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**TO:** Regional District of Nanaimo Board      **MEETING:** March 26, 2019

**FROM:** John Marcellus  
Superintendent of Arena Services

**SUBJECT:** Oceanside Place Energy Upgrades and Chiller Replacement Tender Award

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## **RECOMMENDATION**

That the Board award the contract for the Oceanside Place Energy Upgrades and Chiller Replacement Project to Fraser Valley Refrigeration Ltd. for \$380,920 (excluding GST).

## **SUMMARY**

The existing chiller at Oceanside Place requires replacement and the work involves a shutdown of the refrigeration plant from June to the end of July 2019. Due to regulatory requirements, life expectancy and cost analysis, the project was identified to be completed in 2019.

A Tender for the works closed on February 22, 2019. Accent Refrigeration Design, as the project consultant, has reviewed the tenders and recommends awarding the contract to Fraser Valley Refrigeration Ltd.

## **BACKGROUND**

The existing shell and tube chiller at Oceanside Place is requiring replacement as it is nearing its life expectancy of 16-18 years. Industry statistics have shown that chillers of this type can last longer but typically start to show signs of failure in the last three to five years. The licensing and certification of the refrigeration plant at the facility is under the authority of Technical Safety BC (TSBC). TSBC has indicated that if the chiller is not replaced this year an additional inspection requiring the chiller to be opened and physically inspected will be required. Not only does this invasive inspection reduce the life of the chiller, the cost of the inspection is estimated at \$75,000. The existing chiller is original and was installed and put into service in September 2003. The refrigerant used is ammonia and the system operates with 1,200 pounds (544 kg.) of this compound.

In 2018 Accent Refrigeration Design conducted an assessment based upon the capacity requirements for operation of the refrigeration plant at Oceanside Place. Based upon the assessment a plate and frame chiller was recommended due to its life expectancy of between 20-25 years, low use of system refrigerant charge at 87 pounds (40 kg.), project costs and compliance with operating permit and regulations. The installation of new brine pumps with variable speed drives will allow greater ability to adjust operating parameters which will enable the refrigeration plant to operate more efficiently.

A public tender was issued on January 23, 2019 and closed on February 22, 2019 with the following results:

**Table 1 – List of Bidders and Base Prices**

<b>Fraser Valley Refrigeration Ltd.</b>	<b>\$358,540 + GST</b>
<b>Georgia Strait Refrigeration</b>	<b>\$419,900 + GST</b>
<b>Cimco Refrigeration</b>	<b>\$435,500 + GST</b>

The Tender included an optional separate price for the supply and installation of a pressure down vessel and associated works which allows the operator to remove the ammonia entirely from the refrigeration plant room by transferring it to a closed pressure vessel situated on the roof. The pressure down vessel will be used in the event of an ammonia leak or for maintenance and service work, if required. The value of this work is \$22,380 excluding GST.

Removal of the ice during the project (June - end of July 2019) will be required. Dry floor activities would continue during this period with ice scheduled to be available to the public August 5, 2019.

**ALTERNATIVES**

1. Award the tender for the Oceanside Place Energy Upgrades and Chiller Replacement Project to Fraser Valley Refrigeration Ltd. for \$380,920 + GST.
2. Not award the tender and the Board provide alternative direction to staff.

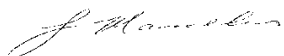
**FINANCIAL IMPLICATIONS**

Total value of the award recommendation is \$380,920 for both the work included in the Base Price and the Separate Price. The amount allocated for this project in the 2019 Budget for Oceanside Place is \$527,000.

This project is expected to realize a further decrease of 140,000 kWh of electricity annually from current operating expenditures. This is projected to lead to an annual energy savings of approximately \$12,000.

**STRATEGIC PLAN IMPLICATIONS**

Focus On Service And Organizational Excellence - We Will Fund Infrastructure In Support Of Our Core Services Employing An Asset Management Focus



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March 8, 2019

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