



Building BCIT

The culture, landscape and architecture of the Burnaby Campus

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Left to Right:
 Willingdon & Canada Way in the 1970s. with BCIT in the background, BCIT Archive
 Guishon Creek today
 View of SE buildings from Roper Avenue today
 Flyover image of BCIT, late 1970s, BCIT Archive

Cover
 Left to Right:
 SW lawn, looking east today
 Campus Square today
 Old PVI campus today

2 Introduction

Building BCIT is a cultural landscape study, an examination of today’s campus - its buildings and landscape - for elements that can be seen as valuable signs of the Institute’s culture from its inception to the present day.

Project Intent and Outcomes

The overall intent of the documentation of the cultural landscape history of the BCIT campus is to understand the physical changes to the campus over time that reflect historical changes in land use, policy and governance, demographics, teaching and curriculum. This understanding of the significant features of the campus and how they relate to its history is intended to evolve into a series of recommendations and guidelines to ensure that future campus development does not impact the historical values of the place.

By documenting change over time using a series of historical themes as an organizing structure, important physical features and the way the campus is used can be recognized during future planning decision-making.

The expected outcomes of the project include:

- A document that will be a useful and flexible tool with which to understand the heritage value and significant components of the BCIT campus and a set of recommendations for its future use
- A link to potential future design or heritage studies and conservation initiatives
- Direction for the use of design guidelines based on this document that will assist in conserving heritage character
- Guidance for the design and construction of new buildings and structures that are compatible yet distinguishable with the existing campus, and are a product of their own time and place

The Nature of Cultural Landscapes

A cultural landscape, or a culturally significant landscape, is a geographical area that reflects the interaction between humans and the natural environment.

Parks Canada, in its Guiding Principles and Operational Policies, defines a cultural landscape as “*Any geographical area that has been modified, influenced or given special cultural meaning by people.*”

The UNESCO World Heritage Convention Operational Guidelines and Australia’s Burra Charter use the term *cultural landscape* to embrace the diversity of interaction between humankind and the natural environment. According to these documents, cultural landscapes and features include elements such as:

- Architectural works, monumental sculpture, elements or structures of an archaeological nature
- Combinations of interrelated historical features
- Groups of buildings, as either separate entities or connected clusters which are

significant because of their architecture, homogeneity or place in the landscape

- Sites, which are works of humankind or the combined works of nature and human-kind which have historical value
- An area, land, landscape, building or structure, group of buildings or other works, including components, contents, spaces and views

Cultural landscapes fall into three general categories:

1. The *designed landscape* created intentionally by a person or group
2. The *organically evolved landscape* resulting from the social, economic, administrative or religious occupancy on the land
3. The *associative landscape* that has important intangible associations with the past

It is important to note that both built features and the natural environment are intrinsic in creating cultural landscapes, which may illustrate:

- The integration of built, designed and natural landscape elements
- Patterns of human activity on and around a site or historic place
- Points of view, philosophies or ways of doing things that are a product of a particular place and time
- Meanings which denote what a place signifies, indicates, evokes or expresses for certain people or cultures
- Associations, or the special connections that exist between people and a place, historic event, activity or person

Project Methodology

This cultural landscape document was developed using the following methodology:

1. Development of the historic context statement

The historic context statement tells the overall story of the history and development of the BCIT campus. Any heritage building or feature must be considered in the context of the history and historical geography of the area surrounding it in order to obtain a meaningful understanding of its significance.

Developed chronologically, the context statement for the BCIT campus documents the origins of the campus as the Pacific Vocational Institute post WW II and the opening of BCIT in 1964. It explores the role of the vocational and technical institution in the BC and wider contexts, identifies the role of government, and documents social and physical changes on the campus, concluding with changes after the merger of PVI and BCIT in 1986 and the emergence of a polytechnic institute in the early 21st century.

2. Creation of the thematic framework

Historical themes are succinct ways of describing the major forces or processes that have contributed to the history of a place. They are useful contexts for a detailed understanding of the significance of a heritage building, structure, landscape or event. Developed with a broad scope, thematic frameworks ensure that the full extent of the history of a landscape or place is considered, instead of a focus on one particular building or time period.

The thematic framework for BCIT was developed from the narrative of the historical context and on-site observation and documentation, distilling the history of the place into five over-arching themes:

Theme A: The Brunette Basin

Theme B: Form and Function

Theme C: Incremental Development

Theme D: Innovation with Industry

Theme E: Building Community Life

3. Use of the thematic framework to document significant landscape characteristics

Current best practices in the documentation and assessment of cultural landscapes uses a series of landscape characteristics to comprehensively identify features of heritage significance. Individual features in the landscape are not viewed in isolation, but rather in their relationship to the landscape as a whole. The documentation of the landscape characteristics of the BCIT campus takes into account all of its features and how they represent a particular theme. Landscape characteristics may be important to more than one theme; each theme may not necessarily contain every characteristic.

Components of the cultural landscape include:

- Natural systems and features
- Spatial organization
- Land use
- Cultural traditions
- Circulation
- Topography
- Vegetation
- Buildings and structures
- Views and vistas
- Constructed water features
- Small-scale elements
- Archaeological sites

For each of the five themes, those characteristics that best represent the history embedded within that theme are identified and mapped.

4. Synthesis of collected information

The collected information from the historic context statement, thematic framework and landscape characteristic documentation provides a clear direction for heritage conservation, future campus development, and design and interpretation. Understanding what is important and why ensures that future decision-making will not impact unduly the significant features of the campus.

The information synthesis has resulted in a series of recommendations that address next steps, future planning initiatives, conservation strategy, the use of design guidelines for both built and landscape elements, and the potential for interpretation and public art.

The Cultural Landscape at BCIT

While the BCIT Burnaby campus opened its doors just 50 years ago, the mark of the evolution of the institution is evident in its layered cultural landscape, and found in its landscape characteristics.

The site's topography, dominated by a natural basin, and the now-daylighted Guichon Creek are natural features that have impacted the development of the site. The earliest buildings are repetitions of two building types, to suit either classroom or instruction and hands-on workshop experience, while those dating from the 1960s reflect a European ideal of functional design. While the built environment predominates, traces of early social and academic spaces, and ornamental vegetation remain.

These landscape layers and their significant characteristics are documented in the thematic sections that follow.

3 A Brief History

The Setting

The BCIT campus is situated in the Brunette River watershed that includes Still Creek and, running north-south through the BCIT campus, Guichon Creek. The scrubby wooded area was used by First Nations people primarily for hunting (bear and deer) prior to being logged following European settlement. The Brunette Basin's waterways were historically full of fish, such as Coho, Chinook, and Chum salmon, cutthroat and rainbow trout, steelhead, prickly sculpin, stickleback and others, and functioned as important wildlife habitat.

As timber lease land surrounded by early farms - with orchards, horses and cattle - the natural environment was utilized by early sawmills in the area. By 1912 Guichon Creek had become home to the Phillips-Hoyt Lumber Company which put a dam on the waterway to create a canal for transporting logs to a storage pond and a sawmill on the site now occupied by the British Columbia Institute of Technology. The pond became a favourite fishing place and swimming hole for the locals.

In the years following World War II, the second growth mixed forest was cleared, leaving remnants still evident at the south end of the site.

The Institution's Beginnings

The British Columbia Institute of Technology opened its doors to nearly seven hundred students in 1964, amidst considerable celebration by the provincial government and industry leaders. The event helped to mark the beginning of nearly a decade of rapid expansion of public post-secondary institutions in the province that also saw the creation of two new universities (The University of Victoria, 1963, and Simon Fraser University, 1966) and fourteen new community colleges. BCIT, as the new Institute of Technology came to be known, had a unique role to play in this expansion. From the beginning, it was to specialize in the training of highly-skilled technicians and paraprofessionals who could do sophisticated, practical work in demand by industries of the province. It has kept that mandate ever since, although the nature of the skills taught, the credentials provided, and the business of operating the Institute have changed in some significant ways.

Roads to BCIT

The province had few public post-secondary institutions until the 1960s. Before then, the only significant public institutions were the University of British Columbia, its affiliate Victoria College, The Vancouver School of Art, and the Vancouver Vocational Institute (VVI), operated by the Vancouver School Board and which had absorbed the earlier Vancouver Navigational School. The VVI was a legacy of the large infusion of federal money for civilian training during the Second World War and veteran education following the conflict. It provided trades courses of varying duration, upgrading courses for journeymen, and the in-school portion of apprenticeship programs. Proprietary schools, parochial colleges, informal apprenticeships, on-the-job training, and the traditional strategy of migration and immigration accounted for most of the province's skilled workforce.

As the 1950s progressed, the demand for vocational training grew as the province enjoyed economic growth, particularly in resource industries. At the same time, the busi-

ness-oriented Social Credit government that took power in 1952 eagerly promoted expansion of the province's infrastructure. Enrolment at VVI increased so that by 1955 the overflow of apprenticeship classes was housed on the grounds of the Pacific National Exhibition in East Vancouver; in 1957 the provincial government began to administer these programs which became part of a new Federal-Provincial Trades and Technical Institute the following year.

Events outside the province also spurred growth in vocational training. The launch of Sputnik by the Soviet Union in 1957 spurred the "free world" to ask how the communists had taken the lead in space. Education was partly blamed, and western governments responded with a range of new policies and institutions that emphasized science and technology education. At about the same time, the Canadian economy stalled briefly, leading to a sudden jump in unemployment that prompted policy-makers to emphasize vocational training as a means of entering the workforce. The Canadian government responded to these concerns with the Technical and Vocational Training Assistance Act in 1960, providing an unprecedented amount of money to the provinces through a matching-fund formula. In anticipation of these funds, British Columbia announced plans for its own permanent training facility in 1959, which began operating the following year as the BC Vocational School – Burnaby, absorbing the Federal-Provincial Technical Training Institute mentioned above; several additional regional vocational schools were built across the province in the following years. In 1960, the province entered into an agreement whereby Ottawa would pay for 75 percent of capital costs and 50 percent of operating costs for new vocational institutions, including several additional vocational schools across British Columbia.

But more was at stake in British Columbia. The province's industries were growing in size, sophistication, and ambition, and ready to incorporate the most recent technological advancements. The 1960 provincial Royal Commission on Education (the Chant Report) joined the Bridge Report (the result of an inquiry into technical training needs of the province, began in 1959, recommending new institutions for British Columbia to train highly skilled technologists.) Premier W.A.C. Bennett and his cabinet eagerly tapped into the mood and the federal funding, announcing a new institute of technology in 1961. It would prepare job-ready graduates for public and private industry with two-year diplomas in engineering technology, commerce, and health sciences, the latter in anticipation of massive federal aid to expand health services.

A government institution, 1960-1974

Planning for the new BCIT by the Ministry of Education began immediately, with advice from a council of industry representatives and university faculty. Council members visited other North American technical schools for ideas, and secured the support of local industrial managers to ensure that graduates had a valuable employment qualification. Premier W.A.C. Bennett himself kept a particularly close watch on the new development, personally signing all but the smallest cheques and approving all expenditures for out-of-province travel.

BCIT was placed adjacent to the Burnaby Vocational School (later to become Pacific Vocational Institute), on the south-east corner of Willingdon Avenue and Grandview Highway (later renamed Canada Way) in the quickly growing Vancouver suburb of Burnaby. The site, now covered with second growth forest, was by 1960 between residential neighbourhoods to the east and west, and just south of an area of light industry. A later BCIT administrator noted that the setting was “sensible, rather than spectacular, but we do have a great view of the mountains—on a clear day.” Architects McCarter, Nairn, and Partners joined Ministry planners to present building designs for construction which began in 1962.

The new buildings (the original block, SW1, a cafeteria, and a mechanical laboratory) held didactic classrooms and laboratories for the three curricular areas: science (engineering), business, and health (plus a “core” department of basic science, mathematics, and English) to confer two-year technology diplomas. Nursing joined health a couple of years later, completing a general curricular pattern that remained intact for some fifteen years. For the first decade, the science (engineering) programs were by far the most popular. Many programs required expensive equipment of tens of thousands of dollars each, from x-ray machines to computers and real-life simulation environments. The medical health technologies in addition required the approval of health authorities and cooperation with a hospital. Each curricular area had an industry advisory council, a tradition that has remained in one form or another.

First Programs, 1965-66

- Broadcast Communications
- Building Technology
- Business Management
- Chemical and Metallurgical Technology
- Civil and Structural Technology
- Electrical and Electronics Technology
- Food Processing Technology
- Forest Products Technology
- Gas and Oil Technology
- Hotel, Motel, and Restaurant Management
- Instrumentation and Control Technology
- Mechanical Technology
- Medical Laboratory Technology
- Medical Radiography Technology
- Mining Technology
- Surveying Technology

Faculty and staff of BCIT were chosen for their knowledge and industry experience. Typically, instructors had an undergraduate degree and a professional designation if applicable. Cecil Roper, for example, the first Principal of BCIT, was a former mining engineer who had become a mine manager. Subsequent principals increasingly had experience in

educational administration, rather than a teaching subject area. Appointed Heads in the more than a dozen departments similarly held power at their respective level. Many of the staff in the first decade had served in the Second World War, and were quite accustomed to a top-down, if paternalistic, organizational structure. Staff, faculty, and guest lecturers were mostly men, except for a few instructors in the medical technology programs, the clerical staff, the librarian, and the nurse.

BCIT opened with some 650 students, a waiting list, and expectations for the number to double the following year when the initial students moved into their second year. Applicants required graduation from high school (grade twelve) for an academic or university program, or grade thirteen (senior matriculation) for the medical technology programs. A significant number of students (25 percent by some estimates) were mature students with several years of work experience, and even some university education; this pattern has continued. Students were required to be serious, diligent, and properly dressed (jackets and ties for men, dresses or skirts for women). Like their instructors, men dominated the student body, although the new nursing and health technology programs introduced in the later 1960s brought more women to campus, both as students and as instructors. By far the students of BCIT were of European descent, although a few names were Japanese and by 1970 there were enough students of Chinese descent to start a Chinese Club. In the second year of operation, BCIT began a night school program for part-time students, emphasizing business and also technology courses; night school enrolments soon surpassed day enrolments considerably. Although the Institute gained an almost instant reputation for producing highly employable graduates, the programs were continuously evaluated according to industry demand for trained personnel, and programs were suspended, modified, or reintroduced as warranted.

The following table shows the growth of total enrolment in the early decades of the institution’s existence:

Enrolment							
Year	Bus.	Eng.	Health	Day total	Industry Services*	Career Programs	Total
1964-65	126	413	108	647			647
1965-66	247	627	124	998			998
1966-67	345	741	132	1,218			1,218
1967-68	492	953	358	1,803			1,803
1968-69	650	1,255	535	2,440			2,440
1969-70	741	1,341	595	2,677	120		2,797
1970-71	812	1,452	586	2,850	560	2,995	6,365
1971-72	809	1,464	630	2,903	1,020	3,750	7,673
1972-73	772	1,481	749	3,002	2,165	5,100	10,267
1973-74	796	1,469	814	3,079	3,850	5,960	12,889
1974-75	793	1,406	840	3,039	4,100	7,192	14,331
1975-76	918	1,487	776	3,181	4,000	8,990	16, 171
1976-77	1,046	1,565	849	3,460	4,754	12,300	20,514

* courses taught under contract and on-site for industry

Source: 1977 BCIT Annual Report (note that numbers do not agree with those reported in Ministry reports of the 1960s and 1970s

As student numbers grew through the 1960s, they felt empowered to complain about the mandatory dress code, poor food services, poor recreational facilities, and lack of parking but were otherwise preoccupied with their studies and careers upon graduation. The student movement experienced at UBC and nearby SFU seems hardly to have touched the Institute. A student newspaper editor in 1969 wondered dubiously "...could the rigid conformity of BCIT's order be swallowed up in the tide of student revolt?" Still, students initiated philanthropic traditions such as Shinerama (to raise money for cystic fibrosis), hosted a speaker on transcendental meditation, danced to the sounds of The Guess Who and the Poppy Family, and successfully petitioned the Advisory Council for sports facilities, albeit temporary ones. Full-time day-enrolment plateaued during the 1970s as the economy grew increasingly sluggish, but the facilities never really kept pace with demand; by 1975 a number of portables had to be installed.

As student numbers continued to increase, instructors began to complain about increasing class sizes and their workload. Part of the problem was a change in the federal funding agreement, which shifted in 1967 from direct payments to the provinces for post-secondary education to transferred tax credits, and the purchase of seats for individual students. Critics charged that British Columbia's Social Credit government was reluctant to pay the bills for its new schools despite the tax transfers. BCIT instructors also joined a larger Canadian movement to introduce a measure of democratic governance in post-secondary education. The newly-elected NDP government passed the BCIT Act in 1974 to create an independent governing board for the Institute that included faculty and student representation, although most members were appointed industry representatives. The Board became responsible for the governance and internal administration of the Institute, with powers to adapt policy and practices to address current issues.

The new government also permitted – even encouraged – civil servants to organize unions. After a year of negotiation and debate, BCIT instructors opted to form a "Staff Society" in 1974 for collective bargaining, while support staff formed a local of the BC Government Employees' Union. Institutional culture shifted a little when the title "Ms." appeared in the calendar for the first time, the student dress code relaxed (although the Calendar until at least 2004 continued to encourage students to dress "appropriately"), a pub opened on campus, and student publications contained an increasing amount of crude and irreverent material.

Independence of Sorts, 1975-1986

The Social Credit government that returned to power in 1976 followed the international trend to reduce government services and cut costs. At first, the Socreds expanded the post-secondary system somewhat, most notably by creating the Open Learning Institute. The 1977 Colleges and Institutes Act defined BCIT as a provincial rather than regional institution, and helped to create a more integrated and efficient provincial system of post-secondary education coordinated by Victoria. The 1977 Act also gave corporate status to BCIT and other colleges and institutes so they could exercise more powers to, for example, borrow money or sign contracts. At the same time, the government supported intermediary councils to oversee the colleges and institutes, thus keeping

them at "arm's length."

Campus development slowed considerably during the economically sluggish 1970s, although in 1976 a new teaching building (SE 12) was opened after several years of construction, and in 1978 BCIT provided students with the residences they had demanded for years. Five years later, through student fundraising and matching grants, BCIT opened its new Student Athletic Centre to provide an outlet for student recreation and sports activities. The neighbouring Burnaby Vocational School (re-named Pacific Vocational Institute in 1977) picked up a couple of new buildings in areas of demand, the Inglis building in 1977, and a building for welding instruction (1978) and for electrical trades training (1980).

In many ways BCIT continued its original pattern. The three main curricular areas had been renamed the Business Management, Engineering, and Health Divisions, with many familiar program names but with new additions in such areas as business computing, bio-medical electronics, environmental health, psychiatric nursing, and different forestry options that included forest and fish and wildlife management. All these reflected new technologies or new employment opportunities in government or private industry. Student demographics had changed little from the first decade, although enrolment in business programs was by 1980 nearly as large as those in engineering, and a greater proportion was female. The enrolment rate was growing slowly, some 3,887 full-time day students in 1980, but the continuing education (night school) courses remained very popular. In 1978, BCIT began to offer classes in downtown Vancouver to meet demand, particularly in business management fields. Of the 11,340 students enrolled in continuing education courses, some 8,000 pursued courses in the Business Division.

However, external politics were changing. By 1982, BCIT was under pressure to conform to a new series of Ministry objectives designed to encourage efficiency and accountability within the provincial system and to introduce additional government oversight. For example, courses could be redistributed within the system for perceived benefit; BCIT consequently lost some programs and gained others. The Institute also began cooperating with the Open Learning Institute (renamed the Open Learning Agency after merging with the Knowledge Network) to provide part-time programs via distance education. The Socreds were additionally interested in new economic opportunities with Asian countries and the new emerging high-tech industries. BCIT cooperated with these trends by creating an advisory Education Council, engaging in overseas teaching projects sponsored by CIDA, and by drafting five-year plans to address a shift toward high-technology. The 1979-1984 Development Plan by consultants Brawn Parsons Wood called for the construction of additional class room space, but this would not happen for quite some time.

Service to industry became an area of growth at BCIT, particularly after the provincial government announced in 1979 its intention to build a Discovery Park nearby. Discovery Parks were designed to house high-tech laboratories that joined government, industry, and academic researchers; the two nearby provincial universities, UBC and SFU, were also part of the program. BCIT's role at the Willingdon Discovery Park was to facilitate technology transfer and applied research, rather than conduct basic research. In an

uncharacteristic show of political activism, a BCIT student threatened to sue the government to disclose the nature of research proposed for the Park, while students at UBC and SFU similarly protested the “unholy alliance between big business and big government.” Nonetheless, after negotiations with and approval by the Burnaby municipal council, BCIT’s Discovery Park proceeded and became an ongoing site for industry collaboration.

At the same time, BC’s economy went from bad to worse as the inflationary period of the late 1970s became a recession in the early 1980s. Funding for post-secondary education saw a series of cuts as the Socreds began a period of restraint, forcing BCIT and other provincial institutions into austerity budgets. BCIT’s support unions conducted job-action in 1982 and 1983. Also in 1983, the province eliminated all student, faculty, staff, and community representation from the Board of Governors, and reduced the minimum size of appointed Board members from fifteen to five in an effort to centralize control of BCIT. Instructor lay-offs, increases in student fees, and enrolment restrictions followed. In February 1985, the government announced a 10 percent cut to the BCIT budget, some \$3 million, a harder blow than most other colleges and universities in the province received. One of the most visible new policies in 1986 was the merger of BCIT with its neighbour, Pacific Vocational Institute, the former BC Vocational School - Burnaby.

Like BCIT, Pacific Vocational Institute had its origins in federal funding. Although PVI’s predecessor, BC Vocational School – Burnaby, was an off-shoot of the Vancouver School Board’s Vancouver Vocational Institute, federal funding was a crucial part of its growth when it opened in 1960 with some four thousand day and night students enrolled in fourteen programs from short trades courses to extended training of up to a year in sophisticated skills like aircraft maintenance. Total enrollment climbed steadily during the 1960s to over nine thousand in 1970, with growth shifting from one vocational area to another depending on demand. For example, the province’s large hydro-electric projects of the late 1960s increased enrollment in welding programs. When the federal funding agreement changed in 1967, Canada Manpower continued to provide considerable funding by purchasing spots for eligible students.

Campus development had also grown, beginning with eight well-ordered steel warehouse-like workshops (e.g. NE2, 4, 18, 20 and NE21-24, some built as early as 1957) and a concrete and frame building for painting and decorating (NW3). Every few years a new building was erected to provide training in a specialized vocational field that had grown in demand, including bricklaying and machine shop buildings in 1964 (NE10, NW6), steel trades (NE12) and horticulture (NE3) buildings in 1971, and the multi-purpose Inglis building (NE1) begun in 1973 but opened in 1977.

The rate of enrollment increase slowed during the economically troubled 1970s, but the creation of PVI in 1977-78 through a merger with the Maple Ridge vocational school added an additional 1,200 students for a total of some nine thousand. The Burnaby campus had approximately twenty-five buildings and soon gained several more: the electrical building in 1979 (SE 1), the welding building in 1982 (NE 8), and the applied technology centre (NE 25) in 1982. The first and last of these indicated a shift at PVI toward programs in the nascent high-tech fields. Over the years, BCIT and PVI had cooperated

with one another, on the understanding that development at one site could affect development on the other.

When PVI and BCIT merged in 1986, many observers praised the initiative as a logical step that brought together two institutions with a similar educational mission. Even opposition politicians supported the move, although they criticized some of the details that seemed antagonistic to the unions. Critics were less enthused, regarding the merger as a political ploy to reduce staff, weaken unions, and centralize decision-making in Victoria, first at BCIT and then at regional colleges across the province. The administrative reorganization did result in staff reductions and cost-savings and the closure of the Maple Ridge Campus of PVI, but was not quite successful in providing the unified institution envisioned by reformers. The support staff unions were successfully combined, but instructors at PVI remained members of the BC Government Employees’ Union while instructors at BCIT remained in their Staff Society. Despite administrative integration, program areas remained distinctly “vocational” or “technological,” and physically the campus had a north end of workshops and industrial yards which contrasted with a south end of classrooms, high-tech laboratories, and new student amenities.

A New Mandate, 1986-2001

Following the merger of BCIT with PVI, the new BCIT looked a little different administratively. The system of Presidents, Vice Presidents, and Deans that had slowly crept in during the earlier 1980s was firmly in place, indicating a commitment to professional management. BCIT was more business-like in its organization, operation, and goals. In 1986, the Institute adopted a mission statement (perhaps its first) “to provide trades and technology training for the citizens of British Columbia” and “to become a centre for educational excellence in trades and technology training.” Two years later, BCIT presented itself a little differently as “an innovative and flexible advanced technology enterprise which will focus on those initiatives that increase the level of entrepreneurial activity within the province.” This new mandate included service to industry through applied research, technology transfer, and training in high-tech fields, and cooperation with the universities, other research institutions, and the provincial and federal research councils. To support the first goal, BCIT launched its Technology Centre in 1989 at a site across the road from the main campus (the CARI building) and hired researchers. As an indication of support for the second goal, the School of Business by the early 1990s graduated more students than any other administrative unit.

BCIT reorganized its curriculum to reflect the new priorities that had been discussed over the previous five years, and to display a new philosophy of “trades to technology” which attempted to integrate the range of programs available. The Diploma Programs were divided into five schools: Computing and Electro-Mechanical Studies, to emphasize the new programs in computer systems, computer aided drafting and manufacturing, robotics, and electronics; Construction and Natural Resources Studies, to continue and extend traditional programs related to construction, surveying, forestry, food and agriculture, and chemistry; School of Health Sciences Studies, combining traditional nurs-

ing and technologist programs with new ones in biomedical electronics, environmental health, orthotics and prosthetics, and health information technologies; and School of Management Studies, which combined traditional areas such as business management, broadcasting, and hospitality management with new areas such as Operations Management, which included options in transportation/distribution and international trade. Many of the programs included courses on the use of microcomputers, which were growing in popularity. In addition, some Diploma programs carried an additional year of study, while part-time study was recognized in its own administrative unit, in addition to continuing studies. The earlier “core” courses came under a new School of Academic and Vocational Studies, while the vocational and trades programs remained together as Trades Training. The move to high-tech had taken a big step forward, as had “academic drift” toward longer and more sophisticated programs. At the same time, BCIT had a new mandate to continue vocational programs that themselves were increasing in their sophistication.

Campus development, which had been of concern to planners since the early 1980s, continued to wait. Additional government funds were made available for a new Applied Technology Centre (NE25), which was opened in 1985, but government funding was in decline; it would take five years of aggressive fundraising before long-desired renovations and new construction could begin. A master plan adopted in 1989 noted the ageing facilities, but BCIT administrators recognized that it could take up to fifteen years to introduce all the required renovations and expansion to meet forecasted enrolment. By 1991, construction had begun on several new buildings (IBM Building, SE6; connector building, SW2; and the multi-purpose student and administrative centre, SE2), renovations, and infrastructure projects such as seismic upgrading and fibre optic telecommunication lines.

The government of the late 1980s was also interested in increasing post-secondary access in the province more generally, for which there was additional government funding. BCIT responded accordingly with new initiatives to welcome women (especially in trades), visible minorities, Aboriginals, and people with disabilities. The rise in part-time enrolment shifted the average age well into the mid-20s, as women were making small gains in enrolment numbers (some 23 percent of the total student body by 1993), especially in business programs where they comprised nearly half the registrants. Heightened concern for student security prompted the Institute to build several blue safety kiosks across the Burnaby campus. The Institute even entered into competition with the universities, placing ads in nearby student newspapers to recruit domestic students while courting international students, who typically paid three times the fees of domestic students; by 1991, the Institute had ninety-five international students and a growing program of international education projects.

BCIT, already involved in distance education via television, was quick to explore the educational possibilities of the internet thanks in part to the government “Skills Now” initiative. Programs were re-organized into modules for more flexible student access without added costs to provision.

Part of the province’s access initiative was to increase the opportunity to earn a degree.

At first, BCIT combined several part-time courses and offered them as certificate programs, often in cooperation with external credentialing bodies, particularly in business fields. Then, in 1989, the province created several new “university-colleges” across the province and provided legislation to enable BCIT to offer a degree in technology. BCIT converted its advisory Education Council into a sort of academic Senate in 1994, with powers to make decisions regarding academic standards and performance, and the new NDP government reinstated faculty, staff, and student representation on the Board of Governors. BCIT granted its first Bachelor of Technology degree in 1996. Other programs were also increasing in duration and sophistication, with three-year diplomas, one-year post-diploma programs, and new high-tech programs in biotechnology, cytogenetics (which required a science degree for admission), biomedical engineering, and computer animation. By the end of the 1990s, BCIT’s programs were divided among ten areas: Bachelor of Technology; Academic Studies; Business; Computing and Information Technologies; Construction; Electrical and Electronic Technology; Health; Manufacturing and Industrial Mechanical; Processing, Energy, and Natural Resources; and Transportation.

Although the Burnaby campus acquired several new buildings during the 1990s, physical expansion also came in the form of new “satellite” campus locations. BCIT had already acquired the aerospace training centre located at the Vancouver Airport when it merged with PVI in 1986, and in 1994 BCIT absorbed the Pacific Marine Training Institute, the local provider of marine navigation training that had existed continuously (in several organizational forms) since 1938. In 1996, BCIT opened a permanent facility in downtown Vancouver with state-of-the art electrical systems, helping to define an “education district” in the city. In 2000, Finning Tractor donated land near False Creek for a mix of educational and industrial development. BCIT joined other local universities to offer specialized training and education.

A Polytechnic Institute, 2001-2011

In the final decade under consideration here, BCIT remained committed to its mandate to produce graduates with job-ready skills in demand by local and, increasingly, globalized industry. Enrolment areas changed with technologies and demand. For example, the explosion of the internet saw new programs in web design and web marketing, while the local “leaky condo” crisis and global concern for global warming prompted serious research and education into building science. The development of GPS devices introduced programs in geomatics and digital mapping, while the local construction boom of 2005-2008 saw a great increase in building trades enrolment. By 2005, the School of Business enrolled the largest numbers, followed by the Schools of Construction and the Environment, Computing and Academic Studies, Energy, Transportation, and Health.

At the same time, the Institute increased its activity in industrial service through technology transfer and applied research, tapping into federal funding schemes such as the Canada Foundation for Innovation and Canada Research Chairs. Those hired to conduct research increasingly held doctorates, especially in the high-tech biological fields, al-

though most instructors typically had magisterial degrees and professional certification as warranted. Although the degree programs comprised a small number of enrolments, BCIT expanded its Bachelor programs into business and nursing fields, and launched a Master of Engineering in Building Science degree in 2011 that included a supervised research project. Because of this expansion, BCIT adopted the designation “polytechnic university” and helped found Polytechnics Canada in 2003, to indicate its new status, a move considered since the early 1980s. The 2004 Colleges and Institute Act recognized BCIT as a “polytechnic institution.”

BCIT was now firmly in the business of education, providing services to both students and industrial customers. Students came from many corners of the world, although the majority, as always, were from the greater Vancouver region. Demographically there were some small changes: of the some 47,000 full- and part-time students by the mid 2000s, women comprised a little under half the full time diploma enrolments, less than 10 percent of trades enrolments, and a miniscule proportion of apprenticeships. Women comprised a majority in health fields and a strong minority in the business school. Women had increased their numbers in faculty in similar ways, and were also present in research positions, but overall, BCIT remained a male institution. Students were also a little more culturally diverse, reflecting the growing diversity of the local area. BCIT had quite deliberately recruited students from recently immigrated Asian families, although their presence was not reflected in campus architecture, art, or services: there was no overt accommodation of Asian culture on campus - no Chinese characters on signs, no specialty food outlets, nor any formal or aesthetic references. Students were on average a little older than they were decades earlier, more likely to study part-time using distance technologies, and more likely to use one of the new satellite locations when they did study on campus.

However, behind the scenes it was a new sort of educational business. Over a thirty-five year period, the government grant had dropped to nearly 40 percent of the institution’s revenue, from almost 90 percent in 1975. The reduction had partly been taken up by student fees, which by the mid 2000s stood at over 30 percent of the institutions revenue; in 1975 it had been 7 percent. The remaining revenue came from industry services, corporate sponsorship, and various profit-making activities; brand-name food concessions and the names of corporate sponsors, for example, appeared on campus.

The new business model had its critics, but BCIT could be seen as highly successful from the standpoint of its original mandate to fit students to industry. Given the political atmosphere in British Columbia and elsewhere, the Institute was operating as required to maintain – even to expand – its educational services. BCIT administrators had a new responsibility, however, that became increasingly important from the 1980s on. The Institute not only had to provide students with job-ready skills, but also had to be seen as doing so; image became vital to its survival, as the Institute adopted new logos and mission statements, and the Burnaby campus more recently included highly visible workshops, demonstration projects, and an attractive new entrance portal. Communicating the “BCIT brand” became an essential part of success. Part of the brand, however, lies in a long history of providing the skilled labour sought by industry.

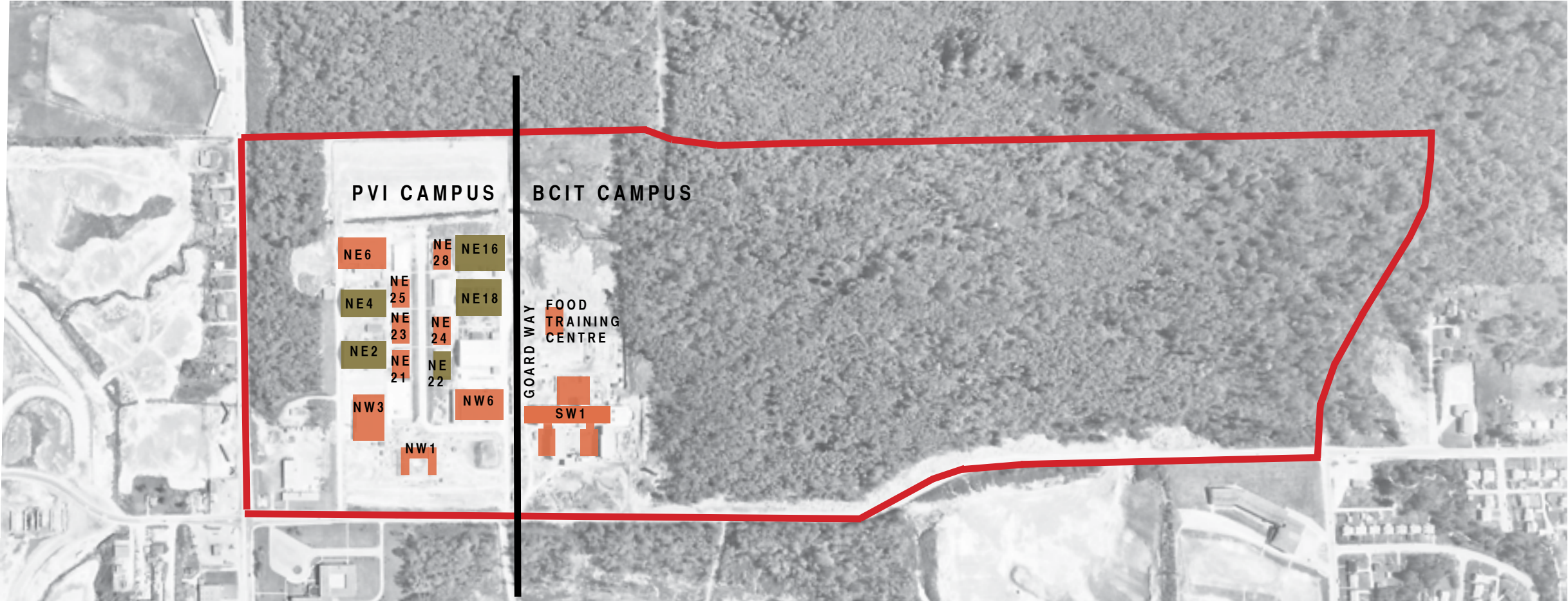
4 Chronology of Campus Building

1949



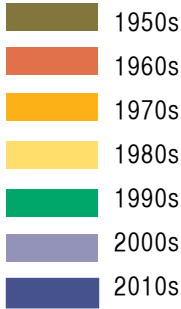
Building construction
by decade

- 1950s
- 1960s
- 1970s
- 1980s
- 1990s
- 2000s
- 2010s



1963

Building construction
by decade



Pre-1960

- NE2, NE4, NE16, NE18, NE22

1960

- NE6; NE21, NE22, NE23, NE24, NE25, NE28; NW3, NW6
(All built under the direction of the Public Works Department)

1963

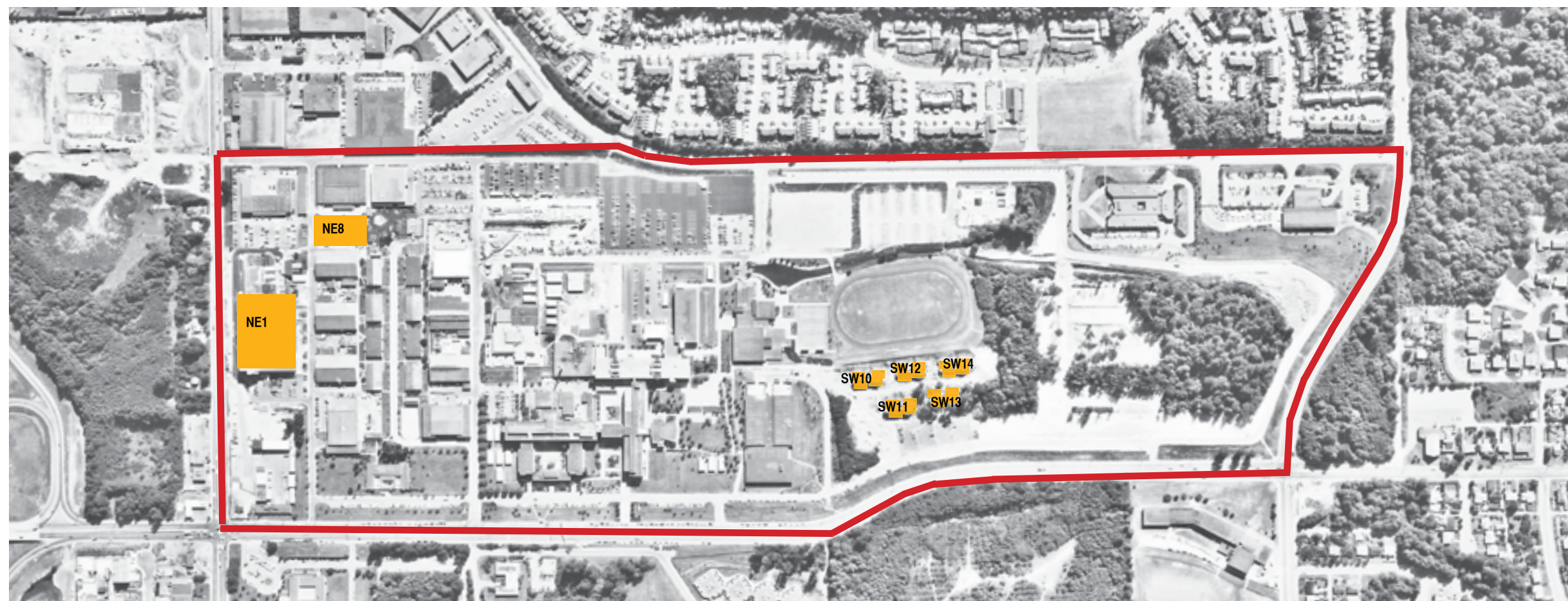
- SW1 (main building)
- Food training centre (now covered by SE2)
- NW1

1974



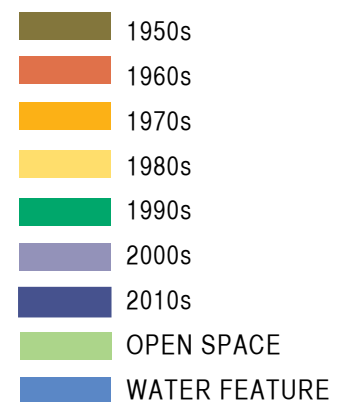
- 1963-1967**
- SE8 – original mechanical building, now Industrial Inst. Process Control
- 1967**
- SE12, SE16, gym and playing field; enlarged and upgraded at several times during the 70s through the 90s
 - SW1 extension
 - SW3 extension
 - SW5 theatre
- 1968**
- SE14 library
- 1970s**
- NW3
 - NW6
- 1974**
- SE12
 - Mid-1970s portables; mostly along Roper Ave where SE6 and SE8 now stand; also between SW1 and Goard Way

Building construction by decade	
<div></div>	1950s
<div></div>	1960s
<div></div>	1970s
<div></div>	1980s
<div></div>	1990s
<div></div>	2000s
<div></div>	2010s
<div></div>	OPEN SPACE
<div></div>	WATER FEATURE



1979

**Building construction
by decade**



1977

- NE1 – Inglis Building, for a range of trades training: consultants/designers were a team from Min. of Highways and Public Works under George Kerr, architect; considered for nearly a decade; cost \$4.8 million

1978

- SW 10-14, Maquinna Residence

c. 1978

- NE 8, welding

1995



- 1982**
 - SE16, Student Athletic Centre
- 1983**
 - SE 1, Electrical Building (built for PVI)
 - SW15, SW16 Maquinna Residences
 - SE40, SE41, SE42 International student residences
- 1985**
 - NE25, Applied Technology Centre (currently School of Transportation)
- NE9**
 - not part of BCIT until at least mid-80s; formerly BCBC building
- 1993**
 - SE6, IBM Building
- 1994**
 - SW2 - connector building
- 1995**
 - SE2

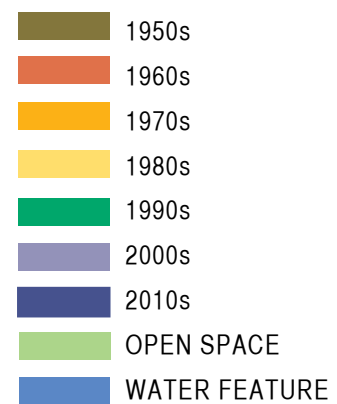
Building construction by decade

1950s
1960s
1970s
1980s
1990s
2000s
2010s
OPEN SPACE
WATER FEATURE



Today

**Building construction
by decade**



2000

- SE19 Discovery Park Technology Place

ca. 2004

- SE2 Alterations and additions for renewed student centre

ca. 2010

- SW1 Alterations and additions

5 Five Cultural Themes

The five themes listed below follow from an understanding of the cultural history of the BCIT Burnaby Campus, summarized in the preceding Historical Background and Chronology sections. Together, the themes serve as a guide to the key aspects of BCIT's history.

Each theme has a list of identified features that reveal or illustrate the key aspects of the campus' history over the decades. They are akin to a heritage inventory for the campus. Each feature is colour-coded according to the era it was formed/constructed - the same coding as seen in the Chronology section.

THEME A: THE BRUNETTE BASIN

The campus' setting in the shallow Brunette River basin orients the campus to the north, and the major east/west regional transportation corridor that has replaced Still Creek as the dominating feature of the basin.

THEME B: FORM AND FUNCTION

The design of the buildings and landscapes reflect the preoccupations of Modernism - an impulse to marry use to form, and the embracing of new materials and construction techniques - although tempered by the budget and aesthetic constraints of conservative Provincial oversight. As well, the technically sophisticated nature of many programs leads to a significant amount of equipment exposed to view, which provides character to the campus.

THEME C: INCREMENTAL DEVELOPMENT

The planning of the BCIT Burnaby Campus is an accumulation of building initiatives over 50 years, sometimes reflecting coordinated planning, but also showing the effects of ad hoc planning moves in response to sporadic funding. The resulting campus lacks an overall physical coherence, but possesses some surprising positive physical juxtapositions too.

THEME D: INNOVATION WITH INDUSTRY

BCIT endures as place for highly marketable training for the increasingly technical British Columbian workplace. The campus is a collection of constantly-updating facilities, developed in partnership with the Province or private industries, to provide a technically advanced workforce and to incubate new technologies for a competitive industrial economy.

THEME E: BUILDING COMMUNITY LIFE

Building specifically for positive faculty and student campus life came with time at BCIT. Design for more than purely instructional space and offices paralleled the development of a more coeducational campus population, and the need to provide an inviting campus environment to attract faculty and students in the increasingly competitive field of post-secondary technical training.



The Brunette Basin includes Guichon Creek



Modernism was the prevailing design aesthetic during most of the construction period of the campus



Campus development showed a combination of planned initiatives and ad hoc moves to accommodate its growth that was typical of most BC post-secondary campuses



Campus development is significantly marked by a culture of working in partnership with industry and partnerships in research



The campus community has evolved from a quite conservative institution at its beginning to a more inclusive one, reflecting the evolving society as a whole

Theme A: The Brunette Basin

The campus' setting in the shallow Brunette River basin orients the campus to the north, and the major east/west regional transportation corridor that has replaced Still Creek as the dominating feature of the basin:

- Influence of the natural environment on the development of the campus
- Impact on the environment of campus construction - clearing, fill, stream diversion - and the more recent ecologically-aware development
- Connection of the campus with the major transportation corridors: the Trans-Canada Highway and Canada Way
- Environmental factors contributing to campus character - topography, views
- Use of the outdoors for teaching opportunities

The BCIT campus is situated in the Brunette River watershed that includes Still Creek and, running north-south through the BCIT campus, Guichon Creek. The site is a post-war clearing in a second growth forest, somewhat sheltered in a shallow depression sloping northward, with second growth coniferous trees in evidence at the south end of the site. The Brunette Basin's waterways were historically full of fish, such as Coho, Chinook, and Chum salmon, cutthroat and rainbow trout, steelhead, prickly sculpin, stickleback and others, and functioned as important wildlife habitat.

As timber lease land surrounded by early farms - with orchards, horses and cattle - the natural environment was utilized by early sawmills in the area. By 1912 Guichon Creek had become home to the Phillips-Hoyt Lumber Company which put a dam on the waterway to create a canal for transporting logs to a storage pond and a sawmill located on the site now occupied by the British Columbia Institute of Technology. The pond became a favourite fishing place and swimming hole for the locals, such as the Phillips sawmill which was located on Guichon Creek at Willingdon Avenue. The high points of the stepped topography of the BCIT campus enable stunning views of the

North Shore mountains and are open to the views and activity of the Still Creek basin - highways, connector roads, industry and residential neighbourhoods.

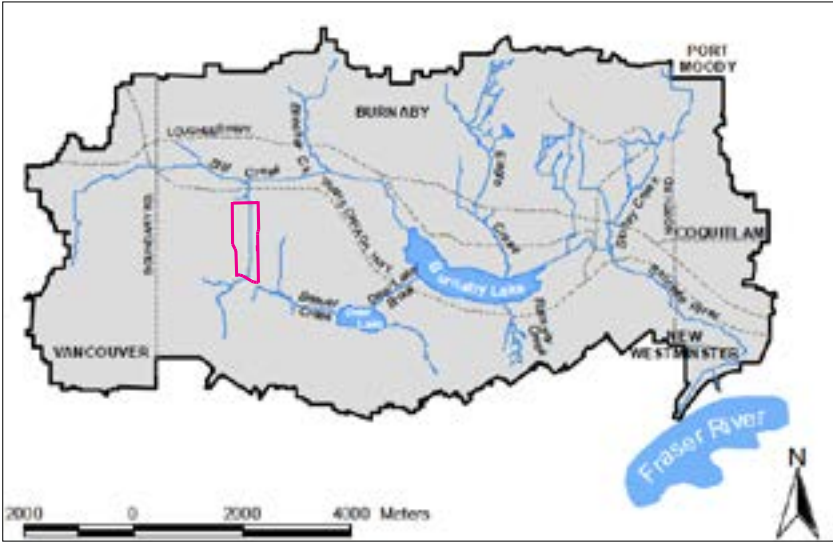
The restored Guichon Creek, part of a regional revitalization of the Brunette basin, provides the aesthetics of water and native vegetation. BCIT's Pioneers Club recognized early on the importance of Guichon Creek, with its support of the restoration of the partially daylighted waterway. Other BCIT initiatives related to the Brunette Basin include the activities of the Rivers Institute and the Watershed Pledge Program in support of the Burnaby Lake System Project. Today, the creek is the focus of a walking trail that runs north-south through the centre of the campus, providing views into the restored creek, benches and interpretive signs.

The Brunette Basin generally, and Guichon Creek in particular, is important for its future habitat and ecological values, as well as support for the school's curriculum. This is reflected in both an increased environmental awareness emerging in the 1960s and '70s, and new technologies and employment opportunities in government and private industry. The Fish, Wildlife and Recreation management program was established in 1969, later joined by other new programs indicating an increased interest in environmental health. More recently, the School of Construction and the Environment is concerned with the relationship between the built and natural environments.

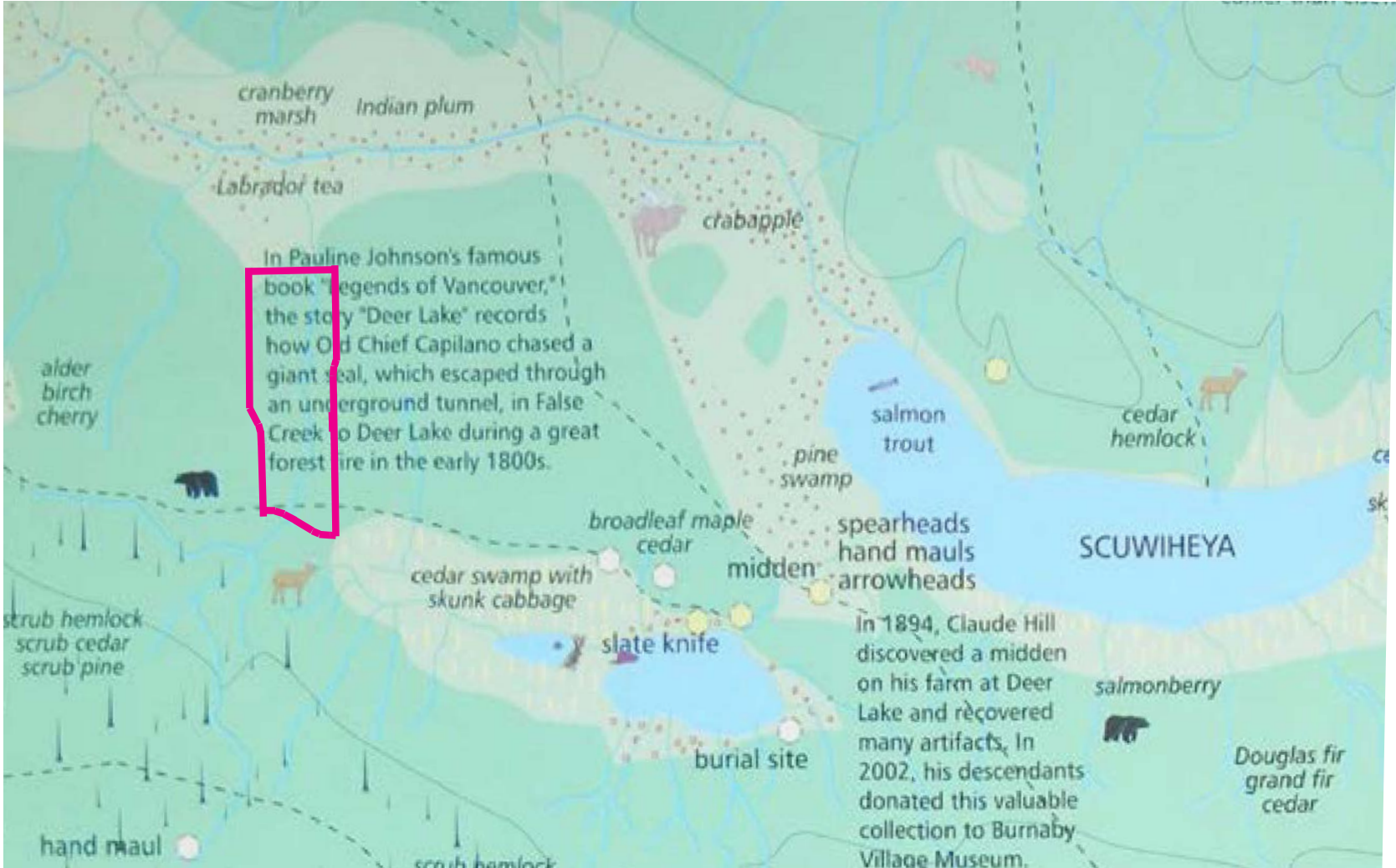
Five Key Points:

1. A general obliteration of the natural landscape has been tempered over the years by an enduring reclamation of the natural ecologies, and used as teaching opportunities for environmental responsibility;
2. Key natural landforms such as its high points and valleys are important to the character of the campus;
3. Views over and through the campus are key to understanding the general place of the campus in the regional setting, including its connection to the main east/west road network;
4. The remaining vestiges of second growth forest offer important links to the early landscape;
5. There is a lack of visual material on campus that shows the Brunette Basin landscape in the past.

Theme A: The Brunette Basin



Map of the Brunette Creek watershed showing Guichon Creek, and its relationship to both the BCIT campus and the Still Creek and Brunette Creek basins, all of which represent natural system characteristics. (Waterways newsletter)



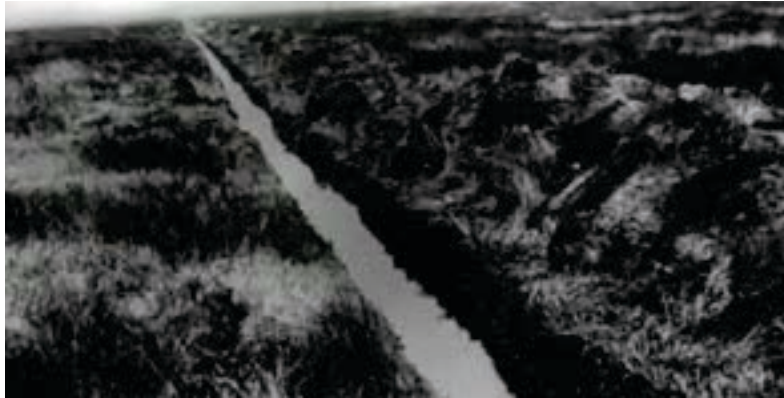
The land before European settlement, with the future BCIT lands outlined in red. The map indicates the wider environmental context of the BCIT lands, shows larger scale drainage patterns, and lists some of the native tree species (hemlock, cedar, broadleaf maple), some of which are still found on the campus. (Heritage Burnaby)



Interior of the Phillips-Hoyt Lumber Company sawmill (no date). The sawmill is an example of past land uses on the BCIT campus, as the presence of the original forest on the logged landscape.



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s, as well
oe. (BCIT)



Guichon Creek in the 1950s. The straightening and culverting of the creek is representative of the use of the land for forestry, sawmilling and farming. It also relates to the restoration of Guichon Creek, an important natural system characteristic. (BCIT)



Guichon Creek in the 1950s. This photograph is representative of the past farming land uses on or near the BCIT lands. (BCIT)



Guichon Creek restoration, associated with small-scale landscape characteristics (gabions and stone supports) re-established native plant communities, and restored natural systems (Blue and Green Design)



Guichon Creek in its restored condition today

Theme B: Form and Function

The design of the buildings and landscapes reflect the preoccupations of Modernism - an impulse to marry use to form and new materials and construction techniques - although tempered by the budget and aesthetic constraints of conservative Provincial oversight:

- Post-WWII functional materials, forms and structures of the educational buildings in the early Pacific Vocational Institute campus (first called the BC Vocational Institute)
- Early '60s Modernist landscapes and buildings south of Goard Way in the tradition of North American college campuses in that era
- Particular building functions displayed in form and details
- Spaces and buildings of mere utility

The individual buildings north of Goard Way, constructed for the Pacific Vocational Institute, are essentially repetitions of two building types: either to suit classroom instruction or provide a hands-on workshop experience. The building detailing is honest, unpretentious and bare-bones, using modest building materials. The repetition of building form, the tight packing of the buildings together, and the placement of smaller classroom buildings in two rows between the larger workshop spaces imparts a certain physical coherence and urban quality to this zone of the campus.

South of Goard Way, the earliest BCIT campus was composed of architect-designed buildings typical of the early 1960s, a period in architectural history dominated by the American International Style aesthetic and informed by European ideals of functional design. The visual hallmarks of this aesthetic were simple slabs of buildings of stacked identical floor plates, narrow connecting "joints" between wings (usually connecting corridors), buildings floating over the ground allowing access through and under, and a landscape setting that is open, suburban and park-like.

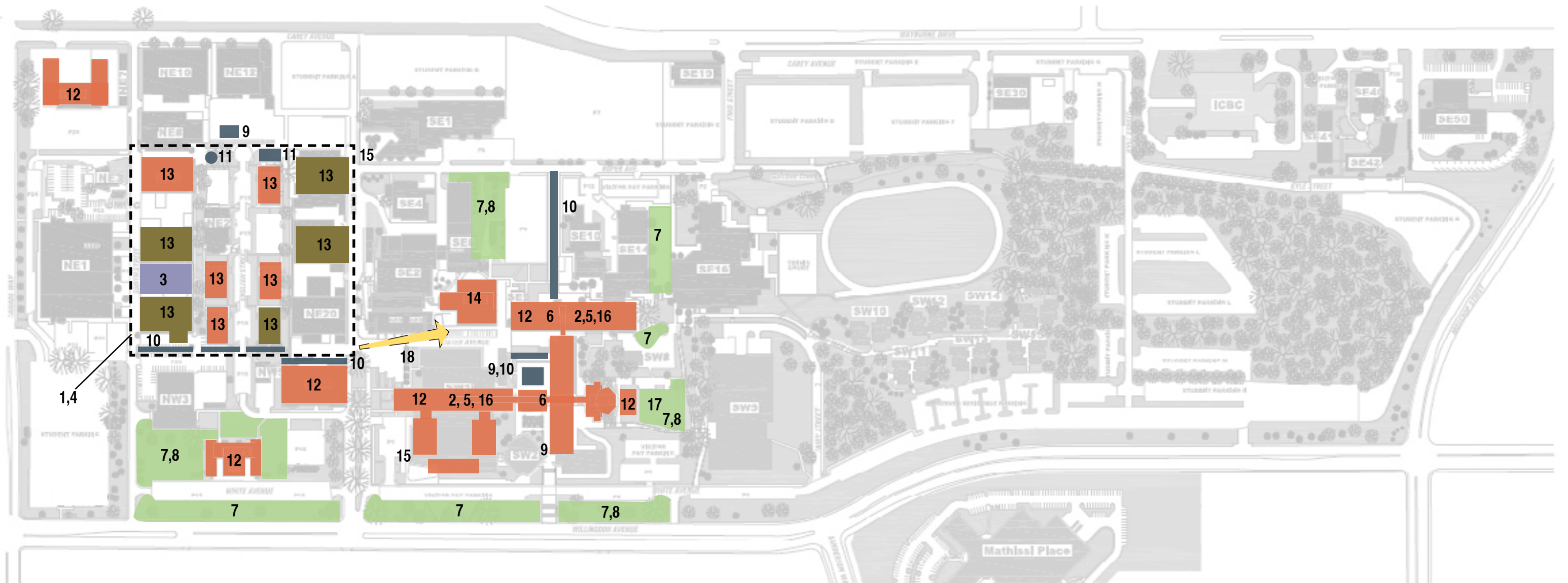
Classroom blocks the continent over share this formal simplicity and type of setting. Building forms were invariably a simple expression of the stacked generic offices or classrooms or other instructional spaces either side of a double-loaded corridor. The various functions would typically be expressed in overt yet restrained ways, so that one might guess for example that a block was for classrooms, or labs, or offices, or lecture theatres.

Later buildings and structures exhibit less expression of their function than the buildings of the early 1960s, retreating into plainer simpler skins that are a pragmatic response to limited capital budgets, or reflecting the design fashions of their day as far as their modest budgets would allow.

Along with Modernism's aesthetic stamp on the campus architecture and landscape is the many physical expressions of the technical requirement of building systems and equipment. These building elements - air handling equipment, electronic equipment, etc. - contribute an important character to the campus, related to the use of the buildings. The equipment forms lend a unique character to the campus.

Five Key Points:

1. Repetition of original simple PVI building forms in regimented grid north of Goard Way is an important physical presence on the campus;
2. Classroom block wings sited in open lawns and massed planting are important campus elements;
3. Views of building clusters and open spaces are key to understanding the organization of the campus;
4. Buildings and structures with forms, materials and details that reveal their use are important contributors to campus character;
5. The buildings of the 1950s and 1960s form the core visual interest on campus.



Characteristics in support of the theme Form and Function

Spatial Organization

1. Regimented early PVI gabled buildings
2. Open array of early BCIT classroom blocks

Land Use

3. Trades instruction space

Cluster Arrangement

4. Regimented early PVI gabled buildings
5. Early classroom blocks in SW and SE quadrants

Circulation

6. Outdoor passages under Modernist classroom blocks, SW 3

Topography

7. Modernist (and later) berming around buildings

Vegetation

8. Modernist mass plantings in SW quadrant between buildings and at perimeter of campus

Buildings and Structures

9. Steel construction worksite
10. Covered walkways
11. Early simple PVI buildings/structures
12. Modernist buildings of stature
13. Simple gabled original PVI buildings
14. Expressed forms of power generation, SE 8
15. Consciously branding structures associated with Gateways
16. Early Modernist classroom blocks
 - embedded in SW 1
 - SW 3
 - SW 5
17. Satellite dish

Views and Vistas

18. View up towards Lister Avenue from Goard Way: Modernist stacking of spaces and volumes

Building construction by decade

- 1950s
- 1960s
- 1970s
- 1980s
- 1990s
- 2000s
- 2010s

Theme B: Form and Function



Satellite dish set in lawn



NE 26



NE 2



Early 60s Administration Building



Main walkway, west side of campus



Less planned exposure of rooftop equipment



Early functional elements (now gone)



Later Modernist composition of buildings and landscape, west side of campus



Classic Modernist imagery from the 60s

Theme C: Incremental Development

The planning of the BCIT Burnaby Campus is an accumulation of building initiatives over 50 years, sometimes reflecting little coordinated planning. The resulting campus lacks an overall physical coherence, but possesses some surprising positive physical juxtapositions:

- The regimented planning of the Pacific Vocational Institute's first buildings north of Goard Way
- Early Modernist campus planning of classroom blocks set in open simply planted landscapes south of Goard Way
- Campus location and planning reflects post-War reliance on the automobile; the campus has land enough to allow for acres of surface parking around the campus core
- Historic expansion of campus southward as more built space required
- More recent shift from southern expansion to infill at the centre

Typical of publicly funded campuses in the Province, the BCIT campus shows all the signs of having developed not so much according to a Master Plan, but rather in a step-by-step manner as funding for capital works sporadically became available.

The visual interest and planning challenges of incremental development is best seen in the melding of the late 1950s Pacific Vocational Institute buildings with the earliest (1963) BCIT buildings. The contrasting building and planning styles are visually welded together with the placement of the original Administration Building (in BCIT Modernist style) on axis with a parade of PVI buildings to the east along English Street. But streets and pathways don't align north and south of Goard Way, making an pronounced discontinuity in the campus along Goard Way.

The PVI site planning was a pragmatic response to the need to house trades training facilities in an inexpensive manner. The earliest buildings that made up the Pacific Vocational Institute were laid out as plainly as a military compound. The regimented, physically tight, orthogonal planning of the PVI campus and its simple building forms create one of the strongest physical clusters in today's BCIT campus. Its grid

of open space lends an almost urban feel to the otherwise suburban campus. The strength of the PVI cluster allows the historical fact of the Pacific Vocational Institute to remain evident in the larger BCIT campus.

The campus outside of the PVI campus reflects the more open Modernist planning typical of North American campuses built after World War II, although without the pretensions of a showcase university, such as SFU, being planned at the time of the building of BCIT.

The campus planning is an expression of its development during the rise of the automobile as the dominant mode of transportation in North America. Its suburban campus layout, built in the same period as the widening and upgrading of Grandview Highway (changed to Canada Way), Willingdon Avenue, and the construction of the Trans-Canada Highway north of Canada Way, features a perimeter of parking lots, not unlike the malls spreading through the Lower Mainland at this time.

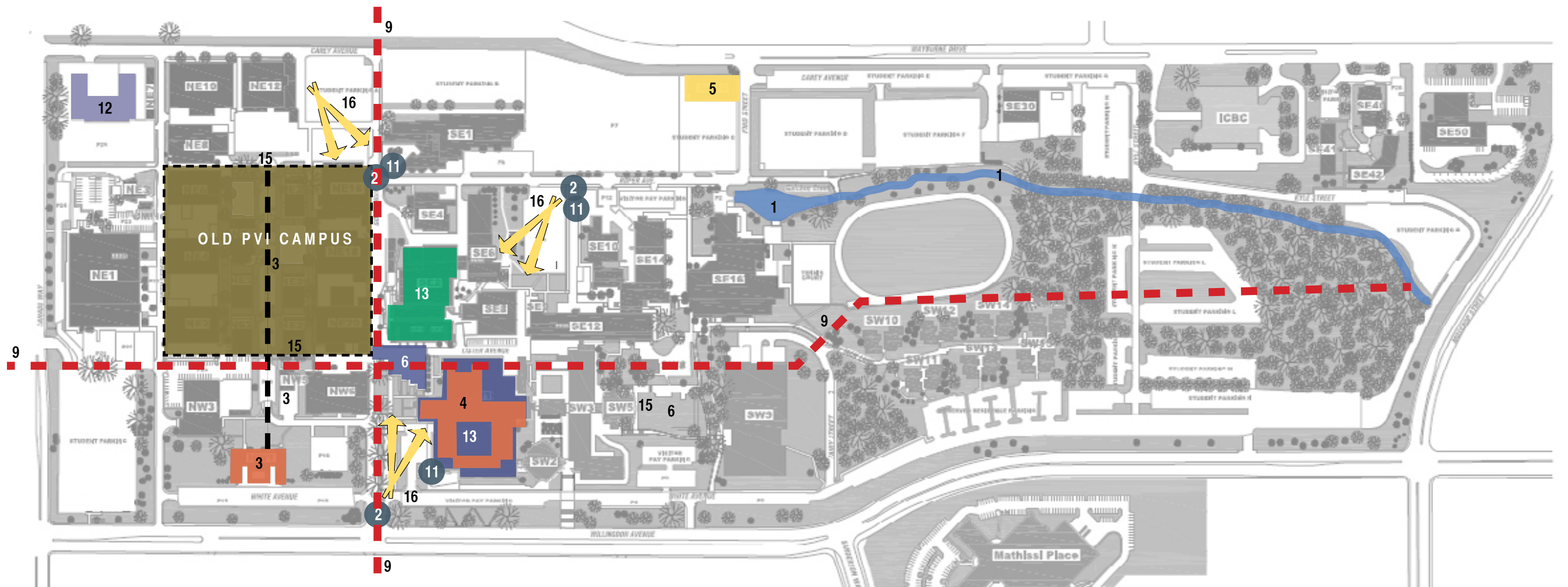
The landscape of the PVI campus is almost undesigned: there is just simple flat ground between the regimented buildings. The landscape of the rest of the campus generally follows Modernist campus landscaping on a budget: open lawn, and massed plantings, wide open paved pedestrian "plazas", and berms moulding the spaces between buildings.

Until recently building siting has been an exercise in selecting sites as close as possible to the core on unbuilt-upon land. This led to a slow expansion of the campus out from its original compact core, particularly south where land was easily available.

But more recently, expansion taken the form of densification of the core rather more lateral expansion. Positive aspects of this densification is the sense of a critical mass of people in public spaces (rather than a feeling of depopulation), and less dominance of the automobile on the character of the campus.

Five Key Points:

1. The juxtaposition of and contrast between the Pacific Vocational Institute and the earliest BCIT buildings is a defining feature of the campus;
2. The retention of a physical understanding of the 1960s automobile culture as part of the evolution of the campus is important, while establishing 21st century pedestrian, cycling and transit opportunities;
3. Managed incremental development can continue to be a defining process for campus development, avoiding a wholesale destruction of the visual evidence of campus evolution;
4. Eclectic exterior spaces created by incremental campus building are a component of campus character;
5. Clear guidelines will be required for ongoing incremental expansion and infill.



Characteristics in support of the theme Incremental Development

Natural Systems

- 1. Daylighted Guichon Creek

Spatial Organization

- 2. Development of Gateways into campus
- 3. Placement of original Administration Building (1962) on central PVI Campus axis, a physical manifestation of the joining of PVI and BCIT
- 4. Placement of single BCIT building SW1 (1963) showing first increment of expansion
- 5. Construction of Discovery Park facility SE 19 separate from but adjacent to SE quadrant campus buildings

Land Use

- 6. Campus Square
- 7. Overall expansion of campus to accommodate industry needs (not mapped)

Cultural Traditions

- 8. Recurrent branding initiatives (e.g. current “BCIT works” initiative) (not mapped)

Cluster Arrangement

- 9. Wayfinding initiative that defines four quadrants to the campus
- 10. Wayfinding stations around campus (not mapped)

Buildings and Structures

- 11. Gateway structures
- 12. Re-purposed buildings (e.g. NE 9)
- 13. Buildings having undergone additions and alterations to meet new functional needs
- 14. Innovative structures: (e.g. Afresh Home, Living Laboratories)
- 15. Innovative equipment: satellite dishes, welding infrastructure

Views and Vistas

- 16. Composed views to and through Gateways

Building construction by decade

- 1950s
- 1960s
- 1970s
- 1980s
- 1990s
- 2000s
- 2010s

Theme C: Incremental Development



PVI "lane"



Earliest beginnings: BC Vocational School, later named Pacific Vocational Institute



Pacific Vocational Institute logo



PVI "street"



Aerial photo of earliest BCIT buildings, with PVI buildings off to the upper left



Recent initiatives to form entry points of consequence



Goard Way looking west: the separating line between the planning grids of BCIT and PVI campuses

Theme D: Innovation With Industry

BCIT endures as place for highly marketable training for the increasingly technical British Columbia workplace. The campus is a collection of constantly-updating facilities, developed in partnership with the Province and/or private industries, to provide a technically advanced workforce and to incubate new technologies for a competitive industrial economy:

- Response to post-WWII technological advancements in local industry
- Partnerships with Industry
- Expansion of fields of technical studies
- Branding, and the competition for students

BCIT's commitment to technological excellence was created in the context of World War II, the post-war era of resource extraction industries and the beginnings of the space race.

The Pacific Vocational Institute section of the campus (north of Goard Way) reflects the post-World War II drive to train skilled civilian workers in British Columbia. Immediately following the war, returning veterans were offered training in skills to allow them to fit into the growing post-war technological setting. Following the Soviet Union's launch of the Sputnik satellite in 1957, there was in the Western world generally an added urgency in the drive to boost scientific and technological education.

From their inception both the Pacific Vocational Institute and BCIT curricula were designed with industry input. Stewardship of the diploma programs was shared with industry representatives, and curricula were modified to suit changing industry requirements.

It was telling that, from BCIT's inception until the late 1970s, the engineering technology programs were the most sought after by students. Early courses such as building technology, electronics, and instrumentation were joined by computing, information technology and robotics with the emergence of

high-tech industries in the 1980s.

The rapid growth of student population is a reflection of the times seen in growing campus populations throughout the province. The dramatic physical expansion of the campus in the 10 years after 1963 are the result of a need for a new population of skilled workers with technical and vocational training to service the province's ever more innovative industrial sector.

Since its inception in 1989, the Technology Centre has been a hub of multi-disciplinary research and development at BCIT. The Centre employs a team of more than 30 full-time researchers working in fields ranging from human factors and medical device development to web performance analysis and natural health products.

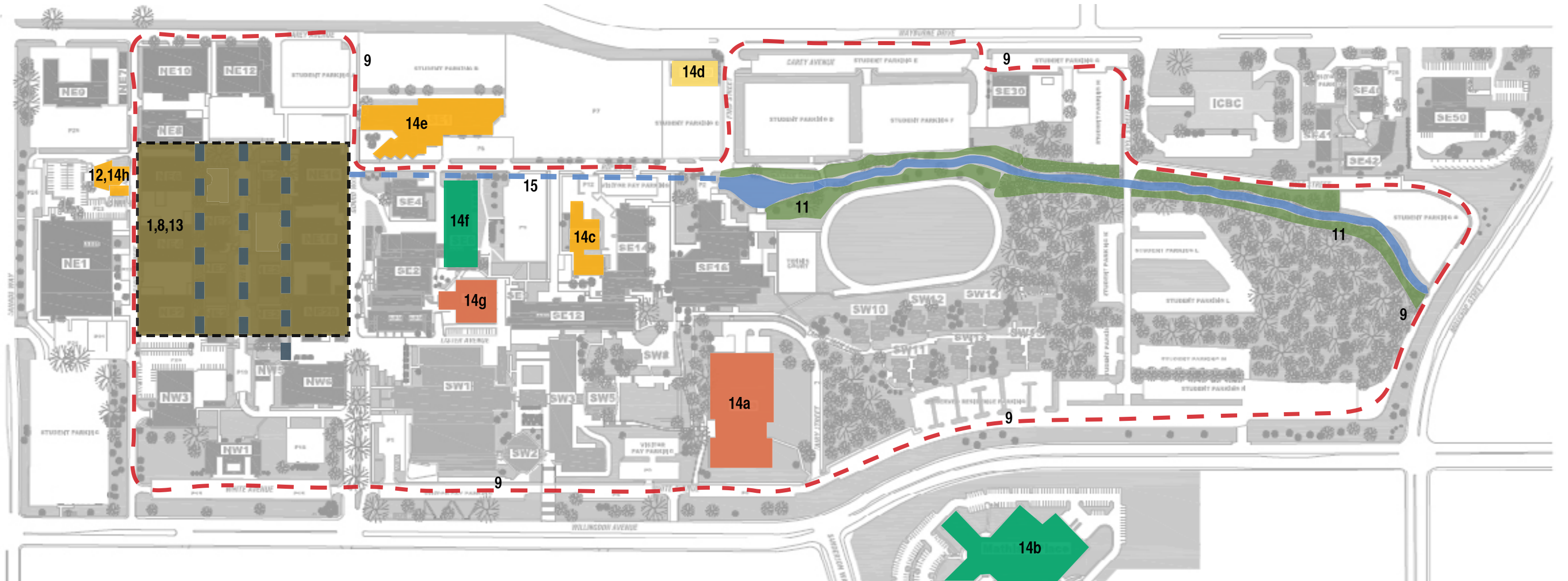
Infrastructure for technological training includes: a full-equipped radio and television studio, broadcasting Evolution 107.9 FM; an automated manufacturing robotics lab; the only Prosthetics and Orthotics training program in Western Canada, the Technology Centre dedicated to applied high tech research and development; Western Canada's only Marine Engine Room Simulator, which provides true-to-life training for marine engineers; Canada's first Confucius Institute, awarded by China's National Office, teaching Chinese languages and culture to increase trade and tourism; the Centre for the Advancement of Green Roof Technology; an interactive fire simulation theatre; and a fully operational pulp mill.

The current branding initiative - BCIT Works - reflects the twin concerns of the institution to continue to provide excellent educational services geared to the BC workplace, and to maintain its popular reputation for doing so, in the face of ever-increasing diploma programs in a multitude of post-secondary

educational campuses in the Lower Mainland.

Five Key Points:

1. The campus can be seen as a record of the steady expansion and changes to BCIT's curriculum in response to Industry needs for skilled technicians. Close ties to industry and business meant that the construction of facilities followed the trajectory of the BC economy.
2. Vestiges of early designed landscapes reflect wider aesthetic and design trends, while green roofs and re-established native plant material reveal a commitment to 21st century sustainability concepts;
3. The continuum of buildings, structures and small-scale elements are important in their indication of changes in industry;
4. Newly constructed and re-purposed buildings have adapted to industrial and technological innovation and change;
5. A key feature of the institution's innovation for industry is the extent of its reach off campus (seen in such projects as a salmonoid enhancement facility developed by BCIT students on the Seymour river).



Characteristics in support of the theme Innovation With Industry

Spatial Organization

1. Linear corridors created by the arrangement of the original PVI structures
2. Grouping of buildings with similar technical curricula and uses (not mapped)
3. Fit of the buildings into the sloped topography of the campus (not mapped)

Land Use

4. Building boom to accommodate the influx of vocational students (not mapped)
5. Parking lots associated with campus growth and automobile use (not mapped)
6. Designed landscaping (not mapped)

Cultural Traditions

7. Association with national policy for support of returning veterans (not mapped)

Cluster Arrangement

8. Original PVI collection and grouping of buildings

Circulation

9. Roadway system that accesses the entire campus
10. Generally linear arrangement of internal roadways and pathways (not mapped)

Vegetation

11. Reintroduced native plant communities
12. Green roofs

Buildings and Structures

13. Original PVI buildings
14. Buildings particularly reflecting the technological / innovative nature of the campus
 - 14a Mechanical technologies, biotechnology, industrial instrumentation
 - 14b Centre for Applied Research and Innovation (KARI)
 - 14c Broadcast centre and computer labs
 - 14d Technology Place
 - 14e Electrical training centre
 - 14f IBM building
 - 14g Process control
 - 14h Centre for Environmental Ecology

Constructed Water Features

15. Culverting of Guichon Creek to accommodate campus expansion

Small-scale Features

16. Use of industrial materials
17. Exterior building and landscape elements that reflect technological uses (not mapped)
 - Satellite dishes
 - Rooftop vents
 - Machinery shop blowers and vents
 - Storage tanks

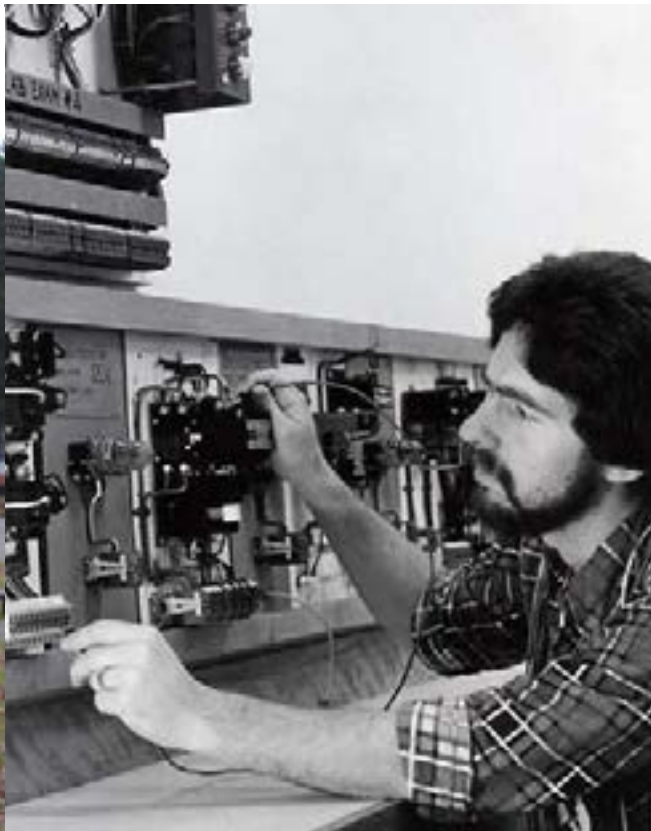
Building construction by decade

- 1950s
- 1960s
- 1970s
- 1980s
- 1990s
- 2000s
- 2010s

Theme D: Innovation with Industry



Satellite dish set in lawn



Instrumentation lab 1984 (BCIT)



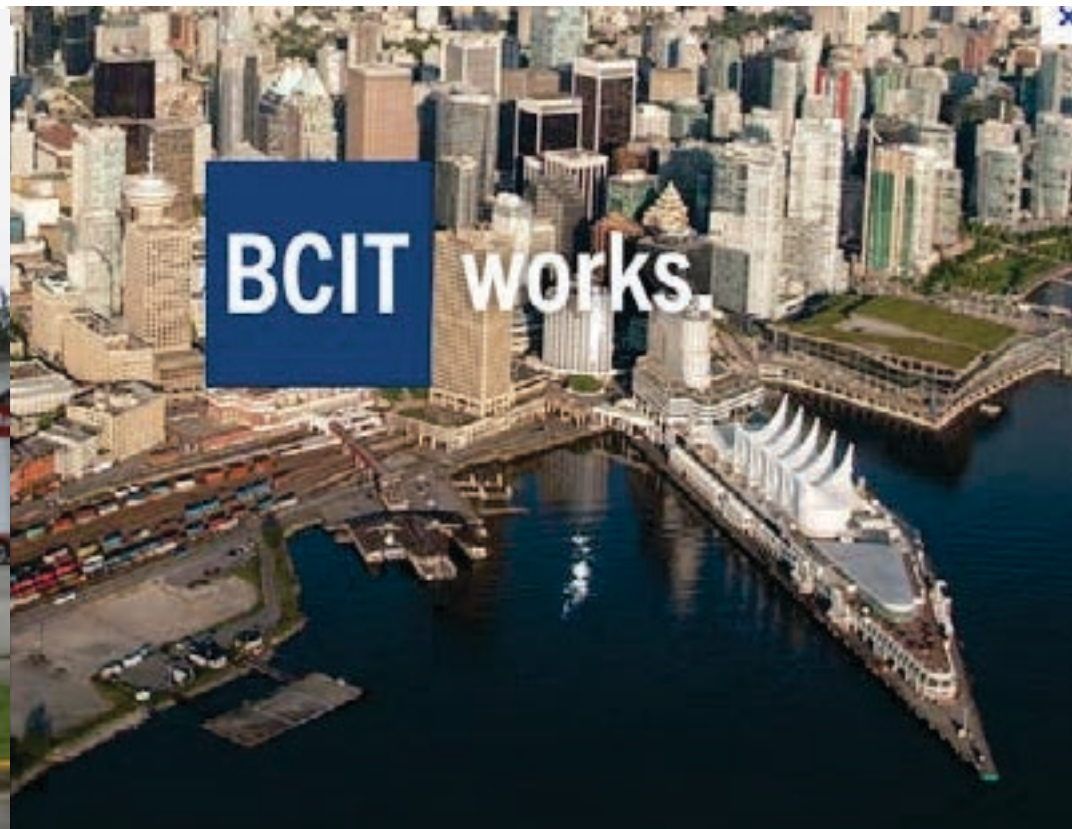
Nursing students 1967 (BCIT)



IBM Building, SE6



BCIT's Discovery Park: a successful partnership with research oriented industry



2012 branding campaign (BCIT)

Theme E: Building Community Life

Building specifically for positive faculty and student campus life came with time on campus. Design for more than purely instructional space and offices paralleled the development of a more co-educational campus population, and the need to provide an attractive campus environment to attract faculty and students in the increasingly competitive field of post-secondary technical training:

- Changes in student and faculty demographics (men/women, immigrants, etc.)
- The increasing role of social space over the decades
- Campus clubs, social events, the Link newspaper
- Naming of campus places for important people in BCIT's history
- Creating social spaces

The present-day campus is a record of the development of an increasingly social space for faculty and student life. The earliest part of the PVI and BCIT campuses (north and south of Goard Way) were straightforward collections of instructional spaces, set in a semi-rural setting without much in the way of social amenities: there were no shops, pubs, or coffee shops within easy walking distance. Early campus social space was improvised from indoor and outdoor space not specifically designed for social connection. The campus was then just a place to give, take, or administer instruction . . . and then leave.

North of Goard Way, the lawn-covered spaces within the regimented early PVI compound are dimensionally comparable to small streets, yet never programmed or detailed for social gathering. Similarly, the earliest BCIT classroom and office blocks south of Goard Way were conceived almost solely as space in support of instructional programs. These buildings were set in expansive open lawns according to the landscaping aesthetic of the times, an aesthetic that was not at all conducive to making places for social gathering.

Outdoor places for socializing were forged from what open

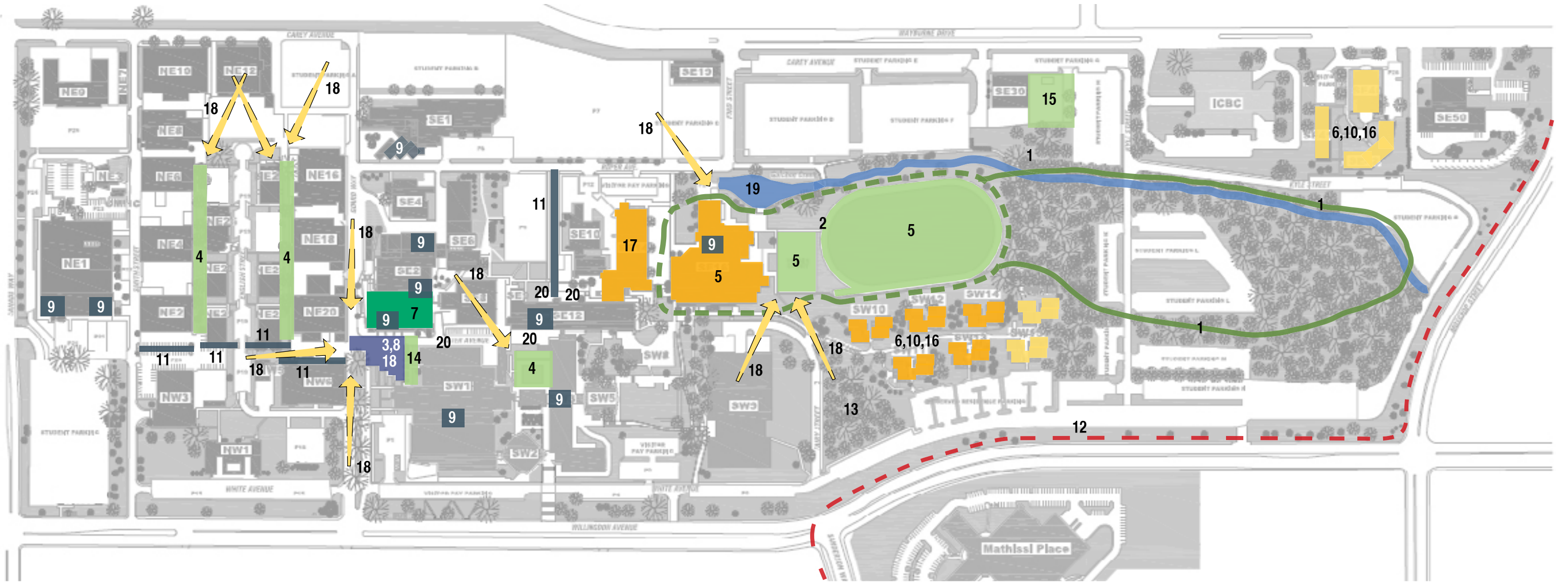
space there could be found. Design of these spaces was rudimentary or non-existent, usually limited to the provision of pre-manufactured picnic tables, tables, and benches. Later open spaces developed on campus continued to feature mostly paved walkways and lawns or landscaping not configured in a way to foster social gathering.

Not until there were buildings specifically built for student services in 1967 (recreational and food services, and housing) that it could be said that there was a conscious building for extra-curricular student life. Beginning in the mid-1970s student community life included on-site student housing in the southwest of the campus, overlooking the sports field.

More recent initiatives to plan for social gathering is best shown in the development of the plaza and adjacent central indoor food and social venue in the recently renovated SW1 building. It marks the conscious drive for a campus that will continue to attract faculty and students in the increasingly competitive post-secondary educational institution market. There are now seven food outlets found throughout the campus - including a pub - as well as the indoor and outdoor sport and recreation facilities at the south end of the campus.

Five Key Points:

1. Unprogrammed open spaces created in part by the unplanned incremental nature of campus development have resulted in eclectic social spaces and the potential for the creation of others in the future;
2. The increasingly social nature of the campus ensured the evolution of outdoor space - inclusion of picnic tables, benches, activities spilling out into the available landscape is an important characteristic;
3. The provision of sports, recreational and social facilities has changed the nature of the campus, most recently in the daylighting of Guichon Creek with its accompanying trails and outdoor seating areas;
4. Ongoing provision of a more diverse variety of student spaces, facilities and programs are important to attract and retain a wide variety of students;
5. Increasingly student voices have been heard through outreach through means such as student government, newspaper, radio and internet.



Characteristics in support of the theme Building Community Life

Natural Systems

1. Recreational open space associated with Guichon Creek

Spatial Organization

2. Sports field, tennis courts associated with housing and Rec Centre
3. Campus Square created at intersection of Goard Way and Lister Avenue
4. Informal gathering spaces (such as gaps between original PVI buildings, courtyards)

Land Use

5. Sports field, tennis courts, Student Athletic Centre
6. Student Housing
7. Student Association

Cultural Traditions

8. Social use of intersection of Goard Way and Lister Avenue resulted in creation of Campus Square
9. Drinking and eating establishments on campus

Cluster Arrangement

10. Maquinna student housing cluster on hillside west of sports field, and cluster comprised of SE 40, 41, and 42

Circulation

11. Covered walkways leading to centre of campus from parking lots
12. Bicycle path

Topography

13. Hillside used for siting of clustered student housing
14. Outdoor terrace with tables and chairs overlooking Campus Square

Vegetation

15. Community garden at SE30

Buildings and Structures

16. Student housing
17. Library and learning commons

Views and Vistas

18. Views to indoor and outdoor social gathering spaces

Constructed Water Features

19. Pool within Guichon Creek near Recreation Centre

Small-scale Features

20. Areas of outdoor seating, including picnic tables
21. Wayfinding stations (not mapped)
22. Emergency phone stations (not mapped)

Building construction by decade

- 1950s
- 1960s
- 1970s
- 1980s
- 1990s
- 2000s
- 2010s

Theme E: Building Community Life



Outdoor dining terrace near library



Outdoor dining in the 70s



Above and Below: BCIT students in tech labs
and doing field work in Guichon Creek



Outdoor cafeteria space at SE12





Student Activity Centre



Student centre in new wing of SE02



Playing field, with Maquinna Residences in the background



Recently completed infill development at core of campus



Gateway structure, east side of campus

6 Conservation and Future Development



Design to conserve campus character

Current practices in creating design guidelines allows new buildings and construction in an historic place to reflect and speak about the time in which they were designed – much as the current building on the BCIT campus do. The campus is evolving, it is not a museum object, and there is a duty in the design of new buildings, additions to non-heritage buildings, and new urban spaces to respond to changing ways of learning, working, living and playing.

In keeping with the overall theme of innovation and change that is the hallmark of BCIT, design guidelines should be created that promote innovative contemporary architecture and landscape architecture that responds to the historic and current character of the campus. This can be achieved by encouraging a scale of development and intensity of use that is compatible with the existing campus, yet tells its own story consistent with its place and time. Such a non-prescriptive approach used in conjunction with an understanding of the historic character of the campus will yield creative solutions uniquely suited to the place.

The design process can support heritage conservation by following these steps:

1. Understand heritage value and character
2. Propose a design approach that takes into account the heritage value and character
3. Consult existing studies such as the Campus Master Plan and White Paper

Defining and mapping the historical evolution of the BCIT campus has resulted in a list of key elements that help to define the character of the campus. These elements should be considered in future planning and design actions, both as features to be retained where possible, and as a starting point for new design and campus expansion.

The following character-defining elements that contribute to the character of the BCIT campus provide a starting point for the creation of a set of design guidelines specifically suited to the campus.

- Contrast between PVI / BCIT campuses
- Scale of open spaces
- Eclectic spatial quality due to incremental growth
- 1960s modernist buildings and their uses - classrooms,

functioning labs and shops

- Layering of the ground plane
- Grade changes at different scales
- Functioning landmarks - satellite dishes, smokestacks, blowers, vents
- Repeated building units
- Uses reflected in the buildings
- Covered walkways

Key aspects of the heritage character of the campus, can influence future campus planning and expansion while respecting that heritage character and considering it as inspiration for new work.

1. PVI Campus

Buildings

- Recognize the distinctness of the PVI campus planning in the NE quadrant by considering design guidelines that are different from the rest of the campus, and which build on the characteristics of the original PVI buildings and landscape;
- Characteristic form of these buildings: simple large gable roof forms repeated for neighbouring buildings
- Characteristic details include use of metal sheet cladding, doors and windows, and exposed equipment related to the functions of the buildings; large sliding doors frequently present surprising views into immediately adjacent lab or workshop space.
- Develop visual and social interest in the quadrant by revealing the workings of equipment and trades work in this area.

Open Space

- Exploit the unique quality to the open spaces between the traditional building forms, which are unlike the open spaces elsewhere on campus for their intimacy and characteristic as street grid pattern.
- Consider reinforcing the character of this quadrant by adhering to the simple grid pattern of the open space, and the the simple footprints and forms of the buildings;

2. The Early Modernist Campus

Buildings

- Recognize that the early Modernist campus architecture from the 1960s in the SE, SW, and NW quadrants is the dominant aesthetic in these areas, and can be viewed as the heritage character in these areas. Building finishes are simple, employing concrete, metal windows, glass and spandrel glass or panels
- Recognize the importance and scale of the 1960s Administration Building in forging a formal link between the BCIT and PVI campuses; the building itself is a mostly intact artifact from the 1960s, and is a valuable remnant of the the early campus.

Open Space

- Recognize the qualities of the Modernist open spaces, the hard landscaping and the massed planting often in sculpted slopes and berms.

3. Institutional imagery/branding

Buildings

- Recognize that the strongest imagery of the campus is not the result of overtly branded architecture, but rather two coherent bodies of work with consistent aesthetics: the PVI campus, and the 1960s Modernist BCIT campus.
- Also strong institutional imagery is derived from the expression of technology in the architecture and structures - be it mechanical or electrical equipment or unusual and expressive structures related to the educational program (such as the steel construction structure at the east end of the old PVI precinct.

Open Space

- As with the buildings, the strongest open space character relates to the PVI campus and the Modernist landscapes of the early BCIT campus
- The PVI open space is very unique, with its value lying in the simple human-scaled spaces between the buildings, and the surprise derived from seeing through open barn doors into shops with interesting equipment.
- The broad paved areas of the early BCIT campus are key to the image of the campus; with their breadth, these areas are underutilized; their strength is that they have potential as intimate social spaces.

4. Sustainability/Environmentalism

Buildings

- There are already examples of environmental building technologies being displayed in the architecture of the campus, but more could be done for applications to institutional building forms.
- Recognize that the re-use of buildings can be a very sustainable approach to building, and can be promoted as such.

Open Space

- The great example of sustainability/environmentalism being displayed in the open space is the daylighting of Guichon Creek. Recognize that this watercourse has more potential as a forum for teaching and supporting sustainability and environmental concerns.
- A great challenge and potential for BCIT would be to promote the campus as experimental site for environmental sustainability and place for sustainability research. What can be done with the classic Modernist landscape to reinvigorate its expanses while advancing the latest landscaping technologies?
- Recognize the the re-use of landscape spaces and materials is seen to be a sustainable approach to building.

5. Social Space

Buildings

- There has been a exerted effort to improve the sociability of interior spaces; this effort should be continued in the planning of any new buildings or initiatives for the re-use of existing buildings.

Open Space

- Much of the Modernist hard landscaping is under-utilized as social space, but with great potential. Many large paved areas are in sheltered locations, good for their relative calmness. A concerted effort could be made to make these areas valuable informal social gathering spaces.
- Outdoor recreational space, primarily at the south end of the campus, is to be recognized for its potential as important social space.

6. Finishes and Detailing

Buildings

- Adopt a policy of compatibility and distinguishability in new construction. Build on the palette of materials found in the classic Modernist building, and integrate into detailing the expression of the materials
- Adopt new innovative materials with an eye to compatibility with the existing material palette
- Consider a focus on material innovations (spirit of Modernism) be on sustainability - the agenda of contemporary society
- Continue to have architecture, materials, finished and details reflect building uses (spirit of Modernism)



Campus landscaping 1969 (BCIT)