

Concept Development Study
Hanna Primary School / J.C. Charyk School
Prairie Land Regional Division #25
February 2012



EXECUTIVE SUMMARY

In 2001, due to decreasing student enrolment projections, the Workun Garrick Partnership prepared a study for the Prairieland School Division No. 25 to show the following school scenarios in Hanna, Alberta:

- a) Maintain "status quo" at Hanna Primary School. Renovate existing facility to accommodate current school capacity and address physical deficiencies identified in the facility audit conducted in 1999.
- b) Demolish the original 1928 school section of the Hanna Primary School. Modernization of 1958 and 1964 school sections to accommodate current and projected student enrolment figures. Construct 250 square metre addition to accommodate expanded Administration spaces and new Student Gather / Main Entry space.
- c) Demolish and replace the existing Hanna Primary school with a new 1650 square metre Grade K-3 school.
- d) Relocate Hanna Primary School students to nearby J.C. Charyk School. Construct 800 square metre addition at J.C. Charyk School to accommodate increased student enrolment. Abandon, demolish, lease or sell existing Hanna Primary School facility.

In the decade between 2001 and 2011, the student enrolment has decreased more than the 2001 projections. In 2011, there is a surplus of student space for both Hanna Primary School (which is currently 50.4% utilized) and J.C. Charyk School (which is currently 44.7% utilized). Furthermore, Hanna Primary School is in very poor physical condition and requires extensive modifications to bring the facility to current 2006 Alberta Building Code standards.

In 2011, the Workun Garrick Partnership was once again retained to review the current enrolment demographics, review the existing Hanna Primary and J.C. Charyk Schools, and prepare a study to present the following four options for evaluation:

- i. Demolish the original 1928 school section of the Hanna Primary School. Modernization of 1958 and 1964 school sections to accommodate current and projected student enrolment figures. Construct 250 square metre addition to accommodate expanded Administration spaces and new Student Gathering / Main Entry space.
Estimated Capital Cost **\$ 5,605,870.00**
- ii. Relocate Hanna Primary School students to nearby J.C. Charyk School. Modify existing J.C. Charyk facility to suit the spatial needs of the new students. Abandon, demolish, lease or sell existing Hanna Primary School facility.
Estimated Capital Cost **\$ 1,619,425.00**

- iii. Relocate Hanna Primary School students to nearby J.C. Charyk School. Fully modernize all existing spaces at existing J.C. Charyk facility to suit the spatial needs of the new students, and upgrade facility to meet “new” standards. Abandon, demolish, lease or sell existing Hanna Primary School facility.
Estimated Capital Cost *\$14,346,670.00*

- iv. Relocate Hanna Primary School students to nearby J.C. Charyk School. Modify existing J.C. Charyk facility to suit the special needs of new students, and modernize the original 1967 portion of the J.C. Charyk School. Abandon, demolish, lease or sell existing Hanna Primary School facility.
Estimated Capital Cost *\$ 8,221,505.00*

- v. Demolish the original 1928 school section of the Hanna Primary School. Modernization of the 1958 and 1964 school sections to accommodate current and projected student enrolment figures. Construct 250 square metre addition to accommodate expanded Administration spaces and new Student Gathering / Main Entry space. Demolish portions of J.C. Charyk School (1967 construction). Modify and modernize the remaining 1967 portion of J.C. Charyk School to accommodate Grades 4 to 12.
Estimated Capital Cost *\$12,028,335.00*

1.0 INTRODUCTION, BACKGROUND AND ACKNOWLEDGEMENTS

1.1 Introduction

The educational needs of students in the town of Hanna are currently served by two schools: Hanna Primary School and J.C. Charyk School. Due to a sagging economy, the population and student base throughout the region has decreased in recent years. Currently all Prairie Land school facilities experience low utilization figures. Six year projections indicate a moderate increase of grade K-3 students at Hanna Primary School which already maintains low (50.4%) utilization statistics. However, similar projections indicate a stabilized grade 4-12 student population at J.C. Charyk School which is currently 44.7% occupied.

1.2 Background Information

Pertinent (2011) information regarding the two school facilities in the Town of Hanna includes:

Hanna Primary School:		J.C. Charyk School:	
Grades:	K-3	Grades:	4-12
Net Capacity:	433 permanent +	Net Capacity	834 permanent
Gross Area:	3,735.75 m ²	Actual Gross Area:	8,081.5 m ²
Adjusted Gross Area:	2,321.35	Adjusted Gross Area:	7,374.5 m ² **
(utilization % based on adjusted gross area)		(utilization % based on adjusted area)	
Construction Year:	1928 *	Construction Year:	1967
Additions:	1958, 1964, 1982	Additions:	1993
2011 Enrolment:	146	2011 Enrolment:	373
Current Utilization:	50.4%	Current Utilization:	44.7%
2017 Enrolment:	178	2017 Enrolment:	366
2017 Utilization:	70.6%	2017 Utilization:	43.9%

Note: Utilization calculations based on School Capital Manual, January, 2012, and adjusted gross area.

+ Based on gross area. Net capacity based on Adjusted Gross Area = 252

* 1928 portion (1,414.40 m²) is no longer in use.

** Subtracted oversized, existing corridor areas (707 m²) to allow for a realistic utilization %.

1.3 Sub-Studies

This analysis explores four possible scenarios for accommodating the Grade K-3 student population in the Hanna catchment:

- i. **Sub-study 1** reviews the capital requirements to “right size” Hanna Primary School to meet current and projected enrolment figures. The intent of this sub-study is to:
 - determine required spatial needs to accommodate projected utilization statistics.
 - evaluate associated capital costs associated with building “right size” modifications.

- ii. **Sub-study 2** reviews the feasibility of abandoning the Hanna Primary School and relocating the Primary School students to the J.C. Charyk School. Modify the existing J.C. Charyk School to accommodate the spatial needs of grades K-12. The intent of this sub-study is to:
 - determine the required spatial needs to accommodate the projected utilization statistics.
 - determine modernization requirements necessary to accommodate the new added K-3 students and staff.
 - address the current functional deficiencies at J.C. Charyk School.
 - evaluate associated capital costs to accommodate J.C. Charyk modifications.

- iii. **Sub-study 3** reviews the feasibility of relocating the Hanna Primary School students to the J.C. Charyk School and modernizing the existing J.C. Charyk School into a

- new Grade K-12 facility. Abandon, demolish, lease or sell the existing Hanna Primary School facility. The intent of this sub-study is to:
- determine the required spatial needs to accommodate the projected utilization statistics.
 - fully modernize all existing spaces in J.C. Charyk School.
 - evaluate the associated costs to modernize the entire J.C. Charyk School facility.
- iv. **Sub-study 4** reviews the feasibility of relocating the Hanna Primary School students to the J.C. Charyk School and modernizing the existing original 1967 J.C. Charyk School into a new Grade K-12 facility. Abandon, demolish, lease or sell the existing Hanna Primary School facility. The intent of this sub-study is to:
- determine the required spatial needs to accommodate the projected utilization statistics.
 - modernize all existing spaces in the original 1967 J.C. Charyk School and minor areas of the 1993 addition.
 - evaluate the associated costs to modernize the designated areas of J.C. Charyk School facility (refer to Main Floor Plan – Sub-Study 4).
- v. **Sub-study 5** reviews the capital requirements to “right size” Hanna Primary School as per sub-study 1 and to “right size” J.C. Charyk School. The intent of this sub-study is to:
- determine the required spatial needs to accommodate the projected utilization statistics for Hanna Primary School and J.C. Charyk School.
 - evaluate the associated capital costs associated with building “right size” modifications for Hanna Primary School and J.C. Charyk School.

2.0 SUB-STUDY 1 – “Right Size” Hanna Primary School to Meet Current and Projected Enrolment Figures

The intent of Sub-study 1 is to:

- review projected utilization statistics;
- determine spatial requirements to accommodate projected figures;
- propose building reduction design option to accommodate reduced student capacity;
- evaluate capital costs to accommodate building “right size” modifications.

2.1 Enrolment Projections

The enrolment projections for Hanna Primary School for the next six years are as per the following chart.

YEAR	ECS	GRADE 1	GRADE 2	GRADE 3	TOTAL
2011	39	39	31	37	146
2012	54	39	39	31	163
2013	49	54	39	39	181
2014	43	49	54	39	185
2015	52	43	49	54	198
2016	37	52	43	49	181
2017	46	37	52	43	178

As indicated by the above enrolment projections, Hanna Primary School shows a moderate increase in student enrolments between 2011 and 2017.

2.2 Building Utilization

For the purpose of this sub-study, the building utilization rate is calculated by dividing the total adjusted enrolment of the school by the net capacity. Therefore, as of September, 2011, Hanna Primary School is being utilized at 50.4% (127 / 252) and while all spaces in the school are currently being used, the school is larger than it needs to be.

Alberta Infrastructure considers a building to be “full” when enrolment reaches 80 to 85 percent. This is the point when schools become overcrowded and additional teaching spaces are required.

Based on the projected enrolments, and using a utilization rate of 85%, 146 students would require a school with approximately 172 student spaces. Based on this, and allowing for a small level of growth that may occur, it would appear that the optimal size of Hanna Primary School would be a school with a capacity of approximately 200 students.

2.3 Physical Parameters & Primary Deficiencies

The following represent physical, functional and building code deficiencies identified for the 1928, 1958 and 1964 Hanna Primary school sections:

2.3.1 Architectural Deficiencies

- .1 Basement floor of 1928 section has completely deteriorated and requires new concrete topping.
- .2 1928 foundation walls require repair to prevent water infiltration.
- .3 The roof over the 1958 section change rooms requires replacement.
- .4 Exposed concrete block requires proper insulation and rain screen wall treatment.
- .5 Door hardware is outdated and requires replacement.
- .6 New flooring required with new underlay.

- .7 Vinyl Asbestos tile contains asbestos and requires removal and replacement.
- .8 Wall finishes are outdated and require new paint.
- .9 Ceilings are outdated and require new ceiling tile and T-Bar suspension system.
- .10 All facility doors and frames require replacement.
- .11 Washrooms require full upgrade at all locations.

2.3.2 Mechanical Deficiencies

- .1 Replacement of water piping is required.
- .2 Revisions required to sanitary sewer.
- .3 Boiler in 1958 building requires replacement.
- .4 Revisions required to gas services.
- .5 There is no ventilation system in the 1928 building.

2.3.3 Electrical Deficiencies

- .1 Replace outdated main panel with a new increased capacity panel.
- .2 Provide new site lighting and parking lot plugs.
- .3 Provide added duplex receptacles in classrooms.
- .4 Replace fire alarm and smoke detection system with an addressable, supervised fire alarm system.
- .5 Add emergency generator system in the School.
- .6 Replace exit lights with LED, metal stencil types.

2.3.4 Building Code Deficiencies

- .1 Non conforming stairwells are required to be rated and enclosed.
- .2 Wood stairs in 1928 section are worn and require replacement / refinishing.
- .3 School lacks barrier free access to second levels.
- .4 Fire shutter between 1958 and 1928 sections presents possible safety hazard and should be removed.
- .5 Add emergency lighting units to meet requirements of the Alberta Building Code.

2.3.5 Functional Deficiencies

- .1 The current Administration Suite is undersized and poorly located.
- .2 The Vice Principal Office and Infirmary are located on the second level of the 1964 school section and separated from the remaining administration rooms.
- .3 The staff workroom located within the easternmost 1964 stairwell violates the building code. The secondary staff workroom adjacent to the Library is inconveniently located.
- .4 Due to the lack of visibility to the main entrance, visitor control is poor at the general office.

- .5 The split levels at the 1928, 1958 and 1964 school sections make barrier free accessibility difficult to achieve.
- .6 Washrooms on the second level of the 1964 school section do not meet the current building code.
- .7 Washrooms on the main and second levels of the 1928 school section are too small.
- .8 Staff workspace and meeting space is limited.
- .9 Storage space is limited.
- .10 The Library is oversized for the current school capacity.
- .11 The basement level Student Activity Room is obsolete for its function.

2.3.6 Historical Significance

Due to its age, the 1928 section of the Hanna Primary School has served the educational needs for many generations of community members in the Hanna area. Sadly, prairie architecture from the early 20th century such as rural schools, grain elevators and homesteads are slowly disappearing from Alberta's towns and farms. This study does not attempt to quantify the intrinsic value of historically significant properties. Observations and recommendations are solely based from a review of existing functional deficiencies and statistical data.

The cost to restore the 1928 section is excessive, and Alberta Infrastructure has indicated it will not support the (modernization) funding for this building component. In addition to the significant structural repairs required to properly restore the building's foundation system, the existing 1928 section:

- Lacks barrier free access to the facility's many levels.
- Incurs significant utility costs due to substandard building envelope conditions.
- Provides a surplus of educational space that is not required by the school.

2.3.7 Sub-Study 1 – Design Proposal

As outlined on the attached drawing, the following design proposal reduces the overall student capacity for Hanna Primary School to 200 students and addresses all physical, programmatic and functional deficiencies outlined by the School Board and the facility audit. The main features of the proposal are as follows:

- Demolish the existing 1928 Hanna Primary School section.
- Introduce new boiler room and physical plant to service remaining 1958 and 1964 school sections.
- Introduce new two storey front entry, atrium and Student Gathering area at east end of 1958 and 1964 school sections. The atrium space would act as a hub for student circulation, interaction and gymnasium related activities. The space would include a handicap lift to provide full barrier free access to both school levels.

- Introduce small addition to accommodation recommended expansion of Administration spaces.
- Complete modernization of all finishes of 1958 and 1964 school sections.

2.3.8 Sub-Study 1 – Cost Analysis

The preliminary estimated project cost of Sub-Study 1 is Five Million Six Hundred and Five Thousand and Eight Hundred Seventy (\$5,605,870.00), which has been derived as follows:

Demolition of 1928 school section & Modernization of 1958 and 1964 school sections:

Area of Demolition (m ²):	1284.8		
Area of Modernization (m ²):	2321.2		
Estimated Demolition cost:	(1284.8 m ² x \$135.00/m ²)	\$	173,450.00
Estimated Modernization cost:	(2321.2 m ² x \$1500.00/ m ²)	\$	<u>3,481,800.00</u>
Subtotal Demolition & Modernization:			\$3,655,250.00
Contingency Allowance (5%)		\$	182,750.00
Contractors General Conditions and Fees (14%):		\$	<u>487,000.00</u>
Subtotal Demo & Modernization Project Cost:		\$4,325,000.00	\$4,325,000.00

New Construction – Administration Expansion and new Main Entrance/Student Gathering

Area of Addition (m ²):	250.0		
Estimated Addition cost:	(250m ² x \$2,265.00/m ²)	\$	566,250.00
Contingency Allowance (5%):		\$	28,300.00
Contractors General Conditions and Fees (14%):		\$	<u>79,000.00</u>
Subtotal Option 2 Addition Project Cost:		\$	673,550.00
			\$ 673,550.00
Subtotal Sub-Study 1 Construction Cost:			<u>\$4,998,550.00</u>
Consulting Fees (12.15%):		\$	<u>607,320.00</u>
Total Sub-Study 1 Project Cost:			<u>\$5,605,870.00</u>

3.0 SUB-STUDY 2 – Relocate Hanna Primary School Students to Modified J.C. Charyk School

The intent of Sub-Study 2 is to:

- review projected utilization statistics at both Hanna Primary School and J.C. Charyk School;
- determine spatial requirements to accommodate overall projected figures from both school facilities;
- propose modifying building to accommodate increased student capacity;
- address current spatial and functional deficiencies at J.C. Charyk School;
- evaluate capital costs and system revisions to accommodate Hanna Primary School students at J.C. Charyk School.

3.1 Enrolment Projections – Sub-Study 2

The combined enrolment projections for both J.C. Charyk and Hanna Primary Schools for the next six years are as per the following chart:

YEAR	ECS	GR 1	GR 2	GR 3	GR 4	GR 5	GR 6	GR 7	GR 8	GR 9	GR 10	GR 11	GR 12	TOTALS
2011	39	39	31	37	38	32	47	34	49	31	51	46	45	519
2012	54	39	39	31	37	38	32	47	34	49	31	51	46	528
2013	49	54	39	39	31	37	38	32	47	34	49	31	51	531
2014	43	49	54	39	39	31	37	38	32	47	34	49	31	523
2015	52	43	49	54	39	39	31	37	38	32	47	34	49	544
2016	37	52	43	49	54	39	39	31	37	38	32	47	34	532
2017	46	37	52	43	49	54	39	39	31	37	38	32	47	544

3.2 Building Utilization – Sub-Study 2

As a combined Grade K-12 School, the building utilization rate at J.C. Charyk School is calculated by dividing the adjusted enrolment of the school by the net capacity. As of September, 2011, the projected utilization rate at J.C. Charyk School is 44.7% (373 / 834). With the projected addition of 181 students from Hanna Primary School in 2013, J.C. Charyk’s utilization rate increases to 66.4% (554 / 834).

As stated earlier, Alberta Infrastructure considers a building to be “full” when enrolment reaches 80 to 85 percent. Based on the projected enrolment in 2017, and using a utilization rate of 85%, 558 students would require a school with approximately 659 student spaces. Based on this, and allowing for a small level of growth that may occur, it would appear that the optimal size of J.C. Charyk School as a combined Grade K-12 School would be a school with a capacity of approximately 700 students.

3.3 Area Analysis – Sub-Study 2

The existing area at J.C. Charyk School is already larger than that of a new 700 student K-12 school facility. However, the excess area is mainly attributed to oversized Gymnasia areas (294.6 m²), oversized C.T.S. Laboratory (248.1 m²) areas, and excess space (over the recommend guidelines) for Service Spaces and Corridors (752 m²). The total value of this excess space is 1,294.7 m². In addition, it must be noted that although the spatial requirements are approximately correct, the distribution of instructional and non-instructional spaces is not. As a Grade K-12 facility, the J.C. Charyk School would require:

- additional Library space.
- additional cafeteria space.
- additional Student Gathering space.

3.4 Physical Parameters & Primary Deficiencies – Sub-Study 2

The following represent physical, functional and building code deficiencies identified for the existing 1967 and 1993 J.C. Charyk School sections:

3.4.1 Architectural Deficiencies

- .1 Building finishes (flooring materials, ceilings, wall finishes, doors, door hardware) are all outdated but can be retained and replaced using alternative funding and maintenance strategies.

3.4.2 Mechanical Deficiencies

- .1 No deficiencies observed during visual inspection.

3.4.3 Electrical Deficiencies

- .1 Add emergency generator system.
- .2 No electrical deficiencies observed during visual inspection.

3.4.4 Building Code Deficiencies

- .1 Facility storage rooms require rated ceilings.

3.4.5 Functional Deficiencies

- .1 The building lacks a proper Gathering Space for students and social functions.
- .2 The school's Library is undersized for its projected K-12 school use and capacity.
- .3 The school's Cafeteria is undersized for its projected K-12 school use and capacity.
- .4 The school's Industrial Arts Lab is poorly organized.

3.5 Sub-Study 2 – Design Proposal

As outlined on the attached Sub-Study 2 drawing, the following Sub-Study 2 Design Proposal increases the overall student capacity at J.C. Charyk School to 843 students and expands the facility to accommodate the correct quantity of Instructional spaces required for a Grade K-12 school. The main features of the proposal are as follows:

- Sell, lease, abandon or demolish the existing Hanna Primary School.
- Relocate Hanna Primary School Grade K-3 students to J.C. Charyk School.
- Modify five (5) classrooms at J.C. Charyk School to accommodate new Instructional spaces required due to consolidation of schools.
- Modify existing J.C. Charyk School to accommodate new washroom requirements.
- Convert two (2) existing classroom spaces at existing southeast student drop off “loop” at J.C. Charyk School to accommodate new Early Childhood Services (ECS).
- Modify existing student canteen to accommodate adequate student cafeteria space.
- Introduce new mezzanine in Library to accommodate Video Conferencing Suite.

3.6 Sub-Study 2 – Cost Analysis

The preliminary estimated project cost of Sub-Study 2 is One Million Six Hundred and Nineteen Thousand Four Hundred Twenty Five Dollars (\$1,619,425.00), which has been derived as follows:

Area of Modernization (m²):

Modernized Classrooms, Ancillary Rooms, Library (m ²):	692.0
Student Cafeteria (m ²):	145.0
Washrooms (m ²):	<u>23.0</u>
Total new area of Modernization (m²):	860.0

Area of Addition (m²):

Entrance/Boots (m ²):	<u>23.0</u>
Total new area of Addition (m²):	23.0

Modifications:

Estimated Addition Cost:	(860 m ² x \$1500.00/m ²)	\$1,290,000.00	
Project Expenses (1.5%):		\$ 19,350.00	
Furnishings & Equipment (4.0%):		\$ 51,600.00	
Non-refundable G.S.T. (1.6%):		<u>\$ 20,640.00</u>	
Subtotal Sub-Study 2 Modernization Project Cost:		\$1,381,590.00	\$1,381,590.00
Estimated Addition Cost:	(23 m ² x \$2265.00/m ²)	\$ 52,095.00	
Contingency Allowance (5%):		\$ 2,600.00	
Contractors General Conditions and Fees (8.58%):		<u>\$ 4,470.00</u>	

Subtotal Sub-Study 2 Addition Project Cost:	\$ 59,165.00	\$ 59,165.00
Subtotal Sub-Study 2 Construction Cost:		\$1,440,775.00
Consulting Fees (12.40%):		<u>\$ 178,650.00</u>
Total Sub-Study 2 Project Cost:		<u>\$1,619,425.00</u>

4.0 SUB-STUDY 3 – Relocate Hanna Primary School Students to J.C. Charyk School. Modernize entire school and address spatial needs to accommodate increased student capacity.

The intent of Sub-Study 3 is to:

- review projected utilization statistics at both Hanna Primary School and J.C. Charyk School;
- determine spatial requirements to accommodate overall projected figures from both school facilities;
- propose “permanent” building to accommodate increased student capacity;
- modify and modernize the original 1967 and 1993 addition (total area) of J.C. Charyk School;
- address current spatial and functional deficiencies at J.C. Charyk School;
- evaluate capital costs and system revisions to accommodate additional space at J.C. Charyk School.

4.1 Enrolment Projections –Sub-Study 3

The enrolment projections for Sub-Study 3 is the same as for Sub-Study 2. Please refer to the information contained on Page 9 of this report.

4.2 Building Utilization – Sub-Study 3

Building utilization information for Sub-Study 3 is the same as for Sub-Study 2. Please refer to the information contained on Page 9 of this report.

4.3 Area Analysis – Sub-Study 3

Area analysis information for Sub-Study 3 is the same as for Sub-Study 2. Please refer to the information contained on Page 10 of this report.

4.4 Physical Parameters & Primary Deficiencies – Sub-Study 3

Sub-Study 3 information relating to Physical Parameters and Primary Deficiencies is the same as for Sub-Study 2. Please refer to the information contained on Page 10 of this report.

4.5 Sub-Study 3 – Design Proposal

As outlined on the attached Sub-Study 3 drawing, the following Sub-Study 3 Design Proposal increases the overall student capacity at J.C. Charyk School to 843 students and modifies the facility to accommodate the correct quantity of Instructional spaces required for a Grade K-12 school. The main features of the proposal are as follows:

- Sell, lease, abandon or demolish the existing Hanna Primary School.
- Relocate Hanna Primary School Grade K-3 students to J.C. Charyk School.
- Modernize existing J.C. Charyk School to accommodate Hanna Primary School and washroom requirements.
- Convert one (1) existing classroom space at existing east student drop off “loop” at J.C. Charyk School to accommodate new Student Gathering area.
- Convert one (1) existing classroom space adjacent to existing student canteen to accommodate adequate student cafeteria space.

4.6 Sub-Study 3 – Cost Analysis

The preliminary estimated project cost of Sub-Study 3 is Fourteen Million Three Hundred and Forty Six Thousand Six Hundred and Seventy dollars (\$14,346,670.00), which has been derived as follows:

Area of Modernization (m²):

Total School Area (m ²):	<u>8,081.5</u>
Total new area of Modernization (m ²):	8,081.5

Modernization:

Estimated Addition Cost:	(8081.5 m ² x \$1500.00/m ²)	\$12,122,250.00	
Consulting Fees (11.25%):		\$ 1,363,750.00	
Project Expenses (1.5%):		\$ 181,830.00	
Furnishings & Equipment (4.0%):		\$ 484,890.00	
Non-refundable G.S.T. (1.6%):		<u>\$ 193,950.00</u>	
Subtotal Sub-Study 3 Addition Project Cost:		\$14,346,670.00	\$14,346,670.00

Total Sub-Study 3 Project Cost: \$14,346,670.00

5.0 SUB-STUDY 4 – Relocate Hanna Primary School Students to J.C. Charyk School. Modernize the original 1967 portion and address spatial needs to accommodate increased student capacity.

The intent of Sub-Study 4 is to:

- review projected utilization statistics at both Hanna Primary School and J.C. Charyk School;
- determine spatial requirements to accommodate overall projected figures from both school facilities;
- propose modifying building to accommodate increased student capacity;
- modernize total 1967 portion of school;
- address current spatial and functional deficiencies at J.C. Charyk School;
- evaluate capital costs and system revisions to accommodate modified and modernized space at J.C. Charyk School.

5.1 Enrolment Projections – Sub-Study 4

The enrolment projections for Sub-Study 4 is the same as for Sub-Study 2 and 3. Please refer to the information contained on Page 9 of this report.

5.2 Building Utilization – Sub-Study 4

Building utilization information for Sub-Study 4 is the same as for Sub-Study 2 and 3. Please refer to the information contained on Page 9 of this report.

5.3 Area Analysis – Sub-Study 4

Area analysis information for Sub-Study 4 is the same as for Sub-Study 2 and 3. Please refer to the information contained on Page 10 of this report.

5.4 Physical Parameters & Primary Deficiencies – Sub-Study 4

Sub-Study 4 information relating to Physical Parameters and Primary Deficiencies is the same as for Sub-Study 2 and 3. Please refer to the information contained on Page 10 of this report.

5.5 Sub-Study 4 – Design Proposal

The existing are of the J.C. Charyk School is already larger than that of a new K-12 school facility. The excess area is mainly attributable to the oversized Gymnasia and the excess space of the corridors. As outlined on the attached drawing, and as is dictated in Sub-Study 3, the Sub-Study design proposal increases the overall student capacity at J.C. Charyk School to 843. It also modifies the existing facility to accommodate the correct quantity of Instructional spaces required for a Grade K-12 school. The main features of the proposal are as follows:

- Sell, lease, abandon or demolish the existing Hanna Primary School.
- Relocate Hanna Primary School Grade K-3 students to J.C. Charyk School.
- Modify and totally modernize the 1967 portion of J.C. Charyk School to accommodate K-3 students.
- Construct new entrance and boot storage at south classroom wing, enlarging the existing east parking lot to accommodate extra parking and a student drop off.

- Retrofit south washrooms to accommodate Grade 1 to 6 students
- Increase size of cafeteria.
- Construct a new Video Conferencing Suite.
- Construct a new classroom by reducing the size of the existing Home Economics Lab.
- Convert two (2) existing classrooms to accommodate Early Childhood Services (ECS).

5.6 Sub-Study 4 – Cost Analysis

The preliminary estimated project cost of Sub-Study 4 is Eight Million Two Hundred and Twenty One Thousand Five Hundred and Fifty dollars (\$8,221,505.00), which has been derived as follows:

Area of Addition (m²):

New Entrance and Boot Room (m ²):	<u>23.0</u>
Total area of Addition (m²):	23.0

Area of Modernization (m²):

Total area of 1967 portion (m ²):	4,347.0
Area of loft (video conferencing) (m ²):	126.0
New Classroom	<u>80.0</u>
Total new area of Modernization (m²):	4,553.0

Estimated Addition Cost: (23.0 m ² x \$2265.00/m ²)	\$ 52,095.00	
Contingency Allowance (5%):	\$ 2,600.00	
Contractors General Conditions and Fees (8.58%):	<u>\$ 4,470.00</u>	
Subtotal Sub-Study 4 Addition Project Cost:	\$ 59,165.00	\$ 59,165.00

Modernization:

Estimated Modernization Cost: (4553.0 m ² x \$1500.00/m ²)	\$ 6,829,500.00	
Project Expenses (1.5%):	\$ 102,440.00	
Furnishings & Equipment (4.0%):	\$ 273,180.00	
Non-refundable G.S.T. (1.6%):	<u>\$ 109,270.00</u>	
Subtotal Sub-Study 4 Modernization Project Cost:	\$ 7,314,390.00	\$ 7,314,390.00

Subtotal Sub-Study 4 Construction Cost:	\$ 7,373,550.00
Consulting Fees (12.40%):	<u>\$ 847,950.00</u>
Total Sub-Study 4 Project Cost:	<u>\$ 8,221,500.00</u>

6.0 SUB-STUDY 5 – “Right Size” Hanna Primary School and J.C. Charyk Hanna School to meet current and projected enrolment figures.

The intent of Sub-Study 5 is to:

- review projected utilization statistics;
- determine spatial requirements to accommodate overall projected figures;
- propose building reduction design option to accommodate reduced student capacity for Hanna Primary School and J.C. Charyk School;
- evaluate capital costs to accommodate building “right size” modifications.

6.1 Enrolment Projections – Sub-Study 5

- .1 Hanna Primary School** – The enrolment projections for Hanna Primary School for the next six years is the same as for Sub-Study 1. Please refer to the information contained on Page 5 of this report.
- .2 J.C. Charyk School** – The enrolment projections for J.C. Charyk School for the next six years are as per the following chart:

YEAR	GR 4	GR 5	GR 6	GR 7	GR 8	GR 9	GR 10	GR 11	GR 12	TOTALS
2011	38	32	47	34	49	31	51	46	45	373
2012	37	38	32	47	34	49	31	51	46	365
2013	31	37	38	32	47	34	49	31	51	350
2014	39	31	37	38	32	47	34	49	31	338
2015	39	39	31	37	38	32	47	34	49	346
2016	54	39	39	31	37	38	32	47	34	351
2017	49	54	39	39	31	37	38	32	47	366

6.2 Building Utilization – Sub-study 5

- .1 Hanna Primary School** – Building utilization information for Sub-Study 5 is the same as for Sub-Study 1. Please refer to the information contained on Page 5 of this report.
- .2 J.C. Charyk School** – Information based on “right sizing” J.C. Charyk School:

J.C. Charyk School:	
Grades:	4-12
Net Capacity	574 permanent
Adjusted Gross Area:	5,835.2 m ² **
2011 Enrolment:	392
Adjusted Utilization:	68.3%
2017 Enrolment:	366
2017 Utilization:	63.8%

* Based on demolition shown on J.C. Charyk Hanna School – Main Floor Plan, Sub-Study 5 drawing, plus subtracted oversized corridor areas (707 m²) to allow for realistic utilization %.

6.3 Area Analysis and Deficiencies – Sub-Study 5

- .1 **Hanna Primary School** – The Area Analysis for Sub-Study 5 is the same as for Sub-Study 1. Please refer to the information contained on Page 2 of this report.
- .2 **J.C. Charyk School** – Reviews the feasibility of demolishing portions of the existing original 1967 school. Based on a new 600 student school facility, the area is still oversized by approximately 680 m². This can be mainly attributed to the oversized Gymnasium areas. Circulation space is also over the recommended Alberta Education guidelines. (Note item 6.2.2 – adjustment to gross area.)

6.4 Physical Parameters & Primary Deficiencies – Sub-Study 5

- .1 **Hanna Primary School** – Refer to item 2.3 on Pages 5 and 6.
- .2 **J.C. Charyk School** – Sub-Study 5 information relating to Physical Parameters and Primary Deficiencies is the same as for Sub-Study 2 and 3. Refer to the information contained on Page 10 of this report.

6.5 Design Proposal – Sub-Study 5

- .1 **Hanna Primary School** – Sub-Study 5 information relating to the Design Proposal is the same as Sub-Study 1 outlined on Page 7.
- .2 **J.C. Charyk School** – As outlined on the attached drawing, the following design proposal reduces the overall student capacity for J.C. Charyk School to approximately 600 students. The main features of the proposal are as follows:

- Demolish the south west classroom wing the classrooms on west wing as shown on the attached Sub-Study 5 J.C. Charyk Hanna School – Main Floor Plan drawing.
- Modify and modernize the 1967 portion of J.C. Charyk School.
- Expand cafeteria and student gathering.
- Modify existing Home Economics Room converting into two classrooms.

6.6 Cost Analysis – Sub-Study 5

- .1 Hanna Primary School** – The preliminary estimated project cost of Hanna Primary School remains as outlined in Sub-Study 1 at Five Million Six Hundred and Five Thousand and Eight Hundred Seventy dollars (\$5,605,870.00). Refer to Page 8 for a breakdown of costs.
- .2 J.C. Charyk School** – The preliminary estimated project cost of J.C. Charyk School Sub-Study 5 is Six Million Four Hundred Twenty Two Thousand and Four Hundred Sixty Five dollars (\$6,422,465.00), which has been derived as follows:

Area of Demolition (m²):	832.3		
Area of Modernization (m²):	3,514.75		
Estimated Demolition Cost:	(832.3 m ² x \$135.00/m ²)	\$ 112,360.00	
Estimated Modernization Cost:	(3,514.75 m ² x \$1,500.00/m ²)	<u>\$ 5,272,125.00</u>	
Subtotal Demolition & Modernization Cost:		\$ 5,384,485.00	\$ 5,384,485.00
Project Expenses (1.5%):		\$ 80,770.00	
Furnishings & Equipment (4.0%):		\$ 215,380.00	
Non-refundable G.S.T. (1.6%):		<u>\$ 86,150.00</u>	
Subtotal Sub-Study 5 Modernization Project Cost:		\$ 5,766,785.00	\$ 5,766,785.00
(J.C. Charyk School)			
Subtotal Sub-Study 5 Construction Cost:		\$ 5,766,785.00	
(J.C. Charyk School)			
Consulting Fees (11.37%):		<u>\$ 655,680.00</u>	
Total Sub-Study 5 (J.C. Charyk):		\$ 6,422,465.00	

- .3 Combined Cost of Sub-Study 5 “Right Sizing” Hanna Primary School and J.C. Charyk Hanna School** – The preliminary estimated total project cost of Sub-Study 5 is Twelve Million Twenty Eight Thousand and Three Hundred Thirty Five dollars (12,028,335.00), which is derived by adding items 6.6.1 and 6.6.2.

**Grand Total of Sub-Study 5 “Right Sizing”
Hanna Primary School and J.C. Charyk School**

\$12,028,335.00

7.0 Conclusion / Recommendations

In order to reduce underutilized instructional space in Hanna, improve the school facilities in the Town, and enhance the educational opportunities for all Hanna area students, it is recommended that Sub-Study 4 be pursued. The critical elements for implementation of this concept are:

- Sell, lease, abandon or demolish the existing Hanna Primary School.
- Relocate Hanna Primary School Grade K-3 students to J.C. Charyk School.
- Modify and modernize existing 1967 portion of J.C. Charyk School to accommodate 200 additional new instructional spaces.
- Address current spatial deficiencies at J.C. Charyk School.

This option is deemed to be most beneficial with respect to both educational and building facility aspects for the following reasons:

- With the modernization proposed with this recommendation, J.C. Charyk School will properly address all programmatic and functional needs for current and projected student capacities in Hanna.
- Renovation of the existing 1928, 1958 and 1964 school sections will be extremely costly. Consolidation of schools is the most cost effective solution.
- Due to its current spatial and structural configuration, renovation of the existing 1928, 1958 and 1964 school sections will still impose functional deficiencies due to spatial limitations.
- Consolidation of schools will focus Hanna’s educational and facility needs on one facility. This will improve educational delivery methods and maximize building operation efficiency and minimize operation costs.
- The recommendation avoids significant demolition and presents the opportunity to retain and preserve the 1928 Hanna School section.

The Hanna Primary School Facility Audit prepared in 1999 identified functional and physical deficiencies requiring repairs worth approximately \$1,235,800.00. It is the recommendation of this report that these funds be allocated and additional funding be sought to modify and modernize the original 1967 portion of J.C. Charyk School to accommodate the 200 students that currently receive their education at Hanna Primary.