

Branch — Roads Design and Construction

Introduction

The Roads Design and Construction Branch provides services that maintain the roadway system within the City of Edmonton. This Branch is responsible for managing the effective delivery of a high quality and full suite of capital projects on time and within budget. A high level of technical and management expertise is utilized to implement industry best practices and lead project excellence.

The Branch coordinates and administers the roadway related improvements for the City of Edmonton. As construction activities proceed, public involvement ensures ongoing communications with key stakeholders.



The Branch provides design services ranging from preliminary designs to detailed construction drawings for contractors to build the necessary infrastructure. The Branch's project management services lead the project from initial cost estimates right through to completion of construction.

Experienced on-location resident engineering and inspection services are provided to keep projects on budget and to manage contractor performance.

Maximum value for the City of Edmonton is attained through assessing the most effective delivery method, from traditional design, bid, build to alternative procurement and delivery approaches.

Typical roadway projects include, but are not limited to:

- Arterial Roads construction and rehabilitation;
- Neighbourhood renewal;
- Freeway interchanges;
- Bridge rehabilitation and reconstruction;
- Active transportation facility construction;
- Improvements to street lighting, alleys, curb and gutter, and sidewalks; and,
- Streetscape projects.

Construction contract administration is performed through the preparation of contract documents, public tendering, quality monitoring and warranty tracking.



Branch — Roads Design and Construction

Approved 2015 Budget – Branch Summary

(\$000)	2013 Actual	2014 Budget	2015 Budget	\$ Change '14-'15	% Change '14-'15
Revenue & Transfers					
User Fees, Fines, and Permits	2	-	-	-	-
Grants	4	-	-	-	-
Transfer from Reserves	-	-	-	-	-
Total Revenue & Transfers	\$6	-	-	-	-
Expenditure & Transfers					
Personnel	11,213	12,619	12,973	354	2.8
Materials, Goods, and Supplies	270	388	388	-	-
External Services	52	139	121	(18)	(12.9)
Fleet Services	12	15	15	-	-
Intra-municipal Charges	1,921	1,672	1,455	(217)	(13.0)
Utilities & Other Charges	217	415	440	25	6.0
Transfer to Reserves	-	-	-	-	-
Subtotal	13,685	15,248	15,392	144	0.9
Intra-municipal Recoveries	(12,282)	(13,823)	(13,930)	(107)	0.8
Total Expenditure & Transfers	\$1,403	\$1,425	\$1,462	\$37	2.6
Net Operating Requirement	\$1,397	\$1,425	\$1,462	\$37	2.6
Full-time Equivalents	109.0	109.0	109.0	0.0	

Budget Changes for 2015

(\$000)

Expenditures & Transfers - Changes

Personnel \$354

Movement toward job rate, changes in benefits and approved cost of living adjustment.

External Services \$(18)

This is a decrease to advertising costs which will bring the budget in line with actual expenditures over the past 3 years.

Intra-municipal Charges \$(217)

Charges for space rent, finance, material management and parking decreased by \$268. Charges for building maintenance, custodial and project management increased by \$51.

Utilities & Other Charges \$25

There is an increase of \$25 due to an increase in telecommunication charges to be in line with actual expenditures over the past 3 years.

Branch — Roads Design and Construction

Intra-municipal Recoveries \$(107)

Intra-municipal recoveries from capital have correspondingly increased by \$107 due to increase in overall expenditures.

Full-time Equivalents - Changes

There are no changes to Full-time Equivalents.

Branch — Roads Design and Construction

Approved 2015 Budget – Program Summary

Program Name - Arterial Roads

[Link to 10-Year Strategic Goals](#)



Results to be Achieved

The Arterial Roads group provides detailed design and project management services for all arterial roadway projects ranging from the construction, maintenance or rehabilitation of arterials roads to ensure the continued effective and efficient movement of people as well as goods and services.

Cost Drivers

- Changes in budget allocated for arterial road renewal and/or growth projects.

Service Standards

Arterial roads are assessed for surface distress and ride comfort every two years and structural integrity every five years. An Infrastructure Management System (RIMS) evaluates asset deterioration to assist prioritizing the roads for rehabilitation by the most cost-effective method. Streetscape projects along arterials are coordinated with the Great Neighbourhoods capital program. The group coordinates new arterial roadway construction with developers as outlined in Arterial Roads for Development Policy C507.

Resources (\$000)	2013 Actual	2013 Budget	2014 Budget	2015 Budget
Revenue & Transfers	\$ 4	\$ -	\$ -	\$ -
Expenditure & Transfers	5,526	6,070	5,698	5,641
Subtotal	5,522	6,070	5,698	5,641
Intra-municipal Recoveries	(5,148)	(5,548)	(5,224)	(5,154)
Net Operating Requirement	\$ 374	\$ 522	\$ 474	\$ 487
Management		2.0	2.0	2.0
Professional/Technical/Union Exempt		18.0	17.0	17.0
Union		11.0	10.0	10.0
Temporary		-	-	-
Full - Time Equivalents		31.0	29.0	29.0

2014 Services

- Provided project management and engineering design services to ensure effective administration of arterial roadway contracts.
- Completed preliminary designs to detailed construction drawings for arterial capital projects.
- Completed major projects such as 63 Ave (99 Street - 104 Street), Stony Plain Streetscape (149 Street - 158 Street), widening Guardian Road (Grantham Drive - Potter Greens Drive).

Changes in Services for 2015

- Continue to provide current levels of service and support for new and continuing arterial roadway projects.
- Continue work on arterial roadway projects such as Guardian Road / Lewis Estates Boulevard Widening, 63 Avenue Underpass Reconstruction and Stony Plain Road Streetscape.

Branch — Roads Design and Construction

Approved 2015 Budget – Program Summary

Program Name - Neighbourhood Renewal

[Link to 10-Year Strategic Goals](#)



Results to be Achieved

The Neighbourhood Renewal Program provides a cost-effective approach to ensure the City's neighbourhoods are maintained in a sustainable way. Renewing Edmonton's neighbourhood infrastructure enhances the livability for citizens and enhances the pride they have in their community.

Cost Drivers

- Inventory of neighbourhoods.
- Condition ratings of neighbourhoods' roadways and associated infrastructure.
- Changes in standards/policy for managing deteriorating infrastructure.

Service Standards

This program implements various renewal techniques that will improve sidewalk and roadway conditions and increase the service life of neighbourhood infrastructure. RIMS is applied to manage the growing renewal needs. The program coordinates with the Great Neighbourhoods Capital Program and the Drainage Neighbourhood Renewal Program. Roadway and associated infrastructure improvements are assessed for local improvements as per the Local Improvements Policy C433D.

Resources (\$000)	2013 Actual	2013 Budget	2014 Budget	2015 Budget
Revenue & Transfers	\$ 2	\$ -	\$ -	\$ -
Expenditure & Transfers	6,032	6,763	6,773	6,913
Subtotal	6,030	6,763	6,773	6,913
Intra-municipal Recoveries	(5,243)	(6,087)	(6,100)	(6,222)
Net Operating Requirement	\$ 787	\$ 676	\$ 673	\$ 691
Management		1.0	1.0	1.0
Professional/Technical/Union Exempt		23.0	23.0	23.0
Union		15.0	14.0	14.0
Temporary		21.0	21.0	21.0
Full - Time Equivalents		60.0	59.0	59.0

2014 Services

- Provided design, project management and on-site construction inspection for neighbourhoods and local / collector roadways that have been prioritized for renewals including: neighbourhood reconstruction in North Glenora, Glenora, Grovenor, Delton, Agyll, Hazeldean, King Edward Park, Cromdale, Laurier Heights (west of 139 Street). Northeast road reconstruction in Hollick-Kenyon, Matt Berry and Mayliewan. Roadway renewal for collector and local roadways in industrial and residential neighbourhoods including Lago Lindo and Evansdale.
- Provided design services for neighbourhoods and local/collector roadways renewals in , Ormsby Place (east of 184 Street), Newton (north of 123 Avenue), Sweet grass and Pollard Meadows.
- Provided design, project management and on-site construction of sidewalk and share use paths through out the City.

Changes in Services for 2015

- Continue to provide current levels of service and support for new and continuing projects.
- Coordinate neighbourhood reconstruction in Avonmore, Bonnie Doon, Canora (south of 102 Avenue), West Jasper Place (north of 100 Avenue), Cromdale, Glenora, Laurier Heights (west of 139 Street), Queen Alexandra, Rosslyn, Westmount, Westwood.
- Provide design and/or project management and on-site inspection for other projects including neighbourhood overlay projects, northeast road reconstruction in Matt Berry, Mayliewan, Ozerna and local road renewal projects.

Branch — Roads Design and Construction

Approved 2015 Budget – Program Summary

Program Name - Special Projects

[Link to 10-Year Strategic Goals](#)



Results to be Achieved

The Special Projects program delivers design, project management, on-location engineering, inspection and contract administration for special projects in the road right-of-way, focusing on bridges and interchanges.

Cost Drivers

- Changes in capital budget for special roadway projects.

Service Standards

Special Projects is accountable for delivering the appropriate quality and scope of capital projects on time and on budget. The group provides technical and management expertise to implement industry best practices and lead project excellence.

Resources (\$000)	2013 Actual	2013 Budget	2014 Budget	2015 Budget
Revenue & Transfers	\$ -	\$ -	\$ -	\$ -
Expenditure & Transfers	2,127	2,368	2,777	2,838
Subtotal	2,127	2,368	2,777	2,838
Intra-municipal Recoveries	(1,891)	(2,131)	(2,499)	(2,554)
Net Operating Requirement	\$ 236	\$ 237	\$ 278	\$ 284
Management		1.0	1.0	1.0
Professional/Technical/Union Exempt		11.0	12.0	12.0
Union		6.0	8.0	8.0
Temporary		-	-	-
Full - Time Equivalents		18.0	21.0	21.0

2014 Services

- Provided design and construction project management services for special projects in the roadway right-of-way.
- Coordinated construction of sidewalks, bus stops, curb ramps and cycling infrastructure.
- Provided project management services for Northeast Anthony Henday Drive Connectors.
- Coordinated Bridge Rehabilitation Program including bridge assessments, design and construction of various locations including the Waltherdale Bridge replacement and the 102 Ave/Groat Road Bridge replacement.
- Provided project management services for the 41 Avenue and QEII Highway interchange.

Changes in Services for 2015

- Continue to provide current levels of service and support for new and continuing special roadway projects.

Branch — Roads Design and Construction

Branch Performance Measures

The following performance measures are intended to provide an example of some of the measures that the Branch is currently monitoring. Since services provided within each Branch are very diverse, the measures are not intended to represent the Branch overall.

Effectiveness measures whether the Branch is effective in achieving its desired outcomes.

Efficiency measures how well resources are being used to produce a service or product.

Measure Type	Key Outcome (from Mandate)	Performance Measure	Target	Actual (year & result)
Effectiveness	Neighbourhood Renewal	citizens satisfaction rating	4 out of 5	3.94 of 5
Efficiency	Arterial Roads, Neighbourhood Renewal, Special Projects (Bridges and Interchanges)	% of projects completed on time	90%*	90%
		% of projects completed within budget	90%*	83.30%

* refers to Project Management Standards