

# Capital Summaries

---

## DRAFT BUDGET 2018

For the consideration of City Council, Administration has compiled high-level summaries for capital items proposed in the 2018 Draft Budget.

## IT – 911 Voice Recorder Replacement

### Description

This project is to replace the current server hardware and upgrade to the latest version of the software for the voice recorder at the 911 PSAP.

### Need and implications

There is a requirement to record all calls into the 911 PSAP. The current voice recorder hardware and software solution was installed in 2013 and has reached the end of useful life. By refreshing this hardware and updating the software, it will ensure that the system remains stable and available.

If this project is not approved for 2018, there is a significant and increasing risk of an outage with the system.

### Budget requested

The budget amount requested is \$15,000 in 2018.

<b>Department:</b> Information Technology	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Michel Dion, Chief Financial Officer	Paul Schwebius, Manager, Information Technology

### Additional comments

PSAP = Public Safety Answering Point

## IT – 911 Voice Recorder Redundant Server

### Description

This project is to add a secondary (redundant) voice recording server to the environment for the recording of calls in the 911 PSAP.

### Need and implications

There is a requirement to record all calls into the 911 PSAP. Currently there is only a single recording server, which creates one point of failure. This project will add a secondary server and all incoming calls will be recorded in parallel. There is also a requirement in the 911 Standards to have a backup location in order to operate the 911 PSAP from, in the event of a major disaster at the primary building. It will also be investigated as to how this secondary recording server may be able to provide voice recording for the secondary location.

If this project is not approved, we will have a risk of being unable to record calls in the 911 PSAP, in the event of a failure on the primary recording server. In addition, there will be no recording of calls in the backup call centre, once it is established.

### Budget requested

The budget amount requested is \$23,000 in 2018.

<b>Department:</b> Information Technology	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Michel Dion, Chief Financial Officer	Paul Schwebius, Manager, Information Technology

### Additional comments

PSAP = Public Safety Answering Point

## IT – Carryover – Advanced Water Meter Reads

### Description

The AMI Project is in progress but will not be completed in 2017. A large portion of the approved budget will need to be carried over into 2018 for completion of the project.

### Need and implications

This project was approved in the budget for 2017 at a cost of \$1,800,000, but will not be completed in 2017. The remaining amount will need to be carried over into 2018.

### Budget requested

The carry over amount is estimated at \$1,300,000. This amount is subject to change and could be reduced, based on the amount of the project that is completed in November and December of 2017.

<b>Department:</b> Information Technology	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Michel Dion, Chief Financial Officer	Paul Schwebius, Manager, Information Technology

## IT – Network Hardware

### Description

This project is to replace the network hardware that has reached end of life and purchase additional network hardware for expansion of services as required.

### Need and implications

This project will replace network equipment -- firewalls, switches, wireless access points -- that have reached the end of useful life. This project will also cover any expansion of network services that may be required throughout the year.

If this project is not approved for 2018, since the hardware has reached end of life there is an increasing risk of an outage within our network.

### Budget requested

The budget amount requested is \$25,000 in 2018.

<b>Department:</b> Information Technology	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Michel Dion, Chief Financial Officer	Paul Schwebius, Manager, Information Technology

## IT – Multi Function Printers

### Description

This project is to replace existing printers that have reached end of life.

### Need and implications

The current multi-function printers have a 5 year useful lifespan. Once the printers become older than 5 years, the ongoing service costs from the vendor have the potential to increase while the device reliability decreases.

If this project is not approved for 2018, printer operating costs will increase, as the vendor may increase the price for ongoing service to the aging unit. The printers may also have downtime more often, resulting in service calls and lost productivity for staff.

### Budget requested

The budget amount requested is \$10,000 in 2018.

<b>Department:</b> Information Technology	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Michel Dion, Chief Financial Officer	Paul Schwebius, Manager, Information Technology

## IT – Server Hardware

### Description

This project is to replace the server hardware that has reached end of life.

### Need and implications

This project will replace servers in our environment that have reached the end of useful life. The servers are on a 4 year replacement cycle.

If this project is not approved for 2018, since the hardware has reached end of life there is an increasing risk of an outage within the particular server environment.

### Budget requested

The budget amount requested is \$20,000 in 2018.

<b>Department:</b> Information Technology	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Michel Dion, Chief Financial Officer	Paul Schwebius, Manager, Information Technology

## IT – Desktop Software

### Description

This project is to purchase licenses for desktop software.

### Need and implications

This project includes purchases of licenses for desktop software such as Microsoft Visio, Microsoft Project, Foxit PDF editing software etc. In order to ensure we are compliant with licensing of our software, we require a small amount of budget dollars to accommodate software needs that arise during the year.

If this project is not approved for 2018, requests for desktop software that falls outside of existing licenses will not be able to be purchased.

### Budget requested

The budget amount requested is \$3,000 in 2018.

<b>Department:</b> Information Technology	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Michel Dion, Chief Financial Officer	Paul Schwebius, Manager, Information Technology



## IT – Desktop Hardware

### Description

This project is to replace the desktop hardware and peripherals that have reached end of life, and purchase additional desktop hardware and peripherals if required.

### Need and implications

The current lifecycle for laptops/desktops is 4 years and peripherals are replaced as needed, typically 6 years or as they fail. This project will replace desktop hardware (laptops, desktops, monitors, keyboards) that have reached the end of useful life and any additional equipment for departments to meet business needs.

If this project is not approved for 2018, since the hardware has reached end of life there is an increased risk of hardware issues, resulting in unproductive staff when waiting for a computer repair or replacement.

### Budget requested

The budget amount requested is \$133,500 in 2018.

<b>Department:</b> Information Technology	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Michel Dion, Chief Financial Officer	Paul Schwebius, Manager, Information Technology

## IT – Application Software – System Enhancements for Timesheets, Work Orders, and Integrations

### Description

The Systems Enhancements Project is a follow up project to the financial system replacement project. During the process of working through our financial system replacement, three areas were identified where customizations and further integrations between systems would allow city staff to more efficiently process and report on information, but were identified as out of scope items for the original project.

Further integrations between Pearl & Diamond/Dynamics GP would allow staff to more efficiently process and report property taxes, utilities and inventory.

We're also looking to add customizations to Pearl for time sheets which would allow us to better control internal policy and make time entry easier. In addition we would like to add customizations to our Work Order system to better equip staff for managing incoming work and employee resources assigned to work orders.

### Need and implications

The intent of this project is to increase employee efficiency and free up staff from having to do manual information processing that can instead be done by a computerized system.

### Budget requested

The budget amount requested is \$10,000 for Time sheet enhancements, \$10,000 for Pearl Work order enhancements, and \$20,000 for Diamond/Pearl Integrations in 2018.

<b>Department:</b> Information Technology	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Michel Dion, Chief Financial Officer	Paul Schwebius, Manager, Information Technology



Project # 1813212

## IT – 911 - Establish Secondary 911 PSAP location

### Description

This project is to establish a secondary 911 PSAP location that can be activated on short notice in the event of a major disaster at the current building of the 911 PSAP.

### Need and implications

As the part of the 911 standards that were released in 2016, 911 PSAP's are required to have an offsite secondary location that can be activated within a short time period, in the event of a major disaster at the primary location.

If this project is not approved for 2018, the city will eventually be in violation of the standards for operating a 911 PSAP and would continue to have the risk of not having a backup site if a major disaster happened at the primary site.

### Budget requested

The budget amount requested is \$20,000 in 2018.

<b>Department:</b> Information Technology	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Michel Dion, Chief Financial Officer	Paul Schwebius, Manager, Information Technology

### Additional comments

PSAP = Public Safety Answering Point

## IT – Carryover – Diamond Financial System

### Description

The implementation of the Diamond Financial System is in progress and all modules will be live by the end of November 2017. As part of the original project plan there are tasks that will not be completed until 2018. This will result in a need to carry over the approved budget amount for completion of the project.

### Need and implications

The carry over amount will cover items such as on site visits by the vendor for year-end processing, assessment notices and tax notices. There are some customizations that will not be completed in 2017 and the implementation of Stone Orchard, a cemetery management software, will be completed in 2018.

### Budget requested

The carry over amount is estimated at \$150,000. This amount is subject to change, based on the tasks completed and amounts invoiced in November and December of 2017.

<b>Department:</b> Information Technology	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Michel Dion, Chief Financial Officer	Paul Schwebius, Manager, Information Technology

## Capital Planning Priority

### Description

The City has adopted, in principle, several Master Plans in 2017. These documents highlighted several enhancements to the existing infrastructure as well as new infrastructure needed to support growth. A process must be established to provide a method to prioritize these projects.

### Need and implications

It is proposed that a consultant would be retained to help establish a capital prioritization process that will assist in establishing short and long term capital budgets. Initially the process will prioritize the projects identified in the various Master Plans that are to enhance the existing systems as well as to accommodate growth.

In addition, work is progressing on establishing an asset management system that will analyze the life cycle performance of all built infrastructure. Outcomes from this will identify projects that will subsequently utilize the same priority scoring process so that they can be included in a master list of all capital projects.

Understanding the needs of all three components of the infrastructure (capacity, growth, and replacement) will help in making better decisions as to what projects are priorities over a 1, 3, 5, and 10 year time period.

### Budget requested

The estimated cost of this project is \$100,000.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Wastewater Treatment Plant

### Description

The current facility is at capacity and does not meet limits on a consistent basis. In order to meet regulatory requirements, the existing facility is in need of replacement or enhancement.

### Need and implications

Currently, the existing facility is not able to meet the treatment condition of the Permit to Operate issued by the Saskatchewan Water Security Agency. Options explored to date consist of the construction of a mechanical treatment facility. The preliminary estimated costs of such facility (approx. \$80,000,000) are too much for the City to support at this time. Several applications were made to both the Alberta and Saskatchewan provincial component of the Federal Building Canada Fund.

The City has completed several studies in support of a solution that best fits the needs of the community. Studies include a needs assessment and preliminary design report.

Findings concluded to that the current lagoons have outlived their expectancy and a mechanical system is needed to be constructed. This Mechanical system will give expandability and longevity to the wastewater treatment system.

### Budget requested

In 2016, the City received funding from the Alberta component in the amount of \$6,000,000. Additional funds need to be secured for this project to proceed.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Drainage Channel Improvements (52 St & 62 Ave)

### Description

The need for the upgrades to the Northwest Drainage Channel was identified in the City's 2015 Stormwater Master Plan, which demonstrated that the culverts in along the channel need to be upgraded to prevent flooding during a storm. This was evidenced by the widespread flooding along and adjacent to the channel that took place during the storm event that took place in July 2016.

### Need and implications

In total, approximately six road crossings, one rail crossing and various channel upgrades will be reviewed and recommended changes will be identified in details drawings and tendered for construction.

As identified in the Stormwater Master Plan, this enhancement will handle larger storm events and mitigate/reduce future flooding occurrences.

The City received a grant from the Alberta Community Resilience Program in the amount of \$2,681,640, with the City having to commit an additional \$297,960 (90% Provincial / 10% City). As this funding will only cover the project on the Alberta side of the system, an additional \$807,900 is needed to cover costs associated with upgrades needing to be made to the system from Lake V (Roger Brekko Lake) to the storm outlet west of the Water Treatment Plant crossing 67 Street.

### Budget requested

The estimated cost for completing the upgrades to the Northwest Drainage Channel is \$3,787,500.00. This will funded from:

Source of Funding	Amount
Alberta Community Resilience Program Grant (90% of cost of upgrades on the Alberta portion of the Project)	\$2,681,640
City of Lloydminster (10% cost sharing Grant requirement)	\$297,960
City of Lloydminster (Cost to complete upgrades on the Saskatchewan portion of the project)	\$807,900
Total	\$3,787,500





Project # 1813603

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Terry Burton, Senior Manager Engineering	Craig Anderson, Project Lead, Utilities

## Neale Edmunds Control Structure Improvements

### Description

The Neale Edmunds stormwater complex includes five stop log control structures which were constructed in the early 1980s. Over the years the corrugated steel pipe culverts that form part of the control structures have become corroded to the point where water has started to infiltrate between the culverts and has started to erode the earth around them, causing sink holes and will lead to the eventual collapse of the control structure.

### Need and implications

Based on the results of a condition assessment, it was determined that due to the levels of corrosion of the culverts, all five control structures needed to be rehabilitated. Control Structure #4 was rehabilitated in the summer of 2017 due to its deteriorated condition and Control Structure #1 will be rehabilitated late 2017. Control structures #2 and #3 have been identified as the ones that need to be rehabilitated within the next year as they too have worsened since the last inspection.

The control structures will be rehabilitated in a similar manner as control structures #4 and #1.

### Budget requested

The estimated cost to rehabilitate control structures #2 and #3 is \$650,000.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Street Improvement Program

### Description

The Street Improvement Program (SIP) aims to improve the quality of the City of Lloydminster's roadways. Improving the City transportation network will extend the life of the infrastructure and provide additional capacity on a project by project basis.

### Need and implications

In 2017, the SIP was split into three separate contracts, one for Street Improvements, one for Sidewalk Improvements, and one for Asphalt Trail Improvements. This spreads out the work to the three keys areas for improvements.

Dividing the 2017 SIP into three contracts provides opportunities for others to assist the City in completing the important upgrades to this infrastructure.

The Street Improvement Program rehabilitates identified roads in need of repair. Additionally, improvements to arterial and collectors are looked at to increase functionality and traffic flow as per recommendations in the Transportation Master Plan. In the past, Arterial roads improvement were prioritized, then the collectors and finally the locals. This priority setting was established based on the arterial roads and the collectors moving the most traffic.

The Sidewalk and the Asphalt Trail Improvement Programs both look at gaps in the pedestrian network.

### Budget requested

In past years, the City conducted an annual program of \$3,000,000 to cover the three different types of transportation infrastructure. An increase to \$4,000,000 would allow the city to focus additional dollars to improvements to the three systems.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Water and Sewer Replacement Program

### Description

The Water and Sewer Main Replacement Program is aimed at replacing and upgrading part of the City's municipal infrastructure built before and around the 1950s.

### Need and implications

The replacement of aged pipes will ensure residents and businesses in the area have access to reliable and sustainable infrastructure. It will also help in reducing repair costs and disruption to the services provided to residents and businesses in the area. In addition to this, this project will also enhance the firefighting capacity in the project area and surrounding neighborhood as part of recommended upsizing identified in the Water Master Plan. The program does not only improve the underground infrastructures, but also improves the road, sidewalks and other surface conditions disturbed and/or in need of replacement as part of the replacement program.

### Budget requested

In past years, the City conducted an annual program of \$2,000,000. In order to continue to address the 12km of cast iron water mains left to be replaced, the budget ask has been increased to \$3,000,000. To date a total of 6km of cast iron water mains have been abandoned, removed, or replaced.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Water and Sewer Replacement Program

### Description

The Water and Sewer Main Replacement Program is aimed at replacing and upgrading part of the City's municipal infrastructure built before and around the 1950s.

### Need and implications

The replacement of aged pipes will ensure residents and businesses in the area have access to reliable and sustainable infrastructure. It will also help in reducing repair costs and disruption to the services provided to residents and businesses in the area. In addition to this, this project will also enhance the firefighting capacity in the project area and surrounding neighborhood as part of recommended upsizing identified in the Water Master Plan. The program does not only improve the underground infrastructures, but also improves the road, sidewalks and other surface conditions disturbed and/or in need of replacement as part of the replacement program.

### Budget requested

In past years, the City conducted an annual program of \$2,000,000. In order to continue to address the 12km of cast iron water mains left to be replaced, the budget ask has been increased to \$3,000,000. To date a total of 6km of cast iron water mains have been abandoned, removed, or replaced.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Landfill Cell 1.3

### Description

This project consists of completion of the construction of a landfill cell.

### Need and implications

It is expected that the City's current landfill cells, 1.1 and 1.2, will be at or near capacity by the end of June, 2018, thus a new cell is required for disposal of the City's waste.

Construction commenced on the cell in 2017, with the major earthworks (stripping of organics, relocation of existing stockpiles, placement of the clay base and perimeter berms, construction of the base of the access roads) to be completed before the end of 2017. Work to be completed in 2018 will include fine grading and compaction of the clay base, completion of the access roads, and installation of the liner system, leachate collection system, discharge pumps to the leachate holding pond, and divider berm between cell 1.3 and future cell 1.4.

Construction on this project is scheduled to be completed prior to June 30<sup>th</sup>, 2018.

### Budget requested

The estimated carryover cost for this project is \$1,200,000.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering



## Landfill Cell 1.3

### Description

This project consists of completion of the construction of a landfill cell.

### Need and implications

It is expected that the City's current landfill cells, 1.1 and 1.2, will be at or near capacity by the end of June, 2018, thus a new cell is required for disposal of the City's waste.

Construction commenced on the cell in 2017, with the major earthworks (stripping of organics, relocation of existing stockpiles, placement of the clay base and perimeter berms, construction of the base of the access roads) to be completed before the end of 2017. Work to be completed in 2018 will include fine grading and compaction of the clay base, completion of the access roads, and installation of the liner system, leachate collection system, discharge pumps to the leachate holding pond, and divider berm between cell 1.3 and future cell 1.4.

Construction on this project is scheduled to be completed prior to June 30<sup>th</sup>, 2018.

### Budget requested

The estimated carryover cost for this project is \$1,200,000.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Traffic Signal Hardware Replacement

### Description

The Traffic Signal Hardware Upgrade project aims to improve existing signal hardware of the City's traffic signals to more efficiently serve the community.

### Need and implications

In 2014 a review was conducted on the City's traffic signal system. Several recommendations were identified. Over the past couple of years, some of these recommendations have been completed, but several remain.

The main objective of the 2018 project is to remove and replace aging traffic poles in the City. The traffic signal poles at 44 Street and 62 Avenue have been identified as a component of this year's program. This would also be an opportunity to improve the intersection's safety due to the high rate of collision with the center median traffic lights. In replacing the poles for the overhead traffic lights, the goal would be to increase the length of the masts such that median traffic lights are no longer needed.

Additional upgrades of other traffic signal hardware components will be replaced / upgraded in addition to the poles at 44 Street and 62 Avenue. Connectivity within the traffic signal network is key to maintaining coordination and traffic flow; as such a portion of the funds will be used to enhance this functionality.

### Budget requested

A total of \$650,000 is required to complete this project; \$500,000 to replace the traffic signal poles at 44 Street and 62 Avenue and \$150,000 for upgrades at other traffic signal installations.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering



## Survey Equipment

### Description

Purchase of a total station to assist in project layout and pickup of as-built infrastructure.

### Need and implications

In 2017, Administration completed the construction management for two key projects (Street Improvement Program and the Water & Sewer Replacement Program). In conducting the construction management duties, it became apparent that the City's current survey equipment does not meet the expectations of assisting project pickup and layout.

The City's current survey equipment consists of three GPS units; these units provide accurate surveys, but the vertical (elevation) error is outside of construction standards. Additionally, GPS units do not work in areas of heavy tree cover or adjacent to buildings. To aid in completing survey pickup and layout in area of tree cover and obtaining greater accuracy in elevations, a total station has been identified as providing this capability.

### Budget requested

\$36,000

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## GIS update

### Description

GIS (Geographic Information System) plays an important role for the City to understand what and where infrastructure exists.

### Need and implications

Two components will be completed. Firstly, the City has been updating an aerial photo over the past several years. The City currently has produced two photos, one that is just of the City and another that shows the expanded region including the Neale Edmunds system and both planning districts. It is proposed that in 2018 that the City photo is to be updated as it was last completed in 2016.

Secondly, the City's GIS system is being transitioned to utilize ESRI tools and products. As we continue this transition, assistance is required in implementation and configuration.

### Budget requested

\$70,000

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## East Storm Drainage Channel Rehabilitation

### Description

The East Drainage System conveys a large portion of the City's storm and snowmelt runoff and is therefore considered to be one of the City's major storm systems.

### Need and implications

In 2011 a system (Armor Flex Mats) was installed at the outfall pipe of the East Storm Drainage System just east of the Wastewater Treatment Facility. This system functioned adequately initially, but in subsequent years, the mats and surrounding area showed signs of erosion. Erosion continued to slowly deteriorate the mats to a degree that in 2017, a section was temporarily fixed.

A preliminary investigation on the current structure will be conducted and options will be investigated to remediate this section of the channel.

### Budget requested

The estimated cost to complete the repairs to the east drainage channel is \$1,000,000.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Street Rehabilitation (12 – 44 Street / 40 Avenue)

### Description

The proposed project involves the reconstruction of 40 Avenue between 12 Street and 44 Street (Highway 16).

### Need and implications

Last resurfaced in 2005, this road has deteriorated in the past couple of years in that the base structure is in need of repair.

The project would entail exploring options of road construction not typically used in the City's annual patching and street improvement programs. The City would investigate using similar technology used on 12 Street that has shown its ability to withstand several winter cycles with minimal issue.

Geotechnical investigation has already been completed and isolated repairs were made in 2017 to give another year to budget and explore rehabilitation options.

A proposal has been submitted to Transport Canada's National Trade Corridors Fund. If successful, the scope of work will be expanded to take into consideration additional work like auxiliary lanes, additional turning lanes, etc. If unsuccessful, the road will be reconstructed as it currently exists and upgrades will be tackled in future Street Improvement Programs.

### Budget requested

The City has submitted a proposal to Transport Canada's National Trade Corridors Fund. If successful, \$3,000,000 will be the City's portion (50/50) of the cost for this project. If unsuccessful, the \$3,000,000 will be used in a more limited scope.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## River Intake Dam Construction

### Description

The City's intake at the North Saskatchewan River has experienced sand infiltration at times that back flushing is required to re-open the intake. This occurs on an irregular basis, but there have been times where significant measures have been taken to open the intake.

### Need and implications

Identified in the 2015 Water Master Plan & the 2016 Waterworks Master Plan and System Assessment, the River Intake Wing Dam consists of the construction of a dam just upstream of the City's raw water intake. A design was created back in the early 1990s, but construction was not moved forward. A review of the current design will be completed to make sure it meets today's requirements and standards.

The wing dam will help to increase the velocity of the water passing across the face of the intake; this will prevent sand and sediment from entering and settling in the intake. This is necessary because the presence of sand and sediment around the intake structure limits the operation of the raw water system when a flow greater than 30,000m<sup>3</sup>/day is required.

It is proposed that the design be investigated and finalized as well as getting all regulatory permits in 2018 for construction in 2019.

### Budget requested

Estimated cost to complete the review, design and approvals is \$200,000. Total cost estimate as per the 2015 Waterworks Master Plan and System Assessment \$2,000,000.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Sanitary Main Replacement (36-40 Street / 48 Avenue)

### Description

The 2015 Sanitary Master Plan identified improvements needed to be made in the Larsen Grove neighborhood.

### Need and implications

Sanitary mains along 48 Avenue from 36 to 40 Street and along 40 Street from 47 to 48 Avenue need to be upsized to accommodate surging and mitigate basement flooding in the area. In conjunction, one of two options is needed to assist in the conveyance of this flow.

Option 1 is to construct an in-line storage facility which will accommodate the surge and slowly dissipate it over a period of time.

Option 2 is to construct a new line from 40 Street/47 Avenue to 41 Street / 41 Avenue. Both have similar costs but have different complexities.

In 2018, both options will need to be investigated as to their pros and cons (operational and logistical). After one is chosen, detailed designs can be completed along with a detailed cost estimate.

### Budget requested

Initially, \$300,000 will be used to complete the detailed design and a construction cost estimate. The 2015 Sanitary Sewer Master Plan identifies the total cost to complete at \$4,194,584.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Drainage Channel Improvements (East Drainage System)

### Description

The East Drainage Channel conveys a large portion of the City's storm and snowmelt runoff and is one of the City's major storm systems.

### Need and implications

As identified in the 2015 Stormwater Master Plan, several improvements are needed to be constructed. Improvements identified include: Expansion of Lake J, installation of outfall control Structure at Lake J, installation of additional culvert at road crossing at 36 Street / 40 Avenue, regrading storm channel to Lake K, construction of Lake K and outfall control structure.

These improvements will further enhance and improve the drainage of stormwater through the East Drainage System and help reduce potential flooding. Major storm facilities like trunk mains, storm channels and storm retention lakes are designed to handle a 1:100-year storm event.

The project consists of the completion of the design and revised construction cost estimate to be completed in 2018 with construction to commence in a future budget.

### Budget requested

Initially, detailed design drawings, tender preparation and detailed construction cost estimate will be completed at an estimated cost of \$200,000. Total estimated project cost as per the 2015 Stormwater Master Plan is \$4,855,000.

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Traffic Signal Installation (25 Street and 59 Avenue)

### Description

Installation of traffic lights at 25 Street and 59 Avenue.

### Need and implications

The most recent Transportation Master Plan identified College Drive twinning as a project in the five-year capital plan. A design project was completed in 2015 to address this with the 20-year design horizon in mind. The preferred option as part of the design project proposes the use of a multilane roundabout at the intersection of 59 Avenue and 25 Street as it provides a better level of service than traffic signals.

Currently, the intersection does not warrant for the need of traffic signals and operates at an acceptable level of service. An analysis was conducted to determine if the installation of traffic signals at this location would suffice in the interim prior to the construction of the final two lanes and the roundabout. It was found that the intersection could sustain acceptable performance for 10 years at which point, the widening and roundabout project would be required to be constructed to accommodate increased volumes.

### Budget requested

Estimated cost: \$450,000

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering



## Leachate Management System

### Description

Construction of a leachate holding pond as required as indicated in the Saskatchewan Ministry of Environment's Permit to Construct.

### Need and implications

When the City received the Permit to Construct for Landfill Cell 1.3 from the Saskatchewan Ministry of Environment (SMoE), a requirement of the permit was that the City constructs a leachate holding pond and/or treatment system in place no later than December 1, 2018, with an application for a permit to construct submitted no later than June 1, 2018.

As part of the 2014 Design and Operations Plan for the Lloydminster Solid Waste Management Facility, the leachate produced by Cells 1.1 and 1.2 was tested to determine compliance with the City's Sewer Use Bylaw, which sets limits on effluent content that causes increased loading and/or upsets to the processes of the Wastewater Treatment Plant. The testing revealed several parameters that exceeded the maximums identified in the Sewer Use Bylaw, including Chemical Oxygen Demand (which would deprive oxygen from the biological wastewater treatment processes), phenols, nutrients (which are difficult to remove), metals, heavy metals, hydrocarbons, and volatile organic compounds.

The Design and Operations Plan recommends that the City should evaluate pre-treatment options for the leachate as part of the leachate management system. This will result in the reduction of elements in the leachate that exceed the parameters of the Sewer Use Bylaw, which in turn put undesirable loading on the processes of the Wastewater Treatment Plant. Pre-treatment options may also reduce the volume of treated leachate being discharged.

Since the design and construction of a leachate pre-treatment system may not be possible within the deadlines imposed by the SMoE, a consultant will be engaged to design a leachate holding pond and treatment system in such a way that the pond can be constructed concurrently with cell 1.3, and the treatment system be constructed at a later date in a modular or phased fashion.

### Budget requested

The estimated cost of the design of the leachate management system, and the construction of the leachate holding pond, is \$750,000.



Project # 1813620

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Trail Master Plan

### Description

The City pedestrian and trail network plays an important role in moving people to and from home, shopping, work, recreation, etc. It is proposed that in 2018 a Master Plan be completed to specifically analyze this network.

### Need and implications

The City's pedestrian accommodations are discontinuous and completely missing in various locations through the City of Lloydminster. The Trail Master Plan will identify the discontinuous trails, missing trails, as well as the trails that require repair or replacement. Both multi-use asphalt trails and concrete sidewalks will be included in this master plan.

Increasing the connectivity of pedestrian travel will provide more options for residents and visitors of Lloydminster to travel as well as increase the safety of all users of the City's pedestrian transportation system.

### Budget requested

\$150,000

<b>Department:</b> Engineering	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Terry Burton, Senior Manager, Engineering

## Fire Services Equipment Replacement

### Description

To purchase smaller firefighting equipment to replace aging or out-of-date equipment.

### Need and implications

As firefighting gear and equipment is used, it becomes worn out and needs replacement. Equipment that is in good working condition prevents injuries and keeps all firefighters and residents safe.

### Budget requested

\$40,000 has been requested for the 2018 budgeted year.

<b>Department:</b> Emergency Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Jordan Newton, Senior Manager, Emergency Services/ Fire Chief

### Additional comments

This capital ask has been an annual reoccurring request at the same dollar value.

## Pumper Replacement

### Description

Fire Services is requesting funds to purchase a new pumper-style Firetruck. This purchase will replace an existing 1994 Pumper Firetruck.

### Need and implications

Replacing aging existing apparatus has been identified as a priority to ensure current service levels are maintained. Pump style firetrucks have been identified to have a usable lifespan of 25 years. As equipment ages, the likelihood of mechanical failure increases and the parts to replace the apparatus become obsolete over time.

### Budget requested

In 2018, \$48,000 will be required. This is the 10% deposit on the fire truck order.

<b>Department:</b> Emergency Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Jordan Newton, Senior Manager, Emergency Services/ Fire Chief

### Additional comments

The remaining balance of \$432,000 will be due in 2019 upon delivery. Fire Services will sell the used firetruck when they receive the new one. The estimated dollar figure for the used firetruck is estimated at \$30,000.

## Fire Station #1 Renovations

### Description

To provide improvements to Fire Station #1.

### Need and implications

Fire Station #1 improvements are required if the City wishes to move forward with a hybrid model Fire Department that provides 24 hour coverage. Renovations include creating a sleeping area and improving the bathroom to accommodate the firefighters staying at the Fire Station. This project also includes a 'best use survey' that would establish the sustainability and direction of Fire Station #1.

### Budget requested

\$110,000 is requested for these improvements.

<b>Department:</b> Emergency Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Jordan Newton, Senior Manager, Emergency Services/ Fire Chief

### Additional comments

Of the \$110,000, \$30,000 is allocated to the sleeping quarters and bathroom upgrades, while the remaining \$80,000 is allocated to the survey. The survey is an important step in ensuring long-term sustainability of Fire Station #1.

## Air Conditioning Machine

### Description

This machine recharges and repairs air conditioning in the vehicle units.

### Need and implications

This unit will pay for itself in the next couple of years as it saves the Department from outsourcing repair work. The lack of air conditioning in the vehicles is a safety issue due to the extreme heat that Lloydminster can have in the summer months.

### Budget requested

\$6,000.00

<b>Department:</b> Transportation Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Transportation Services	

## Sidewalk Plow

### Description

Plow to clear sidewalks in the winter.

### Need and implications

The unit that is in need of replacement involves a track system that has extensive upkeep and repair. The replacement would have the ability to use multi-attachments, which are interchangeable with the other two existing units. With the new trails being introduced in the city, we need to keep three reliable units operating.

### Budget requested

\$180,000.00

<b>Department:</b> Transportation Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	



## Street Sweepers

### Description

Three sweeping machines for Transportation Services.

### Need and implications

We will have 4500+ hours on our existing machines by the end of the 2018 spring cleanup. The manufactures estimate life cycle at 4000 pending operating conditions. High usage and maintenance required on existing units. There are issues arising from air system solenoids and electrical wiring systems are deteriorating. At this time the cost to redo the systems will not justify the resale values of the equipment.

### Budget requested

The estimated budget is \$930,000.

<b>Department:</b> Transportation Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	

## Airport Generator

### Description

100 kVa backup generator for emergency backup power for the Airport.

### Need and implications

This generator is needed to increase safety for aircrafts entering and leaving the Airport at night and during bad weather. In the past the Airport has had to divert an air ambulance due to losing power at the Airport. The generator would eliminate this type of incident.

### Budget requested

\$125,000.00

<b>Department:</b> Transportation Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Transportation Services	

## Pavement Repair- Airport

### Description

Taxi-way pavement repairs at the airport.

### Need and implications

Due to the lack of maintenance over several years, the taxi-ways are deteriorating and are in need of repair due to aircraft damage and for safety reasons. There are soft spots on the taxi-ways and the aircrafts are sinking through those spots. If the taxi-ways do not get repaired, they will continue to erode and will be a more costly fix in the future. This would also be a liability issue for the City.

### Budget requested

\$250,000.00

<b>Department:</b> Transportation Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Transportation Services	

## Water Meter Replacement Program

### Description

Replacement of older or high usage water meters as identified by the Water Meter Replacement Program.

### Need and implications

The water meter replacement program ensures the City is capturing all customer water usage by replacing inaccurate meters due to age or usage.

This program has reduced significant revenue losses in the past due two years and will capture additional revenue that will more than offset the cost of the program.

### Budget requested

Estimated cost: \$159,818

<b>Department:</b> Water Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager	Ken Urban, Senior Manager

## WTP Online Instrumentation – Turbidity Meters

### Description

The Water Treatment plant has seven online turbidity meters which continuously measures the number of individual particles in the water that are generally invisible to the naked eye.

### Need and implications

The present turbidity meters the Water Treatment plant uses are > 10 years old and are starting to have electronic component failures and replacement parts are unavailable. Turbidity meters are a requirement to meet the conditions set out in the City's "Permit to operate a Waterworks" issue by the Saskatchewan Water Security Agency, which states the COL must have continuous monitoring and in the event of unplanned outage or failure manual sample and testing is to be completed every 15 minutes.

### Budget requested

Estimated cost: \$70,000.00

<b>Department:</b> Water Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager	Ken Urban, Senior Manager

## River Pump House Road Refurbishment

### Description

The access road to the River intake is deteriorating by Natural springs and runoff and road requires additional buildup and culverts put in place for proper drainage.

### Need and implications

Currently the ditches are full of vegetation/debris causing runoff water to flow over the road. The road has lost its crown and water is starting pool on the road causing soft spots and is quickly deteriorating, creating limited access for heavy equipment. Repairs include: drainage ditches properly sloped and cleaned, culverts put in place, access road base built up/ crowned properly and re-graveled.

### Budget requested

Estimated cost: \$50,000

<b>Department:</b> Water Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager	Ken Urban, Senior Manager

## Carbon Chemical Feeder Replacement

### Description

The Carbon chemical feeder is original equipment from 1984 at the Water Treatment Plant and is used as part of the treatment process.

### Need and implications

Feeder equipment and holding tank are showing signs of severe corrosion and due to age, feeder parts are no longer available. Not having a functional carbon feeder will affect the treatment process and water quality from the WTP.

### Budget requested

\$205,000

<b>Department:</b> Water Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager	Ken Urban, Senior Manager

## Lime Chemical Feeder Replacement

### Description

The Lime chemical feeder is original equipment from 1984 at the Water Treatment Plant and is used as part of the treatment process.

### Need and implications

Feeder equipment and holding tank are showing signs of severe corrosion and due to age parts are no longer available. Not having a functional lime feeder will affect the treatment process at the WTP.

### Budget requested

\$195,000

<b>Department:</b> <a href="#">Water Services</a>	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
<a href="#">Dave Henning, Acting Executive Manager</a>	<a href="#">Ken Urban, Senior Manager</a>



## WWC Disinfection System

### Description

Purchase and installation of hose disinfection/degreaser system for the hydrovac truck (Unit 27-19).

### Need and implications

The disinfection system for the hydrovac truck will help in dealing with grease and oil in manholes/mains. It will automate the cleaning/disinfection of the truck's hoses which is currently done manually. The disinfection system will help improve the safety and efficiency of our operations.

### Budget requested

\$15,000

<b>Department:</b> Waste Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Karen Dela Rosa, Senior Manager, Operations

## Neale Edmunds Refurbish

### Description

The Neale Edmunds Complex conveys almost all of the City's stormwater. It was built in the 1980's and is in dire need of replacement and repairs. The budget requested will be allocated to replacement of pipes in Road Crossing #5.

### Need and implications

Sink holes have been noted on Road Crossing #5. Based on investigation, this is probably due to the deterioration of the pipes. Repair work needs to be undertaken to mitigate flooding and road damage.

### Budget requested

\$60,000

<b>Department:</b> Waste Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Karen Dela Rosa, Senior Manager, Operations

## WWTP Desludging

### Description

Currently, the WWTP is struggling to meet effluent regulatory requirements. The lagoons have accumulated sludge for the last 20 years effectively decreasing the plant's treatment capacity,

### Need and implications

Desludging of the WWTP lagoons is expected to improve the quality of effluent in terms of CBOD and TSS. The desludging will enable the plant to regain additional treatment capacity in the lagoons. This project needs to go forward to show the City's commitment to meeting environmental regulatory requirements.

### Budget requested

\$2,980,000 (carry over)

<b>Department:</b> Waste Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Karen Dela Rosa, Senior Manager, Operations

## WWTP Grinder Replacement

### Description

During heavy rains events, materials such as rocks, concrete and metals end up in the WWTP. The grinder prevents materials such as rocks, concrete and metals to enter the WWTP lagoons. Due to the nature of these materials, the grinder goes through a lot of wear and tear. The existing units have significant wear and tear that causes the grinder to constantly plug.

### Need and implications

The current grinders have been in operation since 2010. The grinder is a critical piece of equipment to the WWTP operations and is in dire need of replacement. If this piece of equipment is not replaced, rocks and other materials will constantly plug the grinder requiring staff to spend significant amount of time fixing. If not fixed, materials such as rocks will end-up in the WWTP lagoons and will ultimately affect the treatment process.

### Budget requested

\$22,000

<b>Department:</b> Waste Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Karen Dela Rosa, Senior Manager, Operations

## WWTP Composite Sampler Fridge

### Description

The sampler fridge is used to store WWTP's samples for analysis. The current fridge is having electrical and refrigeration issues.

### Need and implications

The fridge is a critical piece of equipment at the WWTP. It stores the WWTP's samples for analysis. Refrigeration preserves the integrity of these samples and ensures accurate analytical results. These results are used for day to day monitoring of the WWTP's treatment performance and for regulatory reporting requirements.

### Budget requested

\$6,000

<b>Department:</b> Waste Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Karen Dela Rosa, Senior Manager, Operations

## WWTP SCADA Historian Setup

### Description

The SCADA system is capable of storing information on the WWTP's operations and laboratory data. The Historian set-up will facilitate gathering information.

### Need and implications

SCADA information is important in trending analysis and projection for future growth/expansion. Accurate and usable data can also help in the day to day operations and process troubleshooting.

### Budget requested

\$10,000

<b>Department:</b> Waste Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Karen Dela Rosa, Senior Manager, Operations

## Landfill Packer

### Description

New packer machine for the Landfill.

### Need and implications

There are over 10,000 hours of use on the current packer. This unit is an essential part of Landfill operations and a key piece of equipment for maintaining air space. This is not a piece of equipment that can be rented if it breaks down.

### Budget requested

\$820,000.00

<b>Department:</b> Transportation Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	

## Landfill Operations Review

### Description

The Landfill Operations review consists of a high level operations review, soil management plan and annual fill sequence plan. The Operations review will identify efficiencies and cost savings to optimize operations.

### Need and implications

The operations review will help reduce the landfill's operating cost by identifying efficiencies and maximizing the life of our landfill. This operations review is needed especially in planning the landfill's soil and airspace utilization.

### Budget requested

\$75,000

<b>Department:</b> Waste Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Karen Dela Rosa, Senior Manager, Operations





Project # 1843004

## Landfill Residential Limit Program

### Description

Currently, the Lloydminster residents are allowed to bring unlimited amounts of loads to the landfill. In 12 cities benchmarked in 2017, Lloydminster is the only municipality that does not implement a residential tipping fee or a landfill limit. Residential loads alone costs \$490,000 in landfill tipping fees.

### Need and implications

A residential limit will help improve diversion rate therefore saving landfill airspace. The limit will also decrease the amount of traffic in the landfill working face, making operations safer and more efficient. The requested budget will cover the communication cost and any custom programming in the landfill software.

### Budget requested

\$10,000

<b>Department:</b> Waste Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Karen Dela Rosa, Senior Manager, Operations

## Washbay Floor

### Description

Washbay floor surface coating.

### Need and implications

The Washbay floor is showing significant signs of deterioration due to the high level of salts from the sanding equipment. At the moment we can apply the coating onto the surface as it is; however, if left unaddressed the deterioration will continue and the costs to repair will rise significantly. The proposed solution is to apply a polymer coating to seal onto the concrete. This type of repair was recently successfully carried out in all the washbays at Mr. Sparkle car wash in Lloydminster.

### Budget requested

\$18,000

<b>Department:</b> Building Maintenance	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Pete McHugh, Manager, Building and Maintenance

### Additional comments

## Legacy Centre Building Washroom Rehabilitation

### Description

Legacy Centre Building Washroom Rehabilitation.

### Need and implications

The Legacy Centre washrooms have not been upgraded since the building was constructed 25 years ago. Fittings and interior finishes need to be replaced. Accessibility will be improved to allow easier access for patrons and will bring the washrooms up to current building and accessibility codes.

Delaying this may result in increased maintenance costs. It also will allow more time to access other funding opportunities. However, to facilitate this project the City will need to plan over a year in advance to ensure there are no bookings for a period of time to allow the construction. Currently the Legacy Centre is not taking bookings for July 2018 until notified if the project is approved or not.

### Budget requested

\$120,000

<b>Department:</b> Building Maintenance	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager – Operations	Pete McHugh, Maintenance Manager

### Additional comments

## Heritage Building Rehabilitation Design

### Description

Heritage Building Rehabilitation Design.

### Need and implications

The Heritage building is a much loved and significant landmark that is used in much of the promotional material for Lloydminster. The building was constructed in 1931 and the last significant renovation was over 30 years ago. The building has now reached a point where a major overhaul of the building is required as the current building systems have reached the end of their serviceable life. The restoration would include removing all the interior walls and finishes, replacing Electrical and Mechanical systems and fitting out to current code and building standards.

The original request was for \$2.2M for Design and Construction. By only concentrating on the Design component in 2018 this provides the opportunity to establish partners within the community and identify what potential funding and grant sources are available.

If this is delayed till 2019 there is a risk of the mechanical or electrical system failing and a significant cost for repair to equipment that is obsolete.

### Budget requested

\$200,000

<b>Department:</b> Building Maintenance	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Pete McHugh, Maintenance Manager

### Additional comments

## Community Services Building Window Replacement

### Description

Community Services Building Window Replacement.

### Need and implications

The condition of the windows has deteriorated to a point that they are no longer maintainable and are unable to provide an adequate seal to outside elements. Replacing the windows will increase the comfort of tenants and reduce the utility bills. This was identified in the 2013 Building Assessment report by a contractor and has been deferred previously. Should the project be deferred there may be some costs of around \$3000 replacing window units that have a failed seal or crack.

### Budget requested

\$155,000

<b>Department:</b> Building Maintenance	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Pete McHugh, Maintenance Manager



Photos 30 to 33: Moisture damages to interior sill and window frames

## Furniture Replacement

### Description

Furniture Replacement.

### Need and implications

A significant amount of the Cities furniture requires replacement. Also the modern office space is changing and there is a requirement to provide suitable ergonomics and the ability to sit/stand at a workstation. This project will provide flexible furniture that can be adapted to meet the changing needs of the occupant without having to replace all the furniture.

### Budget requested

\$15,000 (Reduced from \$25,000)

<b>Department:</b> Building Maintenance	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Pete McHugh, Maintenance Manager

### Additional comments

The office setup can be a significant factor for work related injuries and can result in significant time off work. Common complaints are Repetitive Strain Injuries and Back injuries from poor workplace ergonomics. Providing the right workplace environment can significantly reduce time off work and reduce costs to the City.

## Park Centre Door Replacement

### Description

Park Centre requires the doors to be replaced.

### Need and implications

The Park Centre is 35 years old and the original doors have reached the end of their serviceable life and are required to be replaced. This was first included in the 2014 Capital Budget, but not completed due to the funds being required to replace the furnaces, one of which had failed and required an emergency replacement. Building Maintenance replaced all of the furnaces at that time. However, the door replacement issue is now becoming urgent.

If the funds are not approved there is a high risk that Building Maintenance will have to complete some of this work as an emergency repair.

### Budget requested

\$33,000

<b>Department:</b> Building Maintenance	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Pete McHugh, Manager, Building Maintenance



## Scrubber Replacement

### Description

Scrubber

### Need and implications

Scrubbers are used to clean the tiles and carpets. The Custodial department has two Scrubbers, which have reached the end of their serviceable life. Although there are two Scrubbers needing replacement the ask has been reduced to one. Not replacing creates a risk, that if either Scrubber should fail, the City would have to buy a new model at short notice. Resulting in higher costs and potentially a reduced level of service until the equipment is replaced.

### Budget requested

\$6,000

<b>Department:</b> Building Maintenance	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Pete McHugh, Manager, Building and Maintenance

### Additional comments

## Community Services Building Access Road Rehabilitation Design

### Description

Community Services Building Access Road Rehabilitation Design.

### Need and implications

This project is to create a design and get budget costs to resolve three issues at the Community Services Building.

1. There is a storm drainage issue that will require significant digging in the parking lot to resolve.
2. The parking lot requires resurfacing.
3. The North parking lot is currently gravel making this one of the last gravel Parking lots in the downtown core and the last area to be developed in the Civic Square. This will create a design with budget numbers for an asphalt parking lot (as required by City bylaws for any new development).

Delaying this could result in a significant unplanned cost to repair the parking lot surface as it is already beyond the point it should have been replaced.

### Budget requested

\$40,000

<b>Department:</b> Building Maintenance	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Pete McHugh, Maintenance Manager





## Vehicle for Supervisor

### Description

Vehicle for the Supervisor of Building Maintenance.

### Need and implications

Following the organizational restructuring in July 2017, a Building Maintenance Supervisor was transferred to another department with their vehicle. A new Supervisor is now in place and uses a loan vehicle, which will not be available in 2018. Access to a vehicle is essential for supervising the Building Maintenance team as the nature of the job requires regular travel between facilities and the post holder is required to react quickly to emergency situations.

### Budget requested

\$40,000

<b>Department:</b> Building Maintenance	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Operations	Pete McHugh, Manager, Building Maintenance

## Shop Ceiling Fans

### Description

The shop requires fans to move the air in both summer and winter. The shop does not currently have this equipment.

### Need and implications

These fans would cycle air in the shop area and keep the space cool in the summer and warm in the winter. They would allow the Transportation Services team to keep the bay doors closed to eliminate dust in the shop area.

### Budget requested

\$5,000.00

<b>Department:</b> Transportation Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Transportation Services	

## RCMP Concrete Island and Bollards

### Description

Increase safety at RCMP by widening sidewalk and installing bollards.

### Need and implications

A safety concern has been highlighted that there are no bollards around the radio mast at the rear of the RCMP building. It has also been identified that in the same area, there is inadequate room between the vehicles and the building to safely walk past. This is exasperated in the winter when ice forms from the exhausts of the patrol cars. This project will provide bright yellow bollards around the radio mast and widen a section of the sidewalk.

### Budget requested

\$12,000

<b>Department:</b> Building Maintenance	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager – Operations	Pete McHugh, Maintenance Manager

## ATV / Gator

### Description

These units are used extensively in the parks and on our sidewalk/trail network around the City for picking garbage.

### Need and implications

The trucks are too heavy and are damaging the existing trails. Transportation Services currently does not have enough of the ATV / Gator units, so it is essential that the existing machines are kept in very good condition.

Transportation Services will be testing the previously-owned unit to see if it can be utilized around the shop yard to reduce hours on more expensive equipment currently used to complete medial tasks. Transportation Services is currently using the Bobcat to complete these duties.

### Budget requested

\$25,000

<b>Department:</b> Transportation Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Dave Henning, Acting Executive Manager, Transportation Services	



## Shutdown Waterslide Refinishing

### Description

Inspect, deep clean and refinish the waterslide.

### Need and implications

The slide needs to be inspected and refinished each year to prolong the life expectancy and to prevent deterioration. Each year the slide gets inspected, descaled, waxed and the joints are caulked. Not completing the slide refinishing will affect the life expectancy, increase cost of maintenance of the slide, and risk user injury due to the slide not being inspected or properly maintained.

### Budget requested

\$7000

<b>Department:</b> Community Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Mary Price, Aquatics Manager

## Wave Tank Refurbish

### Description

Coating on wave tanks are peeling and blistering and the finish is at the end of its life.

### Need and implications

During 2017 Shutdown, Contractors completed tile work for the Bioclean Aquatic Centre and during this time they inspected and noticed the deterioration of the wave tank. Professional recommendation is that the refurbish be completed in 2018. Contractors repaired a small section this year to hold the tank over until 2018. The tanks were last refinished in 2013 during the shutdown. At that time the product used had a recommended life span of 6 to 8 years in ideal conditions. It was suitable for application in the wave tanks, but the wave tanks are an extreme service area with the high levels of air and water movement while generating the waves have caused rapid wear.

This project would be considered priority to complete in 2018. The refurbish would prevent erosion and further damage to the pool basin. The new coating will prevent water from getting under the tile in the wave pool. The proposed budget includes a product that has a 10 year warranty.

### Budget requested

\$75,000

<b>Department:</b> Community Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Mary Price, Aquatics Manager

## Sound System

### Description

The current sound system at the Bioclean Aquatic Centre is not functioning correctly, repair needs to be done to the announcing system.

### Need and implications

Project is to repair the current sound system. The sound system is needed as an effective form of communication to the public during evacuations, emergencies, pool closures, and public information. Our environment can be loud during public swim, especially when the waves are on. The staff yelling to the public regarding clearing the pool isn't effective and it can take a long time for the public to clear the pool in an emergency. Repairing the sound system will broadcast any information all over the facility loud and clear.

### Budget requested

\$20,000

<b>Department:</b> Community Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Mary Price, Aquatics Manager

## LGCC Irrigation System Upgrade

### Description

Upgraded irrigation systems to be installed with new water lines, sprinkler heads and overall design for water efficiency.

### Need and Implications

Having a new irrigation system installed for the 2018 season is an environmental need for LGCC. In 2017 LGCC spent \$17,000 in repairs and maintenance of the current irrigation system. A new irrigation system will eliminate the repair costs and allow for better conservation of water.

The current irrigation system does not have isolation valves, which results in large general spaces such as bunkers, bush lines, cart paths etc. being watered simultaneously.

This project was approved in 2017. However, the contacted companies that complete specialized work of this quality are generally booked a year in advance.

### Budget requested

2017 approved \$313,000. 2017 spent \$21,300 (consultant fees and disbursements)

2018 carry over \$290,000 (phase 1 of 4)

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Marty Wheaton, Manager, LGCC

## LGCC Insulated Green Tarps

### Description

Purchase of insulated tarps for the green surfaces.

### Need and implications

The purchase of insulated tarps will ensure the health of the green surfaces throughout the winter months. Healthy putting surfaces are crucial to business. LGCC needs to replace 4 tarps that are tattered and have signs of mice damage. If the tarps are not purchased the risk of putting greens developing snow mold, disease and damage are possible.

### Budget requested

\$5,000

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Marty Wheaton, Manager, LGCC

## LGCC Ride on Mower Purchase

### Description

Ride on Mower/Rough Mower

### Need and Implications

This particular piece of equipment is the most used mower of the entire greenway management fleet. The "rough" on the golf course covers the largest land space. The mower has exceeded its expected life cycle by 3 years, which was originally expected to last 5 years.

The deck has been welded together accumulating 2 weeks of down time and labor dedicated to the fix. The transmission and Hydraulic motor are causing issues and needing repair. If the project is not approved the machinery has high potential for down time and increased maintenance fees.

### Budget requested

\$82,000

<b>Department:</b> Community Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Marty Wheaton, Manager, LGCC

## LGCC Vacuum

### Description

Purchase of vacuum for use in the restaurant, pro shop, and other in house areas.

### Need and Implications

The current vacuum has been in dire need for repairs for an extended period of time. The average downtime for repairs is proving to be costly and in turn results in additional labour expenses for temporary fixes.

### Budget requested

\$1000

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Marty Wheaton, Manager, LGCC

## LGCC Restaurant Furniture

### Description

LGCC requires the purchase of new patio furniture for restaurant's patio area.

### Need and Implications

The very limited furniture which is currently in place is damaged and not suitable for use. The addition of new patio furniture may result in additional customers and revenue for the facility.

### Budget requested

\$10,000

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Marty Wheaton, Manager, LGCC



## LGCC Power Rake Attachment

### Description

Power Rake Attachment to the Ventrac Unit.

### Need and implications

The power rake attachment is necessary for cart path maintenance, bunker maintenance and turf care. The golf course material purchases will be reduced and save approximately \$3200 of the current operating budget.

### Budget requested

\$9,500

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Marty Wheaton, Manager, LGCC

## LGCC Water Aeration Units

### Description

Purchasing of water aeration units for golf course ponds. Specifically on holes 4 and 5.

### Need and implications

The purchase of these aeration units is an environmental need for LGCC. The aeration units keep water clean of waste and algae. If the aeration units are not purchased the ponds that are responsible for irrigation will fill with algae and wildlife waste making extremely poor irrigation water which will lead to further breakdowns and damage. The cost for repairs to irrigation system in the current year (2017) was \$17,000. These costs are related to outdated lines and the system malfunctions due to clogged with algae, leeches, waste etc.

### Budget requested

\$9,000

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Marty Wheaton, Manager, LGCC

## LGCC Compressor Rebuild

### Description

Rebuild of Compressor #2 (N4A)

### Need and Implications

Replacement of piston rings, bearings, seals and an inspection or replacement of all moving parts. Compressor #2 has not been rebuilt for over 12 years, and has not been budgeted for in previous years. The failure of moving parts can lead to complete replacement of the compressor if not rebuilt in the near future. This will ensure the operation of compressor #2 for the next 10 years.

### Budget requested

\$25,000

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Marty Wheaton, Manager, LGCC

### Additional comments

Compressor #2 is the supporting compressor thus running for much fewer hours than Compressor #1; which is the reason for the extended timeframe between rebuild on this compressor.

## LGCC Oil Storage Tank

### Description

Purchase of an Oil Storage unit for Grounds Maintenance shop.

### Need and Implications

This is an environmental need as well as a need from an insurance standpoint. In an assessment done by Safety and Insurance personnel this matter was considered a priority in order to bring the facility up to the industry standard.

### Budget requested

\$3,700

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Marty Wheaton, Manager, LGCC

## LGCC Exterior Building Upgrade

### Description

Removal of wooden cladding and installation of new metal material.

### Need and Implications

This project is a need for LGCC. The old exterior is falling off and creating safety issues. The original cladding was installed in the 1970's. This project was approved for 2017. Additional safety upgrades have been noted in the building safety assessment, which include the update of hand rails. Due to price and timeline LGCC will need more funds and time to complete.

### Budget requested

\$250,000 approved in 2017. \$18,000 Spent in 2017 (Consultant fees)

Carry over \$232,000 to 2018. Additional Funds needed \$203,490

Total 2018 expenditure \$435,490

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Marty Wheaton, Manager, LGCC

## Outdoor Pool Drainage Project

### Description

This project would add drains around the pool deck to drain water from rain and pool overflow. The Outdoor Pool drainage project would also include a complete refinishing of the pool deck.

### Need and implications

The existing concrete deck has several cracks and does not have sanitary waste drains. The Outdoor Pool concrete deck has become smooth in many areas over time. This has created a slipping hazard for the public. Part of this project is to refinish the deck to eliminate these hazards.

In 2016, we were approved for \$70,000 for the project. The initial plan was to complete repairs to the concrete and add drains in the two locations where the water is building caused by heavy rain or pool overflow. Due to building code and pool standards we needed to add more drains on the pool deck which caused the project to be \$100,000 over the budgeted amount. The BAC skimmer grate project was at the same time and was over budget as well. The decision was made to not go ahead with the ODP project and allocate the funds to the BAC Skimmer Grate Project. We asked for the drain project in 2017 capital budget and it was removed so we are asking for this project again for 2018.

If we do not get this project completed, the water will keep pooling in areas causing a slip hazard for users as well as untreated water isn't properly diverted and treated before re-entering the pool.

### Budget requested

\$200,000

<b>Department:</b> Community Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Mary Price, Aquatics Manager

## Replacement Sand for Sand Filters

### Description

The Outdoor Pool filtration is based on Sand Filters and the sand in each filter is required to be changed every 5 years.

### Need and implications

On average, sand should be replaced every 3-5 years. The jagged edges of the sand wear down and become smooth as the sand ages. When this happens the sand can no longer trap debris particles and dirt can pass through the sand and back into the pool. 2018 will be 5 years since the filters have been installed.

### Budget requested

\$7,000

<b>Department:</b> Community Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Mary Price, Aquatics Manager

## SSC Ammonia Compressor 2 Complete Rebuild Improvements

### Description

Complete Rebuild of Ammonia Reciprocating Compressor 2 - A device that decreases the volume of a quantity of gaseous ammonia by the amplification of pressure; used in refrigeration systems.

### Need and implications

Compressor 2 Complete -rebuild as per regulated hours of usage-recommendations to rebuild as part of regular ice equipment maintenance programmed every 16000-20000 hours.

Project: Entails disassembling the compressor and the certified refrigeration technicians determine precisely what work needs to be done and what parts need replacing. On average we replace the following: 6 suction valves/springs, 6 discharge valve/springs, 12 oil rings, 6 piston rings/pins, connecting rod bushings, 6 bearings, thrust bearing, main bearing, mechanical seals, oil pump assembly w/gasket, gasket kit for water cooler, gasket set, Mycom oil filters, oil, and hour meter.

Prior to compressor refrigeration start-up, the refrigeration contractor checks all components of the on-site refrigeration system including the oil separator, oil pump and all filters and piping.

This is a required project as part of ice plant refrigeration maintenance program to extend the life of the asset and to minimize the hazard of failure.

### Budget requested

\$13,000

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>





Project# 1873305

Joel Turcotte - Director, Recreation and Cultural Services	Heather Dow - Manager, Servus Sports Centre
--	---

## SSC Ammonia Compressor #3 Top-End Rebuild

### Description

This is part of the SSC refrigeration maintenance program. Compressor #3 top-end rebuild per 8,500+ hours of usage.

### Need and implications

Perform top end rebuild of ammonia compressor#3. This is part of rotational refrigeration maintenance program. This includes service and replacement of discharge/suction valves, suction ring kits, head gaskets, inspect rod bearings for wear, oil change, and an overall analysis of the ice-plant system. This is a required project as part of ice plant refrigeration maintenance program to extend the life of the asset and to minimize the risk of failure.

### Budget requested

\$7,000

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Heather Dow, Manager, Servus Sports Centre

## 20inch Walk behind Floor Scrubber Replacement

### Description

2012 20" Floor Scrubber needs replacing as it is our prime and only floor scrubber for all SSC dressing rooms, washrooms and all small areas.

It is utilized 2-3 hours every day, 5 years old, has logged approximately 4000+ hours and it is no longer functional beyond repair.

### Need and implications

This floor scrubbing equipment is utilized daily by our SSC staff and is a vital component to the maintenance of our facility and our long-term flooring life expectancy. The equipment has had functional problems and is no longer cleaning as expected to.

### Budget requested

\$6,600

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager Community Development Services	Heather, Dow – Manager Servus Sports Centre

## Speed bumps at SSC

### Description

The posted speed surrounding the SSC is 30km/hr. Staff and visitors have observed a problem with speeding in the parking lot, as the SSC lot is a corridor connecting 12<sup>th</sup> Street access and the business development east of the facility.

The City installed speed bumps directly out of the SSC's north and south main doors 5-6 years ago and have seen the difference in speed in these designated areas. Administration wishes to extend the area of safety in the SSC's south and north main corridors for facility users.

### Need and implications

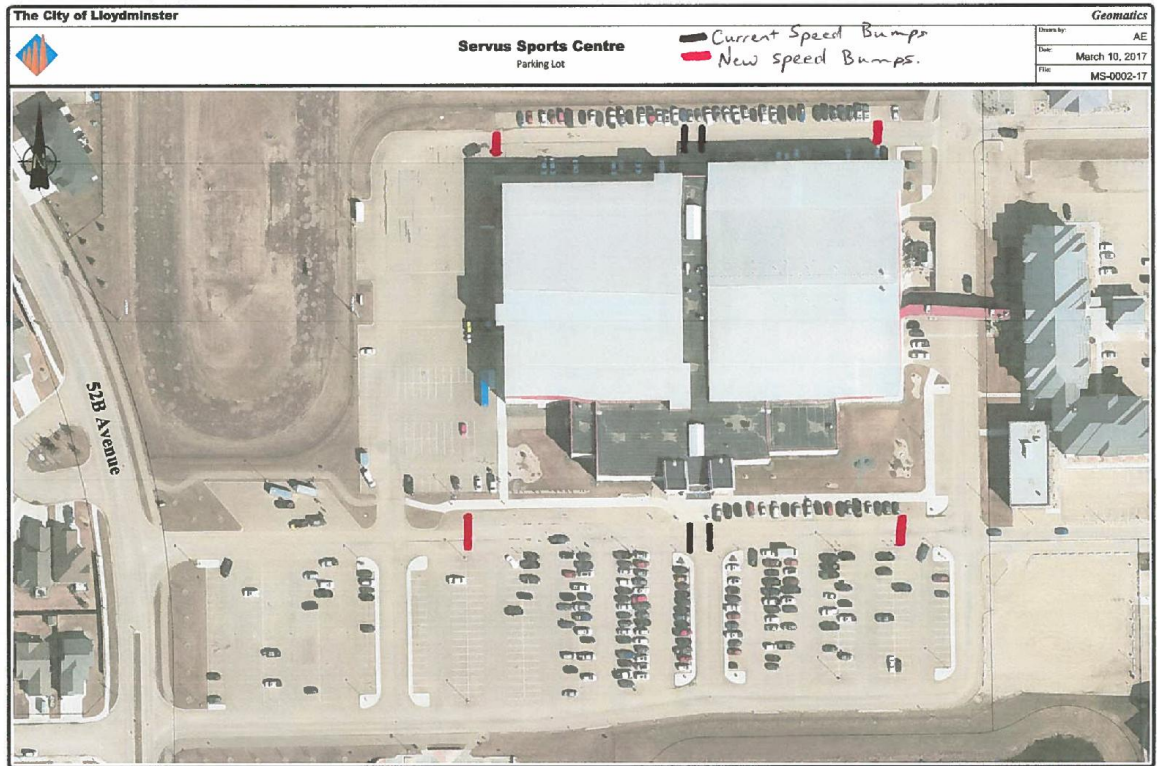
Speed bumps would likely help slow speeding traffic down to the 30km posted slow zone surrounding the SSC facility.

### Budget requested

\$12,000

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager Community Development Services	Heather, Dow – Manager Servus Sports Centre

### Additional comments



## Ammonia Detection Calibration System Upgrade

### Description

To provide calibration hardware to read above our current 100ppm of detectable ammonia within the ice plant room.

### Need and implications

This is needed in case of an ammonia emergency. This is a new Safety-Ammonia calibration equipment upgrade-provide detail on higher levels to provide safety limits for the Fire Department. This is a recommendation from the Ammonia Institute.

The Centennial Civic Centre and Russ Robertson Arena currently have these system upgrades in place.

### Budget requested

\$13,500

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager Community Development Services	Heather Dow, Manager Servus Sports Centre

## Elevator Card Reader Installation

### Description

The SSC requires hardware and programming installation of a card-reader system for the SSC elevator. An elevator service company would install the hardware and programming needed limit access to the third-floor fitness track.

### Need and implications

This is needed to allow us to issue swipe-card access only to the third-floor fitness track so we can secure access to the space with unpaid users, unattended children and theft of third-floor equipment.

This system typically involves installing a card reader in the elevator, and making connections between the access control system and the elevator control system. The system is designed so that an access card is required to operate some or all of the floor selection buttons in the elevator car.

The access control system is typically programmed so that a user's card only works on the specific floors where access is required.

### Budget requested

\$7,000

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager Community Development Services	Heather, Dow – Manager Servus Sports Centre

## SSC LED Lighting Improvements

### Description

To provide a phased LED fixture replacement project over a two-year period to replace the facility's costly T5s fluorescent fixtures with LED energy efficient lighting.

### Need and implications

The SSC currently has failing T5 ballasts. Average replacement cost of the bulbs alone every 4 to 5 years ranges from \$15,748.56 to \$23,622.84, not including failing ballasts and limited energy savings. The current utility cost of power to light the SSC is approximately \$424,500 annually.

### Budget requested

\$150,000 is the total cost of Phase 1, unassisted by grant opportunities.

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Heather Dow, Manager, Servus Sports Centre



## SSC fieldhouse perimeter fence and gate system

### Description

To extend the current indoor fence/gating system around our fieldhouses; to further contain and secure identified storage areas.

### Need and implications

Secure designated areas from public access. We have loitering and vandalism issues in these areas. The other concern is public safety and risk management. Damage has been discovered to the equipment stored by our various user groups and our own Servus Sports Centre Fun Zone storage.

### Budget requested

\$6,300

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager Community Development Services	Heather, Dow – Manager Servus Sports Centre

## Archie Miller Main Entrance Door replacement

### Description

Complete change out of existing door and frame. Repair and install new doors with windows for safety reasons, plus the addition of automatic doors for wheelchairs.

### Need and implications

The current doors are unsecure and difficult to lockup each night. The entire door frame is shifting. For facility securement a new double door and frame system needs to be installed. The addition of the windows is to assist the public with safely exiting the facility and not hitting others with the door. Adding in the automatic door system for allowing wheel chair access into the facility. If this project is not approved the facility will not be secured sufficiently to prevent vandalism.

### Budget requested

\$5,000

<b>Department: Recreation &amp; Cultural Services</b>	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Joel Turcotte, Director, Recreation & Cultural Services	Kevin Loydl, Manager, Arenas

## Archie Miller Concrete Entrance and Exit Replacement

### Description

Remove all existing concrete pads at the main entrance and west side emergency exits. Landscape and replace, with new pads ensuring proper tilt to move moisture away from the facility.

### Need and implications

The concrete pad at the entrance is in severe disrepair and causes tripping hazards to the staff and public. Cleaning snow off is difficult due to the condition of the pad. The west emergency exists all tilt towards the building forcing snow to melt into the facility, which in turn is damaging the wall and main structural beams. Along with the replacement of the exit pads a couple door thresholds will be repaired to stop snow from blowing in. Not approving this project will leave the public with safety issues entering the facility along with continuing the deterioration of the structure.

### Budget requested

\$6,000

<b>Department: Recreation &amp; Cultural Services</b>	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Joel Turcotte – Director, Recreation & Cultural Services	Kevin, Loydl – Manager, Arenas

## Civic Centre Compressor 1

### Description

Replace existing compressor 1 with a new compressor, due to aging out of the existing compressor.

### Need and implications

The existing compressor has begun showing its wear and tear due to multiple events requiring us to push the system to its edge. Maintenance costs are rising and the life of the compressor has been reached. If this project is not approved we run the risk of the compressor breaking down and not being able to fully operate for the full hockey season.

### Budget requested

\$18,000

<b>Department: Recreation &amp; Cultural Services</b>	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Joel Turcotte, Director, Recreation & Cultural Services	Kevin Loydl, Manager, Arenas

## Civic Centre Main Electrical Panel Replacement

### Description

Remove and replace the existing main electrical panel. Relocate main electrical panel location to meet current code.

### Need and implications

The current electrical panel is far outdated and can no longer be repaired as parts are not able to be purchased for it. This panel is original to the building and has become obsolete. The panel also needs to be closer to the main line which will mean the new one being installed in the storage shed on the north side by elevator shaft. Not approving this project leaves the building vulnerable to become shut down due to no power.

### Budget requested

\$100,000

<b>Department: Recreation &amp; Cultural Services</b>	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Joel Turcotte, Director, Recreation & Cultural Services	Kevin Loydl, Manager Arenas

## Russ Robertson Chiller Replacement

### Description

Replacing existing chiller, due to the age of existing chiller.

### Need and implications

The current chiller (1999) has reached its life cycle point (15 years) and needs to be changed out to ensure operation of the plant. If this project is not approved, we run the risk of the chiller failing which will result in a higher cost due to ammonia mixing with the glycol and more repairs needed.

### Budget requested

\$60,000

<b>Department: Recreation &amp; Cultural Services</b>	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Joel Turcotte, Director, Recreation & Cultural Services	Kevin Loydl, Manager, Arenas

## Russ Robertson Cooling Floor Header Replacement

### Description

Remove existing cooling header and replace with a longer lasting PVC header. The header is what the cool glycol travels through from the plant to the cement pad and pulls the heat out of it to create ice.

### Need and implications

The cooling floor header is currently metal and original to the facility. The cooling floor is currently ridden with extreme rust, making the cooling floor weak and affecting its integrity. This rust poses an issue for the cooling lines in the cement pad with possible lines being plugged off. New headers are made of PVC and allow for long life expectancy. Not approving this project can result in the current header developing a large leak and losing the ice.

### Budget requested

\$75,000

<b>Department: Recreation &amp; Cultural Services</b>	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Joel Turcotte, Director, Recreation & Cultural Services	Kevin Loydl, Manager, Arenas

## Tent Sides

### Description

Purchase three sides for the existing City of Lloydminster 20 x 20 tent.

### Need and implications

The sides have been misplaced and are required to utilize the existing tent during inclement weather.

### Budget requested

\$10,000

<b>Department:</b> Programming & Events	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Cindy Rekimowich, Manager, Programming and Events



## LCSC Imhoff Storage Solution

### Description

Construction of vertical stationary storage solutions for the Imhoff Collection. It can also be utilized to store other pieces of art from the permanent collection.

### Need and implications

This will allow LCSC to reduce the amount of the artwork on display and rotate the collection on a regular basis. This will provide the gallery with enough room to install interpretive panels, interactive stations, 3-dimensional displays and signage. This will allow for further development of exhibition tours, educational programs and guest services. The goal of this project is to encourage repeated visitation from local and regional guests.

In placing parts of the Imhoff Collection into storage, it would free-up space within the galleries to allow for other uses, such presentation of pieces from the heritage collection or introduction of small travelling exhibitions.

There is currently under-utilized space in the storage room that racking could be installed into.

### Budget requested

\$6,000

<b>Department:</b> Recreation and Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Kyra Stefanuk, Manager, LCSC

## LCSC Artefact Management Project – Carry Over

### Description

To install proper racking/shelving and storage solutions within the Red Storage Barn that current houses the artefacts.

### Need and implications

Proper shelving is needed in the Red Storage Barn. This will allow artefacts that are currently being stored in totes to be stored more appropriately.

This project is crucial to eliminating the ongoing damage to the LCSC heritage/artefact collection. Since the City and LCSC have a duty to the public to properly maintain the heritage collection, the goal of this project is to develop an accessible heritage collection - both within LCSC facility and to the community. This project will allow the artefacts in the collection to be properly stored, reviewed, and repacked. This will allow artefacts to be easily retrieved, placed on display and used in the development of hands on programming.

### Budget requested

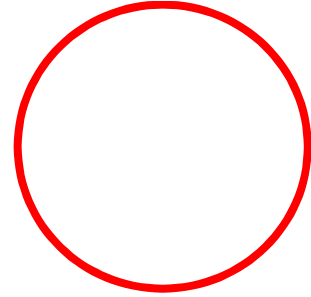
Original Amount Approved - \$91,000  
Already Purchased Materials - \$12,000  
Carry Over Request – \$79,000

<b>Department:</b> Recreation And Cultural Services	
<b>Reporting Executive</b>	<b>Responsible Manager</b>
Don Stang, Executive Manager, Community Development Services	Kyra Stefanuk, Manager, LCSC

## Additional comments

### Conservation and Preservation: Why is this necessary?

In addition to the inaccessible nature of the collection, the current state of storage is not conducive to long term preservation. The rubber totes were designed for short term preservation when the Richard Larsen Museum closed due to flooding and structural issues. Now, LCSC must balance long term preservation with public accessibility. Below are some immediate issues that have been documented when our short term storage solutions (stacked rubber totes) have outlived their usability.



### Examples:

- Irreversible Damage: In 2015, a tote was unloaded and a grey clay pot was found to be cracked (figure #1). Due to the nature of the breakage, the pot cannot be repaired. In all likelihood, despite its history, the artefact will be deaccessioned.
- Deterioration: The totes create their own micro-environment. This means that instead of allowing the artefact to breathe, artefacts are exposed to high-humidity and the effects of petrochemical off-gassing. This First World War uniform is showing signs of long term exposure to a humid environment (figure #2) with corrosion occurring around metal and white blooming occurring on the leather gun holster.<sup>1</sup>
- Buckling: The totes are beginning to buckle and warp. The weight of the artefacts is causing many to buckle (Figure #3); the blacksmithing artefacts in this totes are causing the container to bulge.

FIGURE #1: CLAY POT IS CRACKED



FIGURE #2: WM. LLOYD UNIFORM DAMAGE.

<sup>1</sup> "Care of Alum, Vegetable, and Mineral Tanned Leather," *Canadian Conservation Institute (CCI) Notes 8/2*, Department of Canadian Heritage. Ottawa: 1992.

- Leather should be stored in acid-free cardboard or corrugated plastic boxes [to] protect the leather by reducing the effects of RH fluctuations.