

# CAPITAL PROFILE REPORT

PROFILE NAME: **INITIAL PHASE DOWNTOWN STORMWATER DRAINAGE SERVICING**  
 PROFILE NUMBER: **14-31-4102**  
 DEPARTMENT: **Financial Services & Utilities**  
 BRANCH: **Stormwater Utility**  
 LEAD BRANCH: **Stormwater Utility**  
 PROGRAM NAME:  
 BUDGET CYCLE: **2012-2014**

PROFILE STAGE:	Council Review
PROFILE TYPE:	Standalone
PROFILE MANAGER:	Todd Wyman
LEAD BRANCH MANAGER:	Chris Ward
ESTIMATED START DATE:	January, 2014
ESTIMATED COMPLETION	January, 2018

Major Initiative:

Service Category:

<b>GROWTH</b>	<b>RENEWAL</b>
<b>100</b>	

PREVIOUSLY APPROVED:

BUDGET REQUEST:

TOTAL PROFILE BUDGET:

-
46,000
46,000

## PROFILE DESCRIPTION

Construction of a stormwater trunk to accommodate anticipated infill and redevelopment of Downtown is required for the Downtown Community Revitalization Levy Area. Drainage studies undertaken in 2009 and 2011 identify the need for upgrades to the drainage system to handle increasing volumes.

The upgrade's initial phase (this capital profile) includes a storm trunk along 105 Street from 100 Avenue to the existing storm trunk on 111 Avenue using trenchless construction. At 105 Ave, the tunnel will run westward to 107 Street. From 105 Avenue to 111 Avenue, the tunnel will run along 107 Street.

This sewer will also provide a needed storm outlet for the North Edge redevelopment area and the Central McDougall Opportunistic Sewer Separation work. As such, Drainage will contribute funding to the project for the up-sizing of the trunk.

This is Phase 1 of a two-phase project. Phase 2 will involve lateral storm sewers to be implemented as required in the future based on development.

## PROFILE BACKGROUND

Without improved drainage, development in Downtown will increase both the magnitude and frequency of flooding and of Combined Sewer Overflow.

Constructing this stormwater trunk will mitigate these concerns.

For this reason, the Downtown Community Revitalization Levy Plan (as approved by Council on Sep. 17, 2013 and the Province on Apr. 16, 2014) identifies drainage servicing upgrades as an initial catalyst project.

This profile is being expedited ahead of the 2015-2018 Capital budget process to allow work to begin as soon as possible. Drainage work must be completed before Neighbourhood Renewal can proceed in Central McDougall as scheduled for 2018/2019. To avoid conflicts or further delays to neighbourhood renewal, Drainage work must begin in 2014.

This profile is Phase 1 of a larger project. Future sewers on 100 and 102 Avenues (conceptual estimate of \$32 million in 2013 dollars) will further enhance servicing and will be proposed in future budget cycles as required.

## PROFILE JUSTIFICATION

Downtown Edmonton is currently serviced with a combined sewer system and during moderate and heavy rainfall events, flows can exceed the sewer capacity resulting in flooding and combined sewer overflows.

As intensification and redevelopment occurs Downtown, sanitary flows and storm runoff will increase, and a higher level of drainage service will be required to support Downtown redevelopment.

While the system can currently accommodate the arena and associated developments, it is reaching the point at which it will not be able to service new developments.

Construction of this stormwater trunk will result in a lower risk of basement flooding, reduced frequency of surface flooding, and environmental benefits through reduced combined sewer overflow discharge.

For this reason, the Downtown Community Revitalization Levy Plan (as approved by Council on Sept. 17, 2013 and the Province on Apr. 16, 2014) identifies drainage servicing upgrades as an initial catalyst project.

## STRATEGIC ALIGNMENT

This project advances the following "The Way Ahead" strategic goals: The Way We Green, The Way We Grow, and The Way We Finance.

This profile also fulfils a commitment to Alberta Environment.

## ALTERNATIVES CONSIDERED

Three options are available:

- (1) Do nothing: This does not meet the servicing needs.
- (2) Partial sewer separation and lateral improvements: PREFERRED OPTION
- (3) total sewer separation: Prohibitively expensive (more than \$200 million).

## COST BENEFITS

Tangible Benefits:

- Improved hydraulic performance of the combined sewer systems in Downtown Edmonton.
- Reduced risk of sewer backup and surface flooding.
- Reduction in downstream Combined Sewer Overflow discharge to the river.

Intangible:

- Support revitalization of the Downtown core.
- Increased confidence that reasonable drainage servicing exists to support Downtown development.

## KEY RISKS & MITIGATING STRATEGY

Risks include construction challenges and cost escalation; a thorough design process and contingencies will mitigate these risks.

Risks of not proceeding are conflicts with Neighbourhood Renewal in Central McDougall and increased flooding.

## RESOURCES

No new personnel requirements. External engineering consultants and contractors will be used for the design and open-cut construction works. Tunnel construction will be undertaken by City's Drainage Design and Construction.

## CONCLUSIONS AND RECOMMENDATIONS

Recommend proceeding with partial sewer separation and lateral upgrades. The initial phase, a trunk sewer flowing northbound along 105 Street will be completed during this capital budget cycle.

# CAPITAL PROFILE REPORT

## CAPITAL BUDGET AND FUNDING SOURCES (000's)

PROFILE NAME: **Initial Phase Downtown Stormwater Drainage Servicing**

PROFILE TYPE: **Standalone**

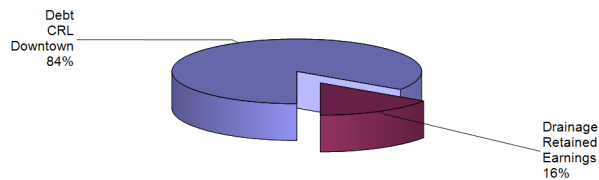
PROFILE NUMBER: **14-31-4102**

APPROVED BUDGET		PRIOR YEARS	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	TOTAL
	Approved Budget												
	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	-	-	-	-	-	-	-	-	-	-	-	-

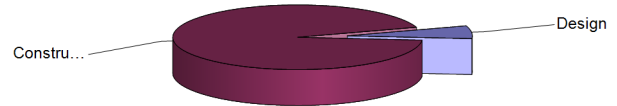
BUDGET REQUEST	Budget Request	-	1,400	9,600	13,850	13,950	7,200	-	-	-	-	-	46,000
	Revised Funding Sources (if approved)												
	Debt CRL Downtown	-	-	9,600	13,850	8,850	6,550	-	-	-	-	-	38,850
	Drainage Retained Earnings	-	1,400	-	-	5,100	650	-	-	-	-	-	7,150
	Requested Funding Source	-	1,400	9,600	13,850	13,950	7,200	-	-	-	-	-	46,000

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	-	1,400	9,600	13,850	13,950	7,200	-	-	-	-	-	46,000
	Requested Funding Source												
	Debt CRL Downtown	-	-	9,600	13,850	8,850	6,550	-	-	-	-	-	38,850
	Drainage Retained Earnings	-	1,400	-	-	5,100	650	-	-	-	-	-	7,150
	Requested Funding Source	-	1,400	9,600	13,850	13,950	7,200	-	-	-	-	-	46,000

### PROFILE FINANCING SOURCE



### COSTS BY ACTIVITY TYPE



## OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:																
	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-