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PARKS AND RECREATION |

**SUBJECT CHANGES TO SERAUXMEN STADIUM FIELD LIGHTING
PROJECT TO LED STANDARD**

OVERVIEW

Purpose of Report

To provide background for the request to increase the budget for the Serauxmen Stadium Field Lighting Project in order to provide a new LED lighting system and electrical servicing requirements. |

Recommendation

That the Finance and Audit Committee recommend that Council amend the 2019 – 2023 Financial Plan to increase the budget from \$752,721 to \$1,096,221 for the Serauxmen Stadium Field Lighting Project to provide for LED field lighting and electrical servicing upgrades to be funded from the Community Works Fund.

BACKGROUND

A field lighting project was identified in 2015 in collaboration with Nanaimo Minor Baseball Association (NMBA), the Toronto Blue Jays' Jays Care Foundation and Staff in hopes to provide the first baseball field lighting in Nanaimo. At this time, the site was selected as the Mariner Field at the Serauxmen Sports Fields (850 Third Street) as the best option. The original lighting project was approved in the 2018 – 2022 Financial Plan.

As the project moved through the planning stages in 2017, negotiations were active with School District #68 to secure the purchase of the Serauxmen Stadium and Rotary Bowl and the jointly funded project for the construction of the Nanaimo District Secondary School (NDSS) Community Field. As this land exchange deal progressed, and final details were secured for the site, it was determined that the Serauxmen Stadium would be better suited for a field lighting system as this originally was the preferred site. The project at 850 Third Street was cancelled.

Following the 2017 purchase of the stadium, in 2018 a new scope of work and overall development concept for the stadium site was developed in collaboration with an architect for improvement planning, which included a field lighting system. Phase 1 construction was set to begin in 2019 with completion in 2020 by using Metal Halide versus LED based on cost. The current planned budget for Phase 1 in 2019 is for \$310,500 and Phase 2 in 2020 is for \$442,221 funded from the Community Works Reserve Fund and a \$50,000 private contribution from the Serauxman Society.

Detailed planning and design began in late 2018, with electrical, civil and structural engineering firms who have donated their time on behalf of the Serauxmen Stadium Amateur Baseball

Association (SSABA) to support the project. Staff have also been working to provide the technical details for a suitable system at Serauxmen Stadium again using Metal Halide (Attachment A).

DISCUSSION

CHANGES IN TECHNOLOGY AFFECTING INDUSTRY

This year, the City's main supplier of all of our existing sports field lighting made an announcement that effective January 2020, they will no longer be supplying Metal Halide lighting systems and would be exclusively supplying LED field lighting systems to their clients. Metal Halide lighting has seen overall 24% increase in cost between pricing in 2018 and looking to purchase in 2019. Due to these industry changes, it was deemed appropriate to re-investigate installing a LED lighting system.

Previously, LED lighting had been dismissed as an option because the price discrepancy between Metal Halide and LED was cost prohibitive. The City's main supplier has now offered greatly reduced pricing to encourage their clients to purchase LED lighting, but it is still more costly than Metal Halide. LED lighting has advantages over Metal Halide including, reduced operational costs, increased life expectancy and lower overall lifecycle costs. LED lighting has an estimated CO2 reduction over the estimated lifecycle that is equivalent to removing 82 cars off the road for one year (Attachment B).

ELECTRICAL SERVICE REQUIREMENTS

In March 2019, Staff had an electrical contractor conduct a condition assessment of the existing electrical services to both sites, the Serauxmen Stadium and the Rotary Bowl. The assessment deemed that all existing services were not adequate to operate any additional electrical amenities, including field lighting. It was also determined that the existing service to Serauxmen Stadium has reached end-of-life and will require replacement in the near future. The revised project scope now includes the electrical service upgrade to support the new lighting.

COMMUNITY BASEBALL

This field lighting project is in line with the plans presented to Council in January 2019 regarding planned improvements to Serauxmen Stadium in partnership with SSABA and the bid for a team as part of the West Coast League expansion. Lighting the stadium will provide the first lit baseball diamond in Nanaimo.

OPTIONS

OPTION 1

That the Finance and Audit Committee recommend that Council amend the 2019 – 2023 Financial Plan for an increase to the budget for 2019 of \$54,000 and \$289,500 for 2020 for the Serauxmen Stadium Field Lighting Project to provide for LED field lighting and electrical servicing upgrades to be funded from the Community Works Fund.

- Advantages:
 - LED lighting systems are superior to Metal Halide in capability, operational costs, and life expectancy.
 - Upgraded electrical service for the stadium lighting.

- No impact on property taxation with funding coming from the Community Works Fund.
- LED is in line with the Climate Emergency declared by Council, including the reduction of CO2 levels.
- Disadvantages:
 - Does not address the overall existing electrical service upgrades to the location that will need to be accounted for in the improvement plan.

OPTION 2

That the Finance and Audit Committee recommend that Council amend the 2019 – 2023 Financial Plan for an increase to the budget for 2019 of \$54,000 and \$512,000 for 2020 for the Serauxmen Stadium Field Lighting Project to be funded from the Community Works Fund.

- Advantages
 - Provides for increased budget for LED lighting systems as above.
 - Allows for complete electrical service upgrade to the Serauxmen Stadium and the Rotary Bowl and the separation of electrical service from Nanaimo District Secondary School. Also presents the option to separate the electrical for NDSS Community Field.
- Disadvantages
 - Planning for this option is still in the beginning stages and future improvement plans for both locations have not been fully identified.

OPTION 3

That the Finance and Audit Committee recommend that Council provide alternative direction to Staff regarding the Serauxmen Stadium Field Lighting Project. |

SUMMARY POINTS

- LED lighting was previously cost prohibitive but with these changes, is now a competitive lighting solution, yet still more costly than Metal Halide.
- Effective January 2020, the City's main supplier is phasing out the sale of Metal Halide lighting systems in preference of LED lighting systems.
- Metal Halide lighting has increased in cost by 24% since the budget process in 2018 to beginning the work for the project in 2019.
- LED lighting is the environmental choice due to its lower overall lifecycle costs and reduction in energy usage.

ATTACHMENTS:

ATTACHMENT A: Site Plan of Lighting Standard Placement

ATTACHMENT B: Metal Halide vs LED Lighting Lifecycle Comparison |

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