WILD ROSE SCHOOL DIVISION

2020-2023

THREE YEAR CAPITAL PLAN

Improving Life Chances

TABLE OF CONTENTS

Executive Summary

Wild Rose School Division (WRSD) is a division with 14 school facilities that range from those built in the 1950's to schools requiring modernization to fit the needs of current educational programming. There are a number of schools located throughout our large geographical region that are in need of modernizing, right sizing or replacing.

WRSD continues to partner with the respective communities, counties, towns and the Government of Alberta to meet our goal of ensuring all of our students continue to receive an excellent education in modern school facilities that support 21st century learning and program delivery.

Each year school boards assess their school capital requirements and prioritize proposed projects based on defined priorities. These projects are identified in a Three Year Capital Plan that must be approved by the Board and submitted to Alberta Education annually by April 1. The plan must be developed in accordance with Alberta Education's project drivers - Health & Safety, Building Condition, Enrolment Pressures, Functionality & Programming and Legal.

Wild Rose School Division's Three Year Capital Plan submission includes the following priorities:

Priority 1 - Corridor Schools: Modernize Condor, New Leslieville High School, and close David Thompson High School

Priority 2 - HW Pickup School Slab on Grade Movement

Priority 3 - Right-size Breton Schools

Priority 4 - Frank Maddock High School: CTS Reconfiguration & Modernization

2020-23 Capital Budget Priorities

Priority 1 Corridor Schools

The following projects comprise Priority 1:

- **A full modernization of Condor School facility to accommodate grades K-6**
- **A replacement to the Leslieville School, to accommodate grades 7-12 and**
- **Addressing the liability regarding the decommission and remediation of the existing sewage lagoon at David Thompson High School (DTHS) allowing it to be closed by December 31st, 2021**

Student Enrolment				
	2016-17	**2017-18**	**2018-19**	**2019-20 Projected**
Condor	176	172	168	159
Leslieville	129	122	128	118
David Thompson	184	195	174	179

Information

The David Thompson High School (DTHS) modernization project was approved in October 2015. The plan was to modernize the school and focus on modernizing deficiencies.

During the design phase, it was discovered that due to the related building codes from Alberta Municipal Affairs, the existing sewage lagoon would need to be remediated and significantly expanded to accommodate for the occupancy of the building and meet current codes. The DTHS sewage lagoon remediation and replacement was not initially part of the original Value Management Session, which took place in December 2014, nor subsequent approval for the DTHS Modernization. Due to these challenges, Alberta Education granted an extension to the project design phase, to allow the school division to explore a long-term sewage lagoon solution. As a result of all long term options coming in as either unrealistic (due to various approvals or additional funding), Alberta Education requested additional options from WRSD focusing on what a replacement solution would look like in the Condor and Leslieville area.

Challenges

During the design phase of the modernization it was discovered that due to the related building codes from Alberta Municipal Affairs, the existing sewage lagoon would need to be remediated and significantly expanded to accommodate the occupancy of the building and meet current codes.

Overall, the financial realities from Clearwater County and WRSD contributed to the difficulties in replacing the current sewage lagoon. The question of whether or not additional funding should be applied to DTHS modernization was considered due to the age, condition and location of the facility.

Additional Challenges

The utilization rates in the 3 schools referred to as the Corridor Schools (Leslieville, Condor, and DTHS) are an average of 59 percent. This means that there is significant room for capacity improvements within the three schools and additional options should be considered to address this issue.

DTHS is next to Highway 11, which is a very busy highway with commercial and local traffic that sees increases in traffic annually. Due to the school being next to this highway, there have been frequent accidents next to, and near DTHS. The current scope of the modernization did not address these issues and this would have continued to be a significant hazard until a permanent solution was implemented. Traffic on this highway must slow down to 30 km/h during school zone times, further complicating traffic and safety.

WRSD continues to see transportation challenges within the corridor area and the three schools. These transportation challenges are resulting in significant ride times by most of our bussed students. Parent pickup and dropoff is also an issue due to the limited parking spaces at all of the three schools. The three rural schools are a 10 to 15 minute drive from each other, placing these schools in relatively close proximity. Furthermore, the majority of the students attending DTHS come from the surrounding areas near the communities of Leslieville and Condor.

Challenges with the school buildings

- The Leslieville School site has utilities running through the open lot behind the existing school. Placing a replacement school on this site would require that the Clearwater County relocate (or formally agree to relocate) these utilities ahead of the project being approved.
- The capacity of the existing sewer lagoons on the Condor Elementary site is restricted to 300 students plus administration.

As a result of the above mentioned challenges, resulting in a significant liability, Alberta Education requested WRSD propose alternative options that would result in high school programming (Grades 7-12) still being offered in the corridor area and reallocation of modernization funding dollars. The Division proposed to relocate all of the Kindergarten - Grade 12 students in the corridor region to the Condor and Leslieville schools. In specific:

- DTHS is demolished and remediated;
- The remaining approved modernization dollars re-allocated towards minor changes to Condor Elementary School (relocation of modular classroom units); and

- Modernization of Leslieville Elementary School to accommodate a high school program.

On February 9, 2018, the Division received a letter from Alberta Education acknowledging the Division's challenges regarding the current DTHS modernization project. The Ministry also expressed support for the above-mentioned plan.

Value Management Study

On February 23, 2018, Alberta Education informed the Division that they would be receiving a value management session on April 19 and 20, 2018. The purpose of this value management was to determine the best long term option for our schools in Leslieville and Condor such that they will be able to accommodate the programming needs for all Kindergarten to Grade 12 students in the Corridor. The study was to focus on concerns, functionality and programming priorities for the project.

WRSD recognizes that Condor Elementary and Leslieville Elementary facilities has considerable functional constraints with a layout that does not meet 21st Century pedagogy and building condition concerns. The facilities have high operating costs and are expensive to maintain. Right-sizing and modernizing the facilities from three schools to two schools will alleviate the financial burden of operating and maintaining three aged and oversized facilities and create facilities that meet program needs.

In April 2018, a comprehensive Value Management Study was conducted with Alberta Infrastructure, Alberta Education, WRSD and Cornerstone PMP Inc ("the Project Team"). The primary goal of the study was to fully explore a value comparison and determine the Division's optimal opportunity for programming and providing access to elementary and high school facilities that meets the needs of the school, the students, the community and the jurisdiction in Condor and Leslieville. The objective was to determine the best value solution for the Condor and Leslieville communities as a whole.

Four options

The Project Team chose four options for providing school facilities in Condor and Leslieville:

- Baseline: Modernize Condor K-6 to 300 Capacity and Modernize Leslieville 7-12 to 250 Capacity.
- Option 1: Modernize Condor K-6 to 300 Capacity (Capital Manual GFA) and Modernize Leslieville 7-12 to 250 Capacity
- Option 2: Replacement Schools Condor K-6 to 300 Capacity and Leslieville 7-12 to 250 Capacity
- Option 3: Modernize Condor K-6 to 300 Capacity (Capital Manual GFA) and Replace Leslieville 7-12 to 250 Capacity

The Project Team then applied a number of analytical techniques to analyze the Value Improvement of each Value Alternative compared against the Baseline. A major component of

this analysis was Value Metrics which seeks to assess the elements of cost, performance, time, and risk as they relate to project value. These elements required a deeper level of analysis.

Five Performance Attributes were defined by the Project Team that they feel are essential to meeting the overall need and purpose of the project. These were:

1. Program Compatibility
2. Building Organization
3. Site Organization
4. Construction Phasing
5. Operation and Maintenance

The recommendation from the study was for Option 1, followed equally by Option 2 and 3.

Solution

As a result of the Value study's findings, WRSD re-evaluated its educational programming needs for the Corridor students and has determined the **best long term solution would be a modernization of Condor (Kindergarten to Grade 6) and a replacement school at Leslieville (Grades 7 to 12).** This option was recommended in the Value Management Study, provided that the utility forcemain at Leslieville could be moved and that the sewage lagoon at Condor could handle increased capacity. The Division has since received written commitment from Clearwater County that they will provide the necessary funds to relocate the utility forecemain in Leslieville and upgrade the sewage lagoon in Condor.

By the Government approving this solution, it ensures a more efficient use of public funds and a higher utilization rate as the Division is moving from three schools to two. The average utilization rate would increase from 59 percent to 96 percent. It also demonstrates the Government's commitment and leadership to environmental stewardship, as the Division would be complying with the closure of DTHS and remediation of the site. Under this plan, the Government and the Division would together be acting proactively by proceeding with a long term solution.

This plan would also ensure that all students in the area would be accommodated in Condor and Leslieville, thereby, strengthening both communities of Condor and Leslieville as a whole. It would also greatly improve the safety of our students since DTHS is on a major highway. In addition to solving the schools deficiencies, this solution would ensure both schools are able to provide 21st century learning for local students.

In addition, this solution would result in efficiencies being realized in all aspects of WRSD's operations, including education, information technology, maintenance and transportation.

- Education: Combining 2 elementary schools into one building has three main educational advantages:

    - Collaboration among teachers - In a smaller school there is only one teacher at each grade level. Having a partner to work with increases collaboration and helps teachers grow together to provide strong instruction. Teachers are less isolated and part of a team.
    - Resources can be concentrated - Instead of having to purchase literacy kits, math manipulatives, science and PE equipment for two locations, resources can be pooled and shared more effectively in one building. Attempting to fully resource two very small schools is expensive and inefficient.
    - Learning Commons - Currently there are two small learning commons spaces that the schools struggle to staff and stock. Aligning the resources and the staffing together provides a more robust effective space for the students in the corridor area.
- Maintenance and Facilities
    - Efficiencies will be created resulting in costs savings. Reduction in caretaking, utility reductions, reduction in routine/preventative maintenance.
    - Savings in the maintenance upkeep and snow removal due to reducing to two parking lots in the Corridor area. Furthermore there will be savings to the grounds maintenance.
- Technology
    - Savings coming from wireless access points, network switches, supernet, security cameras, servers, school software systems, and digital classroom technologies.
- Transportation
    - Potential reduction of bus routes in the Corridor area
    - Lower ride time savings due to the shuttling from three schools to two schools. However, some of these benefits will be offset by increases in a few of the bus route ride times, due to instead of having two elementary schools there will only be one.
    - Significant increase in safety for our school buses, students and community, as a result of not having a school adjacent to a major highway.

Future enrolments are anticipated to stay consistent into the near future. These projections only account for current family statistics and does not account for increases in the corridor area populations.

Risk of Project not being Approved

With the letter from Alberta Municipal Affairs, to close DTHS by 2021, it is essential that the capital project receive approval. Without a proper high school it would be near impossible to offer quality educational programming to the students in the community. For example, the Division would have to offer less desirable CTS options such as travel and tourism which would negatively affect student enrolment and may result in students moving to adjacent school divisions.

Recent events

- On September 6, 2018, WRSD wrote a letter to the Minister of Education, to advise him of Board's top priority capital project proposal for the David Thompson High School Corridor solution.
- The Corridor community has also shown an interest in partnering with WRSD and Clearwater County to enhance the schools projects. A fundraising committee - Friends of the Corridor - has been established.
- On February 28, 2019 the Division was informed that Clearwater County Council has approved a motion to match any dollars raised by the Friends of the Corridor fundraising group. These dollars are for the enhancement of the Condor School modernization and replacement school at Leslieville.

Priority 2 HW Pickup School

Fix the Slab on Grade Movement at HW Pickup School

Student Enrolment				
	2016-17	**2017-18**	**2018-19**	**2019-20 Projected**
HW Pickup	412	544	556	517

*Grades were re-configured with the closure of Evergreen Elementary school

Information

HWP Pickup is a middle school in Drayton Valley, Alberta. Construction of HW Pickup school began in approximately 2008 and was complete in Summer 2010. The 4,250 m2 school features aluminum curtain wall and metal cladding on a traditional steel frame and grade beam structure. Special features include telescoping bleachers in the gymnasium and modular classrooms. It is a single-story building supported on concrete pile foundations. The main floor has a concrete slab-on-grade.

Since construction was complete on the facility, WRSD has found evidence of the building shifting. In particular, the building began showing signs of upward movement and heaving. A geotechnical report indicated the presence of near surface high plastic clay in the underlying soil (that has a very high potential for swelling / shrinkage when subject to a change in moisture content) at the site. A recent geotechnical investigation confirmed the presence of high plastic clay and provided evidence that the heave of the main floor slab was a result of expansion of the clay due to change in moisture content.

Inspections of the building to observe, monitor and assess the structural distress caused by the heaving have been conducted annually since 2012. This yearly monitoring has included expert support and advice from Alberta Education, Alberta Infrastructure, Clifton Associates (geotechnical firm) and a structural engineer from BEI Engineering Inc. The Division reported its concerns with the facility to Alberta Infrastructure. They concluded that due to the nature of the design of the structure at this site, it is probable that significant maintenance expense will be required throughout the life of the building.

On March 6, 2019, representatives from Alberta Education, Alberta Infrastructure, BEI Engineering (2000) Inc. and WRSD met at HW Pickup School to view the impacts of the shifting slab to the school structure and discuss next steps. At this meeting, WRSD was advised by BEI Engineering to take the following short-term remediation measures (as soon as possible) to mitigate further damage to the structure and ensure its safety and integrity.

- All partitions that either line up under or intersect with roof structural members above need to be opened up for visual inspection to determine if there is adequate clearance between the underside of the structural members and the top of the partition. Partitions that are pushing up on the roof structural members need to be cut down appropriately. The cost of this work was estimated at $300,000. WRSD was advised by Alberta Education to fund this with their 2018-19 IMR allocation.
- The original structural design calls for placement of a crushable void form below the grade beams to relieve heave pressure from the underlying soil. It is likely that heave of the underlying high plastic clay has crushed this void form and is now pushing up on the grade beams. A few excavations should be carried out on the exterior perimeter of the building to investigate the condition of the void form under the grade beams.
- WRSD indicated that the roof drainage lines and water supply lines under the main floor slab had been investigated and no leaks were found. However, the sanitary sewer lines have not been investigated. It was recommended that the integrity of the sanitary sewer lines also be investigated.

The above-mentioned measures are only short term in order to ensure the ongoing safe use of the building. These short term measures will not repair the underlying cause of the shifting slab. WRSD has been advised that the slab will need to be fixed in order for the school to continue to operate.

In the short term, the remediation measures may be viewed as more cost effective. However, the fixes are not permanent. Over the next few years, additional (likely more costly) fixes will be required. The long term solution is an upfront large cash outlay but over time the required short term fixes will equate to the same amount. It is important to consider the current vs future financial impact when making a decision on this project.

Challenges
The school is a new building - a little over 10 years old. Additional testing, reviews and analysis would be required to ensure the site is sound. Modifications to the interior design/construction of the building may also be considered.

Solution
The solution would be to **fix the slab on grade movement**. This would involve temporarily closing the building to remove all interior concrete slabs, excavate soil under the slabs to a predetermined depth and install a structural slab with void form. This process will require the removal and reconstruction of all interior, slab supported walls. Alternatively, a replacement building would be required.

Accomodations for the students and staff and possible grade re-configurations are being reviewed by the Division's senior staff in anticipation of closing the school building. With Evergreen school currently under construction and expected to be complete in January 2021, the Division will require Evergreen to be built to capacity - which includes the additional modulars to accommodate students and staff. The surplus space at Eldorado School will also be required for further accommodation.

Risk of Project not being Approved
The slab upward movement and heaving will continue.

The Division will require additional funds from Alberta Education in order to continue with other short term remediation solutions. Remediation costs may be significantly higher and areas of the school may become non-functional or non-occupiable. Eventually the funds spent on short term solutions will equal the cost of fixing the slab on grade movement.

Priority 3 Right-size Breton Schools

Right-size Breton Schools

- **Close Breton Elementary**
- **Full modernization of Breton High School**
- **Reconfigure Breton High School into a Kindergarten to Grade -12**

Student Enrolment				
	2016-17	**2017-18**	**2018-19**	**2019-20 Projected**
Breton Elementary	169	175	176	169
Breton High School	125	130	151	142

Information

As per the 2017-18 ACU report, Breton High School is 34 percent utilized. Reconfiguring the high school into a K-12 school would increase the student population in the building and improve the utilization rate significantly - to approximately 79 percent.

To accommodate a Kindergarten to grade 12 school, a modernization of the current building would be required. This would include replacing aged mechanical systems, oversized and inefficient boilers, and obsolete heating pumps which are difficult to obtain parts. It would also involve replacing air handling units, the pneumatic controls system and the fire alarm system. In addition, larger, oversized classrooms would be reconfigured to increase the number of classrooms to accommodate elementary educational programming. The current CTS space would be also reconfigured to develop a cosmetology lab and an art room. The theater/music room would be reconfigured to utilize the space more efficiently and finally, LED lighting would be installed throughout the entire building. In late 2018, the roof of the building was replaced.

Breton High School is a grade 7 to 12 facility located in Breton, Alberta. The original 1956 structure was demolished (date is unknown). All sections of this facility have masonry exterior and interior walls. A single storey school was constructed in 1959 (1,443.2 m2). Then, 3 single storey additions were constructed, the 1965 (989.3 m2), 1968 (611.8 m2) and a 1991 addition (1,263.7 m2). Also, this facility was modernized in 1991. The total building area is 4,308.0 m2.

Breton Elementary School is a Kindergarten to Grade 6 school located in Breton, Alberta. The original split level school was built in 1952 (531.7 m2) as phase one with phase two phase commencing immediately at completion of the 1952 structure in 1953 (702 m2). Two additions followed,1966 was a (557.4 m2) single storey addition constructed to the north of the original school and the other in 1981 also a single storey addition (973.0 m2). All sections have masonry exterior and interior walls. Modifications and renovations were undertaken in 1995 and in 2004.

The total gross area of the building is 2,764.1 m2.

It would be very costly to convert the existing elementary building into a high school. The current gym would not provide sufficient space for high school programming and there is no optimal space to develop CTS labs. In addition, the heating and ventilation equipment in the 1952 section of the building, and the plumbing system and fixtures in the 1966 and 1981 sections are at, or approaching the end of their useful life. The 1966 and 1981 sections also require new windows. Lastly, areas of the 1952 section do not have proper weeping tile which has resulted in several basement leaks in the past.

Risk of Project not being Approved
Breton High School will remain significantly underutilized. Plant Operation and Maintenance funding will continue to be used to maintain two large facilities and efficiencies will not be realized.

Priority 4 Frank Maddock High School CTS Reconfiguration & Modernization

Student Enrolment				
	2016-17	**2017-18**	**2018-19**	**2019-20 Projected**
Frank Maddock	424	537	525	492

*Grades were re-configured with the closure of Evergreen Elementary school

Information

Frank Maddock High School is a grade 9 to 12 school located in Drayton Valley, Alberta. The 1971 original building with 4,311.00 m2. is one storey with a mezzanine. It has non-combustible construction with sprinklers. The 1977 addition with 1,327.00 m2 is one storey and has 2 portions (1977-North addition and 1977-South addition). It has non-combustible construction with sprinklers.The 1982 addition with 1,941.00 m2 is one storey with mezzanines. It has non-combustible construction. The 1998 addition with 1,075.00 m2 has a walkout basement, main floor and a mezzanine. It has combustible construction. The total area is 8,654.00 m2. A major modernization was done in 2000 to the 1971 original building and 1977 addition.

The current configuration of the building does not meet Alberta Education/ Infrastructure guidelines as the industrial CTS areas are oversized for the capacity and student population while the foods program has a waiting list of approximately 10 to 20 students per semester due to limited lab and classroom space. The gym is undersized and there is a need for additional physical activity space in order to provide all the educational programming requirements. In addition, the slab along the West side of the school and the exterior envelope requires maintenance.

The existing CTS spaces would be redeveloped to accommodate foods programming and cosmetology. The spaces would also be reconfigured to allow for additional classroom space. In particular, the cosmetology space would be relocated from its current location among the regular classrooms to the shop area and the foods classroom would also be moved to the shop area. This project would maximize value and increase the usage of our existing space. The current foods and cosmetology spaces would then be reconfigured to classrooms. The cosmetology room is over sized for a regular classroom but with the addition of a movable partition, it would provide more flexibility. The existing foods and cosmetology classrooms are located in the main area of the school and would fit well into the existing programming.

Risk of Project not being Approved

The opportunity to provide enhanced educational programming for CTS courses will be limited. A student wait list for certain courses will remain.