
4. ASSESSMENT OF LONG TERM CAPITAL NEEDS BY AREA

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4.1 Overview

The following chapter describes, for each elementary and secondary review area, the Board's existing capital asset inventory of operating schools (year opened, facility size, site size, on-the-ground capacity, number of portables, etc.), projected enrolment (based on average daily enrolment) for each school and how facility renewal needs are expected to change over the 2007/08 to 2020/21 time period.

For each review area, information is provided in respect of:

- Age of facilities compared to Board-wide averages, site sizes for each facility and comparison to panel totals, facility size for each school and comparison to panel totals, permanent and temporary capacity of each school and comparison to panel totals;
- Demographic and enrolment perspectives for each review area, indicating change in Census population 1996, 2001 and 2006; the change in the pre-school and school-age population per household (i.e. the number of households may be increasing, but the number of school-age children per household may be decreasing);
- The change in the number of students entering the school system at the elementary level, versus the number of students graduating from elementary school (i.e. the Grade Structure Ratio);
- The share of English language enrolment between the HPEDSB and the ALCDSB (i.e. apportionment), shown on a historical basis in order to provide perspectives on how the population cohorts are moving through the system and how this is likely to affect future enrolment;
- Projected enrolment from 2007/08 to 2020/21;

- Facility utilization – that is, student enrolment versus the number of bricks and mortar (i.e. permanent) spaces, both in 2007/08 and 2020/21;
- The condition of each school facility today (known as the “deferred backlog” – that is, facility renewal needs that have not been addressed due to lack of funding) and how this is expected to change (based on the RECAPP assessment data and updated by Board staff) by 2016/17 and by 2021/22. As well, a facility renewal condition index (i.e. total cumulative facility renewal costs divided into the facility replacement costs (where the replacement standards are consistent with the original construction standards) is calculated for each school facility in 2016/17 and 2021/22;
- Facility renewal index (i.e. needs) on a per pupil basis (i.e. based on projected enrolment), or FRIPP. This information indicates how quickly the gap between renewal expenditure needs and projected enrolment is growing for each school facility

Finally, program and facility recommendations are summarized for each school at the end of each subsection.

4.5 Review Area PE04 – Centennial School Group (City of Belleville west of Moira River to Hwy 401 and west of Hwy 37 in the former Township of Thurlow)

Overview:

This planning area comprises the western portion of the City of Belleville (west of the Moira River to Hwy 401) and generally west of Hwy 37 in the former Township of Thurlow. This area is served by six (6) elementary schools.

Four schools, Prince Charles School (JK-5), Sir Mackenzie Bowell PS (6-8), Sir John A Macdonald (JK-6) and William R Kirk School (JK-8) are located in the City of Belleville. Susanna Moodie ES is located just west of Belleville and Foxboro PS (JK-8) is located 8 km north of Belleville in the former Township of Thurlow. William R Kirk School was a Special Education facility; however, all pupils have since been redirected to their respective home schools.

There are approximately 1,375 new residential dwelling units anticipated to be constructed in this review area between 2007/08 and 2020/21

Existing School Facility Inventory:

The average age of the elementary schools in this review area is 40 years, which is 10 years younger than the average age of all the elementary in Hastings and Prince Edward DSB jurisdiction. For the forty-seven Board-owned properties that are current operating elementary schools, the average site size is 7.93 acres. The average site size in PE04 is 8.8 acres. The site sizes all fall within the urban school site range and Foxboro, a designated rural school, has a site size of 16.5 acres which also falls within the range of rural site sizes.

The following sets out key facility attributes consistent with information filed by the Board, and with the Ministry of Education.

School Name/Program	SFIS #	Year Constructed	Site Size (acres)	Facility Size (sq m)	2007/08 OTG	# of Portables
Prince Charles School (JK-5) 75 Ritchie Avenue, Belleville	1863	1949	7.0	2,156	282.0	1
Sir Mackenzie Bowell PS (6-8) 138 Leland Drive, Belleville	2157	1964	9.7	1,560	115.0	3
Sir John A Macdonald (JK-6) 22 Harder Drive, Belleville	2154	1967	8.0	2,043	237.0	0
William R Kirk (alt program) 224 Palmer Road, Belleville	2984	1972	4.5	1,645	108.0	1
Foxboro PS (JK-8) R. R. #1, Foxboro	847	1974	16.5	3,316	279.0	2
Susanna Moodie ES (JK-8) R.R. #2, Belleville	2469	1979	7.2	3,719	337.0	0
Review Area Totals or Average		40 years	52.9	14,439	1,358.0	7
Board (Elementary) Totals or Average		50 years	379.7	121,605	12,766.0	36

Demographic Perspectives:

The table on the following page compares the pre-school and school age population data from Statistics Canada between 1996-2001 and 2001-2006 Census periods, illustrating the changing trends which will impact future enrolment growth for this Review Area. The pre-school age population (ages 0-3) declined by 174 persons between 1996 and 2001 and increased by 4 persons between 2001 and 2006. The elementary school age population (ages 4-13) has also decreased by 164 persons or 5.2% from 1996 to 2001. More recently, the number of 4-13 year olds has decreased by 5.1% or 152 persons. The secondary school age population (ages 14-17) has decreased by 80 and then increased 201 persons in the Census periods 1996 through 2006.

Actual Population – PE04

Review Area	Census Period			1996 - 2001 Change		2001 - 2006 Change	
	1996	2001	2006	Absolute Change	% Change	Absolute Change	% Change
Pre-school Age (0-3)	1,225	1,051	1,055	-174	-14.2%	4	0.4%
Elementary Age (4-13)	3,136	2,972	2,820	-164	-5.2%	-152	-5.1%
Secondary Age (14-17)	1,373	1,293	1,494	-80	-5.8%	201	15.6%
Total	5,734	5,316	5,369	-418	-7.3%	53	1.0%

Source: Statistics Canada 1991, 1996, 2001, 2006 Census Profile Data & Single Year of Age Population Data

Note: 2006 population figures do not include Census undercount

Number of Occupied Households – PE04

Number of Occupied Households			1996 - 2001 Change		2001 - 2006 Change	
1996	2001	2006	Absolute Change	% Change	Absolute Change	% Change
9,693	10,208	10,951	515	5.3%	744	7.3%

Population per Household (Population/Number of Occupied Households) – PE04

Review Area	Census Period			1996 - 2001 Change		2001 - 2006 Change	
	1996	2001	2006	Absolute Change	% Change	Absolute Change	% Change
Pre-school Age (0-3)	0.126	0.103	0.096	-0.023	-18.5%	-0.007	-6.4%
Elementary Age (4-13)	0.324	0.291	0.258	-0.032	-10.0%	-0.034	-11.6%
Secondary Age (14-17)	0.142	0.127	0.136	-0.015	-10.6%	0.010	7.7%
Total	0.592	0.521	0.490	-0.071	-12.0%	-0.031	-5.9%

The above table calculates the school age population per household. Analysis of the school age population by household indicates that during the 1996 to 2001 Census period, the pre-school age population per household within the Centennial School Group Review Area exhibited an 18.5% decline. The elementary population per household experienced a 11.6% decline and there was a 7.7% increase in the number of 14-17 year olds per household during 2001 to 2006. Approximately 1,259 new dwelling units were added to the number of occupied households between 1996 and 2006, whereas the pre-school age population decreased by 170 persons during the same period.

Historical Enrolment and Grade Structure (GSR):

The following table summarizes elementary enrolment by grade, between 2001/02 and 2006/07, and for Review Area PE04. Further, the table indicates the change in enrolment by grade, both in absolute numbers and in terms of percentage change. During this time period the Centennial School Group enrolment has declined from 1,434 in 2001/02 to 1,250 in 2006/07 or a decrease in of 184 persons.

The change in Grade Structure Ratio (GSR) is shown for each year between 2001/02 and 2006/07. GSR measures the number of pupils entering the elementary system (JK-1) versus the number leaving the elementary system (Grades 6-8). A ratio of 1.5 is indicative of an equal number of pupils entering the system as those leaving the system (i.e. when the information is expressed as average daily enrolment). Further, a ratio of 1.5 in each year is an indicator of stable enrolment, whereas a value greater than 1.5 is indicative of increasing decline in enrolment. In PE04 the GSR decreases by 7.9% from 1.89 in 2001/02 to 1.74 in 2006/07.

	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	Change	% Change
JK	46	51	59	53	58	56	10	21.7%
SK	66	51	57	66	61	65	-1	-1.5%
1	130	131	105	120	127	116	-14	-10.8%
2	126	130	133	108	125	131	5	3.9%
3	140	117	133	141	110	129	-11	-7.8%
4	122	129	106	123	132	89	-33	-27.0%
5	128	123	140	113	127	130	2	1.6%
6	151	119	121	135	122	131	-20	-13.2%
7	138	149	138	137	146	130	-8	-5.8%
8	168	141	157	136	145	152	-16	-9.5%
SE	220	221	246	251	123	124	-96	-43.6%
Total	1,434	1,360	1,393	1,381	1,273	1,250	-184	-12.8%
GSR	1.89	1.75	1.88	1.70	1.69	1.74	-0.15	-7.9%

Apportionment (HPEDSB AND ALCDSB):

The apportionment (i.e. the share of enrolment that each board receives) of historical elementary enrolment (expressed as average daily enrolment) between the HPEDSB and the co-terminous English language board ALCDSB, and in Review Area PE04, is shown below.

The information is based on where pupils attend school, rather than where they reside, but it does indicate that the Board's share of elementary enrolment has decreased by 0.4% since 2001/02, though it still accounts for 86% of the enrolment in this area. Changes in apportionment can have significant impacts on Board enrolment. This review area, however, exhibits a fairly stable apportionment of the two largest education service providers.

	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007
HPEDSB Share	86.8%	85.9%	86.9%	86.9%	86.0%	86.4%
ALCDSB Share	13.2%	14.1%	13.1%	13.1%	14.0%	13.6%

Note: May not add precisely due to rounding.

Projected Enrolment:

Overall enrolment in this review area is expected to increase by 165 pupil places from 1,210 in 2007/08 to 1,375 in 2020/21.

Over 90% of the projected pupils are expected to locate in the schools west of the Moira River and east of Palmer Road. This area is projected to increase the elementary enrolment by 151 over the fourteen year period. The area west of Palmer Road and west of Hwy 37 in the former Township of Thurlow is expected remain relatively stable from 557 to 571 pupil places by 2020/21.

Facility Utilization:

Facility utilization represents the number of pupils (i.e. expressed as average daily enrolment (ADE)) over the number of permanent bricks and mortar spaces available to accommodate students, and expressed as the On-the-Ground capacity (i.e. OTG capacity). The following table provides information on current facility utilization and anticipated facility utilization, given projected student enrolments. Overall, the utilization for this review area is expected to 84.3% in 2007/08, by 2020/21 the utilization is expected to increase to 96.2% by 2020/21.

School Name/Program	2007/08 OTG	2007/08 ADE	% Utilization	2020/21 OTG	2020/21 ADE	% Utilization
Prince Charles School (JK-5)	282.0	216	76.6%	282.0	252	89.4%
Sir Mackenzie Bowell PS (6-8)	115.0	167	145.2%	115.0	226	196.5%
Sir John A Macdonald (JK-6)	237.0	184	77.6%	237.0	236	99.6%
William R Kirk (JK-8)	108.0	0	0%	108.0	0	0%
Foxboro PS (JK-8)	279.0	308	110.3%	279.0	315	112.9%
Susanna Moodie ES (JK-8)	337.0	270	80.1%	337.0	278	82.5%
Review Area Totals	1,358.0	1,145	84.3%	1,358.0	1,307	96.2%
Board (Elementary) Totals	12,766.0	10,208	79.9%	12,766.0	9,858	77.2%

Facility Condition Assessment:

The following provides a summary of facility renewal needs based on a Province-wide facility condition assessment undertaken in 2000 and more recent data provided by Board staff in respect of capital investments under the Province's Stage I and Stage II facility renewal funding. Facility replacement value is based on the cost to replace the school, given the current Provincial funding benchmarks, and the lesser of the value based on facility size in square metres or the number of permanent pupil places (i.e. On-the-Ground capacity, or OTG).

The determination of existing and future facility condition is based on the assessment of facility renewal needs (e.g. roofs, windows, boilers, HVAC, plumbing, millwork, site amenities, etc.) divided into the deemed replacement value of the building.

All but one of the facilities in this review area are expected to exceed 75% of the facility replacement value within the next fourteen years and two of those facilities will be greater than 100% by 2021/22.

Name of School	Facility Replacement Value (lesser of sq m or OTG)	Facility Renewal Needs to 2006/07	Facility Renewal Index 2006/07	Facility Renewal Needs to 2016/17	Facility Renewal Index 2016/17	Facility Renewal Needs to 2021/22	Facility Renewal Index 2021/22
Prince Charles School (JK-5)	\$3.58	\$1.76	49.3%	\$3.50	97.9%	\$4.05	113.1%
Sir Mackenzie Bowell PS (6-8)	\$1.85	\$1.54	83.2%	\$2.32	125.1%	\$2.66	143.5%
Sir John A Macdonald (JK-6)	\$3.39	\$1.45	42.8%	\$2.08	61.4%	\$2.35	69.4%
William R Kirk (JK-8)	\$1.74	\$0.94	53.9%	\$1.75	100.4%	\$2.15	123.5%
Foxboro PS (JK-8)	\$4.49	\$0.84	18.8%	\$1.92	42.8%	\$2.24	49.9%
Susanna Moodie ES (JK-8)	\$5.43	\$2.16	39.9%	\$3.46	63.9%	\$4.28	78.8%
Review Area Totals	\$20.48	\$8.70	42.8%	\$15.04	73.4%	\$17.72	86.5%
Board (Elementary) Totals	\$191.08	\$70.42	36.9%	\$129.57	67.8%	\$152.74	79.9%

Note: All figures in millions of dollars. Totals may not add precisely due to rounding.

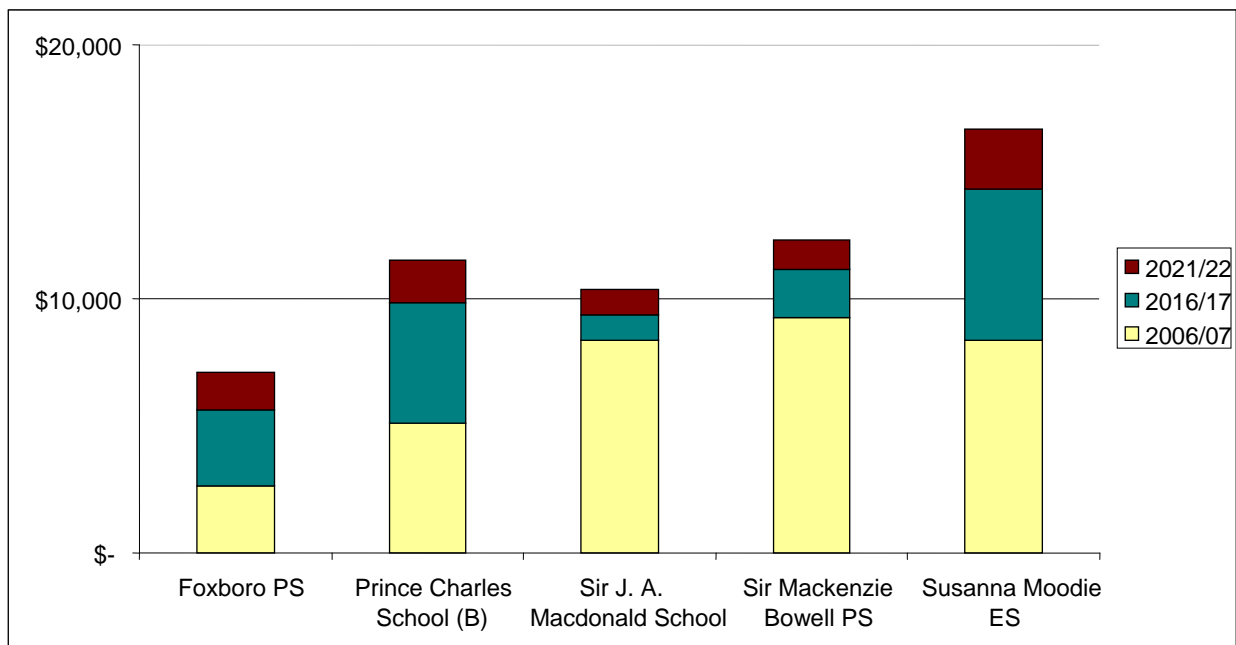
Total facility renewal needs for PE04 are expected to be approximately \$15.04 million, or 73.4% of facility replacement value by 2016/17 and \$17.72 million by 2021/22. Total renewal grant funding for this area amounts to \$215,167 annually based on existing grant funding structure, and where student enrolment is taken into consideration. This figure is expected to increase to \$231,618 annually, given projected enrolment.

The following chart examines facility renewal needs per pupil place; that is, future renewal expenditure needs over projected enrolment (which is a key driver in a per pupil based funding environment). While FCI, or Facility Condition Index, is an indicator of the backlog of unfunded facility renewal needs, longer term capital strategies pay more attention to how quickly a school facility reaches its facility replacement value. The following chart adds one additional element and addresses the extent to which the gap between school enrolment and its facility renewal

needs are growing over time. This is known as the Facility Renewal Index per Pupil Place (FRIPP).

Susanna Moodie ES exhibits the highest increase in facility renewal needs, followed by Sir Mackenzie Bowell PS, Prince Charles School and Sir John A Macdonald School. Foxboro PS has the lowest cost in facility renewal needs measured against projected enrolment in this particular review area.

FACILITY RENEWAL NEEDS PER PUPIL PLACE



Program and Facility Recommendations:

- Move Gr 7/8 pupils from Sir Mackenzie Bowell PS to converted Gr 7-12 Centennial SS in PS03;
- Consolidate JK-6 pupils from Prince Charles PS and Sir Mackenzie Bowell PS at Sir John A. Macdonald School. Projected combined enrolment is expected to range from approximately 480 to 530. Construct a 14 classroom addition, plus primary learning centre (child care, parenting centre) at Sir John A. Macdonald School;
- Consolidate Foxboro PS at Susanna Moodie ES and construct a 6 classroom addition to bring the OTG of Susanna Moodie to 459.0 pupil places to accommodate the projected combined enrolment of approximately 500 pupil places.