



Spectrum Turf & Rink Project

Presented: March 2nd, 2020 to SD61 Ed. Policy / Operational Committee

Presented by: Audrey Smith (Spectrum PAC), Collin Cronkhite (Colquitz Parent, & Technical Committee)

Spectrum Turf & Rink (STAR) Project

- \$14 million project
- Stakeholder-based
- No cost to district
- Limited risk to the district



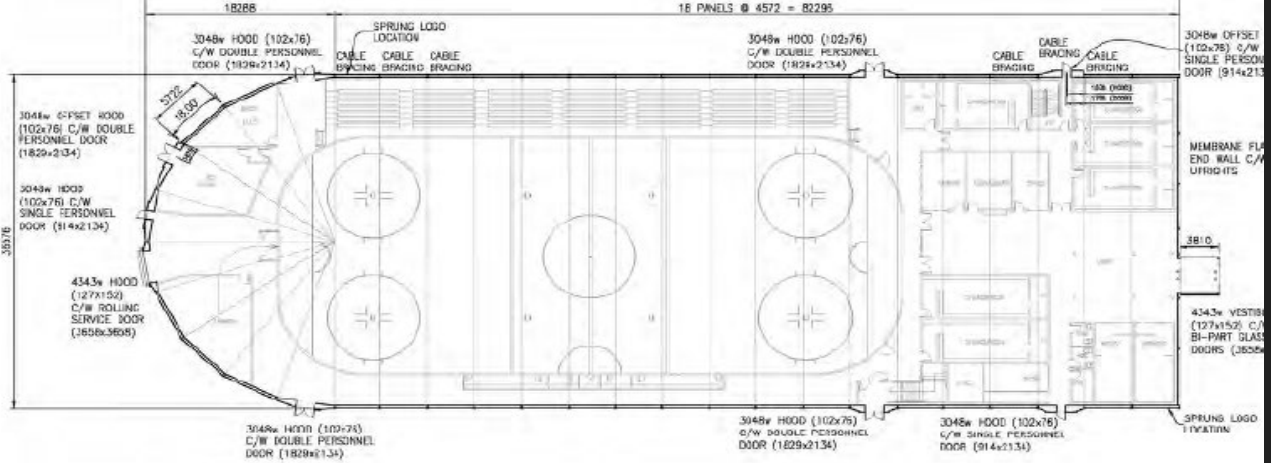


SPECTRUM LANE

BURNSIDE RD W

STAR Project: The Building





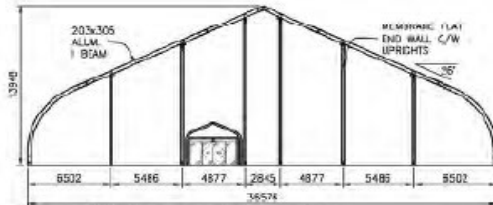
1 OPEN PLAN VIEW
043.0 1:250

INTERIOR SHOWN FOR REFERENCE ONLY. FINAL LAYOUT DESIGNED & SUPPLIED BY OTHERS.

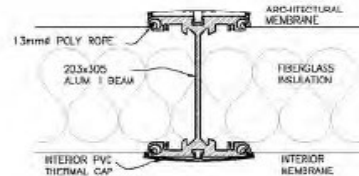
COLOURS ON THESE ELEVATIONS MAY VARY SIGNIFICANTLY DEPENDING ON PRINTER OR MONITOR. PLEASE REFER TO MEMBRANE SAMPLES FOR ACTUAL COLOURS.



2 ELEVATION
043.0 1:250



3 FLAT END WALL 36.6m STRUCTURE
043.0 1:200



4 203x305 INSULATED BEAM SECTION
043.0 1:5

STAR Project: The Building

- Sprung Structure
 - 25 Year Membrane Warranty
 - 50 Year Aluminum Warranty
- Songhees & Esquimalt Nation Integration
- Child-Care Facility



STAR Project Stakeholders



STAR Project: SAANICH MUNICIPALITY



- ***MARKET ANALYSIS SURVEY (04/2019):***
 - *Tremendous unmet demand for ice-time*
- Seeking partnerships with SD61 & 63
- *"We are planning a feasibility study [for a third rink] into our 2020 Budget."*
 - Graham Thomson
Saanich Municipality
(December 2019)

STAR Project: The Building

-Eco-Efficient Compared to Traditional Structures

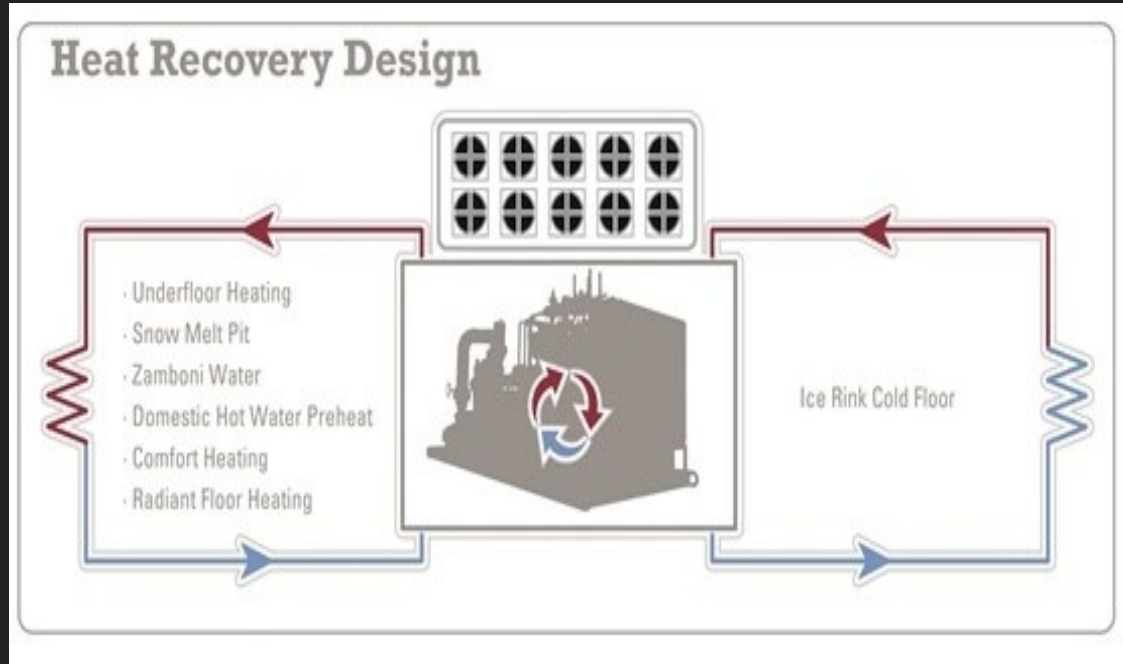
	Sprung Structure (7,152ft ²)	Traditional Structure (7,500ft ²)	
Energy Star Performance Rating	44	1	
Building Carbon Emission Rate	0.005 MtCO ₂ e/ft ²	0.014 MtCO ₂ e/ft ²	64%
Annual Energy Consumption	31,287 kWh	136,680 kWh	77%
	8,971 m ³	12,145 m ³	26%
Annual Carbon Emission	18.55 MtCO ₂ e/year	80.57 MtCO ₂ e/year	77%
	17.34 MtCO ₂ e/year	23.48 MtCO ₂ e/year	26%
Annual Energy Costs	\$11,110 - Electricity	\$34,456 - Electricity	68%
	\$4,964 - Gas	\$10,296 - Gas	52%
Normalized Energy Consumption	20.1 joules/dd/ft ²	36.5 joules/dd/ft ²	45%

STAR Project: The Rink

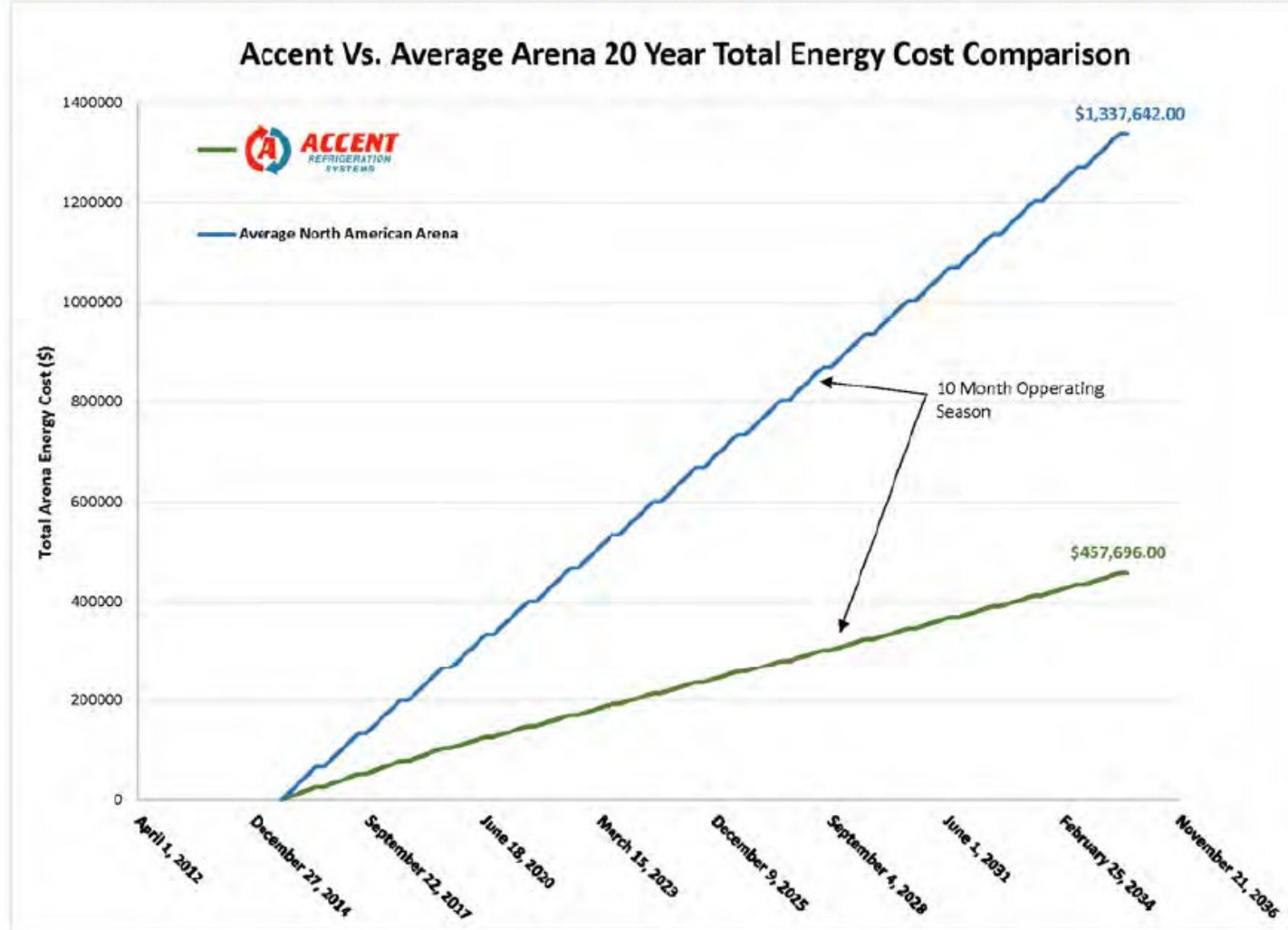
- Freon System (Not Toxic unlike Ammonia)

- No Engineer Needed

- Recapture Heat / Minimize Carbon Footprint for SD61



Graph 1 - Ice rink installed at Shawnigan Lake School is going to save the school over \$850,000.00 in the next 20 years



STAR Project: Financial Feasibility

Project Financial Assumptions	Turf (1 field)	Arena
Estimated Capital Cost	\$2.6 million	\$11.4 million
Funding Sources	TBD	TBD
Capital Assumptions (included in project cost)	7.5% Escalation + 7.5% Contingency	7.5% Escalation + 25% Contingency
Operating Assumptions	<p>Revenues based on hours available and market rates with free use by SD61.</p> <p>Expenses include utilities, maintenance and 10 yr turf replacement cost</p>	<p>Revenues based on hours available and market rates with free use by SD61, lease and ancillary revenues.</p> <p>Expenses include support staff, utilities, maintenance and 25 yr surface replacement</p>
NPV over Asset Lifecycle (3% discount)	<p>25 years</p> <p>\$ 1.35 million (Operating)</p> <p>\$ 0.56 million (Cashflow)</p>	<p>40 years</p> <p>\$9.73 million (Operating)</p> <p>\$5.12 million (Cashflow)</p>

- Amounts are based on information from estimates provide by previous arena and turf projects (Oak Bay High project, Piikani Nation Rink and Collingwood Rink)
- Financial modeling is for feasibility purposes only and will be further refined as project amounts and operating estimates are confirmed through the business plan development process.

STAR Project: Turf Field

- Burnaby study on water use – Turf fields get six times the use compared to grass fields
- Turf is 98% recycled when taken away
- Target Technologies in Burnaby & turn into recycled plastic composite wood
- Infill (rubber) is 100% recovered & reused
- Burnaby study on water use – Turf fields get six times the use compared to grass fields
- New emerging technologies for recycled turf

STAR Project: The Asks

- 1) Can SD61 formally ask Saanich Municipality to consider STAR Project in their feasibility study for an additional rink in Saanich
- 2) Can STAR Committee gather feedback from Burnside neighbours (has been a ongoing question from SD61 staff)
- 3) Can we start formalizing turf partnerships