

DATE: February 7, 2023

TO: Board of Trustees

FROM: Darrel Robertson, Superintendent of Schools

SUBJECT: Response to Request for Information #011
Update on Operational Efficiencies 2020-2021 and 2021-2022

ORIGINATOR: Todd Burnstad, Chief Financial Officer

**RESOURCE
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REFERENCE: N/A

ISSUE

At the November 1, 2022, Board Meeting, Trustee Estabrooks requested the following information: Could Administration please provide an update to the Board of Trustees on operational efficiencies undertaken in the past year as well as other operational efficiencies being considered as a way to direct as many dollars as possible directly to the classroom?

BACKGROUND

This information report includes an update on efficiencies that have been continued from prior years, new efficiencies that were realized during the 2020-2021 and 2021-2022 school years, and other efficiencies currently being explored.

Using Integrated Project Delivery to provide Capital Maintenance Renewal Projects

Integrated Infrastructure Services (IIS) began using Integrated Project Delivery (IPD) in the 2020-2021 school year to deliver smaller Capital Maintenance Renewal (CMR) projects in a more efficient 'bundled' manner. A total of seven IPD projects have been completed or are currently being managed by IIS, including:

- In 2020-2021, two IPD projects across 28 schools involved architectural upgrades, washroom upgrades, plumbing and fixture replacement and upgrades to an automotive lab.
- An IPD project was undertaken in collaboration with the Suzuki Charter school to upgrade the mechanical system at Capilano School.
- IIS recently completed an IPD project supporting the Division's Solar For Schools initiative involving the installation of solar arrays at 12 schools.
- Currently, two IPD projects involving 23 schools are ongoing which will deliver boiler upgrades, architectural upgrades, classroom updates, siding replacement and CTS classroom upgrades.
- IPD is being used to deliver a roof replacement at the historic Old Scona school.

IPD has proven to be very successful and efficient for providing small projects to schools. By grouping a number of small projects together the team was able to gain efficiencies such as procuring materials in large quantities and developing schedules that transitioned between sites with minimal downtime.

Reducing the number of individual projects allowed IIS to focus the budget and schedule towards school projects rather than individual tender packages. These projects occurred during the peak of COVID-19 restrictions and supply chain challenges, yet remained on time and on budget due to the use of the IPD delivery method. The flexibility of IPD allowed for pre-ordering of long lead time materials or equipment, avoiding cost escalation issues. In addition, IPD teams were able to increase the scope they were able to complete without an increase to the budget; as part of the 2020-2021 project, for example, the IPD team was able to include additional lighting and painting, increased ceiling tile replacement and provided additional window blinds to a number of sites. Between the two CMR IPD projects in 2020-2021 and the two CMR IPD projects in 2021-2022, a total of \$570,000 of additional scope was provided to schools.

Trade Staff Chromebook Pilot

IIS began a pilot project to provide trade staff with Chromebooks in 2021. Since September 2021, a total of 65 trade staff have been equipped with a Chromebook and received training in the use of the Chromebook and Archibus. Chromebooks increased efficiencies for our staff in a number of ways. For example:

- Staff are able to log into Archibus to provide live updates on work and can view all work requests assigned to them. Previously, trade staff were provided with emailed copies of work requests or they had to ask to use a school's computer to log in.
- Staff are also able to access their Google accounts for more timely information exchange between the trades and their foremen.

Stores at the Distribution Centre

A 'Stores' inventory catalog was created to assist IIS trade staff with the acquisition of materials required for maintenance work completed at schools. Since the addition of this catalog, the use of competitively-procured supplies and materials inventoried at the Distribution Centre Stores by trade staff has increased by approximately 10 per cent. While trade discounts are in place through a range of storefront vendors, use of the Distribution Centre Stores ensures optimal pricing.

Distribution Centre Deliveries

In the fall of 2020, the Distribution Centre restructured and compressed the delivery routes for school deliveries from a daily to every other day service model. This change yielded a 50 per cent reduction in total kilometers driven annually and resulted in an approximate savings of \$80,000. Schools have retained access to timely mail service and resource distribution.

Print Services

During the 2021-2022 school year, the Division's centralized Print Services unit completed the implementation of the electronic online order submission system. Print Services now receives 75 per cent of all print jobs electronically through the new online system. This platform has yielded improvements in service tracking as well as the time required to process incoming print jobs, resulting in an overall reduction of one to two days in job turnaround. As an example of cost savings, a typical school converted to Enterprise print or internal Print Services today will see a 15-20 per cent reduction in their total cost of printing (including hardware, software, paper, and click-charges) over the next five years. For a small elementary school, this would translate to \$5,000 to \$6,000 in savings per year.

Energy Efficiency

Under the Division's Solar Strategy initiative, a number of solar installation projects are now complete and will begin to deliver reduced energy costs. It is estimated that completed projects will combine to generate 5,500 megawatt-hours of energy and save \$650,000 in 2023. These solar installations are expected to offset about 7.5 per cent of the Division's electricity consumption, or that of about 800 Alberta homes per year. These solar initiatives were made possible through Provincial capital funding, various grants and rebate programs.

Collaborative Transportation Service with Edmonton Catholic Schools (started 2017-2018)

In the spring of 2018, a shared transportation arrangement was pursued by Edmonton Public and Edmonton Catholic Schools to expand the number of shared bus routes and to find efficiencies. While students from each jurisdiction ride separately, the buses operating these routes are shared and the costs and efficiencies are split between the divisions.

Since 2018, the number of shared routes has varied in response to a variety of factors such as changes in yellow bus ridership and alignment of School Hours of Operation (SHOP). Currently, the divisions share 22 yellow bus routes using the shared transportation arrangement. This shared agreement is expected to result in cost savings of over \$550,000 for Edmonton Public Schools each year.

Administration continues to meet regularly to identify and implement additional shared routes.

Sale of Electronic Transit Passes

In 2021-2022, a SchoolZone interface was successfully developed and tested in collaboration with the City of Edmonton to sell electronic ETS transit passes (Arc cards) directly to Division families. Arc cards will offer students a number of benefits including:

- the ability to recover lost or stolen passes
- the option to purchase transit passes without having to visit the school office
- the continued option for students to pay for their pass in cash if they wish.

As of January 2023, the Division successfully initiated a pilot of the technology with a select group of students in two schools. Preliminary results show that the technology reduces the amount of time that Division staff require to sell and distribute ETS passes by approximately 75 per cent, allowing them to focus on other duties. The technology will be rolled out to additional schools throughout 2023.

Coordination of School Hours of Operation (annual)

Student Transportation facilitates the collection of School Hours of Operation (SHOP) from schools across the Division each year. As part of this work, the department is able to advise schools on how small changes in school hours can result in improved yellow bus service by efficiently allowing buses to visit multiple schools. In spring 2022, this work helped Student Transportation to reallocate 18 existing bus routes within the system, which represent an estimated annual savings of \$900,000. As a result, the Division was able to accommodate a 22 per cent increase in yellow bus ridership in September 2022, with only four additional bus routes while maintaining the proportion of one-way ride times under 60 minutes at 95 per cent.

Data Management Support

In 2020, Infrastructure Planning staff migrated the Student Transportation GPS Monitoring system to an ESRI ArcGIS-based application, saving the Division approximately \$30,000 annually in licensing costs.

The Division's Find-A-School-Tool on epsb.ca will be replaced with an ESRI ArcGIS-based application, providing a savings to the Division of approximately \$5,000 annually in licensing costs. Phase I is now completed and involves the replacement of the address locator service with an in-house service using ESRI ArcGIS software. The transition means improved search accuracy and less staff time in order to verify and confirm information provided in response to school and parent questions. Phase 2 will replace the public-facing map interface, which will be led by other Central units and supported by Infrastructure Planning.

Technology Evergreening Strategy (TES)

Improved logistics resulted in better coordination of deliveries and installations of TES classroom display systems, reducing disruptions to classrooms. With an automated delivery system established through the Distribution Centre in 2021, Technology and Information Management (TIM) and IIS were better able to track deliveries to schools and coordinate installations. Bi-monthly meetings between TIM and IIS installers also helped address installation issues, and developed Division standards for installation. Last year 684 displays were installed and the Division is on track to increase this number by almost 100 during the 2022-2023 school year because of this improved process.

Print audits were completed at 74 schools. Sixty-three schools have been converted to some form of Enterprise Print. The Enterprise Print process, like the system used at the Centre for Education, is currently being deployed to schools as we replace end-of-life copiers and stand-alone printers with higher-efficiency print devices and print management software. The benefits of Enterprise Print include reducing excess print jobs, improving security of printed documents, and reducing the cost-per-page printed. For example, a typical school converted to Enterprise print today will see a 15 to 20 per cent reduction in their total cost of printing (including hardware, software, paper, and click-charges) over the next five years. For a small elementary school, this would translate to \$5,000 to \$6,000 in savings per year.

Residual Value for Recycled Electronics

In 2021-2022, the Division sent 165,962 pounds of electronics (15,071 items) for recycling by CSI EPC that generated over \$137,000 of revenue which was used to purchase assistive technology for the Alternative Access Initiative and support the installation costs of TES display systems in our schools.

Note: The contract with CSI EPC expired on January 21, 2023, and was not renewed by the vendor. The new vendor will charge a cost-for-service resulting in a net cost to the Division for our electronics recycling (to be covered by the TES budget).

Online Registrations Enhancements

ORCA (Online Registration Collection and Administration) was launched in February 2021, in response to the need for an online registration form. The process allowed parents to digitally submit their child's registration but required school staff to re-type the information into PowerSchool.

In February 2022, an enhancement was introduced that allowed school staff to transfer nearly all of the registration information from ORCA directly into PowerSchool. This process is quicker and reduces errors that can occur when re-typing information. Between February and August, over 9,100 registrations were processed in this new way.

Google Cache for Schools

A new technology was introduced at each of our schools in the 2021-2022 school year which allowed for Google update data to be cached at the school. Chromebooks regularly receive automatic updates in order to keep up with security and feature releases. In the past, each of the 60,000+ Chromebooks would attempt to download this update directly from Google and the impact on the school's network performance was significant and often delayed many Chromebook critical updates. The new caching devices in schools download one copy of the update and distribute it to all Chromebook at that school. This has resulted in avoiding costly internet bandwidth upgrades at schools while keeping Chromebooks up to date.

In the 2020-2021 school year, a similar solution was deployed for Apple devices which met similar success. In fact, these devices allowed "bring your own devices" to also obtain regular Apple updates from the caching device vs. downloading. This also helped reduce the load on the school's internet when Apple released a new update.

Centralized Response to Alberta Education Audits

Central staff in TIM now respond to Alberta Education audits on behalf of schools and will only involve school staff if necessary. This reduces the administrative workload and stress on schools.

We continue to work with Alberta Education to clarify and understand the documentation requirements in order to minimize the workload at schools and the impact on families.

School Technical Support Using "Micro Teams"

Beginning in 2021-2022, a team approach to onsite technical support was created to provide better coverage for schools and support technical staff collaboration. Each school has a "micro team" composed of a primary support technician and two to three other technicians. All technicians work to get to know the staff and location so that in the event the primary person is unavailable, any of the other team members could easily provide coverage and support. The move to micro teams also allowed for a team approach to addressing schools where the most outstanding support tickets are while allowing the school technicians more flexibility versus a fixed schedule. The result has been reduced service request wait times.

Coordination of Online Schooling

In both 2020-2021 and 2021-2022, Student Information and Programming Services along with Human Resources, Teacher Staffing, built and refined the process which allowed parents to choose the mode of learning each quarter of those school years, created and staffed timetables for online students, and facilitated communications. A great example of an iterative process, this team critically examined the process each quarter then built automated structures and refined processes to make each subsequent quarter significantly more efficient. They also took the thousands of students whose parents selected online learning and scheduled them into their chosen classes using processes similar to those used to schedule other Division schools. The scale of this endeavor was significant as this cohort of online students in Edmonton Public Schools, taken separately, would have comprised the fifth largest school division in Alberta.

Cyber Security Services

The deployment of Microsoft Defender in the 2021-2022 school year prevented hundreds of malware attacks automatically and flagged advanced threats, such as ransomware, for the cyber incident

response team. The Division's Microsoft Secure Score, which originally was below average, is now substantially over the industry average for organizations our size.

Online Timesheets

The Division implemented a pilot of online timesheets in several central areas. This pilot reduced duplicate entry of time information into our time reporting system and has resulted in time savings for the team members involved in this work. It has also reduced paper and printing. The pilot has expanded to other central areas and a representative sample of schools will be added to the pilot early in 2023. Based on the feedback from central decision units and schools, a decision will be made regarding a broader rollout for the 2023-2024 school year.

Professional Learning (PL)

In addition to the PL offered in a typical school year, the Division continued its focus on the development and delivery of PL related to the online learning environment for the 2020-2021 school year. To support staff learning in a COVID-19-safe manner, the delivery of PL was transitioned to engaging, meaningful online learning formats, both synchronous and asynchronous.

Over 95 per cent of professional learning delivered centrally was offered online in 2021-2022, either through Google Meet or as self-paced learning. This flexibility enabled a greater number of staff to access these opportunities. One hundred per cent of Leadership Development professional learning was delivered in an online learning environment in 2021-2022 where 93 per cent of participants indicated they were satisfied with the sessions.

School Generated Funds Financial System Review

Financial Services is in the process of stakeholder engagement with users of the Fee Management System (FMS) and School Generated Funds financial systems. FMS is an application designed and developed by TIM over 30 years ago to manage school fees. The COVID-19 pandemic, technological advances, changing legislation and regulation, as well as evolving e-commerce solutions have necessitated changes in how financial transactions are conducted in schools.

Stakeholder engagement will serve to inform what processes and systems would need to change in order to eliminate or reduce manual processes and increase fee payments. This may be by way of rebuilding the existing application or procuring a solution from an external service provider.

Banking

The Division awarded Scotiabank the contract as its primary financial institution in December 2021. The contract was awarded partially due to the successful pilot of 13 schools on the Division's ScotiaConnect platform. Having school bank accounts under the ownership of the Division permits Financial Services to represent and support school staff with their banking concerns as well as creating efficiency and oversight in managing school funds. As of August 31, 2022, 53 schools were under the Division's ScotiaConnect platform.

Scotiabank has been the Division's primary financial institution for approximately 40 years and their services continue to be a good fit for the Division with costs and interest rates that no other financial institution could match. Board Policy, CO.BP, Fiscal Oversight and Accountability, was updated in May 2022, including revising the requirement of having to "review the current financial institution appointed as the Division's primary financial institution" every five years rather than embarking on a full request

for proposal process, which is time-consuming for the Division as well as each financial institution participating in the process.

Contracts

In an effort to streamline the procurement process and increase compliance to the Division's trade agreement obligation, Procurement and Contract Services has been diligently working for the past two years to establish long term contracts. There are currently over 30 standing offer contracts in place including furniture, library services, grounds services and sensory equipment to name a few.

Having established contracts in place significantly reduces the time and resources required for schools and decision units to procure goods and services as they can proceed directly with the purchase. Established contracts reduce the risk to the Division as there is an agreement governing expectations and liability with properly vetted vendors. This in turn will reduce the time and resources needed to manage any issues that arise.

The Provision of Instructional Support Services to Alberta Education, School Jurisdictions and Organizations

Division departments continue to provide supports to Alberta Education, school jurisdictions and organizations, either through partnership agreements or informal collaboration, enabling access to professional learning services and events or contracted services.

Learning Supports provides professional development and resource supports, including:

- Contracted services to Edmonton Regional Learning Consortia for workshop presentations.
- Collaborative development and/or use of resources such as Highest Level of Achievement Tests (HLAT) with other school jurisdictions.

To help support continuity of learning in 2020-2021, a school year that was anticipated to have multiple points of transition, Learning Supports created over 9,250 resources that supported a cohesive and coordinated approach to teaching, assessment and reporting practices across the Division including teacher support packs, developed for Grades K-9 across the four core subject areas. Each teacher support pack included sample lesson sequences, student activities, video supports, assessment materials, home supports packs, etc.

- Teacher Support Packs were shared with 40 other school divisions across Alberta during the 2020-2021 school year and 22 school divisions during the 2021-2022 school year.
- During the 2020-2021 school year, the Division also collaborated with two other divisions to support the development of French Immersion Teacher Support Packs.

Infrastructure Planning

Infrastructure Planning provides educational facility and capital planning support to school jurisdictions through contracted services. Revenue generated through the provision of contract services helps to ensure that the Division's professional capacity is retained and supported.

- A School Attendance Area review for schools in Spruce Grove and Stony Plain was completed over the 2022 calendar year, on behalf of the Parkland School Division.
- Planning staff have recently initiated a Leduc Accommodation Study to provide analysis and recommendations to the Black Gold School Division related to school grade configurations and attendance areas, precipitated by the upcoming opening of a new high school in September 2024.

KEY POINTS

As noted above, Edmonton Public Schools continues to collaborate with other school divisions, organizations and working committees. This collaboration not only maximizes provincial education funds, but also creates efficiencies resulting in cost savings and the ability to provide better supports and services for all students in the province of Alberta.

TB:jrm