

## Report to Infrastructure and Corporate Services Committee

**To:** Chair and Members  
Infrastructure and Corporate Services Committee

**From:** Anna Lisa Barbon, CPA, CGA, Deputy City Manager  
Finance Supports

**Subject:** Contracts for Enwave Steam Service Transitions

**Date:** March 23, 2026

## Recommendation

That, on the recommendation of the Deputy City Manager, Finance Supports, the following actions be taken with respect to providing alternative heating, domestic hot water and humidification for City Hall; Centennial Hall; Central Library and Museum London:

- a) In accordance with Section 20 (Cooperative Purchasing) of the Procurement of Goods and Services Policy, Civic Administration **BE AUTHORIZED** to procure building solutions through Kinetic Group Procurement Organization (“Kinetic”), which has conducted an open and competitive procurement process compliant with applicable Trade Agreements;
- b) That Civic Administration **BE AUTHORIZED** to enter into a Canadian Construction Documents Committee *Design Build Stipulated Price Contract* (CCDC 14 – 2013) with Trane Canada ULC, utilizing the pricing and terms and conditions established under the Kinetic cooperative purchasing framework (RFSO 23-01 – HVAC Equipment, Installation, Services and Related Products and Services), for the design and implementation of essential building heating, domestic hot water and humidification systems for City Hall, Centennial Hall, Central Library and Museum London;
- c) That Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with the authorization set out in parts a) and b) above;
- d) The additional financing for the projects **BE APPROVED** as outlined in the attached Source of Financing report (Appendix A); and,
- e) The Mayor and Clerk **BE AUTHORIZED** to execute the Agreements.

## Executive Summary

Enwave’s decommissioning of the medium pressure steam line in central London by October 31, 2026, will affect City Hall, Centennial Hall, Museum London and the Central Library. Trane Canada ULC was engaged as a supplier capable of designing and building the required systems using Kinetic, a group procurement organization, in accordance with Section 20 of the Procurement of Goods and Services Policy. Trane has completed detailed design and engineering work for in-building heating systems, hot water and humidification and related components at all facilities.

This report seeks authorization to execute *Design Build Stipulated Price Contract(s)* (CCDC 14 – 2013) with Trane for the completion of the projects prior to the decommissioning deadline.

Additional funding in the amount of \$3 million is required to complete the necessary scope of work identified in the detailed engineering designs and specifications.

## Linkage to the Corporate Strategic Plan

### Well-Run City

The City of London is a leader in public service.

3.3 The City of London has effective facilities and infrastructure management.

- Build, maintain and operate facility assets to provide expected levels of service and optimize reliability and functionality.

## Analysis

### 1.0 Background Information

#### 1.1 Previous Reports Related to this Matter

Infrastructure and Corporate Services Committee, September 15, 2025, Consent Item 2.2, Replacement of Steam Services at City Facilities

Infrastructure and Corporate Services Committee, May 26, 2025, Consent Item 2.2, Enwave Update – London District Energy

Corporate Services Committee, August 14, 2024, Consent Item 2.2, Single Source SS-2024-277 J Allyn Taylor Heating System

#### 1.2 Decommissioning of Steam Lines

On May 27, 2024, Enwave indicated their intention to cease operating the low-pressure steam line along Dundas Street by May 2025. The J. Allyn Taylor building (267 Dundas St.) was impacted by the decision to discontinue the low-pressure steam supply. The project to transition the facility from steam heat to an independent in-building heating source was completed in September 2025. The cost of that project was \$775,500.

On April 30, 2025, Enwave indicated their intention to cease operating most of the medium-pressure steam line in the downtown core by October 31, 2026. The decision by Enwave to decommission their medium pressure line is based on assessments that determined continued operation is not sustainable. This decision has impacted City Hall, Centennial Hall, Museum London, and the Central Library branch.

#### 1.3 Procurement and Contracting Strategy

The decommissioning of the steam service by Enwave at the beginning of the heating season in October 2026 creates a critical time urgency for the completion of in-building heating projects. To help mitigate this pressure, Civic Administration investigated leveraging group procurement organizations (GPO) contracts with vendors capable of delivering solutions.

The required building system solutions are being procured through the Kinetic Group Purchasing Organization cooperative purchasing framework under RFSO 23-01. Kinetic conducted an open and competitive procurement process compliant with applicable trade agreements. The City is accessing the resulting framework in accordance with Section 20 of the Procurement of Goods and Services Policy.

Within this framework, Trane Canada ULC is the single awarded supplier for the applicable building system solution category, and the City is utilizing the established pricing, terms, and conditions of that competitively procured agreement rather than conducting a separate competitive procurement.

As noted in the September 15, 2025, Infrastructure and Corporate Services Committee report, detailed design and engineering work was needed before recommended feasible options, timelines, and refined cost estimates could be confirmed.

Civic Administration entered into an agreement with Trane Canada ULC to develop Detailed Project Plans (DPP) for Museum London and City Hall and Centennial Hall. Representatives of the Library also signed a similar agreement. The purpose was to authorize Trane and its sub-contractors to perform a detailed analysis of requirements and priorities at each site; create a detailed description of the scope of work, including identification of major equipment and labour required; engineered designs for project execution; and a final lump-sum contract price.

The Detailed Project Plan will provide the basis for finalizing a standardized contract with Trane for design-build services. The Canadian Construction Documents Committee *Design Build Stipulated Price Contract* (CCDC 14 – 2013) will be the contract used, which integrates both design services and construction or installation under a single agreement for a fixed price. Supplemental Conditions negotiated between legal representatives of the City and Trane can also be included.

Should the City, or other affected organizations, choose not to enter contracts to complete the build portion of the projects, Trane is entitled to compensation for the value of the design work completed. For the City Hall / Centennial Hall project, design work is valued at \$296,845; design work for the Library is valued at \$201,562; and the Museum design work is valued at \$102,277.

## **2.0 Discussion and Considerations**

### **2.1 Conceptual Designs vs. Detailed Designs**

Conceptual design is the early-stage process to establish the fundamental goal, focusing on what the system should achieve, rather than how it will be implemented. Conceptual designs are typically based on more limited information, such as a basic projects scope, rough square footage calculations, general equipment needs and some allowance for unknown conditions. Preliminary costing estimates to establish a budget are also created during the concept design phase.

Detailed design refines preliminary concepts into exact technical specifications and construction-ready plans. Detailed designs have now been completed for all four facilities (Museum London, Central Library, City Hall and Centennial Hall) to meet the operational needs at each site. Generally, each site requires:

- New boilers, either gas or electric to create hot water or steam
- Air intake and venting piping for the boilers
- Piping to interconnect with existing piping systems
- Natural gas meters and related piping
- Provisions for supplying domestic hot water

Retrofitting existing buildings is more complicated than installing mechanical systems in new construction and the detailed design process must take this into account. As the engineering work is advanced, the scope and complexity of the projects become clearer as mechanical, electrical, structural and architectural needs are identified. A detailed design provides critical details, such as:

- Major equipment required
- Exact placement of equipment
- Changes in architecture or structural needs to support new equipment
- Requirements for connecting existing systems to new equipment
- Code compliance and safety considerations
- Space constraints and accessibility issues

These details can significantly impact the complexity and cost of the project. For example, a boiler selected during the design phase may require special venting arrangements, larger or more robust heating piping, or extensive natural gas piping runs, which adds to the complexity and material and labour costs. Trane staff have been working closely with representatives from all affected facilities to understand cyclical operational demands and the long-term operations and maintenance requirements. This in-depth analysis identified the solutions that best balance functionality, reliability, constructability and cost considerations.

## **2.2 Site Specific Considerations**

Each of the facilities impacted by the Enwave steam decommissioning are unique and require sensitive treatment as community assets that will continue to operate during the implementation phase of the projects. The Detailed Project Plans have taken this into account and site-specific considerations have been identified.

Limited space in existing mechanical rooms is a challenge of retrofitting buildings with new systems. At City Hall, mechanical rooms are in both the lower level and penthouse areas. To accommodate new systems, the lower-level mechanical room will need to be expanded into space currently occupied by civic administration staff. Walls and penetrations for venting and piping must be modified to suit code requirements. The existing architectural shaft at City Hall will be used to interconnect the new systems with distribution equipment which is also a constrained space that adds challenges.

The feasibility of combining City Hall and Centennial Hall heating systems was reviewed and the decision was made to create independent heating solutions, one at each site. Cost considerations, constructability challenges, operability, safety and noise concerns were all factors in this decision. Having two separate solutions allows for greater flexibility in operations and any future decisions regarding these two facilities. However, additional equipment and servicing is required for independent solutions.

It should be noted that, during implementation, City Hall and Centennial Hall will be treated as one project due to proximity and the need to coordinate site supervision, access and trades.

At the Central Library, office space on the third floor is being converted into a mechanical room, and like the City Hall issue, the room must be fire-rated and built in place and finished accordingly. The necessity of additional architectural, structural and construction requirements was not contemplated at the conceptual design phase for either City Hall or the Central Library.

During the detailed analysis, it was discovered that the humidifiers in the Library's roof-top air handling units had not been operating for several years. The proposed solution includes, as an option, the recommissioning of the humidification system to help preserve the collections and maintain occupant comfort. This was not contemplated during the feasibility or conceptual design phases.

## **2.3 Impact on Pricing**

As indicated previously, preliminary budget estimates and final lump sum prices use very different inputs, and are calculated at separate times, to arrive at a cost calculation. During conceptual design, available information is more limited, and generic compared to technical specifications based on in-depth investigations included in a detailed design. For this reason, it is not uncommon for final pricing to be higher than initial estimates.

Compared to the preliminary budget estimates presented in the September 15, 2025, Infrastructure and Corporate Services Committee report, the final prices included in the detailed project plans presented by Trane have increased for the projects. Several factors have contributed to this price increase:

## 1. Engineering Design Details

Development of detailed plans requires an investment of time and resources to determine the best solution. In larger, special purpose facilities such as the ones included here, specialized or larger equipment and back-up units are needed to ensure continued operations. The specific installation, structural, mechanical and electrical requirements of the chosen equipment can result in higher pricing.

## 2. Challenges in Retrofit Applications

When using Enwave's steam services, there was no need for natural gas services or exterior venting for boilers, but this must be accommodated for in-building heating solutions. Limited space for equipment, no prior building penetrations for boiler venting and the need to work around existing utilities and building architectural features makes a retrofit installation much more complex.

Additionally, all the facilities will continue to operate during construction, so heat, humidification and hot water services must be maintained.

## 3. Increased Scope

Initially, a combined system for City Hall and Centennial Hall was suggested, but more thorough investigations revealed this is not feasible. Providing two separate systems increases the scope of work and the related costs.

During the preliminary or conceptual design, the requirement to build or expand mechanical rooms was not known until the specific equipment was identified through the detailed design.

Similarly, the humidification system at the Central Library was not initially considered in the preliminary design or cost estimate.

## 4. Market Conditions

In an *Economic Update* released January 30, 2026, the Ontario Construction Secretariat noted that non-residential construction prices rose 4.5% year over year in 2025. Most notably, the London Census Metropolitan Area led the trend with prices rising 9.9% year over year, the sharpest increase in Canada. The continuing construction cost increases have been attributed to a mix of labour, materials and structural factors.

A steady demand for skilled trades, new collective agreements, and the demographics of an aging workforce without sufficient replacement workers, has contributed to rising labour costs.

Construction inflation has continued to grow faster than consumer prices since the pandemic, particularly for projects that rely on steel products. These costs are greatly influenced by exchange rates, tariffs and trade policy changes. Long lead-time or custom-built products are also vulnerable to price increases from manufacturers.

## 2.4 Efficiency and GHG Reductions

Efficiency and GHG emissions are always a consideration in determining the best HVAC solution for facilities. Transitioning from steam service to in-building solutions results in a net decrease in GHG emissions. However, under standard reporting frameworks, the emissions are now defined as Scope 1 or direct GHG emissions that occur with on-site fuel combustion in boilers. Previously, the GHG emissions were defined as Scope 2 or indirect emissions associated with the purchase of steam from Enwave. The estimated difference between Scope 2 and Scope 1 emissions is shown as the net difference in Table 1 below:

Facility	Potential Cost Impact	Potential GHG Impact (Net)
Museum London	↓ \$110,998	↓ 148 tonnes eCO <sub>2</sub>
Central Library	↓ \$48,664	↓ 130 tonnes eCO <sub>2</sub>
City Hall / Centennial Hall	↓ \$107,372	↓ 111 tonnes eCO <sub>2</sub>
TOTAL	Decrease by \$267,034	Decrease by 389 tonnes eCO <sub>2</sub>

Table 1: Comparison of Steam and Natural Gas Consumption and Cost

Trane also analyzed steam usage and cost compared to the equivalent natural gas consumption and cost for each site, which is also shown in Table 1.

In this comparison, a natural gas rate of \$0.30 per cubic meter was used. The seasonal efficiency of Enwave's steam plant is assumed to be 65-70% efficient, due to transmission losses. The efficiency of the on-site boilers is assumed to be 80 to 85% efficient.

This annual comparison shows the difference between purchased steam and on-site gas consumption costs. Based on the analysis performed, the table above shows that ongoing operating costs for natural gas will be lower than with the current steam system. Additional expenses such as boiler and pump electrical consumption, water consumption for humidification, chemical water treatment and boiler maintenance is not included.

### 3.0 Financial Impact/Considerations

The preliminary budget estimates, based on conceptual designs, were presented in the September 15, 2025, report. A comparison with the final numbers as determined through detail design by Trane is shown in the table below:

Facility	Initial Budget	Revised Costing	Difference
Museum London	\$2,442,240	\$2,455,534	+ \$13,294
Central Library	\$2,289,600	\$3,272,059	+ \$982,459
City Hall	\$2,035,200	\$2,855,333	+ \$820,133
Centennial Hall	\$1,700,000	\$2,383,810	+ \$ 683,810
TOTAL	\$8,467,040	\$10,966,736	+ \$2,499,696

As noted previously, the work to operationalize the humidification system at the Library was not contemplated in the preliminary design. The revised costing of \$3.272 million includes this work, which could be reduced by \$375,000 if the humidification system was excluded from scope. However, proper temperature and humidity conditions are important to help ensure occupant comfort and the conservation of the collections. Completing the work now as part of steam decommissioning will avoid a construction disruption and additional costs in the future. The London Public Library Board will consider a potential contribution towards the humidification work at an upcoming meeting. The value of that contribution is yet to be determined.

While detailed investigations and analysis have been undertaken to complete the Detailed Project Plans and determine final costs, it is always prudent to carry a project contingency. The scale of these projects is very large, involving essential building systems that must be operational when Enwave discontinues the steam service. Any after hours or overtime work necessary to meet this deadline is not reflected in the pricing submitted by Trane, if required. All the facilities must continue to operate during construction, which may also incur additional costs. Industry standards suggest a 5% contingency should be added to cost estimates based on completed construction drawings and specifications to accommodate unanticipated expenses. A 5% contingency for all the projects would be \$540,000.

Civic Administration is seeking approval for an additional \$3 million, including contingency, as outlined in the attached Source of Financing (Appendix A) to complete the installation of new building systems at City Hall, Centennial Hall, Museum London and the Central Library branch. Funding is available from various one-time funding sources as noted in the Source of Financing.

### Conclusion

The discontinuation of steam service by Enwave is a significant risk to the operations of four major facilities in Downtown London unless alternative in-building systems can be installed within the deadline imposed by Enwave.

The required building system solutions are being procured through the Kinetic Group Purchasing Organization cooperative purchasing framework, which is an open and competitive procurement process compliant with applicable trade agreements.

Detailed project plans based on engineered drawings and specifications have been completed for all facilities. Compared to preliminary budget estimates provided in September 2025, the project pricing is higher. This can be attributed to several factors:

the completeness of engineering information as the project is refined; the challenges of retrofitting existing buildings; the need to create new mechanical spaces; equipment requirements; labour availability and market conditions.

This report seeks approval for \$3 million in additional financial resources and the authority to enter into contracts to complete the projects.

**Prepared and  
Submitted by:**

**Lynda Stewart, Director Fleet and Facilities,  
Finance Supports**

**Recommended by:**

**Anna Lisa Barbon, CPA, CGA Deputy City Manager,  
Finance Supports**

**Appendix "A"**

#26043

March 23, 2026  
(Award Contract)

Chair and Members  
Infrastructure and Corporate Services Committee

RE: Contracts for Enwave Steam Service Transitions  
Capital Project GG1625A - City Hall Replacement of Steam Services (WO 2654889)  
Capital Project GG1625B - Centennial Hall Replacement of Steam Services (WO 2654890)  
Capital Project GG1625C - Central Library Replacement of Steam Services (WO 2654891)  
Capital Project GG1625D - Museum London Replacement of Steam Services (WO 2654888)  
Trane Canada ULC - \$10,966,736.00 (excluding HST and contingency)

**Finance Supports Report on the Sources of Financing:**

Finance Supports confirms that the cost of this project cannot be accommodated within the financing available for it in the Capital Budget, but the required increase can be funded via the City Facilities Renewal Reserve Fund, the Library Facilities, Vehicle and Equipment Renewal Reserve Fund and Capital Levy and that, subject to the approval of the recommendation of the Deputy City Manager, Finance Supports, the detailed source of financing is:

<b>Estimated Expenditures</b>	<b>Approved Budget</b>	<b>Additional Requirement</b>	<b>Revised Budget</b>	<b>Committed to Date</b>	<b>This Submission</b>	<b>Balance for Future Work</b>
<b>GG1625A - City Hall Replacement of Steam Services</b>						
Engineering	13,646	0	13,646	13,646	0	0
Construction	2,021,554	1,027,104	3,048,658	0	3,048,658	0
<b>GG1624A Total</b>	<b>2,035,200</b>	<b>1,027,104</b>	<b>3,062,304</b>	<b>13,646</b>	<b>3,048,658</b>	<b>0</b>
<b>GG1625B - Centennial Hall Replacement of Steam Services</b>						
Engineering	8,940	0	8,940	8,940	0	0
Construction	1,691,060	810,128	2,501,188	0	2,501,188	0
<b>GG1624B Total</b>	<b>1,700,000</b>	<b>810,128</b>	<b>2,510,128</b>	<b>8,940</b>	<b>2,501,188</b>	<b>0</b>
<b>GG1625C - Central Library Replacement of Steam Services</b>						
Construction	2,289,600	1,203,999	3,493,599	0	3,493,599	0
<b>GG1625D - Museum London Replacement of Steam Services</b>						
Engineering	15,539	0	15,539	15,539	0	0
Construction	2,426,701	195,089	2,621,790	0	2,621,790	0
<b>GG1624D Total</b>	<b>2,442,240</b>	<b>195,089</b>	<b>2,637,329</b>	<b>15,539</b>	<b>2,621,790</b>	<b>0</b>
<b>Total Expenditures</b>	<b>\$8,467,040</b>	<b>\$3,236,320</b>	<b>\$11,703,360</b>	<b>\$38,125</b>	<b>\$11,665,235</b>	<b>\$0</b>

**Sources of Financing**

<b>GG1625A - City Hall Replacement of Steam Services</b>						
Transfer from Operating (Corporate Contingency)	2,035,200	0	2,035,200	13,646	2,021,554	0
Drawdown from City Facilities Renewal Reserve Fund (Note 1)	0	1,027,104	1,027,104	0	1,027,104	0
<b>GG1624A Total</b>	<b>2,035,200</b>	<b>1,027,104</b>	<b>3,062,304</b>	<b>13,646</b>	<b>3,048,658</b>	<b>0</b>
<b>GG1625B - Centennial Hall Replacement of Steam Services</b>						
Transfer from Operating (Corporate Contingency)	1,700,000	0	1,700,000	8,940	1,691,060	0
Drawdown from City Facilities Renewal Reserve Fund (Note 1)	0	810,128	810,128	0	810,128	0
<b>GG1624B Total</b>	<b>1,700,000</b>	<b>810,128</b>	<b>2,510,128</b>	<b>8,940</b>	<b>2,501,188</b>	<b>0</b>
<b>GG1625C - Central Library Replacement of Steam Services</b>						
Transfer from Operating (Corporate Contingency)	2,289,600	0	2,289,600	0	2,289,600	0
Drawdown from Library Facilities, Vehicle and Equipment Renewal Reserve Fund (Note 1)	0	1,203,999	1,203,999	0	1,203,999	0
<b>GG1624C Total</b>	<b>2,289,600</b>	<b>1,203,999</b>	<b>3,493,599</b>	<b>0</b>	<b>3,493,599</b>	<b>0</b>
<b>GG1625D - Museum London Replacement of Steam Services</b>						
Capital Levy (Note 2)	0	195,089	195,089	15,539	179,550	0
Transfer from Operating (Corporate Contingency)	2,442,240	0	2,442,240	0	2,442,240	0
<b>GG1624D Total</b>	<b>2,442,240</b>	<b>195,089</b>	<b>2,637,329</b>	<b>15,539</b>	<b>2,621,790</b>	<b>0</b>
<b>Total Financing</b>	<b>\$8,467,040</b>	<b>\$3,236,320</b>	<b>\$11,703,360</b>	<b>\$38,125</b>	<b>\$11,665,235</b>	<b>\$0</b>

**Appendix "A"**

**#26043**

March 23, 2026  
(Award Contract)

Chair and Members  
Infrastructure and Corporate Services Committee

RE: Contracts for Enwave Steam Service Transitions  
 Capital Project GG1625A - City Hall Replacement of Steam Services (WO 2654889)  
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 Trane Canada ULC - \$10,966,736.00 (excluding HST and contingency)

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<b>Financial Note</b>	<b>GG1625A City Hall</b>	<b>GG1625B Centennial Hall</b>	<b>GG1625C Central Library</b>	<b>GG1625D Museum London</b>	<b>Total</b>
Contract Price	\$2,855,333	\$2,383,810	\$3,272,059	\$2,455,534	\$10,966,736
Add: Contingency	140,596	117,378	161,116	120,910	540,000
Total Contract Price Excluding Taxes	2,995,929	2,501,188	3,433,175	2,576,444	11,506,736
Add: HST @13%	389,471	325,154	446,313	334,938	1,495,876
Total Contract Price Including Taxes	3,385,400	2,826,342	3,879,488	2,911,382	13,002,612
Less: HST Rebate/ITC	-336,742	-325,154	-385,889	-289,592	-1,337,377
Net Contract Price	\$3,048,658	\$2,501,188	\$3,493,599	\$2,621,790	\$11,665,235

**Note 1:** The additional funding requirement for this purchase can be accommodated by a drawdown from the City Facilities Renewal Reserve Fund and Library Facilities, Vehicle and Equipment Renewal Reserve Fund. The forecasted balance of the City Facilities Renewal Reserve Fund will be approximately \$10.8M and Library Facilities, Vehicle and Equipment Renewal Reserve Fund will be approximately \$2.7M with the inclusion of the additional requirement.

**Note 2:** Capital Levy was released in 2025 Mid-Year Capital Monitoring Report and is available for this project.

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Kyle Murray  
Director, Financial Planning & Policy  
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