Lambeth Community Health and Wellness

MB McEachren Demolition Analysis Report

May 2016

S3AEC + StudioS3AEC

221 Consortium Court

London ON N6E 2S8

1.0 Introduction and Current Building Configuration

S3AEC + StudioS3AEC has been engaged by Lambeth Health Organization Inc. to master plan the redevelopment of the former MB McEachren School lands located at 4402 Colonel Talbot Road, in Lambeth (London) Ontario. In 2014, a planning justification report was prepared by our firm, to investigate the possibilities of adaptive re-use of the school shell for a proposed health and wellness use. The program consisted of a contemplated 300 square meter pharmacy facing Colonel Talbot Road, and contained within the 1925 building, which as we understand from historical documents was the original school house. To the east housed in several additions to the original school described below; the program calls for 8 suites of family doctor use, combined with approximately 800 to 900 square meters of leasable wellness related lease space that could range in use from chiropractor, to lab, to dental offices. The 1925 school, was designed at the time as a raised ground floor structure, or split-level as we have come to understand the term today. This split in levels places the main floor approximately 4'-6" above the grade entering the school and surrounding the school. Several additions were made to the original school as mentioned previously. In June 1953, record drawings show an addition consisting of a kindergarten room, and 5 classrooms, washroom facilities, and circulation corridors. The addition is load bearing masonry and steel roof joists, and contains an underground radiant heating system for in-floor heating. Refer to Figure 1.0 for historical plan of school development.

Ten years later, in 1963, record drawings show that a second addition to the north of the earlier addition was then completed in the same style as the 1953 addition in terms of simple single storey, flat roof, brick clad. This addition, again, consisted of several new classrooms, and a gymnasium along with some new administration space.

Interestingly, the load bearing masonry walls were now topped with wood a roof framing structure. The in-floor heating system in this addition, however appears absent according to records. The gym does contain glu-lam beams as its main supporting structure, these beams are massive in scale at 6" x 23" in dimension.

In 1968, a Library addition was constructed to the 1963 addition, again loadbearing masonry with the use of glu-lam beams as structure is the structural system. No appearance of in-floor heating is in the record drawings for this addition.

Sometime after 1969, although the records are not clear, the Thames Valley School Board (TVDSB) undertook a major alteration to the 1925 original building. The alteration included the removal of the main entry of the original school, removal of the stairs that would have served the split level access to the lower and upper levels and the introduction of a sprinkler system. Located directly adjacent in the lower level, visible through windows that replaced the doors that were once was the main entry, is a sprinkler tree that serves the entire fire protection of the building. Above the sprinkler room, an office replaces what once would have been the entryway.

No other major alterations appear to have been undertaken to the original 1925 school, save and except for where the additions affix the old structure and stairs introduced to provide for connectivity. There exists no barrier free route between the 1953, 1963, and 1968 additions to the 1925 building. In 1997 an accessibility study was undertaken, that included washroom alterations, and introduction of an elevator addition to the north end of the 1925 and 1969 additions. This was however, never completed by TVDSB.

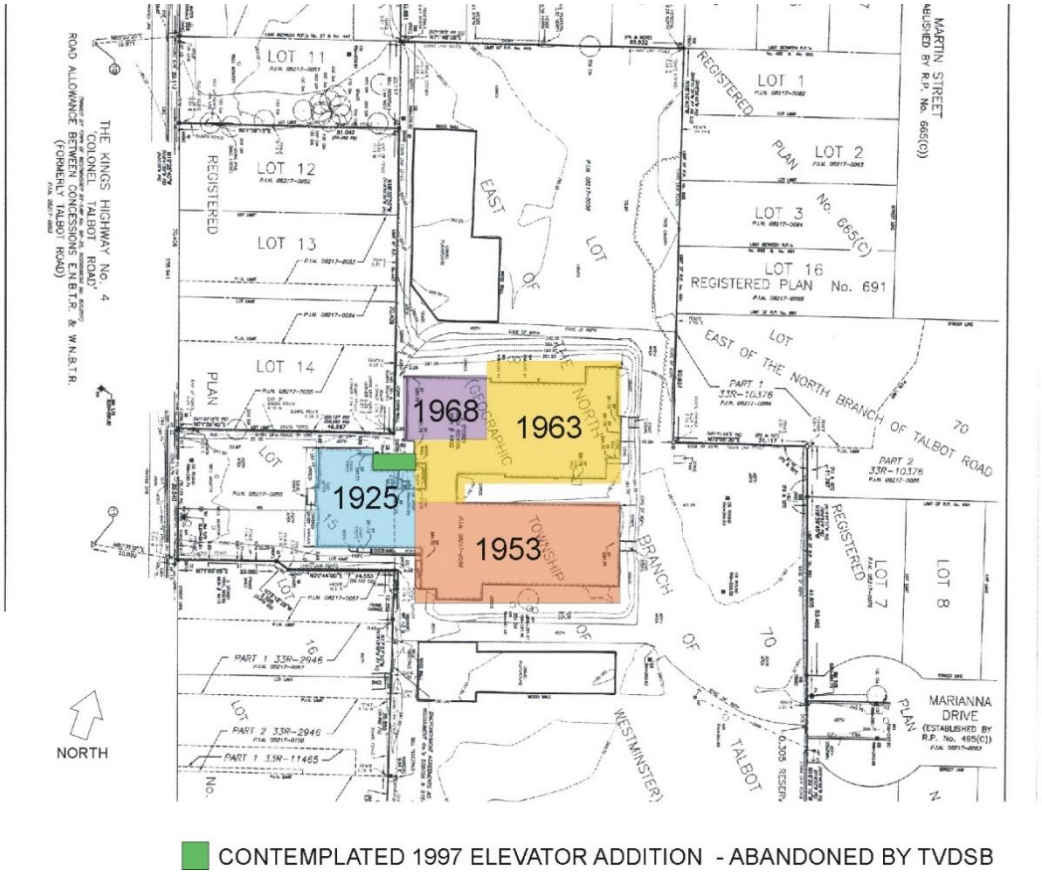
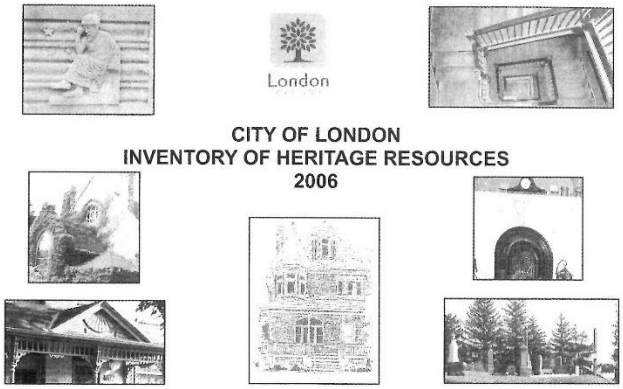


Figure 1.0 Historical Plan of School Development

2.0 City Of London - Inventory of Heritage Resources Review

The City of London, in response to Vision ’96 identified neighbourhoods as an important aspect of London’s heritage. More specifically, the city identified 2,900 buildings that have been listed and inventoried with the goal of identifying and conserving traditional neighbourhoods. A review of the intent (para 1.2 of the Inventory of Heritage Resources) speaks clearly to regions of London that the inventory would aim to conserve, as examples of pedestrian-oriented, human scaled and aesthetically rich in nature to ensure a legacy and port to the past. 4402 Colonel Talbot Road, the subject property of this report, is listed in the inventory as “priority 2” with an ‘architectural style’ of “Collegiate Goth”. It is noteworthy, that the community of Lambeth s not identified as

a significant neighbourhood in paragraph 1.2, yet in 1996 the area had been annexed and formed into the larger municipality. The City of London Inventory of Heritage Resources on file is dated 2006.



Heritage Building Inventory

	A	B	C	D	E	F	G	
1	MUNNUM	STREET NAME	PRIORITY	YEAR BUILT	BUILDING NAME	ARCHITECTURAL STYLE	DESIG	COMMENTS
470	3836	COLONEL TALBOT RD	3	c1875		VERNACULAR		
471	4243	COLONEL TALBOT RD	3	c1905		FOUR SQUARE		
472	4249	COLONEL TALBOT RD	3	c1905		VERNACULAR		
473	4257	COLONEL TALBOT RD	2	c1900		VERNACULAR		
474	4265	COLONEL TALBOT RD	3	c1895		VERNACULAR		
475	4307	COLONEL TALBOT RD	1	1863	TRINITY ANGL. CHURCH	GOTHIC REVIVAL		
476	4346	COLONEL TALBOT RD	2	c1920	LAMBETH LIBRARY	ARTS & CRAFTS		
477	4373	COLONEL TALBOT RD	2	c1905		QUEEN ANNE INFLUENCE		
478	4379	COLONEL TALBOT RD	1	c1870		LATE GEORGIAN		
479	4380	COLONEL TALBOT RD	1	c1861	WESTMINSTER	ONTARIO COTTAGE	Y	LSP3196272
480	4394	COLONEL TALBOT RD	2	c1900		QUEEN ANNE INFLUENCE		
481	4397	COLONEL TALBOT RD	2	c1900		VERNACULAR		
482	4402	COLONEL TALBOT RD	2	c1915	M.B. MCEACHEREN P.S.	COLLEGIATE GOTH		
483	4424	COLONEL TALBOT RD	2	c1890		VERNACULAR	Y	LSP 3352160
484	4428	COLONEL TALBOT RD	3	c1890		VERNACULAR		
485	4429	COLONEL TALBOT RD	1	c1880	EASTVIEW	ECLECTIC		
486	4441	COLONEL TALBOT RD						

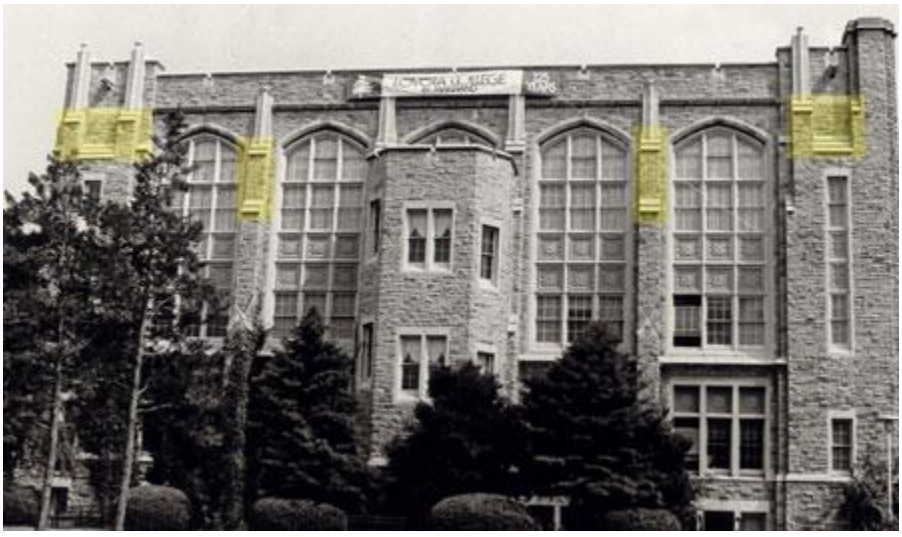
3.0 Characteristics of the Collegiate Gothic Style

Source Loyola University - Maryland

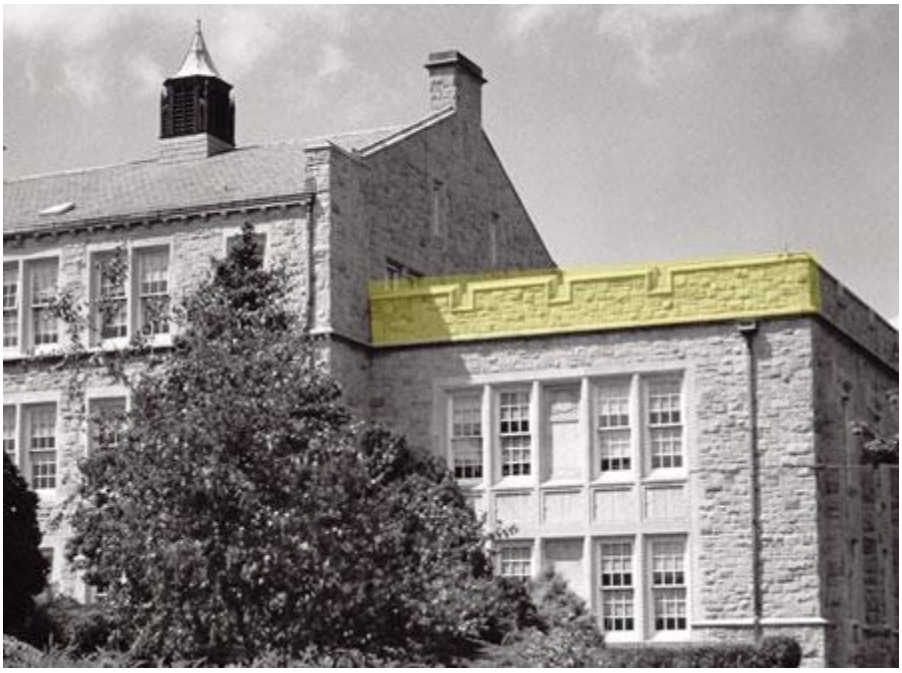
The term Collegiate Gothic derives from Gothic Revival, an architectural style inspired by medieval Gothic architecture. Beginning in the mid-18th century, Gothic Revival became a leading building style during the 19th century and was often employed because of its moral overtones for academic, political, and religious buildings.

Arches: Arches are pointed as in early Gothic two-centered arches, as on the Chapel, or the flatter four-centered or Tudor arch as on the West doors of Jenkins Hall. Here is a picture of Maryland Hall in 1988, with the arches highlighted in yellow:

Buttress: A buttress is an exterior support projecting from the face of a wall. Walls were often stiffened by external buttresses designed to carry weight of the roof while still allowing walls to be pierced by large windows. An example at Loyola is Jenkins Hall:

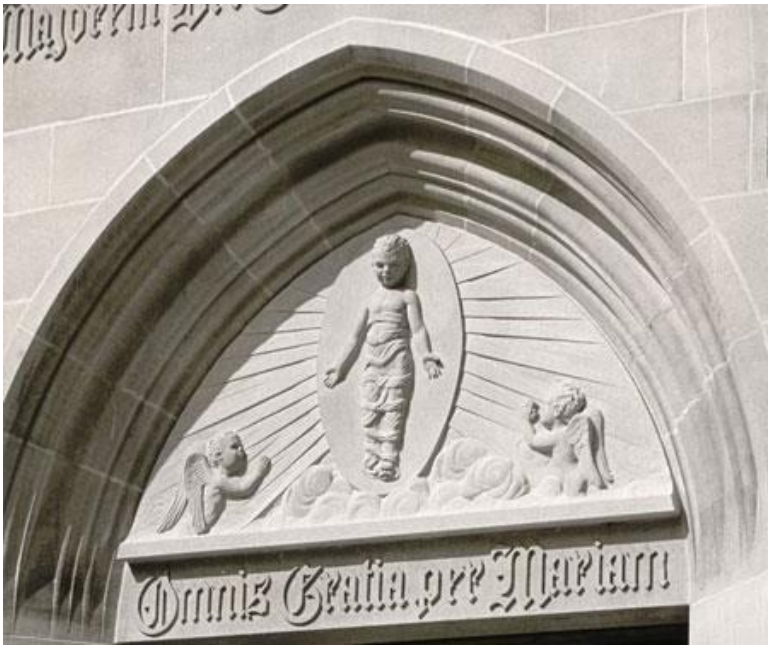


Crenelation: Name given to a treatment of a railing or low wall in which an upright section alternates with a space in a series. Originally used in fortification as in Medieval Castles. An example is Beatty Hall, in 1923:



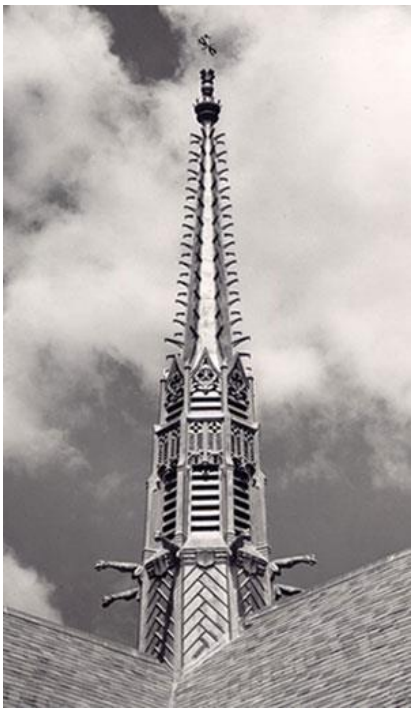
Dormer: A dormer is a window set upright on a sloping roof, usually under a triangular gable. An example is the Humanities Center:

Entrances: Collegiate gothic entrances are often recessed, framed by arches, surrounded by stone moldings, niches for statues, and stonecarving of all kinds. An example is the Alumni Memorial Chapel arch above the entrance:



Finial: An architectural device, typically carved in stone, employed to mark the apex of a wall or gable. An example is Jenkins Hall:

Flèche: Used in collegiate gothic architecture referring to a vertical decoration as in the point of a spire or pinnacle. An example is the Alumni Memorial Chapel:

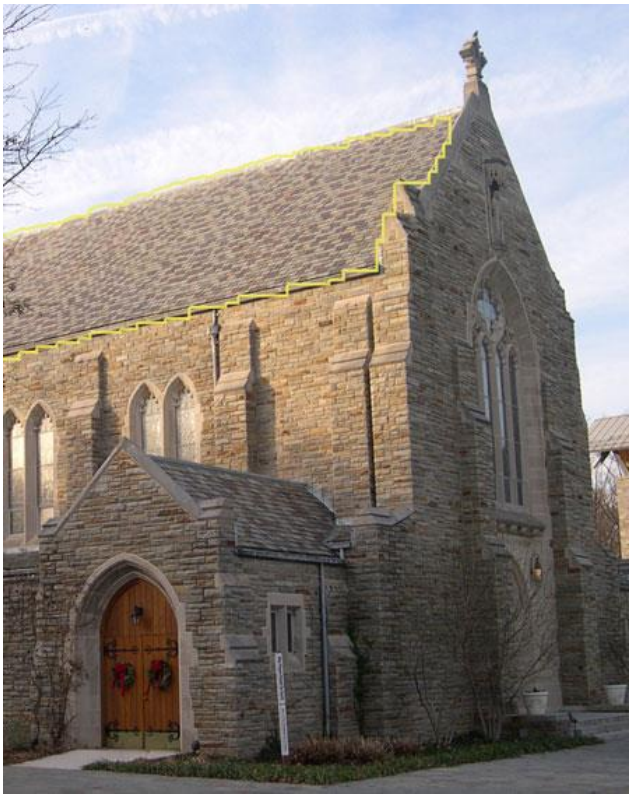


Parapet: a low retaining wall at the edge of a roof, porch, or terrace. An example is Beatty Hall:

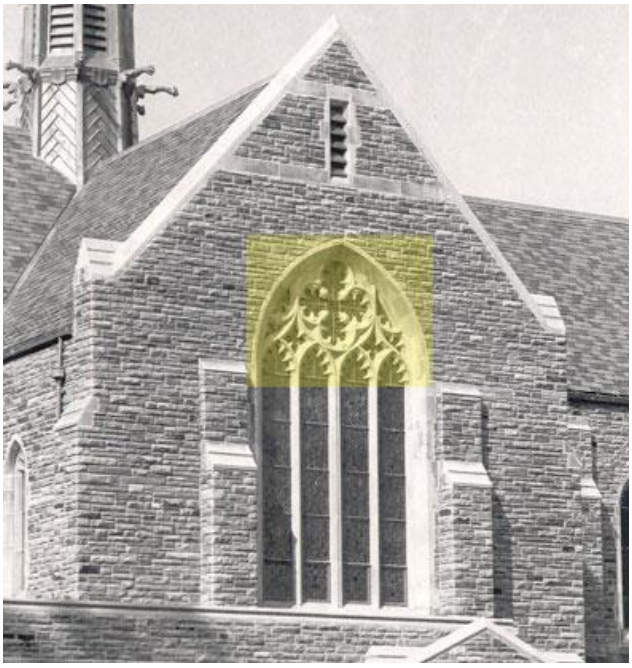
Plaque: A tablet applied to or set within an exterior surface. Can have an inscription or relief sculpture. An example is the Berge Plaque:

Relief Sculpture: Figurines atop arches or windows and reliefs on exterior walls are sculptural elements that appear on some buildings. An example is Jenkins Hall:

Roofing: Collegiate gothic roofs are usually steep gabled as seen on the Chapel (below). Flat-roofed buildings were late CG as in Jenkins, and the wings of Beatty.



Tracery: Curvilinear shapes of carved stone creating a geometric patterned divider in a window, as seen on the Chapel, below.



Walls: Usually rough pastel fieldstone or brick with white limestone dressings. At Loyola rough feldstone was used from Baltimore County quarries for both Beatty and Jenkins Hall, as seen below.

The later Tudor revival style was distinguished by “half-timbered” walls of heavy wood beams and white plaster as on the Humanities center, below.

Windows: Windows are usually tall and narrow using small panes of glass with wooden or lead dividers, as on original Beatty or Jenkins.

Windows are often topped by stone hood moldings and are often arched, as seen on the Humanities Center, below.

4.0 Building Condition – As Found

Between the period of May 2014, when S3AEC + StudioS3AEC was first engaged to develop an adaptive re-use concept and assess the rezoning potential, the agreement of sale and purchase (subject to rezoning) and the subsequent closing of the purchase in October 2015, the 1963 building addition roof failed thermally. Meaning, that although the structure was sound at the time of offer, the roof membrane and moisture protection failed. Primarily in the region of the north-east (1963) addition, in several

locations. There exist records of a roof audit done, however those date back a decade, and were made available to the new owner prior to purchase. A review of that roof report does not lead us to believe that the roof was in its final days, however it did indicate the roof was nearing the end of its life expectancy. This failure, has resulted some 2 to 3 months after the sale and a warmer than normal winter season of 2015/2016 in significant mould growth throughout the entire north wing; the 1963 addition. The mould is not only visual as has been demonstrated in photos provided by the building owner as part of the demolition application, but is also arguably airborne as effects can be noticed via odour, taste and cardiovascular within a very short period of time of entering the school in this wing. Within minutes, eyes burn if not protected, a film of mould is present on exposed skin, and breathing becomes challenged. The growth has spread to the 1953 addition over the winter months, and while we can go to the effort and cost of having all surfaces tested, throughout the building and remediation studied, it is readily apparent the entire building of 2500 square meters is affected. The mould condition becomes increasingly challenging when dealing with a variety of building materials in combination throughout the building. Wood and other fibrous materials tend to be less effective at eliminating mold spores on surface condition, due to the high moisture content retention capabilities and therefore Borax sprays and other types of surface concealment strategies must be employed once the mould is initially dealt with. This building, due to its choice of construction methods has a significant amount of wood use in various forms. It is forseeable that there is some structural roof damage due to water infiltration in the entire 1963 addition.

The original 1925 building as mentioned previously, has undergone major modification over the years to accommodate fire protection, removing any remnant of the main entry to the building other than some deteriorating columns and a front miniature porte-cochere, that fails to extend to the parking lot as would be intended by such a structure that does not appear to be a porch, with steps and stairs, or a vehicle drop off point either in its latest iteration. It is difficult to determine if it is actually original. Visible material composition of the canopy and columns are painted plywood and fibreglass wrapped columns. The columns are certainly not original from a 1925 era.

There is significant deterioration primarily to the south and north parapets. The stone copings have failed and over several freeze-thaw cycles, water has penetrated the airspace, frozen and expanded to bow the brick rain screen. The masonry to approximately 3.5 m above grade, on both walls north and south for the entire length, would require a rebuild and tie-back of the masonry to the structure to make them safe and structurally sound. Since the 1925 building is wood framed, further investigation would be required once the exterior materials are removed to determine the extent of structural damage to the exterior skin of the building. We suspect there would be significant damage to the structural integrity of the wall framing due to moisture content, freeze and thaw cycles that over time would cause warping and lead to failure eventually. This is all dependent on the type and quality of sheathing used. Given its age, we can safely assume it is a wood product, and not a fibrous glass product which deflects water.

To ensure the new use of health and wellness services to the Lambeth public meets current and future AODA accessibility standards, one of three approaches must be taken. A ramp system to access the main floor of the 1925 structure, or some form of an elevator system as was contemplated and abandoned in 1997 by the TVDSB. In either scenario, significant alteration will be required to suit the implementation, altering the 1925 building elevations visually from their current form. This ramp system would naturally occur across the front of the 1925 Building facing Colonel Talbot Road. The third, and other solution to prevent major external modification, which we did explore early on in the project contemplation when we investigated the accessibility challenge, is the removal of the floor structure. It is a complicated engineering process due to the floor acting as a membrane to support the main level framing diaphragm and structural support for the roof. The construction procedure, may or may not fail, depending of what is found when the flooring is removed on the main floor. The other engineering challenge will be the entire removal and relocation of the sprinkler system incoming service and distribution hub. Figure 2.0 represents the removal of the floor and replacement of a new fill and concrete slab as floor – relocating the sprinkler distribution to a new location.

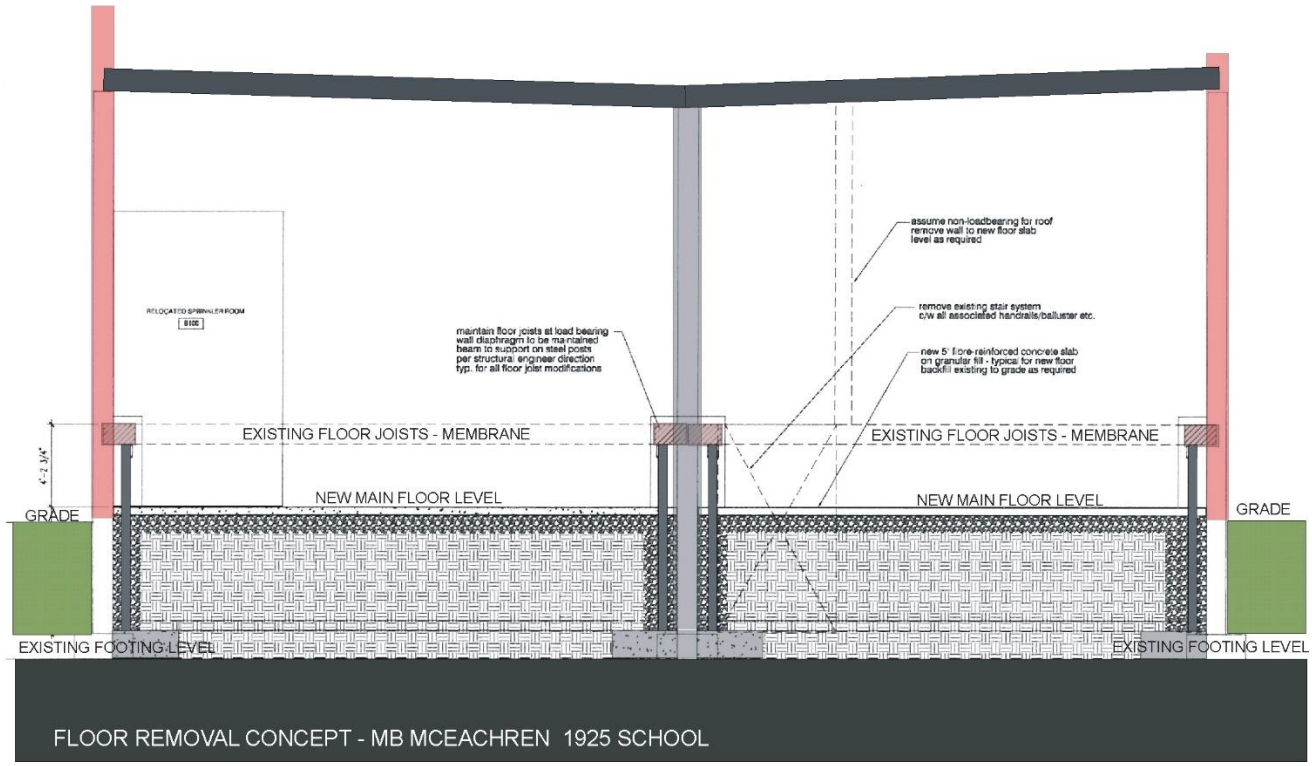


Figure 2.0 Graphic Cross Section of 1925 School

5.0 Conclusion and Recommendations

Structural Challenges

The restoration of the existing building, consisting of approximately 2500 square meters will prove to be very challenging from a number of perspectives highlighted throughout this report. The damage created by a roof leak, and deterioration of other areas of the building envelope has resulted in a weakened structure and integrity of diaphragm supporting the roof. The wood roof structure in the 1963 addition, will require complete restoration, once the primary challenge of mould is dealt with. Additionally, and most troubling long term, is the structural integrity of the exterior walls in the 1925 portion of

the building once the masonry is removed we believe the back-up walls will ostensibly need to be dismantled, investigated for integrity and salvaged what can be salvaged, mould remediated, and rebuilt from virtually the main floor level upward.

Accessibility Challenges

The most economical solution, would be the introduction of a ramp system to the exterior to some new entry perhaps on the west (front) façade of the 1925 building facing Colonel Talbot. Other work would include the introduction of power door operators, and widening of interior doorways where they need to be in plan to suit the proposed pharmacy use. This however does mean, that without an elevator, the 1925 building will not be accessible from indoors unless some other ramps were also completed indoors.

Historical Value – Collegiate Goth

Section 3.0 of this report details the elements of a building that are typically attributed to collegiate gothic architectural style. While many of the elements noted above can be found in structures and buildings built in London, the campus of Western University for example, it is our opinion, MB McEachren falls short of offering any significant style features that would represent a clear representation of collegiate gothic style. When factoring in the many non-descript additions that were completed to the original 1925 building, it is easily concluded that the building offers no continuous reflection of the style as it has been classified in the city of London inventory. ***What's more, the original façade of the 1925 building has been changed drastically over the years adding elements that we believe are not original and removing such significant elements as a pronounced front entry.***

Context

Perhaps the most significant opportunity for this site lies in the context of the school property in the community. We would encourage the owner to create the option, through careful planning to memorialize the school, through sensitive landscape architecture, perhaps a garden, or parkette containing reclaimed elements including brick or stone, that may be incorporated into the design. The future development should respect the scale of the school, and due to the zoning parameters that are already in place, this is a natural opportunity to match the scale and look and feel of the "place" that the school has occupied in the community for the better part of a century in one form or another.

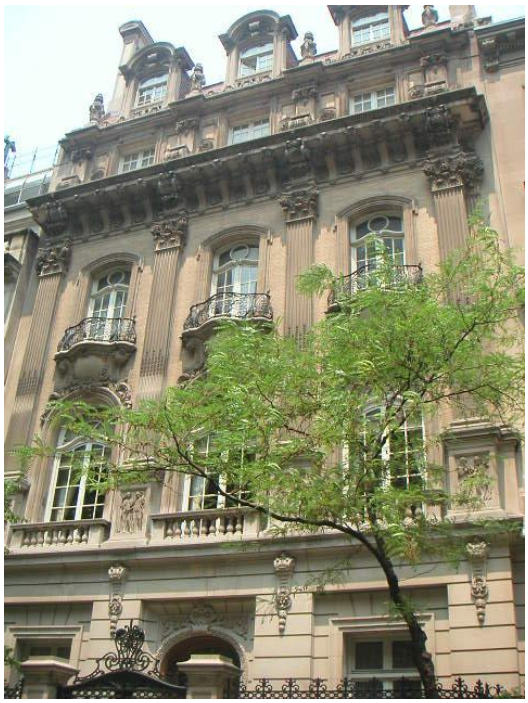
Demolition

We support the demolition of MB McEachren in its entirety, to permit new development that will serve the community in a sensitive approach that will respect the context of the school site, and working closely with the city of London to achieve that goal. Materials chosen for elevations, roof heights and glazing patterns ought to be fitting to the Southwest Secondary Plan. Our firm has just finished the design work for a smaller single storey building on the north end of the property that was met with city approval through UDPRP and site plan pre consultation. We anticipate finding a complimentary solution to the vision started on the property looking forward to the next century on this site.

LACH Recommendation

The City of London has proposed the conservation of the 1925 original school in its recommendation to Planning and Environment Committee (PEC) and council. City staff changed the classification of style of the building to be conserved to Beaux Arts, Technically, this was not the classification at time of sale and purchase according to city documents. Our position remains firm, as shown below, that Beaux Arts style is not apparent in the 1925 school. While there may be columns and some form of portico, a rhythm of openings in the masonry and some indication of buttress on the outside

corners, the building is not a good example or echo of Beaux Arts style. Beaux Arts has been a style attributed to civic buildings of significance, using limestone as a primary material, not brick. Additionally, Corinthian or Ionic columns tend to adorn the facades of Beaux Arts style buildings, The MB McEachren school falls short on any of these typically iconic features.



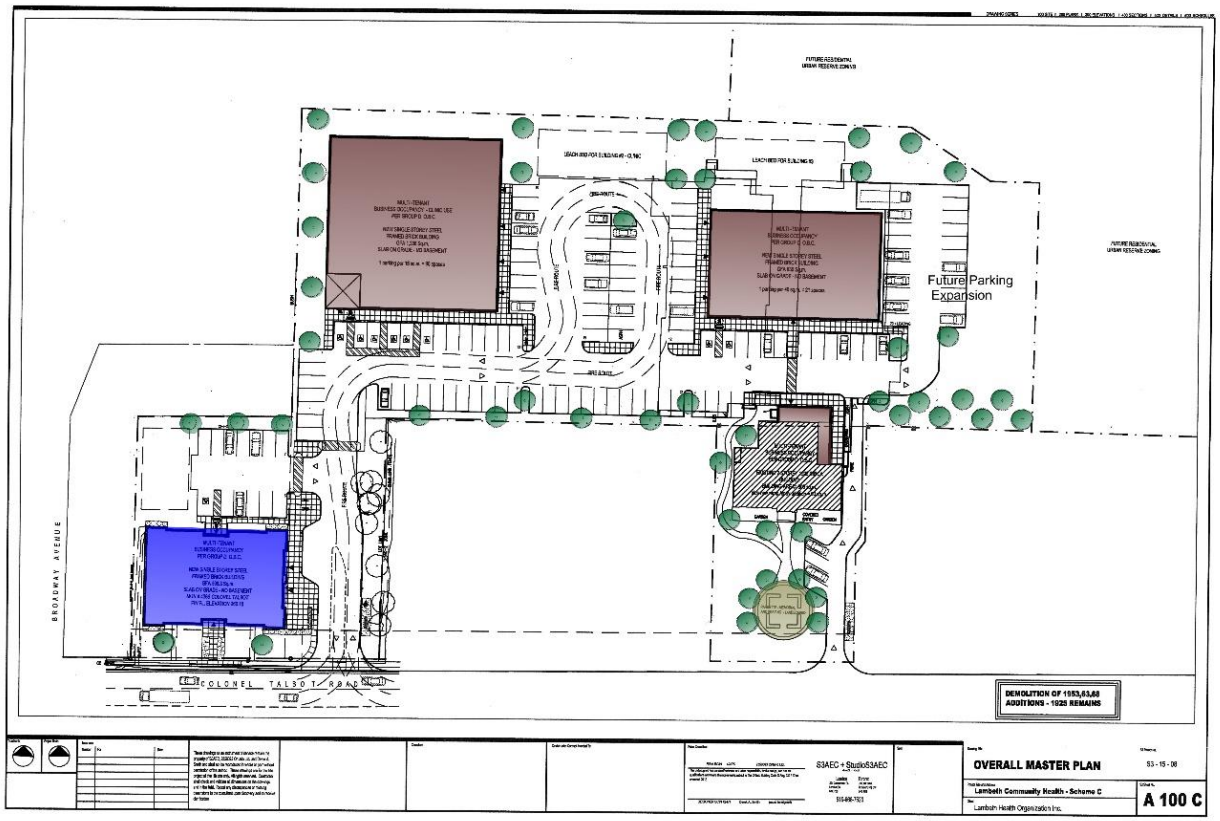
Beaux Arts style – New York USA

Beaux Arts Style – Paris

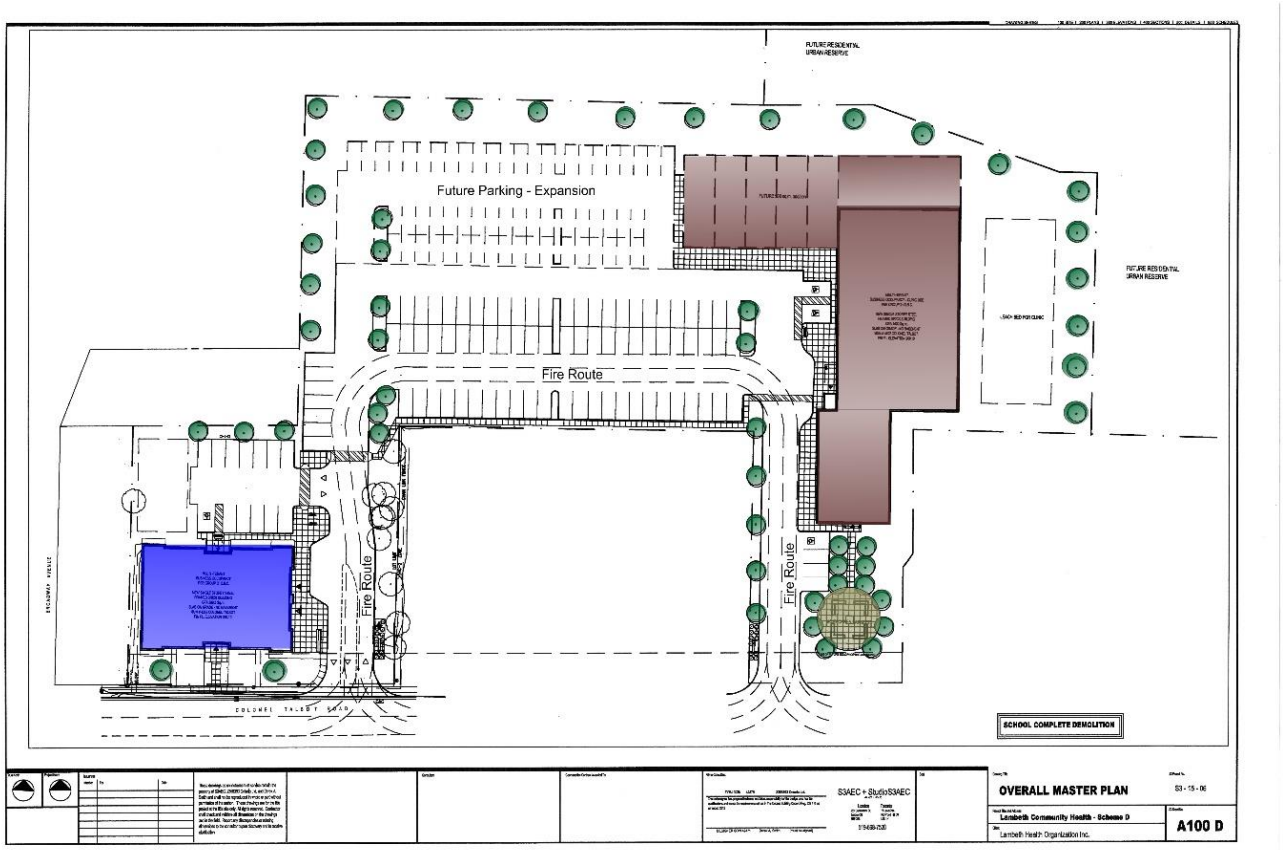
MB McEachren School 1925 c.

6.0 Site Plan Options

We have prepared two preliminary and concept site development plans. Scheme C ***responds to the conservation of the 1925 structure,*** and moves toward redevelopment of the north east corner of the site as phase 2 following the construction of the corporate centre fronting Colonel Talbot, currently underway. Once the additions to the school are removed, and the 1925 building made structurally sound through a selective demolition process, the site can continue to develop southward as phase 3. The school building and surrounding lands fronting Colonel Talbot, then becomes an integrated fourth element of redevelopment in this scenario. The image below contemplates a total of 30,000 square feet of new construction, with the 3500 square feet remnant school totaling 33,500 +/- building area.



Scheme D ***supporting our recommendation to remove the entire existing school,*** improves fire route and vehicular circulation on the site, and introduces two new buildings to the Colonel Talbot frontage. It is the owner's intent to mimic the scale, materials and style of the past school, and that can be seen in the expressions of first new building on site (see image below). Again the total development by the time all phases are built out would be approximately 33,000 square feet +/-.



Rendering of first new building on site – Northwest corner fronting Colonel Talbot

Respectully submitted, May 18, 2016

Derek A. Smith, Asc.T, OAAAS-OAA, MAATO, OACETT

What is history?

DR. PUNKUJ CHAWLA BSC, MD, CCFP
LAMBETH HEALTH ORGANIZATION INC.
MAY 30, 2016

M.B. McEachren Public School
1925 – 2010

What is her-story?

Mould in Classroom

Classrooms

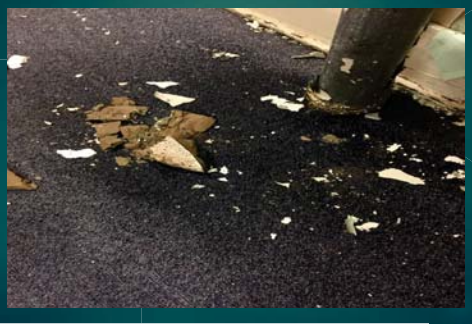
Black Mould

Black Mould

Black Mould in Gymnasium Wall

1925 Water Damage Stained Carpet

1925 Water Damage and Hidden Mould



Water Stain – Hidden Mould

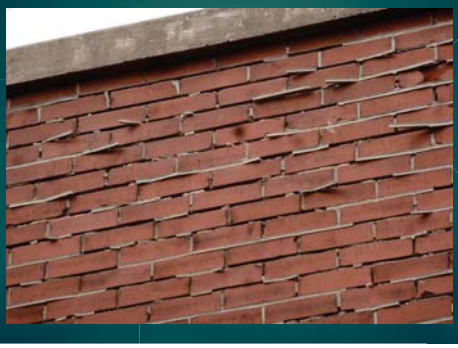
1925 Black Mould on Walls

1925 Spread of Black Mould

Mould coming through asbestos floor

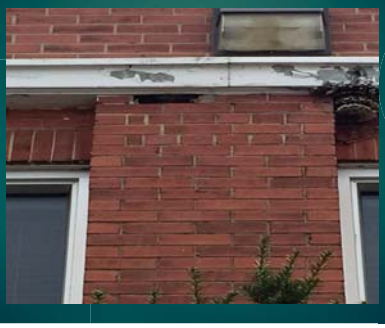
Structural - Front Pillars

1925 Structural – Bowing Bricks



1925 Structural – Exploding Bricks

Structural – West Wall blown out brick



GRAFFITI

What is her-story?

Education

Team Spirit

Diversity

Her-story

Is this really the same building? Alterations:

What is her-story?

My mom
June 30,1945 – May 11, 1998

Her-story

What is history or her-***story***?

Thank you
Lambeth Health Organization Inc.