HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

FEASIBILITY STUDY and CONCEPT DESIGN

Sir Winston Churchill Secondary School

1715 Main Street E, Hamilton, ON

November 2015

HOSSACK
& ASSOCIATES
ARCHITECTS

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SIR WINSTON CHURCHILL SECONDARY SCHOOL

SECTION 1 - EXECUTIVE SUMMARY

1.1 PURPOSE

The purpose of this study is to provide information and recommendations for subsequent decisions of the School Board related to the Hamilton-Wentworth District School Board (HWDSB) Secondary School Revitalization Program.

Over the next five years, HWDSB intends on **revitalizing** and **modernizing** the majority of its existing Secondary Schools.

The following areas have been examined for consideration of renovations and upgrades:

Instructional Spaces

- Science Labs & Prep Rooms
- Technological Shops
- Specialized Support Program Space
- Library
- Cafeteria

Operational Areas

- Operation Areas
- Administration Offices
- Student Services
- Staff Lounge and Work Areas
- Washrooms

1.2 METHODOLOGY

The study included a comprehensive review of the facilities in relation to enrolment, projected enrolment, educational adequacy and facilities adequacy. The design team included a team of experienced school architects and engineers lead by Hossack & Associates Architects and exp. The review focused on the ability of the facilities to provide a comprehensive modern educational experience for its students and the ability of the facility to provide a safe, comfortable and effective learning environment.

HWDSB's vision for its ***Secondary Program Strategy*** *(June 2013)* was also reviewed and considered during the study for programming requirements based on the Tier 1 *(all schools – all students),* Tier 2 *(some schools – some students)* and Tier 3 *(few schools – few students)* programs identified within the 13 HWDSB secondary schools.

The Tier 3 programs and specialized interventions/supports are of particular interest in this study as they generally require specialized facilities, equipment or enhancements to the facilities in order to adequately support the program needs. Tier 3 programs are offered in a few school sites located strategically across the HWDSB, where transportation would be provided to students to a larger geographic area according to Board policy.

Tier 3 Programs identified in the Secondary Program Strategy at Sir Winston Churchill Secondary School:

- *Aviation/Aerospace*
- *Cosmetology*
- *Health and Wellness*
- *Manufacturing*

Tier 3 Interventions and/or Supports identified at Sir Winston Churchill Secondary School:

- *Graduated Support Program*
- *NYA:WEH*

Aviation/Aerospace*
This SHSM allows students to explore the numerous pathways available within the aviation and aerospace industries.

Cosmetology
Students gain hands-on experience in hairstyling techniques and aesthetics that meet industry standards, using industry standard materials and equipment.

Health and Wellness
This Program is currently being developed in order to define its functional requirements of the facility. Currently, it is intended to utilize existing instructional spaces within the school.

Manufacturing*
Manufacturing provides students with a strong foundation for a wide variety of careers in the manufacturing sector, from those focusing on the service, repair, and modification of machines and systems to those related to the organization and manufacturing services and mass-transit systems.

Graduated Support Program
This program provides specific support for students including integration in the school and community, appropriate to the student's strengths. Although they may not be earning credits, students in the program have the ability to achieve a level of independence in the community upon graduation.

NYA:WEH
This program provides a culturally based support for Aboriginal youth. The program combines two streams of educations, Western and Traditional, which are integral to the success of Aboriginal youth. Specific support for the First Nation, Metis and Inuit students in the following areas: Academic Assistance, Culturally Sensitive Resource, Social and Personal Consultation, Access to Tutors and Student Advocacy.

*These programs lead to a Specialist High Skills Major (SHSM) designation for students who are heading for an apprenticeship, training, college, university or the workplace. SHSM programs allow Grades 11 and 12 students to focus on a career path that matches their skills and interests while meeting the requirements of the Ontario Secondary School Diploma (OSSD). Students receive the SHSM seal on their diploma when they complete a specific bundle of eight to 10 courses in their selected field, earn valuable industry certifications including first aid and CPR, and gain important skills on the job with employers through co-operative education.

1.3 OVERVIEW

Sir Winston Churchill Secondary School first opened in 1967 is located at 1715 Main St E, Hamilton, ON L8H 1E3 in the north-east area of Hamilton. The school currently serves approximately 877 students. The forecasted enrolment projection for the year 2022 is approximately 1,129 students.

Several assumptions have been made in the program analysis and cost estimates as part of the development of this study. The analysis is based on the average costs for the different types of demolition and construction activities proposed. Both the program and the cost estimates will need to be refined during the schematic design phase as the project proceeds into design.

1.4 PROPOSED CONCEPT DESIGN

In this study renovations are proposed to provide the school with updated facilities for its Tier 3 programing to serve the community and the students, as well as address facility needs for the programming outlined in the Boards Secondary Program Strategy.

Additional renovations are proposed to help the school better meet the current Ministry of Education standards with regards to space requirements.

Proposed renovations to the school includes renovations for the following new programs:

- Hospitality
- Graduate Support Program
- Cosmetology
- Communications Arts

The following existing program spaces are proposed to be renovated:

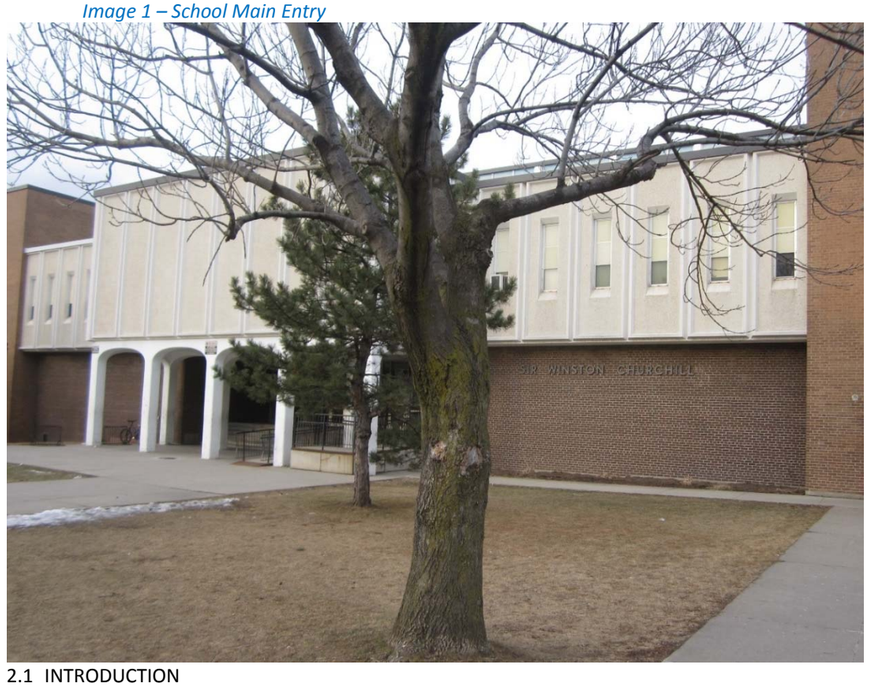
- Aviation/Aerospace
- Automotive shop
- Design Tech. - Manufacturing
- Science Labs and support spaces
- Construction Shops
- Wood Shop

Renovations of the following Support Spaces are also proposed:

- Cafeteria
- Library
- Main Office
- Staff lounge
- Washrooms

SECTION 2 - EXISTING CONDITIONS ASSESSMENT

Image 1 – School Main Entry

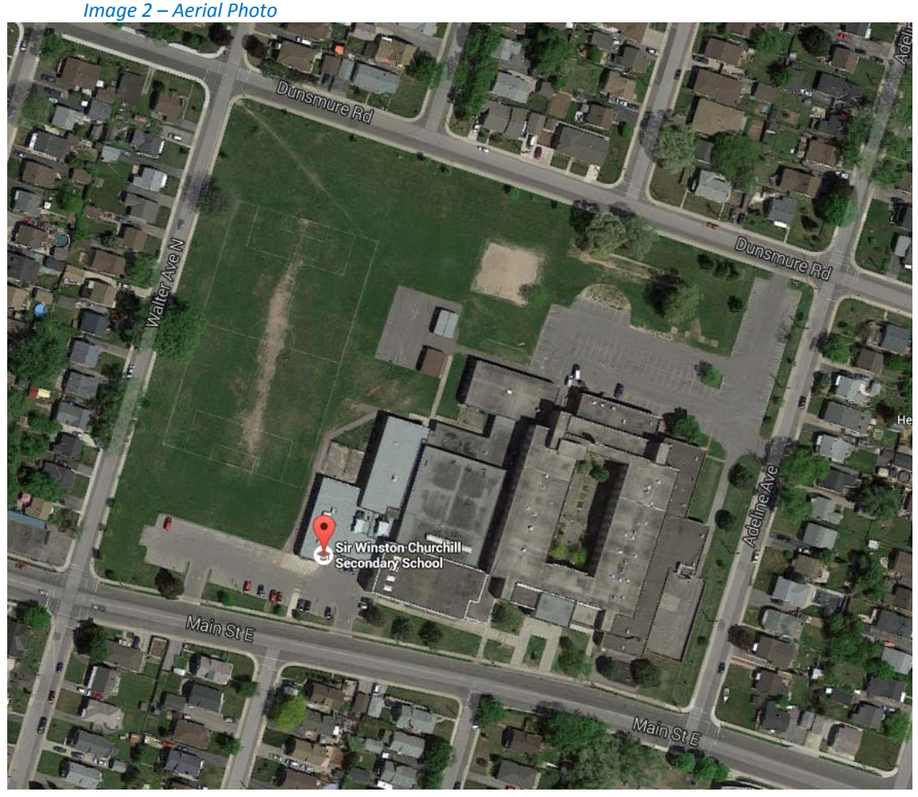


2.1 INTRODUCTION

Sir Winston Churchill Secondary School was constructed in 1967 and is 16,209m^2 (174,472 ft^2) with a ground floor that is partially a basement and three floors above grade. The building is configured around an outdoor courtyards with main corridors on either side.

2.2 SITE ASSESSMENT

Image 2 – Aerial Photo



Site Background

The Site is located on Main Street East in Hamilton. The site is surrounded on all four sides by streets and is located in a residential neighborhood. The site is 3.98 hectares in area. The school is located in the south- east corner of the property with the playfield located on the west side. The Sir Winston Churchill Recreation centre is also located on this property and is connected to the Secondary School.

Accessibility

The main entrance has a 'make-shift' ramp in place, which requires upgrades as well as the existing parking to meet current designated accessible parking requirements. This would be considered part of the 'Building Conditions Report' upgrade requirements.

Parking & Service

The parking lot is located north of the school and is accessible from both Adeline Ave and Dunsmure Rd. There is a service loading area provided at the back of the building.

Pedestrian & Vehicular Circulation

Pedestrian access to the school is provided from two surrounding streets, Main Street East and Adeline Ave with concrete sidewalks.

Athletic Fields

The site has one large open grass field with a multipurpose field with 2 goal posts. There is also a large sand area with posts for volleyball nets.

2.3 BUILDING CONDITION

An "*Existing Conditions Report*" was completed by VFA Inc. for the Hamilton-Wentworth District School Board in 2013. This document is included in the appendices for reference. Some information is noted in summaries below*.

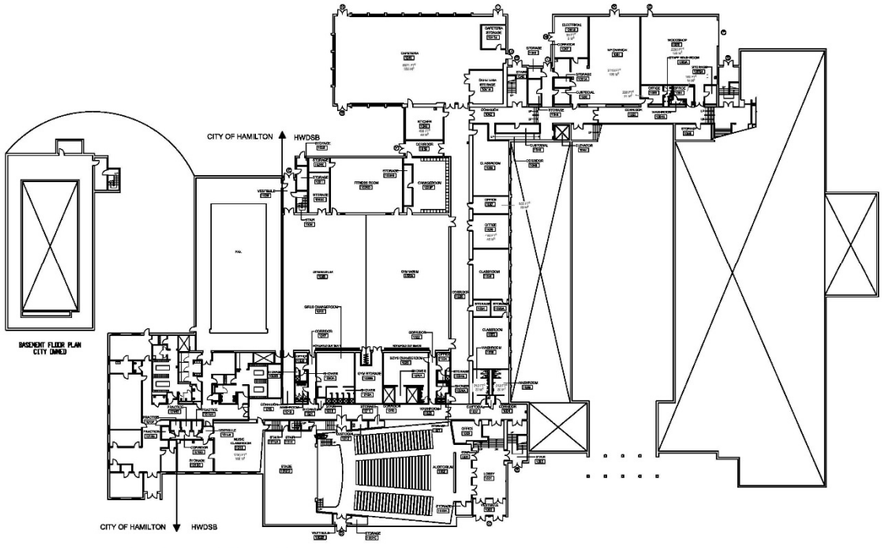


Image 3 – Ground Floor Plan

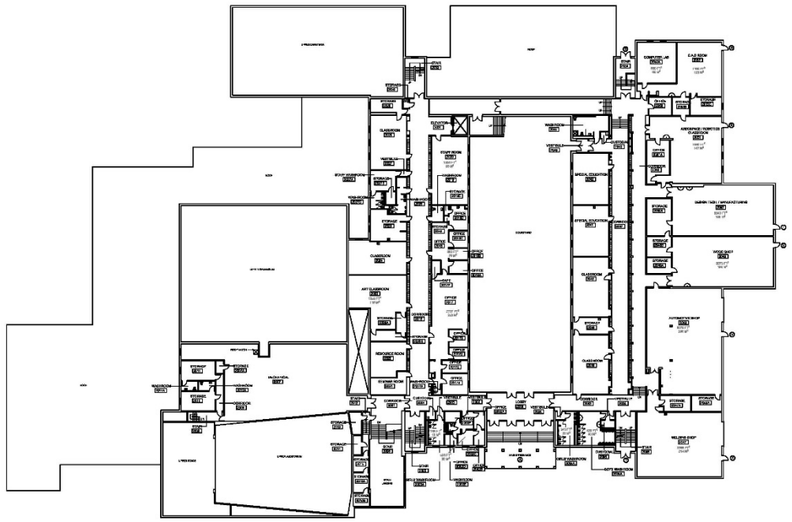


Image 4 – Second Floor Plan

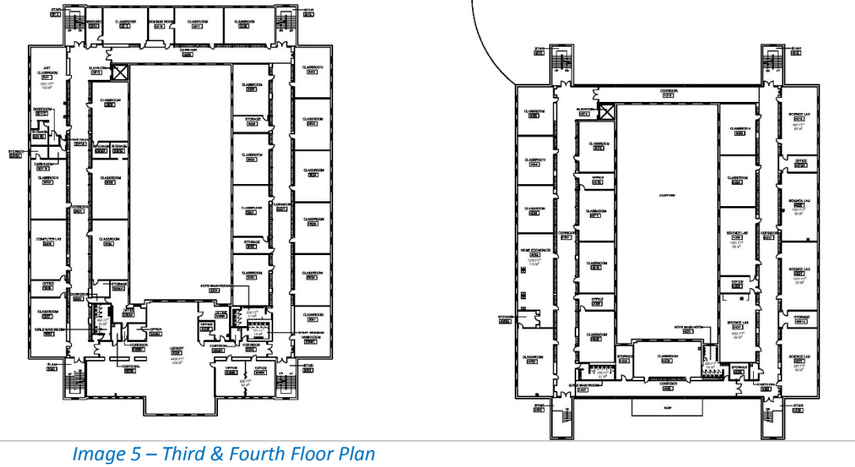


Image 5 – Third & Fourth Floor Plan

2.3.1 Exterior Building Envelope

- Roof
- The existing flat roofing is on metal roof decking on steel trusses. The majority of the roof was resurfaced in 2008.*

- Exterior Walls
  The building envelop consists of brick veneer and precast stone finish on load bearing CMU masonry walls. The exterior masonry is in poor condition and is showing signs of excessing deterioration with spalling brick and deteriorating mortar joints.*

- Exterior Doors and Windows
  The existing exterior painted wood doors appear to be the originals and are showing signs of damage, worn finishes, damaged frames and deteriorated seals and have single pain lites with non-tempered glass. It is recommended in the *Existing Conditions Report* that all exterior doors are a priority to be replaced.*
  The existing windows appear to be the original windows. They are single glazed units in metal frames and are showing signs of deterioration. It is recommended in the *Existing Conditions Report* the all windows be replaced.*

2.3.2 Interiors

- Floor Finishes
  The existing floor finishes consist of terrazzo, mainly vinyl composite tiles, ceramic tiles, hard wood flooring and carpet. The *Existing Conditions Report* notes that most of the floor finishes are in fair condition but that they are showing signs of wear and should be replaced.*

- Interior walls
  The existing interior wall are painted masonry and painted gypsum board walls. The *Existing Conditions Reports* notes that the walls are showing signs of wear and peeling and recommend re-finishing.*

- Ceilings
  The existing ceilings are consist of acoustic ceiling tiles, gypsum board ceilings and painted exposed structure. The *Existing Conditions Report* notes that the ceilings are all showing sign of age as well as areas with stains from past roof leaks. The report recommends that the ceiling be replaced.*

- Interior Doors and Hardware
  The existing doors are a combination of hollow metal doors with paint finish and wood doors with a natural or paint finish and typically have a glazed lite in them. The *Existing Conditions Report* notes that the doors have past their life span and show signs of damage and recommend that the doors as well as all the hardware be replaced.*

2.4 BUILDING CODE ANALYSIS

The existing school is not sprinklered. A renovation would be required to be reviewed under Part II of the Ontario Building Code (OBC) as a Basic Renovation.

The existing school has a total of 4 exit stairwells serving the ground floor up to the fourth floor providing adequate exit capacity for the occupant loads.

2.5 BUILDING ACCESSIBILITY

The existing school requires update to meet current accessibility standards. The *Existing Conditions Report* outline a number of areas in which the school should update to be more accessible including providing accessible parking spots, providing a path of travel to the main entrance of the building and a path of travel to all floor levels. The existing building does have an elevator but it is noted in the Existing Conditions Report that the elevator is in need of replacement.

2.6 STRUCTURAL ANAYLISIS

The existing building structure consists of CMU masonry load bearing walls, concrete on steel deck floors, steel duct roof with steel trusses and joists.*

SECTION 3 – CONCEPT PLANS

3.1 INTRODUCTION

The proposed renovations of Sir Winston Churchill Secondary School were determined based on numerous different factors. The proposed concept plan are the result of consideration of the following:

- HWDSB Secondary Program Strategy
- HWDSB Tier 3 Programs & Specialist High Skills Major Programs (including Appendices)
- Ministry of Education Space Template (recommendations)
- Hamilton Wentworth District School Board – Design Manual
- Existing and Projected student enrollment
- Conditions Assessment Report (by VFA Inc., 2013)

It was determined that Sir Winston Churchill Secondary School has an excess of instructional spaces in relation to its projected Full Time Enrollment (FTE). It also has an excess of Large Tech Labs. It is lacking in Small Tech Labs based on the Ministry of Education Space Template.

Projected Full Time Enrollment (FTE)	**877** pupil places
Number of pupils existing building can support (based on 21 pupils per classroom)	**1,194** pupil places
Excess Instructional Space in school for approx.	317 pupil places excess
Based on Edu loading of 21 students per classroom, school has approx.	15 excess classrooms

3.2 PHASING

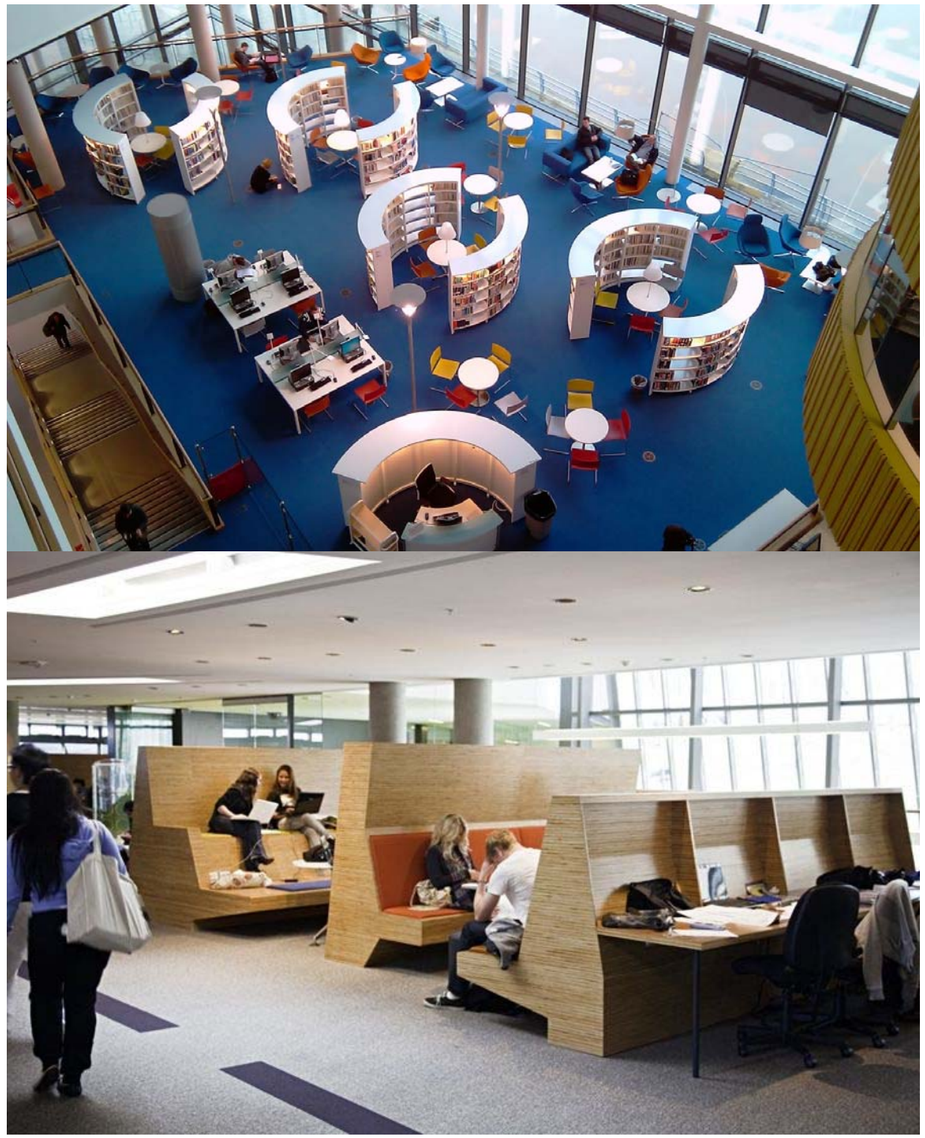
Renovations may take place in several phases to reduce disruption to occupied building during the school year.

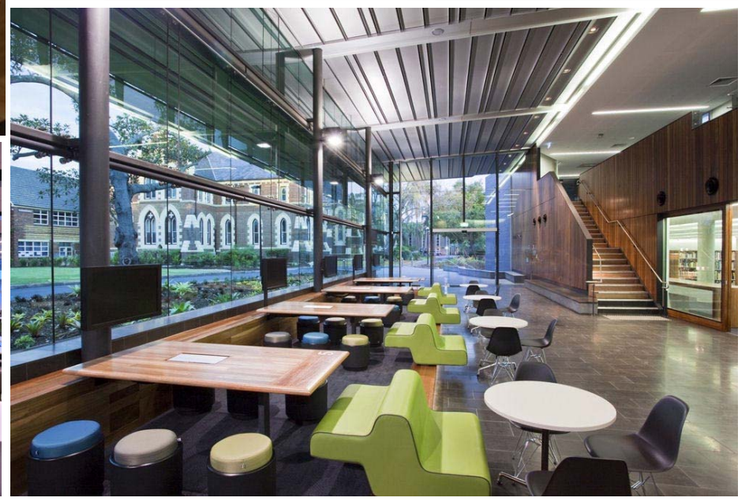
Phases could occur as follows:
Phase 1 – (Summer 1 and fall as required). Renovations to **Instructional Spaces** directly related to academic programs
Phase 2 – (Summer 2) **Cafeteria** and **Library**
Phase 3 – (Summer 3) **Non-instructional Spaces** and **Washrooms**
Phase 4 – (summer 4) Additional work per ***Existing Conditions Assessment Report*** *(refer to Appendix D)*.

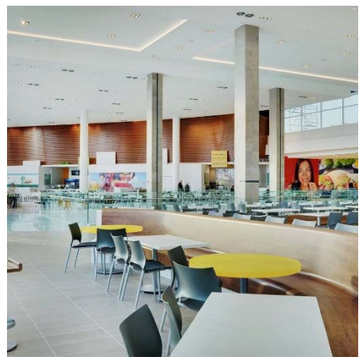
The first three phases identified above relate to the colour coding on the proposed floor plans herein.

3.3 COMMUNAL SPACES

The school revitalization mandate is to create more communal student spaces, such as a 'Student Forum' or 'Student Lounge', in addition to updating existing common spaces such as the Learning Commons (Library) and Cafeteria areas. These areas are to be modernized with various forms of furnishings as well as the sufficient provision of power for devices to support project based group work and 21st Century Learning environments.







SECONDARY SCHOOL SPACE TEMPLATE
SAMPLE SCHOOL

School Board: Sample District School Board
Grade Range: Grade 9 to 12
Program: English, French or Dual Track
School Name: Sample School

Table 18: Secondary Model Program Sheet			
Expected Enrolment:			1,194
Credit Assumptions	%	Credits	Classes
			53
Regular	51	4,567	30
Science	15	1,343	8
Arts	10	896	5
Business	5	448	3
Technology	10	896	5
Family Studies	3	269	2
Physical Education	6	537	

SECONDARY SCHOOL SPACE TEMPLATE
Sir Winston Churchill Secondary - Existing

School Board: HWDSB
Grade Range: 9 to 12
Program:
School Name: Sir Winston Churchill Secondary - Existing

SECONDARY SCHOOL SPACE TEMPLATE
Sir Winston Churchill Secondary - Proposed

School Board: PDSB
Grade Range: 9 to 12
Program:
School Name: Sir Winston Churchill Secondary - Proposed

3.4

MINISTRY OF EDUCATION – Space Template Analysis

In the following chart we compare the Ministry of Education Space Template recommendations with the existing school and the proposed School upon renovation completion. This comparison illustrates areas where the existing school may have in excess or may be deficient in space and how it has been resolved.

Instructional Spaces	#	Size m²	Size ft²	Floor Area m²	Floor Area ft²	Load	OTG
Classroom	30	70	750	2,090	22,500	21	630
Science Laboratories	**8**	**116**	**1,250**	**929**	**10,000**	**21**	**168**
Science General (Avg Size)		-		-	-	21	
Science Biology (Avg Size)		-		-	-	21	
Science Chemistry (Avg Size)		-		-	-	21	
Science Physics (Avg Size)		-		-	-	21	
Total Music / Arts	**5**			**573**	**6,170**		**105**
Music Instrumental/Voca	2	129	1,390	258	2,780	21	42
Graphics/Visual Arts	3	105	1,130	315	3,390	21	63
Theatre Arts		-		-	-	21	-
Photography		-		-	-	21	-
Media Arts		-		-	-	21	-
Technical / Vocational	**10**			**1,404**	**15,110**		**210**
Business/Computer Room	3	97	1,040	290	3,120	21	63
Family Studies	*2*	*114*	*1,230*	*229*	*2,460*		*42*
Family Studies (Food)		-		-	-	21	-
Family Studies (Textiles/Fasion)		-		-	-	21	-
Family Studies (Nutrition)		-		-	-	21	-
Technology Lab Large	*2*	*232*	*2,500*	*465*	*5,000*		*42*
Transportation		-		-	-	21	
Construction		-		-	-	21	
Design/Drafting		-		-	-	21	
Manufacturing		-		-	-	21	
Green Industries		-		-	-	21	
Welding		-		-	-	21	
Wood		-		-	-	21	
Integrated		-		-	-	21	
Technology Lab Small	*3*	*140*	*1,510*	*421*	*4,530*		*63*
Communications		-		-	-	21	
Computer Engineering		-		-	-	21	
Computer Laboratory		-		-	-	21	
Cosmetology		-		-	-	21	
Health Sciences		-		-	-	21	
Special Education / Resource Room				**444**	**4,776**		**-**
Special Education Area		-		-	-	9	-
Resource Area - Loaded (400-699 sf)		-		-	-	12	-
Resource Area - Unloaded (<400 sf)		-		-	-		-
Instructional Area Flexibility		-		444	4,776		
Other Spaces				**1,138**	**12,246**		**-**
Stage		139	1,500	139	1,500		
Library/Library Resource Centre		444	4,776	444	4,776		
Cafetorium/Cafeteria		555	5,970	555	5,970		
Lecture		-	-	-	-	21	-
Seminar		-	-	-	-		
Chapel		-	-	-	-		
Gymnasium and Exercise Room				**1,511**	**16,260**		**42**
Gymnasium Area - Quadruple		1,486	16,000	-	-	63	-
Gymnasium Area - Triple	1	1,115	12,000	1,115	12,000	42	42
Gymnasium Area - Double	-	743	8,000	-	-	21	-
Gymnasium Area - Single	-	372	4,000	-	-		
Dance/Aerobics Studio		-		-	-		
Exercise Room		-		-	-		
Weight Room		-		-	-		
Change Rooms	4	64	690	256	2,760		
Gymnasium and Exercise Room Flexibility		-		139	1,500		
Total GFA and OTG of Instructional Area				8,088	87,062		1,155

Operational Areas	Per Pupil m²	Per Pupil ft²	Floor Area m²	Floor Area ft²
General Office	0.2	2.3	255	2,746
Guidance Area	0.1	1.3	144	1,552
Cooperative Education Office			26	280
Staff Lounge			-	
Kitchen/Servery	0.1	1.1	122	1,313
Custodial Areas	0.2	1.7	189	2,030
Staff Room and Teacher Work Rooms	0.3	3.5	388	4,179
Meeting Room			28	300
Academic Storage	0.1	1.0	111	1,194
Washrooms	0.3	3.2	355	3,821
Gymnasium Storage			74	800
Mechanical Spaces	0.5	5.8	640	6,889

Instructional Spaces	#	Size m²	Size ft²	Floor Area m²	Floor Area ft²	Load	OTG	Area deficiency or excess ft²	# of deficiency or excess rooms
Classroom	36	67	718	2,401	25,848	21	756	(32)	6
Science Laboratories	**6**			**557**	**6,000**		**126**		**(2)**
Science General (Avg Size)		-		-	-	21	-		
Science Biology (Avg Size)	2	93	1,000	186	2,000	21	42	(250)	
Science Chemistry (Avg Size)	2	93	1,000	186	2,000	21	42	(250)	
Science Physics (Avg Size)	2	93	1,000	186	2,000	21	42	(250)	
Total Music / Arts	**3**			**425**	**4,571**		**63**		**(2)**
Music Instrumental/Voca	1	166	1,790	166	1,790	21	21	400	
Graphics/Visual Arts	1	116	1,250	116	1,250	21	21	120	
Theatre Arts		-		-	-	21	-		
Photography	1	142	1,531	142	1,531	21	21		
Media Arts		-		-	-	21	-		
Technical / Vocational	**9**			**1,502**	**16,165**		**189**		
Business/Computer Room	1	60	650	60	650	21	21	(390)	(2)
Family Studies	*1*			*113*	*1,219*		*21*		(1)
Family Studies (Food)	1	113	1,219	113	1,219	21	21	(11)	
Family Studies (Textiles/Fasion)		-		-	-	21	-		
Family Studies (Nutrition)		-		-	-	21	-		
Technology Lab Large	*6*			*1,181*	*12,716*		*126*		4
Transportation	1	286	3,075	286	3,075	21	21	575	
Construction		-		-	-	21	-		
Design/Drafting	1	108	1,160	108	1,160	21	21	(1340)	
Manufacturing	1	190	2,043	190	2,043	21	21	(457)	
Green Industries		-		-	-	21	-		
Welding	1	213	2,292	213	2,292	21	21	(208)	
Wood	2	193	2,073	385	4,146	21	42	(427)	
Integrated		-		-	-	21	-		
Technology Lab Small	*1*			*147*	*1,580*		*21*		(2)
Communications		-		-	-	21	-		
Computer Engineering (Aerospace/Robotics	1	147	1,580	147	1,580	21	21	70	
Computer Laboratory		-		-	-	21	-		
Cosmetology		-		-	-	21	-		
Health Sciences		-		-	-	21	-		
Special Education / Resource Room	**4**			**186**	**2,006**		**18**		
Special Education Area	2	69	748	139	1,496	9	18		
Resource Area - Loaded (400-699 sf)		-		-	-	12	-		
Resource Area - Unloaded (<400 sf)	2	24	255	47	510		-		
Instructional Area Flexibility									
Other Spaces	**4**			**1,290**	**13,883**		**21**		
Stage	1	242	2,610	242	2,610		-		
Library/Library Resource Centre	1	493	5,302	493	5,302		-	526	
Cafetorium/Cafeteria	1	555	5,971	555	5,971		-	1	
Lecture	1	-	-	-	-	21	21		
Seminar		-		-	-				
Chapel		-		-	-				
Gymnasium and Exercise Room	**3**			**1,259**	**13,554**		**21**		
Gymnasium Area - Quadruple		-		-	-	63	-		
Gymnasium Area - Triple		-		-	-	42	-		
Gymnasium Area - Double	1	852	9,170	852	9,170	21	21		
Gymnasium Area - Single		-		-	-		-		
Dance/Aerobics Studio		-		-	-		-		
Exercise Room		-		-	-		-		
Weight Room	1	149	1,607	149	1,607		-		
Change Rooms	1	258	2,777	258	2,777		-		
Total GFA and OTG of Instructional Area				7,620	82,027		1,194		

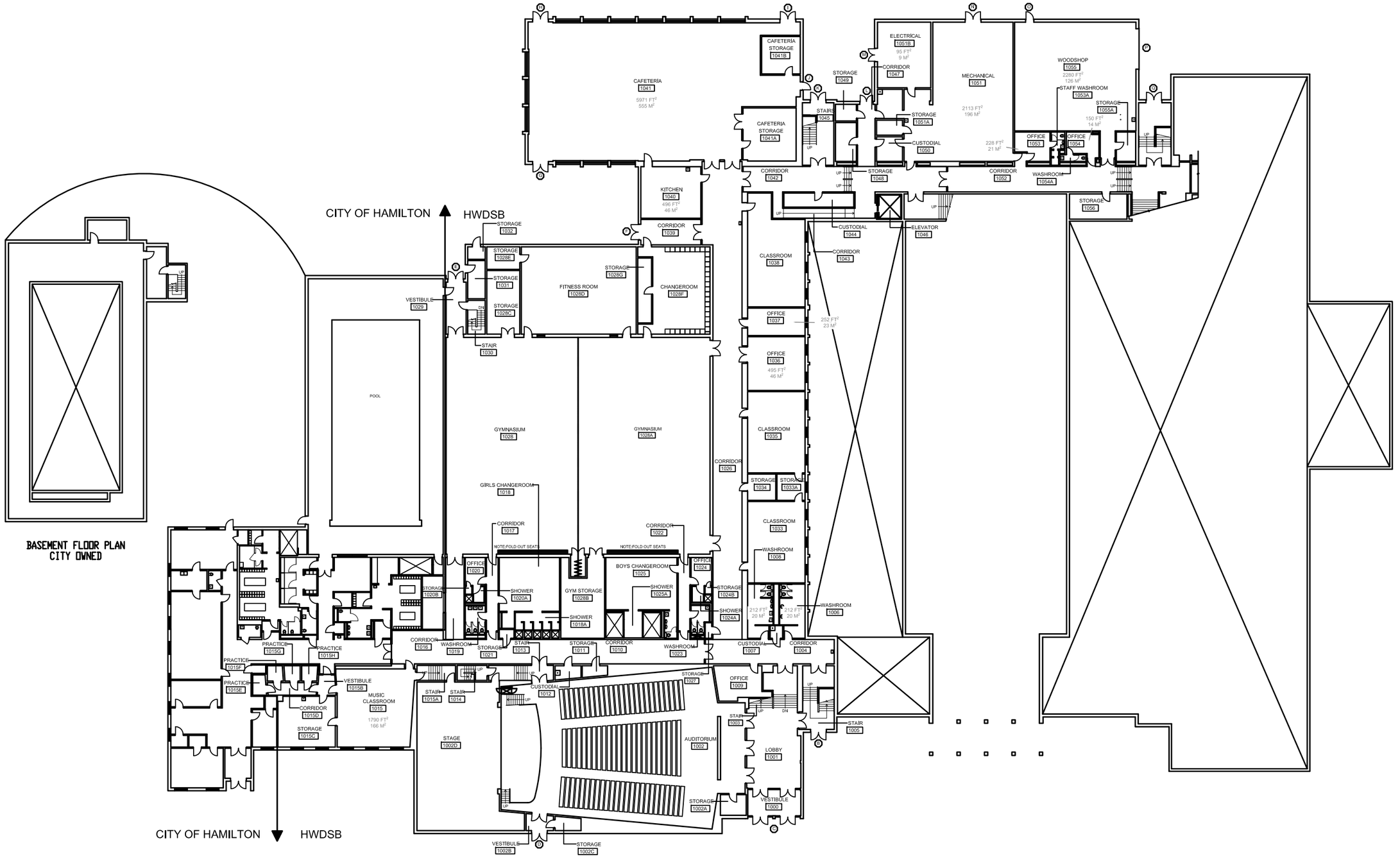
Operational Areas	Per Pupil m²	Per Pupil ft²	Floor Area m²	Floor Area ft²	
General Office			253	2,727	(19)
Guidance Area			79	850	(702)
Cooperative Education Office			-	-	
Staff Lounge			93	1,005	
Kitchen/Servery			46	496	
Custodial Areas			-		
Staff Room and Teacher Work Rooms			-		
Meeting Room			-		
Academic Storage			-		
Washrooms			-		
Gymnasium Storage			-		
Mechanical Spaces			-		

Instructional Spaces	#	Size m²	Size ft²	Floor Area m²	Floor Area ft²	Load	OTG	Area deficiency or excess ft²	# of deficiency or excess rooms
Classroom	35	67	718	2,335	25,130	21	735	(32)	5
Science Laboratories	**8**			**697**	**7,500**		**168**		**0**
Science General (Avg Size)	2	70	750	139	1,500	21	42		
Science Biology (Avg Size)	2	93	1,000	186	2,000	21	42	(250)	
Science Chemistry (Avg Size)	2	93	1,000	186	2,000	21	42	(250)	
Science Physics (Avg Size)	2	93	1,000	186	2,000	21	42	(250)	
Total Music / Arts	**3**			**425**	**4,570**		**63**		**(2)**
Music Instrumental/Voca	1	166	1,790	166	1,790	21	21	400	
Graphics/Visual Arts	1	116	1,250	116	1,250	21	21	120	
Theatre Arts		-		-	-	21	-		
Photography	1	142	1,530	142	1,530	21	21		
Media Arts		-		-	-	21	-		
Technical / Vocational	**9**			**1,481**	**15,940**		**189**		
Business/Computer Room	1	81	875	81	875	21	21	(165)	(2)
Family Studies	*1*			*106*	*1,142*		*21*		(1)
Family Studies (Food) HOSPITALITY	1	106	1,142	106	1,142	21	21	(88)	
Family Studies (Textiles/Fasion)		-		-	-	21	-		
Family Studies (Nutrition)		-		-	-	21	-		
Technology Lab Large	*3*			*671*	*7,221*		*63*		(1)
Transportation	1	286	3,075	286	3,075	21	21	575	
Construction		-		-	-	21	-		
Design/Drafting		-		-	-	21	-	0	
Manufacturing	1	193	2,073	193	2,073	21	21	(427)	
Green Industries		-		-	-	21	-		
Welding		-		-	-	21	-	0	
Wood	1	193	2,073	193	2,073	21	21	(427)	
Integrated		-		-	-	21	-		
Technology Lab Small	*4*			*623*	*6,702*		*84*		1
Communications & TV STUDIO	1	195	2,097	195	2,097	21	21		
Computer Engineering /ROBOTICS	1	146	1,576	146	1,576	21	21	66	
Computer Laboratory CADD	1	70	750	70	750	21	21		
Cosmetology	1	212	2,279	212	2,279	21	21		
Health Sciences		-		-	-	21	-		
Special Education / Resource Room	**5**			**284**	**3,061**		**39**		
Special Education Area & GSP	3	72	777	217	2,331	9	27		
Resource Area - Loaded (400-699 sf)	1	46	490	46	490	12	12		
Resource Area - Unloaded (<400 sf)	1	22	240	22	240		-		
Instructional Area Flexibility									
Other Spaces	**7**			**1,117**	**12,023**		**21**		
Stage	1	242	2,610	242	2,610		-		
Library/Library Resource Centre	1	214	2,302	214	2,302		-	2302	
Cafetorium/Cafeteria	1	555	5,971	555	5,971		-	5971	
Lecture	1	-	-	-	-	21	21		
Seminar	3	35	380	106	1,140		-		
Chapel		-		-	-		-		
Gymnasium and Exercise Room	**3**			**1,259**	**13,554**		**21**		
Gymnasium Area - Quadruple		-		-	-	63	-		
Gymnasium Area - Triple		-		-	-	42	-		
Gymnasium Area - Double	1	852	9,170	852	9,170	21	21		
Gymnasium Area - Single		-		-	-		-		
Dance/Aerobics Studio		-		-	-		-		
Exercise Room		-		-	-		-		
Weight Room	1	149	1,607	149	1,607		-		
Change Rooms	1	258	2,777	258	2,777		-		
Total GFA and OTG of Instructional Area				7,597	81,778		1,236		

Operational Areas	Per Pupil m²	Per Pupil ft²	Floor Area m²	Floor Area ft²	
General Office			253	2,727	(19)
Guidance Area			79	850	(702)
Cooperative Education Office			-		
Staff Lounge			93	1,005	
Kitchen/Servery			129	1,389	
Custodial Areas			-		
Staff Room and Teacher Work Rooms			-		
Meeting Room			-		
Academic Storage			-		
Washrooms			-		
Gymnasium Storage			-		
Mechanical Spaces			-		

3.5 PLANS

The following pages illustrate the **Existing Floor Plan** and subsequent **Proposed Floor Plan** for each level of the school.



SIR WINSTON CHURCHILL SECONDARY SCHOOL

EXISTING FIRST FLOOR KEY PLAN

PROJ: 15108
SCALE: NTS
DRAWN: CT
DATE: 15/04/08

TRUE NORTH
PROJECT NORTH

HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

E1

PHASE LEGEND

PHASE 1

INSTITUTIONAL SPACES

- RENOVATION WITH SAME PROGRAM
- RENOVATION INTO DIFFERENT PROGRAM

PHASE 2

OTHER SPACES

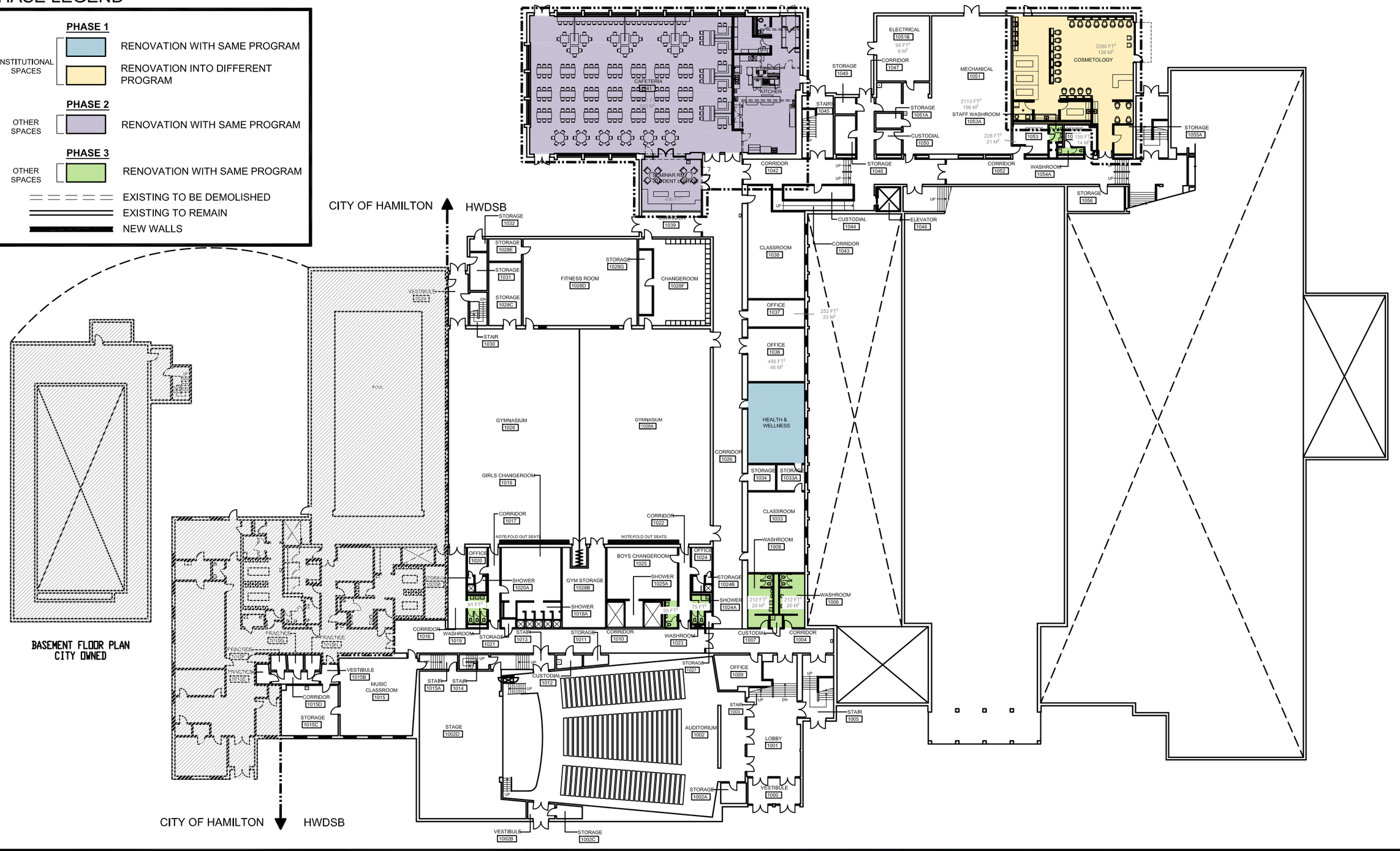
- RENOVATION WITH SAME PROGRAM

PHASE 3

OTHER SPACES

- RENOVATION WITH SAME PROGRAM

- EXISTING TO BE DEMOLISHED
- EXISTING TO REMAIN
- NEW WALLS



BASEMENT FLOOR PLAN
CITY OWNED

SIR WINSTON CHURCHILL SECONDARY SCHOOL

FIRST FLOOR KEY PLAN

PROJ: 15108
SCALE: NTS
DRAWN: CT
DATE: 15/04/08

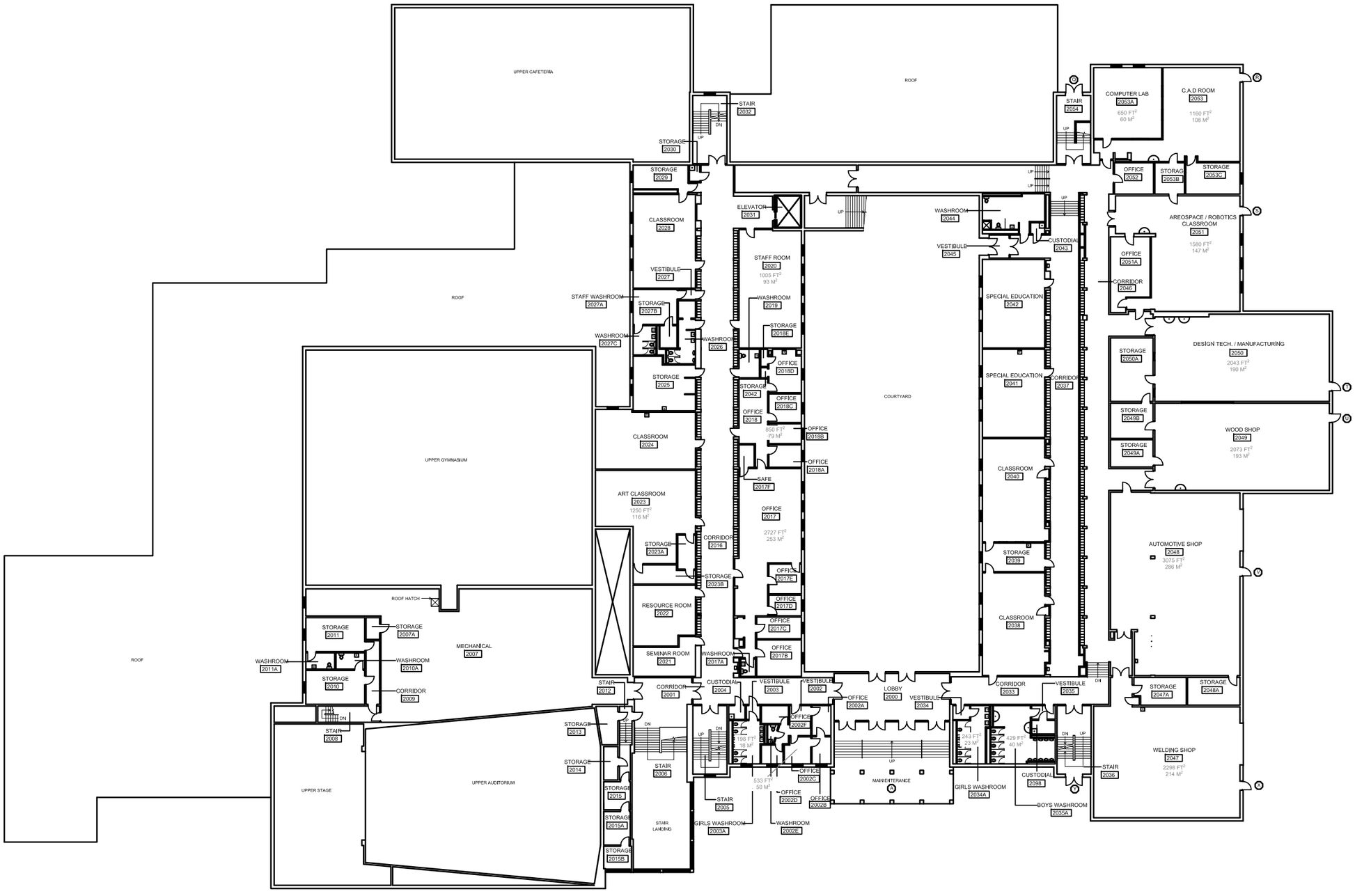
TRUE NORTH

PROJECT NORTH

HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

A1



SIR WINSTON CHURCHILL SECONDARY SCHOOL

EXISTING SECOND FLOOR KEY PLAN

PROJ: 15108
SCALE: NTS
DRAWN: CT
DATE: 15/04/08

TRUE NORTH
PROJECT NORTH

HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

E2

PHASE LEGEND

PHASE 1

INSTITUTIONAL SPACES
- RENOVATION WITH SAME PROGRAM
- RENOVATION INTO DIFFERENT PROGRAM

PHASE 2

OTHER SPACES
- RENOVATION WITH SAME PROGRAM

PHASE 3

OTHER SPACES
- RENOVATION WITH SAME PROGRAM

- EXISTING TO BE DEMOLISHED
- EXISTING TO REMAIN
- NEW WALLS

SIR WINSTON CHURCHILL SECONDARY SCHOOL

SECOND FLOOR KEY PLAN

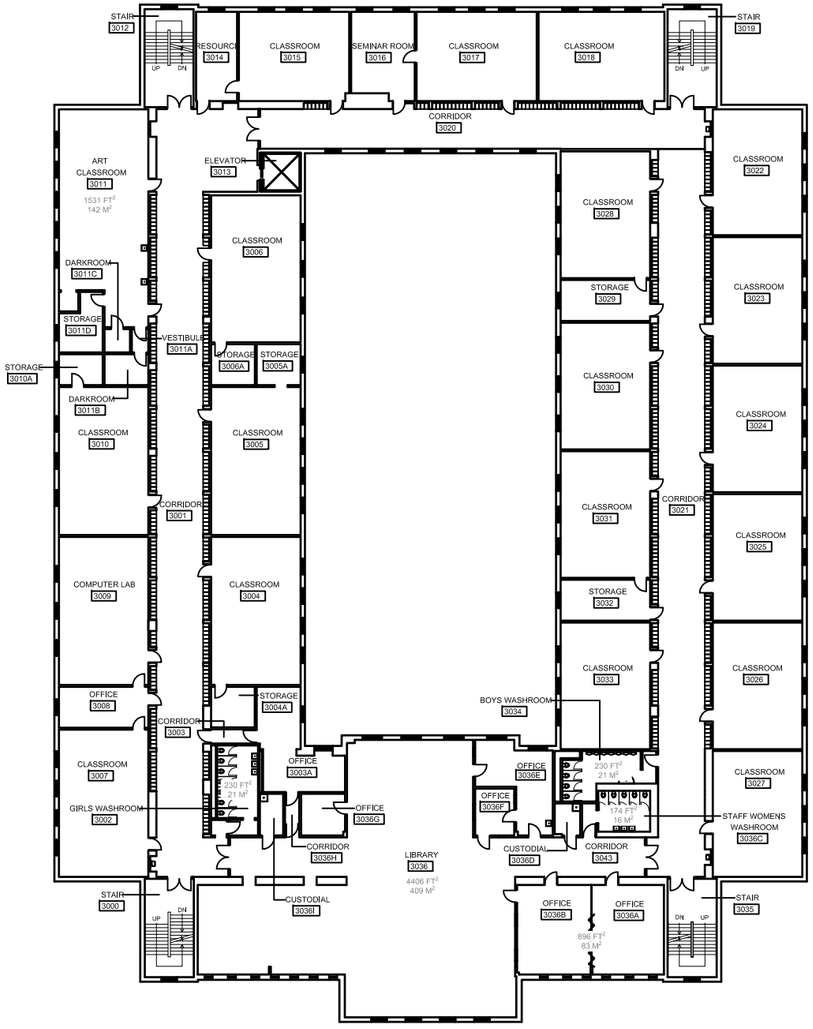
PROJ: 15108
SCALE: NTS
DRAWN: CT
DATE: 15/04/08

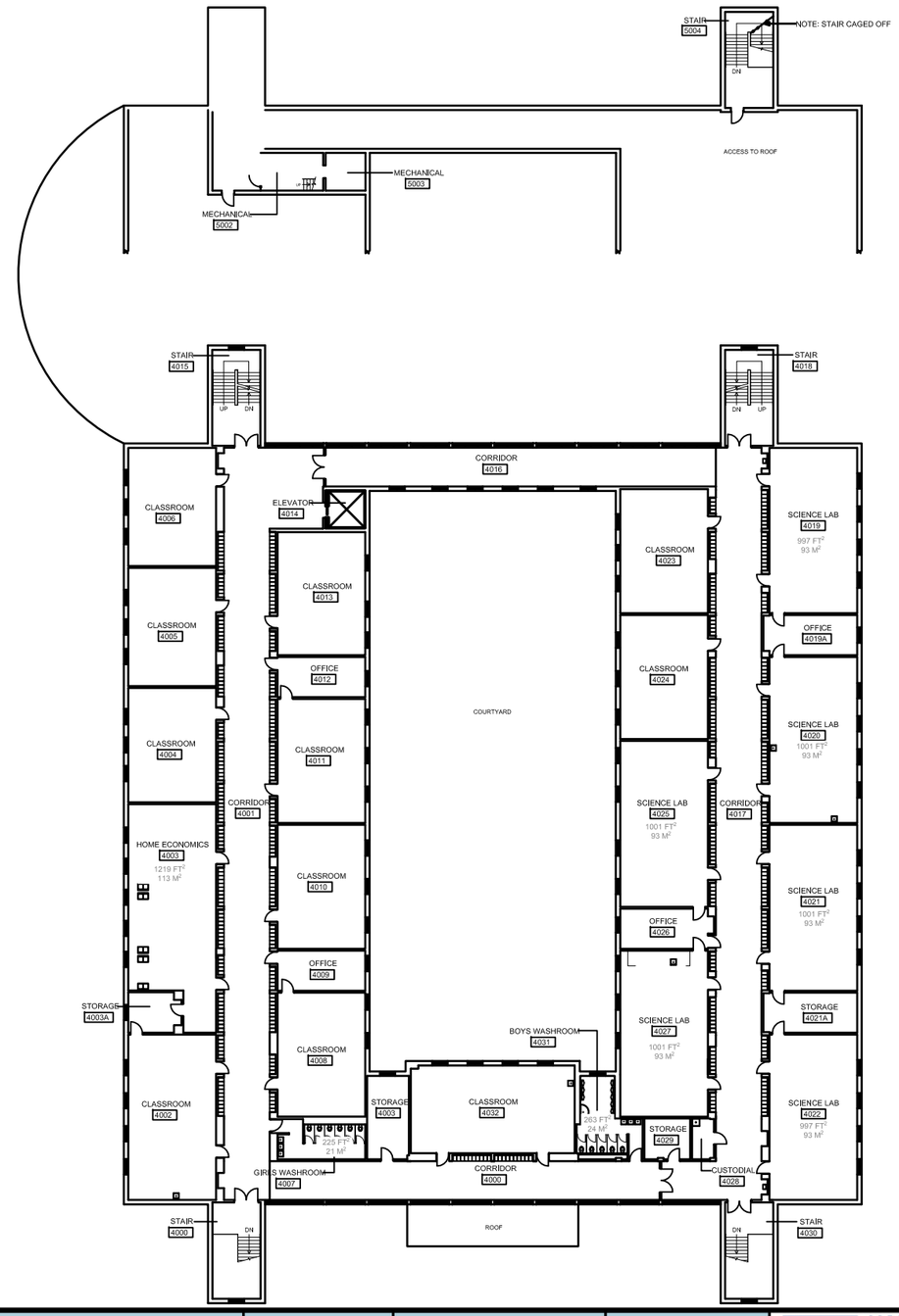
TRUE NORTH
PROJECT NORTH

HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

A2





SIR WINSTON CHURCHILL SECONDARY SCHOOL

EXISTING THIRD & FORTH FLOOR KEY PLAN

PROJ: 15108
SCALE: NTS
DRAWN: CT
DATE: 15/04/08

TRUE NORTH
PROJECT NORTH

HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

E3

PHASE LEGEND

PHASE 1

INSTITUTIONAL SPACES
- RENOVATION WITH SAME PROGRAM
- RENOVATION INTO DIFFERENT PROGRAM

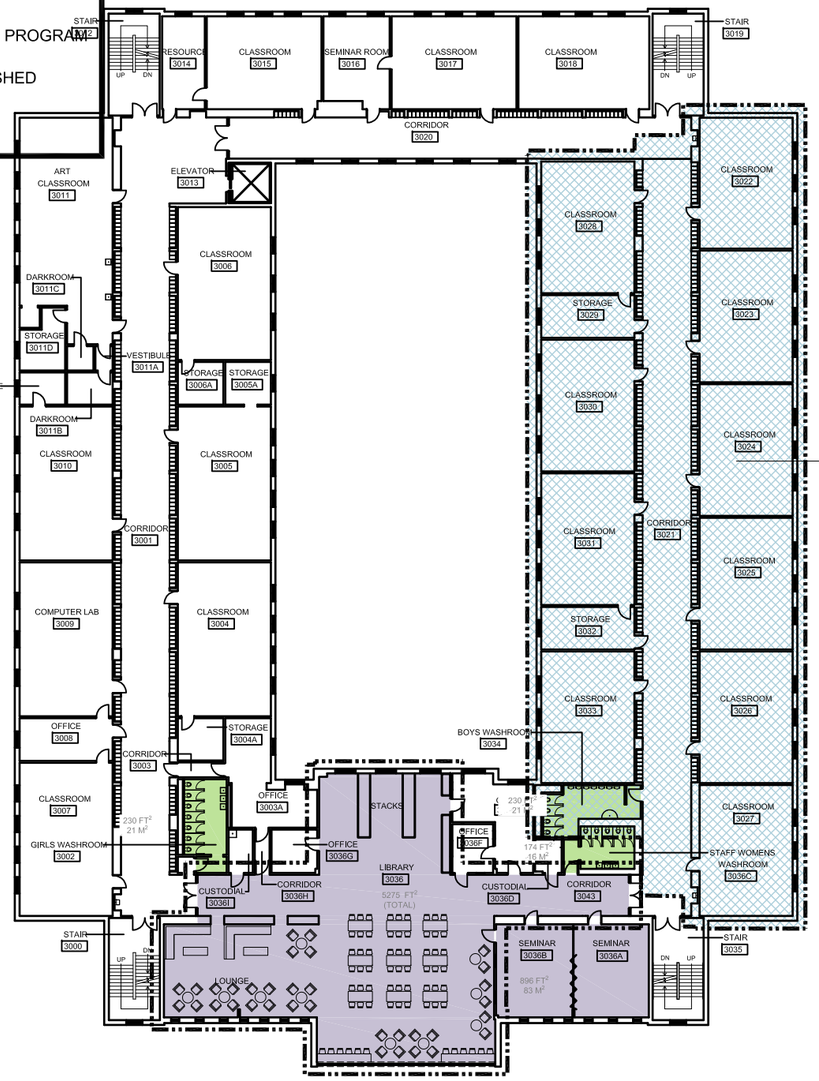
PHASE 2

OTHER SPACES
- RENOVATION WITH SAME PROGRAM

PHASE 3

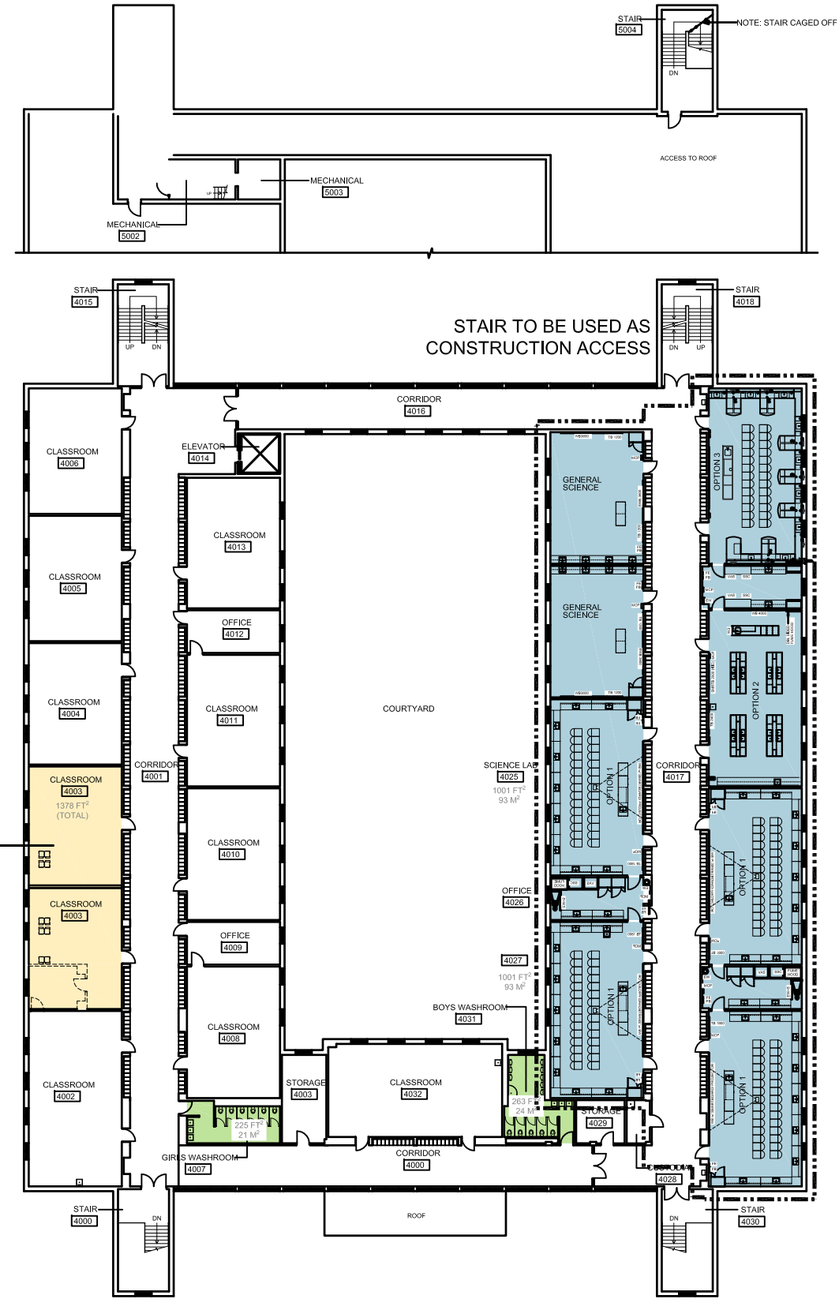
OTHER SPACES
- RENOVATION WITH SAME PROGRAM

- EXISTING TO BE DEMOLISHED
- EXISTING TO REMAIN
- NEW WALLS



NOTE: SHADED AREA DENOTES POSSIBLE LOSS OF CLASSROOM USE BELOW DURING SCIENCE ROOM RENOVATIONS TO COMPLETE ABATEMENT AND NEW PLUMBING CONNECTIONS. WILL NEED TO BE DETERMINED IN THE FIELD.

PROPOSED RENOVATIONS
- (2) NEW CLASSROOMS
- FLOORING
- CEILING
- PAINT



SIR WINSTON CHURCHILL SECONDARY SCHOOL

THIRD & FOURTH FLOOR KEY PLAN

PROJ: 15108
SCALE: NTS
DRAWN: CT
DATE: 15/04/08

TRUE NORTH
PROJECT NORTH

HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

A3

3.6 DESCRIPTION

All Spaces noted below are to be renovated to upgrade flooring, ceilings, painting and millwork as required.

3.6.1 PHASE 1 – Instructional Spaces

All Spaces noted below are to be renovated to upgrade flooring, ceilings, painting and millwork as required.

GROUND FLOOR

COSMOTOLOGY

The existing wood shop is to be renovated to provide a new Cosmetology classroom. A new exterior doorway will be added to provide access for the public.

SECOND FLOOR

COMMUNICATION ARTS

The existing Computer Lab and CAD Room will be renovated to provide a Communications Arts classroom and a TV Studio complete with storage and editing facilities.

AREOSPACE/ROBOTICS

The existing Areospace/Robotics classroom with continue to provide this program but will receive a renovation including new flooring, paint and equipment.

CADD LAB

The existing storage rooms adjacent to the Design Tech. and Wood Shop will be renovated into a new CADD lab.

DESIGN TECH./MANUFACTURING

The existing Design Tech./Manufacturing Classroom will be renovated with new floors, paint and equipment.

WOOD SHOP

The existing Wood Shop will be renovated with new floors, paint and equipment.

AUTOMOTIVE SHOP

The existing Automotive Shop will be renovated with new floors, paint and equipment.*

GRADUATED SUPPORT PROGRAM

An existing classroom and adjacent storage located on the ground floor with close proximity to the main entrance will be revised into a new Graduate Support Room complete with adjoining seminar room. A new Orthopedic washroom will also be provided with access off the main corridor.

HOSPITALITY, CAFÉ AND STUDENT LOUNGE

The existing Welding Shop and adjacent storage will be renovated into a new Hospitality Classroom with adjoining Café and Student Lounge.

FOURTH FLOOR

CLASSROOMS

The existing Home Economics classroom and adjoining Storage Room are no longer required and will be renovated in to 2 standard classrooms. All existing millwork and plumbing will be removed. The new Classrooms will receive new flooring, paint and ceilings.

SCIENCE LABS

All the existing Science Labs and adjoining space will be renovated in to new Science Labs with adjoining Prep Rooms. All existing millwork and plumbing will be replaced. Existing Floors and ceilings will also be replaced and existing and new walls will receive new paint.

Two existing Classrooms in the Science Corridor will be renovated into new General Science Rooms. All existing millwork and plumbing will be replaced. Existing Floors and ceilings will also be replaced and existing and new walls will receive new paint.

3.6.2 PHASE 2 – Cafeteria and Library

GROUND FLOOR

CAFETERIA AND KITCHEN

The existing Cafeteria and kitchen will be renovated. The existing kitchen will be renovated into a Seminar room with all millwork and equipment removed. The existing Cafeteria Storage will be demolished and a new Kitchen will be create in the east side of the Cafeteria with all new equipment. The Cafeteria will receive all new finishes, including floor, ceiling and wall paint.

THIRD FLOOR

LIBRARY

The existing Library will be renovated with all new finishes, floors, ceiling and wall paint, as well as reorganizing the layout to provide a lounge area.

3.6.3 Phase 3 – Non-Instructional Spaces and Washrooms

GROUND FLOOR

WASHROOMS

All existing ground floor washrooms to be renovated. All plumbing fixtures to be removed and replaces. New floor, ceiling and wall finishes to be installed. New washroom partitions to be installed. Revise layout to include new Barrier free stall to meet O.B.C. requirements.

SECOND FLOOR

MAIN OFFICE

The existing Main Office area will be renovated with new floors, ceiling and wall finishes.

STAFF ROOM

The existing Main Office area will be renovated with new floors, ceiling and wall finishes.

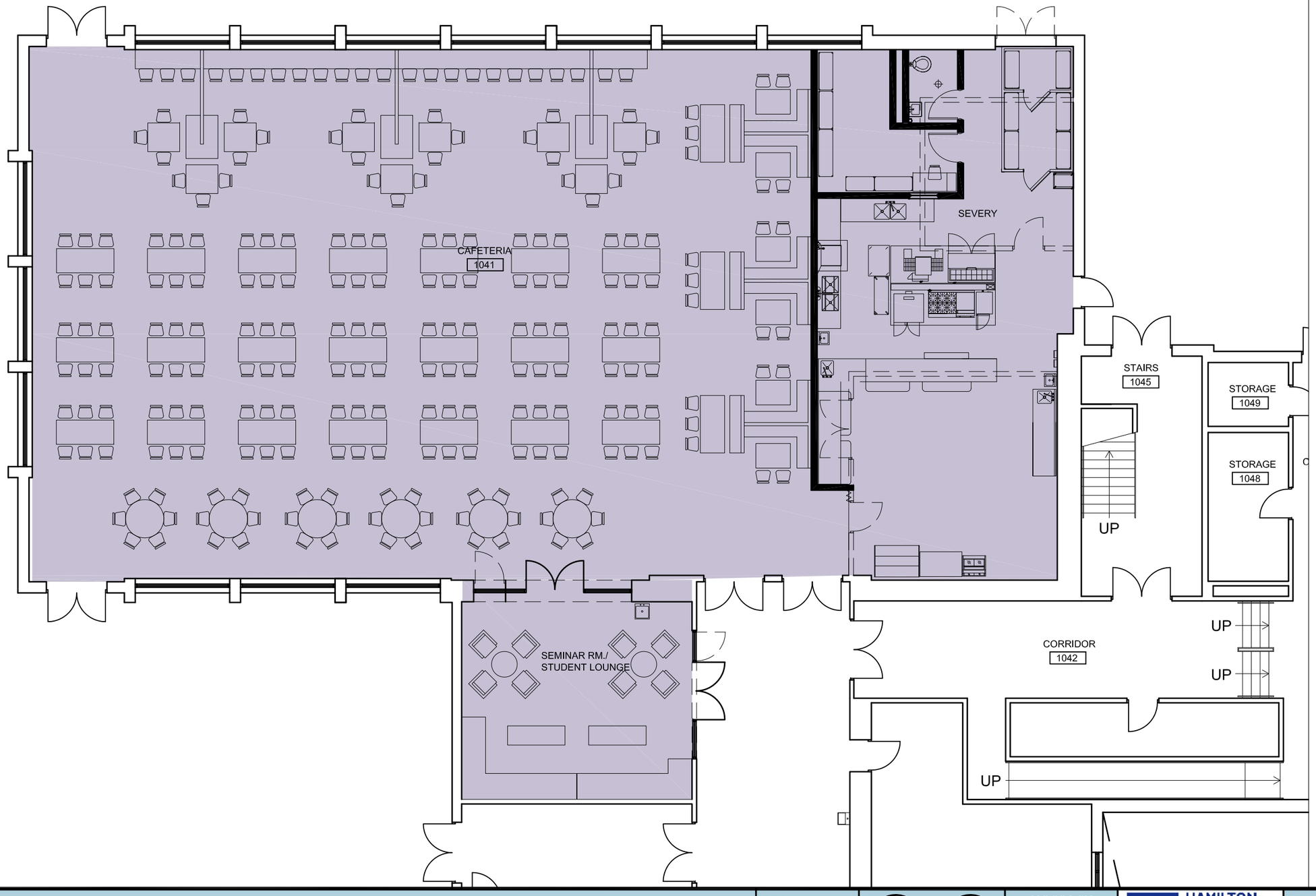
WASHROOMS

All existing second floor washrooms to be renovated. All plumbing fixtures to be removed and replaces. New floor, ceiling and wall finishes to be installed. New washroom partitions to be installed. Revise layout to include new Barrier free stall to meet O.B.C. requirements.

THIRD AND FOURTH FLOOR

WASHROOMS

All existing third and fourth floor washrooms are to be renovated. All plumbing fixtures to be removed and replaced. New flooring, ceiling and wall finishes are to be installed. New washroom partitions are to be installed. Revise layout to include new Barrier free stall to meet O.B.C. requirements.



SIR WINSTON CHURCHILL SECONDARY SCHOOL

ENLARGED PLAN

PROJ: 15108
SCALE: 1/8"=1'-0"
DRAWN: CT
DATE: 15/04/08

TRUE NORTH

PROJECT NORTH

HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

A4

HAIR WASHING

AESTHETIC SPA BEDS

COSMETOLOGY
1055

RECEPTION

MANI/PEDI

OFFICE
1053

OFFICE
1054

STORAGE

UP

CORRIDOR
1052

UP

UP

COMM.
ARTS

TV
STUDIO

CONTROL
RM

EDITING
RM
1061

EDITING
RM
1062

MCP

TEACHING WALL

OFFICE
2052

STORAGE
2053E

SIR WINSTON CHURCHILL SECONDARY SCHOOL

ENLARGED PLAN

PROJ: 15108
SCALE: 1/8"=1'-0"
DRAWN: CT
DATE: 15/04/08

TRUE NORTH

PROJECT NORTH

HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

A5

CORRIDOR
2037

CORRIDOR
2046

CADD

WB 2400

WORK TABLE (NIC)

DESIGN TECH.
2050

STORAGE

T

U

MORTISER (NIC)

MITRE SAW (NIC)

LATHE (NIC)

PANEL SAW (NIC)

TABLE SAW (NIC)

WOOD SHOP

TABLE ROUTER (NIC)

PLANER (NIC)

JOINTER (NIC)

DRILL PRESS (NIC)

STORAGE

SC

BAND SAW (NIC)

SCROLL SAW (NIC)

MITRE SAW (NIC)

ENGINE STAND (NIC)

ENGINE HOIST (FOLDED) (NIC)

SIR WINSTON CHURCHILL SECONDARY SCHOOL

ENLARGED PLAN

PROJ: 15108
SCALE: 1/8"=1'-0"
DRAWN: CT
DATE: 15/04/08

TRUE NORTH

PROJECT NORTH

HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

A6

CORRIDOR
2046

DN

CORRIDOR
2033

STAIR
2036

DN UP

AUTOMOTIVE SHOP
2048

STEEL

ROLLING TOOL CHEST (NIC)

GRINDER (NIC)

CHOP SAW (NIC)

WELDING TABLE (NIC)

ARC WELDER (NIC)

MIG WELDER (NIC)

EXHAUST HOOD

PARTS WASH (NIC)

BRAKE LATHE (NIC)

FE

FB

LOW WALL

LED DISPLAY

HOSPITALITY

STUDENT LOUNGE

CAFE

NEW EXTERIOR ACCESS

SEMINAR ROOM

ORTHOPEDIC WR

SPECIAL EDUCATION (GRADUATED SUPPORT PROGRAM)

CORRIDOR
2033

SIR WINSTON CHURCHILL SECONDARY SCHOOL

ENLARGED PLAN

PROJ: 15108
SCALE: 1/8"=1'-0"
DRAWN: CT
DATE: 15/04/08

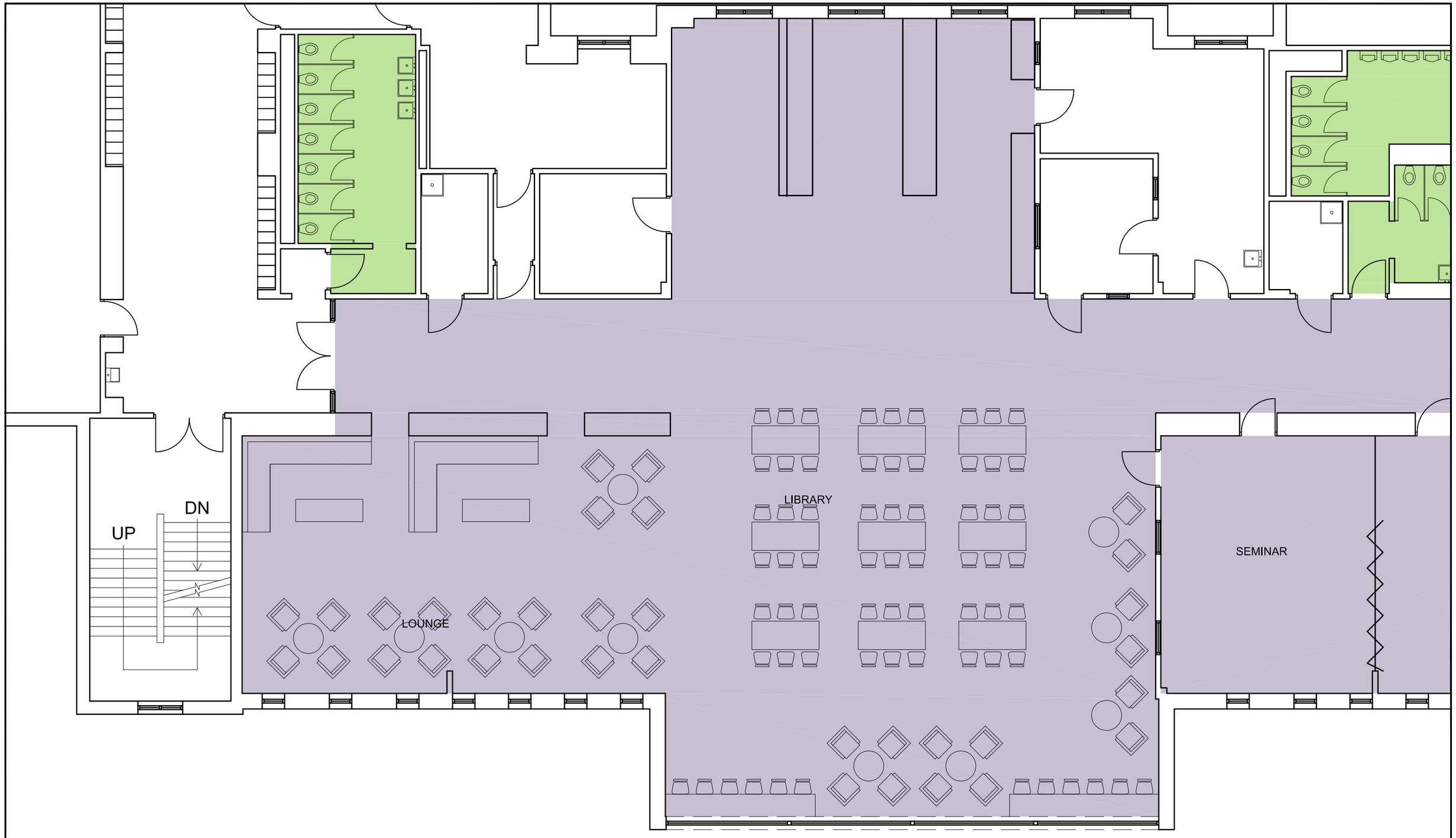
TRUE NORTH

PROJECT NORTH

HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

A7



SIR WINSTON CHURCHILL SECONDARY SCHOOL

ENLARGED PLAN

PROJ: 15108
SCALE: 1/8"=1'-0"
DRAWN: CT
DATE: 15/04/08

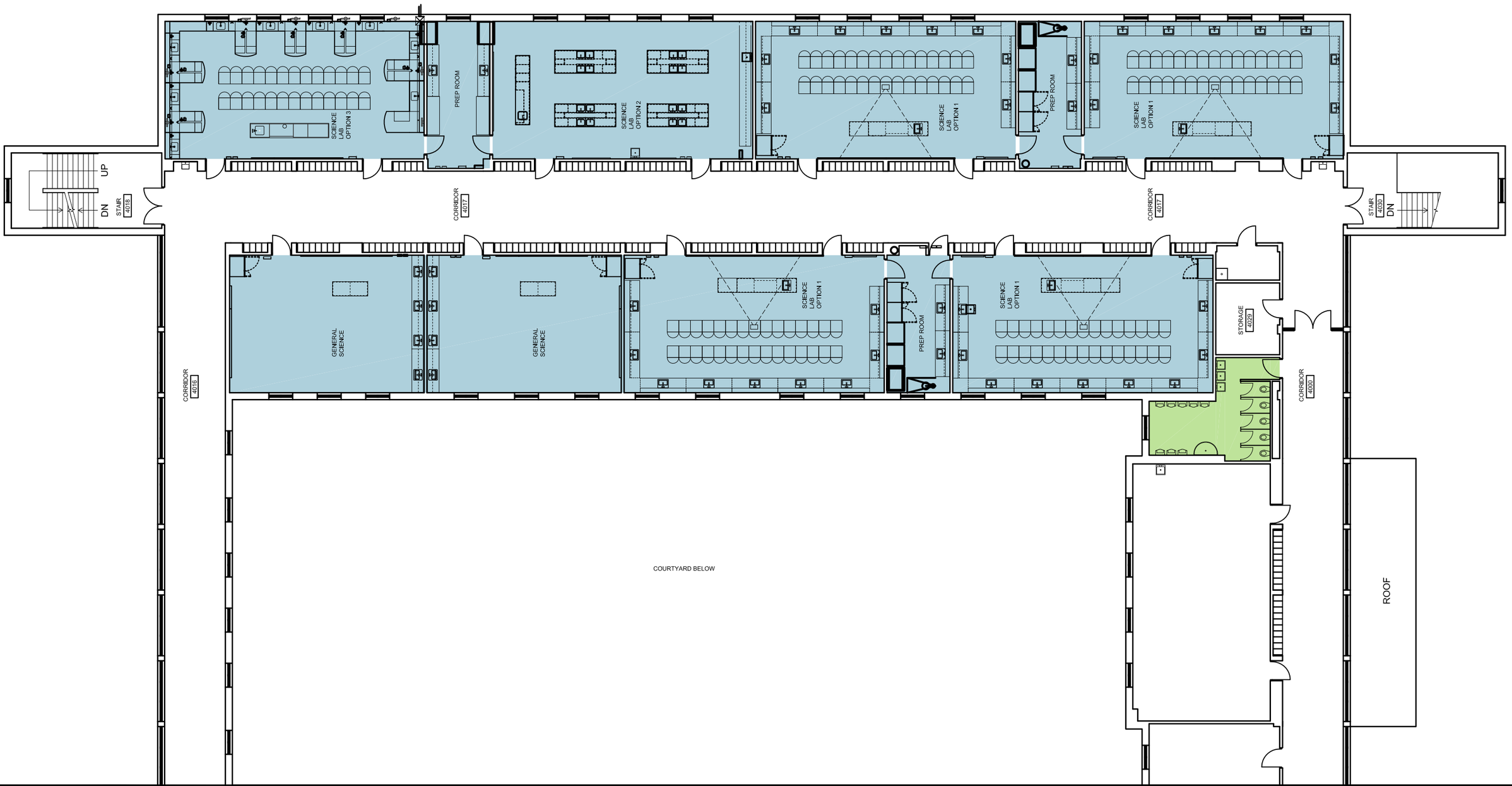
TRUE NORTH

PROJECT NORTH

HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

A8



SIR WINSTON CHURCHILL SECONDARY SCHOOL

ENLARGED PLAN

PROJ: 15108
SCALE: 1/16"=1'-0"
DRAWN: CT
DATE: 15/04/08

TRUE NORTH
PROJECT NORTH

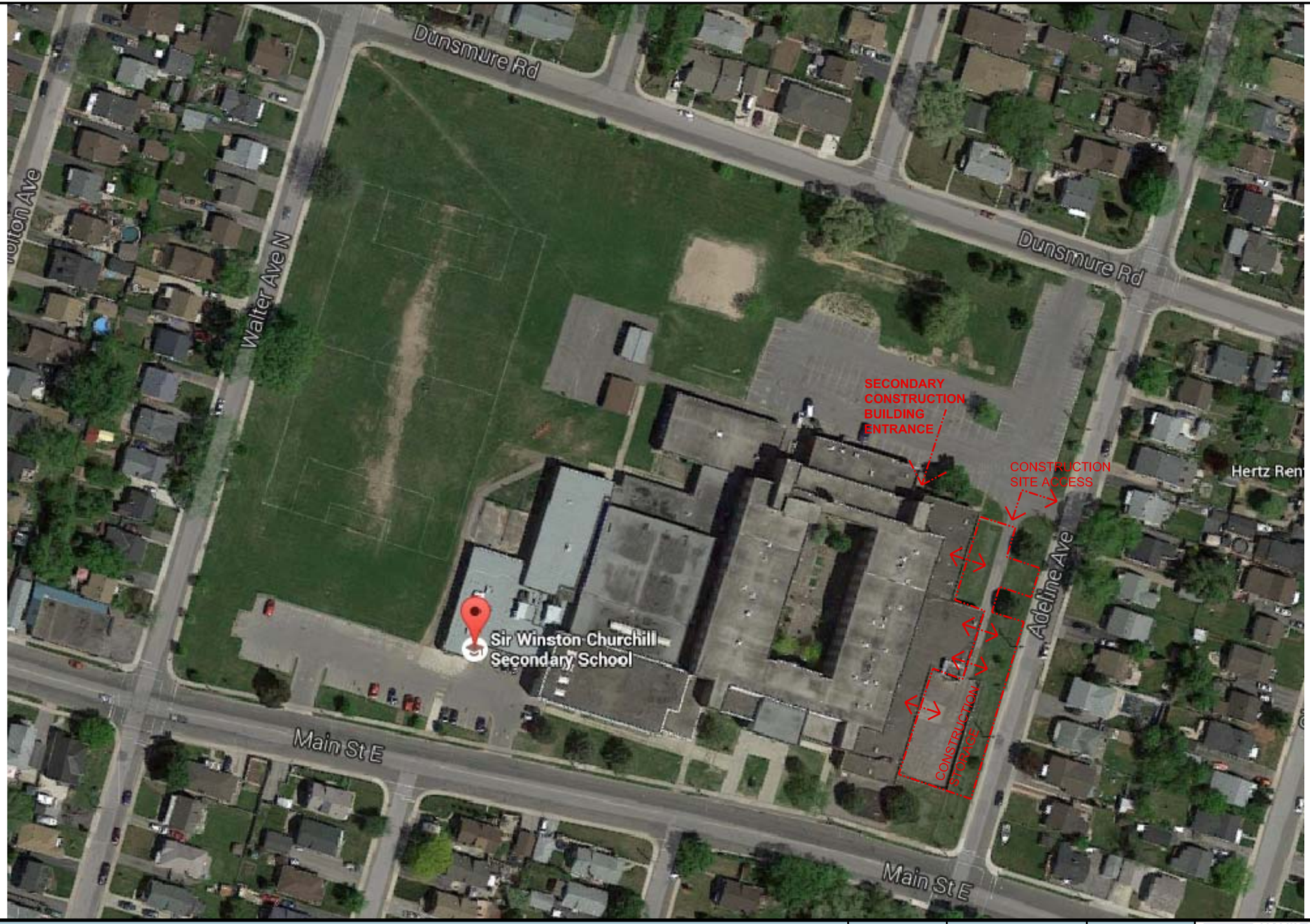
HOSSACK & ASSOCIATES ARCHITECTS

HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

A9

3.7 SITE PLAN – Construction Access

The parking lot has two entrance so one will be designated as the construction entrance with the second entrance remaining for staff and students. Refer to attached Site Plan for the proposed locations of the Construction Storage and Construction Building entrance.



SIR WINSTON CHURCHILL SECONDARY SCHOOL

SITE KEY PLAN

PROJ:	15108
SCALE:	NTS
DRAWN:	CT
DATE:	15/04/08

TRUE NORTH

PROJECT NORTH

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HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

SP1

SECTION 4 – SUSTAINABLE DESIGN STRATEGIES

The revitalization of Sir Winston Churchill Secondary School is proposed as a renovation to the existing building to repurpose existing space for the modern needs of the users. An addition is both costly and utilizes site area, which is limited in the urban setting of this school. Also, it has been identified that the existing building has sufficient space to accommodate the projected future enrollment population.

The intention is to renovate using sustainable design strategies such as the following:

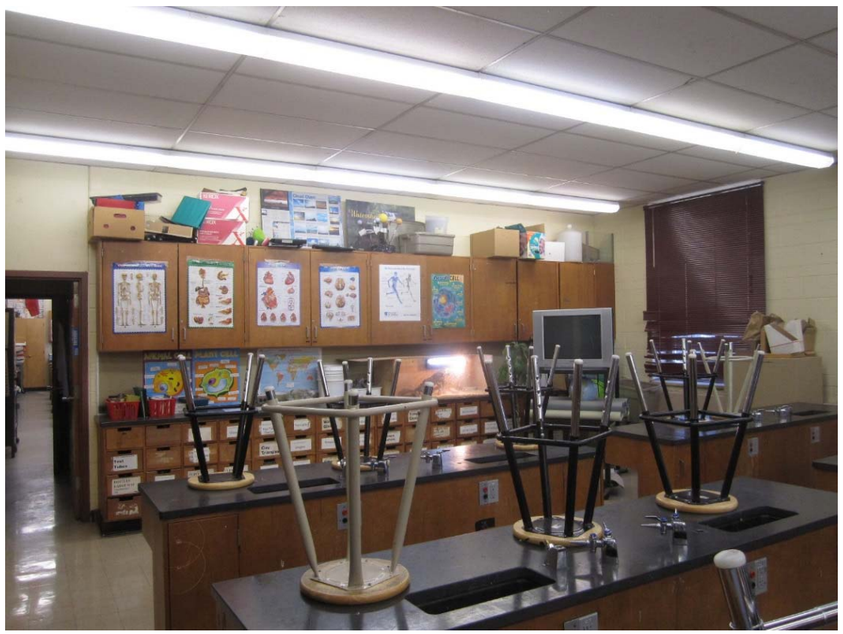
- Retain existing building components wherever possible (thus reducing material in landfill).
- Reuse existing building components wherever possible (reuse concrete block or brick veneer).
- Replace building components that do not promote energy efficient qualities (ie. poor windows and doors, mechanical, plumbing and electrical equipment).
- Use construction materials with recycled content wherever possible.
- Use local construction materials wherever possible.
- Incorporate building technologies which promote lower energy usages (ie. occupancies sensors for lighting).
- Items identified in the Existing Building Conditions Report to be replaced pertaining to building envelope or building systems are to be replaced with higher performance, energy efficient components, thus reducing energy use requirements.

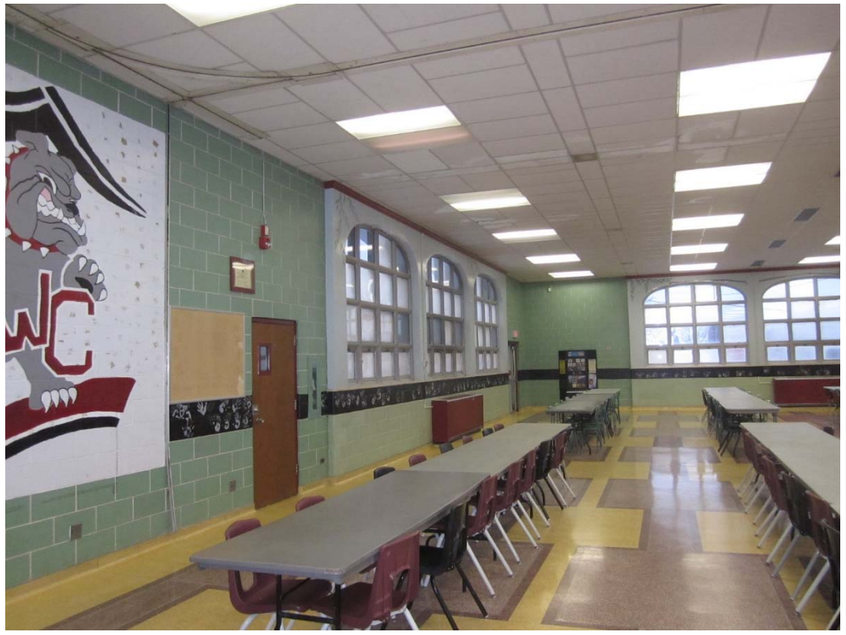
Efforts toward a school revitalization and renewal that embraces sustainable strategies is in keeping with the School Board mandate toward healthier environments for students, staff and the communities they serve.

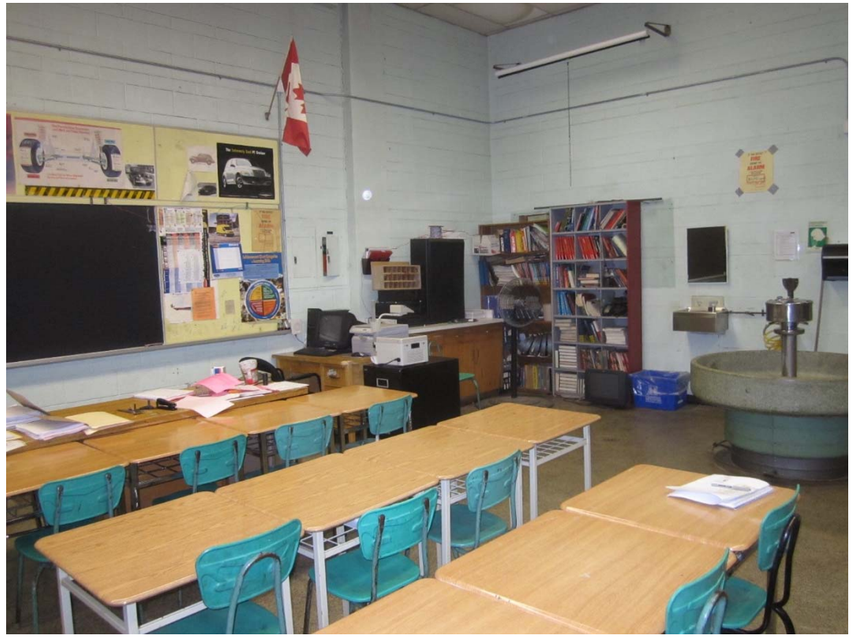
APPENDIX A

EXISTING CONDITIONS PHOTOS

APPENDIX A - EXISTING CONDITIONS PHOTOS







APPENDIX B

MECHANICAL
FEASIBILITY STUDY &
CONCEPT DESIGN

499 King Street East, Suite 200
Hamilton, ON L8N 1E1 CANADA
T: 905.525.6069 • www.exp.com

Hamilton Wentworth District School Board

Sir Winston Churchill Secondary School

Mechanical Services Feasibility Study & Concept Design

Project Number
GR8-00014230-00

Prepared By:
Murray Wickham, P.Eng., LEED AP
Erick Korthuis

Date Submitted
November 24, 2015

TABLE OF CONTENTS

1.0 INTRODUCTION

The existing Sir Winston Churchill Secondary School was opened in 1967 and is located at 1715 Main Street East in Hamilton, Ontario.

The Hamilton-Wentworth District School Board is proposing to renovate the existing Science Laboratories, Washrooms, Administration Office spaces, Technology Labs (Shops), Cafeteria, and Library and to create new Cafeteria Servery, Cosmetology Classroom, Hospitality, Student Lounge, TV Studio, Commercial Arts, Staff Room and Special Education Classrooms by renovating existing space.

Some of the information in this Design Brief related to existing conditions is based on information from a site review completed in January, 2015. In addition, we have reviewed the building with Ms. Agnese De Fazio, Project Supervisor, Capital Projects.

This report documents the feasibility and the proposed mechanical systems that are consistent with, and anticipated for, the proposed renovations.

This report, prepared by **exp** Services Inc., is intended for the exclusive use of Hamilton-Wentworth District School Board and Hossack & Associates Architects Inc. None of **exp** Services Inc., Hamilton-Wentworth District School Board and Hossack & Associates Architects Inc. assume any liability for the use of this report, or for the use of any information disclosed in the report, or for damages resulting from the use of this report, by other parties.

2.0 CODES, STANDARDS & GUIDELINES

Guidelines and interpretations of the requirements of the latest editions of the following Codes, Standards will be addressed in the design of this project:

- Ontario Building Code (OBC)
- Ontario Fire Code (OFC)
- Ontario Gas Utilization Code
- ASHRAE 62.1, Ventilation for Acceptable Indoor Air Quality
- ASHRAE 90.1, Energy Efficient Design of New Buildings Except Low-Rise Residential Buildings
- NFPA 10, Portable Fire Extinguishers
- NFPA 13, Installation of Sprinkler Systems
- NFPA 14, Installation of Standpipe and Hose Systems
- Hamilton-Wentworth District School Board Design Guidelines

3.0 DESCRIPTION OF SCOPE APPLICABLE TO ALL PROPOSED AREAS OF RENOVATION

3.1 Existing Mechanical Conditions

- Plumbing fixtures and Science Lab sinks complete with associated trim, isolation valves, hot/cold water and sanitary drain pipes serving areas of renovation are to be removed from the site
- Existing buried sanitary and storm pipes serving area of renovation to be power flushed after all construction at the site is complete
- Existing supply air diffusers and/or grilles and a portion of existing ductwork serving areas of renovation are to be removed from the site
- After all construction at the site is complete, existing interior supply, return and exhaust ductwork, approximately 4500 mm from diffusers/grilles is to be power vacuumed
- Existing window air conditioning units and all accessories serving areas of renovation are to be removed from the site
- Existing local fan equipment serving the areas of renovation is to be removed from the site
- Existing unit ventilators that are being reused are to have the interiors cleaned, drain pans cleaned, motors lubricated, filters replaced and all dampers adjusted
- Redundant controls in areas of renovation are to be removed from site
- All existing heating equipment (unit heaters, cabinet heaters, heating coils) that are being reused are to be cleaned and lubricated
- New firestopping to be supplied and installed in gaps between existing pipes/ductwork and existing walls surrounding the renovated area
- Existing equipment being reused to be water and air balanced to match original design documents
- All existing fire extinguishers to be inspected and charged
- Existing wall radiation that is being reused shall be cleaned and enclosures replaced with similar style. New enclosures to be painted
- Existing floor drain grates to be replaced with new, similar in style

Refer to Architectural Demolitions Plans for Rooms/Areas being renovated.

3.2 New Mechanical Requirements

- Type L Copper pipe for new domestic water pipes
- Schedule 40 steel pipe for new heating pipes

- Schedule 40 steel pipe for new gas pipes
- PVC plastic pipe for new sanitary and storm pipes
- DWV copper pipe for new vent pipes
- Type ACR copper piping for new refrigerant pipes
- Type M copper for new condensate pipes
- Borosilicate glass drain pipe for new Science Labs
- New double check valve backflow assembly in existing incoming domestic water and fire pipe
- New Washroom and Change Room supply, return and exhaust ducts are to be aluminum
- New supply, return and exhaust ductwork, unless otherwise noted, are to be galvanized steel fabricated to SMACNA Duct Construction Standards
- Extend existing supply, return and exhaust duct systems complete with new diffusers and grilles to suit the area of renovation, unless otherwise indicated
- New HVAC equipment to be connected to the existing Building Automation System (BAS)
- Supply and install new diffusers and/or grilles serving areas of renovation
- Supply and install additional fire extinguishers to meet the latest Codes and Standards

4.0 DESCRIPTION OF SCOPE APPLICABLE TO SPECIFIC ROOMS/AREAS OF RENOVATION

4.1 Washrooms

- Existing wall radiation to be reused. Refer to General Scope Applicable to All Proposed Areas of Renovation - Existing Mechanical Requirements
- Existing exhaust system to be reused. Refer to General Scope Applicable to All Proposed Areas of Renovation - Existing Mechanical Requirements
- Install new plumbing fixtures as per Architectural Layout and School Board Standards

4.2 Cafeteria

- Existing unit ventilators to be reused. Refer to General Scope Applicable to All Proposed Areas of Renovation - Existing Mechanical Requirements

4.3 Seminar

- Remove all existing mechanical services beyond finished wall/floor/ceiling surfaces
- Supply and install a 1-1/2 Ton cooling /heating ductless spilt system complete with indoor fan coil unit, remote roof mounted condensing unit, refrigerant piping and condensate drains
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.4 Servery

- Supply and install new sanitary piping to serve new commercial kitchen equipment. Connect new piping to existing building sanitary system
- Supply and install new domestic hot, cold and recirculation pipe distribution system to all commercial kitchen equipment. New pipes to be connected to the existing building system complete with isolation valves and all accessories
- Supply and install a new 300 gallon (1350 L) grease interceptor
- Reroute existing above grade storm sewer piping to suit new room layout
- Supply and install new dishwater exhaust hood (500 CFM) complete with roof exhaust fan and associated exhaust ductwork

- Supply and install new cooking exhaust hood (4000 CFM) complete with roof exhaust fan and associated exhaust ductwork. New exhaust ductwork to be 16 gauge steel, fabricated and labelled to NFPA 96 complete with 2-hour rated non-combustible flexible fireproof wrap
- Supply and install cooking exhaust hood fire suppression system
- Supply and install a gas heating make-up air roof-top unit (3200 CFM) to serve the cooking exhaust hood
- Supply and install a 7-1/2 Ton cooling and gas heating rooftop unit complete with ductwork, grilles, diffusers and controls
- Supply and install refrigeration piping to serve new walk-in refrigerator and freezer units
- Supply and install an automatic gas shut-off valve serving the commercial kitchen equipment to Close upon fire alarm activation
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - New Mechanical Requirements

4.5 Cosmetology

- Demolish and remove from the site all existing wall radiation
- Demolish and remove from the site sawdust duct exhaust system, sawdust collector and all accessories
- Supply and install a new sanitary piping to serve new hair sinks. Connect new piping to the existing building sanitary system
- Install new hair sinks as per Architectural Layout and School Board Standards
- Supply and install new domestic hot, cold and recirculation pipe distribution system to all new hair sinks. Portion of new pipes to run buried below finished floor. New pipes to be connected to the existing building systems complete with isolation valves and all accessories
- Supply and install new perimeter building hot water heating pipes and heating equipment to suit new room layout
- Supply and install new manually operated roof exhaust fan (1500 CFM), ductwork, grilles and all accessories
- Extend existing supply and return duct system to suit new room layout
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.6 General Offices

- Existing window air conditioners are to be removed from the site
- Existing wall radiation units are to remain
- Existing unit ventilators are to remain
- Supply and install a 15-Ton variable refrigerant flow (VRF) cooling system to serve individual offices, General Office and Staff Room. Supply fourteen (14) dedicated indoor cooling fan coil units complete with refrigerant piping and condensate drains. Fan coil units to be sized to rooms served. Install remote condenser on the roof
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.7 General Office - Guidance

- Existing wall radiation units are to remain
- Supply and install a 3-Ton cooling/heating ductless split system complete with indoor fan coil units, refrigerant piping, condensate drains and remote roof mounted condensing unit
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.8 Special Education

- Supply and install new sanitary sewer piping to serve new plumbing fixtures. Piping to be connected to the existing building sanitary system
- Install new plumbing fixtures as per Architectural Layout and School Board Standards
- Supply and install new domestic hot, cold and recirculation pipe distribution system to all new plumbing fixtures. New pipes to be connected to the existing building systems complete with isolation valves and all accessories
- Supply and install new indoor in-line exhaust fan (300 CFM), ductwork, grilles, outdoor wall louvre and all accessories to serve dedicated area Washrooms
- Demolish and remove from site baseboard heating equipment and associated heating piping
- Supply and install new perimeter hot water heating pipes and baseboard heating equipment to suit new room layout. New piping to be connect the existing building heating system
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.9 TV Studio

- Demolish and remove from site all existing supply, return and exhaust air ductwork and all accessories
- Demolish and remove from site existing baseboard heating equipment and associated heating pipes
- Supply and install a 7-1/2 Ton cooling and gas heating rooftop unit complete with associated ductwork, grilles, diffusers and controls
- Supply and install new perimeter building water heating pipes and baseboard heating equipment to suit new room layout. New pipes to be connected to existing building heating system
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - New Mechanical Requirements

4.10 Communication Arts

- Demolish and remove from the site all existing exhaust air systems and all accessories
- Demolish and remove from site existing baseboard heating equipment and associated heating pipes
- Supply and install new building hot water heating pipes and heating equipment to suit new room layout. New pipes to be connected to existing building heating system
- Extend existing supply and return ductwork to suit new Room layout
- Supply and install a 5-ton cooling split ductless system complete with indoor fan coil units, refrigerant piping, condensate drains and remote roof mounted condensing unit
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - New Mechanical Requirements

4.11 Aerospace/Robotics Classroom

- Demolish and remove from the site all existing exhaust air systems and all accessories
- Supply and install a new specialized exhaust air system complete with roof exhaust fan and associated ductwork and connect to Owner supplied equipment. Finishing exhaust system (800 CFM)
- Existing heating equipment and accessories are to remain.
- Refer to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.12 Design Technology/Manufacturing

- Demolish and remove from the site all existing exhaust air systems and all accessories
- Supply and install new specialized exhaust air systems and connect to Owner supplied equipment. Welding exhaust system (1500 CFM). Finishing exhaust system (800 CFM)
- Existing heating equipment and accessories are to remain.
- Refer to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.13 Wood Shop

- Demolish and remove from the site all existing exhaust air systems and all accessories
- Supply and install a new sawdust collector complete with spark arrestor system (6000 CFM), exhaust air system and connect to Owner supplied equipment.
- Existing heating equipment and accessories are to remain.
- Refer to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.14 Automotive Shop

- Demolish and remove from the site all existing exhaust air systems and all accessories
- Supply and install new specialized exhaust air systems complete with roof exhaust fan and associated ductwork and connect to Owner supplied equipment. Carbon monoxide system (500 CFM). Finishing exhaust system (800 CFM). Welding exhaust system (1500 CFM)
- Existing heating equipment and accessories are to remain.
- Refer to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.15 Hospitality

- Demolish and remove from the site all existing exhaust air systems and all accessories
- Demolish and remove from site all existing wall radiation
- Supply and install new perimeter heating building hot water heating pipes and heating equipment to suit new room layout
- Supply and install new sanitary piping to serve new commercial kitchen equipment. Connect piping to the existing building sanitary system

- Supply and install new domestic hot, cold and recirculation pipe distribution system to all commercial kitchen equipment. New pipes to be connected to the existing building systems complete with isolation valves and all accessories
- Supply and install a new 100 gallon (450 L) grease interceptor
- Reroute existing above grade storm sewer piping to suit new room layout
- Supply and install new cooking exhaust hood (2500 CFM) complete with roof exhaust fan and associated exhaust ductwork. New ductwork to be 16 gauge steel, fabricated and labelled to NFPA 96 complete with 2-hour rated non-combustible flexible fireproof wrap
- Supply and install cooking exhaust hood fire suppression system
- Supply and install a gas heating rooftop make-up air unit (2000 CFM) to serve the cooking exhaust hood
- Supply and install a 5-Ton cooling and gas heating rooftop unit (2000 CFM) complete with ductwork, grilles, diffusers and controls
- Supply and install refrigeration piping to serve new walk-in refrigerator and freezer units
- Supply and install an automatic gas shut-off valve serving the commercial kitchen equipment to Close upon fire alarm activation
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.16 Student Lounge/Cafe

- Demolish and remove from site all existing wall radiation
- Supply and install new perimeter building hot water heating pipes and heating equipment to suit new room layout
- Supply and install new supply and return air ducts, diffusers/grilles and accessories to serve new room layout. New ductwork to be connected to the existing building systems
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.17 Library

- Refer to General Scope Applicable to All Proposed Areas of Renovation - New Mechanical Requirements

4.18 Third Floor - East Wing

- All existing Classroom and Corridor ceiling spaces to contain new sanitary, domestic hot, cold and recirculation water and gas piping to serve renovated Science Labs located on the Fourth Floor
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - New Mechanical Requirements

4.19 Fourth Floor - West Wing - Two (2) New Classrooms

- Demolish and remove from site existing baseboard heating equipment and associated heating piping
- Supply and install new building hot water heating piping and baseboard heating equipment to suit the two (2) new Classrooms. New pipes to be connected to the existing building heating system
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

4.20 Science Labs

- Demolish and remove from site all existing sanitary, domestic water and natural gas piping serving the old Science Labs
- Demolish and remove from site all existing Instructor's Work Bench exhaust systems, exhaust fan and associated ductwork serving the old Science Labs
- Demolish and remove from site all existing fume hoods serving old Science Labs
- Demolish and remove from site all existing emergency exhaust systems, fans and associated ductwork, serving the old Science Labs
- New Science Lab exhaust air extraction duct to be internally lined PVC coated, Class B negative pressure
- Supply and install new sanitary piping and connect to all new sinks, fume hoods, and floor drains. Sanitary pipe to be connect to new neutralizing tank located on the Third Floor
- Supply and install new domestic hot, cold and recirculation water and natural gas pipes to serve new Instructor's Work Benches complete with isolation and solenoid valves. Install solenoid valves on new cold water and natural gas pipes serving Student Work Benches. Solenoid valve to be controlled by a key switch located at the Instructor's Work Bench and to an emergency panic button located on the wall beside the door leaving the Room.

- Supply and install new two-sided fume hoods (800 CFM each) complete with roof mounted exhaust fans, exhaust ductwork and air proving switch to serve new Lab layout.
- Supply and install emergency exhaust system (1500 CFM) complete with outdoor exhaust fan, ductwork and exhaust grille. Fan to be manually operated
- Existing room unit ventilator compete with wall enclosure and existing associated piping are to remain
- Supply and install new dedicated Classroom Instructor's Work Bench exhaust system complete with roof exhaust fan and associated exhaust ductwork. Fan to be manually operated from Instructor's Work Bench
- New Instructor's Work Bench and fume hood exhaust air extraction duct to be internally lined PVC coated, Class B negative pressure
- Supply and install two (2) floor type neutralizing tanks (150 gallon capacity each) complete with limestone chips to serve new Chemistry Labs. Neutralizing tanks to rest on Third Floor, East Wing
- Refer also to General Scope Applicable to All Proposed Areas of Renovation - Existing and New Mechanical Requirements

APPENDIX C
ELECTRICAL
FEASIBILITY STUDY &
CONCEPT DESIGN

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• Hamilton Wentworth District School Board

Sir Winston Churchill Secondary School

Electrical Services Feasibility Study & Concept Design

Project Number
GR8-00014230-00

Prepared By:
George Matsis, P.Eng.
Michel Ouellet

Date Submitted
November 24, 2015

TABLE OF CONTENTS

1.0 INTRODUCTION

The existing Sir Winston Churchill Secondary School was opened in 1967 and is located at 1715 Main Street East in Hamilton, Ontario.

The Hamilton-Wentworth District School Board is proposing to renovate the existing Science Laboratories, Washrooms, Administration Office spaces, Technology Labs (Shops), Cafeteria, and Library and to create new Cafeteria Servery, Cosmetology Classroom, Staff Room and Special Education Classrooms by renovating existing space.

This report documents the feasibility and the proposed electrical systems that are consistent with and anticipated for, the proposed renovations.

This report, prepared by **exp** Services Inc., is intended for the exclusive use of Hamilton-Wentworth District School Board and Hossack & Associates Architects Inc.. None of **exp** Services Inc., Hamilton-Wentworth District School Board and Hossack & Associates Architects Inc. assume any liability for the use of this report, or for the use of any information disclosed in the report, or for damages resulting from the use of this report, by other parties.

2.0 CODES, STANDARDS & GUIDELINES

Interpretations of the requirements of the latest editions of the following Codes, Standards and Guidelines will be addressed in the design of this project:

- Ontario Building Code (OBC)
- Ontario Fire Code (OFC)
- Ontario Electrical Safety Code (OESC)
- IES Recommended Practices and Guidelines
- ASHRAE/IES 90.1, Energy Efficient Design of New Buildings Except Low-Rise Residential Buildings
- Hamilton-Wentworth District School Board Design Guidelines

3.0 GENERAL ELECTRICAL CONSTRUCTION SCOPE - ALL AREAS OF RENOVATIONS

3.1 Selective Demolition of Existing Electrical Systems

Unless noted otherwise, all existing electrical systems in the areas of renovation will be disconnected and removed. This includes all power distribution equipment and cabling, branch circuit wiring/conduit, selected fire alarm system devices, public address system, lighting, lighting controls, receptacles, communication outlets, miscellaneous communication systems and wiring for mechanical equipment.

Existing electrical systems that are to be demolished will be disconnected and removed back to source. Where the removed devices are deemed suitable, they will be relocated/re-used.

Existing wireless clocks will remain and be reused/relocated as required.

Refer to Architectural Demolitions Plans for Rooms/Areas being renovated.

3.2 Electrical Power & Distribution

.1 Primary Power Supply

The proposed renovations are not expected to result in any net electrical peak demand load growth and as a result, the existing incoming electrical service supply will remain as is.

.2 Emergency/Standby Power Generation & Transfer Equipment

The proposed renovations are not expected to result in any net electrical peak demand load growth and as a result, the existing supply and equipment will remain as is.

.3 Power Distribution

Refer to the selective demolition section of this Report.

Unless indicated otherwise, existing 600/347V and 120/208V Normal and Emergency power distribution, lighting and receptacle panelboards will remain.

New electrical panelboards will be provided in all new General Science Rooms, Science Labs, Technology Labs (Shops). Refer to Typical Room Specific Electrical Requirements section of this Report.

New panelboards will be fed from existing distribution panels.

All new panelboards will be complete with copper bus.

Conductors for all new feeders will be copper.

.4 Branch Circuit Wiring

Branch circuit wiring systems will be provided throughout all areas of renovation to all new loads as well as existing-to-remain loads as required. Conductors for all branch circuit wiring will be copper. Loads will typically be supplied with Normal or Emergency power from the nearest panelboard.

.5 Receptacles

Receptacles will be provided throughout the areas of renovation as required for equipment, housekeeping and convenience and also as required by Codes and Standards. Refer to the Typical Room-Specific Electrical Requirements section of this Report.

3.3 Fire Alarm System

Refer to Selective Demolition section of this Report.

The Building is equipped with an existing two-stage, non-addressable, Simplex fire alarm system complete with a 4100U Series control panel, remote annunciators, initiating devices and, audible and visual signalling devices (horn and strobe).

The main fire alarm control panel located in the existing Custodial Room on the Ground Floor will remain and be modified and upgraded as required to provide the required system operation.

Existing remote annunciators, fire detectors, pull stations, signalling devices, etc., outside of the renovated areas and not affected by the renovations will remain. New devices (including strobe visual signalling devices) will be added as required in the areas of renovation, in order to ensure compliance with Codes, Standards and Guidelines, i.e.:

- Manual pull stations (2-stage) at all required exits
- Heat detectors in all Utility, Service and Storage Rooms
- Visual signal appliances (i.e. strobes) in all public areas and areas with high ambient sound levels

3.4 Lighting

Refer to the Selective Demolition section of this Report.

Unless noted otherwise, all existing lighting systems outside the areas of renovation and not affected by the renovations will remain. New lighting systems and controls will be provided as required in the areas of renovation,

Existing luminaires that are to be removed will be disconnected and removed from site. Lighting ballasts containing PCBs, if found during the Demolition phase, will be disposed of in accordance with Ministry of Environment regulations.

.1 New Lighting Systems - Interior

All new lighting will utilize energy efficient dimmable LED lamp technology. High colour rendering, warm and neutral white LED's will be specified as appropriate to suit each application.

Luminaires suitable for use with a 120V power supply will be used.

In general, new interior lighting systems will be provided for the areas of renovation. Lighting systems will be integrated with the building architecture as much as possible. Luminaires that cannot be concealed within an architectural element will be well shielded using either a frosted white or prismatic refracting lens.

Refer to Typical Room Specific Electrical Requirements section of this Report.

.2 Lighting Controls

In general, lighting controls with multi-level control will be provided in accordance with the Codes, Standards and Guidelines.

Except for Washrooms, low voltage lighting control system comprised of switches, vacancy sensors and a dimmable daylight control strategy will be specified on all renovated Rooms/ Areas in accordance with ASHRAE/IES 90.1 Standards.

Washrooms will be equipped with occupancy sensors for automatic On/Off of the light fixtures.

.3 Emergency Lighting and Exit signs

Emergency Lighting and Exit signs will be provided in the areas of renovation as required in order to satisfy the requirements of the Ontario Building Code. Emergency lighting systems will consist of connecting selected luminaires to the existing building emergency power system.

Exit signs will be LED "green running man" pictogram type.

3.5 Miscellaneous Electrical Work

.1 Communication Cabling (IT/Voice)

Refer to the Selective Demolition section of this Report.

Existing Network/Voice incoming service (fibre optic [FO] cable) will remain.

The existing horizontal copper cabling distribution is comprised of one (1) Main IT Closet and Satellite Racks with Network switches and patch panels located in various rooms throughout the School. The Main IT Closet will remain however any Satellite Racks located within the areas of renovation will be relocated and upgraded as required to accommodate the renovations and the new cabling requirements. Refer to Typical Room Specific Electrical Requirements section of this Report.

Existing wireless (Wi-Fi) access point devices, currently located throughout the School, including in Classrooms, Labs, Shops, Library and Cafeteria, will remain and be reused.

New Cat. 6e cables will be run from the new outlets, that are required in the areas of renovation, to the nearest IT Closet or existing satellite rack located on the same floor as the outlet.

.2 Clock Systems

Refer to Selective Demolition section of this Report.

The building is currently equipped with an existing 120 VAC synchronous impulse type master clock system that operates various 120V synchronous impulse type secondary clocks in the Corridors and Common Areas. This system will remain.

Existing wireless GPS clocks (120V) that are currently located in the areas of the renovations will be reused. New wireless GPS clocks (120V) will be added as required in renovated Rooms/Areas where clocks currently do not exist but are required..

.3 Emergency Call Systems (Washrooms)

In accordance with the School Board Design Guidelines, an emergency call system (tone/visual type) will be provided for Orthopedic Washroom in the Special Education area. An emergency call station located adjacent the toilet complete with corridor indicating light will be installed outside the Washroom. Calls will be annunciated at a new annunciator that will be located at the Ground Floor Main Office.

.4 Public Address and Program Bell System

Refer to the Selective Demolition section of this Report.

The School is currently equipped with an existing P/A & Program Bell System that will remain and be upgraded as required in order to accommodate the work associated with the proposed renovations

The main control console is located in the Main Office on the Ground Floor.

Speakers, each with call switch, are located throughout the School in all Classrooms, Labs, Shops.

New speakers complete with integral call switch will be provided in all new Classrooms, Labs and Shops.

.5 Wiring For Mechanical Equipment

Motor starters, variable frequency drives, disconnect switches, power and control wiring will be provided for any new mechanical equipment that is required. Refer to the Mechanical Services Feasibility Study and Concept Design Brief, for information regarding such equipment.

.6 Security System

Refer to the Selective Demolition section of this Report.

The School is currently equipped with a security system comprised of a main control panel located in the Custodial Room on the Ground Floor, key pads, door status/monitoring and contacts at exterior doors. This system will remain and be upgraded as required.

Unless noted otherwise, existing door status/monitoring contacts outside of areas of renovation and not affected the renovations will remain.

New door status/monitoring contacts will be added as required at Exterior Doors and Staff Rooms and connected to existing system.

.7 Closed-Circuit Television System (Security Cameras)

The School is currently equipped with a system comprised of existing head-end equipment located in the Main Office and cameras located in Corridors. This system will remain as is since this system does not appears that it will be affected by the renovations.

.8 Modular Control Panels

New surface mounted panels will be provided near each Room main entrance door complete with duplex receptacles, data and telephone outlets, public address speaker, light switches, clock, telephone handset and thermostat in all of the renovated Classrooms, Labs, Technology Labs (Shops) and Seminar Rooms.

.9 Seismic Restraint Systems

All electrical systems will be seismically braced to comply with the OBC if it is determined that it is required for this site/building. If seismic restraint systems are required, they shall include lateral supports for all suspended systems and lateral seismic resistance for all vibration isolation and fixed mounted equipment.

3.6 Typical Room-Specific Electrical Requirements

.1 Washrooms

All renovated Washrooms to be complete with the following:

- Surface mounted lighting fixtures
- Ceiling mounted occupancy sensors for automatic On/Off of lighting
- Infrared hands-fee sinks, toilets and urinals
- One (1) hand dryer per four (4) stalls,

.2 Office Spaces

- Recess mounted lighting fixtures

.3 Cosmetology

- Recessed lighting fixtures
- Power connections for a Spa bed
- A dedicated 120/208V-3 phase-4 wire panel for all Cosmetology Equipment
- Receptacles along the perimeter walls, as required

.4 Seminar Room

- Recessed lighting fixtures
- Receptacles and communication outlets along perimeter walls as required.

.5 Cafeteria

- Recessed lighting fixtures

.6 Servery

- Recessed lighting fixtures
- New 120/208V-3 phase-4 wire electrical panel for new Servery equipment
- Receptacles and direct power connections as required for Servery equipment
- Housekeeping and Utility receptacles as required.

.7 Technology Labs (Shops)

- Suspended direct/indirect linear light fixtures.
- Spray Booth lighting and controls for Automotive Shop.
- Dedicated 120/208V-3 phase-4 wire and 600V-3 phase-3 wire electrical panels complete with emergency Power-Off pushbuttons for Shop equipment only.
- Power connection for motorized blinds
- Power and data cabling connection for motorized display screen, overhead projector and interactive board.
- Power connections for overhead doors.
- Power reels.
- Receptacles and data outlets perimeter walls as required.
- Three (3) receptacles (20A/120V) at each student workstation.

.8 Staff Room

- Recessed lighting fixtures
- Power Connections/Receptacle for the following equipment:
    - Dishwasher

- Refrigerator
- Stove (120/240V)
- Three (3) Microwave Ovens

- Eight (8) receptacles and eight (8) data outlets along perimeter walls.
- Receptacles and Data Outlets for the following:
  - Overhead Projector
  - Interactive Board
  - TV
  - Wireless (Wi-Fi) Access Point

.9 Special Education Classroom

- Recessed lighting fixtures.
- Ten (10) receptacles along perimeter walls.
- Receptacles and Data Outlets for the following:
  - Overhead Projector
  - Interactive Board
  - TV
- Two (2) receptacles and two (2) data outlets at Teacher's Desk.

.10 Space/Robotics Classrooms

- Refer to Technology Labs (Shops)

.11 Communication Technology Lab (TV & Communication Art)

- Recessed lighting fixtures and track lighting.
- Ten (10) receptacles and ten (10) data outlets along perimeter walls.
- Power and data connection of TV Studio equipment.
- Receptacles and Data Outlets for the following:
  - Overhead Projector
  - Interactive Board/Monitor
  - Printers
- Two (2) receptacles and two (2) data outlets at Teacher's/Demo Desk.

- One (1) receptacle at each Student Desk.

.12 Science Labs/Classrooms

- Suspended direct/indirect light fixtures.
- Dedicated 120/208V-3 phase-4 wire electrical panel complete with emergency Power-Off pushbuttons.
- Eight (8) receptacles and eight (8) data outlets along perimeter walls.
- Ground Fault Interrupter receptacles at each Lab Station and Teacher Desk/Demo Station. Power to receptacles to be controlled from Teachers Desk.
- Power to Gas Shut-Off valve with interlock to Fire Alarm System.
- Receptacles and Data Outlets for the following:
  - Overhead Projector
  - Interactive Board
- Two (2) receptacles and two (2) data outlets at Teacher's Desk.
- One (1) data outlet at each Lab Station.

.13 Classrooms

- Suspended direct/indirect linear lighting.
- Eight (8) receptacles and eight (8) data outlets along perimeter walls.
- Four (4) receptacles for Tablet charging.
- Six (6) floor-mounted receptacles.
- Receptacles and Data Outlets for the following:
  - Overhead Projector
  - Interactive Board/Monitor
- Two (2) receptacles and two (2) data outlets at Teacher's Desk.

.14 Library

- Recessed lighting fixtures.
- Receptacle on perimeter walls at every 15 feet.
- Wall mounted surface raceway complete with receptacles and data outlets to accommodate fifteen (15) computer stations.
- Eight (8) receptacles and eight (8) data outlets at each Circulation Desk.

- Power connection for motorized blinds.
- Receptacles and Data Outlets for the following:
    - Overhead Projector
    - Interactive Board/Monitor
    - TV

.15 Library Seminar Room

- Recessed lighting fixtures.
- One (1) receptacle and one (1) data outlet on each wall.
- Receptacles and Data Outlets for the following:
    - Overhead Projector
    - Interactive Board/Monitor

APPENDIX D
CONDITION ASSESSMENT

Hamilton-Wentworth District School Board

Condition Assessment

Sir Winston Churchill SS, Building ID 9149-1

Facility Name (SFIS)	Sir Winston Churchill SS
Ministry Building Number	9149-1
GFA (m2)	16209
Year Built by Original/Additions	1967
Replacement Value - OTG	$28,208,600
Official FCI (%)	21.81
Comparable FCI (%)	37.16
Asset Address	1715 Main Street East
Asset City	Hamilton
Asset Postal Code	L8H 1E3
-- ACCESSIBILITY CHECKLIST --	----------
Designated parking space	No
Path of travel to the main entrance door.	No
Designated entrances	No
Path of travel to all floors/elevations.	No
Elevator	Yes
Instructional spaces entrance doors.	No
Fire policy and fire safety plan	Yes
Fire alarm system with strobe and audible signals	No
Communal washrooms	Yes
Designated washroom	Yes
-- ENERGY CHECKLIST --	----------
Energy efficient boiler	Yes
Energy audit report	No
Energy efficient domestic hot water heater	No
Energy efficient recovery system	No
Energy efficient HVAC pumps and fan motors	No
Energy efficient interior lighting	Yes
Building Automation System	Yes
Energy efficient faucets	No
Energy efficient urinals and toilets	No
Architectural and Site Assessor	Ramin Saeedi
Mechanical and Electrical Assessor	Mark Pantchevski

How to read the final report

The Final Report contains assessment information for 5 years for this facility.

Asset details reported are either populated from the SFIS system (e.g. GFA, year built etc) or calculated based on Ministry's criteria (e.g. Replacement Value – OTG, Official FCI, Comparable FCI etc).

Accessibility and Energy assessment lists are provided in a yes/no format. For a full description of accessibility/energy definitions please check the TCPS database, Asset Narratives, under the Narratives Tab.

Asset Narratives include the following:

- Architectural & Structural Summary –a brief summary of the asset including construction dates and areas of the original and additions. A brief description of the structure, the exterior wall system, the roof assembly system and the building interiors.
- Mechanical Summary – a brief summary of the mechanical systems.
- Electrical Summary – a brief summary of the Electrical systems.
- Site Summary – a brief summary of the Site systems.
- Limitations – a summary of the scope of work and the Tactical Planning Window.

Building Elements listed are only the ones that require replacement in the next 5 years; their condition is Critical if failed or risk of imminent failure is observed, or Poor if it is not functioning as intended with significant repairs within the next two (2) years, or Fair if normal deterioration and minor distress is observed requiring repairs within three (3) to five (5) years.

2011-2015 Cost and Year information is a snapshot from the assessment and cannot be edited in TCPS.

2011-2015 Priority is the value of the Event priority calculated when the assessment data was imported in TCPS and stored in this read-only field.

Estimated Cost and Fiscal Year are values that can be edited at any time by end users.

Event Priority is a field populated with labels like Urgent, High, Medium and Low based on the Event Priority Value. This value is calculated based on the Element Type and Element Condition.

Photos are provided at the event level: old photos are suffixed with the world "Old", new photos are suffixed with the date of assessment.

A copy of this report in PDF format is saved in the TCPS database. You can access it by selecting the Asset Instance in Data Manager and opening this report in PDF format from the Document Tab.

1. Architectural & Structural Executive Summary

Sir Winston Churchill SS Building ID-9141-1was assessed on April 25 of 2013 by VFA, is located at 1715 Main street East, Hamilton, Ontario. The original facility is a three story structure of block construction without basement. The building is constructed in 1967.

The size of the building is16, 209 square meters. The Building sits on a 3.98 hectares site. Where visible, mainly in the GYM, workshops, and Cafeteria, the structure of the school are of Metal roof decking, steel trusses, steel joists and load bearing masonry. It was indicated that the majority of the roof coverings has been done in 2008.

The interior finishes consist of terrazzo, mainly vinyl composite tiles, ceramic tiles, hard wood flooring, painted masonry and gypsum board walls and, gypsum board acoustic ceilings.

The exterior walls of the school are brick veneer and Pre-cast concrete finished assembly. Typical spaces in the school include auto shops, wood shop, library/resource center, music room, theater art class, gymnasiums, weight room, computer rooms, science labs,

administration office, and mechanical service space and general instructional classrooms.

2. Mechanical Executive Summary

2013 - Overall, the mechanical equipment is in fair condition.

Heating for Sir Winston Churchill Secondary School is provided by three gas fired hot water boilers, updated in 2004. The boilers provide hot water to perimeter fin tube radiators, force flow heaters, unit ventilators and the heating coils of the AHUs. There are six central air handlers which supply heating and ventilation throughout the school. Additional heating and ventilation for the kitchen is provided by a make-up air handler on the roof. There are approximately 100 unit ventilators which provide heating and ventilation throughout the school. The remaining ventilation is provided by rooftop exhaust fans and various internal exhaust fans.

Domestic hot water is provided by three hot water tanks which act as heat exchangers for the domestic water and heating hot water which services the entire school.

The building HVAC system is primarily a pneumatic controls system with a building automation system for most mechanical room equipment.

The school has one elevator serving four floors original to 1967 and a chair lift for the gym stage. Fire protection for the school is provided by fire extinguishers.
Comments on exceptions: Based on age of components and observed site conditions the following mechanical equipment has exceeded their theoretical useful life and will require replacement within the tactical planning window.

- The elevator is original and in fair condition.

- Domestic water distribution is in fair condition and a study is recommended.

- Sanitary waste distribution is aged in fair condition and a study is recommended.

- Rain water drainage distribution is aged in fair condition and a study is recommended.

- HVAC pumps are original and in poor condition.

- Heating water distribution is in fair condition and study is recommended.

- Exhaust fans are aged and in fair condition.

- The central air handlers are original and in poor condition.

- Unit ventilators are aged and in poor condition. The pneumatic HVAC controls system is aged and in fair condition.

- Fire extinguishers are aged and in poor condition.

3. Electrical Executive Summary

2013 - Electrically Sir Winston Churchill Secondary School is in fair condition.

The main switchgear is original to 1967. The fire alarm panel (Simplex 4100U) and end devices are in good condition.

Emergency lighting is provided by wall mounted battery pack units. The interior lighting within the building is in good condition with CFLs, T8 lamps and electronic ballasts. Exterior lighting is provided by fluorescent, HID and LED fixtures and light standards for the parking area and courtyard. Exit lighting is in good condition.

Security system includes a panel, motion detectors, sensors, CCTV and keypads.

A new PA main console was recently installed.

The information technology system is in good condition.
Comments on exceptions: Based on age of components and observed site conditions the following electrical equipment has exceeded

their theoretical useful life and will require replacement within the tactical planning window.

- The main switchboard is aged and in poor condition.

- The motor control centre is aged and in poor condition.

- The secondary transformers are original and in poor condition.

- Branch wiring is original in fair condition and a study is recommended.

- Exterior lighting is aged and in fair condition.

- The emergency power system is aged and in poor condition.

4. Site Summary

2013-The site at Sir Winston Churchill SS is bounded by play field, Walter Ave on the west, Dunsmure Road to the north and, Adeline Ave on the east of the site.

Typical walkways service the site, with asphalt concrete landing or stairs at most building entrances.

A six foot high chain link fence marks the perimeter of the site; there is a wall mounted sign on top of the main entrance facing south of the building which displays school name; the building access off Main Street and there are paved parking at north and, southwest of the site.

Definitions for Energy Checklist

Energy audit report: An ASHRAE Level I energy audit report was completed within the last three years.

Energy efficient boiler: The energy efficient boiler provided is a condensing boiler installed within the last five years or is energy star rated.

Energy efficient domestic hot water heater: The energy efficient domestic hot water heater provided is direct or power vented natural gas fired or has an electric heat coil.

Energy efficient recovery system: The building is provided with a Heat Recovery Unit (HRU).

Energy efficient HVAC pumps and fan motors: The energy efficient HVAC pumps and fan motors are reportedly provided with a variable frequency drive.

Energy efficient interior lighting: The provided interior lighting is controlled by motion sensors or building automation system and/or the interior light fixtures are provided with T8 or T5 fluorescent lamps and electronic ballast.

Building Automation System: The building has a comprehensive Direct Digital Control (DCC) automation system to monitor and control the mechanical system.

Energy efficient faucets: Approximately 50% of the lavatory faucets are provided with aerators and motion sensors.

Energy efficient urinals and toilets: Approximately 50% of the urinals and toilets are provided with a low flow flush valve (less than 1.6 gpf)

Definitions for Accessibility Checklist

Designated parking space: The provided designated Barrier Free Accessible parking space is a minimum 2,400 mm wide and is clearly marked with an accessibility sign.

Path of travel to the main entrance door: The provided accessible path of travel from the designated Barrier Free Accessible parking space to an accessible building entrance is a minimum 910 mm wide and includes curb cuts and ramps

Designated entrances: The provided designated Barrier Free Accessible entrance is a minimum 850 mm wide to allow a mobility device, clearly marked with an accessibility sign and is provided with an automatic door open device.

Path of travel to all floors/elevations: The Barrier Free Accessible path of travel is provided with either an accessible ramp or a vertical transportation device where a floor or an elevation difference exists.

Elevator: The provided Barrier Free Accessible Elevator has the following: clear audible communication indicating floors and up/down direction; doors, which open long enough and a minimum 900 mm wide; and a control panel, which is provided with Braille and an emergency call system and where the top is at a maximum height of 1,400 mm above floor.

Instructional spaces entrance doors: The instructional spaces are provided with an entrance door which is a minimum of 850 mm wide.

Fire policy and fire safety plan: Fire policy and fire safety plans are reportedly in place for the evacuation of people with disabilities.

Fire alarm system with strobe and audible signals: Fire alarm system is reported to include strobe lights and audible signals

Communal washrooms: There is a Barrier Free Accessible washroom stall, which is a minimum of 1,500 x 1,500 mm, in the each boys and girls washroom on each accessible floor.

Designated washroom: A designated Barrier Free Accessible washroom is provided on each floor, and is equipped with the following: an automatic door open device; grab bars; emergency call button; lever handle or motion sensor faucets; and a lavatory, where an insulated knee space is provided and the height of lavatory top is a maximum of 815 mm above the floor.

Limitations

This report has been prepared to meet the Ministry of Education (EDU) objectives for the Condition Assessment Program for Educational Facilities in Ontario. The purpose of the Condition Assessment Program was to assess the current physical condition of the schools and associated site features, and to validate information currently contained in the online capital renewal database software Total Capital Planning Solution (TCPS).

The validation of data was limited to a five year period, which is defined as the current assessment year plus four years. Information contained in the database beyond this period was not validated or reviewed.

The provided event costs are intended for global budgeting purposes only. The event costs were adjusted to include regional factors and were based on an approved unit cost list. Actual event costs for the work recommended may differ since the event costs can only be determined after preparation of tender documents, which would consider: specific design conditions, site restrictions, effects of ongoing building operations and construction schedule. The approved cost threshold for the Condition Assessment Program is $ 10,000.

Barrier Free Accessibility and Energy Conservation Measures assessments were limited to a preapproved checklist presented on Page 2. The assessment of portables (classrooms not integrated with the building envelope), solar photovoltaic panels, other solar energy collectors, wind turbines, sheds, less than 45 sq.m., play-equipment/structures, score boards, goal posts and flag poles, fire extinguishers, decommissioned swimming pools, window coverings, black/white boards, benches, gymnastic equipment and the appropriateness of room space were excluded from the scope of work. Information related to these components contained in the database was not updated to reflect condition observed. Information related to events which are either planned or in progress, and currently locked were not updated.

All Elements

B SHELL

B20 Exterior Enclosure

B2010 Exterior Walls

Element Instance : B2010 Exterior Walls - Original Building

Description 2013 - Exterior brick veneer wall and CMU backup walls.

Condition Assessment 2013 - At the time of the assessment the exterior brick veneer walls is showing signs of excessive deterioration with spalling brick and deteriorated mortar joints.

Last Replacement Year	1967
Theoretical Life	75
Technical Condition	Poor

Major Repair[B2010 Exterior Wall- Original Building]

Event Type: Major Repair Priority: High

Brief Description	Major Repair[B2010 Exterior Wall- Original Building]
Estimated Cost	$67,320
Fiscal Event Year	2015
2011-2015 Cost	$67,320
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation 2013 - The exterior brick veneer walls are showing signs of deterioration on all facades of the building. Repointing and brick replacement is necessary as to maintain the integrity of the building envelope.

Apr 2013- Deteriorating Exterior wall brick veneer.

Apr 2013- Sign of deteriorating of exterior wall brick.

B2020 Exterior Windows

Element Instance : B2020 Exterior Windows - Original Building

Description

2013 - The building windows are single glazed units (IGUs) throughout, installed in metal frames. The operable units are vertical sliding. The windows are reported to be original to the construction of the building.

Condition Assessment

2013 - The building windows are in poor overall condition, with an aged appearance, deteriorating seals and reported water and air infiltration. Water staining was noted on interior window sills, verifying the occurrence of water leakage.

Last Replacement Year	1967
Theoretical Life	32
Technical Condition	Poor

Replacement[B2010 Exterior Windows-Original Building]

Event Type: Replacement Priority: High

Brief Description	Replacement[B2010 Exterior Windows-Original Building]
Estimated Cost	$477,360
Fiscal Event Year	2015
2011-2015 Cost	$477,360
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation

2013 - The windows of the building are beyond their expected service life. Based on the windows performance and observed condition, age, design and thermal properties, replacement of the building windows is recommended.

Apr 2013- Typical exterior window at school.

Apr 2013- Deteriorated exterior window.

Apr 2013-Worn exterior window.

Apr 2013- Damaged exterior window.

B2030 Exterior Doors

Element Instance : B2030 Exterior Doors - Original Building

Description

2013 - Exterior painted wood doors and frames with single glazed non tempered vision lite.

Condition Assessment

2013 - The majority of the exterior door assemblies are original, with worn finish, damaged frames, deteriorated door seals, single glazed vision lites and have exceeded their effective design rated life.

Last Replacement Year	1967
Theoretical Life	27
Technical Condition	Poor

Replacement [B2030 Exterior Doors - Original Building]

Event Type: Replacement Priority: High

Brief Description	Replacement [B2030 Exterior Doors - Original Building]
Estimated Cost	$87,593
Fiscal Event Year	2015
2011-2015 Cost	$87,593
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation

2013 - The majority of the exterior door assemblies are original and have exceeded their effective design rated life. Replacement of the door assemblies is recommended.

Apr 2013- Typical Exterior doors at school.

Apr 2013- Worn-out Exterior door.

Apr 2013- Rusted and deteriorated exterior door frame.

Element Instance : B2030 Exterior Doors - Original Building

Description 2013 - Exterior door hardware consists of panic bars, push bars, butt hinges and door pulls

Condition Assessment 2013 - At the time of the assessment the exterior door was in fair condition, showing signs of wear and tear due to use

Last Replacement Year	1967
Theoretical Life	15
Technical Condition	Poor

Replacement [B2030 Exterior Doors - Original Building]

Event Type: Replacement

Priority: High

Brief Description	Replacement [B2030 Exterior Doors - Original Building]
Estimated Cost	$43,797
Fiscal Event Year	2015
2011-2015 Cost	$43,797
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation

2013 - It is recommended that the exterior door hardware should be replaced at the time the exterior doors are replaced.

Apr 2013- Typical worn and aged exterior door hardware.

Apr 2013- Worn exterior door hardware.

Apr 2013- Typical exterior door hardware.

C INTERIORS

C10 Interior Construction

C1010 Partitions

Element Instance : C1010 Partitions - Original Building

Description 2013 - A powered vertical curtain partition is located in the double gymnasium.

Condition Assessment 2013 - The moveable partition located in the double gym is in fair condition, prior to the repairs conducted in 2008, frequent problems occurred.

Last Replacement Year	1967
Theoretical Life	20
Technical Condition	Fair

Replacement [C1010 Partitions - Original Building]

Event Type: Replacement Priority: Medium

Brief Description	Replacement [C1010 Partitions - Original Building]
Estimated Cost	$109,491
Fiscal Event Year	2015
2011-2015 Cost	$109,491
2011-2015 Priority	Medium
2011-2015 Year	2015

Recommendation 2013 - The moveable partition has surpassed its EUL Planning for renewal is recommended for the latter portion of 5 year planning window.

Apr 2103- Aged movable partition.

Apr 2013- Worn retractable partition.

C1020 Interior Doors

Element Instance : C1020 Interior Doors - Original Building

Description

2013 - These include all doors within the building except for those through the perimeter walls are Interior Doors. They are constructed of hollow metal with a paint finish, wood with a natural, or paint or plastic laminate finish. They are often provided with glazed vision or half panels.

Condition Assessment

2013 - At the time of the assessment the interior doors were in fair condition, they were showing signs of age and they had past expected useful life.

Last Replacement Year	1967
Theoretical Life	25
Technical Condition	Poor

Replacement [C1020 Interior Doors - Original Building]

Event Type: Replacement

Priority: High

Brief Description	Replacement [C1020 Interior Doors - Original Building]
Estimated Cost	$87,593
Fiscal Event Year	2015
2011-2015 Cost	$87,593
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation

2013 - The interior doors have exceeded their effective design rated life with the majority of the doors exhibiting damage. Replacement of the interior doors is recommended.

Apr 2013- Typical interior hollow metal door.

Apr 2013- Typical worn-out interior wood door.

Apr 2013- Damaged interior wood door.

Element Instance : C1020 Interior Doors - Original Building

Description 2013 - Interior door hardware featuring classroom knob locksets, door pulls, hinges, door closer and floor stops.

Condition Assessment 2013 - The interior door hardware is original and has exceeded its effective rated design life. The components are appearing worn with reports of some reliability issues.

Last Replacement Year	2008
Theoretical Life	15
Technical Condition	Fair

Replacement [C1020 Interior Doors - Original Building]

Event Type: Replacement Priority: Medium

Brief Description	Replacement [C1020 Interior Doors - Original Building]
Estimated Cost	$43,797

Fiscal Event Year	2015
2011-2015 Cost	$43,797
2011-2015 Priority	Medium
2011-2015 Year	2015

Recommendation

2013 - The interior door hardware has exceeded its effective design rated life. Replacement planning is warranted.

Apr 2013- Typical interior door hardware.

Apr 2013- typical interior door closer.

Apr 2013- Interior door hardware.

C1030 Fittings

Element Instance : C1030 Fittings - Original Building

Description

2013 - Assemblies include all counters and countertops with all necessary brackets and supporting materials and finish, if required.

Condition Assessment

2013 - At the time of the assessment it was reported that hazardous materials such as asbestos containing materials (ACM's) were in the science room counter tops, these countertops were fair condition and were showing signs of are and wear

Last Replacement Year	1967
Theoretical Life	20
Fittings Type	Unspecified
Technical Condition	Fair

Replacement [C1030 Fittings - Original Building]

Event Type: Replacement

Priority: Medium

Brief Description	Replacement [C1030 Fittings - Original Building]
Estimated Cost	$437,964
Fiscal Event Year	2015
2011-2015 Cost	$437,964
2011-2015 Priority	Medium
2011-2015 Year	2015

Recommendation

2013 - As all the cabinetry, millwork items, counters and countertops have exceeded their expected useful life and are in fair condition the recommendation is to replace them

Apr 2013- Typical worn classroom millwork fitting.

Apr 2013- Damaged Millwork fitting.

Element Instance : C1030 Fittings - Original Building

Description 2013 - Painted metal floor mounted toilet partitions situated in two washrooms of the original building.

Condition Assessment 2013 - At the time of the assessment the painted metal toilet partitions are original and are showing signs corrosion, damage worn finish and unreliable or missing hardware.

Last Replacement Year	1967
Theoretical Life	15
Fittings Type	Unspecified
Technical Condition	Poor

Replacement [C1030 Fittings - Original Building]

Event Type: Replacement Priority: High

Brief Description	Replacement [C1030 Fittings - Original Building]

Estimated Cost	$87,593
Fiscal Event Year	2015
2011-2015 Cost	$87,593
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation

2013 - The original floor mounted painted toilet partitions have exceeded their effective rated design life. Replacement is recommended. OLD-Damages were noted on the metal washroom partitions. The washroom panels have exceeded their useful life based on the age and observed condition. Replacement is recommended.

Apr 2013- Stained washroom partition in the school.

Apr 2013- Stained and worn washroom partition in the school.

C20 Stairs

C2020 Stair Finishes

Element Instance : C2020 Stair Finishes

Description

2013 - Interior stair frames and treads

Last Replacement Year	1967
Theoretical Life	30

Technical Condition Poor

Major Repair[C2010 Stair Finishes- Original Building]

Event Type: Major Repair Priority: High

Brief Description	Major Repair[C2010 Stair Finishes- Original Building]
Estimated Cost	$178,500
Fiscal Event Year	2015
2011-2015 Cost	$178,500
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation 2013 - Replacement of initial flight of the interior stairs including the rubber covering is recommended

Apr 2013- Deteriorated stairs finish.

C30 Interior Finishes

C3010 Wall Finishes

Element Instance : C3010 Wall Finishes - Original Building

Description 2013 - Interior painted wall finishes – concrete masonry unit and gypsum wallboard surfaces

Condition Assessment 2013 - At the time of the assessment the interior wall finishes were in fair condition

Last Replacement Year	2007
Theoretical Life	10

Wall Finishes Type	Unspecified
Technical Condition	Fair

Replacement [C3010 Wall Finishes - Original Building]

Event Type: Replacement

Priority: Medium

Brief Description	Replacement [C3010 Wall Finishes - Original Building]
Estimated Cost	$413,062
Fiscal Event Year	2014
2011-2015 Cost	$413,062
2011-2015 Priority	Medium
2011-2015 Year	2014

Recommendation 2013 - Recommend all interior wall finishes be repainted as the finishes are fading and showing signs of age

Apr 2013- Stained wall covering in the Special education room

Apr 2013- Peeling paint wall covering.

Apr 2013- Damaged paint wall covering.

C3020 Floor Finishes

Element Instance : C3020 Floor Finishes - Original Building

Description 2013 - Carpet floor covering in Library, Auditorium and, staff room.

Condition Assessment 2013 - At the time of the assessment the carpet floor covering was in fair condition, it was showing signs of age and wear

Last Replacement Year	2007
Theoretical Life	10
Floor Finishes Type	Unspecified
Technical Condition	Fair

Replacement [C3020 Floor Finishes - Original Building]

Event Type: Replacement Priority: Medium

Brief Description	Replacement [C3020 Floor Finishes - Original Building]
Estimated Cost	$257,250
Fiscal Event Year	2017
2011-2015 Cost	$257,250
2011-2015 Priority	Medium
2011-2015 Year	2017

Recommendation Wear, tear, wrinkles and degradation at the seams was noted on the aged carpet in library and auditorium. Replacement is recommended. 2007: Auditorium carpet replaced.

Apr 2013- Worn carpet floor covering in the Library.

Apr 2013- Worn carpet floor covering.

Element Instance : C3020 Floor Finishes - Original Building

Description 2013 - Vinyl Composite 12" x 12" floor tile situated in isolated rooms and classrooms in the school.

Condition Assessment 2013 - At the time of assessment the vinyl composite floor tile in some classrooms is showing signs of wear and discoloration.

Last Replacement Year	1967
Theoretical Life	20
Floor Finishes Type	Unspecified
Technical Condition	Fair

Replacement [C3020 Floor Finishes - Original Building]

Event Type: Replacement Priority: Medium

Brief Description Replacement [C3020 Floor Finishes - Original Building]

Estimated Cost	$437,964
Fiscal Event Year	2015
2011-2015 Cost	$437,964
2011-2015 Priority	Medium
2011-2015 Year	2015

Recommendation

2013 - The vinyl composite floor tile and vinyl base is exhibiting signs of wear and has exceeded its effective rated design life. Replacement planning is recommended.

Apr 2013- Damanged VCT floor covering.

Apr 2013- Damanged VCT floor covering.

Apr 2013- Stained and worn VCT floor covering.

C3030 Ceiling Finishes

Element Instance : C3030 Ceiling Finishes - Original Building

Description 2013 - Gypsum board ceilings

Condition Assessment 2013 - At the time of the assessment the gypsum board ceilings were in fair condition

Last Replacement Year	1967
Theoretical Life	30
Ceiling Finishes Type	Unspecified
Technical Condition	Fair

Replacement [C3030 Ceiling Finishes - Original Building]

Event Type: Replacement Priority: Medium

Brief Description	Replacement [C3030 Ceiling Finishes - Original Building]
Estimated Cost	$172,475
Fiscal Event Year	2015
2011-2015 Cost	$172,475
2011-2015 Priority	Medium
2011-2015 Year	2015

Recommendation 2013 - Gypsum board ceilings are original and have passed there EUL and should be replaced

Apr 2013- Worn Gypsum board ceiling in the change room.

Apr 2013- Damaged gypsum board ceiling.

Element Instance : C3030 Ceiling Finishes - Original Building

Description 2013 - Acoustical ceiling tiles 2' x 4' acoustical ceiling tiles and grid

Condition Assessment 2013 - At the time of assessment the acoustical ceiling tiles were in poor condition with signs of age and deterioration

Last Replacement Year	1967
Theoretical Life	25
Ceiling Finishes Type	Unspecified
Technical Condition	Fair

Replacement [C3030 Ceiling Finishes - Original Building]

Event Type: Replacement Priority: Medium

Brief Description	Replacement [C3030 Ceiling Finishes - Original Building]

Estimated Cost	$1,021,920
Fiscal Event Year	2015
2011-2015 Cost	$1,021,920
2011-2015 Priority	Medium
2011-2015 Year	2015

Recommendation 2013 - The acoustical suspended ceiling tile system is showing signs of wear. Replacement is recommended.

Apr 2013- Stained and worn ceiling tile.

Apr 2013- Stained and worn ceiling tile.

Apr 2013- Stained and worn ceiling tile.

D SERVICES

D10 Conveying

D1010 Elevators & Lifts

Element Instance : D1010 Elevators & Lifts - Original Building

Description	2013 - The school is serviced by an original traction type passenger elevator rated at 1814 Kg capacity and services 4 floors. The school also contains a lift which services the gym stage.
Condition Assessment	2013 - The traction elevator system is original to the facility and although functional has exceeded the expected useful life of 35 years. The gym chair lift was observed to be in good condition at the time of assessment.

Last Replacement Year	1967
Theoretical Life	30
Elevators & Lifts Type	Unspecified
Technical Condition	Fair

Replacement [D1010 Elevators & Lifts - Original Building]

Event Type: Replacement Priority: High

Brief Description	Replacement [D1010 Elevators & Lifts - Original Building]
Estimated Cost	$141,576
Fiscal Event Year	2016
2011-2015 Cost	$141,576
2011-2015 Priority	High
2011-2015 Year	2016

Recommendation

2013 - The unit appears to be well maintained but as this unit continues to age, repair and service will become more expensive while parts will become increasingly harder to obtain. Replacement of the aged traction elevator including controls and drive unit is recommended.

April 2013 - Original Elevator Hoist and Invertor

April 2013 - Original Elevator Controls

D20 Plumbing

D2020 Domestic Water Distribution

Element Instance : D2020 Domestic Water Distribution

Description

2013 - The building domestic water system includes a main line, water meter, pressure reducer and associated piping and insulation. At the time of assessment the domestic water distribution system was estimated to be original to the dates of construction of the additions and original building.

Condition Assessment

2013 - The domestic piping system is mostly concealed and therefore the current condition is not fully known. However due to the age, the expected wear and the theoretical useful life, the system is assessed as being in fair condition.

Last Replacement Year	1967
Theoretical Life	37

Domestic Water Distribution Type	Unspecified
Technical Condition	Fair

Replacement

Event Type:	Replacement	Priority:	Medium

Brief Description	Replacement
Estimated Cost	$969,000
Fiscal Event Year	2016
2011-2015 Cost	$969,000
2011-2015 Priority	Medium
2011-2015 Year	2016

Recommendation

2013 - Based on the age and theoretical useful life of the domestic water piping system replacement is recommended. A study is recommended to determine the current condition, remaining service life, current service requirements and the cost of replacement.

April 2013 - Domestic Water Distribution Piping

Study

Event Type:	Study	Priority:	Medium

Brief Description	Study
Estimated Cost	$10,200
Fiscal Event Year	2014
2011-2015 Cost	$10,200
2011-2015 Priority	Medium
2011-2015 Year	2014

Recommendation

2013 - An in depth study is recommended to determine the condition of the domestic water piping system, the required recommended scope of work and the cost for system renewal.

D2030 Sanitary Waste

Element Instance : D2030 Sanitary Waste

Description

2013 - The sanitary waste distribution system for the school is provided by various types of piping. The majority of the piping is reported to be aged or original to the construction dates of the school.

Condition Assessment

2013 - Much of the sanitary waste water distribution system is concealed with only small areas of the system being visible during the assessment. The visible sections of the piping were observed to be functional but aged. The waste water distribution system is past its rated useful life of 37 years.

Last Replacement Year	1967
Theoretical Life	37
Technical Condition	Fair

Replacement [D2020 Domestic Water Distribution - Sanitary lines]

Event Type: Replacement Priority: Medium

Brief Description	Replacement [D2020 Domestic Water Distribution - Sanitary lines]
Estimated Cost	$204,000
Fiscal Event Year	2016
2011-2015 Cost	$204,000
2011-2015 Priority	Medium
2011-2015 Year	2016

Recommendation

2013 - Planned replacement of the waste water distribution system is recommended based on age and condition.

April 2013 - Aged Sanitary Water Piping

Study

Event Type: Study Priority: Medium

Brief Description	Study
Estimated Cost	$10,200
Fiscal Event Year	2014
2011-2015 Cost	$10,200
2011-2015 Priority	Medium
2011-2015 Year	2014

Recommendation 2013 - A study is recommended to determine the condition of the sanitary waste piping system, the required recommended scope of work and the cost for system renewal.

D2040 Rain Water Drainage

Element Instance : D2040 Rain Water Drainage

Description 2013 - Rain water drainage for the school is provided by roof drains and cast iron distribution piping and is reported to be original to the construction dates of the school.

Condition Assessment 2013 - Much of the rain water drainage system is concealed with only small areas of the system being visible during the assessment. The visible sections of the rain water piping were observed to have minor corrosion. The rain water drainage system is past its rated useful life of 37 years.

Last Replacement Year	1967
Theoretical Life	37
Technical Condition	Fair

Replacement

Event Type: Replacement Priority: Medium

Brief Description	Replacement
Estimated Cost	$102,000
Fiscal Event Year	2016
2011-2015 Cost	$102,000
2011-2015 Priority	Medium
2011-2015 Year	2016

Recommendation 2013 - Planned replacement of the rain water drainage system is recommended based on age and condition.

April 2013 - Roof Drain - Rain Water Drainage System

Study

Event Type:	Study	Priority:	Medium

Brief Description	Study
Estimated Cost	$10,200
Fiscal Event Year	2014
2011-2015 Cost	$10,200
2011-2015 Priority	Medium
2011-2015 Year	2014

Recommendation 2013 - A study is recommended to determine the condition of the rainwater drainage distribution system, the required recommended scope of work and the cost for system renewal.

D30 HVAC

D3020 Heat Generating Systems

D302005 Auxiliary Equipment

Element Instance : D302005 Auxiliary Equipment - Original Building

Description 2013 - There are 5 large HVAC pumps located in the main mechanical room which are original to 1967.

Condition Assessment 2013 - The HVAC pumps are generally in poor condition with one being out of service at the time of assessment. Residue from previous leaks and minor corrosion was observed.

Last Replacement Year	1967
Theoretical Life	25
Auxiliary Equipment Type	Unspecified
Technical Condition	Poor

Technical Condition Poor

Replacement [D302005 Auxiliary Equipment - Original Building]

Event Type: Replacement

Priority: High

Brief Description	Replacement [D302005 Auxiliary Equipment - Original Building]
Estimated Cost	$76,500
Fiscal Event Year	2014
2011-2015 Cost	$76,500
2011-2015 Priority	High
2011-2015 Year	2014

Recommendation

2013 - Based on age, the HVAC pumps have past their expected useful life, which is generally 25 years. Replacement of the HVAC pumps is recommended to minimize the potential impact on the heating system.

April 2013 - Typical Original HVAC Pump

April 2013 - Five Original HVAC Pumps

D3040 Distribution Systems

D304003 Heating/Chilling water distribution systems

Element Instance : D304003 Heating/Chilling water distribution systems

Description

2013 - The heating water distribution system in the school is original to 1967 and is mostly concealed except for exposed piping in the mechanical rooms. Heating hot water is provided to air handlers, perimeter radiant heaters and force flow heaters throughout the building.

Condition Assessment

2013 - Partial upgrade of the heating piping was undertaken in 2008 with installation of the boilers, however the quantity and condition of original piping in the school is unknown. As original heating piping is approaching the end of its expected useful life and piping leaks were observed in the mechanical room.

Last Replacement Year	2008
Theoretical Life	45
Technical Condition	Fair

Replacement [D304003 Heating/Chilling water distribution systems]

Event Type: Replacement Priority: High

Brief Description	Replacement [D304003 Heating/Chilling water distribution systems]
Estimated Cost	$510,000
Fiscal Event Year	2016
2011-2015 Cost	$510,000
2011-2015 Priority	High
2011-2015 Year	2016

Recommendation

2013 - Pending the outcome of the recommended study, replacement of the building's heating piping and distribution system may be required. In the current condition piping leaks may occur damaging the building interiors. The work associated with this project is expected to disturb material(s) suspected of containing, or known to contain asbestos, (ACMs). Testing of the suspected ACMs should be conducted prior to the initiation of any demolition and the costs should be adjusted based on the findings. The cost of hazardous materials abatement is not included in the replacement cost.

April 2013 - Aged Heating Piping

April 2013 - Aged and Corroding Heating Piping

Study

Event Type:	Study	Priority:	High

Brief Description	Study
Estimated Cost	$10,200
Fiscal Event Year	2014
2011-2015 Cost	$10,200
2011-2015 Priority	High
2011-2015 Year	2014

Recommendation 2013 - The heating piping system is original to the construction. A study is recommended to determine the condition, remaining service life and replacement or repair costs.

D304007 Exhaust Systems

Element Instance : D304007 Exhaust Systems - Original Building

Description 2013 - Various rooftop and internal exhaust fans service classrooms, washrooms and the general building providing ventilation to the building. There are a total of 29 aged roof top exhaust fans.

Condition Assessment 2013 - The exhaust fans are typically original to the building, many had worn and weathered casings. The fans are well maintained but are well past their intended useful life and are in fair condition overall.

Last Replacement Year	1967
Theoretical Life	15
Technical Condition	Fair

Replacement [D304007 Exhaust Systems - Original Building]

Event Type:	Replacement	Priority:	Medium

Brief Description	Replacement [D304007 Exhaust Systems - Original Building]
Estimated Cost	$71,400
Fiscal Event Year	2016
2011-2015 Cost	$71,400
2011-2015 Priority	Medium
2011-2015 Year	2016

Recommendation 2013 - The exhaust fans are operating past their expected useful lives and will likely require replacement as most are in fair condition.

April 2013 - Original Rooftop Exhaust Fan

D304008 Air Handling Units

Element Instance : D304008 Air Handling Units - Original Building

Description 2013 - HVAC in the school is provided by 6 central air handling units which are original to 1967.

Condition Assessment 2013 - The 6 original central air handlers are original and have well exceeded the end of their predictable service life of 35 years.

Last Replacement Year	1967
Theoretical Life	35

Technical Condition Poor

Replacement [D304008 Air Handling Units - Original Building]

Event Type: Replacement Priority: High

Brief Description	Replacement [D304008 Air Handling Units - Original Building]
Estimated Cost	$367,200
Fiscal Event Year	2015

2011-2015 Cost	$367,200
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation 2013 - Due to age and mechanical wear, the central air handlers should be replaced within the next 5 years for reliability.

April 2013 - Original Central Air Handler

D3050 Terminal & Package Units

Element Instance : D3050 Terminal & Package Units - Original Building

Description 2013 - There are reportedly 110 unit ventilators which provide heating and ventilation to classrooms throughout the school.

Condition Assessment 2013 - The unit ventilators have exceeded their rated useful life of 15 years. Although portions have been properly maintained, the system has degraded in condition over the years. Due to age and wear the unit ventilators have deteriorated, causing breakdowns and problems thus affecting the Indoor Air Quality in the school and will require replacement soon.

Last Replacement Year	1967
Theoretical Life	25

Technical Condition Poor

Replacement [D3050 Terminal & Package Units - Original Building]

Event Type: Replacement Priority: High

Brief Description	Replacement [D3050 Terminal & Package Units - Original Building]
Estimated Cost	$1,530,000
Fiscal Event Year	2015
2011-2015 Cost	$1,530,000
2011-2015 Priority	High

2011-2015 Year 2015

Recommendation

2013 - Replacement of the aged unit ventilators is recommended. Consideration should be made to replace them with high energy efficient units.

April 2013 - Typical Aged Unit Ventilator

April 2013 - Unit Ventilator Wear and Tear

April 2013 - Ceiling Mounted Unit Ventilators - Tech Wing

D3060 Controls & Instrumentation

Element Instance : D3060 Controls & Instrumentation - Original Building

Description

2013 - The current HVAC controls are a mix of original and outdated equipment controls. The building is equipped with a building automation system and had a combined electric and pneumatic system. The classrooms are equipped with pneumatic controls for the radiators.

Condition Assessment

2013 - Controls have exceeded their theoretical life. Maintenance and control problems have been reported. Replacement of the aged control system is recommended. Consideration should be made to replace the system with the efficient controls and link them with the school main DDC.

Last Replacement Year	1967
Theoretical Life	15
Technical Condition	Fair

Replacement [D3060 Controls & Instrumentation - Original Building]

Event Type: Replacement Priority: High

Brief Description	Replacement [D3060 Controls & Instrumentation - Original Building]
Estimated Cost	$489,600
Fiscal Event Year	2016
2011-2015 Cost	$489,600
2011-2015 Priority	High
2011-2015 Year	2016

Recommendation

2013 - Remove the existing controls and replace with a new DDC HVAC control system. Work to include removal of the existing components and installation of new controls, including energy monitoring and electronic actuators. Coordinate with other HVAC deficiency correction projects.

April 2013 - Pneumatic Controls Air Compressor and Drier

D40 Fire Protection

D4030 Fire Protection Specialties

Element Instance : D4030 Fire Protection Specialties - Original Building

Description

2013 - The fire protection system in the school includes a variety of fire extinguishers located throughout the school. The last replacement of the fire extinguishers is reported to have been in 1997 but the majority of the fire extinguishers are older.

Condition Assessment

2013 - The fire extinguishers are reportedly inspected regularly and are functional. Fire extinguishers have a rated useful life of 10 years.

Last Replacement Year	1997
Theoretical Life	10
Fire Protection Specialties Type	Unspecified
Technical Condition	Poor

Replacement [D4030 Fire Protection Specialties - Original Building]

Event Type: Replacement

Priority: Urgent

Brief Description	Replacement [D4030 Fire Protection Specialties - Original Building]
Estimated Cost	$10,200
Fiscal Event Year	2015
2011-2015 Cost	$10,200
2011-2015 Priority	Urgent
2011-2015 Year	2015

Recommendation

2013 - Based on the age and theoretical useful life of the fire extinguishers replacement of the outdated and aged fire extinguishers is recommended within the next three years.

April 2013 - Aged Fire Extinguishers

April 2013 - Aged Fire Extinguishers

D50 Electrical

D5010 Electrical Service & Distribution

D501002 Secondary

Element Instance : D501002 Secondary Transforms

Description 2013 - There are two secondary transformers in the school which are original to the construction date of the original building 1967.

Condition Assessment 2013 - Although the secondary transformers are functional, they are well past their theoretical useful life of 40 years and are in fair condition.

Last Replacement Year	1967
Theoretical Life	40
Technical Condition	Poor

Replacement

Event Type: Replacement Priority: Urgent

Brief Description	Replacement
Estimated Cost	$48,960
Fiscal Event Year	2015
2011-2015 Cost	$48,960
2011-2015 Priority	Urgent
2011-2015 Year	2015

Recommendation 2013 - Based on the age and theoretical useful lives of the secondary transformers replacement is recommended.

April 2013 - Original Secondary Transformer

April 2013 - Original Secondary Transformer

D501003 Main Switchboards

Element Instance : D501003 MCC - Original Building

Description	2013 - The school has one MCC which is original to 1967 and is located in the main mechanical room.
Condition Assessment	2013 - The original MCC is aged and in poor condition.

Last Replacement Year	1967
Theoretical Life	40
Technical Condition	Poor

Replacement [D501003 MCC - Original Building]

Event Type:	Replacement	Priority:	Urgent
Brief Description		Replacement [D501003 MCC - Original Building]	

Estimated Cost	$30,600
Fiscal Event Year	2015
2011-2015 Cost	$30,600
2011-2015 Priority	Urgent
2011-2015 Year	2015

Recommendation 2013 - The MCC is part its useful life and should be replaced within the next 3 years.

April 2013 - Original Motor Control Centre

D5020 Lighting & Branch Wiring

D502001 Branch Wiring

Element Instance : D502001 Branch Wiring - Original Building

Description 2013 - The branch wiring system consists of cabling, raceways, conduit, wiring, bus ducts and wiring terminal devices. Flexible conduit and cabling is provided to motors and other mechanical equipment.

Condition Assessment 2013 - Apart from minor renovations the majority of the branch wiring system in the school is original to 1967. The branch wiring is in fair condition and is past its theoretical useful life.

Last Replacement Year	1967
Theoretical Life	40
Technical Condition	Fair

Replacement [D502001 Branch Wiring - Original Building]

Event Type: Replacement Priority: Medium

Brief Description	Replacement [D502001 Branch Wiring - Original Building]
Estimated Cost	$1,530,000
Fiscal Event Year	2016

2011-2015 Cost	$1,530,000
2011-2015 Priority	Medium
2011-2015 Year	2016

Recommendation 2013 - Based on the age of the branch wiring, replacement is recommended. An in depth study should be conducted to determine the current condition, remaining useful life cost of replacement.

April 2013 - Aged Branch Wiring

Study

Event Type: Study Priority: Medium

Brief Description	Study
Estimated Cost	$10,200
Fiscal Event Year	2014
2011-2015 Cost	$10,200
2011-2015 Priority	Medium
2011-2015 Year	2014

Recommendation 2013 - A study is recommended and would provide a more detailed condition, remaining useful life and cost of replacement or repair of the branch wiring system.

D502002 Lighting Equipment

Element Instance : D502002 Lighting Equipment - Original Building

Description 2013 - Exterior lighting includes wall-mounted fixtures, fluorescent fixtures at entrance overhang and light standards in the parking lot area.

Condition Assessment 2013 - The exterior lamps and fixtures have exceeded their rated useful life and the lamps are not energy efficient and should be replaced with high efficient lamps.

Last Replacement Year	1967

Theoretical Life	15
Lighting Equipment Type	Exterior Lighting
Technical Condition	Fair

Replacement [D502002 Lighting Equipment - Original Building]

Event Type: Replacement Priority: High

Brief Description	Replacement [D502002 Lighting Equipment - Original Building]
Estimated Cost	$15,300
Fiscal Event Year	2016
2011-2015 Cost	$15,300
2011-2015 Priority	High
2011-2015 Year	2016

Recommendation

2013 - Approximately 20% of the exterior lighting fixtures are aged but appear to be functional at this time. Replacement of existing aged lamps and fixtures with higher efficiency lamps and fixtures is recommended.

April 2013 - Fluorescent Lighting Fixtures

D5030 Communications & Security

D503004 Public Address Systems

Element Instance : D503004 Public Address Systems - Original Building

Description

2013 - Building is provided with a public address system, which includes: Amplifier, intercom/monitor, volume control, speakers (ceilings or walls), conduit and shielded wires.

Condition Assessment

2013 - The existing PA system has recently been updated with a main console, but still has the original speakers and associated wiring. The PA system is in poor to fair condition and has a useful life of 20 years.

Last Replacement Year	2000
Theoretical Life	20
Technical Condition	Poor

Replacement [D503004 Public Address Systems - Original Building]

Event Type: Replacement

Priority: High

Brief Description	Replacement [D503004 Public Address Systems - Original Building]
Estimated Cost	$71,400
Fiscal Event Year	2015
2011-2015 Cost	$71,400
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation

2013 - The public address system speakers and wiring are aged and beyond their rated life. Replacement is recommended.

April 2013 - Original PA Speakers

April 2013 - New PA Console

D503008 Security Systems

Element Instance : D503008 Security Systems - Original Building

Description

2013 - The building's security system was reportedly installed in 1980 and includes an alarm panel, door contacts, motion detectors, camera surveillance, conduit and wiring.

Condition Assessment

2013 - The security system is currently functioning as intended, with no major deficiencies reported. Overall, due to age and electrical wear the system is in fair condition. The surveillance system is in good condition.

Last Replacement Year	1980
Theoretical Life	25

Technical Condition Fair

Replacement [D503008 Security Systems - Original Building]

Event Type: Replacement Priority: Medium

Brief Description	Replacement [D503008 Security Systems - Original Building]
Estimated Cost	$40,800
Fiscal Event Year	2016
2011-2015 Cost	$40,800
2011-2015 Priority	Medium
2011-2015 Year	2016

Recommendation

2013 - Based on age and theoretical useful life the planned replacement of the security system is recommended.

April 2013 - Security Panel

April 2013 - Surveillance System

D5090 Other Electrical Services

D509002 Emergency Lighting & Power

Element Instance : D509002 Emergency Lighting & Power - Original Building

Description 2013 - A generator and associated emergency power equipment is installed in the school and provides power to the emergency lighting, exit lighting and pull stations in case of power failure to the school.

Condition Assessment 2013 - The emergency generator and associated equipment is original to 1967 and is in poor condition.

Last Replacement Year	1967
Theoretical Life	30
Technical Condition	Poor

Replacement [D509002 Emergency Lighting & Power - Original Building]

Event Type: Replacement Priority: Urgent

Brief Description	Replacement [D509002 Emergency Lighting & Power - Original Building]
Estimated Cost	$153,000
Fiscal Event Year	2015
2011-2015 Cost	$153,000
2011-2015 Priority	Urgent
2011-2015 Year	2015

Recommendation 2013 - Replacement of the emergency power system is recommended based on age and condition.

April 2013 - Aged Emergency Power Generator

G BUILDING SITEWORK

G20 Site Improvement

G2020 Parking Lots

Element Instance : G2020 Parking Lots - Site

Description 2013 - Asphalt paved parking lot with line painting for parking stalls.

Condition Assessment 2013 - The asphalt paved parking lot is in poor condition with pot holes, alligator cracking and non visible line painting.

Last Replacement Year	1967
Theoretical Life	20
Technical Condition	Poor

Replacement [G2020 Parking Lots - Site]

Event Type: Replacement Priority: High

Brief Description	Replacement [G2020 Parking Lots - Site]
Estimated Cost	$72,994
Fiscal Event Year	2015
2011-2015 Cost	$72,994
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation

2013 - The asphalt paved parking lot is in poor condition with pot holes and alligator cracking. Reconstruction of the parking lot is recommended.

Apr 2013-Parking lot on the south side of the building.

Apr 2013- Parking surface on the south side of the site with evidence of alligator cracking.

APR 2013- Sign of pot holes on the surface of parking lot.

G2030 Pedestrian Paving

Element Instance : G2030 Pedestrian Paving - Site

Description

2013 - Concrete and Asphalt Paved sidewalks situated around the perimeter of the building on the North and West sides.

Condition Assessment

2013 - The asphalt and concrete paved surfaces are showing signs of uneven and cracked surfaces with signs of vegetation growth and isolated areas of spalling and deteriorated concrete.

Last Replacement Year	1967
Theoretical Life	22
Technical Condition	Poor

Replacement [G2030 Pedestrian Paving - Site]

Event Type: Replacement

Priority: High

Brief Description	Replacement [G2030 Pedestrian Paving - Site]
Estimated Cost	$21,898
Fiscal Event Year	2015
2011-2015 Cost	$21,898
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation

2013 - The concrete and asphalt paved sidewalks are showing signs of deterioration and have exceeded their effective design rated life. Replacement planning is recommended.

Apr 2013- Evidence of deterioration and settlement.

Apr 2013- Deteriorated pedestrsin on the west side.

G2040 Site Development

G204001 Fencing & Gates

Element Instance : G204001 Fencing & Gates - Site

Description 2013 - Cast-in-place concrete stairs are provided in various locations on the building exterior. A concrete ramp is also provided at the southeast corner of the building.

Condition Assessment 2013 - At the time of the assessment it was observed that the cast-in-place concrete stairs and ramps were in fair condition

Last Replacement Year	1967
Theoretical Life	20
Technical Condition	Fair

Replacement [G204001 Fencing & Gates - Site]

Event Type: Replacement Priority: High

Brief Description	Replacement [G204001 Fencing & Gates - Site]
Estimated Cost	$29,198
Fiscal Event Year	2015
2011-2015 Cost	$29,198
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation 2013 - Concrete stairs and ramps are damaged, deteriorated and in poor condition due to age and observed condition, reconstruction of the stairs and ramp is recommended.

Apr 2013- Deteriorating Conrete stairs.

G204005 Signage

Element Instance : G204005 Signage - Site

Description 2013 - Building signage – wall mounted

Condition Assessment 2013 - At the time of the assessment the front building signage was in fair condition, lettering was aged and identification of school not clearly visible due to lettering being in a faded condition

Last Replacement Year	1967
Theoretical Life	10
Technical Condition	Fair

Replacement [G204005 Signage - Site]

Event Type: Replacement Priority: High

Brief Description	Replacement [G204005 Signage - Site]
Estimated Cost	$21,898
Fiscal Event Year	2015
2011-2015 Cost	$21,898
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation 2013 - As the identification signage appears faded and aged, and has exceeded its typical service life. Replacement is recommended

Apr 2013- School wall mounted sign.

Hamilton-Wentworth District School Board

Report Summary

Saved Report Name	Final Report Template mod1
User Name	william lo
Report Type	Text With Pictures
Report Name	Condition Assessment
Start Year	2013
Number of Years	5
Priority	Default
Structure / Instance	Sir Winston Churchill SS, Building ID 9149-1
Filter	Parent Criteria Summary: Structure parent - A SUBSTRUCTURE OR Structure parent - B SHELL OR Structure parent - C INTERIORS OR Structure parent - D SERVICES OR Structure parent - G BUILDING SITEWORK - where the detail criteria for the parent node is - Technical Condition <> Not Assessed ;
Asset Photos	Default Photos Only
Current Backlog FCI	No
Element Photos	No Photos
Include Element ACL Criteria	No
Exclude Elements Without Events	Yes
Include Event level details	Yes
Event Photos	All Photos
Include Costlines	No
Printed Date	10/30/2013

APPENDIX E
ASBESTOS SURVEY

SIR WINSTON CHURCHILL SECONDARY SCHOOL
FIRST FLOOR
[EAST WING]

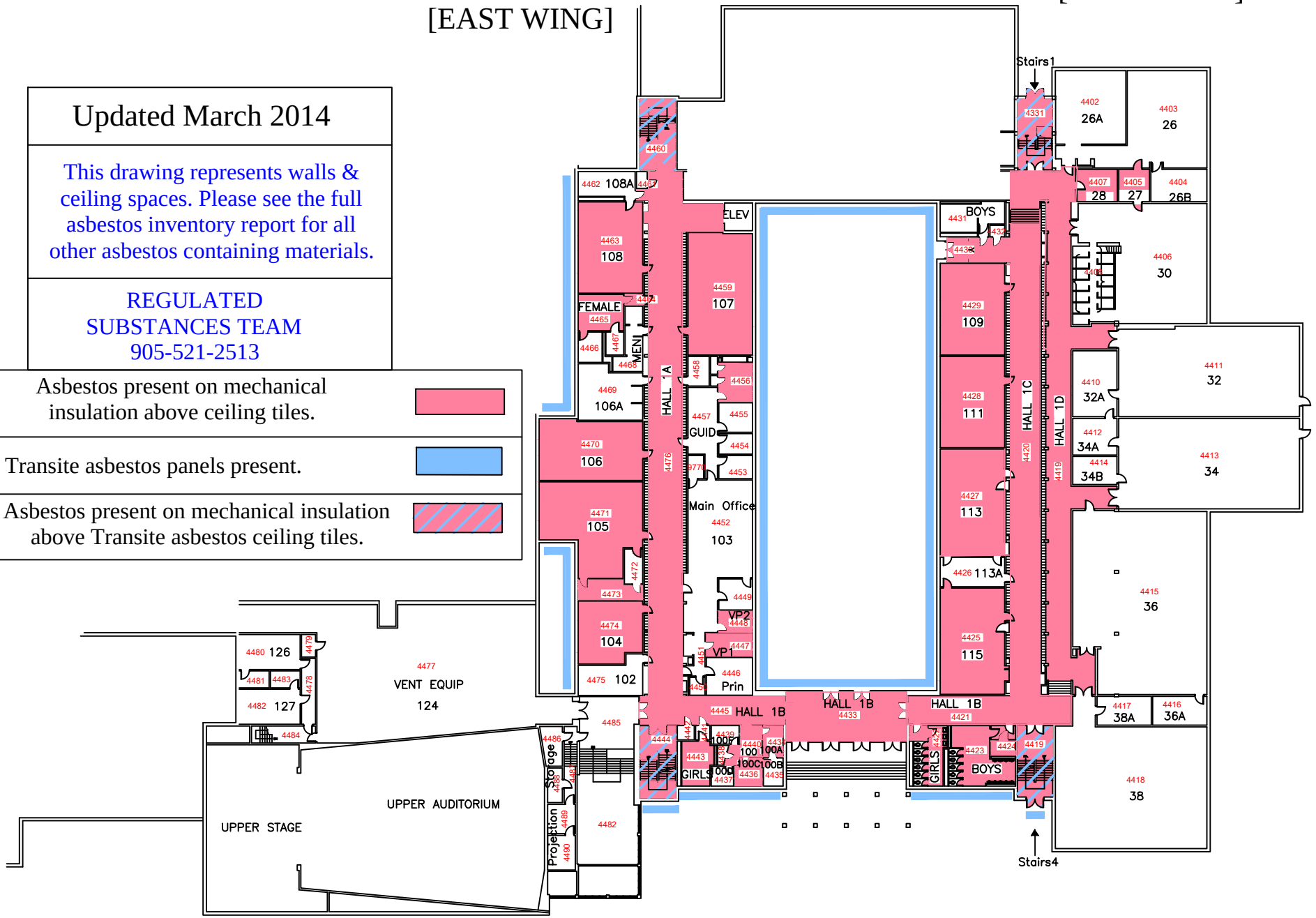
FIRST FLOOR
[EAST WING]

Updated March 2014

This drawing represents walls & ceiling spaces. Please see the full asbestos inventory report for all other asbestos containing materials.

REGULATED
SUBSTANCES TEAM
905-521-2513

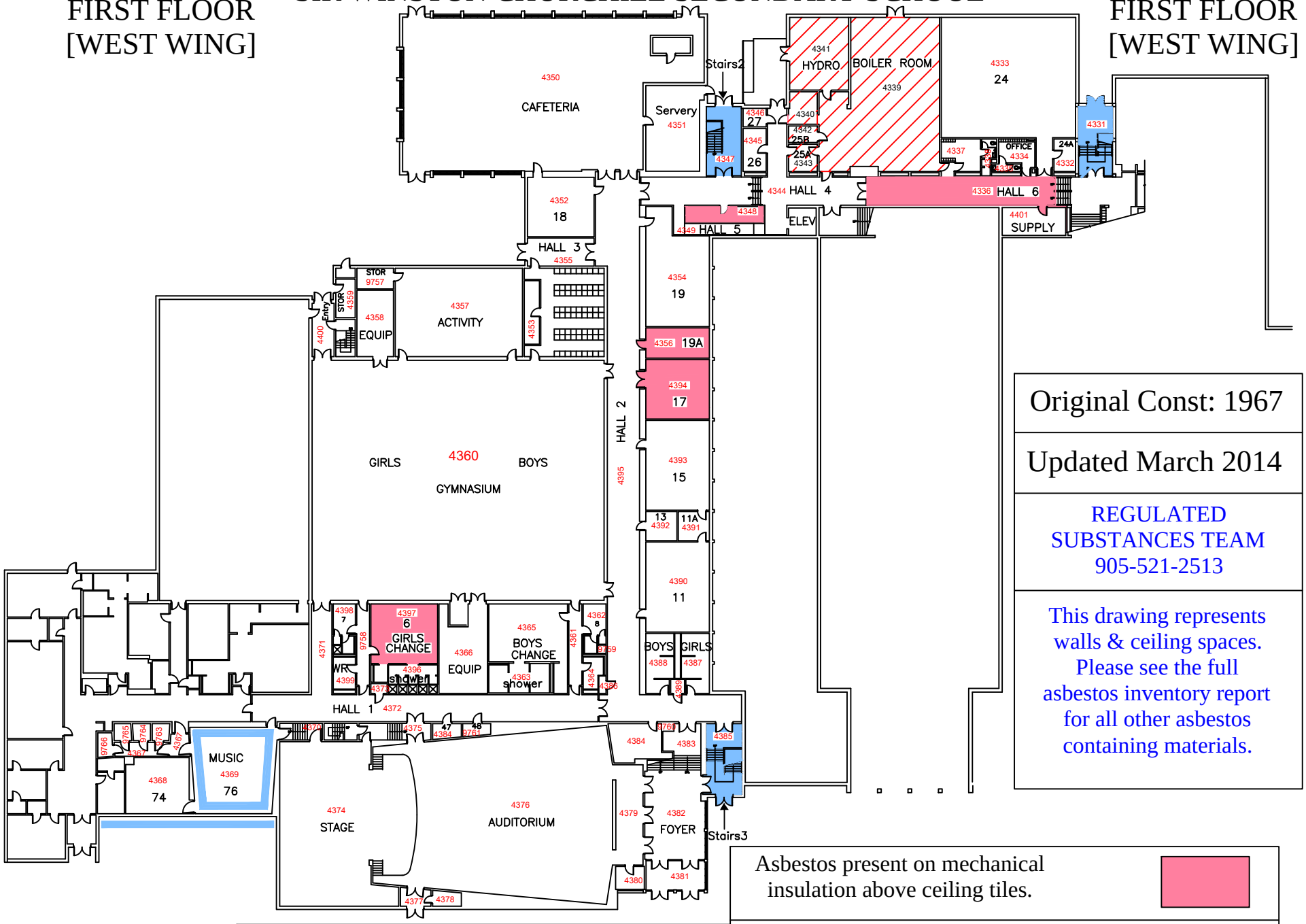
Asbestos present on mechanical insulation above ceiling tiles.	
Transite asbestos panels present.	
Asbestos present on mechanical insulation above Transite asbestos ceiling tiles.	



SIR WINSTON CHURCHILL SECONDARY SCHOOL

FIRST FLOOR
[WEST WING]

FIRST FLOOR
[WEST WING]



Original Const: 1967

Updated March 2014

REGULATED
SUBSTANCES TEAM
905-521-2513

This drawing represents walls & ceiling spaces. Please see the full asbestos inventory report for all other asbestos containing materials.

Asbestos present on mechanical insulation above ceiling tiles.

Transite asbestos panels present.

Sprayed asbestos fireproofing present above ceiling.

SIR WINSTON CHURCHILL SECONDARY SCHOOL

SECOND FLOOR

SECOND FLOOR

Updated March 2014

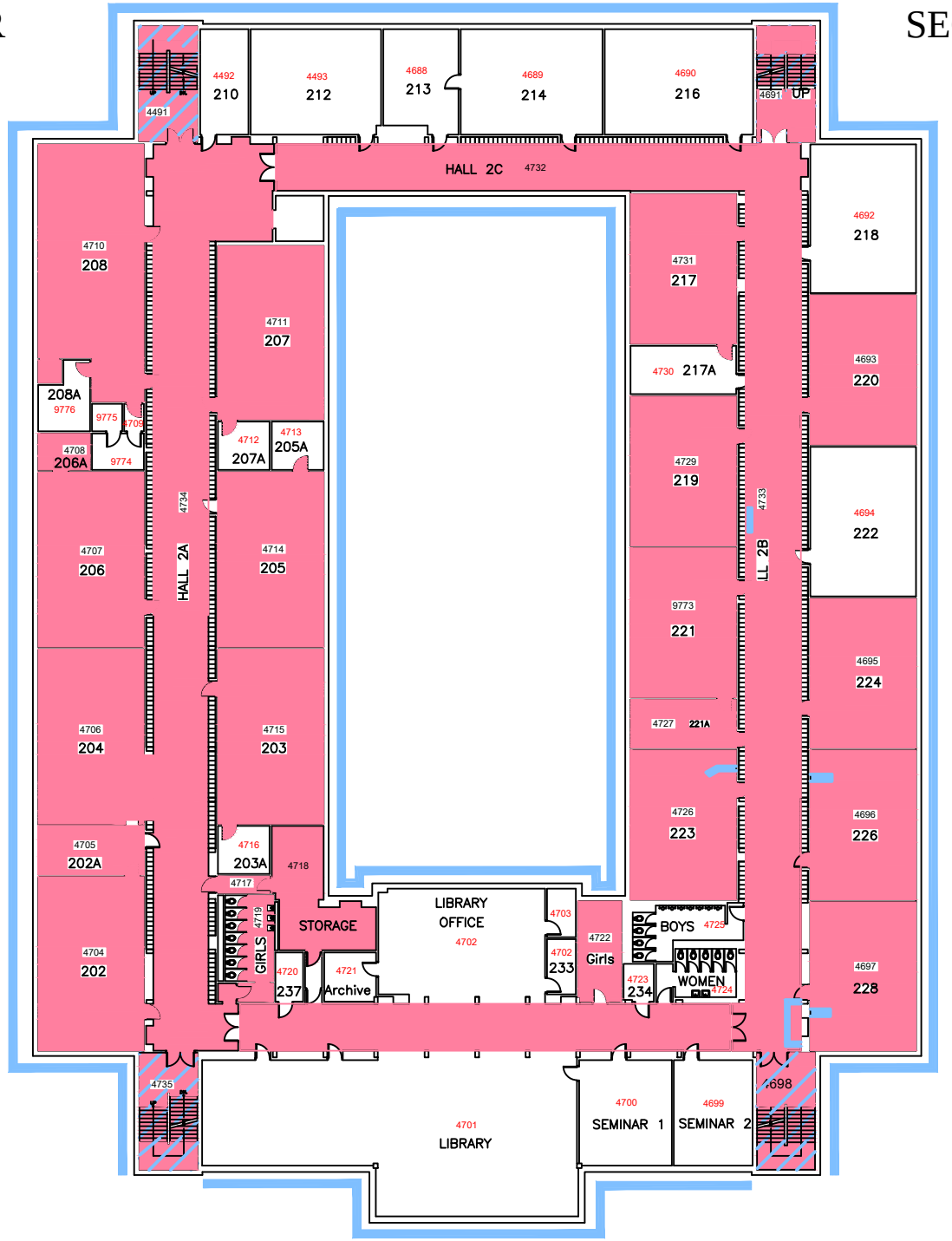
REGULATED
SUBSTANCES TEAM
905-521-2513

This drawing represents walls & ceiling spaces. Please see the full asbestos inventory report for all other asbestos containing materials.

Asbestos present on mechanical insulation above ceiling tiles.

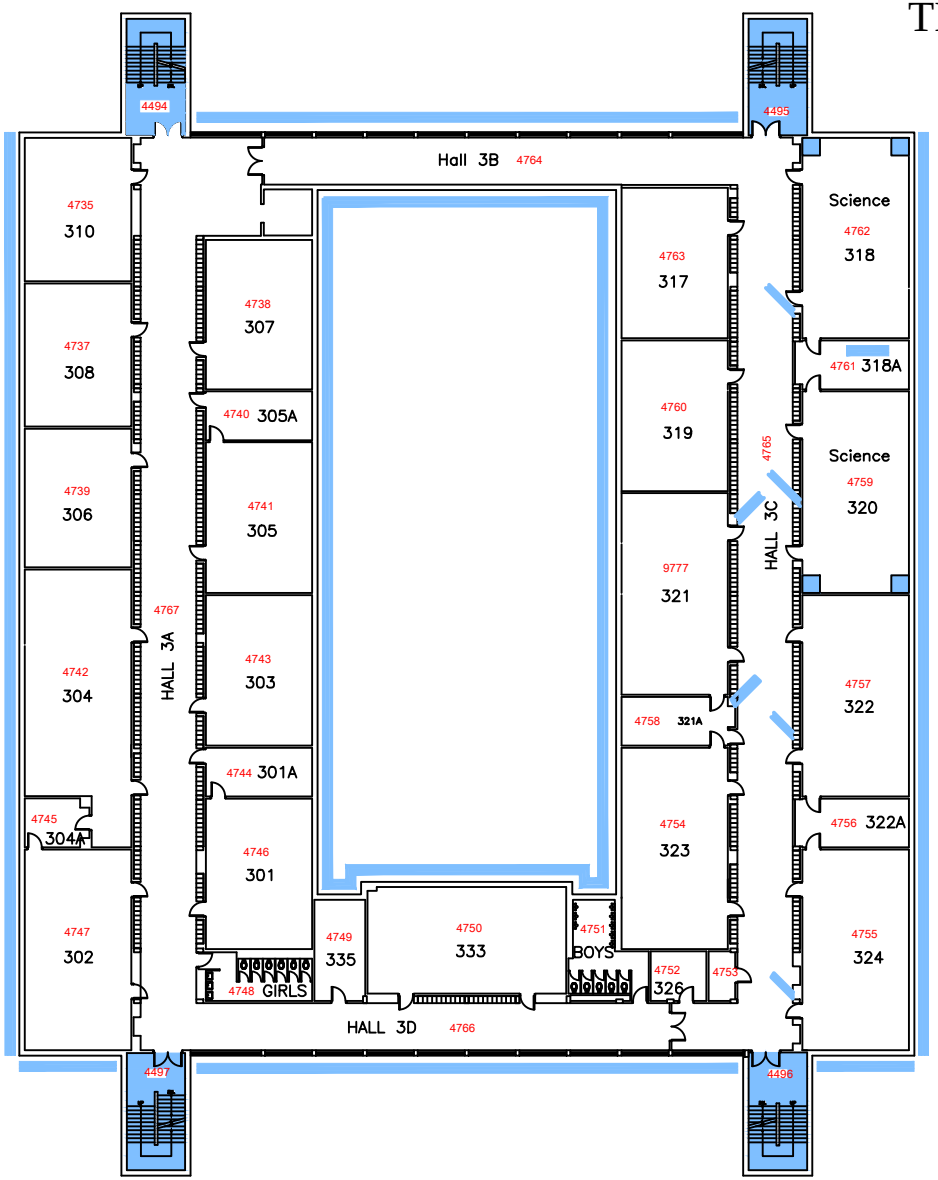
Transite asbestos panels present.

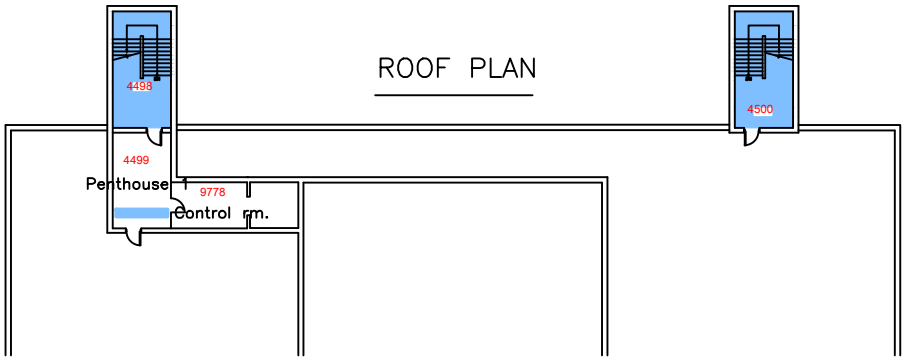
Asbestos present on mechanical insulation above Transite asbestos ceiling tiles.



SIR WINSTON CHURCHILL SECONDARY SCHOOL

THIRD FLOOR





Updated Mar. 2014

REGULATED SUBSTANCES TEAM
905-521-2513

This drawing represents walls & ceiling spaces. Please see the full asbestos inventory report for all other asbestos containing materials.

Transite asbestos panels present.

SUMMARY PAGE

The following designated substances are present in the school:

Asbestos (*Samples taken to-date are attached to this report)*
Lead *(Assume* **Lead** *is present in older paints. Samples taken to-date are attached to this report. Lead based paints are those containing greater than 0.5% Lead by weight)*

ASBESTOS

Vinyl asbestos floor tiles present; assume leveling coat present underneath

Assume asbestos insulation present behind wall cavity and/or behind lockers
(Asbestos insulation definition: mechanical, thermal, electrical and sound transmission)
In Mechanical rooms – mechanical fittings and pipes contain asbestos

3 Patterson Kelley boilers installed in 2006.
1 Cleaver Brook boiler (boiler #1) contains asbestos and/or Silica

Sprayed Chrysotile asbestos fireproofing present above ceiling in the hydro room, caretaker's room and above drywall ceiling in the boiler room.

Cleaning or removing of air handling equipment is restricted to Type 3 asbestos procedures
Filters changes and/or inspections are restricted to Type 2 asbestos procedures
Asbestos present around ceiling heaters (front door entrance). All inspections and/or service to be conducted under Type 2 asbestos procedures.

Black acid resistant lab counter tops contain Amosite and Chrysotile asbestos
Fire doors contain Amosite & Chrysotile asbestos
(for non-asbestos fire doors, please see tag on door spine)
Transite asbestos panels present in the main stairwells/landing and under the stairs, outside walls

Assume asbestos gaskets present behind old black and old tack boards
Assume roof drains and/or collars contain asbestos
Assume green and beige resin chairs and desks contain asbestos
Assume window caulking/putty and radiators contain asbestos
Assume older paints contain Lead

Spray booths/paint booths/welding booths, ductwork, cabinet lining, back splash, fume hoods, kilns and exhaust system contain asbestos

Tunnel: ***Asbestos insulation present on pipes. Access is restricted to Type 2 procedures***
OIL TANK: Buried oil tank removed

NOTE: Please contact the Regulated Substance Team at 905-521-2513 to co-ordinate site specific assessment & sampling of products that contain asbestos or Lead including but not limited to wall or ceiling plaster, floor leveler, ceiling tiles etc. This specific assessment & testing must be done prior to construction or maintenance work, which will disturb materials.

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Activity room (gym)	4357	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contain asbestos
Auditorium	4376	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Auditorium - entranceway	4490	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Boiler room	4339	***Sprayed asbestos fireproofing present above ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Cleaver Brooks boiler contains asbestos and/or Silica***
Cafeteria	4350	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Change room - Boy's	4365	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Change room - Girl's (1st. Fl West)	4397	***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Coat room (by rm. 106A)	4467	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Elevator control room	9778	***Asbestos present on mechanical insulation below ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Entry (by rm. 109)	4430	***Asbestos present on mechanical insulation above ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Window putty/caulking contains asbestos
Entry way (Auditorium stage)	4377	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Entry way (by gym)	4400	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Equipment room (gym)	4366	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Equipment Storage (gym)	4358	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contain asbestos
Foyer - Entry	4381; 4382; 4383	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Guidance room (by main office)	4457	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos
Guidance teacher's room	4456	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Gymnasium	4360	***Asbestos present on mechanical insulation below ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** ***Asbestos present on duct parging***
Hall / Stairs (by Aud.)	4487	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty contain asbestos
Hall / Stairs (rm. 127)	4484	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty contain asbestos
Hallway - rm. 166/127)	4478	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty contain asbestos
Hallway # 1A (across office to rm. 108)		***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards
Hallway # 2A (across rm. 202 to 208)	4734	***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards ***Note: Transite asbestos panels present in stairwells, landing and under stairs***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Hallway # 2B (across rm. 217 to 228)	4733	***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards ***Note: Transite asbestos panels present in stairwells, landing and under stairs***
Hallway # 2C (across rm. 210 to 216)	4732	***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards ***Note: Transite asbestos panels present in stairwells, landing and under stairs***
Hallway #1 (by auditorium)	4372	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Hallway #1B	4421; 4433; 4445	***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards ***Note: Transite asbestos panels present in stairwells, landing and under stairs***
Hallway #1C (across rm. 109 to rm. 36)	4420	***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards ***Note: Transite asbestos panels present in stairwells, landing and under stairs***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Hallway #1D (across rm. 30 to 36)	4419	***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards ***Note: Transite asbestos panels present in stairwells, landing and under stairs***
Hallway #2 (across rm. 11 to 19)	4395	* Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contain asbestos***
Hallway #3 (by rm. 18)	4355	* Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contain asbestos***
Hallway #3A (across rm. 302 to 310)	4767	***Vinyl asbestos floor tiles present*** - * leveling coat present underneath * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards ***Note: Transite asbestos panels present in stairwells, landing and under stairs***
Hallway #3B (across penthouse)	4764	***Vinyl asbestos floor tiles present*** - * leveling coat present underneath * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards ***Note: Transite asbestos panels present in stairwells, landing and under stairs***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Hallway #3C (across rm. 312 to 324)	4765	***Vinyl asbestos floor tiles present*** - * leveling coat present underneath * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** ***Transite asbestos vents (from science fume hoods) present above ceiling tiles*** * Asbestos gaskets present behind old black/tack boards ***Note: Transite asbestos panels present in stairwells, landing and under stairs***
Hallway #3D	4766	***Vinyl asbestos floor tiles present*** - * leveling coat present underneath * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards ***Note: Transite asbestos panels present in stairwells, landing and under stairs***
Hallway #4 (by boiler rm.)	4344	* Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contain asbestos***
Hallway #5 (by rm. 19)	4349	* Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contain asbestos***
Hallway #6 (across boiler room)	4336	***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity or behind lockers ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards ***Note: Transite asbestos panels present in stairwells, landing and under stairs***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Hallway by boy's change room	4361	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Hallway by girl's change room	9758	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Interview rooms	4453/4454/4455	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards
Library	4701; 4702	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation in bulkhead*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos ***** Asbestos gaskets present behind old black/tack boards
Library - A/V room	4699	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation in bulkhead*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos ***** Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Library - Resource room	4700	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation in bulkhead*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos ***** Asbestos gaskets present behind old black/tack boards
Library Archives	4721	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty contain asbestos
Locker room (by gym)	4353	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator contain asbestos
Office - Area Supervisor	4334	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Office - by guidance	4454	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos

Confirmed asbestos items are highlighted

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(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Office - by guidance	4455	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos
Office - by guidance	4456	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos
Office - Caretaker	4337	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Office - Girl's phys. Ed.	4384	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Office - Guidance	4453	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos

Confirmed asbestos items are highlighted

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(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Office - Library	4702; 4703	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation in bulkhead*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos
Office - Library	4722 & 4703	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty contain asbestos
Office - Main (rm. 103)	4452	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos
Office - Principal	4446	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos
Office - Room 30	4408	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation below ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Office - Vice - Principal 1	4447	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Asbestos gaskets present behind old black/tack boards
Office - Vice Principal 2	4448	***Asbestos present on mechanical insulation above ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contains asbestos
Office (by VP)	4449	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos
Penthouse (by hall 3B)	4499	***Asbestos present on mechanical insulation below ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** ***Transite asbestos panels on walls contain Amosite & Chrysotile asbestos***
Projection room (Auditorium)	4489	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 100	4440	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 100 A	4434	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 100 B	4435	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 100 C	4436	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 100 D	4437	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 100 E	4438	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 102	4475	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 104	4474	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 105	4471	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 105B (storage)	4473	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 106	4470	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 106A	4469	***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos
Room 107 - Staff room	4459	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 108	4463	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 108A	4462	***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity or above ceiling ***Fire doors contains asbestos*** * Radiator and window putty/caulking contain asbestos
Room 109	4429	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 11 - Health	4390	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Room 111	4428	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 113A	4426	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos
Room 113A	4427	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 115	4425	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 11A	4390	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 12	4391	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Room 126	4480	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls***
Room 127	4482	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls*** * Radiator and window putty contain asbestos
Room 13	4392	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Room 15	4393	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Room 17	4394	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 18	4352	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contain asbestos
Room 19A	4354	***Vinyl asbestos floor tiles*** - * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 19A	4356	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Room 202	4704	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 202A	4705	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 203	4715	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 203A	4716	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Room 204	4706	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 205	4714	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 205A	4713	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Room 206	4707	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 206A	4708	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos
Room 207	4711	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 207A	4712	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Room 208 - Art	4710	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 208 - Dark room	9774	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty contain asbestos
Room 208 - Dark room	9775	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty contain asbestos
Room 208 - Photoshoot room	9776	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 208A	4709	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls***
Room 210	4492	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls***
Room 212	4493	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls***
Room 213	4688	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls***
Room 214	4689	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 216	4690	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls*** * Roof drain and/or collar contain asbestos
Room 217	4731	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 217A	4730	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls***
Room 218	4692	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 219	4729	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 220	4693	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 221	9773	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 221A	4727	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 222	4694	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Transite asbestos panels present on outside walls***
Room 223	4726	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on ceiling and outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 224	4695	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 226	4696	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on ceiling and on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 228	4697	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on ceiling and on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards * Roof drain and/or collar contain asbestos
Room 24	4333	***Vinyl asbestos floor tiles*** - * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 24A	4332	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 25A	4343	***Sprayed asbestos fireproofing present above ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Vinyl asbestos floor tiles present*** - * leveling coat present underneath
Room 25B	4342	***Sprayed asbestos fireproofing present above ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Room 26	4345	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Room 26 - Electronics	4403	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation below ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Black acid resistant counter top contain *asbestos* * Radiator and window putty/caulking contains asbestos
Room 26A	4402	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation below ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 26B - storage	4404	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contain asbestos
Room 27	4346	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Room 27 - supply room	4405	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Room 28	4407	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Room 30 - Electrical	4406	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation below ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 301	4746	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 301A	4744	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 302	4747	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 303	4743	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 304	4742	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 304A	4745	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 305	4741	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 305A	4740	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 306	4739	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 307	4738	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 308	4737	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 310	4735	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 317	4763	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 318	4762	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** ***Transite asbestos panels present in fumehood, cabinets and duct work*** * Radiator and window putty/caulking contains asbestos
Room 318A	4761	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** ***Transite asbestos panels present in fumehood, cabinets, back splash, kilns and duct work*** * Radiator and window putty/caulking contains asbestos
Room 319	4760	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 32 - Machine	4411	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation below ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Room 320	4759	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** ***Transite asbestos panels present in fumehood, cabinets and duct work*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 321	9777	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 321a	4758	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 322	4757	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** ***Transite asbestos panels present in fumehood, cabinets and duct work*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 322A	4756	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 323	4754	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 324	4755	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 32A - Storage	4410	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contain asbestos
Room 333	4750	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 335	4749	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 34 - Machine	4413	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contain asbestos
Room 34A	4412	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contain asbestos

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 34B - Machine	4414	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contain asbestos
Room 36 - Auto	4415	***Asbestos present on mechanical insulation below ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Room 36A - supply	4416	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contain asbestos
Room 38 - Welding	4418	***Asbestos present on mechanical insulation below ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** ***Transite asbestos panels present on welding booths***
Room 38A - supply	4417	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contain asbestos
Room 7 - Phys. Ed. Office	4398	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Room 74 - Music storage	4368	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on walls*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 76 - Music	4369	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on inside and outside walls*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Room 8 - Phys. Ed. Office	4362	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Seminar room - library	4699; 4700	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos
Servery - cafeteria	4351	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Showers - Boy's	4363	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Showers - Girl's	4396	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Slop sink (across boy's change rm)	4389	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Slop sink (across rm. 26)	4340	***Sprayed asbestos fireproofing present above ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Slop sink (by aud.)	9762	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Slop sink (by boy's change room)	4386	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Slop sink (by boy's w/r - 1st fl. East wing)	4432	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Slop sink (by boy's w/r - library)	4424	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Slop sink (by library)	4720	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Slop sink (by rm. 108	4461	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Slop sink (by rm. 323)	4753	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Slop sink 7 (by rm. 100)	4442	* Asbestos insulation present behind wall cavity or above ceiling ***Fire doors contains asbestos***
Slop sink 9 (by rm. 109A)	4432	* Asbestos insulation present behind wall cavity or above ceiling ***Fire doors contains asbestos*** * Radiator and window putty contain asbestos
Sound rooms and hall (by music room)	4367; 9763; 9764; 9765; 9766	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Staff room - Female (by rm. 106A)	4464; 4465	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards
Stage	4374	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Stairs and entry (by stage)	4370	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Stairs and entry (for Aud.)	4375	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Storage - library	4717 / 4718	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator and window putty/caulking contains asbestos * Asbestos gaskets present behind old black/tack boards

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Storage - Phys. Ed (across aud.)	4364	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Storage - prop (aud)	4486	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Storage - prop (aud)	4488	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Storage - rm. 105)	4472	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Storage - science (hall 3D)	4752	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Storage (by Aud.)	9761	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Storage (by equip room)	4359	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Storage (by girl's change room)	4373	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Storage (by girl's change room)	4373	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Storage (by stage entryway)	4378	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Storage (foyer entry)	9760	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Storage by aud. Entry)	4380	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Storage room (by equip. room)	9757	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Storage room (hall 5 - 1st fl)	4348	***Vinyl asbestos floor tiles*** - * leveling coat present underneath ***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Storage rooms (Auditorium)	4486/4488	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Transformer room	4441	***Sprayed asbestos fireproofing present above ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Vent Equipment room	4477	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** ***Duct parging contains asbestos***
Washroom - female staff (by library)	4724	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Washroom - Boy's (by rm. 11)	4388	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Washroom - Boy's (by rm. 115)	4423	***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside walls*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Washroom - Boy's (by rm. 223)	4725	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Washroom - Boy's (by rm. 333)	4751	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Washroom - Boy's (rm. 109A)	4431	***Transite asbestos panels present on outside walls*** * Asbestos insulation present behind wall cavity or above ceiling ***Fire doors contains asbestos*** * Radiator and window putty/caulking contain asbestos

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Washroom - Boy's handicap (by rm. 109)	4431	***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator contains asbestos
Washroom - Female teachers (by rm. 106A)	4466	***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity or above ceiling ***Fire doors contains asbestos*** * Radiator and window putty/caulking contain asbestos
Washroom - Girl's (by library)	4719	***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Washroom - Girl's (by rm. 100)	4443	***Asbestos present on mechanical insulation above ceiling tiles*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Washroom - Girl's (by rm. 107)	4458	***Vinyl asbestos floor tiles*** - * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Washroom - Girl's (by rm. 11)	4387	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Washroom - Girl's (by rm. 115)	4422	***Asbestos present on mechanical insulation above ceiling tiles*** ***Transite asbestos panels present on outside walls*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Washroom - Girl's (by rm. 310)	4748	***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos*** * Radiator contains asbestos
Washroom - Girl's change room	4399	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Washroom - Male teachers (by rm. 106A)	4468	***Transite asbestos panels present on outside wall*** * Asbestos insulation present behind wall cavity or above ceiling ***Fire doors contains asbestos*** * Radiator and window putty/caulking contain asbestos
Washroom - Nurses (rm. 100)	4439	* Asbestos insulation present behind wall cavity or above ceiling ***Fire doors contains asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Washroom - Principal		***Asbestos present on mechanical insulation above ceiling*** * Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Washroom - rm. 126	4481	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty contain asbestos
Washroom (by girl's change rm.)	4371	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***
Washroom (by rm. 101)	4450	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos***
Washroom (by rm. 24)	4435	* Asbestos insulation present behind wall cavity or above ceiling ***Fire doors contains asbestos***
Washroom (rm. 126)	4479	* Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty contain asbestos

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)

AREA DESCRIPTION	***LOCATION ID***	***ASBESTOS MATERIALS***
Washroom (rm. 127)	4483	***Vinyl asbestos floor tiles -*** * leveling coat present underneath * Asbestos insulation present behind wall cavity ***Fire doors contain asbestos*** * Radiator and window putty/caulking contain asbestos
Washroom by boy's change room	9759	* Asbestos insulation present behind wall cavity ***Fire doors contains asbestos***

Confirmed asbestos items are highlighted

***** Material is assumed to contain asbestos until confirmed by competent staff

(For non-asbestos fire doors, please see tag on door spine)