



THE
UNIVERSITY OF
BRITISH
COLUMBIA

Main Campus Plan
1992

CONTRIBUTIONS TO THIS REPORT



CAMPUS PLAN ADVISORY COMMITTEE

Dr. Alan Artibise, Director, School of Regional and Community Planning
Mr. Mark Betteridge, President, UBC Real Estate Corporation
Mr. Byron Braley, Treasurer, Financial Services
Dr. E Margaret Fulton, Adjunct Professor, Educational Consultant
Dr. Walter Hardwick, Professor of Geography, Faculty of Arts
Mr. Sanford Hirshen, Director, School of Architecture
Dr. Robert Kelly, Associate Professor, Faculty of Commerce
Dr. Malcolm McMillan, Director, Centres for Excellence
Mr. Christopher Miller, Marketing Manager, Community Relations Office
Mr. Doug Patterson, Past Director, School of Landscape Architecture
Ms. Moira Quale, Acting Director, School of Landscape Architecture
Mr. Lyle Stevenson, Endowment Lands Community Representative
Ms. Christine Samson, Director, Food Services
Ms. Carol Gibson, Awards and Financial Aid



PLANNING CONSULTANTS

DU TOIT, ALLSOPP, HILLIER

N.D. LEA ASSOCIATES

GABRIEL / DESIGN



THE FACULTY, STUDENTS, STAFF AND SUPPORTERS COMPRISING THE UNIVERSITY COMMUNITY



CAMPUS PLANNING CONTROL COMMITTEE

Tim Miner, Director, Campus Planning and Development
Freda Pagani, Associate Director, Project Development
Robert Orth, Associate Director, Facilities Services
David Grigg, Manager, Engineering Services
Andrew Brown, University Planner



PREFACE TO THE PLAN

The Main Campus Plan establishes the principles and strategies for growth, development and management of the northern portion of the University of British Columbia. This area is bounded by the escarpment to the north, Marine Drive to the west, Thunderbird Boulevard to the south and Wesbrook Mall to the east. Together with the Greater Campus Plan, which will deal with the remainder of the campus, the Main Campus Plan will form a complete Campus Plan for The University of British Columbia.

The Main Campus Plan is the product of a cumulative process of analysis and synthesis which began in 1989, and ended in June 1992. This process included an initial period of general commentary and discussion, followed by three successive drafts and revisions involving members of the University and the larger community. Every attempt has been made to produce a comprehensive and flexible plan addressing functional, aesthetic, and contextual issues, which will serve The University of British Columbia for years to come. The Plan was ratified by the Board of Governors on the recommendation of the President and Vice-Presidents on September 17, 1992.

BOARD OF GOVERNORS

Mr. Kenneth M. Bagshaw, Q.C. (Chair)
Dr. Leslie R. Peterson, Q.C. (Chancellor)
Dr. David W. Strangway, (President)

Mr. Jaret F. Clay
Ms. Barbara Crompton
Mr. Ronald H. Granholm
Dr. Arthur S. Hara
Mr. Asa Johal
Dr. Tong Louie

Mr. Derek Miller
Mr. Douglas Napier
Mr. Richard Nelson
Mr. Michael Partridge
Mr. Dennis Pavlich

OFFICE OF THE PRESIDENT

Dr. David Strangway, (President)
Dr. Daniel R. Birch, (Senior Vice-President, Academic and Provost)
Dr. Robert C. Miller, (Vice-President, Research)
Dr. K. D. Srivastava, (Vice-President, Student and Academic Services)
Dr. A. Bruce Gellatly, (Vice-President, Administration and Finance)
Mr. Peter W. Ufford, (Vice-President, External Affairs)



TABLE OF CONTENTS

EXECUTIVE SUMMARY		i
<i>SECTION ONE:</i>		
PLANNING FOUNDATIONS		1
1.	ROLE AND SCOPE OF THE CAMPUS PLAN	2
2.	BUILDING THE UBC MISSION	6
3.	THE INFLUENCE OF THE PAST	8
4.	AN UNDERSTANDING OF THE PRESENT	22
5.	LOOKING FORWARD: Planning Directions	31
<i>SECTION TWO:</i>		
PLANNING STRATEGIES		33
GENERAL		
Strategy 1	QUALITY, PERMANENCE AND ECONOMY	34
Strategy 2	LEADERSHIP IN ENVIRONMENTAL RESPONSIBILITY	34
Strategy 3	CONSTITUENT AND COMMUNAL NEEDS	34
Strategy 4	RESPECTING CAMPUS NEIGHBOURS	36
Strategy 5	CAMPUS COHESION AND LIMITS TO SPRAWL	38
Strategy 6	THE SPIRIT OF THE PLACE	40
Strategy 7	SITE SUITABILITY: Reinforce the Best, Repair the Rest	44
Strategy 8	SITE SUITABILITY: Appropriate Relationships	55
Strategy 9	SPATIAL STRUCTURE: An Organizing Framework	56
Strategy 10	CAMPUS LANDSCAPE	62
Strategy 11	SIGNAGE AND ORIENTATION	64
Strategy 12	REVEALING UNIVERSITY CULTURE	66
Strategy 13	MIXED USE	69
Strategy 14	RESPECT FOR LAND VALUE	70
Strategy 15	BUILDING DESIGN	72
Strategy 16	CAMPUS SAFETY	76
SYSTEMS		
Strategy 17	MOVEMENT IN THE PUBLIC DOMAIN	77
Strategy 18	PEDESTRIANS	78
Strategy 19	UNIVERSAL ACCESS	82
Strategy 20	BICYCLES	84
Strategy 21	VEHICULAR MOVEMENT	85
Strategy 22	PARKING	89
Strategy 23	PUBLIC TRANSIT	92
Strategy 24	UNDERGROUND UTILITIES	94
Strategy 25	CAMPUS LIGHTING	94

LAND USE

Strategy 26	LOCATIONS FOR EDUCATION AND RESEARCH	96
Strategy 27	LOCATIONS FOR GROUP INSTRUCTION	98
Strategy 28	LOCATIONS FOR LIBRARIES	99
Strategy 29	LOCATIONS FOR CULTURAL FACILITIES	101
Strategy 30	LOCATIONS FOR HEALTH CARE	102
Strategy 31	LOCATIONS FOR RELAXATION AND STUDY	104
Strategy 32	LOCATIONS FOR FOOD SERVICES	105
Strategy 33	LOCATIONS FOR EXTRACURRICULAR STUDENT ACTIVITIES	106
Strategy 34	LOCATIONS FOR HOUSING	106
Strategy 35	LOCATIONS FOR SHOPPING	108
Strategy 36	LOCATIONS FOR ADMINISTRATION	110
Strategy 37	LOCATIONS FOR ATHLETIC FACILITIES	112

IMPLEMENTATION

Strategy 38	THE CAMPUS DEVELOPMENT PROCESS	114
Strategy 39	PLAN CONTINUITY	117
Strategy 40	PROJECT DESIGN CHECKLIST	118

SECTION THREE:

DEMONSTRATION PLANS 121

THE NORTH LAWN	122
THE MAIN MALL	127
UNIVERSITY BOULEVARD	132
THE TOWN CENTRE: A CAMPUS MAIN STREET	133
THE WEST MALL	134
THE EAST MALL	136

APPENDIX A: AMENDMENTS 139

APPENDIX B: CAPITAL PROJECTS 143

APPENDIX C: SUBSET PLANS 151

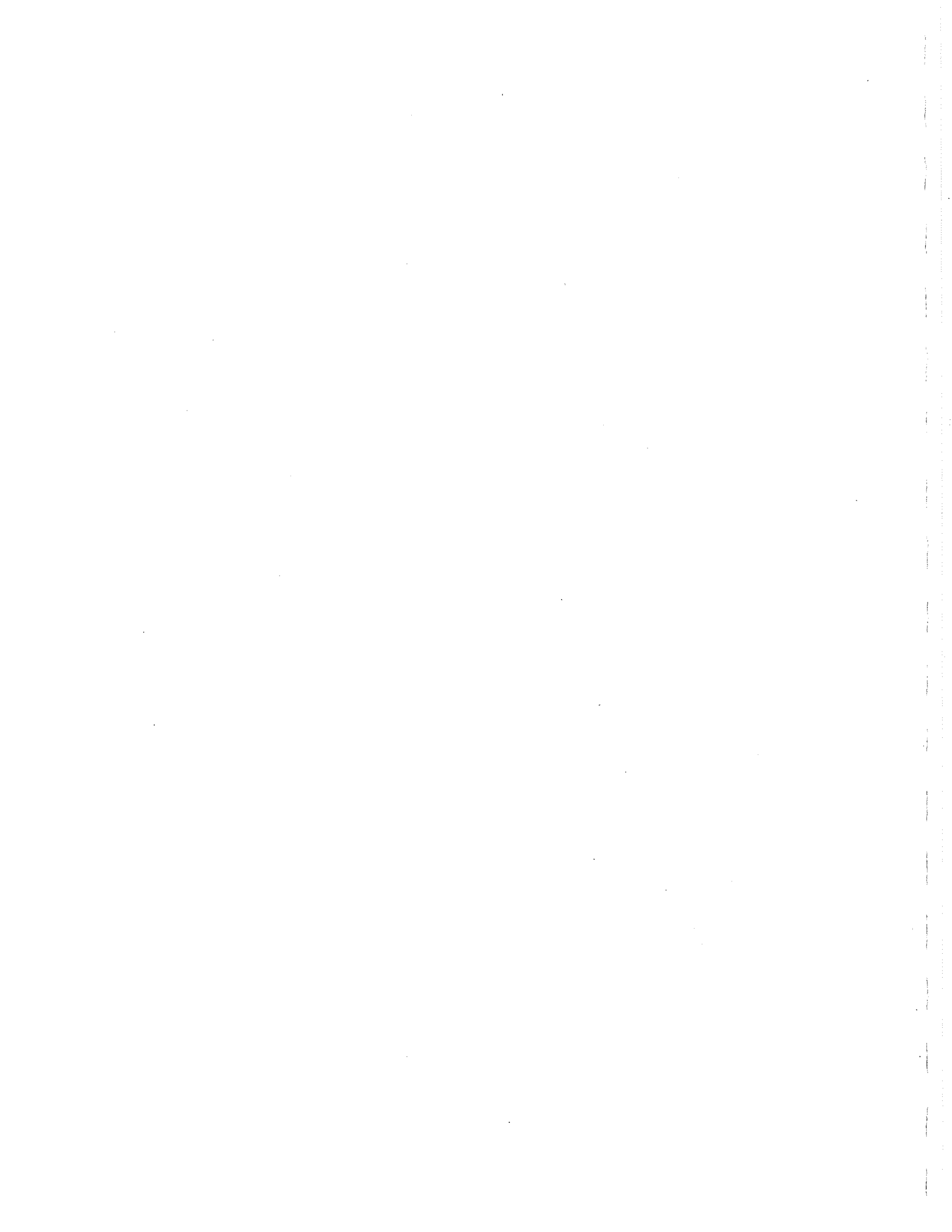
APPENDIX D: BIBLIOGRAPHY 153



LIST OF FIGURES

Figure		pg-
1.	<i>Primary Planning Components</i>	2
2.	<i>The University Planning Process</i>	3
3.	<i>Second to None: The UBC Mission of Excellence</i>	6
4.	<i>City of Vancouver, 1914</i>	9
5.	<i>The Grand Plan: Sharpe and Thompson, 1914, bird's eye view</i>	10
6.	<i>The Grand Plan: Sharpe and Thompson, 1914</i>	11
7.	<i>Remnants of the Grand Plan still visible today</i>	11
8.	<i>Bird's eye view, 1945</i>	12
9.	<i>Plan by Thomas Mawson, circa 1925</i>	13
10.	<i>Plan of the Campus, 1947- 48</i>	14
11.	<i>1959 Plan: North, Centre and South Campuses, Parking and a Walking Campus"</i>	16
12.	<i>1959 Plan: Territorial Allocation</i>	16
13.	<i>The Main Campus in 1962</i>	17
14.	<i>1968 Plan: Land Use Cells</i>	18
15.	<i>1968 Plan: Dominant Arterial Roads and a Decorative Landscape</i>	19
16.	<i>1982 Proposal: Land Use</i>	20
17.	<i>1982 Proposal: Road Allowances and Setbacks</i>	20
18.	<i>1982 Proposal: Defined Development Blocks and a Hierarchy of Streets</i>	21
19.	<i>Campus Context</i>	22
20.	<i>Neighbours</i>	23
21.	<i>Scale of UBC and Downtown</i>	24
22.	<i>Scale Comparison: Block Size at UBC (left) and Downtown (right)</i>	24
23.	<i>Scale Comparison: UBC, University of Toronto, McGill</i>	25
24.	<i>Campus Land Use Structure</i>	26
25.	<i>Main, Middle and East Campus Land Use Structure</i>	27
26.	<i>Summary of Population Statistics</i>	28
27.	<i>The Contribution of an Academic Building to the Common Good</i>	35
28.	<i>The Main Campus and its Immediate Neighbours</i>	37
29.	<i>Theological Colleges: Visually Connected to the Main Mall at Crescent Road</i>	37
30.	<i>Comparison of UBC, U of T and McGill land areas</i>	38
31.	<i>The Limits of Academic Expansion</i>	39
32.	<i>The Main Mall on the Ridgeline of the "Hog's Back"</i>	40
33.	<i>The Ordered Mall</i>	41
34.	<i>The Coniferous Forest</i>	41
35.	<i>Landscape Typology Section: Forest, Western Slopes, Mall and Garden</i>	42
36.	<i>Landscape Typology Plan: Forest, Western Slopes, Mall and Garden</i>	43
37.	<i>Demolition Designation</i>	45
38.	<i>Historic Value</i>	46
39.	<i>Architectural Value</i>	47
40.	<i>Composite Building Value</i>	48
41.	<i>Landscapes of Special Aesthetic Value</i>	49
42.	<i>Landscapes of Commemorative, Symbolic or Historic Value</i>	50
43.	<i>Landscapes for Teaching, Research or Athletics</i>	51
44.	<i>Landscapes with Physical Constraints</i>	52
45.	<i>Composite Landscape Value</i>	53
46.	<i>Most Suitable Building Sites</i>	54
47.	<i>Part of Nolli's Map of Rome</i>	56
48.	<i>Blocks and Thoroughfares: Buildings reinforcing Communal Open Space</i>	57
49.	<i>Mall Structure</i>	59
50.	<i>Views</i>	60
51.	<i>Named Places</i>	61
52.	<i>Campus Landscape: Cohesion and Diversity</i>	63
53.	<i>An Ordered Signage System</i>	65
54.	<i>Faculty Centres</i>	67
55.	<i>Primary Locations for Commemoration and Recognition</i>	68
56.	<i>Library and Commerce Blocks: Existing Conditions</i>	71
57.	<i>Library and Commerce Blocks: Mid-Range Development</i>	71
58.	<i>Library and Commerce Blocks: Long Range Development</i>	71
59.	<i>Bird's Eye View, 1925</i>	72
60.	<i>Main Library</i>	72
61.	<i>Bird's Eye View, 1914</i>	72
62.	<i>Buchanan Building</i>	73

Figure	Pg.
63. Chemistry Building	73
64. Army Huts	73
65. Museum of Anthropology: A Pavilion in the Forest	75
66. Body Ellipse (John J. Fruin)	78
67. A pair of people in conversation passing another pair without deflection	78
68. A pair of people in conversation passing someone standing	78
69. The Pedestrian Network	79
70. Interior Streets, Scarborough College, 1966	80
71. Potential Colonnade Locations	80
72. Arcade as a System of Rain Shelters: Stanford University Plan, 1888	80
73. Interior and Exterior Pedestrian Routes at the Geographical Centre of the Main Campus	81
74. Parking for Disabled People near Building Entrances	83
75. Designated Bicycle Lanes into the Campus	84
76. Bicycle Shelters at the Periphery of the Pedestrian Zone	84
77. Existing Road Pattern	85
78. The 1914 Plan	85
79. A Flexible Road Network	87
80. Service Access	88
81. Emergency Access	88
82. Existing Parking (November, 1991)	90
83. Parking Strategy	91
84. Existing Bus Routes to the Campus	92
85. East Mall/West Mall Loop System	93
86. A Linear Transit System	93
87. Campus Lighting System	95
88. Academic Buildings	97
89. Major Instructional Facilities	98
90. The Library System	99
91. Planning Concept for the Great Library	100
92. Cultural Facilities	101
93. Connections with the Community	102
94. Connections with the Academic Core	102
95. Health Care Facilities	103
96. Places for Relaxation and Study	104
97. Food Services	105
98. Locational Criteria	106
99. Housing	107
100. Commercial Services	109
101. Administrative Services	111
102. Recreational and Athletic Facilities	113
103. Existing Condition	122
104. The North Lawn Mid-Range Demonstration Plan	123
105. Original Proposal for North Lawn	124
106. The North Lawn Long Range Demonstration Plan	125
107. Project Locations	126
108. Main Mall: Existing	127
109. Main Mall: Mid-Range	127
110. Proposed Redevelopment of the Main Mall: Partial Plan and Section	128
111. Interior and Exterior Circulation: North Mall, Mid-Range Plan	129
112. Interior and Exterior Circulation: South Mall, Mid-Range	130
113. Main Mall: Project Locations	131
114. Interior and Exterior Circulation: West University Boulevard	132
115. Ponderosa Place: Project Locations	132
116. Interior and Exterior Circulation: East University Boulevard	133
117. Project Locations	133
118. West Mall: Existing	134
119. Sidewalk and Roadway Dimensions	134
120. West Mall: Proposed	134
121. West Mall: Project Locations	135
122. East Mall: Existing	136
123. East Mall: Mid-Range Plan	136
124. East Mall: Project Locations	137





EXECUTIVE SUMMARY

The Campus Plan is a Set of Strategies

It is a common belief that a university facing the volume of construction activity faced by UBC over the next decade requires a Master Plan to shape that growth, so that the constituent projects work together to form a cohesive whole. And it is a common misunderstanding that it is desirable and somehow possible to firmly fix the shape of years of future development through a Master Plan. Plans that try to pre-define in this way usually form a straight jacket to the needs of the constituent projects and are soon abandoned. This leads to an opposite feeling about Master Plans: that they should be as vague as possible to allow for future flexibility, minimize constraints on building committees, and allow architectural creativity to flourish.

This Campus Plan takes neither of the above approaches. Its central theme is that the campus whole is greater than its parts, and that this whole can be beneficially designed, or at least directed, but not in the same way that buildings are designed. The essential difference between architectural design and campus design is that the Campus Plan must be sufficiently flexible to respond to its own evolution. The Campus Plan is therefore in essence a set of strategies, that will last over time, and that are clearly definitive as to intent but not as to final form. The demonstration plans included in the Campus Plan illustrate only one set of many possible sets of built form. The strategies dictate principle; the demonstration plans suggest form.

Implementation Through Communal and Constituent Projects

The campus whole is made up of projects of two types: the communal and the constituent. *Communal* projects are what might be termed "public works". They deal with linkages: the integrating landscape, the connecting framework of roads and paths, and the utility systems. *Constituent* projects are those undertaken by various faculties and support units. They meet their own "private needs" but they should also implement the campus "public needs" in two ways: first, by being sited and distributed as defined in the Campus Plan, and second, by meeting the Planning Strategies set out in *Section Two* of this report.

Reinforcing the Best, Healing the Worst

The Plan is founded on the existing condition, which in turn is a result of its development history, physical relationships with neighbouring territories and *genius loci* — spirit of the place. Perhaps ninety percent of the Plan is either a reaffirmation of what now exists, an attempt to enhance currently identifiable characteristics, or a healing of unsatisfactory aspects of the campus. Most of this healing is to bring to the fore the potential already inherent. Only a small percentage of the Plan deals with new ideas. Making the campus whole is a bigger idea than trying to be "new".



Leadership in Environmental Responsibility

As an educational servant and intellectual leader to Vancouver, British Columbia and the wider community, the University will, through example, point the way to development that demonstrates high respect for the environment. By establishing and implementing explicit development strategies, and by arousing the awareness of its members to environmental concerns, UBC will join with other major corporations and institutions in providing leadership in responsible and effective environmental action.

The Campus Landscape

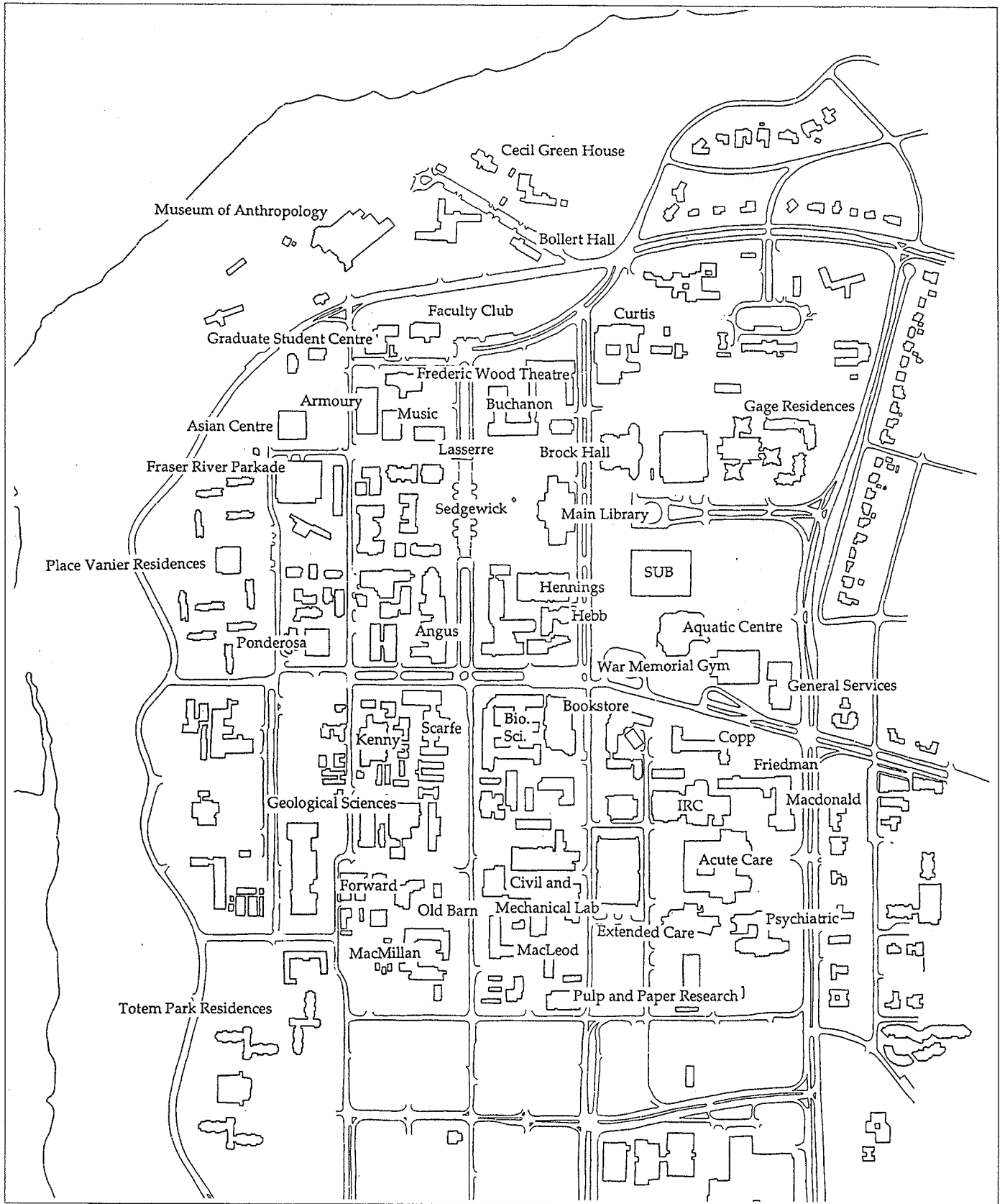
The greatest physical asset of the campus is its landscape. The best buildings are those which recognize and exploit this, such as the Museum of Anthropology, the Library and the Faculty Club. The memorable features of the landscape are forest, garden, and ordered Mall. And of these the Mall is unique to UBC, a truly identifying feature. But while it is certainly the centre of the campus landscape, its condition does not live up to its potential. It is neither road nor ceremonial green. The Red Oaks are priceless assets, but the floor of the Mall is an abandoned roadway. Enormous benefits of aesthetics, orientation and identity will accrue to the campus if the potential of the Main Mall is released in a simple and direct way, and in a way which brings together the public spaces and feature buildings of the central campus. This potential as a campus centre and organizing device is illustrated in principle on the next page.

Mid-Range and Long Range Horizons

The Demonstration Plans postulate a "mature state" which represents an idealized condition — a condition in which the strategies expressed in *Section Two* have been implemented. It is realistic in the sense that none of the proposals are overly ambitious, and many of the constituent projects (but not the communal projects) have already been funded. The communal projects — such as the rehabilitation of the Main Mall, roads and utility infrastructure — are large and expensive projects but they are necessary for the health of the campus and the realization of the University's mission. Care has been taken to build on what exists, and not to make them unduly elaborate or extravagant.

It would be desirable to bring all the projects illustrated forward as fast as the University is physically capable of constructing them. Present expectations, which hopefully are overly conservative, is that the Mid-Range Plan would take up to ten years to implement and the Long Range Plan could take up to twenty years.

NAMES OF KEY BUILDINGS

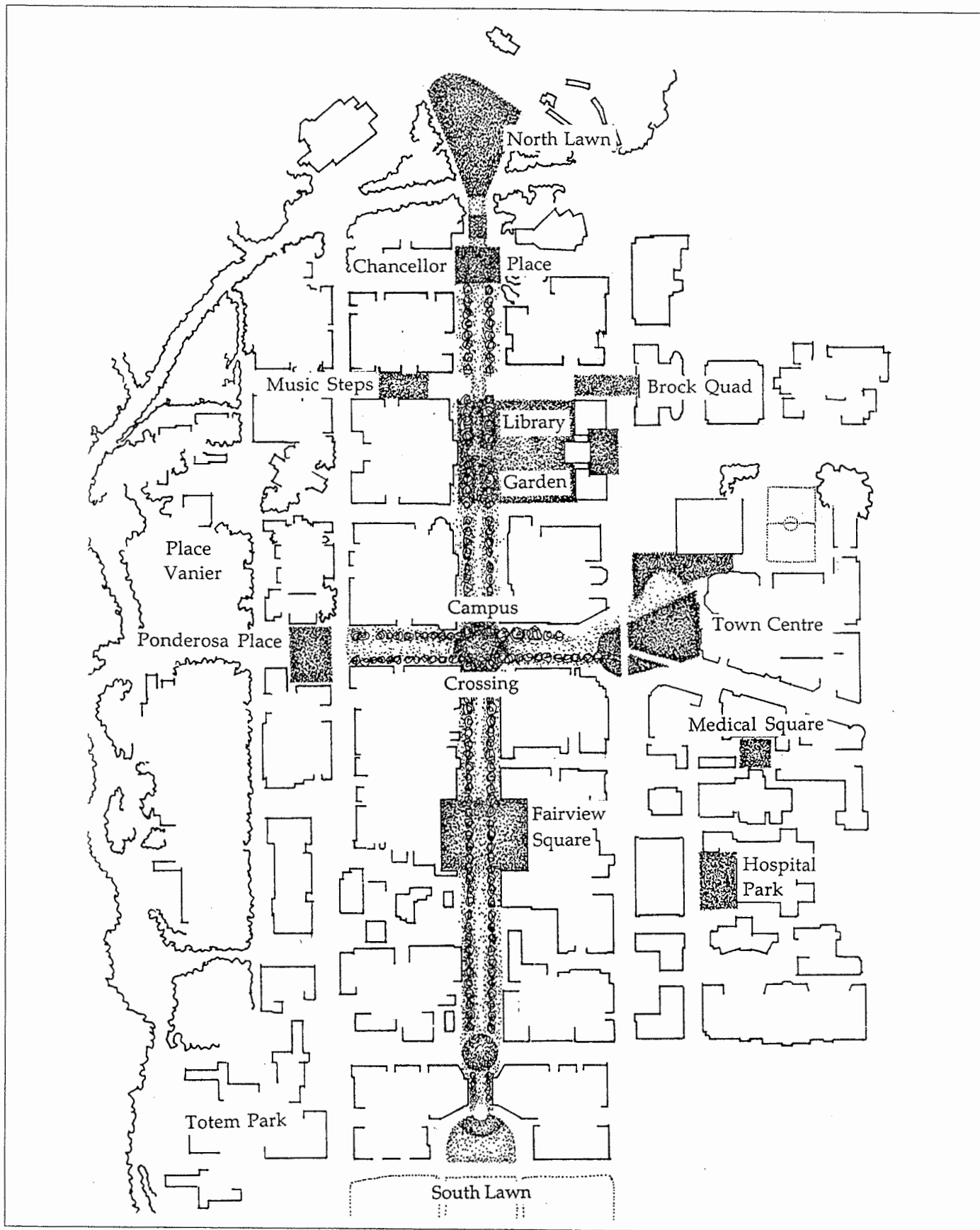




PLACES PRESENT AND FUTURE

The Main Campus is made up of a series of focal meeting places. Future development should reinforce existing places, and consciously bring emerging and new ones to life. This will result in a distribution of identifiable centres of activity which link the main means of access (parkades and bus terminals) to activity generators (eating places, lecture halls, residences and other major destinations).

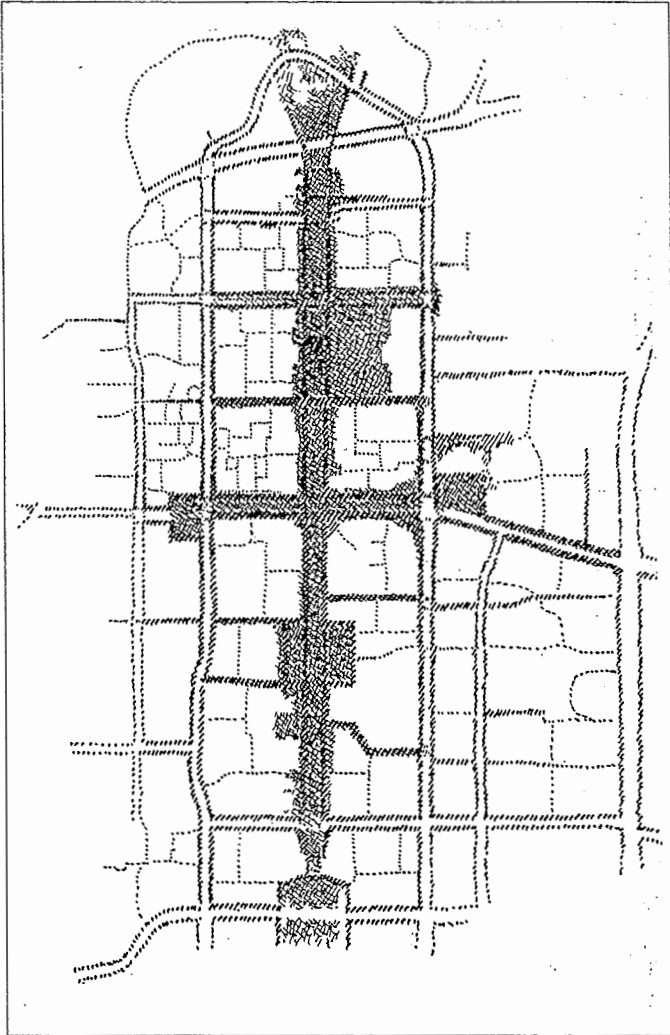
1. *Chancellor Place* will become the focus for the Rose Garden, future Marine Drive Parkade, Faculty Club, Art Gallery, future Performing Arts Centre, Frederick Wood Theatre and the classrooms of Buchanan Hall.
2. The proposed *North Lawn* will be associated with the Museum of Anthropology, Cecil Green college and the future Marine Drive Parkade.
3. The *Music Steps* is a place presently animated by "Yum Yum's" cafeteria and is close by the Fraser River Parkade.
4. *Brock Square* draws its life from the Buchanan classrooms, the student services in Brock Hall and the adjacency of the Library and the North Parkade.
5. The *Library Garden*, currently a campus focus, is supported by Sedgewick Library and the Main Library, and will be further reinforced by the first and later stages of library construction west of the Main Mall.
6. *Ponderosa Place* will be supported by the Ponderosa Cafeteria, the West Parkade, the proposed housing and associated services, and by the proposed bus terminal.
7. The *Campus Crossing* is literally at the centre of campus at the intersection of the two malls. It will be reinforced by a cafeteria in the Education Building and by the existing lecture halls and study lounges around it.
8. The *Town Centre* consists of a number of spaces and facilities that combine to form a major centre of institutional, commercial, and extracurricular activity.
9. *Fairview Square* will give new focus to the southern section of the Main Campus, home to many of the applied sciences.
10. The Health Sciences area contains two important places that can be reinforced: *Medical Square* is associated with the IRC cafeteria, and *Hospital Park*, is associated with the Health Sciences Parkade.
11. The *South Lawn* will be formed by the proposed buildings and landscapes at the south gateway to the Main Mall. It will be supported by a cafeteria, lounges, a major lecture hall, parking facilities and other common facilities.



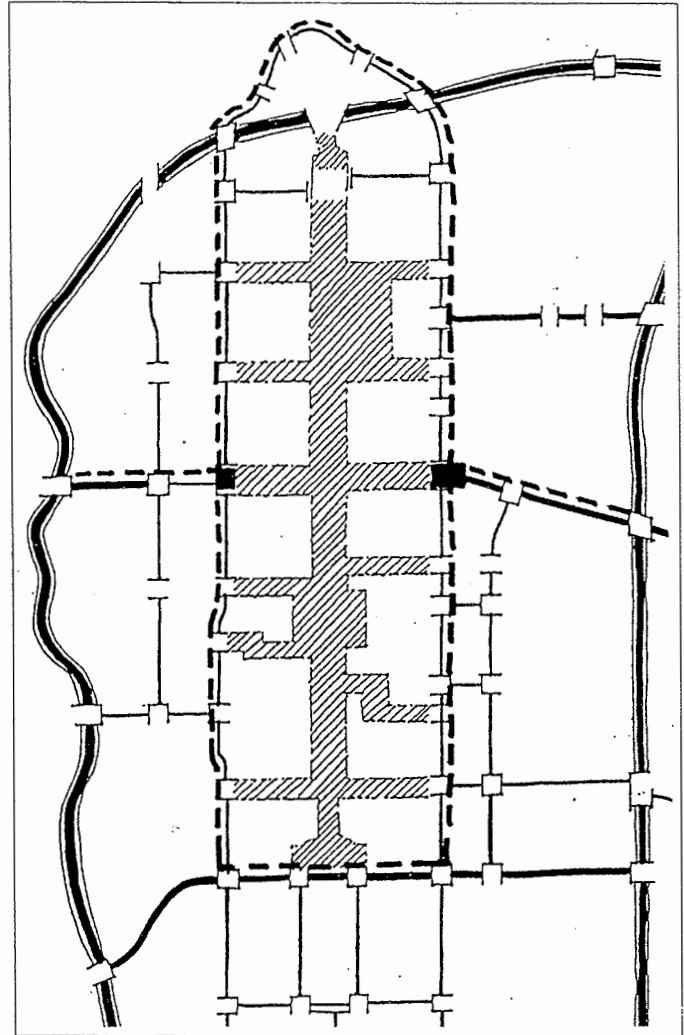


SITE PLAN FRAMEWORK

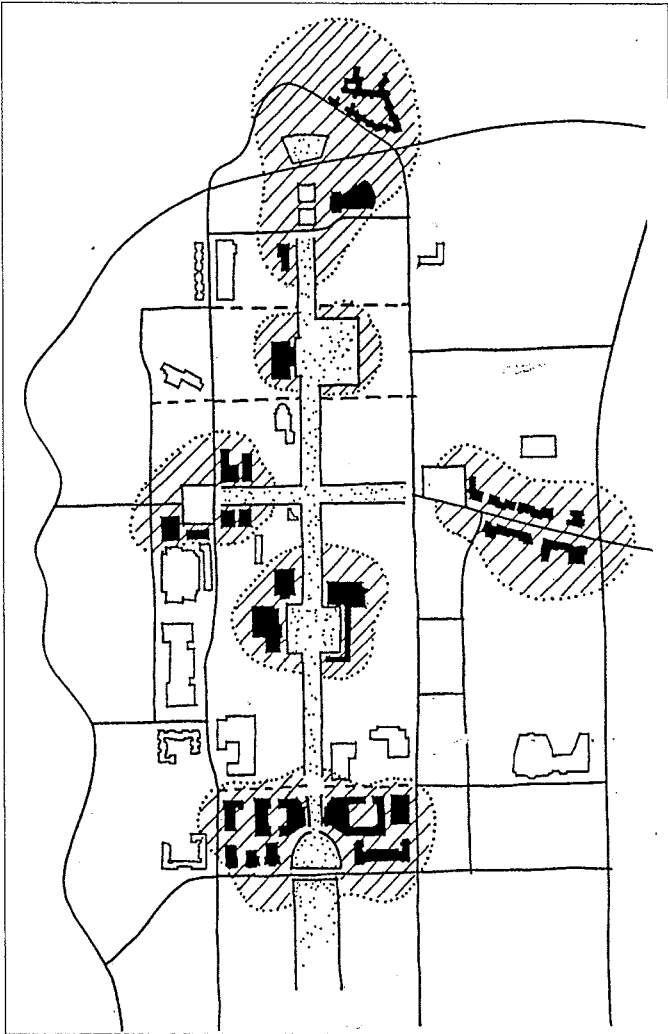
The following four drawings and associated text summarize the fundamental proposals of the movement and address system (both pedestrian and vehicular), priorities for project locations, and the broad themes that building design should follow in different areas of the campus.



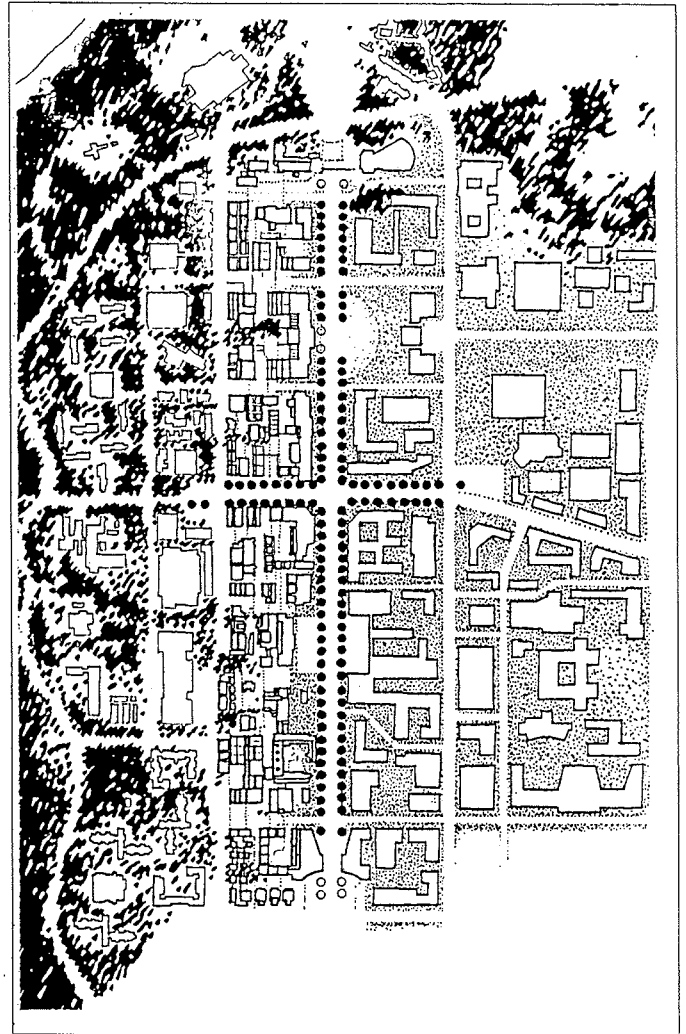
1. The Mall and associated open spaces act as the primary unifying structure or *spine* of the campus. The secondary structure is the *rib* system of pedestrian paths between academic blocks. The tertiary structure is the system of street sidewalks and the last structure is the intricate network of paths within each academic block. Town Squares are located at the east and west terminations of University Boulevard. Large greens punctuate the north and south ends of the Main Mall, which is also articulated at the Mall intersections, Fairview Square, and the Library Garden.



2. The road network is redesigned to be more flexible and more understandable. The roads are rationalized as continuous and multi-purpose corridors, all accommodating pedestrians and wheelchairs on both sides, two-way automobile traffic, bicycles, buses and service vehicles. The existing bus terminal is reinforced and a new one proposed for Ponderosa Place. Internal transit plays a much greater role on campus.



3. Priority is given to groups of projects which combine to reinforce the campus structure and bring activity and interest to the main connective open space structure. The north end acts as a forecourt to the campus and an interface with the larger community, and links the presently isolated sides of Marine Drive. University Boulevard become the *Main Street*, the place for town squares, graduate housing, retail and campus-wide services, and for major transit terminals. At the south end, additional academic facilities, housing and other services combine to create the South Lawn.



4. The *genius loci* of the site is clarified, and each project contributes to the particular character area in which it is located: Forest, Western Slopes, Ordered Malls, Escarpment Outlook, Academic Garden, and Town Square.



SUMMARY OF PLANNING STRATEGIES

GENERAL STRATEGIES

1. **Quality, Permanence and Economy** — The University is committed to quality, permanence and life-cycle economy in building construction, ending the era of temporary and semi-permanent development.
2. **Environmental Responsibility** — The University will provide community leadership in responsible and effective environmental action through developments that are land, energy and waste efficient, and by reducing the reliance upon private automobiles for commuting.
3. **Constituent and Communal Needs** — Projects must meet both the constituent needs of their user group and the communal needs of the campus, such as including common space, aligning interior circulation with neighbouring buildings, and animating the public domain.
4. **Respecting Campus Neighbours** — The University will seek to maintain positive relationships with campus neighbours by identifying and addressing common issues and by mitigating the impact of campus life and development on adjacent land uses.
5. **Campus Cohesion and Limits to Sprawl** — Expansion of the Main Campus boundaries will be arrested to increase interdisciplinary communication and to reduce the high costs that sprawl generates in infrastructure, travel time, loss of security and vitality.
6. **The Spirit of the Place** — The design of projects is expected to reinforce the *genius loci* of the site by responding to the essential landscape typologies: *Forest, Ordered Malls, Western Slopes, Academic Garden, and Town Centre*.
7. **Site Suitability: Reinforce the Best, Repair the Worst** — Project sites are selected by preserving the existing physical assets of the campus and favouring the repair of problem sites, avoiding the replacement or modification of good quality buildings or landscapes.
8. **Site Suitability: Appropriate Relationships** — Project sites are selected to ensure the best functional, social, technical and environmental relationships among related users and between users and neighbours.
9. **Spatial Structure** — The public domain of roads, walks, and open space should form a clear organizing framework, improving orientation and providing easily recognized addresses for buildings.
10. **Campus Landscape** — Landscape design should reinforce the *genius loci* and assist in establishing spatial containment and delight. The landscape should be developed as an educational resource.

11. **Signage and Orientation** — The primary means of enabling a sense of orientation on campus will be through the establishment of a clear circulation and spatial framework, which will be augmented by a legible signage system.
12. **Revealing University Culture** — People and groups who have contributed to the stature, humanity and resources of the University should be recognized through wording and symbols associated with the public realm of the campus. The ongoing activities of the University should be similarly apparent.
13. **Mixed Use** — Greater emphasis will be placed on mixing uses throughout the campus, to counter the historical separation of land uses and to establish a closer proximity among people, disciplines, work and living places, and services.
14. **Respect for Land Value** — The increasing value of campus land will be reflected in project cost analyses, and accommodated through increased development density.
15. **Building Design** — New buildings should be designed to express their role as “university” buildings, to make evident the activities occurring in them, to support the larger structural patterns of the campus, and to welcome and accommodate those who use them.
16. **Campus Safety** — Building, landscape and lighting design will promote personal safety.

SYSTEMS STRATEGIES

17. **Movement in the Public Domain** — The public domain (streets, malls, lanes, squares) will accommodate a mix of types of movement. Only the extremes (highways at one end, walks at the other) will cater to specialized use.
18. **Pedestrians** — The campus spatial structure will include a pedestrian priority zone at its heart and generous sidewalks along the roads, with pedestrian priority crossings at all intersections of paths and roads.
19. **Universal Access** — The pedestrian system, in and out of doors, will be designed to accommodate people with limited sight, hearing and mobility. Privileged vehicular access will also be provided.
20. **Bicycles** — The use of bicycles to commute to, and move about the campus will be encouraged.
21. **Vehicular Movement** — The road system on campus will be modified over time to establish a continuous, ordered network providing flexibility, legibility, and an appropriate balance between vehicular and pedestrian traffic.



22. **Parking** — Automobile use will be discouraged through incentives for car-pooling and transfer to transit and bicycles, but the great majority of UBC commuters will remain auto-captive. The parking inventory will be redistributed to a series of structures more closely encircling the Main Campus.
23. **Public Transit** — Greater use of public transit to and within the Main Campus will be encouraged.
24. **Underground Utilities** — The utility system should be overhauled and rationalized.
25. **Campus Lighting** — Exterior lighting will be redesigned to improve perceptual effectiveness, reducing glare and increasing safety, orientation and aesthetic appreciation of the night environment.

LAND USE STRATEGIES

26. **Locations for Education and Research** — Facilities for education and research will remain the primary use within the Main Campus. They will be distributed to encourage intra- and inter-disciplinary contacts.
27. **Locations for Group Instruction** — Lecture halls and classrooms will be distributed throughout the campus to minimize walking distances at class change.
28. **Locations for Libraries** — Library services will consist of a "Great Library" supported by ancillary and specialist branches distributed throughout the campus.
29. **Locations for Cultural Facilities** — The north end of the Main Campus will contain the major museum, theatres, Faculty Club, Art Gallery, public squares and gardens. Small museums and other cultural facilities will be distributed throughout the campus.
30. **Locations for Health Care** — Health care facilities, both for the public at large and for the university community, will remain in their current locations. Improved spatial and pedestrian linkages between the Health Care precinct and the rest of the campus will be developed.
31. **Locations for Relaxation and Study** — Spaces for relaxation, meeting and study will be distributed throughout the campus.
32. **Locations for Food Services** — Places to eat will be located in close proximity to the places where people work and study.
33. **Locations for Extracurricular Student Activities** — The major and expanded concentration of student facilities will remain in the "Town Centre" zone.

- 34. **Locations for Housing** — New housing will be developed close to the heart of the campus, in places where it will link currently isolated housing enclaves, contribute to campus safety, and bring life to major public squares.
- 35. **Locations for Shopping** — University Boulevard will be developed as a “Town Centre”, containing the commercial services required by the university community.
- 36. **Locations for Administration** — General, student, and plant administrative services will remain in their current locations. In the long term, some administration functions may move to the core of the existing Main Library.
- 37. **Locations for Athletic Facilities** — The existing athletic facilities will be supplemented by another building north of Memorial Gym and by fitness facilities elsewhere in the campus. Existing fields will be supplemented by landscaped open spaces developed for informal activities.

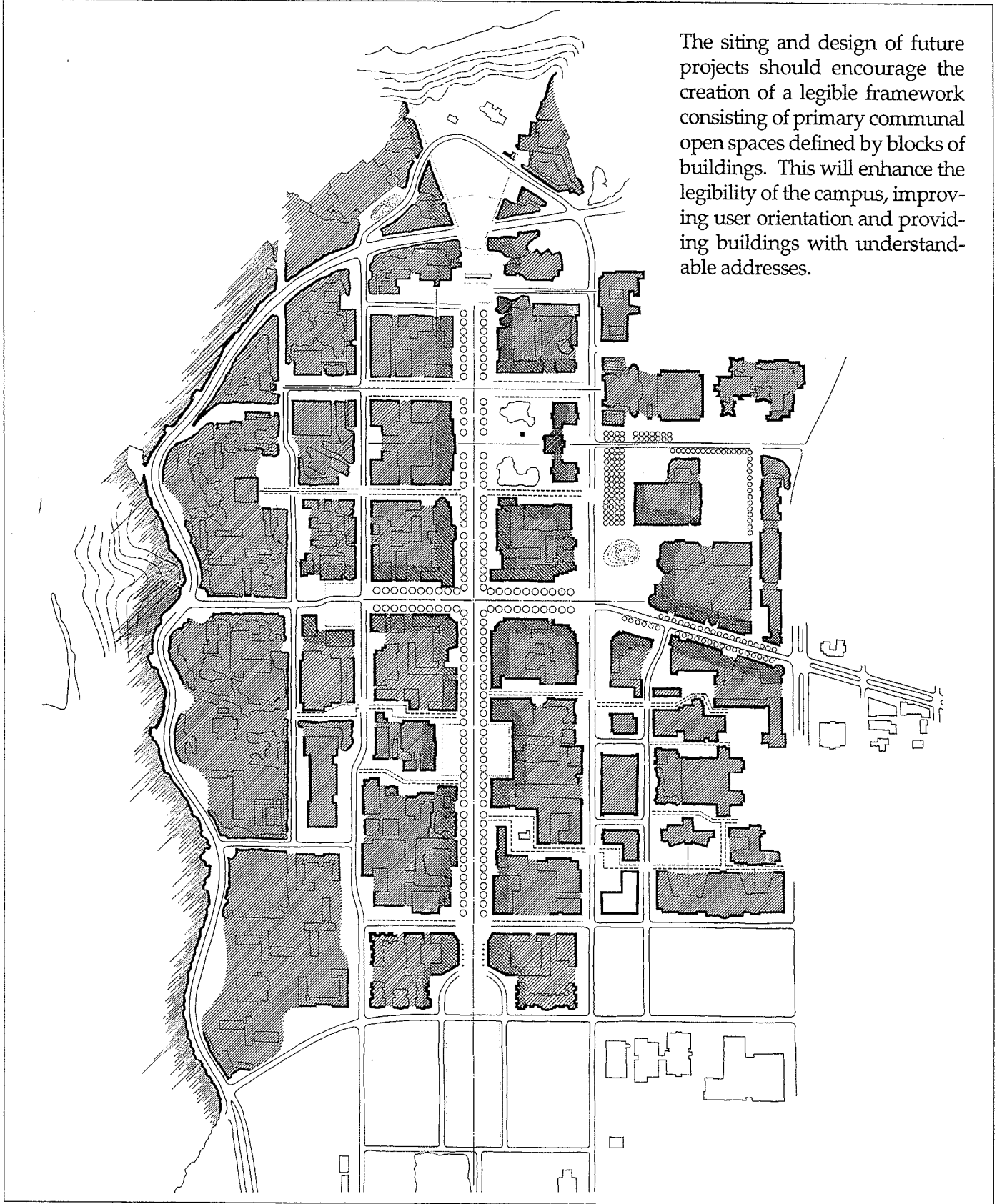
IMPLEMENTATION STRATEGIES

- 38. **The Campus Development Process** — The process for project delivery is being revised so that initiation, design, and construction of both constituent projects and communal infrastructure can be effectively monitored at each stage.
- 39. **Plan Continuity** — The Campus Plan will remain an effective development directive through approval by the Board of Governors, continuity of responsibility, consistent application and regular modification.
- 40. **Project Design Checklist** — Design Guidelines are provided for each project to place it in its planning context. These include a checklist to which project designers must respond.

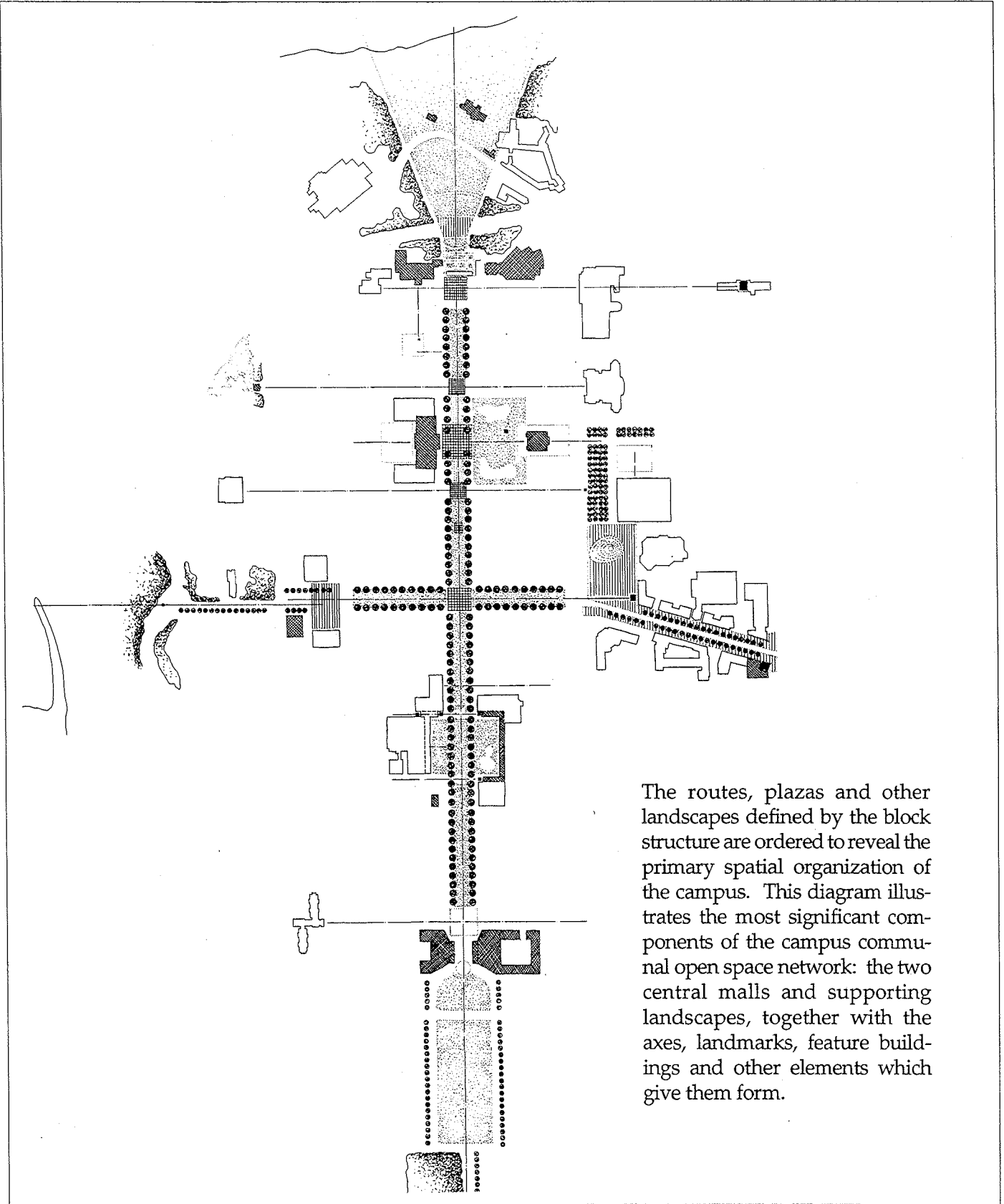


BLOCK STRUCTURE

The siting and design of future projects should encourage the creation of a legible framework consisting of primary communal open spaces defined by blocks of buildings. This will enhance the legibility of the campus, improving user orientation and providing buildings with understandable addresses.



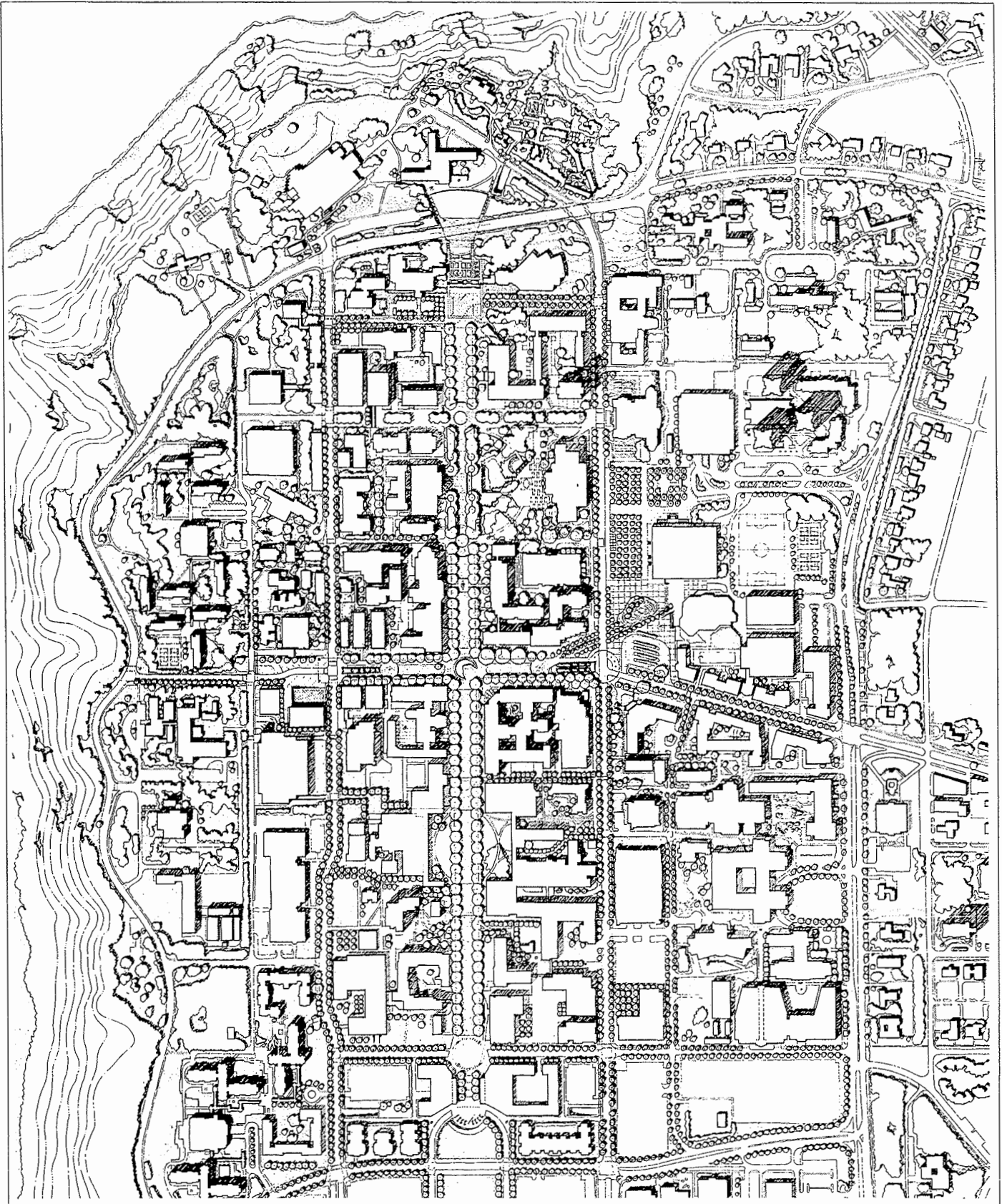
ORGANIZING STRUCTURE



The routes, plazas and other landscapes defined by the block structure are ordered to reveal the primary spatial organization of the campus. This diagram illustrates the most significant components of the campus communal open space network: the two central malls and supporting landscapes, together with the axes, landmarks, feature buildings and other elements which give them form.

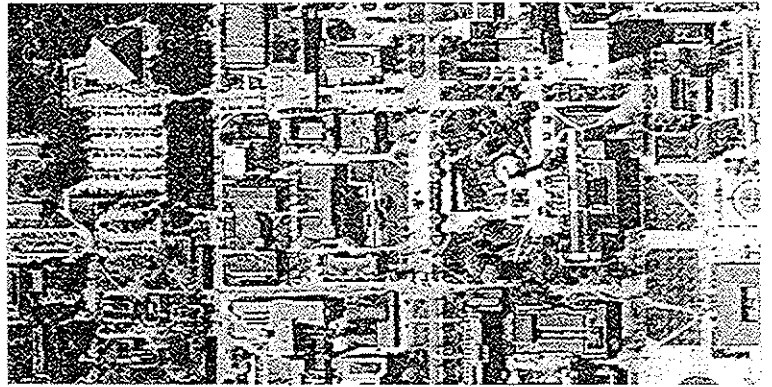


MID-RANGE DEMONSTRATION PLAN



SECTION ONE:

PLANNING FOUNDATIONS



This section describes the underpinnings of the Main Campus Plan: its role, planning context and scope, as well as the development history of the campus and its physical context and current condition. The section acts as the foundation for the Main Campus Planning Strategies and Demonstration Plans which follow.



1. ROLE AND SCOPE OF THE CAMPUS PLAN

The Campus Plan is the vehicle to get buildings and landscapes constructed, maintained, and preserved in order to provide and manage the necessary community of facilities which enables the goals and decisions of the University to be realized.

The Whole is Greater than the Parts

Physical planning deals with individual projects, with linking public landscapes and with the infrastructure of circulation systems and utilities. Much of the content of each project is established by identifying and meeting user needs, as constrained by the financial resources available. But an aspect of each project also deals with the contribution it makes to the campus as a whole.

A campus is a family of buildings and landscapes. Each building or landscape has individual needs and a separate identity. However, as in a family, each can and should make a contribution and work together so that the whole is greater than the parts. The alternative is that each is designed to meet only the needs of its own special constituency without reference to the others or, worse, works at cross purposes to the needs of others and the common good.

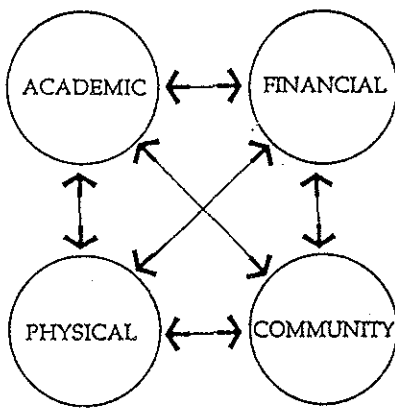
Components of the Institutional Plan

A comprehensive Institutional Plan for UBC has four primary interrelated components: academic planning, financial planning, community planning, and physical or development planning. The Mission Statement is a summary of all four but focuses on the academic philosophy (including education and research), and on the projects and ancillary service activities needed to support it. The Financial Plan outlines the economic strategies for achieving the Mission. The Community Profile describes the array of activities undertaken on the campus and which underlie the Mission. The Campus Plan focuses on the physical environment necessary to nurture and support the Mission: the community of facilities inhabited by a community of people.

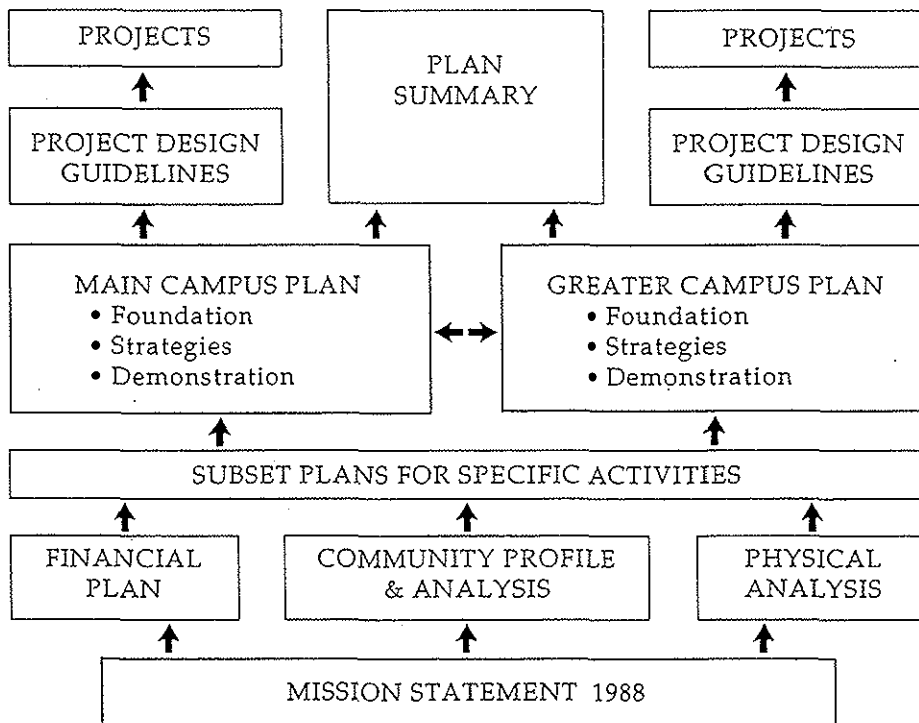
The responsibility for each planning domain rests with a different segment of the University community, but together they cover different aspects of the same ground and must be developed in unison.

Components of the Campus Plan

The chart opposite top right illustrates the main flows of planning effort and the place of this document, *Main Campus Plan – January 1992*, within the full scope of physical planning efforts currently being undertaken at the University to respond to the unusually vigorous building programme now under way.



1. Primary Planning Components



- SUBSET PLANS**
- Academic and Research**
 Agricultural Sciences*
 Applied Science*
 Arts
 Commerce*
 Dentistry
 Education*
 Forestry*
 Graduate Studies
 Law
 Medicine*
 Pharmaceutical Sciences
 Science*
- Associated Services**
 Administrative Services*
 Athletics and Recreation Services*
 Botanical Gardens*
 Continuing Studies
 Food Services*
 Housing*
 Instructional Space*
 Library Services*
- Associated Activities**
 Associated Research
 Discovery Parks
 Hampton Place
 Theological Colleges
 Triumph
 University Hospital
- Physical Services**
 Access for the Disabled
 Capital Programme
 Commemorative and Donor Recognition*
 Lighting
 Materials Handling
 Parking Services*
 Public Art System
 Public Safety System
 Signage and Orientation Systems
 Subsurface Infrastructure
 Surface Infrastructure
 Waste Disposal
- * completed or under way

2. The University Planning Process

While the diagram shows an hierarchical relationship between activities, one standing on the next, they are being undertaken to a large extent in parallel, the interim findings of one exercise influencing and/or responding to the findings of another as they proceed.

Building on the Mission Statement, the first layer is composed of a financial plan for the next ten years, an inventory and general analysis of the buildings and landscapes, and an analysis of the campus community which deals with the educational, research, recreational, living and social needs of the inhabitants.

The next layer consists of a series of subset plans for specific academic and support components of the University: the various faculties being allocated new space, learning resources, housing, food services, athletics, recreation, campus-wide instructional space and so on (See *Subset Plans*, right).

The Main Campus Plan and the Greater Campus Plan (to follow) set out the principles and strategies necessary for translating the academic, financial and community goals of the University into physical form. These Plans will assist in discussions with neighbouring communities and regional traffic, land use and Park agencies towards the creation of appropriate interfaces.



Structure of the Campus Plan

The Campus Plan is intended to act as an ongoing planning tool and consists of two equally important components: planning strategies and demonstration plans.

Planning strategies set out the specific planning objectives and the principles whereby those objectives can be met. They include strategies for the siting and arrangement of academic and communal facilities, the infrastructure of circulation, the landscape that ties the campus together, and the urban design guidelines for construction projects as they come on stream. The strategies should guide development well into the future even as the specific contingencies and conditions of development evolve.

Demonstration plans illustrate one way in which the planning principles might be implemented given the development programs and conditions as they are now known.

Design Guidelines are prepared for each project at the point architectural design begins.

Plan Flexibility and Longevity

Campus plans express the University's expectations at the time they are drafted, but these expectations are not static. The Plan must be able to evolve along with the University's needs and resources or it will soon become redundant and then set aside.

The UBC Campus Plan, based on a set of strategies rather than a single vision image, will remain as a firm basis on which to direct campus development because it is adopted as University policy and mechanisms are established for its periodic review and updating. This discipline will ensure that the Plan is sufficiently current and relevant to protect the University community from arbitrary or single-constituent decisions while retaining the flexibility necessary to accommodate genuine evolution.

Scope of this Plan: the Main Campus

This document is the third draft Plan for the Main Campus. This area, roughly north of Thunderbird Boulevard and west of Wesbrook Mall, is the most highly developed portion of the campus and is the location of most academic and support facilities.

The area can be planned as an entity because of the intensity of its uses which distinguish it from other adjacent parts of the campus. However, this document does touch upon the larger campus and adjacent areas to the extent required to establish a planning context.

DESIGN GUIDELINES

produced or under way

North Parkade

Main Mall

Earth Sciences Centre

Student Recreation Centre

Performing Arts Centre

Art Gallery

Main Library

Scarfe Expansion

Forest Sciences Centre

Thunderbird Housing

Creative Arts Centre

Social Work

Advanced Materials

Institute for Asian Research

Other parts of the campus, including the Middle, East and South Campuses, will be given detailed consideration in the Greater Campus Plan.

Planning Horizons: 10 years and 20 years

This Plan is projected to two time horizons, the mid-range and the long range.

The *Mid-Range Plan* coincides with the contents of the current capital plans, coming to completion in approximately 10 years or sooner if possible. To this has been added those projects which should be incorporated in the capital plans in order to realize a high level of campus quality. These are primarily projects which relate to the campus infrastructure, to a unifying landscape, and to the commercial services sorely missed on the relatively isolated campus.

The *Long Range Plan* expresses the full implementation of the strategies necessary to fully realize UBC's mission to become a great university in physical terms, given the constraints and opportunities of its site and inventory. It represents the current vision of the mature state.



2. BUILDING THE UBC MISSION

The Campus Plan is the means by which the physical aspirations of the Mission Statement can be implemented. This will be done when the buildings and landscapes on campus not only meet the needs of their particular users, but also contribute to the composite environment to make the whole campus an efficient place to learn, work and live — a place which uplifts the spirit and is a joy to inhabit.

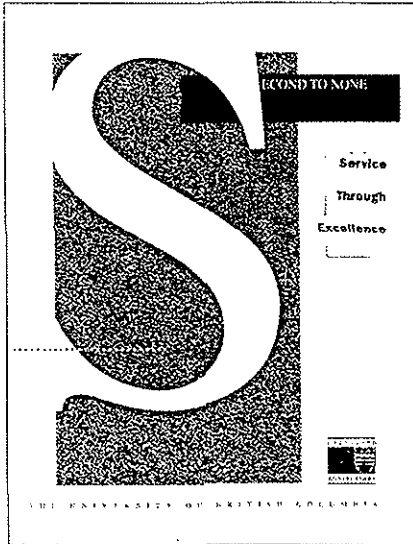
The Physical Environment Matters

The intended mission of UBC, put simply, is to be a great university, and a central proposition of the Mission Statement is that the University is and must be “an environment to support the adventure of the mind and spirit”. That environment is intellectual, social and physical. To be a great university, UBC must have a great environment in all three ways, and each should support and be supported by the others. Thus the underlying assumption of this Plan is that the quality of the physical environment matters a great deal if the University is to carry out its mission.

A great physical environment will assist in nurturing great education and research. It will help attract outstanding teachers, students and researchers, and make their work more productive and enjoyable. It will also encourage benefactors to identify with the place. But it will not materialize through the simple *provision* of new buildings. They must be designed to fit their own functions and to make a great composition with other buildings and landscapes. This effort requires no less direction and creative thinking than the other pursuits of the University. The Mission Statement defines appropriate pursuits for UBC thus: “If an area of activity is not based on a conceptual framework and may be carried on with a minimum of thought, it has no place in the university”. This measure should be applied to the design and maintenance of the new and existing buildings, utilities and landscapes both as *projects* and as a *composite whole*.

Quality is as Important as Quantity

For understandable reasons, it is common for quantity and what might be termed “private quality” to take precedence over “public quality” during the resolution of competing interests in the design of projects. The unbalanced results do not further the UBC mission. The development of a great campus environment is, by virtue of this Plan, a stated institutional objective, capable of competing on an even footing with other objectives when difficult choices must be made. If “UBC is to continue to be one of the best universities in Canada, if not the best, and among the best in North America”; if it is to “enhance its status as a research intensive university”; if it is to “serve the province as well as it should as a mainspring for economic, social and cultural development”, it must have the physical environment to do so, for both practical and symbolic reasons.



3. Second to None: The UBC Mission of Excellence

Campus Design Affects Interdisciplinary Connections

The Mission Statement emphasizes *"the inter-relationship between disciplines, the need to re-establish links between the humanities and the sciences, and the need to build bridges within the humanities and within the sciences"*. This objective can be helped or hindered by the composite design of the physical environment. The campus design can help by fostering an identification with and an understanding of the whole campus, establishing interdisciplinary adjacencies and natural ways for people to meet each other as they go about their work, links between buildings, and links within departments in the buildings.

Permanence and Finish

The UBC campus is described as *"unfinished"*. In one sense, and because it is in constant evolution, a campus is never *"finished"*, but it should have a *sense* of finish, or at least of compose, of being complete at all times while allowing for further growth. The sense of finish and permanence necessary to give occupants and visitors the feeling that they are in the tangible presence of a great university requires the exemplary design and construction of new buildings and of the spaces between the buildings, and the repair of existing ones. The Plan principles are intended to give some guidance as to the University's collective idea of *"exemplary"*.

THE MISSION STATEMENT

The path for the future is clearly marked. It is the mission of the University of British Columbia that it will continue to be one of the best universities in Canada, if not the best, and among the best in North America; that its stature as a research intensive university will be enhanced; and that it will continue to serve the province as a mainspring for economic, social and cultural development.

During the next decade it will be important to accelerate the evolution that has taken place in the provincial system of postsecondary education. The University of British Columbia should aim to consolidate its role as a fully fledged, research intensive university of international stature. It should offer a full range of high quality academic and professional

programs, and contribute in a major way to the economic, social and cultural development of the province. The other universities, including new ones that may be established, will have more circumscribed roles as generalists, with their fields of concentration covering a narrower spectrum with less focus on unique professional programs and graduate research activities.

Seventy-five years ago, UBC was a small provincial institution serving the needs of a pioneering population. It is now a large, many dimensioned university of national and international stature. The next step is for UBC to become a great university — second to none, providing community service through excellence.



3. THE INFLUENCE OF THE PAST

Many of the planning issues being faced today are rooted in history and in the incremental and evolutionary development of the campus. Recurrent themes thread through the campus history, despite continuing efforts to realize the aspirations of the time within financial limits, physical constraints and a legacy of former planning ideals and decisions. They include:

- the separation of the campus from the population centre it serves;
- the attempt to capitalize on a spectacular setting;
- the reliance on temporary and semi-permanent buildings;
- the reluctance to replace an existing building, no matter its condition;
- the continued expansion of the campus at its periphery;
- the progressive loss of structure as the campus expanded;
- the increasing integration of faculties;
- the decentralization of campus planning control;
- the struggle to establish the cohesion promised by the original plans.

The Point Grey Site: *Of* but not *In* the City

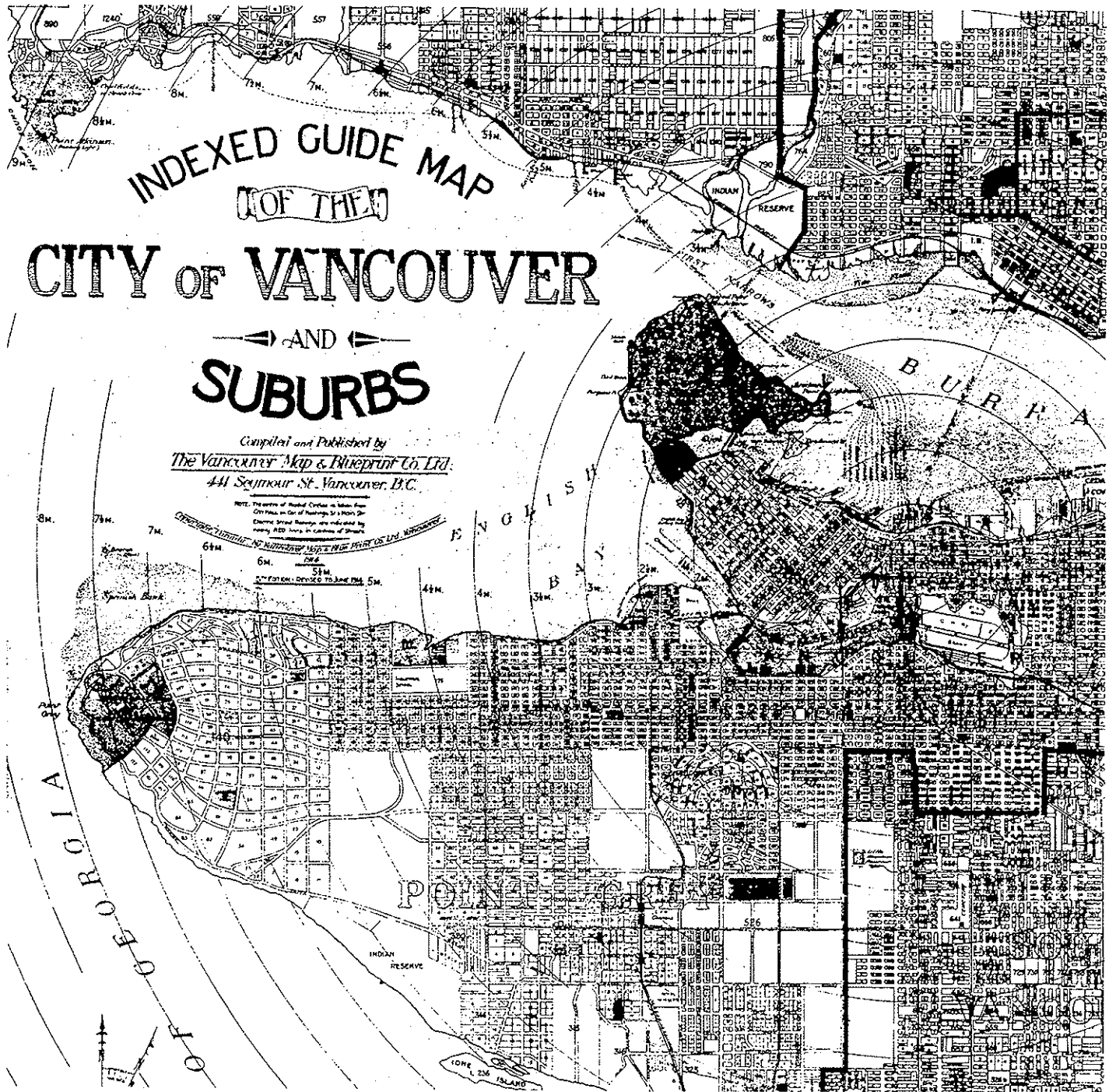
The selection, in 1910, of a remote and undeveloped peninsula for the new University reflected attitudes about both education and settlement that were at once pragmatic and idealistic.

The pragmatic goal of the University founders was to establish an institution that would prepare the people required to service the economic development of the province. To this end, a site was selected which was close to the largest provincial city, but not part of it — a separate provincial institution with a role and status equal or similar to the fledgling city, rather than a component of it.

There was also a great pride in the young province that stimulated optimism and idealism about the new University. This was expressed in the selection of a site with spectacular scenery and a close relationship to the basic natural elements of forest, ocean and mountain, removed from the commercial activity of the urban scene.

The selection of the beautiful but remote Point Grey site has had many profound impacts on the University. The distinct identity of the campus, the quality of the lush natural setting, and the serenity of the place are now fundamental aspects of the UBC image. But so are the sprawl encouraged by a large and open site, the acres of parking lots and roadways needed by commuters, and the desertion at night of its daytime population. Ever since the site was selected there have been schemes to enhance the considerable assets and overcome the deficiencies of its site.

This was a time of grand plans and "opening up the land" to new settlements. It was intended that the University become financially independent through the profits of subdivision of the endowment lands. The 1914 street guide of Vancouver does not restrict itself to the street layout then constructed — it projects the future condition, and an optimistic one, later postponed by the first world war and halted by the recession.



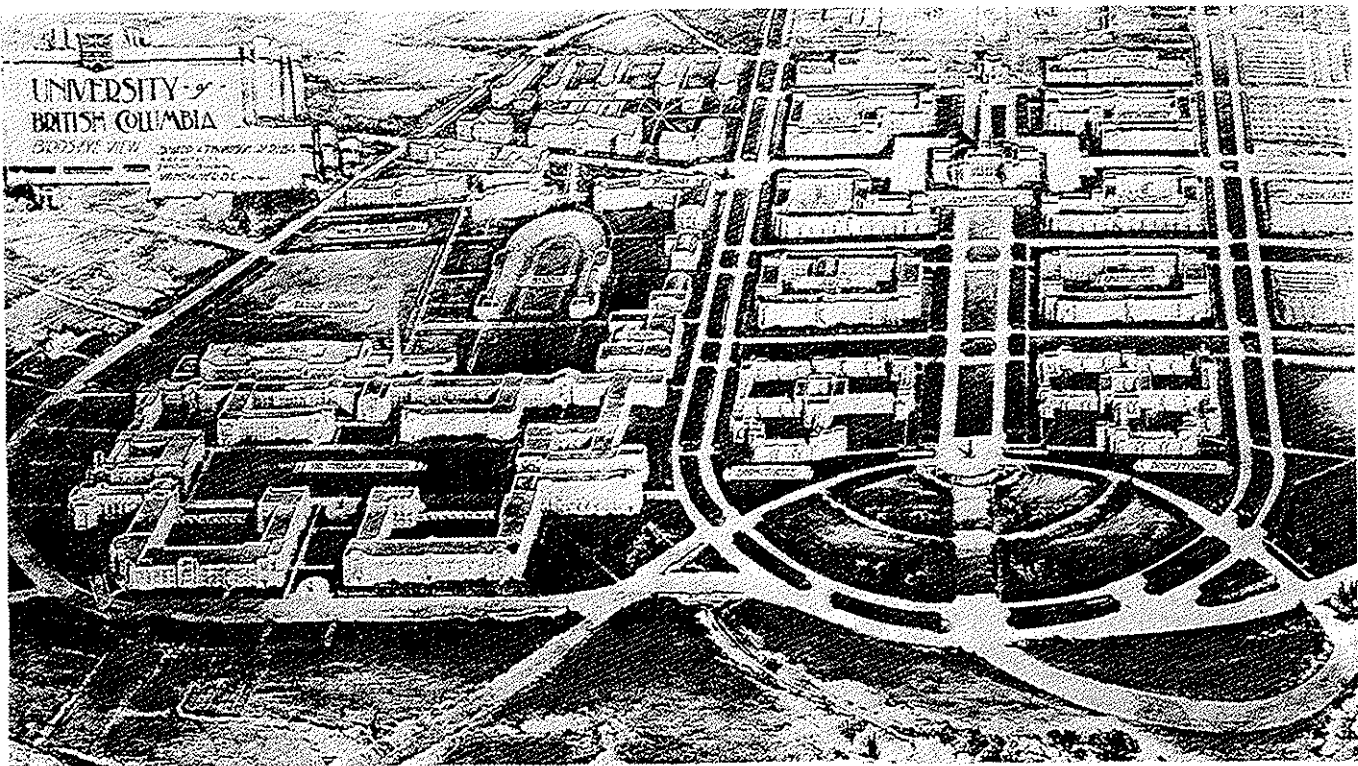
4. City of Vancouver, 1914



The Grand Plan: Sharpe and Thompson, 1914

Selected through competition, the original plan for the new University responded to the requirement for *"a university city in an idyllic setting"*, with *"groups of buildings, so arranged that they shall lead up to one beautiful and harmonious scheme"*.

The 1914 plan proposed that the campus be organized into an academic core surrounded by supporting uses, reflecting the then emerging theories of city zoning. It established a highly rational development pattern that included a comprehensive circulation network and a series of regular blocks each assigned to specific university functions.



5. *The Grand Plan: Sharpe and Thompson, 1914, bird's eye view*

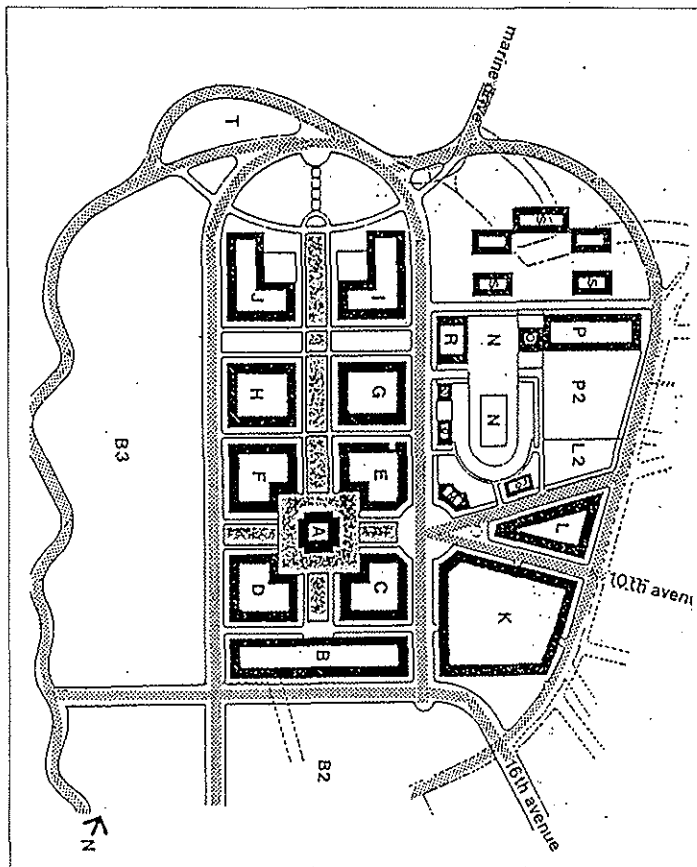
The plan for the "university city" was also heroic, proposing a development pattern in which the order of the whole would take precedence over the identity of the parts. Drawing heavily on the City Beautiful movement, the campus would have a clear and dominant spatial structure punctuated by a powerful sense of focus. The unity of the composition would be further reinforced by the imposition of a single architectural expression.

The desire to capitalize on the natural features of the site (the "idyllic setting") derived from the Garden City movement, which promoted a close relationship with nature. The 1914 plan expressed this by calling for the integration of the built campus and the site. The Main Mall, the central spine of the campus, was laid out along a natural ridge giving it prominence and framing the most spectacular scenic view offered by the site.

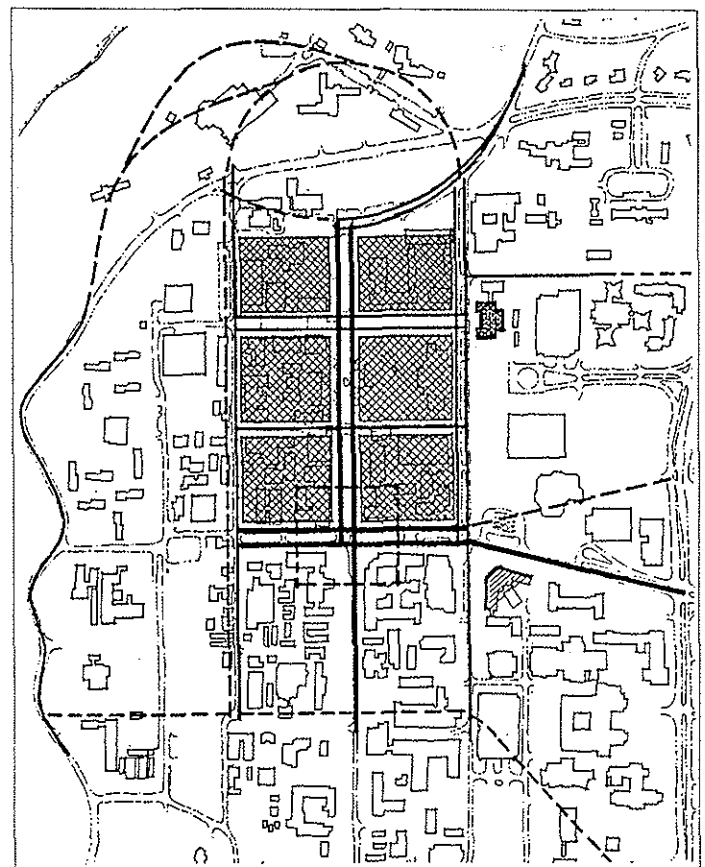
The plan also argued for the integration of buildings with landscape. A highly ordered network of open spaces was proposed, including broad public avenues, ceremonial plazas, and internal quadrangles echoing the pattern of the great European universities. All of these spaces were to be generous in size and richly developed.

This plan, adapted for implementation in 1914, established a basic structure which greatly influenced the development of the campus and will continue to do so well into the future. The basic land use organization, the three parallel malls transected by University Boulevard, the original grid of streets and development blocks, and the emphasis on landscape development are still apparent today and are fundamental features of the campus image.

In some ways however, the plan established patterns which have inhibited the beneficial evolution of the University. The strict separation of land uses into separate precincts, together with low density, has resulted in excessive travel times between parts of the campus, and a lack of vitality and security within the enlarged "academic core".



6. The Grand Plan: Sharpe and Thompson, 1914



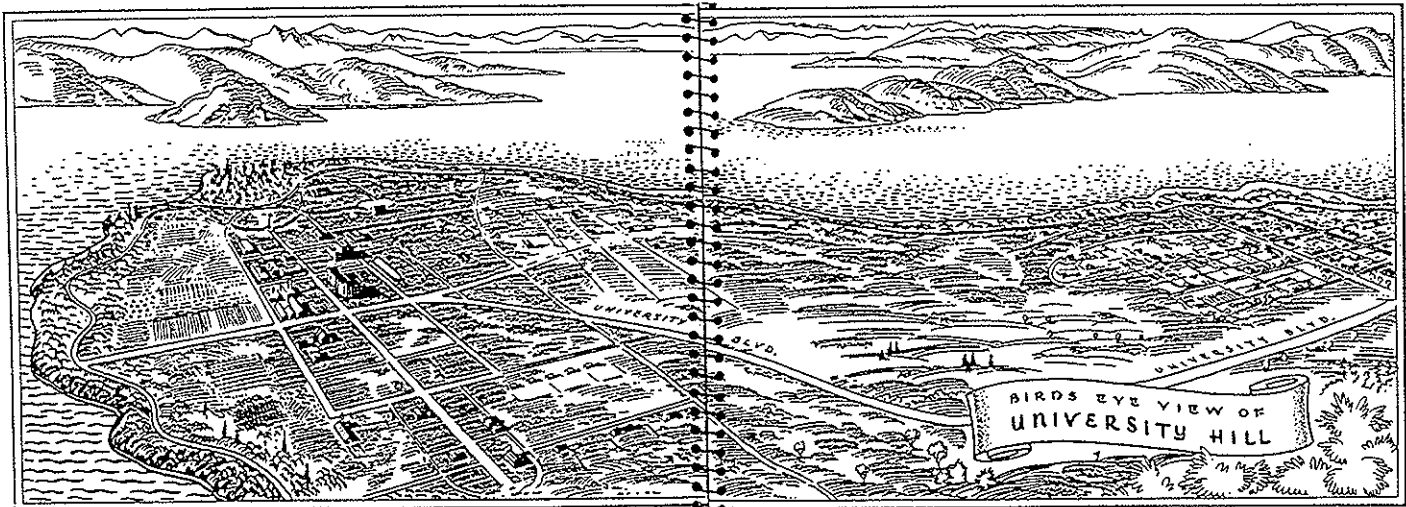
7. Remnants of the Grand Plan still visible today



Slow Beginnings

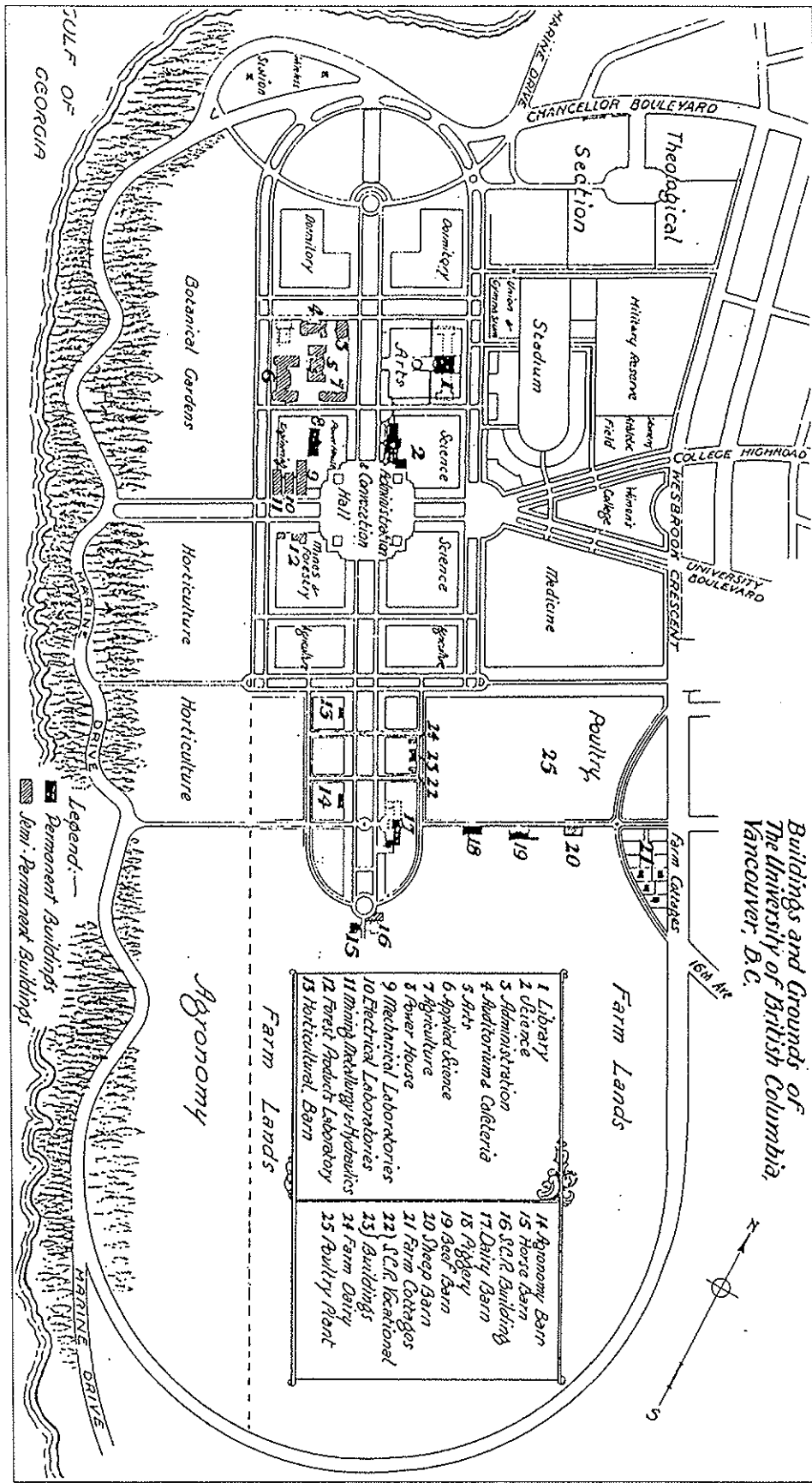
Delayed and interrupted by two World Wars and the Great Depression, the early development of the campus was very slow. Faced with a constant shortage of funds, the decision was made to erect "semi-permanent" buildings in the unassigned portions of the campus which were intended to be replaced by more permanent buildings as soon as possible. However, by 1945, the temporary buildings were still in use and only two permanent buildings, the Library and the Science (now Chemistry) Building, had been built.

The reliance on temporary and "semi-permanent" buildings would become a long range strategy for dealing with chronic under-funding, and would lead to a campus which perpetually looked "unfinished". There would develop an acceptance of *ad hoc* development (because it was only temporary), and a scepticism towards the value and efficacy of long range planning.



8. Bird's eye view, 1945

Despite the modest building programme and small campus population, the major components of the 1914 Plan were implemented during these times. The Main Mall, University Boulevard, the East and West Malls, and the development blocks around the Library, were all laid out and developed. At no time since has such attention been given to the overall structure and image of the campus.



9. Plan by Thomas Mawson, circa 1925

Post-War Growth: The 1945 Army Huts

After 1945, the dramatic influx of veterans stimulated an immediate need for new academic facilities as well as housing. Following the precedent set in the early years, this need was initially met by importing large numbers of army huts, most of which were located with little regard for the original or any campus plan. Still in use today nearly 50 years after their installation, the huts are viewed with derision and nostalgia in almost equal measure.

Today, the remaining huts seem functionally and architecturally inappropriate for a modern university, yet their scale and whimsical character are viewed by many as being well suited to the actual social and academic environment of the University.

Much of the nostalgia for the huts may be a reaction to the new buildings built after 1950, at first simply placed within the street structure then established, with *ad hoc* expansions. The new buildings such as Buchanan and the north wing of the Main Library were cool and machine-like, reflecting the architectural preoccupations of the day with industrial processes and utilitarian efficiency — buildings were seen as “machines for living in”. Some twenty new buildings were constructed between 1950 and 1960.

The commitment to the Grand Plan of 1914 began to be submerged beneath the pressing need for rapid expansion. It was replaced by relatively uncoordinated planning initiatives as development control passed from the central administration to individual faculties with their own agendas and priorities. The construction of a coherent structure of roads and paths was not high on the agenda.

Expansion and Property Lines: The 1959 Campus Plan

This plan was the first planning study of the whole campus since 1914, and focused on two central issues — the allocation of territory to rapidly expanding faculties and the need to accommodate ever increasing numbers of private vehicles.

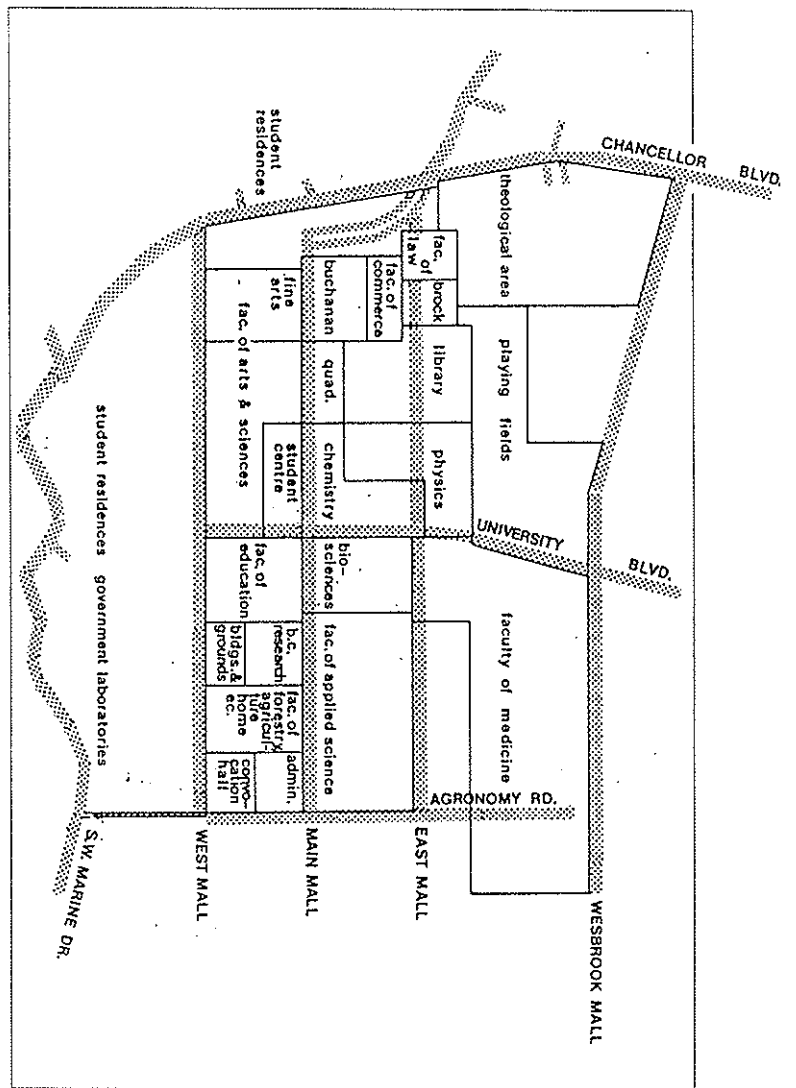
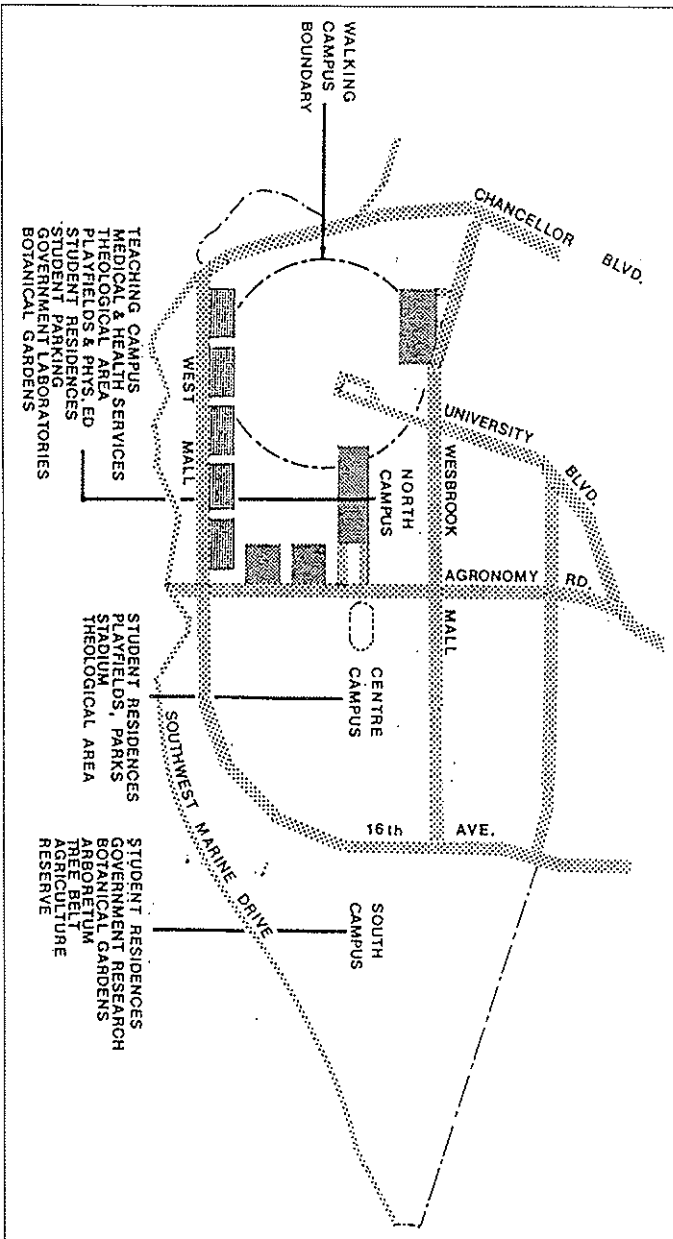
The campus was expanding beyond the framework established in the 1914 plan, and unforeseen activities, particularly research, were being added. The 1959 plan confirmed many of the land use propositions of the 1914 plan, including the separation of functions, but promoted a much larger campus. A North, Centre and South Campus were identified, each with a specific role and allocation of land uses. The academic core was expanded south to Agronomy Road.

The 1959 plan also abandoned the regular block pattern of the 1914 plan, which was replaced south of University Boulevard by a patchwork of territorial divisions, thereby losing the cohesive order of the Grand Plan. Lacking the discipline of the regular block structure, development of this area has become *ad hoc*, without a clear network of open spaces or transecting streets.



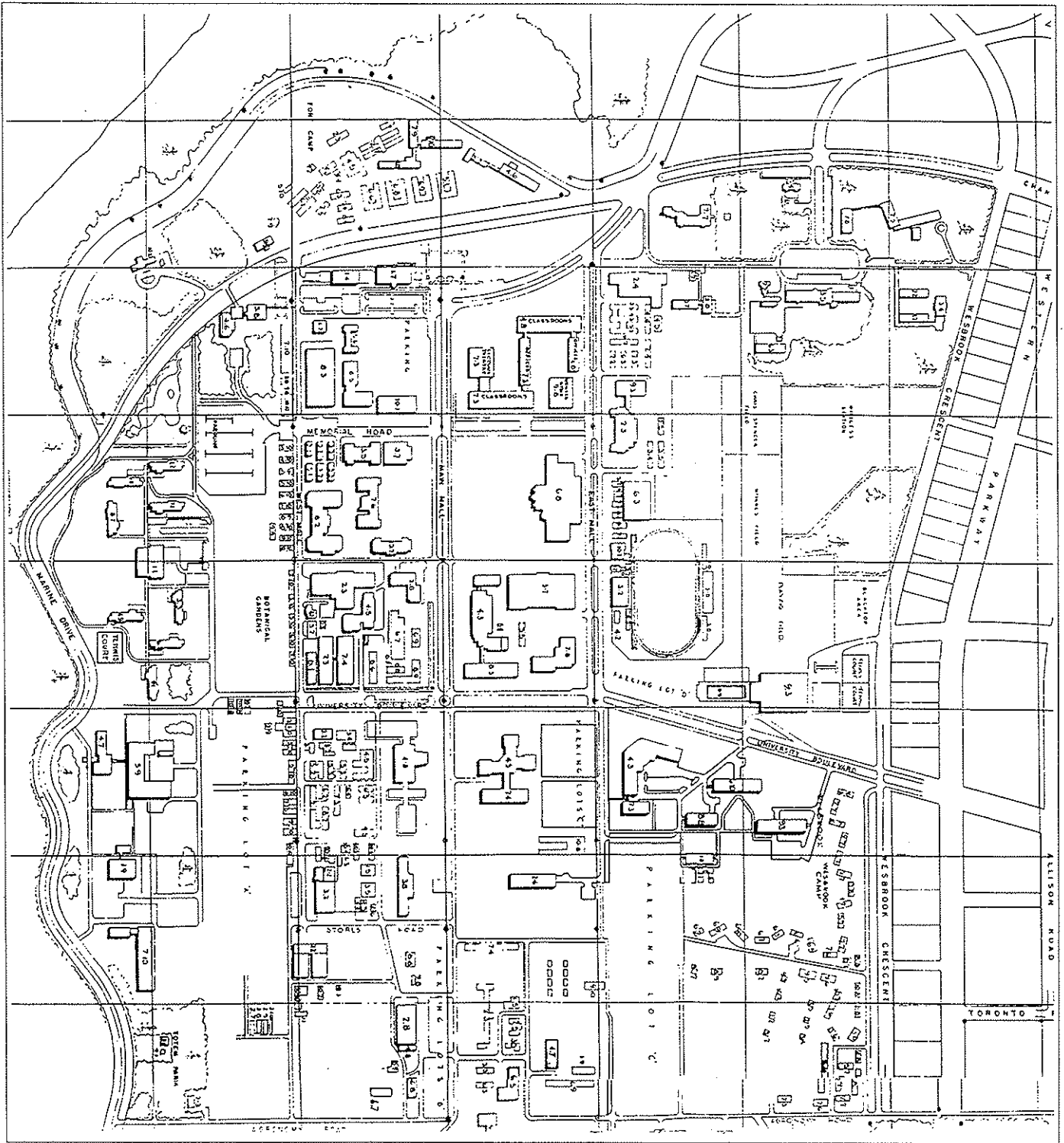
The rapid increase in the number of private vehicles gave rise to the concept of a "walking campus" as well as proposals for road widening and new parking lots within the support zone around the academic core. These concepts were quite consistent with the 1914 plan, and reinforced the distinct single-function character of the academic core.

Although the importance of landscape development was emphasized, the plan made no mention of architectural guidelines or of a consistent architectural style.



12. 1959 Plan: Territorial Allocation

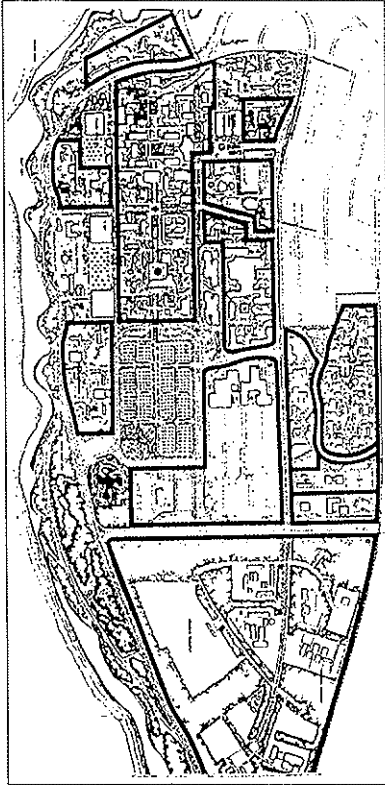
11. 1959 Plan: North, Centre and South Campuses, Parking and a "Walking Campus"



13. The Main Campus in 1962



Arteries and Cells: The 1968 Master Plan



14. 1968 Plan: Land Use Cells

The 1959 plan provided the territorial underlay for a more comprehensive master plan begun in 1961 in anticipation of massive expansion to accommodate the post-war baby-boomers. The plan took seven years to produce, by which time much of the boom was over.

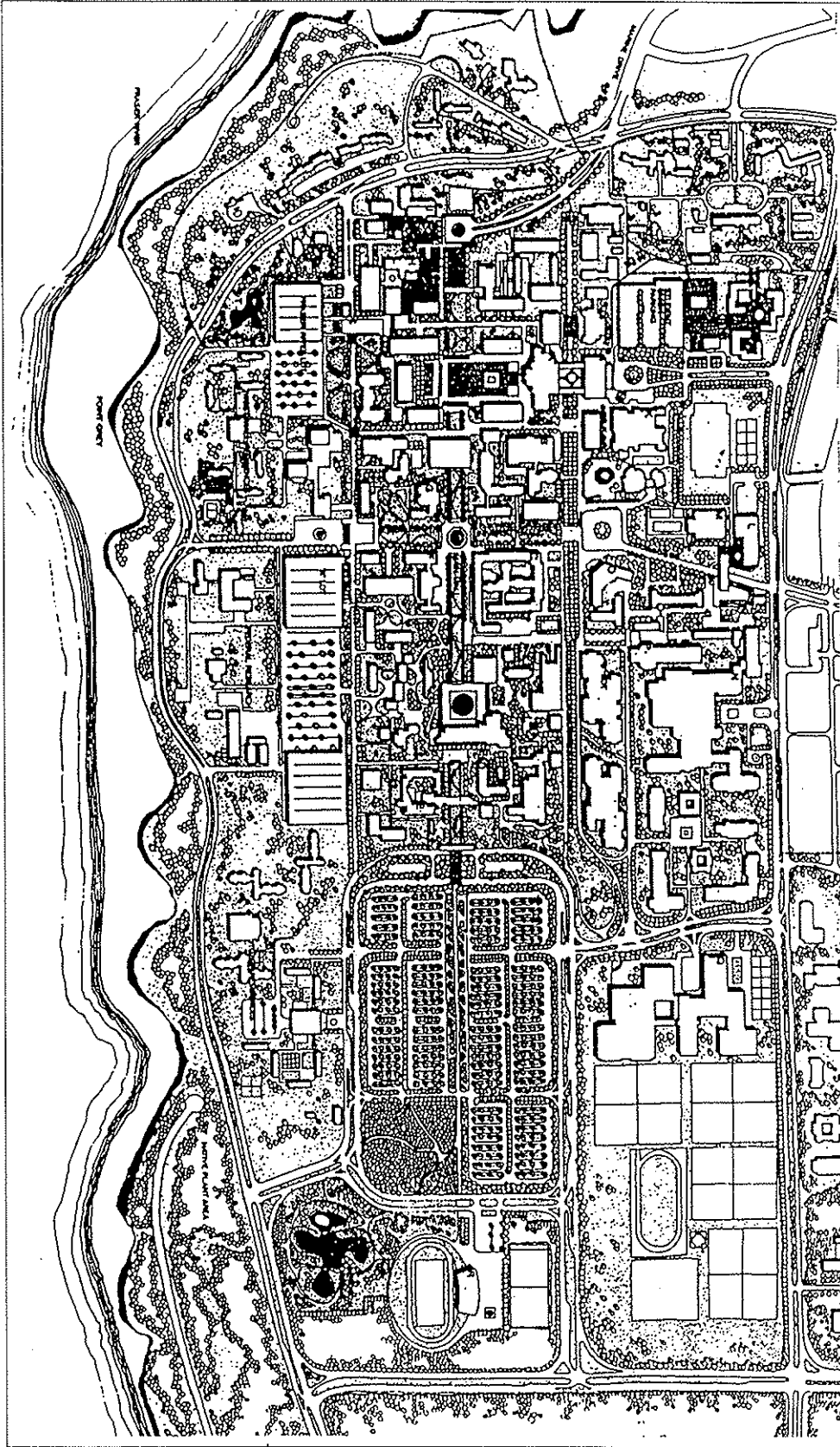
It concentrated on the issues of land use, circulation and landscape. The southward expansion of the academic core was to be held at Agronomy Road, and new development accommodated by infilling the core with higher density buildings. The academic core was to be developed as two related precincts, one for arts and humanities, and the other for science and engineering. The idea of a walking campus contained within a half-mile radius was retained. New supporting uses were to surround the core. They included housing, a student centre, administrative facilities, athletic facilities and parking structures.

The proposals for vehicle access and circulation reflected the "origin/destination", cellular isolation and curvilinear easy-flow parkway concepts prevalent at that time. The flexible "streets and blocks" network of the Grand Plan was replaced by a ring road with divided access drives to parking lots. The importance of a "street address" as distinct from driveway access seems to have been forgotten. The Main Mall, by being chopped up into smaller plazas, would also have lost its role of orientation or "address". The public transit terminal was removed from the academic core and several were proposed at the ends of the two major malls. Only one was built.

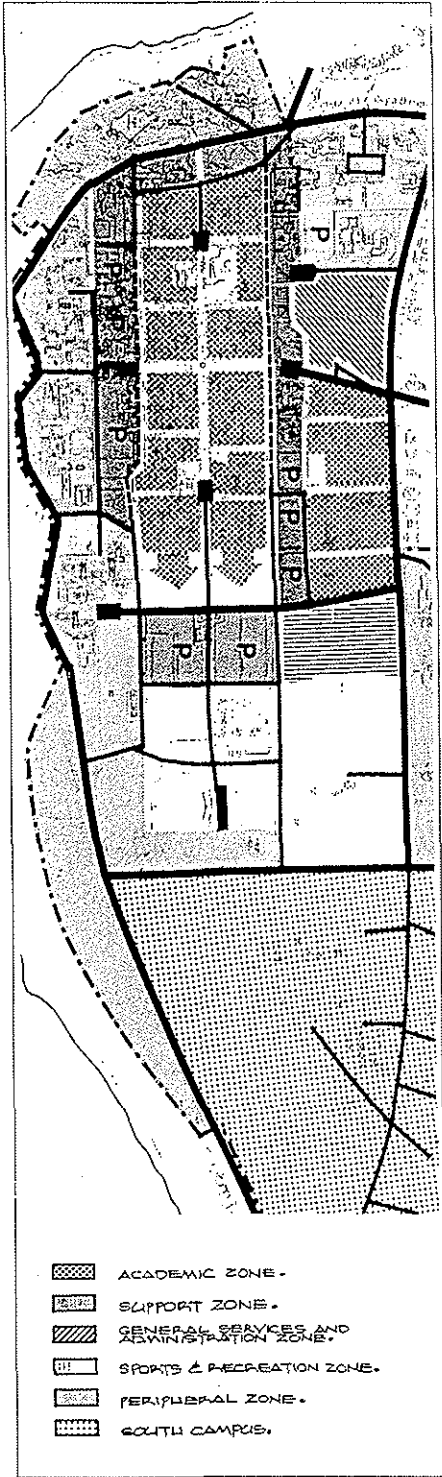
The 1968 plan proposed that the campus be developed as a "great and varied garden" with a range of large and small plazas as well as many interstitial places to be planted in the Vancouver tradition founded on the 19th century English botanical garden. The plan suggested that the preservation of landscape in the academic core would require that new buildings be tall. The Buchanan and Gage Towers followed this thinking. (Fact often confounds theory: the ratio of floor space to site area of the 18-storey Gage Residences and surrounding surface parking is about the same as that of the 3-storey Fairview Crescent, with its underground parking).

The built form proposals of the 1968 plan would have meant the final demise of the Grand Plan. New buildings spanning the Main Mall dividing it up into plazas would have reduced the signature landscape of the campus to a series of unrelated places, and would have removed the last remaining means of orientation by obscuring the mall and block structure of the academic core. It was a time when architectural and planning theory overlooked the role of streets and open spaces as ordering structures in the quest for "form which followed function", and the ensuing over-simplification of the function of streets as only conduits for the movement of automobiles.

The partial implementation of this pattern provided the current hybrid system with its confusing cul-de-sacs, partial connections and other discontinuities. Fortunately, however, the collective wisdom at UBC prevailed when decisions about building sites were made and the Mall was saved.



15. 1968 Plan: Dominant Arterial Roads and a Decorative Landscape



16. 1982 Proposal: Land Use

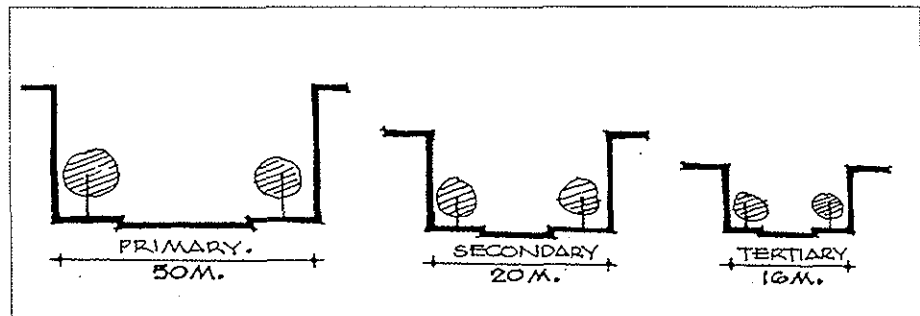
Corridors, Blocks and Setbacks: The 1982 Proposal

Having quadrupled since 1945, University enrolment began to stabilize in the middle 1970's. The 1982 proposal was intended to guide development anticipated not from expansion but from the changing composition of the student population, from the University's greater involvement in high level research, and from the need to upgrade the campus building stock.

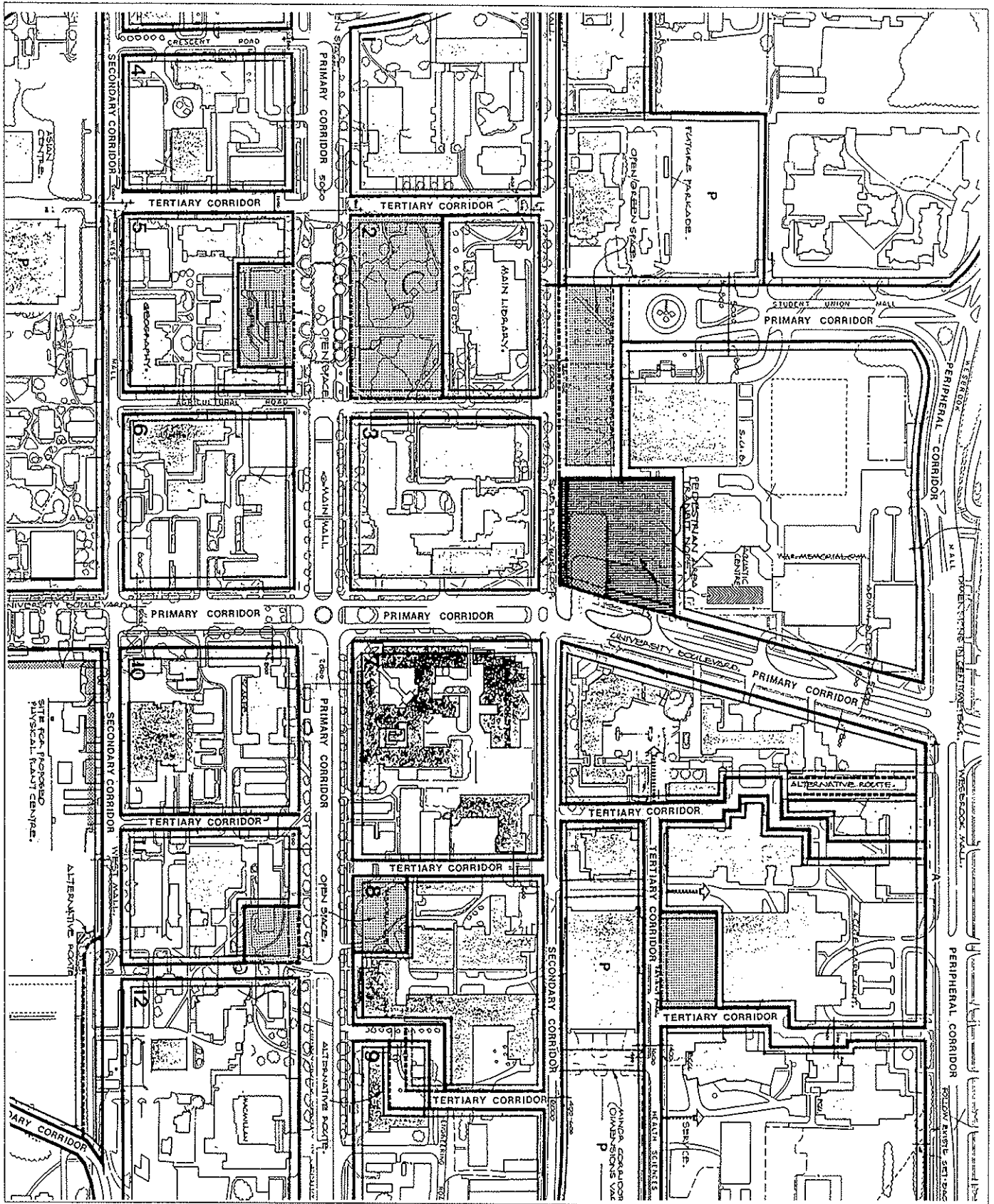
The 1982 proposal used a municipal planning model where development is proposed by private interests, but controlled in the public interest to ensure congruity with larger planning objectives. To facilitate the control of individual development projects on the campus, the proposal established a hierarchy of movement corridors and re-instituted the streets and blocks pattern started in 1914 but gradually dropped in the years since 1945. Development "rules" were described for each block establishing development capacity and building setbacks from public routes. The focus of the development rules was the encouragement of buildings that formed and supported the network of public movement.

The by now traditional pattern of an academic core surrounded by supporting uses was confirmed, but once again expanded south, this time to Thunderbird Boulevard. The circulation system proposed was a ring road with partially interconnected drives leading to parking areas and designated "drop-off" points within the pedestrian academic core.

The 1982 proposal established arm's length development regulations to deal with a critical deficiency of the campus planning legacy — its lack (except for the Main Mall) of a cohesive framework of public space and defined circulation corridors, but there was no development to regulate until eight years later. When development became possible, the merits of arm's length regulation seemed to pale in comparison to the merits of seizing the moment and pro-actively shaping the form of the campus. Hence the current plan of 1992.



17. 1982 Proposal: Road Allowances and Setbacks



18. 1982 Proposal: Defined Development Blocks and a Hierarchy of Streets



4. AN UNDERSTANDING OF THE PRESENT

A Campus at Land's End

The University is at the land's end of Point Grey, perceptually separated from the rest of the city by the forest of Pacific Spirit Park. Chosen by the founders, the site was to have been developed as an idyllic "university city" at a remove from the city, but without compromising the necessary ties between the University and the centres of commerce and industry it was intended to serve.

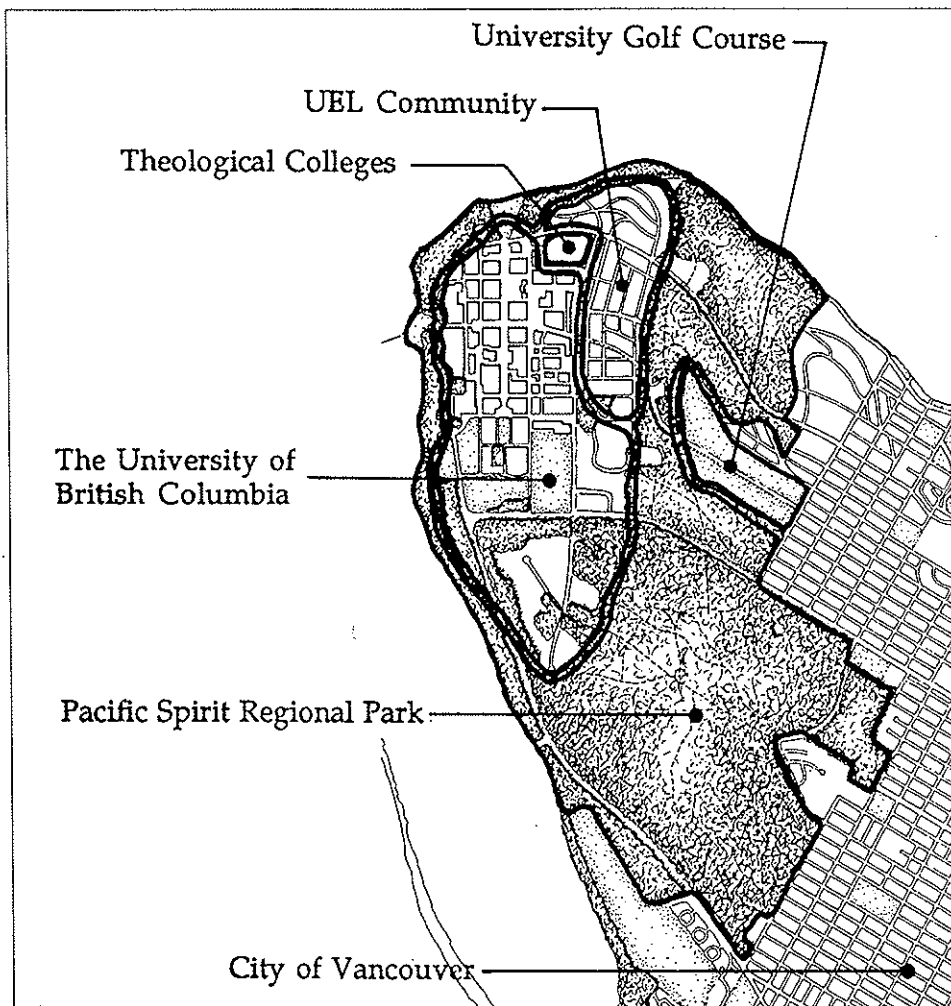


19. Campus Context

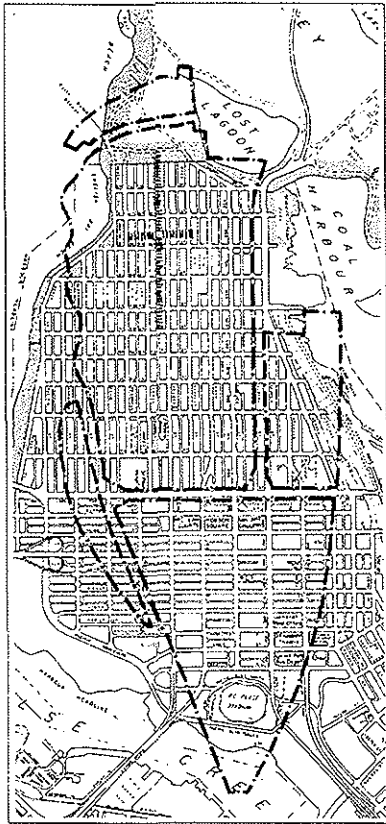
The dichotomy between these two visions has yet to be fully resolved. The remote and bucolic location does give the campus a special character as a self-contained and highly identifiable precinct set in a garden bounded by the forest. At the same time, the disadvantages of its location are acute: long commuting times for most people, low vitality during off hours, a strong sense of isolation, and a general lack of services and amenities.

The Mission Statement acknowledges the value of the campus's relative isolation and natural setting, but places greater emphasis on improving connections with the community. As an academic institution with national and international ties, and as a (day time) community of nearly 35,000 people, the University identifies itself as a component of a larger community and not as a self-contained and monastic collegiate institute.

Although perceptually isolated, the University shares its location with other land users all of whom form a community of users on the tip of Point Grey. The development of a cohesive and mutually supportive community requires that the individual members co-operate to identify common aspirations and to balance these against their own goals and priorities.



20. Neighbours



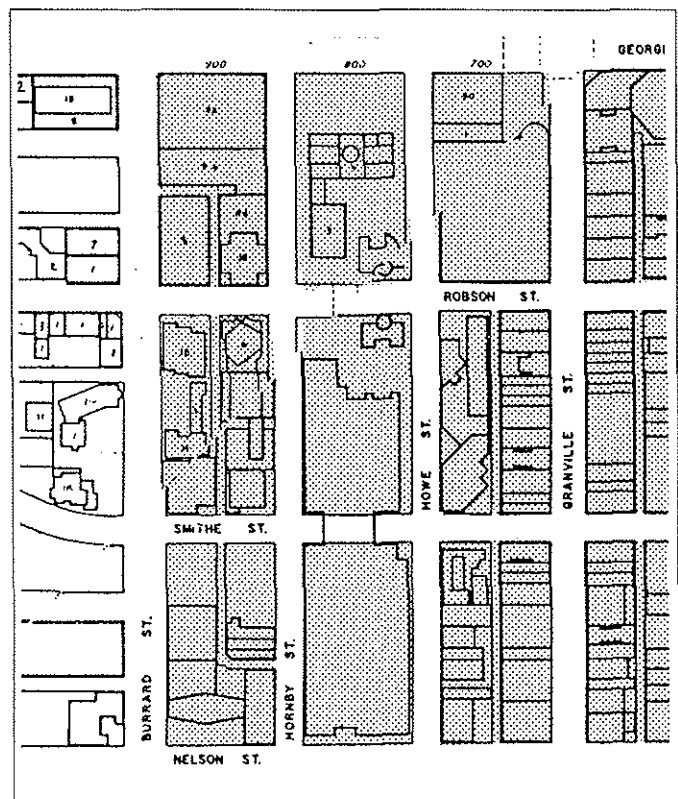
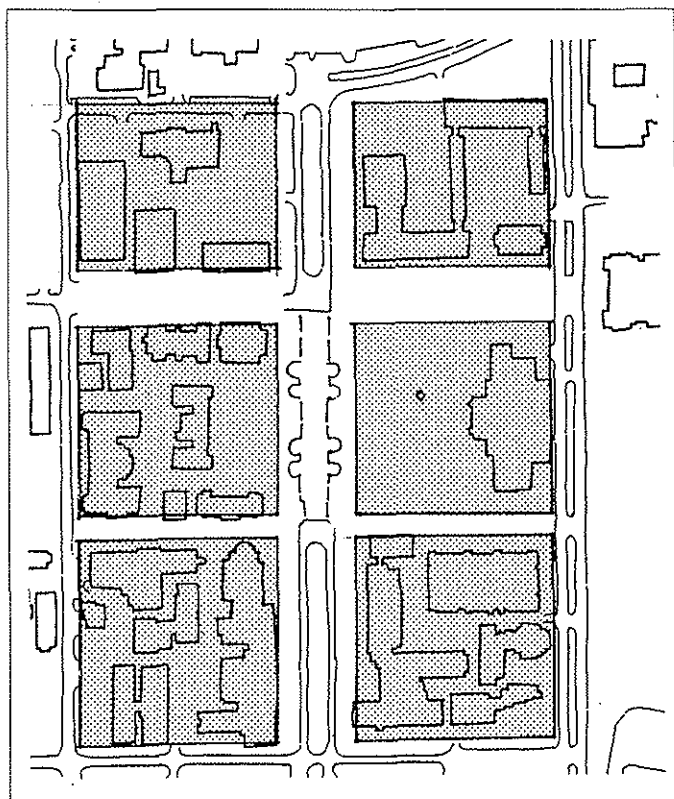
Campus Size

The UBC campus land area is one of the largest in North America. Stanford in California compares in size, but comparison with other western universities, such as Washington, Simon Fraser and Alberta show complete land holdings that are only the size of UBC's Main Campus, excluding the Middle and South Campuses. Comparison with the other two major Canadian universities — McGill and Toronto — shows whole campuses, of roughly similar student enrolment and faculty/staff populations, containing all the academic, health, parking, athletic, recreational, social and support facilities within perhaps half the area covered by similar facilities at UBC.

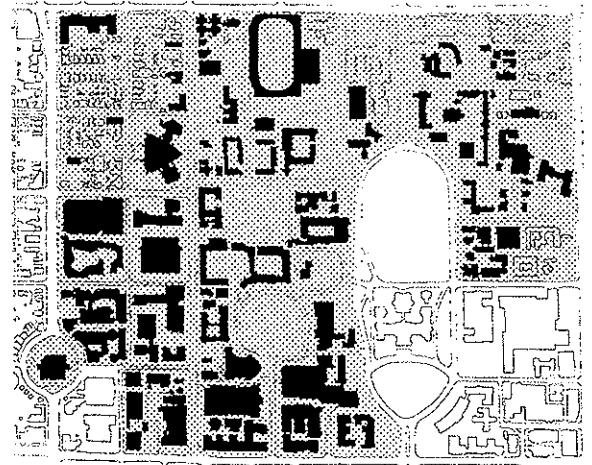
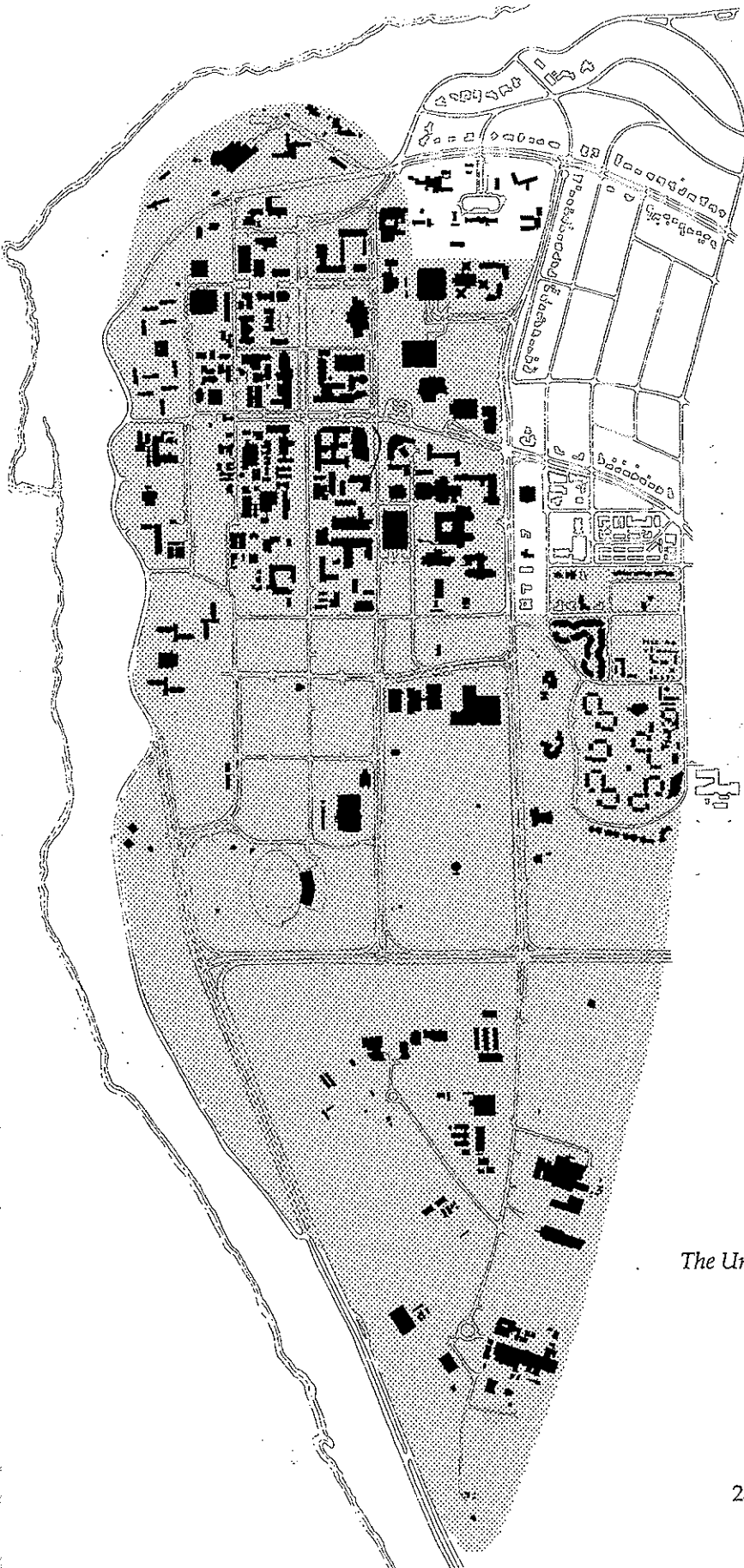
When the UBC land area is compared with that of downtown Vancouver, *left*, one gets a sense of how large the whole campus is. If one were to walk from south to north, it would be like walking from BC Place Stadium to the Lost Lagoon in Stanley Park. The downtown peninsula and the UBC Campus are about the same size. A comparison with the length of the Main Mall to that of Granville Street downtown is also instructive. It would cover the distance from Drake Street to beyond Georgia Street.

Each of the original campus blocks is twice the size of downtown blocks, and nearly three times the size of West End blocks. The more recently developed "blocks" are considerably larger.

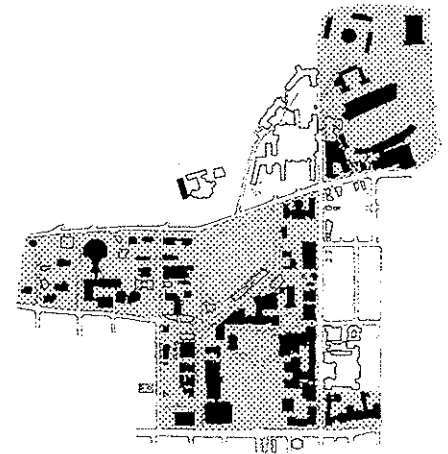
21. Scale of UBC and Downtown



22. Scale Comparison: Block Size at UBC (left) and Downtown (Right)



University of Toronto



McGill University

The University of British Columbia

23. Scale Comparison: UBC, University of Toronto, McGill



There is no doubt that the UBC campus could have been built in a more compact manner, and would have been if it had had the land constraints of other campuses. The presence of large land holdings has encouraged sprawl. Campuses such as U of T and McGill have not had that luxury and they have been highly serviced by transit and surrounded by housing and commercial areas. They have consequently built more densely.

A low density campus, especially one in a garden environment, has charm and some advantages, but as the campus spreads it becomes increasingly difficult to support the Mission Statement's objective of encouraging interdisciplinary linkage, broad as well as specialized education, and cross-disciplinary contact.

The spread of the UBC Main Campus means that the University is struggling against a natural tendency for people to remain within a ten or, at most, a fifteen minute walking distance from their home base. Many of the complaints about lack of cohesion, getting lost, isolation and long walking distances spring from this sprawl.

Land Use Structure

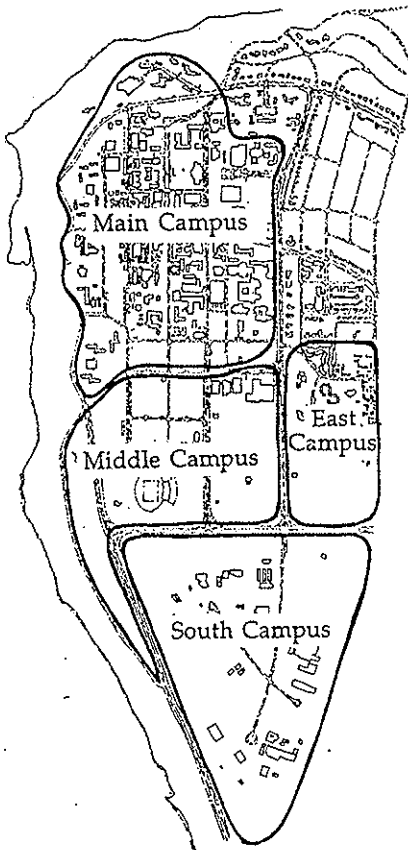
The UBC campus consists of four major components — the Main, Middle, East, and South Campuses. Each of these components is quite identifiable by virtue of its predominant land use (academic, support, residential or research), and by its natural and built character.

These areas emerged partly as a result of the historical development of the campus from north to south, partly as a result of the construction of major boundary roads (West 16th Avenue and Wesbrook Mall), and partly through the intentional assignment of specific land uses to identifiable precincts.

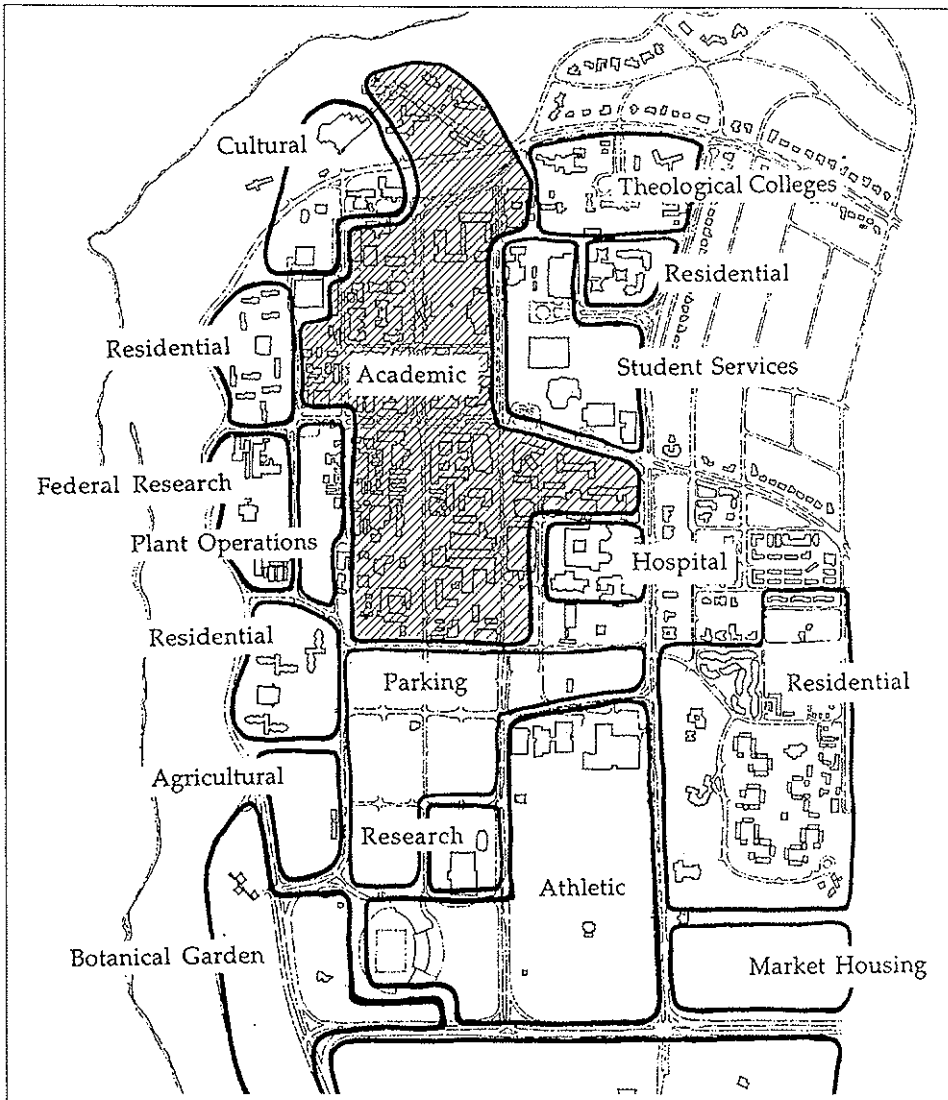
This large scale compartmentalization of the campus affects how the campus is used and how it is perceived. For those who live in the East Campus and work in the Main Campus or who alternate between the Main and South Campuses, this structure greatly increases travel time and the perceived size of the campus. For those who spend most of their time in one precinct only, the perceived size and extent of the campus may be limited to that precinct: many who study or work in the Main Campus will never visit the South Campus and may not identify it as part of the University.

Similarly, the Main Campus consists of smaller components. The large so called "academic core" is surrounded by service and support functions: parking, administration, residential, cultural, student services, health care and federal research.

The assignment of land uses to separate precincts, first promoted in the original Sharpe and Thompson plan, greatly increases travel times between campus parts, and reduces the senses of vitality and security in virtually all precincts during off hours.



24. Campus Land Use Structure



25. Main, Middle and East Campus Land Use Structure

The Campus Community

A parallel study, *The Community Profile* (Draft Document, December 1991), describes the vast array of interconnected activities taking place on the campus, as well as the great variety of people who make up the University population. Perhaps the single most important conclusion drawn by this survey is that the University should be planned as the large and multifaceted community that it is, a community generated by the academic and associated research endeavours but not limited to these functions.

The academic endeavour is the ultimate purpose of the University, but the success of this activity depends upon a large number of supporting activities. Some of these activities provide the direct support essential for the academic endeavour, other activities provide indirect support by meeting people's daily and ongoing needs or by extending the University to the larger community.



Students	27,000
Faculty	2,700
Staff	6,200
	35,900
Residents	5,000
Commuters	30,000
UBC Visitors	?

26. Summary of Population Statistics

To describe the diverse population on campus, the survey categorizes people according to their basic roles and functions, and according to their length of stay. At UBC, there are about 2,700 full and part-time faculty, about 27,000 full and part-time students, and about 6,200 full and part-time staff. There is also a large number of people who visit the campus on an irregular basis to make use of cultural and recreational facilities, or who use the University conference facilities. Although students form the largest group on campus, the total population is diverse with a full spectrum of age groups, ethnic backgrounds, interests and personal needs.

During an average day during session, there may be as many as 35,000 people on campus. Of these, about 30,000 commute daily while the remaining 5,000 or so live on campus. Of those who commute, the vast majority use private vehicles, while the remainder use public transit or bicycles. This heavy reliance on commuting is reflected in the extensive resources committed to roads, parking facilities, and transit facilities.

The Quality of Campus Life

A range of opinions about the physical campus and the extent to which it meets users' needs and expectations has emerged from formal questionnaires and from many informal conversations. Opinions vary and often contradict each other even when voiced by the same person. Nevertheless, there is a consistency which may be summarized as follows:

- The distance between the campus and areas of affordable housing results in long and stressful commuting times for a large proportion of the University population.
- Serious traffic congestion increases the stress associated with commuting. This occurs along the restrictive approach roads leading to the campus, at the entrances to campus parking facilities, and at public transit terminals. This problem is clearly exacerbated by the limited operating hours of the University and by overly synchronized activity schedules.
- The campus is virtually deserted during off hours, a condition which diminishes the sense of vitality and compromises personal safety. Like congestion, campus desertion is exacerbated by the University's operating hours and activity schedules. The separation of land uses into distinct precincts causes certain areas, like the academic core, to be especially prone to this problem.
- There is an almost total lack of retail and commercial services on or near the campus.
- The separation of land uses and the low density of development results in long travel times between destinations on campus. This problem is in direct conflict with the oft-stated preference for the low rise buildings separated by extensive landscapes which characterize much of the campus.

- The dispersed nature of campus development reduces opportunities for both formal interdisciplinary contact and informal social interaction among people with diverse interests.
- Most people, and especially visitors, experience considerable difficulty in finding their way around the campus. This is caused by discontinuous roads and walks, inappropriately addressed buildings, and by inadequate signage.
- There is a strong perception that many parts of the campus are unsafe at night. This is caused by the relative desertion of the campus in off hours, as well as by circulation routes which are overly articulated and inadequately illuminated.
- The design of campus roads for vehicle priority frequently puts pedestrians into conflict with vehicles. Even in the traffic-restricted central core, pedestrian safety and comfort is compromised by the use of walkways by service and other official vehicles.
- By virtue of its isolated location within the forest of Pacific Spirit Park, the campus has a certain identity which distinguishes it from the larger community beyond.
- At the same time, the campus lacks the cohesive image and character that many would expect of an academic institute of international stature. Among the reasons for this are its size, its low density sprawl, its loose and fragmented organization, the lack of an easily identifiable centre, and the lack of clear boundaries between it and the adjacent Park.
- What does exist of a cohesive campus image stems largely from the extent and character of the landscape.
- The somewhat disparate collection of buildings on campus tends to detract from rather than support a cohesive campus image. Although there are structures of exemplary quality, many are overly institutional in character, others are simply unattractive, while still others (the "huts") were never intended as permanent campus buildings.
- There is a strong feeling within the community that there are buildings and landscapes which are important for their heritage value. This feeling often conflicts with the recognition that many of the older buildings on campus are now dysfunctional and should be replaced by new, more appropriate facilities.

These concerns are real and very pressing, and have been identified by the University as requiring attention. The Mission Statement has provided the philosophical basis for addressing these issues; the Campus Plan provides the strategies for dealing with their physical aspects.



Physical Condition

The existing campus — buildings, landscapes and engineering systems — does not currently meet the high standards of excellence set by the Mission Statement. The poor physical condition of the campus is manifest in operational inefficiencies stemming from the functional inadequacies of the physical environment, in costly and disabling technical problems caused by aging and outmoded engineering systems, and in the uneven visual character of the campus which fails to express the institution's history, stature and aspirations.

Buildings on the campus vary considerably in their physical condition. Many of the newer buildings, and a good number of the older ones, are in quite good condition and serve the University community well. Others, including the various huts, many of the "semi-permanent" buildings, and some newer buildings as well, are clearly in very poor condition from all perspectives.

Landscapes on the campus, including gardens, courts, roads and walkways, give a very favourable first impression. The lush and extensive plantings are a fundamental aspect of UBC's unique and well recognized image. However, closer inspection reveals an exterior environment large sections of which have been at worst neglected and at best developed on a piecemeal ad hoc basis. Even the Main Mall has not received the attention warranted by its role as the ceremonial focus of the campus: it still projects the image of an abandoned roadway years after its designation as a pedestrian precinct.

Infrastructure, including roads and utilities, is essential for the efficient movement of people and goods, and for the effective distribution of energy, water, waste, and information. These systems at UBC are now gravely outmoded and seriously overloaded. The continued expansion of the campus through the addition of new buildings and other facilities can no longer be contemplated without serious consideration being given to the parallel upgrading of the systems on which that expansion depends.

5. LOOKING FORWARD: Planning Directions

An Academic Community

The primary purpose of the University, and thus of the physical environment, is to educate, conduct research and promote academic excellence, "*to support the adventure of the mind and spirit....*". But that requires much more than discrete facilities for teaching, learning and research; it can only be achieved if the campus is developed as a community of facilities serving the needs of a community of people. The current 5- and 10-year capital programs are largely focussed on the provision of individual facilities. The Campus Plan seeks to guide campus development to facilitate and encourage the emergence of the critical *community* dimension.

A Viable Public Environment

The most important counterpart to discrete academic facilities is a memorable, legible and functional public environment; the connective tissue which relates the individual components to one another, thereby facilitating the free movement of people, information and ideas and expressing a collective image which is greater than the sum of the parts.

The Campus Plan envisions a campus where regular users as well as visitors could arrive and move with comfort and safety, would feel welcomed, would understand where they were and how to reach their destinations, would delight in the unique image and character of the place, and would clearly recognize the University's important role in and contributions to the larger metropolitan community and beyond.

Facilities and Services

An effective academic community requires, in addition to teaching and research facilities, the same array of public facilities and services that any large community must have. These amenities are needed to meet the normal daily needs of the community's inhabitants and contribute directly to the academic endeavour by improving the quality of life for all.

The Campus Plan envisions a community where diverse recreational, social, food, retail, financial, communications and other normal services are all available and are located where they will offer the greatest convenience.

Part of a Larger Community

To be of greatest service to the larger community, and to be able to draw inspiration and energy from it, the University must strengthen its ties with its neighbours and beyond. This will require that the fact of its isolated location adjacent to a large and vibrant city be recognized as both challenge and opportunity.



The Campus Plan envisions a campus which is itself a major destination within the region. The campus would offer unique opportunities for cultural enrichment, academic fulfillment, recreational enjoyment and personal satisfaction. The campus would also present its formal academic activities through buildings and facilities that display their activities and invite the curious to approach and explore. The campus would cater to the visiting public by ensuring that access to and movement around the campus is clear, convenient, comfortable and safe.

Respecting the Past

The University is a well established institution with a prestigious history that is not only expressed through its achievements but also embodied in its buildings and landscapes.

The Campus Plan envisions a campus in which the best of this historical legacy is carefully protected and proudly displayed.

Building on Present Value

The Campus Plan seeks to identify those structures, patterns and elements within the existing campus that already have value, and to reinforce, strengthen and clarify them. To approach the future as if the present does not exist is to destroy current value at incredible expense, and at the risk of never being able to regain that level of quality.

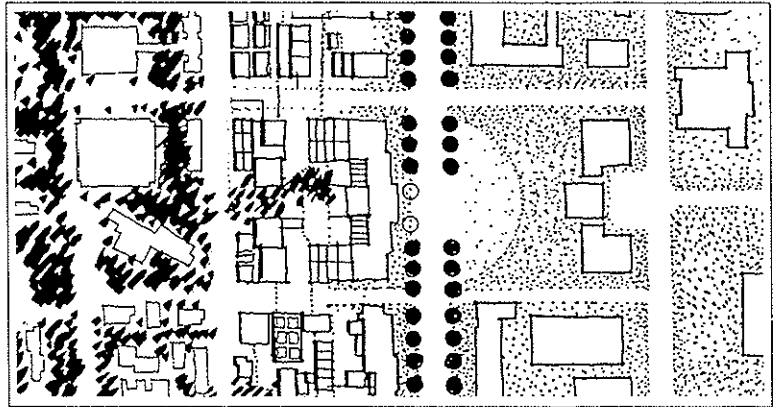
Anticipating the Future

The University, like all communities, faces a future which is predictable only in a general way.

The Campus Plan accepts fully this condition, and promotes development forms and patterns that will permit the campus to evolve in response to conditions as yet unknown. The Plan envisions a campus with a structure that remains constant over time and that evolves towards greater and greater richness. Within this structure, however, individual components could be altered or replaced, and new ones added, without compromising the integrity of the whole.

SECTION TWO:

PLANNING STRATEGIES



This section describes the strategies or principles which should guide future development on the Main Campus. They fall into four groups:

- 1. General Strategies deal with the values of mixed use and of arresting the further spread of sprawl, the creation of an organizing framework, and the quality of buildings and landscapes;*
- 2. Systems Strategies deal with the movement of people and vehicles, as well as the provision of parking, utilities and lighting;*
- 3. Land Use Strategies deal with the distribution of facilities used for different purposes throughout the Main Campus;*
- 4. Implementation Strategies deal with managing the Plan.*



Strategy 1

QUALITY, PERMANENCE AND ECONOMY

In order to have a campus which reflects the image of a great university, UBC accepts and promotes a commitment to the quality and permanence of the built environment ending the era of temporary and sometimes make-do construction which featured so strongly in the campus history.

This commitment does not mean a lack of concern for economy. On the contrary, quality construction can and must mean long term cost effectiveness over the life cycle of the buildings, landscapes and utility infrastructure.

Strategy 2

LEADERSHIP IN ENVIRONMENTAL RESPONSIBILITY

As an educational servant and intellectual leader in Vancouver, British Columbia and the wider community, the University will, through example, point the way to development that demonstrates high respect for the environment. By establishing and implementing explicit development strategies, and by arousing the awareness of its members to environmental concerns, UBC will join with other major corporations and institutions in providing leadership in responsible and effective environmental action.

The successful programs now in place or being developed should be encouraged, and new initiatives undertaken. Planning for and managing environmentally responsible development should permeate all facets of campus life. Areas of priority concern will include land use efficiency, energy conservation, waste management, materials recycling, emissions control, ecological viability and the current heavy reliance on private automobiles for commuting.

Before proceeding with the design of a project, an outline of its potential "campus quality" impact will be undertaken (*Strategy 38*).

Strategy 3

CONSTITUENT AND COMMUNAL NEEDS

Campus development meets both communal and constituent needs. Most of the university's construction budget is consumed by buildings and services to meet the needs of constituent user groups. Yet many of the best things about the campus are the result of providing for the university's communal needs. And most of the development mistakes made on campus appear to have resulted from the ascendancy of constituent project requirements over communal needs.

Perhaps half the communal needs of the University are gained through the development of constituent projects. From the very outset, projects must seek to balance constituent and communal needs. The programme and design have an obligation to meet the needs of the constituent user group but have an equal obligation to make a contribution to the campus environment, to serve the University community at large.

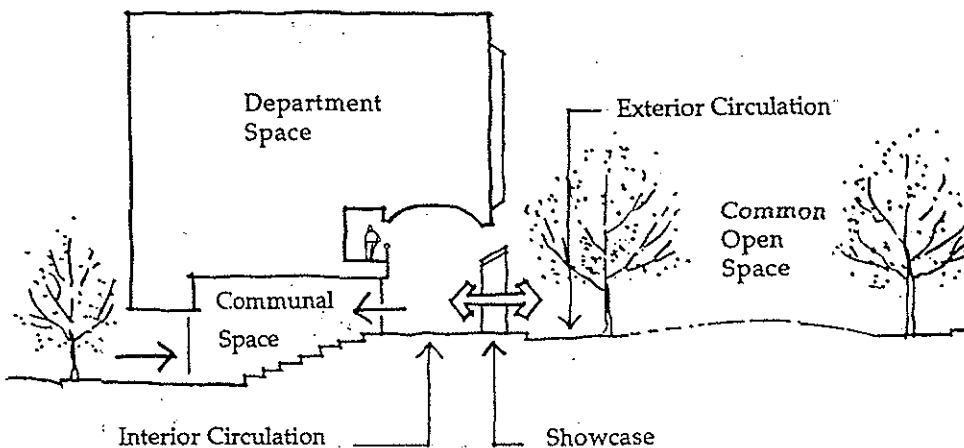
Projects should contribute to the campus in a number of ways.

They can repair poorly designed parts of the campus. Therefore, new buildings should be sited in areas which need repair. On any given site, the first task should be to identify and protect the assets of the site, building in places which are not rich in assets and/or in ways which create a new site asset (*Strategy 7*).

By their form, entrance treatment and window arrangement, buildings should assist in the creation and animation of positive outdoor space (*Strategies 3 and 15*).

By the arrangement of their interior circulation and communal space, buildings should contribute to the continuity of pedestrian movement and to social activity on the campus (*Strategy 15*).

Building programs should all include communal uses like general instructional space, lounges, food services and change rooms for bicyclists. They should also promote those contributions which the user group can make to the community, such as a display centre or small museum as a "window to the campus" expressing the work and interest of the building's occupants. An excellent example of this idea can be seen in the museum/lobby of the Geological Sciences Building. These components should be visible from the major public framework of the campus.



27. *The Contribution of an Academic Building to the Common Good*

"So far, almost all your proposals ... are still essentially solitary ... they exist more or less independently of their surroundings. You will see this, if you realize that almost all your visions or proposals have so far been independent of the exact moment in the sequence when they occur."

"At any given moment in the evolution of the site, there is a certain configuration there. It consists of everything that has been built, up to that moment. If we are now going to try to make a "next" proposal, we must ask ourselves, "What proposal, and where placed, and how formed, will now do the most to make the whole area more complete, more whole, AS A TOTALITY? ... we can ... "listen" .. for the gaps, for the lack of wholeness, for its most essential incompleteness, and then do what we can to mend it, by doing one thing which does more than any other to make the entire more whole."

"This is the essence of any authentic vision ... you will realize that in this process, there is little room for anything which is personal in the egocentric sense ... your vision is a product of the ... site, not a product of your whimsy or your fantasy."

Christopher Alexander "Note to Students" in *A New Theory of Urban Design*, 1987



Strategy 4

RESPECTING CAMPUS NEIGHBOURS

The University will seek to maintain positive relationships with campus neighbours by establishing meaningful planning dialogues. The purposes of this will be to identify and address common issues, and to set in place measures to optimize mutually beneficial connections and mitigate negative impacts between adjacent land uses.

The issues discussed below apply to the Main Campus; other interfaces with the Middle, East and South Campuses will be discussed in subsequent planning documents.

Pacific Spirit Park

The Main Campus shares a boundary with Pacific Spirit Park from Cecil Green House to Totem Park Residences as illustrated in the accompanying diagram.

The University and the GVRD may be required to collaborate in establishing a long term cliff stabilization program. This may include additional measures to halt the incremental erosion now threatening existing facilities at the north end of the campus as well as criteria for campus development that would effectively reduce the discharge of groundwater from the cliff face. In particular, changes to the vegetation north of Marine Drive as well as new development projects will be very carefully studied.

The University and the GVRD will require a strategy for dealing with the large numbers of people who use the Park and beaches during the summer months. This strategy would address the public use of selected campus parking, wash-room facilities, signage and other public amenities to serve the users of the Park and protect the security, privacy and comfort of the University community.

University Endowment Lands Community

The University Endowment Lands Community lies adjacent to the Main Campus and is bisected by major avenues heavily used by University commuters.

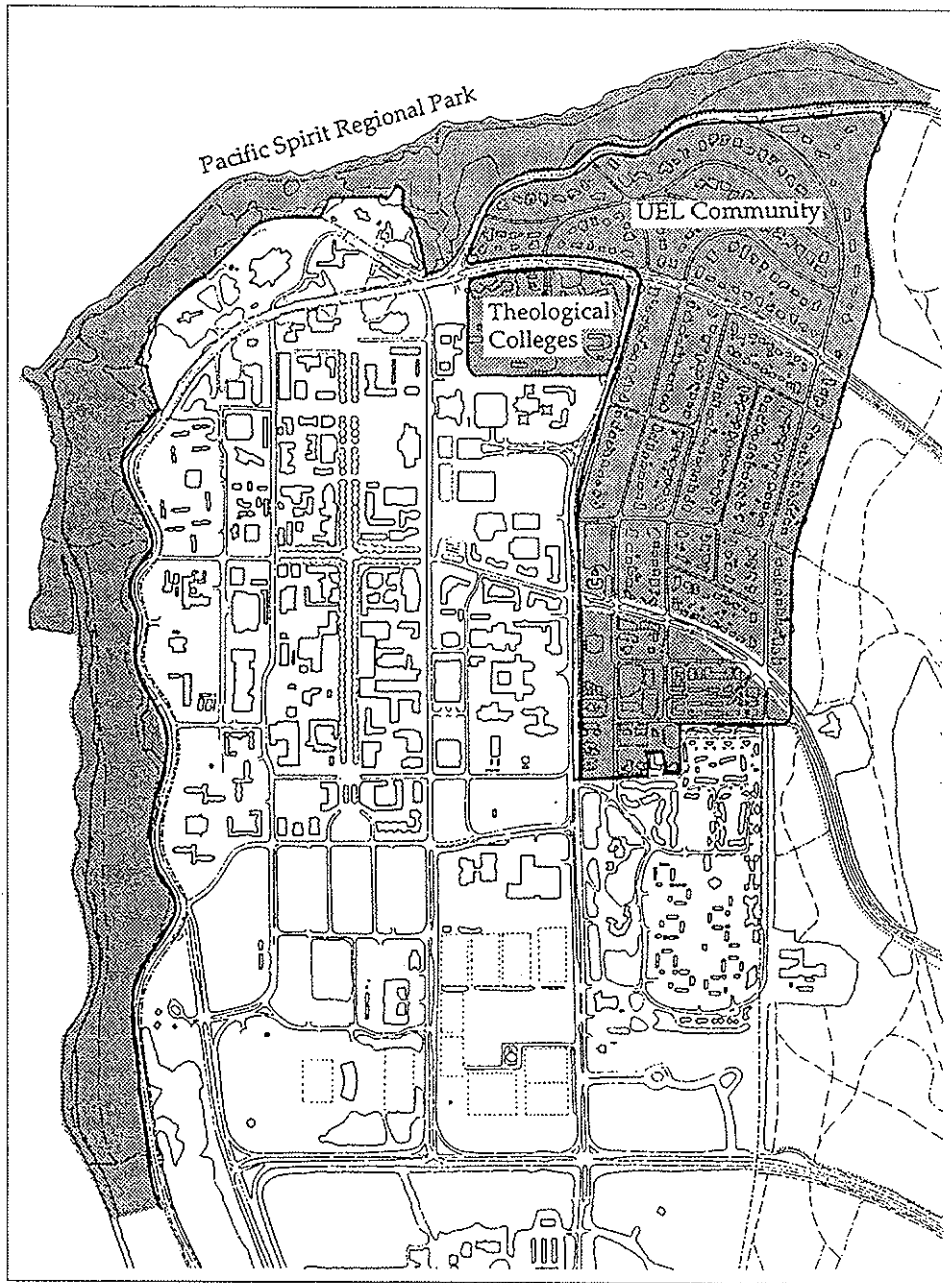
With the UEL Community, the University will seek to establish development strategies to protect the integrity of both communities while improving mutually beneficial connections. New campus land uses along Wesbrook Mall should be compatible with the residential character of UEL land uses across the road, and the extension of the existing UEL commercial area into the campus along University Boulevard to provide additional services for the benefit of both communities should be explored.

The University should work with the UEL and the GVRD to ensure the safe and efficient flow of commuter traffic through the Park and the UEL to the campus.

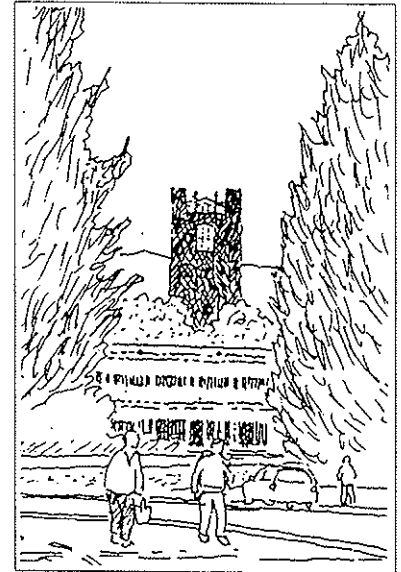
Theological Colleges

GENERAL STRATEGIES

The University will seek to enhance appropriate physical connections between the UBC campus and the Theological Colleges to facilitate current academic connections and to reflect the use of College residences by UBC students. Development of the Main Campus should respect the Colleges' need for a sense of autonomy as reflected through a separate identity.



28. The Main Campus and its Immediate Neighbours



29. Theological Colleges: Visually Connected to the Main Mall at Crescent Road



Strategy 5

CAMPUS COHESION AND LIMITS TO SPRAWL

All future mainstream academic development will occur within the Main Campus to establish a more cohesive campus and reduce sprawl.

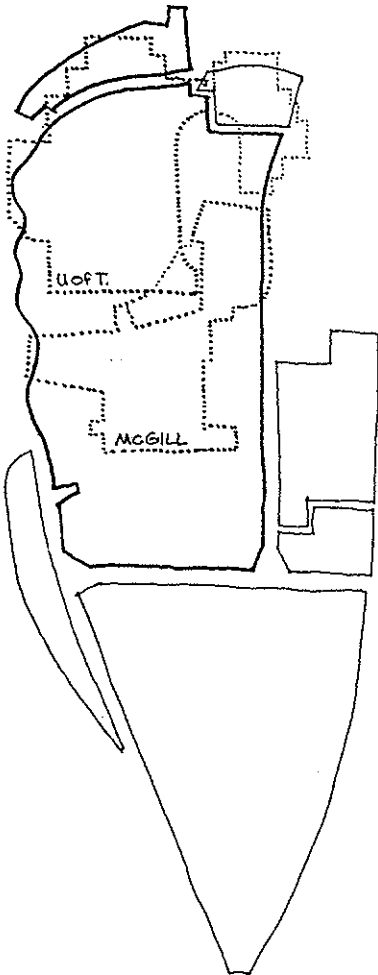
The academic "core" at UBC is larger than most entire universities: core, body and periphery combined. There are significant costs to such sprawl. Longer roads and paths, acres of paving and landscaping, and extended underground services all cost more to build and maintain. Salaries paid to maintenance workers, academics, researchers and staff are continuously being lost to unproductive in-campus travel time, and teaching and learning time is shortened every day because of the ever-increasing class change period. The land cost has always been significant, but has not been considered as a big part of the economic equation to date. It can no longer be ignored, for reasons discussed in Strategy 14.

Besides stabilizing these costs, a more cohesive campus will have other advantages including a better sense of orientation, naturally occurring social contact, improved outdoor security, and reduced walking times.

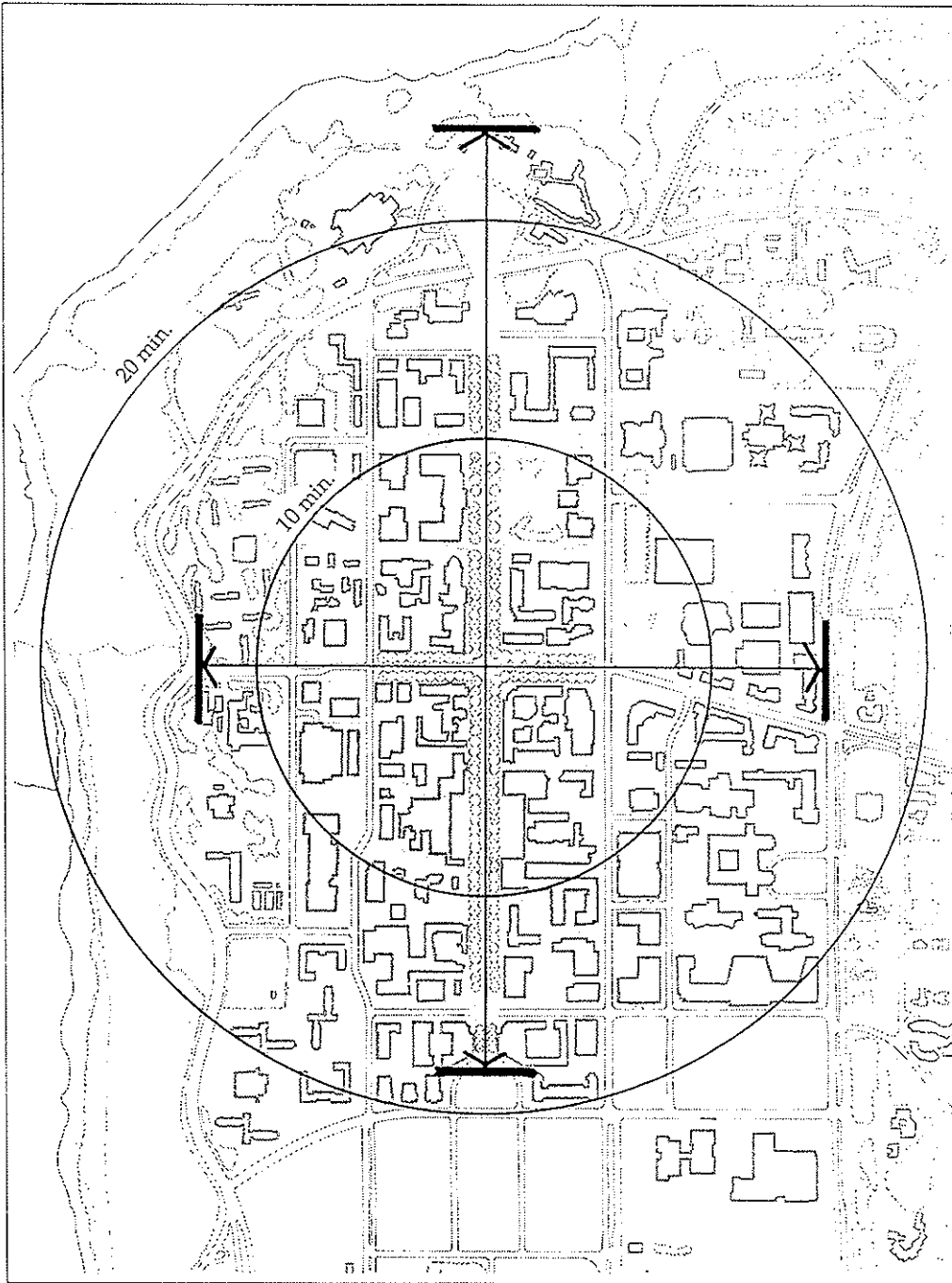
The area within the boundaries of the presently built up Main Campus is already greater than a naturally cohesive district (which can be defined by a 10- to 15-minute walking distance). But while desirable, it is not practical to think of shrinking back. In addition, commitments too firm to rescind have been made to locate new facilities south of Agronomy Road. Expansion will, therefore, extend no further than the centre of the parking block. At this point a firm line has been drawn, beyond which no further mainstream teaching or research facilities will be built. Similarly, limits have been drawn to the north, west and east, in these cases to natural boundaries. There is considerable capacity within this area to absorb new buildings.

The result is a 20-minute walking campus. This is not ideal, but it is considerably better than the 25- or 30-minute walking campus that would otherwise develop. The impediments to cohesion inherent in a 20-minute walking campus should be reduced as much as possible through an efficient and frequent internal transit system. (Strategy 23)

Better linkages between what are currently isolated components will also help. The campus north of Marine Drive, the Student Union area, the Health Sciences area, and the residential precincts will be more effectively linked to the centre of the campus. Even though sheer distance is difficult to overcome, more effective linkage will at least be partly accomplished through clear pedestrian and transit circulation, and by infilling with a greater intensity of buildings and activities.



30. Comparison of UBC, U of T and McGill land areas



31. *The Limits of Academic Expansion*



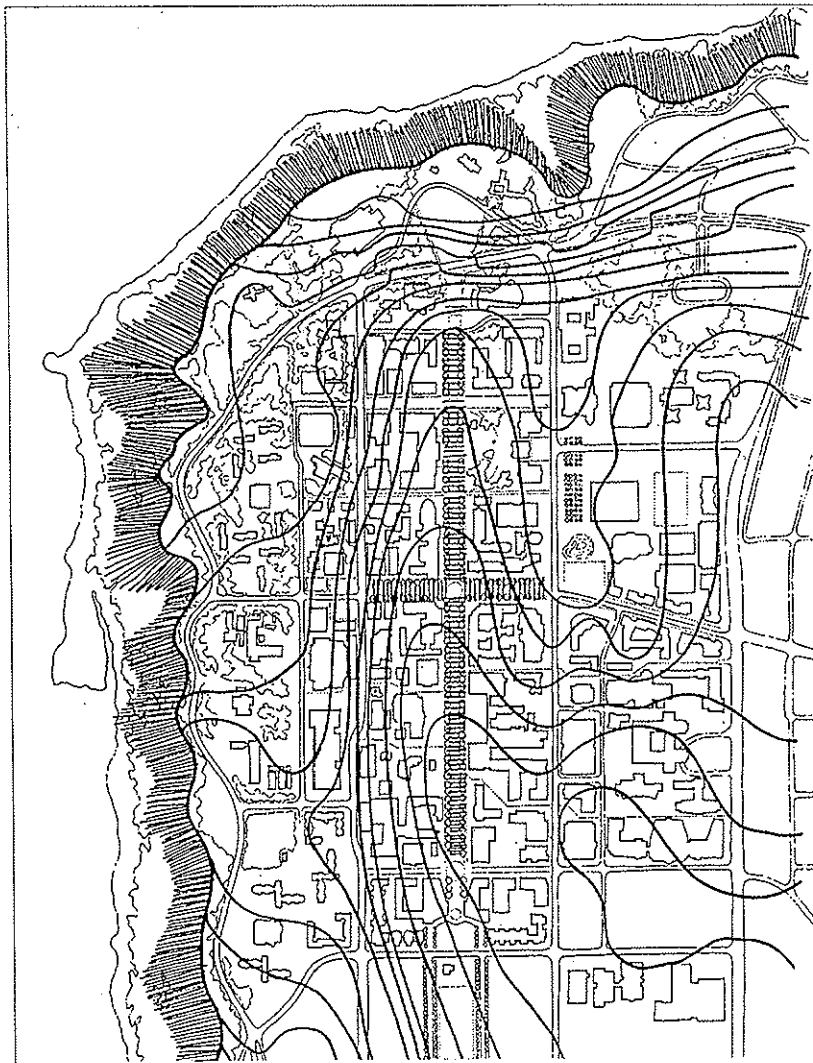
Strategy 6

THE SPIRIT OF THE PLACE

The *genius loci* of UBC — the spirit of the place — will be enhanced through the siting and design of further development to reinforce the distinctive character and identity of the campus and its parts. The *genius loci* of the campus is inherent in the patterns of buildings and landscapes, and is largely a product of the site's topography, vegetation and built form. Their variations produce distinctive areas within the campus. The planning and design of new buildings and landscape will seek to clarify and support these distinctions.

The Topography: Ridge, Plateau and Slopes

A central north-south ridge — the "Hog's Back" — was selected by the early campus designers for the location of the Main Mall. Elevated above the rest of the site, the prominence of the ridge lent itself to the development of an effective organizing spine and focus to the campus.



32. The Main Mall on the Ridgeline of the "Hog's Back"

The Main Mall

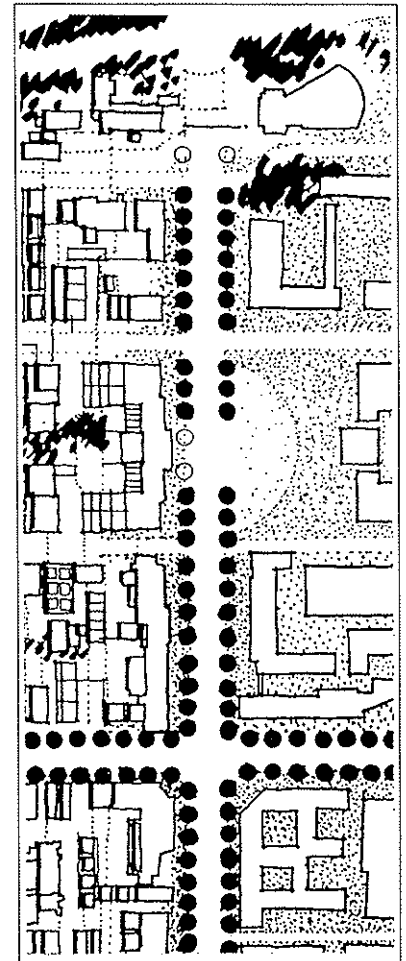
The Main Mall is the primary man-made landscape asset of the campus, the most important organizing feature and primary means of orientation in what would otherwise be a very fractured group of buildings. As arguably the most memorable part of the campus to first time visitors and long term users alike, it will be preserved and enhanced.

The Main Mall is composed of an allée of regularly spaced Red Oaks which establishes a formal order in the centre of an otherwise profuse and relaxed landscape. It is the strongest design element on campus. Yet the divided carriageway in its centre, designed for cars long since banned, has not been rebuilt to reflect its present pedestrian use, and it has an air of abandonment. To reach the potential it deserves, it should become more formal and simple, the grassed ceremonial and symbolic centre of the campus.

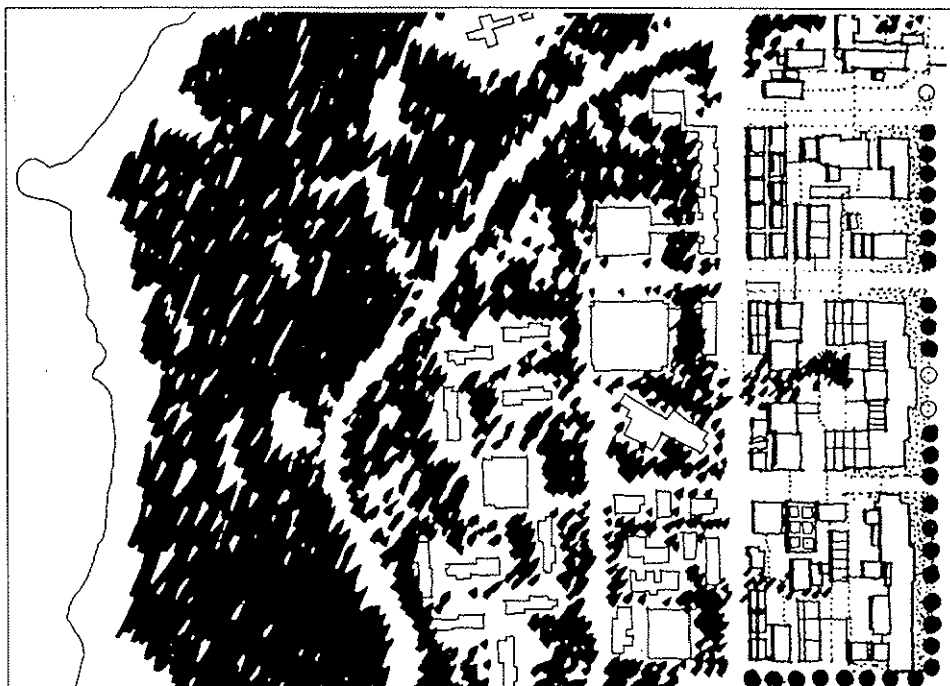
The Forest

A dense, primarily coniferous forest clothes the steep escarpment, the plateau rim and the western and theological sections of the campus. Any development in this zone will retain and extend this arboreal sense so that the buildings occupy "clearings in the forest". As a precedent, the Asian Centre and the Fraser Parkade are both big buildings, but they are successfully hidden in the surrounding trees. Some, but surprisingly little, site area must be given over to tree cover around buildings to retain the sense of forest. For example, the strip of coniferous trees behind the West Mall Offices, separating it from the parking structure behind, gives the effect of the forest coming right to the back of the building. This treatment should be extended by means of additional coniferous planting down the west zone to Totem Residences.

GENERAL STRATEGIES



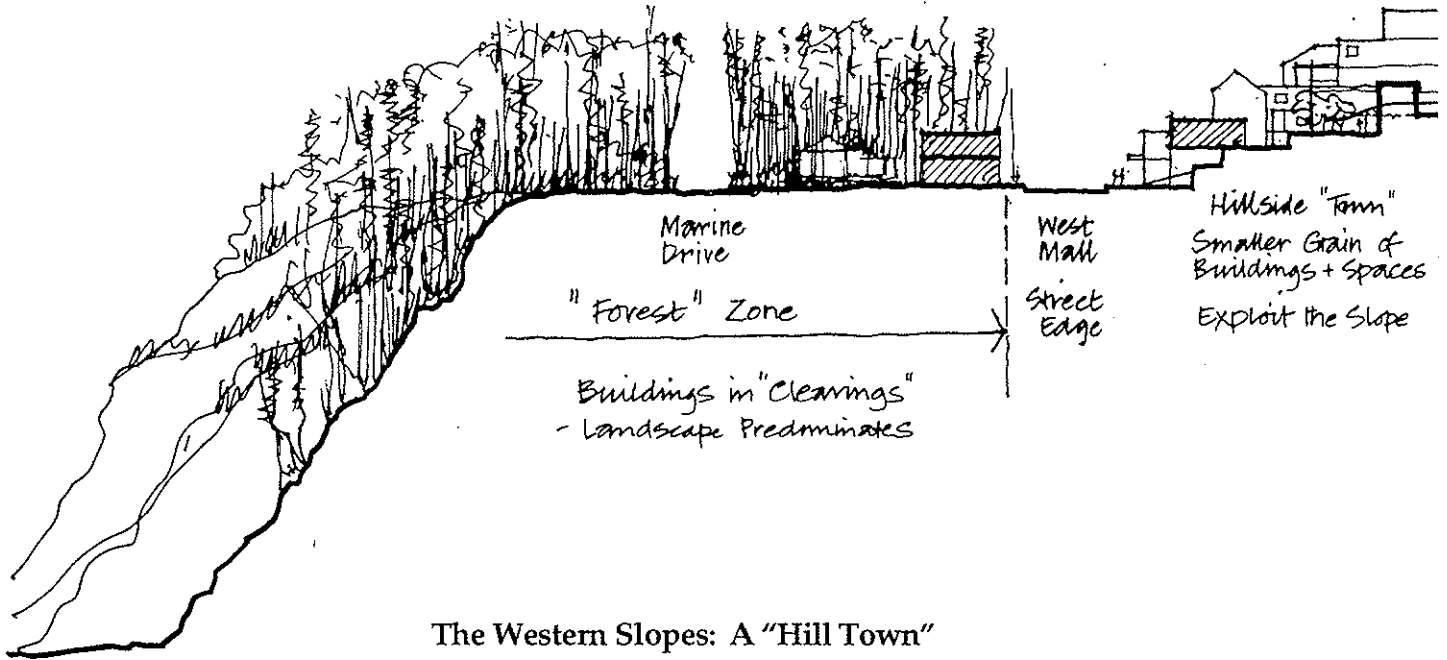
33. *The Ordered Mall*



34. *The Coniferous Forest*



GENERAL STRATEGIES



35. Landscape Typology Section: Forest, Western Slopes, Mall and Garden

The Western Slopes: A "Hill Town"

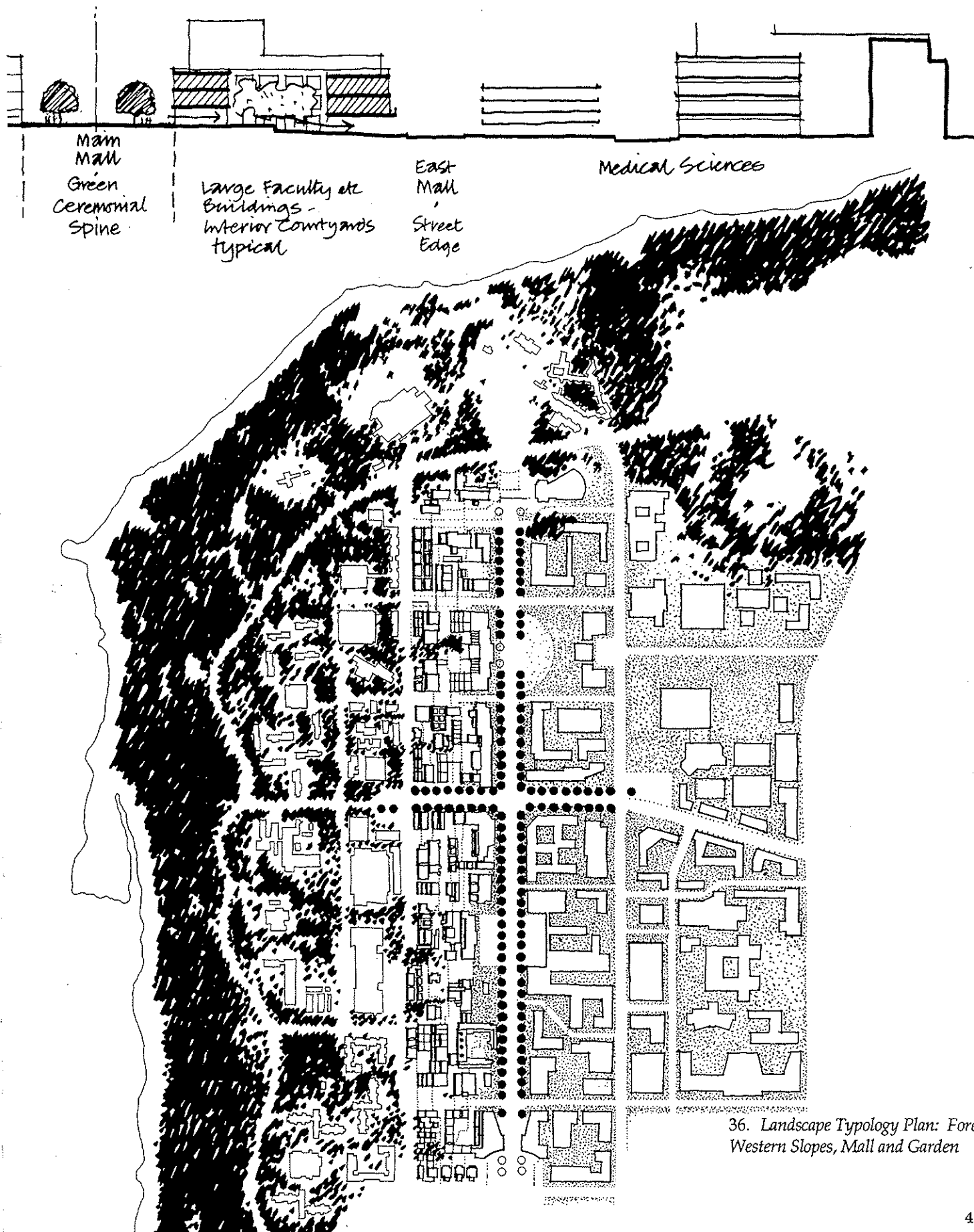
The relatively steep slopes between the West and Main Malls currently have a small "grain" or pattern of buildings. This intricacy is to a large extent a result of the proliferation of huts and temporary pitched roof buildings. It is a memorable feature, in danger of being overpowered by large new buildings. This development pattern should be continued through deliberate scale-reducing design techniques such as composite building massing and small scale pitched roofs on larger buildings, the selection of smaller buildings for these sites, and the promotion of a more intricate than usual network of pedestrian lanes, small courts, and passages throughout this zone.

The Academic Garden

In contrast, academic buildings of a larger grain, set in a composed "garden" of large shrubs, profuse ground cover, and primarily deciduous trees, will continue the existing tradition adjacent to and east of the Main Mall.

The Outlook Escarpment

New landscape development along the top of the escarpment between the Museum of Anthropology and Cecil Green House will be designed to enhance the sense of lookout, of being perched on the rim of the cliff overlooking the ocean. This area should be further developed as an informal landscape — trees, lawns, grasses, drives and gardens. The centre of this area should be open, providing views from the campus out over Howe Sound.



Main Mall
Green
Ceremonial
Spine

Large Faculty etc
Buildings -
Interior Courtyards
typical

East
Mall
Street
Edge

Medical Sciences

36. Landscape Typology Plan: Forest,
Western Slopes, Mall and Garden



Strategy 7

SITE SUITABILITY: Reinforce the Best, Repair the Rest

New building sites will be selected on the basis of their ability to absorb development without reducing the physical assets of the campus.

Defining a process for site evaluation and selection is a basic foundation for any long range development plan. This process begins with a method of defining and ranking sites in terms of existing architectural and landscape value. For a campus of this size and diversity it is a major task simply to inventory the physical assets. Having done this, ranking their value is further complicated by the fact that nearly everyone on campus will have his or her subjective view of value, and will place a higher value on those elements known or useful to them than on those which are not.

The University has begun such a process. Those aspects of the evaluation which are based on objective and measurable criteria should be completed, and existing analyses incorporated. An invitation should be extended to all members of the University community to participate in those aspects which necessarily require a subjective or qualitative judgement.

The evaluation will be incorporated into the project planning process, and will be periodically updated to reflect changing values and conditions.

The diagrams presented below are but the first step in establishing the process, and require much continuing research and discussion before they accurately reflect the university's current physical assets. The basis for this preliminary evaluation are the 13 documents entitled **Campus Plan Information Gathering and Analysis** (January 1990), the **1990-91 Interim Facilities Inventory Report** and the results of the planning team's observations and discussions with various members of the campus community.

Building Value

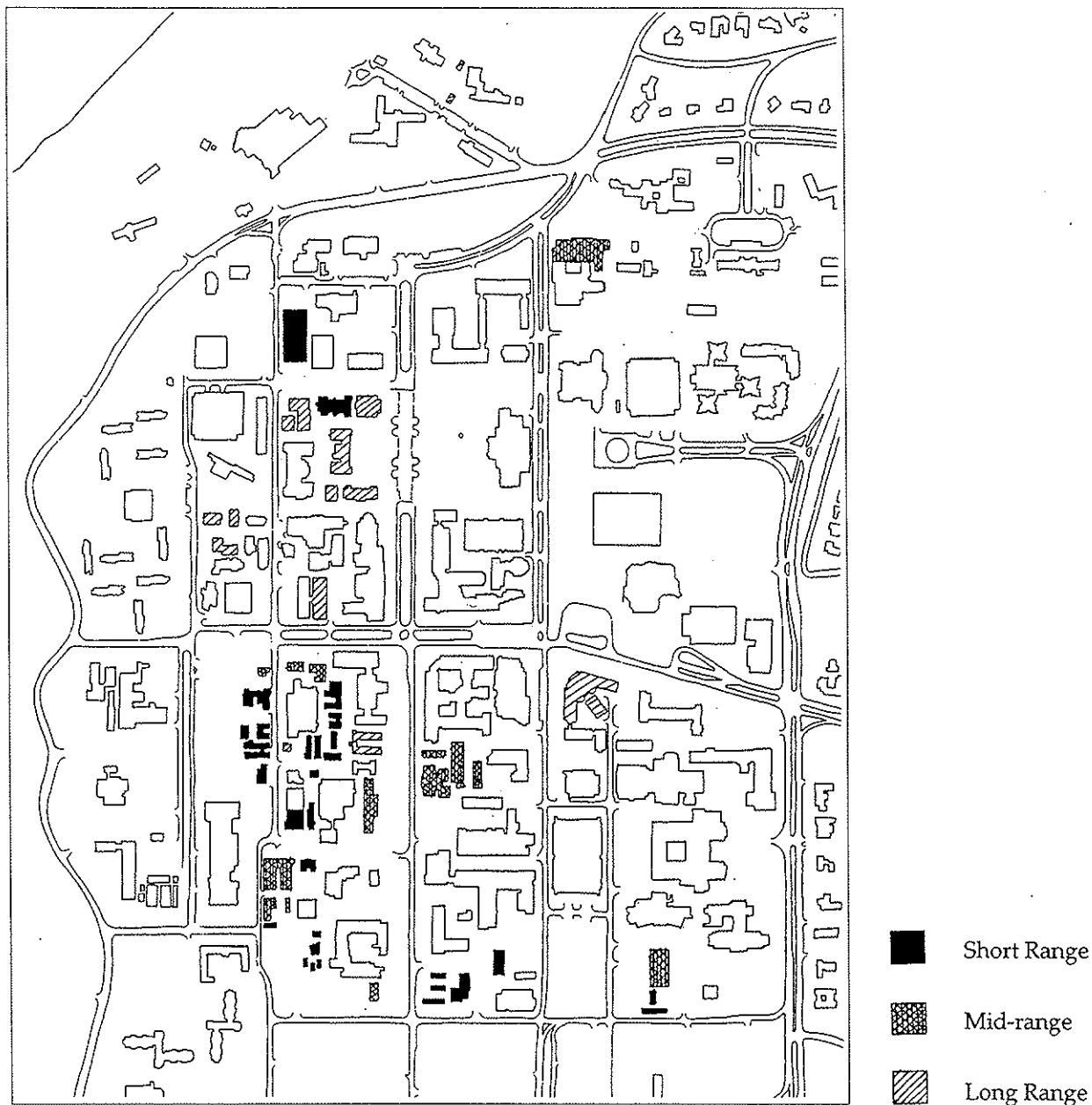
Buildings have value from various perspectives. They have greater or lesser aesthetic or "architectural" value, can be in good or poor physical condition, can be functionally superior or inferior, or can have heritage value. A building may be high in one value but not another, and each of these values is subject to interpretation.

The first assumption made is that in spite of the subjective nature of interpretation, a sufficient degree of agreement is possible to make value assignment a useful exercise; certainly more useful than avoiding the issue. The second assumption is that buildings with a greater number of overlapping values should be ranked higher than buildings with fewer values, unless a particular value takes overriding precedence.

The process of assigning value is described in the following series of drawings.

GENERAL STRATEGIES

The first drawing (below) identifies those buildings which have been designated for demolition because of their age or poor condition as determined in the 1990-91 Interim Facilities Inventory Report. This interim inventory requires a comprehensive re-evaluation, taking into account all factors relating to the physical condition of buildings. When this is done, the site suitability drawings on the following pages should be revised to reflect new information.

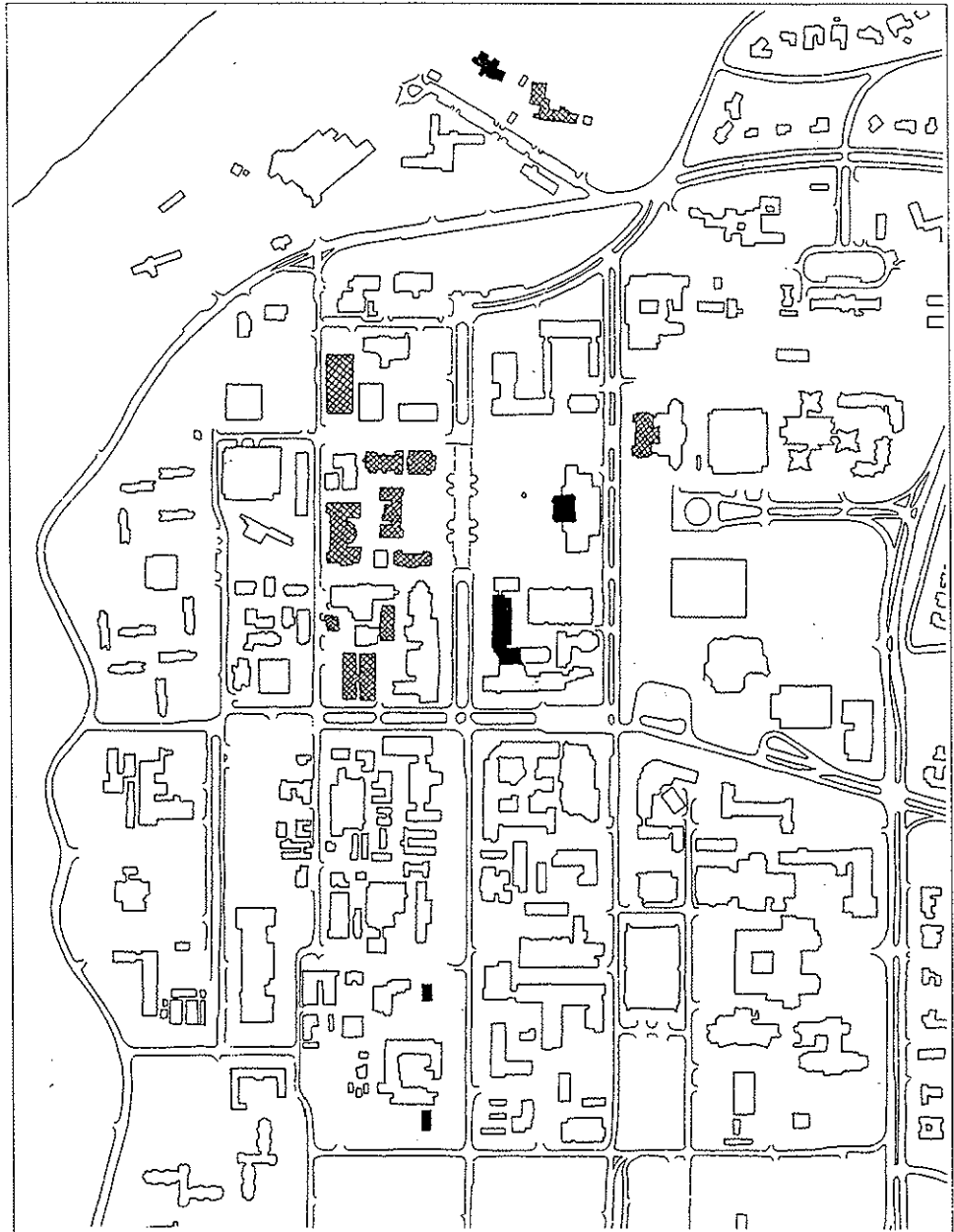


37. Demolition Designation



GENERAL STRATEGIES

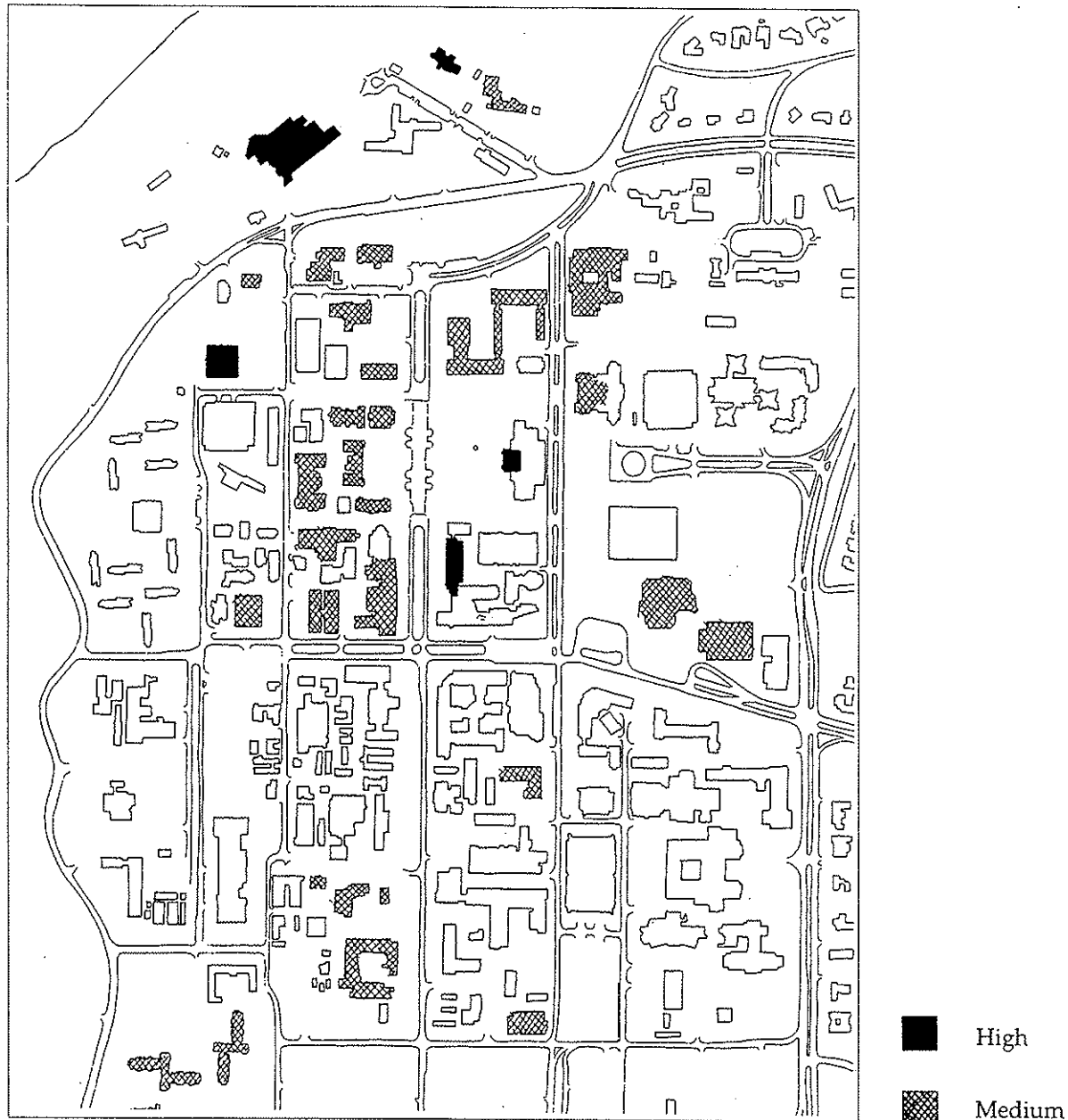
The second drawing (below) shows historical buildings which are valuable because they make a contribution to the character of the campus and the sense of continuity over time. They are evaluated in terms of their age and role in the historical development of the campus. Buildings built before World War II are assigned a medium value. Historical buildings associated with the aspirations of the 1914 Grand Plan or with the agricultural heritage of the campus are assigned a high value.



38. *Historic Value*

The third drawing (below) shows high and medium architectural value in aesthetic terms. A low value does not mean that a building is aesthetically offensive or lacks redeeming design features, only that it is sufficiently ordinary not to be ranked higher.

A few buildings, including the Anthropology Museum, the granite core of the Main Library and the old Chemistry Building, are considered to be of outstanding architectural quality within the context of the campus.

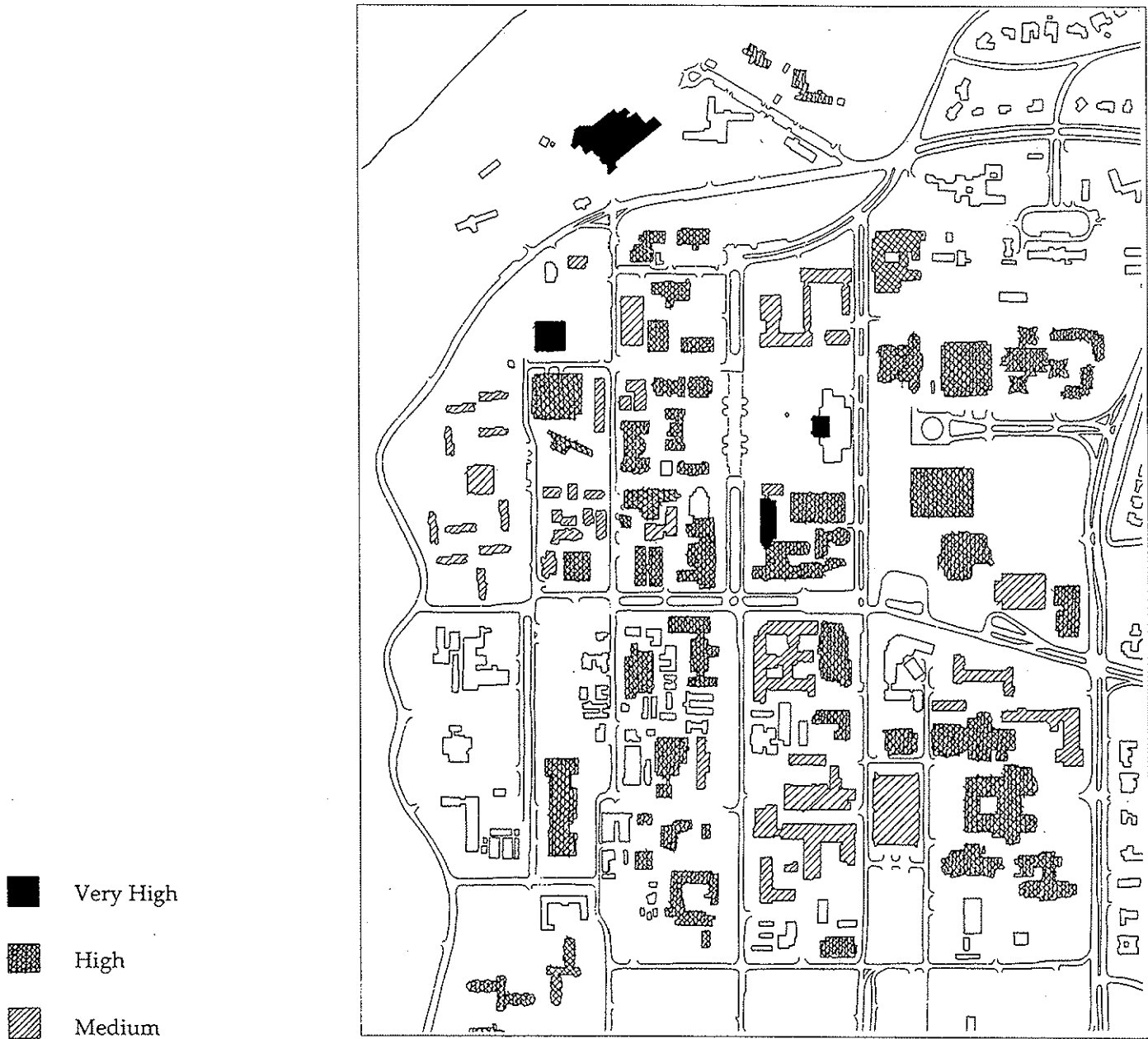


39. Architectural Value



GENERAL STRATEGIES

The last drawing (below) is a composite ranking of buildings based on the number of overlapping values. It is the relative ranking of building characteristics (historical value vs. aesthetic value vs. physical condition, etc.) that is the most difficult to objectify and that will stimulate the most discussion as the evaluation process proceeds. This evaluation has given relatively more weight to the aesthetic and historical attributes of a building because of their importance to the overall quality and cohesion of the campus image.



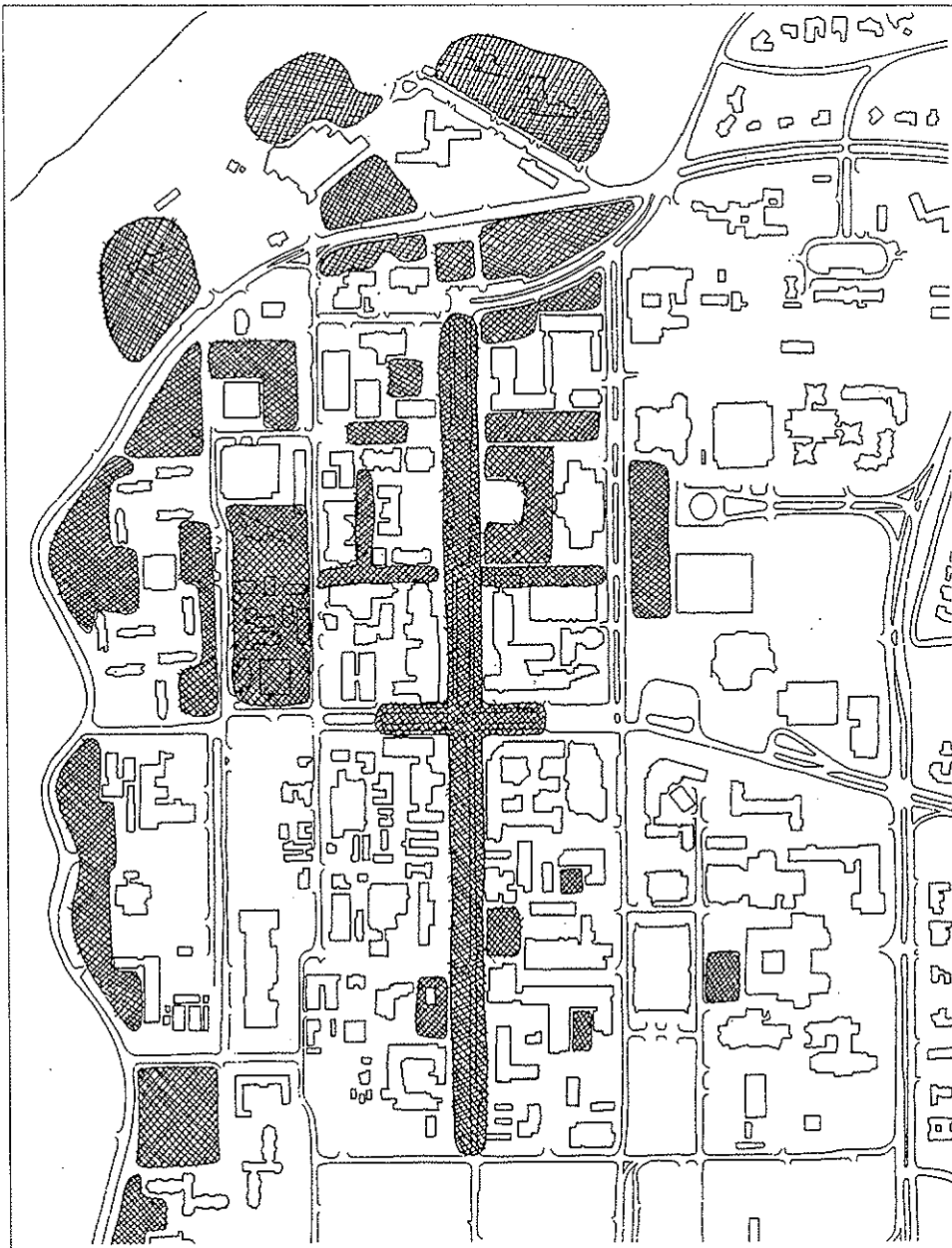
40. Composite Building Value

Landscape Value

GENERAL STRATEGIES

Establishing the value of landscapes on the campus can be undertaken in much the same way.

The drawing on this page identifies those landscapes within the Main Campus which have particular aesthetic value. The campus as a whole is renowned for its garden quality and landscape value, so only those very special places have been identified.

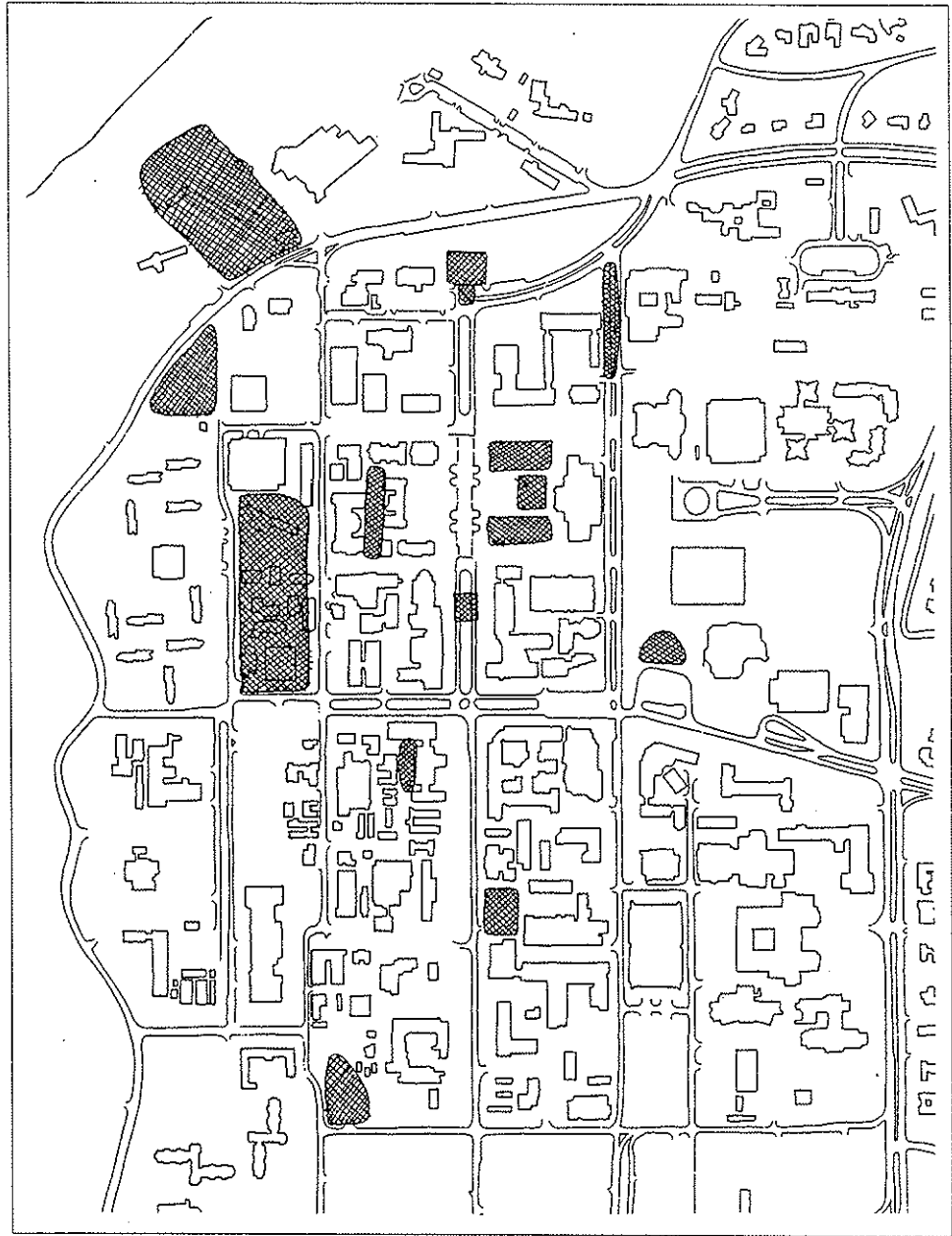


41. *Landscapes of Special Aesthetic Value*



GENERAL STRATEGIES

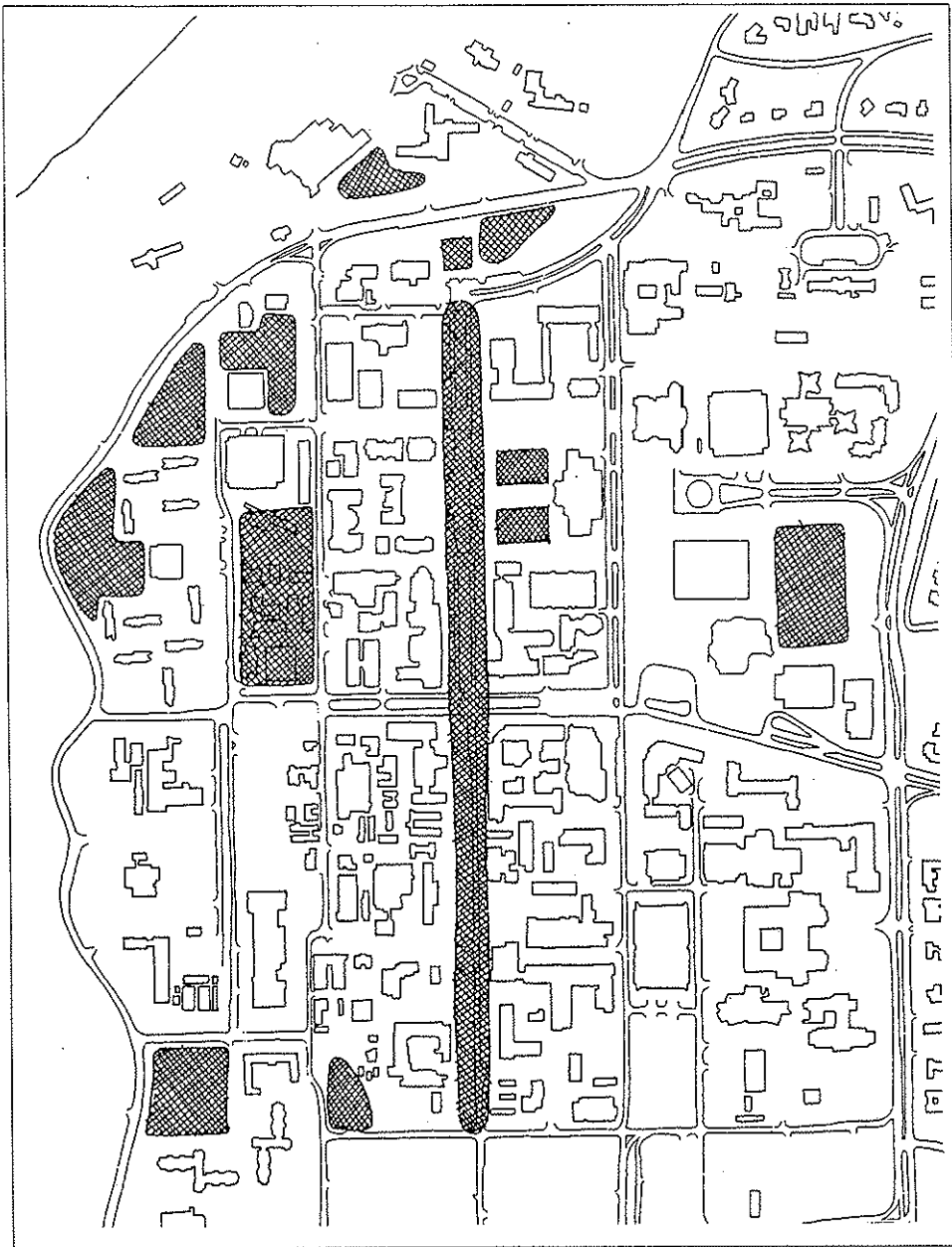
The drawing on this page shows landscapes known to us that have commemorative, symbolic or historical value. These include commemorative trees and gardens, places which are well-known public destinations such as the Rose Garden and Nitobe Garden, and symbolic elements such as the flag pole, the stone cairn, and the Frank Buck memorial fountain.



42. *Landscapes of Commemorative, Symbolic or Historic Value*

The diagram on this page identifies those landscapes that are used for teaching or research, and fields and other areas frequently used for informal sports.

GENERAL STRATEGIES

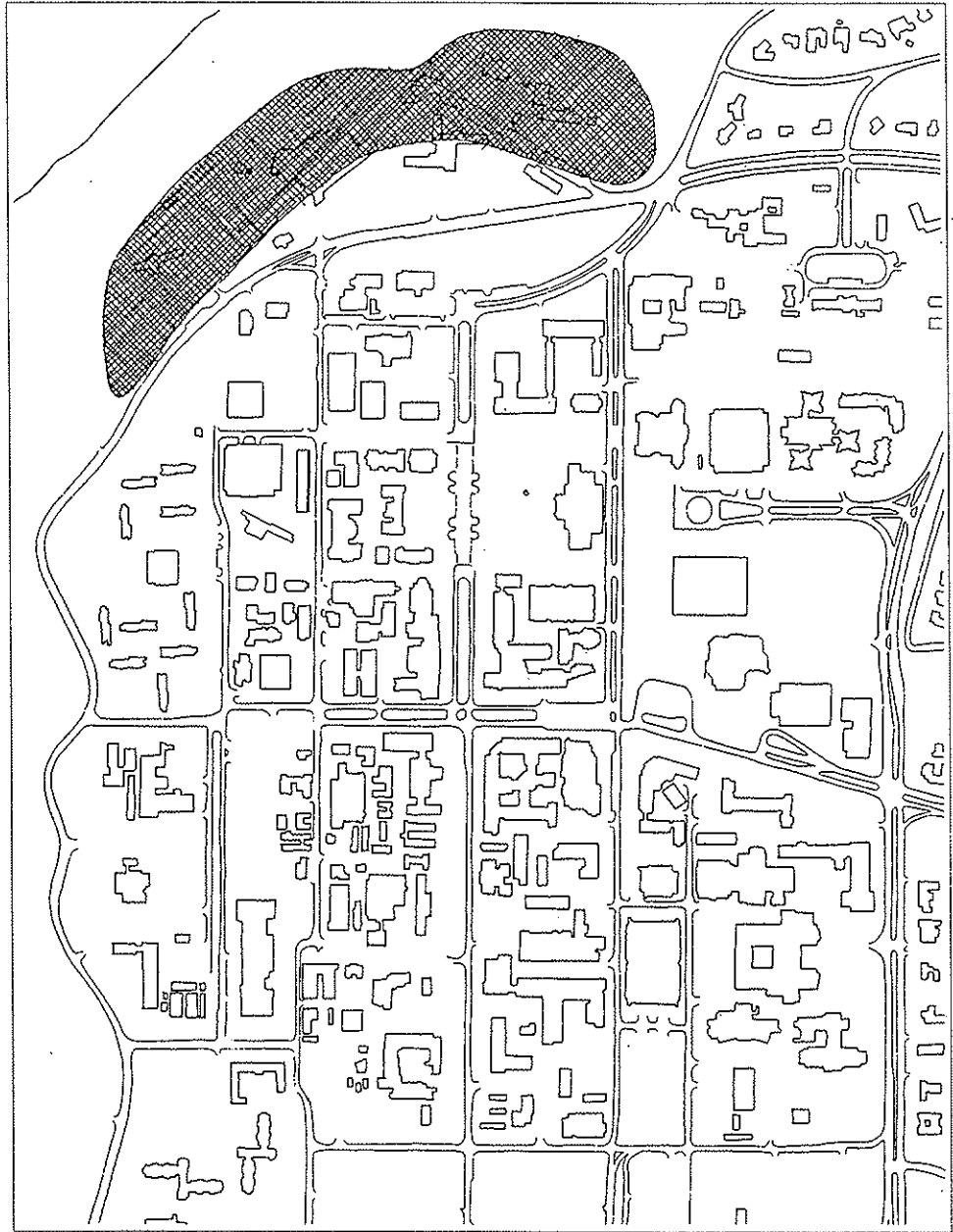


43. *Landscapes for Teaching, Research or Athletics*



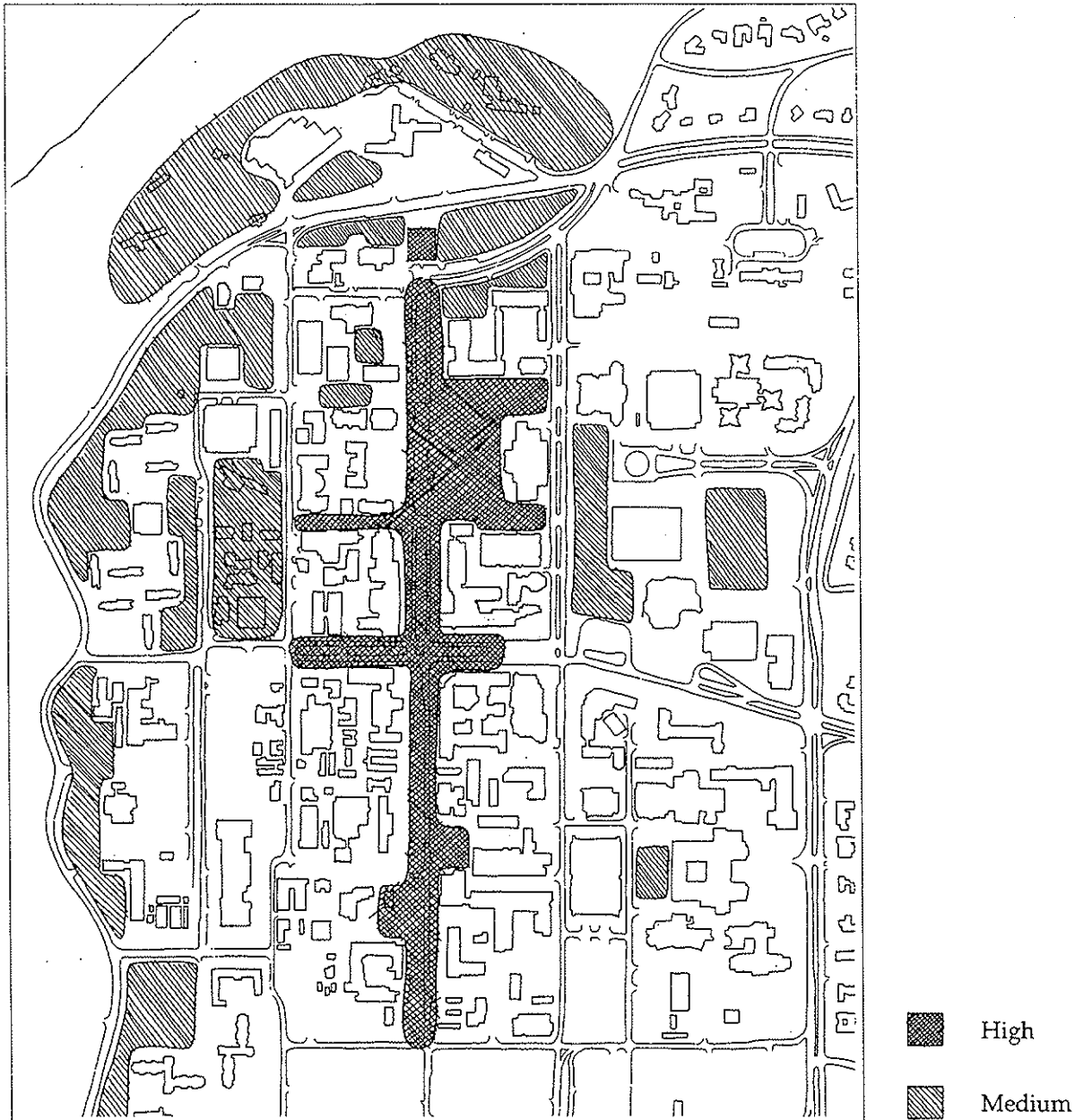
GENERAL STRATEGIES

This diagram identifies an area with potential physical constraints against some forms of development. The 1979 Cliff Erosion Task Force recommends that new construction be restricted along the rim of the escarpment. Additional new development should not be contemplated without a comprehensive study of the area in general and of each site.



44. *Landscapes with Physical Constraints*

The last drawing is a composite evaluation. Landscapes are ranked into two categories, depending on the number of values assigned to each. Perhaps it is no surprise that the highest rank includes those landscapes like the Main Mall and associated landscapes, which are potentially of exceptional quality and which play a crucial role in defining the structure and character of the campus. The second rank includes those landscapes which are of high quality, and which contribute in a significant but not necessarily crucial way to the campus environment.



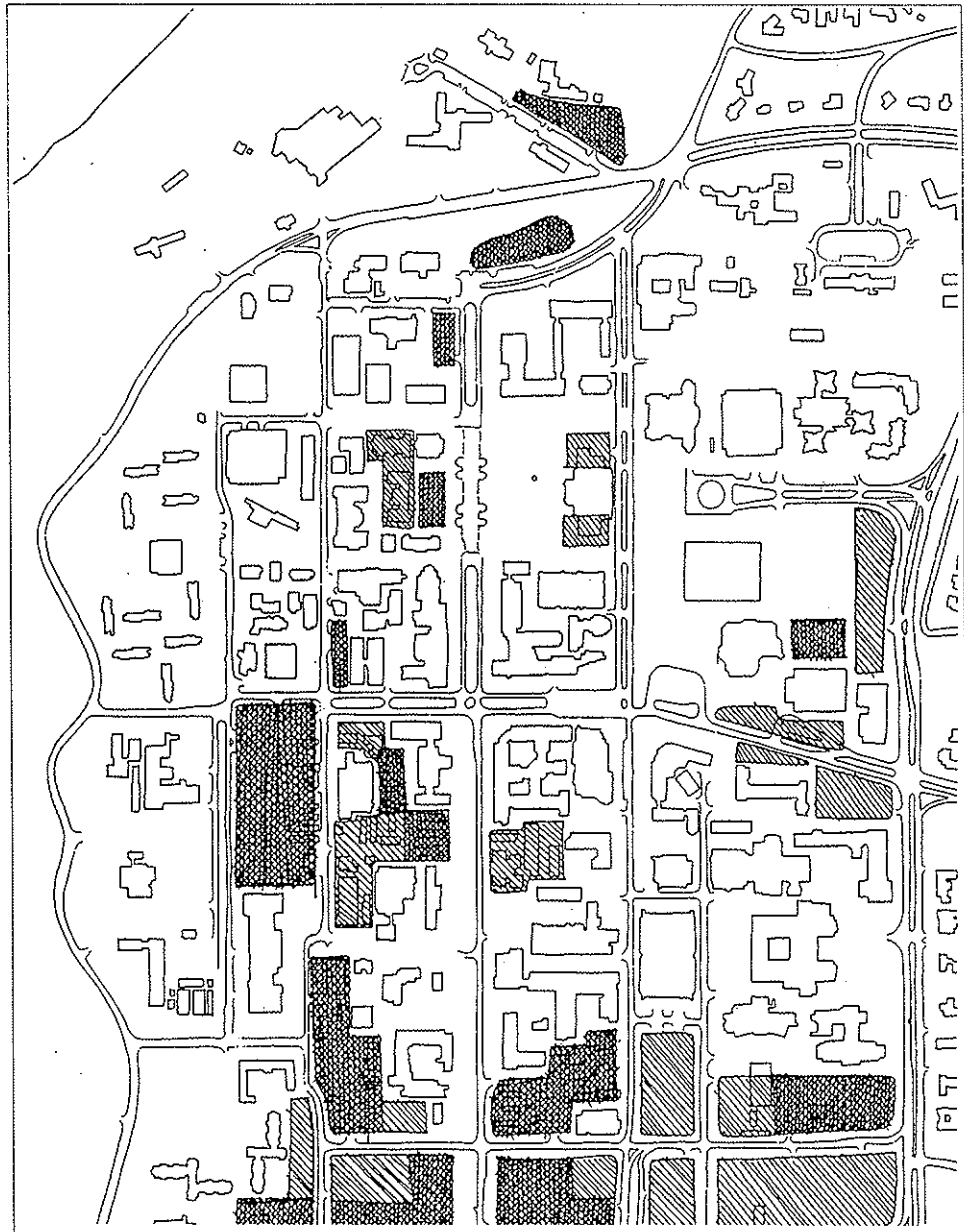
45. Composite Landscape Value



Most Suitable Future Building Sites

The drawing below shows the most suitable building sites within the Main Campus. Many of these sites have been assigned to current projects, but there are sufficient remaining to allow future development without compromising high quality buildings or landscapes.

Priority should be given to the repair and enhancement of problem areas rather than to the modification of high quality areas. On occasion, when other reasons take precedence, those sites not given the most suitable status need not necessarily be restricted totally. Modifying or developing an existing high quality building or landscape can be successful, but must be done with great care and sensitivity. Redevelopment of an existing physical asset should result in an even greater campus asset.



46. Most Suitable Building Sites

SITE SUTABILITY: Appropriate Relationships

Once a site has been found suitable for building in a general sense, only those buildings should be developed there which provide the best possible functional, social, environmental and technical relationships among related users, and between users and neighbours.

Certain kinds of uses should be widely distributed across the campus so that they are in close proximity to those who require them. These include lecture halls, food service facilities, social spaces and other communal facilities which provide basic services for the University community, and whose effectiveness depends upon the convenience of their locations.

Other uses should be clustered as they clearly benefit from close proximity. This is essential for ensuring the efficient operation of related functions which may rely heavily upon the sharing of information, personnel, facilities or materials, as well as technical or administrative services. The clustering of like activities can also promote the informal interaction among people with related but different interests which is fundamental to the academic endeavour.

The beneficial clustering of some functions can only be evaluated on a case by case basis, and care should be taken not to lead to formalized land use zoning and the problems associated with the strict separation of different land uses. Future campus development should emphasize not only the clustering of like activities, but also the vitality and broad range of interactions that are only possible in communities where diverse activities co-exist in close proximity.

In addition, proposed project locations should be evaluated to ensure that they will not compromise the health, comfort or effectiveness of neighbours, or the quality of adjacent landscapes and other public places.

Proposed projects will be evaluated to determine first, that they belong in the Main Campus at all and second, that their proposed location enhances rather than compromises the opportunities for the project and neighbours alike.



Strategy 9

SPATIAL STRUCTURE: An Organizing Framework

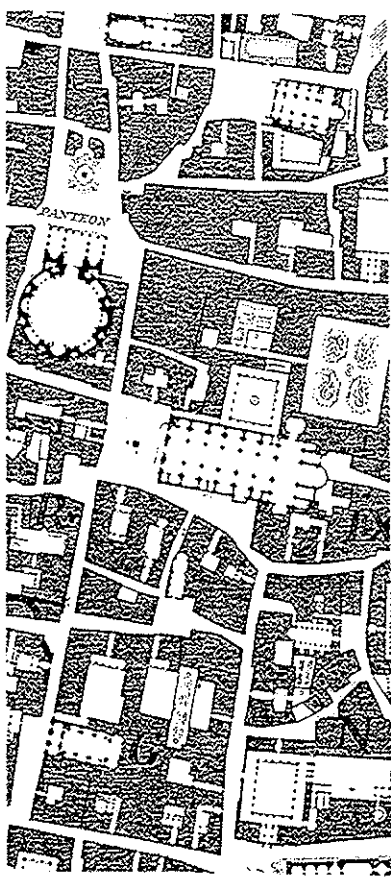
The siting and design of future projects in the centre of the campus will encourage the creation of a framework of positive open spaces, that is space which is firmly contained by building forms.

Although perhaps half of the communal benefit of the Campus Plan are obtained incrementally through "constituent" development projects, the other half are obtained through "communal" or linkage projects — the campus network of roads, paths, utilities and landscapes. These components should be ordered to form a clear framework defining the spatial structure and movement corridors of the campus — its "address system".

The UBC campus is a particularly difficult place to find one's way around. Many parts of the campus are unfamiliar to many people, even those who have worked and studied there for years. Ambulances and other emergency vehicles have difficulty finding buildings in a hurry, a problem with potentially tragic results. This condition results partly from the low density spread of the campus, but primarily from the lack of a clear spatial structure or completed framework of streets and public spaces, a recognizable system of public thoroughfares along which building addresses can be organized. There are parts of such a system, a potentially excellent one established by the original plan. But it has been badly eroded inadvertently through what was considered short term placement of "temporary" buildings, and purposefully by the abandonment of the block structure south of University Boulevard and by the sub-urbanization of the area through the implementation of "lane channelled" streets and partial street closures.

This is a condition which should be rectified as soon as possible as a matter of high priority.

There are also too few landmarks and memorable public spaces. The Main Mall is memorable. It is successfully contained by some building facades, for example the Chemistry and Henry Angus Buildings. Elsewhere it is given partial containment by means of the regularly spaced Red Oaks. But some of its value as the spine of an identifying spacial structure is lost because it is ineffectively contained by many of its flanking buildings, and by the relative lack of identifying features along its length. Markers like the Flag Pole, Clock Tower, Barn, Library Garden and Fairview Grove do provide points of orientation, but they are far apart and, with the exception of the Flag Pole, Library Garden and Clock Tower, are not visible from each other. Additional markers to create a continuous series visible one from the other should be developed to assist orientation.

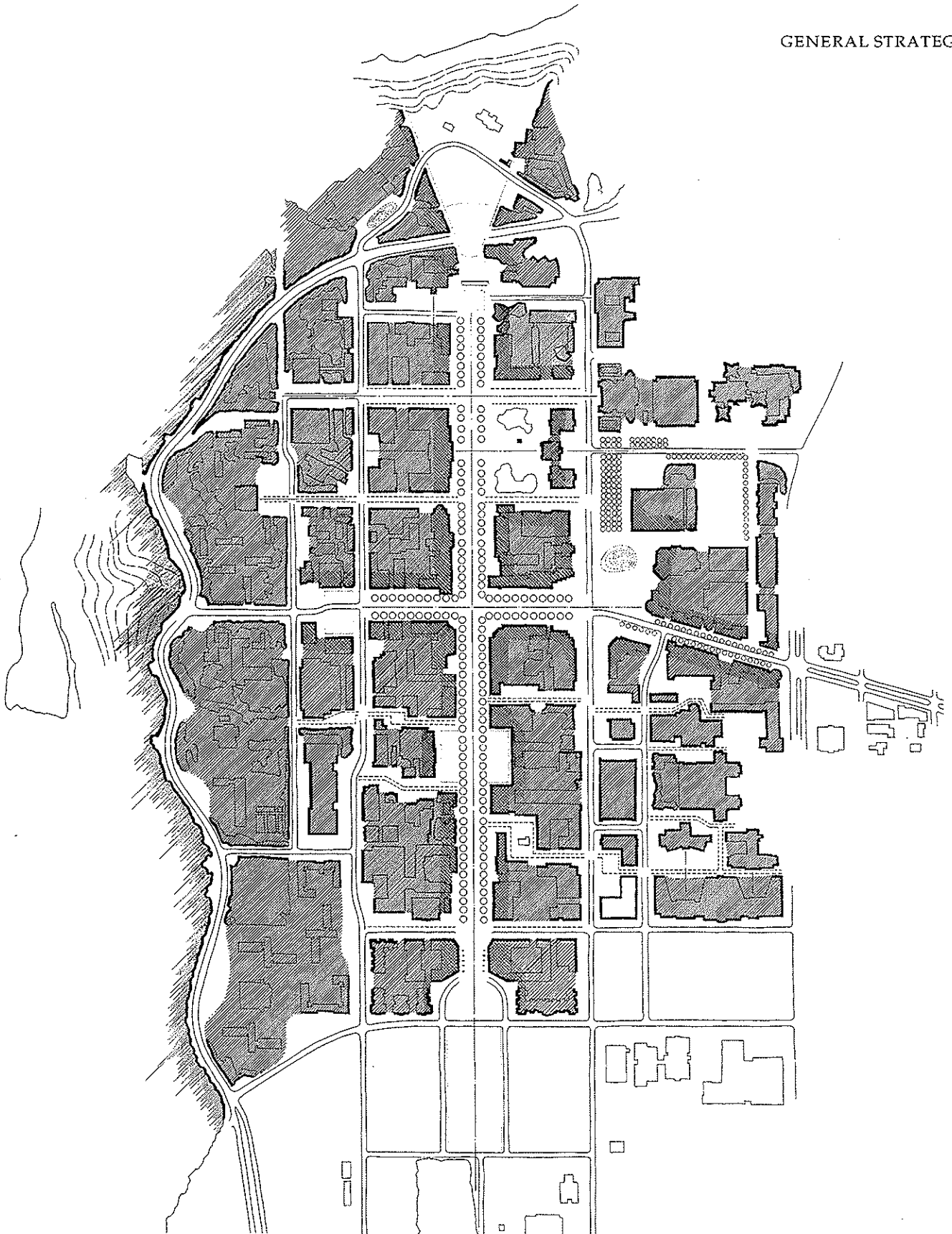


47. Part of Nollí's Map of Rome

"Giambattista Nollí's Map of Rome, drawn in 1748 ... reveals the city as a clearly defined system of solids and voids.

"The outdoor civic space is a positive void and is more figural than the solids that define it. Space is conceived as a positive entity in an integrated relationship with the surrounding solids. This is the opposite of the modern concept of space, where the buildings are figural, freestanding objects, and space is an uncontained void."

Roger Tranick, *Finding Lost Space*, 1986



48. *Blocks and Thoroughfares: Buildings reinforcing Communal Open Space*



Malls, Squares, and Greens

The diagram opposite illustrates the role of the two central malls and supporting landscapes, axes and "marker" buildings as organizing devices, the "content" of the open space system just described.

A unique and memorable characteristic of the Main Mall is its extreme length, the unimpeded slice it makes through the landscape and out into the ocean to the north and the forest to the south. This character will be retained and reinforced in all four cardinal directions. The axis should not end as it emerges from the Main Campus but should continue out to sea or land. Yet some punctuation and major meeting or symbolic spaces at the north, south, west and east points of emergence from the academic centre should mark these important transitions.

From the earliest days there has been an intention to express the north end as the "front door" to the campus, but the intention has only been partially implemented. A front lawn to UBC should be developed here, a terraced meadow overlooking Howe Sound. This landscape feature should engage Marine Drive and encompass the Rose Garden, giving passersby an introduction to the campus, and visually linking the lower northern campus with the upper central area.

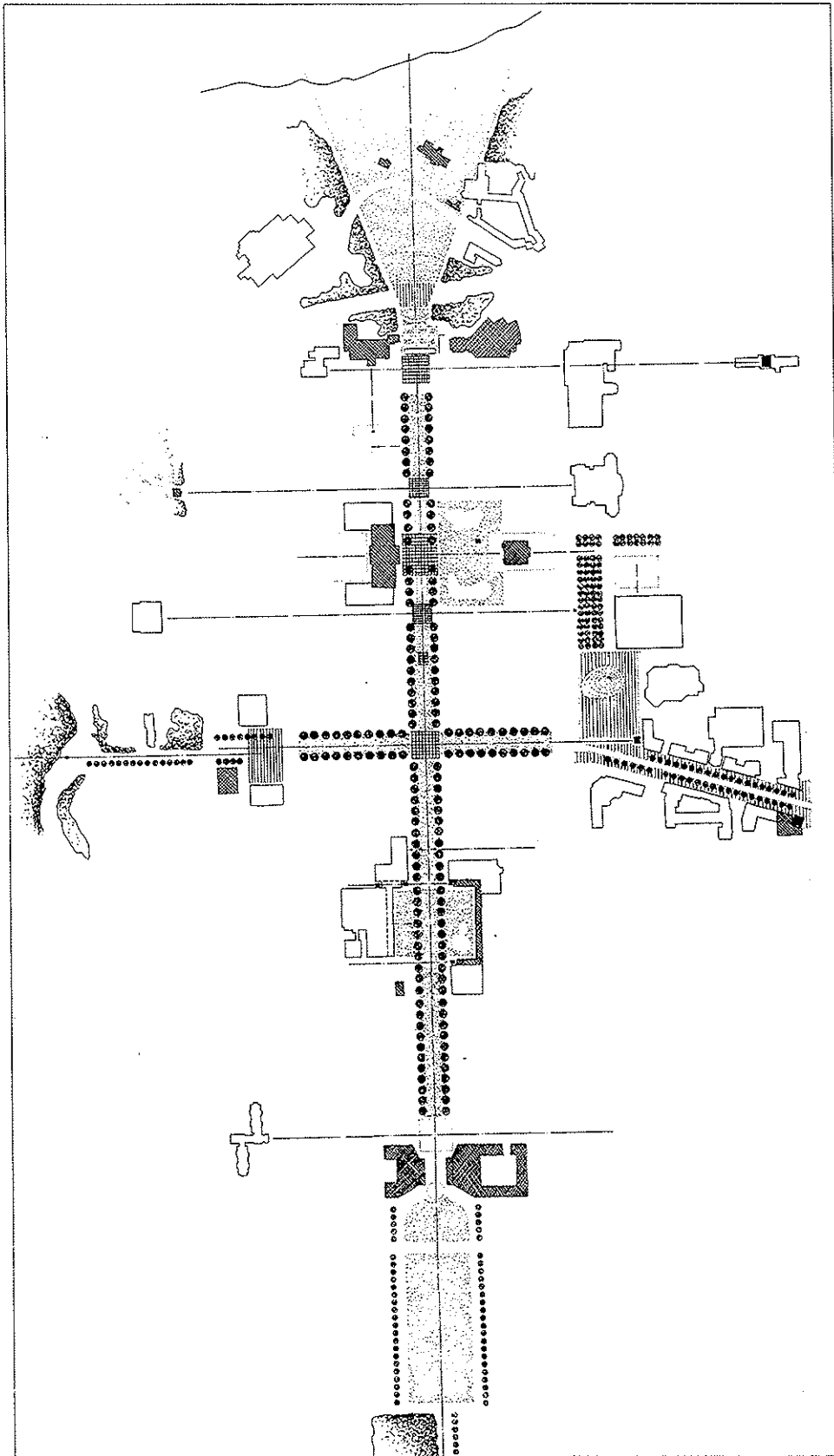
To the east, the area around the existing bus terminal has many of the aspects of a bustling town square and will be enhanced. The University Boulevard entry should be given a strong sense of identity and the area developed as the university's commercial "Main Street", extending the existing shopping nucleus into the campus.

To the west, a second town square should be established, supported by a second bus terminal, student services, classrooms, housing and a "corner store" serving Totem, Vanier, and the new residences.

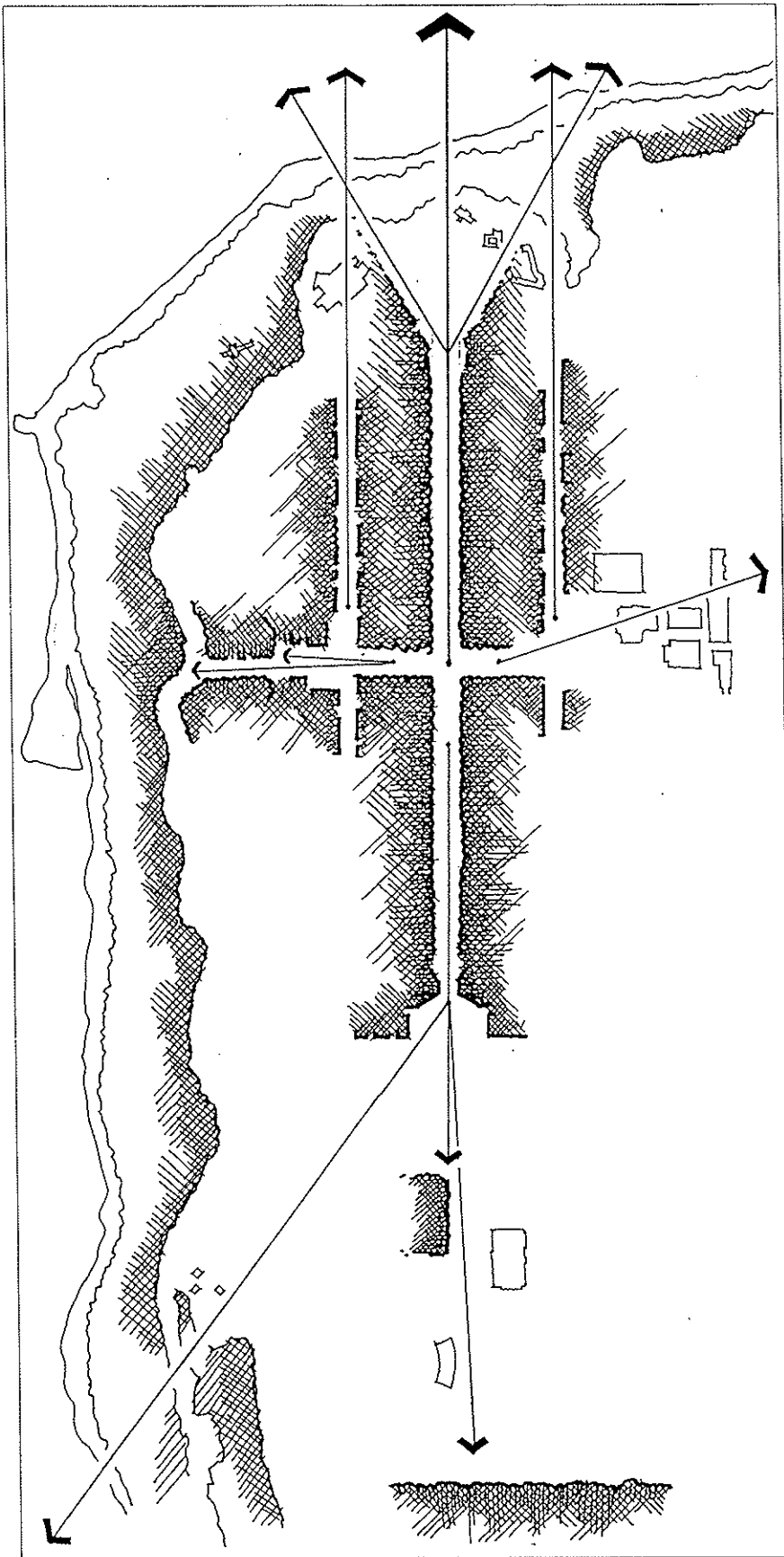
To the south, the last pair of academic buildings should "squeeze" into the shaft of space generated by the Main Mall, forming a gateway between the Main and Middle Campuses.

In addition to the transitions at the "ends", the Main Mall should be punctuated by major open spaces north and south of University Boulevard including an upgraded Library Garden and a new "Fairview Square" encompassing Fairview Grove and associated with the Food Services Barn.

As described in *Strategy 6* the treatment of the Malls should be simple, formal, and elegant. Clear, unobstructed views down their length are critical. Obstructions such as the Sedgewick Library skylights should be removed and no new obstructions added. The sole exception to this rule is the cairn in front of the Chemistry Building.



49. Mall Structure



Views to Ocean, Mountain and Forest

British Columbia is naturally beautiful, and views of mountain, ocean, and forest are particularly important to its people and its visitors. Situated on a ridge on a plateau on a peninsula, the site provides spectacular views of the sea and distant mountains, often over the existing trees along the top of the cliff. From ground level, major views are now available at the north and south terminations of the Mall axes, from their cross point, along the north escarpment lookout, and north along the East and West Malls. However, the proliferation of the landscape and forest, beautiful as it is, has obscured many of these views by its very presence and verdant growth.

These views should not be further blocked by future development.

Future management of trees on campus lands should give priority to cliff stability, but should, to the extent possible without compromising cliff stability, seek to improve these views. This is particularly true north of Marine Drive where key views are interrupted by relatively small trees close to the road and at a distance from the top of the cliff; these trees could be removed and new trees planted where they will contribute to cliff stability without compromising important views. In most other cases, the view line is *over* the tops of trees associated with the forested escarpment edge.

50. Views

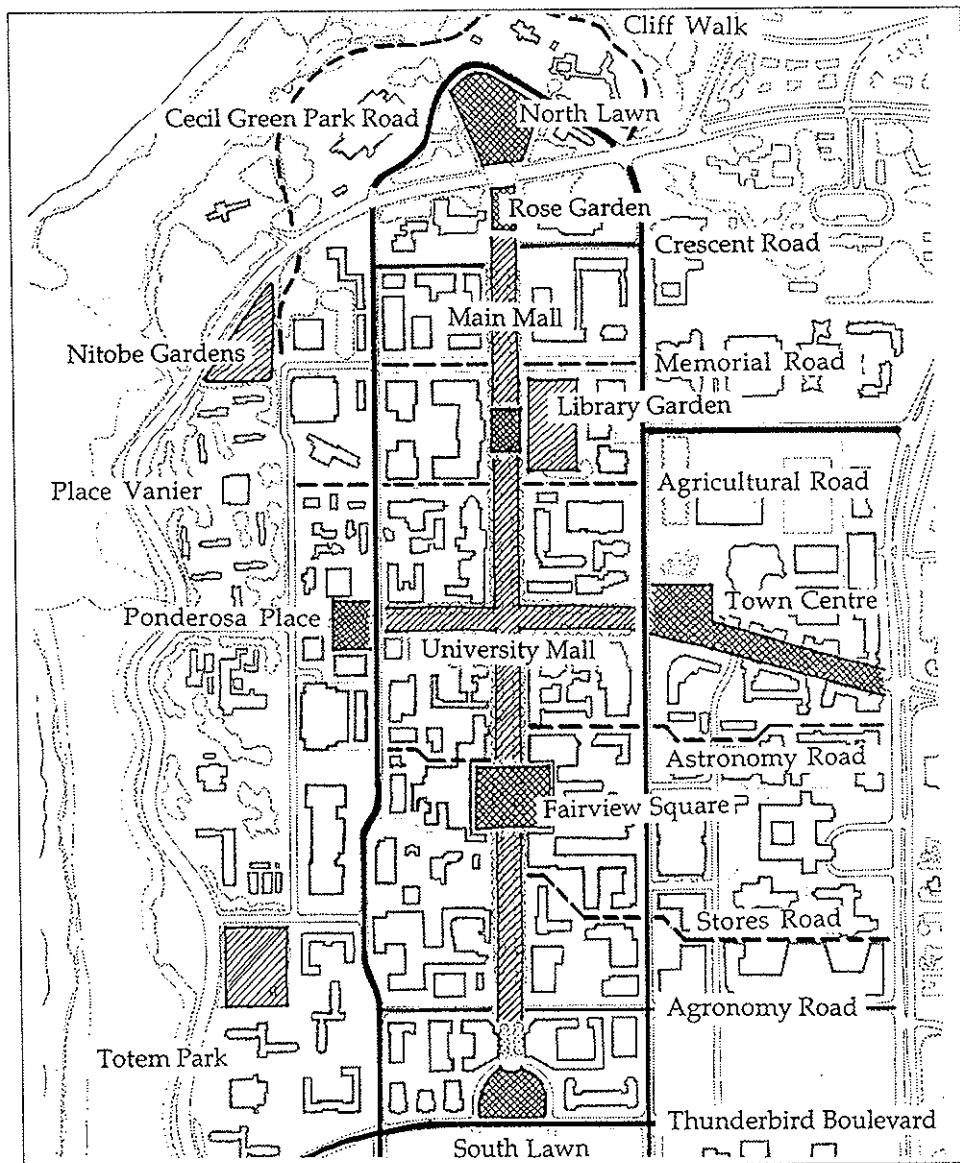
Names and Addresses

GENERAL STRATEGIES

Most memorable places, which people care about and endow with meaning, are easily named. The development of the spatial structure on the campus will create nameable places to reinforce their identity. This will then permit buildings to be provided with understandable addresses.

The campus map has many names for "streets" which are difficult to identify such as "Biological Sciences Road", as well as a confusing multi-digit numbering system. Identification would be enhanced by implementing the Spatial Structure Strategies in this section. Addresses on campus should also be demystified by simplifying the numbering system.

Part of the mandate of the signage master plan soon to be undertaken will be to suggest more appropriate names for both existing and new places on the campus.



51. *Named Places*



Strategy 10
CAMPUS LANDSCAPE

The UBC campus is well known for its landscapes: the dramatic seasonal displays of colour and the luxurious growth of foliage combine to provide a richness and diversity that strongly identifies much of the campus. With additional direction and care, this important attribute of the campus will be further strengthened.

Land forms, paving, plants and furnishings are the primary landscape components and materials that will give the public environment its sense of order, cohesion and finish, and must be coordinated. Individual landscape projects must be planned and designed to contribute to the sense of a whole, while meeting more immediate site and program requirements. This will be particularly important on large endeavours like the Main Mall rehabilitation or the streetscape development which very likely will be implemented in phases: a vocabulary of materials and elements must be established and consistently applied to ensure the successful execution of these projects.

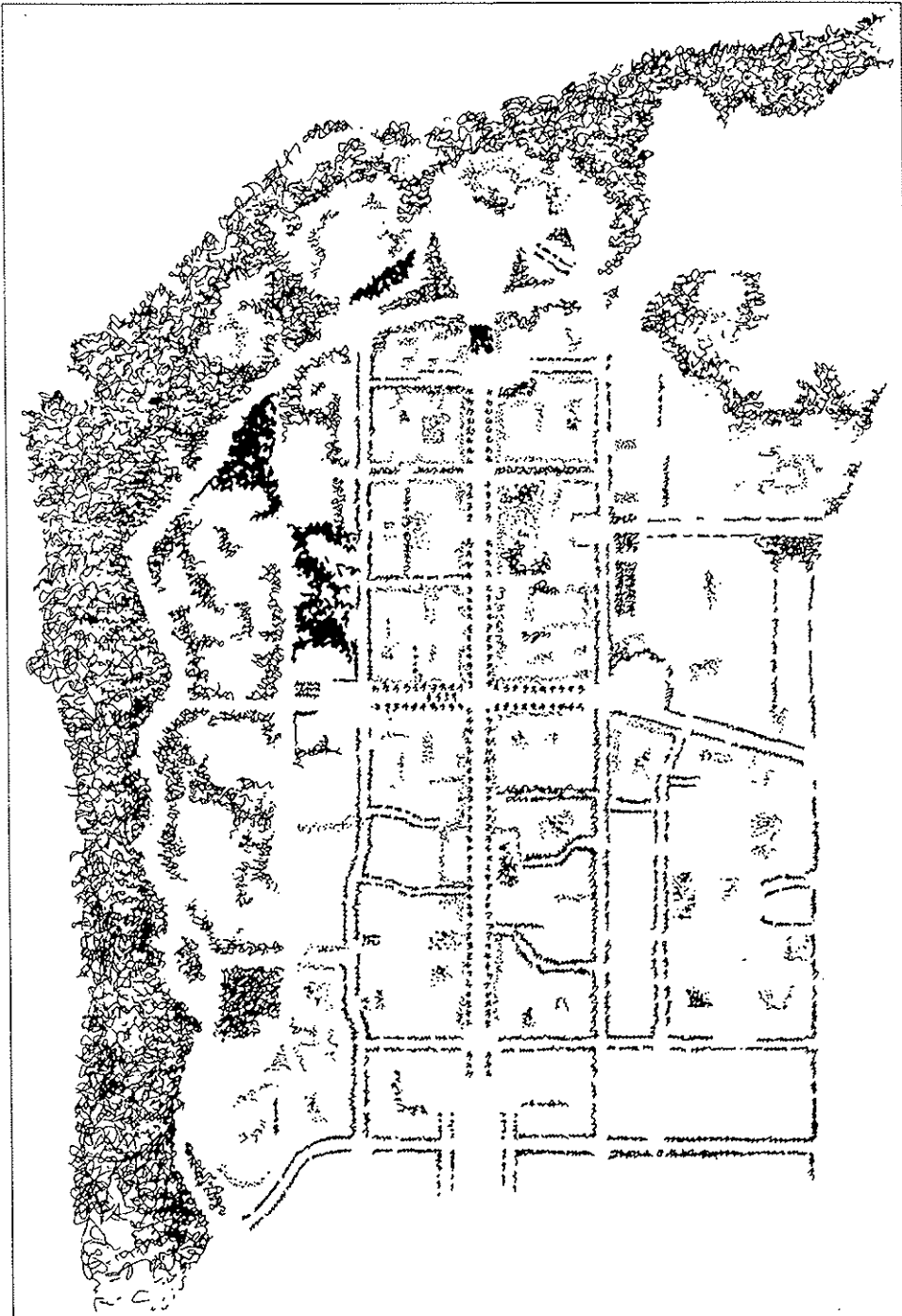
Landscape should be used to provide spatial containment where buildings do not, and perhaps never will be able to do so. For example, the rehabilitation of the bus terminal and SUB plaza area to bring together and make cohesive the many now disconnected parts of this very important arrival point and focus will necessarily rely heavily on landscape design.

The *genius loci* discussed in *Strategy 6* will be largely expressed through landscape development. The different characters of the Forest, Western Slopes, Ordered Malls, Escarpment Outlook, Academic Garden and Town Square should be reinforced through the selection of suitable forms, materials, plants and furnishings, and through the implementation of appropriate maintenance regimes.

In addition to reinforcing the overall structure of the campus, landscape design should strengthen the delightful sense of surprise and whimsy associated with many of the unique gardens, courts and laneways tucked away within the academic blocks. It is in these places that the extensive palette of plants and paving materials made possible by the region's favourable climate can be exploited, and the richness and diversity of the campus fully developed.

The tradition of developing the UBC landscape as an academic resource should be nurtured and extended. This tradition, stemming from the agricultural roots of the University, is evident in the plot-lands, arboreta, formal gardens and in some experimental landscapes on the campus. To be most successful, landscapes intended as academic resources should be carefully woven into the fabric of the campus, and designed as multi-dimensional environments to be used and appreciated both academically and aesthetically.

A comprehensive Landscape Master Plan should be developed for the Main Campus to guide future landscape design and management. This plan would address design issues including unity and diversity, materials and components for major projects, and the appropriate expression of the *genius loci*; and management issues including maintenance regimes and zoning, plant replacement programs, and seasonal displays of flowers and lights.



52. Campus Landscape: Cohesion and Diversity



Strategy 11

SIGNAGE AND ORIENTATION

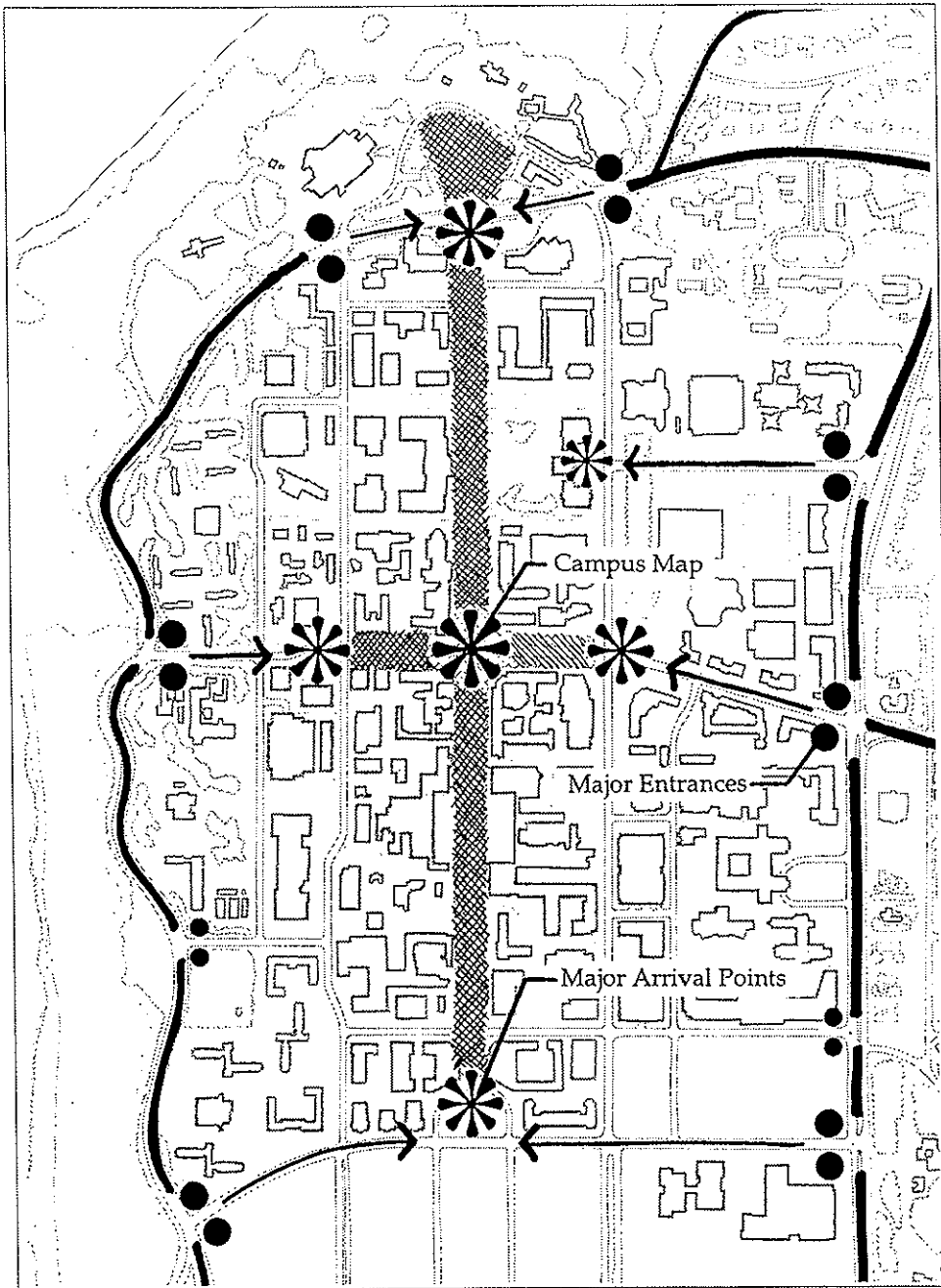
A new signage system will be developed for the campus. Much of the difficulty people have in finding their way around the campus stems from a signage system that is inconsistent, incomplete and difficult to read. The legibility provided by a clear spatial structure as described above needs to be reinforced by a more comprehensive signage system that provides continuous direction from arrival at the edge of the campus to specific destinations.

The new signage system should be ordered to express the relative importance of components, and to reveal the basic structure of the campus. At the highest level is University itself, which should be identified by major elements on the approaches to the campus. The next levels should include the entrances to the campus, the streets and pedestrian routes, the public places, and finally the buildings themselves and their interior facilities. Each of these levels in the hierarchy should be apparent in the sign design.

The signage system should be visually consistent and unified to support the image of the University as a single entity comprised of many diverse but related components.

All signs should be clear and easy to read. To successfully convey information to people in cars or to those trying to negotiate a visually complex environment, signs must carry the minimum information necessary and be readable at a glance. Preference should be given to horizontal lettering and to the use of universal graphic icons.

The sign system should be comprehensive, identifying all destinations on the campus including parking facilities, outdoor public spaces and buildings. Signage systems within buildings should identify all commonly used or public facilities.



53. *An Ordered Signage System*

*Strategy 12*

REVEALING UNIVERSITY CULTURE

The University has a rich and diverse cultural life which will be made apparent in the physical campus both through the quality and character of the environment, and through the display of its activities and the commemoration of its notable members and benefactors. The presentation of the University culture will add a layer of meaning to the campus environment, reaffirming for members the value of their efforts and communicating to the community at large the university's past achievements and future goals.

The expressions of University culture should be integrated with the organizational structure of the campus (*Strategy 9*) in a mutually supportive relationship. Cultural artifacts and displays draw energy and relevance if associated with important public places. In return, they reinforce the identity and meaning of those places.

Faculty Expression and Display

Individual faculties should have an identifiable "home base" or "centre" including deans' offices and primary reception facilities. Facilities are the basic divisions of the community, most clearly representing the diversity of formal activities undertaken by the University, and should be clearly identified.

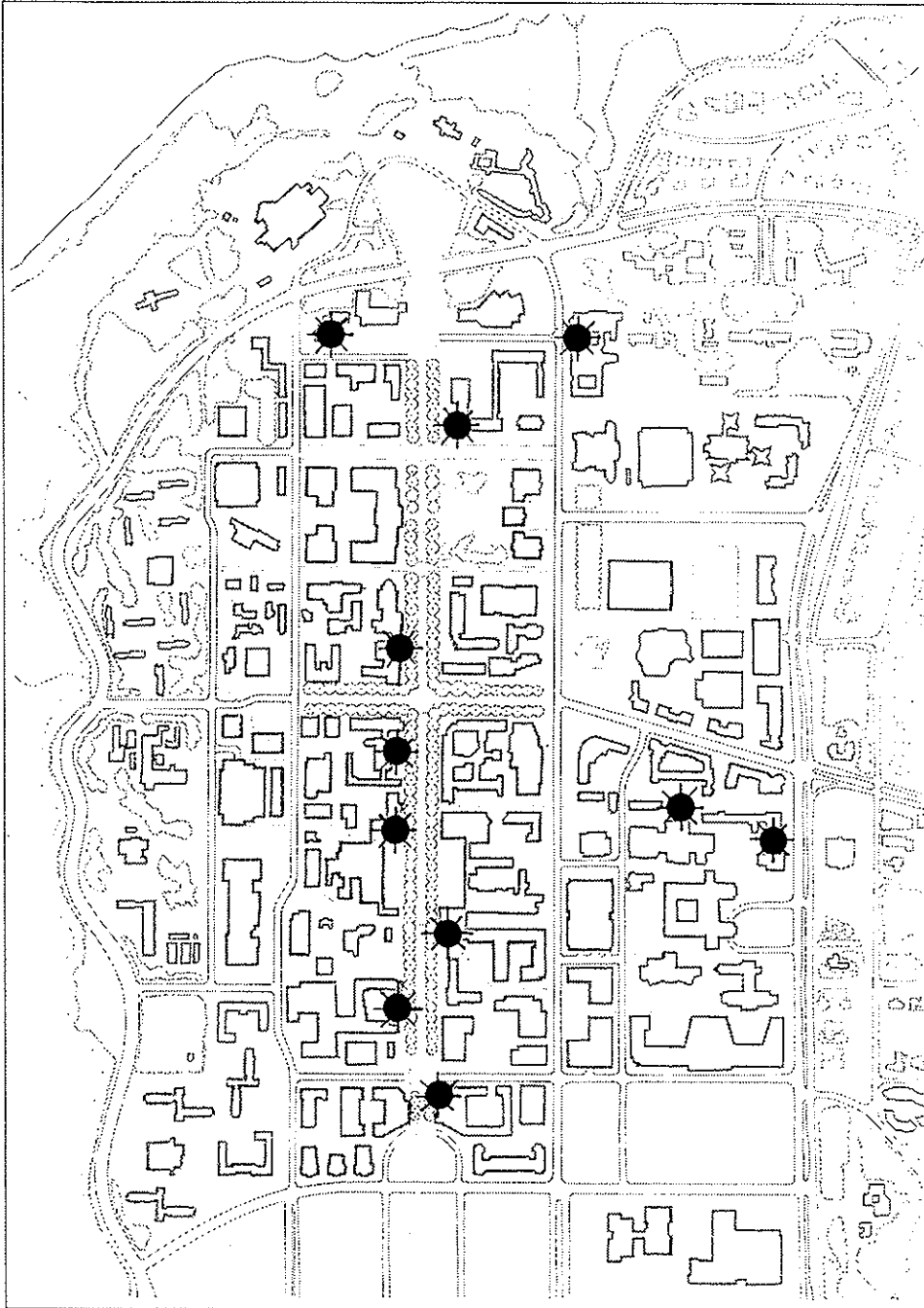
UBC's intention is that most faculty centres, currently dispersed at random around the campus, will in the long term be relocated to the Main Mall. This location will augment faculty identity and prominence, and also reinforce the meaning of the Main Mall.

Faculty centres should include well developed and prominent presentations of their activities, artifacts and symbols of past achievements. Although all buildings should be designed to display and express their functions (*Strategy 15*), faculty centres should be explicitly designed to present the work of the faculty to the community at large. Faculty presentations could include display cases, exhibits, galleries or museums, all highly integrated with an architectural and landscape statement that in itself expresses the faculty identity.

Commemoration and Recognition

The physical recognition of intellectual, humanitarian, physical and material contribution to the whole University, and the commemoration of ideas and events involving the whole University, will occur within the public realm of the campus. A comprehensive program for this will be considered, although it is recognized that many valuable commemoration efforts are spontaneous, a process which defies long term planning and prediction.

A correspondence between the subject matter and the physical location and space should be established. Major ideas, individuals or events of great significance to the whole community should be commemorated within spaces of equal importance and prominence. The primary places for these are at the intersections of various mall axes: Crescent Road, Memorial Road, Agricultural Road, University Boulevard, Biological Sciences Road, Stores Road and Agronomy Road. Ponderosa Place and the Town Centre also form places for significant commemorations.



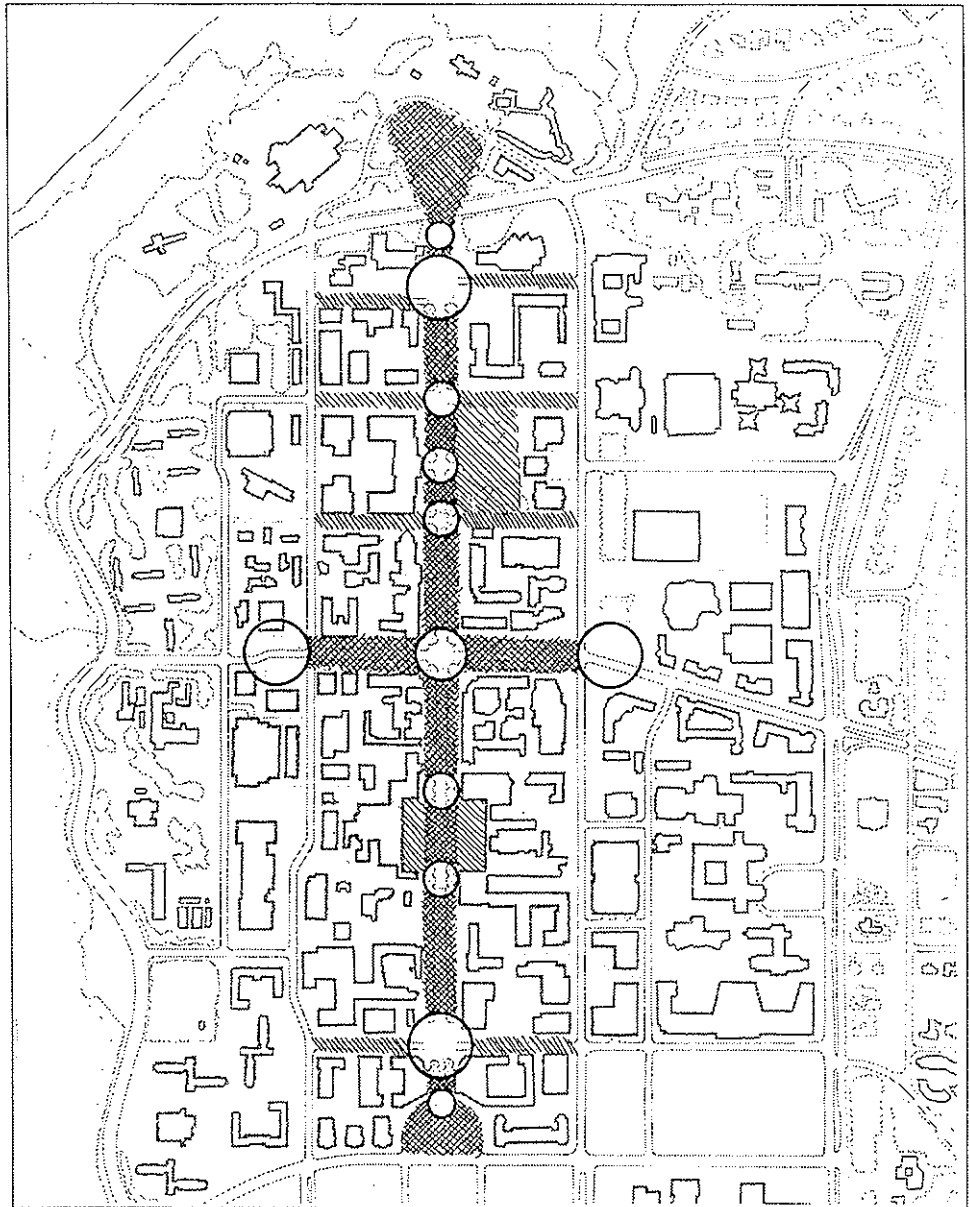
54. Faculty Centres



GENERAL STRATEGIES

Minor subjects, of local interest or significant to specific interest groups, do contribute to campus richness but should be located in places of comparable prominence. There is a great number and great variety of such places on the campus that would both suit and benefit from these commemorations.

The design of commemorations should involve the full integration of artifact with context: the ad hoc installation of artifacts without adequate consideration of their surroundings risks the degradation of both space and commemoration. Nevertheless, there is a great number of ways in which commemorations can be made including engraved paving stones, dedicated trees and furnishings, plaques, statues, monuments and even whole landscapes and urban spaces. No possibility should be discounted as a way of contributing to the richness and diversity of the campus environment as long as the installation also contributes to the development of a harmonious and meaningful whole.



55. *Primary Locations for Commemoration and Recognition*

Strategy 13

GENERAL STRATEGIES

MIXED USE

To develop a campus that has a vital atmosphere, encourages contact among its occupants, and feels safe day and night all through the year, housing, academic, recreational, social and commercial facilities will be developed in a pattern promoting close proximity between different related uses. Such a development pattern is in direct contrast with the campus zoning tradition promoting a "pure" academic core surrounded by support units.

Implementing this strategy through new projects cannot fundamentally overturn the inherited pattern of single purpose land use zones because of the considerable stock of facilities already built to this pattern, and because of some of the decisions already made about the current round of new buildings. The initial interventions will of necessity be small and, with the exception of food services, located primarily at the edges of the academic zone. But as new projects are defined and ones under programming and design are rethought, this strategy should be brought into greater play until a more appropriate balance between mixing and separating uses is achieved.



Strategy 14

RESPECT FOR LAND VALUE

Every building and every landscape project will be sited and designed with a greater respect for land value.

One of the reasons sprawl has been so readily permitted on the Main Campus is the absence of easily identified land costs. The situation began to change when parking structures were introduced to replace surface parking lost to new buildings. This was the beginning of a process of structural change in the way campus land is valued because the cost of parking structures establishes a surrogate land cost. As sites fill up within the Main Campus the point will soon be reached where each site development will require the replacement of lost surface parking by new structures either under buildings or under playing fields and other open space.

The income from parkades does not currently cover their costs, but this has been disguised to date by income in excess of costs from the remaining surface parking lots. As the proportion of surface lots declines, so will excess funds. And as the parking solution moves up the inevitable progression from (a) surface lots, to (b) parkades, to (c) structures under fields, to (d) structures under buildings, costs will increase by a significant factor at each step.

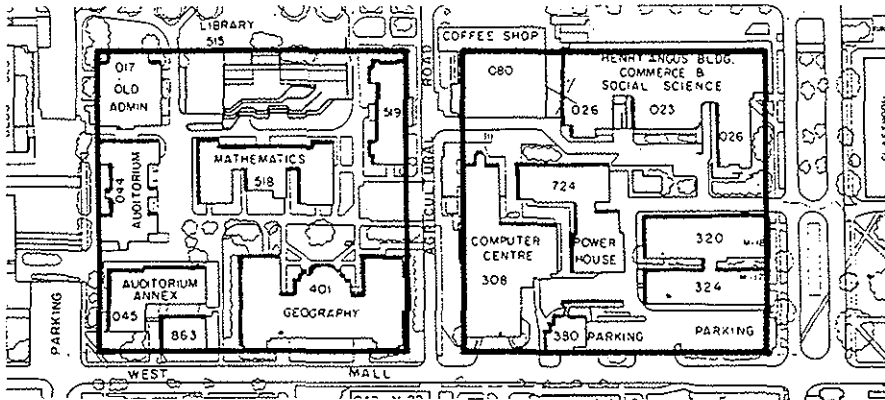
The incorporation of land value into project budgets will, and must, lead to increased development density. The average building density within current higher density "campus blocks" on the Main Campus is a "floor area ratio" of between 1.0 and 2.0. The target should be a floor area ratio of between 2.0 and 3.0, meaning that approximately half to two thirds of the block should be occupied by buildings on average four to six storeys high.

CAMPUS DENSITY: FLOOR AREA RATIO

The density of buildings on the Main Campus is measured by the ratio between the site area under consideration and the building floor space, which in turn is the area within the outside of the exterior walls multiplied by the number of floors. This is called "floor area ratio". The site area in question is the "Campus Block" — the area between main thoroughfares.

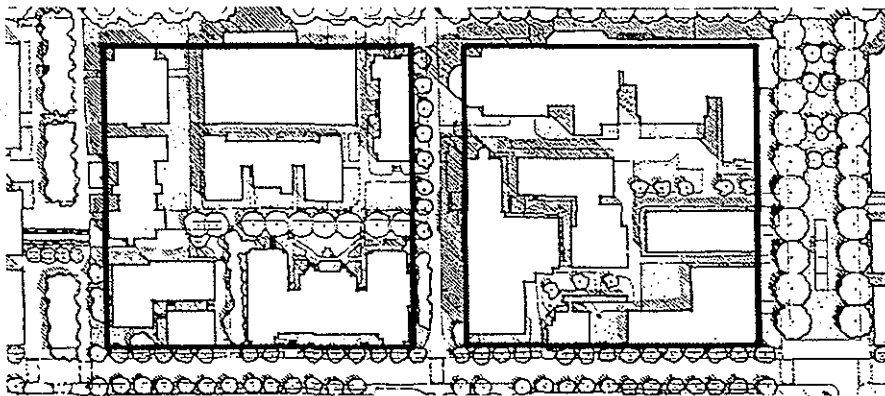
In municipalities, where density is used as a regulatory control, some floor space areas, such as unoccupied space (basements, parking and mechanical services) are excluded from the calculation. The concern for density at UBC is not a function of regulation but of the creation of a safer, more functional, more active, and more cost effective environment. The Floor Area Ratio is used as a target indicator, not a limitation. Accordingly, the simplest and easiest way of calculating net block density in "ball park" terms will be used; i.e. a simple calculation of the area within building perimeters multiplied by the number of stories, whether below or above ground and regardless of whether occupied by people, mechanical equipment, storage, or parking.

CASE STUDY: THE LIBRARY AND COMMERCE BLOCKS



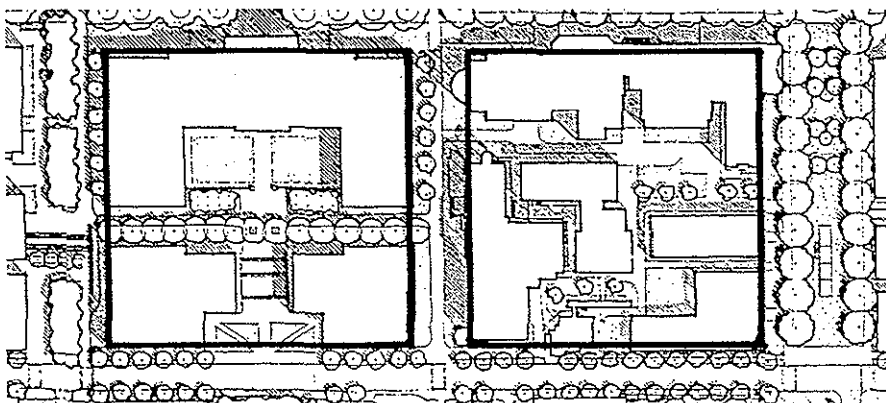
56. Library and Commerce Blocks: Existing Conditions

The Library and Commerce blocks are sized at 220,000 and 230,000 sq. ft. respectively. The existing building areas are 215,000 and 393,000 sq. ft. resulting in floor area ratios of 0.98 and 1.7.



57. Library and Commerce Blocks: Mid-Range Development

With the construction of the approved buildings on these sites, i.e. the Library expansion and the David Lam Management Research Centre, the floor space will increase to 352,000 and 576,000 sq. ft., resulting in floor area ratios of 1.6 and 2.5.



58. Library and Commerce Blocks: Long Range Development

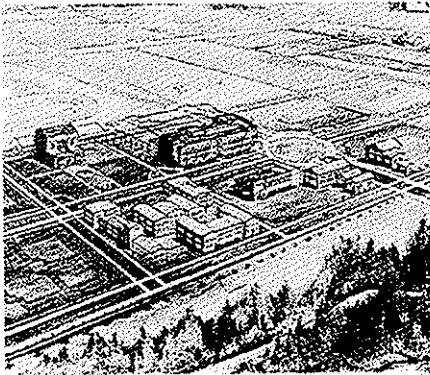
The long range campus plan indicates the removal of low density buildings and their replacement by buildings with 4 to 5 storeys. This will increase the floor areas of the blocks to 584,000 and 576,000 sq. ft. The floor area ratio of the Library Block will then be 2.65, and the Commerce Block will be 2.5. Both meet the density target.



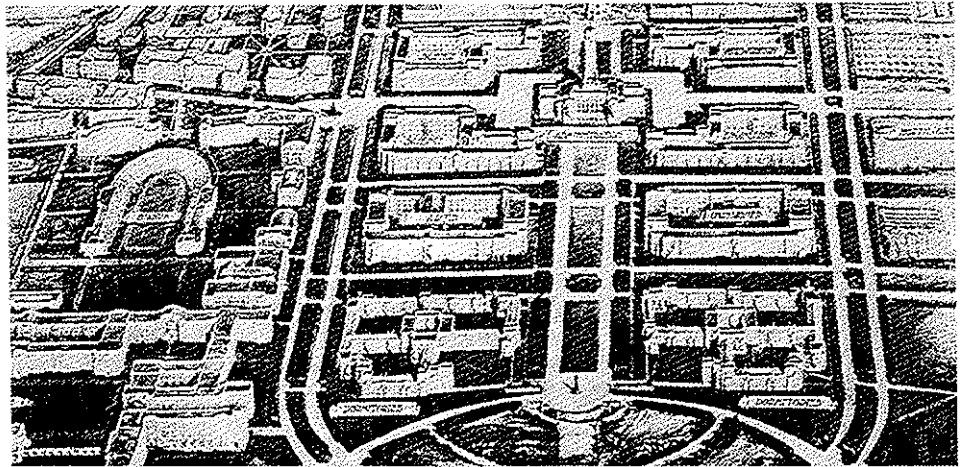
BUILDING DESIGN

The Architectural Heritage

The 1912-14 Plan proposed a single architectural "style" for all buildings that was to have given the campus a unified and cohesive image. The Plan promoted the grand Beaux Arts collegiate tradition of simplified Gothic buildings organized around internal quadrangles. But very little of the quadrangle pattern or the simplified Gothic style has been implemented.

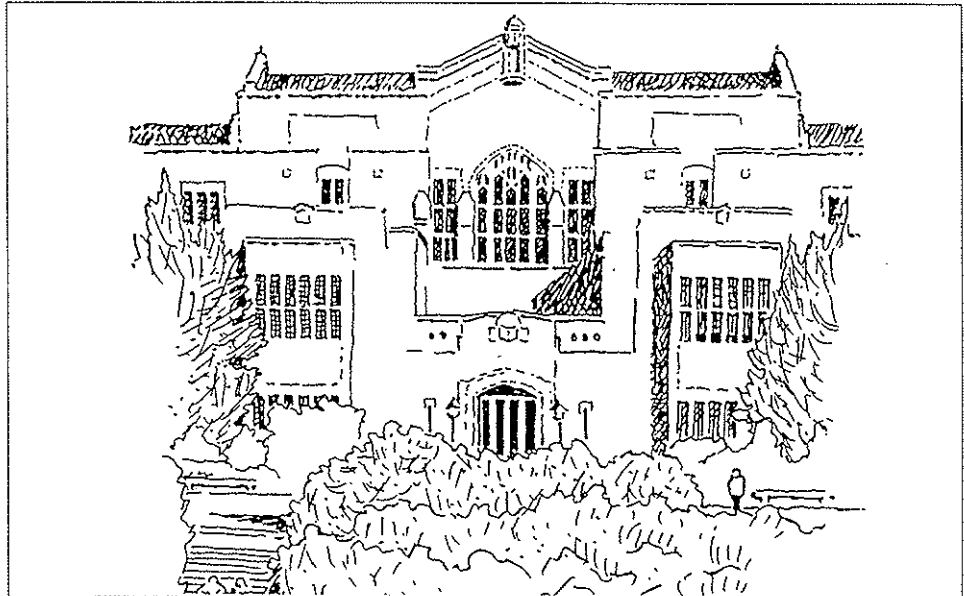


59. Bird's Eye View, 1925



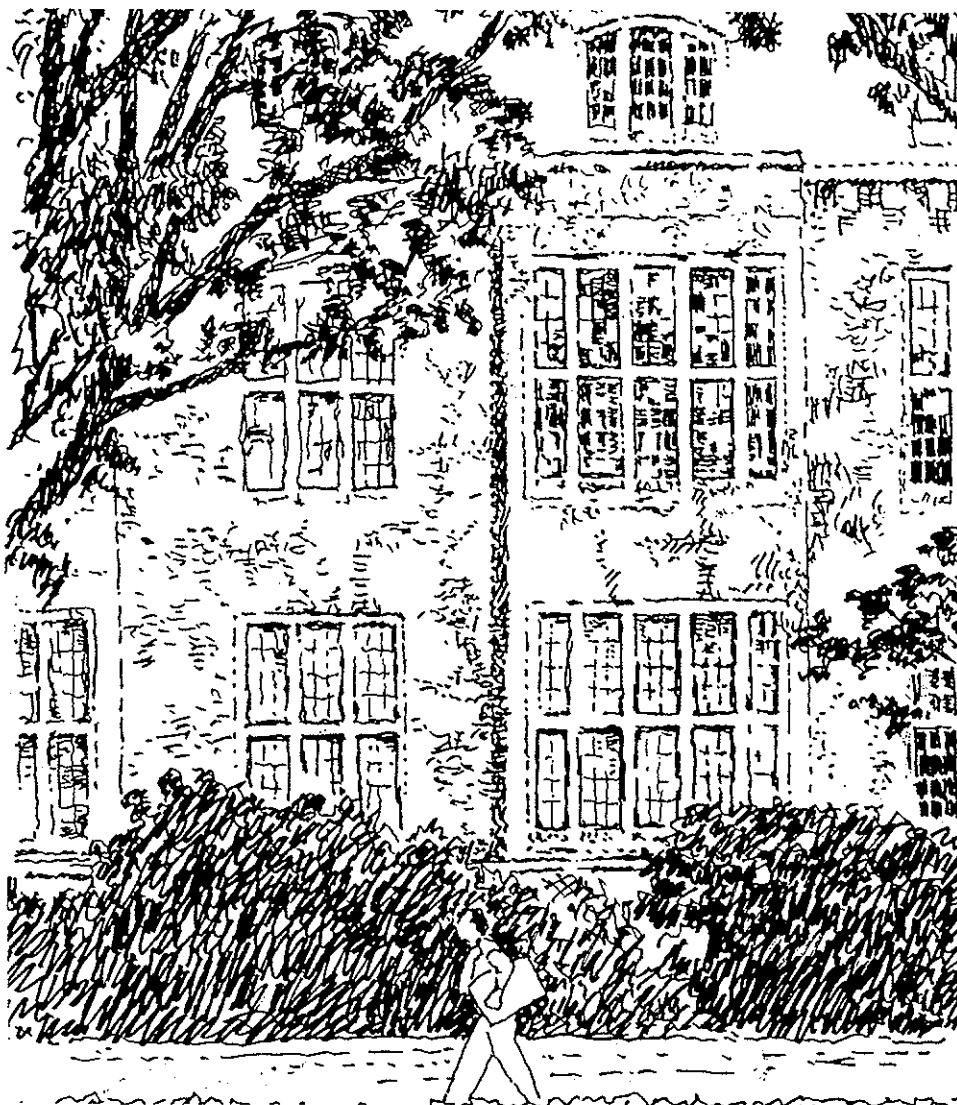
60. Bird's Eye View, 1914

The buildings that did follow this direction include the Main Library, the Chemistry Building, and in stripped down form the Physics Building and the "semi-permanent" buildings west of the Library Gardens. These buildings express what at that time was felt to reflect the idea of a "modern" university, combining English and New World images of *academia* — a simplified mix of the medieval and classical styles.



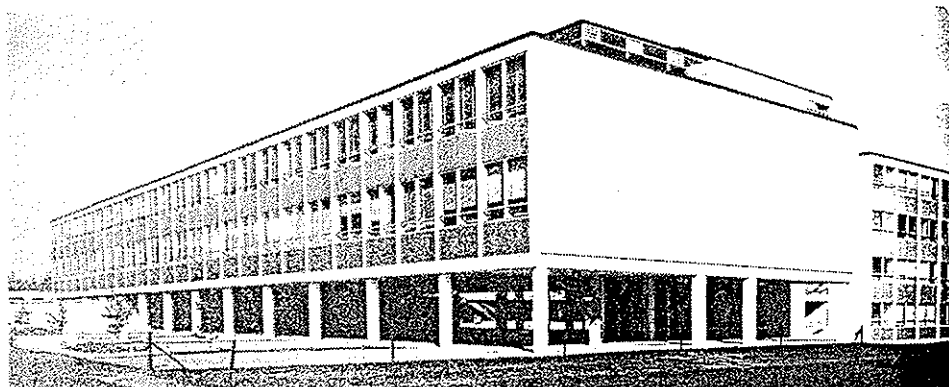
61. Main Library

GENERAL STRATEGIES



62. Chemistry Building

To the regret of some people, and the satisfaction of others, UBC has long since departed from this mixed ecclesiastical-Jeffersonian model. Like many institutions developed in the post-war period, UBC has accepted the more egalitarian image expressed by "modernist" or "international" style buildings. This style was deliberately intended to avoid symbolic associations with previous eras or with particular social institutions. While this architectural approach may have



63. Buchanan Building



64. Army Huts



successfully expressed the idea of democratic and universally accessible education, many of the resulting buildings are barely distinguishable from industrial parks and suburban office developments of the same period and style.

The Character of New Buildings

New buildings on the campus should be more expressive of "university", incorporating the complex and often conflicting notions of permanence, tradition and historical continuity; innovation and experimentation; human warmth and public accessibility; technical pre-eminence and academic integrity. This expression relates partly to the question of "style", but more importantly to fundamental design principles relating to building character.

New buildings should be designed to make the activities of the University both apparent and accessible from the outside world, and to avoid overtly opaque, internalized and "protective" structures.

Entrances to buildings and their public places should be legible both from a distance and nearby. Building entrances should address important public spaces and thoroughfares rather than parking lots.

The modelling of building forms and the treatment of their facades should be handled so that buildings "read" at different scales: from afar in their silhouette, from the middle distance in their massing, and close-up in their detailing and decoration.

In order to retain the sense of a "Garden Campus in the Forest" and to promote an efficient walk-up format, campus buildings should not rise much higher than the trees. They should be an average of about four storeys and be limited to a maximum of six storeys, except where special gateway or "landmark" buildings will help to reinforce the spatial structure of the campus.

Exterior Materials

The dominant building material should be masonry, in keeping with the long standing academic tradition in North America and Europe. Heavy timber construction may be appropriate in some locations within the forested zone. Concrete should only be used sparingly; large expanses are dull in the Vancouver light and subject to unsightly wet patching and streaking in the drizzle. Metal and architectural glass may also be used to good effect in limited amounts, but they are too severe to be used in large quantities.

Buildings Working Together

New buildings should be designed to relate to and work together with their neighbours, so that the composition of groups of buildings is as well considered as the composition of the building itself. The consideration of context becomes increasingly important as density increases. Arbitrarily individualistic architectural statements are inconsistent with the emerging campus fabric, and should not be permitted to compromise a more cohesive campus image.

Buildings Working with Open Space

GENERAL STRATEGIES

New buildings should be designed to reinforce the integrity and vitality of all adjacent open spaces, and to support the basic structural organization of the campus.

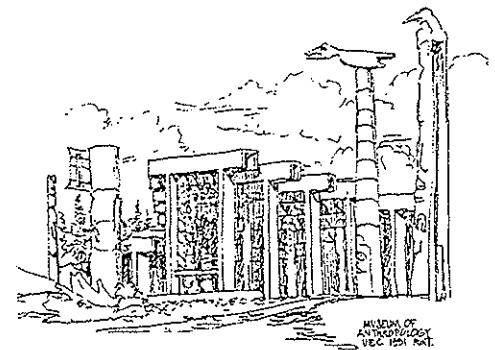
Many of the older buildings and some of the newer ones serve to reinforce the sense of place of the open spaces on campus. This is most successful when the building and the outdoor space have a reciprocal relationship in which each supports and enhances the other, and open space is "positive" rather than "negative".

One of the reasons the Library Garden is memorable is because the front facade of the Main Library establishes a contained edge, animated by entrances. Similarly, the Chemistry and Angus Buildings work well as flanking buildings to the Mall, presenting entrances to it and stimulating activity within it. In contrast, the Sedgewick Library draws on the value of the open space — for views and daylight — but the relationship is one way: the building does not positively reinforce the outdoor space. In another case not to be repeated, the Biological Sciences Building is separated from the Main Mall by a moat which prevents any interchange whatever to occur between building activities and Mall activities.

Space containment is desirable in the central and urban portion of the campus. Future buildings in these areas should be designed so that entrances and activity areas are directly accessible from grade, and so that building facades positively contain adjacent outdoor space. Spaces contained will vary in size and character. For example, on the "Western Slopes" outdoor spaces should be small and intimate, with surrounding buildings higher than the width of the open spaces. In the "Academic Garden", outdoor spaces should be larger; the surrounding walls might be as high as the space is wide. In the "Forest", space containment is not an objective: buildings should be self-contained pavilions interspersed among the trees.

Flexibility: Long Life, Loose Fit

Buildings last much longer than the precise functions for which they are first designed. Too tight a "fit" between present functional requirements and the building can reduce the building's potential for adaptation to new uses in the future. The specialized needs defined by the user committee must be met, but this should be done in a way which is described as "loose fit", so that the organization of building circulation and rooms is sufficiently generic to permit occupation by evolving uses over the life of the building. This approach will increase efficiency in the use of the university's total inventory of space, because each building will be suitable for a greater number of uses.



65. *Museum of Anthropology: A Pavilion in the Forest*



CAMPUS SAFETY

The development of an environment which is safe for all users, and especially for women, is a high priority for all future projects on campus. It is a fundamental moral responsibility of the University, but it will have other benefits as well. A campus which is safe, and which is perceived to be safe, will be used by more people and for longer, enhancing the vitality of the University and extending the effective utilization of facilities.

Good environments are safe environments. Personal safety is not a single dimension issue (with a single dimension solution), but one measure of a viable environment, along with clarity, legibility, convenience, economy, vitality and delight. The development of a safe environment does not necessarily require enormous expenditures of money, but requires that every planning and design decision be undertaken and evaluated in terms of its impact on safety. For this reason, most of the planning strategies in this Plan will contribute in some way to the development of a safer campus.

As more people use the campus and its public places, especially at night, the safer it will be. This will result from implementing the strategies concerning mixed use (*Strategy 13*) and development densification (*Strategy 14*).

The design of the public domain, in its structure and details, is critical to ensuring personal safety on the campus. A clear spatial structure (*Strategy 9*) with a legible hierarchy of clearly identified routes and spaces provides users with the orientation and clarity necessary to move through the campus with comfort. Appropriate lighting (*Strategy 25*) and well designed planting are essential for maintaining visibility during both day and night.

Buildings are essential components of the campus safety network (*Strategy 16*). As destinations, buildings and their entrances should be clearly identified and illuminated. Buildings should define important public routes and spaces, and have windows that demonstrate to people outside that they are occupied, and that provide casual surveillance of outdoor spaces.

Campus transit systems, by providing safe travel as well as a patrolling function, are another means of increasing campus safety during off hours (*Strategy 23*).

Campus security operations are intended to ensure that personnel are visible on campus and can respond quickly and efficiently. Emergency telephones and other means of alert should be distributed throughout the public environment.

Since some of these strategies will only be effective over the long term, interim strategies should be established to meet the immediate needs of women in particular. Special attention should be placed now on improved lighting, more frequent security patrols and better on-campus public transit.

MOVEMENT IN THE PUBLIC DOMAIN

There is a fundamental distinction on campus between what might be termed the private and public domains. The private domain constitutes those parts of the campus to which public access is periodically or permanently restricted. The public domain, most of which is out of doors, constitutes those parts of the campus which are always "open" to the public. The public domain forms the organizing framework of the campus described earlier, and accommodates streets, walkways, gardens and urban spaces.

In older settlements, the public domain is a multi-use network, often accommodating cars, pedestrians, wheelchairs, bicycles and prams within the same right of way. Over the last several decades there has been a tendency to specialize, to zone certain parts of the public domain for powered vehicles alone, and other parts for pedestrians alone. Much, although not all, of this trend has been counterproductive, resulting in unfriendly and in some cases sterile environments.

The future design of the public domain within the campus should begin with a pedestrian and wheelchair oriented central zone, surrounded by a multi-use zone accommodating both cars and pedestrians, and beyond that a few perimeter highways on which automobile use restricts pedestrian use.

The multi-use roads have an "environmental carrying capacity". Through traffic should be permitted, but only to the extent that the amount of traffic does not pass a threshold where vehicular movement compromises easy and safe pedestrian and wheelchair use. If this threshold is reached, traffic should be restricted either by imposing regulation, or more desirably by self-regulating methods such as frequent pedestrian-controlled crosswalks.



Strategy 18 PEDESTRIANS

The Campus Centre between the East and West Malls, Crescent and Agronomy Roads is designated as a pedestrian zone. Although vehicles will be permitted elsewhere, the entire Main Campus will become an environment with pedestrian priority. The pedestrian circulation system will be contained within the organizing spatial structure and will be an extension and rationalization of that which now exists.

As shown right the two major malls, the "squares" and the pedestrian "streets" between academic blocks form the primary network. A finer network of paths occur within academic blocks. Beyond the central blocks, the movement corridors are shared by walks and roads. Roads are to be flanked by generous sidewalks, and frequently crossed by pedestrian paths with priority over vehicles.

Walkway Standards for the Pedestrian Network

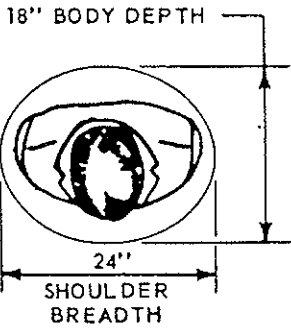
Major pedestrian walkways should be dimensioned to accommodate the traffic they will carry, both pedestrians and emergency vehicles. They should also have sufficient presence to act as a means of address.

The capacity of walkways is a function of the space required for people to walk, wheel, stand, and pass other people. The commonly accepted dimensional basis is a "body ellipse" about 24 inches wide, and "buffer zones" around stationary objects of about 18 inches and between pedestrians of about 12 inches. Wheelchair dimensions are similar.

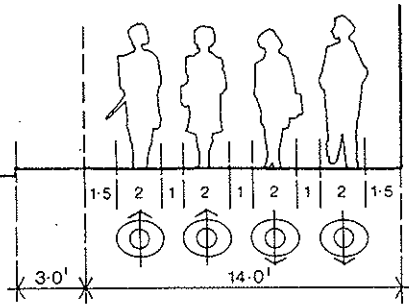
A walkway wide enough to freely accommodate two people walking in conversation without having to move out of the way of two other people walking in the opposite direction requires 14 feet clear, as can be seen at left. If a walkway is used to accommodate emergency vehicles, 20 feet clear is required. Two people walking abreast or passing each other, with one person standing and the buffer spaces between them, also shown at left, require 11 feet clear. On a sidewalk, if street trees, lamp standards and fire hydrants are to be provided, an additional 3 feet is required.

A series of minimum standards can therefore be established for the pedestrian network:

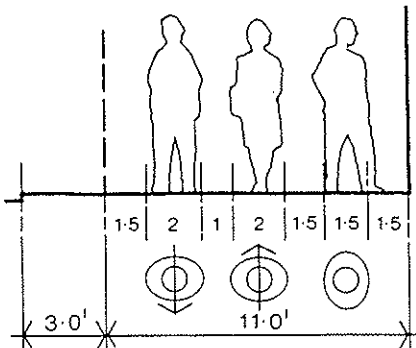
- i) *Primary walkway/emergency routes* with a clear surface 6.4m wide;
- ii) *"Commercial" sidewalks* in the "Town Centre" 5m wide to freely accommodate four people abreast and a 1m "service strip" for light standards and street trees;
- iii) *Normal sidewalks* 2.8m wide, and no vertical restrictions within 0.75m, to freely accommodate two people walking one way and one the other; and
- iv) *Local paths* a minimum of 1.5m wide to accommodate two people walking together, or a wheelchair passing a pedestrian.



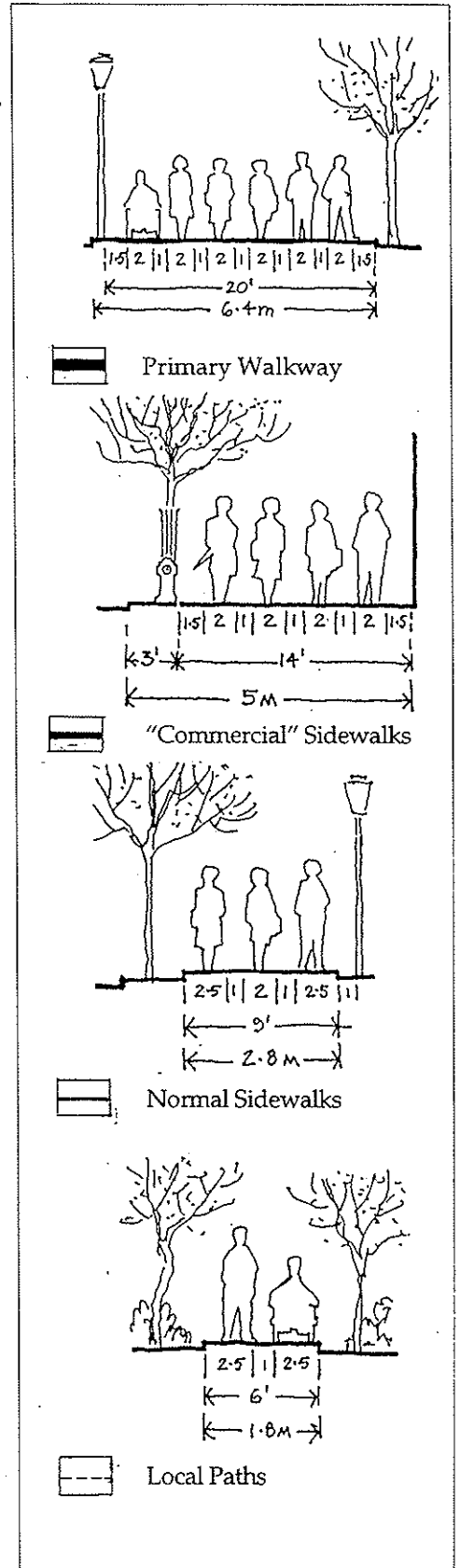
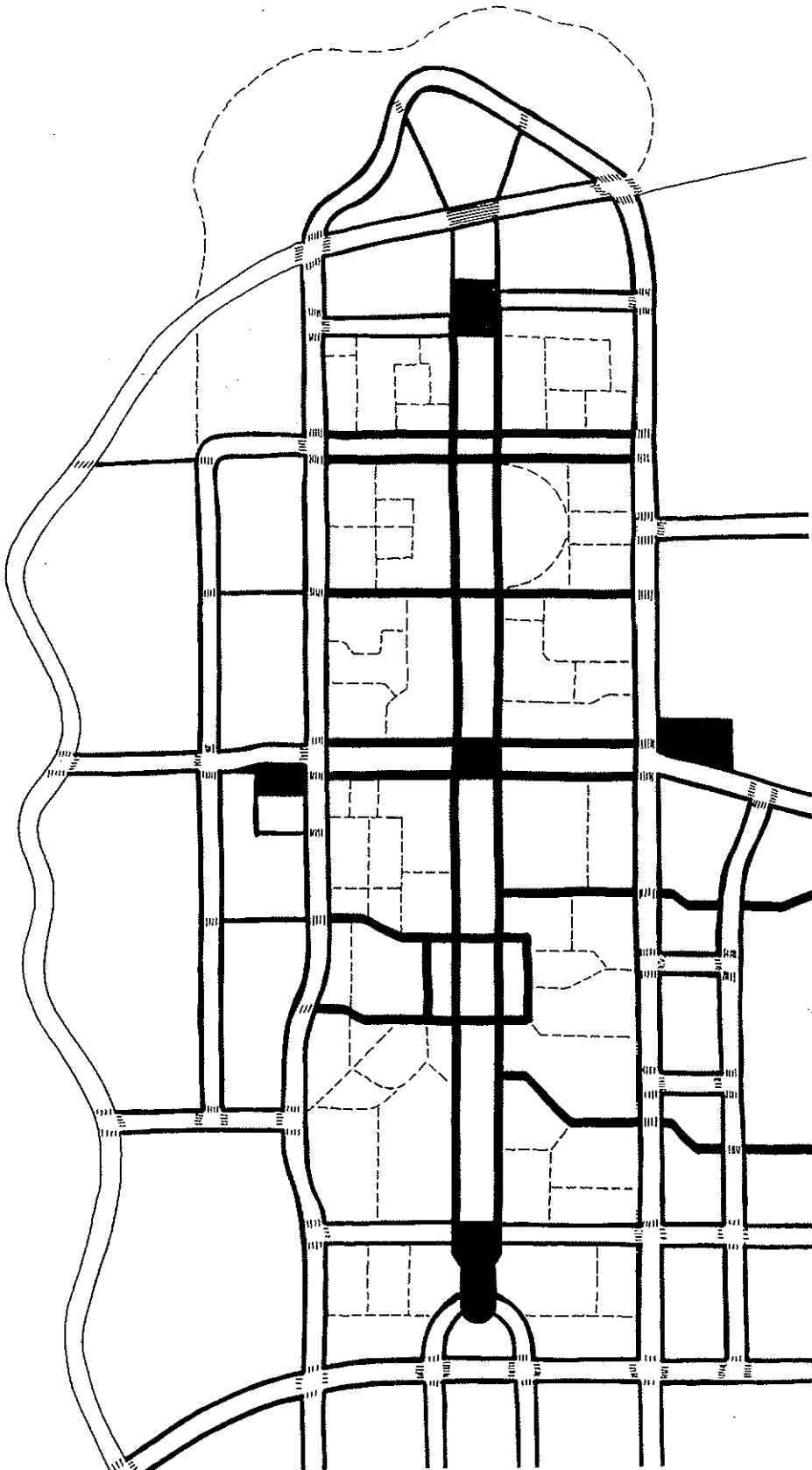
66. *Body Ellipse (John J. Fruin)*



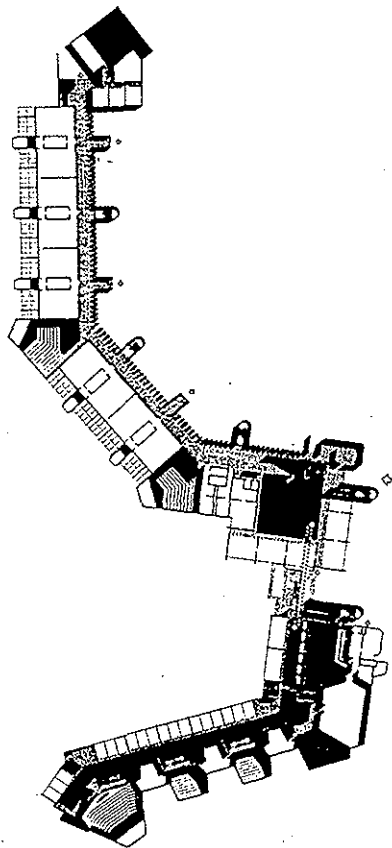
67. *A pair of people in conversation passing another pair without deflection*



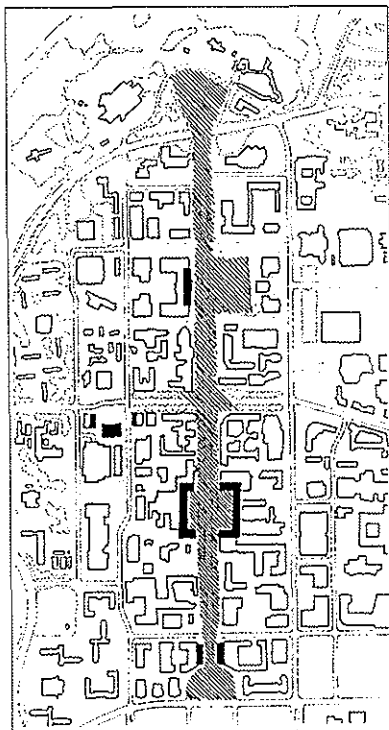
68. *A pair of people in conversation passing someone standing*



69. The Pedestrian Network



70. Interior Streets, Scarborough College, 1966

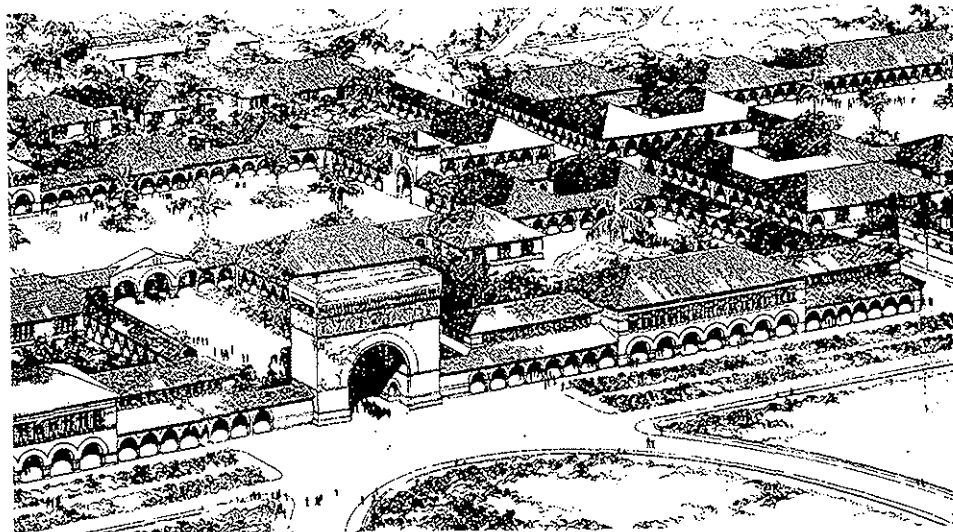


72. Potential Colonnade Locations

Pedestrian Shelter

For many years people have suggested that the campus needs a system of sheltered pedestrian ways. There are a few routes through buildings, and a few covered walkways, but they are not on prime circulation routes, and do not link together to form continuous routes.

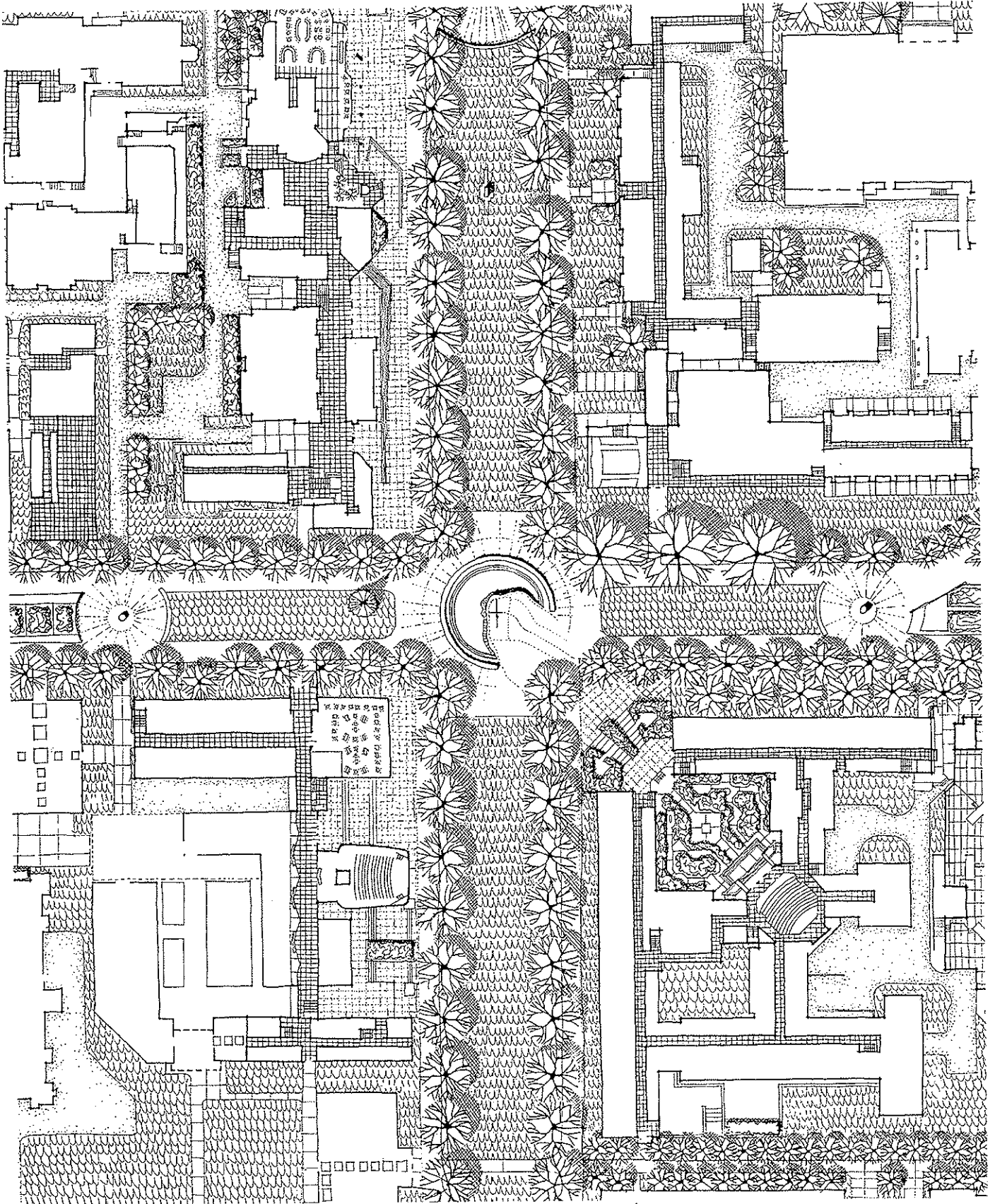
Some campuses, particularly in cold climates, have developed underground networks associated with service tunnels (such as at Carleton), or have designed buildings to incorporate a continuous network of interior circulation routes (such as at Scarborough). Some campuses in warmer climates have utilized a system of arcades to achieve the same result, perhaps the most notable western example being Stanford. This idea is sometimes proposed for UBC. If it had been implemented from the beginning, a system of arcades along the two main malls and between academic blocks might have served UBC well as a method of rain protection, but too much has been built to achieve a complete system now.



71. Arcade as a System of Rain Shelters: Stanford University Plan, 1888

However, the interior routes of new, renovated, and existing buildings can and should be co-ordinated to form a much more continuous system of protected routes. The plan at right shows that part of the campus with the most developed system of exterior/interior pedestrian linkage. Extension of the interior system will be part of the evaluation of each new building design.

In addition, new and existing buildings at key locations on the campus should incorporate colonnades to further define major public spaces and to provide sheltered perimeter walkways.



73. Interior and Exterior Pedestrian Routes at the Geographical Centre of the Main Campus



Strategy 19
UNIVERSAL ACCESS

The impact of the physical environment on persons with mobility, visual, hearing and other impairments is so great that the University intends to make the accommodation of those with special needs a first priority. The effective accommodation of the physically challenged is a basic responsibility of the institution, but will also benefit the University in two major ways: first, those who might otherwise be restricted from the campus will be able to more fully participate in and contribute to campus life, and, second, the measures necessary to accommodate disabled people usually create an environment which is better for *all* people — more “legible”, more accessible, more comfortable and more efficient.

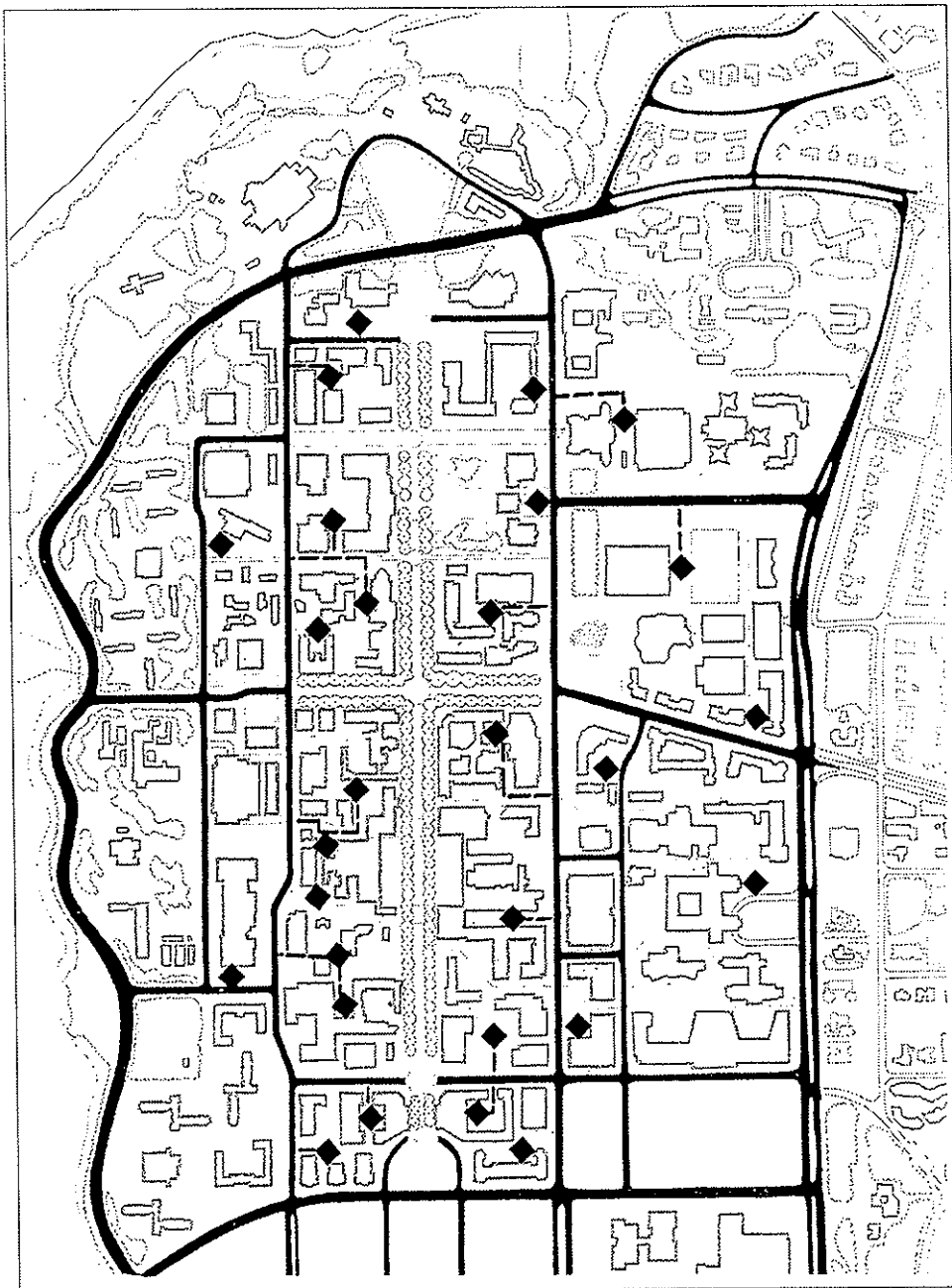
The University is committed to a concept of universal accessibility that will make accessible all parts of the campus and all parts of buildings where people may be expected to study, work or live. This will require that a Campus Accessibility Plan be established that will include a set of precedent-setting standards governing the planning, design and financing of new and renovation projects.

Although some specialized measures will be required, the development of an accessible environment need not involve exorbitant costs. What is required is an attitude toward building and landscape design founded on awareness and sensitivity: the evaluation of and selection between otherwise equal design options ignores the needs of the disabled at the risk of severely reducing mobility and comfort for many, and at the risk of incurring very high costs for retrofitting at a later date.

The coincidence between environments that are universally accessible and those that are good for all users permits reference to many of the strategies in this Plan. The development of mixed use (*Strategy 13*) and the densification of the campus (*Strategy 14*) will reduce distances between facilities, distances which are magnified for those with disabilities. The development of a clear spatial structure (*Strategy 9*) with commodious pedestrian (*Strategy 18*) and vehicular routes (*Strategy 21*) will help clarify movement and direction for those with visual impairments and learning disabilities. The development of a campus transit system (*Strategy 23*) will improve access and mobility for the disabled.

Many of the Plan strategies for building design (*Strategy 15*) will improve conditions for the disabled. Among the more important Plan strategies are entrances which are clearly visible, ground floors which avoid the need for ramps by relating directly to exterior grade, and parking and drop-off areas close to and visible from significant entrances (not service entries). There are many more as well, including dimensional criteria, technical supports and special facilities, which should be developed in a comprehensive Campus Accessibility Plan.

The detailed design of exterior public places and movement corridors should also acknowledge the needs of the disabled. Sidewalks and walkways (*Strategy 18*) should be dimensioned to accommodate wheelchairs and other walking aids, and should be smooth textured and free from obstructions. Gradients on pedestrian surfaces should be controlled and ramps avoided wherever possible. Exterior lighting (*Strategy 25*) should be improved to incorporate the needs of the visually impaired. More signage should be provided and it should be greatly improved in terms of its readability (*Strategy 11*). The signage system should include clear and strategically located campus maps indicating accessible routes and building entrances as well as special facilities.



74. Parking for Disabled People near Building Entrances



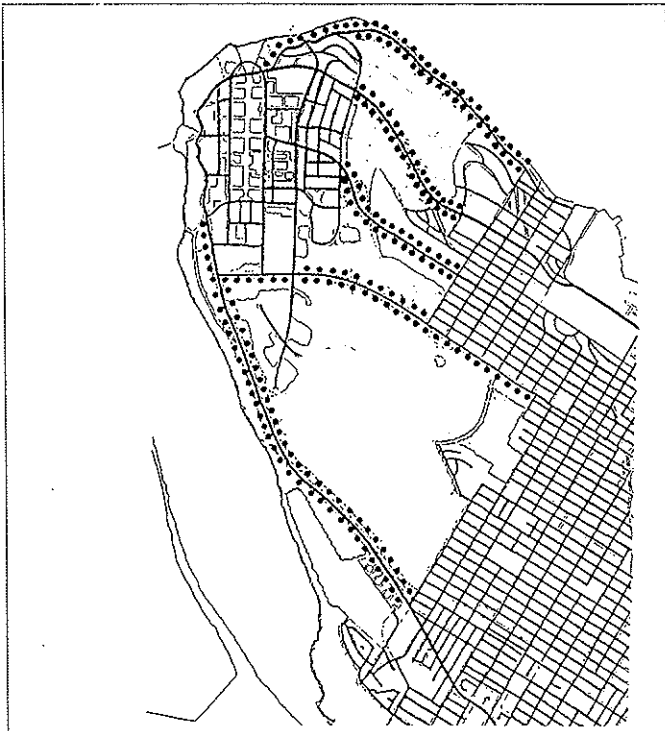
Strategy 20
BICYCLES

The increased use of bicycles, both for access to and for moving around the campus, will be encouraged and accommodated in future development.

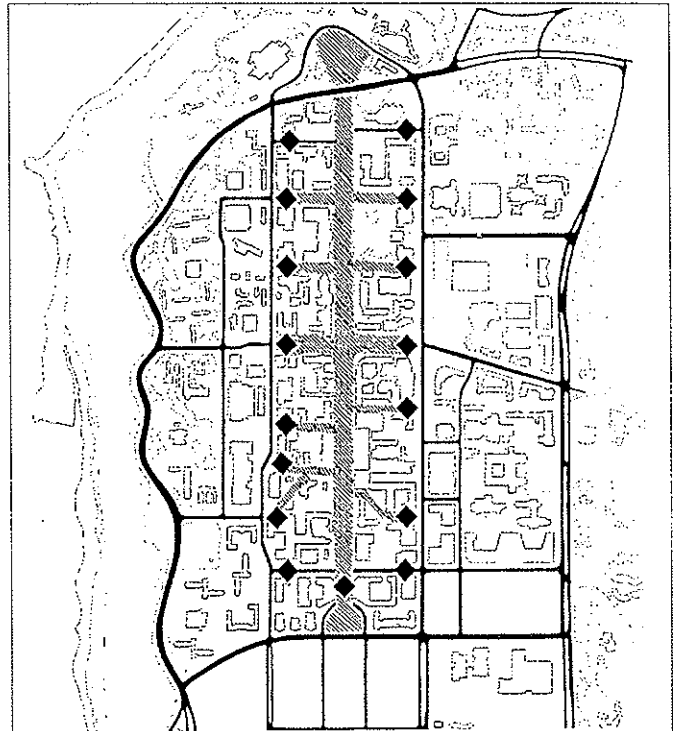
Bicycles are an extremely efficient means of local transport, but they present problems for planners precisely because they are fast and mobile. Not powered vehicles but not pedestrians either, bicycles are found on all reasonably level surfaces — roads, lanes, sidewalks, walkways, plazas and malls — and frequently come into conflict with vehicles and pedestrians alike. To create a separate, designated system for bicycles would be impossible given the complex web-like movement of vehicles and pedestrians on the campus now; to completely restrict bicycles from all pedestrian areas would (even if possible) defeat their value given the extent of the current pedestrian precinct and the number of destinations within it.

Major approach roads to the campus are broad and very busy, and the provision of bicycle lanes both ways should be encouraged by the University. On the campus, bicycles should share the roads and be treated as vehicles, and be discouraged from the pedestrian precinct.

Bicycle storage shelters should be provided on the periphery of the pedestrian precinct, and undercover bicycle racks should continue to be located near building entrances, possibly utilizing building overhangs. Major buildings should be provided with lockers and shower facilities to extend the cycling season.



75. Designated Bicycle Lanes into the Campus



76. Bicycle Shelters at the Periphery of the Pedestrian Zone

*Strategy 21***VEHICULAR MOVEMENT**

The University will seek to reduce its dependency on automobile access while reorganizing its road system to cater more effectively to vehicles of all kinds. The revised road system should enhance vehicle access and orientation without compromising pedestrian movement.

There are many reasons for reducing automobile use: the need to reduce environmental degradation both in terms of emissions and the sterilizing effect on places such as roads and parking lots, and its increasing inefficiency as a means of commuter travel resulting from congestion of the road system are the two most important.

The first target of reduction measures is the single occupant commuter vehicle. These should be allocated the furthest removed and the most costly parking locations to encourage car-pooling and the transfer to bicycles and public transit.

From Generalized Pattern to Single Purpose Dead-ends

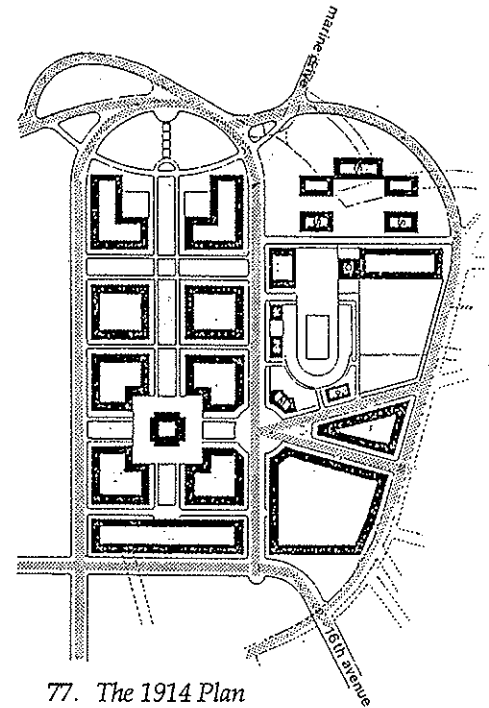
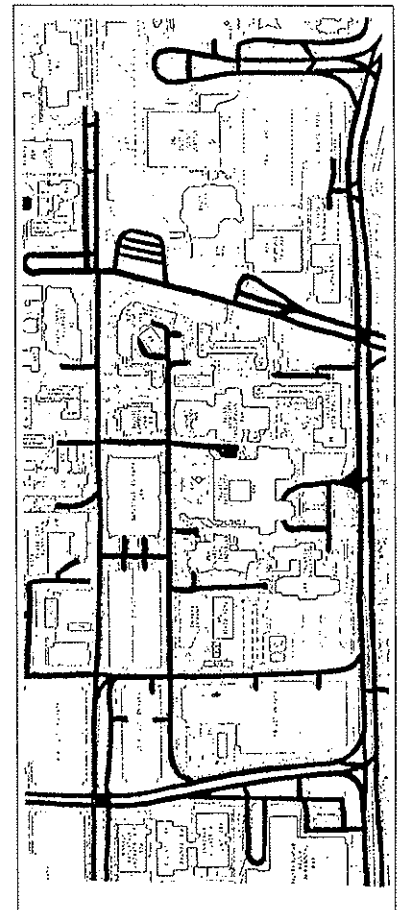
The original movement framework for UBC had a flexible, multi-purpose character with defined streets and building "blocks". Subsequent development has produced a campus distinctly suburban in character, with roads designed not as a flexible network for all time but for origins and destinations at the time of design. This approach is part of a planning tradition of low density, single purpose land-use zones and public routes with limited flexibility and diversity. The system now includes dead-end roadways, complicated intersections in which each turning movement is given a separate lane, and pedestrian paths divorced from roadways. This creates confusion for all users, and compromises the safety and comfort of pedestrians in particular.

Continuity and Flexibility

A more continuous and flexible road/block network will be reinstated, to work in unison with the pedestrian system described in the previous strategy. Where a flexible road/block system presently exists, such as in the parking lots south of Agronomy Road and to some extent west of the West Mall, it should be retained and extended. The north escarpment should be linked into the road network through a loop road connecting the East and West Malls. Within the Health Sciences Area, existing streets should be extended and linked. Similarly, the dead end driveway network between the Student Union Building and Gage Residences should be rationalized into a flexible multi-purpose street which links through to the East Mall.

Consideration should be given to opening University Boulevard between the East and West Malls to vehicles, perhaps only during off hours. This would provide a more direct route for vehicles traversing the campus, although it

SYSTEMS STRATEGIES

77. *The 1914 Plan*78. *Existing Road Pattern*



might also have the effect of bisecting the pedestrian precinct and the Main Mall, thereby reinforcing the separation between the north (Arts and Science) and south (Applied Sciences) campus sectors.

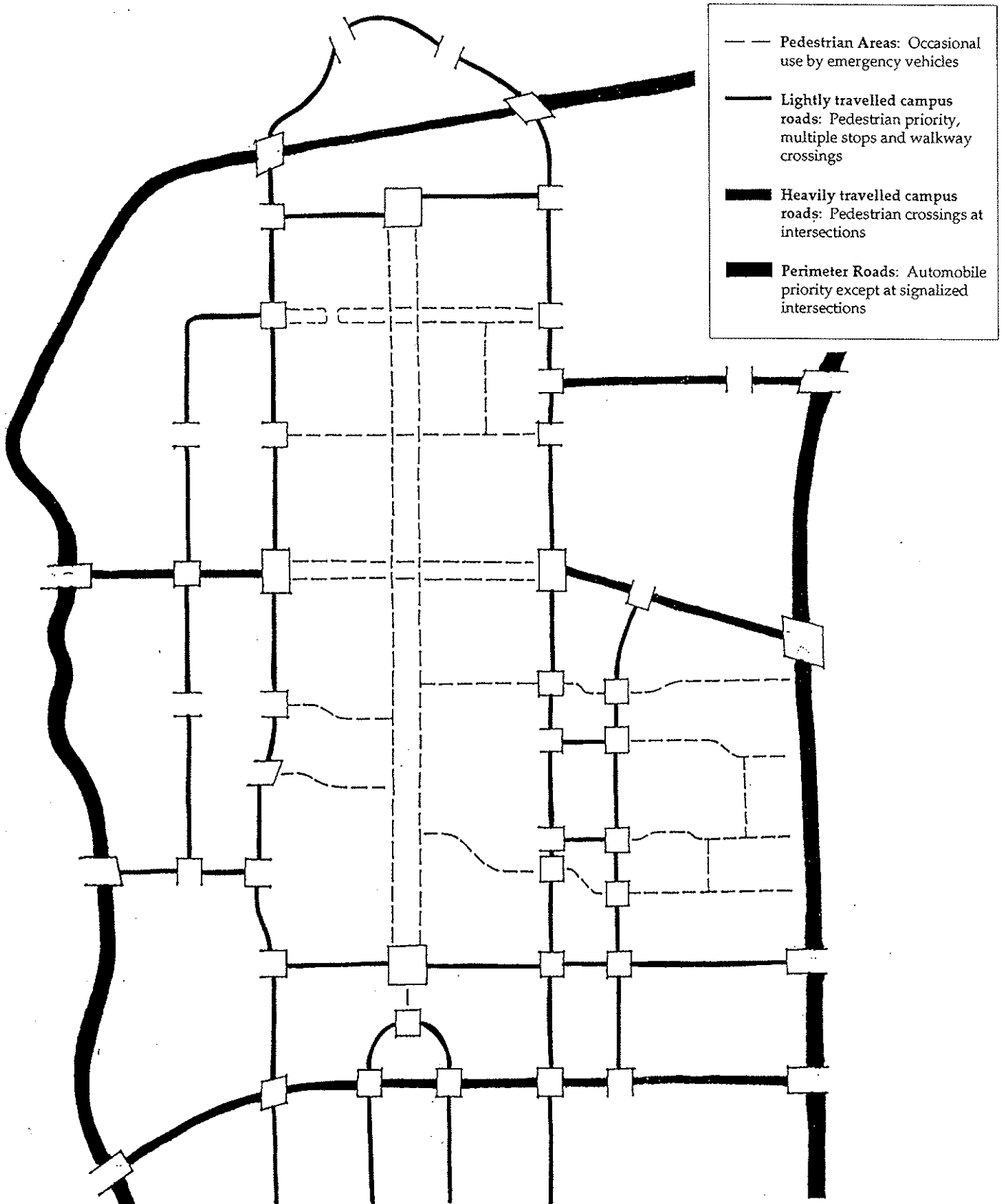
There is considerable opinion on campus that the road system is dangerous and noisy, and that if presently closed streets were to be opened to traffic they too will be noisy and dangerous. This would certainly be the case if the existing roads were simply opened up: the streets are straight and encourage fast traffic. Yet the present system of partial closure is unsatisfactory, and is abused by service vehicles and campus traffic alike. The new road system will put traffic in its place in a comprehensive way, reducing the need for long circuitous trips on campus, yet establishing so many real or perceived restrictions to high speed that cars and pedestrians will be able to co-exist peacefully.

Traffic has a place on campus because of the immense size of the area, but a limited and controlled place. Higher volumes and faster speeds have a place only at the periphery.

Re-establishing the Pedestrian/Vehicular Balance

There will be a clearly perceived hierarchy within the road network to re-establish a more appropriate balance between pedestrians and vehicles that will more realistically reflect the very heavy use of the campus by pedestrians:

1. *Major pedestrian paths* within the pedestrian precinct will be required to accommodate emergency vehicles and very occasional service vehicles. The requirement for vehicles on these paths should not change their design image, which should clearly express their primary pedestrian function and not their occasional vehicular function.
2. *Access drives* should penetrate academic blocks and provide access for service, short term parking and disabled parking. Because vehicles will use these routes only occasionally, the surface should project a pedestrian character.
3. *Lightly trafficked campus roads* should include all of the other roads on campus. On these roads, there should be frequent vehicle stops to reduce traffic speeds and to facilitate pedestrian crossings. The design of these roads and the frequency of stops should make it very clear to drivers that pedestrians have higher priority than vehicles.
4. *Heavily used campus roads* should be at the next level and would include University Boulevard, Student Union Mall and Thunderbird Boulevard. While vehicles will take precedence on the roads themselves, the roads should be flanked by broad sidewalks and intersections should be spaced close enough for convenient pedestrian crossing. Design speeds should be lower than on perimeter roads and special purpose turning lanes should be eliminated.
5. *Perimeter roads* should be at the highest level of the hierarchy and should have the highest vehicular priority: pedestrian crossings will be permitted only at street intersections except where Marine Drive crosses the Main Mall.



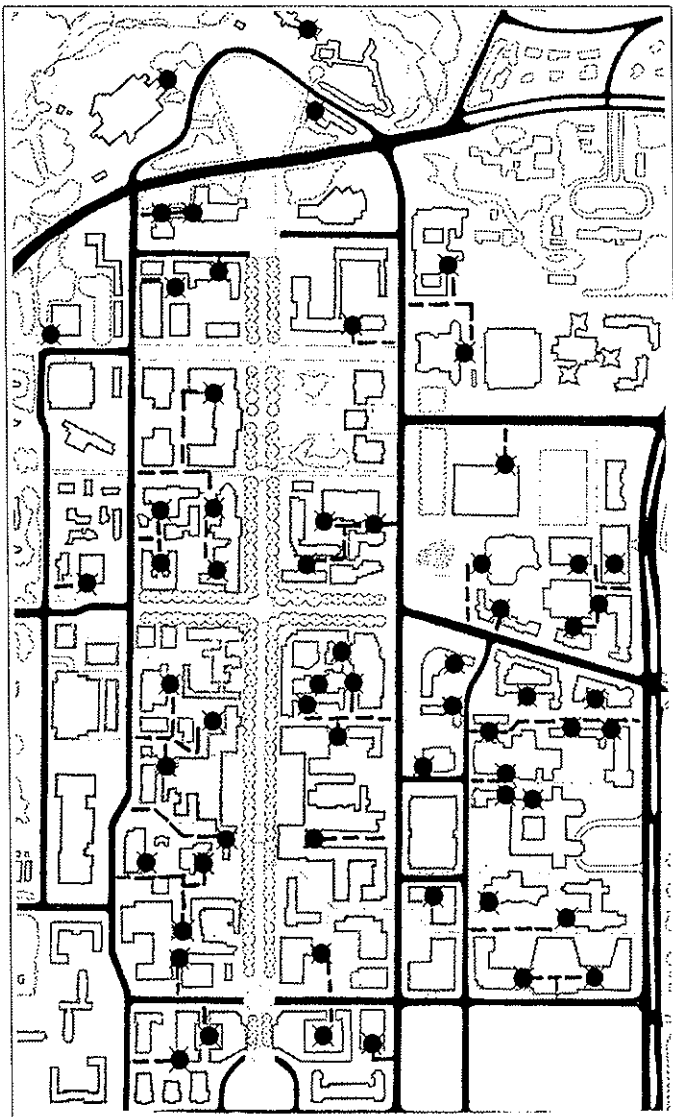
79. A Flexible Road Network



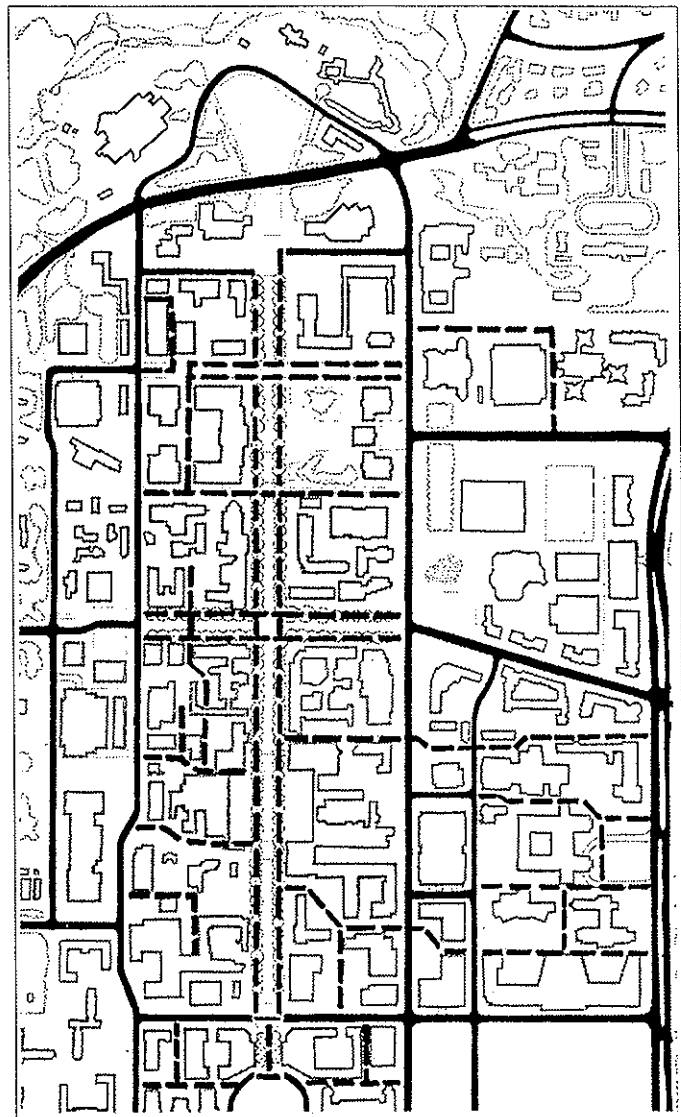
Service and Emergency Vehicles

Access to buildings for service vehicles should occur directly from roads, or from service access lanes and courts within the academic blocks. Service vehicles will not, unless absolutely necessary, be permitted to use pedestrian routes, especially for short-cutting. Service access to present and proposed buildings is shown in the diagram below left.

Emergency vehicles — fire engines, ambulances and police vehicles — will be able to use the primary pedestrian paths along the two malls and between academic blocks, in addition to the public roads and service drives. This will provide access to the complete perimeters of most buildings as shown below right.



80. Service Access



81. Emergency Access

PARKING

The University will adopt a two-pronged approach to parking: reduce the demand for parking on the campus, and develop new parkades so that parking is available in greater proximity to people's destinations than is now the case.

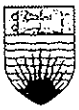
Reducing the demand for parking on an isolated campus to which the vast majority are accustomed to drive may be difficult, but it must be done. The exorbitant financial burden to the University and the Region can no longer be justified, there no longer exists the extensive campus land holdings on which to put cars, and the environmental costs associated with private transport must be recognized and the shift towards other modes promoted. Strategies should be developed that will encourage UBC's large auto-captive commuter population to reduce their use of private automobiles and seek alternate means of transport. Possible strategies will include aggressive car-pooling incentives and van-pooling programs, improved routes and facilities for bicyclists, continued lobbying for improved public transport, and the revision of operating hours and activity schedules to improve the quantity and effectiveness of public transit.

The campus now has an inventory of about 14,000 parking spaces distributed in parkades, formal surface parking lots, and semi-formal locations adjacent to buildings. Recent years have seen the development of multi-level parkades to replace parking stalls lost to academic development on surface lots. This strategy has more or less maintained the parking inventory and has moved parking closer to the academic core where it is required, but has proved to be expensive: the financing of new parkades has depended upon the revenues in excess of costs generated by the remaining surface lots. This strategy has been self-funding to date, but as the number of surface stalls decline, this will no longer be the case given current expectations of parking costs.

The current capital plan, and expectations of future development, will further reduce the number of surface lots, increase the demand for additional parkades and put more pressure on already stressed financial structures. In future, funding sources should be identified for the parking services required for all building types, and particularly residential.

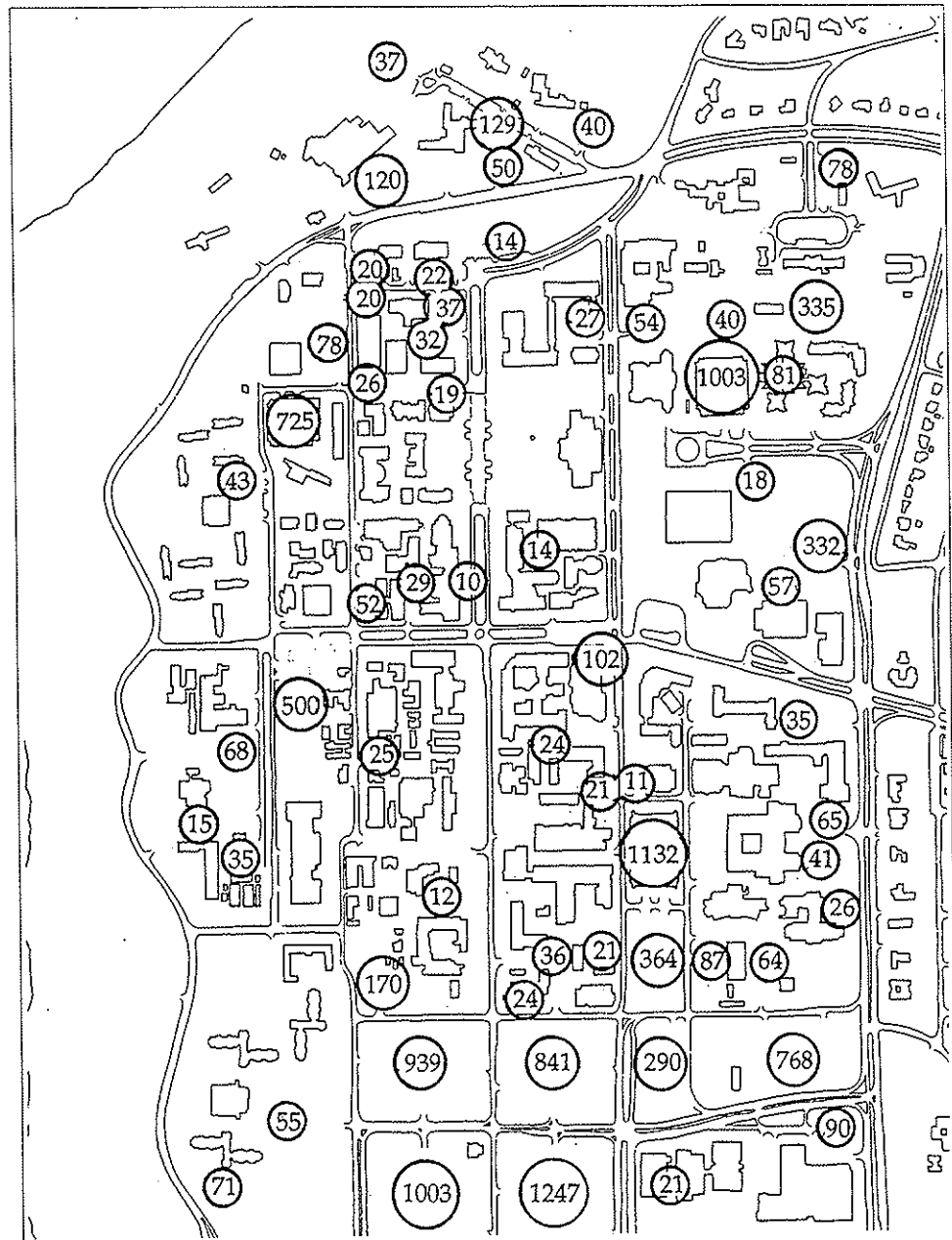
A new parkade should be developed near Agronomy and Wesbrook to better serve the public facilities in the Health Sciences Centre. This parkade would assume some of the load now borne by the existing parkade on the East Mall which can then serve the south east quadrant of the academic core.

Additional facilities are also required to serve the north end of the campus, the Student Union area and the south end of the campus. However, because open sites for additional surface parkades are becoming increasingly scarce, consid-

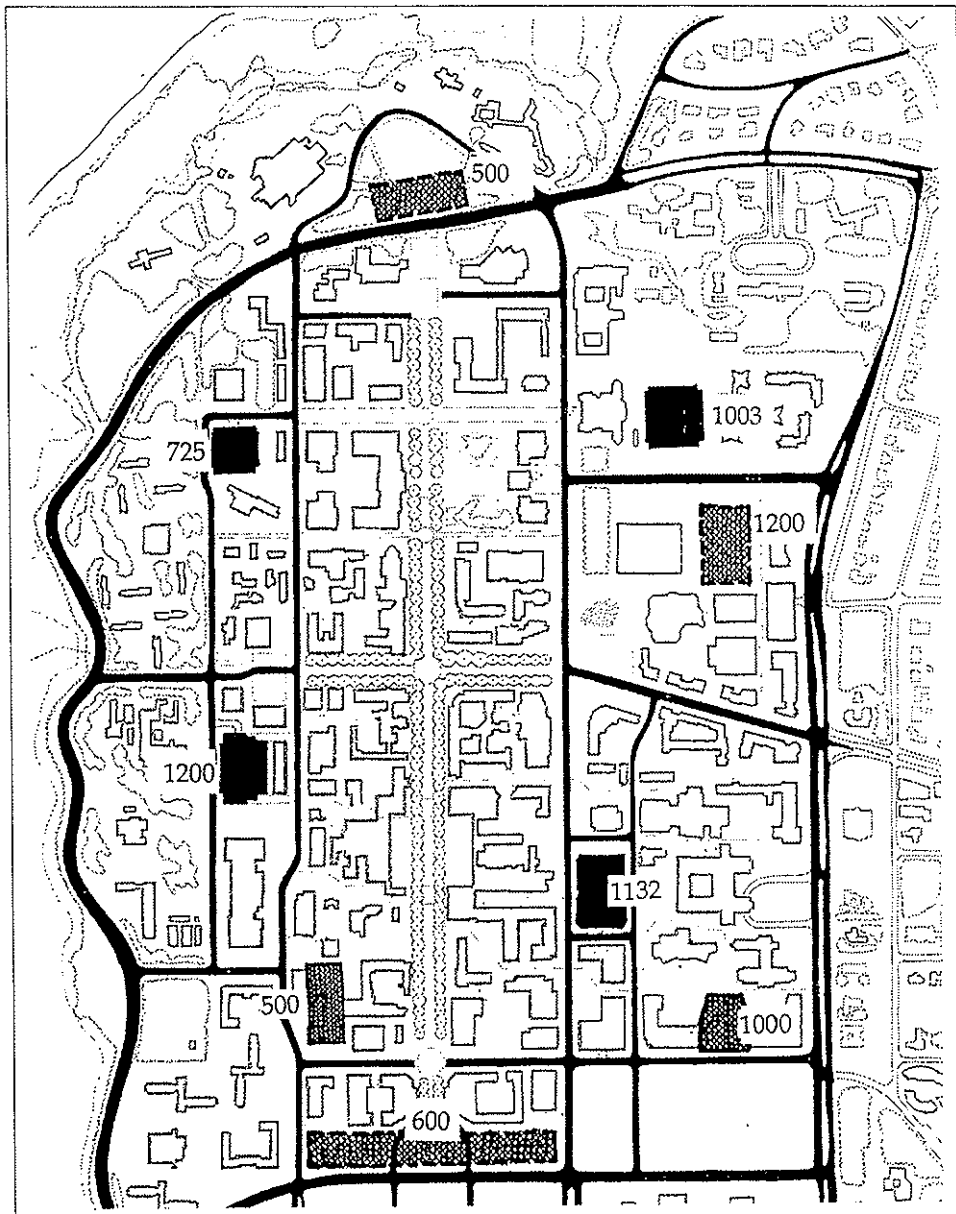


eration will be given to the construction of underground facilities beneath buildings and open spaces. This is an expensive solution, but there is no alternative if the new cultural and college facilities at the north end, and the housing and academic buildings at the south are to be served.

The financial structures of the parking system will have to be revised to make possible these new facilities. The first strategy should be to increase parking rates to levels which are at least equal to the cost of daily bus tickets and monthly bus passes. A second strategy may be to charge "land costs" against the project budgets of developments to compensate for displaced parking.



82. Existing Parking (November, 1991)



**FUTURE PARKING
ON THE MAIN CAMPUS**

Structures (Parkades)

Marine Drive	500
Fraser River	1,100
North	1,000
MacInnes	1,200
West	1,200
Health Sciences	1,100
Agronomy West	500
Agronomy East	1,000
Thunderbird	600

Total in Structures 8,200

Major Surface Lots 3,700

Minor Surface Lots 1,600

TOTAL SPACES 13,500

*Potential Parking Inventory,
Mid-range Plan*

- Existing or Under Construction
- Mid-range

83. Parking Strategy



Strategy 23 PUBLIC TRANSIT

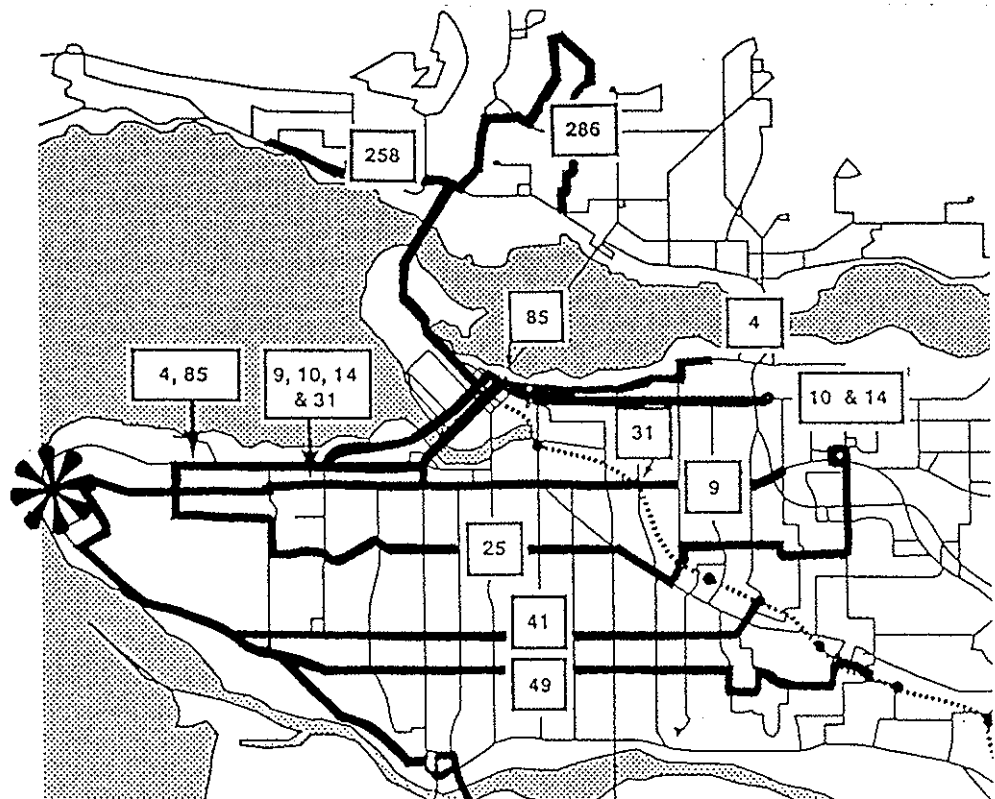
The University will seek to enhance public transit to the campus and to provide an upgraded on-campus system, to reduce the dependency on automobiles for both commuting and moving around the campus.

Commuter Transit

Commuter transit accounts for only about 12-17% of all people commuting to the campus. This is so even though the campus is served by several different bus routes, all of which operate at capacity during the morning rush hour.

Increasing both the efficiency of public transit and the number of people using it is a University priority. The benefits include reduced costs for parking facilities, reduced commuter related stress, and improved access to the campus for the larger community, especially for those without access to private vehicles.

The University may consider financial incentives for transit use as well as revised activity schedules and operating hours which currently create extreme traffic peaks and lows that adversely affect transit service efficiency. A half hour earlier start to the day will enable a greater proportion of the bus fleet to be used to service the campus.



84. Existing Bus Routes to the Campus

Campus Transit

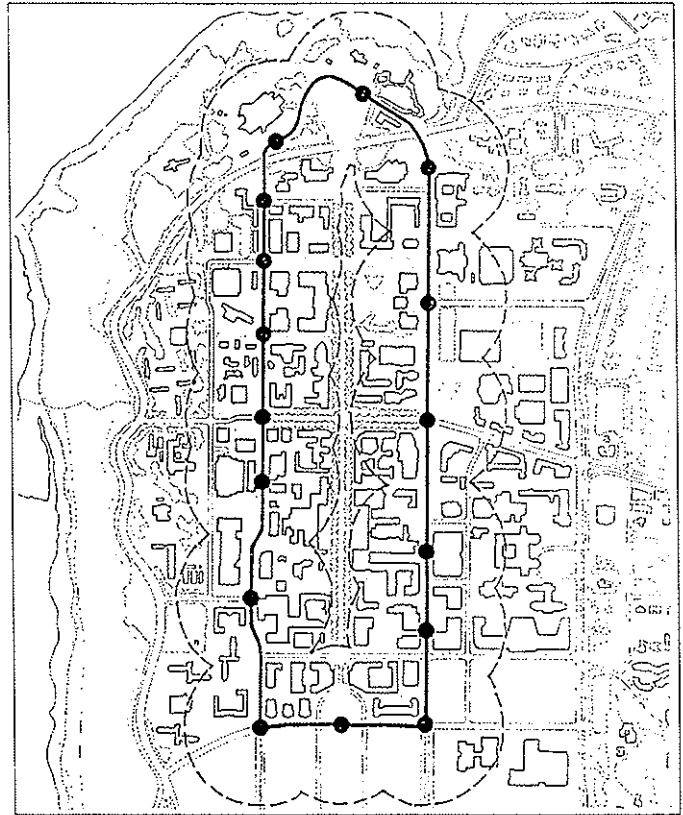
An enhanced on-campus transit system should be developed to overcome the extreme walking distances from parking facilities and between buildings, and to improve user safety and comfort at night. The strategies for mixed use (*Strategy 13*), development intensification (*Strategy 14*), and for new parkades closer to the academic core (*Strategy 22*) will improve the situation by reducing the distance between destinations and by increasing the vitality of the campus, but a campus transit will still be required due to the effects of campus size.

A transit system for the Main Campus should provide frequent and reliable service, and should effectively connect all major destinations.

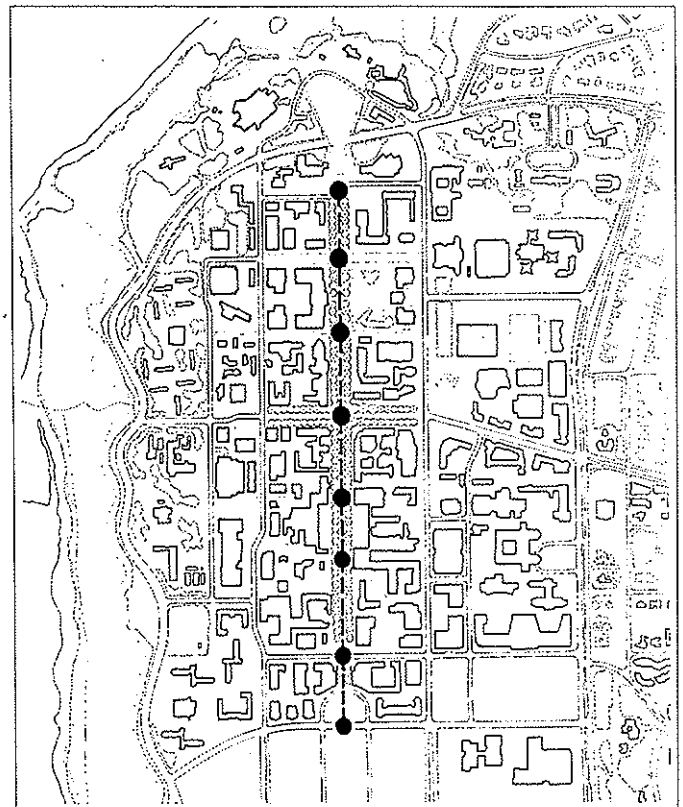
Two possible concepts should be investigated. First, a two-way transit loop system could be routed along the East and West Malls. The vehicles would probably be small buses and would share road space with other vehicles. Second, a linear system might be developed along the Main Mall having a northerly terminus near the Faculty Club and a southerly terminus at Thunderbird Boulevard with possible extensions to the residential lands east of Wesbrook Mall. This system would have to be pedestrian in scale and compatible with the walking environment along the Main Mall. A linear system should provide the same frequency of service as the loop system but would need only half the number of vehicles.

Right-of-way allowances should be protected for both transit concepts.

It should be noted that such a campus transit system would probably not be effective for moving a significant proportion of students between buildings during class change, due to the very large numbers of people involved and the wide distribution of their destinations.



85. East Mall/West Mall Loop System



86. A Linear Transit System



Strategy 24

UNDERGROUND UTILITIES

The campus utilities — water, gas, electricity, steam, storm, sewage and communications — have been developed piece by piece over many decades. Many systems are now outmoded and overloaded, and require major expenditures to maintain operational efficiencies. The capacities of many systems are approaching their maximums and may be insufficient to support the future expansion envisioned by the University.

A preliminary investigation of the problem has been undertaken and solutions prepared. Rehabilitation programs will be coordinated with other development on campus, including new buildings, road redevelopment and landscape projects to avoid costly duplication and extended site disruption.

Conversely, each project on campus should give adequate consideration to its impact on the existing systems and potential contribution it might make to future utilities rationalization. The cost of upgrading engineering systems should in part be borne by the project budgets of new buildings and facilities which draw upon those systems, and in part by a utility infrastructure budget.

Strategy 25

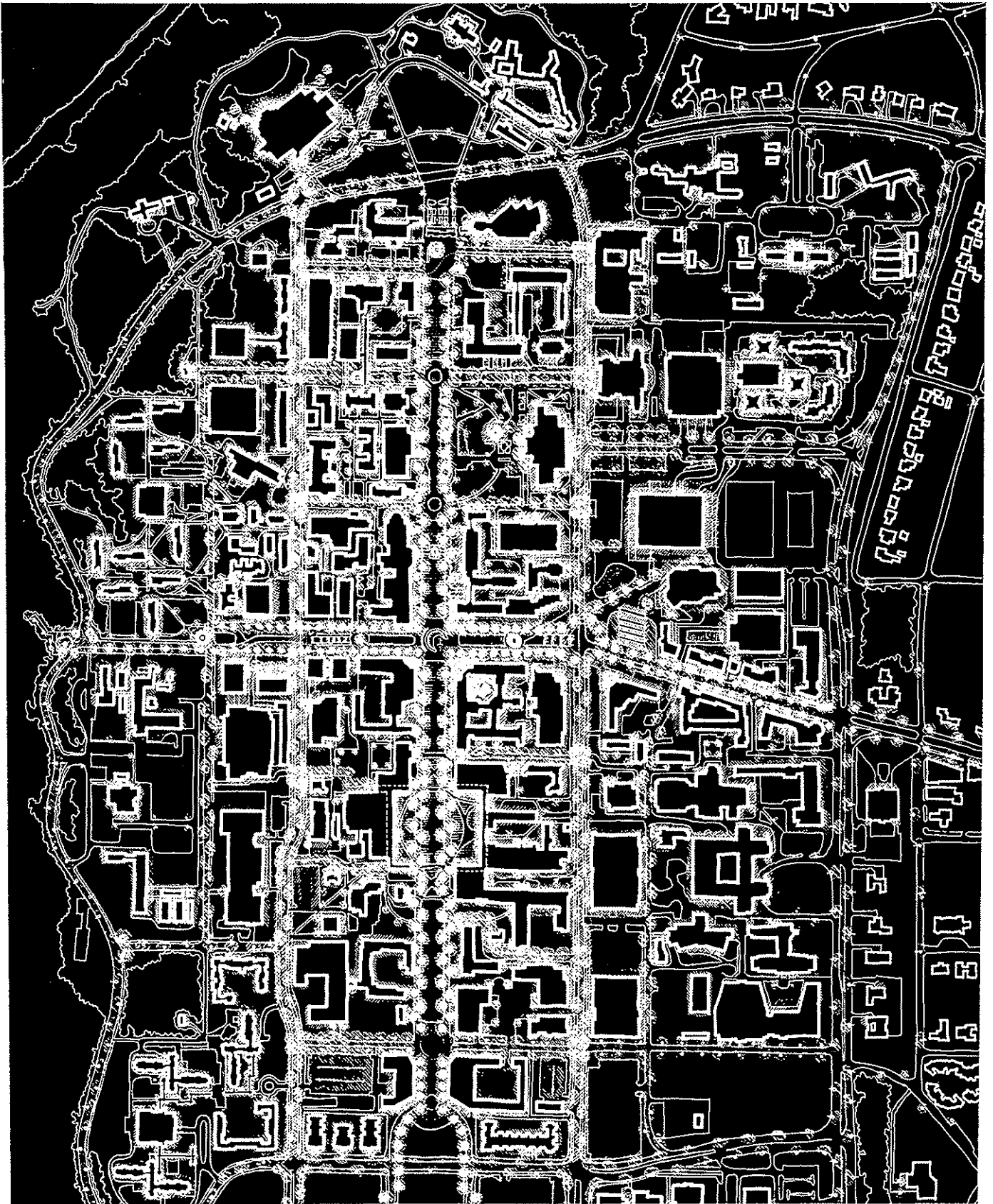
CAMPUS LIGHTING

A cohesive lighting system will be developed that increases user safety and comfort at night, and reinforces the spatial structure and organization of the campus. Effective and well-designed artificial lighting is critical to comfort, personal safety, and orientation.

The campus changes at night. Activity diminishes. What were colourful gardens can become shadowed recesses. A sense of orientation, difficult as it is to maintain during the day, can be further reduced. But it does not need to be. Nighttime out of doors can and should be as pleasant as daytime if the correct lighting design criteria are applied. Good lighting can also assist in reinforcing the spatial structure of the campus, the appreciation of its physical assets, and many of the other strategies in this Plan.

Good lighting must be adequate, but that does not mean greater quantity. Glare and extreme contrast are just as great a problem as too little light. It is a great mistake to try to provide daytime-like intensities because those areas not brightly lit become seemingly more dark, purely by contrast and the inability of the eye to adapt. The lighting strategy, therefore, is to *limit* light levels to no more than what is required at night (which is not much more than full moon light) so the eye can comfortably adapt and thus be able to see into shadows.

Lighting fixtures are an important part of the street furniture which embellishes the open space network, as important during the day as at night. Campus lighting will be implemented according to the recommendations in the UBC Lighting Master Plan, December 1991.



87. *Campus Lighting System*



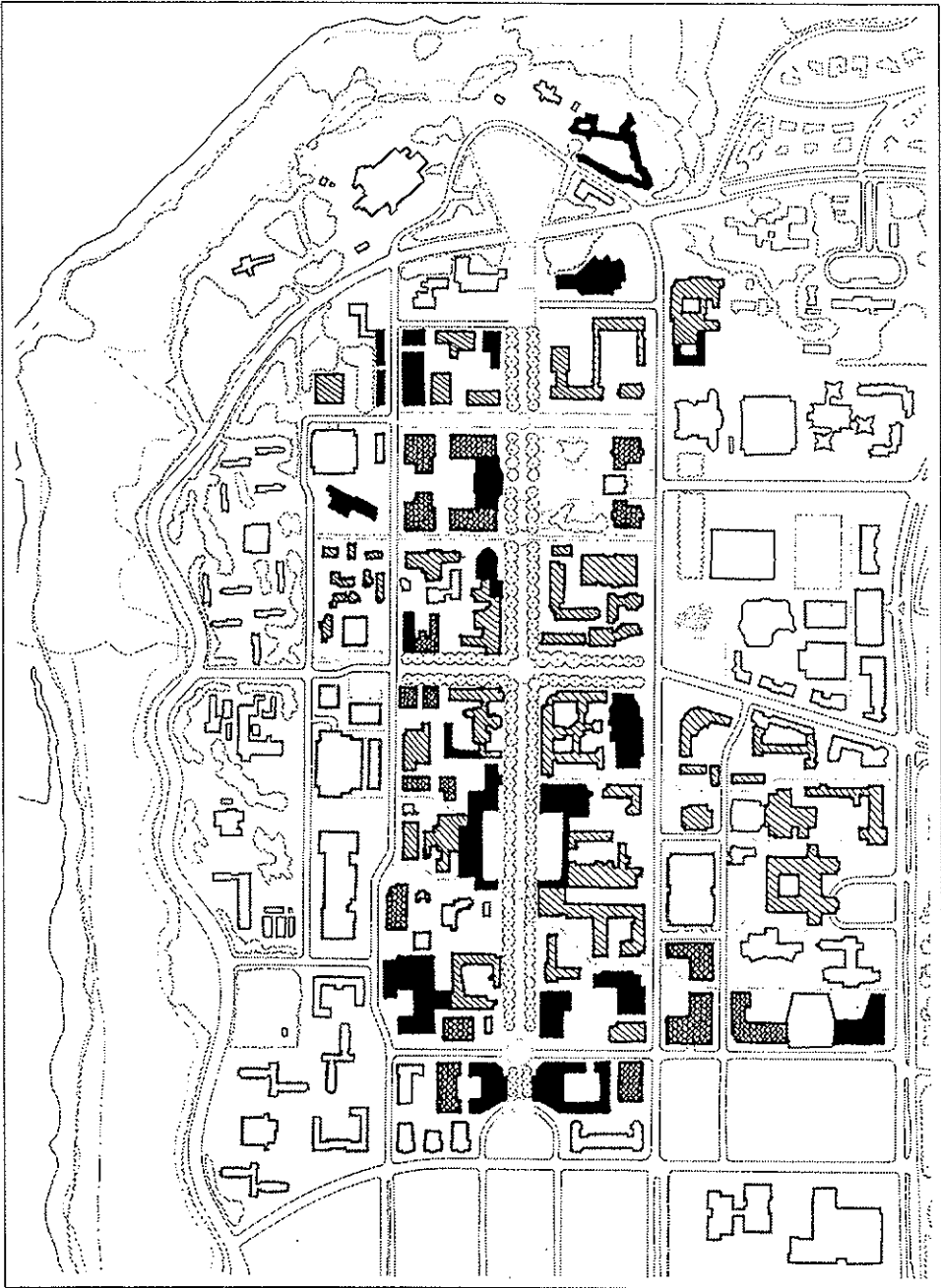
LOCATIONS FOR EDUCATION AND RESEARCH




The University intends to restrict all future mainstream academic buildings to the area north of Thunderbird Boulevard (*Strategy 5*). Most of the existing and planned built space on the UBC campus is located within the Main Campus, and is used for education and research reflecting the purpose of the University. The projects in the current capital plans reflect this strategy and are being developed to infill gaps in the fabric or to replace existing buildings which have outlived their useful lives.

All new academic buildings must be designed to reinforce the spatial structure of the campus (*Strategy 9*) and the character of the Main Mall as the ceremonial heart of the Main Campus. A strong and well developed communal environment is essential for integrating separate buildings into a cohesive whole, and for facilitating both formal and informal interdisciplinary interaction. Most planned new buildings will be located around the key points requiring reinforcement: Fairview Square at Fairview Grove and the South Lawn at Thunderbird Boulevard. To the north, new buildings will complete the Arts Block, and reinforce the development of a forecourt to the campus at Marine Drive.

The University intends to relocate faculty centres to the Main Mall in order to strengthen this central space and increase the identity and accessibility of faculties. The pattern set by the 1914 Plan of assigning each development block to a specific faculty or division was soon eroded until today there is very little correspondence between a faculty's buildings and the structure of the campus. This, together with the increasing number of interdisciplinary buildings, has obscured the physical identities of faculties. Rather than identify faculties by buildings or precincts, faculty "centres" will be developed on or close to the Main Mall that include deans' offices, main reception centres and faculty display facilities (*Strategy 12*).

LAND USE STRATEGIES



-  Existing
-  Mid-range
-  Long Range

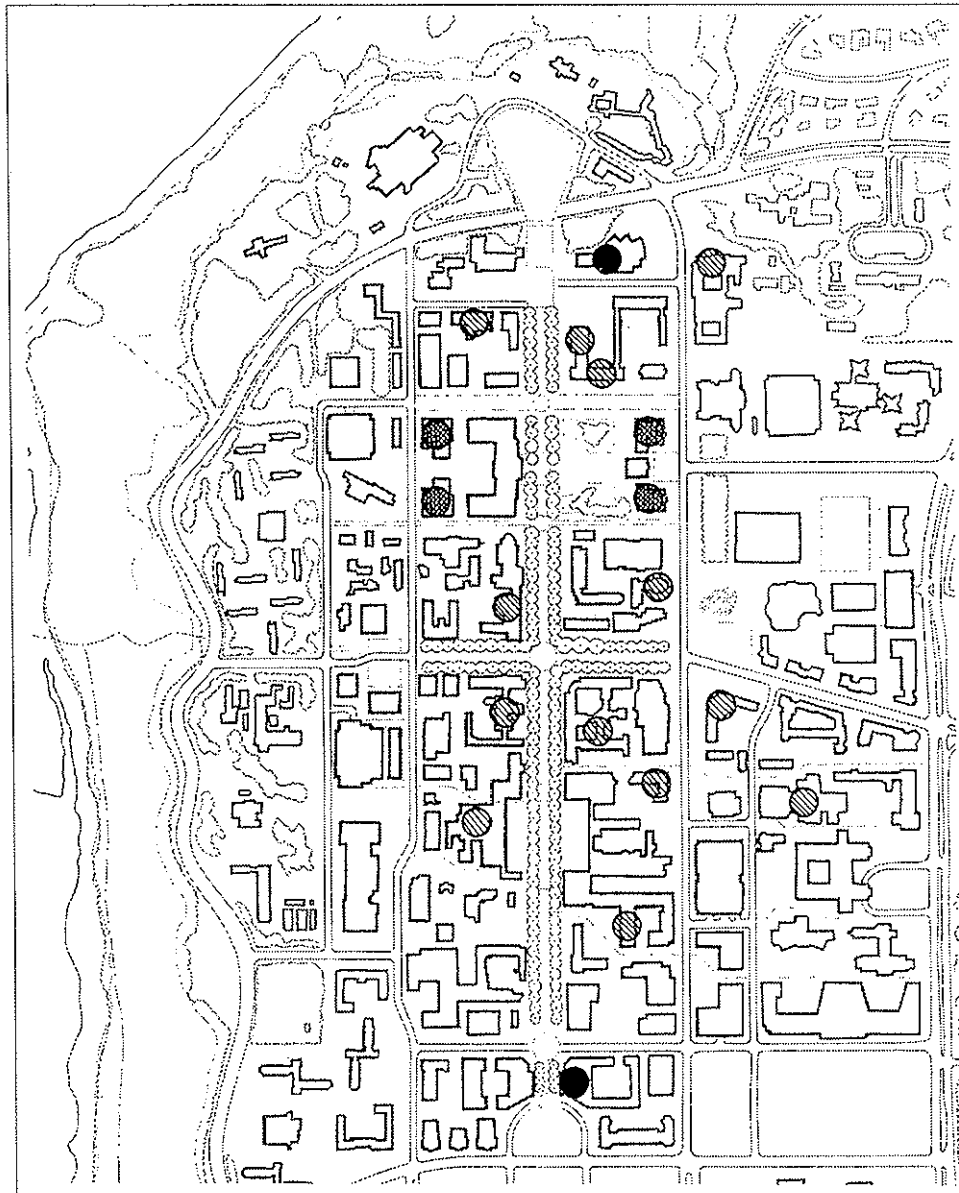
88. Academic Buildings

Strategy 27

LOCATIONS FOR GROUP INSTRUCTION

Major instructional space will be distributed relatively evenly across the Main Campus to reduce the time lost by moving between distant facilities. The intention is to have at least one major lecture hall within a four-minute walk of academic buildings. This will allow approximately one minute to leave a building, a two-minute walk outdoors, and one minute to access the classroom within another building. Smaller lecture rooms, classrooms and seminar rooms will be distributed throughout the campus on a more frequent basis.

The University will establish a coordinated scheduling system to ensure the efficient use of all facilities.



isting
id-range
ng Range

89. Major Instructional Facilities

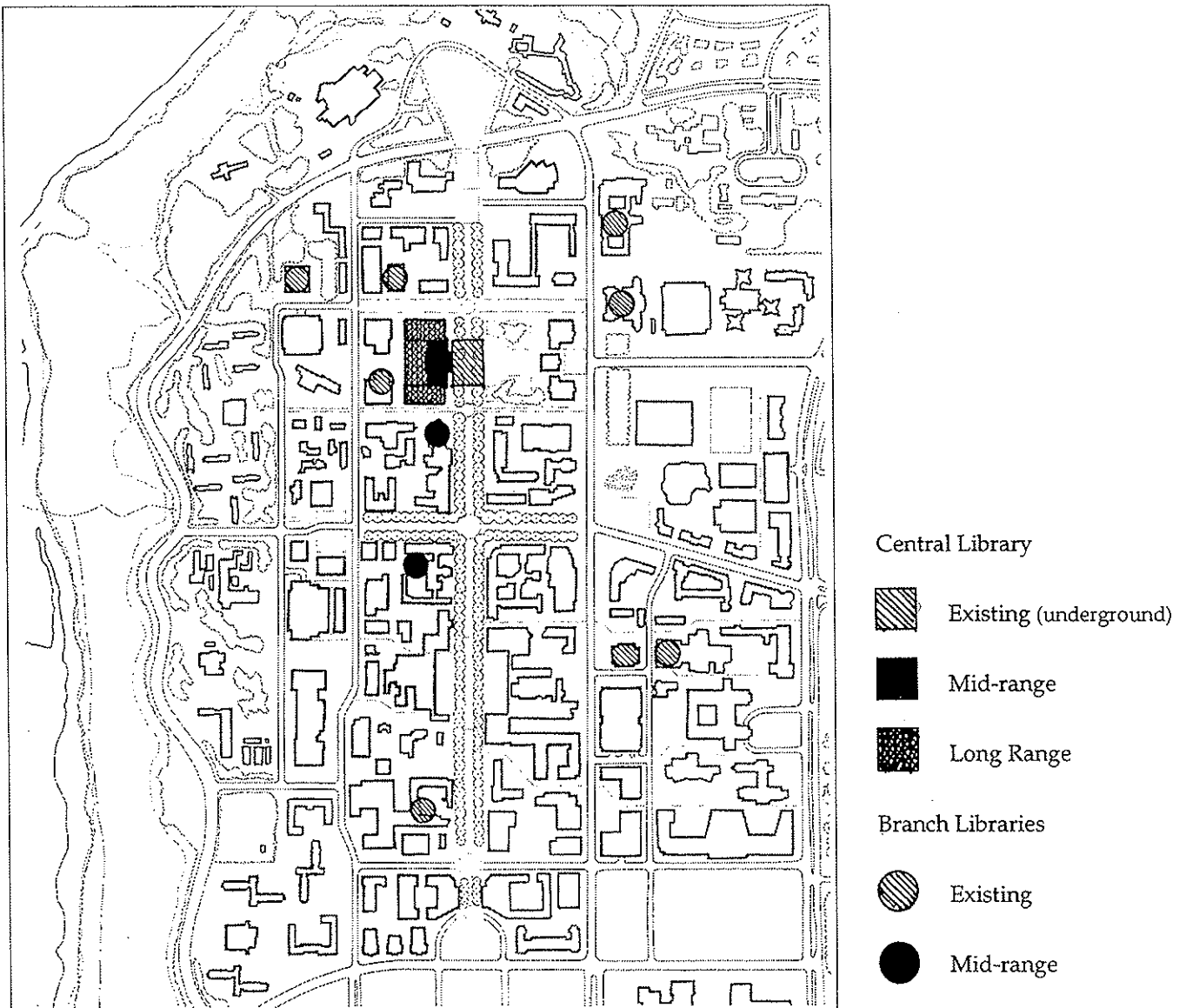
Strategy 28

LOCATIONS FOR LIBRARIES

LAND USE STRATEGIES

The University intends to develop a strong central library system, a "Great Library", supported by ancillary or branch libraries catering to the specialist needs of faculties and departments. Many library services will be consolidated in the Great Library, a grand complex of buildings developed on the west side of the Main Mall, and associated with Sedgewick Library. This new building complex will be implemented in phases.

The present Main Library building has structural deficiencies and an inefficient and confusing layout, and must eventually be redeveloped. The central granite core of the building, the original library on the campus, should be preserved and upgraded. The two wings should be replaced by new academic



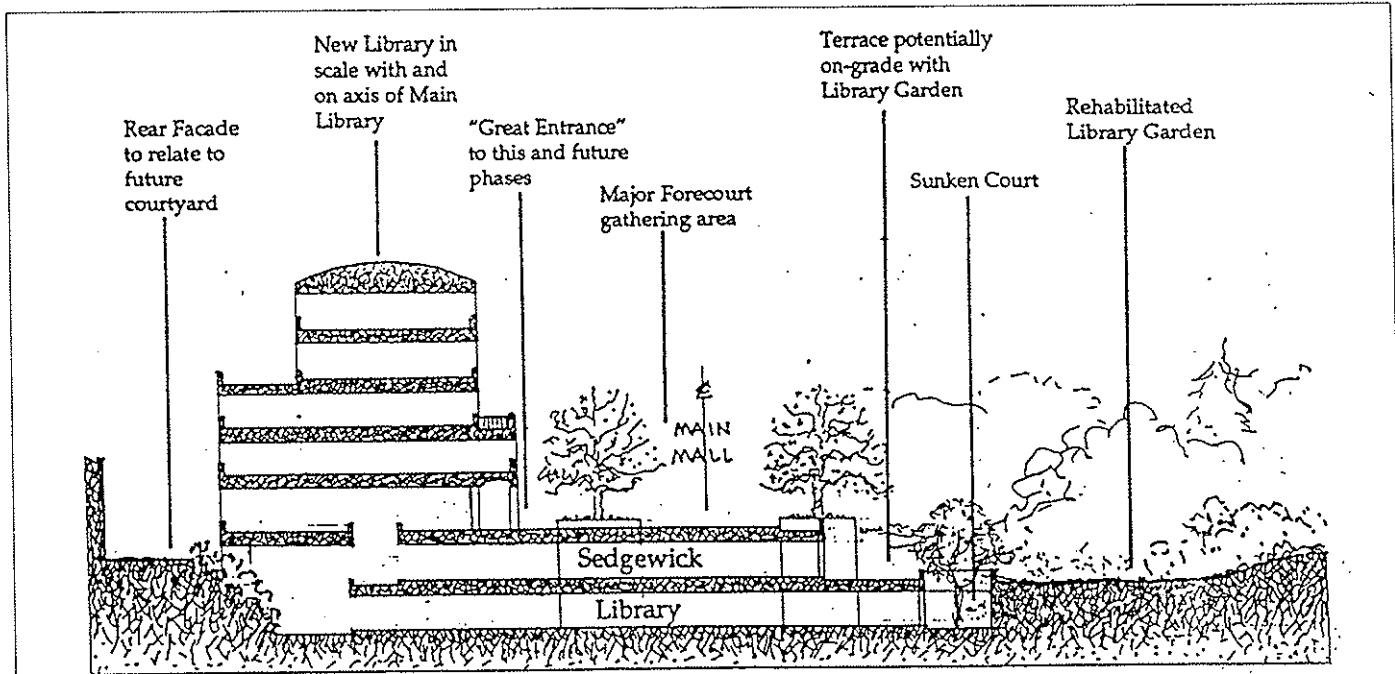
90. The Library System



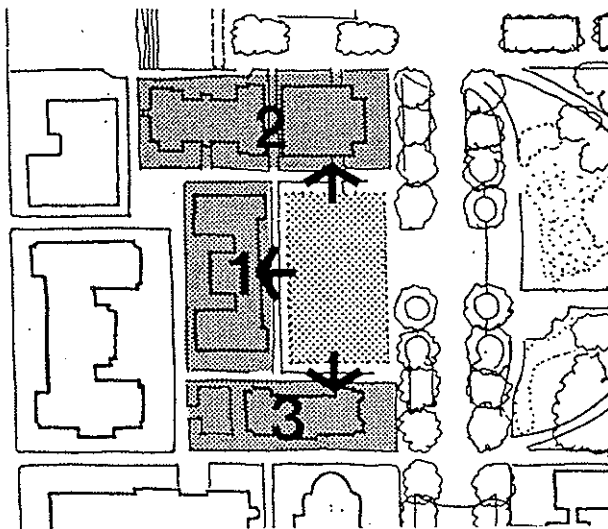
LAND USE STRATEGIES

buildings forming, with the central element, a grand arrival space on the East Mall which terminates an extended and redeveloped Student Union Mall.

The drawings below illustrate the conceptual planning and phasing for the Great Library development.



A crucial aspect of the design of the building is its response to the major public open space on campus, composed of the Library garden and redesigned Main Mall, this part of which will be a major hard-surfaced gathering point on campus. It is expected that the design of this space will be developed in parallel with the design of the building so that each can make the greatest possible contribution to the other. The building should also respond to the cross axis set up by the original Main Library. The existing and proposed buildings, and the forecourt and gardens they embrace, will symbolize the essential identity of the university — past, present and future.



Options for Further Expansion

Because the site is centrally located in the block and surrounded by "semi-temporary" buildings, it has an unusual number of expansion options. The design must allow for future additions to be constructed:

1. to the west taking the site of the mathematics building, and
2. to the north taking the place the old administration building and old auditorium, and
3. to the south taking the place of the mathematics annex.

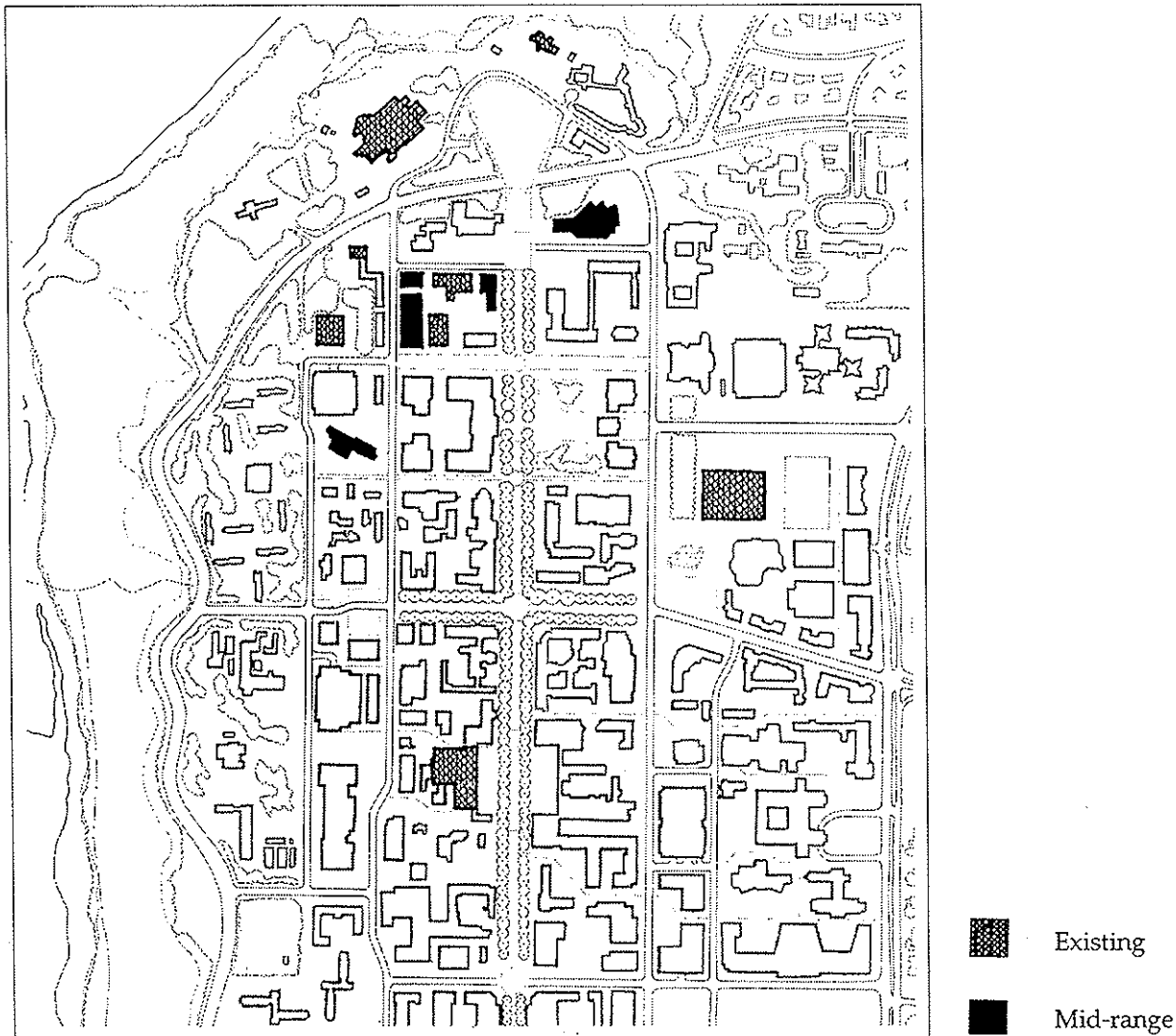
91. Planning Concept for the Great Library

Strategy 29

LOCATIONS FOR CULTURAL FACILITIES

The University has a number of public cultural facilities which not only meet academic objectives but also serve to attract the larger community to the campus. In addition to a number of small faculty museums and galleries, the major existing facilities include the Museum of Anthropology, the Frederic Wood Theatre, the Music Auditorium, International House, the Asian Centre and the Nitobe Garden. Proposed facilities include the Creative Arts Facility, the Art Gallery, the Performing Arts Centre and the First Nations House of Learning. Many of these are clustered at the north end of the Main Campus.

The University will encourage the use of these buildings to act as a major component of the campus/community interface. Programs and operating hours should be extended to augment the vitality of the campus during the evening and all year round.



92. Cultural Facilities



Strategy 30

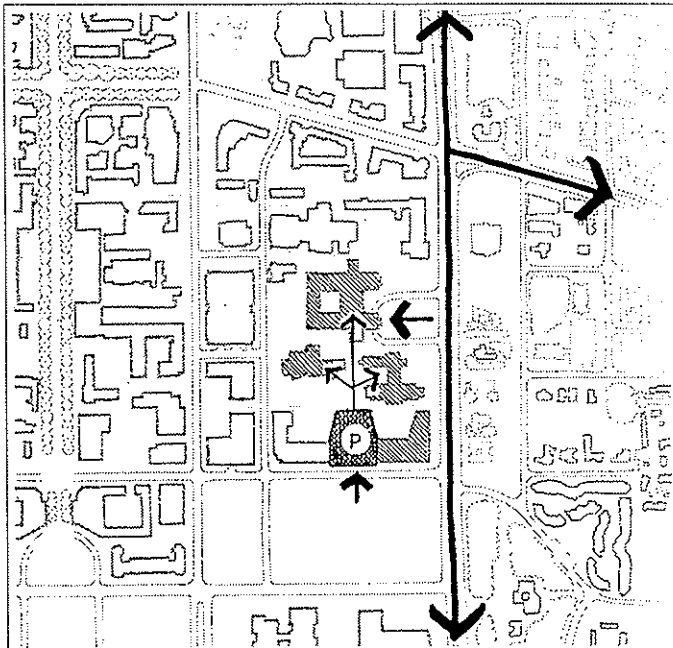
LOCATIONS FOR HEALTH CARE

The Health Sciences Centre is the focus of a regional network of facilities engaged in the delivery of health care, as well as in education and research. Consequently, the Health Sciences Centre has direct ties with both the rest of the academic campus and the larger community.

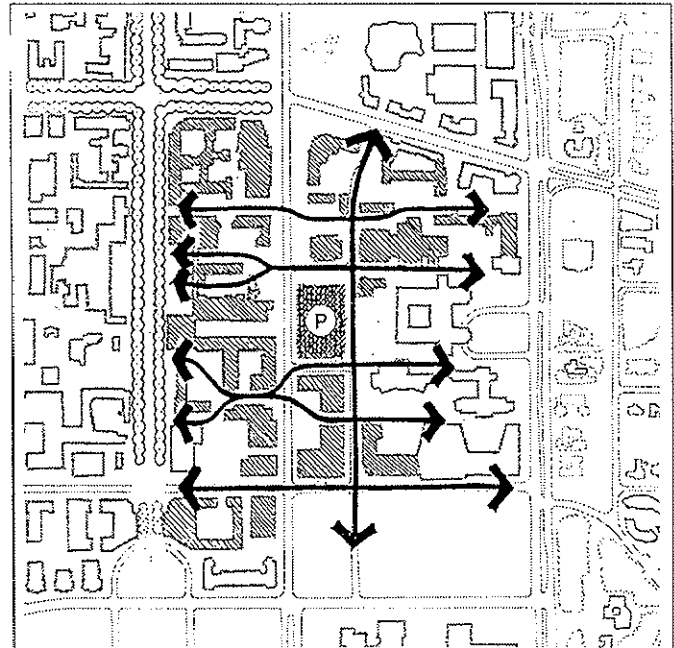
The Health Sciences Centre occupies a distinct precinct which is seen as adjacent to rather than within the academic core. This gives the Centre a strong, relatively separate physical identity. Its administrative structure is also relatively independent. For this reason, physical planning for the precinct must involve a joint effort between the University and the University Hospital Administration.

The University intends to improve the Centre's community interface, recognizing that very large numbers of people come there to visit patients or receive treatment. This will include the development of a parkade on Agronomy near Wesbrook which will provide direct access to the three major public facilities and to the academic facilities beyond. The University will also develop a tertiary care unit which will provide community-oriented health services to meet the needs of both the campus population and the larger community.

The University will also strengthen where possible the physical connections between the Centre and the academic core of the Main Campus to reflect and facilitate the interdisciplinary ties which are fast emerging between medical research and the basic sciences. This should include enhancing the movement corridors between the two precincts, and introducing related academic development east of the East Mall to create land use "bridges".

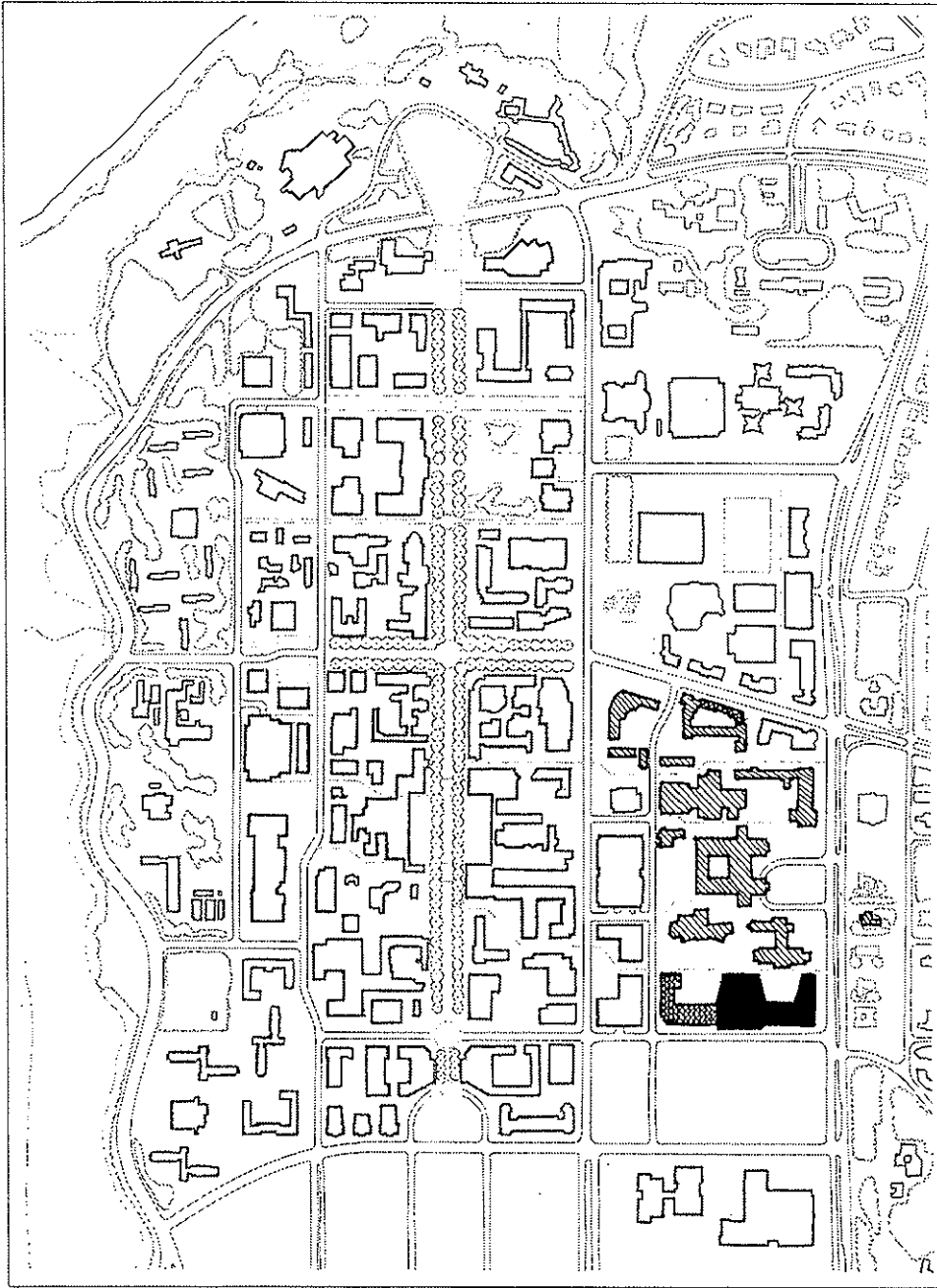


93. Connections with the Community



94. Connections with the Academic Core

LAND USE STRATEGIES



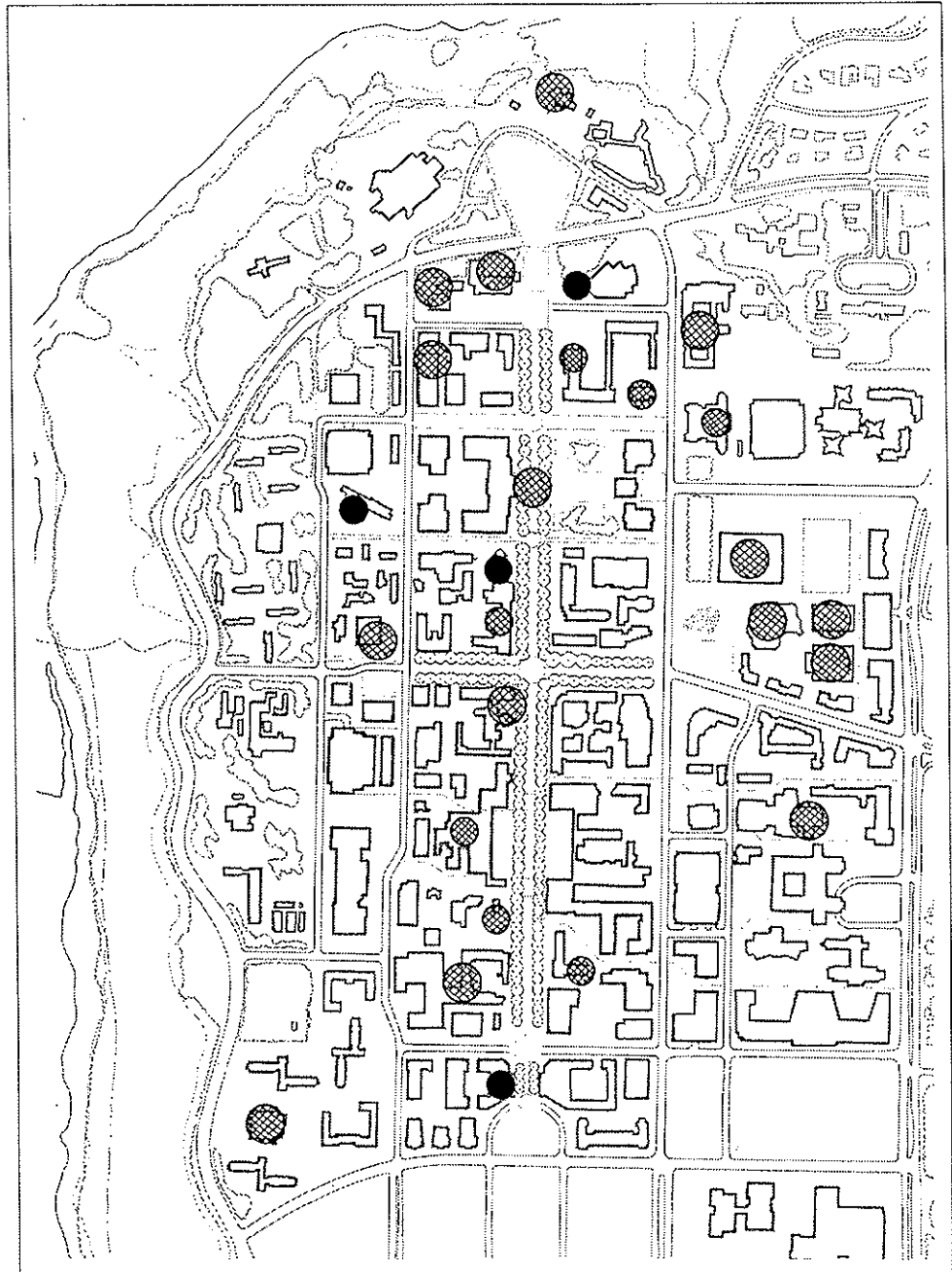
95. Health Care Facilities



Strategy 31

LOCATIONS FOR RELAXATION AND STUDY

Lounges and study spaces are basic amenities and will be distributed evenly, conveniently and pleasantly throughout the Main Campus. They should be planned to provide places for quiet study and relaxation, but also to promote arranged and accidental meeting and conversation. These facilities should be associated with main building circulation systems and with adjacent exterior public places and routes.



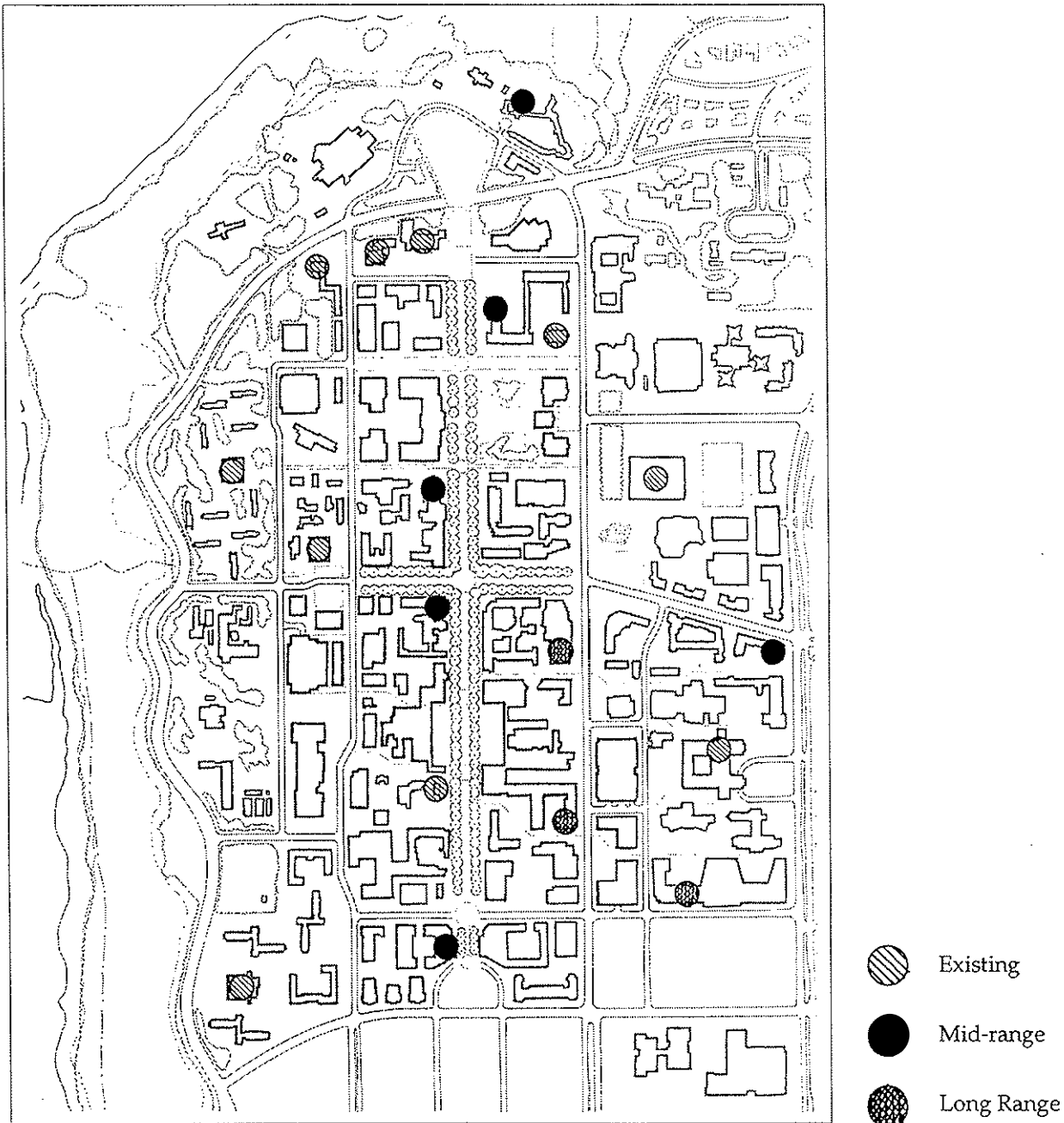
96. Places for Relaxation and Study

Strategy 32

LAND USE STRATEGIES

LOCATIONS FOR FOOD SERVICES

Food service facilities are a fundamental amenity and place of interaction, and will be distributed at close intervals throughout the Main Campus. It is intended that at least one outlet will be located within a short walking distance of the home base of each member of the community. Reflecting the UBC food service philosophy of providing choice and variety, a number of different outlets should be reasonably accessible from all parts of the Main Campus.



97. Food Services



Strategy 33

LOCATIONS FOR EXTRACURRICULAR STUDENT ACTIVITIES

The Campus Plan accommodates locations for a number of student activities not directly related to instructional or self-directed education. The Alma Mater Society runs the Student Union Building, a function which will remain in its current location. Space for additional athletic/recreational use is allotted to the north of the Memorial Gym, and casual social functions are accommodated throughout the campus in spaces for relaxation and study.

Strategy 34

LOCATIONS FOR HOUSING

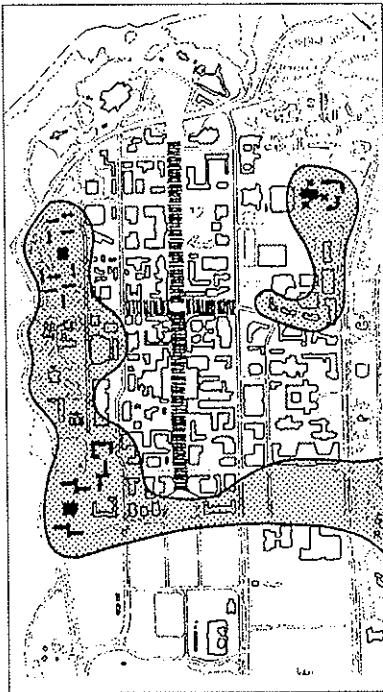
The University will continue to provide housing for students on the Main Campus. There are three fundamental criteria for the location of new housing. The first is to place housing within or as close as possible to the academic core, the second is to link or expand the existing housing enclaves to reduce their sense of isolation, and the third is to reinforce the major public activity areas.

The increase in housing identified in the Mission Statement results in seven or eight hundred new beds. The distribution that most effectively meets the above criteria is to place housing at the south end of the Main Mall (effectively extending Totem Residences eastward toward Acadia Park) and adjacent to Ponderosa Place at the west end of University Boulevard.

Additional locations that will be considered include both sides of University Boulevard near Gate One, a possible college site on the south east corner of the Totem Residences precinct, on parking lots "P" between Thunderbird and Agronomy, east of the East Mall, and north of the General Services Administration Building near Westbrook Mall.

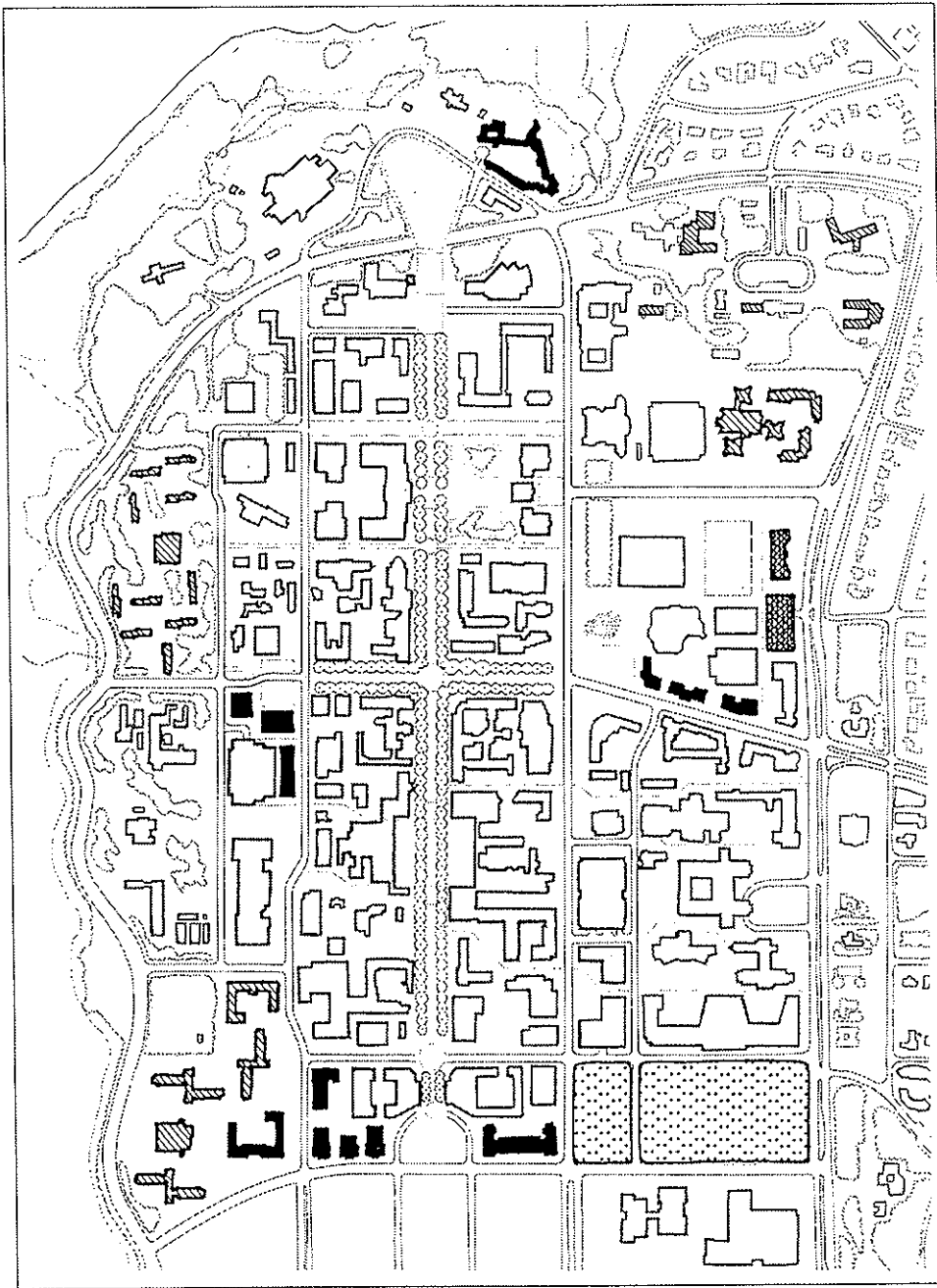
Housing has associated needs such as day care (for family housing), food shopping, recreation and parking. Sources of funding for each of these should be identified at the early programming stage of each project.

A plan for future housing will incorporate the recommendations put forward in the report **Priorities for Student Housing — Housing Sites Recommendations** (draft report, April 1990).



98. *Locational Criteria*

LAND USE STRATEGIES



99. Housing



Strategy 35

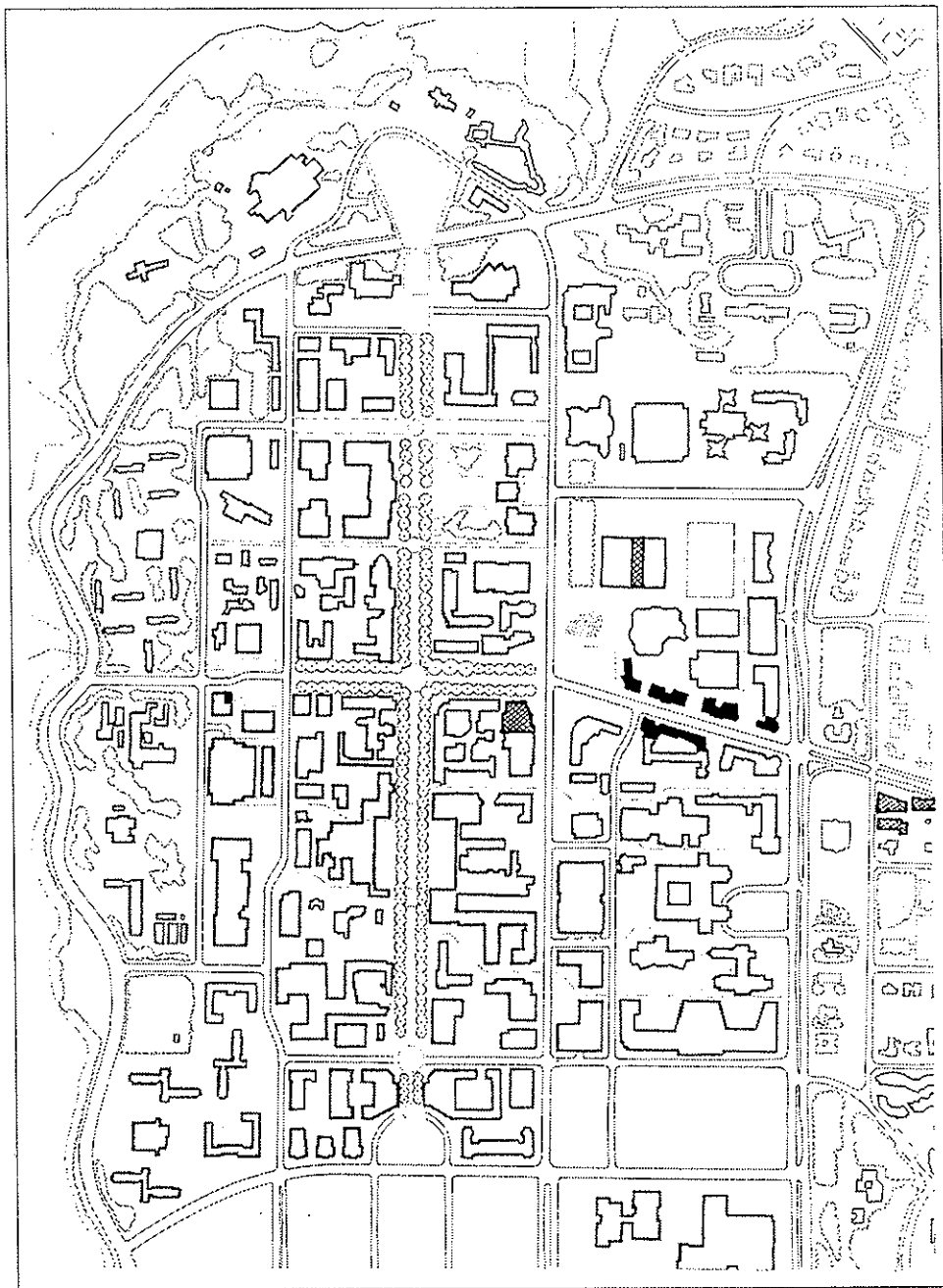
LOCATIONS FOR SHOPPING

The University will take measures to provide the commercial services needed by the campus community. There are some commercial services now available (including the Student Union Building, the Bookstore and the small shopping centre just off the campus), but these should be increased. The development of commercial services on the campus will be planned in collaboration with the University Endowment Lands Community.

The primary location identified for new commercial services links the three main existing centres, creating a "Town Centre" on University Boulevard. This location is even now a focus of activity and would be within a short walk for a large proportion of the community. If, and when, it proves financially viable, the University intends to develop a hotel as part of the Town Centre to meet the needs of academic guests, researchers, conventioners, and people using or visiting the hospital.

The University will continue to provide/encourage other commercial and/or revenue generating services throughout the campus to meet local or specialist needs. These currently include media services, athletic and sports services, food services, parking services, publishing and copying services, telecommunications services and computer services, and will be augmented as required.

LAND USE STRATEGIES



100. Commercial Services



Strategy 36

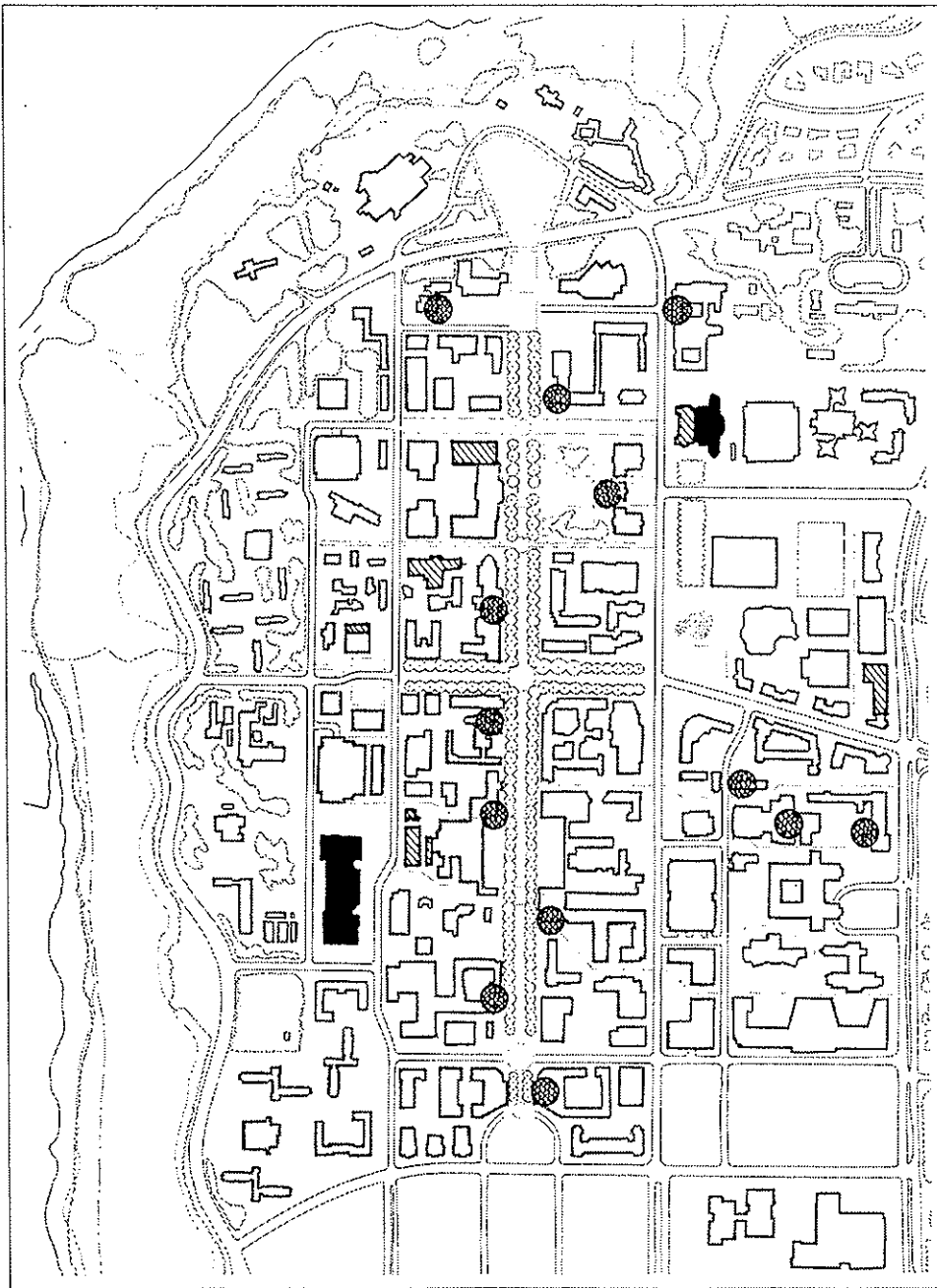
LOCATIONS FOR ADMINISTRATION




The University will continue to provide the administrative services necessary to ensure the humane and efficient operation of the University. These services include campus administration, student services, academic faculty services, financial services, computer services, human resources, occupational health and safety, plant operations (including security and policing), and campus planning.

Those services required by people on a daily basis should be located within the campus and close to those who require them; all other services should be located on the campus periphery.

General services administrative will remain at Gate One. Plant Operations and Maintenance will remain in the University Services Building on the West Mall. Student services will be consolidated in Brock Hall. The President's Office and the Board and Senate Chambers will remain in their existing location for the mid-term, but may move to the granite core of the existing Main Library once that building becomes available.

LAND USE STRATEGIES



-  Existing
-  Mid-range
-  Long Range

101. Administrative Services

Strategy 37

LOCATIONS FOR ATHLETIC FACILITIES

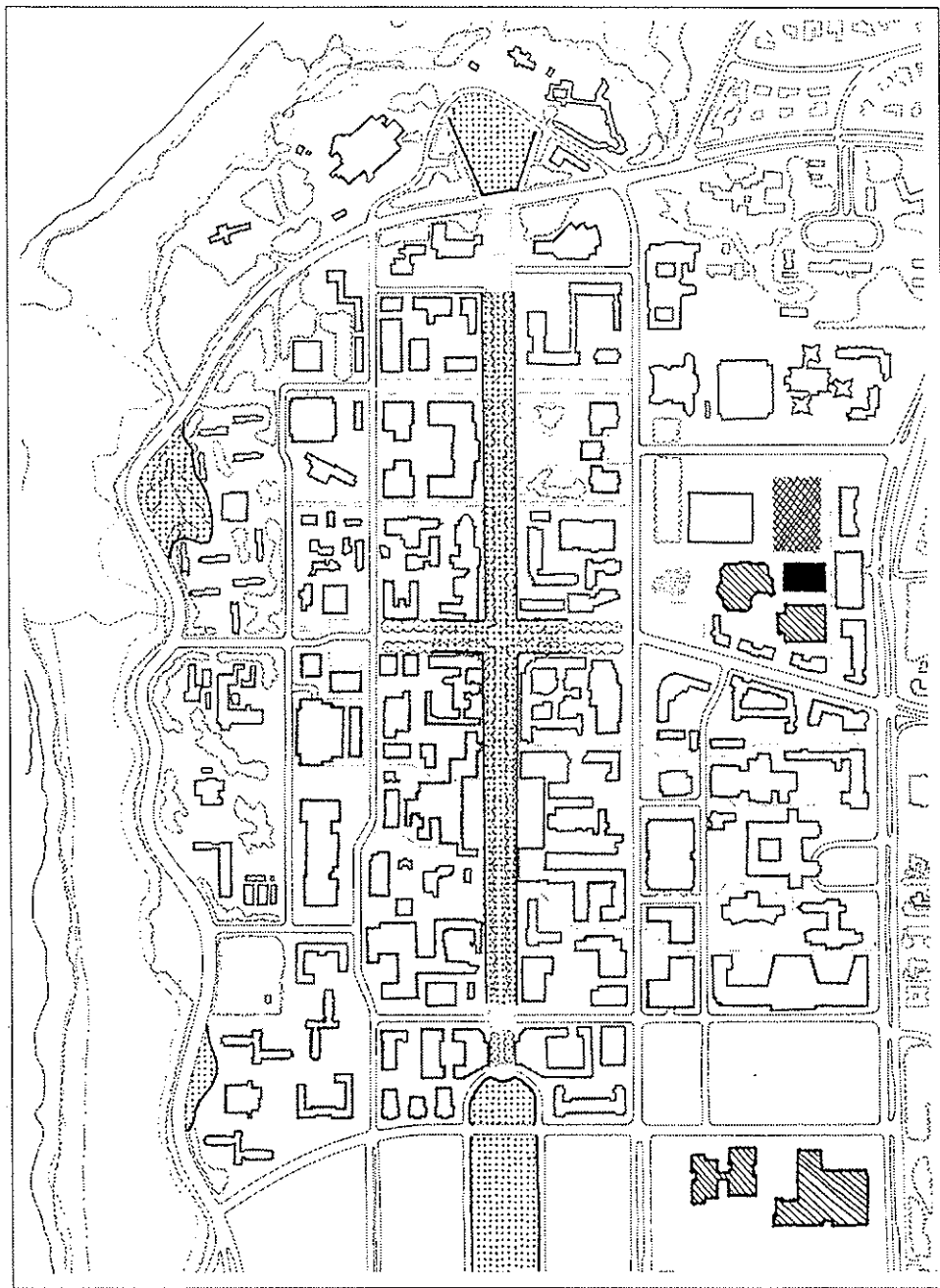
The University will continue to provide athletic facilities for both competitive and casual use, adding new facilities distributed throughout the campus for the convenience of users. Its current inventory is aging, many facilities being older than their normal life expectancy. New facilities should incorporate a social dimension into the athletic/fitness program.





The Memorial Gym, the Aquatics Centre, the Outdoor Pool and MacInnes Field will be retained and improved. A student recreation facility is proposed north of the Memorial Gym.

Lawns and other open spaces for casual pick-up sports will be developed across the campus in close proximity to users. There should be many such places; the most important being the Main Mall lawns, Fairview Square, and the South Field south of Thunderbird Boulevard.

The future of the major competitive athletic facilities south of Thunderbird Boulevard will be addressed in the Middle Campus Plan.

LAND USE STRATEGIES



-  Existing
-  Mid-range
-  Recreational Lawns
-  Athletic Fields

102. *Recreational and Athletic Facilities*



Strategy 38

THE CAMPUS DEVELOPMENT PROCESS

The University is establishing a process to ensure that campus development proceeds in a way which is orderly, comprehensive and follows the strategies of the Campus Plan. The creation of an excellent physical environment is not the primary purpose of the University — it is the means to an educational end — but it is so important to meeting the university's needs that every development increment, no matter how small, must be required to contribute towards creating an excellent — academic, social, and physical — environment.

The *UBC Campus Development Process* is the administrative structure which will enable the University to implement the physical aspects of its mission. Key decisions in the process will be made by the President's Office after review by Advisory Committees, and the Campus Planning and Development Department will manage implementation of the process. But since campus development impacts on the interests of everyone on campus, it will necessarily draw participation from all sectors of the University population.

Future campus development will occur incrementally through projects of two types: the constituent and the communal. *Constituent projects* focus on the needs of a particular user group. *Communal projects* focus on "public works": roads, landscapes and engineering systems, together with general and support services, such as study, eating and recreation. Many communal needs will be met by the incorporation of communal services into constituent projects, as described in *Strategy 3*.

All projects, whether communal or constituent, will go through six stages:

- i) Selection/Initiation;
- ii) Planning and Programming;
- iii) Public Process;
- iv) Design;
- v) Construction;
- vi) Operation and Maintenance.

Crossing the threshold from one stage to the next will require that the project be fully evaluated against both design and budgetary criteria. To proceed, it must be established whether the project meets the planning and program requirements of both the constituent group and the University at large, and whether the project remains within an acceptable budget envelope.

Project Selection/Initiation

Beyond the specific projects in the current capital program, there is a "pool" of proposals being considered or requests for projects put forward by various interests in the University; these proposals are regularly reviewed and assessed by Advisory Committees who make recommendations to the President's Office.

Once selected, projects enter the initiation stage. At this point, they should be defined in terms of the following six topics:

- i) Outline of indoor and outdoor space requirements;
- ii) Expected demand on and/or additions to the campus engineering systems;
- iii) Budget envelope for the building and associated site works;
- iv) Outline of site requirements and locational considerations;
- v) Impact on users and functions currently occupying sites being considered for the new project;
- vi) Campus quality impact parameters.

At this stage a determination is made as to whether the basic intent of the project is in conformance with the Campus Plan. If it is, the project proceeds to the next stage. If it is not, two courses of action are available: first, modify the project so that it is in conformance; second, modify the Campus Plan to accommodate the project. The latter action, modifying the Plan, will only be undertaken after examining the implications of so doing, and will require the sanction of the Board of Governors at the time approval is given to take the project to the next planning stage.

In many respects this is the most important stage in the entire campus development process. Most complaints about the physical condition of the campus and the inability to meet user and/or communal needs result from the struggle to meet expected needs as well as other real needs not covered by the initial budgetary parameters. Budgets stay fixed while the understanding of project needs always develops over time.

One way of addressing this dilemma would be to set target budgets with a 25% contingency, with the project team given jurisdiction only over the main budget (i.e. 75%). If at any point in the process an unforeseen requirement emerges, the project team could request the use of a portion of the contingency. This request would then be treated as one of the proposals in the "pool" and recycled through the project selection process.

Planning and Programming

During this stage the detailed building programme is established, the site selected, the budget confirmed or modified, and the project incorporated into the Campus Plan. The products of this phase include:

- i) Programme of user and communal requirements;
- ii) Statement of revision to or compliance with the Campus Plan;
- iii) Site selection and feasibility concepts;
- iv) Relocation strategy for existing site users and functions;
- v) Effect on campus engineering systems;
- vi) Project budget;
- vii) Outline of campus quality impact;
- viii) Draft project design guideline.



Design

At the outset of this stage, the *Project Design Guideline* (item vii above) will be reviewed by the prime design consultant. Comments and findings resulting from preliminary design explorations will be incorporated into the finalized Project Design Guideline. It will then be adopted as University policy and will govern the project design.

The design stage will include three essential phases: schematic design, design development, and working drawings. These separate phases are necessary to ensure that the adequate examination of alternatives has been undertaken at all levels from site selection and general massing through to materials selection and contract documentation.

At each phase, the following products (presented in drawings and report format) are required of the prime design consultant:

- i) Site and context analysis;
- ii) Architectural design and rationale;
- iii) Structural design and rationale;
- iv) Mechanical design and rationale;
- v) Electrical design and rationale;
- vi) Site utilities design and rationale;
- vii) Landscape design and rationale;
- viii) Construction cost estimate;
- ix) Evaluation against Program, Campus Plan strategies, Project Design Guideline, and budget.

Campus Planning and Development report to the Advisory Committees and the President's Office at the conclusion of each phase.

Construction

Project construction is monitored to ensure that the content and intent of the design are realized, and that the project remains within the established budget. Construction projects are managed by Campus Planning and Development who regularly report on progress to the Advisory Committees and the President's Office.

Operation and Maintenance

Following completion, the project will be managed by the prime user group or agency, and maintained by Plant Operations. Periodic inspections are conducted by Campus Planning and Development to ensure that the project is meeting the needs of its major users, and to assess how communal aspects of projects are being operated for the benefit of the whole University. Operational assessments will be forwarded to the Advisory Committees on a regular basis.

*Strategy 39***PLAN CONTINUITY**

To ensure that the Campus Plan remains an effective basis for development, the University will establish administrative structures for its approval, application and updating.

An Approved Campus Plan

The Campus Plan, particularly the strategies and its implementation and review mechanisms, will be approved as University policy by the Board of Governors.

Applying the Campus Plan: Continuity and Interpretation

As University policy, the Campus Plan strategies will be applied in all development projects, regardless of scale or type. The prime responsibility for this will be assigned to the Campus Planning and Development Department whose job it will be to ensure that the Plan is brought forward at all stages of the Campus Development Process.

This Plan represents the institutional "intention and memory" of UBC, and will be a source of reference for many people, departments and faculties. The Plan will require consistency in interpretation, for which the continued leadership of a University Planner is necessary as well as the continuity of those associated with the task, both at the planning and project levels.

Updating the Campus Plan

The Campus Plan will be periodically and regularly updated to ensure its continued relevance. The Campus Plan must be capable of responding to its own evolution. It is implemented in increments, each a product of conditions current at the time, and once constructed each increment modifies the Plan by adding to the conditions influencing the next.

The first method of updating is a *Plan Amendment* which is triggered if it is found that a project is desirable but does not comply with the Plan. (See Project Selection/Initiation, *Strategy 38*).

The second method is a *Formal Review*, publicly conducted at five year intervals, by which the Plan's policy status is confirmed by the Board of Governors. This review will include a re-examination of the Plan principles, and the incorporation of Plan Amendments made in the preceding period.



PROJECT DESIGN CHECKLIST

During design, the project team — users, managers, and designers — will have three areas of responsibility: the first towards particular project needs, the second towards communal needs, and the third towards outdoor space and circulation.

During the design process, the architect is expected to respond to the following criteria and present evidence as to how they have been addressed at each major step of the design process.

1. Site Use and Organization

- 1 Land use efficiency should be maximized. New buildings which do not fully utilize their sites should be designed to permit future expansion.
- 2 New buildings should be planned to assist the rationalization of the infrastructure.
- 3 Buildings should be located on those parts of the site which are in the worst condition rather than the best.

2. Responding to Context

- 1 Buildings and associated open spaces should be designed to enhance the larger compositions created by groups of buildings and landscapes.
- 2 New buildings should be considered as opportunities to “repair” holes and discontinuities in the campus structure.
- 3 Buildings should be organized on the site to make new functions and circulation routes compatible with those of neighbouring buildings and open spaces.
- 4 Depending on their locations, some but not all buildings should be designed as landmarks to identify strategic locations within the larger campus structure. The design of all buildings should support the general fabric of the campus. The distinction between landmark and other buildings refers to their urban roles rather than their architectural quality — all buildings should demonstrate the highest standards of planning and design.
- 5 Buildings and associated open spaces should reinforce the predominant development patterns that distinguish various parts of the campus:

The Forest — Buildings should be independent pavilions set within the forest and forest gardens; open spaces should be treated as glades within the forest.

The Western Slopes — Buildings should be small and/or articulated, and stepped to reflect the area’s topography; open spaces and pedestrian routes should be fine-grained, and clearly defined by buildings; roof profiles should reinforce the tumbling sense of the hill.

The Academic Garden — Buildings should be larger with a horizontal mass, and should define regular and relatively expansive courtyards.

The Town Centre — Buildings should strongly relate to and define the street which is itself the primary open space.

Focal Points — Buildings around primary focal points (Rose Garden, Library Garden, Science Quad, South Forecourt, Town Centre, West Square) should contain, define and animate the space.

3. Building Envelope

- 1 Buildings should generally be restricted to about four storeys to preserve the scale and image of a well-landscaped campus, and to capitalize on the economies and convenience of a walk-up format.
- 2 Roof and/or eave lines should generally align or work with those of adjacent buildings to reinforce the cohesion of building groups.
- 3 Building facades should in general align or work with adjacent facades to reinforce the clarity of the public network and the cohesion of building groups.

4. Building/Open Space Relationships

- 1 Buildings and associated open spaces should establish a mutually supportive relationship in which indoor and outdoor spaces animate and are connected to each other.

- .2 Buildings should define open spaces as distinct spatial volumes with a strong sense of identity and place.
- .3 Buildings should enhance the clarity, safety and efficiency of campus streets and pedestrian routes.
- .4 Existing high quality open spaces should be protected and enhanced.
- .5 New open spaces should form part of a continuous network.
- .6 Building faces adjacent to public open spaces and thoroughfares should be treated as fronts and should activate the public environment.
- .7 The ground floor should relate directly to grade for ease of access.
- .8 Windows and other openings should relate directly to outdoor open spaces.

5. Response to Climate

- .1 Important public spaces, both indoor and outdoor, should benefit from the sun.
- .2 Rain shelter should be provided in high use areas around entrances, and where heavily travelled pedestrian routes run parallel to building facades.

6. Circulation

- .1 Interior pedestrian routes should link with exterior pedestrian routes to provide logical connections through buildings. However, the continuity of exterior pedestrian routes should not be compromised when buildings are closed.
- .2 Interior connections between functionally related buildings should be on-grade, and integrated with the outdoor pedestrian system. Bridges between buildings should be avoided except in the "Hill Town".
- .3 Interior circulation routes should be easily understood. They should be hierarchical with the most important routes corresponding to the most public parts of the building.
- .4 Buildings and associated open spaces should be universally accessible.

7. Building Entrances

- .1 Building entrances should be easily identifiable, and should address primary public open spaces and thoroughfares.
- .2 Building entrances should be ordered with the most important addressing the main avenue of approach.

- .3 The ordering of building entrances should correspond to the ordering of public spaces and circulation routes within the building.
- .4 All building faces adjacent to major public open spaces and thoroughfares should have entrances.
- .5 Building entrances should be designed to encourage lingering and discussion.
- .6 Building entrances should be open and prominent, encouraging people to approach and enter the building.
- .7 Building entrances should provide a sense of transition from outside to inside.
- .8 Building massing should reflect the ordering of entrances.
- .9 Lobbies should be generous and designed to provide visitors with the information and cues necessary for orientation.

8. Transparency and Territoriality

- .1 The building should be designed as a figurative or literal showcase so that the public has a clear sense that the building is occupied and feels "open".
- .2 Offices, laboratories and other "private" or secure facilities should be separated from public areas of the building.
- .3 Areas of the building requiring security should be securable without compromising the viability of public spaces or the continuity of public circulation routes.

9. Location of Public Facilities

- .1 Public facilities should be located adjacent to public thoroughfares and open spaces, and preferably on the ground floor.
- .2 Public lounges and eating places should be in sunny locations.
- .3 Interior public spaces should be capable of expanding out of doors during favourable weather.

10. Long Life/Loose Fit

- .1 New buildings should be capable of being adapted to new uses as the needs and priorities of the university change.

11. Architectural Expression

- .1 New buildings at UBC must reconcile many diverse and often contradictory issues in terms of their architectural expression — the "messages" they give about their role in the university.



The Mission Statement's goal of providing an "environment to support the adventure of the mind and spirit", could be interpreted as meaning that campus buildings should be boldly innovative and experimental, on the cutting edge of design theory and practice. (If so, distinguishing the "cutting edge" from this year's fashion is perhaps difficult but is nevertheless crucial.)

Campus buildings should also express the dignity of the university's time-honoured mandate — the passing on of wisdom and the quest for new knowledge. In this light, campus buildings should express a sense of permanence and durability, a sense of the university's traditional roots and its historical continuity, and a sense of its connectedness with other similar institutions around the world.

Further, campus buildings should also express the university's commitment to serving the community, and its responsibility to treat knowledge as a public resource. To express this, buildings should be open, accessible, welcoming, and familiar.

Finally, campus buildings should express a sympathy with the climate, vegetation and topography of the West Coast region, and reflect the architectural traditions which have emerged in response.

12. Scale

- .1 The scale of the building should relate to the scale and size of the human body, to make approaching and using of the building a comfortable experience.
- .2 The scale of building elements and massing should correspond to the various distances from which it is viewed:

The **silhouette** of buildings should be designed to be read from afar, either as members of a group of buildings or as a landmark.

The **massing** of buildings should be designed to be read from the middle distance and should reflect the immediate context and the predominant patterns of the character areas in which they are located.

The **detailing** of buildings should be designed to be read from close up.

13. Exterior Materials

- .1 Building materials should reinforce the cohesion of related groups of buildings.
- .2 Building materials should reflect the building's role as a landmark or a fabric building.

- .3 Building materials can reflect the identity of the users, but should not be so specific as to preclude a possible future change of use for the building.
- .4 Building materials should suit the light and climatic conditions found on the campus.
- .5 Large areas of concrete should be avoided. Masonry should be encouraged.

14. Landscape Quality

- .1 Landscape should be treated as critical to establishing visual cohesion across campus.
- .2 Landscape design should receive the same level of attention and budget stability accorded to buildings and infrastructure.
- .3 Landscapes, like buildings, should be designed to communicate "messages" about the goals and roles of the university.

15. Servicing

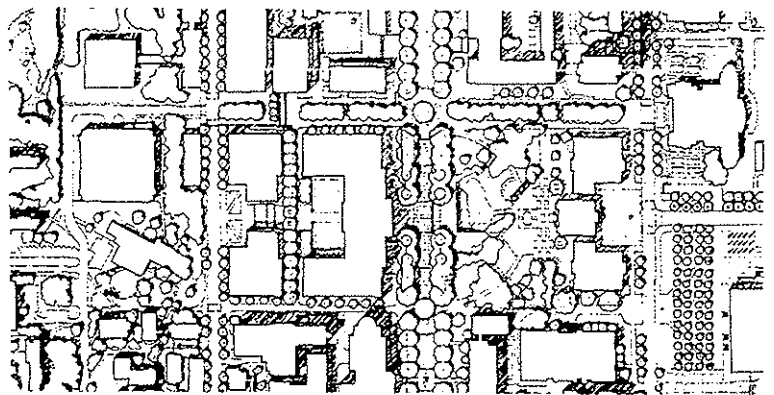
- .1 Service areas should be located and designed to efficiently support the building's functions.
- .2 Service areas should in general be located away from public open spaces and thoroughfares.
- .3 Where integrated with pedestrian uses, design treatment should reflect the pedestrian use.
- .4 Some specialized service areas may be located in or adjacent to public spaces if they most effectively demonstrate the building's purpose and function, and if they are compatible with pedestrian activity.

16. Technical Performance

- .1 Building projects should be subjected to life-cycle costing to determine the best fit between capital costs, operating costs and ongoing maintenance costs.
- .2 Buildings should be designed to reduce maintenance costs.
- .3 Buildings should be designed to reduce energy consumption.
- .4 Buildings should not be permitted to emit unacceptably noxious or otherwise unpleasant fumes or gases.
- .5 Noise from building systems should not be allowed to intrude on adjacent interior or exterior public spaces.
- .6 Noise-generating activities should be located within the building which should be designed to protect users in other buildings or in public open spaces.

SECTION THREE:

DEMONSTRATION
PLANS



This section presents an image of the campus that would result from the implementation of the Planning Strategies described in Section Two.

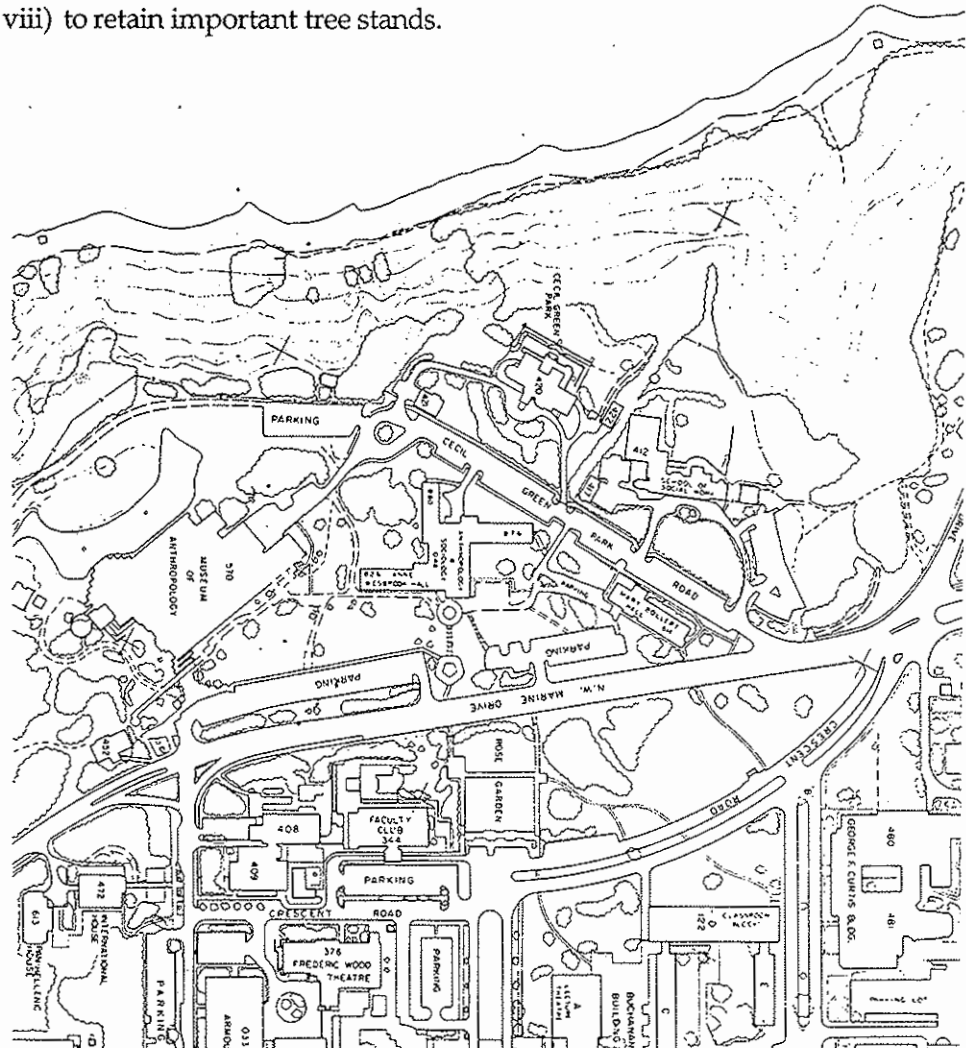
Projects implementing the strategies will incrementally shape the physical form of the campus. The Demonstration Plan provides a general impression of what that form might be in the mid-range and the long range. The mid-range horizon coincides roughly with the horizon of the Mission Statement and the current five- and ten-year capital improvement plans. The long range represents the campus in the mature state.



THE NORTH LAWN AREA

The area between Crescent Road and the Cliffs is one of the most attractive parts of the campus, but it has many unrealized potentials. The objectives behind the long range demonstration plan for this area are as follows:

- i) to unite both sides of Marine Drive so that the area along the escarpment feels and functions as a part of the Main Campus;
- ii) to reduce pressures on cliff destabilization ;
- iii) to utilize the cliff top as an important university resource accessible to the public;
- iv) to resolve the problematic traffic intersections across Marine Drive;
- v) to give pedestrian priority to the crossing of Marine Drive;
- vi) to establish a coherent pedestrian and vehicular movement system that provides a sense of address to the buildings and spaces in the area;
- vii) to give Green College and the Museum of Anthropology sites which have both a public face and a "private" domain;
- viii) to utilize the Performing Arts Centre as a major "entrance piece" to the campus and to link it with the other cultural facilities and take advantage of the views to the forest and sea;
- viii) to retain important tree stands.

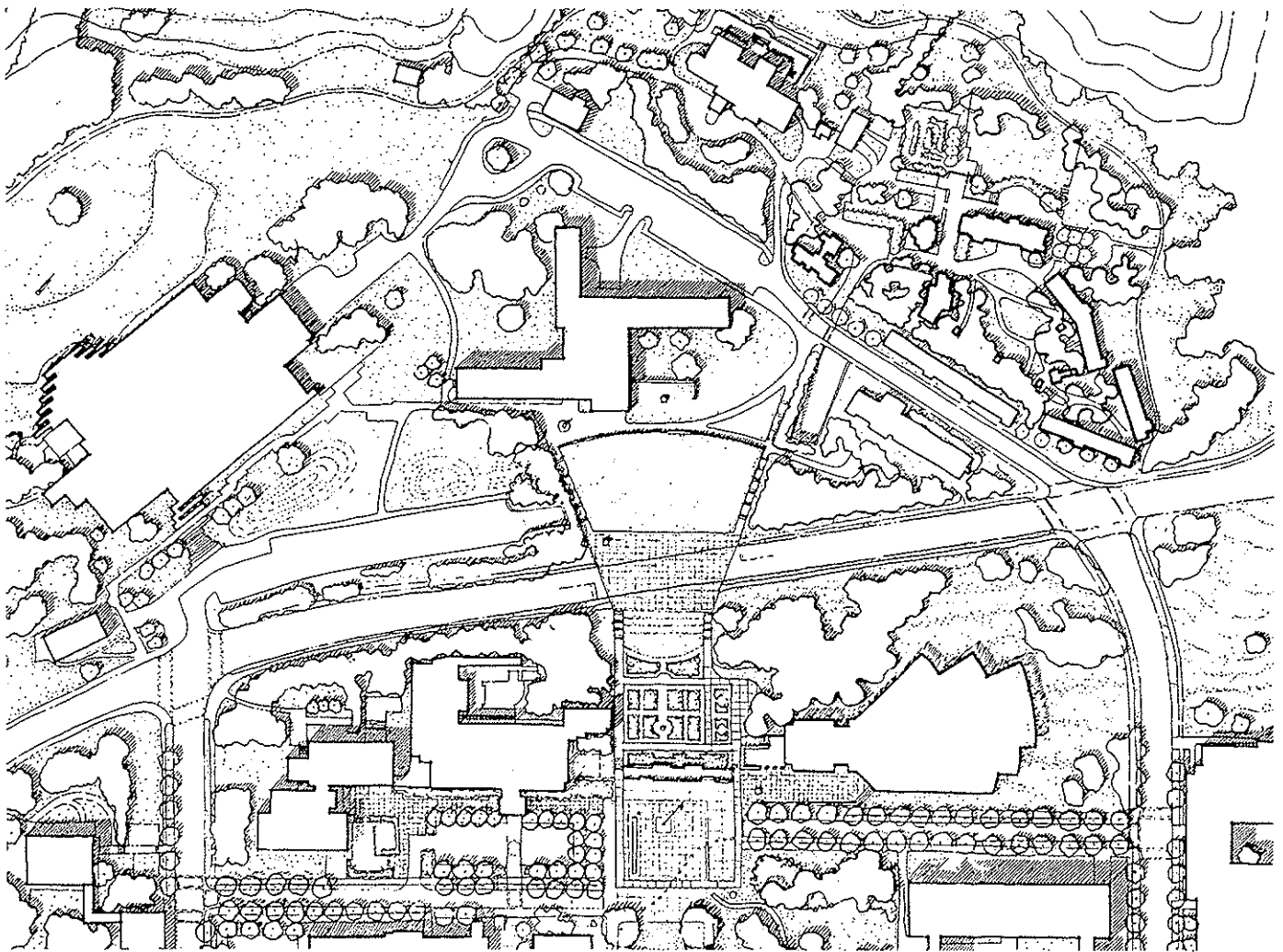


The Street System

One of the most effective methods of linking the two parts of the campus is through the street and associated pedestrian system.

In the mid-range plan, the presently complex intersection of Marine Drive, Chancellor Boulevard, Crescent Road, East Mall and Cecil Green Park Road is rationalized. These roads form simple intersections with pedestrian crossings at Marine Drive. Cecil Green Park Road remains dead-ended at the service yard of the Museum of Anthropology and surface parking is removed only to accommodate the construction of the North Lawn and Green College. Access to the underground parking structure under the North Lawn is from a drive flanking the Anthropology and Sociology Building and from the east end of the Museum parking lot. In general, the amount of hard surfaced road and parking lot pavement is reduced and natural ground cover increased.

In the long range plan, both the East and West Malls are extended north and connected in a loop. Hard surface paving is further reduced in favour of permeable ground cover.



104. *The North Lawn Mid-Range Demonstration Plan*

Viabile Pedestrian Crossings

The existing pedestrian crossings of Marine Drive are not satisfactory. The road is much wider than it needs to be for the traffic it carries which encourages speed and creates a greater expanse of roadway across which a pedestrian must cross. The intersections at West Mall and Crescent Road are dominated by automobile movement. The Crescent Road/Marine Drive/Chancellor Boulevard crossing in particular is confusing for both cars and pedestrians.

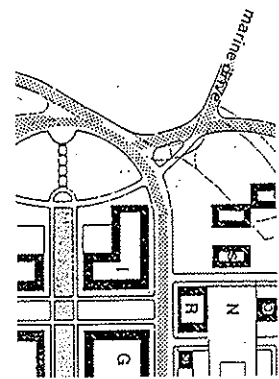
The immediate proposal, therefore, is to reorganize these intersections for better pedestrian crossing, narrow Marine Drive (in such a way as to permit sidewalks on both sides of the street, parallel parking on either side of the Main Mall access, and one lane each about 4 metres wide to permit space for both bicycles and automobiles on the same lane), and set up a major pedestrian walkway across Marine Drive at the Main Mall, controlled by stop signs or traffic lights.

The Great North Lawn

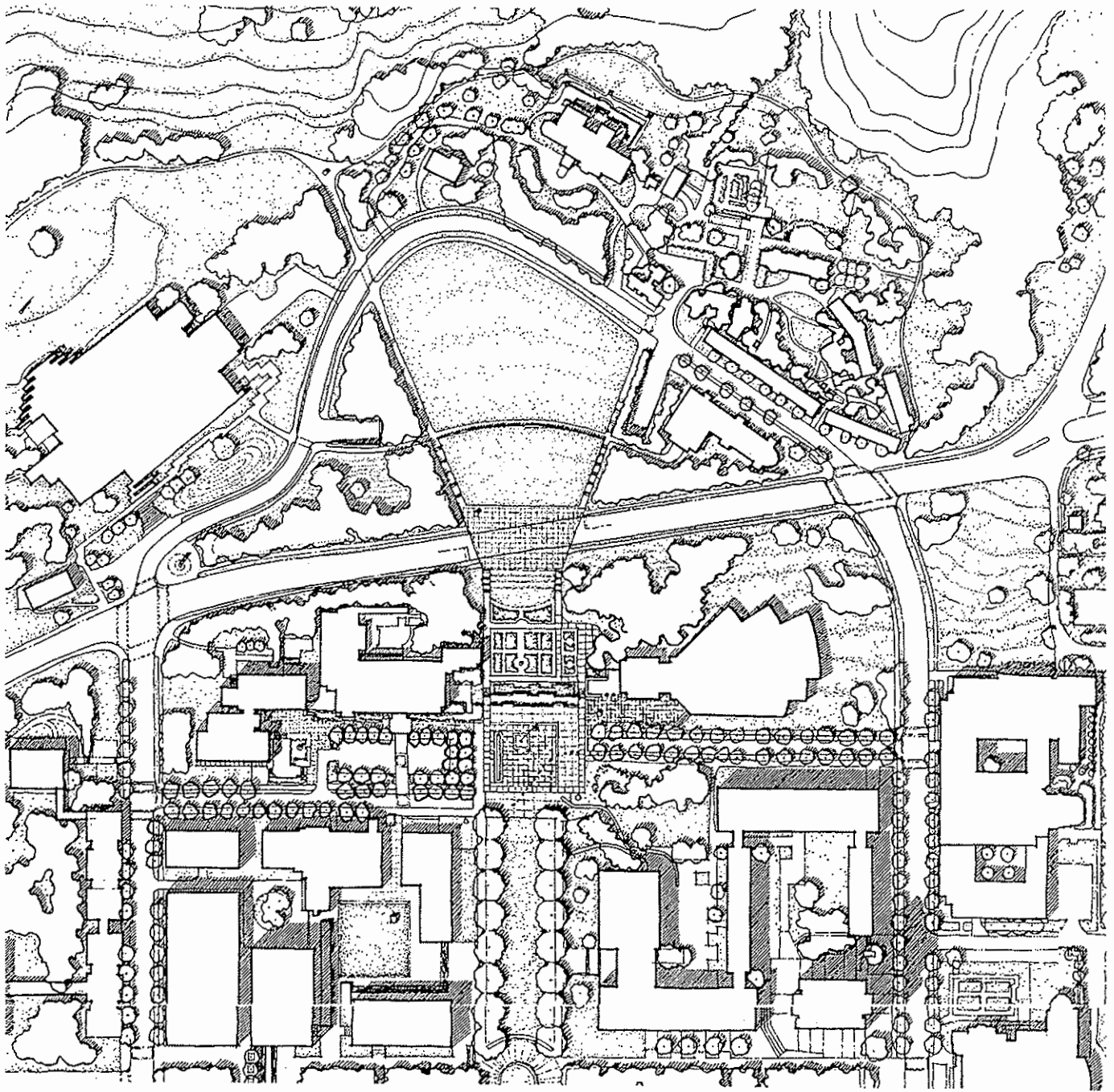
The grading, planting and path systems are arranged to create a grand front lawn or meadow linking the upper and lower sides of Marine Drive.

A similar forepiece was a feature of the original Campus Plan in 1914, and it represents a long-standing tradition of great country seats and universities. In this case the idea is modified to fit the natural character of UBC. Both sides of Marine Drive pass from a forested landscape into the wedged opening to the sea, which not only allows a clear reading of the campus identity along Marine Drive, but is also a central unifying feature linking the primary cultural and academic facilities in the area: the Faculty Club, the Museum of Anthropology, Cecil Green House, Green College, the Rose Garden, and the Performing Arts Centre.

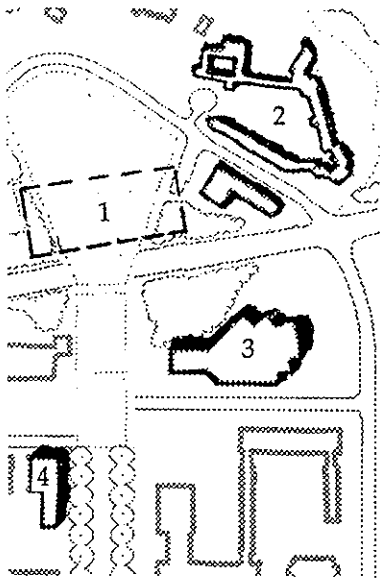
In the long term, the cohesion of the campus and interplay between faculties would be better served if the old residences, converted to accommodate Anthropology and Sociology, were demolished to make room for an extension of the public lawn. The Departments of Anthropology and Sociology would then become more closely associated with the main academic community and the top of the escarpment could be appropriately dedicated to public and special uses.



Original Proposal for North



106. *The North Lawn Long Range Demonstration Plan*



107. Project Locations

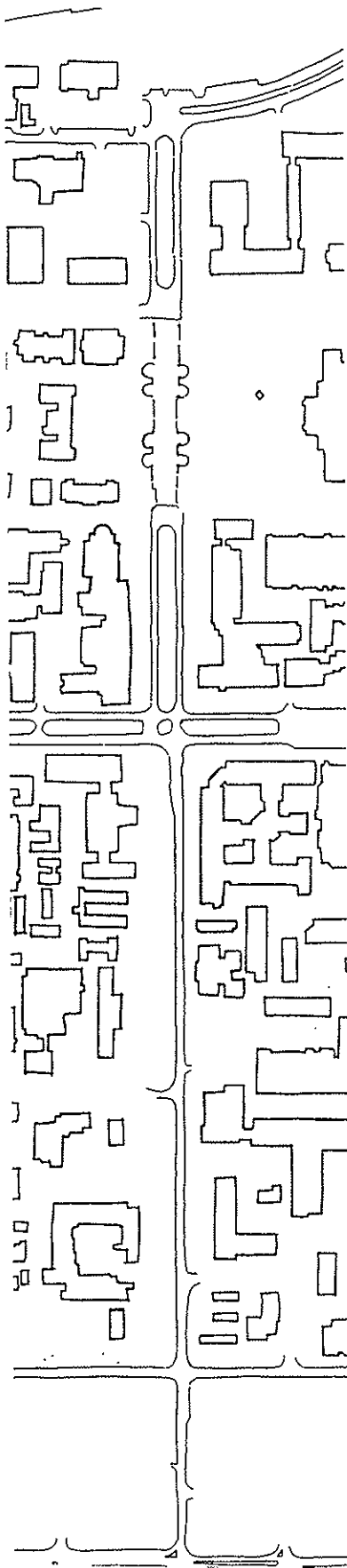
1. **The North Parking Structure** — Several hundred cars can be accommodated under the North Lawn, serving the considerable parking demand of the north campus, as well as the requirements for convenient parking for the Museum, Theatres, Art Gallery, Cecil Green College and the Faculty Club.
2. **Cecil Green College** — The layout shown has both a public face and a secluded courtyard. The public face relates to Marine Drive and to the extension of the East Mall. The scheme incorporates the existing stand of trees within an inner quadrangle in the collegiate tradition. An arcaded circulation route around the quad serves the private and public rooms, which face outward. The existing house is incorporated into the complex.
3. **Performing Arts Centre** — The music theatre auditorium performs several roles. It sets up the entrance to the campus from lower Marine Drive and Chancellor Boulevard. It flanks and reinforces the front lawn with a series of terraces which link back to the Flag Plaza. It should also take advantage of the sloped grounds, views, and natural features.
4. **Art Gallery** — The Art Gallery is to be located diagonally opposite the Performing Arts Centre, and is sited to reinforce the Main Mall, the Flag Plaza and the arrival space in front of the Faculty Club.

THE MAIN MALL

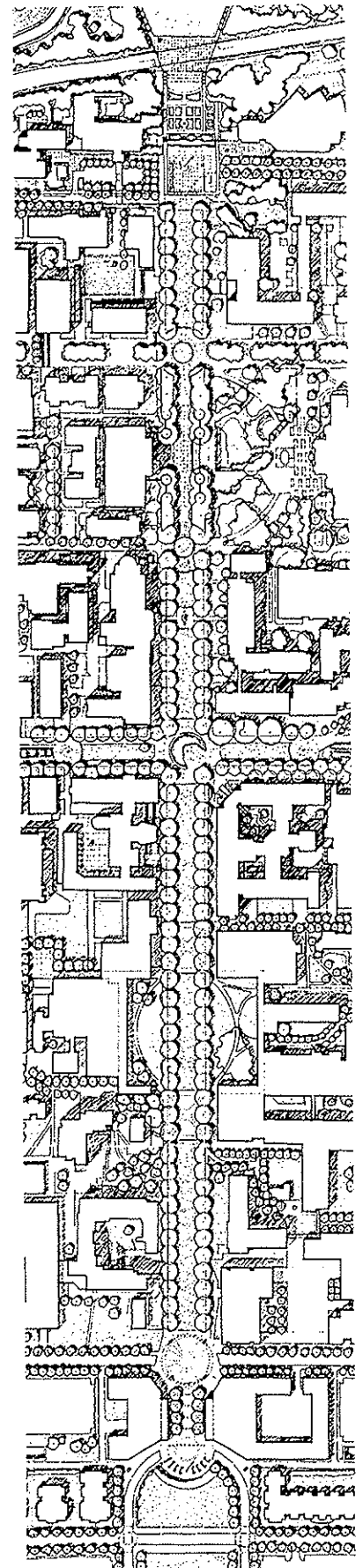
The Main Mall is the spine of the campus and the most memorable open space. When the "walking campus" was introduced about ten years ago, a transition from a broad double carriageway to pedestrian mall was initiated. This transition is not yet complete. The Mall's present condition has the air of an abandoned roadway rather than being the green symbolic centre of the campus it deserves to be. It is one of the most telling symbols of the Mission Statement's reference to the "unfinished" state of the campus. The University should give the highest priority to completing the task of transforming the Main Mall to a beautiful and animated space — the real and symbolic heart of the campus.

A plan of the existing condition along the Main Mall's entire length and the proposed condition are shown at the same scale. A cross section and plan segment of the proposed condition is shown at a larger scale overleaf.

While the space between buildings across the Mall is wide, the existing central grassed area is presently little more than a central boulevard. The plan proposal is to remove the obsolete road pavements and extend the grass surface as an uninterrupted plane from one row of trees to the other. The central grass plane would create a peaceful ambience when empty, its simplicity and strength giving the Mall a sense of nobility and grandeur. When filled with students, it would make a far more appropriate surface for relaxation or pick-up games.



108. Main Mall: Existing



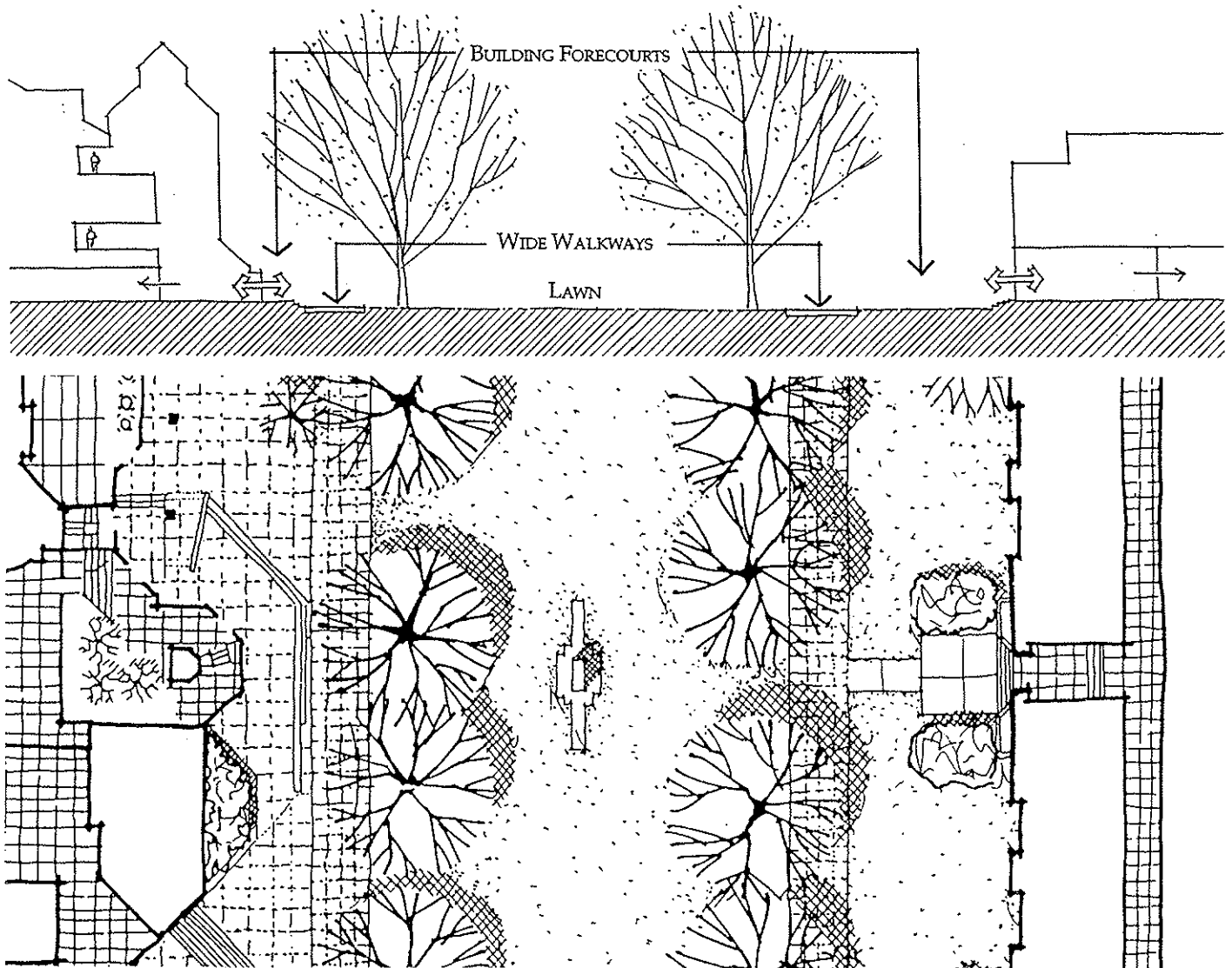
109. Main Mall: Mid-Range



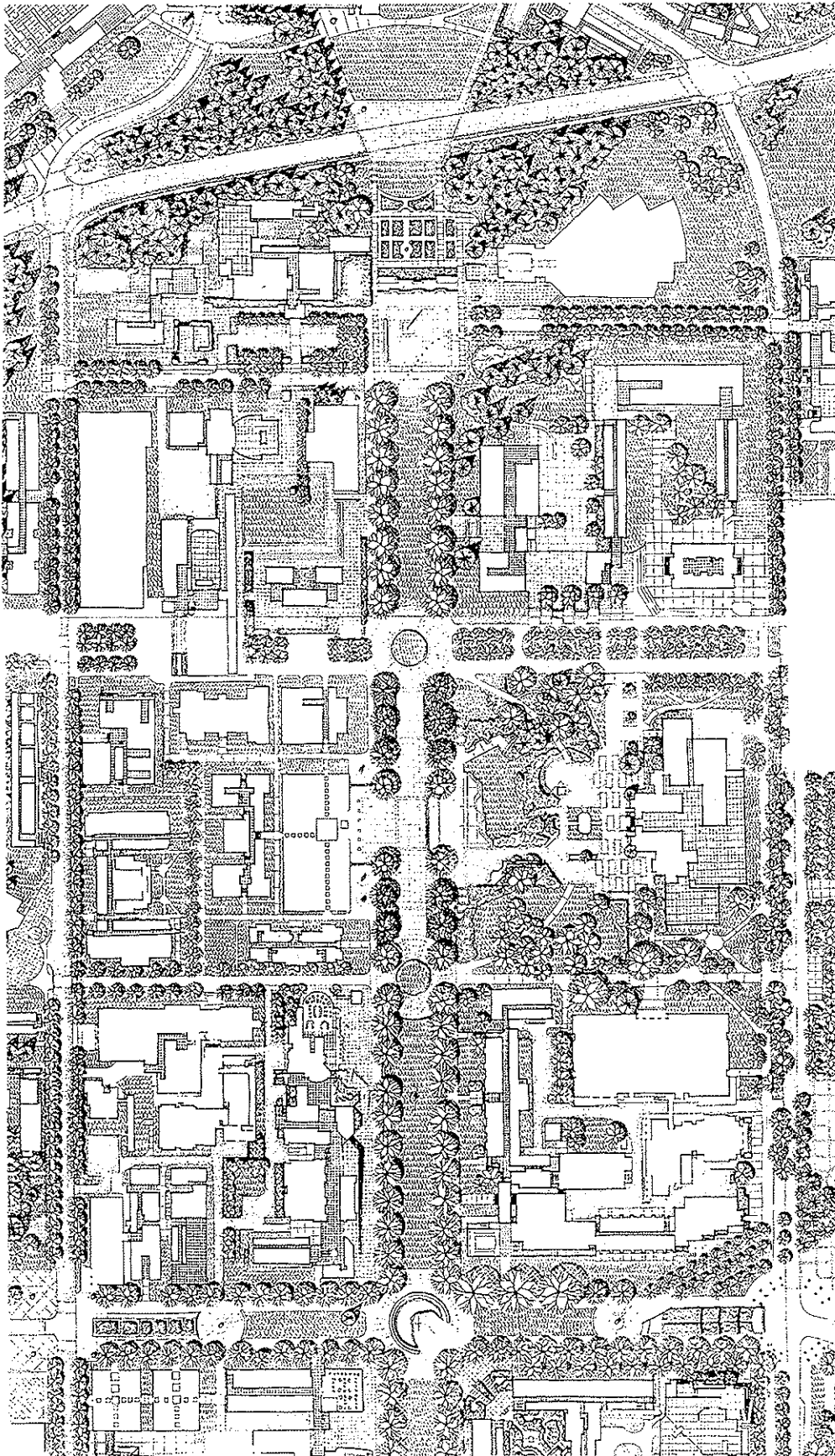
Hard surfaces for pedestrians and occasional emergency (not service) vehicles are located at the edges of the grass plane, between the trees and the buildings. These surfaces would connect to building forecourts, thus integrating the movement of pedestrians along the Mall with the comings-and-goings at building entrances.

The ground floors of buildings along the Mall should accommodate, wherever possible, public uses which would animate the Mall and create linkages between interior and exterior. The old "Bus Stop Cafe", now being replaced in the base of the David Lam Centre, is an example of how this can be done.

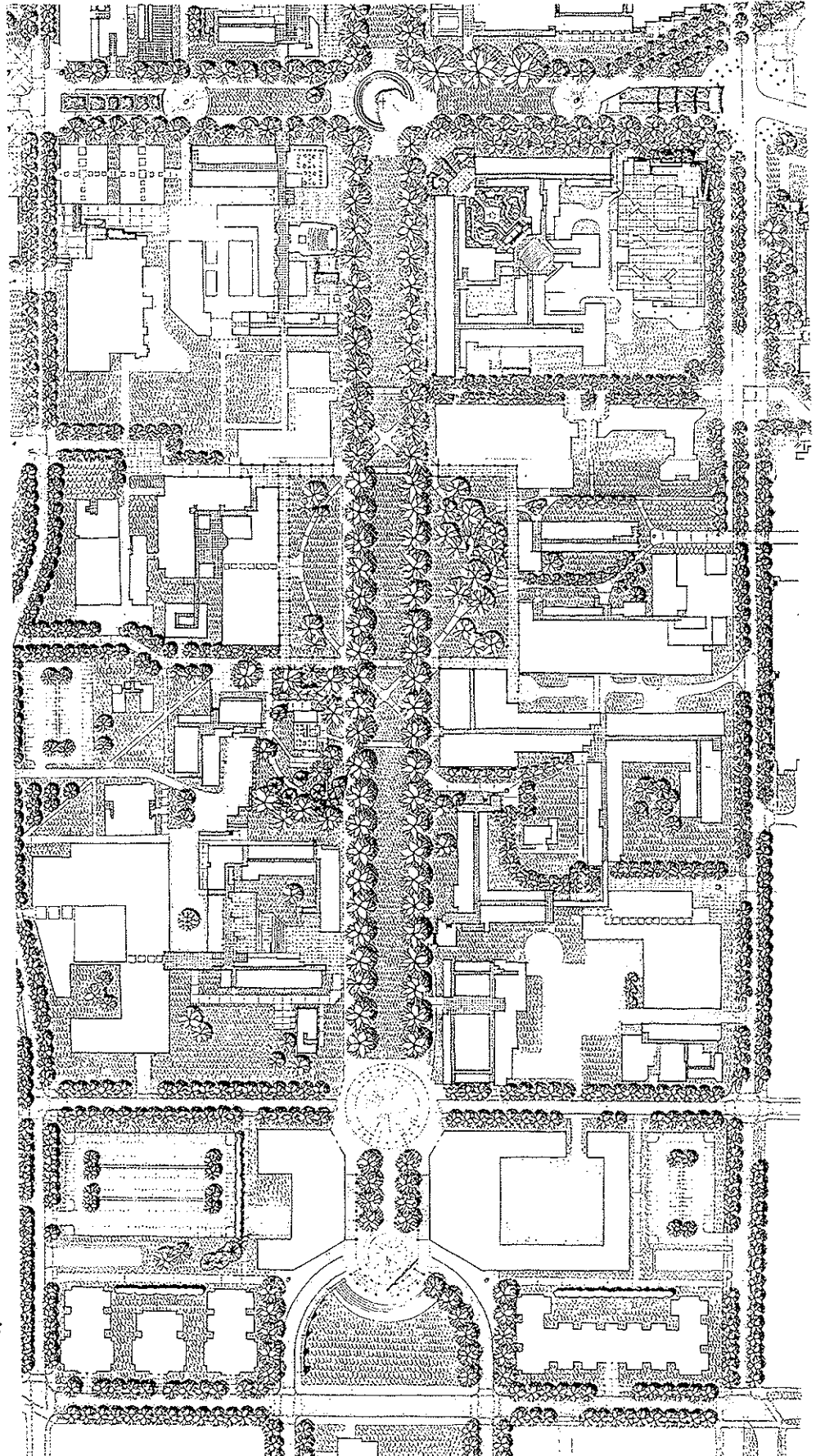
The intersection of the Main Mall and University Boulevard is the "centre of gravity" of the Main Campus — yet it is now an empty centre. The plan shows a central meeting place, with steps and seats for conversation. It is also designed to accommodate commemorative symbols, perhaps to alumni and faculty. A cafe extends from the Scarfe Building to further animate the space.



110. Proposed Redevelopment of the Main Mall: Partial Plan and Section

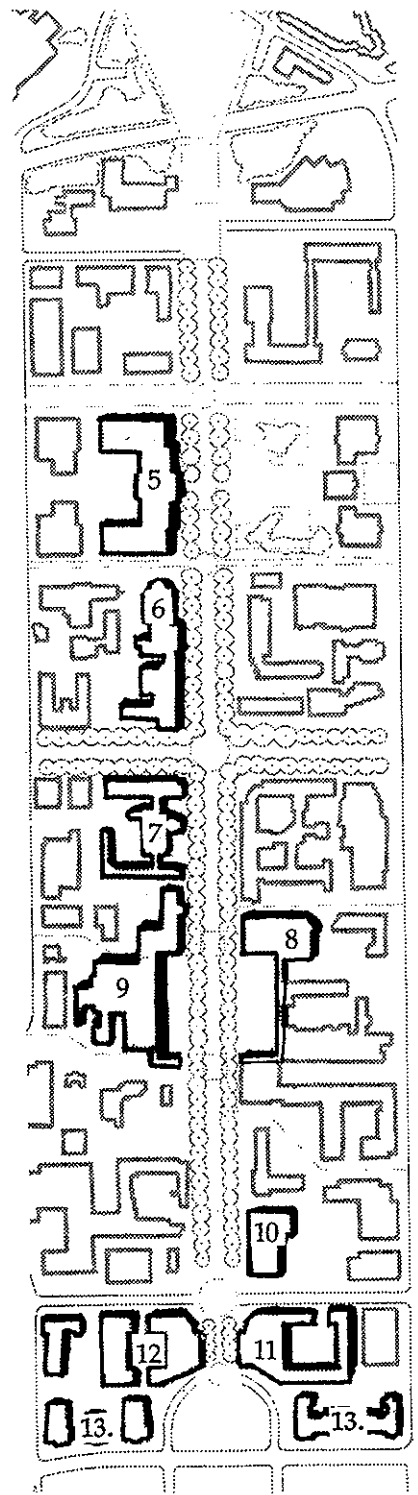


111. Interior and Exterior Circulation:
North Mall, Mid-Range Plan

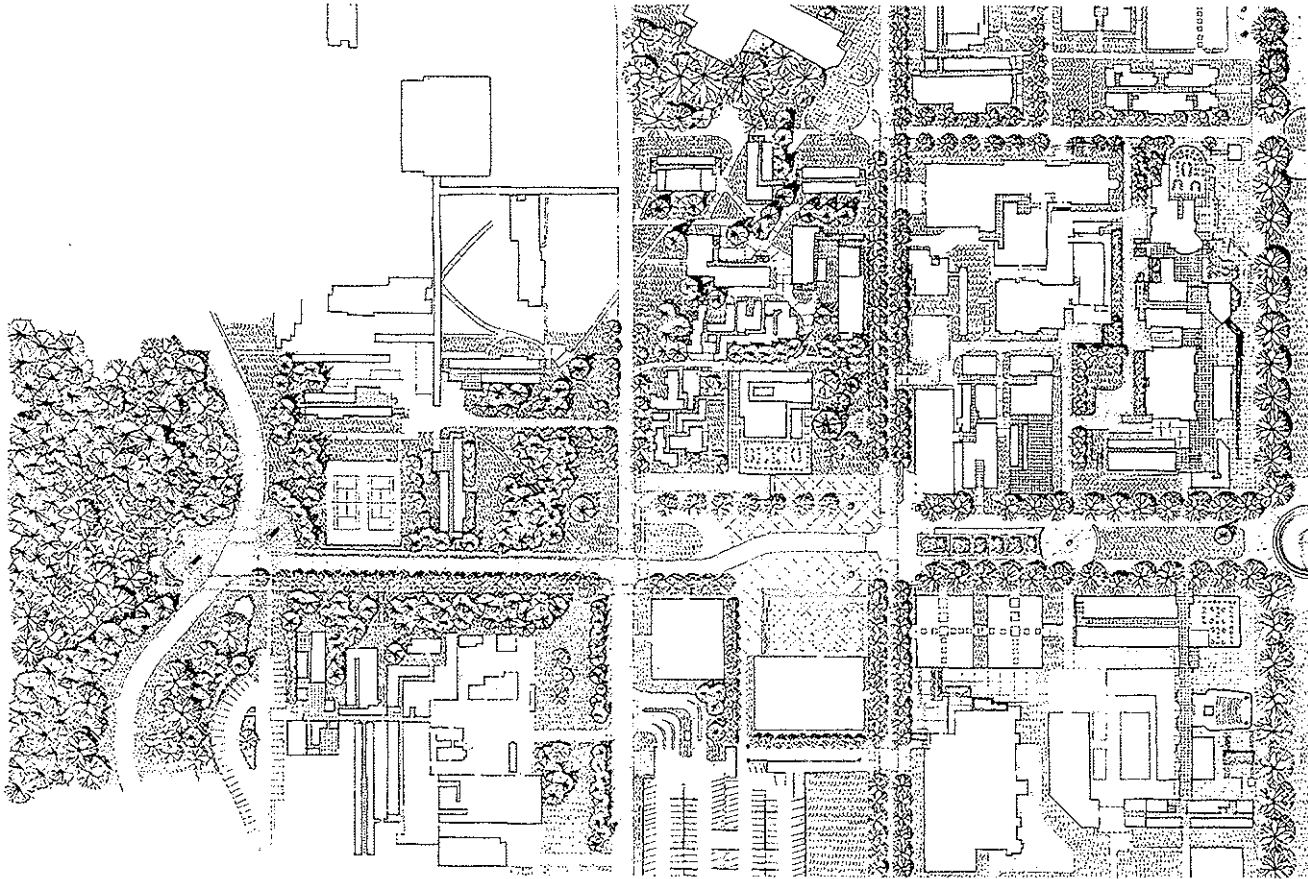


112. Interior and Exterior Circulation:
South Mall, Mid-Range

5. **Main Library** — Phase One is to be located as an extension of Sedgewick in and above the west sunken garden. Its massing will balance the height of adjacent buildings, and centre on the axis of the existing Main Library. Later expansion can occur north, south or west.
6. **David Lam Management Research Centre** — An expansion of the Faculty of Commerce and Business Administration in the form of a new Research Centre and Library, this building will include a new "Bus Stop Cafe" at grade level.
7. **Scarfe Building Expansion** — Part of a hut-replacement programme, this project will include a new library, an enlarged cafeteria, general University classroom space and offices. The new cafeteria should address the campus centre point. The offices should wrap around the children's garden which should be retained as the roof of the basement library.
8. **Academic and Research** — This building is proposed to define the north end of Fairview Square, well related to the faculties and departments with which it needs contact.
9. **Earth Sciences Centre** — This project addresses the Main Mall. The Geophysics and Astronomy Building will be demolished due to structural and interior layout problems. In its place, a two-phase Earth Sciences Centre will create a new frontage to the Main Mall, set back to establish a "Fairview Square".
10. **Centre for Integrated Computer Systems Research (CICSR)** — This building will accommodate interdisciplinary research and the Department of Computer Science. It will contain laboratory and teaching space, meeting rooms and administration offices.
11. **Forest Sciences Centre** — This building will involve seven different Faculties and will include research laboratories, major classrooms and lecture halls, study and office space, coffee room and lounge, and support space. It will be part of a two-building ensemble which brackets the Main Mall at Agronomy Road.
12. **Mixed Use Building** — The second of the pair bracketing the Main Mall, a possible building on this site could contain seminar facilities, academic space, exhibit space, student activity space, food services, public lounges, an information centre, and housing above.
13. **Housing** — Much of the housing required by the Mission target shares the two blocks at the end of the Main Mall, bringing life and mixed use activity to this section of the campus. The buildings shown have a townhouse form, three to four storeys, with front porches facing the streets.



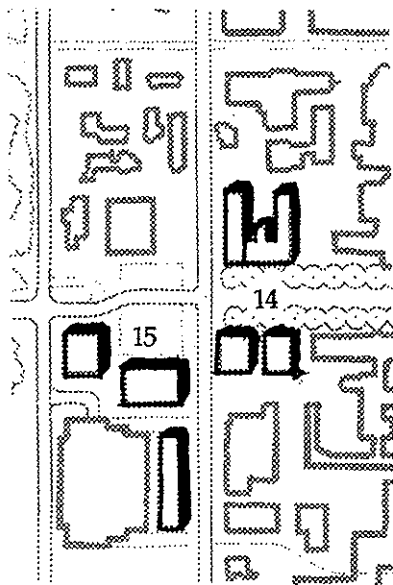
113. Main Mall: Project Locations



114. Interior and Exterior Circulation: West University Boulevard

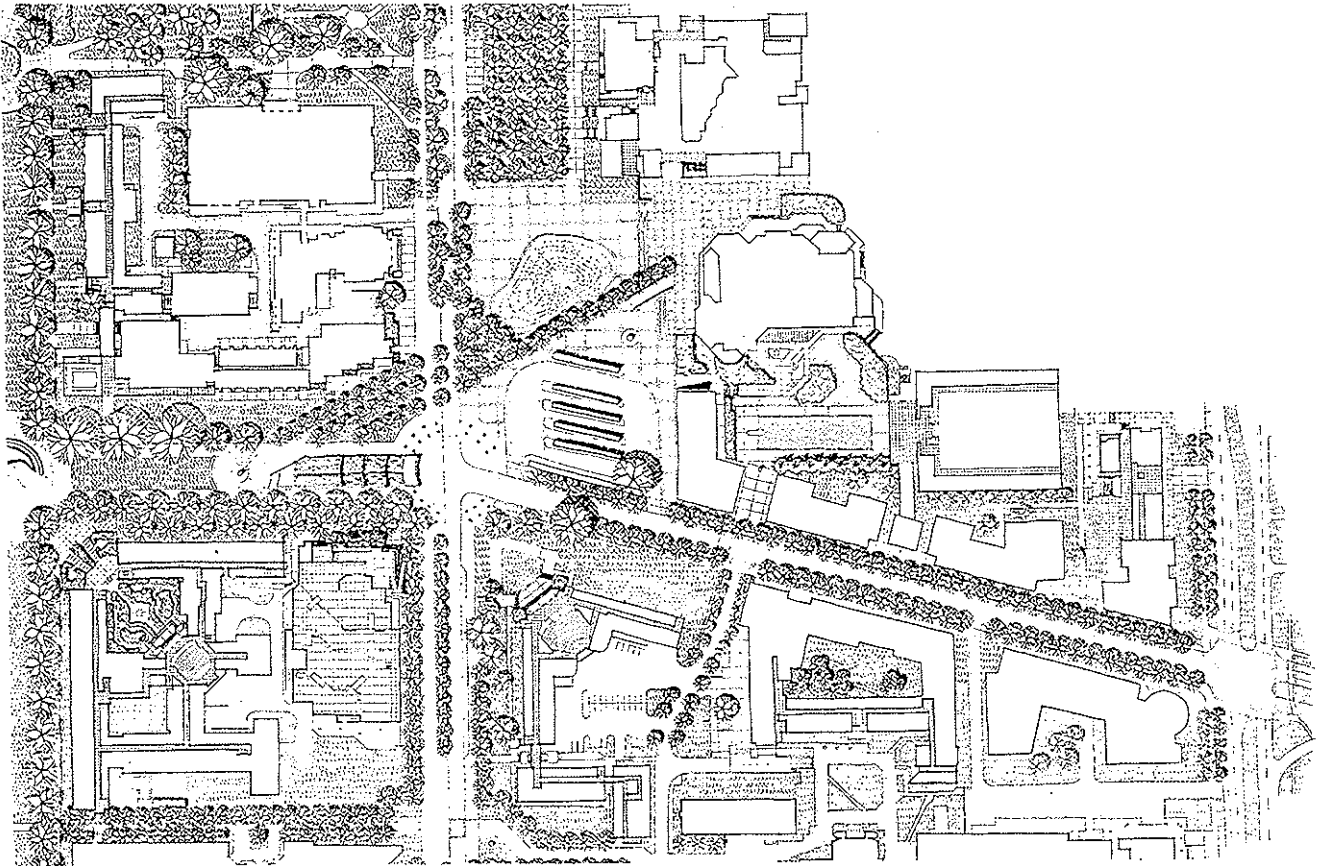
UNIVERSITY BOULEVARD

The key to giving vitality to the campus is to enliven University Boulevard by bringing public amenities to its ends, as well as its centre. At the east end, the bus terminal and the bookstore already act together as a focus, supported by the nearby Student Union Building and Aquatics Centre. At the west end, the availability of building sites, the activity generated by the Ponderosa Cafeteria, and the potentially magnificent views over the Strait of Georgia all point to the development of a major activity node or "Town Square". It could also include a second bus terminal flanked by graduate housing and a nearby parkade.



115. Ponderosa Place: Project Locations

- 14. **Future Academic Buildings** — Four small scale academic buildings, including a new School of Social Work, would best meet Plan objectives in this location.
- 15. **Ponderosa Place Housing** — Two 3 or 4 storey townhouse groups and a larger site, for a modest tower (about 10 storeys) acting as a "marker", are shown for this important threshold. The larger site could contain communal or general facilities in its base to animate the town square.

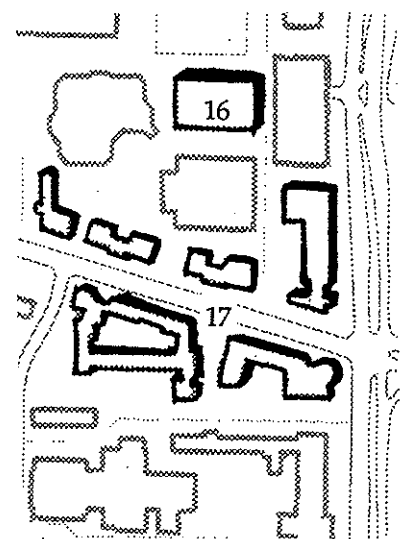


116. *Interior and Exterior Circulation: East University Boulevard*

THE TOWN CENTRE: A CAMPUS MAIN STREET

Once the partially twinned University Boulevard and its associated entrance drives are consolidated to form a normal four lane street with sidewalks and street trees on either side, a considerable amount of land will be made available. This will provide the site for a commercial main street, providing a much needed "Town Centre" for the campus. It would be in effect an extension of the existing shopping centre on University Boulevard, but developed according to a more urban model. This area is a logical location for a commercial hotel, an information centre and the wide mix of retail and semi-retail services which are necessary to meet the day-to-day needs of the University community.

16. **Student Recreation Centre** — This project includes recreation facilities to supplement those already in the area, and the upgrading of the adjacent playing field which could include underground parking.
17. **Mixed Use Buildings** — The buildings on the north flank of University Boulevard are proposed as street-related retail at grade and housing above in three to four storeys. Linkages and views to the uses behind are retained. To the south, the extension of the D.H. Copp building would have street related retail at grade and facilities, such as medical and academic offices, above. The building at the south east corner is a logical location for a hotel, again with retail or communal services at grade.



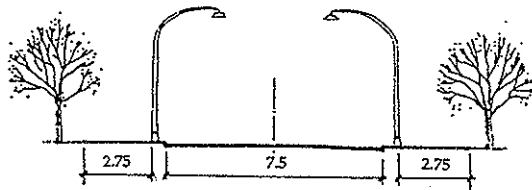
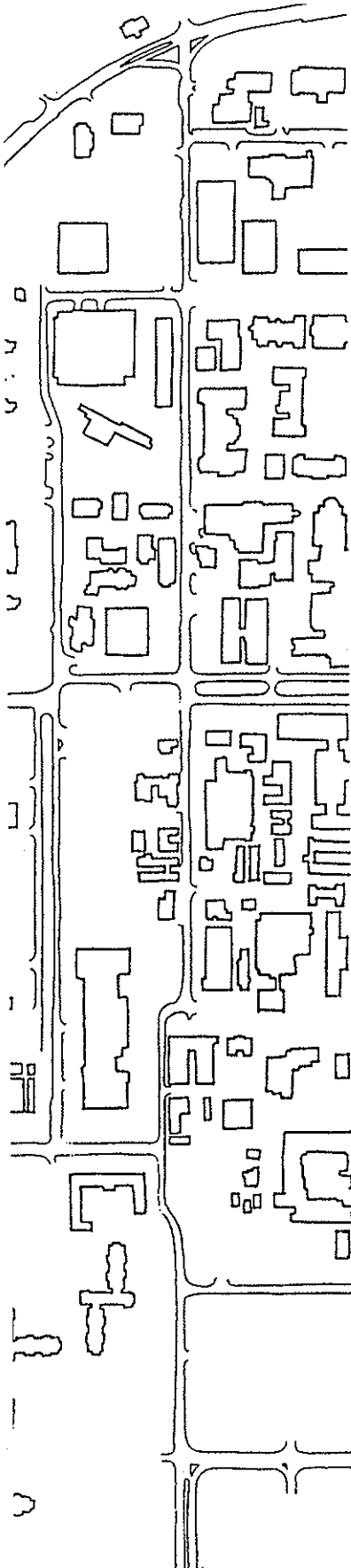
117. *Project Locations*



THE WEST MALL

Of all the streets on the campus, the West Mall has suffered the most from expediency and the lack of following a long range plan. It has been the site of "temporary" buildings since its inception, and has been largely used as a back lane to service academic buildings to the east.

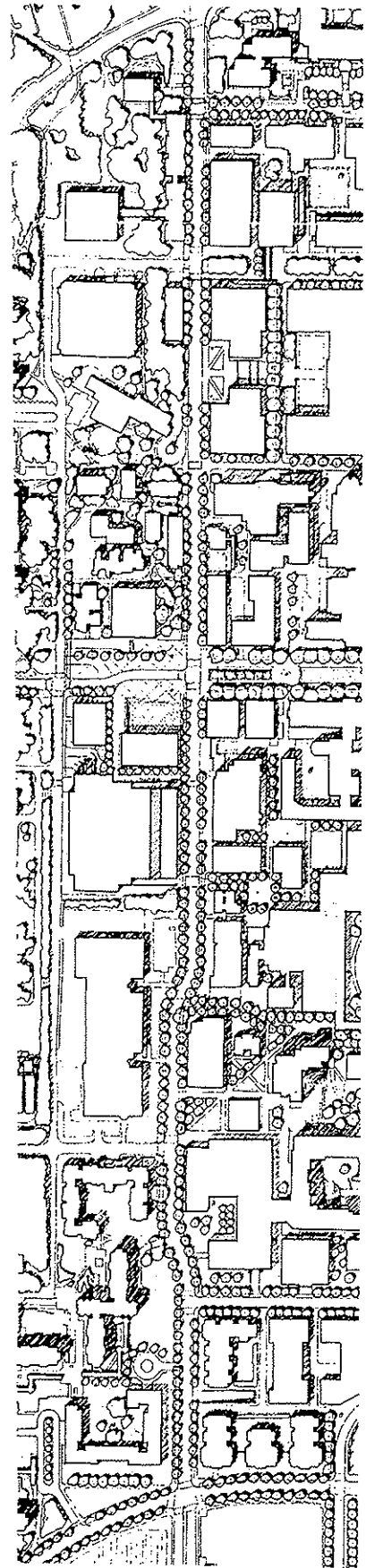
A fundamental change in character is proposed in the future. The West Mall will serve as one of the multi-use address streets on campus, accommodating cars, buses, cyclists and pedestrians. To fulfill this role, and to contribute to the image of the campus, it should be redeveloped with a roadway of approximately 7.5 metres in width, and sidewalks on both sides between 2.5 and 3.25 metres wide. The sidewalks should have distinctive paving and be flanked with benches, deciduous street trees and other furnishings to make the street an attractive and habitable public place.



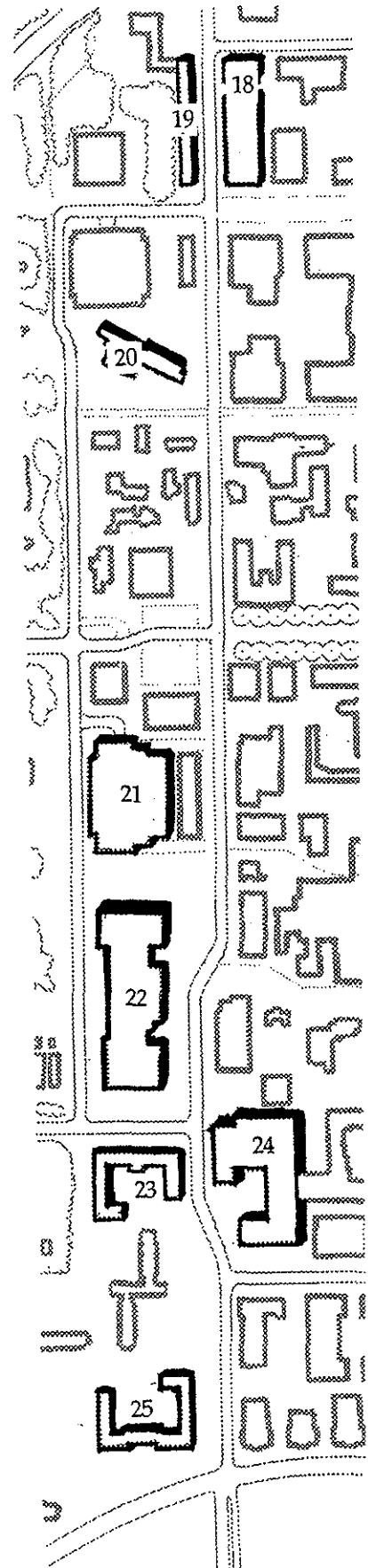
119. Sidewalk and Roadway Dimensions

120. West Mall: Proposed

118. West Mall: Existing



18. **Creative Arts Facility**— A new building and an expansion of the Frederic Wood Theatre scene shop will include a range of small studios, teaching space, workshops and administrative space. Sited to replace the existing Armory, the building should be designed as a "hill town" and "street" building with major entrances addressing the West Mall.
19. **Centre for Asian Pacific Studies** — This project involves a cluster of small buildings associated with the Asian Centre and providing academic and study space. The buildings could be treated as discrete pavilions located adjacent to the existing forest and connected to the Asian Centre. To preserve as much of the forest as possible, linked pavilions are shown located in the existing parking lot on the West Mall.
20. **First Nations House of Learning** — Now under construction, this project is designed as a traditional long house, and includes a great hall and associated facilities providing academic and student services. The building has been very carefully designed and sited to preserve as many of the old arboretum trees as possible.
21. **Lower Mall Parkade** — Intended to accommodate up to 1,200 cars, this building will be accessed from the Lower Mall. A pedestrian connection from the West Mall to the Lower Mall will be accommodated at the south and north ends of the building.
22. **University Services Building** — This building is nearing completion and will house Plant Operations (shops, storage and administration), mail services and media services in two-storey office areas and one-storey workshops.
23. **Ritsumeikan/UBC House** — This project has a 1.55 acre site and will provide residential accommodation for 200 students — half from UBC and half from Ritsumeikan University in Japan — in hotel-like accommodations.
24. **Greenhouse Replacement and Parkade** — The existing greenhouses on this site could be replaced because of their very poor physical condition, and their academic ineffectiveness. The new buildings would be large in footprint but articulated and stepped to reflect the sloping character of the site. The building design should accommodate a pedestrian connection to the MacMillan Building. In the interests of land use efficiency, the plan shows a location on the roof of a parkade.
25. **Proposed College** — A residential/academic facility could be developed at the new gateway to the campus from Marine Drive, and as a neighbour to Totem Park residences. New buildings could be organized to form a courtyard.



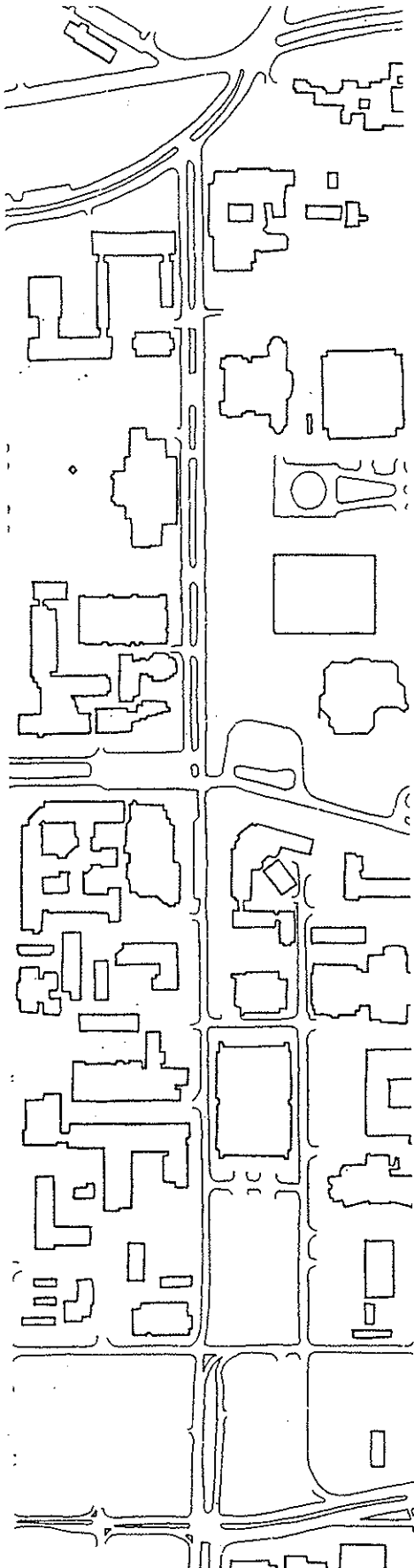
121. West Mall: Project Locations



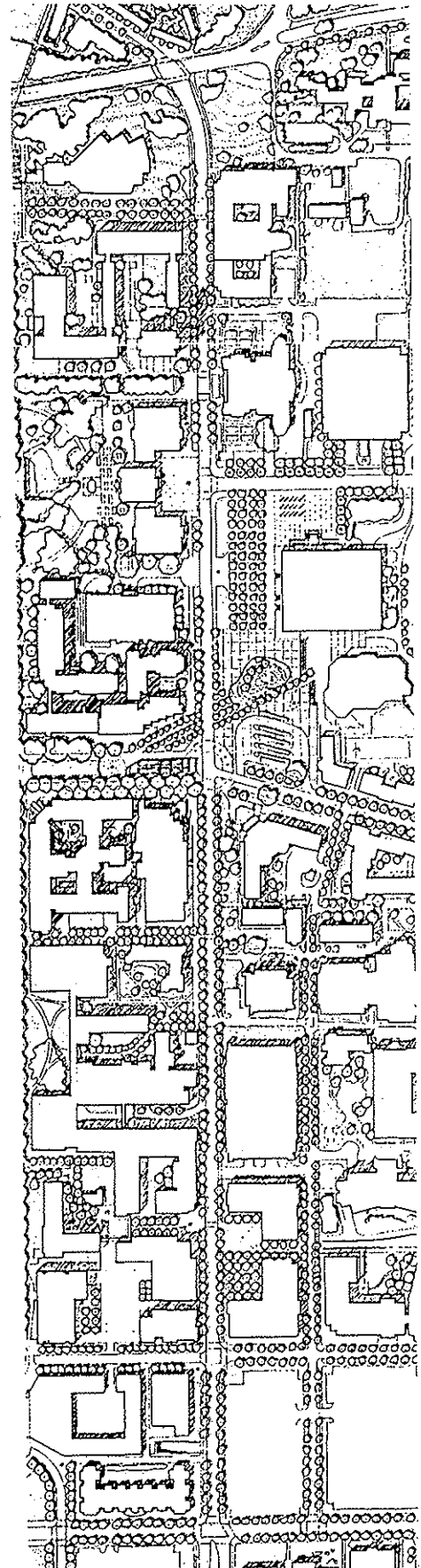
THE EAST MALL

Like the West Mall, the East Mall should be developed as a multi-use street. Enjoying considerable character in its present state, the East Mall requires upgrading rather than redevelopment. One important task would be the repaving of the largely abandoned west lane to a pedestrian surface and the upgrading of the east lane to meet the two-way street standards discussed above. The existing street trees should, of course, be retained and protected.

Because of the great quantity of pedestrians crossing this street there will be many crosswalks and many stop signs. The whole "feel" of the street will establish its pedestrian priority and vehicles will travel at slow speeds.

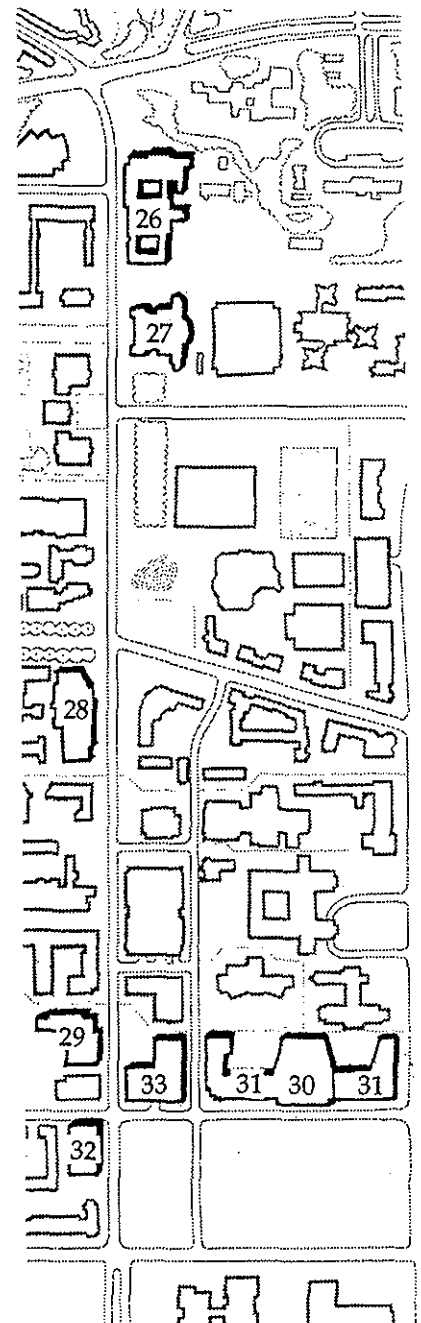


123. East Mall: Mid-Range Plan



122. East Mall: Existing

26. **Law Expansion** — Space is reserved for expanding the Curtis Building at its south side.
27. **Student Services Building** — Located behind and adjacent to Brock Hall, this building will consolidate all student services within one facility. The building will include a large public concourse and gathering space which is oriented to address the plazas and other outdoor spaces associated with the Student Union Building. Phase Two of the project will involve the reconstruction of Brock Hall.
28. **Centres of Excellence** — Research facilities have been recently completed over the existing Bookstore. The second phase expansion to the south could include a cafeteria on the ground floor.
29. **Advanced Materials and Process Engineering Laboratories** — This project will provide laboratories for collaborative research between the private sector and the University. It will be used by six departments in the Faculties of Science and Applied Science and by TRIUMF. The building will be located north of the Pulp and Paper Research Building, and will have its address on the East Mall. The project will include upgrading the pedestrian connection between the East Mall and the Main Mall.
30. **Health Sciences Parkade** — A new parkade is planned on Agronomy Road to serve the Hospital and Health Sciences Centre, permitting the existing parkade on the East Mall to serve the academic core of the campus.
31. **Health Sciences Expansion** — These sites are reserved for Health Sciences space including a four-storey research building of about 175,000 sq. ft. in the mid-range.
32. **Academic and Research** — A site for a future capital project providing research facilities is reserved on the south west intersection of East Mall and Agronomy Road.
33. **Academic and Research**— This site could accommodate two or three new academic buildings. The buildings should be organized to reinforce an important pedestrian route connecting the Health Sciences Centre with the academic core.



124. East Mall: Project Locations



APPENDIX A:

AMENDMENTS

The following are brief descriptions of amendments to the Plan which have been approved by the UBC Board of Governors, and since integrated into the main document.

AMENDMENT NO. 1
CECIL GREEN PARK ROAD EXTENSION

Content

This amendment confirms the long range intention to extend Cecil Green Park Road to create a "north loop road" linking the East and West Malls, but removes it from the Mid-Range Demonstration Plan.

See Pages 122 - 126.

Date Approved

September 17, 1992

AMENDMENT NO. 2
PUBLIC PARTICIPATION

Content

This amendment outlines public participation in *Strategy #38 – The Campus Development Process*, and *Strategy #39 – Plan Continuity*.

The University recognizes the complex and multifaceted nature of both the campus community and the larger community. The University further recognizes the ongoing need to appreciate the extensive issues and concerns relating to the growth and development of the campus. The planning objectives described in the Campus Plan are a sincere attempt to balance constituent and communal needs, institutional goals and regional citizenship. Despite the absence of formal obligation to a voting population, the University will build and maintain a dialogue with the campus community and larger community in the interest of meaningful growth and development.

The University will therefore implement a regularly scheduled two level process, one level enabling a dialogue with the general public, the other dealing with the formal representatives of agencies having practical interfaces with the physical operation of the campus. Meetings will be scheduled monthly with the General Public meeting alternating with the Agency Representatives meeting. It is anticipated that there will be a substantial overlap of information between the two levels of the process.

The University intends to present an overview of proposed significant changes to the campus and its operation. Signage describing development proposal applications will be erected on development sites. Notices regarding General Public meetings will be also be posted and publicized in UBC Reports, the Ubsysey, and the local press two weeks prior to meeting dates. Where

appropriate, the University will also contact groups and individuals, on and off campus, to further facilitate their involvement in planning and development. Particular attention will be given to those persons occupying properties adjacent to proposed developments, and extraordinary meetings will be scheduled in order to provide further information to, and seek concerns of, those who may be directly affected by specific projects.

Normally, public meetings will be attended by a member of the Board of Governors and member of the Senate and will be chaired by a senior member of Campus Planning and Development who will report the proceedings directly to the President and Vice-Presidents.

It is anticipated that this process and schedule will continue in harmony with the extent of growth and change taking place on the campus. The University will review the process on an annual basis in order to ensure optimal effectiveness.

See also Pages 114 - 117 of the Main Campus Plan.

Date Approved

January 25, 1993



APPENDIX B:

CAPITAL PROJECTS

This appendix is a reprint of the Capital Project descriptions submitted to the Ministry of Advanced Education, Training and Technology in September 1992.



I. MAJOR CAPITAL PROJECTS

01 Centre for Integrated Computer Systems

(Research/Computer Science)

This facility will provide space for the primary academic computing units: the Departments of Computer Science and Electrical Engineering, and the Centre for Integrated Computer Systems Research. Increased external research funding will facilitate collaborative research between several University departments. The facility will enhance research efforts by providing space for projects involving the University and industrial partners.

02 Tri-University Waste Disposal Facility

(Incinerators)

This facility will provide controlled disposal service to SFU, U/Vic and UBC for handling of liquid and pathological wastes. Outdated existing incinerators will be replaced by two "state of the art" units capable of safely and efficiently burning the noted wastes. Effective stack scrubbers are included in the project such that all contaminants will be removed from stack effluent.

03 Advanced Materials and Process Engineering Laboratories

This important facility will provide critical space in which to carry design projects through the process development stages to the industrial prototype level. It will also meet the urgent needs of continuing faculty, technical support staff and graduate students for shared office and laboratory space. The required expensive pieces of capital equipment cannot be justified on the basis of individual research programs or single discipline efforts. In response to the need for interdisciplinary efforts and shared resources, this project would create an adequately equipped multi-disciplinary centre for materials science at UBC. It would include faculty and students from six departments in the Faculties of Science and Applied Science, as well as from TRIUMF.

04 Scarfe Building

(Expansion/Renovation Phase I)

An addition to the Scarfe Building is urgently required to replace substandard temporary buildings presently occupied by the Faculty and to consolidate activities presently housed in nineteen locations. This new construction must take place ahead of, and concurrently with, renovations and deferred maintenance upgrading to the Scarfe Building in order to allow for functional and cost effective development. Deferred maintenance and renovation costs associated with this project are included in Phase II.

05 Pacific Research Centre for Forest Sciences

(Research and Education)

Expanded facilities for Forestry and related Sciences at UBC will accommodate new areas of research and education such as timber engineering, harvesting robotics and remote sensing by satellite. Programs housed in this facility will develop interests in forestry research among faculties and with industry and government agencies. The Pacific Centre will place UBC in a world class position in Forestry and related sciences.

06 Jack Bell Research Laboratories

(Interior Finishing)

(Previously included under general heading of Health Sciences Facilities)

Unfinished space is being provided at Vancouver General Hospital for medical research by UBC departments and staff. The space is currently being constructed and funds to furnish and equip the space is urgently required. Current UBC policy suggests that funds to complete this space should flow through the university side of the partnerships and hence from the Ministry of Advanced Education. This will be the only space provided by UBC at the VGH site.

07 Scarfe Building Expansion/Renovation (Phase II)

This is a continuation of the project that began in 1991.

08 Biotechnology Laboratory (Phase II)

This facility is required in order to accommodate activities presently located in substandard space and requiring expansion. Proposed area of project is 5,800 m² of construction adjacent to and over an existing building.

09 Chemical Engineering

This facility is required to address space deficiencies and laboratory requirements of departmental research and teaching activity. Area of the project is estimated to be 3,250m² net (1.6 net to gross — 5,200m² gross).

10 Earth Sciences Building (Phase I)

This facility will be required to replace an existing, seismically deficient building which houses Geophysics and Astronomy, and to accommodate Oceanography. Through providing physical links to the Geology Building, it is anticipated that requirements for teaching, research and support space will lead to the development of an integrated Earth Sciences Centre, including a fully functional observatory. At this time the final area requirements are not known.



11 Student Services Centre II (Brock Hall)

The facility will be the second phase of the Student Services Centre Project (funded in 1990), and will result in consolidation of all administrative services for students in one location. Phase II is required in order to reconstruct the existing structure (Brock Hall) which cannot be functionally modified in a manner which is economically feasible.

12 Health Sciences Facilities

This project will consist of several portions of new construction including space for laboratories, allied Health Sciences and health promotion in several locations, at an assumed cost of \$43 million including finishing of the Jack Bell Research laboratories.

Following development of new space, there will be significant renovations required through existing Health Sciences space totalling 7,500m² (approx. 11,250m² gross). At this time, estimates are not available for this work.

13 Faculty of Law Expansion

An addition to the Faculty of Law will be required in order to house faculty offices, research and support space, as well as provide additional teaching facilities.

Project based on:

1. Replacement of existing and provision of some new facilities 4,600m².
2. Renovate existing facilities 7,000 m² at approximately 25% cost of new facilities.

14 Earth Sciences Centre (Phase II)

This is the continuation of the project begun in 1994.

15 Instructional Space

This project will consist of one or more facilities required in order to address the requirement for adequate instructional space appropriately distributed on the campus.

16 Research Space

This project will consist of one or more facilities, as yet undefined, which will be required in order to provide additional research space required on the campus.

17 Library Centre (Phase II)

In preparing for Phase I Library Centre development, additional needs were discovered largely due to inadequacies of the Main UBC Library building (itself a collection of four separate structures). It is now urgent that the UBC Library, a provincial and national resource, be re-housed in more environmentally friendly and functionally effective space. At this time, the problem is known to be large but quantification has only just begun.

18 Buchanan Buildings Renovation/Upgrade (Phase I)

Renovation/upgrading of the five wings and tower of the Buchanan complex is, in part, overdue at this time, and will be an urgent problem by the turn of the century. It is likely that a phased program over eight to ten years will be required to service these facilities for the future. A major first phase should begin as soon as possible.

19 Chemistry Building Renovations

Restoration and upgrading of the historic Chemistry Building, located at the heart of the University is long overdue. Completion of this project will enable the preservation of a principle campus facility, the functional reorganization of its space, and the modernization of its services.

II. CAMPAIGN PROJECTS

01 David Lam Management Research Library

This facility will provide space for a specialty library serving the Faculty of Commerce and a Research Centre. This complex will play a key role in Canadian research, teaching and international trade initiatives.

02 First Nations House of Learning

This facility is intended to consolidate services and programs addressing the needs of native students on the campus.

03 Green College

This facility will provide residential and resource space for approximately 10 graduate and post doctoral fellows. This complex will play a key role in the development of the university in advanced research and academic initiatives.



04 Morris and Helen Belkin Art Gallery

The present UBC Fine Arts Gallery is located in the basement of the Main Library. It consists of approximately 3,000 sq. ft. of low-ceiling display space, with inadequate office, preparation and storage areas.

Despite these conditions the Gallery has, over the years, provided a valued program of exhibitions for scholars, tourists and the public. With new facilities the Gallery will establish a more visible presence and enlarge its contribution to the cultural life of the University and Vancouver by providing professionally mounted exhibitions. The proposal for new space meets international standards for display, security, care, handling, conservation and storage of materials and artwork.

05 Chan Shun Concert and Assembly Hall

Currently, the largest facility for performances at UBC is the Old Auditorium, constructed as a temporary building in the 1920's. The new Concert and Assembly Halls will meet the University's needs for ceremonial functions, music and theatre programs. With a capacity of 1,400 seats in the larger house and 700 seats in the smaller house, these facilities will also meet specific needs in Greater Vancouver for mid-size performance halls, with potential operating cost recovery for the University.

06 Creative Arts Centre

Already noted for its creative achievements in writing, theatre, music and fine arts, UBC needs to expand its ability to contribute to the community in both its established fields and in the areas of increasing economic importance to the province, such as film production. Studio space for the Fine Arts, Music and Theatre departments is inadequate. These departments do not have access to appropriate space to meet their specialized needs. A new Creative Arts Centre will provide efficient, centralized space for practice, performance, workshops and instruction.

07 Library Centre (Phase I)

The UBC Library is a provincial and national resource. As B.C.'s primary research library, it is used extensively by professionals from Simon Fraser University, University of Victoria, teaching hospitals, colleges and schools across the province. The information explosion and the development of collections and new technologies has created an urgent need for additional service and storage space.

08 Student Recreation Centre

This facility is urgently required to accommodate the extensive intramural activities of the UBC Student Community. It is not intended that this replace existing facilities for high performance athletics.

09 Institute for Asian Research

This project will include resource and research space required to support programs involving Asian Studies as well as an expansion of the Asian Library.

III. MINOR CAPITAL PROJECTS**01 Botanical Facilities**

There is chronic need for new and upgraded Greenhouses and Environmental Growth Chambers in several areas of the campus. A program of providing a distributed system of new facilities can be implemented over time at a rate of \$1 million per year.

02 Animal Services Facilities

There is a chronic need for new and upgraded Animal Care Facilities in several areas of the campus. A program of providing a distributed system of new facilities can be implemented over time at a rate of \$1 million per year.

IV. ADDITIONAL PROJECTS**01 National Centres of Excellence (Phase I)****02 West Parkade****03 School of Social Work****04 Ritsumeikan/UBC House****05 Faculty Housing II****06 North Parkade****07 McInnes Field Parkade****08 Health Sciences Parkade II****09 Discovery Park Multi-tenant Facility**



APPENDIX C:

SUBSET PLANS

The following is a list of Subset Plans which are completed or underway.

Date Proposed or Completed

Faculty Plans

Faculty of Agricultural Sciences	1992
Faculty of Applied Science	1993
Faculty of Arts	proposed 1993/94
Faculty of Commerce	-
Faculty of Dentistry	1990
Faculty of Education	1989
Faculty of Forestry	1993
Faculty of Graduate Studies	proposed 1993/94
Faculty of Law	proposed 1993/94
Faculty of Medicine	Outline 1990
Faculty of Pharmaceutical Sciences	1993
Faculty of Science	1992
Faculty of Architecture	1992
School of Architecture	1992
School of Nursing	1990

Campus Services and Infrastructure Plans

Library Services	-
Instructional Space	1993
Centre for Continuing Studies	1992
Administrative Services	update 1992
Food Services	1993
Parking and Security Services	1992
Urban Systems Plan	1993
Housing	1992
Public Safety	1993
Universal Access	1993
Utilities Infrastructure	-
Signage and Orientation	1993
Athletics and Recreational Services	-
Materials and Handling System	-

APPENDIX D:

BIBLIOGRAPHY

*The following is a list of reports and other publications
which were referred to in the preparation of this document.*



1. *Province of British Columbia Municipal Act*: Queen's Printer, Victoria, 1991
2. *University of British Columbia Fact Book*: The University of British Columbia, 1991
3. *Community Profile*: UBC Campus Planning and Development, 1991/92
4. *Pacific Spirit Regional Park Management Plan*: Greater Vancouver Regional District Parks, 1991
5. *Facilities Inventory Report*: UBC Campus Planning and Development, 1990/91
6. *Campus Inventory Study*: UBC Campus Planning and Development, 1988/89
7. *Creating Our Future: Steps to a More Liveable Region*: Greater Vancouver Regional District, July 1990
8. *Creating Our Future: Steps to a More Liveable Region Technical Report*: Greater Vancouver Regional District, July 1990
9. *A Review of Campus Development*: UBC Facilities Planning, January 1985
10. *Second to None: The Mission Statement of the University*: President's Office, UBC, January 1989
11. *Priorities for Student Housing; Housing Site Recommendations*: UBC Campus Planning and Development, 1991
12. *Clouds of Change, Vol.I, Task Force on Atmospheric Change*: City of Vancouver, June 1990
13. *Clouds of Change, Vol.II, Task Force on Atmospheric Change*: City of Vancouver, June 1990
14. *UBC Landscape Inventory*: Department of Buildings and Grounds, UBC, February 1966
15. *UBC: Transportation and Circulation*: John Graham, Consultants, Seattle, August 1992
16. *UBC: Master Plan Report*: Wurster, Barnardi and Emmons, Inc., San Francisco, March 1968
17. *Campus Development 1912-1980, A Historical Review of the Point Grey Campus*: UBC Facilities Planning, February 1982
18. *Facilities Inventory Report*: Campus Planning and Development, September 1992
19. *Inventory of UBC Buildings*: UBC Campus Planning and Development, May 1991
20. *Canadian University Campuses*: du Toit, Allsopp, Hillier, June 1992

