APPENDIX E

Former Oakville Trafalgar High School
Structural Condition Assessment

291 Reynolds Street
Oakville, Ontario

Prepared by:

TACOMA ENGINEERS

176 Speedvale Avenue West
Guelph, ON
Barrie | Waterloo

TE-44882-25

October 2, 2025

Executive Summary

Tacoma Engineers has been retained by the Town of Oakville to carry out a structural condition assessment at the Former Oakville Trafalgar High School located at 291 Reynolds Street, Oakville, Ontario.

The current report refers to and is intended as an update to a previous assessment completed in 2016 by Tacoma Engineers. The undersigned attended the site on March 20th, 2025.

In general, the building is in good condition, with localized areas in fair to poor condition. Many areas are identified for repair that could be considered preventative maintenance. While these items are not an immediate safety concern, repairs now will be much more cost effective than if conditions were to deteriorate further. It should be noted that many of the previously noted recommendations were not executed, and conditions have deteriorated over the last 9 years.

The primary structural components (load-bearing masonry walls, floor framing, roof framing, foundation walls) appear to be in good condition, with some areas in fair to poor condition, largely due to the two open roof hatches towards the west elevation, and the failed enclosures making up the one-storey area of the east elevation. The collapsed east corridor main floor framing was seen to have degraded further since the 2016 assessment, speaking to the importance of addressing the water ingress into the interior spaces.

Deterioration of the interior finishes has advanced since the assessment completed in 2016, largely due to the two open roof hatches towards the west elevation and the failed enclosures making up the one-storey area of the east elevation.

The water management systems at the building envelope did not appear to be properly diverting water away from the structure. This continuous exposure to water has led to the ingress observed into the interior spaces. It has also allowed for the exterior masonry to deteriorate further. The 2016 assessment estimated that 25% of mortar joints would need repointing, whereas following the current assessment that amount is estimated to now be in the range of 30-40%.

The repointing scope recommended for the four chimneys in the 2016 assessment was not completed, leading to further mortar loss. This condition should be addressed to avoid loss of stability and collapse of the chimney structures.

It is recommended that access to the collapsed floor areas continue to be restricted until the floor framing and flooring is reinstated.

Table of Contents

List of Photographs

1. Introduction

Tacoma Engineers has been retained by the Town of Oakville to carry out a structural condition assessment at the former Oakville Trafalgar High School located at 291 Reynolds Street, Oakville, Ontario.

The current report refers to and is intended as an update to a previous assessment completed in 2016 by Tacoma Engineers. The undersigned attended the site on March 20th and August 14th, 2025.

This report includes a summary of the following items for the building:

- major structural systems;
- existing structural conditions and areas of potential concern;
- conceptual repair options for any areas that may require remedial work; and
- order-of-magnitude costing for conceptual repair and reinforcing recommendations.

2. Background

The Town of Oakville owns the building in question, and Tacoma Engineers is being retained as a Consultant directly by the Owner.

This assessment is being undertaken by the Owner. This report is not being prepared as a response to an Order, recommendations, or request by any regulatory body.

The primary purpose of this assessment is to provide an update on the conditions of the structure relative to the condition assessment completed in 2016, which in turn is intended to provide guidance for future planning and budgeting efforts.

This report is based on a visual inspection only and does not include any destructive testing. Where no concerns were noted, the structure is assumed to be performing adequately. The structure is assumed to have been constructed in accordance with best building practices common at the time of construction. No further structural analysis or building code analysis has been carried out as part of this report unless specifically noted. Tacoma Engineers previously carried out a structural condition assessment of this building in July of 2016.

No sub-consultants have been retained by Tacoma Engineers to participate in this assessment.

3. Building History

The former Oakville Trafalgar High School consists of four (4) sections – the two-storey north and south gabled wings, the two-storey central core, and a single-storey portion along the east elevation. There is a full basement below the entire building footprint. The gross area of the building is approximately 22 300 square feet, which includes the basement, ground and second floors, but excludes the attic space.

Originally known as Oakville High School, the building at 291 Reynolds Street was originally constructed in 1908. The school was renamed to Oakville Trafalgar High School in 1946 when the school district of Trafalgar merged with the District of Oakville. Several modifications and additions had been made to the original Oakville High School between 1908 and 1946; alterations include gymnasiums, additional classrooms, and science labs. The school operated in this facility until 1992 when it was moved to the

current location on Devon Road[1]. In 2001, the building was owned by the Oakville Trafalgar Memorial Hospital which undertook partial demolition of the structure, bringing the school building back to the original 1908 footprint. When the demolition was complete in 2001 the building was fully sealed with plywood hoarding, eliminating any public access to the building. Presently, the former school remains vacant and largely secured against access.

Photograph 1: Illustration of the Building, front façade

4. Scope and Methods

The following documents were provided to the undersigned prior to the preparation of this report:

- *Former Oakville Trafalgar School - Building Condition Assessment*, Tacoma Engineers, 2016
- *Former Oakville Trafalgar School - Structural Condition Assessment*, Tacoma Engineers, 2016
- *Oakville Trafalgar High School Feasibility Study*, Lett Architects Inc., 2019
- *Inspection Report,* ERA Architects Inc., 2009

The assessment of the building is based on a visual assessment from grade. It was determined that a visual assessment would provide an adequate level of detail for the purposes of this report.

Note that most of the spaces in the building have applied finishes that preclude a direct visual assessment of the structural systems. Limited areas are unfinished, and a review of the primary structure was possible in these areas. In addition, the attic space could not be safely accessed at the time of the 2025 site visits and as such a thorough review of the current attic condition could not be completed. The basement was reviewed during a follow-up condition assessment completed by the undersigned on August 14th, 2025.

A site visit was carried out by Gerry Zegerius, P.Eng., and Rowan Miller, on March 20th, 2025. A follow-up site visit was carried out by Rowan Miller on August 14th, 2025 to review the basement level. A visual review of all accessible spaces was completed on this date, and photographs were taken of all noted deficiencies.

[1] Oakville Historical Society. (n.d.). Walking tour - Historic Reynolds. Retrieved April 11, 2025, from https://www.oakvillehistory.org/activities/walking-tour-historical-reynolds

5. Definitions

The following is a summary of definitions of terms used in this report describing the condition of the structure as well as recommended remedial actions. Detailed material condition definitions are included in Appendix A of this report.

- **Condition States**[2]:
    1. Excellent – Element(s) in "new" condition. No visible deterioration type defects present, and remedial action is not required.
    2. Good – Element(s) where the first signs of minor defects are visible. These types of defects would not normally trigger remedial action since the overall performance is not affected.
    3. Fair – Element(s) where medium defects are visible. These types of defects may trigger a "preventative maintenance" type of remedial action where it is economical to do so.
    4. Poor – Element(s) where severe or very severe defects are visible. These types of defects would normally trigger rehabilitation or replacement if the extent and location affect the overall performance of that element.
- **Immediate remedial action**[2]**:** these are items that present an immediate structural and/or safety hazards (falling objects, tripping hazards, full or partial collapse, etc.). The remedial recommendations will need to be implemented immediately and may include restricting access, temporary shoring/supports or removing the hazard.
- **Priority remedial action**[2]**:** these are items that do not present an immediate hazard but still require action in an expedited manner. The postponement of these items will likely result in the further degradation of the structural systems and finishes. This may include interim repairs, further investigations, etc. and are broken down into timelines as follows:
    1. **Short-term**: it is recommended that items listed as short-term remedial action are acted on within the next 6 months (**before the onset of the next winter season**).
    2. **Medium-term:** it is recommended that items listed as medium-term remedial action are acted on within the next 24 months.
    3. **Long-term:** it is recommended that items listed as long-term remedial action are acted on within the next 5-10 years. Many of these items include recommendations of further review/investigation.

    Note that the timelines defined above are assumed to be **from the date of the initial site visit** rather than the date of the final report.

- **Routine maintenance**[2]: these are items that can be performed as part of a regularly scheduled maintenance program.

In addition to the definitions listed above, it should be noted that the building in question is designated under Part IV of the Ontario Heritage Act. The Standards and Guidelines for the Conservation of Historic Places in Canada provide direction when a structural system is identified as a character-defining element of an historic place. They also provide direction on maintaining, repairing, and replacing structural

[2] Adapted from "Structural Condition Assessment", 2005, American Society of Civil Engineers/Structural Engineering Institute

components or systems[3]. Refer to the General Guidelines for Preservation, Rehabilitation, and Restoration to further inform the development of more detailed remedial actions.

The Statement of Significance in the designation by-law (Town of Oakville by-law 1994-11) identifies the following as the heritage character defining elements:

- three stepped gables on the Reynolds Street elevation;
- a central recessed entrance with stone trim in the Collegiate Gothic form;
- end elevations with smaller gables above the canopied student entrances;
- steeply pitched roof with fish scale pattern; and
- three stepped gables on the rear elevation with a projecting single storey element.

6. General Structural Conditions

Overall, the former Oakville Trafalgar High School was found to be in good condition from a structural perspective, with some localized areas in poor to fair condition. The following sections provide descriptions of the major structural systems, identify any areas of structural concern, identify any area where additional investigation is required, and outline remediation measures required to maintain the structural integrity of the building.

The following sections of this report contain information taken from the 2016 condition assessment, with updates added to compare those conditions with the findings from the March and August 2025 condition assessments. Specific attention was called to rooms or areas where deficiencies were noted. Recommendations which were sourced from the 2016 report are noted as such in the summary of recommendations (section 7).

6.1. Foundations

Construction

Where visible from the interior, the school's foundations appear to be constructed with a mixture of natural stone masonry, clay brick masonry, and concrete block masonry. In the original section of the building, the natural stone masonry extends from an unknown depth below the basement slab up to approximately 4'-0" above the slab, which approximates the elevation of existing grade. The multi-wythe brick exterior load bearing walls extend from the top of the stacked stone, approximately two courses below the basement windows, to the top of the building. Interior concrete block masonry walls were observed throughout the basement; however, due to the presence of interior finishes it could not be confirmed if these walls are load bearing. The basement floor appears to be a concrete slab-on-grade of unknown thickness.

[3] "Standards and Guidelines for the Conservation of Historic Places in Canada", 2nd Edition, 2010, www.historicplaces.ca

Photograph 2: Natural stone foundation wall (2016 Assessment)

To facilitate travel between the adjacent basements (now demolished), multiple openings were made in the school's original foundation, including several man-doors and one (1) large opening at a corridor. It appears that the openings were infilled with concrete block at the time of the demolition of the additions. Refer to the following photographs.

Photograph 3: Infilled concrete block wall (2016 Assessment)

2016 Condition Review

Finishes applied to the interior of the basement walls in most locations did not allow for an extensive visual review of the foundation walls in all locations. In the areas where the foundation walls were visible, there was no evidence of significant damage, distress or deterioration. The current condition of the existing interior plaster and paint finishes in the basement indicates that the ambient moisture content in the basement is quite high. Little evidence of severe staining was observed on the exterior foundation walls, suggesting that overall the stone walls were keeping water out of the basement, and that the damage to the finishes was simply from the highly humid atmosphere.

It should be noted that in multiple locations around the school's exterior, past foundation stabilization measures had been installed. These appear to be steel plates installed on the interior face of the foundation wall with soil ties extending out into the surrounding soil. One such tie can be seen extending across the concrete block infill at the demolished corridor, above photograph, [and a second example can be seen in the following image]. At this time, it is unclear why these past foundation stabilization measures were required.

March 2025 Condition Review

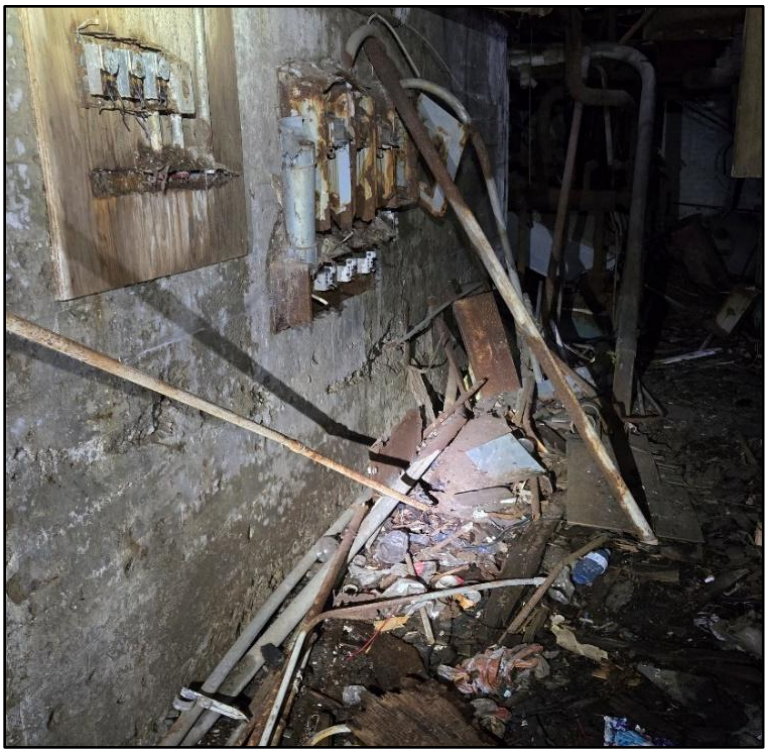
The basement was deemed unsafe for access at the time of the March 2025 site visit, and a review of the space could not be completed. The space towards the east area of the building, directly under the one-storey flat roof section, could be seen from grade through an opening in the exterior boarding on the East elevation. The basement currently is continuously exposed to the elements due to failures that have occurred in the floor and roof directly above this location. Standing water and snow were visible in the basement at the time of the site visit, which could lead to significant deterioration if left unaddressed.

Photograph 4: Condition of basement observed from grade (March 2025 Assessment)

August 2025 Condition Review

In early August of 2025, it was confirmed that the basement space had been cleared and water removed. Tacoma Engineers returned for a follow-up investigation of the basement on August 14th, 2025. Overall, the foundation walls were in good condition, with localized areas in fair condition. Below the exposed, damaged floor framing at the single storey eastern section of the building (see photograph 12), the interior foundation walls appear to have deteriorated due to continuous exposure to the elements as outlined above

(see snow accumulated at foundation walls in photograph 4). Spalling appeared to be concentrated at the base of the walls where exposure to water was the highest.



Photograph 5: Condition of basement foundation wall (August 2025 assessment)

Deterioration of finishes elsewhere in the basement appeared to have progressed since the 2016 assessment, in part due to the humid, unconditioned atmosphere inside the building.

Recommended Actions

The following **routine maintenance** remedial actions are recommended for the foundations:

- Keep the basement dry and secure.

6.2. Roof/Attic Framing

Construction

The attic is accessible through several hatches in the second storey ceiling. The roof framing is best broken into two distinct descriptions: above classrooms in the north and south gabled wings and above the central core.

Above the classrooms the roof is stick-framed, with rafters spanning from the eave to a ridge board at the peak of the gable. The rafters are supported on a built-up beam at approximately the mid-span. The ceiling joists span from the exterior gable brick wall to the interior load bearing masonry corridor wall and are hung from a heavy timber truss at approximately the mid-span. The timber truss also supports the built-up beams at mid-span of the rafters. The photograph below shows the heavy timber wood truss.

Photograph 6: Heavy timber truss (2016 Assessment)

The corridor walls are generally load-bearing, supporting both the ceiling joists on the second floor and portions of the roof framing. The west corridor wall terminates at the attic floor level and supports the ceiling joists and miscellaneous props from the roof framing. The east corridor wall is full height, extending to a gable that terminates at the roof line.

The roof framing above the central core of the school could not be directly reviewed during the 2016 assessment due to the lack of available access locations. However, the framing was visible through the adjacent attic space and found to be of similar construction of the typical attic roof.

> *2016 Condition Review*
> *The vast majority of the reviewed roof and second storey ceiling framing are in good condition. Localized staining of the wood members was observed throughout the attic space, indicating some water ingress has occurred. At the time of this review the ingress of water has not progressed to the point that there is widespread damage to the roof members.*
>
> *Above the two classrooms along the west elevation, two open roof hatches that were identified in the 2009 ERA review had not been closed. The ERA report indicated that "the plaster ceiling below the two open roof access hatches is spalled and the wood lath is beginning to detach." Currently, as seen in the photograph below, the ceiling plaster and lath directly below the hatch openings have collapsed and the ceiling joists are severely deteriorated. The roof framing in these areas appeared to be in good condition.*

Photograph 7: Damage to ceiling framing due to open roof hatches (2016 Assessment)

March 2025 Condition Review

The attic was not safely accessible during the time of the site visit, and therefore a review of the space could not be completed. It was evident that the two (2) roof hatches mentioned in the 2016 assessment were still open or had been since re-opened. As such, damage to finishes has progressed significantly, as seen in the following pictures. Damage has also progressed through the second-floor framing to the main floor framing below. Degradation of finishes near the open hatches will continue if water ingress is not addressed and could evolve into significant damage to the exposed structural framing.

Photograph 8: Damage to ceiling framing due to open roof hatches (March 2025 Assessment)

Recommended Actions

The following **immediate** remedial actions are recommended for the roof/attic framing:

- Close and make watertight the open roof hatches to help preserve the surrounding roof framing, and to prevent further damage to the building structure.

6.3. Floor Framing

Construction

The principal floor framing consists of sawn lumber with plank flooring overlay. In general, the floor joists span in the east-west direction from the exterior load bearing clay brick masonry walls to the interior load bearing masonry walls forming the internal north-south running corridors on each floor. The floor joists measure approximately 2" x 11½" spaced at 16" on centre. The underside of the floor joists is finished with lathe and plaster, which is still attached in many locations. In the corridors a wood framed dropped ceiling is installed, likely to create a concealed space for the mechanical and electrical systems. The vast majority of this dropped ceiling framing had been removed prior to the site review. In three (3) of the classroom areas on the main floor, large north-south spanning drop beams were observed to support the second-floor joists at approximately one third of the joist span. Two (2) of the drop beams were covered with the interior finishes and therefore the exact construction could not be verified. In the north-west main floor classroom, the drop beam was uncovered and was observed to be a 2'-0" deep open web steel joist.

Photograph 9: Floor framing (2016 Assessment)

2016 Condition Review

Where visible, the floor framing was generally found to be in good condition with very minimal evidence of damage, distress or deterioration, except in isolated areas outlined below. Where the floor framing could not be directly reviewed due to the presence of interior finishes, a review of the finishes themselves did not reveal any evidence that indicated deficiencies with the covered framing.

A significant section of the main floor framing in the single storey, eastern most section of the building has collapsed, see the images below. The 2009 ERA Inspection Report indicated in Section 2.4.5 that "the single-storey east wing is missing the roof structure at the eave" and that "there is wood decay in the floor and one partition of the east addition

on the ground floor below the roughly altered flat roof… The floor is locally weakened but the deterioration presents no structural risk to the building overall at present. The new wood roof structure is not decayed."

Photograph 10: Collapsed main-floor east framing (2016 Assessment)

Clearly, the extent of the deterioration of the floor in this area has progressed since the 2009 ERA review. The roof framing in this section appears intact and shows little evidence of ongoing water infiltration suggesting that the collapse of the main floor framing was due to the previously remediated hole in the roof over this section. It is possible that the downspouts are directing water into this area, accelerating the damage to the floor framing.

As previously mentioned in Section 3.2 of this report, the open roof hatches have led to localized deterioration of the second storey ceiling joists. No significant deterioration was

observed in the second-floor framing from the infiltration of water directly below the open hatches, however there was a substantial amount of plaster debris piled on the floors in these locations. The image below shows one such location directly below the open roof hatch.

Photograph 11: Damage to second floor framing (2016 Assessment)

March 2025 Condition Review

Degradation of the collapsed main floor framing in the single storey eastern section of the building has progressed significantly since the 2016 assessment. It is clear from multiple visible openings to the exterior that the area has been continuously exposed to the elements. The floor damage has spread further into the center of the building, with multiple holes through the flooring at the time of the site visit. The damage to the floor framing in the east classroom, adjacent to the collapsed corridor, has also progressed. Since the 2016 assessment, fencing has been put in place to restrict access to the collapsed areas.

Photograph 12: Collapsed main-floor east framing (March 2025 Assessment); compare Photograph 9

At the time of the site visit, water ingress had spread to the second floor (and first floor) framing near the open roof hatches, evident by the damp and decayed debris on the floor, and soft spots identified in the flooring.

Photograph 13: Damage to second floor framing (March 2025 Assessment)

Recommended Actions

The following **immediate** remedial actions are recommended for the floor framing:

- Reconstruct damaged wall and roof framing as required to provide watertight exterior envelope (refer to section 6.3, photograph 12).
- Review and reinforce safety barriers as required.

6.4. Exterior Masonry Walls

Construction

The exterior (perimeter) walls of the former Oakville Trafalgar High School consist of triple-wythe red clay brick walls. The bricks were measured to be 8” long by 4” wide by 3” tall, resulting in a wall measuring approximately 12-13” thick. The interior of the walls is finished with 1” thick vertical wood strapping and horizontal lath and plaster finishes. The size of the bricks and the composition of the interior finishes were observed from the interior in locations where the finishes have deteriorated allowing direct observation.

Interior load bearing walls were found to be triple-wythe brick, approximately 12” thick. These interior walls form the main north-south corridor on both the first and second floors. The interior walls have been altered with several openings framed with steel beams. This indicates that the openings were made after the original date of the construction of the building.

2016 Condition Review

Generally, the exterior masonry is in fair condition with localized areas exhibiting accelerated deterioration. The large amount of painted parge material present on the north and south elevations remaining from the previous additions prevented a detailed review of the condition of the brick in these areas. However, given the condition of the parge material, it is believed that the brick masonry behind is not in an advanced state of deterioration.

Additionally, beam pockets were observed, where the former building additions tied into the multi wythe masonry walls of the original school. These pockets will need to be infilled as a part of any redevelopment of the building.

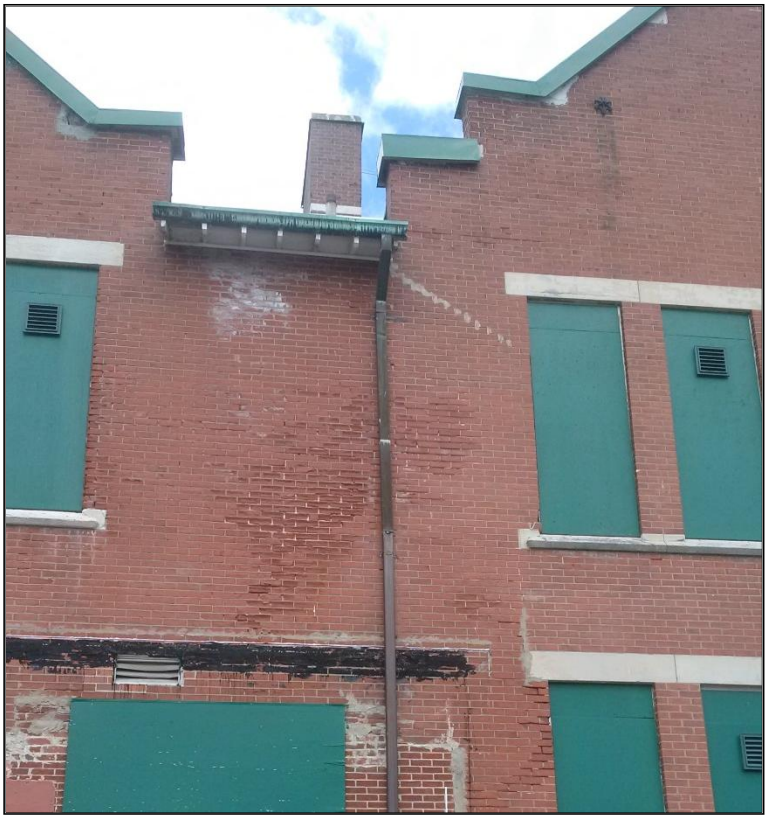
Photograph 14: Exterior beam pockets in load bearing wall (2016 Assessment)

The north and south elevations have been significantly altered from their original state. The entry doors and dormers have been removed and infilled with wood framing. The decorative stone lintels over the windows were damaged to facilitate the construction of the now demolished building additions. Depending on the scope of the redevelopment, these elements may be reintroduced, but the scope of this redevelopment is unknown at this time.

Photograph 15: Damaged decorative stone lintel (2016 Assessment)

The west (front) elevation has large areas of spalling brick. These were concentrated around the downspout locations. Likely, the downspouts do not function correctly, which is causing wetting of the brick surface during rain events. If the soft brick masonry is allowed to undergo freeze-thaw cycles in a saturated state, spalling such as this will occur at an accelerated rate.

Generally, on all elevations, the brick masonry appeared to be in good condition. Mortar loss is present in many brick joints, however at this point in time the repointing should be considered minor in nature, and a part of routine maintenance of the building envelope. It is estimated that approximately 25% of the mortar joints should be repointed at this point in time.



Photograph 16: Masonry spalling and mortar loss at west elevation (2016 Assessment)

There are four chimneys located at the subject building. The top 10'-0" of each chimney is in need of minor repairs to address mortar loss and brick damage. From the ground, the chimneys appeared to be stable, and in no danger of collapse under normal loading conditions such as snow and wind. As deterioration can continue if left unaddressed, the masonry repairs should be carried out to ensure the stability of the chimneys is not compromised in the future.

Photograph 17: Mortar loss and brick damage to chimney masonry (2016 assessment)

March 2025 Condition Review

Overall, the masonry walls as reviewed from the exterior from grade were in similar condition as noted at the time of the 2016 condition assessment, with some local areas of progressed deterioration. The flashing to the east side of the elevation has failed, as shown in the photographs below. The masonry and parging directly below did not show signs of advanced deterioration at the time of the site visit, however further exposure could allow for deterioration to progress. It appeared that some of the walls have been partially re-painted since the 2016 assessment.

Photograph 18: North elevation flashing failure (2016 – Left, March 2025 – Right)

At multiple locations, a direct comparison of the masonry condition from both assessments found that mortar loss and brick spalling has progressed since the 2016 assessment. Masonry staining and efflorescence was also evident on multiple elevations.

Photograph 19: East elevation brick spalling and mortar loss (2016 – Left, March 2025 – Right)

Photograph 20: East elevation brick spalling and mortar loss (2016 – Left, March 2025 – Right)

Photograph 21: West elevation brick spalling and mortar loss (2016 – Left, March 2025 – Right)

Photograph 22: Mortar loss and brick damage to chimney masonry (March 2025 assessment)

Water control systems are lacking at many locations, including ridge cap and eave flashing, downspouts, and gutters. A thorough review of the roof system should be completed to ensure water is properly diverted from the structure.

Recommended Actions

The following **immediate** remedial actions are recommended for the masonry walls:

- Complete a thorough review of the roof condition, including an assessment of water control systems. Conduct the necessary repairs to ridge cap and eave flashing, downspouts, and gutters. Ensure water is properly diverted from all surfaces of the structure.

The following **short-term** remedial actions are recommended for the masonry walls:

- Re-point the brick chimney masonry, replacing damaged brick units as required.

The following **medium-term** remedial actions are recommended for the masonry walls:

- Carry out masonry restoration and repointing, including replacement of spalled bricks. If mortar loss is allowed to continue, portions of the walls may become unstable and require more extensive repairs in the future. Mortar loss has increased since the 2016 assessment, and it is now estimated to include approximately 30-40% of joints.

7. Summary of Recommendations

The following provides a summary of the recommendations for the existing structure.

September 2025 Updates: As of the September 2025 building condition assessment report, remedial measures which have been completed to date are indicated with a strikethrough and greyed out below.

Items requiring immediate remedial action:

~~1. Close and make watertight the open roof hatches to help preserve the surrounding roof framing, and to prevent further damage to the building structure.[4]~~

2. Complete a thorough review of the roof condition, including an assessment of water control systems. Conduct the necessary repairs to ridge cap and eave flashing, downspouts, and gutters. Ensure water is properly diverted from all surfaces of the structure.

~~3. Reconstruct damaged wall and roof framing as required to provide watertight exterior envelope (refer to section 6.3, photograph 12).[4]~~

~~4. Clear out debris from basement and keep dry and secure.~~

~~5. Review and reinforce safety barriers as required.~~

Items requiring short-term (within 12 months) remedial action:

6. Re-point the brick chimney masonry, replacing damaged brick units as required.[4]

Items requiring medium-term (within 24 months) remedial action:

7. Carry out masonry restoration and repointing, including replacement of spalled bricks. If mortar loss is allowed to continue, portions of the walls may become unstable and require more extensive repairs in the future. Mortar loss has increased since the 2016 assessment, and it is now estimated to include approximately 30-40% of joints.[4]

[4] Recommendation made in 2016 report

8. Cost Estimates

The following table includes a summary of order-of-magnitude cost estimates for the recommendations in section 7 of the report. The following recommendations and cost estimates represent the required interventions to prevent further deterioration of the primary structural components. A full restoration scope is not included in the current report. These prices are based on estimates of the time required to complete the work and estimated material costs etc. It is recommended that a comprehensive pricing by a competent contractor is completed prior to undertaking any specific budget work.

September 2025 Updates: As of the September 2025 building condition assessment report, remedial measures which have been completed to date are indicated with a strikethrough and greyed out below.

Table 1: Order-of-magnitude cost estimates

No.	Description	Urgency	Estimate [1]
~~1~~	~~Close and make watertight the open roof hatches~~	~~Immediate~~	~~$5,000~~
2a	Roof envelope maintenance and repairs	*Immediate*	$25,000
2b	Misc. repair of sheet metal components (flashing, gutters, downspouts)	*Immediate*	$50,000
~~3~~	~~Reconstruct damaged wall and roof framing as required to provide watertight exterior envelope (refer to section 6.3, photograph 12)~~	~~*Immediate*~~	~~$15,000~~
~~4~~	~~Clear out debris from basement and keep dry and secure~~	~~*Immediate*~~	~~$10,000~~
~~5~~	~~Review and reinforce safety barriers as required~~	~~*Immediate*~~	~~$0 (own forces)~~
		Sub-Total (Immediate)	**$75,000**
6	Re-pointing of brick chimney masonry, including replacement of damaged brick units as required (typ. 4 chimneys)	*Within 12 months*	**$30,000**
7	Masonry restoration and repointing, including replacement of spalled bricks (~30-40% of joints, 1500 bricks)	*Within 24 months*	**$300,000**
		TOTAL	**$405,000 [2]**

1 – The provided cost estimates are from September 2025 and could be subject to market fluctuations due to material and labour, or inflation resulting from delayed implementation.
2 – The total cost estimate does not include the cost of work completed to date.

9. Wildlife Activity Review

A wildlife and chimney swift review was completed in June of 2025 by Drone Boy. From drone footage taken of the exterior and down the chimneys, Drone Boy identified that the Oakville Trafalgar High School building is potentially used as a nesting and roosting area by protected species such as chimney swifts and killdeer. Caution should be taken during any future construction work, due to national regulations protecting certain species and their habitats. More information can be found on the government of Canada website[5].

10. Conclusions

In general, the building is in good condition, with localized areas in fair to poor condition. Many areas are identified for repair that could be considered preventative maintenance. While these items are not an immediate safety concern, repairs now will be much more cost effective than if conditions were to deteriorate further. It should be noted that many of the previously noted recommendations were not executed, and conditions have deteriorated considerably over the last 9 years.

The primary structural components (load-bearing masonry walls, floor framing, roof framing, foundation walls) appear to be in good condition, with some areas in fair to poor condition, largely due to the two open roof hatches towards the west elevation and the failed enclosures making up the one-storey area of the east elevation. The collapsed east corridor main floor framing was seen to have degraded further since the 2016 assessment, speaking to the importance of addressing the water ingress into the interior spaces.

Deterioration of the interior finishes has advanced since the assessment completed in 2016, largely due to the two open roof hatches towards the west elevation and the failed enclosures making up the one-storey area of the east elevation.

The water management systems at the building envelope did not appear to be properly diverting water away from the structure. This continuous exposure to water has led to the ingress observed into the interior spaces. It has also allowed for the exterior masonry to deteriorate further. The 2016 assessment estimated that 25% of mortar joints would need repointing, whereas following the current assessment that amount is estimated to now be in the range of 30-40%.

The repointing scope recommended for the four chimneys in the 2016 assessment was not completed, leading to further mortar loss. This condition should be addressed to avoid loss of stability and collapse of the chimney structures.

It is recommended that access to the collapsed floor areas continue to be restricted until the floor framing and flooring is reinstated.

Per

Rowan Miller, P.Eng., CAHP
Structural Engineer, Senior Associate
Tacoma Engineers Inc.

Gerry Zegerius, P.Eng., CAHP
Structural Engineer, Sr. Associate
Tacoma Engineers Inc.

[5] Environment and Climate Change Canada. (2023, September 6). *Conservation and permitting: Chimney Swift*. Government of Canada. https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/related-information/chimney-swift-conservation-permitting.html [Conservati...Canada.ca]