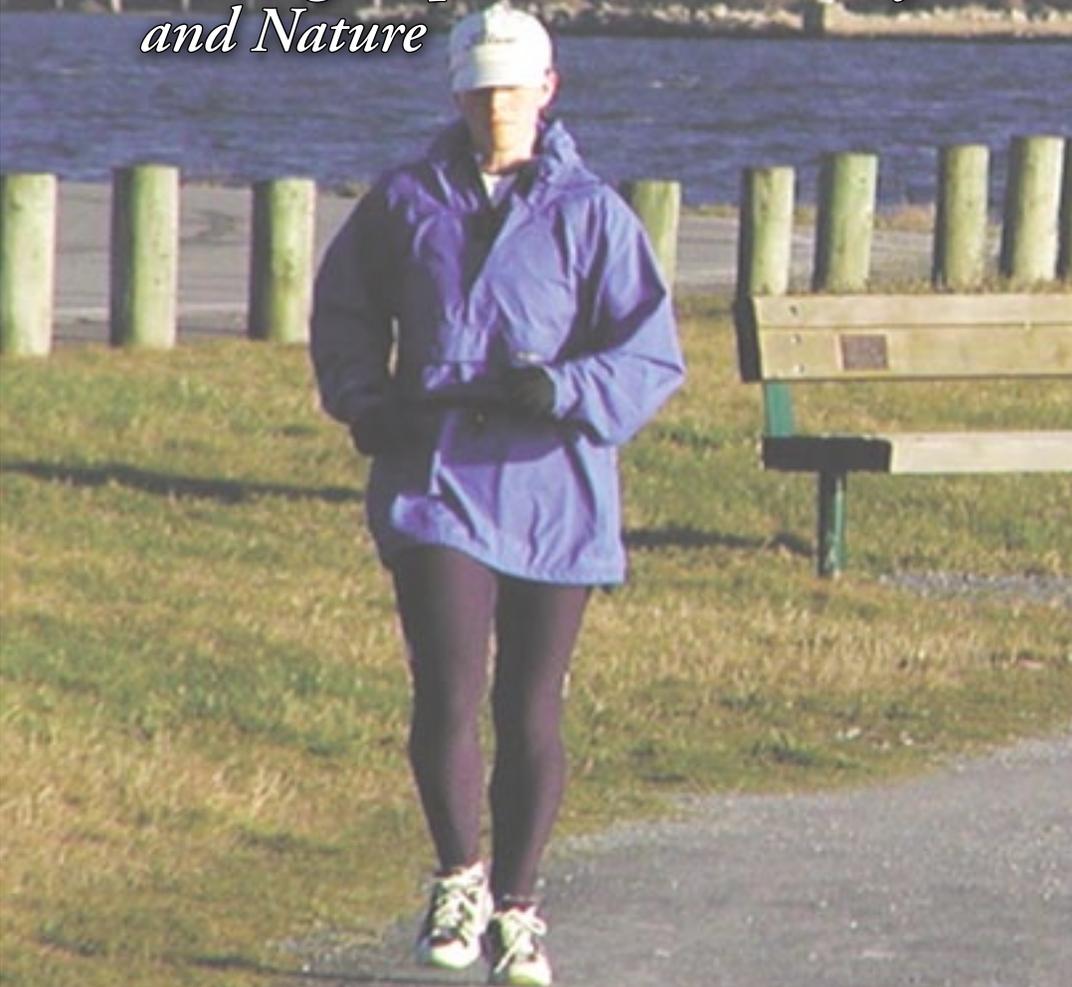


2010 RICHMOND TRAIL STRATEGY

*Linking People, the Community
and Nature*



2010 Richmond Trail Strategy



Prepared By: Parks, Recreational and Cultural Services Division
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City Council

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Councillor, Sue Halsey-Brandt	

The Parks, Recreation and Cultural Services Committee, Chair - Councillor Harold Steves

Parks, Recreation and Cultural Services, General Manager - Cathy Volkering Carlile

City Staff

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Connie Baxter	Sean Davies	Janet Lee
David Brownlee	Jane Fernyhough	Kim Somerville
Joan Caravan	Eric Gilfillian	Victor Wei
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Christina Lazar-Schuler, *Parks Design Technician*

Yvonne Stich, *Park Planner, Parks Department*
Dave Semple, *Director of Parks Operations, Parks Department*

Executive Summary

The City of Richmond has evolved and changed as a community over the last 20 years. To guide its future the City has established a Vision of being *the most appealing, livable, and well-managed community in Canada*.

The 2003-2005 Corporate Plan has created a number of strategies to achieve this Vision. Three of the key strategies that this 2010 Trails Strategy directly supports are the:

- Waterfront Development Strategy
- Community Mobility Strategy
- Economic Development Strategy

Much of the work that has been done on the trails has its foundations in the 1979 Trails Plan and more recently the 1996 Steveston Waterfront Greenways Plan. With the increased popularity of the trails, the new Vision and Corporate Plan set out for the City, and the many policies outlined in the 1999 Official Community Plan, it is now time to update and establish a new vision for Richmond's trail system.

The New Focus for Planning Trails

The 1979 Trail Plan focussed on developing the physical infrastructure of the city-wide trails. In addition to identifying these important city-wide trails, this Strategy incorporates a new approach to planning a comprehensive network of trails that includes:

It's about People...

The Users and the Individual and Community Benefits of Trails – This is a recognition that a well planned and developed trail system can provide many benefits to individual users and the community at large. These benefits range from individual healthy lifestyles, sense of community, environmental stewardship to economic growth through tourism. These benefits become the goals to strive for and opportunities were sought throughout the Strategy to promote these benefits and to create a memorable experience of the trails.

Leaving the car at home...

Community and Neighbourhoods Links – The Inside Out Approach – This was the recognition that every journey starts at home and if one of the main goals is to encourage people to walk and cycle then where better to start than in their own neighbourhoods? This Strategy introduces a conceptual framework for creating a “walkable community”. Once people become comfortable at the local level they can then move outwards to the larger city-wide network of trails and cycling routes.

Working together...

Coordination of City and External Initiatives – This is the recognition that there are many City departments and external agencies that have a variety of initiatives underway from strategic plans to land use plans to construction projects that may impact upon the development of trails. Initiatives that are occurring at this point of time have been referred to and included throughout the Strategy. Ongoing liaison and co-ordination with other City departments and external agencies is critical to ensuring opportunities are not missed and that there is a cost effective and successful implementation of the trail system.

The Vision

Linking People, the Community and Nature

The Vision was developed after reviewing the trends, relevant documents and studies, the benefits of trails, and the many community goals and policies outlined within the Official Community Plan. Three key themes relating to trails were identified and woven into the Vision statement.

These themes were:

- Strengthen the sense of community in Richmond neighbourhoods
- Encourage walking and the use of alternative travel modes
- Build upon Richmond's Garden City Legacy and celebrate Richmond's Island Heritage

The Vision goal statement is that:

Richmond's trail system will be a vibrant network of interconnected trails, greenways, blueways and cycling routes that will support the City's commitment to creating a livable, attractive and healthy community. It will provide a variety of exciting opportunities for walking and cycling that will link people to each other, to their community and to Richmond's unique natural and cultural heritage.

A key factor in creating a livable community is the linking of people to each other, to their neighbourhood and community facilities and amenities, and to nature. Also, inherent in the Vision statement is the idea of linking community to community; nature to community (introducing nature into the city), and nature to nature (environmental sustainability).

There are four types of links identified in this Strategy each with different goals and functions. These include:

- a. Neighbourhood and Community Links - Recognizing that every journey starts at home
Goal: To provide safe and easy circulation within the neighbourhood and across the arterial roads into adjacent neighbourhoods and communities to visit friends, a school park site, community facility or a shopping area.
- b. City-wide Links - Celebrating Richmond's uniqueness
Goal: To create a continuous interconnected network of the city-wide trails that provides clear links to key destinations and points of interest in Richmond and allows for maximum water front access while remaining sensitive to other uses and the environment.
- c. Nature Links - Allowing Nature to Flourish
Goal: To develop green corridors that link a diversity of open spaces such as formal city parks, natural areas, drainage canals and agricultural land.
- d. Blueway Links - Connecting with water
Goal: To ensure that 'blueways' (water based activities and amenities) are an integral component of an interconnected network of trails that truly celebrates Richmond's unique asset of being a series of islands in the Fraser River.

The Trail Infrastructure

In 1979 the trail system was envisioned as a more traditional off-road recreational system with the focus on city-wide trails such as the Middle Arm and West Dyke trails.

Over the years the concept of a trail system has expanded to include *cycling routes, walkways, park pathways, expanded sidewalks and boulevards, greenways, staging areas, nodes, and special features, blueways and rural roadways*. A designated trail route may, at any one time, include all or some of these different types of public ways. An example is the Steveston Waterfront Greenway.

The new proposed trail network is one that encompasses many different types of walking and cycling opportunities. Although, this strategy is focussed on the trail network it recognizes that people walk on more than just the designated routes. Many of the guidelines and recommendations proposed in this strategy are relevant to the creation of a *walkable community* and lay the foundation for further work in the future.

The Plan

Building the network

The Plan is divided into two sections: The Neighbourhood and Community Links and the City-Wide Links. Interwoven, where appropriate, are Nature and Blueway Links.

a. The Neighbourhood and Community Links

Since there are so many neighbourhoods and each is different in its layout, history, and degree of existing infrastructure, the Strategy contains a conceptual framework that identifies the key components for consideration in creating a safe, comfortable and inviting pedestrian and cycling environment. This can then be applied to different neighbourhoods to determine the best routes. The term ‘*Green Links*’ will now be applied to designated routes through neighbourhoods.

Key components are *community involvement* in decision making, *wayfinding elements* to reinforce the route and locate key destinations, *route criteria* to select the best route, and *infrastructure and infostructure* improvements to remove barriers and improve accessibility.

b. City-Wide Links Implementation Plan

The focus of this section was to identify the major routes, missing links, and make recommendations to create a continuous and interconnected network of trails. The goal is that ultimately there will be a city-wide trail or designated cycling route within 1 kilometer of every resident. The neighbourhood green links will be designed to tie into the city-wide system. The term ‘*Trail*’ will refer to rustic trails and ‘*Greenway*’ will apply to trails that connect multiple key destinations, have unique features, or are significant natural green corridors.

Recommendations

Each section of the Strategy has a set of specific recommendations. These recommendations include planning initiatives, strategies, design and construction projects, guidelines and work program items. Below is a summary of the recommendations and proposed timelines. This summary does not include the specific recommendations outlined for each city-wide trail (see Section 7.0 and 9.2).

Summary of Recommendations in the Strategy

(A recommendation may be repeated in different sections of this Strategy. For purposes of this summary the recommendation is listed only once.)

Timeline Definitions:	
Short Term = Immediate to 3 years / Medium Term = 3 to 5 years Long Term = 5 to 10 years / Ongoing = Immediate to long term	TIMELINE
THE TRAILS SYSTEM	
Trails Users	
1. Conduct a Trails Etiquette information session through the Adopt-A-Trail program for the public once or twice a year at popular areas along the trails e.g. Garry Point Park.	Short
2. Inventory all access points along the dyke and review for ease of accessibility.	Short
3. Consult with Richmond Committee on Disability on issues of accessibility.	Short
4. Include in any new Trails Brochures and on the City website information identifying the best locations for parking for wheelchair access and information about water safety in the Fraser River.	Short
5. Work with other interested parties such as UBC Rowing Club to develop the potential of the Middle Arm as a water based recreational and festival corridor with the appropriate upland support amenities.	Short
6. Conduct surveys to determine public priorities and specific concerns with the existing system and use.	Short
7. Improvements to access points onto the dyke should be made to ensure safe and convenient access.	Medium
8. Design trail surfaces to respond to the specific users needs and character of the area in which it is built.	Medium



9. Consult with the equestrian community and the proposed Agricultural Advisory Committee to locate appropriate routes for equestrian as well as pedestrian use along the edge of or through farming areas.	Medium
10. Consult with the public to determine any changes to existing trail surfaces and uses especially along popular trails such as the West Dyke.	Ongoing
11. Conduct surveys to determine public priorities and specific concerns with existing trail system and use.	Ongoing
Trail Infrastructure	
City-Wide Trails:	
12. Adopt the City-wide Trail/Greenways Plan and recommendations outlined in this strategy (Section 7.0).	Short
13. Develop an Implementation Plan with priorities and budgeting for the next 10 years.	Short
14. Work with other initiatives such as the Waterfront Development and Community Mobility Strategy to identify different character areas within the City and establish design guidelines for these areas.	Short
15. Continue to work with regulatory agencies to protect the environment and seek creative solutions that ensure the City's needs are met as well as those of the various agencies.	Ongoing
Cycling Routes:	
16. Continue to pursue partnerships with other agencies such as ICBC for cost sharing to implement the Richmond Cycling Network as adopted by Council.	Ongoing
17. Design the city-wide trails and neighbourhood routes to connect to the cycling routes. Where appropriate construct shared pedestrian and cycling off-road trails as part of this Cycling Network for cost-savings.	Ongoing
Walkways:	
18. Establish standards that make walkways recognizable as public pathways.	Short
19. Encourage local neighbourhood adoption of walkways through the Partnerships for Beautification Program.	Short
20. Establish new standards to improve the accessibility of all walkways. Develop an implementation and phasing plan to make the changes.	Medium
21. Ensure the appropriate design and buffers to respect the adjacent land owners.	Ongoing
22. Continue working with developers to provide public right-of-ways through new developments.	Ongoing
Expanded Sidewalks:	
23. Prepare a Neighbourhood Trail (Green Links) Master Plan that identifies community and neighbourhood routes.	Medium
22. Once a route has been designated, inventory the sidewalk as well as the walkway infrastructure and establish areas of high priority for improvements.	Medium
23. Develop design standards for sidewalk construction along trail routes that respond and reflect the character of the area.	Medium
24. Continue to coordinate with private development, Transportation Planning and Engineering to ensure that the trail standards are applied when new construction occurs along a route.	Ongoing
Greenways:	
25. Adopt the City-wide/Trail Greenways plan outlined in this Strategy (see Section 7.0)	Short
26. Develop design standards for Greenways that reflect the use and character of the different areas of the City.	Short
27. Continue to work with the development community to ensure that new developments that occur along a designated greenways incorporate special design features and standards.	Ongoing
28. Consider incorporating the cost of constructing priority sections of the greenways, that are not the immediate responsibility of a developer, into the City Capital Budget.	Ongoing
Staging Areas, Nodes and Special Features:	
29. Develop a funding strategy, including partnerships, to construct special amenities along the trail system.	Ongoing



30. Continue to work the appropriate regulatory agencies to protect the environment and seek creative solutions that ensure the City's needs are met as well as those of the various agencies.	Ongoing
31. Review the standards applied to development and maintenance of higher profile areas such as the waterfront and City Centre.	Ongoing
32. Coordinate with Public Works and Engineering construction projects, such as retrofitting pump stations that occur at staging areas to meet both operational, recreational and aesthetic needs.	Ongoing
Rural Roadways:	
33. Seek opportunities to provide separated public access by building up the road shoulder, separating shoulders from traffic with bollards or a raised edge, or cantilevering a boardwalk over the riprap edge.	Medium
34. Continue to monitor the traffic safety of rural roads and work with local communities as appropriate to resolve traffic issues.	Ongoing
35. Ensure coordination with Public Works along rural roads to maximize the opportunities to provide trails when projects such as ditch infills or new flood protection measures occur along the waterfront.	Ongoing
New Trail Classifications and Definitions:	
36. Adopt the names 'Trail' for rustic trails, 'Greenway' for significant city-wide trails, and 'Green Links' for neighbourhood trails.	Short
37. Upon review, and coordination with the Community Mobility Strategy, consider incorporating the new classification system, as appropriate, into the Official Community Plan.	Short
KEY OPPORTUNITIES	
Community Involvement	
38. Continue to provide opportunities to involve the public in the planning, implementation and stewardship of the trails system.	Ongoing
39. Continue to provide programs that increase the public's awareness of Richmond's unique natural and historical setting.	Ongoing
40. Work closely with other agencies and programs such as the ICBC Way to Go Program to provide educational programs and events that encourage walking and cycling at the neighbourhood and community level.	Ongoing
41. Encourage more community adoptions of local neighbourhood streets, school park sites and walkways as part of the Partners for Beautification Program.	Ongoing
Parks, Recreation and Cultural Services Master Plan	
42. Integrate the Trail Strategy into the overall PRCS Master Plan.	Short
43. Identify trails together with natural areas, blueways, formal parks, undeveloped rights-of-ways, vacant lands, Privately-Owned/Publicly-Accessible Open Space (POPAS), and street boulevards as part of an overall open space network for the City in the PRCS Master Plan.	Short
44. Include a new standard of constructing continuous pathways within all City parks in the PRCS Plan to encourage walking in neighbourhoods.	Short
45. Coordinate the implementation and phasing of trails with the other priorities identified within the PRCS Master Plan for the 10 Year Capital Budget Program.	Ongoing
Heritage and Natural History Destinations and Interpretation	
46. Update the City Website with current trail and key destinations information including a 'virtual tour' of the trails and interesting heritage and natural amenities.	Short
47. Consider including interpretation signage as part of the memorial or living Gift Program. This will provide an alternative option for families wishing to buy memorial benches in popular areas.	Short
48. Establish a coordinated City-wide directional/way finding system for heritage sites, trail routes, parks, points of interest, and other community facilities that will ensure visitors can find the sites in an easy and efficient manner.	Medium
49. Develop a comprehensive outdoor heritage and natural history interpretation and signage plan.	Medium
50. Consider opportunities for creative interpretation, a marrying of public art and interpretation, as an alternative where appropriate to traditional signage.	Ongoing



Public Art	
51. Establish a list of potential public art projects for implementation along the trails.	Short
52. Use public art where appropriate to identify City-wide and community trails and routes.	Ongoing
53. Promote collaboration between the City, community, and artists to create public art projects that provide community identity to public places and trails.	Ongoing
54. Consider and use effectively public art as a tool to create community themes, image making, symbolism and storytelling along the trail system.	Ongoing
Agriculture and Recreation Interface	
55. Address the recommendations outlined within the final approved Agricultural Viability Strategy, as appropriate, and use as a guide to plan and design trails within or around the ALR.	Ongoing
56. Consult with the proposed Agricultural Advisory Committee as outlined in the Agricultural Viability Strategy and those impacted when locating and designing trails in the ALR.	Ongoing
Surface Water Management / Eco-Corridors	
57. Work with the Public Works and Engineering Departments and Department of Fisheries and Oceans (DFO) to identify key sloughs and open waterways that could potentially be revitalized as Richmond's credit towards Fisheries Habitat Compensation for closure of other ditches in the City. Consider the potential of Shell Road canal as a waterway to be enhanced.	Short
58. Consider promoting Richmond as the "Island of Bridges". There are the major bridges in and out of Richmond and many small bridges accessing private property as well as public property. These bridges could be designed in a fun architectural manner that would add to Richmond's landscape.	Short
59. Build upon the uniqueness of Richmond's landscape that includes small ditches and larger open canals and promote the aesthetic, recreational, and environmental benefits of keeping and enhancing these open waterways while ensuring the proper storm water management.	Medium
60. Identify and map undeveloped right-of-ways and their potential links to the trails network. Negotiate with the appropriate agencies or departments to maximize trail and eco-corridor opportunities throughout the City. Examples are Ministry of Transportation and Highways lands east of the Oak Street Bridge, rail right-of-ways, and city road right-of-ways.	Medium
61. Continue with the Natural Area acquisition plan.	Ongoing
62. Working with the new Environmentally Sensitive Area Inventory, determine the habitat and wildlife sensitivity along the trails system to ensure the right balance between public access and protection.	Ongoing
63. Plan and construct new trails in sensitive areas that respond appropriately to the habitat features and their ecological functions.	Ongoing
Waterfront Development Strategy / Blueways Program	
64. Coordinate with the Waterfront Development Strategic Committee and the Strategy as it develops.	Short
65. Coordinate trail planning and development along the waterfront with the Master Plans being developed for the 10 Character Zones identified in the Waterfront Strategy.	Ongoing
66. Adopt the Blueways Links principles of: a. maximizing the accessibility to waterfronts b. ensuring an integration of Visions for land and water uses c. respecting the environmental sensitivity of the foreshore and waterways d. promoting water safety.	Ongoing
Promoting and Marketing Trails	
67. Conduct surveys or other feedback measures to determine the priorities and the type of information to be included in the Trails brochure and the City website.	Short
68. Work with the Richmond Committee on Disability to promote the advantages of Richmond's flat topography.	Short
69. Co-ordinate with other City initiatives on the promotion and marketing of the Division's services including branding and sponsorship.	Medium



70. Review the City's role in promoting eco-tourism and heritage tourism and how the trails can support this growing area.	Medium
71. Publish local neighbourhood walking and cycling maps once neighbourhood routes have been identified.	Long
NEIGHBOURHOOD AND COMMUNITY LINKS - A CONCEPTUAL FRAMEWORK	
72. Adopt the wayfinding language of gates, bridges, ground plane, signs, trees, and site furnishings, as appropriate, and incorporate it into new developments and along proposed Green Links in established neighbourhoods as funding allows.	Short
73. Consider allotting 25% of the annual Trails Budget towards Neighbourhood Green Links improvements.	Short
74. Conduct an inventory and analysis of all walkways in neighbourhoods for accessibility and safety.	Short
75. Inventory park pathways and identify the missing links to creating a continuous pathway system within the park.	Short
76. Establish an index or a system to prioritize neighbourhood infrastructure and infrastructure improvements.	Short
77. Work with the Cycling Advisory Committee as well as local residents to determine recreational routes through neighbourhoods.	Medium
78. Construct new paths, as necessary, in school and park sites to connect to the surrounding neighbourhood.	Medium
79. Develop a kit for mapping routes and determining priorities with community groups.	Medium
80. Design and implement a signage program for neighbourhoods that will provide directional information about key destinations and will also help distinguish public vs. private walkways. This would be part of a larger comprehensive signage system for other City facilities and amenities.	Medium
81. Coordinate with Transportation Planning initiatives for traffic calming, crosswalk installations, and sidewalk construction along proposed Neighbourhood Green Links.	Ongoing
82. Work with other initiatives that are occurring in the neighbourhoods such as the Way to Go School Program.	Ongoing
83. Consider preparing a Pedestrian Master Plan that would look at the larger picture of creating a walkable city and that would include but not be exclusive to a classification system for the public realm, development standards, design guidelines and priorities for different types of pedestrian environments.	Ongoing
84. Incorporate wayfinding language into new developments, as appropriate, along proposed Green Links in established neighbourhoods as funding allows.	Ongoing
IMPLEMENTATION / FUNDING	
85. Establish a 10 year Implementation Program with a priority list of projects and associated costs.	Short
86. Continue to work with the development industry to assist in building up the network of trails by negotiating public access through private developments as part of the rezoning process.	Ongoing
87. Continue to partner with private owners to cost share the maintenance of public right-of-ways through private properties.	Ongoing
88. Encourage more Partners for Beautification to assist in the maintenance and the implementation of projects.	Ongoing
89. Review with other City departments their Capital Budget Program on an annual basis to seek potential opportunities for cost savings by coordinating construction projects.	Ongoing
90. Seek grants and partnerships with other agencies.	Ongoing
91. Review the level of maintenance standards and the annual operational budget for the variety of trails and the increased number and quality of amenities that are being developed as the City grows and changes.	Ongoing



Table of Contents

Executive Summary i

<i>The Vision</i>	<i>i</i>
<i>The Trail Infrastructure</i>	<i>ii</i>
<i>The Plan</i>	<i>iii</i>
<i>Recommendations</i>	<i>iii</i>

Table of Contents ix

Part I 1

1.0 Introduction..... 1

2.0 Background Information..... 2

2.1 Trends.....	2
2.2 Relevant Documents, Studies and Reports.....	4
2.3 Official Community Plan Policies.....	9
2.4 Benefits of Trails and Greenways.....	11
2.5 The New Focus.....	12

Part II..... 13

3.0 The Strategy 13

3.1 <i>The Vision: Linking People, the Community and Nature</i>	13
3.1.1 Neighbourhood and Community Links.....	14
3.1.2 City-Wide Links.....	15
3.1.3 Nature Links.....	16
3.1.4 Blueway Links.....	17
3.2 <i>The Strategy Outline</i>	18

Part III 19

4.0 The Existing Trail System 19

4.1 <i>Trail Users</i>	19
4.1.1 Existing Users.....	19
4.1.2 User Trends.....	20
4.1.3 The Challenges.....	20
4.1.4 Recommendations:.....	21

4.2 *The Existing Trail Infrastructure* 22

4.2.1 City Wide Off-Road Trails.....	23
4.2.2 Cycling Routes.....	24
4.2.3 Walkways.....	25
4.2.4 Expanded Sidewalks and Boulevards..	26
4.2.5 Greenways.....	27
4.2.6 Staging Areas, Nodes and Special Features.....	28
4.2.7 Rural Roadways.....	29

4.3 *New Trail Classifications and Definitions*..... 30

4.3.1 Definitions.....	30
4.3.2 Existing Types of Trails.....	30
4.3.3 The New Trail Classifications.....	31
4.3.4 Recommendations:.....	32

Part IV..... 33

5.0 Key Opportunities 33

5.1 <i>Community Involvement and Programs</i>	33
5.2 <i>Parks, Recreation and Cultural Services Master Plan</i>	35
5.3 <i>Heritage and Natural History Destinations and Interpretation</i>	36
5.4 <i>Public Art</i>	37
5.5 <i>Agriculture and Recreation Interface</i>	38
5.6 <i>Surface Water Management / Eco-Corridors</i>	39
5.7 <i>Waterfront Development Strategy / Blueways Program</i>	41
5.8 <i>Promoting and Marketing Trails</i>	43

Table of Contents cont'd...

Part V.....	45	Part VI.....	93
6.0 Neighbourhood and Community Links	45	8.0 Design Ideas	93
6.1 <i>The Conceptual Framework</i>	47	Part VII	101
6.1.1 Neighbourhood and Community Involvement	47	9.0 Implementation Plan.....	101
6.1.2 Route Selection	48	9.1 <i>Funding: Acquisition, Development and Maintenance</i>	101
6.1.3 Wayfinding.....	48	9.1.1 Funding Sources	101
6.1.4 A Pilot Project	50	9.1.2 Maintenance Services.....	102
6.1.5 Infrastructure improvements	51	9.1.3 Applied Costs.....	102
6.2 <i>Establishing Priorities</i>	53	9.1.4 Magnitude of Costs	104
6.2.1 Establishing a Pedestrian Master Plan. 54		9.2 <i>Implementation Strategy</i>	105
6.3 <i>Recommendations</i>	55	Appendix.....	111
Part VI.....	57	Appendix 1	112
7.0 City-Wide Links	57	Trail and Greenway Cross-sections	112
7.1 <i>Steveston Area Trails</i>	58	Appendix 2.....	115
7.2 <i>Terra Nova Area/West Dyke/ Middle Arm Trails</i>	61	City Centre Kit of Parts Exerpt	115
7.3 <i>Railway Avenue/McCallan Road Greenway</i>	63	Existing Trail Standards	117
7.4 <i>Garden City Greenway</i>	67	<i>Richmond Trails Signage System</i>	117
7.5 <i>City Centre/West Cambie Area Trails</i>	69	<i>Trail Bollards</i>	118
7.6 <i>Bridgeport Area Trails</i>	73	Appendix 3.....	119
7.7 <i>No.7 Road Trail</i>	75	Public Involvement Flyer Example	119
7.8 <i>East Richmond North Fraser River Greenway</i>	77		
7.9 <i>Hamilton Area Trails</i>	79		
7.10 <i>East Richmond/Fraser Lands/Riverport Area Trails</i>	83		
7.11 <i>Shell Road Greenway / Horseshoe Slough Trail</i>	87		
7.12 <i>Gilmore Area Trails</i>	89		
7.13 <i>Sea Island Area Trails</i>	91		

Part I

1.0 Introduction

The Past

The City of Richmond's existing trail system is well recognized locally and regionally and provides a diversity of amenities and experiences. The foundation of much of the work and development of the existing system over the years has been the original 1979 Council Adopted Trails Plan. The main focus of the plan was to establish recreational trails around the perimeter of the island and to establish internal trails to connect to these perimeter trails. The only other trail plans that have been officially adopted since then have been the 1994 Steveston Greenways Waterfront Plan and numerous individual trail design plans. The 1999 Official Community Plan does, however, contain many policy statements that support and promote trails and greenways as a valuable asset to be protected and further developed to ensure that the City continues to evolve into a park-like City for future generations.

The Future

The City can be proud of the work that has been accomplished since the 1979 Trails Plan was adopted. However, Richmond has grown and changed over the last 20 years and it is time to update the plan and develop a comprehensive Trail Strategy that supports the City's Vision of being the *most appealing, livable, and well-managed community in Canada*. In addition, the 2003-2005 Corporate Plan has created a number of strategies to support this Vision. Three of the key strategies that this 2010 Trails Strategy directly supports are:

- Waterfront Development Strategy
- Community Mobility Strategy
- Economic Development Strategy

The Strategy seeks to preserve, develop and improve Richmond's trail system by:

1. Developing a conceptual framework for a comprehensive network of interconnected trails, greenways blueways, and cycling routes that connect people with their neighbourhoods, community and nature;
2. Identifying key opportunities that maximize the many benefits to the users and the community of a well planned trail system;
3. Identifying the opportunities for co-ordination of the many initiatives occurring throughout the City and external agencies; and
4. Developing an Implementation Plan for the city-wide trails that identifies the critical missing links and development priorities to be constructed as opportunities arise in the future.



Steveston Harbour and Garry Point Park



Steveston Greenways Directional Signage



West Dyke Trail



"Walkable City" - The Trail System is a Transportation System



Bike Lane on Garden City at Granville Avenue providing alternative modes of transportation



City Centre - higher density living

2.0 Background Information

Building towards a Vision

2.1 Trends

What to Expect

The concept of trails has expanded greatly since 1979 and has become an integral part of urban, rural and environmental planning. As cities are growing the value of open space has never been higher. Major North American trends impacting the planning of open space include:

- An aging population and the move towards more passive recreation.
- The 'greening' movement and the concern for environmental sustainability.
- The popularity of eco-tourism and heritage tourism.
- The urban land use planning trend of New Urbanism: the concept of developing compact mixed use and pedestrian friendly neighbourhoods.

One of the most significant trends has been the popularity of multi-use (non-motorized) trails, greenways, and blueways. Urban trails and pedestrian friendly streets are considered vital to creating a 'walkable' city that is safe and vibrant.

From the tradition of purely off-road recreational nature trails, the new urban trail system is evolving and being viewed as:

- A network of interlinking corridors that can include traditional nature trails, city sidewalks, neighbourhood walkways, cycling lanes, undeveloped road and rail right-of-ways, and park pathways.
- An alternative transportation system for travel to work, shopping, and school.
- Greenways that allow people to experience the natural environment in the city, improve the streetscape and promote a more ecological approach to linking parks and open spaces.
- An avenue to promote tourism and a sense of community through the interpretation and understanding of the historical and natural assets of the city.

In recent years many of the Lower Mainland municipalities have been developing trail and greenway master plans. As part of the Livable Region Strategic Plan, the Greater Vancouver Regional District (GVRD) Parks Department has also developed a comprehensive regional plan that works towards connecting the different municipalities through a greenways network. Richmond's trails form an integral part of that plan.

That trails play an important role in the livability of Richmond is evident from the results of the recent Richmond Community Needs Assessment. In keeping with national trends, over 88% of the survey respondents stated that they walk, jog or cycle. Linking the trails, more natural areas, and waterfront access were listed as the top three priorities for capital investment in new and improved informal and quiet use facilities.

The key changes over the years has been a redefining of the concept of a 'trail' and the recognition and acknowledgement of the value of trails beyond purely recreational benefits. Trails are now viewed as providing not only leisure and health benefits but also social, economic and environmental benefits for individuals and the community.



Heritage Tourism



Network of trails using parks, sidewalks, dyke trails



Eco-Tourism



Greenways

2.2 Relevant Documents, Studies and Reports

Understanding the Influences

A number of documents provide valuable background information and identify key issues and objectives that influence how the trail system is planned, designed and implemented. These documents are either internal City documents or are studies from outside agencies that impact or influence what the City is permitted to build in areas such as the environmentally sensitive foreshore.

A. Internal City Documents

1. Richmond Trails Plan, Department of Leisure Services, December 1979

This plan was developed through the Department of Leisure Services (now Parks, Recreation and Cultural Services) with input from a community based Trails Committee with representatives from different user groups as well as a Staff Technical Committee. The Plan was adopted by Council in March, 1980.

Many of the goals outlined in this Plan have either been met or are still valid goals that are expressed in newer documents and will continue to be reflected in the new 2010 Trails Strategy.

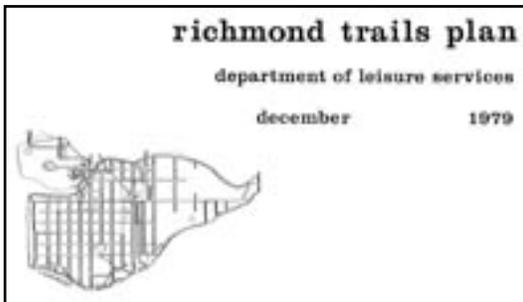
2. Corporate Plan 2003- 2005
Waterfront Development Strategy

A city wide Waterfront Development Strategy is currently being developed. The key objective of the strategy is to establish a vision for Richmond's waterfront that will foster vibrancy through public use and enjoyment, community economic growth, environmental stewardship and celebration of our heritage. A set of guiding principles and waterfront character zones have been proposed that will influence the design and character of trails around the perimeter of the island.

As many of the city-wide trails are along the waterfront and one of the major goals of the system has been to develop a continuous perimeter trail, the Trail Strategy will dovetail with the Waterfront Amenity Strategy.

3. Corporate Plan 2003- 2005
Community Mobility Strategy

This strategy will look at creating an integrated system of mobility that ensures that there are adequate mobility choices and networks in place to provide for community access, connectedness and the effective movement of people. This would include choices such as cycling, walking, rapid transit, and blueways all key to developing a livable, safe and vibrant community. An interdepartmental committee is assigned to facilitate the development of this Strategy.



1979 Trails Plan Cover



Official Community Plan

The recommendations in the 2010 Trails Strategy will support and promote the concept of creating the 'walkable' city. It will form the foundation for discussions and outline some action plans that can be implemented to improve the pedestrian and cycling environment and encourage people to 'leave their car at home'. These recommendations can then be coordinated with the other transportation plans that are developed as part of the Mobility Strategy.

4. Richmond Official Community Plan, March 15, 1999

The Official Community Plan is mandated by British Columbia's Local Government Act and is a legal document for planning and guiding the City's social, economic and physical future. It is a long range vision reflecting overall community values that have been determined through extensive public participation process. Many of the goals, policies and guidelines within this document have resulted in numerous trail opportunities being implemented over the last few years. Examples are the developments in Terra Nova, Dover Crossings and Imperial Landing which have been built with specific attention to making a pedestrian friendly neighbourhoods and maximizing views and access to the waterfront.

These official adopted policies, development permit guidelines and area plans establish a framework for development of the city and have specific recommendations related to trails that will be reflected in the new updated Trail Strategy.

5. Richmond Community Needs Assessment 2001, Parks and Recreation, Cultural Services Division

This comprehensive Needs Assessment identified the community needs, values and preferences in the community in order to establish priorities for meeting these needs over the next 5 to 10 years. Extensive public participation helped identify the gaps in service, programs and facilities such as the trails system and developed strategies for addressing these gaps. This document was adopted by Council in June 2002.

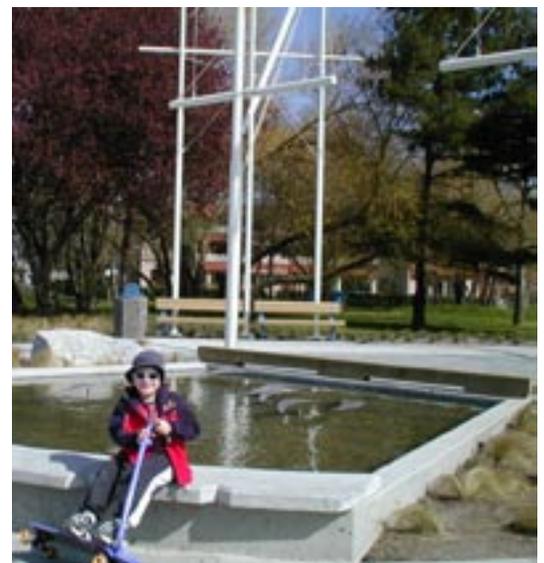
The community expressed strong support for trails as evident from the survey and focus group results. The development of a 2010 Trails Strategy will address the areas of concern expressed by the community and will ultimately form part of the larger Parks, Recreation and Cultural Services Master Plan.

6. Steveston Greenways Waterfront Plan 1994, Leisure Services and Planning Departments

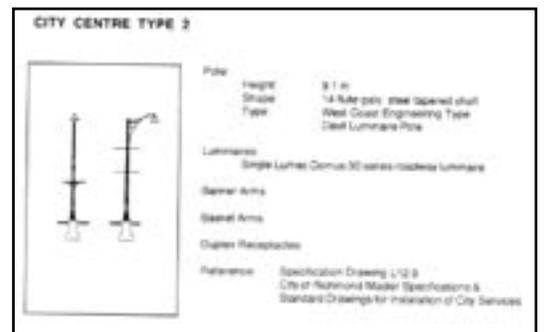
This study was jointly financed with Parks Canada and the Provincial Government through a Greenways/Waterfront Study Grant. A large Greenways Community Committee was formed to develop the Plan with the goal of maximizing safe and direct public access to the waterfront. The Plan that outlined goals, determined routes and established design guidelines and recommendations has been implemented over the years since



Community support for trails



Steveston Park corner: part of the Greenways Plan



Kit of Parts Design Specifications



1995 Cycling Network Plan



Agriculture Viability Strategy

its adoption by Council in 1995 and is still relevant today. One major change to the Plan was the opening of the waterfront along Imperial Landing which was not feasible while BC Packers was still in operation in 1994. Guidelines for this new area were included in the OCP - Steveston Area Plan.

The Plan will be reviewed and revised if necessary in the new 2010 Trails Strategy to reflect the changes that have occurred in Steveston. (Much of this plan has been implemented.)

7. City Centre Kit of Parts 2000, Strategic Management Program: Beautification Strategic Team

As part of the Strategic Management Program endorsed by Council in 1997, a Corporate Beautification Strategy was established that looked at policies, programs and guidelines to support the Vision of being a more livable and appealing City. The Kit of Parts was one project undertaken by the Beautification Strategic Team that provides design guidelines and specifications in the City Centre.

The design guidelines established in the Kit of Parts will be used as trails are developed in the City Centre. Included in the comprehensive document was a City Centre Greenways Plan. This will be reviewed and included in the new 2010 Trails Strategy.

8. City of Richmond Cycling Network Plan 1995, Transportation Planning Department

The Cycling Network Plan (CNP) was developed through the joint efforts of the City's Transportation Department and the Richmond Community Cycling Committee, a local bicycle advocacy group. The network identifies and helps prioritise selected corridors for future cycling improvements. These improvements are implemented via the City's capital programs or private development. Council approval of the cycling network also renders improvement projects eligible for provincial and regional cycling infrastructure grants. The CNP was formally endorsed and approved by City Council in 1995.

The City's trail system complements and extends the on-street cycling network by providing designated off-street multi-use pathways.

Coordinating the City's trail system with the cycling network will be one of the goals of the new 2010 Trails Strategy.

9. Agricultural Viability Strategy 2003, Urban Development Division

The Urban Development Division and the Richmond Farmers Institute in conjunction with a working committee that included representatives from the Provincial Agricultural Land Commission and the Ministry of Agriculture, Food and Fisheries,

and other City departments, has developed a framework for managing and protecting agricultural land and resources in Richmond. One section titled Non-Farm Uses and Parks and Recreation Strategy has a number of recommendations that directly impact the planning and design of trails in agricultural areas.

The recommendations in the Study will be reviewed and addressed in terms of any proposed expansion of the trail system into the agricultural areas.

10. 1992 Richmond City Wide Facilities Task Force, Leisure Services Department

In 1991 City Council appointed a City Wide Facility Task Force to establish a 20 year plan for recreation facility development in Richmond. The Task Force carried out surveys and heard presentations from community groups to determine and prioritize specific areas of need. Recommendations were presented for Council Approval and the document was updated in 1997. Specific to trails are two recommendations stating that an annual contribution to trails be continued and enhanced and that trails continue to be upgraded and expanded in a systematic manner.

This document resulted in an annual budget ranging from \$100-250,000 being assigned to trail and waterfront development in the Parks Capital Budget Program since 1992.

B. External Agencies

There are numerous agencies and organizations that have produced either environmental, recreational, regulatory, economic and land use plans/ studies/reports about Richmond specifically the river and the estuary. Many of these studies have recommendations or guidelines for the City's consideration (e.g. GVRD's Burrard/Richmond Sector Recreational Greenway Plan; The Fraser River Estuary: A Guide to Interpretive Themes and Recreation Access). Other Plans and organizations have a stronger impact in terms of land ownership or regulatory powers. A few of these are described below.

1. Port North Fraser Land Use Plan

The North Fraser Port Authority developed a land use plan that outlined objectives and policies for the physical development of the properties that the Port managed, held or occupied along the North Arm and Middle Arm of the Fraser River. The Plan took into account environmental, economic and social concerns and assigned land use designations along the river. The vision and goals are designed to ensure the Port's continued economic role in the 21st century as a living, working river.

The Plan recognizes the value of recreational greenways along the waterfront while maintaining the goal to maximize the real estate value of their properties. The City is committed to working with the North Fraser Port Authority to strike a balance between the different potential uses of the waterfront and ensuring that the needs of all parties are met in the short and long-term.

2. Fraser River Estuary Management Program (FREMP)

FREMP is the coordinating body representing over 30 agencies in federal, provincial, local governments, and port authorities that make decisions on conservation and development in the estuary. In 1994, all the municipalities bordering the estuary endorsed a plan called the A Living Working River, a management plan for estuary that tries to balance the regions economic and biological productivity, cultural and recreational resources. Over the years FREMP has fine-tuned Area Designations Agreements with the City that identify habitat value along the river which in turn determines the type of development that would be allowed along the waterfront. FREMP is in the process of preparing a revised Estuary Management Plan.

All development occurring along the river or over the water is reviewed by FREMP. The City is responsible for applying to FREMP for approval to construct projects along the trails such as boardwalks and piers, dredging and dyke stabilization. At times a project may be approved in a location but habitat compensation may be required. These are costs that would need to be factored into the project.

3. Department of Fisheries and Oceans (DFO) Habitat and Enhancement Branch

This branch of the larger federal agency focuses on the stewardship of the river environment to ensure that there is minimum impact to fish and fish habitat from activities occurring along the river and in streams. Recently, DFO has focussed their attention on Richmond's surface water management and have expressed concerns about the potential loss of habitat due to ditch maintenance practices and ditch infills. The Engineering and Public Works Departments are working with DFO to develop sustainable practices that recognize the environmental concerns while ensuring that flood protection is maintained.

The extent of the impact of DFO concerns is not known yet. There may be a time in the future that trails adjacent to ditches and canals may need to go through an approval process. This attention has also raised an opportunity to reassess the value of the open waterways both environmentally and recreationally.

2.3 Official Community Plan Policies

Laying the Foundation for a Trail Network

The successful implementation of a Trails Strategy is dependant upon ensuring that the appropriate policies are in place that would support the vision and key principles. This section outlines the existing policies in the Official Community Plan (OCP) that are related to trails and have already been adopted by Council.

It is evident that there already exists, in virtually every section of the OCP goals, key principles, objectives and policies that provide the rationale and need for developing and implementing a trails network. Area Plans and Section 5.3 in the OCP titled Parks, Open Spaces, Trails and Greenways also have very specific policies and recommendations related to locating and developing trails.

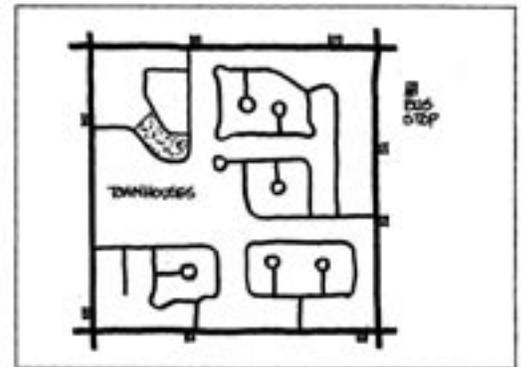
Existing policies related to trails can be grouped under a number of key themes that support trends in planning and express community goals and priorities.

A. Strengthen the sense of community in Richmond neighbourhoods by:

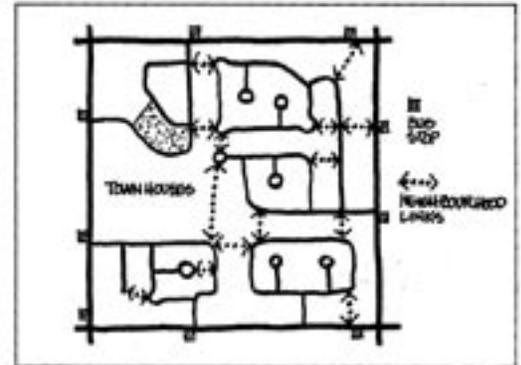
- “Having gathering places which are friendly and accessible whether on foot, rolling (wheelchair, scooter, etc.), bike or by transit”
- “Having connections which are attractive, convenient and safe to link the community together”
- “Using green to integrate nature into and enhance livability of neighbourhoods”
- “Landscaping walkways, trails and boulevards to increase greenspace in local neighbourhoods”
- “Improving physical connections to provide opportunities for safe, convenient and pleasant access within neighbourhoods”
- “Providing through routes that are direct, safe and pleasant for residents...”
- “Using available rights-of-ways within neighbourhoods as walking and cycling connections”
- “Ensuring safe, direct access to school sites”

B. Encourage walking and the use of alternative travel modes by:

- “Making walking the primary alternative for travel over short distances”
- “Placing high priority on implementing continuous and direct sidewalks, walkways and pathways to schools, neighbourhood service centres, recreational destinations, bus stops and other high-volume pedestrian areas”
- “Promoting cycling as an appealing and environmentally friendly travel choice”



Typical Subdivision With Limited Pedestrian Access



Example of Enhanced Neighbourhood

Official Community Plan



Gathering places



Encourage walking as a transportation alternative

- “Integrating the designated cycling network with the network of trails and greenways”
- “Strengthening the network of trails and greenways, using innovative approaches to provide improved linkages to key destinations and between components of the network itself”
- “Designing and developing trails and greenways to accommodate multiple users and enhance the appearance of adjacent areas”
- “Integrating off-road trails with cycling routes, greenways, and existing park walkways where feasible and as opportunities arise”

C. Build upon Richmond’s Garden City Legacy and celebrate Richmond’s Island Heritage by:

- “...making strategic use of natural amenities and landscape resources and by fostering civic pride and partnership”
- “Taking advantage of Richmond’s extensive shoreline by:
 - “Completing a continuous waterfront trail which balances public amenity with industry needs;
 - “Connecting the waterfront trail to key destinations;”
- “..where appropriate incorporate maritime design themes and complement existing heritage structures in parks and trails...”
- “Enhancing public awareness of Richmond’s unique natural features, and provide opportunities for passive recreation, such as birdwatching and nature viewing; and provide related educational information, as appropriate”
- “Encouraging creation of privately-owned publicly-accessible (POPA) open spaces in the form of urban plazas, walkways, or small parks...integrate these spaces, where possible, into the open space network, through connecting trails and other measures”
- “Reviewing the inventory of city-owned lands to identify opportunities for incorporation of leftover parcels, such as road ends, into the open space network”
- “Supporting the awareness and recognition of heritage through... signage, e.g. trails...”



Celebrating Richmond’s Island Heritage

The 2010 Trails Strategy will build upon these approved City policies. It is not intended that the Strategy supercede or invent new policies unless there is a need determined through the process. The aim is to incorporate recommendations from the 2010 Trails Strategy into the OCP where appropriate in the future.

2.4 Benefits of Trails and Greenways

How trails can support community goals

In both the recent Richmond Needs Assessment and Official Community Plan, a number of specific trends and goals have been identified and verified by the community as being important to creating an attractive and livable city.

A well planned city-wide trails and greenways system can respond to these trends and provide many benefits to individuals and the community.

Some of the key benefits that trails and greenways can provide are:

- promoting a healthy lifestyle by ensuring that there are well designed, safe and accessible trail opportunities
- strengthening a sense of community and neighbourhood by creating safe pedestrian and cycling links between community destinations and designing opportunities for social interaction
- providing a sense of community pride by maintaining and enhancing the unique character of a neighbourhood and the community
- increasing awareness of Richmond's heritage and natural history by providing access, linking these resources and providing interpretive information
- encouraging environmental stewardship through interpretation and the appropriate plantings
- protecting the environment by providing alternative transportation choices and decreasing the reliance on automobiles
- supporting community involvement through partnerships
- generating economic benefits through increased tourism

These benefits are the goals to be strived for throughout the planning and implementation of the trails network.



Partnerships



Healthy lifestyles



Social interaction



Environmental stewardship



Decreasing reliance on automobiles



A new focus for the future

2.5 The New Focus

To date the focus of the existing Trails Plan has been on developing the physical infrastructure of the macro-scale of trails, our city-wide and regionally significant trail system.

In addition to focussing on these important city-wide trails, this updated 2010 Trails Strategy also looks at :

❑ *The Users and the Individual and Community Benefits of Trails*

It's about people...

This recognizes that the many benefits to the users of trails as outlined in Section 2.4 (e.g. environmental protection, community wellness, community pride) form the overriding goals to be continuously strived for as the trail system is planned and developed.

❑ *The Neighbourhood Links – the inside-out approach*

Leaving the car at home...

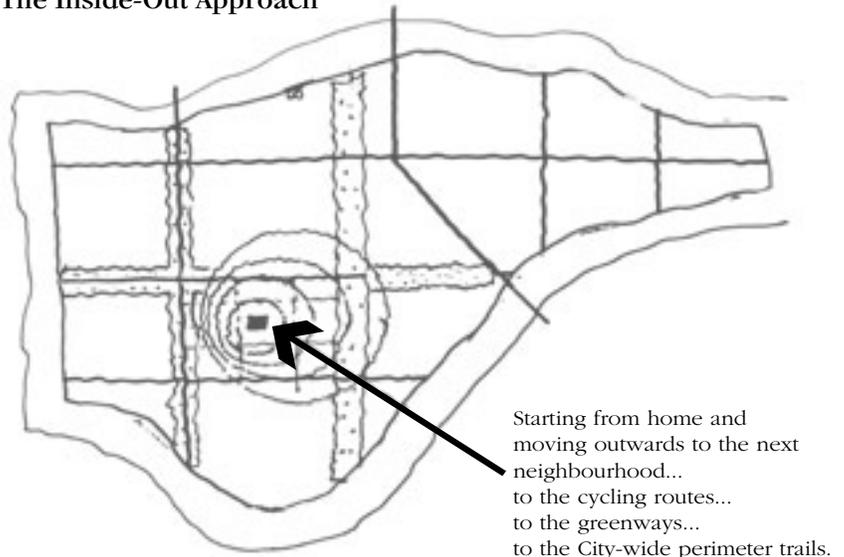
This recognizes that the neighbourhood is an important starting point to encourage people to walk and cycle as a way of life and that neighbourhood routes form an integral part of a comprehensive network of trails.

❑ *The Coordination of City and External Initiatives*

Working together...

This recognizes that there are many opportunities to enhance the experience of trail systems, to form partnerships, and to provide efficiencies in developing the trails by coordinating with other community, city and external initiatives e.g. Public Works projects, Way to Go Program, and the public art program.

The Inside-Out Approach



Part II

3.0 The Strategy

What we want to achieve

3.1 The Vision: Linking People, the Community and Nature

Richmond's trail system will be a vibrant network of interconnected trails, greenways, blueways, and cycling routes that will support the City's commitment to creating a livable, attractive and healthy community. It will provide a variety of exciting opportunities for walking and cycling that will link people to each other, to their community, and to Richmond's unique natural and cultural heritage.

Trends, community goals and existing policies all indicate that a key factor in creating a livable community is the linking of people to each other, to their neighbourhood and community facilities and amenities and to nature. Inherent in the Vision statement is the idea of linking community to community; nature to community (introducing nature into the city), and nature to nature (improving environmental sustainability).

The benefits of creating these links are many and far reaching for the community. As outlined in more detail in Section 2.4 trails can provide the venue to:

- promote healthy lifestyles and communities
- provide a sense of community pride
- increase awareness of Richmond's rich Island heritage
- encourage environmental stewardship and partnerships
- protect the environment
- generate economic benefits

For purposes of this Strategy four types of links and guiding principles within the overall trail system have been identified, each having slightly different goals and functions. These include:

- a. Neighbourhood and Community Links
- b. City-wide Links
- c. Nature Links
- d. Blueway Links



Linking people, the community and nature



Walking to Steveston Village through the park



Walking to school

Neighbourhood and community.

Definitions:

For purposes of this study the neighbourhood is defined by the quarter section layout of the city and a community is defined by a designated planning area. The majority of these neighbourhoods have been designed with at least one park often owned jointly with a school site, a series of walkways and are bordered by arterial roads. A community is made up of a series of neighbourhoods and would likely contain major destinations such as a community park and recreational facilities, shopping districts, or commercial/industrial areas and/or a natural feature such as the waterfront or a slough.

3.1.1 Neighbourhood and Community Links

Recognizing that every journey starts at home.

The neighbourhood and local community is the focus of many people's lives. The heart of the neighbourhood is often the local school and park site or a shopping area. If the vision is to encourage people to walk or cycle as a way of life and to provide opportunities for social interaction then it is critical to begin at the neighbourhood level. People are basically encouraged to walk when the pedestrian environment is comfortable, pleasant and interconnected. Sidewalks, walkways, paths in parks and even neighbourhood streets are all part of the neighbourhood pedestrian and cycling network. Once people become comfortable at the local level then they can move into the larger community and onto the city-wide network of trails around the island.

Overall Goal:

- To provide safe and easy circulation within the neighbourhood and across the arterial roads into adjacent neighbourhoods and communities to visit friends, a school park site, community facility or a shopping area.

Guiding Principles

These help guide decisions on route selection, design criteria, development priorities and further action.

The neighbourhood and community trail system is:

- safe
- accessible to all
- links to places people want to go
- easy to use and understand
- attractive and comfortable
- economical

3.1.2 City-Wide Links

Celebrating Richmond's uniqueness

One of the strongest and most memorable image of Richmond is its waterfront perimeter trail system. People make strong attachments to parts of the city that are easily recognizable. The existing waterfront trails are easy to access and provide the greatest connection for people to the City's natural assets along the foreshore, to heritage sites and to the working river.

Other major trails provide cross town routes for commuters and recreational users along internal corridors, such as Shell Road, and connect to designated cycling lanes on major arterial roads.

These major trails provide many opportunities to increase the community's awareness and appreciation of Richmond's Island City by Nature heritage, to program activities and to build upon the trends in eco-tourism and heritage tourism.

Overall Goal:

- To create a continuous interconnected network of the city-wide trails that provides clear links to key destinations and points of interest in Richmond and allows for maximum water front access.

Guiding Principles

The guiding principles for the neighbourhood and community links apply here as well. Further principles include:

The city-wide trail system is:

- integrated, continuous and easy to use
- the thread that links different character areas and land uses and key destinations in the city
- integrated with other city initiatives
- sensitive to adjacent land uses and owners
- built upon tourism opportunities
- protecting and enhancing the natural environment
- coordinated with the mandate and objectives of other agencies



South Dyke - views of the marshes and working river



London's Landing - 'Windows on the Waterfront'



North Arm - enjoying the waterfront

3.1.3 Nature Links

Allowing nature to flourish

Much of the existing trail system is adjacent to, or travels through, environmentally sensitive areas such as the Fraser River, Sturgeon Banks foreshore and sloughes. The sights, the smell of the sea water, the sounds of nature all create an indelible image and memorable experience. Access or close proximity to natural areas increases public appreciation and awareness of the value of these greens spaces to the environmental sustainability of a city.

As important as it is to link people to nature, it is also important to link nature to nature. These nature linkages not only encourage people to walk and cycle, and thereby, help the environment but also they facilitate the movement of wildlife from one area to another. Isolated pockets of green space in an urban environment do not function as well as green spaces that are linked to allow for this movement. The appropriate design, maintenance and planting is critical to truly ensure that nature flourishes in the city.

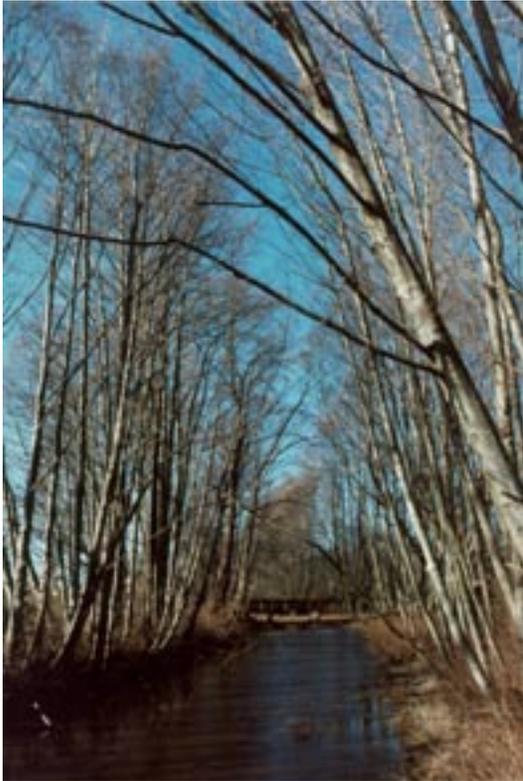
Overall Goal:

- To develop green corridors that link a diversity of open spaces such as formal city parks, natural areas, drainage canals, and agricultural land.

Guiding Principles

The trail system:

- strives to link existing natural areas
- recognizes that some areas may be better served by minimizing or preventing public access to ensure the ecological viability of the area
- provides opportunities to increase public awareness of the value and diversity of natural landscapes in Richmond
- is developed in an environmentally sustainable manner
- protects and enhance the natural environment
- aims to introduce natural features into the city for environmental and aesthetic benefits



Horseshoe Slough



Deer in East Richmond

3.1.4 Blueway Links

Connecting with the water

The vibrancy, the panoramic views and the sights and sounds of Richmond's waterfront keeps bringing people back to the water's edge. Although Richmond is made up of a series of islands, few people actually experience touching water or have an opportunity to be out on the water. The concept of 'blueways' is to take this incredible asset of being an island(s) and complement the land based trail system with water based leisure, marine, commercial and transportation activities and amenities.

Water based amenities, activities and special events (such as Richmond's Tall Ships 2002 Festival), boat launches, marinas, floating restaurants, water taxis, eco-boat tours of the river, sailing, canoeing and other boating activities are all opportunities to link trail users to the water. Even fishing and observation piers and boardwalks provide an opportunity to 'leave' the land and experience a new vantage point of Richmond's *Island City, by Nature* heritage.

Overall Goal:

To ensure that 'blueways' (water based activities and amenities) are an integral component of an interconnected network of trails that truly celebrates Richmond's unique asset of being a series of islands in the Fraser River.

Guiding Principles

As the Waterfront Development Strategy and Blueways Program develops further guiding principles will be applied. Some initial principles are provided below:

The Waterfront Strategy and Blueways Program:

- aims to maximize the accessibility to waterfronts and waterways
- ensures an integration of Visions for land and water use amongst the various stakeholders
- respects the environmental sensitivity of the foreshore and waterways
- promotes water safety and awareness of the water actions in the river



Example of an Aquabus



Access to the water



Water based events

3.2 The Strategy Outline

The Strategy and the rest of this document will focus on identifying the opportunities and recommendations for planning, designing, and constructing of trails to achieve the Vision statement of *Linking People, Community and Nature*. This information is organized in the following sections:

❑ **The Existing Trail System**

What we are starting with

- ***The Challenges and Recommendations***

Identifying the users and the infrastructure that makes up the existing urban trail system and recommendations to improve it.

❑ **Key Issues and Opportunities**

Coordinating and Maximizing our Efforts

Identifying the opportunities to maximize the community benefits of trails and coordinate with existing initiatives.

❑ **The Plan**

Building the Network

- ***Neighbourhoods and Community Links***

Development of a conceptual framework for creating a walkable and cycling friendly neighbourhood and community.

- ***City-wide Trails and Greenways Implementation Plan***

Identifying the major routes, missing links and recommendations to creating a network of interconnected trails.

❑ **Design Ideas**

What it could look like

Providing design ideas that support the concepts.

❑ **Implementation**

Making it happen

Reviewing funding and implementation strategies to building the network and meeting community needs.

Providing a three year (2003-2006) implementation program.

Part III

4.0 The Existing Trail System

What we are starting with

4.1 Trail Users

The Challenges and Recommendations

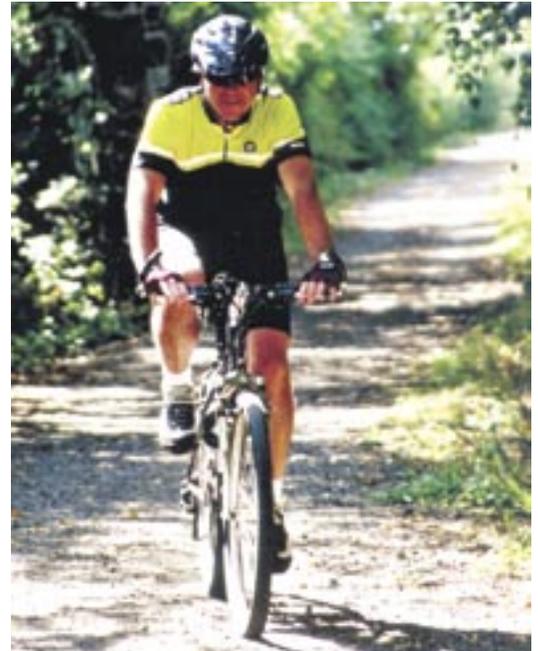
4.1.1 Existing Users

The trails in Richmond to-date have been developed to be multi-use. The flatness of Richmond's trail system has made it accessible to a broad spectrum of users. The ease of use and the many interesting areas along the waterfront appeal to a variety of users including:

- pedestrians (recreational and commuters)
- cyclists (recreational and commuters)
- joggers
- rollers (e.g. wheelchairs and scooters)
- dog walkers
- equestrians
- birdwatchers
- naturalists
- heritage buffs
- fishers
- photographers
- picnickers
- informal boat launchers

Presently, the City does not allow for the use of motorized bikes, mopeds, or All Terrain Vehicles in any of the City's parks or trails. The concern for conflict of use, the damage that motorized vehicles can cause especially in environmentally sensitive areas and the issue of liability has lead most municipalities to ban motorized vehicles from public parks. This service should be looked at regionally or provided by the private sector.

To date, Richmond has not created separate trails for distinct users. For instance, there are no equestrian only trails or separate bike and pedestrian trails along the waterfront. This is in part due to the level of demand, cost and limited space especially on the dyke routes. Generally, until the volume of use requires separate trails, all trails will remain multi-use.



Cycling on Shell Road right-of-way trail



Relaxing on the waterfront



Naturalists on the West Dyke Trail



In-line skater



Blueways - McDonald Beach boat launch / dock



Blueways - Kayaking at Britannia Heritage Shipyard

4.1.2 User Trends

In the recent years, another popular sport has appeared: in-line skating. These skaters are typically seen on the roadway, in parks and on basically any asphalt surface. The City's longest continuous off-road trail is on the Middle Arm and West Dyke, however, the surface of these dyke trails is a crushed asphalt blend that is not usable by in-line skaters.

The decision about the dyke surfaces especially on the West Dyke trail was made after a User Survey in 1991 in which the overwhelming majority of people wanted to maintain the soft trail surface. The reasons were:

- to keep the speed of cyclists down to avoid conflicts
- to maintain the natural character of the West Dyke with its kilometres of natural foreshore habitat, relaxing and spectacular scenery

Another trend to consider is the concept of 'blueways'. Given Richmond's asset of being an island there may be opportunities to use the waterways for leisure and transportation. The GVRD is already promoting a pilot project using aqua buses to connect people on the trail system in Richmond to Delta as part of their Regional Greenways Plan.

In 1979, when the original Trails Plan was developed kayaking and canoeing were considered, however, it was believed that the currents and river traffic made it unsafe and it was not pursued. The calmer waters in Middle Arm of the Fraser River are presently being used by the Richmond Yacht Club and Navy League. A proposal from the UBC Rowing Club is in the works to create a race course in the Middle Arm and to provide a variety of water based programs for the community.

4.1.3 The Challenges

As in any popular trail system, there are numerous challenges to meeting the needs of different users. Some of the challenges are:

Accessibility: There are two factors here. One is access onto a trail or walkway and the other is the wheelchair/stroller accessibility of the trail surface itself. The recent change of surface from a limestone blend to a crushed asphalt blend has improved the trails for wheelchair access although they still remain a 'bumpy' ride depending upon the type of wheelchair being used.

Separate or Multi-use Trails: The need to separate out users will depend upon the specific needs of the users, volume and location. All recreational city-wide corridors are multi-use, however, within a given corridor there may be different trail surfaces. A soft surface for equestrians can be built adjacent to an asphalt trail for pedestrians and cyclists. Some separation is already occurring with cyclists staying on roads and pedestrians using the shoulder along a road e.g. South Dyke Trail.

In the more urban environments and where there is a greater volume of pedestrian use separate trails are recommended. Where the trail expands into a waterfront park then an alternative trail can be built that allows for choices and the ability to separate out users if needed in the future e.g. parallel trails in Imperial Landing.

User Etiquette and Education: Like rules of the road there are rules to trail use. Unlike the road these user rules are not enforceable and depend more on social peer pressure. However, the City can assist by providing information to the public on how to use the trails in a socially responsible and safe manner. Trail conduct or etiquette guidelines can be found in the Trails brochure, the Dogs Off Leash brochure, on the City Website and on some of the entrance signs to the trails. In addition, the RCMP conduct a bike patrol along the more popular trails in the summer time. More can be done. A number of years ago a program called *Share the Dykes* was run for one summer weekend at Garry Point Park. This was an information forum with representatives from the Cycling Advisory Committee, SPCA, RCMP, Dog Fanciers Club, the Richmond Pony Club, the Richmond Fitness Association, and city staff. It was a chance to meet with the public and provide information about specific uses and general etiquette.

4.1.4 Recommendations:

Short Term

1. Inventory all access points along the dyke and review for ease of accessibility.
2. Consult with Richmond Committee on Disability on issues of accessibility.
3. Include in any new Trails brochures and on the City website information identifying the best locations for parking for wheelchair access and information about water safety in the Fraser River.
4. Conduct a Trails Etiquette information session through the Adopt-a-Trail Program for the public once or twice a year at popular areas along the trails e.g. Garry Point Park.
5. Work with interested parties such as the UBC Rowing Club to develop the potential of the Middle Arm as a water based recreation and festival corridor with the appropriate upland support amenities.



All trails are presently multi-use



Trail surface standards respond to users needs and the character of an area

Timeline Definitions:

Short Term - immediate to 3 years

Medium Term - 3 to 5 years

Long Term - 5 to 10 years

Ongoing - immediate to long term

Medium Term

6. Improvements to access points on the dyke should be made to ensure safe and convenient access.
7. Design trail surfaces to respond to the specific user needs and character of the area in which it is built. Options to add onto an existing trail should be reviewed e.g. along West Dyke Trail.
8. Consult with the equestrian community and the proposed Agricultural Advisory Committee to locate appropriate routes for equestrian as well as pedestrian use along the edge of, or through, farming areas.

Ongoing / Long Term

8. Consult with the public to determine any changes to existing trail surfaces and uses especially along popular trails such as the West Dyke.
9. Conduct surveys to determine public priorities and specific concerns with the existing trail system and use.

4.2 The Existing Trail Infrastructure

The Challenges and Recommendations

In 1979 the trail system was envisioned as a more traditional off-road recreational system with the focus on city-wide trails such as the Middle Arm and West Dyke trails. Over the years, with the emphasis on the City's Vision to create a more appealing and livable community, the concept of a trail system has expanded to include cycling lanes, sidewalks, greenways and walkways.

Although these different public ways may not currently be recognized as part of the trails infrastructure, they are integral to creating a pedestrian and cycling friendly community. The existing trail system and related public ways includes:

4.2.1 City Wide Off-Road Trails

There are approximately 40 kilometers of developed off-road trails in Richmond. The majority of these trails or linear corridors are on the perimeter of the island built upon Richmond's dyke system, thus providing access to the waterfront, natural features and heritage sites. These are the most popular and easily recognized on a local and regional level. Other internal trails provide recreational corridors through the centre of the city. These trails include the:

- West Dyke
- Middle Arm
- Steveston Greenways
- South Dyke
- Shell Road

Although catering primarily to the recreational user, these trails are also used as commuter routes for cyclists and for pedestrians especially where they integrate with an established cycling route such as Shell Road or provide direct access to shopping and community facilities such as in Steveston.

Challenges:

In order to continue with the goals set out in the 1979 Trails Plan and more recent documents a number of issues need to be addressed. These include:

- lack of continuity in the system;
- potentially conflicting land uses and/or concerns of adjacent land owners;
- the increase in environmental regulations;
- increased use on the major trails and potential for more conflicts between users;
- cost of developing a complete trail system for the whole island.



Steveston Greenways



Middle Arm Trail

Recommendations:

Short Term

1. Adopt the City-wide Trail/Greenways Plan and recommendations outlined in this Strategy (Section 7.0).
2. Develop an Implementation Plan with priorities and budgeting for the next 10 years.
3. Work with other initiatives such as the Waterfront Development and Community Mobility Strategy to identify the different character areas within the City and establish design guidelines for these areas.

Ongoing

4. Continue to work with regulatory agencies to protect the environment and seek creative solutions that ensure the City's needs are met as well as those of the various agencies.

4.2.2 Cycling Routes

A cycling route is an important component that either forms part of the Trails System or augments it by providing the links between off-road trails destinations. It is a road or path that is officially signed as a designated route for cyclists. It may be in the form of a separate bicycle lane, an enhanced curb lane or a separate off-road path. Major cycling routes include Railway Avenue, Shell Road, Granville Avenue and Williams Road.

Challenges:

The primary challenges are:

- designing the road system to maintain traffic efficiency at the same time as provide the space for safe cycling
- the cost of providing designated bike routes especially on roads
- the time that it will take to fully develop the system
- ensuring that there is integration with the trails system

Recommendations:

Ongoing

1. Continue to pursue partnerships with other agencies such as ICBC for cost sharing to implement the Richmond Cycling Network as adopted by Council.
2. Design the city-wide trails and neighbourhood routes to connect to the cycling routes. Where appropriate construct shared pedestrian and cycling off-road trails as part of this Cycling Network for cost-savings.



Garden City Way cycling lane



Partnership with ICBC - Shell Road cycling path

4.2.3 Walkways

At a neighbourhood level, walkways have become an important way to create safe linkages between cul-de-sacs, and direct access to public sidewalks, green spaces and community destinations. There are over 200 walkways in Richmond that range from the older 3.0 meter wide asphalt paths located primarily in single family residential areas to the larger 20.0 meter wide corridors through new multi-residential areas such as Dover Crossing and Southcove. These walkways not only provide a more enjoyable pedestrian environment but also serve to provide view corridors through larger developments.

Challenges:

There are many small walkways throughout Richmond. The challenges are:

- linking these walkways to form a comprehensive network
- establishing standards that make them recognizable as public pathways
- establishing standards for accessibility e.g. there are many baffles that strollers or bikes with child trailers cannot maneuver through
- ensuring the appropriate design to respect the adjacent land owners when on private property
- cost of maintaining the many different types and locations of walkways
- new walkways primarily dependant upon new private development

Recommendations:

Short Term

1. Establish standards that make walkways recognizable as public pathways.
2. Encourage local neighbourhood adoption of walkways through the Partnerships for Beautification Program.

Medium Term

3. Establish new standards to improve the accessibility of all walkways.
4. Develop an implementation phasing plan to make the changes.

Ongoing

5. Ensure the appropriate design and buffers to respect the adjacent land owners.
6. Continue working with developers to provide public rights-of-ways through new developments.



Southcove walkways



Terra Nova walkway - public vs. private?

Walkway Definition:

A walkway is an off-road path that connects a user on a street sidewalk to either another street, park or trail. It is limited in length and typically has a paved walking surface.



Many different standards are applied to walkways



Terra Nova new sidewalks



Garden City Way, creating the walkable city

4.2.4 Expanded Sidewalks and Boulevards

Since the Strategic Management Plan was endorsed and the Corporate Beautification Strategy was developed, much effort has gone into looking at the standards for creating more pedestrian and environmentally friendly sidewalks. The standard for sidewalks in new developments now includes a minimum of a 1.2 meter grass boulevard with trees and a 1.5 meter sidewalk. Where opportunities arise a wider grass boulevard is provided to allow for greater separation from vehicles and better growing conditions for the trees. The type of road and the available space to accommodate the various needs in the road right-of-way ultimately dictates the width of the boulevard.

Although not officially recognized as 'trails' these sidewalks form part of the network of a *walkable city* and at a neighbourhood level are the important links to designated trails in the system.

Examples of this can be found in the City Centre Lang District, in Terra Nova along Westminster Highway south of the shopping area connecting to the school, along Railway Avenue connecting to Moncton Street and onto the Steveston Greenways.

Challenges:

Not every sidewalk would be part of an official trail network, however, specific sidewalks may be identified as part of a designated walking route. Challenges are:

- determining which roads and sidewalks would form part of a walking route especially in established neighbourhoods;
- new standards for sidewalks are primarily dependant upon new development occurring;
- identifying the need for and implementing appropriate engineering standards such as curb cuts and crosswalks along a designated route;
- coordinating with other engineering initiatives and priorities.

Recommendations:

Medium Term

1. Prepare a Neighbourhood Trail (Green Links - see page 32 for definition) Master Plan that identifies the community and neighbourhood routes.
2. Once a route has been designated inventory the sidewalk as well as the walkway infrastructure and establish areas of high priority for improvements.
3. Develop design standards for sidewalk construction along trail routes that respond and reflect the character of the area.

Ongoing

4. Continue to coordinate private development, Transportation Planning and Engineering to ensure that the trails standards are applied when new construction occurs along a route.

4.2.5 Greenways

Where opportunities arise to connect to major destinations, such as shopping areas, community facilities, parks and the waterfront, special efforts have gone into creating a higher standard of sidewalk that includes wider grass boulevards, wider sidewalks, unique paving materials and street furniture and more soft landscaping. These special features in a greenway help define community character and make it easier to identify routes. In addition, some greenways include rustic trails, cycling and park pathways.

Examples include Steveston Waterfront Greenways and the City Centre Greenways along Granville Avenue. Numerous other greenways have been identified in the City Centre and are being incrementally developed.

Challenges:

- Determining which routes are to be developed as greenways
- The special treatment on greenways make them more costly to develop and maintain
- Finding the space to create a special greenway in a road right-of-way or an established neighbourhood may be difficult
- Establishing continuity of the system is difficult as they tend to be built in increments.

Recommendations:

Short Term

1. Adopt the City-wide Trail / Greenways Plan and recommendations outlined in this Strategy (see Section 7.0).
2. Develop design standards for Greenways that reflect the use and character of the different areas of the city.

Ongoing

3. Continue to work with the development community to ensure that any new developments that occur along a designated greenways incorporate special design features and standards.
4. Consider incorporating the cost of constructing priority sections of the greenways that are not the immediate responsibility of a developer into the City Capital Budget.



Steveston Greenways

OCP Definition of Greenways:

Linear corridors designated for special landscape and beautification treatment, which link open spaces, neighbourhoods, and major destinations in more built-up areas such as City Centre. Greenways use the resources available in urban areas, including the street and park network, to introduce nature for the benefit of humans and wildlife.



Hollybridge Pumpstation - Middle Arm Trail staging area



No. 3 Road Sports Fishing Pier

4.2.6 Staging Areas, Nodes, and Special Features

Staging areas are focal points along the trail that are typically located at entrances onto the trail system. Benches, picnic tables, and signage are located here. Some staging areas have become destination points by offering unique features such as fishing piers, interpretation signage and viewing platforms. These areas add diversity and interest to the trail system. Nodes are larger than staging areas and can be destination areas in their own right as well. For example, the south foot of No.3 Road has been considered just part of the South Dyke Trail, where as, it is a large enough area to be developed and maintained at a higher standard as a waterfront park node along the trail system. As a popular dogs-off-leash area, it acts as a major destination for many residents.

Examples of these areas are the No.3 Road Pier, Hollybridge Pump Station Landing, London's Landing and the road ends onto the West Dyke.

Challenges:

- The cost of developing special amenities such as boardwalks and piers
- The increase in environmental regulations
- Determining the appropriate amenities and balance of recreational use in environmentally sensitive areas
- The popularity and the increased use of certain staging areas and development of special character areas along the waterfront may require a higher standard of construction and maintenance

Recommendations:

Ongoing

1. Develop a funding strategy including partnerships to construct special amenities along the trail system.
2. Continue to work with the appropriate regulatory agencies to protect the environment and seek creative solutions that ensure the City's needs are met as well as those of the various agencies in environmentally sensitive areas.
3. Review the standards applied to development and maintenance of higher profile areas such as the waterfront.
4. Coordinate with Public Works and Engineering construction projects such as pumpstations, that occur at staging areas to meet operational, recreational and aesthetic needs.

4.2.7 Rural Roadways

Throughout Richmond in the rural areas people cycle, in-line skate and stroll on the roads particularly on Dyke Road by London Farm and in the Gilmore and East Richmond/ Hamilton areas. In certain spots in the Gilmore and Hamilton areas the only public access along the waterfront is the dyke top which is also the road with no room to create separate trails. The narrowness of these roads and the multiple uses occurring along the edge can act to slow traffic down and, recently, speed bumps were added in the Hamilton area. Where possible, the City has built up shoulders and created a separate trail. A recent ditch infill at No.5 Road and Dyke Road created an opportunity to piggyback onto a Public Works project and design the surface to accommodate landscaping, a trail and picnic tables.

Challenges:

Rural roads along the waterfront form part of a special waterfront character zone that ideally would be preserved. The challenges are:

- reducing the volume and the speed of vehicles;
- ensuring the safety of pedestrians;
- increased development in these areas resulting in increased traffic;
- finding other opportunities to provide public access;
- ensuring coordination with either private or Public Works projects.

Recommendations:

Medium Term

1. Seek opportunities to provide separated public access by building up the road shoulder, separating shoulders from traffic with bollards or a raised edge, or cantilevering a boardwalk over the riprap edge.

Ongoing

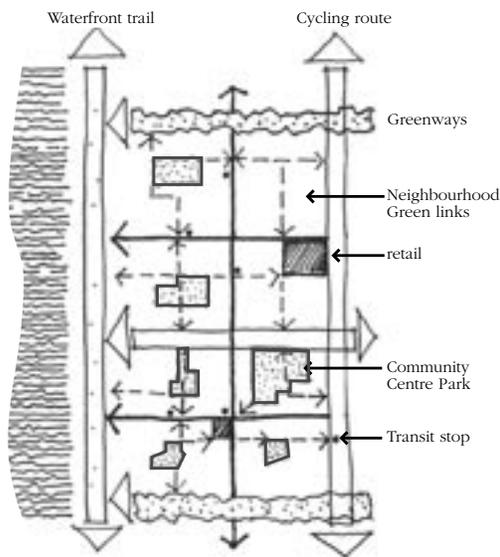
2. Continue to monitor the traffic safety of rural roads and work with local communities, as appropriate, to resolve traffic issues.
3. Ensure coordination with Public Works along rural roads to maximize the opportunities to provide trails when projects such as ditch infills or new flood protection measures occur along the waterfront.



No. 4 Road - South Dyke



Dyke Road - Finn Slough area



Green Links, Greenways, Trails and Cycling Routes



Rustic trails - Shell Road Trail



Urban trail

4.3 New Trail Classifications and Definitions

4.3.1 Definitions

Trails will continue to be used as a generic umbrella term that refers to designated pedestrian and cycling routes. Hence, this document is called a Trails Strategy and refers to a Trails System (Network). These routes can include a wide variety of pedestrian and cycling infrastructure such as sidewalks, cycling lanes, limestone trails, and rural road shoulder. They also can include other non-motorized uses such as equestrian use.

Links is a term that refers to the more conceptual idea of providing opportunities that link people to, for example, their neighbours, schools, parks, natural areas and community amenities. The term can be used interchangeably with 'trails' when describing the physical form of a link. However, links also describes activities, events or educational programs that link people to each other or to nature.

4.3.2 Existing Types of Trails

The existing types of pedestrian and cycling trails fall into basically three categories. (See Appendix 1) These include:

1. *Rustic Trails*

- typically located in more natural settings
- maximizes the experience and the user's appreciation of the local environment
- typically off-road and multi-use
- have a soft surface and basic amenities
- examples include:
 - the West Dyke Trail and Shell Road Trail
 - rural roadway shoulders along the South Dyke and in the Hamilton Dyke Road area
 - trails in parks such as the Nature Park or Terra Nova Natural Area

2. *Urban Trails*

- typically includes sidewalks, walkways, formal park trails
- the surfaces tend to be concrete, paving stones, or asphalt
- typically located in residential, commercial and industrial areas
- designed for safe pedestrian movement and access to a number of destinations on a day- to-day basis
- can be multi-use and include cycling if the pathway is wide enough
- examples include:
 - City Centre: Granville Avenue and Garden City sidewalks
 - Imperial Landing waterfront dyke trail
 - Dover Crossing and Southcove privately owned/publicly accessible walkways
 - Garden City Road off-road shared cycling and pedestrian pathway (between Francis Road and Williams Road)

3. Commuter Cycling Routes

- typically on-road routes
- designed for use by cyclists with additional use by in-line skaters and motorized wheelchairs
- routes include delineated bike lanes or wider curb traffic lanes
- a route may include some off-road trails to create a continuous route (e.g. Shell Road Trail)
- routes outlined in the Richmond Cycling Network Plan 1995
- examples include:
 - Williams Road, Granville Avenue, Garden City Road bike lanes

4.3.3 The New Trail Classifications

Classifications of trails help determine the planning requirements of trails, the design standards to be applied and the budgets necessary for construction and maintenance.

This Strategy introduces a new classification and terminology to be used when labelling or naming trail routes. The individual trail routes will be labelled as follows:

a. Trail

This term (when used in naming a route) will continue to refer to predominately rustic trails and trails that provide a singular experience of the environment. Examples include:

- West Dyke Trail
- Horseshoe Slough Trail
- Bridgeport Trail (former CNR rail corridor)

Typically, these trails would cost less to construct and maintain. They can, however, include costly amenities such as boardwalks and piers.

b. Greenway

This term will refer to the significant city-wide pedestrian and cycling linear corridors that link multiple destinations including parks, historic sites, natural areas, community facilities and amenities, residential and retail/commercial areas. (See Appendix 1)

The term 'greenway' will be applied to:

- the urban sidewalks and boulevards, walkways, and park pathways that have been identified as part of a designated city-wide route
- rustic trails that form a part of a larger greenway (e.g. Britannia Shipyard park trails are part of the larger Steveston Greenways)
- significant city-wide natural or enhanced 'green' corridors

It is expected that a designated greenway would:

- be built of a higher design standard; either urban design or environmental standard
- include site furnishings sensitive to the character of the area



South Dyke Trail



Steveston Greenway



Neighbourhood Green Link



Neighbourhood Green Link: Park pathways

- include interesting special features e.g. public art or a major public amenity such as a pier
- promote and enhance the ‘greening’ of the pedestrian and cycling environment

Examples include:

- Steveston Greenways
- the proposed City Centre Greenways (See Section 7.0)

c. Green Link

This term will refer to residential, commercial and industrial neighbourhood routes that provide safe and convenient links to local destinations such as schools, parks, community facilities or retail areas.

It is expected that green links would:

- include local sidewalks, walkways and school/park pathways and even rustic trails within a designated route
- eventually link to other neighbourhood green links and on to the city-wide trails and greenways, cycling routes and transit stops.

Each neighbourhood is different and the design response to creating these links will depend upon the character and infrastructure of the neighbourhood. A conceptual framework for creating a neighbourhood Green Link is presented in Section 6.1.

d. Cycling Routes

This term will remain consistent and refer to the designated routes as outlined in the Richmond Cycling Network Plan 1995. Design of these routes depend upon the width available in the road right-of-way.

4.3.4 Recommendations:

Short Term

1. Adopt the names ‘Trail’ for rustic trails, ‘Greenway’ for significant city-wide trails, and ‘Green Link’ for neighbourhood trails.
2. Upon review, and coordination with the Community Mobility Strategy, consider incorporating the new classification system, as appropriate, into the Official Community Plan.

The concept of a greenway is flexible and adaptable. The key is that a greenway enhances the users experience of nature, city life and the community by linking important destinations for pedestrians and cyclists in a clearly identifiable manner and through a variety of special design features.

Part IV

5.0 Key Opportunities

Co-ordinating and maximizing our efforts

5.1 Community Involvement and Programs

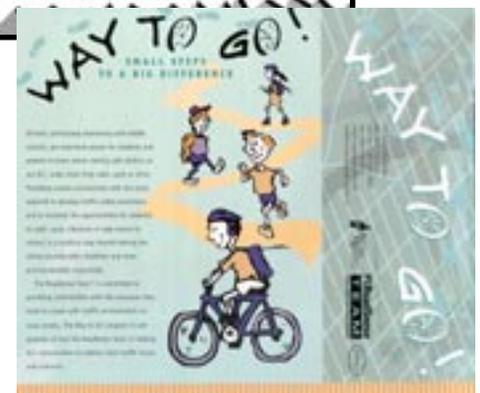
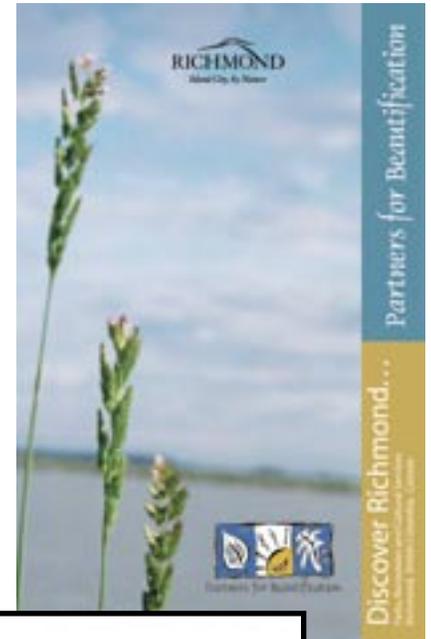
One of Richmond's greatest assets is its citizens and their degree of involvement in many facets of the community. The community has been involved in the planning, implementation and stewardship of trails, as well as educational programs. Examples include the Steveston Greenways Waterfront Community Committee and the Partners for Beautification Program. Numerous initiatives are also underway to create a walkable community and encourage people to walk or cycle as an alternative form of transportation.

Some of the programs or committees involving citizens are sponsored by the City and others have been initiated by outside groups and have the on-going support of the City. Programs include:

Partners for Beautification: Adopt-a-Trail, Walkway or Dyke Program: Initiated by the City in 1998, this program encourages people to maintain and care for Richmond's parks and trail system. Over 22 kilometres of trails have been adopted and over 3,000 people have been involved in the program.

Way to Go! School Program: Sponsored by ICBC and the Autoplan brokers of B.C., the program provides parents, teachers and children with tools to develop traffic safety awareness, and to increase the opportunities for students to walk, cycle, rideshare or take transit to school. The City of Richmond supports the program's annual events, such as iwalk (International Walk to School Day each October) and the "Walking Yellow Wednesday" Challenge (part of Traffic Safety Awareness Week in March) and provides ongoing support of other traffic safety programs/events throughout the year.

Slips, Trips and Falls Committee: This is a partnership between the City of Richmond, Minoru Seniors Society, Richmond Health Services and Richmond Seniors Advisory Council to promote pedestrian safety and, in particular, the health of seniors in the City. The committee has expanded to include representation from the Way to Go! Program and includes staff from a number of departments to ensure co-ordination of the different community programs. A *Slips, Trips and Falls brochure* has been published for the public with contact numbers to inform the City of trip hazards in the community. This feedback channel has been very successful.





Bike Tour 2002



Nature Park group interpretation

Another outcome is the drafting of a *Walkable Richmond Accord* between the City of Richmond, The Richmond School District and the The Richmond Health Services. The purpose is to ensure a coordinated effort between these parties to create a better and safer walking environment in Richmond.

The Richmond Cycling Committee: This committee made up of citizens is an advisory committee to Council that works with City staff to prioritize, plan and design cycling infrastructure projects that have been identified within the 1996 Council-adopted On-Street Cycling Network. These projects are reviewed on an annual basis and then presented to Council for approval. The committee also undertakes various awareness and education initiatives to promote safe cycling such as co-staging with the City an annual bike tour and publishing cycling-related articles in local newspapers.

Parks, Recreation and Cultural Services Programs: A variety of programs are provided by the Division to ensure that residents and visitors have opportunities to experience and appreciate Richmond's parks and unique environment. The Recreation and Cultural Guide Spring 2003 offered programs for the public such as Steveston Harbour Tour, Stewardship of the Sea Island Conservation Area, Nature Walk in Hamilton, Birding in Richmond-Terra Nova; Island City Bike Tour and South Arm Slough Walking Tour. As the trends indicate, people are increasingly interested in knowing and learning about their community.

Recommendations:

Ongoing

1. Continue to provide opportunities to involve the public in the planning, implementation and stewardship of the trails system.
2. Continue to provide programs that increase the public's awareness of Richmond's unique natural and historical setting.
3. Work closely with other agencies and programs such as the ICBC Way to Go Program to provide educational programs and events that encourage walking and cycling at the neighbourhood and community level.
4. Encourage more community adoptions of local neighbourhood streets, school park sites and walkways as part of the Partners for Beautification Program.

5.2 Parks, Recreation and Cultural Services Master Plan

The process of developing a Park, Recreation and Cultural Services (PRCS) Master Plan is underway. The Plan is being undertaken in order to provide the City and the PRCS Division with a strategic and operational decision making framework for the next 10 years. The Plan will, amongst other things, review the Division's core services, inventory the assets, and establish priorities and standards for actions. It is intended that the 2010 Trails Strategy be included in this Master Plan. The guidelines and recommendations established for trails, as one type of public open space, will also be relevant for other public spaces.

Recommendations:

Short Term

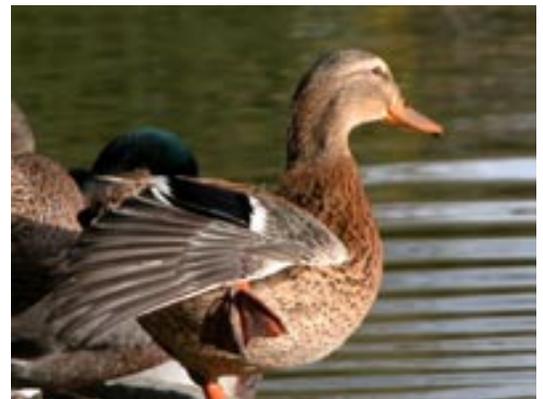
1. Integrate the Trail Strategy into the overall PRCS Master Plan.
2. Identify trails together with natural areas, formal parks, undeveloped rights-of-ways, vacant lands, Privately-owned/ Publicly-Accessible Open Space (POPA) and street boulevards as part of an overall open space network for the City in the PRCS Master Plan.
3. Include in the PRCS Master Plan a new standard for constructing pathways within all City parks to encourage walking in neighbourhoods.

Ongoing

4. Coordinate the implementation and phasing of trail development with the other priorities identified within the PRCS Master Plan for the 10 Year Capital Budget Program.



Construct pathways in parks to connect neighbourhoods



Natural areas



Formal parks

All of these components are part of an overall open space network...



Trails linking historic sites



Interpreting the working Fraser River



Eco-tourism

5.3 Heritage and Natural History Destinations and Interpretation

The trail system is an excellent venue to provide both heritage and natural history interpretation. Eco-tourism and heritage tourism have been identified as trends that will continue to increase in popularity in the future. The popularity of Steveston Village and its surroundings and events such as the Tall Ships are proof of the success of heritage tourism.

As the thread that connects many historical destinations and provides access to the City's natural assets such as the river and foreshore, the trails play an important role in attracting and directing people to these destinations. Ensuring that people can actually find these destinations in an easy manner that encourages visitation is critical to their success. Directional signage, maps on the trails, the City website, walking brochures and the trails brochure are all media which help provide information about key destinations.

Interpretation along the trails is also important. The goal of interpretation is to stimulate and engage the visitor. It can add an educational aspect to the recreational experience of the trails. Heritage and natural interpretation can reveal connections between the past and the present, promote understanding of what we have and the value of preserving it and be a source of community pride.

Recommendations

Short Term

1. Update the City Website with current trail and key destinations information including a 'virtual tour' of the trails and interesting heritage and natural amenities.
2. Consider including interpretation signage as part of the memorial or living Gift Program. This will provide an alternative option for families wishing to buy memorial benches in popular areas.

Medium Term

3. Establish a coordinated City-wide directional/way finding system for heritage sites, trail routes, parks, points of interest and other community facilities that will ensure visitors can find the sites in a easy and efficient manner.
4. Develop a comprehensive outdoor heritage and natural history interpretation and signage plan.
5. Construct information and message kiosks along the popular trails for community messages and listings of events or programs that may be occurring at heritage and other community venues during the year.

Ongoing

6. Consider opportunities for creative interpretation, a marrying of public art and interpretation, as an alternative where appropriate to traditional signage.

5.4 Public Art

Trails act as connectors and meeting places for the community. They provide an opportunity to interact with people of varying backgrounds and experiences. When residents are encouraged to be involved in community projects, like trail making, they feel more connected to the community and have a sense of community ownership.

Public art can help to define City and neighbourhood trails, and community image making (e.g. street signs, banners, murals, road markings, fences, gates, drinking fountains, benches, bulletin boards, etc.).

For instances:

- Public art can define neighbourhood boundaries.
- Public art can identify streets, pedestrian ways and people places.
- Public art can build community identity and character.
- Public art can tell community stories.

The public art projects that involve community residents and businesses in their making, be it to identify a route, a trail, place or destination, are the most successful and in the end tend to be low maintenance and vandal free due to the sense of local pride.

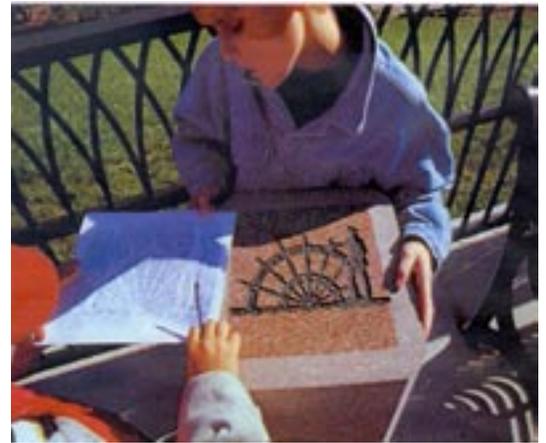
Recommendations:

Short Term

1. Establish a list of potential public art projects for implementation along the trails.

Ongoing

2. Use public art where appropriate to identify City-wide and community trails and routes.
3. Promote collaboration between the City, community and artists to create public art projects that provide community identity to public places and trails.
4. Consider and use effectively public art as a tool to create community themes, image making, symbolism and storytelling along the trail system.



Outdoor classrooms - rubbings from concrete tile



Fishermen's Memorial - The Net Mending Needle



Maritime theme signage posts are functional and playful



The rural landscape experience



Ensuring the viability of agriculture

5.5 Agriculture and Recreation Interface

Agriculture is an important part of Richmond's economy and a major land use in the City, with 38% of the total land base within Agricultural Land Reserve (ALR). As trails become a more integral part of city transportation systems and recreation systems, it is inevitable that trails will be travelling through or along the edge of lands in the ALR in Richmond. People appreciate the *rural* experience: large open green spaces, the quieter and slower pace; the seasonal changes in the landscape (e.g. bright orange pumpkins, the red cranberry fields and the opportunity to buy locally grown produce).

Understandably there are numerous concerns in the farming community of bringing people into a 'working landscape'. Issues such as vandalism, dumping, trespassing, uncontrolled animals such as horses and dogs and a lack of understanding of the necessary working aspects of the farm (e.g. spraying of crops, large and expensive equipment are all issues identified by farmers).

The City is working with the farming community to implement an Agricultural Viability Strategy. Within that strategy is a discussion about parks and recreational uses in the ALR with a series of detailed recommendations.

The City is committed to ensuring the viability of agriculture while recognizing the pressures that the farming community is experiencing. A well designed and maintained trail system may be made compatible with farming. The focus should also include opportunities for education and increased public appreciation of the contributions that the agricultural sector make to the community.

Recommendations:

1. Address the recommendations outlined within the final approved Agricultural Viability Strategy, as appropriate, and use as a guide to plan and design trails within the ALR.
2. Consult with the proposed Agricultural Advisory Committee as outlined in the Agricultural Viability Strategy and those impacted when locating and designing the trails in the ALR.

5.6 Surface Water Management / Eco-Corridors

One of the main goals in the Vision is to link people to nature, nature to the city and to link nature to nature. Many of the existing and proposed trails travel through designated environmentally sensitive areas that often provide interesting and attractive scenery for the trail users. These areas are also unique habitats and eco-systems for wildlife and plant colonies.

Trails by their nature are linear corridors and, thereby, provide an unique opportunity to be developed not only as recreational corridors but also as important eco-corridors (corridors that allow for movement of birds and animals) through the City. In addition, trail linkages may be made in the future across the water to other islands such as Don and Lion and Shady Island. Animals already are using these connections (deer swim across from Don Island and Lion Island) therefore, as with other environmentally sensitive areas, a balance needs to be struck between public access and conservation.

One of the key principles of the Environmental Management Strategy is:

❑ *Respecting ecological integrity*

Protect and enhance Richmond's ecological systems, with special concern for biological diversity and the natural processes that sustain life.

This principle should also be included in the planning, planting and construction of trails. The role may be to protect an existing eco-system or it may be the creation or enhancement of a degraded or lost habitat.

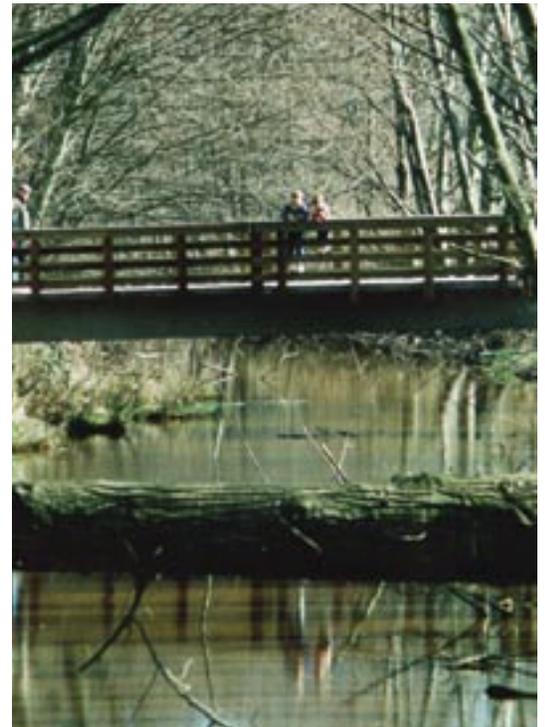
There are a number of interesting opportunities to create new eco-corridors that penetrate into core of the city. These could include utilizing and enhancing:

- undeveloped road right-of-ways
- storm drainage right-of-ways
- utility and transportation right-of-ways, and
- creating wider landscaped boulevards in new subdivisions in addition to the traditional park space

The recent attention from the Department of Fisheries and Oceans on the open ditches and canals in Richmond can also be viewed as an opportunity to re-evaluate the value of keeping open waterways. Not only are these water ways part of the Island's vernacular landscape, they provide an important source of irrigation water for agriculture, environmental benefits, are visually interesting and have the potential to add to the recreational experience.



Waterways and recreational corridors



Horseshoe Slough - eco-corridor and drainage canal

Finding the balance...



Connecting to the Nature Park



"Island of Bridges" concept



Deer in East Richmond

Recognizing fully that the efficient movement of water and the prevention of flooding is a priority for the safety of the island and residents, there may still be opportunities for creative solutions that allow for maintaining an open canal while ensuring safe storm water management and maintenance. One potential corridor for this treatment may be the proposed Shell Road Greenway, a major north-south connector that connects many environmental areas and has an existing open canal.

Recommendations:

(Guiding Principles have been outlined under 3.1.3 Nature Links)

Short Term

1. Work with the Public Works and Engineering Departments and Department of Fisheries and Oceans (DFO) to identify key sloughs and open waterways that could potentially be revitalized as Richmond's credit towards Fisheries Habitat Compensation for closure of other ditches in the City. Consider the potential of Shell Road Canal as a waterway to be enhanced.
2. Consider promoting Richmond as the "Island of Bridges". There are the major bridges in and out of Richmond and many small bridges accessing private property as well as public property. These bridges could be designed in a fun architectural manner that would add to Richmond's landscape.

Medium Term

3. Build upon the uniqueness of Richmond's landscape that includes small ditches and larger open canals and promote the aesthetic, recreational and environmental benefits of keeping and enhancing these open waterways while ensuring the proper storm water management.
4. Identify and map undeveloped right-of-ways and their potential links to the trails network. Negotiate with the appropriate agencies or departments to maximize trail and eco-corridor opportunities throughout the City. Examples are Ministry of Transportation and Highways (MoTH) lands east of the Oak Street Bridge, rail right-of-ways and city road right-of-ways.

Ongoing

5. Continue with the Natural Area acquisition plan.
6. Working with the new Environmentally Sensitive Area Inventory, determine the habitat and wildlife sensitivity along the trails system to ensure the right balance between public access and protection.
7. Plan and construct new trails in environmentally sensitive areas that respond appropriately to the habitat features and their ecological function.

5.7 Waterfront Development Strategy / Blueways Program

The development of a Waterfront Development Strategy for the City of Richmond will be a unique opportunity for the City to celebrate its location within the Lower Mainland. As waterfront access has become increasingly sought after around the world and many urban centres are developing strategies to maximize this resource, Richmond is in an enviable position as a series of islands surrounded by water. A well planned and developed waterfront can be the catalyst for economic growth, improved quality of life, community vibrancy, heritage preservation and environmental enhancement.

As the most visible and popular trails are along the waterfront in Richmond, the programming and detailed design of these trails will need to evolve and respond to the guidelines, policies and land use decisions made within the overall Waterfront Development Strategy, the OCP and other potential strategies.

In addition, the programming of the waterways will determine some of the upland infrastructure needed to support these programs or amenities.

Blueways is one component that will be looked at as part of the overall Waterfront Development Strategy. Included in a Blueways Program could be:

- special events on the water
- eco-tours on the river
- recreational activities like rowing and sailing
- water safety programs
- fishing and observation piers/boardwalks/public docks
- interpretation of the working river and marine life
- boat launches
- commercial facilities such as marinas, floating restaurants, floating Bed and Breakfasts
- floating home communities
- water transportation (aqua buses) between destinations along the river and within the City as well as across the river to other municipalities
- visitor centers for water based visitors

The City through the Strategy will need to determine its role in either:

- providing and operating these facilities and amenities
- providing facilities and partnering with the private sector
- and/or facilitating the opportunity for the private sector to build and operate the facilities and programs.

Opportunities abound and it is recognized that the trail system will need to be flexible and able to respond to these opportunities as they arise.



Getting people out and over the water



Integrating water and upland uses



Recreational programs

'Blueways' is a term similar to greenways that often has slightly different meanings attached to it. In some cases, it includes everything on the upland waterfront edge including trails as well as on the water itself e.g. marinas. For purposes of this Trails Strategy blueways will refer predominately to activities and programs that promote people getting out over the water e.g. piers or kayaking.



Opening up new waterfront connections



Access to the water



Water safety programs

Recommendations:

Short Term

1. Coordinate with the Waterfront Development Strategic Committee and the Strategy as it develops.
2. Coordinate trail planning and development along the waterfront with the Master Plans being developed for the 10 Character Zones identified in the Waterfront Strategy.

Ongoing

3. Adopt the Blueways Links principles of:
 - a. maximizing the accessibility to waterfronts
 - b. ensuring an integration of Visions for land and water uses
 - c. respecting the environmental sensitivity of the foreshore and waterways
 - d. promoting water safety.



Responding to different uses along the waterfront



Respecting environmentally sensitive areas

5.8 Promoting and Marketing Trails

The purpose of promoting the trails system is to encourage active living, enjoyment and appreciation of Richmond's unique natural environment and to increase the awareness of Richmond's many assets such as cycling routes, heritage sites, parks and community facilities.

To facilitate this the City produces a Trails Brochure; a map and program section titled 'Nature and Parks' in the Recreation and Cultural Services Guide; the On-Street Cycling Network Plan; and information on the City website.

Both the local community and visitors to the community have been the main target groups for the brochure. Distribution of these brochures has been to community centres, City Hall, the main Library and Cultural Centre and Richmond Centre.

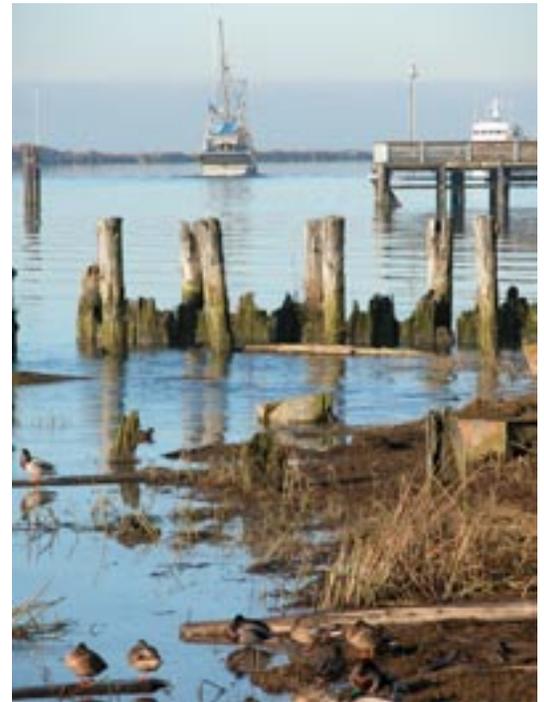
Tourism Richmond carries the City brochures for outside visitors as well as promotes the dyke trails and other recreation and cultural amenities in their website and guide. Visitors can also pick up the brochure in tourist oriented centres such as the Gulf of Georgia and Britannia Heritage Shipyard.

The city-wide dyke trail image is very strong one and is used by the private industry, such as the real estate industry, to market the high quality of life that the City of Richmond provides to its citizens. The City at this time does not actively market the trails with the goal of bringing business or tourist dollars to the City. The Parks, Recreation and Cultural (PRC) Division will be reviewing the whole concept of marketing and promoting of all its services as part of the PRC Master Plan

As mentioned previously, the major leisure trends of eco-tourism and heritage tourism have the potential to generate economic benefits to the local communities. The City will have to determine its role in promoting and/or operating facilities and programs to support these trends. Trails can be a destination in themselves and could be promoted as part of eco-tourism or be promoted as a way to reach other key destinations.

Some of the key assets of the trails system that could be promoted are the:

- panoramic views from the dyke trails and easy access to viewing points
- variety of views to the airport, the mountains, the river, the marsh lands, the commercial fishing port and more
- nature viewing opportunities
- links to interesting historic sites
- longest accessible heritage waterfront in Canada
- flatness of the terrain and the ease of access for all ages and abilities
- easy access from within the Lower Mainland



It's all here: heritage, the working river, and nature



Knowing what the users want



Promoting eco-tourism



Promoting ease of access on Richmond's flat terrain

- quick taxi ride from the airport
- tranquility of the rustic and rural experiences while within easy reach of urban amenities such as shopping and restaurants.

As part of the Richmond Needs Assessment, public input was given about the quality of our trails and parks. However, an on-site survey about customer satisfaction and priorities has not been conducted since the West Dyke Garry Point User Survey in 1991 and the 1995 Steveston Waterfront Greenways Study.

Neighbourhood links are a major factor in creating a more walkable community. Working with neighbourhood residents to identify and develop routes, and then promoting them, is also an important component of the overall strategy.

Recommendations:

Short Term

1. Update the trails information, maps and imagery on the City Web-site including a virtual walking tour of the trails system.
2. Conduct surveys or other feedback measures to determine the priorities and type of information to be included in the Trails brochure and on the City website.
3. Work with the Richmond Committee on Disability to promote the advantages of Richmond's flat topography.
4. Continue to work and coordinate with other agencies and City departments that are also promoting walking and cycling e.g. Slips, Spills, and Falls Committee, Cycling Advisory Committee.

Medium Term

5. Construct community and city message boards along the popular trails to inform and promote special events and programs occurring at different venues during the year.
6. Co-ordinate with other initiatives on the promotion and marketing of the City's services including branding and sponsorship.
7. Review the City's role in promoting eco-tourism and heritage tourism and how the trails can support this growing area.

Long Term

8. Publish local neighbourhood walking and cycling maps once neighbourhood routes have been identified.



90,000 Recreation and Cultural Services Guides are distributed throughout the community.

Part V

6.0 Neighbourhood and Community Links

This section of the Strategy focuses on developing trails (Green Links) within neighbourhood and local communities. These are the link that will encourage people to get out of their cars and walk or cycle to local destinations.

The Neighbourhood Links section identifies the conceptual framework that will improve the quality, safety and convenience of the pedestrian and cyclist's environment. The framework includes:

- Neighbourhood and Community Involvement
- Route Selection Criteria
- Wayfinding
- Infrastructure Improvements
- Establishing Priorities
- Pedestrian Master Plan

Although the main focus is on working towards identifying and improving distinct routes through the neighbourhoods, these tools can also be used to create an overall walkable community.



Neighbourhood Links



Infrastructure



Infostructure

Preamble

Infrastructure and Infostructure

Two main factors influence the ease of movement through a neighbourhood and the desire for people to choose to walk or cycle. These are the degree and quality of the physical **infrastructure** and the **infostructure** that exists in the landscape.

The *physical infrastructure* includes both the technical engineering and aesthetic aspects of the landscape that can either enhance or be a barrier to the user. This includes basic elements such as sidewalks, walkways, parks paths, roads, boulevards, light fixtures, trees, landscape features and site furnishings.

The *infostructure* is about how and what type of information is communicated to ensure that the route is easy to identify as part of the greater network. This can include how the neighbourhood identity and character is expressed, finding ways to reflect the history of the site, the look and information of the wayfinding elements (e.g. signs, maps, public art) and the involvement of the community in determining routes.

A well designed pedestrian and cycling network should look at both aspects together to ensure the ease of use and clarity of direction.

Key Challenges

Each neighbourhood is different in its physical layout, history and degree of existing infrastructure. In older neighbourhoods that are well established it may be more difficult to introduce new sidewalks or walkways or to establish one direct route. In neighbourhoods undergoing significant land use changes there is an opportunity to create larger greenway corridors and ensure that there are more direct continuous links to other open spaces and destinations.

The challenges to creating a walkable and a cycling friendly community are the same whether an established neighbourhood is being retrofitted or a new area is being developed. These challenges include:

- determining the best routes
- providing enough information to move people through a neighbourhood to key destinations – ‘wayfinding’
- providing the appropriate infrastructure and removing barriers

6.1 The Conceptual Framework

Creating the walkable and cycling friendly neighbourhood

This framework includes five aspects for consideration. These include:

6.1.1 Neighbourhood and Community Involvement

“*The pedestrian and cycling network should link to places people want to go*”. This is a basic guiding principle in developing the trail network. Who better to determine this than the residents of each neighbourhood?

The most direct route may not necessarily be the preferred route if there is an alternative that is more attractive. For example, people may deke through a park, travel along a natural feature or walk down a well landscaped or architecturally interesting residential street. Community input is vital to determining what would be the *best* and most *desirable* route through a neighbourhood.

Community footprints (design features that reflect something meaningful to the neighbourhood) can be repeated along a route and designed by school children and other residents of the area. This could be artwork that is literally footprints or images in the ground or it could include naming certain pathways that have fond memories or reflect a special feature in the area.

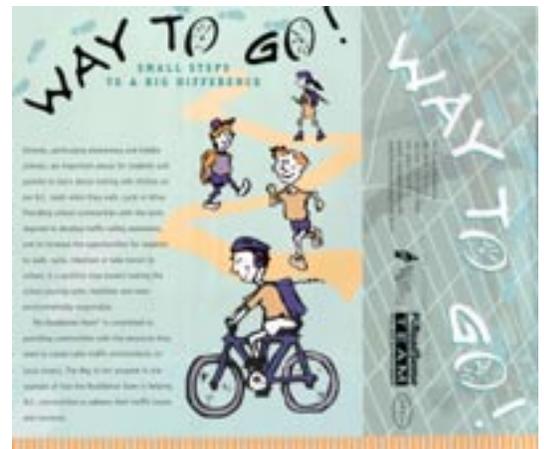
Cycling routes may differ from pedestrian routes. People may wish to avoid major arterial roads or take a more leisurely ride zigzagging through neighbourhoods. The Richmond Cycling Committee, together with residents, are an excellent resource to provide mapping for these types of routes.

An existing community initiative that the City will continue to be involved with is the *Way to Go Program*, a school program sponsored by the Insurance Brokers Association and ICBC that provides schools with tools to teach traffic safety.

These are all opportunities for people to link to each other, build upon what is unique in their neighbourhood and create a stronger sense of neighbourhood identity.



Community Footprints



Community Initiatives

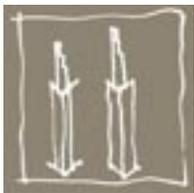
6.1.2 Route Selection

A number of specific criteria can be used to determine the best possible routes for either neighbourhood or city-wide trails. Basic criteria for evaluating a route include:

- does it link to neighbourhood, community facilities/retail or commercial areas?
- does it link to an existing or proposed city-wide trail?
- does it link green spaces?
- does it link to the transit system/cycling network?
- does it link to the waterfront?
- are there opportunities to create unobstructed pedestrian movement?
- are there unique features or special points of interest along the way?
- does it meet the long term vision and objectives as outlined in the OCP?

A community group can use these basic criteria as a starting point and then build upon this with their own knowledge of their neighbourhood: how it works internally as well as how it links to the next neighbourhood. The goal is to ultimately form a network of interconnected routes.

A new language...



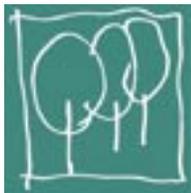
Gates



Signposts



Bridges



Trees



Furnishings



Groundplane

6.1.3 Wayfinding

The historic development of many subdivisions in Richmond has posed an interesting challenge. Often people cannot easily find their way into, through and out of the subdivision. The heart of the neighbourhood tends to be the school and/or park site which can also be difficult to find as people move from one neighbourhood to the other.

There are many recent and successful examples of applying the new standards for walkways, sidewalks and boulevards and ensuring that the pedestrian network is part of the overall land use planning. However, even in new neighbourhoods such as Terra Nova it is not totally clear as to what is private and what is public access or how to find key destinations such as the school, Terra Nova Natural Area, or the dyke trails.

Creating a new language for wayfinding - combining infrastructure and infostructure

To facilitate the movement of people and to promote neighbourhood identity a series of key wayfinding elements or visual cues are being proposed. These elements can be applied to any neighbourhood. Further images are in the Design Ideas Section.

Gates are located at entries into the neighbourhood

- gates create a threshold to a neighbourhood
- should convey the name of the neighbourhood, history of the name, an emblem or icon and a locator map
- relate to major streets and coincide with the preferred route through the neighbourhood
- should be large enough in scale to be recognized when driving, yet personal when walking
- can be positioned on both sides or on one side

Signposts are positioned at key locations in the neighbourhood

- located where there is a change in direction of the walking route, where a specific or historic event is identified or as an element to create rhythm along the route
- signposts can be single elements or can be a grouping
- signs can be incorporated as part of a existing light post
- attached to the sign is the infostructure
- the infostructure is comprised of information blades which convey local neighbourhood amenities, histories, stories and direction to adjacent neighbourhoods and amenities.

Bridges are located when passing over water or over a distinctive change in landform or use

- the bridge is already a distinctive element in the Richmond landscape that can be reinforced both where there is water and as a 'dry bridge' concept for any type of crossing
- it has an opportunity to be developed as an entry or a link in the neighbourhood
- with so many canals and small ditches the creation of bridges can become an art form and create a distinct identity
- a vertical post can be incorporated into the bridge for greater presence or as an infostructure element

Trees can be located as a single landmark element, as a grouping or as linear rows to reinforce direction along a route

- trees can be the single most powerful element in creating a comfortable scale, attractiveness and unity in a neighbourhood
- significant trees can be used to orient people in a neighbourhood
- trees on public property should be significant in scale especially if used as a landmark element or significant in numbers to have an impact
- a route may be chosen where established trees on private properties are significant and attractive and form part of: 'borrowed landscape' backdrop to a walking route





- ❑ trees can be used in conjunction with gateways and signposts to emphasize their importance

Groundplane treatments can be introduced into sidewalks, entry paths, nodal areas, roadway interfaces, roadway crossings, bridge decks and paths

- ❑ special groundplane treatments would occur along routes either as a continuous pattern on a sidewalk or at special intersections or rest areas to reinforce the route
- ❑ an endless variety of opportunities arise in creating patterns and texture in concrete from simple scoring of a grid system to more complex brick patterns or colouring patterns
- ❑ unique and interesting infostructure messages and community footprints (artwork) can also be introduced into new sidewalks, plazas and pathways
- ❑ sidewalks should be introduced at gate entries into neighbourhoods where vehicular and pedestrian interface is the highest

Furnishings are to be located in conjunction with the other elements to reinforce the route

- ❑ benches, seating edges, walls, bollards, lighting, bike racks, public art can be added at important intersections or as a recognizable pattern repeated along the route to emphasize direction
- ❑ traditional elements can be used or creative interpretation reflecting something about the neighbourhood could be added

6.1.4 A Pilot Project

For purposes of determining how these wayfinding measures and infrastructure improvements may be applied, one neighbourhood was reviewed and a potential route selected for improvements. The following photographs and graphics show how a more aesthetic, comfortable and safe pedestrian environment can be created. (See Illustration 1)



Details reflecting the character of the area

6.1.5 Infrastructure improvements

To create a more walkable and comfortable community basic infrastructure needs to be in place, barriers need to be removed and traffic calming measures added. A practical, cost effective approach based on priorities will need to be established.

Each neighbourhood will differ in its requirements and priorities. For instance, in many neighbourhoods, people walk on the streets and they may not think sidewalks are a priority if the street is quiet and has wide side boulevards. This may also be considered part of the neighbourhood character. Again, neighbourhood involvement will be important in determining these priorities.

However, some basic improvements and barrier removals should include:

- distinct directional signage and route markers
- curb cuts in the existing sidewalks and walkways for accessibility
- clear sight lines to streets or sidewalks from walkways for safety
- crosswalks at high traffic intersections for safety
- continuous pathways in all the parks with clear links to other walkways or sidewalks
- benches in parks along the walkway to provide resting and socializing opportunities

Further infrastructure improvements could include:

- signalization of crosswalks
- traffic calming measures such as traffic circles or curb extrusions
- addition of sidewalks
- widening of sidewalks along the main routes
- street trees
- rest areas with street furniture
- community art
- lighting of main routes
- distinct character street lighting
- a series of smaller loops for walking through the neighbourhood
- a network of linkages through new developments
- utilization of undeveloped right-of-ways
- better utilization of the park and green space in each neighbourhood



Traffic circles with community art



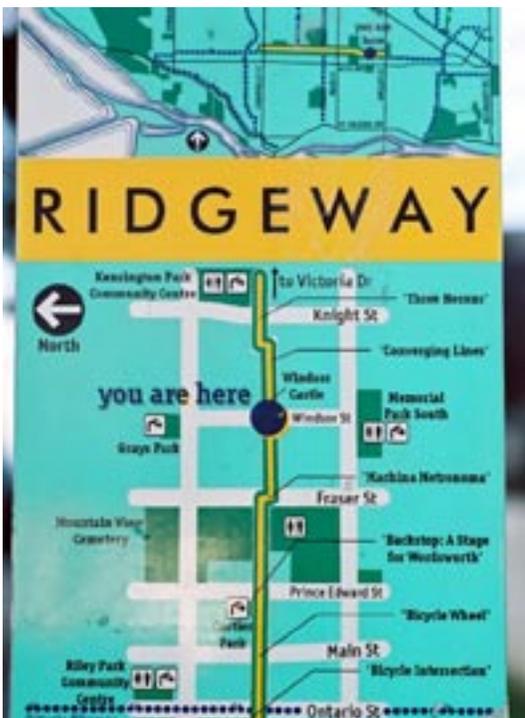
Directional signage



Distinct light standards



Community mosaics on sidewalks



Orientation Maps

It should be noted that these are tools for creating a more walkable community that have been recognized by the City and piloted in different areas. Standards have been adopted by the Engineering and Public Works Departments for new and improved sidewalks and a variety of traffic calming measures.

Implementing these standards all at one time would be costly and the challenge is to determine priorities for implementation.



Small details can provide neighbourhood identity



Places to rest

6.2 Establishing Priorities

A practical and cost effective approach to providing infra and infostructure based on priorities will need to be established. Establishing an index that looks at the potential and the deficiencies of each proposed project would help determine its priority.

Such an index could include the following factors:

A. Potential Factors:

Community Initiative: Has a neighbourhood or a business expressed interest? Are there other community initiatives like the Way to Go School Program occurring in the neighbourhood? Are there partnership opportunities?

Development Pressures/New Opportunities: Are there 'hot spots' of development that provide an opportunity through rezoning or the development permit process to seek walkways, special amenities and wider sidewalks? Are there other City projects underway that may allow for pedestrian improvements at a cost savings? This may trigger the need for the City to provide additional connections to complement new walkways.

Connectivity Potential: How many of the route criteria have been met? Is the walkway on a designated route or is the proposed project in close walking distance of a park, school, transit stop or other local destinations? Is it in an area that has a high volume of pedestrian traffic? Points can be assigned for each destination along a proposed improvement and for the number of people that it would serve.

B. Deficiency Factors:

The potential factors should then be weighed together with deficiency factors that impede the safe and comfortable movement of pedestrians.

Lack of Connections: Are there missing links in a route? Are these links important to providing direct and comfortable access to local destinations?

Lack of Infrastructure or Infostructure: Are there missing sidewalks, lack of curb cuts, poor sightlines or lack of directional signage to locate key destinations?

Traffic Safety Concerns: Traffic speed, volume, location of accidents, width of the roads will determine the safety of different routes. Difficulty of street crossings and the general sense of comfort on a street need to be assessed.

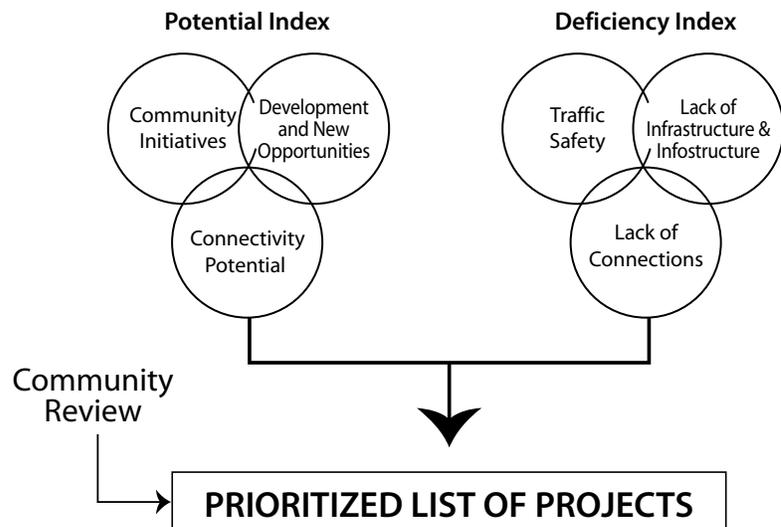
As there are so many factors involved in determining priorities including qualitative and cost factors, it is not expected that creating an index would be a precise measure of priorities but it can provide a general sense of project priorities.

Potential Index	High/Low	High/High
	Low/Low	Low/High
		Deficiency Index

Projects with high potential and high deficiency are high priority projects.

Portland Pedestrian Master Plan, June 1998

Developing and Selecting Projects



6.2.1 Establishing a Pedestrian Master Plan

The focus of this strategy is the development of a trails network made up of distinct identifiable routes through the City. However, people walk on more than just designated routes.

To truly create a walkable community and meet the policies, goals and objectives outlined in the Official Community Plan and the mandate of the Community Mobility Strategic Team, a more comprehensive look at the bigger picture will be needed eventually.

A Pedestrian Master Plan would provide focus and guidance in a number of key areas:

- pedestrian policies
- pedestrian street classifications
- design guidelines and construction standards
- potential capital projects and implementation strategy
- funding strategies
- integration with other mobility choices e.g. transit, cycling, etc.
- education programs

It should be noted that this would be a long-term project and that priorities would need to be determined for implementing overall pedestrian improvements in the whole City.

6.3 Recommendations

Short Term

1. Adopt the wayfinding language of signs, gates, bridges, ground plane, trees and site furnishings and incorporate it into new developments and along proposed Green Links in established neighbourhoods as funding allows.
2. Consider allotting 25% of the annual Trails Budget towards Neighbourhood Green Links improvements.
3. Conduct an inventory and analysis of all walkways in neighbourhoods for accessibility and safety.
4. Establish new standards to improve the accessibility of all walkways.
5. Inventory park pathways and identify the missing links to creating continuous pathway systems within all parks.
6. Establish an index or a system to prioritize neighbourhood infrastructure and infostructure improvements.

Medium Term

7. Work with the Cycling Advisory Committee as well as local residents to determine recreational cycling routes through neighbourhoods.
8. Construct new paths, as necessary, in school and park sites to connect to the surrounding neighbourhood.
9. Develop a kit for mapping routes and determining priorities with community groups. (See example of Neighbourhood Public Input Advertisement Appendix 3)
10. Design and implement a signage program for neighbourhoods that will provide directional information about key destinations and will also help distinguish public vs. private walkways. This would be part of a larger comprehensive signage system for other City facilities and amenities.

Ongoing/ Long Term

11. Coordinate with Transportation Planning initiatives for traffic calming, crosswalk installations and sidewalk construction along proposed Neighbourhood Green Links.
12. Work with other initiatives that are occurring in the neighbourhoods such as the Way to Go School Program.
13. Consider preparing a Pedestrian Master Plan that would look at the larger picture of creating a walkable city and that would include but not be exclusive to a classification system for the public realm, development standards, design guidelines and priorities for different types of pedestrian environments.
14. Incorporate the wayfinding language into new developments, as appropriate, along proposed Green Links in established neighbourhoods as funding allows.

Part VI

7.0 City-Wide Links

A Trail and Greenway Implementation Plan

This section of the Trails Strategy focuses on the city-wide trails. City-wide trails are considered the major trails that traverse the City providing cross-town routes for commuters and recreational users.

The Implementation Plan is divided into either trails within an area (e.g. Hamilton Area Trails) or a significant trail route (e.g. Shell Road Greenway). The goal of the Plan is to identify routes and the critical missing links, and to provide a series of recommendations and implementation priorities.

Each section of the Implementation Plan includes:

- a vision statement with key principles
- location description
- important links and key destinations along the trail and in the area
- other City and external plans that may impact trail development
- a series of recommendations and proposed phasing
- a map showing the proposed trail and Cycling Network routes with cross-references to the recommendations.

The Trails Strategy has been identified as a strategy that will be reviewed and updated in 2010. For purposes of identifying priorities and a relative time frame for implementation the following time frames have been used:

Short Term = immediately to 3 years

Medium Term = 3 to 5 years

Long Term = 5+ years

Ongoing = immediately to 5+ years

City-wide Trails include:

- 7.1 Steveston Area Trails
- 7.2 West Dyke / Terra Nova / Middle Arm Area Trails
- 7.3 Railway Avenue/McCallan Road Greenway
- 7.4 Garden City Greenway
- 7.5 City Centre/West Cambie Area Trails
- 7.6 Bridgeport Area Trails
- 7.7 No.7 Road Trail
- 7.8 East Richmond North Fraser River Greenway
- 7.9 Hamilton Area Trails
- 7.10 East Richmond/Fraser Lands/Riverport Area Trails
- 7.11 Shell Road Greenway / Horseshoe Slough Trail
- 7.12 Gilmore Area Trails
- 7.13 Sea Island Area Trails

For the purposes of this Strategy, the term 'area' refers to a general community area and not the Official Community Plan planning areas.

7.1 Steveston Area Trails

Vision

The Steveston area trails will provide opportunities for residents and visitors to experience and enjoy the active village centre, commercial and historic waterfront, and the natural scenery along the river. The key focus is the waterfront greenways with a series of trails linking to the waterfront and other greenways in the area. The key principles will be ensuring a strong integration of the visions for land and water uses, the development of a blueways program for the waterfront, provision of further interpretation, and respecting the environmental sensitivity of the foreshore.

Location

Steveston Highway south to the river, West Dyke Trail to No.3 Road

Important Links and Destinations

West Dyke Trail; Garry Point Park; Steveston Village; Steveston Park and Community Centre; the Steveston Waterfront Greenways including historic sites such as Gulf of Georgia Cannery (National historic site); Britannia Heritage Shipyard and London Farm; the South Dyke Trail; 50 acre City owned land (Tree Nursery); T. Homma Elementary School/Park; No. 3 Road Sports Fishing Pier; Railway Avenue designated bike route and future greenway.

Other City and External Plans

The Waterfront Development Strategy is reviewing opportunities for blueways that include programming recreational activities on the water, marinas and other potential active uses of the water, as well as ensuring that this is integrated with upland development (such as the 50 acre City owned site at the foot of No.3 Road). Numerous programs and events for the public are hosted at Britannia Heritage Shipyards and Gulf of Georgia Cannery throughout the year. The City is upgrading Moncton Street in front of Steveston Park with traffic calming measures to reflect the work completed on the south side of the street (Imperial Landing) as part of the original 1994 Greenways Plan. Transportation Planning is reviewing the condition and need for upgrades of No.2 Road south of Steveston Highway due to the proposed redevelopment of the London-Princess and Trites Industrial areas to residential use. A new commercial development in the Village adjacent to Steveston Landing will include improved public access along the waterfront. A proposed townhouse development on 7th Ave across from Garry Point Park will provide trail access and interpretation on Ferry Lane. Gulf of Georgia has requested potential use of the lane behind 3rd Avenue as a trail with memorial tree planting. The City is considering different route options for the Interurban Tram. TransLink has proposals to develop a bus loop on Chatham Street on Steveston Harbour Authority lands and will provide sidewalk improvements as part of their development.



Garry Point Park



Steveston view from Garry Point Park



Imperial Landing

Recommendations:

Short Term

1. Review the park plan for Garry Point Park and consider developing a tree planting plan to provide shade and to be able to respond more efficiently to community requests for e.g. cherry tree planting and memorial trees.
2. Develop Ferry Lane as a trail link between Chatham Road and Moncton Street and provide historic interpretation.
3. Work with Gulf of Georgia on the design and potential use of the lane behind 3rd Avenue as a trail link as per the 1994 Steveston Greenways Plan.
4. Continue to work with the Steveston Harbour Authority on the potential design and development of the Tin Shed Site at 3rd Avenue and Moncton Street as a bookend for Steveston Village as per the Greenways Plan.
5. Coordinate with the Waterfront Development Strategy committee as different options for water use and support facilities are considered.
6. Work with the developers in the London-Princess area to ensure that the appropriate trail links are made to the waterfront and along the City owned former CNR right-of-way.
7. Develop a master plan for the City owned land between Gilbert and No.3 Road.
8. Coordinate with Transportation Planning to ensure a trail connection along the east side of No.2 Road is incorporated in any redevelopment of the road right-of-way south of Steveston Highway.
9. Continue dialogue with the GVRD on the most appropriate location for a potential pedestrian and cycling ferry link to Ladner.
10. Determine the best route and location for the Interurban Tram and barn.
11. Coordinate with other City staff and the Advisory Committee on the Environment as they negotiate with the appropriate agencies on the potential public use and access to Shady Island (Steveston Island).

Medium

12. Redesign the lane from Steveston Park to No.1 Road and the Chatham Street to create a strong pedestrian corridor that connects Railway Avenue to No. 1 Road.
13. Work with the Provincial Government to provide public access on the north side of Scotch Pond with the potential of creating a water crossing to access the land west of Garry Point Park.
14. Construct an off-road trail along Gilbert Road from Steveston Highway to Dyke Road.
15. Work with Transportation Planning on traffic calming measures for No. 3 Road south of Steveston Highway.



Britannia Heritage Shipyard



Paramount Pond area



No. 2 Road Fishing Pier



South Dyke Trail, near London's Landing



London - Princess area



South Dyke - Gilbert Beach

16. Consider pedestrian and cyclist ferry 'transit stops' along the waterfront with the goal of connecting the trail users to key destinations e.g. Britannia Heritage Shipyard, Steveston Village, Garry Point Park, No. 3 Road Fishing Pier, and Riverport.
17. Develop a plan for the triangular green space on Railway Avenue south of Moncton Street.

Ongoing / Long Term

18. Ensure ongoing coordination and intergration of the upland development and water based uses.
19. Consider continuing the trail along the former CNR right-of-way from No.2 Road to Gilbert Road and onto the 50 acre City owned lands following due process with the Farmers Institute or appointed Agricultural Advisory Committee.
20. Consider developing a trail along Monteith Road from No.2 Road to Gilbert Road following due process with the Farmers Institute or appointed Agricultural Advisory Committee.

Proposed Neighbourhood Green Links

Although the focus here is on the major city-wide trails, there are a number of key neighbourhood links that eventually lead to the waterfront. To ensure that opportunities are not missed while more detailed work on the neighbourhoods routes is undertaken in the future, a few suggestions have been made here.

21. As the Trites Industrial area undergoes redevelopment, ensure north-south links connecting to the public walkways in Southcove and to the Steveston Waterfront Greenways, and create east-west connections to link the proposed new neighbourhood to T.Homma School/Park site.
22. Construct a Neighbourhood Green Link along Trites Road with wider grass boulevards and a 2.0 meter wide path to link the Steveston Greenways to Moncton Street, through the Austin Harris site, and onto Westwind Elementary School/Park site.
23. Construct trails in Westwind School/Park that link to the surrounding neighbourhood.
24. Formalize and construct the necessary paths to connect users on Railway Avenue to the McMath linear green space, through the school/park site to No.1 Road, and into Lord Byng School/Park.
25. Develop a path along the eastern edge of McMath School/Park to connect to Fentimen Place and Steveston Park.
26. Design and reconstruct Fentimen Place road right-of-way as redevelopment occurs to provide a strong pedestrian connection into Steveston Park from McMath School/Park.

7.2 Terra Nova Area/West Dyke/Middle Arm Trails

Vision

The Terra Nova/West Dyke/Middle Arm trails will continue to provide public access to this regionally significant landscape with awe inspiring open vistas of distant mountains, water, marsh ,and a variety of wildlife habitats. The key principles will include maintaining the tranquil and natural experience of these trails by ensuring sensitive and appropriate development that focuses on enriching the public's awareness and appreciation of the environmental value and richness of the area.

Location

Along the Middle Arm of the Fraser River from No.2 Road to the River Road road end at the entrance onto the West Dyke Trail and south to Garry Point Park.

Key Links and Destinations

Steveston Village and Steveston Waterfront Greenways; Garry Point Park; Sturgeon Banks; Terra Nova Natural Area; Terra Nova North West Quadrant (TNWQ) future park development; Terra Nova, Thompson and Dover residential areas; the No.2 Road Bridge and Sea Island; the City Centre Middle Arm waterfront and the Downtown District of the City Centre.

Other City and External Plans

The vast estuary along the West Dyke Trail beyond the toe of the dyke is under the jurisdiction of the Provincial Government who published the Sturgeon Bank Wildlife Management Area Management Plan in 1994. Their goal is conservation with a recognition of the high recreational use of the adjacent trail. Plans for boardwalks or piers that may extend out into the marsh area would need to be negotiated with the provincial government as well as FREMP. In 1995, the Parks Section developed a West Dyke Trail Design Plan as a guide for developing the trails and amenities. Improvements were implemented in 1996 and 1997. This plan provides a number of conceptual designs for trail amenities such as an interpretation plan and observation platforms that are still valid. The recent Terra Nova North West Quadrant(TNWQ) Inventory and Analysis was presented to Council in 2002. The immense ecological, historical and recreational value of this site is due to its location adjacent to the river, estuary and trail system. The next phase will be developing a design and management plan for the area. Public Works has ongoing dyke and pump station improvements along the West Dyke that provide opportunities to upgrade staging areas at the same time.



Great Blue heron



West Dyke Trail - north end



Terra Nova Natural Area



Adopt-a-Garden on West Dyke Trail



Terra Nova walkway



Sturgeon Banks



West Dyke Trail - near Garry Point Park



View of Sea Island and Vancouver International Airport from Middle Arm Trail

Recommendations

Short Term

1. Include the existing waterfront dyke trails and River Road into the planning and design process for the Terra Nova North West Quadrant (TNWQ) site and develop the whole area in a comprehensive manner.
2. Develop a series of trails throughout TNWQ site that connects with the waterfront and Terra Nova Natural Area.
3. Coordinate with Public Works on the design of new pump stations and their surroundings to ensure the overall improvement of the associated trail staging area (e.g. Francis Road pump station).
4. Continue with the interpretation program along the dyke and minor trail amenity improvements.
5. Improve neighbourhood Green Links by providing signage from No.1 Road and Westminster Hwy. directing people to Terra Nova Natural Area, the West Dyke, and to Spulc'wuck School/ Park.
6. Develop design plans for the Middle Arm entrance points onto the dyke trails to improve accessibility and safety.
7. Provide directional signage and an orientation map at the No. 2 Road pedestrian/cycling ramp and dyke trail intersection.

Medium Term

8. Improve the road end parking conditions at Blundell Road and Williams Road.
9. Implement the improvements to the Middle Arm access points.
10. Improve the waterfront open space immediately to the east of the No. 2 Road Bridge.

Ongoing / Long Term

11. Work with FREMP and the Ministry of Water, Land and Air Protection on the potential of providing controlled access into the marsh with boardwalks and observation platforms specifically at Terra Nova and the Francis Road staging area.
12. Consider the acquisition of privately owned lands outside the dyke.
13. Negotiate with the Canadian Broadcasting Corporation on the potential of adding onto their pier structure in the future while respecting their concern for security.
14. Consider the closure of Westminster Highway to vehicular traffic west of Parkes Drive if all private properties have been acquired in the future. Maintain pedestrian and cycling access and integrate the road into the park to create one seamless site that would include Terra Nova Natural Area and the TNWQ site.

7.3 Railway Avenue/McCallan Road Greenway

Vision

This West Richmond corridor will be a critical north-south greenway that links the west side of Richmond from Steveston Village to the gateway bridges along the Middle Arm of the Fraser River and ultimately to the City Centre. Notwithstanding the unknown future use of the CPR lands adjacent to Railway Avenue, this will be developed as a major natural and recreational greenway with public open spaces along the route. Key principles will be respecting and building upon the fact that this is a major historic and present day transportation route in the City, creating multiple connections to the surrounding neighbourhoods, introducing nature, and respecting its strong linear character and view corridors.

Location

Railway Avenue and McCallan Road from the Middle Arm of the Fraser River (west of No.2 Road Bridge) to Dyke Road in Steveston.

Important Links and Destinations

This Greenway should be viewed as an integral part of the larger system. Links include the Steveston Waterfront Greenways, Steveston Park, Steveston Village, Britannia Heritage Shipyard and other historic sites; T. Homma School Park site; McCallan Park; Thompson Community Centre and Park, Burnett High School and Blair Elementary School; Railway Avenue and Granville Avenue designated cycling lanes leading to Garden City Greenway, the City Centre, and Bridgeport (Oak Street Bridge); Middle Arm Dyke Trail; No.2 Road and Dinsmore Bridges; and a large residential population in the bordering neighbourhoods.

Other City and External Plans

The City presently has no plan to widen either Railway Avenue or the McCallan Road right-of-way. The largest unknown factor is the future use of the 20 meter rail corridor owned by Canadian Pacific Railway (CPR) sandwiched between the two road right-of-ways (Railway Avenue and McCallan Road). The City purchased the rail corridor north of Granville Avenue in 1994 and integrated it with the McCallan Road right-of-way trail. In 1995, CPR removed the rails and provides minimal maintenance from south of Granville Avenue to just north of the Steveston Wye. In 1990, CPR Rail provided the City with a Study that showed a number of options for developing their lands together with City owned lands. These options focussed on residential development similar to the Steveston Wye. The proposal was not pursued further by CPR and they have not approached the City in recent years.



North end access onto the Middle Arm Trail



McCallan Road (Westminster Hwy to River Road)



Thompson Community Centre



McCallan Road r.o.w. trail (Granville Avenue to Westminster Hwy.)



Entrance off Railway Avenue to the Steveston Wye Trail

Recommendations:

Short Term

1. Connect Westminster Hwy. to River Road and the Middle Arm Trail by constructing an asphalt trail along the east side of McCallan Road.
2. Improve the safety of the access onto the Middle Arm Trail with a crosswalk and improved ramps.
3. Construct an asphalt trail along the south side of River Road to connect McCallan Road to Skateboard Park.
4. Introduce nature and plant trees along the existing trail between Westminster Highway and Granville Avenue.
5. Work with the local schools to plant the trees and adopt the corridor through the Partners for Beautification Program.
6. Connect into McCallan Park and the adjacent neighbourhood by constructing a pathway along the north edge of the park.
7. Provide a safe pedestrian trail to complement the cycling lanes by constructing a 3.0 meter off-road pathway from Granville Avenue to Garry Street within the McCallan Road right-of-way. This is a simple temporary solution that will provide the residents of the area with an important link until the future use of the CPR rail corridor is determined.
8. Negotiate with CPR to formalize through a Memorandum of Understanding, the existing crossings (from the neighbourhoods on the west side) to the Railway Avenue cycling lanes and transit stops.
9. Install directional signage and orientation maps throughout the system.
10. Formalize and improve the trail south of Moncton Street through to T. Homma School Park site and Britannia Heritage Shipyard.
11. Develop and install a consistent and recognizable directional signage system for the trails and the heritage sites at the corner of Moncton Street and Railway Avenue.

Medium Term

12. Develop a park plan for the City owned triangle of land south of Moncton Street that acts as a gateway to Britannia Heritage Shipyard and the Steveston Waterfront Greenways.
13. Involve the adjacent neighbours in the planning process and encourage their adoption of the site through Partners for Beautification Program.
14. Determine a use for the City owned at Granville Avenue and Railway Avenue..
15. Improve the rail crossings to ensure safety, accessibility and their visibility.
16. Consider adding public art at each crossing building upon a theme of transportation.
17. Improve pedestrian safety at major arterial intersections (e.g. Williams Road) by building sidewalks with curb and gutter at the south-west and north-west corners.

Ongoing / Long Term

18. Negotiate with CPR on the future use of the land. Options may include acquisition of part or all of the CPR lands; partnerships in developing portions or all of the City owned and CPR lands while ensuring the appropriate setbacks, development standards and design to maintain the Railway Avenue corridor as a strong recreational greenway with public open space at appropriate locations, and possibly future tramway.
19. Encourage local residents to become involved with Partners for Beautification and adopt the corridor.

7.4 Garden City Greenway

Vision

This greenway will form a key link in the ‘necklace’ of green spaces that define and strengthen the perimeter edge and entrances into the City Centre. It will provide direct access along a north-south corridor linking numerous neighbourhoods to the City Centre and Bridgeport area as key destinations. The key principles will be promoting the ‘Garden City’ theme; ensuring the integration and coordination of the greenway into new developments and road construction along Garden City Road; a higher quality in materials and design reflecting the City Centre urban design standards; a greening of this urban corridor with rows of significant trees; and establishing strong links to the surrounding neighbourhoods.

Location

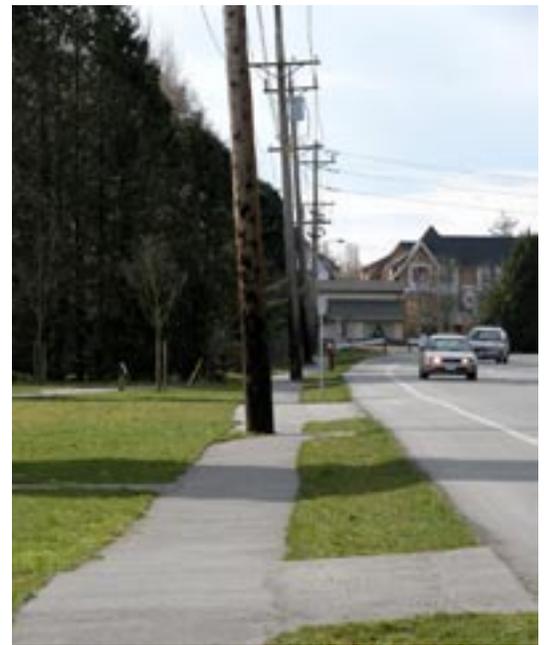
Garden City Way from Steveston Highway to River Road

Important Links and Destinations

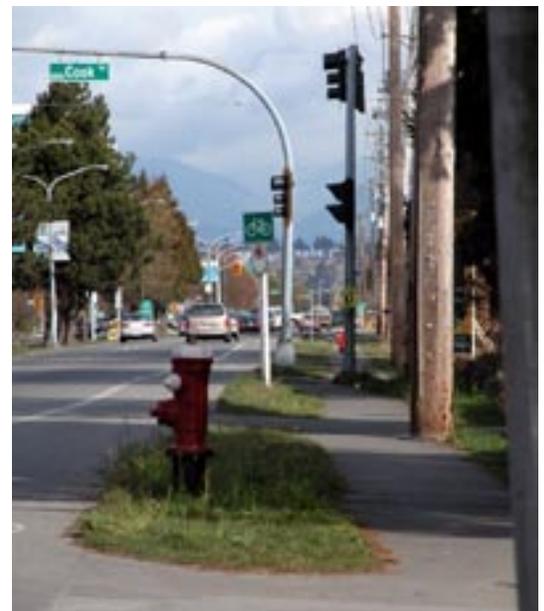
South Arm Community Centre and Park; McRoberts and Whiteside Schools; Williams Road designated cycling lanes; Granville Avenue Greenway and designated cycling lanes; McLennan Park and Arboreteum; Richmond City Hall; City Centre commercial district; Kwantlen College; Department of Fisheries and Oceans (DFO) lands; Westminster Hwy. and Alderbridge Way cycling routes and proposed greenways; Palmer/ Garden City School/Park; Garden City Mall; Moray Channel, Bridgeport and Oak Street Bridges; and the North Arm of the Fraser River

Other City and External Plans

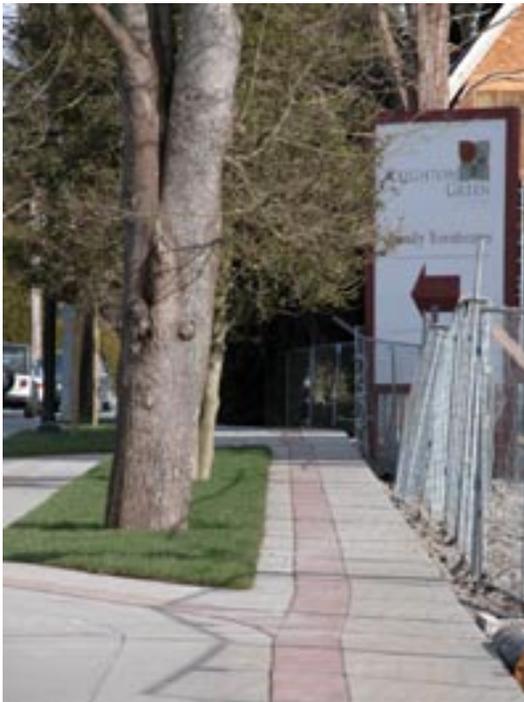
The Kit of Parts, established through the Beautification Strategic Team, has identified different greenway links and associated design criteria for Garden City Road. A number of large residential redevelopments are occurring along Garden City Road in the McLennan areas that will be responsible for constructing sections of this greenway as per the McLennan North Sub-area Plan and Kit of Parts. The potential ownership and land use designation of the DFO lands (also referred to as MoT lands) is under review. Alderbridge Way is a proposed cycling route and greenways that will connect to the Shell Road Greenway and the Nature Park. Garden City Road is presently being constructed north of Sea Island Way with the intention of extending it to River Road. Public art at the intersection of Garden City Road and Sea Island Way will reinforce this area as a ‘gateway’ into Richmond. Pedestrian and cycling links to Oak Street Bridge are being considered for the north side of Sea Island Way. The former Bridgeport Market site is being redeveloped with public waterfront access along the North Arm of the Fraser River.



Garden City at Cook Road (looking south)



Garden City at Cook Road (looking north)



New sidewalk treatment on Garden City, looking north from General Currie Road



Cycling path on Garden City (south of Francis Road)



South Arm Park

Recommendations:

Short Term

1. Adopt the name “Garden City Greenway” for this section of the trail system and design a logo for directional and information signs.
2. Promote the ‘Garden City’ concept by massive planting of naturalizing spring flowers on the existing off-road cycling and pedestrian corridor between Francis Road and Williams Road. Achieve this through an Adopt-a-Trail partnership potentially with Whiteside and Mc Roberts Schools.
3. Construct the Greenway path and boulevard standard (as per the Kit of Parts) along the edge of McLennan Park/Arboretum as part of the park redevelopment.
4. Link the Bridgeport Trail to Garden City Road when the road is extended north by constructing a trail connection along the west side of the road to link to River Road and the waterfront.
5. Develop design standards for the Greenway between Alderbridge and River Road.

Medium Term

6. Strengthen the link between the existing Garden City Road bike/ pedestrian shared path and South Arm Community Park by redesigning the entrance area into the park and developing a continuous north-south trail to Ryan Road.
7. Construct a trail south of Ryan Road to Steveston Highway in the undeveloped Garden City Road right-of-way.
8. Designate and review opportunities to develop Saunders Road as an east-west neighbourhood Green Link that connects No.3 , Rideau Park, Garden City Greenway, No. 4 Road, and McNair High School.

Ongoing / Long Term

9. Between Francis and Blundell Road seek opportunities to improve the pedestrian environment as redevelopment occurs.
10. On the east side between Blundell Road and Westminster Highway (McLennan South) consider developing a minimum 5.5 meter corridor with a 2.5 meter grass/tree boulevard and a 3.0 meter concrete decorative sidewalk. Refer to the Kit of Parts for design details.
11. When the DFO site redevelops create a distinct greenway/ linear park that is a minimum of 10 meters to 20 meters in width including two double rows of significant trees (as space allows) and a 3.0 to 5.0 meter path with seating areas along Garden City Road, Alderbridge Road and Westminster Highway.
12. Develop pedestrian links to the City Centre on the Lansdowne and Alderbridge Greenways.

7.5 City Centre/West Cambie Area Trails

Vision

The City Centre is a special urban centre that builds upon the “Garden City” concept to ensure a high quality pedestrian and cycling environment. This will be achieved through a network of “green” links between the residential neighbourhoods, commercial centres, recreational facilities, and the waterfront. The perimeter urban trails will form a ‘necklace’ of green spaces that define and strengthen the perimeter edge and entrances into the Downtown District of the City Centre. The City Centre waterfront will be developed as a premier urban riverfront and a key focus for downtown recreation and celebration both on the water and along the river’s edge. The key principles will be ensuring a high quality of urban design; making the development of a ‘walkable’ community becomes a high priority; ensuring links to the adjacent West Cambie residential area; the introduction of special features; emphasis on greening of the City Centre; and strengthening the connections and relationship of the City Centre to the waterfront.

Location

Includes the City Centre and West Cambie Planning Areas. The City Centre area is approximately from No.2 Road to No.4 Road and Blundell Road to Sea Island Way. The West Cambie area is between Westminster Highway and Bridgeport Road and Garden City and Highway 99.

Key Links And Destinations

The City Centre, as a highly developed multi-use area with a strong commercial, institutional, transit and residential focus, has many City wide destinations including retail malls, hospitals, high density residential developments, City Hall, city-wide recreational and cultural facilities (at Minoru Park) that include a central library, museum, art gallery, aquatic centre, ice area, track and field facilities. Other destinations are the waterfront dyke trail system (Fraser River Middle Arm); Brighthouse Park; McLennan Community Park and Botanical Arboretum; Department of Fisheries and Oceans (DFO) lands (previously referred to as MoT.); Nature Park; the No.2 Road; Dinsmore, and Moray Channel Bridges to Sea Island and the Vancouver International Airport; Nature Park; Shell Road Greenway; Hwy. 99; and the residential areas and neighbourhood parks in the West Cambie and Dover areas.

Other City and External Plans

The Waterfront Development Strategy will focus on the economic, recreational, and aesthetic importance of the City Centre waterfront and development strategy to create a significant urban waterfront. Planning for a major Rapid Transit Project (RAV) connecting Richmond, Vancouver and the Airport is underway. Large areas that may be undergoing significant land use change include Department of Fisheries and Oceans lands (135 acres), the West Bridgeport area to the north, and sections of the West Cambie’s residential area.



Middle Arm Trail (near Cambie Road road end)



Future site of UBC Rowing Club on Middle Arm



No. 3 Road Translink B-Line station



Lang Park



City Hall water feature (Westminster Hwy. side)



The City is negotiating with the UBC Rowing Club to provide a home base for the Club, community programs, and a racing course along the Middle Arm. A City Centre Transportation Plan has been established that outlines long term pedestrian facility improvements. The future use of the City owned lands at 6080 River Road will provide an opportunity to increase and improve the open space along the waterfront.

Recommendations:

Short Term

1. Adopt the Greenway routes as shown on the City Centre/West Cambie Area Trails map.
2. Determine high priority neighbourhood areas within City Centre and West Cambie and develop Neighbourhood Green Links plans for them.
3. Develop further design standards for the Greenways and Green Links within the City Centre and adopt the existing City Centre Kit of Parts. (See example Appendix 2)
4. Construct the portion of the Garden City Greenway from Cook Road to Granville Avenue as part of the McLennan Community Park development.
5. Develop a plan for the City Centre waterfront through the Waterfront Development Strategy.
6. Work with other interested parties such as the UBC Rowing Club to develop the potential of the Middle Arm as a water based recreational and festival area with appropriate upland support amenities.
7. Coordinate and place high-priority on establishing pedestrian links with the future rapid transit stations.
8. Develop a park master plan for Minoru Park and strengthen the pedestrian connections in the park to the adjacent areas, incorporating the new Community Safety Building and firehall.

Ongoing / Long Term

9. When the DFO lands redevelop create a significant greenway/linear park along Garden City Road, Westminster Hwy, and Alderbridge Road (see Garden City Greenway for more details).
10. Develop Green Links plans for all the neighbourhoods within the City Centre and West Cambie area.
11. Consider developing a Pedestrian Master Plan (a long term strategy to improve the pedestrian environment) for the City Centre that focuses on the whole pedestrian realm (in addition to the trail routes) and includes standards for surface design, sidewalk widths and building setbacks, placement of site furnishings and special features such as public art, scale and relationship of building façade and use to pedestrians; and the type and quantity of landscape.
12. Continue to work with Transportation Planning to coordinate the pedestrian requirements with other transportation needs in the City Centre and West Cambie areas.

13. Develop Hollybridge Way as a significant greenway connection to the waterfront and include redeveloping the drainage canal into a major water feature.
14. Seek opportunities to create links to the waterfront and develop a waterfront park when options for the City-owned lands (6080 River Road) are being reviewed in the future.



Hollybridge Way drainage canal



Hollybridge Way pump station



Functional and aesthetic

7.6 Bridgeport Area Trails

Vision

The trails in Bridgeport will be developed to provide a series of trail loops to integrate this diverse community of industrial, residential and commercial areas and to provide maximum access to the North Arm of the Fraser River. The trails along the river will form part of a major waterfront parkway system that includes expanded park amenities accomodating local residents and employees.

Location

No.6 Road to the Moray Channel Bridges, Bridgeport Road to the waterfront.

Key Links

City Centre, Sea Island, the Vancouver International Airport, Tait School/ Park site, Bridgeport Trail (former CN rail right-of-way); future Shell Road Greenway and designated cycling route, Bath Slough Trail , East Richmond trails

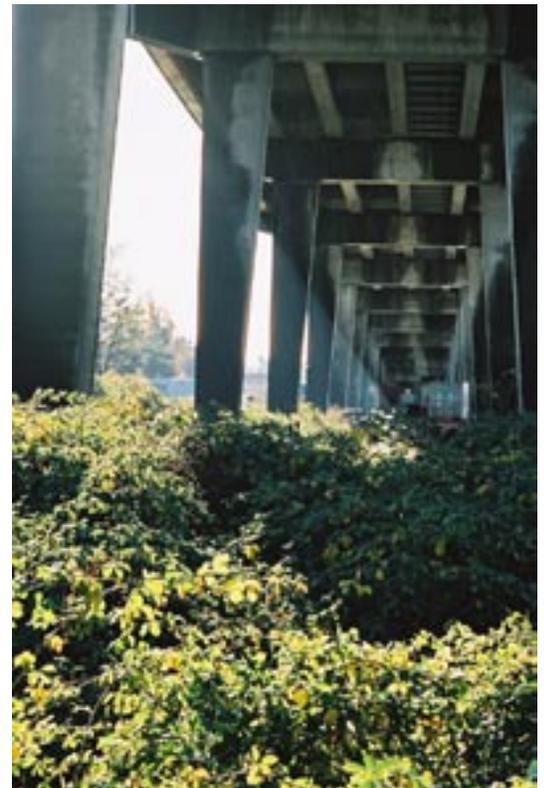
Other City and External Plans

This is a diverse area with the potential to undergo major changes in the future. The City anticipates a future time when the heavy industrial uses in the East Bridgeport area will change and the West Bridgeport area will become more urban and commercial/ tourist oriented. Redevelopment will provide the best opportunities to provide trails and waterfront access and amenities. The Bridgeport Area Plan calls for a waterfront park north of River Road and immediately east of No.4 Road. Further waterfront land acquisition in this area has been included as part of the City's DCC Acquisition Program. The Bridgeport Trail will be upgraded to form part of the designated cycling network in the City. This will connect directly to the Shell Road Greenway. There is also the potential that Light Rapid Transit from Vancouver to the International Airport may travel through this area. Future road construction includes the extension of Garden City Way to River Road.

Recommendations

Short Term

1. Improve public awareness of the designated route through the Richmond Plywood Industry site at No.6 Road (see East Richmond North Fraser Greenway).
2. Improve public awareness of trail opportunities by installing directional signage at the appropriate locations.
3. Investigate the potential use of the Knight Street Bridge r.o.w. as a trail.
4. Provide benches at the north end of the Bath Slough Trail.
5. Create staging areas at No.5 , Shell and No. 4 Road ends.
6. Connect Tait School/ Park site and the residential area to the waterfront by constructing a trail from Finalyson Road along the



Knight Street bridge



Bath Slough trail links to King George Park



No. 4 Road near Tait School



Dyke between Shell and No. 4 Road



River Road waterfront industrial use



Bridgepoint Market

west side of No.4 Road.

7. Create a recreational trail on top of the dyke from Shell Road to west of No.4 Road by adding amenities such as benches and signage.
8. Work with Transportation Planning to investigate the potential of a constructing crosswalk at the intersection of Bridgeport Road and the Bath Slough Trail.
9. Add the directional signage and maps as part of the Bridgeport Trail and designated cycling route upgrade.
10. Work with Transportation Planning to investigate the potential construction of a trail on the Ministry of Transportation and Highways (MoTH) right-of-way between Shell Road and St. Edwards Drive as a direct connection to the Oak Street Bridge and as a potential eco-corridor.

Ongoing / Long Term

11. Develop a trail on City owned property behind the residential area on Bird Street when redevelopment occurs. Connect this trail with the potential trail on the MoTH r.o.w. on the west side, Shell Road Greenway and on the east side, and connect it with the existing Bridgeport Industrial Park trail.
12. Allow for trail connections to the waterfront if the larger parcels in the East Richmond industrial area undergo redevelopment.
13. Consider opportunities to create a significant 'rail to trail' corridor to connect with the future Shell Road Greenway and the existing Bridgeport Trail (former CNR right-of-way) if the railway company discontinues services in the future.
14. Continue and connect the Bridgeport Trail at Van Horne Way to the waterfront via the Garden City Road extension.
15. Ensure continued public access along the waterfront in front of the former Bridgepoint Market site.
16. If redevelopment occurs west of Bridgepoint Market site, ensure maximum waterfront access and connections to No.3 Road, the Moray Channel Bridges, and to the City Centre waterfront.
17. Investigate the feasibility of a floating trail under the Moray Channel Bridge
18. As part of the waterfront and blueways program, consider pedestrian and cyclist ferries to Sea Island and Vancouver.
19. Ensure coordination with the Waterfront Development Strategy Master Plan for the waterfront areas.
20. As Mitchell Island redevelops, seek opportunities to maximize waterfront access.

7.7 No.7 Road Trail

Vision

The No.7 Road Greenway will form an important north-south route in East Richmond connecting the South Arm to the North Arm of the Fraser River and to destinations such as the No.7 Road Pier/Park and the developing Fraser Port Industrial lands. Key principles are that the No.7 Road right-of-way will form an integral part of a network of trails and cycling routes within the Fraser Port lands to ensure recreational opportunities for the Hamilton residents, the local employees, and other visitors; and that the industrial needs of the Port and the agricultural land owners will be respected.

Description

No. 7 Road is a narrow developed rural road from River Road to south of Westminster Highway with an overpass at Highway 91 and a signalled intersection at Westminster Highway. It is a low volume route that travels past agricultural farms and residential homes until it dead ends at the Granville Avenue right-of-way. A major drainage canal dominates the undeveloped No.7 Road r.o.w. with no further public access at this point. Views from the south looking north up the canal are quite spectacular. On the east side of the canal are large trees that have been designated an environmentally sensitive area on private property framing the canal. Major land owners on either side of the canal are Ecowaste Industries and the Fraser River Port Authority. At the south end of the canal the City owns undeveloped waterfront land and the dyke.

Important Links and Destinations

City owned park land at the No. 7 Road Pier Park, Westminster Highway cycling lane, the developing Fraser Port Industrial Park, the future Blundell Road cycling lanes and pedestrian walkways, the City owned waterfront park land and future connections to Riverport.

Other City or External Plans

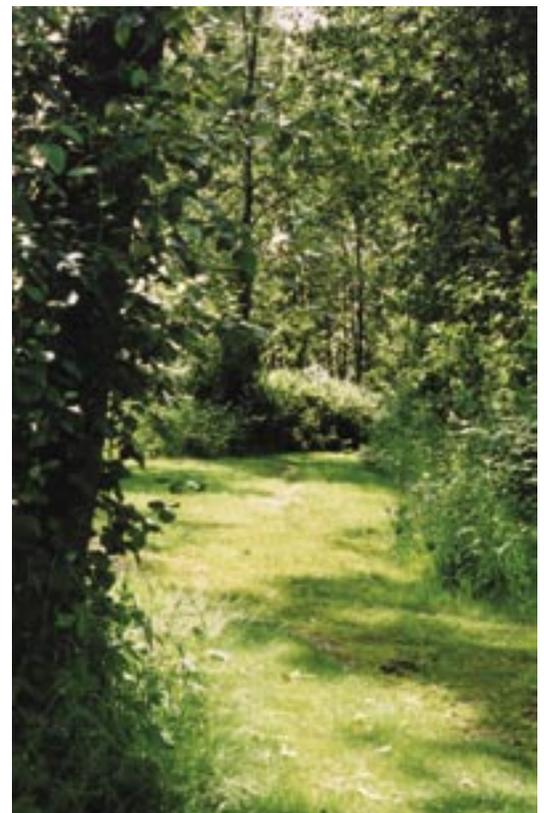
The Fraser River Port Authority is presently working with the City on the servicing agreements to allow for development of 600 acres of Federal lands into an industrial park. This will provide a significant link in the trails system that is presently missing. Ecowaste Industries has expressed different ideas over the years for the future use of their lands. To date nothing definitive has been decided. There are great opportunities to develop the waterfront at the south end of the No.7 Road canal into a park and link this to the Legacy Lands and Riverport area.



North Arm of Fraser River



Westminster Hwy. designated cycling route



No. 7 Road Pier/Park



No 7. Road Canal - Fraser Port



No. 7 Road Pier (former CNR barge loading pier)

Recommendations

Short Term

1. Continue to work with the Fraser River Port Authority to ensure that trail connections are planned for and constructed that will be part of the city-wide trails network and serve to provide more direct and safe access for residents in the Hamilton area to Riverport and the west side of Richmond. Refer to Fraser Lands Amenity Zone - Open Space Amenity Guidelines prepared by the Parks Department for more details.
2. Provide signage on the designated cycling path at the intersection of No.7 Road and Westminster Hwy. directing people to the No.7 Road Pier/ Park as a destination.
3. Develop park and trail plans for the waterfront land at the south end of No.7 Road.

Ongoing / Long Term

4. Negotiate for trail access along the No.7 Road canal as other major land owners potentially redevelop in the area.
5. As part of the waterfront and blueways program, investigate the potential of a pedestrian and cyclist ferry to Vancouver from the No. 7 Road Pier.
6. Ensure that all waterfront developments and plans are coordinated with the Waterfront Development Strategy.

7.8 East Richmond North Fraser River Greenway

Vision

The trails along the North Arm of the Fraser will eventually form a part of a major riverfront greenway linking the Hamilton community to the Bridgeport area. The key principles will be promoting safe public waterfront access, protecting environmentally sensitive areas, and increasing awareness of the working river while balancing the needs of industry, agriculture, recreation, and flood protection.

Location

Approximately 5 kilometers from No.6 Road to the River Road turnoff.

Important Links and Key Destinations

The No.7 Road Pier/Park; future No.7 Road Trail; North East Bog Forest, Hamilton area trails, the Ministry of Transportation and Highways Regional bicycle routes to the east; the No.9 Road fishing bar; the open river vistas as well as mature tree stands along River Road itself; and trails within the Bridgeport area.

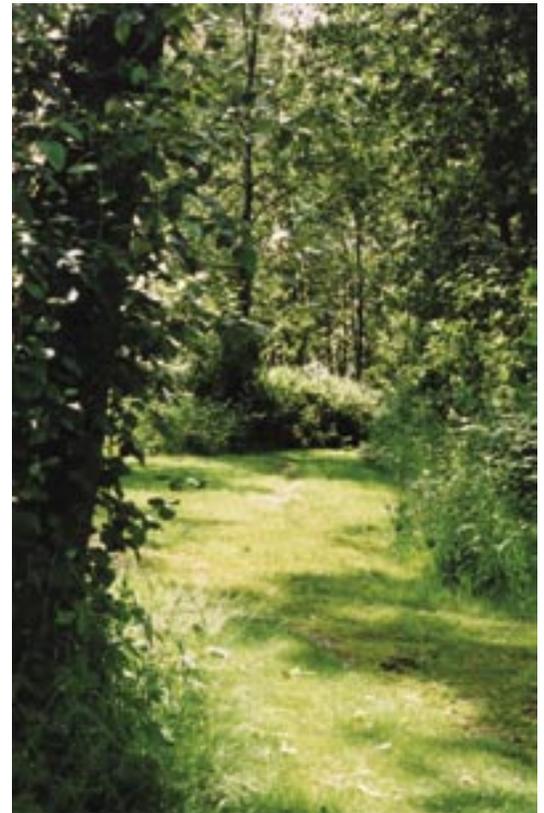
Other City and External Plans

River Road and No. 6 Road north of Westminster Highway are part of the approved Richmond Cycling Network. Upgrades are considered long term. The City is undertaking a Flood Protection and Management Strategy for the island. The results of this strategy may impact the width and elevation of the dykes which in turn could impact the trails and amenities along the waterfront. While the City owns much of the upland property and riparian rights along this stretch, the North Fraser Port Authority administers the water lots including those that are filled in. The Port mandate is to generate revenue from these properties. Richmond City Council has requested that staff work with the North Fraser Port Authority to develop a co-operative and integrated plan that balances the needs of agriculture, recreation and industry along the river in the short and long term.

Recommendations

Short Term

1. Provide waterfront pedestrian access close to the Hamilton residential area by constructing a 250 meter trail along the north edge of River Road from the Queen's Canal pump station/staging area to Westminster Hwy (see Hamilton trails).
2. Investigate the potential to construct small pullouts and rest areas at the pump stations and road ends.
3. Provide a walking loop for employees at the industrial park by constructing a trail on the south side of River Road between Patrick Street and Savage Road.



No. 7 Road Pier / Park



North Arm Fraser River



No. 9 Road Fishing Bar



River Road industrial use



CNR swing bridge



Public access through Richmond Plywood

4. Improve public awareness of the pedestrian and cycling right-of-way through the Richmond Plywood Industry site by redesigning the entrance at No.6 Road and working with the owner to improve ongoing safety and maintenance of the trail.
5. Investigate the potential of using the Vulcan Way undeveloped r.o.w. east of No.6 Road as a trail to connect with Savage Road and back up to River Road.

Ongoing / Long Term

6. Establish a short and long term land use plan in conjunction with the Port North Fraser to ensure the balance of recreational, industrial, environmental, and flood protection needs are met along the North Arm of the Fraser.
7. Once a land use plan for the North Arm has been developed, construct boardwalks and viewing piers where appropriate.
8. Investigate the potential of a pedestrian and cyclist water crossing to Vancouver from the No. 7 Road Pier.
9. Investigate the use of the CNR swing bridge as trail access to Burnaby.
10. Coordinate all work with the City's Waterfront Development Strategy.

7.9 Hamilton Area Trails

Vision

The trails will provide a series of continuous trail loops to integrate this small and vibrant community and provide safe access to the existing open spaces and community amenities, and the two river waterfronts. The key principles will be safety, clear delineation of the trails, and the creation of waterfront staging areas while respecting the active waterfront use along the south side of the Fraser River.

Location

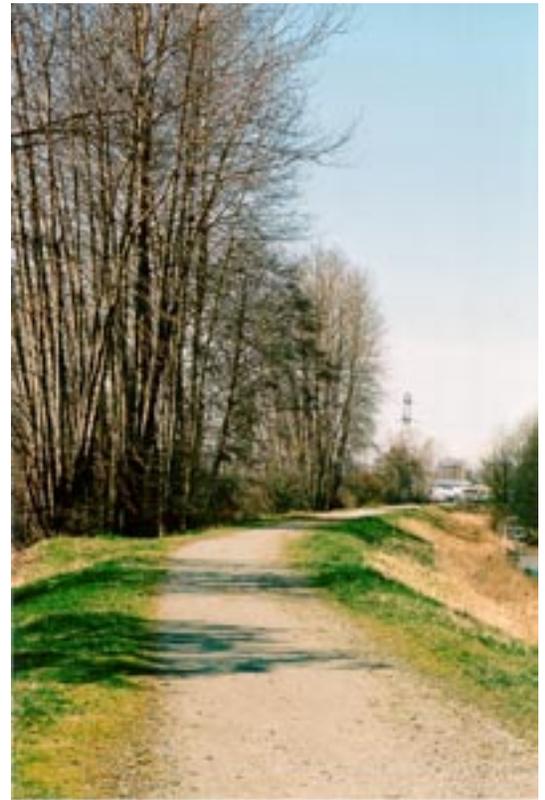
No.9 Road to Boundary Road along the south side, and River Road to approximately the North East Bog Forest along the north side of the Fraser River.

Important Links and Destinations

McLean Park and Hamilton School/Park, Westminster Hwy. designated cycling route (under development); the Ministry of Transportation and Highways regional bicycle routes; Graybar marina area; the Fraser Port lands (under development); Riverport Entertainment Complex, Queensborough, New Westminster; North East Bog Forest (presently not accessible); the GVRD administered Don and Lion Islands; and the existing waterfront trails and roadways along the South and North Arms of the Fraser River.

Other City and External Plans

Westminster Highway, Boundary Road and River Road are considered part of the Cycling Network that is being developed as budgets allow. Sidewalks are required for new developments along Westminster Highway which will make the neighbourhood more pedestrian friendly. TransLink considers this section of Westminster Hwy. part of the Major Regional Road Network and improvements will be cost-shared. If the residential area on the east side of the highway becomes redeveloped then walkways and sidewalks will be incorporated into this area. The Fraser Port lands are currently under development. The City is working with the Port to ensure that trails and roadways provide east-west connections and access to the waterfront. This will allow residents in the Hamilton area a safer and more direct access to Riverport and the west side of Richmond. The City has ongoing discussions about the need to flood proof the island which may impact the elevation of the dyke and the drainage system. This may provide opportunities for trails in the future. B.C. Packers (BCpl.1999) owns waterfront property along the South Arm which is presently under remediation and will be available for sale in the near future.



Hamilton Trails



Pocket Park Fraserwood Industrial Park



Dyke east of No. 9 Road Lafarge Concrete in plant in the background



River Road



Dyke ends at the Tree Island Ltd. site



Boundary Road / New Westminster

Recommendations

Short Term

1. Coordinate with Transportation Planning on the functional design of a multi-purpose cycling route and pedestrian pathway along Westminster Highway (south of Hwy. 91).
2. Investigate the construction of a 250 meter trail along the north edge of River Road creating a loop that connects the Queen's Canal trail and pump station staging area back to Westminster Highway.
3. Provide picnic tables at the Queen's Canal pump station staging area.
4. Provide trail identification and directional signage on all existing trails throughout the Hamilton area.
5. Replace the gates on the dyke east of No.9 Road and the Graybar area with trail bollards and identification signs.
6. Develop a small waterfront staging area at the Hamilton road end.
7. Construct a trail on the north side of Dyke Road on the boulevard constructed as a result of a ditch infill east of Queens Road.
8. Construct a trail in front of Sovereign Yacht parking lot to connect to the existing off-road dyke trail to Boundary Road.

Medium Term

9. To create a north-south link along Boundary Road work with the City of New Westminster to potentially partner in developing a trail along the east side of the Boundary Road canal.
10. Coordinate with the City of New Westminster to create a staging area in their future park at the Boundary Road/Dyke Road intersection that will provide maps and information about both municipalities (in 3 to 5 years).
11. Work with the GVRD Parks Department to provide interpretation about the two conservation areas, Don and Lion Islands. The GVRD does not presently wish to promote public access to these islands. If in the future this changes, consider working with the GVRD and the Graybar Marina to provide canoe/kayak launching opportunities.
12. Investigate the potential of utilizing the Thompson Rd. r.o.w. and negotiate with Tree Island Steel to provide access to complete a trail loop.
13. Work with Ministry of Transportation and Highways to improve trail maintenance and signage to bridges.

Ongoing / Long Term

14. Review the potential of providing public access within the North East Bog Forest and the creation of this as a key destination in the area.

15. Consult with the Agricultural Advisory Committee for the potential use of the Gilley Road r.o.w. and other undeveloped right-of-ways as a trail.
16. Construct a trail along the south side of the old Westminster Highway (north of Hwy. 91) to link residents to the Hwy. 91 underpass.
17. Consider acquisition of waterfront property and environmentally sensitive areas along the south side and the north side as opportunities arise.
18. Negotiate with new developments to provide public waterfront amenities and upland trails to link to the waterfront.
19. Co-ordinate with other Engineering and Public Works to utilize opportunities provided by ditch infills to develop trails.
20. Work with Transportation Planning and TransLink as Westminster Hwy. is upgraded to include pedestrian improvements as part of the transportation network.



Shelter Island marina



Dyke Trail to Boundary Road

7.10 East Richmond/Fraser Lands/Riverport Area Trails

Vision

The trails and greenways will become the critical links that provide access to and through Riverport, (a regional destination recreational/entertainment area), the future Fraser River Port industrial area, and a future waterfront linear park that will link the west and east sides of Highway 99. The key principles will be expanding the quality of design and development in the area ensuring connections to the Hamilton residential area, and balancing the needs of water-based industry, environmentally sensitive areas, agricultural uses, and the recreational access to the waterfront.

Location

Number 5 Road to No.9 Road and south of Westminster Highway .

Key Links and Destinations

Riverport Entertainment Complex, Ironwood Mall, numerous private golf courses, Richmond Tourism Centre, the future Fraser River Port industrial land development, the future waterfront Legacy Lands park, City owned undeveloped 20 acres site, the future No. 7 Road Trail, the future waterfront park and a dyke trail north of Williams Road end, the designated bike lane on Westminster Highway, the Hamilton residential area to the east, and the South Dyke trail system to the west.

Other City and External Plans

This is a unique complex area that will be undergoing change in the future. The Fraser River Port Authority is developing their 600 acres with a deep sea port facility and large upland industrial sites; the City owned lands in the Riverport area are presently not programmed and developed; the recreational potential and attributes of the waterfront have yet to be realized; and Lafarge Concrete Ltd. has expanded their operations and will remain a major presence on the waterfront. Ecowaste Industries have shown interest in redevelopment but there are no definitive plans at this point. These are large parcels of land that have for many years created a block to providing a continuous trail system through the area, specifically along the waterfront.

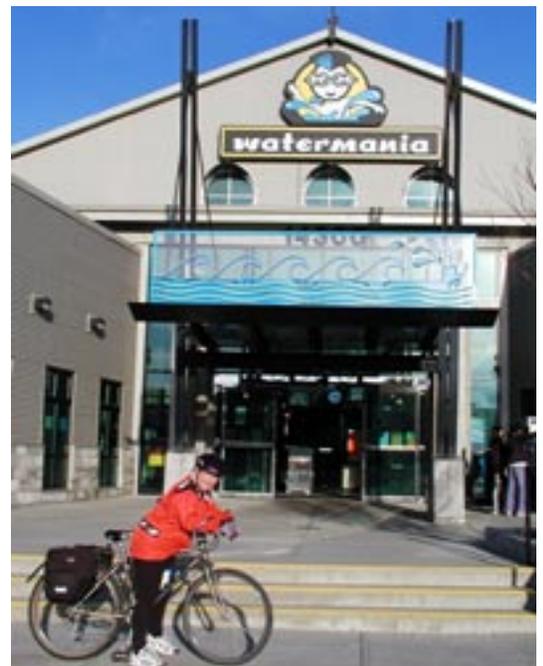
The City is presently working with the Fraser River Port Authority in developing road and servicing agreements. Blundell Road will have a designated bike lane. In addition the City produced a working document, “*Open Space Amenity Guidelines Fraser Lands Port Amenity Zone*”, to use for discussion with the Port about the trails and park needs for the area. Nelson Road is being upgraded in two phases. The second phase will allow for pedestrian trails. The GVRD Parks Department is working with the City on the concept of an aqua ferry at the end of No.5 Road to connect Ladner and Richmond. Translink operates a shuttle bus service through the tunnel for cyclists and pedestrians.



No. 7 Road Canal



Waterfront east of No. 7 Road



Entertainment Centre / Watermania



Canal and bridge at BC Ferries maintenance yard (No. 5 Road pump station)



No. 5 Road ditch in-fill



South Dyke at No. 5 Road

Recommendations

Short Term

1. Continue working with the Fraser River Port Authority on the trail and open space plan for the Fraser Port lands.
2. Work with Transportation Planning and Engineering to design Nelson Road and Blundell Road to include attractive and safe pedestrian trails.
3. Begin the design process for the waterfront public lands east of the south end of No. 7 Road Canal. Design a series of boardwalks and lookouts as per the Open Space Amenity Guidelines Fraser Port Amenity Zone 2002.
4. Develop a trail along the Williams Road undeveloped r.o.w. between Sidaway Road and Triangle Road.
5. Negotiate with Transportation Planning and Ministry of Transportation and Highways to allow cycling access from Rice Mill Road through their property to Steveston Highway, thereby, passing the Steveston Highway interchange.
6. Negotiate with Crown Provincial BC Ferry Corp to allow public access along the City canal from Rice Mill Road to the waterfront.
7. Construct a trail on the east side of No. 5 Road connecting Dyke Road to Rice Mill Road.
8. Continue working with the GVRD to review the potential of a pedestrian and cyclist ferry service Ladner.
9. Upgrade the City owned waterfront lands with trail amenities, and formalize the trail and parking in front of Woodward's Landing.

Ongoing / Long Term

10. Ensure that trail development is part of any proposed road development along the Shell Road r.o.w.
11. Work with Transportation Planning to review Sidaway Road, a designated cycling route, and determine if there is potential for pedestrian pathways.
12. Construct a cycling/pedestrian trail along the north side of Highway 91 to connect to the Nature Park.
13. If development of the larger parcels of land such as Ecowaste Industries occur in the future consider utilizing the existing road r.o.w.'s such as Francis Road and Granville Avenue for trail access.
14. Negotiate access across the CNR rail corridor to connect trails along the future waterfront Legacy Lands park to the future trail system in the Fraser Port Lands.
15. Prepare a plan and construct a park on the city owned waterfront Legacy Lands. Coordinate the design with the adjacent potential residential waterfront development at Steveston Hwy.
16. Construct a staging area and pier at the end of Williams Road.

17. Negotiate with the Ministry of Transportation and Highways for a trail in their right-of-way on the east side on Hwy. 99.
18. Ensure that there are trail connections to the waterfront when the City owned lands and privately held uplands are redeveloped.
19. Create a staging area at the end of Nelson Road and develop the waterfront area as appropriate, with boardwalks and lookout decks.
20. Construct a pier at the end of Steveston Hwy. Also a potential pedestrian and cyclist ferry stop in the future.

7.11 Shell Road Greenway / Horseshoe Slough Trail

Vision

This mid-island greenway will be developed as a major natural and recreational green corridor building upon the existing canals and environmentally sensitive areas that the trail links to and travels through. Environmental protection and habitat enhancement while ensuring functional and creative surface water management will be the key principles for designing this greenways.

Location

From Dyke Road along Horseshoe Slough approximately 8 kilometers to the North Arm of the Fraser River.

Important Links and Key Destinations

Horseshoe Slough Trail, South Dyke Trail, Lee Slough Park, Ironwood Mall, Riverside Industrial Park, Thomas Kidd Elementary School, Williams Road designated bike lanes, Francis Road Trail, Nature Park, Bridgeport Trail, Fraser River North Arm.

Other City and External Plans

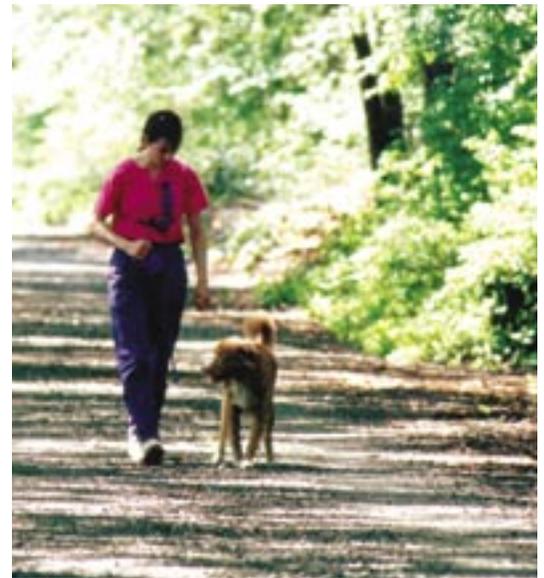
Shell Road is recognized as a major cycling route in the approved Richmond Cycling Network Plan and recommendations for implementation are within the Engineering 5 Year 2002-2006 Capital Plan. Shell Road carries a large capacity drainage canal that is presently open in many areas. Engineering and Public Works are investigating drainage concerns in the southern section and will be looking at options for improving upon the surface water management in the area. The Department of Fisheries and Oceans are also presently looking at regulatory issues dealing with fish habitat and the drainage canals in Richmond. The outcome of these different studies have the potential to impact the design and function of the canal/ drainage system along Shell Road.

In addition, Shell Road is adjacent to the CNR rail corridor. Discussions are ensuing about the medium to long term continued use of this corridor for rail transportation. This opens up interesting potential for land uses that include the 'rail to trail' concept. GVRD considers Shell Road part of the Regional Greenways Network.

Recommendations:

Short Term

1. Work with Transportation Planning to co-ordinate the functional design of both a cycling route and a pedestrian trail within the Shell Road right-of-way.
2. Construct safe off-road connections into the Nature Park along the south edge of the park.
3. Asphalt the trail from Hammersmith Court to Steveston Highway along east side of road.
4. Improve public recognition and awareness of the trails by adding the appropriate signage and trail furnishings.



Shell Road Trail between Westminster Hwy. and Athabasca Drive



Horseshoe Slough Trail



Link to Nature Park



North of Bridgeport Road



North of Cambie Road



North of Athabasca Drive



North of Steveston Hwy.

5. Co-ordinate with Engineering and Public Works on an overall integrated strategy for the drainage/storm water management, recreation and environmental needs of the area with specific attention to Horseshoe Slough.
6. Create a staging area on the dyke on the north end of Shell Road

Medium Term

7. Construct a multi-use cycling/pedestrian trail with landscaping along the canal from Steveston Highway to Athabasca Drive to provide safe access for local use to Thomas Kidd Elementary School and as part of the city-wide trail network (anticipated construction 2005/2006).
8. Construct a multi-use cycling/pedestrian trail from Caithcart Road to Bridgeport Road and north linking to the existing east-west Bridgeport Trail (anticipated in 2007).
9. Develop an environmental strategy and guidelines for the greening of this major corridor.

Ongoing / Long Term

10. Investigate the potential to construct a trail on the Ministry of Highways and Transportation right-of-way between Shell Road and St. Edwards Drive as a direct connection to the Oak Street Bridge.
11. Negotiate with the Ministry of Transportation and Highways to construct a trail in their r.o.w. from Odlin Road to Shell Road.
12. Ensure that the Shell Road north end staging area is developed as part of the larger Waterfront Development Strategy for this area.
13. Consider utilizing the undeveloped Shell Road right-of-way at the south end to construct a direct trail to Dyke Road.
14. Ensure that trail development is part of any new road development that may be proposed in the south end of the Shell Road r.o.w. to service industrial development in the area.
15. Consider opportunities to expand upon the Shell Road Greenways and to create a very significant environmental corridor running through the city when the Canadian National Railway discontinues rail services.
16. Consider trail connections from the Shell Road Greenway to the City Centre through the National Defense Canada lands when they are redeveloped.
17. Consider acquisition of portions of the dyke not presently owned by the City.

7.12 Gilmore Area Trails

Vision

The trails in the Gilmore Area will allow people to experience the tranquil rural environment, the unique slough system, and provide continuous waterfront access. The key principles in this predominately agricultural area include ensuring a balance between the environmental sensitivity of the slough environments and the agricultural uses with public recreational use; maximizing the waterfront access; and providing a safe pedestrian environment along the roadways.

Location

This area is from No.2 Road to Shell Road and Dyke Road to Steveston Highway.

Key Links and Destinations

The Steveston Greenways, City owned 50 acre Tree Nursery site, Finn Road Trail, No.3 Road Sports Fishing Pier, Garden City Road e.s.a. and waterfront, Finn Slough, Woodward's Landing (Girl Guide site), Horseshoe Slough Trail, Shell Road Greenway, Riverside Industrial Park, South Dyke Trail.

Other City and External Plans

The GVRD is considering a pedestrian/cyclist ferry connection from Woodward's Landing to Ladner as part of the Regional Greenways network. Engineering and Public Works is reviewing the storm water management in the Shellmont area to the north and the drainage function of Horseshoe Slough. Ownership of the Finn Slough area is under review. The City is developing an Agricultural Viability Strategy and establishing an Agricultural Advisory Committee.

Recommendations

Short Term

1. Clean up and enhance the former truck storage area and construct a staging area with parking in the City owned lands at the south foot of Garden City Road.
2. Work closely with the Engineering Department to balance the environmental, recreational, and storm water management of Horseshoe Slough.
3. Provide a vehicular turnaround and parking area at the west end of Dyke Road (west of No.4 Road).
4. Develop a Park Plan for the e.s.a and waterfront at the south foot of Garden City Road.



Views from Dyke Road



No. 4 Road and Dyke Road



Dyke Road by Finn Slough

Medium Term

5. Construct a path along No.4 Road from Steveston Highway to Dyke Road.
6. Investigate the recreational potential of the waterways in the sloughes.
7. Investigate different options for creating a pedestrian trail along the narrow stretches of Dyke Road.

Ongoing / Long Term

8. Continue to work with the GVRD on the potential pedestrian and cyclist ferry crossing to Ladner.
9. Consider providing public access along the south edge of Woodward's Landing to link to Horseshoe Slough and the Dyke.
10. When issues over ownership of Finn Slough are resolved, consider providing access out to Whitworth Island.
11. If the industrial site at the foot of Garden City Road redevelops, re-establish public access on the dyke to maintain continuous waterfront access.
12. Utilize undeveloped road right-of-ways for trail access e.g. Montieth Road.
13. Consult with the Agricultural Advisory Committee when developing trails within the Agricultural Land Reserve.

7.13 Sea Island Area Trails

Vision

The Sea Island trails will provide recreational opportunities for the people living and working on Sea Island to access the waterfront, unique natural and airport resources, and will provide direct access to the many transportation corridors to Vancouver and Lulu Island. Key principles will include working in partnerships with the Vancouver International Airport Authority and other key agencies operating on the Island; co-ordinating the development and implementation of recreational plans between agencies; creating a continuous vibrant waterfront trail system; and balancing environmental sensitivities with recreational needs.

Location

Sea Island from Richmond by the No.2 Road, Dinsmore and Moray Channel Bridges, and from Vancouver by the Arthur Laing Bridge.

Key Links and Destinations

Burkeville residential community, the Vancouver International Airport, South Airport Terminal, McDonald Beach Park and Boat Launch (26.1 acres), Flight Path Park, North Fraser Port Authority head office, Sea Island Conservation Area, Iona Beach Regional Park and direct access via bridges to Vancouver, Richmond City Centre and the Middle Arm dyke trail system.

Other City and External Plans

The majority of Sea Island is owned by the Federal Government and administered through Vancouver International Airport Authority who have developed a Parks and Recreation Plan for the Island. A number of cycling paths have recently been constructed that link with the new Moray Channel Bridges. The Authority is in the process of developing a new Land Use Plan. The North Fraser Port Authority developed a Port North Fraser Land Use Plan in 2000 that outlines policies and land use designations along the North and Middle Arm of the Fraser River. Environment Canada, through the Canadian Wildlife Services (CWS), administers the Sea Island Conservation Area (345 acres) at the north end of the Island. The GVRD administers Iona Island Park (319.8 acres) and is considering expanding its park holdings in the future. South of Sea Island, in the mouth of the Middle Arm, is a 72 acre island that is owned by the Nature Conservancy of Canada and protected as a nature reserve with limited access for research purposes.



Vancouver International Airport



Bike routes



Sea Island heritage



Mc Donald Beach



Iona Beach



Burkeville neighbourhood



Flight Path Park (Russ Baker Way)

Recommendations

Short Term

1. Work with the Airport Authority to develop a coordinated signage system that provides direction to the various key destinations on Sea Island, to Richmond City Centre and the Middle Arm Dyke Trails.
2. Work with the Airport Authority, the North Fraser Port Authority, and Canadian Wildlife Services to develop a coordinated interpretation program.
3. Develop a Neighbourhood Green Links Plan to link the Burkeville residential area to the waterfront and the trail system.

Medium Term

4. Review and prepare a new McDonald Beach Park Plan.

Ongoing / Long Term

5. Work with the Airport Authority on the development of their waterfront along the Middle Arm to seek opportunities that would complement the recreational programming of the river and the redevelopment of the City Centre waterfront.
6. Consider pedestrian and cycling ferry connections to Vancouver and to the West Bridgeport area in the future.

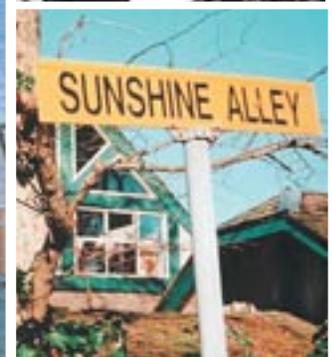
Part VI

8.0 Design Ideas

Trails have become so much more than just laying a path down. These linear corridors have become an integral part of our urban environment. There are so many opportunities to make the trails an interesting and memorable experience. This section introduces just a few ideas to stimulate the imagination and show how attention to details can evoke a sense of identity, character and uniqueness to an area.

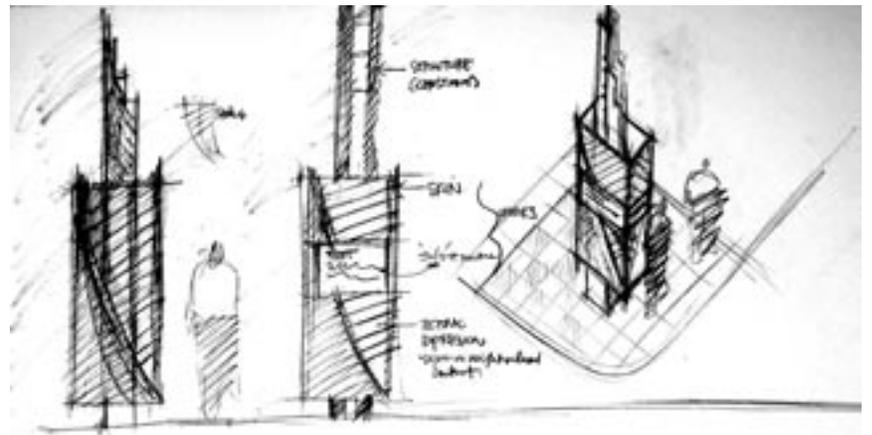
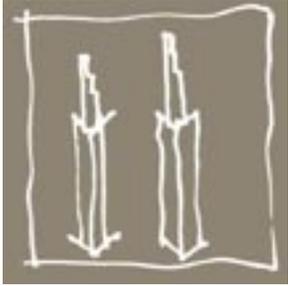


Signposts and Signage

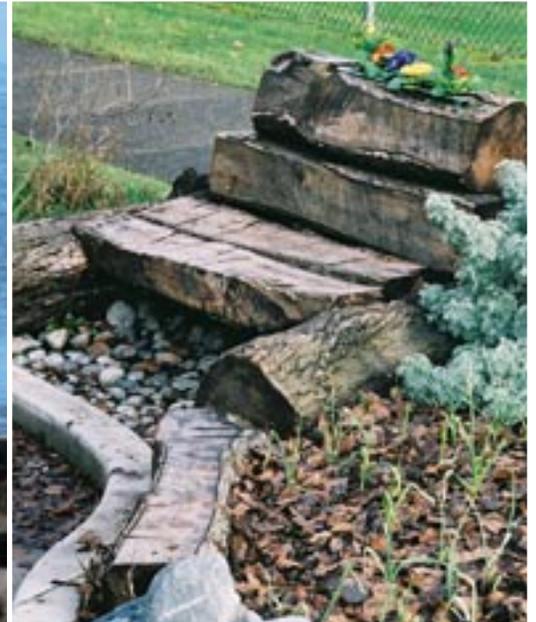
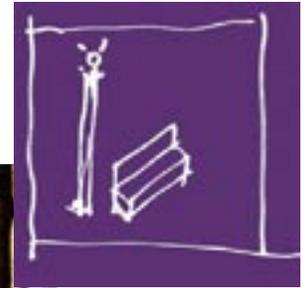


Adding new signs to an existing streetscape is a challenge that needs to be carefully thought out. Any sign programs should be comprehensive and include signage for trails, recreations and community facilities, historic sites, parks and bicycle routes.

Gates



Furnishing



The Captain's Chair, above, allows the users to view over the rail height prescribed by the Building Code.



Bridges



Ground plane



Rail and Trail Corridors

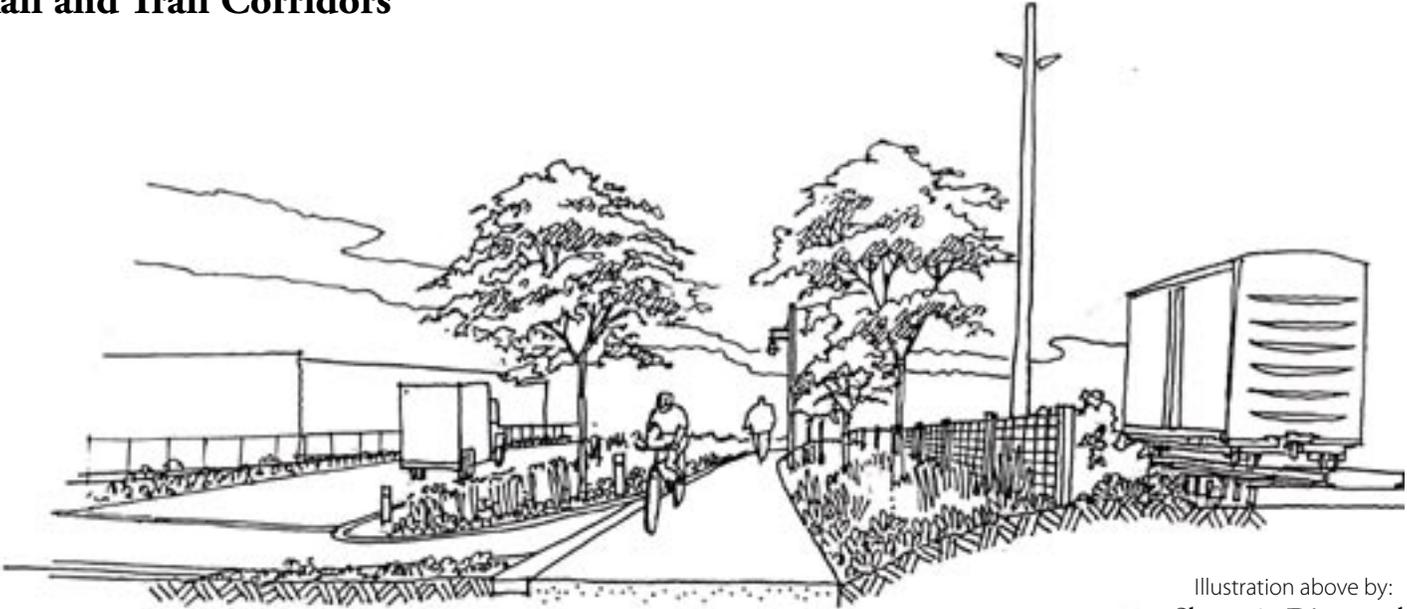
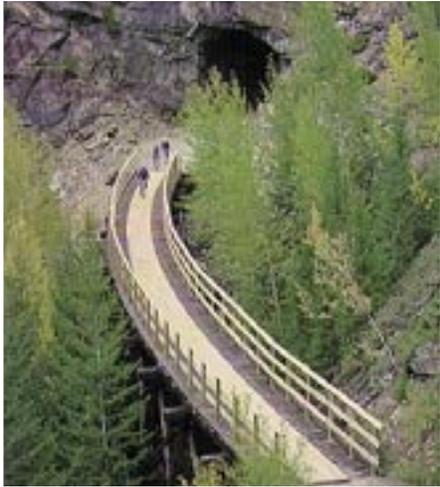


Illustration above by:
Sharp & Diamond
Landscape, Architecture and Planning





Part VII

9.0 Implementation Plan

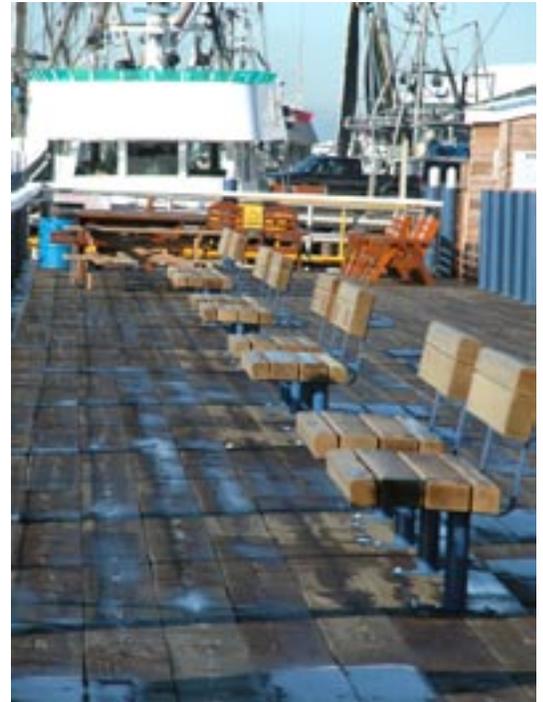
9.1 Funding: Acquisition, Development and Maintenance

To try to acquire and develop the complete trail system with all the desired amenities at one time will be extremely expensive and almost impossible especially as some of the desired trail routes are long term proposals on lands that may not yet be available. The City of Richmond has been fortunate in that the dykes built for flood protection and the safety of the community have given us an excellent starting point by providing the foundation for developing the city-wide waterfront trail system.

9.1.1 Funding Sources

The existing trail system including designated cycling routes, expanded sidewalks and boulevards, and walkways has been acquired and developed in the following ways:

- Council approval of City Capital Programs funded through Development Cost Charges . Council has generally approved an annual Trails Program of \$200-250,000 based on recommendations from the 1996 Sports Task Force. (West Dyke and South Dyke Trails)
- Property dedication to the City and construction of a trail or walkway by private developers negotiated as a requirement during the rezoning and development permit process. (Imperial Landing waterfront trails)
- Public rights-of-ways registered on private property negotiated as a requirement during the rezoning and development process. (Dover Crossing, South Cove)
- Sidewalk, ornamental lighting and boulevard improvements through the Neighbourhood Improvement Charges applied during subdivision (Saba/Buswell- City Centre)
- Partnerships with other agencies, community groups and private owners requiring some matching City Capital funding (Steveston Harbour Authority boardwalk, ICBC shared funding for Shell Road cycling path)
- Coordination with other City initiated projects resulting in an overall cost savings for the City. (Hollybridge Way pump station/staging area)
- Neighbourhood Improvement Charge which focuses on ditch infills and sidewalks cost shared with the residents.



Partnership with Steveston Harbour Authority



Working with the development industry



Partners for Beautification

9.1.2 Maintenance Services

The ongoing maintenance of the city-wide trails, designated cycling routes, and city owned walkways is the primarily responsibility of the City. Other maintenance is provided in following ways:

- Maintenance of public right-of-ways on private property is negotiated during the development permit process. The City establishes partnership with private owners whereby they are responsible for the soft landscaping and the City maintains the hard surfaces. This ensures public access through new developments at a minimal cost to the City. Examples can be found at Dover Crossing, Southcove, and Imperial Landing.
- The City maintains all sidewalks on City property. With the new Boulevard Maintenance By-law adjacent property owners are responsible for the soft landscaping e.g. cutting the grass on the boulevard. Street trees are the exception and are maintained by the City.
- The City maintains all pathways within parks. To lower maintenance costs and to improve accessibility, the City has adopted a new standard of paving newly constructed pathways and has a program to pave older gravel pathways.
- Partnerships for Beautification: Adopt-a-Trail/Street/Cul-de-sac Program volunteers provide litter pickup, weeding of planted areas, beach cleanup, removal of purple loosestrife and graffiti removal.

9.1.3 Applied Costs

The costs applied to both maintaining and constructing the trail system has been based on the traditional rustic type of trail. In recent years, the trails system has grown to include more urban style infrastructure and amenities. This is a trend that will continue especially with the new Trails Strategy that looks at the whole city including established neighbourhood areas as part of an integrated and interconnected network of community links. As well, through the Waterfront Development Strategy a number of character areas along the waterfront have been identified as areas that may be developed to a higher standard reflecting changing upland uses.

The annual operation cost of maintaining trails is currently \$500 per acre. This is presently an averaged cost with the more popular city-wide urban style trails costing \$5 - \$10,000 per acre.

This reflects a standard of maintenance that was established in the mid 1980's that includes:

- brush cutting
- flail mowing
- vandalism removal

- emergency maintenance for safety
- benches, tables, signs, fences, and platforms
- minimal vegetation control
- washrooms
- trail resurfacing

As more special character areas are being developed in the City that have a higher standard and complexity of material and amenities, this average cost for annual maintenance will rise. The standard that was developed in the 1980's will need to be reviewed and the annual operational budget will need to be adjusted to reflect the new standards.

The costs of construction reflect the industry standard at the time of construction. The annual budget of \$200-250,000 towards capital projects has allowed the City to incrementally add to the trail system building up the network over a number of years.

This budget has been used to build more than just the three to four meter wide trails. It has included the development of parking lots, seating areas, retaining walls, interpretation and directional signage and in some areas the base development of associated land that in essence forms a waterfront park. The costs of building the rustic trail and adjacent land is on average \$7,000 per acre. The cost of building a higher standard of urban waterfront trail with special features and amenities is more in the range of \$100,000 to \$350,000 per acre.



Garden City Road multi-use trail

9.1.4 Magnitude of Costs

It is not feasible to give precise costs for building out the whole Trail System until more detailed design work is completed on the many proposed projects.

An approximated cost is given here based on costs calculated for the 2001/2002 Development Cost Charge Program (projected build out to the year 2021). These costs reflect the building of the city-wide trail system and does not include land acquisition, the building of the neighbourhood links nor other improvements necessary for creating a walkable city.

The cost projected for city-wide trails in the 2021 DCC Program is approximately \$13,360,000 or \$668,000 annually. This cost is being presented only as a starting point to understanding the magnitude of developing a comprehensive trail network. Add to this the building of neighbourhood routes and other pedestrian improvements the costs will be substantially higher.

Recommendations:

Short Term

1. Establish a 10 year Implementation Program with a priority list of projects and associated costs.
2. Consider a Trails Capital budget approach that allots 25% of the budget towards Neighbourhood Green Links improvements.

Ongoing

3. Encourage more Partners for Beautification to assist in the maintenance and the implementation of projects.
4. Work with the developers adjacent to city-wide trails and greenways to ensure the quality of development, setbacks, and buffers are constructed in a manner that meets the City and the private owners needs.
5. Continue to partner with private owners to cost share the maintenance of public right-of-ways through private properties.
6. Continue to work with the development industry to assist in building up the network of trails by negotiating public access through private developments as part of the rezoning process.
7. Work with other City Departments to establish priority areas for sidewalk improvements, traffic calming measures as part of developing neighbourhood Green Links.
8. Review with other City departments their Capital Budget Program on an annual basis to seek potential opportunities for cost savings by coordinating construction projects.
9. Seek grants and partnerships with other agencies.
10. Review the level of maintenance standards and the annual operational budget for the variety of trails and the increased number and quality of amenities that are being developed as the City grows and changes.



Dyke Road and No. 5 Road - Coordinating capital projects with other departments

9.2 Implementation Strategy

There are many factors that can influence the timing and priority in implementing the trails strategy. These include such things as:

- available funding
- opportunities for partnerships
- new developments
- availability of land
- negotiations with other impacted agencies or land owners,
- public priority
- coordination with other city initiatives

The projects will have a range from small but having a large impact such as adding simple directional signage to negotiating access through large private properties that presently impact the continuity of the trail system to constructing new sections of trail with boardwalks and piers.

The next step as outlined in a previous section is to develop a 10 year Implementation Plan that will identify what the priorities are, what is reasonable to achieve, who will be responsible and the funding implications.

Listed below is a summary of all the short-term and ongoing recommendations. This list includes recommendations from the City-wide Trails Plan section and other section of this Strategy. This list forms a Work Program for Trails over the next three years.

Summary of Proposed Work Program 2003 - 2006

Short Term / Ongoing Recommendations

Timeline Definitions:	
SHORT Term: Immediate to 3 years / ONGOING : Immediate to long term(5+ years)	TIMELINE
Strategic Planning	
1. Adopt the City-wide Trail/Greenways Plan and recommendations outlined in this strategy	Short
2. Develop an Implementation Plan with priorities and budgeting for the next 10 years.	Short
3. Adopt the Greenway routes as shown on the City Centre Area Trails map.	Short
4. Determine high priority neighbourhood areas within City Centre and West Cambie and develop Neighbourhood Green Links plans for them.	Short
5. Integrate the Trail Strategy into the overall PRCS Master Plan.	Short
6. Identify trails together with natural areas, blueways, formal parks, undeveloped rights-of-ways, vacant lands, POPA's, and street boulevards as part of an overall open space network for the City in the PRCS Master Plan.	Short
7. Include a new standard of constructing continuous pathways within all City parks in the PRCS Plan to encouraging walking in neighbourhoods.	Short
8. Establish a list of potential public art projects for implementation along the trails.	Short
9. Adopt the wayfinding language of gates, bridges, ground plane, signs, trees, and site furnishings and incorporate it into new developments and along proposed Green Links in established neighbourhoods as funding allows.	Short
10. Coordinate with the Waterfront Development Strategic and Mobility Strategic Committees.	Short
11. Coordinate trail planning and development along the waterfront with the Master Plans being developed for the 10 Character Zones identified in the Waterfront Strategy.	Ongoing
12. Review the standards applied to development and maintenance of higher profile areas such as the waterfront and City Centre.	Ongoing
13. Coordinate the implementation and phasing of trails with the other priorities identified within the PRCS Master Plan for the 10 Year Capital Budget Program.	Ongoing
14. Continue with the plan to acquire identified environmentally sensitive areas.	Ongoing
15. Develop an implementation phasing plan to incorporate new walkway standards.	Ongoing

16. Identify trails together with natural areas, formal parks, undeveloped rights-of-ways, vacant lands, Privately owned/Publicly accessible Open Space (POPAS) and street boulevards as part of an overall open space network for the City in the PRCS Master Plan.	Short
17. Co-ordinate with Engineering and Public Works on an overall integrated strategy for the drainage/storm water management, recreation and environmental needs for the area with specific attention to Horseshoe Slough.	Short
Design Projects	
1. Review the park plan for Garry Point Park and consider developing a tree planting plan to provide shade and to be able to better respond to community requests for e.g. cherry tree planting and memorial trees.	Short
28. Develop Ferry Lane as a trail link between Chatham Road and Moncton Street and provide historic interpretation.	Short
3. Develop a master plan for the City owned land along the South Dyke between Gilbert and No.3 Road.	Short
4. Determine best route and location for the Interurban Tram and barn.	Short
5. Include the existing waterfront and dyke trails and River Road into the planning and design process for the Terra Nova North West Quadrant site and develop the whole area in a comprehensive manner.	Short
6. Continue with the interpretation program along the dyke and minor trail amenity improvements.	Short
7. Consider adding public art at each walkway along Railway Avenue crossing building upon a theme of transportation.	Short
8. Develop a park plan for the City owned triangle of land south of Moncton Street that acts as a gateway to Britannia Heritage Shipyard and the Steveston Waterfront Greenways.	Short
9. Adopt the name "Garden City Greenway" and design a logo for directional and information signs.	Short
10. Develop design standards for the Greenway between Alderbridge and River Road.	Short
11. Develop design standards for the Greenways and Neighbourhood Green Links within the City Centre and adopt the existing City Centre Kit of Parts.	Short
12. Develop a plan for the City Centre waterfront through the Waterfront Development Strategy.	Short
13. Develop a park master plan for Minoru Park and strengthen the pedestrian connections in the park to the adjacent areas.	Short
14. Develop park and trail plans for the City owned waterfront land at the south end of No.7 Road.	Short
15. Investigate the potential of providing small pullouts and rest areas at the pump stations and road ends along River Road in East Richmond.	Short
16. Investigate the potential of using the Vulcan Way undeveloped r.o.w. east of No.6 Road as a trail to connect with Savage Road and to River Road.	Short
17. Develop a Park Plan for the e.s.a and waterfront at the south foot of Garden City Road.	Short
18. Establish standards that make walkways recognizable as public pathways	Short
19. Establish new standards to improve the accessibility of all walkways.	Short
20. Ensure the appropriate design and buffers to respect the adjacent land owners.	Ongoing
21. Seek opportunities to provide separated public access by building up the road shoulder, separating shoulders from traffic with bollards or a raised edge, or cantilevering a boardwalk over the riprap edge.	Ongoing
22. Consider opportunities for creative interpretation, a marrying of public art and interpretation, as an alternative where appropriate to traditional signage.	Ongoing
23. Use public art where appropriate to identify City-wide and community trails and routes.	Ongoing
24. Consider and use effectively public art as a tool to create community themes, image making, symbolism, and storytelling along the trail system.	Ongoing
25. Working with the new Environmentally Sensitive Area Inventory, determine the habitat and wildlife sensitivity along the trails system to ensure the right balance between public access and protection.	Ongoing
26. Consider promoting Richmond as the "Island of Bridges". There are the major bridges in and out of Richmond and many small bridges accessing private property as well as public property. These bridges could be designed in a fun architectural manner that would add to Richmond's landscape.	Short
27. Develop design plans for the Middle Arm entrance points onto the dyke trails to improve accessibility and safety.	Short
Construction Projects	
1. Develop a series of trails throughout TNWQ site that connects with the waterfront and Terra Nova Natural Area.	Short
2. Provide signage from No.1 Road and Westminster Hwy. directing people to Terra Nova Natural Area, the West Dyke and to Spul'wuck School/Park.	Short
3. Connect Westminster Hwy. to River Road and the Middle Arm Trail by constructing an asphalt trail along the east side of McCallan Road.	Short
4. Improve the safety of the access from McCallan Road onto the Middle Arm Trail with a crosswalk and improved ramps.	Short
5. Construct an asphalt trail along the south side of River Road to connect McCallan Road to Skateboard Park.	Short
6. Introduce nature and plant trees along the existing McCallan Road r.o.w. trail between Westminster Hwy. and Granville Ave.	Short
7. Connect into McCallan Park and the adjacent neighbourhood by constructing a pathway along the north edge of the park.	Short

8. Provide a safe pedestrian system to complement the cycling lanes by constructing a 2.0 meter off-road pathway from Granville Avenue to Steveston Highway within the McCallan Road right-of-way. (This is a simple temporary solution that will provide the residents of the area with an important link until the future use of the CPR is determined.)	Short
9. Improve the rail crossings on Railway Avenue to ensure safety, accessibility and their visibility.	Short
10. Formalize and improve the trail south of Moncton Street through to T. Homma School Park site and Britannia Heritage Shipyard.	Short
11. Develop and install a consistent and recognizable directional signage system for the trails and the heritage sites at the corner of Moncton Street and Railway Avenue.	Short
12. Construct the Greenway standard as per the Kit of Parts along Garden City between Alberta and Granville Avenue as part of the park redevelopment.	
13. Link the Bridgeport Trail to Garden City Road when it is extended north and construct a trail connection on the west side of the road to link to River Road and the waterfront.	
14. Improve public awareness of designated route through the Richmond Plywood Industry site at No.6 Road.	Short
15. Improve public awareness of trail opportunities by installing directional signage at the appropriate locations in the Bridgeport Area.	Short
16. Provide benches at the north end of the Bath Slough Trail.	Short
17. Create staging areas at No.5 , Shell and No. 4 Road ends.	Short
18. Connect Tait School/ Park site and the residential area to the waterfront by constructing a trail from Finalyson Road along the west side of No.4 Road.	Short
19. Create a recreational trail on top of the dyke from Shell Road to west of No.4 Road by adding amenities such as benches and signage.	Short
20. Work with Transportation Planning to investigate the potential of a crosswalk at the intersection of Bridgeport Road and Bath Slough Trail.	Short
21. Add the directional signage and maps as part of the Bridgeport Trail and designated cycling route upgrade.	Short
22. Provide signage on the designated cycling path at the intersection of No.7 Road and Westminster Hwy. directing people to the No.7 Road Pier/Park.	Short
23. Investigate the potential construction of a 250 meter trail along the north edge of River Road creating a loop that connects the Queen's Canal Trail and pump station staging area back to Westminster Hwy. and the residential area.	Short
24. Provide picnic tables at the Queen's Canal pump station staging area.	Short
25. Provide trail identification and directional signage on all existing trails throughout the Hamilton area.	Short
26. Replace the gates on the dyke east of No.9 Road and the Graybar area with trail bollards and identification signs.	Short
27. Develop a small waterfront staging area at the Hamilton road end.	Short
28. Construct a trail on the north side of Dyke Road on the new shoulder constructed as a result of a ditch infill east of Queens Road.	Short
29. Construct a trail in front of Sovereign Yacht parking lot to connect to the existing off-road dyke trail to Boundary Road.	Short
30. Provide a walking loop for employees at the industrial park by constructing a trail on the south side of River Road between Patrick Street and Savage Road.	Short
31. Develop a trail along the Williams Road undeveloped r.o.w. between Sidaway Road and Triangle Road.	Short
32. Construct a trail on the east side of No. 5 Road connecting Dyke Road to Rice Mill Road.	Short
33. Upgrade the City owned waterfront lands with trail amenities, and formalize the trail and parking in front of Woodward's Landing.	Short
34. Construct safe off-road connections into the Nature Park along the south edge of the park.	Short
35. Asphalt the trail from Hammersmith Court to Steveston Highway along east side of road.	Short
36. Create a staging area on the dyke on the north end of Shell Road.	Short
37. Clean up and enhance the former truck storage area and construct a staging area with parking in the City owned lands at the south foot of Garden City Road.	Short
38. Provide a vehicular turnaround and parking area at the west end of Dyke Road (west of No.4 Road).	Short
39. Provide directional signage and an orientation map at the No. 2 Road pedestrian/cyclingramp and dyke trail intersection.	
Consultation / Coordination Initiatives	
1. Consult with Richmond Committee on Disability on issues of accessibility.	Short
2. Work with other interested parties such as UBC Rowing Club to develop the potential of the Middle Arm as a water based recreational and festival area with the appropriate upland support amenities.	Short
3. Work with Gulf of Georgia on the design and potential use of the lane behind 3rd Avenue as a trail link as per the Steveston Greenways Plan.	Short
4. Continue to work with the Steveston Harbour Authority on the potential design and development of the Tin Shed Site at 3rd Avenue and Moncton Street as a bookend for Steveston Village as per the Greenways Plan.	Short

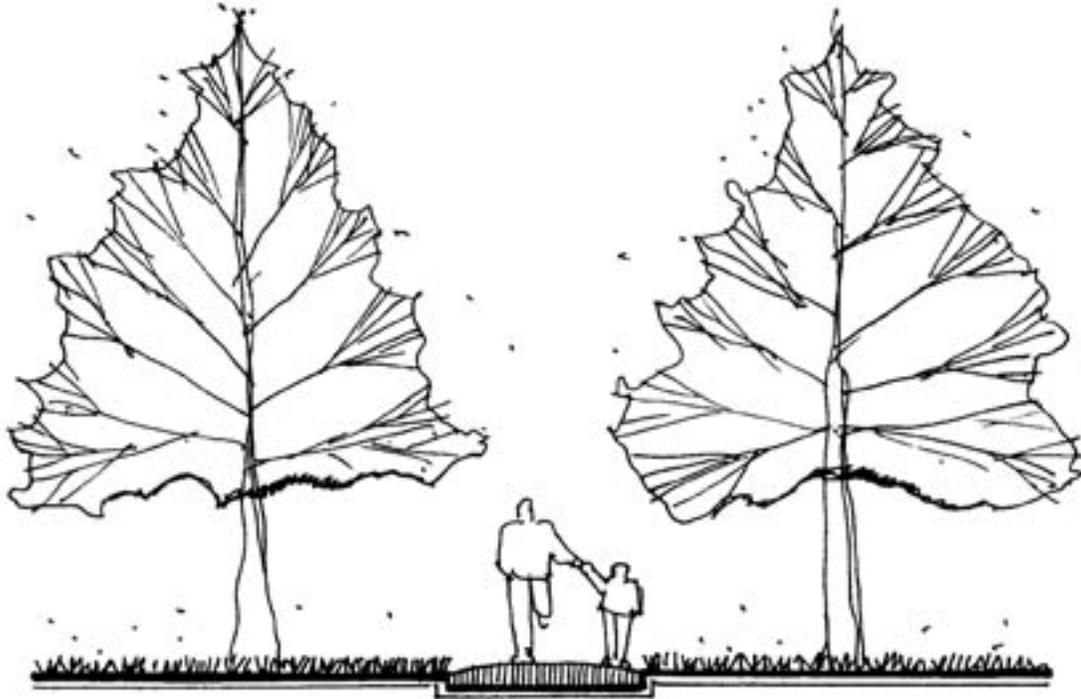
5. Work with the developers in the London-Princess area to ensure that the appropriate trails links are made to the waterfront and along the City owned former CNR right-of-way.	Short
6. Coordinate with Transportation Planning to ensure a trail connection along the east side of No.2 Road is incorporated in any redevelopment of the road right-of-way south of Steveston Highway.	Short
7. Continue dialogue with the GVRD on the most appropriate location for a potential aquaferry link to Delta.	Short
8. Coordinate with other City staff and the Advisory Committee on the Environment as they negotiate with the appropriate agencies on the potential public use and access to Shady Island (Steveston Island).	Short
9. Coordinate with Public Works on the design of new pump stations and their surroundings to ensure the overall improvement of the associated trail staging area.	Short
10. Negotiate with CPR to formalize through a Memorandum of Understanding, the multitude of existing crossings (from the neighbourhoods on the west side) to Railway Avenue cycling lanes and transit stops.	Short
11. Coordinate pedestrian links with the RAV Rapid Transit Project.	Short
12. Consult with M.o.T.H on the potential use of the Knight Street Bridge r.o.w. under the bridge under the bridge as a trail.	Short
13. Work with Transportation Planning to investigate the use of the M.o.T.H. right-of-way between Shell Road and St. Edwards Drive as a direct connection to the Oak Street Bridge and as a potential eco-corridor.	Short
14. Continue to work with the Fraser River Port Authority to ensure that the trail connections are planned for and constructed that will be part of the city-wide trails network and serve to provide more direct and safe access for residents in the Hamilton area to Riverport and the west side of Richmond.	Short
15. Coordinate with Transportation Planning on the functional design of a multi-purpose cycling route and pedestrian pathway along Westminster Highway (south of Hwy. 91).	Short
16. Work with Transportation Planning and Engineering to design Nelson Road and Blundell Road to include attractive and safe pedestrian walkways.	Short
17. Negotiate with Ministry of Transportation and Highways to allow cycling access from Rice Mill Road through their property to Steveston Highway, thereby, passing the Steveston Highway interchange.	Short
18. Negotiate with BC Ferry Corp to allow public access along the City canal from Rice Mill Road to the waterfront.	Short
19. Continue working with the GVRD on the potential of an aqua ferry to service Delta and Richmond.	Short
20. Work with Transportation Planning to co-ordinate the functional design of a multi-use cycling route and a pedestrian trail along Shell Road.	Short
21. Work with the Airport Authority to develop a coordinated signage system that provides direction to the various key destinations on Sea Island and to the City Centre and Middle Arm Dyke Trails.	Short
22. Work with the Airport Authority, the North Fraser Port Authority, and Canadian Wildlife Services to develop a coordinated interpretation program.	Short
23. Work with the Public Works and Engineering Departments and Department of Fisheries to identify key sloughs and open waterways that could potentially be revitalized as Richmond's credit towards Fisheries Habitat Compensation for closure of other ditches in the City. Consider the potential of Shell Road canal as a waterway to be enhanced.	Short
24. Continue to work with regulatory agencies as required to protect the environment and seek creative solutions that ensure the City's needs are met as well as those of the various agencies.	Ongoing
25. Coordinate with Public Works and Engineering construction projects such as pump stations, that are occurring at staging areas to meet both operational, functional and aesthetic needs.	Ongoing
26. Continue to monitor the traffic safety of rural roads and work with local communities as appropriate to resolve traffic issues.	Ongoing
27. Coordinate with Public Works projects along rural roads to maximize the opportunities to provide trails when ditch infills or new flood protection measures along the waterfront occur.	Ongoing
28. Work closely with other agencies and programs such as the ICBC Way to Go Program to provide educational programs and events that encourage walking and cycling at the neighbourhood and community level.	Ongoing
29. Follow the recommendations outlined within the final approved Agricultural Viability Strategy as a guideline to plan and design trails within or around the ALR	Ongoing
30. Consult with the Agricultural Advisory Committee as outlined in the Agricultural Viability Strategy and those impacted when locating and designing trails.	Ongoing
31. Coordinate with Transportation Planning initiatives for traffic calming, crosswalk installations, and sidewalk construction along proposed Neighbourhood Green Links.	Ongoing
Public Involvement Projects	
1. Conduct a Trails Etiquette information session through the Adopt-A-Trail program for the public once or twice a year at popular areas along the trails e.g. Garry Point Park.	Short
2. Conduct surveys to determine public priorities and specific concerns with the existing system and use.	Short
3. Work with the local schools to plant the trees and adopt the McCallan Road r.o.w. corridor.	Short
4. Promote the 'Garden City' concept by massive planting of naturalizing spring flowers on the existing off-road cycling and pedestrian corridor between Francis Road and Williams Road. Achieve this through an Adopt-a-Trail partnership potentially with Whiteside and Mc Roberts Schools.	Short
5. Develop a Neighbourhood Green Links Plan to link the Burkeville residential area to the waterfront and the trail system.	Short

6. Continue to provide opportunities to involve the public in the planning, implementation, and stewardship of the trails system.	Ongoing
7. Continue to provide programs that increase the public's awareness of Richmond's unique natural and historical setting.	Ongoing
8. Encourage more community adoptions of local neighbourhood streets, school park sites, and walkways as part of the Partners for Beautification Program	Ongoing
9. Promote collaboration between the City, community, and artists to create public art projects that provide community identity to public places and trails.	Ongoing
Marketing / Promotion	
1. Include in any new Trails Brochures and on the City website information identifying the best locations for parking for wheelchair access and information about water safety in the Fraser River	Short
2. Update the City Website with current trail and key destinations information including a 'virtual tour' of the trails and interesting heritage and natural amenities.	Short
3. Consider including interpretation signage as part of the memorial or living Gift Program. This will provide an alternative option for families wishing to buy memorial benches in popular areas.	Short
4. Consider promoting Richmond as the "Island of Bridges". There are the major bridges in and out of Richmond and many small bridges accessing private property as well as public property.	Short
5. Conduct surveys or other feedback measures to determine the priorities and the type of information to be included in the Trails brochure and the City website.	Short
6. Work with Richmond Committee on Disability to promote the advantages of Richmond's flat topography.	Short
Funding Strategies	
1. Consider allotting 25% of the annual Trails Budget towards Neighbourhood Green Links improvements.	Short
2. Continue to pursue partnerships with other agencies such as ICBC for cost sharing to implement the Richmond Cycling Network as adopted by Council.	Ongoing
3. Design the city-wide trails and neighbourhood routes to connect to the cycling routes. Where appropriate construct shared pedestrian and cycling off-road trails as part of this Cycling Network for cost-savings.	Ongoing
4. Continue working with developers to provide public right-of-ways through new developments	Ongoing
5. Continue to coordinate with private development, Transportation Planning and Engineering to ensure that the trail standards, such as wider sidewalks, are applied when new construction occurs along a designated trail route.	Ongoing
6. Consider incorporating the cost of constructing priority sections of the greenways that are not the immediate responsibility of a developer into the City Capital Budget.	Ongoing
7. Develop a funding strategy including partnerships to construct special amenities along the trail system.	Ongoing
8. Continue to partner with private owners to cost share the maintenance of public right-of-ways through private properties.	Ongoing
9. Encourage more Partners for Beautification to assist in the maintenance and the implementation of projects.	Ongoing
10. Review with other City departments their Capital Budget Program on an annual basis to seek potential opportunities for cost savings by coordinating construction projects.	Ongoing
11. Seek grants and partnerships with other agencies.	Ongoing
12. Review the level of maintenance standards and the annual operational budget for the variety of trails and the increased number and quality of amenities that are being developed as the City grows and changes.	Ongoing
Inventory	
1. Inventory all access points along the dyke and review for ease of accessibility.	Short
2. Conduct an inventory and analysis of all walkways in neighbourhoods for accessibility and safety.	Short
3. Inventory park pathways and identify the missing links to creating continuous pathway systems within all parks.	Short

Appendix

Appendix 1

Trail and Greenway Cross-sections



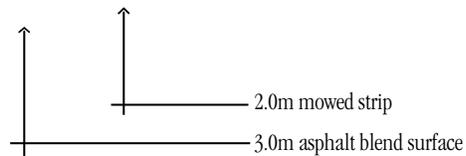
Typical Park Pathway Section

- typically perimeter paths in a park
- in a park, where a trail is a major connector, it can be as wide as 3.0m to accommodate cyclists and pedestrians, e.g. Steveston Park

1.8m asphalt path

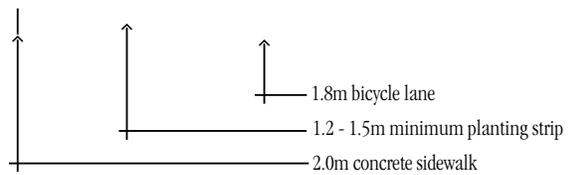
Rustic Trail Section

- typical trail in natural areas e.g. Terra Nova Natural Area
- 3.0m mixed asphalt blend surface
- 2.0 metre side clearance - mowed 3x/year



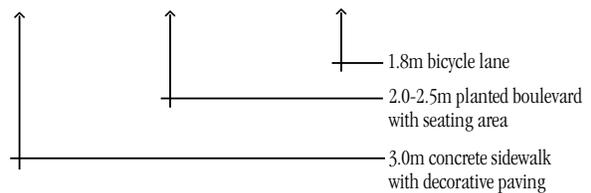
Minimum Urban Greenways Section

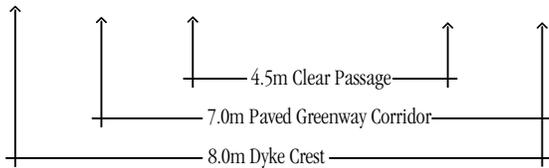
- where space is limited in the road right-of-way
- 2.0m concrete sidewalk
- 1.2m planting strip when adjacent to properties fully developed
- 1.5m planting strip with 0.3m negotiated through a public rights-of-passage right-of-way when adjacent property redevelops
- example: Seafair West / Francis Road



Standard Urban Greenways Section

- links to multiple destinations
- typically adjacent to higher density residential areas
- can be used by young children on bikes
- contains public art and resting areas
- contains unique paving patterns especially at intersections and resting areas
- where space allows, increase boulevard widths while maintaining 3.0m sidewalk
- example: Garden City Road (see Kit of Parts for more detail)





Waterfront Dyke Greenway Section - Type A

Imperial Landing Mixed Maritime Use

- high pedestrian and cyclist traffic
- close to Steveston Village
- more urban in flavour
- 8.0m crest required for dyke
- 7.0m paved greenway corridor includes all site furnishings and artifacts
- 4.5m minimum paved clear passage required for dyke maintenance vehicles
- no trees planted in dyke right-of-ways



Waterfront Dyke Greenway Section - Type B

Imperial Landing Mixed Maritime Use

- high pedestrian and cyclist traffic
- closer to natural area and park
- introduces variety and a softer landscaped edge
- 8.0m crest required for dyke right-of-way
- 7.0m greenway corridor, including 5.3m paved area with lighting and 1.7m planting strip
- 4.5m minimum paved clear passage required for dyke maintenance vehicles
- no trees planted in dyke right-of-ways

City of Richmond
Kit of Parts

GREENWAYS TREATMENTS

MAJOR GREENWAYS ROUTES:

1. Downtown Parkway Loop

A. General design

- Grid pattern theme for Greenways identity
- Pavement pattern: concrete with decorative bands of pavers
- Surface materials:
 - Concrete
 - scored concrete (12" x 12" squares)
 - Pavers
 - eg: Roman paver bands
 - change colours and sizes of pavers for variety & effect
 - pavers to be set on concrete base with mortar joints

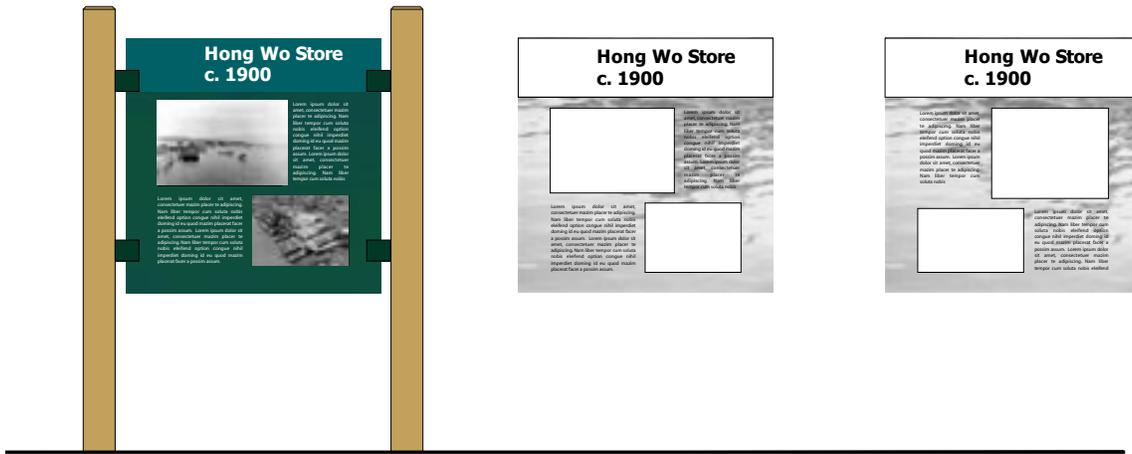
B. Special design notes

- Recreational pedestrian / bike path on one side of street only
- Landscaped medians and consistent scale and character of trees, planting, paving, furnishings, etc.
- Weave pedestrian path where possible along Garden City Road portion of loop
- Uplights in median along Gilbert Road between Westminster Highway and Granville Avenue
- Gateway treatment on both sides of Gilbert Road between Westminster Highway and Lansdowne Road
-
- Public Art to be incorporated where possible

Lansdowne west of No. 3 Road

Existing Trail Standards

Richmond Trails Signage System

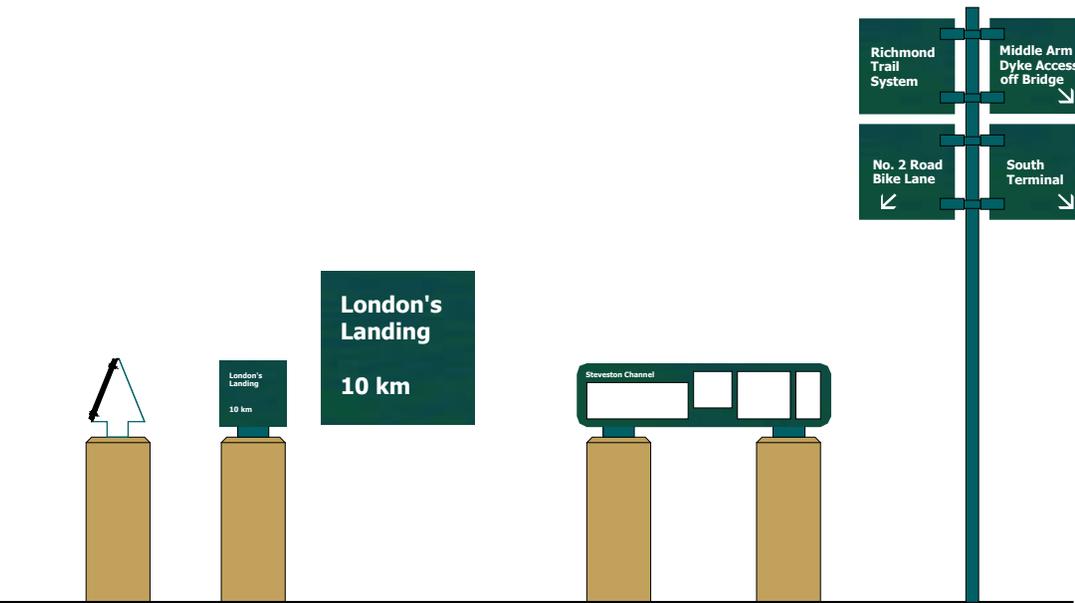


System Maps and Interpretation



For additional signage details, including dimensions, refer to City of Richmond Parks standard drawing SS1.dwg

System Site Identification and Regulations



Distance and Bylaw Marker Bollards

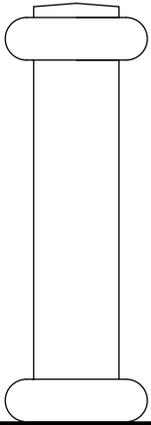
Interpretation Signage

Street Sign Blade

Existing Trail Standards

Trail Bollards

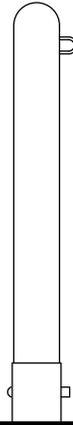
Typical City Centre/Urban Bollards



Blue metal bollard with rings at top and bottom



Simple blue metal bollard with loop detail at top



Simple blue metal bollard with loop detail at top, removable

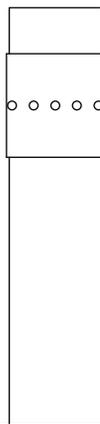


Blue metal bollard with collars and decorative rivets

Typical Trails Bollards



8"x 8" wood bollard with blue metal cap decorative washers and rivets on collar



8"x 8" wood bollard with blue metal collar and decorative rivets

For additional bollard details, refer to City of Richmond Parks trail standards

HELP CHOOSE IMPROVEMENTS TO MAKE WALKING EASIER IN YOUR NEIGHBORHOOD

YOU ARE INVITED TO A WORKSHOP ON THE PEDESTRIAN MASTER PLAN

The Pedestrian Master Plan identifies projects for sidewalks, walkways, and crossing improvements that will be constructed over the next 20 years, as funds become available.

AT THIS WORKSHOP YOU WILL:

- learn about the projects proposed for your neighborhood
- tell us if there are projects that should be added to the list
- identify which projects are most important to you and your neighbors



The workshops in your area will be held:

Monday, February 24, 1997
6:30 to 9:00 PM
Mt. Scott Community Center
5530 SE 72nd (Tri-Met #14)

Wednesday, March 12, 1997
6:30 to 9:00 PM
Warner Pacific College
Theatre-in-the-Round
2219 SE 68th (Tri-Met #4)

QUESTIONS?

For more information, call the City of Portland Pedestrian Transportation Program at 823-4326/TDD 823-6868.

If you are disabled and would like accommodations, please call 823-7211/TDD 823-6868 at least two business days prior to the workshop.

Pedestrian Transportation Program
City of Portland Office of Transportation
Charlie Hales, Commissioner



"Think Globally, Walk Locally"



City of Richmond
Parks, Recreation and
Cultural Services Division
www.city.richmond.bc.ca