

# Project Cost Drivers for the City of Edmonton

Information regarding the costs of City of Edmonton specific policies that drive project costs

## Recommendation:

That the April 22, 2013, Corporate Services report 2013COP002, be received for information.

## Report Summary

**This report was prepared in response to a motion regarding the City of Edmonton specific policies that drive costs for new City building construction projects.**

## Previous Council/Committee Action

At the September 10, 2012, Audit Committee meeting, the following motion was passed:

That Administration provide a report to Audit Committee with further information regarding the costs of a project for the City of Edmonton, including the cost impact of Leadership in Energy and Environmental Design (LEED) certification and other City of Edmonton-specific policies that drive project costs.

## Report

City infrastructure project costs are influenced by a number of City-specific policies outlined in this report.

The City of Edmonton has a number of Council approved policies in place that influence the design standards and

construction quality for City owned infrastructure. These policies relate to elements such as environmental sustainability and accessibility to the public and are generally consistent with the policies found in other public organizations such as the Government of Alberta, City of Calgary and the University of Alberta.

The major City policies that impact construction costs are:

1. C532 (Sustainable Building Policy)  
This Policy requires City-owned facilities be constructed to an environmentally sustainable standard (LEED silver, waste diversion, 30% greater energy efficiency, etc.). This Policy applies to building projects only.
2. C458C (Percent for Art to Provide and Encourage Art in Public Areas)  
This Policy requires 1% of qualifying construction budgets to be used to fund public art. This Policy applies to any municipal project that will be accessed by or be highly visible to the public, including road bridges, rail bridges, foot bridges, streetscape improvements, buildings, recreation facilities as well as park, plaza and square developments.
3. C456A (Corporate Tree Management)  
This Policy requires trees to be protected, relocated, or replaced during construction activities, including trees and shrubs that have been planted on boulevards, lanes, sidewalks and road right-of-ways or any other public places. This Policy applies to all City construction

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projects where trees may be affected.

#### 4. C512 (Environmental Policy)

This Policy requires the City to promote environmental sustainability by reducing pollution, improving environmental performance setting and meeting or exceeding applicable environmental legal requirements. This Policy applies to all City infrastructure construction or renovation projects.

#### 5. C463 (Accessibility to City Buildings)

This Policy ensures that all persons, including persons with disabilities, will have reasonable access to City of Edmonton owned and occupied buildings. This policy applies to all City owned and occupied buildings.

#### 6. C513 (Public Involvement)

This policy governs the various methods of engaging the people of Edmonton in discussions about civic matters that affect them. This Policy applies to all City construction projects where public involvement is required.

For the purposes of this report, Administration compared these policy costs for six City building construction projects. The results show a range of cost premiums on City buildings projects of anywhere from 5% to 10%. The average cost across the six projects was 7%. *See Attachment 1 for the cost breakdown and explanations.*

City buildings are constructed to meet public safety and citizen service needs and expectations. As a result, the City places a strong emphasis on long term

sustainability. Construction projects are designed and built to a high standard of durability, reflecting life cycle requirements of public infrastructure that can be much longer than in the private sector.

In addition to the above, unlike private sector builders, every City building must comply with the Edmonton Design Committee's principles of urban design, which ensure designs are aesthetically pleasing, innovative and promote connectivity.

City buildings are designed to meet the expectations of both City Council and the citizens of Edmonton. The cost of a City construction project is typically driven above and beyond the private sector's standards, but that increase in cost reflects the City's need for high quality and long lasting buildings.

Other civic infrastructure projects including Drainage, Roads, LRT, Parks and Waste Management construction projects were not analyzed in detail for this report, however individual project costs may be influenced to a certain degree by some of the above policies depending on the nature of the project.

### **Corporate Outcomes**

Edmonton has sustainable infrastructure that fosters and supports civic and community needs.

The City has well managed and sustainable assets.

### **Attachment**

1. Examples of Building Project Cost Percentages related to Construction Cost Drivers

**Others Reviewing this Report**

- L.Cochrane, General Manager,  
Community Services
- L. Rosen, Chief Financial Officer and  
Treasurer
- R. Boutilier, General Manager,  
Transportation Services

## Attachment 1: Examples of Buildings Project Cost Percentages related to Construction Cost Drivers

Cost Drivers (as percentage of total construction costs)	POLICY COST DRIVERS										Average Cost									
	C532, C567	Sustainable Building Policy (LEED silver, waste, 30% greater energy efficiency, etc.)	Jasper Place Library	Fire Station #5	Edmonton Police Service SW Division Station	Fort Edmonton Admin	Clareview Community Recreation Centre	Ellerslie Fire Station	C458C	Percent for Art		C456A	Tree Management	C512	Environmental Program Management	C463	Accessibility and Signage	C513	Public Involvement*	Total Costs
		6.34%	6.67%	4.57%	4.00%	3.50%	6.20%	5.21%												
		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%												
		0.79%	0.19%	0.00%	0.01%	0.05%	0.00%	0.17%												
		0.27%	0.37%	0.03%	1.37%	0.02%	0.05%	0.35%												
		1.43%	0.08%	0.04%	0.10%	1.14%	0.03%	0.47%												
		0.00%	0.16%	0.00%	0.01%	0.10%	0.10%	0.06%												
		<b>9.83%</b>	<b>8.46%</b>	<b>5.64%</b>	<b>6.49%</b>	<b>5.81%</b>	<b>7.38%</b>	<b>7.27%</b>												

\*EPL and EPS responsible for their own public involvement costs  
Anticipated average range for total cost is 5% to 10% dependent on conditions

Cost Driver Explanations	POLICY COST DRIVERS		EXPLANATION
	C532, C567	C458C	
	Sustainable Building Policy		Dependent on building use, technical components, complexity and size.
	Percent for Art		Constant for all projects at 1% of the Construction cost.
	Tree Management		The incremental cost of this Policy is dependant on the number, size, species and health of the trees that are to removed to accommodate the new facility.
	Environmental Program Management		The cost of this Policy varies with the amount of environmental issues that need to be remediated, such as contaminated soil, Asbestos, Mould, etc.
	Accessibility and Signage		The incremental cost of this Policy depends greatly on whether the facility is a public use facility or not. Buildings such as Recreation Centres require a great deal of signage, additional elevators, ramps etc.
	Public Involvement		Dependant on location and use. Certain client groups such as Edmonton Public Library are responsible for the public involvement on a project. Facilities with no public access, usually do not require public involvement.