



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee

**Date:** June 30, 2011

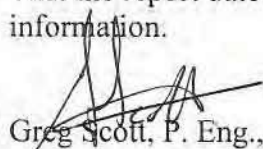
**From:** Greg Scott, P. Eng., LEED A.P.  
Director, Project Development

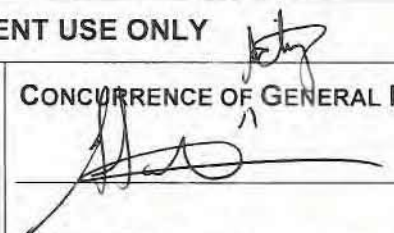
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**Re:** Ageing Facility Infrastructure - Update

### Staff Recommendation

That the report dated June 30, 2011 from the Director of Project Development, be received for information.

  
Greg Scott, P. Eng., LEED A.P.  
Director, Project Development  
(604-276-4372)

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<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>	
Budgets	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
<b>REVIEWED BY TAG</b>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	<b>REVIEWED BY CAO</b>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

## **Staff Report**

### **Origin**

On February 3, 2006 Facility Management provided a report to Council detailing City building conditions. The results were derived on physical audits undertaken by Vanderweil Facility Advisors (VFA) involving 140 buildings comprising 1,450,000 sq. ft of total building area. This report provides an update to the overall Facility Condition Index (FCI) of City facilities 5 years after the original report.

### **Background**

#### Council Term Goals

One of the strategic focus areas outlined in the currently adopted Council Term Goals is Financial Management. The goal is to ensure the City has the capacity to meet the financial challenges of today and the future, while maintaining current levels of service. This report outlines the current and long-term financial requirements for maintaining and replacing the City's ageing building infrastructure.

#### Condition of Existing Building Inventory

The City of Richmond's General Buildings and Leased facilities inventory consists of 146 buildings representing notable financial worth with a current value of \$284 million, excluding land costs and the Richmond Olympic Oval. The functional life of a facility is 45 years plus providing regular preventive maintenance is performed before a major refit is done. The average age of the facilities included in this report is 39.

FCI is an industry standard designation of facility condition where 0.00 to 0.05 is good, 0.06 – 0.10 is fair, and higher than 0.10 is considered poor. In 2006, the FCI of City facilities was 0.07 and has not changed due additional funding received in the past few years, as well as the replacement of some facilities. This has contributed to maintaining the overall FCI. However, a significant number of facilities will come due for major component renewal such.

### **Analysis**

Annual facility inspections based on twenty percent of total square footage are performed by a team comprised of an Architect, and an Electrical and Mechanical Engineer. Assessments currently estimate a \$20 million backlog of infrastructure repairs/replacement requirements. Twenty-year projections of this backlog and anticipated average renewals indicate this backlog would increase an average of \$5 million per year over the next 20 years to \$120 million if the current level of funding continues.

The 2010 funding applied to facility infrastructure repairs, replacement, and renewal is \$4,325,000. Increases in funding since 2006 have enabled the repair, replacement, and renewal of many high priority systems such as roofs and mechanical systems. However, funding projections show that the average annual funding requirement over the next 20 years is \$8,321,214. A base level increase of \$4.0M would address this annual shortfall and would allow



City Facilities is one of the core services that the city provides to the community that does not have a statutory reserve to support the operation costs or capital repair and replace, like city utilities (water, sewer, storm sewers). Adequate annual funding levels will allow the City to implement a proactive and sustainable infrastructure replacement and renewal program. The proactive replacement of infrastructure enables the City to smart sequence repairs and renewal while using competitive bidding to ensure the best value for money. Proactive action prior to time of failure has been proven to be considerably less expensive than after infrastructure failure.

### Funding Strategies

In projecting the most appropriate level of funding, the following three options are considered:

#### **Option 1 – Maintain Current Funding**

This option assumes the current funding level remains at \$4,325,000 over a 20-year period. Work programs will focus only on essential priority items and renewal where absolutely necessary. In this option, building deterioration and FCI increases with minimal ability to manage building element failures that will arise. After only ten years, the FCI increases from 0.07 to 0.23 with the following results:

<b>Option 1 Current Annual Funding</b>	<b>\$4,325,000</b>
Total investment over 20 years	\$86,500,000
Building Replacement Value	\$284,755,071
Deficiency Backlog	\$123,014,895
Net Building Value	\$161,740,175
FCI in 20 years	0.43

*This option is not recommended by Staff as a sustainable solution*

#### **Option 2 – Maintain Current FCI At 0.07**

Maintaining our buildings at an FCI of 0.07 will necessitate a one-time increase to the annual funding by \$4.0 million. This option will see net building values increase as the backlog holds steady at \$20 million.

<b>Option 2 Annual Funding</b>	<b>\$8,321,214</b>
Total Investment over 20 years	\$166,424,280
Building Replacement Value	\$284,755,071
Deficiency Backlog	\$20,866,484
Net Building Value	\$263,888,587
Tax Impact	2.48%
FCI in 20 years	0.07



Option 2 meets our corporate mission “To protect and enhance liveability and economic well being for current and future generations”. However, staff acknowledges the immediate tax impact of this option and recommend the following funding mechanism. Rather than funding the entire shortfall through a one time tax increase staff suggest the use of current year’s surplus that arises. The increase would take place over the next five years, using a combination of the prior year’s surplus and a small operating budget increase. This is illustrated in Table 1 below:

**Table 1**

Year	2012	2013	2014	2015	2016	2017	2018
Funding from prior years surplus	\$750k	\$750k	\$750k	\$750k	\$250k	0	0
Operating Budget Increase	\$750k	\$750k	\$750k	\$750k	\$750k	\$250k	0
Total Operating Budget	\$5.075M	\$5.825M	\$6.575M	\$7.325M	\$8.075M	\$8.325M	\$8.325M
FCI	0.08	0.09	0.095	0.098	0.1	0.102	0.105
Accumulated funding allocated to program	\$1.5M	\$2.25M	\$3.0M	\$3.75M	\$4.0M	\$4.0M	\$4.0M

The increases would be done over five years (2012-2016) with an annual tax increase of 0.46% and a 2017 tax increase of 0.15% for this program, rather than a onetime 2.48% tax increase. This will result in a FCI in 20 years of 0.15.

### **Option 3 – Staged Increases of Funding to Minimize Impact to Facilities**

Various increases in the current level of funding are shown in Table 2 below. FCI increases, but not as drastically as Option 1. These options will maintain facilities in significantly better state than Option 1.

**Table 2**

	\$500K /year Increase over 8yrs	\$1M /year Increase over 4yrs	\$1.5M /year Increase over 3yrs
Average Annual Funding	\$ 7,950,000	\$ 8,025,000	\$ 8,600,000
Total Investment over 20yrs	\$159,000,000	\$160,500,000	\$172,000,000
Building Replacement Value	\$284,755,071	\$284,755,071	\$284,755,071
Deficiency Backlog	\$ 47,325,783	\$ 44,486,815	\$ 33,597,188
Net Building Value	\$237,429,288	\$240,268,256	\$251,157,883
FCI after 20 Yrs.	.16	.15	.11
Annual Tax Impact	0.31%	0.62%	0.93%

**Financial Impact**

None at this time

**Conclusion**

Currently the City's building infrastructure is in good to fair condition with an FCI of 0.07. However, due to insufficient infrastructure repair, replacement, and renewal funding, our facilities will deteriorate over a period of 20 years. To stay at, or close to, the Facility Condition Index of 0.07, additional funding is required. Staff will continue to recommend that the funding gaps between current and required funding levels be closed over time through the annual budgeting process. The funding shortfalls outlined in this report should be considered in conjunction with the City's Long Term Financial Management Strategy.

A handwritten signature in black ink, appearing to read 'Pete Jansen', with a stylized, flowing script.

Pete Jansen  
Building Maintenance Planner  
(604-244-1236)