

Capital Construction

Mission

“To consolidate the City of Edmonton’s capital project planning and management expertise, and to focus accountability for delivering capital projects on time and on budget.”



Our Road Map

Overview

The Capital Construction Department was created in 2008 to ensure that the City’s road network, its LRT infrastructure, and its civic buildings are constructed efficiently, on-time, and within budget using world-recognized best practices in delivery, design, and construction methods.

The Department brings together the City’s capital project expertise along with private sector partners such as engineering consultants, architects, and construction contractors to deliver best-value infrastructure for our citizens.

The Department delivers the infrastructure necessary for the City to be successful in providing programs to citizens through:

- Buildings Design & Construction
- LRT Design & Construction
- LRT Expansion
- Roads Design & Construction

Major Services & Activities

Buildings Design & Construction

- Project planning for all civic buildings
- Contract management for the design, construction and renovation of City buildings
- Review and approval of civic building designs
- Coordination of construction activities across City departments

LRT Design & Construction

- Project management services for the planned South LRT Extension and Downtown to NAIT LRT projects, including:
 - Identifying and evaluating project delivery strategies
 - Coordinating construction with other City departments and utilities

LRT Expansion

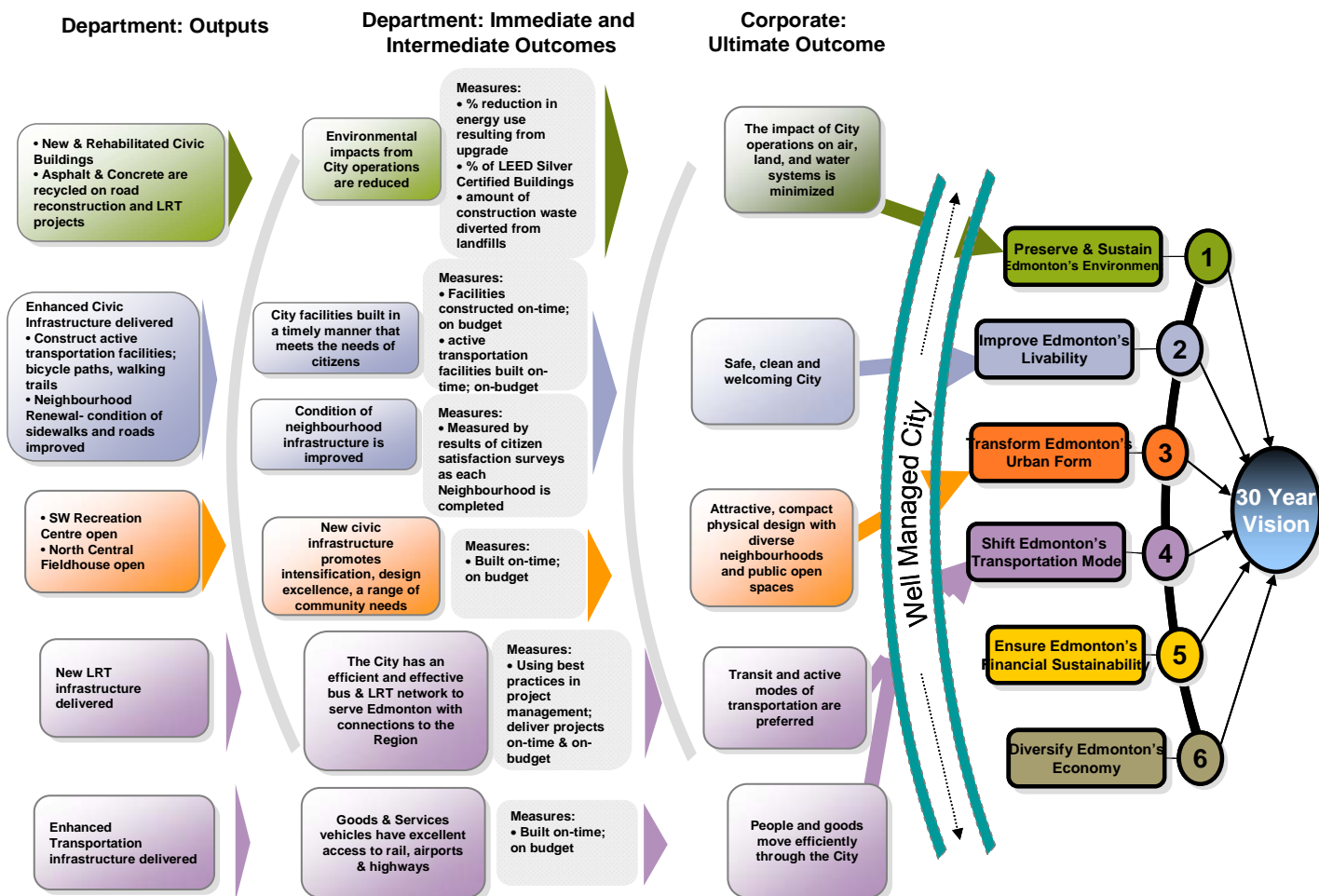
- Preliminary engineering, provide detailed design, and project manage the LRT extensions
- Identification of the most effective and efficient delivery methods for each leg of the system based on its own unique set of challenges, including but not limited to P3s, design-builds, construction management and design-bid-build

Roads Design & Construction

- Design, contract administration and project management for:
 - Road and bridge construction and rehabilitation
 - Interchange construction
 - Neighbourhood renewal and rehabilitation
 - Facility construction for active transportation modes

Capital Construction

Strategic Road Map — Outcomes: Capital Construction



Immediate and Intermediate Outcomes and Measures

Outcome	Measure
1. Environmental impacts from City operations are reduced	<ul style="list-style-type: none"> • % reduction in energy use resulting from upgrade • % of LEED Silver Certified Buildings • Amount of construction waste diverted from landfills
2. Active Transportation facilities (bike paths, walking trails) built in a timely manner that meets the needs of citizens	<ul style="list-style-type: none"> • Facilities constructed on time; on budget
3. Conditions of neighbourhood infrastructure is improved	<ul style="list-style-type: none"> • Measured by results of citizen satisfaction surveys as each neighbourhood is completed
4. New civic infrastructure promotes intensification, design excellence, a range of community needs	<ul style="list-style-type: none"> • Built on time; on budget
5. The City has an efficient and effective bus and LRT network to serve Edmonton with connections to the region	<ul style="list-style-type: none"> • Built on time; on budget • LRT track and facilities are built on time and on budget
6. Goods and services vehicles have excellent access to rail, airports and highways	<ul style="list-style-type: none"> • Built on time and on budget

Capital Construction

Proposed 2010 Operating Budget

The following is a roll-up of the proposed 2010 Operating Budget for the Capital Construction Department. Each of the five major services will have their budgets broken out in the following pages, along with explanatory notes to provide greater understanding about the costs and recoveries associated with the services provided.

Capital Construction Department - Program Summary

	2008 Actual	2009 Budget	Revenue & Cost Impacts*	Service & Budget Review	Service Needs	2010 Budget	% Change '09-'10	2011 Forecast
Revenues								
User fees, Fines, Permits, etc.	\$ 9	\$ 371	\$ (162)	\$ -	\$ -	\$ 209	(43.7)	\$ 214
Transfer from Reserves**	523	330	(330)	-	-	-	(100.0)	-
Total Revenues & Transfers	532	701	(492)	-	-	209	(70.2)	214
Expenditures								
Buildings Design & Construction	1,529	1,487	(291)	(103)	300	1,393	(6.3)	1,756
LRT Design & Construction	20	-	298	-	-	298	-	317
LRT Expansion	65	691	260	(73)	-	878	27.0	936
Roads Design & Construction	-	2,134	(343)	(111)	-	1,680	(21.3)	1,781
Department Administration***	256	87	92	-	-	179	105.7	143
Total Expenditures & Transfers	1,870	4,399	16	(287)	300	4,428	0.7	4,933
Net Operating Requirement	\$ 1,338	\$ 3,698	\$ 508	\$ (287)	\$ 300	\$ 4,219	14	\$ 4,719
Full-time Equivalents ****	61.0	147.2	1.8	-	4.0	153.0		162.0

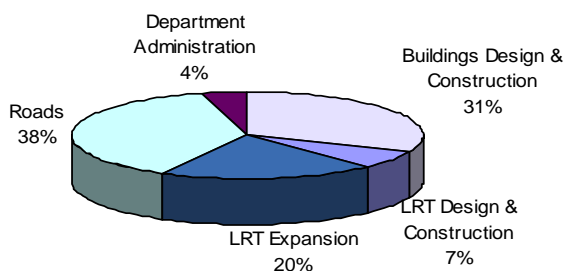
* Cost Impacts include: inflation on personnel and non-personnel costs, annualization, adjustments based on current performance. Revenue Impacts relate to rate and volume changes.

** (\$330K) - Energy Conservation Reserve - expires December 31, 2009, with any balance transferred to the Financial Stabilization Reserve (FSR).

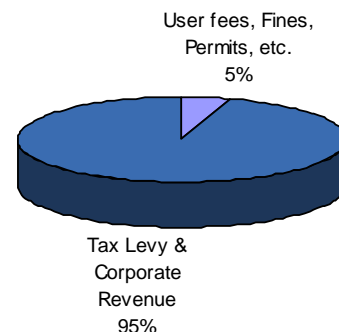
*** In order to more fully account for administration charges on capital projects, the costs (\$1.9 M) of space rental and dedicated resources from other departments have been transferred to the Capital Construction Department. The Department is maximizing the allowable charges to capital projects in order to minimize the impact on the tax levy.

**** The Roads Design and Construction Branch joined the Capital Construction Department in 2009.

Where the Budget will be spent



Funding by Source



Capital Construction

Buildings Design & Construction

Responsibility

The Buildings Design & Construction Branch provides planning and project management services to other City Departments for the design, construction and renovation of City buildings, and for contaminated site remediation. The branch is the City's representative for building projects to ensure that the citizens receive a quality product for good value.

The City's technical and project management expertise for buildings are located within this branch. Some of the major responsibilities of the Branch include:

- Managing project planning activities with client departments and stakeholders
- Contract management for the design and construction of City Buildings
- Managing complex and technical building rehabilitation projects
- Managing energy assessments and upgrades to City owned facilities
- Providing architectural and engineering technical support to other City departments

Operational Variables

The volume of work demanded of the Buildings Design & Construction branch is mainly dependant upon the following:

- The number of buildings and facilities that require planning activities based on client departments need;
- The number of new building and facility projects that client departments receive funding for;
- The amount of funding approved for rehabilitation of city buildings and facilities; and
- The number of requests received from client departments for technical support.

The amount of capital funding spent on building projects has increased significantly over the past five years from \$48 million in 2005 to a projected \$195 million in 2009. In addition, the branch must manage some building maintenance projects that are funded from client department operating budgets.

It is anticipated that the growth in the number of new buildings will not increase as quickly as what has been observed over the past few years, but the number of rehabilitation projects will increase as the current infrastructure continues to age and deteriorate.

Current Services

The branch provides services to other city departments, the Edmonton Public Library and the Edmonton Police Service. It is currently managing the design and construction of 43 new buildings and 150 rehabilitation projects. For the 2009-2011 capital budget cycle, the branch will be managing \$684 million worth of capital projects.

The significant projects related to new buildings includes 4 multi-purpose recreation centres (Southwest, North Central, Clareview and Meadows), North Central Field House, Southwest Transit Garage, North Branch Library, Eglerslie Fire Station, and the Southwest Division Police Station.

In addition to managing larger rehabilitation projects such as the Jasper Place library branch renewal, Highlands library branch renewal, and Mobile Equipment Services Heavy Repair & Equipment Facility, the branch is currently managing 147 smaller rehabilitation projects at various locations across the city.

The branch is also managing energy assessments of 10 city facilities and the implementation of 13 energy upgrades in 2009. The results of the assessments will be used to identify potential capital energy upgrade projects that would reduce energy consumption and green house gas emissions.

Capital Construction

Buildings Design & Construction

Major Service Objectives

The branch continually strives to improve its efficiency and effectiveness in the provision of services. One major initiative currently underway is having branch staff undertake standardized project management training. Not only does this initiative align with the City Auditor's recommendation for project management training, but it adds a common set of tools to project managers' tool boxes for consistent use on projects across the branch.

Other initiatives include refining existing processes to align with the Capital Construction department, enhancing relationships with external consultants and client departments, and working with other internal departments to increase process efficiencies.

Issues and Challenges

The branch is currently facing two major challenges. First is the difficulty in hiring experienced staff, while managing the loss of seasoned veterans due to retirements. Part of the strategy in managing this issue will be an attempt to retain experienced staff on a part time basis after retirement, however, other options will need to be explored as more of the staff attains retirement eligibility.

The second challenge is the depletion of reserve funding that has been set aside by Council in 2006 for building energy assessments. This funding ends on December 31, 2009. Since 2004, the branch has performed energy assessments on various city facilities for the purposes of identifying energy upgrade projects to reduce energy consumption and green house gas emissions. As a result of these assessments, approximately 33 energy upgrade projects have been implemented on various facilities. The estimated annual reduction of green house gas emissions due to these projects is 24 million kilograms of carbon dioxide. A funding request for \$300,000 annually to continue with building energy assessments has been submitted as part of the 2010 Operating Budget process. The energy assessments will be discontinued if the funding request is not approved.

Capital Construction

Buildings Design & Construction

Current Service Level

Current (2009) Service Level	Key Resource Requirement	Capacity of Service	Benefits of Service
<p>Manage \$684 million worth of building capital projects between 2009 and 2011. Major projects include:</p> <ul style="list-style-type: none"> ▪ 4 new multi-purpose recreation centres ▪ 4 new fire stations ▪ 2 new libraries and 2 branch renewals ▪ 3 new transit centres ▪ New division police station ▪ New Eco Station ▪ Various rehabilitation projects across the city <p>Manage building energy assessments.</p>	<ul style="list-style-type: none"> ▪ BDC currently utilizes 57 FTEs at a cost of \$6.1 million. ▪ The majority of materials, equipment, and contract services are directly funded by capital projects. ▪ Private sector resources such as architects, construction managers, and environmental consultants are used to assess, design, and manage various projects including energy assessments. ▪ Approximately 80% of program resources are charged to capital projects. 	<ul style="list-style-type: none"> ▪ Since 2005, the branch is managing a large increase (\$ value has tripled) in the volume and complexity of projects. ▪ The project costs managed per employee has increased from \$1.42 million each in 2005 to \$2.2 million in 2009 (<i>dollar amounts have been adjusted for cost escalation</i>). ▪ Additional funding is required to continue performing building energy assessments. 	<ul style="list-style-type: none"> ▪ Centralized management for project planning, design, and construction of building projects allows for the application of best practices. ▪ The branch is able to commit to delivering accurate cost estimates, and appropriate delivery methods that provide Council-approved infrastructure on-time and on-budget. ▪ Preserve & sustain Edmonton's environment by ensuring a quality and sustainable product is produced at a good value. ▪ Contribute to reduction in building energy consumption and greenhouse gas emissions in civic buildings.

Capital Construction

Buildings Design & Construction

Strategic Initiatives

10 Year Strategic Goal / 3 Year Priority Goal	Initiative	Outcome	
		Immediate & Intermediate	Ultimate
<p>1. Preserve and Sustain Edmonton's Environment</p> <ul style="list-style-type: none"> - Increase and broaden advancement towards zero waste - reduce greenhouse gas emission - improve air, water & soil quality 	<ul style="list-style-type: none"> - New and rehabilitated civic buildings 	<ul style="list-style-type: none"> - Environmental impacts from City operations are reduced 	<ul style="list-style-type: none"> - The impact of City operations on air, land, and water systems is minimized
<p>2. Transform Edmonton's urban form</p>	<ul style="list-style-type: none"> - SW Recreation Centre open - North Central Field house open 	<ul style="list-style-type: none"> - New civic infrastructure promotes intensification, design excellence, a range of community needs 	<ul style="list-style-type: none"> - Attractive, compact physical design with diverse neighbourhoods and public open spaces
<p>3. Improve Edmonton's Livability</p>	<ul style="list-style-type: none"> - New civic buildings 	<ul style="list-style-type: none"> - City facilities built in a timely manner that meets the needs of citizens 	<ul style="list-style-type: none"> - Safe, clean and welcoming City

2010 Budget Impact

Base	None - Strategic initiatives are included in the 2010 Budget
Incremental	None - There are no incremental budget requirements in 2010 for strategic initiatives

Capital Construction

Buildings Design & Construction

Proposed 2010 Operating Budget

Capital Construction Department - Buildings Design & Construction

Notes	2008 Actual	2009 Budget	Revenue & Cost Impacts*	Service & Budget Review	Service Needs	2010 Budget	% Change '09-'10	2011 Forecast
Revenue & Transfers								
User fees, Fines, Permits, etc.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	\$ -
¹ Transfer from Reserves	523	330	(330)	-	-	-	(100.0)	-
Total Revenue & Transfers	<u>523</u>	<u>330</u>	<u>(330)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(100.0)</u>	<u>-</u>
Expenditure & Transfers								
² Personnel	3,621	6,088	154	-	-	6,241	2.5	6,704
Materials, Goods & Supplies	121	75	67	-	-	142	89.3	145
³ External Services	3,095	695	(318)	-	300	677	(2.5)	690
⁴ Intra-municipal Services	134	106	614	-	-	720	579.2	(145)
Other Charges	98	78	225	-	-	303	288.5	309
Subtotal	7,069	7,042	742	-	300	8,084	14.8	7,703
⁵ Intra-municipal Recoveries	(5,540)	(5,555)	(1,033)	(103)	-	(6,691)	20.5	(5,947)
Total Expenditure & Transfers	<u>1,529</u>	<u>1,487</u>	<u>(291)</u>	<u>(103)</u>	<u>300</u>	<u>1,393</u>	<u>(6.3)</u>	<u>1,756</u>
Net Operating Requirement	\$ 1,006	\$ 1,157	\$ 39	\$ (103)	\$ 300	\$ 1,393	20.4	\$ 1,756
Full-time Equivalents	44.0	57.0	-	-	-	57.0		61.0

* Cost Impacts include: inflation on personnel and non-personnel costs, annualization, adjustments based on current performance. Revenue Impacts relate to rate and volume changes.

Capital Construction

Buildings Design & Construction

Budget Changes for 2010 (\$000)

Revenue & Cost Impacts on 2009 Services

Revenue Changes

\$ -	Volume changes
-	Rate changes
(330)	Transfers from Reseves
(330)	Total Revenues

Cost Changes

239	Inflation - personnel
(111)	Inflation - recoveries
13	Inflation - non-personnel
612	Intra-municipal Services (Space rent, departmental overhead, monthly parking)
(1,025)	Intra-municipal Recoveries
(19)	Other Organizational & Operational Cost Changes
(291)	Total Cost Changes
39	Net Operating Requirement

Service & Budget Review

(103)	Two building facility project officers and one planning technician
(103)	Net Operating Requirement

Service Needs

300	Energy Audit
-	
\$ 300	Net Operating Requirement

Impact on Full-time Equivalentents

0.0	
0.0	
0.0	Total Full-time Equivalent Changes

Capital Construction

Buildings Design & Construction

Notes

1. Transfer from Reserve

Reflects expiration of \$330,000 reserve funding for building energy assessments.

2. Personnel

Increase from 2009 to 2010 is due to personnel wage and benefit contract settlements.

3. External Services

Includes \$300,000 for building energy assessments that were previously funded from a reserve that will expire on December 31, 2009.

4. Intra-municipal Services

Increase to intra-municipal services are mainly generated from space rent and departmental overhead charges to branches and monthly parking charges.

5. Intra-municipal Recoveries

Recoveries from capital projects for personnel and branch overhead.

Capital Construction

LRT Design & Construction

Responsibility

The LRT Design & Construction Branch is responsible for efficiently and effectively delivering LRT capital projects for the Transportation Department. The work of this Branch is guided by City Council Bylaws and Policies, and Administrative Directives. LRT plans are incorporated in Edmonton's Transportation Master Plan (The Way We Move) established as a requirement of the Province of Alberta's City Transportation Act. Implementation of capital projects must meet all applicable provincial and federal regulations, and terms of agreements for funding from other levels of government.

Operation Variables

Funding is approved for the LRT extension from Health Sciences to Century Park and resources are available within the branch and externally to successfully manage the project. Following completion of the majority of the construction in 2009 and opening the extension for service in 2010, existing internal resources will be assigned to the North LRT extension from Churchill station to NAIT project. The Design Engineering Phase for the North LRT extension will continue through 2010, with construction activity to start pending approval of funding.

Current Services

Project Management for design and construction, includes determining delivery methods, and coordination with other City departments and utilities for:

- South LRT extension from Health Sciences Station to Century Park Station – budget \$675 million. Scheduled opening April, 2010.
- North LRT extension from Churchill Station to NAIT – budget \$825 million (pending funding from other orders of Government). Design Engineering to be completed in Fall, 2010.

LRT station platform extensions at Health Sciences, McKernan/Belgravia, South Campus, Southgate and Century Park – budget \$15 million. Scheduled to be completed by March, 2011 (requirement of Federal Infrastructure Stimulus Program).

Providing advice concerning LRT construction to the Transportation and Planning and Development departments, and stakeholders during planning phases.

Capital Construction

LRT Design & Construction

Major Service Objectives

Implement a system of defined project management best practices, cost estimating, training, planning and engineering standards and monitoring and sign-off

Issues and Challenges

Funding for the construction phase of the North LRT extension from Churchill to NAIT is subject to receiving Provincial and/or Federal Government support. Commitments from either level of government has not been forthcoming and will likely delay the planned service implementation in early 2014 if authority to issue notices to proceed with construction is not in place by January, 2010.

Current Service Level

Current (2009) Service Level	Key Resource Requirement	Capacity of Service	Benefits of Service
<p>South LRT</p> <ul style="list-style-type: none"> Complete construction and commission of extension to U of A South Campus by April 23, 2009. Complete 90% of construction to Century Park in 2009 to prepare for scheduled opening in April 2010. <p>North LRT</p> <ul style="list-style-type: none"> Complete preliminary engineering in 2009. Develop project delivery plan. Continue acquisition and complete construction of tunnel under Qualico/Epcor Tower. 	<ul style="list-style-type: none"> LRT Design & Construction currently utilizes 13 FTEs at a cost of \$1.4 million. Materials, equipment, and contract services are directly funded by the SLRT and NLRT capital projects. Approximately 95% of program resources are charged to capital projects. 	<ul style="list-style-type: none"> Existing resources are sufficient to maintain the current service level because of the high reliance on outside services such as consultant designs and contracted project management. Additional FTEs would be required to manage an increase in construction activity. 	<ul style="list-style-type: none"> The City has an efficient and effective LRT network that will contribute to shifting Edmonton's transportation mode. Transform Edmonton's urban form by delivering the essential infrastructure needed to achieve transit-oriented design. Transit and active modes of transportation become a viable and competitive alternative to private passenger vehicles.

Capital Construction

LRT Design & Construction

Strategic Initiatives

10 Year Strategic Goal / 3 Year Priority Goal	Initiative	Outcome	
1. Preserve and Sustain Edmonton's Environment	Asphalt and concrete are recycled on road reconstruction and LRT projects	Immediate & Intermediate	Ultimate
		Environmental impacts from City operations are reduced	The impact of City operations on air, land, and water systems is minimized

2010 Budget Impact

Base	None - Strategic initiatives are included in the 2010 Budget
Incremental	None - There are no incremental budget requirements in 2010 for strategic initiatives

Capital Construction

LRT Design & Construction

Proposed 2010 Operating Budget

Capital Construction Department - LRT Design & Construction

Notes	2008 Actual	2009 Budget	Revenue & Cost Impacts*	Service & Budget Review	Service Needs	2010 Budget	% Change '09-'10	2011 Forecast
Revenue & Transfers								
¹ User fees, Fines, Permits, etc.	\$ -	\$ -	\$ 209	\$ -	\$ -	\$ 209	-	\$ 214
Total Revenue & Transfers	-	-	209	-	-	209	-	214
Expenditure & Transfers								
² Personnel	289	1,421	125	-	-	1,546	8.8	1,649
Materials, Goods & Supplies	-	11	-	-	-	11	-	12
³ Intra-municipal Services	-	-	963	-	-	963	-	982
Subtotal	289	1,432	1,088	-	-	2,520	75.9	2,643
⁴ Intra-municipal Recoveries	(269)	(1,432)	(790)	-	-	(2,222)	55.2	(2,326)
Total Expenditure & Transfers	20	-	298	-	-	298	-	317
Net Operating Requirement	\$ 20	\$ -	\$ 89	\$ -	\$ -	\$ 89	-	\$ 103
Full-time Equivalents	13.0	13.0	-	-	-	13.0		13.0

* Cost Impacts include: inflation on personnel and non-personnel costs, annualization, adjustments based on current performance. Revenue Impacts relate to rate and volume changes.

Capital Construction

LRT Design & Construction

Budget Changes for 2010 (\$000)

Revenue & Cost Impacts on 2009 Services

Revenue Changes

\$ 209	Volume changes: NLRT land expropriations offset by expenses
-	Rate changes
-	Transfers from Reserves
<u>209</u>	Total Revenues

Cost Changes

106	Inflation - personnel
1	Inflation - non-personnel
(29)	Inflation - recoveries
-	Annualization of 2009 services
1,010	Other organizational and operational cost changes
(790)	Intra-municipal recoveries
<u>298</u>	Total Cost Changes
<u>89</u>	Net Operating Requirement

Service & Budget Review

-	
<u>-</u>	Net Operating Requirement

Service Needs

-	
-	
-	
-	
-	
<u>\$ -</u>	Net Operating Requirement

Impact on Full-time Equivalents

0.0	
0.0	
<u>0.0</u>	Total Full-time Equivalent Changes

Capital Construction

LRT Design & Construction

Notes

1. Revenue

The external revenue relates to NLRT expropriated land. The revenues offset costs associated with maintaining these properties.

2. Personnel

The escalation in personnel costs for the 2009 budget over the 2008 actual (\$1,132) reflects contract settlements, benefits, increments/merit and total rewards.

3. Intra-municipal Services

The intra-municipal services are mostly generated from shared services, space rent and departmental overhead charges, NLRT land offset, and monthly parking charges.

4. Intra-municipal Recoveries

Branch personnel, non-personnel, and attributable administration overhead costs are partially recovered from capital projects.

The recovery percentage is dependant of time and effort dedicated to capital activity. The remainder (approx 5%) is not recovered from capital and is funded by the tax levy.

Capital Construction

LRT Expansion

Responsibility

The Branch is responsible for the design and construction of future LRT lines, including:

- Northeast (Clareview to Industrial Heartland),
- Northwest (NAIT to St. Albert),
- Southeast (Downtown to Millwoods),
- South (Century Park to Heritage Valley); and
- West (Downtown to Lewis Estates)

The ultimate goal is to efficiently and effectively deliver these projects for the Transportation Department, as well as look for opportunities to advance these projects as quickly as possible, ensuring projects are accomplished on time and on budget, using sound engineering practices and policies established by the City. This will be achieved by determining the optimum delivery method for each extension by analyzing the risks and appropriate business cases.

Responsible for:

- Preliminary and Detail Design
- Construction Management

Drivers for Work:

This aligns with Council's vision and 10 year strategic plan.

The Transportation Master Plan, approved on September 14, 2009, shifts the emphasis away from roads to transit, in particular LRT and active modes of transportation.

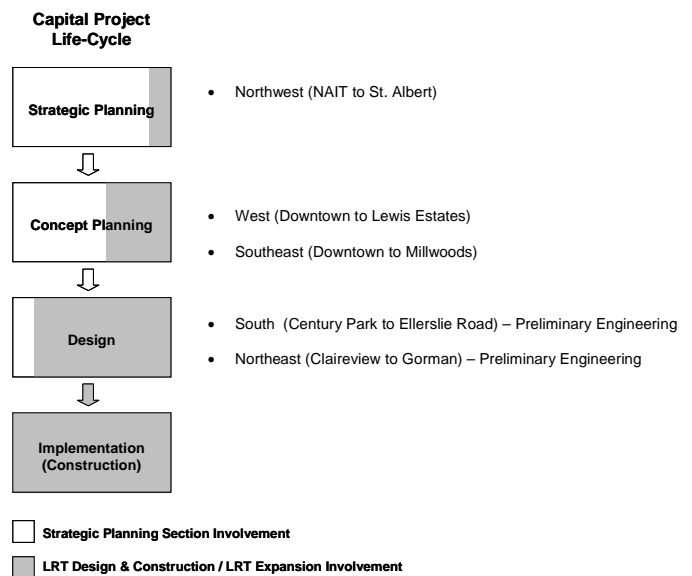
The Transportation Systems Bylaw currently includes the South LRT Extension from Century Park to Heritage Valley, and the Northeast Extension from Clareview to Gorman. It is anticipated that the Bylaw will be amended to also include the Southeast Extension from Downtown to Millwoods and the West Extension from Downtown to Lewis Estates Transit Centre in the fourth quarter of 2009.

Operational Variables

The costs associated for each extension can vary significantly between \$200 million to \$1.2 billion. The overall cost to expand the entire network is estimated at \$5.3 billion

In order to expand the LRT network, a sustainable funding source needs to be identified from all three levels of Government; Federal, Provincial and Municipal.

Current Services



The proposed expansion of Edmonton's LRT system is approximately 50 km and is estimated to cost \$5.3 billion.

Preliminary engineering is underway for the Northeast Extension from Clareview to Gorman and the South Extension from Century Park to Ellerslie Road. Both Engineering assignments are expected to be completed in the spring of 2010.

The preliminary and detailed design for the Heritage Valley Park & Ride is underway. Construction is anticipated to begin in the spring of 2010 and be completed by March 31, 2011. Total estimated cost is \$15 million.

Capital Construction

LRT Expansion

Major Service Objectives

- Develop and implement a Project Execution Manual that follows the recommendations of the Auditor's report on 23 Avenue Interchange:
 - Define project management best practices,
 - Identify engineering deliverables during different phases and disciplines,
 - Standardize cost estimating deliverables during different phases of engineering,
 - Formalize the design review and sign off process; and
 - Identify training requirements.
- Review different project delivery models for the LRT.
- Network with consultants and contractors throughout North America, making them aware of our expansion plans.
- Develop Public Involvement Plans for each project.
- Develop and implement a department level Occupational Health & Safety program based on audit recommendations and best practices.
- Obtain ISO 14001 Environmental Management System Registration.

Issues and Challenges

Funding for the overall system requires a sustainable commitment from all three levels of government. Consultants and contactors are being engaged, and are shifting their focus to Transit and more specifically Light Rail Transit. In order to take advantage of the current market conditions, prompt action is required to secure a commitment.

Current Service Level

Current (2009) Service Level	Key Resource Requirement	Capacity of Service	Benefits of Service
<p>South LRT Extension</p> <ul style="list-style-type: none"> ▪ Complete the preliminary design of the South LRT Extension from Century Park to Ellerslie Station. ▪ Complete the design and construction for the Heritage Valley park and ride facility. <p>Northeast LRT Extension</p> <ul style="list-style-type: none"> ▪ Complete the preliminary design of the northeast LRT extension from Clareview to Gorman. 	<ul style="list-style-type: none"> ▪ LRT Expansion currently utilizes 7 FTEs at a cost of \$0.6 million. ▪ Materials, equipment, and contract services are minimal, consisting of office equipment & furnishings plus external planning contracts and public consultation. ▪ Program resources are ineligible to be charged to capital projects until a funding source is secured for the new LRT corridors. 	<ul style="list-style-type: none"> ▪ Existing resources are sufficient to maintain the current service level. ▪ Additional FTEs would be required to accommodate additional work. ▪ There is in excess of \$5 Billion in LRT work which remains to be undertaken to complete the network. 	<ul style="list-style-type: none"> ▪ Alignment with the City's long-term vision of shifting transportation modes. ▪ Development is undertaken in a way that is consistent with public values and expectations. ▪ Contribute to transforming Edmonton's urban form by enabling compact physical design.

Capital Construction

LRT Expansion

Strategic Initiatives

10 Year Strategic Goal /			
3 Year Priority Goal	Initiative	Outcome	
<p>1. Shift Edmonton's Transportation Mode</p> <p>- To contribute to increased transit ridership by opening the South Campus phase on time in 2009 and the Century Park phase on time in 2010</p>	<p>- The City has an efficient and effective bus and LRT network to serve Edmonton with connection to the region</p>	<p>Immediate & Intermediate</p> <p>- Open Century Park LRT</p> <p>- Complete platform extensions for 5-car trains</p> <p>- Open Park'n'ride sites (Heritage Valley, Eau Claire and Lewis Estates)</p> <p>- Complete Northwest Extension from Churchill to MacEwan</p> <p>- Complete LRT design and tender packages for southeast, west and northeast</p>	<p>Ultimate</p> <p>Transit and active modes of transportation are preferred</p>
2010 Budget Impact			
Base	None - Strategic initiatives are included in the 2010 Budget		
Incremental	None - There are no incremental budget requirements in 2010 for strategic initiatives		

Capital Construction

LRT Expansion

Proposed 2010 Operating Budget

Capital Construction Department - LRT Expansion

Notes	2008 Actual	2009 Budget	Revenue & Cost Impacts*	Service & Budget Review	Service Needs	2010 Budget	% Change '09-'10	2011 Forecast
Revenue & Transfers								
User fees, Fines, Permits, etc.	\$ 9	\$ -	\$ -	\$ -	\$ -	\$ -	-	\$ -
Total Revenue & Transfers	<u>9</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Expenditure & Transfers								
¹ Personnel	50	548	245	-	-	794	44.7	852
Materials, Goods & Supplies	1	47	1	-	-	47	1.3	48
External Services	4	52	1	-	-	53	2.0	54
Intra-municipal Services	9	5	12	-	-	17	228.4	(59)
Other Charges	<u>1</u>	<u>39</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>40</u>	<u>2.0</u>	<u>41</u>
Subtotal	65	691	260	-	-	951	37.6	936
² Intra-municipal Recoveries	<u>-</u>	<u>-</u>	<u>-</u>	<u>(73)</u>	<u>-</u>	<u>(73)</u>	<u>-</u>	<u>-</u>
Total Expenditure & Transfers	<u>65</u>	<u>691</u>	<u>260</u>	<u>(73)</u>	<u>-</u>	<u>878</u>	<u>27.0</u>	<u>936</u>
Net Operating Requirement	\$ 56	\$ 691	\$ 260	\$ (73)	\$ -	\$ 878	27.0	\$ 936
Full-time Equivalents	-	5.2	1.8	-	-	7.0		7.0

* Cost Impacts include: inflation on personnel and non-personnel costs, annualization, adjustments based on current performance. Revenue Impacts relate to rate and volume changes.

Capital Construction

LRT Expansion

Budget Changes for 2010 (\$000)

Revenue & Cost Impacts on 2009 Services

Revenue Changes

\$	-	Volume changes
	-	Rate changes
	-	Transfers from Reserves
	-	Total Revenues

Cost Changes

72	Inflation - personnel
2	Inflation - non-personnel
211	Annualization of 2009 Services -- 1.8 Full-time Equivalent Positions
(25)	Other organizational and operational cost changes
260	Total Cost Changes
260	Net Operating Requirement

Service & Budget Review

(73)	1 PM Engineer Position
(73)	Net Operating Requirement

Service Needs

-	
-	
-	
-	
-	
\$ -	Net Operating Requirement

Impact on Full-time Equivalents

1.8	Annualization of 2009 Services
0.0	
1.8	Total Full-time Equivalent Changes

Capital Construction

LRT Expansion

Notes

1. Personnel

The increase in personnel costs for the 2009 budget over the 2008 actual (\$498) reflects the reorganization of personnel in the Capital Construction Department. It also includes contract settlements, increments/merit, total rewards, and annualization (\$211/1.8 FTEs).

2. Intra-municipal Recoveries

Funding for one Project Manager / Engineer Position was transferred from Operating to Capital due to the impact from the Service & Budget Review.

LRT Expansion is funded 100% by tax levy.

Capital Construction

Roads Design & Construction

Responsibility

The Roads Design & Construction Branch provides effective design (drawings and plans), project management (cost estimates, resident engineering and inspection, cost/budget monitoring and control), and contract administration (contract documents, tendering, warranty) services for roadway facilities and related infrastructure.

Operational Variables

- Client budget matched to capacity to complete the work
- Project management
- Compare effectiveness with
 - Other cities (ie: Ottawa)
 - Large Construction Companies
- Ability to take advantage of long-term contracts and price stability
- Methods of alternate project delivery
- 23 Avenue—Gateway Boulevard Interchange Project Review (Sept. 2008) recommendations

Current Services

For 2009, the overall budget was \$404 million. The Capital Roads program was split, with 41% committed to rehabilitation (the majority of the work on neighbourhood rehabilitation) and 59% of the program dedicated to growth.

Neighbourhood Renewal projects includes:

- Parkdale - Second year of a two-year project – two contracts
- Meadowlark Park - First year of a long term (3+3) contract
- Lendrum Place - First year of a long term (3+3) contract

Arterial Rehabilitation includes:

- 111 Avenue - from 109 Street to 124 Street
- 119 Street - from 108 Avenue to 111 Avenue
- 118 Avenue - Streetscape from 87 Street to 92 Street, and 42 Street to 50 Street
- Yellowhead Trail SMA - from 107 Street to 121 Street
- 107 Avenue - from 156 Street to 163 Street
- Riverbend Road - from 40 Avenue to Reeves Gate

Major Growth projects include:

- Fox Drive - Widening from Belgravia to Campbell Bridge
- 137 Avenue CN Overpass at 140 Street
- 142 Street - from 137 Avenue to 153 Avenue
- Continued work on Whitemud Drive 53 Avenue to 149 Street
- Continued work on 23 Avenue / Gateway Boulevard Interchange

Capital Construction

Roads Design & Construction

Major Service Objectives:

- Work with Materials Management to develop a consultant selection process responsive to TILMA Guidelines and the needs of the Branch
- Performance evaluations for consultant and contractor services
- Meet or exceed client needs and objectives
- Develop & implement a department level occupational health and safety program based on audit recommendations and best practices
- Review and upgrade staff occupational health and safety training
- Review & upgrade the Contractor Management Program
- Maintain ISO 14001 environmental management system registration
- Implement the recommendations of the Auditor's report on the 23rd Avenue interchange

- Develop and implement a system of defined project management best practices, cost estimating, training, planning and engineering standards and monitoring and sign-off

Issues and Challenges

- Project Management training for all staff
- Adequate resourcing and resource allocation to complete projects
- Review and assign Prime Contractor status appropriately
- Improve cost estimating accuracy
- Risk management

Current Service Level

Current (2009) Service Level	Key Resource Requirement	Capacity of Service	Benefits of Service
<ul style="list-style-type: none"> ▪ Complete the 23 Ave interchange and Quesnell Bridge projects. ▪ Enter into multi-year contracts for neighbourhood renewal. 3-year contracts with a 3-year option. ▪ Provide construction for the Great Neighbourhoods Program. ▪ Road work in 19 new contracts in over 100 locations. 	<ul style="list-style-type: none"> ▪ Roads Design & Construction currently utilizes 68 FTEs at a cost of \$6.7 million, delivering \$404 million worth of capital projects in 2009. ▪ The majority of materials, equipment, and contract services are directly funded by Roadways capital projects. ▪ Approximately 80% of program resources are charged to capital projects. 	<ul style="list-style-type: none"> ▪ Additional FTEs are required to manage the Approved 2009-2011 Capital Roads Program. ▪ To add to this, 4 new capital-funded positions are included with this Budget submission. ▪ Design work allocation is 80% delivered by engineering consultants and 20% by in-house resources. 	<ul style="list-style-type: none"> ▪ Contribute to Edmonton's sustainability and livability through renewal of existing infrastructure, including neighbourhoods. ▪ People and goods move safely and efficiently through the City. ▪ Active transportation facilities (bicycle paths, multi-use trails) meet the needs and expectations of citizens and contribute to shifting Edmonton's transportation mode.

Capital Construction

Roads Design & Construction

Proposed 2010 Operating Budget

Capital Construction Department - Roadways Design & Construction

Notes	2008 Actual	2009 Budget	Revenue & Cost Impacts*	Service & Budget Review	Service Needs	2010 Budget	% Change '09-'10	2011 Forecast
Revenue & Transfers								
¹ User fees, Fines, Permits, etc.	\$ -	\$ 371	\$ (371)	\$ -	\$ -	\$ -	(100.0)	\$ -
Total Revenue & Transfers	<u>-</u>	<u>371</u>	<u>(371)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(100.0)</u>	<u>-</u>
Expenditure & Transfers								
² Personnel	-	6,735	1,260	-	-	7,995	18.7	8,546
Materials, Goods & Supplies	-	296	12	-	-	308	4.1	314
³ External Services	-	480	(344)	-	-	136	(71.7)	139
Fleet Services	-	37	(7)	-	-	30	(18.9)	31
⁴ Intra-municipal Services	-	109	1,027	-	-	1,136	942.2	1,159
Other Charges	-	100	185	-	-	285	185.0	288
Subtotal	-	7,757	2,133	-	-	9,890	27.5	10,477
⁵ Intra-municipal Recoveries	-	(5,623)	(2,476)	(111)	-	(8,210)	46.0	(8,696)
Total Expenditure & Transfers	<u>-</u>	<u>2,134</u>	<u>(343)</u>	<u>(111)</u>	<u>-</u>	<u>1,680</u>	<u>(21.3)</u>	<u>1,781</u>
Net Operating Requirement	\$ -	\$ 1,763	\$ 28	\$ (111)	\$ -	\$ 1,680	(5)	\$ 1,781
Full-time Equivalents	-	68.0	-	-	4.0	72.0		76.0

* Cost Impacts include: inflation on personnel and non-personnel costs, annualization, adjustments based on current performance. Revenue Impacts relate to rate and volume changes.

** Roadways Design & Construction Branch joined the Capital Construction Department on January 1st, 2009. Actual 2008 costs are included in Transportation's submission.

Capital Construction

Roads Design & Construction

Budget Changes for 2010 (\$000)

Revenue & Cost Impacts on 2009 Services

Revenue Changes

\$ (371)	Volume Change - ATCO contract work - now being done in-house by ATCO
-	Rate changes
-	Transfers from Reserves
<u>(371)</u>	Total Revenues

Cost Changes

409	Inflation - Personnel
12	Inflation - Non-Personnel
(115)	Inflation - Recoveries
1,025	Intra-municipal Services (Space rent, departmental overhead and monthly parking)
(2,361)	Intra-municipal Recoveries
687	Other Organizational & Operational Cost Changes
<u>(343)</u>	Total Cost Changes
<u>28</u>	Net Operating Requirement

Service & Budget Review

(111)	Impact of moving 3 Project Manager positions from Operating to Capital
-	
<u>(111)</u>	Net Operating Requirement

Service Needs

-	2 Design Engineers & 2 Construction Project Managers; funded through Capital
<u>\$ -</u>	Net Operating Requirement

Impact on Full-time Equivalents

4.0	Addition of 2 Design Engineers & 2 Construction Project Managers
0.0	
<u>4.0</u>	Total Full-time Equivalent Changes

Capital Construction

Roads Design & Construction

Notes

1. External Revenue

External revenue generated from services provided to ATCO are no longer required in 2010. ATCO is currently managing grind and overlay work for the gas main renewal program in-house.

2. Personnel

The increase in personnel costs for the 2010 budget over the 2009 budget reflects the reorganization of personnel in the Capital Construction Department and the increases from contract settlements and benefits for 2009. It also includes the addition of 4 new positions, 2 Design Engineers and 2 Project Managers, to the RDC Branch.

3. External Services

The decrease of external service costs for the 2010 budget from the 2009 budget reflects the elimination of services provided to ATCO. ATCO has decided to manage the service in-house, therefore no revenue will be generated and the offsetting contract work account no longer needs to be budgeted.

4. Intra-municipal Services

The increase to intra-municipal services is mainly attributable to space rent and departmental overhead charges (\$1,003) and monthly parking charges.

5. Intra-municipal Recoveries

Branch personnel, non-personnel and attributable administration overhead costs are partially recovered from capital projects.

The recovery percentage is dependant on time and effort dedicated to capital activity. The remainder (approx 20%) is not recoverable and is funded by the tax levy.

It also includes the impact from the Service & Budget Review of moving 3 Project Manager positions from Operating to Capital.

Capital Construction

Department Administration

Proposed 2010 Operating Budget

Capital Construction Department - Department Administration

Notes	2008 Actual	2009 Budget	Revenue & Cost Impacts*	Service & Budget Review	Service Needs	2010 Budget	% Change '09-'10	2011 Forecast
Revenue & Transfers								
User fees, Fines, Permits, etc.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	\$ -
Total Revenue & Transfers	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Expenditure & Transfers								
¹ Personnel	245	521	25	-	-	546	4.8	586
Materials, Goods & Supplies	5	47	(5)	-	-	42	(10.6)	42
² External Services	-	69	11	-	-	80	15.9	82
³ Intra-municipal Services	-	5	2,039	-	-	2,044	40,780.0	2,082
Other Charges	6	33	(2)	-	-	31	(6.1)	31
Subtotal	256	675	2,068	-	-	2,743	306.4	2,823
⁴ Intra-municipal Recoveries	-	(588)	(1,976)	-	-	(2,564)	336.1	(2,635)
Total Expenditure & Transfers	<u>256</u>	<u>87</u>	<u>92</u>	<u>-</u>	<u>-</u>	<u>179</u>	<u>105.7</u>	<u>188</u>
Net Operating Requirement	256	87	92	-	-	179	105.7	188
Full-time Equivalents	4.0	4.0	-	-	-	4.0		5.0

* Cost Impacts include: inflation on personnel and non-personnel costs, annualization, adjustments based on current performance. Revenue Impacts relate to rate and volume changes.

Capital Construction

Department Administration

Budget Changes for 2010 (\$000)

Revenue & Cost Impacts on 2009 Services

Revenue Changes

-	Volume changes
-	Rate changes
-	Transfers from Reserves
-	Total Revenues

Cost Changes

31	Inflation - Personnel
3	Inflation - Non-Personnel
(12)	Inflation - Recoveries
(15)	Absorbed Personnel Cost Increases
2,039	Intra-municipal External Costs (Space rent, monthly parking, shared services)
(1,976)	Intra-municipal Recoveries
22	Other organizational and operational cost changes
92	Total Cost Changes
92	Net Operating Requirement

Service & Budget Review

-	
-	Net Operating Requirement

Service Needs

-	Impact of Capital
-	Service & Budget Review
-	Net Operating Requirement

Impact on Full-time Equivalents

0.0	
0.0	
0.0	Total Full-time Equivalent Changes

Capital Construction

Department Administration

Notes

1. Personnel

The increase in personnel costs for the 2009 budget over the 2008 actual (\$276) reflects the reorganization of personnel in the Capital Construction Department. It also includes an increase to union wages and benefits for 2009.

2. External Services

The addition of external service costs for the 2009 budget reflects an increase of construction projects being completed by the City. Consultants have been used to help guide the City, and to give their expert knowledge, in the construction of such major developments as the 23 Avenue Overpass and the expansion of the SLRT System.

3. Intra-municipal Services

The intra-municipal services are mostly generated from charges for space rental occupied by Capital Construction Department staff (\$1.7M). It also includes monthly parking charges, and partial reimbursement of personnel costs for a Web Coordinator, OH&S resource, and finance resources.

4. Intra-municipal Recoveries

Personnel, non-personnel and attributable administration overhead costs are partially recovered from capital projects.

The recovery percentage is dependant on time and effort dedicated to capital activity. The remainder (approx 20%) is not recoverable and is funded by the tax levy.

Capital Construction

Approved 2009-2011 Capital Budget

The following is a summary of the Approved Capital Budgets. Included is a brief description of their progress to August 2009 for information purposes.

	2009 Budget	2010 Budget	2011 Budget	3-Year Budget Total
Total Program Capital Budget	\$ 155,308	\$ 184,787	\$ 43,771	\$ 383,866

Progress on Significant Capital Projects

Southwest Community Recreation Centre & Arenas

The Southwest Community Recreation Centre & Arenas is located within the Leger District Park Site at the northeast corner of Terwillegar Drive and 23 Avenue in Southwest Edmonton. The programs within the multi-purpose recreation centre includes aquatics, a fitness area, a flexi-hall, multi-purpose spaces, and a child minding area. These programs will be integrated with a social heart. The arenas program includes four NHL sized ice sheets and seating for approximately 1,000. Construction of this multi-purpose recreation centre began in July 2008 and continues on schedule to open in Fall 2010.

Southwest Transit Garage

This project is the construction of a new garage that will provide space for the storage, fueling, washing and maintenance of buses, as well as space for bus administrative operations to support 400 operators. It is located north of Ellerslie Road and east of 156 Street. The garage will be approximately 313,000 square feet and will accommodate 250 buses. Construction completion is scheduled for December 2009.

Operating Impact of Capital Projects

There is no impact to Capital Construction Department's operating program

Capital Construction

Service Needs Funded Within 3%

Energy Assessments - Buildings Design & Construction

Description

To perform energy assessments on City owned facilities to identify opportunities for capital energy upgrades. The energy assessments are currently funded from a reserve that will expire at the end of 2009, and a new funding source is required to continue performing energy assessments to help reduce overall utility consumption from City operations.

There is no change to service - the existing service provided from 2007-2009 would cease in absence of this funding.

Justification

The energy assessments are required in advance of subsequent capital energy efficiency upgrades, which serves to achieve one or more of the following:

- Reduce water consumption (in city operations);
- Increase use of renewable energy (in city operations);
- Reduce greenhouse gas emissions (in city operations);
- Improve air, water and soil quality (in city operations);
- Reduce gas and electricity consumption (in city operations);
- Perform pilot studies to test new energy efficient technologies;

Without the ability to conduct energy assessments, potential opportunities to improve energy efficiency and reduce the City's carbon footprint will be foregone. This would impact the City's ability to deliver on one of Council's key 10 year strategic goals: to preserve and sustain Edmonton's environment.

Links to Strategic Goals & Departmental Outcomes

Goal #1 of The Way Ahead - "Preserve & Sustain Edmonton's Environment".

incremental (\$000)	2010				2011				2012			
	Exp	Rev	Net	FTEs	Exp	Rev	Net	FTEs	Exp	Rev	Net	FTEs
New Budget Annualization	300		300				-				-	
Total	300	-	300	-	-	-	-	-	-	-	-	-

Capital Construction

Service Needs Funded Within 3%

Growth of Existing Services - Roads Design & Construction

Description

Growth Requirements: 2 Design Engineers & 2 Construction Project Managers for 2010 & 2011.

Justification

Without these positions there is inadequate staff to deliver the 2009-2011 Capital Roads Program (which will double by 2011 to \$118m.) Such programs as the Neighbourhood Renewal Program (improving conditions of sidewalks and roads) as well as Streetscape Projects like 118 Avenue, 108 Street and Jasper Place Revitalization would be affected.

Links to Strategic Goals & Departmental Outcomes

The City has the capacity to deliver the strategic plan: communities are complete -- strong, safe, and welcoming City -- ultimately improving Edmonton's Liveability.

incremental (\$000)	2010				2011				2012			
	Exp	Rev	Net	FTEs	Exp	Rev	Net	FTEs	Exp	Rev	Net	FTEs
New Budget	552		552	4.0			-	4.0			-	
Internal Recovery	(552)		(552)				-				-	
Annualization												
Total	-	-	-	4.0	-	-	-	4.0	-	-	-	-