

FACILITIES & BUILDING COMMITTEE
PUBLIC MEETING AGENDA

DATE: WEDNESDAY, SEPTEMBER 7, 2022

TIME: 4:30 PM

<https://sd38.zoom.us/j/62206581267>

Passcode: 6000

The Richmond Board of Education acknowledges and thanks the First Peoples of the hənq̓əmiṇəm (hun-ki-meen-um) language group on whose traditional and unceded territories we teach, learn and live.

1. ADOPT AGENDA

2. APPROVE MINUTES

Attachment: Public Minutes of meeting held June 1, 2022

3. FACILITIES PLANNING UPDATE [standing item]

Attachment: Report from the Executive Director, Facilities Services, Manager, Facilities Planning and Facilities Planner

4. CAPITAL PROJECTS UPDATE [standing item]

Attachment: Report from the Executive Director, Facilities Services

5. FACILITIES SERVICES UPDATE [standing item]

Attachment: Report from the Executive Director, Facilities Services

6. COMMUNITY ENERGY AND EMISSIONS PLAN (CEEP)

Attachment: Report from the Executive Director, Facilities Services and Manager, Energy and Sustainability

7. CARBON REPORT

Attachment: Report from the Executive Director, Facilities Services and Manager, Energy and Sustainability

8. DEVELOPMENT OF ADDITIONAL INDIGENOUS GATHERING SPACES (Recommendation)

Attachment: Report from Assistant Superintendent, Jane MacMillan

9. MINUTES FOR INFORMATION

(a) CHILD CARE DEVELOPMENT ADVISORY COMMITTEE MEETING

Attachment: Minutes of Meetings held May 4, 2022

10. NEXT MEETING DATE – Monday, October 3, 2022 at 4:30pm

11. ADJOURNMENT

School District No. 38 (Richmond)
7811 Granville Avenue, Richmond, BC V6Y 3E3

FACILITIES AND BUILDING COMMITTEE MEETING MINUTES

Minutes of a **PUBLIC** meeting of the Facilities and Building Committee held via Zoom Meeting, on Wednesday, June 1, 2022 at 4:30 p.m.

Present:

Ken Hamaguchi, Committee Chairperson
Debbie Tablotney, Committee Vice-Chairperson
Norman Goldstein, Trustee Member
Rick Ryan, Deputy Superintendent
Cindy Wang, Secretary Treasurer
Frank Geyer, Executive Director, Facilities Services
Rob Laing, Executive Director, Learning and Business Technologies
Ian Hillman, President, Canadian Union of Public Employees 716
Liz Baverstock, President, Richmond Teachers' Association
Steve Wenglowski, 2nd Vice President, Richmond Teachers' Association
Jason Leslie, Vice President, Richmond Association of School Administrators
Hugo David Madeira, Vice President, Richmond District Parents Association
Dionne McFie, Past President, Richmond District Parents Association
Joyce Coronel, Executive Assistant (Recording Secretary)

Regrets:

Heather Larson, Trustee
Joel Canlas, Richmond Management and Professional Staff

The meeting was called to order at 4:31 pm.

1. APPROVAL OF AGENDA

The agenda was approved as circulated.

2. APPROVAL OF MINUTES

Minutes from the May 4, 2022 meeting was approved as circulated.

3. FACILITIES PLANNING UPDATE [standing item]

The Executive Director, Facilities Services referred to his report as included in the agenda package. He then responded to an inquiry from the CUPE President on the relocation of the Aspen program which is currently at MacNeill Secondary School. The Deputy Superintendent clarified that there has been no final determination whether the Aspen program will remain at MacNeill.

4. RICHMOND PROJECT TEAM UPDATE [standing item]

The Executive Director, Facilities Services referred to his report as included in the agenda package. There were no further questions or comments.

5. FACILITIES SERVICES UPDATE [standing item]

The Executive Director, Facilities Services referred to his report as included in the agenda package. There were no further questions or comments.

6. MINUTES FOR INFORMATION

(a) CHILD CARE DEVELOPMENT ADVISORY COMMITTEE MEETING

Meeting minutes from April 6, 2022 were attached for information.

7. NEXT MEETING DATE – September 2022

The Chairperson thanked attendees for actively participating in Committee meetings this year.

8. ADJOURNMENT

The meeting adjourned at 4:50 pm.

Respectfully Submitted,

*Ken Hamaguchi, Chairperson
Facilities and Building Committee*

Report to the Facilities & Building Committee PUBLIC

DATE: 07 September 2022

FROM: Frank Geyer, Executive Director, Facilities Services
Umur Olcay, Manager, Facilities Planning
Joseph Balderston, Facilities Planner

SUBJECT: Facilities Planning Update

The following report is for information only. No further action on the part of the Facilities & Building Committee (FBC) is required at this time.

STRATEGIC PLAN REFERENCES

Strategic Priority 3: Optimized Facilities & Technology

✓ Goal 2: The district's facilities are well-maintained, equitable, safe, and conducive to learning.

DISCUSSION

Major Items of note:

1. Long Range Facilities Plan (LRFP):

The Planning Team is updating the LRFP Action Plan to track planning actions, facilities decisions of the Board of Education and potential or recommended changes for the next revision of the LRFP in 2023.

2. Seismic Mitigation Program (SMP):

Development of Project Definition Reports (business cases) for the recently Ministry-supported seismic upgrades at Alfred B. Dixon Elementary and Howard DeBeck Elementary well underway, targeting completion by end of September 2022.

3. Childcare BC New Spaces Fund (NSF) – Manoah Steves and Maple Lane:

The District received NSF funding to create new childcare facilities at Manoah Steves Elementary and Maple Lane Elementary. The District has selected Fort Modular to construct two modular childcare buildings for installation by December, and shop drawings have been received for review.

In preparation for the next intake of NSF applications for new stand-alone childcare facilities anticipated in the Fall/Winter of 2022, the Planning Team is undertaking a comprehensive review of suitable candidate sites for future childcare facility proposals and is also integrating childcare facility options in Seismic Project Definition Reports (SPDR's) for approved capital projects.

4. Just B4 Program:

R.M. Grauer Elementary has been approved as a second location to accommodate Just B4 beginning in September 2022. Facilities Planning has supported Learning Services throughout the licensing process at both R.M. Grauer Elementary and Walter Lee Elementary.

The Planning Team is continuing to support Learning Services in identifying future opportunities for expansion of this program to other elementary schools where appropriate.

5. Integrated Child & Youth Teams (ICY):

R.M. Grauer Elementary and Kathleen McNeely Elementary were selected by the District to accommodate ICY Teams beginning in September 2022. The Planning Team has been working closely with Learning Services and Vancouver Coastal Health during the renovation process to create office space for ICY Teams at both sites, completion will be in time for September opening.

The Planning Team will be reviewing the availability of two future locations to help determine if the District can meet the long term objective of locating ICY Teams within schools in four zones across the District.

6. City Centre Growth Planning:

The Planning Team is continuing research, projections, planning and development of site and expansion strategies and will engage with the City of Richmond and the development community on the timing and financial viability of a suitable new elementary school in the City Centre at Dover Park, Lansdowne Village, or elsewhere in the City Centre.

7. Coordination of Land Management with City of Richmond - Park Sites with School Sites:

Facilities Planning staff will be meeting with City of Richmond Parks and Open Space planners to discuss possible improvements to shared use and management of parks and adjoining school playgrounds for use by school and community. These meetings will be scheduled in Fall 2022.

*Umur Olcay, RPP, MCIP, ALEP
Manager, Facilities Planning*

*Joseph Balderston, RPP, MCIP
Facilities Planner*

*Frank Geyer, PEng, FMA
Executive Director, Facilities Services/Richmond Project Team*

Report to the Facilities & Building Committee PUBLIC

DATE: 07 September 2022

FROM: Frank Geyer, Executive Director, Facilities Services

SUBJECT: Capital Projects Update

The following report is for information only. No further action on the part of the Facilities & Building Committee (FBC) is required at this time.

STRATEGIC PLAN REFERENCES

Strategic Priority 3: Optimized Facilities & Technology

✓ Goal 2: The district's facilities are well-maintained, equitable, safe, and conducive to learning.

DISCUSSION

A. Major Capital Projects (*capital projects \$1 Million or more funded by the Province*)

1. F.A. Tomsett Elementary Seismic Upgrade & Addition (\$11.4 Million)
 - Seismic upgrading and expansion work on school and construction of new Tomsett Childcare Facility complete and buildings fully occupied.
2. James McKinney Elementary Seismic Upgrade (\$12.6 Million)
 - Substantially complete and fully occupied; working on minor deficiencies.
3. James Whiteside Elementary Enhanced Seismic Upgrade (\$17.3 Million)
 - Construction underway; targeting substantial completion by end of June 2023; on budget.
4. William Bridge Elementary Seismic Upgrade (\$16.1 Million)
 - Construction underway; targeting substantial completion by end of August 2023; on budget.
5. Archibald Blair Elementary Building Envelope Upgrade (approx. \$2.2 Million)
 - Design underway under the project management of BC Housing with oversight and district coordination by SD38; awaiting word on potential construction start-up.

6. Howard DeBeck Elementary and Alfred B. Dixon Elementary Seismic Upgrades
(approx. \$47 Million)

- Project Definition Reports (business cases) drafted and submitted to the Ministry for review; targeting project approvals and execution of Capital Funding Project Agreements by November 2022.

7. Manoah Steves Elementary and Maple Lane Elementary Childcare Facilities (\$1.5 Million each)

- Design nearly completed on modular facilities for delivery and setup by January 2023; sitework started at Maple Lane and to be tendered at Steves.

B. Major Local Capital Projects (capital projects greater than \$1 Million funded by Board of Education)

1. Mitchell Education Centre (\$2.5 Million)

- Project substantially complete and occupied; working on minor deficiencies.

2. Rideau Park Resource Centre (\$1 Million)

- Design complete and submitted to Learning & Business Technologies for final review; expect to start construction in late September 2022 with completion by May 2023.

3. Classroom Ventilation Program (\$12 Million max.)

- Contracts for the supply and delivery of 187 unit ventilators over a 14 month period in place; concept plans for the design/build by both in-house and contracted forces completed; proof of concept installations at Mitchell Elementary and Ferris Elementary underway by SD38 forces; meeting with construction manager to develop program and schedule for balance of sites to ensure completion by September 2023.

C. Minor Capital Projects (less than \$1 Million funded by the Province)

1. Howard DeBeck Elementary Building Envelope Upgrade (approx. \$400,000)

- Design underway under the project management of BC Housing with oversight and district coordination by SD38; expect construction to be undertaken as part of seismic upgrade project.

2. Mechanical System Upgrades

- Shop dust extraction system replacement at Matthew McNair Secondary to be tendered in September (2022/23 SEP - \$472,000).
- HVAC digital controls replacements at Hugh McRoberts Secondary and Lord Byng Elementary 75% complete (2022/23 CNCP - \$371,500).
- Lab ventilation system upgrades at four secondary schools (A.R. MacNeill, H.J. Cambie, Matthew McNair, Steveston-London) to be tendered in September (2022/23 SEP - \$252,730).

3. Electrical System/Energy Upgrades

- LED lighting upgrade at Steveston-London Secondary complete (2021/22 CNCP - \$550,000).
- LED lighting upgrade at R.A. McMath Secondary out for tender (2022/23 SEP - \$547,287).

D. **Minor Capital Projects** (less than \$1 Million, but of significance)

- Installed two portables at Brighthouse Elementary and one portable at Tomsett Elementary to accommodate future student population growth (\$375,000).
- Upgraded door locks at MacNeill Secondary – Aspen Program for student and staff safety (\$50,000).
- Commenced design on BC Hydro electrical service upgrade at Steves Elementary needed to accommodate new classroom ventilation system and modular childcare facility (\$200,000).
- Relocated LINC Program from Blundell Adult Learning Centre and rented space at Richmond Baptist Church to Sea Island Education Centre (\$10,000, with potential additional federal funding of up to \$200,000 for interior renovations).

Frank Geyer, PEng, FMA

Executive Director, Facilities Services/Richmond Project Team

Report to the Facilities & Building Committee PUBLIC

DATE: 07 September 2022

FROM: Frank Geyer, Executive Director, Facilities Services

SUBJECT: Facilities Services Branch Update

The following report is for information only. No further action on the part of the Facilities & Building Committee (FBC) is required at this time.

STRATEGIC PLAN REFERENCES

Strategic Priority 3: Optimized Facilities & Technology

✓ *Goal 2: The district's facilities are well-maintained, equitable, safe, and conducive to learning.*

DISCUSSION

Richmond Project Team Activities

- Refer to separate project and planning update reports

Maintenance Activities

Facilities Services has been very busy over the summer working on a number of facilities renewal projects. Highlights include:

- Carpentry
 - Completed Phase 1 of the window replacement and new siding upgrade at ELC;
 - Completed several minor renovations to spaces in multiple schools (Grauer, DeBeck, Lee) to prepare for new divisions/teaching spaces;
 - Roofing projects nearing completion at Gilmore, Quilchena and Diefenbaker;
 - Library renovation completed at Lee, started library renovation at Burnett;
 - Renovations for ICY Program completed at Grauer and McNeely;
 - New conference room built at Palmer;
 - New flooring in completed at Westwind and Gilmore (corridors), and at Kingswood (Pod A & C); and
 - New sliding door partitions installed in Pod A at Kingswood.
- Grounds
 - Major paving projects completed at Adult Education Centre (Mitchell) and Tomsett, underway at Sea Island;

- Minor paving projects completed at Hamilton, Kidd, Cook and Thompson;
- New playground installation at DeBeck is complete; at Maple Lane, equipment ordered and will be installed in October/November 2022;
- Outdoor classroom and learning area installations completed at Tomsett, McMath and Brighthouse;
- Major site cleanups across District sites completed for school re-opening; and
- Summer playground inspections and fall protection top-up across the District completed.
- Finishes
 - Interior and exterior new paint complete Adult Education Centre (Mitchell);
 - Kingswood exterior trim and door paint nearing completion;
 - Errington and Boyd interior painting nearing completion;
 - Gym floors re-coated at 6 sites, and full sand and re-coat at 2 sites; and
 - Parking lot line painting refresh and updates at multiple locations.
- Mechanical
 - Boiler replacements substantially completed at Hamilton and Byng;
 - Awaiting equipment delivery for rooftop heating units replacement at McRoberts;
 - HVAC digital controls replacements 75% completed at McRoberts and Byng;
 - Completed on-demand domestic hot water system replacement at Richmond Secondary;
 - Completed sprinkler heads replacement at Boyd;
 - Completed kitchen grease trap replacement at McMath;
 - COVID-related activities:
 - Continued to ensure schools with mechanical ventilation systems are in excellent working order through scheduled filter changes and equipment maintenance;
 - Classrooms, offices, libraries, multipurpose or other rooms that do not currently have mechanical ventilation systems continue to use portable air purifiers, which have been cleaned and serviced, and will keep windows open as much as possible to ensure outdoor air is naturally exchanged with inside air; and
 - We continue to be fully compliant with the latest school ventilation requirements.
- Electrical/Security
 - Security motion sensor upgrades starting at 12 sites;
 - Awaiting equipment delivery for electrical main distribution centre replacement at Ferris;
 - Fire alarm panel upgrades 75% complete at 9 sites;

Operations Activities

The Operations & Rentals, Transportation, Assets & Safety, and Energy & Sustainability Departments have been extremely busy preparing for the 2022/2023 school year:

- Operations & Rentals
 - Continue to implement recommendations contained in the Operations & Rentals Department independent review report;
 - Hired new Assistant Manager for afternoon shift supervision and other administrative duties;
 - Successfully ran the inaugural Operations Day professional development event for Operations staff;
 - Set up email for all custodial staff to improve the communications with all custodians spread out over 50 sites;
 - Completed summer clean up duties, while working around summer programs, daycares, city rentals, and project work;
 - Cleaned and serviced all portable handwashing stations;
 - Conducted First Response Training on Water Ingress (use of dehumidifiers);
 - Started a Flooring Inventory & Audit – 5–10-year refinishing and replacement plan;
 - Developed and currently implementing a business plan for Rentals to modernize operations;
 - Implementing an additional module with Book King software to streamline rentals payments;
 - Creating greater web presence for increased exposure of Rentals; and
 - Completed an assessment of daily and weekly pest control procedures to determine effectiveness of the in-house program.
- Transportation
 - Buses cleaned and serviced for the new school year;
 - New 2 x Type C electric buses received, and DC chargers installed; test drove buses and ensured charging stations is compatible (all good); drivers and mechanics received orientation and training;
 - Application for student transportation review and bus run schedules now in place for new school year; student database also been re-organized and now easier to manage in electronic shared files; and
 - Field trips with International Education Program re-initiated this summer; and
 - Planning to procure an independent consultant to undertake a review of the Transportation Department in Fall 2022.
- Stores
 - Warehouse clean-up and organization complete to ensure space availability for new classroom ventilation program equipment temporary storage;
 - Received and managed 21 skids of new leased computers; and
 - Wrapped up inventory count.

- Energy and Sustainability
 - Contracts awarded for McMath Secondary and Ferris Elementary LED lighting upgrade projects;
 - Implemented the SBO lighting upgrade project;
 - 10 sites finalized for Continuous Optimization of building mechanical and electrical systems;
 - Development of "calendar of events" for Energy and Sustainability activities for the 2022/2023 school year, combining thermal comfort Energy Wise campaign with Eco Wise program;
 - Tracking of solid waste metrics from 2020/2021 and 2021/2022 school years at a district and individual school level; presentation developed for RLT and school specific data, as well as a "solid waste 101" primer with concrete actions we can take to improve our waste diversion performance; solid waste will be a required "campaign" for receiving Eco Wise grants;
 - Building Operations Supervisor demo project at Boyd Secondary, using AI and machine learning to balance occupant comfort with energy savings; combined with a student engagement project to help kick start a Green Team at Boyd to use the demo data outputs to engage students;
 - Climate resiliency reviews of 8 sites underway as part of executing the DSCAP; technical reviews under way, but will roll out surveys to our building occupants in the Fall as part of the climate resiliency review; and
 - Working with independent consultant to develop two custom retrofit study proposals for the classroom ventilation program at 11 school sites. Submitted these proposals to FortisBC for energy study funding.

Frank Geyer, PEng, FMA

Executive Director, Facilities Services/Richmond Project Team

Report to the Facilities & Building Committee PUBLIC

DATE: 07 September 2022

FROM: Frank Geyer, Executive Director, Facilities Services
Jonathan Ho, Manager, Energy and Sustainability

SUBJECT: Community Energy and Emissions Plan (CEEP)/DSCAP Update

The following report is for information only. No further action on the part of the Facilities & Building Committee (FBC) is required at this time.

STRATEGIC PLAN REFERENCES

Strategic Priority 3: Optimized Facilities & Technology

✓ *Goal 3: The district fosters energy efficient and environmentally sustainable facilities and practices.*

- *Objectives:*

- 1: Develop and implement a five-year District Sustainability and Climate Action Plan*
- 2: Improve energy efficiency, climate resiliency and sustainability of all facilities through capital improvements.*
- 3: Implement sustainable practices and programs to improve waste diversion rates, reduce waste generation, reduce greenhouse gas emissions, conserve water, and promote climate action.*
- 4: Increase sustainability education and awareness training and learning opportunities for staff and students*

DISCUSSION

Introduction

The District Sustainability and Climate Action Plan (DSCAP) is our response to Strategic Priority 3, Goal 3, and associated objectives, and was approved at the December 2021 Board of Education meeting. This report is to provide the Facilities & Building Committee with an update on our progress in achieving our targets, covering the 2021/22 school year. It will also provide guidance on upcoming activities






Note that the accompanying Carbon Report will provide details on our Greenhouse Gas emissions profile as noted in our Carbon Neutral Activity Report (CNAR), which covers calendar year 2021 and is mandated by the Ministry of Environment and Climate Change for all public sector organizations.

High Level Schedule and Key Targets

The official duration of the DSCAP is from 2021-2026, but climate action planning goals exist through 2050, the bulk of which can be found in the District's *Strategic Energy Management Plan* (SEMP). The

SEMP is mandated by BC Hydro, updated annually, to report on energy efficiency and GHG reduction progress. Additional information is (for existing) or can be (for in development) found in the supporting implementation strategies for the other pillars. The ultimate goal for the District is to be Net Zero in GHG emissions by 2050, in alignment with Clean BC.

What follows are key targets for the core pillars where there are specific metrics. Year references are for the school year ending June 30th. Additional targets are being developed beyond 2030.

	2021/22	2022/23	2025/26	2029/30
	<ul style="list-style-type: none"> • 300,000 kWh electricity savings¹ • 4,000 GJ NG savings¹ 	<ul style="list-style-type: none"> • 300,000 kWh electricity savings¹ • 4,000 GJ NG savings¹ 	<ul style="list-style-type: none"> • 300,000 kWh electricity savings¹ • 4,000 GJ NG savings¹ • Net 10% reduction in grid electricity² • 25% NG reduction² 	<ul style="list-style-type: none"> • 300,000 kWh electricity savings¹ • 4,000 GJ NG savings¹
			<ul style="list-style-type: none"> • 25% reduction in building GHGs 	<ul style="list-style-type: none"> • 50% reduction in building GHGs² • 40% reduction in fleet GHGs²
		<ul style="list-style-type: none"> • 70% waste diversion 	<ul style="list-style-type: none"> • 75% waste diversion 	
	<ul style="list-style-type: none"> • 2 x Type C electric buses • 5% CAFE^{3,4} increase 		<ul style="list-style-type: none"> • 27% CAFE increase 	
			<ul style="list-style-type: none"> • 15% decrease in per capita water use 	

The most developed implementation plans of the DSCAP are for Energy Conservation, Climate Action (both found in the SEMP), and Waste Reduction (in the District's Zero Waste Strategy). As they are developed, implementation plans for the other pillars will be reported on to the FBC.

¹ Annual targets

² 2007 baseline

³ CAFE = Corporate Average Fuel Economy

⁴ 2011 baseline

Progress Updates for Energy Conservation, Sustainable Transportation, and Waste Reduction

Energy Conservation

For the 2021/22 school year, pandemic-related ventilation requirements resulted in a 19% increase in natural gas consumption, and a 4% increase in electricity use, compared to a pre-pandemic year. A number of factors have contributed to the increase in energy consumption, including:

- ASHRAE-recommended pre- and post-occupancy ventilation flushes
- Cooler spring that delayed the shutdown of our boiler system by 3 weeks

Despite the challenges, we have engaged in a number of technical activities to reduce our energy consumption:

- Continuous Optimization of our building automation systems at 6 schools
- Lighting upgrades at Steveston-London and the Board Office
- On-demand domestic hot water heater at Quilchena
- New high efficiency boilers at 5 schools
- Control system upgrades at 6 sites

The majority of our energy savings comes from our Continuous Optimization program. When we are fully implemented, the actual savings from our C-Op program should result in year-over-year energy savings that will be a significant factor in achieving our Energy Conservation goals.

The net result of our energy conservation efforts are as follows:

	TARGET	ACTUAL	EQUIV. # OF HOMES*/YR	COST SAVINGS
ELECTRICITY SAVINGS	300,000 kWh	1,124,260 kWh	104	\$118,020
NATURAL GAS SAVINGS	4,000 GJ	8,431 GJ	95	\$94,849
BC HYDRO AND FORTIS BC INCENTIVES	\$80,000	\$363,800		

* The average home uses [10,715 kWh of electricity](#) and [88.4 GJ of natural gas](#) per year

Sustainable Transportation



The District took delivery of its two Type C electric buses in July 2022. These buses are manufactured by International and distributed by Western Canada bus. Replacing our 85-seat Type D diesel buses, these 72 seat electric buses have an estimated range of 230 km. Charging is accomplished with dedicate DC “slow” chargers that can fully charge the bus batteries in approximately 6 hours.

Combined, the two electric buses will save the District \$43,243 per year in avoided diesel fuel, maintenance, GHG emissions and carbon offset costs.

Waste Reduction

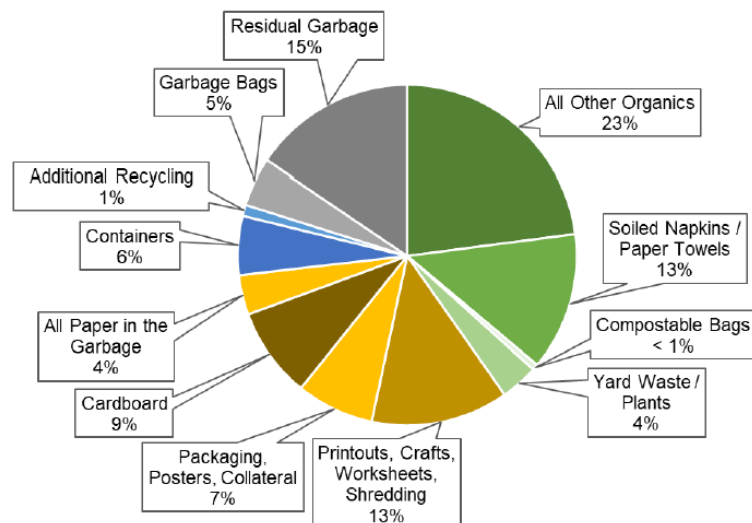
The intent of the District's Waste Reduction pillar is to match our waste diversion and waste generation performance with that of the City of Richmond. The City of Richmond has achieved a waste diversion rate of 80%, but the Zero Waste Strategy has a target of 75%, with an aspirational goal of 80%. This is because the District is an institutional organization, and our operational activities and waste stream composition are sufficiently different from a residential waste stream to make an 80% waste diversion challenging.

A summary of data from the past two school years, however, shows that we are falling short of our Zero Waste Strategy goals:

	2020/21 DIVERSION	2021/22 DIVERSION
DISTRICT FACILITIES	48%	48%
SECONDARY	37%	32%
ELEMENTARY	43%	40%

A number of waste audits at elementary, secondary, and the Board Office have been undertaken over the past two years. The results of the audits indicate that there is a path forward to increasing our waste diversion metrics.

The following is an aggregate waste composition of two elementary schools and one secondary school:



Organics is the largest portion of the waste stream, representing 40% of all audited materials (food waste, food scraps, food packaging, soiled napkins, and paper towels). If we are able to divert the organics that were found in the garbage stream, this would represent a significant improvement in our waste diversion metrics. Further, since organics are half the cost to dispose of, better waste diversion would result in lower costs for the District.

Learning and Engagement

With a return to normal activities, the Energy and Sustainability team plans on re-engaging with students and staff at several levels.

Using the Eco Wise program, and to fulfil our obligations under the BC Hydro and Fortis BC-funded Energy Wise Network program, we will be issuing a revamped Eco Wise program, with a base level of

funding provided to Green Teams who conduct the mandatory sustainability activities. Additional funding is available for schools that complete optional campaigns. A calendar of events has been developed that will bring seasonally-appropriate activities at the elementary and secondary school level.

To support this work, the Energy and Sustainability team will work with Learning & Business Technologies to translate the extensive data collected on our energy and utility use, and solid waste metrics, into school- and building-specific dashboards. Although the District's data comes from billing information (and is not in real time), having this information will give schools the ability to see how their efforts make a difference in our Energy and Sustainability metrics.

Further, to ensure that we celebrate successes and help to inspire schools, staff, and the wider District community, we plan on holding three Eco Wise Cafes throughout the school year. The intent is to allow schools to present what works, and what does not, in their various sustainability initiatives.

We will also reconvene the Richmond Sustainability Advisory Committee (RSAC), composed of members across the District community: students, RTA, RASA, RMAPS, CUPE, RDPA, Executive Team, and Trustees.

Conclusion

The District is making progress against the District Sustainability and Climate Action Plans, with success in energy conservation and sustainable transportation. Our Zero Waste Strategy performance is trending the wrong direction, with decreasing waste diversion year over year. A renewed focus on educating our students and staff on proper waste diversion will be a focus for the upcoming year.

Communications and Engagement has been lacking to date, and the Energy and Sustainability team intends to re-engage with the wider District community to foster shared ownership of the DSCAP. This includes new ways to present our Energy and Sustainability data, as well as restarting the RSAC and Eco Wise cafes that were held pre-pandemic.

Next Steps

Our intent is to present this update to an upcoming Board of Education meeting.

*Jonathan Ho, M.Eng., MBA, P.Eng., CEM, CBCP, PMP
Manager, Energy and Sustainability*

*Frank Geyer, PEng, FMA
Executive Director, Facilities Services/Richmond Project Team*

Report to the Facilities & Building Committee PUBLIC

DATE: 07 September 2022

FROM: Frank Geyer, Executive Director, Facilities Services
Thi Nguyen, Energy Specialist
Jonathan Ho, Manager, Energy and Sustainability

SUBJECT: 2021 Carbon Report

The following report is for information only. No further action on the part of the Facilities & Building Committee (FBC) is required at this time.

STRATEGIC PLAN REFERENCES

Strategic Priority 3: Optimized Facilities & Technology

✓ *Goal 3: The district fosters energy efficient and environmentally sustainable facilities and practices.*

- *Objectives:*

- 1: Develop and implement a five-year District Sustainability and Climate Action Plan*
- 2: Improve energy efficiency, climate resiliency and sustainability of all facilities through capital improvements.*
- 3: Implement sustainable practices and programs to improve waste diversion rates, reduce waste generation, reduce greenhouse gas emissions, conserve water, and promote climate action.*
- 4: Increase sustainability education and awareness training and learning opportunities for staff and students*

DISCUSSION

Introduction

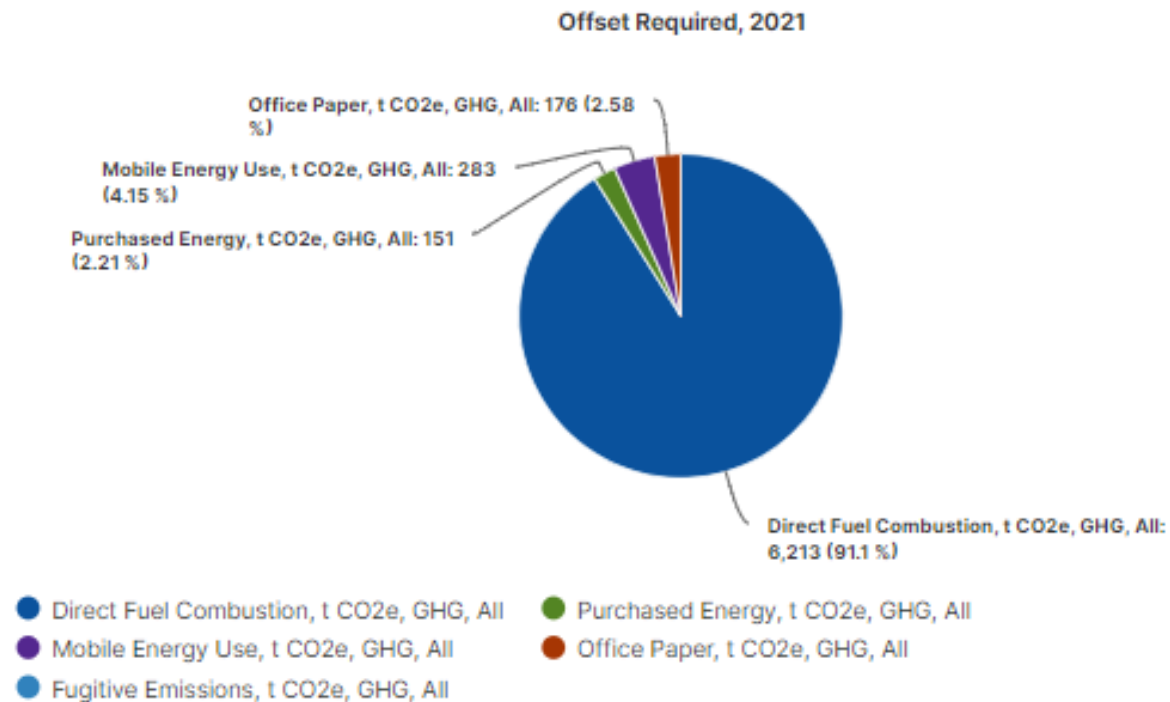
All Public Sector Organizations are required by the Ministry of Environment and Climate Change (MECC) to report on its greenhouse gas emissions. These emissions are then converted in an equivalent tonnes of carbon dioxide (t CO₂e), using a number of factors that convert any greenhouse gas into its carbon dioxide equivalent. For example, methane, the largest component of natural gas, has a greenhouse gas potential roughly 26 times higher than carbon dioxide. Thus, every tonne of methane used by the District is considered the equivalent of 26 tonnes of carbon dioxide.

The District reports on direct fuel combustion (primarily natural gas to heat buildings, along with propane to heat portables), mobile sources (from our fleet vehicles), purchased energy, and office paper. Data is collected on a calendar year basis, reported to MECC by April of the following year. After verification of the data, the District then files a [Carbon Neutral Activity Report](#) by the end of May, and must pay the province \$25/tonne in carbon offsets to be carbon neutral.

2021 Greenhouse Gas Emissions and Offsets Summary

In 2021, there were 6,822 ton of GHG emissions that required offset by Richmond School District, of which 91.1% was from natural gas and propane (for portables), 2.21% from electricity, 4.15% from fleet sources, and 2.58% from paper consumption.

Offset Required GHG Emissions by Activity Data Source (no Biogenic)



\$171,200 is the total amount of money that the District has to pay in 2021 for the carbon offset:

School District 38 2021 GHG Emissions and Offsets Summary	
GHG Emissions created in Calendar Year 2021	
Total Emissions (tCO ₂ e)	7,024
Total BioCO ₂	16.76
Total Offsets (tCO ₂ e)	6,822
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO ₂ e)	26
Grand Total Offsets for the 2021 Reporting Year	
Grand Total Offsets (tCO ₂ e) to be Retired for 2021 Reporting Year	6,848
Offset Investment (\$25 per tCO ₂ e)	\$171,200

Building Emissions

These emissions account for the vast majority of the District's overall emissions at 93.3% in 2021.

Of the nine DSCAP pillars, Energy Conservation presents the greatest opportunity for both GHG reductions and financial savings given that the largest proportion of the District's GHG emissions is from energy use in buildings. Thus, the largest proportion of our GHG reduction initiatives focus on energy conservation within our schools and administrative facilities. In 2021, activities included:

- Implemented 4 boiler replacement projects to high efficiency condensing boilers at Sea Island, DeBeck, Diefenbaker and McNeely
- Conducted rooftop unit replacements at McNair, Maple Lane, Palmer, and Quilchena
- Implemented pneumatic control conversions to Direct Digital Control (DDC) at 6 elementary schools: DeBeck, Diefenbaker, Garden City, General Currie, Grauer, and Wowk.
- Implemented Continuous Optimization (C-Op) programs at 6 sites: Burnett, Cambie, McMath, McNeill, McRoberts, and Brighthouse
- Conducted a thermal comfort behavioral campaign to reduce natural gas consumption in 6 pilot buildings: Palmer, Steveston-London (2 secondary schools), Anderson, Ferris, Kingswood, and Woodward (4 elementary schools).

In total, there were 8,431 GJ of natural gas saved, corresponding to a reduction of 420 t CO₂e, \$94,849 in avoided natural gas costs, and \$10,500 in carbon offsets

COVID-19 Impact on GHG Emissions

During the pandemic, the District has focused on ASHRAE recommendations for ventilation as a means to mitigate transmission of respiratory viruses in our schools. The District works closely with, and takes direction from, public health officials to ensure that heating, ventilation, and air conditioning (HVAC) systems are designed, operated and maintained per Provincial standards and specifications:

- Mechanical ventilation systems are in excellent working order through scheduled filter changes and equipment maintenance.
- Extended operating hours for ventilation systems – initiating ventilation systems well before school starts each day to flush the air in all rooms prior to occupancy.
- Increased fresh air exchange in accordance with Provincial guidelines.

GHG emissions in 2021 only increased 14% compared to pre-pandemic 2019, despite a 21% increase in natural gas consumption over the same time period. This is due to our comprehensive efforts in energy savings and GHG emissions reduction in the past two years.

Fleet Emissions

The fleet (vans, trucks, buses, grounds equipment, District cars) accounted for 4.1% of the District's overall emissions in 2021. In order to reduce the fleet emissions, there is a two-pronged approach:

- Behavioural – providing training and planning resources to all employees that drive District vehicles on route planning and economic driving techniques. It is believed that this can achieve up to 27% of the required 40% reduction in GHG emissions.

- Technical – as existing vehicles reach a point where maintenance costs become greater than the cost of replacement, they will be retired in favour of electric vehicles where feasible, or with a more fuel efficient version of the same.



In 2021, through the Association of School Transportation Services of BC, and through the provincial Bus Acquisition Program, that Richmond School District purchased two Type C electric buses from Western Canada Bus, to replace two diesel Type D buses. Delivery was completed in the summer of 2022. At the same time, the electrical infrastructure at the Facilities Services Centre was upgraded to allow each bus to be independently charged via DC “slow” chargers.

Thermal Comfort Campaign

One notable success story was our Thermal Comfort campaign. The Energy and Sustainability team ran 6 thermal comfort educational workshops at 6 schools from November 2021 to February 2022, coinciding with District Professional Development Days and staff meetings to raise thermal comfort awareness of building occupants and how their behavior change in thermal comfort may reduce unnecessary building set point temperature adjustments. We provided 5 facts about how our schools are heated or cooled, tips to improve thermal comfort, and frequently asked questions. The audiences of these workshops highly appreciated the information, and they committed to reviewing and changing their behaviours toward sustainability.

After 5 months of the campaign, a noticeable amount of natural gas savings were recorded. Conservatively, this campaign was helped to save 3.5% of natural gas, which is equivalent to 162 GJ. This amount is enough to heat a typical elementary school in one and a half months.

With the above positive impacts, this campaign was recognized by FortisBC as the [*Best Behavioural Campaign in BC in 2021/22*](#) during the *FortisBC's Energy Specialist Spring Workshop* in May 2021.

Greenhouse Gas Reduction Planning for 2022

In 2022, we are continuing with the District's comprehensive energy conservation program and have a number of energy efficiency projects slated for 2022/23 including:

- Implementation of Continuous Optimization programs at 10 sites: Boyd, McNair, Palmer, Richmond, Steveston-London (5 secondary schools), Byng, Kidd, McNeely, Talmey (4 elementary schools), and the Facilities Services Centre (FSC)
- Implementation of pneumatic control conversions to Direct Digital Control (DDC) at Byng Elementary and McRoberts Secondary
- Boiler replacements to high efficiency condensing boilers at Hamilton and Byng Elementary
- Rooftop unit replacements at McRoberts Secondary
- Continue to execute regular duct and HVAC coil cleaning at various sites
- Updated 2022 ASHRAE guidance on ventilation recommendations means a reduction in the flushing requirements in buildings to a single pre-occupancy period (instead of both pre- and post-occupancy that was recommended early in the pandemic).

Conclusion

The District continues to implement the District Sustainability and Climate Action Plan, with a specific focus on energy conservation, associated greenhouse gas emissions, and sustainable transportation. As we continue to reduce natural gas and other fossil fuel consumption, we reduce our overall impact on the climate. This has the added benefit of avoided costs from carbon taxes and carbon offsets that all public sector organizations in the province must pay.

Next Steps

Our intent is to present this update to an upcoming Board of Education meeting.

*Thi Nguyen, MEL, MEng, CEM
Energy Specialist*

*Jonathan Ho, M.Eng., MBA, P.Eng., CEM, CBCP, PMP
Manager, Energy and Sustainability*

*Frank Geyer, PEng, FMA
Executive Director, Facilities Services*

Report to the Facilities & Building Committee PUBLIC

DATE: 07 September 2022

FROM: Jane MacMillan, Assistant Superintendent

SUBJECT: Development of Additional Indigenous Gathering Spaces

RECOMMENDATION

THAT the Facilities & Building Committee recommends approval by the Board of Education (Richmond) for staff to proceed with the proposed development of additional Indigenous Gathering Spaces as presented to a maximum cost of \$300,000 funded from Local Capital Reserves.

POLICY CONSIDERATIONS

Not applicable.

STRATEGIC PLAN REFERENCES

Priority 1: Inspired Learners

- ✓ Goal 3: Indigenous Peoples' history, perspectives, and learning approaches are embedded within district planning and practices.
 - I. Honour and implement the Truth and Reconciliation Commission calls to action related to education.
 - II. Deepen understanding of and embed the First Peoples' Principles of Learning.
 - III. Increase access to authentic learning opportunities and resources to enhance understanding of Indigenous Peoples' culture and history.

Priority 3: Optimized Facilities and Technology

- ✓ Goal 2: The district's facilities are well-maintained, equitable, safe and conducive to learning.
 - I. Provide equitable learning environments through effective and efficient facilities planning, management and resource allocation.
 - VI. Create learning environments that are flexible and support inclusive educational practices.

INTRODUCTION

The purpose of this report is to provide a context and information regarding the use of existing Indigenous Gathering Spaces in the Richmond School District and to present a proposal to the Facilities & Building Committee to recommend for Board to approve expansion of two additional spaces across the District.

BACKGROUND

Until 2021, the Indigenous Success Team had been using a decommissioned portable at H.J. Cambie Secondary for gatherings and meetings with Indigenous students. As part of the Strategic Plan, embedded in Priority 1 - Goal 3, a key action was to *“develop an action plan regarding an Indigenous gathering place or alternative supports”*. In the Spring of 2021, a second potential gathering space was identified at R.M. Grauer Elementary. Over the course of Fall 2021, the Cambie portable was refurbished with new paint, Indigenous art, flooring and new doors. The space at Grauer was revitalized with an Indigenous carving by a Musqueam artist, new furniture and a fridge. The Indigenous Success Team regularly utilizes both spaces to meet with Indigenous students from across the District for cultural activities and other learning opportunities. The development of two spaces has been significantly valued by students and staff alike.

As part of the Equity in Action project, interviews with students identified that having a dedicated gathering space has made them feel valued and allowed them a safe and reliable space where they could connect with other Indigenous students across the District, building a larger sense of community. The relatively small population of Indigenous students across the District means that some Indigenous students feel quite isolated in their individual schools. Many friendships between Indigenous students have developed because of the opportunity to gather, and students report that regular connection with each other, the Elders and the cultural teachers with whom they meet in these spaces is very important to their wellness.

DISCUSSION

The development of two spaces, along with the dedicated refurbishment, has been identified as a key aspect of valuing and honouring Indigenous students. This group of students has in the past relied on gathering in shared or borrowed spaces that are generic meeting rooms or classrooms, spaces that are not consistent, and that are reliant on being available and not booked by other user groups. Being able to Indigenize and personalize these spaces has contributed to a feeling of belonging and of feeling valued as members of the school community. A key action, as outlined in the Strategic Plan Priority 1 - Goal 3, is to develop these dedicated spaces, and the success and benefits of the two spaces have led to consideration of additional dedicated Indigenous gathering spaces that would further provide not only additional spaces but attempt to locate them in other geographic areas across the District.

An additional opportunity that surfaced in the development of the Grauer space is the potential for its use as a teaching and learning space for staff, when not in use by students. The Indigenous Success Team and Teacher Consultants for Indigenous Learning can also utilize the space for professional learning, in line with Strategic Plan goal of *“increasing access to authentic learning opportunities and resources to enhance understanding of Indigenous Peoples' culture and history”*.

PROPOSAL

It is proposed that the District consider developing two additional Indigenous Gathering Spaces in order to ensure that students in all areas of the District have equitable access to the opportunities provided by such spaces. Requirements for these spaces include a safe and secure classroom-sized space that is

accessible and welcoming, with washroom facilities nearby, and that priority for use of the space goes to Indigenous students and their teachers. In making a determination of location, consideration would be given to geographic area, to expand to areas outside of the two locations already in place, existing available spaces such as available classrooms or unused portables, as well as consideration of costs for refurbishment.

BUDGET CONSIDERATIONS

Consideration will need to be given as to where existing available spaces may be utilized. Depending on the space available, funding would need to consider costs such as refurbishment or relocation of a portable and/or revision to a classroom space, and associated furnishings or other costs required to establish the space and meet the needs of those who would be utilizing it. Total cost to address the development of both spaces is projected to be a maximum of \$300,000, which would factor in specific costs that would come with potential move of an existing portable and the refurbishments that may be required. Costs would be reduced depending on the conditions and locations of existing spaces that would meet the required needs. It is proposed that the Board would consider allocating the funds from the Local Capital Reserve.

CONCLUSION

The revitalization of a current Indigenous gathering space and addition of a second space in the Richmond School district has been a welcomed opportunity for Indigenous students and the staff who support them. As part of growth moving forward, consideration of additional spaces that not only honour the Indigenous community and students for whom the spaces are intended but also provide opportunity for teaching and learning spaces is a unique opportunity to demonstrate commitment to reconciliation.

Jane MacMillan
Assistant Superintendent



Child Care Development Advisory Committee

May 4, 2022

Virtual Meeting via Zoom

7:00 PM

Members in Attendance: Chantelle Pereira (Chair), Karen Jensen, Jarrod Connolly, Gordon Surgeson, Kevin Ching, Tania Lam, Diana Ma, Aaron Manolo, Zolzaya Tuguldur, Rowena Raber, Jocelyn Wong, Ken Hamaguchi (Trustee Liaison), Carol Day (Council Liaison), Chris Duggan (Staff Liaison).

Regrets: William Tsai, Elana van Veen

1. Welcome, Introduction and Regrets

The Chair welcomed all committee members to the meeting.

2. Approval of the Agenda

Motion: Approval of the Agenda for May 4, 2022

CARRIED

3. Approval of the Minutes

Motion: Approval of the Minutes of April 6, 2022

CARRIED

4. Guest Speaker/Presentation

“The Current State of Richmond’s Children” with data from the Human Early Learning Partnership, UBC was presented by Chris Duggan. A copy of the presentation is attached.

5. Correspondence

None.

6. Business Arising

None.

7. New Business

a. May is Child Care Month

The Province of BC and the City of Richmond have proclaimed May as Child Care Month.

8. Reports

a. Sub-committee Reports

i. Advocacy Sub-committee

None.

ii. Child Care Month Sub-committee

- i. 2022 Child Care Symposium –As of May 3 there were 92 people registered for the Symposium. The event takes place on May 7, 2022.
- ii. 2022 Children’s Art Exhibition – Eighteen child care programs have been accepted to the exhibition for this year. The exhibition is now on display on the Community Art Wall of the Brighthouse Branch of the Richmond Public Library until May 22, 2022. A huge thank you to Tania for developing the marketing materials for this event.

iii. Child Care Grants Sub-committee

None.

b. City Reports

i. Council Liaison

Councillor Day shared three items with the Committee via email prior to the meeting. Information was shared on lawn water restrictions, Youth Week, and Emergency Preparedness Week activities in Richmond.

ii. Staff Liaison

a. New developments proposing Child Care Amenities

None.

b. Other Updates

The new Planner 1, Child Care will begin on May 30, 2022.

The opening ceremonies for Sprouts and Seedlings Early Childhood Development Hubs will take place very soon. Invitations will be sent to CCDAC members.

School District Reports

i. School Board Liaison

Richmond School District is going through the budget process for the next school year. There are no anticipated budget changes that relate to child care.

ii. Community Updates

i. Richmond Children First

Richmond Children First will meet again in June 2022.

ii. Child Care Resource and Referral (CCRR) Update

The Child Care Resource and Referral Program (CCRR) is hosting a belated open house for the Richmond Early Years Library. This was previously postponed due to COVID-19 and will take place on Saturday, May 28. The audience for the event is child care providers. The Early Years Library is seeing a significant increase in visits with 40 people visiting in March alone.

A workshop related to children and COVID-19 took place last month and the next workshop will be held on May 31, 2022 on the topic of sexual health and safety for children.

CCRR referred over 400 child care centres to over 50 parents in March alone. Referrals have increased and parents are starting to think about returning to child care. CCRR's internal referral database has been updated and will support staff when they are making referrals to parents and individuals who are looking for child care. CCRR staff have also responded to a large volume of questions about the Affordable Child Care Benefit and Fee Reduction Initiative.

9. Next Meeting

Next meeting will take place on June 1, 2022 at 7:00 pm virtually via Zoom.

10. Adjournment

The Committee Chair adjourned the meeting at 7:50 p.m. **CARRIED**

Certified a true and correct copy of the minutes of the meeting of the Child Care Development Advisory Committee of the Council of the City of Richmond held on May 4, 2022.

via email

Chantelle Pereira
Chair



Chris Duggan
Recorder

June 1, 2022

Date

June 1, 2022

Date