AMENDED AGENDA
GOVERNANCE & PRIORITIES COMMITTEE
MEETING OF JANUARY 22, 2015, AT 9:00 A.M.
COUNCIL CHAMBERS
CITY HALL, 1 CENTENNIAL SQUARE

Page

CALL TO ORDER

APPROVAL OF THE AGENDA

CONSENT AGENDA (CA)

ADOPTION OF MINUTES

1. Minutes from the Regular Meeting held December 18, 2014 **CA**
2. Minutes from the Special Meeting held December 18, 2014 **CA**
3. Minutes from the Special Meeting held January 8, 2015 **CA**
   Late Item: Minutes

DELEGATION

4. Downtown Victoria Business Association 7 - 79
   --K. Kelly, General Manager

   A presentation from the DVBA and to approve their proposed 2015 budget, in accordance with City and DVBA bylaws.

PRESENTATION

5. Johnson Street Bridge Quarterly Update 81 - 128
   --D. Kalynchuk, Director of Engineering & Public Works

   To provide an update on the status of the Johnson Street Bridge Replacement Project

DECISION REQUESTS

6. Councillor Liaison Appointments **CA** 129 - 130
   --Mayor Helps

A motion that proposes Councillor Liaison Appointments.

7.	Adoption of the Terms of Reference for Neighbourhood Liaisons **CA** *--Mayor Helps* *A motion that proposes adoption of proposed Terms of Reference for Councillor Neighbourhood Liaisons.*	131 - 134
8.	Alignment of Upcoming Strategic Planning and Financial Planning Processes *--K. Hamilton, Director of Civic Engagement & Strategic Planning* *A report to update Committee on the upcoming strategic planning process and how it coincides with the City's financial planning.*	135 - 136
9.	Overview of Compilation of Capital Project Reports/Facilities Assessment Request *--J. Johnson, City Manager* *A report to provide an overview of reports for three priority infrastructure projects: Fire Hall # 1, Crystal Pool and Point Ellice Bridge.*	137
10.	Market Sounding for Fire Department Headquarters: Fire Station # 1 *--P. Bruce, Fire Chief* *A report advising Committee of a market sounding initiative that will gauge the community's interest in partnering with the City to renovate or replace Fire Station # 1.*	139 - 140
11.	Crystal Pool and Fitness Centre Capital Investment Update *--J. MacDougall, Acting Director of Parks & Recreation* *A report with information on the capital investment strategy for Crystal Pool and Fitness Centre.*	141 - 205
12.	Point Ellice Bridge - Rehabilitation/Repairs Assessment and Update Cost Estimates *--D. Kalynchuk, Director of Engineering & Public Works* *A report outlining an analysis completed by a consultant regarding design refinements and updated cost estimates for repairs to the Point Ellice Bridge.*	207 - 301
13.	Canada - British Columbia New Building Canada Fund - Small Communities Fund *--S. Thompson, Director of Finance* A report that provided information on the New Building Canada Fund and proposed submitting a grant application for the Point Ellice Bridge Rehabilitation/Painting Project.	303 - 315
14.	Facilities Assessment *--D. Kalynchuk, Director of Engineering & Public Works* *A report which proposes an expenditure of $300,000 to complete a facilities assessment plan to understand the state of existing City facilities.*	317 - 320

A motion that proposes that staff provide Council with best practices on implementing, managing and minimizing costs arising from the new community mailbox system.

23A. **Late Item:**
Councillor Sharing - Eating Disorder Awareness Week
--Councillor Alto

[Addenda]

MOTION TO CLOSE THE JANUARY 22, 2015 GOVERNANCE & PRIORITIES COMMITTEE MEETING TO THE PUBLIC
That Governance & Priorities Committee convene a closed meeting that excludes the public under Section 12(6) of the Council Bylaw for the reason that the following agenda items deal with matters specified in Sections 12(3) and/or (4) of the Council Bylaw, namely:

- Section 12 (3) (a) Personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the City or another position appointed by the City
- Section 12 (3) (c) Labour Relations or employee relations
  Section 12 (3) (e) The acquisition, disposition or expropriation of land or improvements, if the Council considers that disclosure might reasonably be expected to harm the interests of the City.
- Section 12 (3) (g) Litigation or potential litigation affecting the City
- Section 12 (3) (i) The receipt of advice that is subject to solicitor-client privilege including communications necessary for that purpose.

CLOSED MEETING

CONSENT AGENDA - CLOSED MEETING

ADOPTION OF THE CLOSED MINUTES

24. Minutes from the Regular Closed Meeting held December 18, 2014

DECISION REQUEST

25. Victoria Airport Authority Board Nomination
--R. Woodland, Director of Legislative & Regulatory Services

26. Land / 700 Block Johnson Street
--R. Woodland, Director of Legislative & Regulatory Services

27. New Lease / 726 Johnson Street
--R. Woodland, Director of Legislative & Regulatory Services

28. New Lease / 738 Johnson Street
--R. Woodland, Director of Legislative & Regulatory Services

29. New Lease / 744 Johnson Street
--R. Woodland, Director of Legislative & Regulatory Services

30. New Lease / 748 Johnson Street
--R. Woodland, Director of Legislative & Regulatory Services

31. Lease Renewal / 704 Douglas Street
--R. Woodland, Director of Legislative & Regulatory Services

32. Surrender of Lease / 1240 Yates Street
--R. Woodland, Director of Legislative & Regulatory Services

REPORT FOR INFORMATION

33. Legal Advice
--T. Zworski, City Solicitor

33A. **Late Item**:
Potential Litigation
--D. Kalynchuk, Director of Engineering & Public Works

34. Personnel - Verbal

CONSIDERATION TO RISE & REPORT

ADJOURNMENT

DOWNTOWN VICTORIA BUSINESS ASSOCIATION
COMMITTED TO THE CORE

November 7, 2014

RECEIVED
NOV 10 2014
LEGISLATIVE SERVICES

Ms. Susanne Thompson
Director of Finance,
City of Victoria,
1 Centennial Square,
Victoria, B.C.
V8W 1P6

Dear Ms. Thompson,

Re: DVBA 2015 Budget

In accordance with the recently adopted Business Improvement Area Bylaw, 2015 (#14-062), please find below, the proposed DVBA budget for January 1st – December 31st, 2015.

In accordance with the City and DVBA by-laws, the Board of the DVBA unanimously approved the following budget and our membership subsequently approved it at our AGM on June 20th of this year.

PROPOSED BUDGET
January 1st – December 31st, 2015

REVENUE	
BIA Levy	$994,872.00 (100%)
EXPENSES	
Administration	$328,307.76 (33%)
Clean & Safe & Sustainable	$258,666.72 (26%)
Marketing & Events	$318,359.04 (32%)
Research & Analysis	$ 49,743.60 (5%)
Networking & Partnerships	$ 39,794.88 (4%)
TOTAL EXPENSES	$994,872.00 (100%)

Attached is a copy of our audited statements for 2013 which were also received and approved by our membership at our AGM.

Yours Sincerely,

Kenneth Kelly
General Manager

cc: Rob Woodland

20 Centennial Square
Victoria, BC
V8W 1P7

T 250.386.2238
F 250.386.2271

downtownvictoria.ca

DOWNTOWN VICTORIA BUSINESS ASSOCIATION

Financial Statements

Year Ended December 31, 2013

OBARA & COMPANY
CHARTERED ACCOUNTANTS

DOWNTOWN VICTORIA BUSINESS ASSOCIATION
Index to Financial Statements
Year Ended December 31, 2013

OBARA & COMPANY
CHARTERED ACCOUNTANTS

OBARA & COMPANY
CHARTERED ACCOUNTANTS
Practicing as a Professional Corporation

216-911 Yates Street
Victoria, B.C. V8V 4X3
Tel. 250-388-7879
Fax. 250-381-0808

INDEPENDENT AUDITOR'S REPORT

To the Directors of DOWNTOWN VICTORIA BUSINESS ASSOCIATION

We have audited the accompanying financial statements of DOWNTOWN VICTORIA BUSINESS ASSOCIATION, which comprise the statement of financial position as at December 31, 2013 and the statements of revenues and expenditures, changes in net assets and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

(continues)

Independent Auditor's Report to the Directors of DOWNTOWN VICTORIA BUSINESS ASSOCIATION
(continued)

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of DOWNTOWN VICTORIA BUSINESS ASSOCIATION as at December 31, 2013 and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Obara & Company

Victoria, B.C.
June 5, 2014

CHARTERED ACCOUNTANTS

OBARA & COMPANY
CHARTERED ACCOUNTANTS

DOWNTOWN VICTORIA BUSINESS ASSOCIATION
Statement of Financial Position
December 31, 2013

	2013	2012
ASSETS		
CURRENT		
Cash	$ 190,193	$ 32,409
Accounts receivable	158	-
Prepaid expenses	3,587	3,514
Goods and services tax recoverable	10,624	27,706
	204,562	63,629
CAPITAL ASSETS *(Note 3)*	30,005	37,839
	$ 234,567	$ 101,468
LIABILITIES AND NET ASSETS		
CURRENT		
Accounts payable and accrued liabilities	$ 120,400	$ 58,927
Employee deductions payable	13,955	2,299
Deferred contributions *(Note 5)*	72,510	4,941
	206,865	66,167
NET ASSETS		
Operating fund	(2,303)	(2,538)
Invested in capital assets	30,005	37,839
	27,702	35,301
	$ 234,567	$ 101,468

ON BEHALF OF THE BOARD

Director

Director

See notes to financial statements

OBARA & COMPANY
CHARTERED ACCOUNTANTS

DOWNTOWN VICTORIA BUSINESS ASSOCIATION
Statement of Changes in Net Assets
Year Ended December 31, 2013

	Operating Fund	Invested in Capital Assets	2013	2012
NET ASSETS - BEGINNING OF YEAR	$ (2,538)	$ 37,839	**$ 35,301**	$ 19,832
Purchase of capital assets	(5,012)	5,012	-	-
Amortization of capital assets	12,846	(12,846)	-	-
Excess (deficiency) of revenue over expenses	(7,599)	-	**(7,599)**	15,469
NET ASSETS - END OF YEAR	$ (2,303)	$ 30,005	**$ 27,702**	$ 35,301

See notes to financial statements

OBARA & COMPANY
CHARTERED ACCOUNTANTS

DOWNTOWN VICTORIA BUSINESS ASSOCIATION

Statement of Revenues and Expenditures

Year Ended December 31, 2013

	2013	2012
REVENUE		
City of Victoria Business Improvement Area Levy	$ 951,576	$ 928,367
Change in deferral	(67,569)	43,977
Interest income and other	2,273	3,022
Membership Fees	235	180
	886,515	975,546
EXPENSES		
ADMINISTRATION		
Amortization	12,846	8,649
Insurance	4,597	4,479
Interest and bank charges	6,746	6,308
Loss on disposal of assets	-	3,786
Meetings and hospitality	4,407	5,735
Office supplies and other	8,415	14,036
Parking	2,614	2,795
Professional fees	16,052	20,104
Rent	13,834	13,834
Wages and benefits	237,500	243,492
Telephone and communications	5,406	5,060
Subtotal	312,417	328,278
CLEAN, SAFE AND SUSTAINABLE		
Capital improvement grants and initiatives	21,995	56,219
Marketing	1,171	4,452
Police initiatives	3,129	4,022
Supplies	16,790	19,500
Wages and benefits	143,580	157,959
WiFi	7,335	24,071
Subtotal	194,000	266,223
MARKETING		
Events revenue	(23,560)	(18,245)
Christmas	150,516	149,314
Christmas lights	16,074	23,911
Festivals and events	41,758	45,030
Marketing	129,565	80,708
Meter fairy wages and benefits	12,440	8,926
Parking initiatives	5,859	7,042
Precincts	7,837	10,610
Subtotal	340,489	307,296
NETWORKING		
AGM income	(3,000)	(3,153)
AGM expense	13,868	12,524
Conferences	11,937	7,543
Member communications	3,309	22,975
Other	1,021	5,502
Strategic planning	20,073	12,889
Subtotal	47,208	58,280
	894,114	960,077
EXCESS (DEFICIENCY) OF REVENUE OVER EXPENSES	$ (7,599)	$ 15,469

See notes to financial statements

OBARA & COMPANY
CHARTERED ACCOUNTANTS

DOWNTOWN VICTORIA BUSINESS ASSOCIATION
Statement of Cash Flows
Year Ended December 31, 2013

	2013	2012
OPERATING ACTIVITIES		
Excess (deficiency) of revenue over expenses	$ (7,599)	$ 15,469
Items not affecting cash:		
Amortization	12,846	8,649
Loss on disposal of assets	-	3,786
	5,247	27,904
Changes in non-cash working capital:		
Accounts receivable	(158)	9,535
Accounts payable and accrued liabilities	61,473	(31,385)
Prepaid expenses	(73)	(151)
Goods and services tax recoverable	17,082	2,998
Employee deductions payable	11,656	(9,597)
Deferred contributions	67,569	(43,977)
	157,549	(72,577)
Cash flow from (used by) operating activities	162,796	(44,673)
INVESTING ACTIVITY		
Purchase of capital assets	(5,012)	(27,683)
INCREASE (DECREASE) IN CASH FLOW	157,784	(72,356)
Cash - beginning of year	32,409	104,765
CASH - END OF YEAR	$ 190,193	$ 32,409
CASH FLOWS SUPPLEMENTARY INFORMATION		
Interest received	$ 2,273	$ 1,675
Interest paid	$ (6,746)	$ (5,463)

See notes to financial statements

OBARA & COMPANY
CHARTERED ACCOUNTANTS

DOWNTOWN VICTORIA BUSINESS ASSOCIATION
Notes to Financial Statements
Year Ended December 31, 2013

1. DESCRIPTION OF BUSINESS

The Association is incorporated under the Society Act of British Columbia to enhance the "Downtown Victoria Business Improvement Area". The Association is a not-for-profit organization under the Income Tax Act.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of presentation

The financial statements were prepared in accordance with Canadian accounting standards for not-for-profit organizations (ASNFPO).

Fund accounting

Revenues and expenses related to program delivery and administrative activities are reported in the Operating Fund.

The Invested in Capital Assets Fund reports the assets, liabilities, revenues, and expenses related to the Association's capital assets and leasehold improvements.

Revenue recognition

The Association follows the deferral method of accounting for contributions. Restricted contributions are recognized as revenue in the year in which the related expenses are incurred. Unrestricted contributions are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured. Revenues are in the form of a levy from the City of Victoria and membership fees. Contributions are recognized when assurance of collectibility exists.

Capital assets

Purchased capital assets are recorded at cost. If determinable, contributed capital assets are recorded at fair market value at the date of contribution. Amortization is provided on a declining balance and straight-line method basis over the asset's estimated useful life at the following methods and rates:

Computer hardware	30 - 45%	declining balance method
Computer hardware - Interactive light display	3 years	straight-line method
Computer software	100%	declining balance method
Office equipment	20%	declining balance method
Furniture and fixtures	20%	declining balance method
Leasehold improvements	5 years	straight-line method

The Association recognizes the 1/2 year rule during year of acquisiton.

(continues)

OBARA & COMPANY
CHARTERED ACCOUNTANTS

DOWNTOWN VICTORIA BUSINESS ASSOCIATION
Notes to Financial Statements
Year Ended December 31, 2013

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Contributed services

The Association receives assistance from volunteers in carrying out its service delivery activities. If determinable, contributed services are recognized at their fair maket value.

Use of Estimates

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Financial instruments policy

Financial instruments are recorded at fair value when acquired or issued. In subsequent periods, financial assets with actively traded markets are reported at fair value, with any unrealized gains and losses reported in income. All other financial instruments are reported at amortized cost, and tested for impairment at each reporting date. Transaction costs on the acquisition, sale, or issue of financial instruments are expensed when incurred.

3. CAPITAL ASSETS

	Cost	Accumulated amortization	**2013 Net book value**	2012 Net book value
Equipment	$ 13,110	$ 7,649	**$ 5,461**	$ 6,459
Computer equipment	37,339	18,631	**18,708**	24,085
Furniture and fixtures	18,496	12,661	**5,835**	7,294
Leasehold improvements	32,479	32,479	**-**	-
Contributed capital assets	1	-	**1**	1
	$ 101,425	$ 71,420	**$ 30,005**	$ 37,839

The Association received contributed capital assets in 2005 fiscal year including a board room table, podium, office desk and chairs, credenza and fridge. The fair value of these items at the time they were received was not reasonably determinable. Accordingly, they have been recognized in the financial statements at a nominal value of $1.

OBARA & COMPANY
CHARTERED ACCOUNTANTS

DOWNTOWN VICTORIA BUSINESS ASSOCIATION
Notes to Financial Statements
Year Ended December 31, 2013

4. LEASEHOLD IMPROVEMENTS

Leasehold improvements are net of a contribution received from the Downtown Victoria Community Alliance for the purchase of leasehold improvements in the amount of $20,000.

Gross leasehold improvements 2005	$	47,035
Less: contribution 2005		(20,000)
Plus: additions in 2006		5,444
	$	32,479

5. DEFERRED BUSINESS IMPROVEMENT AREA LEVY

Represents unexpended externally restricted funds received from the City of Victoria for the Business Improvement Area Levy. These funds are restricted for the use on a "business promotion scheme" as defined in Bylaw 09-041.

		2013		2012
Deferral from prior year	$	4,941	$	48,918
Levy received in the current year and interest earned on levy		953,849		930,042
Amount expended in the current year for eligible expenses		(886,280)		(974,019)
	$	72,510	$	4,941

6. RELATED PARTY TRANSACTIONS

During the year the Association purchased $2,917 (2012 - $1,872) of supplies from companies managed by a few of the Association's directors. These transactions occurred in the normal course of operations and were recorded at the fair value at the date of the purchases.

7. ECONOMIC DEPENDENCE AND GOING CONCERN

The Association receives its revenues pursuant to a funding arrangement with the City of Victoria. The contract with the City was re-established January 1, 2010 for 5 years. Without continued support of the downtown property and business owners through a levy collected by the City of Victoria, the Association would not be able to continue its operations.

OBARA & COMPANY
CHARTERED ACCOUNTANTS

DOWNTOWN VICTORIA BUSINESS ASSOCIATION
Notes to Financial Statements
Year Ended December 31, 2013

8. COMMITMENTS AND CONTINGENCIES

a. The City of Victoria Business Improvement Area Bylaw (09-041) was re-established January 1, 2010. Any unspent funds at the earlier of the expiry of the Bylaw, December 31, 2014, or the dissolution of the Association, must be returned to the City of Victoria after payment of any debts lawfully incurred by the Association in relation to a "business promotion scheme". If the Downtown Victoria Business Improvement Area Service is renewed or extended beyond the term provided for under this Bylaw, and if the DVBA continues to comply with the conditions set out in the Bylaw, the Association may request of the Council that any unexpended portion of a DVBA grant be retained by the Association to use for a business promotion scheme after the expiry of this Bylaw, subject to any terms and conditions Council may impose.

b. The Association entered into a 5 year lease of the premises from March 1, 2010 until February 28, 2015. The Association is committed to make lease payments of $1,152.81 monthly to the end of the lease. If the Association becomes insolvent, at the option of the Landlord, lease immediately becomes forfeited and then the current month's rent for the three months following shall immediately become due and payable as liquidated damages to the Landlord.

The future annual amounts will be:

2014	$ 13,834
2015	2,306
	$ 16,140

OBARA & COMPANY
CHARTERED ACCOUNTANTS

DVBA 2015 BUDGET PRESENTATION

WORKING TOGETHER TO CREATE A MORE DYNAMIC DOWNTOWN VICTORIA

Downtown Victoria Business Association –K. Kelly, General M...

DVBA DOWNTOWN VICTORIA BUSINESS ASSOCIATION
COMMITTED TO THE CORE

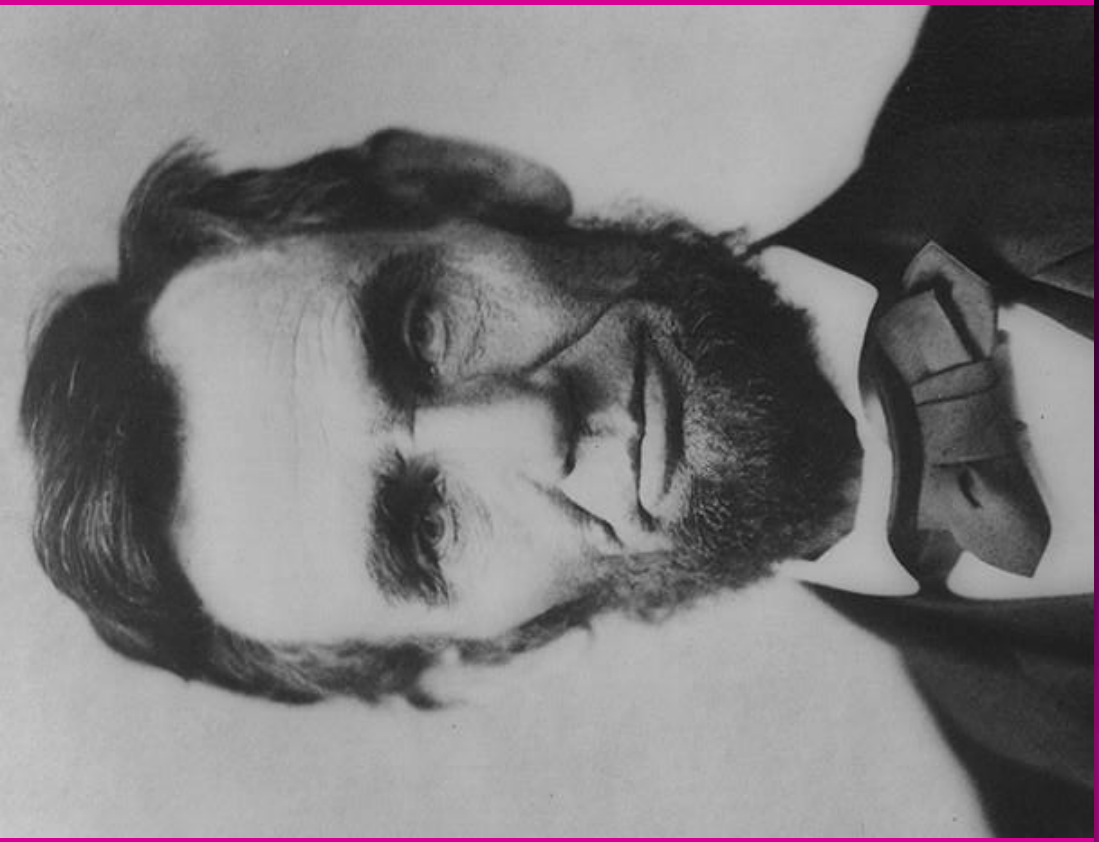
Where else but DOWNTOWN VICTORIA

DVBA DOWNTOWN VICTORIA BUSINESS ASSOCIATION COMMITTED TO THE CORE

Where else but DOWNTOWN VICTORIA

Downtown Victoria Business Association --K. Kelly, General M...

Governance and Priorities Committee - 22 Jan 2015



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Downtown Victoria Business Association --K. Kelly, General M...

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Downtown Victoria Business Association --K. Kelly, General M...

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2005-2010:

$298,519

Downtown Victoria Business Association - K. Kelly, General Mgr.

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ILLUMINATE Downtown

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COMMITTED TO THE CORE

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VICTORIA

Downtown Victoria Business Association - K. Kelly, General M...

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Downtown Victoria Business Association – K. Kelly, General M.

Governance and Priorities Committee - 22 Jan 2015

DVBA

DOWNTOWN VICTORIA
BUSINESS ASSOCIATION
COMMITTED TO THE CORE

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21,000 riders

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COMMITTED TO THE CORE

Where else but DOWNTOWN VICTORIA

DVBA's **Meter Fairy** noticed your meter had expired so we added an extra 15 minutes, plus....

METER FAIRY

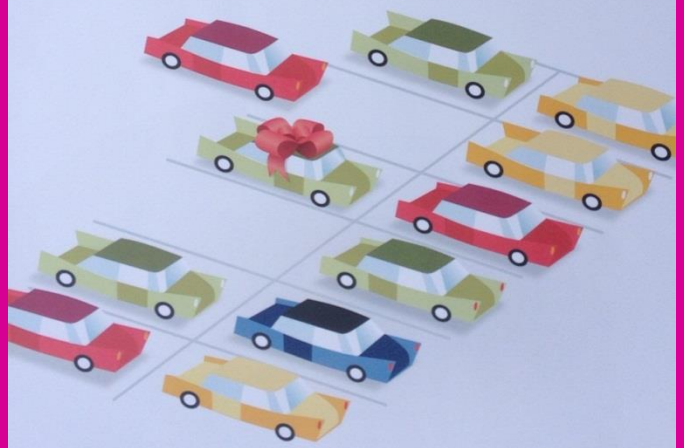
DVBA DOWNTOWN VICTORIA BUSINESS ASSOCIATION COMMITTED TO THE CORE

FIRST HOUR FREE PARKING
TODAY IS COMPLIMENTS OF THE
DOWNTOWN VICTORIA BUSINESS ASSOCIATION

Our Christmas gift to you:

Your first hour of parking will be free at all 5 City parkades every Saturday from November 24th until December 22nd. Thank you for shopping downtown!

(No First Hour Free voucher required)



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CONAIR

DOWNTOWN VICTORIA BUSINESS ASSOCIATION
COMMITTED TO THE CORE

Where else but DOWNTOWN VICTORIA

Downtown Victoria Business Association – Annual General Meeting

Governance and Priorities Committee - 22 Jan 2015

DVBA DOWNTOWN VICTORIA BUSINESS ASSOCIATION COMMITTED TO THE CORE

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Where else but DOWNTOWN VICTORIA

DVBA DOWNTOWN VICTORIA BUSINESS ASSOCIATION COMMITTED TO THE CORE

2015 BUDGET

January 1st – December 31st, 2015

INCOME

BIA LEVY (100%)	$994,872.00

EXPENSE

ADMINISTRATION (33%)	$328,307.76
CLEAN, SAFE & SUSTAINABLE (26%)	$258,666.72
MARKETING/EVENTS (32%)	$318,359.04
RESEARCH & ANALYSIS (5%)	$ 49,743.60
NETWORKING & PARTNERSHIPS (4%)	$ 39,794.88
TOTAL EXPENSE (100%)	**$994,872.00**

DVBA DOWNTOWN VICTORIA BUSINESS ASSOCIATION COMMITTED TO THE CORE

Where else but DOWNTOWN VICTORIA

DOWNTOWN VICTORIA

BUSINESS STRATEGY

2013-15

July 17, 2013

DVBA DOWNTOWN VICTORIA BUSINESS ASSOCIATION COMMITTED TO THE CORE

Where else but DOWNTOWN VICTORIA

RESEARCH & ANALYSIS

DVBA DOWNTOWN VICTORIA BUSINESS ASSOCIATION COMMITTED TO THE CORE

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Downtown Victoria Business Association - K. Kelly, General M...

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DOWNTOWN
VICTORIA

DOWNTOWN VICTORIA BUSINESS ASSOCIATION COMMITTED TO THE CORE

Murchie's (1100 Government - West)

Period Analyzed: Sunday 01 December 2013 to Wednesday 31 December 2014

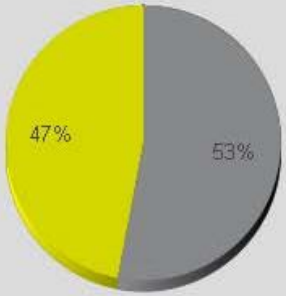
eco counter

Key Figures

- Total Traffic for the Period Analyzed: 2,345,166
- Daily Average : 6,496
- Monthly Average: 195,431
- Busiest Day of the Week : Saturday
- Busiest Days of the Period Analyzed:
  1. Tuesday 01 July 2014 (15,652)
  2. Friday 25 July 2014 (12,772)
  3. Sunday 03 August 2014 (12,724)
- Distribution by Direction:

Murchie's Northbound... : 47%

Murchie's Southbound... : 53%



DOWNTOWN VICTORIA BUSINESS ASSOCIATION COMMITTED TO THE CORE

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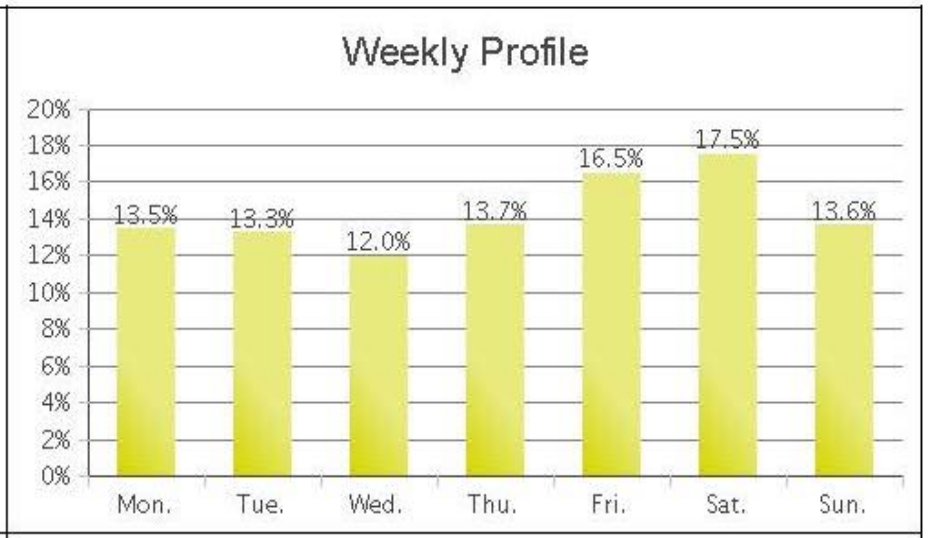

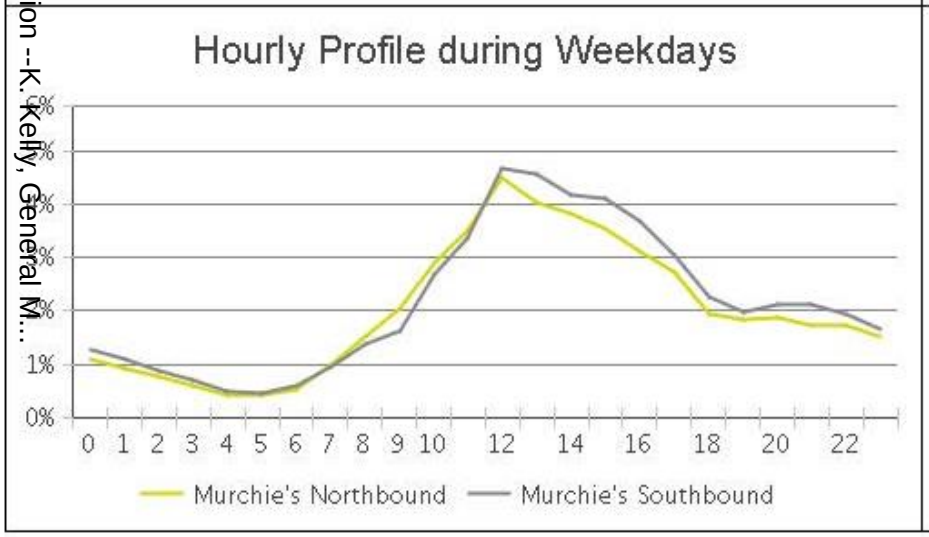

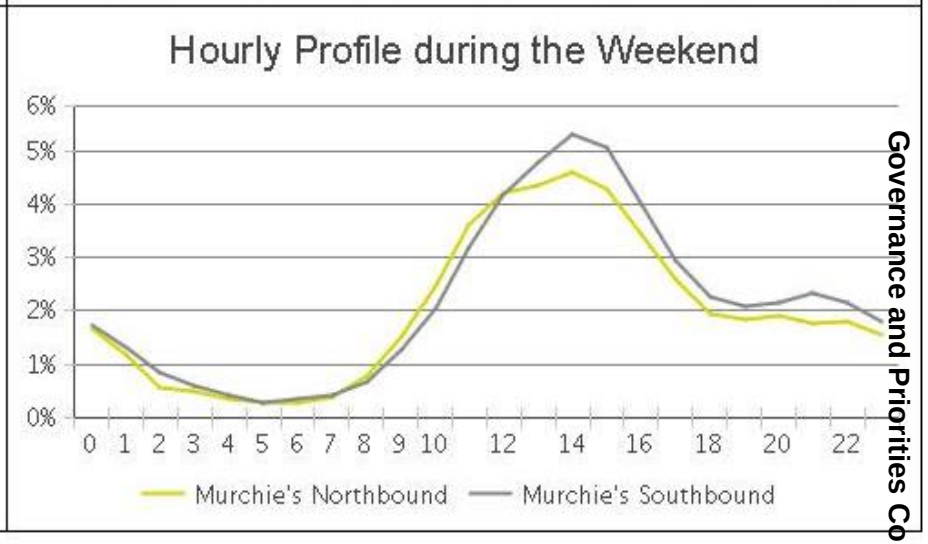

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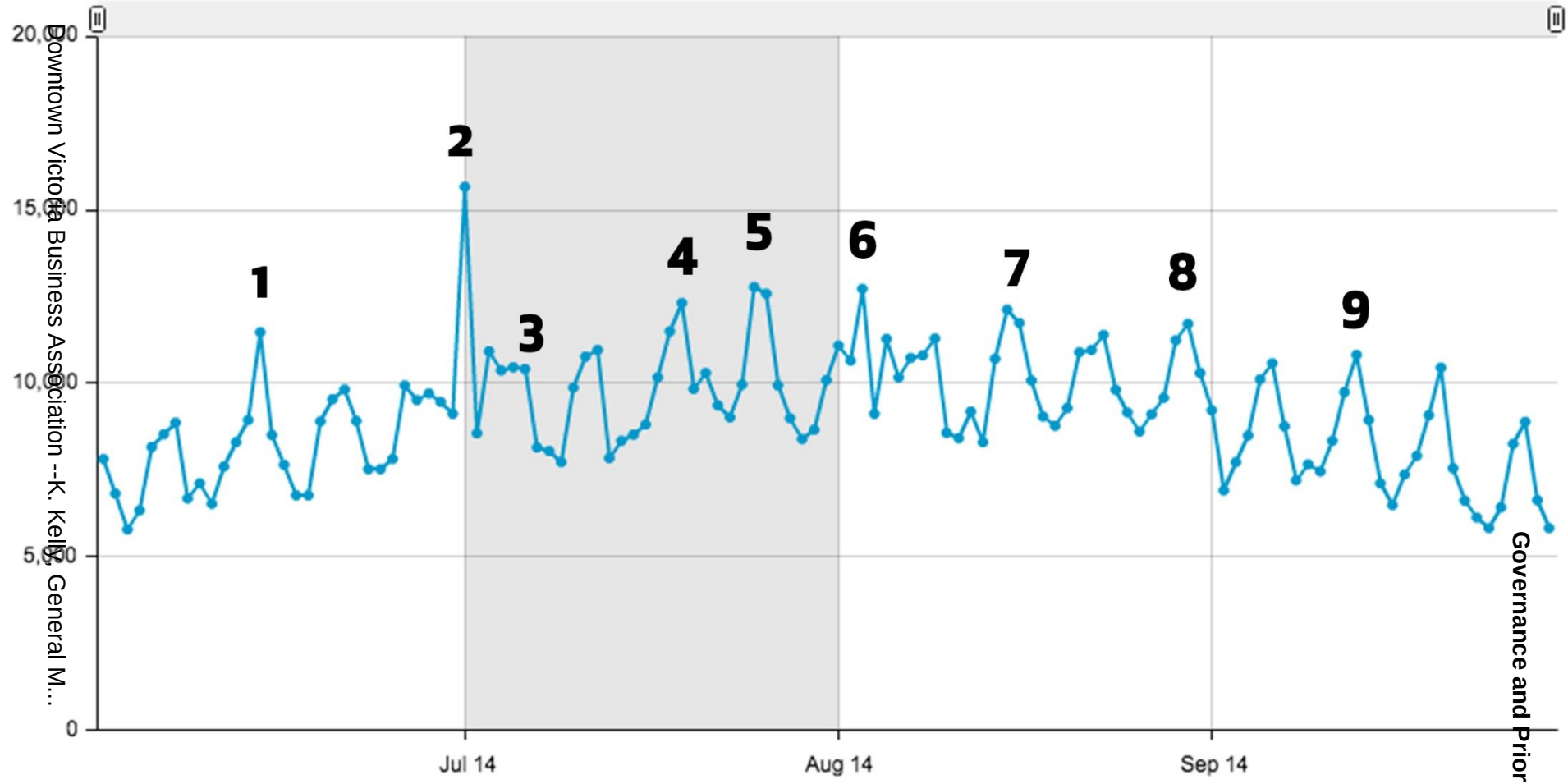

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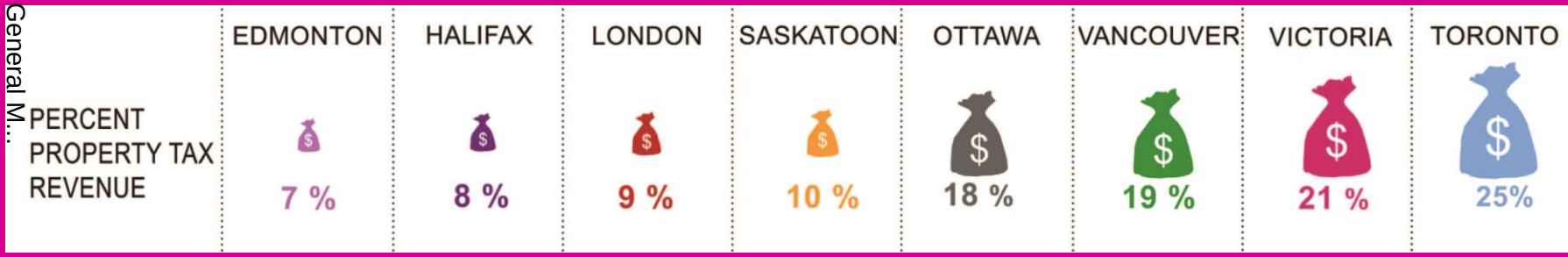
The City of Victoria collected approximately **$22,078,000** in municipal taxes from properties within boundaries of the DVBA in 2011. This represents approximately **21%** of municipal property tax revenue collected that year.



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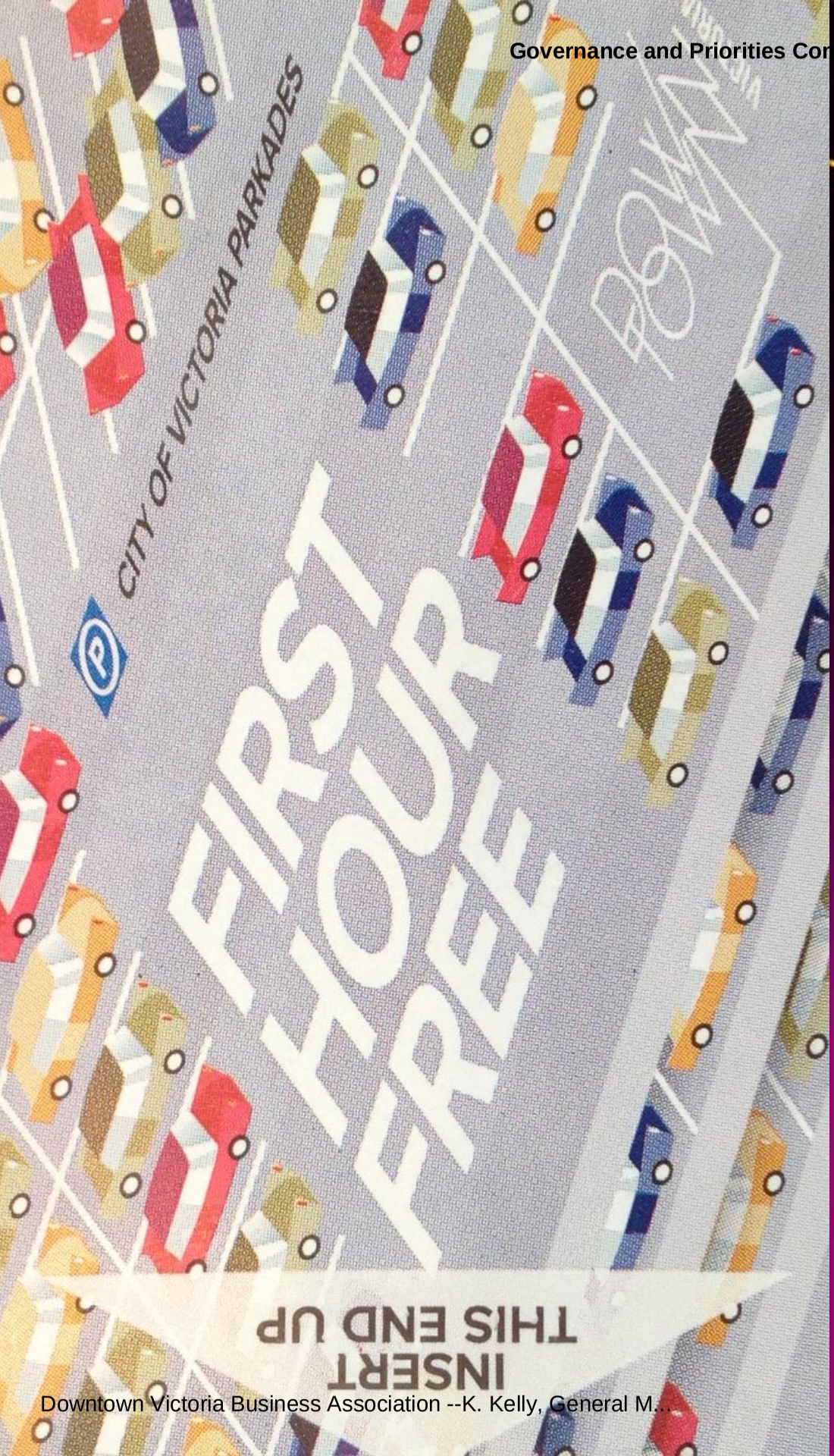

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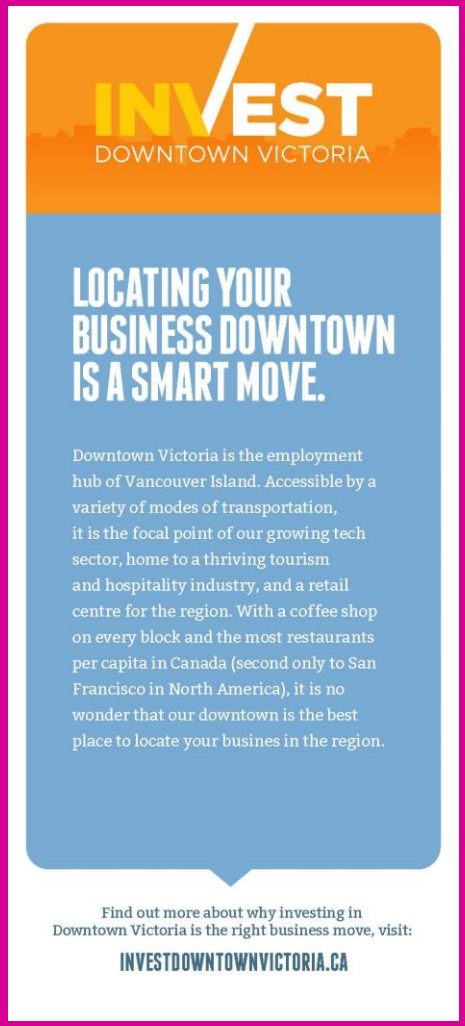

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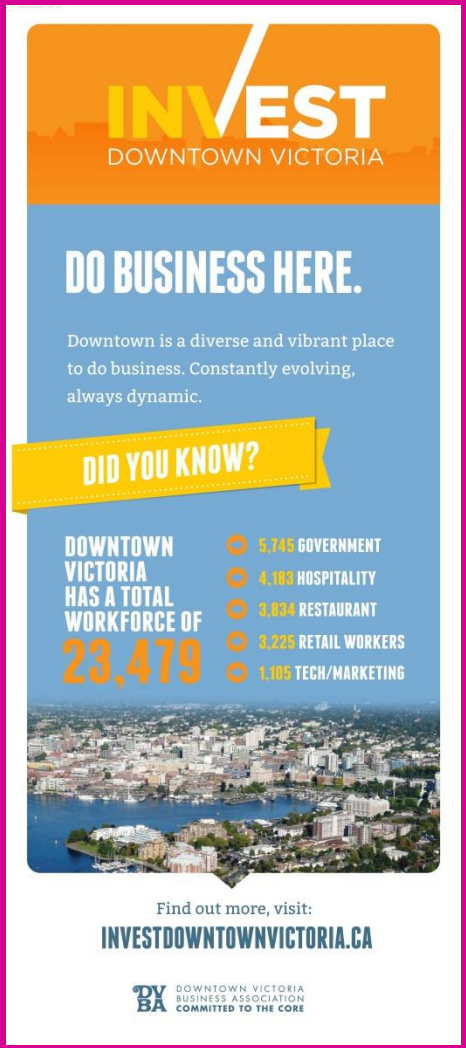

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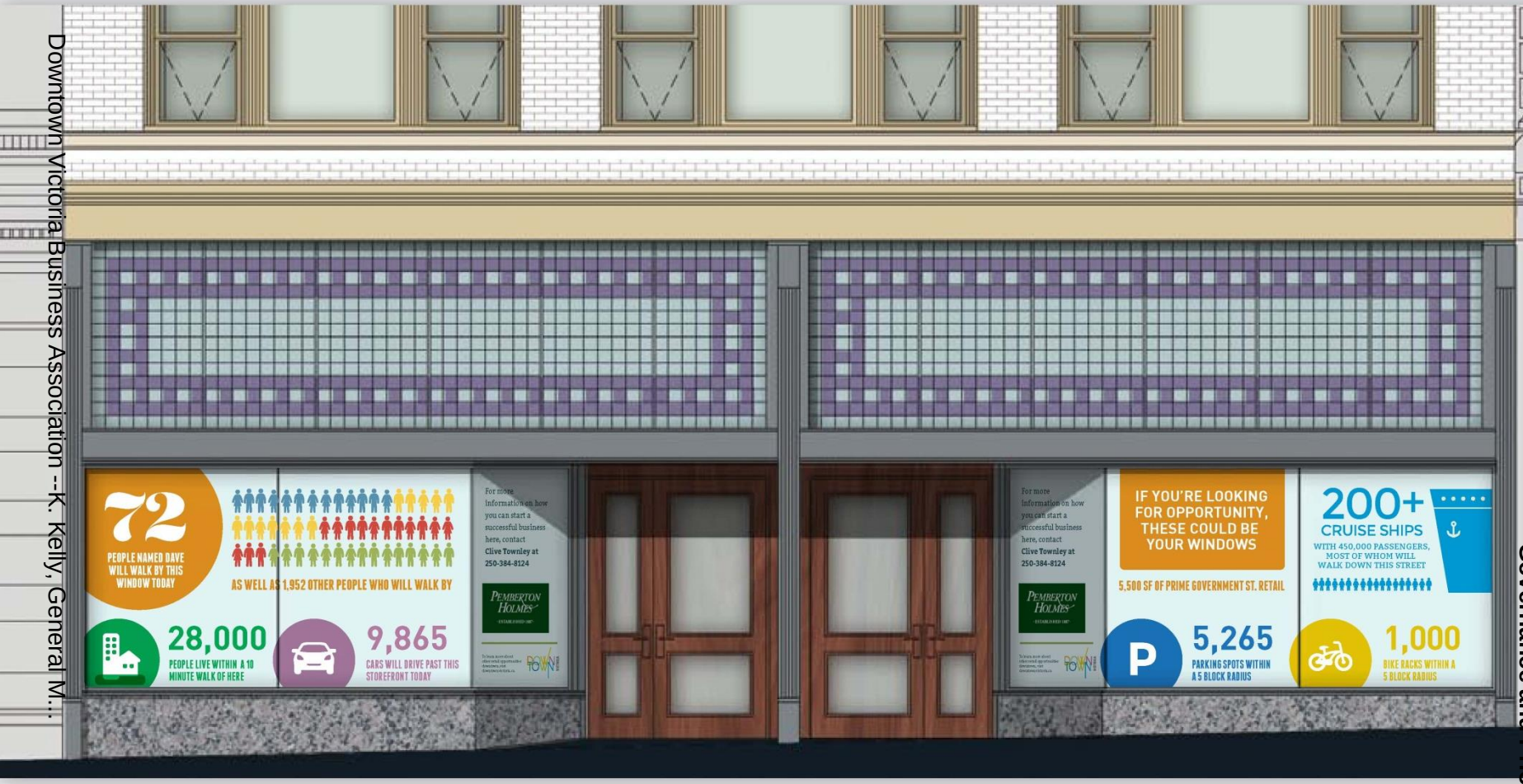

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CAR FREE DAY: JUNE 21, 2015

A CELEBRATION OF COMMUNITY

Downtown Victoria Business Association - K. Kelly, General Mgr.

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MASTER PLAN FOR DOUGLAS STREET ENHANCEMENT

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CITY OF VICTORIA

Governance and Priorities Committee Report
For the January 22, 2014 Meeting

To:	Governance and Priorities Committee	**Date:**	January 15, 2014
From:	Dwayne Kalynchuk, P. Eng., Director of Engineering and Public Works		
Subject:	Johnson Street Bridge Replacement Project Quarterly Update		

Executive Summary

Quarterly reports are prepared on the Johnson Street Bridge Replacement Project throughout the year to keep Council and the community updated on this important Capital Project. This is the first quarterly report for 2015, with the next one scheduled for April.

The last few months have seen significant achievements on site, including changes to the road network on the west side of the bridge, that included realignment of the Esquimalt Road approach, new traffic lights, and landscaping that will form the new public parks area, as well as a new access for the Delta Ocean Pointe Hotel.

The bridge crossing continues to see significant progress on the concrete foundation, including the abutments and rest piers.

Regular quality inspections were routinely conducted by the fabricator and the contractor's quality control consultant on the steel fabrication in China to ensure that the bridge is built to the highest standard of the design. An inspection last July found that some aspects of the steel fabrication had not been undertaken in accordance with the design specifications. The project team is working to get the fabrication restarted and a meeting is scheduled at the plant in China in February to finalize procedures and resume fabrication.

With fabrication tentatively recommencing in March, the project would be approximately ten months late. City staff are reviewing and planning to assure that the existing bridge will continue to operate until the new structure is completed. Staff are communicating with the federal government regarding an extension to the funding agreements. All federal and provincial permits are being reviewed to determine which will require extensions.

As of December 27, 2014 PCL has invoiced $20.65 million, representing 32% of the total contract amount. MMM Group has invoiced a total of $8.205 million from the budget of $9.6 million for design, permitting, construction administration, and project management in the same period.

To the end of December, $1,015,475 has been allocated from the contingency with $1,799,525 remaining. However, a number of items yet to be finalized will virtually commit the balance of the contingency. These include additional consulting costs to resolve the steel issue in China; provision of habitat compensation as ordered by the federal government; finalization of the north end fendering dolphins; additional legal costs for change order negotiation and mediation; finalization of the pedestrian overpass foundations; removal of additional soil at the west end abutment; increase in landscape costs to complete the project; payment for seabed land; and potentially increased need for the Owners Quality Assurance and Quality Control program in China. A report will be provided to Council in February on allocation of funds and funding sources for the contingency as the present amount is fully allocated.

The change order requests from both the contractor and the consultant team is subject to a mediation process. All parties have now agreed to a mediator and the process has commenced in December and is presently on-going. All parties are bound to confidentiality of the mediation process; however, any settlement is subject to City Council approval.

Public engagement for the new green space on the west side of the Johnson Street Bridge is currently in the Operational Plan for 2015. Public consultation in the last quarter has been primarily with the Delta Hotel regarding the changed access and with adjacent businesses on Harbour Road.

Recommendation:
That Council direct staff on a priority basis to prepare a report bringing forward options for Council's consideration to increase the project contingency.

Respectfully submitted,

Dwayne Kalynchuk, P. Eng.,
Director
Engineering and Public Works

Jonathan Huggett, P. Eng.,
Interim Project Director

Report accepted and recommended by the City Manager:

Date: January 16, 2015

Purpose
As directed by Council, staff provide quarterly reports on the Johnson Street Bridge Replacement Project throughout the year. This is the first report for 2015, with the next update scheduled for April.

Financial Overview
As of December 27, 2014 PCL has invoiced $20.65 million, representing 32% of the total contract amount. This includes $1.74 million of pre-payment for structural steel that is located at the fabrication plant in China, and $1.385 million for hydraulic power units, programmable logic controllers, and motor control centres at the manufacturer in Florida. The units were tested in mid-October and are operational and ready for shipping.

As of December 27, 2014 MMM Group has invoiced a total of $8.205 from the budget of $9,614,377 budget for design, permitting, construction administration, project management, and Owners Quality Control for the steel fabrication.

To the end of December, $1,015,475 has been allocated from the contingency with $1,799,525 remaining. However, a number of items yet to be finalized will virtually commit the balance of the contingency. These include additional consulting costs to resolve the steel issue in China; provision of habitat compensation as ordered by the federal government; finalization of the north end fendering dolphins; additional legal costs for change order negotiation and our share of mediation; finalization of the pedestrian overpass foundations; removal of additional soil at the west end abutment; increase in landscape costs to complete the project; payment for seabed land; and potentially increased need for the Owners Quality Assurance and Quality Control program in China.

However, the City will be reviewing options to recover costs for a number of these items, such as the resolution of the steel fabrication and additional consulting fees.

While the contingency is not as of yet completely spent with the balance being mostly allocated, staff are recommending that a report be submitted to Council next month for reallocation of funds for the provision of a contingency for the balance of the project and potential funding sources.

The budget update and project completion contingency update are attached as Appendices A and B in this report.

Mediation Update
The matter of both the requested change orders by the Contractor and the Consultant are the subject of mediation. Mediation is a private, informal dispute resolution process in which a neutral third person (the mediator) helps disputing parties to reach an agreement. The mediator does not have the power to impose a decision on the parties. The process is private and confidential and conducted on a "without prejudice" basis, meaning that nothing discussed in mediation can be used against any of the parties in any subsequent litigation. The cost of the mediation is shared equally between parties. However, although the cost of the mediator will be shared equally, the legal costs are the responsibility of each party.

The process is non-binding and all parties have to agree to any solution that may be reached. All parties in the process are subject to confidentiality of the mediation process. Any solution that would involve a change to the contract price would be subject to Council approval.

All parties have agreed to a mediator and the process has commenced in December 2014. Several meetings have taken place and it is anticipated that it will take several months to conclude.

In addition to the mediation the City is attempting to resolve items that are not disputed with PCL, and agree to final costs as a result of these changes. However similar to any mediated settlement, these items will require City Council approval as the costs will be outside of the contract award price.

Bridge Construction

West Side Approach

The last few months have seen significant progress on the construction of the foundation and abutments, as well as changes to the roads network on the west side of the bridge, that included the following: realignment of the Esquimalt Road approach, construction of the new Harbour Road intersection, and landscaping that will eventually form the new public parks area to be landscaped in the spring of 2015. Generally items on the west side are either on or ahead of schedule.

In October, a new road to the Johnson Street Bridge opened from the intersection of Esquimalt and Harbour Roads. Opening the roadway has created more usable space for the contractor during construction and will minimize future impacts to motorists. This new road will eventually connect with the new bridge.

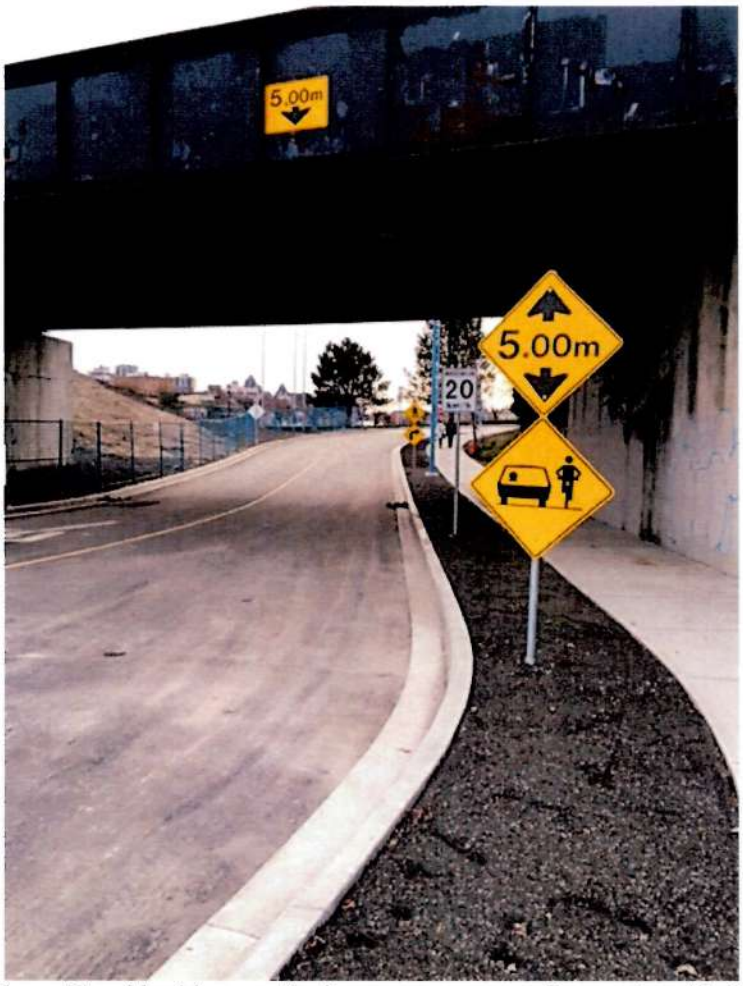
In mid-November, new traffic signals were put in place at the intersection of Esquimalt and Harbour Roads. Changes included new traffic lights at the four-way intersection and new pedestrian crossings. Cyclists on Harbour Road are now able to activate the lights by positioning their bikes over a new bike detector at the intersection. New crosswalks and accessible sidewalks have also been added, in addition to a new extension of Harbour Road, connecting to the Delta Ocean Pointe Resort and future waterfront green space.

New park space during hydro seeding for soil stabilization November 17, 2014

Esquimalt Road at Harbour Road looking west November 17, 2014

The middle of December saw the Harbour Road access to the Delta Hotel open. This resulted in the redirecting of pedestrians along a safer route south on Harbour Road and onto the old Esquimalt Road sidewalk. Cyclists now have full access to the bicycle lane on Esquimalt Road, which was temporarily being used by pedestrians.

Harbour Road access to the Delta Ocean Pointe Hotel November 5, 2014



Harbour Road looking south down new access December 16, 2014

Retaining walls will be constructed in the near future in preparation for the pedestrian overpass over the Harbour Road intersection. As a result of this ongoing work, Harbour Road will remain closed at Esquimalt Road for approximately two months.

Bridge Site

The bridge crossing site continues to see significant progress on the concrete foundations, including the abutments and rest piers. These concrete structures are now visible to passers-by as the formwork is removed. The completion of this work is scheduled for early 2015 and will represent a major milestone in the completion of the foundation work.

West side rest pier during concrete pour November 5, 2014

Completed west side rest pier December 22, 2014

Work on the bascule pier continues to progress steadily. Work is underway to prepare for the bascule's "big pour". This massive single concrete pour will involve approximately 1200 cubic meters of concrete that will arrive in 120 truckloads; this will be the biggest single concrete pour in recent Victoria history. This complex procedure requires many specialized techniques; for instance, specialized cooling hose coiled throughout the concrete will control the rate of cooling. This works much the same way a radiator controls the temperature of an engine.

Bascule pier December 22, 2014

One of the cranes that had become a part of the City scape was removed in mid-December. The "Big Blue 4100" was located within the east side construction zone and was removed from the site when its work was completed.

Excess soil from previous excavations was shipped off site in late November to provide more space for construction staging, as well as clean up the appearance of the site.

Concrete structural blocks containing hazardous waste material that have been on city owned land for nearly 30 years have now been removed and sent to a facility in Pincher Creek Alberta. The City's Sustainability staff worked closely with HL Demolition and Trevita Management to facilitate the smooth transfer. The cost for the disposal and removal was $134,000 and was funded from the Equipment and Infrastructure Reserve Fund.

Concrete construction blocks shown at centre clad in plastic sheeting January 2, 2015

East Side Approach

Work along the road network on the east side of the bridge has been relatively quiet for the past few months and has continued to serve motorists, cyclists and pedestrians with minimal impacts. Planning and preparations are now being made for upcoming road and above ground works beginning early in 2015.

Significant electrical infrastructure work to bring in an adequate power supply to the new bridge will take place in early 2015. This will result in some minor changes to traffic patterns. City engineering staff continues to work with all parties proactively to minimize disruptions to the public.

As the "Big Blue 4100" crane is removed and pier and abutment work comes to a close behind the fenced area on the south side of the Janion building, that section of the construction site will be significantly cleared. As that happens, PCL crews will begin work on the new east side bridge approach road network. Much of this work will occur behind the established fenced off work zone and should not have a significant impact on motorists.

Big Blue and the upcoming east side construction zone adjacent to the Janion October 14, 2014

Janion

City staff continues to work with Janion representatives to ensure a seamless integration between the Janion, David Foster Way, and Johnson Street Bridge construction sites. Planning work has continued on David Foster way, connecting the Northern Junk lands and connections to the Janion plaza area. The next Council update report should include preliminary plans for City Council's consideration.

Steel Fabrication

Regular quality inspections were routinely conducted on the steel fabrication in China to ensure that the bridge is built to the high standards of the design. The steel elements to be fabricated include the rings, north and south trusses, and the orthotropic deck. An inspection in July found that some aspects of the steel fabrication had not been undertaken in accordance with the design specifications.

As a result, one of the two rings is being replaced while the other is being repaired. The north truss steel will be replaced. All new steel has been ordered and is presently at the fabrication shop. Samples are being tested to assure the quality of steel meets the specifications. A mock-up of the orthotropic deck has been cut and will be inspected by the consultant in the near future.

After a full investigation of the fabrication deficiencies, which included an assessment of the quality management process, historical records, and unresolved issues, the decisions described above were made.

PCL has also performed an evaluation of the existing Quality Management Plan (QMP) to find out the following:

- Whether the QMP was effective in assuring the production of steel meets project requirements;
- Whether the conditions and events observed in July of 2014 were adequately managed under the plan; and
- What additional measures are needed to prevent a similar incident and ensure this will not happen again.

Following this evaluation and a detailed review provided by PCL and its quality assurance consultant, Atema, a number of areas have been identified and require improvements before steel fabrication can start again.

Meetings were held this week in Victoria between PCL, Atema (PCL's quality control consultants), MMM, and H&H regarding quality management, oversight and control plans, and the quality control plans. Update plans are being finalized to re-start fabrication.

Construction Schedule

At the last Quarterly Update in September, it was reported that the contractor was indicating that the project was approximately five months behind schedule. It is anticipated that steel fabrication will re-commence in China in March. A start-up meeting in China is being scheduled at the end of the month to have the steel fabrication re-commence and to inspect the orthotropic deck mock-up. With a re-start in March, the project will be approximately ten months late. In order to accommodate the delay, staff continue to maintain the existing bridge to assure its operation until the new facility is operational. Discussions have commenced with the external funding agencies about an extension on the project completion. All federal and provincial permits are being examined to determine which will require extensions.

Telus Duct Bank Relocation Project

The City was required to relocate the existing underwater Telus Duct Bank (TDB) to accommodate future construction between the inner and upper working harbours in Victoria. The new TDB is located north of the new bridge location. The construction had the potential to impact fish habitats, so the City of Victoria ensured it had all the necessary permits required by the Department of Fisheries and Oceans Canada (DFO) before relocating the TDB.

A condition of the City's ongoing Fisheries Act Authorization is that the City monitors the ballast mats installed as an offsetting habitat constructed at the same time as TDB relocation in early 2012. In 2013 the City hired Golder Associates Limited to conduct annual monitoring of the habitat. Three annual reports are to be submitted to DFO by October 31st of each year.

The habitat is composed of a series of articulating ballast mats which provide a hard surface for marine organisms to attach themselves to.

The habitat was observed to be physically stable and supporting encrusting and tidal marine species typical of similar habitats in Victoria's Inner Harbour. Overall, the habitat is functioning much like an artificial reef and is providing habitat for the diversity of marine organisms.

Safety and Environment

An incident occurred involving a cyclist colliding with temporary fencing at the intersection of Harbour and Esquimalt Roads. No injuries were reported and immediate steps were taken to relocate temporary fencing to an area where it was visible during day and night.

As part of the PCL Environmental Management Plan, Hemmera, PCL's environmental consultants, do weekly inspections of the worksite which are reported to Transport Canada. Additionally, Transport Canada also does monthly inspections of the project.

During the last quarterly period, PCL carried out a number of in-water construction activities. There were no water quality issues resulting from the work; however, on two occasions a sheen appeared which in both cases was discovered to have originated from the upper harbour. Both cases were reported to Transport Canada.

With respect to the on-land work, a minor spill of hydraulic fluid on pavement from a hydrovac truck occurred on the east side of the bridge during the paving project. The material was quickly cleaned up and no further issues occurred.

Update on Risk Management

Risk management is a critical part of any complex engineering project. The following key strategies are being implemented as a general framework:

- Development of a risk aware culture on the Project where we are identifying, managing, and monitoring risks
- Team Building - development of a team approach to managing the Project
- Collaboration between the Owner, Contractor, and Engineer
- Proactive project management verses reactive
- Large quantities of risks are systematically managed through a simple, efficient, and effective process
- Development of preventative action and response plans
- Potential risk events are tied to the Project schedule for management
- Reduces disputes and claims

The following table identifies specific major risks remaining to completion of the project and record the actions taken to mitigate these risks:

Risk Description	Consequences	Risk Management
Quality assurance of the steel components being manufactured in China	• Delays to the project • Defects resulting in reduced lifespan of structure • Early maintenance issues	• The ZTSS quality control program is under review and will be improved. • PCL has retained ATEMA to monitor the ZTSS quality control program. • The City has added $120,000 to the MMM budget to provide an owners quality assurance program and Caltrop has been retained to provide another level of inspection. • A quality assurance meeting has been organised in China for early January 2015
Lifting of the steel bascule when it arrives by barge in the harbour. The steel truss is near the lifting capacity of the largest crane on the west coast	• Any delay in lifting into place will result in blockage of a navigation channel. • Incorrect lifting of the truss could lead to hidden damage to the truss that may not be evident for several years.	• While the erection of the steel structure is PCL's responsibility, MMM and H&H will play an active role in reviewing the PCL erection procedures which will be subjected to intense scrutiny.
The project costs will	• The City has received a	• The City is evaluating the PCL

Risk Description	Consequences	Risk Management
exceed the City's budget. Examples of cost increase causes include: • Delays caused by the City and its advisors • Unforeseen conditions not identified in the contracts	request for a change order from PCL to cover claims for delay. • Requests for additional costs have been received from the Owner's Engineer, MMM and their sub-consultant H&H. • The project contingency continues to be drawn down to cover the cost of additional work.	request for a change order to determine its validity. • The City and its advisors have placed a very high priority on a timely response to PCL requests under the contract. • A mediation process to resolve some of the claims has been initiated.
The bascule opening and closing will not operate correctly during commissioning of the bridge.	• Opening and closing of the bridge may result in traffic delays if it does not consistently open and close correctly.	• The City has engaged MMM to design and supervise the bridge. • MMM have retained specialist machinery consultants. • The City has asked MMM to ensure that it plans to have adequate staff and resources on site during commissioning to deal with unforeseen problems.

Citizen Engagement and Communications

Public engagement for the new public green space on the west side of the Johnson Street Bridge is currently in the Operational Plan for 2015. Council will have an opportunity to review the schedule for this in March. Public consultation in this last quarter has been primarily with the Delta Hotel regarding the changed access and with adjacent businesses on Harbour Road. Staff have recommended that consultation on the new plaza spaces and the new park occur at the same time to help facilitate a more holistic discussion on both projects. Staff are proposing that this engagement occur once a new project completion date has been identified.

The City of Victoria continues to engage the public and keep drivers, cyclists, pedestrians, and marine traffic informed about the ongoing work and changes in traffic patterns and access routes as needed.

Recommendation:

That Council direct staff on a priority basis to prepare a report bringing forward options for Council's consideration to increase the project contingency.

Attachments

- Appendix A – Budget Update
- Appendix B – Project Completion Contingency

Appendix A - Budget Update	Budget	Contingency/ Tax allocation	Budget	Actuals (Oct 2014)
Project Component				
Professional Services				
Design Management, Design & Contract Administration[1]	10.675	0.209	10.884	9.155
Design consultant optimization	0.250	-	0.250	0.240
Development Costs to end 2010[1]	1.330	0.003	1.333	1.333
Approvals & Permitting[1]	1.100	0.029	1.129	1.125
Legal/Procurement[2]	0.730	0.029	0.759	0.778
Subtotal	14.085	0.269	14.354	12.631
Construction Costs				
Main Bridge Contract[7]	62.935	0.306	63.241	18.058
Project Completion Contingency - available[7]	2.815	(1.015)	1.800	-
Hydro relocation, design/install, archeological services, demolition	-	0.662	0.662	0.681
Subtotal	65.750	(0.048)	65.702	18.739
General Construction				
Early Marine Works, Rail Bascule Removal[3]	2.400	0.023	2.423	2.428
Insurance[3]	1.500	0.017	1.517	1.123
Other Works & TELUS Duct Removal[4]	2.265	0.271	2.536	1.644
MMM Detail Workshop	-	0.054	0.054	
Subtotal	6.165	0.365	6.530	5.195
City Costs (over 5 years)[5]	1.900	(0.302)	1.598	1.009
Property	1.000	(0.003)	0.997	0.997
Finance Fees	1.000	0.000	1.000	0.481
Value Added Tax (HST)[6]	2.900	(0.281)	2.619	-
Total	92.800	-	92.800	39.052

Notes:

1. Adjustment for tax allocation from Value Added Tax budget
2. Additional legal work from Denton
3. Rounding of original budget (0.00)
4. Increase of $100K for Public Art; $8K Undefined Scope; $40K tax allocation and $10K misc additional expenses
5. Reduction in Project Contingency to offset increases to Legal and General Construction
6. Offset tax allocated to Professional Services and Other Works & Telus Duct Removal
7. Two increases to the Main Bridge Contract paid for out of the Project Completion Contingency: Hazardous waste disposal $34K; West cofferdam soil disposal $243K.

		Orginial Contract	Known to January 2015		If Remaining Unknows Materialize
Appendix B - Project Completion Contingency (as per Schedule C - Schedule of Prices)		**$ 2,515,000**	**$ 2,515,000**		**$2,761,100**
Allocated Contingency	**Contract line**	**Budget**	**Committed**	**Eliminated costs**	**Remaining Unknown**
A. Archaeological $250,000	A	$250,000	$ -		$ 250,000
B. Unforeseen Geotechnical and Subsurface Conditions $600,000	B	$600,000	$ -		$ 600,000
C. Hazardous Materials $250,000	C	$250,000	$ -		$ 250,000
D. Girder Span Depth $30,000	D	$30,000	$ -		$ 30,000
E. Structural Steel Overrun (see Article 4.4 of Agreement) $600,000	E	$600,000	$ -	$ (600,000)	$ -
F. Imported Fill $80,000	F	$80,000	$ -		$ 80,000
G. Hydro Relocation and Power Supply $150,000	G	$150,000	$ -		$ 150,000
H. City Services $200,000	H	$200,000	$ -		$ 200,000
I. Environmental Permitting and Processing $25,000	I	$25,000	$ -		$ 25,000
J. Multi]Use Trail Overpass Bridge (if changed to steel) $250,000	J	$250,000	$ -		$ 250,000
K. Additional structural support for Fendering $462,500	K	$462,500	$ -	$ (462,500)	$ -
L. City Quality Assurance for Structural Steel $75,000	L	$75,000	$ -		$ 75,000
M. Requirement for additional seabed land $50,000	M	$50,000	$ -		$ 50,000
N. Fabrication Shop Drawing . Third Party Detailer $50,000	N	$50,000	$ -		$ 50,000
Add: Resolution of China Fabrication QA/QC NCR's; Change order 3 Rev 2	X	$50,000	$ -		$ 50,000
Add: MMM Workshop	Y	$0	$ 53,900		$ -
		$3,122,500	$ 53,900	$ (1,062,500)	$ 2,060,000
Value Engineering Savings		**Budget**	**Realized**	**Savings not achievable**	**Remaining Unknown**
A. Replace Indicative Design with attached configuration including shortening of East end span (see Attachment 1 to this Appendix C) $900,000		$900,000	$ 300,000	$ (450,000)	$ 150,000
					$ -
B. Replace West Pier with extended pile configuration $125,000		$125,000			$ 125,000
C. Replace Indicative Design of West Abutment (see Attachment 2 to this Appendix C) $350,000		$350,000			$ 350,000
D. Reduction of piles under Bascule Pier $185,000		$185,000			$ 185,000
E. Lighting – optimizing lighting design $500,000		$500,000			$ 500,000
		$1,160,000	$ 300,000	$ (450,000)	$ 1,310,000
Remaining Contingency		**$552,500**	**$2,761,100**		**$2,011,100**

Johnson Street Bridge Replacement Project

Quarterly Update

January 22, 2015

On Site Work – West

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CITY OF VICTORIA

On Site Work – West

- Completion of west approach
- Access to Delta Hotel
- Completion of Harbour Road (tentatively re-opening in February)

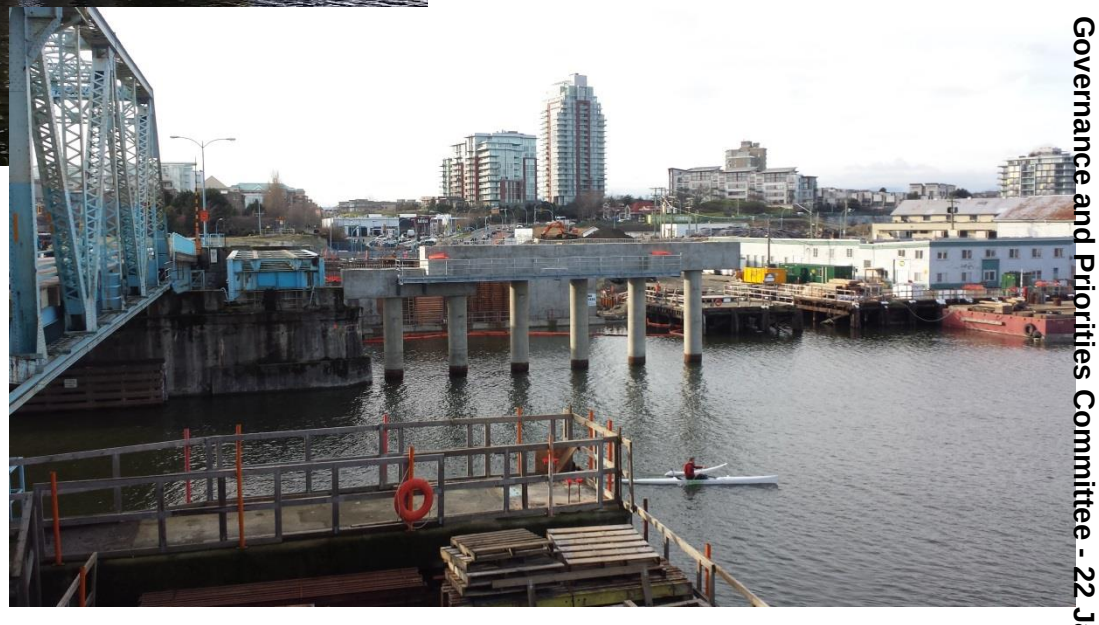
New Intersection
Harbour & Esquimalt Road

Delta Hotel Access

On Site Work – West

- Completion of the rest pier
- Removal of west trestle
- Completion of west abutment

Rest Pier Completion



West Abutment

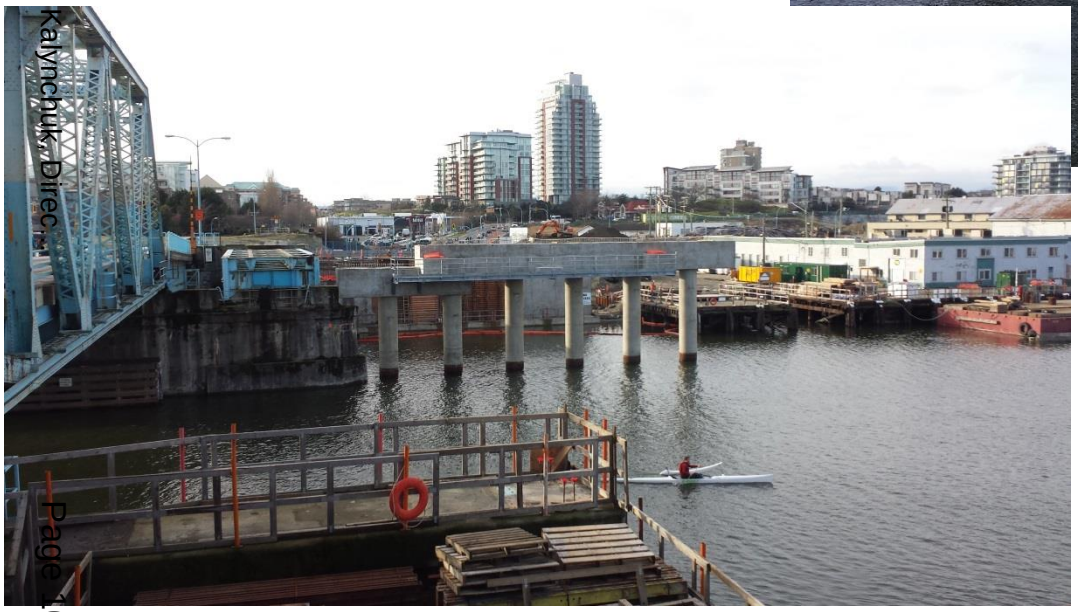
On Site Work – West

- Commencement of retaining walls
- Removal of contaminated blocks
- Start of fender construction

Multiuse Trail Retaining Wall

Contaminated Blocks – Removed

Fender construction to start at rest pier



On Site Work – East

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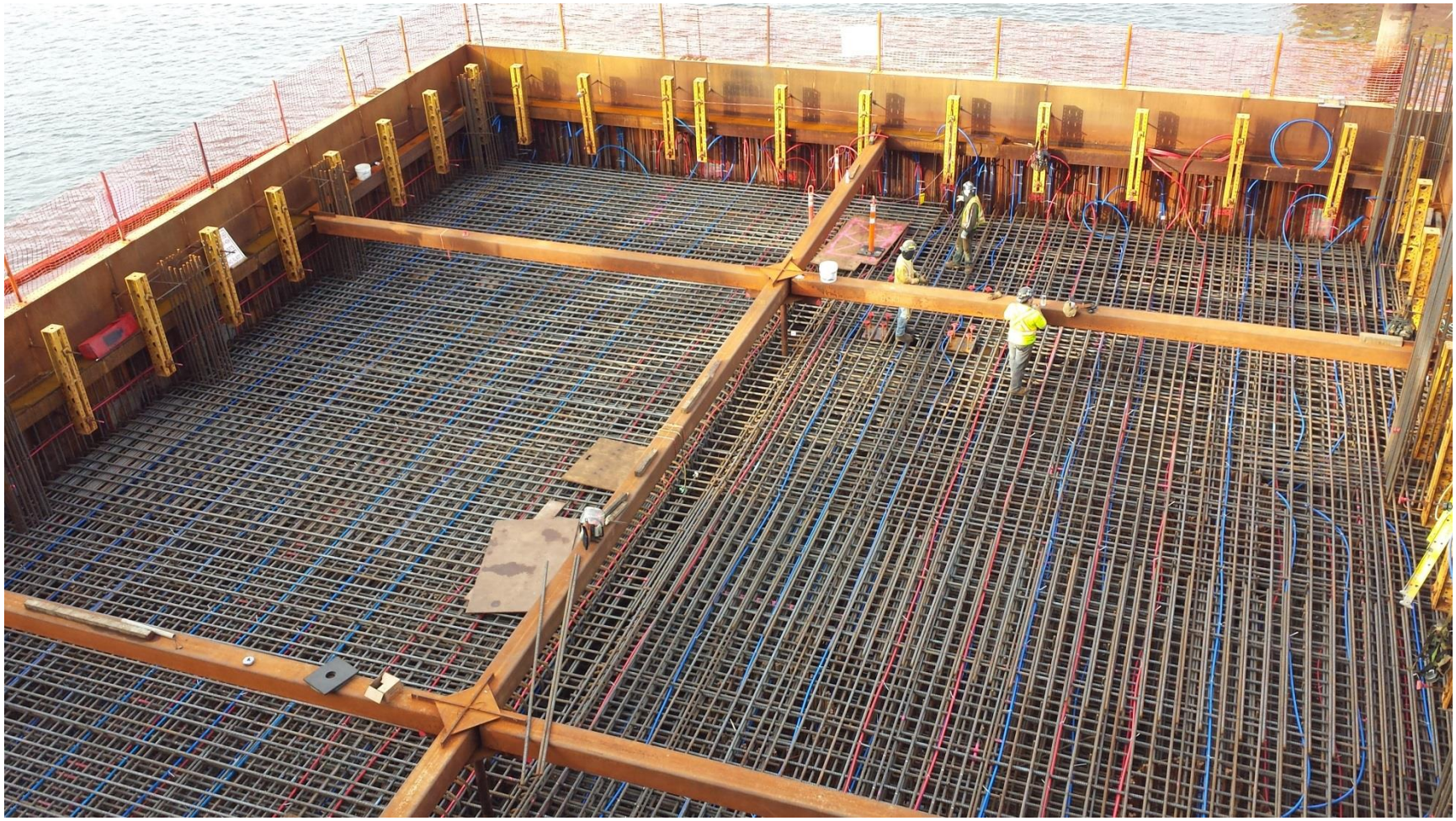
On Site Work – East

- Continued work on bascule pier rebar being placed
- ‘Big Pour’ – 120 concrete truck loads, 18 hours, to create a 7 foot thick floor
- Scheduled for the end of January

Bascule Pier



On Site Work – East

- Intermediate pier piles done (work on cap starting)
- East abutment works
- Janion work (trail connections)

Intermediate Pier

East Abutment

Eastside of Construction Site Beside Janion Building

Finances & Schedule

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Finances & Schedule

- $20.65 million paid to PCL includes pre-payment of steel, hydraulic motors and ancillary material
- $8.25 million to MMM and H&H including extra costs for steel issues in China
- Additional items and some cost escalations have virtually committed the contingency

Items potentially to be covered by contingency

- Habitat compensation
- Consulting costs to resolve steel issues
- North end fendering dolphins
- Legal costs for mediation
- Multi-Use overpass bridge
- Additional soil removal
- Potential increase in landscape costs
- Payment for seabed lands
- Additional owners Quality Assurance Program at plant

Finances & Schedule

- Schedule currently 10 months late
- Bascule completed and shipped tentatively March 2016
- Project completion tentatively January 2017
- Applying for 1 year grant extension
- Continue to maintain present bridge
- Report on balance of contingency for project including extra costs for time delay

Bearing Replacement on existing Bridge

Steel Fabrication in China

Steel Fabrication in China

- Shut down since July 2014
- One ring and truss have been rejected – balance to be repaired
- Replacement steel now at fabrication plant

Steel Fabrication in China

- Work on improved Quality Management Plan (QMP) and Inspection and Testing Plan (ITP)
- Owners QMP to be reviewed and potentially increased
- Mock up of bridge orthotropic deck being fabricated for inspection

Steel Fabrication in China

- Meetings held last week (in Victoria) and in New York to complete detailing and discuss QMP and ITP with Fabricator
- Meeting being scheduled in China for February for re-start of fabrication
- Tentative re-start – March 1, 2015

Mediation

Mediation

- Mediator selected - Shapiro, Hankinson & Knutson
- Several conference call meetings to date
- Materials being exchanged
- Any settlements will be subject to Council approval

Mediation

- Process is confidential for all parties until completed
- City is preparing claims against both PCL and MMM which will be settled through the mediation process.

Recommendation

That Council direct staff on a priority basis to prepare a report bringing forward options for Council's consideration to increase the project contingency.

Questions

Questions from Council

Thank You

Council Member Motion

For the Governance and Priorities Committee meeting of January 22 2015

Date: January 16, 2015 **From:** Lisa Helps and Marianne Alto

Subject: Councillor Liaison Appointments

Recommendation

That Council adopt the following neighbourhood liaison positions for a two-year term.

Neighbourhood	Liaison
Burnside	Geoff
Oaklands	Marianne
South Jubilee	Pam
North Jubilee	Pam
Rockland	Pam
Hillside Quadra	Ben
James Bay	Margaret
Downtown / Harris Green	Margaret and Charlayne
Fernwood	Charlayne
North Park	Jeremy
Fairfield	Chris
Victoria West	Jeremy

And, that Council appoint Margaret Lucas and Charlayne Thornton Joe Councillor co-liaison to the Downtown Victoria Business Association the terms to be worked out between the DVBA and the Councillor Liaisons.

Summary

On December 18th 2014, Council held a special Governance and Priorities Committee meeting in the form of a workshop with the Neighbourhood Association Presidents to:

a.) Hold a conversation with the neighbourhood associations and councillors to help better define the role of a councillor neighbourhood liaison.

b.) Ask each neighbourhood about the challenges and opportunities facing them in the next four years and get a list from them of the skill sets and areas of expertise they'd be looking for in a councillor liaison. This will help council in deciding who works with which neighbourhood and city staff in understanding the lay of the land for neighbourhoods.

Based on:

a.) The input received from neighbourhoods at that meeting.
b.) The input received from Councillors after reflecting on neighbourhood input.
c.) Adjacency of neighbourhoods

The neighbourhood liaison positions are proposed as outlined in the recommendation above.

Respectfully Submitted,

Mayor Helps

Councillor Alto

Council Member Motion
For the Governance and Priorities Meeting of January 22nd 2015

Date: January 16 2015 **From:** Lisa Helps and Marianne Alto

Subject: Councillor Neighbourhood Liaison Terms of Reference

Recommendation
That Council adopt the Terms of Reference for a Councillor Neighbourhood Liaison as detailed in Appendix A.

Summary
On December 18th 2014, Council held a special Governance and Priorities Committee meeting in the form of a workshop with the Neighbourhood Association Presidents with the following purpose, agenda, outcomes and questions.

Purpose
a.) Hold a conversation with the neighbourhood associations and councillors to help better define the role of a councillor neighbourhood liaison

b.) Ask each neighbourhood about the challenges and opportunities facing them in the next four years and get a list from them of the skill sets and areas of expertise they'd be looking for in a councillor liaison. This will help council in deciding who works with which neighbourhood and city staff in understanding the lay of the land for neighbourhoods.

Agenda
1.) Introduction to workshop purpose (5 minutes)
2.) Introduction of participants (20 minutes)
3.) Defining the role of the councillor neighbourhood liaison (60 minutes)
4.) Challenges and opportunities facing each neighbourhood - list of skills and experiences needed in a council liaison (15 minutes)
5.) Wrap up and thank you (10 minutes)

Outcomes
1. Agreed upon terms of reference for the role of councillor neighbourhood liaison
2. A sense of what each neighbourhood needs in a councillor liaison
3. A sense of how the City can better support neighbourhoods more generally

Questions
1. What are the opportunities facing your neighbourhood in the next four years?
2. What are the challenges facing your neighbourhood in the next four years?
3. What skills, experience and qualities you would like in a councilor liaison?
4. How can City Council and City Staff support and work with neighbourhoods more effectively?

During the meeting, the Neighbourhood Association presidents and the Councillors co-crafted a draft of the Terms of Reference (TOR) to guide the work of a Councillor Neighbourhood Liaison. After the workshop, the draft TOR were circulated to those in attendance to solicit feedback. Comments were received from two Neighbourhood Association presidents. This input is reflected in the final TOR presented in Appendix A.

In addition to the Terms of Reference and neighbourhood liaison appointments, those in attendance discussed a number of other items, which have been flagged and may be raised at or Council's Strategic Planning Session. This list was also circulated to those in attendance and is included here.

Issues arising from Special December 18th GPC with Neighbourhood Associations

Strategic

- Provide information and support to Neighbourhood Associations with regard to funding opportunities that are available to help move forward neighbourhood initiatives
- Help Neighbourhood Associations with strategic planning for their neighbourhoods.
- Provide ongoing capacity building for Neighbourhood Associations.
- Provide regular workshops for Neighbourhood Association board members.
- Review the delivery of city services in relation to neighbourhoods (with an eye to a 'one city' approach).

Administrative

- Create contact list for City Departments so that Neighbourhood Associations can go directly to staff for operational matters.
- Check city mailing lists and ensure the lists for neighbourhood association presidents are up to date.

Appendix A
Terms of Reference for a Councillor Neighbourhood Liaison

Council appoints a councillor to act as a liaison to each neighbourhood association. These appointments are made at the beginning of a new term of council and are for a minimum of two years. Council will review the appointments at the end of the two-year period with an option to renew the appointment or to adjust according to neighbourhood needs and council discretion.

In addition to 'walking the talk' and working with neighbourhoods to support them in advancing their priorities and building their capacity, the roles and responsibilities of a Councillor Liaison include:

Share Information About City Processes

1. Help inform the neighbourhood and Neighbourhood Association on Council and staff decision-making processes.
2. Inform the Neighbourhood Association of important City business and issues of relevance to the neighbourhood.
3. Provide information on city processes and initiatives of relevance to the neighbourhood.
4. Connect the Neighbourhood Association with staff in relevant departments.
5. Promote the Neighbourhood Association as a community organization with other potential partners, businesses and other community and industry organizations.

Be Informed

1. Take the time to learn about the neighbourhood including its values and history and about the emerging issues, concerns and opportunities.
2. Be knowledgeable about neighbourhood priorities and the neighbourhood's relationship with City Hall.
3. Be informed and aware of trends and issues in other neighbourhoods that are relevant to the neighbourhood and of issues that border on two or more neighbourhoods.

Be Available

1. Attend Neighbourhood Association and Landuse Committee meetings at the request of the Neighbourhood Association, and neighbourhood events as available, and:
   - Take feedback from the Neighbourhood Association to Council and City Staff
   - Find a replacement councillor when unable to attend regular association meetings
2. Be open, available and responsive as the initial point of contact for neighbourhood residents and direct them to the relevant City department to get the service they need.
3. Be available as an initial point of contact between the Neighbourhood Association and City Hall for points of conflict and complaints arising in the neighbourhood.

   NB re 2 and 3: Feedback from two neighbourhoods that their understanding of the conversation was that residents should contact staff directly. I have added in 'be available as' to clarify that the councillor liaison can be available but not required *as the initial point of contact.*

Communicate

1. Communicate the interests and concerns of the Neighbourhood Association to Council.
2. Be proactive on issues that matter to the neighbourhood and on neighbourhood priorities.
3. Support the Neighbourhood Association in advocating for and representing their priorities to Council in order to help maximize the potential, and grow the capacity, of Neighbourhood Associations, and to help them be creative and proactive in addressing neighbourhood challenges and opportunities.
4. Give the Neighbourhood Association a sense of timing in terms of when a neighbourhood priority will be implemented and provide regular updates on the progress of issues and concern to the neighbourhood.
5. Close the loop on communication and action items with the neighbourhood.

Land Use

1. Recognize the Neighbourhood Association as the Land Use consultation body on land use planning matters including but not limited to building structures, environment, transportation/traffic, streets, sidewalks, greenways and parks.

Respectfully submitted

Mayor Helps

Councillor Alto

CITY OF VICTORIA

Governance and Priorities Committee Report

For the Meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 22, 2015
From:	Katie Hamilton, Director, Citizen Engagement and Strategic Planning		
Subject:	Alignment of Upcoming Strategic Planning and Financial Planning Processes		

The purpose of this report is to update Council on the upcoming strategic planning process and to describe how the strategic plan will drive the subsequent financial and operational plans of the City of Victoria. In the development of each plan, public participation opportunities will be provided to ensure that the plans are consistent with community expectations.

The objective of the strategic planning process is to develop a concrete strategic plan with clear deliverables and timelines that will guide the decisions of Council and the work of staff for the next four years. Once in place, the Strategic Plan will inform financial and operational plans, and be used as the reference point by which operational performance will be assessed. Council will review the Strategic and Operational plans on a regular basis and update them according to emerging priorities and the will of Council.

Council Strategic planning will occur immediately prior to consideration of the City of Victoria's Financial Plan. This will enable Council to develop its strategic priorities, which will then be used to inform financial planning and consideration of the 2015 Budget.

Public participation in both the development of the Strategic Plan and the proposed Financial Plan will support the alignment of City programs and services with community expectations. This will provide the public and taxpayers greater transparency and involvement in these important strategic and operational decisions of the City.

Public feedback on Council's draft Strategic Plan will be collected concurrently with feedback on the draft Financial Plan. The public's input will be provided to Council prior to the Council's final decision-making on these plans.

Once Council has established the City's Strategic and Financial Plans, staff will develop an operational plan consistent with their objectives laid out in the plans. Staff will routinely report to the Council to ensure that the Council is satisfied that operational activities are aligned with the City's strategic and financial objectives, and that progress is being made toward achieving these objectives.

Proposed Schedule of Dates:

The upcoming dates are scheduled for Strategic Planning and budgeting.

Strategic Planning:
All sessions will be held at the Victoria Conference Centre

January 26	9am - 3pm Strategic Planning (in-camera)
January 28	9am -1pm Strategic Planning (in-camera)
February 2	9am - 12pm Strategic Planning
February 3	9am - 3pm Strategic Planning
February 5	12pm - 4pm Strategic Planning

The first two sessions of strategic planning are proposed to be closed to the public under Section 12(3)(l) of the Community Charter; namely, "discussions with municipal officers and employees respecting municipal objectives, measures and progress reports for the purposes of preparing an annual report under section 98 of the Community Charter." Developing a strategic plan is the first step toward defining municipal objectives that would be measured and reported on during the Council's term through quarterly reports and the Annual Report.

The majority of the sessions will be open to the public, at the Victoria Conference Centre and will be webcast or videoed and posted online depending on costs.

Facilitation assistance will be provided at the first session by Tracey Lorenson of Paragon Consulting.

Budget Sessions are proposed for:
All sessions would be held in City Hall Council Chambers

February 10	9am - 10am Budget Overview
February 16	9am - 12pm Detailed Presentations
February 17	9am - 12pm Detailed Presentations
February 18	9am - 12pm Detailed Presentations

Recommendation:
To receive this report for information and direct staff to report back with a draft strategic plan timed with first reading of the draft Financial Plan.

Respectfully submitted,

Katie Hamilton
Director, Citizen Engagement and Strategic Planning

Jason Johnson City Manager

Report accepted and recommended by the City Manager:
Date: January 16, 2015

CITY OF VICTORIA

Governance and Priorities Committee Report
For the Meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 16, 2015
From:	Jason Johnson, City Manager		
Subject:	Overview of Compilation of Capital Project Reports/Facilities Assessment Request		

Executive Summary

The purpose of this report is to provide a brief overview to Council on the Crystal Pool, Point Ellice Bridge, and Fire Hall # 1 reports being presented at the January 22, 2015 Governance and Priorities Committee Meeting. These reports are intended to update Council on the work to advance planning for the three existing priority infrastructure projects, and an emerging priority in all City facilities assessment.

Over the past year interdepartmental teams at the City have continued work on all three projects to collect additional information for Council consideration on future investment. At the same time, the City has undertaken a comprehensive process to develop a new financial planning process. Within this work it is apparent that the City of Victoria is significantly lacking an overall facilities assessment plan to guide long term capital investments. As a result, these three reports are timed together along with an additional report proposing Council approval to proceed with a facilities assessment of all civic facilities. The anticipated timing of completion of the Facilities Assessment report is October 2015.

These reports are intended to demonstrate the progress to date, seek further direction and provide a complete and current picture of all of the information available on these potential capital projects at this time. Staff recommend Council continue to receive these reports/updates at the same time. Given the potential significant funding requirements, and that these are unallocated projects within the current financial plan, it is prudent for Council to look at the cumulative financial impacts that each of these projects has. Staff anticipate additional updates to Council throughout 2015.

Recommendation:

That Council accept this report for information.

Respectfully submitted,

Jason Johnson
City Manager

CITY OF VICTORIA

Governance and Priorities Committee Report

For the Meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 16, 2015
From:	Katie Hamilton, Director, Citizen Engagement and Strategic Planning		
Subject:	Market Sounding for Fire Department Headquarters – Fire Station # 1		

The purpose of this report is to update Council that a 10-week market sounding will be initiated the week of January 21, 2015 to gauge the community's interest in collaborating with the City of Victoria to renovate or replace the headquarters for the Victoria Fire Department.

Staff are hoping for an expanded deliberation of non-traditional partnerships or opportunities, in options of replacing or renovating the Fire Department headquarters with an approach to efficiency of operations, costs and maximum value to the taxpayer. To date, information on siting options, impacts to service delivery through location and preliminary investigation of options on Fire Department programming were conducted through the project-planning phase. Potential information achieved through this process will allow for a more wholesome evaluation of the project in its entirety.

This is not a formal request for proposals. The market sounding will be promoted widely with the intent of inviting conversations with individuals and organizations curious or interested in partnering opportunities. Opportunities to view the site and building will be arranged for those individuals or organizations that may have an interest. Property maps, details and contact information, are available to all interested parties as part of the process.

Fire Station No.1 is the administrative headquarters for the Victoria Fire Department and is one of the three stations that serve the citizens of Victoria. The building is strategically located at 1234 Yates Street and includes the Department's fuelling station and fire fighting apparatus, emergency communications and dispatch, fire prevention and investigation, administration offices including Victoria Emergency Management Agency. It also includes the fleet mechanical facility, which provides servicing to external agencies as well. The operation is 24/7 with fire suppression staffing on duty at all times.

Constructed in 1958, Fire Station No.1 has undergone numerous renovations. Assessment reports indicate the building is reaching the end of its lifespan and is in need of renovation or replacement.

Recommendation:

To receive this report for information and direct staff to report back to Council at conclusion of the market sounding process.

Respectfully submitted

Paul Bruce
Fire Chief

Katie Hamilton
Director, Citizen Engagement and Strategic Planning

Report accepted and recommended by the City Manager:
Date: January 16, 2015

CITY OF VICTORIA

Governance and Priorities Committee Report

For the Meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 9, 2015
From:	Julie MacDougall, Acting Director Parks and Recreation		
Subject:	Crystal Pool and Fitness Centre Capital Investment Update		

Executive Summary

At the Special Governance and Priorities Committee meeting on November 14, 2013 Council passed a motion to "set aside the Project Charter for developing options for the future of the Crystal Pool and Fitness Centre until detailed information on Fire Hall #1 and the Point Ellice Bridge can be provided to the public as part of the engagement process." The purpose of this report is to update Council on the information gathered for Crystal Pool and Fitness Centre to inform future discussions on capital funding priorities for the City, while outlining immediate capital projects required to keep the facility operational.

A review of the building system and life cycle replacement issues, which were identified as high priority in the 2011 facility condition assessment, was conducted. The report includes detailed technical drawings, cost estimates, an energy assessment and seismic study. The full report is available at ftp://s0122094958:5208417@ftptmp.stantec.com. The executive summary is attached.

While Council considers capital investment priorities for the City, the planned maintenance and repair program continues. The attached report outlines the recommendations for 2015, which are included in the 2015 budget request and are proposed to commence during the planned annual maintenance closure. This planned work will not significantly reduce the existing risk of a major system failure. To lessen this impact and resulting unplanned or lengthy closures, the 2015 capital budget also proposes to continue with detailed design work.

Once capital funding priorities have been set following a city-wide facilities assessment, the next step is to refresh the project charter for a long term investment strategy for Crystal Pool and Fitness Centre.

Recommendation:

That City Council:

1. Consider the immediate priority items identified in the report as part of the proposed 2015 financial plan, and;
2. Consider future investment options into Crystal Pool and Fitness Centre upon completion of a city-wide facilities assessment.

Respectfully submitted

Terri Askham
Acting Assistant Director
Parks and Recreation

Julie MacDougall
Acting Director
Parks and Recreation

Report accepted and recommended by the City Manager: _____
Date: January 16, 2015

Purpose

The purpose of this report is to update Council on the information gathered for Crystal Pool and Fitness Centre to inform future discussions on capital funding priorities for the City, while outlining immediate capital projects required to keep the facility operational.

Background

The City of Victoria provides funding that allows for the provision of parks, recreation and community programs and initiatives that promote community well-being, enhance the quality of life for citizens, and support a healthy, vibrant, positive and strong community. The City delivers, or facilitates the provision of, recreation programs and services through a variety of venues including the Crystal Pool and Fitness Centre.

The Crystal Pool and Fitness Centre was designed by Victoria architect John Di Castri in 1969 and was opened in 1971. The building (approximately 62,000 SF) contains an eight lane, 50 metre swimming pool that includes a water slide and other leisure components as well as multi-purpose spaces and fitness spaces, including a weight room, cardio areas and a fitness circuit which are not original to the building. Significant financial investments into pool and fitness facilities are typically required within 30 years of original construction, depending on the type of amenities and annual maintenance program. Crystal Pool and Fitness Centre has served the community well over the past 43 years as a result of modest capital investments along with an effective annual maintenance program.

Programs and services are delivered in the areas of health and wellness, aquatics, sport development, and arts and culture.

Crystal Pool and Fitness Centre serves a variety of customers and interest groups including:

- Residents and visitors accessing registered and drop-in programs, recreational and length swimming opportunities, and fitness equipment. There were 255,000 visits to the facility in 2013.
- Eight swim clubs with approximately 600 participants. Swim clubs play a significant role in youth athlete development and the maintenance of masters swimmers' skill and fitness levels.
- The LIFE program (Leisure Involvement for Everyone) has approximately 3000 participants and is part of a regional service that provides access to recreation services for economically disadvantaged individuals and families.
- The Crystal Pool and Fitness Centre offers camps and programs for school-aged children during spring, summer and winter breaks, and on professional development days. Up to 120 children can be accommodated during peak times.
- Community and Seniors Centres receive support from Crystal Pool and Fitness Centre staff in the administration of LIFE program credits, for training and assistance using the shared recreation software, and for the marketing and coordination of programs through the Active Living Guide.
- Central Park users access Crystal Pool and Fitness Centre for both programmed and casual activities including pre-program safety inspections, first aid assistance, and washrooms.

At the Special Governance and Priorities Committee meeting on November 14, 2013 Council passed a motion to "set aside the Project Charter for developing options for the future of the

Crystal Pool and Fitness Centre until detailed information on Fire Hall #1 and the Point Ellice Bridge can be provided to the public as part of the engagement process."

Subsequently, staff were directed to review the capital investment strategy for Crystal Pool and Fitness Centre to minimize risks and keep the facility open and operational. Refurbishment or replacement of building and pool systems is based on their functionality, efficiency and an assessment of their current condition. At the Crystal Pool and fitness Centre the major systems have been well-maintained and have exceeded their typical lifespan. A recent condition assessment (2011) indicates that many of the systems are in need of replacement.

A request for proposals was advertised in in March 2014 and a contract was awarded to Stantec Architecture Ltd. In June 2014. The key deliverables are:

- Develop optimal project packages that maximize the use of capital funding while reducing the closure times required to repair and/or enhance the major pool and facility systems
- Develop cost estimates based on 30% design drawings
- Prepare seismic and energy studies and recommendations
- Identify critical short term repairs

The major pool and facility systems identified as high priority include:

- Replace roof domes and frame that attaches to the roof of the facility.
- Replace marcite pool finish and repair pool gutter drainage system
- Heat, Ventilation and Air Conditioning system upgrade/replacement (boiler, reheat coils, etc.)
- Filter/Mechanical Upgrades
- Reconfiguration of pool drainage to sewer from storm
- Seismic and sprinkler upgrade feasibility study

As part of the assessment, the consultant was requested to identify any other significant investment needs in addition to the above items. In this regard, the roof was identified as requiring replacement.

Issues & Analysis

Crystal Pool and Fitness Centre Life Cycle Upgrades Design Report

The final report was received on January 9, 2015. The executive summary is attached for information and the full report can be found at ftp://s0122094958:5208417@ftptmp.stantec.com. The report identifies potential investment options that would extend the life of the facility as well as detailed technical drawings, cost estimates, an energy assessment and seismic study. At this time the report is presented for information as staff have just received it and further engagement with Council is required prior to being able to recommend an investment option. The intent is that the information in this report will contribute to the development of overall capital funding priorities for the City.

Once capital funding priorities have been set following a city-wide facilities assessment, the next step is to refresh the project charter for a long term investment strategy for Crystal Pool and Fitness Centre.

2015 Capital Investment Considerations

Until such time that Council has comprehensive information to develop capital investment priorities for the City, the general maintenance and repair program will continue at Crystal Pool and Fitness Centre. The attached report identifies the priorities for 2015 and these are included in the draft 2015 capital budget proposal. These repairs include; replacement of 4 damaged dome panels, safety upgrades to the chlorine system, new storm and sanitary pipes, exterior cladding repairs and window replacements, pool drain covers, installation of a crane system to maintain the filter system, boiler inspections and pipe bracket replacements. The funding required to complete these repairs and the detailed design work is $585,000. Additional funding requests and unplanned closures may result should any of the major systems fail.

Recommendation

That City Council:

1. Consider the immediate priority items identified in the report as part of the proposed 2015 financial plan, and;
2. Consider future investment options into Crystal Pool and Fitness Centre upon completion of a city-wide facilities assessment.

Attachments:

Appendix A – City of Victoria Crystal Pool and Fitness Centre - Lifecycle Upgrades Design Report

City of Victoria - Crystal Pool & Fitness Centre – Life Cycle Upgrades Design Report

Stantec

WILLIAMS ENGINEERING CANADA

Engage. Innovate. Inspire.

Prepared for:
The City of Victoria

Revision. 1

January 9, 2015

Sign-off Sheet

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Executive Summary

This report outlines options for improvements at the Crystal Pool & Fitness Centre in order to maintain building durability and occupant health and life safety. The repair/replacement of major systems and components will extend the life of the existing facility for up to 15 years and improve energy efficiency. The request for proposal that was issued by the City of Victoria required the following items be evaluated:

1. Roof dome and dome assembly replacement,
2. Pool finish replacement and rim flow gutter system repair,
3. HVAC system upgrade and replacement,
4. Mechanical system and filter upgrade, and
5. Pool drainage reconfiguration

This report outlines all of this original RFP scope in Option 2. In this option, the building electrical system would be upgraded to include changes to service distribution, service to upgraded mechanical systems, a new fire alarm system, a new emergency lighting system, and a replacement of energy efficient exterior and interior light fixtures.

A structural seismic feasibility review has been performed with a recommendation to not upgrade the existing structure. New addition(s) as described in Option 3, if funded, will meet current seismic criteria. A sprinkler system feasibility review has been performed and a recommendation has been made to fully sprinkler the existing building under Option 2 and 3 as described below. In order to fully outline the investment scenarios, Option 3 was prepared which included the repair/replacement of major systems and components along with a facility enhancement to increase energy efficiency options, improve revenue opportunities, and address common customer concerns regarding the facility. An energy assessment was prepared and is included in the appendix for review. The assessment outlines many cost saving measures and many of them have been carried in the options presented.

The general maintenance and repair program will continue and we have noted these items in Option 1. We recommend the scope of Option 1 be completed in 2015 if funded. The City will attend to minor maintenance and repair on a planned annual basis, and will address major issues as they become critical. The City will continue to carry the existing risk of one or more system failures until a long term plan for facility repair or replacement is adopted.

A full replacement is presented as Option 4 to provide a comprehensive range for comparison. The replacement value for the facility is an order of magnitude estimate, falling within a range depending on the size of the primary pool, additional pool components and the size and scope of the fitness elements and land-related costs.

The project package options that have been prepared each include an order of magnitude cost estimate. The costs noted below include construction, management, professional fees, permits and contingency. The options are as follows:

OPTION-1: Scope requiring attention.
$314,719
This option includes several items that require improvement in 2015 if funded. The items are noted in the report.

OPTION-2: Implementation of initial RFP scope and electrical.
$6,258,495

OPTION-3: Option-2 + Expanded fitness space, universal change rooms and universal washroom.
$12,768,011

OPTION-4: New Facility
$36,680,180

1.0 INTRODUCTION

1.1 FACILITY HISTORY

The City of Victoria "Community Aquatic Complex" was completed in 1971 to serve the community as a recreational facility and venue for competition. A replacement to the Crystal Garden facility, a design for the new pool was commissioned from Architect John Di Castri exemplifying contemporary values of architectural and engineering design. With a budget of $1.5 million (1970), an Olympic sized venue was incorporated, spanned by three acrylic domes for natural light. Brick, tile and wood finishes were employed throughout the spacious and open facility to lend a modern and urban experience for residents and visitors to the city.

Figure 1: Crystal Pool circa 1971

The facility adopted the name "Crystal Pool & Fitness Centre" in fond memory of its predecessor, and the building has seen various upgrades including a sauna, steam room, swirl pool, electronic timing, water slide and fitness/exercise areas to attract and maintain clientele. The building has performed well for its years of operation and is in need of some modern upgrades and finishes.

Situated within the downtown city core, the centrally located Crystal Pool & Fitness Centre continues to support community health and wellness by providing aquatic programs, outdoor sport activities, adventure programs, child and youth programs, and sport development.

1.2 CITY OF VICTORIA PROGRAM AND REQUIREMENTS

Crystal Pool & Fitness Centre provides the services that support health and wellness in the community. Re-investment into the existing facility through refurbishing or replacing the major systems will enable the facility to continue to function effectively for the next 15 years, while ensuring the physical health and safety of the clientele and staff. Further, should funding be available, the services can be expanded and enhanced to meet the community needs for barrier free access, universal change rooms, and consolidated and expanded fitness space. The enhancements would promote attendance.

1.3 PREVIOUS EVALUATION REPORT OUTCOME

The City of Victoria was provided with the final copy of an evaluation report prepared by CEI Architecture Planning Interiors on July 14, 2011. The report allowed the City to prioritize and determine what upgrades and developments will be essential in order to meet their requirements for the next 15 years. The City of Victoria subsequently issued RFP 14-010 on March 18, 2014 for consultant services in order to implement the following improvements at the Crystal Pool & Fitness Centre.

The following RFP scope is currently known as the Crystal Pool life cycle replacement program:

- Replace roof domes and dome assemblies
- Replace marcite pool finish and repair rim flow gutter system
- HVAC system upgrade/replacement
- Filter/Mechanical upgrades
- Reconfiguration of pool drainage to sewer from storm

The RFP also required a Seismic feasibility study and Sprinkler feasibility study be prepared.

Figure 2: Existing Dome over Main Pool

These improvements and studies are included in the report that follows, as is a subsequent client request incorporating a program design study to add a family change room, universal washroom, and a consolidated fitness facility. There are recommendations from the CEI report that were not listed in the issued RFP and are not included in the scope of work of this report. Some of these recommendations will require further review and evaluation if the 15 year period is exceeded. We identify the following potential scopes of work for future consideration:

- A full roof membrane replacement: Should the membrane be replaced, there will be presented an opportunity to provide new insulation to meet modern thermal requirements and thereby assist in an operational cost savings at the facility.
  - Implement within 5 years.

- A replacement of stucco cladding: There is evidence of water ingress through exterior wall assemblies clad with stucco.
  - Implement in 15 years, review existing condition on a 5 year increment.

A number of accessibility and exit safety measures were identified in the CEI report. Some of the items will be captured in Option 2 scope if funded.

1.4 ENERGY ASSESSMENT REPORT

Concurrent with the schematic design phase has been the development of a detailed energy assessment of the building, prepared by Stantec Consulting Ltd and completed on December 15, 2014. The assessment outlines a variety of operational and built solutions that may be implemented in an effort to reduce energy consumption of the existing building (not including fitness expansion). Several recommendations from the report have been included in the investment options. With a final copy of the assessment received, the owner and consultant team will continue to evaluate options and recommendations towards the implementation of the final set of solutions. The recommended energy conservation measures are noted in the report. A copy of the final Energy Assessment Report is included as an Appendix.

1.5 BUILDING CODE REVIEW

Improvements and functional program development recommendations as outlined in sections 2.0 and 3.0 will conform to all applicable general codes and regulations, including but not restricted to:

- 2012 British Columbia Building Code
- British Columbia Health Act document "Swimming Pool, Spray Pool and Wading Pool Regulations", current edition

A copy of our *British Columbia Building Code Compliance Summary* to accompany the contents of this report is included as an Appendix, and an overview of building code design requirements and considerations is provided as follows:

1.5.1 Overview of Building Code Requirements

A sprinkler fire suppression system will be installed at the Crystal Pool facility, which will then comply with BCBC construction article 3.2.2.29 for a non-combustible and sprinklered building, the following improvements will be required:

- Firestopping at all mechanical and electrical services that penetrate exit stairwells and floor assemblies will require inspection for conformance to a required 2 hour fire resistance rating, or replaced.

- The new door and interior glazing at the expanded stairwells in the building SW and NW corners will require a 90 minute fire resistance rating. Doors may be oversized and magnetically held open if desired to permit full visual access from the reception counter.
- Corroding door exit hardware shall be replaced.
- A minimum of one barrier free parking stall shall be 3.7m in width.
- The leading edges of level 2 stairwell landings are not currently provided with tactile warning strips. New strips to identify the top edge of stairs with a contrasting colour and texture will be installed at all exit stairwells.
- Leading edges of stair treads will be finished with a contrasting colour and texture.
- At least one handrail at each stairwell and landing will be continuous, extending horizontally at the top and bottom. The handrail shall meet dimensional requirements of the 2012 BCBC.
- The barrier free entry ramp from the parking lot shall be provided with a graspable handrail at each side of ramp.

2.0 OPTION 1: SCOPE REQUIRING ATTENTION

The following outlines the scope of this option and if funded, we recommend this work be designed and completed in 2015.

- Replacement of pipe brackets in the mechanical and filter rooms with new galvanized steel brackets
- Replacement of 4 damaged dome panels
- Installation of a new crane/hoist for in the filter room for filter tank maintenance
- Safety upgrades to the chlorine gas injection system and chlorine room ventilation system
- Installation of new storm and sanitary pipes to the street
- Inspection and testing of existing boilers
- Repair / replacement of existing windows in front stairwells
- Repair of cladding patches for previous exploratory recess test points
- Replacement of pool drain covers in the deep end

3.0 OPTION 2: IMPLEMENTATION OF INITIAL RFP SCOPE AND ELECTRICAL

The following sections outline the items identified in the original RFP. A seismic upgrade does not form part of this option.

3.1 ROOF DOME AND DOME ASSEMBLY REPLACEMENT

3.1.1 Background Evaluation(s)

The pool domes have deterioration, leakage and condensation identified as far back in time as 1976, owing to environmental and mechanical stresses on sealant and flashings. The 2011 CEI building assessment and the Stantec Crystal Pool Dome Feasibility report completed on June 3, 2013, echo the problems regarding the domes. Organic growth is occurring at the aluminum battens, batten fasteners are showing evidence of corrosion, maintenance ladders are non-operational, flashings and sealants are deficient and condensation control is failing. Moisture to the interior is resulting in condensation to the underside of the panels and as a result is causing deterioration to the main steel ring structure. There are areas of water ingress that is finding its way into the roof structure and interior stucco bulkheads. Presently one original dome panel is cracked and another three, non-original panels are in immediate need of replacement.

Figure 3: Photos showing poor condition of existing domes

3.1.2 Recommendation(s)

The June 3, 2013 Stantec report outlines three feasible options of roof dome rehabilitation at the facility:

- Maintain form and character with a new or rehabilitated assembly;
- New custom dome structure and glazing; or
- New low slope roof with a series of skylights

It is our recommendation to proceed with Maintaining the Form and Character for the following principal reasons:

- The existing building is of architectural interest and importance to the community. A rehabilitation strategy that preserves the original design intent will maintain the facility's architectural integrity.
- The existing roof meets the structural requirements of the day (1971), but is undersized to the meet requirements of the current British Columbia Building Code. The dome as presently configured represents the least impact to the existing building owing from the weight of building elements, and possible snow loading. The replacement of the existing dome assemblies with either a new custom dome assembly or new sloped roof with glazing will invariably increase the loading to the existing roof structure, and thereby increase the risk to the building occupants and ownership.

The new dome replacements will include new acrylic panels, battens, spacers, sealant, and curved dome structures to replicate the existing form and character. We currently plan to re-furbish the existing steel ring beams and use them for supporting the new domes. New flashings and membranes will be provided around the perimeter of the existing ring beams.

An option of re-furbishing the existing domes was reviewed and has since been set aside due to cost, schedule risks and potential asbestos in the existing sealants. In this option, we planned to replace all components along with the acrylic panels. The existing curved dome structures and steel ring beams were planned to be re-furbished.

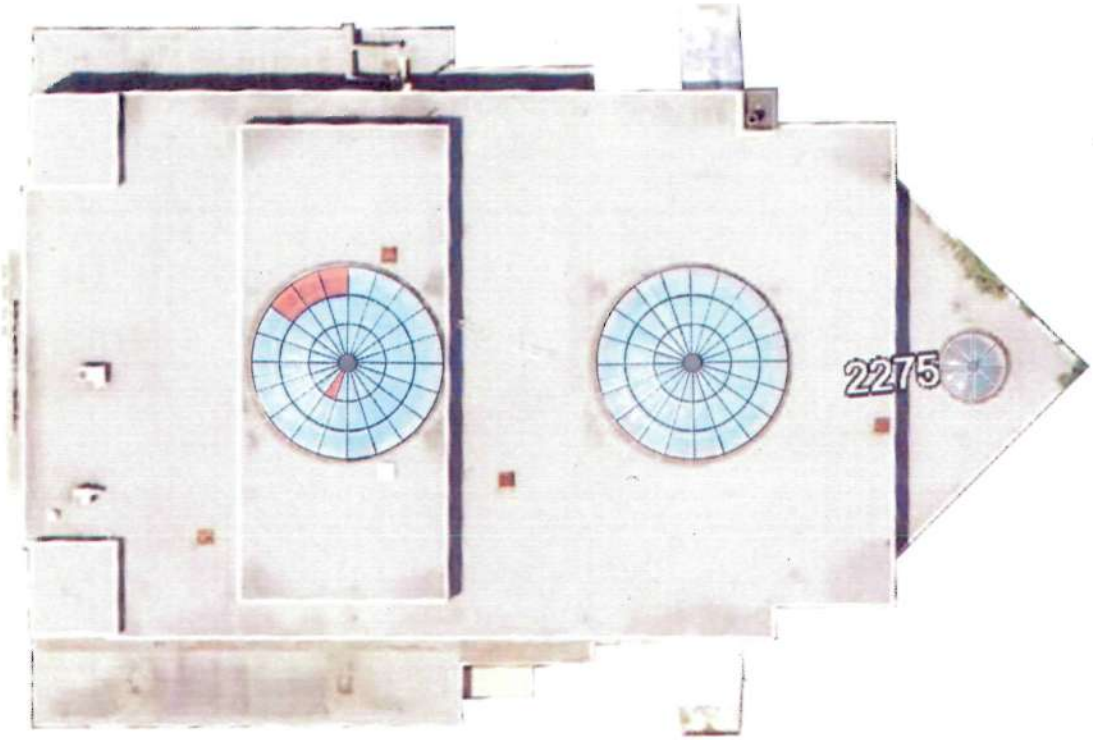


Figure 4: Damaged dome panels in need of replacement (highlighted in red)

The replacement of the acrylic panels identified in OPTION-1 represents the most economical approach. However, the pool will continue to experience water damage from excessive condensation, poor ventilation at the domes, and leakage from an inadequate dome assembly.

3.1.2.1 Architectural

A full dome replacement would entail the removal of all aluminum battens that secure the glazing to the dome structure, as well as fasteners, spacers, sealant and glazing. The dome structure would be disconnected from the structural ring beam, and removed by means of a crane in appropriate sized sections. Roof membranes, insulation, and decking will be removed at the domes in order to permit access to the ring beams. Instances of damage from corrosion will be repaired and painted with a rust inhibitor finish.

With each ring beam re-finished, newly fabricated structural dome frames will be installed. The dome frames will be factory finished, however the rings will be site painted as insurance from possible future moisture ingress. The new dome frame design will incorporate a radial pattern of ribs held in place by a series of concentric rings, comprised of rounded members in order to replicate the existing skylight configurations.

Dome panels will be comprised of a single pane of acrylic, custom curved to suit the compound curved structure. New sealant, neoprene spacers, and aluminum battens will be installed. Below each glazing seam will be incorporated an aluminum drainage channel, integral with the structural frame, directing condensation to the exterior of the assembly. At the perimeter of the domes along the exterior edge, a continuous gutter to catch rainwater will be installed and will be directed to precast concrete splash pads at the roof surface.

At each dome, the curb assembly will be upgraded to include new flashings, rigid insulation, sheathing board, and layers of SBS roof membrane. The curb assembly will be protected with pre-finished sheet metal flashing extending from the new skylight assembly above.

New interior moisture resistant gypsum wall board will be installed to repair the existing sloped sills at the skylight perimeter, and a new paint finish will be applied to all gypsum wall board elements. The slope of the sills will be increased from existing to reduce the risk of condensation collecting on these surfaces.

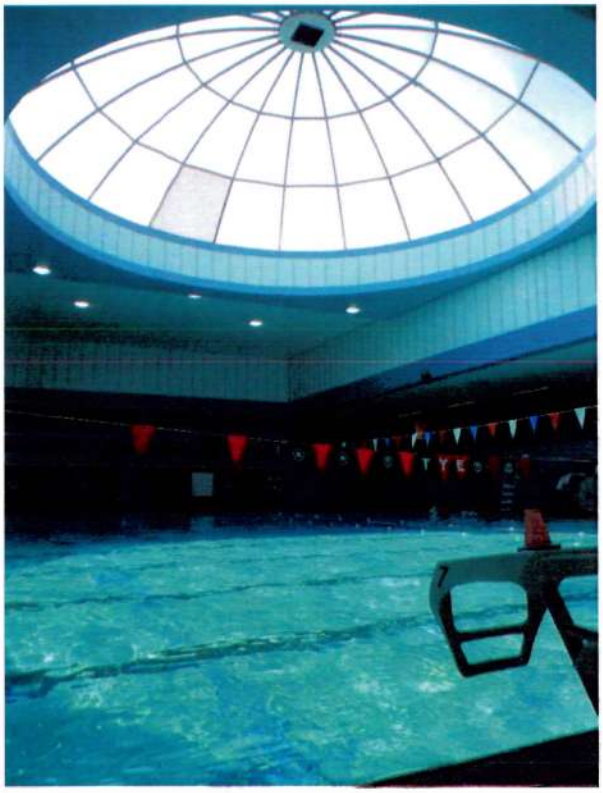


Figure 5: Existing dome providing light to pool below

3.1.2.2 Structural

Replacement of the 4 damaged acrylic panels will include the design of distributed combination loads to include the panel dead, live and wind loads in accordance with BCBC 2012.

The replacement design of new panels, battens and curved structure shall be grandfathered into the existing roof design loads. Combined snow and wind loads shall include the dead load of new panels, battens and curved structure onto existing dome rib support frames, and shall not exceed the maximum support load on the existing ring beam. No further strengthening upgrades to the existing periphery roof structure will be required, as all replacement glazing and batten upgrades will meet the existing structural requirements of the day (1971) with respect to loading.

Further examination and condition assessment of the tension rings will be required.

Dissimilar materials which are not compatible shall be isolated by an insulator to prevent galvanic corrosion.

3.1.2.3 Mechanical

In an attempt to reduce the condensation which currently forms on the glazing and frames of the roof domes, two essential modifications will be made. The ventilation air from the grilles around the roof domes will no longer come from the main pool air handling fans. This air from the natatorium environment is warm and moist; essentially unsuitable for keeping condensation from forming on the domes. Instead, the dome perimeter air will come from a separate air handling unit which will use recovered heat and drier outdoor air. This air will flow directly over the dome glazing to reduce the incidence of condensation. The second modification will be the removal of relief air vents from the top of the dome assembly, and these will be capped to reduce the flow of moist air across the glass and frames.

As outlined in the following section, roof drains will be placed around the domes near the heat tracing cable system to remove any snow melt, and therefore reduce snow load on the roof during winter weather.

Figure 6: Vents to be removed

3.1.2.4 Electrical

Electric heat trace cabling will be provided around the dome assembly. A master control panel will be located in the main electrical room with temperature sensors located along the roof of the facility.

3.2 POOL FINISH REPLACEMENT AND RIMFLOW GUTTER SYSTEM REPAIR

3.2.1 Background Evaluation(s)

A condition assessment of the pool marcite (pool basin coating) was prepared and submitted by Goal Engineering to the City of Victoria on September 9, 2014. The report outlines extensive etching, crazing, and debondment of the pool marcite surface. The report's major recommendation entails a thorough marcite finish removal and replacement. Further observations include corroded support brackets in the filter room, copper staining at drainage pipes, painted tiles, and a loss of tile surface texture.

Figure 7: Pool (deep end)

3.2.2 Recommendation(s)

3.2.2.1 Architectural

3.2.2.1.1 MAIN POOL

All marcite and tile surfacing at the main pool floors and walls will be removed to the concrete substrate, replaced by a new installation of marcite to all surfaces. Tile will be added as a new 300mm high mosaic tile band at the water's edge, and 300mm wide mosaic lane markers at the pool floor. Tile depth markings will be installed around the perimeter deck. A new ramp and stair will be provided at the pool south-east corner, finished with tile.

New stainless steel handrails, ladders, and rungs will be permanently affixed to the pool and deck, to replace existing. A new rail system will be provided with the new ramp and stair. A new barrier free accessible lift system will be installed at the main pool, as will be new diving boards.

New wall attachments for floating lane dividers will be installed, as will be new starter block attachment plates.

The existing expansion joint sealant will be replaced, and joint cover plates refurbished and augmented with additional plates.

Additional protection to the viewing windows from the Basement floor area will be provided with the installation of a vented Lexan panel on the inside at each window in a wood trim.

Two new drain covers will be installed on the main drains at the deep end of the pool, as well as new brass floor and wall supply outlets. Existing brass vacuum connections will remain.

3.2.2.1.2 TOTS' POOL

Existing tile will be removed to the concrete substrate, and the pool will receive a new tile finish throughout. The new finish will include a 300mm horizontal mosaic tile accent at the water level. New tile depth markers will be installed, as will new stainless steel handrails.

New drain covers, brass floor supply outlets and brass wall supply outlets will be provided.

3.2.2.1.3 DECK AND RIM FLOW

The existing main and tots' pool deck tile will be removed to the concrete substrate, and replaced with new tiles to the pool edge.

The inside surfaces of the rim flow will be provided with a two part liquid applied epoxy moisture barrier. The expansion joints that cross through the rim flow will be completed with new expansion joint sealant.

Figure 8: The only existing rim flow access

The existing pre-cast concrete panels around the perimeter of the pools that form the top of the rim flow will be removed and replaced with a modern system. A new continuous plastic or fiberglass trench drain will be installed along the perimeter of the pools in approximately the same location as the existing. To restrain the upper section of the concrete rim flow structure, a

series of stainless steel braces or concrete struts will be installed along the length of the rim flow connecting the two rim flow wall sections. Currently just one access point exists at the top of the rim flow. This will be increased in the new design to provide access points around the full pool perimeter.

3.2.2.1.4 SWIRL POOL

The existing tile will be removed and replaced with new tile. Similarly, the tile at the shower area floor and walls will be removed and replaced with new tile. All fittings and accessories at the swirl pool will be removed and replaced.

3.2.2.2 Mechanical

The improved access proposed in this renovation, maintenance will be simpler and more frequent in future.

3.2.2.3 Electrical

The existing pool grounding system will be reviewed as part of this scope of work. Faulty or loose connections to existing and / or proposed metallic components around the pool vicinity will be corrected if deemed necessary.

3.3 HVAC SYSTEM UPGRADE AND REPLACEMENT

3.3.1 Recommendation(s)

3.3.1.1 Architectural

The existing masonry exhaust flue extending from the basement level mechanical room to above the roof is exhibiting cracks. In addition, although not required, the flue does not meet current seismic standards and should be replaced. If new condensing boilers are installed, then without question due to technical requirements, the concrete masonry unit flue will need to be removed and replaced (with a ULC listed metal boiler flue assembly). A new shaftwall assembly, with prefinished metal cladding, weather barrier, and non-combustible sheathing above the roof line would form the new chimney system for the boiler flue. The new flue assembly would be seismically braced to meet current requirements. As per the dome repair, a repair to affected roof areas consisting of rigid insulation, sheathing board, and a SBS roof membrane will be provided.

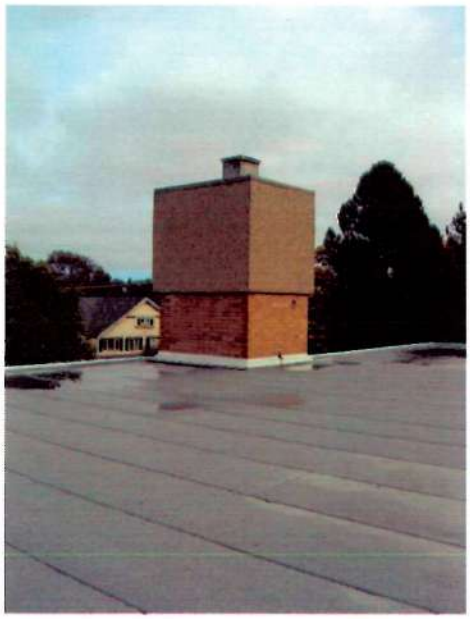


Figure 9: Boiler flue to be replaced

3.3.1.2 Mechanical

The heating, ventilation and air conditioning system (HVAC) at the Crystal Pool is over 40 years old and requires a major upgrade. Most major components are far beyond their expected lifespan and should be disconnected, removed and replaced with new modern energy efficient equipment.

Currently, Crystal Pool is using outdoor air to provide dehumidification and healthful ventilated conditions for the natatorium. To dehumidify and ventilate in this manner, the municipality is spending a large sum of money on natural gas and electricity to heat up and move the outdoor air into the space and exhaust warm moist indoor air to the atmosphere. This is no longer done in modern pools for the obvious reasons of greenhouse gas output and operating cost. Energy recovery and other efficiency strategies should be implemented.

The following sections outline the major components, their condition and ends with a discussion on heat recovery.

3.3.1.2.1 Boilers

The existing 40+ year old Cleaver Brooks Fire Tube Boilers were evaluated in 2012 by the mechanical maintenance company of that time. We understand that they have not been inspected (opened up) since then. In 2012, the boilers were in good condition and efficiency tests indicated that they were running at between 82% - 84% efficiency. This is a good result for this era of boiler, and implies that they are in good shape. These were top quality boilers in their day, and experience with other installation on the island show they have longevity.

Maintenance personnel indicate that the main boilers #1 and #2 are cycled to have relatively equal hours of operation. The smaller boiler #3 is essentially used for the summer (low demand) season.

Figure 10: One of three existing boilers

Based on this and the Energy Assessment Report, it is recommended that:

- The existing boilers be retained and only a controls upgrade be implemented if a fitness expansion is not contemplated
- The existing boilers be removed and replaced with high efficiency boilers and controls if a family change room, universal washroom renovation and fitness expansion is contemplated

The reason for maintaining the existing boiler plants (without conducting a facility expansion) is due to the expected remaining life in the existing equipment, that there is 2N redundancy in the existing plant to mitigate/reduce the chance of an unexpected shutdown, and that they are well sized and cascaded (good original design) for the demand of the existing footprint of the building. If the footprint were to be increased, there emerge additional opportunities for energy recovery and a new boiler plant, sized for the existing and new footprint, should be implemented. As well, energy savings will further increase and greenhouse gases will be reduced.

Finally, if the existing boilers are to remain, it is recommended that they be inspected (opened up) before a final decision is made on keep or replace.

Hydronic Heating System

The hydronic heating system underwent an ultrasonic pipe wall thickness test, or Non-destructive Testing procedure (NDT). The results indicate that the hydronic systems (pipes and coils) are in good shape. Pipe and coil wall thicknesses are well within acceptable ranges and should last another 15 years.

A few exceptions are the Main Heating Coils in the north and south main pool fan rooms. These coils are located in the corrosive (chlorinated) return air stream from the natatorium. They are at life's end as their heating fins are badly corroded or they have already been removed. These coils require replacement.

The main shell and tube and plate and frame heat exchangers in the boiler room and pool filter room will be replaced. Some of them are from the original Crystal Gardens and most of the remainder are over 40 years old and well beyond their life expectancy. A few of the plate and frame heat exchangers are newer, but will be evaluated during the construction documents stage if they can be re-used, but likely replaced. These devices are corroded and damaged.

All hydronic system valves and controls will be replaced and updated; both on the primary loop and the secondary loops.

3.3.1.2.2 Ventilation Systems

The Main Fans for the pool ventilation are operational but corroded and beyond life expectancy. Both the return-air centrifugal fans and supply air side centrifugal fans will be replaced. This will include motors and trim. The supply and return control dampers and actuators will also be replaced.

Similarly for the north-west and south-west fan rooms that serve the front of house and the change rooms; both the return-air centrifugal fans and supply air side fans will be replaced. This will include motors and trim. The supply and return control dampers and actuators will also be replaced.

The main ventilation fans will be fitted with variable speed drives and high efficiency motors to conserve energy during low occupancy periods and when the facility is closed (for example at night).

The existing packaged rooftop units on the front of the building serving the workout rooms and front of house are operational and would be replaced when they fail or if the fitness expansion proceeds.

The Tots Pool Fan will be replaced and a new heat recovery coil will be provided with a new exhaust fan.

All other exhaust fans throughout the facility will be replaced.

As discussed in section 2.1.2 of this report, the dome ventilation systems will be modified to provide optimal ventilation and prevent condensation.

3.3.1.2.3 Pumps

The primary heating system circulation pumps will be replaced with efficient variable speed drive (VFD) pumps. All secondary circulation pumps will be replaced as well, as many are beyond life expectancy and require increasing maintenance.

There are a few newer existing pumps that may be able to be re-used, however this will be evaluated during the construction document stage.

All sump pumps will be replaced with new efficient equipment.

3.3.1.2.4 Control Systems / DDC

The remaining pneumatic control systems will be removed and replaced with modern Direct Digital Control (DDC) systems.

3.3.1.2.5 Heat Recovery

Either a glycol runaround loop or a heat tube loop will be provided between the 4 main supply and return air systems. Essentially, a coil will be placed at each of the exhaust air outlets and the outdoor air inlets to transfer the heat from the exhaust air to the incoming air. This simple but effective system will consist of two coils, glycol pipe loop and a pump. DDC controls will be put in place for the operation of the pump.

If the fitness expansion is contemplated, significant additional heat recovery opportunities become available. There would be room on the new roof / new expansion for simultaneous heating and cooling equipment. A chiller or heat pump would be provided that could transfer heat from one area of the building to another at a high coefficient of performance (COP). This high COP is due to the ability of the heat pump to capture the sensible and latent heat from the exhaust streams. This building is particularly well suited for efficient heat recovery due to the ~80F temperature of the pool water. For example, with the southern exposure of the new fitness area, heat could be recovered from the cooling needed in that area. This heat could be transferred to the pool water or pool ventilation system; significantly reducing the demand on the boilers and on natural gas consumption (and in turn greenhouse gas reduction).

Any additional heat could be used for domestic hot water pre-heat for the shower demand.

3.3.1.3 Electrical

Modifications to electrically connected mechanical HVAC equipment will include the removal of the following equipment:

- North and South Fan Room equipment, including the existing supply air fan, pre-heat coils, exhaust air fan, outside air control dampers & actuators, and pre-heat coil circulation pumps.

- North West and South West Fan Room equipment, including the existing air handling unit, exhaust air fan, outside air control dampers & actuators, and pre-heat coil circulation pumps.
- Existing air handling units above existing Cardio Room 203 and Cardio Room 208.

Modifications will include connections to the following new electrically connected mechanical HVAC equipment:

- North and South Fan Room new equipment, including pool hall supply fans, pre-heat coils, heat recovery circulation pumps, heat recovery coils, tots pool heat recovery circulation pump, and heating cooling recovery unit.
- North West and South West Fan Room new equipment, including heat recovery coils, change room exhaust fans, general area air handling units, and heat recovery circulation pumps.
- New air handling units above the existing Cardio Room 203 and Cardio Room 208.

Refer to mechanical drawings for locations on proposed equipment connections.

3.4 MECHANICAL SYSTEM AND FILTER UPGRADE

3.4.1 Recommendation(s)

3.4.1.1 Mechanical

The current antiquated and corroded filter room equipment, tanks and derelict ozone treatment equipment will be demolished and removed. The equipment is at end of life, and some maintenance procedures necessary on the old equipment and infrastructure are questionable. The new system will consist of open DE filter tanks, UV treatment and chlorine gas injection. This new system of filtration and treatment was chosen based on experience, proven effectiveness and maintenance staff familiarity with the systems.

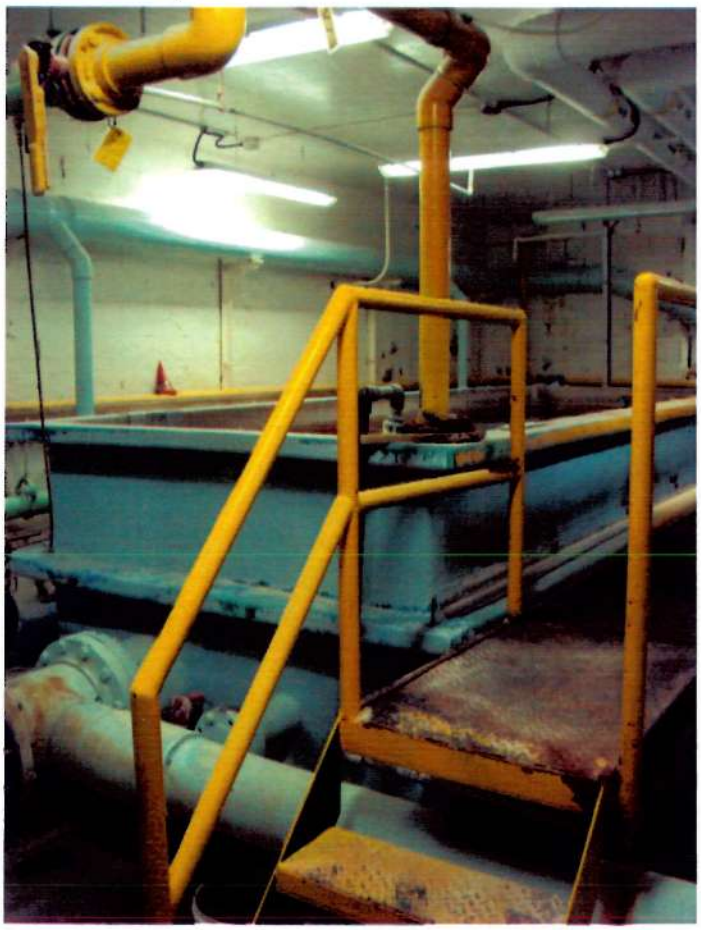


Figure 11: Existing Main Pool filter tank

In any natatorium, good filtration not only supports healthful conditions for bathers, but also has a significant effect on the consumption and level of chlorine in the water and can reduce energy consumption for ventilation. As well, during low occupancy periods and at night, pumping energy can be reduced with the use of good filtration and VFD's. Three open diatomaceous earth (DE) fiberglass filter tanks are proposed for the main pool and a single tank for the Tots pool. Three tanks provide as much filter area as possible and will also allow operational staff to maintain one tank at a time without the need for pool shut-down or maintenance during off hours.

Above the filter tanks on the ceiling, it is recommended to install a linear crane to assist operational staff with filter maintenance procedures. Each filter cassette that needs to be lifted out is approximately 400 pounds. This will assist with compliance to modern Worksafe requirements.

A variable voltage UV light system will be provided to reduce waterborne pathogens further and enable lower free chlorine concentrations in the pools. A variable voltage system is preferred as it can ramp down during off hours to reduce energy consumption; as well as support lower chlorine use.

The chlorine gas injection system will require modification to bring it up to current WorkSafe BC requirements and safety standards. The chlorine gas piping and injector fittings should all be relocated out of the normal occupied service area to the protected chlorine rooms. The injection or mixing process should occur in the specially protected room and then permit only chlorinated water to leave the chlorine rooms. The existing loosely hung plastic tubing which is currently delivering the chlorine gas to the filter room injection points creates potential for a chlorine gas leak within the building. Although there are vacuum regulators preventing a serious leak; the health or possible deadly consequences of a chlorine gas leak inside the building should be corrected at least as part of this renovation, if not immediately.

The filter room will be provided with improved ventilation in order to exhaust the corrosive air within the space. The current system is inadequate.

The Swirlpool has a separate filter/treatment room on the south-east side of the building. It is understood that new filter tanks were installed in the summer of 2014. Since this filtration system is completely independent of the main pool and tots pool; it is currently not being modified as part of this study.

As part of the pool and filter tank drainage system, a media reclamation system will be provided to recover the DE before it goes to the city mains. DE is not good for the city mains nor is it good for aquatic wildlife.

3.4.1.2 Electrical

Modifications to electrically connected mechanical equipment will include the removal of the following equipment:

- Pool Filter Room equipment, including tots and main pool heat exchangers, tots and main pool level control tanks, tots and main pool circulation pumps, vacuum pump, main pool sump pump, and system control panel.
- Ozone Room equipment, including ozone by-pass pumps, ozone control panel, ozone monitoring system, pump disconnects and starters (pump 1, 2 and 3), gas detector panels, and ozone room exhaust fan.
- Boiler Room equipment, including crawl space exhaust fan, domestic hot water recirculation pump, heat exchangers, water feature circulation pumps, whirlpool circulation pump, main and 2nd floor heat circulation pump, basement heating circulation pump, main and tots pool heat exchanger, abandoned heat pump system heat exchanger, abandoned heat pump circulation pump, control panel, and perimeter drainage sump pump.

Modifications will include connections to the following new electrically connected mechanical equipment:

- Pool Filter Room new equipment, including filter room exhaust fan, main and tots pool chemical feed pumps, main and tots pool UV filters, sump pump, and new DDC control panels.
- Boiler Room equipment, including water feature circulation pumps, swirl pool circulation pump, variable frequency drives (for domestic heating circulation pumps, tots pool, basement zone, north fan room zone, main pool heating, main & second floor heating circulation pump), relocated domestic hot water pump, exhaust fan, and sump pump

Refer to mechanical drawings for locations on proposed equipment connections.

3.5 POOL DRAINAGE RECONFIGURATION

3.5.1 Recommendation(s)

3.5.1.1 Mechanical

The pool and filter tanks discharge to the municipal sanitary drainage system from the large sump in the pool filter room. As the 8" sanitary line and 12" storm lines within the building are corroded from contact with chlorinated water and air, it is recommended to replace them with new piping of the same size.

Except for pool and filter tank overflow, there is no cross connection between the sanitary and storm services. This should be considered acceptable practice and safe for pool operations going forward.

3.5.1.2 Electrical

No electrical modifications are anticipated as part of this scope of work.

3.5.1.3 Civil

Refer to Section 2.9 *CIVIL* for a complete scope of civil work pertaining to the pool drainage reconfiguration.

3.6 SEISMIC FEASIBILITY REVIEW

3.6.1 Analysis

A seismic upgrade assessment report was provided for the Crystal Pool building, dated November 7, 2014. The current building configuration does not provide seismic resistance to the 60% level of the British Columbian Building Code (BCBC), 2012 Edition.

Schematic retrofit drawings are included within the report to upgrade the building to 60% of the current code seismic requirements. An Order of Magnitude Estimate was provided under separate cover for all proposed seismic upgrades.

The November 7 assessment report to the City of Victoria includes a Ryzuk Geotechnical engineering field review dated August 6 2014.

3.6.2 Recommendation(s)

The existing lateral capacity of the Crystal Pool structure will be maintained at its current level and will not be upgraded to the current code requirement.

A seismic upgrade to the building is not required due to the nature of the renovation, the existing structure and seismic force resisting systems not being affected, and the expansion being seismically separated from the existing building.

The new Fitness Facility Building addition, if built, will be designed to meet gravity, wind and seismic load requirements in accordance to BCBC 2012 code standards, including a building seismic separation joint provided between the existing building and the new addition.

3.7 SPRINKLER SYSTEM FEASIBILITY REVIEW

3.7.1 Analysis

The Crystal Pool currently has an antiquated sprinkler system in the boiler room and three fire hose stations only. This partial fire suppression method was typical from the 1950's to early 1970's when boiler rooms were fed from a fuel oil tank that could potentially continue providing fuel in a fire situation. The fuel oil system has been removed and the facility (boilers) has been converted to operate on a modern natural gas supply feed. This existing boiler room sprinkler system will be removed, and will be replaced with a new sprinkler system throughout the facility that meets current standards. The existing standpipe and hose cabinets will also be removed.

Under article 3.2.2.29 of the BCBC, if the building was to be constructed today, it would be required to be sprinklered throughout. Local Bylaw updates will soon mandate existing facilities undergoing this level of upgrade to be sprinklered throughout.

From discussions with the Authority Having Jurisdiction, upgraded areas are to be provided with sprinklers and standpipe systems. It was also indicated that the main pool area would not require sprinklers due to low fire load and the high ceiling.

Per NFPA 13, the sprinkler density in service and storage areas will be designed to the ordinary hazard, group 1 classification and in all other areas light hazard requirements. Please refer to the mechanical design development drawings for sprinkler system locations.

The existing fire department connection is located on the North side of the building. It is recommended to maintain this location for fire department operations and ease of mechanical design. The location will be coordinated with the fire department response location (fire alarm panel and annunciator). A consultation meeting should take place with the Victoria Fire Department to confirm coordination with their modern operations.

A new 6" diameter fire main will be required from the city water main to the north side of the building. A water entry / fire sprinkler room will be located on the lower service level on the north side of the building.

Per clause 3.2.5.8.(1)(c), the facility will not be required to have a standpipe system if it is sprinklered throughout.

If the new fitness expansion is constructed, an interconnected floor space (ICFS) will be created by the glazed openings facing the natatorium. Clause 3.2.8.2.(6)(b) and Article 3.2.2.29 of the BCBC 2012 require the ICFS to be "sprinklered throughout" in order to allow an extent of un-rated glazed openings between the second floor fitness room and the natatorium, as is here proposed. Early discussions with the City's Authority did not contemplate an inter-connected expansion next to the natatorium, and had indicated that the pool and deck area could remain unsprinklered. This building code related issue requires further discussion with the Authority and may perhaps require an alternate solution comprised of the installation of specially designed close spaced sprinklers along both sides of the glazed opening.

Refer to Section 2.9 *CIVIL* for a complete scope of civil work pertaining to a new sprinkler system water supply service.

3.8 ELECTRICAL

3.8.1 Main Electrical Service

No changes are anticipated to the main electrical service.

The existing main electrical service is currently set at 1200A 208V 3-phase. This service is supplied via a unit substation, located within the main electrical room in the basement.

Based on the information retrieved from the City of Victoria's Pulse Energy Management System, the peak demand load on the service was recorded to be 160kW over the past 12 months. This equates to approximately 444A. As a result, there appears to be approximately 516A of capacity in the existing service for future growth and expansion.

A detailed load calculation will be performed during detailed design.

3.8.2 Service Distribution Equipment

Electrical distribution equipment modifications will involve replacement and addition of the following equipment. This equipment is considered at or past its expected life expectancy.

- Panel boards G, F, D, K, J, Q, and N.

Existing circuit breakers for each of these panel boards will also be replaced. The associated branch wiring is in the process of being tested. The intent is to retain this wiring if the test results are positive.

3.8.3 Mechanical Systems Distribution Equipment

Mechanical equipment modifications will be limited to the following scope of work:

- North and South Fan Rooms (Section 2.3)
- North West and South West Fan Rooms (Section 2.3)
- Mechanical System and Filter Room (Section 2.4)
- Boiler Room (Section 2.4)
- Existing Ozone Room (Section 2.4)

Refer to the associated sections for each item above and to mechanical and electrical drawings for a list of removed, relocated and new proposed equipment.

3.8.4 Fire Alarm System

The existing facility's fire alarm system will be replaced. All existing fire alarm devices, including all associated wiring will be removed.

A new fire alarm system will be provided. The master fire alarm control panel will be located in the existing electrical room in the basement. The remote fire alarm annunciator will be located in the lobby of the facility. A new device layout will be determined during detailed design.

Refer to the electrical drawings for proposed device location and quantities.

3.8.5 Emergency Lighting

The existing facility's emergency lighting system will be replaced. All existing emergency lighting devices, including all associated wiring will be removed.

New emergency lighting will be provided. A new layout will be determined during detailed design.

Refer to the electrical drawings for proposed device location and quantities.

3.8.6 Exterior Lighting

The existing facility's exterior luminaires will be replaced. The existing exterior lighting control system will also be replaced. The existing branch wiring will be retained.

New energy efficient LED luminaires will be provided. A new central lighting control system will also be provided to control both exterior and interior luminaires.

Refer to the electrical drawings for proposed device location and quantities.

3.8.7 Interior Lighting

The existing facility's interior lighting system will be replaced with new energy efficient LED luminaires. Existing light levels have been verified by using a digital light meter. New lighting levels will be designed in accordance with BC Guidelines for Pool Design (Version 2 June 2014) and IESNA Recommended Practice RP-6-01 "Sports and Recreational Area Lighting".

All existing line-voltage switches will be replaced. The entire facility will be provided with occupancy and daylight sensor devices as a means to localized control.

The existing pool lighting system will be replaced with new energy efficient LED luminaires. There are 2 options being investigated regarding the lighting layout, which will be finalized during detailed design.

A new central lighting control system will also be provided to control both exterior and interior luminaires.

Refer to the electrical drawings for proposed luminaire locations and quantities.

3.8.8 Public Announce System

The existing Public Announce (PA) System will be extended and modified to suite the new layouts of the renovated spaces. The system will be tested, re-commissioned and re-programmed in accordance with the facility's programs and policies.

3.8.9 Security

No changes are anticipated to the existing facility's security system.

3.8.10 Communications

No changes are anticipated to the existing facility's communication system.

3.9 CIVIL

This section will present the required civil components for the life cycle upgrade at the Crystal Pool, specifically the required site servicing upgrades.

3.9.1 DESIGN CRITERIA

The design has been based on the scope of work provided by the City of Victoria, and proposed architectural plans and reviews of the existing as-built drawings provided by the City of Victoria.

The Civil systems will be designed in accordance with the intent of all applicable codes and regulations.

3.9.2 PLUMBING SYSTEMS

3.9.2.1 Site Plumbing Services

There are existing domestic water, sanitary sewer and storm drain services that, based on available record information, are well located for the new lifespan upgrades. However, the storm and sanitary may require replacing depending on their condition which at the present time is unknown. A new fire protection service will be required as well as a new fire hydrant within 45m of the proposed fire department connection.

3.9.2.2 Sanitary Sewer Service

Waste water from the Crystal Pool facility is currently discharged into a 200mm pipe running westward to Quadra Street. There, the lateral pipe intersects with the existing 250mm municipal sanitary pipe.

The current condition and material of the 200mm pipe is unknown. Both the service age of the pipe and the water quality discharged from the facility may have contributed to pipe wall decay and corrosion throughout depending on the pipe material. This pipe may need to be replaced with a new PVC pipe. We recommend that the existing sanitary service condition and remaining lifespan be confirmed prior to detailed design and replacement.

3.9.2.3 Storm Sewer Service

The existing 250mm storm service may also require complete replacement. Similar to the sanitary pipe it may be corroded and no longer serviceable depending on the pipe material.

The replacement would be a new 250mm PVC pipe installed along the same alignment as the existing service. This pipe would run northwards from the Crystal pool and tie into the existing 900mm reinforced concrete municipal storm drain running southeast on Queens Avenue. We

recommend that the existing pipe condition and material be investigated prior to detailed design and replacement.

3.9.2.4 Fire Protection Service

To service the proposed sprinkler system, a new 150mm ductile iron fire service connection will be required. The pipe will run southwards to the facility from the existing 150mm cast iron supply on Queens Avenue. Backflow prevention and a detector check valve will be provided either at the property line or inside the water entry room. A new fire hydrant will be required within 45m of the new fire department connection to be located by the mechanical consultant.

4.0 OPTION 3: EXPANDED FITNESS SPACE, UNIVERSAL CHANGE ROOMS AND UNIVERSAL WASHROOM

Option 3 includes all of the scope as identified in the option 2 above.

In addition to the improvements outlined in the original RFP work noted above, the City of Victoria has requested a program planning study of the existing building in order to align the facility's functional program layout with known limitation in the facility. Improvements desired include a family change room facility to best serve parents with children with privacy, the addition of universal barrier free washrooms in accordance with the current British Columbia Building Code, and a consolidated fitness facility environmentally separated from the pool space. The family change room and universal washrooms will entail an interior renovation within the existing building enclosure, whereas the fitness facility scope will involve a building addition.

4.1 FAMILY CHANGE ROOM, UNIVERSAL WASHROOM AND ENTRANCE LOBBY

4.1.1 Architectural

The new family change room facility was initially considered at the north end of Level-1, to replace two existing offices and to shorten the existing female change area. However, the existing electrical vault below this location restricted the possibility of new shower and toilet drainage from a new change facility above. Therefore, it is here proposed to provide the new family change room at the south end of the building instead, necessitating the removal of the existing child-minding space as well as a shortening of the existing men's locker area. The existing men's and women's change rooms will then trade location to make best use of the revised layout.

Figure 12: Sample family change room stall

A new door access will be provided to the family change area from the public corridor leading to the relocated women's facility. The family change area will consist of a row of six private rooms fitted with a wood or phenolic bench, shelf with hooks, and a shower enclosure, and be secured with an outward swinging phenolic partition door. Two barrier free accessible washrooms will be installed, one of which will be oversized to accommodate a barrier free shower unit in conformance to the current building code. A locker area will be installed across from the change rooms, as will be a mirrored plastic laminate counter top fitted with a sink. It is recommended to provide a solid surface edge trim to the countertop for durability. In conformance to the BC Health Act, visitors will pass through a communal shower area prior to a door-less entry to the pool, briefly crossing the corridor shared by female patrons.

Privacy partitions in the new change room area will consist of structurally reinforced concrete masonry unit construction, edges rounded with a glossy paint finish. The door to the corridor will be glazed with a translucent film, and consist of an aluminum door leaf in aluminum frame. Flooring will consist of an epoxy non-slip membrane extended up the wall as a 200mm cove base, terminated with a prefinished metal trim. Lockers will be stacked, of phenolic construction, and benches will be provided.

The existing perimeter wall finish will be removed and replaced with a suitable underlay material and fluid applied waterproof membrane for a ceramic tile finish.

The addition of the new family change area will require modifications to the adjacent locker room. A new painted concrete masonry unit partition will demise the women's from the family facilities, and a new glazed aluminum door will be provided from the entry corridor. A new locker and bench arrangement will be provided to optimize the shape of the reduced space. The floor and ceiling finishes will be repaired as required.

The building code requires at least one "universal washroom" that may serve either gender, and which may accommodate a person with a mobility disability and their personal assistant. At Crystal Pool, a new universal washroom is proposed to be installed. The new washroom with in-

swinging door will provide a toilet, sink, grab bar, and mirror to meet functional and dimensional requirements for barrier free access as outlined in the British Columbia Building Code. The new washroom will be installed within clear view of the reception staff, available to offer assistance if required.

The existing child-minding will be relocated to the north-west corner of the building, as a result of the new family change room development. The two existing offices at this location will require removal, as will a portion of the existing adjacent locker room. These existing offices will be relocated within the reconfigured level 2 layout. The new child-minding room will be provided with a glazed solid core wood door in an aluminum frame from the corridor. New plastic laminate countertops and cabinetry millwork will be provided at the west and east ends of the room, accommodating a new sink, refrigerator, and dishwasher. Painted gypsum wall board will finish the perimeter walls and partitions, and a new rubber base trim and sheet vinyl will provide a floor finish. A new exterior door will be required to the exterior from this room, which will be accommodated by an insulated glazed aluminum door and sidelight mounted in an aluminum curtain wall system. A new concrete staircase with prefinished metal guard and rail system will provide access to the lowered grade, containing a new yard for play. Security will be provided with a new chain link fence enclosure with two swing gates for safe emergency egress.

Figure 13: Existing Child Minding to be replaced

The adjacent locker room will be reduced in size to suit the new child-minding relocation, and therefore new lockers and benches will be provided in an arrangement that best suits the revised shape and flow of the room. The new demising partition with the new child-minding space may be comprised of metal studs with painted gypsum wallboard finishes. New translucent glazed aluminum door and frame will be provided to the men's space, similar to the new door at the relocated women's locker room.

Further to the addition of a universal washroom, the building entrance and reception lobby will benefit from the reconfiguration of partitioning in order to maintain monitored control over building entrance locations. Currently the view to the set of doors adjacent the south-west stairwell is impeded by a bank of vending machines and partition wall. It is here proposed to demolish the partition and relocate the vending machines across the corridor and adjacent the universal washroom. The coved ceiling from the pool grandstand floor structure above will limit the useable area at this niche, and therefore a new partition and door will be installed from the new vending area, to a new partial height enclosed storage room for staff use. In addition, a new glazed partition and door will be provided at each of the south-west and north-west stairwells at the reception desk level, allowing greater visual access to visitors accessing the second floor level above. The new partitions will additionally permit direct access to the exterior

from each stairwell, improving the code compliance of the building exit functions with the current British Columbia Building Code, and as such will require a fire resistance rating.

4.1.2 Structural

New mechanical and electrical systems will require seismic restraint provisions.

4.1.3 Mechanical

For the family change room and universal washroom upgrades, the additional mechanical work would essentially consist of:

- Connecting the new plumbing fixtures (showers, toilet, sink) to the existing 6" diameter sanitary service within the building which connects to the City Main at Quadra St.
- The domestic hot water recirculation system may need to be up-sized to accommodate the new fixture count, and domestic hot water (DHW) tank volume and recovery rate will need to be reviewed and likely increased (i.e., add another DHW tank in series). Domestic cold water system capacity will be reviewed in a similar manner.
- For the men's and women's change rooms re-locations, revisions to washroom fixtures will occur (toilets, urinals, etc.) to meet required occupant load compliant fixture counts. With layout changes, fixtures will be relocated as well as coring locations for plumbing pipe services through the slab.
- The existing HVAC system will require modifications to accommodate the changing uses of the family change room and the new location of the child minding room. The ducting system and hydronic reheat coils will need to be rerouted and resized from the NW and SW fan rooms. Fan and motor sizes will be reviewed for adequate size and capacity for the additional demand.
- For the relocated child minding room on the NW side of the building, a new packaged rooftop unit is proposed to provide healthful and comfortable conditions within the room during all seasons. The ductwork for the change room on this side of the facility would also require modification.
- The new sink and dishwasher in the child minding room would require connection to sanitary and DHW and DCW systems.
- For the new universal washroom, existing sanitary connections are shown on the original drawings in close proximity to the proposed lobby location. This may minimize the extent of demolition required for connection. Exhaust air, DCW, DHW connections to existing systems would also need to be provided.

4.1.4 Electrical

The existing facility's electrical utility service appears to have capacity capable of supporting the proposed scope of work. No changes to the service are anticipated. Please refer to Section 2.8.1.

Existing distribution panel boards servicing the existing offices, Women's Change Room and Men's Change Room areas will be replaced with new to service the proposed renovations. Existing circuits will be removed and new branch wiring, circuit breakers and wiring devices will be provided.

The proposed layout impacts the existing receptacle layout. As a result, all existing receptacles will be replaced with new receptacles. Receptacles will be commercial grade and will be complete with stainless cover plates. Receptacles will be CSA Type 15/20A 5-20R.

All branch circuit wiring will be replaced with new wiring and will be provided in conduit. The minimum conduit sizes will be 21 mm. Flexible armoured cabling (BX) shall not be used. Branch circuit wiring for power and lighting systems shall be insulated 98% conductivity copper conductor wiring enclosed in EMT (steel) conduit. The minimum size for branch circuit wiring will be #12 AWG and insulation to be 600 Volt RW90XLPE (X Link). Wiring for low voltage systems, including fire alarm, public address, security and other systems is all to be run in conduit. The wiring shall be PVC over-jacketed twisted pair for these low voltage systems.

Existing lighting within the office areas will be removed and replaced. New LED luminaires will be provided to match with those being provided as part of the Crystal Pool Life Cycle Renewal Project. Existing light levels will be verified by using a digital light meter during detailed design. New lighting levels will be designed in accordance with BC Guidelines for Pool Design (Version 2 June 2014) and IESNA Recommended Practice RP-6-01 "Sports and Recreational Area Lighting". All existing line-voltage switching within the renovated areas will be replaced with occupancy sensor switches for control.

Changes to the fire alarm system will be minimal as the entire facility's fire alarm system will be replaced as part of Crystal Pool Life Cycle Renewal Program. However, additional fire alarm devices will be added as required to suit the renovated space.

The existing Public Announce (PA) System devices within the renovated area will be modified to suit the new layout.

All electrical and mechanical equipment will be bonded to the source panel board as per CSA 22.1. The building grounding system is in place and does not appear to require alterations as part of this scope of work.

Refer to the electrical drawings for detailed scope of work.

4.2 FITNESS FACILITY BUILDING ADDITION AND RECONFIGURATION

4.2.1 Architectural

A consolidated and updated fitness facility is desired by the City of Victoria, and will be accommodated by an addition to the Crystal Pool building as well as a reconfiguration of the

existing level 2 floor layout. The existing fitness facility is comprised of a series of exercise equipment that ring the pool at the level 2 mezzanine. The machines and occupants share the same environment as the pool, unsuitable for the durability of machinery and comfort of users. The intent of the new facility will be to congregate the fitness program functions in one general area, and to environmentally partition that function from the remainder of the building.

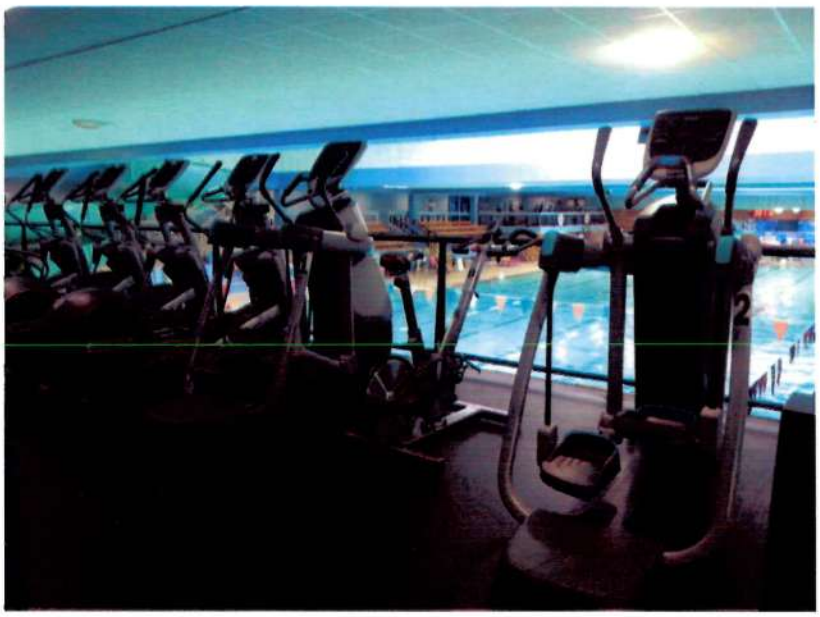


Figure 14: Existing work-out equipment open to pool environment

A level 2 building addition will be provided to the south of the existing building that will include male and female change-rooms, enclosed fitness and storage rooms, and an open weight training room. The addition will be seismically separated from the remainder of the building in order to meet the current requirements of the British Columbia Building Code. The addition will employ a new brick façade compatible with the existing facility exterior, thermally protected with rigid insulation outboard of sheathing, metal stud framing, and painted gypsum wall board interior finishing. Abundant insulated glazing within sections of aluminum curtain wall system will face the park to the south will provide substantial views and natural light to the fitness spaces. An insulated structural metal roof deck will be provided, with a new SBS roof membrane system. A new solar energy system will be located to augment the building power system. The addition will include 2 new storage rooms to support Parks, Recreation & Culture staff and programs. As well, a new corridor and exit door set will be provided to the exterior from the pool deck.

The level 2 fitness area will entail a reconfiguration of the existing corridor and replacement of existing grandstand seating with new level 2 floor area to accommodate an open Cardio layout. A new concrete stair and landing will provide access between the Cardio space and the pool deck below. The resultant consolidated floor area will provide an open, pleasant, and functionally as well as aesthetically updated exercise and fitness facility. The fitness rooms

partitions will be solid up to a height of 2135mm in order to accommodate full room width mirrors, but will allow continuous interior transom glazing above. Natural light will penetrate into the full width of the level 2 fitness corridor and Cardio areas. In turn the demising partition between the level 2 fitness area and the pool below will be comprised of full length tempered frameless glazing, completing a sense of transparency not only through the fitness addition, but through to and from the pool interior as well.

Figure 15: Area for possible level 2 expansion at south elevation

The level 2 fitness reconfiguration will include new enclosure for the existing Cardio function at the open west end exercise mezzanine. Adjacent to this space will be developed two private staff offices, fronting an open corridor to the new south fitness addition space. As per the south fitness area, the west Cardio and office demising partitions with the pool will be linked with a continuous ribbon of full height tempered glazing. Ceilings in each of the west and south portions of the fitness area will be comprised of an arrangement of painted gypsum wall board bulkheads, open painted steel roof deck, and suspended acoustic tile ceiling systems.

A service reception/help desk will be provided at the hub of the west and south fitness areas, which will serve as a secure monitoring station for the new change-rooms located in the building addition's level 2 south-west corner. The men's and women's locker rooms will be accessed by solid wood doors with translucent glazing, mounted in aluminum frames. Each room will be finished with painted gypsum wall board, with ceramic tile at the vanities, toilets, and urinals. As per the level 1 locker room areas, the level 2 change-rooms will be equipped with phenolic lockers and integral benches. New benches will either be solid wood or phenolic. Toilet partitions will be phenolic with stainless steel fittings. The new vanity will be plastic laminate with a solid

surface edge trim. Two new prefabricated shower units will be installed each complete with a shelf and hooks. Partitions adjacent the shower units will as well be finished with tile. An epoxy floor finish will be provided with a coved base and trim detail, and ceilings will be finished with painted suspended gypsum wall board.

Lastly, the existing open mezzanine at the building north-east corner will be redeveloped into two enclosed private staff offices, complete with gypsum wall board partitioning, glazed aluminum doors and frames, door sidelights, and as per the fitness area, tempered glazing for the full width of each office overlooking the pool below. Between the new offices will be installed a new tempered glass guard system to replace the existing guard assembly. Offices will receive a new suspended acoustic tile ceiling.

4.2.2 Structural

4.2.2.1 LEVEL 1 FOUNDATIONS

Proposed foundations for the building addition will be dependent on the findings of the existing soils conditions observed and recommendations provided by a geotechnical engineer. Existing foundations shall be tied together with the new addition foundation system to eliminate differential settlement.

New steel columns which support the second floor and upper roof adjacent to the existing building will be offset by 100 mm to provide a seismic separation joint between the existing structure and new building addition.

Interior non-bearing metal stud partition walls will provide typical dividing wall separations between adjoining rooms at each floor level as noted on new wall partition layouts shown within the architectural drawings.

Metal stud infill framing provides the exterior cladding between supporting steel column grid lines to resist exterior wind loads and designed in accordance to BCBC 2012 at each floor level.

4.2.2.2 LEVEL 2 FLOOR FRAMING

A 100 mm thick reinforced concrete topping with metal decking provides the composite floor configuration, supported by intermediate steel beams and perimeter steel support beams and columns. The floor live load is rated for a minimum design load of 4.8kPa (100 psf), and the floor design will need to accommodate vibration effects for the intended gymnasium occupancy use.

In addition, floor areas anticipated to have heavy equipment may need to be evaluated during the final design phase.

4.2.2.3 ROOF FRAMING

The new roof structure has been designed in accordance to BCBC 2012 snow load requirements, and will accommodate any snow drift from the existing building, including mechanical/electrical roof top equipment and roof mounted solar panels.

The roof system comprises of metal roof decking over pre-engineered and fabricated open web steel joists, bearing on perimeter steel beams, connected to intermediate and corner support columns.

4.2.2.4 RESISTANCE TO SEISMIC AND WIND LOADS

Conventional steel braced frames on the main and second floor level provide the seismic force resisting system for the building addition to resist present code demand seismic forces and are designed for Site Class C per the geotechnical report which is included within the seismic upgrade assessment report.

Steel bracing is located within partition walls as noted on the structural drawings in order not to affect the functionality of the open space. The steel framed building addition is an economical and efficient system which provides lower steel fabrication costs due to simpler connections at beam to column locations, including lateral bracing details. The result of the building frame simplicity is a reduced construction time to erect the structural framing envelope which will reduce the overall construction budget.

The existing building's lateral capacity shall not be affected by the addition due to the provision of a new seismic separation joint. The separation between the buildings will prevent the structures from pounding against each other in a seismic event that could cause significant damage to each building.

4.2.3 Mechanical

With the additional fitness, change room and storage area footprint, new significant opportunities open up for energy reduction and energy recovery. With the new roof over the fitness area, which will be designed to meet current requirements for seismic and structural capacity, additional roof top units and areas to house efficient mechanical equipment are possible. With the fitness facility being located on the south side of the building, the fitness studios and gym will be cooling dominant (heat removal) during the day for a good portion of the year. This "heat removal" be transferred to the pool under close to ideal temperature conditions (high COP). As well, with the ability to provide simultaneous heating and cooling equipment on this option (e.g., Heat recovery chiller or heat pump), additional heat can be recovered from the natatorium exhaust stream (latent heat of vapourization); and also dehumidification can occur in the return air stream (recovering more latent and sensible heat energy); which in turn reduces the need to use tempered outdoor air to dehumidify the natatorium. It is like a triple bonus,

which will reduce the demand on Fortis gas for the boiler plant significantly and bring the current very high (poor) building energy performance index (BEPI) down.

This upgrade would have, by far, the greatest impact on energy use (reduction of gas consumption and GHG output) in this facility. Cost savings on the $250,000 worth of gas and electricity spent annually on heating and ventilation will be demonstrable on the City's Energy Monitoring System.

For the fitness facility building addition upgrades option, the additional mechanical work would essentially consist of:

- Potentially upgrading and re-sizing the boiler plant. Efficiencies could be achieved by providing fully modulating and condensing boiler units. With a high turn down ratio of 10:1 or better, boilers could operate at low fire for most of the heating season. Average efficiencies of approximately 91% could be achieved with condensing units and with a high turn down ratio, heat won't be simply sent up the boiler stack under minimal load.

- With a condensing boiler installation, the exhaust stack would have to be replaced.

- For the HVAC systems, the current cardio AHU would be demolished. The new 2nd floor washrooms/shower rooms would be supplied from the existing SW fan room by newly sized equipment (which needs to be replaced anyway). The new fitness areas will be supplied with conditioned air from three new roof top AHU's that will be connected to the simultaneous heating and cooling chiller / heat pump. This system, along with heat recovery from the 4 main fan rooms, could provide recovered heat for pool heating, as well as outdoor air pre-heating for the natatorium, heat for the change rooms and DHW pre-heat if there is extra capacity available. With the moist warm exhaust air from the natatorium, heat rejection from the cooling dominant south facing fitness area, and the available COP and ideal temperatures of the pool water, a significant reduction in gas consumption is expected. This is a somewhat ideal situation where the facility has several heat sources and several demand points. The strategy is to utilize/transfer all the heat within the facility first to achieve set points, before going to the gas source as a last resort.

- The new 2nd floor washroom fixtures (showers, toilets, sinks) will be connected to the existing 6" diameter sanitary line which leads out to the city main on Quadra Street. The DHW re-circulation system would likely need to be increased in capacity/size to serve the additional fixture units. The DCW system would also need to be reviewed and likely up-sized.

- The new fitness areas will be fully sprinklered to light hazard design density per the NFPA 13 standard. A fire rated glazing system will likely be needed at the glass between the natatorium and the fitness area on both sides of the glass to maintain the required floor fire rating.

- A solar hot water system is suggested by the energy report and is recommended as part of this scope. It is proposed to offset a portion of the pool or domestic hot water heating demand from natural gas.

4.2.4 Electrical

The existing facility's electrical utility service is capable of supporting the proposed scope of work. No changes to the service are anticipated.

New distribution panel boards will be provided to service the new fitness facility building addition. Existing branch wiring, circuits and devices servicing the existing fitness room will be removed. New branch wiring, circuit breakers and wiring devices will be provided. A new receptacle layout will be required to suit the modifications. Receptacles will be commercial grade and will be complete with stainless cover plates. Receptacles will be CSA Type 15/20A 5-20R. All new branch circuit wiring will be provided in conduit. The minimum conduit sizes will be 21 mm. Flexible armoured cabling (BX) shall not be used. Branch circuit wiring for power and lighting systems shall be insulated 98% conductivity copper conductor wiring enclosed in EMT (steel) conduit. The minimum size for branch circuit wiring will be #12 AWG and insulation to be 600 Volt RW90XLPE (X Link). Wiring for low voltage systems, including fire alarm, public address, security and other systems is all to be run in conduit. The wiring shall be PVC over-jacketed twisted pair for these low voltage systems.

Existing lighting within the existing fitness room and corridor will be removed and replaced. New LED luminaires will be provided to match with those being provided as part of the Crystal Pool Life Cycle Renewal Project. New lighting levels will be designed in accordance with BC Guidelines for Pool Design (Version 2 June 2014) and IESNA Recommended Practice RP-6-01 "Sports and Recreational Area Lighting". All existing line-voltage switching within the renovated areas will be replaced with occupancy sensor switches for control.

Changes to the fire alarm system will be minimal as the entire facility's fire alarm system will be replaced as part of Crystal Pool Life Cycle Renewal Program. However, additional fire alarm devices will added as required to suit the renovated space.

The existing Public Announce (PA) System devices will be extended into the new fitness facility building addition.

All electrical and mechanical equipment will be bonded to the source panel board as per CSA 22.1. The building grounding system is in place and does not appear to require alterations as part of this scope of work.

5.0 OPTION 4: NEW FACILITY

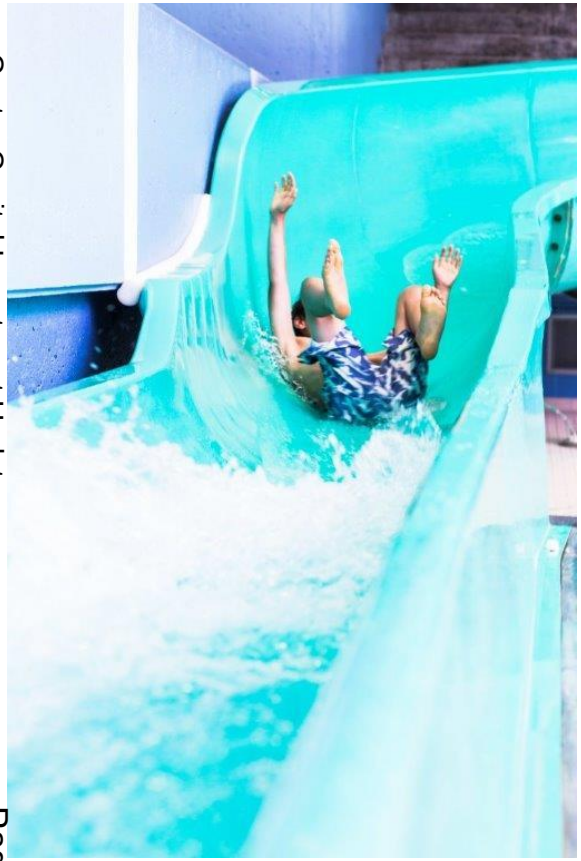
A replacement option is presented to provide a comprehensive range for comparison. The replacement value for the facility is an order of magnitude estimate, falling within a cost range depending on the size of the primary pool, additional pool components and the size and scope of the fitness elements and land-related costs. Current examples of 50-metre (current) and 25-metre primary pools include:

- UBC Aquatic Centre, $38.5M
  Scheduled to open Summer 2015
  Notes: 50-metre competition pool, 25-metre recreation pool, leisure pool, hot tub, wet classroom, multi-purpose spaces and meeting rooms. LEED Gold.
- Iqaluit, Nunavut, $34M
  Scheduled to open 2016
  Notes: 6-lane 25-metre pool, leisure pool, whirlpool, sauna, fitness centre, waterslide.
- Edmonds Community Centre, Burnaby, BC, $32M
  Opened 2013
  Notes: 6-lane 25-metre pool, leisure pool with lazy river and beach entry, water toys, waterslide, 12,000SF twin gymnasiums, fitness centre, community kitchen, multi-purpose rooms, seniors lounge, youth room, preschool play centre with indoor playground. Targeted LEED Silver.

Crystal Pool & Fitness Centre Capital Investment Update

CITY OF VICTORIA

Crystal Pool & Fitness Centre Capital Investment Update



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Crystal Pool & Fitness Centre Capital Investment Update

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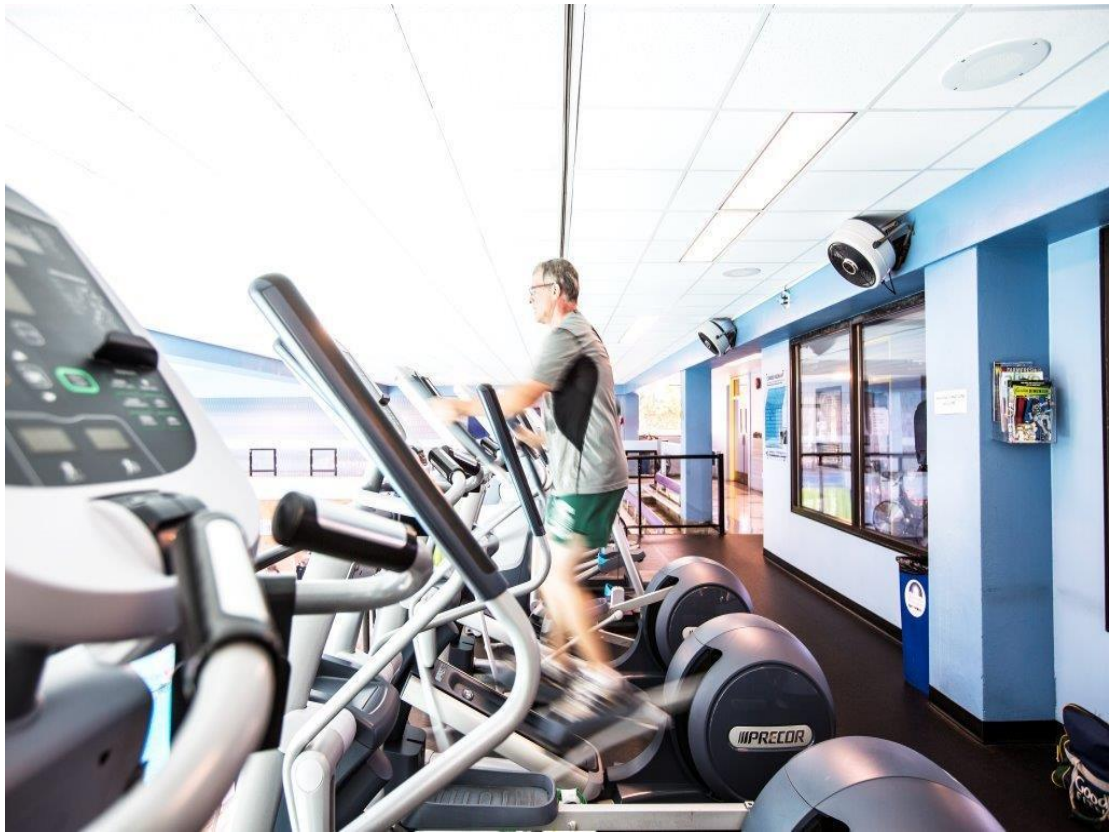

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Crystal Pool & Fitness Centre Capital Investment Update

Recommendation

That City Council:

1. Consider the immediate priority items identified in the report as part of the proposed 2015 financial plan, and;

2. Consider future investment options into Crystal Pool and Fitness Centre upon completion of a city-wide facilities assessment.

CITY OF VICTORIA

Governance and Priorities Committee Report
For the January 22, 2015 Meeting

To: Governance and Priorities Committee **Date:** January 15, 2015

From: Dwayne Kalynchuk, Director, Engineering and Public Works

Subject: Point Ellice Bridge – Rehabilitation/Repairs Assessment and Updated Cost Estimates

Executive Summary
To assist in developing options and recommendations for Council on determining capital priorities, Council directed a review of three of the City's largest capital priorities – Crystal Pool, Fire Hall #1, and the Point Ellice Bridge. In response, the City retained a consultant to conduct further analysis on bridge repairs initially identified in an earlier review, refine the design for possible pedestrian and cyclist improvements, and provide updated cost estimates for the Point Ellice Bridge.

A 2013 assessment had recommended complete replacement of the concrete portion of the bridge deck; however, field testing performed in September 2014 confirmed the concrete deck is in relatively good condition, and replacement is not required. As a result, the reduced scope of recommended maintenance work is now estimated at approximately $3,600,000 – currently, $4,000,000 is identified for consideration as part of the 2017 Capital budget.

Widening the Point Ellice Bridge for cyclist and pedestrian improvements would cost approximately $15,250,000. Priority projects for Bicycle Master Plan Implementation over the next five years (2015-2019) endorsed by Council in August 2014 did not include the Point Ellice Bridge.

Recommendation:
That Council direct staff to include maintenance repairs to the Point Ellice Bridge, as identified in the Report on Point Ellice Bridge Maintenance and Enhancement Proposals, dated December 1, 2014, as a project for Council consideration in the Financial Plan for 2017.

Respectfully submitted,

Brad Dellebuur
A/Assistant Director

Dwayne Kalynchuk, P.Eng.
Director,
Engineering and Public Works

Report accepted and recommended by the City Manager:

Date: January 16, 2015

Purpose:
The purpose of this report is to update Council on the latest condition assessment of the Point Ellice Bridge, including analysis of previously-identified repairs, refinements to proposed cyclist and pedestrian improvements, and updated cost estimates for the identified works.

Background:
The Point Ellice Bridge crosses Victoria's Upper Harbour, connecting downtown Victoria with the Victoria West neighbourhood. The existing steel and concrete bridge (opened in November 1957) is the sixth bridge to span the Harbour at this location, the first bridge being constructed in 1861.

The current bridge deck has one vehicle lane in each direction, with a sidewalk on the south side of the bridge. There are no marked bike lanes on the bridge. Long-range transportation planning for the Victoria West neighbourhood in 2005 identified the need to improve pedestrian and cyclist facilities on the Point Ellice Bridge, however, previous grant applications to secure funding to implement these improvements have been unsuccessful.

Point Ellice Bridge, looking east

While minor maintenance work continued to be done on the bridge over the past several years, larger-scale maintenance work, most notably steel structure repairs and repainting, was deferred while the City pursued third party funding. A condition assessment done for the City by Hindi Engineering Ltd. in April 2013 determined the existing bridge to be in poor to fair condition. The cost of identified repairs, including deck replacement and repainting of the existing structure, estimated at +/-$11,000,000. The estimate provided was an order-of-magnitude costing, and was based on preliminary design sketches.

At that time, the consultant noted that, with proper maintenance, the bridge would have a remaining life span of approximately 50 years.

To assist in developing options and recommendations for Council on determining capital priorities, Council directed a review of three of the City's largest capital priorities – Crystal Pool, Fire Hall #1, and the Point Ellice Bridge. The City retained Stantec Consulting Ltd. in 2014 to conduct further analysis on bridge repairs initially identified in the 2013 review, refine the design for pedestrian and cyclist improvements, and provide updated cost estimates for the Point Ellice Bridge.

The consultant completed investigation and analysis work in September, and provided the City a final report (dated December 1, 2014).

Issues & Analysis:
As part of their investigation/review, Stantec personnel identified field testing work needed to confirm the existing condition of the structure, to help refine the design for possible widening of the bridge, and provide greater certainty on work scope and cost.

1. **Condition Assessment/Maintenance-related repairs:**
   The 2013 assessment had recommended complete replacement of the concrete portion of the bridge deck – this represented a significant portion of the $11,000,000 estimate. Field testing was performed in September 2014 to verify this work was necessary - testing included removing a small portion of the asphalt surface on the bridge to physically examine the concrete deck below, and using ground-penetrating radar to confirm the condition of structural steel members located below the concrete deck. The results confirmed the concrete deck is in relatively good condition, and that replacement is not required.

   While the testing revealed the concrete deck is in good condition, the consultant expressed concerns that corrosion in the steel stringers and floor beams of the bridge deck (structural members immediately below the concrete deck) has reduced capacity by approximately 11%. To address this, the consultant is recommending that maintenance work include mitigation measures to reduce future steel corrosion.

   The present condition of the Point Ellice Bridge is considered safe for normal vehicle use. However, the consultant recommends implementing a 50,000kg Gross Vehicle Weight load restriction. The need to move this size of load across the Point Ellice Bridge rarely occurs, therefore the impact of this restriction is relatively minor. The load restriction would not necessarily prohibit vehicles from crossing the bridge, only the manner in which they travel over the bridge (speed restrictions, line of travel on the bridge deck, etc.).

   The load restriction would not impact traffic typically found on City streets (e.g. a fully loaded concrete truck - 43,100kg GVW, the heaviest Fire Department vehicle – 30,900kg GVW). Signs would be posted on the approaches to the bridge, and local businesses that could potentially be impacted would be advised of the restriction.

   The updated scope of maintenance work now includes:

   - replacing the main expansion joints;
   - repairing concrete at the abutments;
   - adding anodes to the bridge structure to reduce future steel corrosion;
   - removing the asphalt deck to add a waterproof membrane;
   - resurfacing the bridge deck (asphalt);
   - preparing and refinishing pedestrian handrails and light standards;
   - preparing and repainting the existing steel structure.

   Performing this maintenance work will impact traffic. While the consultant recommends doing the maintenance work within the next 3-5 years to avoid additional deterioration, they suggest

starting work after the completion of the Johnson Street Bridge project to minimize area traffic impacts. Although full closure of the bridge would allow for the most cost-effective construction method, the consultant recommends phasing work on the structure, and keeping pedestrian space and one vehicle lane open at all times. Details on potential traffic impacts will be defined once full design drawings are completed, and construction tenders are awarded for this work. At that time, this information will be shared with the general public, adjacent businesses, emergency service providers, transit, and other stakeholders.

Given the reduced scope of recommended maintenance work, the updated Class D estimate is approximately $3,600,000 – currently, $4,000,000 is identified for consideration as part of the 2017 Capital budget.

The testing work, and the subsequent refinements on the widening design, also confirmed the maintenance work can proceed independently, as there is minimal scope and cost overlap with the widening design.

2. **Refinement of Widening Design for Pedestrian/Cyclist Facilities:**
Plans to widen the Point Ellice Bridge to better accommodate cyclists were originally developed for the City in 2001. The most recent design concept includes widening the bridge deck, replacing the south side sidewalk, installing a new sidewalk on the north side of the bridge, and expanded improvements to road approaches.

To provide greater certainty on widening costs, the consultant evaluated the structural capacity of the deck steel work, and the increased deck weight associated with the widening. The consultant noted widening could be accomplished using standard bridge design and practice, with the limiting condition that the increase in deck weight would be limited to that allowed for in the original bridge design. Keeping within this limit would avoid the additional cost of strengthening the main steel girders, and avoid reducing the effectiveness of seismic upgrading work done to the bridge in 2001-2002.

A Class D cost estimate indicates widening would cost approximately $15,250,000.

The priority projects for Bicycle Master Plan Implementation over the next five years (2015-2019) endorsed by Council in August 2014 were Pandora Avenue, Johnson Street, Vancouver Street, and the off-Shelbourne Street, off-Bay Street, and Wharf/Belleville corridors. In addition, the construction of improved bicycle and pedestrian facilities on the Johnson Street Bridge will provide a more direct connection between the downtown core, the Victoria West neighbourhood, and regional cycling corridors. Improvements to the Johnson Street Bridge were not contemplated when the Point Ellice Bridge concept was developed in 2001.

Recommendation:
That Council direct staff to include maintenance repairs to the Point Ellice Bridge, as identified in the Report on Point Ellice Bridge Maintenance and Enhancement Proposals, dated December 1, 2014, as a project for Council consideration in the Financial Plan for 2017.

Executive Summary

This Report on Point Ellice Bridge Maintenance and Enhancement Proposals (Report) briefly states the major outstanding maintenance requirements of painting the structural steel work, replacing the main span expansion joints, and concrete repairs to deteriorating concrete at the abutments. Sealed joints in the asphalt roadway surface and clearing blocked deck drains require ongoing maintenance.

This Report examines in detail the proposal to widen the deck to provide a two lane bridge with bicycle lanes and sidewalks on both sides. This review also evaluated the capacity of the deck structure to carry the Canadian Highway Bridge Design Code (CHBDC) CL-625 design vehicle as well as overload type permit vehicles, based on criteria established by the British Columbia Ministry of Highways and Infrastructure (MOTI) for major routes. In this analysis an allowance was made for loss of structural beam capacity through corrosion. Non-destructive investigation has been undertaken to provide a more accurate figure of percentage loss of steel in the thickness of the beam top flanges and the analysis adjusted accordingly. The present condition is considered safe for normal use.

A study of the original deck drawings revealed that the concrete thickness protecting the reinforcing bars was only 25.4 mm (1") (modern practice is 70 mm or nearly 3"), plus the 50.8 mm (2") of asphalt. This depth of cover is intended to prevent ingress of chlorides and water that would, over time, corrode the steel bars. There is a concern that delamination of the concrete (separation of the top concrete from that below at the reinforcement layer) will have occurred. An investigation to determine the extent to which this may have occurred has been undertaken by Goal Engineering whose report is attached. Little evidence of delamination and corrosion of reinforcement was detected.

With respect to the proposed widening, this would be accomplished using standard bridge design practice and materials, with the limiting condition that the increase in deck weight would be limited by that allowed for in the original design. The proposed cross-section is shown in SK-1 in Appendix B. The sections meet the minimum requirements specified by the brief of 1.7 m sidewalks, 1.8 m bicycle lanes, and 3.05 m traffic lanes.

Phasing of the work is also examined in detail; with the proposal that the Bridge be closed to public two-way traffic, but retains controlled one-way operation for emergency vehicles (fire routes to Vic West and ambulance to Royal Jubilee Hospital use Bay Street), police, transit, and pedestrian use on one sidewalk. This would necessitate the work being done in two phases; with the initial phase being on the north side of the centreline. It is recommended that the work be scheduled after completion of the Johnson Street Bridge when the improved road alignment will mitigate the increase in traffic.

Stantec

Report on Point Ellice Bridge Maintenance and Enhancement Proposals

City of Victoria

Prepared for:
City of Victoria
1 Centennial Square
Victoria, BC V8W 1P6

Prepared by:
Stantec Consulting Ltd.
400 – 655 Tyee Road
Victoria, BC V9A 6X5

Final

December 1, 2014

Sign-off Sheet

This document entitled *Report on Point Ellice Bridge Maintenance and Enhancement Proposals* was prepared by Stantec Consulting Ltd. ("Stantec") for the account of City of Victoria (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

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Stantec

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Phasing of the work is also examined in detail; with the proposal that the Bridge be closed to public two-way traffic, but retains controlled one-way operation for emergency vehicles (fire routes to Vic West and ambulance to Royal Jubilee Hospital use Bay Street), police, transit, and pedestrian use on one sidewalk. This would necessitate the work being done in two phases; with the initial phase being on the north side of the centreline. It is recommended that the work be scheduled after completion of the Johnson Street Bridge when the improved road alignment will mitigate the increase in traffic.

1.0 BACKGROUND

The existing Point Ellice Bridge (Bridge) superstructure was constructed in 1956–57 upon the foundations and abutments of the pre-existing bridge. This bridge consisted of four equal spans, with a total length of approximately 183 m (600 ft.).

The piers were of unreinforced masonry and the abutments of reinforced concrete. The new Bridge utilized a three span continuous steel plate girder design, profiled to a higher elevation than previously to allow for increased navigable headroom under its centre span. The old west span was divided into three shorter steel girder spans with the addition of two reinforced concrete piers.

The new higher vertical alignment impacted the design and reuse of the older abutments, which, if raised and backfilled, would have resulted in them being unstable. Extra approach spans (approximately 9.6 m long) were added at each end in reinforced concrete to address this problem. These approach spans are enclosed at each side by masking walls so their existence is not obvious. Additional extensive wing walls were required at the east approaches to accommodate the higher grade; the west end being resolved mainly by fills.

At the east end, settlement of the approach span abutments has occurred resulting in an obvious dip in the roadway. This settlement arises from consolidation of the underlying soft soils from the new approach fills and possibly also influenced by the fills associated with concrete recycling industrial operation on the site to the south.

Currently the roadway width between curbs is 8.53 m, with a sidewalk of 1.6 m width on the south side only (this width is the effective width as reduced by the inwardly projecting guardrail). There is also a limited sidewalk on the north side, 0.6 m wide (after a similar adjustment for the inward leaning guardrail).

The Bridge received a seismic upgrade in 2001–2002, which included some reinforcement of the masonry piers, replacement of the main Bridge bearings, and work to seal joints in the roadway surface. The steel work has not been repainted for many years.

2.0 PREVIOUS RECENT REPORTS

A report titled *Inspection and Repair Options Report* was prepared by Hindi Engineering in April 2013. This report recorded known issues of leaking deck joints causing rusting to the top flanges and ends of the steel members and cracking/spalling in the area of the abutments and approach spans most likely associated with settlement. This report also shows options for a new concrete deck and overlay to the existing width or one widened to accommodate sidewalks and a bicycle lane on each side.

For ongoing maintenance, this report summarized the following:

- Repair failed cold joints (these occur laterally at about every 5.6 m centres over the full length of the Bridge [typically over every floor beam])
- Address blocked deck drains, improve or redesign
- Inspect the Bridge every six months; monitor for leaks, monitor settlement of the approaches—repair if necessary
- Estimated funding requirements for maintenance, widening, corrosion prevention/painting, and general miscellaneous repairs

3.0 MAINTENANCE

The immediate maintenance requirements have been identified in previous reports and summarized in Section 2.0.

Repainting of the steel work; either partially (where active corrosion is occurring) or overall, should be scheduled for within the next few years. Lead paint can be anticipated requiring full environmental protection measures. Encapsulation in sections of the centre span will place restrictions on the navigable headroom (which is fully utilized by current users as evidenced by bottom flange damage and deposition of wood chip debris on the bottom flange). To eliminate/reduce leaking joints and painting, the most appropriate phasing would be at the time of the proposed deck widening and the associated work, provided this would be undertaken in the next three to five years.

4.0 ENHANCEMENT PROPOSALS

The existing deck, while adequate for two lanes of motorized traffic, each being 4.26 m (14 ft.) wide is deficient for concurrent bicycle use and for pedestrian sidewalks, particularly on the north side.

The residential developments to the west will result in increased pedestrian and bicycle users.

The City of Victoria (City) has specified that a wider deck should consist, as a minimum, of the following:

- Sidewalks each side, clear width approximately 1.7 m
- Bicycle lanes each side, with 1.8 m
- Roadway, two lanes, each 3.05 m

This study has therefore evaluated the structural capacity of the deck steel work and increased deck weight from the proposed widening as follows:

4.1.1 Existing Structural Capacity of the Deck Steel Work

The 1956 bridge was designed to the H-20 truck specifications (and associated lane loading) of the American Association of Highway Officials. The H-20 truck design had two axles spaced 4.27 m (14 ft.). The front axle loading was 36 kN (8,000 lbs); rear axle loading was 143 kN (32,000 lbs), which equalled a total of 179 kN (40,000 lbs or 20 tons). This is substantially less than the current Canadian Highway Bridge Design Code (CHBDC) CL-625 design vehicle (which has more axles), but typically short span deck members - if in good condition - (i.e. Point Ellice stringers and floor beams) would normally be expected to support these localised axle loads. However, these members have undergone corrosion of the top flanges from water leakage through the deck joints and their capacity reduced.

The members have therefore been evaluated for the current CHBDC design vehicle, dynamic load allowances, etc. and also for permit overload vehicles as identified in recent bridge evaluations undertaken for the British Columbia Ministry of Highways and Infrastructure (MOTI) on major routes. The thickness of these member top flanges have been measured ultra-sonically and found to have lost up to about 15% of their nominal thickness. This corresponds to an 11% loss in structural flexural capacity. The resulting tabulations are presented in Appendix A, together with information on the vehicles use in the evaluation.

The current CHBDC design vehicle is a five axle vehicle of a gross weight of 625 kN (the largest axle load being 175 kN).

The overload vehicles include a 16 and 24 wheel tandem/tridem vehicle and multi-axle (6 axle) mobile crane axles.

The evaluation procedure is specified in Section 14 of the CHBDC.

The members considered were:

- The longitudinal steel stringers spanning 5.6 m between the transverse floor beams—only two occur in the cross section, the other members supporting the roadway deck in this direction being the main span girders (Note: There are also two stringers under the existing sidewalks)
- The floor beam (upon which the stringers bear)
- The stringer and floor beam end connections: rivets and bolts

The results are presented in the last column of Table 1 (Appendix A) and given as a ratio known as live load capacity factor (LLCF), which indicates:

$$\text{LLCF} = \frac{\text{Available live load capacity of the design member or detail}}{\text{Actual design load}}$$

Therefore a number greater than unity 1.0 shows the extent of spare capacity, while less than unity, indicates a measure of a deficiency.

The column "Load Case" identifies the design vehicle being considered. The letters "CL" being the identifier for the CHBDC vehicle; the results are generally acceptable, particularly if the flexural capacity is not reduced by corrosion.

"PS 85" (the tandem/tridem vehicle) and "PA" (being the mobile crane) on centerline are the permit vehicles; results being generally acceptable if a condition of 20 kph speed restriction is imposed. (The Table 1 calculation assumes a traffic speed in excess of 40 kph, but if the permit speed is reduced, in this case to less than 20 kph, the effect of sudden load being applied (technically called the Dynamic Load Allowance factor) is significantly reduced. Thus if this speed limitation is applied, the results trend to an acceptable range.

From the ultra-sonic measurement of the thickness of the top flanges, the flexural capacity of the floor beam was found to be reduced by 11%. The stringers have also lost some material from the top flanges but the measurements taken were anomalous, i.e. on the members sampled, the members showed no loss or even a thickening (although this may be a historical anomaly of supply, with the specified member not being available, therefore a stronger one was used). The previously assumed reduced capacity of 9.34% for the stringers was retained for the evaluation.

The reduced flexural capacity of the floor beams (11% reduction used) and the stringers (9.3% assumed) were input into the evaluation analysis - see Table 1). These produced a live load capacity factor low of 0.82 (less than 1.0). This warrants consideration of introducing a load restriction on the bridge, which can be derived directly from Figure 14.8 of the current Canadian Bridge Code. This limit is GVW of 50 Tonnes (50,000 kg). This GVW is higher than the typical downtown traffic heaviest vehicle, which we believe to be that of (or similar to) a fully loaded Butler Ready Mix Truck of GVW 41,300 kg or the heaviest Fire Department Ladder Truck #1 of 30,900 kg.

4.1.2 Criteria for Limiting Increase in Deck Weight from Proposed Widening

An increase width will involve an increase in deck self-weight, but some limitations need to be considered.

1. A significant increase in overall mass would reduce the effectiveness of the seismic upgrade undertaken earlier.
2. The new mass should not exceed that which governed the original 1956 design of the main steel girders (it being presumed an overall strengthening of these primary members is not contemplated).

The design drawings show that the main girders were designed for a load of 2,550 lbs per linear foot to each girder–effectively 5,100 lbs for the complete deck including concrete, asphalt, metal work (railings, etc.). This load in metric is approximately 74.7 kN per linear metre.

By calculations, the existing complete deck weighs some 66.93 kN. Modifying the deck cross section to provide bicycle lanes and sidewalks, by a design consciously trying to limit the weight,

results in a mass of 69.90 kN/m. See cross section shown on SK-2 attached in Appendix B. This mass is approximately the median point of existing and original design limit and considered a reasonable target to comply with.

The deck thickness under the sidewalks, allowed for in the weight calculation, is 130 mm. In using this thickness, the use of stainless steel reinforcement with a reduced cover of 50 mm, is proposed.

Details of this proposed cross section have been reviewed with City staff and are described as follows:

4.1.3 Proposed Cross Section

The proposed cross section (see SK-1 and 2 in Appendix B) provides the required roadway and sidewalk widths.

- Distance between curbs 9.7 m (two bicycle lanes @ 1.8 m and two traffic at 3.05 m)
- A sidewalk structural width of 2.13 m, incorporating 0.3 m for curb and traffic barrier, and 1.83 m for the sidewalk and pedestrian type guardrail

The traffic barrier is of a type specified in the CHBDC and the guardrail shown is that based on the standard MOTI pedestrian design. The traffic barrier/curb is a requirement to limit the possibility of a vehicle reaching the sidewalk, which is not designed for traffic loads. This traffic barrier sets the associated required curb at 178 mm.

Light standards would be located behind the traffic barrier where adequate deck concrete thickness will be appropriate for post anchor bolts. Where light standards are set will result in localised reduction in sidewalk width.

The new deck would be set symmetrically on the main steel work in order to balance the mass equally. Note that the existing roadway centerline is some 0.53 m north of this centerline.

The support of the new curb line requires relocation of the existing sidewalk stringer (or a new member) and an additional stringer close to the outer edges to support the sidewalk. This stringer will require extending the floor beams for its support.

4.1.4 Telephone Ducts

Existing ducts are set in the north sidewalk concrete. This will be demolished as part of the widening. If active ducts are required, these will have to be provided under the deck—possibly accessible from the underdeck access maintenance walkway adjacent to the existing large water main. The existing ducts terminate in the area behind each approach abutment. The City is reviewing existing use of the telephone utilities.

4.1.5 Deck Joints

There are two primary roadway expansion joints at each end of the main span. These are in poor condition and require replacement. The logical time to do this would be when the deck is widened.

There are deck joints at each floor beam, originally these were intended to receive a caulk type seal, which deteriorated with time and was difficult to maintain/repair.

At the time of the seismic upgrade this detail was modified but the drawings do not show how they were modified. Some exploratory work is required to reveal the existing detail in the asphalt.

A design limitation of these joints is that they are all vulnerable to movement, either from vibration or temperature effects. This arises from the original design, which simply set the concrete deck sections on top of the steel work without any obvious mechanical anchorage. Modern decks are all tied to the steel work with shear studs, which cause the concrete and steel members to act as one structural unit.

It is envisaged that new curbs and sidewalks would be reinforced longitudinally, thus locking the slab section under the roadway together.

4.1.5.1 Condition of Existing Deck Concrete

From the underside, the deck concrete appears in good condition. The current concern is revealed on the 1956 deck design drawing, which shows the deck concrete to be 165 mm (6.5”) covered by (51 mm) 2” of asphalt. The cover to the reinforcement is given as only 25.4 mm (1”); this is very substandard to modern practice where three times this is normal. The concern is that moisture and salts will have penetrated through this depth to cause corrosion of the reinforcement resulting in delamination of the concrete (i.e., separation of the concrete above the reinforcement from that below caused by the products of corrosion swelling, thus initiating cracking in the horizontal plane.

Evaluation of the deck to determine the presence of delamination and penetration of salt chloride is therefore an initial step in the preparation of any deck widening (and also to know if this is a problem that will need addressing in maintenance), as it will seriously impact the budget contingency and any scheduling.

Where extensive delamination is found, the normal method is to remove that concrete by hydro blasting to 25 mm below the top layer of reinforcement and to replace this with a bonded concrete topping.

In the deck widening process, this would be undertaken with the deck top surface being prepared to receive a waterproofing membrane underneath a new asphalt surface.

An evaluation to determine the occurrence and extent of deck deterioration has been undertaken by Goal Engineering and their report is appended. The method involved is a ground-penetrating radar technique that was be applied without removal of the asphalt. An assessment of the extent of probable delamination is useful for cost estimating purposes and for inclusion in any contract documents.

5.0 PHASING OF THE WORK

Complete closure of the roadway to traffic is the most cost effective when considering construction alone. Factors countering this are:

- Maintenance of pedestrian traffic (any detour being a considerable distance)
- Provision for emergency vehicles, i.e., police, and more particularly, the route of fire trucks from the Bay Street fire hall to Vic West, and for ambulances along Bay Street to the Royal Jubilee Hospital
- Impact on transit routes and schedules

We suggest controlled two-way use of single lane operation as follows for the above traffic.

1. One lane 3.3 m wide on the south side with the south sidewalk open for pedestrian (and possibly dismounted cyclists)
2. Construction traffic barrier on the north side of this lane (0.6 m wide concrete barrier or similar). Remaining use of deck to north approximately 4.6 m wide for 3.0 m construction traffic space, safety barrier 0.3 m, and work space for demolition of north sidewalk and new widening work.
3. Upon completion of sidewalk work, remove asphalt from half of the new roadway width and place new bonded concrete topping.
4. Switch pedestrian and single lane use to north side of deck.
5. Demolish and reconstruct south side of deck.

From a City perspective, we suggest it would be appropriate to schedule the work into a period after completion of the new Johnson Street Bridge. The improved traffic alignment on the west side, and increased provision for cyclists, will mitigate some increase in traffic.

5.1 SETTLEMENT OF THE EAST APPROACH AND LOCALIZED WIDENING

It is considered practical to raise the east end of the approach span to eliminate the existing dip in the roadway.

These spans will need some demolition of their outer beam line to incorporate the proposed deck widening. The sequence of operations would be that adopted for work on the main spans.

The existing wing walls, particularly the one set back from the back of the sidewalk on the south side, are very high and also currently supporting landscape fills. Further fills may present a design issue. This wall could possibly be raised but the uppermost retained fills will need modifying, possibly by replacement with encapsulated polystyrene blocks covered with 0.5 m (plus) of road base to support the new sidewalk. A geotechnical review is required.

6.0 APPROACH ROAD WORKS

The preliminary drawings developed by the City have been developed further to indicate the road work and structures necessary for the increased width sufficient for estimating purposes. These are shown on SK-3 in Appendix B.

7.0 CONSTRUCTION COST ESTIMATE

Stantec's sub consultant, Advicas Cost Consulting, has prepared a construction cost estimate (Appendix C).

Appendix A TABLE 1- POINT ELLICE BRIDGE DECK STRINGERS AND FLOOR BEAM EVALUATION

- Canadian Highway Bridge Design Code – CL-625 Design Truck *(Figure 3.2 CL-W Truck pg. 53)*
- Permit Vehicles, PS Traffic, 8 Axle, 24 Wheel, Tridem Trailer, 85,500 kg *(Appendix C2 – Sketch 1)*
- Permit Vehicles, PA Traffic, Crane (6 axles) *(Appendix C2 – Sketch 2)*

TABLE 1 - POINT ELLICE BRIDGE DECK STRINGERS AND FLOOR BEAM EVALUATION:

— Normal Highway Bridge CL625 Truck in Two Adjacent Lanes
— Single CL Truck on Roadway Centreline
— PS 85 Truck on Roadway Centreline
— PA (Six Axle Crane) on Roadway Centreline

Notes:

1. Load rating method is referenced to CSA - S6 - 06, Section 14
2. Evaluation procedure: ULS method
3. Highway Class A (as per CSA - S6 - 06 Clause 1.4.2.2)
4. Evaluation was carried out for the following three live load models
   CL1 - CL1-625 Truck or Lane Load traffic;
   PS3 - 85.5t PS vehicle, 8 axle truck with a 40t, 24 wheel tridem trailer; and
   PA - PA vehicle, 6 axle Mobile Crane with 12,000 kg axle loads.
5. A 50-mm concrete overlay is included as per existing design
6. Inspection Level considered: "INSP2"
7. Target reliability index from Table 14.5.
8. Dead load factors from Table 14.7.
9. Live load factors from – Table 14.8, for Normal traffic.
   - Table 14.13 for PS vehicles.
   - BC Ministry of Transportation and Infrastructure (Table 1) for PA.
10. Resistance adjustment factor from Table 14.15
11. Live load capacity factor as per Clause 14.15.2.1.
12. Material strength: F_y = 230 MPa for structural steel.

distribution.

				Target reliability index				Dead load											Load Case	Live Load						Resistance		
								Unfact. Loads				Load factors			Fact. loads													
								D1	D2		D3	D1	D2 Deck	D3 Topping	D1	D2 Deck		D3										
Elt. #	Element – Force Effect	Gov. Girder	Effect Units	Syst Behav	Elem Behav	Insp Level	Beta	Beam	Deck		Topping Allowance								Truck Load Governs throughout	DLA Multiplier speed < 40 km/h	Lat Distr.	Type Span	Unfact. Load	Load Coeff	Fact Load	Fact Resist	Adjust Fact	LL Capacity Factor
1	Stringers Interior W 530 x 92 9.3% loss assumed		kN/m	S3	E3	2	2.75	3.73	38.50		11.60	1.06	1.12	1.30	3.95	43.12		12.99	CL	1.30	Static	Short	178.00	1.42	328.59	410.20	1.06	1.14
			kN/m	S3	E3	2	2.75	3.73	38.50		11.60	1.06	1.12	1.30	3.95	43.12		12.99	PS 85 on centreline	1.40	Static	Short	234.00	1.39	455.36	410.20	1.06	0.82
			kN/m	S3	E3	2	2.75	3.73	38.50		11.60	1.06	1.12	1.30	3.95	43.12		12.99	PA on centreline	1.40	Static	Short	148.00	1.19	246.57	410.20	1.06	1.52
2	Floor beams Centre three spans W 760 x 173 with 11% loss of capacity		kN/m	S2	E3	2	3.00	23	126.80		80.53	1.07	1.14	1.35	24.61	144.55		91.80	2 lanes CL	1.40	Static	Short	471.00	1.49	982.51	1048.00	1.06	0.87
			kN/m	S2	E3	2	3.00	23	126.80		80.53	1.07	1.14	1.35	24.61	144.55		91.80	CL on centreline	1.40	Static	Short	338.00	1.49	705.07	1048.00	1.06	1.21
			kN/m	S2	E3	2	3.00	23	126.80		80.53	1.07	1.14	1.35	24.61	144.55		91.80	PS 85 on centreline	1.40	Static	Short	466.80	1.44	941.07	1048.00	1.06	0.90
			kN/m	S2	E3	2	3.00	23	126.80		80.53	1.07	1.14	1.35	24.61	144.55		91.80	PA on centreline	1.40	Static	Short	465.00	1.23	800.73	1048.00	1.06	1.06
3	Floor beams West three spans W 760 x 161 with 11% loss of capacity		kN/m	S2	E3	2	3.00	22.1	110.40		70.10	1.07	1.14	1.35	23.65	125.86		79.91	2 lanes CL	1.40	Static	Short	451.00	1.49	940.79	956.00	1.06	0.83
			kN/m	S2	E3	2	3.00	22.1	110.40		70.10	1.07	1.14	1.35	23.65	125.86		79.91	CL on centreline	1.40	Static	Short	323.00	1.49	673.78	956.00	1.06	1.16
			kN/m	S2	E3	2	3.00	22.1	110.40		70.10	1.07	1.14	1.35	23.65	125.86		79.91	PS 85 on centreline	1.40	Static	Short	450.70	1.44	908.61	956.00	1.06	0.86
			kN/m	S2	E3	2	3.00	22.1	110.40		70.10	1.07	1.14	1.35	23.65	125.86		79.91	PA on centreline	1.40	Static	Short	410.10	1.23	706.19	956.00	1.06	1.11
4	Stringers shear		kN	S3	E3	2	2.75	2.6	26.85		8.09	1.06	1.12	1.30	2.76	30.07		9.06	CL	1.30	Static	Short	144.00	1.49	278.93	685.00	1.02	2.35
			kN	S3	E3	2	2.75	2.6	26.85		8.09	1.06	1.12	1.30	2.76	30.07		9.06	PS 85 on centreline	1.40	Static	Short	184.50	1.44	371.95	685.00	1.02	1.77
			kN	S3	E3	2	2.75	2.6	26.85		8.09	1.06	1.12	1.30	2.76	30.07		9.06	PA on centreline	1.40	Static	Short	128.50	1.23	221.28	685.00	1.02	2.97

Designer/Evaluator: A.J. Rushforth, P.Eng._____ Checker: P.J. Dudzinski, P.Eng._____

				Target reliability index				Dead load											Load Case	Live Load						Resistance		
								Unfact. Loads				Load factors			Fact. loads													
								D1	D2		D3	D1	D2 Deck	D3 Topping	D1	D2 Deck		D3										
Elt. #	Element – Force Effect	Gov. Girder	Effect Units	Syst Behav	Elem Behav	Insp Level	Beta	Beam	Deck		Topping Allowance								Truck Load Governs throughout	DLA Multiplier speed < 40 km/h	Lat Distr.	Type Span	Unfact. Load	Load Coeff	Fact Load	Fact Resist	Adjust Fact	LL Capacity Factor
5	Stringers end connection (rivets shear)		kN	S3	E3	2	2.75	2.6	26.85		8.09	1.06	1.12	1.30	2.76	30.07		9.06	2 lanes CL	1.40	Static	Short	144.00	1.49	300.38	760.00	1.20	2.90
			kN	S3	E3	2	2.75	2.6	26.85		8.09	1.06	1.12	1.30	2.76	30.07		9.06	PS 85 on centreline	1.40	Static	Short	184.50	1.44	371.95	760.00	1.20	2.34
			kN	S3	E3	2	2.75	2.6	26.85		8.09	1.06	1.12	1.30	2.76	30.07		9.06	PA on centreline	1.40	Static	Short	128.50	1.23	221.28	760.00	1.20	3.93
6	Floor beam shear Centre three spans		kN	S2	E3	2	3.00	11.2	53.70		16.90	1.07	1.14	1.35	11.98	61.22		19.27	2 lanes CL	1.40	Static	Short	249.00	1.49	519.41	1383.00	1.02	2.54
			kN	S2	E3	2	3.00	11.2	53.70		16.90	1.07	1.14	1.35	11.98	61.22		19.27	CL on centreline	1.40	Static	Short	128.00	1.49	267.01	1383.00	1.02	4.94
			kN	S2	E3	2	3.00	11.2	53.70		16.90	1.07	1.14	1.35	11.98	61.22		19.27	PS 85 on centreline	1.40	Static	Short	174.00	1.44	350.78	1383.00	1.02	3.76
			kN	S2	E3	2	3.00	11.2	53.70		16.90	1.07	1.14	1.35	11.98	61.22		19.27	PA on centreline	1.40	Static	Short	198.50	1.23	341.82	1383.00	1.02	3.86
7	Floor beam rivets Centre three spans		kN	S2	E3	2	3.00	11.2	53.70		16.90	1.07	1.14	1.35	11.98	61.22		19.27	2 lanes CL	1.40	Static	Short	249.00	1.49	519.41	1370.00	1.20	2.99
			kN	S2	E3	2	3.00	11.2	53.70		16.90	1.07	1.14	1.35	11.98	61.22		19.27	CL on centreline	1.40	Static	Short	128.00	1.49	267.01	1370.00	1.20	5.81
			kN	S2	E3	2	3.00	11.2	53.70		16.90	1.07	1.14	1.35	11.98	61.22		19.27	PS 85 on centreline	1.40	Static	Short	174.00	1.44	350.78	1370.00	1.20	4.42
			kN	S2	E3	2	3.00	11.2	53.70		16.90	1.07	1.14	1.35	11.98	61.22		19.27	PA on centreline	1.40	Static	Short	198.50	1.23	341.82	1370.00	1.20	4.54
8	West three spans Shear		kN	S2	E3	2	3.00	9.71	46.60		14.70	1.07	1.14	1.35	10.39	53.12		16.76	2 lanes CL	1.40	Static	Short	238.00	1.49	496.47	1383.00	1.02	2.68
			kN	S2	E3	2	3.00	9.71	46.60		14.70	1.07	1.14	1.35	10.39	53.12		16.76	CL on centreline	1.40	Static	Short	123.00	1.49	256.58	1383.00	1.02	5.19
			kN	S2	E3	2	3.00	9.71	46.60		14.70	1.07	1.14	1.35	10.39	53.12		16.76	PS 85 on centreline	1.40	Static	Short	168.00	1.44	338.69	1383.00	1.02	3.93
			kN	S2	E3	2	3.00	9.71	46.60		14.70	1.07	1.14	1.35	10.39	53.12		16.76	PA on centreline	1.40	Static	Short	175.00	1.23	301.35	1383.00	1.02	4.41
9	West three spans Rivets		kN	S2	E3	2	3.00	9.71	46.60		14.70	1.07	1.14	1.35	10.39	53.12		16.76	2 lanes CL	1.40	Static	Short	238.00	1.49	496.47	1370.00	1.20	3.15
			kN	S2	E3	2	3.00	9.71	46.60		14.70	1.07	1.14	1.35	10.39	53.12		16.76	CL on centreline	1.40	Static	Short	123.00	1.49	256.58	1370.00	1.20	6.09
			kN	S2	E3	2	3.00	9.71	46.60		14.70	1.07	1.14	1.35	10.39	53.12		16.76	PS 85 on centreline	1.40	Static	Short	168.00	1.44	338.69	1370.00	1.20	4.62
			kN	S2	E3	2	3.00	9.71	46.60		14.70	1.07	1.14	1.35	10.39	53.12		16.76	PA on centreline	1.40	Static	Short	175.00	1.23	301.35	1370.00	1.20	5.19

3.8.3.2 CL-W Truck

The CL-W Truck is the idealized five-axle truck shown in Figure 3.2. The *W* number indicates the gross load of the CL-W Truck in kilonewtons. Wheel and axle loads are shown in terms of *W* and are also shown for the CL-625 Truck.

The wheel spacings, weight distribution, and clearance envelope of the CL-W Truck shall be as shown in Figure 3.2.

In Ontario, a CL-625-ONT Truck as specified in Annex A3.4 shall be used.

Note: *The total load of the CL-625-ONT Truck is 625 kN, but the axle load distribution differs from that shown in Figure 3.2.*

The CL-W and the CL-625-ONT Truck shall be placed centrally in a space 3.0 m wide that represents the clearance envelope for each Truck, unless otherwise specified by the Regulatory Authority or elsewhere in this Code.

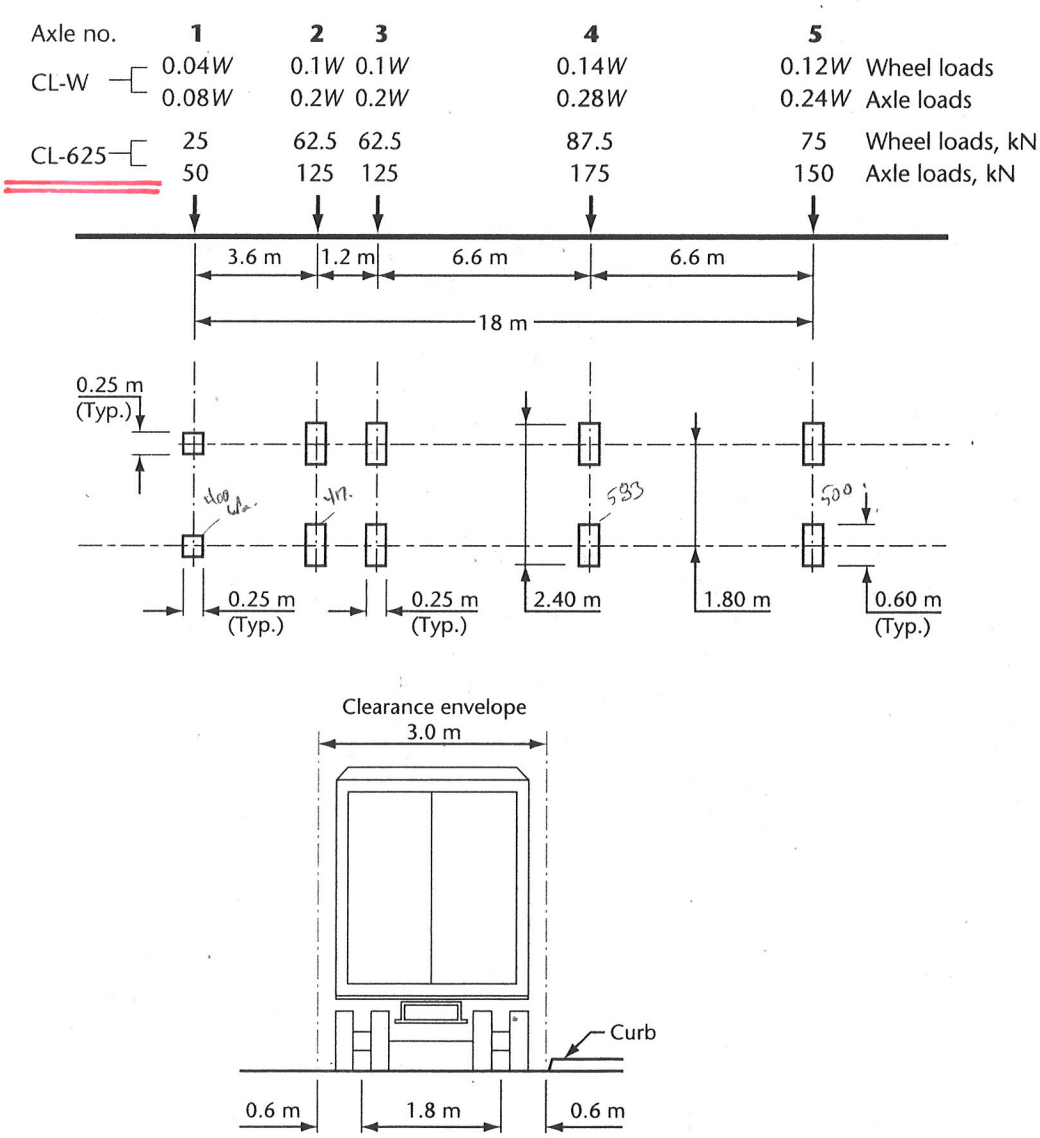
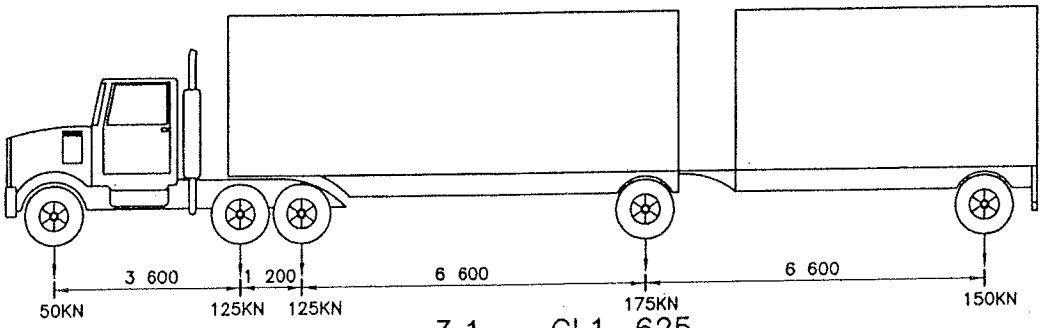
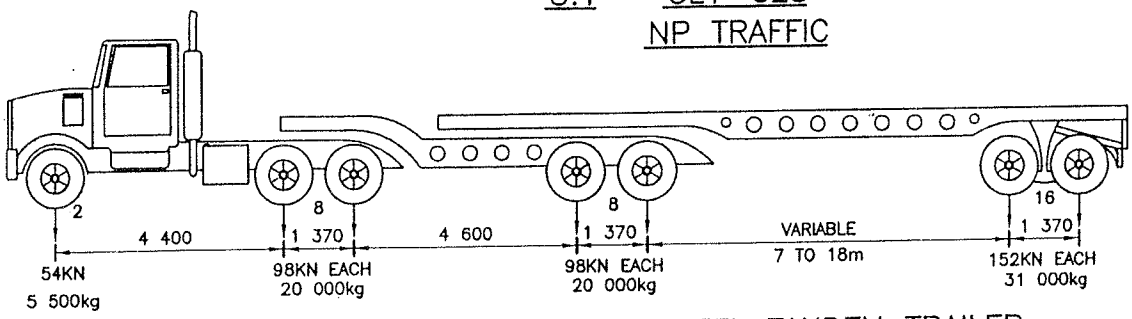


Figure 3.2
CL-W Truck
(See Clause 3.8.3.2.)

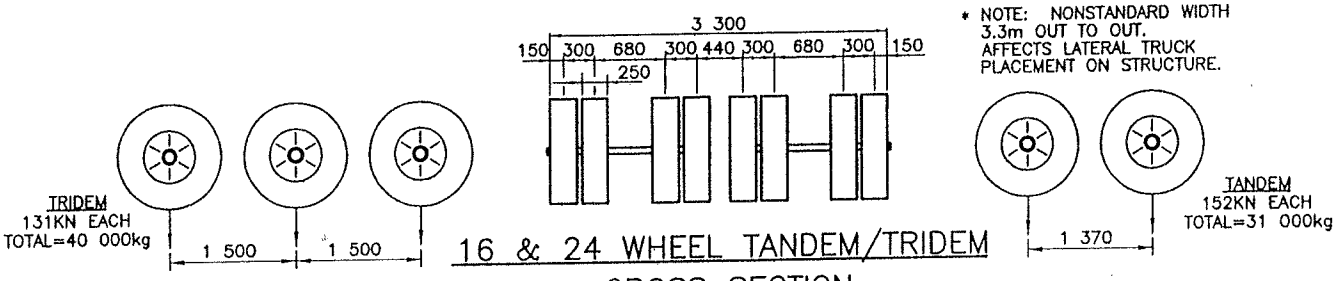
85 TONNE CEILING G.V.W. RATING TRUCKS



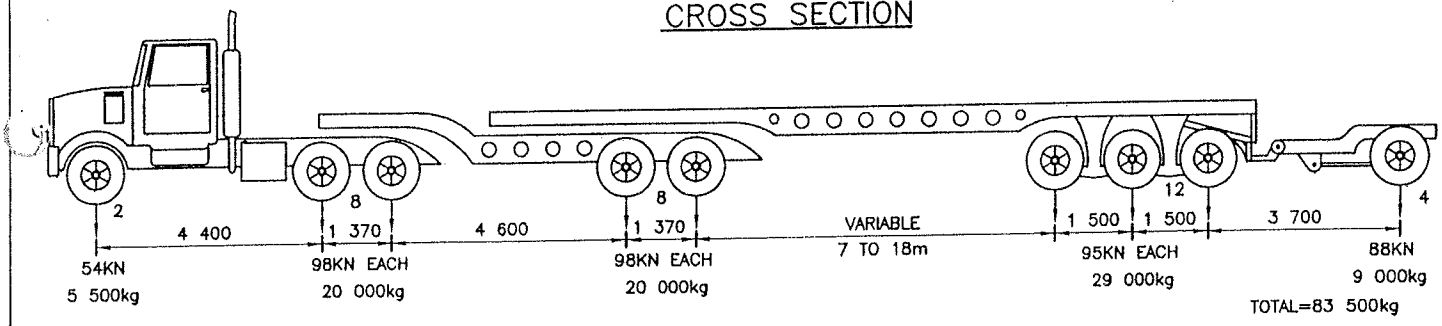
3.1 – CL1–625
NP TRAFFIC



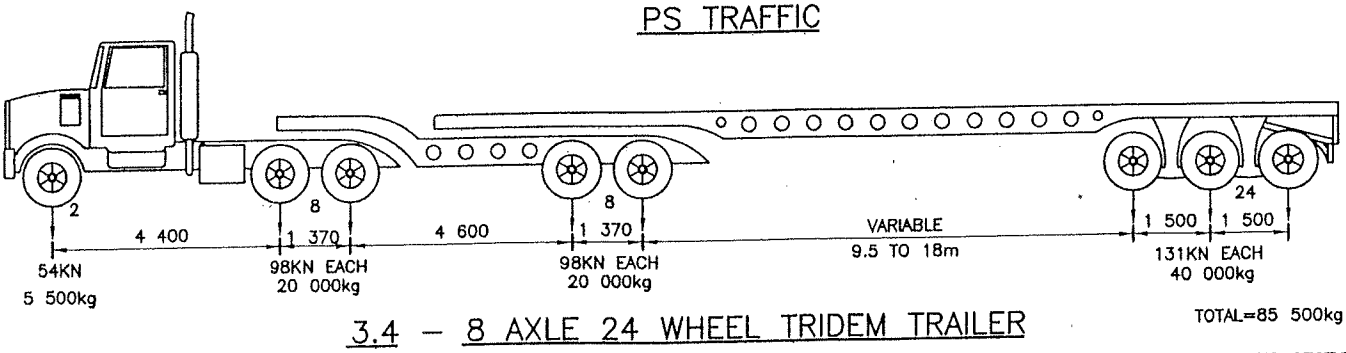
3.2 – 7 AXLE 16 WHEEL TANDEM TRAILER
PS TRAFFIC



16 & 24 WHEEL TANDEM/TRIDEM
CROSS SECTION



3.3 – 9 AXLE FULL PERMIT VEHICLE
PS TRAFFIC

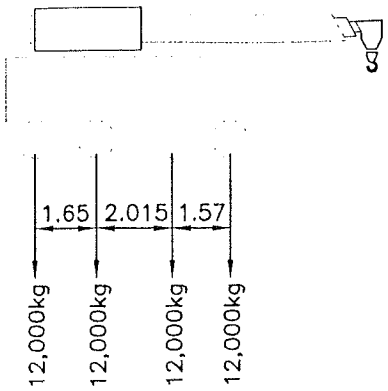


3.4 – 8 AXLE 24 WHEEL TRIDEM TRAILER
PS TRAFFIC

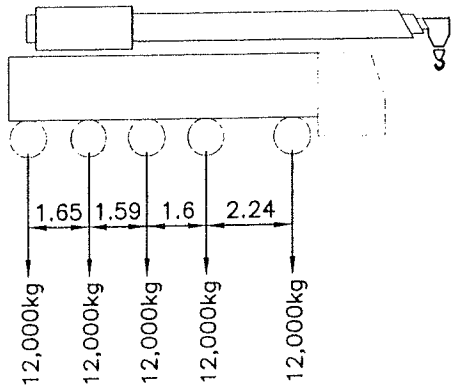
BRIDGE ENGINEERING SECTION
REVISED NOV/07 WHK

APPENDIX C2 – SKETCH 1

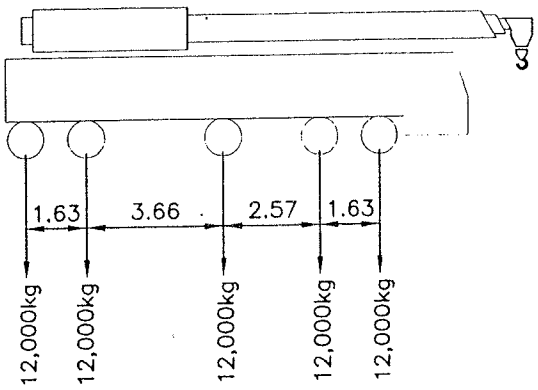
ANNUAL PERMIT CRANES



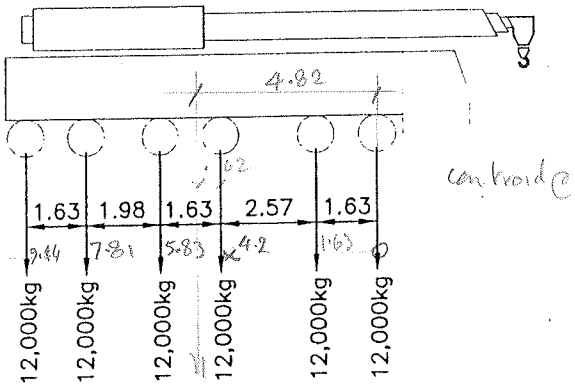
Crane–4ax



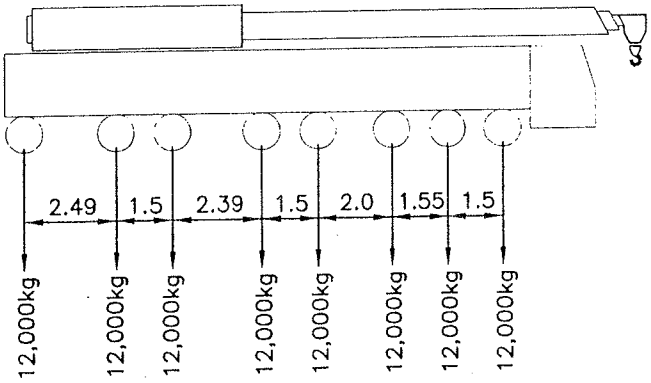
Crane–5ax



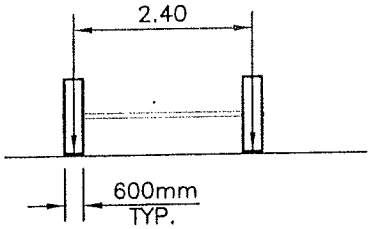
Crane–Long 5ax



Crane–6ax



Crane–8ax



Transverse Dimension
Between ℄'s of Wheels
(Typical All Cranes) = 2.4m

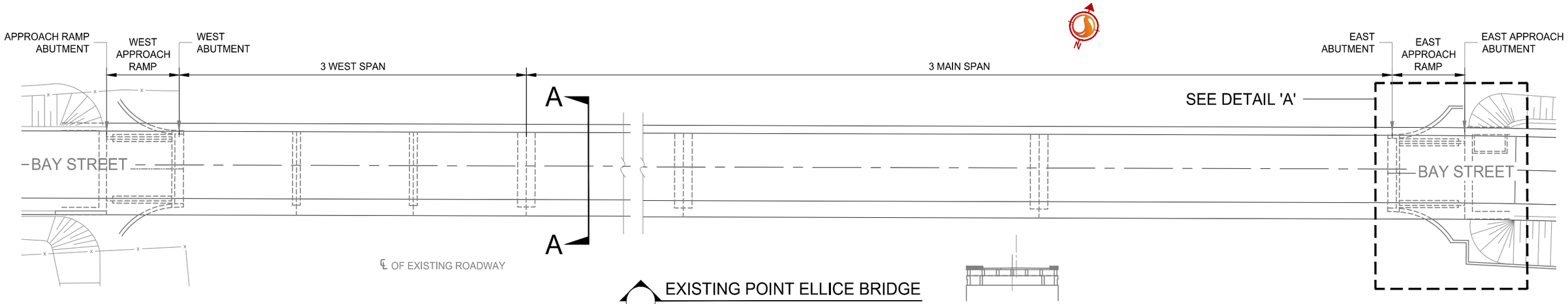
PA VEHICLES

MARCH 2007

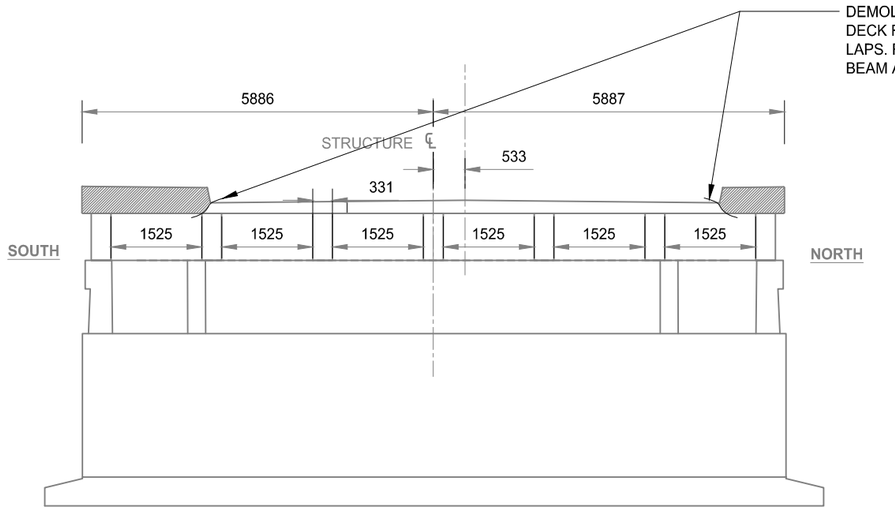
APPENDIX C2 – SKETCH 2

Appendix B DRAWINGS

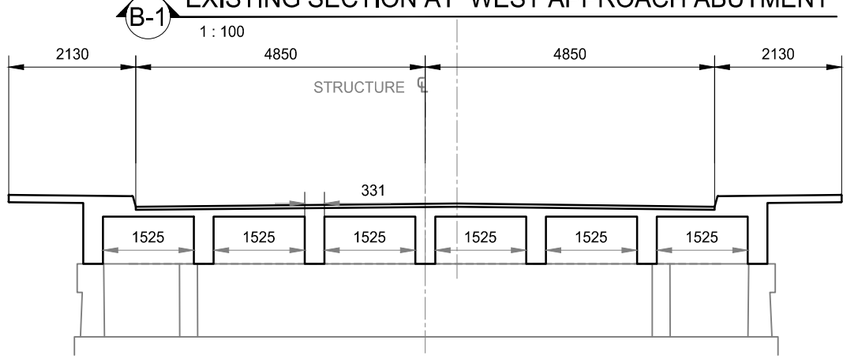
- SK-1 Proposed Widening Plan, Sections
- SK-2 Proposed Widening Typical Section Details
- SK-3 Conceptual Design – Civil Road Works Plan and Sections



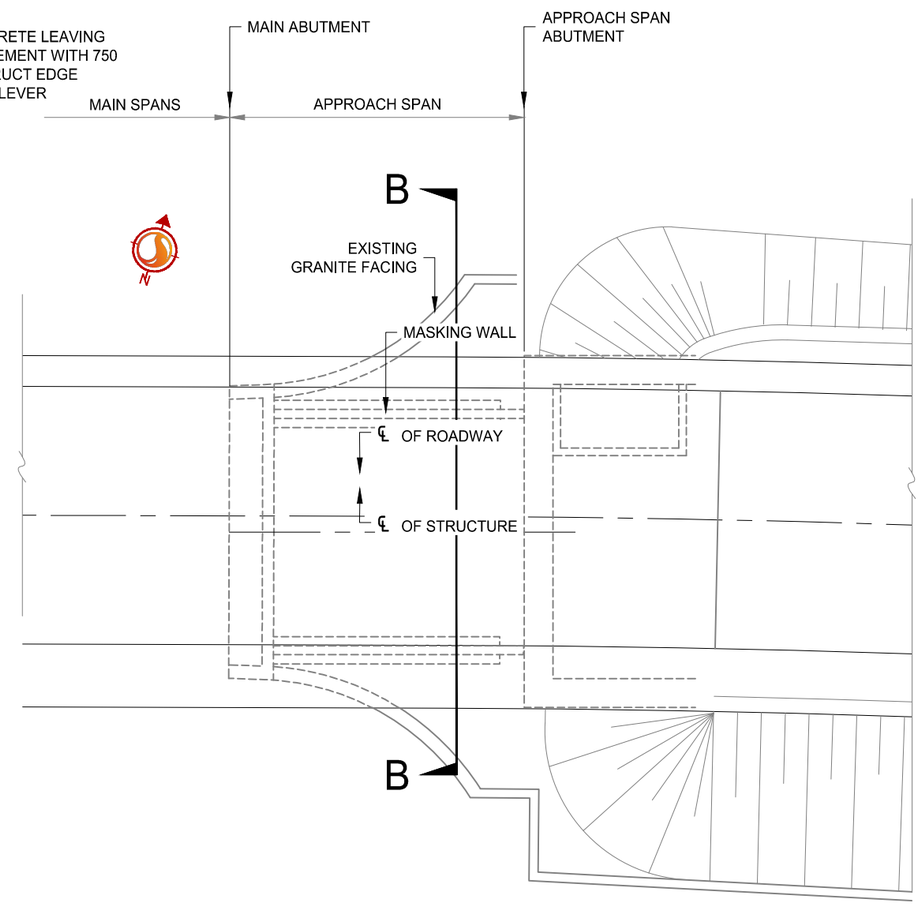
EXISTING POINT ELLICE BRIDGE
1 : 50



B-1 EXISTING SECTION AT WEST APPROACH ABUTMENT
1 : 100



B-2 PROPOSED SECTION AT WEST APPROACH ABUTMENT
1 : 100



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Stantec Consulting Ltd.
400 655 Tyee Road
Victoria BC Canada
V9A 6X5
Tel. 250.388.9161
Fax. 250.382.0514
www.stantec.com

Client/Project
CITY OF VICTORIA

PROPOSED POINT ELLICE BRIDGE WIDENING

Title
PLAN, SECTIONS

Project No.

Scale
AS SHOWN

Drawing No.
SK-1

Sheet
1 of 1

Revision

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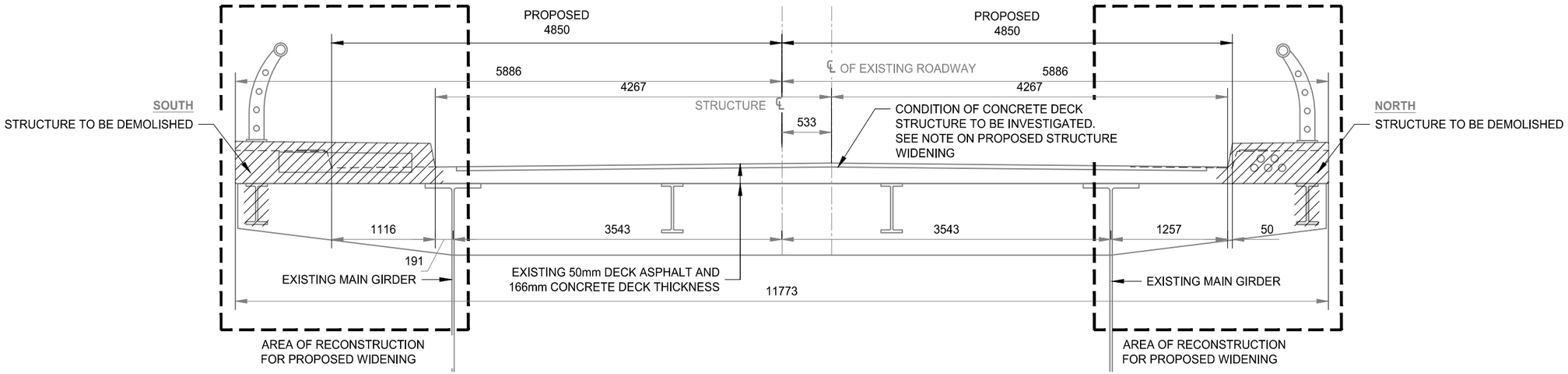

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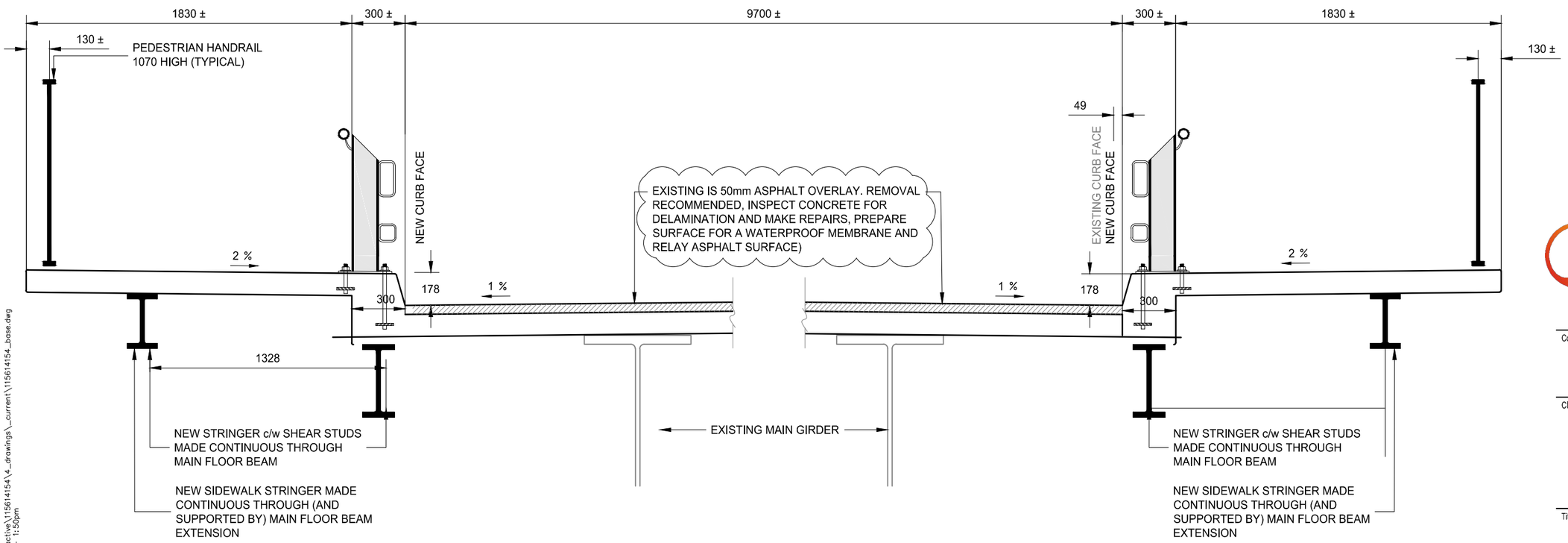

B PROPOSED STRUCTURE WIDENING
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Stantec Consulting Ltd.
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Victoria BC Canada
V9A 6X5
Tel. 250.388.9161
Fax. 250.382.0514
www.stantec.com

Client/Project
CITY OF VICTORIA

PROPOSED POINT ELLICE BRIDGE WIDENING

Title
TYPICAL SECTIONS DETAILS

Project No.	Scale	
	AS SHOWN	
Drawing No.	Sheet	Revision
SK-2	2 of 2	A

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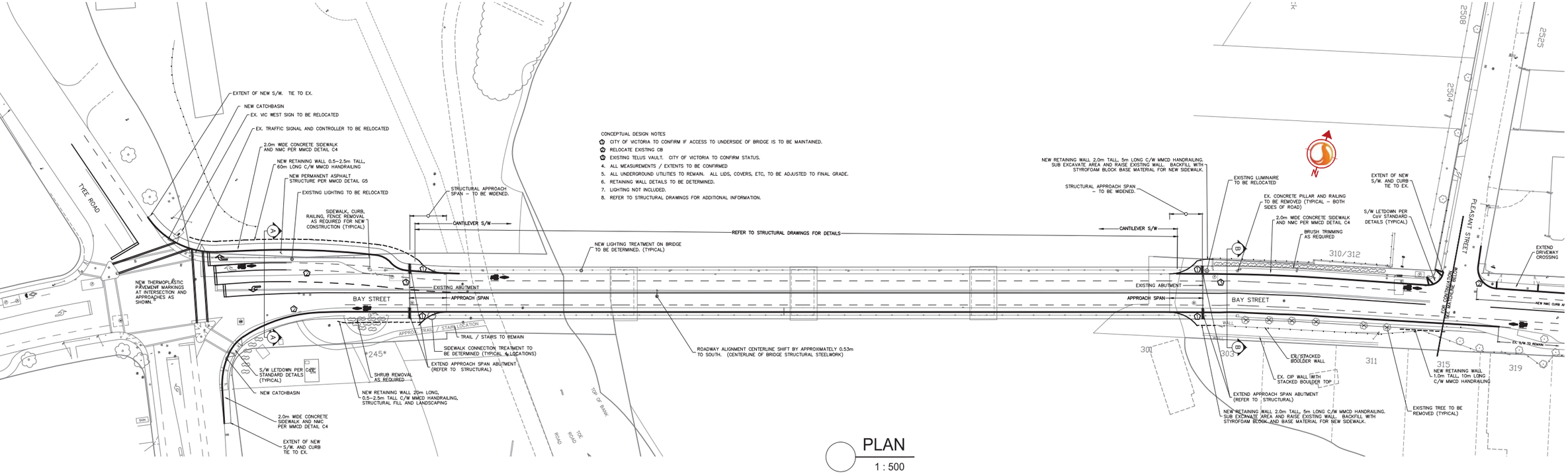
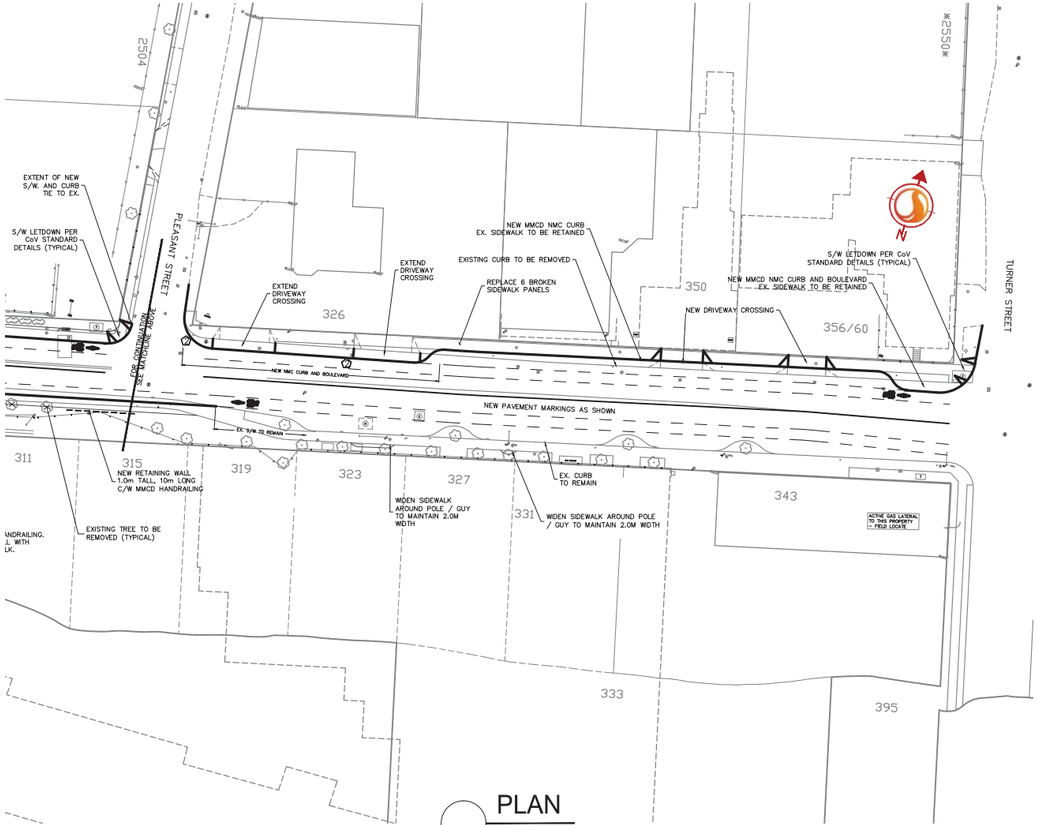


PLAN
1 : 500

CONCEPTUAL DESIGN NOTES

1. CITY OF VICTORIA TO CONFIRM IF ACCESS TO UNDERSIDE OF BRIDGE IS TO BE MAINTAINED.
2. RELOCATE EXISTING CB
3. EXISTING TELUS VAULT. CITY OF VICTORIA TO CONFIRM STATUS.
4. ALL MEASUREMENTS / EXTENTS TO BE CONFIRMED
5. ALL UNDERGROUND UTILITIES TO REMAIN. ALL LIDS, COVERS, ETC, TO BE ADJUSTED TO FINAL GRADE.
6. RETAINING WALL DETAILS TO BE DETERMINED.
7. LIGHTING NOT INCLUDED.
8. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.



PLAN
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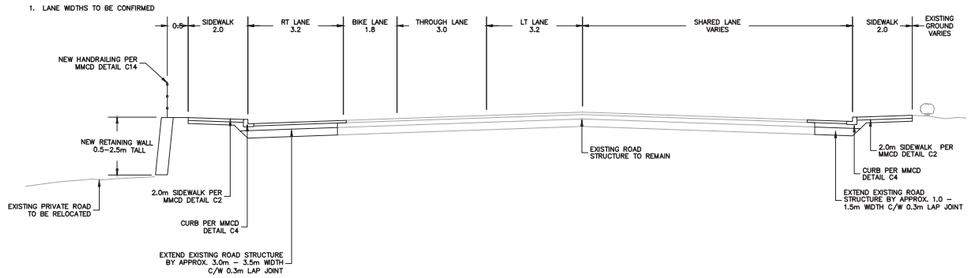
CONCEPTUAL DESIGN NOTES

1. LANE WIDTHS TO BE CONFIRMED



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CONCEPTUAL DESIGN NOTES

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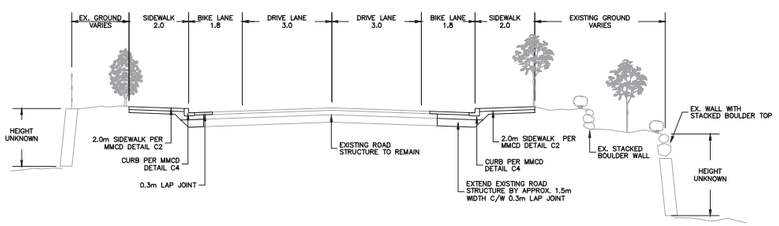

B SECTION AT EAST APPROACH
1 : 100

CONCEPTUAL DESIGN ONLY
FOR DISCUSSION PURPOSES

Stantec Consulting Ltd.
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V9A 6X5
Tel. 250.388.9161
Fax. 250.382.0514
www.stantec.com

Client/Project
CITY OF VICTORIA

PROPOSED POINT ELLICE BRIDGE WIDENING

Prepared By: TAZ Date: May 12, 2014

Title
CONCEPTUAL DESIGN
CIVIL - PLAN AND SECTIONS

Project No.	Scale	
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Drawing No.	Sheet	Revision
SK-3	1 of 1	

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MODIFIED: May 12, 2014 – 6:44pm
ORIGINAL SHEET – ARCH D

Appendix C COST CONSULTANT REPORTS

- Class D Concept Estimate dated July 14, 2014
- Class D Concept Estimate dated November 17, 2014

advicas

Professional Quantity Surveyors
Sustainability Consultants

CLASS D CONCEPT ESTIMATE

POINT ELLICE BRIDGE WIDENING,

VICTORIA, BC

July 14, 2014

Prepared by
Advicas Group Consultants Inc.

#100-31 Bastion Square
Victoria, BC V8W 1J1 Canada

Office: 250.383.1008
Toll Free: 888.383.1008
Fax: 250.383.1005

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APPENDICES

INTRODUCTION

This report sets out the estimate of project cost at concept design stage for the proposed Point Ellice Bridge Widening, Victoria, BC.

ESTIMATE COSTS

The estimate costs have been developed in current (July, 2014) dollars. The project cost is as follows:

	Cost
Design and Management	$2,173,000
Base Building Construction	$10,865,000
Fittings and Equipment	$0
Correlated Costs	$285,813
Contingency Reserves	$1,195,150
City of Victoria Costs	$726,037
TOTALS	**$15,245,000**

A project cost summary is included in Appendix A

A capital construction cost estimate summary and back up sheets is included in Appendix B

Escalation

The estimate is priced at current market price levels.

It is common knowledge that Victoria saw a major correction in market price levels during the latter part of 2008 and early 2009. A further downward correction occurred in Spring, 2010 driven by pressure on pricing levels from mainland contractors pursuing work in Victoria.

While there has been varying opinion on timing for a resurgence in the construction market, to date this has not occurred. We believe there will be a sustained upward movement in market price levels commencing in the latter part of 2014. As such we recommend that provision be made for escalation, commencing in the fourth quarter 2014, at 0.25% per month (3% range, per annum).

We recommend annual re-evaluation of the estimate to reflect the expected upward movement in market price levels and to ensure the budget remains appropriate for completion of the work.

BASIS OF THE ESTIMATE

We have assumed that the work will be tendered competitively in one contract.

In all cases the estimates are based upon our assessment of fair value for the work to be carried out. We define fair value as the amount a prudent contractor, taking into account all aspects of the project, would quote for the work. We expect our estimate to be in the middle of the bid range to ensure that funding for the work remains adequate for the duration of the project.

It should be noted that Advicas Group Consultants Inc. does not have control over the cost of labour, materials, or equipment, over the Contractor's methods of determining bid prices, or over competitive market conditions. We define competitive conditions in the project as attracting a minimum of four general contractors' bids with a minimum of two sub-trade tenders within each of the sub-trade categories. Accordingly, Advicas Group Consultants Inc. cannot and does not warrant or represent that bids will not vary from the estimate.

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Contingency is an allowance specifically identified within our elemental cost analysis to meet unforeseen circumstances, and represents an assessment of the financial risk relating to this project. As detailed design information becomes available, this risk will diminish and the contingency allowances will accordingly reduce.

Design contingency is introduced into the estimated cost at the earliest estimate stage and is a measurement of the amount and detail of the design information available. As the design develops and systems and material selections are fixed, the amount of the contingency allowance is reduced and is absorbed into the measured elements. On completion of contract documents, at tender stage, the allowance is normally reduced to zero.

Our determination of this risk level and the amount of the contingency allowance is the result of many years of cost planning, on over 2,000 construction projects, and of monitoring the increasing design information that occurs during the design phase. The design contingency is not a discretionary cost element.

A design contingency allowance has been included, calculated at 20% of the construction costs, to provide for unforeseen items arising during the design phase.

A construction contingency allowance has been included, calculated at 10% of the construction costs. This typically provides for unforeseen items arising during the construction period – such as field conditions, coordination discrepancies – which will result in change orders and extra costs to the contract, other than changes in scope.

No allowance has been made for project contingency, which typically provides for changes in program, scope and other Client requests.

Taxes

GST is excluded from the estimate.

On August 26, 2011 HST was defeated through public referendum. British Columbia returned to Provincial Sales Tax and Goods and Services Tax on April 1, 2013. 7% Provincial Sales Tax has been included in the estimate.

Exclusions

The following items are excluded from the capital construction cost:

- Fittings and equipment
  - Vending machines
  - Closed circuit TV
- Rock excavation
- Site furniture
- Site signage
- Clerk of Works
- Premium costs associated with environmental contaminants
- Traffic study costs
- Survey fees

- Financing costs
- Phasing of the work
- Out of hours working
- Escalation
- GST

Documentation

The estimate is based on the following:

- Stantec
  - Conceptual design civil plan and sections – drawing nos. SK1, SK2, SK3
  - Sections and detail drawings prepared by A. B. Sanderson and Company Ltd for the current bridge.

  All received April 7, 2014

- A briefing meeting with Andrew Rushforth on April 7, 2014, and telephone discussions during the preparation of the estimate

APPENDIX A

PROJECT COST SUMMARY

Point Ellice Bridge Widening,
Victoria, BC

Date: July 14, 2014

CLASS D CONCEPT ESTIMATE - PROJECT COST

Design and Management			
Architect and design consultants	15.00%	$1,629,750	
Consultant disbursements			
Project Manager	5.00%	$543,250	
Pre-planning			$2,173,000
Base Building Construction			
Net Construction Cost	1.00%	$6,964,400	
General Contractor's overhead and profit	1.00%	$2,089,320	
Design contingency	1.00%	$1,811,280	$10,865,000
Fittings and Equipment			$0
Correlated Costs			
Permits, DCCs		$135,813	
Legal		$25,000	
Insurances		$25,000	
Commissioning		$100,000	$285,813
Contingency Reserves			
Design and management fees	5.00%	$108,650	
Construction and fit out	10.00%	$1,086,500	$1,195,150
SUB TOTAL			$14,518,963
City of Victoria Costs	5.00%	$726,037	
Finance and working capital		excl	
Escalation		excl	
Goods and Services Tax		excl	$726,037
PROJECT COST PLAN (Current Dollars)			$15,245,000

APPENDIX B

CAPITAL CONSTRUCTION COST ESTIMATE SUMMARY AND BACK UP

Class D Concept Estimate

DATE: 11-Jul-14

	QUANTITY	UNIT	RATE	COST
SUMMARY - TOTAL CAPITAL CONSTRUCTION COST				**$10,865,000**
Main Suspended Bridge Span				**$4,284,100**
Suspended Approach Spans - EAST & WEST				**$505,700**
Abutment Extensions - EAST & WEST				**$362,500**
On Grade Approach - EAST				**$538,800**
On Grade Approach - WEST				**$1,273,300**
General Conditions				**$2,089,320**
Design Contingency	**20%**			**$1,811,280**
Main Suspended Bridge Span				$4,284,100
Demolish pedestrian pipe handrail	360	m	$50.00	$18,000
Remove existing lighting poles	1	sum	$4,000.00	$4,000
Demolish concrete pedestrian sidewalk and curb	283	m³	$765.00	$216,495
Saw cut existing 165mm thick concrete road deck and reinforcement bar	360	m	$75.00	$27,000
Break up existing asphalt paving to road deck	1,350	m²	$30.00	$40,500
Break up existing 165mm thick concrete road base and expose reinforcement bar	270	m²	$300.00	$81,000
Premium for removing existing drainage	1	sum	$5,000.00	$5,000
Remove existing 16 x 36 outrigger beam and connection plates and prepare for new	360	m	$150.00	$54,000
Clean edge of existing road deck, exposed reinforcement bar and exposed shear studs to main girder beam	360	m	$100.00	$36,000
Strip off lead paint to underside of existing steel deck and prepare for new	4,577	m²	$100.00	$457,700
New W410 x 67 stringer beam	24,120	kg	$10.00	$241,200
New W310 x 60 stringer beam	21,600	kg	$10.00	$216,000
Grind existing fin plates	147	m	$150.00	$22,050
Steel connection plates including weld to existing	6,858	kg	$25.00	$171,450
Shear studs	2,400	no	$15.00	$36,000
165mm thick suspended concrete road deck	467	m²	$115.00	$53,705
Concrete in curb	25	m³	$350.00	$8,750
140mm thick suspended concrete pedestrian deck	878	m²	$105.00	$92,190
Formwork to:				
- road deck soffit	467	m²	$750.00	$350,250
- soffit upstand	83	m²	$750.00	$62,250
- splayed curb	83	m²	$250.00	$20,750
- pedestrian deck soffit	600	m²	$750.00	$450,000
- edge of pedestrian deck	55	m²	$750.00	$41,250
Reinforcement bar	110,545	kg	$3.50	$386,908
50mm asphalt paving	1,764	m²	$25.00	$44,100
New catchbasins and drains to edge of deck	1	sum	$100,000.00	$100,000
New road barrier/handrail	360	m	$1,500.00	$540,000
New pedestrian handrail	360	m	$800.00	$288,000
New expansion joint to road deck	20	m	$350.00	$7,000
New expansion joint to pedestrian deck	4	m	$350.00	$1,400
Paint underside of existing steel deck	4,577	m²	$35.00	$160,195
New lighting	1	sum	$50,000.00	$50,000
Line painting	1	sum	$1,000.00	$1,000

	QUANTITY	UNIT	RATE	COST
Suspended Approach Spans - EAST & WEST				**$505,700**
Demolish pedestrian pipe handrail	40	m	$50.00	$2,000
Remove existing lighting poles	1	sum	$2,000.00	$2,000
Demolish concrete pedestrian sidewalk and curb	32	m³	$765.00	$24,480
Saw cut existing 165mm thick concrete road deck and reinforcement bar	40	m	$75.00	$3,000
Break up existing asphalt paving to road deck	150	m²	$30.00	$4,500
Break up existing 165mm thick concrete road base and expose reinforcement bar	30	m²	$300.00	$9,000
Premium for removing existing drainage	1	sum	$2,000.00	$2,000
Clean edge of existing road deck and exposed reinforcement bar	40	m	$150.00	$6,000
165mm thick suspended concrete road deck	84	m²	$115.00	$9,660
380mm thick suspended concrete pedestrian deck/curb	34	m²	$165.00	$5,610
140mm thick suspended concrete pedestrian deck	38	m²	$105.00	$3,990
Concrete in drop beams	22	m³	$350.00	$7,700
Formwork to:				
- beam soffit	28	m²	$750.00	$21,000
- deck soffit	128	m²	$750.00	$96,000
- beam sides	128	m²	$750.00	$96,000
- soffit upstand	10	m²	$750.00	$7,500
- splayed curb	10	m²	$350.00	$3,500
- edge of pedestrian deck	6	m²	$750.00	$4,500
Reinforcement bar	17,190	kg	$3.50	$60,165
50mm asphalt paving	192	m²	$25.00	$4,800
New catchbasins and drains to edge of deck	1	sum	$10,000.00	$10,000
New road barrier/handrail	40	m	$1,500.00	$60,000
New pedestrian handrail	40	m	$800.00	$32,000
New expansion joint to road deck	20	m	$350.00	$7,000
New expansion joint to pedestrian deck	8	m	$350.00	$2,800
New lighting	1	sum	$20,000.00	$20,000
Line painting	1	sum	$500.00	$500
Abutment Extensions - EAST & WEST				**$362,500**
Abutment foundation:				
- south west	5	m	$5,000.00	$25,000
- north west	5	m	$5,000.00	$25,000
- south east	5	m	$5,000.00	$25,000
- north east	5	m	$5,000.00	$25,000
Abutment wall				
- south west	10	m²	$2,500.00	$25,000
- north west	10	m²	$2,500.00	$25,000
- south east	20	m²	$2,500.00	$50,000
- north east	25	m²	$2,500.00	$62,500
Tie into existing abutments	1	sum	$100,000.00	$100,000

Class D Concept Estimate

DATE: 11-Jul-14

	QUANTITY	UNIT	RATE	COST
On Grade Approach - EAST				$538,800
Remove existing trees	6	no	$500.00	$3,000
Break up existing concrete sidewalk	240	m²	$50.00	$12,000
Break up existing concrete curb	120	m	$40.00	$4,800
Break up existing roadbase	60	m²	$30.00	$1,800
Saw cut road base	120	m	$75.00	$9,000
Break up existing asphalt paving	392	m²	$30.00	$11,760
Strip/excavate existing landscape areas to new formation level including imported fill as required	1	sum	$25,000.00	$25,000
New roadbase	240	m²	$45.00	$10,800
New concrete curb	120	m	$75.00	$9,000
New pedestrian paving	240	m²	$80.00	$19,200
New asphalt paving	576	m²	$25.00	$14,400
New catchbasins and drains to edge of deck	1	sum	$30,000.00	$30,000
New road barrier/handrail	120	m	$1,500.00	$180,000
New pedestrian handrail	120	m	$800.00	$96,000
New lighting	1	sum	$10,000.00	$10,000
Line painting	1	sum	$2,000.00	$2,000
Make good new to existing	1	sum	$50,000.00	$50,000
New landscaping	1	sum	$50,000.00	$50,000
On Grade Approach - WEST				$1,273,300
West Approach - North Side:				
Demolish pedestrian pipe handrail	54	m	$50.00	$2,700
Break up existing concrete sidewalk	104	m²	$50.00	$5,200
Break up existing concrete curb	72	m	$40.00	$2,880
Saw cut road base	72	m	$75.00	$5,400
Break up existing asphalt paving	700	m²	$30.00	$21,000
Strip/excavate existing landscape areas to new formation level including imported fill as required	1	sum	$75,000.00	$75,000
New retaining wall:				
- foundation	70	m	$1,500.00	$105,000
- wall	175	m²	$1,000.00	$175,000
Imported fill to make up levels	710	m³	$80.00	$56,800
New roadbase	242	m²	$45.00	$10,890
New concrete curb	81	m	$75.00	$6,075
New pedestrian paving	162	m²	$80.00	$12,960
New asphalt paving	918	m²	$25.00	$22,950
New catchbasins and drains	1	sum	$30,000.00	$30,000
New road barrier/handrail	52	m	$1,500.00	$78,000
New pedestrian handrail	70	m	$800.00	$56,000
Relocate existing lighting	1	sum	$10,000.00	$10,000
Line painting	1	sum	$2,000.00	$2,000
Make good new to existing	1	sum	$50,000.00	$50,000
New landscaping	1	sum	$50,000.00	$50,000
Relocate existing Vic West sign	1	sum	$1,500.00	$1,500
Relocate existing traffic control and signaler	1	sum	$75,000.00	$75,000

Class D Concept Estimate

DATE: 11-Jul-14

	QUANTITY	UNIT	RATE	COST
West Approach - South Side:				
Demolish pedestrian pipe handrail	45	m	$50.00	$2,250
Break up existing concrete sidewalk	121	m²	$50.00	$6,050
Break up existing concrete curb	67	m	$40.00	$2,680
Saw cut road base	67	m	$75.00	$5,025
Break up existing asphalt paving				incl above
Strip/excavate existing landscape areas to new formation leve	1	sum	$75,000.00	$75,000
New retaining wall:				
- foundation	20	m	$1,500.00	$30,000
- wall	40	m²	$1,000.00	$40,000
Imported fill to make up levels	90	m³	$80.00	$7,200
New roadbase	67	m²	$45.00	$3,015
New concrete curb	67	m	$75.00	$5,025
New pedestrian paving	134	m²	$80.00	$10,720
New asphalt paving				incl above
New catchbasins and drains	1	sum	$30,000.00	$30,000
New road barrier/handrail	36	m	$1,500.00	$54,000
New pedestrian handrail	45	m	$800.00	$36,000
Relocate existing lighting	1	sum	$10,000.00	$10,000
Line painting	1	sum	$2,000.00	$2,000
Make good new to existing	1	sum	$50,000.00	$50,000
New landscaping	1	sum	$50,000.00	$50,000

advicas

Professional Quantity Surveyors
Sustainability Consultants

CLASS D CONCEPT ESTIMATE

POINT ELLICE BRIDGE REPAIRS AND REPAINTING,

VICTORIA, BC

November 17, 2014

Prepared by
Advicas Group Consultants Inc.

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Victoria, BC V8W 1J1 Canada

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APPENDICES

INTRODUCTION

This report sets out the estimate of project cost at concept design stage for the proposed Point Ellice Bridge Repairs and Repainting, Victoria, BC.

The work has been separated into two contracts comprising:

- Contract #1 – cathodic protection, concrete deck repairs and repaving
- Contract #2 – removing lead paint and repainting exposed steel bridge structure, pedestrian handrails and lighting poles

ESTIMATE COSTS

The estimate costs have been developed in current (November, 2014) dollars. The project costs are as follows:

Contract #1	$1,348,000
Contract #2	$2,274,000

A breakdown of the project cost, for Contract #1, is included in Appendix A

A breakdown of the project cost, for Contract #2, is included in Appendix B

Escalation

The estimate is priced at current market price levels.

It is common knowledge that Victoria saw a major correction in market price levels during the latter part of 2008 and early 2009. A further downward correction occurred in Spring, 2010 driven by pressure on pricing levels from mainland contractors pursuing work in Victoria.

While there has been varying opinion on timing for a resurgence in the construction market, to date this has not occurred. We believe there will be a sustained upward movement in market price levels commencing in the latter part of 2014. As such we recommend that provision be made for escalation, commencing in the fourth quarter 2014, at 0.25% per month (3% range, per annum).

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The following items are excluded from the capital construction cost:

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  - Closed circuit TV
- Rock excavation
- Site furniture
- Site signage
- Clerk of Works
- Premium costs associated with environmental contaminants
- Traffic study costs

- Survey fees
- Financing costs
- Phasing of the work
- Out of hours working
- Escalation
- GST

Documentation

The estimate is based on the following:

- Stantec
  - Conceptual design civil plan and sections – drawing nos. SK1, SK2, SK3
  - Sections and detail drawings prepared by A. B. Sanderson and Company Ltd for the current bridge. All received April 7, 2014

- A briefing meeting with Andrew Rushforth on April 7, 2014, and telephone discussions during the preparation of the estimate.
- A further meeting with Andrew Rushforth on November 13, 2014

APPENDIX A

PROJECT COST – CONTRACT #1

Class D Concept Estimate - CONTRACT #1

DATE: 11-Jul-14

	QUANTITY	UNIT	RATE	COST
SUMMARY - PROJECT COST				**$1,348,000**
CAPITAL CONSTRUCTION COST:				
Bridge Repairs				**$595,600**
General Conditions				**$178,680**
Design Contingency	**20%**			**$155,720**
SOFT COSTS				**$418,000**
Bridge Repairs				$595,600
Main Suspended Bridge Span:				
Break up existing asphalt paving to road deck	1,350	m²	$30.00	$40,500
Repairs to existing concrete deck	1	sum	$10,000.00	$10,000
Anodes to deck comprising:				
- drill existing concrete deck for seating anode	1,326	no	$30.00	$39,780
- drill through existing concrete deck for anode wire placement	1,326	no	$5.00	$6,630
- anode including mortar and wiring	1,326	no	$42.00	$55,692
- install mortar fill to bore hole and make good	1,326	no	$10.00	$13,260
- drill existing steel beam and connect anode wire, including temporary work platform	1,326	no	$100.00	$132,600
Membrane to exposed concrete deck	1,764	m²	$70.00	$123,480
50mm asphalt paving	1,764	m²	$25.00	$44,100
New expansion joint to road deck	20	m	$350.00	$7,000
New expansion joint to pedestrian deck	4	m	$350.00	$1,400
Line painting	1	sum	$1,000.00	$1,000
Suspended Approach Spans - EAST & WEST:				
Break up existing asphalt paving to road deck	150	m²	$30.00	$4,500
Repairs to existing concrete deck	1	sum	$5,000.00	$5,000
Anodes to deck				incl above
Membrane to exposed concrete deck	192	m²	$70.00	$13,440
50mm asphalt paving	192	m²	$25.00	$4,800
New expansion joint to road deck	20	m	$350.00	$7,000
New expansion joint to pedestrian deck	8	m	$350.00	$2,800
Line painting	1	sum	$500.00	$500
On Grade Approach - EAST:				
Break up existing asphalt paving	392	m²	$30.00	$11,760
Repairs to existing road base	1	sum	$3,000.00	$3,000
New asphalt paving	576	m²	$25.00	$14,400
Line painting	1	sum	$2,000.00	$2,000
On Grade Approach - WEST:				
Break up existing asphalt paving	700	m²	$30.00	$21,000
Repairs to existing road base	1	sum	$3,000.00	$3,000
New asphalt paving	918	m²	$25.00	$22,950
Line painting	1	sum	$4,000.00	$4,000

APPENDIX B

PROJECT COST – CONTRACT #2

Class D Concept Estimate - CONTRACT #2

DATE: 17-Nov-14

	QUANTITY	UNIT	RATE	COST
SUMMARY - PROJECT COST				**$2,274,000**
CAPITAL CONSTRUCTION COST				
Bridge Repainting				**$1,040,700**
General Conditions				**$312,210**
Design Contingency	**20%**			**$271,090**
SOFT COST				**$650,000**
Bridge Repainting				$1,040,700
Main Suspended Bridge Span:				
Prepare and refinish existing pedestrian pipe handrail	360	m	$50.00	$18,000
Prepare and refinish existing lighting poles	1	sum	$1,000.00	$1,000
Strip off lead paint to underside of existing steel deck and prepare for new	4,577	m²	$185.00	$846,745
Paint underside of existing steel deck	4,577	m²	$35.00	$160,195
Suspended Approach Spans - EAST & WEST:				
Prepare and refinish existing pedestrian pipe handrail	40	m	$50.00	$2,000
Prepare and refinish existing lighting poles	1	sum	$500.00	$500
On Grade Approach - EAST:				
Prepare and refinish existing pedestrian pipe handrail	120	m	$50.00	$6,000
Prepare and refinish existing lighting poles				
On Grade Approach - WEST:				
Prepare and refinish existing pedestrian pipe handrail	115	m	$50.00	$5,750
Prepare and refinish existing lighting poles	1	sum	$500.00	$500

Appendix D GOAL ENGINEERING LTD. REPORT ON CONCRETE DECK INVESTIGATION

GOAL ENGINEERING LTD.

Consulting Engineers
Unit 9, 755 Vanalman Ave
Victoria, B.C. V8Z 3B8
Tel: (250) 744-3992 Fax: (250) 744-3983
www.goalengineering.com

October 30, 2014
Project No. GE14027

Stantec
400-655 Tyee Road
Victoria, B.C.
V9A 6X5

Attn: Andrew Rushforth, P.Eng

Re: Point Ellice Bridge
Concrete Deck Investigation
Ultrasonic Thickness Gage Measurements

EXECUTIVE SUMMARY

An investigation into the current condition of the Point Ellice Bridge has been conducted. The focus of the investigation and this report is the reinforced concrete deck which is located below the asphalt road surface. Concrete structures of this age will typically undergo deterioration due to the corrosion of reinforcing steel. The chemical process of corrosion causes expansive forces to be exerted within the concrete matrix leading to cracking, spalling and a loss of serviceability.

The results of the investigation and non-destructive testing outlined in this report indicate the concrete deck is in relatively **Good Condition**. The extent of the concrete repair required below the asphalt is expected to be minimal.

Also, as part of this investigation, the steel beam members below the concrete deck were measured to determine the amount of steel material loss due to corrosion. It was noted that many of the steel cross beams have suffered corrosion deterioration on the top flanges. The field measurements have been reported and a potential cathodic protection method has been suggested. It is recommended that that further research is required to determine the most appropriate protection measure.

Rust products observed on many of the steel superstructure members indicate that a re-painting effort is soon required.

1.0 INTRODUCTION

An investigation has been completed to assess the present condition of the concrete bridge deck of the Point Ellice Bridge in Victoria BC. The goal of this investigation was to estimate the amount of concrete repair required if the existing asphalt surface is removed for a potential bridge renovation/ expansion.

Also included in this report are Ultrasonic Thickness Gage (USTG) test results of various superstructure steel member flanges below the bridge deck.

2.0 STRUCTURE DESCRIPTION

The Point Ellice Bridge was constructed circa 1956 and consists of a reinforced concrete deck supported by a steel superstructure. The design drawings indicate a 6 ½" concrete deck with two layers of reinforcing steel. The concrete deck is overlaid with 2" of asphalt concrete to act as a wear surface.

Photo 1 – View of the South face of the Point Ellice Bridge looking west from the east abutment.

3.0 SURVEY OBSERVATIONS

To complete the assessment, various testing and inspection techniques were used including a Ground Penetrating Radar (GPR) scan completed in accordance with *ASTM D6087-08 Evaluation of Asphalt-Covered Concrete Bridge Decks Using Ground Penetrating Radar*. A section of asphalt was also removed to allow for visual inspection and testing of the concrete deck. The condition of this section of concrete deck would be correlated to the results of the GPR scan to estimate the possible extent of concrete repair and to evaluate the GPR scan effectiveness.

3.1 Ground Penetrating Radar Scan

The GPR scanning was completed by Canadian Subsurface Investigations from Vancouver, BC. The entirety of the concrete bridge deck was scanned on August 12th 2014. The results of the scan are topographic style maps which provide the following information:

- **Rebar Depth** (from Surface): This provides a measure to the top layer of steel reinforcing from the top of the asphalt wear surface.

- **Rebar Amplitude**: This provides an indication of the presence of corrosion products around the reinforcing steel and consequently the likelihood of cracking or spalling of concrete. (Low amplitude number indicates a higher potential for concrete damage)
- **Asphalt Thickness**: Measure of the asphalt wear surface thickness. The GPR scan indicates that the thickness varies from 30mm to 75mm.
- **Asphalt Amplitude**: This data provides an indication of the bond between the asphalt wear surface and the concrete deck. (Higher amplitude number indicates a better bond)
- **Rebar Cover:** Measure from the concrete surface to the top layer of steel reinforcement.

The results of the scan have been appended to this report.

3.2 Visual and Sounding Survey

Several locations of rebar are exposed on the concrete sidewalk across the bridge. The locations of the exposed rebar have been summarized on the appended drawing.

Cracks were noted on the outside vertical surface of the concrete sidewalk (which cantilevers off the bridge edge). The cracks were typically located above the cross beam supports, which is also the typical location of the bridge deck construction joints (See appended photo 2). Access was available to a limited number of these locations and it was observed that the concrete was debonded and/or loose.

Following the removal of the asphalt surface from the concrete deck, a visual and sounding survey was conducted to identify locations of debondment. No loose or debonded concrete was identified in the test area (See the appended drawing for the location of the test area surveyed).

Three concrete joints were exposed and it was observed that the joint sealant was intact and appeared to be performing well.

3.3 Chloride ion Content

The samples used for chloride ion determination were obtained by dry drilling at three locations on the bridge deck. Samples were obtained at depths between 0mm and 55mm. The chloride ion test procedure used was the 'water soluble' method. The concentrations have been calculated for a concrete with average density of 2350 kg/m^3 and cement content of 300 kg/m^3. The results are presented in Table 1.

Table 1 - Chloride Sample Summary

Chlorides Samples:
Bay Street Bridge Deck

Sample:	*Location:*	*Concentration (ug/g)*	*Depth:*	*% by mass concrete*	**% by mass cement**
1A	Location 1 (East)	76	0-12mm	0.008	**0.04**
1B	Location 1 (East)	75	12-20mm	0.008	**0.04**
1C	Location 1 (East)	77	20-35mm	0.008	**0.06**
2A	Location 2 (Middle)	<50	0-10mm	0.005	**0.04**
2B	Location 2 (Middle)	53	10-25mm	0.005	**0.04**
2C	Location 2 (Middle)	56	25-36mm	0.006	**0.04**
2D	Location 2 (Middle)	54	36-55mm	0.005	**0.04**
3A	Location 3 (west)	94	0-15mm	0.009	**0.07**
3B	Location 3 (west)	84	15-23mm	0.008	**0.07**
3C	Location 3 (west)	78	23-30mm	0.008	**0.06**
3D	Location 3 (west)	51	30-46mm	0.005	**0.04**
	Assumed Average Density	***2350kg/m3***			
	Assumed Cementitious Content:	***300kg/m3***			

The American Concrete Institute (ACI) proposed threshold for chloride concentration in conventionally reinforced concrete is 0.15 % by mass of cement. At levels higher than 0.15 % there is a significant increase in the potential for chloride induced corrosion of the reinforcing steel. As shown in Table 1, all of the chloride concentrations are under the ACI threshold value.

3.4 Rebound Hammer

Rebound hammer is a non-destructive test used to estimate concrete strength. Readings were obtained on the deck at locations shown on the drawing. These results are presented in Table 2.

Table 2. Rebound Hammer Test Summary

Location	Rebound Number	Estimated Compressive Strength (MPa) Including correction factor
1	33.7	29.0
2	34.3	29.0
3	39.2	36.0

The test results indicate that the concrete compressive strength for the deck ranges between 29 MPa and 36 MPa. It is noted that the Rebound hammer manufacturer lists an accuracy of +/- 7 MPa for results in the range of 40 MPa.

3.5 Half-Cell Survey

The half-cell survey measures the electrical potential for corrosion between the concrete and the reinforcing steel. The results of the tests provide an indication of the probability of corrosion. A survey was conducted on a portion of the deck and the results are provided in table 3 below.

Table 3. Summary of Half Cell Survey Results (measurements are on a ~1 meter gird)

Half Cell Rebar Potentials (mV) - Point Ellice Bridge (West Bound Lane Over Pier #1)

West											East
	-161	-74	-42	-61	-100	-225	-111	-80	-72	-98	-180
	-274	-135	-164	-116	-173	-291	-128	-110	-87	-180	-177
	-142	-88	-92	-104	-94	-202	-117	-47	-40	-98	-170
	-132	-89	-77	-106	-108	-133	-96	-35	-122	-88	-140

][~ Location of Floor Beam][~ Center Line of Peir #1][~ Location of Floor Beam

Table 4. Interpretation of half-cell results.

Half Cell Potential (mV)	Probability of Corrosion Activity
> -200	Less than 10 %
-200 to -350	Uncertain
<-350	Greater than 90 %

*Per ASTM C876-09 Corrosion Potentials of Uncoated Reinforcing Steel in Concrete

The readings ranged from -42 to -291 mV. This indicates the majority of areas have a less than 10% probability of corrosion while some areas are uncertain.

It is noted that higher half-cell potentials were recorded on the slab areas above the approximate location of steel beams below. It may be that the half cell readings are measuring the potential for corrosion of the steel members rather than the embedded reinforcing (These areas are indicated by shading in table 3 above).

3.6 Concrete Core Compressive Strength Test Results

A total of 6 concrete cores were retrieved from 2 locations on the bridge deck for compressive strength testing and depth of carbonation testing. The results of the compressive strength testing have been summarized below in table 5. A complete compressive strength test report has been appended.

Table 5. Summary of Compressive Strength Test Results

Location	Sample Number	Compressive Strength (Mpa)	Average (Mpa)
3	1	43.9	
3	2	41.3	
3	3	41.6	42.3
1	4	34.1	
1	5	28.8	
1	6	37.8	33.6

3.7 Depth of Carbonation Testing

Concrete carbonation can be visually identified by applying a phenolphthalein solution to the concrete sample. Non-carbonated concrete reacts with the concrete to create a purple colour on the surface and the carbonated concrete does not undergo a colour change. Typically, the concrete will carbonate from the exterior surface inwards and the depth of carbonation is typically measured from the exposed surface. When concrete becomes carbonated, its alkalinity is decreased and its ability to inhibit corrosion is compromised.

Following the testing of the six concrete cores, it was observed that there was a minimal amount (<1mm) of carbonation of the concrete, measured from the upper concrete surface.

3.8 Ultrasonic Thickness Gage Testing

The underside of the bridge was accessed from the maintenance walkway and a number of Ultrasonic Thickness Gage Tests (USTG) were conducted on the flanges of the steel girders, beams and stringers. The results from the thickness testing have been appended to this report. It was noted that top flanges of many of the steel elements have suffered from varying degrees of corrosion, especially the steel beam members below the concrete deck joints (see photo 4 and 10 - 20).

The following were noted from the visual review of the underside of the bridge deck during the USTG testing:

- A build-up of rust products was noted above many of the cross beam top flanges (see photos 10 – 20)
- Surface rust and pitting was noted at several locations on all elements of the structure (see the appended photo 5).
- Concrete spalling was observed adjacent to the top flanges of the steel members at multiple locations (See photo 6).

4.0 DISCUSSION

The loose concrete located on the outside vertical faces of the sidewalks should be removed as soon as possible. These pieces of concrete pose a fall hazard. This damage may be due to forces initiated by rust jacking of the cross-beams below.

The area of asphalt removal in the west bound lane was selected based on the GPR scan. It was anticipated there may be locations with varying degrees of concrete damage. The goal was to correlate the GPR scan with the observed damage and estimate the amount of total concrete damage. However, as areas of concrete damage/ debondment were not observed, the correlation is not possible. Therefore, it is expected that majority of the concrete deck will not require repair. A small amount of concrete repair should be allowed for to address likely small damage areas below the asphalt.

The steel superstructure is showing many indications of deterioration due to corrosion; in particular on the top flange of the girders, beams and stringers. The most severe damage appears to be located over the cross beams, which is below the concrete deck joints. The thickness of various flanges of the steel elements has been presented in this report however these have not been compared to the original flange thicknesses. The deterioration will likely continue to proceed without the implementation of protective measures. Protective measures should include 1) limiting water ingress and 2) some form of cathodic protection.

The continuing corrosion of the top flanges will likely cause further steel material loss and the build-up of corrosion products above the top flange (this is also known as Rust Jacking). Rust Jacking can generate distress in the concrete by lifting the edges of the concrete deck. As an example, the loose concrete observed on the vertical edges of the sidewalks (see photo 2) may have been due to this rust jacking.

It was noted that the sealant within the concrete joints appeared in satisfactory condition and it may be that the water ingress from the top of the deck is already limited. It is expected however that if the asphalt wear surface is removed, the joint sealant will likely become damaged and a replacement system will be required.

Even in the absence of water infiltration from the top of the bridge deck, it is likely that the corrosion of the beam steel flanges will continue to occur. This is caused by moisture in the air from the sea water environment. This ongoing corrosion of the beams may have caused the increased half cell readings (reported in section of 3.5 of this report) observed in the corrosion potential survey.

One possible solution to limiting the ongoing corrosion issue is the installation of sacrificial anodes into the concrete deck above the beam top flanges. This could be achieved by coring holes into the concrete deck at regularly spaced intervals above the various beam top flanges, inserting a sacrificial metal anode electrically connected to the beam top flange and grouting the holes with an appropriate mortar.

5.0 RECOMMENDATIONS

1. Remove loose concrete from the outside vertical faces of the sidewalks (See photo 2).

2. The extent of concrete repair below the driving surface is expected to be minimal. A small contingency should be considered however to complete the repairs to the exposed rebar noted on the appended drawings and any other small concrete issues which may have not been detected by the GPR scan. It is recommended that an appropriate budget to cover these concrete repairs would be for ~1% of the concrete deck area (~ 15 m^2 of repair area).

3. The exposed rebar noted on the sidewalk areas should be repaired by chipping the area around the rebar, depressing the bar to provide additional cover and patching with an appropriate mortar.

A similar repair procedure should be used for patching the concrete spalling locations observed on the underside of the bridge deck.

4. Conduct a review of remedial options to address the corrosion damage observed on the top flange of the steel beams, stringers and girders. One potential solution to reduce the rate of corrosion is through the installation of sacrificial anodes. This and other options for limiting the corrosion of the top flange of the beams should be explored.

5. It is time for a new coating on the bridge steelwork superstructure. As shown in photo 5, localized pitting and surface rust is extensive and this damage will continue to occur at a likely accelerating rate.

6. When the asphalt concrete is removed it would be prudent to restore all of the transverse concrete joints as the existing joints will likely be damaged in the asphalt removal process.

6.0 CLOSING

The overall condition of the concrete deck is good. Relatively minor amounts of concrete repair can be expected based on the observation of the exposed portion of deck

The steel beams require attention and further consideration should be given to explore options to limit ongoing corrosion of the top flanges.

I trust this information is sufficient. Please call if you have any questions.

Sincerely
Per: GOAL Engineering Ltd,

PROFESSIONAL PROVINCE OF C. T. APPELMAN # 38916 BRITISH COLUMBIA ENGINEER 30 Oct 2014

Craig Appelman, P.Eng
Materials Engineer

Reviewed by:

PROFESSIONAL PROVINCE OF G. OVSTAAS # 3909 BRITISH COLUMBIA ENGINEER 30 Oct 2014

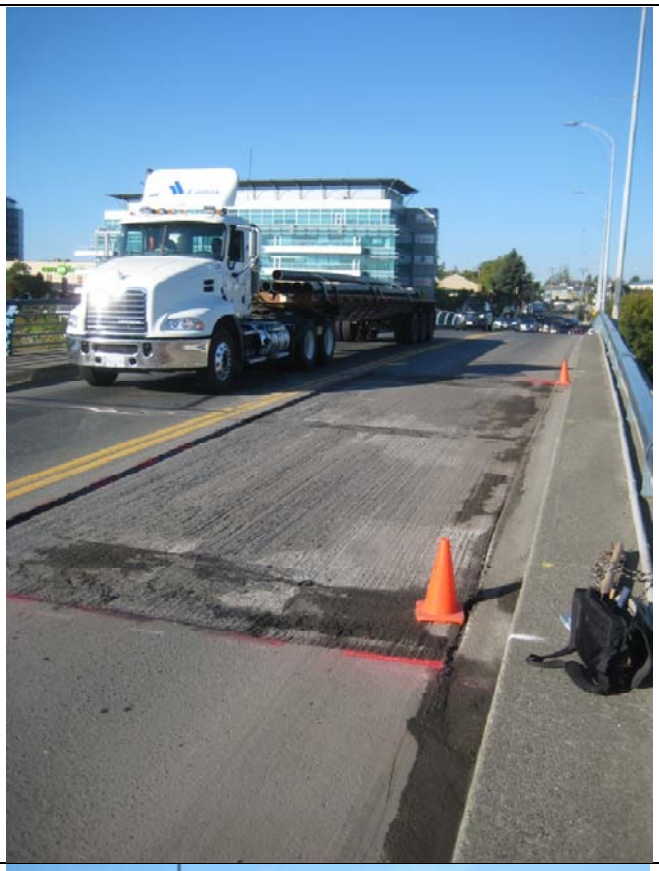
Greg Ovstaas, P.Eng.
Senior Materials Engineer

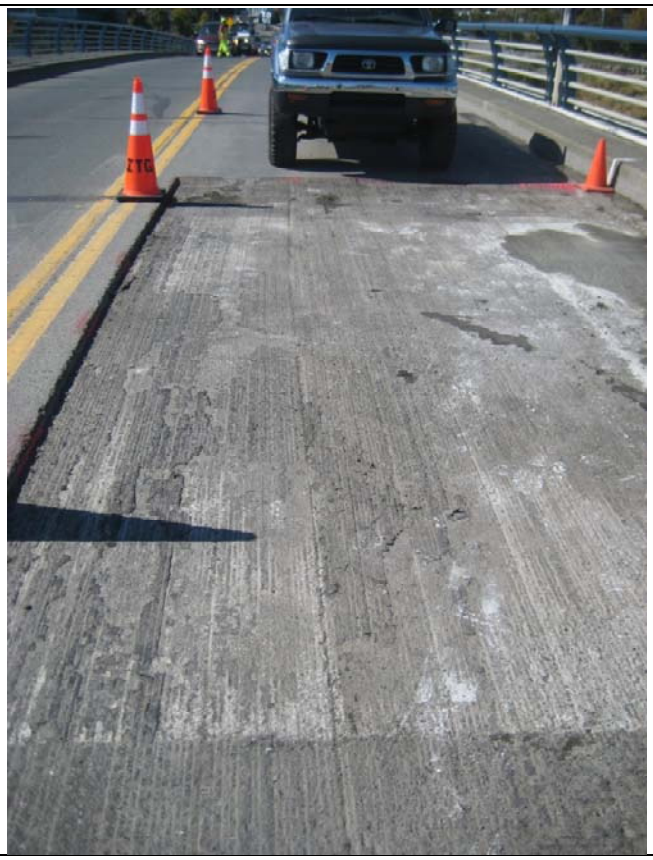
:

Appendix A
Photos

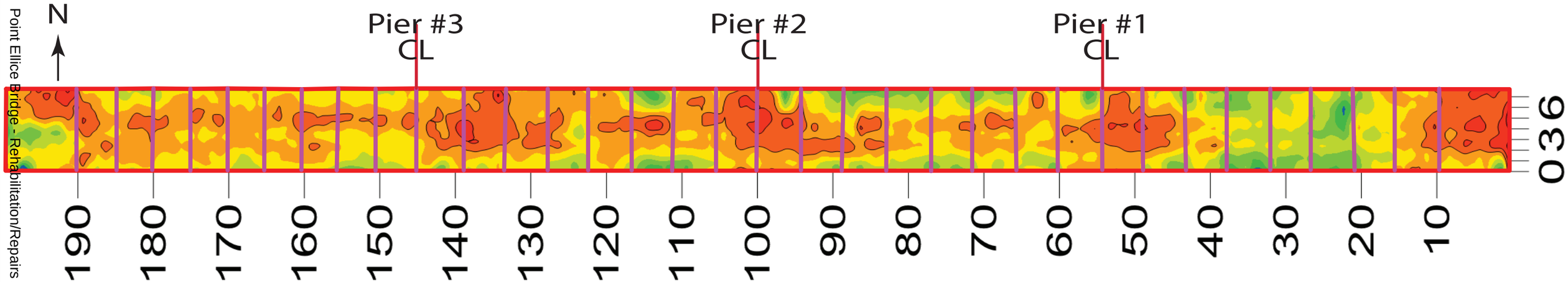
	Photo 2 – View of typical loose concrete on the outside vertical surfaces of the sidewalks.
	Photo 3 – Ground Penetrating Scan being completed on the bridge deck.
	Photo 4 – Typical condition of the cross beams. Corrosion typically present on the top flange of the steel members in contact with the concrete.

	Photo 5 – Interior view of the North Girder near Pier #1. Surface corrosion and pitting is visible on steel elements.
	Photo 6 – Concrete spalling observed at the connection point of the cross beam and stringer

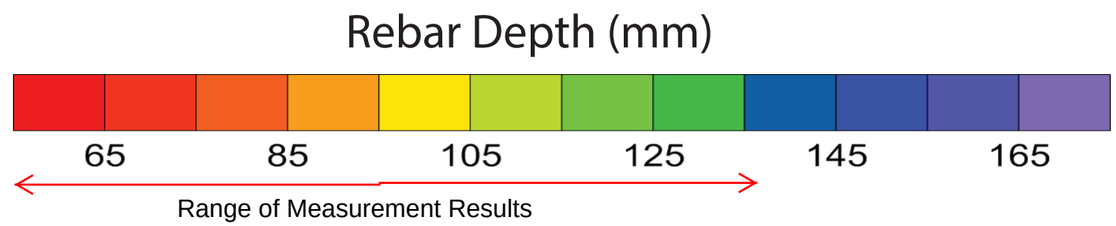
		Photo 7 – View of the asphalt removal test patch. The test patch was centrally located over Pier #1 in the West bound lane of traffic.
		Photo 8 – Obtaining concrete core samples.

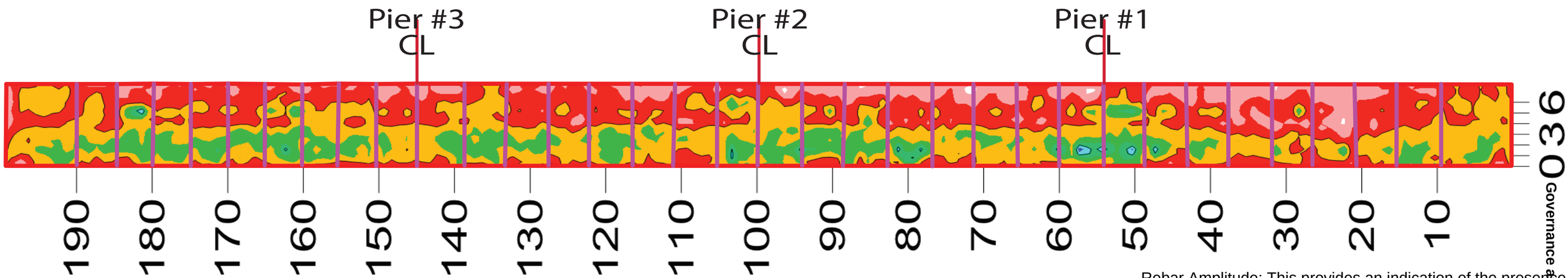
	Photo 9 – Close view of the concrete deck. Groves can be observed from the milling process. No locations of concrete debondment were noted.

Appendix B
Ground Penetration Rebar Test Results

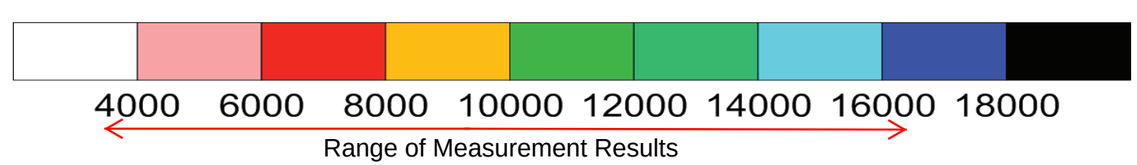


Rebar Depth (from Surface): This provides a measure to the top layer of steel reinforcing from the top of the asphalt wear surface.



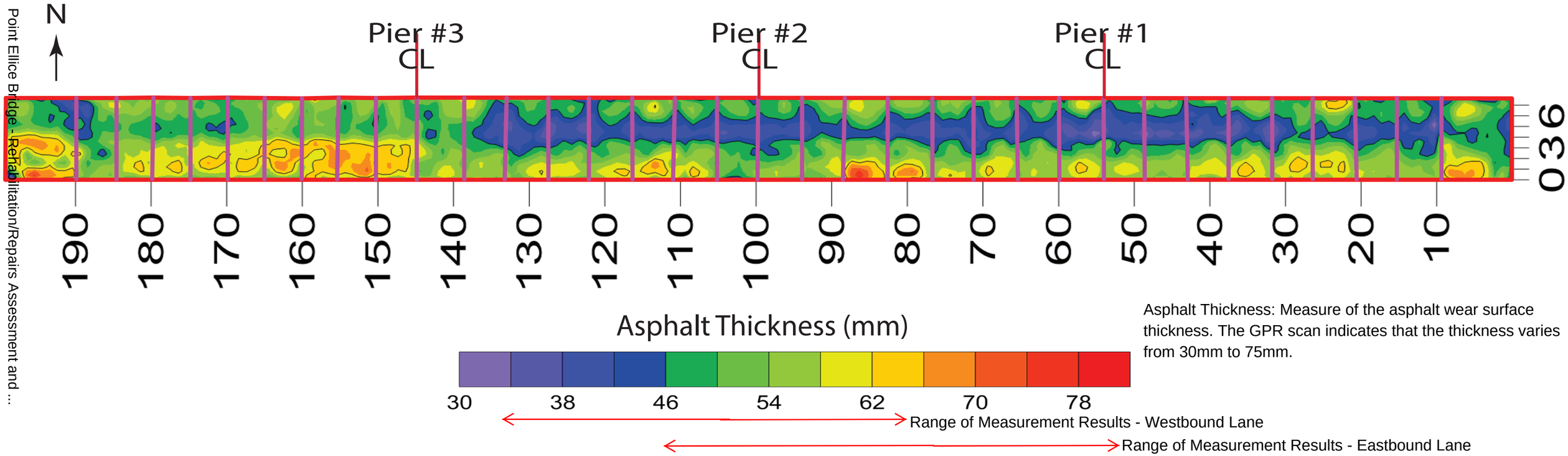


Rebar Amplitude: This provides an indication of the presence of corrosion products around the reinforcing steel and consequently the likelihood of cracking or spalling of concrete. (Low amplitude number indicates a higher potential for concrete damage)

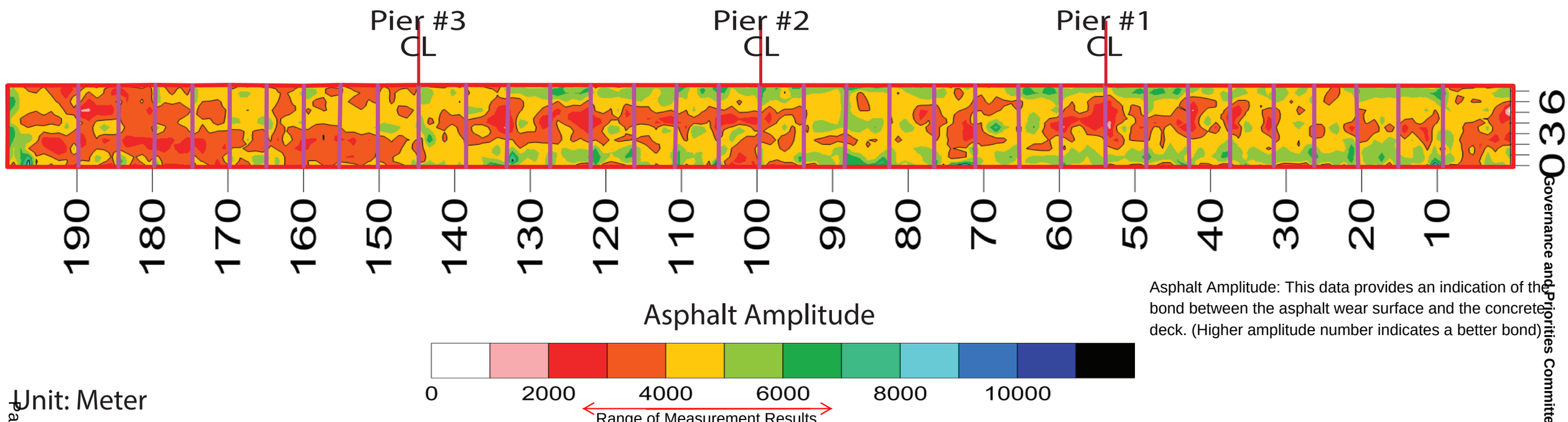


Unit: Meter

Client: Goal Engineering Ltd. -755 Vanalman Ave., Victoria, BC V8Z 3B8	Ground Penetrating Radar Survey Point Ellice Bridge, Victoria, BC		CSi Canadian Subsurface Investigations Inc
Preliminary Results	Prepared By: Terry Wong	Date: August 12, 2014	Project No. CSI20140812A



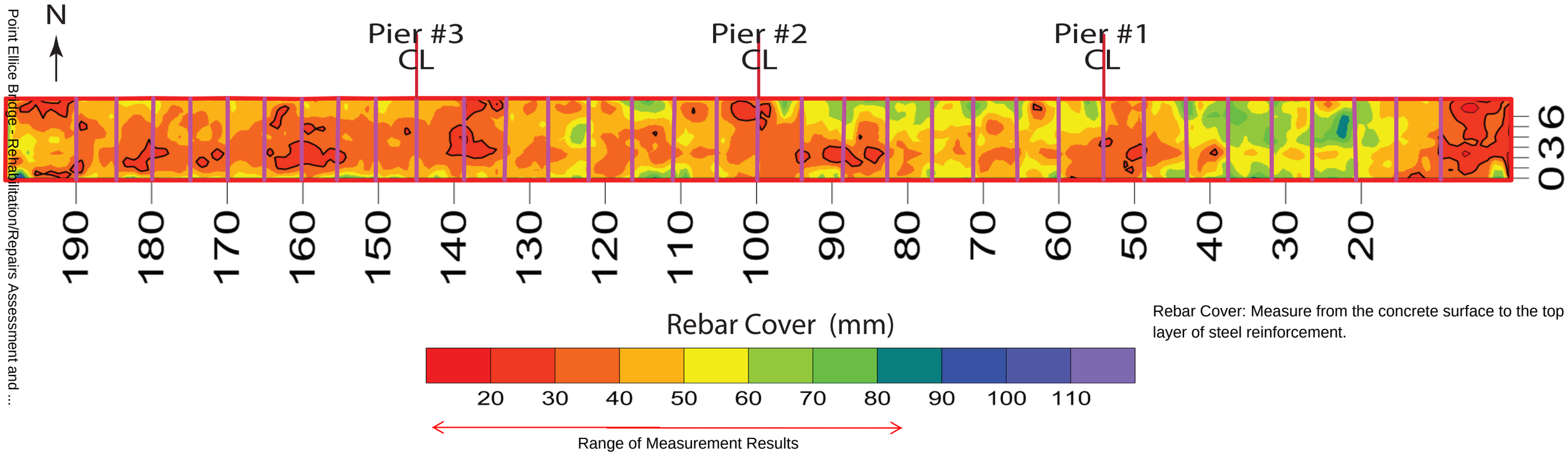
Asphalt Thickness: Measure of the asphalt wear surface thickness. The GPR scan indicates that the thickness varies from 30mm to 75mm.



Asphalt Amplitude: This data provides an indication of the bond between the asphalt wear surface and the concrete deck. (Higher amplitude number indicates a better bond)

Unit: Meter

Client: Goal Engineering Ltd. #1-755 Vanalman Ave., Victoria, BC V8Z 3B8	Ground Penetrating Radar Survey Point Ellice Bridge, Victoria, BC		CSi Canadian Subsurface Investigations Inc
Preliminary Results	Prepared By: Terry Wong	Date: August 12, 2014	Project No. CSI20140812A



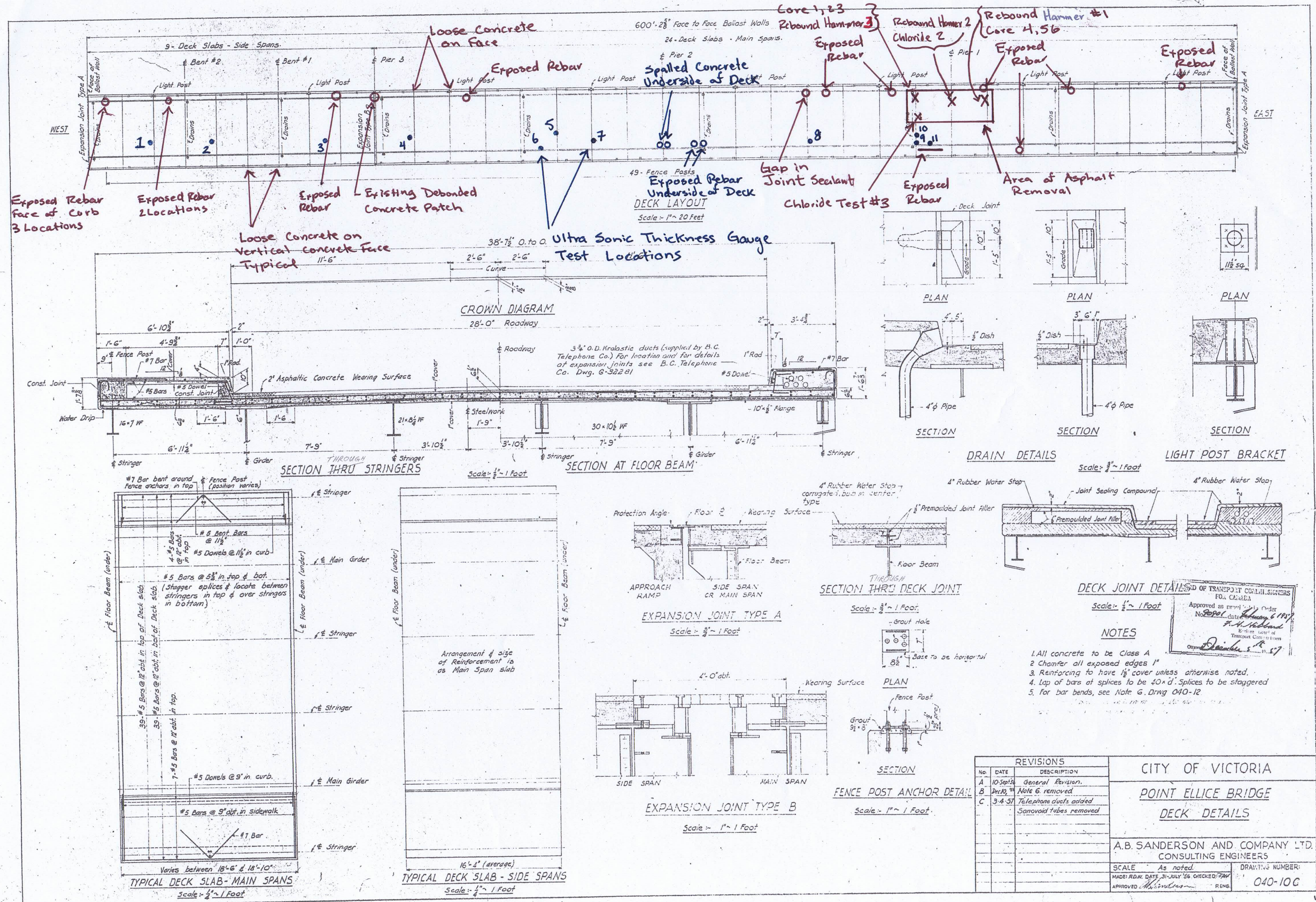
Rebar Cover: Measure from the concrete surface to the top layer of steel reinforcement.

Unit: Meter

Client: Goal Engineering Ltd. -755 Vanalman Ave., Victoria, BC V8Z 3B8	Ground Penetrating Radar Survey Point Ellice Bridge, Victoria, BC		
Preliminary Results	Prepared By: Terry Wong	Date: August 12, 2014	Project No. CSI20140812A

CSi
Canadian Subsurface Investigations Inc

Appendix C
Sketch of Field Observations


Loose Concrete on Face
Exposed Rebar
Spalled Concrete Underside of Deck
Core 1,23 Rebound Hammer 3
Rebound Hammer 2 Chloride 2
Rebound Hammer #1 Core 4,5,6
Exposed Rebar
Exposed Rebar
Exposed Rebar
Exposed Rebar Face of Curb 3 Locations
Exposed Rebar 2 Locations
Exposed Rebar
Existing Debonded Concrete Patch
Loose Concrete on Vertical Concrete Face Typical
Exposed Rebar Underside of Deck
Gap in Joint Sealant
Chloride Test #3
Exposed Rebar
Area of Asphalt Removal
Ultra Sonic Thickness Gauge Test Locations
600'-2⅝" Face to Face Ballast Walls
9 - Deck Slabs - Side Spans.
24 - Deck Slabs - Main Spans.
49 - Fence Posts
WEST
EAST
DECK LAYOUT
Scale :- 1" ~ 20 Feet
CROWN DIAGRAM
28'-0" Roadway
2" Asphaltic Concrete Wearing Surface
3¾" O.D. Kralastic ducts (supplied by B.C. Telephone Co.) For location and for details of expansion joints see B.C. Telephone Co. Dwg. G-32281
SECTION THRU STRINGERS
SECTION AT FLOOR BEAM
Scale :- ½" ~ 1 Foot
PLAN
SECTION
DRAIN DETAILS
LIGHT POST BRACKET
Scale :- ¾" ~ 1 Foot
APPROACH RAMP
SIDE SPAN OR MAIN SPAN
EXPANSION JOINT TYPE A
Scale :- ¾" ~ 1 Foot
SECTION THRU DECK JOINT
Scale :- ¾" ~ 1 Foot
DECK JOINT DETAILS
Scale :- ½" ~ 1 Foot
EXPANSION JOINT TYPE B
Scale :- 1" ~ 1 Foot
FENCE POST ANCHOR DETAIL
Scale :- 1" ~ 1 Foot
TYPICAL DECK SLAB - MAIN SPANS
Scale :- ¼" ~ 1 Foot
TYPICAL DECK SLAB - SIDE SPANS
Scale :- ¼" ~ 1 Foot
Arrangement & size of Reinforcement is as Main Span slab
NOTES
1. All concrete to be Class A
2. Chamfer all exposed edges 1"
3. Reinforcing to have 1½" cover unless otherwise noted.
4. Lap of bars at splices to be 40 × d. Splices to be staggered
5. For bar bends, see Note 6. Drwg 040-12
REVISIONS
No. DATE DESCRIPTION
A 10-Sept-56 General Revision.
B Dec 10 '56 Note 6. removed
C 3-4-57 Telephone ducts added
Sonovoid tubes removed
CITY OF VICTORIA
POINT ELLICE BRIDGE
DECK DETAILS
A.B. SANDERSON AND COMPANY LTD.
CONSULTING ENGINEERS
SCALE As noted.
MADE: R.D.M. DATE: 31-JULY '56 CHECKED:
APPROVED
DRAWING NUMBER: 040-10C

Appendix D
Concrete Test Results

GOAL ENGINEERING LTD.

Core Test Report

Client: Stantec Consulting
655 Tyee Road
Victoria, B.C. V9A 6X5

Project No. : 14-027
Date: 18-Sep-14

Attention: Andrew Rushforth

Project: Point Ellice Bridge

Date Cored: 15-Sep-14
Cored By: GOAL Engineering Ltd.

Core No.	Load kN	Diameter mm	Length mm	Weight grams	Compressive Strength MPa	Compressive Strength Corrected Mpa	L/D Ratio	Factor
1	164.0	69	139	1283.3	43.9	43.9	> 2	1.0
2	154.5	69	143	1314.2	41.3	41.3	> 2	1.0
3	155.5	69	139	1265.5	41.6	41.6	> 2	1.0
4	131.5	69	110	992	35.2	34.1	1.59	0.97
5	111.5	69	108	976.9	29.8	28.8	1.57	0.97
6	142.1	69	134	1229	38.0	37.8	1.94	0.99

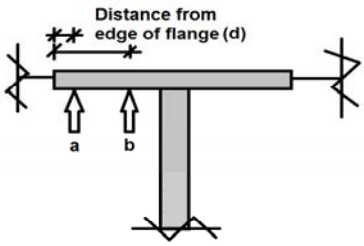
COMMENTS: **Tested in accordance with CSA CAN3 A23.2 - 14C**
Dry Conditioned prior to testing
Parallel to Compaction

GOAL Engineering Ltd.
Unit 9, 755 Vanalman Ave
Victoria, BC
V8Z 3B8

per: _____ **G. Ovstaas P.Eng**

Appendix E
Ultra Sonic Thickness Gage Test Results

GOAL ENGINEERING LTD.



Ultrasonic Thickness Gage Test Results

Client: Stantec
Attention: Andrew Rushforth
Project: Point Ellice Bridge

Project No. : GE14027
Date: 21-Aug-14

Location No.	Description	Test No.	Distance from Flange Edge - d (mm)	Thickness Measurement (mm)	Location Description	Notes
1	Top Flange of Cross Beam (One West of Bent #2)	a_1	20	14.3	670 mm North of South Stringer	Several Sheets of Debondment Noted on top Flange between beam and concrete Caliper Measurement of Edge Thickness: 15.3 mm
		b_1	95	17.6		
		a_2	20	16.2	980 mm North of South Stringer	
		b_2	95	17.8		
2	Top Flange of Cross Beam (two west of Bent #1)	a_1	22	14.2	1020 mm North of South Stringer	
		b_1	100	18.1		
		a_2	25	13.2	1370 mm North of South Stringer	
		b_2	95	18.6		
3	Top Flange of South/ Central Stringer (two spans west of Pier 3)	a_1	21	15.0	2100 mm to east cross beam	
		b_1	69	15.1		
		a_2	27	15.1	2440 mm to east cross beam	
		b_2	69	14.6		
4	Top Flange of Cross Beam (one span east of Peir 3)	a_1	25	18.4	750 mm North of South Stringer	Caliper Measurement of Edge Thickness: 22.7 mm
		b_1	93	20.3		
		a_2	27	17.3	1150 mm North of South Stringer	
		b_2	100	22.0		
5	Top Flange of Cross Beam (Fourth Span West of Pier 2)	a_1	19	17.3	870 mm North of South Stringer	Caliper Measurement of Edge Thickness: 17.3 mm
		b_1	93	21.9		
		a_2	27	17.9	1290 mm North of South Stringer	
		b_2	100	22.2		
6	Top Flange of South Central Stringer (third Span West of Pier 2)	a_1	18	16.3	500 mm West of cross beam	
		b_1	72	16.3		
		a_2	21	15.5	1050 mm West of cross beam	
		b_2	74	16.1		
7	Top Flange of Cross Beam (Third Cross Member West of Pier 2)	a_1	31	18.6	520 mm South of South Stringer	Heavy pitting on surface may have resulted in greater thickness readings. Caliper Measurement of Edge Thickness: 17.0 mm
		b_1	103	20.6		
		a_2	-	-	-	
		b_2	-	-		
8	Top Flange of Cross Beam (Third cross beam west of peir 1)	a_1	28	19.3	660 mm South of South Stringer	Caliper Measurement of Edge Thickness: 17.9 mm
		b_1	87	19.8		
		a_2	-	-	-	
		b_2	-	-		
9	Bottom Flange of Cross Beam (One span West of Pier 1)	a_1	27	18.1	550 mm South of South Stringer	Heavy pitting on surface may have resulted in greater thickness readings. Caliper Measurement of Edge Thickness: 18.9 mm
		b_1	80	20.1		
		a_2	-	-	-	
		b_2	-	-		
10	Top flange of Cross beam (One Span west of peir 1)	a_1	22	16.9	360 mm North of South Stringer	Caliper Measurement of Edge Thickness: 18.5 mm
		b_1	103	20.4		
		a_2	25	19.0	1160 mm North of South Stringer	
		b_2	102	20.0		
11	Top flange of South/Central Stringer (first span west of Peir 1)	a_1	18	16.4	1490 mm east of cross beam	
		b_1	72	16.5		
		a_2	17	16.6	2080 mm east of cross beam	
		b_2	74	15.5		

Photos of Ultra Sonic Thickness Gage Test Locations

	Photo 10 – Test Location 1		Photo 11 – Test Location 2
	Photo 12 – Test Location 3		Photo 13 – Test Location 4
	Photo 14 – Test Location 5		Photo 15 – Test Location 6
	Photo 16 – Test Location 7		Photo 17 – Test Location 8
	Photo 18 – Test Location 9		Photo 19 – Test Location 10

	Photo 20 – Test Location 11		

Point Ellice Bridge: Rehabilitation/Repairs Assessment and Updated Cost Estimates

January 22, 2015 - Governance and Priorities Committee

Purpose of Assessment

- To assist in developing options and recommendations for Council on determining large-scale capital priority projects (Crystal Pool, Fire Hall #1, and Point Ellice Bridge)
- Stantec Consulting Ltd. was retained to:
  - Confirm the extent of previously-identified bridge repairs
  - Refine the design concept for possible pedestrian and cyclist improvements
  - Provide updated cost estimates

Maintenance Related Findings

- The concrete bridge deck does not require replacement, as previously indicated
- Additional mitigation measures are recommended to minimize future corrosion on steel members of the bridge deck
- A 50,000kg GVW load restriction on the bridge is recommended – this would only impact a small percentage of vehicle trips
- Maintenance related repair costs are estimated at $3,600,000
- Repairs are identified as a project for consideration in the 2017 Financial Plan

CITY OF VICTORIA

Possible Pedestrian and Cyclist Facilities

- Plans to widen the bridge to better accommodate cyclists were originally developed in 2001
- Widening-related costs are estimated at $15,250,000
- Cycling improvements on the Point Ellice Bridge are not on the list of Bicycle Master Plan Implementation priority projects for 2015-2019
- Proposed Johnson Street Bridge pedestrian and cyclist facility improvements were not contemplated when the Point Ellice Bridge widening design was originally developed

Recommendation

- That Council direct staff to include maintenance repairs to the Point Ellice Bridge, as identified in the report on Point Ellice Bridge Maintenance and Enhancement Proposals, dated December 1, 2014, as a project for Council consideration in the Financial Plan for 2017.

CITY OF VICTORIA

CITY OF VICTORIA

Governance and Priorities Committee Report
For the Meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 7, 2015
From:	Susanne Thompson, Director, Finance		
Subject:	Canada - British Columbia New Building Canada Fund - Small Communities Fund		

Executive Summary

On October 16, 2014, the Province of British Columbia and the Government of Canada announced the first intake for the New Building Canada Fund – Small Communities Fund. The objective of this program is to provide infrastructure support to local governments to promote economic development, a clean environment and better communities.

The federal and provincial governments will each allocate $109 million to support local government infrastructure projects in communities with a population of less than 100,000 people. This 10 year funding program runs from 2014 to 2024 and offers funding up to a maximum of two-thirds of the total eligible project costs shared equally between the federal and provincial governments. There is no maximum award, however it is likely there will be significant demand for limited funds.

Municipalities may only submit one application for funding with the first intake and must have Council approval. The first intake will allocate up to 50% of the total funds available. It is anticipated that there may be a total of two intakes in the 10 year period; the second will be announced at a later date.

Applications are due on February 18, 2015.

Staff reviewed the 20 Year Capital Plan and compiled a list of three potential projects. Upon a detailed evaluation of each project against the selection criteria, staff recommend that Council approve the submission of the application for the Point Ellice Bridge Rehabilitation/Painting project.

Recommendations:

That Council:

1. Instruct staff to submit a grant application for the Point Ellice Bridge Rehabilitation/Painting project for the Canada - British Columbia New Building Canada Fund - Small Communities Funding infrastructure grant program's first intake.

2. Authorize the Mayor and the Corporate Administrator to execute any agreement related to a successful grant application.

Respectfully submitted,

Jo-Ann O'Connor	Susanne Thompson	Dwayne Kalynchuk
Manager, Financial Planning	Director, Finance	Director, Engineering

Report accepted and recommended by the City Manager: _____

Date: January 15, 2015

Purpose

The purpose of this report is to provide an overview of the New Building Canada Fund - Small Communities Fund and to seek Council approval to apply for funding.

Background

On October 16, 2014, The Province of British Columbia and the Government of Canada launched the New Building Canada Fund - Small Communities Fund. This 10 year funding program will invest up to $218 million to support infrastructure projects in communities with a population of less than 100,000 people. The federal and provincial government will each contribute up to $109 million of the total program funds with the remainder of the funds coming from the funding recipients.

Since 2003, the City has been awarded a total of $9.6 million from the Canada - British Columbia New Building Canada Fund - Small Communities program for five separate projects ranging from $640,000 to $3.3 million (Attachment A).

Objective
The objective of this program is to provide infrastructure funding that will support economic growth, a clean environment and build stronger communities (Attachment B).

Applications
Eligible communities may submit only one application with the first intake. The application deadline is February 18, 2015.

Project Categories
The Ministry of Community, Sport and Cultural Development and the Ministry of Transportation and Infrastructure are responsible for the administration of this program. Below outlines the project categories and the Ministry responsible:

Ministry of Community, Sport and Cultural Development
- Drinking Water
- Green Energy
- Solid Waste Management
- Wastewater

Ministry of Transportation and Infrastructure
- Brownfield Redevelopment
- Connectivity and Broadband
- Disaster Mitigation
- Highway & Major Roads
- Innovation
- Local & Regional Airports
- Public Transit
- Short Sea Shipping
- Shortline Rail

Cost Sharing and Limits
This program offers funding up to a maximum of two-thirds of the total eligible project costs; one-third of total eligible costs plus all ineligible costs are the responsibility of the recipient.

In the first intake, up to 50% of the program funds; thus $109 million will be allocated. City staff contacted the program administrators and it is anticipated there will be a second and final intake announced at a later date. There is no maximum award; however it is likely there will be significant demand for limited funds.

Eligible Projects

In order to be eligible for funding, projects must:

- demonstrate that it will be able to operate and maintain the resulting infrastructure over the long term
- fall within one of the applicable project categories, be consistent with the objectives of the category and directly related to one of its subcategories, meet one or more of the project outcomes of the category and meet the specific project criteria of the category
- be for the acquisition, construction, renewal, rehabilitation or material enhancement of infrastructure, excluding normal maintenance or operation
- be supported by a project justification/business case or a project specific supplementary form dependent on the project category
- the application and supporting documents should be comprehensive, credible, and feasible
- stipulate a construction completion date of no later than March 31, 2023
- be implemented in communities served by Local Governments with a population of less than 100,00 people, as set out in the Statistics Canada Final 2011 Census
- be duly authorized or endorsed by, as applicable in the case of a local government applicant, a resolution of its council/board; or in the case of a private sector body, including for-profit and not-for-profit organizations, a resolution of its board of directors and a resolution of the local government where the proposed project to be located

Ineligible Projects

A project will be deemed ineligible if:

- the tender has been awarded or construction has already begun or project is completed prior to approval
- the project will be completed after March 31, 2023
- the project deals with assets owned by the Government of Canada including federal Crown Corporations

Selection Process

Applications will be evaluated based on how well the project meets the program objectives. In addition, projects will be assessed based on the following:

- represents good value for money
- enhances and protects public health and environmental health
- supports sustainability principles
- consistent with integrated long-term planning and management
- utilizes best technologies and practices
- efficient use of resources
- uses new and innovative approaches
- supports sustainable long-term economic growth
- is situated within, and advances, the sponsoring local governments' development and financial plans
- exhibits long-term sustainability, including operational viability, asset management (maintenance) and environmental sensitivity
- contributes to environmental, economic, community and innovative objectives

- requires the federal and provincial government's financial support to enable the project to be implemented, its scope enhanced or its timing accelerated
- the best available economically feasible technology, if applicable

Award Date
It is anticipated that the funding decisions will be announced in the fall of 2015.

Additional Grant Opportunities
Another source of funding available to all local governments outside the Greater Vancouver Regional District is the Federal Gas Tax Fund Strategic Priorities Fund. The deadline for this application is April 15, 2015. Staff will be bringing forth potential projects that meet the Gas Tax criteria for Council consideration.

Issues & Analysis

Staff reviewed the Capital Plan and identified three potential projects: Bicycle Master Plan Implementation, Point Ellice Bridge Rehabilitation/Painting and Stormwater Treatment Unit at Public Works.

Staff carefully assessed the potential projects based on eligible categories, objectives and selection criteria (Attachment C) and sought input and clarification from the grant program administrators. Below are the two of the three projects that meet the criteria:

1. Point Ellice Bridge Rehabilitation/Painting
The Point Ellice Bridge serves as a major east-west commuter route linking the Victoria West neighbourhood on the west side with the Rock Bay and the Downtown area on the east side. The existing bridge is a two lane structure approximately 200 meters in length spanning the Upper Harbour. In 2001, the bridge was seismically upgraded with some minor repairs.

The scope of this project is to complete major repair work on the Point Ellice Bridge. This includes replacing the main expansion joints, repairing concrete at the abutments, adding nodes to the bridge structure to reduce future steel corrosion, remove the asphalt deck to add a waterproof membrane, resurface the bridge deck with asphalt, prepare and refinish pedestrian handrails and light standards and prepare and repaint the existing steel structure.

The estimated cost of this project is approximately $4 million. The project is identified in the 20 Year Capital Plan to commence in 2017. A successful application would enable the City to accelerate the timing of the project to 2016.

2. Stormwater Treatment Unit at Public Works
The Stormwater Treatment Unit is part of continuing efforts to address potential storm water impurities from reaching the marine environment. The catchment area is primarily industrial in nature and contains automotive and recycling based businesses that are recognized as potential sources of pollutants in the storm drain systems.

The project scope includes the design, construction and installation of a Stormwater Treatment Unit on the 900mm main located in the Public Works Yard. The treatment unit is designed to capture sources of pollutants such as litter, heavy metals and oils.

The estimated cost of this project is approximately $340,000. The project is identified in the 20 Year Capital Plan to start and complete in 2015.

Based on staff analysis of the selection criteria as outlined in Attachment B and discussions with grant administrators, the Point Ellice Bridge Rehabilitation/Painting appears to have the highest likelihood of success.

Options & Impacts

There are two options available to Council.

1. Instruct staff to submit a grant application for the Point Ellice Bridge Rehabilitation/Painting project for the Canada - British Columbia New Building Canada Fund - Small Communities Funding infrastructure grant program's first intake. (Recommended)

This option authorizes staff to complete and submit an application for the first intake. Submitting the application for this project provides the greatest likelihood to receive funding.

2. That Council receive this report for information.

This option would result in an application not being submitted to the first intake. It is expected that a second intake will be announced; however that date is not known

Recommendations

That Council:

1. Instruct staff to submit a grant application for the Point Ellice Bridge Rehabilitation/Painting project for the Canada - British Columbia New Building Canada Fund - Small Communities Funding infrastructure grant program's first intake.

2. Authorize the Mayor and the Corporate Administrator to execute any agreement related to a successful grant application.

City of Victoria
Canada - British Columbia New Building Canada Fund - Small Communities Fund
Grants Awarded

Year Awarded	Grant Program	Project Description	Approved Grant
2003	Canada/BC Infrastructure Works Program	Victoria Harbour Environmental Protection Program	$ 1,620,402
2003	Canada/BC Municipal Infrastructure Program	Burnside Gorge Community Centre	$ 2,000,000
2004	Canada/BC Municipal Infrastructure Program	Finlayson Artificial Turf Field	$ 638,378
2007	Canada/BC Municipal Rural Infrastructure Fund	Victoria Conference Centre Expansion	$ 2,000,000
2009	Building Canada Fund - Communities Component	Steel Watermain Rehabilitation - Stage 2	$ 3,346,000
			$ 9,604,780

Attachment B

Infrastructure Canada

Canada

The New Building Canada Fund:

Provincial-Territorial Infrastructure Component Small Communities Fund

What is it?

The $10-billion Provincial-Territorial Infrastructure Component (PTIC) provides support for projects of national, local or regional significance. This includes the Small Communities Fund (PTIC–SCF) that will provide $1 billion for projects in municipalities with fewer than 100,000 residents.

Why is it important?

Smaller communities will be able to build projects that deliver on local needs. Through the Small Communities Fund, our Government continues to provide dedicated funding for small communities, building on the successful practices established under the 2007 Building Canada Fund and the Infrastructure Stimulus Fund. In addition, communities can use the Gas Tax Fund towards a wider range of projects, including highways, disaster mitigation, broadband, brownfield redevelopment, recreation, culture, tourism and sport.

How does it work?

To ensure that small communities receive funding opportunities, ten per cent (10%) of the PTIC allocation of each province and territory will be set aside for the PTIC–SCF.

Infrastructure Canada will enter into funding agreements with the provinces and territories who will be responsible for identifying and proposing projects for consideration.

Projects funded through the PTIC–SCF must meet the following program objectives:

- Economic growth;
- A clean environment; and
- Stronger communities.

Eligible recipients under the PTIC–SCF:

Eligible recipients are restricted to those whose projects are situated within or are for the benefit of, communities with a population of fewer than one hundred thousand people (100,000) as determined by Statistics Canada — Final 2011 Census.

Last Updated: 2014-04-11

Attachment B

Infrastructure Canada

Canada

The following are eligible recipients for the purposes of the PTIC–SCF:

a. A municipal or regional government established by or under provincial or territorial statute;
b. A municipal or regional government established by or under provincial or territorial statute;
c. A band council within the meaning of section 2 of the Indian Act; or a government or authority established pursuant to a Self-Government Agreement or a Comprehensive Land Claim Agreement between Her Majesty the Queen in right of Canada and an Aboriginal people of Canada, that has been approved, given effect and declared valid by federal legislation;
d. A public sector body that is established by or under provincial or territorial statute or by regulation or is wholly owned by a province, territory, municipal or regional government which provides municipal-type infrastructure services to communities; and
e. A private sector body, including for-profit organizations and not-for-profit organizations, whose application is supported by a municipal or regional government referred to above. Such support could take the form of a resolution from the municipal or regional government council.

Eligible Categories under the PTIC–SCF:

- Public transit
- Drinking water
- Wastewater
- Solid waste management
- Green energy
- Innovation
- Connectivity and broadband
- Brownfield redevelopment
- Disaster mitigation infrastructure
- Local and regional airports
- Short-line rail
- Short-sea shipping
- Highways and major roads
- Northern infrastructure (applies to Yukon, Nunavut and Northwest Territories only).

Last Updated: 2014-04-11

Attachment B

Infrastructure Canada

Canada

Federal Cost-Sharing and Stacking

In the provinces, most projects will be federally cost-shared on a one-third basis. In the case of provincially-owned highways and major roads, as well as public transit projects, the maximum federal contribution to any single project will be 50 per cent. The maximum contribution is 25 per cent for projects with for-profit private sector proponents.

For projects located in the Northwest Territories, Yukon and Nunavut, the federal government will fund up to 75 per cent of total eligible costs. For projects with a for-profit private sector proponent, however, the cap would be 25 per cent. More information on cost-sharing and stacking at http://www.infrastructure.gc.ca/plan/cs-pc-eng.html.

How to apply?

Canada will enter into Funding Agreements (FA) with each province and territory for the implementation of the PTIC–SCF. In turn, provinces and territories will manage the project identification process in keeping with PTIC–SCF program parameters.

All proposed projects must provide basic information that includes the name of the municipality, title of the project, the eligible category and subcategory, a brief description of the project, financial information, project location as well as planned start and end dates.

If you are an eligible recipient and would like to have your project considered for funding under the PTIC, you are encouraged to contact your respective provincial or territorial ministry responsible for infrastructure as outlined below. You can also learn more about how the Small Communities Fund works by reading the Program Overview.

Contact Information

- **British Columbia**
  - Ministry of Transportation and Infrastructure
- **Alberta**
  - Alberta Infrastructure
- **Saskatchewan**
  - Ministry of Government Relations
- **Manitoba**
  - Manitoba Municipal Government
- **Ontario**
  - Ministry of Infrastructure
- **Quebec**
  - Secrétariat du Conseil du Trésor – Sous-secrétariat aux infrastructures publiques

Last Updated: 2014-04-11

Attachment B

Infrastructure Canada

Canada

- **New Brunswick**
  - Regional Development Corporation
- **Nova Scotia**
  - Finance and Treasury Board
- **Prince Edward Island**
  - Department of Transportation and Infrastructure Renewal
- **Newfoundland and Labrador**
  - Department of Transportation and Works
- **Yukon**
  - Department of Community Services
- **Northwest Territories**
  - Department of Municipal and Community Affairs
- **Nunavut**
  - Community and Government Services

Infrastructure Canada contact information

General questions and comments on the PTIC program can be addressed to Infrastructure Canada:

Email: info@infc.gc.ca
Telephone Infrastructure Canada: 613-948-1148
Toll Free Number: 1-877-250-7154
Mailing Address:
Provincial-Territorial Infrastructure Component
180 Kent Street, Suite 1100
Ottawa, ON K1P 0B6

Last Updated: 2014-04-11

Attachment C

Canada-British Columbia New Building Canada Fund – Small Communities Fund Grant Selection

Selection Criteria	Bicycle Master Plan	Point Ellice Bridge Rehabilitation / Painting	Stormwater Treatment Unit at Public Works
• Eligible Category (Mandatory before Proceeding Further)	X	1	1
• Economic Growth		1	0
• Clean Environment		1	1
• Building Stronger Communities		1	1
• Good Value for Money		1	1
• Enhances & Protects Public Health		1	1
• Supports Sustainability Principles		1	1
• Consistent with Long Term Planning		1	1
• Utilizes Technologies & Best Practices		1	1
• Demonstrates Efficient Use of Resources		1	1
• Uses New & Innovative Approaches		1	1
• Supports Sustainable Long-Term Economic Growth		1	1
• Situated within, & Advances the City's Development and Financial Plans		1	1
• Exhibits Long-Term Sustainability: Operational Viability, Asset Management and Environmental Sensitivity		1	1
• Contributes to Environmental, Economic, Community and Innovative Objectives		1	1
• Requires Federal & Provincial Financial Support to Enable the Project's Implementation, its Scope Enhanced or its Timing Accelerated		1	0
• The Best Available Economically Feasible Technology, if applicable		1	1
Total Score	**0**	**17**	**15**
Total Project Cost	**0**	**$4 million**	**$340,000**
Total Grant Request (2/3 of total project cost)	**0**	**$2.7 million**	**$227,000**

Attachment C

Canada-British Columbia New Building Canada Fund – Small Communities Fund Grant Selection

Selection Criteria	Bicycle Master Plan	Point Ellice Bridge Rehabilitation / Painting	Stormwater Treatment Unit at Public Works
• Eligible Category (Mandatory before Proceeding Further)	X	1	1
• Economic Growth		1	0
• Clean Environment		1	1
• Building Stronger Communities		1	1
• Good Value for Money		1	1
• Enhances & Protects Public Health		1	1
• Supports Sustainability Principles		1	1
• Consistent with Long Term Planning		1	1
• Utilizes Technologies & Best Practices		1	1
• Demonstrates Efficient Use of Resources		1	1
• Uses New & Innovative Approaches		1	1
• Supports Sustainable Long-Term Economic Growth		1	1
• Situated within, & Advances the City's Development and Financial Plans		1	1
• Exhibits Long-Term Sustainability: Operational Viability, Asset Management and Environmental Sensitivity		1	1
• Contributes to Environmental, Economic, Community and Innovative Objectives		1	1
• Requires Federal & Provincial Financial Support to Enable the Project's Implementation, its Scope Enhanced or its Timing Accelerated		1	0
• The Best Available Economically Feasible Technology, if applicable		1	1
Total Score	**0**	**17**	**15**
Total Project Cost	**0**	**$4 million**	**$340,000**
Total Grant Request (2/3 of total project cost)	**0**	**$2.7 million**	**$227,000**

CITY OF VICTORIA

Governance and Priorities Committee Report
For the January 22, 2015 Meeting

To:	Governance and Priorities Committee	**Date:**	January 14, 2015
From:	Dwayne Kalynchuk, Director of Engineering and Public Works		
Subject:	Facilities Assessment		

Executive Summary:
The City owns approximately 100 buildings and other structures located throughout Victoria. These buildings range from major facilities, such as the City Hall, Crystal Pool and Fitness Centre, and three fire halls, to small structures, such as Parks and Public Works out-buildings including public washrooms and shop buildings. Their approximate replacement value is over $330 million. The facilities are managed and operated by different City departments depending on their use and function. As has been previously reported to Council, Crystal Pool and Fitness Centre and Fire Hall #1, are at or nearing the end of their life cycle which necessitates major investment, either by way of renovation or replacement. At the present time, management of City facilities is fragmented and the City requires a comprehensive understanding of the existing state of all its facilities and their respective conditions. This is necessary for planning and prioritizing capital and operational spending including maintenance, renovation or replacement of various City facilities.

An assessment of city facilities, which inventories all City buildings, determines their condition, maintenance requirements and the costs associated with upgrading or replacing each facility, will provide critical context for Council decision making and the public dialogue and understanding about future capital investments. In addition it will assist with long term financial planning and prioritizing and will allow the City to establish necessary targets for capital reserves. The proposed facilities assessment plan would inform and complement the asset management project, initiated in 2013, by developing information about an important part of the City's assets that would be used to populate the asset management database. This additional information is critical for long-term financial and asset management planning.

Recommendations:
That Council authorize the expenditure of up to $300,000 for a facilities assessment, in advance of the adoption of the 2015 Five Year Financial Plan Bylaw and direct staff to proceed with this plan on a priority basis.

Respectfully submitted,

Dwayne Kalynchuk, P.Eng.
Director of Engineering and Public Works

Jo'Connor for
Susanne Thompson
Director of Finance

Report accepted and recommended by the City Manager:

Jason Johnson

Date: January 16, 2015

Purpose:
The purpose of this report is to seek Council approval, as noted previously, for the expenditure of up to $300,000 to complete a facilities assessment plan to better understand the state of existing City facilities and assist in prioritizing capital projects.

Background:
The City owns approximately 100 buildings and structures located throughout Victoria. These buildings range from major facilities, such as the City Hall, Crystal Pool and Fitness Centre, and three fire halls, to small structures, such as Parks and Public Works out-buildings including public washrooms and shop buildings. The approximate replacement value of these buildings is over $330 million. While most of these buildings are used for municipal purposes, some are leased to commercial tenants at market rents. The facilities are managed and operated by different City departments depending on their use and function. For example, the City Hall is managed through Engineering and Public Works, Crystal Pool is managed through Parks and Recreation, while space in City buildings that is leased to commercial tenants is managed through Legislative and Regulatory Services.

As has been previously reported to Council, two City facilities are at or nearing the end of their life cycle which necessitates major investment, either by way of renovation or replacement; Fire Hall #1 as well as the Crystal Pool and Fitness Centre. In the past, reports on these facilities have been presented to Council and the public in isolation without a complete analysis of all City facilities and their future needs and in a priority sequence/basis. This has hindered staff to properly assess the relative needs and make informed decisions as to the relative priority.

In 2013, the City initiated a project to enhance its asset management abilities. That project, which is currently underway, involves the acquisition and implementation of computerized maintenance management software and a long term planning tool for optimizing the life span of assets in an effort to reduce long term maintenance costs. Asset management is not limited strictly to facilities but captures all City owned assets, including infrastructure (roads, bridges, underground sewers, etc.). Once implemented, asset management project will provide decision makers with the right information and tools to ensure operational and capital spending is aligned with required service levels, risk and strategic priorities.

There are a number of gaps in data and information that have been identified across asset groups including facilities. The proposed facilities assessment plan would fill those gaps by providing an updated inventory, maintenance requirements, and condition assessment of all facilities and their likely future needs. The proposed facilities assessment plan would inform and complement the asset management project by developing information about an important part of the City's assets that could be used to populate the asset management database. This additional information is critical for long-term financial and asset management planning. It would allow the City to optimize services, over the life of the facility asset portfolio within specified affordability envelopes, as well as enable the City to better plan for future funding needs related to facilities.

Issues & Analysis:
At the present time, management of City facilities is fragmented and the City requires a comprehensive understanding of the existing state of all its facilities and their respective conditions. This is necessary for planning and prioritizing capital and operational spending including maintenance, renovation or replacement of various City facilities.

Significant capital investments and decisions about important City facilities, including the Fire Hall #1 and Crystal Pool and Fitness Centre are anticipated within the next two years. A comprehensive understanding of the condition of all City facilities and their future needs is necessary to inform such decisions. An assessment of all facilities, which inventories all City buildings, determines their condition, maintenance requirements and the costs associated with

upgrading or replacing each facility, will provide critical context for Council decision-making and the public dialogue and understanding about future capital investments. In addition, it will assist with long term financial planning and prioritizing and will allow the City to establish necessary targets for capital reserves. Further benefits include strategic long term planning, greater co-ordination and overall management internally, as well as, greater ability to apply for funding from other levels of government for capital projects. It would enable the City to provide better quality of information to the public, maximize return on investment and strategic decisions in terms of purchasing and divesting of properties. While the proposed work will define facility condition, extent of life remaining and chart out a maintenance program for budget purposes, the scope of the master plan does not include reviewing the current use of the facilities. Once the plan is completed, staff will bring forward a work plan for Council to consider the highest and best use of City facilities.

The oversight of this work will be undertaken by an interdepartmental staff team led by the Director of Engineering and Public Works including, Manager of Facilities, Manager of Land Development and Support Services, Acting Director of Parks and Recreation, Property Manager and the Strategic Planning and Communications Advisory. However, because of the urgency of the work and need for specialized expertise, assistance from an external consultant will also be required. Such consultant would be expected to provide the following:

- A comprehensive inventory of the City's facilities, their location, and their use;
- An inventory of the mechanical, electrical and other systems in each facility and their respective conditions;
- Condition assessments on building fabric including roofing and structure;
- Estimated remaining service lives based on construction date and past maintenance;
- As estimate of the deferred maintenance and updated calculation of the Facility Condition Index for each facility (a universal measure of the condition of a facility);
- Suggested 10 year maintenance and capital spending plans based on condition and risk;
- An analysis of opportunities for savings on both energy and maintenance.

A consultant will be selected through a competitive process wherein proposals are solicited through a public Request for Proposals (RFP). The cost of the consultant is estimated at as much as $300,000, although the exact amount will not be known until responses to the RFP are received.

It is anticipated that this work will take approximately six to eight months. In addition, the RFP process for selection of the consultant will take approximately six weeks. In order to inform decisions about the future of some City facilities, it is recommended that work commence immediately and prior to the approval of the 2015 financial plan. Therefore, staff request Council approval for expenditure of up to $300,000 for this project prior to consideration of the 2015 budget. If approved, this amount will be included in the 2015 capital budget and the proposed funding source would be the Building and Infrastructure Reserve.

Options & Impacts:
There are several options available to Council.

1. <u>Do not assess facilities.</u>

   This option would result in continuing the past practice of the City dealing with each facility in isolation without a broader understanding of actual needs of other facilities or upcoming demands on the capital budget. In absence of a comprehensive picture of the state of all City facilities and their long-term needs, it is difficult to prioritize projects or to engage the public in a meaningful discussion about the community's needs and priorities. This could result in both strategic and financial risk to the City. This option is not recommended.

2. Postpone the decision on the facilities assessment until 2015 budget discussions.

   This option has the advantage of allowing Council to consider the proposed expenditure of up to $300,000 in the broader context of the discussion of the strategic plan and the 2015 budget. However, this would result in the delay of several months, meaning that the facilities assessment would not be ready in time for the start of the 2016 financial planning process. It is anticipated that decisions about the future of some City facilities will be required before then. Therefore, this option is not recommended as it would, in effect, result in important decisions being made in absence of all relevant information.

3. Commence work on the facilities assessment immediately (recommended).

   This option requires Council to pre-authorize expenditure of up to $300,000 in advance of approving 2015 financial plan. However, it would allow for the expedited development of the facilities assessment in time to inform the anticipated decisions on the future of key City facilities such as Fire Hall #1 or Crystal Pool. While unusual, this option is recommended because it will result in collection of critical information that will inform public debate on important capital projects and, in the long run, will lead to better decision making.

Recommendations:
That Council authorize the expenditure of up to $300,000 for a facilities assessment, in advance of the adoption of the 2015 Five Year Financial Plan Bylaw and direct staff to proceed with this plan on a priority basis.

CITY OF VICTORIA

Governance and Priorities Committee Report
For the Meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 9, 2015
From:	Susanne Thompson, Director, Finance		
Subject:	Potential Review of City's Financial Sustainability Policy		

Executive Summary
The purpose of this report is to seek Council direction regarding a potential review of the City's Financial Sustainability Policy.

As an important guiding policy for the City's budget development, it is prudent to review the policy regularly to ensure that it continues to reflect the policy direction of Council. The draft 2015 financial plan was developed based on the current policy, with the exception of the increase to capital funding for which Council gave direction to levy a 1.25% tax increase for 2015 rather than the 1.5% per the policy.

Over the last year, a number of questions have been raised by Council regarding some of the policies. This report provides a short summary of some of the policies that may be considered during a review.

Recommendation:
That Council:
1. Direct staff to initiate a review of the Financial Sustainability Policy
2. Provide direction regarding the scope of the review
3. Direct staff to report back to Council outlining the proposed resource requirements and timeline for the review

Respectfully submitted,

Susanne Thompson
Director, Finance

Report accepted and recommended by the City Manager: _____
Date: January 14, 2015

Purpose
The purpose of this report is to seek Council direction regarding a potential review of the City's Financial Sustainability Policy.

Background
The Financial Sustainability Policy (attached as Appendix A) guides the City's budget development. The primary objective is to outline principles that guide, support and respect the direction of the community so that tax payers can look forward to stable, equitable and affordable property taxation. The policy contains 14 policies addressing items including growth in the property tax base, property tax increases and infrastructure funding.

The draft 2015 financial plan was developed based on the current policy, with the exception of Policy 6 – Infrastructure Maintenance and Replacement, for which Council gave direction to levy a 1.25% tax increase for the capital budget for 2015 rather than the 1.5% per the policy.

Issues & Analysis
As an important guiding policy for the City's budget development, it is prudent to review the policy regularly to ensure that it continues to reflect the policy direction of Council.

Over the last year, a number of questions have been raised by Council regarding some of the policies. Below is a short summary of some of the policies to give Council an overview of what may be considered during a review.

Policy 1 – Growth in Property Tax Base:
This policy guides how new property tax revenue is used. The current policy is to transfer this revenue to infrastructure reserves.

Policy 6 – Infrastructure Maintenance and Replacement:
The 2014-2033 Capital Plan includes increases of 1.25% for 2014 and 2015 and 1.5% for 2016 to 2018. The current policy outlines an annual property tax increase of 1.5% to increase capital budget funding.

Policy 8 – Debt Management:
This policy only addresses debt from external sources. Internal borrowing through the Debt Reduction Reserve could also be an option. The current policy keeps the debt servicing charges that are funded through property taxes at a fixed amount ($7.8 million). Having a limit on the debt servicing level ensures that the draw on the annual revenues to service debt is controlled.

Policy 9 – Fees and Charges:
Some fees and charges, such as utility and recreation user fees, are reviewed and adjusted annually. However, other fees, such as development cost charges, have not been increased in a number of years. The current policy suggests that all fees and charges be reviewed annually and that inflationary increases be applied each year.

Options & Impacts
Option 1 – Direct staff to initiate a review of the Financial Sustainability Policy addressing specific items as outlined by Council.
Impact – will provide Council an opportunity to amend the policy as desired

Option 2 – Do not initiate a review of the Financial Sustainability Policy
Impact – will not address any concerns Council may have regarding this policy

Recommendation

That Council:

1. Direct staff to initiate a review of the Financial Sustainability Policy
2. Provide direction regarding the scope of the review
3. Direct staff to report back to Council outlining the proposed resource requirements and timeline for the review

Appendix A

Department of Finance *Policies and Procedures* **Financial Sustainability Policy**	
Authorized by: Council	**Date of issue: January 20, 2009** **Date of amendment: March 24, 2011**

Purpose

The purpose of the Financial Sustainability Policy is to guide the City's financial planning to meet financial obligations while providing high quality services.

Primary Objective

The policies shall be designed and structured to develop principles that guide, support and respect the direction of the community so that tax payers can look forward to stable, equitable and affordable property taxation.

Policies

1. Growth in Property Tax Base

The City is surrounded by other municipalities and has no ability to expand. However, re-development is occurring that brings in new property tax revenue. This new revenue must be estimated using the best available data. The City recognizes that any new developments or re-developments increase demand on existing infrastructure and may result in the need to expand that existing infrastructure.

Policy 1.0

Conservative estimates of non-market change assessment revenue will be included in the budget based on information provided by BC Assessment, the Planning and Development Department and the Finance Department.

Policy 1.1

To address infrastructure upgrade demands as a result of new developments or re-developments, any non-market change assessment revenue will be transferred to infrastructure reserves.

Appendix A

2. Property Tax Increase

Rising costs of existing services at existing service levels must be recognized. One-time revenues or non-renewable reserves should not be used to fund on-going operating expenses.

Policy 2.0

Each budget cycle, Council will consider the property tax increase required by first covering the projected cost increase for existing services at existing service levels and then considering other enhancements. (Also see Policy 3.)

3. New Services and Major Enhancements to Existing Services

The property tax increase established under Policy 2 allows the City to provide the same level of service to the existing tax base. It is not designed to provide for new services or major enhancements to existing services.

Policy 3.0

New services or enhancements to existing services will be funded by one or a combination of the following:

1. **A reduction in the cost of existing services. This may include a reallocation of resources from one area to another.**
2. **An increase in non-tax revenues.**
3. **A further increase in property taxes.**

4. Efficiencies, Demand Management and Service Level Changes

As a sound business practice, departments strive to find and explore efficiencies throughout the City's operations. The City does not have the resources to meet all of the demands that are made. Demand must be managed to make sure that expectations reflect our fiscal realities and the need to contain expenditures. Areas where service level changes may be possible must be identified and brought forward for Council's consideration.

Policy 4.0

Business Plans will identify demand management strategies and will include options for service level changes and alternative service delivery models.

Appendix A

5. Alternative Revenues and External Funding

To diversify its revenue base, the City continually looks for new revenue sources that are consistent with the City's Five-year Financial Plan and 20-year Capital Plan.

Policy 5.0

All departments will make every effort to access external funding from non-City sources including other levels of government. All departments will endeavour to develop partnerships, strategic alliances and shared project funding to assist in the reduction of expenditure to the City. Any additional funding can be used to reduce property tax increases, increase service levels and/or provide new services.

Policy 5.1

The City will only apply for grant funding for projects that are already included in the Five-year Financial Plan and the 20-year Capital Plan.

Appendix A

6. Infrastructure Maintenance and Replacement

Much of the City's infrastructure is at or nearing the end of its life. The City is in the process of creating an inventory and completing a condition assessment of its assets. This will allow the City to develop a plan to keep the infrastructure in a proper state of repair to avoid costly failures.

Policy 6.0

The City will establish and maintain an inventory of its infrastructure. A maintenance/replacement plan will be developed utilizing best practices, to keep existing infrastructure in an acceptable condition. This program will be included in the Five-year Financial Plan and the 20-year Capital Plan.

Policy 6.1

The City will depreciate its infrastructure over the useful life of the assets and a sustainable funding strategy will be developed.

Policy 6.2

An annual property tax increase of 1.5% will be levied to increase capital budget funding.

7. Self Financed Programs

The City has several self financed programs: Water Utility, Sewer Utility, Garbage Utility, and the Victoria Conference Centre. The costs for self financed programs should be fully funded by user fees. The Water and Sewer Utilities and the Victoria Conference Centre have established reserves. Any surplus or deficit is transferred at the end of each year to or from each reserve.

Policy 7.0

The City's self financed programs are to be fully funded by user fees including corporate overhead, equipment replacement, debt financing, transfers to reserves and capital expenditures.

Policy 7.1

To ensure that programs remain self funded, user fees for each will be adjusted annually to offset any changes in costs.

Appendix A

8. Debt Management

The maximum amount that the City can borrow from external sources is set by the Community Charter. Debt should only be incurred for one-time capital expenditures and not for on-going programs. Borrowing for one-time capital expenditures allows the cost of the project to be spread out over the useful life of the asset. This results in the costs being paid by future beneficiaries as well as current taxpayers.

Policy 8.0

Debt from external sources should only be incurred for one-time capital projects. These projects should be identified as debt-funded projects in the Five-year Financial Plan and 20-year Capital Plan. A separate report, including a business case, to Council is required seeking approval for proceeding with the borrowing process.

Policy 8.1

Every attempt should be made to keep the debt servicing charges at the current budget level by adding new debt only in the years when other debt issues are retired. This will ensure that there is no additional budget impact and in turn no increase in property taxes as a result of new debt.

Policy 8.2

Debt for Self-financed entities (Water Utility, Sewer Utility, Victoria Conference Centre, and Parking Services) can be incurred if supported through a business case, without consideration of Policy 8.1 which only applies to projects that impact on property taxes.

9. Fees and Charges

Fees and charges are a significant portion of the City's revenues. They will be reviewed on a regular basis to avoid major changes and to provide users with adequate notice of those changes. Any review will include an analysis of the City's costs in providing the service as well as a comparison to other municipalities.

Policy 9.0

Fees and charges will be reviewed annually and adjusted where appropriate. Departments should consider a minimum increase equal to inflation (CPI.) The users will be provided with no less than 2 months notice of those changes.

Appendix A

10. Surplus

Surplus represents non-renewable savings and should not be used for operating purposes or for on-going capital programs.

The Financial Stability Reserves (Operating Fund, Police Department, Water Utility and Sewer Utility) were established to ensure ongoing financial stability and fiscal health of all City Entities. They are funded from the year-end surplus in each respective fund.

Policy 10.0

Surplus will only be considered as a funding source for one-time expenditures. Any surplus not used for one-time expenditures will be transferred to infrastructure reserves, financial stability reserves and/or debt reduction reserves. (Also see Policy 11.)

11. Reserve Funds

The City has a number of reserve funds established for various purposes. The City strives to develop appropriate reserves to meet future financial obligations with respect to City equipment and infrastructure, fiscal needs and employee benefit obligation.

Policy 11.0

Each reserve fund is governed by the City's Reserve Fund Policy that outlines the purpose, the types of expenditures permitted and the desired levels of each reserve.

12. Capital Projects and Programs

Capital projects and programs are funded from a variety of sources including a capital property tax levy, grants and reserves. Once the project or program is completed, its on-going maintenance costs need to be included in the operating budget and future upgrade and/or replacement costs need to be included in the capital plan. These on-going and future costs must be clearly understood before a capital project is approved.

Policy 12.0

Each capital project or program submitted for consideration must clearly state the full initial cost as well as future costs, including operating and upgrade/replacement costs. In addition, the source of sustainable funding for such costs has to be demonstrated.

Appendix A

13. Re-budgeted Capital Projects and Programs

Every year, some capital projects and programs are not completed in the year they were budgeted for. In such instances, a request to re-budget the portion of the project or program that is yet to be completed is submitted to Finance.

Policy 13.0

Requests to re-budget capital projects underway are granted. However, other capital items may be scaled back or deferred to accommodate the re-budget request.

Policy 13.1

Requests to re-budget capital projects that have not been started are not granted. These projects will be considered and prioritized along with all other capital items being put forward.

Policy 13.2

Requests to re-budget capital programs are not normally granted. However, should such a request be granted, next year's program will be scaled back to accommodate the re-budget request.

14. Large Scale Capital Projects

Some capital projects are very large in scale and have various phases.

Policy 14.0

Large scale capital projects will be budgeted in at least two phases. Phase one is for planning and design. Phase two and any subsequent phases are for implementation/build.

CITY OF VICTORIA

Governance and Priorities Committee Report
For the meeting of January 22, 2015

To: Governance and Priorities Committee **Date:** January 12, 2015

From: Susanne Thompson, Director, Finance

Subject: Proposed Timeline for Presentations of the Draft 2015 Financial Plan

Executive Summary

The purpose of this report is to propose a timeline for presentations of the draft 2015 Financial Plan.

As previously outlined to the former Council throughout 2014, a new approach to financial planning and the budget process was initiated in June of 2014. This new approach will enable a much improved financial plan where services and capital projects are outlined with greater detail than in the past. As such, it is difficult to estimate how many meetings may be required by Council. Staff recommend that the financial plan presentations take place subsequent to the strategic plan meetings. Staff are proposing four meeting dates; the first date for an overview of the draft financial plan and the three subsequent meetings for detailed presentations:

Tuesday February 10, 9am – 10am
Monday February 16, 9am - 12pm
Tuesday February 17, 9am - 12pm
Wednesday February 18, 9am - 12pm

The intention with these meetings is that Council can consider service levels, supplemental requests, capital projects and grant requests. Additional meetings will be scheduled should more time be needed.

Public engagement is proposed to commence once preliminary approval has been given by Council through first reading of the annual financial plan bylaw. First reading is recommended prior to consultation such that the public is aware that Council has had previous reviews of the budget. Tentative dates are as follows:

Tentative Date	Task
February 26 Council	First reading of financial plan bylaw
March 2	Public consultation begins and continues until the third week of March
Week of March 23	E-Town Hall meeting
April 9 Governance and Priorities Committee	Present consultation results and seek direction on changes to financial plan

April 23 Governance and Priorities Committee	Final report on financial plan including incorporated changes; report on 2015 tax rates
April 23 Council	Second and third reading of financial plan bylaw; first, second and third reading of tax bylaw
April 30 Special Council	Adoption of financial plan bylaw and tax bylaw

Recommendation
That Council approve the proposed timeline for the draft 2015 Financial Plan presentations.

Respectfully submitted,

Susanne Thompson
Director, Finance

Report accepted and recommended by the City Manager: _____

Date: January 15, 2015

CITY OF VICTORIA

Governance and Priorities Committee Report
For the Meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 9, 2015
From:	Susanne Thompson, Director, Finance		
Subject:	Revenue and Tax Policy Review		

Executive Summary
The purpose of this report is to outline the results of the review of the Revenue and Tax Policy and seek Council direction on changes to the policy.

As part of the financial plan, Council is required to outline its objectives and policies regarding revenue proportions by funding source; distribution of property taxes among property classes; and permissive property tax exemptions. In addition, before adopting the annual property tax bylaw, Council must consider the tax rates proposed in conjunction with its objectives and policies for the distribution of property taxes among property classes. The City's Revenue and Tax Policy outlines these objectives and policies. The purpose of the review is to update the policy for the distribution of taxes among property tax classes since the final year of implementation of the current policy was 2014.

The policy review analyzed the share of taxes paid by business; business tax rates; the burden on residential tax payers; the viability of the commercial core; and the relationship between spending and taxes. Based on the findings, it appears that no additional shifting of taxes from the business class is warranted at this time.

It is proposed that a number of indicators be monitored, such as the share of taxes paid by the business sector in Victoria compared to benchmark municipalities; the tax burden on residential taxpayers in Victoria compared to benchmark municipalities; and the trend of commercial building permits. If any of the indicators show a different pattern than benchmark municipalities, further review would be warranted at that time.

Recommendation
That Council:

1. Direct staff to amend the policy on distribution of property taxes among property classes based on Council's discussion of the review findings.
2. Direct staff to bring forward a monitoring report on benchmarks identified in this report on an annual basis prior to the adoption of the annual property tax rate bylaw.

Respectfully submitted,

Susanne Thompson
Director, Finance

Report accepted and recommended by the City Manager: _____

Date: January 13, 2015

Attachments:
Appendix A – Revenue and Tax Policy
Appendix B – The Distribution of Taxes Among Property Classes by Victoria Consulting Network Ltd.

Purpose
The purpose of this report is to outline the results of the review of the Revenue and Tax Policy and seek Council direction on changes to the policy.

Background
As part of the financial planning process, a review of the City's Revenue and Tax Policy (attached as Appendix A) was initiated as directed by Council in 2012 when the current policy was approved. As required under section 165 of the *Community Charter*, the financial plan must set out the objectives and policies regarding revenue proportions by funding source; distribution of property taxes among property classes; and permissive property tax exemptions. In addition, section 197 requires that before adopting the annual property tax bylaw, Council consider the tax rates proposed in conjunction with its objectives and policies for the distribution of property taxes among property classes. The City's Revenue and Tax Policy outlines these objectives and policies. The purpose of the review is to update the policy for the distribution of taxes among property tax classes.

In April of 2012, Council approved the current policy for implementation starting in 2012. The policy on the distribution of taxes among tax classes reduced the tax share allocated to the business class to 48% (excluding the impact of new assessment revenue) over three years. The final year for the implementation of this policy was 2014.

Prior to the current policy and until 2007, it was Council's practice to modify tax ratios to allocate tax increases equally to all property classes. Starting in 2007, business and industrial tax ratios were held constant resulting in higher tax increases for the residential class. In 2012, the focus shifted from tax ratios to tax shares and between 2012 and 2014 the business tax share was reduced.

Issues & Analysis
The policy review included updating and analyzing the same information that was used in the 2011 review, including the share of taxes paid by business; business tax rates; the burden on residential tax payers; the viability of the commercial core; and the relationship between spending and taxes. Based on the findings, the consultant is recommending that no additional shifting of taxes from the business occurs at this time. The full report detailing the review findings is attached as Appendix B and Mr. Peter Adams of Victoria Consulting Network will present his findings to the Governance and Priorities Committee at the January 22, 2015 meeting.

Going forward, it is proposed that a number of indicators be monitored, such as the share of taxes paid by the business sector in Victoria compared to benchmark municipalities; the tax burden on residential taxpayers in Victoria compared to benchmark municipalities; and the trend of commercial building permits. If any of the indicators show a different pattern than benchmark municipalities (Saanich, Langford, Vancouver, Surrey, Richmond, District of North Vancouver, City of North Vancouver, New Westminster, District of Langley, City of Langley, Coquitlam, Burnaby, Abbotsford, Kelowna, Kamloops, Nanaimo and Prince George), further review would be warranted at that time.

Options & Impacts
Option 1
Amend the policy to pass on equal tax increases to all classes, except major and light industry whose tax rates will remain the same as business.

Impacts: Tax increases will be shared equally among tax classes, excluding major and light industry whose increases will depend on changes to assessed values; no further relief will be provided to the business class.

Option 2
Amend the policy to continue to shift taxes away from business to residential taxpayers.

Impacts: The burden on residential tax payers will increase; further relief will be provided to the business class.

Recommendation
That Council direct staff to amend the policy based on Council's discussion of the review findings.

Appendix A

Department of Finance Policies and Procedures Revenue and Tax	
Authorized by: Council	Date of issue: February 16, 2009 Date of revision: April 26, 2012

Purpose

The purpose of the Revenue and Tax Policy is to outline the proportions of revenue sources, the distribution of property taxes among property classes and the use of permissive property tax exemptions.

Primary Objectives

- To provide tax payers with stable, equitable and affordable property taxation while at the same time providing high quality services.
- To support the OCP and other City plans as well as complement the Regional Context Statement.

Policies

1. Revenue Proportions by Funding Sources

Property taxes are the main source of revenue for the City and pay for services such as police and fire protection, bylaw enforcement, and infrastructure maintenance. Property taxes provide a stable and consistent source of revenue for services that are difficult or undesirable to fund on a user pay basis. Therefore, property taxes will continue to be the City's major source of revenue.

However, it is the City's desire to charge user fees where feasible. Some programs, such as recreation, are partially funded by user fees. The City also has several self-financed programs that are fully funded by user fees. These include Water Utility, Sewer Utility, Garbage Utility, and the Victoria Conference Centre.

In addition, the City has reviewed and updated its DCC bylaw to ensure that developers are paying their fair share of infrastructure required as a result of new development.

Policy 1.0

User pay funding will be used for such services that are practical and desirable to fund on a user pay basis.

Services that are undesirable or impractical to fund on a user pay basis will be funded by property taxes.

Policy 1.1

The City will continue to explore alternative revenue sources to diversity its revenue base.

2. Distribution of Property Taxes Among Property Classes

Market value changes that result in uneven assessment changes between property classes result in a tax burden shift to the class experiencing greater market value increases unless tax ratios are modified to mitigate the shift.

Until 2007, it was Council's practice to modify tax ratios to avoid such shifts. This equalization practice provided an effective tax increase that was equal for all classes. It is important to be aware that this practice only avoids shifts *between* property classes. There is still a potential for shifts *within* a property class where one property has experienced a market value change that is greater than the average for that class.

However, starting in 2007, business and industrial tax ratios have been held constant in recognition of the larger tax burden that has been placed on those classes. This resulted in higher tax increases being passed on to the residential class compared to business and industrial.

The pressure continues across the country to reduce the tax burden on the business and industrial classes. In recognition of this, and the desire to support a healthy business environment, Council's goal is to have a business class tax burden that is equitable.

In 2012, a comprehensive review of the Revenue and Tax Policy was conducted to determine if Council's objective of reducing the tax burden on the business class was appropriate and if so, that the mechanism of achieving the objective (reduction of tax ratio) was the most effective mechanism to achieve the goal. The review concluded that additional relief for the business tax class was warranted. However, the tax ratio was not the best mechanism of achieving that goal.

As a result, Council approved the following policy objective:

To reduce the business property tax class share of the total property tax levy to 48% over three years (2012-2014). The redistribution excludes impact of new assessment revenue. The total redistribution of the tax levy is $1.51 million.

Policy 2.0

The share of the property tax levy for the business class will be reduced to 48% over three years (2012-2014).

Policy 2.1

Tax rates for the light and major industrial tax classes will be equal to the business tax rate to support the City's desire to retain industrial businesses.

Policy 2.2

Farm Tax Rates will be set at a rate so taxes paid by properties achieving farm status will be comparable to what the property would have paid if it were assessed as residential.

3. Use of Permissive Property Tax Exemptions

The City continues to support local non-profit organizations through permissive tax exemptions. Each year, a list of these exemptions is included in the City's Annual Report.

In addition, the City offers a Tax Incentive Program to eligible owners of downtown heritage designated buildings to offset seismic upgrading costs for the purposes of residential conversion of existing upper storeys. The exemptions are for a period up to ten years.

The City encourages redevelopment of lands within the City and the use of environmentally sustainable energy systems for those developments through revitalization property tax exemptions.

Policy 3.0

Permissive property tax exemptions are governed by the City's Permissive Property Tax Exemption Policy, which outlines the criteria for which property tax exemptions may be granted.

Policy 3.1

Heritage property tax exemptions are governed by the City's Heritage Tax Incentive Program.

Policy 3.2

Revitalization property tax exemptions are governed by the City's Revitalization Tax Exemption (Green Power Facilities) bylaw.

The Distribution of Taxes Among Property Classes

Prepared for:

Susanne Thompson
Director of Finance
City of Victoria

Prepared by:

Peter Adams
Victoria Consulting Network Ltd.

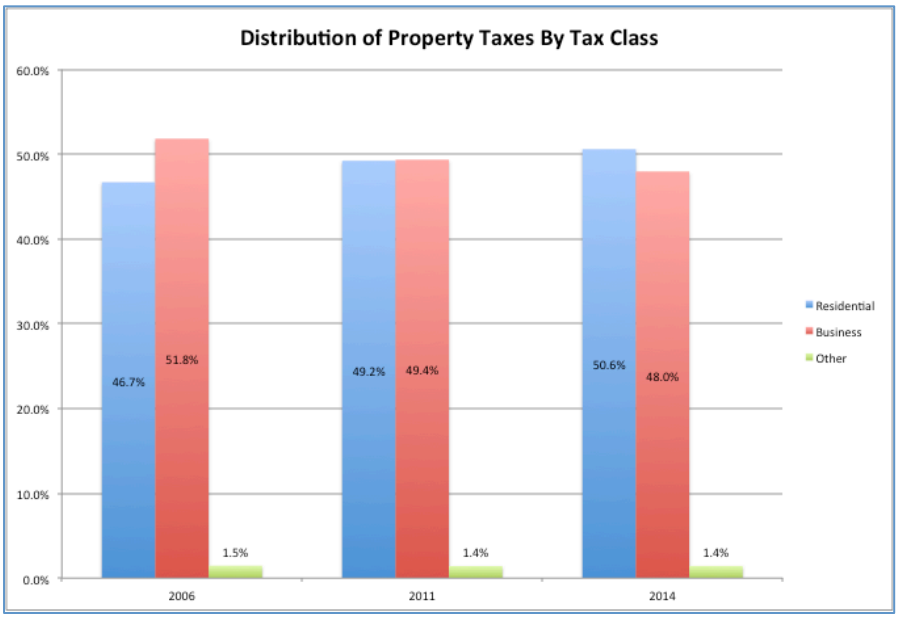
January 12, 2015

Table of Contents

1. INTRODUCTION

Each year, Council must decide how to the total property tax bill is to be allocated among different tax classes. Since 2007, Council has had a policy of shifting some of the burden of taxation off of the business tax class and onto the residential class – see Chart One.

CHART ONE



We have been asked to advise the City on two issues:

- Should there be a further reduction in the share of taxes paid by the business class; and,
- Which indicators the City should be used by City staff to monitor the need for further tax shifts?

This paper provides our answers to the questions posed to us and the analysis used to reach our conclusions. To keep the paper short, we have placed supplementary information and analysis in the Appendices.

2. BACKGROUND

In 2007, Council felt that the property tax burden on the business community was too large relative to the burden on residential taxpayers. The primary evidence for this was the fact that the business tax ratio (the ratio of the tax rate paid by the business class divided by the tax rate paid by the residential class) had risen sharply in the previous six years and was higher than in many

comparable municipalities. Consequently, Council adopted a policy of lowering the business tax ratio with the goal of reaching a tax ratio of 3.0:1.

In 2012, we recommended that the City continue to reduce the share of taxes on the business class but change the focus of the policy away from the business tax ratio to the actual tax share. In particular, we recommended that the share of taxes paid by the business class be reduced from 49.4% to 48% over three years.[1] These recommendations were accepted by Council and have been implemented.

We recommended that Council focus its attention on the business tax share not the business tax ratio for two principal reasons:

- Changes in the tax ratio are not a reliable guide to changes in tax shares. For many years, the share of taxes paid by businesses in Victoria remained constant even though the tax ratio increased – see Chart Two. The business tax ratio has increased in many municipalities over time simply because the assessed value of homes has increased much faster than the assessed value of commercial properties. In order to keep tax shares unchanged, municipal councils' have responded to these assessment shifts by increasing the business tax ratio. Table One provides a simplified example of how rapidly increasing residential property values has a very different effect under a fixed share policy and a fixed tax ratio policy.
- By focusing on the tax share, Council can precisely control the pace at which taxes increase in each class. Chart Three compares the annual tax increase by tax class over the past twelve years. Prior to 2007 increases were the same in each of the classes and shares remained constant. Between 2007 and 2011, tax increases were higher for residential taxpayers than business taxpayers but the difference was erratic because they were strongly influenced by changes in market values. Since 2011, the difference has bee relatively even except in 2014 when unexpected funds from new development were used to moderate the increase for the residential sector.

[1] Excluding the effects of new construction, which could change the share of taxes paid by a tax class.

CHART TWO

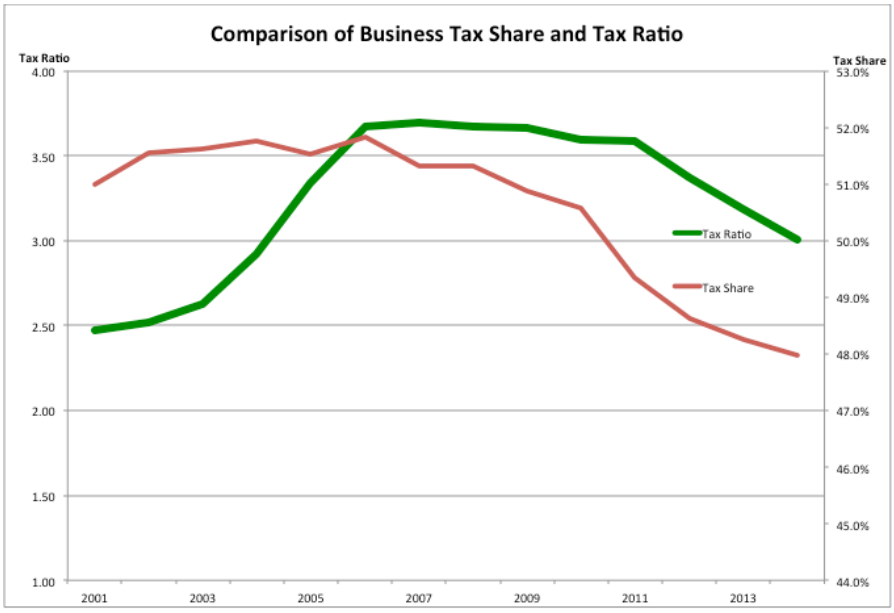


TABLE ONE:
COMPARISON OF FIXED TAX SHARE AND FIXED TAX RATIO POLICY

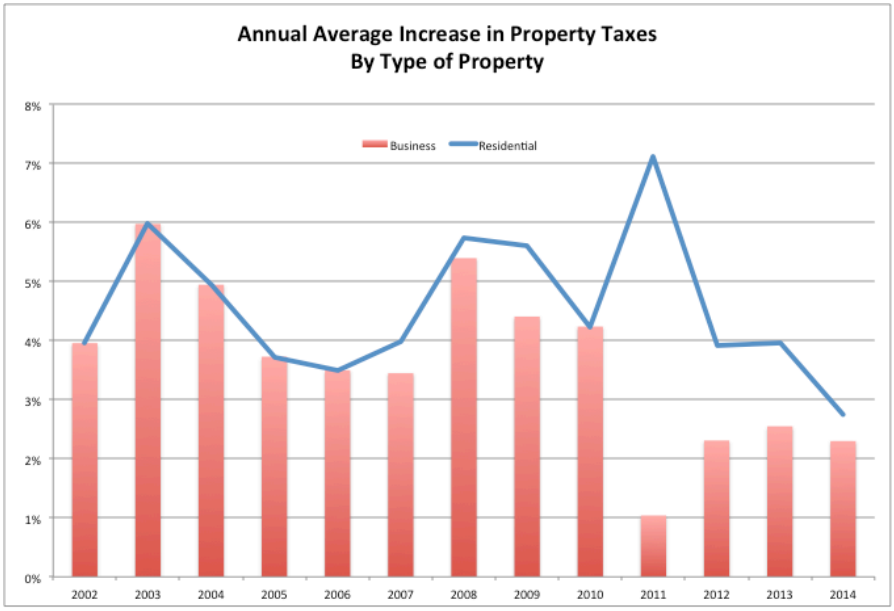
Fixed Share

	Residential			Business					Tax Shares	
	Assess ($b)	Tax Rate	Taxes ($m)	Assess ($b)	Tax Rate	Taxes ($m)	Total Taxes ($m)	Bus. Tax Ratio	Res.	Bus.
Year 1	$13.5	$4.47	$60	$4.1	$13.44	$55.7	$116	3.0	52.0%	48.0%
Year 2	$14.2	$4.40	$62	$4.1	$13.88	$57.5	$120	3.2	52.0%	48.0%
change	5.0%	-1.7%	3.25%	0.0%	3.25%	3.25%	3.25%			

Fixed Ratio

	Residential			Business					Tax Shares	
	Assess ($b)	Tax Rate	Taxes ($m)	Assess ($b)	Tax Rate	Taxes ($m)	Total Taxes ($m)	Bus. Tax Ratio	Res.	Bus.
Year 1	$13.5	$4.47	$60	$4.1	$13.44	$55.7	$116	3.0	52.0%	48.0%
Year 2	$14.2	$4.50	$64	$4.1	$13.53	$56.1	$120	3.0	53.2%	46.8%
change	5.0%	0.6%	5.66%	0.0%	0.63%	0.63%	3.25%			

CHART THREE



Interestingly, since 2011, the business tax ratio has fallen significantly and has reached the previous target level of 3.0:1. However, this reduction has been largely the result of market forces not tax policy. Commercial property values have continued to increase while residential values have declined – the opposite of the situation in the early 2000s. As a result, the tax ratio would have declined substantially even if Council had not shifted taxes from the business class – see Table Two.

TABLE TWO:
IMPACT OF TAX POLICY ON BUSINESS TAX RATIO

	2011	2014 If no Shift in Taxes	2014 Actual	Impact of Tax Shift
Share of Taxes				
Residential	49.2%	49.3%	50.6%	1.3%
Business	49.4%	49.3%	48.0%	-1.3%
Tax Rate ($ per $1,000)				
Residential	$3.77	$ 4.35	$4.47	$ 0.11
Business	$13.55	$13.81	$13.44	-$0.36
Business Tax Ratio	3.59	3.17	3.01	-0.16

We continue to recommend that Council use the tax share approach to the distribution of taxes not the tax ratio. The key question is whether the reduction in share that has taken place for the business class since 2007 is adequate or whether a further shift is appropriate. Unfortunately, there is no single indicator that, by itself, provides an unambiguous measure of the right proportion of taxes that should be paid by the business class. Instead, a number of different indicators have to be examined. Five are considered in this paper:

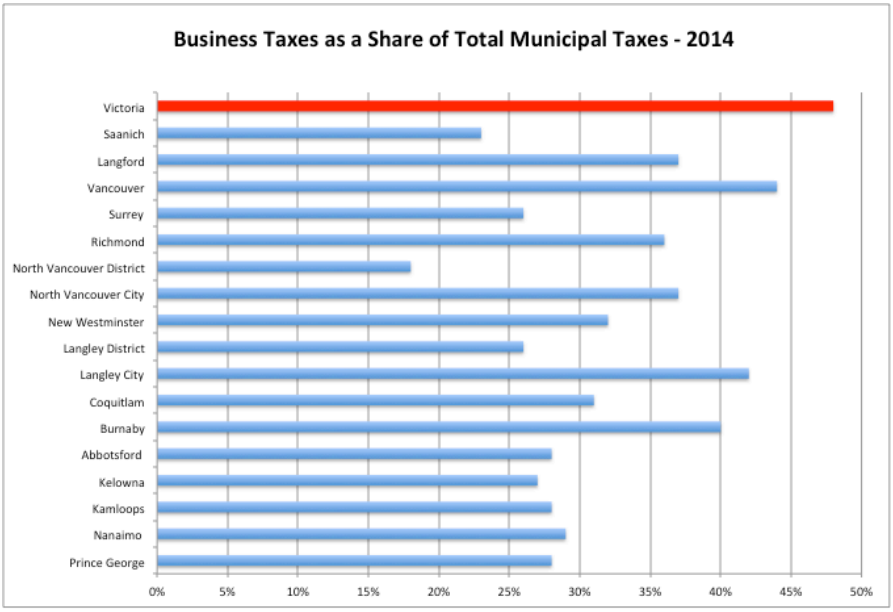
- The share of taxes paid by the business sector in Victoria compared to other jurisdictions.
- Business tax rates in Victoria compared to other jurisdictions.
- The tax burden on residential taxpayers in Victoria compared to other jurisdictions.
- The viability of the commercial core.
- The relationship between spending and taxing decisions.

These indicators are discussed in the following Sections. Where comparisons are made to other municipalities, we use the same benchmark communities that we used in our 2012 study.

3. THE SHARE OF TAXES PAID BY BUSINESS

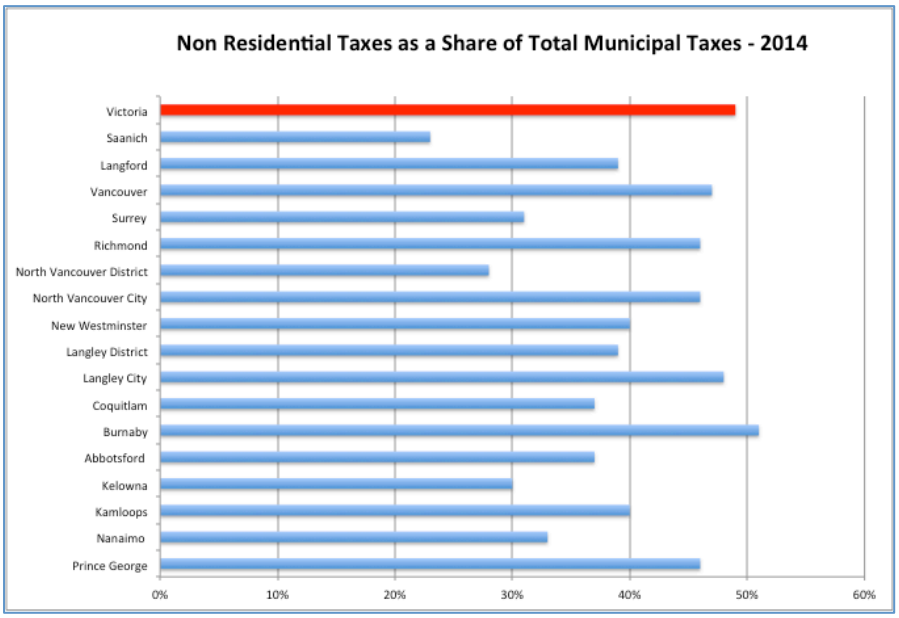
Victoria continues to rely more heavily on taxes from the business class than any of the municipalities in the benchmark group - see Chart Four.

CHART FOUR



The comparison is not as dramatic when we compare taxes from all non-residential property because many other communities receive substantial revenue from the major and light industry tax classes as well as the business class – see Chart Five. Nevertheless, Victoria remains the second highest of the group.

CHART FIVE



On the surface, therefore, it would seem that Victoria is out of line with other municipalities. However, the relatively high share of taxes raised from the business class is reasonable given Victoria's much higher concentration of commercial properties relative to residential properties. The difference is illustrated by Chart Six, which compares the improvement values in the business class to the improvement values in the residential class.

The improvement values are an estimate of the value of the physical structures on the land and exclude the value of the land itself. Because land values vary markedly among municipalities, excluding land values provides a better reflection of the underlying differences in the value of the physical structures in the communities. As Chart Six shows, the ratio of Class 6 (business) to Class 1 (residential) improvements is much higher in Victoria than in any of the comparison group.[2] This is not surprising given the relatively small footprint of the City of Victoria.[3] Therefore, given the special nature of Victoria as

[2] For this Chart, we have included only those municipalities from our benchmark group that could be considered core municipalities - plus Saanich and Langford.

[3] Interestingly, if Victoria and Saanich were combined, they would have a similar ratio in Chart 6 as the City of Vancouver but the combined percentage of taxes raised from the business class would be much less than in Vancouver.

the most 'core' of core cities, it is not unreasonable that its share of taxes from the business class be above the share in the benchmark group.

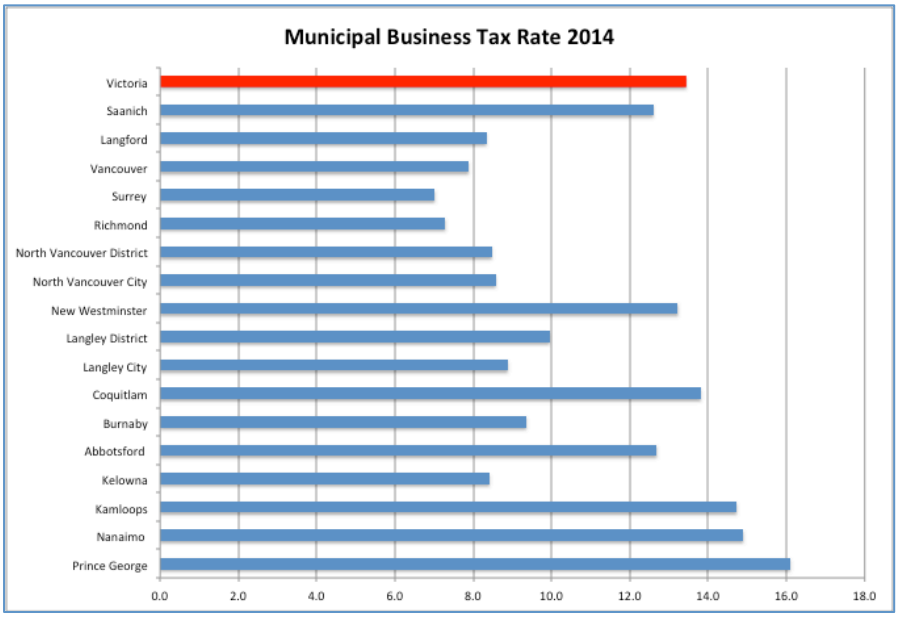
CHART SIX

4. BUSINESS TAX RATES

Victoria continues to have a business tax rate that is higher than most of the comparison municipalities – see Chart Seven. The usefulness of this comparison, however, is limited by the differences in land values among the communities. For example, tax rates in the Lower Mainland are generally lower than in Victoria but land values are higher. Therefore, differences in taxes paid will be less than differences in the tax rate. Similarly, the tax rate in Nanaimo is higher than in Victoria but land values are lower so taxes may be higher or lower than in Victoria.

Within the CRD, the picture is clearer. Tax rates are higher in Victoria than in Saanich and Langford but property values and rents also tend to be higher in Victoria. Therefore, it is safe to say that taxes paid by commercial properties are higher in Victoria than in neighbouring communities. One of the reasons for higher taxes is the fact that Victoria, as a core community, incurs greater costs in some service areas than neighbouring communities, notably for policing. The key question is whether the higher tax load on commercial property is reasonable given that it is the presence of the commercial core that creates the demand for additional services and, therefore, additional costs. Without clear evidence on the scale of these additional costs, it is hard to be definitive.

CHART SEVEN



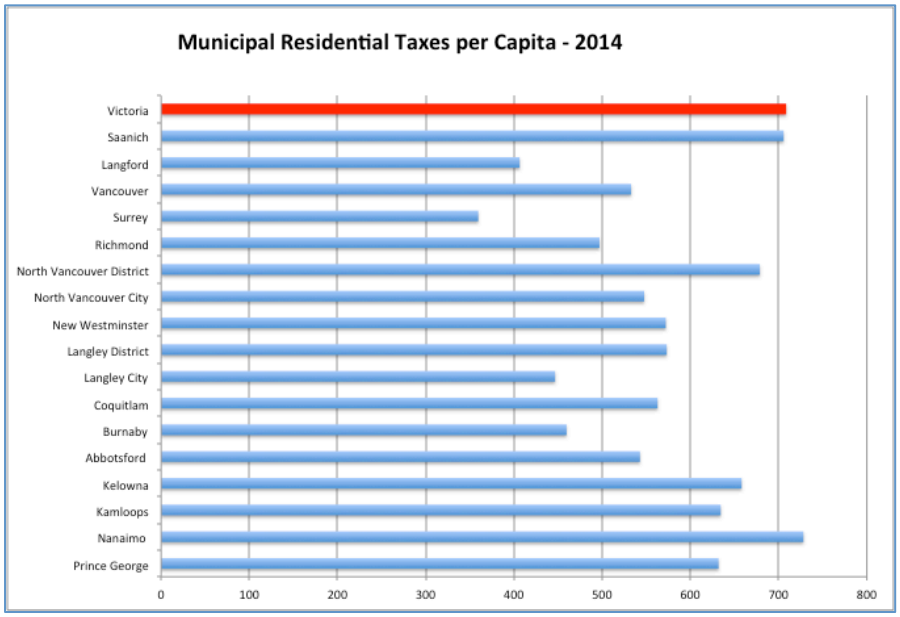
Over the past three years, the gap between the Victoria business tax rate and the rates in Saanich and Langford has narrowed; in part because of efforts to contain the overall rate of growth of taxes in the City and the shift of taxes off of the business tax class. Continuation of both policies would likely further reduce the gap between business tax rates. Whether or not the difference in taxes paid has a significant impact on investment decisions by owners and location decisions by tenants is debatable since such differences are only one element in a variety of factors than influence investment decisions. We examine recent investment and location trends in Section Six. [4]

5. THE BURDEN ON RESIDENTIAL TAXPAYERS

As taxes are reduced on the business class, they are increased on the residential class. Therefore, one way of looking at the reasonableness of further tax shifts is to compare the level of residential taxes in Victoria to other jurisdictions. Chart Eight shows that residential taxes per person are high in Victoria both within the CRD and in comparison to benchmark municipalities. Some of the difference in the CRD is attributable to the higher costs and taxes associated with a core municipality.

[4] In the final version of this report, commentary will be added on differences in taxes per square foot in the CRD if reliable data can be supplied by BC Assessment.

CHART EIGHT

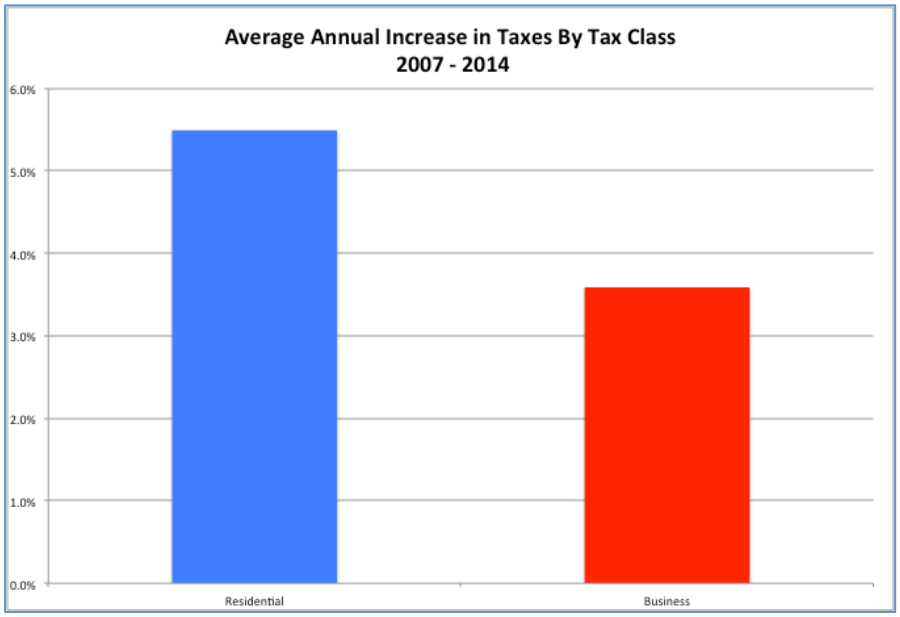


The relatively high level of residential property taxes in Victoria is contrary to the pattern of incomes in the region. As Table Three shows, Victoria residents tend to have lower incomes than residents of Saanich and Langford. Also, because taxes have been shifting, residential taxes have been increasing considerably faster than business taxes since 2007 – see Chart Nine. This already high level of residential taxation does not support a large additional shift in taxes off of the business sector.

TABLE THREE:
MEDIAN HOUSEHOLD INCOME - 2011 CENSUS

	Victoria	Saanich	Langford
Single Person Households	$31,309	$35,188	$35,412
Two or More Person Households	$67,041	$85,060	$82,883

CHART NINE



6. VIABILITY OF THE COMMERCIAL CORE

Building Permits

Planned investment in the commercial core of greater can be measured using the value of building permits issued in Victoria. When we considered this issue in 2012, we saw a disturbing downward trend in Victoria's share of the value of commercial building permits issued in the region. As Chart Ten shows, this pattern has turned around over the past three years. Similarly, the ratio of the value of commercial to residential permits issued has been significantly higher in the past three years than in the previous ten years and continues to be higher than in other communities – see Chart Eleven. Therefore, the recent pattern of investment in commercial facilities does not prompt the same concern as was noted by us three years ago.

CHART TEN

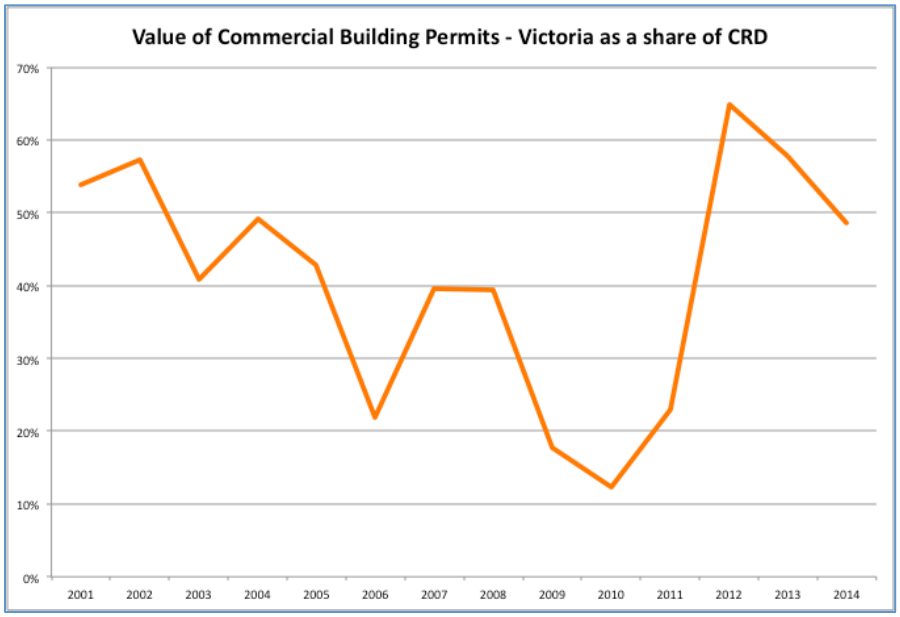
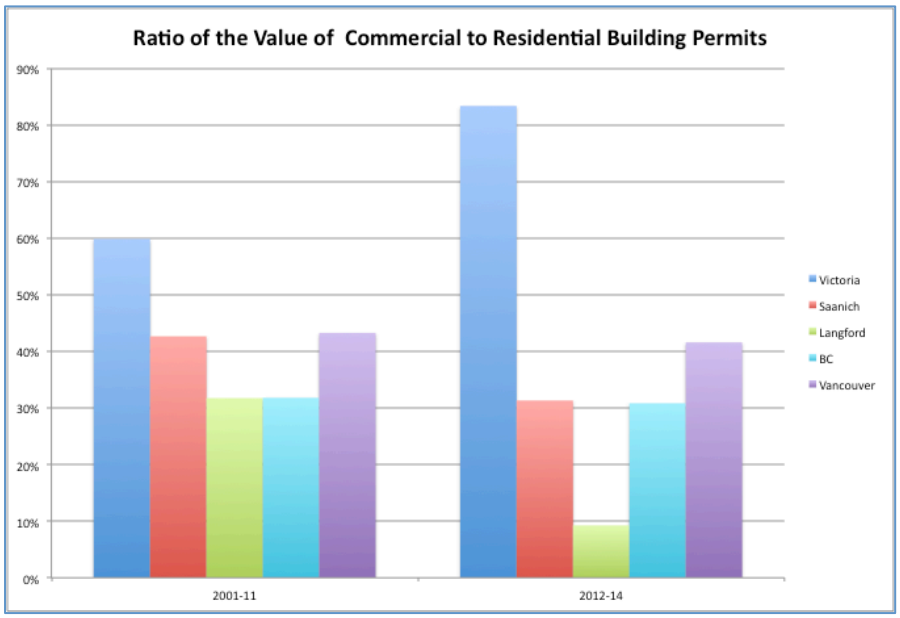


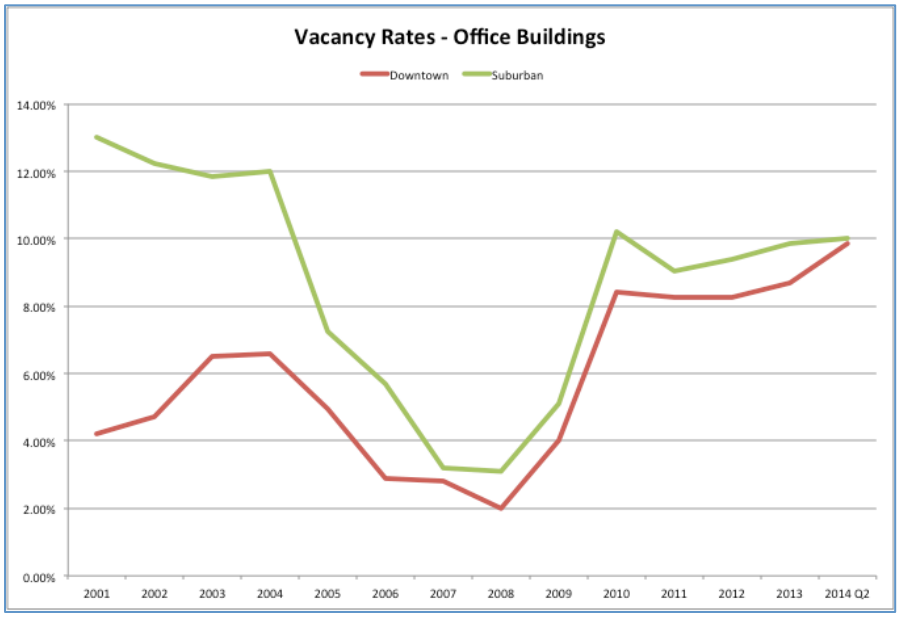
CHART ELEVEN



Vacancy Rates[5]

Average vacancy rates in downtown offices in Victoria continue to be high relative to rates experienced prior to 2009 and are similar to average rates outside of downtown – see Chart Twelve. The average rates mask significant differences within the downtown office sector. Class A office buildings continue to be in demand and significant additions to Class A buildings are in the planning stages. In contrast, vacancy rates in Class B space have risen significantly and the overall amount of downtown office space occupied was lower in 2014 than in 2001. Therefore, the economic outlook for the office sector is mixed with some serious pressure on lease rates for the older properties.

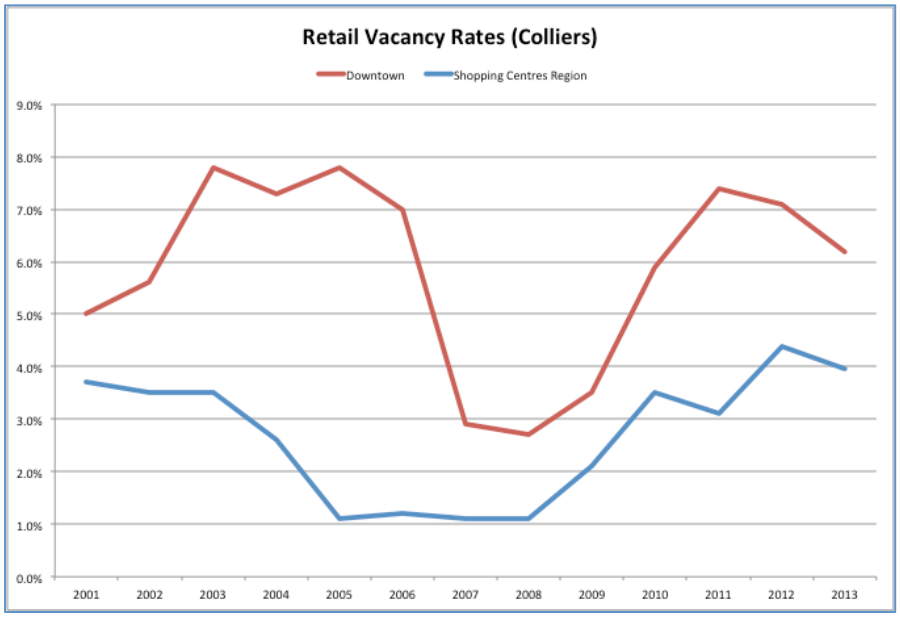
CHART TWELVE



In the retail sector, the pattern of vacancy rates in the region has continued to be upward for shopping centres, attributable largely to the new capacity that has come on stream in recent years – see Chart Thirteen. The vacancy rate remains lower in Victoria than in the region as a whole but attractive lease rates in new retail space in other communities have had an impact - see Appendix D. The Colliers index for downtown street level retail shows a reduction in the vacancy rate in 2012 and 2013 but the rate remains higher than the average rate for shopping centres in the region. While the situation for street level retail seems to has improved somewhat, the number of retail vacancies in the downtown remains disturbing. The effects of new shopping centre capacity have not fully worked through the market and the downtown retail sector remains vulnerable.

[5] This section is based on data published by Colliers International for the Capital Region. At this time, there is only partial information for the office sector for 2014 and no information for the retail sector beyond 2013.

CHART THIRTEEN



7. THE RELATIONSHIP BETWEEN SPENDING AND TAXES

Benefits Received

One way to set the share of taxes payable by the business sector is to look at the benefits received by business from spending by the municipality. Policing, fire protection and roads are all obvious examples of services that directly and substantially benefit businesses.

Some municipalities have tried to estimate the proportion of services that directly benefit business. For example, a study for the City of Vancouver concluded that the business sector directly benefits from 25% of the tax-supported services provided by the City whereas the residential sector benefits from 75% of the services. The proportion is likely to be more heavily weighted toward the business sector in Victoria because Victoria has a higher proportion of commercial to residential investment than Vancouver. However, the share of benefits is unlikely to match the current share of taxes paid by the business sector.

Unfortunately, the estimated share of benefits generated by these studies is open to criticism and debate. First, the method used to determine the share of benefits to business is based on a large number of assumptions and any change in those assumptions would alter the calculated share. Second, the studies do not consider the indirect benefits to business of services to residents. These indirect benefits include making Victoria a more attractive place for employees to live and customers to visit. If these indirect benefits could be measured and included in the calculation, the share of benefits attributable to the business

community would increase. Despite these caveats, it is still arguable, that the share of taxation paid by the business sector should be further reduced on a benefits-received basis.

Accountability to Voters and Taxpayers

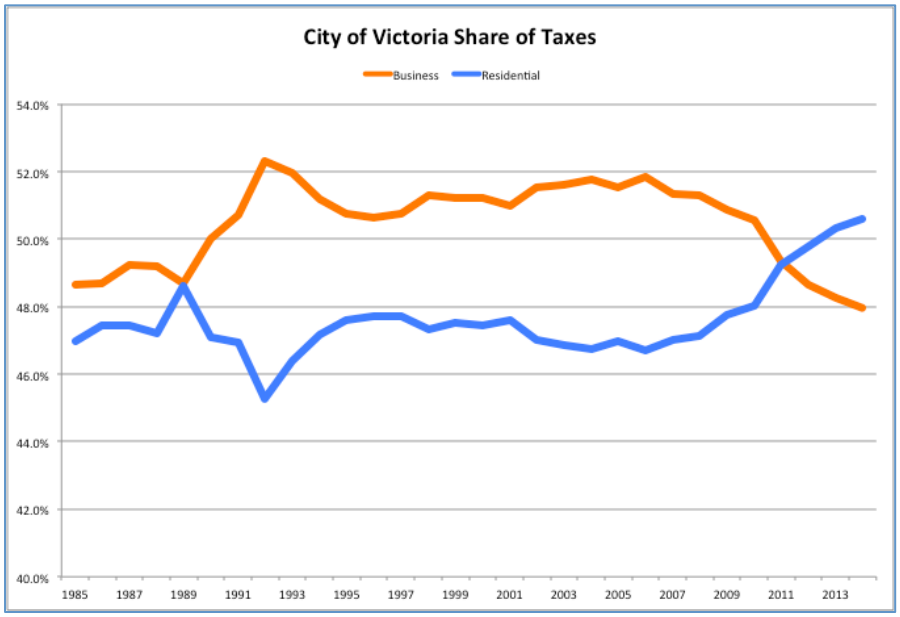
Since residents vote and businesses do not, we expect residents to have a greater impact on the size and character of public spending than the business community. Therefore, voter accountability is increased if residents are asked to pay for services that are wanted or expected by residents. However, businesses can have considerably influence over public policy even if they do not vote; local governments regularly consult with and take into account the views of the business community. Nevertheless, voter accountability is somewhat weakened if voters do not pay a significant proportion of the cost of services. Although the exact proportion is open to debate, any further increase in the share of taxes paid by residents would increase the level of accountability to voters.

8. CONCLUSIONS

As noted above, there is no single indicator that can be used to demonstrate whether taxes should be shifted from one tax class to another. Instead, a variety of factors have to be considered. Having reviewed the evidence, we do not find a compelling reason for a further shift in taxes from business to residential at this time for the following reasons:

- The share of taxes paid by the business sector has been reduced considerably since 2007 and is now at its lowest level since the mid 1980s when local governments were given the authority to set different tax rates on different tax classes – see Chart Fourteen.
- When comparing tax shares to other municipalities, the share of taxes paid by the business sector is consistent with the fact that Victoria is the most “core” of core cities. The share paid by the business sector, therefore, is not inconsistent with shares in other municipalities.
- Residential taxes have increase substantially faster than business taxes over the past seven years and residential taxes per person are high relative to benchmark municipalities even though incomes are not.
- Building permit data suggests that the downward trend in Victoria’s share of commercial investment has turned around over the past three years.
- Despite the arguments for reducing the business share based on the arguments of benefits received and greater accountability to voters, we do not believe that Victoria is out of line with other municipalities and further reductions would be warranted only if benchmark communities began to consistently reduce the share paid by business.

CHART FOURTEEN



Although it is not an indicator that we favour, some observers will point to the reduction in the business class tax ratio from 3.7:1 to 3.0:1 as another indicator of the shift in taxes. Victoria's tax ratio is well below the ratio in many benchmark municipalities – see Appendix C.

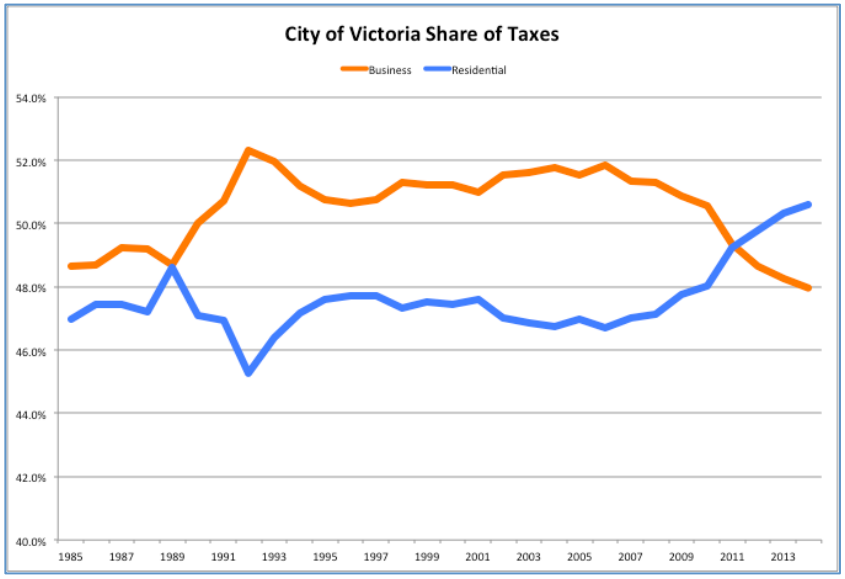
Many in the business community will continue to argue in favour of a further shift in taxes and will point to the continued vulnerability of the many commercial enterprises in the downtown core of Victoria. We are sympathetic to the their concerns but feel that should be addressed in ways that would benefit **both** business and residential sectors (e.g. by continued efforts to reduce the overall rate of increase in taxes and user fees and to improve the efficiency of service delivery.)

If Council accepts our recommendation to maintain the current share of taxes for the next few years (adjusted only for new construction), we recommend that staff continue to monitor the same indicators we have used in the body of this paper. If these indicators show that the tax situation or the economic situation in Victoria is significantly worsening compared to other municipalities, further shifts between the tax classes may have to be considered. At a minimum, we suggest that staff review these indicators every four years (i.e. at least one time in the term of each Council).

APPENDIX A – LONG TERM TRENDS IN TAX SHARES, TAX RATIOS AND TAX RATES

Tax Shares

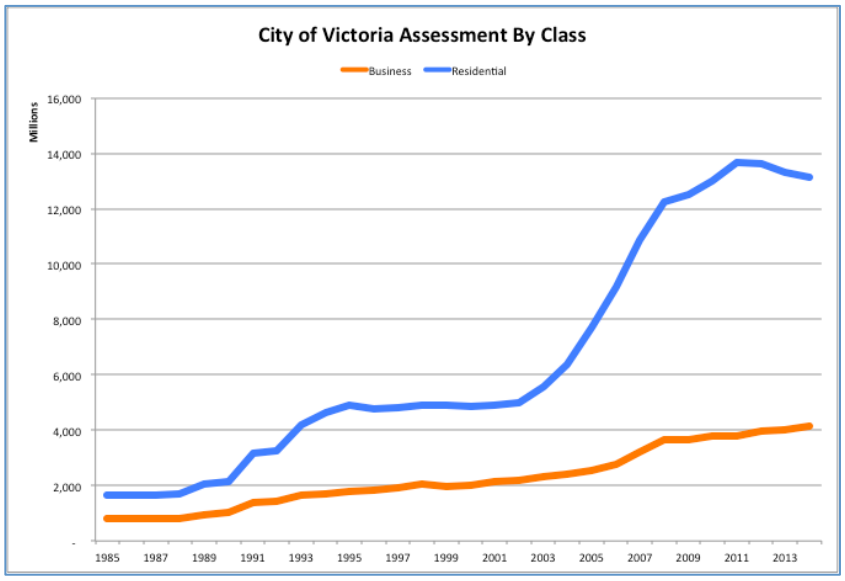
- As a result of Council's tax policy, the tax share for the business class has been decreasing since 2007 after a long period of relative stability.[6] The tax share for the business class in 2014 was 48%. The business class tax share is now the lowest it has never been.
- The tax share for the residential class is the highest it has even been at 50.6%.
- The tax share paid by tax classes other than the residential and business classes is very small – only 1.4% in total in 2014.



Property Assessment

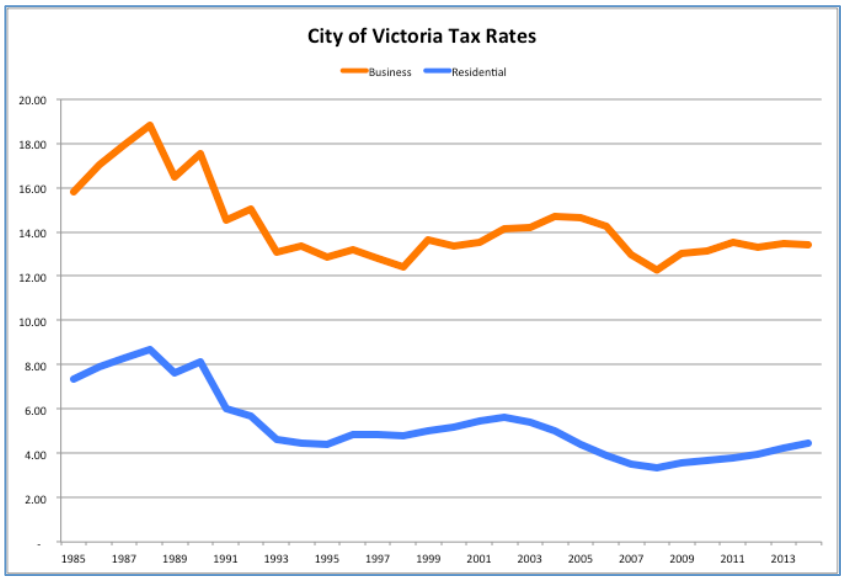
- Over time, the value of residential assessment has grown much faster than business class assessment – see the next Chart. The data in the Chart does not differentiate market and non-market changes but the difference in the two trends is primarily the result of the faster rate of growth in the value of residential properties compared to commercial property.[7]
- Since 2011, residential assessed values have been declining while commercial values have continued to increase modestly. This is the primary reason why the business tax rate ratio has declined (see Page A10).

[6] For ease of presentation we refer to Tax Class 6, the 'business & other' tax class, as the business class.
[7] This has been a general trend in most of BC. It is not unique to Victoria.



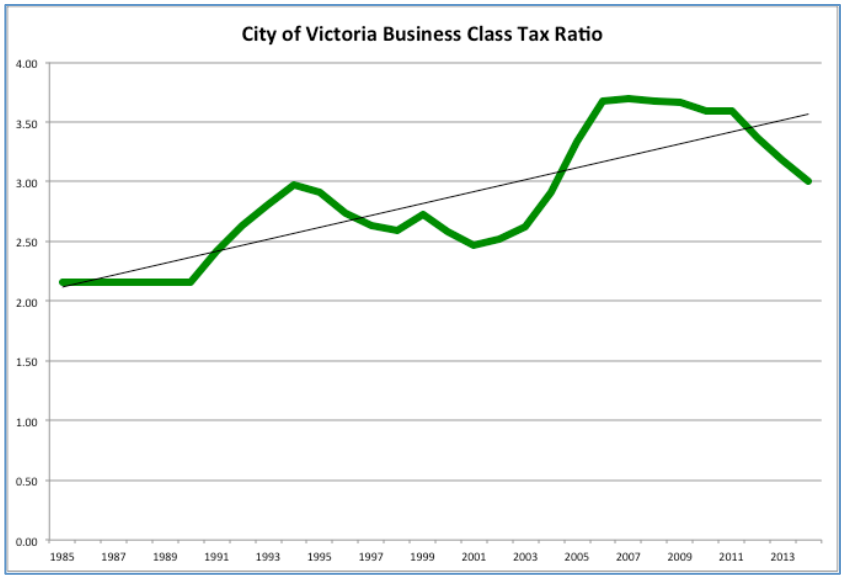
Tax Rates

- The business tax rate is about the same today as in 2001 and lower today than in the late 1980s and early 1990s. Residential tax rates declined in the early part of this decade and are much lower than in the late 1980s and early 1990s. Reductions in tax rates over time have been possible because of rising assessments even though taxes collected have been increasing. Residential tax rates have increased over the past three years because assessed values have declined and taxes have been shifted to the residential class.



Business Class Tax Ratio (Ratio of Business tax rate to Residential tax rate)

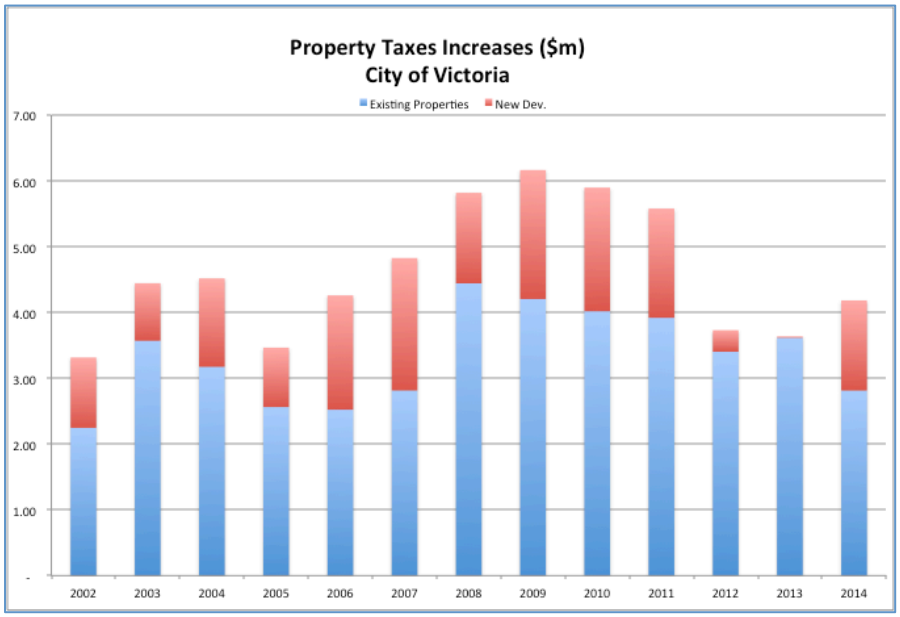
- The business class tax ratio was 3.0 in 2014, its lowest level since 2005. The ratio was reduced by policy over the period 2007 to 2011 from 3.67 to 3.59. Since then, changes in market values coupled with the shift of taxes off of the business class have led to a steep decline in the ratio from 3.59 to 3.0.
- When the City was first given authority to set variable tax rates, the tax ratio was 2.2. Since that time, the ratio has generally trended upward as a result of differences in the rate of increase in the market value of residential and commercial property and the desire of Council's to keep the rate of increase of taxes similar on commercial and residential properties.



APPENDIX B – RECENT TRENDS IN TAXES PAID

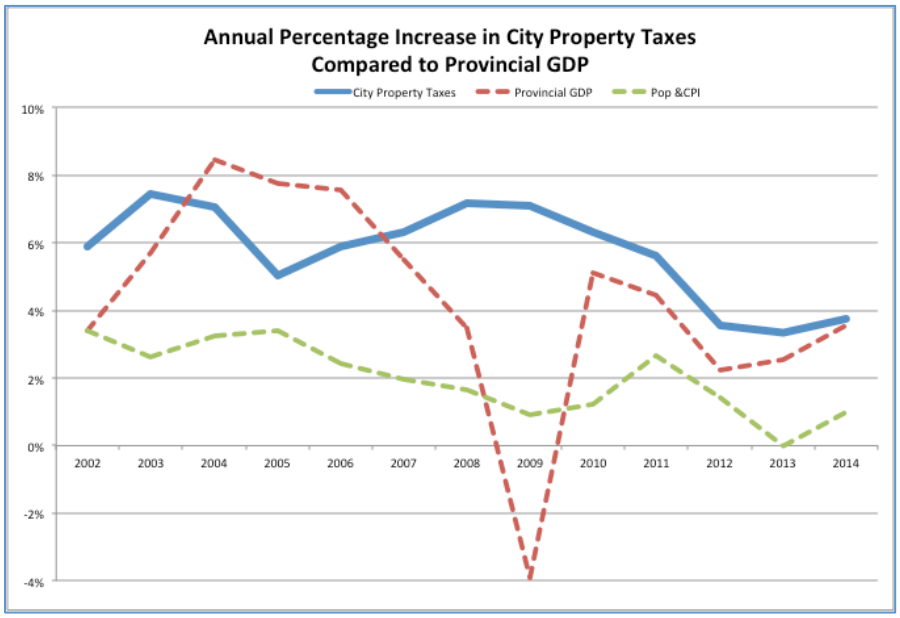
Annual Property Tax Increases

- Each year the City sets the amount of property taxes that have to be raised to help pay for municipal spending. For example, in 2014 the City raised $116.2 million in property taxes compared to $112 million in 2013, an increase in taxes of 4.2 million (i.e. an increase of 3.7%).
- Some of the annual increase in property taxes is paid by new construction that was not on the tax roll in the previous tax year. The balance of the tax increase is paid by properties that were on the roll in the previous year. The following Chart shows the annual increase in taxes in each of the past 13 years subdivided into tax increases on existing properties and taxes increases associated with new construction.[8]



- The annual rate of increase in City taxes levied has averaged around 5.7% over the last 13 years but has been much lower in the last three years.[9] As the following Chart shows, the rate of increase in taxes has exceeded the rate of growth of the provincial economy in most years and has always exceeded the combined rate of increase of population and the CPI in Victoria.

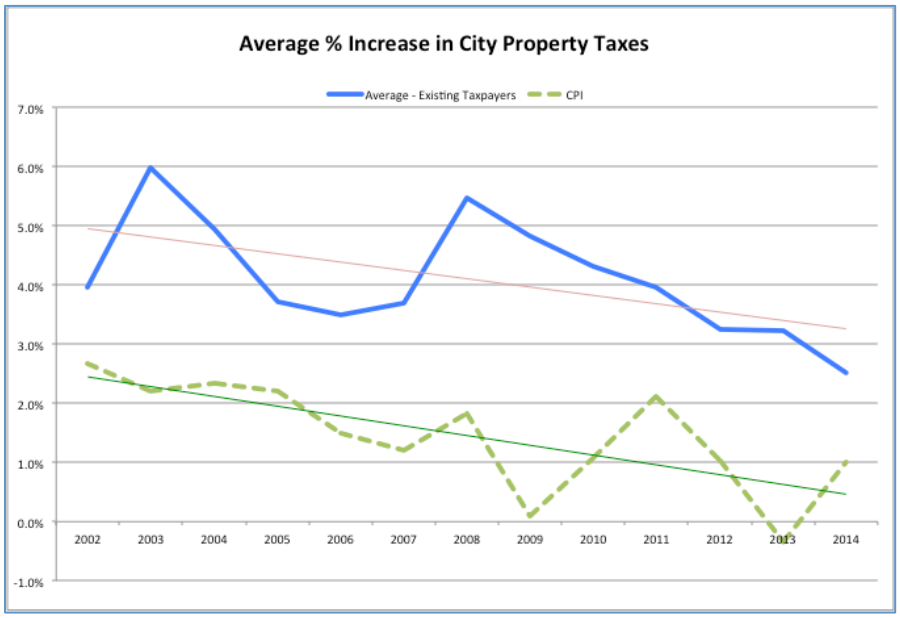
[8] Strictly speaking the split is between market changes and non-market changes. The latter is mostly new construction but can include other changes such as a changes in tax class and tax exemptions.
[9] The rate of increase quoted is based on the total tax increase including new-construction.



	Total % Change 2001 to 2014	Annual Ave % Change
City Taxes	106%	5.7%
Provincial GDP	72%	4.3%
Victoria Pop +CPI	29%	2.0%

Annual Property Tax Increases on the Average Taxpayer

- The annual rate of increase in taxes paid by the average taxpayer is less than the increase shown in the previous Chart. For example, in 2014 the tax increase on existing properties was $2.8 million (i.e. $4.2 million less the $1.4 million raised from new construction). On average, this translated into a 2.5% increase in taxes for existing taxpayers compared to the 3.7% increase in total taxes collected.
- The following Chart shows the average increase in city taxes over the last 13 years excluding the amount raised from new construction. While the average annual rate of increase of taxes has been around 4%, there has been a clear downward trend over the period. The average rate of increase in taxes on existing properties has consistently outstripped the rate of inflation as measured by the Victoria CPI.



- The increase in taxes has been larger for the average residential taxpayer than for the average business taxpayer because of Council's decision to shift taxes off of the business class – see the following Chart and Table.

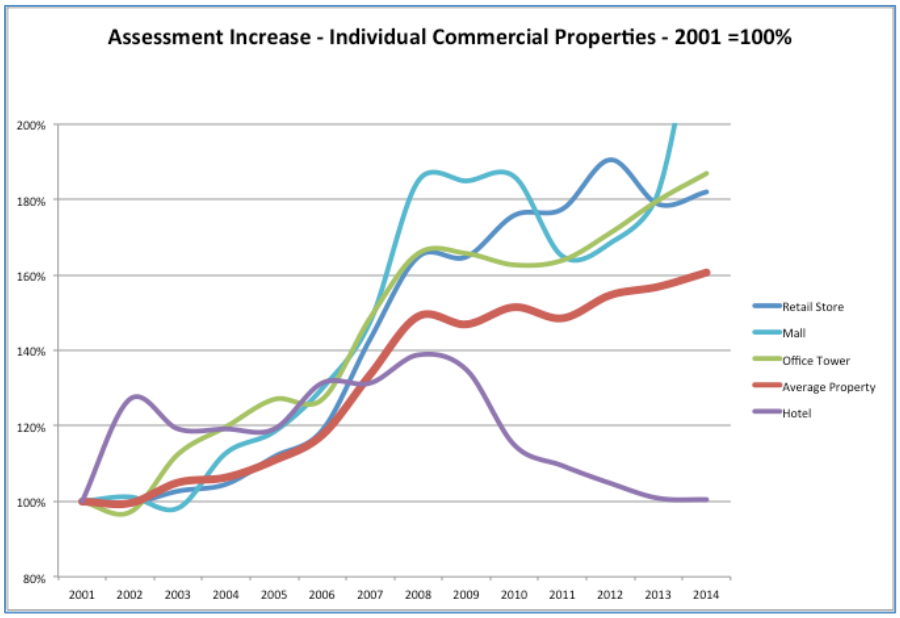
	Total % Change 2001 to 2014	Annual Ave % Change
Average City Taxes	69%	4.1%
Victoria CPI	21%	1.5%
Ave Residential – City Taxes	79%	4.6%
Ave Business – City Taxes	60%	3.7%
Residential Taxes Per Capita	105%	5.7%

- The annual increases for homeowners and businesses have been larger for City taxes than for property taxes paid to other taxing jurisdiction. The difference is attributable to the much smaller increase in provincial school taxes, especially for non-residential taxpayers.

	Total % Change 2001 to 2014	Annual Ave % Change
Ave Residential – City Taxes	79%	4.6%
Ave Business – City Taxes	60%	3.7%
Ave Residential – Other taxing jurisdictions	24%	1.7%
Ave Business – Other taxing jurisdictions	7%	0.5%
Ave Residential – All jurisdictions combined	53%	3.3%
Ave Business – All jurisdictions combined	33%	2.2%

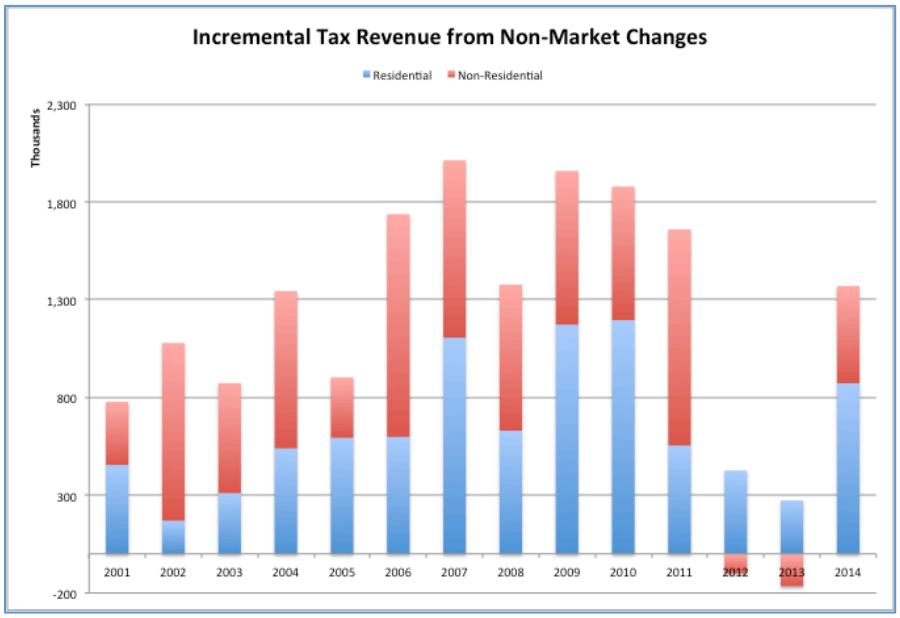
Individual Properties

- The previous section shows increases for the average business property but the average disguises variations around the average that are attributable to different assessment patterns. The following Chart shows how increases in assessment for selected business properties have varied from the average. For this reason, individual property owners may have experienced faster or slower increases in taxes than those shown in the previous section.



Taxes from Non-Market Changes

- Each year, the City generates additional tax revenue from new construction. The City can also gain or lose tax revenue as a result of changes in property structure (e.g. sub-division), changes in actual use (e.g. a change in property use from commercial to residential; or a change from light industry to business) and changes in tax exemptions (e.g. a government owned property is sold to the private sector). Together these changes are labelled 'non-market changes' by BC Assessment to distinguish them from changes in assessed value associated with market forces.
- The following Chart shows the incremental revenue associated with non-market changes in recent years broken down by the residential and non-residential tax classes. For simplicity, revenue from non-market changes is often labelled revenue from new development because, typically, most of the additional revenue is associated with new construction.
- Since 2001, around 51% of additional revenue associated with non-market changes has been associated with the residential tax class and 49% from the non-residential classes. Although the pattern has varied from year to year. In 2012 and 2013, revenue from non-market changes was much lower than in previous years with a decline in revenue from the business class.



Impact of the 2011 Decision to Reduce Business Tax Share

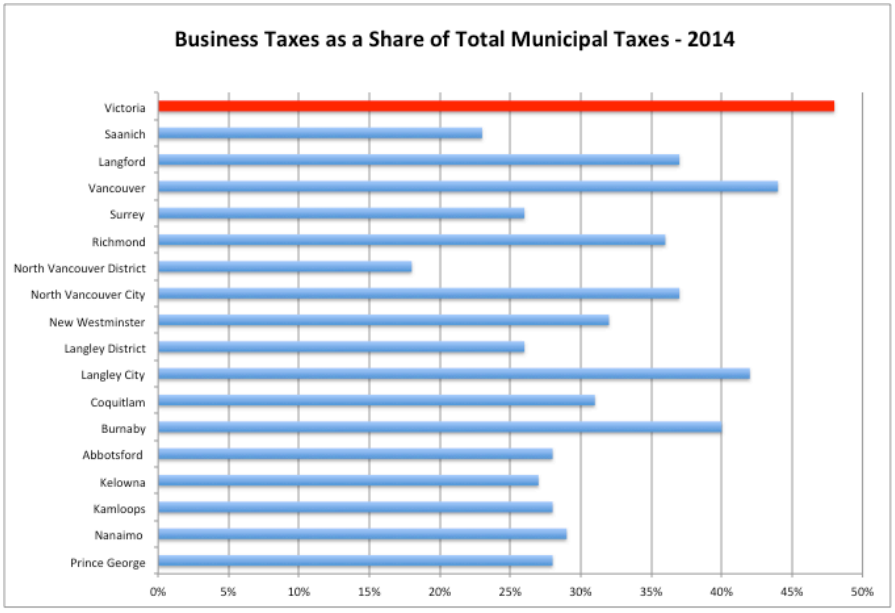
- The following Table shows the impact of Council's 2012 decision to shift taxes from the business class to the residential class over three years. It shows the impact on tax share, tax rates and the business class tax ratio.
- Most of the reduction in the business tax ratio since 2011 is attributable to market value changes not the policy of shifting taxes. The increase in the residential share from 2011 to 2014 is explained in small part by the pattern of new development but mostly by the shift in taxes.

	2011	2014 No Shift in Taxes	2014 Actual	Impact of Tax Shift
Share of Taxes				
Residential	49.2%	49.3%	50.6%	1.3%
Business	49.4%	49.3%	48.0%	-1.3%
Tax Rate ($ per $1,000)				
Residential	$3.77	$ 4.35	$4.47	$ 0.11
Business	$13.55	$13.81	$13.44	-$0.36
Business Tax Ratio	3.59	3.17	3.01	-0.16

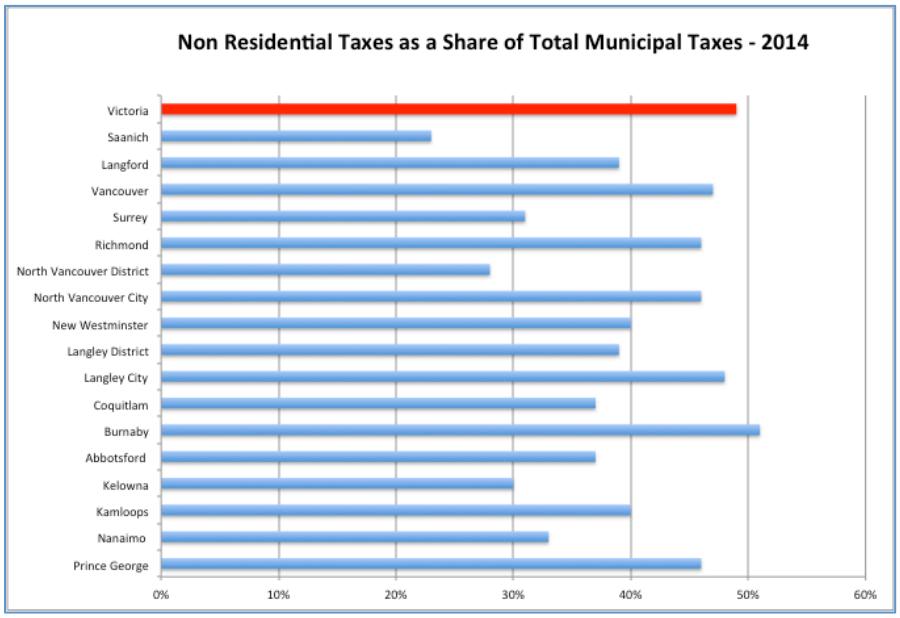
APPENDIX C – COMPARISON TO OTHER MUNICIPALITIES

Business Share of Taxes

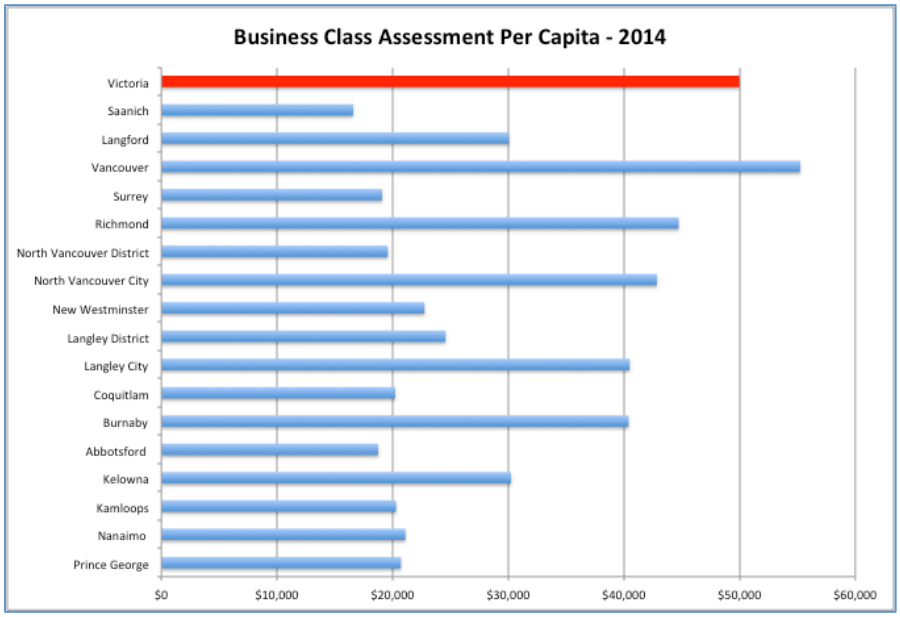
- Victoria collects a significantly higher proportion from the business tax class than any of the comparison group including Vancouver.



- The differences among the municipalities are not as great when we compare the share of revenue raised from all non-residential tax classes including business, utilities, major industry and light industry. The share raised in Victoria is still relatively high but close to the share raised in Vancouver, Burnaby, Richmond and Langley City.



- We expect the share in Victoria to be relatively high because it is a core city with a high proportion of commercial to residential property as is illustrated by the following two Charts.

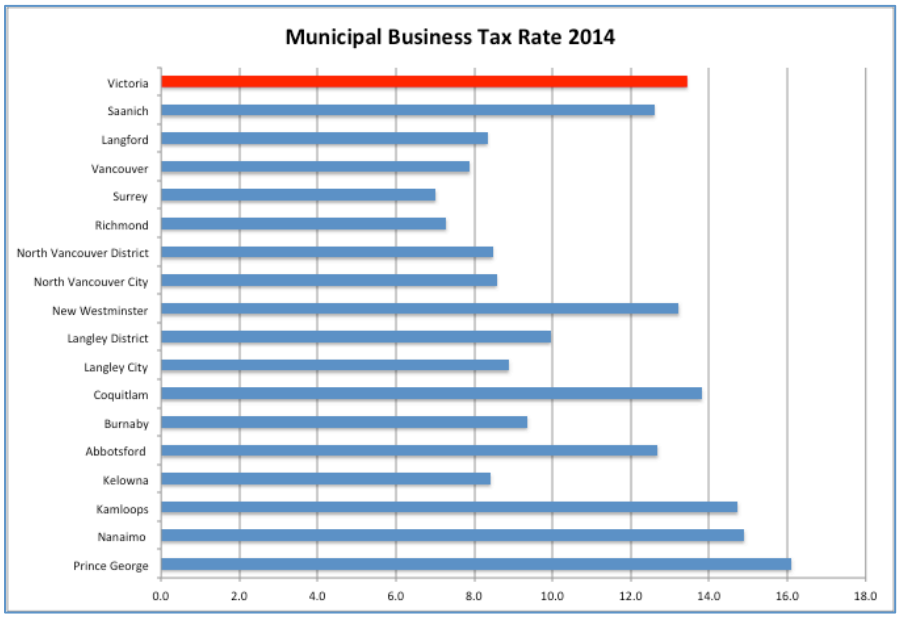


- Victoria is also one of the more densely populated of our comparison municipalities – see the following Table

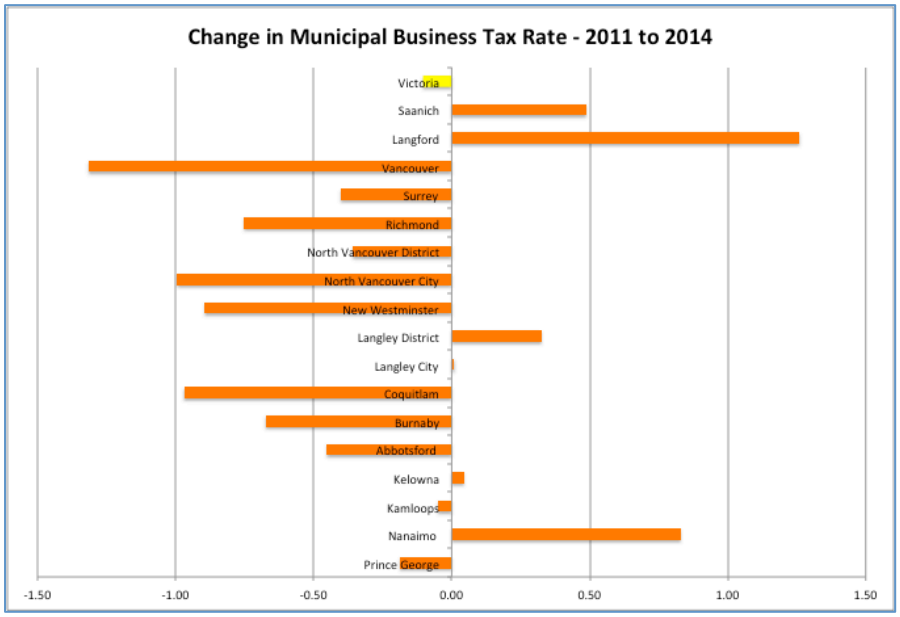
Population Density – 2011 Census			
	Population Per Sq Kilometre		**Population Per Sq Kilometre**
Vancouver	5,249	Nanaimo	918
New Westminster	4,222	Langford	732
Victoria	**4,109**	Delta	554
North Van City	4,074	Kelowna	554
Burnaby	2,464	North Van District	525
Langley City	2,455	Abbotsford	356
Surrey	1,480	Langley District	338
Richmond	1,474	Kamloops	286
Saanich	1,058	Prince George	226
Coquitlam	1,034		

Business Tax Rates

- The municipal business tax rate in Victoria is among the highest of the comparison group and the highest in the CRD. Within the CRD, commercial properties in Victoria tend to have higher assessed values than in other municipalities; therefore, taxes tend to be higher in Victoria than on comparable commercial properties in capital region.

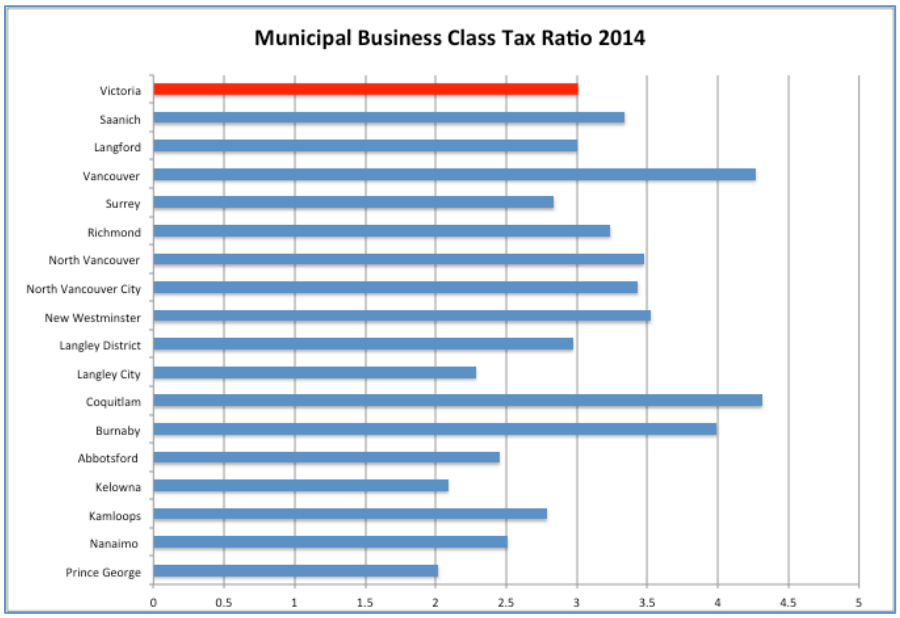


- The following Chart shows that municipal business tax rates have fallen in most of the benchmark communities in years. However, the reasons for the decline have been different in different areas. Changes in tax rates are influenced by the overall increase in municipal taxes raised, the share of taxes raised from the business sector and the pattern of assessment changes. Most of the reduction in tax rates in the Metro Vancouver is explained by increases in assessed values with corresponding reductions in tax rates. The business tax rate in Victoria has been reduced over the last three years as a result of the deliberate policy to shift taxes.

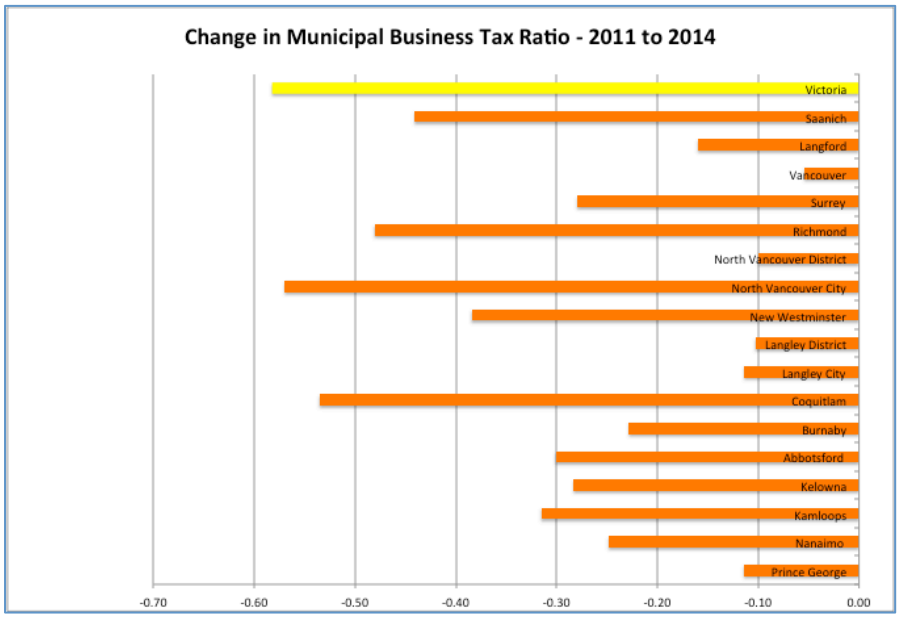


Business Class Tax Ratio

- The business class tax ratio in Victoria in 2014 is 3.0:1, which is lower than in many of the comparison communities.

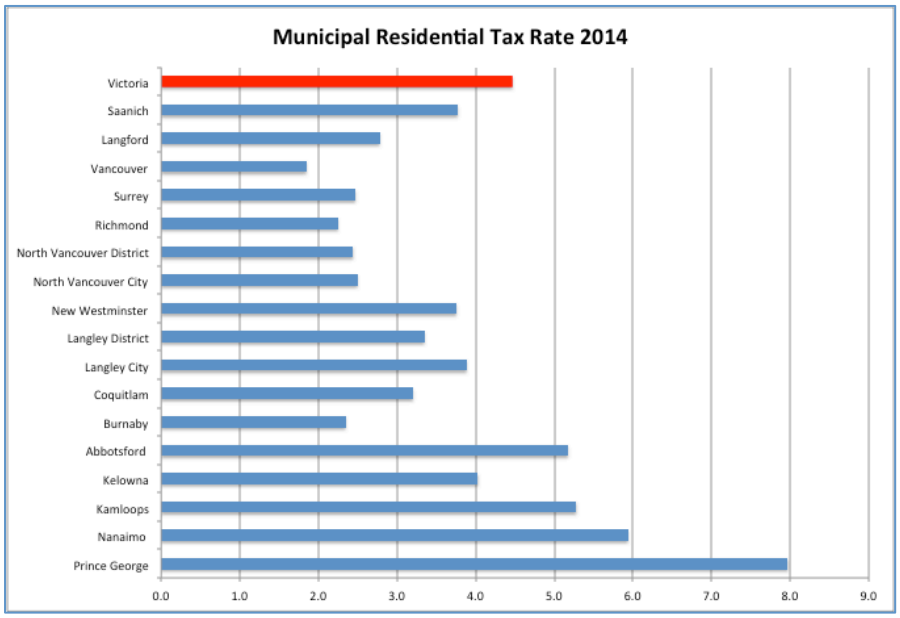


- Over the past three years, the business class tax ratio has declined in every one of the benchmark communities. Hence, business tax rates have increased more slowly or declined more quickly than tax rates on residential properties. Changes in tax ratios are usually explained by differential changes in assessed values. In Victoria the reduction in the tax ratio has resulted from assessment changes and Council's decision to shift the tax burden from business properties.



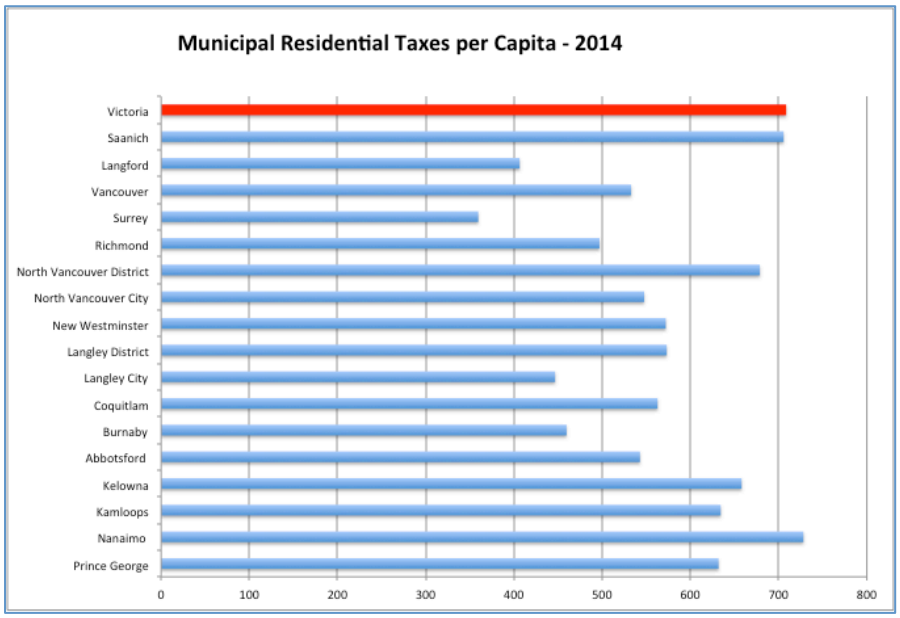
Residential Tax Rates

- The residential tax rate in Victoria tends to be higher than in most comparison communities. Tax rates tend to be higher outside the CRD and Metro Vancouver because residential property values tend to be lower in those communities.

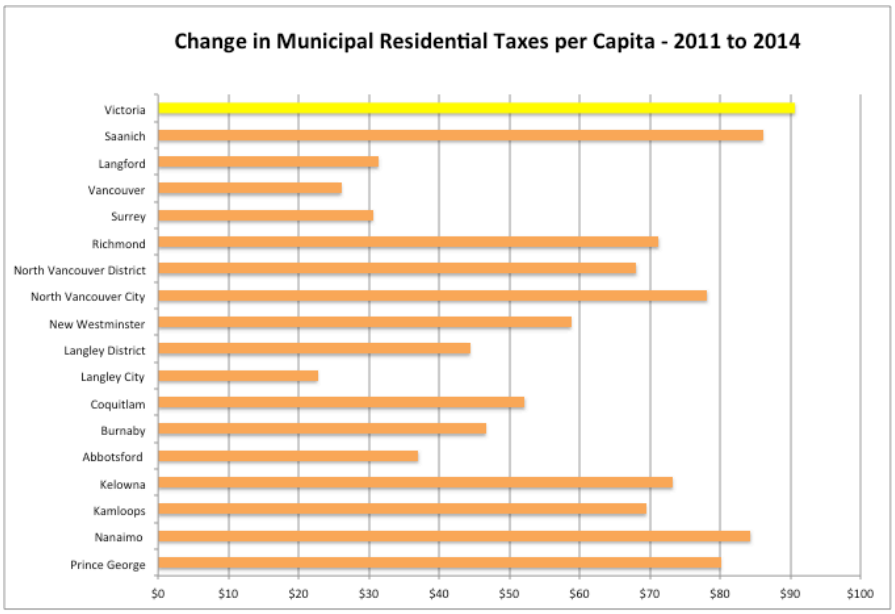


Residential Taxes Per Capita

- Municipal residential taxes per capita in Victoria are among the highest across the benchmark communities.



- Among the benchmark municipalities, residential taxes per capita in Victoria have increased the most over the past three years.

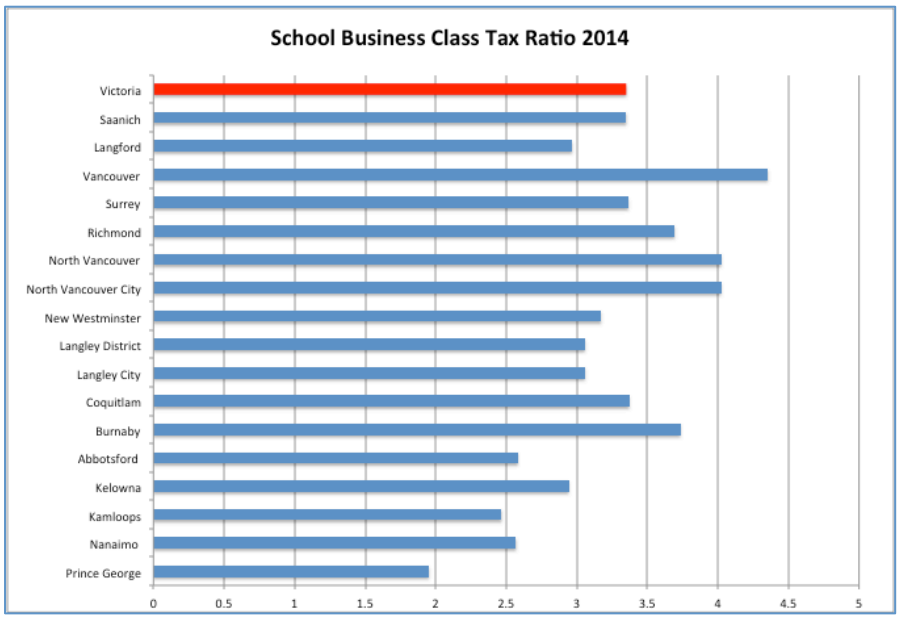


- Within the CRD, residential taxes per capita are highest in Victoria among the comparator communities but incomes are lowest as is shown in the following Table.

2010 Household Income from Census Data				
	Victoria	**Saanich**	**Langford**	**Oak Bay**
Single Person Households				
Median Income	$31,309	$35,188	$35,412	$36,593
Average Income	$37,763	$43,560	$39,425	$55,840
Two or More Person Households				
Median Income	$67,041	$85,060	$82,883	$107,910
Average Income	$78,583	$98,096	$91,820	$134,479

Business Tax Ratios – School Taxes

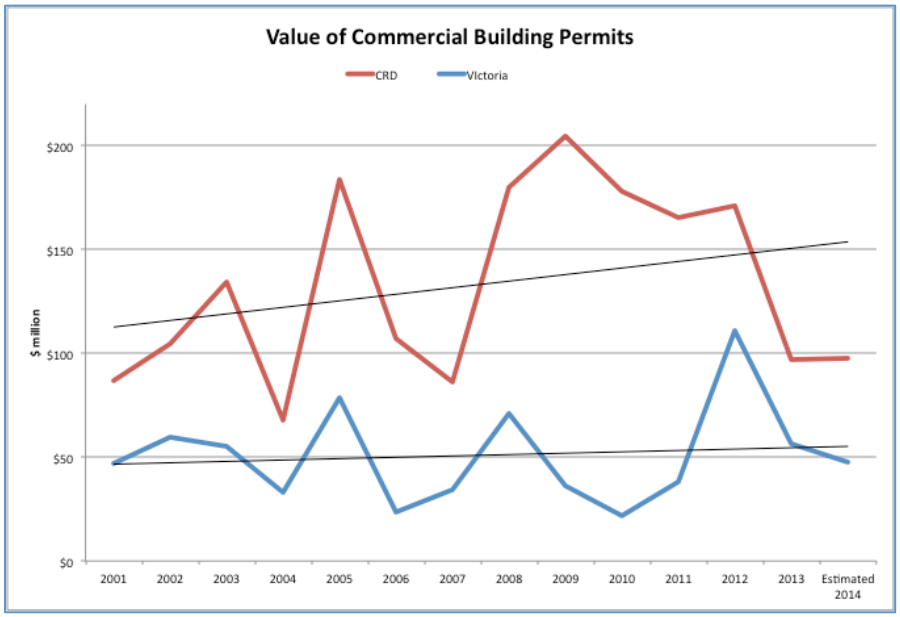
- The business class tax ratio varies among municipalities not just for municipal taxes but some other taxes including school taxes, which are set by the province. The province charges a uniform rate of tax across the province on the business class for school purposes. However, the school tax rate on residential property varies across school districts. The tax rate is lower in areas that have higher residential property values. Hence, the business class tax ratio tends to be higher in areas that have higher residential property values. For this reason, the school business class tax ratio in Victoria is lower than in many municipalities in Metro Vancouver. However, it is higher in Victoria that the municipal business tax ratio.

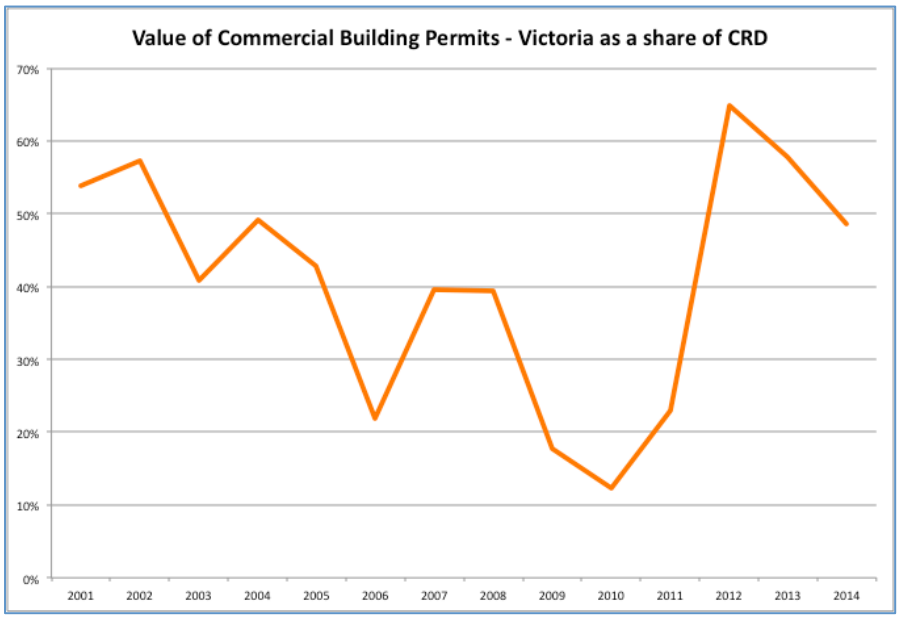


APPENDIX D – ECONOMIC INDICATORS

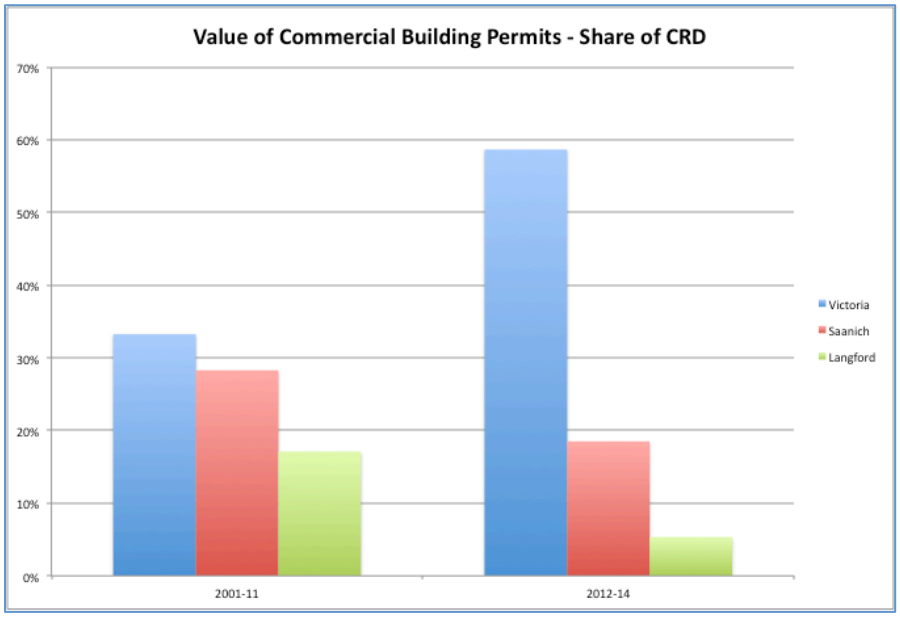
The Value of Commercial Building Permits

- In the decade before 2011, the value of commercial building permits issued by the City of Victoria was showing a downward trend that contrasted sharply with the pattern for the CRD as a whole. Since 2011, this situation has turned around - as is illustrated by the following two Charts.

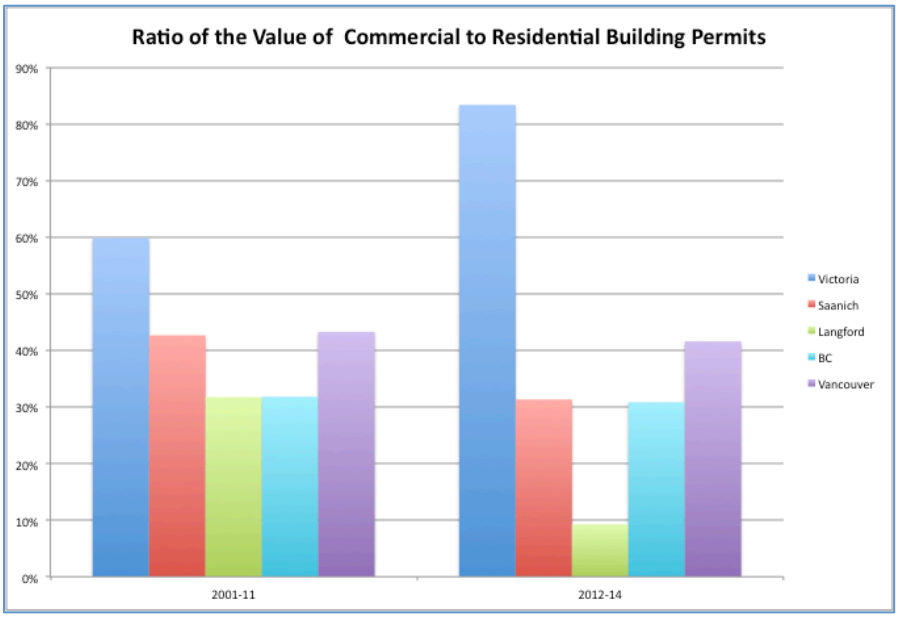




- Over the past three years, the value of commercial permits issued has been much higher in Victoria than in Saanich and Langford. There is usually a delay between issue of building permits and growth in the assessment base.

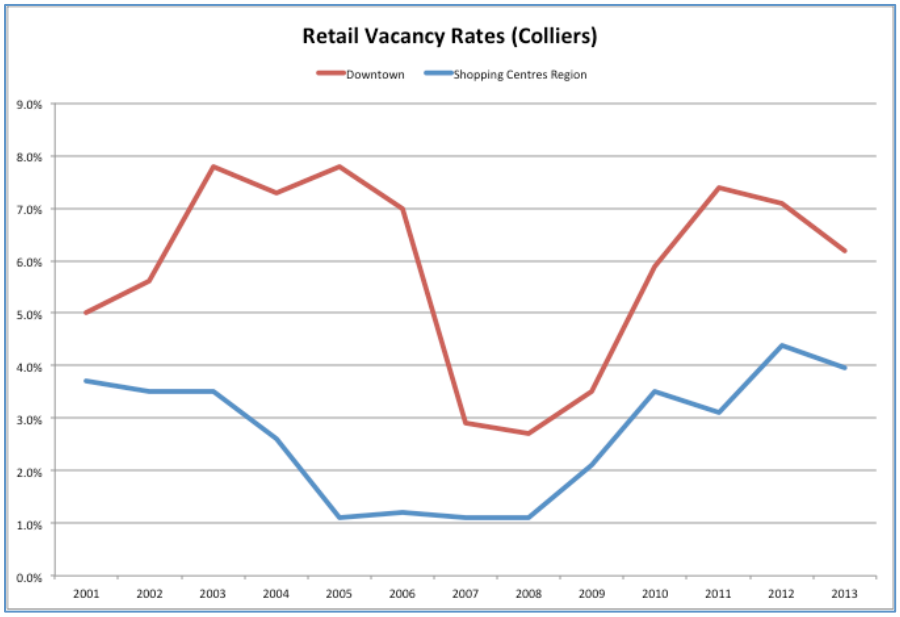


- The ratio of the value of commercial to residential building permits remains higher in Victoria than in other CRD communities, the City of Vancouver and the province as a whole.



Market Trends – Retail (Published data is only available to 2013)

- Colliers International publishes information on vacancy rates for shopping centres throughout the region and for street-front retail in downtown Victoria. Shopping centres include regional, community, neighbourhood and convenience centres.
- In 2011, the pattern of vacancy rates was clearly upward both for shopping centres in the region and for downtown street-front retail. Vacancy rates for street level retail have begun to decline but they remain well above the rates achieved prior to the 2008/9 recession.



- Shopping centre vacancy rates have continued to increase as a result of new capacity coming on stream. In Victoria, vacancy rates are below the regional average. Victoria has experienced little growth in shopping centre capacity since 2001. (Recent growth in Victoria has been at the Hillside Mall.)

Shopping Centres by Location						
	Gross Leasable Area (million sq ft)			Vacancy Rates		
Municipality	**2001**	**2011**	**2013**	**2001**	**2011**	**2013**
Victoria	1.82	1.85	1.94	4.0%	2.9%	3.2%
Saanich	1.75	1.97	2.34	1.9%	3.0%	5.3%
Langford	0.32	0.78	0.78	5.0%	2.7%	1.6%
Other areas	0.94	0.96	0.86			
Total	**4.83**	**5.57**	**5.92**	**3.7%**	**3.1%**	**4.0%**

- The next Table shows shopping centre inventory and vacancy rates by type of centre. Average vacancy rates have increased considerable at the regional

shopping centres with the addition of new capacity. Vacancy rates have come down in the other categories.

Shopping Centres by Type						
	Gross Leasable Area (million sq ft)			Vacancy Rates		
Type	**2001**	**2011**	**2013**	**2001**	**2011**	**2013**
Regional	1.65	1.74	2.38	3.5%	0.3%	5.2%
Community	0.86	1.36	1.13	1.1%	3.7%	1.1%
Neighbourhood	1.76	1.90	1.84	4.0%	4.4%	3.6%
Convenience	0.56	0.57	0.57	7.2%	6.4%	5.4%
ALL	**4.83**	**5.57**	**5.92**	**3.7%**	**3.1%**	**3.1%**

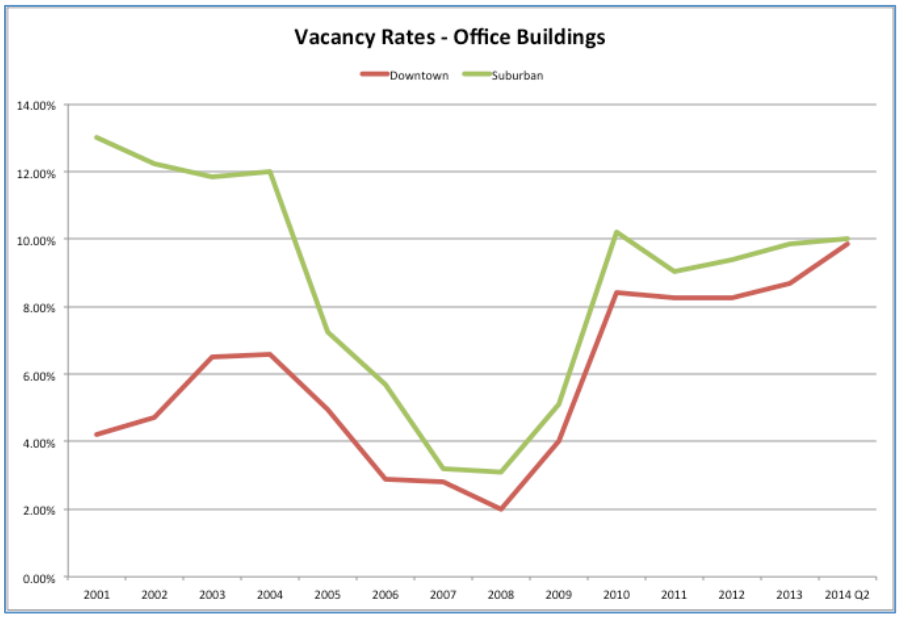
- With additional capacity coming on stream, average lease rates have either declined or remained stable since 2011 - see the next Table. Operating costs, which include property taxes, have for the most part increased modestly.

	2011			2013		
Type	**Net Lease Rates per Sq Ft**	**Operating Costs per Sq Ft**	**Total Occupancy Costs per Sq Ft**	**Net Lease Rates per Sq Ft**	**Operating Costs per Sq Ft**	**Total Occupancy Costs per Sq Ft**
Regional	$45.00	$30.86	$75.86	$38.50	$29.92	$68.42
Community	$32.00	$13.82	$45.82	$32.00	$14.57	$46.57
Neighbourhood	$25.51	$10.02	$35.53	$21.26	$11.15	$32.41
Convenience	$20.04	$10.03	$30.07	$19.90	$10.55	$30.45

- No information is published on lease rates for street-front properties in downtown Victoria.

Market Trends – Offices

- Colliers International also publishes vacancy rates for office buildings and separates them into downtown and suburban groupings. The following Chart shows that vacancy rates have been increasing in both areas since 2008. In the downtown area, vacancy rates are much higher than they have been over the past 14 years and the amount of space occupied is slightly lower than in 2001. (Note: The data is not published by municipality and the Selkirk waterfront in included in the suburban area.)



- Average vacancy rates disguise significantly different patterns within the Office sector. For example, the downtown vacancy rate for Class A office space was less than 2% in mid 2014 compared to a vacancy rate of 9.4% for downtown Class B office space and 17.2% for Class A suburban office space.

	Gross Leasable Area (million sq ft)			Vacancy Rates		
	2001	**2011**	**2014 Q2**	**2001**	**2011**	**2014 Q2**
Downtown						
Class A	0.60	0.82	0.51	3.2%	7.5%	1.8%
Class B	3.26	3.57	3.61	2.7%	7.9%	9.4%
Class C	0.83	0.54	0.78	5.4%	6.8%	17.2%
Total	**4.69**	**4.94**	**4.90**	**3.2%**	**7.7%**	**9.85%**
Suburban						
A	n/a	0.82	0.81	n/a	8.7%	17.2%
B	2.50	2.42	2.57	13.4%	9.8%	8.0%
C	0.38	0.35	0.34	9.9%	5.0%	8.5%
Total	**2.88**	**3.59**	**3.72**	**6.3%**	**9.1%**	**10.0%**

Note: The Suburban Class A category was created in 2003. Some downtown Class A space was reclassified as Class B or C in 2012.

- There has been only modest growth in total office space in the downtown core since 2001. Growth has been faster in the suburban areas. However, significant additions to downtown office space are in the planning stages.

Distribution of Property Taxes among Tax Classes

City of Victoria

January 22, 2015

Terms of Reference

- Should the City continue to shift taxes away from the business class?
- What indicators should be used to determine the need for shift?

Policy Since 2007

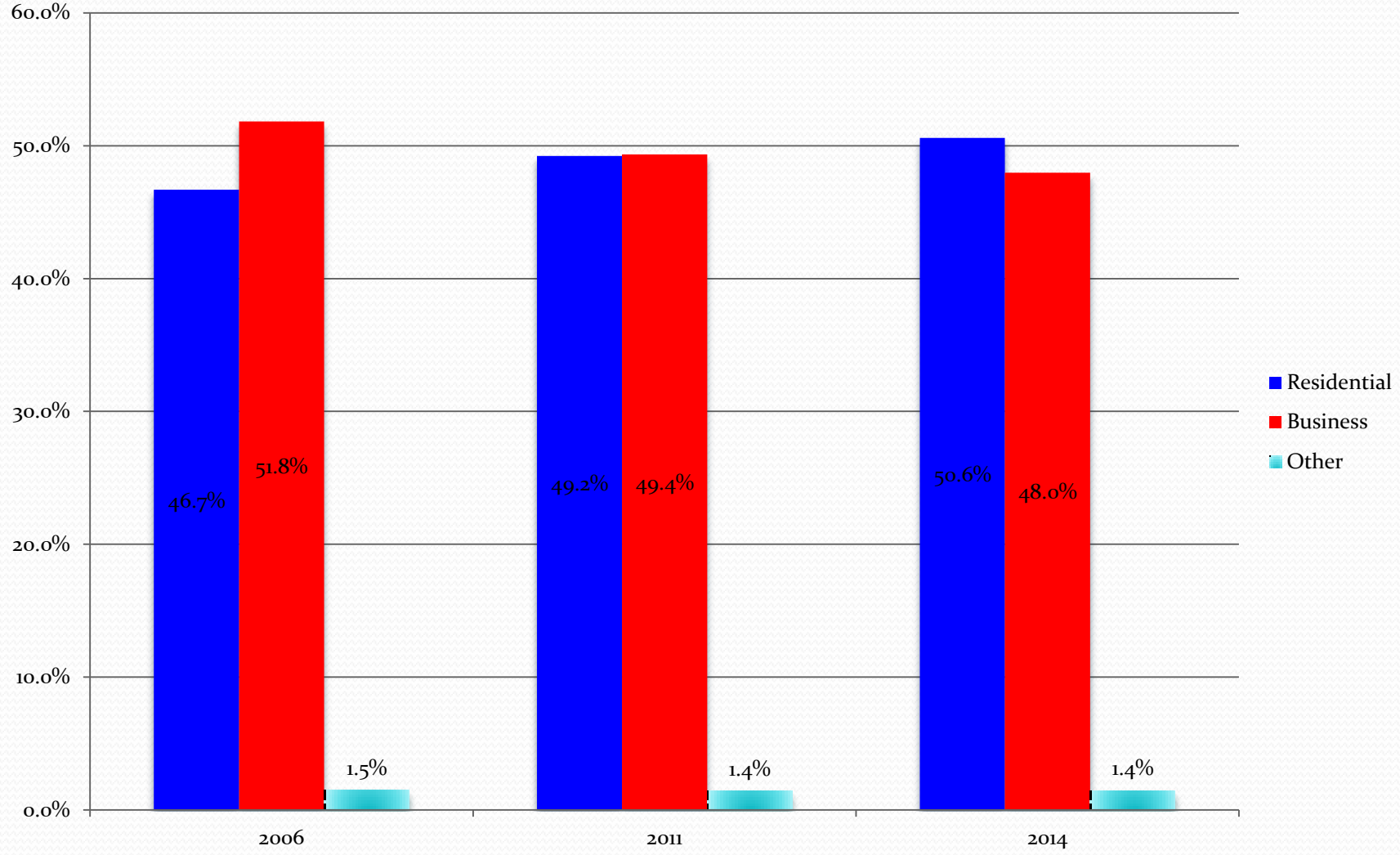
Objective:

- Reduce the relative burden of taxes on the business sector

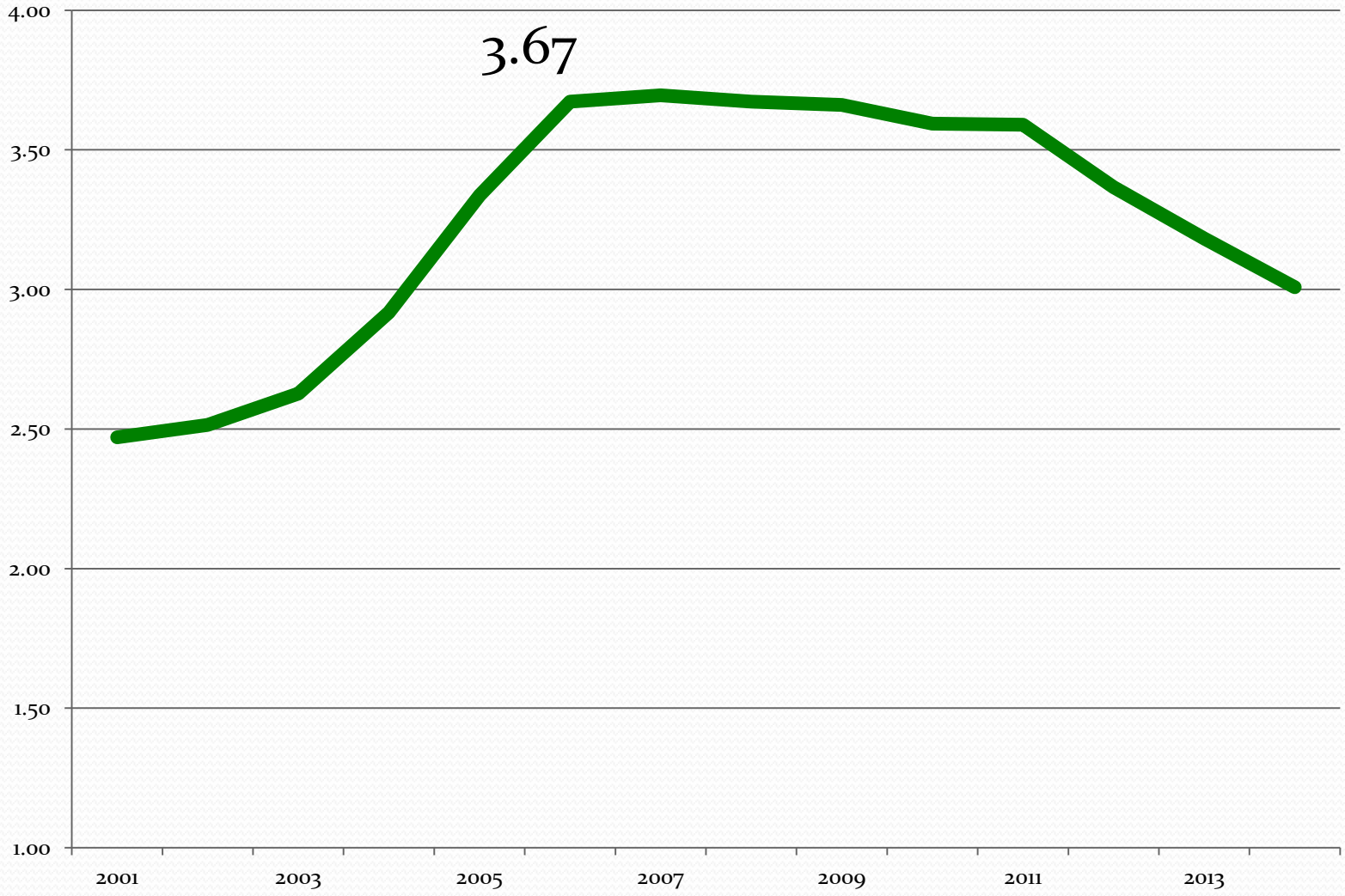
Mechanism:

- 2007-2011 - Lower the business tax ratio (i.e. ratio of business tax rate to residential tax rate) – target ratio 3:1
- 2012-14 – Lower business tax share to 48%

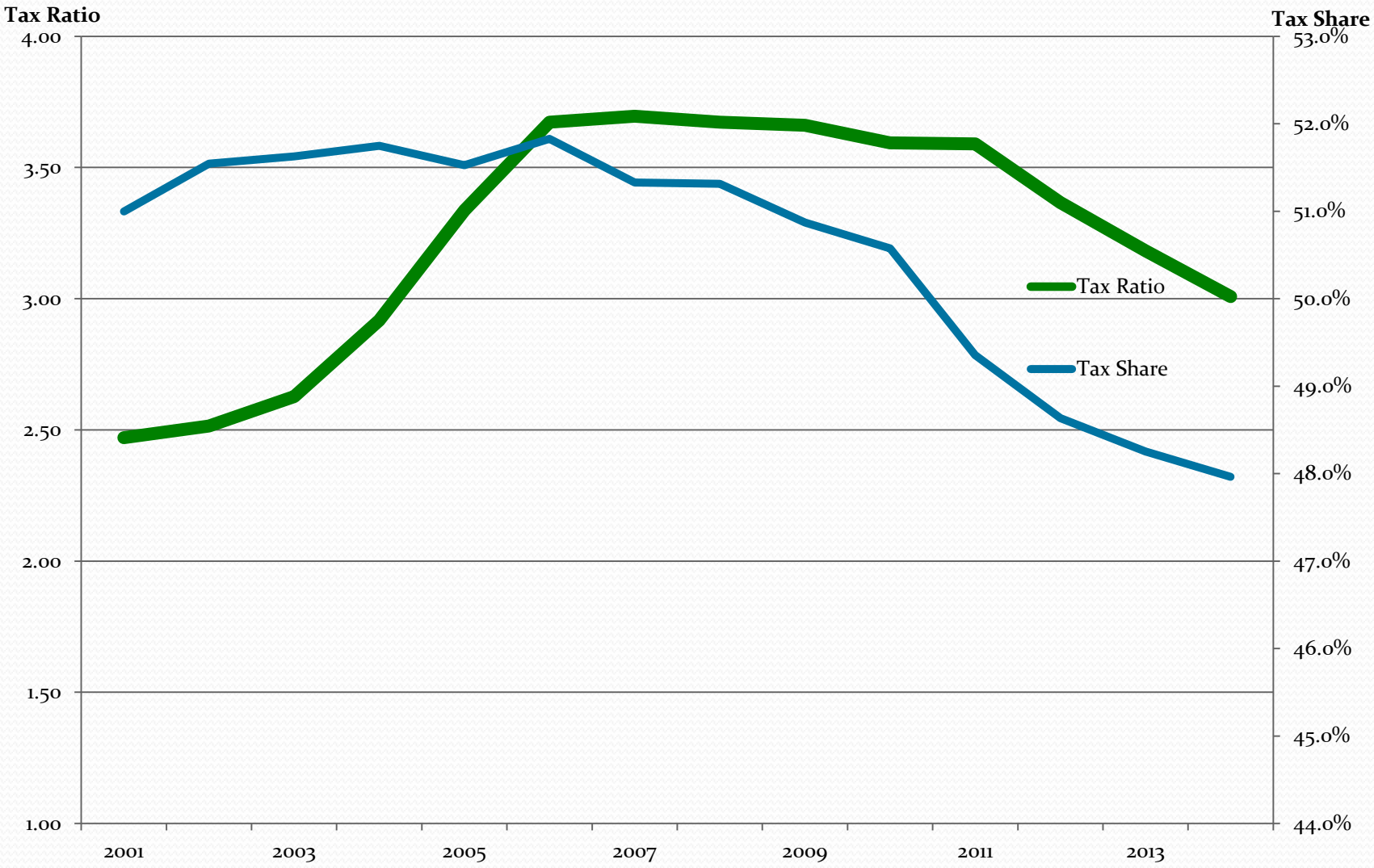
Distribution of Property Taxes By Tax Class



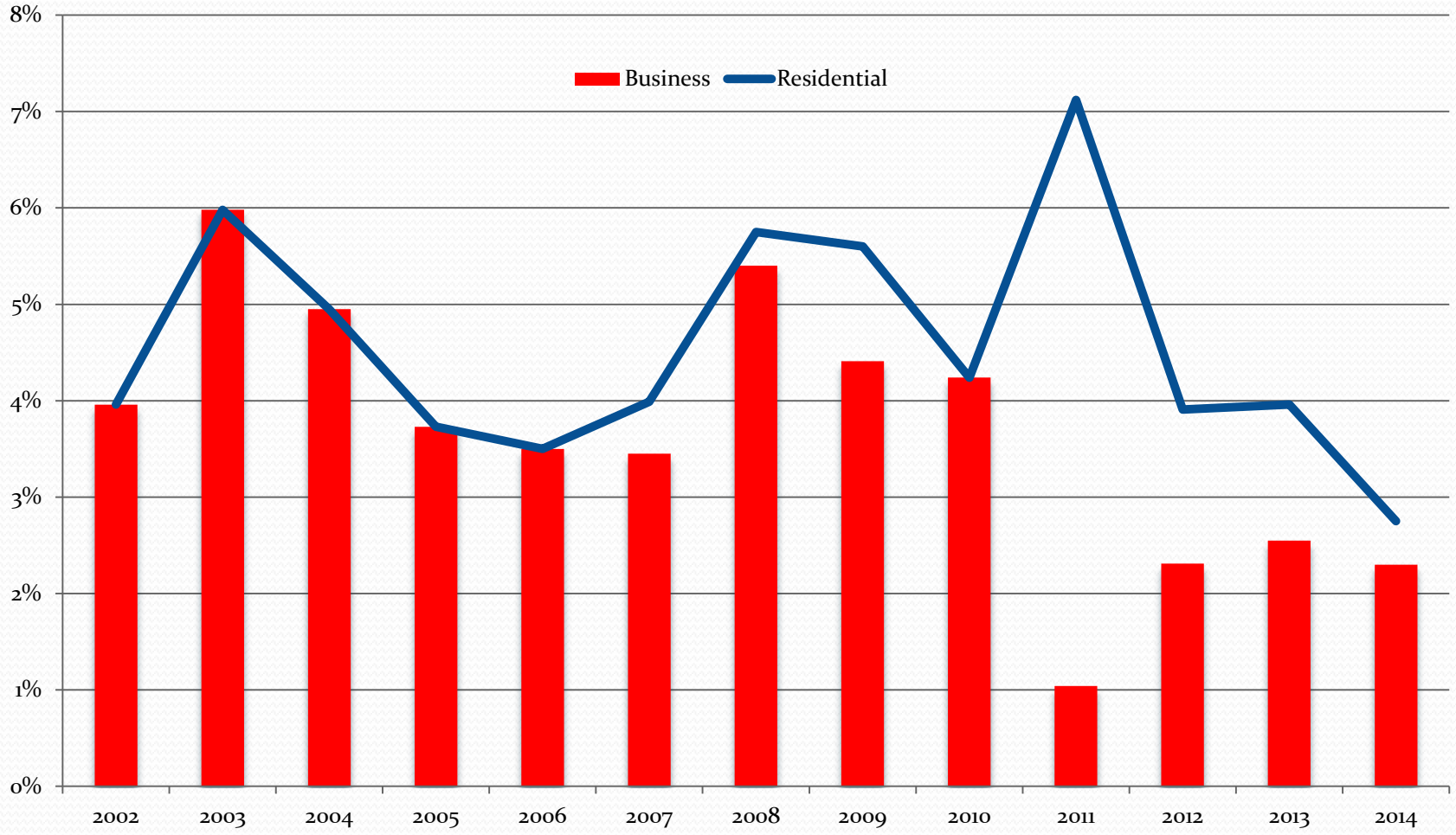
City Business Tax Ratio



Comparison of Business Tax Share and Tax Ratio

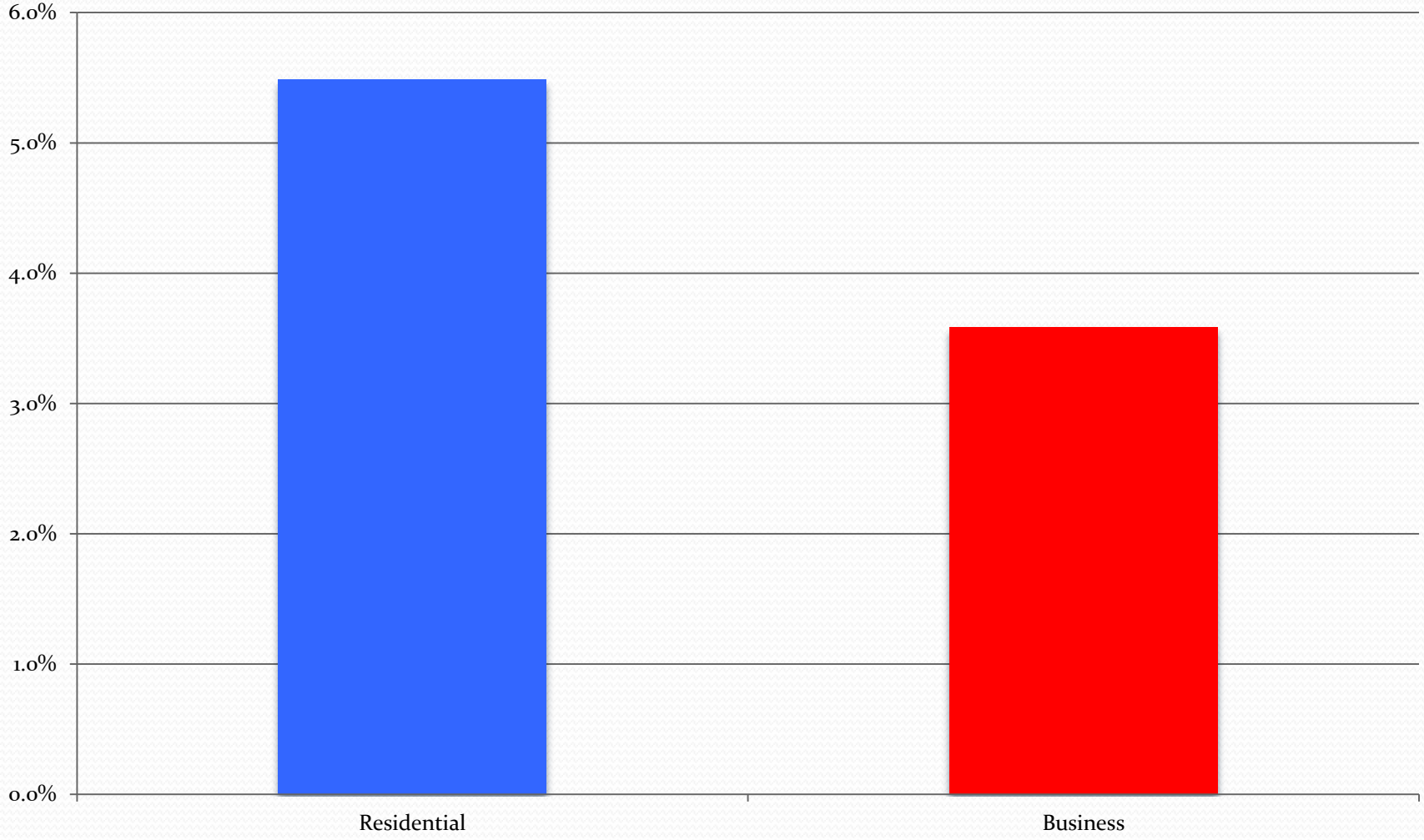


Annual Average Increase in Property Taxes By Type of Property



Average Annual Increase in Taxes By Tax Class

2007 - 2014



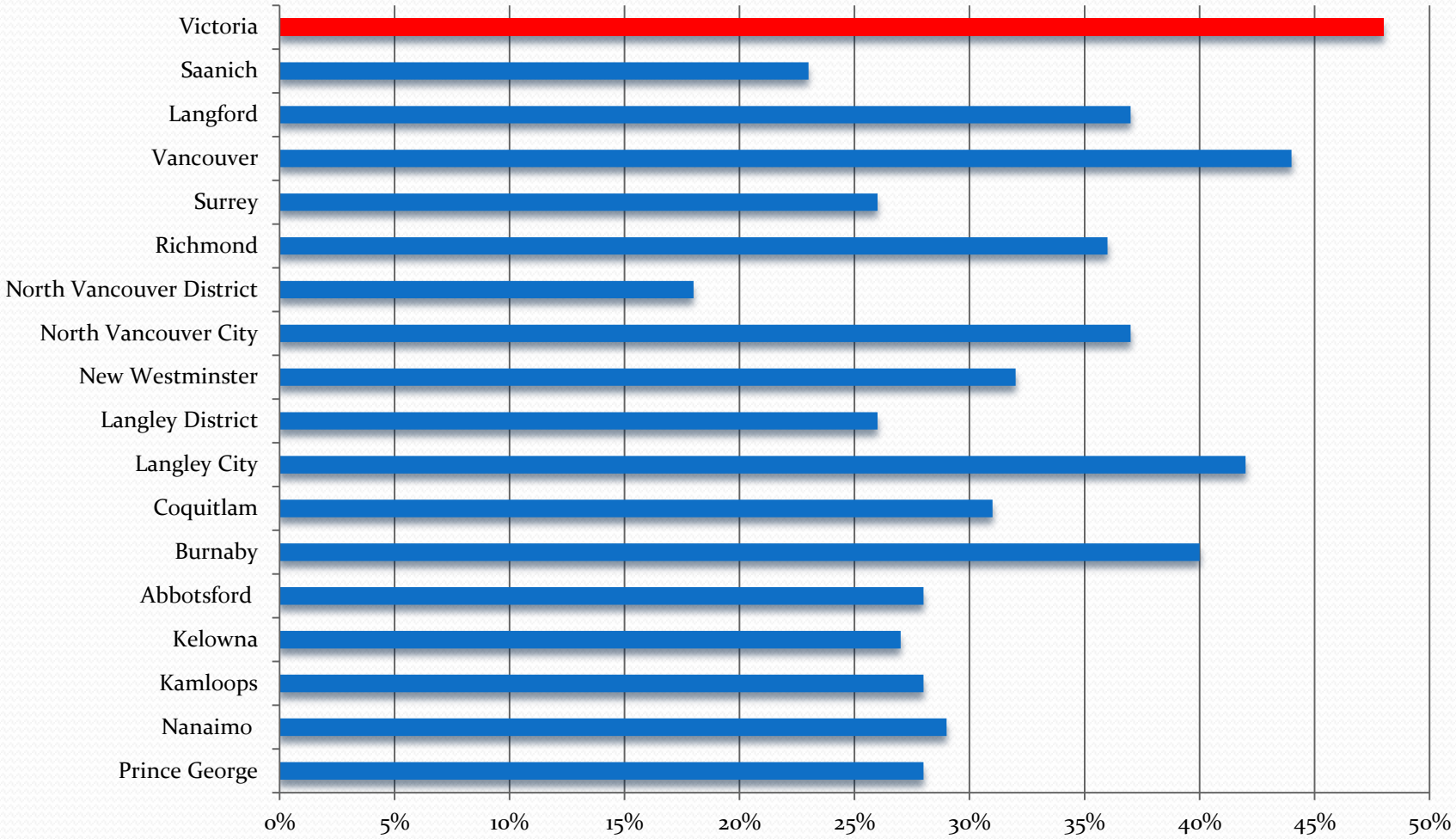
Should Business Share be Reduced Further?

What is the right share?

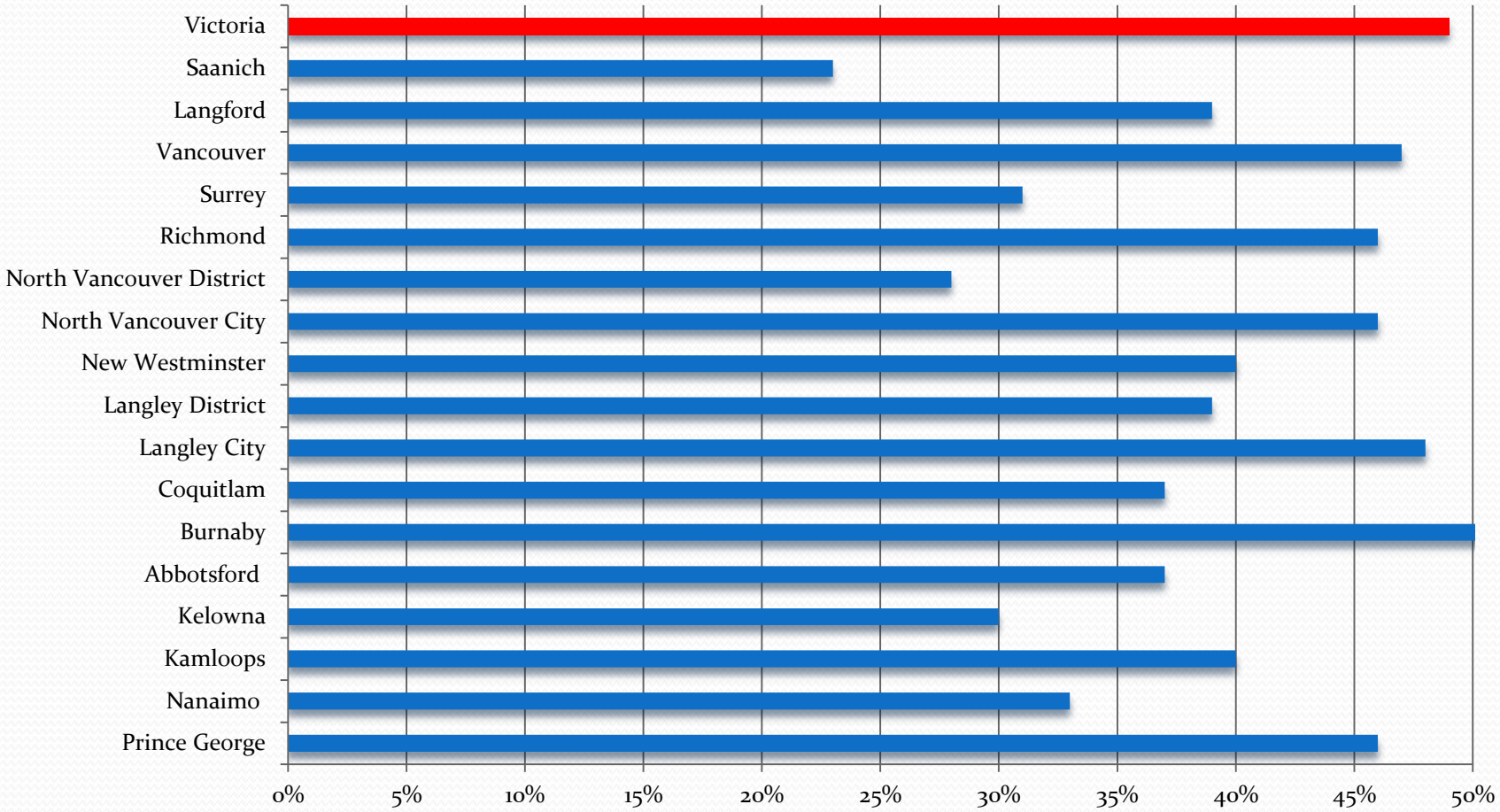
- No simple, widely acceptable percentage
- Monitor key indicators
  - Comparisons to Other Communities
  - Economic Indicators
- Adjust cautiously

Comparisons to Other Communities

Business Taxes as a Share of Total Municipal Taxes - 2014

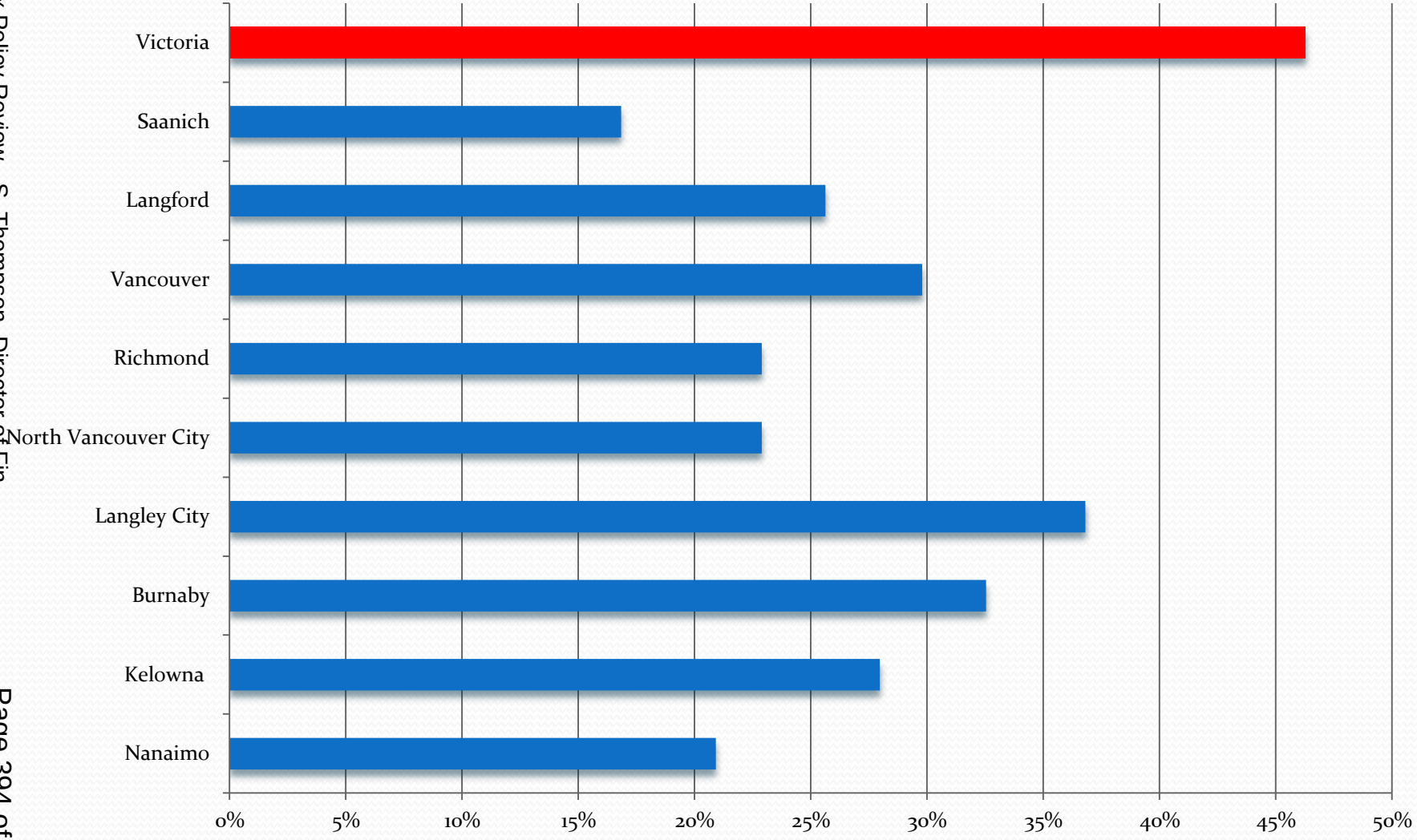


Non Residential Taxes as a Share of Total Municipal Taxes - 2014

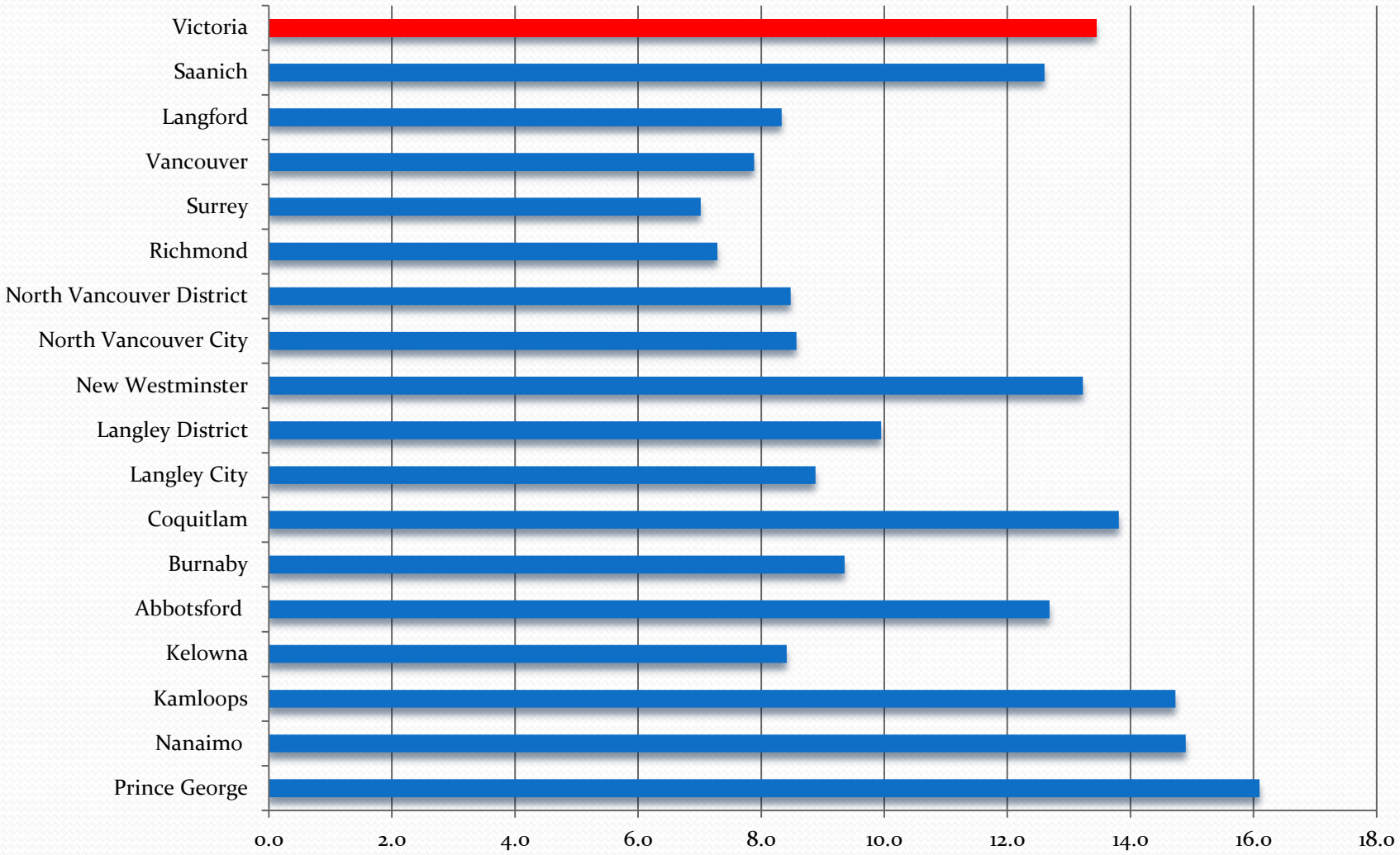


Ratio of Class 6 to Class 1 Improvements

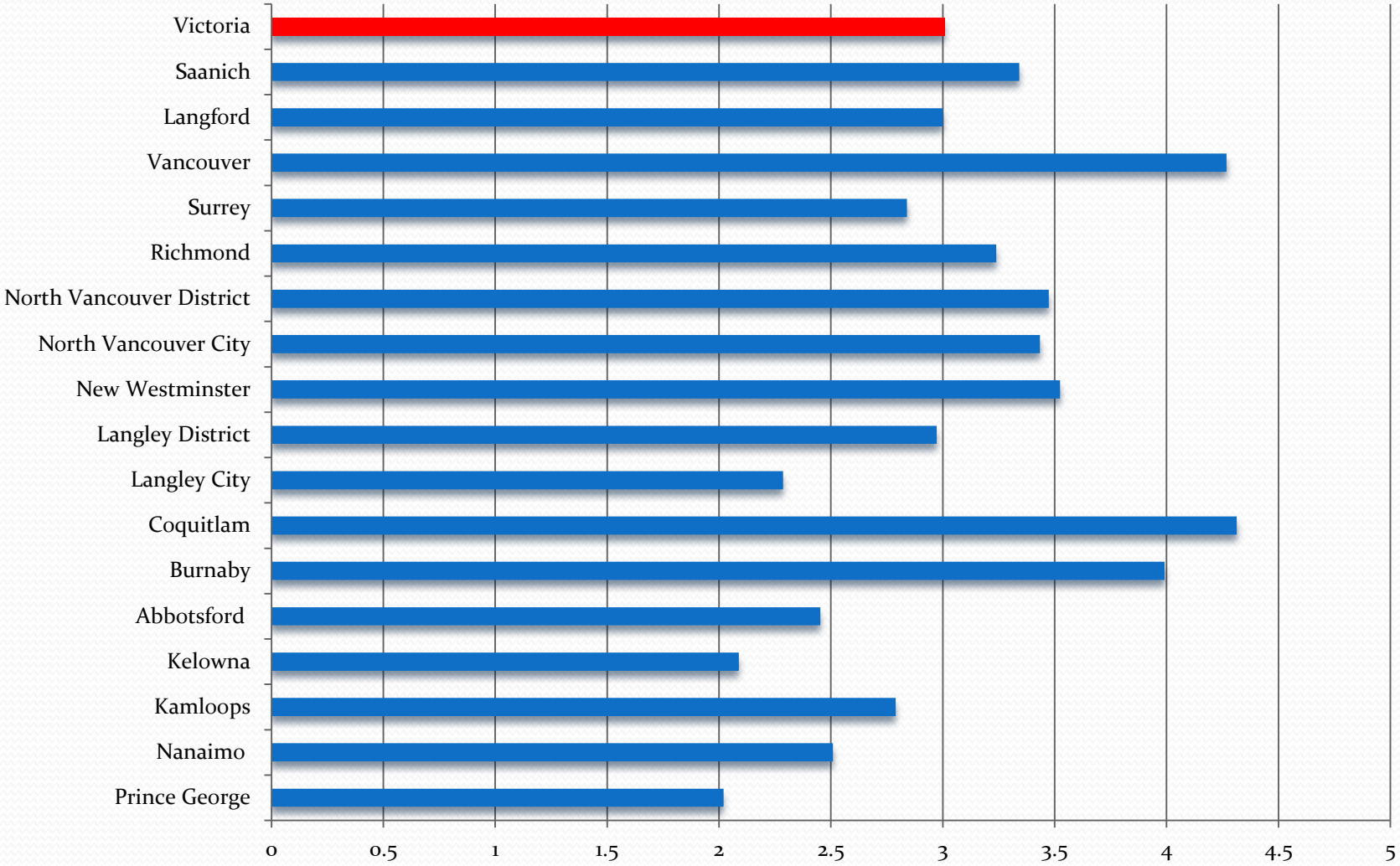
(General Taxable Values 2014)



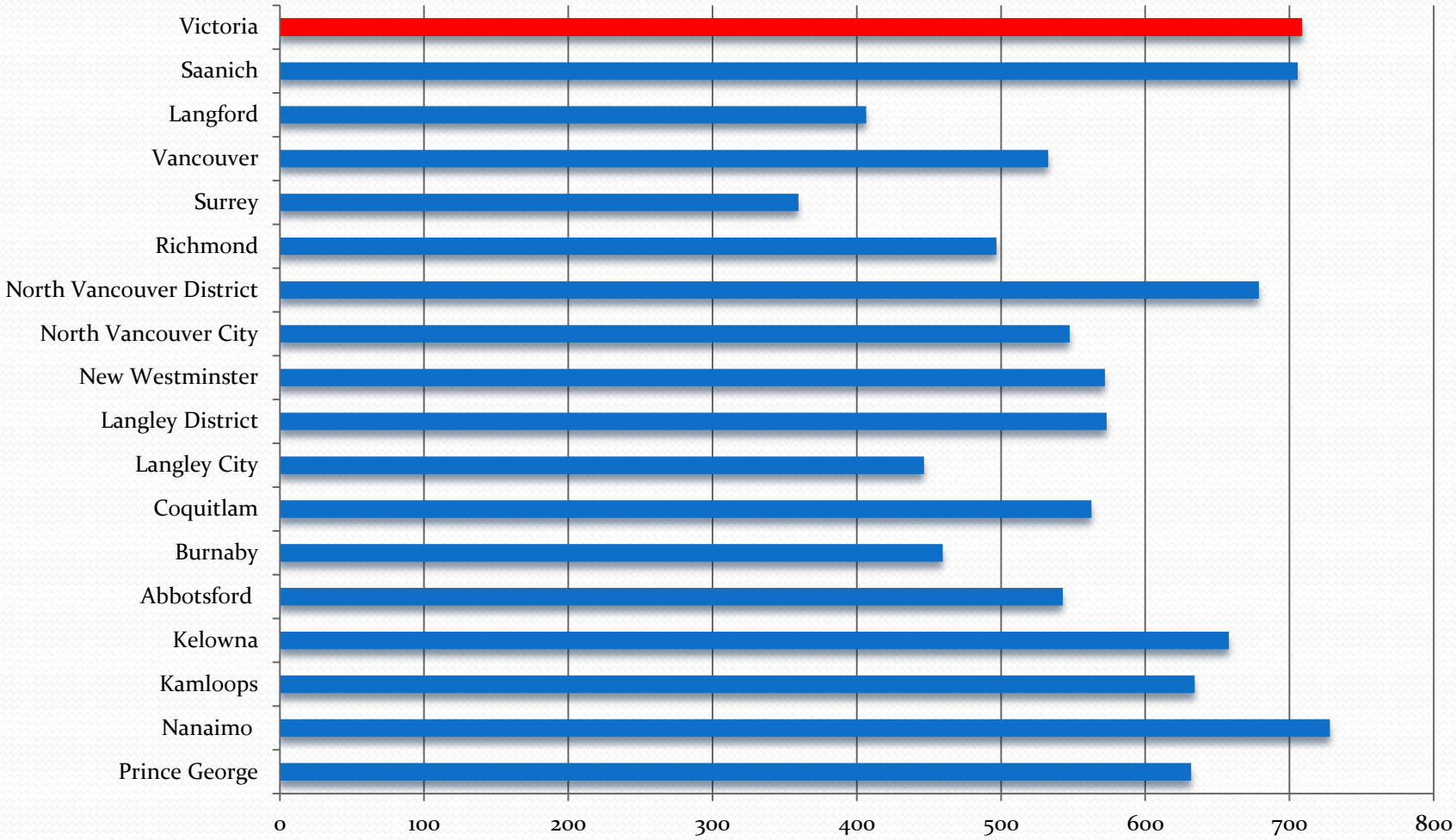
Municipal Business Tax Rate 2014



Municipal Business Class Tax Ratio 2014

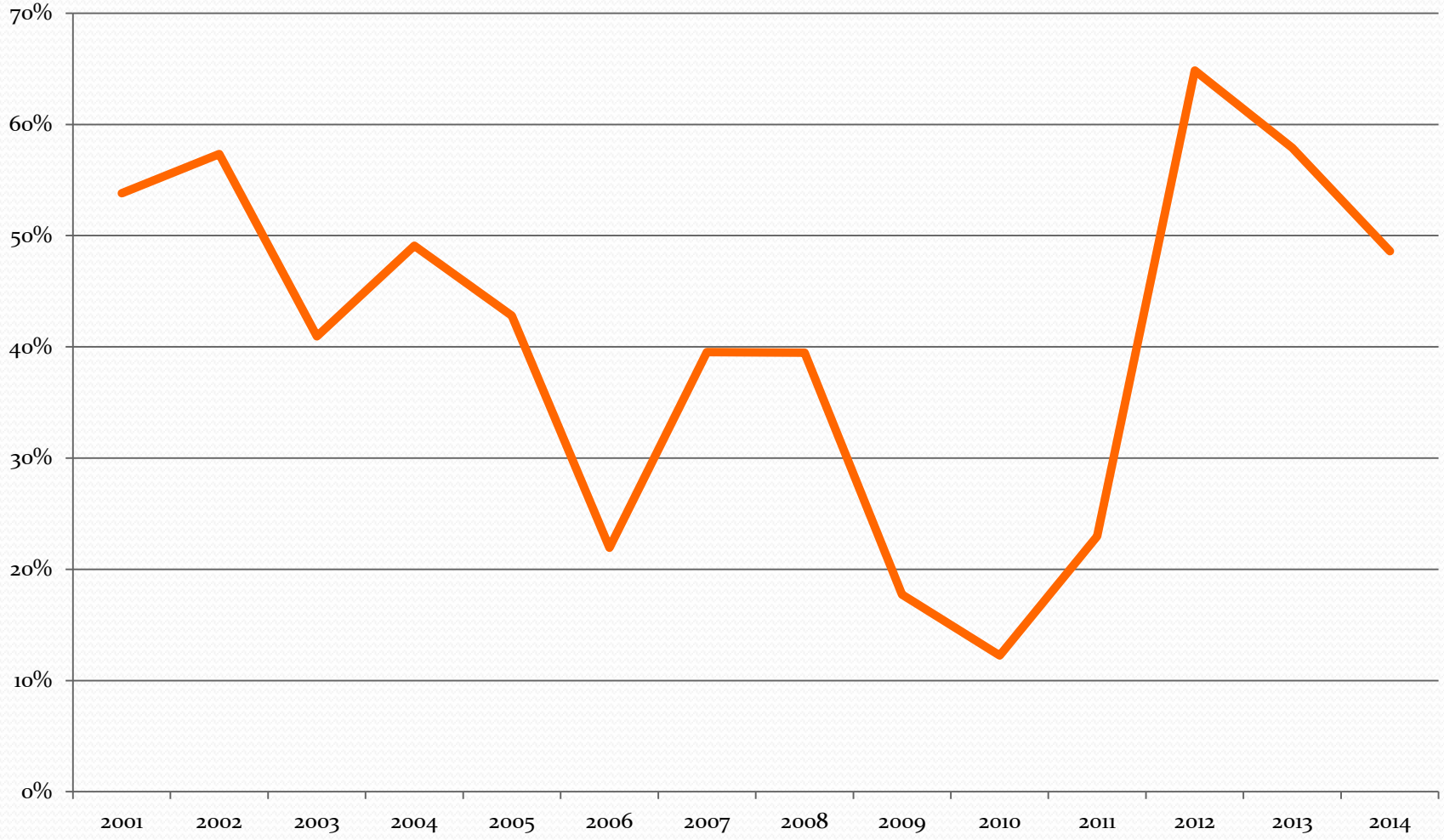


Municipal Residential Taxes per Capita - 2014

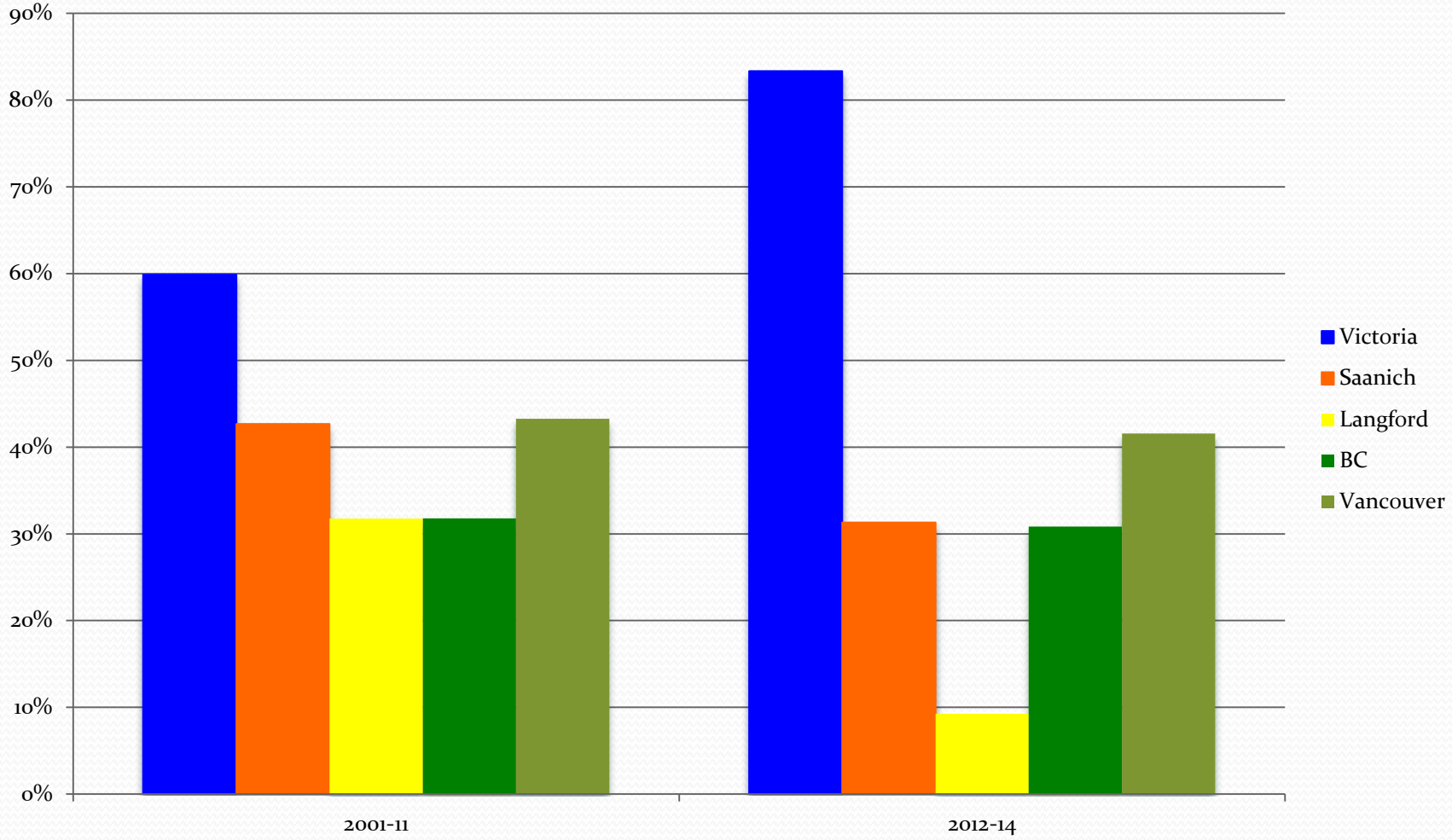


Economic Indicators

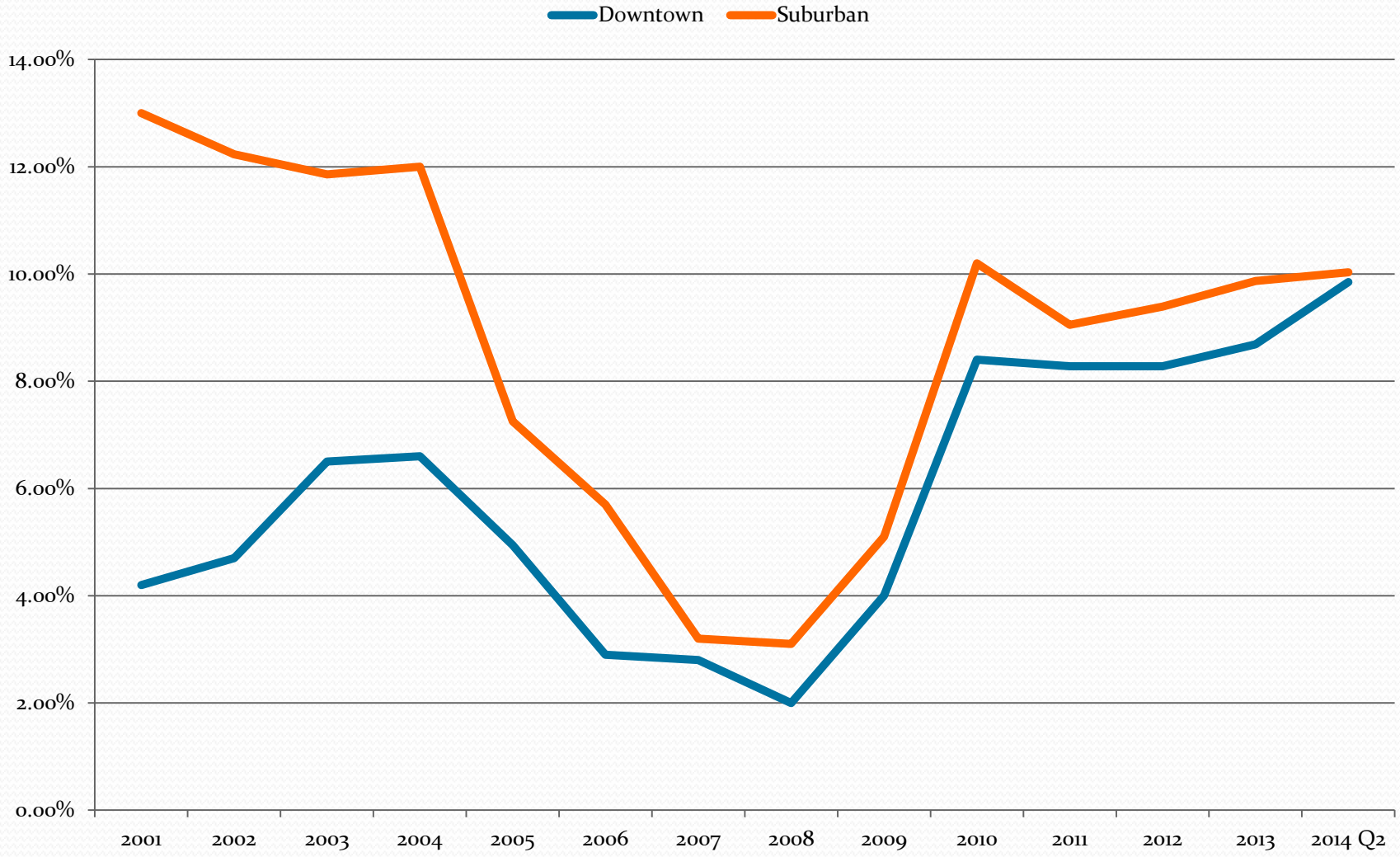
Value of Commercial Building Permits - Victoria as a share of CRD



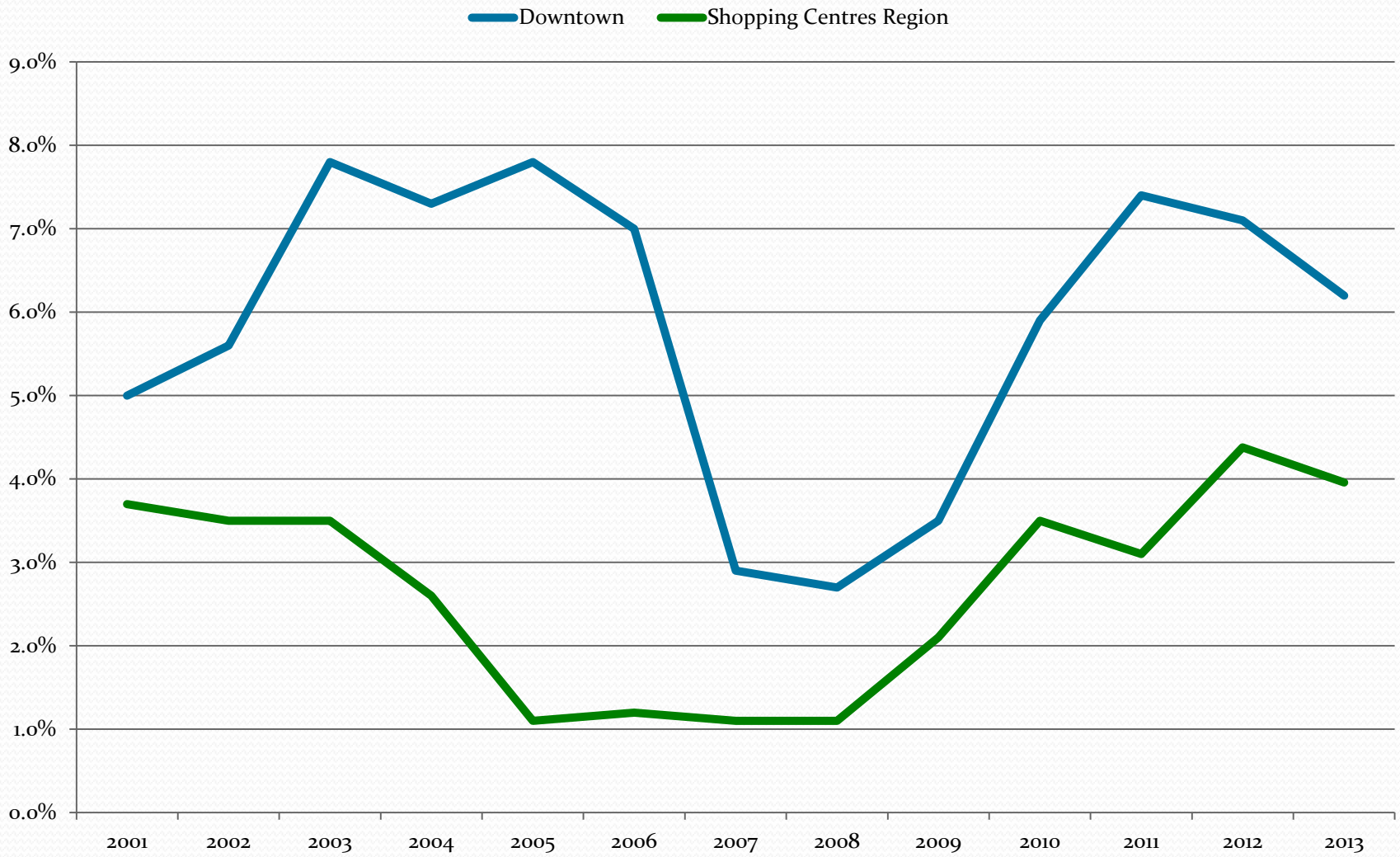
Ratio of the Value of Commercial to Residential Building Permits



Vacancy Rates - Office Buildings



Retail Vacancy Rates (Colliers)

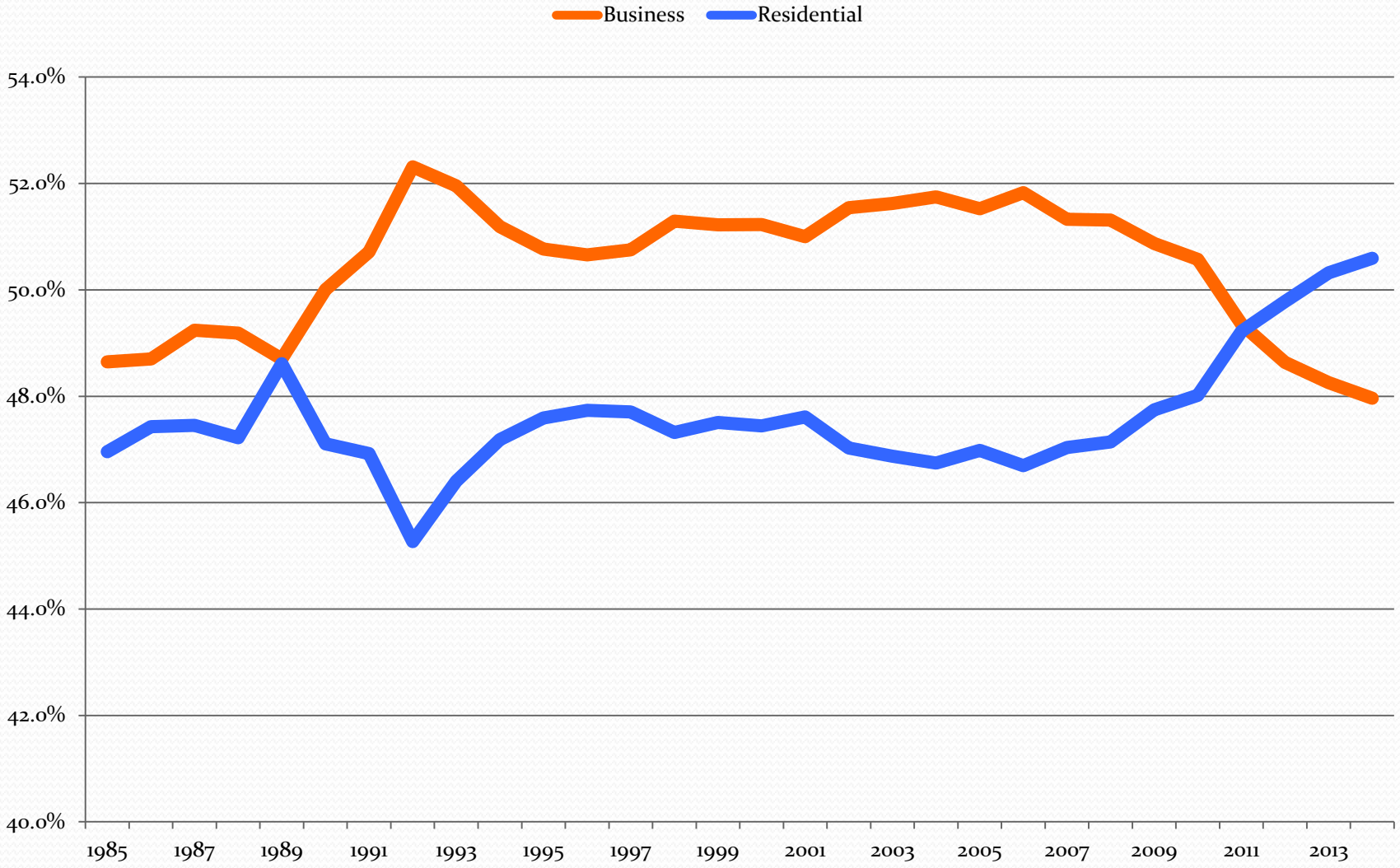


Other Considerations

- Benefits Received by Business
- Accountability – residents vote

Conclusions

City of Victoria Share of Taxes

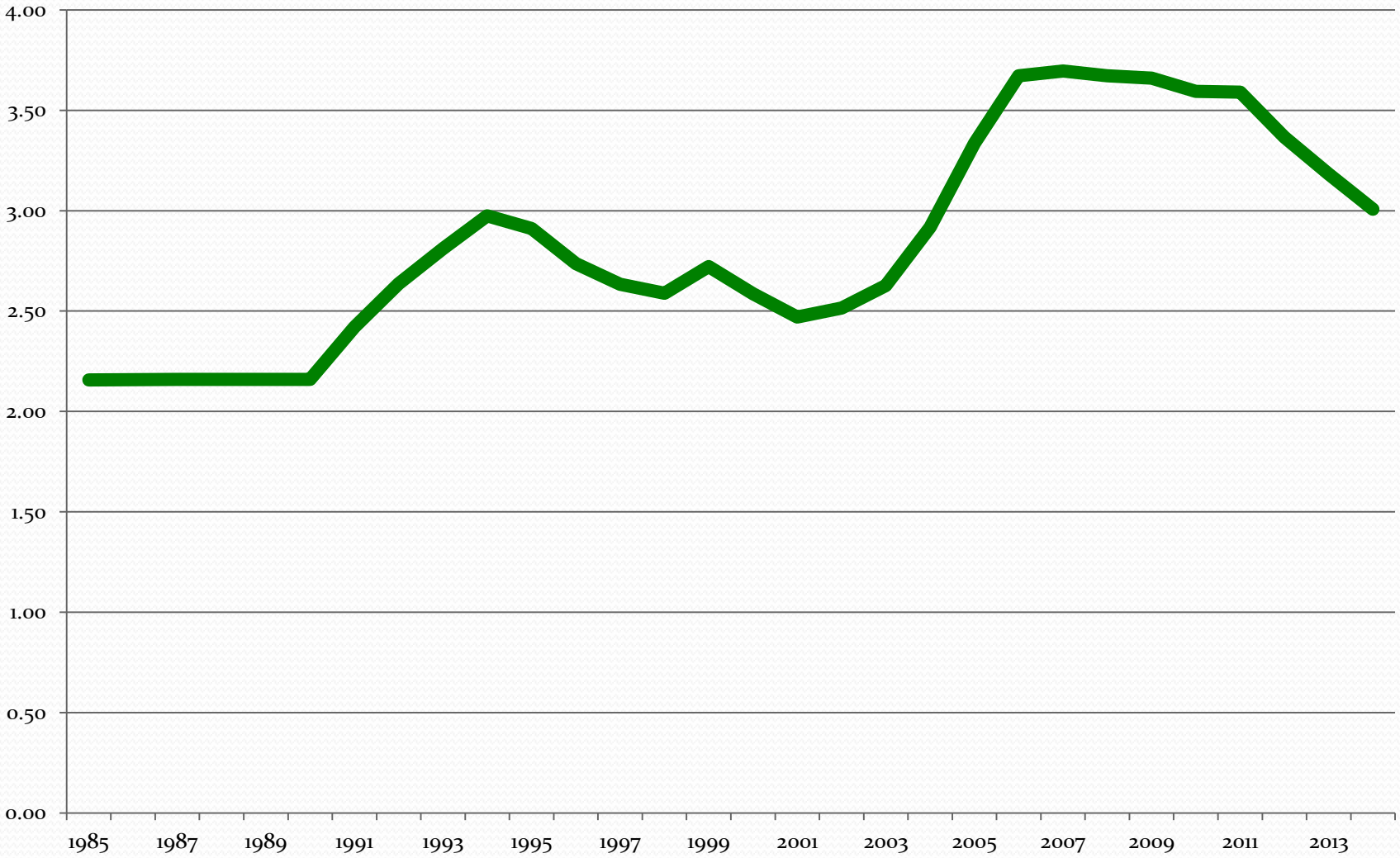


Conclusions

- No compelling case for further reduction in business share
  - Business share lowest ever
  - Share consistent with core city
  - Residential taxes relatively high and have increased significantly in recent years
  - Business investment picture has improved (but vulnerability in sub-sectors)
- Focus on policies that benefit all taxpayers e.g. limit increase in total taxes and fees; improve efficiency in service delivery.
- Continue to monitor key indicators at least once every four years

Appendix

City of Victoria Business Class Tax Ratio



CITY OF VICTORIA

Governance and Priorities Committee Report
For the Meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 9, 2015
From:	Susanne Thompson, Director, Finance		
Subject:	Reserve Fund Policy Review Update		

Executive Summary

The purpose of this report is to provide an update on the reserve fund policy review.

As part of the financial planning process, a review of the City's Reserve Fund Policy was initiated. This review includes determining whether the purpose of each reserve fund is still relevant, as well as determining target balances for each reserve.

Based on analysis to date, preliminary findings are that in general, the City's reserve balances and policies appear to be strong in addressing what is known. If what is included in the 2014-2033 capital plan were the only capital needs, the City could likely focus on maintaining reserves rather than building them up. However, there is a significant element of unknown capital needs in relation to facilities that is not contained in the current capital plan. A facilities assessment would reduce this information gap and enable analysis to determine adequate funding levels for the Buildings and Infrastructure Reserve.

The reserve fund policy review is scheduled to be finalized in February and a report will be brought to Council in March.

Recommendation:

That Council direct staff to report back in March.

Respectfully submitted,

Susanne Thompson
Director, Finance

Report accepted and recommended by the City Manager: _____

Date: January 15, 2015

Purpose
The purpose of this report is to provide an update on the reserve fund policy review.

Background
As part of the financial planning process, a review of the City's Reserve Fund Policy (attached as Appendix A) was initiated with the assistance of an external consultant, FCS Group. This review includes determining whether the purpose of each reserve fund is still relevant, as well as determining target balances for each reserve.

The City's reserves were established by bylaw under section 188 of the *Community Charter*. The legislation requires that money in a reserve fund must be used for the purpose for which the fund was established. However, Council can make changes to reserves funds, including eliminating them, if the amount in a reserve is greater than what is required for the purpose for which the fund was established. There are some restrictions to this, including that funding in a capital reserve must be transferred to another capital reserve.

The Reserve Fund Policy outlines the purposes for each reserves and how the funding can be allocated. The majority of the City's reserves are used for capital purposes.

Historically, the City's capital plan has been funded by a combination of property taxes, utility user fees, grants, debt and reserves. Approximately one third of the City's typical $30-$35 million capital budget has been funded from reserves. Typically, vehicle and equipment replacements, remediation of City properties, and some building upgrades are funded from reserves. Larger projects, such as a bridge replacement or construction of an arena, have primarily been funded through debt and grants.

Issues & Analysis
The focus of the review to-date has been on the capital reserves as they are a significant funding source for the capital budget. The following summarizes some of the considerations for policy development and target balances.

Policy development and purpose of reserves
Policies involve an element of choice. The goal of the policy review is to research best practices and develop the policy rationale to guide decision making.

A reserve is intended to accumulate a fund balance for a defined future need or a potential need. A reserve that is always growing and never used is not accomplishing its purpose. Particularly for capital reserves, fluctuations mean that the reserve is being used and is needed.

In general, there are two primary purposes of reserves: capital funding mechanism (save up in advance of need to smooth impact of large investments); and to address risks of various types. One area of overlap between risk reserves and capital reserves is when insufficient information is available about capital needs. Capital reserves offer both a vehicle for planned funding of known capital needs and also a contingency in the event of capital needs that are large, urgent and unplanned. Therefore, target balances for capital reserves need to be higher in the absence of complete information.

Target balances
The review includes determining what the target reserve fund balances should be. The goal is to develop a methodology for determining the minimum and maximum balances for each reserve, rather than determining a fixed amount. The research underway includes analysis of the following:

1) comparisons with other jurisdictions, 2) Government Finance Officers Association best practices, 3) City's own policies and historical commitment to reserve funding, 4) balancing of planned reserves against known capital needs (smoothing the demand), and 5) total existing capital assets to assess the risk of the unknown capital needs.

Preliminary review findings

Two preliminary findings are:

1. To be able to assess the overall risk and funding needs, a facilities assessment is critical as it will identify and quantify currently unknown needs for facilities such as the library, police headquarters, City Hall and curling club. The unknown is too large at the moment to be able to reliably determine an appropriate target balance for the Buildings and Infrastructure Reserve.
2. Based on the potential size of the unknown needs, it is prudent to continue to set aside funding in reserves.

Timeline

This review is scheduled to be finalized in February and a report will be brought to Council in March. That report will recommend potential changes to reserves as well as a methodology for determining target reserve fund balances for Council's consideration. As a result of insufficient information regarding facilities, the March report will be unable to outline an exact target balance for the Buildings and Infrastructure Reserve. However, the methodology can be used to calculate that target balance once a facilities assessment has been developed. In addition, the facilities assessment information will be incorporated into the 2016-2035 Capital Plan.

Conclusions

Based on analysis to date, preliminary findings are that in general, the City's reserve balances and policies appear to be strong in addressing what is known. If what is included in the 2014-2033 capital plan were the only capital needs, the City could likely focus on maintaining reserves rather than building them up. However, there is a significant element of unknown capital needs in relation to facilities that is not contained in the current capital plan. A facilities assessment that identifies all these capital needs would reduce this information gap and enable analysis to determine adequate funding levels for the Buildings and Infrastructure Reserve.

Recommendation

That Council direct staff to report back in March.

Appendix A

Department of Finance ***Policies and Procedures***	
Reserve Funds	Policy #
Authorized by: City Council	Date of issue: September 30, 2004 Revised: September 2, 2014

Purpose

The purpose of the Reserve Fund Policy is to provide guidance with respect to the development, maintenance, and use of City Reserve Funds.

Guiding Principles

All Reserves Funds must be established, maintained and used for a specified purpose mandated by this policy, statute, or City by-law.

Annual operating surpluses are to be transferred to the Equipment and Infrastructure Reserve or the appropriate Financial Stability Reserve in each fund and used in accordance with the priorities outlined in this policy.

The City shall strive to develop appropriate reserves to meet future financial obligations with respect to City equipment and infrastructure, fiscal needs and employee benefit obligations.

Primary Objectives

Reserves shall be established and expended to:

1. **Ensure Stable & Predictable Levies**
   The City recognizes that unstable and unpredictable tax levies can adversely affect residents and businesses in Victoria. In order to maintain stable and predictable levies, the City will maintain sufficient reserves to buffer the impact of unusual or unplanned cost increases and revenue reductions over multiple budget cycles.

2. **Provide for Operating Emergencies**
   The City is exposed to unusual operating emergencies resulting from inclement weather, catastrophic events, law enforcement issues, environmental hazards and so on. It may not be feasible, or cost-effective, to absorb the costs of such emergencies during one budget cycle. The City will maintain adequate reserves to avoid such emergencies, extensive service interruptions, and prevent risks to infrastructure and public safety.

3. **Finance New Capital Assets**
   Use of Reserves for financing new capital assets is an effective means of matching one-time funds to one-time capital projects. In addition, the City requires financial resources to quickly respond to opportunities that could provide capital infrastructure through private sector partnerships, and other alternative service delivery methods.

4. **Safeguard and Maximize Existing Assets**
   The City has an inventory of specialized machinery, equipment and technology systems necessary for the efficient delivery of services to the public, which needs to be replaced on well-defined lifecycle standards. The City also has a need to provide insurance against unforeseen losses of these and other assets and claims against its assets where it is found legally liable.

Appendix A

General Criteria

Reserves shall be established, maintained and used in accordance with the following General Criteria.

1. **Least Cost to Taxpayers**
   Reserves should support the least cost alternative in the long-term for delivering standards of service adopted by Council. This means they will be used to:

   - Buffer the effects of large cost increases and revenue reductions and allow time to adjust City service costs or revenue generation to avoid unnecessary tax increases, and
   - Provide internal capital financing which is more cost-effective than external borrowing or leasing.

2. **Fairness & Equity to Taxpayers**
   Reserves should serve to balance the impact of the operating costs and capital costs, on both current and future taxpayers by:

   - Applying Reserves derived from one-time revenue sources to one-time capital or operating projects.
   - Applying Reserve Funds and current revenues in a ratio, which recognizes the appropriate sharing of savings from current taxpayers with contributions from future taxpayers (this will likely require repayment of all, or a portion of, Reserves from future rates or user fees).

3. **Meets Statutory and Legal Requirements**
   Reserves must meet the requirements of the Community Charter, Federal statutes, City By-Laws or any other contract or judgment enforceable by law.

4. **Meets Accounting Standards**
   Reserves must meet generally accepted accounting principles (GAAP) and accounting standards applicable to local governments (PSAB).

Policy Administration

The Director of Finance shall be responsible to:

- Ensure the Reserve Funds are established and maintained in compliance with this Policy.

- Conduct an annual review of the Reserve Funds and report the results to City Council.

- On an "as required basis", recommend revisions or amendments to this Policy, due to changes in applicable statutes, accounting standards, or economy.

Appendix A

Administrative Criteria

1. **Unique Corporate Purpose**
   Reserves must have a unique and specific corporate purpose. Every effort must be made to:
   - Reduce complexity by combining amounts with similar purposes
   - Eliminating those with redundant or outdated purposes, and
   - Re-focus departmental reserves to corporate purposes and strategic plans.

2. **Interest and Calculation Method**
   All Reserves Funds will earn interest each year. Interest will be calculated based on the audited fund balance at the end of the prior year. The interest rate used will be the determined on an annual basis.

3. **Minimum and Maximum Balances**
   A minimum and maximum balance shall be established for each Reserve Fund. A minimum balance will ensure that each fund is not depleted to the degree that it is no longer able to serve its intended purpose. A maximum balance ensures that it does not grow beyond its intended purpose.

4. **Repayment Period**
   A time period shall be specified for the repayment or replenishment of each Reserve Fund to its specified minimum or maximum balance.

5. **Business Case Requirements**
   A business case shall be provided specifying the purpose, benefits and method of repayment for each proposed Departmental use of a reserve fund, except as provided by statute, City by-law or Council policy. A business case will be subject to the applicable budget, ranking or other prioritization process, and Council approval.

Appendix A

Reserve Funds

City of Victoria Reserve Funds are established under the authority of the Community Charter and are each supported by a bylaw that outlines the purpose and use of each fund.

A description of each of the different types of Reserve Funds covered by this policy is outlined below:

Financial Stability Reserves

Description
Financial Stability Reserves are required to ensure the ongoing financial stability and fiscal health, of all City Entities. Each reserve is funded from the year-end surplus from the appropriate entity (i.e. Operating Fund, Police Department, Water Utility, and Sewer Utility).

Guidelines for Using Funds
A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from the Financial Stability Reserve Funds.

All appropriations from Financial Stability Reserves are to be considered in accordance with the following priorities.

1. **Operating and Environmental Emergencies**
   - These appropriations are the highest priority and are based on public safety and demand nature of the expenditure.

2. **Revenue Stabilization and Operating Contingency**
   - These appropriations are intended to stabilize the impacts of cyclical revenue downturns and operating cost increases that are largely temporary and not within the City's ability to adjust in the short-term.

3. **Innovation Fund**
   - As an incentive to encourage creativity and innovation, appropriations may be made to fund departments and/or workgroups that would like to explore innovative and creative solutions directed towards making the Corporation more efficient and effective.
   - Business cases requesting use of these funds require that the replenishment methods be specified. These would include future departmental cost or service level adjustments or additional revenue generation necessary to "top up" the accounts over a three-year period.

Appendix A

Equipment and Infrastructure

Description

Equipment and Infrastructure Reserves are established to create a funding source for buildings and infrastructure capital projects, new equipment purchases and capital equipment replacement programs. Currently, the city has established equipment and infrastructure reserve funds for the following purposes:

- **Police Vehicles, Equipment and Infrastructure** – This reserve is to fund the replacement and purchase of Police vehicles and equipment. This reserve is funded by annual depreciation contributions included in the Police operating budget.
- **Police Emergency Response Team Vehicles and Equipment** - This reserve is to fund the replacement and purchase of equipment for the Regional Emergency Response Team. The reserve is funded by the annual surplus from the ERT Program.
- **Victoria Conference Centre Equipment and Infrastructure** – This reserve was established to provide a source of funds to properly maintain the Conference Centre building and furnishings. This reserve is also used to fund equipment replacements and new equipment purchases. The reserve is funded by the annual surplus from the Conference Centre.
- **City Equipment** - This reserve is to fund the replacement and purchase of City equipment. This includes equipment replacement programs, computer equipment and software, office furniture, etc. This reserve is funded by annual depreciation contributions included in the City operating budget.
- **City Vehicles and Heavy Equipment** – This reserve is to fund the purchase and replacement of City vehicles and heavy equipment. This reserve is funded by annual depreciation contributions included in the City operating budget.
- **City Buildings and Infrastructure** – This reserve was established to provide a source of funds to properly maintain City Buildings and Infrastructure. This reserve is funded by annual budget contributions that are increasing by $500,000 per year until the reserve attains an adequate funding level. This increase is subject to annual Council approval.
- **Parking Services Equipment and Infrastructure** – This reserve was established to provide a source of funds to properly maintain the City parkades. The reserve is also used to fund Parking Services equipment replacement and new equipment purchases. This reserve is funded from annual depreciation contributions included in the City's operating budget.
- **Multipurpose Equipment and Infrastructure** – This reserve was established to provide funding for equipment replacement and maintaining the Multipurpose Facility. This reserve is funded by annual depreciation contributions from the City's operating budget and RG Properties.
- **Recreation Facilities Equipment and Infrastructure** – This reserve was established to provide a source of funds to properly maintain City Recreation Facilities. The reserve is also used to fund equipment replacement and new equipment purchases for City Recreation Facilities. This reserve is funded from user fees assessed on tickets to events and facility rentals.
- **Archives Equipment** – This reserve is to fund the purchase and replacement of Archives material and equipment. The funding for this reserve comes from grants and donations.
- **Strategic Planning Initiatives** – This reserve was established to provide a source of funds to help implement Corporate Strategic Planning Initiatives.

Appendix A

- **Artificial Turf Field** - This reserve was established to provide a source of funds for replacement of the Finlayson field carpet and amenities and for future development of artificial turf fields. This reserve is funded from the fees collected from the rental of the Finlayson field.
- **Gas Tax -** The Governments of Canada, British Columbia and the UBCM entered into the Gas Tax Agreement on September 19, 2005. The Agreement is focused on achieving three environmental sustainability outcomes: reduced greenhouse gas emissions, cleaner water and cleaner air. The Community Works Fund provides annual contributions into this reserve.
- **Water Utility Equipment and Infrastructure** - This reserve was established to provide a source of funds to properly maintain the Water Utility Infrastructure. The reserve is also used to fund Water Utility equipment replacement and new equipment purchases. The reserve should be funded by annual budget contributions from the Water Utility.
- **Sewer Utility Equipment and Infrastructure** - This reserve was established to provide a source of funds to properly maintain the Sewer Utility Infrastructure. The reserve is also used to fund Sewer Utility equipment replacement and new equipment purchases. The reserve should be funded by annual budget contributions from the Sewer Utility.
- **Stormwater Utility Equipment and Infrastructure** - This reserve was established to provide a source of funds to properly maintain the Stormwater Utility Infrastructure. The reserve is also used to fund Stormwater Utility equipment replacement and new equipment purchases. The reserve should be funded by annual budget contributions from the Stormwater Utility.

Guidelines for Using Funds

Use of equipment and infrastructure reserves is restricted to the following types of purchases:

- Major construction, acquisition, or renovation activities as defined in the Capital Asset Policy that add value to the municipal physical assets or significantly increase their useful life. Some examples include:
  - Renovation and construction projects pertaining to new or existing city buildings,
  - Renewal, replacement, enhancement or construction of city infrastructure, sewers, storm drains, water distribution systems, buildings, roads, sidewalks, traffic systems, parks, etc.
- Vehicles and heavy equipment, individual pieces of equipment and ongoing annual equipment replacement programs as defined in the Capital Asset Policy.

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from the Reserve Funds. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Appendix A

Employee Benefit Obligations

Description

Reserves for employee benefit obligations will be established where the City is incurring a retirement benefit liability or other employee related liability, which the City is obligated to pay at some future date. Current reserves established include:

- **Police Retirement Benefits** – This reserve is to fund retirement benefits (one months pay and vested sick leave) accrued to retiring Police officers. This reserve is funded by annual contributions included in the Police operating budget.
- **Police Employee Pension Buybacks** – Police employees are entitled to purchase additional pension service time related to their probation period, provided they were not covered by pension. The City is obligated to pay 50% of the cost once the employee retires or reaches 55 years of age. This reserve was established to fund the City's share of costs for employees purchasing pension service for probation periods. This reserve is funded by annual contributions included in the Police operating budget.
- **Police Pension Corporation Over Contributions** – This reserve was established to accumulate the City's share of Police pension over contributions. These amounts are payable to the employee upon retirement. This reserve is funded from pension contributions refunded to the City by the BC Pension Corporation.
- **City Retirement Benefits** - This reserve has been established to help fund retirement benefits (one months pay and vested sick leave) accrued to retiring City Employees. This reserve is funded by annual contributions included in the City's operating budget.
- **City Employee Pension Buybacks** - City employees are entitled to purchase additional pension service time related to their probation period provided they were not covered by pension. The City is obligated to pay 50% of the cost once the employee retires or reaches 55 years of age. This reserve was established to fund the City's share of costs for employees purchasing pension service for probation periods. This reserve is funded by annual contributions included in the City's operating budget.
- **City Pension Corporation Over Contributions** - This reserve was established to accumulate the City's share of Firefighter pension over contributions. These amounts are payable to the employee upon retirement. This reserve is funded from pension contributions refunded to the City by the BC Pension Corporation.

Guidelines for Using Funds

Use of funds is restricted to the purpose for which each fund was established. Funds may only be accessed to supplement funding a retirement payout.

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from these Reserve Funds. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Appendix A

Economic Development

Description
The Economic Development Reserve has been established to provide a source of funds for capital projects that relate to, or help promote Economic Development within the City of Victoria. This reserve is funded from a budget contribution based on an increase in Business License fees.

Guidelines for Using Funds
These funds are available for capital projects that relate to, or help, promote Economic Development within the City of Victoria. This may include downtown revitalization projects, tourism related projects, construction projects, etc.

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from this Reserve Fund. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Fiscal

Description
In order for the City to maintain its Financial Health and meet future fiscal obligations, the City must establish certain fiscal reserves. Currently, the City has established the following Fiscal Reserves:

- **Debt Reduction** – This reserve was established to provide a source of funds to finance internal borrowings, local improvements and paying down the City's outstanding debt. It is currently being funded from the City's share of surpluses identified in MFA Sinking Funds and payment holidays on debt issues.
- **Reserve for Insurance Claims** – This reserve was established to provide a source of funds for liability claims not covered under our Insurance Policies.
- **Working Capital** – This reserve fund was established to ensure we meet cash flow requirements, provide contingencies for unpredictable revenue sources, and provide contingencies for emergencies (such as natural disasters). Currently there is no funding source for this reserve.

Guidelines for Using Funds

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from these Reserve Funds. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Appendix A

Development Cost Charges

Description
This reserve is required by the Community Charter to account for the proceeds from development cost charges levied against new developments. The reserve is funded from the proceeds of development cost charges levied.

Guidelines for Using Funds
Use of these funds is governed by the Development Cost Charge Bylaw and restricted to the funding approved projects as allowed by that bylaw.

Note: *An Adopted Budget Bylaw is required for all appropriations from this Reserve Fund. Further, an amendment to the Development Cost Charge Bylaw is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Tax Sale Lands

Description
The Tax Sale Lands Reserve was established to account for proceeds from any sales of City land and buildings. This reserve is funded from all sales of City land and buildings.

Guidelines for Using Funds
These funds are available for building and land purchases and capital expenditures required for preparing City properties to sell (i.e. remediation, servicing, etc.)

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from this Reserve Fund. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Parks and Greenways Acquisition

Description
This reserve was established to provide a source of funds for purchasing Park Lands. It is currently funded from 10% of the proceeds of any City land sale.

Guidelines for Using Funds
These funds are available for purchasing park lands or lands to be developed into a park.

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from this Reserve Fund. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Appendix A

Local Amenities

Description
This reserve tracks and accounts for monies received from a developer, for public amenities related to specific developments (i.e. pathways, parks, docks, etc.). This reserve is funded from contributions by Developers.

Guidelines for Using Funds
Use of these funds is restricted to the purpose for which each contribution was based on.

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from this Reserve Fund. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Victoria Housing

Description
This reserve has been established to provide a source of funds to help fund housing projects including projects that fall under the Secondary Suite Incentive Program. The reserve is funded by annual contributions included in the City's Operating Budget.

Guidelines for Using Funds
Use of these funds is restricted to the funding of housing projects including those that fall under the Secondary Suite Incentive Program.

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from this Reserve Fund. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Dockside Affordable Housing

Description
This is a reserve that has been established to provide a source of funds to help fund affordable housing projects in Dockside. The Dockside Master Development Agreement outlines certain requirements around affordable housing that the developer has to meet. There is an option to provide cash instead of the affordable housing requirements. Those funds would be put into this reserve. In addition, the reserve is funded by 20% of the building permit fees applicable to the Dockside development.

Guidelines for Using Funds
Use of these funds is restricted to the funding of affordable housing projects in Dockside.

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from this Reserve Fund. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Appendix A

Climate Action

Description
This reserve has been established to provide a source of funds for funding climate mitigation and adaptation strategies that target energy and GHG reductions associated with facilities or transportation of either City-owned assets or Community public lands and services. This reserve is funded by the Climate Action Revenue Incentive Program (CARIP) grants.

Guidelines for Using Funds
Use of these funds is restricted to the funding of climate change initiatives.

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from this Reserve Fund. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Art in Public Places

Description
This reserve has been established to provide a source of funds for art in public spaces and expand opportunities for artists and members of the public to participate in the process. The Arts in Public Places policy outlines the funding formula for this reserve.

Guidelines for Using Funds
Use of these funds is restricted to the funding of art in public places initiatives.

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from this Reserve Fund. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Downtown Core Area Public Realm Improvements

Description
This reserve has been established to assist in funding improvements that tangibly and visibly improve the physical condition, appearance and function of the public realm within the Downtown Core Area and provide a public benefit to the overall surrounding area.

This reserve is funded by monetary contributions provided to the City of Victoria as part of the Density Bonus System described in the *Downtown Core Area Plan*. The *Downtown Core Area Plan* outlines the funding formula for this reserve.

Guidelines for Using Funds
Use of these funds is restricted to the funding of public realm improvements that support the objectives and policies of the *Downtown Core Area Plan*.

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from this Reserve Fund. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

Appendix A

Heritage Buildings Seismic Upgrades

Description
This reserve has been established to assist in funding a portion of the cost of seismic upgrading as part of the re-use, retrofit and conservation of eligible heritage buildings within the Downtown Neighbourhood.

This reserve is funded by monetary contributions provided to the City of Victoria as part of the Density Bonus System described in the *Downtown Core Area Plan*. The *Downtown Core Area Plan* outlines the funding formula for this reserve.

Guidelines for Using Funds
Use of these funds is restricted to funding a portion of the cost of seismic upgrading of eligible heritage buildings as described in the *Downtown Core Area Plan*.

Note: *A Council Resolution or an Adopted Budget Bylaw is required for all appropriations from this Reserve Fund. Further, a Council Resolution is required to create additional reserve fund categories, delete categories or shift funds between categories.*

CITY OF VICTORIA

Governance and Priorities Committee Report

For the Meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 07, 2015
From:	Dwayne Kalynchuk, Director of Engineering & Public Works		
Subject:	Stormwater Utility Rebate Program		

Executive Summary

The purpose of this report is to present Council with the proposed Stormwater Utility Rebate Program for adoption.

In July, 2014, Council adopted the Stormwater Utility and the final model including a credit program, as well as the Sanitary Sewer and Stormwater Utilities Bylaw. Staff advised that the rebate program would be finalized and brought forward for adoption, as it is not part of the bylaw. It is anticipated that the rebate program will educate property owners about the importance of rainwater management, and encourage residential property owners to install sustainable rainwater management features when doing landscaping or other exterior improvement work to their property.

The proposed rebate program provides a tangible up-front financial reward for Tier A residential properties (4 units or less) who undertake a rainwater management project on their property. Due to the smaller properties in this tier, ongoing credits would have been quite small and were not expected to induce much participation. This program does not apply to other property types or businesses as the Community Charter prohibits the City from providing rebates to those properties that are owned by a business; those properties can apply to the full ongoing credit program.

Once a property owner has a rainwater management project approved and completed, an automatic 10% ongoing credit will be applied to future stormwater billing (except for rain barrels) in addition to the one time rebate. The rebate program will run from April 2015 to December 15, 2017, and is proposed to be limited to $75,000 per year for a total program total of $225,000 over the three years. Upon completion of this program, staff will evaluate its performance, present the findings to Council, and adapt the program as necessary.

Recommendation:

That Council adopt the proposed Rainwater Management Rebate Program as outlined in this report, for the period of April 2015 to December 15, 2017.

Respectfully submitted,

Ed Robertson Assistant Director Public Works	Dwayne Kalynchuk, P.Eng. Director of Engineering and Public Works	Susanne Thompson Director Finance

Report accepted and recommended by the City Manager:

Date: January 13, 2015

Purpose
The purpose of this report is to present Council with the proposed Stormwater Utility Rebate Program for adoption.

Background
In July, 2014, Council adopted the Stormwater Utility and the final model, as well as the Sanitary Sewer and Stormwater Utilities Bylaw including a credit program. Part of that report outlined the Rainwater Management Incentive Program which is made up of ongoing credits available for all property types and one-time rebates for single family residential properties. The credit portion of the incentive program was adopted, as it was part of the bylaw, however the rebate portion was not part of the bylaw and had yet to be finalized. This report will complete the details of the proposed rebate program and explain how it will function. It is not included in the bylaw as it does not affect ongoing utility rates, rather is a one-time payment for work undertaken.

Issues & Analysis
The interdepartmental team that is working to develop the Stormwater Utility has concluded its work on the Rainwater Management Rebate Program; it has been developed for Tier A residential properties (4 units or less). Properties of this type will have relatively small Stormwater Utility bills where the result of a credit would be minor. The goal is to provide one-time, upfront assistance to help offset the cost of installing rainwater management facilities to go along with the 10% ongoing credit that was approved in the bylaw; it would provide a tangible reward at the time of investment for the homeowner. Tier B (Condominiums and Apartments), Tier C (Civic/Institutional) and Tier D (Commercial/Industrial) properties were not included as their utility billing is higher and therefore a resulting credit will be more significant. In addition, businesses in any tier cannot be offered a rebate under the Community Charter (prohibition against providing assistance to a business).

The City recognizes that property owners are more likely to undertake a rainwater management project when a property is being redeveloped or when they are undertaking a significant improvement project. Consequently, the proposed rebate program includes a special provision for developers of Tier A residential properties that would see the rebate and credit passed on to the new homeowner of the developed property. Other communities have typically seen between 1% to 3% of property owners undertake rainwater management. The proposed program is designed to achieve this level of participation or higher.

The key components of the rebate program are as follows:

Timeframe
The Rainwater Management Rebate Program is proposed to commence in April 2015, right after the stormwater property assessment notices are sent to property owners. It is proposed to end on December 15, 2017. Staff will evaluate the effectiveness of the program at that time, and make recommendations to Council on any changes for a future rebate program. Application to the program must be made by July 2017, with final documentation submitted and construction completed before the program end date.

Who May Apply
The Program is available to Tier A, residential property owners (4 units or less) who occupy the property as their principal residence; residential strata properties in this Tier are included in the program. It does not include rental properties as this is considered a business. All other properties and rental properties would apply to the ongoing credit program only. Provincial legislation prohibits the City from providing rebates to those properties that are owned by a business.

Developers or contractors of a Tier A property may apply for a rebate, under the following conditions:

- If it is going to be their principal residence, they must provide a sworn statement to that effect;
- If it is not going to be their prime residence, they may apply on behalf of the future purchaser of that property, as long as the future purchaser will occupy the property as a principal residence. They must have the required approvals, and must submit all documentation as required for the program.

The rebate will be issued to the future property purchaser once the City is supplied with that information, and has received proof of the purchaser's residency at the property.

Where there is any question of the applicability of the rebate program, the Director of Engineering & Public Works will make the final determination as stipulated in the bylaw.

Rebate Budget

The proposed rebate program will be limited to issue a maximum of $75,000 in rebates per year of this program to a total of $225,000 over the three years. This amount is based on information from other municipalities regarding the uptake of their programs, and a review of the number of applicable properties in the City of Victoria. If applications are received in excess of this amount, they will be considered in the following year. Even though billing and ongoing credits for the Stormwater Utility will not commence until 2016, rebates will be issued to applicants when construction is complete and final documentation is submitted and accepted.

Rebate Structure

Rebates for systems that clean and infiltrate runoff will be based on roof and surface catchment treated, except for Permeable Pavement with no underdrain, which will be based solely on the area of that pavement. Systems that capture and store water for reuse or slow release will be based on the volume of the storage.

The application for a rebate will automatically trigger the ongoing credit program; if a rebate application is approved, the 10% ongoing credit that was included in the Sanitary Sewer and Stormwater Utilities Bylaw will be automatically activated. This does not include rain barrels, which are only eligible for the rebate due to their level of effectiveness and impact.

Rebates are not retroactive for previously installed Rainwater Management features; they only apply to newly installed features, as they are an incentive to undertake new works.

Program Operation

The Stormwater Utility rebate program will be administered by the Stormwater Utility Engineering section. Operational costs for the program have been budgeted as part of the annual budget. Information about the program and how to apply will be included with the Stormwater Utility property assessment notices that will be mailed out in March 2015. The process of application will include undertaking a site assessment, designing the rainwater management facility, obtaining approval and any necessary permits from the City of Victoria, undertaking the work with some inspections, and submission of the final costs and receipts for verification. There will be the ability for property owners to do the work themselves or to hire professionals in this field.

Roof / Surface Catchment					
BMP	**Min. size**	**$/L**	**$/m²**	**Min Rebate**	**Max Rebate**
Rain barrel (minimum 2 x 175L size)	350L	$0.10	n/a	$35	$100
Cistern	1200L	$0.15	n/a	$225	$600
Rain Garden, Bioswale, Infiltration chamber [1]	25m²	n/a	$15	$375	$1,000
Permeable Pavement - no underdrain [3]	10m²	n/a	$20	$200	$750
Permeable Pavement - with underdrain and infiltration trench [1]	25m²	n/a	$30	$750	$1,500

Footnotes

[1] Minimum size of roof and/or surface catchment areas treated

[3] Minimum size is area of Permeable Pavement

Conclusions

The Rainwater Management Rebate Program should provide an incentive to Tier A, residential property owners to undertake the installation of a rainwater management feature on their property. It will help to defray the upfront costs of design assistance, materials and installation. Some property owners may decide to undertake the work themselves using the City of Victoria standards or they may choose to work with stormwater management professionals.

The small ongoing credit will reward them for helping to improve the quality of rainwater leaving their property, or reducing the amount that leaves their property. Although the individual impact of each lot may seem small, over time, this will make a difference to the surrounding environment. This program will be monitored over its life to evaluate its effectiveness. As it is limited in total budget amount and timeframe, the costs will be effectively managed. The uptake and impact will influence the future iterations of this program and will help to educate property owners about the importance of rainwater and how their own properties can have a positive impact on this precious resource.

Recommendations

That Council adopt the Rainwater Management Rebate Program as outlined in this report, for the period of April 2015 to December 15, 2017.

Stormwater Utility – Rebate Program

January 22, 2015

CITY OF VICTORIA

Objectives

- Brief overview of the Stormwater Utility Program
- Review of Rainwater Management Rebate
- Recommendations

CITY OF VICTORIA

Stormwater Utility Objectives

- User pay
- More equitable means of charging for stormwater system maintenance & construction
  - Property Value basis → Property Attribute basis
- All properties included
- Improve stormwater quality and reduce flow into system and onto beaches.
- Educate and change the way people view and treat rainwater that lands on their property
  - From problem → to opportunity/resource
- Development of Stormwater Reserve
- Budget remains the same as old system

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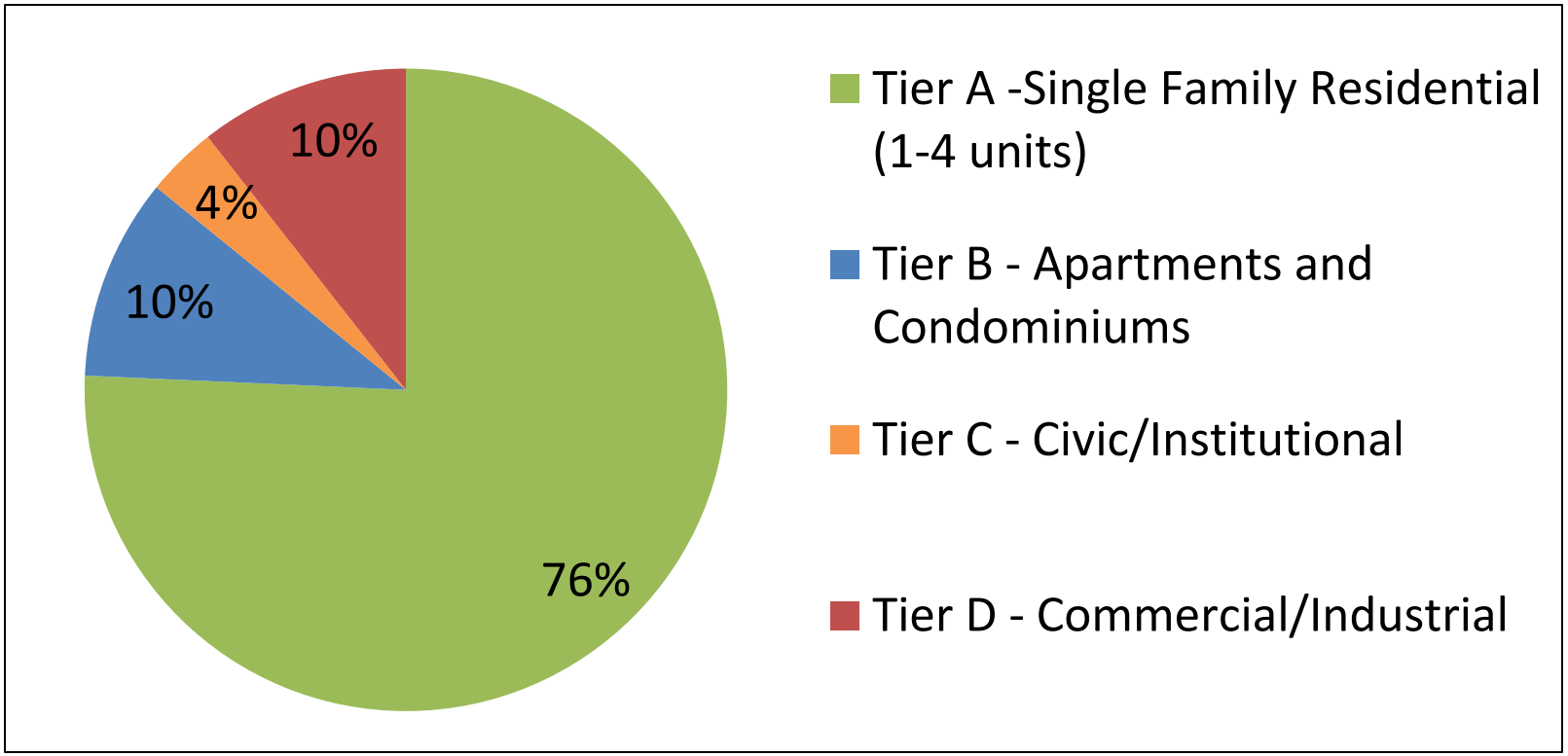
Breakdown of Properties



Total of 13,553 properties

Stormwater Utility Fee Factors

1. Impermeable Surfaces Factor
   - Impermeable area on property
2. Frontage Factor
   - For cleaning of streets and sidewalks, to keep pollutants out of system
3. Intensity Factor
   - For impact of property type on Stormwater System. Based on BCA codes
4. Codes of Practice Factor
   - For properties with 10 or more parking spaces

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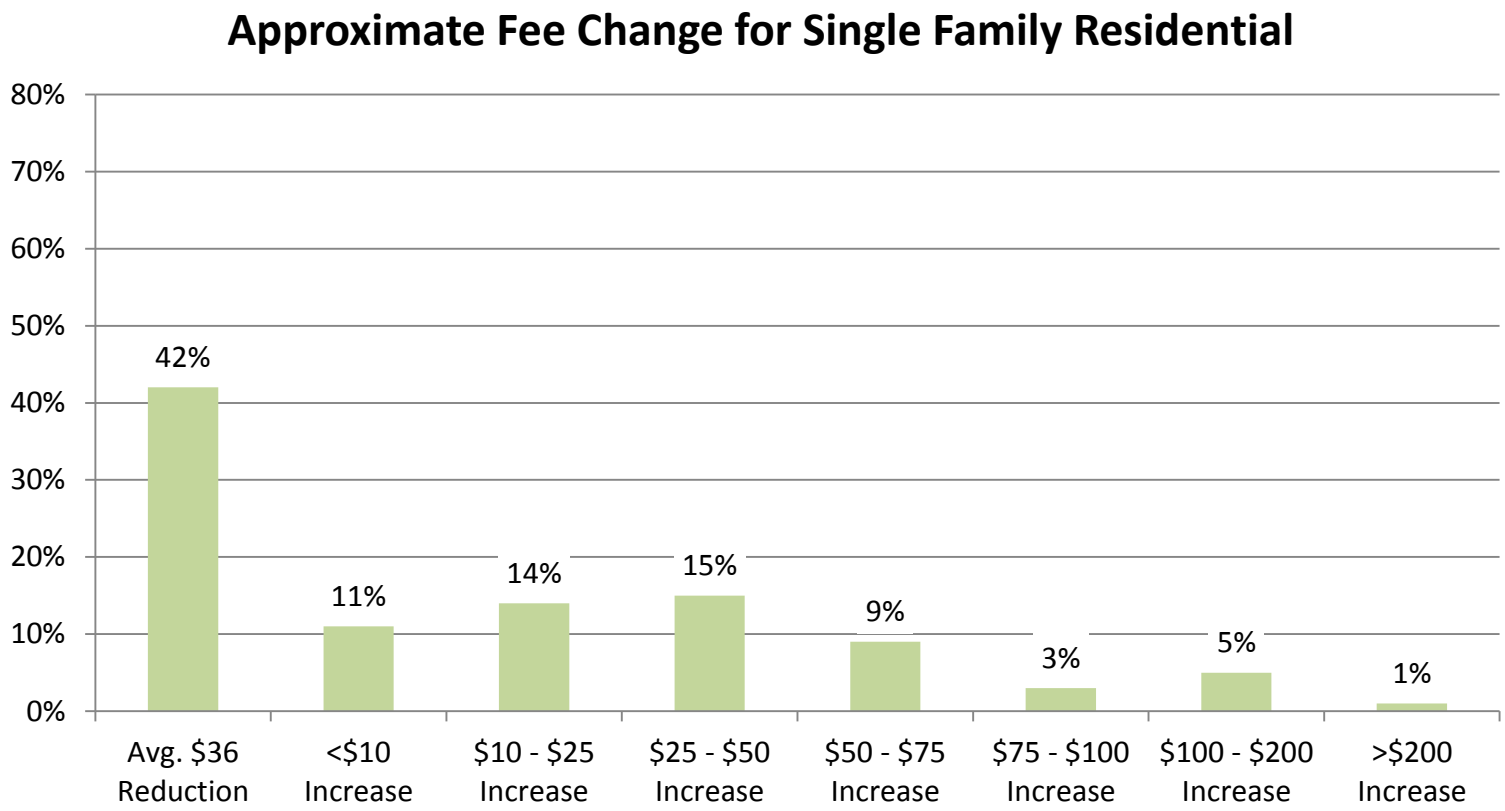
What this means for Single Family Residential



- 10,385 properties
- Average fee is $147 (including Property Tax portion)

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Incentive Program

- Credits & Rebates are both part of the proposed Rainwater Management Incentive Program

  Goals

  – Rewards better management of rainwater on private property through storage & reuse, or mimicking the natural water cycle
  – Improve quality of stormwater leaving properties and entering the ocean, and to reduce the rate of flow to the stormwater system
  – Influence sustainable choices for those who are planning to undertake work on their property or for new developments

  Bottom line

  – Not a high ROI. Projects are expensive
  – Where a property owner is already planning to do an improvement or replacement, may help them choose a “green” option

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Property Owner Incentive Options

- Tier A (Single Family Residential) Properties only – One time rebate + smaller credit
  - Rain barrels, cisterns, rain gardens, bio-swales, infiltration chambers, permeable pavement, green roofs
  - Value of original credit program was insignificant (average maximum $59 annually) and would likely not encourage many to take advantage
  - One time rebate would be more significant ($100 to $1,500)
  - Rebates would be capped annually
- Tier B, C & D Properties only – Ongoing credit
  - Businesses are not eligible for rebates, but are for credits
  - Fees and credits are more significant in value
  - Impact on stormwater is more significant from these properties

Rebate Principles

- Available from April 2015 to December 2017
- Capped to $75,000 per year.
- Rebate program will be evaluated at conclusion for possible next round of rebates
- Rebates will not be retroactive. Only for new installations
- 10% ongoing credit will be automatically activated once installation is approved, installed and complete.
- Applicant must use the property as principal residence. If not, they may apply on behalf of future purchaser of the property if it will then be used as principal residence.

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Credit & Rebates – Tier A

Method	Minimum Size	Minimum Roof Area Treated (m2)	Average Cost for methods – based on case studies and other sources	Ongoing Credit	Credit Amount (based on average Single Family SW Utility Bill: $147)	Minimum Rebate/ Maximum Rebate
Rain Barrel	350L	N/A	$350	N/A	N/A	$35/$100
Cistern	1,200 L	25	$1,500	10%	$14.70	$225/$600
Infiltration Chamber	*	25	$8,000	10%	$14.70	$375/$1,000
Rain Garden	*	25	$2,600	10%	$14.70	$375/$1,000
Bioswale	*	25	$2,800	10%	$14.70	$375/$1,000
Permeable Paving – no infiltration trench/piping	10 m2	N/A	$5,300	10%	$14.70	$200/$750
Permeable Paving – infiltration trench/piping	*	25	$9,600	10%	$14.70	$750/$1,500

* Minimum size will be dictated by the Roof Area Treated

Next Steps

- February 2015 - Complete development of standards and specifications for incentive program
- Spring 2015 → Fall 2016 - Host educational workshops
- April 2015- Prepare and mail out information packages for all property owners that will include property evaluation, fee calculation & Rainwater Management Incentive Program
- April 2015 – open for applications for credits and rebates
- September 2016 – first Stormwater Utility bills distributed

Motion for GPC

- That Council adopt the proposed Rainwater Management Rebate Program as outlined in this report, for the period of April 2015 to December 15, 2017.

Questions?

CITY OF VICTORIA

Governance and Priorities Committee Report
For the Meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 5, 2015
From:	Julie MacDougall, Acting Director, Parks and Recreation		
Subject:	Proposed Afghanistan Memorial		

Executive Summary

The Afghanistan Memorial Committee of Victoria have submitted a request to erect a permanent monument in Pioneer Square to commemorate fallen Canadian Armed Forces and Public Service personnel as well as United States Armed Forces personnel who served under Canadian command.

Pioneer Square is located on Quadra Street at Rockland Avenue, adjacent to Christ Church Cathedral and served as the city cemetery from 1855 to 1873. It has been a city park since 1908. Pioneer Square features mature trees and plantings and is home to close to 1,300 interments, marked by a number of heritage tombstones and bench tombs. There are also several military memorials here included a cenotaph for the Scottish Regiment, and the Royal Canadian Air Force.

In the absence of an existing policy on memorials, as part of the review process, staff reviewed the monument in relationship to the Official Community Plan and the guidelines outlined in the Pioneer Square Management Plan. Due to the proposed size of the monument and its proposed location within Pioneer Square, a site with known social issues, parks staff discussed the proposal with the Victoria Police Department. A moderate concern was raised with regard to the size and location of the proposed monument.

Recommendation:

That Council accept the offer of a donated Afghanistan Memorial for installation within Pioneer Square as proposed, subject to the Heritage Alteration Permit process.

Respectfully submitted

Leigh Sifton
Manager, Parks Planning and Design

Julie MacDougall
Acting Director, Parks and Recreation

Report accepted and recommended by the City Manager:
Date: January 14, 2015

Purpose

The purpose of this report is to present Council with options and a recommendation for a proposed Afghanistan Memorial monument.

Background

The Afghanistan Memorial Committee of Victoria have submitted a request to erect a permanent monument in Pioneer Square to commemorate fallen Canadian Armed Forces and Public Service personnel as well as United States Armed Forces personnel who served under Canadian command (Appendix A).. Between 2001 and 2014, more than 40,000 Canadian Armed Forces personnel were deployed to Afghanistan, making it the largest deployment of Canadian Armed Forces since World War II.

Pioneer Square is located on Quadra Street at Rockland Avenue, adjacent to Christ Church Cathedral and served as the city cemetery from 1855 to 1873. It has been a city park since 1908. Appendix B provides a location map. Pioneer Square features mature trees and plantings and is home to close to 1,300 interments, marked by a number of heritage tombstones and bench tombs. There are also several military memorials located in the Square, including the Scottish Regiment cenotaph, and the Royal Canadian Air Force commemorative monument.

In April 2013, Council approved the Pioneer Square Management Plan which outlines guidelines for future commemorative monuments within Pioneer Square related to site relevance, aesthetic consistency, ongoing maintenance and capital costs.

Following approval of the management plan, Pioneer Square was granted municipal heritage designation for its cultural heritage landscape. Any modifications to Pioneer Square are subject to the Heritage Alteration Permit process.

There is currently no City policy for memorials. In April 2014, Council directed staff to draft a comprehensive policy for memorials for Council consideration. Drafting of this policy is currently in progress and is expected to come to Council in 2015. Staff will be including this project within the 2015 operational plan for Council's consideration.

Issues & Analysis

The proposed monument is polished granite inscribed with a tree and the names of those service personnel whose lives were lost in Afghanistan. It is proposed to be 3.5 metres long and approximately 1 metre wide and 1.8 metres high at its tallest, sloping to just over 1.2 metres high. A 1.5 metre wide concrete pad of is proposed on all sides of the stone to allow accessible access to all sides of the monument. This creates a total monument area of 6.5 metres by 4 metres. Appendix C provides a depiction of the monument showing its approximate proposed size and location within Pioneer Square.

In the absence of an existing policy on memorials, as part of the review process, staff have reviewed the monument in relationship to the Official Community Plan and the guidelines outlined in the Pioneer Square Management Plan.

The Official Community Plan states the objective to "protect and steward cultural heritage landscapes on City land as consistent with the National Standards and Guidelines for the Conservation of Historic Places in Canada".

Regarding additions or alterations to a cultural landscape, the National Standards and Guidelines for the Conservation of Historic Places in Canada recommends "designing a new feature when required by a new use that is compatible with the past or continuing land use". Not recommended is "adding a new feature that alters or obscures a continuing land use" or "introducing a new feature that is incompatible in function with the past or continued land use". As Pioneer Square contains existing commemorative monuments, a new commemorative monument would not be outside the National Standards and Guidelines.

The following provides a comparison of the proposal to the guidelines for commemorative monuments within the Pioneer Square Management Plan:

- Site Relevance:
  - From Management Plan: Related to past burials or war memorials and should commemorate a significant event or group relevant to the City of Victoria.
  - How proposal relates: War memorial recognizes national efforts and sacrifice.

- Aesthetic Consistency:
  - From Management Plan: Design of the monument should be in keeping with the monuments currently installed in the Square.
  - How proposal relates: Granite materials are in keeping with square. With the exception of the Scottish Regiment cenotaph and two of the existing tombstones, the proposed monument massing is larger than other existing monuments, particularly in its horizontal length. As a result it may dominate the landscape of the square and may change the intended reflection on past burials and existing war memorials.

- Longevity and Minimal Maintenance:
  - From Management Plan: Adequate provisions should be made in the design for continued maintenance. Monuments should be made of durable materials, such as granite or stone, which will stand up over time.
  - How proposal relates: Proposed monument is constructed of granite. No provisions are outlined in the proposal for ongoing maintenance. Ongoing maintenance costs would be minimal and would be related to potential vandalism events (i.e. graffiti removal, etc).

- Capital Costs:
  - From Management Plan: Design, manufacturing and installation will be paid for by the proponent.
  - How proposal relates: The Afghanistan Memorial Committee has committed to funding the design, fabrication and installation of the memorial.

Due to the proposed size of the monument and its proposed location within Pioneer Square, a site with known social issues, parks staff discussed the proposal with the Victoria Police Department. A moderate concern was raised with regard to the size and location of the proposed monument as it may limit sightlines and may become a target for nuisance behaviour such as graffiti. A smaller monument that has similar massing to existing monuments in Pioneer Square may not pose the same concerns and could be pursued to address this issue.

Options & Impacts

Option 1 (Recommended)
Accept the offer of a donated Afghanistan Memorial for installation within Pioneer Square as proposed, subject to the Heritage Alteration Permit process.

Impacts:

- The memorial may dominate the landscape of the square and may change the intended reflection on past burials and existing war memorials.
- There may be undesirable social impacts as discussed with VicPD

Option 2
Accept the offer of a donated Afghanistan Memorial for installation within Pioneer Square and direct staff to work with the proponent to revise the proposed monument scale and/or consider alternate sites for approval by Council.

The Heritage Alteration Permit process would be required.

Impacts:

- May result in a delay of the proponents fundraising efforts
- May result in additional design costs for the proponent

Option 3
Delay a decision on this request until a comprehensive memorial policy is adopted.

Impacts:

- Delaying the decision for this request until the policy has been developed and approved by Council may result in a delay of the proponents fundraising efforts.

Option 4
Decline the offer of a donated Afghanistan Memorial for installation within the City of Victoria.

Recommendations

That Council accept the offer of a donated Afghanistan Memorial for installation within Pioneer Square as proposed, subject to the Heritage Alteration Permit process.

Attachments

Appendix A: Afghanistan Memorial Committee of Victoria proposal
Appendix B: Location Map
Appendix C: Conceptual Diagram

AFGHANISTAN MEMORIAL COMMITTEE of VICTORIA

25 – 4630 Lochside Drive
Victoria, British Columbia
V8Y 2T1

September 20th 2014

Ms Leigh Sifton
Manager, Parks Planning & Design
Parks, Recreation and Culture
City of Victoria, 1 Centennial Square
Victoria, British Columbia V8W 1P6

Dear Ms Sifton:

Subject: AFGHANISTAN MEMORIAL – PIONEER SQUARE

Canada's 12 year engagement in Afghanistan was the largest deployment of Canadian Armed Forces since World War II with more than 40,000 personnel serving in southwest Asia between 2001 and 2014. Regrettably, the human sacrifice in support of the mission, so that Afghans may enjoy life in a democratic society, amounted to 158 Canadian Armed Forces personnel, 5 members of the Public Service of Canada and 43 United States Armed Forces personnel who served under Canadian command. Our committee believes such a tragic loss should be commemorated with a memorial to the fallen in order that others may appreciate the human sacrifice in the cause of peace and freedom.

Scope of Project
The memorial shall be of polished grey granite, as shown in the attached drawings, with an inscription of dedication in both English and French and the names of Canadian fallen on both sides which are represented by the falling maple leaves.
A concrete path 1.5 m wide will surround the monument for wheelchair access.

Location
Pioneer Square, south side of southwest pathway as shown on the attached sketch. We would appreciate an onsite meeting to confirm this location.

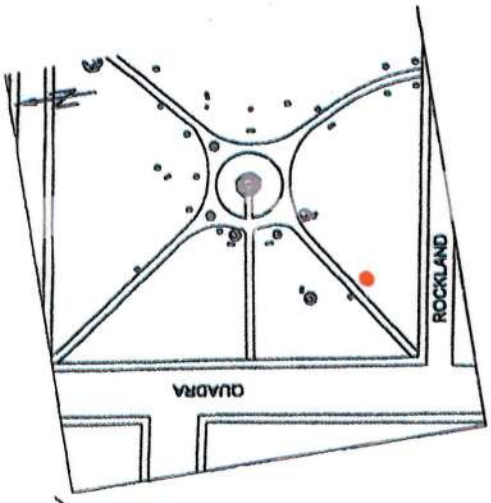
Cost
The cost of design, manufacture and installation will be the responsibility of the Committee.

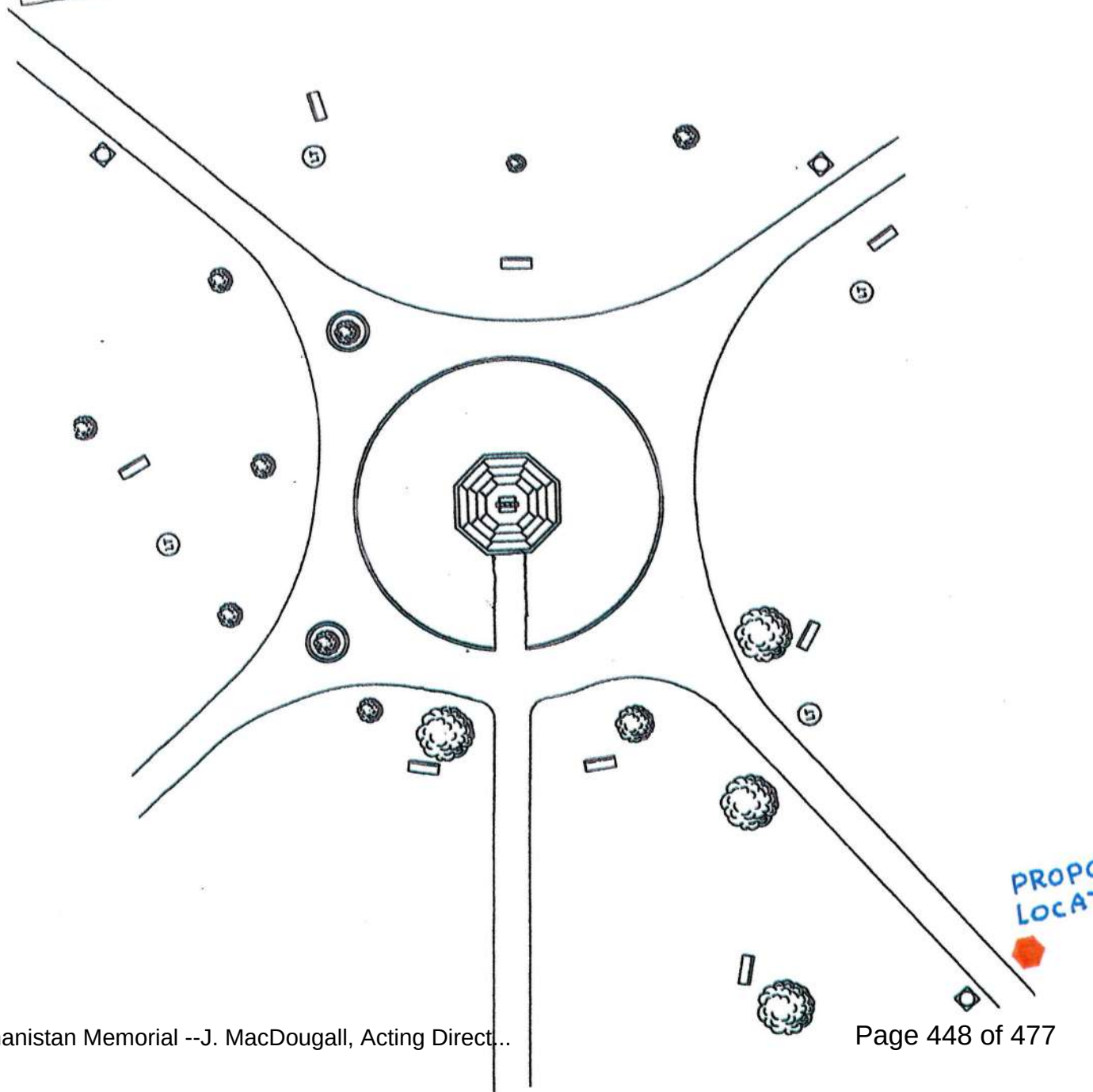
Our committee believes the proposed memorial is relevant to Pioneer Square due to the significance and human sacrifice of the Mission in the cause of peace and freedom. Also, the memorial is in keeping with the aesthetic value of the park and will consist of durable materials thereby ensuring its longevity and minimal future maintenance cost.
For ease of communication I may be contacted at mvheppell@shaw.ca or 250-658-1391.

Yours sincerely

Michael E. Heppell
Afghanistan Memorial Committee

APPENDIX A: Afghanistan Memorial Committee of Victoria proposal



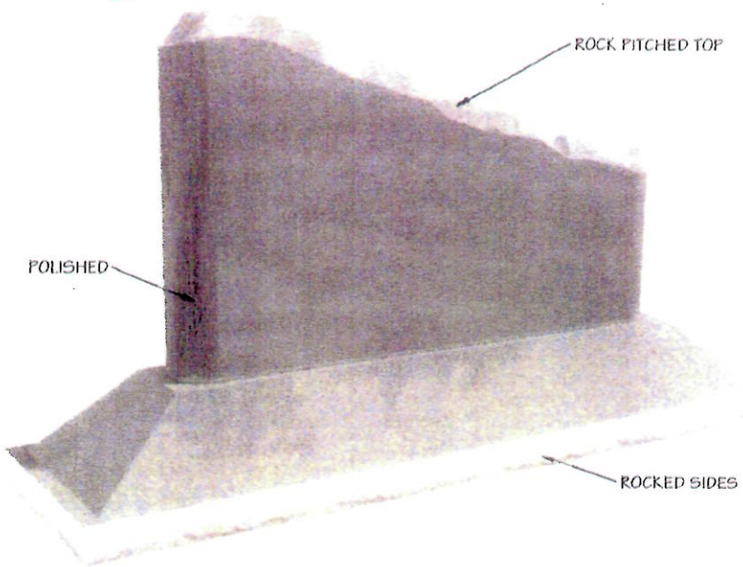


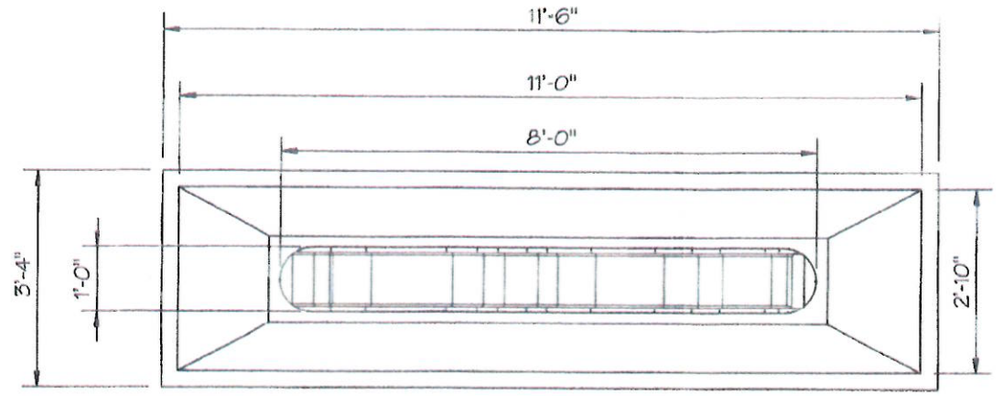
TITLE	ORDER	DRAWN BY:
AFGHAN MEMORIAL	XXX	BW
	REF. R:\SandBlast\Stewart\Afghan Memorial\Afghan Memorial V5\	SCALE 1:30
CLIENT STEWART MONUMENTS	WEIGHT 12291 lbs	DATE 11/09/2014

APPENDIX A: Afghanistan Memorial Committee of Victoria proposal *Page 3 of 5*

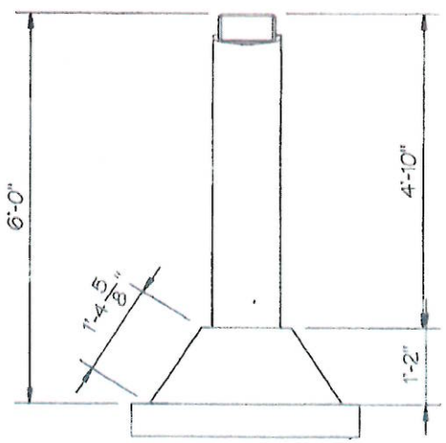
This detail was prepared for your approval

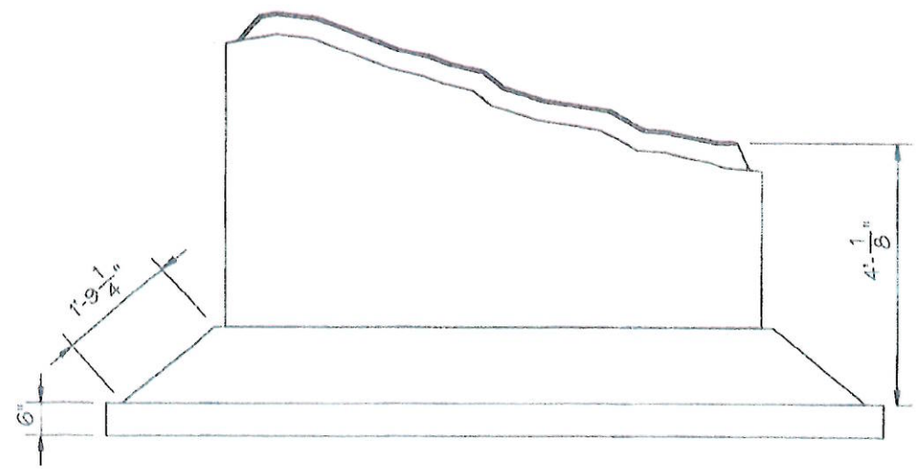
Sign and return
Approved by_____
Date:_____



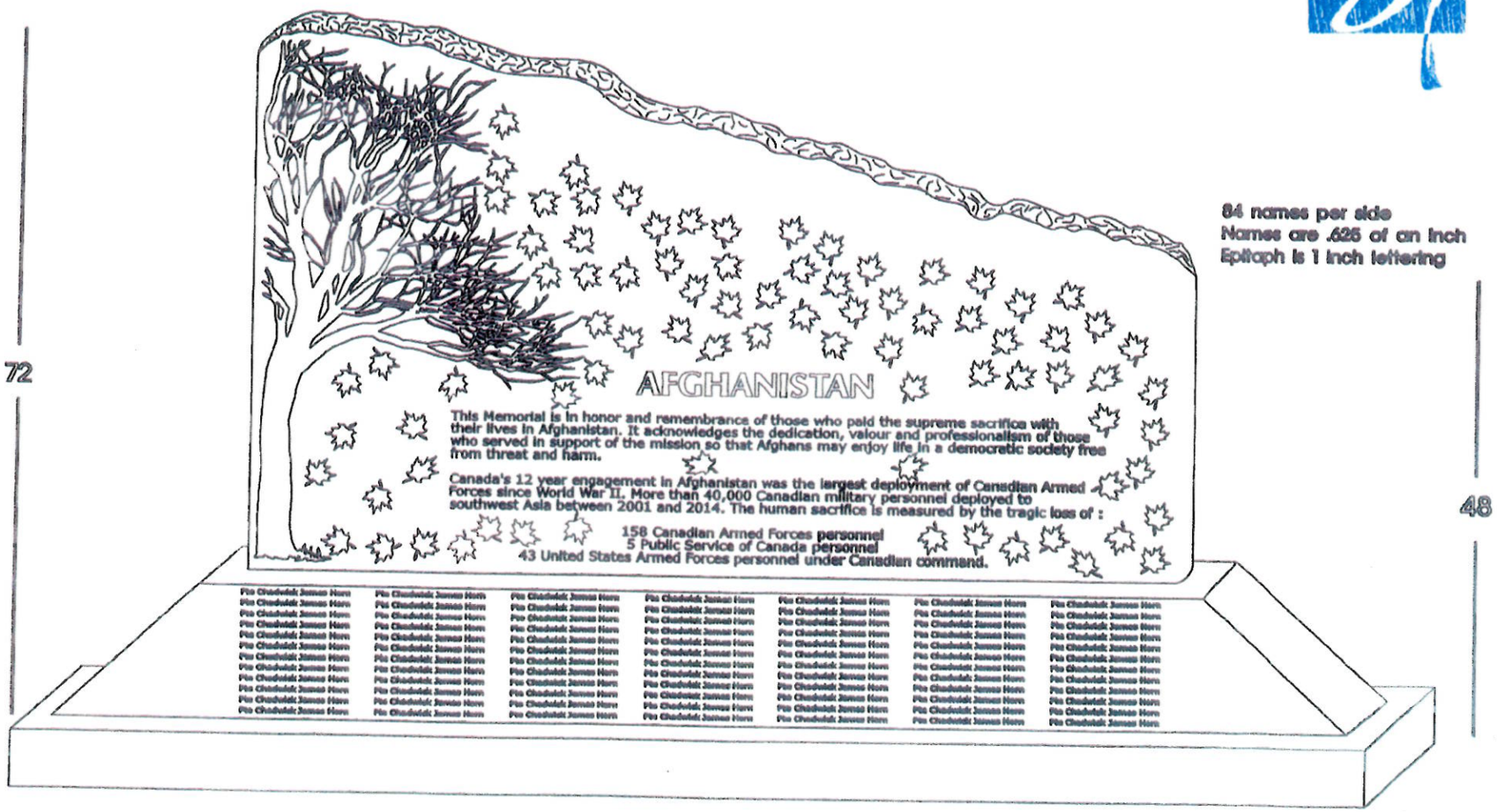


Please Note: All schematics, drawings and specifications remain the property of Stewart Monumental Works Ltd. and are not for distribution or replication without the consent of the above.
Thank you





COLOR	FINISH	REVISION-E	ITEM	QUANTITY	TARGET DATE
BARRE GREY	AS PER ISOMETRIC VIEW	ADDED ROCK PITCH TO BASE	0	1 OF 1	0000-00-00



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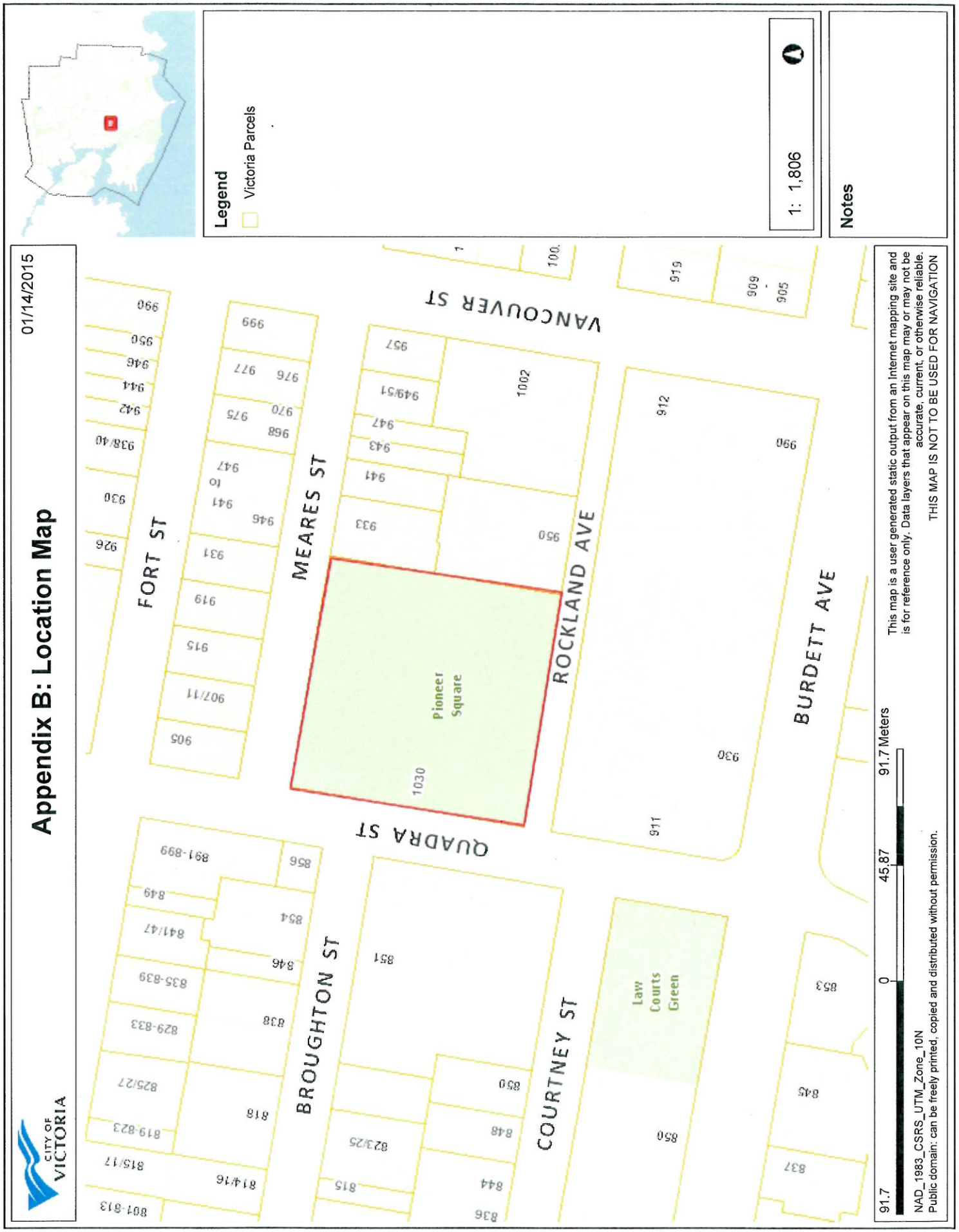
Thank you


AFGHANISTAN
This Memorial is in honor and remembrance of those who paid the supreme sacrifice with their lives in Afghanistan. It acknowledges the dedication, valour and professionalism of those who served in support of the mission so that Afghans may enjoy life in a democratic society free from threat and harm.
Canada's 12 year engagement in Afghanistan was the largest deployment of Canadian Armed Forces since World War II. More than 40,000 Canadian military personnel deployed to southwest Asia between 2001 and 2014. The human sacrifice is measured by the tragic loss of
158 Canadian Armed Forces personnel
5 Public Service of Canada personnel
43 United States Armed Forces personnel under Canadian command.


Appendix B: Location Map
01/14/2015
CITY OF VICTORIA
Legend
Victoria Parcels
1: 1,806
Notes
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION
91.7
0
45.87
91.7 Meters
NAD_1983_CSRS_UTM_Zone_10N
Public domain: can be freely printed, copied and distributed without permission.
VANCOUVER ST
FORT ST
MEARES ST
ROCKLAND AVE
BURDETT AVE
QUADRA ST
BROUGHTON ST
COURTNEY ST
Pioneer Square
Law Courts Green
1030
1002
912
990
930
911
950
933
941
943
947
949/51
957
999
977
976
970
975
968
946
941 to 947
931
919
915
907/11
905
990
950
946
944
942
938/40
930
926
909 - 905
919
853
845
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850
848
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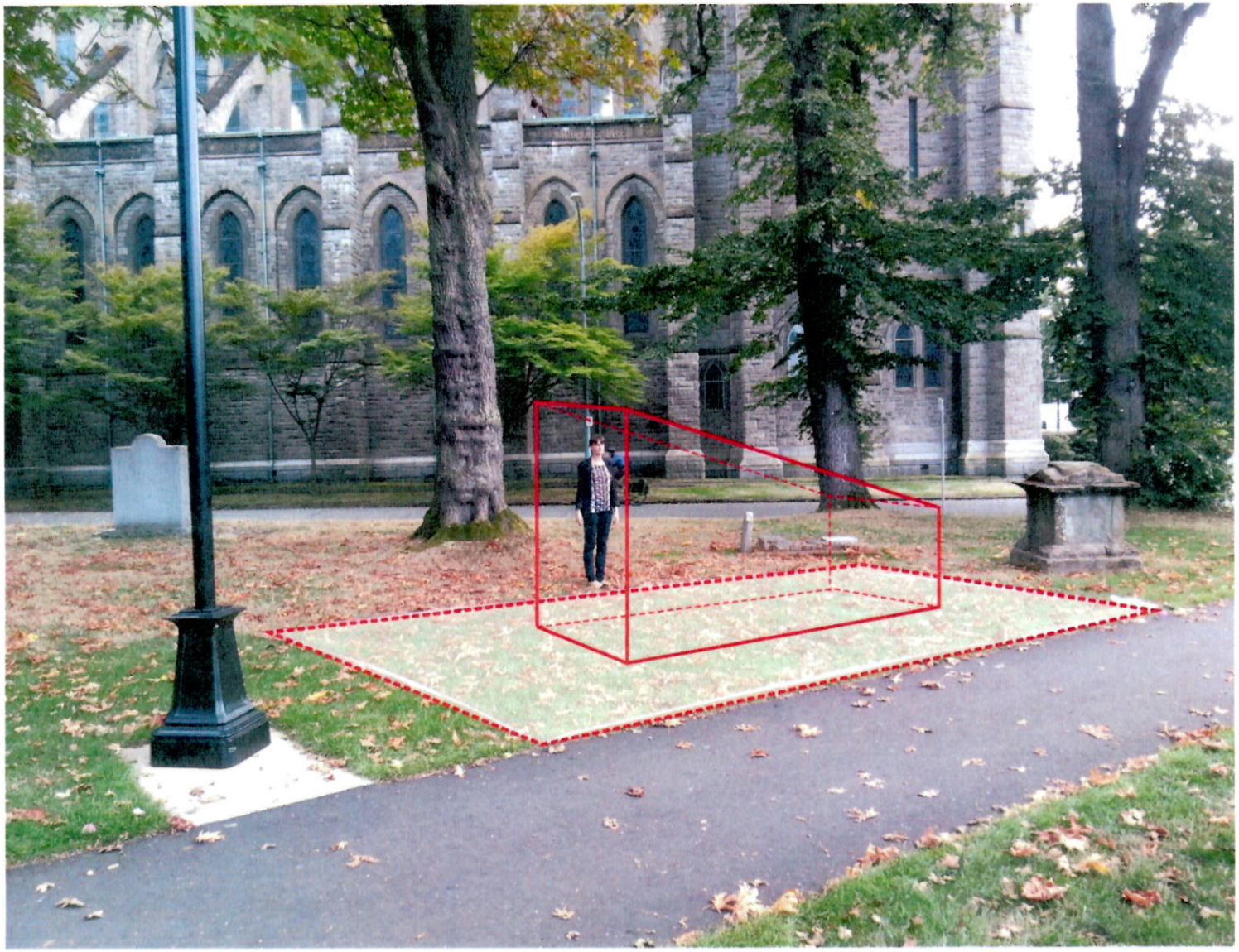
836
815
823/25
851
856
854
846
838
818
814/16
801-813
815/17
819-823
825/27
829-833
835-839
841/47
849
891-899

Appendix C: Conceptual Diagram

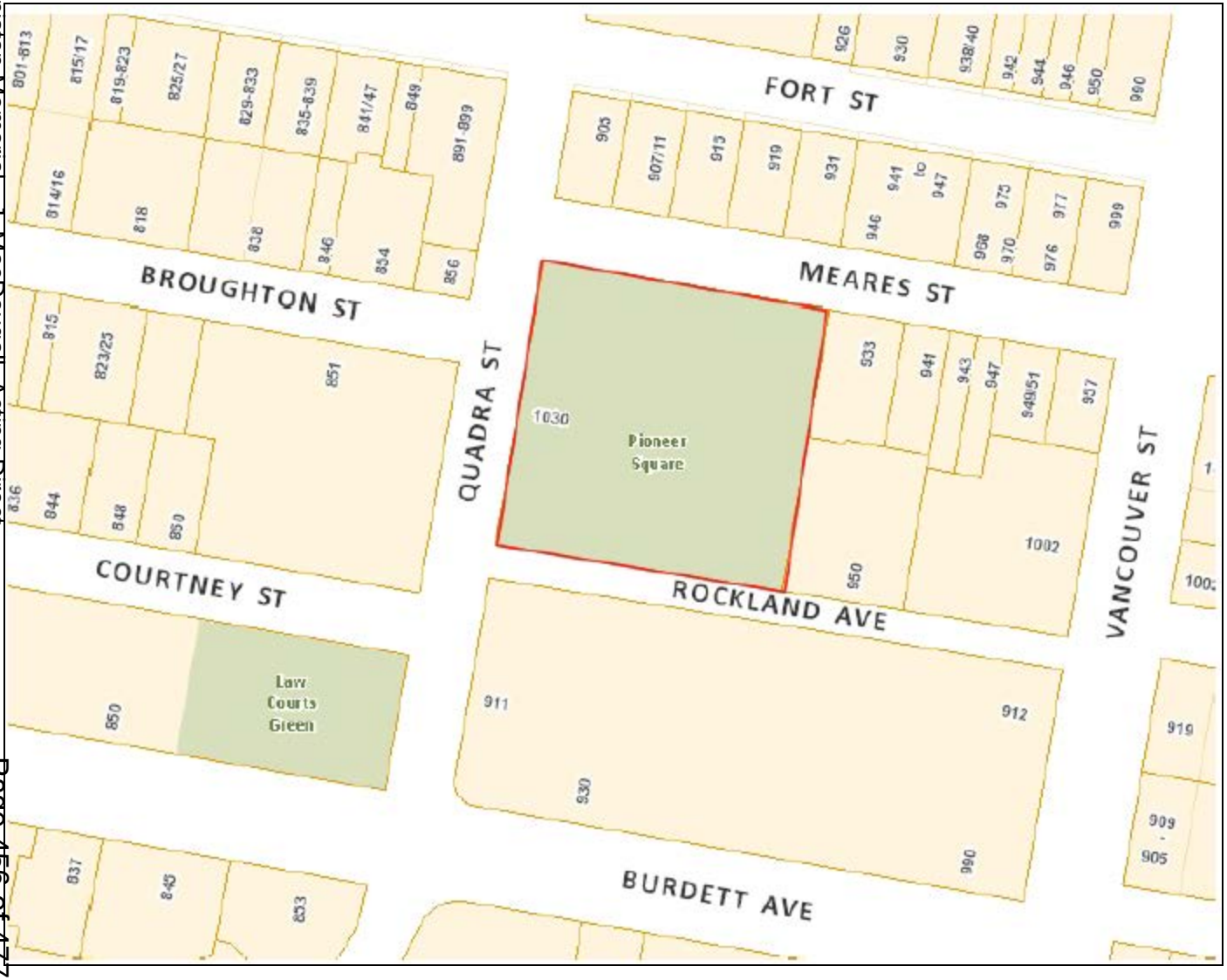
Approximate size and location of proposed monument within Pioneer Square



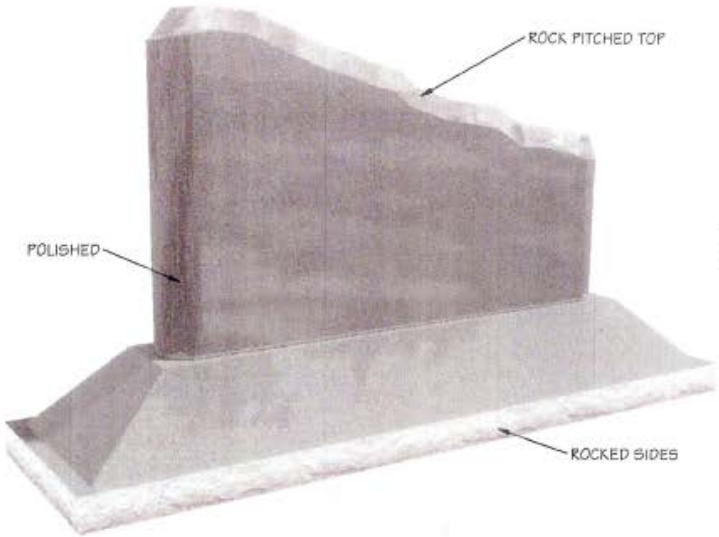
Afghanistan Memorial Proposal

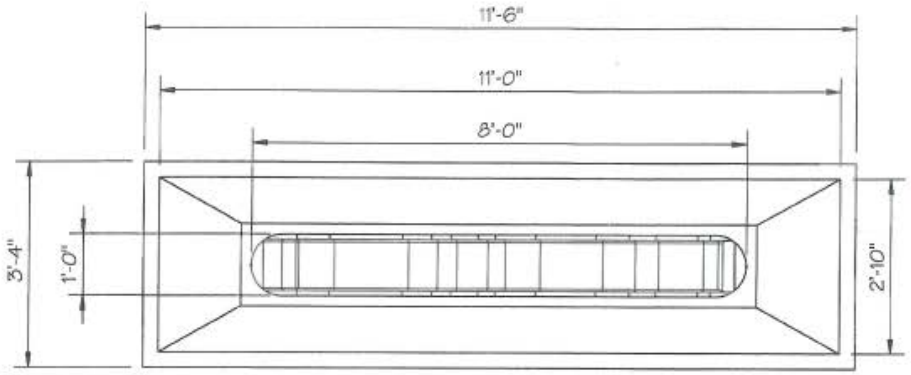
Parks and Recreation

Location Map



Proposed Monument: Schematic





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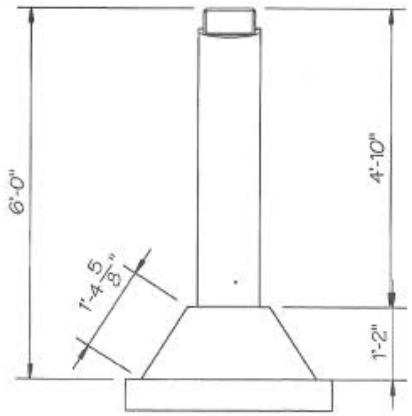
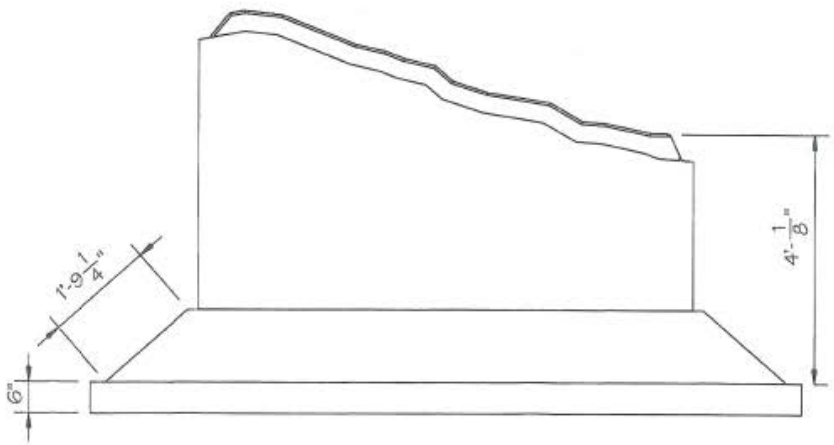
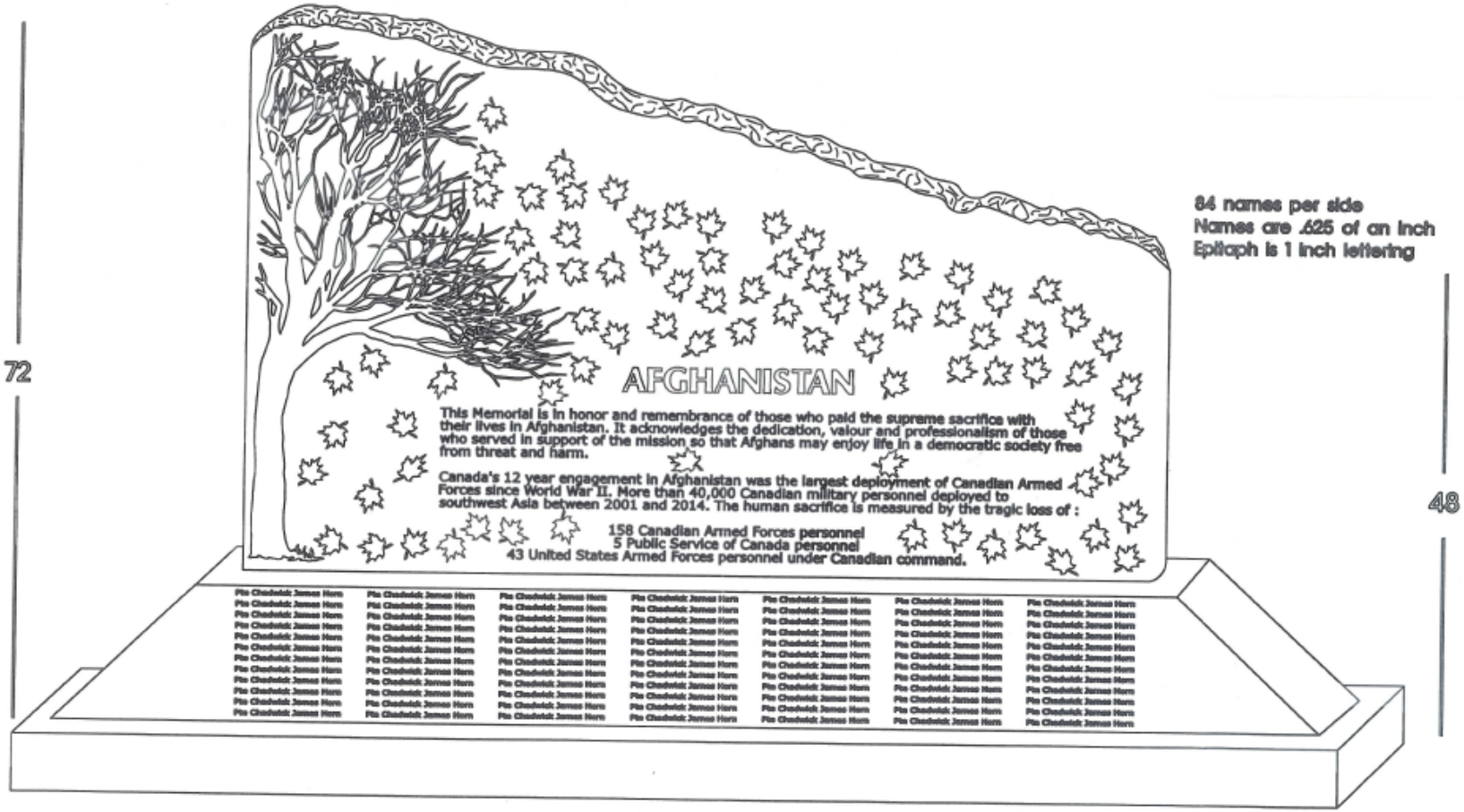


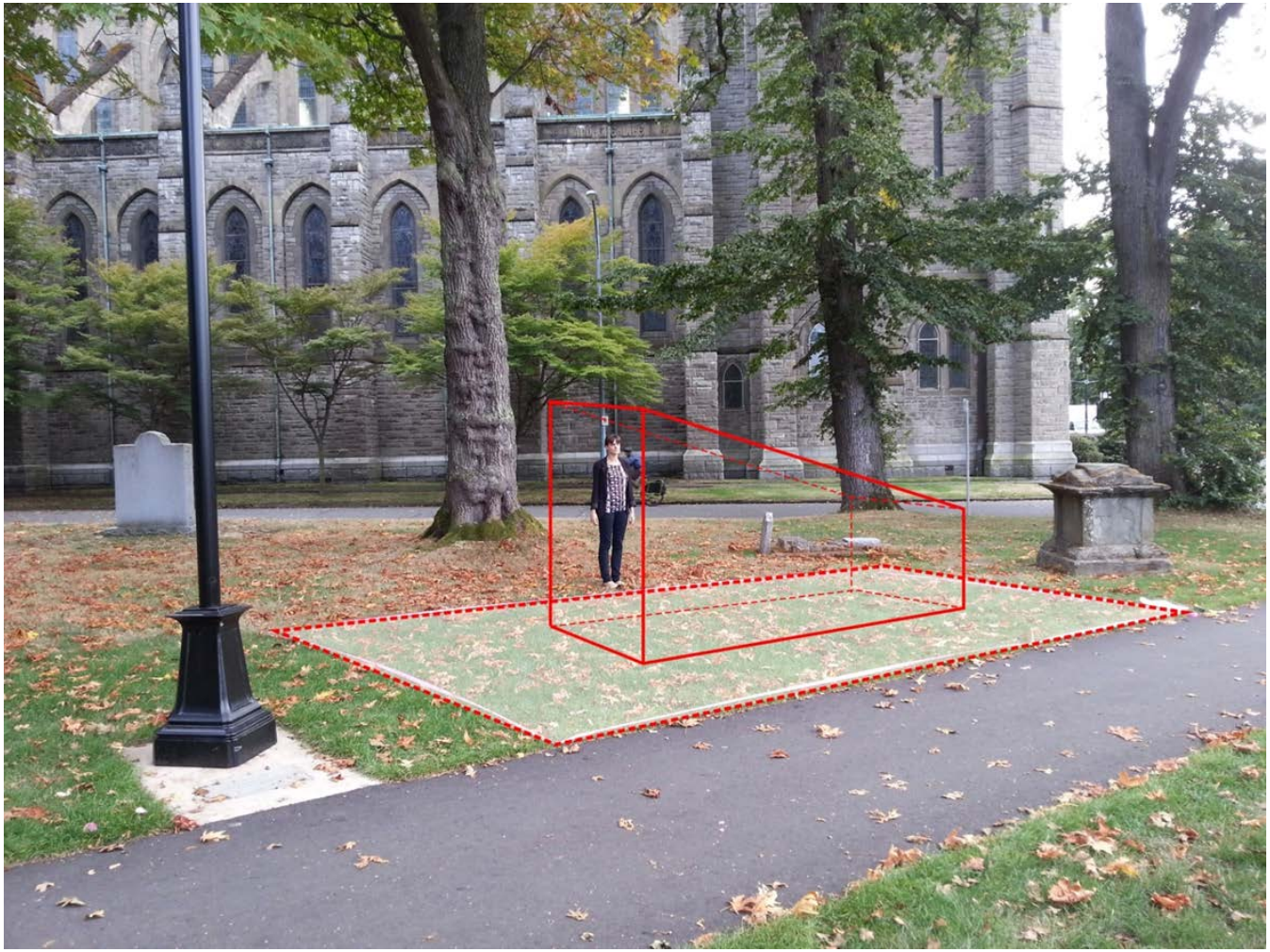


Proposed Monument: Schematic



CITY OF VICTORIA

Proposed Monument



Recommendation

That Council accept the offer of a donated Afghanistan Memorial for installation within Pioneer Square as proposed, subject to the Heritage Alteration Permit process.

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Governance and Priorities Committee Report

For the meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 13, 2015
From:	Robert Woodland, Director of Legislative and Regulatory Services		
Subject:	Motorized Parking Stand Allocations under the Vehicles for Hire Bylaw		

Executive Summary

The Vehicles for Hire Bylaw designates four motorized sightseeing vehicle parking stands on Belleville and Government Streets and names the motorized sightseeing vehicle companies that are exclusively allowed to use each stand. Since 2012, a competitive process has been used to determine the operators that can use each parking stand. The current stand allocations expire on April 1, 2015.

Some Councillors and members of the public expressed concerns in March 2013 with the outcome of the last competitive process. They felt that the City could be doing more to encourage operators to "green" their fleets and reduce greenhouse gas and noise emissions. After reviewing City procurement policy and international best practices, staff have concluded that there is limited ability at this time to improve the competitive process to address these concerns.

Staff are not aware of any new entrants in the city's sightseeing vehicle market who are using "greener" vehicles than current stand users. This means that it is unlikely that a competitive process conducted at this time will result in any significant changes in the types of vehicles operated from parking stands. The GVHA is beginning work on a 10-year bus traffic strategy, with participation from City staff, and the City is also considering a GPS data study in partnership with current stand users for the summer of 2015. A one-year extension of the current stand allocations would allow for the completion of these projects and consideration of how their results could be incorporated into the next competitive process, which could be started in the fall of 2015. A one-year extension would also give current stand users some immediate certainty regarding their use of the stands for the 2015 summer tourist season. Conducting a competitive process at this date would mean that stand allocations would not be finalized until April.

Recommendation

That Council direct staff to bring forward amendments to the Vehicles for Hire Bylaw that would extend the motorized sightseeing vehicle parking stand allocations to April 1, 2016 for any current stand users who express interest in a one-year extension.

Respectfully submitted,

Shannon Craig
Policy Analyst
Legislative and Regulatory Services

Robert Woodland
Director
Legislative and Regulatory Services

Report accepted and recommended by the City Manager: _____

Date: January 16, 2015

Purpose

The purpose of this report is to obtain Council direction on proceeding with the allocation of motorized parking stands under the City's Vehicles for Hire Bylaw.

Background

The Vehicles for Hire Bylaw designates four motorized sightseeing vehicle parking stands on Belleville and Government Streets and names the motorized sightseeing vehicle companies that are exclusively allowed to use each stand. An exclusive stand allows an operator to park their vehicles and load and unload passengers. It also gives an operator the ability to advertise and sell tickets for sightseeing tours on the sidewalk adjacent to the stand. Otherwise, the Vehicles for Hire Bylaw prohibits advertising or offering to sell tickets for sightseeing tours on streets and sidewalks. Sightseeing tour operators without an exclusive stand are able to load and unload passengers on private property or at general passenger loading zones.

Since 2012, a competitive process has been used to determine the operators that are entitled to use each parking stand. The competitive process provides businesses with fair and equal opportunities to access these spaces and also allows the City to select stand users based on criteria that reflect the Council-approved Guiding Principles for the Use of Public Space.

On March 28, 2013, Council adopted an amendment to the Vehicles for Hire Bylaw that put in place the current stand allocations. Those stand allocations expire on April 1, 2015.

Issues and Analysis

Some Councillors and members of the public expressed concerns in March 2013 with the outcome of the last competitive process. They felt that the City could be doing more to encourage operators to "green" their fleets and reduce greenhouse gas and noise emissions. The current approach used to evaluate parking stand proposals is to assign points based upon a series of evaluation criteria. Those criteria include:

- whether the proponent is able to demonstrate that their proposed operations will contribute to City efforts to reduce community greenhouse gas emissions, particularly through the use of low emission vehicles or fuels, and
- efforts to minimize noise, nuisance and other impacts on businesses, residents and visitors, both at the stands and along travel routes.

The limitation with this type of evaluation approach is that the type and quality of vehicles used at stands is entirely dependent upon the nature of the proposals received.

After reviewing City procurement policy and international best practices, staff have concluded that there is limited ability at this time to improve the competitive process to address expressed concerns. The best practices review showed that some jurisdictions procuring vehicles or vehicle-based services set a minimum standard for greenhouse gas and noise emissions, and award additional points to respondents who exceed these standards. Staff concluded that this approach would be problematic for several reasons. First, it would be difficult to determine or justify an appropriate minimum standard. Noise and emission standards are set by the federal and provincial governments and any motorized sightseeing vehicles operated in the City must already meet those standards that are applicable to the particular type and model year of vehicle. The City also does not have the ability to perform ongoing monitoring of vehicles used at stands in order to determine whether they meet the minimum standards.

Parking stand users represent only one component of the tourism-related bus transportation industry operating within the City. Many bus companies operate within the City without the benefit of an exclusive parking stand, including both private buses and Greater Victoria Harbour Authority (GVHA) shuttle buses servicing the cruise ship terminal. The City may more effectively be able to address concerns with tourism-related bus traffic through broader initiatives that focus on the industry as a whole and not only parking stand users.

For example, the GVHA is working on a 10-year strategy to mitigate bus traffic servicing Ogden Point, leveraging knowledge gained from recent pilot projects, in which innovations were trialed for bus and marine cruise shuttle transportation. This comprehensive strategy is being developed collaboratively with bus operators and City staff from within the Engineering and Public Works Department. Consultations with the public will ensure that the needs of the local community are assessed as the plan is developed. The strategy will define the what, how and why regarding bus traffic at Ogden Point and address elements such as: equipment, routing, advocacy, communications and monitoring. Although this 10-year strategy will not directly apply to parking stand operations, future parking stand allocation processes may be able to draw from any standards or best practices for vehicles or routing identified through the development of that strategy.

Independently of the competitive process, staff are working to address concerns associated with parking stand operations. To address concerns regarding vehicle idling, signs will be placed at parking stands reminding users of the provisions of the Idling Control Bylaw, and Commissionaires and Bylaw Officers will be asked to monitor idling at stands while on patrol next summer. The City is also considering a GPS study for the summer of 2015 that may provide useful baseline information for purposes of future competitive processes or for other City climate action initiatives. Existing stand users have been approached to determine their willingness to install GPS devices on a sample of vehicles operated from parking stands during the 2015 summer season. Using the data obtained from these devices, such as drive time, idle time, and speed, along with the equipment's make, model and year, simulated tail pipe emissions can be estimated.

Staff are not aware of any new entrants in the city's sightseeing tour market who are using "greener" vehicles than current stand users. This means that it is unlikely that a competitive process conducted at this time will result in any significant changes in the types of vehicles operated from parking stands. Conducting a competitive process at this time will also impact stand users' ability to properly and effectively plan and market their services, as stand allocations would not be finalized until April. Sightseeing operators have indicated that they should know about stand allocations months in advance of their operating season for proper marketing and advertising.

Options and Impacts

Option 1 – Begin the next competitive process in February 2015

Under this option, staff will begin the next competitive process in February 2015, using the same approach and evaluation criteria that were used in 2013. A report with recommendations for stand allocations would be brought forward for Council approval in March 2015.

Advantages:

- ensures fairness to sightseeing businesses
- allows for the possible entry of a new operator that may use "greener" vehicles

Disadvantages:

- it is unlikely that proceeding with the same evaluation approach will result in a significant change in the types of vehicles used at parking stands
- requires significant staff resources
- will give stand operators little advance notice of allocations
- any improvements in the outcome of the competitive process would have to wait until the subsequent competitive process, which could be two years or more in the future, depending upon the length of allocations approved by Council

Option 2 – Approach current stand users with an offer to extend the current allocations for one year to April 1, 2016 (Recommended)

Under this option, staff will approach existing stand users to determine if they would like to extend their current stand allocations by one year. If a stand user was not interested in an extension, a competitive process for that stand could be undertaken, or the stand could remain vacant.

Advantages:

- staff resources will focus on competitive process in fall 2015
- will give stand operators greater advance notice of allocations
- may allow for improved outcomes from the competitive process in 2016

Disadvantages:

- does not allow for the possible entry of a new operator in 2015 that may use "greener" vehicles

Conclusions

As there likely will be no significant change in the types of vehicles used at stands, there appears to be no compelling reason to undertake a competitive process for motorized parking stand allocations at this time. The work that is about to begin on GVHA's 10-year strategy and the GPS data study under consideration for the summer of 2015, may reveal opportunities to improve the outcome of the competitive process by introducing new evaluation criteria or minimum standards. That work may also provide some impetus for sightseeing tour operators to explore and introduce new vehicle technologies or approaches to sightseeing operations. A one-year extension of the current stand allocations would allow for the completion of the 10-year strategy and consideration of how its results could be incorporated into the next competitive process. That next process could then be started in the fall of 2015. A one-year extension would also give current stand users some immediate certainty regarding their use of the stands for the 2015 summer tourist season. Conducting a competitive process at this date would mean that stand allocations would not be finalized until April, which impacts stand users' ability to properly and effectively plan and advertise their services.

Recommendation

That Council direct staff to bring forward amendments to the Vehicles for Hire Bylaw that would extend the motorized sightseeing vehicle parking stand allocations to April 1, 2016 for any current stand users who express interest in a one-year extension.

MOTORIZED PARKING STAND ALLOCATIONS

Governance and Priorities Committee
January 22, 2015

CITY OF VICTORIA

Parking Stand Map

Allocation Process

- Prior to 2012, there were no time limits placed on stand allocations
- Allocations are now time-limited and operators are determined through a competitive process
- Current allocations expire on April 1st

Recommendation

- Recommendation is to extend current allocations for one year to April 1, 2016
- Next steps:
  - Investigate improvements to the process
  - Update Council on the planned process
  - Commence allocation process in Fall 2015
  - Award stands by December 2015

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Governance and Priorities Committee Report
For the Meeting of January 22, 2015

To:	Governance and Priorities Committee	**Date:**	January 9, 2015
From:	Rob Woodland, Director, Legislative and Regulatory Services		
Subject:	Resolution Deadlines for FCM and AVICC/UBCM		

Purpose

The purpose of this report is to identify Resolutions Council may wish to forward to the Federation of Canadian Municipalities (FCM) and the Association of Vancouver Island and Coastal Communities (AVICC) in advance of the deadlines for consideration at their respective Annual General Meetings.

Background

Federation of Canadian Municipalities (FCM)

FCM is a national advocacy group that works on behalf of over 2,000 municipalities across Canada. The organization represents the interests of local governments on policy and program matters that fall within federal jurisdiction, such as broad social and infrastructure issues affecting communities.

Each year at the FCM conference members set the policy that guides the organization's advocacy work. The deadline for submitting Resolutions for the March board meeting and Annual Conference is **January 25, 2015.** Appropriate Resolutions passed on January 22 should be forwarded to the Council meeting for ratification that same night before being provided to FCM.

Union of British Columbia Municipalities (UBCM) / Association of Vancouver Island and Coastal Communities (AVICC)

The UBCM is the provincial advocacy group for local governments in BC. The organization addresses issues that fall under the legislative jurisdiction of the Province, with a focus on policy development and implementation. As local governments derive their authorities from the Province, the issues dealt with by UBCM tend to be aligned and relevant to the operational interests of a municipality.

The AVICC is the UBCM area association for the City of Victoria. Resolutions are generally considered at the AVICC AGM in early April where they can be endorsed and forwarded to the UBCM Convention in September for consideration by the entire membership. The UBCM urges members to submit their resolutions first to Area Associations for consideration. Resolutions passed at convention guide the organizations policy and advocacy work.

The deadline for submitting Resolutions for the AVICC meeting is **February 23, 2015**. Should other Resolutions be identified after February 23, the deadline for submission directly to UBCM is **June 30, 2015.** Resolutions received after this date may be accepted as emergency resolutions if the topic has arisen since the June 30 deadline.

Issues & Analysis

Council has adopted one Resolution for consideration by FCM and AVICC/UBCM on the Right to a Healthy Environment. The Resolution has been reframed and reformatted to adhere to the format and style required by FCM, and is attached as Appendix B.

Council may consider additional Resolutions. In the past, time has been allocated on the agenda of a regularly scheduled GPC meeting to review potential Resolutions for submission to FCM and AVICC/UBCM. Even though the FCM deadline will have passed, time could be set aside at the February 12 GPC meeting if Council wished to have another opportunity to bring forward new Resolutions for AVICC/UBCM.

Resolutions proposed for FCM or AVICC/UBCM should be brought up as new business and considered and adopted by Council. Staff are available to assist with the formatting of the motion to ensure it meets the required standard.

Recommendation

That Council:

1. Adopt the proposed Resolution "Declaration of the Right to a Healthy Environment", as presented in Appendix B, and direct that the motion be sent to Council for consideration at the January 22 meeting.

2. Direct staff to forward the Resolution "Declaration of the Right to a Healthy Environment" to the FCM and AVICC/UBCM.

Respectfully submitted,

Robert Woodland
Director, Legislative and Regulatory Services

Report accepted and recommended by the City Manager: _____

Date: January 14, 2015

Attachments:

Appendix A: Declaration of the Right to a Healthy Environment – *passed by Council*
Appendix B: Declaration of the Right to a Healthy Environment – *proposed for FCM*

Appendix A (Council's Resolution)

Declaration of the Right to a Healthy Environment

WHEREAS the David Suzuki Foundation Blue Dot Tour has inspired many Canadians to request that the right to a healthy environment be enshrined in the Charter of Rights and Freedom through support of the following motion;

AND WHEREAS the City of Victoria understands that people are part of the environment, and that a healthy environment is inextricably linked to the well-being of our community;

AND WHEREAS the City of Victoria's Official Community Plan (2012) provides a strong policy foundation to pursue actions and initiatives that contribute toward a healthy environment;

AND WHEREAS the City of Victoria has the opportunity to be the first jurisdiction on Vancouver Island to endorse the Declaration of the Right to a Healthy Environment, joining other Canadian cities in re-affirming our commitment to social, environmental and economic sustainability;

THEREFORE BE IT RESOLVED THAT the City of Victoria endorses the following declaration:

"All people have the right to live in a healthy environment, including:
The right to breathe clean air;
The right to drink clean water;
The right to consume safe food;
The right to access nature;
The right to know about pollutants and contaminants released into the local environment;
The right to participate in decision-making that will affect the environment.

The City of Victoria has the responsibility, within its jurisdiction, to respect, protect, fulfill and promote these rights.

The City of Victoria shall apply the precautionary principle: where threats of serious or irreversible damage to human health or the environment exist, the City of Victoria shall take cost-effective measures to prevent the degradation of the environment and protect the health of its citizens. Lack of full scientific certainty shall not be viewed as sufficient reason for the City of Victoria to postpone such measures.

The City of Victoria shall apply full-cost accounting: when evaluating reasonably foreseeable costs of proposed actions and alternatives, the City of Victoria will consider costs to human health and the environment.

By December 31st, 2015, the City of Victoria will consider objectives, targets, timelines and actions within its jurisdiction to fulfill residents' right to a healthy environment, including options to:

- Ensure equitable distribution of environmental benefits and burdens within the municipality, preventing the development of pollution "hot spots";
- Ensure infrastructure and development projects protect the environment, including air quality;
- Address climate change by reducing greenhouse gas emissions and implementing adaptation measures;
- Responsibly increase density;
- Prioritize walking, cycling and public transit as preferred modes of transportation;
- Ensure adequate infrastructure for the provision of safe and accessible drinking water;
- Promote the availability of safe foods;

- Reduce solid waste and promote recycling and composting;
- Establish and maintain accessible green spaces in all residential neighbourhoods.

The City of Victoria shall review these objectives, targets, timelines and actions every five (5) years, and evaluate progress towards fulfilling this declaration.

The City of Victoria shall consult with residents as part of this process."

AND BE IT FURTHER RESOLVED THAT Council forward this resolution to the annual meeting of the Association of Vancouver Island and Coastal Communities, the Union of British Columbia Municipalities, the Federation of Canadian Municipalities and member local governments, requesting favourable consideration by local councils and by delegates at the 2015 annual meetings of these associations.

Appendix B (Proposed Resolution for FCM)

Declaration of the Right to a Healthy Environment **City of Victoria**

WHEREAS, The environment and its protection are important aspects and cause for pride for all Canadians; and

WHEREAS, We see ourselves as world leaders when it comes to social justice and the environment but the reality is we're falling behind the rest of the world; and

WHEREAS, All levels of government have the responsibility, within their own jurisdictions, to respect, protect, fulfill and promote these rights; and

WHEREAS, The David Suzuki Foundation Blue Dot Tour has inspired many Canadians to request that the right to a healthy environment be enshrined in the Charter of Rights and Freedom; therefore be it

RESOLVED, That the Federation of Canadian Municipalities endorses the following declaration and supports it being adopted by all member municipalities
"All people have the right to live in a healthy environment, including:
The right to breathe clean air;
The right to drink clean water;
The right to consume safe food;
The right to access nature;
The right to know about pollutants and contaminants released into the local environment; and
The right to participate in decision-making that will affect the environment."; and be it further

RESOLVED, That the FCM campaign to amend the Charter of Rights and Freedom to include the right to a healthy environment.

CITY OF VICTORIA

Council Member Motion

For the Governance and Priorities Committee of January 22, 2015

Date: January 14, 2015 **From:** Councillor Marianne Alto

Subject: Managing Changing Canada Post Mail Delivery Systems

Summary
Canada Post is eliminating home delivery in urban centres, and moving ahead with implementation of its urban community mailbox system.

The City of Victoria is opposed to this change in postal service, as indicated in a resolution approved by City Council in January 2014 in which the Federation of Canadian Municipalities was asked to advocate with the federal government to maintain the current system of residential door-to-door postal delivery in Canada, and in which concern was noted about the downloading of responsibilities, costs, and liabilities to local governments, including requirements for municipal land and rights-of-way, infrastructure such as paving and lighting, and policy related to vandalism, graffiti and mail theft.

Nevertheless, Canada Post has identified parts of the City of Victoria for transition to this system in 2015.

Canada Post has made a commitment to pay one-time-only small fixed fees to the City of Victoria to help defray costs as they are shifted to the municipality.

Overall costs to the City of Victoria for changes in infrastructure, maintenance, repair and other sundry costs related to upkeep cannot accurately be calculated in advance.

Recommendation
Therefore Be It Resolved that Council ask City Staff to seek out and provide to Council information on best practices in implementing, managing, and minimizing costs arising from the new community mailbox system in other municipalities;

Be It Also Resolved that Council ask City Staff to provide advice on methods to minimize start-up and continuing costs to the City of Victoria in relation to the urban community mailbox mail delivery system.

Respectfully submitted

Councillor Marianne Alto

Councillor Ben Isitt