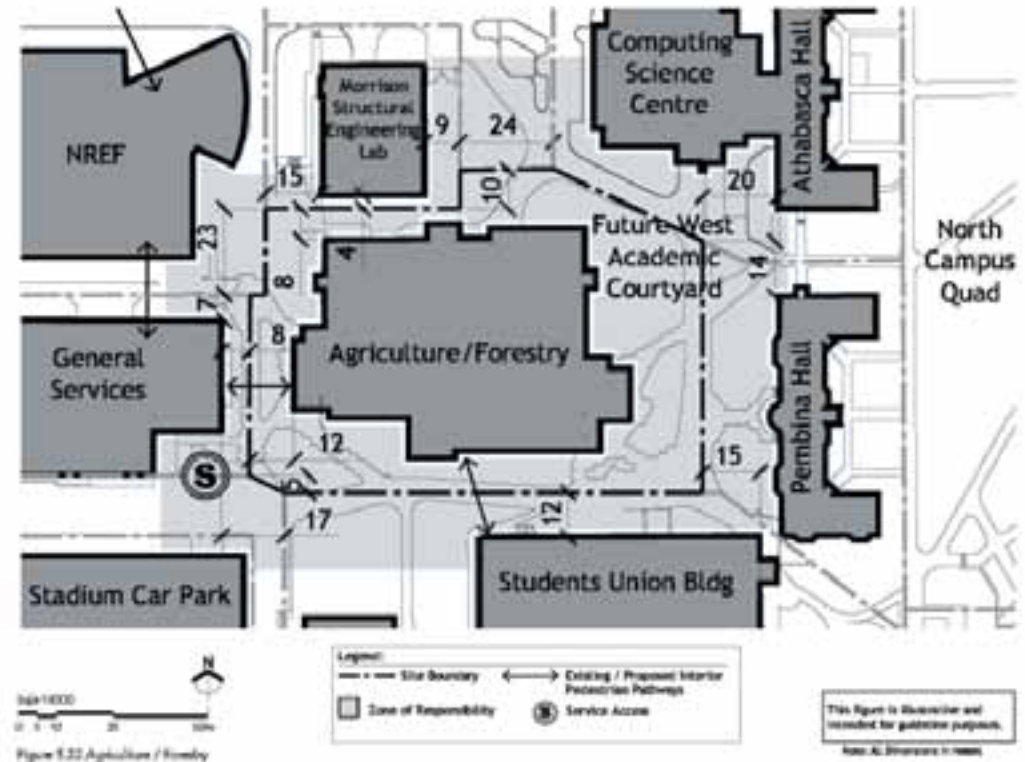
Site Specific Guidelines

1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 1.5-2.0 and site coverage of 45%, with a building height comparable to the existing facility.
2. The site should respect and complement the pathways on the south, east and west sides of the building.
3. No expansion on this site should be permitted. Site development has been maximized. However, consideration may be given to expansion to the north onto the Morrison Structural site (see 5.23)

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways

- 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.4 Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.23 Morrison Structural Engineering Lab

Refer to Figure 5.23.

Site Constraints

1. This site is completely internal to the Campus with good vehicular access on its west edge.
2. The site abuts a facility of historic interest to its east. It acts as transition in massing and height from the higher facilities to the west.

Site Opportunities

1. The site abuts a service route to its north that accesses Computing Science/ Athabasca Hall and Assiniboia Hall. Consideration may be given to eliminating the access to Assiniboia Hall.
2. The site abuts the West Academic Quad, which should be developed as activity space for this district.

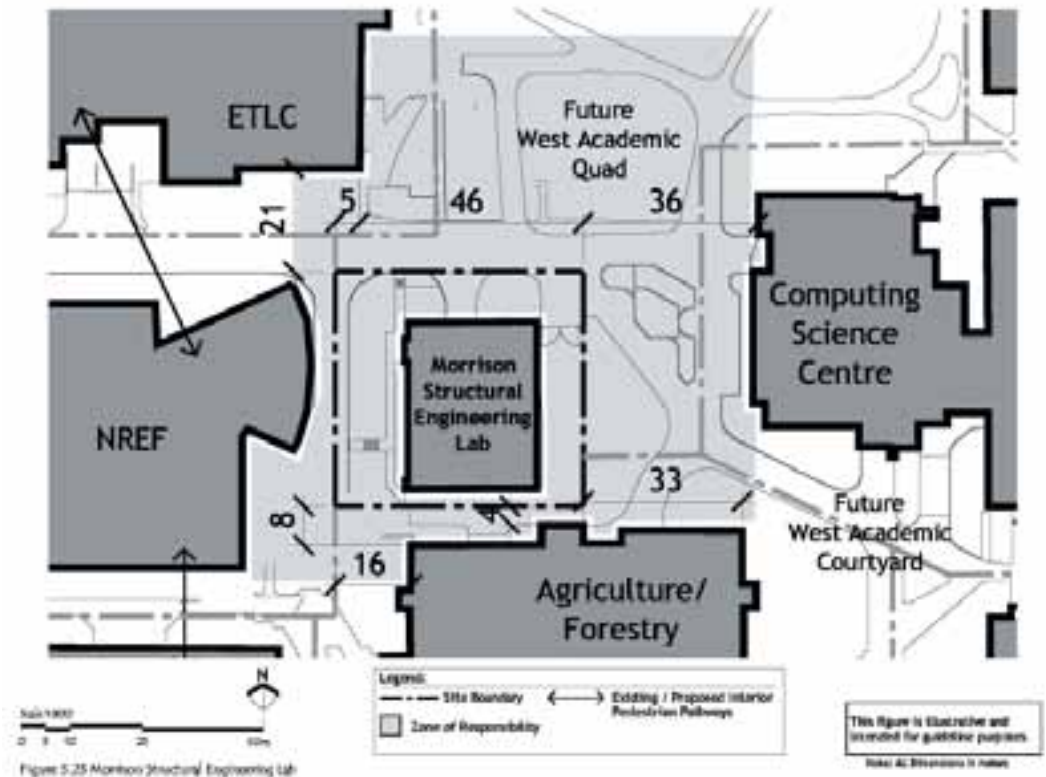
Site Specific Guidelines

1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 1.5-2.0 and site coverage of 45%, with a building height comparable to the existing facility.
2. The site should respect and enhance the pathways on the south, east and west sides of the building.
3. No expansion on this site should be permitted. Site development has been maximized. However, consideration may be given to redevelopment of this site as expansion for Agriculture-Forestry, assuming that the structural facilities may be accommodated in other ways.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
- 4.2 Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)

- 4.4 Nodes
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.24 Mechanical Engineering

Refer to Figure 5.24.

Site Constraints

1. This site is internal to Campus surrounded by facilities that are unlikely to be redeveloped within the 30 year timeframe, with the exception of Subatomic Research. This limits the redevelopment size, massing, scale, and aesthetic.
2. The site is bounded on the south by the West Academic Quad, which edges should be respected.
3. The north, east and west sides are bounded by major and tertiary pathways, which provide valuable connections to other parts of Campus
4. This site contains internal pedways to surrounding Engineering facilities. These should be retained.
5. The east is limited by the site of Assiniboia Hall, one of the earliest buildings on Campus. Significant setback should be retained from this facility to allow for views to it, and to retain some semblance of the original site of the building. Any development on this site must complement and respect Assiniboia Hall.

Site Opportunities

1. The West Academic Quad bounds this site. It should be developed as a key activity space for this district of Campus.
2. Consideration may be given to rerouting nearby pathways by the building.

Site Specific Guidelines

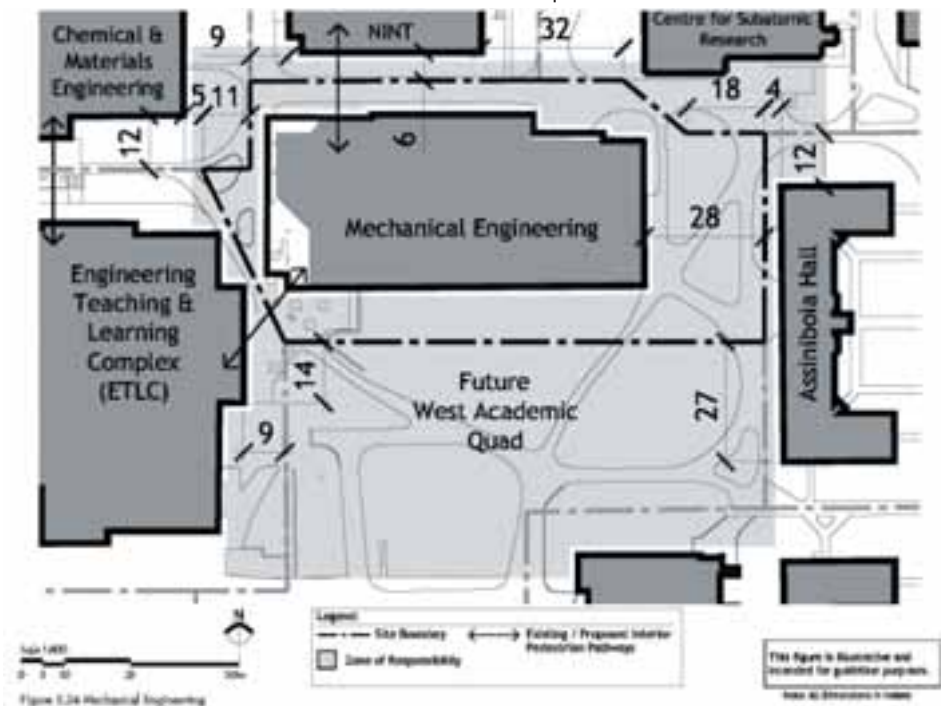
1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 1.5-2.0 and site coverage of 48%, with a building height comparable to the existing facility.
2. No expansion on this site should be permitted. Site development has been maximized.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
- 4.1.1 West Academic District
- 4.2 Pathways

- 4.2.2 Service Vehicle Pathways
- 4.2.3 Pedestrian Pathways with Service Vehicle Access
- 4.2.5 Existing Primary Pedestrian Pathways
- 4.2.6 Existing Secondary Pedestrian Pathways
- 4.2.7 Existing Tertiary Pedestrian Pathways
- 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
- 4.4 Nodes
- 4.4.2 Primary Exterior Nodes
- 4.4.4 Tertiary Nodes
- 4.4.5 Interior Nodes
- 4.5 Landmarks
- 4.5.1 Existing Landmarks
- 4.5.2 Opportunities for Landmarks
- 4.5.3 Tertiary Landmarks

APPENDIX A Campus-Wide Guidelines



5.25 Assiniboia Hall

Refer to Figure 5.25.

Site Constraints

1. This site is completely internal to the Campus with limited vehicular access and a very high pedestrian volume by it. The easterly walkway is a significant outdoor connection for the Campus, as well as forming part of the Alumni and Heritage Walks. This pathway should be developed for greater aesthetic, comfort, safety, and flexibility, as well as to handle the volumes.
2. This is one of the first buildings of the University of Alberta and will be protected. Views to the facility should be protected and enhanced wherever possible.

Site Opportunities

1. Green space can be enhanced greatly to the east of the building, to create an adequate and pleasant outdoor eating, study, and activity area, in keeping with the original character of the site.
2. The site faces the North Campus Quad. The character and environmental connection should be retained and continually enhanced.

Site Specific Guidelines

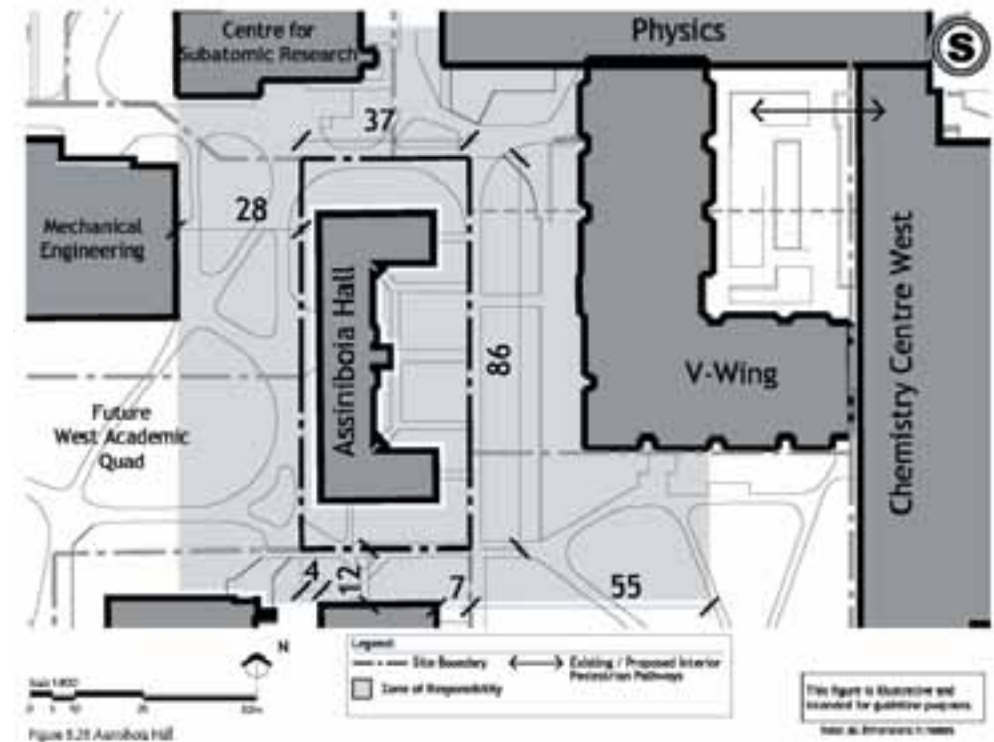
1. Vehicular access should be limited to the area west of the building and pedestrian safety augmented. Parking/service delivery should be reviewed and reorganized, using less land and area. It should be integrated aesthetically into the character of the site.
2. No facility or road development should encroach upon this site.

3. The FAR and site coverage for this site will be contained at current levels.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
 - 4.1.3 North Campus Quad District
- 4.2 Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways

- 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.4 Nodes
 - 4.4.2 Primary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.4.5 Interior Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.26 Computing Science Centre/Athabasca Hall

Refer to Figure 5.26.

Site Constraints

1. This site is completely internal to the Campus with adequate vehicular access and a very high pedestrian volume by it. The easterly walkway is a significant outdoor connection for the Campus, as well as forming part of the Alumni and Heritage Walks. This pathway should be developed for greater aesthetic, comfort, safety, and flexibility, as well as to handle the volumes.
2. This is one of the first buildings of the University of Alberta and will be protected. Views to the facility should be protected and enhanced wherever possible.
3. This is one of the few buildings on Campus that marries a new facility to an original one. The connection should be retained with entries at current locations.
4. The site is bounded on its south and north by two similar facilities of similar historic interest. Pathways and spaces between these buildings should not be compromised, but enhanced and improved.

Site Opportunities

1. Green space can be enhanced greatly to the east of the building to create an adequate and pleasant outdoor eating, study, and activity area, in keeping with the original character of the site.
2. The site faces the North Campus Quad. The character and environmental connection should be retained and continually enhanced.
3. Consideration should be given to the service accesses to the facility in an effort to limit the level of traffic by the

building on its south and west, in order to create the West Academic Courtyard.

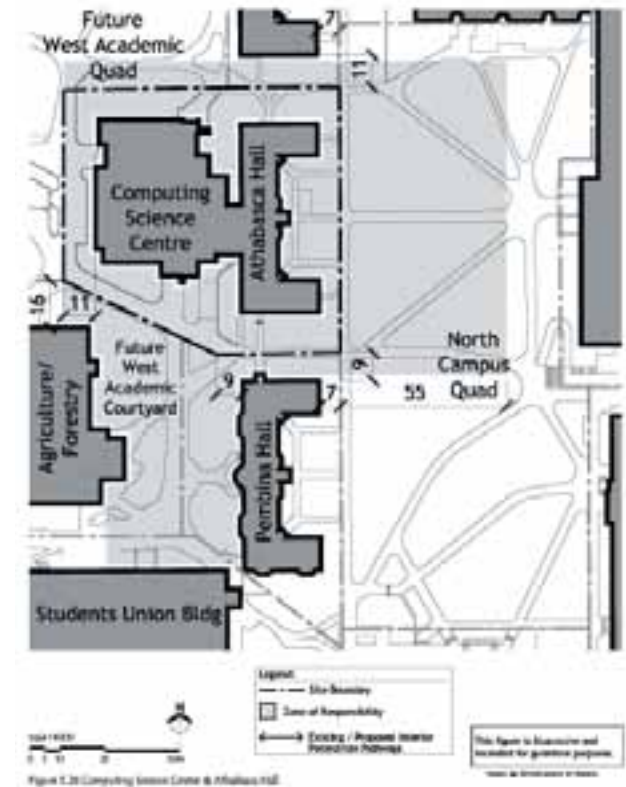
Site Specific Guidelines

1. Vehicular access should be limited to the area west of the building and pedestrian safety augmented. Parking/ service delivery should be reviewed and reorganized, using less land and area. It should be integrated aesthetically into the character of the site.
2. No new facility or road development should encroach upon this site.
3. The FAR and site coverage for this site will be contained at current levels.

The Zone of Responsibility includes the following Sector guideline requirements:

- | | |
|-------|--------------------------------------------------------------------------------------------------------|
| 4.1 | Districts |
| 4.1.1 | West Academic District |
| 4.1.3 | North Campus Quad District |
| 4.2 | Pathways |
| 4.2.2 | Service Vehicle Pathways |
| 4.2.3 | Pedestrian Pathways with Service Vehicle Access |
| 4.2.5 | Existing Primary Pedestrian Pathways |
| 4.2.6 | Existing Secondary Pedestrian Pathways |
| 4.2.7 | Existing Tertiary Pedestrian Pathways |
| 4.2.8 | Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors) |
| 4.4 | Nodes |
| 4.4.2 | Primary Exterior Nodes |
| 4.4.3 | Secondary Exterior Nodes |
| 4.4.4 | Tertiary Nodes |
| 4.5 | Landmarks |
| 4.5.1 | Existing Landmarks |
| 4.5.2 | Opportunities for Landmarks |

4.5.3 Tertiary Landmarks
APPENDIX A Campus-Wide Guidelines



5.27 Pembina Hall

Refer to Figure 5.27.

Site Constraints

1. This site is completely internal to the Campus with limited vehicular access and a very high pedestrian volume by it. The easterly walkway is a significant outdoor connection for the Campus, as well as forming part of the Alumni and Heritage Walks. This pathway should be developed for greater aesthetic, comfort, safety, and flexibility, as well as to handle the volumes.
2. This is one of the first buildings of the University of Alberta and will be protected. Views to the facility should be protected and enhanced wherever possible.
3. SUB is located, at very close proximity, to the southwest. In future, greater distance should be developed around Pembina Hall.

Site Opportunities

1. Green space can be enhanced greatly to the east and south of the building to create an adequate and pleasant outdoor eating, study, and activity area in keeping with the original character of the site.
2. The site faces the North Campus Quad. The character and environmental connection should be retained and continually enhanced.

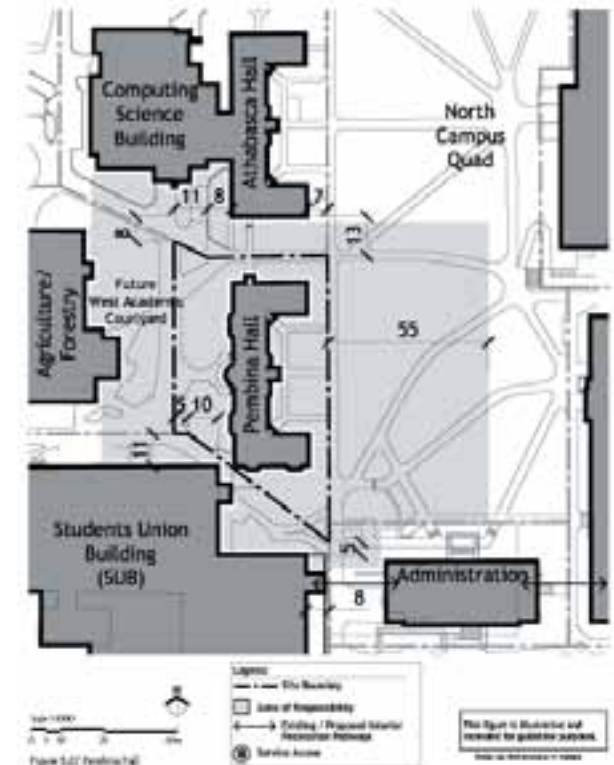
Site Specific Guidelines

1. Vehicular access should be limited to the area west of the building and pedestrian safety augmented. Vehicle access, parking/service delivery should be reviewed and reorganized. It should be integrated aesthetically into the character of the site.

2. No new facility or road development should encroach upon this site.
3. The FAR and site coverage for this site will be contained at current levels.
4. Consideration should be given to the service accesses in the area in an effort to limit the level of traffic by the building on its west, in order to create the West Academic Courtyard. This area would augment the student experience.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
 - 4.1.3 North Campus Quad District
 - 4.2 Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.4 Nodes
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.28 SUB

Refer to Figure 5.28.

Site Constraints

1. This building is completely internal to the Campus with good service vehicular access on its north and south faces.
2. The site abuts a facility of historical interest to its north, and therefore acts as transition in massing and height from the facilities to the west. SUB encroaches on the Pembina Hall site. In future, greater distance/ setback should be developed on this site around Pembina Hall.
3. The 89 Avenue major pedestrian spine of North Campus bounds the site to the south, which should be enhanced in its surfacing, landscaping, and activity areas. Sufficient distance should be maintained to this pathway to enhance sunlight penetration, landscaped verges, space that does not feel confined, and some views from the pathway to nearby and some distant facilities. The pathway should engender a sense of continuity, anticipation, and integrity, without further encroachment or constraint from facilities.

Site Opportunities

1. Better vehicular access for servicing routes to the north of the site could be created. Consideration should be given to a centralized service area for this district of the Sector, with direct access to an interior loading bay closer to the Stadium car park roadway loop, connected by internal pedways. This would limit vehicular access into this particular area, eliminating the current heavy conflict between pedestrians and service vehicles.

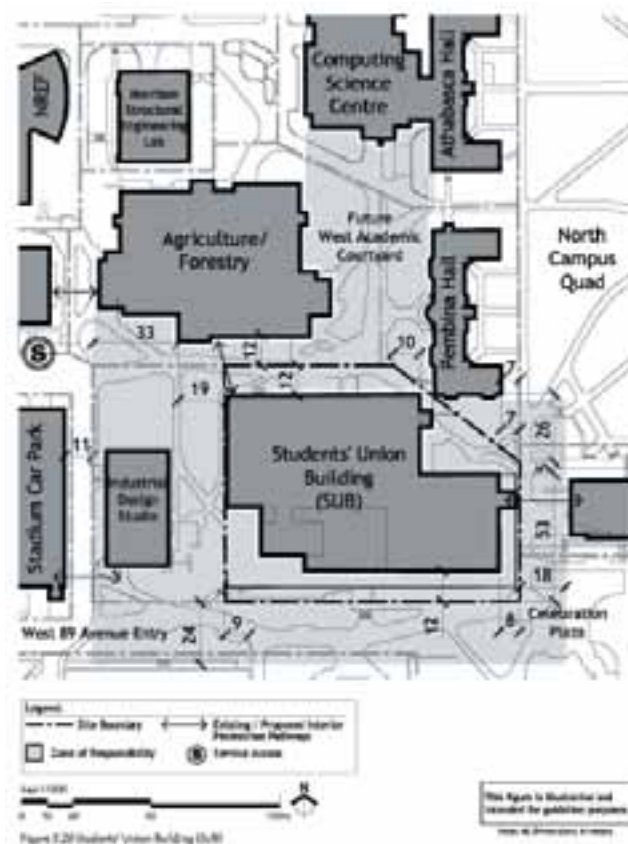
Site Specific Guidelines

1. No expansion on this site should be permitted. Site development has been maximized. However, expansion may be considered to the west, into the Industrial Design Studio site. See section 5.1.
2. FAR should remain at its current levels of 1.6, as should site coverage at 62%.
3. Consideration should be given to developing exterior nodes to the northeast and south of the building to increase the outdoor potentials for student/staff passive activities.
4. Future expansion of this building should only be considered to the west on the existing Industrial Design Studio site. Refer to Section 5.1.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.1 West Academic District
 - 4.1.3 North Campus Quad District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.3 89 Avenue
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
- 4.3 Edges
- 4.4 Nodes

- 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.4.5 Interior Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.29 Chemistry Centre (West & East)

Refer to Figure 5.29.

Site Constraints

1. This site is completely internal to the Campus with good vehicular access along its eastern edge. Vehicular access enters through a narrow constriction at the northeast corner where the site abuts Earth Sciences. This area should be widened or improved for safer interface of pedestrians and vehicles. This is a high volume area.
2. North Campus Quad borders the west face of the building. Development should not impinge upon the quad.

Site Opportunities

1. The North East Academic Quad should be developed for greater open space and activity area for this Sector of Campus. The greenhouse and head house should be removed.
2. Consideration should be given to a centralized service point and internal pathway linkages at the northerly edge of this district to limit vehicles into the North-East Quad.

Site Specific Guidelines

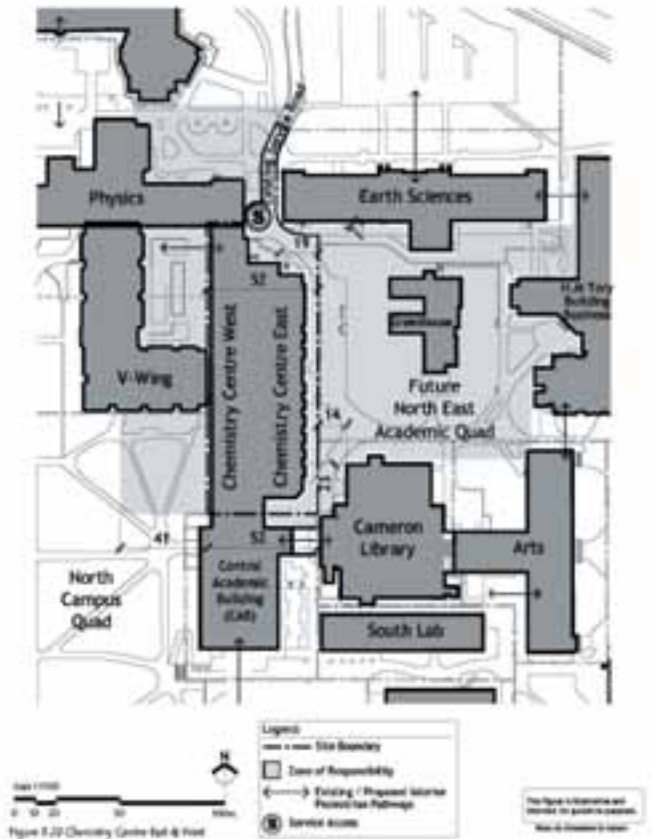
1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 2.5 and site coverage of 58%, with a building height comparable to the existing facility.
2. The site should respect, complement and enhance the pathways on both sides of the building for pedestrian safety and comfort.

3. No expansion on this site should be permitted. Site development has been maximized.
4. Entrances should be emphasized and enhanced for greater clarity of movement and way-finding. Internal linkages should remain and be improved wherever needed.
5. An indoor pedway connection should be created to Earth Sciences, and to CCIS.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.2 River Valley District
 - 4.1.3 North Campus Quad District
 - 4.1.4 East Academic District
- 4.2 Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
- 4.4 Nodes
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
- 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks

APPENDIX A Campus-Wide Guidelines



5.30 CAB

Refer to Figure 5.30.

Site Constraints

1. This site is completely internal to the Campus with good vehicular access on its west edge. Vehicular access enters through a narrow constriction at the northeast corner of Chemistry, between Earth Sciences. This area should be improved for safer interface of pedestrians and vehicles. This is a high volume area. Conflict does occur at the CAB loading zone with pedestrians moving across Campus.
2. North Campus Quad borders the west face of the building. Development should not impinge upon the quad.

Site Opportunities

1. The North-East Academic Quad should be developed for greater open space and activity area for this Sector of Campus. The greenhouse and head house should be removed.
2. Consideration should be given to a centralized service point and internal pathway linkages at the northerly edge of this district to limit vehicles into the North-East Quad.
3. Consideration should be given to improving the courtyards surrounding the cafeteria commons area, for increased use, safety and aesthetic. Consideration should also be given to improvements to the link to Civil-Electrical and the underpass (east-west) that links Quad to North Power Plant/ South Lab area.

Site Specific Guidelines

1. The FAR and site coverage for this site may not increase;

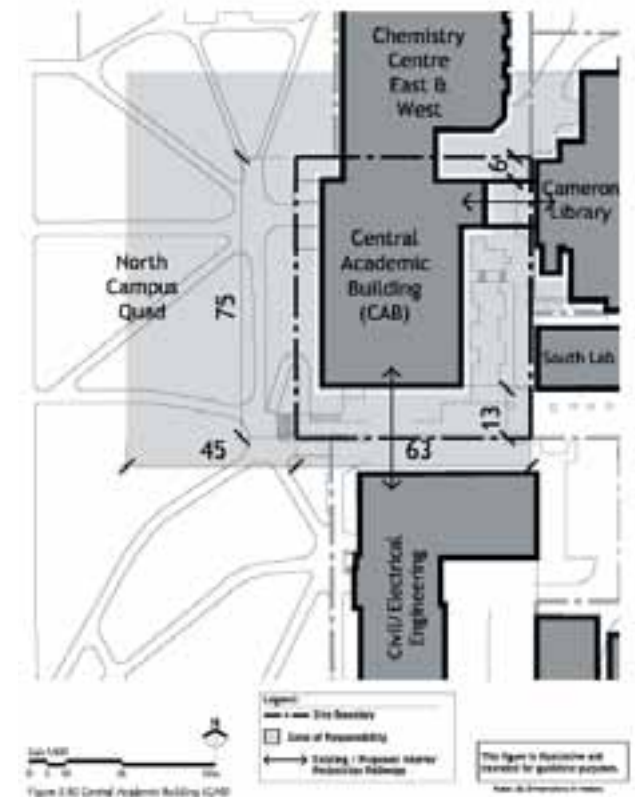
- remaining at the current FAR of 2.5 and site coverage of 45%, with a building height comparable to the existing facility.

2. The site should respect, complement and enhance the pathways on both sides of the building for pedestrian safety and comfort.
3. No expansion on this site should be permitted. Site development has been maximized.
4. Entrances should be emphasized and enhanced for greater clarity of movement and way-finding. Internal linkages should remain and be improved wherever needed.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.3 North Campus Quad District
 - 4.1.4 East Academic District
- 4.2 Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
- 4.4 Nodes
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.4.5 Interior Nodes
- 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks

4.5.3 Tertiary Landmarks
APPENDIX A Campus-Wide Guidelines



5.31 Earth Sciences

Refer to Figure 5.31.

Site Constraints

1. This site is internal to the Campus currently facing Saskatchewan Drive with good vehicular access along its western and southern edge. Vehicular access enters through a narrow constriction at the northeast corner where the site abuts Chemistry. This area should be widened, or improved for safer interface of pedestrians and vehicles. This is a high volume area.
2. An allée of mature elms to the north defines the edge of the pathway and building. These elms should be protected and nurtured, and no development should occur any closer to them.
3. This site is closely proximate to Tory Building. This setback should define the absolute minimum between these buildings.
4. The north façade is a significant landmark feature of North Campus. It should remain visible from Saskatchewan Drive, with its reflection characteristics of the mature trees. See also Section 5.5 Riverfront Site.

Site Opportunities

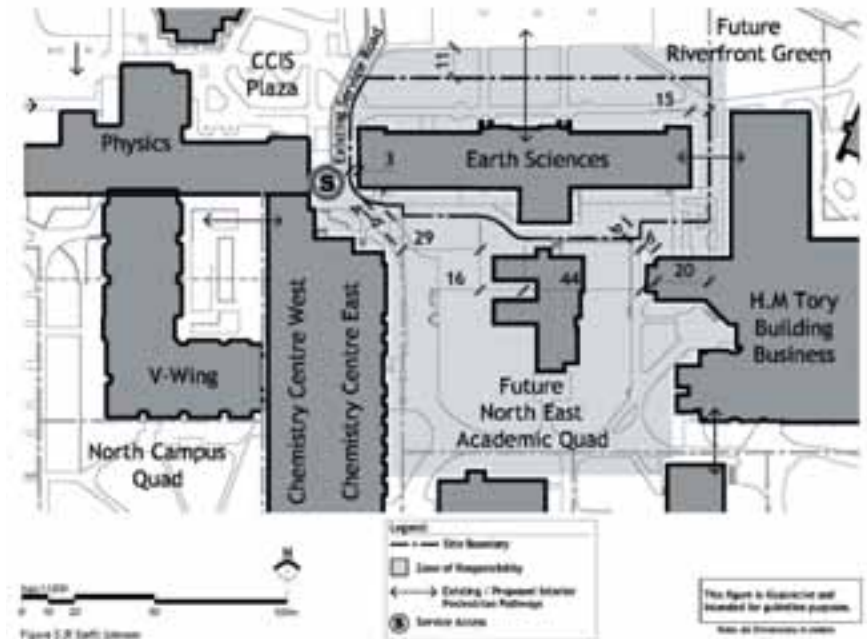
1. The North East Academic Quad should be developed for greater open space and activity area for this Sector of Campus. The greenhouse and head house should be removed.
2. Consideration should be given to a centralized service point and internal pathway linkages at the northerly edge of this district to limit vehicles into the North-East Quad.

Site Specific Guidelines

1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 1.6 and site coverage of 40%, with a building height comparable to the existing facility.
2. The site should respect, complement and enhance the pathways on both sides of the building for pedestrian safety and comfort.
3. No expansion on this site should be permitted. Site development has been maximized.
4. Connection should be considered from Tory and Chemistry to Earth Sciences, preferably underground in this location.

The Zone of Responsibility includes the following Sector guideline requirements:

- | | |
|-------|-------------------------------------------------|
| 4.1 | Districts |
| 4.1.2 | River Valley District |
| 4.1.3 | North Campus Quad District |
| 4.1.4 | East Academic District |
| 4.2 | Pathways |
| 4.2.2 | Service Vehicle Pathways |
| 4.2.3 | Pedestrian Pathways with Service Vehicle Access |
| 4.2.5 | Existing Primary Pedestrian Pathways |
| 4.2.6 | Existing Secondary Pedestrian Pathways |
| 4.2.7 | Existing Tertiary Pedestrian Pathways |



- | | |
|-------|--------------------------------------------------------------------------------------------------------|
| 4.2.8 | Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors) |
| 4.3 | Edges |
| 4.4 | Nodes |
| 4.4.3 | Secondary Exterior Nodes |
| 4.4.4 | Tertiary Nodes |
| 4.5 | Landmarks |
| 4.5.1 | Existing Landmarks |
| 4.5.2 | Opportunities for Landmarks |
| 4.5.3 | Tertiary Landmarks |
- APPENDIX A Campus-Wide Guidelines

5.32 Arts

Refer to Figure 5.32.

Site Constraints

1. This site is completely internal to the Campus with poor service vehicular access located at its northwest edge. Vehicular access enters through a narrow constriction at the northeast corner of district where Chemistry and Earth Sciences abut. This is a high volume area for pedestrians, with concomitant safety and conflict issues.
2. North-East Campus Quad borders the northwest corner of the building. The East Academic Quad borders the east side of the site. Development should not impinge upon the quads.
3. The east and north facades are considered significant landmarks of Campus, as one of the oldest buildings. While connection is desirable to Business, and to Cameron Library, these must be carefully positioned for safety, security, and aesthetics.

Site Opportunities

1. The North-East Academic Quad should be developed for greater open space and activity area for this Sector of Campus. The greenhouse and head house should be removed.
2. The East Academic Quad should be considered for renewal, as a valuable open space in this area of Campus.
3. Consideration should be given to a centralized service point and internal pathway linkages at the northerly edge of this district to limit vehicles into the North-East Quad.

Site Specific Guidelines

1. The FAR and site coverage for this site may not increase - remaining at the current FAR of 1.5 and site coverage of 40%, with a building height comparable to the existing facility.
2. The site should respect, complement and enhance the pathways on both sides of the building for pedestrian safety and comfort. The small open space to the south should be appropriately developed as an activity node, to assist in way-finding and to augment the Arts building.
3. No expansion on this site should be permitted. Site development has been maximized.
4. Consideration should be given to eliminating or reducing the amount of vehicular activity to the south of the building. This is a high volume traffic area particularly of pedestrians.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.4 East Academic District
- 4.2 Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
- 4.4 Nodes
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes

- 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.33 North Power Plant

Refer to Figure 5.33.

Site Constraints

1. This site is completely internal to the Campus with limited service vehicular access and a very high pedestrian volume, resulting in a high potential for vehicle/ pedestrian conflict. The northerly walkway is a significant outdoor connection for the Campus and should be developed for greater aesthetic, comfort, safety, and flexibility, as well as to handle the volumes.
2. This is one of the first buildings of the University of Alberta and will be protected. Views to the facility should be protected and enhanced wherever possible, especially glimpses of the original stack.
3. The NPP is a central hub of the underground utilidor system, which must remain accessible, safe and secure.

Site Opportunities

1. Potential green space can be created permanently to the west of the building to create an adequate and pleasant outdoor eating, study, and activity area. This becomes more possible as parking is eliminated and service/ delivery traffic is rerouted to a central facility.

Site Specific Guidelines

1. Vehicular access should be limited to this area and pedestrian safety augmented. No parking should be permitted beyond short delivery times, until a central service facility is created to serve this and other buildings in the district.
2. The open space between the NPP and Rutherford Library should be retained and enhanced, or redeveloped as

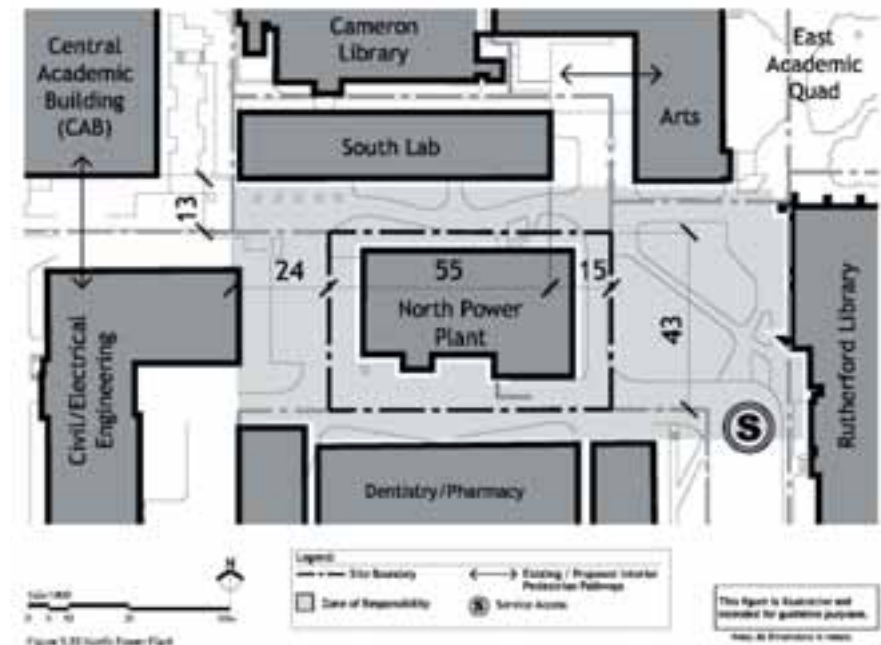
a useful courtyard area for casual activity, meeting and sitting. The existing landscape should be enhanced and protected.

3. The FAR of 1.2 and site coverage of 48% for this site will be contained.
4. There is no room for expansion on or of this site.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.4 East Academic District
- 4.2 Pathways
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access

- 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.4 Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.4.5 Interior Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.34 Tory Lecture Theatres

Refer to Figure 5.34.

Site Constraints

1. Site development should be limited to existing parameters and boundaries. Height and massing should respect the context of the river valley edge.
2. Located in such close proximity to HM Tory, any development of the site should avoid creating wind tunnels or snow drifting.
3. Formal entry should be restricted to its current location along a primary walkway. It is highly visible and easily found.
4. Connections to the HM Tory facility should be retained, enhanced, and (if possible) improved - especially underground.

Site Opportunities

1. This site is located along Saskatchewan Drive and the river valley edge. Its pathways and environment should allow access across to the City of Edmonton - Heritage Trail. Should traffic volumes increase, a crosswalk should be installed at the HUB/ Tory/ Business access drive.

Site Specific Guidelines

1. The FAR (0.22) and site coverage (23%) for this site should remain low to retain its transitional qualities. While this is well below the overall constraints of the LRDP, this compensates for overage on other sites.
2. Signs for the building and their location should be reviewed and enhanced as necessary.

3. Landscape development should respect and enhance the facility's architectural statement and not obstruct entries - especially for the barrier-free lift.
4. The courtyard created to HM Tory should be formally developed and enhanced for informal gathering.
5. The site should respect and enhance the guidelines for Saskatchewan Drive.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.2 River Valley District
 - 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.2 Saskatchewan Drive
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
 - 4.3 Edges
 - 4.4 Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.5 Interior Nodes
 - 4.5 Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



5.35 Rutherford Library (North & South)

Refer to Figure 5.35.

Site Constraints

1. The connection between the older and newer wings of Rutherford Library must be protected. It provides a significant part of the building history of the UA, as one of the earlier building façades.
2. Entries should be clearly identified and enhanced, from both the west and east sides, including the indoor connection to HUB.
3. Intrusion into the two open spaces to the north and south should not be permitted.
4. The walkway to the east of the building forms part of the primary pedestrian system of the North Campus and must be retained. The windows and limited views from HUB should be protected and this area left un-built.

Site Opportunities

1. The building is supported within a positive environment created by the East Academic Quad green space, Rutherford Square and the nameless open space that links Rutherford Library to the allée past North Power Plant. These green spaces should be retained and enhanced.
2. Rutherford Square should be enhanced and formalized as a significant green space, particularly as introduction to Campus from the gateway of transit and LRT. This may be a positive location for developing sculpture, memorial, or statue garden.

Site Specific Guidelines

1. The FAR (2.7), site coverage (68%), and building height (5-6 storeys) for this site should not be developed at any higher level.
2. The open space between the NPP and Rutherford Library should be retained and enhanced, or redeveloped as a useful courtyard area for casual activity, meeting and sitting. The existing green-space should be enhanced and protected.
3. Attention should be paid to improving the pedestrian experience along the walkway to the east of the building.
4. Consideration could be given to the potential of using the service node at HUB as access for deliveries to Rutherford Library, thus eliminating the need for vehicular access to the west of the building.

The Zone of Responsibility includes the following Sector guideline requirements:

- 4.1 Districts
 - 4.1.4 East Academic District
- 4.2 Pathways
 - 4.2.1 Vehicular Pathways
 - 4.2.1.3 89 Avenue
 - 4.2.2 Service Vehicle Pathways
 - 4.2.3 Pedestrian Pathways with Service Vehicle Access
 - 4.2.4 Existing and Proposed Drop-off Loops
 - 4.2.5 Existing Primary Pedestrian Pathways
 - 4.2.6 Existing Secondary Pedestrian Pathways
 - 4.2.7 Existing Tertiary Pedestrian Pathways
 - 4.2.8 Interior Pedestrian Pathways & Pedways (Covered / Uncovered and Underground / Above Ground Connectors)
- 4.3 Edges
- 4.4 Nodes

- 4.4.1 University Station / HUB Gateway
 - 4.4.2 Primary Exterior Nodes
 - 4.4.3 Secondary Exterior Nodes
 - 4.4.4 Tertiary Nodes
 - 4.4.5 Interior Nodes
 - 4.5 Landmarks
 - 4.5.1 Existing Landmarks
 - 4.5.2 Opportunities for Landmarks
 - 4.5.3 Tertiary Landmarks
- APPENDIX A Campus-Wide Guidelines



SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN
SECTOR PLAN 3 AND 4

A p p e n d i x A
C a m p u s W i d e
G u i d e l i n e s

APPENDIX A - CAMPUS-WIDE GUIDELINES

Appendix A

Campus-Wide Guidelines

1.0 Visual Quality and Design

Objective:

- .1 Utilize the Districts, Pathways, Edges, Nodes and Landmarks to create a coherent and unified Campus character.

Guidelines:

- .1 Incorporate appropriate building development and natural features to create distinct District characteristics, social life and experiences.
- .2 Use existing and future landmark development to provide a sense of movement and connectivity.
- .3 Enhance the overall Campus, integrating Sectors, Districts, and surrounding neighbourhoods through careful planning of edge development.
- .4 Use existing and future visual features to emphasize and define primary, secondary, and tertiary nodes within the Sector.
- .5 Develop a hierarchy of vehicular and pedestrian pathways that physically and visually link key Nodes and Districts within the Sector and surrounding Campus, as well as the surrounding neighbourhood and natural areas.

2.0 Sector Identifier & Colour(s)

Objective:

- .1 Create a strong and unified character through the use of a Sector identifier and colour scheme.

Guidelines:

- .1 Coordinate and develop an identifier program for each Sector and its Districts to enhance recognition and way-finding.
- .2 Coordinate and adopt a colour program to demarcate the Sector and provide year-round colour to key nodes, pathways, edges, landmarks and Districts.
- .3 Utilize the identifier and colour(s) in features, such as:
 - Banners (pole and wall mounted)
 - Pedestrian scale lighting
 - Fences and screens
 - Street signing (pole-mounted sign blade and decorative surface plaques)
 - Streetscape features and amenities (e.g. kiosks, benches, waste receptacles, bicycle racks, tree grates/guards, etc.)

3.0 Landscape Treatment

Objective:

- .1 Conserve, preserve and enhance the Campus landscape to define and create a distinct, safe and secure Campus environment.

Guidelines:

- .1 General landscape treatments:
 - Enhance and improve the existing Sector landscape by employing/considering:
 - Existing and future boulevard trees, plantings, and shrub/flower beds to enhance and maintain Sector edge continuity, accent and rhythm.
 - Qualities and forms that reflect the character of the Sector.
 - Plant materials that are hardy and provide seasonal variation.
 - Plant materials that enhance visual experiences and establish clear sight lines for motorists and pedestrians.
 - Plant materials that promote the development of a safe, sustainable, and manageable environment based on maintenance efficiency and cost-effectiveness.
 - Planting design that creates a safe and secure environment for pedestrians, following the guidelines of Crime Prevention Through Environmental Design (CPTED).
 - Rooftop gardens—"green roofs"—that provide aesthetic interest as well as help to decrease stormwater run-off, thereby lowering infrastructure costs.

- .2 Tree plantings:
- a) Design tree plantings in linear and continuous blocks parallel to key Sector pathways, creating strong allées and formal edge character where identified.
 - b) Conserve, preserve and enhance existing boulevard tree species. Species selection should consider the Sector, District and nature of existing tree plantings within the area, their seasonal variation, and the desired visual experience and sight lines.
 - c) Complete allée and edge character sections within the Sector and each District in coordination with any future proposed roadway rehabilitation work or building development.
 - d) Tree inventory and interpretive program should be established to identify unique and exotic species.

.3 Trees should be set back the following minimum distance from the components listed below:

| Component: | Minimum Distance (m) (measured from the centre of the tree trunk) |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Shallow underground utilities..... | 1.5 |
| Deep underground utilities (sanitary sewer, storm sewer and water mains) ... | 1.8 |
| Underground power cable | 1.0 |
| Surface power hardware | 3.5 |
| Light poles | 3.5 |
| Fire hydrants | 3.5 |
| Stop signs | 3.5 |
| Yield signs | 3.5 |
| Other signs | 2.0 |
| Transit zones | 3.5 |
| Private property boundary | 3.0 |

| | |
|--------------------------------------------|-----|
| Edge of driveway | 1.5 |
| Edge of sidewalk | 0.5 |
| Note: Do not plant trees within easements. | |

- .4 Tree, Shrub & Herbaceous Plantings
- a) Utilize tree, shrub, perennial (including grasses) and annual plantings prudently in open space areas to enhance gateway, node, pathway, edge, landmark and District development. All proposed shrub beds should be carefully assessed with respect to their operations/maintenance implications and the way in which the shrub bed detracts from, or adds to, the aesthetics, form and function of the space.
 - b) To determine if they should be rejuvenated/enlarged or decreased/removed, etc., Existing shrub beds should be assessed as to their physical condition, operations/maintenance implications and the way in which the shrub bed detracts from, or adds to, the aesthetics, form and function of the space.
 - c) In key, highly visible gathering areas, consideration should be given to creating intensely planted, colourful and detailed “garden” spaces that contrast with the relatively simpler plantings of trees, shrubs and turfgrass that predominate on Campus.

4.0 Natural Areas

Objective:

- .1 Conserve, preserve, and enhance all natural areas diversity and the mature characteristics of the Campus or Sector.

5.0 Screening

Objective:

- .1 Provide fencing, screens or other artistic treatments, in combination with plantings, adjacent to open surface parking lots, service areas and similar land uses, to reduce the visual impact and enhance edge development within the Sector.

Guideline:

- .1 Where necessary, utilize fencing, screens or other artistic/interpretive treatments, in combination with plantings, to provide a consistent, permanent, and aesthetic interface between the development and adjacent land uses.

6.0 Public Art

Objective:

- .1 To coordinate, through the Department of Museums and Collections Services, the development, placement and promotion of public art within each Sector, raising the profile and livability of the Sector and its distinct Districts.

Guidelines:

- .1 Adhere to policy, guidelines and best practices regarding the acquisition, use and maintenance of art as approved by the University and associated organizations.
- .2 Ensure all public art acquisitions are coordinated and approved through the University of Alberta Art Acquisitions Committee.
- .3 Incorporate the principles of the Works of Art Funding

for Capital Projects Policy into all new construction projects and all renovation projects.

.4 Ensure coordination and communication related to the placement of works of art within Sectors involves Museums and Collections Services and the Sector community.

.5 Works of art should be moved only after consultation with, and directly calling, the Museums and Collections Services (for copyright and risk management reasons).

.6 Coordinate and utilize temporary exhibit spaces within the Sector to provide art 'events' and exhibits.

.7 Incorporate public art and design into various Sector areas, such as:

- Node and pathway areas
- Campus boundary
- Pedestrian bridge structures
- Building walls
- Signing
- Lighting
- Public streetscape features (e.g. benches, waste receptacles, bus shelters, telephone booths, news stands, tree grates, kiosks, etc.).

7.0 Signing

Objective:

- .1 Create a hierarchy of signing that:
- Reduces unnecessary signing within the Sector.
 - Improves orientation, clarity, and safety, as well as vehicular and pedestrian movement.
 - Combines a format for directional and traffic signing.
 - Explores new signing technology to improve signing clarity and Sector aesthetics.

Guidelines:

- .1 Utilize banner poles, pedway structures, fences and screens, street blade signing, streetscape features and amenities (e.g. kiosks, benches, waste receptacles, bicycle racks, tree grates/guards, etc.) and public art within the Sector to improve orientation, clarity, as well as District consolidation and definition.
- .2 Implement a common signing nomenclature for the Sector that enhances way-finding and identifies University buildings and key pathways, nodes and open space.

8.0 Lighting

Objective:

- .1 Utilize existing street lighting within the Sector to maintain traffic safety and enhance theme and character development.
- .2 Introduce pedestrian-scale lighting.
- .3 Utilize the "Guidelines for Design and Installation of Street, Sidewalk, and Area Lighting at the University of Alberta" in the assessment and implementation of lighting on Campus.

Guidelines:

- .1 Paint all existing and future street lighting and traffic poles a unified colour and apply Sector identifier, or
- .2 Introduce special light poles to define the Sector or Districts within the Sector. These could be supplemented with Sector specific features (e.g. sign blades, engravings, banners, etc.) and Sector specific identifiers/colour.
- .3 Assess and review opportunities for incorporating tree lighting within existing and future boulevard areas. Tree light colour should be consistent.
- .4 Assess and implement lighting based on the function of the area being developed or enhanced. Refer to classifications and details listed in the University lighting guidelines.
- .5 Refer to City of Edmonton's lighting design and layout for city streets within the University of Alberta.
- .6 Refer to Section 3 of the University's lighting guidelines for

power feeds and controls.

- .7 Refer to Section 4 of the University's lighting guidelines for design element requirements.
- .8 Variances in lighting design (e.g. decorative lighting) in specialized districts or pathways must be assessed and approved by the University of Alberta.
- .9 All lighting design should encourage the reduction/ mitigation of light pollution through the use of sustainable and downward focussed equipment.

9.0 Street Amenities

Objective:

- .1 Implement a common streetscape language for the Sector through the development of a 'Streetscape Furnishings Program', possibly incorporating a Public Art Program (refer to Section 5.0).

Guideline:

- .1 Prepare and implement a 'Streetscape Furnishings Program' for the North Campus or each Sector and assess and coordinate the program with those areas that have a current furnishing program. Key furnishing components should include:
 - a) Kiosks
 - b) Benches
 - c) Waste receptacles
 - d) Bus shelters and transit stops/stations
 - e) Campus/ emergency telephone stations
 - f) Telephone booths
 - g) Parking meters
 - h) Newspaper boxes
 - i) Bicycle racks
 - j) Tree grates and guards
 - k) Drinking fountains

10.0 Architectural and Open Space

Objective:

- .1 The LRDP states that the maximum site coverage for buildings in the North Campus should not exceed 50% (item 7.8.2 open space in development projects). The Sector Plans for North Campus have identified Site Specific Development Guidelines for *select* existing and proposed building development within each Sector. The Site Specific Development Guidelines clearly identify the limitations in the building footprint area, site area, setbacks, and Zones of Responsibility for each site. These guidelines are to be the template used in assessing any future development or redevelopment within the Sector and the maximum area for site coverage.
- .2 The LRDP states that the maximum site coverage for a building in the South Campus should not exceed 30% (Item 7.8.2 Open Space in Development Projects). The Sector Plans have identified guidelines for each proposed District within the Sector. The District guidelines clearly identify the development limitations and Zone of Responsibility for each site. These guidelines are to be the template used in assessing any future development within the Sector and the maximum site coverage area.

Guidelines:

- .1 All new development should be architecturally integrated into the Sector, respecting and addressing the surrounding pathway networks and existing buildings.
- .2 Unless specifically noted in the Sector Specific Development Guidelines, the massing of all buildings should adhere to the following principles:

- b) To create a comfortable pedestrian environment, a maximum three (13.8m maximum) storeys should be developed along the Pathway right-of-way and subsequent higher storeys set back (5 metres minimum to 7 metre maximum) and massed to reduce microclimatic impacts, and to provide an appropriate scale and visual relationship between the building and the pathway.
 - c) Upper storeys should enhance and complement the surrounding skyline through their articulation and massing. Unique architectural/sculptural forms, as well as various materials and lighting should be utilized to screen HVAC and other building systems/services.
 - d) Materials and detailing should be articulated to distinguish upper storeys (3+) from the first three storeys. Upper storeys (3+) should be massed and oriented to enhance microclimatic conditions for pedestrians.
 - e) As identified in Section 7.5.4 of the LRDP, environmental studies will be required to assess environmental impacts of all development and redevelopment. Tree inventories, geotechnical testing, as well as wind, sun, snow and light pollution studies and any other site-specific assessments identified, will be included. The development or redevelopment must respond accordingly to the results of these assessments.
- .3 Encourage harmonious variety in building form and heights, massing, and siting to create visual interest consistent with the building envelopes specified.
- .4 Develop architectural landmarks which:
- a) Correspond with the specific character of the Sector (e.g. academic, residential, student services, etc.).
 - b) Provide an aesthetic edge condition, and
 - c) Provide major focal points and create areas of activity.
- .5 Building entrances should:
- a) Be clearly visible to create a sense of occupancy, activity and gathering to the street or greenway/open space, and should be accessible.
 - b) Be highlighted and defined through the use of architectural and streetscape devices (e.g. lighting, benches, planting, etc.).
 - c) Be visible, safe and inviting.
 - d) Incorporate canopies, arcades, colonnades, awnings, pergolas, porticos, etc. to create a comfortable and seasonal pedestrian environment in any season.
- .6 Building corners should address and enhance Pathway and Node intersection development.
- .7 The ground level should be designed to create the feeling of extending the outdoors indoor, and vice versa.
- .8 Ensure that vehicle entrances and exits, as well as on-site traffic and pedestrian routes, are located and designed in a manner that provides a clearly-defined, safe, and efficient circulation pattern for traffic movements.
- .9 Key building development features should include:
- a) The integration of existing mature trees with new tree plantings.
 - b) A seamless transition between pathways and building edge that promotes gathering and activity.
 - c) Pedestrian-scaled lighting (e.g. building or street-based).
 - d) Banners and integrated signing.
 - e) Kiosks, directories and way-finding devices.
 - f) Integrated furnishings approach (e.g. benches, waste receptacles, telephone booths, newspaper boxes, bicycle racks, tree grates/guards, Campus/ emergency telephone stations, etc.).
 - g) Public art.
- .10 All pathways should provide safe, secure, strong links between adjacent façades, preserving existing mature trees (if feasible) and incorporating additional tree and shrub plantings, public gathering areas, site furnishings, way-finding/interpretive signage, Campus/ emergency telephone stations and public art areas.
- .11 Bicycle storage should be accommodated at each building. The location of bicycle racks should be in a safe and secure location, without conflicting with movement around key building entrances. Bicycle storage should be aesthetically pleasing, practical and integrated with the architecture of the building.

11.0 Sustainability

Objective:

- .1 Design and develop both buildings and sites in an environmentally responsible manner that incorporates 'green' technology in conjunction with the University Design and Construction Guidelines. Sustainability, safety, security, manageability, and universal design are all key development requirements in the design and development of buildings and sites.

Guidelines:

- .1 Set performance targets in the following areas:
 - Energy - energy use, energy source, clean energy transport
 - Water - water use, water filtration, ground water recharge, human waste, green roofs
 - Landscape - integrated pest management (IPM), green space, native plantings and wildlife habitat
 - Materials - materials that are: recycled, efficient, salvaged, local, durable and low maintenance
 - Waste - recycling and composting facilities
 - Construction Practices - construction waste, re-use of topsoil, vegetation and watercourse protection
 - Indoor Environmental Quality - air pollutant emission, ventilation effectiveness and air filtration, system commissioning and cleaning, day lighting
 - Economic Performance - Life-Cycle Assessment, Capital Cost Accounting
- .2 Energy
 - a) Consider the use of passive and active renewable energy sources (e.g. solar heat and light, wind, and air resources).

- .1 Water
 - .1 Naturalized stormwater management facilities:
 - Introduce aquatic vegetation
 - Designed ecosystems
 - .2 Water Conservation Plan and Audit:
 - Conserve water during construction development and operational phases
 - Rainwater collection systems
 - Use of drought resistant plants (Xeriscaping)
 - Grey water systems
- .2 Landscape
 - .1 Protect or enhance the site's ecological integrity and biodiversity
 - .2 Ensure protection of site ecosystem
 - .3 Reduce or eliminate disturbance to water system
- .3 Waste
 - .1 Reduce disposal of waste materials to landfills
 - .2 Recycle
 - .3 Use composting facilities
- .4 Construction Practices
 - .1 Prevent erosion during construction
 - .2 Minimize the disposal of construction waste
 - .3 Protect and conserve topsoil
- .5 Indoor Environmental Quality
 - .1 Ensure indoor air quality
 - .2 Indoor Air Quality Construction Plan

12.0 Utilities (South Campus Academic Sector only)

Objective:

- .1 Coordinate the alignment, phasing, and installation of utilities to promote appropriate, affordable and sustainable Sector growth.

Guidelines:

- .1 Utility alignments and phasing should be coordinated based on the radial framework established, using Pathway rights-of-way and open space for underground servicing.
- .2 Primary and secondary utility infrastructure expansion costs should be borne by development applicants. This servicing approach promotes an orderly and cohesive phased development approach for the Academic Sector (Refer to Appendix B).
- .3 Incorporate sustainable utility development and stormwater management strategies and technologies (i.e. ditches, percolation areas, decentralization of stormwater management ponding areas into functional/aesthetic features, pervious pavement use, narrower roads, etc.) throughout the Sector in primary and secondary locations, where feasible.
- .4 Provide a safe, adequate and reliable utility system to meet future Sector development sites, while exploring environmentally sound alternatives (i.e. reduce, reuse and recycle).
- .5 As part of the overall development and servicing for the Sector, a stormwater management facility strategy must be developed. Presently, there are two larger stormwater management facilities that have been identified in

the LRDP. These areas should be incorporated with future Sector development and secondary stormwater management facilities throughout the Sector. Stormwater management facilities should be landscaped at a rate of 75 trees per hectare with a 50% minimum coniferous composition. All trees should be a minimum size of 60mm calliper for deciduous trees and 2.8m height for coniferous trees.

related to specific developments are not encouraged. Proposed drop-off zones should be discussed with and approved by SPPI and the University's Architect.

13.0 Parking, Drop-off Zones, Access and Loading/Manoeuvring Areas

Guidelines:

- .1 All loading/manoeuvring areas should be:
 - Screened with landscaping or shall be fully enclosed in a manner compatible with the character of the development and should not be visible from adjacent streets or buildings.
 - Sited such that all materials handling can be efficiently managed.
 - Designed such that turning vehicles do not interfere with traffic on adjacent circulation routes.
 - Designed with adequate area to accommodate all anticipated vehicle types.
- .2 Trash collection, open storage, outdoor service, vehicular service and loading/manoeuvring areas which are visible from an adjoining site or public roadway should have screen planting. The location, size and height of the planting should, in conjunction with a change in grade or other natural or man-made features, be maintained to provide effective screening from the ground to height of 1.85m.
- .3 Drop-off zones will be recommended wherever feasible within each University Sector. Individual drop-off zones

SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN
SECTOR PLAN 3 AND 4

A p p e n d i x B
S e c t o r
I m p l e m e n t a t i o n

APPENDIX B - SECTOR IMPLEMENTATION

Appendix B – Sector Implementation

The Sector Plan is an administrative document to be used as one of several documents that provide direction in planning and developing a capital project.

The Sector Plan is used in conjunction with:

- University of Alberta Long Range Development Plan (LRDP)
- University of Alberta Design and Construction Standards and Guidelines (under review)
- North and South Campus Utilities Master Plans (under review)
- North and South Campus Drainage Master Plans (under review)
- Heritage buildings inventory of the University (underway)
- City of Edmonton plans and initiatives (where applicable)

The Sector Plan takes into account the plans and initiatives of adjacent neighbours.

Sector Plan Administration

The Sector Plan is administered through the portfolio of the Vice President, Facilities and Operations (F & O) by the Director of Strategic Planning – Planning and Infrastructure Department (SPPI).

It is the responsibility of SPPI to make all proponents of capital projects occurring on University lands aware of the existence of Sector Plans as well as all other documentation that guides the planning and development of capital projects.

SPPI will periodically update the Sector Plan as conditions warrant.

Sector Plan Interpretation

SPPI is responsible for providing interpretation of the guidelines when asked by the proponent or the proponent's representative. Sector Plan guidelines may be interpreted or relaxed to provide design and development flexibility to a capital project when required, as long as the interpretation or relaxation benefits the quality of the development and the University without negatively affecting the Sector Plan.

Sector Plan queries will be submitted to SPPI directly, or depending on the capital project structure, to SPPI through the Project Manager's Office (PMO).

SPPI will review all capital project planning and design submissions with regard to their conformance to the Sector Plan and other planning documentation prior to making a recommendation on the submission to the Facilities Development Committee (FDC) of the University.

Sector Plan Compliance Checklist

All capital projects will be required to complete and submit the Sector Plan Compliance Checklist (Exhibit B.1). Where a submission does not conform, a detailed explanation must be provided.

Sector Plan Distribution and Access

Sector Plans and the Compliance Checklist will be made available through the SPPI web-site (www.uofaweb.ualberta.ca/pi) or in hard copy if requested.

Sector Plan Implementation

A Sector Plan Implementation Schedule (Exhibit B.2) is provided, outlining a preliminary list of short-term implementation activities, responsibilities and timelines which inform, complement and support the guidelines and are necessary for Sector Plan actualization.

Exhibit B.1 - Sector Plan Compliance Checklist*

| General | | Directly Conforms | Indirectly Conforms | Does Not Conform | N/A |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1) | The project supports and enhances the characteristics of, and vision for, the Sector. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) | The project conforms with the land use pattern of the District and Sector. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3) | The project integrates development within the District framework of Pathways, Nodes, Edges and Landmarks. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4) | The project is architecturally integrated into the District and Sector. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5) | The project is compatible with other existing and/or planned developments in the District and Sector. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6) | Special studies have been carried out and support the project within the Sector, e.g. geotechnical, shadow, wind, and others. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7) | The project conforms with the visual quality and design guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8) | The project conforms with the visual identifier and colour guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9) | The project conforms with and/or establishes the visual landscape treatment guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10) | The project conforms with and/or establishes the screening guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11) | The project conforms with and/or establishes the public art guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12) | The project conforms with and/or establishes the signing guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13) | The project conforms with and/or establishes the lighting guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14) | The project conforms with and/or establishes the street amenities guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15) | The project conforms with and/or establishes the architectural and open space guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

* Note: This Sector Plan Compliance Checklist, as well as the LRDP Compliance Checklist, must be completed and discussed with the Department of Planning and Infrastructure - Strategic Planning before submission for approval.

Exhibit B.1 - Sector Plan Compliance Checklist*

| | | | | | |
|----------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| District | | | | | |
| 1) | The development achieves the District objectives of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) | The development conforms with the District guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Pathways | | | | | |
| 1) | The development achieves the pedestrian Pathway objectives of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) | The development conforms with the pedestrian Pathway guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3) | The development achieves the vehicular/service Pathway objectives of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4) | The development conforms with the vehicular/service Pathway guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Edges | | | | | |
| 1) | The development achieves the Edge objectives of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) | The development conforms with the Edge guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Nodes | | | | | |
| 1) | The development achieves the Node objectives of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) | The development conforms with the Node guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Landmarks | | | | | |
| 1) | The development achieves the Landmarks objectives of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) | The development conforms with the Landmarks guidelines of the Sector Plan. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Site Specific | | | | | |
| 1) | The project conforms with site dimensions. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) | The project conforms and responds to the obligations associated with the Zone of Responsibility (ZOR). Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3) | The project conforms with site coverage guidelines. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4) | The project conforms with site height guidelines. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5) | The project conforms with site Floor Area Ratio (FAR) guidelines. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6) | The project conforms with setback requirements. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7) | Building massing is compatible with adjacent existing and planned development. Comments: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Exhibit B.2 - Sectors 3 & 4 Implementation Schedule: Activities, Responsibilities & Time Lines

| | Task | Purpose | Responsibility | Start | Complete |
|----|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|----------|
| 1 | Heritage Assessment. | To identify heritage resources and plan appropriate direction, i.e. conserve, preserve, rehabilitate or renovate. | P & I | | |
| 2 | Complete North Campus Transportation Study. | To support the Sector Plan, including parking generation estimates associated with "new" and redevelopment sites. | P & I | | |
| 3 | Complete North Campus Way-finding Study. | To support the Sector Plan (including service vehicles). | P & I | | |
| 4 | Develop cost estimates and development pro forma. | To assess overall cost to develop, including all new/extended services; roads and pathways; parking; common green space etc., so that proponents can be charged their share. | P & I | | |
| 5 | Establish shared contribution account structure supported by UA policy. | To establish a mechanism whereby capital projects are charged for services and obligations (e.g. green space), and to set up the organization for administering account funds. | P & I | | |
| 6 | Establish development component standards. | Where appropriate, promote uniformity to minimize costs to the University - e.g. lamp posts. | P & I/Utilities | | |
| 7 | Monitor overall development. | To track development against a campus target of 1.5 maximum. | P & I | | |
| 8 | Review possibilities and develop single point service locations for groups of buildings. | To support the Sector Plan and reduce vehicles in the campus core. | | | |
| 9 | Complete significant landscape features study. | To support the Sector Plan. | P & I | | |
| 10 | Determine timelines for demolition of inefficient uses from potential development sites - e.g., the greenhouses. | To assist in capital budgeting. | P & I/Faculties | | |
| 11 | Identify key thresholds for utilization, building condition, etc. | To deliver a clear message on when redevelopment may occur e.g. V-wing, green houses, etc. | P & I | | |
| 12 | Liaise with Alumni Association on further development of Alumni Walk and Heritage Walk. | To support the Sector Plan. | P & I | | |
| 13 | Utilities/IT Infrastructure Assessment. | To confirm capacities of all existing services and determine upgrades required to meet development of "new" and redevelopment sites. | Utilities/CNS | | |
| 14 | Utilities Master Plan. | To layout trunks, utilidors, etc. for servicing of "new" and redevelopment sites. | Utilities | | |
| 15 | IT Infrastructure Master Plan. | To layout where fibre optics, etc. to be located to complement the Sector Plan. | CNS/Utilities/P & I | | |

SECTOR PLANS
LONG RANGE DEVELOPMENT PLAN
SECTOR PLAN 3 AND 4

A p p e n d i x C
G l o s s a r y

Appendix C

Glossary

Alumni Walk

A proposed walk on the University Campus (within the North Campus Quad) articulated with special signage and features that celebrate alumni and enriches the lifelong connection between alumni and the University of Alberta.

Building Footprint Area

Main floor area of a building (at grade).

Celebration Plaza

A meeting place (Primary Node) built to recognize and celebrate the contributions of donors to the University of Alberta.

CSPS – Capital & Strategic Planning Services

The former name of the department of the University of Alberta—now called Planning and Infrastructure (P & I)—that oversees the planning and implementation of building development for the entire Campus

CPTED – Crime Prevention Through Environmental Design

Principles and strategies for the proper design and effective use of the built environment which can lead to a reduction in the fear and incidence of crime and an improvement in the quality of life.

Districts

Built form areas within each Campus Sector that integrate with natural features and social patterns of life to create areas of geographic and visual reference.

Edges

Linear elements not considered as paths such as natural boundaries and built form boundaries.

ECERF

Electrical & Computer Engineering Research Facility

ETLC

Engineering Teaching and Learning Complex

FAR – Floor Area Ratio

Total Floor Area: Site Area.

Gateway

A major entrance into the Sector.

Heritage Walk

An interpretive walk on the North Campus, identified in the Long Range Development Plan.

HUB

HUB International or Housing Union Building – a large building on the extreme east side of Sector 3 with approximately 50 commercial tenants and 850 student residents.

Land Use

The main functions or type of development within a given district.

Landmarks

Physical elements such as natural features, built form and other significant urban features that act as point references external to the observer.

LRDP – Long Range Development Plan

A key document for the University of Alberta (2002) that provides a vision for shaping and guiding future growth, development and redevelopment at the four Campus sites.

Multi-use

A pathway (or other designed element) that is designed to

accommodate multiple uses – e.g., walking, cycling, in-line skating, etc.

Municipal Government Act

An act of the Government of Alberta governing the roles and responsibilities of municipalities and municipal officials.

NINT

National Institute for Nanotechnology.

Nodes

Areas with a high concentration of activity such as actively used open spaces, vehicular and pedestrian intersections, as well as public transit links, stations and stops.

Pathways

Key vehicular and pedestrian routes as identified in the Sector framework.

Pedway

Interior/sheltered pedestrian passageways—underground, at grade, or overhead—that provide connections between buildings.

Power Plant Precinct

A secondary node around the North Power Plant.

Sector

One of 17 distinct development areas (identified by the Long range Development Plan) within the four Campus sites of the University of Alberta.

Service Roads

Pathways which accommodate service vehicles, DATS, and emergency vehicles.

Site Area

The site area for a building, used in calculating Site Coverage and Floor Area Ratio (based upon information provided by P & I).

Site Coverage

Building Footprint Area divided by Site Area, expressed as a percentage.

Site Constraints

The existing context of surrounding buildings and landform that negatively influence development or redevelopment of the site.

Site Opportunities

Site and surrounding context additions that could positively influence site redevelopment or development and the Campus.

Site Specific Guidelines

Guidelines that relate to the LRDP and the envisioned FAR, site coverage, building height, and design of future site/ building redevelopment and/or development.

SPPI

Strategic Planning – Planning and Infrastructure Department: the name of the department of the University of Alberta that oversees the planning and implementation of building development for the entire Campus.

Stormwater Management Facility

A dry or wet ponding area and environs, designed to accommodate stormwater and to serve as an aesthetic and recreational amenity.

SUB

Students' Union Building

Total Floor Area

The combined area of all floors, excluding basement and penthouse levels (based upon information provided by P & I).

University Core Use

Research, teaching and support services development.

Zone of Responsibility

The area that each facility is responsible to develop either in whole or in part.

