EDMONTON

Thinking Outside the Gap

Opportunities to Address Edmonton's Infrastructure Needs
Infrastructure Strategy Report 2004

Executive summary

Municipal infrastructure is a critical component to achieving economic prosperity, creating vibrant neighbourhoods and culturally rich communities, and committing to conscientious and responsible environmental stewardship. The state of infrastructure defines a city's capacity to deliver services to its citizens and provide a desirable quality of life. Many Canadian cities, like Edmonton, have limited revenues to address aging infrastructure, much less respond to demands for new infrastructure. A gap exists between the funding required to address infrastructure needs and the funding available to do so. Edmonton must manage this gap and become a "best-value" provider of sustainable infrastructure.

Managing infrastructure is becoming increasingly challenging and City Council and citizens alike face difficult decisions. *Thinking Outside the Gap: Opportunities to Address Edmonton's Infrastructure Needs – Infrastructure Strategy Report 2004* provides the inventory and state and condition of city infrastructure and explores the following potential funding and strategic management opportunities to address the gap:

Closing the Gap examines methods of generating new revenue for long-term infrastructure investments and reinvestment strategies. Major prospects to reduce the infrastructure gap are now emerging and the City of Edmonton will be prepared to seize the following funding and partnership opportunities:

- Anticipated Revenue Opportunities:
  - ~ Municipal Rural Infrastructure Fund (MRIF - federal / provincial): *Through this program, Edmonton could receive up to a total of $12 million from the other two orders of government to apply to infrastructure projects.*
  - ~ GST rebate (federal): *Over the next 10 years, up to $80 million may be available through this rebate to fund infrastructure projects.*
  - ~ Gasoline tax rebate (federal): *The City of Edmonton could receive about $300 million through this rebate over the next ten years.*
- Possible Resource Opportunities from the Province:
  - ~ Education tax: *Capping the education tax may provide an additional $370 million over the next decade to fund infrastructure.*
  - ~ Legislative changes to allow cities to impose taxes: *With greater authority to generate tax revenues the City could increase revenues for essential infrastructure projects.*
  - ~ Matching responsibilities with resources: *The provincial government could significantly reduce the fiscal burden on cities by taking back responsibility for services such as emergency medical services and affordable housing.*
  - ~ Revenue sharing with municipal governments: *This policy could provide a stable, sustainable source of funding to municipalities.*
  - ~ Provincial infrastructure funding: *This proposed provincial funding of up to $1 billion would be significant in addressing Edmonton's infrastructure issues.*
- Opportunities Requiring Action by the City:
  - ~ Smart Debt: *Incorporate sustainable borrowing tools through:*
    - Tax-supported debt for next 3 years (2005, 2006, 2007) — *generates an additional $150 million*
  - ~ Arterial road levy: *Approximately $60 million in savings over the next decade could be realized if developers fund the full four-lane arterials to service new developments.*
  - ~ User pay — development/improvement fees: *Property owners are less hesitant to pay user fees when the actual improvements are visible and reflect the true cost of providing the service.*
  - ~ User pay — self-financing utilities: *A self-financing utility can sustain the actual costs to deliver services.*

Managing the Gap involves the identification and implementation of strategies, processes and tools to optimize decision-making and investment planning. These long-term plans will play an important role in managing the factors affecting infrastructure demand. Included in this section are:

- Maximize use of existing infrastructure: *This initiative involves recommendations aimed at making strategic choices about Edmonton's future growth and development to sustain Edmontonians' quality of life.*
- Comprehensive asset management system: *Includes risk assessment and life cycle analysis to optimize decision-making and investment planning.*
- Sustainable levels of service: *Determine levels of service that are financially, socially and environmentally sustainable.*
- Shared services: *Examine cost effective and cost sharing strategies among communities to optimize infrastructure investment and generate synergies.*
- Other opportunities
  - ~ Link property tax increases with specific investment
  - ~ Public-private partnerships (P3)
  - ~ Alternate service delivery

A report to Council titled *Building Edmonton's Next Century — New Deal Investment and Partnership Strategy* will identify how the opportunities described in this report can potentially be applied to investment projects in Edmonton. The New Deal report will outline the City's approach for building relationships and pursuing partnerships with other orders of government and stakeholders. Also related to these initiatives are a series of motions passed by Council which have become the basis of the City's Urban Sustainability Action Plan.

Though there are many external factors contributing to the gap that are beyond the City's control, and though there is no single solution that will alleviate Edmonton's infrastructure challenges, the City must persist in exploring suitable revenue sources and more cost-effective approaches to address the infrastructure gap. Thinking outside the gap, by exploring new opportunities and relationships, will enable decision-makers to realize Edmonton's vision for prosperity and success.

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Introduction

Sound infrastructure is essential to support our community's goals for growth, economic development and public safety. The state of municipal infrastructure, in a very real sense, defines the City's capacity to meet its goals. The ability to build and properly maintain infrastructure is essential to ensure that Edmonton remains an attractive capital city where businesses want to locate and expand and where people choose to live, learn, work and play.

Over the years, the City of Edmonton has effectively managed revenues, balanced competing demands and provided a high quality of life to its citizens. Since the implementation of the Infrastructure Strategy in 1998, the City has worked aggressively to address its infrastructure gap. However, like other Canadian cities, Edmonton has limited revenue tools, infrastructure continues to age and the population continues to grow. As a result, Edmonton faces a difficult struggle to provide citizens with basic infrastructure needs.

Inevitably, sustainable municipal infrastructure has emerged to become a prominent urban issue in the past few years. The Prime Minister's Caucus Task Force on Urban Issues, Conference Board of Canada and Province of Alberta's Future Summit all identified the social and economic importance of municipal infrastructure. The federal and provincial governments are considering funding for municipal infrastructure. Asset management practices are gaining support as an effective way to better manage municipal infrastructure.

Thinking Outside the Gap: Opportunities to Address Edmonton's Infrastructure Needs – Infrastructure Strategy Report 2004 is the administration's commitment to report to Council every two years on the City's infrastructure inventory, including its state and condition. This report not only provides an overview of the work the City has undertaken to implement innovative infrastructure management strategies, it also details financial needs, and more importantly, explores solutions to narrow the infrastructure gap.

While much work has been done, considerable effort is required to find long-term solutions that will address our infrastructure gap. Solutions to this issue will require objective, innovative approaches – they necessitate thinking outside the gap.

"Canadians want their communities, towns and cities to be great places to live – safe, with affordable housing, good transit, clean air and water, and abundant green spaces. Communities are key to our social goals and our economic competitiveness. They are the front lines in building a better quality of life."

~ Her Excellency Adrienne Clarkson, Governor General of Canada (Throne Speech, October 5, 2004)

What is infrastructure?

The City of Edmonton defines infrastructure as "all the physical assets developed and used by the City to support the community's social and economic activities." Infrastructure provides the foundation on which we carry out our everyday activities and contributes to citizens' overall quality of life. It is used in a municipal context to describe virtually everything from roads to affordable housing to playgrounds.

Covering 700 square kilometres and with a population of approximately 700,000 residents, Edmonton has an impressive infrastructure inventory. For example, Edmonton has thousands of kilometres of sewers, roads and sidewalks; sophisticated water and wastewater treatment facilities; thousands of hectares of parkland and dozens of major recreational facilities. The estimated replacement value of Edmonton's infrastructure assets is estimated at $19.2 billion. Appendices A and B provide an overview of the age, replacement value and the state and condition of Edmonton's infrastructure assets.

What is Edmonton's infrastructure gap?

The infrastructure gap is the difference between the City's capital needs and the funding available to address the City's infrastructure rehabilitation and growth requirements.

The City of Edmonton's 2005-14 Long Range Financial Plan (LRFP) (see Appendix C) estimates the City requires nearly $7.2 billion over 10 years to accommodate the demand for growth, rehabilitation and other infrastructure projects. The funded portion of the LRFP amounts to more than $3.0 billion. The corresponding unfunded portion of the LRFP, or the infrastructure gap, is more than $4.1 billion. In other words, Edmonton's funded initiatives constitute approximately 40 per cent of the LRFP whereas unfunded initiatives comprise close to 60 per cent of the plan.

Why does the infrastructure gap continue to grow?

The infrastructure gap has grown from $1.8 billion in 1998 to the current estimate of $4.1 billion. Growth of the gap is due to two major factors – aging infrastructure which needs to be replaced and demand for new infrastructure.

Managing Edmonton's infrastructure is challenging. As infrastructure ages, more maintenance and rehabilitation is required to ensure that infrastructure is performing well. Most municipal infrastructure has passed the halfway point of its expected lifespan and is due for significant rehabilitation (see Appendices A and B).

At the same time, demands arise for new infrastructure to support growth. Edmonton celebrates its centennial birthday this year. Looking back over the past one hundred years, the City has encountered significant growth, some of which has occurred quite rapidly. Since 1998, Edmonton's population has increased by approximately 40,000 people, which is the same as adding an entirely new city the size of Grande Prairie. Over the next five years, the *Edmonton Socio-Economic Outlook, 2004 – 2009* forecasts a similar population increase, a strong housing market and continued economic and employment growth. However, there are associated social and cost implications of economic prosperity. Edmonton must still deal with continued municipal infrastructure shortfalls and social issues — such as a shortage of affordable housing — which cannot be addressed simply by an increase in the tax base.

The growth of the infrastructure gap can be attributed to a number of other factors. The City is committed to conscientious and responsible environmental stewardship through the *1999 Environmental Strategic Plan*, but there are costs associated with the new and stringent environmental requirements. In addition, a growing backlog of unfunded projects that become more expensive as time passes and escalating construction costs in Edmonton's booming economy also contribute to the growth of the gap.

"Municipalities continue to face financial pressure to repair or replace existing infrastructure."

~ Alberta Municipal Affairs (Business Plan 2004-07)

What has Edmonton done to address the infrastructure gap?

Edmonton is recognized nationally as one of Canada's most progressive municipalities in its response to managing growing municipal infrastructure pressures. In 1998, City Council established the Infrastructure Strategy to address the infrastructure gap, and created the Office of Infrastructure in 2000 to develop management tools to narrow the gap. A number of effective measures were initiated to help the City better manage infrastructure assets and minimize the infrastructure gap:

- Corporate infrastructure asset management approach: a comprehensive infrastructure inventory, which captures the value and state of the City's infrastructure and its long-term investment needs.
- Effective tools such as life cycle analysis and risk assessment: identify priority areas and optimize investment decisions.
- Innovative revenue partnerships involving developers and home builders to support new developments: the Sanitary Sewer Strategy Fund for the construction of major sanitary sewers and arterial assessment fees for future construction of arterial roads.
- Land drainage utility: a self-financing user-pay system that is independent of general revenues collected through the property taxation system for land drainage operation and projects.
- Amendment to the City's Debt Management Fiscal Policy in 2002: tax-supported borrowing of up to $50 million per year over five years, reviewed annually, to fund large-scale, high-priority capital projects.
- The Infrastructure Technical Advisory Committee (ITAC): is an advisory committee made up of key stakeholder groups with expertise in municipal infrastructure, and was designed to shape and help effectively implement the City of Edmonton's Infrastructure Strategy.

What else can Edmonton do to address the gap?

This report lists a number of opportunities the City can apply to address the gap. Potential approaches have been grouped in two categories. Some opportunities require significant changes to City policy while others may require minimal change:

- **Closing the Gap:** opportunities that could decrease the existing gap between the City's infrastructure needs and the resources available to fund those needs. Major funding and relationship-building opportunities are now emerging to reduce the infrastructure gap.
- **Managing the Gap:** opportunities that minimize the growth of the gap. These opportunities consist of management tools or concepts to optimize decision-making and investment planning.

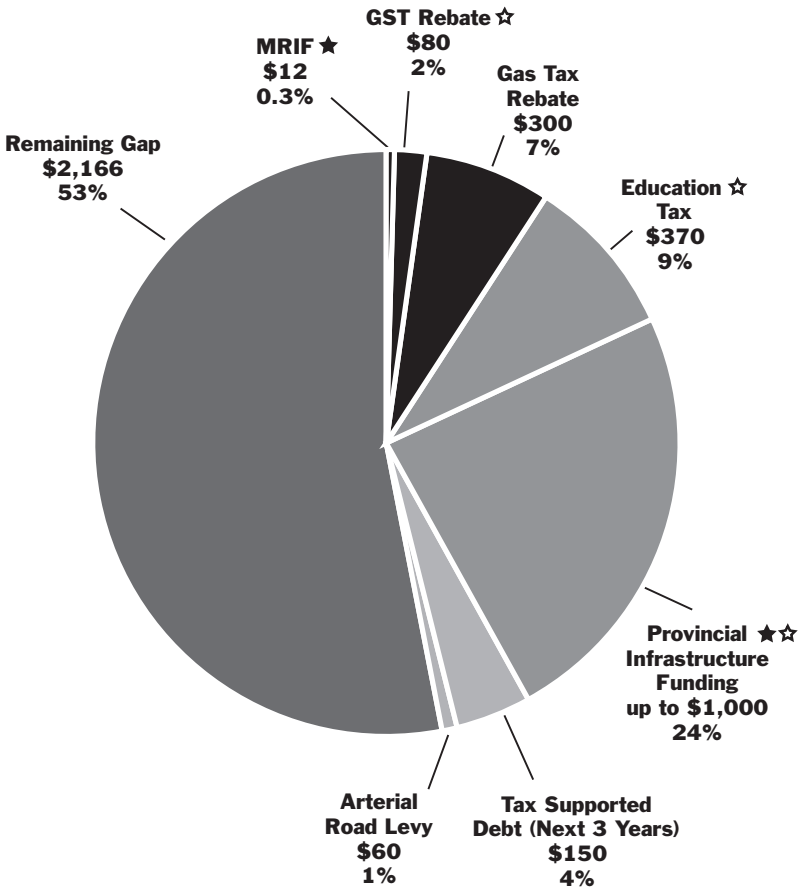
The administration has developed a report to Council, *Building Edmonton's Next Century – New Deal Investment and Partnership Strategy,* which identifies how the opportunities outlined in *Thinking Outside the Gap: Opportunities to Address Edmonton's Infrastructure Needs – Infrastructure Strategy Report 2004* can be applied to investment projects in Edmonton. The New Deal report also outlines the City's approach for ongoing relationships and partnerships with other orders of government and stakeholders.

Potential revenue sources are summarized in Figure 1. The chart is based on a "best case" scenario and is used to illustrate opportunities to address the infrastructure gap.

Figure 1: Opportunities to Address the Gap

Total Infrastructure Gap – $4.1 billion/10 years

Total Opportunities – $2.0 billion/10 years



★ **Denotes possible one-time funding**

☆ **Denotes potential funding for neighborhood reinvestment**

Closing the Gap	**Estimated $ million / 10 yrs**
Anticipated Revenue Opportunities:	
• Municipal Rural Infrastructure Fund (MRIF – federal/provincial)	12
• GST Rebate (federal)	80
• Gasoline Tax Rebate (federal)	300
Possible Resource Opportunities from the Province:	
• Education tax	370
• Legislative changes to allow city to impose taxes	
• Matching responsibilities with resources	
• Revenue sharing with municipal governments	
• Provincial infrastructure funding	up to 1,000
Opportunities Requiring Action by the City:	
• Smart Debt	
o Tax-supported debt next 3 years	150
• Arterial Road Levy	60
• User pay – development/improvement fees	
• User pay – self-financing utilities	

Managing the Gap

Strategies, Processes and Tools to Optimize Decision-Making and Investment Planning

- Maximize use of existing infrastructure
- Comprehensive asset management system
- Sustainable levels of service
- Shared services
- Other opportunities
  - o Link property tax increases with specific investment
  - o Public-private partnerships (P3)
  - o Alternate service delivery

Closing the Gap

Closing the Gap includes long-term infrastructure investment and reinvestment strategies to maintain city assets into the future. The City must partner with other orders of government to ensure sustainable funding to address deferred rehabilitation, maintenance and capital investments. The strategies must ensure the City continues to prudently manage existing revenue generated through property taxes, grants and levies. Edmonton needs to consider opportunities beyond taxation that could include innovative revenues, funding partnerships, smart debt and full-cost allocation to users. The City must also lobby other orders of government for the authority to introduce innovative revenue tools.

Anticipated revenue opportunities

Anticipated revenue opportunities are related primarily to options initiated or administered by the federal government. Some of these opportunities have reached the implementation stage; others are still in the developmental stage.

"In short, the current fiscal challenges confronting western Canada's cities constitute a powerful argument for employing a range of tax tools and revenue levers, where the advantages and disadvantages of one tax can be offset by the advantages and disadvantages of other taxes."

~ Casey Vander Ploeg, Straight Talk, Canada West Foundation

Municipal Rural Infrastructure Fund (federal/provincial)

On February 12, 2004, the Government of Canada announced negotiations with each province and territory to provide Canadians with better public infrastructure through the Municipal Rural Infrastructure Fund (MRIF). The $1 billion fund has been structured to provide a balanced response to local infrastructure needs in urban and rural Canada.

Up to 20 per cent of the MRIF will be allocated to municipalities with a population greater than 250,000. Through this program, Edmonton could receive up to $6 million from each of the other two orders of government for a total of $12 million over the next four years to apply to infrastructure projects. Because this program has a defined end date, it cannot be considered a long-term, sustainable source of funding.

Negotiations between the Province of Alberta and the Government of Canada are ongoing. It is anticipated the program will begin in 2005.

GST rebate (federal)

Municipalities have lobbied extensively for the federal government to provide funding to address the growing infrastructure needs of cities. The federal government made a commitment to reimburse the GST to municipalities each year, starting in 2004. The change in GST legislation will result in approximately $12 million in annual savings to the City, of which $4 million has been designated to specific areas (e.g., grants, reserves, debenture financing, partner financing, etc.). Over the next 10 years, up to $80 million may be available to finance infrastructure projects.

Gasoline tax rebate (federal)

During the 2004 federal election, the Liberal Party committed to share a portion of the gasoline tax (or its financial equivalent) with municipalities. Addressing the Future of Canada's Infrastructure Conference, John Godfrey, Minister of State (Infrastructure and Communities), noted the gas tax will be a source of stable, predictable funding so that municipalities can make long-term financial commitments to undertake major new infrastructure projects. Prime Minister Paul Martin has said that over the next five years the Government of Canada will provide a total of $5 billion, with at least $2 billion, or five cents per litre, in the fifth year. Based on these figures, the City of Edmonton could receive about $300 million over the next ten years.

Possible resource opportunities from the Province

Municipal governance is mandated by the Alberta *Municipal Government Act*. Municipalities must work with the Province to improve revenue opportunities and the Province must provide municipalities with the capability to address infrastructure issues.

Education tax

In their submission to the Province, *Sustaining the Alberta Advantage: A call for provincial investment in Calgary and Edmonton*, Edmonton and Calgary formally requested that the Province honour its 2001 commitment to cap the total provincial education requisition at $1.2 billion in the 2005-06 provincial budget and reduce the education requisition on property taxes an additional $120 million annually until it is eliminated as a provincial tax source. This request adheres to the Alberta Urban Municipalities Association's (AUMA) guiding principle that:

"Municipal governments must have the fiscal capacity to fulfill their mandate through primary access to the property tax base and other stable long-term and progressive sources of revenue."

By assessing and collecting property taxes at current rates, and capping the portion allocated to education, municipalities could obtain much needed additional funds for infrastructure projects. In Edmonton's case, the 2004 education tax collected is approximately $247 million. Capping the education portion of the property tax at the 2001 amount of $210 million would yield an estimated $37 million annually or approximately $370 million over the next decade.

If the Province totally eliminated the education tax Edmonton collects, and allocated those funds as municipal revenue, additional funding could be generated for capital projects. However, operating impacts of capital investments would need to be considered and a balance attained between capital investments and associated operating costs. This would provide a stable, long-term source of funding that could address ongoing and future budgeting requirements.

The government will be developing its 2005-06 budget this fall. While there is no indication the Province will follow through on its commitment, there has been continued debate about this issue. Edmonton is working with the City of Calgary and the provincial government to arrive at a favourable solution.

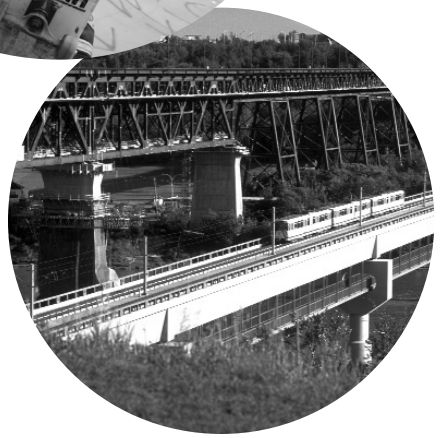
Legislative changes

Cities could better shape their future if tax revenues were more equitably shared among the three orders of government. Taxation authority is vested in the provincial and federal governments, and Canadian cities must rely on property taxes, which are considered the most regressive form of taxation in the country.

Several notable organizations (Canada West Foundation, TD Bank Financial, etc.) have argued cities must have additional legislative authority to generate revenues. Currently the *Municipal Government Act* does not allow municipalities to do so.

American cities, which have access to a broader set of revenue tools that includes sales tax, hotel tax, employment tax and others, are empowered to take some of the economic burden off property owners and better absorb changes in the economy.

With greater authority to generate tax revenues the City would rely less on property taxes. In turn, this would enable the City to increase revenues that could be dedicated to essential infrastructure projects. The City should support all initiatives that seek legislative changes to traditional means of revenue generation.



Matching responsibilities with resources

Cities continue to provide a multitude of services that have traditionally been offered by the Province. The provincial government could significantly reduce the fiscal burden on cities by taking back responsibility for services such as emergency medical services, affordable housing and major roads.

The Province is currently funding Edmonton's portion of Anthony Henday Drive, which is part of the North-South Trade Highway. The provincial government's plan to take over emergency medical services will allow the City to reinvest the operating expenses and capital costs of operating ambulance services into other priority projects and services. In addition to the transfer of emergency medical services, new provincial contributions to police funding have also resulted in a net gain of $5.4 million in funding for Edmonton. The provision of affordable housing, traditionally a provincial responsibility, is another service that could be returned to provincial authority and jurisdiction.

Revenue sharing with municipal governments

The Canada West Foundation recently released a report titled *Foundations for Prosperity: Creating a Sustainable Municipal-Provincial Partnership to Meet the Infrastructure Challenge of Alberta's 2nd Century*, which describes recommendations for a sustainable partnership among municipalities and the Province. Funding obtained from other orders of government is often tied to specific projects, resulting in indiscriminate funding of initiatives that may suit guarantors' interests, but overlook municipal priorities.

Revenue sharing can address this issue and provide a stable source of funding to municipalities. Given that the Province has much more flexibility to generate revenues than municipalities, this approach would enable municipalities to pay down debts at a faster rate and facilitate stable infrastructure management into the future. A revenue sharing system could be developed whereby a certain percentage of an established source of revenue (such as income tax, fuel tax or gaming revenues) would be allocated to municipalities for infrastructure projects. This money could then be used by municipalities to invest in infrastructure assets as they deem suitable. To be sustainable, revenue sharing must be legislated to establish a permanent source of funding.

Provincial infrastructure funding

In recent news the Province of Alberta discussed a possible investment of $3.3 billion to rehabilitate Alberta's municipal infrastructure. On September 23, 2004, Premier Ralph Klein indicated the Province's proposal to give up to $1 billion to Edmonton, $1 billion to Calgary and $1 billion to be shared by other Alberta municipalities. At present, details of this proposal are uncertain but funding of this magnitude would be significant in addressing Edmonton's investment requirements. More information is anticipated from the Province but, at present, this funding must be viewed as neither long-term nor sustainable.

Opportunities requiring action by the City

There are additional opportunities to address the infrastructure gap that require decision and action by the City. Consideration must be given to these opportunities and the consequences of implementing them. These options depict the magnitude of policy change that must occur in order for the City to effectively address the infrastructure gap. The City of Edmonton is best positioned for the future if it is proactive in tackling infrastructure issues in a manner consistent with other revenue enhancements from other orders of government.

Smart debt

Smart debt is one of the primary sources of financing for U.S. municipalities and provides greater flexibility for keeping pace with growing infrastructure demands. It is also becoming an increasingly common tool used by Canadian municipalities to fund infrastructure.

The City of Edmonton Debt Management Fiscal Policy (DMFP) was amended in 2002. A borrowing policy of $50 million per year over five years, paid for by a one per cent increase in property tax, for large, high-priority capital projects was approved in principle by Council. According to City policy, debt financed projects must be in the range of $10 million, have an asset life of at least 15 years, and must fit into approved capital plans.

Having committed $100 million in debt financing for key infrastructure projects in 2003 and 2004, Edmonton has already made significant strides in dealing with key infrastructure issues. It is proposed that another $50 million be borrowed in 2005 to finance infrastructure projects.

If the City continues borrowing $50 million a year for the next three years, an additional $150 million would be available for major infrastructure projects.

Arterial road levy

Arterial road levies are assessments required to pay for an arterial roadway located within a predetermined catchment area. Each development occurring within the catchment is required to pay an assessment based on a per hectare rate. Currently, the standard practice is that developers pay for the construction of two lanes of an arterial road, and the City pays for the remaining two lanes. If the arterial road levy is implemented by the City, developers would be required to fund a four lane arterial road in new developments. It is estimated that this levy would generate another $60 to $65 million in savings over the next decade.

User pay – improvement fees

Levies such as development/improvement fees should be used wherever possible because when property owners actually see improvements, they are less hesitant to pay a levy. Under the *Municipal Government Act*, the City is allowed to apply local improvement fees.

Currently, improvements are constructed in 25 per cent of neighbourhoods through local improvement fees. Examples of local improvement charges include street paving, alley paving and renewal of concrete curb and gutter.

Consideration of new development/improvement charges or levies is another potential alternative to financing infrastructure, whereby each municipality determines and applies fees and levies based on their particular policies. Some of the development fees and levies in place at the City of Edmonton include inspection fees, drainage levies and arterial road assessments.

Generally speaking, development or improvement fees and levies should be determined on a real-cost basis, which reflects the true expense of providing services to new developments or neighbourhood reinvestment. Additional development or improvement costs need to be considered very carefully as the fees would eventually be passed on to the homebuyer and may result in a higher cost for houses.

User pay – self-financing utilities

Prudent fiscal management at the municipal level has also resulted in some new funding methods using self-financing utilities. A self-financing utility can sustain the actual costs to deliver services, including the life cycle costs of operation, maintenance, rehabilitation and replacement of infrastructure.

In 2003, City Council converted land drainage to a utility, making the service self-financing, as all costs are recovered directly from users. Renewal, upgrading and expansion costs are all amortized into the rate payment. As such, the City no longer needs to incorporate land drainage services in its property tax-supported capital budget projections. Infrastructure demands will put increasing pressure on utility rates.

It may be difficult for the City of Edmonton to implement additional utility or user-pay based services because of the nature of certain infrastructure assets. However, this does not negate the user-pay model as a valid source of funding. For example, it may be possible to design a full utility model for the City's waste management services. Other options related to this type of funding should be explored further.

Managing the Gap

Managing the Gap involves the identification and implementation of strategies, processes and tools to optimize decision-making and investment planning. The City must continue to implement an effective infrastructure management system across the corporation, ensuring that the technical planners – those who propose and build infrastructure assets – are working in collaboration with financial decision-makers.

In the spring of 2004, Council held the Four Pillars of Urban Sustainability workshops. These workshops were designed to capture ideas and concepts from the successful Strategies for Urban Sustainability Conference that Edmonton hosted in 2003. As a result, Council passed a series of motions that formed the City's Urban Sustainability Action Plan. The Plan addresses three elements of urban life:

- Urban Form: what kind of city are we trying to build?
- New Fiscal Deal: how will we finance our city?
- Regional Strategy: how does our city co-exist within the larger region?

As ongoing implementation occurs, this action plan will play an important role in managing the factors affecting infrastructure demand.

The following are an array of options that focus on influencing the demand for infrastructure financing:

Maximize use of existing infrastructure

The City of Edmonton works hard to deliver an exceptional quality of life to its citizens through the provision of amenities that make a community a good place to live. Maximizing the use of existing infrastructure will enhance the City's ability to manage growth and to optimize investment in future infrastructure.

City building initiatives, such as Smart Choices, will have a tremendous potential impact on the City's capacity to effectively manage infrastructure assets. Smart Choices, devised to sustain Edmonton's quality of life by building on existing municipal and private infrastructure, provides strategies to manage growth through intensification and reinvestment. This, accompanied by infrastructure enhancement, improves liveability and facilitates the construction of progressive cities.

Policy issues arising out of Smart Choices can be coordinated with the Infrastructure Strategy. While Smart Choices articulates corporate policies concerning redevelopment and reinvestment, the Infrastructure Strategy provides many of the decision-making tools to ensure effective investment decisions are made to build new infrastructure and rehabilitate and replace existing infrastructure.

These two initiatives do not exist independently: linkages to Plan Edmonton, the Long Range Financial Plan and the Capital Priorities Plan should also be made. Furthermore, a very strong relationship exists between Building Edmonton's Next Century — New Deal Investment and Partnership Strategy and the Urban Sustainability Action Plan.

Comprehensive asset management system

An effective asset management system is essential to optimize decision-making and investment planning. Although the City has initiated high level asset management similar to what is recommended in the InfraGuide Best Practice on "Managing Infrastructure Assets", it is important that all departments fully implement a comprehensive asset management system at a more detailed level.

The City is implementing an innovative risk management model as a way of prioritizing projects to assign available funding. By determining the severity of risk associated with current infrastructure investment, the administration will be able to compare disparate infrastructure elements on a corporate level and determine which critical areas require the most urgent action. To date, the risk assessment model has been applied to the physical condition component of the assets; the model will also be adapted to assess the demand/capacity and functionality of infrastructure.

Life cycle analysis can help the City select the most cost-effective option to address infrastructure investment. The cost of new infrastructure does not stop at the initial capital cost. The life cycle costs of operation, maintenance, repair, rehabilitation and replacement must also be accounted for and included in the budget to ensure adequate funding. For example, in comparing construction materials such as asphalt or concrete to construct a new road, life cycle analysis enables project estimators to compare not only the initial cost of each building material, but also the performance effectiveness, future reinvestment needs and the total cost of operating, maintaining, rehabilitating and replacing the road asset over its entire life. These costs can be properly recognized in the City's budget plan.

The Office of Infrastructure is currently developing a revised Infrastructure Strategy to be presented to Council in 2005 that will recommend the City implement a comprehensive asset management system and continue to develop other effective decision-making tools.

Sustainable levels of service

Once a city determines what services it will provide, it must decide at what level it will provide those services. Determining levels of service is an important component in any infrastructure management system. Levels of service usually relate to quality, quantity, reliability, responsiveness, environmental acceptability and cost of providing services. Service levels, in many ways, determine what infrastructure is required; infrastructure capacity determines what level of service can be delivered. It is the responsibility of City Council, with citizen input, to determine appropriate levels of service.

Levels of service provided by the City are ultimately determined by users' willingness to pay. Citizens may demand higher services, but there are cost implications to such demands. Before any decision is made, the costs associated with levels of service and the financial resources available must be determined. Willingness to pay and the implications of failing to achieve levels of service also need to be understood. Levels of service must be financially, socially and environmentally sustainable over an asset's lifespan.

Current design and construction standards are regularly reviewed by a committee comprised of city staff and representatives from the Urban Development Institute, with input and expertise from external organizations such as the Transportation Association of Canada. A pilot project is planned to implement a citizen/stakeholder review of service levels for one infrastructure area.

Shared services

Cost effective and cost sharing strategies among communities can be examined to optimize infrastructure investment and generate synergies. Collaborative capital planning, shared construction and shared use of facilities and related infrastructure can result in considerable cost efficiencies. Infrastructure investment can take place in a mutually beneficial manner to optimize savings, reduce costs and maximize usage among partners.

Currently, the City of Edmonton's Drainage Services treats Leduc's sewage flows from the Alberta Capital Region Wastewater Commission (ACRWC) and, in turn, ACRWC treats that City's sewage flows from the north side of Edmonton. Wastewater and solid waste transfer stations also services the greater Edmonton area. Other possible shared service areas include transit, waste management, police services, etc.

Other opportunities

The following opportunities provide additional alternatives that would require further investigation on the applicability to the City of Edmonton:

Link property tax increases with specific investment

Future property tax increases could be dedicated to specific infrastructure projects. Dedicating tax increases to particular infrastructure projects would be advantageous since the dollars would be applied directly to a particular project and would not disappear into general revenue.

Another viable opportunity is to increase the level of pay-as-you-go funding to capital projects. The current level of pay-as-you-go capital financing is approximately $80 million. The City is changing its approach by increasing that figure annually according to the Construction Price Index. City Council has the capacity to further increase pay-as-you-go funding levels beyond the index. Each one per cent tax increase generates $5.4 million, which could be applied to pay-as-you-go funding.

Public-private partnerships

Traditional ways of doing business have not kept pace with Alberta's booming economy. This is perhaps most evident in the Province's two largest cities – Calgary and Edmonton. Subsequently, the Province has initiated a process that will see the southeast leg of the Edmonton ring road become Alberta's first public-private partnership (P3) highway project. Though P3 projects are not uncommon throughout the world, Canadian municipalities have been slow to adopt this approach.

The merits and advantages of using the P3 concept must be weighed against disadvantages and the perception that governments would relinquish jurisdictional control and create undesirable outcomes. P3 projects must be structured, transparent and advantageous to all partners. Most importantly, P3s must not be implemented at the expense of the taxpayer in the form of increased taxes or fees.

Alternate service delivery

This option is presented to stimulate dialogue and initiate discussion on 'traditional' ways of delivering municipal services. Opening up municipal services to competition may result in economies and/or efficiencies, but thought must be given to potential negative or disruptive consequences.

Final thoughts

The City has made significant strides in addressing the pressures of inadequate funding to properly maintain and build new infrastructure assets. Nevertheless, the infrastructure gap continues to grow due to a number of variables, not all of which are within the control of Council and the administration. Council continues to face challenging circumstances as it makes decisions to maintain services and minimize property tax increases.

While it is the responsibility of Council and the administration to address the infrastructure gap, it is unlikely that the City can close the gap on its own. The *Building Edmonton's Next Century — New Deal Investment and Partnership Strategy* report summarizes opportunities for future involvement of other orders of government and partners to create a prosperous, vibrant, culturally rich and environmentally conscious city.

The City must also embrace new opportunities to address the gap – opportunities that depend on the willingness of Council and the administration to take action. Such action requires extensive public dialogue, as citizens and the City need to work together to define acceptable parameters around the cost and delivery of municipal services. This requires a made-in-Edmonton solution that is widely understood and endorsed by citizens.

Though there is no single solution that will alleviate Edmonton's infrastructure challenges, persistence is crucial as the City explores suitable revenue sources and more cost-effective approaches to manage the infrastructure gap. Edmonton must demonstrate leadership, influence the other two orders of government to share responsibility in managing this issue and advocate for mutually beneficial solutions.

"It is important to stress, therefore, that creating a sustainable funding solution for municipal infrastructure should not fall on the shoulders of any one government; Albertans need a balanced and comprehensive strategy that includes the municipal, provincial and federal governments."

~ Casey Vander Ploeg, Foundations for Prosperity, Canada West Foundation

Appendices

Appendix A: Current status of City's infrastructure

What do we own?

The City of Edmonton defines "infrastructure" as "all the physical assets developed and used by the City to support the community's social and economic activities." The City's corporate administration manages a broad range of infrastructure that can be grouped into 12 key infrastructure classes [1], as detailed below.

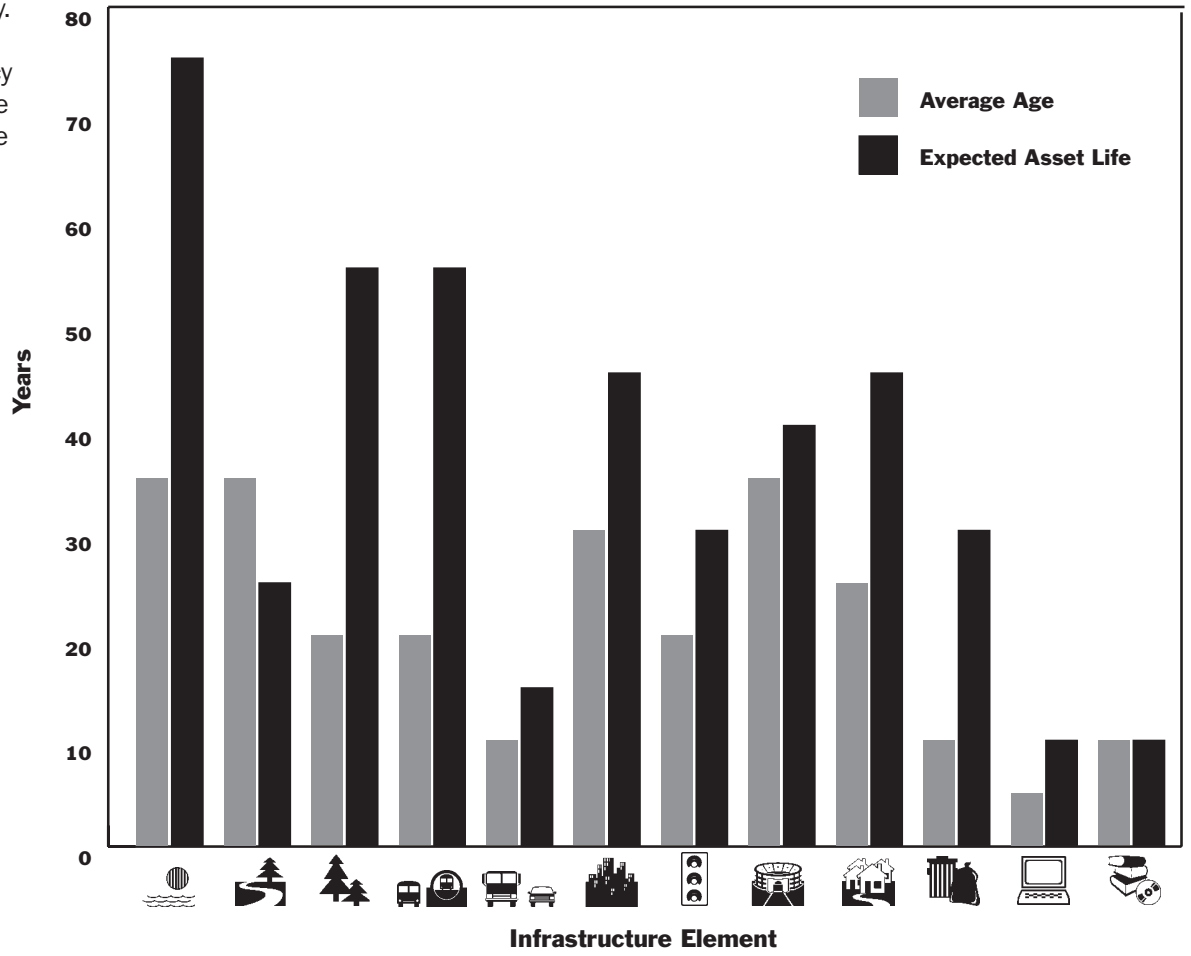
	Description of Infrastructure	
	Drainage	includes sanitary, storm and combined sewers (incl. manholes, catchbasins) and wastewater treatment.
	Road Right-of-Way	includes roads (arterials, collectors, local; and curb and gutter), sidewalks, bridges and auxiliary structures (such as gates, streetscapes and others).
	Parkland	includes horticulture, trails, hardsurfaces, playgrounds, sportsfields, park infrastructure and parks.
	Transit Facilities and Equipment	includes Light Rail Transit (LRT) system facilities and equipment (including cars), transit centres, bus equipment and systems, trolley system.
	Fleet	includes transit buses, city vehicles and shop equipment.
	Buildings	includes civic offices, public works and operation facilities (e.g. yards), emergency response buildings, police buildings and libraries.
	Traffic Control & Street Lighting	includes traffic signals, signs, markings, street lighting and parking meters.
	Recreation Facilities	includes all major recreational facilities (e.g. arenas, leisure centres, Fort Edmonton) and amenities.
	Affordable Housing	includes non-profit housing, community housing and seniors lodges/cabins.
	Waste Management Facilities	includes operation and administration facilities, transfer stations and public facilities, processing facilities and operating landfills and appurtenances.
	Technology Equipment	includes servers, network, all communication equipment.
	Others	includes emergency response and police equipment, and library contents and materials.

1 Water services are managed by EPCOR Utilities Inc. (a private corporation owned by the City of Edmonton), and is not included in the City's infrastructure inventory.

Age of infrastructure

On average, Edmonton's infrastructure assets have passed the midpoint of their life expectancy. The aggregate average age[2] of infrastructure assets is 30 years, while average life expectancy is 50 years of age, rounded to the nearest five years. Edmonton's inventory ranges in average age from five years to 75 years.

Average Age and Expected Asset Life of Infrastructure



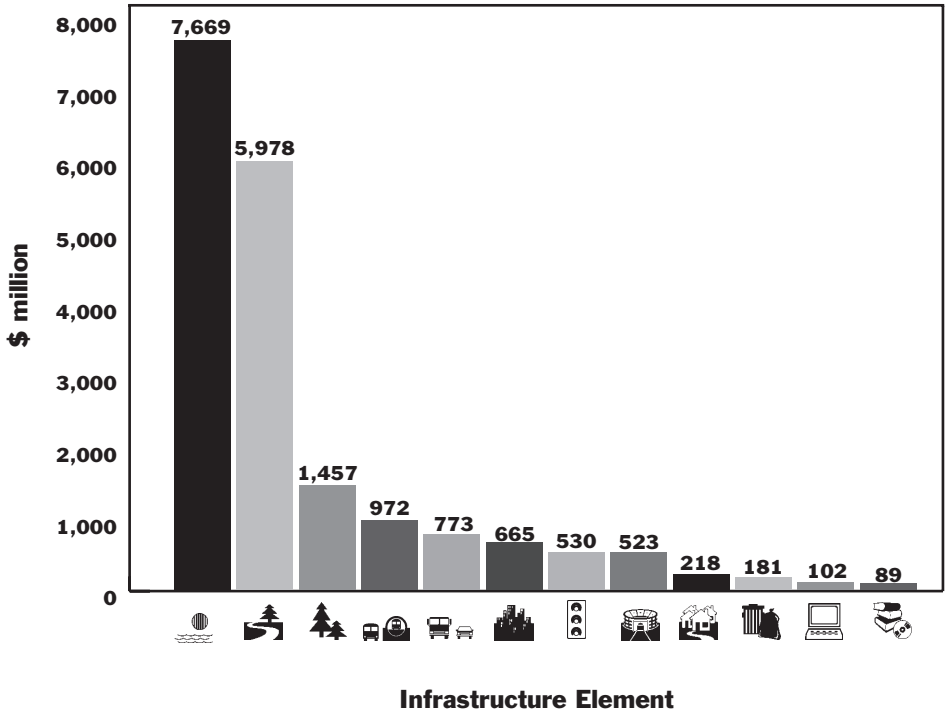
2 Aggregate average age figures have changed slightly from the 2002 Infrastructure Update report as a result of improved data collection methodologies.

Value of infrastructure

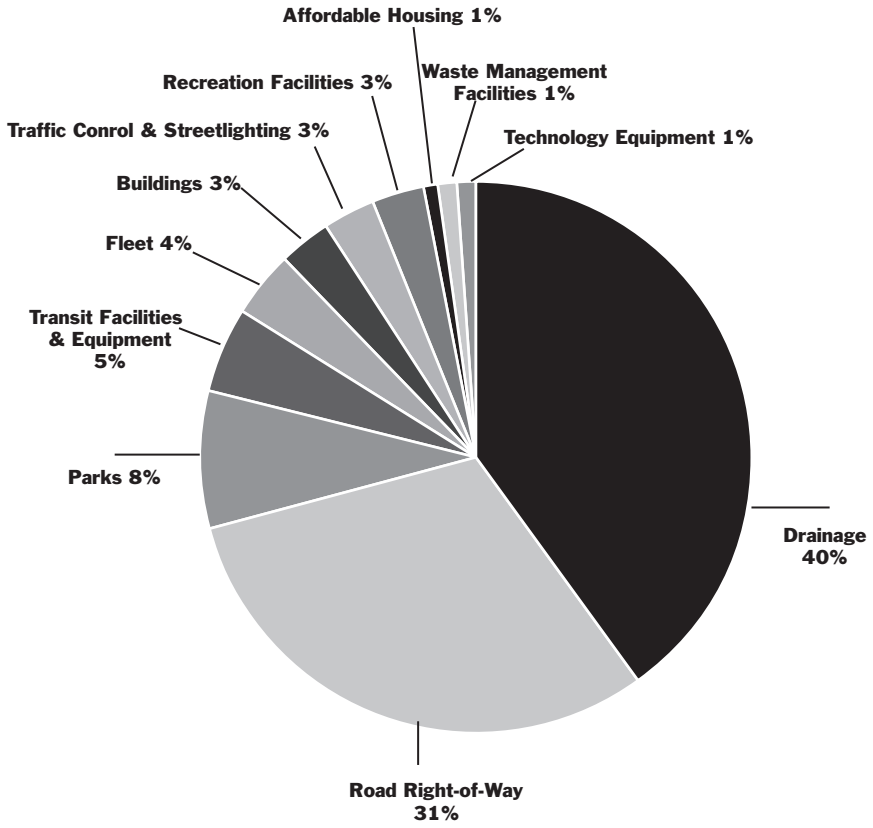
The total replacement value of Edmonton's infrastructure is now $19.2 billion, an increase of more than $1 billion from the amount specified in the *2002 Infrastructure Strategy Update*. This growth can be attributed to construction of new infrastructure, inflation, improved data collection methodologies and asset management practices.

Drainage assets constitute the greatest proportion (40 per cent) of the value of the City of Edmonton's infrastructure assets. Road Right-of-Way assets account for another 31 per cent of replacement value.

Total 2004 Asset Replacement Value – $19.2 billion



Replacement Value by Infrastructure Element

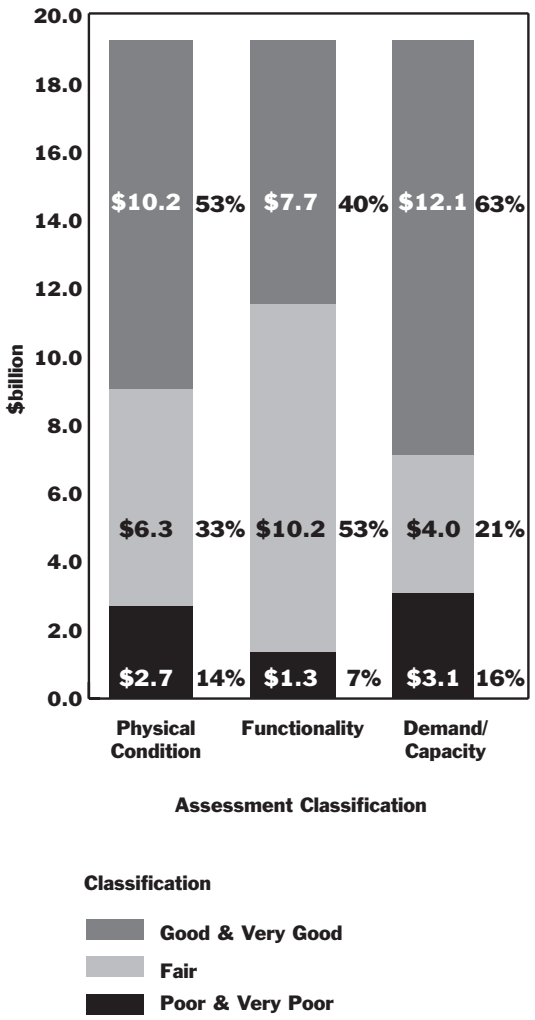


State and condition of infrastructure

Since 2002, the City of Edmonton has used a standardized rating system to determine the state and condition of its infrastructure. This five-point system (A - Very Good, B - Good, C - Fair, D - Poor and F - Very Poor) is used to assess each aspect of municipal infrastructure in terms of physical condition, functionality and demand/capacity.

Physical condition refers to the condition of physical infrastructure that allows it to meet an intended service level. Functionality refers to the ability of physical infrastructure to meet program delivery needs. Demand/capacity refers to the capacity of physical infrastructure and its ability to meet service needs.

Overall Status of the City's Infrastructure



While the majority of the City's assets are generally in fair to good condition, some infrastructure assets require reinvestment.

- Fourteen per cent ($2.7 billion) of assets are considered poor or very poor with respect to physical condition.
- Seven per cent ($1.3 billion) of infrastructure is rated poor or very poor with respect to functionality.
- Sixteen per cent ($3.1 billion) of infrastructure assets are deemed poor or very poor for their ability to meet demand/capacity.

The overall state and condition is a snapshot of existing infrastructure only; the needs for growth and new services are not reflected in this assessment.

These figures indicate the magnitude of reinvestment required for each assessment area. However, figures should not be added together to determine the total reinvestment required to raise infrastructure to acceptable levels. For example, if an asset is in poor physical condition, it may or may not have a correspondingly poor rating in the functionality and demand/capacity categories. It is possible that an investment in one category may resolve the issues in the other two categories without requiring additional investment.

Appendix B: Summary of infrastructure inventory

Infrastructure Element	Unit of Measure	Quantity	Average Age (Years)	Expected Asset Life (Years)	Physical Condition (Note 2) A+B / C / D+F (%)	Functionality (Note 2) A+B / C / D+F (%)	Demand / Capacity (Note 2) A+B / C / D+F (%)	Replacement Value ($millions)
Drainage								
Wastewater Treatment Facilities	#	1	28	50	100 / 0 / 0	0 / 100 / 0	100 / 0 / 0	$395
Sanitary System	km	1,827	28	75	34 / 55 / 11	60 / 40 / 0	61 / 14 / 25	$1,148
Storm System	km	2,005	31	75	82 / 16 / 2	50 / 50 / 0	35 / 38 / 27	$3,416
Combined System	km	937	56	75	31 / 56 / 13	0 / 100 / 0	17 / 32 / 51	$1,089
Service Connections	#	273,214	35	75	67 / 25 / 8	0 / 100 / 0	100 / 0 / 0	$1,621
Drainage Total			**35**	**75**	**65 / 29 / 6**	**31 / 69 / 0**	**53 / 24 / 23**	**$7,669**
Road Right-of-Way								
Roads	km^2 / km	43 / 4,395	33	20	41 / 37 / 22	46 / 47 / 7	68 / 19 / 13	$4,867
Sidewalks	km	4,334	32	30	59 / 7 / 34	45 / 46 / 9	100 / 0 / 0	$647
Bridges	#	142	33	63	52 / 42 / 6	45 / 45 / 10	35 / 38 / 27	$428
Auxiliary Structures	varies	N/A	N/A	17	73 / 1 / 26	N/A	N/A	$36
Road Right-of-Way Total			**35**	**25**	**44 / 34 / 22**	**46 / 47 / 7**	**69 / 18 / 13**	**$5,978**
Parks								
Horticulture	varies	N/A	varies	60	11 / 89 / 0	10 / 90 / 0	100 / 0 / 0	$1,016
Access/Circulation	varies	N/A	22	60	3 / 62 / 35	60 / 0 / 40	60 / 35 / 5	$244
Playgrounds / Water Features	#	588	21	20	86 / 5 / 9	79 / 7 / 14	79 / 11 / 10	$115
Sports Fields / Fixtures	#	5,176	N/A	18	100 / 0 / 0	57 / 43 / 0	57 / 43 / 0	$50
Protection Elements	varies	36,508	N/A	13	0 / 100 / 0	0 / 100 / 0	0 / 89 / 11	$23
Park Furniture	#	10,839	27	15	0 / 100 / 0	0 / 100 / 0	0 / 100 / 0	$9
Parks Total			**20**	**55**	**18 / 75 / 7**	**25 / 67 / 8**	**88 / 10 / 2**	**$1,457**
Transit Facilities and Equipment								
LRT								
LRT Major Facilities	#	10	19	95	92 / 6 / 2	92 / 8 / 0	100 / 0 / 0	$222
LRT Fleet	#	37	23	40	33 / 24 / 43	50 / 40 / 10	0 / 100 / 0	$155
LRT Line	km	72	21	58	91 / 7 / 2	79 / 21 / 0	92 / 8 / 0	$379
LRT Equipment	varies	N/A	22	27	55 / 35 / 10	46 / 37 / 17	89 / 11 / 0	$69
Bus								
Bus Major Facilities	#	24	15	26	42 / 39 / 19	46 / 15 / 39	58 / 11 / 31	$33
Bus Stops	#	12,890	9	16	56 / 24 / 20	48 / 14 / 38	59 / 20 / 21	$16
Bus Communications	#	874	10	11	13 / 22 / 65	8 / 92 / 0	100 / 0 / 0	$4
Bus Equipment	#	846	16	15	51 / 26 / 23	51 / 2 / 47	25 / 52 / 23	$8
Trolley Electrification	rte km	140	21	37	70 / 14 / 16	76 / 12 / 12	100 / 0 / 0	$85
Transit Facilities & Equipment Total			**20**	**55**	**74 / 14 / 12**	**73 / 21 / 6**	**77 / 21 / 2**	**$972**

Notes:

1. The average age and expected asset life for the infrastructure totals are rounded off to the nearest 5 years.
2. A+B = Very Good and Good
   C=Fair
   D+F=Poor and Very Poor

Infrastructure Element	Unit of Measure	Quantity	Average Age (Years)	Expected Asset Life (Years)	Physical Condition (Note 2) A+B / C / D+F (%)	Functionality (Note 2) A+B / C / D+F (%)	Demand / Capacity (Note 2) A+B / C / D+F (%)	Replacement Value ($millions)
Fleet								
Transit Fleet	#	893	15	18	40 / 25 / 35	50 / 0 / 50	16 / 24 / 60	$396
Municipal Department Vehicles	#	2,227	7	12	30 / 30 / 40	45 / 40 / 15	80 / 15 / 5	$348
Shop Equipment	#	658	18	25	20 / 40 / 40	50 / 40 / 10	20 / 55 / 25	$29
Fleet Total			**10**	**15**	**35 / 28 / 37**	**48 / 19 / 33**	**45 / 21 / 34**	**$773**
Buildings								
Service Yards / Operations	# / ft^2	69 / 2,055,769	29	45	55 / 28 / 17	40 / 25 / 35	38 / 26 / 36	$277
Offices	# / ft^2	9 / 1,319,077	27	45	73 / 26 / 1	97 / 2 / 1	68 / 31 / 1	$190
Emergency Response Facilities	# / ft^2	32 / 333,349	24	45	78 / 18 / 4	82 / 14 / 4	88 / 12 / 0	$78
Library Buildings - Owned	#	8	40	40	87 / 13 / 0	8 / 87 / 5	95 / 0 / 5	$31
Police Buildings	# / ft^2	13 / 543,486	23	31	30 / 55 / 15	29 / 56 / 15	30 / 55 / 15	$89
Buildings Total			**30**	**45**	**61 / 29 / 10**	**58 / 24 / 18**	**54 / 28 / 18**	**$665**
Traffic Control & Street Lighting								
Streetlighting	unit	69,156	22	30	23 / 25 / 52	26 / 23 / 51	79 / 12 / 9	$418
Traffic Signals	unit	1,063	17	27	53 / 29 / 19	56 / 23 / 21	35 / 38 / 27	$84
Parking Meters	unit	3,372	0	10	100 / 0 / 0	100 / 0 / 0	100 / 0 / 0	$3
Traffic Signs	unit	123,475	18	23	22 / 47 / 31	52 / 31 / 17	35 / 38 / 27	$25
Traffic Control & Streetlighting Total			**20**	**30**	**28 / 27 / 45**	**33 / 23 / 44**	**70 / 17 / 13**	**$530**
Recreation Facilities								
Community Leisure Centres	# / ft^2	23 / 974,684	39	40	57 / 31 / 12	15 / 80 / 5	39 / 57 / 4	$190
Attractions	# / ft^2	5 / 76,330	49	45	0 / 81 / 19	5 / 44 / 51	48 / 52 / 0	$39
Arenas	# / ft^2	19 / 711,789	32	35	45 / 42 / 13	0 / 74 / 26	47 / 43 / 10	$105
Sports and Fitness Facilities	# / ft^2	3 / 149,368	20	45	9 / 91 / 0	94 / 6 / 0	94 / 6 / 0	$111
Heritage Facilities	# / ft^2	6 / 118,186	46	45	91 / 7 / 2	89 / 0 / 11	89 / 0 / 11	$24
Golf Courses	# / ft^2	10 / 31,553	30	45	48 / 0 / 52	13 / 35 / 52	13 / 35 / 52	$6
Structures	# / ft^2	58 / 149,049	33	45	51 / 34 / 15	46 / 35 / 19	36 / 31 / 33	$21
Bridges	#	75	19	40	74 / 26 / 0	100 / 0 / 0	100 / 0 / 0	$25
Park System (Owned Equipment)	# / ha	612 / 4,760	N/A	50	N/A	N/A	N/A	$1
Recreation Facilities Total			**35**	**40**	**42 / 48 / 10**	**36 / 51 / 13**	**58 / 36 / 6**	**$523**
Affordable Housing								
Partnership Housing	#	2,632	23	45	100 / 0 / 0	100 / 0 / 0	100 / 0 / 0	$215
City Owned Housing	#	36	51	45	0 / 0 / 100	0 / 0 / 100	0 / 0 / 100	$4
Affordable Housing Total			**25**	**45**	**98 / 0 / 2**	**98 / 0 / 2**	**98 / 0 / 2**	**$218**

Notes:

1. The average age and expected asset life for the infrastructure totals are rounded off to the nearest 5 years.
2. A+B = Very Good and Good
   C=Fair
   D+F=Poor and Very Poor

Infrastructure Element	Unit of Measure	Quantity	Average Age (Years)	Expected Asset Life (Years)	Physical Condition (Note 2) A+B / C / D+F (%)	Functionality (Note 2) A+B / C / D+F (%)	Demand / Capacity (Note 2) A+B / C / D+F (%)	Replacement Value ($millions)
Waste Management Facilities								
Operation and Administration Facilities	m^2	2,570	8	30	85 / 15 / 0	100 / 0 / 0	100 / 0 / 0	$4
Transfer Station and Facilities	# / m^2	6,200 / 12,350	16	25	100 / 0 / 0	70 / 30 / 0	98 / 0 / 2	$14
Processing Facilities	# / m^2	7 / 44,550	4	30	100 / 0 / 0	17 / 83 / 0	14 / 86 / 0	$122
Operating Landfills and Appurtenances	# / m^2	3 / 273	27	35	4 / 96 / 0	4 / 96 / 0	4 / 96 / 0	$29
Other	# / m^2	1 / 2,600	4	31	99 / 1 / 0	94 / 6 / 0	94 / 6 / 0	$11
Waste Management Facilities Total			**10**	**30**	**84 / 16 / 0**	**26 / 74 / 0**	**26 / 74 / 0**	**$181**
Technology Equipment								
Servers - Unix	#	27	4	5	40 / 0 / 60	40 / 0 / 60	40 / 0 / 60	$3
Servers - Intel	#	244	3	3	27 / 17 / 56	27 / 17 / 56	27 / 17 / 56	$4
Data Network	#	307	3	5	95 / 0 / 5	95 / 0 / 5	95 / 0 / 5	$3
Data Storage	Terabytes	50	2	5	100 / 0 / 0	100 / 0 / 0	100 / 0 / 0	$4
Voice Communications	#	13,180	7	6	35 / 0 / 65	35 / 0 / 65	35 / 0 / 65	$8
Business Applications	#	147	N/A	N/A	N/A	N/A	N/A	$31
Backup - Jukeboxes	#	2	1	3	100 / 0 / 0	100 / 0 / 0	100 / 0 / 0	$1
Police IT	#	184	4	6	63 / 1 / 36	63 / 2 / 35	41 / 25 / 34	$22
Police Communications	#	1,419	6	12	97 / 0 / 3	97 / 2 / 1	97 / 3 / 0	$23
Library Network	varies	N/A	N/A	N/A	100 / 0 / 0	100 / 0 / 0	100 / 0 / 0	$3
Technology Equipment Total			**5**	**10**	**74 / 1 / 25**	**74 / 2 / 24**	**67 / 9 / 24**	**$102**
Other								
Library Contents	N/A	N/A	N/A	N/A	0 / 100 / 0	0 / 100 / 0	0 / 100 / 0	$14
Library Materials	#	1,700,000	N/A	N/A	0 / 100 / 0	0 / 0 / 100	0 / 0 / 100	$40
Emergency Response Equipment	#	2,786	9	12	44 / 38 / 18	51 / 33 / 16	53 / 22 / 25	$24
Other Police Equipment	#	5,562	6	10	57 / 25 / 18	57 / 25 / 18	57 / 25 / 18	$12
Other Total			**10**	**10**	**19 / 74 / 7**	**21 / 28 / 51**	**22 / 24 / 54**	**$89**
TOTAL			**30**	**50**	**53 / 33 / 14**	**40 / 53 / 7**	**63 / 21 / 16**	**$19,157**

Notes:

1. The average age and expected asset life for the infrastructure totals are rounded off to the nearest 5 years.
2. A+B = Very Good and Good
   C=Fair
   D+F=Poor and Very Poor

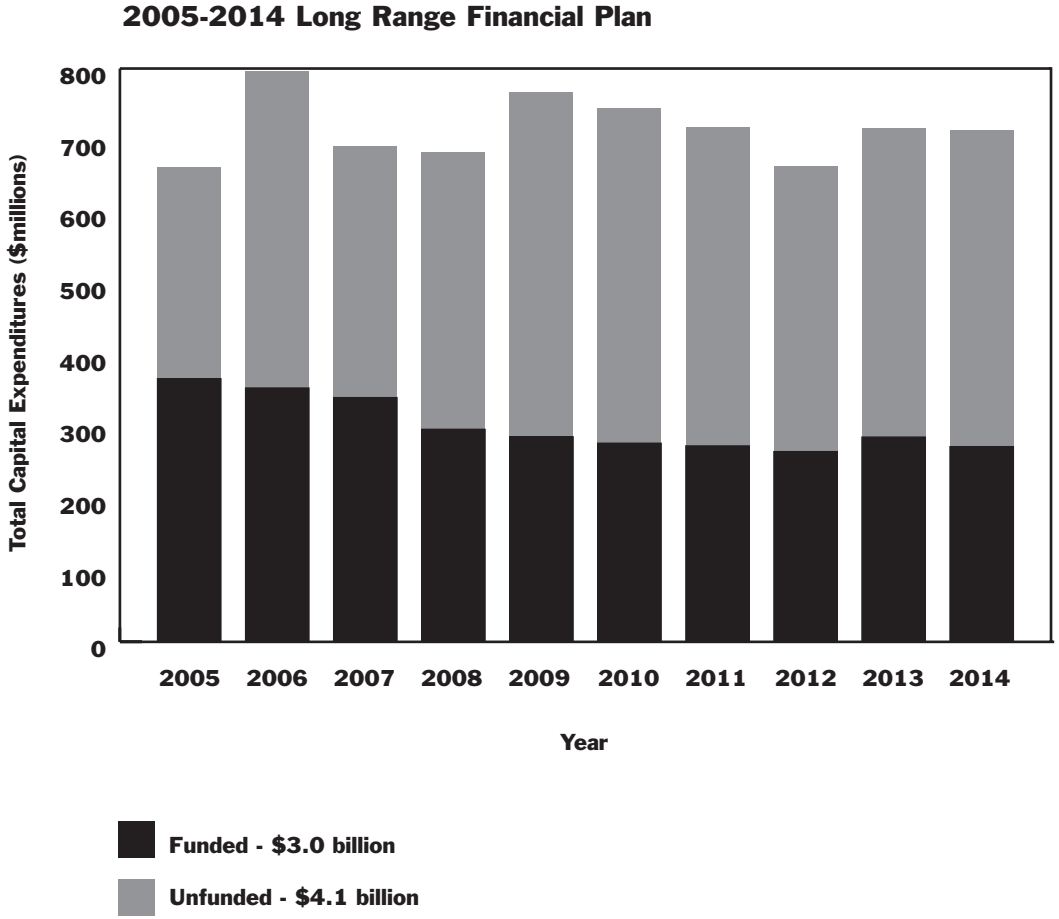
Appendix C: Summary of infrastructure investment needs (2005-14 Long Range Financial Plan)

The 2005-14 Long Range Financial Plan (LRFP) requires almost $7.2 billion over the next ten years to accommodate demand for growth, rehabilitation and other projects. The funded portion of the LRFP amounts to $3.0 billion. The unfunded portion of the LRFP, or the infrastructure gap, has risen to $4.1 billion from the 2003-12 LRFP figure of $3.2 billion. That $0.9 billion increase represents a 28 per cent increase in the size of the gap.

A major contributor to the infrastructure gap is transportation related, such as the South Light Rail Transit (LRT) expansion, High Speed Transit and additional rehabilitation projects.

The infrastructure gap continues to grow because of increasing demands for rehabilitation and growth projects, a backlog of unfunded projects, escalating construction costs in Edmonton's booming economy, and more stringent environmental requirements.

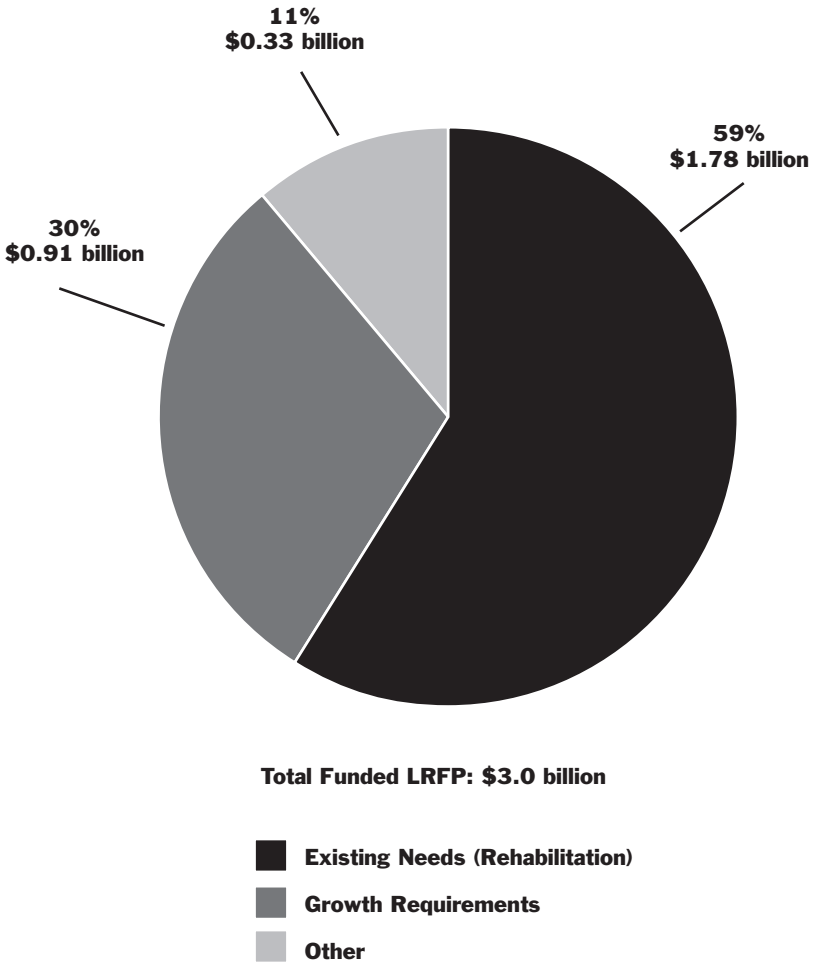
That the gap continues to grow is of concern. While considerable efforts have been made to improve the City's infrastructure management, the fact is that more money is required to address the demands of this growing city.



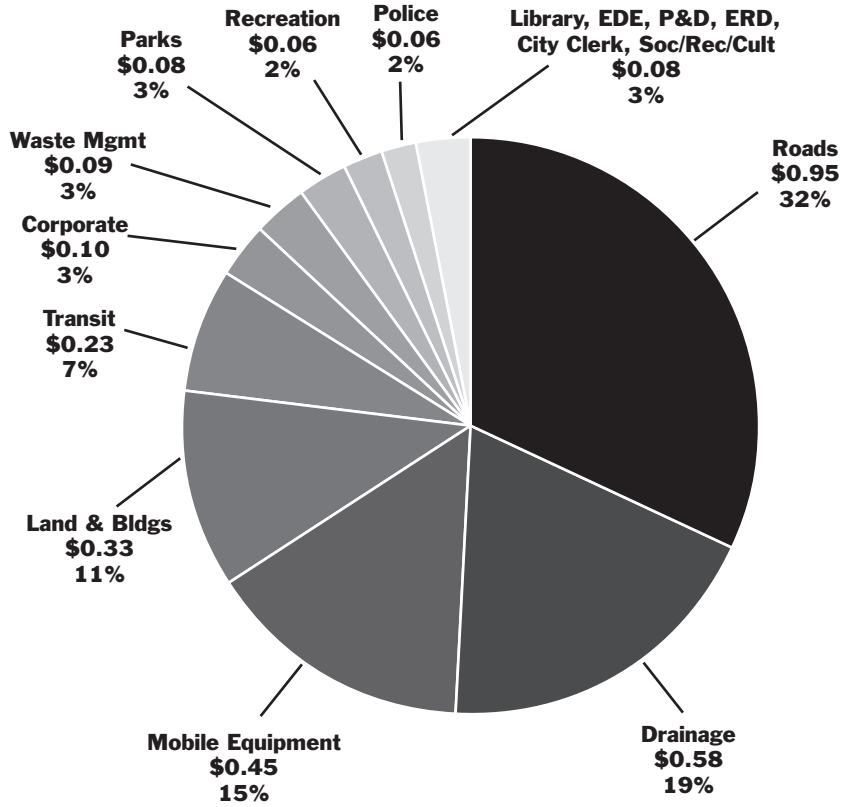
A majority (59 per cent) of the funded LRFP consists of rehabilitation costs of $1.78 billion. Approximately $0.91 billion (30 per cent) has been allocated to growth projects and the remaining $0.33 billion (11 per cent) to other initiatives (Economic Development, Regional Co-operation and Planning, Services to People and Leadership, Organizational Effectiveness).

The following pie chart indicates that the funded projects are primarily in the roads and drainage areas.

2005 - 2014 Long Range Financial Plan — Funded ($ billion)



2005-2014 Long Range Financial Plan — Funded by Program ($ billion)

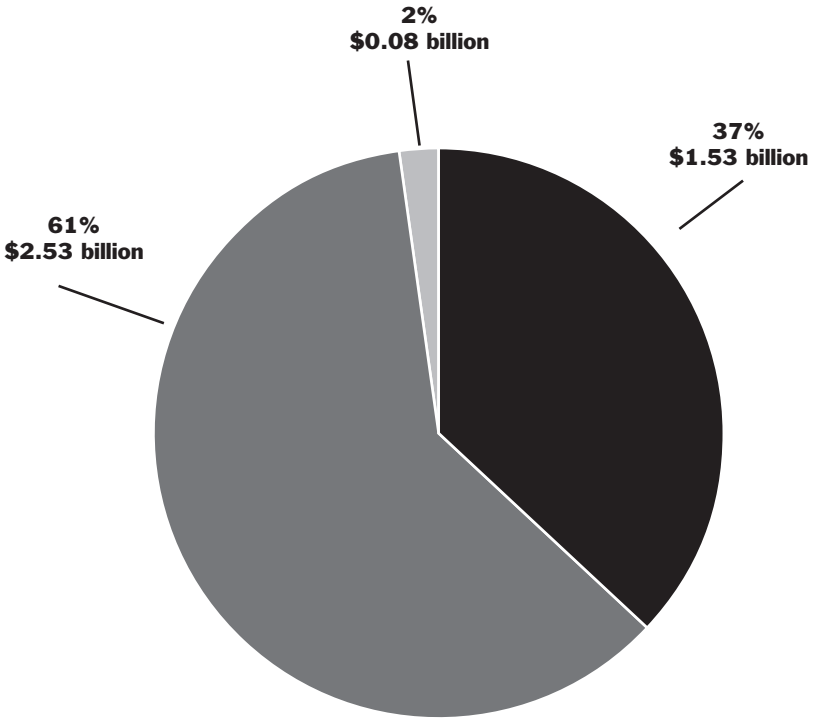


Notes:
EDE - Economic Development Edmonton
P & D - Planning & Development
ERD - Emergency Response Department

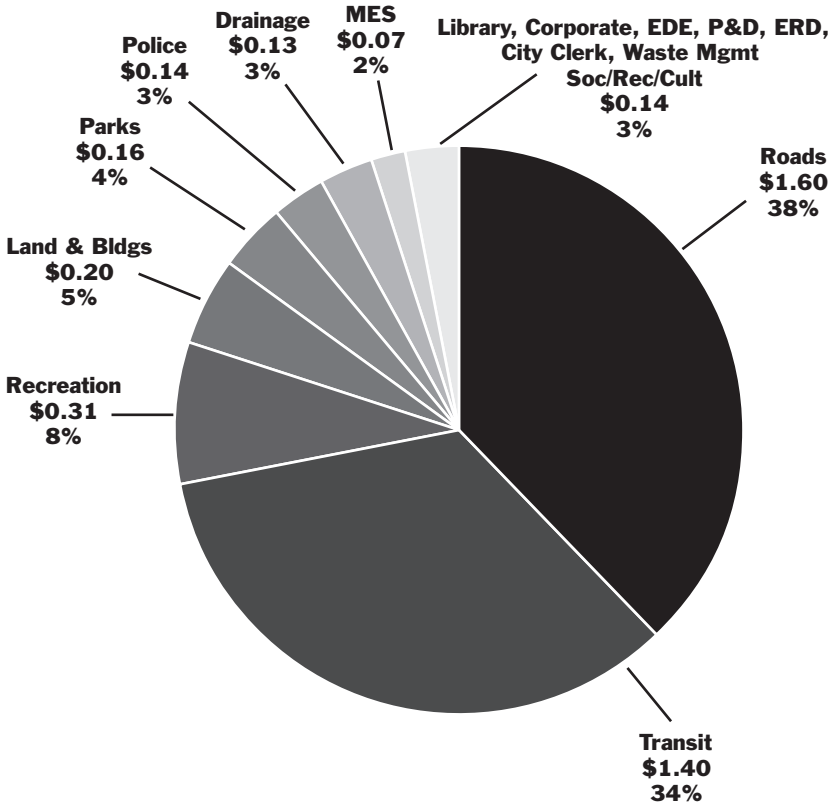
Conversely, 61 per cent or $2.53 billion of unfunded projects are assigned to growth projects, which indicate the City has not been able to keep up with the pace of development. About $1.53 billion (37 per cent) of unfunded projects are assigned to existing infrastructure needs (rehabilitation). Another $0.08 billion (2 per cent) are allocated to other initiatives.

The following pie chart indicates that roads and transit comprise the majority of the unfunded needs.

2005 - 2014 Long Range Financial Plan — Unfunded ($ billion)



2005-2014 Long Range Financial Plan — Unfunded by Program ($ billion)



Notes:
MES - Mobile Equipment Services
EDE - Economic Development Edmonton
P & D - Planning & Development
ERD - Emergency Response Department

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