

2018 – Prepaid Service Rate Evaluation

Water and Sewer Servicing

Water and Sewer Mains, Trunk Sewers, Primary Water Mains and Lift Stations

- 1) Water, Sewer Mains and Service Connections – A small tender was awarded for construction of services within the Kensington neighbourhood with limited information available. Two large tenders are expected to be awarded later this year and next spring for construction occurring in 2019. Information from those tenders in both Aspen Ridge and Brighton will be used to set rates for the following year. No changes are currently recommended for the water and sewer direct service rates.
- 2) Trunk Sewers and Primary Watermains – primary water mains include the larger piping systems that serve entire neighbourhoods, typically equal or greater than 400 mm in size. Primary water mains have, in most cases, lagged initial development and may include a variety of components that are not necessarily utilized consistently for each job, such as pumped drain structures or concrete bulkheads. A common component is piping, however, this can also vary between sizes, material type, construction required through pavement structures or undeveloped land. We are monitoring some of the components that are utilized in water and sewer construction and have noted that plastic polyethylene has increased by 6.2% last year and a further 3.3% this year. Depending on the size and the length of individual pipes needed in any one contract, different types of piping materials are utilized. In 2018 we are constructing two projects that include various sizes of piping. No change in the primary watermain levy rate was implemented in 2017, however, from information obtained from the existing contracts in 2018 a change of 7% is projected for 2018.

Trunk sewers are essential for all sectors and include ponding and piping systems that can include storm pipes up to 3.0m in size and sanitary sewers of 1.2m in diameter constructed 14m deep. The Transportation and Utilities Department has extensive studies and includes large geographic catchment areas to determine the overall city wide rates. Within the Administration's studies, sanitary and storm sewer piping comprises 74.7% of the trunk sewer levy cost. The remaining 25.3% of the levy funds storm ponds, where the primary cost is the excavation of large amounts of earth material. In addition this year the Department undertook a very large study that analysed the City's growth plans to a population level of 500,000 and also 1,000,000 people. From an evaluation of prices and our studies, an estimate for trunk sewer pricing was derived. This information, along with information from Statistics Canada for items included for these types of projects used during construction derives the trunk sewer rate. One of the industry prices reported by Statistics Canada that is starting to have an effect on almost all prepaid service rates is the price of diesel

fuel. The index for diesel fuel, which is primarily used in most land development equipment has increased on the prairies by 37% over the last 12 months. The offsite service levies strive to fund the most economical service possible based on functionality, approved standards and long term maintenance costs. The open trenching method, which has been used a number of times before in Saskatoon, and is the cheapest method for most piping installations, is primarily utilized. From the results of past information and current cost curves and studies the trunk sewer rate is recommended to increase by 3.6%.

- 3) Lift Stations – This is a smaller levy that funds the construction of lift stations within specific neighbourhoods that utilize lift station services. The lift station levy is charged only on neighbourhoods that require this service. No lift stations currently are needed within the Industrial area of the City. No changes are suggested for the lift station levy in 2018.

Taken as a whole, the net price change for various services and calculated frontages has resulted in an adjustment for 2018. It is recommended that the general construction rate change by the following percentages, with similar changes noted within Attachment 1 for other zoning classifications:

Water and Sewer Mains	0.0%
Water and Sewer Connections	0.0%
Trunk Sewers	3.6%
Primary Water Mains	7.0%
Lift Stations	0.0%

Roadways

Grading, Sidewalks, Paving, Lanes, Buffers, Fencing and Arterial Roadways

The 2018 program is primarily within the residential neighbourhood of Aspen Ridge and the Marquis Industrial area where road construction is currently being constructed. Additionally the final two lanes of 33rd Street arterial roadway was tendered. Areas of noted significance are as follows:

- 1) Grading and Buffers – This component involves the excavation, transportation and placement of large quantities of dirt to facilitate the overall drainage pattern within a development area. In 2018 various earthwork projects were analysed in Kensington and Brighton as well as stripping, fine grading and seeding involving six projects. Embankment costs continued to be in a rising band over the last number of years. In 2017 we reported that excavation prices had increased in a range up to \$5.00 per cubic metre which was above the prices experienced in 2016 of \$2.97 to \$4.20 per cubic metre. This year we are seeing prices between \$4.50 and \$6.40. This is above the range when we last increased the grading rate in 2014. The grading rate is recommended to increase by 4.2%.

The main components within the Buffer levy are berming which also utilizes the movement of earth material. As noted previously, excavation costs have been

rising while seeding has been stable. The net effect will be to leave the buffer rate the same this year.

- 2) Sidewalk and Curbing – This service is normally tendered as part of the overall roadway contract. Unit prices experienced in a number of contracts are competitive, however, prices in general have increased. The price of a standard combined sidewalk and curb has increased substantially since 2012 when this rate was last changed. Prices constantly fluctuate, however, a sidewalk constructed in 2018 is approximately 31% greater than in 2015. In 2018 unstable subgrade was experienced in the Aspen Ridge neighbourhood. This resulted in the need to place gravel base material beneath the sidewalk to assure a proper foundation which increased the price of sidewalks by \$15.00 per lineal metre. This measure is not a permanent change in standards and will be monitored in the future to determine the effectiveness in mitigating cracks and other failures experienced previously with poor quality elastic soils. Different components are included within residential versus multi-family/commercial areas, which are then blended together in arriving at a rate for each classification. As a result, the multi-family/commercial rate, used primarily in suburban areas and on collector roadways, is traditionally 1.7 times greater in cost than the residential rate. In both 2017 and 2018, the expected ratio of the amount of construction between the more expensive separate walk and curb collector street application versus the less expensive local combined walk and curb was lower than normal. When this occurs, as in this year, amounts are applied to normalize the amount of each sidewalk component. The Active Transportation Plan for industrial areas includes sidewalks which has not been incorporated within our rates previously. As an implementation plan combined sidewalk and curbs were tendered this year for construction within the Marquis industrial area. The net result was an increase in the Industrial rate of 34.5%. The residential/commercial rates are recommended to increase by 9.4%.
- 3) Paving, Lanes, Arterial Roadways and Interchanges – Unit prices from the Marquis Industrial, Aspen Ridge and 33rd street Arterial roadway project were analysed this year. These projects were used to arrive at the arterial roadway and paving rates, as well as an analysis of frontage from various neighbourhoods.

An analysis was performed and costs were averaged between local residential roadways and multi-family/commercial rates. The amount of multi-family/commercial roadways constructed this year in Aspen Ridge, as a ratio to narrower residential roads, is different than the historical average and will result in additional adjustments being applied. Prices as a whole for this component have increased from the lower levels experienced in 2015 & 2016 for residential and commercial properties as well as arterial roadways. As reported last year asphalt prices have continued to move higher and on average we have experienced an 8.5% increase. Statistics Canada noted that during the last 12 month period in general, asphalt has increased 22.8% while emulsions have increased 6.8%. The City has been somewhat sheltered from these increases

probably because we have had additional contractors bidding on many of our projects. The net result after considering contract costs and available frontage is a recommended increase in our rates of 3.2% to 4.8% for paving and arterial roadways. Lane costs have also increased, however, the lane rate this year is benefitting from a higher frontage ratio in the area where lanes are being constructed and consequently no increase is required.

The interchange levy is one source of funding for the construction of interchanges where the construction benefits new land development. Within the Administration's study areas, costs have been extrapolated to determine a projected value for nine interchanges identified as requiring funding from the interchange levy. Information from the interchanges under construction at McOrmond and Boychuk Drive were previously analysed and a change in the rate was determined last year. The City traffic model is currently being studied further to update the amount of traffic generated from future growth. No change has been implemented for interchanges in 2018.

The net effect on the prepaid service rates for this category is as follows:

Grading	4.2%
Buffers	0.0%
Sidewalks and Curbing	9.4%
Paving	3.2%
Arterial Roadways	4.8%
Interchanges	0.0%
Lanes	0.0%

Utilities

Street Lighting, Gas and Underground Electrical

City developed land includes a prepaid levy for street lighting, gas and underground electrical servicing. Private developers contract directly with the respective crown corporation for telephone and gas servicing. A data base exists that includes three decades of street lighting service applications where costs and revenues are tracked. Street lighting service is provided exclusively from Saskatoon Light & Power. Labour costs represent a predominate portion of the street lighting rate which will have changed in 2018. Material price changes have been minimal this year with a small increase in the price of copper utilized in cable. Saskatoon Light and Power conducts servicing in the same administrative manor as other utilities. This entails preparing a fixed quotation for the particular area or phase that is being developed. They have reported that their cost model needs to be revised to allow them to breakeven for street lighting servicing. Specifically they have taken into account the additional items that are adding to the price of street lighting including the cost of constructing street lights usually during winter months after electrical servicing is installed, mobilization to the sites a number of times, and also projects carried over to future years. As a result the recommendation is for an increase in the rate of 23.3% for 2018.

The Saskatchewan Energy Corporation provides natural gas servicing to all classifications of property. The gas servicing levy is composed of a header allocation charge that is calculated by the utility for each neighbourhood, as well as a gas distribution charge. Sask Energy absorbs a portion of these costs by applying a capital contribution investment charge of \$1,145 per lot which has not changed this year. Sask Energy also charges a lane stubbing cost of \$1,200 per lot. In 2018 a majority of the city developed residential property will include lane lots. The rate was adjusted last year to take into account current lane construction and no additional increase is required for this year's program.

New underground electrical service within Saskatoon is almost entirely provided by the Saskatchewan Power Corporation. In 2018, a number of applications have been received for underground electrical servicing. Both the crown corporation and the City also provide a \$1,300 per lot capital contribution in each of their respective franchise areas, however, Sask Power almost exclusively provides residential servicing. Sask Power has dramatically reduced the cost of servicing by renegotiating servicing agreements with other utilities that share services in the same trench. This rate has a tendency to increase in cost quicker than other rates over time due to the overall cost increasing and the subsidized portion such as the capital contribution and the fixed trench agreements not changing which is absorbed through the rate. For this year, however, with the new shared trenching agreement the Administration's model indicates that the current rate may be decreased for 2018 to \$659.00 per lot or -64%.

The recommended change to the utility rates is as follows:

Street Lighting	24.1%
Gas Servicing	0.0%
Underground Electrical Servicing	-64.3%

Administration

Planning, Municipal Administration, Servicing Agreement Fees, Inspection

The servicing fees for the administration of the land development program are increased each year in tandem with the changes to the standard collective agreement and the car allowance rate, where applicable. For 2018, the change is between 1.8 and 2% for these services.

Parks and Recreation Levy, Community Centres

The Parks and Recreation Levy is a significant portion of the total offsite levies and is submitted as a separate report from the Community Services Department. The inclusion within this report is to illustrate completeness of the prepaid service rate schedule.

The levy for community centres has been implemented as a separate charge per residential neighbourhood, calculated on a front metre basis for all saleable property. This levy will also be reported on by the Community Services Department.