



## School Review Impact Assessment Report Lunenburg Academy

**May 30, 2008**

On March 26, 2008, the South Shore Regional School Board decided that Lunenburg Academy should be taken through the formal School Review Process as set out in Sections 14-23 of the Ministerial Education Act Regulations. One requirement of the regulations is that an Impact Assessment Report be submitted to the Board by May 31. The following information has been prepared to meet this legislative requirement.

More specifically, the following recommendation from the School Utilization Report, Part 2 is the reason behind this school review: That a comprehensive study be carried out to weigh the advantages and disadvantages of constructing a new Grade P-9 school to replace Centre Consolidated School, Lunenburg Academy and Lunenburg Junior-Senior High School. The school review process provides a way to formally carry out this study.

### **Part 1: School Information**

**School:** Lunenburg Academy

**School Configuration:** Grades Primary – Grade 5

**Address:** PO Box 759 Lunenburg, N.S., B0J 2C0

**Principal:** Ms. Paula Baker

#### **Enrolment History and Projection**

The enrolment decreased to 106 for this school year, 2007-08, from 144 in 2000-01, a decrease of 26.4%. The following table shows a decline of 13.8% over the past 5 years.

##### **History**

2003/4	2004/5	2005/6	2006/7	2007/8	Decrease	%
123	116	119	117	106	17	14%

##### **Projection**

2008/9	2009/10	2010/11	2011/12	2012/13	Decrease	%
104	99	94	88	83	21	20%

It is important to note that the Grade Primary enrolments can only be estimated on the recent historical trend for Grade Primary. The projections would be more accurate if Grade Primary

enrolments could be predicted using Department of Health pre-school children data, but this type of data can no longer be accessed by school boards as in the past.

The enrolment history combined with the 5-year projection shows that the enrolment of Lunenburg Academy will decrease from 123 in 2003/4 to 83 in 2012/13, a decrease of 32%.

### **Population patterns**

The information in this section was provided by the office of the Town of Lunenburg. Some additional information may be available at a later date from the office of the Municipality of the District of Lunenburg.

Town of Lunenburg: The 2001 population of the Town of Lunenburg reported by Statistics Canada was 2,568. In 2006 the census population was 2,317, a decrease of 9.8%. The reported number of dwellings in 2006 was 1,124, representing a density of 2.28 persons/dwelling. This is a typical density for a community with a similar population.

A total of 55 residential building lots are being developed in several projects within the serviced boundary of the Town. A value of 3.5 persons per home can be applied to these lots reflecting anticipated occupancy by younger families with children. When fully developed, these lots would add a total of 193 to the population. In addition a conservative growth rate for the existing population of 1% over 20 years would add another 510 people. The total population projected for 2027 is 3,020.

The Town of Lunenburg has several infrastructure projects planned over the next five (5) years. In particular, construction of a new \$7.0 million water filtration plant will begin in 2008/09. Sewer main upgrades will be made throughout the Town. An addition to the Lunenburg War Memorial Arena will house new change rooms for sports teams. The Town of Lunenburg's new soccer field will open this fall. The new track and softball field will celebrate its official opening this spring. Both facilities are located immediately adjacent to the Lunenburg Jr.-Sr. High School complex.

### **Capital Construction Planning**

Over the past year, the construction of a new elementary school to replace North Queens Elementary School has been completed---North Queens Elementary was destroyed by fire in the fall of 2005.

Presently under a lease agreement with the Department of Education, the community of Greenfield is building a new elementary school to replace the existing building.

The only other capital construction project of the SSRSB is a fairly major renovation project to upgrade South Queens Junior High School.

Prior to this year, the SSRSB had approved 2 major capital construction/renovation projects as top priorities: The addition of a cafeteria to Bridgewater Elementary School and upgrades to Centre Consolidated School. Recently, it approved renovations to New Germany Elementary

School and submitted a request to the Department of Education to construct a new school to consolidate Centre Consolidated School, Lunenburg Academy, and Lunenburg Junior-Senior High School.

Very recently, the SSRSB received funding from the Department of Education to construct a new building at Park View Education Centre to house a new "Skilled Trades" program. As a regional program, students from other areas of the region will be able to access this program.

### **Physical Condition of Building**

In October of 2003, the MacDonnell Group completed a "Building Condition Study" of Lunenburg Academy (See final attachment for full report ). As stated in the Conclusions and Recommendations, "Lunenburg Academy has been well maintained over the years and is regarded as a heritage property of great significance". However, the report states also, that "the school is substandard by current codes for new construction in the areas of ventilation, electrical systems, plumbing and accessibility". A list of 6 health and safety improvements and life-cycle maintenance items are recommended to be completed "within the next 5 years".

For the purpose of this report, an updated assessment was completed recently by the Coordinator of Property Services. A summary of his assessment is attached as Appendix A.

Appendix A demonstrates very clearly that Lunenburg Academy is and will continue to be very expensive to maintain. The total cost of upgrades, which seem for the most part to be necessary within the next few years, is estimated at \$535,000 and the annual maintenance cost is estimated at \$50,000.

The significant support and contributions of the Lunenburg Academy Foundation must be recognized and are very much appreciated. Nevertheless, the costs of maintaining Lunenburg Academy as a public school are prohibitive, both in the short term and long term.

### **Building Use**

Gross square footage: 41,000.

<b>Teaching Space</b>	<b>Number</b>	<b>Notes</b>
Regular classroom	6	
Gymnasium	1	Used by Grades P-3
Cafeteria	1	
Library	1	
Music room	1	
Art room	0	
Resource room	1	Learning Centre
Other spaces	2	Speech/language and Reading R.

One classroom, called the Foundation Room, is not being used as a teaching space. The Academy Foundation uses this room for its office and stores its memorabilia. Also, Lunenburg Academy students and staff use this room for meetings, enrichment activities, etc.

Prior to this year Lunenburg Academy used all three floors of the building. Now it uses only two.

## **Part 2: Impact Analysis**

### **Capability to Deliver Public School Program**

From a Facility Perspective: As a facility, Lunenburg Academy has been able to facilitate the delivery of the public school program and there is no reason to suggest that the facility will become a barrier to successful program delivery if the status quo configuration continues. This assessment is made with the assumption that the maintenance requirements reported above will be carried out within a reasonable period of time.

### **Educational Benefits**

The main educational benefits of the consolidation are related to achieving an optimal enrolment in the new Grade P-9 school and eliminating the disadvantages of the small enrolments in the 2 Lunenburg schools. The enrolment of Lunenburg Academy is definitely approaching the lower limit at which the ability of the school to deliver the program effectively is at risk. The enrolment of LJSHS is reaching the point of being extreme in terms of the barriers and risks to effective program delivery. Although the present enrolment of Centre Consolidated School is in the optimal range, the effects of the declining enrolment could be avoided by bringing together all students from these 3 schools.

Other educational benefits are related to having all that a new educational facility has to offer, compared to the restrictions or limitations of old facilities. These benefits include larger, modernly equipped classrooms and specialist rooms for music, art and drama, new computer and communications technology, suitable work spaces for student services staff, and a larger, fully-equipped gymnasium, cafeteria and stage.

The consolidation of Centre Consolidated School, Lunenburg Academy and Lunenburg Junior-Senior High School would create indirect benefits for all SSRSB students in terms of system-wide staffing allocations. The obvious savings would result from having one principal instead of three and from reductions in the number of FTE positions for vice-principals—financial savings in administrative allowances are additional. The positions and dollars saved by this consolidation could be allocated to benefit other schools in the system. Although not necessarily large, a related saving would result through an overall reduction in the number of administrative assistant, library technician, and lunch and bus supervisor positions.

### **Transportation**

Regarding the consolidation of three schools in a new construction, the impact on student transportation cannot be known until the location of the new school is determined.

### **Extra-curricular Activities**

Generally, the long tradition of providing strong extra-curricular programs in each of the 3 schools can be expected to be carried forward to the new school. With a larger student body and staff, the potential benefits surely outweigh the disadvantages of consolidation. Experience

shows consistently that a high level of excitement and enthusiasm contributes quickly to a sense of identity and spirit as a new school, for both students and staff.

**Property Service Efficiencies**

The impact on property services efficiencies of replacing 3 older facilities with one new one would be very significant, especially from the perspective of the operational expenditures for the SSRSB. Generally the improved efficiencies are related to economies of scale and to the fact that maintenance and capital upgrades for the 3 old facilities would no longer be necessary.

The economies of scale efficiencies in property services result directly from operating one school instead of three. One of the most obvious financial savings would result from a reduction in the number of custodial and custodial supervisor positions. Although a detailed financial analysis is not possible until the square footage of the new school is known, it is reasonable to expect that the number of custodial FTE's would be less while the number of custodial supervisor positions would be reduced from 3 to 1. Other less obvious economies of scale could be expressed numerically once the size of the new school is known. For example, regional maintenance staff would be traveling to one school site instead of 3, care of grounds and snow removal would be required for 1 instead of 3, and the cost of cleaning supplies could be less, depending on the square footage of the new school.

The total 2007/08 property service costs of LJSHS, Centre Consolidated School and Lunenburg Academy are summarized in the following table---costs for 2006/07 are included for comparison.

**Property Services Costs per Square Foot**

School	Property Services Cost for 2007/08	Operating Cost per Sq. Ft. for 2007/08	Operating Cost per Sq. Ft. for 2006/07
Centre Consolidated	\$413,025.00	\$11.67	\$6.46
Lunenburg Academy	226,985.00	\$5.54	\$4.22
Lunenburg Jr.-Sr. High	202,793.00	\$5.73	\$6.32
<b>Total</b>	<b>\$842,803.00</b>	Not applicable	Not applicable

The property services cost includes custodial and maintenance costs---heating fuel and electricity are included in maintenance. The total cost of operating the three schools for the 2007/08 fiscal year was \$842,803.00. (The total cost per square foot cannot be determined by adding the column; the figures can be used only to compare schools.)

The main reason for the difference between the costs per square foot for the 2 years is that the cost of building maintenance varies from year to year. The maintenance costs for 2007/08 included approximately \$41,000 at Centre Consolidated, \$32,000 at Lunenburg Academy, and \$5,000 at LJSHS, for a total of \$78,000. For the previous year, the costs were approximately \$180,000, \$68,000, and \$48,000, respectively, for a total of \$296,000. Obviously, the annual variance is significant, as is the total cost of maintaining these 3 schools.

The total capital upgrades have been reported individually in the impact assessment reports for CCS, LA, and LJSHS. The total of the estimated cost for all the capital upgrades that should be completed within the next few years is summarized in the following table.

### **Total Cost of Capital Requirements**

	Capital Requirements next few years
Centre Consolidated School	\$2,000,000.00
Lunenburg Academy	\$550,000.00
Lunenburg Jr.-Sen. High School	\$800,000.00
<b>Total</b>	<b>\$3,350,000.00</b>

All in all, the property services efficiencies for Option 2 equate to the possibility of saving as much as half a million dollars per year on maintenance and over 3 million dollars on capital upgrades to the 3 schools.

As a final note on property services costs, it must not be forgotten that an annual rental fee of \$50,000 for LJSHS to use the Town's recreational facilities would be eliminated by the consolidation.

### **Impact on the Community**

The impact on the communities of Centre Consolidated School, Lunenburg Academy and Lunenburg Junior-Senior High School can be defined only in general terms until the location of the new school is known. It is reasonable to assume that it will be located in the Town of Lunenburg because support has been expressed openly, already, by all 3 school communities to locate in the Town. If this occurs, the impact of having a larger new school constructed in the Town is likely to be positive in most respects. A new modern building and a large student body from the Town and the surrounding communities served presently by Centre Consolidated School can generate considerable advantage for the new school and the broader community.

In contrast, major disadvantages of a new school construction for the community are not obvious.

### **Community Use of School**

As with the effect on the community, the impact of the construction of a new school on the community use of CCS, LA and LJSHS depends very much on the location of the new school. At this point in the process, it may be appropriate to simply observe that the communities would have one new modern facility to replace what they are using now and some use of the present facilities might still be possible after the new school was in operation.

The potential advantages, at least generally, seem to outweigh the disadvantages for most communities. Of course, in having only one facility to serve a larger community, some communities would experience more disadvantage than others, depending on the location.

#### **Part 4 Conclusion**

The consolidation of Centre Consolidated School, Lunenburg Academy and Lunenburg Junior Senior High is based on direct educational benefits for students and on operational and financial efficiencies that would produce indirect benefits for all students under the jurisdiction of the South Shore Regional School Board.

The most obvious educational benefits are those for the Grade 6-9 students of LJSHS. In a separate impact assessment report, it has been emphasized that the problems caused by declining enrolment of LJSHS will only worsen and possibly become extreme. The consolidation would eliminate these problems.

The operational efficiencies are directly related to operating 1 new school instead of 3 for the combined student body. The total property services cost to operate a new school can be expected to be less than the total for the 3 schools. The main financial efficiency would be to eliminate the estimated capital cost of \$3,350,000.00 of upgrading the 3 old facilities.

## **Appendix A**

### **Recent Assessment of Physical Condition of Lunenburg Academy**

Repair Clapboard and replace trim **(estimated cost \$50,000.00)**.

One side of the building is painted every year **(\$20,000.00 per year)**.

Replace two sets of doors **(\$10,000.00)**.

The windows were refurbished in 1999, but no new windows were installed. These windows, especially on the third floor, need considerable work or replacement now. The cost of doing this is significant because, under the Heritage designation, the construction/design must reflect the historical period. To rebuild the existing windows would cost in the range of **\$250,000.00**.

Refinish washroom concrete floors in the basement **(\$20,000.00)**.

There is a barrier free washroom on the 3<sup>rd</sup> floor. To make the washroom on the main floor accessible is estimated at **\$700.00**.

Install backflow preventers and emergency backup diesel generator to run the fire pump **(\$35,000.00)**.

Installation of a ventilation system for this building would not be feasible.

Upgrade the electrical for branch circuit wiring and address the grounding problem for all three floors **(\$60,000.00)**.

Improvement of the lighting is difficult to address in keeping with the character of the building and the Heritage designation. To upgrade the existing fixtures with new T-8 Light tubes and electronic ballast, **(\$30,000.00)**.

Install tamper proof switches on the main sprinkler valves **(\$8,000.00)**.

Repair damaged exterior conduit **(\$1,500.00)**.

Replace public address system **(\$50,000.00)**.

#### Indoor air quality and environmental issues:

None Reported

#### Cost associated with maintenance, repair and operation exceeding normal expectations:

Maintenance cost for 2007 **(\$50,635.00)**.



Ability to provide barrier free accessibility to the buildings and grounds:  
See comments above.

The only area not accessible is to the basement. All areas of instructional use are accessible by elevator with access from the outside at grade level and a small ramp.

**Total estimated cost is \$535,200.00 not including maintenance**

**Estimated ongoing maintenance is \$50,000.00 per year**



## **1.2 Building Summary**

### **1.2.1 General**

This school was built in 1895 and has an enrolment of approximately 144 students. The school has a gross floor area of approximately 41,000 sq. ft. and is a timber-framed three storey structure plus basement

Lunenburg Academy is registered federally, provincially, and municipally as a historic site or property.

The building includes classrooms, science laboratories, a family studies lab, an industrial arts lab, a multi-purpose room, a resource centre, a student services room, a music room, an art room, a gymnasium and stage, changing rooms with showers, lunch room, cafeteria and kitchen, a nurses room, offices, washrooms and service rooms, and a ventilation room in the attic.

### **1.2.2 Architectural**

The Academy is built on a flat site. It is a three storey, wood frame structure with basement and foundation walls of monolithic brick and stone. There are four entrances, one on each side of the building, approximately three feet above grade. Each entrance is served by a set of wood stairs.

All work carried out on the school is done to maintain the character and detailing of this historic landmark.

Wood frame windows are installed throughout the school.

There is a single membrane roofing system on the flat section of roof and wood shingles on the mansard section.

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Lunenburg Academy*

The interior has wood floors throughout the school except in the basement which has a concrete slab on grade. The ceiling is painted wood throughout the classrooms and office areas.

**1.2.3 Structural**

The building is timber-framed with wood flooring and ceilings and plaster walls.

All visible components of the building foundation and superstructure were found to be in fair or good condition.

**1.2.4 Mechanical**

The school is heated by a hot water boiler plant fired with No. 2 light oil. Boiler water is circulated through a steel piping system by in line circulators. The heating piping system is connected to perimeter heat in all rooms. Classrooms are typically heated with cast iron convector radiators controlled by a wall mounted digital sensor which activates electric zone valves in each room.

The school is not properly ventilated. The male and female washrooms rely on operable windows for ventilation.

Consideration should be given to the installation of a ventilation system in keeping with current NS Transportation and Public Works criteria for schools, increased use of fresh air, increased filtration and humidification.

The plumbing system consists of a municipal water supply connected to various plumbing fixtures. Domestic hot water is generated by an electric fired hot water heater.

The school has a fire protection/sprinkler system with an in line pressure booster pump. The booster pump does not appear to have standby power.

**1.2.5 Electrical**

Power is supplied via a pole mounted service mast underground to the building. The service is 120/208/3P entering a 400A main disconnect before a metering cabinet, splitter and distribution.



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### **1.3 Conclusion and Recommendations**

Lunenburg Academy has been well maintained over the years and is regarded as a heritage property of great significance.

However, the school is substandard by current codes for new construction in the areas of ventilation, electrical systems, plumbing and accessibility.

Recommended health and safety improvements and life-cycle maintenance items include:

- repair and painting of wood clapboard and shingles,
- replacement of two doors,
- addition of an emergency generator and tamper alarm to the sprinkler system,
- addition of a ventilation system,
- improvements to lighting and receptacle grounding, and
- minor architectural, mechanical and electrical items detailed in the report.

Priorities for maintenance and/or rehabilitation were assessed on the basis of:

- Priority #1 "Must do": serious code violations or other situations threatening health, safety or short-term preservation of assets,
- Priority #2 "Should do": less threatening code violations, fire safety and health issues and poor functional or construction conditions that will require correction in the short-term and conditions that do not meet the requirements or current expectations of authorities, and
- Priority #3 "Could do": minor functional or construction improvements that are likely to fall under the "Should do" category within 3-5 years.

By these standards, it is recommended that all the items noted above be considered in the next 2-3 years. It is expected that these items will be required within five years.

A more detailed description is included in the following checklist, commentary and photo record.

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