February 19, 2026

Hamilton-Wentworth District School Board
20 Education Court
Hamilton, Ontario L9A 0B9

E-mail: djwilson@hwdsb.on.ca

Attention: Diane Wilson, FMP
Associate Project Supervisor, Capital Projects

Re: Procedures for Access to the Tunnel/Crawlspace
Norwood Park Elementary School, 165 Terrace Drive, Hamilton, Ontario
Pinchin File: 352293.011

Pinchin Ltd. (Pinchin) was retained by the Hamilton-Wentworth District School Board (HWDSB) to perform a hazardous building materials assessment, which included assessing the crawlspace/tunnels in preparation for the Accessibility Project at Norwood Park Elementary School located at 165 Terrace Drive, Hamilton, Ontario.

The purpose of this letter is to provide a summary of the Hazardous Materials Assessment and Confined Space Assessment findings and recommended procedures required to work safely within the tunnels/crawlspaces of the school.

1.0 FINDINGS

1.1 Asbestos

1.1.1 Pipe Insulation

Pipes are either uninsulated or insulated with fibreglass insulation.

1.1.2 Lead

Lead paint/primer is present on structural steel.

Lead wool or lead caulking is present in bell and spigot fittings on cast iron pipes.

1.1.3 Silica

Crystalline silica is a presumed component of the following building materials where present in the tunnels/crawlspace:

- Poured or pre-cast concrete
- Masonry and mortar

1.1.4 Mould

Mould may be encountered within the crawlspace.

1.2 Confined Space Assessment

The tunnel/crawlspace is L-shaped and has service tunnels/pipe chases running underneath the school. The space consists of concrete foundation with dirt flooring and includes enclosed piping. Access to the space is through a floor hatch with a fixed metal ladder. The space is approximately 1.2 metres in height by 1.8 metres wide with open areas. The space is not considered to be designed for continuous human occupancy. No evidence of sewage or standing water was noted at the time of inspection.

On the date of the assessment (January 12, 2026), air monitoring was conducted for percent oxygen (% O_2), percent lower explosive limit (LEL), carbon monoxide (CO), and hydrogen sulfide (H_2S). All levels were within acceptable limits.

Evaluation of the space indicated that there would be no potential for “atmospheric hazards” based on the construction, location or contents of the space. However, depending on the work done in the space (e.g., work on natural gas/sewage lines, welding, grinding or torch cutting) atmospheric hazards may be introduced/generated (see the Confined and Controlled Space Hazard Assessment for details). The space should also be checked immediately prior to entry for any evidence of flooding or sewage leaks, as this would also contribute to a potential atmospheric hazard.

Potential non-atmospheric hazards include access/egress hazards (step down through hatch to enter space), entanglement due to obstructions (pipes), overhead hazards from falling objects from above at main access opening, sharp edges due to metal pipes and debris on floor, potential insects/vermin and microbiologicals, physical obstructions due to the number of pipes present and concrete sections, poor visibility/no lighting, slip and trip hazards due to debris and uneven surfaces, and limited work space in some of the crawlspace areas (need to crouch or crawl).

The Confined and Controlled Space Hazard Assessment has been enclosed for reference.

2.0 RECOMMENDATIONS

2.1 Crawlspace Procedures

Even though there is no atmospheric hazard potential in this tunnel/crawlspace unless the aforementioned work activities (welding/torch cutting/working on natural gas or sewage lines) are conducted, it is recommended that air testing be conducted by a competent person prior to entry to the space on each day to ensure acceptable atmospheric levels.

All air monitoring should be performed using a calibrated direct reading instrument measuring for % O_2, LEL, CO, and H_2S. The results must be found to be within the acceptable ranges each day; oxygen above 19.5% and below 23% (normal atmospheric level is 20.9%), lower explosive limit of combustible gases (LEL) at less than 10%, carbon monoxide at less than 25 parts per million (ppm), and hydrogen sulfide at less than 10 ppm. Assuming acceptable levels and no work involving the activities that move the work to a confined space (i.e., generation of an atmospheric hazard), entry can be done under what Pinchin calls a “controlled” space; non-confined, but with other, non-atmospheric hazards. In the unlikely event that the results of the confined space monitoring are unacceptable, or if an unusual condition is observed such as significant flooding or sewage infiltration, the work for that day will have to be postponed until confined space procedures are developed.

Welding or cutting using compressed gases, work on sewer lines, a large sewage leak, or other activities that may create an atmospheric hazard within the tunnel/crawlspace are prohibited unless full confined space provisions are followed as per O. Reg. 632/05.

3.0 TERMS AND LIMITATIONS

This work was performed subject to the Terms and Limitations presented or referenced in the proposal for this project.

Information provided by Pinchin is intended for Client use only. Pinchin will not provide results or information to any party unless disclosure by Pinchin is required by law. Any use by a third party of reports or documents authored by Pinchin or any reliance by a third party on or decisions made by a third party based on the findings described in said documents, is the sole responsibility of such third parties. Pinchin accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted. No other warranties are implied or expressed.

Should you have any questions or concerns regarding the contents of this letter, please contact Jessica Cozzitorto at 289.678.0692 or jcozzitorto@pinchin.com.

Yours truly,

Pinchin Ltd.

Prepared by:

Jessica Cozzitorto, C.Tech.
Team Leader

Reviewed by:

Marcus Anthes, MSc(A), CRSP
Senior Occupational Hygiene and Safety Consultant

Encl.: Confined and Controlled Space Hazard Assessment

\\PIN-HAM-FS02\job\352000s\0352293.000 HAMILTON-WENT,Various2025Pr,HAZ,CONS\0352293.011 HWDSB,NorwoodPrk,Accessibility,HAZ,ASSMT\Deliverables\Confined Space\352293.011 Crawlspace Access Letter Norwood School HWDSB Feb 19 2026.docx

Template: Master Letter Template, September 23, 2024

Confined and Controlled Space Hazard Assessment

1.0 SPACE LOCATION DETAILS	
NAME/TYPE OF SPACE:	Pipe Chases/Service Tunnels under School Corridors and Classrooms
DATE OF ASSESSMENT:	January 12, 2026
LOCATION:	Norwood Park Elementary School - HWDSB

Does this assessment apply to the other spaces of "similar construction and same hazards"? If so, list here: No

2.0 SPACE DETERMINATION	
CONFINED SPACE AS DEFINED UNDER ONTARIO REGULATION 632/05	**"Confined space", means a fully or partially enclosed space:** **a. that is not both designed and constructed for continuous human occupancy; AND** **b. in which "atmospheric hazards" (further defined in regulation) may occur because of its construction, location or contents or because of work that is done in it.**

3.0 SPACE CHARACTERISTICS

NAME/TYPE OF SPACE: Pipe Chases/Service Tunnels

SPACE INTERIOR PHOTO

GENERAL SHAPE:	L – shaped with concrete and dirt floors
USE/FUNCTION:	Piping/service access for natural gas, sewage, hot and cold water lines, drains, and possible electrical lines
CONTENTS:	Piping, debris, concrete and dirt floors, garbage, and furniture
SPECIFIC MACHINERY/EQUIPMENT IN:	None
SUPPLY LINES INTO SPACE?	No – enclosed piping
ACCESS (Fixed ladder, crawl in, etc.):	Fixed metal ladder
ABOVE/BELOW GRADE:	Below
ADJACENT OPERATIONS:	NA

3.0 SPACE CHARACTERISTICS

RELEVANT DIMENSIONS (metres (m) or centimetres (cm)):

	SPACE DIMENSIONS	ACCESS POINT
HEIGHT/DEPTH:	1.2 m	One metal floor hatch 0.6 m x 0.9 m
LENGTH:	76 m	
WIDTH:	1.8 m	
DIAMETER:	NA	
VOLUME:	~165 m^3	

SPACE ACCESS POINT

Additional Comments	1) Air monitoring using a direct reading multi-gas (“4-Gas”) monitor was conducted during the Jan 12, 2026, assessment and all levels were noted to be acceptable. Percent oxygen was found to be within the acceptable range of above 19.5% and below 23% (normal atmospheric level is 20.9%), flammables/combustibles (LEL) were not detected (less than 1%), carbon monoxide was not detected (less than 1 ppm), and hydrogen sulfide was not detected (less than 0.1 ppm). 2) Some piping was noted to be rusted and there were signs of past water and/or sewage piping leaks; however, there was no current sewage or standing water visible at time of inspection.

Confined and Controlled Space Hazard Assessment

4.0 HAZARD ASSESSMENT – ATMOSPHERIC HAZARDS

The following does not factor atmospheric hazards generated by the planned work activities. See Section 4.1 for hazards due to work.

CATEGORY		HAZARD	POTENTIAL PRESENCE (Y/N)	SOURCE and REASON FOR POTENTIAL
ATMOSPHERIC HAZARDS	1	OXYGEN DEFICIENCY or ENRICHMENT	N	See note above
	2	FLAMMABLES / COMBUSTIBLES / EXPLOSIVES	N	See note above
	3	TOXICS (IDLH)	N	See note above
Is it possible to clear the above atmospheric hazards (i.e., eliminate) prior to entry? If yes, indicate how.				NA

If atmospheric hazards are identified based on the construction, location or contents of the space, and they cannot be "eliminated" without entering, then this space is a confined space. However, if the space does not have atmospheric hazard potential due to the construction, location or contents, and/or if existing atmospheric hazards can be "eliminated" without entering, then this space is either a controlled space or neither confined nor controlled. Make the final determination based on Section 5.0.

Confined and Controlled Space Hazard Assessment

4.1 WORK CONDUCTED IN THE SPACE AND POSSIBLE ATMOSPHERIC HAZARDS RESULTING FROM THESE ACTIVITIES

ADDITIONAL ATMOSPERIC HAZARDS	**WORK ACTIVITY (1):**	Maintenance/repair on plumbing or natural gas lines using hand tools only
	WORK ACTIVITY (2):	Hot work (welding, oxyacetylene cutting)
	HAZARD	**NOTES**
	OXYGEN DEFICIENCY or ENRICHMENT	Welding/cutting/grinding - potential oxygen depletion from weld gases; or enrichment from oxyacetylene (especially if the compressed gas cylinder is inside the space).
	FLAMMABLES / COMBUSTIBLES / EXPLOSIVES	Weld gases, oxyacetylene (especially if the cylinder is inside the space).
	TOXICS (IDLH)	

IF ANY OF THE ABOVE WORK ACTIVITIES HAVE POTENTIAL TO GENERATE AN ATMOSPHERIC HAZARD (e.g. OXYACETYLENE CUTTING, WELDING, CHEMICAL USE) THEN THIS SPACE IS A CONFINED SPACE.

Confined and Controlled Space Hazard Assessment

5.0 HAZARD ASSESSMENT – NON-ATMOSPHERIC HAZARDS

CATEGORY	HAZARD		POTENTIAL PRESENCE (Y/N)	SOURCE AND CORRESPONDING CONTROL(S)
PHYSICAL AGENTS	4	NOISE	N	
	5	VIBRATION	N	
	6	TEMPERATURE EXTREMES	N	
	7	NON-IONIZING/IONIZING RADIATION	N	
	8	LASER	N	
PHYSICAL CONFIGURATION	9	STRUCTURAL	N	
	10	PERSONAL CONFINEMENT/ ENTRAPMENT	Y	Pipes causing obstructions, long lengths of main pipe chases, small openings accessing additional dirt floor areas – create a safe entry procedure prior to entry.
	11	FLOOR OPENINGS	N	Floor hatch in place.
	12	CONVOLUTED SPACE	Y	Pipes causing obstructions, small openings accessing additional dirt floor areas – create a safe entry procedure prior to entry.
PHYSICAL HAZARDS	13	OVERHEAD	Y	Falling objects from above at main access opening – use caution when entering/exiting.
	14	SHARP EDGES	Y	Metal pipes and debris on floors – work gloves, safety footwear, and safety glasses should be worn.
	15	MECHANICAL	N	
	16	ELECTRICAL	N	No open/live electrical within the space.
	17	ADJACENT PIPING/PROCESS LINES	N	
	18	FLOODING	Y	Enclosed water lines and sewage lines present – ensure there is no evidence of major leakage or flooding prior to entry (see note at the end of this assessment).
	19	ENGULFMENT	N	

Space Name/Location: Pipe Chases/Service Tunnels - Norwood Park Elementary School

Confined and Controlled Space Hazard Assessment

5.0 HAZARD ASSESSMENT – NON-ATMOSPHERIC HAZARDS				
	20	ENTANGLEMENT	Y	Pipes causing obstructions – create a safe entry procedure prior to entry.
	21	FALL	Y	Ladder access (less than 3 m) – use caution while entering/exiting.
	22	ENTRY/EXIT	Y	Small access hatch and fixed ladder – use caution while entering/exiting and check integrity of the ladder.
	23	WORKING SURFACE/MATERIAL TEMPERATURE	N	
	24	SHARPS (NEEDLES/SYRINGES)	N	
	25	VEHICULAR TRAFFIC/MOVING EQUIPMENT	N	
	26	WORKER/PUBLIC INTERFERENCE	N	
SAFETY / OTHER HAZARDS	27	ANIMAL INTERACTION	N	
	27	MOULD	Y	Potential – use appropriate personal protective equipment (e.g., long sleeves/gloves, filtering facepiece respirator or other particulate respirator).
	28	VISIBILITY/LIGHT LEVEL	Y	No lighting – provide adequate portable lighting.
	29	COMMUNICATION	Y	Long lengths of pipe chases/service tunnels – provide two-way communication with personnel at top of access hatch an include communication as part of the safe entry procedure prior to entry.
	30	OTHER ERGONOMIC	Y	Low spaces crawling and crouching – appropriate ergonomic procedures/training.
	31	SLIP/TRIP	Y	Debris and uneven surfaces – use caution and appropriate footwear.
	32	WEATHER CONDITIONS	N	

Confined and Controlled Space Hazard Assessment

6.0 ENTRY REQUIREMENTS		
	(Y/N)	**COMMENTS**
Entry required into confined space by Employer?	Y	Maintenance on plumbing lines with potential use of hot work.
Entry required into confined space by single Contractor?	Y	Same as above
Entry required into confined space by multiple Contractor?	Y	Same as above

7.0 CONCLUSIONS		
	(Y/N)	**COMMENTS**
Meets the definition of a confined space. This document will act as the initial "Hazard Assessment". Follow all additional requirements of the Regulation 632/05.	N	
Could be a confined space under specific conditions of use (i.e., Controlled).	Y	Welding or oxyacetylene cutting using compressed gases in the space. [1] If there is evidence of potential flooding or sewage leaks. [2] If there is any work done (opening up) on natural gas lines.
Does not meet the definition of a confined space and is not expected to become a confined space based on the work activities assessed.	N	

NOTES

[1] Check for evidence of sewage leaks or flooding prior to entry; and if there is evidence of such, the space becomes a confined space and must be reassessed.

[2] There are enclosed natural gas lines in the space, and therefore not considered as a potential atmospheric hazard; however, if any work is needed on these lines (i.e., opening up) or evidence of damage to the lines, the space becomes a confined space and must be reassessed.

Confined and Controlled Space Hazard Assessment

8.0 SIGN OFFS

	AUTHOR	REVIEWER
NAME & DESIGNATIONS:	Dave George, M.E.S., CRSP	Marcus Anthes, MSc(A), CRSP
TITLE:	Occupational Hygiene and Safety Consultant	Senior Occupational Hygiene and Safety Consultant
COMPANY:	Pinchin	Pinchin
SIGNATURE:		
DEVELOPMENT DATE:	January 13, 2026	January 14, 2026

9.0 DISCLAIMER

This hazard assessment only outlines the potential hazards identified for the spaces as documented at the time of the assessments. If entry is required into the space(s), this hazard assessment must be reviewed and marked up according to the conditions immediately prior to entry. Additional confined space documentation must also be provided, including a Plan (safe entry procedure), Permit and Rescue Procedures. Note that if only a contractor (i.e., not a [Client] worker) is entering a potential confined space in the [Client's] workplace, it is still the responsibility of the owner of the space (i.e., [Client]) to identify the space as potentially confined, and ensure that the contractor is working in compliance with the Regulation, and, if applicable, a coordination document is completed.

This work was performed subject to the Terms and Limitations presented or referenced in the proposal for this project. Information provided by Pinchin is intended for Client use only. Pinchin will not provide results or information to any party unless disclosure by Pinchin is required by law. Any use by a third party of reports or documents authored by Pinchin or any reliance by a third party on or decisions made by a third party based on the findings described in said documents, is the sole responsibility of such third parties. Pinchin accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted. No other warranties are implied or expressed.