A.3



Woodlands

REZONING & OCP AMENDMENT

APPENDIX 3

DESIGN GUIDELINES

OCTOBER 18TH, 2002

URBAN SYSTEMS.

big think communications inc.

HUDEMA CONSULTING GROUP LIMITED

McGINN ENGINEERING & PRESERVATION LTD.

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THE SHELTAIR GROUP

SHARP&DIAMOND Landscape Architecture & Planning

ARCHITECTURA. PLANNING ARCHITECTURE INTERIORS INC.

2001.064

BC

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Introduction

The British Columbia Buildings Corporation [BCBC] has developed design guidelines for the redevelopment of the Woodlands site, New Westminster, BC. This document is intended to set a framework for detailed rezoning and development permit applications to the City of New Westminster, to give guidance and continuity to the rezoning process as the Woodlands site assumes new uses and life. The design guidelines outline building character, design objectives and landscape qualities to be addressed by each site development. These guidelines have been prepared with reference to previous land use studies, public consultations, and planning studies.

The design guidelines for the Redevelopment of Woodlands are organized as follows:



PART 1: Site Context / History

PART 2: General Planning Principles
PART 3: Specific Planning Strategies

PART 4: Design guidelines: General
PART 5: Design guidelines: Specific development parcels

PART 6: Landscape Design: General guidelines
PART 7: Landscape Design: Specific development areas

Appendix: Reference documents

Scope

- Provide clear direction to the overall re-development and use conversion of the Woodlands property
- Provide interpretation of planning objectives and principles in specific guidelines
- Present clear examples of suitable development in an illustrative document



Reference Documents:

The following documents are bound in this volume as appendices, and form additional references for design on the Woodlands site:

1 "Woodlands: Historical information for potential use during the redevelopment of the site", February 2002

2 "CPTED : Guidelines for Safe Urban Design", Community planning principles, April 1999

3 "Rehabilitation of Heritage Buildings", excerpts from the British Columbia Building Code, 1998

ALSO REFERENCED:

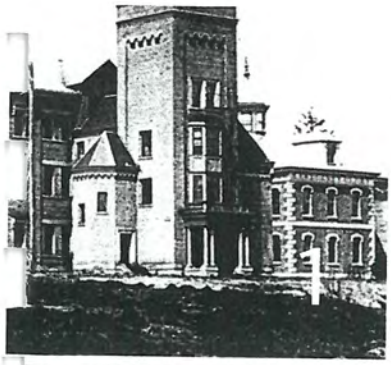
"LEED green Building Rating System, Version 2.0" US Green Building Council Guide for green and sustainable design, June 2001





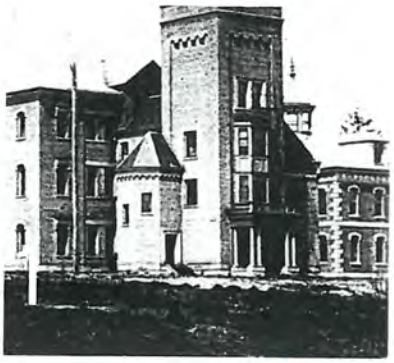






Site Context & History

1.1. Overall Location & Context
1.2. Inception: 1878 - 1900
1.3. Institution: 1900 - 1950
1.4. Changing Roles: 1950 - 1975
1.5. Desegregation and Decline: 1975 - 2000
1.6. Opportunity: 2000 - Future



Site Context /History

The Woodlands site forms an integral part of the early history of the development of the City of New Westminster, and the entire Lower Mainland area of British Columbia.

The Woodlands site has been a significant landmark in the community since its inception as a public health facility in the 1870's. Since the 1960's, however, societal changes and approaches to mental health issues have rendered large institutions such as Woodlands obsolete. Today, the City of New Westminster is known for its collection of historic buildings and central location in the GVRD. The Woodlands property is an underutilized area in its centre. Bringing the Woodlands site back to the community will reinvigorate the land, respect its natural features, and integrate it into the surrounding urban fabric.


Woodlands population dwindles

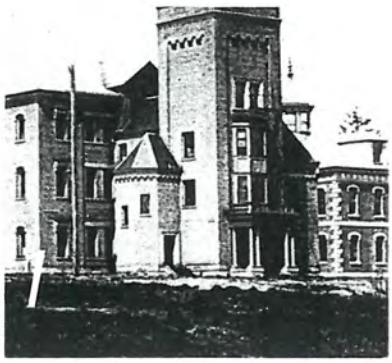
All go in snow



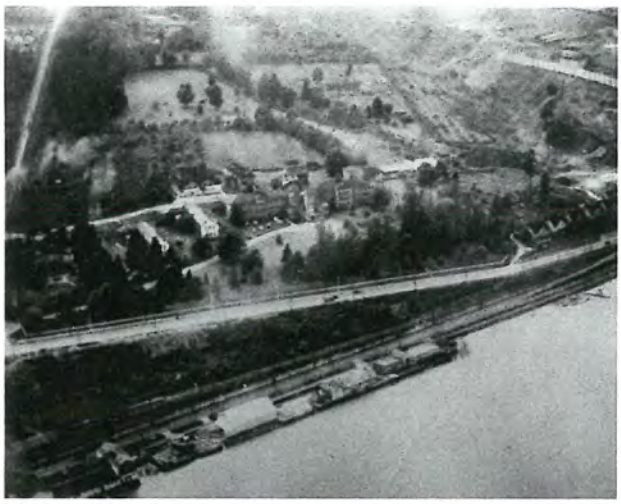
Old Woodlands buildings



Centre Block, c. 1910



1.1. Overall Location and Context [Cont'd]



HISTORICAL AERIAL PHOTO



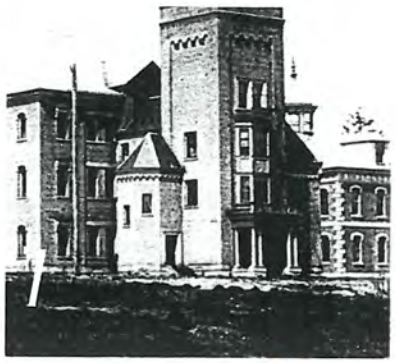
PRESENT DAY



SITE AERIAL



WOODLANDS FROM THE SOUTH EAST



1.3. Institution: 1900 - 1950

With new definitions and philosophies of care emerging in the period between 1900 and 1950, the name of the Woodlands facility was changed to the "Provincial Hospital for the Insane", and differentiation provided between criminally insane, mentally retarded and mentally ill patients.



CARPENTRY & ELECTRICAL SHOPS

The Carpentry and Electrical Buildings [1902-03] were formerly a firehall and pumphouse for the combined area of Woodlands and the Penitentiary lands to the East. Horse stables were located in the ground floor of the present-day Carpentry shop.

The Nurse's Lodge [1922] was built as a nurse's residence, with small rooms and central foyers for socializing. The Lodge was used in later years as hostel-type accommodation for an off-site reintegration program, a major innovation in its time.



NURSE'S LODGE

The Boiler house [1929, 1951 north addition] provided steam heating to all of the Woodlands facilities through a large service tunnel. This constituted a major technological advance for the institution and significant improvement in the quality of the residents' accommodation.

The Greenhouse complex [1911-1915] was built for an occupational therapy role, as well as providing much of the produce for the residents and staff.



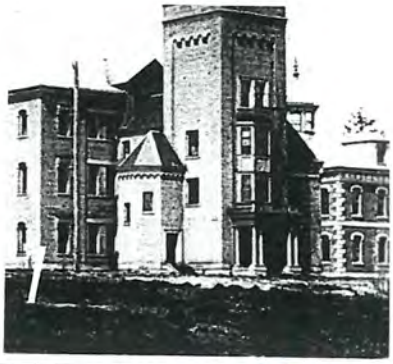
BOILER HOUSE

The old school [1944] was a first school building for the entire facility, symbolising the new role of the institution.

Up until 1958, any residents who died were buried on site in the cemetery for Woodlands.

The Administration / McBride buildings were built [1947, 1950] to accommodate an expanding mental health nursing school.

Woodlands was seen during this time period as providing valuable community support, sheltering the most vulnerable of society and those with "nowhere else to go".



1.5. Desegregation and Decline: 1975 - 2000

Subsequent to its hundred year anniversary in 1978, Woodlands became an increasing focus of public scrutiny and attention. In 1981, with Woodlands at a resident population of 829, the Provincial Government began a formal process to shift the emphasis of care for the mentally handicapped away from large institutions, to smaller community and regional services. The intent of the move was to answer changing perceptions about the role of institutional care, and to re-integrate as many patients as possible that would have been previously removed from their communities.



VINES ON ELECTRICAL SHOP



CENTRE BLOCK FROM REAR



GREENHOUSE IN DISREPAIR

The gradual relocation of health services has continued from the 1980's to the present day, resulting in only the Detox facility [located in Maple cottage] and the Willow Clinic remaining on the Woodlands site. [administered by Ministry of Children & Families and Ministry of Health]. Previous residents of Woodlands were moved into group homes, or returned to families as part of a community placement program.

A large number of the facilities and structures have been unoccupied, and the site is used as a venue for such intermittent activities as filming and special events, all serving to further isolate the site from the residential neighborhoods surrounding Woodlands. Many of the facilities on site have been left in poor condition, with several containing asbestos or partial asbestos materials. Most structures have been disconnected from water or heating services.

In its dormant state, the landscape on site has grown to maturity representing a unique and exemplary collection of plant specimens. Many are over 100 years old.

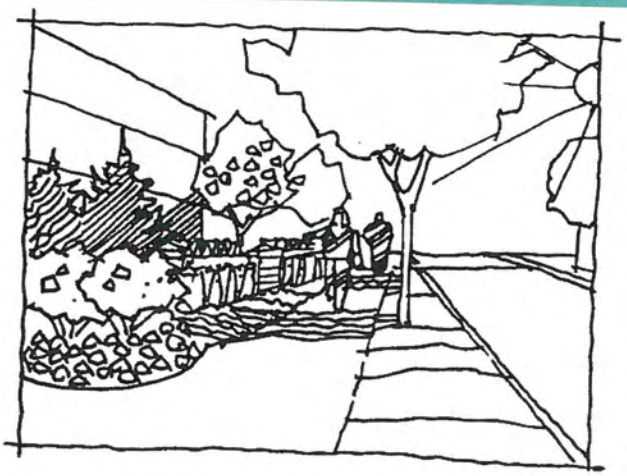
Woodlands has been prone to vandalism and several facilities have been damaged by break-ins and weathering.

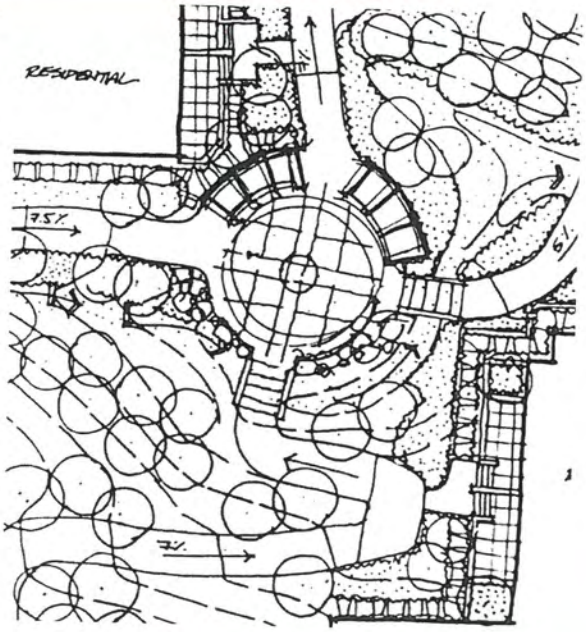
In its new context, surrounded by the redeveloped penitentiary lands, new Skytrain lines along Columbia Street, and the development of McBride Boulevard as a major arterial connection, the Woodlands site has become a quiet and strategically located island unto its own.



2 Planning Principles

2.1 Vision for Woodlands
2.2 A Balanced Community
2.3 A Variety of Housing Types
2.4 Environmental & Community Sustainability
2.5 Heritage
2.6. The Natural Setting
2.7. Development Economics / Comprehensive Development
2.8. Linkages/Neighbourhood Integration
2.9. Residential Neighbourhood Structure
2.10. Village Heart
2.11 Diverse and Cohesive Movement Patterns
2.12 Safety and Security







2.1. Vision for Woodlands

Objective: Create a community of people moving by foot, bike, car, scooter, and other means in a safe, landscape-rich environment



PEOPLE PLACES



NATURAL FEATURES



COMMUNITY SPIRIT

Based on previous land use planning work, the New Westminster Official Community Plan and the 2000 Pre-feasibility Study, a vision for the Woodlands site has been developed to provide a sense of purpose, place and a guide for the future development of the Woodlands site. It is the intention that all development will complement and support this vision, in order to create an integrated diverse community.

- **Vision for the Site:**

Create a vibrant, diverse, sustainable and livable community for all ages at a human scale, integrated into New Westminster's urban fabric.

A housing community promoting wellness and diversity that will highlight emerging concepts in the delivery of continuing care.



COMMUNITY GARDENS



2.3. A Variety of Housing Types

Objective: The Woodlands site will be redeveloped using a range of different housing types, creating a community of vitality.



HIGH DENSITY



MEDIUM DENSITY



LOW DENSITY

- **Delivery models**

Market housing types and a proportion of non-market housing units are encouraged to accommodate a range of residents on the Woodlands site. The variety of housing types on the site will ensure vitality and the street life needed to bring citylife and interest to the area.

- **Seniors**

New Westminster has a substantial and expanding seniors population, which will be housed in a variety of types at Woodlands. Assisted living, congregate care, and facilities such as the Hope centre will address the community need for expanded services and appropriate housing forms for seniors and the aged. In providing enhanced community facilities for the aged in close proximity to a variety of health services, seniors may be more encouraged to stay in New Westminster where they might otherwise move out of the community. Special concern in the guidelines is given to site details that allow movement on the sloping site, accessing transit in a safe and efficient manner. A range of affordable housing for families, singles and couples without children is also encouraged.

- **Built form types**

The design for Woodlands envisages a variety of building forms, including attached and stacked townhomes, condominium units, 4-storey condominium units, ground level medium density townhomes and high rise towers.





RESIDENTIAL HEALTHCARE FACILITIES



2.5. Heritage

Objective: Maximize retention, re-use, renovation of existing built and cultural heritage.



CENTRE BLOCK TOWER



BOILER HOUSE



HERITAGE BUILDING RETENTION

- **Heritage Evaluation**

A heritage value assessment ranking the buildings on the Woodlands site was conducted in 1996, and revised in 2002. This evaluation methodology was based on architectural and cultural history, context and integrity.

- **Retention Valuable Heritage Structures**

The development calls for the retention and re-use of the majority of the pre-eminent heritage structures located on the front line of the Columbia Street open space. A variety of retention and reconstruction proposals have been identified by heritage consultant assessments. Additionally, strategies are proposed for retention of other slightly less significant heritage structures which by virtue of their potential re-use and location are deemed important for the redevelopment of the site. The result is a series of buildings representing many eras, which, when succesfully integrated in a new development, will be of significant benefit and interest to the new community.

- **Re-use of valuable heritage structures**

A number of re-use possibilities can be explored for each structure being preserved including residential, community and/or cultural facilities.

- **Re-use of other site features**

Other site features have been identified for reuse, including gates, fences, stone walls, and monuments. The plan for redevelopment also proposes the reuse of building elements not being retained in whole, (e.g. the reuse of existing foundations for new use in greenway ramp structures, the reuse of foundation walls as new retaining structures, and other strategies). Possibilities can be explored for each development area, and relevance to historical features should be made using interpretive signage where possible.



2.7. Development Economics/Comprehensive Development

Objective: The Woodlands site will be redeveloped as a comprehensive planned community, creating unique opportunities to ensure coherence, consistency and flexibility to respond to changing market conditions.





HOUSING



SAFE STREETS



NEIGHBOURHOOD COHESION

- **Market Assessments (encourage diversity and flexibility)**

The plan for Woodlands is designed to accommodate sufficient density to provide needed relief to the City of New Westminster's demand in the following areas:

Market townhomes

Family market townhomes

Seniors market homes

Opportunities are also provided for stacked townhomes, four storey apartments, six to eight storey apartments and up to sixteen storey high-rise apartments.

- **Comprehensive development pro-formas**

A rare opportunity in the GVRD presents itself in the comprehensive redevelopment of a major view area. Along with the opportunity to design a comprehensive planned community comes the responsibility to carry out site development and building design with continuity and commitment to high quality.

- **Development considerations and planning patterns**

Woodlands is planned to take full advantage of the available green space, to transform surface parking areas into public amenities, and to re-plan sprawling institutional areas as efficient residential neighborhoods. The Woodlands development is designed as a pedestrian oriented, landscape rich residential neighborhood, connected by green links and transit to the community at large.

- **Maximize life cycle return on investment**

Development economics shall aim to balance amenities with proposed development, ensuring a long range success for the community.



2.9. Residential Neighbourhood Structure

Objective: Create a sense of unique character and place by designing focal points, social spaces and landmarks in an integrated whole.



QUIET SPACE



MARKET



PUBLIC SPACE

- **Public and private realms**

The Woodlands development should clearly delineate public, semi-public and private realms to give residents a clear sense of community structure. Public amenities such as seating, lighting, fountains, etc., will help create a sense of pride of place and enhanced ownership of the public realm. Maximise opportunities for public interaction.

- **Activity focus, landmarks, mews and streets**

Recreational and community structures will be located such that they provide clear focus and direction to the community, and are tied into pedestrian and greenway linkages. Street hierarchies will enhance public sense of orientation, and will encourage slower speeds of driving, allowing pedestrian security and bicycle usage.

- **Mix of uses and activities**

The development at Woodlands will incorporate various uses to encourage diversity and sustainability in community structure. Small retail outlets at the site entrance will encourage local activity, and residents to shop on-site. Available recreation and passive recreation activities will increase a sense or public ownership and satisfaction.

- **Vitality and synergy**

Views / platforms, focal points, nodes, activities will characterize the Woodlands Community.



2.11. Diverse and Cohesive Movement Patterns

Objective: Create a community of people moving by foot, bike, car, scooter, and other means in a safe, landscape-rich envornment



LAYBY PARKING



PEDESTRIAN OVERPASS



DIVERSE MEANS OF MOVEMENT

- **Not auto dominated**

The major intent of the Woodlands development is to provide for ease of movement by foot, bicycle, and access to transit, alleviating the need for auto dominance. Street traffic calming and design and curb refinements will further emphasize the importance of pedestrian movements over cars and speed.

- **Pedestrian and bicycle paths**

Pedestrian and bicycle paths are to be laid out in a coordinated manner, linking with New Westminster pathways, and providing ease of access through major public open spaces on the site.

- **Alternative transit systems**

Access to bus and Skytrain will create linkages to off-site locations and emphasize the central GVRD location of the site.

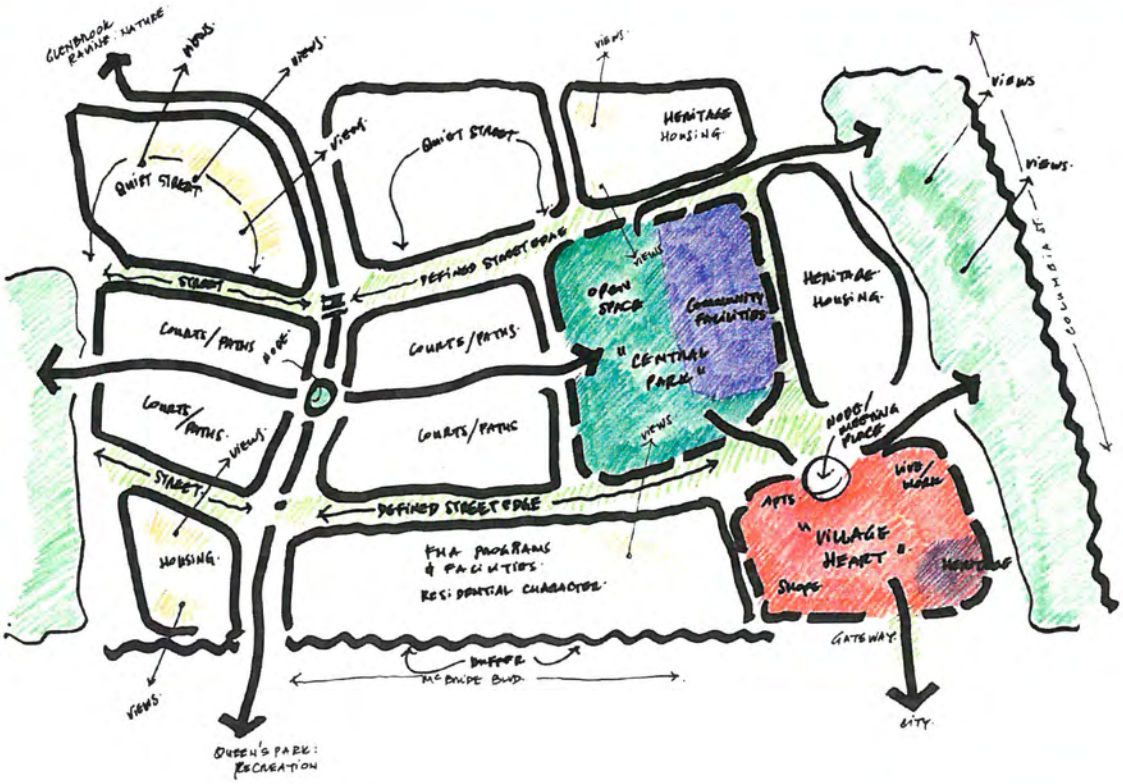
- **Accessiblity: Wheelchair and scooter friendly**

Based on the number of future senior and mobility impaired residents, it is especially important to address site movements that are suitable for free movement across major routes on the sloping site. In addition, family friendly pathways will allow for such recreation activities as scooter use, strollers, tricycles, wagons, etc. Semi-hard landscapes on pathways will reinforce this principle.



3 Specific Planning Strategies

3.1. Heritage Preservation, Restoration and Adaptive Re-use
3.2. Open Space/Tree Preservation, Enhancement
3.3. Provision of a Wide Variety of Housing Types (Elaboration)
3.4. Traffic and Access Concerns
3.5. Pedestrian and Non-Vehicular Linkages
3.6. Provision of Community Facilities
3.7. Architectural Character
3.8. Views and Topography
3.9. Parking





3.1. Heritage Preservation, Restoration and Adaptive Re-Use

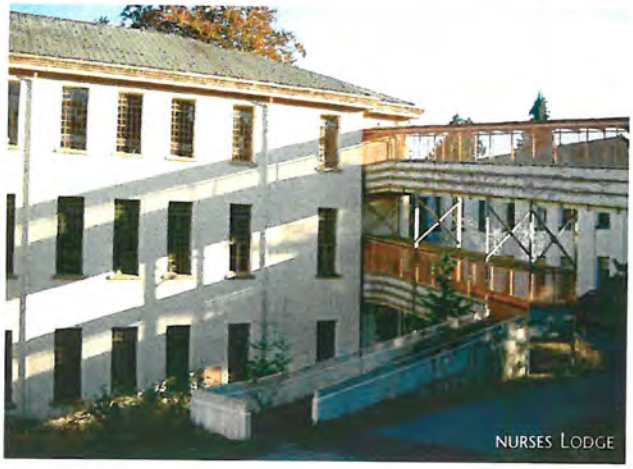
Goal: ***Preserve, re-use and adapt as much of the built heritage of the Woodlands site as is feasible***



COLUMBIA STREET GATE



CENTRE BLOCK



NURSES LODGE

The development of the former Woodlands site will re-use and preserve all or portions of such important buildings as the Nurses Lodge, Boiler House, Centre Building, Carpentry Shop and the Recreation Building. Specific parcel designs shall endeavour to address re-use and adaptability in a manner in accordance with recommendations with the Community Heritage Commission.

Specific approaches will be determined by what is fiscally responsible and warranted, as best suits the marriage of new use and former facility. In some cases, (e.g. the former Recreation Centre), the re-use of the facility is based on the function of the existing, and the updating of the expression from institutional use to a new community role is to be addressed. In other cases, the specific design character of the heritage structure is to be retained, while the spatial configuration and use are to be adapted to a new function.

Specific design approaches which address the scale, massing, materials, heritage value, and functionality of existing structures are recommended.



NURSES LODGE



3.3. Provision of a Wide Variety of Housing Types

Objective: Planned diversity, range of ownership choices, and potential for ageing-in-place.



HEALTHCARE COMMUNITY



SENSE OF PLACE



RESIDENTIAL CHARACTER

- **Delivery models (market, non-market, public institutional, private health care, public-private partnerships)**

The diverse possibilities of delivery reflect society's tapestry, and create unique possibilities for neighborhood balance.

- **Seniors and care facilities (congregate, assisted living, multi-level, Hope Centre, dementia cottages)**

Close proximity and integration of seniors facilities encourages community blending and growth.

- **Built form types (low-rise, mid-rise and high-rise)**





3.5. Pedestrian and Bicycle Networks

Objective: Paths connect nature and dwelling, dwelling and city



PEOPLE PLACES

- **Park to Park**

Connection from Glenbrook Ravine, through the site to a proposed pedestrian overpass over McBride Boulevard to Queen's Park. This connection will pick up on the existing natural character of Glenbrook Ravine, and be an informal path with easy transitions of slope. The landscape treatment will emphasize dense greenery at edges, and allow many pauses with benches and site furnishings. Species will be chosen that are native and drought resistant as well as consistent with the character that is "wild" in comparison to the urban context surrounding.

- **North-South**

A Central Spine connection is proposed from the Memorial garden to the Columbia Street edge, passing via a central recreation open space [Central Green]. This route will be slightly more formal in character, enhanced by new planting, ramps to reduce slopes, and central gathering areas at key junctures. Views from the path will be enhanced by platforms and site furnishings.

- **Off-site**

Connections to the Glenbrook Ravine, Waterfront edge, and Queen's Park will integrate the path systems and emphasize the linkage of the Woodlands site with the adjacent community by non-vehicular means.





3.7. Architectural Character

Objective: Develop an architectural character and style for the site which will provide identity vitality and charm, while allowing diversity



STREET EDGES



ENTRIES AND PRIVATE SPACES



OUTDOOR ROOMS

- **Project Thematics/Image**

The Woodlands development is not intended to be historical in character or style, but rather aims to provide guidelines as to the level of care to be exercised in building detailing, material choices, and design decision making. The development shall, however, pick up on massing and character clues from the existing historical buildings to be retained, and the adjacent Queen's Park neighbourhood. The overall image to be conveyed by the Woodlands project is:

richness of detail

articulation

materials of durable nature

endurance

lasting

human scale

A major consideration in the conversion of the Woodlands is the desire to revise, update and depart from the previous institutional character of the site. The new residential development will be encouraged to adopt a character which is informal in nature, integrated with the landscape, and keenly aware of pedestrian and human scale (eg. recent development on Terry Hughes lands).

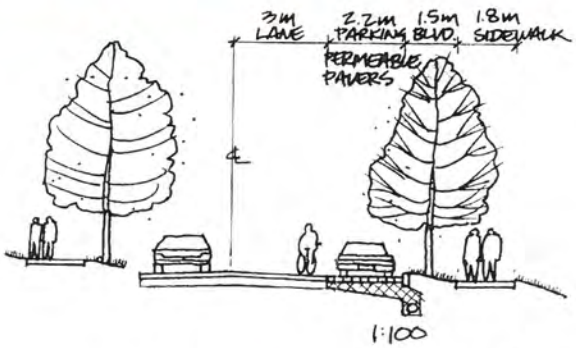


3.9. Site Parking

Objective: Limit the presence of the automobile while satisfying the resident needs



PARKADE ENTRIES LANDSCAPED



TYPICAL ROAD SECTION



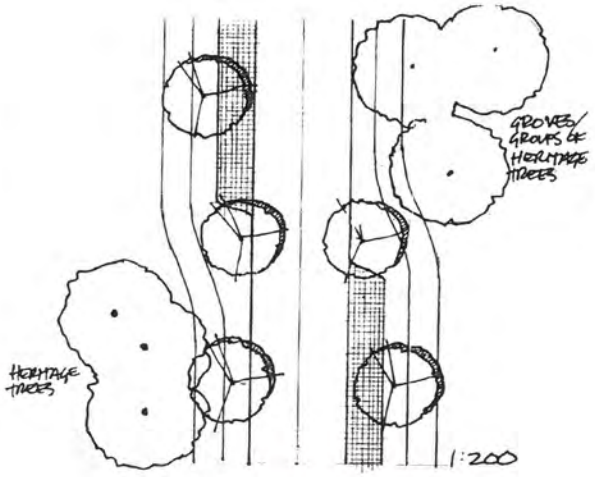
SAFE STREETS

- **Conceal parking with topography/planting**

Wherever possible, designs for parking structures shall ensure that direct views into parkade entrances are screened or hidden behind planting or landscape materials. Use of the natural slope to create parkade entrances at the lower level of a building site is encouraged to prevent ramped entrances to below-grade parkades at building entries. Concealing of parkade entries should be done in such a manner that exiting cars are not in conflict with pedestrian paths.

- **Make entries and exits obvious**

Attention to parkade entry design will allow for development of appropriate character for entry signage, landscape at parkade entries, and slopes at parkade entry/exits. This will enhance the street appearance of street parking, and also ensure security at pedestrian / parkade crossings.





4 Design Guidelines

4.1. Massing and Building Proportions/Heights
4.2. Roof Forms
4.3. Architectural Features
4.4. Windows
4.5. Building Entrances
4.6. Balconies
4.7. Parkades
4.8. Colours
4.9. Materials
4.10. Energy Efficiency/Sustainability
4.11. Safety and Security
4.12. Lighting

Each section of design guidelines has been drafted to avoid conflicting requirements. However, should a conflict arise, the more local or area-specific set of design guidelines takes precedence. For example, parcel design guidelines take precedence over general planning Design Guidelines.



4.1. Massing and Building Proportions

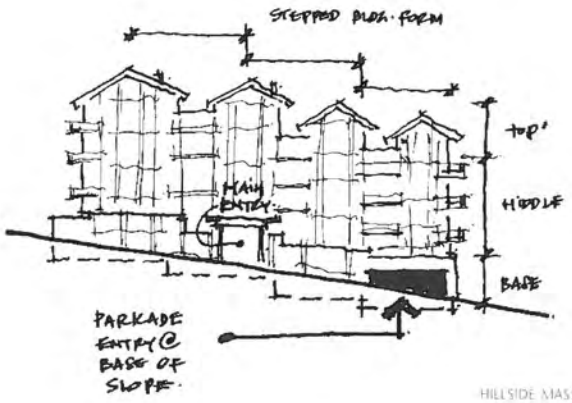
Principal: Building design and siting should create legible, articulated forms that support the creation of a liveable community



FACADE ARTICULATION



STREET EDGE SCALE



HILLSIDE MASSING

- **Basic Building Form**

Basic building forms should be legible and simple to promote pedestrian orientation and neighborhood clarity. Overly simple building forms will negatively recall the institutional character of the Woodlands site. Therefore, articulation of facades in a clear hierarchical manner as well as breaking up a long facade with vertical elements is encouraged. A residential character should be the overriding massing strategy. Buildings should promote a base-middle-top arrangement, as follows:

***base**: clearly expressed joined to site and slope, masonry elements*

***middle**: articulated window and balcony arrangements*

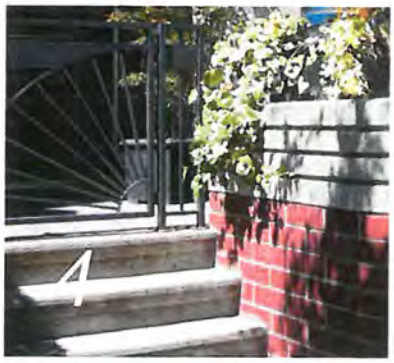
***top**: living spaces at the roof level; dormer elements.*

- **The sloping site**

The use of the sloping site to building advantage is recommended, (e.g. locating parkade entries at the lowest point of a building slope) to reduce ramping distances. Stepped building forms shall maintain ground-level relationships.

- **Expression**

The use of balconies and setbacks accentuates the integration of buildings to the landscape and their immediate context. Vertical articulation can reduce the scale of a long facade. Adjacency to a heritage building will require a massing response to the building context. Creating depth in facades as building expression is encouraged to create visual interest and identity in building form. Layering of facade treatments with consistent materials and colours shall promote a visual interest and residential scale.



4.2. Roof Forms

Objective: Roof forms should be designed to reduce building scale, provide symbolic character, and contribute to building identity



SLOPED FORMS



TRADITIONAL APPEARANCES



COORDINATION OF ROOF LEVEL ELEMENTS

- **Incorporation of Living Space**

Roof forms are meant to express a residential character in building volume, and should express the completion of the building mass. Roof forms should include living space and be expressions of the building layout as it meets the roof plane. Rooftop patios and terraces are encouraged but should be effectively oriented and screened for privacy. Green roofs and rooftop appearances are encouraged, particularly where flat roofs occur.

- **Minimum Slopes**

Sloping roofs should be of sufficient slope [4:12 recommended] to effectively shed water and snow and reflect a residential character. The use of flat roofs is discouraged especially given overlook conditions from higher slopes on the site. Areas of flat roof should be considered for extensive roof garden planting, or habitable roof gardens, e.g.Boiler House. Substantial roof overhangs are encouraged on all roof forms of lower buildings (i.e. six storeys or lower).

- **Gable treatments**

Roof forms shall incorporate overhangs and eaves at gable ends. Gable ends shall be designed in a manner enhancing building coherence. The openings within gable ends should be designed in concert with the building form as a whole.

Roof forms should respond favourably to the site conditions since many of the roof forms will be visible from higher slopes or from taller buildings adjacent to the Woodlands site.

- **Chimneys**

Exhaust and chimney flues should be considered to provide vertical play in roof forms. They should be considered as part of the overall massing strategy. Vertical chimney forms can provide individual identity, balance and animation in relieving large roof forms.



4.3. Architectural Features: High Rise

Objective: All architectural features shall be designed as part of a coherent whole, contributing to the overall character of the Woodlands Development

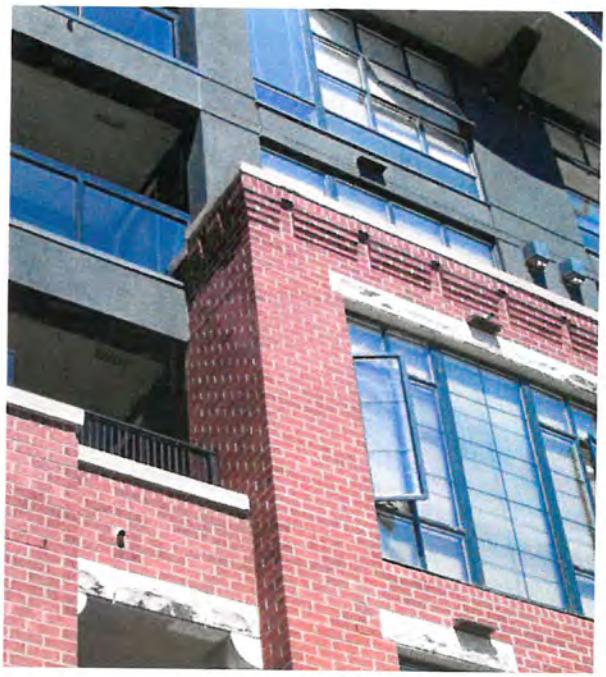


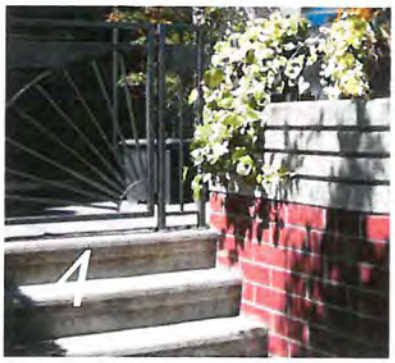
BALCONY EDGES



FACADE SHOWING DEPTH AND PATTERN

- Medium and highrise forms shall ensure that building features acknowledge pedestrian scale and base.
- Balconies shall be incorporated as integral component of massing form, rather than "added on".
- Operable windows on high rise forms are encouraged.
- Vents, mechanical equipment rooms and elevator penthouses should be integrated with architectural treatment of roof forms.





4.5. Building Entrances

Principle: The sense of arrival to a building shall be celebrated through the design and detailing of its entrance.



BICYCLES INTEGRATED



PUBLIC ENTRY



PUBLIC ENTRY

Building designs at Woodlands shall provide effective entry spaces clearly visible at grade. Tie-in building entries with adjacent pathways and sidewalks. Entries are the building introductions and should be designed as part of a compositional whole.

- **Access**

Access shall be at grade or slightly raised. Below-grade access is discouraged. Building entries shall be fully accessible by ramp (e.g. wheelchairs, strollers, scooters).

- **Scale**

Entries shall be of a scale appropriate to its use, (e.g. residential, mixed use, healthcare-related). Building entries shall be designed to be informal in character yet generous in dimension. Entries shall be sized appropriately to units served, (e.g. ground-level entries to individual units shall be clearly of a different scale than main building entries serving multiple units).

- **Safe and visible**

Entries shall be designed to promote secure access at all hours.

- **Weather protection**

Entries and street frontages shall be weather protected sufficiently to accommodate seating, planting, panels, and bicycle parking. Well-designed building entries shall act as social spaces for residents.

- **Lighting**

Building entries shall be designed with effective lighting to provide secure night access while avoiding creating glare for residents adjacent.



4.7. Parkades

Objective: Parkades shall be designed to be safe, useable, and efficient.



PAINTING AND WAYFINDING



LIGHTING



PEDESTRIAN CROSSINGS SAFE AND CLEARLY MARKED

Parkade design shall address the following issues, with special regard for Crime Prevention Through Environmental Design (CPTED) and safety issues: (See CPTED Guidelines appended in this document for reference).

- Elevator lobbies glazed
- Walls painted white
- Access clear, signage and wayfinding important
- Surfaces marked for direction
- Pedestrian routes clearly indicated
- Visitor Parking to be clearly identified and accessible, not gated
- Stalls undedicated to encourage use of off-street facilities
- Entry points at low point of site grade, access screened by planting
- Use of round columns encouraged

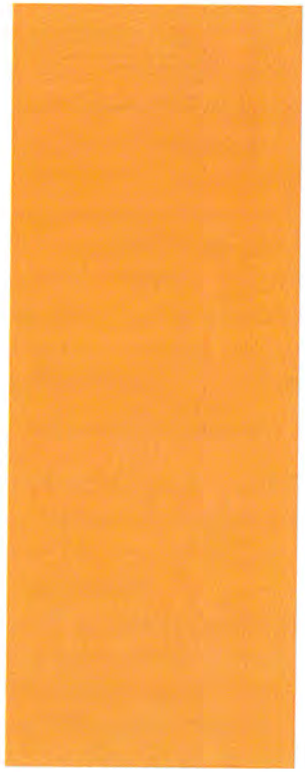
Parkades shall generally be designed to fall completely below new building forms.

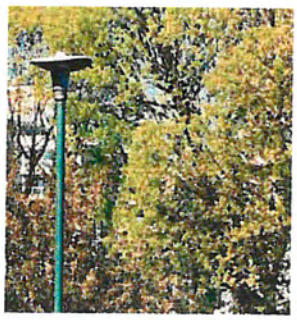
Where grades create exposed parkage edges, new grades shall be designed through bermed land forms, terraced planters, or other means of covering parkades from view.



4.8. Colours [cont'd]















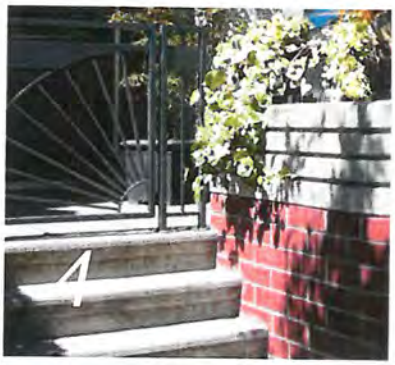
4.9. Materials [cont'd]









4.11. Safety and Security

Principle: CPTED strategies can help ensure that community safety and security are planned for, as well as reducing potential crime targets



"EYES ON THE STREET"



VISIBLE PUBLIC AREAS



TRAFFIC CALMING

For the Woodlands development to be a successful, sustainable development, it will need to address issues of crime prevention and public perceptions regarding fear of crime from the outset. The design of the public urban spaces in Woodlands will help ensure that designs are user friendly and safe.

- **Hierarchy of Space**

Definition of semi-public, public, and private spaces shall be designed in a clear, hierarchical manner. In mixed-use areas, hierarchical definition may be done in a vertical manner as well as in a horizontal separation.

- **Defensible Space**

Boundaries between owned space and shared public space shall be defined and surveillance of edge spaces provided for in building openings, lighting and views.

- **Access Control**

Egress / ingress points to the site and to specific buildings shall be designed to be visible, supervised, and kept to a minimum to ensure community control.

- **Target hardening/territoriality/Natural Surveillance**

Building materials and layouts shall provide for "eyes on the street" and physical barriers where visual overlook is likely..

- **Safety at traffic/pedestrian conflict points**
- **Traffic calming**

"Side friction" will reduce speeds of traffic and improve safety on streets.

CPTED Guidelines for safety in design shall be followed (enclosed in this document as reference).



Specific Design Areas

5.1. Parcel A: Royal Court
5.2. Parcel B: Nurse's Lodge/Maple
5.3. Parcel C: Centre Commons
5.4. Parcel D: Boiler House
5.5. Parcel E: Recreation Centre
5.6. Parcel F: Central Green
5.7. Parcel G: Cedar Court
5.8. Parcel H: Willow Court
5.9. Parcel I: Orchard
5.10. Parcel J: Faserview
5.11. Parcel K: McBride Park
5.12. Parcel M: Fraser Health Authority: Hope Centre Site
5.13. Parcel M: Fraser Health Authority: Multi-Level Care or Assisted Living and Dementia Cottage Site
5.14 Parcel O: Fraser Health Authority: Assisted Living Site

Design Review Process

During the design review process, the City of New Westminster must find that specific proposals meet applicable design guidelines. Proposals that meet applicable guidelines will be approved; proposals that do not meet applicable guidelines will not be approved. If the review body approves the proposed design, they may add conditions to their approval to ensure the proposal's compliance with the guidelines. If the review body does not approve the proposed design, they would prefer that the applicants revise the design to address deficiencies rather than have the city impose a specific solution through conditions. The review body may also address aspects of a project's design that are not covered in the design guidelines. They may find that such action is necessary to better achieve the goals and objectives for design review in Woodlands.

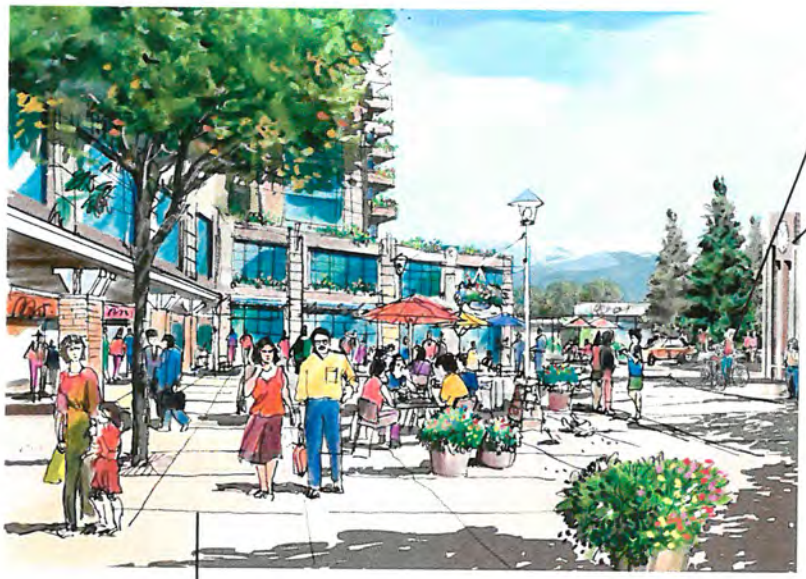


5.1. Parcel A: Royal Court [cont'd]



PLAN AT 1:1000 SCALE

5.1. Parcel A: Royal Court [cont'd]



"MEETING PLACE"
CENTRAL TOWER ELEMENT

FACADE BAY PROJECTIONS

PLAZA PAVING IMPORTANT

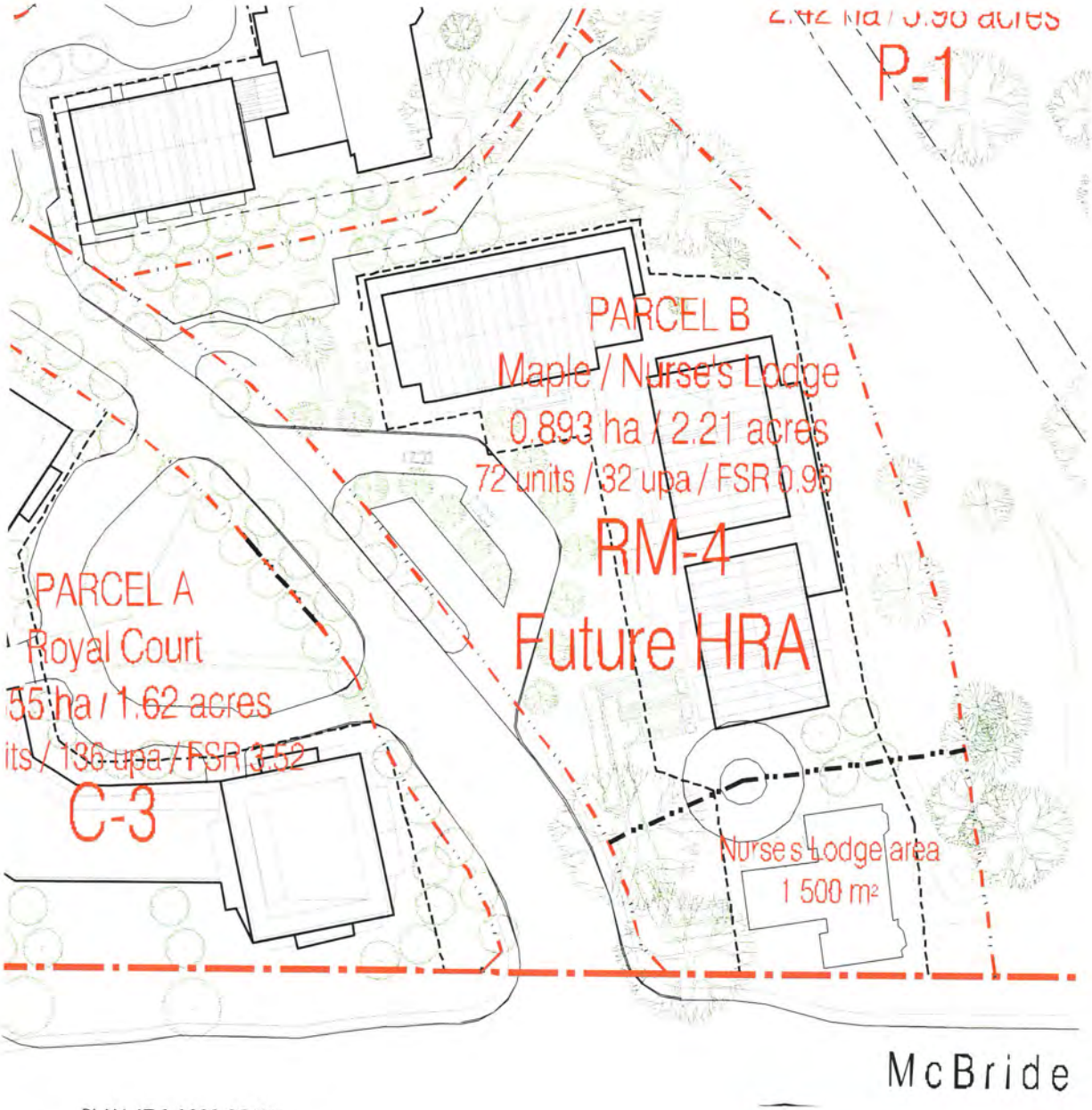


MIDDLE

BASE



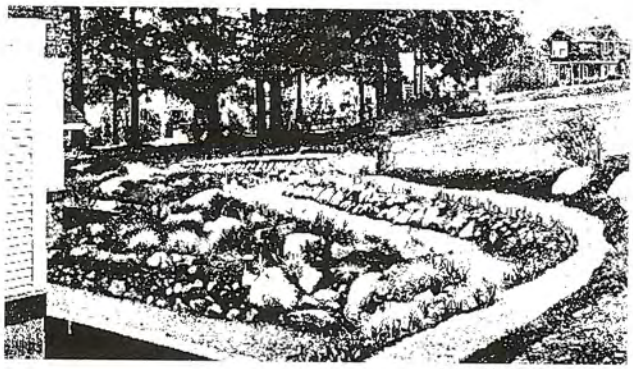
5.2. Parcel B: Nurse's Lodge/Maple [cont'd]



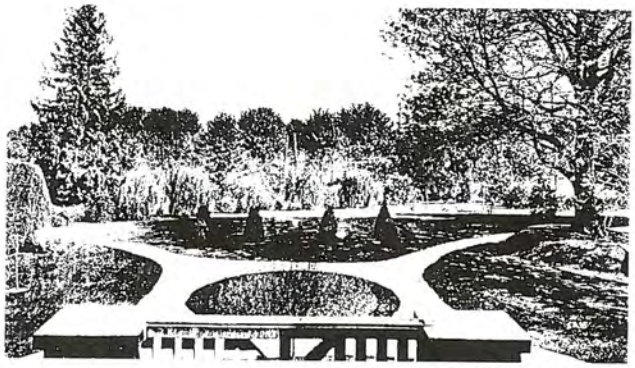
PLAN AT 1:1000 SCALE



5.2. Parcel B: Nurse's Lodge/Maple [cont'd]



ROCKERY GARDEN



FORMER FRONT LAWN

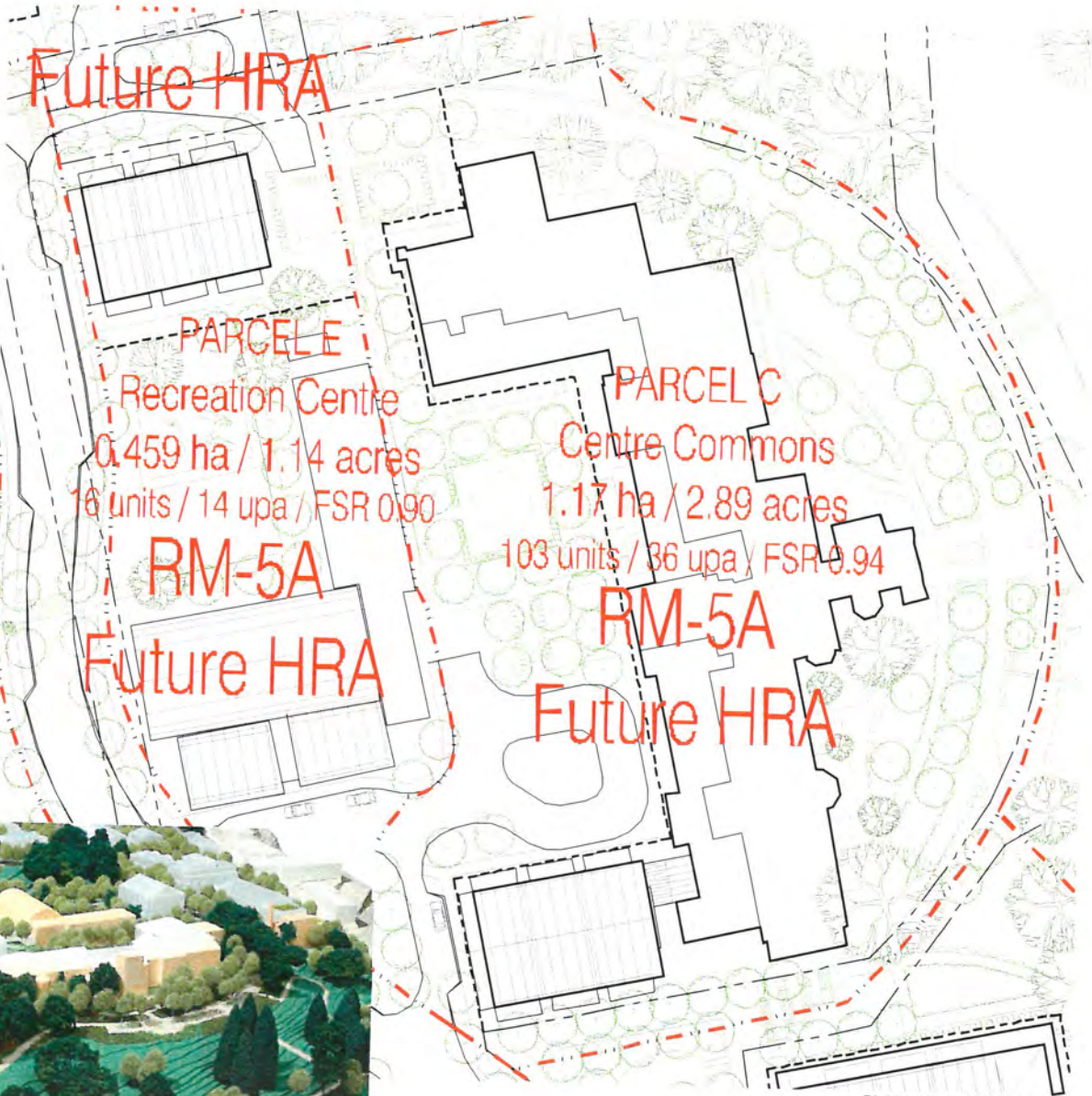


NURSE'S LODGE FRONT PORCH



COLUMBIA STREET FACADE

5.3. Parcel C: Centre Commons [cont'd]



PLAN AT 1:1000 SCALE



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5.3. Parcel C: Centre Commons [cont'd]



EXAMPLE OF SITE FURNISHINGS



C. 1910



VIEW TO FRASER RIVER

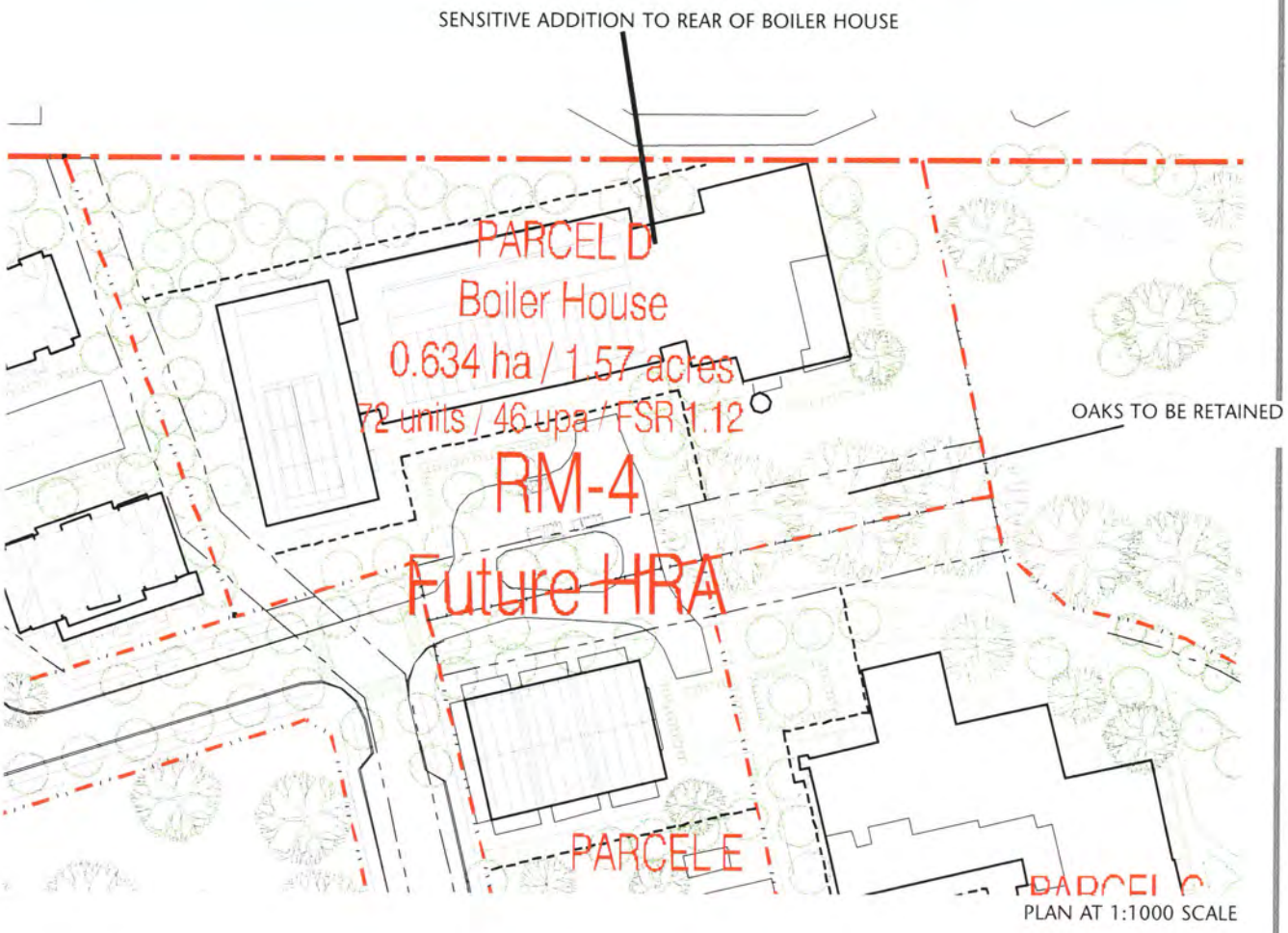


PRESENT DAY





5.4. Parcel D: Boiler House [cont'd]



PLAN AT 1:1000 SCALE

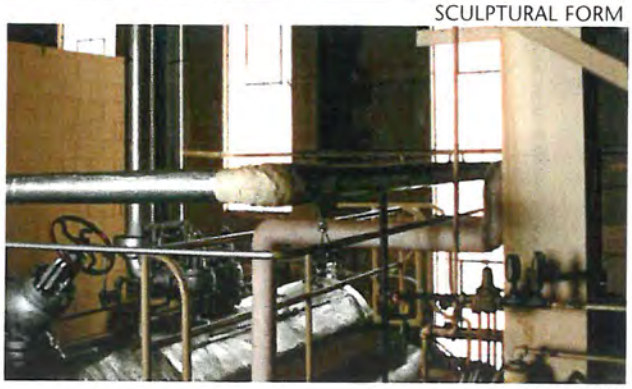
5.4. Parcel D: Boiler House [cont'd]



VIEW AT DUSK



SCULPTURAL FORM

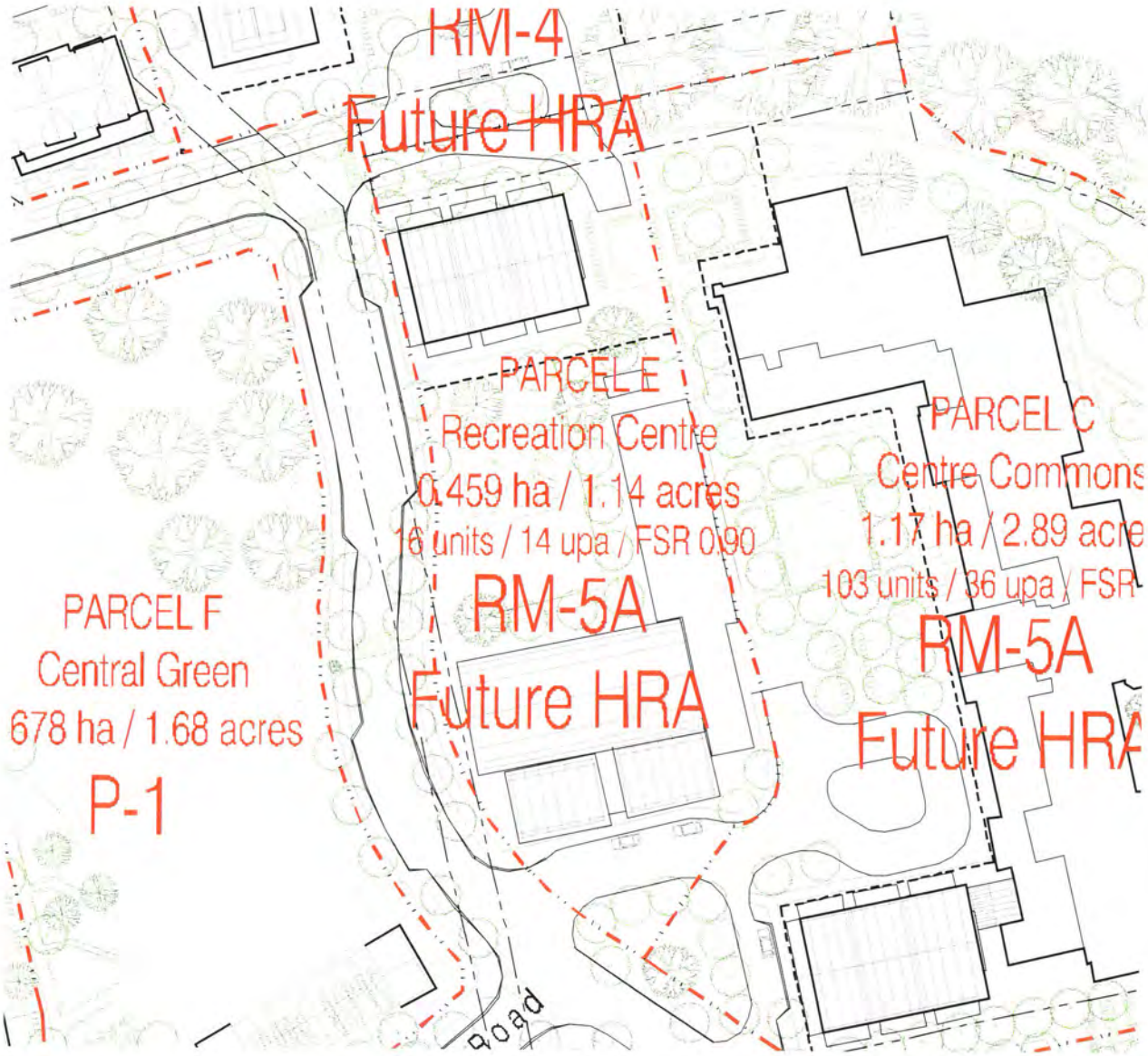


INTERIOR



VIEW OF PROPOSED BOILER HOUSE REDEVELOPMENT FROM COLUMBIA STREET OPEN SPACE

5.5. Parcel E: Recreation Centre [cont'd]



PLAN AT 1:1000 SCALE

5.5. Parcel E: Recreation Centre [cont'd]



VIEW FROM NORTH WEST



VIEW FROM SOUTH WEST



COURTYARD FACADE

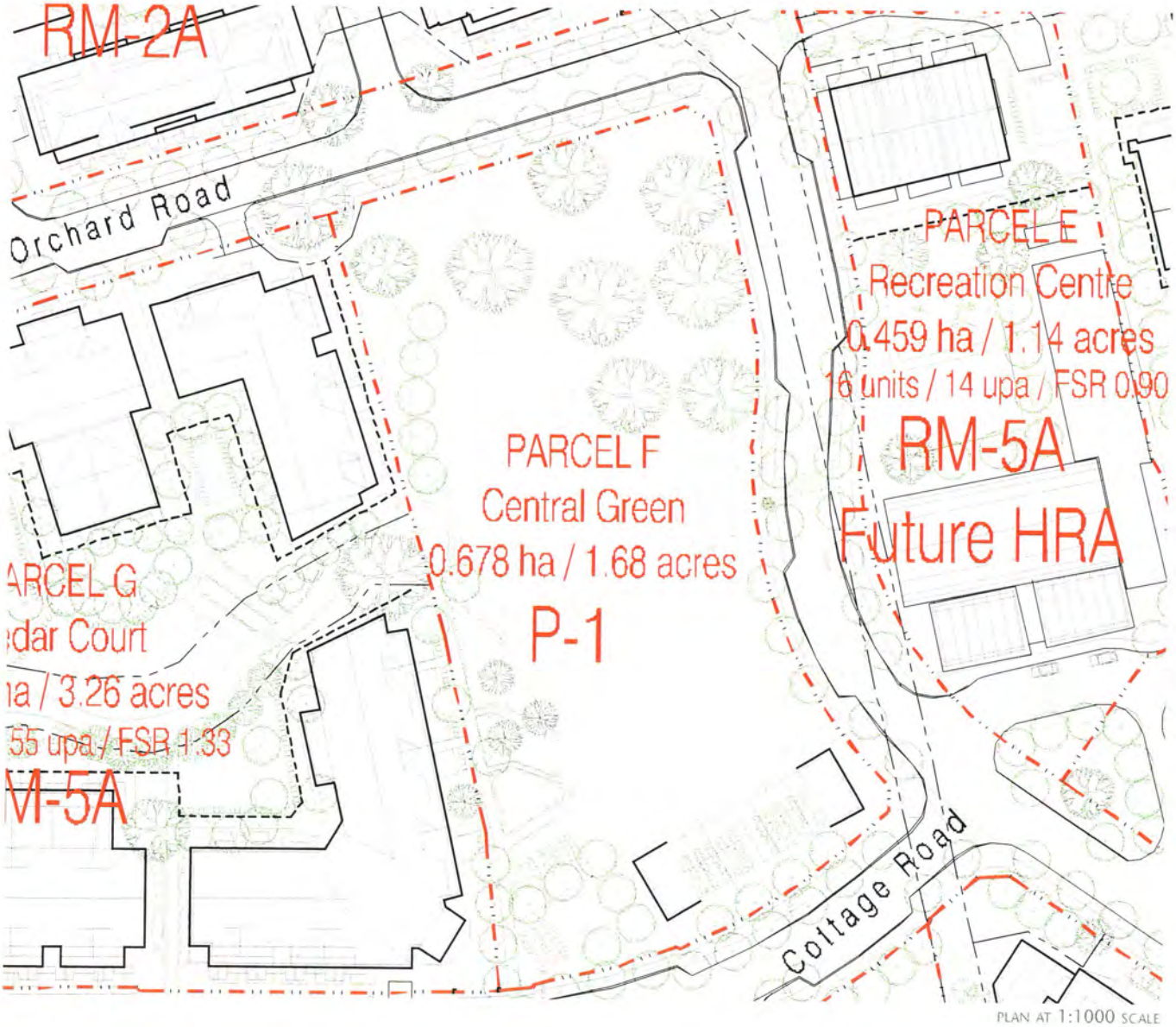


AUDITORIUM INTERIOR



MEMORIAL AT WEST FACADE

5.6. Parcel F: Central Green [cont'd]



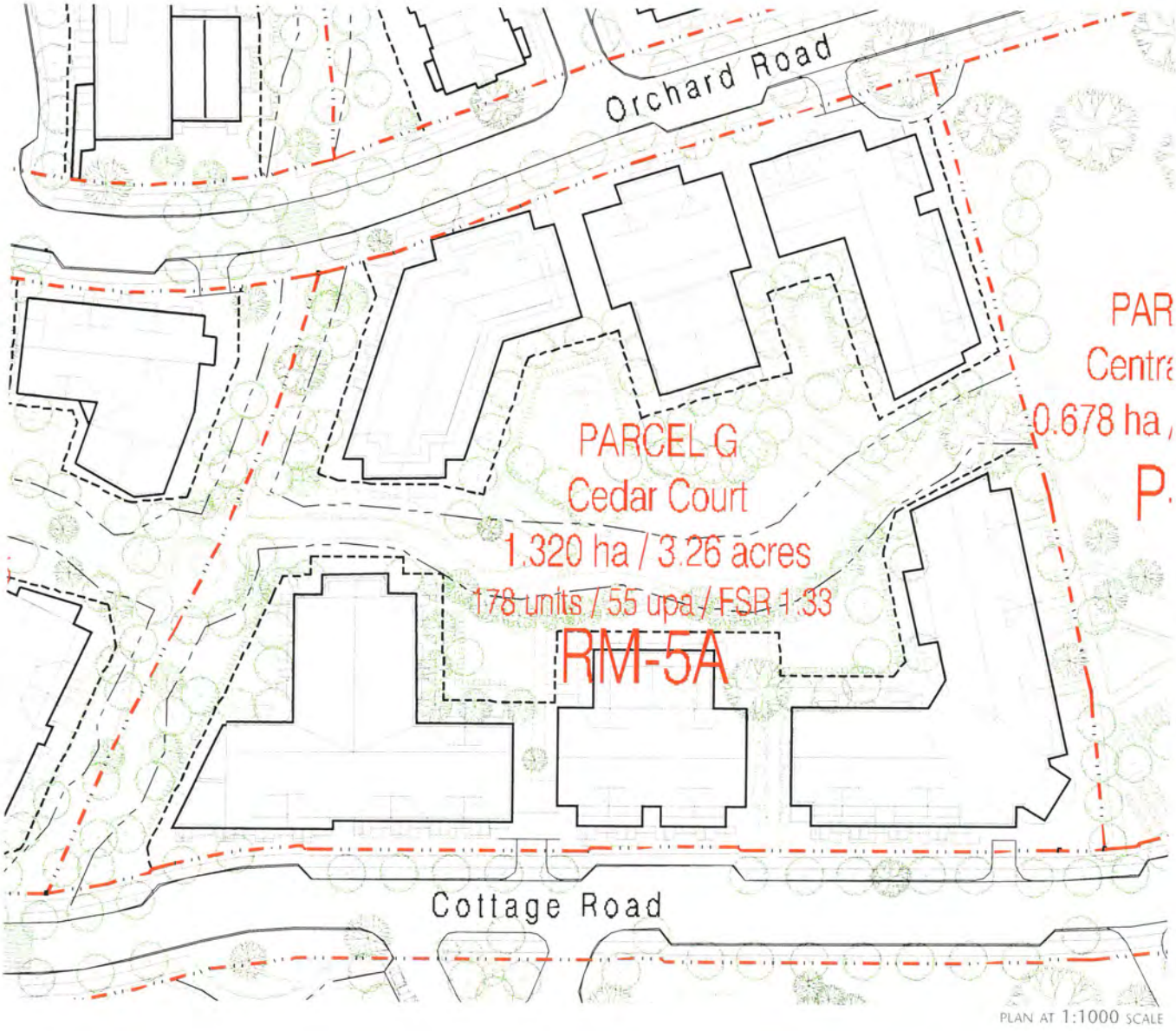
5.6. Parcel F: Central Green [cont'd]



COTTAGE ROAD



5.7. Parcel G: Cedar Court [cont'd]



PLAN AT 1:1000 SCALE



5.7. Parcel G: Cedar Court [cont'd]



CENTRAL PEDESTRIAN SPACE

BALCONIES CREATED BY THIRD LEVEL SETBACK



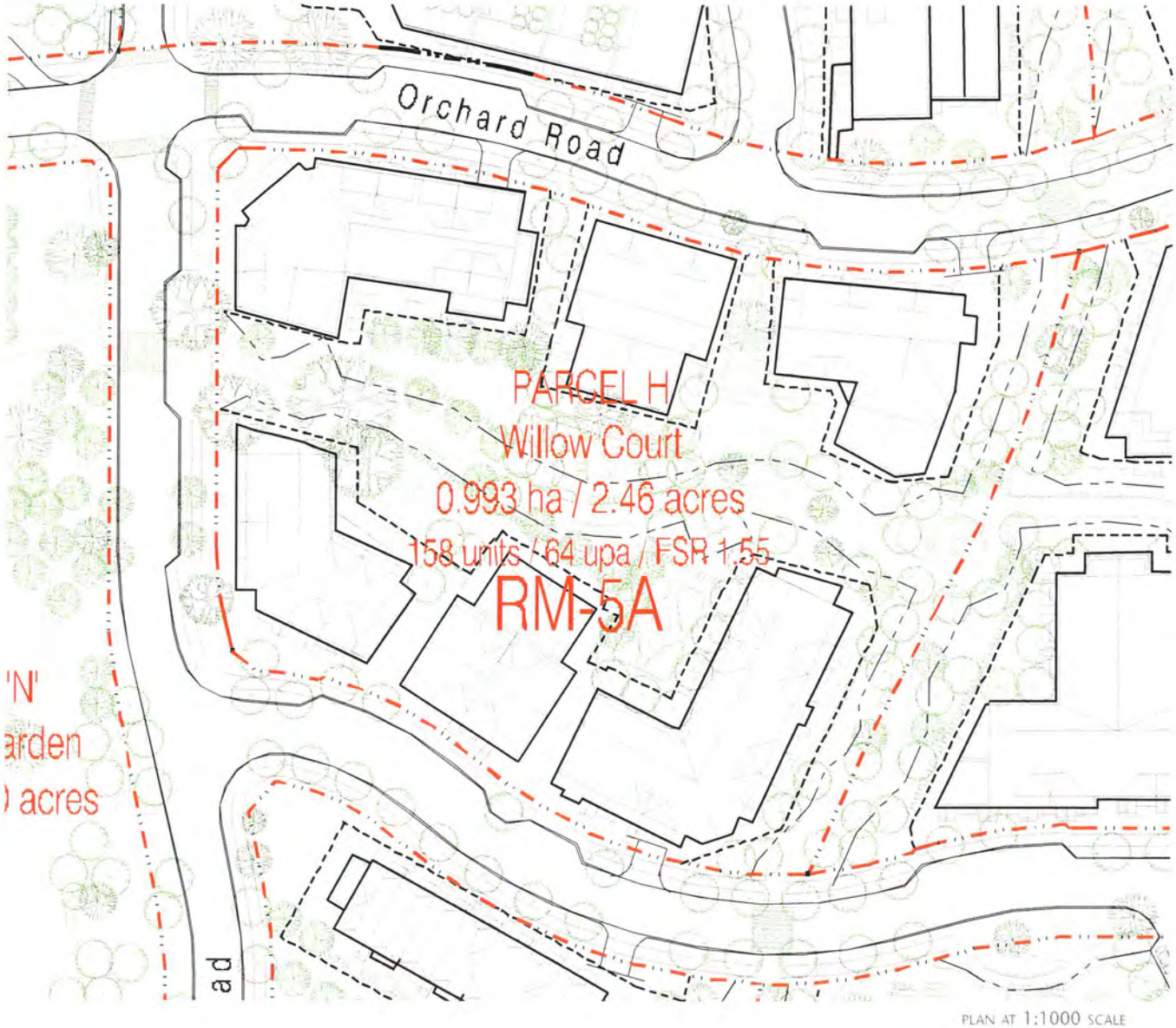
CEDAR COURT EDGE



EXAMPLE OF SEATING AREAS



5.8. Parcel H: Willow Court



PLAN AT 1:1000 SCALE

5.8. Parcel H: Willow Court



SKETCH SHOWING STREET EDGE DEFINITION



5.9. Parcel I: Orchard [cont'd]



PLAN AT 1:1000 SCALE

5.9. Parcel I: Orchard [cont'd]



HISTORIC FIREHALL IMAGE

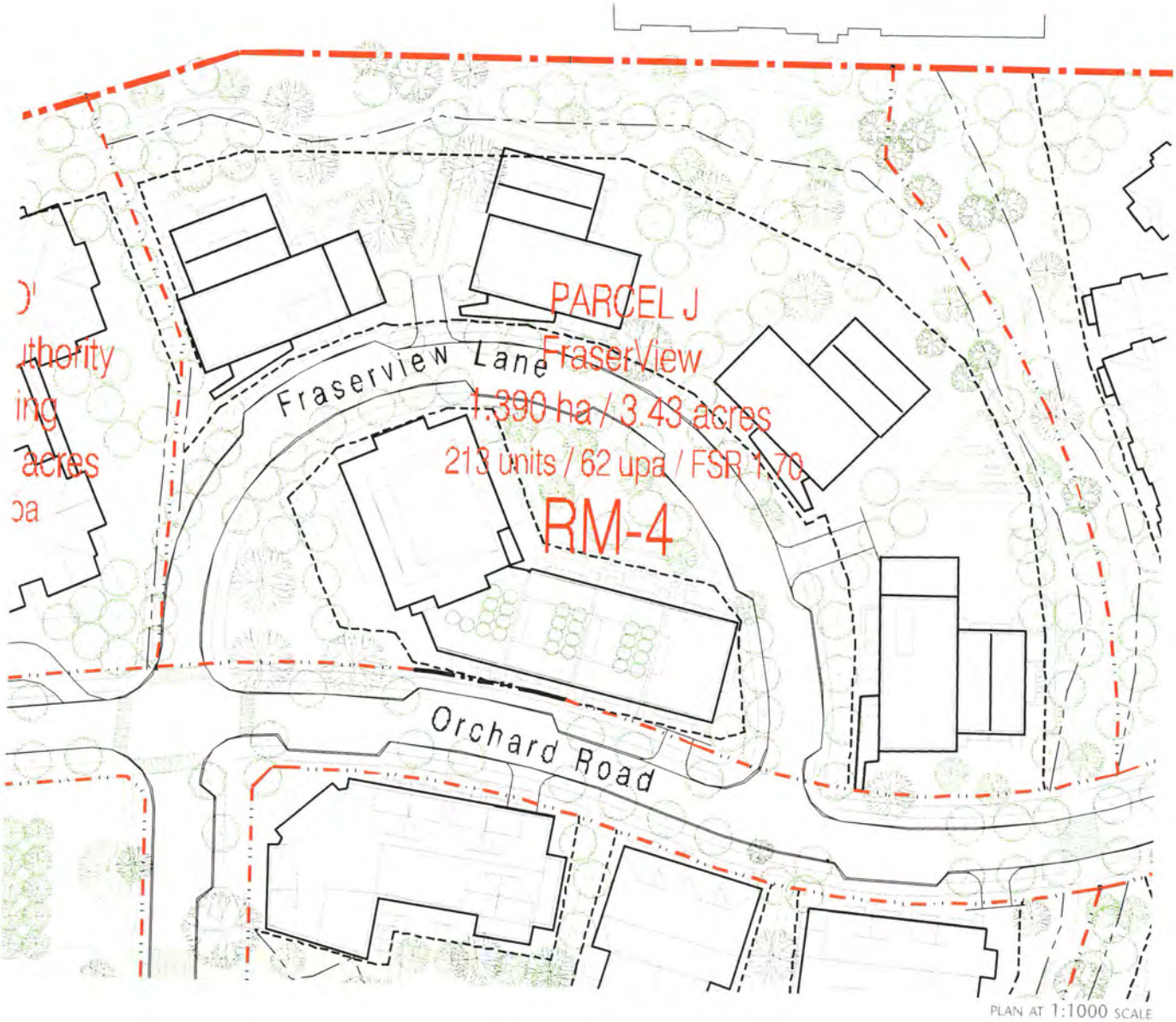


CARPENTRY SHOP





5.10. Parcel J: Fraserview [cont'd]



PLAN AT 1:1000 SCALE

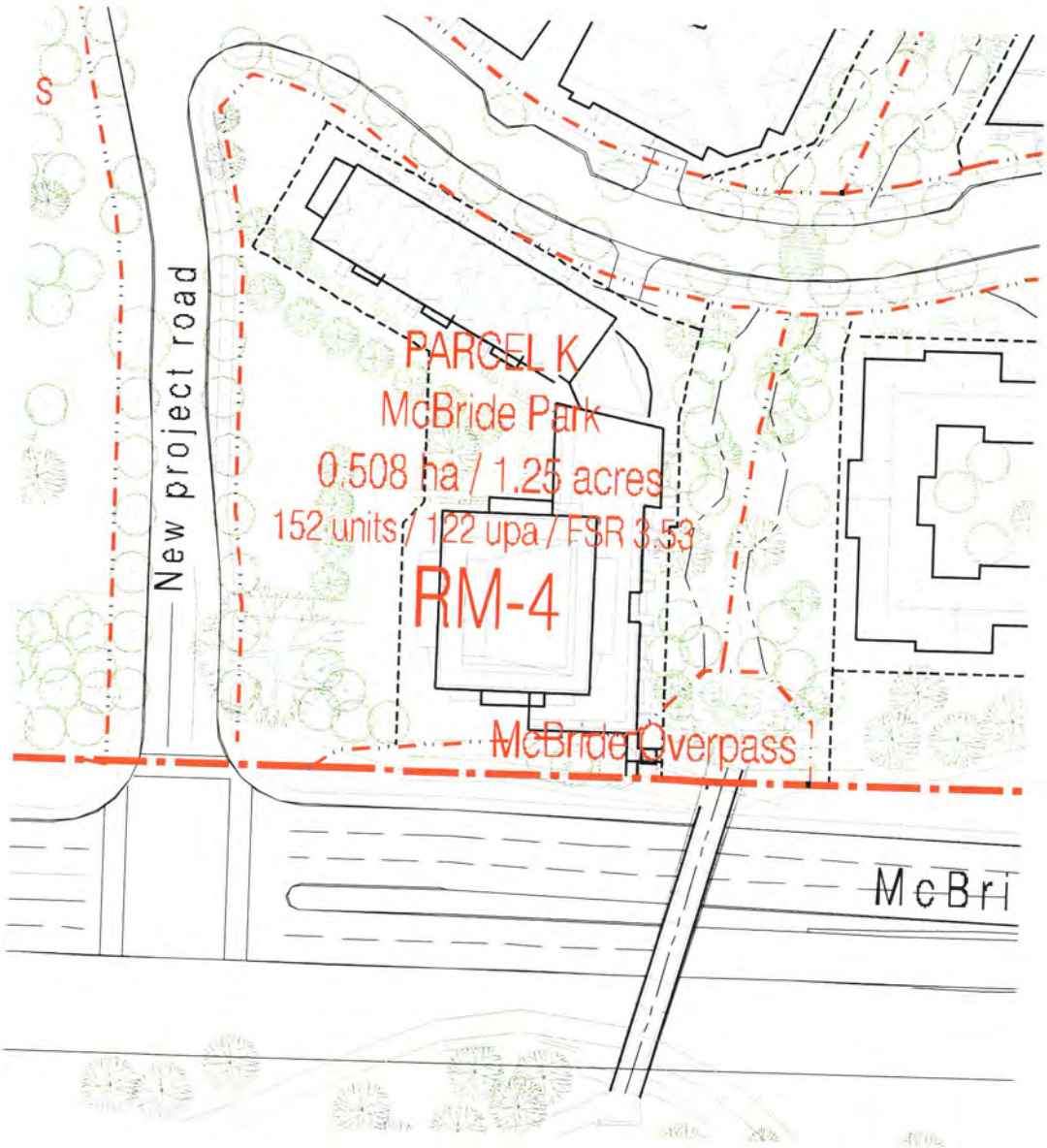
5.10. Parcel J: Fraserview [cont'd]







5.11. Parcel K: McBride Park [cont'd]



PLAN AT 1:1000 SCALE

5.11. Parcel K: McBride Park [cont'd]





5.12. Parcel M: Fraser Health Authority: Hope Centre Site [cont'd]



PLAN AT 1:1000 SCALE

5.12. Parcel M: Fraser Health Authority: Hope Centre Site [cont'd]

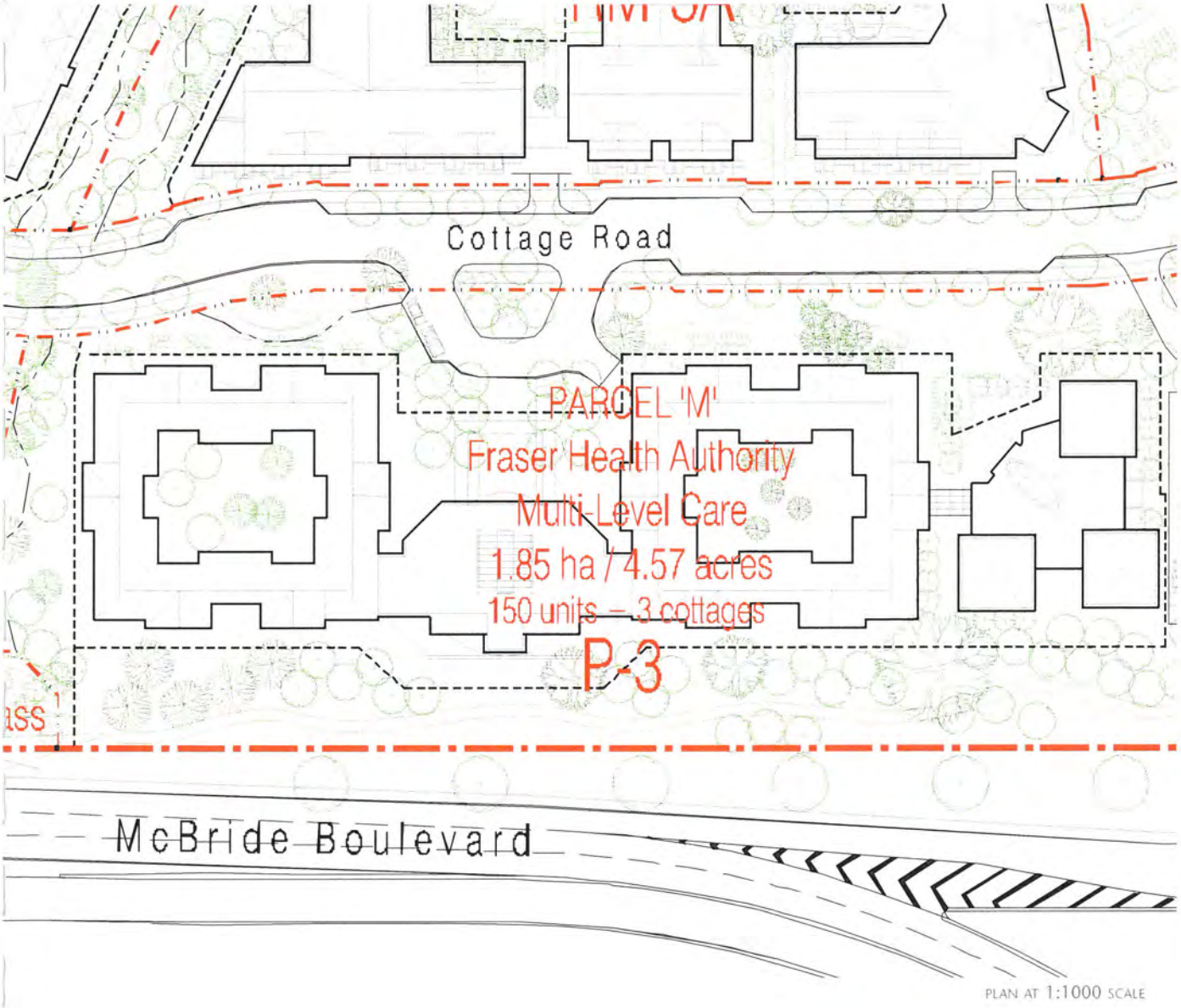








5.13. Parcel M: Fraser Health Authority: Multi-Level Care or Assisted Living andDemetia Cottages Site [cont'd]



PLAN AT 1:1000 SCALE

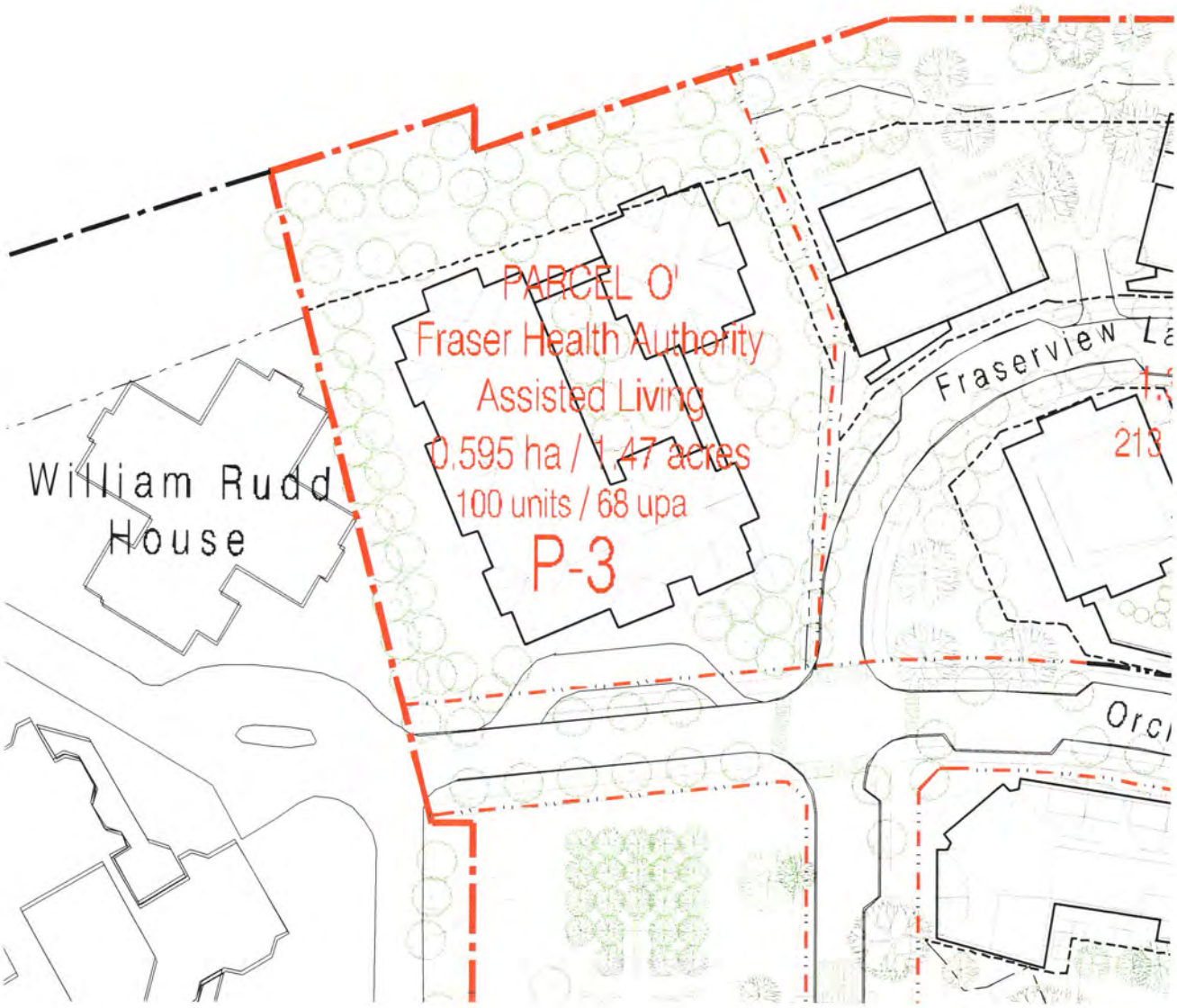
5.13 .Parcel M: Fraser Health Authority: Multi-Level Care or Assisted Living and Demetia Cottages Site







5.14. Parcel O: Assisted Living Site [cont'd]



PLAN AT 1:1000 SCALE



6 Landscape Design

6.1. Landscape Image and Theme
6.2. Environmental Site Response
6.3. Open Space Planning
6.4. Plant Materials
6.5. Screening and Landscaping
6.6. Community Gardens
6.7. Public Art
6.8. Site Furnishings and Lighting
6.9. Walls and Fences
6.10. Signs and Interpretive Displays
6.11. Bus Shelters
6.12.. Naming & Commemoration
6.13. Paving Materials
6.14. Pedestrian Footpaths and Greenways
6.15. Bicycle Circulation
6.16. Streetscapes
6.17. Parking
6.18. Stormwater Management, Landscape grading and Surface drainage
6.19. Tree Protection and Appearance during Construction
6.20. Landscape Installation and Maintenance Standard



6.1. Landscape Image and Theme

Objective: The landscape should enhance the natural beauty of Woodlands, and support the pedestrian-oriented, sustainable focus of the community.







- **A Liveable Community**

The landscape should reflect the overall themes of health and wellness, community involvement, and environmental sustainability. Accessible recreation corridors and active or passive recreational open spaces should be major development goals.

Development should provide accessible, semi-private and public gathering areas in a variety of sizes, and should be able to accommodate a variety of uses.

Access to, and interpretation of major 'green' systems along streets and greenway corridors, should be maximized, including natural stormwater treatment and habitat.

- **Historical Sensitivity**

Landscape heritage protection and enhancement of open spaces should be provided. There should be opportunities for interpretation of heritage features including buildings, trees and former uses at Woodlands.

Where possible, a palette of materials and forms that reflect the historical attributes of the site should be employed (e.g. brick, stone and other materials).

- **Views**

Development should enhance views of the Fraser Valley, the Fraser River, major open spaces and significant tree groupings within the site.

There should be a sequential experience in the open space, created with viewpoints and nodes along greenways.

- **Connections**

Development should provide community connections to the surrounding neighbourhood and open spaces such as Glenbrook Ravine and Queens Park, as well as access to transit and the waterfront.

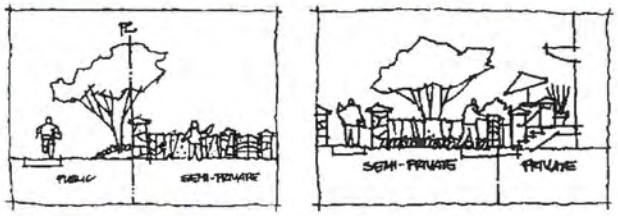


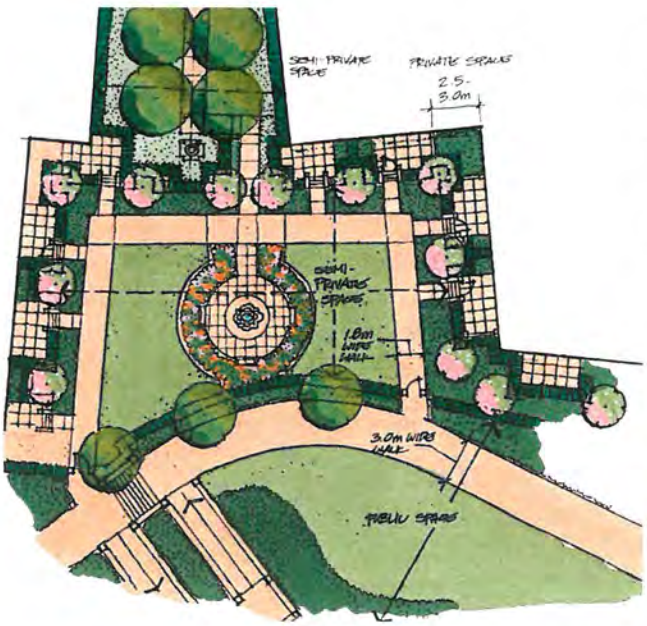
6.3. Open Space Planning

Objective: Development should create a hierarchy of open spaces to provide accessibility, social interaction, privacy and a sequence of experiences.



PUBLIC OPEN SPACE EXAMPLE





- **Public Open Space**

Public open space includes parks, greenways and walkways; it should be easily accessible from streets, sidewalks and buildings.

Public spaces should offer variety in experience, potential activities, vistas and materials. Public lands should respond to CPTED guidelines and be universally accessible. Trees and shrub plantings should allow views in and out of public space.

A variety of open spaces should be provided, including small, informal areas that encourage gathering and social interaction, through the provision of amenities such as seating, areas for informal child's play, and public art.

Where public greenways pass between housing enclaves, the greenway should be wide enough to accommodate a 3m wide path as well as a 1.5m minimum margin on either side.

- **Semi-Private Open Space**

Woodlands should make full advantage of the available green space, to transform surface parking areas into public amenities, and to re-plan sprawling institutional areas as efficient residential neighborhoods. The Woodlands development is to be a pedestrian oriented, landscape rich residential neighborhood, connected by green links and transit to the community at large.

Semi-private or common space should be part of multi-family housing enclaves, perceived as belonging to the residents in adjacent housing but separate from the public realm.

The perception of separation should be accomplished through the use of low fences, walls, hedges or grade changes.

Semi-private space should be accessible from all units or parts of the enclave which it serves.

It should be accessible or be visible from private areas such as yards, terraces or balconies, and should afford views to public spaces. Differences in grade should be used to increase visibility of semi-private and public spaces.

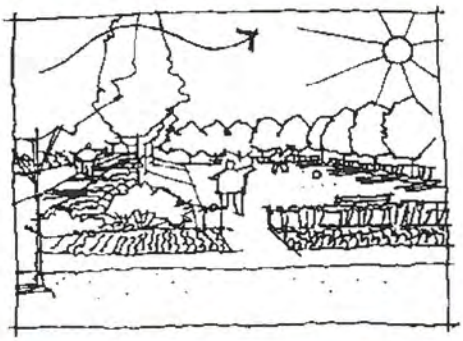


6.4. Plant Materials

Objective: Woodlands has a rich heritage of large heritage trees and landscape planting for the four seasons; new plantings should reinforce and enhance this heritage.



EDGE PLANTING



SOLAR ORIENTATION



PLANTING FOR SIGHT LINES

- **Planting Diversity**

A wide variety of plant species should be used, both native to Coastal B.C. and exotic. The native plant palette should be complemented with ornamental shade trees, hardy perennials and shrubs to encourage interest and colour throughout the four seasons.

- **Plant Selection**

Plant material should help to frame or define open spaces. Deciduous trees should be used in street boulevards, and along walkways. Evergreen materials are appropriate for low hedges and backdrops. Native conifer trees should be used for year-round foliage.

Both native and non-native hardy plant material should be used, with low water, fertilizer and pesticide requirements, to minimize adverse effects on stormwater quality.

Species that are in keeping with the diverse, arboretum-like Woodlands site should be used; where appropriate, woody species that have historically been used on the site should be replanted.

Several species of street trees that offer a variety of sizes and forms should be used, to provide distinctive character for the various streetscapes.

Orchard species should be planted, to reflect that there were traditionally orchards on the site.

Woody plantings should allow proper sight lines into and out of spaces. Planted hedges and shrubs should be at a maximum of 1.2m height, and shade trees should branch at a minimum of 2m height.



6.4. Plant Materials [cont'd]



CEMETERY EDGE



CENTRAL AREA BASSWOODS



DAWN REDWOOD

- **Installation**

In order to maximize the health of new tree and shrub plantings, the latest sustainable landscaping technologies should be considered for use, including proper trenching for boulevard trees and structural soil design for trees in paved areas.

Effort should be made to reuse existing plant material within the site that has to be moved to accommodate new development.

- **Solar and Wind Response**

Deciduous trees should be used-particularly on the south sides of buildings-as well as partial shading on east and west facades. Trees should not be planted near north sides of buildings to maximize natural light. Trees and shrubs in rows should be used for wind control.

Lawns should consist of hardy, durable grass species with minimum watering requirements in sunny areas, and shade tolerant groundcovers in north facing locations to reduce moss and dieback of grass. Tough grass species requiring less water should be used.

- **Natural Habitat**

The Woodlands site should be enhanced as wildlife habitat through the provision of plantings for food, shelter and nesting. Plants should be used near housing enclaves to attract songbirds.

- **Irrigation**

Irrigation systems must be provided for landscaped areas that are not able to become established, or that can not be maintained in a healthy condition with only natural rainfall.

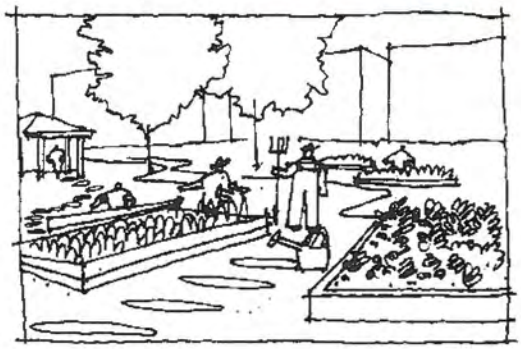
- **Approval & Consultation**

All street trees and landscape plans must meet the approval of, and be developed in consultation with, the Parks and Recreation Department.



6.6. Community Gardens

Objective: Health and wellness should be promoted through providing opportunities for gardening and social interaction.





- **Benefits of Community Gardens**

Community gardens should be provided that offer opportunity for residents to cultivate and harvest fruit, vegetables and herbs, and that encourage social interaction and the therapeutic benefits of gardens.

- **Garden Locations**

Community Gardens near housing enclaves and health care facilities should be encouraged. Semi-private garden areas should be defined by low evergreen hedges, combined with ornamental and native plants to enhance the attractiveness of food production areas.

Community garden areas should be designed for easy access, including addition and removal of soil. Consideration should be given to difficulty with mobility, e.g. provide raised planters.

- **Programming for Community Gardens**

Benches and small storage areas should be provided for gardening tools. Compost areas should be sited at the corners of gardens, away from outdoor living areas. Convenient water sources should be provided. Community involvement should be encouraged, through art and provision of places to meet.

- **Operation of Community Gardens**

Community gardens will be operated by resident or community groups and organizations.









6.8. Site Furnishings and Lighting

Goal: *Site furnishings and lighting should provide comfort and safety and reinforce the theme of the development.*



EXAMPLE OF LIGHT FIXTURE



EXAMPLE OF PUBLIC SEATING



EXAMPLE OF BOLLARDS

- **Selection of Furnishings**

Furnishings should be both contemporary and somewhat historical, sensitive to the heritage on the site and the urban character of the proposed development. Where possible, furnishings should be applied on a site-wide basis, to contribute to site consistency and identity.

Furnishings should be durable and firmly fixed into place (for example, bolted to concrete slab) to minimize vandalism.

- **Site Furnishings**

Benches, trash receptacles and other furnishings should be of durable finish and designed for public use. Types and materials may vary, but must fit with overall development character. Colours should be dark and in historical shades, (e.g. black, green.)

- **Lighting Requirements**

Site lighting and select lighting styles should be designed to illuminate public areas with lower light levels and gradual lighting transitions, for safety.

Lighting of features such as heritage trees and light trespass from building sites should be avoided, so as to minimize lighting of the night sky and to reduce impact on nocturnal environments.

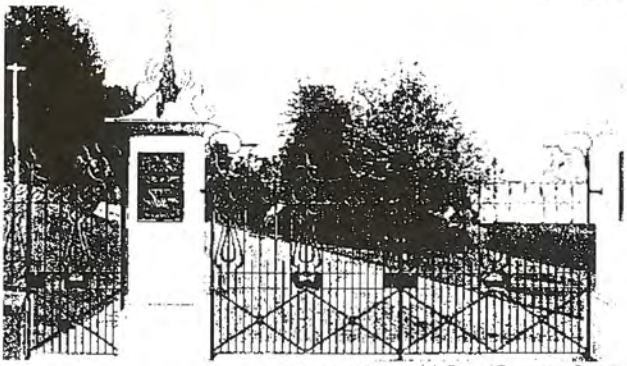


6.9. Walls and Fences

Objective: Landscape walls and fences should be used to resolve grade changes and to define open spaces.



ENTRY WALLS



HISTORIC GATE AND MCBRIDE/COLUMBIA STREET

- **Wall Heights**

Landscape walls should be in low sections (up to 1.2m in height) for visibility between landscape areas. Encourage the use of low walls designed to serve as informal seating, set at 0.4 to 0.45m height.

- **Avoid Blank Walls**

In visible areas, blank walls should be discouraged by limiting height and by planting green screens (e.g. hedges or vines on wire mesh) on wall faces. Low walls can be used for minor soil retention, terracing, tree wells and to define entrances from the street.

- **Wall Lengths**

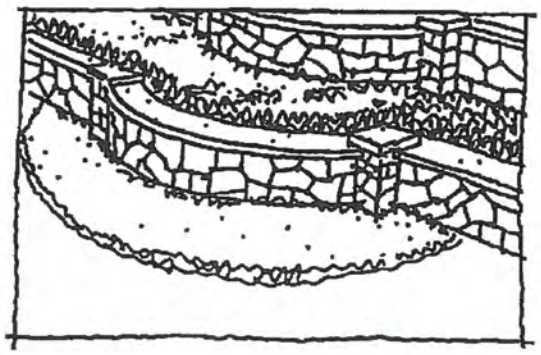
Walls may be used in stepping, curved or straight configurations. Continuous (over 10m length) straight runs should be avoided.

- **Materials and Finishes**

The use of stone (face or whole), masonry, metal (ornamental fencing, guard rails, metal panels with stone or masonry columns should be encouraged. Stained or painted timber can be used for pergolas and trellises, and fences not higher than 1.2m. Caps for walls should be a maximum 150mm thick stone or concrete cap. The use of unfinished timber, stucco, vinyl, plastic or concrete (bare, exposed or painted) should be discouraged on site.



ENTRY STAIRS



6.11. Bus Stops and Shelters

Objective: Bus stops, shelters and public kiosks shall be designed as safe, comfortable places for people to rest, wait and socialize.



BUS SHELTER



BUS SHELTER

Bus stops and shelters shall be designed to provide:

- weather protected waiting areas and seating
- clear signage and dedicated information panels
- integrated lighting, sidewalk paving, and barrier-free approaches to transit vehicles.
- safe passage and protection from vehicular movement

Shelters will be of durable design, complementing the character of the overall site development.

Bus stops shall not interfere with other sidewalk uses.



EXAMPLE OF PUBLIC KIOSK



A

6.13. Paving Materials

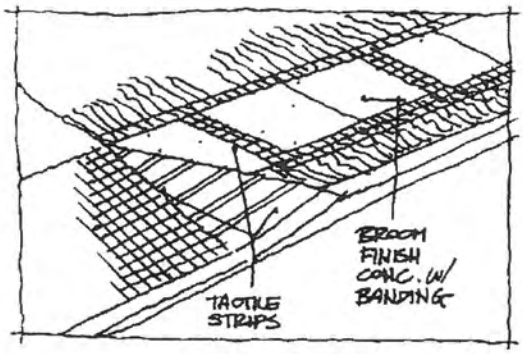
Objective: High quality paving surfaces and materials should be used to enhance the pedestrian-oriented focus of the community.



SIDEWALK CUTS



PAVING



MATERIALS EMPHASIZE CHANGE IN GRADE

consistent paving scheme should be used that reinforces the hierarchy of both vehicular areas and pedestrian sidewalks.

For sidewalks and ramps, textured and broom finish surfaces with distinctive joint patterns should be used. Unit pavers may be used for banding, edge treatment and street corners. The use of stamped concrete or stamped asphalt should be avoided.

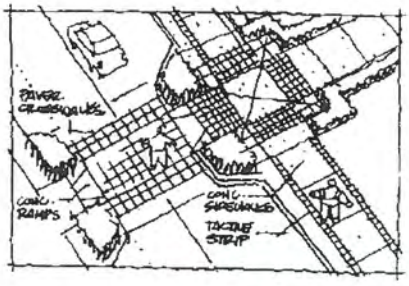
Pedestrian pavers should be used in non-vehicular zones such as walkways, plazas and patios. Where there are no boulevards for separation, rough textured tactile borders may be used along sidewalk edges to separate pedestrian paths from bicycle and vehicular zones.

Vehicular pavers, should limited to driveway surfaces and pedestrian crosswalks.

Lay-by parking at less than 5% gradient should be surfaced in permeable pavers to allow for water microstorage, while parking at slopes greater that 5% should be surfaced in standard vehicular pavers.

Overflow surface parking areas should be surfaced with permeable pavers or a reinforced turf system, to allow for microstorage.

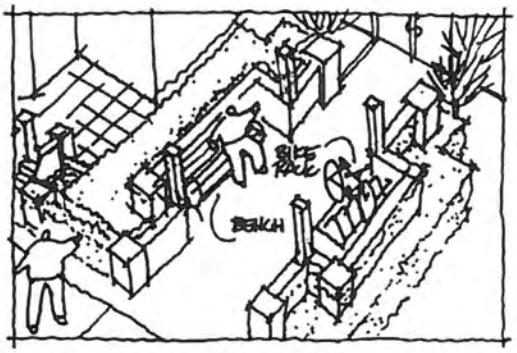
Select a standard for drainage grates and manhole covers to be used consistently throughout the site. Find opportunities to integrate public art into the design of these coverings. Grates with slots that run parallel with the street should not be used, as they can catch bicycle wheels.





6.15. Bicycle Circulation

Objective: Bicycling for work, shopping and recreation should be encouraged, to reduce automobile use and pollution.







Under certain conditions, universal access may not be possible, such as at the Glenbrook Ravine trail where steep sloping embankments can only be accessed with stairs.

- **Bicycle Zone Locations**

Bicycle zones should be located along streets and on greenways. Streets should allow for a shared right-of-way between cyclists and motorists. Bicycle traffic on sidewalks along streets should be avoided.

Major greenways should accommodate pedestrian and bicycle use.

- **Defining Bicycle Zones**

Bicycle routes on streets should be clearly marked with designated bike route signs and painted markings on asphalt. Combined pedestrian and bicycle zones along greenways should be indicated with painted markings and signage. Where routes intersect with roadways, bollards should be installed to prevent unauthorized vehicle access.

- **Bicycle and Pedestrian Facilities**

Bicycle and pedestrian facilities including bike racks, benches and trash receptacles should be provided at and integrated into building entrances.

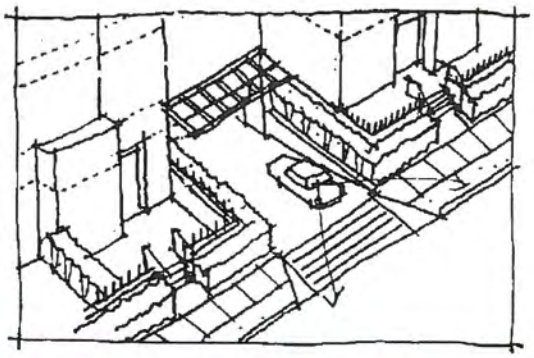
- **Bicycle Zone Safety**

Bicycle routes should be located along major streets to minimize the number of required left turns at intersections. Clear sight lines along streets and pedestrian crossings must be maintained, to minimize cyclist conflicts with motorists and pedestrians.



6.17. Parking

Goal: ***Reduce the visual impact of the automobile with limited surface parking and landscape screening***







- **Locating Car Park Entrances**

Where possible, car park entrances should be located off the side or rear of the building, and set back into building faces. They should be located below the sidewalk grade to minimize views into the parkade. Clear lines of sight at pedestrian and street crossings should be provided, for visibility and safety. Street ramps should be avoided.

- **Car Park Entrance Appearance**

Car park entrances should be screened using low hedges and overhead trellis or canopy structures. Expansive areas of concrete around entrances should be avoided. Add reveals to concrete or cover with stone, brick or timber cladding in keeping with the building's character.

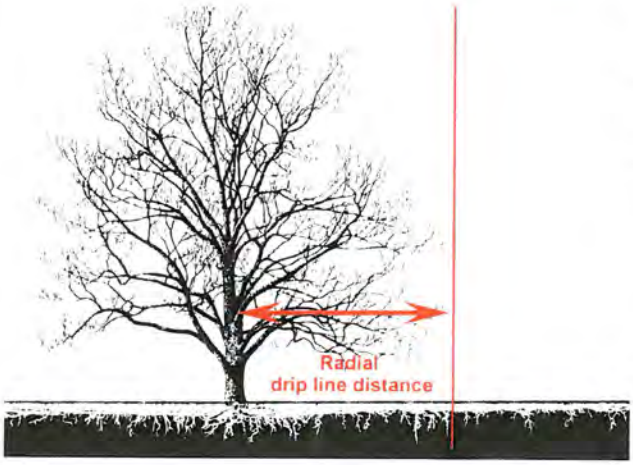
- **Surface Parking**

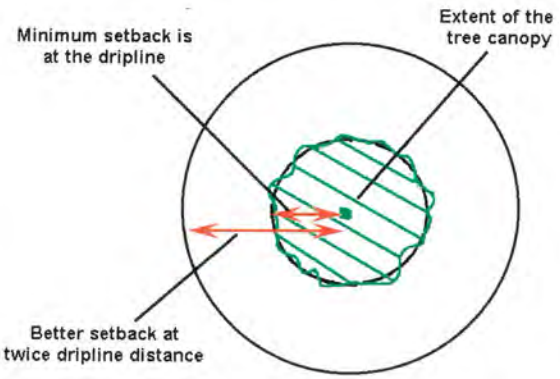
Lay-by surface parking parking bays should be 2.2m wide and be constructed with permeable pavers (see Section 6.11), or standard concrete pavers if grades exceed 5%. Where possible, planted swales should be integrated into the landscape adjacent to streets, to collect and filter polluted stormwater off the streets and parking (see 6.18, Stormwater Management).



6.19. Tree Protection, Appearance and Retention

Objective: Construction at Woodlands should be planned and staged to minimize environmental impacts, particularly on heritage trees, and development should accommodate trees to be retained.





Erosion and sedimentation should be controlled to reduce negative impacts on water and air quality. A site sediment control plan should be designed, that conforms to best management practices and fisheries protection codes. Silt fencing, sediment traps, revegetating slopes after disturbance, and slope stabilization are all techniques that should be considered.

- **Delineate staging areas, recycling and disposal areas.**

Development should protect existing natural areas and heritage trees with a comprehensive strategy including setbacks, maintaining existing grade, around water runoff, fencing, watering and maintenance.

Hoarding should be provided around development for safety, security, dust control, and proper appearance during construction.

Consider aesthetic treatment of hoarding, such as using graphics and finishes that reflect the image of the proposed development.

- **Overall site strategy for trees**

A supervising arborist appointed by BCBC, to the mutual satisfaction of the City and BCBC, shall oversee all aspects of tree protection, removal, transplanting and planting prior to and throughout the construction process.

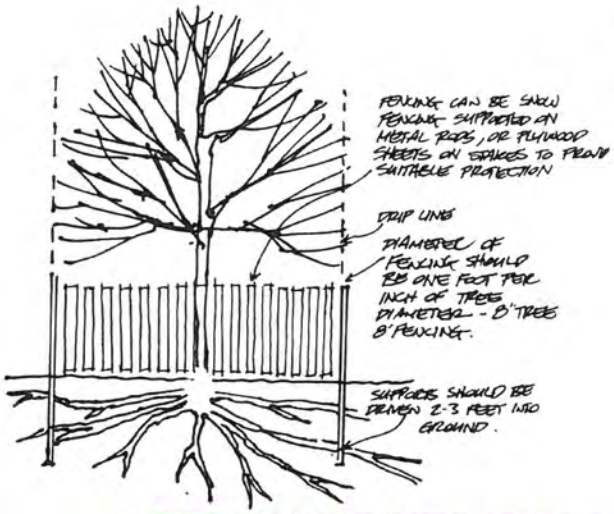
Where significant trees are small enough, they should be transplanted to new locations where they will not conflict with development.

Each tree to be retained should be properly protected from damage before any other aspects of site preparation commence, during the new construction work, and after the construction is completed. Trees typically have a root system that radiates out from the tree trunk, often extending well beyond the branches.

The drip line (the point at which water running off the outermost tips of the branches drips to the ground) is considered to be a minimum setback distance for development activities.



6.19. Tree Protection, Appearance and Retention [cont'd]





of all fencing shall be a pre-condition before other site work is commenced.

- Cables, Pipes, Ducts: Within the tree protection zone there shall be no pipes, cables, or ducts laid on the grade or suspended from the tree. Any placement of pipe, cables or ducts under the tree and within the agreed upon tree protection zone shall be examined and agreed to on a site specific basis in consultation with the supervising arborist.
- Storage Prohibitions: Within the tree protection zone, there shall be no storage of any construction materials of any kind: no gravel, no fill, no waste materials, no lumber, pipes, ducts, or cables, and no machinery. The only activity allowed would be watering in the dry season.
- Final Landscaping: Wherever possible, all planned landscaping activities shall be conducted in such a manner that there shall be no machinery within the tree protection zone at any time, and all additional installations of plants shall respect the root systems of the protected trees. Irrigation lines shall not be permitted within the dripline of the tree.
- Grade Changes: Tree roots are easily damaged by changes in grade. No lowering of the existing grade is permitted, and no increase in grade beyond 10 centimetres in depth shall be permitted within the tree protection zone. Any mulch applied shall be kept back from the tree trunk to a distance not less than 25 centimetres, and in no circumstances shall it exceed 10 centimetres in depth.
- Developer and Contractor Understanding: The supervising arborist shall have the authority to supervise, inspect, and order changes as required to ensure compliance with the arboricultural specifications in effect.
- Trenching: Within the tree protection zone there shall be no trenching, excavation or funnelling.



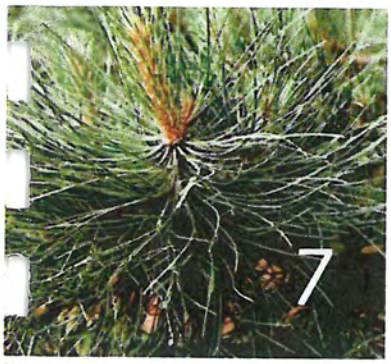
6.20. Landscape Installation and Maintenance Standards

- **Landscape Installation**

All plant material, growing media, and installation methods shall be according to BCSLA/RCNTA British Columbia Landscape Standard (latest version).

- **Landscape Maintenance**

Maintenance of all newly landscaped areas shall be by the developer for a period of one year following final acceptance. Maintenance shall be according to BCSLA/RCNTA British Columbia Landscape Standard (latest version).



7 Landscape Areas

Page 137

7.1. Park to Park Greenway
7.2. North-South Greenway
7.3. The Memorial Garden
7.4. Columbia Street Open Space / Grand Lawn
7.5. Centre Green
7.6. Centre Block Commons
7.7. Village Commons
7.8. McBride Street
7.9 Greenway Connections
7.10 Pedestrian Overpass

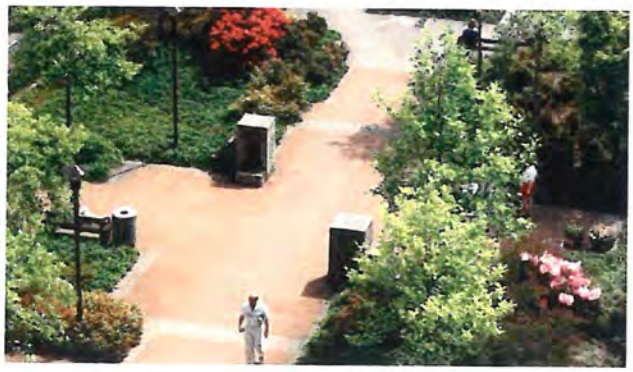


7.1. Park to Park Greenway

A Park to Park Greenway should provide a link between Glenbrook Ravine to the East and Queens Park to the west, and pedestrian and bicycle access to the site for adjoining housing enclaves.







To the West, the greenway shall link to Queens Park , which will be accomplished with a pedestrian/bicycle overpass over McBride Boulevard.

To the East, the greenway should link with the Glenbrook Ravine, Fraserview Community and adjacent neighbourhoods.

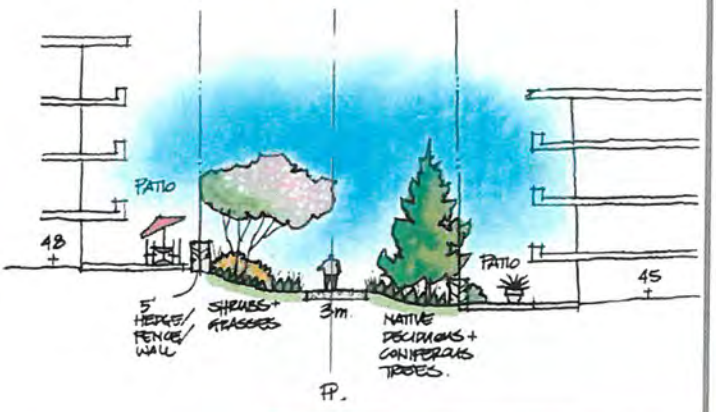
The greenway should possess a more pastoral, informal character that the North-South greenway, incorporating existing vegetation into a rich green corridor featuring naturalistic plantings and winding, aggregate surfaced pathways.

Slopes should be at a maximum of 5%, or 8% with railings, to ensure accessibility for wheelchairs, strollers and cyclists. Path should be a minimum 3m clear width within an 8m easement.

A series of public and semi-private open spaces along the greenway should provide amenity for adjoining housing enclaves.

A node in the centre of the site should connect this greenway with the North-South Greenway.

Water biofiltration and rainwater microstorage areas such as swales and planted areas should be located within the greenway, to collect and treat rainwater off roofs, hard surfaced areas and landscaping within the development parcels.





7.2. North-South Greenway [cont'd]

Water biofiltration and microstorage areas such as swales and planted areas should be located within the greenway, to collect and treat rainwater off roofs, hard surfaced areas and landscaping within the development parcels.



7.4. Columbia Street Open Space / Grand Lawn

The Open Space along Columbia Street is a major protected heritage space at Woodlands, and will form a formal 'front yard' for the redeveloped site.



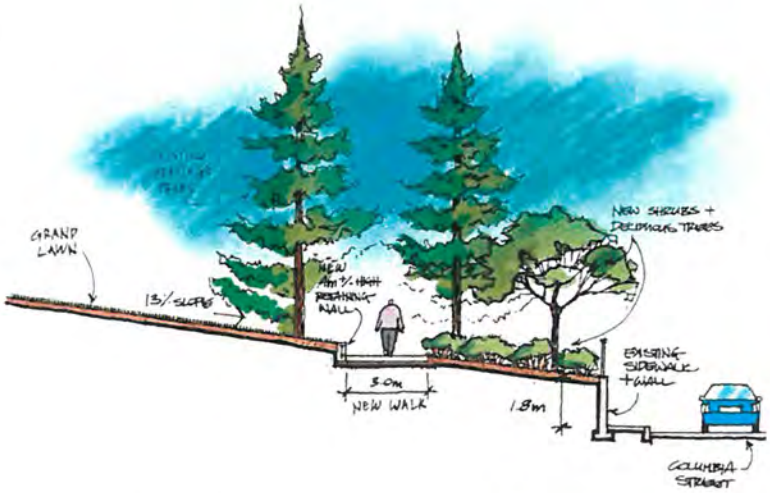
The Columbia Street open space should be protected by preserving the specimen trees and the Grand Lawn. Enhancing the open space with new plantings amongst the heritage trees (that do not obstruct important sight lines) and formal gardens adjacent to the Central Block heritage building would highlight and improve this space.

The formal gardens should be based on precedents of formal and classical floral gardens that frame important civic buildings such as park pavilions and legislative buildings.

Views up and down the Fraser River and to the Pattullo Bridge should be maintained and enhanced, with special view points as well as greenway connections to waterfront areas to the East and West.

A pathway system will be provided that gives pedestrians an alternative to the sidewalk on Columbia Street, and that links through formal gardens to the Greenways and Central Green.









7.5. Central Green

This major open space near the centre of the site features a grove of heritage Linden trees and may include a greenhouse and community garden development.





This major open space near the centre of the site features a grove of heritage linden trees, as well as community gardens.

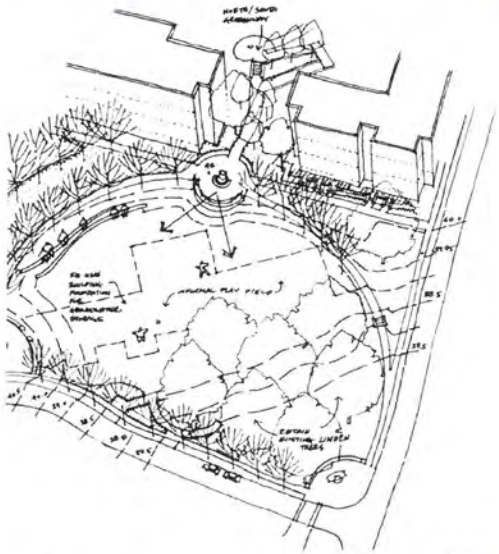
This green is located where the North-South Greenway splits to go around the Centre Block. A protected grove of large linden trees, residential enclaves and the recreation centre frame this important open space.

The site should be regraded (upon the removal of Cedar Cottage) and developed as an informal play field 'green' surrounded by grass banks.

The system of landscape swales could flow into a larger biofiltration area or rainwater garden.

Viewpoints affording vistas to the North shore mountains and the Fraser Valley should be preserved and enhanced.

Open space with decorative pavers (e.g. concrete brick-like pavers) across the road to the south of the Centre Green could be used as part the recreation centre. As well, this area could accommodate some semi-private space for the adjacent residences, serving as a central park for the site.





7.7. Village Commons / McBride Commons

The Village Commons will be the commercial centre of and main entrance to the Woodlands neighbourhood, and includes an important urban space located further into the site connecting to the Central Green.

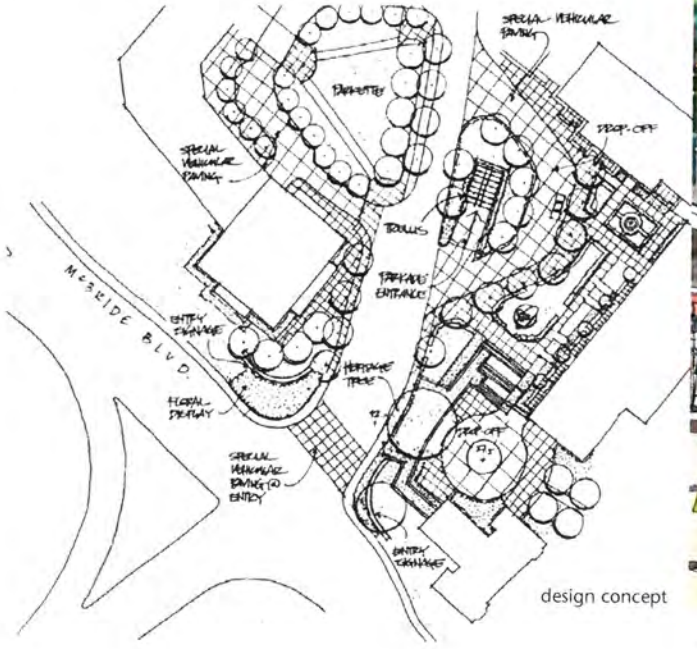


Community scale retail units should surround a square with paved pedestrian areas, an open lawn area, lay-by surface parking, and access to underground parking.

Buildings and open space should maximize views to the south.

On the south side of the street, landscaped, stepped pedestrian plazas should provide south-facing amenity, as well as access to new residences and the Grand Lawn via the west side of the Centre Block.

This space may include community gardens associated with the greenhouse, orchard-like bosques of trees, paved pedestrian routes, and gathering places.



design concept



retail space/public plaza



7.9. Greenway Connections

By providing greenways, the Woodlands Development will facilitate connections between open spaces and trails outside of the site, fulfilling the objective of connection of greenways at a municipal scale.

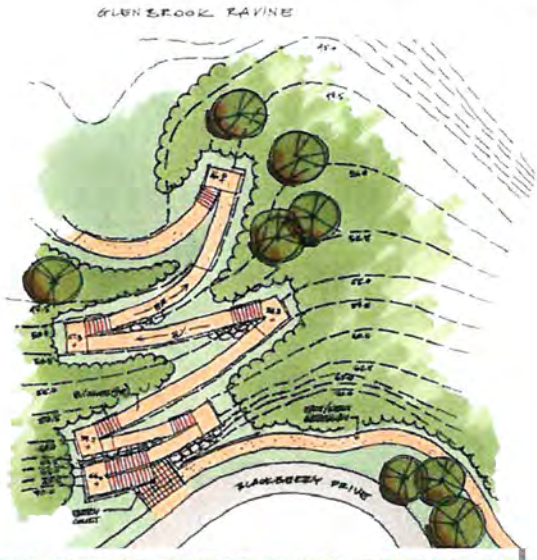
Greenways should be configured to ensure ease of connection between adjacent open spaces, specifically Glenbrook Drive, Glenbrook Ravine, Queens Park and the Columbia Street corridor.

Access should be considered to Glenbrook Ravine, north of William Rudd House and off of Blackberry Drive. Due to the substantial difference in grade between Blackberry Drive and the bottom of the ravine, this access should be a combination of ramped pathway and stairs.

The pathway system through the Grand Lawn should connect with Columbia Street at the southwest corner of the Woodlands site, and should allow for connection from the southeast corner of the site to Columbia Street below the Fraserview towers.

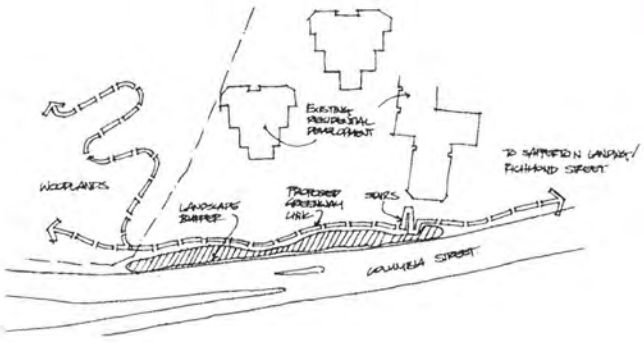
Access to Queens Park should be provided via a pedestrian overpass over McBride Boulevard, which connects to the east-west greenway in Woodlands. The overpass should include planted edges for continuity of greenspace between Queens Park and Woodlands.

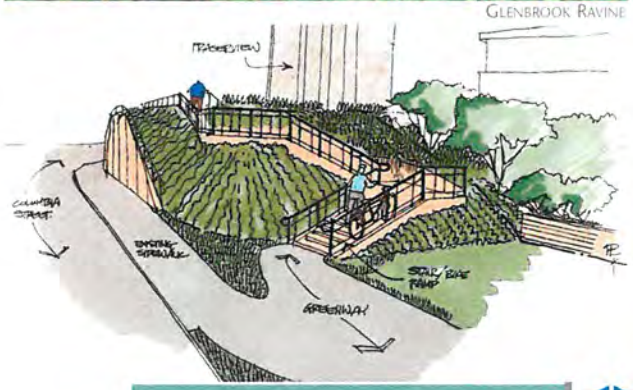
Access from the Glenbrook Ravine trail will be provided via stair to Glenbrook Drive.





GLENBROOK RAVINE







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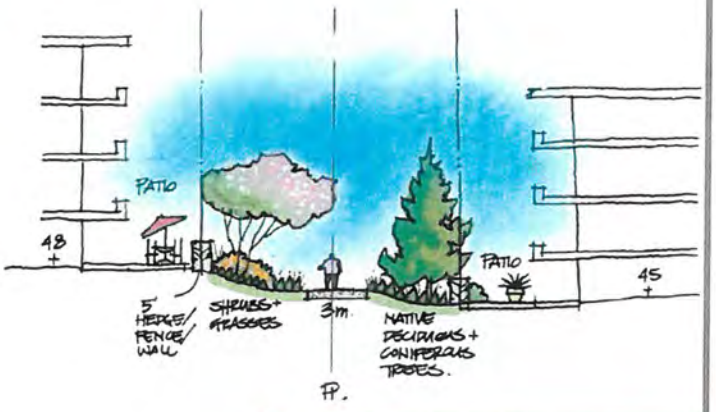
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7.2. North-South Greenway [cont'd]

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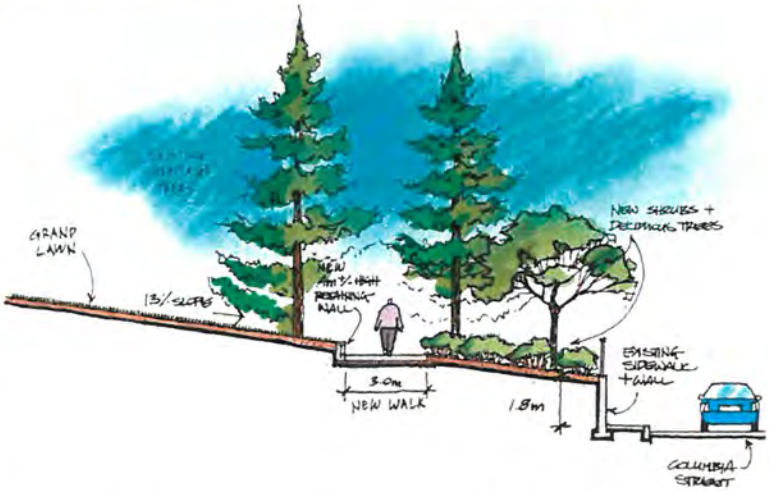
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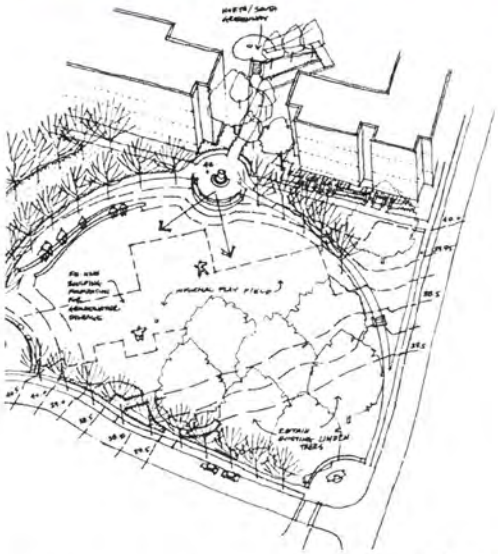
This green is located where the North-South Greenway splits to go around the Centre Block. A protected grove of large linden trees, residential enclaves and the recreation centre frame this important open space.

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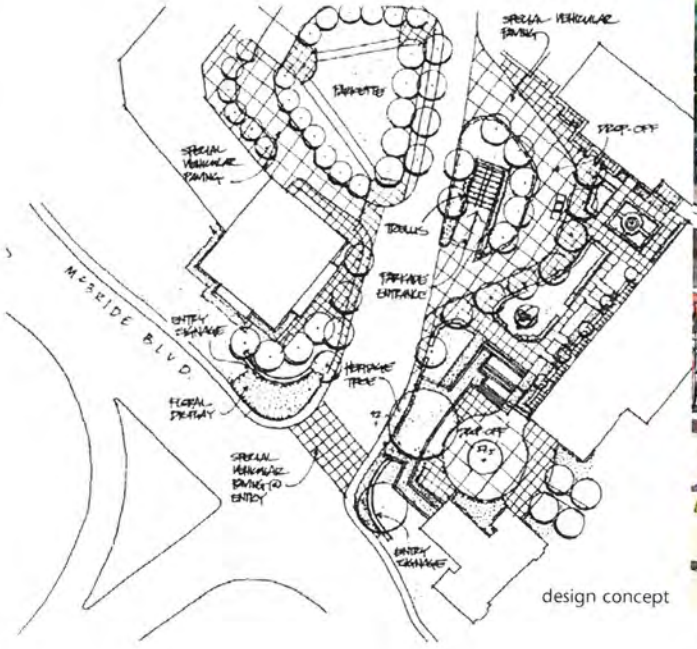


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design concept



retail space/public plaza



7.9. Greenway Connections

By providing greenways, the Woodlands Development will facilitate connections between open spaces and trails outside of the site, fulfilling the objective of connection of greenways at a municipal scale.

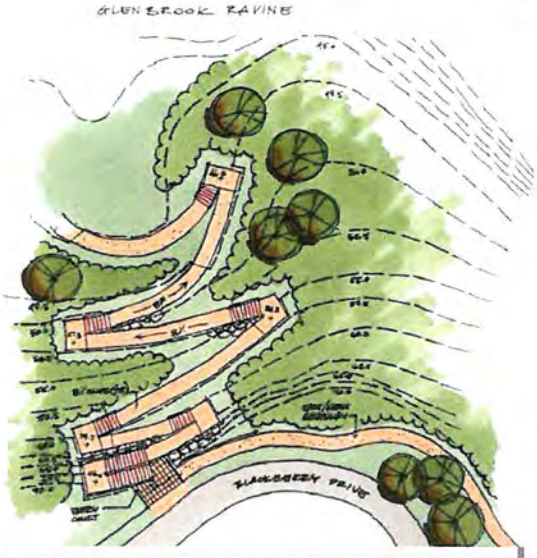
Greenways should be configured to ensure ease of connection between adjacent open spaces, specifically Glenbrook Drive, Glenbrook Ravine, Queens Park and the Columbia Street corridor.

Access should be considered to Glenbrook Ravine, north of William Rudd House and off of Blackberry Drive. Due to the substantial difference in grade between Blackberry Drive and the bottom of the ravine, this access should be a combination of ramped pathway and stairs.

The pathway system through the Grand Lawn should connect with Columbia Street at the southwest corner of the Woodlands site, and should allow for connection from the southeast corner of the site to Columbia Street below the Fraserview towers.

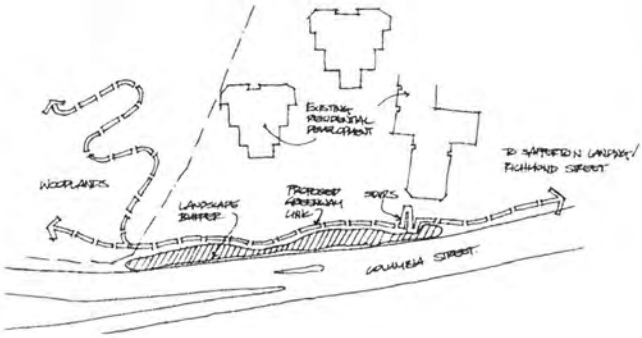
Access to Queens Park should be provided via a pedestrian overpass over McBride Boulevard, which connects to the east-west greenway in Woodlands. The overpass should include planted edges for continuity of greenspace between Queens Park and Woodlands.

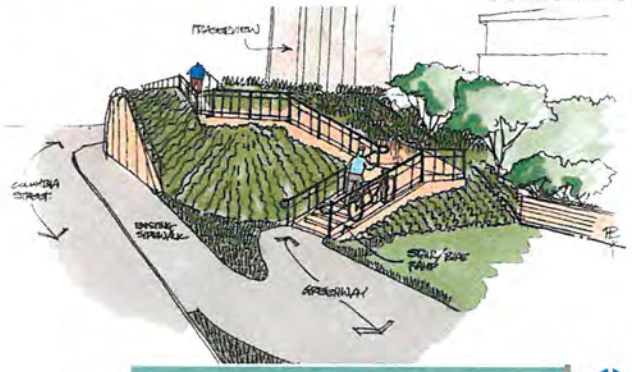
Access from the Glenbrook Ravine trail will be provided via stair to Glenbrook Drive.





GLENBROOK RAVINE

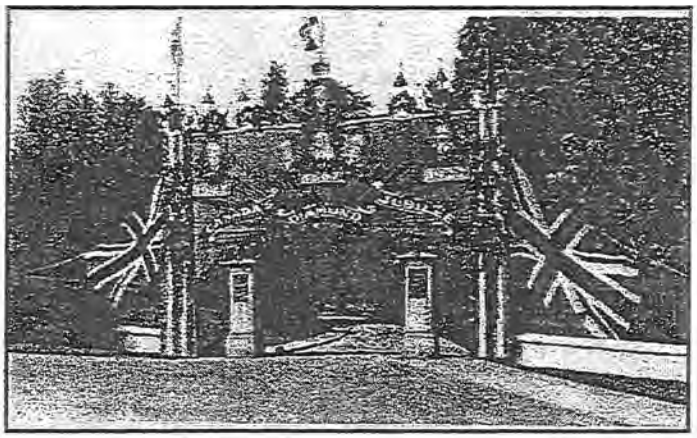




A Sense of History Research Services Inc.

WOODLANDS

HISTORICAL INFORMATION FOR POTENTIAL USE DURING THE REDEVELOPMENT OF THE SITE



Gates of Woodlands at McBride and Columbia
decorated for Canada's 60th Jubilee in 1927

Prepared for
British Columbia Buildings Corporation

February, 2002

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WOODLANDS

HISTORICAL INFORMATION FOR POTENTIAL USE DURING THE REDEVELOPMENT OF THE SITE.

- events and occasions for commemoration
- artifacts and memorabilia
- individuals for commemoration
- historical interpretation and information suggestions

INTRODUCTION

This research project was developed to provide suggestions in the four categories noted above. These lists supply potential items which could be used in the chronicling of the "Woodlands" site and act as interpretation examples in the presentation of a "living" heritage experience for those who will live in, or walk through, the redeveloped property. The lands that are known as the Woodlands site have a very full history with connections to the community, the region, and the Province. The interpretation of this history as a part of the redevelopment will ultimately create a lasting legacy to those who lived, worked, played, and died here, from 1859 to the present. The history of the landscape and its place in our heritage will be preserved for future generations to enjoy and appreciate.

When reviewing this report, the following should be remembered:

- *A number of the ideas put forward for one category will overlap another. Events could be excellent topics for historical interpretation; individuals could be related to artifacts and archival material and could also be part of the interpretation of an area on the property.*
- *When the report talks of signs it identifies an illustrative display on a panel; of metal, wood etc.; possibly with photos, graphics, or other images; with explanatory text and captions for photos etc.; all of similar colour and design but not necessarily of similar size; mounted on a variety of surfaces or free standing; and so on.*
- *When the report talks of plaques it identifies a typical marker with basic information of name, date, etc. of a specific dedication or identification.*

The Asylum

In 1878, a process that was started almost three years previously, came to fruition when the new asylum was ready to be occupied and used for patients. In May of that year 16 patients, 4 female, 12 male, were brought by paddlewheel steamboat from the asylum in Victoria to the new facility. Matron Flora Ross, and staff from Victoria accompanied the patients. The asylum that would in time evolve into "Woodlands" was open.

Commemoration: a sign at the original building at the front of the site. There are a number of photographs available to accompany this first building. A plaque of dedication might also be considered to commemorate the first building in addition to a sign.

The Asylum to the Public Hospital for the Insane to Woodlands School to Woodlands

Over the years, the name of this institution has changed a number of times. Originally the Asylum (Lunatic Asylum), it became the Public Hospital for the Insane in 1897, The Woodlands School in 1950, and Woodlands in 1974. It was considered closed in 1996.

Commemoration: a sign, or signs, placed near an appropriate gate (or gates), or on a site office, amenities structure, etc.

The Evolution of the Asylum into Woodlands

A map showing the various buildings (even those no longer extant or those which may come down during the current redevelopment), their dates of construction, names, etc. could chronicle the physical layout and evolution of the site.

Commemoration: signs placed at a number of locations around the site to relate to reminders of the Woodlands complex of buildings.

There are, as part of the long history of this institution, many important medical innovations, improvements to the structure of the institution, "firsts", and so on, that could be included in this "events and occasions" category. These could be dealt with by way of a sign showing a time line of such items, or could be covered in any other historical interpretation and information that is to be provided. See Category 4 for more comments on this.

Category 2 ARTIFACTS AND MEMORABILIA

Artifacts from the institution

There are few artifacts carrying identification that denotes them as being from the Public Hospital for the Insane or Woodlands. However, there are items that were used in either the Woodlands or Riverview locations that would be useable in a display. Once it is known more clearly where the artifacts might be exhibited, other museums could be contacted to see what items might be available on loan for display. Contact should be made at that time with the Riverview Hospital Historical Society.

Medical implements

The New Westminster Museum and Archives has the medical bag and tools from Dr. Manchester who was at "Woodlands" from 1899 to 1905.

Photographs

BCBC obviously has access to the archival photo collection on Woodlands. The reports that have been done on the site would supply similar images. There are many others that show the Woodlands site, including views of the BC Penitentiary, views of "Woodlands" from the river, aerials, 1927 Canadian Diamond Jubilee showing the ornamental gates constructed for the event, and so on. Photographs of the site and individual buildings will be extremely important to the full interpretation of the Woodlands property. The BC Archives and Record Service and the Riverview Hospital Historical Society have material, as do the New Westminster Museum and Archives and the New Westminster Public Library.

Photographs of a more personal nature

The two books on Woodlands, *In the Context of Its Time, A History of Woodlands*, and *Memories of Woodlands*, are illustrated with photographs showing residents of Woodlands, staff, everyday activities, and so on. These photos are either in private hands, at the BC Archives and Record Service, or at the Riverview Hospital Historical Society.

Old site and building plans

These will be valuable for interpreting the evolution of the site as well as showing how the older buildings have changed. Such plans, when linked to photographic material, make for a display that is easy to understand, attractive, and interesting. BCBC probably already has this type of material, but others are in the BC Archives and Records Service.

Plaques and markers

A plaque and drinking fountain located near the Recreation Building were dedicated in 1969 to Jessie Neal, a much-loved nurse. Both the plaque and fountain should be retained, either in their present location, or elsewhere with similar memorabilia. This is a good example of what may be found in or around the buildings. There have been suggestions of other plaques (with no location provided). This may or may not be the case, but care should be taken to watch for and secure similar items for future display.

Dr. G F Bodington

As Medical Superintendent (1895), Dr. Bodington was instrumental in bringing in a number of reforms in the care for the mentally ill, including the basic notion of treatment rather than simple confinement. During his time, the asylum became known as the "Public Hospital for the Insane", the site continued to expand, and the landscape at its front was partially levelled and prepared with lawns and ornamental trees.

Dr. J G McKay

Dr. McKay, a McGill trained psychiatrist, was acting Superintendent during the years of the First World War.

Janet Crawford

In 1895, Janet Crawford, the first hospital-trained nurse to be hired by the institution, became the night nurse for female patients.

Maria Fillmore

Miss Maria Fillmore was the matron who replaced Flora Ross (1897). Known as Miss Fillmore, she worked for 47 years at the institution and when she retired in 1939, it was noted that "the hospital has indeed been blessed in having her efficient and faithful services during these years."

James Phillips

James Phillips was the head keeper of the male patients who arrived at the new institution in 1878. He was also the Superintendent and Steward, and by the time he retired in 1899, he had completed 24 years of service at the asylum.

Dr. G H Manchester

In 1901, Dr. Manchester replaced Dr. Bodington, and during his time in charge, made many changes in how things were done at the asylum. One of the changes was to refer to the institution as a hospital rather than an asylum. He improved landscape areas and services, vaccinated patients for disease, and as the history of the institution notes, he was "the first to fully differentiate between the mentally ill, the criminally insane, and retarded patients, and he was the first to start recording family medical histories."

Dr. Charles Doherty

In 1905, Dr. Doherty replaced Dr. Manchester, and made a number of large and small changes. Essondale was developed, and was, for a time, under Doherty's supervision as well as "Woodlands". The currently familiar concrete and iron railing wall was installed around part of the site, and it was noted that more children were entering the institution causing a need for a separate wing.

Charles Fedawa

Mr. Fedawa was in charge of the cemetery and produced the headstones.

Henri Brebaunt

The history of the institution records that Mr. Brebaunt, the last of the "insane men" who had been in the Victoria Asylum and moved to the new Mainland institution, died at "Woodlands" in 1907.

The following names, while not of individuals, would be highly recognizable to those who lived or worked at Woodlands, and could be commemorated. They all have to do with resident activities.

Ravine Express
Camp Alexander
Lindell Beach
Gold Creek Camp
Camp Lakewood
The Blue Angel
Carnival Day

Self Advocate or Self Advocates

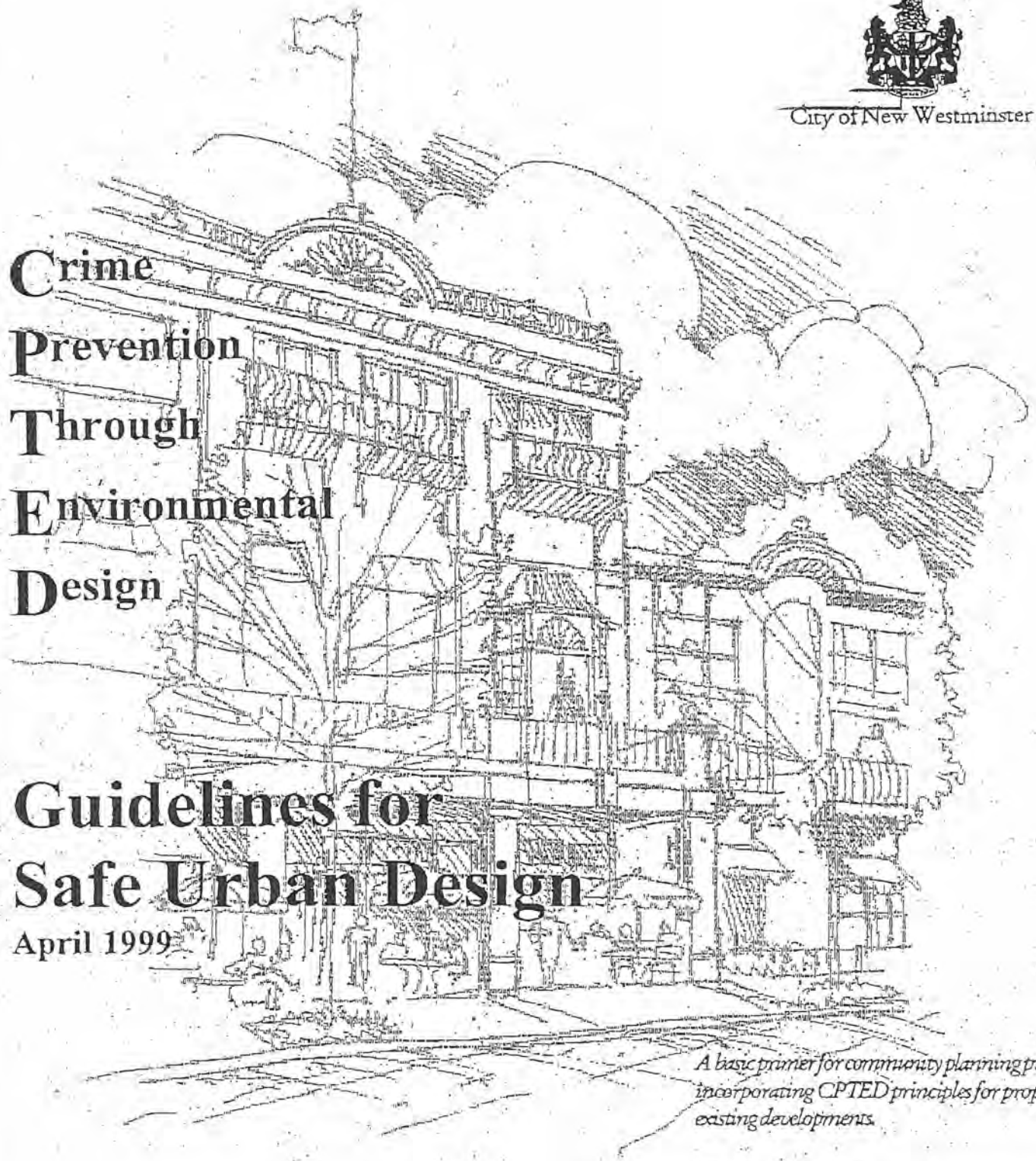
In the 1970s, a group of individuals with developmental disabilities began to take personal initiative concerning their lives and spoke on their own behalf. A reference to this group, the "self advocates", would also be appropriate.

It could also be useful to remember the names of all the Woodlands buildings (specifically the tree names) and to use these in situations on the redeveloped site, perhaps, if a building is removed, then in a garden area, for instance, close to the original site.

Suggestions for interpretation and information

- Who was in the institution?
- The name change from lunatic asylum or insane asylum to Public Hospital for the Insane to The Woodlands School to Woodlands
- The site: its position in very early New Westminster, Royal Engineers and Camp next door, the BC Penitentiary, etc.
- The Cemetery
- The evolution of the site: building dates, expansion, etc.
- The architects of the buildings (in particular, the early buildings and their expansion)
- The elevation of the property and the view
- Trees: individual and in groups
- The gardens and agriculture onsite
- The play areas and the airplane "The Blue Angel"
- The upper "forest"
- The original clearing for cricket, May Day, etc. (see Category 1)
- The "asylum hill" or "No. 9" hill (this was the name given to the rise of Columbia Street in front of the institution
- The term No. 9 for the institution (its address and phone number)
- The first building in 1878
- A time line of the treatment of mental illness showing the basic changes in understanding and approach
- A time line of the changes and innovations at "Woodlands" (firsts etc.)
- Then and now photographs at specific locations on the site such as the front road and line of buildings, the first building, and so on
- The front fence and gates
- Special events and how they were marked (e.g. 1927 for Canada's 60th birthday)
- The names of the Woodlands buildings
- Pathways throughout the site

City of New Westminster



Crime Prevention Through Environmental Design

Guidelines for Safe Urban Design

April 1999

A basic primer for community planning principles incorporating CPTED principles for proposed or existing developments.

This brochure is for:
Property Owners, Architects, Engineers, and other Design Consultants, Business Managers / Owners, Property Managers, Resident Associations.

The brochure discusses why CPTED cannot simply be seen as a panacea for fighting crime, and the reasons why sometimes a crime risk assessment is necessary to identify sources of crime situations in an urban context.

Most importantly it is stressed that CPTED when best applied is incorporated into early stages of the design process, and is nearly invisible when properly applied. Good CPTED application is really good urban design applied correctly.

BACKGROUND

CPTED has its start in 1972, and is a relatively young field of study of modifying the physical environment to reduce the occurrence and fear of, crime and nuisance behaviour. CPTED is based on environmental criminology, which is how criminal offenders behave in and use their surroundings in the commission of a criminal act.

New Westminster has immense pedestrian appeal and potential, and many areas of the community are opening up to new development. As development occurs, CPTED will need to be applied in order to make new designs user friendly and safe.

Currently the City of New Westminster does not have a document available for public consumption outlining the principles of CPTED with examples of how it can be utilized. This is the first time a brochure of this sort will be available for increasing local awareness of this innovative crime-fighting tool.

CPTED is known amongst the planning department members, and the New Westminster Police Service. New Westminster has had a history of urban changes and crime in the downtown area, and elsewhere. Premises security is being applied indiscriminately in many downtown commercial establishments across the Lower Mainland, in the form of bars on windows, excessive target hardening, and security monitoring equipment. Some measures (e.g. bars on windows) may be counterproductive as they make the area less attractive for law-abiding customers.

The US has seen an increasing number of tort cases, where courts are awarding damages in favour of victims of crime in premises liability litigation. For example the average jury award in courts concerning negligence commercial establishments has been around 1.5 million dollars; and the average settlement is around $500,000 (US). Not much has shown up in Canadian court cases in recent years, but the Occupiers Liability Act of BC and the Negligence Act of BC may form the backbone for future premises liability cases should they arise.

It is our belief that foreknowledge of CPTED pertaining to future and existing urban situations, and its application could save time and money for property owners,

INTERDEPARTMENTAL LIAISON

The brochure has been circulated to Planning Department, Parks and Recreation Department, Engineering and the New Westminster Police Service for review and comment.

We have received comments back from the New Westminster Police Service, and have been able to incorporate their comments so far. We also have received Parks and Recreation Department comments. While there was unfortunately not enough time to incorporate Park's input, it is valuable. Since this report is being presented to Council as a draft, Parks suggestions will be inserted into the next revision of the brochure, prior to publication and distribution.

CONCLUSION

In conclusion, this is the first time that the Planning Department has had a CPTED brochure in this form that can assist residents and those in the planning and development fields with personal safety or development projects. This culminates several months of research, work and assembly. The initial outlay for the first round production of the brochure is minimal, and can aid in public education on principles and practical applications of crime prevention through environmental design.

Approved for Presentation
to Council

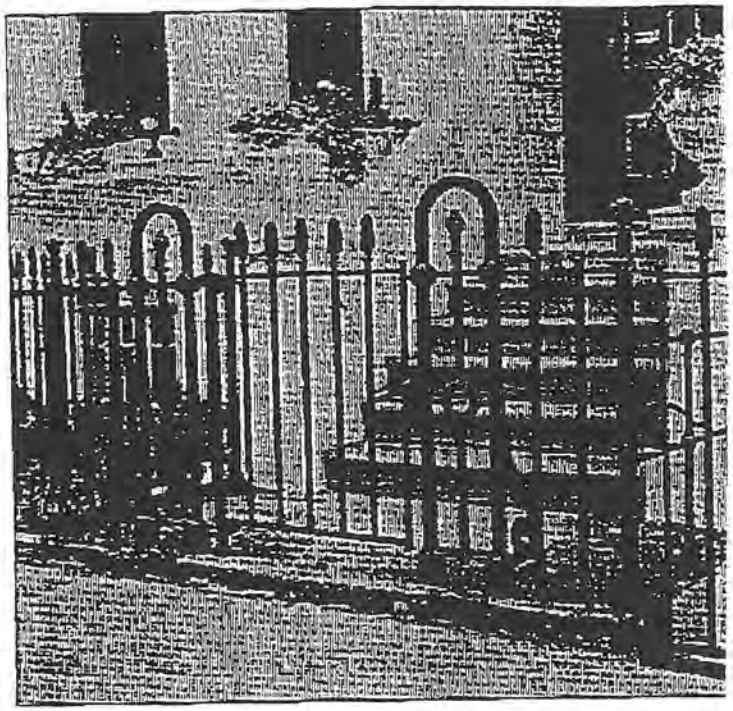
Mary Pynenburg,
Director of Planning

Ken Winslade,
City Administrator

:dw

Introduction

New Westminster is a compact urban municipality, and one of the oldest in the province. As a result of its role as transportation hub for many decades, our buildings, streets and public places have changed dramatically with increasing population. New Westminster is unique in that it has the range of crime problems a larger city typically would have, but at a scale that is still possible to manage. At the same time, opportunities exist for us to capture and use the historical value of our downtown areas, and enhance the charm of our residential neighbourhoods by good design.



Target Hardening and Hierarchy of Space, can be tastefully don with wrought-iron fencing such as these two examples in an older urban area.

What is CPTED?

Crime Prevention Through Environmental Design (CPTED) is the field of study that focuses on modifying the physical environment to affect criminal behaviour. Over the past 25 years, people have begun to realize that following certain principles when designing and planning buildings and landscapes can prevent many crimes. CPTED has its origins in Jane Jacob's *The Death and Life of Great American Cities* (1961, New York, Random House), where she recorded observations of her neighbourhood in New York City. Jacobs observed that the more diverse and active the street life, and opportunities for natural surveillance by proprietors of businesses provided for community security. Moreover, she noted the relationships of buildings and spaces on the street that presented legitimate users of public spaces to have "eyes on the street". Since then many others including Oscar Newman (*Defensible Space*, MacMillan Co. New York, 1972), and C. Ray Jeffery (*Crime Prevention Through Environmental Design*, Sage Publications, Beverly Hills, 1977) began documenting ways to modify the urban environment to create safe urban spaces.

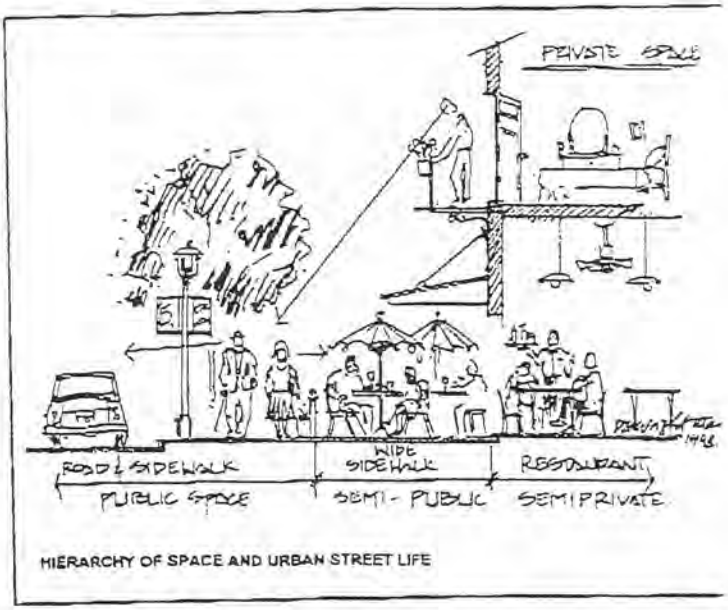
This field, known as environmental criminology attempts to explain patterns of opportunistic crime, why they happen and how urban spaces affect our emotional reactions to the built environment.



Reason for Brochure

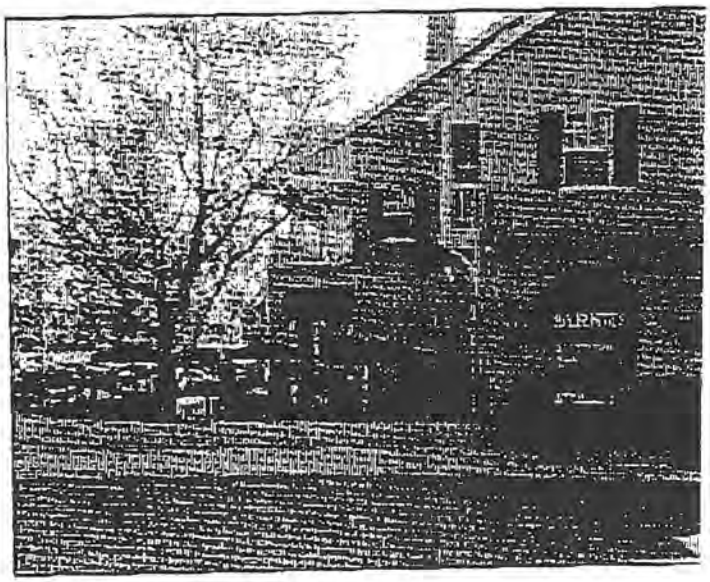
New Westminster is a city with enormous potential of being a beautiful pedestrian friendly urban environment. We would like to keep our city that way. Like all urban areas, crime or the threat of crime is a part of our perception of cities. Our image of the city hinges on its appearance. If buildings are defaced with graffiti, garbage and have bars and grills on windows and doors, the risk of crime may not actually be present, but the presence of these "incivilities" send a message that criminal activity is a possibility. This produces fear of crime, and research shows that a negative image of cities does drive legitimate users away from businesses and downtown.

As a result, people experience fear of crime and property or business owners want a quick economical solution that protects their premises and goods. One such method is via target hardening, such as installation of bars on windows and grills for doors and gateways. Other techniques are via better locks and better lighting.



HIERARCHY OF SPACE AND URBAN STREET LIFE

Hierarchy of space on the public street is important to establish territorial control. Here, the hierarchy is vertical as well as horizontal in the illustration above. An existing example of thi is shown below, of this outdoor dining area on a public street corner. Below is the public area with residences and offices abou



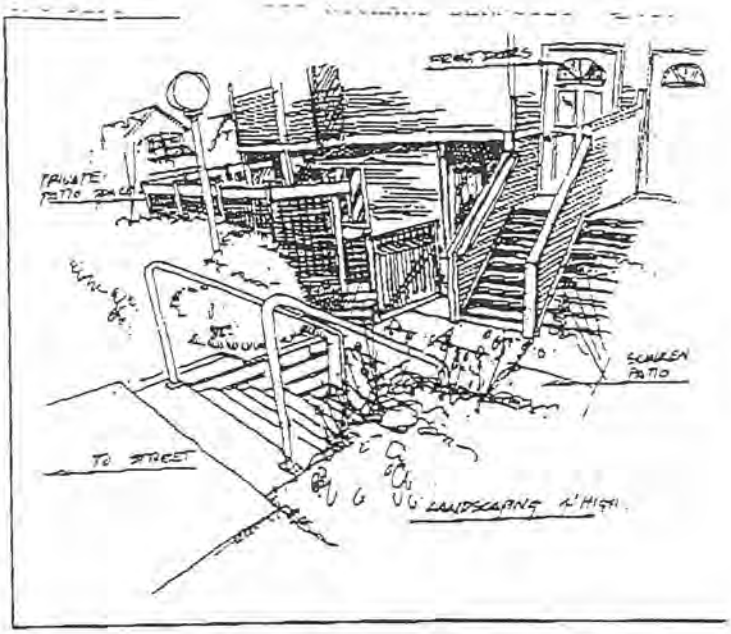
Does CPTED Work?

An underlying principle guiding CP'TED is that if a place is used frequently by legitimate users of public areas and the proprietors of compatible businesses, the presence of people is felt by visitors to mean that the space is safe.

Numerous reports indicate that when asked about what people would like to see that would make them feel safer in their communities, most respondents answer that the presence of people on their streets is the number one priority.

Basic CPTED Principles

CPTED is based upon at least four basic design and usage concepts, that when applied in a site-specific fashion, can reduce fear of crime and some actual crime. It should be noted that CPTED cannot address all the potential for crime or nuisance behaviour, but it can over time, change our environment to make it safer. Just as small negative choices can have a cumulative effect to make a place feel unsafe, positive choices, even those that seem small, can have a much larger cumulative effect to make new space feel attractive and feel safe. CPTED can be used for existing or proposed developments. The ultimate aim of CPTED is to reduce peoples' fear of crime by non-intrusive and sometimes invisible methods of modifying the surroundings. This can be done via visible means of Hierarchy of Space, Access Control, Target Hardening, and Territoriality.

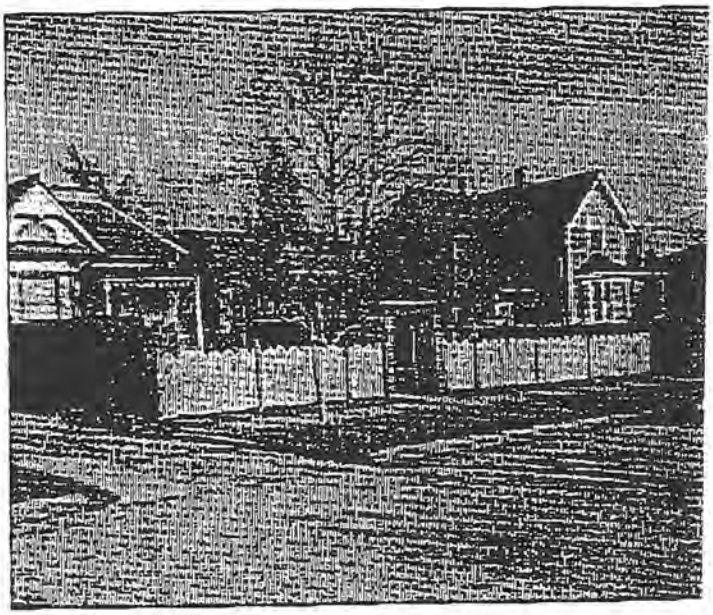


This sunken entry patio area between the apartment front door and the street (at left) lacks opportunities for natural surveillance and access control. The area at the bottom of the stairs is invisible from the street.

Hierarchy of Space is the sequence of spatial boundary markers that define the transition between what is public, semi-public, semiprivate, and private space. Hierarchy of space in residential areas is primarily horizontal, from the street curb toward the individual front door. In urban areas, hierarchy of space can be horizontal and vertical, such as in mixed-use buildings.

Defensible Space is the creation of space whereby boundaries are defined by owners or proprietors of that space that allows natural surveillance and territorial control against illegitimate activities. An area of personal influence created in this manner, in combination with other CPTED principles can be called defensible space.

Access Control means that proprietors of a site can control points of egress and ingress to the premises. This can be done by reducing the number of entryways to a minimum, or by security systems using magnetic strip key locks, or relocating critical entry points to areas likely to be highly supervised.



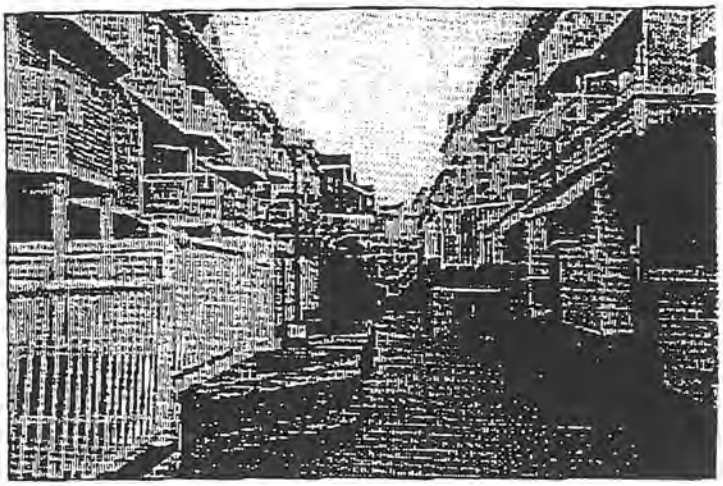
Many older homes made use of low fences and landscaping alo the edges of the public right of way. Fences such as this one a the ornate gate define personal territory and symbolically demarcate public and private spaces. In addition, it enhances appearance of the street.

Fear of Crime

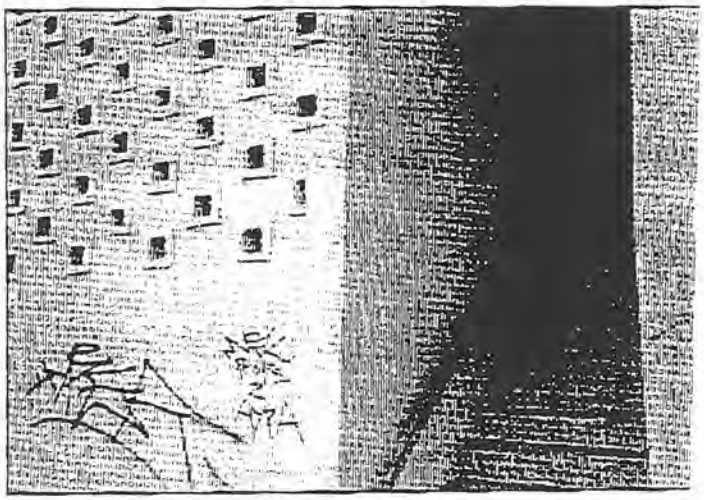
Fear of crime is the perception of the threat of crime whether the actual risk is present or not. It is our emotional reaction to the image of our surroundings. The fear of crime is more damaging to the economic and social wellbeing of our community than actual risk of crime. Studies by environmental psychologists have shown that the fear of crime actually has little to do with the actual rates of crime. People base their anxieties on many things other than their actual victimization or knowledge of specific incidents. The things that contribute most to fear of crime are parts of the landscape that have *incivilities* such as:

- Poor maintenance, where it appears that owners or proprietors of a site do not care about the image of the site, and allow it to fall into disrepair.
- Vacant lots, with no known proprietor or sense of ownership
- High traffic volumes. It often appears that the higher the traffic volume and noise level associated therewith, the less people will spend time in a human unfriendly environment.
- Graffiti that is not eradicated when it appears. This falls under maintenance and image.
- Empty store fronts. Empty store fronts are an indicator that economic hardship has befallen the area or that the owner has abandoned the site.
- Trashy streets. This leaves the impression that the city does not care for the wellbeing of the residents.
- Excessive target hardening, such as chain link fencing with razor wire, the ubiquitous presence of bars or grilles on ground level windows and doors.

Fear of crime is useful to the offender. When legitimate users of a space leave out of fear that crime will occur, this produces an anonymous space where territorial control and ownership is not evident.



The common walkway between units in this housing project is architecturally and visually confusing. Sightlines along the walkway are not clear due to numerous horizpntal projections. It is not clear where residents' doors are, or how this space is monitored.



Above: grafitti known as "tagging" next to darkened stairwells and a blank wall next to a sidewalk can generate concerns for pedestrians at night. It is not clear where the stair leads to, and the grafitti convey the message that this space is not cared for.

Entrapment Areas

Areas that pose a potential for attackers to hide in waiting for victims, or are places that are dead ends are said to be entrapment areas. They may include "refuge areas" in building stairwells, or empty spaces under landings in parking garages, or open concealed garage spaces in older apartment buildings.

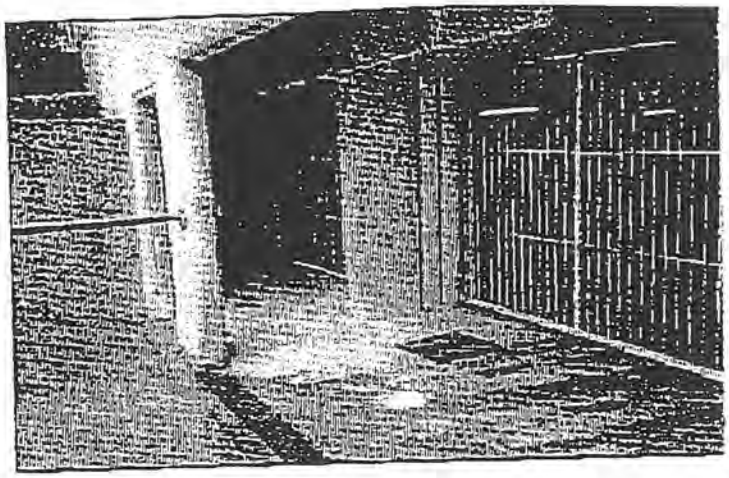
Conflicting User Groups

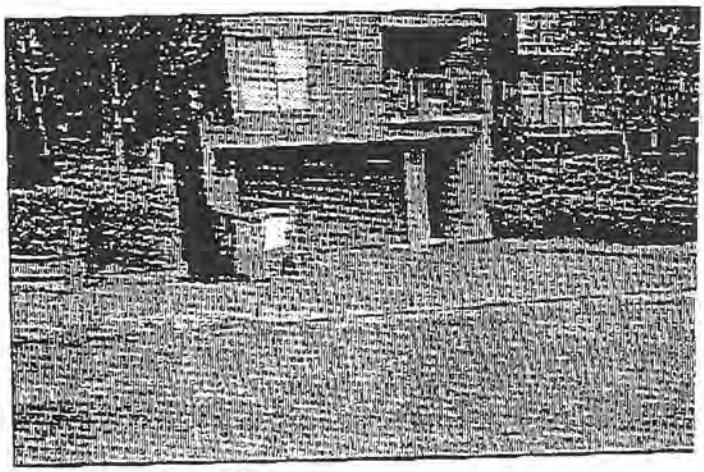
Conflicting user groups are groups of people who occupy the same space for widely differing reasons at the same time. A case might be placing a video arcade near a seniors home, where the path to the front door of the elderly housing complex take elderly persons past the arcade entrance.

Hotspots

Hotspots are existing locations of incidents which can impact on nearby developments. They include such areas as underground parkades, (which can be areas of numerous car thefts), bus terminals (where pickpocketing can be a problem), or certain bars where fighting is common.

When planning new developments, the location of nearby hotspots must be taken into account and measures taken to protect the public.





Above and Below: examples of potential entrapment areas with limited visibility. In the case above, the recessed space in the centre of the photograph might be labelled as a "refuge area" in the event of fire, but poses security concerns. Below, little opportunity is provided for direct surveillance of the parking garage entry to this apartment complex.

Displacement

Displacement is the movement of a type of criminal activity or nuisance behaviour is from one area to another either physically or in time (as in temporal displacement). Usually this means the relocation of criminal activity from one place to a weaker area where territorial control is not as strong. Research has shown that displacement is not always negative. It can be addressed effectively if proper CPTED planning is incorporated into new designs. An example is shown on the previous page



This example of an "edge effect" includes an abandoned house on the left with graffiti and poor maintenance, and a multifaimily residential complex adjacent. Visibility in this area is severely restricted. The sidewal leads residents to their front doors. As a movement predictor, the walkway confines pedestrian mobility, an directs pedestrians through an unsupervised area.

Edge Effects

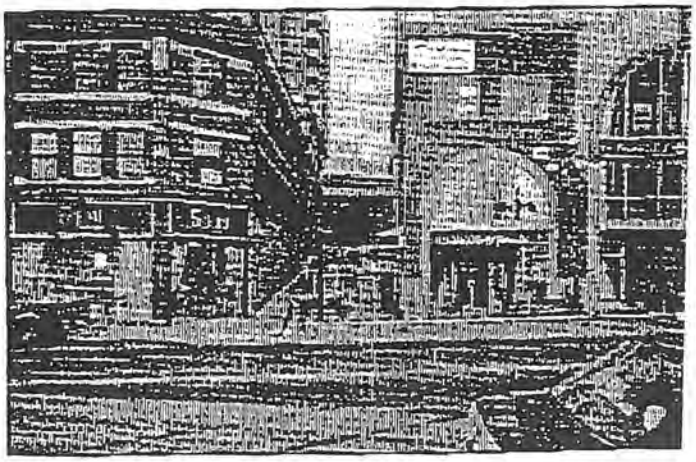
Edge effects are the actual or perceived areas that lie between widely contrasting land uses or territorial boundaries, where territorial control is not evident. Edge effects typically have higher crime rates than areas with a distinct and defined land use. Contemporary CPTED aims to identify and modify these areas in order to create safer environments.

As stated before, crime is not random; and CPTED today not only focuses on the opportunities for crime created by architecture, but also takes into account the wider physical environment, and the routine activities of the people in the neighbourhood. For example, things that have a direct impact on the opportunity for crime include:

- the paths people travel to and from work;
- the location of bus or Sky Train routes;
- the location of popular shopping areas; and
- the places where young people gather.

It should be kept in mind that not all nuisance behaviour is crime. Young people need safe places where they can meet and develop social skills, such as recreation centres, coffee bars, and intentionally designed hangout spaces (i.e., skateboards parks). However, if the site is near amenities that facilitate such activity where gathering and recreational mingling is not intended it can generate fear of crime in other legitimate users of that space. What is required is an understanding of the context of the site and what its intended uses are.

This walkway has good visibility from front doors opening on to it, and it is well lighted at night. The businesses on either side keep their doors open and lights on inside, after hours. This potential edge effect has been integrated as part of the street environment.



When Do We Apply CPTED?

CPTED strategies must be applied carefully. Indiscriminate application of CPTED measures can create new problems in the course of solving other ones. Therefore, an accurate assessment of the site and its physical, social and temporal context is necessary to discover existing environmental conditions and crime patterns. This assessment can reveal potential solutions to problems. CPTED practitioners often find it useful to conduct a crime risk assessment.

Typically, CPTED follows several steps, for medium and large- scale projects.

1) *Site Visit*

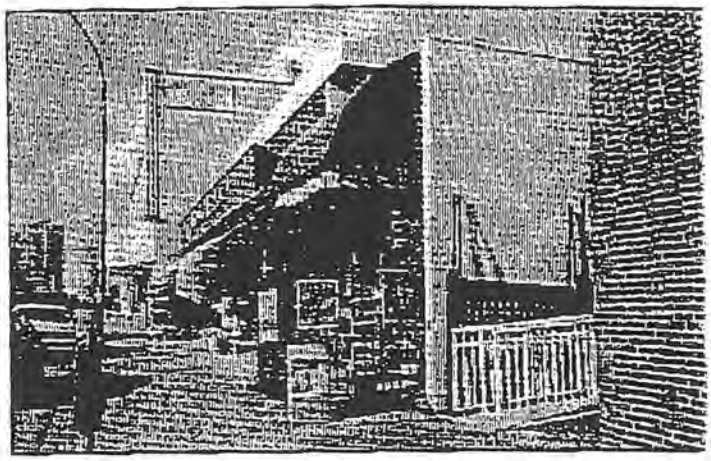
First, a site visit is required in order for the CPTED practitioner to see the site and the context of its surroundings at day and night times.

2) *Safety audits*

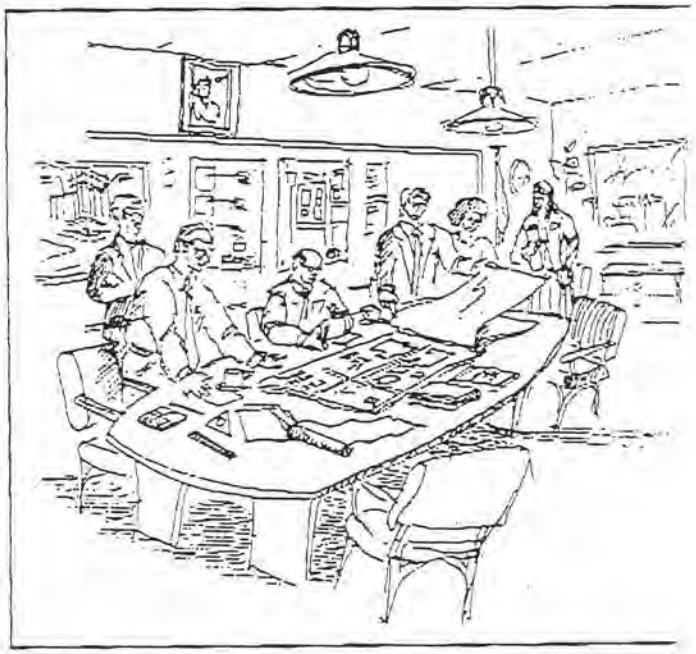
A safety audit with stakeholders at night around the site can also yield places in the neighbourhood that generate high levels of emotional discomfort and feelings of vulnerability.

3) *Preliminary Review*

In this stage of the assessment, meetings with municipal officials and police are necessary to uncover demographic and statistical information on the character of the neighbourhood under study. Crime data is gathered at this point from the police. Sometimes a series of interviews and data gathering in the form of mail out surveys and questionnaires may reveal valuable information on crime patterns.



This local store provides good example of public presence. Note removable fencing stored at the side fo this business, which generates activity in an area whic might be otherwise unused or unmonitored.



Pre-design meetings and design charettes (also kno as brainstorming sessions) with stakeholders, archit CPTED practitioners, and municipal staff are sometimes used before design is finalized on a proje This can go a long way in removing design errors a surprises before final approval and construction be The timely incorporation of CPTED principles earl the design process can save time, money and poten legal difficulties.

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REHABILITATION OF HERITAGE BUILDINGS

EXCERPTS FROM THE

BRITISH COLUMBIA BUILDING CODE (1998)

Frost action means the phenomenon that occurs when water in *soil* is subjected to freezing which, because of the water/ice phase change or ice lens growth, results in a total volume increase or the build-up of expansive forces under confined conditions or both, and the subsequent thawing that leads to loss of *soil* strength and increased compressibility.

Furnace means a *space-heating appliance* using warm air as the heating medium and usually having provision for the attachment of ducts.

Gas vent means that portion of a venting system designed to convey vent gases to the outdoors from the *vent connector* of a gas-fired *appliance* or directly from the *appliance* when a *vent connector* is not used.

Grade (as applying to the determination of *building height*) means the lowest of the average levels of finished ground adjoining each exterior wall of a *building*, except that localized depressions such as for vehicle or pedestrian entrances need not be considered in the determination of average levels of finished ground. (See *First storey*.)

Groundwater means a free standing body of water in the ground.

Groundwater level (groundwater table) means the top surface of a free standing body of water in the ground.

Guard means a protective barrier around openings in floors or at the open sides of stairs, landings, balconies, *mezzanines*, galleries, raised *walkways* or other locations to prevent accidental falls from one level to another. Such barrier may or may not have openings through it.

Header means a *vent pipe* that connects 2 or more *vent stacks* or *stack vents* to outdoors. (See Appendix P.)

Heat detector means a *fire detector* designed to operate at a predetermined temperature or rate of temperature rise.

Heavy timber construction means that type of *combustible construction* in which a degree of fire safety is attained by placing limitations on the sizes of wood structural members and on thickness and composition of wood floors and roofs and by the avoidance of concealed spaces under floors and roofs.

✓ *Heritage building* is a *building* which is legally protected or officially recognized as a heritage property by the Provincial or a local government. (See Appendix A.)

High hazard industrial occupancy (Group F, Division 1) means an *industrial occupancy* containing sufficient quantities of highly *combustible* and flammable or explosive materials which, because of their inherent characteristics, constitute a special fire hazard.

Horizontal exit means an *exit* from one *building* to another by means of a doorway, vestibule, *walkway*, bridge or balcony.

Horizontal service space means a space such as an attic, duct, ceiling, roof or crawl space oriented essentially in a horizontal plane, concealed and generally inaccessible, through which *building* service facilities such as pipes, ducts and wiring may pass.

Impeded egress zone means a supervised area in which occupants have free movement but require the release, by security personnel, of security doors at the boundary before they are able to leave the area, but does not include a *contained use area*.

Indirect service water heater means a *service water heater* that derives its heat from a heating medium such as warm air, steam or hot water.

Indirectly connected means not *directly connected*. (See P-7.3.3.12.(2) in Appendix P.)

Individual vent means a *vent pipe* that serves one *fixture*.

Industrial occupancy means the *occupancy* or use of a *building* or part thereof for the assembling, fabricating, manufacturing, processing, repairing or storing of goods and materials.

Interceptor means a receptacle that is installed to prevent oil, grease, sand or other materials from passing into a *drainage system*.

Interconnected floor space means superimposed *floor areas* or parts of *floor areas* in which floor assemblies that are required to be *fire separations* are penetrated by openings that are not provided with *closures*.

Leader means a pipe that is installed to carry *storm water* from a roof to a *storm building drain* or *sewer* or other place of disposal.

Limiting distance means the distance from an *exposing building face* to a property line, the centre line of a *street*, lane or public thoroughfare, or to an imaginary line between 2 *buildings* or *fire compartments* on the same property, measured at right angles to the *exposing building face*.

A-1.1.3.2. Farm Building. Farm buildings as defined in Article 1.1.3.2. include but are not limited to produce storage and packing facilities, livestock and poultry housing, milking centres, manure storage facilities, grain bins, silos, feed preparation centres, farm workshops, greenhouses, farm retail centres, and horse riding, exercise and training facilities. Farm buildings may be classed as low or high human occupancy, depending on the occupant load.

Examples of farm buildings likely to be classed as low human occupancy as defined in Article 1.2.1.2. of the National Farm Building Code of Canada are livestock and poultry housing, manure and machinery storage facilities and horse exercise and training facilities where no bleachers or viewing area are provided.

Examples of buildings that would be classed as other than low human occupancy include farm retail centres for feeds, horticultural and livestock produce, auction barns and show areas where bleachers or other public facilities are provided. Farm work centres where the number of workers frequently exceeds the limit for low human occupancy will also be in this category.

It is possible to have areas of both high and low human occupancy in the same building provided that the structural safety and fire separation requirements for high human occupancy are met in the part thus designated.

A-1.1.3.2. Fire Separation. A fire separation may or may not have a fire-resistance rating.

A-1.1.3.2. Heritage Building. Heritage buildings are buildings that are legally recognized by the Province or a local government as having historic, architectural or cultural value for the Province or their communities. To qualify as a heritage building under the Building Code, a building must be:

(a) protected as heritage property by the Province under the Heritage Conservation Act or the Park Act;
(b) identified by order-in-Council as a park, monument or historic site by a regulation made under the Municipal Aid Act;
(c) subject to a heritage designation bylaw pursuant to the Municipal Act or Vancouver Charter;
(d) protected as heritage property in a heritage revitalization agreement pursuant to the Municipal Act or Vancouver Charter;
(e) identified by local government as heritage property in an official community plan, rural land-use bylaw or a heritage conservation area bylaw;
(f) protected as heritage property in a conservation covenant entered into under section 219 of the Land Title Act;
(g) identified as a heritage building in a community heritage register pursuant to the Municipal Act or Vancouver Charter;
(h) identified as heritage property in a resolution that has been passed by a municipal council or regional district board; or
(i) listed in the Provincial heritage register or in an inventory of heritage buildings maintained for this purpose under section 20(1)(h) of the Heritage Conservation Act.

A-1.1.3.2. Party Wall. It was the determination of the Appeal Board in Appeal #1318 that strata lots are not parcels of land as intended in the definition of party wall. For the purposes of the Code strata title suites should be considered the same as rental suites.

A-1.1.3.2. Public Corridor. A covered mall is considered to be a public corridor and, as such, is subject to the same requirements as a public corridor.

A-1.1.3.2. Service Room. Typical examples of service rooms include boiler rooms, furnace rooms, incinerator rooms, garbage handling rooms, and rooms to accommodate air-conditioning or heating appliances, pumps, compressors and electrical equipment. Rooms such as elevator machine rooms and common laundry rooms are not considered to be service rooms.

A-1.1.3.2. Suite. Tenancy in the context of the term "suite" applies to both rental and ownership tenure. In a condominium arrangement, for example, dwelling units are considered separate suites even though they are individually owned. In order to be of complementary use, a series of rooms that constitute a suite are in reasonably close proximity to each other and have access to

Table A-2.1.6.1.

No.	Code Requirement	Alternate Compliance Method
1	**Fire Separations** 3.1.3.1.(1) and Table 3.1.3.1; 9.10.9. 2 h fire separation required between some major occupancies.	Except for F1 occupancies, 1 h fire separation is acceptable, if the building is sprinklered.
2	**Fire Separations** 3.1.3.1.(1) and Table 3.1.3.1; 9.10.9. 1 h fire separation required between some major occupancies.	1/2 h fire separation is acceptable if the building is sprinklered.
3	**Noncombustible Construction** 3.1.5. and 9.10.6.1. All materials used in noncombustible construction must be noncombustible unless otherwise permitted.	1. Roofs may be of combustible construction provided the building is sprinklered. 2. Up to 10% gross floor area to a maximum of 10% of any one floor area may be of combustible construction provided the building is sprinklered.
4	**Fire-resistance Rating** 3.1.7.1.(1); 9.10.3.1. Where a material, assembly of materials or structural member is required to have a fire resistance rating it shall be tested in accordance with CAN/ULC-S101	A fire-resistance rating may also be used based on: 1. HUD No. 8 Guideline on Fire Ratings of Archaic Materials and Assemblies. 2. Fire Endurance of Protected Steel Columns and Beams. DBR Technical Paper No. 194. 3. Fire Endurance of Unit Masonry Walls, DBR Technical Paper No. 207. 4. Fire Endurance of Light-Framed and Miscellaneous Assemblies, DBR Technical Paper No. 222
5	**Rating of Supporting Construction** 3.1.7.5.; 9.10.8.3. Supporting assemblies to have fire resistance rating at least equivalent to that of the supported floor.	Heavy timber construction is permitted to have a fire resistance rating less than would be required by the Code provided the building: (a) is sprinklered, and (b) does not exceed 6 storeys in building height.
6	**Continuity Of Fire Separations** 3.1.8.3. and (2); 9.10.9.2. Fire separations are required to be continuous above the ceiling space.	Fire separations are not required to be continuous above the ceiling space where: (a) the ceiling space is non-combustible construction, (b) both fire compartments are sprinklered, or (c) the ceiling has a minimum rating of 30 minutes.

Table A-2.1.6.1. — *(Continued)*

No.	Code Requirement	Alternate Compliance Method
14	**Interconnected Floor Space** 3.2.8.; 9.10.1.3.(6)	1. Open stairs in buildings of maximum 4 storeys in building height need not comply with Subsection 3.2.8. provided: (a) the building contains a Group C or D occupancy, (b) the building is sprinklered with fast response sprinklers, (c) corridors opening into the interconnected floor space are separated from the interconnected floor space by a fire separation with the rating required for the corridor, and (d) smoke detectors are installed in the rooms opening into the interconnected floor space and the smoke detectors are connected to the fire alarm system. 2. Open stairs in buildings of maximum 3 storeys in building height, or first 2 storeys and basement, need not comply with Subsection 3.2.8. provided: (a) the building contains a Group C or D occupancies, (b) the building is sprinklered with fast response sprinklers, (c) smoke detectors are installed in the rooms opening into the interconnected floor space and the smoke detectors are connected to the fire alarm system, and (d) at least one means of egress is not through the interconnected floor space.
15	**Separation of Suites** 3.3.1.1.; 9.10.9.13., 9.10.9.14. Suites are required to be separated from adjoining suites by 3/4 h or 1 h rated fire separations.	Existing fire separations of 1/2 h. such as wood lath and plaster in good condition, are acceptable in sprinklered buildings not exceeding 6 storeys in building height.
16	**Corridor fire separation** 3.3.1.4.; 9.10.9.15. Public corridors are required to be separated from the remainder of the building by a fire separation having a fire resistance rating of at least 3/4 h.	Existing corridors with 1/2 h fire resistance ratings, such as wood lath and plaster in good condition, are acceptable in residential occupancies provided the building: (a) does not exceed 6 storeys in building height, and (b) is fully sprinklered with fast response sprinklers.
17	**Corridor Width** 3.3.1.9. and 3.4.3.1.; 9.9.3.3. Public corridors and exit corridors are permitted to have a minimum width of 1 100 mm.	Public corridors and exit corridors are permitted with a minimum width of 800 mm provided: (a) the occupant load of the building is maximum 20 people, and (b) the building does not exceed 3 storeys in building height.

Table A-2.1.6.1. — *(Continued)*

No.	Code Requirement	Alternate Compliance Method
24	**Fire Separation of Exits** 3.4.4.1.; 9.9.4. Exits are required to be separated from the remainder of the floor area by a fire separation having a fire-resistance rating of not less than 3/4h.	1. Buildings of 3 storeys or less may have exits that are separated by a fire separation that does not have a fire-resistance rating provided: (a) the building is sprinklered with fast response sprinklers, and (b) the sprinkler system is supervised in accordance with Sentence 3.2.4.9.(2). 2. Buildings not exceeding 6 storeys in building height may have exits that are separated by a 3/4 h fire separation provided the building is sprinklered.
25	**Exits Through Lobbies** 3.4.4.2.; 9.9.8.5. Rooms adjacent to the lobby are required to be separated by a fire separation.	Rooms adjacent to the lobby are not required to be separated by a fire separation provided: (a) the floor area is sprinklered with fast response sprinklers, and (b) smoke detectors are installed in the adjacent rooms.
26	**Rooms Opening into Exit** 3.4.4.4.(7); 9.9.5.9. Service rooms and ancillary rooms are not permitted to open directly into an exit.	Service rooms and ancillary rooms may open directly into an exit provided: (a) the room is sprinklered with fast response sprinklers, and (b) weatherstripping is installed on the door to prevent the passage of smoke.
27	**Illumination of Exit Signs** 3.4.5.1.(2); 9.9.10.5. Exit signs are required to be illuminated continuously while the building is occupied.	Where exit signage may compromise historic appearances, or authenticity of displays, exit signs may be installed to light only on an emergency condition, such as by the fire alarm system or due to power failure.
28	**Clearance from Exit Doors** 3.4.6.10.(1); 9.9.6.6. Stair risers shall not be closer than 300 mm from an exit door.	Except as permitted in Sentences 3.4.6.10.(2) or 9.9.6.6.(2), existing exit doors shall not extend beyond the first riser.
29	**Fire Escapes** 3.4.7.; 9.9.2.3. Fire escapes are required to conform to Subsection 3.4.7.	Existing fire escapes that do not completely conform to Subsection 3.4.7. are acceptable provided: (a) the fire escapes are acceptable and (b) the building is sprinklered.
30	**Fire Escape Construction** 3.4.7.2.; 9.9.2.3.	Existing combustible fire escapes are permitted if the building is permitted to be of combustible construction by Part 3 , Part 9 or by these Compliance Tables.
31	**Protection of Fire Escapes** 3.4.7.4.; 9.9.2.3. Openings in the exterior wall adjacent to the fire escape are required to be protected by closures.	Existing openings in the exterior wall adjacent to the fire escape are not required to be protected by closures provided: (a) the building is sprinklered, and (b) a sprinkler head is located within 1.5 m of the opening required to be protected by Sentence 3.4.7.4.

VICTORIA HILL PARCELS – STATUS

Address	Description	Status	Owner
Parcel A	Two apartment towers	Under construction	Currently owned by Onni, will be strata ownership
Parcel B	1)Nurses Lodge: 9 unit residential 2) 72 unit residential development	1)B P application issued 2)occupied	Currently owned by Onni
Parcel C	Heritage designated Centreblock building	Heritage restoration discussion underway	Currently owned by Onni, possible strata ownership upon development
Parcel D	1)Boiler House 2)72 unit apartment development	1)no BP yet 2)D P issued	Currently owned by Onni, will be strata ownership
Parcel E	1)Recreation Building 2)16 unit residential building	1) future use to be determined 2) no application submitted	Currently owned by Onni
Parcel F	Stormwater detention pond and small park space	Design approval stage	Onni
Parcel G & H	336 units in 9 apartment buildings	Development Permit issued	Currently owned by Onni, will be strata ownership
Parcel I	1)Carpenters Shop 2)59 unit townhouse development	1) Building Permit under review 2)Under construction	Currently owned by Onni, will be strata ownership
Parcel J	213 units in apartment and townhouse form	Initial discussions underway	Currently owned by Onni, will be strata ownership
Parcel K	152 unit apartment tower	Proposed rezoning to increase density under consideration	Currently owned by Onni, will be strata ownership
Parcel L	Front Lawn	Work almost complete	City of New Westminster
Parcel M	Seniors residential Adult and children's daycare Health clinic	Foundation permit issued BP application under review	Fraser Health Authority

Parcel O	Assisted Living / non market housing	No application submitted	Onni

August 29, 2006