

January 22, 2026

Reference: 25-05-0084

The Corporation of the Town of Tillsonburg
10 Lisgar Avenue
Tillsonburg, Ontario
N4G 5A5

Attention: Adam Kannawin, Manager of Parks & Facilities

Dear Sir:

RE: TILLSONBURG ROTARY CLOCK TOWER REVIEW

Further to direction we attended the site to review the condition of the Rotary Clock Tower building envelope.

We attended the site January 7, 2026, with Hazen Masonry and Restoration to undertake the review and complete an invasive investigation of the masonry wall at that time.

The interior of the tower was only reviewed for the condition of the masonry envelope. We did not evaluate any electrical or mechanical systems with this review.

Executive Summary

Exterior masonry is in very poor condition with most brick masonry units on the south and west elevations having spalled faces. The wall was saturated with moisture both exterior and interior.

Exterior wall is a composite wall where the brick is mortared solid with the back up concrete block forming a tied structural element. The concrete block is reinforced and grouted solid with reinforcing steel installed in the grouted space between the exterior brick and interior concrete block.

Interior concrete unit masonry was also wet with several units showing signs of deterioration (spalling).

The building is not heated. With a composite wall system, the wall will rely on evaporation to rid the wall of any moisture ingress. Without any heat, the moisture will remain in the wall longer and can freeze leading to deterioration of the masonry units due to expansion from freezing.

The exterior wythe of brick masonry requires replacement. Internal discussions in our office, we are of the opinion that this can be completed as well as introducing a moisture barrier and air space to allow the exterior brick a better ability to resist moisture ingress to the concrete block interior units.

Wood fascia, soffit and trims to be replaced due to deterioration

Wood windows and doors are deteriorated and should be replaced due to deterioration. Consideration to the detail at the base of the windows at grade should be given to avoid future deterioration.

Concrete circular surrounds at the clock faces should be flashed to aid in shedding water from the masonry wall assembly.

Interior electrical wiring and light fixtures should be reviewed and inoperable items removed.

Should you require further discussion in the above regard, please do not hesitate to contact our office.

Yours truly,

POW PETERMAN
Consulting Engineers



Chris G. Willie, M.A.A.T.O., CAHP, APT RP

Associate

CGW/sp

x.c. Doug Hazen, Hazen Masonry and Restoration

email

N:\1.0 Projects\2025 Project Files\25-05-0084 - Tillsonburg Clock Tower\25-05-0084 Tillsonburg Rotary Clock Review Report Final - 20260116.docx



Description of Structure

The Rotary Clock Tower is a 10'-0" x 10'-0" unheated structure, approximately 40'-0" high to its peak and surrounded by concrete steps extending 4'-0" beyond the structure on all sides.

The structure is constructed of cast in place reinforced concrete footings and foundations.

The structure above grade consists of a composite wall system with interior concrete masonry units (CMU) with exterior face brick tied together with reinforcing steel. This masonry system of brick and CMU act together as a single structural component.

Windows are located on Levels 1 and 2 with wood louvres at Level 3. The clock faces from the former Post Office on Level 4.

The roof system consists of wood rafters, plywood sheathing and standing seam natural copper roofing.

There are 4 levels within the structure for servicing the building and the clock. Level 2 is accessible by a ladder brought to the site.

Levels 3 and 4 are accessed by steel ladder mounted within the structure.



North Elevation



West Elevation





East Elevation



South Elevation

Exterior

Brick masonry is in poor condition with spalled faces on all four elevations. Large areas of spalled brick are prevalent on the west and south faces of the tower. Brick spalling was also observed on the north and east elevations but not to the same extent.

Precast concrete horizontal bands are located at each floor level and appear to be in good condition.

Windows are wood framed with insulated glass units. Glass units are in good condition. Window frames at the base of the tower are severely deteriorated. Window frames on the second-floor level are deteriorated. The bottom 12" of the jambs have had dutchman repairs completed.

Louvres are wood framed with wood vanes. The vanes are in good condition with minor paint cracking. The insect screens on the interior of the louvre requires cleaning. The head and sill of the openings are concrete units.

Clock faces are in good condition and have pre-cast concrete surrounds. The mortar joints between the sections have debonded. Snow and ice can accumulate on the lower portion of the circular surround. No horizontal flashings were observed.





Partial West Elevation
Deteriorated brick units



Test Opening



North (left) West (right) Elevation Masonry
Deterioration



Wall Composition



Window Header Brick Deterioration



Brick Spalling @ Window Sill





Brick Spalling @ Window Arch



Deteriorated Sealant @ Louvre



Brick Deterioration at Grade



Wood Entrance Screen Deterioration
Wood dutchman repair



Brick Deterioration
Vented space between storm glass and surround



Window Frame Dutchman Repair





Wood Screen at Grade Deterioration



Wood Fascia and Trims Deterioration



Wood Fascia Deterioration



Copper Roofing at Eave and Barrel



Roofing Detail



Roof and Pinnacle



Interior

Entrance floor is exposed poured concrete floor slab and is in good condition.

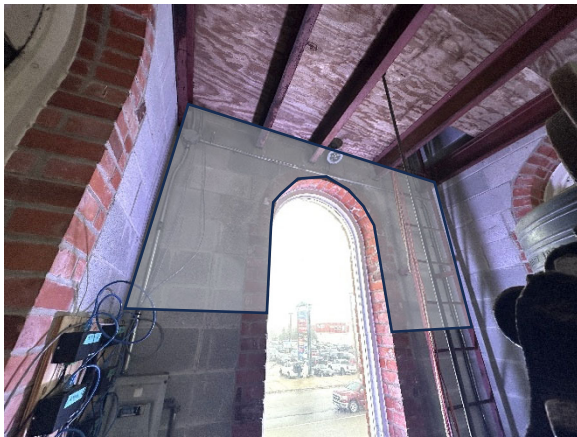
Interior of the tower structure is exposed concrete block. The block was observed to have frost and several areas of spalled faces. These are present on all levels of the tower.

Intermediate floors are framed with steel channels embedded into the concrete block masonry. Where channels are parallel to the masonry, they are anchored to the interior face of the concrete block. Plywood sheathing is installed on the channels to form the floor surface.

Access to floor level two was via a portable extension ladder. Floor levels three and four are accessible with wall mounted steel ladders. Ladders are in good condition.

Moisture was observed on the interior face of the concrete block below the louvre opening. Concrete block units have minor amounts of spalling of the exposed face. This is indicative of moisture migration through the masonry wall assembly.

Lighting in the tower is via portable LED light fixtures. The majority of these are powered using power bars and extension chords. There are several light fixtures that are not operational and have empty sockets. These should be checked to determine if they are live and deactivated if they are.



Wet and Spalling Interior Block



Wet and Spalling Interior Block



Spalling Block

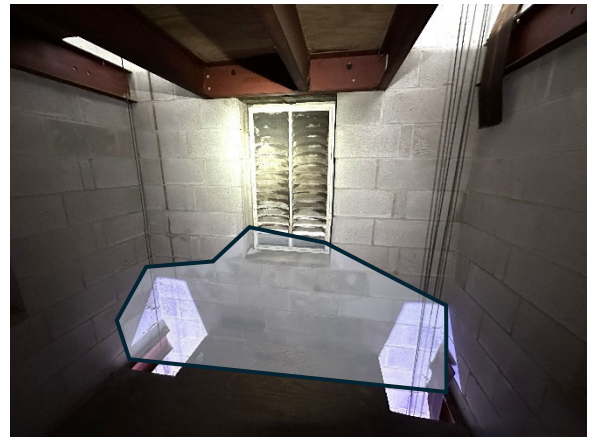


Spalling Block





Wet Interior Block at Louvre Opening
Block is saturated with moisture



Water Staining and Spalling Below Louvre



Roof Structure

Roof framing is steep pitched 20 in12, 2x6 rafters secured to a double top plate. Double top plate is anchored to the 10" concrete block. Rafters are toe nailed and have tie down anchors installed from the rafter to the top plates. These are not installed in the proper orientation and do not provide proper uplift resistance.

Plywood sheathing is installed on the rafters with standing seam copper sheets being the finished surface. No destructive testing was undertaken; the thickness of the plywood or whether there is any waterproofing installed over the plywood was not confirmed.

Collar ties are installed across the interior of the tower in both directions at the level above the clock level.

Roof framing is in good condition with no notable deterioration.

Roof is clad with natural copper standing seam panels and appear to be in good condition. The arched top of the clock face is clad with flat panel natural coppers. These appear to be in good condition as well.

Eave framing, fascia, soffit and trims are painted plywood. These are in poor condition with peeling paint and delaminated plywood layers. The wood requires replacement.

The standing seam metal roofing is grounded via a copper stranded cable running into the interior of the structure.



Clock Level



Interior Sill @ Clock – Water Ingress



Interior Framing



Improper Tie Down Anchors
Grounding cable



Tillsonburg Rotary Clock Tower				1/25/2026
Repair Budget Estimate				
No.	Description	Quantity	Unit	Rate
				Extension
1	General Conditions			\$ 15,000.00
-	Mobilization			
-	Storage area			
-	Toilet			
-	Insurance, bonding, WSIB			
2	Masonry Repairs			\$ 216,000.00
-	Scaffold Access setup and removal	3,000.00	sq.ft.	\$ 10.00 \$ 30,000.00
-	Removal of exterior brick	1,300.00	sq.ft.	\$ 40.00 \$ 52,000.00
-	cleaning of concrete masonry units	1,300.00	sq.ft.	\$ 10.00 \$ 13,000.00
-	Air moisture barrier	1,300.00	sq.ft.	\$ 5.00 \$ 6,500.00
-	Brick veneer incl. ties and accessories	1,300.00	sq.ft.	\$ 65.00 \$ 84,500.00
-	Metal flashings at clock faces	Allow		\$ 5,000.00
-	Additional structural tying	Allow		\$ 25,000.00
-	Disposal of all materials as required	Allow		\$ 5,000.00
3	Openings			\$ 50,000.00
-	Entrance door	1.00	ea	\$ 7,500.00 \$ 7,500.00
-	Windows @ grade	3.00	ea	\$ 7,500.00 \$ 22,500.00
-	Windows - upper	4.00	ea	\$ 5,000.00 \$ 20,000.00
-	Disposal of all materials as required.			
4	Roof			\$ 23,250.00
-	Replace wood fascia, soffit and trim	Allow		\$ 20,000.00
-	Painting - prime and 2 top coats	Allow		\$ 2,500.00
-	Structural tie down anchors	Allow		\$ 750.00
5	Subtotal			\$ 304,250.00
6	Contingency Allowance (10%)			\$ 30,425.00
7	Subtotal			\$ 334,675.00
8	Professional Fees (9.5%)			\$ 35,140.88
9	Subtotal			\$ 369,815.88
10	HST (13%)			\$ 48,076.06
11	Preliminary Budget Estimate			\$ 417,891.94
	Exclusions			
	Landscaping			
	Locates			
	Tree protection			
	Winter tarping or heating			
	Wire or hydro protection			
	Building or Heritage permits			

