



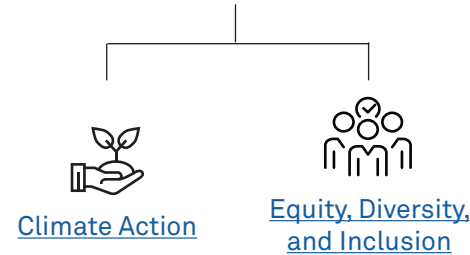
# VISION

An Ontario in which architects are valued contributors to society, by creating a safe and healthy built environment that performs at the highest levels and elevates the human spirit.

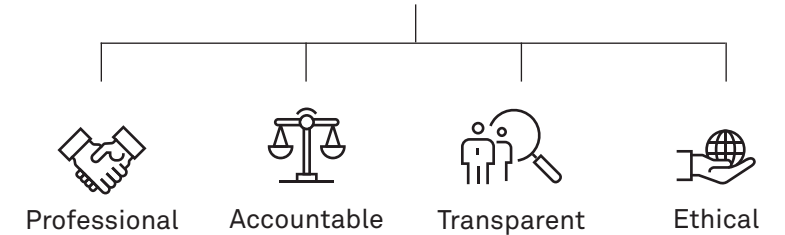
# MANDATE

To regulate and govern the practice of architecture in Ontario in the service and protection of the public interest in accordance with the *Architects Act*, its Regulations, and Bylaws; to develop and uphold standards of skill, knowledge, qualification, practice, and professional ethics among architects; and to promote the appreciation of architecture within the broader society.

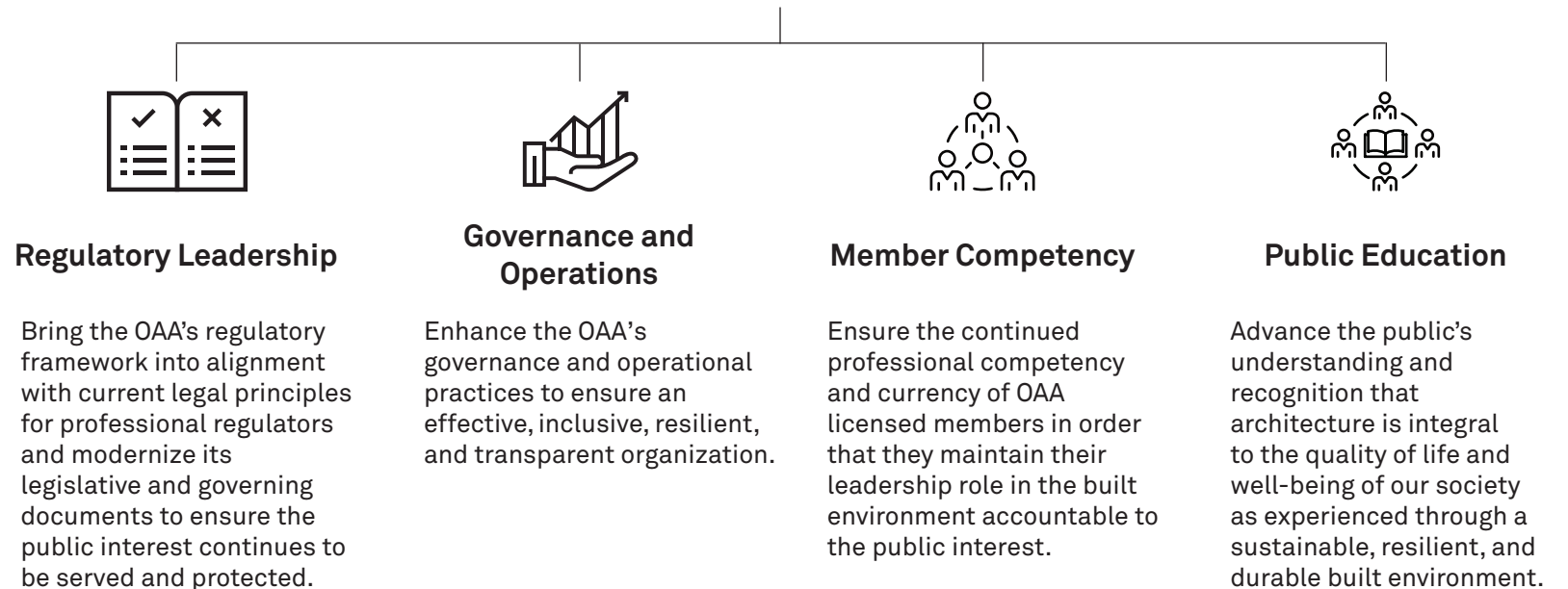
## Themes



## Values



## Strategic Priorities





**Regulatory Leadership**

**Governance and Operations**

**Member Competency**

**Public Education**

**Goal Statements**

Bring the OAA's regulatory framework into alignment with current legal principles for professional regulators and modernize its legislative and governing documents to ensure the public interest continues to be served and protected.

Enhance the OAA's governance and operational practices to ensure an effective, inclusive, resilient, and transparent organization.

Ensure the continued professional competency and currency of OAA licensed members in order that they maintain their leadership role in the built environment accountable to the public interest.

Advance the public's understanding and recognition that architecture is integral to the quality of life and well-being of our society as experienced through a sustainable, resilient, and durable built environment.

**Strategic Priorities**

- Actively engage with government, legal counsel, and the Attorney General to advance the modernization of the *Architects Act* and its Regulation.
- Increase transparency, fairness, objectivity, and impartiality of OAA registration and regulatory processes.
- Continue to serve the public interest through ongoing enforcement activities and investigating breaches of the *Architects Act* and its Regulations.
- Continue to invest in programs and activities that contribute to and foster the diversity and perspective of new applicants to the architectural profession.

- Continue to implement the operational review recommendations, which include clearly defined roles for Council & staff, additional organizational policies and structures, enhanced IT and data management, enhanced risk management, continued investment in equity, diversity, and inclusion, and ensuring a safe workplace.
- Monitor OAA governance reforms and continue to update Council governance practices to align with best practices of professional regulators.
- Continue to develop, implement and monitor the futureproofing strategy for OAA internal resources to be agile and resilient.

- Administer the legislative requirements of mandatory continuing education through the established program framework.
- Anticipate and respond to current disruptions and trends in the industry (e.g. different project delivery methods, climate stability, accessibility, and technological advancements) as well as legislative changes (e.g. harmonization of building codes and accessibility) through various continuing education offerings.
- Provide information in a responsive manner to members that is relevant and timely regarding OAA education resources, as well as programs and services existing elsewhere that fall outside the purview of the OAA.

- Implement the Council approved Public Outreach Plan to educate the public about the role of architecture in creating the built environment and its impact on society.
- Continue education initiatives to foster a greater understanding of the OAA as a unique professional self-regulator.
- Leverage and support programs and services offered by other parties in the built environment to further the public appreciation of architecture and the allied arts.
- Continue education regarding best practices in project delivery that relate to regulatory responsibilities of OAA members and practices, inclusive of procurement, in order that the public interest may continue to be served and protected.

**Metrics**

- A strategy for modernizing the Act and Regulations has been created and implemented.
- The OAA's regulatory standards, policies, and procedures are current and consistent with the right-touch regulatory approach.
- The OAA continues to identify and correct regulatory misalignments.
- The OAA continues to be in compliance with the Office of the Fairness Commissioner and other government oversight bodies.
- There is a clearer understanding of the path to licensure and a greater connection with those on the path to licensure.
- The OAA's periodic Demographic Survey demonstrates a shift towards increased equity, diversity, and inclusion.

- The 39 Operational Review recommendations are implemented.
- Roles and responsibilities of OAA staff, committees, and Council are defined and documented.
- The OAA's risk assessment metrics are implemented.
- Staff retention remains high.
- Participation and representation in Council elections is improved.
- Best-practice gaps in governance relative to professional regulatory organization benchmarks have been identified, prioritized, implemented and measured

- Member competency and ethical practice continues to develop and is responsive relative to the industry and profession.
- The content of the OAA's educational offerings is focused on technical and legislative content that is current and relevant.
- Access to competency development-based education is diversified and equitable.
- Increased member use of the OAA webpages on learning opportunities outside of the OAA.
- Increased member use of the OAA webpages with the existing OAA Documents and resources as well as Practice Advisory Knowledge Base area.

- Members demonstrate a clear understanding of the role of the OAA as a regulator and of the extent to which it can promote the public appreciation of architecture.
- The OAA has developed and implemented a defined program of public education that responds to our mandate and that is sustainable over time.
- The number of times government and other partners/parties have invited the OAA to engage/inform on built environment issues in the public interest has increased.



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## Operational Procedures

Procedure Reference **OAA Council Meetings – Rules and Procedures**

Issue Date **November 29, 2023**

Revision Dates

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Meetings of the Council of the Ontario Association of Architects (OAA) are conducted in accordance with Roberts Rules of Order which is included in the Councillor Orientation Manual, unless stipulated otherwise with the by-laws or as otherwise approved by OAA Council. The following operational procedures outline the rules and procedures for discussion, debate and motions within Council meetings:

- The maximum time for a Councillor's comments in debate on a motion is two minutes.
- The Chair shall keep a speakers' list of those wishing to speak to a specific item or motion; and
  - a) the speakers' list shall be built in the order that the Chair notes a Councillor's intention to speak by raising their hand; and
  - b) any Councillor having not spoken to an item/motion shall be given preference on the speakers' list over any Councillor who has already spoken.
- An original main motion may only be introduced at a meeting if it has been added under New Business to the agenda approved for that meeting. Otherwise all other motions are to be contained within the individual reports to Council, unless a motion for an item that is "*For Discussion*" has yet to be identified.
- An item *For Information Only* which no Council member indicates will be the subject of a question or an original main motion is considered to be dispensed upon approval of the agenda for that meeting.
- The meeting will move to a period of informal discussion immediately after a new item has been presented and a main motion on the item is introduced and any questions on the item have been put and answered, ; and
  - a) a period of informal discussion is defined as the opportunity to discuss an item with the motion on the floor; and
  - b) the Chair of the meeting when the item is introduced continues as the Chair during the period of informal discussion unless they choose to relinquish the Chair; and
  - c) in a period of informal discussion the regular rules of debate are suspended; and
  - d) a period of informal discussion ceases when the Chair notes that no additional members wish to speak to the item or when an incidental motion to return to the regular rules of debate passes with a majority; and
  - e) immediately upon leaving a period of informal discussion, Council will be asked to vote on the motion

f) if the presenter of the item moves no motion on the item then the item is considered dispensed unless an indication to introduce additional original main motions on the item is on the agenda, in which case each of these motions is presented in turn and debated as per the rules of formal debate.





*Open Council Agenda*

*auditors for fiscal 2024 to be voted on at a general meeting of the members to be called for October 16.*

7 mins 4.8 Proposal for OAA Presidents Wall (*see attached*) OAA Building Committee  
*It was moved by Yeung and seconded by McKendrick that Council approve the schematic design for the proposed OAA Presidents Wall as presented to Council on September 19, 2024 including the proposed budget; and, that the Building Committee be directed to work with staff to establish a schedule for the work to be completed in 2025.*

7 mins 4.9 Funding Request re. TEUI 3.0 and OpenBuilding.ca (*see attached – scheduled for 1pm with guest Andy Thomson*) VP McKendrick  
*It was moved by McKendrick and seconded by Mintz that Council approve funding for TEUI 3.0/OpenBuilding.ca in the amount of \$28,000.*

**5.0 ITEMS FOR DISCUSSION**

**6.0 REPORTS**

6.1 Report from the President – Activities for the months of June-September (*see attached*) President

6.2 Report from the Executive Director (*see attached*) Executive Director

6.3 Report from the Registrar (*see attached*) Registrar

6.4 Report from the Senior Vice President and Treasurer SVP & Treasurer

1 min 6.4.a Financial Statements for the 9 months ending August 31, 2024 (*see attached*)

6.5 Committee Reports Committee Chairs

1 min 6.5.a Communications & Public Education Committee – Update (*see attached*) VP McKendrick

1 min 6.5.b Governance & HR Committee - Update (*see attached*) SVP & Treasurer

1 min 6.5.c Practice Resource Committee (PRC) – Update (*see attached*) VP Schuhmann

1 min 6.5.d Policy Advisory Consultation Team (PACT) – Update (*see attached*) VP Spiegel

1 min 6.5.e Interns Committee Report (*see attached*) Councillor Alkasawat

**7.0 ITEMS FOR INFORMATION**

7.1 Report on 2024 Conference (*see attached*) Manager, Finance

7.2 Report on Society Chairs Meeting – May 2024 (*see attached*) President

**8.0 OTHER BUSINESS**

10 min 8.1 Deputation to Council from Toronto Society of Architects (*see attached – deputation at 1:30 pm with guests Ana-Francisca de la Mora & Joël León*) TSA Chair & Executive Director

**9.0 DATE OF NEXT MEETING**

9.1 The next regular meeting of Council is Friday, December 6, 2024 at 9:30 a.m. at the OAA Headquarters, 111 Moatfield Drive, Toronto, Ontario.

**10.0 ADJOURNMENT**

Ontario Association of Architects

Meeting #294 Open

MINUTES

June 20, 2024

The two hundred and ninety fourth meeting of the Council of the Ontario Association of Architects, held under the *Architects Act*, took place on Thursday June 20, 2024 at the OAA Headquarters, 111 Moatfield Drive, Toronto, Ontario and virtually via Zoom.

<b>Present:</b>	Settimo Vilardi	President
	Ted Wilson	Senior Vice President and Treasurer
	Lara McKendrick	Vice President
	Kristiana Schuhmann	Vice President
	Susan Speigel	Vice President
	Loloa Alkasawat	Councillor
	J. William Birdsell	Councillor
	Jim Butticci	Lieutenant Governor in Council Appointee
	Kimberly Fawcett-Smith	Lieutenant Governor in Council Appointee (virtual)
	Christina Karney	Councillor
	Natasha Krickhan	Councillor
	Jenny Lafrance	Councillor
	Michelle Longlade	Lieutenant Governor in Council Appointee
	Elaine Mintz	Lieutenant Governor in Council Appointee
	)	
	Anna Richter	Councillor
	Ted Watson	Councillor
	Marek Zawadzki	Councillor
	Kristi Doyle	Executive Director
	Christie Mills	Registrar
Tina Carfa	Executive Assistant, Executive Services	
Erik Missio	Manager, Communications	
<b>Regrets:</b>	Thomas Yeung	Councillor
	Greg Redden	Councillor

The President called the meeting to order at 1:30 p.m.

The President noted that a land acknowledgement titled *Indigenous Art in Canada*, from National Geographic would be shared with Council as an acknowledgement and recognition of the Indigenous land and its people.

The President welcomed staff, members, and others in attendance at the meeting.

#### DECLARATION RE CONFLICT OF INTEREST

The President called for declaration of any conflicts of interest.

No conflicts of interest were declared.

#### AGENDA APPROVAL

9763. The President reported that no new items would be added to the agenda.

**It was moved by Birdsell and seconded by Longlade that the agenda for the June 20, 2024 open meeting be approved as circulated.**

-- CARRIED

## APPROVAL OF MINUTES

9764. *Reference Material Reviewed:* Draft minutes of the May 21, 2024 Open Council meeting.

The draft minutes of the May 21, 2024 Open Council meeting were reviewed.

A member of Council noted a typo on page 3, second last paragraph to change 'their' to 'there'.

**It was moved by Mintz and seconded by Karney that the minutes of the May 21, 2024 Open Council meeting be approved as amended.**

-- CARRIED

## BUSINESS ARISING FROM THE MINUTES

9765. There was no business arising from the minutes.

## ITEMS FOR REVIEW AND APPROVAL

9766. Appointment of Representative to University of Toronto, John H. Daniels Faculty of Architecture, Landscape, and Design School Curriculum Committee. (*oral*)

Doyle reported that the candidates' applications were discussed in camera.

**It was moved by Longlade and seconded by Mintz that Council approve the appointment of Jacek Gorka as OAA representative on the University of Toronto, John H. Daniels Faculty of Architect, Landscape and Design School Curriculum Committee for a three year term, effective September 2024.**

-- CARRIED

9767. *Reference Materials Reviewed:* Memorandum from Executive Director, Kristi Doyle dated June 5, 2024 re. Amendment to OAA Bylaws, Schedule A and attached supporting documentation. **(APPENDIX 'A')**

Doyle reported that Council approved a change to the non-compliance fees at its May 21 meeting. The single fee of \$750 requires that the OAA Bylaws Schedule A be amended to reflect that decision. This Bylaw change is subject to ratification by the membership at the 2025 AGM, however is in effect pending that ratification.

**It was moved by Butticci and seconded by McKendrick that Council approve the amended OAA Bylaw, Schedule A which reflects a single fee of \$750 for non-compliance with the Continuing Education Program, dated June 20, 2024.**

-- CARRIED

9768. *Reference Materials Reviewed:* Memorandum from Deputy Registrar, Claire Hepburn and Registrar, Christie Mills dated June 4, 2024 re. New Consolidated Continuing Education Policy and attached supporting documentation. **(APPENDIX 'B')**

Mills reported.

A member of Council reported that the one major change to the ConEd policies which is reflected in the the consolidated policy is the elimination of proof of attendance for structured learning to be loaded at the time of recording on the transcript. This will no longer be required, however members will be required to keep their own copies of proof of attendance in the event they are audited. The greatly simplifies that process with respect to reporting hours.



A Council member enquired as to whether participation in the executive committee activities of a society will be eligible to report as structured hours and does it need to be addressed in this policy.

Doyle responded that the report from the Society Chairs meeting is being finalized and action items from that meeting will be addressed over the summer. If there is a decision to amend that policy, it may be added into the policy later.

Mills suggested that the active date on the policy in relation to those items that pertain to limited licences be held in abeyance until the date that the regulation be enacted.

**It was moved by Birdsell and seconded by Alkasawat that Council approve the attached Continuing Education Policy, dated June 20, 2024 and sunset the former associated policies, amended to reflect that the date of issuance of those sections of the policy pertaining to limited licence be held in abeyance pending the related regulation amendment.**

**-- CARRIED**

9769. *Reference Material Reviewed:* Memorandum from Communications and Public Education Committee (CPEC) dated June 6, 2024 re. SHIFT2025 Challenge Theme and attached supporting documentation. **(APPENDIX 'C')**

Vice President McKendrick reported on the proposed theme for SHIFT2025.

**It was moved by McKendrick and seconded by Mintz that Council approve the SHIFT2025 Challenge theme as "Reshaping Communities".**

**-- CARRIED**

#### **ITEMS FOR DISCUSSION**

9770. There were no items for discussion.

#### **EXECUTIVE COMMITTEE REPORTS**

9771. *Reference Material Reviewed:* President's Activities for the months of May-June **(APPENDIX 'D')**

The report was noted for information.

9772. *Reference Material Reviewed:* Report from Executive Director, Kristi Doyle dated June 9, 2024 re. Executive Director Report to Council. **(APPENDIX 'E')**

A member of Council enquired when the report from the Society Chairs meeting is to be finalized.

Doyle responded that the report is currently being reviewed by the Society Chairs and Council Liaisons.

The Councillor noted the importance of supporting the societies and suggested that funding be increased as they improve awareness to the public. It was further suggested that where societies may have excess funds they could be returned to the OAA and put toward other public awareness and outreach initiatives.

The report was noted for information.

9773. *Reference Material Reviewed:* Memorandum from Registrar, Christie Mills re. Office of the Registrar Statistical Report to Council for the period January 1 to June 4, 2024. **(APPENDIX 'F')**

The report was noted for information.

9774. *Reference Material Reviewed:* Memorandum from Senior Vice President and Treasurer, Ted Wilson dated June 6, 2024 re. Unaudited Financial Statements for the Six Months Ending May 31, 2024 and attached supporting documentation. **(APPENDIX 'G')**

The Senior Vice President and Treasurer reported that the policy contingency now stands at \$24,476. The OAA is continuing to invest significantly in converting to Microsoft Office 365.

Doyle noted that the OAA holds a 15-18 month contract with the consultant that is working on the conversion adding that there will be a final capital expense for 2025 on December 1.

It was reported by the Senior Vice President and Treasurer that there has been a late upswing in revenue for Conference due to last minute registrations which may result in a small overall deficit. There is a more fulsome discussion planned over the summer regarding Conference and future planning.

Doyle noted that there will be some large scale policy discussions with respect to Conference, such as the amount of educational content, and the frequency of Conference.

A member of Council enquired as to the reason the policy contingency amount reported was somewhat low.

The Senior Vice President and Treasurer responded that the policy contingency started at \$120K for 2024 and since has taken into account all of the requests to Council. It was suggested that there could be a discussion with respect to increasing the contingency in future.

It was suggested by a member of Council that the Senior Vice President and Treasurer report on the remaining contingency after each funding request is granted in addition to when the next date is that funds are to be added to it.

Clarification was requested by a Councillor if funds from the reserve may be used to fund requests.

Doyle responded that the Operating Reserve is used at the discretion of Council to cover extraordinary expenses that cannot be covered by the annual operating budget. The Policy Contingency is intended for special projects or initiatives that Council may wish to take on however that have not been identified when the budget is approved. There is some concern that it is only June with only \$24,000 remaining. It was noted however that it is unlikely that the OAA would have capacity to take on any further projects into the fall.

It was suggested by a member of Council that there being some funding set aside going forward for public outreach and youth.

The report was noted for information.

9775. *Reference Material Reviewed:* Memorandum from Communications and Public Education Committee (CPEC) dated June 6, 2024 re. Committee Updates. **(APPENDIX 'H')**

The report was noted for information.

9776. *Reference Material Reviewed:* Memorandum from OAA Building Committee dated June 10, 2024 re. Update from Building Committee. **(APPENDIX 'I')**

Vice President McKendrick reported that the Presidents' Wall is undergoing a mockup, following which the schematic design will be finalized and presented to Council in September for final approval.

The report was noted for information.

9777. *Reference Material Reviewed:* Memorandum from Practice Resource Committee (PRC) dated June 7, 2024 re. Committee Updates. **(APPENDIX 'J')**

A member of Council suggested that Practice Tip 3 regarding the Matrix be reviewed to make it more user friendly.

A member of Council enquired as to whether the topic of cybersecurity for firms was being discussed by the Practice Resource Committee for discussion

It was noted by a Council member that firms are concerned with cybersecurity and would be a service to the members to provide some guidelines in case of an attack.

Doyle noted that from an education perspective a webinar is an option. It was acknowledged that the OAA is not able to offer IT advice. In general, however firms should have a business continuity plan, cyber insurance and/or an IT consultant.

It was suggested by a member of Council that sensitive data should be encrypted within the computer systems.

A Councillor suggested that Pro-Demnity should be developing policies for the data that holds member information.

Audet noted that a report on a hybrid setting was published two years back for the members. There may be some difficulty sharing universal guidelines in this area, since there is such great variation.

The report was noted for information.

9778. *Reference Material Reviewed:* Memorandum from Vice President, Susan Speigel dated June 10, 2024 re. Update on the Policy Advisory Coordination Team's (PACT) work. **(APPENDIX 'K')**

The report was noted for information.

9779. *Reference Material Reviewed:* Memorandum from the Interns Committee dated June 11, 2024 re. Committee Updates. **(APPENDIX 'L')**

A member of Council noted that the instructional videos for interns were a great idea to help educate them in the process.

The report was noted for information.

## **ITEMS FOR INFORMATION**

9779. *Reference Material Reviewed:* Memorandum from Communications Manager, Erik Missio dated June 6, 2024 re. Mid-2024 Operational Plan Update: Communications. **(APPENDIX 'M')**

The report was noted for information.

9780. *Reference Material Reviewed:* Memorandum from Deputy Registrar, Claire Hepburn dated June 6, 2024 re. Semi-annual Update – Continuing Education Service Area. **(APPENDIX 'N')**

The report was noted for information.

9781. *Reference Material Reviewed:* Memorandum from Manager, Finance, Melanie Walsh dated June 6, 2024 re. Second Quarter Operational Plan Update. **(APPENDIX 'O')**

The report was noted for information.

9782. *Reference Material Reviewed:* Memorandum from Human Resources Manager, Kathy Armbrust dated June 10, 2024 re. Semi-annual Update from Human Resources & Administration. **(APPENDIX 'P')**

The report was noted for information.

9783. *Reference Material Reviewed:* Memorandum from Information Technology Manager, Abhishek Chaudhary dated June 20, 2024 re. Information Technology Service Area – Semi-annual Update. **(APPENDIX 'Q')**

The report was noted for information.

9784. *Reference Material Reviewed:* Memorandum from Manager, Policy and Government Relations, Sara Trotta dated June 10, 2024 re. Mid-Year Operational Plan Update: Policy and Government Relations and attached background information. **(APPENDIX 'R')**

The report was noted for information.

9785. *Reference Material Reviewed:* Memorandum from Manager, Practice Advisory Services, Mélisa Audet dated June 10, 2024 re. OAA Service Area Semi-Annual Updates – Practice Advisory Services. **(APPENDIX 'S')**

The report was noted for information.

9786. *Reference Material Reviewed:* Memorandum from Vice President, Susan Speigel dated June 12, 2024 re. Quality in Canada's Built Environment QBE – a Social Sciences and Humanities Research Council (SSHRC) Research Partnership on Quality in Canada's Built Environment – Update and attached background information. **(APPENDIX 'T')**

The report was noted for information.

## **OTHER BUSINESS**

9787. A member of Council enquired as to whether it would be an option to have the current Building Code continue to be available on e-laws up until the new one comes into effect.

Doyle responded that she will be in a meeting with the Director of the Buildings Branch at the Ministry of Municipal Affairs and Housing next week and will enquire with them.

A Council member suggested that for the planned video tour of the building, Ruth Cawker should be approached. A Councillor suggested less use of stock and building images.

A member of Council offered their appreciation to Practice Advisory Services for their work on obtaining complimentary access to the CSA documents.

## **DATE OF NEXT MEETING**

9788. The next regular meeting of Council is Thursday September 18, 2024 at 9:30 a.m. at the OAA Headquarters, Toronto, Ontario.

## **ADJOURNMENT**

9789. **It was moved by Longlade and seconded by Lafrance that the meeting be adjourned at 2:30 p.m.**

-- CARRIED UNANIMOUSLY

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President

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Date

DRAFT

# 2025 COUNCIL MEETING and AGM DATES

Meetings will be held virtually or at 111 Moatfield Drive, Toronto,  
unless otherwise noted.

*In-Camera begins at 9:30 a.m.*

*Open begins at approximately 11:00 a.m.*

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 4.1

Thursday	January 23, 2025	
	OAA Strategic Plan Review and Council Governance Workshop Planning Session	Thurs Jan 23 approx. 3:00 p.m. – 6:00 pm Friday Jan 24 9:00 a.m. – 3:00 p.m.
Thursday	March 6, 2025	
Tuesday	April 8, 2025	<b>Annual General Meeting</b> – 1-2:30 p.m. <b>(Virtual event only)</b>
Tuesday	May 13, 2025	Ottawa (Conference)
Thursday	June 19, 2025	
Thursday	September 18, 2025	
Friday	November 28, 2025	OAA Seasonal Celebration that evening at OAA



# Memorandum

**To:** Council

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Spiegel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 4.2

**From:** Melanie Walsh, Manager Finance

**Date:** September 6, 2024

**Subject:** Draft Conference Program and Schedule for 2025

**Objective:** To provide Council with the Draft Conference Program and Schedule for 2025

On August 21, a brainstorming session was held at the OAA Headquarters (and virtually over Zoom). Invited to the hybrid event were members of the ConEd Advisory Group, the Communications and Public Education Committee (CPEC), Local Architectural Societies, Council, and staff, along with the Association's conference-planning consultants, MCC Destination Management.

In addition to reviewing feedback regarding the 2024 Conference (see separate memo for information), the event served to foster early discussion and high-level exploration of next year's conference, which will be held in Ottawa from May 14–16. This meant not only considering ways to apply feedback from Niagara as lessons learned for next year, but also examining local opportunities specific to the Ottawa region, with OAA staff sharing preliminary plans for Continuing Education classroom sessions and experiential learning.

As a reminder, the theme for this multi-day in-person gathering will be *Reshaping Communities*. With programming that includes urban revitalization, adaptive reuse, inclusive design, Reconciliation, the intersection of the built and natural environments, and the architecture profession's ability to respond to new challenges, the 2025 OAA Conference aims to bring together a diverse range of architecture experts and professionals to the Westin Hotel Ottawa, also serving as the designated host hotel.

This memo provides an overview of the proposed programming/scheduling for the event, delving into certain planned special events and new features at a high level. It is important to solidify the overall program "shape" at this time so time-sensitive planning

can continue in collaboration with MCC. (Specific elements may continue to evolve as further planning takes place.)

### **The Agenda-at-a-Glance**

An Agenda-at-a-Glance is provided as an appendix. While every attempt has been made to present an accurate snapshot of the planned event, there may be further adjustments depending on the ability to organize the proposed content, associated budgets, as well as available resources and other potential limitations to determine the best outcome for the 2025 Conference. There may also be additional ideas presented over the next month or so in terms of content.

As planned, this conference will have one main hotel and one main space for classroom learning, sponsoring exhibitors, and many special events. The overall area is highly walkable, and much thought is being given to mass-yet-streamlined transportation for off-site experiential learning and special events.

This memo will now highlight some of the broader components of the schedule.

#### *Tuesday*

As usual, Council and Local Architectural Society Chair meetings will take place the day before Conference. Sponsors will also be given access to the Lounge for their setup. This Lounge will serve as a hub for the duration of the Conference, with both special events and dedicated networking/visiting opportunities throughout to ensure attendees can easily visit all the Sponsors.

#### *Wednesday*

Wednesday will feature a “prix-fixe” approach to the day’s learning in that there will be a series of consecutive large-room sessions attended by all delegates. This is a change from having “a la carte” choice with multiple simultaneous small sessions. The result is a significant cost reduction for room rates, audiovisual rentals, speaker fees, and other expenses without an impact on the amount of Structured Learning available.

This format also greatly simplifies registration and selection processes, streamlines the listings and usability of the OAA Website, and enhances the feeling of community and networking for Conference, as delegates will learn together. In addition to this onsite format, there will also be Experiential Learning sessions occurring off site. These sessions will be generally limited to approximately 50 people each session.

Based on this new format, the morning begins with a networking breakfast among the sponsors in the Lounge. The first session kicks off with a land acknowledgement and greeting from the OAA President, followed by a plenary event selected by the ConEd Advisory Group based on proposal submissions. Delegates then enjoy a break in the Lounge, followed by the first Continuing Education Panel Conversation.

For those who wish to leave the classroom style, there will be up to three half-day, and one full-day, Experiential Learning sessions.

Lunch will be structured as an “Ask the Experts” sponsored learning event: registrants will take a seat at a round table with a sponsor during the meal and have the opportunity to ask questions about current or completed projects. After an allotted period, the sponsor will move to another table, allowing individuals to speak with multiple product experts while enjoying lunch before their afternoon sessions continue. Attendees will also earn an hour of Structured Learning. This is an important programming change to ensure sponsors, who help offset a significant portion of Conference costs, continue to see value in the event.

The evening would then feature an Opening Night event that will ideally be hosted in concert with the Local Society, as this allows the Society much more visibility than Tuesday night pre-conference event before many delegates arrive. Having the OAA take the lead in the Opening Event also reduces the Local Society’s administration time required to organize a separate event as well as coordination costs that are already included in the retainer for MCC Event Planners.

#### *Thursday*

Popular and well attended in Niagara, the Breakfast and Learns will return for sponsored learning options. After breakfast, there will be the familiar format of choose-a-session for ConEd, with up to four in-classroom sessions and four Experiential Learning sessions running concurrently. Data has suggested this reduction in the number of sessions would continue to serve the learning needs of the members while keeping registration costs affordable and avoiding the need to cancel sessions that are low in registrants.

Sponsored Lunch & Learns will take place during the lunch hour, along with lunch in the Lounge with remaining sponsors, similar to 2024. In the afternoon, there is again classroom and experiential learning, with up to four in-classroom ConEd Sessions and four Experiential Learning sessions.

From 6 to 7 pm, the President's Reception would be in the Conference Lounge, among the sponsors (similar to Happy Hour the day before). This allows for showcasing of the SHIFT2025 Challenge winners via digital signs. Food and non-alcoholic drinks will be available, with a cash bar.

The SHIFT 2025 Challenge Celebration will then take place at the Westin, followed by the traditional Archifête party that features food, cash bar, and entertainment. Shuttles will transfer people to the party and back to the host hotel.

#### *Friday*

The day will start off with Breakfast and Learns, once again offering an allocation for sponsored learning options. The first quarter of the morning will provide registrants with up to four in-classroom ConEd sessions and four Experiential Learning opportunities. Similar to 2024, an in-person Closing Plenary session will conclude Conference, running from 10:30 am to 12:30 pm. The event will also provide recognition of new Honorary Members and Past Councillors, alongside a learning session selected by the ConEd Advisory Group based on proposals submitted.

Conference concludes at 12:30 pm to allow for those travelling to start their journey home.

*Additional Items of Note*

This Conference program has been designed to achieve a break-even budget. Historically, the event has been subsidized by the operational budget (member fees) and the budget now reflects a Full Conference Package at \$1,275 for members and \$318.75 for OAA Intern Architects or Student Associates. Based on conferences for similar organizations, the OAA has historically had lower package prices—these new fees now reflect a similar cost to what other associations charge.

As discussed at the August meeting, the OAA will no longer run recreational tours. In 2024, only 23 individuals attended these non-educational tours, which cost more than \$120 per person to run, while only charging \$50 to attend. Given the diversity of Experiential Learning and the fact they are designed not only for members, but the wider public as well, these sessions now provide an opportunity for non-members to continue to experience Conference alongside those in the profession.

Overall, there will be up to 20.0 available Structured Learning hours for individuals attending the Conference.

The following list shows attendance of the Conference over the last decade, illustrating the impact on in-person events post-COVID 19:

2024	Niagara Falls	711
2023	Sudbury	331
2022	Toronto/Hybrid	653
2021	Virtual	1056
2020	Cancelled	
2019	Quebec City	653
2018	Toronto	1,458
2017	Ottawa (RAIC)	1,623
2016	Toronto	2,117
2015	Hamilton	1,290
2014	Montreal	967

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**Action**

*It was moved by... and seconded by... that the draft program and schedule for 2025 OAA Conference be approved, while recognizing elements may evolve as further planning takes place.*

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**Attachments**

OAA Conference 2025 draft program and schedule

	WEDNESDAY, MAY 14		THURSDAY, MAY 15				FRIDAY, MAY 16						
BREAKFAST	NETWORKING BREAKFAST CONFERENCE LOUNGE   7:00 AM TO 8:30 AM		LL02/LL03/LL04/LL05 SPONSORED LEARNING VARIOUS SESSIONS WITH BREAKFAST   7:15 AM TO 8:15 AM		NETWORKING BREAKFAST CONFERENCE LOUNGE   7:00 AM TO 8:30 AM		LL10/LL11/LL12/LL13 SPONSORED LEARNING 4TH FLOOR   7:15 AM TO 8:15 AM		NETWORKING BREAKFAST CONFERENCE LOUNGE   7:00 AM TO 8:30 AM				
MORNING	SP02   OPENING PLENARY WITH WELCOME REMARKS & LAND ACKNOWLEDGEMENT CONFEDERATION   8:30 TO 10:15 AM		CE04 CONFEDERATION 8:30 TO 10:00 AM	CE05 4TH FLOOR BREAKOUT 8:30 TO 10:00 AM	CE06 4TH FLOOR BREAKOUT 8:30 TO 10:00 AM	CE07 4TH FLOOR BREAKOUT 8:30 TO 10:00 AM	EL05/EL06/ EL07/EL08 EXPERIENTIAL LEARNING (4 HALF-DAY) OFFSITE DEPARTING FROM OAA HUB IN CONFERENCE LOUNGE 8:30 AM TO 12:30 PM		CE20 CONFEDERATION 8:30 TO 10:00 AM	CE21 4TH FLOOR BREAKOUT 8:30 TO 10:00 AM	CE22 4TH FLOOR BREAKOUT 8:30 TO 10:00 AM	CE23 4TH FLOOR BREAKOUT 8:30 TO 10:00 AM	EL13/EL14/ EL15/EL16 EXPERIENTIAL LEARNING (4 HALF-DAY) OFFSITE DEPARTING FROM OAA HUB IN CONFERENCE LOUNGE   8:30 AM TO 12:30 PM
BREAK	NETWORKING BREAK   VISIT SPONSOR DISPLAYS CONFERENCE LOUNGE   10:15 TO 10:45 AM		NETWORKING BREAK   VISIT SPONSOR DISPLAYS CONFERENCE LOUNGE   10:00 TO 10:30 AM				NETWORKING BREAK   VISIT SPONSOR DISPLAYS CONFERENCE LOUNGE   10:00 TO 10:30 AM						
MORNING	CE01   CONTINUING EDUCATION PANEL CONVERSATION CONFEDERATION   8:30 TO 10:15 AM		CE08 CONFEDERATION 10:30 AM TO 12:00 PM	CE09 4TH FLOOR BREAKOUT 10:30 AM TO 12:00 PM	CE10 4TH FLOOR BREAKOUT 10:30 AM TO 12:00 PM	CE11 4TH FLOOR BREAKOUT 10:30 AM TO 12:00 PM	SP07 RECOGNITION & CLOSING PLENARY SESSION WITH CLOSING REMARKS CONFEDERATION   10:30 AM TO 12:30 PM						
	VISIT SPONSOR DISPLAYS   12:15 TO 12:30 PM		VISIT SPONSOR DISPLAYS   12:15 TO 12:30 PM										
LUNCH	LL01   ASK THE EXPERTS - SPONSORED LEARNING CONFERENCE LOUNGE   12:30 TO 1:30 PM		LL06/LL07/LL08/LL09 SPONSORED LEARNING 4TH FLOOR   12:30 TO 1:30 PM		SP04   LUNCH CONFERENCE LOUNGE 12:30 TO 1:30 PM								
	VISIT SPONSOR DISPLAYS   1:30 PM TO 2:00 PM		VISIT SPONSOR DISPLAYS   1:30 PM TO 2:00 PM										
AFTERNOON	CE02   CONTINUING EDUCATION PANEL CONVERSATION CONFEDERATION   2:00 TO 3:30 PM	EL02/EL03/EL04 EXPERIENTIAL LEARNING (4 HALF-DAY) OFFSITE DEPARTING FROM OAA HUB IN CONFERENCE LOUNGE 2:00 TO 5:30 PM	CE12 CONFEDERATION 2:00 TO 3:30 PM	CE13 4TH FLOOR BREAKOUT 2:00 TO 3:30 PM	CE14 4TH FLOOR BREAKOUT 2:00 TO 3:30 PM	CE15 4TH FLOOR BREAKOUT 2:00 TO 3:30 PM	EL09/EL10/ EL11/EL12 EXPERIENTIAL LEARNING (4 HALF-DAY) OFFSITE DEPARTING FROM OAA HUB IN CONFERENCE LOUNGE 2:00 TO 5:30 PM						
BREAK	NETWORKING BREAK VISIT SPONSOR DISPLAYS CONFERENCE LOUNGE   3:30 TO 4:00 PM		NETWORKING BREAK   VISIT SPONSOR DISPLAYS CONFERENCE LOUNGE   3:30 TO 4:00 PM										
AFTERNOON	CE03   CONTINUING EDUCATION PANEL CONVERSATION CONFEDERATION   4:00 TO 5:30 PM						CE16 CONFEDERATION 4:00 TO 5:30 PM	CE17 4TH FLOOR BREAKOUT 4:00 TO 5:30 PM	CE18 4TH FLOOR BREAKOUT 4:00 TO 5:30 PM	CE19 4TH FLOOR BREAKOUT 4:00 TO 5:30 PM			
	HAPPY HOUR. CONFERENCE LOUNGE   5:30 TO 6:30 PM		SP05   PRESIDENT'S RECEPTION. LOCATION: CONFERENCE LOUNGE    5:30 TO 6:30 PM										
EVENING	SP03   OPENING NIGHT OPENING HOSTED BY SOCIETY LOCATION TBD   7:30 TO 10:30 PM		SP05   SHIFT CHALLENGE. CONFEDERATION   6:30 TO 7:30 PM										
			SP06   ARCHIFÊTE. LOCATION TBD   7:30 TO 11:00 PM										

SUMMARY OF PROGRAMMING OAA CONFERENCE 2025   OTTAWA, ONTARIO				
SESSION TYPE	WEDNESDAY	THURSDAY	FRIDAY	TOTAL BY TYPE
CONTINUING EDUCATION	(3) GENERAL SESSIONS LARGE ROOM GATHERING & LEARNING	(16) CONCURRENT SESSIONS (1) LARGE ROOM + (3) CONCURRENT SESSIONS 4 PER TIME SLOT (8 IN MORNING + 8 IN AFTERNOON)	(4) CONCURRENT SESSIONS (1) LARGE ROOM + (3) CONCURRENT SESSIONS IN AM	23
EXPERIENTIAL LEARNING	(1) FULL DAY EXPERIENTIAL LEARNING OPENING PLENARY  (3) HALF-DAY EXPERIENTIAL LEARNING AFTERNOON ONLY CONCURRENT	(8) HALF-DAY EXPERIENTIAL LEARNING MORNING AND AFTERNOON CONCURRENT	(4) HALF-DAY EXPERIENTIAL LEARNING MORNING ONLY CONCURRENT	16
SPONSORED GROUP LEARNING	(1) SPONSORED LEARNING ASK THE EXPERTS EVENT	—	—	1
SPONSORED CONCURRENT SESSIONS	—	(8) SPONSORED LEARNING 4 BREAKFAST 4 LUNCH	(4) SPONSORED LEARNING 4 BREAKFAST	12
SPECIAL EVENT EXTENDING CREDITS	OPENING PLENARY	SHIFT CHALLENGE	RECOGNITION & CLOSING PLENARY SESSION	3
SPECIAL EVENT SOCIAL - NOT CREDITED	HAPPY HOUR & OPENING NIGHT HOSTED BY SOCIETY	LUNCH PRESIDENT'S RECEPTION & ARCHIFÊTE	—	4
TOTAL CREDIT PER DAY	7	9	4	
TOTAL	20			



# Memorandum

**To: Council**

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Spiegel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 4.3

**From:** Kristiana Schuhmann, Vice President & PRC Chair

**Date:** September 6, 2024

**Subject:** Updates to OAA-OGCA Document No. 100-2018 (OAA/OGCA Take-Over Procedures (CA)).

**Objective:** To review and endorse OAA-OGCA Document 100-2024 version & the sunseting of the Guide to Project Close-out (dated November 2010).

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## Background

OAA/OGCA Joint Bulletins are accessed via both the OAA Website and the OGCA Website, and although written primarily for architects & contractors, they are a resource for clients, lawyers, and others in the design & construction industry.

The purpose of [OAA/OGCA Document No. 100-2018](#) (For Use on Projects Under the *Construction Act, RSO. 1990, c C.30*) – also referred as OAA/OGCA Take Over Procedures (CA) - is to recommend standard procedures to facilitate the closing stages of a construction contract and the take-over of the project by the Owner from the Contractor. These procedures were prepared jointly by the Ontario Association of Architects and the Ontario General Contractors Association (the "Associations") and have been approved by their governing bodies. This document is meant to be an educational treatise for all the stakeholders in the project (including the Owner, Consultants, Contractors and Subcontractors); however, the Associations recommend the use of these procedures by their respective members and Owners/clients. The Associations also recommend that these procedures be coordinated with and form a part of the contract documents from the outset by reference to Document No. 100.

Document 100 has existed for many years, and has come to be relied on in the construction industry in Ontario. More recently, it was revised in 2007 and then updated in 2018 and 2019 to reflect the provisions of the *Construction Act*. However, the Guide to

Project Closeout Procedures was last updated in 2010 and does not reflect changes to applicable law, CCDC contracts, or industry practice which have occurred since.

This latest update to Document 100 was prompted by changes to the CCDC contracts, particularly the introduction of the Ready-for-Takeover concept, the need to clarify that an application for release of holdback was not subject to the prompt payment provisions of the *Construction Act*, and because of concerns that some of the wording had not kept pace with current industry practices.

## Overview of the Process

As part of this maintenance project, the OAA-OGCA liaison group - formed by members of OAA Executive Committee and Directors of the OGCA - identified the need to review both the OAA-OGCA Document 100 – Take-Over Procedures as well as the [OAA/OGCA A Guide to Project CloseOut](#). This latter document was designed to be used as a reference in combination with OAA/OGCA Document No.100. However, it has not been maintained over the years. There was preliminary discussion about leveraging some content/concepts and transferring them over to enhance the updated Document 100.

The first draft of the updates to Document 100 was created by OAA's Practice Advisory Services (PAS) staff in early 2023. The draft was later submitted to OGCA for review and comment. The response was discussed with OGCA. The resulting draft was reviewed by legal counsel. Most legal comments and issues were resolved by discussion with OGCA.

Throughout the development of the new 2024 version, the following stakeholders were consulted for input/feedback: Practice Resources Committee (PRC), members of the OGCA Board and the President of the OGCA, and external legal counsel. Support was provided by the OAA's Communications team.

As it pertains to maintenance consideration, OAA-OGCA liaison group suggested to withdraw the Guide to Project Close-out, but to keep graphic timelines and create a new appendix to Document 100. (refer to Attachment 1)

## Highlights of proposed changes to Document 100 and New Appendices (see Attachments 1, 2 and 3)

Here are the main proposed updates to Document 100:

- Formatting Changes – logos, expanded background section, new Appendices C and D (see below)
- Technical Changes – list and add short explanation, refer to redline mark-up
- Definitions were added for “Ready-for-Takeover” from the CCDC contracts and “ready for use” from the CA.
- Clarification was added that Document 100 does not address annual or phased release of holdback scenarios.
- Clarification was added that applications for release of holdback are not subject to the prompt payment provisions of the CA.

- Wording around Substantial Performance was added to clarify that the application for determination of substantial performance was not mandatory, but at the contractor's discretion
- References to "Consultant and/or payment certifier" were changed to avoid confusion about the role of the Consultant when there is a third party payment certifier.
- References to "60 day lien period" were changed to more accurately reflect that it is a "60 day lien expiry period" since liens can be initiated at any time after the due date of the first payment, not just during the 60 day period. Further, it is noted that the 60 day lien expiry period may be extended if a lien is filed.
- The "Determination of Ready-for-Takeover" was inserted as Stage 6.
- Where appropriate, the CA concept of "deemed completion" has replaced the term "completion".
- The documentation to be submitted prior to the release of holdback is clarified in 7.1(d).
- The wording in, and title of, Stage 8B has been changed to reflect that application for release of holdback is not a payment application subject to the prompt payment provisions of the CA.
- To reflect current usage and practice, "warranty-guarantee period" has been changed to "warranty period"
- Appendix C has been added as a template for an architect's "Statement of Determination of Ready-for-Takeover".

#### Introduction of New Appendix D: Take-over Time Lines

This new appendix consists of two graphics:

- Time Chart for Date of Substantial Performance of the Contract
- Time Chart for Date of Deemed Completion of the Contract (post Substantial Performance)

Both have been adapted from the OAA-OGCA publication "A Guide to Project Closeout Procedures" which was published in November 2010 and which is intended to be withdrawn.

Following the August meeting of PRC, the committee is recommending that Council endorse this updated document.

#### **Next Steps – Following Council Meeting**

PAS to work with OAA Communications to coordinate messaging with the OGCA team in regards to launch of the document, update of the OAA website, make final document edits, announcements in OAA news, social media, etc. Here are key items:

- Leveraging the Practice Advisory Newsletter: Present the new version of the supplementary conditions via the fall issue in November 2024.
- Transition period and Withdrawing of existing documents: Since the 2024 version is catching up with current practice and should be referenced in contract documents upon its release, there is no reason for a lengthy transition period. It is suggested that the pending removal of the old version from the website be announced to members, one month before it is removed, to allow practices to

download a copy of the version reissued in 2019 if they have not already done so.

- Impact on other OAA resources (such as the contracts, Practice Tips, etc): There is no need to revise the OAA contracts or guides as any references are to the “latest version of Document 100”.
- Update to the Admission Course’s Required Reading List: PAS is working with Continuing Education team to update the required reading list for 2024-2025.

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## Action

Council to consider the following motion

*It was moved by Schuhmann and second by.... That Council to endorse the new OAA-OGCA Document No.100-2024 as presented to Council on September 19, 2024; and, direct the withdrawal of OAA/OGCA Document No.100-2018 (as reissued 2019) and A Guide to Project Closeout Procedures (Dated November 2010).*

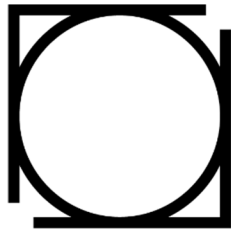
---

## Attachments

- Attachment 1: Final DRAFT OAA-OGCA Document No.100-2024,  
Attachment 2: OAA/OGCA Document No.100-2018 – Redline version  
Attachment 3: A Guide to Project Closeout Procedures

# OAA-OGCA Take-Over Procedures

For Use on Projects Under the *Construction Act*, R.S.O. 1990, c.C.30



Ontario Association  
of Architects



Recommended procedures concerning  
substantial performance, ready-for-takeover,  
and completion take-over of construction projects

**OAA-OGCA Document 100-2024**

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permission from both the OAA  
and the OGCA.*

September 15, 2024

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A vertical bar in the right margin indicates a paragraph which has been changed for this issue.

Enquiries should be directed to:

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# Recommended Procedures Concerning Substantial Performance, Ready-for-Takeover, and Completion of Construction Projects

SHORT TITLE: This Document may be referred to as "OAA-OGCA TAKE-OVER PROCEDURES (CA)" or "Document 100-2024"

## Application

This document covers procedures for projects being built under the *Construction Act*.

## Introduction

The purpose of this document is to recommend standard procedures to facilitate the closing stages of a construction *contract* and the take-over of the project by the Owner from the Contractor.

These procedures have been prepared jointly by the Ontario Association of Architects and the Ontario General Contractors Association (the "Associations"), have been reviewed by legal counsel, and subsequently approved by the Associations' governing bodies. This document is intended as an educational guideline for all the stakeholders in the project including the Owner, Consultants, Contractors and Subcontractors. The Associations recommend these procedures be used by their respective members and Owners/Clients.

The Guide to Project Close-out Procedures was created in 2010 to be used with the 2007 version of Document 100. It was not updated to reflect the requirements of the Construction Act when Document 100 was. The OAA and OGCA decided not to update it for this 2024 version of Document 100. The Guide is no longer available and should be considered obsolete. However, two of the timelines from the Guide were deemed helpful, and have been included herein as Appendices.

The Associations also recommend that these procedures be coordinated with and form a part of the construction *contract* documents from the outset by reference to Document 100-2024.

Where a *contract* is in progress which does not provide such procedures, the Associations recommend that the construction *contract* be amended by agreement between the contracting parties to include these procedures to facilitate the orderly take-over of the project in the interests of all stakeholders.

## General Notes

The procedures outlined herein have been prepared in relation to the *Construction Act*, hereinafter referred to as the C.A.<sup>1</sup>, and apply to all construction *contracts*. These procedures are therefore primarily applicable to Ontario projects where the Construction Act applies, but they may be adapted for use on projects which fall outside these bounds.

The concept of "Ready-for-Takeover" as pioneered in CCDC 2-2020 has been included herein for the first time. Ready-for-Takeover is being added to other CCDC documents as they are updated.

In most cases, the architect is the Consultant identified in the CCDC contracts, and in most cases, the Consultant is the *payment certifier*, but the *payment certifier* may also be a third party.

---

<sup>1</sup> All references are to the Construction Act, R.S.O. 1990, c C.30 and the Regulations thereunder as amended as of the date of publication.

## Definitions

Except for Owner/Client, Consultant, Contractor, and Subcontractor which are defined in the *contract* as appropriate, and Ready for Use, all other terms and concepts used in this document that are defined in the C.A. are italicized for convenience.

### Construction Trade Newspaper

The definition of the term “*construction trade newspaper*” appears in Section 1 of O. Reg. 304/18 to the C.A., which reads as follows:

““construction trade newspaper” means a newspaper,

- (a) that is published either in paper format with circulation generally throughout Ontario or in electronic format in Ontario,
- (b) that is published at least daily on all days other than Saturdays and holidays,
- (c) in which calls for tender on construction contracts are customarily published, and
- (d) that is primarily devoted to the publication of matters of concern to the construction industry.”

### Contract

The definition of the term “*contract*” appears in Section 1(1) of the C.A., which reads as follows:

““contract” means the contract between the owner and the contractor, and includes any amendment to that contract;”

### Contract Price

The definition of the term “*price*” appears in Section 1(1) of the C.A., which reads as follows:

““price” means,

- (a) the contract or subcontract price,
  - (i) agreed on between the parties, or
  - (ii) if no specific price has been agreed on between them, the actual market value of the services or materials that have been supplied to the improvement under the contract or subcontract, and
- (b) any direct costs incurred as a result of an extension of the duration of the supply of services or materials to the improvement for which the contractor or subcontractor, as the case may be, is not responsible;”

### Payment Certifier

The definition of the term “*payment certifier*” appears in Section 1(1) of the C.A., which reads as follows:

““payment certifier” means an architect, engineer or any other person upon whose certificate payments are made under a contract or subcontract.”

For convenience, since it is a new term, the definition of Ready-for-Takeover follows:

### Ready-for-Takeover

The definition of the term “Ready-for-Takeover” appears in the DEFINITIONS section of the CCDC 2-2020 contract, which reads as follows:

““Ready-for-Takeover” shall have been attained when the conditions set out in paragraph 12.1.1 of GC 12.1 – READY-FOR-TAKEOVER have been met, as verified by the Consultant pursuant to paragraph 12.1.4.2 of GC 12.1 – READY-FOR-TAKEOVER.”

### Ready for Use

The term “ready for use” appears in subsection (1) of Section 2 of the C.A. as part of the definition of *substantial performance*, but is not itself explicitly defined.

Ready for use is a concept used in determining whether substantial performance has been reached. Its meaning depends on what is being constructed under the contract in question. It may be the entire project under a general contract or only one trade’s contract work under a construction management arrangement. Ready for use for the purposes intended is normally when it is ready for the owner to occupy and fit out.

In the case of a hospital, for instance, ready for use is not when it is ready for patients to move in or clinical procedures to begin, rather, it is when it is ready for the hospital to occupy and make ready for them to initiate their fit out and training, etc. If it is the whole project, then the test is usually met once the new space is ready for occupancy. If it is only a trade contract, then the test is generally whether the trade’s work is functional (e.g. mechanical) or ready for the next trade to start or continue their work.

If the contract is for a shell only, then ready for use is typically when the shell contract is close enough to completion that the tenant’s contractor can start the tenant fit-out, whether or not the fit-out actually starts.

### Significant Statutory Requirements

- a) The concept of “*basic holdback*” is set out in Section 22(1) of the C.A. which reads as follows:

“22 (1) Each payer upon a contract or subcontract under which a lien may arise shall retain a holdback equal to 10 per cent of the price of the services or materials as they are actually supplied under the contract or subcontract until all liens that may be claimed against the holdback have expired or been satisfied, discharged or otherwise provided for under this Act.”
- b) The concept of “*substantial performance*” and “*substantially performed*” is set out in subsection (1) of Section 2 of the C.A. which reads as follows:

“(1) For the purposes of this Act, a contract is substantially performed,

  - (a) when the improvement to be made under that contract or a substantial part thereof is ready for use or is being used for the purposes intended; and
  - (b) when the improvement to be made under that contract is capable of completion or, where there is a known defect, correction, at a cost of not more than,
    - (i) 3 per cent of the first \$1,000,000 of the contract price,
    - (ii) 2 per cent of the next \$1,000,000 of the contract price, and
    - (iii) 1 per cent of the balance of the contract price.”

- c) Attention is drawn to subsection (2) of Section 2 of the C.A. which reads as follows:
- "(2) For the purposes of this Act, where the improvement or a substantial part thereof is ready for use or is being used for the purposes intended and the owner and the contractor agree not to complete the improvement expeditiously, the price of the services or materials remaining to be supplied and required to complete the improvement shall be deducted from the contract price in determining substantial performance."
- d) The concept of "separate holdback for finishing work" is set out in Section 22(2) of the C.A. which reads as follows:
- "22 (2) Where the contract has been certified or declared to be substantially performed but services or materials remain to be supplied to complete the contract, the payer upon the contract, or a subcontract, under which a lien may arise shall retain, from the date certified or declared to be the date of substantial performance of the contract, a separate holdback equal to 10 per cent of the price of the remaining services or materials as they are actually supplied under the contract or subcontract, until all liens that may be claimed against the holdback have expired or been satisfied, discharged or otherwise provided for under this Act."
- e) The concept of "completed" is set out in subsection (3) of Section 2 of the C.A. which reads as follows:
- "(3) For the purposes of this Act, a contract shall be deemed to be completed and services or materials shall be deemed to be last supplied to the improvement when the price of completion, correction of a known defect or last supply is not more than the lesser of,
- (a) 1 per cent of the contract price; and
  - (b) \$5,000."
- Although the term does not appear in the C.A. this concept is commonly referred to as "deemed completion".
- f) Multiple improvements under a *contract* are considered in Section 2 of the C.A. which reads as follows:
- "(4) If more than one improvement is to be made under a contract and each of the improvements is to lands that are not contiguous, then, if the contract so provides, each improvement is deemed for the purposes of this section to be under a separate contract."
- g) Attention is drawn to Sections 26.1 and 26.2 in Part IV of the C.A., which make provision for annual and phased release of holdback. This document does not go into detail about the processes for annual or phased release of holdback. Where annual or phased release is implemented under a contract, the parties should note that immediately following each instance of such annual or phased release, the amount of the holdback against which liens can be claimed is reduced accordingly.

## **STAGE 1 CONTRACT SUBMISSIONS**

- 1.1 Submit all documentation required under the *contract*.

## **SUBSTANTIAL PERFORMANCE**

### **STAGE 2 CONTRACTOR'S INSPECTION FOR SUBSTANTIAL PERFORMANCE**

- 2.1 When the Contractor is of the opinion that the requirements of *substantial performance* as defined in the C.A. and as set out above will be met, the Contractor shall give written notice of this a minimum of 60 days prior to the anticipated date of substantial performance, or as otherwise provided in the contract, to the Owner, Consultant and/or *payment certifier* for information only.

- 2.2 When the Contractor is of the opinion that the requirements of *substantial performance* as defined in the C.A. and as set out above have been met, the Contractor shall make arrangements for an inspection of the Work to be undertaken at the earliest opportunity, giving written notice of this to the Owner, Consultant and/or *payment certifier* for information only.
- 2.3 The inspection team shall be comprised of:
- (a) the Contractor and/or the Contractor's representative(s);
  - (b) the prime mechanical and electrical Subcontractors and/or their representative(s); and
  - (c) any other Subcontractors and/or Subcontractors' representative(s) whose participation may be required by the Contractor in order to fully determine the Work to be completed.
- 2.4 Upon completion of this inspection a list of all uncompleted and unsatisfactory work which is identified during the inspection shall be prepared by the Contractor and shall be issued to all members of the inspection team as well as the Consultant and/or *payment certifier*.
- 2.5 Contractors may elect not to go through Stages 2 and 3 for *substantial performance* certification and publication of same, and apply for *contract* completion as defined in the C.A. and as set out above. They shall proceed to Stage 6 provided the requirements under 3.2(b) have been satisfied; and in this case there shall be only one lien expiry period and, consequently, only one certification for *holdback* release (as there will be no *separate holdback for finishing work*). Where no certificate of substantial performance is obtained and published, certification for the purpose of the release of the *basic holdback* shall occur upon the conclusion of the 60 day lien expiry period, barring any liens, which commences on the day the *contract* is deemed completed by the Consultant and/or *payment certifier* (or Owner and Contractor jointly). This section applies in circumstances where the *contract* has not been abandoned or terminated earlier.

### **STAGE 3 CONTRACTOR'S APPLICATION FOR A CERTIFICATE OF SUBSTANTIAL PERFORMANCE**

- 3.1 When the Contractor has carried out the steps in Stage 2 and has determined that the requirements for *substantial performance* of the *contract* have been met, the Contractor may, subject to the requirements of the contract, then make a written application to the Consultant and/or *payment certifier* for a certificate of substantial performance. If there is no *payment certifier*, at the request of the Contractor, the Owner and the Contractor shall make the determination jointly and shall both sign the certificate of substantial performance.
- 3.2 This application shall include:
- (a) A statement to the Owner through the Consultant and/or *payment certifier* to the effect that:
    - (i) the *contract* is *substantially performed*, and
    - (ii) the phase of the performance of the balance of the *contract* is in process and completion is scheduled for the ..... day of ....., 20..... Where the balance of the *contract*, or a part or parts thereof, cannot be performed forthwith, as has been agreed by the Owner and the Contractor, the Contractor's statement shall contain a completion date for each phase of the balance of the *contract*.
  - (b) The submission of all:
    - (i) documentation required under the *contract*, and

- (ii) all maintenance materials required under the *contract*, including an acknowledgement form to be signed by the Owner listing the materials provided.
  - (c) A statement of outstanding work for completion, with the cost values of:
    - (i) work to be completed including correction of unsatisfactory work;
    - (ii) outstanding items referred to in 3.2(b); and
    - (iii) work which the Owner and the Contractor agree in writing is to be deferred to a later date.
  - (d) An application for release of holdback showing the amount of *basic holdback* monies due for release and payment following the end of the lien expiry period under the C.A. after the issuance and publication of the certificate of substantial performance.
  - (e) A Statutory Declaration and Workplace Safety & Insurance Board (WSIB) Certificate of Clearance are required before the payment covering the release of *basic holdback* can be released.
- 3.3
- (a) Where there is a *payment certifier*, within 10 calendar days, or as stipulated otherwise in the *contract* documents, of the receipt of the Contractor's completed application for a certificate of substantial performance, the *payment certifier* shall carry out a review and assessment of the work, to determine whether the *contract* has been *substantially performed*. The Owner may take part in the review but the determination as to whether the *contract* has been *substantially performed* is to be made by the *payment certifier*. Where there is no *payment certifier*, subject to the provisions of the *contract*, the Owner and Contractor shall jointly make the determination.
  - (b) Within 7 calendar days, or as stipulated otherwise in the *contract* documents, of the Consultant's and/or *payment certifier's* review and assessment, the *payment certifier* shall notify the Contractor of its determination as to whether or not the *contract* has been *substantially performed*. In the event that the *payment certifier* determines that the *contract* has not been *substantially performed*, the notice shall also provide the Contractor with a detailed explanation as to why such determination has been made.
  - (c) In the event that the Contractor's application for a certificate of substantial performance is not accepted by the *payment certifier*, the Contractor shall complete the work necessary to achieve *substantial performance* of the *contract* as previously defined and the Contractor shall submit a subsequent application for a certificate of substantial performance thereafter.
- 3.4
- The Contractor's application for a certificate of substantial performance and the Contractor's application for the release of *basic holdback* shall be separate from but may coincide with the applications for regular monthly progress payments and the latter shall continue to be made in the ordinary course throughout the duration of the *contract*.

## **STAGE 4 CERTIFICATE OF SUBSTANTIAL PERFORMANCE**

- 4.1 If the Consultant and/or *payment certifier* determines that the *contract* has been *substantially performed*, the Consultant and/or *payment certifier* (or where there is no *payment certifier*, the Owner and Contractor jointly) shall certify the *substantial performance* of the *contract* by preparing and signing a certificate in Form 9 prescribed by the C.A., a copy of which may be found in Appendix A hereto. The Consultant and/or *payment certifier* or the Owner and Contractor jointly, as the case may be, shall set out in the certificate the date on which the *contract* was *substantially performed*. The Consultant and/or *payment certifier* shall give a copy of the certificate to the Owner and to the Contractor within 7 days of signing it.
- 4.2 The Contractor shall publish a copy of the certificate of substantial performance once in a *construction trade newspaper* and shall provide the *payment certifier* with proof of the date of publication. The day following the date of publication shall be the date of commencement of the 60 day lien expiry period prior to release of the *basic holdback* monies.

- 4.3 The Contractor's and Contractor's Subcontractors' forces shall continue to work towards Ready-for-Takeover (where applicable) and completion during the 60 day period mentioned in Stage 4.2.

(NOTE: See Appendix A hereto for sample of the prescribed form of the certificate of substantial performance.)

## STAGE 5 CERTIFICATE FOR RELEASE OF BASIC HOLDBACK MONIES

- 5.1 The *payment certifier* shall prepare the certificate for release of the *basic holdback* monies and promptly upon receipt of the application for payment and the documentation as listed in 4.2 and 3.2(d) above, required for release of these monies, issue the certificate to the Owner, with a copy to the Contractor. The certificate shall be dated for payment one day after the date on which the 60 day lien expiry period concludes.
- 5.2 Upon issuing the certificate for release of the *basic holdback* monies, the *payment certifier* shall advise the Owner to verify that no liens have been preserved as at the end of the 60-day lien expiry period.
- 5.3 The *payment certifier* shall simultaneously notify the Owner that, provided no liens exist, release of *basic holdback* shall be due and payable one day after the date on which the 60 day lien expiry period concludes.
- 5.4 The *payment certifier's* certificate for the release of the *basic holdback* monies shall be in the amount shown in the Contractor's application, as approved by the *payment certifier*, for the certificate of substantial performance.
- 5.5 Before the expiry of the 60-day period, the *payment certifier* shall advise the Owner and the Contractor to review all forms of insurance to ensure adequate coverage for all parties. Subject to the provisions of the *contract*, release of statutory holdback is not contingent upon review of insurance coverage.
- 5.6 The release of any monies which are due and payable after the release of the *basic holdback* shall occur in accordance with the terms of the *contract* and the provisions of the C.A. As provided in some contracts, the Owner may be asked by the Contractor to place the *basic holdback* in a separate bank account in the joint names of the Owner and the Contractor 10 days prior to the expiry of the 60-day period unless previously placed in a separate trust account.
- 5.7 Notwithstanding the references to a "60 day" lien expiry period in the provisions of Stage 4 and Stage 5 above, the application of section 34(10) of the C.A. may lead to the extension of the lien expiry period for up to an additional 45 days beyond the initial 60-day period with respect to one or more lien claimants on a project. Section 34(10) says that if the matter that is the subject of a lien that has not expired is also a matter that is the subject of an adjudication under the C.A., the lien is deemed to have expired on the later of the date on which the lien would expire under the lien expiry provisions of the C.A. (i.e. 60 days) and the conclusion of the 45-day period next following the adjudicator's receipt of the documents required to be delivered to the adjudicator under the C.A.'s adjudication provisions

If, for example, the prospective lien claimant commences an adjudication immediately prior to the expiry of the 60-day lien period, the prospective lien claimant will enjoy an extension of the lien period for the additional 45 days, for a total lien expiry period of 105 days. Knowing when the lien period is expiring is important for purposes of holdback release. Accordingly, Contractor shall, within thirty (30) days following the publication of the certificate of substantial performance, and again within thirty (30) days following the date the *contract* is deemed completed, provide written confirmation to the Owner that: (a) the Contractor is not aware of any ongoing or impending adjudications to which it or any of its Subcontractors (of any tier) are party; and (b) the Contractor has made reasonable enquiries with its Subcontractors to this effect in order to support this conclusion.

## STAGE 6 DETERMINATION OF READY-FOR-TAKEOVER

- 6.1 The provisions of this stage shall apply if the *contract* contemplates Ready-for-Takeover, such as is the case in the CCDC 2-2020 or if Ready-for-Takeover has been added to the *contract* through supplementary conditions.
- 6.2 The prerequisites to attaining Ready-for-Takeover are as defined in the *contract*.
- 6.3 When the Contractor considers that the prerequisites have been met and the Work is Ready-for-Takeover, the Contractor shall deliver to the Consultant and to the Owner for review a comprehensive list of items to be completed or corrected, together with a written application for determination of Ready-for-Takeover.
- 6.4 After receipt of the written application for determination of Ready-for-Takeover, the Consultant will review the Work to verify the validity of the application and shall promptly, and in any event, no later than 10 calendar days after receipt of the Contractor's list and application:
- .1 advise the Contractor in writing that the Work is not Ready-for-Takeover and give reasons why, or
  - .2 confirm the date of Ready-for-Takeover in writing to each of the Owner and the Contractor.
- 6.5 Immediately following the confirmation of the date of Ready-for-Takeover, the Contractor, in consultation with the Consultant, shall establish a reasonable date for finishing the Work.
- 6.6 The Contractor's warranty period under the *contract* is typically one year from the date when Ready-for-Takeover has been attained or as stipulated otherwise in the *contract* documents.

## STAGE 7 DEEMED COMPLETION OF THE CONTRACT

- 7.1 (a) When the Contractor is satisfied that the *contract* is *completed* as defined in subsection (3) of Section 2 of the C.A., and after making an inspection, the Contractor shall forward the inspection report and make a written request to the Consultant and/or *payment certifier* for a review and assessment of the Work. The Consultant and/or *payment certifier* shall, in turn, notify the Owner of the Contractor's request. The Contractor's request shall include a statement as to the amount of monies for:
- I. the *separate holdback for finishing work* due for release and payment upon expiry of the 60-day period from the date the *contract* is deemed *completed* – where basic holdback has already been released, or
  - II. the full amount of the *holdback* for the Work due for release and payment upon expiry of the 60-day period from the date the *contract* is deemed *completed*.

This review and assessment by the Consultant and/or *payment certifier* shall be carried out within 10 calendar days of the Contractor's request, or as stipulated otherwise in the *contract* documents, and shall constitute the review and assessment which is a precondition to the issuance of the statement of deemed completion and issuance of the certificate for payment for the Work performed to the date of the deemed completion.

- (b) The Contractor shall submit to the Consultant for review and approval the balance of the documents required under Stage 1.
- (c) The Contractor shall submit to the *payment certifier* an application for release of the statutory holdback as yet unpaid.
- (d) Before the payment covering the release of the statutory holdback as yet unpaid can be released, the Contractor shall submit with the application for release a Workplace Safety & Insurance Board (WSIB) Certificate of Clearance and a Statutory Declaration declaring that all accounts for labour, subcontracts, products, services, and construction machinery and equipment which have been incurred directly by the Contractor in the performance of the work have been paid up to and including the latest progress payment received (except for (1) holdback monies properly retained,



(2) payments deferred by agreement, or (3) payment withheld by reason of legitimate dispute which has been identified to the party or parties from whom payment has been withheld).

- 7.2 The final review of the Work for the purpose of issuing a statement of deemed completion shall be conducted by:
- (a) the Consultant and/or *payment certifier* and such Consultants as they may require;
  - (b) the Contractor, and any Subcontractors deemed necessary by the Contractor; and
  - (c) the Owner, at their option.
- 7.3 Within 7 calendar days of the review and assessment, or as stipulated otherwise in the *contract* documents, the *payment certifier* shall notify the Contractor of approval of the Contractor's application by issuance of a statement of deemed completion which will establish the date of deemed completion. In the event that the *payment certifier* does not determine the *contract* to be deemed complete, the *payment certifier* shall so notify the Contractor in writing within 7 calendar days, or as stipulated otherwise in the *contract* documents, of the review and shall provide to the Contractor in writing the reasons for such determination.
- 7.4 If, as a result of its review and assessment of the Work, the Consultant and/or *payment certifier* determines that there are deficiencies in the Work performed by the Contractor or its Subcontractors, the Consultant and/or *payment certifier* shall provide to the Contractor a list of such deficiencies. In the event that the Contractor's application for a statement of deemed completion is accepted, such list shall constitute the final deficiency list, for the purpose of acceptance of the Work under the *contract*. If the Contractor's application for a statement of deemed completion is not accepted, the Consultant and/or *payment certifier* may issue a final list of deficiencies upon subsequently accepting a further application for a statement of deemed completion.
- 7.5 Deficiencies shall be corrected by a date mutually agreed upon between the Consultant and the Contractor, unless a specific date is otherwise required by the *contract*. Upon rectification of the deficiencies, a further review and assessment by the Consultant shall be called for by the Contractor and such review and assessment shall take place within 7 calendar days from the date of the Contractor's request.

(NOTE: See Appendix B hereto for sample of the prescribed form of the Statement of Contract Deemed Completed)

## **STAGE 8A CERTIFICATE FOR RELEASE OF MONIES FOR FINISHING HOLDBACK**

- 8.1 Upon receipt of documentation under 7.1 above, and issuance of the *payment certifier's* statement of deemed completion, the *payment certifier* shall prepare the certificate for release of the monies retained as a *separate holdback for finishing work*. This certificate shall be dated one day after the expiry of the 60-day period (subject to 5.7 above) which commences on the day following the date the *contract* is deemed to have been *completed*.
- 8.2 Upon issuing the certificate for release of monies retained as a *separate holdback for finishing work*, the *payment certifier* shall advise the Owner to verify that no liens have been preserved as at the end of the 60-day period (or such longer period as described in 5.7 above, if applicable).
- 8.3 The *payment certifier* shall simultaneously notify the Owner that, provided no liens have been preserved, release of the monies for the *separate holdback for finishing work* is due and shall be payable one day after termination of the 60-day period (subject to 5.7 above).
- 8.4 The *payment certifier's* certificate for release of the monies retained as a *separate holdback for finishing work* shall be in the amount requested in the Contractor's application for a statement of deemed completion, as approved by the *payment certifier*.

## **STAGE 8B CERTIFICATE FOR RELEASE OF MONIES FOR HOLDBACK**

- 8.1 Upon receipt of documentation under 7.1 above, and issuance of the *payment certifier's* statement of deemed completion, the *payment certifier* shall prepare the certificate for release of the monies retained as *holdback* for the Work. This certificate shall be dated one day after the expiry of the 60-day lien expiry period (subject to 5.7 above) which commences on the day following the date the *contract* is deemed to have been *completed*.
- 8.2 Upon issuing the certificate for release of monies retained as *holdback* for the Work, the *payment certifier* shall advise the Owner to verify that no liens have been preserved as at the end of the 60-day period.
- 8.3 The *payment certifier* shall simultaneously notify the Owner that, provided no liens have been preserved, release of the monies for the *holdback* for the Work is due and shall be payable one day after termination of the 60-day lien expiry period (subject to 5.7 above).
- 8.4 The *payment certifier's* certificate for release of the monies retained as holdback for the Work shall be in the amount requested in the Contractor's application for a statement of deemed completion, as approved by the *payment certifier*.

## **STAGE 9 FINAL PAYMENT CERTIFICATE**

- 9.1 At the completion of Stage 7, when the Consultant and/or *payment certifier* is satisfied that all deficiencies and uncompleted work, as established under Stage 7.4, have been corrected, and upon receipt of the Contractor's proper invoice for final payment, in accordance with the C.A. and the *contract*, the *payment certifier* shall issue to the Owner, with a copy to the Contractor, a final certificate for payment for the remaining monies due to the Contractor under the *contract*.
- 9.2 Final payment shall be made to the Contractor as stipulated in the certificate, no later than five days after its issuance or as provided in the *contract*.

## **STAGE 10 WARRANTY PERIOD(S)**

- 10.1 The warranty period(s) for the *contract* shall commence on the date noted in the Consultant's statement that Ready-for-Takeover was attained, on the date of *substantial performance* (i.e. not necessarily the date of publication of the certificate) where Ready-for-Takeover is not part of the *contract*, or as stipulated otherwise in the *contract* documents.
- 10.2 In the event that neither the date of Ready-for-Takeover nor *substantial performance* were determined and *contract* documents do not stipulate otherwise, the warranty period(s) shall commence on the date of deemed completion.
- 10.3 The Owner shall give prompt notice in writing to the Contractor and Consultant of any defects (as defined by the *contract*) noted during the Contractor's warranty period. This is typically a one-year duration and should not be confused with separate warranties issued by manufacturers, suppliers, installers and others.
- 10.4 Prior to the completion of the Contractor's warranty period, the Consultant and/or *payment certifier*, and such other Consultants as the Consultant and/or *payment certifier* may require, will carry out a review of the Work for any defects or deficiencies including those that have been observed by the Owner during the warranty period and will notify the Contractor in writing of those items requiring attention by the Contractor to complete the terms of the *contract*.

**APPENDIX A – Form 9 - Certificate of Substantial Performance of the Contract under Section 32 of the Act**

**NOTE:** Form 9 is prescribed by the Regulation 303/18: Forms under the C.A. The version which follows is included for convenience only. For actual use, the latest form should be downloaded from the Ontario government website.

**FORM 9**

**CERTIFICATE OF SUBSTANTIAL PERFORMANCE OF THE CONTRACT UNDER SECTION 32 OF THE ACT**

Construction Act

Regional Municipality of The Universe  
(County/District/Regional Municipality/Town/City in which premises are situated)

91 Thorold Road, Universe, Ontario L2X 3X4  
(street address and city, town, etc., or, if there is no street address, the location of the premises)

This is to certify that the contract for the following improvement:

Addition and Alterations to offices of Alpha Owner  
(short description of the improvement)

To the above premises was substantially performed on July 04, 2024  
(date substantially performed)

Date of certificate signed: July 06, 2024

Charlie Architect Inc.  
(payment certifier, where there is one) (owner and contractor, where there is no payment certifier)

Name of owner Alpha Owner (1985) Inc.

Address for service 91 Thorold Road, Universe, Ontario L2X 3X4

Name of contractor Bravo Contractor (1987) Ltd.

Address for service 39 Facer Street, Universe, Ontario L2X 7X8

Name of payment certifier (where applicable) Charlie Architect Inc.

Address 46 Long Road, Universe, Ontario L2X 7X8

(Use A or B whichever is appropriate)

A. Indemnification of premises for preservation of liens:

Part of Lots 7, 8, Reg'd Plan 96, Former TWP of Stamford, now City of Universe PIN 10053-0194 (LT)  
(a legal description of the premises, including all property identifier numbers and addresses for the premises)

B. Office to which claim for lien and affidavit must be given to preserve lien:

(If the lien does not attach to premises, the name and address of the person or body to whom the claim for lien must be given)

## APPENDIX B – Statement of Deemed Completion of a Contract

**NOTE** User to complete info shown in RED. Change font colour to Black. DELETE THIS NOTE.  
Date

Owner's Company Name  
Street Address  
Suite number  
City, Province or State  
Postal Code  
Country

Attn: **Owner or Owner's Agent**  
Re: **Statement of Deemed Completion of a Contract**  
For the Purposes of the Construction Act  
**Project Description**  
**Project Location**  
Proj No: **nn.nnnnnn.nn**

Building Permit No: **XXXXXXX**

---

Dear **Owner or Owner's Agent**,

Based on our general review of the project, in our opinion, to the best of our knowledge, information and belief, the construction contract for the above referenced project has been deemed complete pursuant to the provisions under Section 2(3) of the Construction Act, R.S.O. 1990.

The date of deemed completion of the contract was determined to be **yyyy mm dd**.

Accordingly, the Construction Act provides that outstanding lien holdback monies may be released to the contractor on the day following the conclusion of the sixty (60) day period next following the date the contract was "deemed completed", provided no liens exist relative to this contract.

A Certificate for Release of Holdback and accompanying documentation is being prepared for the outstanding lien holdback monies.

We trust that the above is understood. Should you have any questions with regard to the above, or have any information that would alter our determination please contact the undersigned.

Yours Truly,

**Architectural Firm Name**  
per:

**Your Name**  
**Working Title**  
**Officer Status**

cc: **Contractor's Rep, Contractor's Company Name**

## APPENDIX C – Statement of Determination of Ready-for-Takeover

**NOTE** User to complete info shown in RED. Change font colour to Black. DELETE THIS NOTE.  
Date

Owner's Company Name  
Street Address  
Suite number  
City, Province or State  
Postal Code  
Country

Attn: **Owner or Owner's Agent**  
Re: **Statement of Determination of Ready-for-takeover**  
**Project Description**  
**Project Location**  
Proj No: nn.nnnnn.nn

Building Permit No: XXXXXXXX

---

Dear **Owner or Owner's Agent**,

Based on our general review of the project, in our opinion, to the best of our knowledge, information and belief, the above referenced project has been determined to be ready-for-takeover pursuant to the provisions of the construction contract.

The date of Ready-for-Takeover was determined to be **yyyy mm dd**.

Accordingly, the construction contract provides that **xxxxxx Insert here anything triggered by achievement of this milestone such as establishing a reasonable date for the completion of the Work.**

We trust that the above is understood. Should you have any questions with regard to the above, or have any information that would alter our determination please contact the undersigned.

Yours Truly,

**Architectural Firm Name**

per:

**Your Name**  
**Working Title**  
**Officer Status**

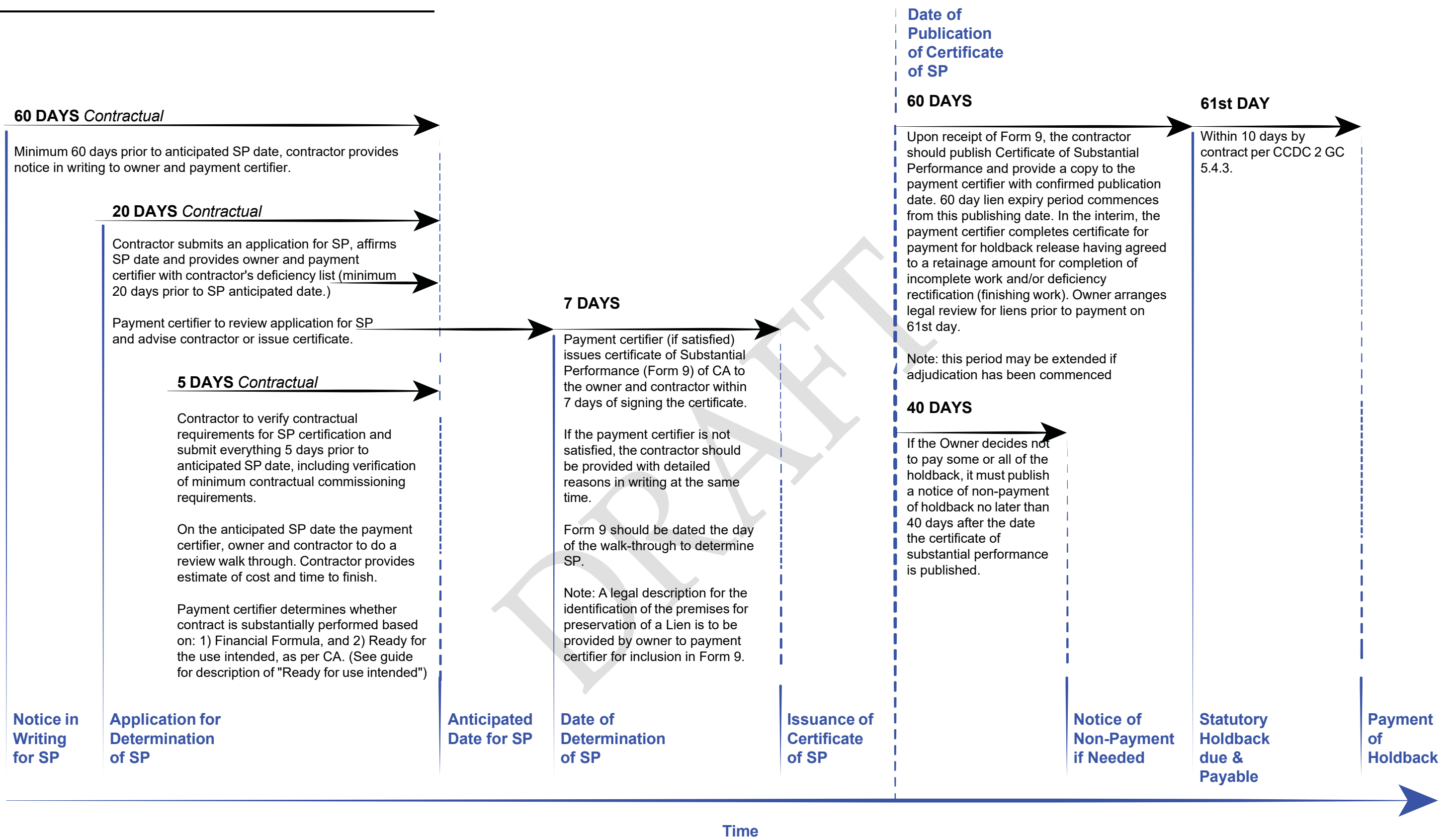
cc: **Contractor's Rep, Contractor's Company Name**

## APPENDIX D – Take-over Time Lines

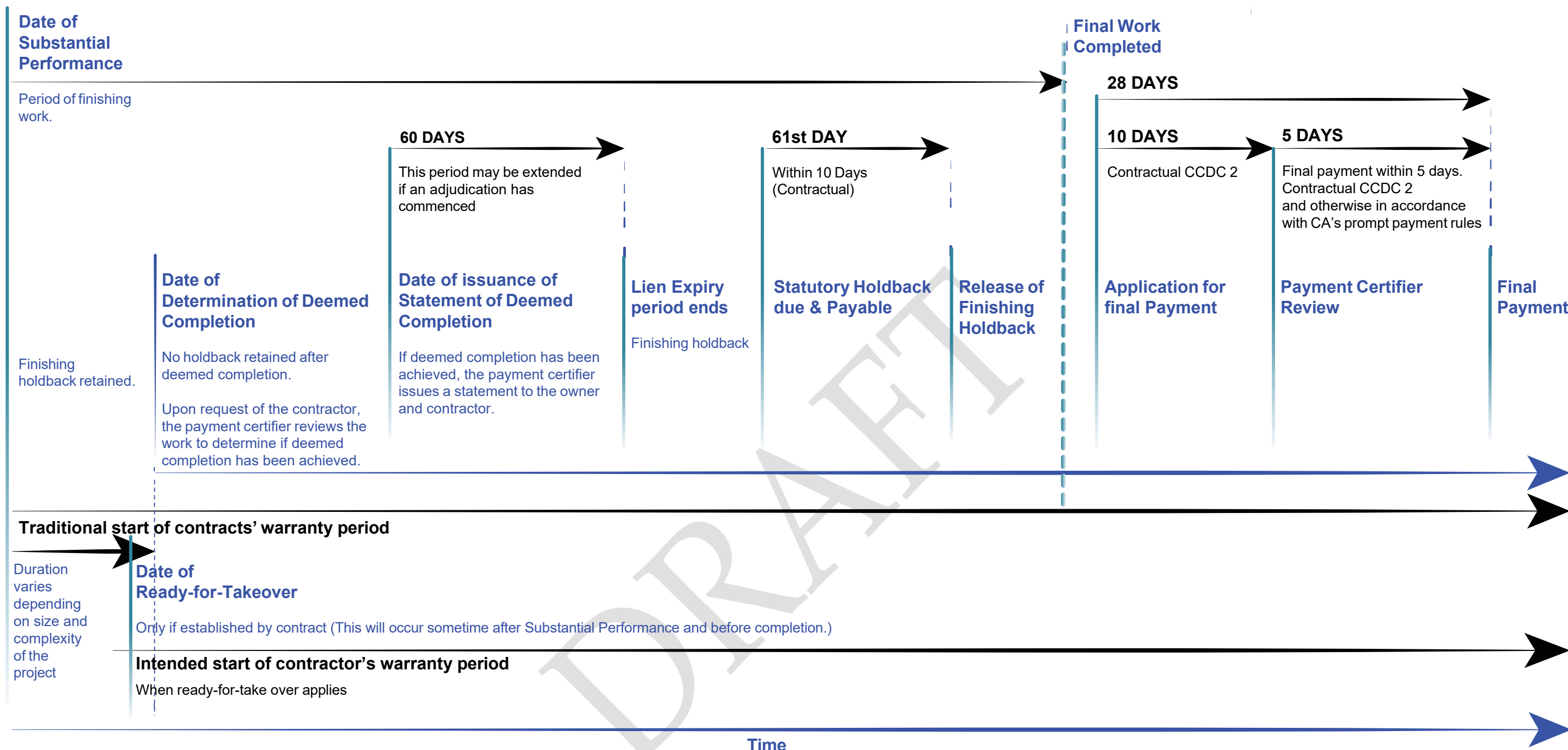
This appendix consists of two pages. One is a “Time Chart for Date of Substantial Performance of the Contract”. The other is a “Time Chart for Date of Deemed Completion of the Contract (post Substantial Performance)”.

Both have been adapted from the OAA-OGCA publication “A Guide to Project Closeout Procedures” which was published in November 2010 and which since then has been withdrawn.

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SP= Substantial Performance



All certificates for payment from the date of Substantial Performance to the date of deemed completion will have the mandatory 10% statutory holdback retained as the "finishing holdback".

When payment certifier determines the contract is deemed complete in accordance with the requirements of the CA, a statement of deemed completion may be issued. The date that the contract achieves deemed completion is the start of the 60 day lien expiry period (No publication required).

The Owner shall make payment of the holdback for finishing work where all liens that may be claimed against the holdback have expired or been satisfied, discharged or otherwise provided for under the CA.

If the Owner is going to refuse to pay some or all of the finishing holdback, and if no certification or declaration of substantial performance was published, the Owner must publish a notice of non-payment of holdback no later than 40 days after the date on which the contract was deemed complete.

Work continues beyond date of deemed completion to final completion (no holdback retained)

Contractor submits final application for payment.

If the payment certifier determines the contract is complete, they issue a final certificate for payment.

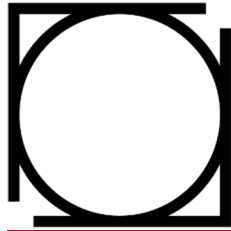
Owner pays final application for payment.



# OAA/~~OGCA~~ Take-Over Procedures

For Use on Projects Under the *Construction Act*, R.S.O. 1990, c.C.30

~~RECOMMENDED PROCEDURES  
CONCERNING SUBSTANTIAL PERFORMANCE  
OF CONSTRUCTION CONTRACTS AND COMPLETION TAKE-OVER OF PROJECTS~~



Ontario Association  
of Architects



Recommended procedures concerning  
substantial performance, ready-for-takeover,  
and completion take-over of construction projects

OAA/~~OGCA~~ Document No. ~~100-2018~~2024

and the OGCA. ~~July 1,~~  
~~2018~~

*Reissued January 8, 2019*

September 15, 2024

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A vertical bar in the right margin indicates a paragraph which have~~has~~ been changed for this issue.

Enquiries should be directed to:

Ontario Association of Architects  
111 Moatfield Drive  
Don Mills, Ontario  
M3B 3L6  
(416) 449-6898 x400  
E-Mail: [PracticeAdvisor@oaa.on.ca](mailto:PracticeAdvisor@oaa.on.ca)

Ontario General Contractors Association  
180 Attwell Drive, Suite 280  
Toronto, Ontario  
M9W 6A9  
(905) 671-3969  
E-Mail: [info@ogca.ca](mailto:info@ogca.ca)

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## Recommended Procedures Concerning Substantial Performance, Ready-for-Takeover, and Completion of Construction Projects

SHORT TITLE: This Document may be referred to as "OAA/OGCA TAKE-OVER PROCEDURES (CA)" or "Document 100-2024"

### Application

This document covers procedures for projects being built under the *Construction Act* ~~for projects which DO NOT meet the following transition rules:~~

- a) ~~A contract was entered into before July 1, 2018, regardless of when any subcontract under the contract was entered into;~~
  - b) ~~A procurement process, if any, was commenced before July 1, 2018 by the owner of the premises; or~~
  - c) ~~In the case of a premises that is subject to a leasehold interest that was first entered into before July 1, 2018, a contract for the improvement was entered into or a procurement process for the improvement was commenced on or after July 1, 2018 and before the day subsection 19 (1) of Schedule 8 to the *Restoring Trust, Transparency and Accountability Act, 2018* came into force.~~
- (2) ~~For greater certainty, clauses (1)(a) and (c) apply regardless of when any subcontract under the contract was entered into.~~

Examples of the commencement of a procurement process includes the making of a request for qualifications, request for proposals, or a call for tenders.

### Introduction

The purpose of this document is to recommend standard procedures to facilitate the closing stages of a construction *contract* and the take-over of the project by the Owner from the Contractor.

These procedures have been prepared jointly by the Ontario Association of Architects and the Ontario General Contractors Association (the "~~Associations~~"), have been reviewed by legal counsel, and subsequently approved by ~~their~~ the Associations' governing bodies. This document is ~~meant to be intended as~~ an educational ~~treatise guideline~~ for all the stakeholders in the project (including the Owner, Consultants, Contractors and Subcontractors); ~~however, the~~ The Associations recommend ~~the use of~~ these procedures be used by their respective members and Owners/~~clients~~ Clients.

The Guide to Project Close-out Procedures was created in 2010 to be used with the 2007 version of Document 100. It was not updated to reflect the requirements of the Construction Act when Document 100 was. The OAA and OGCA decided not to update it for this 2024 version of Document 100. The Guide is no longer available and should be considered obsolete. However, two of the timelines from the Guide were deemed helpful, and have been included herein as Appendices.

The Associations also recommend that these procedures be coordinated with and form a part of the construction contract documents from the outset by reference to Document ~~No. 100-2018~~ 2024.

Where a *contract* is in progress which does not provide such procedures, the Associations recommend that the construction contract be amended by agreement between the contracting parties to include these procedures to facilitate the orderly take-over of the project in the interests of all stakeholders.

## General Notes

The procedures outlined herein have been prepared in relation to the *Construction Act*, ~~latest edition~~, hereinafter referred to as the C.A.<sup>1</sup>, and apply to all construction *contracts*. These procedures are therefore primarily applicable to lienable Ontario projects where the Construction Act applies, but they may be ~~readily~~-adapted for use in relation to non-lienable on projects which fall outside these bounds.

The concept of “Ready-for-Takeover” as pioneered in CCDC 2-2020 has been included herein for the first time. Ready-for-Takeover is being added to other CCDC documents as they are updated.

In most cases, the architect is the Consultant identified in the CCDC contracts, and in most cases, the Consultant is the *payment certifier*, but the *payment certifier* may also be a third party.

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<sup>1</sup> All references are to the Construction Act, R.S.O. 1990, c C.30 and the Regulations thereunder as amended as of the date of publication.

## Definitions

Except for Owner/Client, Consultant, Contractor, and Subcontractor which are defined in the *contract* as appropriate, and Ready for Use, all other terms and concepts used in this document that are defined in the C.A. are italicized for convenience.

### Construction Trade Newspaper

The definition of the term "construction trade newspaper" appears in Section 1 of O. Reg. 304/18 to the C.A. ~~latest edition~~, which reads as follows:

"construction trade newspaper" means a newspaper,

- (a) that is published either in paper format with circulation generally throughout Ontario or in electronic format in Ontario,
- (b) that is published at least daily on all days other than Saturdays and holidays,
- (c) in which calls for tender on construction contracts are customarily published, and
- (d) that is primarily devoted to the publication of matters of concern to the construction industry.

### Contract

The definition of the term "contract" appears in Section 1(1) of the C.A. ~~latest edition~~, which reads as follows:

"contract" means the contract between the owner and the contractor, and includes any amendment to that contract.

### Contract Price

The definition of the term "price" appears in Section 1(1) of the C.A. ~~latest edition~~, which reads as follows:

"price" means,

- (a) the contract or subcontract price,
  - (i) agreed on between the parties, or
  - (ii) if no specific price has been agreed on between them, the actual market value of the services or materials that have been supplied to the improvement under the contract or subcontract, and
- (b) any direct costs incurred as a result of an extension of the duration of the supply of services or materials to the improvement for which the contractor or subcontractor, as the case may be, is not responsible.

### Payment Certifier

The definition of the term "payment certifier" appears in Section 1(1) of the C.A. ~~latest edition~~, which reads as follows:

"payment certifier" means an architect, engineer or any other person upon whose certificate payments are made under a contract or subcontract.

For convenience, since it is a new term, the definition of Ready-for-Takeover follows:

### **Ready-for-Takeover**

The definition of the term "Ready-for-Takeover" appears in the DEFINITIONS section of the CCDC 2-2020 contract, which reads as follows:

"Ready-for-Takeover" shall have been attained when the conditions set out in paragraph 12.1.1 of GC 12.1 – READY-FOR-TAKEOVER have been met, as verified by the Consultant pursuant to paragraph 12.1.4.2 of GC 12.1 – READY-FOR-TAKEOVER."

### **Ready for Use**

The term "ready for use" appears in subsection (1) of Section 2 of the C.A. as part of the definition of *substantial performance*, but is not itself explicitly defined.

Ready for use is a concept used in determining whether substantial performance has been reached. Its meaning depends on what is being constructed under the contract in question. It may be the entire project under a general contract or only one trade's contract work under a construction management arrangement. Ready for use for the purposes intended is normally when it is ready for the owner to occupy and fit out.

In the case of a hospital, for instance, ready for use is not when it is ready for patients to move in or clinical procedures to begin, rather, it is when it is ready for the hospital to occupy and make ready for them to initiate their fit out and training, etc. If it is the whole project, then the test is usually met once the new space is ready for occupancy. If it is only a trade contract, then the test is generally whether the trade's work is functional (e.g. mechanical) or ready for the next trade to start or continue their work.

If the contract is for a shell only, then ready for use is typically when the shell contract is close enough to completion that the tenant's contractor can start the tenant fit-out, whether or not the fit-out actually starts.

## **Significant Statutory Requirements**

- a) The concept of "*basic holdback*" is set out in Section 22(1) of the C.A. ~~latest edition~~ which reads as follows:

"22 (1) Each payer upon a contract or subcontract under which a lien may arise shall retain a holdback equal to 10 per cent of the price of the services or materials as they are actually supplied under the contract or subcontract until all liens that may be claimed against the holdback have expired or been satisfied, discharged or otherwise provided for under this Act."

- b) The concept of "*substantial performance*" and "*substantially performed*" is set out in subsection (1) of Section 2 of the C.A. ~~latest edition~~ which reads as follows:

- "(1) For the purposes of this Act, a contract is substantially performed,
- (a) when the improvement to be made under that contract or a substantial part thereof is ready for use or is being used for the purposes intended; and
  - (b) when the improvement to be made under that contract is capable of completion or, where there is a known defect, correction, at a cost of not more than,
    - (i) 3 per cent of the first \$1,000,000 of the contract price,
    - (ii) 2 per cent of the next \$1,000,000 of the contract price, and
    - (iii) 1 per cent of the balance of the contract price."



c) Attention is drawn to subsection (2) of Section 2 of the C.A. ~~latest edition~~ which reads as follows:

"(2) For the purposes of this Act, where the improvement or a substantial part thereof is ready for use or is being used for the purposes intended and the owner and the contractor agree not to complete the improvement expeditiously, the price of the services or materials remaining to be supplied and required to complete the improvement shall be deducted from the contract price in determining substantial performance."

d) The concept of ~~"separate holdback for finishing work"~~ is set out in Section 22(2) of the C.A. ~~latest edition~~ which reads as follows:

~~"22 (2) Where the contract has been certified or declared to be substantially performed but services or materials remain to be supplied to complete the contract, the payer upon the contract, or a subcontract, under which a lien may arise shall retain, from the date certified or declared to be the date of substantial performance of the contract, a separate holdback equal to 10 per cent of the price of the remaining services or materials as they are actually supplied under the contract or subcontract, until all liens that may be claimed against the holdback have expired or been satisfied, discharged or otherwise provided for under this Act."~~

e) The concept of "completed" is set out in subsection (3) of Section 2 of the C.A. ~~latest edition~~ which reads as follows:

"(3) For the purposes of this Act, a contract shall be deemed to be completed and services or materials shall be deemed to be last supplied to the improvement when the price of completion, correction of a known defect or last supply is not more than the lesser of,

- (a) 1 per cent of the contract price; and
- (b) \$5,000."

Although the term does not appear in the C.A. this concept is commonly referred to as "deemed completion".

f) Multiple improvements under a *contract* are considered in Section 2 of the C.A. ~~latest edition~~ which reads as follows:

~~"(4) If more than one improvement is to be made under a contract and each of the improvements is to lands that are not contiguous, then, if the contract so provides, each improvement is deemed for the purposes of this section to be under a separate contract."~~

g) Attention is drawn to Sections 26.1 and 26.2 in Part IV of the C.A., which make provision for annual and phased release of holdback. This document does not go into detail about the processes for annual or phased release of holdback. Where annual or phased release is implemented under a contract, the parties should note that immediately following each instance of such annual or phased release, the amount of the holdback against which liens can be claimed is reduced accordingly.

## STAGE 1 CONTRACT SUBMISSIONS

1.1 Submit all documentation required under the *contract*.

## SUBSTANTIAL PERFORMANCE

## STAGE 2 CONTRACTOR'S INSPECTION FOR SUBSTANTIAL PERFORMANCE

2.1 When the Contractor is of the opinion that the requirements of *substantial performance* as defined in the C.A. and as set out above will be met, the Contractor shall give written notice of this a minimum of 60 days

prior to the anticipated date of substantial performance, or as otherwise provided in the contract, to the Owner, Consultant and/or payment certifier for information only.

2.2 When the Contractor is of the opinion that the requirements of *substantial performance* as defined in the C.A. and as set out above have been met, the Contractor shall make arrangements for an inspection of the Work to be undertaken at the earliest opportunity, giving written notice of this to the Owner, Consultant and/or payment certifier for information only.

2.3 The inspection team shall be comprised of:

(a) the Contractor and/or the Contractor's representative(s);

(b) the prime mechanical and electrical Subcontractors and/or their representative(s); and

(c) any other Subcontractors and/or ~~Subcontractors'~~Subcontractors' representative(s) whose participation may be required by the Contractor in order to fully determine the Work to be completed.

2.4 Upon completion of this inspection a list of all uncompleted and unsatisfactory work which is identified during the inspection shall be prepared by the Contractor and shall be issued to all members of the inspection team and as well as the Consultant and/or *payment certifier*.

2.5 Contractors ~~that may~~ elect not to go through Stages 2 and 3 for *substantial performance* certification and publication of same, and apply for *contract* completion as defined ~~in the C.A. and as set out above.~~ They shall proceed to Stage 6 provided the requirements under 3.2(b) have been provided/satisfied; and in this case there shall be only one lien expiry period ~~for and, consequently,~~ only one certification for *basic holdback* release ~~as there will be no separate holdback for finishing work.~~ Where no certificate ~~for~~of substantial performance is obtained and published, the time for preserving liens will run from the date upon which the contract is deemed completed by the payment certifier or Owner and Contractor ~~and~~ certification for the purpose of the release of the *basic and finishing holdback* shall occur upon the expiry conclusion of the 60 day lien expiry period, barring any liens, which commences on the day ~~of completion~~ ~~the contract is deemed completed by the Consultant and/or payment certifier (or Owner and Contractor jointly).~~ This section applies in circumstances where the *contract* has not been abandoned or terminated earlier.

### **STAGE 3 CONTRACTOR'S APPLICATION FOR A CERTIFICATE OF SUBSTANTIAL PERFORMANCE**

3.1 When the Contractor has carried out the steps in Stage 2 and has determined that the requirements for *substantial performance* of the *contract* have been met, the Contractor ~~shall~~may, subject to the requirements of the contract, then make a written application to the Consultant and/or *payment certifier* for a certificate of substantial performance. If there is no *payment certifier*, at the request of the Contractor, the Owner and the Contractor shall make the determination jointly and shall both sign the certificate of substantial performance.

3.2 This application shall include:

(a) A statement to the Owner through the Consultant and/or *payment certifier* to the effect that:

(i) the contract is substantially performed, and

(ii) the phase of the performance of the balance of the contract is in process and completion is scheduled for the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_. Where the balance of the *contract*, or a part or parts thereof, cannot be performed forthwith, as has been agreed by the Owner and the Contractor, the Contractor's statement shall contain a completion date for each phase of the balance of the *contract*.

~~the~~(b) The submission of all:

- (i) documentation required under the contract, and
- (ii) all maintenance materials required under the contract, including an acknowledgement form to be signed by the Owner listing the materials provided.

(c) A statement of outstanding work for completion, with the cost values of:

Work(i) work to be completed including correction of unsatisfactory work;

Outstanding(ii) outstanding items referred to in 3.2(b); and

Work(iii) work which the Owner and the Contractor agree in writing is to be deferred to a later date.

(d) An invoice application for release of holdback showing the amount of *basic holdback* monies due for release and payment following the issuend of the lien expiry period under the C.A. after the issuance and publication of the certificate of substantial performance.

(e) A Statutory Declaration and Workplace Safety & Insurance Board (WSIB) Certificate of Clearance are required before the payment covering the release of *basic holdback* can be released.

3.3 (a) ~~Within~~ Where there is a payment certifier, within 10 calendar days, or as stipulated otherwise in the contract documents, of the receipt of the Contractor's completed application, ~~the Consultant and/or for a certificate of substantial performance, the~~ payment certifier shall carry out a review and assessment of the work, to determine whether the *contract* has been *substantially performed*. The Owner may take part in the review but the determination as to whether the *contract* has been *substantially performed* is to be made by the ~~Consultant and/or payment certifier~~ payment certifier. Where there is no payment certifier, subject to the provisions of the contract, the Owner and Contractor shall jointly make the determination.

(b) Within 7 calendar days, or as stipulated otherwise in the contract documents, of the ~~Consultant's~~ Consultant's and/or payment certifier's review and assessment, the ~~Consultant and/or payment certifier~~ shall notify the Contractor of its determination as to whether or not the *contract* has been *substantially performed*. In the event that the ~~Consultant and/or payment certifier~~ determines that the *contract* has not been *substantially performed*, the ~~Consultant and/or payment certifier~~ shall so notify the Contractor in writing within 7 calendar days of the review and assessment, and notice shall also provide the Contractor with a detailed explanation as to why such determination has been made.

(c) In the event that the Contractor's application for a certificate of substantial performance is not accepted by the ~~Consultant and/or payment certifier~~, the Contractor shall complete the work necessary to achieve *substantial performance* of the *contract* as previously defined and the Contractor shall submit a subsequent application for a certificate of substantial performance thereafter.

3.4 The Contractor's application for a certificate of substantial performance and the Contractor's application for the release of *basic holdback* shall be separate from but may coincide with the applications for regular monthly progress payments and the latter shall continue to be made in the ordinary course throughout the duration of the *contract*.

## STAGE 4 CERTIFICATE OF SUBSTANTIAL PERFORMANCE

4.1 If the Consultant and/or *payment certifier* determines that the *contract* has been *substantially performed*, the Consultant and/or *payment certifier* (or where there is no *payment certifier*, the Owner and Contractor jointly) shall certify the *substantial performance* of the *contract* by preparing and signing a certificate in Form 9 prescribed by the C.A., a copy of which may be found in Appendix A hereto. The Consultant and/or *payment certifier* or the Owner and Contractor jointly, as the case may be, shall set out in the certificate

the date on which the *contract* was *substantially performed*. The Consultant and/or *payment certifier* shall give a copy of the certificate to the Owner and to the Contractor within 7 days of signing it.

4.2 The Contractor shall publish a copy of the certificate of substantial performance once in a *construction trade newspaper* and shall provide the *payment certifier* with proof of the date of publication. The day following the date of publication shall be the date of commencement of the 60 day lien expiry period prior to release of the *basic holdback* monies.

4.3 The Contractor's and Contractor's Subcontractors' forces shall continue to work towards Ready-for-Takeover (where applicable) and completion during the 60 day period mentioned in Stage 4.2.

(NOTE: See Appendix A hereto for sample of the prescribed form of the certificate of substantial performance.)

## STAGE 5 CERTIFICATE FOR PAYMENT RELEASE OF BASIC HOLDBACK MONIES

5.1 The ~~Consultant and/or~~ *payment certifier* shall prepare the certificate for payment release of the *basic holdback* monies and promptly upon receipt of the application for payment and the documentation as listed in 4.2 and 3.2(d) above, required for release of these monies, issue the certificate to the Owner, with a copy to the Contractor. The certificate shall be dated for payment one day after the date of expiry of on which the ~~prescribed~~ 60 -day lien expiry period for the preservation of liens concludes.

5.2 Upon issuing the certificate for payment release of the *basic holdback* monies, the ~~Consultant and/or~~ *payment certifier* shall advise the Owner to verify that no liens have been preserved as at the end of the 60-day lien expiry period.

5.3 The ~~Consultant and/or~~ *payment certifier* shall simultaneously notify the Owner that, provided no liens exist, payment release of *basic holdback* shall be due and payable one day after the date of expiry of on which the ~~prescribed~~ 60 -day lien expiry period for the preservation of liens concludes.

5.4 The ~~Consultant and/or~~ *payment certifier's* certificate for the payment release of the *basic holdback* monies shall be in the amount shown in the Contractor's application, as approved by the ~~Consultant and/or~~ *payment certifier*, for the certificate of substantial performance.

5.5 Before the expiry of the 60-day period, the ~~Consultant and/or~~ *payment certifier* shall advise the Owner and the Contractor to review all forms of insurance to ensure adequate coverage for all parties. Subject to the provisions of the contract, release of statutory holdback is not contingent upon review of insurance coverage.

5.6 The release of any monies which are due and payable after the release of the *basic holdback* shall occur in accordance with the terms of the *contract* and the provisions of the C.A. In the case of the latest edition of CCDC 2, CCDC 3, and CCDC 5B forms of contract As provided in some contracts, the Owner may be asked by the Contractor to place the *basic holdback* in a separate bank account in the joint names of the Owner and the Contractor 10 days prior to the expiry of the 60-day period unless previously placed in a separate trust account.

5.7 Notwithstanding the references to a "60 day" lien expiry period in the provisions of Stage 4 and Stage 5 above, the application of section 34(10) of the C.A. may lead to the extension of the lien expiry period for up to an additional 45 days beyond the initial 60-day period with respect to one or more lien claimants on a project. Section 34(10) says that if the matter that is the subject of a lien that has not expired is also a matter that is the subject of an adjudication under the C.A., the lien is deemed to have expired on the later of the date on which the lien would expire under the lien expiry provisions of the C.A. (i.e. 60 days) and the conclusion of the 45-day period next following the adjudicator's receipt of the documents required to be delivered to the adjudicator under the C.A.'s adjudication provisions

If, for example, the prospective lien claimant commences an adjudication immediately prior to the expiry



of the 60-day lien period, the prospective lien claimant will enjoy an extension of the lien period for the additional 45 days, for a total lien expiry period of 105 days. Knowing when the lien period is expiring is important for purposes of holdback release. Accordingly, Contractor shall, within thirty (30) days following the publication of the certificate of substantial performance, and again within thirty (30) days following the date the *contract* is deemed completed, provide written confirmation to the Owner that: (a) the Contractor is not aware of any ongoing or impending adjudications to which it or any of its Subcontractors (of any tier) are party; and (b) the Contractor has made reasonable enquiries with its Subcontractors to this effect in order to support this conclusion.

## **STAGE 6 DETERMINATION OF READY-FOR-TAKEOVER**

- 6.1 The provisions of this stage shall apply if the *contract* contemplates Ready-for-Takeover, such as is the case in the CCDC 2-2020 or if Ready-for-Takeover has been added to the *contract* through supplementary conditions.
- 6.2 The prerequisites to attaining Ready-for-Takeover are as defined in the *contract*.
- 6.3 When the Contractor considers that the prerequisites have been met and the Work is Ready-for-Takeover, the Contractor shall deliver to the Consultant and to the Owner for review a comprehensive list of items to be completed or corrected, together with a written application for determination of Ready-for-Takeover.
- 6.4 After receipt of the written application for determination of Ready-for-Takeover, the Consultant will review the Work to verify the validity of the application and shall promptly, and in any event, no later than 10 calendar days after receipt of the Contractor's list and application:
- .1 advise the Contractor in writing that the Work is not Ready-for-Takeover and give reasons why, or
  - .2 confirm the date of Ready-for-Takeover in writing to each of the Owner and the Contractor.
- 6.5 Immediately following the confirmation of the date of Ready-for-Takeover, the Contractor, in consultation with the Consultant, shall establish a reasonable date for finishing the Work.
- 6.6 The Contractor's warranty period under the *contract* is typically one year from the date when Ready-for-Takeover has been attained or as stipulated otherwise in the *contract* documents.

## **STAGE 4 CONTRACTOR'S COMPLETION OF THE CONTRACT**

## **STAGE 7 DEEMED COMPLETION OF THE CONTRACT**

- 7.1 (a) When the Contractor is satisfied that the *contract* is *completed* as defined in subsection (3) of Section 2 of the C.A., and after making an inspection, the Contractor shall forward the inspection report and make a written request to the Consultant and/or *payment certifier* for a review and assessment of the ~~work~~Work. The Consultant and/or *payment certifier* shall, in turn, notify the Owner of the Contractor's request. The Contractor's request shall include a statement as to the amount of monies for:
- I. the *separate holdback for finishing work* due for release and payment upon expiry of the 60-day period from the date the *contract* is deemed completed – where basic holdback has already been released, or
  - II. the full amount of the *holdback for the Work* due for release and payment upon expiry of the 60-day period from the date the *contract* is deemed completed.

This review and assessment by the Consultant and/or *payment certifier* shall be carried out within 10 calendar days of the Contractor's request, or as stipulated otherwise in the *contract* documents, and shall constitute the review and assessment which is a precondition to the issuance of the statement of deemed completion and issuance of the certificate for payment for the ~~work~~Work performed to the date of the deemed completion.

- (b) ~~The Contractor shall submit to the Consultant and/or payment certifier for review and approval the balance of the documents required under Stage 1.~~
- (c) ~~The Contractor shall submit to the Consultant and/or payment certifier an invoice application for release of the finishing statutory holdback as yet unpaid.~~
- (b) ~~The Contractor shall submit to the Consultant and/or payment certifier, a Statutory Declaration listing outstanding accounts and monies paid and Workplace Safety & Insurance Board (WSIB) Certificate of Clearance with the invoice before the payment covering the release of the finishing holdback can be released.~~
- (d) ~~Before the payment covering the release of the statutory holdback as yet unpaid can be released, the Contractor shall submit with the application for release a Workplace Safety & Insurance Board (WSIB) Certificate of Clearance and a Statutory Declaration declaring that all accounts for labour, subcontracts, products, services, and construction machinery and equipment which have been incurred directly by the Contractor in the performance of the work have been paid up to and including the latest progress payment received (except for (1) holdback monies properly retained, (2) payments deferred by agreement, or (3) payment withheld by reason of legitimate dispute which has been identified to the party or parties from whom payment has been withheld).~~

7.2 The final review of the workWork for the purpose of issuing a statement of deemed completion shall be conducted by:

- (a) ~~the Consultant and/or payment certifier and such Consultants as he they may require;~~
- (b) ~~the Contractor, and any Subcontractors deemed necessary by the Contractor; and~~
- (c) ~~the Owner, at his their option.~~

7.3 Within 7 calendar days of the review and assessment, ~~the Consultant and/or as stipulated otherwise in the contract documents, the payment certifier~~ shall notify the Contractor of approval of the Contractor's application by issuance of a statement of deemed completion which will establish the date of deemed completion. In the event that the ~~Consultant and/or payment certifier~~ does not determine the contract to be deemed complete, the ~~Consultant and/or payment certifier~~ shall so notify the Contractor in writing within 7 calendar days, or as stipulated otherwise in the contract documents, of the review and shall provide to the Contractor in writing the reasons for such determination.

7.4 If, as a result of its review and assessment of the workWork, the Consultant and/or payment certifier determines that there are deficiencies in the workWork performed by the Contractor or its Subcontractors, the Consultant and/or payment certifier shall provide to the Contractor a list of such deficiencies. In the event that the Contractor's application for a statement of deemed completion is accepted, such list shall constitute the final deficiency list, for the purpose of acceptance of the workWork under the contract. If the Contractor's application for a statement of deemed completion is not accepted, the Consultant and/or payment certifier may issue a final list of deficiencies upon subsequently accepting a further application for a statement of deemed completion.

7.5 Deficiencies shall be corrected by a date mutually agreed upon between the Consultant ~~and/or payment certifier~~ and the Contractor, unless a specific date is otherwise required by the contract. Upon rectification of the deficiencies, a further review and assessment by the Consultant ~~and/or payment certifier~~ shall be called for by the Contractor and such review and assessment shall take place within 7 calendar days from the date of the Contractor's request.

(NOTE: See Appendix B hereto for sample of the prescribed form of the Statement of Contract Deemed Completed)

## **STAGE 8A CERTIFICATE FOR PAYMENT RELEASE OF MONIES FOR FINISHING HOLDBACK**

- 8.1 Upon receipt of documentation under 67.1 above, and issuance of the ~~Consultant and/or payment certifier's~~ statement of deemed completion, the ~~Consultant and/or payment certifier~~ shall prepare the certificate for payment release of the monies retained as a *separate holdback for finishing work*. This certificate shall be dated one day after the expiry of the 60-day period (subject to 5.7 above) which commences on the day following the date the *contract* is ~~determined~~deemed to have been *completed*.
- 8.2 Upon issuing the certificate for payment release of monies retained as a *separate holdback for finishing work*, the ~~Consultant and/or payment certifier~~ shall advise the Owner to verify that no liens have been preserved as at the end of the 60-day period- (or such longer period as described in 5.7 above, if applicable).
- 8.3 The ~~Consultant and/or payment certifier~~ shall simultaneously notify the Owner that, provided no liens have been preserved, payment release of the monies for the *separate holdback for finishing work* is due and shall be payable one day after termination of the 60-day period- (subject to 5.7 above).
- 8.4 The ~~Consultant and/or payment certifier's~~ certificate for payment release of the monies retained as a *separate holdback for finishing work* shall be in the amount requested in the Contractor's application, for a statement of deemed completion, as approved by the ~~Consultant and/or payment certifier~~.

## **STAGE 8B CERTIFICATE FOR RELEASE OF MONIES FOR HOLDBACK**

- 8.1 Upon receipt of documentation under 7.1 above, and issuance of the payment certifier's statement of deemed completion, the payment certifier shall prepare the certificate for release of the monies retained as *holdback* for the Work. This certificate shall be dated one day after the expiry of the 60-day lien expiry period (subject to 5.7 above) which commences on the day following the date the *contract* is deemed to have been completed.
- 8.2 Upon issuing the certificate for release of monies retained as *holdback* for the Work, the payment certifier shall advise the Owner to verify that no liens have been preserved as at the end of the 60-day period.
- 8.3 The payment certifier shall simultaneously notify the Owner that, provided no liens have been preserved, release of the monies for the holdback for the Work is due and shall be payable one day after termination of the 60-day lien expiry period (subject to 5.7 above).
- 8.4 The payment certifier's certificate for release of the monies retained as *holdback* for the Work shall be in the amount requested in the Contractor's application for a statement of deemed completion, as approved by the payment certifier.

## **STAGE 9 FINAL PAYMENT CERTIFICATE**

- 9.1 At the completion of Stage 67, when the Consultant and/or payment certifier is satisfied that all deficiencies and uncompleted work, as established under Stage 67.4, have been corrected, and upon receipt of the Contractor's proper invoice for final payment, in accordance with the Consultant C.A. and/or the contract, the payment certifier shall issue to the Owner, with a copy to the Contractor, a final certificate for payment for the remaining monies due to the Contractor under the *contract*.
- 9.2 Final payment shall be made to the Contractor as stipulated in the certificate, no later than five days after its issuance or as provided in the *contract*.

## STAGE 10 ~~WARRANTY-GUARANTEE PERIOD(S)~~

- 10.1 The warranty-~~guarantee~~ period(s) for the *contract* shall commence on the date noted in the Consultant's statement that Ready-for-Takeover was attained, on the date of substantial performance (i.e. not necessarily the date of publication of the certificate) where Ready-for-Takeover is not part of the contract, or as stipulated otherwise in the *contract* documents.
- 10.2 In the event that ~~a certificate of~~ neither the date of Ready-for-Takeover nor substantial performance was not issued-were determined and *contract* documents do not stipulate otherwise, the warranty-~~guarantee~~ period(s) shall commence on the date of deemed completion.
- 10.3 The Owner shall give prompt notice, in writing to the Contractor and Consultant ~~and/or payment certifier~~ of any defects (as defined by the *contract*) noted during the ~~one year~~ Contractor's warranty-~~guarantee~~ period. This is typically a one-year duration and should not be confused with separate warranties issued by manufacturers, suppliers, installers and others.
- 10.4 Prior to the completion of the ~~one year~~ Contractor's warranty period, the Consultant and/or ~~payment certifier,~~ and such other Consultants as the Consultant and/or ~~payment certifier~~ may require, will carry out a review of the ~~work~~ Work for any defects or deficiencies including those that have been observed by the Owner during the warranty period and will notify the Contractor in writing of those items requiring attention by the Contractor to complete the terms of the *contract*.



**APPENDIX A – Form 9 - Certificate of Substantial Performance of the Contract under Section 32 of the Act**

**NOTE:** Form 9 is prescribed by the Regulation 303/18: Forms under the C.A. The version which follows is included for convenience only. For actual use, the latest form should be downloaded from the Ontario government website.

**FORM 9**

**CERTIFICATE OF SUBSTANTIAL PERFORMANCE OF THE CONTRACT UNDER SECTION 32 OF THE ACT**

Construction Act

Regional Municipality of The Universe

(County/District/Regional Municipality/Town/City in which premises are situated)

91 Thorold Road, Universe, Ontario L2X 3X4

(street address and city, town, etc., or, if there is no street address, the location of the premises)

This is to certify that the contract for the following improvement:

Addition and Alterations to offices of Alpha Owner

(short description of the improvement)

To the above premises was substantially performed on

July 04, 2024

(date substantially performed)

Date of certificate signed: July 06, 2024

Charlie Architect Inc.

(payment certifier, where there is one)

(owner and contractor, where there is no payment certifier)

Name of owner

Alpha Owner (1985) Inc.

Address for service

91 Thorold Road, Universe, Ontario L2X 3X4

Name of contractor

Bravo Contractor (1987) Ltd.

Address for service

39 Facer Street, Universe, Ontario L2X 7X8

Name of payment certifier (where applicable)

Charlie Architect Inc.

Address

46 Long Road, Universe, Ontario L2X 7X8

(Use A or B whichever is appropriate)

A. Indemnification of premises for preservation of liens:

Part of Lots 7, 8, Reg'd Plan 96, Former TWP of Stamford, now City of Universe PIN 10053-0194 (LT)

(a legal description of the premises, including all property identifier numbers and addresses for the premises)

B. Office to which claim for lien and affidavit must be given to preserve lien:

(If the lien does not attach to premises, the name and address of the person or body to whom the claim for lien must be given)

## APPENDIX B – Statement of Deemed Completion of a Contract

**NOTE** User to complete info shown in RED. Change font colour to Black. DELETE THIS NOTE.

Date

Owner's Company Name

Street Address

Suite number

City, Province or State

Postal Code

Country

Attn: Owner or Owner's Agent

Re: **Statement of Deemed Completion of a Contract**

For the Purposes of the Construction Act

Project Description

Project Location

Proj No: nn.nnnnn.nn

Building Permit No: XXXXXXXX

---

Dear Owner or Owner's Agent,

Based on our general review of the project, in our opinion, to the best of our knowledge, information and belief, the construction contract for the above referenced project has been deemed complete pursuant to the provisions under Section 2(3) of the Construction Act, R.S.O. 1990.

The date of deemed completion of the contract was determined to be yyyy mm dd.

Accordingly, the Construction Act provides that outstanding lien holdback monies may be released to the contractor on the day following the conclusion of the sixty (60) day period next following the date the contract was "deemed completed", provided no liens exist relative to this contract.

A Certificate for Release of Holdback Payment and accompanying documentation is being prepared for the outstanding lien holdback monies.

We trust that the above is understood. Should you have any questions with regard to the above, or have any information that would alter our determination please contact the undersigned.

Yours Truly,

Architectural Firm Name

per:

Your Name

Working Title

Officer Status

cc: Contractor's Rep, Contractor's Company Name

## APPENDIX C – Statement of Determination of Ready-for-Takeover

**NOTE** User to complete info shown in RED. Change font colour to Black. DELETE THIS NOTE.

Date

Owner's Company Name

Street Address

Suite number

City, Province or State

Postal Code

Country

Attn: Owner or Owner's Agent

Re: **Statement of Determination of Ready-for-takeover**

Project Description

Project Location

Proj No: nn.nnnnn.nn

Building Permit No: XXXXXXXX

---

Dear Owner or Owner's Agent,

Based on our general review of the project, in our opinion, to the best of our knowledge, information and belief, the above referenced project has been determined to be ready-for-takeover pursuant to the provisions of the construction contract.

The date of Ready-for-Takeover was determined to be yyyy mm dd.

Accordingly, the construction contract provides that xxxxxx Insert here anything triggered by achievement of this milestone such as establishing a reasonable date for the completion of the Work.

We trust that the above is understood. Should you have any questions with regard to the above, or have any information that would alter our determination please contact the undersigned.

Yours Truly,

Architectural Firm Name

per:

Your Name

Working Title

Officer Status

cc: Contractor's Rep, Contractor's Company Name

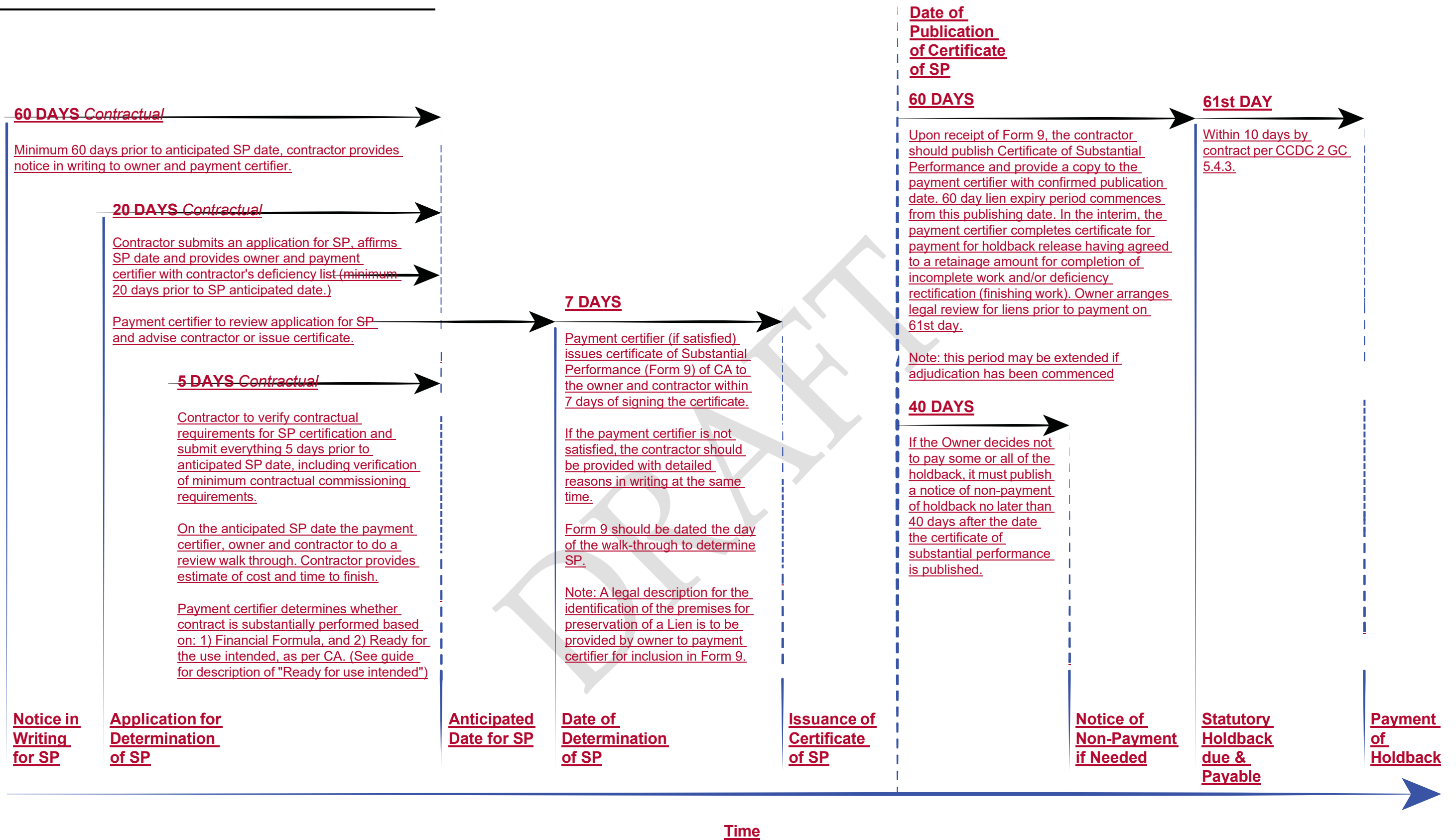
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## APPENDIX D – Take-over Time Lines

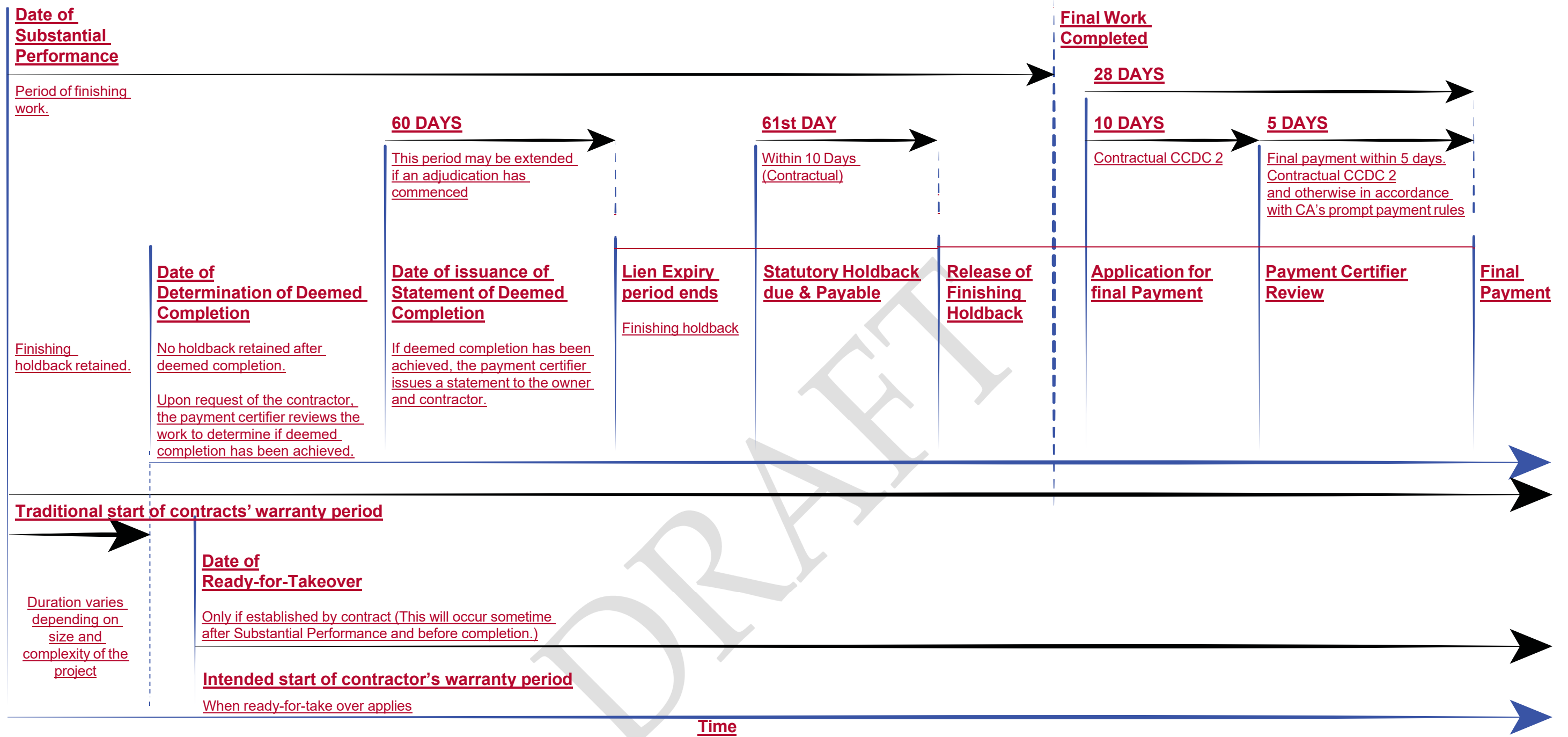
This appendix consists of two pages. One is a “Time Chart for Date of Substantial Performance of the Contract”. The other is a “Time Chart for Date of Deemed Completion of the Contract (post Substantial Performance)”.

Both have been adapted from the OAA-OGCA publication “A Guide to Project Closeout Procedures” which was published in November 2010 and which since then has been withdrawn.

DRAFT



SP= Substantial Performance



All certificates for payment from the date of Substantial Performance to the date of deemed completion will have the mandatory 10% statutory holdback retained as the "finishing holdback".

When payment certifier determines the contract is deemed complete in accordance with the requirements of the CA, a statement of deemed completion may be issued. The date that the contract achieves deemed completion is the start of the 60 day lien expiry period (No publication required).

The Owner shall make payment of the holdback for finishing work where all liens that may be claimed against the holdback have expired or been satisfied, discharged or otherwise provided for under the CA.

If the Owner is going to refuse to pay some or all of the finishing holdback, and if no certification or declaration of substantial performance was published, the Owner must publish a notice of non-payment of holdback no later than 40 days after the date on which the contract was deemed complete.

Work continues beyond date of deemed completion to final completion (no holdback retained)

Contractor submits final application for payment.

If the payment certifier determines the contract is complete, they issue a final certificate for payment.

Owner pays final application for payment.

# A Guide to Project Closeout Procedures

*A joint publication of*



The Ontario General Contractors Association and the Ontario Association of Architects gratefully acknowledges the assistance of the following in the development of this guide (the “Guide”):

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The Ontario General Contractors Association (“OGCA”) and the Ontario Association of Architects (“OAA”) do not accept any responsibility for mistakes or omissions in this Guide. The OGCA, OAA and the authors are not engaged in rendering legal, accounting or other professional advice. If such legal advice or other expert assistance is required, the services of a competent professional should be sought.

This Document may be used as a reference in combination with OAA/OGCA Document No.100, dated December 12, 2007 - “RECOMMENDED PROCEDURES CONCERNING SUBSTANTIAL PERFORMANCE OF CONSTRUCTION CONTRACTS AND COMPLETION TAKE-OVER OF PROJECTS”

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## PREFACE

Getting a construction project to the Milestones of Substantial Performance of the Work and then to Completion and Turn Over are some of the most difficult challenges to be met during the construction of a facility. This process involves thousands of actions performed by hundreds, if not thousands, of individuals from all facets of the construction chain including manufacturers, distributors, suppliers, subcontractors, sub-subcontractors, contractors, construction managers, consultants, allied professionals, project managers, developers, owners, government, end users, etc. While the obligations of each are often detailed in the project documents and various contracts, they are not always coordinated as well as they could be, which can lead to costly and delays in achieving Substantial Performance and then total completion.

If you can't get it done, you can't reach Substantial Performance. If End Users are not able to use the facility as intended, then everybody has to spend more time and money to help wrap it up and everybody's monies are delayed.

The following is a Guide to Project Closeout Procedures. It has been created to assist in the process and make things go smoother, and as a reminder that the last 3% of the project is often taking at least 15% of the effort. It takes a team effort. So let's all try to work together to make the last 3% of the project 3% or less of the effort!

This Guide has been produced by the Ontario General Contractors Association, the Ontario Association of Architects and in cooperation with industry stakeholders representing owners, contractors and electrical and mechanical contractors.

The primary purpose of this Guide is to introduce the reader to best practices which will expedite and simplify the takeover of a project by its owner from the contractor who managed its construction.

The Guide contains recommended practices following the principles and methods for successfully completing the takeover process efficiently for all parties. The use of these practices will improve the process of closeout and takeover and reduce the problems associated with this stage of the project.

This Guide was prepared because members of the construction industry recognize that the closing out of construction projects has been getting more and more difficult. It is in the interests of the whole construction industry and owner to make the takeover of construction projects by owners more time effective and less stressful for all participants. In our discussions, certain themes came to the surface time after time of what could help ameliorate the situation:

- **Timeliness** – Takeover issues need to be addressed before the tendering of the project, for example by the owner / consultant communicating expectations in the bid documents, and then addressing them from the first site meeting onward and at every subsequent site meeting. Deficiencies need to be addressed as they are observed. The value of repairing deficiencies must be included as deductions in regular

Progress Draw calculations and applications for each trade. Don't wait until the crooked wall is painted before it needs to be fixed and repainted. The team (consultant / contractor / subcontractor) should identify the problem and have the crooked wall fixed immediately by its installer before it gets painted. Proceeding in this fashion will ensure that trades do not leave the construction site until their deficiencies are addressed and that deficiency lists are minimal.

- **Communication** – The owner / consultant needs to communicate not only the quality standards which are expected to be delivered on a particular project within the specifications at the time of the bidding process, but also the specific requirements in regard to deliverables and the level of commissioning activities to be completed prior to owner's occupancy. The need for this communication is to be continued throughout the project by all the players (there should be no surprises toward the end of the project slowing the closeout process).
- **Teamwork** – Something as complex and expensive as a construction project is best built with a sense of teamwork. If everyone in the process approaches the project with the sense that they are there to provide a quality job on time and on budget in a spirit of cooperation, a project can and will go very well.

To be part of a team, every member must take responsibility for their part of the Work and take an interest in facilitating every other team member's efforts. The subcontractors and suppliers should be expected to be active participants in the project and take responsibility for the quality and scheduling of their Work, work cooperatively with the contractor, consultants and other subcontractors, be mindful of the construction schedule and attend to deficiencies as soon as they come to their attention.

The recommendations in this Guide reflect these ideas. By following these principles, every member of the construction team will find the project more enjoyable and the stress of closing on the job will be reduced, if not eliminated.

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## **1. INTRODUCTION**

This Guide addresses the practices and processes involved to successfully manage and implement the takeover of the Work by the owner from the contractor. The Guide contains prescriptive requirements and recommended guidelines and forms that can be used to make for a more efficient and successful procedure. Most of the comments relate specifically to a design / bid / build procurement contract. However, most of the concepts apply to any form of construction procurement.

The Guide touches on the primary aspects of a project which are required for the transfer of documentation and information required for the closeout of the project.

The Guide does not interpret the Construction Lien Act and therefore readers are strongly urged to review the Act and obtain legal advice accordingly.

## **2. DEFINITIONS**

### **2.1 Contract**

The contract is the undertaking by the parties to perform their respective duties, responsibilities and obligations as prescribed in the contract documents and represents the entire agreement between the parties.

### **2.2 Contract Document**

The contract documents consist of those documents listed in the Agreement – contract documents and amendments agreed upon between the parties.

### **2.3 Contract Price**

The contract price is the amount stipulated in the contract documents expressed in Canadian Funds excluding Value Added Taxes which the owner has agreed to pay the contractor for the completion of the contract work and services.

### **2.4 Substantial Performance of the Work**

A contract is substantially performed when:

- (a) the improvement to be made under that contract or a substantial part thereof is ready for use or is being used for the purposes intended; and
- (b) the improvement to be made under that contract is capable of completion or, where there is a known defect, correction, at a cost of not more than:

- (i) 3 percent of the first \$500,000 of the contract price,
- (ii) 2 percent of the next \$500,000 of the contract price, and
- (iii) 1 percent of the balance of the contract price

[from s. 2(1) Construction Lien Act]

## **2.5 Deemed Completion**

A contract shall be deemed to be complete and services or materials shall be deemed to be last supplied to the improvement when the price of completion, correction of a known defect or last supply is not more than the lesser of:

- (a) 1 percent of the contract price;
- (b) \$1,000.00

[from s. 2(3) Construction Lien Act]

Section 2(3) of the Construction Lien Act defines “completion” of the contract for lien purposes. The Final Payment Certificate of the Payment Certifier showing the balance to complete of \$0.00 often serves to recognize that the contract is completed.

## **2.6 Owner**

The owner is the person or entity identified as such in the Agreement. The term owner means the owner or the owner’s authorized agent or representative as designated to the contractor in writing, but does not include the consultant.

## **2.7 Consultant**

The consultant is the person or entity engaged by the owner and identified as such in the Agreement. The consultant is the Architect, the Engineer or entity licensed to practice in the province or territory of the Place of the Work. The term consultant means the consultant or the consultant’s authorized representative.

## **2.8 Contractor**

The contractor is the person or entity identified as such in the Agreement. The term contractor means the contractor or the contractor’s authorized representative as designated to the owner in writing.

## **2.9 Subcontractor**

A subcontractor is a person or entity having a direct contract with the contractor to perform a part or parts of the Work at the Place of the Work.

## **2.10 Supplier**

A supplier is a person or entity having a direct contract with the contractor to supply products.

## **2.11 Shop Drawings**

Shop drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures, product data, and other data which the contractor provides to illustrate details of portions of the Work.

## **2.12 Work**

Work means the total construction and related services required by the contract documents.

## **2.13 Incomplete Work**

Incomplete work means Work specified in the contract documents that has not been performed or completed.

## **2.14 Deficiency Work**

Deficiency work means Work that has been performed, but performed incorrectly or to an inadequate standard, not performed as specified, or damaged prior to turnover to the owner.

## **2.15 Warranty Work**

Warranty work means completed work that requires completion after the date of substantial performance and is discovered prior to expiry of the contract warranty period or periods.

## **2.16 Deferred Work**

Deferred work is work which the owner and the contractor agree, or out of necessity, simply cannot be completed in a timely manner, such as landscaping work, and is therefore excluded from the calculation in determining whether substantial performance of a contract has been reached.

## **2.17 Ready for Use for the purposes intended**

Ready for Use is a concept used in determining whether substantial performance has been reached. Its meaning depends on what is being constructed under the contract in question: is it the entire project under a general contract or only one trade's contract work under a construction

management arrangement? Ready for Use intended can be when it is ready for the owner to occupy and fit out.

In the case of a hospital, for instance, it is not when it is ready for patients to move in or clinical procedures to begin, it is when it is ready for the hospital to occupy and make ready for them to initiate their fit out and training, etc. If it's the whole project, then the test is usually met once the new space is ready for occupancy. If it's only a trade contract, then the test is generally whether the trade's work is functional (e.g. mechanical) or ready for the next trade to take over (e.g. Gypsum Board ready for paint).

### **3. IMPLEMENTING A PROJECT CLOSEOUT PROCESS FOR PROJECTS**

The process of project closeout begins with the contract documentation stages by the consultant working with the owner and continues throughout the construction stage involving all players.

#### **3.1 Pre-Construction Phase**

##### **3.1.1 Contract Requirements for Closeout**

The contracting authority should, in the bid documents, clearly specify in a separate section what is required to meet Substantial Performance and all of the documentation that will be required at the time of closeout for owner occupancy or other intended use. Grouping this information together in a separate section of the specifications is a simple way to clarify for all members of the project team what is required to be done, by whom, to achieve substantial and total performance.

Instructions for Substantial Performance should make reference to the Construction Lien Act and not paraphrase the Sections of the Act.

#### **3.2 Construction Phase**

##### **3.2.1 Job Start Up Meeting**

Preconstruction Meeting – The following is an example of the members of the construction team who should be invited to such a meeting: architect, engineer, contractor, major subcontractor, and owner. There may be other specialized participants who should be invited depending on the complexity and scope of the project. Milestones for submittals and completeness should be established followed by meetings to review compliance. Review your QA/QC plan - provide quality expectations with mockups, submittals of samples, open manuals prepared for the inserts which will be provided, detail what inspections will be done, independent testing and inspection agencies, Schedule of Values to be used for payment certification – project Schedules.



### 3.2.2 Contractors' Logs

Closeout Log #1 - The contractor should, early in the process, prepare a list of what is to be included as part of the Turnover documents such as:

- spare parts
- as built drawings
- commissioning reports
- CBO certificate
- Fire Alarm certificate
- Balancing Reports
- testing certificates
- maintenance manuals, etc.

## 4. QUALITY

Quality Assurance (QA) has implications throughout the life of a project from its beginning to closeout. The consultant is in charge of Quality Assurance, the contractor of Quality Control. The consultant and subconsultants carry out Quality Assurance by means of establishing quality standards in the drawings and specifications; reviewing the job as it progresses; and requiring the necessary testing to be done by third party testing companies. The contractor carries out Quality Control by working with the consultant to meet the specified quality standards, making sure that the standards are communicated to the subcontractors, and making sure that the work undertaken complies with those standards and that deficiencies are brought to light as early as possible and addressed immediately by the responsible trade, without everyone waiting until the deficiency lists are produced near the end of the job. Quality control is the day-to-day, on the job, making certain that the contract is being carried out in accordance with the plans and specifications to the quality standards specified.

A well thought out and executed QA/QC program will make project closeout much easier and make the whole project run more smoothly. In the Project Development Phase, it is important that the documents convey the level of quality expected for the project.

A good idea is for the key consultants (i.e. architectural, structural, mechanical, electrical) to be involved in identifying key quality issues, i.e. what portions of the project are likely to create difficulties and portions of the project where quality standards are of critical importance to the consultant and owner. There may also be certain special items for which the level of quality is above an industry standard. These should be documented for bidders (i.e. workmanship, actual product specifications).

**QA/QC Milestone, Meetings & Guidelines (QA/QC may warrant a separate specification section)**

## 4.1 Consultants' and Contractors' Roles

A good QA / QC program is a key element to an effective closeout program.

- QA / QC needs to be part of every site meeting agenda, do not wait for deficiency inspections.
- The consultants and owner need to set and communicate quality expectations to all members of the project team as early in the process as possible. In drawings and specifications.
- One of the most important roles of the consultant is to manage owner's expectations and educate owners on the construction process. One important principle which construction reviewers need to abide by is consistency.
- It is helpful to also have the project designer involved early on, identifying areas of the project likely to create quality problems, due to workmanship or an actual product specification, areas or items for which the level of quality is higher than standard.
- Deficiencies should be addressed as soon as they are discovered.
- The consultant and contractor need to work together to implement the QA / QC program, uncover deficiencies, evaluate what is considered deficient in a consistent manner, set money aside in the monthly draw to cover identified deficiencies.
- Subcontractors are part of the QC team and must take responsibility for the quality of their work
- It is recommended that individual contractors and subcontractors undertake review, the preparation of a deficiency list, the completion of deficiency fix up where necessary, and make arrangements for the general contractor's and subsequent consultant's review of completed work. This process should occur at regular intervals if necessary and prior to the completion of their work to facilitate their full completion of remaining items in a timely manner.

The consultant needs to set out a standard at the beginning of the job. You need the owner, consultant, contractor and subcontractors to get together to make sure quality expectations are understood. This can be done in a variety of ways, including:

- Taking subcontractors to other buildings to see what quality is expected.
- The holding of minuted pre startup meetings which go through the various standards for waterproofing, window installation, etc.
- Start up meeting for important trades such as masonry with tie-ins to waterproofing and windows.
- The use of mock ups are very helpful.
- The sooner the quality expectations for a project can be communicated, understood and agreed by all parties, the better.

## **4.2 Owner's Role**

It is key that the owner provide the same authorized representative throughout the project. Owners have authority to make decisions or at least have decisions made quickly. Owners should have some responsibility to participate throughout the project, allowing themselves to be informed on the construction process and communicate their needs and expectations clearly early in the process via drawings and specifications plus early start-up meetings, then be consistent in how you apply them.

Owners have an important role to allow themselves to be informed by the project team and to commit the time and effort to evaluate whether the quality of what is being specified and later installed meets expectations and not wait for deficiency inspections.

## **5. FINANCIAL**

### **5.1 Progress Draws**

A line item could be included in the monthly draws to cover specified deliverables. At 75% complete, a nominal sum, e.g. \$5,000, could appear as a line item that is paid once the closeout items such as 'As Built Drawings', manuals, warranties are submitted then the line item may be paid out. The subcontractors deliver much of the closeout material and must have an incentive to deliver the material in a timely fashion.

Trades should not be certified or signed off as complete when there is work outstanding or deficiencies to correct. The contractor should ensure that the subcontractor complies with their responsibilities before agreeing to ask for the consultant to sign off.

### **5.2 Deficiency Retainage**

Deficiencies need to be completed as soon as possible to avoid delays in the process. The consultant and contractor must work together to judge the value of deficiencies to establish the value of works early. Payment certifiers must accurately value deficiencies to avoid placing undue hardship on subcontractors who have completed their work. Payment Certifiers should be assessing the percentage of work complete – and using deficiency lists to reduce draw payments by an amount equivalent to the cost of repairing deficiencies.

The contractor and subcontractors play an important role in identifying, repairing, and pricing deficiencies. Some contractors require subcontractors to itemize and price deficiencies when submitting monthly invoices to the contractor.

## 6. OCCUPANCY

An important issue is providing the subcontractor with sufficient time to complete deficiencies between the preparation of the deficiency list and the owner moving in. Once the move in takes place, it can make deficiency completion very difficult. Good planning needs to take place when an owner needs occupancy before the deficiency list is complete.

A good idea is to schedule a pre-occupancy review with the consultants and owner a minimum of one week prior to the planned occupancy date to allow for deficiency completion. The contractor should organize all trades to be prepared to get in and clear out the deficiencies quickly before move-in.

**For required inspections, refer to Ontario Building Code (Section 1.3.3 Occupancy of Unfinished Buildings) (Appendix 2)**

### 6.1 Phased or Partial Occupancy

More and more, especially in large complex buildings (both new and renovated), phased or partial occupancy is a requirement of the owner and must be clearly identified in the bid documents.

The bid documents should clearly define the sequencing of any phased occupancy (generally a requirement of the owner's operations); the length of time required for any decanting and move in by the owner where it will impact the ongoing operations of the contractor; and the specific closeout requirements prior to the owner's acceptance for occupancy. The specific closeout requirements will generally mirror those for final occupancy but will not generally include substantial performance requirements (held off until final occupancy). Decisions regarding the start date of warranties for the phased or partially occupied areas and for any equipment or systems related to its use should be predetermined and agreed to as the owner has beneficial use.

It is important for consultants to describe planned phasing requirements in the bid documents as it needs to be considered for pricing. It will take extra time and money; all parties should be aware of any known plans as early as possible. For greater clarity for pricing, this should be noted in the bid documents.

The owner will be responsible for operating, maintaining, and insuring the occupied areas and related equipment and / or systems.

### 6.2 Occupancy prior to Deemed Completion

This refers to the period between substantial performance of the project and Deemed Completion when the owner has occupancy where there remains incomplete work and/or deficiencies to complete. As has been noted above,

this requires careful planning and coordination by the contractor and owner and a clear communication by the owner to the occupants of what and what not to expect during this period.

## **7. INSURANCE AND BONDING**

### **7.1 Bonding**

Performance Bonds cover the standard one year comprehensive warranty required by CCDC 2 - GC 12.3. Surety companies, for an extra charge, may also provide a second year of comprehensive warranty coverage if required to by the contract specifications. If a contractor is not completing the work or carrying out warranty work during the one (or two) year comprehensive warranty period, the owner should notify the surety company of such a breach. The owner has paid for this coverage and has every right to call on the surety to address the failure of the contractor to complete the work. Contractors are very conscious of the importance of their relationship with their surety company. Surety companies constantly monitor their clients; any complaints to the surety company from an owner that a contractor is not complying with their contractual responsibilities are taken very seriously. Construction bonds provide a means of protecting the owner's rights under a construction contract.

### **7.2 Insurance**

It is a general principle that the party who has the care and control of a facility is in the best position to provide project insurance. When a project, such as an addition / renovation, involves multiple occupants (e.g. tenants) of a building, it is usually better for the owner to carry the property and liability insurance policies. It is also good practice to have one insurance company providing as much of the insurance coverage as possible to reduce the likelihood that a dispute will arise as to which policy should cover any claim that might arise.

If the contractor is providing either Property or General Liability coverage for a project, Insurance coverage must change from the contractor's to the owner's policy when the owner's employees begin to use the facility for the purpose for which it was built. Prior to the owner's employees starting this use, the contractor must make it clear to the owner that his insurance policies must take over coverage before his employees can begin to use the building. A good method of insuring that this change of coverage takes place is for the contractor to send the owner a letter setting out the date on which insurance coverage will move from the contractor's policy to the owner's policy and include a place for the owner to sign an acknowledgement that they agree with the change in coverage. The letter is then signed by the owner and faxed back to the contractor who in turn faxes a copy of the acknowledged letter to your broker. N.B. For the owner - Now that your insurance policies are covering the project, the contractor should be added as an additional insured to the owner's

policies and be provided with a Certificate of the policy until the deficiencies are complete.

## **8. UTILITIES**

Utility charges transfer to the owner on the date of substantial performance and, if applicable, any accepted date of phased or partial occupancy. This process should be documented in the specifications. If not, an agreement as to sharing of costs should be reached as early as possible, where continuing contractor operations are carried out beyond these dates.

## **9. COMMISSIONING**

**9.1** Commissioning is a term often misused to refer to those activities that occur when a project is taken over by the client. In actual fact, commissioning is a separate and distinct service, which may commence at the beginning of a project and may continue until, and in some instances, after, occupancy by the owner. Commissioning is an additional service often provided by an independent third party – a commissioning agent. Large or complex projects may require the participation of a commissioning agent to manage and verify the design performance of all the components and systems of the building's operation or as a minimum, those identified by the consultant and owner and specified to be critical or necessary.

In some smaller & simpler projects, typical start up demonstration and review by the Prime consultant and subconsultant is usually sufficient.

Commissioning includes a range of activities undertaken to transform the design of a facility into a fully integrated and operating system. It is a process of quality assurance which:

- Begins with the definition of the 'design intent' and ends with the delivery of a building;
- Confirms the contractor's implementation of the consultant's design as defined in the contract documents;
- Confirms the ability of the consultant's design to satisfy the owner's defined requirements;
- Addresses any shortcomings.

One product of the commissioning process is an accurate project database.

For large and/or complex projects, the owner may engage a commissioning agent as an independent third party to verify that both the facility design and the resulting construction satisfy the owner's objectives and requirements. In

addition, the commissioning agent verifies the contractor's performance of the contract.

Early involvement of a commissioning agent as a project team member can assist in clear communication of the design intent to both the consultant and the contractor.

Because the contractor is usually a late arrival to the project team, an explanation of the verification and testing procedures by the commissioning agent should appear in the bid documents. This will assist bidders in evaluating the time and cost implications of a commissioning agent's participation and the agent's impact upon acceptance of the work.

Bid documents prepared with input from the commissioning agent should include:

- The commissioning plan, including the scope and sequence of the commissioning program;
- The commissioning specifications, including a manual with examples of verification forms and testing procedures, noting probable duration;
- Any specialized documentation related to testing, such as CSA Standards, which may describe options for testing methods;
- Standards for submission and acceptance of:
  - Shop drawings;
  - Contractor's tests;
  - Product, systems, operations, and maintenance manuals;
  - Training programs;
  - Post-occupancy or seasonal testing;
  - Detailed list of commissioning activities to be completed prior to owner's takeover and occupancy of the building or part thereof.

## **9.2 Systems Verification**

The process of systems verification begins after all components within the system are accepted and deficiencies are corrected. The contractor's schedule for the timing, sequencing, and proving of systems will require regular commissioning meetings to ensure that all parties are available to:

- Verify that all prerequisites to testing are in place;
- Review test procedures and acceptable results;
- Witness tests.

Failure to verify can seriously affect the construction schedule and can result in delays and claims. To avoid delays:

- Have the subcontractors responsible prove or test systems prior to witnessing by the commissioning agent;

- Provide for subcontractor and sub-subcontractor acceptance on verification forms prior to Contractor acceptance.

After sign-off by the contractor, the consultant should then certify their recommendation of acceptance. Variances from the design identified during systems testing will require investigation and reporting by the consultant.

Because many integrated systems tests require that certain post-occupancy conditions be in place (for example, all equipment, furnishings, and building users in operation), the consultant and the commissioning agent should consider preliminary or conditional testing and recommended acceptance of certain sub-systems.

### **9.3 Equipment Start Up**

As the project nears completion, completion dates should be set for the startup of equipment and the review by the appropriate consultant. Reports from the startup process should be submitted as part of the final submittals.

### **9.4 System Demonstration**

Demonstration should take place just prior to turnover, allowing enough time for the occupants to have a thorough understanding of the operations. At the outset of the project, the owner, consultant, contractor, subcontractor, and suppliers should prepare a plan to carry out the demonstration. The plan should include number of attendees, the duration for instruction, any special requirements from any party and should include the commissioning agent. (Note the premises may still require that the owner's personnel have protective equipment.) In order to help the owners train others or refresh the personnel, it is recommended that on more complex projects, the owner or contractor record the training sessions. This should be clearly defined in the bid documents.

All access to the site for owner's staff must be arranged through the contractor.

## **10. DEFICIENCIES**

### **10.1 Deficiency Inspections**

As part of establishing substantial performance, it is necessary to place a value on project deficiencies. The contractor and subcontractors will prepare lists of deficiencies; address as many of the deficiencies as possible, and then hold a formal deficiency review. This review requires the participation of the owner, consultants, contractor, and subcontractors. It is pointless to hold the deficiency review until the finished lighting is operational as the quality and



direction of the lighting may reveal defects which would not otherwise be noticeable.

Subcontractors should be involved early in the deficiency process, preparing their own deficiency lists. This will make the final review much easier for all parties. The subcontractors must take responsibility for the quality of their work.

A distinction should be made between cosmetic deficiencies and operational deficiencies so as to ensure that the proper individuals are involved in their correction. For example, an operational deficiency may need to have the input of maintenance staff.

The goal is to have all deficiencies corrected prior to the consultant's review.

## **11. TURNOVER DOCUMENTS**

### **11.1 Documents**

The owner will be relying on the 'as built' drawings and manuals for as long as the structure is in use. A monetary value may be assessed to the value of these documents up front so they are part of the Schedule of Values in the monthly Progress Draw system (in the bid specification). Make them a line item from the beginning and they are either submitted or approved or not, no partial draws should be allowed. A value should be assigned that reflects the cost of creating the drawings and assembling the manuals and acts as an incentive to submit them as soon as they are available.

On a larger project, the owner may place a monetary value on the Operation & Maintenance Manual materials. If a value is assigned to the documents, it should be a specific dollar amount, not a percentage of the project value.

Another suggestion is to break down the monetary value of submittals against the mechanical manuals / electrical manuals and release money as each are submitted.

### **11.2 Shop Drawings**

All finally reviewed shop drawings, if required, are to be submitted to the owner by the contractor. The submittal of shop drawings is to be completed once they have been reviewed for general conformance.

### **11.3 Operation & Maintenance Manuals**

Operation manuals differ significantly from the compilation of shop drawings. This documentation provides information with regards to the regular

maintenance and cleaning instruction of materials, necessary instructions in order to operate systems and equipment. The owner will be required to operate and maintain the systems and equipment. This documentation is considered essential at the turnover of phased, partial and final occupancy and should coincide with the demonstrations.

Maintenance Manuals are instructions regarding the upkeep required for finishes and various components of equipment and systems. These can specify, for example, cleaning methods and materials or regularly scheduled maintenance of equipment. Again, this is essential at turnover as the owner will be responsible for complying with maintenance requirements in order not to void any warranties.

There is a growing trend of contractors to provide the consultant or owner with Binders already made up with divisions for the owner to insert the manuals as they are submitted by the contractor.

#### **11.4 Spare Materials, Parts and Tools**

Provide all specified spare materials and tools and obtain a signed receipt of inventory from the owner's representative.

#### **11.5 As Built Drawings**

It should be clearly defined in the specifications as to what the requirements for 'As built' drawings vs. 'Record' drawings will be.



Ontario Association of Architects



## Joint Best Practice Statement Shop Drawing Schedule

Issued September 27, 2010

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This document is issued jointly by the Ontario Association of Architects and the Ontario General Contractors Association and provides information relative to best practices in regard to schedule for shop drawings.

At the commencement of the work, the Contractor and the Consultant shall prepare, for the joint review and acceptance by the Consultant and the Contractor, a schedule of the dates for the submission and return of shop drawings and other submittals where called for in the Specifications (which in no event will be more than 10 working days following submission and 10 working days following any resubmission or such other period as may mutually agreed upon by the Contractor and Consultant) in order that there is no impact on the construction schedule.

The shop drawing and other submittals schedule shall provide for the submission of shop drawings and other submittals in an orderly sequence and sufficiently in advance to allow for the Consultant's proper review and so as to cause no delay to the Work. If at any time the Contractor submits an unusually large number of shop drawings and other submittals not contemplated by the schedule, such that the Consultant cannot process these within the time permitted in the schedule, the Consultant will, within 5 working days of receipt of such drawings and other submittals, provide the Contractor with an estimate of time necessary for processing such shop drawings and other submittals.

The Contractor shall periodically resubmit the schedule to correspond to any changes in the construction schedule for the joint review and acceptance by the Consultant and the Contractor.

Enquiries should be directed to:

*Ontario Association of Architects*  
111 Moatfield Drive  
Don Mills, Ontario  
M3B 3L6  
Phone: (416) 449-6898  
Fax: (416) 449-5756  
[www.oaa.on.ca](http://www.oaa.on.ca)

*Ontario General Contractors Association*  
703 – 6299 Airport Road  
Mississauga, Ontario  
L4V 1N3  
Phone: (905) 671-3969  
Fax: (905) 671-8212  
[www.ogca.ca](http://www.ogca.ca)



Ontario Association of Architects



## Joint Best Practice Statement As-Built and Record Drawings

Issued October 21, 2010

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This document is issued jointly by the Ontario Association of Architects and the Ontario General Contractors Association and provides information relative to best practices in regard to dealing with and preparing as-built drawings and record drawings and conveys standard industry practice in regards to both.

The terms record drawings, as-built drawings and sometimes measured drawings are often confused and/or misused. Record drawings should not be mistaken for as-built drawings nor for measured drawings.

**As-built drawings** are those prepared by the contractor as it constructs the project and upon which it documents the actual locations of the building components and changes to the original contract documents. These, or a copy of same, are typically turned over to the architect or client at the completion of the project.

**Record drawings** are those drawings prepared by the architect when contracted to do so. These are usually a compendium of the original drawings, site changes known to the architect and information taken from the contractor's as-built drawings.

**Measured drawings** is the term recognized in the industry to describe the drawings prepared from on-site measurements of an existing building or space. It can be for a building to which additions or alterations will be made; or for spaces which are intended for lease and from which drawings the areas for lease purposes will be calculated.

### **PROCEDURE for Preparation of As-Built Drawings**

General Contractors are responsible for creating "As Builts" from field data collected during the course of the project. Field data is defined as information collected on site while constructing the project that is not available from the contract documents, addenda, change orders, or site instructions. It is of importance that the Contractor record on the "As Builts" all field information relating to concealed conditions.

Contractors may be required by the contract documents to provide a greater degree of accuracy in some areas of the as-builts. The contractor should include adequate monies for this work in their tender price.

General Contractors are not responsible for the creation of record drawings and should advise any client or architect who requests something other than the standard industry practice that the contractor cannot accept this responsibility. The record drawings contain the intellectual property of the architect and should be respected.

Contractors who have the capacity to use auto cad may offer to do so voluntarily, but shall also be compensated appropriately for converting as-builts to this format. Contractors should raise this issue prior to tender closing with the tender authority and ensure that any additional costs that may be required are included in their bid.

### **PROCEDURE for Preparation of Record Drawings**

Architects should arrange with their clients prior to executing contracts as to requirements for record drawings at the close of the project. Architects should be advising their clients that providing “record drawings” is an additional services and the appropriate cost should be included in their fees to the client. A per diem rate is one equitable arrangement which recognizes that the extent of this service is indeterminate at the outset of the project.

An architect, who is not engaged to provide general review services for both code and non-code related work, should advise their client that they are not in a position to prepare record drawings since they will not be aware of all changes during construction.

It is not unusual for clients to expect record drawings in electronic format and therefore it is prudent to determine whether the client requires the architect to generate the record set of drawings, how many copies will be required as well as the medium, prior to finalizing the Client/ Architect Contract rather than leaving it for discussion at the end of the project.

An Architect who is engaged for general review, should discuss with his/her client at the outset of the project whether or not the client will require record drawings, the format required, the extent of detail and degree of accuracy in specific areas if required and whether these will include:

- transference of information from the contractor’s as-built drawings
- incorporation of known site variants not shown on as-built drawings
- incorporation of addenda into the originals
- incorporation of change orders into the originals
- incorporation of site instructions into the original

Some clients may need a greater degree of accuracy in some parts of the drawings than in others. As well, verification of specific portions of the work that was changed from the original drawings may be critical to some clients.

Ensure that appropriate statements are added to the drawings to avoid misunderstanding of the purpose and intent of the record drawings.

Establish whether as-builts to be prepared by contractor will be in hard copy or electronic format prior to bidding phases. If an electronic copy is requested it is important to define clearly what format that entails (e.g. PDF vs. AutoCad). Include the required as-built format, including required software, in the bid documents to avoid disputes in this regard at a later date.

It is recommended that architects remove their seal to help avoid the possibility that the drawings may be used as part of an application for a building permit without the architects knowledge and involvement.

It is important that the architect not represent that the record drawings are claiming to be the way that the building was in fact constructed. The following sample statement placed on the record drawing illustrates this principle:

*"The issuance of this record drawing is a representation by the architect that the construction, enlargement or alteration of the building is in general, as opposed to precise, conformity with the design prepared and provided by the architect, but is not a representation that the construction, enlargement or alteration of the building is in conformity with a design that has been prepared or provided by others."*

It is recommended that a clear statement be made prominently on the record drawing disclaiming accuracy and completeness of information transferred from the contractor's as-built drawings. The following statement is recommended for this use:

*"The revisions to these contract documents, reflecting the significant changes in the Work made during construction, are based on data furnished by the contractor to the architect. The architect shall not be held responsible for the accuracy or completeness of the information provided by the contractor."*

In some instances, the client may require the record drawings to incorporate all changes made via addenda and change orders. This can be extensive and prudence dictates that the client and architect should discuss and agree prior to execution of the contract whether or not this service will be required. Fees should be adjusted relative to the extent of service required.

Architects should explain to clients, and ensure that their contracts include, provisions in regard to client's use of record drawings, the copyright of the architect and the waiver in regard to the reliance on the contractor's as-built drawings.

Enquiries should be directed to:

Ontario Association of Architects  
111 Moatfield Drive  
Don Mills, Ontario  
M3B 3L6  
Phone: (416) 449-6898  
Fax: (416) 449-5756  
[www.oaa.on.ca](http://www.oaa.on.ca)

Ontario General Contractors Association  
703 – 6299 Airport Road  
Mississauga, Ontario  
L4V 1N3  
Phone: (905) 671-3969  
Fax: (905) 671-8212  
[www.ogca.ca](http://www.ogca.ca)

## **11.6 Source List – Subtrades, Suppliers**

It is a good idea, whether specified or not, for the contractor to provide the owner with a source list identifying subcontractors and suppliers of materials and equipment for their ongoing use.

## **12. WARRANTY PERIOD**

### **12.1 Warranty Administration Process**

Meet to discuss Warranty Administration Process – the consultant’s role generally continues throughout the Warranty period – owner – consultant – contractor – subcontractor, often the owner goes directly to the subcontractor, which is okay in an emergency. However, the warranty chain is ideal - it lets all know what is happening.

### **12.2 Warranties**

Warranties for the project typically start at substantial performance of the work or on the date of occupancy of a phased or partial occupancy. Any extended warranties typically start at the expiration of the contractor’s one year warranty. As part of the final submittals, the contractor will typically provide a letter of warranty for the entire work. Letters from suppliers and subcontractors are not required as part of the submission unless they are for extended warranties. In these cases, the contractor is required to obtain these warranties for the owner and a direct contractual relationship between the owner and the respective subcontractor or supplier will occur after the initial one year warranty.

GC 12.3 of CCDC 2 provides for a one year comprehensive warranty for the work from substantial performance of the project. Contract specifications may provide for a two year comprehensive warranty that covers all the work. As part of the final submittals, a letter of warranty for the entire work may be required from the contractor. Under GC 12.3, it is the contractor who is responsible to administer warranty work, which is generally carried out by the subcontractor who installed the work, which is giving the problem. It is not always easy to pinpoint what the source of a problem is (i.e. roofing leaks), and therefore who is responsible to resolve it. This is where the expertise of the contractor is useful. It is frequently true that problems arise where the work of several subcontractors intersect.

Specifications often call for extended warranties of varying durations. These are provided by manufacturers of products such as windows, roofing materials, mechanical systems, etc. As part of the final submittals, the contractor will typically provide letters from suppliers and subcontractors setting out the terms of the extended warranties. In these cases, the subcontractor is required to obtain these warranties for the owner and a direct contractual (warranty)

relationship between the owner and the respective subcontractor or supplier will occur after the initial one year warranty.

### **12.3 Warranty Period**

During the comprehensive warranty period, the owner should be contacting the consultant, who contacts the contractor who contacts the subcontractor to have a problem fixed. Refer to the 'Warranty Notice' form [Appendix 5]. The form should be filled out so that everyone in the chain knows what is happening. Of course, if there is an emergency, the owner can call the relevant subcontractor directly to have emergency action taken.

It is good practice to hold an eleventh month warranty review with the consultants, contractor, and owner in attendance.



**APPENDICES:**

Appendix '1' Chronological flow chart of Legal / Contract and construction events

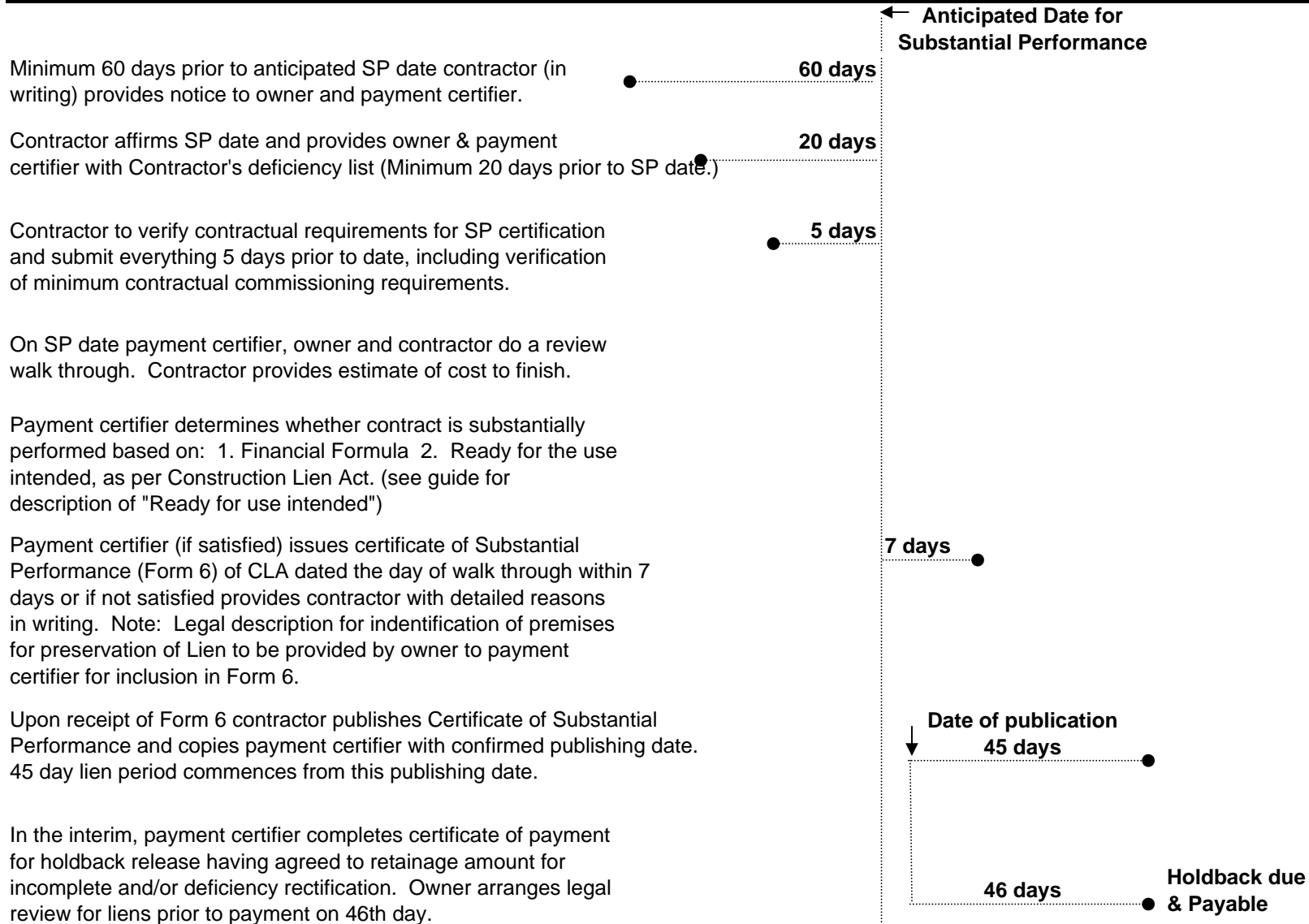
Appendix '2' Occupancy Requirements

Appendix '3' Sample Turnover Document Check List

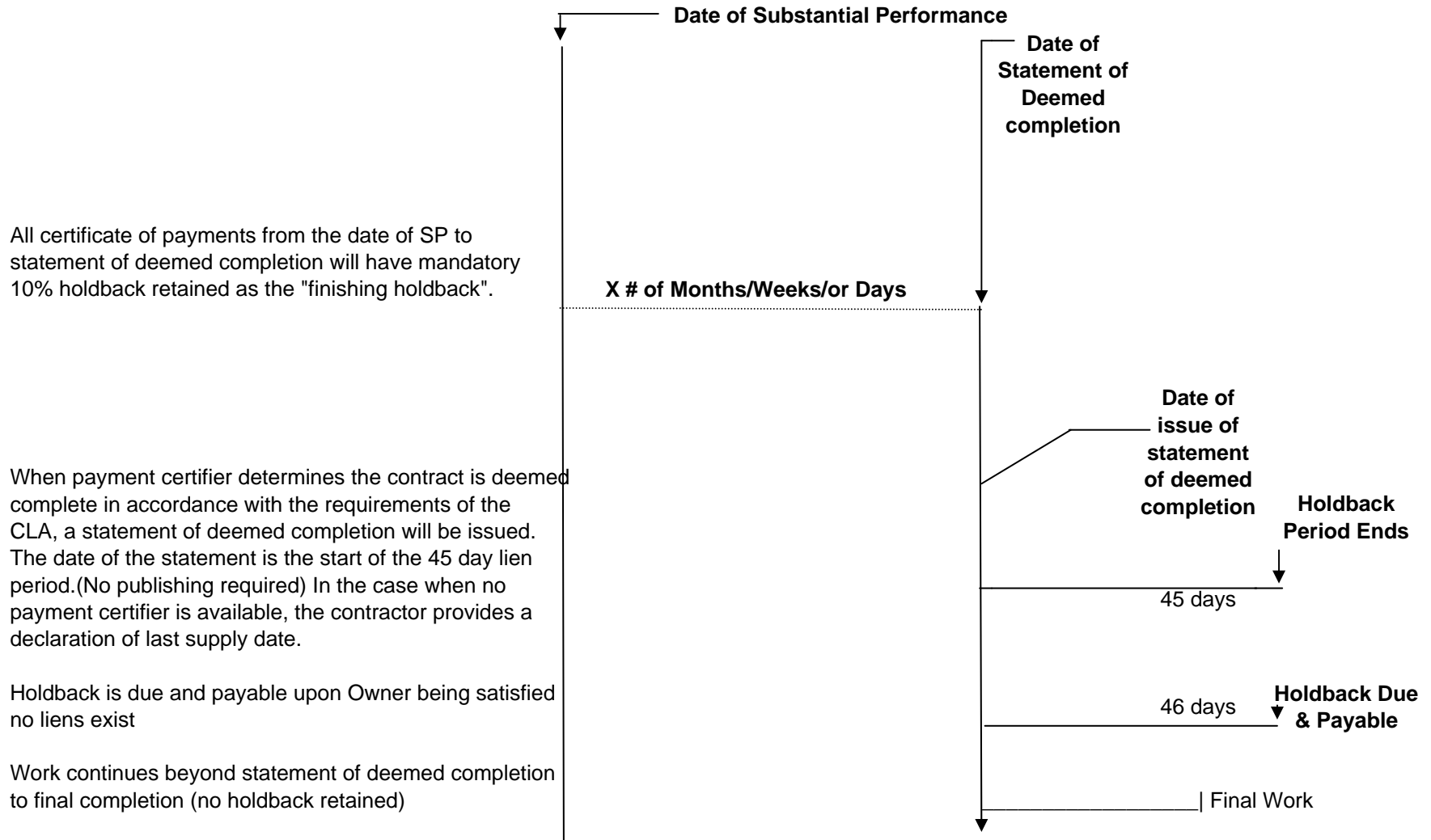
Appendix '4' Warranty Notice Form

## Time Chart for Date of Substantial Performance of the Contract

## Appendix 1



**Time Chart for Date of Deemed Completion of the Contract (post Substantial Performance)**



## OCCUPANCY REQUIREMENTS

The Ontario Building Code 2006 governs the requirements for occupancy of all types of buildings.

Inspections are required prior to an occupancy permit being issued.

The requirements for such occupancies are taken from the “unofficial version of Government of Ontario legal materials”.

For any updates, please check with your local building department.

### 1.3.3 Occupancy of Unfinished Building

#### 1.3.3.1. Occupancy Permit

- (1) Except as permitted in Sentence 1.3.3.2.(1), a person may occupy or permit to be occupied any *building* or part of it that has not been fully completed at the date of occupation where the *chief building official* or a person designated by the *chief building official* has issued a permit authorizing occupation of the *building* or part of it prior to its completion in accordance with Sentence (2).
  
- (2) The *chief building official* or a person designated by the *chief building official* shall issue a permit authorizing occupation of a *building*, where,
  - (a) the structure of the *building* or part of it is completed to the roof,
  - (b) the enclosing walls of the *building* or part of them are completed to the roof,
  - (c) the walls enclosing the space to be occupied are completed, including balcony *guards*,
  - (d) all required *fire separations* and *closures* are completed on all *storeys* to be occupied,
  - (e) all required *exits* are completed and fire separated including all doors, door hardware, self-closing devices, balustrades and handrails from the uppermost floor to be occupied down to *grade* level and below if an *exit* connects with lower *storeys*,
  - (f) all shafts including *closures* are completed to the floor-ceiling assembly above the *storey* to be occupied and have a temporary *fire separation* at such assembly,
  - (g) measures have been taken to prevent access to parts of the *building* and site that are incomplete or still under *construction*,
  - (h) floors, halls, lobbies and required *means of egress* are kept free of loose materials and other hazards,
  - (i) if service rooms should be in operation, required *fire separations* are completed and all *closures* installed,
  - (j) all *building drains*, *building sewers*, *water systems*, *drainage systems* and *venting systems* are complete and tested as operational for the *storeys* to be occupied,
  - (k) required lighting, heating and electrical supply are provided for the *suites*, rooms and common areas to be occupied,
  - (l) required lighting in corridors, stairways and *exits* is completed and operational up to and including all *storeys* to be occupied,
  - (m) required standpipe, sprinkler and fire alarm systems are complete and operational up to and including all *storeys* to be occupied, together with required pumper connections for such standpipes and sprinklers,
  - (n) required fire extinguishers have been installed on all *storeys* to be occupied,
  - (o) main garbage rooms, chutes and ancillary services thereto are completed to *storeys* to be occupied,
  - (p) required fire fighting access routes have been provided and are accessible, and

- (q) the *sewage system* has been completed and is operational.
- (3) Where a *registered code agency* has been appointed to perform the functions described in clause 4.1 (4) (b) or (c) of the Act in respect of the *construction* of the *building*, the *chief building official* or a person designated by the *chief building official* shall issue the permit referred to in Sentence (2) after receipt of a *certificate for the occupancy of a building not fully completed* issued by the *registered code agency* in respect of the *building*.

#### **1.3.3.2. Conditions for Residential Occupancy**

- (1) A person may occupy or permit to be occupied a *building* intended for *residential occupancy* that has not been fully completed at the date of occupation provided that,
  - (a) the *building*,
    - (i) is of three or fewer *storeys* in *building height* and has a *building area* not exceeding 600 m<sup>2</sup>,
    - (ii) has not more than 1 *dwelling unit* above another *dwelling unit*,
    - (iii) has not more than 2 *dwelling units* sharing a common *means of egress*, and
    - (iv) has no accommodation for tourists,
  - (b) the following *building* components and systems are complete, operational and inspected,
    - (i) required *exits*, handrails and *guards*, fire alarm and detection systems, and *fire separations*,
    - (ii) required exhaust fume barriers and self-closing devices on doors between an attached or built-in garage and a *dwelling unit*, and
    - (iii) water supply, sewage disposal, lighting and heating systems,
  - (c) the following *building* components and systems are complete, operational, inspected and tested:
    - (i) *water systems*,
    - (ii) *building drains* and *building sewers*, and
    - (iii) *drainage systems* and *venting systems*, and
  - (d) where applicable, the *building* conforms to Article 3.1.1.3. or 9.1.1.7. of Division B.

#### **1.3.3.3. Notification**

- (1) Where a person has occupied or permitted the occupancy of a *building* under this Subsection, such person shall notify the *chief building official* forthwith upon completion of the *building*.



ABC Company Ltd.  
123 Main Street  
Anytown, Ontario  
L0L 0L0

### Project Closeout Control Form

Project: \_\_\_\_\_

Project No.: \_\_\_\_\_

#### ARCHITECTURAL

DESCRIPTION	RESPONSIBILITY	DATE RECEIVED	DATE TO CLIENT
Fire & Smoke Separation and Closures Completed			
All required exits and hardware are complete and operational including mag locks and signage if applicable			
Hold Open at rated doors have appropriate ceiling F.A. detectors			
All shaft enclosures are completed			
Elevator final acceptance notice			
Operating Manuals, As Built Prints and			
AutoCAD files			
Consultant General Review Commitment signoff letter			
Structural			
Mechanical			
Electrical			
Other (i.e. landscape, elevating device consultant)(Structural Studs)			
Independent Inspection Soils, Concrete Masonry, etc.			
Independent Inspection Report for spray fireproofing conformance			
Independent Inspection / Roof			
Independent Inspection / Air Barrier			
Independent Inspection / Asphalt			
Deficiency Reports			
Spare Material Turn Over to Client			
Cubicle Curtains have 450 mm mesh top to coordinate with sprinkler operation			
Material flame spreads smoke generation info for Building and Fire Dept.			
Turn over shop drawings and list to owner			







## SHOP DRAWINGS AND SAMPLES

Section 2	Title/Description	Manufacturer	Contact & No.	Remarks
2480	Landscaping 1 Year Warranty			
2500	Paving and Surfacing 1 Year Warranty			
2600	Sewers and Watermains 1 Year Warranty			

Section 5	Title/Description	Manufacturer	Contact & No.	Remarks
5100	Structural Metal Framing 1 Year Warranty, As-Built, Touch Up Work			
5300	Metal Decking 1 Year Warranty			
5500	Metal Fabrication 1 Year Warranty, Touch Up Work			

Section 6	Title/Description	Manufacturer	Contact & No.	Remarks
6100	Rough and Finished Carpentry 1 Year Warranty			
6400	Architectural Woodwork 1 Year Warranty			

Section 7	Title/Description	Manufacturer	Contact & No.	Remarks
7270	Firestopping and Smoke Seals 1 Year Warranty, Manufacture's Certificates			<i>Indicate batch number, manufacturing date (s) and be addressed to sub-contractor</i>
7420	Aluminum Composite Panels 1 Year Warranty, Maintenance Data			
7510	Built Up Bituminous Roofing 5 Year and 10 Year Warranty			
7900	Joint Sealers  10 Year Manufacturer Warranty, 2 Year Written Warranty			

Section 8	Title/Description	Manufacturer	Contact & No.	Remarks
8100	Metal Doors and Frames CSDFMA Warranty			
8200	Wood and Plastic Doors 3 Year Warranty (Institutional Doors), 1 Year Warranty (Residential Doors), Life of Installation Warranty (Interior Fire Doors)			
8400	Entrances, Storefronts, Metal Windows 1 Year Warranty			
8700	Hardware 1 Year Warranty, Maintenance Material			2 sets wrenches for door closure and locksets; 2 sets of manufacturers instructions for door closers, locksets, door holders and panic hardware
8710	Overhead Concealed Automatic Aluminum Slide Door System 1 Year Warranty, Maintenance Material, Safety Data, O & M Materials			
8800	Glass & Glazing 1 Year Warranty			
8900	Aluminum Curtain Wall 1 to 5 Year Warranty			

Section 9	Title/Description	Manufacturer	Contact & No.	Remarks
9250	Gypsum Wallboard & Acoustic Ceiling 1 Year Warranty, Maintenance Material, Extra Stock Extra Stock: 2 % extra stock for each type of ceiling tile used			
9400	Terrazo Tile 1 Year Warranty, Maintenance Data			
9650	Resilient Flooring 1 Year Warranty, Maintenance Material, Extra Stock Extra Stock: 2 % extra stock for each type of floor tile used			
9680	Carpeting 1 Year Warranty, Maintenance Data, Extra Stock			

	Extra Stock: over and above usable cuttings, provide 5% extra stock			
9900	Painting 1 Year Warranty, Extra Stock Extra Stock: 1 litre of each finish material in each colour used on jobsite			

Section 10	Title/Description	Manufacturer	Contact & No.	Remarks
10250	Specialties 1 Year Warranty			

Section 11	Title/Description	Manufacturer	Contact & No.	Remarks
11730	Headwall Units 1 Year Warranty			
11760	Operating Room Ceiling Columns O & M Data			

Section 15	Title/Description	Manufacturer	Contact & No.	Remarks
15000	Mechanical- General Requirements As- BUILTs, 1 Year Warranty, Extended Warranties, O& M Data			
15300	Sprinklers As-Built, Extra Stock, O & M Materials, Warranties  Extra Stock: Furnish one approved metal cabinet containing eight spare upright type sprinkler heads and two spare pendant type sptinkler heads with the necessary tools for replacing the same.			<i>O &amp; M Data for: Pumps and controllers, backflow preventions</i>

Section 16	Title/Description	Manufacturer	Contact & No.	Remarks
16010	Electrical- General Requirements 1 Year Warranty, As-Built, O & M Datal (as per Specifications), Certificates (as per Specifications)			

**WARRANTY NOTICE**

From: \_\_\_\_\_  
*Owner / Consultant \**

Notice Number: \_\_\_\_\_

To: \_\_\_\_\_  
*Contractor*

Address: \_\_\_\_\_

Work: \_\_\_\_\_  
*title and location*

\_\_\_\_\_  
\_\_\_\_\_

Pursuant to paragraph 12.3.4 of GC 12.3 – WARRANTY of the *Contract* dated \_\_\_\_\_  
between \_\_\_\_\_  
and \_\_\_\_\_

notice is hereby given of an observed defect or deficiency in the *Work* as outlined below.  
Commence correction of the said defect or deficiency within \_\_\_\_\_ days, and notify the  
*Owner* and *Consultant* upon completion.

Description:

\_\_\_\_\_

**Issued by the Owner / Consultant \***

\_\_\_\_\_  
*name and title of person signing*

\_\_\_\_\_  
*signature*

\_\_\_\_\_  
*date*

distributed to:

*\*strike out as appropriate*

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# Memorandum

**To: Council**

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Spiegel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 4.4

**From:** Kristiana Schuhmann, Vice President & PRC Chair

**Date:** September 10, 2024

**Subject:** Updates to Practice Tip PT.25 Design-Build

**Objective:** To review and endorse new Practice Tip PT.25 for OAA 600-2021 and withdraw the previous version.

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## Background

The OAA's Practice Tips are accessed via the OAA website, and although written primarily for architects, they are also a resource for clients, lawyers, and other industry professionals. They are meant to be concise and follow a consistent structure and tone.

The launch of the [OAA Contract Suite 2021](#) has resulted in a need to update other parallel resources on the OAA Website. [Practice Tip PT.25 Design-Build: OAA 600 – 2013 \(refer to Appendix 2\)](#) had been identified as one of them. Since this practice tip provides a template for amendments to the OAA's standard form of contract when the design-builder is the client, legal input was required. The proposed content for this resource is organized to work alongside the OAA 600-2021 Contract and Guide therefore requiring a reorganization of the information to match the new contract structure.

External legal counsel, Pro-Demnity, the Practice Resource Committee (PRC) and an advisory group of architects with design-build experience have reviewed the revised practice tip and its attachments.

This memo contains a description of the major changes, an overview of the process, and next steps related to the communication to members. Given the considerable structure/format changes between OAA 600-2013 and OAA 600-2021 contract versions, the new Practice Tip PT 25 could not reuse much of its original organization. As such, a redlined version has not been provided. The major changes have been outlined below and other the 'old' and 'new' version attached.

## Key Changes to the Practice Tip PT. 25 (refer to Appendix 1)

The 2021 OAA Contract Suite was revised for compatibility with CCDC 2-2020 and applicable laws, as well as to respond to changes in industry practice. The previous 2013 OAA contracts have been withdrawn.

Among members and client groups, we continue to observe the popularity of the design-build project delivery model.

This Practice Tip provides suggested modifications to OAA 600–2021, so that they can be used as the contract between the design-builder and the architect, as an alternative to *CCDC 15-2013 Design Services Contract Between Design-Builder and Consultant*.

Key technical and formatting changes include:

- The title of the Practice Tip has been updated;
- Many of the changes adjust the wording to reflect the contractual differences between Design-Build and Design-Bid-Build;
- Other changes reflect that the prime contract is the Design-Build contract, not the architectural services contract, as it relates to the *Construction Act*.
- The updated PT.25 parallels and works with the use of the main OAA 600-2021 Guide when adapting OAA 600 for use in design-build;
- The supplementary conditions template models for users how Schedule 5 of the standard form of contract may be used to include project specific amendments;
- The definition of *Consultant Coordination* may be amended to include coordination with those clients' contractors who contribute to producing the Design-Build Contract Documents;
- The definition of Functional Program is amended to reflect that the client is not the owner;
- A new General Condition is added to establish a standard of care for the design-builder paralleling the standard of care in the architectural services contract;
- Appendix A, regarding copyright, is amended to include the possibility for a sub-licence to the Owner, subject to the conditions of the services contract;
- Body of the practice tip is reduced in length by moving explanatory notes related to the supplementary conditions and the other Attachments into the guide for PT.25;
- General formatting updates were applied such as paragraphs are reformatted as bulleted lists when appropriate;
- Sub-sections of the suggested modifications to the standard contract, which are located in Attachment 2 of PT.25, are more clearly defined;
- Notes for the user (i.e. text boxes with blue backgrounds in the header) are clearly separated from the content of the Attachments, with additional explanations to ease use of the Attachment's content;
- Reference section of the practice tip: minor updates were applied. As part of the ongoing practice tip maintenance program, minor updates [PT. 23.6 Design-Build: CCDC 14-2013](#) and [PT 23.7 Design-Build: CCDC 15 - 2013](#) are anticipated.

The updated practice tip has now 4 attachments to work with OAA 600-2021 Contract format:

- Attachment 1: Guide to Apply PT.25 Design-Build to OAA 600-2021 (PDF format)
- Attachment 2: Sample Template – Schedule 5 (Word format), includes amendments, revised definitions and supplementary conditions to modify OAA 600 for a generalized design-build project;
- Attachment 3: Sample Template – Schedules 2 & 3 (Word format), has pre-populated templates for the scope of services schedules;
- Attachment 4: Sample Template – Appendix A & B (Word format), includes templates for Appendices A and B, license for editable CAD/BIM files and relinquishing Moral Rights, respectively.

### **Overview of the Process and Input from Various Parties**

The first draft was developed by starting with the previous version of PT.25, then making adjustments to reflect the OAA 600-2021 organization and content (numbering, changed definitions, and *Construction Act* provisions, etc). PRC was consulted in 2023 and indicated that input was needed from practitioners with design-build projects.

An Advisory Group of OAA members was formed in November 2023 to provide comments about the content of the draft PT.25 from their project experience. The Advisory Group comprised members from practices of various size, with experience in projects of different scale, complexity and contractual structures. The group's diverse experience was invaluable in exploring the breadth of services, roles and responsibilities in design-build projects. After written comments were collected, a roundtable meeting was organized.

External legal counsel was involved throughout the process to update the practice tip, addressing the impacts of the changes between the OAA 600-2013 and 2021 contracts, the difference in the roles and responsibilities in a design-build context in current practice as well as reviewing the input from the advisory group and PRC.

Pro-Demnity provided comments on payment, dispute resolution, licence for instruments of service and coordination responsibilities.

PRC provided a final review of the document after legal and insurance comments were incorporated into the document, along with the completion of minor editorial changes.

### **Next Steps - Communication Plan, Withdraw Previous Version and Other Related Projects**

In tandem with the OAA's Communication team, staff from PAS are working on the following items to support the release of the new resource:

- Update to the Practice Knowledge Base Tool, including edits to other associated resources such as PT.00 Index to Practice Tips.
- Communications to Members: The new and updated Practice Tip will be posted on the website, featured in an upcoming issue of the OAA's Practice Advisory Newsletter as well as social media.
- OAA Continuing Education Webinar Series: PAS is in early discussions with the Continuing Education team and the external legal firm to create a webinar to cover how to use this new updated resource with the OAA 600-2021 Standard Contract.

Future Resource Maintenance Project to update suggested references included in PT. 25:

- As part of document maintenance efforts, PAS will work with PRC to look at a first cycle of updates needed in the upcoming months, which will include practice tip PT. 23.6 Design-Build: CCDC 14-2013 and PT. 23.7 Design-Build: CCDC 15-2013.

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### **Action**

Council is asked to consider the following motion:

*It was moved by Schuhmann and seconded by .... That Council to endorse the new OAA Practice Tip PT.25 Design-Build: Using OAA 600-2021 as presented to Council on September 19; and, direct the withdrawal of PT 25 Design-Build: OAA 600-2013 (version 4.1).*

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### **Attachments**

Appendix 1: DRAFT PT.25 Design-Build: Using OAA 600-2021 (version 1.0);

Appendix 2: PT.25 Design-Build: OAA 600 – 2013 (version 4.1)



## Design-Build: Using OAA 600–2021

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### Summary

The Canadian Construction Documents Committee (CCDC) published CCDC 14-2013, Design-Build Stipulated Price Contract (for use with the owner and design-builder), and CCDC 15-2013, Design Services Contract Between Design-Builder and Consultant (for use with an Architect, or other professional consultant, and a design-builder).

This Practice Tip suggests modifications to OAA 600-2021 A, Standard Form of Contract for Architect's Services, to serve as the Association's recommended alternative to CCDC 15 for use as the architectural services contract with a design-builder. It has four attachments:

- Attachment 1 is a guide to apply the attachments in PT.25 to OAA 600-2021;
- Attachment 2 is a template for Schedule 5, with suggested changes to OAA 600-2021;
- Attachment 3 provides replacement templates for the default Schedules 2 and 3; and
- Attachment 4 provides replacement templates for the default Appendices A and B.

### Background

Design-build is a form of project delivery where an owner contracts, under a single contract, with one entity (a design-builder) to provide and take contractual responsibility for both design services and construction work.

The design-build method of project delivery is frequently used with the CCDC published standard contract forms for design-build being CCDC 14–2013, Design-Build Stipulated Price Contract, and CCDC 15–2013, Design Services Contract Between Design-Builder and Consultant.

Since the architectural services contract is used in conjunction with the design-builder's contract with the owner (for example, CCDC 14), it is also important to review Practice Tip PT.23.6 Design-Build: CCDC 14–2013.

### Procedure

- Become familiar with the design-build form of project delivery. Review referenced material including standard CCDC contracts and CCDC guides, the *Canadian Handbook of Practice* (CHOP), and OAA Practice Tips.
- If becoming involved in a design-build project, or presented with CCDC 14 or CCDC 15 contracts by an owner or design-builder, review and discuss the benefits of the OAA recommendations in Practice Tips PT.25, 23.6, and 23.7.
- To clients asking about design-build, provide information, sources for additional information, and possible pros and cons from personal experiences, remembering that the determination of the project delivery method is an owner's decision. Advising and making strong recommendations may be seen as making a decision and may give rise to liability for the holder.
- Download the *OAA 600-2021 Guide to the Standard Form of Contract for Licensed Member's Services* to assist you with modifying the standard contract.
- Complete the editable portions of OAA 600-2021 and include modifications for design-build as referenced in Attachments 2, 3, and 4 of this Practice Tip.

- Obtain a copy of the contract between the owner and the design-builder. Review it for consistency with your role and responsibilities, as described in the architectural services contract. If any inconsistencies remain after negotiating for consistent contracts, seek legal and insurance advice. The design-builder may decide to redact commercially sensitive portions of their contract before providing a copy for your use.
- Confirm who will be the *Payment Certifier* designated in CCDC 14 and modify the roles and responsibilities of the holder as required. Refer also to the related comments in PT.23.6.
- While the templates provided in the attachments were valid on the date of first publication, applicable law changes and court decisions may affect the validity of the templates. Legal review, including review of your professional liability insurance policy, should be sought before incorporating them into your contracts.
- For any other questions, consult legal counsel and your insurers prior to signing a modified OAA 600-2021.

## References

OAA 600-2021 GUIDE to the Standard Form of Contract for Licensed Member's Services

OAA 600-2021 A (OAA Standard Form of Contract for Architect's Services)

PT.23.6 – *Design-Build*: CCDC 14–2013

PT.23.7 – *Design-Build*: CCDC 15–2013

[CCDC Contracts and Guides](#)

RAIC CHOP – Chapter 4.1 Types of Design – Construction Program Delivery and Chapter 6.1 Predesign – Functional Programming

## Attachments

Attachment 1: Guide to Apply PT.25 Design-Build to OAA 600-2021 (PDF)

Attachment 2: Sample Template – Schedule 5 ([Word](#))

Attachment 3: Sample Template – Schedules 2 & 3 ([Word](#))

Attachment 4: Sample Template – Appendix A & B ([Word](#))

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*The OAA does not provide legal, insurance, or accounting advice. Readers are advised to consult their own legal, accounting, or insurance representatives to obtain suitable professional advice in those regards.*

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## Guide to Apply PT.25 Design-Build to OAA 600-2021

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### Suggested Use of the Templates (Refer to Attachments 2, 3, and 4)

The following table summarizes how to use this Practice Tip and its Attachments with OAA 600-2021.

OAA 600-2021	Applying PT.25 to OAA 600-2021
Cover Page	Insert the project name/brief description in the text box.
Table of Contents	Complete check boxes for applicable Schedules and Appendices.
Agreement	Revised by PT.25 Attachment 2, Schedule 5.
Definitions	Revised by PT.25 Attachment 2, Schedule 5.
General Conditions	Revised by PT.25 Attachment 2, Schedule 5.
Schedule 1 – Services Schedule Legend	Edit standard template to suit your contract.
Schedule 2 – Basic Services	Replace with PT.25 Attachment 3.
Schedule 3 – Additional Services	Replace with PT.25 Attachment 3.
Schedule 4 – Other Services	Edit standard template to suit your contract.
Schedule 5 – Other Terms and Conditions	Replace with PT.25 Attachment 2.
Appendix A – Provision of Editable CAD or BIM Files	Replace with PT 25 Attachment 4.
Appendix B – Waiver of Moral Rights	Replace with PT 25 Attachment 4.

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### Commentary on the Suggested Amendments and Proposed Supplementary Conditions

The following subsections present commentary for the user to better understand the suggested amendments and proposed supplementary conditions to the Articles of Agreement. Additional notes have been provided with some items to provide further information about the item discussed in the comments.

#### Suggested Amendments to the Articles of Agreement—Refer to Attachment 2

**Article A05** is amended to identify the *Owner*, who is the client of the design-builder.

**Articles A06** and **A07** are amended to identify the Client-provided information the holder may rely on when providing their services, rather than what is in the prime contract.

**Article A08** is amended to identify the design-build contract between the client (as design-builder) and owner.

**Note:** The holder will require a copy of the design-build contract to verify the compatibility with the architectural services contract and, to the extent applicable, for the purpose of being able to administer the contract during construction.

If the design-build contract has not been signed prior to the architectural services contract, then it is recommended that Article A08 be amended to state that the client (as design-builder) and owner intend to sign a contract, the name and edition of which is identified and/or attached as an appendix.

Some of the options for construction procurement are competitive bid, negotiated contract, multiple prime contractors, construction management and client's (i.e. design-builder's) own forces. All of these could require either the preparation of a single complete set of construction documents or multiple packages.

Examples of wording that may be appropriate for filling in Article A08 include:

- Client to perform the Work with their own forces.
- Client to retain trade contractors for performance of certain parts of the Work under CCDC 2 contracts.
- Client to retain construction manager for performance of the Work under CCDC 5B contract.

**Article A11** is not amended.

Note: Coordination by the *Architect* with those *Client's Consultants* who contribute to the *Design-Build Contract Documents* is appropriate for the standard of care; refer to the amended definition of *Consultant Coordination*. At the design-builder's discretion, *Client's Contractors* may also contribute to the *Design-Build Contract Documents*. The *Architect's* services may include review and coordination of the *Client's Contractors*; refer to new Article A33 and new General Conditions (GC) 01.1.18.

**Article A12** is amended to require the client to provide a functional program for the holder to work from; and to refer to the prime contract rather than a construction contract.

**Article A13** is amended to recognize that the owner may not permit the degree of access to the place-of-the-work requested of the client by the holder.

**Article A23** is amended to recognize that the holder's contract is not a prime contract with the owner, so the holder's invoices are not proper invoices for the purposes of the *Construction Act*.

**Article A24** is amended to reflect that the holder's contract is not a prime contract, and that different provisions of the *Construction Act* apply. Holders should refer to the Act to become familiar with the applicable provisions and time frames.

**Article A25** is amended to recognize that this is not a prime contract and, as a result, invoices are not *Proper Invoices*.

**Article A26** is amended to recognize that the prime contract may constrain when holdback may be released.

**Article A27** is amended to include reference to the functional program in the list of contract documents.

**Article A31** is amended to incorporate the time required for the owner to review any submissions by the holder, so that an appropriate schedule can be developed.

Note: New **Article A33**, if applicable, may be inserted to incorporate the *Client's Contractors* who contribute to the design and participate in the production of the *Design-Build Contract Documents* and with whom the *Architect* will coordinate. Refer to the amended definition of *Consultant Coordination*.

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## Suggested Amendments to Definitions—Refer to Attachment 2

A definition of ***Client's Contractors*** is added to distinguish them from *Consultants*.

The definition of ***Construction Cost*** is amended to account for the roles of the *Owner* and *Client* in the design-build delivery method and reflect that the *Client's* costs/fees can be charged to *Owner*.

Note: This may also accommodate situations where the design-builder has a construction management contract with the owner.

The definition of **Consultant Coordination** is amended to include the *Client's Contractors* who contribute to the design and participate in the production of the *Design-Build Contract Documents*. Refer to new Article A33.

A definition of **Design-Build Contract** is added to identify the prime contract.

A definition of **Design-Build Contract Documents** is added to identify the items comprising the prime contract.

The definition of **Functional Program** is amended to reflect that the client is not the owner.

Note: In a design-build project, a Statement of Owner's Requirements (SOR) may vary in its level of detail. The SOR may need further development to improve its usefulness as a guiding document to become the *Functional Program*. Consider the liability, and the potential for an undisclosed conflict of interest, when assisting the owner with the SOR that is part of the design-builder's contract documents with the owner. Consider how your responsibility and liability may remain focused on your client, which is the design-builder, not the owner. Nevertheless, the scope of services should reflect how much work the architect expects to do in the pre-design phase (e.g. requests for information through the design-builder to confirm the owner's requirements, preliminary siting and design options, producing room data sheets, and other such pre-design and schematic design services).

The definition of **General Review** is amended to reflect the roles of the parties involved in the project.

A definition of **Invoice** is added to recognize that the holder's contract is not a prime contract and that the inclusion of certain information may facilitate the payment process. For consistency, the definition of *Invoice* requires the same information that the *Construction Act* requires for a *Proper Invoice*.

The definition of **Proper Invoice** is amended to reflect that the certificate of practice (CoP) holder is not issuing "Proper Invoices" under the design-build contract.

The definition of **Ready-for-Takeover** is amended to reflect that this is a design-build project.

A definition of **Owner** is added to explicitly distinguish that the holder's client is not the design-builder's client.

The definition of **Record Drawings** is amended to reflect that the as-built documents may be received from several sources, such as when a project is delivered through a construction management process by the design-builder.

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## Proposed Supplementary Conditions (SC)—Refer to Attachment 2

Note: Many of the changes adjust the wording to reflect the contractual differences between Design-Build and Design-Bid-Build (i.e. the holder's client is the design-builder, rather than the owner, and the design-builder may have contractors working for them rather than being the contractor themselves). Other changes reflect that the prime contract is the Design-Build contract, not the architectural services contract.

**SC 8** adds a new clause for the responsibility to include the *Client's Contractors* who contribute to the design and participate in the production of the *Design-Build Contract Documents*. Refer to new Article A33.

**SC 10** adds reference to the owner's *Functional Program* as one of the parameters whose changes may trigger the provision of extra services.

**SC 17** has revised GC05.1 since the *Functional Program* is being provided by the owner, not the client. Refer to the note related to the definition of *Functional Program*.

**SC 18** replaces GC05.2 with wording that allows significant changes to the owner's *Construction Cost Budget* to result in changes to the holder's fees.

**SC 23** replaces GC05.3.11 with wording that requires the design-builder to enter into contracts consistent with the *Design-Build Contract*, and compatible with the architectural services.

**SC 24** and **25** are added to clearly differentiate the responsibilities the *Architect* may have for *Estimates of Construction Cost* they have prepared, as opposed to those estimates prepared by the *Client*.

**SC 26** adds a new GC06.9 to require the client to coordinate any issues relating to GC06 with the owner.

**SC 28** deletes GC07.2.5 to remove the holder from the communication chain between the design-builder and the contractor(s).

**SC 29** deletes GC07.3 to remove any reference for the holder as providing payment certification.

Note: This does not prevent the holder from assisting the design-builder in the preparation of the applications for payment to the owner.

**SC 30** replaces GC07.4 to clarify that the holder is not providing payment certification or other tasks such as certification of Substantial Performance or deemed completion which require the holder to have been payment certifier.

Note: This does not prevent the holder from assisting the design-builder in determining if these milestones are likely to have been met.

**SC 31 to 45** amend GC08 to recognize that the owner may become a sub-licensee of the holder's intellectual property.

**SC 49 and 52** amend GC10 to reflect that the contract between the design-builder and the holder is not a prime contract and that the requirements related to a Proper Invoice do not apply.

**SC 53 and 55** amend GC11 to reflect that the contract between the design-builder and the holder is not a prime contract and that the requirements related to a Proper Invoice do not apply.

**SC 56 and 57** amend GC12 to reflect that the contract between the design-builder and the holder is not a prime contract and that the requirements related to a Proper Invoice do not apply.

**SC 60** amends GC14.3 to reflect that the contract between the design-builder and the holder is not a prime contract and that the requirements related to a Proper Invoice do not apply.

**SC 62** replaces GC16.6 with wording to deal with the holder's involvement in arbitration between the design-builder and their contractor.

**SC 64** adds GC16.9 to address the holder's involvement (e.g. discovery of documents and oral examination) in arbitration between the design-builder and the owner.

**SC 65** replaces GC17.3 with wording to make the holder's ability to sign the building contingent on the owner's approval.

**SC 67** adds new GC18.2 and 18.3. The new GC18.3 establishes a standard of care for the design-builder paralleling the holder's standard of care. The new GC18.2 has the following provisions:

- precludes a contractual relationship between the owner and holder;
- requires the design-builder to provide the holder a copy of the prime contract (suitably redacted) so the holder may verify the compatibility of the scope of services (to assist in defining both included and excluded services), and other terms, with the architectural services contract;
- establishes lines of communication; and
- requires the holder to be kept fully informed.

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### Changes to Schedules—Refer to Attachment 3

The scope of services in Schedules 2 and 3 should also be reviewed for applicability to design-build projects. If the changes are few, they may be included as supplementary conditions. Otherwise, replace the default Schedules 2 and 3 with new schedules, such as those in Attachment 3, for use with design-build projects.

The following are suggested fee references (as found in Schedule 1 of the contract) that may be consistent with the design-build contract. Review each item and provide additional notes, as needed, in the Comments column in Schedules 2 and 3.

## Schedule 2 - Basic Services

The numbering for each item below corresponds with each service item in Schedule 2.

**2.1.3, 2.1.4, and 2.1.5 – Evaluations and Concept Design:** Indicate fee reference 'NI' if these are received from the Client.

**2.1.6 and 2.1.8 – Schematic Design Documents:** Indicate fee reference 'NI' if Schematic Design Documents are received from the Client.

**2.1.7, 2.1.11, and 2.1.16 – Estimates of Construction Cost:** Indicate fee reference 'C' for services performed by the Client.

**Note:** In a design-build project, cost estimates are often provided by the design-builder, with the holder and other consultants providing assistance. Clarify and document the level of services required, which may include preparation, evaluation, or opinion of the *Estimates of Construction Cost*.

**2.1.15, 2.1.22, 2.1.23.1 to 2.1.23.6 (inclusive) – Bidding Information and Bidding/Negotiation Phase:** Indicate fee reference 'C' for services performed by the Client.

**2.1.20 – Agency:** Indicate fee reference 'NI' as this may be the responsibility of the owner, Client, or a designated third party contractually obligated directly to the owner.

**2.1.27 – Bonding and Insurance documents:** Indicate fee reference 'C' for services performed by the Client.

**2.1.28 – Construction Schedule:** Indicate fee reference 'C' for services performed by the Client.

**2.1.29, 2.1.30, 2.1.37, 2.1.38 – Payment Certification services:** Indicate fee reference 'NI' for services performed by the Client or a designated third party.

**2.1.31 – Construction Contract Document Interpretation:** See note below.

**Note:** Consider the extent to which you make interpretations and findings about the Construction Contract Documents. For example, you may want to exclude the construction contract documents provided by the Client's Consultants, or Client's substitutions and value engineering. Refer to the note for Schedule 3.1.23 when analysis by the Architect and its Consultants is included as an Additional Service.

**2.1.35 – Proposed Change Notices/Change Orders and Change Directives:** Indicate the appropriate fee reference from Schedule 1; otherwise, indicate 'NI' when services are excluded.

**2.1.36 – Inspection & Testing Services:** Indicate fee reference 'NI' if these services are by the Client.

**Note:** In design-build, typically the Client will provide this service, if needed.

**2.1.39, 2.1.40, 2.1.41 – Close-out Documentation, Takeover Procedure, and Warranty Review:** Indicate fee reference 'C' if these contract administration services are provided by the Client.

**Note:** In a design-build project, review of close-out documents is often done by the design-builder, with the holder and other consultants providing review for general conformance with their portion of the Contract Documents. Clarify and document the level of services required for this review, including revisions to the description of services for each item to indicate that documents will be received from, and returned to, the Client (design-builder), not the Owner.

### Schedule 3 - Additional Services

The numbering for each item below corresponds with each service item in Schedule 3.

**3.1 – Pre-Design Services:** Indicate fee reference 'NI' if these pre-design services are received from the Client.

Note: Pre-design services may be included in a Modified/Progressive Design-Build project. Clarify and document the level of services that are required, but not included in the *Functional Program*. Refer to the note related to the definition of *Functional Program*. Comparative studies of multiple sites are less likely in design-build. Assisting the *Owner* with the engagement of consultants for various site information (e.g. survey, geotechnical, etc.) may be the responsibility of the design-builder *Client*.

**3.1.8 to 3.1.12 (inclusive) – General Services:** Indicate fee reference 'NI' if these services are by the Client.

Note: In design-build, typically the Client will provide this service for themselves, if needed.

**3.1.13 to 3.1.22 (inclusive) – General Services:** Indicate fee reference 'C' if these general services are provided by the Client or 'X' if are included in the services of the architect and its consultants.

**3.1.23 – Value Engineering:** Indicate fee reference 'X' if value engineering analysis is included in the services of the architect and its consultants.

Note: The Client may benefit from analysis by the Architect and its consultants in value engineering, in order to later assist in providing interpretations and findings.

**3.1.24 – CAD/BIM Files:** Indicate fee reference 'X' if editable copies of these files are included in the services of the architect and its consultants. Indicate the extent of the provision of these files in Appendix A.

**3.1.25 – Moral Rights:** Indicate fee reference 'X' if moral rights are relinquished in the project and indicate its extent in Appendix B.

**3.1.27 – Pre-qualification of Bidders:** Indicate fee reference 'C' if this service is provided by the Client.

Note: In design-build, typically the Client will provide this service for themselves.

**3.1.31, 3.1.32 – Release of Holdback in Connection with Payment Certification Services:** Indicate fee reference 'C' for services performed by the Client or 'NI' in the case of a designated third party.

**3.1.40 – Commissioning:** Indicate fee reference 'NI' if these services are provided by the Client or its Consultants.

**3.1.41 – Notice of Non-payment:** Indicate fee reference 'C' if these services are provided by the Client or 'NI' in the case of a designated third party.

**3.1.42 – Disputes with Contractor:** Indicate fee reference 'F3' if an hourly rate will be applied to these services, should the need arise.

**3.1.43 – Artefacts:** Indicate fee reference 'F3' if an hourly rate will be applied to these services, should the need arise; otherwise, indicate 'NI'.

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### Changes to Appendices – Refer to Attachment 4

Appendices A and B should also be reviewed for applicability to your specific design-build project. If required, the appendices included in Attachment 4 may be used to replace the default appendices, after review and adjustment to suit the requirements of the project. The comments column may be used to note specific requirements for the editable files (e.g. the required Level of Development for BIM or client's/owner's CAD Standards). This exercise is left to the user.

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*The OAA does not provide legal, insurance, or accounting advice. Readers are advised to consult their own legal, accounting, or insurance representatives to obtain suitable professional advice in those regards.*

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This template should be read together with the standard architectural services contract, OAA 600-2021.

This template may be used to prepare Schedule 5, adapted for use with your own contract.

Coordinate the numbering and clause references with any additional items you may include.

Refer to Attachment 1, Guide to Apply PT.25 Design-Build to OAA 600-2021, for additional comments and background information.

Refer to the *OAA 600-2021 GUIDE to the Standard Form of Contract for Licensed Member's Services* for additional comments and background information.

Seek legal review for your proposed contract.

## Schedule 5 – Other Terms and Conditions

### Other Terms and Conditions of the Contract

These other terms and conditions are to be read in conjunction with and as part of the *Contract* when Schedule 5 is listed as a contract document in the appropriate Article. Amendments to the Articles shall take precedence over the Articles. Amendments to the Definitions shall take precedence over the Definitions. Supplementary Conditions shall take precedence over the General Conditions.

#### Amendments to the Articles of Agreement

1. Delete Article A05 in its entirety and replace it with the following:

A05 The *Client* has entered into a design-build agreement with \_\_\_\_\_  
(the “*Owner*”) dated \_\_\_\_\_ for the *Project* (the “*Design-Build Contract*”).

2. Delete the word “*Client’s*” from Article A06.
3. Delete the word “*Client’s*” from Article A07.
4. Replace the content of Article A08 with:  
A08 The anticipated construction delivery method and anticipated form of construction contract between the *Client* and the *Client’s Contractors* for this design-build *Project* are:  
\_\_\_\_\_.
5. In Article A11.2, add the words “or *Owner*” after the words “the *Client*”.
6. In the first sentence of Article A12, after the words “The *Client* shall provide”, add the words “the *Functional Program*, if any, and”.
7. In paragraph 4 of Article A12, replace the words “construction contract documents” with “*Design-Build Contract Documents*”.
8. In the second sentence of Article A13, delete the word “The” at the start of the sentence and replace it with the words “To the extent permitted by the *Owner* and *Design-Build Contract Documents*, the”.
9. Throughout Articles A22 and A23, replace the words “*Proper Invoice*” with the word “*Invoice*”.
10. Delete the text of Article A24 and replace it with the following:  
*Invoices* shall be issued and submitted to the *Client* monthly on or after the \_\_\_\_\_ day of the month unless otherwise agreed to in writing by the parties. Subject to compliance with the *Lien Legislation*, the *Client* shall pay the *Architect* the invoiced amount or, where there is a *Dispute* respecting the invoiced amount, the undisputed portion thereof on account of the *Architect’s* fee less any applicable statutory holdback, plus agreed upon *Reimbursable Expenses*, and applicable *Value Added Taxes* within twenty-eight (28) days of the *Client’s* receipt of such *Invoice* or as otherwise required by the *Lien Legislation*.

Where applicable, upon request, the *Client* shall confirm to the *Architect* when it includes all or part of amounts claimed in an *Invoice* in an application for payment under the *Design-Build Contract* and the *Client* shall exert reasonable and diligent efforts to collect payment from the *Owner* in respect of such amounts, including interest on overdue payments.

11. In Article A25, replace all references to “*Proper Invoice*” with the word “*Invoice*”.
12. In Article A26, add the words “and the *Design-Build Contract*” after the words “*Lien Legislation*”.
13. In Article A27, add “13. *Functional Program*, as provided or developed in accordance with GC5.1 and as may be amended from time to time” to the list of contract documents.
14. In Article A31, add the words “and *Owner*” after the words “for *Client*”.
15. Add new A33 as follows:

“The *Architect* shall coordinate the *Services* with the *Work* of the following *Client’s Contractors*:  
[insert a list of *Client’s Contractors* who, when contributing to the design and *Design-Build Contract Documents*, shall be coordinated with the *Architect’s Services*; for example: mechanical contractor, door hardware supplier, or others providing opinion, evaluation, specifications, value engineering, and the like. If no such coordination is to be provided by the *Architect*, then delete the addition of new A33 entirely, or insert “None” or “N/A”.]”

#### Amendments to the Definitions

1. Add a new definition of *Client’s Contractors*:

“***Client’s Contractors*** are any persons or entities engaged by the *Client* to perform *Work* for the *Project*. *Client’s Contractors* do not include the *Architect*, the *Architect’s Consultants* or the *Client’s Consultants*.”

2. In the definition of “***Consultant***” (i), add the words “the *Owner*,” after the words “engaged by” and add the following to the end: “For certainty, all references in this *Contract* to “*Client’s Consultants*” shall include *Consultants* retained by the *Owner* listed in Article A11.2.”
3. In the definition of ***Construction Cost***, replace the words “to the *Client*” and replace them with the words “to the *Owner*”, replace the words “contractor’s general conditions costs” with the words “general conditions costs of the *Client* and *Client’s Contractors*”, and replace the words “responsibility of the *Client*” with the words “responsibility of the *Owner*”.
4. Add a new definition of ***Client Contractor Coordination*** as follows:

“***Client Contractor Coordination*** means reviewing the instruments of service, including shop drawings and specifications, and other information provided to the *Architect* by the *Client’s Contractors* listed in Article A33 to assist in identifying conflicts or interferences, and to monitor general compliance with directions of the *Client*.”

5. Add a new definition for *Design-Build Contract*:

“***Design-Build Contract*** is the design-build contract between the *Client*, as design-builder, and the *Owner* for the *Project* as identified in Article A05.”

6. Add a new definition for *Design-Build Contract Documents*:

“***Design-Build Contract Documents*** consist of those documents that comprise the *Design-Build Contract* and amendments thereto agreed upon by the *Client* and *Owner*.”

7. In the definition of ***Functional Program***, delete the word “*Client’s*” and replace it with the word “*Owner’s*”.

8. In the definition of **General Review**, delete the word “contractor” and replace it with the words “*Client* and *Client’s Contractors*”.
9. Add a new definition for *Invoice*:
 

**“Invoice** means a written application for payment for *Services*, materials, *Reimbursable Expenses* or other compensation containing at a minimum the following information: (i) *Architect’s* name, address and telephone number; (ii) Date of the invoice and the period during which the *Services*, materials, or related documentation were supplied; (iii) Information identifying the authority under which the *Services*, materials or related documentation were supplied; (iv) Description, including quantities where appropriate, of the *Services*, materials, or related documentation that were supplied; (v) Amount payable for the *Services*, materials, or related documentation that were supplied, and the payment terms; (vi) Name, title, telephone number, and mailing address of the *Architect* to whom payment is to be sent; (vii) Any additional information specified in Article A23; and (viii) Any additional information specified in the *Lien Legislation* or its Regulations.”
10. Delete the definition of *Proper Invoice* in its entirety.
11. In the definition of **Ready-for-Takeover**, in the first sentence, delete the words “form of construction contract stipulated in Article A08.2” and replace them with the words “*Design-Build Contract*”. In the second sentence, delete the words “construction contract” and replace them with the words “*Design-Build Contract*”.
12. Add a new definition for *Owner*:
 

**“Owner** is the person or entity identified as such in Article A05.”
13. In the definition of **Record Drawings**, delete the words “contractor or construction manager” and replace them with the words “*Client* or *Client’s Contractors*”.
14. In the definition of **Reimbursable Expenses**, replace the words “*Proper Invoice*” with the word “*Invoice*”.
15. In the definition of **Work**, replace the words “*Contract Documents*” with the words “*Design-Build Contract Documents*”.

**Supplementary Conditions to the General Conditions**

1. In GC01.1.4, add the words “and *Owner*” after the words “the *Client*”.
2. In GC01.1.7, add the words “and *Owner*” after the words “information provided by the *Client*”.
3. In GC01.1.8, add the words “or *Owner*” after the words “of the *Client*”.
4. In GC01.1.10, add the words “or *Owner*” after the words “if the *Client*” and delete the words “the *Client’s*” and replace them with the word “such”.
5. In GC01.1.11, delete the word “contractor” and replace it with the words “the *Client*, the *Client’s Contractors*”.
6. In GC01.1.14, delete the word “contractor” and replace it with the words “the *Client* and *Client’s Contractors*”.
7. In GC01.1.16, add the words “and *Owner*” after the words “for the *Client*”.
8. Add new GC01.1.18 as follows:

“.18 include *Client Contractor Coordination* of those *Client’s Contractors* engaged by the *Client* that are listed in Article A33.”

[Note: If new Article A33 has been added, then insert this new general condition.]

9. In GC04.1.1, delete the word "*Client's*".
10. In GC04.1.2, add the words "the *Functional Program*," after the words "in Article A07,".
11. In GC04.1.3, delete the words "the form of construction contract as identified in Article A08" and replace them with the words "the *Design-Build Contract Documents*".
12. In GC04.1.6, add the words "or *Owner's*" after the word "*Client's*".
13. In GC04.1.7, delete the word "contractor" and replace it with the words "*Client* or *Client's Contractors*".
14. In GC04.1.8, delete the word "contractor" and replace it with the words "*Client*, the *Client's Contractors*".
15. Delete GC04.1.10 in its entirety and replace it with the following:  
 ".10 made necessary by the default of the *Client* or *Client's Contractors*, by major defects or deficiencies in the *Work* of the *Client* or the *Client's Contractors*, or by failure of performance by any of the *Owner*, *Client* or the *Client's Contractors* under or in relation to the *Design-Build Contract*;"
16. In GC04.1.11, add the words "the *Design-Build Contract* or" after the words "in respect of".
17. In GC05.1, after the words "The *Client*" in the first line, add the words ", in consultation with the *Owner* as required by the *Design-Build Contract Documents*," and add the word "and *Owner's*" after the word "*Client's*".
18. Delete GC05.2 and replace it with the following:  
 "The *Client*, in consultation with the *Owner* as required by the *Design-Build Contract Documents*, shall initially establish and periodically update the *Construction Cost Budget*, which includes appropriate *Contingencies*. If the *Construction Cost Budget* is significantly increased or decreased, either incrementally or in the aggregate, the *Client* shall notify the *Architect* by *Notice in Writing*. Adjustments to the *Project* and the *Architect's* fee shall be as an *Extra Service*."
19. Delete GC05.3.3 and replace it with the following:  
 "sign applications for permits and pay for the building permit and all other *Project*-related permits and development costs, unless the *Owner* is required to do so under the *Design-Build Contract Documents*;"
20. In GC05.3.4, add the words "the *Owner* or" before the words "authorities having jurisdiction".
21. In GC05.3.5, add the words "or *Owner*" after the words "the *Client*" in the second line.
22. In GC05.3.8, delete the words "contractor's applications for payment" and replace them with the words "applications for payment by *Client's Contractors*". Delete the words "the contractor uses the monies paid by or on behalf of the *Client*" and replace them with the words "such *Client's Contractors* use the monies paid by or on behalf of the *Client* or *Owner*, as applicable,"
23. Delete GC05.3.11 in its entirety and replace it with the following:  
 ".11 engage *Client's Contractors* under construction contracts consistent with the *Design-Build Contract* and compatible with this *Contract*; and"
24. Amend GC06.2 by deleting the words "the *Architect's Estimate of Construction Cost*" and replacing them with the words "an *Estimate of Construction Cost* provided by the *Architect*, if any,"
25. In GC06.8, add the words "or *Owner*" after the word "*Client*".
26. Add new GC06.9 as follows:  
 "6.9 To the extent required by the *Design-Build Contract Documents*, all decisions of the *Client* under this GC06 shall be made in consultation with the *Owner* and with the *Owner's* consent or approval, which consent or approval shall be obtained by the *Client* pursuant to the *Design-Build Contract* with no liability to the *Architect* and its *Consultants*."

27. In GC07.1, add the words “and, if required by the *Design-Build Contract Documents*, the *Owner*” after the words “the *Client* and the *Architect*”.
28. Delete GC07.2.5 in its entirety.
29. Delete GC07.3 in its entirety.
30. Delete GC07.4 in its entirety and replace it with the following:

“7.4 For certainty, in keeping with the *Architect’s* professional obligations, the *Architect’s Services* under this *Contract* shall not include payment certification. Without limiting the foregoing, the *Architect* shall not certify the value of the *Services* provided by the *Architect* to the *Client* under this *Contract* and the *Services* shall not include engagement of the *Architect* to provide payment certification of applications for payment made by the *Client* under the *Design-Build Contract* in this respect. Further, the *Services* shall not include and the *Architect* shall not be deemed to be the “payment certifier” under s.32(1) of the *Construction Act*, R.S.O. 1990, c. C.30, in respect of, certification of *Substantial Performance of the Work* under the *Design-Build Contract*. Any determination of *Substantial Performance of the Work* under the *Design-Build Contract* shall be undertaken in accordance with the *Design-Build Contract* and *Lien Legislation*. Without limiting the foregoing the parties acknowledge and agree that the *Architect* cannot independently certify the value of the *Services* provided by the *Architect* to the *Client* and (ii) the *Architect* may assist the *Client* in preparation of the *Client’s* application for payment under the *Design-Build Contract*, but cannot independently certify the value of the work completed to date under the *Design-Build Contract*.”
31. In GC08.1, add the words “Unless otherwise required by the *Design-Build Contract*,” to the beginning of the first sentence, and to the end of the second sentence.
32. In GC08.2, add the words “, the *Owner*” after the words “the *Client*”.
33. In GC08.4, add the following to the end after the words “by this GC08”:

“, including the power and authority to grant the *Client* the right to grant sub-licences to the *Owner* in accordance with the terms set out in this GC08”
34. In GC08.6.1, add the following to the end after the words “the *Project*”:

“, with the right to grant a sub-licence to the *Owner* for the same objects and purposes”
35. In GC08.6.2, add the following to the end of the first sentence after the words “completion of the *Work*”:

“with the right to grant a sub-licence to *Owner* for the same objects and purposes”
36. In GC08.6.2, delete in the second sentence the words “This licence is subject to the *Client*” and replace them with the following:

“This licence and any sub-licence thereunder are subject to the *Client* and *Owner*”
37. In GC08.6.3, add the following to the end after the words “the *Project*”:

“, with the right to grant a sub-licence to *Owner* for the same objects and purposes”
38. In GC08.6.4, add the following to the end after the words “foregoing licences”:

“and any sub-licences thereunder”
39. In GC08.7, add the following after the words “The licenses granted under GC08.6”:

“, and any sub-licences granted by *Client* to *Owner* thereunder”
40. Delete GC08.7.2 in its entirety and replace it with the following:

“.2 in the case of a licence to the *Client*, permit the *Client* to, and authorize the *Client’s Consultants*, contractors, subcontractors, suppliers, and tenants to reproduce applicable portions of *Instruments of Service* solely and exclusively for use in performing services or construction for the *Work* and *Project*, and, in the case of a sub-licence to the *Owner*, permit the *Owner* and its consultants, contractors,

subcontractors, suppliers, employees, and tenants to reproduce applicable portions of *Instruments of Service* for the same objects and purposes;”

41. Delete GC08.7.3 in its entirety and replace it with the following:

“.3 permit the *Client*, in the case of a licence, or permit the *Owner*, in the case of a sub-licence, to alter, modify, amend, or have altered, modified, or amended the *Instruments of Service* as may be required by the *Client* or the *Owner*, as the case may be, for the purposes of constructing, using, maintaining, repairing, renovating, adding to, altering, and occupying the *Work* and the *Project*, including in the event of termination of this *Contract* by the *Client* pursuant to GC11.2, provided that, in the case of a license to *Client*, any such alteration, modification, or amendment not performed by the *Architect* shall be at the *Client*'s sole risk and the *Client* will not hold out that any such changes to the *Instruments of Service* were approved, reviewed, or otherwise accepted by the *Architect*, and, in the case of a sub-licence to the *Owner*, the *Client* will require that any such alteration, modification, or amendment not performed by the *Architect* shall be at the *Owner*'s sole risk and that the *Owner* will not hold out that any such changes to the *Instruments of Service* were approved, reviewed, or otherwise accepted by the *Architect*.”
42. Delete GC08.7.4 in its entirety and replace it with the following: “may only be transferred by the *Client*, in the case of a licence, or by the *Owner*, in the case of a sub-licence;”
43. In GC08.7.4, add the words “or sub-licence” after the words “except that such licence”.
44. In GC08.8, delete the words “employees, or tenants” and replace them with the words “employees, tenants or licensees,” and add the following new sentence to the end of GC08.8:

“In any sub-licence to the *Owner*, the *Client* shall require that the *Owner* indemnify and hold harmless the *Architect* to the fullest extent permitted by law, from and against any and all claims, damages, liabilities, or costs, including reasonable attorney's fees and costs of defense, in any way arising out of or related to alteration, modification, or amendment to the *Instruments of Service* by the *Owner*, the *Owner*'s consultants, contractors, subcontractors, suppliers, employees, or tenants, or any other person for whom the *Owner* is responsible at law.”
45. In GC08.9, add the following new sentence after the first sentence ending with “that of the *Project*.”:

“In any sub-licence to the *Owner*, the *Client* will require that the *Owner* acknowledge that the *Architect*'s design is unsuitable for any site other than that of the *Project*.”
46. In GC09.1, add the words “(including the *Owner*)” after the words “by a third party”.
47. In GC09.6.2, delete the words “contractor, subcontractors, suppliers,” and replace them with the words “the *Client*, the *Client*'s *Contractors*, their subcontractors or suppliers or”.
48. In GC09.6.6, add the words “, the *Owner*,” after the words “providing financing to the *Client*”.
49. Throughout GC 10, replace all instances of the words “*Proper Invoice*” with the word “*Invoice*”.
50. In GC 10.1, add the words “or the *Owner*” after the words “If the *Client*”.
51. In GC 10.3.3, add the words “or the *Owner*” after the words “by the *Client*”.
52. In GC10.7.1, add the words “subject to compliance with the *Lien Legislation*,” at the start of the sentence before the words “the *Architect*”, and add the words “or as otherwise required by the *Lien Legislation*” after the words “by the *Client*”.
53. Throughout GC 11, replace all instances of the words “*Proper Invoice*” with the word “*Invoice*”.
54. In GC11.3 and GC11.6, add the words “or the *Owner*” after the words “by the *Client*” in each instance.
55. In GC11.8, delete the word “In” at the commencement of the sentence and replace it with the words “Subject to compliance with the *Lien Legislation*, in” and add the words “or as otherwise required by the *Lien Legislation*” after the words “by the *Client*”.
56. Throughout GC 12, replace all instances of the words “*Proper Invoice*” with the word “*Invoice*”.
57. In GC12.4, replace the word “contractors” with the words “*Client*'s *Contractors*”.

58. In GC14.1, add the words “or the *Owner*” after the words “the *Client*” in the first line.
59. In GC 14.2, add the words “, including as may be required under the *Design-Build Contract*,” after the words “deems necessary”.
60. In GC14.3, replace the words “*Proper Invoices*” with the word “*Invoices*”.
61. In the first sentence of GC15.2, add the words “or *Owner*” after the words “so as to give the *Client*”.
62. In GC16.6, delete the words “The *Client* agrees that, should a construction *Contract* include a provision that any dispute between the *Client* and the contractor may be finally resolved by arbitration, such construction contract shall include provisions satisfactory to the *Architect* that” and replace them with the following:  
“The *Client* agrees that, should a construction contract with a *Client’s Contractor* include a provision that any dispute between the *Client* and such *Client’s Contractor* may be finally resolved by arbitration, such construction contract shall include provisions satisfactory to the *Architect* that”
63. In GC 16, GC16.6.1, and 16.6.3, replace each instance of the word “contractor” with the words “*Client’s Contractor*”.
64. Add new GC16.9 as follows:  
“16.9 The *Client* agrees that, where a *Dispute* is related to or subject to any dispute resolution process under the *Design-Build Contract* or where the *Architect* has a vested or contingent financial interest in the outcome of a dispute between the *Client* and *Owner* under the *Design-Build Contract*, the *Client* shall give the *Architect Notice in Writing* of such dispute resolution process or dispute between the *Client* and *Owner* and, subject to the *Design-Build Contract*, provide the *Architect* the option to participate in any such dispute resolution process under the *Design-Build Contract*.”
65. Delete GC17.3 in its entirety and replace it with the following:  
“17.3 Subject to the terms of the *Design-Build Contract*, the *Architect* shall be entitled to sign the building by inscription, or otherwise, on a permanent, suitable and reasonably visible part of the building, provided that the *Architect* obtains the *Owner’s* approval of the format and location of any such sign.”
66. In GC17.5, add the words “or *Client’s Contractors*” after the words “*Client’s Consultants*”.
67. Add new GC18.2 and GC18.3 as follows:  
GC18.2 Nothing in this *Contract* shall create any contractual relationship between the *Architect* and the *Owner*, or the *Owner’s* agents or employees. The *Client* will provide to the *Architect* a copy of the *Design-Build Contract*, from which commercial terms may be redacted. Unless otherwise directed by the *Client* or required by the *Design-Build Contract Documents*, all communications between the *Architect* and *Owner* shall be forwarded through the *Client*. The *Client* shall keep the *Architect* fully informed of any changes in available information respecting the *Services* and *Work*, whether obtained from the *Owner* or otherwise, including changes in the *Functional Program*.  
GC18.3 In carrying out its responsibilities under this *Contract*, the *Client* shall exercise the level of skill, care, and diligence as would be exercised by a reasonable design-builder performing similar services and work in the same or similar locality under similar circumstances. The *Client* acknowledges and agrees that throughout this *Contract*, the *Client’s* obligations, duties and responsibilities shall be interpreted in accordance with this standard.

These templates should be read together with the standard architectural services contract OAA 600-2021. These templates may be used to prepare Schedules adapted for use with your own contract. Review each scope of work item to determine which are suitable for your scope of services. Service Fee References which have already been noted in these templates for Schedules 2 and 3 are for your convenience in completing the tables for Basic Services and Additional Services. These Service Fee References match those abbreviations found in the pre-populated template for Schedule 1 – Services Schedule Legend of OAA 600-2021. Refer to Attachment 1, Guide to Apply PT.25 Design-Build to OAA 600-2021, for additional comments and background information. Coordinate the numbering and clause references with any additional items you may include. Refer to the *OAA 600-2021 GUIDE to the Standard Form of Contract for Licensed Member's Services* for additional comments and background information. Seek legal review for your proposed contract.

## Schedule 2 – Basic Services

### Architect's Scope of Basic Services

This table of *Basic Services* is to be read in conjunction with and as part of the *Contract*.

*(Indicate in the table below each Basic Service to be provided by the Architect and the manner of compensation as indicated in Fee Reference for each as identified in Article A17.)*

2.1	ITEM	Service/Fee Reference	Comments
	<b>SCHEMATIC DESIGN PHASE</b>		
.1	<b>Review Program</b> – Review the <i>Owner's Functional Program</i> and other information furnished by the <i>Client</i> and the characteristics of the site.		
.2	<b>Review Applicable Codes</b> – Review applicable statutes, regulations, codes, and bylaws and, where necessary, review the same with the authorities having jurisdiction.		
.3	<b>Prepare Initial Evaluation</b> – Prepare an initial evaluation of the <i>Owner's Functional Program</i> , schedule, budget for the <i>Construction Cost</i> , <i>Project</i> site, and the proposed procurement or delivery method and other initial information provided by the <i>Client</i> each in terms of the other, to ascertain the requirements of the <i>Project</i> . The <i>Architect</i> shall notify the <i>Client</i> of (i) any inconsistencies discovered in the information, and (ii) other information or consulting services that may be reasonably needed for the <i>Project</i> .	NI	
.4	<b>Review Initial Evaluation</b> – Present and review with the <i>Client</i> the initial evaluation and discuss alternative approaches for design and construction of the <i>Project</i> . The <i>Architect</i> shall reach an understanding with the <i>Client</i> regarding the requirements of the <i>Project</i> .	NI	
.5	<b>Preliminary Concept Design</b> – Based on the <i>Project's</i> requirements agreed upon with the <i>Client</i> , the <i>Architect</i> shall prepare for the <i>Client's</i> approval a	NI	



2.1	ITEM	Service/Fee Reference	Comments
	preliminary concept design illustrating the scale and relationship of the <i>Project</i> components. Submit preliminary concept design documents to the <i>Client</i> .		
.6	<p><b>Schematic Design Documents</b> – Based on the <i>Client's</i> approval of the preliminary concept design, mutually agreed upon <i>Functional Program</i>, schedule, and budget for the <i>Construction Cost</i>, prepare, for the <i>Client's</i> review and approval, schematic design documents to illustrate the scale and character of the <i>Project</i> and how the parts of the <i>Project</i> functionally relate to each other including as appropriate:</p> <ul style="list-style-type: none"> <li>• Site Plan;</li> <li>• Elevations;</li> <li>• Outline Specifications.</li> <li>• Spatial Relationship diagrams;</li> <li>• Building Sections;</li> <li>• Floor Plans;</li> </ul>	NI	
.7	<b>Estimate of Construction Cost</b> – Prepare and submit to the <i>Client</i> for approval a Class D <i>Estimate of Construction Cost</i> based on current area or volume unit cost prepared in accordance with GC06.3.	C	
.8	<b>Submit Schematic Design</b> – Submit the schematic design documents to the <i>Client</i> ; advise the <i>Client</i> of any required adjustments to the <i>Estimate of Construction Cost</i> , and request the <i>Client's</i> approval.	NI	
	<b>DESIGN DEVELOPMENT PHASE</b>		
.9	<p><b>Design Development Documents</b> – Based on the <i>Client's</i> approved schematic design documents and agreed <i>Estimate of Construction Cost</i>, and any <i>Client's</i> authorization of adjustments in the <i>Project</i> requirements and the budget for the <i>Construction Cost</i> prepare, for the <i>Client's</i> review and approval, design development documents, drawings, and other documents to describe the size and character of the <i>Project</i> including as appropriate the architectural, structural, mechanical, electrical, and civil engineering systems, materials, and such other elements:</p> <ul style="list-style-type: none"> <li>• Site Plan;</li> <li>• Elevations;</li> <li>• Floor Plans;</li> <li>• Building Sections; and</li> <li>• <i>Project</i> brief detailing area calculations, building systems, and outline specifications.</li> </ul>		
.10	<b>Continue Review of Applicable Codes</b> – Continue to review applicable statutes, regulations, codes, and bylaws as the design of the <i>Project</i> is developed and, where necessary, review the same with the authorities having jurisdiction.		
.11	<b>Update Estimate of Construction Cost</b> – Prepare and submit to the <i>Client</i> for approval an updated Class C <i>Estimate of Construction Cost</i> .	C	
.12	<b>Submit Design Development</b> – Submit the design development documents to the <i>Client</i> , advise the <i>Client</i> of any adjustments to the <i>Estimate of Construction Cost</i> , and request the <i>Client's</i> approval.		
	<b>CONSTRUCTION DOCUMENTS PHASE</b>		
.13	<b>Drawings and Specifications</b> – Based on the <i>Client's</i> approved design development documents and agreed updated <i>Estimate of Construction Cost</i> , prepare, for <i>Client's</i> review and approval, <i>Contract Documents</i> consisting of		

2.1	ITEM	Service/Fee Reference	Comments
	drawings and specifications setting forth in detail the requirements for the construction of the <i>Project</i> .		
.14	<b>Review Applicable Codes</b> – Review statutes, regulations, codes, and bylaws applicable to the design and, where necessary, review the same with the authorities having jurisdiction in order that the consents, approvals, licences, and permits necessary for the <i>Project</i> may be obtained.		
.15	<b>Bidding Information</b> – Obtain instructions from and advise the <i>Client</i> on the preparation of the bidding information, bidding forms, conditions of the construction contract, and the form of construction contract between <i>Client</i> and contractor.	C	
.16	<b>Update Estimate of Construction Cost</b> – Update the <i>Estimate of Construction Cost</i> .	C	
.17	<b>Submit Construction Documents</b> – Submit the <i>Construction Documents</i> to the <i>Client</i> , advise the <i>Client</i> of any adjustments to the <i>Estimate of Construction Cost</i> (including adjustments indicated by changes in requirements and general market conditions), take any action required under GC06.2, and request the <i>Client's</i> approval.		
	<b>PERMITS AND APPROVALS</b>		
.18	<b>Building Permit Application</b> – Prepare documents for building permit application, for owner's signature as applicant, and assist with submission of the application.		
.19	<b>Other Applications</b> – Assist the <i>Client</i> in the preparation of applications for permits and approvals by authorities having jurisdiction that are required for the <i>Project</i> .		
.20	<b>Agency</b> – Act as the <i>Owner's</i> authorized agent with the power to bind the <i>Owner</i> for the purpose of submitting permit applications.	NI	
.21	<b>Comments by Authorities</b> – Review and assist the <i>Client</i> to respond to comments by the authorities having jurisdiction received by the <i>Owner</i> .		
	<b>BIDDING/NEGOTIATION PHASE</b>		
.22	<b>Pre-qualification</b> – Assist <i>Client</i> in selecting contractors for pre-qualification. Prepare and issue pre-qualification call documents. Receive, review, and report results for <i>Client's</i> direction on which contractors to include in the bid document distribution.	C	
.23	<b>Bidding/Negotiation</b> – Following the <i>Client's</i> approval of the <i>Construction Documents</i> and the latest agreed <i>Estimate of Construction Cost</i> :		
	.1 assemble and provide bid documents to bidders;	C	
	.2 monitor and respond to enquiries regarding bid requirements, prepare and process addenda during bidding;	C	
	.3 arrange for receipt of bids, opening of bids, comparative review, and report results for <i>Client's</i> direction on award;	C	

2.1	ITEM	Service/Fee Reference	Comments
	.4 review and comment on proposed substitutions;	C	
	.5 assist the <i>Client</i> with construction contract negotiations;	C	
	.6 prepare construction contracts and assemble <i>Contract Documents</i> for signature by the contracting parties.	C	
<b>CONSTRUCTION PHASE</b>			
.24	<b>Limited General Review</b> – Provide limited <i>General Review Services</i> during construction restricted to life safety and code compliance; examine, evaluate, and report upon representative samples of the <i>Work</i> ; keep the <i>Client</i> informed of the progress of the <i>Work</i> ; report life safety and code compliance defects and deficiencies in the <i>Work</i> observed during the course of the site reviews; and report in writing to the <i>Client</i> and, where required by law, to the chief building official.		
.25	<b>General Review</b> – Provide <i>General Review Services</i> during construction; examine, evaluate, and report upon representative samples of the <i>Work</i> ; keep the <i>Client</i> informed of the progress and quality of the <i>Work</i> ; report defects and deficiencies in the <i>Work</i> observed during the course of the site reviews; and report in writing to the <i>Client</i> and authorities having jurisdiction.		
.26	<b>Site Meetings</b> – Attend site meetings with <i>Client</i> , <i>Client’s Contractors</i> , major sub-contractors, and <i>Consultants</i> , where appropriate, to review the progress of the <i>Work</i> .		
.27	<b>WSIB Certificates, Bonds, and Insurance Policies</b> – Arrange to receive from the contractor, as required under the construction contract, Workplace Safety Insurance Board (WSIB) certificates, bonds, and insurance policies and deliver to <i>Client</i> for <i>Client’s</i> bond and insurance advisors to review.	C	
.28	<b>Construction Schedule</b> – Receive construction schedule from contractor, review and forward it with comments to <i>Client</i> .	C	
.29	<b>Schedule of Values</b> – Receive schedule of values from contractor, review and adjust, if required. Advise both <i>Client</i> and contractor that the agreed schedule of values will form the basis for factoring percentage of <i>Work</i> completed into certificates for payment.	NI	
.30	<b>Payment Certification</b> – When engaged to provide <i>General Review Services</i> as per Schedule 2 2.1.25, receive and assess contractor’s applications for payment; determine the amounts owing to the contractor under the construction contract based on the <i>Architect’s</i> observations and evaluation of the contractor’s applications for payment having factored percentage of completeness against the contractor’s schedule of values and issue certificates for payment to the <i>Client</i> within 10 days of receipt of contractor’s proper invoice by the <i>Architect</i> , in the value proportionate to the amount of the construction contract, of work performed and products delivered to the <i>Place of the Work</i> .	NI	

2.1	ITEM	Service/Fee Reference	Comments
.31	<b>Construction Contract Documentation Interpretation</b> – On the written request of the <i>Client</i> , render written interpretations and findings within a reasonable time, consistent with the intent of and reasonably inferable from the construction <i>Contract Documents</i> , showing partiality to neither the <i>Client</i> nor the <i>Client’s Contractors</i> , on claims, disputes, and other matters in question between the <i>Client</i> and the <i>Client’s Contractors</i> relating to the execution or performance of the <i>Work</i> or the interpretation of the construction <i>Contract Documents</i> .		
.32	<b>Shop Drawings and Submittals</b> – Review and take other appropriate action with reasonable promptness upon such contractor’s submittals as shop drawings, product data, and samples for conformance with the general design concept of the <i>Work</i> as provided in the construction <i>Contract Documents</i> .		
.33	<b>Supplemental Details and Instructions</b> – Prepare and issue additional documents and supplemental instructions to the <i>Client</i> , as required for clarification of the requirements of the <i>Construction Documents</i> , with reasonable promptness or in accordance with a schedule for such instructions agreed to by the <i>Architect</i> and the <i>Client</i> .		
.34	<b>Requests for Information (RFIs)</b> – Receive requests for information (RFIs) from the <i>Client</i> and process in a timely manner.		
.35	<b>Proposed Change Notices/Change Orders and Change Directives</b> – Prepare proposed change notices, drawings, specifications, and supporting data, evaluate contractor’s proposals, and prepare change orders and change directives for the <i>Client’s</i> approval and signature in accordance with the construction <i>Contract Documents</i> .	NI	
.36	<b>Inspection &amp; Testing Services</b> – Provide assistance in having inspection and testing companies perform services as required by the construction <i>Contract Documents</i> ; receive and review their reports and report to <i>Client</i> .	NI	
.37	<b>Substantial Performance</b> – When retained to provide payment certification as per Schedule 2 2.1.30, prepare and issue, at the appropriate time, a certificate of <i>Substantial Performance of the Work</i> in accordance with the provisions of the <i>Lien Legislation</i> .	NI	
.38	<b>Deemed Completion</b> – When retained to provide payment certification as per Schedule 2 2.1.30, prepare and issue at the appropriate time, a statement of construction contract deemed completion in accordance with the provisions of the <i>Lien Legislation</i> .	NI	
.39	<b>Contractor’s Close-out Documentation</b> – Receive from the contractor and forward to the <i>Client</i> for the <i>Client’s</i> acceptance the written warranties, manuals, and related documents as required under the construction contract.	C	
.40	<b>Takeover Procedure</b> – Arrange for takeover of the <i>Work</i> by the <i>Owner</i> , including demonstration of operating equipment, and handover of operating and maintenance manuals and replacement parts as specified.	C	

2.1	ITEM	Service/Fee Reference	Comments
.41	<b>Warranty Review</b> – Prior to the end of the <i>Client's</i> and/or <i>Client's Contractors</i> standard warranty period, which is typically one year following the date of <i>Substantial Performance of the Work</i> or <i>Ready-for-Takeover</i> , as appropriate, review any defects or deficiencies that have been reported or observed during that period, and notify the <i>Client's Contractors</i> in writing of those items requiring attention by the <i>Client's Contractors</i> to complete the <i>Work</i> in accordance with the construction contract between the <i>Owner</i> and the <i>Client</i> .	C	

End Notes

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## Schedule 3 – Additional Services

### Architect's Scope of Additional Services

This table of *Additional Services* is to be read in conjunction with and as part of the *Contract*.

(Indicate in the table below *Additional Services* to be provided by the Architect and the manner of compensation as indicated in Fee Reference for each identified in Article A18.)

3.1	ITEM	Service/Fee Reference	Comments
<b>PRE-DESIGN SERVICES</b>			
.1	<b>Pre-Design Study</b> – Provide pre-design study or <i>Services</i> such as: to assist with analyzing the reasonable probability of the <i>Client's</i> objectives for the <i>Project</i> being reached within the <i>Client's</i> budget and advise on measures to align the <i>Project</i> requirements with the budget, assess the suitability of the <i>Owner's</i> site to accommodate the <i>Project</i> , taking into account known site constraints, ability to support future additions, and potential impact of known proposed developments in the vicinity.	NI	
.2	<b>Existing Building Assessment</b> – Provide assessment of the condition of existing buildings, systems, and equipment.		
.3	<b>Multiple Sites</b> – Provide pre-design site evaluations, planning surveys, or comparative studies of a number of multiple prospective sites.	NI	
.4	<b>Programming</b> – Provide analyses of the <i>Owner's</i> needs and prepare a written <i>Functional Program</i> as described in GC05.1.	NI	
.5	<b>Verifying Drawings</b> – Review drawings furnished by the <i>Client</i> , and visit site and take measurements to satisfy that drawings are reasonably accurate in their representation of the premises.		
.6	<b>Measured Drawings</b> – Confirm with the <i>Client</i> the purpose of the measured drawings and the accuracy required, make measurements, augment with photographs, and field notes as appropriate, and prepare drawings.		
.7	<b>Survey, Geotechnical, or Hazardous Materials</b> – Assist the <i>Client</i> in the engagement of <i>Consultants</i> to obtain survey, geotechnical, or <i>Toxic or Hazardous Substances or Materials</i> reports required by the <i>Design- Build Contract</i> .		
<b>GENERAL SERVICES, ALL APPLICABLE PHASES</b>			
.8	<b>Enhanced Project Management</b> – Provide <i>Project Management Services</i> not included under <i>Basic Services</i> .	NI	
.9	<b>Cash Flow Projection</b> – Provide and update as needed a cash-flow projection for the <i>Architect's</i> fees and disbursements.	NI	
.10	<b>Enhanced Coordination</b> – Provide <i>Services</i> related to designation of the <i>Architect</i> as coordinator of licensed professionals.	NI	
.11	<b>Detailed Estimates of Construction Cost</b> – Provide detailed <i>Estimates of Construction Costs</i> .	NI	
.12	<b>Detailed Quantity Surveys, Inventories</b> – Provide detailed quantity surveys and inventories of existing material and equipment other than that included in FF&E.	NI	

3.1	ITEM	Service/Fee Reference	Comments
.13	<b>Future Facilities</b> – Provide <i>Services</i> relating to future facilities, systems, and equipment not included in the <i>Construction Cost</i> .		
.14	<b>Provision of Interior Design Services</b> – Provide or engage the services of an interior designer to provide interior design services commensurate with other architectural services under this <i>Contract</i> .		
.15	<b>Furniture Fittings &amp; Equipment (FF&amp;E) Analysis</b> – Provide <i>Services</i> for the inventory and assessment of existing FF&E and analysis of <i>Owner's</i> requirements		
.16	<b>Furniture Fittings &amp; Equipment (FF&amp;E)</b> – Provide <i>Services</i> for the selection and installation review of FF&E, including reuse of <i>Owner's</i> inventoried FF&E.		
.17	<b>Signage</b> – Provide <i>Services</i> for design, selection, procurement, and installation of graphics, signage, and similar elements for interior or exterior application.		
.18	<b>Tenant-Related Services</b> – Provide tenant layout and design services or documents not otherwise included in fees.		
.19	<b>Marketing</b> – Prepare promotional presentations or special marketing materials.		
.20	<b>Model/Rendering/Video</b> – Provide specifically commissioned physical model (maquette), architectural rendering, computer rendering, or video, which become the property of the <i>Client</i> or <i>Owner</i> .		
.21	<b>Photography</b> – Provide specially commissioned photography or photographic records of site, existing conditions, construction, or other.		
.22	<b>Language Translation</b> – Provide language translation services for <i>Construction Documents</i> or other documents.		
.23	<b>Value Engineering</b> – Provide <i>Services</i> in connection with value engineering or analysis.		
.24	<b>CAD/BIM Files</b> – Provide editable copies of CAD or BIM files in accordance with the requirements of Appendix A.		
.25	<b>Moral Rights</b> – Relinquish the <i>Architect's Moral Rights</i> in the <i>Project</i> in accordance with the requirements of Appendix B.		
<b>PERMITS AND APPROVALS</b>			
.26	<b>Special Approvals of Authorities</b> – Provide studies, prepare drawings and other documents, attend meetings or public hearings, arrange for engagement of specialist <i>Consultants</i> if required, and assist <i>Client</i> in submission of application for:		
	.1 Zoning or Land Use Amendment;		
	.2 Committee of Adjustment or variance from bylaws;		
	.3 Site Plan Approval;		

3.1	ITEM	Service/Fee Reference	Comments
	.4 Other Approvals; (list and describe; example for condominium shown below) 1. Draft Plan of Condominium, including completion of the Schedule 'G' form on or about the timing of Substantial Performance;		
	<b>BIDDING/NEGOTIATION PHASE</b>		
.27	<b>Pre-qualification of Bidders</b> – Prepare parameters of pre-qualification process, advise participants of rating criteria, receive responses from interested parties, prepare analysis spreadsheet, and report results to <i>Client</i> for <i>Client's</i> decision.	C	
.28	<b>Multiple Bid Packages</b> – Provide <i>Services</i> and prepare multiple bid document packages as identified herein in connection with alternative, separate, or sequential bidding processes or with negotiation of trade contracts.		
.29	<b>Issued for Construction Drawings</b> – Prepare Issued for Construction drawings, incorporating relevant addenda, or negotiated changes during bid/negotiation phase.		
	<b>CONSTRUCTION PHASE</b>		
.30	<b>Additional On-Site Representation</b> – Provide extensive or full-time on-site review or representation.		
.31	<b>Early Release of Holdback</b> – Provide <i>Services</i> in connection with the early release of holdback for completed, contracts, subcontracts or trade contracts.	NI	
.32	<b>Multiple Releases of Holdback</b> – Provide <i>Services</i> in connection with the release of holdback on an annual basis, or phased basis.	NI	
.33	<b>Multiple Phases</b> – Provide <i>Services</i> in connection with multiple phased occupancies.		
.34	<b>Multiple Contracts</b> – Provide additional construction contract administration <i>Services</i> in connection with Construction Management, fast track, or Design Build delivery.		
.35	<b>Ready-for-Takeover</b> – Review the <i>Work</i> and issue at the appropriate time a <i>Ready-for-Takeover</i> statement in accordance with the provisions of the construction contract.		
.36	<b>Early Occupancy</b> – Provide additional site and documentation reviews in relation to early occupancy of all or a portion of the <i>Project</i> . Provide additional <i>Services</i> relating to multiple warranty periods for the <i>Project</i> .		
.37	<b>Updated Drawings</b> – Prepare and submit to the <i>Client</i> in a timely manner Updated Drawings incorporating supplemental instructions, change orders, and other changes issued during construction.		
.38	<b>Updated Specifications</b> – Prepare and submit to the <i>Client</i> in a timely manner Updated Specifications incorporating supplemental instructions, change orders, and other changes issued during construction.		
.39	<b>Record Drawings</b> – Prepare and submit to the <i>Client</i> in a timely manner Record Drawings incorporating changes in the <i>Work</i> made during construction based on as-built drawings (marked-up prints), drawings, and other data furnished by the		



3.1	ITEM	Service/Fee Reference	Comments
	<i>Client and/or Client's Contractors to the Architect; the accuracy and timeliness of the information supplied by the Client and/or Client's Contractors shall not be the responsibility of the Architect.</i>		
.40	<b>Commissioning</b> – Provide <i>Services</i> related to commissioning in the utilization of equipment or systems such as testing, adjusting, and balancing, preparation of operation and maintenance manuals, training operation or maintenance personnel for operation and maintenance, and consultation during operation.	NI	
.41	<b>Notice of Non-payment</b> – Assist the <i>Client</i> in drafting any statutory notices of non-payment in accordance with the requirements of the <i>Lien Legislation</i> .	NI	
.42	<b>Disputes with Contractor</b> – If requested by the <i>Client</i> , provide assistance with any dispute arising between the <i>Client</i> and <i>Client's Contractors</i> , including assistance in preparing documents required for submission in an <i>Adjudication</i> under the <i>Lien Legislation</i> .	F3	
.43	<b>Artefacts</b> – Investigate the impact on the <i>Work</i> of the discovery of fossils, coins, articles of value or antiquity, structures, unexploded ordnance, and other remains or things of scientific or historic interest at the <i>Place of the Work</i> .	F3	

<p>End Notes</p> <p>*1</p>
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These templates should be read together with the standard architectural services contract OAA 600-2021. These templates may be used to prepare Appendices adapted for use with your own contract. Coordinate with any supplementary conditions used with your own contract. Coordinate the numbering and clause references with any additional items you may include. Refer to Attachment 1, Guide to Apply PT.25 Design-Build to OAA 600-2021, for additional comments and background information. Refer to the *OAA 600-2021 GUIDE to the Standard Form of Contract for Licensed Member’s Services* for additional comments and background information. Seek legal review for your proposed contract.

## Appendix A

### Provision of Editable CAD or BIM Files

When the provision of editable CAD/BIM files in Schedule 3 is selected by the *Client*, the *Architect* shall provide editable CAD or BIM files, whichever was used for the *Project*. The *Architect* hereby grants a limited, non-exclusive, royalty-free, irrevocable, perpetual licence to the *Client* to use and reproduce the editable files for management of the facility including any future additions, renovations, or alterations. This licence is transferable provided that the same licence conditions are agreed to by the transferee. The transfer of this licence does not relieve the *Client* of its obligations under this licence.

In the case of a sub-licence to *Owner* in accordance with GC08, *Client* shall grant a limited, non-exclusive, royalty-free, irrevocable, perpetual sub-licence to the *Owner* to use and reproduce the editable files for management of the facility including any future additions, renovations, or alterations. *Client* shall require that such a sub-licence is transferable by *Owner* only if the same sub-licence conditions are agreed to by the transferee, provided that the transfer of such a sub-licence does not relieve the *Client* or the *Owner* of any of its obligations to *Architect*.

If the *Contract* is terminated by the *Client* for convenience or for any reason unrelated to the *Architect*'s performance of this *Contract*, this licence and any sub-licence thereunder is void.

If the *Contract* is terminated by the *Client* for cause, the editable CAD or BIM files provided shall represent the last milestone achieved before termination.

Where the *Client* has a CAD or BIM standard known to the *Architect* at the time of the *Contract* signing, the editable files shall be provided in accordance with the *Client*'s standard. Where the *Client* does not have a CAD or BIM standard, or the standard was not made known to the *Architect* at the time of the *Contract* signing, the editable files shall be provided in the *Architect*'s office standard.

The files provided shall represent the state of the drawing files at the latest *Project* milestones achieved as selected in Table 1 following:

1	ITEM	Service Provided	Comments
.1	Site Plan Approval		
.2	Completion of pre-design phase		
.3	Completion of schematic design phase		
.4	Completion of design development phase		
.5	Construction documents phase		

**Appendix A - Provision of Editable CAD or BIM Files  
Continued**

1	ITEM	Service Provided	Comments
	.1 Bid drawings		
	.2 Permit drawings		
.6	Completion of bid phase (issued for construction drawings)		
.7	Completion of construction phase ( <i>Record Drawings</i> )		

As a condition precedent to the use of the editable CAD or BIM files by the *Client*, or pursuant to a sub-license to the *Owner* in accordance with GC08 by the *Owner*, the *Client* agrees that use of the editable files by the *Client*, and the *Client* shall require in any sub-license to the *Owner* that the *Owner* agrees that use of the editable files by the *Owner* is at the *Owner's* own risk.

The *Client* further agrees to indemnify and hold harmless the *Architect*, the *Architect's* employees, agents, and *Consultants* from and against all claims, losses, demands, costs and expenses (including legal fees), damages, or recoveries (including any amounts paid in settlement) in contract or in tort arising by reason of, caused by, or alleged to be caused by, the *Client's* reliance on or use of the editable CAD or BIM files or the information contained therein.

In any sub-license to *Owner*, the *Client* shall require the *Owner* to indemnify and hold harmless the *Architect*, the *Architect's* employees, agents, and *Consultants* from and against all claims, losses, demands, costs and expenses (including legal fees), damages, or recoveries (including any amounts paid in settlement) in contract or in tort arising by reason of, caused by, or alleged to be caused by, the *Owner's* reliance on or use of the editable CAD or BIM files or the information contained therein.

No reliance shall be made by the *Client* or any third party on any information contained in the files that is not included in a pre-defined plottable view intended to produce a drawing sheet included in the list of drawings. In any sub-license to the *Owner*, the *Client* shall require that no reliance shall be made by the *Owner* or any third party on any information contained in the files that is not included in a pre-defined plottable view intended to produce a drawing sheet included in the list of drawings.

Neither this licence nor any sub-license by the *Client* to the *Owner* includes any right to use the editable CAD or BIM files or documents derived from them in relation to another *Project*, including another building on the same or a different site.

# Appendix B

## Waiver of Moral Rights

When relinquishment of *Moral Rights* is selected in Schedule 3 by the *Client* to facilitate the *Client's* use of the *Project*, including any future modifications, upon completion of the *Project*, the *Architect* hereby waives in favour of the *Client* and, in the case of the grant of a sub-licence by *Client* to *Owner* in accordance with GC08, also in favour of the *Owner*, their *Moral Rights* in the *Project* as indicated and selected below:

- Not Applicable. *Moral Rights* are retained by the *Architect* with respect to the *Project* in its entirety;
- Moral Rights* in the design as expressed in the drawings only;
- Moral Rights* in the design as expressed in the built form only; or
- Moral Rights* in the design as expressed in the drawings and the built form.

The *Architect* shall require its *Consultants* to provide a similar waiver of their *Moral Rights*.

For clarity, if the *Contract* is terminated by the *Client* for convenience or for any reason unrelated to the *Architect's* performance of this *Contract*, or if the *Client* fails to perform any of its obligations in the *Contract*, this waiver of *Moral Rights* is void.

If the *Contract* is terminated by the *Client* for cause pursuant to the *Contract* prior to completion of the *Project*, and the *Client* performs its obligations in the *Contract*, the *Architect* and its *Consultants* hereby waive in favour of the *Client*, and, in the case of the grant of a sub-licence by *Client* to *Owner* in accordance with GC08, also in favour of the *Owner*, their *Moral Rights* in the *Project* regardless of what the *Architect* has identified in their voluntary wavier identified in Paragraph 1 of this Appendix B.

In cases of significant restoration, alteration, or addition, and where *Moral Rights* are retained by the *Architect* with respect to the *Project* in its entirety or in the design as expressed in the built form, the *Client* shall consult with the *Architect* as to how retain the integrity of the *Architect's* work while providing for the new work. In the case of a sub-licence to *Owner* in accordance with GC08, *Client* will require that in cases of significant restoration, alteration, or addition, and where *Moral Rights* are retained by the *Architect* with respect to the *Project* in its entirety or in the design as expressed in the built form, the *Owner* shall consult with the *Architect* as to how to retain the integrity of the *Architect's* work while providing for the new work.

Acting in good faith, in cases of significant restoration, alteration, or addition, and where *Moral Rights* are waived, the *Client* may, but shall not be obliged to, consult with the *Architect* as to how best retain the integrity of the *Architect's* work while providing for the new work.

.....  
**CLIENT** (*Signature*)

.....  
**ARCHITECT** (*Signature*)

.....  
(*Printed name and title*)

.....  
(*Printed name and title*)

I have authority to bind the *Client*

I have authority to bind the *Architect*

.....  
(*Date*)

.....  
(*Date*)

*Moral Rights* in this Appendix has the same meaning given to it in the *Copyright Act*, R.S.C. 1985, c. C-42, as amended as of the *Effective Date* of the *Contract*.

## Design-Build: OAA 600–2013 with July 1, 2018 Amendments, OAA 600–2013 with Amendments to October 1, 2019

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### Summary

The Canadian Construction Documents Committee (CCDC) published new contracts for design-build: CCDC 14 for the owner/design-builder; and CCDC 15 as the services contract between an architect and a design-builder. This Practice Tip offers the OAA recommendation that OAA 600 be used, with a few modifications, as it is entirely suitable for use as the architect's services contract with a design-builder in lieu of using CCDC 15. As the architect's contract for services is used in conjunction with the design-builder's contract with the owner (CCDC 14), it is important to also review the Practice Tip PT.23.6 Design-Build: CCDC 14–2013.

### Background

Design-build is a form of project delivery where an owner contracts, under a single contract, with one entity (a design-builder) to provide and take contractual responsibility for both the design services and the construction services.

The design-build method of project delivery has become more prevalent in recent years. The CCDC published new standard contract forms for design-build: CCDC 14–2013, *Design-Build Stipulated Price Contract* and CCDC 15–2013, *Design Services Contract between Design-Builder and Consultant* which replaced the earlier (2000) versions of the Standard Construction Documents 14 & 15.

The OAA supports the concept of industry standard contracts as produced by the CCDC and endorsed by RAIC / Architecture Canada but continues to believe that services contracts for architects should be under the purview of architectural associations and as such recommends the use of the OAA *Standard Form of Contract for Architect's Services* amended for use on design-build projects.

This Practice Tip provides appropriate modifications to OAA 600–2013 with July 1, 2018 Amendments and OAA 600–2013 with Amendments to October 1, 2019 (herein referred to collectively as OAA 600), so that they can be used as the contract between the design-builder and the architect in lieu of using CCDC 15.

In all cases it is important that the architect's role and responsibilities as described in the construction contract for the project are consistent with the services and responsibilities in the client/architect contract. Architects should obtain a copy of the contract between the owner and the design-builder so that a review for consistency can be done.

### Modifications to OAA 600 for Design-Build

The text for suggested modifications to OAA 600 for use for design-build are provided in MS Word format in the Sample Template attachment to this PT, which can be used to create a Schedule '\_\_\_' which is identified as being "attached to and forming part of the contract" in GC 13 Other Terms of Contract. Below are explanations of each of the items of modification.

**Item 1:** clarifies that the architect's client is a design-builder; that the design-builder will have a contract with the owner; that there is no contractual relationship between the architect and owner; and that the architect will receive a copy of the owner / design-builder contract.

The architect requires a copy of the owner /design-builder contract to verify the compatibility of the scope of services and other terms with the client (design-builder) / architect contract and for the purpose of being able to administer the contract during construction.

**Item 2:** highlights the responsibilities of the client (design-builder) by identifying the standard of care test which is currently utilized by the courts.

**Item 3:** allows identification of the client's (design-builder's) anticipated construction procurement method as this decision by the design-builder impacts the architect's services during both the construction documents phase and the construction phase. Some of the various options design-builders use are: competitive bid, negotiated contract, multiple prime contractors, and construction management or the design-builder's own forces. All of the above could require either the preparation of a single complete set of construction documents or multiple packages which greatly affects the architect's services required and appropriate fees.

**Item 4:** expands the requirement for the client (design-builder) to notify the architect of any fault or defect in the project including during the design and construction document phases. This reinforces the design-build concept which is a team effort to provide a finished project which meets the owner's requirements.

**Item 5:** GC 5.1 and GC 8.4.2 are amended to include that the architect is not responsible for acts or omissions of the client (design-builder) and the client's contractors.

**Item 6:** GC 6.2.4 is deleted as it is not applicable in the design-build scenario.

**Items 7 and 8:** GC 7.3 is deleted and is effectively replaced by the change to GC 7.4 which is modified so that the use of the *Architect's Instruments of Service* extends to the owner.

**Item 9:** applies if the intention is that CAD files are to be provided to the client (design-builder) or the owner upon request (GC 7.6). Indemnification as a precedent for the use of the CAD drawing files by the client or owner is provided in new GCs 7.7 and 7.8.

**Item 10:** provides clarification for certification of payments and substantial performance. Refer also to commentary in PT.23.6.

## Procedure

- Become familiar with the design-build form of project delivery. Review referenced material including standard CCDC contracts and CCDC guides, the *RAIC Canadian Handbook of Practice (CHOP)* and OAA Practice Tips.
- If becoming involved in a design-build project or presented with CCDC 14 or CCDC 15 contracts by an *Owner* or *Design-Builder*, review and discuss the benefits of the OAA recommendations in PTs 25, 23.6 and 23.7.
- To clients asking about design-build, provide information, sources for additional information, and possible pros and cons from personal experiences remembering that the determination of the project delivery method is an owner's decision. Advising and making strong recommendations, may be seen as making a decision and may give rise to liability for the architect.
- It is very important to obtain a copy of the Owner/Design Builder contract. Review and coordinate the "Role of the Consultant" in that contract with the *Consultant's* services described in the Design-Builder / Consultant contract. Any inconsistencies should be discussed and clarified in writing.
- Payment Certifier: Confirm who will be the *Payment Certifier* designated in CCDC 14 and modify the roles and responsibilities of the architect as required. Refer also to comments in PT.23.6.
- Estimating: OAA 600 GC 2.1 Architect's Scope of Basic Services – items .7, .11 and .16 refer to the architect providing and updating *Estimates of Construction Cost* as part of Basic Services. In a design-build project this is most often done by the design-builder with the architect and other consultants providing assistance. Clarify and document the level of services required for this aspect.
- Complete OAA 600 as per the *Instructions and Commentary* and include modifications for Design-Build as a Schedule '\_\_\_', referenced in GC13 Other Terms of Contract.

## References

OAA 600–2013 with July 1, 2018 Amendments

OAA 600–2013 with Amendments to October 1, 2019

Instructions & Commentary for OAA 600-2013 & OAA 601-2013

PT.23.6 – *Design-Build*: CCDC 14–2013

PT.23.7 – *Design-Build*: CCDC 15–2013

[CCDC Contracts and Guides](#)

RAIC CHOP Chapter 2.3.2 Types of Project Delivery

## Attachments

Sample Template – *Schedule '\_\_\_'* ([Word](#))

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*The OAA does not provide legal, insurance or accounting advice. Readers are advised to consult their own legal, accounting or insurance representatives to obtain suitable professional advice in those regards.*

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This is a sample template which may be used to prepare a Schedule for your own contract. Coordinate the numbering and clause references with any additional items you may include.

## Schedule ' [REDACTED] '

(for use with OAA 600–2013 for Design-Build projects)

### GC 13 Other Terms of Contract

- .1 The *Client* is a design-builder providing both the design services and the construction for the *Work* for the *Project* under a design-build contract with the owner. Nothing contained in this contract shall create any contractual relationship between the *Architect* and the owner. The *Client* will provide to the *Architect* a copy of the design-build contract, from which commercial terms may be redacted.
- .2 In carrying out its responsibilities under this contract, the *Client* shall exercise a standard of care, skill and diligence that would normally be provided by an experienced and prudent client supplying similar design-build services for similar projects to an owner. The *Client* acknowledges and agrees that throughout this contract, the *Client's* obligations, duties and responsibilities shall be interpreted in accordance with this standard. The *Client* shall exercise the same standard of due care and diligence in respect of any products, personnel, or procedures which it may recommend to the owner.
- .3 Replace the content of Article A8 with:  

The *Client's* anticipated construction procurement method is as described below: (e.g., single bid, multiple prime contractors, construction management or *Client's* (design-builder's) own forces.)
- .4 The responsibilities for the *Client* described in GC 4.4.4 shall include notification of any errors, omissions or inconsistencies in the *Architect's Instruments of Service* or in the services or information furnished by the *Client*.
- .5 Replace the word “contractor” in the 5th line of GC 5.1 and in the 1st line of GC 8.4.2 with “*Client* and *Client's* contractors”.
- .6 Delete GC 6.2.4.
- .7 Delete GC 7.3.
- .8 Add the words “and the owner” after “*Client*” in the first sentence of GC 7.4.
- .9 Add GC 7.6, GC 7.7 and GC 7.8:
  - “7.6 If requested by the *Client* or the owner the *Architect* shall provide editable CAD drawings and shall grant a limited licence to the *Client* or the owner to use the editable CAD drawings for management of the facility including any future additions, renovations, or alterations.
  - 7.7 As a condition precedent to the use of the editable CAD drawings the *Client* agrees to indemnify and save harmless the *Architect*, his/her employees, agents and consultants from and against any and all claims, losses, demands, costs and expenses (including legal fees), damages or recoveries (including any amounts paid in settlement) arising by reason of, caused by, or alleged to be caused by, the *Client's* reliance on the editable CAD drawings.
  - 7.8 As a condition precedent to the use of the editable CAD drawings the *Client* agrees to require the owner to sign a similar indemnification in favour of the *Architect*.”



.10 The Parties agree that where the Contract Price includes both the cost of the Work and the cost of Design Services under the Contract:

- (1) the certification of payment by the *Consultant* made in support of the Design-Builder's application for payment is in respect of the value of Construction performed and products delivered only. The *Consultant* cannot independently certify the value of the Design Services provided by the *Consultant* to the Design-Builder; and
- (2) the *Consultant* is not deemed to be the "the payment certifier" under s.32(1) of the Ontario Construction Act or Construction Lien Act, for purposes of certifying the date of substantial performance of the Contract under s.2 of the Construction Act or Construction Lien Act as appropriate. The *Consultant* can only assist the Design-Builder for the purpose of determining the date on which the Contract was substantially performed. In these circumstances, the payment certifier shall make the determination of substantial performance and sign the certificate (CA form 9 or CLA form 6 as appropriate) or where there is no payment certifier, the Owner and the Design-Builder shall make the determination of substantial performance jointly and both sign the certificate (CA form 9 or CLA form 6 as appropriate)

**\*\*END\*\***

# Memorandum

**To: Council**

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Spiegel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 4.5

**From:** Kristiana Schuhmann, Vice President & PRC Chair

**Date:** September 10, 2024

**Subject:** Updates to Practice Tip PT.30 Retention Specialist Consultants

**Objective:** To review the updates to Practice Tip PT.30 and withdraw the previous version.

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## Background

The OAA's Practice Tips are accessed via the OAA website, and although written primarily for architects, they are also a resource for clients, lawyers, and other industry professionals. They are meant to be concise and follow a consistent structure and tone.

Clients (owners) may require Certificate of Practice holders to retain surveyors, geotechnical, or hazardous materials specialist consultants under the architectural services contract in lieu of having direct contracts with these specialist consultants to provide information about the state of what the client owns. These requests are often stated in Requests for Proposal (RFP). Such a contractual arrangement creates an increased level of liability and risk for the holder. It may also be excluded from coverage under the holder's Professional Liability Insurance.

On April 1, 2024, Pro-Demnity Insurance Company made [policy updates](#) related to retaining owner's specialist consultants. Pro-Demnity's policy updates included clarification in the language to make it clear that insurance coverage does not include the "performance or engagement of geotechnical engineering services or services that constitute the practice of cadastral and professional surveying", signifying that the wording in the Practice Tip needed review. In doing so, other housekeeping updates were also identified.

This memo contains a description of the major changes, an overview of process, and next steps related to the communication to members and other possible parallel updates to other OAA Resources.

## Key Technical and Format Changes

Here is an overview of the key updates to the document:

General Updates:

- The term “architect” has been replaced by “holder” – (Certificate of Practice holder)
- References to the OAA 600-and OAA 800 contracts have been updated.

In the “Summary” & “Background” Sections:

- New paragraph on architect retaining expertise
- Note about the April 1, 2024 policy update
- Discussion of client providing information about existing conditions
- Paragraphs were reordered for clarity
- Discussion of usual and customary services was added.

In the “Suggested Procedure” section:

- New item 5 was added to address additional insurance requirements for subconsultants.
- New subtitle for each of the items were added for added clarity.

## Overview of the Process and Input from Various Parties

At a Practice Resources Committee (PRC) meeting earlier this year, Pro-Demnity’s representative flagged upcoming updates to policy, expected in the spring of 2024.

Proposed updates to the current version of Practice Tip 30 (version 1.1 – July 22, 2014) were applied to reflect the adjustments to the policy wording and other editorial changes were also applied in the process. The draft was reviewed by PRC, Pro-Demnity and OAA staff. A copy was also shared with members of the Executive Committee during their September 4 meeting.

## Next Steps

In tandem with OAA’s Communication team, staff from PAS are working on the following items to support the release of the new resource:

- Update to the Practice Knowledge Base Tool, including edits to other associated resources such as PT.00 Index to Practice Tips, etc.
  - Communications to Members: The new and updated Practice Tip will be featured in an upcoming 2024 issue of the OAA’s Practice Advisory Newsletter.
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**Action**

Council to consider the following motion:

*It was moved by Schuhmann and seconded by ... that Council endorse Practice Tip PT.30 V. 2 Retention of Specialist Consultants as presented to Council on September 19, 2024; and directed the withdrawal of PT. 30 version 1.1.*

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**Attachments**

Appendix 1: DRAFT Version 2.0 of PT.30 Retention of Specialist Consultants

Appendix 2: Version 1.1 of PT.30 Retention of Specialist Consultants

Appendix 3: Redline Version of changes to PT.30 Retention of Specialist Consultants

## Retention of Specialist Consultants

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### Summary

On April 1, 2024, Pro-Demnity Insurance Company made [policy updates](#) related to retaining owner's specialist consultants. Holders are encouraged to review their policy and assess impact on active and future projects.

The information about real property typically provided by owners to holders includes land surveys, geo-technical analyses, and hazardous materials reports. Each of the specialists providing this information is reporting upon and identifying what exists or what is likely to exist before the holders and their sub-consultants can properly advise the client about proposed design concepts.

Clients (owners) may require Certificate of Practice holders to retain surveyors, geo-technical, or hazardous materials specialist consultants under the architectural services contract in lieu of having direct contracts with these specialist consultants to provide information about the state of what the client owns. These requests are often stated in Requests for Proposals (RFP). Such a contractual arrangement creates an increased level of liability and risk for the holder.

Holders retaining specialist consultants to provide information about existing conditions is distinct from holders retaining specialist consultants to provide information and assistance related to how the design responds to the site conditions. For example, what type of foundation system or waterproofing system is suitable for the existing soil conditions. For this type of assistance, it may be appropriate for the holder to retain such specialists. However, it is still recognized and recommended that this advice and recommendations come from a specialist consultant retained directly by the owner to reduce the risk that the holder will become vicariously liable for the specialist's services, including errors in its findings and recommendations. This information, recommendations and access to the specialist providing the information on below grade soils and hydrological conditions can be included in the scope of services provided by specialists retained by the owner.

### Background

#### Differences between “Traditional” Consultants and Owner’s Specialist Consultants

There is good reason for retaining specialist consultants. They have the special qualifications and experience for these particular scopes of service. Consequently, holders, their subconsultants (structural, mechanical, electrical, civil, etc.) and the client's other consultants must be able to rely upon the technical findings of such specialists when they prepare their designs.

#### Owner is Responsible for Existing Conditions:

It is a fundamental principle that any owner of real property is responsible for that which they own. Provision of data associated with real property is related to the owner's requirement to understand their real property, and this requirement exists continuously regardless of the provision of architectural design services. For example, a land survey is frequently a prerequisite to ownership, and the production of such a survey benefits the owner, and potentially subsequent owners of a property.

Holders are required to develop an understanding of the buildings or land (real property) owned by others in order to provide their services effectively. However, a holder's need for information does not confer the professional responsibility to obtain it. The responsibility to provide the information rests with the owner because of the obligations that flow from ownership of real property.

The development of geotechnical data is also a form of survey that provides a benefit to the owner, contributing to the owner's understanding of what they own. It follows, therefore, that when information about a property is required by persons providing services associated with the property, the owner of the property should be responsible to obtain the information, and provide it as needed. Further, if the information required is gathered through the work of qualified persons, the recipients of the information (including the owner) should be entitled to rely upon the information provided.

In the case of toxic or hazardous materials and pollutants, the owner is obligated under provincial legislation to understand the extent to which materials associated with a real property are present and the degree of hazard. If pollutants or hazardous materials are present, the legislation obliges the owner to introduce appropriate management plans to protect the public.

These client responsibilities are prescribed in the OAA 600-2021 standard form of contract under General Conditions GC05 Client's Responsibilities.

### **Risk Transfer Concerns:**

Holders may find that an owner wishes to have the holder retain specialists to provide the information that the client would normally be obligated to provide. In these instances it should be recognized that in doing so, the client is transferring some of their own legal responsibility and risk to the holder. Professional Liability Insurers in general do not consider these to be "usual or customary" services of architects or professional consulting engineers so such services will usually be excluded from their PLI coverage. Accordingly, the insurance industry provides specifically underwritten and priced PLI policies for these types of specialists. In addition, Pro-Demnity's policy includes an additional specific exclusion from coverage for the performance or engagement of geotechnical engineering, surveying and pollution related services.

As the entity contracting with the specialist consultant, the holder will be joined to any claim "in contract" with respect to the advice and any damages that might flow from the specialist's negligence, error, or omission. The holder, who should be entitled to rely upon the information about the existing condition of the client's (owner's) real property instead may become vicariously liable for it – without PLI cover to protect the holder from the additional risk assumed through its contract with the owner.

When a holder engages a specialist consultant, additional risk to the holder can arise because the specialist's liability insurance coverage could be found to be inadequate at the time of the claim, or worse, no longer in place. Such circumstances may result in transfer of liability for claims for damages onto the holder because of the contractual relationship between the holder and the specialist consultant.

It is important for the holder to take steps to mitigate-these risks to the maximum extent possible.

### **Suggested Procedure**

1. Review the RFP, services contract or functional program and talk with your client: If the client attempts to require the holder to retain specialist consultants through a Request for Proposal, a services contract, or a functional program, it is important to raise the matter for discussion, to explain the implications of the request, and the responsibilities of the client as owner of the real property. If necessary, refer to this Practice Tip
2. Assess the impact on your contracts (prime and subcontracts) and professional liability insurance coverage: If the client continues to require the holder to be responsible for the retention of the specialist consultants, discuss the means through which the holder can assist the client to fulfill their obligations as listed in OAA 600 and OAA 800. As part of the assistance, the holder may confirm in writing on behalf of the client that the specialist consultant(s) are retained by the owner.

Further, the holder can instruct the consultant(s) to address all invoices to the client. If requested by the client, the holder can receive the invoices addressed to the client, review and comment on the amount invoiced, and subsequently forward the invoices to the client for payment.

3. Talk with your legal counsel about indemnification and liability clauses: If the holder is willing to assist the owner by taking this responsibility onto itself, it is strongly recommended that the holder incorporate into the contract for professional services, language such as is found in OAA 600-2021, GC09 Indemnification and Liability clause 9.7.

Indemnification and hold harmless clauses create obligations between the parties to the contract. They do not preclude or protect from third party claims. Discuss the limitations of such clauses with your legal counsel.

**Note:** Reference numbers to other articles and General Conditions need to be adjusted in each specific contract.

In addition, for contracts other than OAA 600-2021, it is recommended to also include:

“...the *Client* agrees that the holder is entitled to rely upon the information provided by such specialist consultants.”

In OAA 600-2021, this is covered in Article A12.

The retention of the specialist consultant(s) raises issues which have a substantial effect on determining fair and reasonable fees. Issues to be considered include:

- Coordination and administration services,
- Risk factors:
  - amount of holder’s professional liability insurance, insurance deductible, and the duration for which it is maintained,
  - amount of time to prepare project documentation to assist the practice’s liability insurers in defending a claim (cost not recoverable).

The holder’s own legal counsel should review any proposed wording. The minimum objective for any such wording is to leave the holder in the same position respecting liability related to the work of these specialists as would have been the case had the owner retained the specialists directly themselves.

4. Consider the insurance requirements for specialist consultants: Regardless of who retains these specialists, and even with the protection which may be afforded by the provisions in an architectural services contract, it is essential that these specialists be required to carry their own professional liability insurance with appropriate limits, coverage, and duration. It should not be taken for granted that the specialist is adequately insured.

If the holder chooses to retain any of these specialists, it is strongly recommended that the holder require evidence that each specialist carries and maintains insurance covering the services being provided. It would be wise to include a specific requirement in the specialist’s contract respecting amounts, maintenance of required insurance limits and coverage at a minimum commensurate with the holder’s own insurance obligations. Given that an error in geo-technical information may affect more than an error in the architectural scope, it may be appropriate for the specialist consultant to carry more insurance than required of a holder. For example, if an error in the soils analysis results in a building that shifts or settles, the costs may be several times the cost of the project as a whole.

5. Additional insurance protection: Recognizing there will be insurance exclusions at play where a holder retains these types of experts, the holder including protective language in their own contracts may not provide enough protection for holders who nevertheless choose to provide these services. It is therefore recommended the holder should also seek to have the retained specialists have the holder included as an additional insured on the retained specialist’s liability policy and obtain a copy of a Certificate of Insurance or Endorsement as proof of such coverage.

6. Questions or concerns about professional liability insurance should be referred to [Pro-Definity Insurance Company](#).

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## Retention of Specialist Consultants

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### Summary

The Ontario Association of Architects (OAA) has observed that clients (owners) sometimes require architects to retain surveyors, geo-technical or hazardous materials specialist consultants under the client/architect contract in lieu of having direct contracts with these specialist consultants. Such a contractual procedure creates an increased level of liability and risk for the architect.

### Background

#### Owner is Responsible for Existing Conditions:

There is a reason for retaining specialist consultants. They have the special education and experience for these particular types of service. Consequently, the architect and their consultants must accept and be able to rely upon the technical findings of such specialists.

Architects are required to develop an understanding of property owned by others in order to provide their services effectively. However, an architect's need for information does not confer the responsibility to obtain it because of the obligations that flow from ownership of property.

The information about properties typically provided by owners to architects includes land surveys, geo-technical analyses, and the work of hazardous materials specialists. Each of the specialists providing this information is reporting upon and identifying what exists before the architect and their sub-consultants can properly advise the client about proposed design concepts.

It is a fundamental principle that any owner of a property is responsible for that which they own. Provision of data associated with property is related to the owner's requirement to understand their property and this requirement exists continuously regardless of the provision of architectural design services. For example, a land survey is frequently a prerequisite to ownership and the production of such a survey benefits the owner and potentially subsequent owners of a property.

In the case of hazardous materials, the owner is obliged under legislation to understand the extent to which materials associated with property are hazardous and, if hazardous materials are discovered, the legislation obliges the owner to introduce hazardous materials management plans.

The development of geotechnical data is also a form of survey that provides a benefit to the owner which contributes to the owner's understanding of that which they own. It follows, therefore, that when information about a property is required by persons providing service associated with the property, the owner of the property is responsible to obtain and provide the information. Further, if the information required is gathered through the work of qualified persons, the recipients of the information (including the owner) are entitled to rely upon the information provided.

<p>These client's responsibilities are prescribed in OAA 600-2013 and 601-2013 standard forms of contract for architect's services under General Conditions GC4 Client's Responsibilities, clause 4.3.</p>
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## Risk Transfer Concerns:

Architects may find that an owner wishes to have the architect retain specialists to provide the information that would normally be the client's obligation to provide. In these instances it should be recognized that in doing so the client is transferring some of their own legal responsibility and risk to the architect.

As the entity contracting with the specialist consultant, the architect will be joined to the claim "in contract" with respect to the advice and any damages that might flow from the specialist's negligence, error or omission. The architect, who should be entitled to rely upon the information about the existing condition of the client's (owner's) property instead becomes responsible for it.

When an architect engages a specialist consultant, additional risk to the architect may arise in spite of the specialist's liability insurance coverage which, at the time of the claim, could be found inadequate or no longer in place. Such circumstances may result in transfer of risk (and claim for damages) to the architect because of the contractual relationship between the architect and the specialist consultant. It is important for the architect to take steps to mitigate this risk as best possible.

## Suggested Procedure

1. If the client attempts to require the architect to retain specialist consultants through a Request for Proposal, client/architect contract or program of requirements, it is important to raise the matter for discussion and to explain the implications of the request and the responsibilities of the client as owner of the property. If necessary, refer to this Practice Tip
2. If the client continues to require the architect to be responsible for the retention of the specialist consultants, discuss the means through which the architect can assist the client to fulfill their obligations as listed in OAA 600/601-2013 under GC 3 Provision of Additional Services clause 3.1.6. As part of the assistance, the architect may confirm in writing on behalf of the client that the specialist consultant(s) are retained by the owner. Further, the architect can instruct the consultant(s) to address all invoices to the client. If requested by the client, the architect can receive the invoices addressed to the client, review and comment on the amount invoiced, and subsequently forward the invoices to the client for payment.
3. If the architect is willing to assist the owner by taking this responsibility onto itself, it is strongly recommended that the architect incorporate into the contract for professional services, language such as is found in OAA 600-2013 and OAA 601-2013 GC 8 Liability of the Architect clause 8.5.

The *Client* acknowledges that either the *Architect* or the *Client* may engage *Consultants* on behalf of and for the benefit and convenience of the *Client*, and agrees that the *Architect* shall not be liable to the *Client*, in contract or in tort, for the acts, omissions or errors of *Consultants* engaged by the *Client* identified in Article A10.2 [Consultants engaged by the Client] or the *Consultants* described in GC 4.3 [surveyors, geo-technical or hazardous materials specialist consultants] engaged on behalf of the *Client*. Nothing in this clause shall derogate from the *Architect's* duty of *Consultant Coordination*.

**Note:** Reference numbers to other articles and General Conditions need to be adjusted in each specific contract.

In addition, for contracts other than the OAA 600-2013 and OAA 601-2013, it is recommended to also include:

"...the Client agrees that the Architect is entitled to rely upon the information provided by such specialist consultants."

The retention of the specialist consultant(s) raises issues which have a substantial effect on determining fair and reasonable fees. Issues to be considered are:

- Coordination and administration services
- Risk factors:
  - amount of professional liability insurance deductible
  - amount of time to prepare project documentation to assist insurer in defence of a claim (cost not recoverable).

The architect's own legal counsel should review any proposed wording. The minimum objective for any such wording is to leave the architect in the same position respecting liability related to the work of these specialists as would have been the case had the owner retained the specialists themselves.

4. Regardless of who retains these specialists, and even with the protection which may be afforded by the provisions in a client/architect contract, it is essential that these specialists be required to carry their own professional liability insurance with appropriate limits and coverage. It should not be taken for granted that the specialist is insured.

If the architect chooses to retain any of these specialists, it is strongly recommended that the architect require evidence that each specialist carries and maintains insurance covering the services being provided. It would be wise to include a specific requirement in the specialist's contract respecting amounts and maintenance of required insurance limits and coverage at a minimum commensurate with the architect's own insurance obligations.

5. Questions or concerns about professional liability insurance should be referred to [Pro-Definity Insurance Company](#).

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## Retention of Specialist Consultants

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### Summary

On April 1, 2024, Pro-Demnity Insurance Company made [policy updates](#) related to retaining owner's specialist consultants. Holders are encouraged to review their policy and assess impact on active and future projects.

The information about real property typically provided by owners to holders includes land surveys, geo-technical analyses, and hazardous materials reports. Each of the specialists providing this information is reporting upon and identifying what exists or what is likely to exist before the holders and their sub-consultants can properly advise the client about proposed design concepts.

Clients (owners) may require Certificate of Practice holders to retain surveyors, geo-technical, or hazardous materials specialist consultants under the architectural services contract in lieu of having direct contracts with these specialist consultants to provide information about the state of what the client owns. These requests are often stated in Requests for Proposal (RFP). Such a contractual arrangement creates an increased level of liability and risk for the holder. It may also be excluded from coverage under the holder's Professional Liability Insurance.

Holders retaining specialist consultants to provide information about existing conditions is distinct from holders retaining specialist consultants to provide information and assistance related to how the design responds to the site conditions. For example, what type of foundation system or waterproofing system is suitable for the existing soil conditions. For this type of assistance, it may be appropriate for the holder to retain such specialists. However, it is still recognized and recommended that this advice and recommendations come from a specialist consultant retained directly by the owner to reduce the risk that the holder will become vicariously liable for the specialist's services, including errors in its findings and recommendations. This information, recommendations and access to the specialist providing the information on below grade soils and hydrological conditions can be included in the scope of services provided by specialists retained by the owner.

### Background

#### Differences between “Traditional” Consultants and Owner’s Specialist Consultants

There is good reason for retaining specialist consultants. They have the special qualifications and experience for these particular types scopes of service. Consequently, holders their subconsultants (structural, mechanical, electrical, civil, etc.) and the client's other consultants must be able to rely upon the technical findings of such specialists when they prepare their designs

#### Owner is Responsible for Existing Conditions:

It is a fundamental principle that any owner of real property is responsible for that which they own. Provision of data associated with real property is related to the owner's requirement to understand their real property, and this requirement exists continuously regardless of the provision of architectural design services. For example, a land survey is frequently a prerequisite to ownership, and the production of such a survey benefits the owner, and potentially subsequent owners of a property.

Holders are required to develop an understanding of the buildings or land (real property) owned by others in order to provide their services effectively. However, a holder's need for information does not confer the professional responsibility to obtain it. The responsibility to provide the information rests with the owner because of the obligations that flow from ownership of real property.

The development of geotechnical data is also a form of survey that provides a benefit to the owner, contributing to the owner's understanding of what they own. It follows, therefore, that when information about a property is required by persons providing services associated with the property, the owner of the property is responsible to obtain the information, and provide it as needed. Further, if the information required is gathered through the work of qualified persons, the recipients of the information (including the owner) are entitled to rely upon the information provided.

In the case of toxic or hazardous materials and pollutants, the owner is obligated under provincial legislation to understand the extent to which materials associated with a real property are present and the degree of hazard. If pollutants or hazardous materials are present, the legislation obliges the owner to introduce appropriate management plans to protect the public.

These client responsibilities are prescribed in the OAA 600-2021 standard forms of contract under General Conditions GC05 Client's Responsibilities.

### **Risk Transfer Concerns:**

Holders may find that an owner wishes to have the holder retain specialists to provide the information that the client would normally be obligated to provide. In these instances it should be recognized that in doing so, the client is transferring some of their own legal responsibility and risk to the holder. Professional Liability Insurers in general do not consider these to be "usual or customary" services of architects or professional consulting engineers so such services will usually be excluded from their PLI coverage. Accordingly, the insurance industry provides specifically underwritten and priced PLI policies for these types of specialists. In addition, Pro-Demnity's policy includes an additional specific exclusion from coverage for the performance or engagement of geotechnical engineering, surveying and pollution related services.

As the entity contracting with the specialist consultant, the holder will be joined to any claim "in contract" with respect to the advice and any damages that might flow from the specialist's negligence, error, or omission. The holder, who should be entitled to rely upon the information about the existing condition of the client's (owner's) real property instead may become vicariously liable for it – without PLI cover to protect the holder from the additional risk assumed through its contract with the owner.

When a holder engages a specialist consultant, additional risk to the holder can arise because the specialist's liability insurance coverage could be found to be inadequate at the time of the claim, or worse, no longer in place. Such circumstances may result in transfer of liability for claims for damages onto the holder because of the contractual relationship between the holder and the specialist consultant.

It is important for the holder to take steps to mitigate these risks to the maximum extent possible.

### **Suggested Procedure**

1. Review the RFP, service contract or functional program and talk to your client: If the client attempts to require the holder to retain specialist consultants through a Request for Proposal, a services contract, or a functional program, it is important to raise the matter for discussion, to explain the implications of the request, and the responsibilities of the client as owner of the real property. If necessary, refer to this Practice Tip.

2. Assess the impact on your contracts (prime and other subcontracts) and professional liability insurance coverage: If the client continues to require the holder to be responsible for the retention of the specialist consultants, discuss the means through which the holder can assist the client to fulfill their obligations as listed in OAA 600 and OAA 800. As part of the assistance, the holder may confirm in writing on behalf of the client that the specialist consultant(s) are retained by the owner. Further, the holder can instruct the consultant(s) to address all invoices to the client. If requested by the client, the holder can receive the invoices addressed to the client, review and comment on the amount invoiced, and subsequently forward the invoices to the client for payment.

Talk to your legal counsel about indemnification and liability clauses: If the holder is willing to assist the owner by taking this responsibility onto itself, it is strongly recommended that the holder incorporate into the contract for professional services, language such as is found in OAA 600-2021 GC09 Indemnification and Liability clause 9.7.

Indemnification and hold harmless clauses create obligations between the parties to the contract. They do not preclude or protect from third party claims. Discuss the limitations of such clauses with your legal counsel.

**Note:** Reference numbers to other articles and General Conditions need to be adjusted in each specific contract.

In addition, for contracts other than OAA 600-2021, it is recommended to also include:

“...the *Client* agrees that the holder is entitled to rely upon the information provided by such specialist consultants.”

In OAA 600-2021, this is covered in Article A12.

The retention of the specialist consultant(s) raises issues which have a substantial effect on determining fair and reasonable fees. Issues to be considered include:

- Coordination and administration services,
- Risk factors:
  - amount of holder's professional liability insurance, insurance deductible, and the duration for which it is maintained,
  - amount of time to prepare project documentation to assist the practice's liability insurers in defending a claim (cost not recoverable).

The holder's own legal counsel should review any proposed wording. The minimum objective for any such wording is to leave the holder in the same position respecting liability related to the work of these specialists as would have been the case had the owner retained the specialists directly themselves.

4. Consider the insurance requirements for specialist consultants: Regardless of who retains these specialists, and even with the protection which may be afforded by the provisions in an architectural services contract, it is essential that these specialists be required to carry their own professional liability insurance with appropriate limits, coverage, and duration. It should not be taken for granted that the specialist is adequately insured.

If the holder chooses to retain any of these specialists, it is strongly recommended that the holder require evidence that each specialist carries and maintains insurance covering the services being provided. It would be wise to include a specific requirement in the specialist's contract respecting amounts, maintenance of required insurance limits and coverage at a minimum commensurate with the holder's own insurance obligations. Given that an error in geo-technical information may affect more than an error in the architectural scope, it may be appropriate for the specialist consultant to carry more insurance. For example, if an error in the soils analysis results in a building that shifts or settles, the costs may be several times the cost of the project as a whole.

5. Additional insurance protection: Recognizing there will be insurance exclusions at play where a holder retains these types of experts, the holder including protective language in their own contracts may not provide enough protection for holders who nevertheless choose to provide these services. It is therefore recommended the holder should also seek to have the retained specialists have the holder included as an additional insured on the retained specialist's liability policy and obtain a copy of a Certificate of Insurance or Endorsement as proof of such coverage.<sup>6</sup> Questions or concerns about professional liability insurance should be referred to [Pro-Definity Insurance Company](#).

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*The OAA does not provide legal, insurance or accounting advice. Readers are advised to consult their own legal, accounting or insurance representatives to obtain suitable professional advice in those regards.*

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# Memorandum

**To: Council**

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Speigel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 4.6

**From:** OAA Governance Committee

William (Ted) Wilson (Chair)  
Michelle Longlade  
Elaine Mintz  
Susan Speigel  
Settimo Vilardi

**Date:** August 29, 2024

**Subject:** OAA Seal – Architects (subject to terms, conditions and limitations).

**Objective:** Council review and approval of wording for seal for Architects (subject to terms, conditions, and limitations).

---

There are currently 10 individuals that hold a licence that is explicitly accompanied by the use of the title ***Architect (subject to terms, conditions and limitations)***. The OAA Directory provides access to the details of the permitted scope of practice for each individual as determined by the Registration Committee. Any associated certificate of practice is also subject to the same terms, conditions, and limitations as the licence.

Prompted by the discussions during the May 2024 Council meeting, the Governance Committee has considered the OAA seals issued to individuals licenced as *Architect (subject to terms, conditions, and limitations)*. As a reminder, the Architect's seal includes the following:

- "Ontario Association of Architects";
- Individual's name;
- "Licence"; and
- Licence number.

The Governance Committee recommends that, in order to ensure clarity for the public, and specifically in the case of Building Officials, the seal be adjusted for individual



licensees that are subject to terms, conditions and limitations such that the wording include “**Licence (subject to terms, conditions, limitations)**”. See example below.

OAA Architect Seal



Proposal for adjusted wording



The above proposal is made with the understanding that it may be reconsidered in the future as part of an overall redesign of the OAA seal, based on proposals received during the OAA's major Branding + Identity project.

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**Action**

*It was moved by... and seconded by...that Council approve the recommendation to adjust the wording of the OAA Seal to be used for individuals licensed as Architects (subject to terms, conditions, and limitations) with the addition of the words “**(subject to terms, conditions, and limitations)**”, and that staff be requested to implement this direction accordingly.*

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**Attachments**

None.

# Memorandum

**To: Council**

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Spiegel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

FOR COUNCIL MEETING

September 19, 2024

(open)  
ITEM: 4.7

**From:** OAA Finance & Audit Committee

Ted Wilson, Chair and Senior VP & Treasurer  
Lara McKendrick, Vice President  
Jim Butticci, Lieutenant Governor in Council Appointee  
John Stephenson, Member at Large

**Date:** September 7, 2024

**Subject:** OAA Auditors

**Objective:** Council to consider a proposal regarding the engagement of new auditors for the OAA.

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## Background

In recent correspondence addressed to OAA Executive Director Kristi Doyle, Grant Thornton LLP advised, because of the growth of Pro-Demnity Insurance Company and increased accounting and regulatory reporting complexity in that organization, they are unable to continue as the auditor of OAA's consolidated financial statements.

Under Canadian Auditing Standard (CAS) 600 *Special Considerations – Audits of Group Financial Statements (including the work of Component Auditors)*, the group auditor is required to take responsibility for the work performed by component auditors and the regulatory factors impacting entities in the group. In addition, there is guidance about the proportion of the consolidated entity's assets and revenues that must be directly audited by the group auditor. Given this level of responsibility, the implementation of IFRS 17 *Insurance Contracts*, and the continued growth of Pro-Demnity relative to the OAA, there becomes a duplication of efforts when there are different auditors for Pro-Demnity and the OAA.

Grant Thornton further noted that, the level of regulatory responsibility and work required on the overall group structure would be simplified if the auditor of Pro-Demnity were to

take on the group auditor role. As a result, they have tendered their resignation as auditors of OAA effective immediately.

The matter was brought forward to the Finance & Audit (F&A) Committee by the Executive Director at its August meeting. Executive Director Doyle noted that she had alerted the Senior Vice President & Treasurer of this matter in June and had agreed to reach out to Pro-Demnity Insurance Company CEO, Bruce Palmer as well with the information.

### **Options to Address the Circumstance**

In August, Doyle presented a number of options to the F&A Committee as a means to address the circumstance

1. In accordance with the OAA's Procurement Policy, an RFP could be issued to solicit proposals for the OAA's auditing services.
2. OAA and Pro-Demnity could issue an RFP(s) in tandem or jointly to solicit proposals for a Group Auditor.
3. In accordance with the OAA's Procurement Policy, whereby the Executive Director and Council can chose to sole source services after an assessment of compelling circumstances, the OAA could approach BDO Canada LLP, Pro-Demnity Insurance Company's current Auditor for a proposal to take on the OAA as a client and provide group auditing services for both OAA and Pro-Demnity.

Doyle and Palmer discussed these options as senior administrators of their respective organizations and felt, given the current timing in terms of our respective fiscal years, option three would be the most appropriate and is permissible under the OAA's Procurement Policy. As a reminder, the OAA's fiscal year ends November 30. In assessing the time that would be required to draft and issue an RFP, consider and assess submissions received, follow the process for appointment of an auditor, as well as competing priorities, there simply is not adequate time.

Both agreed that this would be an interim measure and that it would be appropriate that BDO be engaged on a short-term basis only by OAA i.e. for fiscal 2024 and 2025 audits, and that a full RFP process (either individually by OAA or in concert with Pro-Demnity) should be undertaken in the near future. This of course would be subject to Council agreement.

Palmer also discussed these options with Pro-Demnity's F&A Committee. Palmer had confirmed in an email that there had been general consensus among his F&A Committee that option 3 would be acceptable.

### **Legal considerations re: One Auditor**

Notwithstanding the above, Doyle was asked to confirm whether it would be appropriate for OAA and Pro-Demnity to share the same auditor. Some concern was expressed by the OAA F&A Committee in terms of whether this was considered an acceptable standard of practice for accounting professionals, and secondly whether there was any concern

from a corporate or business perspective given that the OAA has been deliberate in creating a clear and transparent separation between the OAA and Pro-Demnity as its wholly-owned subsidiary.

Doyle has confirmed that OAA general counsel, BDO and Grant Thornton have all advised that it is common for there to be one group auditor for a corporate entity and its subsidiaries. BDO does act in this capacity in other regards, and it was noted that the Law Society of Ontario shares an auditor with their subsidiary insurer LawPro.

The Executive Committee of Council has also requested that Doyle pursue a separate legal opinion to confirm the level of risk to the OAA and/or Pro-Demnity in terms of the ongoing efforts to ensure a clear and transparent separation between our two entities. This opinion is being sought and will be confirmed at the September 19 Council meeting.

### **Process for the appointment of the Auditor**

The OAA bylaws set out the process to appoint an auditor. The authority for this bylaw rest within s. 8(1) para 4 of the Act and confirms that the “*fixing the financial year of the Association and providing for the audit of the accounts and transactions of the Association*” are to be set out in the bylaws.

Section 63 of the OAA bylaw states that “*The members at each annual meeting shall appoint an auditor who shall be chartered professional accountants to hold office until the next annual meeting and if an appointment is not so made, the auditor in office shall continue in office until a successor is appointed.*”

The bylaws therefore contemplate that the members, and not Council, are to appoint the auditor at a meeting of the members.

Section 18 of the bylaws states that an annual meeting must be called by Council and held no more than 15 months after the holding of the last annual meeting.

However, section 19 allows for other general meetings (i.e. not an AGM) to be called by Council “*and shall be held at such place and at such time as shall be determined by the Council.*” At least 21 days’ notice is required. Section 30 states that 50 members in good standing constitute a quorum.

Given the tight time schedule, notice of a meeting could be issued to the members, along with the motion to be voted on the day after the September Council meeting. The general meeting could be called for October 16.

### **BDO Canada LLP Proposal**

Further to the above, it was agreed that Doyle would reach out to BDO to confirm their interest in taking the OAA on, and if so, provide their proposal to provide auditing services in the short term. BDO’s proposal is attached. Based on review by Doyle and the OAA Manager, Finance Melanie Walsh, the services and scope would be appropriate to meet our needs and the auditing costs appear to be in line with previous years.

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## Recommendation

Based on thorough consideration and analysis of this situation, the F&A Committee and management recommend that Council accept the proposal presented by BDO Canada for auditing services for the immediate future (i.e. fiscal 2024 and likely 2025 subject to satisfactory audit in 2024) and that a virtual general meeting of the members be called for October 16, 12:30 p.m. to pass the necessary resolution.

It is further recommended that the OAA undertake a full RFP in 2025 to solicit a minimum of three proposals. The timing and administration of the process to be identified and handled by senior staff. The intent would be to have this complete and a recommendation from the F&A Committee/Council ready for the 2026 Annual General Meeting of the members.

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## Action

Council to consider the following motion:

***It was moved by Wilson and seconded by Butticci that Council accept the proposal from BDO Canada LLP for auditing services for fiscal 2024; and in accordance with the OAA bylaws, a resolution be advanced to the membership to appoint BDO Canada as auditors for fiscal 2024 to be voted on at a general meeting of the members to be called for October 16.***

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## Attachments

Proposal from BDO Canada for auditing services.



BDO Canada LLP proposal to  
**Ontario Association  
of Architects**

September 10, 2024



Melanie Walsh  
Manager of Finance  
Ontario Association of Architects  
111 Moatfield Drive  
Toronto, ON M3B 3L6

September 10, 2024

Dear Ms. Walsh,

Thank you for the opportunity to propose on the provision of professional services to Ontario Association of Architects ("OAA"). Please find enclosed BDO's proposal, which includes an overview of our firm experience, team members, our approach, a fee estimate, and additional value-added services. Given our extensive experience serving Not-for-Profit Organizations (NPOs) as well as being the auditors for Pro-Demnity Insurance Company, we are certain the needs of OAA are well matched with the services we offer.

We look forward to supporting OAA as you continue your important work and would be pleased to serve you now and in the years to come. We commit to not only meeting but exceeding your client service expectations.

If you have any further questions, please feel free to contact me directly.

Yours truly,

Melanie Borho-Persechini  
Partner  
BDO Canada LLP  
Chartered Professional Accountants, Licensed Public Accountants  
T: (905) 272-7824  
E: mborhopersechini@bdo.ca

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# Executive summary

BDO is uniquely positioned to provide professional services to your organization. Outlined below are the key reasons why:



## In-depth industry & technical expertise

- You'll work with an experienced firm that serves more than 3,000 NPO clients across Canada.
- As the auditors of Pro-Demnity Insurance Company ("Pro-Demnity"), we understand the operations of your subsidiary. We will use this knowledge in completing the audit of OAA which incorporates the financial results of Pro-Demnity.
- We invest in the training and professional development of our people so you are always working with people who understand your sector. We will proactively bring you relevant NPO insights and assist you with ASNPO accounting advisory and compliance with new changes to reporting standards.
- Through BDO's NPO Centre of Excellence, you will have access to over 250 professional staff, and we will share industry best practices with you. We continue to invest in the NPO sector because it is a key part of our business.



## Senior time & attention

- You will receive personal time and attention from your engagement partner, Melanie Borho-Persechini, who has extensive experience serving similar not-for-profit clients. Melanie is also the engagement partner for Pro-Demnity, so she will bring the knowledge of its operations to the OAA audit.
- We utilize a partner-led approach and senior team involvement with regular check-ins. You benefit from a proactive approach and ongoing communication during the audit and throughout the year. Melanie will be easily accessible to you and will treat your phone calls and communications as a priority.
- As part of our commitment to our clients' success, we provide value-added advice including recommendations on internal controls and insights to any upcoming ASNPO changes that may come into effect in future years.



## Exceptional client service

- OAA will be an important client to BDO. You will receive highly responsive service and gain access to our national network of professionals and technical experts. BDO combines the personal involvement and attentiveness of a local partner, with the depth and breadth of resources and services of a national firm.
- We will engage with key stakeholders early and we will invest the time to understand what is important to you.
- We commit to frequent communication, quick turnaround on any compliance matters or ad-hoc questions, and regular check-ins throughout the engagement.





# Firm credentials

# Firm stats

## BDO GLOBAL

REVENUE

**US\$14**  
BILLION

10.2%  
Growth

 GLOBAL  
HEADCOUNT

**115,661**

+3.9%  
Growth

 **1,776**  
offices



**166**  
countries &  
territories



## BDO CANADA

REVENUE

**CAD\$987**  
MILLION

13%  
Growth

 **95**  
offices




**100**  
YEARS

From one dream  
to a century  
of excellence

 **508**  
PARTNERS  
HEADCOUNT

 **5,000+**  
PERSONNEL  
HEADCOUNT

## BDO LOCAL

 360 Oakville Place Drive  
Suite 500  
Oakville, Ontario L6H 6K8

**135** **1,740+**  
 PARTNERS  
HEADCOUNT  PERSONNEL  
HEADCOUNT

**11**  
offices

Serve our clients  
through a  
COLLABORATIVE  
APPROACH



 **BDO**  
**OAKVILLE**  
will be your serving  
office

- 5th largest firm in the world, with global revenues of US\$14B and consistent year over year growth.
- Founded in 1921, BDO Canada LLP has been in business for 100+ years serving clients across many industries.
- With offices in 166 countries around the world, BDO Canada frequently collaborates with our member firms around the world to provide seamless service to clients with a global footprint.

# Association and membership credentials

## Managing the business and strengthening member connections

Associations and memberships make up a unique part of the Canadian business ecosystem and they face many of the same challenges as other organizations. BDO has worked with national trade, regulatory, sports associations, trade unions, and professional memberships. We start by understanding their needs and formulating strategies to help them manage reputational risks and stay relevant to their members.



**3,000+**  
Not-for-profit sector clients in Canada



**700+**  
Associations & member-based organizations

Whether they're protecting, inspiring or educating the world, NPOs face dynamic challenges. Fortunately, there are more ways to solve them than ever before. BDO's NPO practice has the insights to empower industry leaders across all types of organizations.

We know that the impact NPOs have depends on the financial health and sustainability of their own operations. To help organizations balance their non-profit heart and business mindset, BDO professionals can assist with:

- Regulation and compliance needs
- Revenue management
- Technology optimization
- Risk mitigation and response

Each NPO's mission is unique which means they require a customized solution tailored to their individual needs. In these ever changing times, our dedicated professionals are rooted in the industry, serving as problem solvers, who will help your organization innovate and adapt.



### A highlight of our local and firm client experience



Association of Municipalities of Ontario



# Your BDO team

Below are the senior team members for your audit. You will be a key client for BDO. As such, your engagement partner, Melanie Borho-Persechini will ensure OAA will receive exceptional client service.

We confirm we have the necessary resources to perform the work and to act as back-up resources if needed.

For senior team profiles, please refer to Appendix I.







# Audit approach

# Understanding of work

We understand OAA is seeking an independent firm to audit their non-consolidated financial statements for the fiscal year ending November 30, 2024. As the auditor, we understand we will:

- Issue our audit opinion on OAA's non-consolidated financial statements, which incorporate the activities of Pro-Demnity following the equity method.

## Conflict of interest

BDO Canada LLP is a licensed public accounting firm in Canada and is authorized to provide financial statement audit services. We hereby provide written confirmation of our independence regarding the proposed financial audit services:

- We confirm that BDO Canada LLP is independent from Ontario Association of Architects.
- We confirm that any non-audit services performed for Ontario Association of Architects will neither prejudice the independence implicit in an audit engagement nor be in conflict of interest under any governing code of professional ethics.
- We confirm that BDO is not economically dependent on the revenues derived from the audit.
- There is no conflict of interest, and we can accept the appointment as external financial auditor. Should there be a conflict or an appearance of conflict, we will disclose and discuss this with you.

## Professional standing with Chartered Professional Accountants of Ontario

We confirm that the senior members of your audit team are in good standing with the Chartered Professional Accountants of Ontario.



# Audit approach



## Audit of financial statements

BDO employs a proprietary global audit methodology to conduct a high quality, risk-based audit. We will work with your team to complete either an in-person, hybrid, or remote audit based on your preferences.

Our audit approach is underpinned by the key pillars of transition management, service management, quality management, and technology platforms. Our risk-based methodology ensures our focus is directed towards those areas of financial statements that may contain material misstatements because of risks faced by OAA.

Essential to our approach is the incorporation of technology, including our audit software and documentation tool APT and our BDO Global Portal to exchange information, documents, data, reports, metrics, and updates.

Our focused risk assessment process is designed to ensure an efficient and cost-effective audit. We focus on the areas most likely to present a significant risk of material misstatement and deploy resources accordingly. This approach means that high-risk and complex areas of the audit are assigned to experienced and senior team members.

## Coordinated approach

- We place significant emphasis on close coordination with management to gain a meaningful understanding of management’s own risk assessments and procedures in place. By coordinating with management, it minimizes work effort and increases audit efficiency.
- We will gain an understanding of controls, as applicable.
- A risk-based audit approach combined with a well coordinated team will be the catalyst for an efficient audit process.
- We gather sufficient information on the market and key business/audit risks to enable us to design appropriate audit procedures and conduct the audit in the most efficient manner. Information gathering will also include a client request list with agreed timetable for provision of information and pre-year end planning meeting.
- We promote clear and timely communication of issues to avoid last minute surprises and to enable smooth and timely reporting.

# Audit approach

## Engagement preparation and interim audit procedures

### Engagement preparation

We will plan our audits in conjunction with you, ensuring they are tailored to your needs and focus on your key risks. We will provide you with constructive feedback and industry insight.

The main stages of our planning and strategy phase are outlined below and include our approach in gaining an understanding of OAA's organizational structure and systems.

### Information gathering

We will consult with management on a regular basis to keep up to date with your business and issues, so together we can make an effective risk assessment. In addition, our team is up to speed on the latest economic and reporting issues which may affect your organization and we will incorporate this knowledge in our risk assessment and planning.

### Planning phase

We will meet with management to perform detailed planning procedures including:

- A preliminary analytical review to gain an understanding of your results to develop our expectations and plan the final audit procedures.
- A review of the controls environment.
- Identification of issues that are likely to arise during the audit and in the financial statements. These will be discussed with you immediately and, if possible, resolved in advance of the year-end.
- Agreement of the format of the year-end financial statements with you before the year-end work.
- Providing you with our samples for detail testing to allow sufficient time for your team to prepare information ahead of the audit.
- Providing our "prepared by client" information request list allowing your team to plan the delivery of audit information.

### Interim audit procedures

#### Review of the controls environment

We will document and understand your processes to identify the key internal controls.

We will aim to test those controls that are important from an audit perspective and those that will help us to deliver an efficient audit.

We will report any significant control weaknesses identified during the audit and highlight any potential areas to improve efficiencies in your processes.

#### Scope and materiality

We will determine a materiality level based on our professional judgment in the context of our knowledge of your organization, including a consideration of factors such as industry developments, financial stability, and reporting requirements for the financial statements.

Our materiality level will assist in establishing the scope of the audit engagement and audit tests to be performed, as well as evaluating the effect of known and likely misstatements in the financial statements.

We will agree and document the scope, objectives, timetable, and organization of the audit work with management.

## Deliverables

The output of this phase will include an audit planning report highlighting our proposed audit materiality and scope, and key audit risks. This report will be provided in advance of the year-end and discussed with the Finance & Audit Committee at the annual planning meeting.



# Audit approach

## Substantive execution, evaluation and reporting

### Substantive execution

The team will perform the detailed audit procedures during this phase. We have highlighted here the key aspects of what you can expect from our team.

### Communication and coordination

The audit manager will supervise and co-ordinate the team, the progress of the work, and make sure any issues are raised as soon as they are identified.

We will update you about our progress and any issues in regular calls and meetings, ensuring you are aware of key audit information at every stage of the audit process.

### Reviews

The engagement partner and audit manager will perform their reviews on a timely basis to avoid any last minute information requests and ensure early resolution of any issues raised. Partner and manager reviews are a key part of our process and help to ensure the quality of our audit.

### Resolution of critical issues

Should an issue arise, we will discuss this with you immediately so that there are no last minute surprises. We will work with you to reach a pragmatic and workable solution and aim to resolve all issues ahead of our clearance meeting.

### Responsibility for decisions

The engagement partner has ultimate responsibility for all key decisions regarding the financial statement audit and will sign off on the independent auditor's report. Throughout the audit you will receive significant input from the partner and manager because greater senior time means you get experienced and quick decision-making.

### Evaluation and reporting

#### Clearance meeting

We will have an annual audit closing meeting with management to report and discuss the audit findings and resolve any outstanding issues. We will also share the intended content of the documents, to the extent appropriate, before they are formally issued for management to provide comment.

#### Evaluation and reporting

We expect to be in regular contact with management throughout the year and during the audit. Our management letter at the end of the audit should therefore contain no surprises but summarize the key issues for management.

#### Management letter

This report provides details of weaknesses in processes and internal controls identified during our audit. We will discuss its contents with management in advance of issuing the formal letter to ensure that the points are clear. We will also include appropriate responses from management in the letter before it is issued if applicable. Our year-round approach means many issues can be resolved before they escalate to the management letter.

#### Reporting to the Finance & Audit Committee

We would expect to report on the following to the Finance & Audit Committee:

- Key areas of judgment around the material areas of the financial statements.
  - Our review of the systems and controls in the form of a management letter as applicable.
  - Recommendations on areas that could be improved.
  - Any other matters that you specifically request.
-

# Audit approach

## Audit tools and technology

### APT Audit Tool

Our audit software and documentation platform, APT, is an integral part of our audit methodology. Our professionals engage APT to:

- devise and perform appropriate, risk-based audit procedures and testing based on applicable Canadian Auditing Standards (CAS).
- factor in engagement and industry specific objectives and circumstances.

APT is designed to enable us to deliver an audit that fits your organization—whether large, small, complex, or non-complex. APT also contributes to a globally consistent approach, allowing our auditors across the globe to access the same audit programs and instructions, applying the same methodology across the components of your engagement. This helps our engagement teams to focus on appropriate risk and audit strategies, ensuring your audit is scoped appropriately. Through a strategic alliance with Microsoft and the introduction of new technology, this worldwide tool is now capable of streamlining the audit process in even more ways for BDO professionals and their clients.

Our audit approach supports:

- Consistency: drives consistency and quality in audit execution throughout BDO, enabling us to be responsive to your size and needs, while providing access to the latest technology solutions.
- Customization: providing sufficient flexibility to allow us to customize the scope of our work to meet your organizational needs and risk profile.
- A digital approach: we promote a paperless audit where we perform and document our audit and exchange information with you and your team using technology.
- Exceptional delivery: timely and efficient delivery of your audit by using our highly trained teams, supported by state-of-the-art technologies, and underpinned by an exceptionally intuitive audit methodology.
- Compliance: our audit approach and related technologies ensure compliance with Canadian Auditing Standards (CAS).

### DataSnipper

With DataSnipper we can quickly compare large volumes of information to the details of supporting documents, allowing us to efficiently expand our sample sizes. We incorporate information generated from such tools into the subjective assessments within our audit approach, using them to assess risk, gather audit evidence, and provide greater insights.



**3x efficiency gain**  
 Repetitive audit tasks in the financial statement procedures are performed 3x faster with intelligent automation.



**Improved quality**  
 Efficiency gained through automation means more time on high-risk audit areas, leading to an overall higher audit quality.

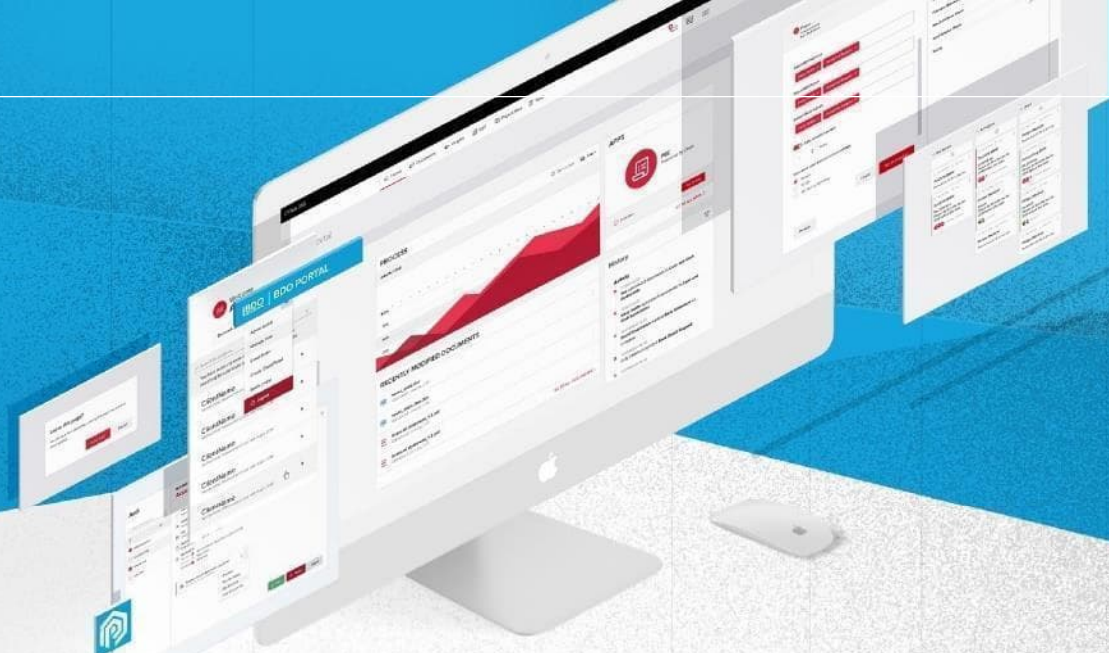


**Innovative culture**  
 Auditors can focus on the work they love, improving overall work culture and employee retention.

# BDO Global Portal

A digital collaboration platform to enhance your experience as a BDO client.

The BDO Global Portal provides a central, secure location for engagement material and associated collateral for all engagements with BDO. We use it to exchange information, documents, data, reports, metrics, and updates in a secure, auditable environment, with the integrity and privacy of data always preserved.



Information can be stored and worked on by both you and our BDO team, allowing for more efficient and effective engagement management. The key benefits of the BDO Global Portal include:



## Secure document sharing

Collaborate securely with our clients, through features like multi-factor authentication, DocuSign, data storage encryption, secure document exchange, and audit logging.



## One platform, customer at the centre

Customer-centric solution that reflects your needs through quarterly platform releases.



## Seamless and integrated experience

Open platform enabling us to integrate local applications and languages for a seamless and tailored experience.



## 24/7 access to BDO services

24/7 access to BDO services, modern tools, and applications, and insights tailored to your industry and business.



## Enhanced collaboration

Real time collaboration space for our teams and our clients, including project, task, and team management.



## Notifications

Set the interval for when and which notifications you want to receive.



What our clients are saying:

*"Our controllers and CFOs are happy about everything being visible in one place."*

*"The portal is far better than others we have used - including from the Big Four."*

*"The portal is secure, modern, and user-friendly."*

# Commitment to exceptional client service

## BDO client experience

BDO is committed to providing you with an unparalleled client experience. Outlined below are the key aspects of our exceptional client service.

### Onboarding

Once appointed as your auditors, we will start our transition process, beginning with a meeting with OAA to determine and understand your preferred work practices.



BDO's professionals are committed to providing exceptional client service in the following ways:



### Collaborative approach

We will work with your team at all levels to ensure service excellence.



### Early and continuous partner involvement

Our professional staff to partner ratio is lower than our major competitors, which means more time for partners to be actively involved in the audit.



### Streamlined structure, direct access

To stay agile and flexible we have cut out needless hierarchies and bureaucracy, which means you get direct access to senior technical and executive leadership.



### Responsive

Any issues that may arise with respect to reporting or accounting technical research matters will be quickly resolved as your engagement team and our local technical resources work side by side with you. This sets us apart from others.

# Communication

At BDO, we believe in maintaining regular communication year-round to address issues in a timely manner. We are proactive in our approach to communication, and will communicate with management and the Finance & Audit Committee from the planning process through to the final stages of the audit. Our communication process is as follows:

## Year-round communication

### Planning/interim audit

- Communicate with management and the Finance & Audit Committee to review the audit approach, and the responsibilities of management and the auditor.
- Confirm our independence as auditors.
- Determine any additional areas of concern for us to consider when undertaking the audit.

### Year-end audit

- We deal with issues immediately, leaving no surprises for the end of the fieldwork.
- Review the draft audit report and financial statements with management and the Finance & Audit Committee prior to the statements being finalized.

### Post-audit

- Provide management and the Finance & Audit Committee with an Audit Findings Report, which highlights significant findings and aspects of the audit.

## Responses to questions

We encourage our clients to contact us as issues arise. Most of your questions will not require research and can be answered quickly based on our expertise, with no charge to you.

## Management Letter

The preparation of the Management Letter receives the same degree of care and attention as our audit report. Our team will review the letter with management, before the letter is approved for release. The management letter will not contain surprises, undue criticism, or vague recommendations.

## Resolution of technical issues

There may be complex accounting issues that arise from time to time. You have easy access to the relevant technical experts within the BDO network through one contact point: your engagement partner, Melanie Borho-Persechini.

Additionally, Melanie will be active throughout the engagement to ensure complex accounting matters are dealt with in a timely manner.

Our team's technical and financial reporting knowledge helps us make decisions with you while maintaining our professional standards of independence.



## Technical reviews





One of our strengths that go beyond the typical audit process is our use of technical reviews conducted by senior team members. The benefit of these reviews is that final decision makers are actively involved ensuring issue resolution prior to year-end. This guarantees that queries are cleared quickly so files are closed in a timely manner.

- Detailed review — performed by the audit manager who will review the financial statements, audit report, all working papers, and the audit tests and conclusions by the audit team.
- General review — performed by the engagement partner who will review the financial statements, notes on significant decisions made during the audit, notes made during the detailed review, the proposed audit opinion, and major working papers.



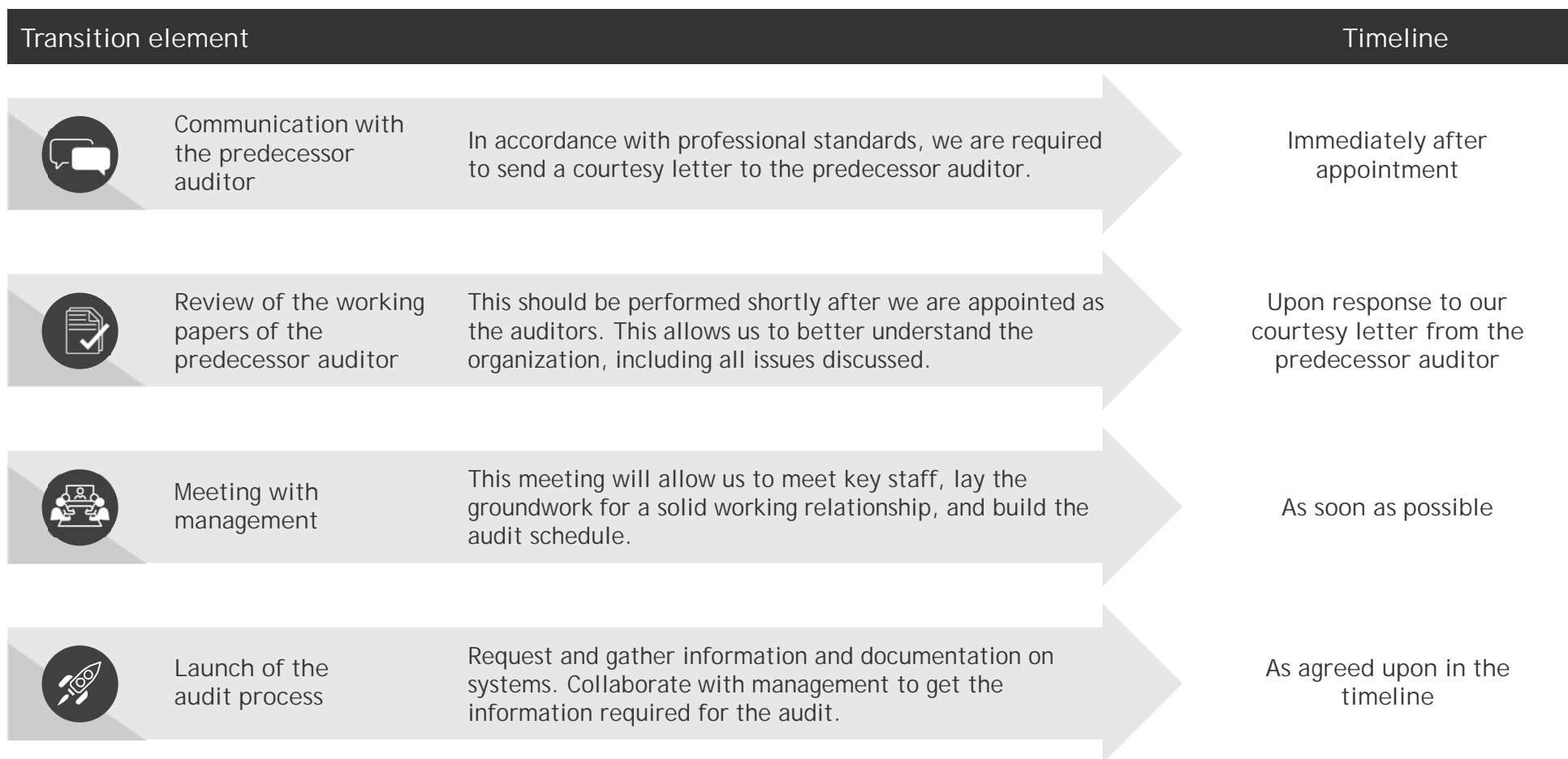
# Service timeline

The timeline below is based upon our knowledge and understanding of your financial reporting schedule and other timing considerations. This schedule is flexible, and we will work with you to meet your service needs.

Milestones and deliverables	Suggested dates
 <p>Engagement preparation and planning:</p> <ul style="list-style-type: none"> <li>• Meet with management to discuss and agree upon:               <ul style="list-style-type: none"> <li>• Schedule for completion/audit of the financial statements</li> <li>• List of necessary schedules, working papers, analyses, and other information to be prepared by management</li> </ul> </li> <li>• Perform interim field work</li> </ul>	November
 <p>Completion of year-end audit work:</p> <ul style="list-style-type: none"> <li>• Perform year-end audit testing and analytical procedures</li> </ul>	January
 <p>Evaluation and reporting:</p> <ul style="list-style-type: none"> <li>• Evaluate results and findings</li> <li>• Completion of draft financial statements</li> <li>• Completion of the draft audit findings report and management letter</li> </ul>	February
 <p>Issue final audit report</p>	March

# Transition process

We have extensive experience transitioning clients from their current auditors to BDO, where we follow a standard and proven process. We will work closely with your staff to identify the procedures you follow and your preferred work practices. Our approach reduces the risks associated with the transition because we implement a controlled and well-managed process. Additionally, your BDO audit team will draw upon their NPO experience to minimize potential issues typically associated with auditor transitions. We will take all of this into account to ensure the transition is smooth and seamless.





# Proposed fees



# Proposed fees

We consider it an important responsibility to manage the costs of the services we provide, while still maintaining our high professional standards. We work to ensure that these are always balanced through our people, training, and technological tools.

We have put together a fee that we believe fairly represents the investment to perform the scope of work outlined in this proposal. Our pricing approach is based on fairness and transparency. We quote an honest assessment of what we think the engagement will cost based on our knowledge of your requirements. As a not-for-profit organization, our standard fee rates have been discounted by 30% for OAA's audit.

This fee quote includes the work required for the CAS 600 Group Audit standard given that the OAA audit meets the definition of a group audit and there have been changes to the standard that will be implemented.

Services	2024
Audit of the non-consolidated financial statements of Ontario Association of Architects	\$37,000
Preparation of T1044 tax return	\$950
Agreed upon procedures report for CExAC	\$5,000
½ day HST review	complimentary

## Investment in our relationship with OAA

We believe that we are a good fit for OAA. As an investment in our relationship with you, we have provided the following:

- We will absorb certain initial year and non-recurring transition costs. We estimate these costs to be worth approximately \$5,000, which would not be charged to OAA.
- A complimentary half-day indirect tax review to assist in identifying recovery opportunities and exposure for OAA.

## Fee assumptions

- No issues will arise related to prior periods and no further unidentified issues will arise that will require significant analysis.
- There are minimal journal entries required and minimal errors found by the audit team.
- OAA will adhere to the mutually agreed upon timetable.
- BDO will receive timely responses and full cooperation from OAA.
- Our fee quote assumes there are no significant changes to financial reporting standards during the term of the engagement. Should there be changes that require additional effort hours, we will discuss this with you to identify opportunities to leverage internal resources, and/or changes to proposed fees.
- BDO invoices are subject to 7% administrative fee that covers the costs of related overhead expenses such as support staff, technology infrastructure, etc.
- BDO invoices are subject to applicable taxes.
- Future year's audit fees are estimated to increase by 3-5% per year.

# Complimentary services

## Additional benefits available to you

### No additional charge for routine questions

We do not charge you for routine phone calls and questions.

We encourage our clients to reach out to us as many times as they require, because these frequent touch points keep us informed on your organization's needs and allow us to tailor our recommendations to you.

### Accounting for the Future

We invite you to listen to our [Accounting for the Future podcast series](#). We interview a select group of industry experts on all things accounting and finance and we ask the questions you should be asking. Who says accounting is boring?

### Industry and technical publications

BDO has proven experience assisting a significant number of clients who report under ASNPO, and we will provide technical updates on the accounting changes that affect your organization. Our publications include:

- Accounting industry updates and bulletins
- Tax alerts and monthly newsletters
- Federal and Provincial budget releases
- NPO specific webinars on latest trends and issues such as webinars on cybersecurity and digital transformation

Visit our [ASNPO Knowledge Centre](#) for BDO's technical publications dedicated to ASNPO reporting standards.

### Professional development sessions

We offer professional development webinars to clients who have designations to help them meet their professional development requirements set out by the professional associations. These sessions will be available to your designated staff as well as any other interested parties at no cost.





# Appendix I - Senior team profiles

## Senior team profiles



### Engagement Partner

Melanie Borho-Persechini  
CPA, CA

T: 905-272-7824  
E: mborhopersechini@bdo.ca

Melanie has over 25 years of experience in public accounting and assurance, including strong industry experience working with NPOs and insurance entities. Melanie is the leader of BDO's GTA NPO Industry Group focused on serving clients in the NPO sector and sharing best practices. Over 70% of her clients are in the not-for-profit sector. Her experience includes not-for-profit organizations, associations, charitable organizations, non-profit housing, seniors' organizations, community care organizations, healthcare, food banks and foundations, as well as insurance companies. She is also the engagement partner for the audit of Pro-Demnity Insurance Company.

Melanie is in her fifth year as treasurer for the Chronic Pain Centre of Excellence for Canadian Veterans. She was also on the Board of Directors of The Mississauga Food Bank for 8 years, 6 of them as treasurer, so she is aware of the challenges related to operating a NPO and understands your environment. She has in-depth understanding of the day-to-day issues NPOs face including governance, reporting and accountability to all stakeholders. Melanie is also a member of CPA Canada's Not-for-Profit Advisory Committee.

Melanie is a presenter internally as well as externally. She has presented on: Financial literacy for NPOs; Fraud at NPOs and prevention methods; Deferral vs. restricted fund method of revenue recognition; Section 4449 - Combinations by Not-for-profit Organizations; and Board governance training.

Melanie will be the engagement partner for OAA, and will ensure the smooth execution of field work, provide oversight and leadership during the audit, and act as your central point of contact. She will provide exceptional client service and attend meetings, as required. Given her insurance and NPO clients, she brings this combined knowledge and experience to OAA, ensuring efficient and effective services are provided.



### Senior Manager

Ryan Young  
CPA

T: 289-881-1216  
E: ryoung@bdo.ca

Ryan is a Senior Manager in BDO's Assurance practice, with over nine years of experience in public accounting working with a variety of clients and industries, which include not-for-profits, insurance companies, public and private colleges, and manufacturing and leasing companies. Ryan has significant experience auditing organizations with various accounting and financial reporting issues in complex Information Technology environments.

Ryan has proven knowledge and experience with various accounting standards including IFRS, ASNPO and ASPE, working attentively with large organizations. He enjoys working on and effectively dealing with complex transactions that arise from growing operations such as consolidations and business combinations. He is also the senior manager for the audit of Pro-Demnity Insurance Company.

Ryan will support Melanie in her role and work with her to oversee and coordinate the delivery of the audit, utilizing his knowledge of insurance entities and of not-for-profit organizations for the OAA audit. Ryan will work closely with the audit staff to deliver a collaborative, efficient and high-quality audit. He will build a strong working relationship with your finance team and drive project management.



## Senior team profiles - Alternate team



### Engagement Partner

Liza Lemieux  
CPA, CA

T: 905-633-4903  
E: lizalemieux@bdo.ca

Liza has more than 17 years of experience in public accounting and assurance, including strong industry experience working with NPOs. Over 80% of her clients are organizations within the not-for-profit sector; this includes associations, membership organizations, foundations, registered charities and government funded organizations. Liza works with not-for-profit organizations and charities, giving her a profound understanding of the NPO environment and ASNPO reporting standards. She is a member of BDO's NPO industry group, which consists of teams of senior practitioners that meet regularly to keep our firm focused on the challenges facing NPOs and up-to-date on any shifts in financial reporting standards.

Liza also volunteered her time as the former Vice President and Finance Director of Burlington Synchronized Swimming Club.

### Role for the engagement

Liza will provide oversight and leadership during the engagement and will act as your central point of contact, ensuring timely service is received. She will ensure that OAA continues to receive excellent service from the team and will take ultimate responsibility for the quality of the services we provide. She will be available to address any questions, concerns or issues and will respond to enquiries. Liza will review and approve the overall engagement plan, working papers, financial statements, notes on significant decisions made during the engagement, review notes made during the detailed review and the proposed audit opinions.

Liza will work with Melanie's team to incorporate the elements of Pro-Demnity's audit into OAA's financial statements as applicable, following the Group Audit standards.



### Manager

Alex Herbert  
CPA

T: 289-881-1146  
E: aherbert@bdo.ca

Alex has more than 5 years' experience working in various industries including a focus on not-for-profit organizations, while also working in the public sector, private organizations and various small to medium sized enterprises in the GTA region.

Alex participates in BDO's professional development initiatives, including annual updates on certification and accounting, as well as various webinars focused on audit.

Alex will work closely with Liza to execute the client service plan. He will be responsible for overseeing the planning, monitoring, scheduling, file review, budget preparation, provision of services, monitoring and controlling costs. Alex will ensure the smooth execution of fieldwork and provide a detailed review of all audit work and financial statements.

## Senior team profiles



### Technical Partner

Karen Trudeau  
CPA, CA

T: 416-369-6123  
E: ktrudeau@bdo.ca

Karen is a Partner and Firm Technical Leader within BDO's GTA group. With over 30 years of professional experience, Karen's primary responsibility is the establishment and monitoring of the firm's quality standards for the accounting and auditing practice. Karen oversees quality control on assurance services and advises on technical accounting and assurance matters.

Karen has been involved in the development and delivery of numerous national training courses for the firm's professional assurance staff.

Karen will be a technical resource to the audit team and to OAA management to discuss any complex technical issues in relation to the financial statements. She will use her knowledge to assist the team as needed.



### Indirect Tax Director

Jason MacNeil

T: 905-272-7840  
E: jmacneil@bdo.ca

Jason is a Director at BDO with over 20 years of experience in identifying tax-planning opportunities and providing indirect tax advice to NPOs, charities, insurance entities, public sector organizations and educational institutions. He advises on tax filing requirements and compliance issues, working closely with clients to ensure all indirect tax requirements are completed. Jason is a former board member and treasurer of Rapport Youth and Family Services.

Jason has in-depth expertise with NPO clients and with resolving GST/HST issues. He has worked closely with our NPO clients to identify and assist in recovering significant sums in indirect taxes.

Jason will be a resource to the engagement team and OAA with regards to any indirect tax related matters. He will also provide the half day complimentary indirect tax review of your organization to identify recovery opportunities or exposure in relation to indirect taxes and HST.



# Appendix II - Additional firm information

# Commitment to sustainability

At BDO Canada, sustainability is an investment in the strength of our culture, the resilience of our business, and the future of our planet. With the establishment of a dedicated ESG team, we are investing into the development of a comprehensive ESG strategy. Sustainability is not a destination. We are on a journey to integrate evolving ESG risks and opportunities into our business operations to support the transition to a more sustainable planet, create an inclusive and diverse workplace, and give back to our communities.

BDO Canada's approach to sustainability focusses on four main pillars:

1. Embed environmental action and leading sustainability practices into our firm operations with a focus on reducing our carbon footprint, and reaching net-zero by 2050.
2. Create an inclusive and equitable work environment that supports the health and well-being of our people and communities.
3. Ensure our firm governance structure is resilient, while building trust and serving in the interest of all stakeholders.
4. Lead by example, and support clients on their sustainability journey by providing ESG services to businesses across a variety of industries and geographies.

At this stage of our ESG journey, we have prioritized the following:



## Environment

- Climate change



## Social

- Inclusion, equity and diversity
- Health and well-being
- Learning and development
- Community involvement and social vitality
- Innovation for growth



## Governance

- Ethical behaviour
- Risk and opportunity oversight

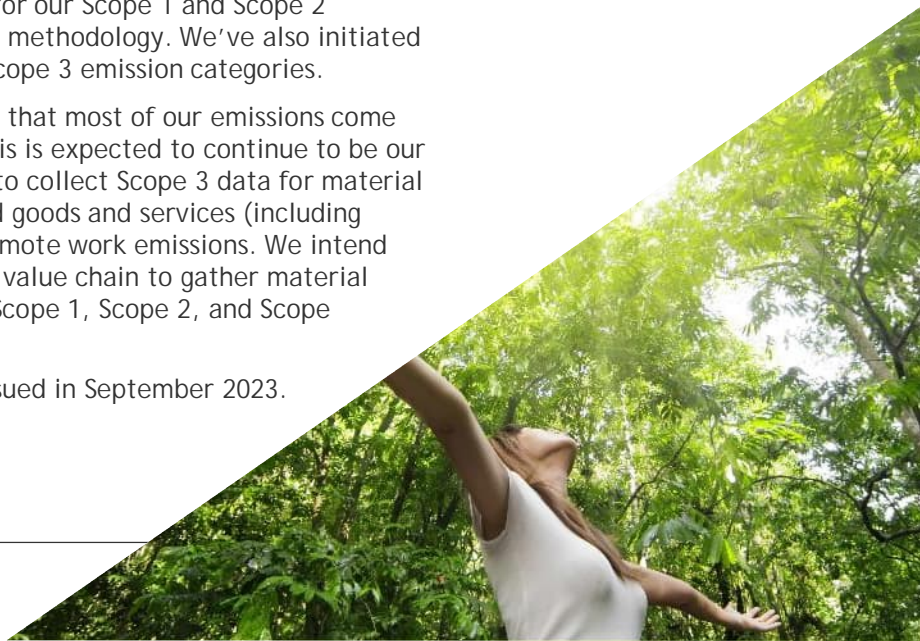
## Greenhouse Gas (GHG) Reporting Project

In pursuit of a cleaner and greener future, our firm is making progress to reduce our emissions by half by 2030 and reach net-zero GHG emissions by mid-century or sooner. This endorses the ambition to limit the global temperature increase to 1.5°C above pre-industrial levels.

To accomplish this, our focus in 2022 was to begin the process of measuring our carbon footprint and establishing estimates for our Scope 1 and Scope 2 emissions using the Greenhouse Gas Protocol methodology. We've also initiated the gathering of and reporting on material Scope 3 emission categories.

As a professional services firm, we recognize that most of our emissions come from our value chain (Scope 3 emissions). This is expected to continue to be our largest emissions source. We are continuing to collect Scope 3 data for material categories such as business travel, purchased goods and services (including capital goods), employee commuting, and remote work emissions. We intend to continue working with our partners in our value chain to gather material information to improve the accuracy of our Scope 1, Scope 2, and Scope 3 emissions data for our future ESG reports.

Refer to page 23 of our annual [ESG report](#) issued in September 2023.





# Commitment to sustainability



## BDO Green

BDO Green is comprised of a wide range of both nationally sponsored and local initiatives to help decrease our impact on the environment. BDO is constantly looking for new ways to reduce our environmental footprint, educate our employees, and give back to the communities in which we operate.

**Carbon Reduction:** BDO encourages virtual meetings wherever possible with our clientele along with flexible working from home employee programs to reduce our overall carbon footprint.

**Paperless:** One of BDO Green's central goals is to drastically reduce paper consumption across our firm nationally through internal reduction in the workplace and externally through promoting client digital interaction.

**Recycle:** BDO waste reduction measures, recycling programs, and enabling re-use in the workplace.

BDO has long been working to become a greener workplace. Our people are generally very passionate about the environment, and many of our offices have undertaken their own initiatives in this area with the full support of management. BDO is continuously developing programs to positively impact the environment. The following initiatives demonstrate how we are trying to do our part in creating a responsible environment that is friendly to our employees and our communities:

- All internal workspaces have recycling bins for paper products. We also recycle pop cans, bottles, and cardboard.
- Internal communications, such as newsletters and announcements, are done electronically.
- The printer paper and envelopes we use is certified "Sustainable Forestry Initiative®".
- Our computers are leased and recycled by the manufacturer at the end of the term. Old electronic equipment is also recycled by giving them to local organizations.
- Old office furniture is recycled and given to charitable organizations including Habitat for Humanity, United Way, etc.
- We encourage our employees to practice double-sided printing.
- Energy efficiency is accomplished using "Energy Star" compliant products including appliances and computers. Except for main areas, we shut many lights off in the office at the end of the day.
- To reduce travel, videoconferencing is available.
- With our own procurement processes we take into consideration the fact that the goods, materials and services we purchase comply with recognized environmental standards as much as possible.

# Diversity, equity, and inclusion

DEI is a vital piece of our employee experience and is critical to our success in attracting, engaging, and developing our people, building meaningful relationships, and delivering exceptional client service. We want our firm to mirror the rich diversity of the clients and communities we serve.

At BDO we believe that diversity, equity, and inclusion (DEI) is a long-term commitment. Our goal is to eliminate barriers and create a work environment where everyone feels secure, supported, and accepted.

In recognition of the value that people from different backgrounds and experiences bring, the firm constantly evaluates its policies and procedures to ensure diversity initiatives are incorporated fully, and seamlessly, into all aspects of our organization.

We have a National Diversity Equity and Inclusion Advisory Council who meets quarterly to set DEI strategies for our firm. We have 5 pillar leads as part of our council: Women, Pride at BDO, Indigenous Peoples, Persons with Disabilities, and Racialized Groups.

Our internal strategies include:

- Providing employment equity within the firm, ensuring all our people receive fair and equitable treatment, and addressing all employment matters without discrimination.
- Maintaining and enhancing our talent practices to foster and support diversity, equity and inclusion.

- Striving to build diversity of thought into our internal initiatives and client facing engagements to stimulate innovation and create a better experience for all.
- Creating mentorship and sponsorship opportunities to achieve our goal of 50% gender parity and 30% representation from combined diversity pillars in senior leadership roles.
- Bringing awareness to challenges and opportunities related to DEI through education, events, and shared experiences.
- Expanding the use of data to guide our decision-making and to better serve our people through the programs, policies, and support we offer.

Our external strategies include financially supporting our diverse communities and NPOs in over 90+ offices across Canada. Such initiatives include supporting the National "Drive Away Hunger" campaign, speaking out about important issues such as "Black Lives Matter", and so much more.



*At BDO, we stand for equality. Taking action, having conversations and speaking up for inclusion must happen year-round.*

*"Unless you consciously include, you will unconsciously exclude".*

# Community involvement



BDO is heavily involved in our communities, both professionally and socially. From a professional standpoint, we participate as members of key technical committees, presenting on important topics through in-house and external seminars as facilitators, presenters, and panelists.

Socially, our partners and staff contribute to our communities by being actively involved with various Boards. As our NPO industry professionals are active board members as well, they understand their clients' issues because they also experience the ups and downs of being part of a not-for-profit organization. Further, they're socially involved as they volunteer for causes that are near to their hearts.

Our values, put to work

BDO delivers exceptional service—to our clients and our local communities. Across Canada, our people volunteer to help a wide variety of worthwhile organizations, frequently—whether we do so as one-firm, one office, or on an individual basis. From nationwide programs to local service initiatives, BDO leverages the scope of our national network to pursue large-scale initiatives, as well as support individual offices and employees as they devote time and energy to causes that are most important to their communities.

All our professionals are given paid time off each year to support a non-profit organization of their choosing. This allows them to give back to the community where they live and work. The BDO professionals on the proposed engagement team take pride in their community's progress. They are involved in the community through boards not-for-profit organizations, charities, committees, service clubs, schools, churches, and minor sports. Last year, over 500 organizations benefited from the generosity of our people.

Whether it's fundraising for the Big Bike Challenge with the Heart and Stroke Foundation, becoming Partners for Life with Canadian Blood Services, or volunteering for various food banks across the nation, our staff are active contributors and take pride in giving back to the local community.



Drive Away Hunger

BDO is a proud partner of Farm Credit Canada's (FCC) Drive Away Hunger campaign for the 17<sup>th</sup> consecutive year. The firm has donated over 8.5 million meals to date in food and financial support to local food banks across Canada.

The concept for the campaign originated in 2004 when an FCC employee drove an open-cab tractor trailer around Ontario for eight days to collect almost 60,000 pounds of food. The campaign has now grown to become the largest employee-led food drive in Canada, and has collected over 60 million meals.

## Other relevant services for NPOs

### Cybersecurity



With recent cyber attacks resulting in high-profile breaches, organizations must consider their cybersecurity program as an integral part of their workflow processes. Though cybersecurity is an essential component for any organization to consider, it is especially so for the NPO and public sector due to the volume of sensitive data in their records. BDO's cybersecurity experts have extensive knowledge of cybersecurity compliance frameworks. We work closely with our clients to assess their current cybersecurity position and assist in establishing a secure environment. We work closely with our clients to provide a tailored, cost-effective package that will address their specific needs.

### Information technology



BDO's Technology Consulting practice has extensive experience providing a wide range of technology advisory solutions to our NPO and public sector clients. Having worked with over 1,800 not-for-profit organizations across the country, we know how to offer practical solutions that address concerns and maximize value. Some of the value-added services we have provided include:

- Finding solutions that balance the increasing demand against budget pressures and supporting innovative use of technology.
- Utilizing a CRM system to implement a standard process across the organization to handle and track all the transactions throughout an organization.

### Strategic planning



BDO has the expertise to help organizations to enhance their strategic position by identifying, prioritizing, and capturing opportunities. We can work through and decipher relevant data to identify market opportunities, and the expertise to develop relevant strategies to capitalize on them, thereby positioning the organization for success. We provide solutions tailored to each organization's unique needs by:

- Prioritizing strategic investments, including technology and automation.
- Identifying market opportunities through trend analysis and predictive analytics.

## Other relevant services for NPOs

### Financial literacy and governance training



We routinely provide training seminars to management and/or Boards of organizations, including training on various technical issues, governance, and financial literacy. BDO has also provided specific training at conferences and seminars related to revenue recognition, donation receipting, and fraud prevention techniques. The training can be tailored to the specific needs of our clients.

### Controls and risk management



The changing business environment is putting a greater deal of focus on internal controls and risk management. We can support you through the development of an Enterprise Risk Management model. Depending on the control maturity level of at the organization, we can provide guidance on control modification, internal audit functions, or additional training to the Board or management.

### Continuous systems change



BDO professionals support organizations in realizing and protecting the full value of their IT investments by ensuring that decisions are in line with business objectives. BDO advises on IT control environments to manage information risk exposure and reducing IT risks to a level that is within organizational tolerances. We will leverage our audit based knowledge to provide relevant recommendations to the organization. Our IT professionals can assess and provide comments and recommendations related to your information systems and other controls as well as support the organization through system changes.

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# Full suite of services

BDO provides a full suite of assurance, accounting, tax, and advisory services to clients. This means you do not have to shop around to get access to knowledgeable and experienced professionals. Upholding ethical and independence obligations is of utmost importance to our firm. Prior to accepting any non-assurance engagements with you, we will evaluate any risks to our independence.

## Audit and Assurance

- Accounting Advisory Services
- Business Transition Services
- CFO Services
- Cloud Accounting Services
- Corporate Payroll Services
- Financial Reporting
- Public Company Services
- Sustainability Services
- Third Party Assurance

## Tax

- Canadian Tax
- Expatriate Tax
- Immigration Services
- Indirect Tax
- International Tax
- Legal Services
- Private Wealth
- Property Tax
- SR&ED & Government Incentives
- Tax Controversy and Dispute Resolution
- Transaction Tax
- Transfer Pricing
- U.S. Tax

## Advisory

- Business Restructuring & Turnaround Services
- Commercial Insurance Loss Accounting
- Cybersecurity
- Digital Advisory
- Financial Risk Management
- Forensic Disputes & Investigations
- Indigenous Consulting
- Litigation Support
- M&A and Capital Markets
- Operations
- People & Change
- Personal Injury Loss Accounting
- Procurement
- Risk Advisory
- Sustainability Services
- Technology
- Valuations & Modelling
- Strategy, Value Creation & Analytics
- Wealth Advisory

## For more information contact:

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Partner

BDO Canada LLP  
360 Oakville Place Drive, Suite 500  
Oakville, ON L6H 6K8

T: (905) 272-7824  
E: mborhopersechini@bdo.ca

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# Memorandum

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 4.8

**To: Council**

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Spiegel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

**From: Building Committee**

Lara McKendrick, Chair	Thomas Yeung, Councillor
Sheena Sharp, Member-at-Large	

**Date:** August 27, 2024

**Subject:** Proposal for OAA Past Presidents Wall

**Objective:** To consider and approve the final proposal for the Past Presidents Wall including budget.

---

## OAA Presidents Wall

Recall that Council approved the following motion at its March 2024 meeting:

*It was moved by McKendrick and seconded by Yeung that Council approve in principle the design concept and for a new Presidents' Wall to be mounted in the entry-level foyer as recommended by the Building Committee; that Council approve the expenditure of up to \$6,000 from the policy contingency budget to proceed to schematic design which is to include appropriate lighting for the wall; and, that the Building Committee be directed to present a final budget and schematic design to Council at its June 2024 meeting.*

OAA Headquarters Renovation & Refresh Architect David Fujiwara was engaged for the design services identified above and has provided the attached schematic design for Council approval. The Wall has room for an additional 51 names, which should accommodate names for approximately 70 to 102 years. The budget estimate that accompanied the concept design provided at the March 2024 Council meeting was \$52,635. As part of his design services, David Fujiwara obtained a budget quote for the Wall. This quote is based on the wall design as developed by Fujiwara and, at the top



end of the range given, is just under \$50,000. In addition to the contractor quote, the cost to supply and install lighting for proper illumination of the wall has been estimated by Fujiwara at \$5,000. As such, the total budget for the Wall, including lighting, is \$55,000. Therefore, the Building Committee is requesting that Council approve a construction budget of \$55,000 for this initiative. In anticipation of Council's approval to proceed with this Presidents Wall, the amount has been incorporated into the 2025 OAA draft budget.

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### **Action**

Council to consider the following motion:

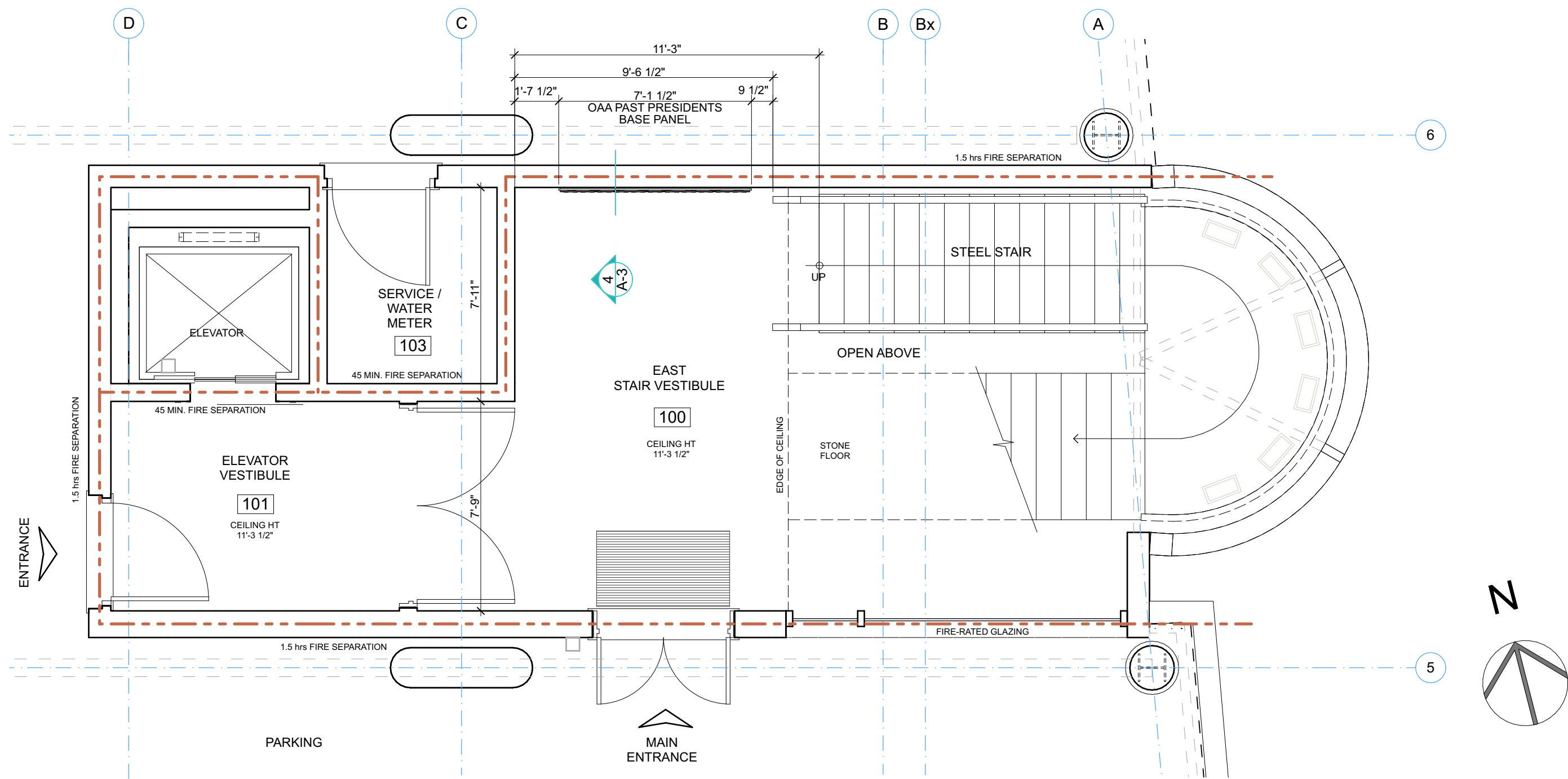
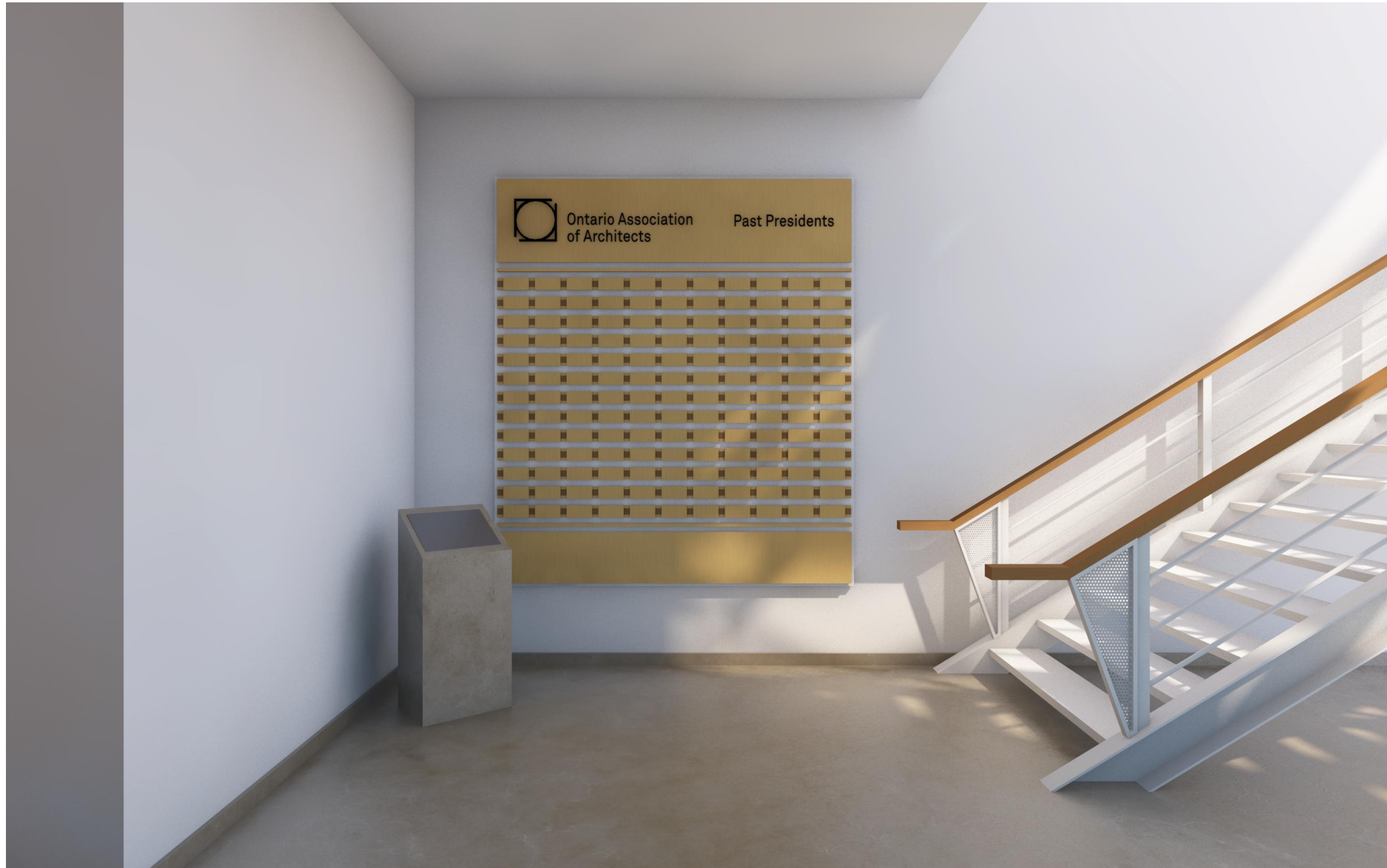
*It was moved by Yeung and seconded by McKendrick that Council approve the schematic design for the proposed OAA Presidents Wall as presented to Council on September 19, 2024 including the proposed budget; and, that the Building Committee be directed to work with staff to establish a schedule for the work to be completed in 2025.*

---

### **Attachments**

Presidents Wall Schematic Design

Presidents Wall Quote



1 Ground Floor Plan  
SCALE: 1/4" = 1'-0"

1	Preliminary Budget Review	Aug. 2 2024
No.	Issue Name / Status	Date

David Fujiwara ARCHITECT  
100 Sunrise Ave., Unit 104  
Toronto, Ontario M4A 1B3  
416-703-3399  
david@mainstreetstudio.ca

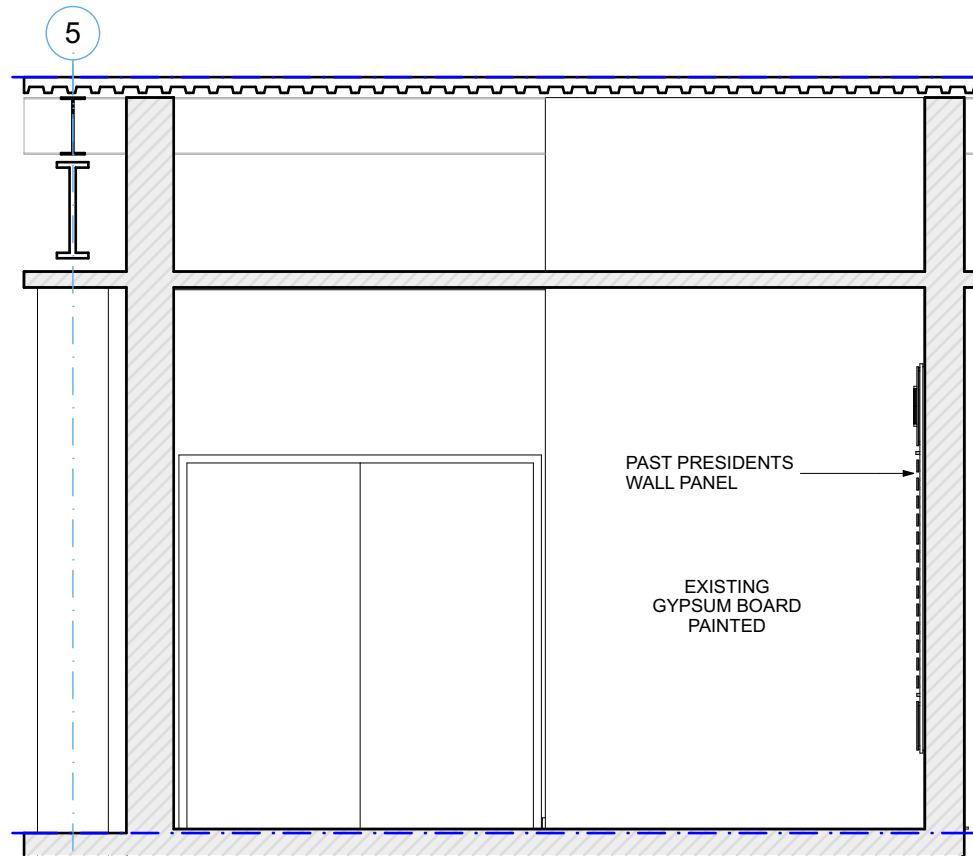
111 Moatfield Dr.  
OAA HEADQUARTERS  
PAST PRESIDENTS  
WALL PANEL  
TORONTO, ONTARIO  
SHEET TITLE

FLOOR PLAN

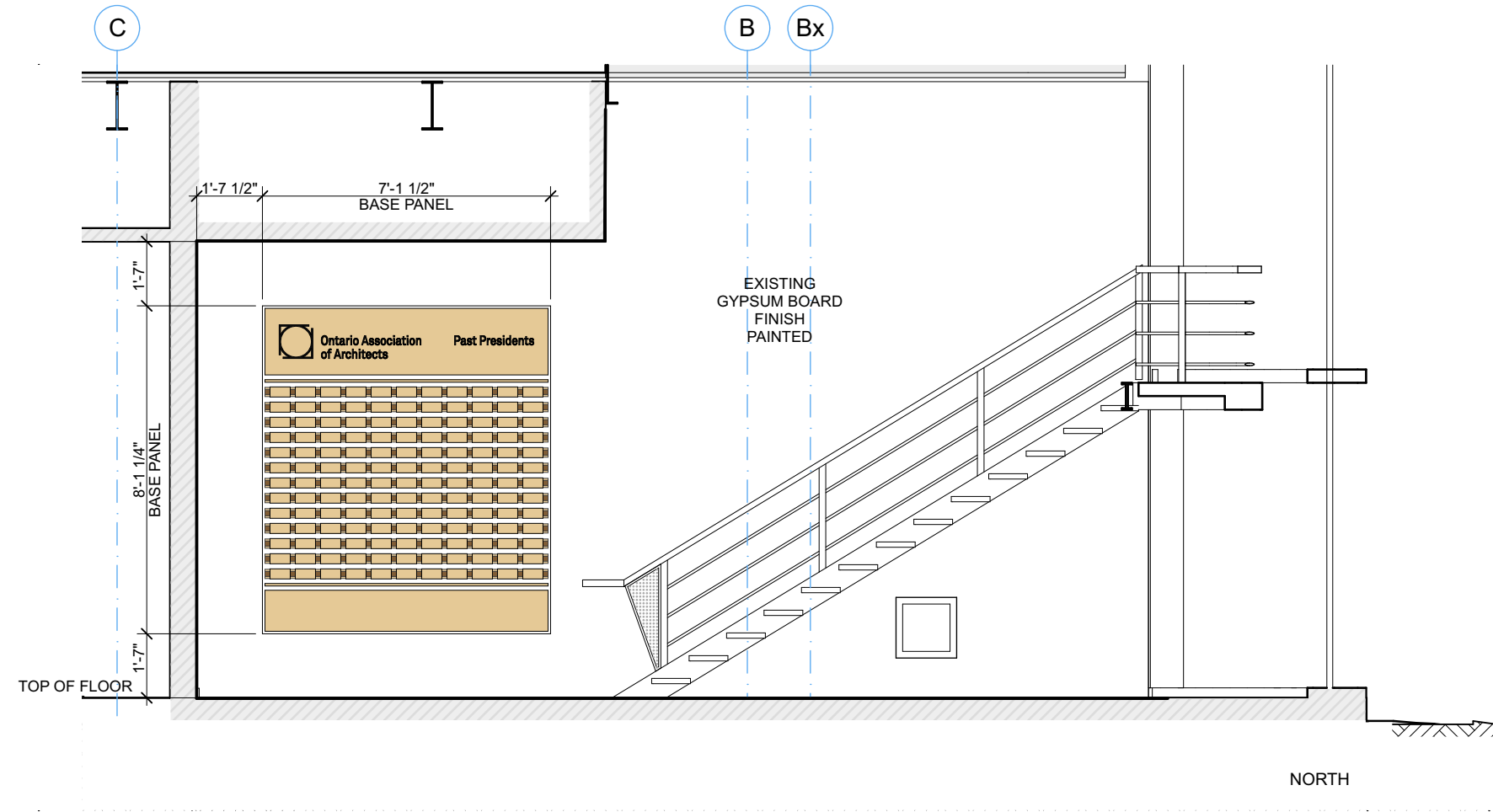
DRAWN BY	TK	PROJECT NO.	2402
DESIGN / CHECKED BY:	DF	PRINTING DATE	2024-08-07

SCALE  
1/4" = 1'-0"

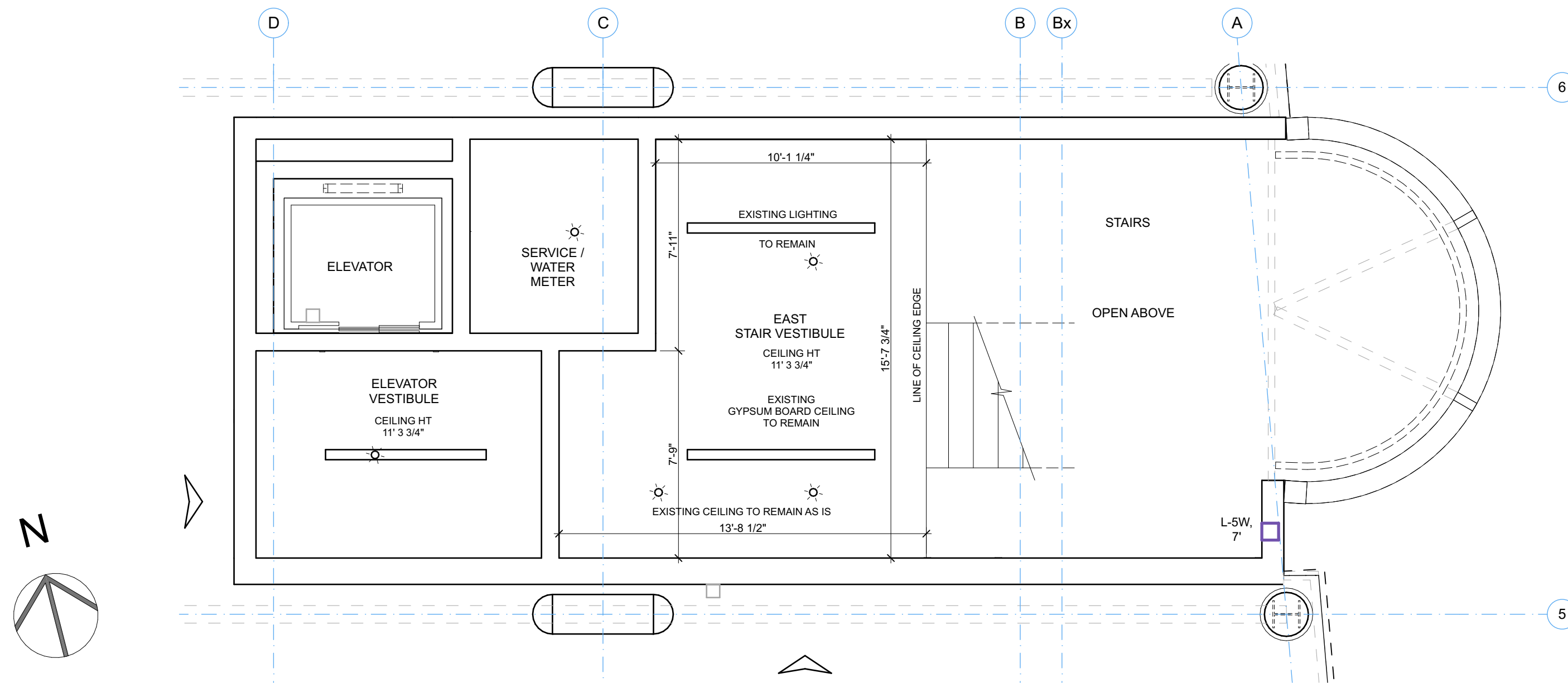
SHEET NUMBER  
A-1



**3 West Interior Elevation**  
SCALE: 1/4" = 1'-0"



**2 North Interior Elevation**  
SCALE: 1/4" = 1'-0"



**1 Ground Floor - Reflected Ceiling Plan**  
SCALE: 1/4" = 1'-0"

1	Preliminary Budget Review	Aug. 2 2024
No.	Issue Name / Status	Date

**David Fujiwara ARCHITECT**

100 Sunrise Ave., Unit 104  
Toronto, Ontario M4A 1B3  
416-703-3399  
david@mainstreetstudio.ca

111 Moatfield Dr.  
**OAA HEADQUARTERS**  
**PAST PRESIDENTS WALL PANEL**  
TORONTO, ONTARIO  
SHEET TITLE

**REFLECTED CEILING PLAN & INTERIOR ELEVATION**

DRAWN BY	PROJECT NO.
TK	2402
DESIGN / CHECKED BY: DF	PRINTING DATE
	2024-08-07

SCALE  
1/4" = 1'-0"

SHEET NUMBER  
**A-2**



**LETTERING & LOGO SCHEDULE**

**TITLE TEXT**

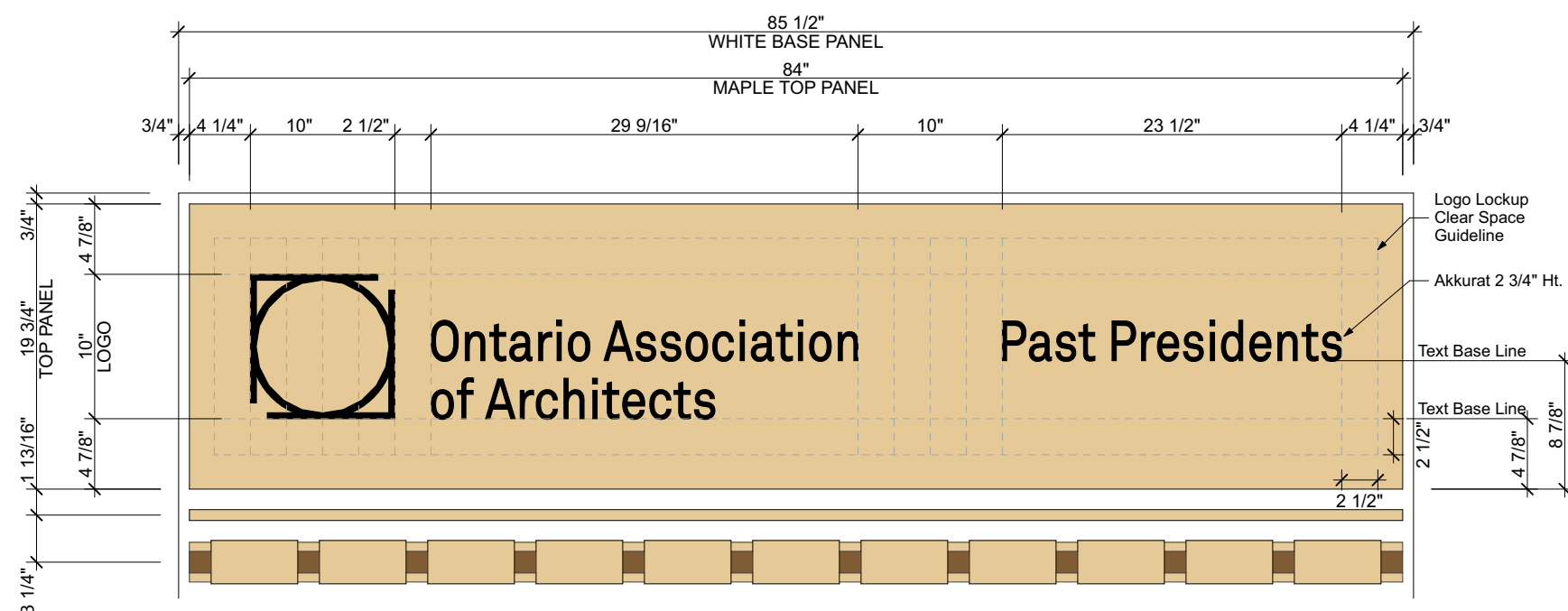
- Raised Plastic Letters, 1/2" thick
- Font: Akkurat
- Height of lettering, 2-3/4" for capitals
- Colour: black
- Letter Spacing: normal

**LOGO**

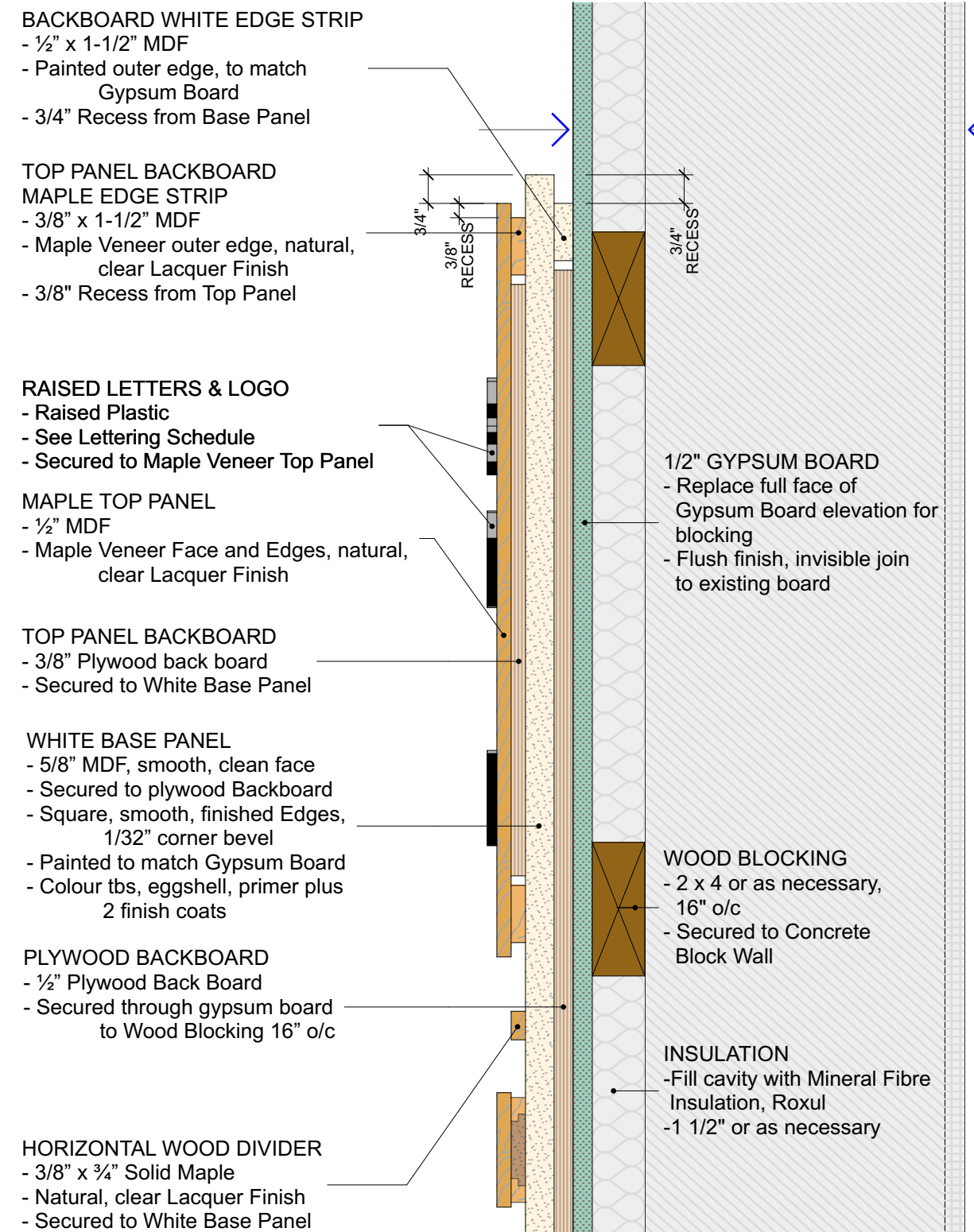
- Raised Plastic, 1/2" thick
- Logo symbol to be acquired in digital format from OAA Communications
- Height of Logo: 10"
- Colour: black

**NAME PLATE**

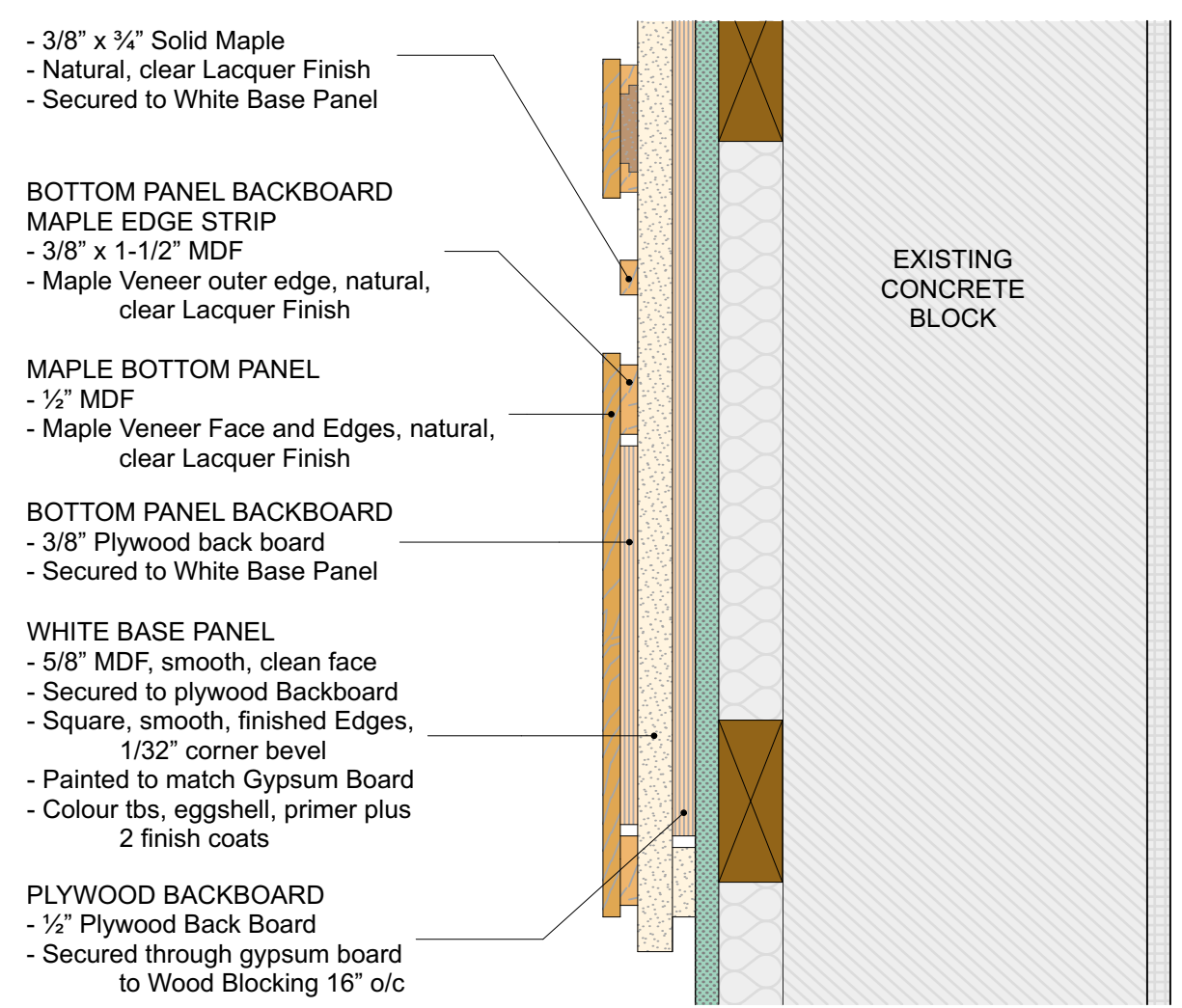
- Painted Lettering
- Font: Akkurat
- Height of Name: 3/8"
- Height of Date: 1/4"
- Colour: black
- Paint: Acrylic, High Gloss



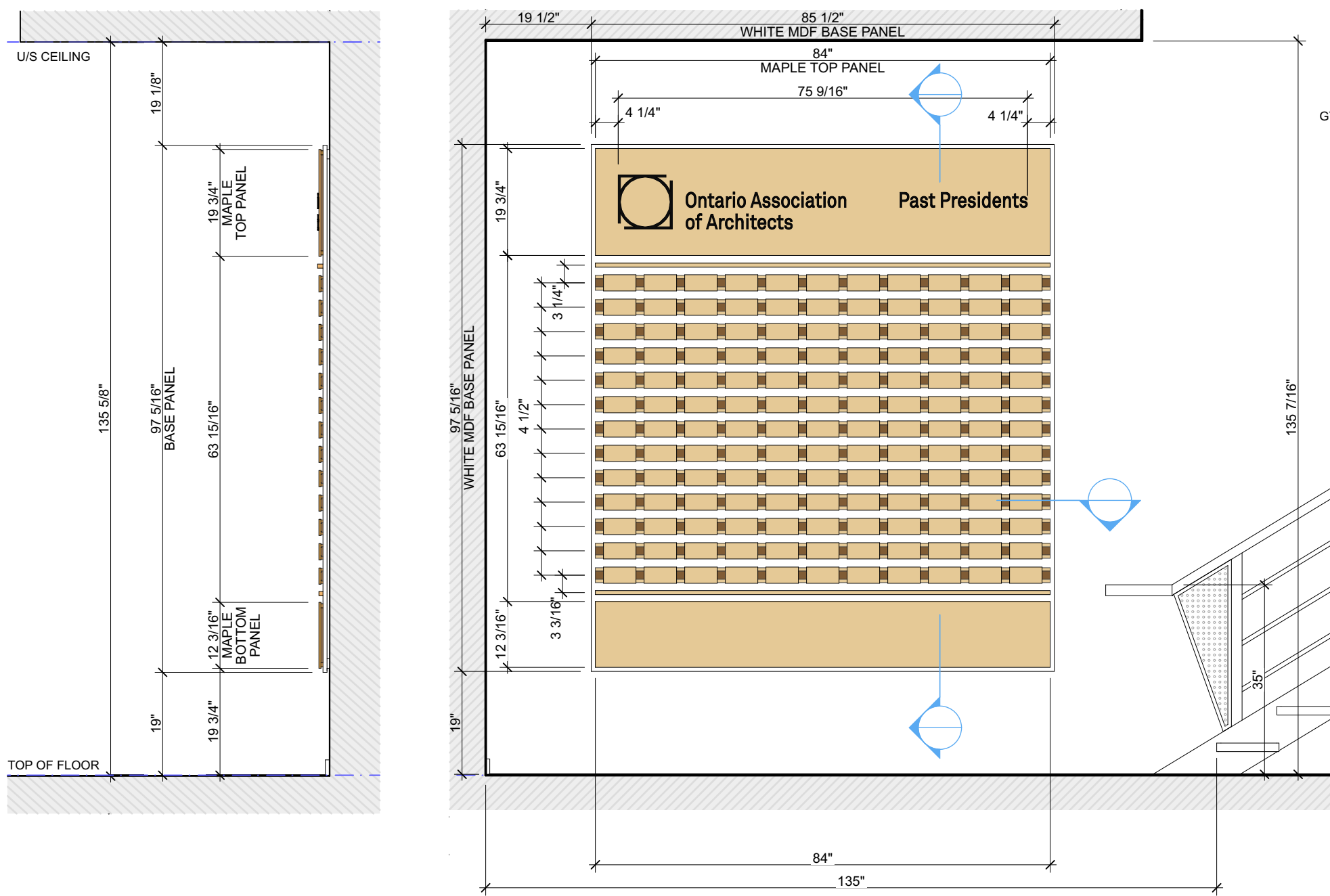
**5 TOP PANEL**  
SCALE: 1" = 1'-0"



**2 SECTION DETAIL at TOP PANEL**  
SCALE: 3" = 1'-0"



**1 SECTION DETAIL at BOTTOM PANEL**  
SCALE: 3" = 1'-0"



**4 Section - Presidents Wall**  
SCALE: 1/2" = 1'-0"

**3 Past Presidents Wall Elevation**  
SCALE: 1/2" = 1'-0"

**1 SECTION DETAIL at BOTTOM PANEL**  
SCALE: 3" = 1'-0"

- EXISTING**
- 200 mm Concrete Block Wall
  - Exterior Stucco EIFS System
  - with 50 mm Insulation
- Interior:**
- Metal Furring Channels, 400 mm o/c assumed to be 1 1/2" thick
  - 12.5 mm Gypsum Board
- Remove Gyp. Bd. as necessary
  - Install 2 x 4 Wood Blocking, 16" o/c on block to support proposed Past Presidents Wall Panel
  - Make good Gypsum Board

1	Preliminary Budget Review	Aug. 2 2024
No.	Issue Name / Status	Date

**David Fujiwara ARCHITECT**

100 Sunrise Ave., Unit 104  
Toronto, Ontario M4A 1B3  
416-703-3399  
david@mainstreetstudio.ca

111 Moatfield Dr.  
**OAA HEADQUARTERS**  
**PAST PRESIDENTS WALL PANEL**  
TORONTO, ONTARIO  
SHEET TITLE

**WALL PANEL SECTION & ELEVATION**

DRAWN BY	PROJECT NO.
TK	2402
DESIGN / CHECKED BY: DF	PRINTING DATE
	2024-08-07

SCALE

SHEET NUMBER  
**A-3**

**BACK PANEL**  
 -3/4" MDF  
 -Painted  
 -Secured to Plywood Back Panel

1/32" GAP

**NAME PLATE**  
 -3" x 6" x 3/8" Solid Wood  
 -Slide-in  
 -Natural, clear Lacquer Finish  
 -Square, smooth, finished face, edges and back

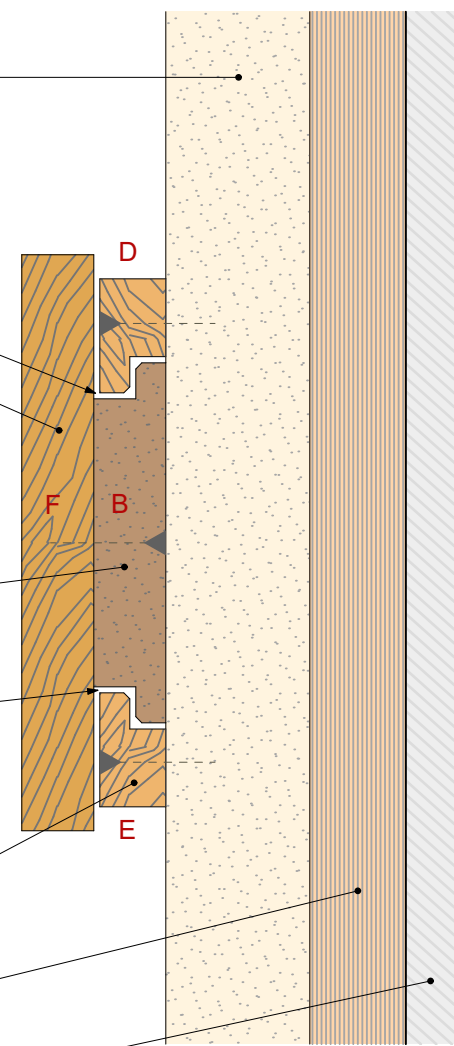
**SLIDE HOLDER**  
 -3/8" MDF, see Detail for shape and dimensions  
 -Lacquer Finish  
 -Secured to back of Name Plate  
 -Slides within Slide Rails

1/32" GAP

**SLIDE RAILS**  
 -Solid Maple, 5/16" x 9/16" x 84"  
 -See Detail for shape and dimensions  
 -Natural, clear, Lacquer Finish  
 -Smooth finished faces, all sides, chamfer as indicated

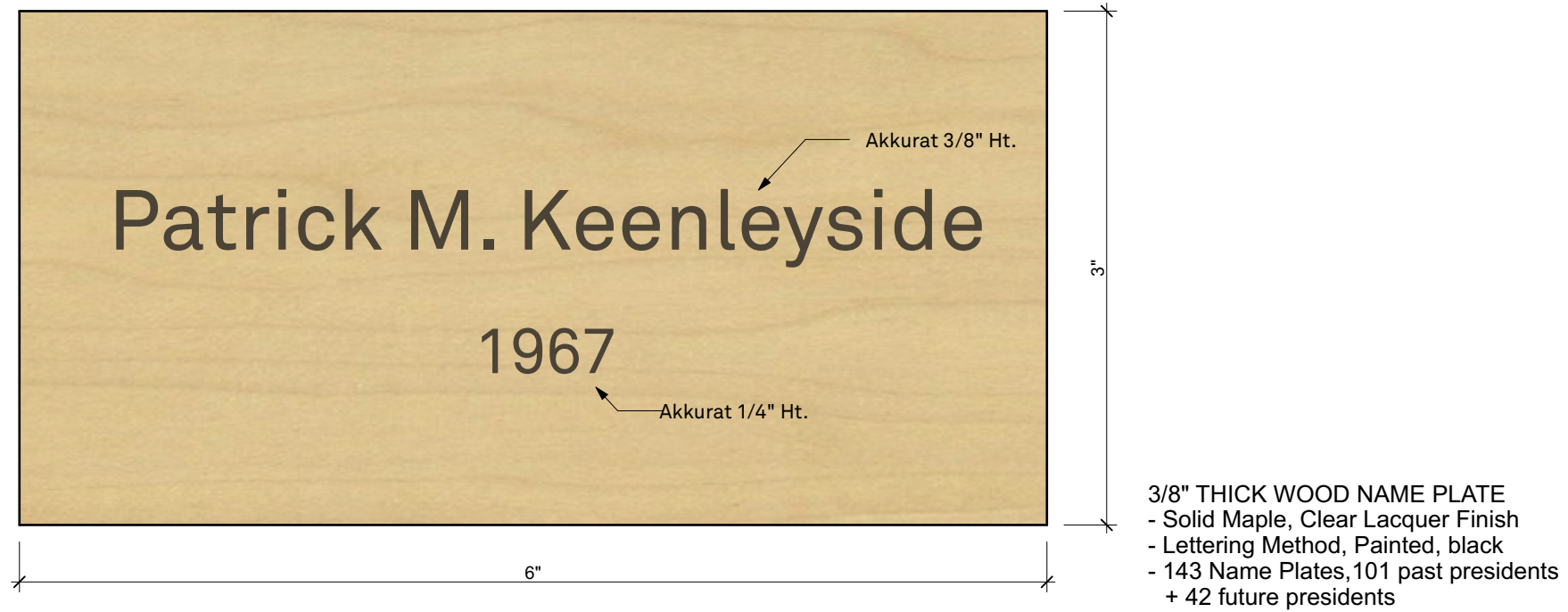
**BACK PANEL**  
 -1/2" Plywood

EXISTING WALL



**5 NAME PLATE SECTION DETAIL**

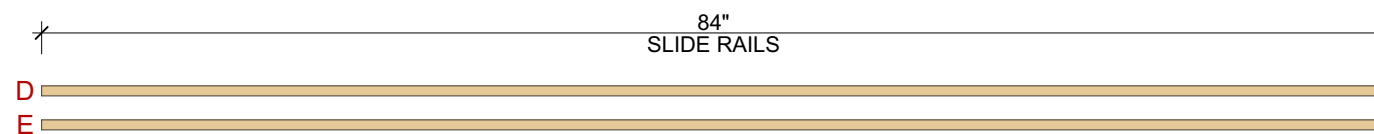
SCALE: 1" = 1'-0"



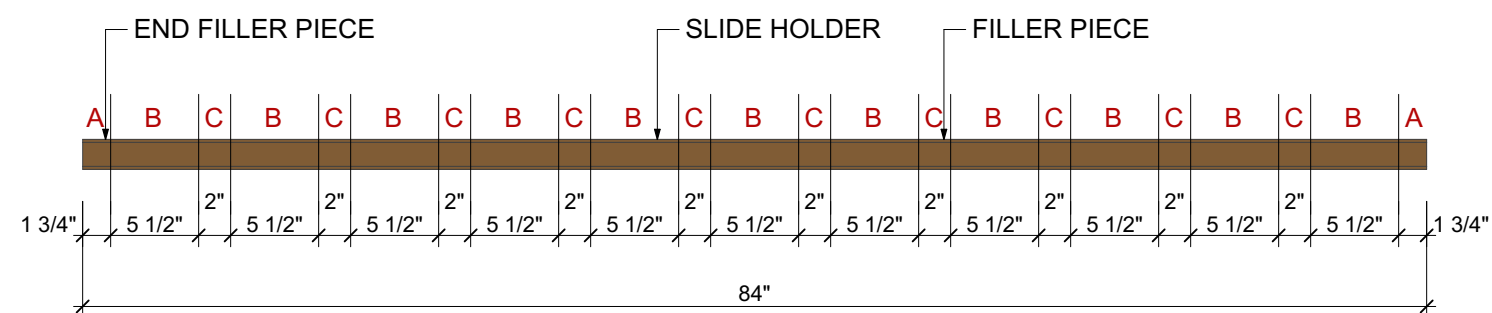
**3/8" THICK WOOD NAME PLATE**  
 - Solid Maple, Clear Lacquer Finish  
 - Lettering Method, Painted, black  
 - 143 Name Plates, 101 past presidents + 42 future presidents

**3 NAME PLATE**

SCALE: 1" = 1'-0"



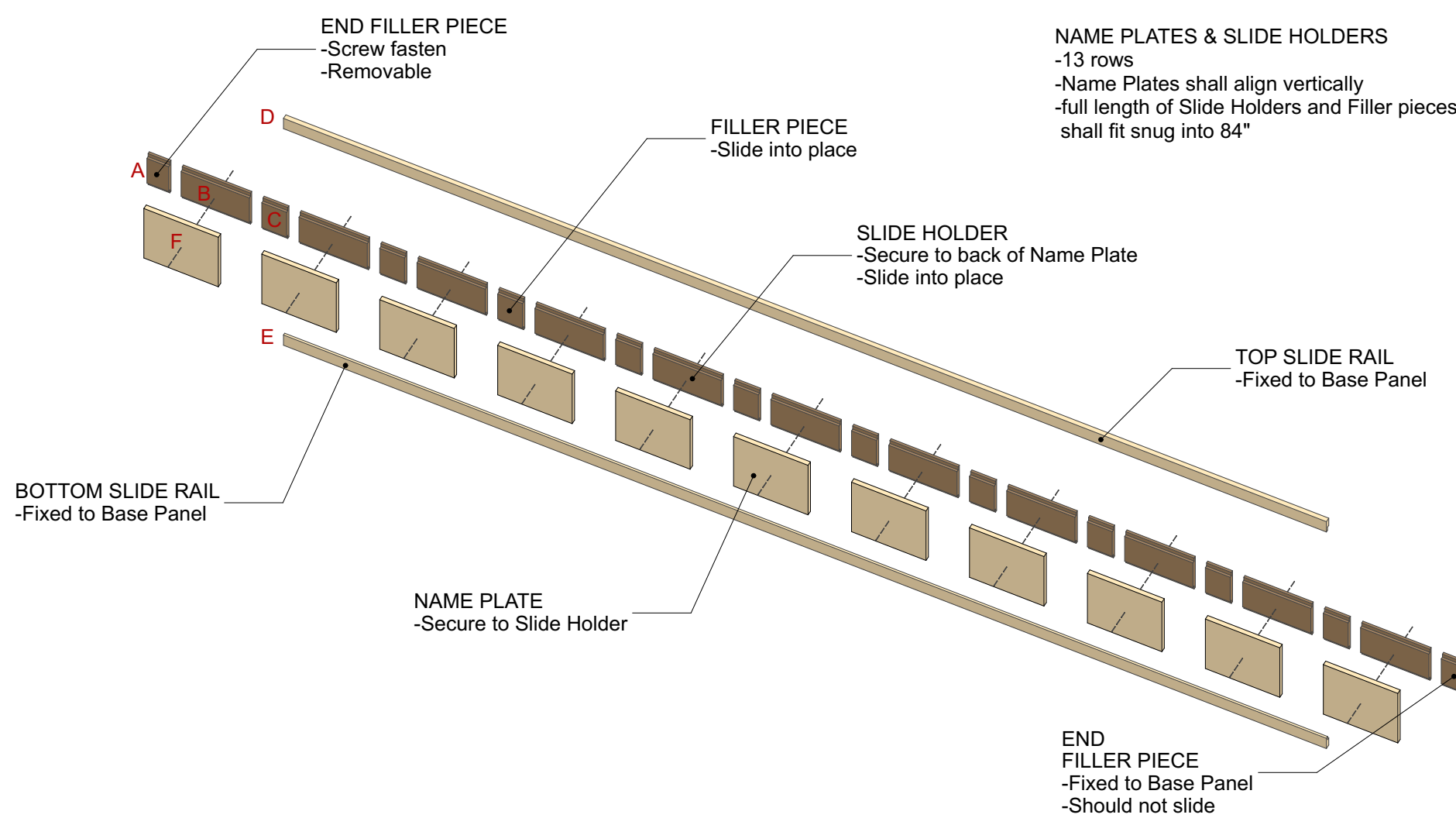
ELEVATION - SLIDE RAILS



ELEVATION - SLIDE HOLDERS & FILLERS

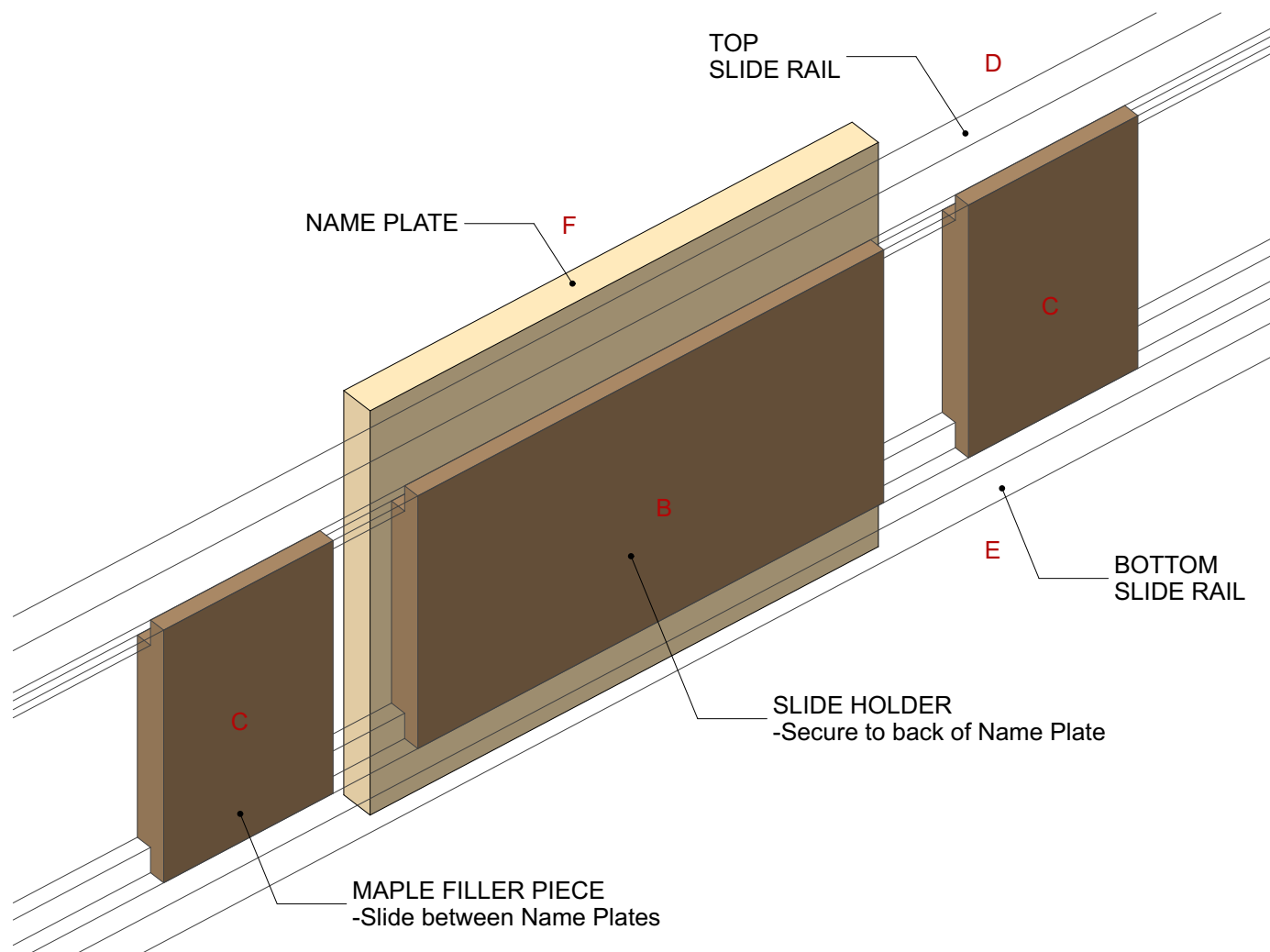
**2 SLIDE HOLDER and RAIL ELEVATION**

SCALE: 1" = 1'-0"



**1 EXPLODED VIEW of SLIDE HOLDER and RAIL**

NOT TO SCALE



**4 BACKSIDE VIEW of NAME PLATE with SLIDE HOLDER**

NOT TO SCALE

1	Preliminary Budget Review	Aug. 2 2024
No.	Issue Name / Status	Date

David Fujiwara ARCHITECT

100 Sunrise Ave., Unit 104  
 Toronto, Ontario M4A 1B3  
 416-703-3399  
 david@mainstreetstudio.ca

111 Moatfield Dr.  
 OAA HEADQUARTERS

PAST PRESIDENTS  
 WALL PANEL

TORONTO, ONTARIO

SHEET TITLE

DETAILS

DRAWN BY	PROJECT NO.
TK	2402

DESIGN / CHECKED BY: DF	PRINTING DATE
	2024-08-07

SCALE	
1" = 1'-0"	1" = 1'-0"

SHEET NUMBER  
**A-4**



1	Preliminary Budget Review	Aug. 2 2024
No.	Issue Name / Status	Date

PROFILE						
TYPE NAME	<b>F</b> Name Plate	<b>A</b> End Filler Piece	<b>B</b> Slide Holder	<b>C</b> Filler Piece	<b>D</b> Top Rail	<b>E</b> Bottom Rail
HEIGHT x DEPTH	3" x 3/8"	1 7/8" x 3/8"	1 7/8" x 3/8"	1 7/8" x 3/8"	19/32" x 11/32"	19/32" x 11/32"
LENGTH	6"	1 3/4"	5 1/2"	2"	7'	7'
QUANTITY IN ROW	11	2	11	10	1	1
QUANTITY TOTAL	143	26	143	130	13	13
MATERIAL	Maple	Maple	Maple or MDF	Maple	Maple	Maple
FINISH	Clear Lacquer	Walnut Stain Clear Lacquer	Clear Lacquer	Walnut Stain Clear Lacquer	Clear Lacquer	Clear Lacquer

**1** NAME PLATE PARTS  
SCALE: 1' = 1'-0"

**David Fujiwara ARCHITECT**  
100 Sunrise Ave., Unit 104  
Toronto, Ontario M4A 1B3  
416-703-3399  
david@mainstreetstudio.ca

111 Moatfield Dr.  
**OAA HEADQUARTERS**  
**PAST PRESIDENTS WALL PANEL**  
TORONTO, ONTARIO  
SHEET TITLE

**NAME PLATE PARTS**

DRAWN BY TK	PROJECT NO. 2402
DESIGN / CHECKED BY: DF	PRINTING DATE 2024-08-07

SCALE  
1' = 1'-0"

SHEET NUMBER  
**A-5**

David Fujiwara Architect  
104-100 Sunrise Avenue  
Toronto, ON  
M4A 1B3

August 13, 2024

Ref: OAA Headquarters (111 Moatfield Drive)  
Our Budget Quotation #2124

**Past Presidents Wall Panel**

Dear David,

We are pleased to submit the following budget quotation for the above referenced project in general accordance with architectural drawings A-1 to A-5 inclusive, prepared by David Fujiwara Architect and dated August 1, 2024.

- Wall prep as per drawings (blocking, boarding & taping, painting) \$ 5,600 + HST
- Supply & install custom made wall plaque as per drawings (includes acrylic lettering and engraving / painting on individual plaques) \$ 37,500 - \$ 43,750 + HST

**OVERALL BUDGET PRICE (APPROX. RANGE) ..... \$ 43,100 - \$49,350 + HST**

NOTES:

- The following items are not included in the above budget pricing: permit submissions and related fees, drawings, architect site visits (to be paid for and arranged by Owners), any alterations to existing electrical / plumbing / HVAC system and equipment
- Lewitt Construction Inc. and their subtrades will require use of onsite washroom facilities for the duration of the work
- Budget quotation #2124 is valid for fifteen (15) calendar days from date of issue

We thank you for the opportunity to quote on this project and would be pleased to meet with you to review our proposal at your convenience.

Yours truly,



Edward O'Flanagan, P. Eng.  
President, Lewitt Construction Inc.

# Memorandum

**To: Council**

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Spiegel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 4.9

**From:** Lara McKendrick, CPEC Chair

Mariella Amodio	Pearl Chan
Kurtis Chen	Jon Hobbs
Carl Knipfel	Elaine Mintz
Brigitte Ng	

**Date:** August 26, 2024

**Subject:** Council funding for TEUI 3.0/OpenBuilding.ca Initiative

**Objective:** To defer to Council for funding on Public Awareness Sponsorship request that is beyond the committee's \$10,000 threshold.

At the Communications and Public Education Committee's August 22, 2024 meeting, it reviewed submissions for the OAA's *Public Awareness Sponsorship* program, which enables individuals and organizations to apply for financial assistance in carrying out projects or events promoting Ontario architecture to the public.

CPEC has discretion to annually allocate up to \$80,000 to individual requests not exceeding \$10,000. As per the funding guidelines, any submissions in excess of that amount can be recommended to Council for consideration.

For the July submission deadline, one request came in above this threshold: **Thomson Architecture** for **TEUI 3.0 and OpenBuilding.ca** at **\$28,000**. After discussing the merits of this initiative, CPEC members recommend Council consider funding it.

In his application, Andy Thomson writes, "*The OAA... developed the online TEUI Calculator (aka. TEUI 1) as an easy tool for Architects, Engineers, Builders, and Homeowners to rate existing building energy use and carbon emissions. TEUI 2.0 launched in 2023, answering a need for more detailed inputs with some limited 'predictive' power and a way to isolate TEDI metrics from TEUI in order to be used as a design tool. These tools were well received by OAA members, the public and government officials, but they require constant maintenance, troubleshooting, feature development*



and promotion, which is difficult for the OAA to directly manage on an ongoing basis. This sponsorship application addresses the next phase of the project's evolution."

See the attached appendices for more information, as well as visit <https://openbuilding.ca/oa/>.

In a follow-up email with OAA staff, Thomson clarifies the following regarding funding:

*"To be clear, setting up a dedicated not-for-profit would have been more complex and expensive (tax, legal, etc) than just running this as a 'not for profit' project under our own company, which is why we have taken this approach. Sponsorship funds will not benefit Thomson Architecture (TAI) directly, as TAI will distribute funds to contributing parties and use for direct costs to develop educational content by contributing parties, as well as covering web hosting and development costs and proposed meetings, workshops, training videos, travel and other related costs. Project accounting will be transparent and reporting will be shared with the OAA on a quarterly basis. The OpenBuilding.ca project and website is also not expressly branded as a Thomson Architecture initiative as doing so would downplay the contributions of other OAA member firms.*

*This structure also allows us all to be nimbler than an academic initiative, which is why we were expressly advised NOT to establish this initiative under any of the Universities whose professors have generously contributed to the development of the project on an ad hoc basis. The tool will continue to be used as a teaching tool at three schools of Architecture in Ontario (UofT via Dr. Ted Kesik, Laurentian via Ted Wilson, and TMU through myself and Russel Richman), as well as at McGill (through prof. Evelyne Bouchard), while maintaining a Creative Commons, open-source license for use."*

*The OAA has previously supported these efforts internally, and has paid third party consultants to develop and manage the tool... However, in this funding application we are proposing to 'remove the middlemen' by coding the tool ourselves. The continued development has been the result of considerable goodwill investment and volunteer sweat equity, in the public interest by members that want to see progress in the space of ecological and low-carbon design.*

*The [openbuilding.ca](https://openbuilding.ca) initiative has received sponsorship for other projects, such as by SIGA of Switzerland for creation of a manual for air-and watertight window openings for architects, and by Lifebreath through donation of product (ERV equipment) for testing and development of demand-based controls, which are features of the TEUI3 tool. But there has been NO DIRECT funding of the TEUI3 project, because to do so would typically be considered an 'investment' with an expectation of a return or some form of 'ownership'. We intend to keep the tool 100% free to the public, and open-source to promote continued peer review and community development. For this reason, the project and the product are not-for profit, but with significant returns to the OAA community, its members, and the public."*

Thomson has been offered the opportunity to join the Council meeting at the appropriate time to say a few brief words for consideration.

Staff will formally notify the applicant of the results once Council has made its decision.

---

## Action

*It was moved by McKendrick and seconded by Mintz that Council approve funding for TEUI 3.0/OpenBuilding.ca in the amount of \$28,000.*

---

**Attachments**

Appendices: Guidelines form.pdf, TEUI spreadsheet, case studies pdf

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## Guidelines and Application Form

# Public Awareness Sponsorship Program 2024

Each year, individuals and outside organizations can apply for the OAA's Public Awareness Sponsorship program for assistance in carrying out projects or events promoting Ontario architecture to the public.

The Communications and Public Education Committee (CPEC) measures all applications against four criteria:

- Potential to increase public awareness/appreciation of architecture and the allied arts and sciences;
- Innovation, creativity, and relevance;
- Ability to attract an audience and successfully run event/initiative; and
- Alignment to current OAA Council priorities as reflected in the [OAA's Five-Year Strategic Plan](#)

For 2024, there are **two deadlines** for submission: **Monday, January 29** and **Monday, July 29**. The first deadline has a pot of \$40,000, with any remaining funds added to the second deadline's amount of \$40,000.

1. Please note the Public Awareness Sponsorship program is intended for projects that ***have not yet occurred***. Decisions are shared with applicants in late March and late August, respectively. (Requests of more than \$10,000 must be approved by OAA Council, requiring a longer timeline.)
2. Allow approximately **four to six weeks** of processing and evaluation time from the date of receipt of the completed application and all required documentation.
3. An incomplete application will be not be considered.
4. Applicants must demonstrate a clear need for funding as well as support from other sources.



A. TYPE OF APPLICANT (please check the appropriate application category)

- External Individual
External Organization
OAA Member or other OAA status holder

B. APPLICANT DETAILS (Use supplementary sheets if necessary)

1. Name of Applicant:
2. Applicant Address: Street Suite No. City Province/State/Territory Country Postal/Zip Code
Tel: ( ) Email:
3. Primary Contact: Given Name Surname

C. PROJECT DETAILS (Use supplementary sheets if necessary)

1. Title of event or project:
2. Date of event:
3. Location: Street Suite No. City Province/State/Territory Country Postal/Zip Code
4. Amount Requested:
5. Tell us about your project:



6. How does it promotes architecture to the public?

7. Tell us about yourself or your organization and why this project is important to you.

8. What do you want to achieve? How will you know whether you are successful?

9. Why should the OAA sponsor this project?

10. Who is the audience for this?



11. How did you arrive at the financial figure you are requesting?

12. Please provide a detailed description of all the sponsor benefits to offering financial commitment. If there are various levels, outline the different associated benefits.

13. What else should the Committee know about your project?

***If you have pdfs, jpgs, or other files to supplement your application, please attach them.***

\_\_\_\_\_  
Name *(please print)*

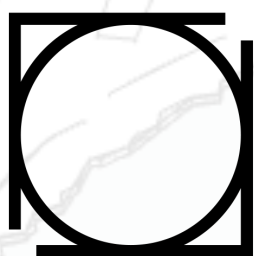
\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature





A Simple Tool for Lifecycle Analysis,  
Energy, Materials, and Carbon



Ontario Association  
of Architects

---

Ordre des architectes  
de l'Ontario



## About TEUI 3

### A brief history of the project:

**2021:** The Ontario Association of Architects (OAA) Sustainable Built Environment Committee (SBEC) developed the online 'Total Energy Use Intensity' TEUI (aka. TEUIv1) calculator as an easy-to-use, free, web-based tool for Architects, Engineers, Builders and Homeowners to create a Total Energy Use Intensity metric from existing building energy use and their related carbon emissions.

This was especially useful for buildings that did not undergo building energy modelling (BEM) as a part of the design process, but still wanted - or needed some form of objective building rating. This first TEUIv1 tool allowed a user to input utility bills which in turn converted this data into carbon and energy intensity ratings as a function of the building unit area, where **TEUI = Energy/Area**. This answered the need for many OAA members to better understand real-world building energy performance for all completed buildings, while increasing familiarity with the globally-adopted metrics of **TEUI**, **TEDI** (Thermal Energy Demand Intensity) and **GHGI** (GreenHouse Gas Intensity). It also supported members submitting projects to the OAA's Design Excellence Awards submissions where TEUI is required. This tool also helped to gauge the overall performance of an Architect's design portfolio. As a backwards-looking tool, the TEUIv1 gave reliable, objective and indisputable evidence of building performance, based on an auditable record defining actual energy use and conditioned floor area from drawings.

**2023:** TEUIv2 launched in 2023, answering a request by OAA members, who wanted to use a variant of the TEUI tool for design analysis, especially in the early stages of design.

TEUIv2 gave users more detailed inputs (ie. Wall Area and RSI values) with some limited 'predictive' power and a way to start to isolate TEDI metrics from TEUI in order to be used as a design tool, but it was plagued by some of the most difficult problems of building science and energy modelling in general. This relates to understanding the proportional relationship (often called 'The Energy Balance') between supplied energy, total gains and total losses through the building envelope and the mechanical systems. Parsing out the TEDI metric from the TEUI, far from being resolved completely, has highlighted for users with TEUIv3 (launching in Q4 of 2024) these specific difficulties and their embedded assumptions, and the drastic effects that even small variations in their proportionality can have on the overall TEUI.

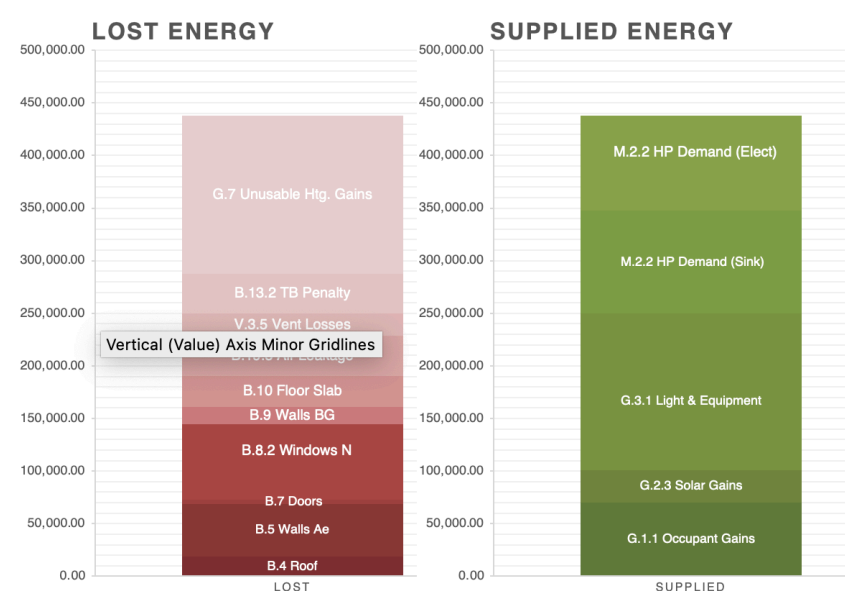


TEUIv3 gives us the tools needed to traverse the difficult terrain of early-stage performance modelling to reach aggressive new EUI targets, based on many successful constructed projects as precedents. By considering energy model impacts early on, some of the largest carbon and energy loads can be mitigated.

**2024:** TEUIv3 is planned to launch in Q4 of 2024 as an excel-based spreadsheet (an Apple Numbers and a LibreOffice xml version may also be included), together with this case-study document that features some of the buildings that helped to calibrate the tool to try to align the **Targeted** (Design) and **Actual** (Utility Bills) performance metrics, with some specific user-guidance on a range of building typologies. This study will highlight how to work with some of the variables and to understand their respective roles and impacts, such as the *net-useable gains* function or *gains n-factor*.

TEUI3 should be viewed as a *framework* for evaluating buildings using a broad array of ratings systems, but first and foremost, the legislated framework of the OBC, NBC and NECB.

**TEDI** plays an important role in **TEUIv3**, as it has been adopted as a key metric in the international Passive House standard, as well as many other municipal, regional and national standards. However the use of TEDI at the early design stage requires numerous assumptions, such as occupancy and occupant load, the *usefulness* of internal gains from occupants, solar gains, plug loads, building equipment such as fans, pumps and elevators and the related *schedules* of occupancy (*time\*intensity*). The actual *usefulness* of internal gains for, and the ability of mechanical components (ie. ERVs) to recover this energy and/or absorb it in the structure itself (known variously as thermal mass, capacitance, thermal transfer, etc.) has at least two different methodologies - TEUI3 handles this both similarly to PHPP, and alternatively with a user-defined *gains usefulness n-factor* derived from research by Canada's NRC.



TEUI is simply the sum of all used energy divided by conditioned building area, but parsing TEDI out of the TEUI value requires the complete analysis of building losses and gains, known as the 'Energy Balance'. TEUI then comprises the sum of all losses, minus the sum of all gains, which equals TEDI. Per the diagram above, all items in the LOST ENERGY bar are equal to the sum of the SUPPLIED ENERGY bar, which is comprised of all useable gains plus the Thermal Energy Demand or TED. TEDI is just TED divided by Conditioned Building Area.

In particular the question of when and where gains occur, and whether they are in fact needed at that time, is what is meant by their *'usefulness'*. A solar gain of 1,500kWh in October cannot be used to offset a thermal demand need of 1,500kWh in January (thermal storage notwithstanding), but often this is how total gains versus total demand is considered in all but dynamic, hourly energy modelling tools.

Any over-estimation of the *usefulness* of internal gains can have the effect of lowering the forecasted TEDI that may help you meet a standard, but at the risk of building overheating in the cooling season. This can have serious impacts on occupants, especially in the case of power outages or extreme weather events such as during a heatwave. The **NRC method** limits these gains from 40-60%, whereas the **PHPP Method** calculates this factor, which is typically higher than this 40-60% range.

TEDI also integrates envelope-air leakage and ventilation, which further muddies what should be a metric used to evaluate building assemblies and not mechanical efficiencies. We have written an article and built a separate Ventilation Calculator just to study the outsized influence of ventilation rates has on TEDI, and where we make the case, as prompted by Dr. Ted Kesik, to separate out Ventilation from the TEDI metric so that TEDI becomes a pure envelope-rating metric that can aid in understanding a building's thermal resilience and also to limit trading-off envelope efficiency with mechanical recovery efficiency, which can actually reduce a building's thermal resiliency. TEUIv3 shows both options, **TEDI with**, and **TEDI without** Ventilation included.



<b>T.10 TEDI Targeted (whole Building)</b>	<b>38,746.80</b> kWh/yr	<b>8.03</b> kWh/m <sup>2</sup> /yr	Includes V.5 Net Ventilation Losses, Excludes T.7.3 CEDI Ae ✓		<b>187%</b>
T.10.1 TEDI Envelope Only (No Ventilation)	<b>15,307.42</b> kWh/yr	<b>3.17</b> kWh/m <sup>2</sup> /yr			
T.10.2 CEDI Unmitigated Cooling Load	190,096.38 kWh/yr	<b>39.39</b> kWh/m <sup>2</sup> /yr	166,408.83 kWh/yr (after mitigation by Free Cooling)		

Item T.10 in TEUI3 shows TEDI as conventionally defined in the black header bar, but also T.10.1 shows TEDI with Ventilation excluded, and the new CEDI (Cooling Energy Demand Intensity) line T.10.2 considers the Cooling Season impacts of all gains, in order to consider a strategy to eliminate them as needed to maintain occupant comfort, with the mitigated values just to its right. These 'Raw' values do not yet apply reduction factors from Heat Pump sCOPs (Seasonal Coefficients of Performance) but instead reflect the full building thermal and cooling loads including latent effects or the humidity-based portion of the cooling load. By showing both TEDI methods, it becomes clear how much Ventilation and Ventilation rates can contribute to the total TEDI value, and how 'gaming' of occupancy schedules must be avoided to prevent an under-fitting of data to suit a model target, at the expense of performance fidelity, or what we refer to as the closing of the 'Performance Gap' between modelled use and Actual Use.

When PHPP assumes a minimum hygienic ventilation rate of 8.33l/s/pp, or 3m<sup>3</sup>/hr, the first question we asked is, after the Covid19 pandemic, is this ventilation rate is anywhere near adequate, or does it even align with ASHRAE guidelines and standards and Building Codes in North America for a given occupancy? Based on Dr. Joseph Allen's research at Harvard, 8.33l/s/pp is deemed inadequate, and a substantial body of research<sup>1</sup> has shown that 12-15 l/s/pp should be the ventilation target rate going forward. Increasing ventilation to these new rates could cause many already certified Passive House projects to fail to meet the PHPP defined heating season TEDI value of ~15kWh/m<sup>2</sup>/yr, in order to supply an appropriate amount of fresh air, and to keep indoor CO<sub>2</sub> below the newly established Health Canada guideline of 1,000ppm<sup>2</sup>.

This is why we feel that the TEUI metric should always be the primary consideration of building performance, as it is absolute, measurable and easily audited from utility bills and it defines both the total energy and related total operational carbon of a project. It also forms the baseline to equate an equal amount of locally-produced energy required to claim the title of an operational '**Net Zero Building**', where Energy Produced = Energy Consumed.

**TEUI3** now bridges the gap between Early Stage design programs and the EUJ targets of proprietary standards and emerging targets in Provincial and National Building Codes such as the Step Code in British Columbia, and the Tiers in NECB and NBC2020 and in the forthcoming NECB and NBC2025, as well as municipal green standards such as the Toronto Green Standard.

TEUI3 offers architects and engineers an accessible, easy-to-use, open-source and free tool that can form the basis of an enhanced design collaboration with the full team of design consultants, where envelope, building geometry, occupant loads and schedules and a host of other metrics are carefully defined at the outset to arrive at optimal building performance well before the traditional hand-off point at the Coordination phase.

TEUI3 also helps challenge many of the built-in assumptions with energy modelling schemes, from schedules, to useful gains, to ventilation rates, shading systems, etc. and this helps the design team to develop strategies for all of these functions in order to refine and optimize the building from the earliest phases of design, while providing constant feedback about code and standards compliance. We hope the case studies provided help the reader to understand how to use TEUI3 to arrive at **Target Results** that can be as close as possible to **Actual values** with the proviso that an energy model can never accurately predict actual use due to a wide range of often unknowable variables, such as user behaviour, unexpected weather years, and hundreds of other influences that are not within the designer's control or that far exceed the software's ability to anticipate loads or load responses. For this reason we always provide the following citation from ASHRAE:

***"actual experience will differ from these calculations due to variations such as occupancy, building operation and maintenance, weather, energy use not covered by this standard, changes in energy rates between design of the building and occupancy, and precision of the calculation tool"*** (ASHRAE Standard 90.1-2013, 11.2 Informative Note)

We have been on a 5-year pathway to add all the features TEUI3 needs, while maintaining its ease of use, and keeping all user-defined inputs on a single page of the main 'FACTS' spreadsheet (less than inputs 50 all-tolled).

While any energy model can never properly represent real building energy, water and carbon impacts, we aim with TEUI3 to be always striving for a 'Less Wrong' picture of the building.

Through much trial and error, we feel we have arrived at an approach that depends on, and tracks actual usage data, in order to inform or target loads before utility bills are available. To this end we feel we are getting closer to closing the performance gap between the energy model and real-world results.

To quote Danish polymath and poet Piet Hein:

*The road to wisdom? Well, it's plain and simple to express:*

*Err  
and err  
and err again  
but less  
and less  
and less.*

– Piet Hein

Many thanks to the entire TEUI3 Project Development and Testing Team:

**Dr. Ted Kesik, P.Eng**, UofT Daniels School of Architecture: Mentor and senior advisor

**Andy Thomson**, M.Arch, OAA, Thomson Architecture, Inc. and [OpenBuilding.ca](http://OpenBuilding.ca) co-founder, senior author, coder and building science consultant.

**Evelyne Bouchard**, M.Arch, OAA, CPHD, PHI Evaluator, Architect and PH Design Consultant and former Passive House Canada board member.

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<sup>1</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7369996/>

<sup>2</sup> Health Canada CO<sub>2</sub> Guidelines: <https://www.canada.ca/en/health-canada/services/publications/healthy-living/carbon-dioxide-home.html#>



1. PROJECT IN BRIEF: DAS MINIMALHAUS

Das Minimalhaus was designed as a zero-emission (operational) home at the advent of the Passivhaus standard in Germany. Performance was analyzed using **Suncode** software (by Ecotope) on MS-DOS at the Institut für Bauökonomie at the University of Stuttgart in 1994. Construction detailing included EPDM-gasketed interior plywood panels as a smart air-vapour layer, with one of the first HRV units in the region. Physical rolling shutters served as solar shading of the 3x glazed windows, and walls featured cellulose insulation. The building was designed for disassembly and used locally-sourced larch siding and structural lumber. The actual measured EUi based on 23 years of averaged of Utility Bills is **61.1**. The TEUIv3 Calculator shows a Targeted EUi of **71.1**. As a low-embodied carbon, mass-timber building, Das Minimalhaus reached an embodied carbon intensity target of **100 kgCO2/m<sup>2</sup>** or **2.82 kgCO2/m<sup>2</sup>** over the 50yr service life (includes B6, operational). Wood combustion emissions are no longer considered 'carbon neutral'.

2. EARLY-STAGE OPTIMIZATION STRATEGIES INCLUDED

1. Minimizing North-facing glazing area, integral rolling exterior shutters to limit South & Western heat gains
2. Airtight construction using gasketed plywood panels
3. Early models of Thru-the-Wall HRV system from Sweden.
4. Heating only by 'Kachelofen' contraflow masonry wood heater.
5. 30cm thick cellulose-insulated walls in a 'quilt' pattern to limit settling.
6. Minimization of floor area and surface to volume ratio
7. Factor-10 design strategy, targeting 1/10th the materials, energy and water use of the typical German home.

3. TARGETS VS. ACTUAL PERFORMANCE

Differences between modelled and actual energy performance can be explained by several factors;

8. Original building vs. Area with Addition
9. Aggregated values over 23 years
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.

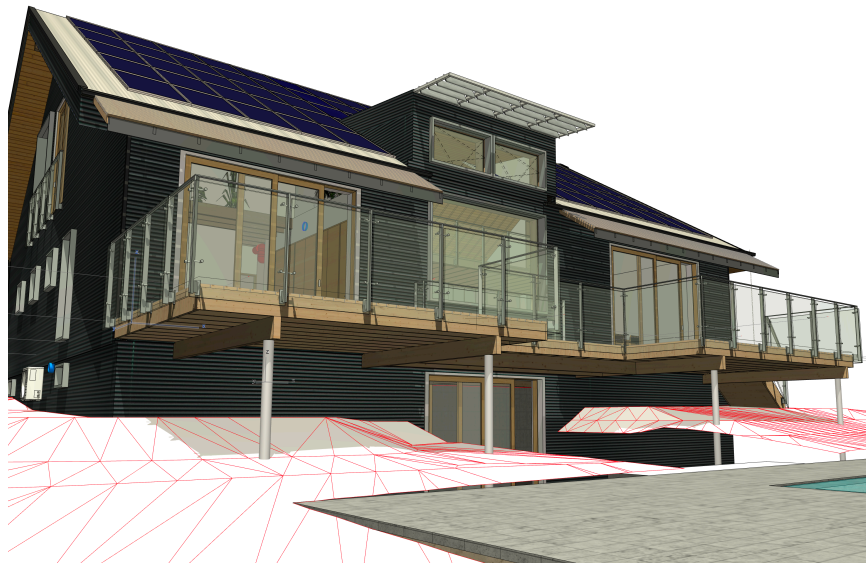
4. IMPROVEMENT SUGGESTIONS

Considerable heatloss is reported through the wall assemblies. Since this design predated extensive development in thermal-bridge-mitigation, this would be an approach to reduce wall-assembly U-value in a future design, through use of something like Gutex wood fibre-insulation panels behind the rainscreen. Similarly, this design predated efficient ASHP technology, that, if deployed on this home even as a retrofit, could further reduce both carbon emissions from wood combustion, but also provide a more efficient means of heating the structure (TEUI reduction of 27%) while providing the bonus of cooling in Summer. An effective demand-based ventilation system could further limit ventilation heatloss (12% of TEUI) while potentially increasing IAQ and prolonging the service life of the ventilation equipment.

Ontario Association of Architects		TEUI Calculator v3.7   2024.06.28	
Ordre des architectes de l'Ontario		Bold Blue = User Input Cells Black = Calculated Cells	
B.1 Major Occupancy	C - Residential	L.1 Ontario Location	Toronto (City Hall)
S.1 Compliance Standard	PH Classic	D.1 Service Life	50 yrs
S.2 Actual (Bills) or Targeted (Design) Use	Utility Bills	B.2 Project Name	Das Minimalhaus
S.3 Carbon Benchmarking Standard	Self Reported	S.4 Embodied Carbon Target	100.00 kgCO2e/m2
O.1 Occupants per Building	4	B.3 Conditioned Area	62.16 m <sup>2</sup>
<b>Lifetime Emissions Intensity kgCO2e/m<sup>2</sup></b>		<b>Targeted (Design)</b>	<b>Actual (Utility Bills)</b>
<b>T.1 Lifetime Carbon</b>		<b>3.70</b>	<b>2.82</b>
<b>Annual Operational Emissions Intensity kgCO2e/m<sup>2</sup></b>		<b>Targeted (Design)</b>	<b>Actual (Utility Bills)</b>
<b>T.2 Annual Carbon</b>		<b>1.70</b>	<b>0.82</b>
<b>Total Annual Operational Energy Use Intensity kWh/m<sup>2</sup>yr</b>		<b>Targeted (Design)</b>	<b>Actual (Utility Bills)</b>
<b>T.3 TEUI</b>		<b>71.1</b>	<b>61.1</b>
<b>T.4 TEUI</b>		<b>Actual (Utility Bills)</b>	<b>Targeted (Design)</b>
T.3.1 Total Electricity Use	1,700.00 kWh/yr	4,420.11 kWh/yr	800.00
T.3.2 Total Fossil Gas Use	0.00 m <sup>3</sup> /yr	0.00 m <sup>3</sup> /yr	0.00
T.3.3 Total Propane Gas Use	0.00 kg/yr	0.00 kg/yr	0.00
T.3.4 Total Oil Use	0.00 litres/yr	0.00 litres/yr	0.00
T.3.4 Total Wood Use	3.00 m <sup>3</sup> /yr	3.00 m <sup>3</sup> /yr	3,000.00
T.3.4 Total Net Energy	23.47 GJ/yr	200.00 kWh/person/yr	5.87 GJ/yr
T.3.5 Primary Energy (Ontario Electricity)	800.00 kWh/yr	12.87 kWh/m <sup>2</sup> yr	1.0 PER Factor (Worst Case)
<b>E.1 GHGI Operational/yr</b>		<b>0.50</b> MT CO2e/yr	<b>8.06</b> kgCO2e/m <sup>2</sup>
E.2 Embedded Carbon Intensity (A1-3)	Use Your Own Value	100.00 User-Def.	100.00 Calc'd Value
E.3 Embedded Carbon Emitted (A1-3)	6.70 MT CO2e	100.00 Target Value	100.00 Target Value
<b>E.4 Onsite Energy Production</b>		<b>900.00</b> kWh/yr	<b>20%</b>
E.5 Photovoltaics	900.00 kWh/yr		
E.6 Wind	0.00 kWh/yr		
E.7 Remove EV Charge from TEUI	0.00 kWh/yr		
E.8 Reserved	0.00 kWh/yr		
<b>E.9 Offsite Renewable (REC's)</b>		<b>0.00</b> kWh/yr	<b>0%</b>
E.10 WWS Electricity	0.00 kWh/yr		
E.11 Green Natural Gas	0.00 m <sup>3</sup>	0.00 ekWh/yr	
<b>W.1 Annual Water Use (Res. only)</b>		<b>36,500</b> litres/yr	<b>25.00</b> lpp/day
<b>A.1 Indoor Air Quality</b>		<b>Targeted</b>	<b>Limits</b>
A.2 Radon (annual avg.)	3 Bq/m <sup>3</sup>	150 Bq/m <sup>3</sup>	Reported levels over 150 require remediation
A.3 CO2 (annual avg.)	500 ppm	1000 ppm	Reported levels over 1000 require remediation
A.4 TVOC (annual avg.)	10 ppm	400 ppm	Reported levels over 400 require remediation
A.5 Rel. Humidity (annual avg.)	45 %	30-60 %	Reported levels under 20 or over 60 require remediation
<b>A.6 Atmospheric Offsets</b>		<b>0</b> MT/yr CO2e	Offsite Carbon Offsets do not reduce Building or Grid-Level emissions
<b>Climate Calculations</b>		<b>Future Weather</b>	
L.1.1 Heating Degree Days	3520 °C	No Use 2021-2050 Value	HDD Reference Lookup
L.1.2 Cooling Degree Days	362 °C	No Use 2021-2050 Value	CDD Reference Lookup
L.1.3 Ground Temperature Degree Days	2200 °C		
L.1.4 Coldest Days (Location Specific)	-18 °C		
L.1.5 Hottest Days (Location Specific)	31 °C		
B.1.1 Thermostat Setpoint Heating	22 °C		
B.1.2 Thermostat Setpoint Cooling	25 °C		Setpoint cooling season per ASHRAE or NBC (Pending)
<b>Envelope Components (User Inputs)</b>		<b>Areas m<sup>2</sup></b>	<b>Rimp</b> R <sub>F-HR/BU</sub>
B.4 Roof	31.00	68.14	12.00
B.5 Walls Above Grade (Exclude Openings)	124.00	45.42	8.00
B.6 Floor Exposed	31.00	45.42	8.00
B.7 Doors	2.00	8.11	1.43
B.8.1 Window Area North	1.00	8.11	1.43
B.8.2 Window Area East	1.00	8.11	1.43
B.8.3 Window Area South	6.00	8.11	1.43
B.8.4 Window Area West	1.00	8.11	1.43
B.9 Walls Below Grade (Conditioned)	0.00	22.71	4.00
B.10 Floor Slab - Heated/Conditioned	0.00	11.36	2.00
B.11 Interior Floors (incl. garages)	36.00		
<b>Envelope Totals</b>		<b>197.00</b>	<b>31.43</b>
<b>T.5.1 Building U-Value Combined Total</b>		<b>0.181</b> W/m <sup>2</sup> -K	83%
<b>T.5.2 Building U-Value Avg for Ae</b>		<b>0.181</b> W/m <sup>2</sup> -K	
<b>T.5.3 Building U-Value Avg for Ag</b>		<b>0.000</b> W/m <sup>2</sup> -K	
B.12 Window/Wall Ratio (WWR)	8.15%		270%
B.13 Thermal Bridge Penalty (min. 5-70%)	20%		
B.14 Total Conditioned Volume	216.00	m <sup>3</sup>	
B.3.1 Total Floor Area (incl. garages, etc.)	67.00	ham	
B.15 Total Area Exposed to Ground (Ag)	0.00	m <sup>2</sup>	
B.16 Total Area Exposed to Air (Ae)	197.00	m <sup>2</sup>	
B.17 Total Cond. Area to Vol. Ratio	0.31		
B.18 Surf. to Vol. Ratio (V/A) or SV Ratio	0.91		
B.19.1 Air-Leakage Target per NBC	PH Classic		
B.19.2 NR <sub>Lg</sub> Target per NBC 2025	0.18	L/s/m <sup>2</sup>	821%
B.19.3 ACH50 Target	0.60	ACH50Pa	100%
B.19.4 ACH50 If Measured	0.60		
B.19.5 Annual Natural Air Leakage Heatloss	239.00	kWh	3.84 kWh/m <sup>2</sup> yr
B.19.6 Ae <sub>19</sub> or ELA <sub>19</sub>	0.036	m <sup>2</sup>	1.2, 3
<b>Gains less Losses (Calculated)</b>		<b>Subtotals</b>	<b>Intensity</b>
G.1.0 Annual Occupant Gains	1,804.80	kWh/yr	29.03 kWh/m <sup>2</sup> yr
G.1.1 Occupant Gains (Heating Season)	940.80	kWh/yr	15.14 kWh/m <sup>2</sup> yr
G.1.2 Occupant Gains (Cooling Season)	864.00	kWh/yr	13.90 kWh/m <sup>2</sup> yr
G.2.1 Solar Gains (Heating Season) Intensity	50.00	kWh/m <sup>2</sup> yr	80.00 kWh/m <sup>2</sup> yr*
G.2.2 Solar Gains (Cooling Season) Intensity			
G.2.3 Solar Gains (Heating Avg. Method)	550.00	kWh/yr	8.85 kWh/m <sup>2</sup> yr
G.2.4 Solar Gains (Heating by Orientation)	521.00	kWh/yr	8.38 kWh/m <sup>2</sup> yr
G.2.5 Solar Gains (Cooling Avg. Method)	176.00	kWh/yr	2.83 kWh/m <sup>2</sup> yr
G.2.6 Solar Gains Physical Shading	80.00%		
G.3.1 Light & Equipment Gains (Heating)	548.25	kWh/yr	8.82 kWh/m <sup>2</sup> yr
G.3.2 Light & Equipment Gains (Cooling)	268.53	kWh/yr	4.32 kWh/m <sup>2</sup> yr
G.4 Gains Utilization Factor (n-Factor)	77.15%	NRC Method	77.15% PHPP Method
G.5 Net Usable Heating Season Gains	1,573.19	kWh/yr	1,573.19 kWh/yr
G.6 Net Usable Htg. Gains Intensity	25.31	kWh/m <sup>2</sup> yr	25.31 kWh/m <sup>2</sup> yr
<b>Mechanical Loads (Calculated)</b>		<b>Subtotals</b>	<b>Intensity</b>
M.1.1 DHW Demand	2,088.00	kWh/yr	33.59 kWh/m <sup>2</sup> yr
M.1.2 DHWR Efficiency	42%		1,512.00 kWh/yr Recovered
M.2.1 Heatpump for Heating	No	14 HSPF	4.10 COPheat
M.2.2 Heatpump Heat Elect. Load	0.00	kWh/yr	0.00 kWh/m <sup>2</sup> yr
M.3.1 Heatpump for Cooling	Yes		3.10 COPcool
M.3.2 Heatpump Cool Elect. Load	402.28	kWh/yr	6.47 kWh/m <sup>2</sup> yr
M.4 HRV/ERV/MVHR Efficiency (SRE)	90%		811.03 kWh/yr from Sink
V.1 Constant Ventilation Rate	8.33	l/s	17.65 cfm
V.2 Ventilation * Occupants	33.32	l/s	70.60 cfm
V.3 Heating Season Ventill. Energy	3,406.00	kWh/yr	812.81 kWh Daily Summer Bypass Exhausted (typ. free cooling*120 days - incomplete)
V.4 Heating Season Ventill. Recovered	3,065.40	kWh/yr	53.34 kWh/m <sup>2</sup> yr
V.5 Net Heating Season Ventillation Losses	340.60	kWh/yr	5.48 kWh/m <sup>2</sup> yr
V.3 Incoming Cooling Season Ventill. Energy	350.28	kWh/yr	
V.4 Outgoing Cooling Season Ventill. Energy	315.25	kWh/yr	0.56 kWh/m <sup>2</sup> yr added to cooling load M.3.2
V.6 Ventilation Free Cooling/Venting Capacity	25%		404.43 kWh/yr (Use F117 for Guidance)
<b>Enclosure TEDI (component surfaces)</b>			
T.6.1 HEDI Ae	3,006.64	kWh/yr	15.26 kWh/m <sup>2</sup>
T.6.2 CEDI Ae	309.21	kWh/yr	1.57 kWh/m <sup>2</sup>
T.7.1 TEDI Ae	3,315.85	kWh/yr	16.83 kWh/m <sup>2</sup>
T.7.2 TEDI Enclosure/B.3 Cond. Area			53.34 kWh/m <sup>2</sup> yr
T.8.1 HEDI Ag	0.00	kWh/yr	0.00 kWh/m <sup>2</sup> yr
T.8.2 TEDI Ag			0.00 kWh/m <sup>2</sup> yr
<b>T.10 TEDI Targeted (whole Building)</b>		<b>2,013.05</b> kWh/yr	<b>32.38</b> kWh/m <sup>2</sup> yr
T.10.1 TEDI Envelope Only (No Ventillation)	309.93	kWh/yr	4.97 kWh/m <sup>2</sup> yr
T.10.2 CEDI Unmitigated Cooling Load	1,617.74	kWh/yr	26.03 kWh/m <sup>2</sup> yr
<b>T.4 TEUI Targeted</b>		<b>4,420.11</b> kWh/yr	<b>71.11</b> kWh/m <sup>2</sup> yr
T.4.1 TEUI if Heat Pump Yes/No	4,420.11	kWh/yr	71.11 kWh/m <sup>2</sup> yr
T.4.2 Peak Heating Load (Enclosure Only)	1.42	kW	4,858 BTU/hr
T.4.3 Peak Cooling Load (Enclosure Only)	0.21	kW	0.06 Tons Cooling
T.4.4 Max. Heating Load Intensity	22.90	W/m <sup>2</sup>	44%
P.1 Scheduled Hours Occupancy/yr.	8760	hours/yr	4380 hours occupied
P.2 Plug Loads	545	kWh/yr	2 W/m <sup>2</sup>
P.3 Lighting Power Density	272	kWh/yr	1 W/m <sup>2</sup>
P.4 Equipment Loads	0	kWh/yr	0.0 W/m <sup>2</sup>
P.5 Site Loads	0.00	kWh/yr	0.00 W/m <sup>2</sup>
P.6 Total Annual Plug + Light + Eqpt Loads	816.78	kWh/yr	13.14 kWh/m <sup>2</sup> yr
T.4.5 Cost of Electricity	\$0.23		
T.4.6 Annual Cost of Electricity	\$1,016.63	pre and	\$1,016.63 post heat pump
T.4.7 Cost Premium of HP Equipment	\$0.00		0.00 Years to Amortize
T.11 TEUI Performance Gap	71.11	Targeted	61.13 Utility Bills
	116%	of Utility Bills	86% of Targeted Design



Completed: 2023, Port Credit, Ontario



PROJECT IN BRIEF: PORT CREDIT NET ZERO RESIDENCE

Designed from the outset as a Net-Zero residence, this project uses simplified building geometry, a large volume to surface ratio, an Air-to-Water heatpump with low-temperature hydronic distribution and ceiling fans for air mixing. A high-efficiency ERV and a Vent-A-Hood OTR air filter work to keep IAQ at optimal levels. A building aggregate U-value of 0.24 was targeted, and the non-offset TEUI target was 56.2. 56.4 was achieved, which is then zeroed out by onsite PV production from a 22kW array, on an optimized roof pitch with standing seam panel integration.

EARLY-STAGE OPTIMIZATION STRATEGIES INCLUDED

16. Blurbs

TARGETS VS. ACTUAL PERFORMANCE

Blurb

IMPROVEMENT SUGGESTIONS

This is a generously sized home. Spaces could be reduced 20% with no real compromise to liveability. Lower F2C heights could also help limit ventilation losses by total reduction of the VV or Ventilated Volume. The cooling load is significant on this project, as a function also of this large volume, black cladding and roof (not modelled by TEUI3), but also due to a lack of physical shading. TEUI could be lowered by 4 if 100% physical shading was provided. Further improvements to wall construction could help limit heatloss, while the U-value of wall assemblies are well beyond code, there is a lot of wall surface area. Deep cellulose cavities with an exterior layer of thermal break insulation could increase these values further (ie. RSI 12).

Ontario Association of Architects		TEUI Calculator v3.071   2024.07.03	
Ordre des architectes de l'Ontario		Bold Blue = User Input Cells Black = Calculated Cells	
B.1 Major Occupancy	C - Residential	L.1 Ontario Location	Mississauga (Port Credit)
S.1 Compliance Standard	OBC SB12 3.1.1.2.C4	D.1 Reporting Period & Service Life	2024 50 yrs
S.2 Actual (Bills) or Targeted (Design) Use	Targeted Use	B.2 Project Name	Port Credit Net Zero
S.3 Carbon Benchmarking Standard	Self Reported	S.4 Embodied Carbon Target	200.00 kgCO2e/m2
O.1 Occupants per Building	4	B.3 Conditioned Area	523.34 m²
<b>Lifetime Emissions Intensity kgCO2e/m²</b>		<b>Targeted (Design)</b>	<b>Actual (Utility Bills)</b>
<b>T.1 Lifetime Carbon</b>		<b>8.0</b>	<b>8.0</b>
<b>Annual Operational Emissions Intensity kgCO2e/m²</b>		<b>Targeted (Design)</b>	<b>Actual (Utility Bills)</b>
<b>T.2 Annual Carbon</b>		<b>4.0</b>	<b>4.0</b>
<b>Total Annual Operational Energy Use Intensity kWh/m²/yr</b>		<b>Targeted (Design)</b>	<b>Actual (Utility Bills)</b>
<b>T.3 TEUI</b>		<b>56.2</b>	<b>56.4</b>
<b>T.4 TEUI</b>		<b>Actual (Utility Bills)</b>	<b>Targeted (Design)</b>
T.3.1 Total Electricity Use	29,500.00 kWh/yr	29,421.07 kWh/yr	29,421.07 kWh/yr
T.3.2 Total Fossil Gas Use	0.00 m³/yr	0.00 m³/yr	0.00 m³/yr
T.3.3 Total Propane Use	0.00 kg/yr	0.00 kg/yr	0.00 kg/yr
T.3.4 Total Oil Use	0.00 litres/yr	0.00 litres/yr	0.00 litres/yr
T.3.4 Total Wood Use	0.00 m³/yr	0.00 m³/yr	0.00 m³/yr
T.3.4 Total Net Energy	165.92 GJ/yr	7,355.27 kWh/yr	5.87 GJ/yr
T.3.5 Primary Energy (Ontario Electricity)	29,421.07 kWh/yr	56.22 kWh/m²/yr	1.0 PER Factor (Worst Case)
<b>E.1 GHGI Operational/yr</b>		<b>2.09</b> MT CO2e/yr	<b>3.99</b> kgCO2e/m²
E.2 Embedded Carbon Intensity (A1-3)	Use Your Own Value	200.00 User-Def.	200.00 Calc'd Value kgCO2e/m²
E.3 Embedded Carbon Emitted (A1-3)	104.67 MT CO2e		200.00 Target Value kgCO2e/m²
<b>E.4 Onsite Energy Production</b>		<b>0.00</b> kWh/yr	<b>0%</b>
E.5 Photovoltaics	0.00 kWh/yr		
E.6 Wind	0.00 kWh/yr		
E.7 Remove EV Charge from TEUI	0.00 kWh/yr		
E.8 Reserved	0.00 kWh/yr		
<b>E.9 Offsite Renewable (REC's)</b>		<b>0.00</b> kWh/yr	<b>0%</b>
E.10 WWS Electricity	0.00 kWh/yr		
E.11 Green Natural Gas	0.00 m3	0.00 ekWh/yr	
<b>W.1 Annual Water Use (Res. only)</b>		<b>366,460</b> litres/pp/yr	<b>251.00</b> lpp/day
<b>A.1 Indoor Air Quality</b>		<b>Targeted</b>	<b>Limits</b>
A.2 Radon (annual avg.)	50 Bq/m³	150 Bq/m³	Reported levels over 150 require remediation
A.3 CO2 (annual avg.)	500 ppm	1000 ppm	Reported levels over 1000 require remediation
A.4 TVOC (annual avg.)	10 ppm	400 ppm	Reported levels over 400 require remediation
A.5 Rel. Humidity (annual avg.)	45 %	30-60 %	Reported levels under 20 or over 60 require remediation
<b>A.6 Atmospheric Offsets</b>		<b>0</b> MT/yr CO2e	Offset Carbon Offsets do not reduce Building or Grid-Level emissions
<b>Climate Calculations</b>		<b>Future Weather</b>	
L.1.1 Heating Degree Days	3780 °C	No	Use 2021-2050 Value
L.1.2 Cooling Degree Days	427.3 °C	No	Use 2021-2050 Value
L.1.3 Ground Temperature Degree Days	2200 °C		
L.1.4 Coldest Days (Location Specific)	-18 °C		
L.1.5 Hottest Days (Location Specific)	29 °C		
B.1.1 Thermostat Setpoint Heating	22 °C		
B.1.2 Thermostat Setpoint Cooling	24 °C		
<b>Envelope Components (User Inputs)</b>		<b>Areas m2</b>	<b>Rimp</b>
B.4 Roof	263.00	47.01	8.28
B.5 Walls Above Grade (Exclude Openings)	405.04	29.53	5.20
B.6 Floor Exposed	0.00	54.05	9.52
B.7 Doors	0.00	8.47	1.49
B.8.1 Window Area North	27.93	8.47	1.49
B.8.2 Window Area East	5.88	8.47	1.49
B.8.3 Window Area South	36.58	8.47	1.49
B.8.4 Window Area West	8.99	8.47	1.49
B.9 Walls Below Grade (Conditioned)	177.49	23.85	4.20
B.10 Floor Slab - Heated/Conditioned	203.67	21.01	3.70
B.11 Interior Floors (incl. garages)	319.67	-	-
<b>Envelope Totals</b>		<b>1128.58</b>	<b>20.22</b>
<b>T.5.1 Building U-Value Combined Total</b>		<b>0.254</b> W/m2-K	<b>99%</b>
<b>T.5.2 Building U-Value Avg for Ae</b>		<b>0.240</b> W/m2-K	
<b>T.5.3 Building U-Value Avg for Ag</b>		<b>0.281</b> W/m2-K	
B.12 Window:Wall Ratio (WWR)	16.39%		
B.13 Thermal Bridge Penalty (min. 5-70%)	10%		
B.14 Total Conditioned Volume	1,641.67 m³		
B.3.1 Total Floor Area (incl. garages, etc.)	523.34 hsm		
B.15 Total Area Exposed to Ground (Ag)	381.16 m²		
B.16 Total Area Exposed to Air (Ae)	747.42 m²		
B.17 Total Cond. Area to Vol. Ratio	0.32		
B.18 Surf. to Vol. Ratio (V/A) or SV Ratio	0.46		
B.19.1 Air-Leakage Target per NBC	AL-1A		
B.19.2 NRL <sub>50</sub> Target per NBC 2025	0.89 U <sub>50</sub> m²		
B.19.3 ACH 50 Target	1.46 ACH 50Pa		
B.19.4 ACH 50 if Measured	1.50		
B.19.5 Annual Natural Air Leakage Heatloss	4,742.43 kWh	9.06 kWh/m²/yr	Stories 1, 2, 3
B.19.6 Ae <sub>10</sub> or ELA <sub>10</sub>	0.665 m²		
<b>Gains less Losses (Calculated)</b>		<b>Subtotals</b>	<b>Intensity</b>
G.1.0 Annual Occupant Gains	1,804.80 kWh/yr	3.45 kWh/m²/yr	
G.1.1 Occupant Gains (Heating Season)	940.80 kWh/yr	1.80 kWh/m²/yr	
G.1.2 Occupant Gains (Cooling Season)	864.00 kWh/yr	1.65 kWh/m²/yr	
G.2.1 Solar Gains (Heating Season) Intensity		50.00 kWh/m²/yr	
G.2.1 Solar Gains (Cooling Season) Intensity		80.00 kWh/m²/yr	
G.2.3 Solar Gains (Heating Avg. Method)	3,969.00 kWh/yr	7.58 kWh/m²/yr	
G.2.4 Solar Gains (Heating by Orientation)	3,254.28 kWh/yr	6.22 kWh/m²/yr	
G.2.5 Solar Gains (Cooling Avg. Method)	6,350.40 kWh/yr	12.13 kWh/m²/yr	
G.2.6 Solar Gains Physical Shading	0.00%		
G.3.1 Light & Equipment Gains (Heating)	13,078.27 kWh/yr	24.99 kWh/m²/yr	
G.3.2 Light & Equipment Gains (Cooling)	6,405.68 kWh/yr	12.24 kWh/m²/yr	
G.4 Gains Utilization Factor (n-Factor)	85.10% NRC Method	85.10% PHPP Method	
G.5 Net Usable Heating Season Gains	15,308.01 kWh/yr	15,308.01 kWh/yr	
G.6 Net Usable Htg. Gains Intensity	29.25 kWh/m²/yr	29.25 kWh/m²/yr	
<b>Mechanical Loads (Calculated)</b>		<b>Subtotals</b>	<b>Intensity</b>
M.1.1 DHW Demand	2,088.00 kWh/yr	3.99 kWh/m²/yr	8000.00 kWh/yr (Mech. Engineer Defined)
M.1.2 DHWR Efficiency	42%	1,512.00 kWh/yr Recovered	
M.2.1 Heatpump for Heating	Yes	14 HSPF	4.10 COPheat
M.2.2 Heatpump Heat Elect. Load	2,941.04 kWh/yr	5.62 kWh/m²/yr	31,297.17 kWh/yr from Sink
M.3.1 Heatpump for Cooling	Yes		3.10 COPcool
M.3.2 Heatpump Cool Elect. Load	4,908.08 kWh/yr	9.38 kWh/m²/yr	10,239.81 kWh/yr from Sink
M.4 HRRV/MVHR Efficiency (SRE)	80%		
V.1 Constant Ventilation Rate	8.33 l/s	17.65 cfm	29.99 m³/hr
V.2 Ventilation * Occupants	33.32 l/s	70.60 cfm	119.95 m³/hr
V.3 Heating Season Ventil. Energy	3,657.58 kWh/yr	348.35 kWh Daily Summer Bypass Exhausted (typ. free cooling*120 days - incomplete)	
V.4 Heating Season Ventil. Recovered	2,936.06 kWh/yr		
V.5 Net Heating Season Ventilation Losses	731.52 kWh/yr	1.40 kWh/m²/yr	
V.3 Incoming Cooling Season Ventil. Energy	413.46 kWh/yr		
V.4 Outgoing Cooling Season Ventil. Energy	330.77 kWh/yr	0.16 kWh/m²/yr added to cooling load M.3.2	
V.6 Ventilation Free Cooling/Venting Capacity	2%	309.14 kWh/yr	(Use F117 for Guidance)
<b>Enclosure TEDI (component surfaces)</b>			
T.6.1 HEDI Ae	16,250.15 kWh/yr	21.74 kWh/m²	
T.6.2 CEDI Ae	1,836.95 kWh/yr	2.46 kWh/m²	
T.7.1 TEDI Ae	18,087.10 kWh/yr	24.20 kWh/m²	
T.7.2 TEDI Enclosure/B.3 Cond. Area		34.56 kWh/m²/yr	
T.8.1 HEDI Ag	5,651.50 kWh/yr	14.83 kWh/m²/yr	
T.8.2 TEDI Ag		10.80 kWh/m²/yr	
<b>T.10 TEDI Targeted (whole Building)</b>		<b>12,067.58</b> kWh/yr	<b>23.06</b> kWh/m²/yr
T.10.1 TEDI Envelope Only (No Ventilation)	1,837.60 kWh/yr	3.51 kWh/m²/yr	Includes V.5 Net Ventilation Losses, Excludes T.6.2 CEDI Ae
T.10.2 CEDI Unmitigated Cooling Load	15,457.04 kWh/yr	29.54 kWh/m²/yr	Excludes V.5 Net Ventilation Losses
<b>T.4 TEUI Targeted</b>		<b>38,547.61</b> kWh/yr	<b>73.66</b> kWh/m²/yr
T.4.1 TEUI if Heat Pump Yes/No	29,421.07 kWh/yr	56.22 kWh/m²/yr	
T.4.2 Peak Heating Load (Enclosure Only)	11.45 kW		39.057 BTU/hr
T.4.3 Peak Cooling Load (Enclosure Only)	0.90 kW		0.25 Tons Cooling, 3,056 BTU/hr
T.4.4 Max. Heating Load Intensity		21.87 W/m²	
P.1 Scheduled Hours Occupancy/yr.	8760 hours/yr	4380 hours occupied	
P.2 Plug Loads	11,461 kWh/yr	5.0 W/m²	
P.3 Lighting Power Density	3,438 kWh/yr	1.5 W/m²	
P.4 Equipment Loads	4,584 kWh/yr	2.0 W/m²	
P.5 Site Loads	0.00 kWh/yr	0.00 W/m²	
P.6 Total Annual Plug + Light + Eqpt Loads	19,483.95 kWh/yr	37.23 kWh/m²/yr	
T.4.5 Cost of Electricity	\$0.23		
T.4.6 Annual Cost of Electricity	\$8,865.95 pro and	\$6,766.85 post heat pump	
T.4.7 Cost Premium of HP Equipment	\$10,000.00	4.76 Years to Amortize	
T.11 TEUI Performance Gap	56.22 Targeted	56.37 Utility Bills	
		<b>100%</b> of Utility Bills	<b>100%</b> of Targeted Design



1. PROJECT IN BRIEF: THREE FEATHERS TERRACE

Designed as a zero-emission (operational) purpose-built, 4-season wedding pavilion, the project underwent extensive energy modelling and optimization. The team used **Cove Tools**, **Climate Studio** and **ArchiCad EcoDesigner** with Mariami Tkeshelashvili of LUND University on her master's thesis, integrating BEM into BIM. Cove tools showed a target value EUI of **84.41 kWh/m<sup>2</sup>/yr** after many iterations of design optimization. ArchiCad showed a starting target EUI of **173.59** down to an optimized **64.56 kWh/m<sup>2</sup>/yr**. The actual measured EUI based on 12 months of Utility Bills is **93.1**, still under our target EUI of **100**. The TEUIv3 Calculator shows a Target EUI of **93.0** (but hindsight has helped calibrate the model). As a low-embodied carbon, mass-timber building, TFT reached an embodied carbon intensity target of **306 kgCO<sub>2</sub>/m<sup>2</sup>** or **10.9 kgCO<sub>2</sub>/m<sup>2</sup>** over the 50yr service life (includes B6, operational).

2. EARLY-STAGE OPTIMIZATION STRATEGIES INCLUDED

1. Minimizing North-facing glazing area, and extending West-facing veranda overhangs to limit Western heat gains
2. Providing 100% cooling-season overhangs to limit solar gains
3. Cooling includes a chilled slab and dehumidification
4. Air mixed (no ducting) in heating and cooling seasons with a series of LVHV ceiling fans.
5. Heating and cooling system is a modular Mitsubishi Air-to-Water Heat Pump (AWHP) which heats and chills the slab.
6. MVHR system provides ventilation on a demand basis, limiting idling heatloss through unnecessary ventilation
7. Tight early integration with the MEP team to minimize system loads and costs to be less than gas-fired and geothermal approaches.
8. A1-A3 carbon was reported through Denmark's BR18 methodology and wBLCA tool **DesignLCA** for ArchiCad as well as with the architect's own 3D accounting schedules to arrive at a service-life Carbon value of **8.91 kgCO<sub>2</sub>/m<sup>2</sup>**, compared with Denmark's BR18 upper limit value of **12 kgCO<sub>2</sub>e/m<sup>2</sup>** (A1-3+B6/50yrs).

3. TARGETS VS. ACTUAL PERFORMANCE

While TEUI3 Target is nearly identical to Actual use, ancillary buildings on the site are on the same meter, so we included them in the conditioned area although they have a much lower performance spec (a penalty for our Target). Systems needed refinement during the during the first year. Intermittent occupant gains are not generally beneficial during the heating season, and the absence of a planned BEMS (Building Energy Management System) and extensive variation in occupancy schedule is a feature of this occupancy (G.4.1 = 0%). The owner is well-pleased with very low annual energy costs and plans to build out the planned rooftop PV (the reason standing seam was selected for its ease of PV retrofits) to make Three Feathers Terrace a zero-emission and net zero building in coming years.

4. IMPROVEMENT SUGGESTIONS

The total window area (reported as North facing/Averaged Method) loses approximately 2x the thermal energy as the useful gains it provides. With a 36% WWR, a moderate reduction in window area could provide benefits, especially on the North elevation. While it would not be practical or economical to add more insulation, automated and optimized controls would offer significant benefits in load management and reduction, since ventilation loads nearly equal total annual heatloss even with heat recovery. Latent loads are an issue. Pre-cooling the slab and maximizing night-time 'free cooling' could be further optimized with a BEMS since upper level awning/venting windows are already operated by motors/electronically. While the building was designed for airtightness (using a 'perfect wall' approach and two air barriers, taped ZIP panels and SIGA interior Majrex membrane), a final blower door test did not confirm targets. There may have been additional opportunities to air-seal the building with the benefit of this data during construction, and it is imperative to require this in future specifications.

Ontario Association of Architects		TEUI Calculator BETA v3.007   2024.07.21	
Ordre des architectes de l'Ontario		Blue = User Input Cells Black = Calculated Cells	
<b>Key Values</b>	<b>Target</b>	<b>Actual</b>	<b>Reference %</b>
<b>T.1 Lifetime Carbon</b>	<b>10.8</b>	<b>10.9</b>	N/A
<b>T.2 Annual Carbon</b>	<b>4.7</b>	<b>4.8</b>	31.7%
<b>T.3 TEUI</b>	<b>92.5</b>	<b>93.1</b>	73.4%
B.1 Major Occupancy	A - Assembly	L.1 Ontario Location	Alexandria
S.1 Reference Standard	NECB 26 T1	D.1 Reporting Period & Service Life	2022 50 yrs
S.2 Actual (Bills) or Targeted (Design) Use	Utility Bills	B.2 Project Name	Three Feathers Terrace
S.3 Carbon Benchmarking Standard	Self Reported	S.4 Embodied Carbon Target	306.00 kgCO <sub>2</sub> e/m <sup>2</sup>
O.1 Occupants per Building	126	B.3 Conditioned Area (Net)	1427.2 m <sup>2</sup>
C.1 Carbon Tax Rate			\$ 65.00 /MTCO <sub>2</sub> e
			\$ 437.58 /yr OpEx
			\$22,478.09 /Embodied
<b>T.4 TEUI</b>	<b>ACTUAL ENERGY (Utility Bills)</b>	<b>ACTUAL EMISSIONS (NET kWh, kgCO<sub>2</sub>/yr)</b>	<b>TARGET ENERGY (Design)</b>
T.3.1 Total Electricity Use	132,938.00 kWh/yr	132,938.00 6,779.84	132,000.02 kWh/yr
T.3.2 Total Fossil Gas Use	0.00 m <sup>3</sup> /yr	0.00 0.00	0.00 m <sup>3</sup> /yr
T.3.3 Total Propane Use	0.00 kg/yr	0.00 0.00	0.00 kg/yr
T.3.4 Total Oil Use	0.00 litres/yr	0.00 0.00	0.00 litres/yr
T.3.4 Total Wood Use	0.00 m <sup>3</sup> /yr	0.00 0.00	0.00 m <sup>3</sup> /yr
G.2 Operational GHGI		6,779.84	6,732.00
T.3.4 Total Net Energy	478.58 GJ/yr		475.20 GJ/yr
T.3.4 Annual Per capita Energy	1,055.06 kWh Actual	3.80 GJ Actual	1,047.62 kWh Target
T.3.5 Primary Energy (Ontario Electricity)	132,938.00 kWh/yr	93.15 kWh/m <sup>2</sup> /yr	1.0 PER Factor
E.1 GHGI Operatively	6.73 MT CO <sub>2</sub> e/yr	4.72 kgCO <sub>2</sub> e/m <sup>2</sup>	235.85 kgCO <sub>2</sub> e/m <sup>2</sup> /Service Life
E.2 Embedded Carbon Intensity (A1-3)	Use Your Own Value	306.00 User-Def.	306.00 Calc'd Value kgCO <sub>2</sub> e/m <sup>2</sup>
E.3 Embedded Carbon Emitted (A1-3)	345.82 MT CO <sub>2</sub> e		306.00 Target Value kgCO <sub>2</sub> e/m <sup>2</sup>
E.4 Onsite Energy Production	0.00 kWh/yr	E.9 Offsite Renewable (REC's)	0.00 kWh/yr
E.5 Photovoltaics	0.00 kWh/yr	E.10 WWS Electricity	0.00 kWh/yr
E.6 Wind	0.00 kWh/yr	E.11 Green Natural Gas	0.00 m <sup>3</sup>
E.7 Remove EV Charging from TEUI	0.00 kWh/yr		0.00 ekWh/yr
E.8 Reserved (other removals)	0.00 kWh/yr		
<b>Water Use</b>			
W.1 Daily Water Use (determines DHW load)	275.00 lpp/day	12,647.250 litres/yr	5,000.00 kWh/yr DHW Demand
W.2 DHW Demand	5,000.00 kWh/yr	3.57 kWh/m <sup>2</sup> /yr	5,000.00 kWh/yr (when Mech. Engineer Defined)
W.3 DHW or SHW Energy Source	Electric		0.00 ekWh/yr Net
W.4 DHW or SHW Efficiency Factor (EF)	98%	0.98 COPdhw	5,102.04 kWh/m <sup>2</sup> /yr Net
W.5 Drain Water Heat Recovery Efficiency	0%		0% kWh/yr DHWR energy recovered
<b>A.1 Indoor Air Quality</b>	<b>Targeted</b>	<b>Limits</b>	<b>% per Health Canada/NBC</b>
A.2 Radon (annual avg.)	50 Bq/m <sup>3</sup>	150 Bq/m <sup>3</sup>	33%
A.3 CO <sub>2</sub> (annual avg.)	550 ppm	1000 ppm	55%
A.4 TVOC (annual avg.)	100 ppm	400 ppm	25%
A.5 Rel. Humidity (annual avg.)	45 %	30-60 %	45%
<b>A.6 Atmospheric Offsets</b>	0 MT/yr CO <sub>2</sub> e		
<b>Climate Calculations</b>		<b>Future Weather</b>	
L.2.1 Heating Degree Days (HDD)	4600 °C	No Use 2021-2050 Value	Zone 6
L.3.1 Cooling Degree Days (CDD)	196 °C	No Use 2021-2050 Value	HDD Reference Lookup
L.2.2 Ground Facing GF HDD	1960 °C	L.3.2 GF CDD	1800 °C
L.4 Coldest Days (Location Specific)	-24 °C		CDD Reference Lookup
L.5 Hottest Days (Location Specific)	30 °C	L.6 Number of Days in Cooling Season (Affected by Climate Change)	
B.1.1 Thermostat Setpoint Heating	18 °C	66 °F	
B.1.2 Thermostat Setpoint Cooling	25 °C	80 °F	
<b>Envelope Components (User Inputs)</b>			
	<b>Area m<sup>2</sup></b>	<b>Rimp #/F-hr/Btu</b>	<b>RSI Km<sup>2</sup>/W</b>
B.4 Roof	1,411.52	53.09	0.35
B.5 Walls Above Grade (Exclude Openings)	425.53	37.99	6.69
B.6 Floor Exposed	0.00	54.05	0.52
B.7 Doors	10.00	6.31	1.11
B.8.1 Window Area North	232.50	6.31	1.11
B.8.2 Window Area East	0.00	6.31	1.11
B.8.3 Window Area South	0.00	6.31	1.11
B.8.4 Window Area West	0.00	6.31	1.11
B.9 Walls Below Grade (Conditioned)	0.00	22.71	4.00
B.10 Floor Slab - Heated/Conditioned	1,100.42	21.01	3.70
B.11 Interior Floors (incl. garages)	29.70		
<b>Envelope Totals</b>	<b>3,179.97</b>	<b>20.81</b>	<b>100%</b>
<b>T.5.1 Building U-Value Combined Total</b>	<b>0.241 W/m<sup>2</sup>-K</b>		<b>124%</b>
T.5.2 Building U-Value Avg for Ae	0.219 W/m <sup>2</sup> -K		
T.5.3 Building U-Value Avg for Ag	0.284 W/m <sup>2</sup> -K		
B.12 Window-Wall Ratio (WWR)	36.30%		
B.13.1 Thermal Bridge Penalty (min. 5-70%)	5%	3,088.69 kWh/yr	B.13.2 TB Penalty Impact kWh (-Heating, Cooling->)
B.14 Total Conditioned Volume	8,000.00 m <sup>3</sup>		219.40 kWh/yr
B.3.1 Total Floor Area	1,130.12 hsm		
B.15 Total Area Exposed to Ground (Ag)	1,100.42 m <sup>2</sup>		
B.16 Total Area Exposed to Air (Ae)	2,079.55 m <sup>2</sup>		
B.17 Total Cond. Area to Vol. Ratio	0.14		
B.18 Surf. to Vol. Ratio (V/A) or SV Ratio	0.26		
B.19.1 Air-Leakage Target per NBC	Measured		
B.19.2 NRL <sub>50</sub> Target per NBC 2025	1.60 L/s/m <sup>2</sup>		94%
B.19.3 ACH 50 Target	1.50 ACH 50Pa		167%
B.19.4 ACH 50 if Measured	1.50		
B.19.5 Heating Natural Air Leakage Heatloss	24,069.19 kWh	16.86 kWh/m <sup>2</sup> /yr	Zone 2
B.19.6 Cooling Natural Air Leakage Heatgain	1,025.56 kWh	0.72 kWh/m <sup>2</sup> /yr	Stories 1
B.19.7 Ae <sub>10</sub> or ELA <sub>10</sub>	3,333 m <sup>2</sup>	18.5 B.19.5.1 n-Factor	Shielding Normal
<b>Gains less Losses (Calculated)</b>	<b>Subtotals</b>	<b>Intensity</b>	<b>OBC/NBC/NECB</b>
G.1.0 Annual Occupant Gains	64,569.96 kWh/yr	45.24 kWh/m <sup>2</sup> /yr	
G.1.1 Occupant Gains (Heating Season)	43,341.48 kWh/yr	30.37 kWh/m <sup>2</sup> /yr	
G.1.2 Occupant Gains (Cooling Season)	21,228.48 kWh/yr	14.87 kWh/m <sup>2</sup> /yr	
G.2.1 Solar Gains (Heating Season) Intensity	50.00 kWh/m <sup>2</sup> /yr		Mid-wall placement self-shading and 40% DST and 92% TST Assumed
G.2.2 Solar Gains (Cooling Season) Intensity	80.00 kWh/m <sup>2</sup> /yr		Mid-wall placement self-shading and 40% DST and 92% TST Assumed
G.2.3 Solar Gains (Heating Avg. Method)	12,125.00 kWh/yr	8.50 kWh/m <sup>2</sup> /yr	
G.2.4 Solar Gains (Heating by Orientation)	232.50 kWh/yr	0.16 kWh/m <sup>2</sup> /yr	
G.2.5 Solar Gains (Cooling Avg. Method)	3,880.00 kWh/yr	2.72 kWh/m <sup>2</sup> /yr	
G.2.6 Solar Gains Shading (Cooling)	80.00%	G.2.7 Solar Gains Shading (Heating)	0.00%
G.3.1 Light & Equipment Gains (Heating)	56,845.57 kWh/yr	39.69 kWh/m <sup>2</sup> /yr	Can also be used when SHQC + 40% DST and 92% TST
G.3.2 Light & Equipment Gains (Cooling)	27,744.77 kWh/yr	19.44 kWh/m <sup>2</sup> /yr	
G.4.1 Gains Utilization Factor (n-Factor)	0.00% PHPP Method	49.44% PHPP Method	50.00%
G.4.2 Transience & Capacitance Factor (Cooling)			
G.4.5 Net Usable Heating Season Gains	0.00 kWh/yr	55,433.11 kWh/yr	
G.4.6 Net Usable Htg. Gains Intensity	- kWh/m <sup>2</sup> /yr	38.84 kWh/m <sup>2</sup> /yr	
G.5 Net Unusable Htg. Gains (PHPP Method)	112,112.05 kWh/m <sup>2</sup> /yr	78.55 kWh/m <sup>2</sup> /yr	
<b>Mechanical Loads (Calculated)</b>	<b>Subtotals</b>	<b>Intensity</b>	
M.2.1 Heatpump for Heating	Yes	14 HSPF	4.19 COPheat
M.2.2 Heating System Demand	28,507.99 kWh/yr	19.97 kWh/m <sup>2</sup> /yr	88,465.01 kWh/yr from Sink
M.3.1 Heatpump for Cooling	Yes		3.19 COPcool
M.3.2 Heatpump Cool Elect. Load	13,999.65 kWh/yr	9.81 kWh/m <sup>2</sup> /yr	28,443.59 kWh/yr from Sink
M.4 HRV/ERV/MVHR Efficiency (SRE)	80%	No M.4.1 Demand-based Ventilation (per P.1.2.)	
V.1.1 Constant Ventilation Rate	8.33 l/s	17.65 cfm	29.99 m <sup>3</sup> /hr
V.2 Ventilation * Occupants	1,049.58 l/s		2223.93 cfm
V.3.1 Heating Season Ventil. Energy	140,207.09 kWh/yr	V.5 FC Limit	14,630.55 kWh
V.3.4 Heating Season Ventil. Recovered	112,165.68 kWh/yr		3778.49 m <sup>3</sup> /hr
V.3.5 Net Heating Season Ventilation Losses	28,041.42 kWh/yr		19.65 kWh/m <sup>2</sup> /yr
V.4.1 Incoming Cooling Season Ventil. Energy	8,363.66 kWh/yr	140%	V.4.2 Latent Load Multiplier (140% for Southern Ontario)
V.4.3 Outgoing Cooling Season Ventil. Energy	6,690.93 kWh/yr		1.17 kWh/m <sup>2</sup> /yr added to cooling load M.3.2
V.5 Ventilation Free Cooling/Venting Capacity	25%	14,630.55 kWh/yr	-1 Days Active Cooling is Required
<b>Enclosure TEDI (component surfaces)</b>	<b>Subtotals</b>	<b>Intensity</b>	
T.6.1 HEDI Ae	50,172.68 kWh/yr	24.13 kWh/m <sup>2</sup> /yr	Rate at which Ae surfaces transmit energy to Air
T.6.2 HEDI Ag	14,689.71 kWh/yr	13.35 kWh/m <sup>2</sup> /yr	Rate at which Ag surfaces transmit energy to Ground
T.6.3 TEDI (Ae + Ag)	64,862.39 kWh/yr		T.6.1 + T.6.2
T.7.1 CEDI Ae	2,137.79 kWh/yr	1.03 kWh/m <sup>2</sup> /yr	Rate at which Ae surfaces transmit energy to Air
T.7.2 CEDI Ag	13,490.55 kWh/yr	12.26 kWh/m <sup>2</sup> /yr	Does not participate in cooling calcs
T.6.4 TEDI Enclosure/B.3 Cond. Area		45.45 kWh/m <sup>2</sup> /yr	Enclosure TEDI divided by Conditioned Area
T.7.3 CEDI (Ae + Ag) Capacitance Method	-4,388.08 kWh/yr	Capacitance	10.95 kWh/m <sup>2</sup> /yr
<b>T.10 TEDI Targeted (whole Building)</b>	<b>116,973.00 kWh/yr</b>	<b>81.96 kWh/m<sup>2</sup>/yr</b>	<b>N/A</b>
T.10.1 TEDI Envelope Only (No Ventilation)	2,139.29 kWh/yr	1.50 kWh/m <sup>2</sup> /yr	
T.10.2 CEDI Unmitigated Cooling Load	58,073.79 kWh/yr	40.69 kWh/m <sup>2</sup> /yr	
T.10.3 CEDI Cooling Load	4.65 W/m <sup>2</sup> Unmitigated	3.47 W/m <sup>2</sup> Mitigated	43,443.24 kWh/yr (after mitigation by Free Cooling)
<b>T.4 TEUI Targeted Electrical Only</b>	<b>220,465.03 kWh/yr</b>	<b>154.47 kWh/m<sup>2</sup>/yr</b>	<b>N/A</b>
T.4.1 TEUI if Heat Pump Yes/No	132,000.02 kWh/yr	92.49 kWh/m <sup>2</sup> /yr	
T.4.2 Peak Heating Load (Enclosure Only)	32.20 kW		109,882 BTU/hr
T.4.3 Peak Cooling Load (Enclosure Only)	3.83 kW	1.09 Tons-Cooling	13,081 BTU/hr
T.4.4 Max. Heating Load Intensity	22.56 W/m <sup>2</sup>	2.69 T.4.5. Mx. Cool Insty in W/m <sup>2</sup> (Enclosure Only)	
P.1.1. Scheduled Hours Occupancy/yr.	8760 hours/yr	P.1.2 Occupie	4380 hours
P.2 Plug Loads	43,758 kWh/yr		7 W/m <sup>2</sup>
P.3 Lighting Power Density	9.377 kWh/yr		1.5 W/m <sup>2</sup>
P.4.1 Equipment Loads	31,256 kWh/yr		5.00 W/m <sup>2</sup>
P.4.2 Elevator Loads	No Elevators		P.4.2 Equipment Energy Spec Low Energy
P.5 Exterior Site Loads	0.00 kWh/yr		0.00 W/m <sup>2</sup>
P.6 Total Annual Plug + Light + Eqpt Loads	84,390.34 kWh/yr		59.13 kWh/m <sup>2</sup> /yr
T.4.5 Cost of Electricity	\$0.130 kWh	T.4.6 Cost of Gas	\$0.122 im <sup>3</sup>
T.4.7 Annual Cost of Electricity	\$28,660.45	pre and	\$17,160.00 post heat pump
T.4.8 Cost Premium of HP Equipment	\$8.00		0.00 Years to Amortize
T.11 TEUI Performance Gap	92.49 Targeted		93.15 Utility Bills
	99% of Utility Bills		101% of Targeted Design



# Tandem Architecture, Inc.

Completed: 2022, Montreal, Quebec



## PROJECT IN BRIEF

Meadow House near Montreal was designed as a family home for 3 under the rigorous Passive House Classic Standard. Utility Bill results confirm performance per PHPP, and TEUI3 arrived at a similar targeted TEUI value (within 1% parity). When TEUI is used to review PH compliant designs, B.13.1 TB Penalty is set to 0% as Thermal Bridges are already accounted for in the RSI and U-Values entered for assemblies. Similarly the G.4.1 value for Net-useable gains should also be set to match the PHPP method (86.79% in this case). This house relies on a relatively pure strategy of minimization of heatloss, so that heating supply can be covered almost entirely by gains. Even so, TEUI3 will show some results differently than they may appear in PHPP. Tandem took great pains to also reduce embodied carbon, which is reflected in the exceptional 120 kgCO2e/m2 metric at line E.2.

## EARLY-STAGE OPTIMIZATION STRATEGIES INCLUDED

1. Compact form, larger South windows to maximize Winter gains
2. Robust wall, roof and slab insulation (3-4x code)
3. Inclusion of wood stove for extra resilience in cold snaps and power outages
4. Simple, durable finishes and economy of form

## TARGETS VS. ACTUAL PERFORMANCE

As a 100% electric building, Meadow House shares many loads with farm-uses and EV charging, these were parsed out of the utility bill data manually to feature the building loads alone - but this can also be done within the tool at lines E.7 (EV Charging), E.8 (Other Removals) and P.5 (Site Loads). The latest version of TEUI 3.002 has many pre-sets tied to occupancy which are in this instance, accurate reflections of end-use loads (Plug/Lights/Equipment at 5/1.5/3 W/m2 respectively). These reflect pending NBC values (NBC 2025). As there is no dedicated heating system as such in this Passive House Classic project, there are also none of the costs associated with ducting, piping or fan loads of this equipment. Generally, real-world performance is a close match to PHPP and TEUI3, as is supported by energy bills. Wood consumption at less than 0.5m3/yr is unreported as it is only for special occasions and not considered necessary to meet heating demand.

## IMPROVEMENT SUGGESTIONS

TEUI could be even lower if DWHR were deployed. While water use is very low here (25l/pp-yr), resulting in an intensity of only 1.81 kWh/m2/yr, this energy remains unrecovered. Addition of a Heat Pump on such a low-load building does not model-out to be economical, since such systems generally include cooling, an HSPF 14 system would actually increase TEUI to 61.2 due to an equipment load that is not currently present, and have an ROI of >137 yrs. If cooling from the Heat Pump were not utilized, a heating-only solution could get the TEUI down to 45.8 but amortization of the equipment would still not be reasonable.

As there is no active cooling system present, no load-reduction is achieved by modelling with 100% shading in the cooling season, yet this would increase room-adjacent comfort and possibly glare.

You know your house better than me Evelynne! I don't want to 'hallucinate' any further comments here!

# TEUI 3.0 Case Study 04

Ontario Association of Architects		TEUI Calculator BETA v3.002   2024.07.16	
Ordre des architectes de l'Ontario		Bold Blue = User Input Cells Black = Calculated Cells	
<b>Key Values</b>	<b>Target</b>	<b>Actual</b>	<b>Reference %</b>
<b>T.1 Lifetime Carbon</b>	<b>6.0</b>	<b>6.0</b>	N/A
<b>T.2 Annual Carbon</b>	<b>3.6</b>	<b>3.6</b>	23.7%
<b>T.3 TEUI</b>	<b>53.2</b>	<b>53.0</b>	44.2%
B.1 Major Occupancy	C - Residential	L.1 Ontario Location	Midland
S.1 Reference Standard	PH Classic	D.1 Reporting Period & Service Life	2023 50 yrs
S.2 Actual (Bills) or Targeted (Design) Use	Utility Bills	B.2 Project Name	Meadow House
S.3 Carbon Benchmarking Standard	Self Reported	S.4 Embodied Carbon Target	120.00 kgCO2e/m2
O.1 Occupants per Building	3	B.3 Conditioned Area (Net)	151.5 m²
C.1 Carbon Tax Rate	\$ 65.00 /MTCO2e		
	\$ 35.09 /yr OpEx		
	\$1,181.70 /Embodied		
<b>T.4 TEUI</b>	<b>ACTUAL ENERGY (Utility Bills)</b>	<b>ACTUAL EMISSIONS (Design)</b>	<b>TARGETED EMISSIONS (Design)</b>
T.4.1 Total Electricity Use	8,029.50 kWh/yr	8,029.50 537.98	8,057.13 kWh/yr
T.4.2 Total Fossil Gas Use	0.00 m³/yr	0.00 0.00	0.00 0.00
T.4.3 Total Propane Use	0.00 kg/yr	0.00 0.00	0.00 0.00
T.4.4 Total Oil Use	0.00 litres/yr	0.00 0.00	0.00 0.00
T.4.5 Total Wood Use	0.00 m³/yr	0.00 0.00	0.00 0.00
G.2 Operational GHGI	28.91 GJ/yr	537.98	539.83
T.3.4 Total Net Energy	2,676.50 kWh Actual	9.64 GJ Actual	2,685.71 kWh Target
T.3.5 Primary Energy (Ontario Electricity)	8,029.50 kWh/yr	53.00 kWh/m²/yr	1.0 PER Factor
E.1 GHGI Operational/yr	0.54 MT CO2e/yr	3.56 kgCO2e/m²	178.16 kgCO2e/m² (Service Life)
E.2 Embedded Carbon Intensity (A1-3)	Use Your Own Value	120.00 User-Def.	120.00 Calc'd Value kgCO2e/m²
E.3 Embedded Carbon Emitted (A1-3)	18.18 MT CO2e		120.00 Target Value kgCO2e/m²
<b>E.4 Onsite Energy Production</b>	<b>0.00 kWh/yr</b>	<b>E.9 Offsite Renewable (REC's)</b>	<b>0.00 kWh/yr</b>
E.5 Photovoltaics	0.00 kWh/yr	E.10 WWS Electricity	0.00 kWh/yr
E.6 Wind	0.00 kWh/yr	E.11 Green Natural Gas	0.00 m3
E.7 Remove EV Charging from TEUI	0.00 kWh/yr		
E.8 Reserved (other removals)	0.00 kWh/yr		
<b>Water Use</b>			
W.1 Daily Water Use (determines DHW load)	25.00 lpp/day	27.375 litres/pp/yr	268.92 kWh/yr DHW Demand
M.1.1 DHW Demand	268.92 kWh/yr	1.81 kWh/m²/yr	5000.00 kWh/yr (when Mech. Engineer Defined)
M.1.2 DHW or SHW Energy Source	Electric	0.00 kWh/yr Net	- m³/yr Elect. SHW
M.1.3 Drain Water Heat Recovery Efficiency	0%	- kWh/yr DHW Recovered	M.1.4 DHW Efficiency (EF) 98.0%
<b>A.1 Indoor Air Quality</b>	<b>Targeted</b>	<b>Limits</b>	<b>% per Health Canada/NBC</b>
A.2 Radon (annual avg.)	50 Bq/m³	150 Bq/m³	33%
A.3 CO2 (annual avg.)	600 ppm	1000 ppm	60%
A.4 TVOC (annual avg.)	100 ppm	400 ppm	25%
A.5 Rel. Humidity (annual avg.)	45 %	30-60 %	45%
<b>A.6 Atmospheric Offsets</b>	<b>0 MT/yr CO2e</b>		
<b>Climate Calculations</b>		<b>Future Weather</b>	
L.2.1 Heating Degree Days (HDD)	4200 °C	No Use 2021-2050 Value	Zone 6
L.3.1 Cooling Degree Days (CDD)	500 °C	No Use 2021-2050 Value	
L.2.2 Ground Facing GF HDD	2940 °C	L.3.2 GF CDD	1800 °C
L.4 Coldest Days (Location Specific)	-24 °C		
L.5 Hottest Days (Location Specific)	29 °C	120 L.6 Number of Days in Cooling Season (Affected by Climate Change)	
B.1.1 Thermostat Setpoint Heating	22 °C	74 °F	
B.1.2 Thermostat Setpoint Cooling	25 °C	80 °F	
<b>Envelope Components (User Inputs)</b>			
B.4 Roof	109.74	130.59	23.00
B.5 Walls Above Grade (Exclude Openings)	248.82	67.00	11.80
B.6 Floor Exposed	0.00	51.10	9.00
B.7 Doors	0.00	8.74	1.54
B.8.1 Window Area North	10.48	8.74	1.54
B.8.2 Window Area East	4.34	8.74	1.54
B.8.3 Window Area South	27.75	8.74	1.54
B.8.4 Window Area West	12.05	8.74	1.54
B.9 Walls Below Grade (Conditioned)	0.00	33.22	5.85
B.10 Floor Slab - Heated/Conditioned	106.45	49.68	8.75
B.11 Interior Floors (incl. garages)	45.05		
<b>Envelope Totals</b>	<b>528.13</b>	<b>49.68</b>	<b>100%</b>
<b>T.5.1 Building U-Value Combined Total</b>	<b>0.142 W/m2-K</b>		<b>106%</b>
T.5.2 Building U-Value Avg for Ae	0.149 W/m2-K		
T.5.3 Building U-Value Avg for Ag	0.114 W/m2-K		
B.12 Window-Wall Ratio (WWR)	18.14%		121%
B.13.1 Thermal Bridge Penalty (min. 5-70%)	0%	0.00 kWh/yr	B.13.2 Thermal Bridge Penalty Impact kWh
B.14 Total Conditioned Volume	453.00 m³		
B.3.1 Total Floor Area	151.50 hsm		
B.15 Total Area Exposed to Ground (Ag)	106.45 m²		
B.16 Total Area Exposed to Air (Ae)	413.68 m²		
B.17 Total Cond. Area to Vol. Ratio	0.33		
B.18 Surf. to Vol. Ratio (V/A) or SV Ratio	0.91		
B.19.1 Air-Leakage Target per NBC	PH Classic		
B.19.2 NRL <sub>50</sub> Target per NBC 2025	0.18 L/s-m²		822%
B.19.3 ACH 50 Target	0.60 ACH 50Pa		100%
B.19.4 ACH 50 if Measured	0.60		
B.19.5 Annual Natural Air Leakage Heatloss	622.20 kWh	4.11 kWh/m²/yr	Zone 2 Stories 2 Shielding Normal
B.19.6 Ae <sub>10</sub> or ELA <sub>10</sub>	0.076 m²	14.8 B.19.5.1 n-Factor	"Naturalize" air leakage from pressure test results
<b>Gains less Losses (Calculated)</b>	<b>Subtotals</b>	<b>Intensity</b>	<b>OBC/NBC/NBCB</b>
G.1.0 Annual Occupant Gains	1,353.60 kWh/yr	8.93 kWh/m²/yr	
G.1.1 Occupant Gains (Heating Season)	705.60 kWh/yr	4.66 kWh/m²/yr	473%
G.1.2 Occupant Gains (Cooling Season)	648.00 kWh/yr	4.28 kWh/m²/yr	
G.2.1 Solar Gains (Heating Season) Intensity		50.00 kWh/m²/yr	
G.2.1 Solar Gains (Cooling Season) Intensity		80.00 kWh/m²/yr	
G.2.3 Solar Gains (Heating Avg. Method)	2,756.00 kWh/yr	18.19 kWh/m²/yr	
G.2.4 Solar Gains (Heating by Orientation)	2,617.23 kWh/yr	17.28 kWh/m²/yr	
G.2.5 Solar Gains (Cooling Avg. Method)	4,409.60 kWh/yr	29.11 kWh/m²/yr	
G.2.6 Solar Gains Physical Shading	0.00%		
G.3.1 Light & Equipment Gains (Heating)	4,231.40 kWh/yr	27.93 kWh/m²/yr	
G.3.2 Light & Equipment Gains (Cooling)	2,072.52 kWh/yr	13.68 kWh/m²/yr	
G.4.1 Gains Utilization Factor (n-Factor)	86.79% NRC Method	86.79% PHPP Method	50.00% G.4.2 Transience & Capacitance Factor (Cooling)
G.5 Net Usable Heating Season Gains	6,676.93 kWh/yr	6,676.93 kWh/yr	
G.6 Net Usable Htg. Gains Intensity	44.07 kWh/m²/yr	44.07 kWh/m²/yr	
<b>Mechanical Loads (Calculated)</b>	<b>Subtotals</b>	<b>Intensity</b>	
M.2.1 Heatpump for Heating	No	7.1 HSPF	2.08 COPheat
M.2.2 Heating System Demand	1,478.81 kWh/yr		9.76 kWh/m²/yr
M.2.1 Heatpump for Cooling	No		- kWh/yr from Sink
M.3.2 Heatpump Cool Elect. Load	0.00 kWh/yr		0.00 kWh/m²/yr
M.4 HRV/ERV/MHR Efficiency (SRE)	85%	No M.4.1 Demand-based Ventilation (per P.1.2.)	113%
V.1.1 Constant Ventilation Rate	8.33 l/s	17.65 cfm	29.99 m³/hr
V.2 Ventilation * Occupants	24.99 l/s		52.95 cfm
V.3.1 Heating Season Ventl. Energy	3,047.98 kWh/yr	V.5 FC Limit	348.35 kWh
V.3.4 Heating Season Ventl. Recovered	2,590.78 kWh/yr		
V.3.5 Net Heating Season Ventilation Losses	457.20 kWh/yr		3.02 kWh/m²/yr
V.4.1 Incoming Cooling Season Ventl. Energy	508.00 kWh/yr	140% V.4.2 Latent Load Multiplier (140% for Southern Ontario)	
V.4.3 Outgoing Cooling Season Ventl. Energy	431.80 kWh/yr		0.50 kWh/m²/yr added to cooling load M.3.2
V.5 Ventilation Free Cooling/Venting Capacity	5%		348.35 kWh/yr
<b>Enclosure TEDI (component surfaces)</b>	<b>Subtotals</b>	<b>Intensity</b>	
T.6.1 HEDI Ae	6,217.92 kWh/yr	15.03 kWh/m²	Rate at which Ae surfaces transmit energy to Air
T.6.2 HEDI Ag	858.41 kWh/yr	8.06 kWh/m²/yr	Rate at which Ag surfaces transmit energy to Ground
T.6.3 TEDI (Ae + Ag)	7,076.34 kWh/yr		T.6.1 + T.6.2
T.7.1 CEDI Ae	740.23 kWh/yr	1.79 kWh/m²	Rate at which Ae surfaces transmit energy to Air
T.7.2 CEDI Ag	525.56 kWh/yr	4.94 kWh/m²	Does not participate in cooling calc
T.6.4 TEDI Enclosure/B.3 Cond. Area	46.71 kWh/m²/yr		Enclosure TEDI divided by Conditioned Area
T.7.3 CEDI (Ae + Ag) Capacitance Method	477.45 kWh/yr	Capacitance	8.36 kWh/m²/yr
<b>T.10 TEDI Targeted (whole Building)</b>	<b>1,478.81 kWh/yr</b>	<b>9.76 kWh/m²/yr</b>	Includes V.5 Net Ventilation Losses, Excludes T.7.3 CEDI Ae
T.10.1 TEDI Envelope Only (No Ventilation)	739.96 kWh/yr	4.88 kWh/m²/yr	
T.10.2 CEDI Unmitigated Cooling Load	7,607.57 kWh/yr	50.21 kWh/m²/yr	7,259.22 kWh/yr (after mitigation by Free Cooling)
<b>T.4 TEUI Targeted Electrical Only</b>	<b>8,057.13 kWh/yr</b>	<b>53.18 kWh/m²/yr</b>	Excludes kWh of any Gas loads
T.4.1 TEUI if Heat Pump Yes/No	8,057.13 kWh/yr	53.18 kWh/m²/yr	
T.4.2 Peak Heating Load (Enclosure Only)	3.40 kW		11,592 BTU/hr
T.4.3 Peak Cooling Load (Enclosure Only)	0.30 kW	0.08 Tons-Cooling	1,008 BTU/hr
T.4.4 Max. Heating Load Intensity	22.42 W/m²	1.95 T.4.5. Mx. Cool Insty in W/m² (Enclosure Only)	45%
P.1.1. Scheduled Hours Occupancy/yr.	8760 hours/yr	P.1.2 Occupie	4380 hours
P.2 Plug Loads	3,318 kWh/yr		5 W/m²
P.3 Lighting Power Density	995 kWh/yr		1.5 W/m²
P.4.1 Equipment Loads	1,991 kWh/yr		3.00 W/m²
P.4.2 Elevator Loads	No Elevators		P.4.2 Equipment Energy Spec Low Energy
P.5 Exterior Site Loads	0.00 kWh/yr		0.00 W/m²
P.6 Total Annual Plug + Light + Eqpt Loads	6,303.92 kWh/yr		41.61 kWh/m²/yr
T.4.5 Cost of Electricity	\$0.139 /kWh	T.4.6 Cost of Gas	\$0.122 /m³
T.4.7 Annual Cost of Electricity	\$1,047.43	pre and	\$1,047.43 post heat pump
T.4.8 Cost Premium of HP Equipment	\$50,000.00		0.00 Years to Amortize
T.11 TEUI Performance Gap	53.18 Targeted		53.00 Utility Bills
	100% of Utility Bills		100% of Targeted Design





**PROJECT IN BRIEF: OTTAWA ST. APARTMENTS**

This small mixed-use renovation in Hamilton, ON features commercial uses at grade and 2-stories with 12 residential units above. The building is targeting PHIUS level performance, with RSI and Window U-values all well above OBC minimums. However as an electric building, the loads are on the higher side for a high performance MURB. Part of the reason is the TEUI3 estimated DHW use is 37.35 of the 184.6 TEUI or 20% of total building loads. INVISIJ is currently investigating whether the commercial uses are metered separately. Another factor is that the HSPF of the ASHP system is relatively low, at 6.4, resulting in a COP of only 1.88 in the heating season. Equipment with a HSPF of up to 14 is available in Ontario, which would give a COP of 4.10, which would use less than half of the current energy to heat and cool the building.

**EARLY-STAGE OPTIMIZATION STRATEGIES INCLUDED**

1. Improvement of all construction assemblies and use of high-performance, triple-glazed, thermally-broken windows
2. Use of Heat Pumps for Heating and Cooling
3. Use of ERV units for ventilation energy recovery and humidity balancing
4. 100% electric building, with low annual CO2 emissions

**TARGETS VS. ACTUAL PERFORMANCE**

As a 100% electric building, it can be difficult to parse out the respective gains and losses, but when water meter data is available this can help to isolate at least the DHW loads. The net useable gains factor of 40% was selected in this instance at the low-end of the NRC method rather than the PHPP method to better reflect real-world gains application over the heating season. Little benefit from sub-grade components (capacitance) is useful to the units above so 0% is entered for G.4.2, otherwise when all additional pre-set values for loads are used, the TEUI3 tool matches very closely with the utility bills.

**IMPROVEMENT SUGGESTIONS**

As this project is targeting an expansion, higher-efficiency ASHP units will be proposed, together with HP-based DHW units with DWHR where possible. Active thermal storage devices could also be utilized to increase the net-useable gains over the heating season and may even be utilized to reduce cooling loads.

Ontario Association of Architects		TEUI Calculator BETA v3.007   2024.07.21																																																																																																	
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B.4 Roof	215.00	44.00	7.75																																																																																																
B.5 Walls Above Grade (Exclude Openings)	534.80	26.97	4.75																																																																																																
B.6 Floor Exposed	0.00	39.75	7.00																																																																																																
B.7 Doors	12.94	3.74	0.66																																																																																																
B.8.1 Window Area North	57.27	4.37	0.77																																																																																																
B.8.2 Window Area East	0.00	4.37	0.77																																																																																																
B.8.3 Window Area South	0.00	4.37	0.77																																																																																																
B.8.4 Window Area West	0.50	4.37	0.77																																																																																																
B.9 Walls Below Grade (Conditioned)	155.00	20.00	3.52																																																																																																
B.10 Floor Slab - Heated/Conditioned	215.00	21.35	3.76																																																																																																
B.11 Interior Floors (incl. garages)	0.00																																																																																																		
<b>Envelope Totals</b>	<b>1,190.51</b>	<b>19.77</b>	<b></b>																																																																																																
<table border="1"> <tr> <th colspan="4">T.5.1 Building U-Value Combined Total</th> </tr> <tr> <td>T.5.2 Building U-Value Avg for Ae</td> <td>0.301 W/m<sup>2</sup>-K</td> <td></td> <td>101%</td> </tr> <tr> <td>T.5.3 Building U-Value Avg for Ag</td> <td>0.287 W/m<sup>2</sup>-K</td> <td></td> <td></td> </tr> <tr> <td>B.12 Window/Wall Ratio (WWR)</td> <td>11.68%</td> <td></td> <td>343%</td> </tr> <tr> <td>B.13.1 Thermal Bridge Penalty (min. 5-70%)</td> <td>5%</td> <td>1,333.14 kWh/yr</td> <td>B.13.2 TB Penalty Impact kWh (←Heating,→)</td> </tr> <tr> <td>B.14 Total Conditioned Volume</td> <td>725.64 m<sup>3</sup></td> <td></td> <td></td> </tr> <tr> <td>B.3.1 Total Floor Area</td> <td>215.00 hsm</td> <td></td> <td></td> </tr> <tr> <td>B.15 Total Area Exposed to Ground (Ag)</td> <td>370.00 m<sup>2</sup></td> <td></td> <td></td> </tr> <tr> <td>B.16 Total Area Exposed to Air (Ae)</td> <td>820.51 m<sup>2</sup></td> <td></td> <td></td> </tr> <tr> <td>B.17 Total Cond. Area to Vol. Ratio</td> <td>0.30</td> <td></td> <td></td> </tr> <tr> <td>B.18 Surf. to Vol. Ratio (V/A) or SV Ratio</td> <td>1.13</td> <td></td> <td></td> </tr> <tr> <td>B.19.1 Air-Leakage Target per NBC</td> <td>Measured</td> <td></td> <td></td> </tr> <tr> <td>B.19.2 NREL Target per NBC 2025</td> <td>0.27 L/m<sup>2</sup>/yr</td> <td></td> <td>54%</td> </tr> <tr> <td>B.19.3 ACH 50 Target</td> <td>1.10 ACH 50Pa</td> <td></td> <td>227%</td> </tr> <tr> <td>B.19.4 ACH 50 if Measured</td> <td>1.10</td> <td></td> <td></td> </tr> <tr> <td>B.19.5 Heating Natural Air Leakage Heatloss</td> <td>1,904.14 kWh</td> <td>2.25 kWh/m<sup>2</sup>/yr</td> <td>Zone 2 Stories 3 Shielding Exposed</td> </tr> <tr> <td>B.19.6 Cooling Natural Air Leakage Heatgain</td> <td>184.91 kWh</td> <td>0.22 kWh/m<sup>2</sup>/yr</td> <td></td> </tr> <tr> <td>B.19.7 Aeq of ELA10</td> <td>0.222 m<sup>2</sup></td> <td>11.7 B.19.5.1 n-Factor</td> <td>"Naturalize" air leakage from pressure test results</td> </tr> </table>				T.5.1 Building U-Value Combined Total				T.5.2 Building U-Value Avg for Ae	0.301 W/m <sup>2</sup> -K		101%	T.5.3 Building U-Value Avg for Ag	0.287 W/m <sup>2</sup> -K			B.12 Window/Wall Ratio (WWR)	11.68%		343%	B.13.1 Thermal Bridge Penalty (min. 5-70%)	5%	1,333.14 kWh/yr	B.13.2 TB Penalty Impact kWh (←Heating,→)	B.14 Total Conditioned Volume	725.64 m <sup>3</sup>			B.3.1 Total Floor Area	215.00 hsm			B.15 Total Area Exposed to Ground (Ag)	370.00 m <sup>2</sup>			B.16 Total Area Exposed to Air (Ae)	820.51 m <sup>2</sup>			B.17 Total Cond. Area to Vol. Ratio	0.30			B.18 Surf. to Vol. Ratio (V/A) or SV Ratio	1.13			B.19.1 Air-Leakage Target per NBC	Measured			B.19.2 NREL Target per NBC 2025	0.27 L/m <sup>2</sup> /yr		54%	B.19.3 ACH 50 Target	1.10 ACH 50Pa		227%	B.19.4 ACH 50 if Measured	1.10			B.19.5 Heating Natural Air Leakage Heatloss	1,904.14 kWh	2.25 kWh/m <sup>2</sup> /yr	Zone 2 Stories 3 Shielding Exposed	B.19.6 Cooling Natural Air Leakage Heatgain	184.91 kWh	0.22 kWh/m <sup>2</sup> /yr		B.19.7 Aeq of ELA10	0.222 m <sup>2</sup>	11.7 B.19.5.1 n-Factor	"Naturalize" air leakage from pressure test results																								
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PROJECT IN BRIEF: THE OAKS PHASE 1

Blurb

EARLY-STAGE OPTIMIZATION STRATEGIES INCLUDED

5. Blurbs

TARGETS VS. ACTUAL PERFORMANCE

Blurb

IMPROVEMENT SUGGESTIONS

Blurb

Key Values		Target	Actual	Reference %
<b>T.1 Lifetime Carbon</b>		12.5	12.1	N/A
<b>T.2 Annual Carbon</b>		4.5	4.1	27.1%
<b>T.3 TEUI</b>		87.6	79.6	62.7%

Category	Value	Unit	Notes
B.1 Major Occupancy	C - Residential	L.1 Ontario Location	Hamilton (Above Escarpment)
S.1 Reference Standard	NECB 26 T1	D.1 Reporting Period & Service Life	2022 50 yrs
S.2 Actual (Bills) or Targeted (Design) Use	Utility Bills	B.2 Project Name	Blossom Park
S.3 Carbon Benchmarking Standard	Not Reported	S.4 Embodied Carbon Target	N/A kgCO2e/m2
O.1 Occupants per Building	281	B.3 Conditioned Area (Net)	5917 m2

T.4 TEUI	ACTUAL ENERGY (Utility Bills)	ACTUAL EMISSIONS (NET kWh kgCO2/yr)	TARGET ENERGY (Design)	TARGETED EMISSIONS (NET kWh kgCO2/yr)	EMISSION FACTORS (per Reporting Period/FAF)
T.3.1 Total Electricity Use	567,186.80 kWh/yr	471,066.63 24,024.40	614,268.27 kWh/yr	518,148.10 26,425.55	51.00 gCO2e/kWh
T.3.2 Total Fossil Gas Use	0.00 m3/yr	0.00 0.00	0.00 m3/yr	0.00 0.00	1,921.00 gCO2e/m3
T.3.3 Total Propane Use	0.00 kg/yr	0.00 0.00	0.00 kg/yr	0.00 0.00	2,970.00 gCO2e/kg
T.3.4 Total Oil Use	0.00 litres/yr	0.00 0.00	0.00 litres/yr	0.00 0.00	2,753.00 gCO2e/litre
T.3.4 Total Wood Use	0.00 m3/yr	0.00 0.00	0.00 m3/yr	0.00 0.00	150.00 kgCO2e/m3
E.2 Operational GHG (kgCO2/yr)		24,024.40		26,425.55	
T.3.4 Total Net Energy	1,349.81 GJ/yr		1,519.30 GJ/yr		26,425.55
T.3.4 Annual Percapita Energy	1,676.39 kWh/Actual	4.80 GJ/Actual	1,843.94 kWh/Target	5.41 GJ/Target	
T.3.5 Primary Energy (Ontario Electricity)	471,066.63 kWh/yr	79.61 kWh/m2/yr	1.0 PER Factor		40%

E.4 GHGI Operational/yr	Value	Unit	Notes
E.2 Embedded Carbon Intensity (A1-3)	26.43	MT CO2e/yr	4.47 kgCO2e/m2
E.3 Embedded Carbon Emitted (A1-3)	2806.40	MT CO2e	400.00 User-Def. kgCO2e/m2
E.4 Onsite Energy Production	96,120.17	kWh/yr	0.00 kWh/yr
E.5 Photovoltaics	96,120.17	kWh/yr	0.00 kWh/yr
E.6 Wind	0.00	kWh/yr	0.00 m3
E.7 Remove EV Charging from TEUI	0.00	kWh/yr	0.00 ekWh/yr
E.8 Reserved (other removals)	0.00	kWh/yr	

Water Use	Value	Unit	Notes
W.1 Daily Water Use (determines DHW load)	275.00	lippi/day	28,205,375 litres/pplyr
W.2 DHW Demand	277,081.67	kWh/yr	47.78 kWh/m2/yr
W.3 DHW or SHW Energy Source	Electric		5000.00 kWh/yr (when Mech. Engineer Defined)
W.4 DHW or SHW Efficiency Factor (EF)	98%		0.98 COPdhw
W.5 Drain Water Heat Recovery Efficiency	0%		282,736.40 kWh/m2/yr Net

A.1 Indoor Air Quality	Targeted	Limits	% per Health Canada/NBC
A.2 Radon (annual avg.)	50	Bq/m3	150 Bq/m3
A.3 CO2 (annual avg.)	550	ppm	1000 ppm
A.4 TVOC (annual avg.)	100	ppm	400 ppm
A.5 Rel. Humidity (annual avg.)	45 %	%	30-60 %

Climate Calculations	Value	Future Weather
L.2.1 Heating Degree Days (HDD)	3460 °C	No Use 2021-2050 Value
L.3.1 Cooling Degree Days (CDD)	336 °C	No Use 2021-2050 Value
L.2.2 Ground Facing GF HDD	2940 °C	L.3.2 GF CDD 1800 °C
L.4 Coldest Days (Location Specific)	-17 °C	
L.5 Hottest Days (Location Specific)	31 °C	120 L.6 Number of Days in Cooling Season (Affected by Climate Change)
B.1.1 Thermostat Setpoint Heating	22 °C	74 °F
B.1.2 Thermostat Setpoint Cooling	25 °C	80 °F

Envelope Components (User Inputs)	Area m2	Rimp R/Factor/BU	RSI K-m2/W	U-Value W/m2-K	% of Ae & Ag	Heatloss kWh/yr	Heatloss %	Heatgain kWh/yr	Heatgain %	Reference
B.4 Roof	1,590.00	43.10	7.59	0.132	23.35%	17,395.73	10.00%	1,689.34	147.38%	105%
B.5 Walls Above Grade (Exclude Openings)	3,405.00	28.28	4.98	0.201	50.00%	56,777.35	32.65%	5,513.64	481.01%	120%
B.6 Floor Exposed	1,358.00	42.98	7.57	0.132	19.94%	14,896.74	8.57%	1,446.62	126.20%	139%
B.7 Doors	25.88	3.40	0.60	1.670	0.38%	3,588.96	2.06%	348.52	30.41%	114%
B.8.1 Window Area North	430.40	5.57	0.98	1.020	6.32%	36,455.22	20.97%	3,540.16	308.85%	170%
B.8.2 Window Area East	0.00	5.57	0.98	1.020	0.00%	0.00	0.00%	0.00	0.00%	170%
B.8.3 Window Area South	0.00	5.57	0.98	1.020	0.00%	0.00	0.00%	0.00	0.00%	170%
B.8.4 Window Area West	0.50	5.57	0.98	1.020	0.01%	42.35	0.02%	4.11	0.36%	170%
B.9 Walls Below Grade (Conditioned)	864.00	25.38	4.47	0.224	35.21%	13,638.44	7.84%	-4,175.03	-364.23%	127%
B.10 Floor Slab - Heated/Conditioned	1,590.00	20.50	3.61	0.277	64.79%	31,077.67	17.87%	-9,513.57	-829.97%	273%
B.11 Interior Floors (incl. garages)	4,068.00									
<b>Envelope Totals</b>	<b>9,263.78</b>	<b>20.94</b>			<b>100%</b>	<b>173,872.47</b>	<b>100%</b>	<b>-1,146.26</b>	<b>100%</b>	

T.5.1 Building U-Value Combined Total	Value	Reference
T.5.2 Building U-Value Avg for Ae	0.248 W/m2-K	0.248 W/m2-K
T.5.3 Building U-Value Avg for Ag	0.271 W/m2-K	
B.12 Window/Wall Ratio (WWR)	11.83%	
B.13.1 Thermal Bridge Penalty (min. 5-70%)	5%	8,693.62 kWh/yr
B.14 Total Conditioned Volume	16,460.00	m3
B.3.1 Total Floor Area	7,016.00	hsm
B.15 Total Area Exposed to Ground (Ag)	2,454.00	m2
B.16 Total Area Exposed to Air (Ae)	6,809.78	m2
B.17 Total Cond. Area to Vol. Ratio	0.43	
B.18 Surf. to Vol. Ratio (V/A) or SV Ratio	0.41	
B.19.1 Air-Leakage Target per NBC	PH Low	
B.19.2 NRL50 Target per NBC 2025	0.67 L/s-m2	
B.19.3 ACH 50 Target	1.00 ACH 50Pa	
B.19.4 ACH 50 if Measured	1.00	
B.19.5 Heating Natural Air Leakage Heatloss	60,448.63 kWh	10.22 kWh/m2/yr
B.19.6 Cooling Natural Air Leakage Heatgain	5,870.16 kWh	0.99 kWh/m2/yr
B.19.7 Ae50 or ELA50	4.572 m2	7.6 B.19.5.1 n-Factor

Gains Losses (Calculated)	Subtotals	Intensity	OBC/NBC/NECB
G.1.0 Annual Occupant Gains	144,001.26 kWh/yr	24.34 kWh/m2/yr	
G.1.1 Occupant Gains (Heating Season)	96,658.38 kWh/yr	16.34 kWh/m2/yr	
G.1.2 Occupant Gains (Cooling Season)	47,342.88 kWh/yr	8.00 kWh/m2/yr	
G.2.1 Solar Gains (Heating Season) Intensity		50.00 kWh/m2/yr	Mid-wall placement self-shading and 40% DST and 52% TST Assumed
G.2.1 Solar Gains (Cooling Season) Intensity		80.00 kWh/m2/yr	Mid-wall placement self-shading and 40% DST and 52% TST Assumed
G.2.3 Solar Gains (Heating Avg. Method)	22,839.00 kWh/yr	3.86 kWh/m2/yr	
G.2.4 Solar Gains (Heating by Orientation)	442.90 kWh/yr	0.07 kWh/m2/yr	
G.2.5 Solar Gains (Cooling Avg. Method)	25,579.68 kWh/yr	4.32 kWh/m2/yr	
G.2.6 Solar Gains Shading (Cooling)	30.00%	G.2.7 Solar Gains Shading (Heating) 0.00%	Can also be used when SHGC +40% DST and 52% TST
G.3.1 Light & Equipment Gains (Heating)	182,657.79 kWh/yr	30.87 kWh/m2/yr	
G.3.2 Light & Equipment Gains (Cooling)	89,465.04 kWh/yr	15.12 kWh/m2/yr	
G.4.1 Gains Utilization Factor (n-Factor)	80.32% NRC Method	80.32% PHPP Method	50.00% G.4.2 Transience & Capacitance Factor (Cooling)
G.4.5 Net Usable Heating Season Gains	242,685.48 kWh/yr	242,685.48 kWh/yr	
G.4.6 Net Usable Htg. Gains Intensity	41.01 kWh/m2/yr	41.01 kWh/m2/yr	
G.5 Net Usable Htg. Gains (PHPP Method)	59,469.69 kWh/m2/yr	10.05 kWh/m2/yr	

Mechanical Loads (Calculated)	Subtotals	Intensity
M.2.1 Heatpump for Heating	Yes 14 HSPF	4.10 COPHeat
M.2.2 Heating System Demand	5,812.22 kWh/yr	0.98 kWh/m2/yr
M.3.1 Heatpump for Cooling	Yes	3.10 COPcool
M.3.2 Heatpump Cool Elect. Load	53,596.82 kWh/yr	9.06 kWh/m2/yr
M.4 HRV/ERV/MVHR Efficiency (SRE)	90%	No M.4.1 Demand-based Ventilation (per P.1.2.)
V.1.1 Constant Ventilation Rate	8.33 l/s	17.65 cfm
V.2 Ventilation * Occupants	2,340.73 l/s	4959.73 cfm
V.3.1 Heating Season Ventil. Energy	235,192.81 kWh/yr	42,416.98 kWh
V.3.4 Heating Season Ventil. Recovered	211,673.52 kWh/yr	
V.3.5 Net Heating Season Ventilation Losses	23,519.28 kWh/yr	3.97 kWh/m2/yr
V.4.1 Incoming Cooling Season Ventil. Energy	41,567.95 kWh/yr	140% V.4.2 Latent Load Multiplier (140% for Southern Ontario)
V.4.3 Outgoing Cooling Season Ventil. Energy	37,411.15 kWh/yr	0.70 kWh/m2/yr added to cooling load M.3.2
V.5 Ventilation Free Cooling/Venting Capacity	20%	42,416.98 kWh/yr

Enclosure TEDI (component surfaces)	Subtotals	Intensity
T.6.1 HEDI Ae	135,614.17 kWh/yr	19.91 kWh/m2
T.6.2 HEDI Ag	46,951.92 kWh/yr	19.13 kWh/m2/yr
T.6.3 TEDI (Ae + Ag)	182,566.09 kWh/yr	
T.7.1 CEDI Ae	13,169.47 kWh/yr	1.93 kWh/m2
T.7.2 CEDI Ag	28,746.07 kWh/yr	11.71 kWh/m2
T.6.4 TEDI Enclosure/B.3 Cond. Area		30.85 kWh/m2/yr
T.7.3 CEDI (Ae + Ag) Capacitance Method	-1,146.26 kWh/yr	Capacitance 7.08 kWh/m2/yr

T.10 TEDI Targeted (whole Building)	Value	Reference
T.10.1 TEDI Envelope Only (No Ventilation)	13,169.47 kWh/yr	2.23 kWh/m2/yr
T.10.2 CEDI Unmitigated Cooling Load	208,736.76 kWh/yr	35.28 kWh/m2/yr
T.10.3 CEDI Cooling Load	4.03 W/m2 Unmitigated	3.21 W/m2 Mitigated

T.4 TEUI Targeted Electrical Only	Value	Reference
T.4.1 TEUI if Heat Pump Yes/No	632,304.57 kWh/yr	106.86 kWh/m2/yr
T.4.2 Peak Heating Load (Enclosure Only)	89.64 kW	305.874 BTU/hr
T.4.3 Peak Cooling Load (Enclosure Only)	137.9 kW	3.92 Tons-Cooling
T.4.4 Max. Heating Load Intensity	15.15 W/m2	2.33 T.4.5. Mx. Cool Intsly in W/m2 (Enclosure Only)
P.1.1. Scheduled Hours Occupancy/yr.	8760 hours/yr	P.1.2 Occupie 4380 hours
P.2 Plug Loads	129,582 kWh/yr	5 W/m2
P.3 Lighting Power Density	38,875 kWh/yr	1.5 W/m2
P.4.1 Equipment Loads	103,666 kWh/yr	4.00 W/m2
P.4.2 Elevator Loads	Elevators	P.4.2 Equipment Energy Spec Low Energy
P.5 Exterior Site Loads	0.00 kWh/yr	0.00 W/m2
P.6 Total Annual Plug + Light + Eqpt Loads	272,122.83 kWh/yr	45.99 kWh/m2/yr
T.4.5 Cost of Electricity	\$0.139 kWh	T.4.6 Cost of Gas \$0.122 m3
T.4.7 Annual Cost of Electricity	\$82,199.59	pre and \$79,854.88 post heat pump
T.4.8 Cost Premium of HP Equipment	\$50,000.00	21.32 Years to Amortize
T.11 TEUI Performance Gap	87.57 Targeted	79.61 Utility Bills

Summary Metrics	Value	Reference
110% of Utility Bills		91% of Targeted Design

# Invisij Architecture, Inc.

Completed: 2022, Hamilton, Ontario



## PROJECT IN BRIEF: BLOSSOM PARK

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## EARLY-STAGE OPTIMIZATION STRATEGIES INCLUDED

6. Blurbs

## TARGETS VS. ACTUAL PERFORMANCE

Blurb

## IMPROVEMENT SUGGESTIONS

Blurb

# TEUI 3.0 Case Study 07

Ontario Association of Architects		TEUI Calculator BETA v3.007   2024.07.21																										
Ordre des architectes de l'Ontario		Bold Blue = User Input Cells Black = Calculated Cells																										
<b>Key Values</b>		<b>Target</b>	<b>Actual</b>																									
<b>T.1 Lifetime Carbon</b>	191,523.78 kgCO <sub>2</sub> e/m <sup>2</sup>	21.9	20.8																									
<b>T.2 Annual Carbon</b>	11,451.00 kgCO <sub>2</sub> e/m <sup>2</sup>	13.9	12.8																									
<b>T.3 TEUI</b>	103.2	103.2	103.2																									
<table border="1"> <tr> <td>B.1 Major Occupancy</td> <td>C - Residential</td> <td>L.1 Ontario Location</td> <td>Woodstock</td> <td>C.1 Carbon Tax Rate</td> </tr> <tr> <td>S.1 Reference Standard</td> <td>NECB Z6 T1</td> <td>D.1 Reporting Period &amp; Service Life</td> <td>2023 50 yrs</td> <td>\$ 65.00 /MTCO<sub>2</sub>e</td> </tr> <tr> <td>S.2 Actual (Bills) or Targeted (Design) Use</td> <td>Utility Bills</td> <td>B.2 Project Name</td> <td>Blossom Park</td> <td>\$ 2,157.78 /yr OpEx</td> </tr> <tr> <td>S.3 Carbon Benchmarking Standard</td> <td>Not Reported</td> <td>S.4 Embodied Carbon Target</td> <td>N/A</td> <td>\$62,036.00 /Embodied</td> </tr> <tr> <td>O.1 Occupants per Building</td> <td>118</td> <td>B.3 Conditioned Area (Net)</td> <td>2386 m<sup>2</sup></td> <td></td> </tr> </table>				B.1 Major Occupancy	C - Residential	L.1 Ontario Location	Woodstock	C.1 Carbon Tax Rate	S.1 Reference Standard	NECB Z6 T1	D.1 Reporting Period & Service Life	2023 50 yrs	\$ 65.00 /MTCO <sub>2</sub> e	S.2 Actual (Bills) or Targeted (Design) Use	Utility Bills	B.2 Project Name	Blossom Park	\$ 2,157.78 /yr OpEx	S.3 Carbon Benchmarking Standard	Not Reported	S.4 Embodied Carbon Target	N/A	\$62,036.00 /Embodied	O.1 Occupants per Building	118	B.3 Conditioned Area (Net)	2386 m <sup>2</sup>	
B.1 Major Occupancy	C - Residential	L.1 Ontario Location	Woodstock	C.1 Carbon Tax Rate																								
S.1 Reference Standard	NECB Z6 T1	D.1 Reporting Period & Service Life	2023 50 yrs	\$ 65.00 /MTCO <sub>2</sub> e																								
S.2 Actual (Bills) or Targeted (Design) Use	Utility Bills	B.2 Project Name	Blossom Park	\$ 2,157.78 /yr OpEx																								
S.3 Carbon Benchmarking Standard	Not Reported	S.4 Embodied Carbon Target	N/A	\$62,036.00 /Embodied																								
O.1 Occupants per Building	118	B.3 Conditioned Area (Net)	2386 m <sup>2</sup>																									
<b>T.4 TEUI</b>	<b>ACTUAL ENERGY</b> (Utility Bills)	<b>ACTUAL EMISSIONS</b> (NET eWh kgCO <sub>2</sub> e/yr)	<b>TARGET ENERGY</b> (Design)	<b>TARGETED EMISSIONS</b> (NET eWh kgCO <sub>2</sub> e/yr)	<b>EMISSION FACTORS</b> (per Reporting Period/TAF)																							
T.3.1 Total Electricity Use	191,523.78 kWh/yr	127,497.78 8,542.35	169,217.63 kWh/yr	105,191.63 7,047.84	67.00 gCO <sub>2</sub> e/kWh																							
T.3.2 Total Fossil Gas Use	11,451.00 m <sup>3</sup> /yr	118,645.09 21,997.37	13,612.04 m <sup>3</sup> /yr	141,035.86 26,148.73	1,921.00 gCO <sub>2</sub> e/m <sup>3</sup>																							
T.3.3 Total Propane Use	0.00 kg/yr	0.00 0.00	0.00 kg/yr	0.00 0.00	2,970.00 gCO <sub>2</sub> e/kg																							
T.3.4 Total Oil Use	0.00 litres/yr	0.00 0.00	0.00 litres/yr	0.00 0.00	2,753.00 gCO <sub>2</sub> e/litre																							
T.3.4 Total Wood Use	0.00 m <sup>3</sup> /yr	0.00 0.00	0.00 m <sup>3</sup> /yr	0.00 0.00	150.00 kgCO <sub>2</sub> e/m <sup>3</sup>																							
E.2 Operational GHG (kgCO <sub>2</sub> e/yr)		30,539.72		33,196.57																								
T.3.4 Total Net Energy	655.62 GJ/yr		655.93 GJ/yr		33,196.57																							
T.3.4 Annual Per Capita Energy	2,085.96 kWh/Actual	5.56 GJ/Actual	2,086.67 kWh/Target	5.56 GJ/Target																								
T.3.5 Primary Energy (Ontario Electricity)	127,497.78 kWh/yr	53.44 kWh/m <sup>2</sup> /yr	1.0 PER Factor		27%																							
E.1 GHGI Operational/yr	33.20 MT CO <sub>2</sub> e/yr	13.91 kgCO <sub>2</sub> e/m <sup>2</sup>		695.65 kgCO <sub>2</sub> e/m <sup>2</sup> /Service Life	23%																							
E.2 Embedded Carbon Intensity (A1-3)	Use Your Own Value	400.00 User-Def.	kgCO <sub>2</sub> e/m <sup>2</sup>	400.00 Calc'd Value kgCO <sub>2</sub> e/m <sup>2</sup>	N/A																							
E.3 Embedded Carbon Emitted (A1-3)	954.40 MT CO <sub>2</sub> e			N/A Target Value kgCO <sub>2</sub> e/m <sup>2</sup>																								
<b>E.4 Onsite Energy Production</b>	64,026.00 kWh/yr	<b>E.9 Offsite Renewable (REC's)</b>	0.00 kWh/yr																									
E.5 Photovoltaics	64,026.00 kWh/yr	E.10 WWS Electricity	0.00 kWh/yr																									
E.6 Wind	0.00 kWh/yr	E.11 Green Natural Gas	0.00 m <sup>3</sup>	0.00 kWh/yr																								
E.7 Remove EV Charging from TEUI	0.00 kWh/yr																											
E.8 Reserved (other removals)	0.00 kWh/yr																											
<b>Water Use</b>																												
W.1 Daily Water Use (determines DHW load)	300.00 lpp/day	12,921.000 litres/pp/yr	126,932.27 kWh/yr DHW Demand		75%																							
W.2 DHW Demand	126,932.27 kWh/yr	53.20 kWh/m <sup>2</sup> /yr	5000.00 kWh/yr (when Mech. Engineer Defined)																									
W.3 DHW or SHW Energy Source	Gas	13,612.04 Gas m <sup>3</sup> /yr	126,932.27 kWh/yr Net																									
W.4 DHW or SHW Efficiency Factor (EF)	90%	0.90 COPdhw	0.00 kWh/m <sup>2</sup> /yr Net																									
W.5 Drain Water Heat Recovery Efficiency	0%		- kWh/yr DWHR energy recovered		0%																							
<b>A.1 Indoor Air Quality</b>																												
	Targeted	Limits			% per Health Canada/NBC																							
A.2 Radon (annual avg.)	50 Bq/m <sup>3</sup>	150 Bq/m <sup>3</sup>			33%																							
A.3 CO <sub>2</sub> (annual avg.)	550 ppm	1000 ppm			55%																							
A.4 TVOC (annual avg.)	100 ppm	400 ppm			25%																							
A.5 Rel. Humidity (annual avg.)	45 %	30-60 %			45%																							
<b>A.6 Atmospheric Offsets</b>																												
	0 MT/yr CO <sub>2</sub> e																											
<b>Climate Calculations</b>																												
			<b>Future Weather</b>																									
L.2.1 Heating Degree Days (HDD)	3910 °C	No Use 2021-2050 Value	Zone 5	HDD Reference Lookup	HDD - Energy Star																							
L.3.1 Cooling Degree Days (CDD)	261 °C	No Use 2021-2050 Value		CDD Reference Lookup	CDD - Energy Star																							
L.2.2 Ground Facing GF HDD	2940 °C	L.3.2 GF CDD	1800 °C																									
L.4 Coldest Days (Location Specific)	-19 °C																											
L.5 Hottest Days (Location Specific)	30 °C	120 L.6 Number of Days in Cooling Season (Affected by Climate Change)																										
B.1.1 Thermostat Setpoint Heating	22 °C	74 °F																										
B.1.2 Thermostat Setpoint Cooling	25 °C	80 °F																										
<b>Envelope Components (User Inputs)</b>																												
	Areas m <sup>2</sup>	Rimp R/F/m <sup>2</sup> U	RSI R/m <sup>2</sup> K	U-Value W/m <sup>2</sup> K	% of Ae & Ag	Heatloss kWh/yr	Heatloss %	Heatgain kWh/yr	Heatgain %	Reference																		
B.4 Roof	723.00	65.86	11.60	0.086	36.08%	5,848.82	6.90%	390.42	17.67%	160%																		
B.5 Walls Above Grade (Exclude Openings!)	1,657.00	49.57	8.73	0.115	52.74%	11,361.84	17.30%	758.42	34.33%	210%																		
B.6 Floor Exposed	0.00	54.05	9.52	0.105	0.00%	0.00	0.00%	0.00	0.00%	174%																		
B.7 Doors	8.50	6.31	1.11	0.900	0.42%	717.88	1.09%	47.92	2.17%	211%																		
B.8.1 Window Area North	215.00	7.57	1.33	0.759	10.73%	15,131.70	23.04%	1,010.07	45.72%	231%																		
B.8.2 Window Area East	0.00	7.57	1.33	0.759	0.00%	0.00	0.00%	0.00	0.00%	231%																		
B.8.3 Window Area South	0.00	7.57	1.33	0.759	0.00%	0.00	0.00%	0.00	0.00%	231%																		
B.8.4 Window Area West	0.50	7.57	1.33	0.759	0.02%	35.19	0.05%	2.35	0.11%	231%																		
B.9 Walls Below Grade (Conditioned)	373.00	41.51	7.31	0.137	34.03%	3,600.39	5.48%	0.00	0.00%	208%																		
B.10 Floor Slab - Heated/Conditioned	723.00	9.99	1.76	0.568	65.97%	28,985.73	44.13%	0.00	0.00%	133%																		
B.11 Interior Floors (incl. garages)	1,663.00	-	-	-	-	-	-	-	-	-																		
<b>Envelope Totals</b>	<b>3,100.00</b>	<b>10.37</b>			<b>100%</b>	<b>65,681.55</b>	<b>100%</b>	<b>2,209.18</b>	<b>100%</b>																			
<b>T.5.1 Building U-Value Combined Total</b>	<b>0.342 W/m<sup>2</sup>K</b>									<b>88%</b>																		
T.5.2 Building U-Value Avg for Ae	0.229 W/m <sup>2</sup> K																											
T.5.3 Building U-Value Avg for Ag	0.548 W/m <sup>2</sup> K																											
B.12 Window:Wall Ratio (WWR)	17.49%									229%																		
B.13.1 Thermal Bridge Penalty (min. 5-70%)	30%	19,704.46 kWh/yr	B.13.2 TB Penalty Impact kWh (-Heating, Cooling-)	662.76 kWh/yr																								
B.14 Total Conditioned Volume	6,440.00 m <sup>3</sup>																											
B.3.1 Total Floor Area	2,386.00 hsm																											
B.15 Total Area Exposed to Ground (Ag)	1,096.00 m <sup>2</sup>																											
B.16 Total Area Exposed to Air (Ae)	2,004.00 m <sup>2</sup>																											
B.17 Total Cond. Area to Vol. Ratio	0.37																											
B.18 Surf. to Vol. Ratio (V/A) or SV Ratio	0.31																											
B.19.1 Air-Leakage Target per NBC	PH Classic																											
B.19.2 NRC Target per NBC 2025	0.54 L/s/m <sup>2</sup>									107%																		
B.19.3 ACH 50 Target	0.60 ACH 50Pa									417%																		
B.19.4 ACH 50 If Measured	0.60																											
B.19.5 Heating Natural Air Leakage Heatloss	9,374.86 kWh	3.93 kWh/m <sup>2</sup> /yr	Zone 2	Stories 3	Shielding Normal																							
B.19.6 Cooling Natural Air Leakage Heatgain	625.79 kWh	0.26 kWh/m <sup>2</sup> /yr																										
B.19.7 Ae <sub>10</sub> or ELA <sub>10</sub>	1,073 m <sup>2</sup>		13 B.19.5.1 n-Factor																									
<b>Gains less Losses (Calculated)</b>																												
	Subtotals		Intensity							OBC/NBC/NECB																		
G.1.0 Annual Occupant Gains	60,470.28 kWh/yr		25.34 kWh/m <sup>2</sup> /yr																									
G.1.1 Occupant Gains (Heating Season)	40,589.64 kWh/yr		17.01 kWh/m <sup>2</sup> /yr																									
G.1.2 Occupant Gains (Cooling Season)	19,880.64 kWh/yr		8.33 kWh/m <sup>2</sup> /yr																									
G.2.1 Solar Gains (Heating Season) Intensity			50.00 kWh/m <sup>2</sup> /yr							Mid-wall placement self-shading and 40% DST and 52% TST Assumed																		
G.2.1 Solar Gains (Cooling Season) Intensity			80.00 kWh/m <sup>2</sup> /yr							Mid-wall placement self-shading and 40% DST and 52% TST Assumed																		
G.2.3 Solar Gains (Heating Avg. Method)	11,200.00 kWh/yr		4.69 kWh/m <sup>2</sup> /yr																									
G.2.4 Solar Gains (Heating by Orientation)	227.50 kWh/yr		0.10 kWh/m <sup>2</sup> /yr																									
G.2.5 Solar Gains (Cooling Avg. Method)	17,920.00 kWh/yr		7.51 kWh/m <sup>2</sup> /yr																									
G.2.6 Solar Gains Shading (Cooling)	0.00%		G.2.7 Solar Gains Shading (Heating)	0.00%						Can also be used when SHGC < 40% DST and 52% TST																		
G.3.1 Light & Equipment Gains (Heating)	87,685.50 kWh/yr		36.75 kWh/m <sup>2</sup> /yr																									
G.3.2 Light & Equipment Gains (Cooling)	42,948.00 kWh/yr		18.00 kWh/m <sup>2</sup> /yr																									
G.4.1 Gains Utilization Factor (n-Factor)	40.00% NRC Method	76.29% PHPP Method	0.00%	G.4.2 Transience & Capacitance Factor (Cooling)																								
G.4.5 Net Usable Heating Season Gains	55,790.06 kWh/yr		106,411.78 kWh/yr																									
G.4.6 Net Usable Htg. Gains Intensity	23.38 kWh/m <sup>2</sup> /yr		44.60 kWh/m <sup>2</sup> /yr																									
G.5 Net Unusable Htg. Gains (PHPP Method)	83,685.08 kWh/m <sup>2</sup> /yr		35.07 kWh/m <sup>2</sup> /yr																									
<b>Mechanical Loads (Calculated)</b>																												
	Subtotals		Intensity																									
M.2.1 Heatpump for Heating	Yes 14 HSPF		4.10 COPheat							219%																		
M.2.2 Heating System Demand	12,489.83 kWh/yr		5.23 kWh/m <sup>2</sup> /yr	38,758.01 kWh/yr from Sink																								
M.3.1 Heatpump for Cooling	Yes		3.10 COPcool	10.59 CEER						94%																		
M.3.2 Heatpump Cool Elect. Load	26,094.30 kWh/yr		10.94 kWh/m <sup>2</sup> /yr	54,880.63 kWh/yr from Sink						22%																		
M.4 HRV/ERV/MVHR Efficiency (SRE)	89%		No M.4.1 Demand-based Ventilation (per P.1.2.)							137%																		
V.1.1 Constant Ventilation Rate	8.33 l/s	17.65 cfm	29.99 m <sup>3</sup> /hr	V.1.2 Summer Boost Rate	None																							
V.2 Ventilation * Occupants	982.94 l/s		2082.73 cfm	3538.58 m <sup>3</sup> /hr																								
V.3.1 Heating Season Ventil. Energy	111,609.30 kWh/yr	V.5 FC Limit	13,701.62 kWh																									
V.3.4 Heating Season Ventil. Recovered	99,332.28 kWh/yr																											
V.3.5 Net Heating Season Ventilation Losses	12,277.02 kWh/yr		5.15 kWh/m <sup>2</sup> /yr																									
V.4.1 Incoming Cooling Season Ventil. Energy	10,430.19 kWh/yr		140% V.4.2 Latent Load Multiplier (140% for Southern Ontario)																									
V.4.3 Outgoing Cooling Season Ventil. Energy	9,282.87 kWh/yr		0.48 kWh/m <sup>2</sup> /yr added to cooling load M.3.2																									
V.5 Ventilation Free Cooling/Venting Capacity	14%		13,701.62 kWh/yr	12 Days Active Cooling is Required																								
<b>Enclosure TEDI (component surfaces)</b>																												
	Subtotals		Intensity																									
T.6.1 HEDI Ae	43,024.06 kWh/yr		21.47 kWh/m <sup>2</sup>							Rate at which Ae surfaces transmit energy to Air																		
T.6.2 HEDI Ag	42,361.96 kWh/yr		38.65 kWh/m <sup>2</sup> /yr							Rate at which Ag surfaces transmit energy to Ground																		
T.6.3 TEDI (Ae + Ag)	85,386.01 kWh/yr									T.6.1 + T.6.2																		
T.7.1 CEDI Ae	2,871.94 kWh/yr		1.43 kWh/m <sup>2</sup>							Rate at which Ae surfaces transmit energy to Air																		
T.7.2 CEDI Ag	25,935.89 kWh/yr		23.66 kWh/m <sup>2</sup>							Does not participate in cooling calcs																		
T.8.4 TEDI Enclosure/B.3 Cond. Area	35.79 kWh/m <sup>2</sup> /yr									Enclosure TEDI divided by Conditioned Area																		
T.7.3 CEDI (Ae + Ag) Capacitance Method	2,209.18 kWh/yr	Capacitance	12.07 kWh/m <sup>2</sup> /yr							Enclosure TEDI divided by Conditioned Area																		
<b>T.10 TEDI Targeted (whole Building)</b>	<b>51,247.84 kWh/yr</b>		<b>21.48 kWh/m<sup>2</sup>/yr</b>							Includes V.5 Net Ventilation Losses, Excludes T.7.3 CEDI Ae																		
T.10.1 TEDI Envelope Only (No Ventilation)	2,872.14 kWh/yr		1.20 kWh/m <sup>2</sup> /yr																									
T.10.2 CEDI Unmitigated Cooling Load	94,676.56 kWh/yr		39.68 kWh/m <sup>2</sup> /yr																									
T.10.3 CEDI Cooling Load	4.53 W/m <sup>2</sup> Unmitigated		3.87 W/m <sup>2</sup> Mitigated					80,974.93 kWh/yr (after mitigation by Free Cooling)																				
<b>T.4 TEUI Targeted Electrical Only</b>																												
	207,975.64 kWh/yr		87.16 kWh/m <sup>2</sup> /yr							Excludes eWh of any gas loads																		
T.4.1 TEUI If Heat Pump Yes/No	169,217.63 kWh/yr		70.92 kWh/m <sup>2</sup> /yr																									
T.4.2 Peak Heating																												



# Invisij Architecture, Inc.

Completed: 2022, Simcoe, Ontario



## PROJECT IN BRIEF: DOGWOOD STUDIOS

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## EARLY-STAGE OPTIMIZATION STRATEGIES INCLUDED

7. Blurbs

## TARGETS VS. ACTUAL PERFORMANCE

Blurb

## IMPROVEMENT SUGGESTIONS

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# TEUI 3.0 Case Study 08

Ontario Association of Architects		TEUI Calculator BETA v3.007   2024.07.21	
Ordre des architectes de l'Ontario		Bold Blue = User Input Cells Black = Calculated Cells	
<b>Key Values</b>	<b>Target</b>	<b>Actual</b>	<b>Reference %</b>
<b>T.1 Lifetime Carbon</b>	<b>13.7</b>	<b>16.1</b>	N/A
<b>T.2 Annual Carbon</b>	<b>6.7</b>	<b>9.1</b>	✓ 60.7%
<b>T.3 TEUI</b>	<b>67.0</b>	<b>104.6</b>	✓ 82.4%
B.1 Major Occupancy	C - Residential	L.1 Ontario Location	Simcoe
S.1 Reference Standard	NECB 26 T1	D.1 Reporting Period & Service Life	2023 50 yrs
S.2 Actual (Bills) or Targeted (Design) Use	Utility Bills	B.2 Project Name	Dogwood Studios
S.3 Carbon Benchmarking Standard	TGS4	S.4 Embodied Carbon Target	500.00 kgCO2e/m2
O.1 Occupants per Building	102	B.3 Conditioned Area (Net)	3267 m2
C.1 Carbon Tax Rate			\$ 1,412.49 /yr OpEx
			\$19,119.91 /Embodied
<b>T.4 TEUI</b>	<b>ACTUAL ENERGY (Utility Bills)</b>	<b>ACTUAL EMISSIONS (NET eWh kgCO2/yr)</b>	<b>TARGET ENERGY (Design)</b>
T.3.1 Total Electricity Use	345,055.00 kWh/yr	284,064.15 19,032.30	220,090.55 kWh/yr
T.3.2 Total Fossil Gas Use	5,566.00 m3/yr	57,669.95 10,692.29	5,763.10 m3/yr
T.3.3 Total Propane Use	0.00 kg/yr	0.00 0.00	0.00 kg/yr
T.3.4 Total Oil Use	0.00 litres/yr	0.00 0.00	0.00 litres/yr
T.3.4 Total Wood Use	0.00 m3/yr	0.00 0.00	0.00 m3/yr
E.2 Operational GHG (kgCO2/yr)		29,724.58	21,730.60
T.3.4 Total Net Energy	1010.68 GJ/yr		568.16 GJ/yr
T.3.4 Annual PerCapita Energy	3,350.33 kWh Actual	9.91 GJ Actual	2,145.21 kWh Target
T.3.5 Primary Energy (Ontario Electricity)	284,064.15 kWh/yr	86.95 kWh/m2/yr	1.0 PER Factor
			5.57 GJ Target
			✓ 43%
<b>E.1 GHGI Operational</b>	21.73 MT CO2e/yr	6.65 kgCO2e/m2	332.58 kgCO2e/m2 /Service Life
E.2 Embedded Carbon Intensity (A1-3)	PL9 Small Mass Timber	350.00 User-Def.	250.00 Calc'd Value kgCO2e/m2
E.3 Embedded Carbon Emitted (A1-3)	294.15 MT CO2e		500.00 Target Value kgCO2e/m2
			✓ 50%
<b>E.4 Onsite Energy Production</b>	60,990.85 kWh/yr	<b>E.9 Offsite Renewable (REC's)</b>	0.00 kWh/yr
E.5 Photovoltaics	60,990.85 kWh/yr	E.10 WWS Electricity	0.00 kWh/yr
E.6 Wind	0.00 kWh/yr	E.11 Green Natural Gas	0.00 m3
E.7 Remove EV Charging from TEUI	0.00 kWh/yr		0.00 kWh/yr
E.8 Reserved (other removals)	0.00 kWh/yr		
<b>Water Use</b>			
W.1 Daily Water Use (determines DHW load)	160.00 lpp/day	5,956.800 litres/pp/yr	58,517.93 kWh/yr DHW Demand
W.2 DHW Demand	58,517.93 kWh/yr	17.91 kWh/m2/yr	5000.00 kWh/yr (when Mech. Engineer Defined)
W.3 DHW or SHW Energy Source	Gas	5,763.10 Gas m3/yr	58,517.93 kWh/yr Net
W.4 DHW or SHW Efficiency Factor (EF)	98%	0.98 COPdhw	0.00 kWh/m2/yr Net
W.5 Drain Water Heat Recovery Efficiency	0%		- kWh/yr DWHR energy recovered
			0%
<b>A.1 Indoor Air Quality</b>	Targeted	Limits	% per Health Canada/NBC
A.2 Radon (annual avg.)	50 Bq/m3	150 Bq/m3	✓ 33%
A.3 CO2 (annual avg.)	550 ppm	1000 ppm	✓ 55%
A.4 TVOC (annual avg.)	100 ppm	400 ppm	✓ 25%
A.5 Rel. Humidity (annual avg.)	45 %	30-60 %	✓ 45%
<b>A.6 Atmospheric Offsets</b>	0 MT/yr CO2e		
<b>Climate Calculations</b>		<b>Future Weather</b>	
L.2.1 Heating Degree Days (HDD)	3781 °C	No Use 2021-2050 Value	Zone 5
L.3.1 Cooling Degree Days (CDD)	292 °C	No Use 2021-2050 Value	HDD Reference Lookup
L.2.2 Ground Facing GF HDD	2940 °C	L.3.2 GF CDD	1800 °C
L.4 Coldest Days (Location Specific)	-17 °C		
L.5 Hottest Days (Location Specific)	30 °C	L.6 Number of Days in Cooling Season (Affected by Climate Change)	
B.1.1 Thermostat Setpoint Heating	22 °C	74 °F	
B.1.2 Thermostat Setpoint Cooling	25 °C	80 °F	
<b>Envelope Components (User Inputs)</b>			
	Areas m2	Rimp R/F+R/In/BU	RSI Km2/K
B.4 Roof	1,176.00	44.00	7.75
B.5 Walls Above Grade (Exclude Openings)	1,596.00	38.04	6.70
B.6 Floor Exposed	0.00	34.07	6.00
B.7 Doors	16.38	5.57	0.98
B.8.1 Window Area North	351.35	5.57	0.98
B.8.2 Window Area East	0.00	5.57	0.98
B.8.3 Window Area South	0.00	5.57	0.98
B.8.4 Window Area West	0.50	5.57	0.98
B.9 Walls Below Grade (Conditioned)	449.00	20.00	3.52
B.10 Floor Slab - Heated/Conditioned	1,176.61	11.36	2.00
B.11 Interior Floors (incl. garages)	0.00		
<b>Envelope Totals</b>	<b>4,765.94</b>	<b>9.92</b>	
<b>T.5.1 Building U-Value Combined Total</b>	<b>0.404 W/m2-K</b>		74%
T.5.2 Building U-Value Avg for Ae	0.317 W/m2-K		
T.5.3 Building U-Value Avg for Ag	0.572 W/m2-K		
B.12 Window:Wall Ratio (WWR)	18.75%		✓ 213%
B.13.1 Thermal Bridge Penalty (min. 5-70%)	30%	35,992.43 kWh/yr	B.13.2 TB Penalty Impact kWh (-Heating, Cooling->) 1,609.48 kWh/yr
B.14 Total Conditioned Volume	10,584.00 m3		
B.3.1 Total Floor Area	1,176.61 hsm		
B.15 Total Area Exposed to Ground (Ag)	1,625.61 m2		
B.16 Total Area Exposed to Air (Ae)	3,140.23 m2		
B.17 Total Cond. Area to Vol. Ratio	0.11		
B.18 Surf. to Vol. Ratio (V/A) or SV Ratio	0.30		
B.19.1 Air-Leakage Target per NBC	Measured		
B.19.2 nRL10 Target per NBC 2025	1.40 L/s-m2		NBC 2020 9.36.6.4-A ✓ 281%
B.19.3 ACH 50 Target	1.50 ACH 50Pa		✓ 167%
B.19.4 ACH 50 if Measured	1.50		
B.19.5 Heating Natural Air Leakage Heatloss	41,386.24 kWh	12.67 kWh/m2/yr	Zone 2 Stories 3 Shelding Exposed
B.19.6 Cooling Natural Air Leakage Heatgain	3,196.19 kWh	0.98 kWh/m2/yr	
B.19.7 Ae10 or ELA10	4,410 m2	11.7 B.19.5.1 n-Factor	*Naturalize** air leakage from pressure test results
<b>Gains less Losses (Calculated)</b>	<b>Subtotals</b>	<b>Intensity</b>	<b>OBC/NBC/NECB</b>
G.1.0 Annual Occupant Gains	52,270.92 kWh/yr	16.00 kWh/m2/yr	
G.1.1 Occupant Gains (Heating Season)	35,085.96 kWh/yr	10.74 kWh/m2/yr	
G.1.2 Occupant Gains (Cooling Season)	17,184.96 kWh/yr	5.26 kWh/m2/yr	
G.2.1 Solar Gains (Heating Season) Intensity		50.00 kWh/m2/yr	Mid-wall placement self-shading and 40% DST and 52% TST Assumed
G.2.2 Solar Gains (Cooling Season) Intensity		80.00 kWh/m2/yr	Mid-wall placement self-shading and 40% DST and 52% TST Assumed
G.2.3 Solar Gains (Heating Avg. Method)	18,411.50 kWh/yr	5.64 kWh/m2/yr	
G.2.4 Solar Gains (Heating by Orientation)	363.85 kWh/yr	0.11 kWh/m2/yr	
G.2.5 Solar Gains (Cooling Avg. Method)	29,458.40 kWh/yr	9.02 kWh/m2/yr	
G.2.6 Solar Gains Shading (Cooling)	0.00%	G.2.7 Solar Gains Shading (Heating) 0.00%	Can also be used when SHGC < 40% DST and 52% TST
G.3.1 Light & Equipment Gains (Heating)	100,852.29 kWh/yr	30.87 kWh/m2/yr	
G.3.2 Light & Equipment Gains (Cooling)	49,397.04 kWh/yr	15.12 kWh/m2/yr	
G.4.1 Gains Utilization Factor (n-Factor)	40.00% NRC Method	71.21% PHPP Method	0.00% G.4.2 Transience & Capacitance Factor (Cooling)
G.4.5 Net Usable Heating Season Gains	61,739.90 kWh/yr	109,919.48 kWh/yr	
G.4.6 Net Usable Htg. Gains Intensity	18.90 kWh/m2/yr	33.65 kWh/m2/yr	
G.5 Net Unusable Htg. Gains (PHPP Method)	92,609.85 kWh/m2/yr	28.35 kWh/m2/yr	
<b>Mechanical Loads (Calculated)</b>	<b>Subtotals</b>	<b>Intensity</b>	
M.2.1 Heatpump for Heating	Yes 14 HSPF	4.10 COPheat	✓ 219%
M.2.2 Heating System Demand	36,804.03 kWh/yr	11.27 kWh/m2/yr	114,208.99 kWh/yr from Sink
M.3.1 Heatpump for Cooling	Yes	3.10 COPcool	10.59 CEER
M.3.2 Heatpump Cool Elect. Load	33,037.19 kWh/yr	10.11 kWh/m2/yr	69,482.66 kWh/yr from Sink
M.4 HRV/ERV/MVHR Efficiency (SRE)	89%	No M.4.1 Demand-based Ventilation (per P.1.2.)	✓ 137%
V.1 Constant Ventilation Rate	12.50 l/s	26.49 cfm	V.1.2 Summer Boost Rate 140%
V.2 Ventilation * Occupants	1,275.00 l/s	2701.57 cfm	4590.00 m3/hr
V.3 Heating Season Ventil. Energy	139,995.31 kWh/yr	V.5 FC Limit 24,881.88 kWh	
V.3.4 Heating Season Ventil. Recovered	124,595.82 kWh/yr		
V.3.5 Net Heating Season Ventilation Losses	15,399.48 kWh/yr	4.71 kWh/m2/yr	
V.4.1 Incoming Cooling Season Ventil. Energy	21,190.72 kWh/yr	140% V.4.2 Latent Load Multiplier (140% for Southern Ontario)	
V.4.3 Outgoing Cooling Season Ventil. Energy	18,859.74 kWh/yr	0.71 kWh/m2/yr added to cooling load M.3.2	
V.5 Ventilation Free Cooling/Venting Capacity	20%	24,881.88 kWh/yr	0 Days Active Cooling is Required
<b>Enclosure TEDI (component surfaces)</b>	<b>Subtotals</b>	<b>Intensity</b>	
T.6.1 HEDI Ae	90,309.26 kWh/yr	28.76 kWh/m2	Rate at which Ae surfaces transmit energy to Air
T.6.2 HEDI Ag	65,657.93 kWh/yr	40.39 kWh/m2/yr	Rate at which Ag surfaces transmit energy to Ground
T.6.3 TEDI (Ae + Ag)	155,967.19 kWh/yr		T.6.1 + T.6.2
T.7.1 CEDI Ae	6,974.43 kWh/yr	2.22 kWh/m2	Rate at which Ae surfaces transmit energy to Air
T.7.2 CEDI Ag	40,198.73 kWh/yr	24.73 kWh/m2	Does not participate in cooling calcs
T.6.4 TEDI Enclosure/B.3 Cond. Area		47.74 kWh/m2/yr	Enclosure TEDI divided by Conditioned Area
T.7.3 CEDI (Ae + Ag) Capacitance Method	5,364.94 kWh/yr	Capacitance 14.44 kWh/m2/yr	Enclosure TEDI divided by Conditioned Area
<b>T.10 TEDI Targeted (whole Building)</b>	<b>151,013.01 kWh/yr</b>	<b>46.22 kWh/m2/yr</b>	Includes V.5 Net Ventilation Losses. Excludes T.7.3 CEDI Ae
T.10.1 TEDI Envelope Only (No Ventilation)	6,975.53 kWh/yr	2.14 kWh/m2/yr	
T.10.2 CEDI Unmitigated Cooling Load	127,401.73 kWh/yr	39.00 kWh/m2/yr	
T.10.3 CEDI Cooling Load	4.46 W/m2 Unmitigated	3.58 W/m2 Mitigated	102,519.85 kWh/yr (after mitigation by Free Cooling)
<b>T.4 TEUI Targeted Electrical Only</b>	<b>334,299.53 kWh/yr</b>	<b>102.33 kWh/m2/yr</b>	Excludes eWh of any Gas loads
T.4.1 TEUI if Heat Pump Yes/No	220,090.55 kWh/yr	67.37 kWh/m2/yr	
T.4.2 Peak Heating Load (Enclosure Only)	75.10 kW		256,264 BTU/hr
T.4.3 Peak Cooling Load (Enclosure Only)	9.63 kW	2.74 Tons-Cooling	32,854 BTU/hr
T.4.4 Max. Heating Load Intensity	22.99 W/m2	2.95 T.4.5. Mx. Cool Insty in W/m2 (Enclosure Only)	✓ 217%
P.1.1. Scheduled Hours Occupancy/yr.	8760 hours/yr	P.1.2 Occupie	50% Ratio of Occupancy
P.2 Plug Loads	71,547 kWh/yr	5 W/m2	✓ 140%
P.3 Lighting Power Density	21,464 kWh/yr	1.5 W/m2	✓ 133%
P.4.1 Equipment Loads	57,238 kWh/yr	4.00 W/m2	P.4.2 Equipment Energy Spec Low Energy
P.4.2 Elevator Loads	Elevators		
P.5 Exterior Site Loads	0.00 kWh/yr	0.00 W/m2	
P.6 Total Annual Plug + Light + Eqpt Loads	150,249.33 kWh/yr	45.99 kWh/m2/yr	
T.4.5 Cost of Electricity	\$0.130 /kWh	T.4.6 Cost of Gas \$0.122 /m3	
T.4.7 Annual Cost of Electricity	\$43,458.94	pre and \$28,611.77 post heat pump	
T.4.8 Cost Premium of HP Equipment	\$50,000.00	3.37 Years to Amortize	
T.11 TEUI Performance Gap	66.98 Targeted	104.60 Utility Bills	
	64% of Utility Bills	156% of Targeted Design	



PROJECT IN BRIEF: EMBASSY COMMONS

Blurb

EARLY-STAGE OPTIMIZATION STRATEGIES INCLUDED

8. Blurbs

TARGETS VS. ACTUAL PERFORMANCE

Blurb

IMPROVEMENT SUGGESTIONS

Blurb

Key Values		Target	Actual	Reference %							
Lifetime Emissions Intensity kgCO2e/m <sup>2</sup>		Targeted (Design)	Actual (Utility Bills)	N/A							
<b>T.1 Lifetime Carbon</b>		<b>20.4</b>	<b>20.7</b>								
Annual Operational Emissions Intensity kgCO2e/m <sup>2</sup>		Targeted (Design)	Actual (Utility Bills)	84.7%							
<b>T.2 Annual Carbon</b>		<b>12.4</b>	<b>12.7</b>								
Total Annual Operational Energy Use Intensity kWh/m <sup>2</sup> /yr		Targeted (Design)	Actual (Utility Bills)	95.1%							
<b>T.3 TEUI</b>		<b>120.5</b>	<b>120.7</b>								
B.1 Major Occupancy	C - Residential	L.1 Ontario Location	London	C.1 Carbon Tax Rate							
S.1 Reference Standard	NECB Z6 T1	D.1 Reporting Period & Service Life	2022 50 yrs	\$ 65.00 /MTCO2e							
S.2 Actual (Bills) or Targeted (Design) Use	Utility Bills	B.2 Project Name	Embassy Commons	\$ 3,880.69 /yr OpEx							
S.3 Carbon Benchmarking Standard	Not Reported	S.4 Embodied Carbon Target	N/A	kgCO2e/m <sup>2</sup> \$163,072.00 /Embodied							
O.1 Occupants per Building	204	B.3 Conditioned Area (Net)	4826 m <sup>2</sup>								
T.4 TEUI		ACTUAL ENERGY (Utility Bills)	ACTUAL EMISSIONS (NET)	TARGET ENERGY (Design)	TARGETED EMISSIONS (NET)	EMISSION FACTORS (per Reporting Period/Factor)					
T.3.1 Total Electricity Use	439,815.49 kWh/yr	347,455.36 kWh/yr	17,720.22 kgCO2e/yr	450,473.72 kWh/yr	358,113.59 kWh/yr	51.00 gCO2e/kWh					
T.3.2 Total Fossil Gas Use	22,699.00 m <sup>3</sup> /yr	235,083.27 kgCO2e/yr	21,571.62 m <sup>3</sup> /yr	0.00 kg/yr	223,505.98 kgCO2e/m <sup>3</sup>	1,921.00 gCO2e/m <sup>3</sup>					
T.3.3 Total Propane Use	0.00 kg/yr	0.00 kg/yr	0.00 kg/yr	0.00 kg/yr	0.00 kg/yr	2,970.00 gCO2e/kg					
T.3.4 Total Oil Use	0.00 litres/yr	0.00 litres/yr	0.00 litres/yr	0.00 litres/yr	0.00 litres/yr	2,753.00 gCO2e/litre					
T.3.4 Total Wood Use	0.00 m <sup>3</sup> /yr	0.00 m <sup>3</sup> /yr	0.00 m <sup>3</sup> /yr	0.00 m <sup>3</sup> /yr	0.00 m <sup>3</sup> /yr	150.00 kgCO2e/m <sup>3</sup>					
E.2 Operational GHG (kgCO2e/yr)	1764.64 GJ/yr	61,305.79 kgCO2e/yr	1761.33 GJ/yr	59,702.88 kgCO2e/yr	59,702.88 kgCO2e/yr						
T.3.4 Total Net Energy	1764.64 GJ/yr	1761.33 GJ/yr	1761.33 GJ/yr	1761.33 GJ/yr	1761.33 GJ/yr	59,702.88 kgCO2e/yr					
T.3.4 Annual Penetration Energy	2,855.58 kWh/Actual	8.65 GJ/Actual	2,851.08 kWh/Target	8.63 GJ/Target	8.63 GJ/Target						
T.3.5 Primary Energy (Ontario Electricity)	521,183.04 kWh/yr	107.99 kWh/m <sup>2</sup> /yr	1.5 P.E. Factor			54%					
E.1 GHGI Operational	59.70 MT CO2e/yr	12.37 kgCO2e/m <sup>2</sup> /yr	618.55 kgCO2e/m <sup>2</sup> /Service Life			21%					
E.2 Embedded Carbon Intensity (A1-3)	Use Your Own Value	408.00 User-Def.	kgCO2e/m <sup>2</sup>	400.00 Calc'd Value	kgCO2e/m <sup>2</sup>	N/A					
E.3 Embedded Carbon Emitted (A1-3)	2588.80 MT CO2e		N/A	Target Value	kgCO2e/m <sup>2</sup>						
E.4 Onsite Energy Production	92,380.13 kWh/yr										
E.5 Photovoltaics	92,380.13 kWh/yr										
E.6 Wind	0.00 kWh/yr										
E.7 Remove EV Charging from TEUI	0.00 kWh/yr										
E.8 Reserved (other removals)	0.00 kWh/yr										
E.9 Offsite Renewable (REC's)	0.00 kWh/yr										
E.10 WWS Electricity	0.00 kWh/yr										
E.11 Green Natural Gas	0.00 m <sup>3</sup>					0.00 ekWh/yr					
Water Use		W.1 Daily Water Use (determines DHW load)	W.2 DHW Demand	W.3 DHW or SHW Energy Source	W.4 DHW or SHW Efficiency Factor (EF)	W.5 Drain Water Heat Recovery Efficiency					
W.1 Daily Water Use (determines DHW load)	275.00 lpp/day	20,476.500 litres/pp/day	201,155.38 kWh/yr DHW Demand	5000.00 kWh/yr (when Mech. Engineer Defined)	0.00 kWh/yr	69%					
W.2 DHW Demand	201,155.38 kWh/yr	41.68 kWh/m <sup>2</sup> /yr									
W.3 DHW or SHW Energy Source	Gas	21,571.62 Gas m <sup>3</sup> /yr	201,155.38 ekWh/yr Net								
W.4 DHW or SHW Efficiency Factor (EF)	90%	0.90 COP/dhw	0.00 kWh/m <sup>2</sup> /yr Net								
W.5 Drain Water Heat Recovery Efficiency	0%		kWh/yr DHWR energy recovered			0%					
A.1 Indoor Air Quality		Targeted	Limits	% per Health Canada/NBC							
A.2 Radon (annual avg.)	50 Bq/m <sup>3</sup>	150 Bq/m <sup>3</sup>		33%							
A.3 CO2 (annual avg.)	550 ppm	1000 ppm		55%							
A.4 TVOC (annual avg.)	100 ppm	400 ppm		25%							
A.5 Rel. Humidity (annual avg.)	45 %	30-60 %		45%							
A.6 Atmospheric Offsets	0 Mt/yr CO2e										
Climate Calculations		Future Weather									
L.2.1 Heating Degree Days (HDD)	3900 °C	No Use 2021-2050 Value	Zone 5	HDD Reference Lookup HDD - Energy Star							
L.3.1 Cooling Degree Days (CDD)	318 °C	No Use 2021-2050 Value		CDD Reference Lookup CDD - Energy Star							
L.2.2 Ground Facing GF HDD	2940 °C	L.3.2 GF CDD	1920 °C								
L.4 Coldest Days (Location Specific)	-18 °C										
L.5 Hottest Days (Location Specific)	30 °C	120	L.6 Number of Days in Cooling Season (Affected by Climate Change)								
B.1.1 Thermostat Setpoint Heating	22 °C	74 °F									
B.1.2 Thermostat Setpoint Cooling	26 °C	82 °F									
Envelope Components (User Inputs)		Areas m <sup>2</sup>	Rimp RFP-hr/Btu	RSI K-m <sup>2</sup> /W	U-Value W/m <sup>2</sup> -K	% of Ae & Ag	Heatloss kWh/yr	Heatloss %	Heatgain kWh/yr	Heatgain %	Reference
B.4 Roof	1,574.00	44.00	7.75	0.129	33.36%	19,009.86	9.98%	1,550.03	47.22%	107%	
B.5 Walls Above Grade (Exclude Openings)	2,528.00	26.97	4.75	0.211	53.58%	49,814.91	26.15%	4,061.83	123.74%	114%	
B.6 Floor Exposed	0.00	39.75	7.00	0.143	0.00%	0.00	0.00%	0.00	0.00%	128%	
B.7 Doors	27.62	3.74	0.66	1.520	0.59%	3,929.55	2.06%	3,204.41	9.78%	125%	
B.8.1 Window Area North	588.87	4.37	0.77	1.300	12.48%	71,853.70	37.61%	5,842.53	177.98%	133%	
B.8.2 Window Area East	0.00	4.37	0.77	1.300	0.00%	0.00	0.00%	0.00	0.00%	133%	
B.8.3 Window Area South	0.00	4.37	0.77	1.300	0.00%	0.00	0.00%	0.00	0.00%	133%	
B.8.4 Window Area West	0.00	4.37	0.77	1.300	0.00%	0.00	0.00%	0.00	0.00%	133%	
B.9 Walls Below Grade (Conditioned)	833.00	20.00	3.52	0.284	34.89%	16,888.38	8.76%	-5,449.27	-166.00%	100%	
B.10 Floor Slab - Heated/Conditioned	1,568.00	21.35	3.76	0.266	65.31%	29,425.02	15.44%	-9,608.17	-292.70%	285%	
B.11 Interior Floors (incl. garages)	4,704.00										
<b>Envelope Totals</b>	<b>7,119.49</b>	<b>17.38</b>			<b>100%</b>	<b>190,521.42</b>	<b>100%</b>	<b>-3,282.63</b>	<b>100%</b>		
T.5.1 Building U-Value Combined Total	0.370 W/m <sup>2</sup> -K									81%	
T.5.2 Building U-Value Avg for Ae	0.392 W/m <sup>2</sup> -K										
T.5.3 Building U-Value Avg for Ag	0.327 W/m <sup>2</sup> -K										
B.12 Window:Wall Ratio (WWR)	19.61%									204%	
B.13.1 Thermal Bridge Penalty (min. 5-70%)	20%	38,104.28 kWh/yr	B.13.2 TB Penalty Impact kWh (-Heating, Cooling-)	656.53 kWh/yr							
B.14 Total Conditioned Volume	14,112.00 m <sup>3</sup>										
B.3.1 Total Floor Area	6,272.00 hsm										
B.15 Total Area Exposed to Ground (Ag)	2,401.00 m <sup>2</sup>										
B.16 Total Area Exposed to Air (Ae)	4,718.49 m <sup>2</sup>										
B.17 Total Cond. Area to Vol. Ratio	0.44										
B.18 Surf. to Vol. Ratio (V/A) or SV Ratio	0.33										
B.19.1 Air-Leakage Target per NBC	PH Low										
B.19.2 NREL Target per NBC 2025	0.83 L/s-m <sup>2</sup>									166%	
B.19.3 ACH 50 Target	1.00 ACH 50Pa									250%	
B.19.4 ACH 50 if Measured	1.00										
B.19.5 Heating Natural Air Leakage Heatloss	37,945.60 kWh	7.86 kWh/m <sup>2</sup> /yr	Zone 2	Stories 3	Shielding Exposed						
B.19.6 Cooling Natural Air Leakage Heatgain	3,094.03 kWh	0.64 kWh/m <sup>2</sup> /yr									
B.19.7 Ae or ELA <sub>50</sub>	3,920 m <sup>2</sup>		11.7	B.19.5.1 n-Factor							
<b>Gains less Losses (Calculated)</b>	<b>Subtotals</b>	<b>Intensity</b>									<b>ORC/NBC/NECB</b>
G.1.0 Annual Occupant Gains	104,541.84 kWh/yr	21.66 kWh/m <sup>2</sup> /yr									
G.1.1 Occupant Gains (Heating Season)	70,171.92 kWh/yr	14.54 kWh/m <sup>2</sup> /yr									
G.1.2 Occupant Gains (Cooling Season)	34,369.92 kWh/yr	7.12 kWh/m <sup>2</sup> /yr									
G.2.1 Solar Gains (Heating Season) Intensity		50.00 kWh/m <sup>2</sup> /yr									Mid-wall placement self-shading and 40% DST and 52% TST Assumed
G.2.1 Solar Gains (Cooling Season) Intensity		80.00 kWh/m <sup>2</sup> /yr									Mid-wall placement self-shading and 40% DST and 52% TST Assumed
G.2.3 Solar Gains (Heating Avg. Method)	30,824.50 kWh/yr	6.39 kWh/m <sup>2</sup> /yr									
G.2.4 Solar Gains (Heating by Orientation)	588.87 kWh/yr	0.12 kWh/m <sup>2</sup> /yr									
G.2.5 Solar Gains (Cooling Avg. Method)	49,319.20 kWh/yr	10.22 kWh/m <sup>2</sup> /yr									
G.2.6 Solar Gains Shading (Cooling)	0.00%		G.2.7 Solar Gains Shading (Heating)	0.00%							Can also be used when SHGC = 40% DST and 52% TST
G.3.1 Light & Equipment Gains (Heating)	148,978.62 kWh/yr	30.87 kWh/m <sup>2</sup> /yr									
G.3.2 Light & Equipment Gains (Cooling)	72,969.12 kWh/yr	15.12 kWh/m <sup>2</sup> /yr									
G.4.1 Gains Utilization Factor (n-Factor)	40.00% NRC Method	79.04% PHPP Method	50.00%	G.4.2 Transience & Capacitance Factor (Cooling)							
G.4.5 Net Usable Heating Season Gains	99,990.02 kWh/yr	197,576.43 kWh/yr									
G.4.6 Net Usable Htg. Gains Intensity	20.72 kWh/m <sup>2</sup> /yr	40.94 kWh/m <sup>2</sup> /yr									
G.5 Net Unusable Htg. Gains (PHPP Method)	149,885.02 kWh/m <sup>2</sup> /yr	31.08 kWh/m <sup>2</sup> /yr									
<b>Mechanical Loads (Calculated)</b>	<b>Subtotals</b>	<b>Intensity</b>									
M.2.1 Heatpump for Heating	Yes	7.1 HSPF	2.08 COP/heat								111%
M.2.2 Heating System Demand	90,226.59 kWh/yr	18.70 kWh/m <sup>2</sup> /yr	97,525.10 kWh/yr from Sink								
M.3.1 Heatpump for Cooling	Yes		1.08 COP/cool	3.69 CEER							33%
M.3.2 Heatpump Cool Elect. Load	138,299.39 kWh/yr	28.66 kWh/m <sup>2</sup> /yr	11,187.17 kWh/yr from Sink								57%
M.4 HRV/ERV/MVHR Efficiency (SRE)	89%		No M.4.1 Demand-based Ventilation (per P.1.2.)								137%
V.1.1 Constant Ventilation Rate	8.33 l/s	17.65 cfm	29.99 m <sup>3</sup> /hr	V.1.2 Summer Boost Rate	None						
V.2 Ventilation - Occupants	1,699.32 l/s	3600.66 cfm	6117.55 m <sup>3</sup> /hr								
V.3.1 Heating Season Ventil. Energy	192,458.19 kWh/yr	V.5 FC Limit	29,609.44 kWh								
V.3.4 Heating Season Ventil. Recovered	171,287.79 kWh/yr										
V.3.5 Net Heating Season Ventilation Losses	21,170.40 kWh/yr										
V.4.1 Incoming Cooling Season Ventil. Energy	21,989.94 kWh/yr	4.60%	V.4.2 Latent Load Multiplier (140% for Southern Ontario)								
V.4.3 Outgoing Cooling Season Ventil. Energy	19,553.16 kWh/yr	0.50 kWh/m <sup>2</sup> /yr added to cooling load M.3.2									
V.5 Ventilation Free Cooling/Venting Capacity	17%	29,609.44 kWh/yr	13 Days Active Cooling is Required								
<b>Enclosure TEDI (component surfaces)</b>	<b>Subtotals</b>	<b>Intensity</b>									
T.6.1 HEDI Ae	173,289.82 kWh/yr	36.73 kWh/m <sup>2</sup> /yr									Rate at which Ae surfaces transmit energy to Air
T.6.2 HEDI Ag	55,336.08 kWh/yr	23.05 kWh/m <sup>2</sup> /yr									Rate at which Ag surfaces transmit energy to Ground
T.6.3 TEDI (Ae + Ag)	228,625.90 kWh/yr										T.6.1 + T.6.2
T.7.1 CEDI Ae	14,129.77 kWh/yr	2.99 kWh/m <sup>2</sup> /yr									Rate at which Ae surfaces transmit energy to Air
T.7.2 CEDI Ag	36,137.85 kWh/yr	15.05 kWh/m <sup>2</sup> /yr									Does not participate in cooling cycles
T.6.4 TEDI Enclosure/B.3 Cond. Area		47.37 kWh/m <sup>2</sup> /yr									Enclosure TEDI divided by Conditioned Area
T.7.3 CEDI (Ae + Ag) Capacitance Method	-3,282.63 kWh/yr	Capacitance	10.42 kWh/m <sup>2</sup> /yr								Enclosure TEDI divided by Conditioned Area
<b>T.10 TEDI Targeted (whole Building)</b>	<b>187,751.69 kWh/yr</b>	<b>38.90 kWh/m<sup>2</sup>/yr</b>									Includes V.5 Net Ventilation Losses, Excludes T.7.3 CEDI Ae
T.10.1 TEDI Envelope Only (No Ventilation)	14,130.37 kWh/yr	2.93 kWh/m <sup>2</sup> /yr									
T.10.2 CEDI Unmitigated Cooling Load	179,096.00 kWh/yr	37.1									



## President's Log

Date	Event/Meeting	Location	Attendees	Time
June 27	OAA Landscape Design Competition Event	Toronto	w/candidate, jury members, staff, Council and registrants	5-8:00 p.m.
June 27	ROAC - Virtual AGM	Toronto	w/K.Doyle & ROAC Board	2-3:00 p.m.
June 28	President/Executive Director Meeting	Virtual meeting	w/K.Doyle	8-9:00 a.m.
July 4	Governance Committee	Virtual meeting	w/Committee members	9:00 a.m. - 12 noon
July 7	Meeting to discuss OAA NOM	Virtual meeting	w/K.Doyle, R.Durcan	4-5:00 p.m.
July 5	President/Executive Director Meeting	Virtual meeting	w/K.Doyle	8-9:00 a.m.
July 12	President/Executive Director Meeting	Virtual meeting	w/K.Doyle	10-11:00 a.m.
August 7	President/Executive Director Meeting	Virtual meeting	w/K.Doyle	3-4:00 p.m.
August 9	President/Executive Director Meeting	Virtual meeting	w/K.Doyle	8-9:00 a.m.
August 19	Governance Committee	Virtual meeting	w/K.Armbrust & Committee	9:30 a.m.-1:00 p.m.
August 20	Electon 101 Pre-panel meeting	Virtual meeting	w/L.McKendrick,S.Speigel, T.Dreessen, K.Doyle	4-4:30 p.m.
August 21	OAA Landscape project User info session	Virtual meeting	w/Council, Building Cttee, Ja Architecture, K.Doyle, K.Armbrust	10:30-11:30 a.m.
August 21	Conference Debrief	Toronto	w/Council, Cttee members, Society Chairs, MCC, Conference Team	1:30-4:30 p.m.
August 23	President/Executive Director Meeting	Virtual meeting	w/K.Doyle	8-9:00 a.m.
August 27	Education Committee (under the Trust)	Virtual meeting	w/T.Wilson, K.Schuhmann, K.Doyle, T.Carfa	9-9:30 a.m.
August 27	Election Webinar	Virtual meeting	w/S.Speigel, L.McKendrick, T.Dreessen, K.Doyle, member attendees	1-2:00 p.m.
August 28	Algoma Society of Architects Visit	Sault Ste. Marie	w/T.Wilson, K.Doyle, Society members	1-2:30 p.m.
August 29	Northwestern Society of Architects Visit	Thunder Bay	w/T.Wilson, K.Doyle, Society members	12:30-2:30 p.m.
August 30	President/Executive Director Meeting	Virtual meeting	w/K.Doyle	8-9:00 a.m.
September 4	Executive Committee	Virtual meeting	w/Executive Committee	11:00 a.m. - 12:30 p.m.
September 6	President/Executive Director Meeting	Virtual meeting	w/K.Doyle	8:00-9:00 a.m.
September 6	Various Regulatory Items	Virtual meeting	w/K.Doyle, C.Mills	11:00 a.m. - 12 noon
September 11	Northern Ontario Society Visit	Sudbury	w/T.Wilson, K.Doyle, Society members	12 noon - 2;00 p.m.
September 11	North Bay Society Visit	North Bay	w/T.Wilson, K.Doyle, Society members	6-8:00 p.m.
September 13	President/Executive Director Meeting	Virtual meeting	w/K.Doyle	8-9:00 a.m.
September 16	CDAO AGM	Toronto	w/CDAO members	10:00 a.m. - 1:00 p.m.
September 17	Society Chairs Meeting	Virtual meeting	w/OAA Staff & Society Chairs	10-11:30 a.m.
September 18	Pre-Council Dinner	Toronto	w/Council	7-10:00 p.m.
September 19	Council Meeting	Toronto	w/Council, staff	9:30 a.m. - 3:00 p.m.

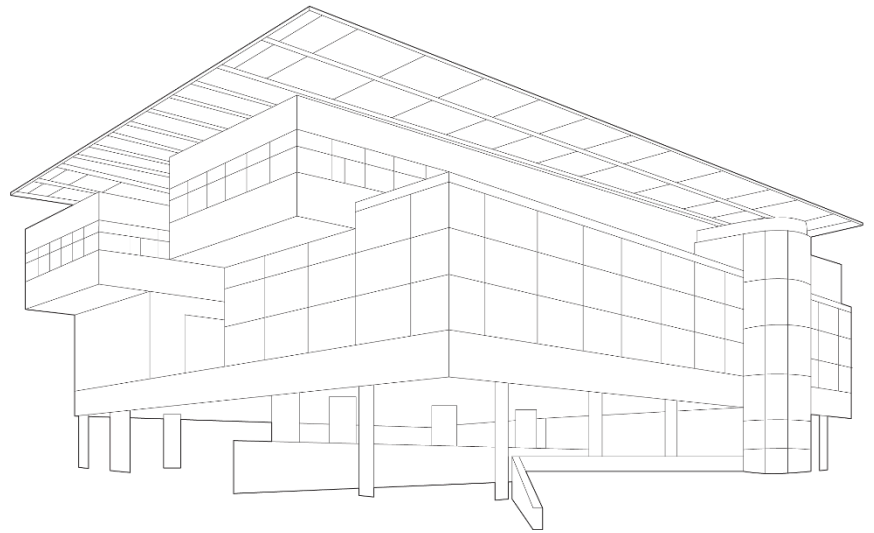
FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 6.1

# Executive Director Report to Council

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FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 6.2

September 9, 2024



PRESENTED BY

**Kristi Doyle**  
**Executive Director**

The Executive Director's Report to Council provides an overview of key **operational matters and milestones as well as updates on progress towards achievement of the OAA's 5-year Strategic Plan**. Specifically, this report focusses on items not covered elsewhere in the meeting agenda. Items within this report have been organized and linked in relation to the overarching lenses and strategic priorities of the 5-year plan using the below noted symbols.



**climate action, and**



**equity, diversity, and inclusion.**



**regulatory leadership,**



**governance and operations,**



**member competency, and**



**public education.**

## OAA Strategic Plan

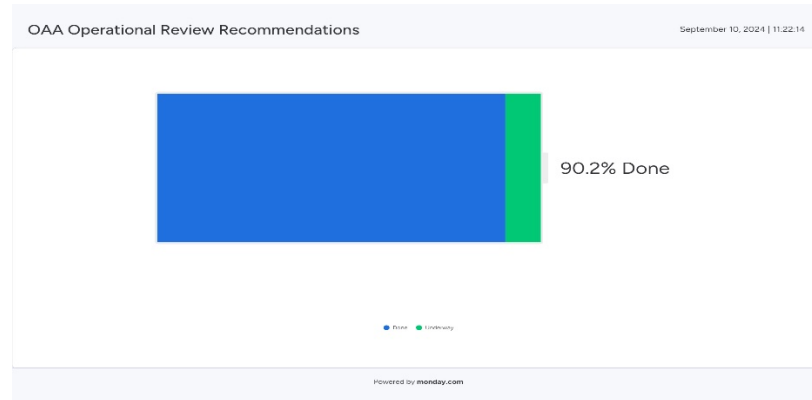
As we move into the fourth quarter, progress on the committee and operational work plans continues to advance nicely. Council will see several initiatives and/or specific projects coming to fruition as noted in individual reports that are contained in this Council package. For the most part, the committees have effectively focussed their work on the approved work plans which continue to serve as a solid foundation for the work of the OAA.

At the August meeting of the Governance Committee, Registrar Mills and I presented a draft work plan to move the Act Modernization project forward. Unfortunately, it is one of the key objectives of the 5-year plan that has been delayed due to other unavoidable priorities. Work has also begun under the direction of the Governance Committee on the draft agenda for the January Council planning session. As we move through year 3 of the Strategic Plan, the intent is to conduct an exercise similar to last year such that there will be a report on achievements to further the Strategic Plan, consideration of 'tweaks' to the Plan, and confirmation of activities already underway or planned for 2025.

## Operational Review

The September 2024 Council meeting marks the start of the final year of the operational review 5-year implementation plan. Noted below is a quick snapshot of the status of our work in addressing the 39 recommendations that were a result of that review. Council is reminded that some of the recommendations were very specific and immediately measurable as a task was completed, while others have

been addressed however require ongoing maintenance and attention. This has been incorporated into the ongoing operational and administrative work of OAA. I would suggest that by the January 2025 Council planning session I will be able to provide a final report on the Operational Review, and wrap-up the project from a reporting standpoint.



The following four items represent the 9.8% of the original recommendations that continue to be underway:

- Develop a Communications Plan about the OAA for the Public and Members;
- Develop & Implement a Process for Updating & Maintaining Practice Documents;
- Develop a delegation of authority policy; and,
- Develop & Implement a Plan to fulfil the OAA's Technology & Data Management needs. All are well underway.

## Administration + Operations



OAA virtual staff chats continue each week on Wednesday at 9:30 a.m. Peer to Peer learning was on hiatus for the summer and will resume shortly.



The OAA staff team performance review process has begun under the direction of Kathy Armbrust, Manager of Human Resources and will be completed by November 30. The Governance Committee will conduct annual performance reviews for myself and the Registrar on November 7.



Our annual staff fire drill was conducted at the Headquarters on August 7. The staff team reacted quickly and efficiently. Additional safety measures were also reviewed in this practical application setting.



Throughout the summer, the Registrar, President, and I continued to work in collaboration with the Ministry of the Attorney General to advance the amendments to Regulation 27 to allow for the issuance of limited licences to Licensed Technologists. While not related, attention had also been focused on responding to the recent Notion of Motion filed by the third-party organization.



Our monthly Team Leads meetings were held on July 15 and August 19.



Ja Architecture has been engaged and work has begun on the OAA's Landscape Project. User group meetings were held with staff and Council in the month of August. Regular bi-weekly meetings are being held with Ja to ensure smooth administration of the project.



Along with OAA Manager, Finance Melanie Walsh, I met with our client representatives at CIBC in July. This annual face-to-face check in with our banking partner included discussion re. current and new services, as well as review of the OAA's investments. The details of this meeting were conveyed to the Finance & Audit Committee in August.



Over the summer months, considerable time was spent on the development and refinement of the draft 2025 operating and capital budgets. This process included staff and committee input as well as detailed review and input by the Finance & Audit Committee.

## Public Outreach + Education



There has been much collaboration and cooperation between the OAA and the local Society Chairs over the last few months. In June, the OAA issued a survey in collaboration with the local societies, to the membership which explored specific questions about individual engagement with local societies, as well as society dues and financing. Society finances and funding have been a topic of considerable discussion over the last year. The Society Chairs, Councillor Liaisons and staff will be meeting virtually on September 17 to consider feedback from the survey.



I will be presenting to students at the McEwen School of Architecture, Laurentian U and Azrieli School of Architecture – Carleton U on September 12 and 19 respectively. The presentations will be focussed on understanding the mandate of the OAA, our roles and responsibilities as well as programs and services offered.



As a key initiative of the Governance Committee to increase participation in Council elections, our first ever *Elections 101 Webinar* was hosted on August 27. It was attended by over 80 members and featured a panel discussion including President Vilardi: Vice President McKendrick as well as Past Presidents Spiegel and Dreessen. A post-session survey has been issued, and feedback is being reviewed in the interest of hosting a similar event in 2025.

## National Initiatives



The Annual General Meeting of the Regulatory Organizations of Architecture in Canada (ROAC) was held virtually on June 27. I attended as the OAA's member representative. Also attending was OAA President Settimo Vilardi who sits on the ROAC Board of Directors. The fall semi-annual meeting of ROAC will be held at the OAA Headquarters October 18-20. Attending on behalf of the OAA is President Vilardi, Senior Vice President & Treasurer Wilson, Registrar Christie Mills and me. A new

ROAC Administrator has recently been hired by the Ordre des architectes du Quebec who will provide administrative and operational support to ROAC. I continue to serve with other senior administrators on the Administrator Advisory Committee of ROAC.



The OAA welcomed representatives of the National Council of Architectural Registration Boards (NCARB) to the Headquarters building for a meeting of the National Monitoring Committee for the Mutual Recognition Agreement (MRA) between NCARB and ROAC on September 4 and 5. A number of changes to the long-standing agreement were discussed and will be advanced to ROAC for further consideration in October. There has been considerable activity on the international/MRA front over the summer months. After much discussion at the federal government level, final approval of the MRA between ROAC and the Architects Council of Europe has been achieved. A formal announcement is imminent. Also of note is a final draft of an MRA between ROAC and the UK's Architects Registration Board. This draft will be presented to ROAC in October as well. A final draft will be advanced to the individual architectural regulators for review, comment and approval at the appropriate time. Finally, a press release regarding the updates to the Canada/US/Mexico Trilateral MRA will be issued in early October. Council will recall that updates to that agreement were approved by the OAA in early 2024.



The ExAC national Working Group began their work this summer with a third-party consultant engaged on behalf of ROAC re. software applications and online delivery of ExAC in the future. The Consultant's final report to ROAC is anticipated for the October meeting.



OAA Manager, Finance Melanie Walsh and ExAC Co-Administrator, Jon Clark have been working on the draft 2025 ExAC budget over the last two months. Recall that the OAA is responsible for administration of the ExAC finances on behalf of ROAC. The draft budget will be reviewed by the Committee for the Examination for Architects in Canada in early October, with a final presented for ROAC approval at the fall meeting.

## Relationship Building



The Annual General Meeting of the Construction & Design Alliance Ontario (CDAO) as well as a forum meeting will be hosted at the OAA on September 16. I will attend along with Manager, Policy & Government Relations Sara Trotta and OAA President Vilardi. Development of a procurement guide continues to be at the top of the agenda of CDAO.



Our work with Infrastructure Ontario (IO) regarding their proposed supplementary conditions (SCs) to OAA 600 – 2021 culminated with a full day meeting at IO's office on August 6. I attended this meeting along with legal counsel, representatives of Pro-Demnity Insurance Company, ACEC-ON, ARIDO, OGCA and ProLink. This final discussion will hopefully result in a few positive changes to the SC's. IO is now moving through their internal approval processes. It is anticipated that OAA-600 2021 and the IO authored SCs will be in use by February 2025 by Colliers - IO's Project Management Service Provider. As reported to members in OAA News, Colliers is in the process of establishing a new Vendor of Record roster for IO projects under the 'real estate division'. Members were invited to respond.







I met virtually with PEO Registrar and CEO, Jennifer Quaglietta on August 7. The meeting served as an excellent opportunity to share current initiatives and to discuss areas of cooperation and collaboration. We will be meeting again in-person on September 17.



At their request, I met with City of Toronto, Building Department officials on August 27 to discuss the City's planned Bylaw in response to Bill 197. Toronto Building as been directed by City Council to develop a bylaw to prevent illegitimate renovations from bad faith landlords. As part of the permitting process the landlord will need to submit a report from a "qualified person" confirming that vacant possession is indeed required to perform the renovations. Similar to discussions that OAA had with MMAH earlier this year, several municipalities are considering the position that the qualified person be an Architect or a Professional Engineer.

## Looking Ahead

The following is coming up:



Meeting with NRC to discuss next reporting cycle re. OAA Building performance metrics – September 23.



ROAC – National meetings at OAA Headquarters – October 18, 19 and 20 – OAA President, SVP & Treasurer, Registrar and Executive Director will be in attendance.



More Local Society Visits this Fall – See updated schedule in OAA e-news.



Engineers, Architects & Building Officials meeting in-person at the OAA Headquarters – October 17. OAA President and Executive Director are attending.



October 22 – OAA Queen's Park Picks event at Queen's Park.



OAA Executive Committee semi-annual meeting with Pro-Demnity Committee Chairs will take place on November 13.

# Office of the Registrar Statistical Report

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FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 6.3

FOR THE PERIOD JUNE 1 TO SEPTEMBER 3, 2024

PRESENTED BY

**Christie Mills**

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Ontario Association  
of Architects

The Registrar's Report to Council provides an overview of key statutory matters and statistics, both ongoing and planned. Items of regulatory importance to the Association include information on the activities of the following:

- The Experience Requirements Committee (ERC);
- The Complaints Committee;
- The Discipline Committee;
- The Registration Committee;
- Act Enforcement; and
- Correlated legislative matters.

The report also provides statistical information regarding:

- OAA membership and OAA status composition;
- Licence applications;
- OAA Certificate of Practice composition;
- Certificate of Practice applications; and
- Growth statistics of the above.

The Association's principal objective is to protect users and potential users of professional architecture services by governing its licensed members, including holders of certificates of practice and temporary licences, so that the public can be confident OAA members are appropriately qualified and meet the requirements at law to practise architecture. As a self-regulated professional organization, the OAA is authorized by the Government of Ontario, under provincial statute to establish, monitor, and enforce standards of practice and performances for its members and practices. For the purpose of carrying out these objectives, the Association relies on statutory committees and processes; the statistics of which are highlighted below.

## Experience Requirements Committee (ERC)

Upon referral, the Experience Requirements Committee determines if an applicant has met the experience requirements prescribed by the Regulations forming part of the eligibility requirements for the issuance of an OAA licence.

As per Section 13(3)b of the *Architects Act*, the Registrar, on their own initiative, can (and on the request of an applicant, *shall*) refer an application for the issuance of licence to the ERC for a determination as to whether the applicant has met the experience requirements prescribed by the Regulations for the issuance of licence. Additionally, the Committee will assess and make a recommendation to Council as to whether the applicant has met the experience requirements prescribed by the Regulations for the issuance of licence in matters related to [Exemption Requests to Council](#) as set out in Section 33 of the Regulations.

- No assessment interviews were held in this reporting period.
- Three (3) assessments are scheduled for the Fall; one each in September, November and December.

The statutory requirement for confidentiality is established section 43 of the Act. It requires the Registrar and committee members maintain “*secrecy with respect to all matters that come to an individual’s knowledge in the course of their duties*”. Section 13(6) states that the Registrar shall give notice to the applicant of the ERC decision; though, is not authorized to share the results to anyone else.

There is an exception in s.43 to allow the Registrar to share information “*as may be required in connection with the administration of*” the Act, regulations and by-laws.

Upon review with legal counsel, there is an argument that data related to successful vs unsuccessful applications may be provided to Council. There is also an argument that the Registrar share general data trends that have arisen from the ERC assessments that may be relevant to the work of Council. Assuming this data can be connected Council’s work in the administration of the Act, the table summary below can be provided on an ongoing basis:

	Reason	2024 Result	Deficiency
ERC Recommendations to Council			
ERC Determinations	IAP-D	Does not meet requirements. Remedial action recommended.	<ul style="list-style-type: none"> <li>• Diversification,</li> <li>• Lack of minimum required competency in Bidding and Contract Negotiation, Contract Administration and General Review, OBC &amp; Accessibility.</li> </ul>

CI: applicant using international experience gained prior to enrolment in IAP

CY: Currency

IAP-D: Internship in Architecture CERB deficiency.

## Complaints Committee

As the regulator of the practice of architecture in Ontario, the OAA handles complaints regarding the conduct or actions of a member of the OAA.

The [Architects Act, R.S.O. 1990, c. A.26](#) prescribes the complaints process to ensure the public interest in Ontario is served and protected. A complaint may be made if there is concern a member of the OAA (Architect, a holder of a Certificate of Practice, or holder of a Temporary Licence) has contravened the *Architects Act* or has engaged in professional misconduct as set out in the Regulations (R.R.O. 1990, Reg. 27, s. 42).

Below are the complaints committee statistics for this reporting period of June 1 to September 3, 2024:

Total Inquiries <sup>1</sup>	17
Total Complaints initiated	2
Held in abeyance	0
Preliminary Review Stage	0

<sup>1</sup> Any communication about a member’s professional misconduct. This number includes matters that has since been referred to complaints, however, not all complaints began as inquiries.

Active <sup>2</sup>	7
Held in Abeyance	1
Closed	
Not referred (dismissed or withdrawn)	2
Not referred (caution)	1
Referred to Discipline	2
Ongoing Registrar's Investigations <sup>3</sup>	6
Good Character Investigations initiated	0

## Discipline Committee

Discipline decisions are the result of hearings conducted by a tribunal comprising two senior members of the OAA and a Lieutenant Governor in Council Appointee (LGIC) from the Discipline Committee. The Discipline Committee hears allegations of professional misconduct against members of the Association, holders of a certificate of practice, or holders of a temporary licence.

Allegations may arise through:

- referral of a matter by the Complaints Committee; or
- Council directing the Discipline Committee to conduct a hearing into allegations of professional misconduct in a specific situation.

Currently the Committee is administering the following:

- Five (5) cases to be scheduled;
- One (1) ongoing appeal; and
- Five (5) matters have been scheduled for a written hearing October 17, 2024 to deliberate ConEd non-compliance referrals from last cycle.

## Registration Committee

When the Registrar proposes to refuse (Notice of Proposal (NoP)) an application for licence, certificate of practice or temporary licence; proposes to suspend or revoke a certificate of practice or temporary licence; or, proposes to issue a licence, certificate of practice or temporary licence with terms, conditions and limitations, the applicant may request a hearing before the Registration Committee. The Committee hears the matter and makes a determination as to the proposal by the Registrar.

The hearing is held before a panel of three members of the Registration Committee. A Registration hearing is not an appeal and is not a review of the decision made by the Registrar. A hearing is an opportunity for an applicant to present evidence in support of their application. The applicant bears the onus of satisfying the Registration Panel, on reasonable grounds, that they meet the requirements of the

<sup>2</sup> Active includes matters in documentary exchange process, in an active investigation or before a panel prior to the parties being notified of the disposition

<sup>3</sup> Not yet referred to a committee

Act and the Regulations for the purpose of issuance of a licence or Certificate of Practice.

The Registration Committee is currently experiencing a large number of hearing requests. At the time of drafting this memo, there were:

- Twenty-four (24) hearings to be scheduled; and
- Hearings for fourteen individuals have been conducted:
  - An October 6, 2023 hearing was held for an individual who did not meet all of the licence requirements. The Registration Committee directed the Registrar to refuse to issue a licence and certificate of practice.
  - A November 27, 2023 hearing was held for a group of four individuals who did not meet all of the licence requirements. The Registration Committee ordered the Registrar to issue all four licences and certificates of practice subject to terms, conditions and limitations.
  - A February 5, 2024 hearing was held for an individual who did not meet all of the licence requirements. The Registration Committee directed the Registrar to refuse to issue a licence.
  - An April 17, 2024 hearing was held for a group of two individuals who did not meet all of the licence requirements. The Registration Committee ordered the Registrar to issue one individual a licence and certificate of practice subject to terms, conditions and limitations and the other individual a licence conditional on completion of the examination requirements.
  - An April 30, 2024 hearing was held for an individual who did not meet all of the licence requirements. The Registration Committee directed the Registrar to issue a licence.
  - A May 6, 2024 hearing was held for an individual who did not meet all of the licence requirements. The Registration Committee ordered the Registrar to issue a licence and certificate of practice subject to terms, conditions and limitations.
  - A May 8, 2024 hearing was held for a group of two individuals who did not meet all of the licence requirements. The Registration Committee ordered the Registrar to issue both individuals licences and certificates of practice subject to terms, conditions and limitations.
  - A June 17, 2024 hearing was held for a group of two individuals who did not meet all of the licence requirements. The Registration Committee ordered the Registrar to issue both individuals licences and certificates of practice subject to terms, conditions and limitations.

Some of the hearings may proceed as grouped proceedings if agreed upon by the Committee and parties to the hearing. There are OAA staff dedicated to administer these matters and OAA legal counsel is prepared as required. There will also be a dedicated staff Hearings Officer to coordinate and support the Registration Committee. The Committee's independent legal counsel (ILC) is actively working with the Committee.

On the recommendation from OAA legal counsel, the [OAA website](#) dedicated to the Registration Committee has been updated to include 2024 requested hearings and the associated hearing dates. This aligns with the expectations of the [Statutory Powers Procedure Act, R.S.O. 1990, c. S.22 \(ontario.ca\)](#) and infuses more transparency on the OAA website.

On July 5, 2025 the Chair of the Registration Committee ordered that further scheduling of Registration Hearings be suspended until the Notice of Motion advanced by the AATO is resolved. This decision was communicated via legal counsel to all hearing applicants on July 8, 2024. The communication can be summarized as follows:

*“On Thursday, July 4, 2024, the OAA was served with a draft Notice of Motion from the Association of Architectural Technologists of Ontario (AATO). The AATO is alleging that the OAA is in contempt of the May 2023 order. The AATO appears to be alleging that by accepting and processing applications for licenses from former Licensed Technologists OAA, and adhering to the requirements of the Architects Act, the OAA has contravened the May 2023 order. The OAA intends to defend itself against the AATO motion. However, as a result of the AATO bringing its motion, the Registration Committee has advised that it will not schedule any further hearings. To be clear, this is not out of concern that the OAA has contravened the May 2023 order but rather to communicate to the court that the OAA treats such matters seriously.”*

## Act Enforcement

The Act restricts the practice of architecture to licensed members of the OAA providing professional services through a Certificate of Practice issued by the OAA. The practice of architecture includes:

- the preparation or provision of a design to govern the construction, enlargement, or alteration of a building;
- evaluating, advising on, or reporting on the construction, enlargement, or alteration of a building; or
- the general review of the construction, enlargement, or alteration of a building.

It is an offence for an unlicensed person (including a corporation) to use the term “architect”. It is also an offence to hold oneself out as engaging in the practice of architecture without a licence issued by the OAA.

Misrepresentation of the protected title “architect” and misleading claims or advertising (inadvertently or purposely) could lead the public to conclude they would be receiving architectural services from a licensed and regulated professional.

The OAA’s regulatory mandate includes taking action against those unlawfully providing architectural services. The *Architects Act* and its Regulations outline specific exceptions, but outside of these, the OAA may take legal action. The OAA will investigate when a possible infraction is brought to its attention. If it appears illegal practice has occurred, the OAA may do one or more of the following:

- Send an inquiry letter advising of the concerns, and request specific corrective action. This is a common first step in the case of misrepresentations.
- Request the individual sign an undertaking and covenant agreement, which includes an acknowledgment of the breach of the *Architects Act* and agrees to compliance in the future.



- Pursue financial damages or injunctive relief through the courts.

Below are the act enforcement statistics from June 1 to September 3, 2024:

<b>Active files/ Ongoing investigations<sup>4</sup></b>	<b>35</b>
New matters received during reporting period	28
Resolved by Legal Counsel	0
Resolved by OOTR <sup>5</sup>	5
Unable to locate	0
No breach found <sup>6</sup>	2
Injunctions	0

## Correlated Legislative Matters

### Office of the Fairness Commissioner

The Fairness Commissioner assesses the registration practices of [regulated professions and trades](#) in Ontario to make sure they are transparent, objective, impartial and fair for anyone applying to practise their profession in Ontario.

The Office of the Fairness Commissioner (OFC) supports the Fairness Commissioner in acting on the mandate set out in the [Fair Access to Regulated Professions and Compulsory Trades Act, 2006](#) (FARPACKTA) and the [Regulated Health Professions Act, 1991](#) (RHPA).

The OFC launched its new Risk-Informed Compliance Framework (RICF), which came into effect on April 1, 2022. This framework relies both on the regulator's historical performance, and a series of forward-looking risk factors that could impact a regulator's ability to achieve better registration outcomes for applicants.

The OAA's RICF for the 2022-2023 period was determined to be in full compliance with no outstanding recommendations. In November 2023, the OFC implemented the second iteration of its RICF for the 2023-2024 period. Under this framework, the OFC assesses each regulator's operations against five risk factors that may impede the regulator's ability to apply fair registration practices for the licensure of domestic and internationally trained applicants; the five risk factors are set out below:

1. Organizational capacity.
2. The overall control that a regulator exerts over its assessment and registration processes.
3. The impact of major changes to registration practices and relations with third-party service providers.
4. The ability of the regulator to comply with newly introduced legislative and / or regulatory obligations.

<sup>4</sup> Includes ongoing matters from previous reporting period .

<sup>5</sup> Resolved means the OOTR has contacted the individual in breach and the requested changes have been made.

<sup>6</sup> Investigations were made and no breach found.

5. Public policy considerations:
  - a. Addressing labour market shortages.
  - b. The ability to promote inclusion and address anti-racism concerns in registration processes.

For the OAA's 2023/2024 RICEF, the OFC has identified three areas of risk that will require actions plans to address these concerns. The three identified risks are as follows:

- *Ensure that the OAA's CER alternative(s) comply with the applicable regulatory criteria and facilitate the timely registration of experienced architects from international jurisdictions.* To this end, the OAA may wish to approach other regulators that have eliminated their CERs, or introduced a full competency-based assessment alternative, to compare their experience and approach. The OFC will also want to monitor the number of internationally experienced architects who are accessing alternatives to the IAP, and the number who are successfully licensed.
- *Continue to disseminate public information on all pathways to licensure available for internationally experienced architects* and ensure that these modalities are easily accessible and understood.
- *Implement a thoughtful implementation plan to reinstate the OAA's Lic. Tec. OAA licensees and ensure that this work is undertaken fairly, efficiently and through a client-focused lens.*

The Office of the Registrar completed its first meeting in June with the assigned OFC Analyst to review progress made on these three items. The second (quarterly) meeting was completed September 3, 2024. In order to address the identified risk areas:

- Item number one is tracking the potential for a new national CACB/ESDC project.
- Item number two can be considered complete with the updated OAA webpage [International Credentials and Professional Mobility \(oaa.on.ca\)](https://www.oaa.on.ca).
- Item number three is tracking the implementation of the legislation and regulation for limited licences.

### **FARPACTA Upcoming Amendments**

The period of 2022 and 2023 saw many changes to the *Fair Access to Regulated Professions and Compulsory Trades Act* (FAPACTA) that compelled all Ontario regulators to examine and, in many cases, change their registration practices. The FARPACTA continues to evolve with the following items awaiting Act and/or regulation amendment or proclamation:

#### Third Party Service Providers

On a day to be named by proclamation of the Lieutenant Governor, section 10 of the Act is amended by adding the following subsection:

*(3) For the purposes of subsection (2),*

*(a) in order for a regulated profession to be considered to make assessments of qualifications in a way that is transparent, objective, impartial and fair, it must, at a minimum, meet the requirements prescribed by regulation; and*

*(b) in order for a regulated profession to be considered to have taken reasonable measures to ensure that a third party makes assessments in a way that is transparent, objective, impartial and fair, it must, at a minimum, meet the requirements prescribed by regulation, including any requirements respecting contracts entered into between the regulated profession and the third party. 2024, c. 3, Sched. 3, s. 1.*

With this section above passed into FARPACTA, associated regulations are anticipated that will prescribe requirements relating to assessment of qualifications including specific duties for regulated professions when working with third parties.

### Pending FARPACTA Amendments

At the time of writing this report proposed amendments to FARPACTA (Schedule 3 of the Bill 190, *Working for Workers Five Act, 2024*) had received second reading in the Ontario legislature. Schedule 3 proposes the following:

1. Policy re reasonable alternatives to required documentation:

A regulated profession shall have a policy addressing what alternatives to the documentation of qualifications that is normally required will be acceptable. The policy must,

(a) provide that the regulated profession will accept reasonable alternatives to the documentation that is normally required if the required documentation cannot be obtained for reasons beyond an applicant's control;

(b) describe what constitutes a reasonable alternative;

(c) include the timelines within which the regulated profession will process such alternative documentation and inform the applicant of the next steps; and

(d) comply with any requirements set out in the regulations respecting the policy, including respecting how the policy must address the matters described in clauses (a) to (c).

A regulated profession shall submit the policy to the Fairness Commissioner for review. Whenever there is a change in circumstances that may affect the policy, the regulated profession shall update it and submit it to the Fairness Commissioner for review. Before implementing a policy or updated policy, a regulated profession shall, respond to any input from the Fairness Commissioner regarding the policy or updated policy; and if the regulations so provide, obtain the Fairness Commissioner's approval of the policy or updated policy.

2. Plan re Parallel Processing

A regulated profession shall have a plan addressing how it will enable multiple registration processes to take place concurrently. The plan must,

(a) permit applicants who experience a delay in one part of the registration process to proceed with other parts of the registration process wherever possible; and

(b) comply with any requirements set out in the regulations respecting the plan, including respecting how the plan must address the matter described in clause (a).

A regulated profession shall submit the plan to the Fairness Commissioner for review. Whenever there is a change in circumstances that may affect the plan, the regulated profession shall update it and submit it to the Fairness Commissioner for review. Before implementing a plan or updated plan, a regulated profession shall, respond to any input from the Fairness Commissioner regarding the plan or updated plan; and if the regulations so provide, obtain the Fairness Commissioner's approval of the plan or updated plan.

The Office of the Registrar, the Policy and Government Relations Manager and the Executive Director will continue to monitor the above developments. Actions arising or required will be reviewed with the Governance Committee. Any required policy or statutory changes required will be overseen by the Governance Committee with recommendations to follow for Council review and approval.

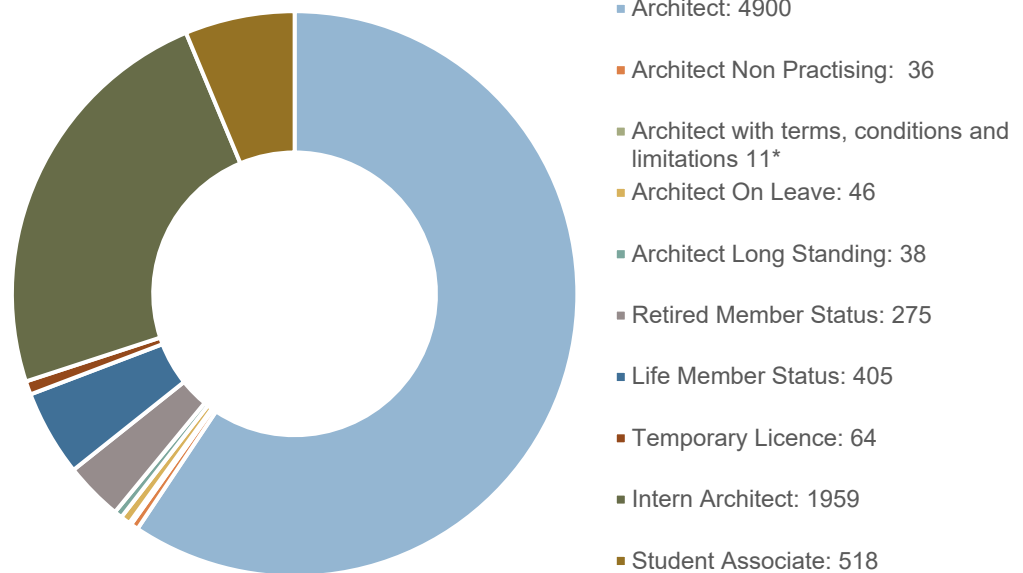
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## Statistics

Below are the OAA community statistics as of September 3, 2024 indicating current records as well as changes for the period of June 1 to September 3, 2024. The OAA community includes members as defined by the *Architects Act* as well as prescribed as classes of persons whose interests are related to those of the Association as defined by the regulations.

### OAA Members and Status Holders

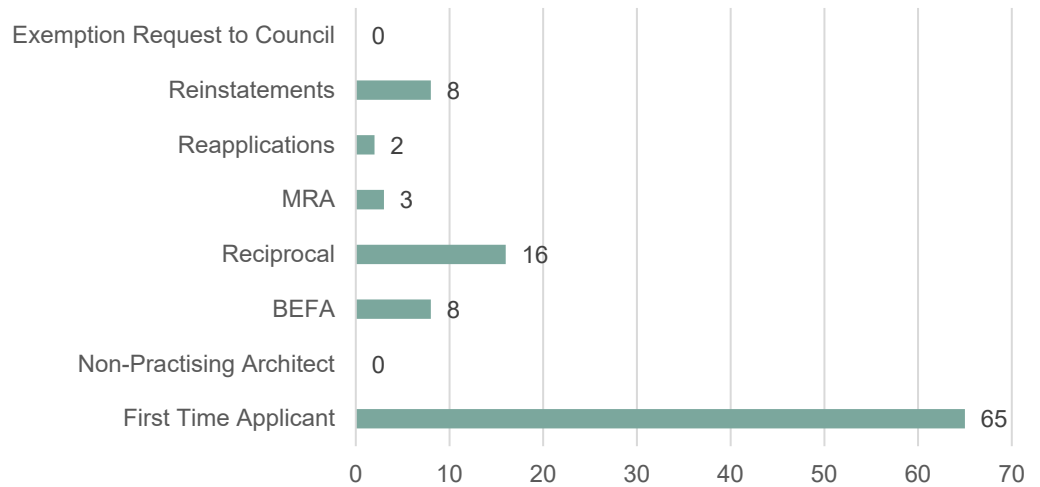
OAA Individual Distribution as of Sept 3, 2024



\* Licences subject to terms, conditions and limitations; ten related to restricted scope of practice and one to a good character undertaking.

# Licence Applications

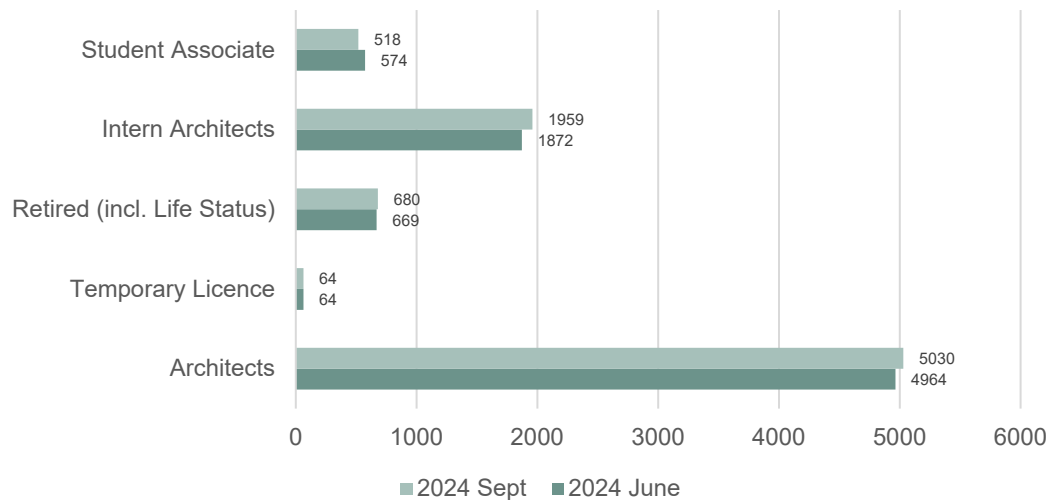
Licence Applications for June 1 to Sept. 3, 2024



- Total licence applications received for period were 103;
- Total licence applications approved for period were 94;
- Of the 65 First Time Applicants 28 were internationally educated applicants; and
- Of the 65 First Time Applicants 6 were issued licences subject to terms, conditions and limitations.

# Growth in Individual Status

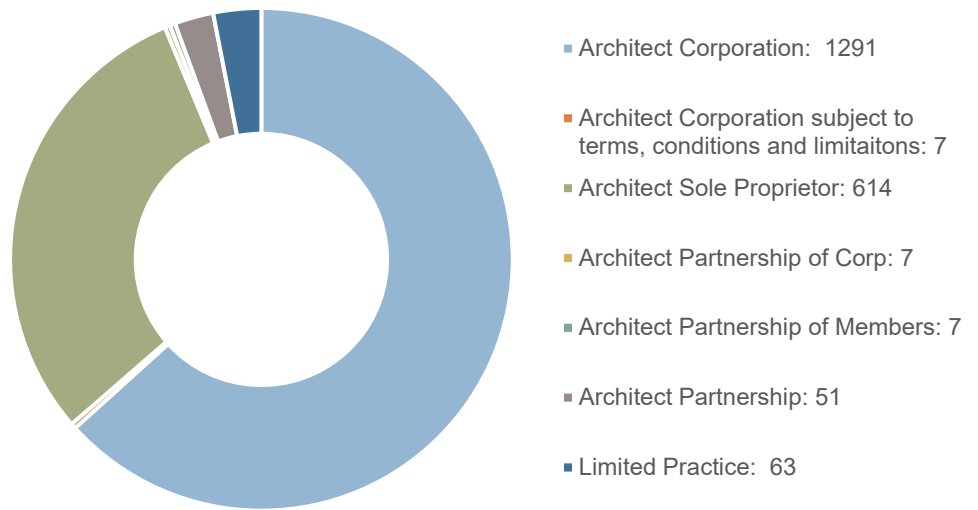
Growth in Individual Status for June 1 to Sept. 3, 2024



- Total Intern Architect applications received for period was 143;
- Total Student Associate applications received for period was 66;

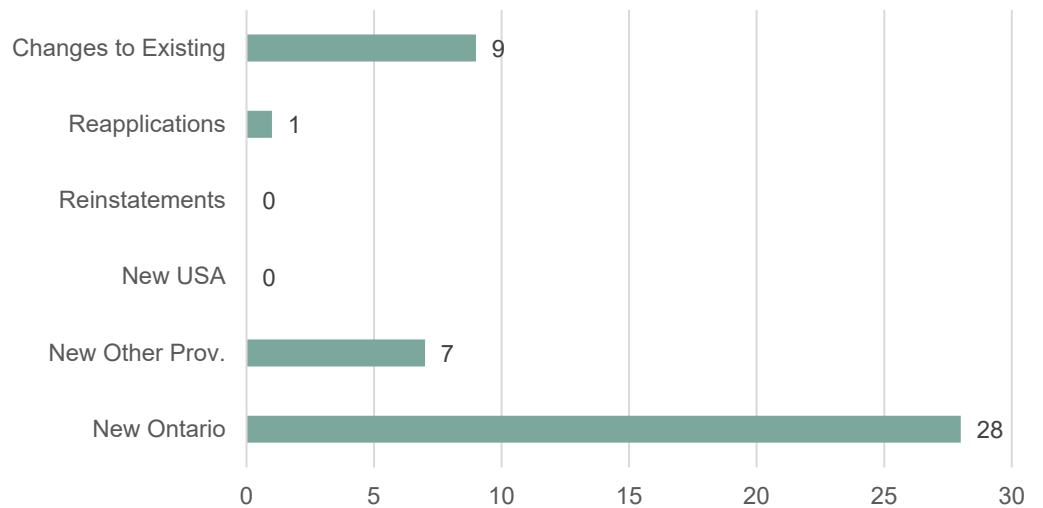
# Certificate of Practice

OAA Certificate of Practice Distribution as of Sept. 3, 2024



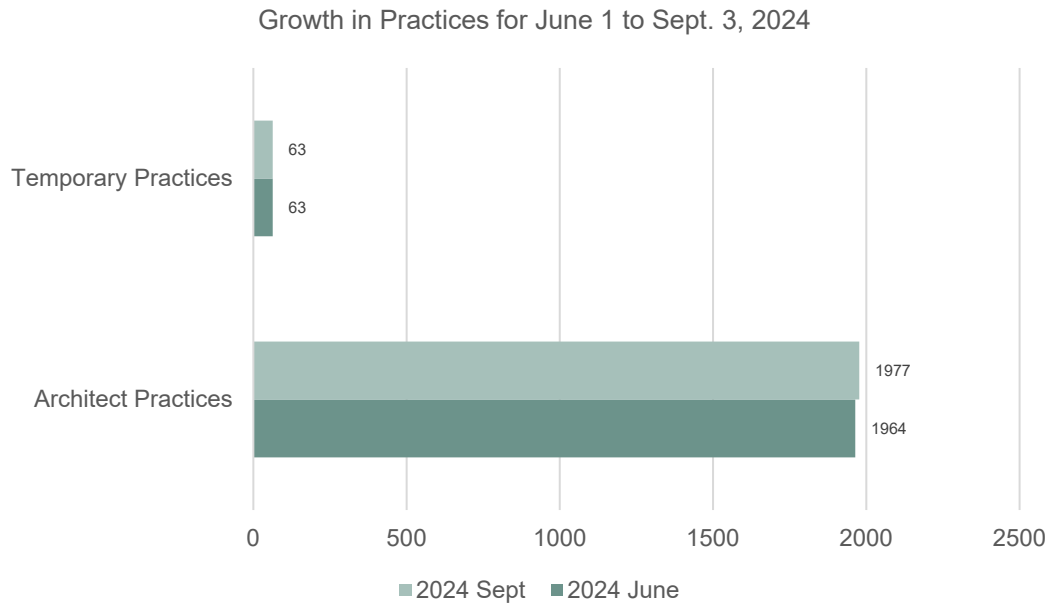
# Certificate of Practice Applications

Practice Applications for June 1 to Sept. 3, 2024

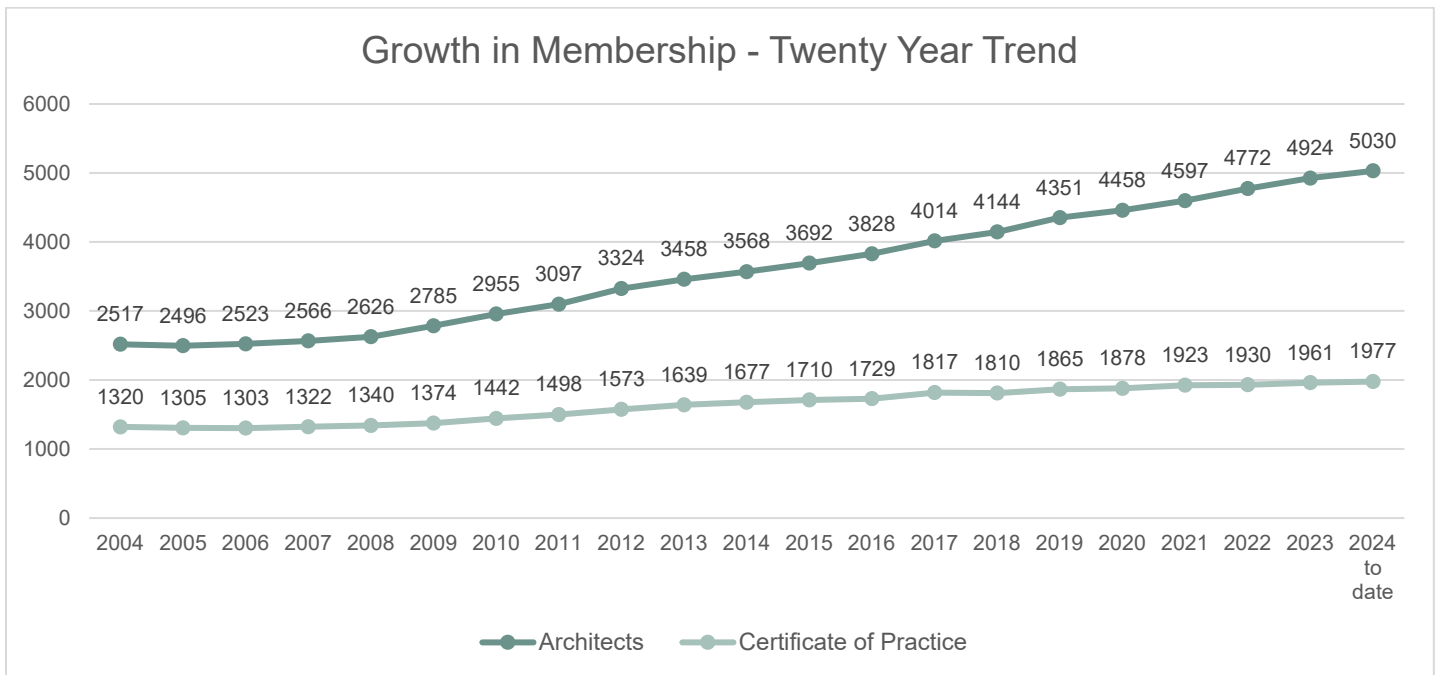


- Total certificate of practice applications received for period were 48
- Total certificate of practice applications approved for period were 45

# Growth in Practices



# Long Term Trends





# Memorandum

**To: Council**

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Spiegel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 6.4.a

**From:** William (Ted) Wilson, Senior Vice President and Treasurer

**Date:** September 6, 2024

**Subject:** Unaudited Financial Statements for the Nine Months Ended August 31, 2024

**Objective:** To provide the nine months (Quarter 3 of FY-2024) financial statements for Council information.

Attached for your information are Financial Statements (FS) including:

1. Balance Sheet
2. Statement of Cash Flows
3. Statement of Revenue and Expenses (comparing 2024 expenditures to 2023, and showing 2024 approved budget figures by category)
4. Contingency Approved vs Spent (tracking approved expenditures to be charged to Council Policy Development Contingency and available balance for the year)
5. Committee Statement expenses (shows 2024 committee budget vs. actual spending) with format updated to current committee structure
6. Statement of Members Equity (current restricted and unrestricted reserve amounts).

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## Policy Contingency

The total 2024 allocation for the Council's Policy Contingency is **\$120,476**.

As of August 31, 2024, Council has approved five initiatives to be drawn from the Policy Contingency this year;

- **\$6,000** for schematic design for the new Presidents' Wall planned for the OAA Headquarters.
- **\$25,000** for Sponsorship Request – No. 9 Sustainable Community

- **\$25,000** for Sponsorship Request - Winter Stations
- **\$35,000** for Altus Group as recommended by PACT to conduct a study that quantifies the impact of province-wide site plan delays and that analyzes the economic impact of the architecture industry in Ontario
- **\$5,000** third honourable mention for Landscape Competition

The remaining amount in Policy Contingency is **\$24,476**.

**Additional ITEMS of NOTE for August 31, 2023:**

Revenue

Fees received to date are **\$456,461**. This figure represents 87% of the budgeted annual fees revenue.

Interest Earned to date is **\$317,400**. This figure represents 105% of the budgeted interest earned with additional interest expected from the OAA's Premium Investment Account in Q4.

Continuing Education revenue has increased to **\$148,053** which represents 322% of the budgeted revenue due to increase webinar registrations.

Expenses

Computer operations, year over year, shows an increase of **\$84,000** due to an increase in general staff IT coverage.

Building Committee, year over year, shows an increase of **\$104,486** due to work related to the Landscape Competition. This increase is accounted for in the 2024 budget for the committee.

Conference Expenses to date are **\$888,709**, with remaining speaker expenses still to come. The estimated deficit is now at \$175k, which is a considerable drop from the estimated deficit of \$350K+ in Q2.

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**Action**

None. For information only.

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**Attachments**

Financial Statements for nine months ended August 31, 2024

**ONTARIO ASSOCIATION OF ARCHITECTS**  
**Balance Sheet**  
**Nine Months Ended August 31, 2024**

	<b>Nine Months Ended August 31,</b>		<b>2023 (3 months)</b>		<b>2023 (12 months)</b>	
<b>ASSETS</b>						
<b>CURRENT</b>						
Petty Cash	500		500		500	
Cash-CIBC	350,553		635,643		244,117	
Cash-Premier Investment Account (PIA)	6,001,881	6,352,934	2,562,763	3,198,906	624,699	869,316
Term Deposits - General	4,438,717	4,438,717	7,000,000	7,000,000	7,000,000	7,000,000
Accounts Receivable	-496,750		-618,450		355,285	
Long Term Member Accounts Receivable	7,873		8,042		7,769	
NSF Cheques	2,025		2,040		2,040	
Accrued Interest	1,945		0		151,862	
HST - Input Tax Credits	66,581		33,628		43,392	
HST Receivable	0	(418,942)	47,187	(527,553)	6,299	566,647
Prepaid Expenses	125,236		270,479		397,785	
Prepaid Miscellaneous	150		150		150	
Inventory	9,375	134,761	10,061	280,691	12,027	409,962
<b>Total Current</b>		<b>10,507,471</b>		<b>9,952,044</b>		<b>8,845,925</b>
<b>LONG TERM</b>						
Land	470,000		470,000		470,000	
Furniture & Equipment	594,197		553,841		577,498	
Computer Equipment	1,889,200		1,340,680		1,519,338	
Website Development	536,082		507,014		515,415	
Building - 111 Moatfield Drive	10,939,466		10,945,370		10,939,466	
Building Additions	2,658,345		2,537,447		2,638,325	
<b>Total Property &amp; Equipment</b>		<b>17,087,289</b>		<b>16,354,352</b>		<b>16,660,043</b>
Accumulated Depreciation - Furniture & Equipment	-359,918		-309,165		-320,914	
Accumulated Depreciation - Computer	-1,044,473		-845,948		-841,381	
Accumulated Depreciation - Website Development	-489,541		-412,940		-432,729	
Accumulated Depreciation - Building	-2,565,815		-2,292,329		-2,360,879	
Accumulated Depreciation - Building Additions	-1,725,561		-1,615,894		-1,625,780	
<b>Total Accumulated Depreciation</b>		<b>(6,185,308)</b>		<b>(5,476,274)</b>		<b>(5,581,683)</b>
<b>Net Fixed Assets</b>		<b>10,901,982</b>		<b>10,878,077</b>		<b>11,078,359</b>
Investment in Pro-Demnity	48,137,966	48,137,966	33,392,693	33,392,693	48,137,966	48,137,966
<b>Total Assets</b>		<b>69,547,418</b>		<b>54,222,814</b>		<b>68,062,250</b>
<b>LIABILITIES</b>						
<b>CURRENT</b>						
Accounts Payable	613,018		8,445		631,195	
Refund Clearing	7,264		11,400		5,533	
CExAC Payable	1,979,019		1,485,056		0	
CExAC Operating Fund	-1,360,320		-839,411		746,616	
RBC-LTD Clearing	-8,428		-7,108		-2,176	
Stale Dated Refund	214		214		214	
HST Payable	14,110		5,618		5,702	
		1,244,876		664,213		1,387,083
Deferred Revenue - Fees	575,779		507,715		697,592	
Deferred Revenue - ConEd	16,926		9,523		16,117	
		592,705		517,238		713,709
Mortgage Payable - Current	48,458	48,458	48,458	48,458	193,830	193,830
<b>Total Current</b>		<b>1,886,039</b>		<b>1,229,909</b>		<b>2,294,622</b>
<b>LONG TERM</b>						
Mortgage Payable - Long Term	3,908,900		4,102,730		3,908,900	
<b>Total Long Term Liabilities</b>		<b>3,908,900</b>		<b>4,102,730</b>		<b>3,908,900</b>
<b>Total Liabilities</b>		<b>5,794,939</b>		<b>5,332,639</b>		<b>6,203,523</b>
<b>EQUITY</b>						
Members' Equity	56,830,696		43,894,721		48,199,144	
Major Capital Reserve Fund (Internally Restricted)	2,583,872		1,250,226		1,578,076	
Operating Reserve Fund (Internally Restricted)	2,158,751		1,148,127		1,358,127	
Legal Reserve Fund (Internally Restricted)	285,500		202,500		285,500	
Surplus/(Deficit)	1,893,964		2,394,693		10,437,972	
<b>Members Equity Closing</b>		<b>63,752,783</b>		<b>48,890,267</b>		<b>61,858,819</b>
<b>Total Liabilities &amp; Equity</b>		<b>69,547,722</b>		<b>54,222,906</b>		<b>68,062,342</b>

**ONTARIO ASSOCIATION OF ARCHITECTS**  
**Statement of Cash Flows**  
**Nine Months Ended August 31, 2024**

**Operating Activities:**

Excess (deficiency) of revenue over expenses 1,893,964

**Add items not involving cash:**

Amortization of property and equipment 603,625

Loss on Disposal of property and equipment

Income from investment in Pro-Demnity Insurance Company 0

**Net change in non-cash working capital items:**

Accounts receivable 985,589

Inventories 2,651

Prepaid expenses 272,549

Accounts payable and accrued liabilities (142,206)

Deferred revenue (121,005)

Major Capital Reserve Fund (Internally Restricted) 1,005,796

Operating Reserve Fund (Internally Restricted) 800,624

Legal Reserve Fund (Internally Restricted) 0

**Cash flows from operating activities** 5,301,588

**Financing Activities:**

Mortgage Payable - Current (145,372)

**Cash flows from financing activities** (145,372)

**Investing activities:**

Short-term deposits 2,561,283

Purchase of property and equipment (427,247)

**Cash flows from investing activities** 2,134,036

**Net increase/(decrease) in cash during the year** 7,290,251

Cash, beginning of year (937,317)

**Cash, end of period** 6,352,934

**Statement of Revenue and Expenses**  
**Nine Months Ended August 31, 2024**

	2023			2024			2024			2024				
	ACTUAL-YTD			ACTUAL-YTD			ANNUAL BUDGET			BUDGET PROJECTION		BUDGET VARIANCE		
	Detail	Total	%	Detail	Total	%	Detail	Total	%	Detail	Total	%	Detail	Total
<b>REVENUE</b>														
Fees	7,174,707		91.9%	7,456,461		86.8%	7,642,006		82.4%	7,542,006		83.0%	100,000	
Classifieds Revenue	16,575		0.2%	13,725		0.2%	25,500		0.3%	25,500		0.3%	0	
Conference Revenue	249,431		3.2%	618,617		7.2%	1,084,625		11.7%	821,963		9.1%	262,663	
Continuing Education:														
Admission Course Revenue	0		0.0%	0		0.0%	7,000		0.1%	7,000		0.1%	0	
Continuing Education Revenue	26,985		0.3%	148,053		1.7%	45,495		0.5%	175,000		1.9%	-129,505	
Fundamentals of Architectural Practice	0		0.0%	0		0.0%	8,985		0.1%	8,985		0.1%	0	
Documents, Job Signs & Other Revenue	18,206		0.2%	19,900		0.2%	20,000		0.2%	22,000		0.2%	-2,000	
ExAC Jurisdiction Exam Fee	0		0.0%	0		0.0%	113,000		1.2%	113,000		1.2%	0	
Interest Earned	320,269		4.1%	318,350		3.7%	300,939		3.2%	350,000		3.9%	-49,061	
Misc Fees	0		0.0%	0		0.0%	0		0.0%	0		0.0%	0	
Room Rental Income	0		0.0%	0		0.0%	0		0.0%	0		0.0%	0	
Pro-Deminity:														
PCS Transfer	3,439		0.0%	0		0.0%	3,500		0.0%	3,500		0.0%	0	
Awards Income	-200		0.0%	8,700		0.1%	24,000		0.3%	8,700		0.1%	15,300	
Recovery of Discipline Charges	750		0.0%	3,750		0.0%	0		0.0%	3,800		0.0%	-3,800	
<b>Total Revenue</b>		<b>7,810,162</b>	<b>100.0%</b>		<b>8,587,556</b>	<b>100.0%</b>		<b>9,275,050</b>	<b>100.0%</b>		<b>9,081,454</b>	<b>100.0%</b>		<b>193,597</b>
<b>EXPENDITURES</b>														
<b>Council &amp; Executive</b>		<b>917,287</b>	<b>17.0%</b>		<b>871,517</b>	<b>13.0%</b>		<b>1,180,848</b>	<b>12.7%</b>		<b>1,174,946</b>	<b>13.3%</b>		<b>5,903</b>
AGM (Annual General Meeting)	7,792			2,104			10,000			10,000			0	
Committees & Task Groups:														
Governance and HR Committee	712			10,771			30,000			30,000			0	
Finance and Audit Committee	0			0			0			0			0	
Construction Design Alliance Ontario (CDAO)	948			3,200			5,904			4,000			1,904	
Joint OAA/Arido Task Group	0			0			0			0			0	
Miscellaneous Committee Expense	2,326			4,406			2,000			5,000			-3,000	
OAA/OGCA Best Practices Committee	0			0			2,000			2,000			0	
Policy Advocacy Coordination Team (PACT)	4,475			5,834			30,000			30,000			0	
Council & Executive	183,882			213,204			252,201			252,201			0	
Legal:														
Legal General	6,881			24,870			36,190			36,190			0	
Liaison With Gov't & Other Organizations	2,510			40			2,000			2,000			0	
National:														
Canadian Architectural Certification Board (CACB)	60,750			37,888			67,000			67,000			0	
ROAC Meetings	49,722			102,440			107,109			107,109			0	
International Relations Committee	7,672			0			0			0			0	
RAIC Festival	0			11,534			18,450			11,534			6,916	
Tri-National Agreement	0			0			0			0			0	
OAAAS	388			0			0			0			0	
Integration Committee OAA Technology Program	0			0			0			0			0	
Salaries & Benefits Council & Exec	584,495			454,967			617,994			617,912			83	
<b>Regulatory:</b>		<b>905,226</b>	<b>16.8%</b>		<b>1,108,786</b>	<b>16.6%</b>		<b>1,797,296</b>	<b>19.4%</b>		<b>1,631,026</b>	<b>18.5%</b>		<b>166,270</b>
Committees:														
Complaints Committee	43,634			25,420			70,425			60,000			10,425	
Discipline Committee	7,305			15,183			63,200			43,200			20,000	
Experience Requirements	4,551			3,658			49,280			15,000			34,280	
Fees Mediation Committee	0			0			0			0			0	
Registration Committee	0			161,538			155,200			200,000			-44,800	
The Interns' Committee	0			124			15,000			8,000			7,000	
Exam for Architects in Canada (ExAC):														
ExAC Exam Administration	55,713			108,717			79,550			107,350			-27,800	
Legal:														
Legal -Reg Amendments (Names)	0			3,154			50,000			20,000			30,000	
Act Enforcement	49,004			44,382			60,000			60,000			0	
Appeals	9,425			150			20,000			5,000			15,000	
Discipline Hearings	77,041			17,558			60,000			40,000			20,000	
Fees Mediation	0			0			0			0			0	
General	25,347			20,851			30,000			30,000			0	
Registration Hearings	715			3,647			192,000			90,000			102,000	
Salaries & Benefits - Registrar	629,262			701,306			952,641			952,476			165	
<b>Practice Advisory:</b>		<b>474,132</b>	<b>8.8%</b>		<b>594,091</b>	<b>8.9%</b>		<b>813,771</b>	<b>8.8%</b>		<b>813,936</b>	<b>9.2%</b>		<b>-165</b>
Legal-Practice	3,107			37,816			49,000			49,000			0	
Committees:														
Engineers, Architects, Building Officials (EABO)	0			0			0			0			0	
Practice Resource Committee	2,925			2,469			12,786			12,786			0	
Salaries & Benefits - PA	468,100			553,806			751,985			752,150			-165	
<b>Communications:</b>		<b>577,327</b>	<b>10.7%</b>		<b>538,138</b>	<b>8.0%</b>		<b>1,078,292</b>	<b>11.6%</b>		<b>767,739</b>	<b>8.7%</b>		<b>310,553</b>
Committees:														
Communications and Public Education Committee	0			2,232			13,200			13,200			0	
Community Outreach Program	665			1,618			1,000			1,000			0	
Content Creation/Publications	27,464			6,354			27,000			17,000			10,000	
Cyber Security Insurance	7,375			7,745			8,850			8,850			0	
French Translation Costs	5,154			0			20,000			10,000			10,000	
Honors & Awards	13,784			63,148			70,295			70,295			0	
Public Outreach & Education	0			8,673			25,000			18,000			7,000	
P.R. Sponsorship Opportunities	35,300			43,119			81,440			81,440			0	
Scholarships and Awards (Trust Fund)	58,027			57,582			58,000			58,000			0	
Societies:														
Society Liaison Travel	0			1,812			0			10,000			-10,000	
Society Funding	64,935			59,685			73,000			60,000			13,000	
Special Program Funding	55,000			84,204			134,000			134,000			0	
Society Chairs Meeting - Conference	4,056			2,051			15,933			15,933			0	
Tradeshows and Ongoing Outreach Activities	8,962			7,500			6,500			7,500			-1,000	
University Funding	10,000			10,000			25,000			25,000			0	
Web Maintenance/Hosting	13,803			30,354			17,888			31,000			-13,112	
Salaries & Benefits - Communications	272,802			152,061			501,186			206,521			294,665	
<b>Conference:</b>		<b>358,695</b>	<b>6.7%</b>		<b>1,257,609</b>	<b>18.8%</b>		<b>1,299,757</b>	<b>14.0%</b>		<b>1,331,513</b>	<b>15.1%</b>		<b>-31,756</b>
Conference	219,356			888,709			1,093,112			830,492			262,620	
Salaries & Benefits - Conference	139,339			368,900			206,645			501,021			-294,375	
<b>Continuing Education:</b>		<b>273,215</b>	<b>5.1%</b>		<b>281,519</b>	<b>4.2%</b>		<b>435,203</b>	<b>4.7%</b>		<b>435,326</b>	<b>4.9%</b>		<b>-124</b>
Comprehensive ConEd Committee	0			0			1,936			1,936			0	
Continuing Education:														
Admission Course	11,065			6,495			26,000			26,000			0	
Continuing Education	20,965			14,087			19,000			19,000			0	
Fundamentals of Architectural Practice	0			0			34,000			34,000			0	
Salaries & Benefits - ConEd	241,185			260,937			354,267			354,390			-124	
<b>Practice Consultation Service:</b>		<b>0</b>	<b>0.0%</b>		<b>0</b>	<b>0.0%</b>		<b>0</b>	<b>0.0%</b>		<b>0</b>	<b>0.0%</b>		<b>0</b>
Salaries & Benefits - PCS	0			0			0			0			0	
<b>Administration:</b>		<b>767,193</b>	<b>14.3%</b>		<b>996,596</b>	<b>14.9%</b>		<b>1,345,613</b>	<b>14.5%</b>		<b>1,333,683</b>			

**Statement of Revenue and Expenses**  
**Nine Months Ended August 31, 2024**

	2023			2024										
	ACTUAL-YTD			ACTUAL-YTD			ANNUAL BUDGET			BUDGET PROJECTION			BUDGET VARIANCE	
	Detail	Total	%	Detail	Total	%	Detail	Total	%	Detail	Total	%	Detail	Total
Prior Years' Development:														
Firewall Legal Opinion	0			0			0			0			0	
Initiative to Address EDI – Consultant/Survey Consultant	20,000			0			0			0			0	
Total Energy Use Intensity Calculator (TEUI)	0			0			0			0			0	
UofT - Future of LTC	4,875			0			0			0			0	
Consultant re Scope of Practice of the Licensed Technologist OAA	2,450			0			0			0			0	
Presidents Wall	10,000			0			0			0			0	
Sponsorship Request - Sustainable Community	0			0			0			6,000			-6,000	
Sponsorship Request - Winter Stations	0			25,000			0			25,000			-25,000	
Altus Group - economic impact of architecture	0			25,000			0			25,000			-25,000	
Third Honourable Mention - Landscape Award	0			0			0			35,000			-35,000	
Depreciation				5,000						5,000				
Computer		584,594	10.9%		603,625	9.0%		804,832	8.7%		804,832	9.1%		0
Building	186,005			203,092			270,788			270,788			0	
Building Additions	204,936			204,936			273,248			273,248			0	
Furniture & Equipment	106,789			99,781			133,041			133,041			0	
Web	38,691			39,004			52,004			52,004			0	
Reserves	48,172			56,813			75,750			75,750			0	
Legal Reserve		0	0.0%		0	0.0%				0				
Major Capital										0				
Operating Reserve										0				
<b>Expenditures before Extraordinary &amp; YE Items</b>		<b>5,162,491</b>			<b>6,671,761</b>			<b>9,275,050</b>			<b>8,820,994</b>			<b>525,580</b>
<b>Surplus(+)/Deficit(-) Before Extraordinary &amp; YE Items</b>		<b>2,647,672</b>			<b>1,915,795</b>			<b>-1</b>			<b>260,460</b>			<b>-331,983</b>
<b>Extraordinary &amp; Year End Items</b>														
AATO Court Order Costs	218,773	218,773	4.1%	21,831	21,831	0.3%		0	0.0%		0	0.0%		0
<b>Total Expenditures</b>		<b>5,381,264</b>			<b>6,693,592</b>			<b>9,275,050</b>			<b>8,820,994</b>			<b>525,580</b>
<b>TOTAL REVENUE</b>		<b>7,810,162</b>			<b>8,587,556</b>			<b>9,275,050</b>			<b>9,081,454</b>			<b>193,597</b>
<b>TOTAL EXPENDITURES</b>		<b>5,381,264</b>	100.0%		<b>6,693,592</b>	100.0%		<b>9,275,050</b>	100.0%		<b>8,820,994</b>	100.0%		<b>525,580</b>
<b>SURPLUS(+)/DEFICIT(-)</b>		<b>2,428,899</b>			<b>1,893,964</b>			<b>0</b>			<b>260,460</b>			<b>-331,983</b>

Comments

	BALANCE	APPROVED	2024					
			ACTUAL-YTD			ANNUAL BUDGET		
			Detail	Total	%	Detail	Total	
<b>Council Policy Development:</b>	<b>24,476</b>	96,000		55,000				
<b>Council Policy Development Contingency</b>							120,476	
1 Presidents Wall		6,000		0				
2 Sponsorship Request - Sustainable Community		25,000	25,000					
3 Sponsorship Request - Winter Stations		25,000	25,000					
4 Altus Group to conduct a study that quantifies the impact of province-wide site plan delays and that analyzes the economic impact of the architecture industry in Ontario		35,000		0				
5 Third Honourable Mention - Landscape Award		5,000	5,000					
6				0				
7								

Nancy, note that Council has approved funding for Phase 3 of the project at an amount of \$8.60 per architect. This is approximately double that which was set in the 2023 budget, therefore the other half of the funding is to be allocated to the policy contingency for 2023. Also of note under #6 of the recommendations that there may be a request for funding in the development of the Policy which will be allocated to



**ONTARIO ASSOCIATION OF ARCHITECTS**  
**Committee Statement**  
 Nine Months Ended August 31, 2024

	<b>2024</b>		
	<b>BUDGET</b>	<b>BUD PROJECTION</b>	<b>ACTUAL</b>
<b>Standing Committees</b>	<b>85,986</b>	<b>85,986</b>	<b>19,073</b>
Governance and HR Committee	30,000	30,000	10,771
Finance and Audit Committee	0	0	0
Communications & Public Education Committee (CPEC)	13,200	13,200	0
Practice Resource Committee (PRC)	12,786	12,786	2,469
Policy Advocacy Coordination Team (PACT)	30,000	30,000	5,834
<b>Statutory Committees</b>	<b>590,306</b>	<b>570,401</b>	<b>205,799</b>
Executive Committee	252,201	252,201	
Discipline Committee	63,200	43,200	15,183
Complaints Committee	70,425	60,000	25,420
Experience Requirements Committee	49,280	15,000	3,658
Registration Committee	155,200	200,000	161,538
Fees Mediation Committee	0	0	0
Practice Review Committee (Mandate Fulfilled by PRC see above)	n/a	n/a	n/a
<b>Discretionary Committees</b>	<b>125,500</b>	<b>150,500</b>	<b>126,373</b>
Building Committee	110,500	142,500	126,249
Interns Committee	15,000	8,000	124
OAA Technology Program Integration Committee	0	0	0
<b>Operational (Staff-led) Committees</b>	<b>3,872</b>	<b>3,872</b>	<b>0</b>
Continuing Education Advisory Group	1,936	1,936	
Education Committee	1,936	1,936	0
	<b>805,664</b>	<b>810,759</b>	<b>351,245</b>

**ONTARIO ASSOCIATION OF ARCHITECTS**  
**Statement of Members Equity**  
**Nine Months Ended August 31, 2024**

**Members Equity Year to Date (YTD)**

Total Members Equity	
Less: Current YTD Surplus from P&L	
Less: Allocated Reserves (Restricted)	
Legal Reserve	
Major Capital Reserve	
Operating Reserve	
Less: Pro-Demnity Insurance	
Less: Property & Equipment	
YTD Unrestricted Members Equity Available for Allocation	
Future Reserve Allocation	
2024 Projected YE Reserve Allocation (Restricted)	
Legal Reserve	
Major Capital Reserve	
Operating Reserve	
Remaining Unrestricted Members Equity 2023 YE	

Detail	Total
	63,752,783
	1,893,964
	5,028,123
285,500	
2,583,872	
2,158,751	
	48,137,966
	6,944,623
	1,748,107
	-
	1,748,107

Any Surplus or Deficit at Year End is transferred to the Members Equity. Council determines at Year End the portion of Unrestricted Members Equity to be allocated to the restricted reserves. The Budget Committee provides recommended amounts to transfer to Restricted Reserves during the budgeting process in the fall.

**Major Capital Reserve Fund**

Budget 2020 provides for a portion of the projected surplus to be allocated to this reserve.

**History:**

In 2014 the Building Reserve Policy was formalized and issued “to provide a source of sustained funding for Capital Maintenance and Repair as well as Capital Improvements that cannot be otherwise funded in a single budget year through the OAA’s existing annual operating budget for repair and maintenance of the building.”

In 2012 for Budget 2013 Council approved an increase to the Building Reserve of \$50,000 bringing the annual contribution to \$170,000.

For Budget 2011 Council approved an increase to the annual contribution to the building reserve from \$40,000 to \$120,000 Council on October 12, 2006 approved the creation of a reserve fund to provide for future repairs to the building. Budget 2007 represented \$40,000 in order to establish the reserve.

**Operating Reserve**

Budget 2020 provides for a portion of the projected surplus to be allocated to this reserve.

**History:**

In 2014 the Operating Reserve Policy was issued to “ensure the stability of the mission, programs, employment, and ongoing operations of the organization in the event of a sudden or unexpected negative change in revenue that would affect the provision of services to members.”

**Legal Reserve**

Budget 2020 provides for a portion of the projected surplus to be allocated to this reserve.

**History:**

The legal reserve fund was established in 2017 to set aside funds for years during which unusually high legal costs arise as was the case in 2017.

# Memorandum

**To:** Council

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Spiegel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 6.5.a

**From:** Lara McKendrick, Chair

Mariella Amodio	Pearl Chan
Kurtis Chen	Jon Hobbs
Carl Knipfel	Elaine Mintz
Brigitte Ng	

**Date:** August 27, 2024

**Subject:** CPEC Updates

**Objective:** To provide an update on CPEC items and initiatives since the June Council Meeting.

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## Background and General Updates

The Communications & Public Education Committee (CPEC) provides oversight and advice for consideration by Council and OAA staff on public education and outreach activities in direct response to the secondary objects set out in the *Architects Act*. It focuses its efforts to advance the public's understanding and recognition that architecture is integral to the quality of life and well-being of society as experienced through a sustainable, resilient, and durable built environment.

CPEC's six-hour meeting was held in person at the OAA Headquarters on August 22, with every member in attendance. The August meeting is traditionally quite long as it is focused on the Committee deciding on distribution of available funds to applicants to two funding programs: the public-facing Public Awareness Sponsorship and Special Project Funding for Local Societies.

OAA staff updated CPEC members on various operational items, including initiatives underway related to K–12 education (ChatterHigh), the success of the Landscape Design Celebration, plans related to the HQ building video series, OAA Website, podcasts, and thoughts related to a NOW Lecture event at the Headquarters in the late fall to spotlight the landscape design team and the selection for Best Emerging Practice.

CPEC will next meet in November, virtually, to discuss various items, including the selection of a virtual keynote to kick off Conference registration. This candidate will be put forth for Council's consideration at the next meeting.

### **SHIFT Jury Selection**

At the previous Council meeting, the theme of *Reshaping Communities* was approved by Council for next year's iteration of the [SHIFT Architecture Challenge](#). This aspirational, biennial program was created to highlight to the public the distinct contribution the architecture profession brings to addressing key societal issues. Its deadline will be in mid-January and selections will be celebrated online, in a print publication, and at the Conference in Ottawa next year.

The selections for SHIFT are always decided upon by a jury comprising individuals recommended to OAA staff by CPEC. This year, several candidates were shared with the Committee, with possibilities suggested by staff, Councillors, CPEC members, and Local Society chairs.

It was agreed there should be a balance of between three and four architects/OAA status holders and one or two esteemed experts from other fields. It was also important to examine the entirety of the jury composition through an equity, diversity, and inclusion lens to ensure a variety of perspectives, including experience, geography, and identity. In addition, a jury facilitator was required—someone familiar with OAA programming and able to achieve efficient collaboration and consensus.

CPEC has developed a short list of candidates, and OAA staff is now in the process of reaching out to gauge interest and availability, considering that the commitment required of the jury and facilitator consists of reviewing proposals in January and attendance at an in-person Jury Day event in February at the OAA Headquarters. Once the jury is finalized, it will be shared with Council. The hope is the jurors and facilitator will be secured in advance of the call for proposals in October to assist in generating interest in participating in SHIFT among the OAA community.

### **Local Societies and Special Project Funding**

The Special Project Funding (SPF) program is intended for the Local Architecture Societies, and is awarded to carry out special projects or events (i.e. not continuous initiatives) that cannot be covered by their current assets. The projects selected for funding generally further the OAA's objective to establish classes, schools, exhibitions, or lectures in, and promote public appreciation of, architecture and the allied arts and sciences. It requires the Society submit an Annual Report in early January each year.

This year, six Societies put forth nine applications, for a total of \$40,100. The Committee had to stay within a budget of \$38,063. Decisions have been made and OAA staff is now in the process of contacting those who will be receiving funding. The list will be shared with Council at its next meeting.

## Public Awareness Funding

CPEC reviewed 19 submissions for the Public Awareness Program, which enables individuals, practices, and outside organizations to apply for financial assistance in carrying out projects or events promoting Ontario architecture to the public. The Committee measures all applications against four criteria:

- potential to increase public awareness/appreciation of architecture and the allied arts and sciences;
- innovation, creativity, and relevance;
- ability to attract an audience and successfully run event/initiative; and
- alignment to goals, priorities, and themes of the five-year OAA strategic plan.

The total amount of all Public Awareness Sponsorship requests was \$117,250—the Committee had a \$40,000 budget with which to work. (Note: one applicant was requesting an amount in excess of the Committee’s \$10,000 limit. As per the established process, it is now being shared with Council for consideration under a separate memo.)

CPEC found consensus in offering financial support for the majority of applicants meeting the criteria, and OAA staff is now in the process of contacting those whom will be receiving sponsorship funds. Those who will not receive funding will still be offered an opportunity for in-kind sponsorship—that is, promotion about the initiative on the OAA Website, *OAA News* e-newsletter, and social media channels.

With respect to the successful applicants, a clear breakdown will be shared with Council as part of the next meeting’s package.

### Public Awareness Funding: Future

The Committee also discussed operational changes to the Public Awareness Sponsorship Program for next year, intended to increase the transparency, fairness, and efficiency of this funding mechanism, as well as to better tie it to the OAA’s strategic plan and the secondary objects of the *Architects Act*.

For 2025, the overall program is overviewed in an appendix to this memo, “Public Awareness Funding Language on Website,” but the various administrative changes are:

1. **Revised title** to offer clarity of purpose: Public Awareness *Funding* (rather than “sponsorship,” which carries certain connotations).
2. **Encourage participants to indicate scalability** should there not be enough to fund the full requested amount (i.e. if \$5,000 is not available, would \$2,500 still be helpful?).
3. **Shift deadlines several weeks later** to accommodate other competing timelines and Committee priorities (e.g. onboarding process for new members in January, Council planning retreat, etc). In other words, submission dates would now be March and September, rather than January and July.

4. **Improved clarity/efficiency/transparency of application process.** Use of Google Forms to collect information (rather than PDFs) augments automation and ensures applications are not missed in crowded inboxes. Further, eligibility criteria will be transparent and available in both the online form and on the website (including what the OAA will *not* fund). None of this is new, but it is now being made clearer to applicants.
5. **Improved clarity/efficiency/transparency of evaluation process.** The aforementioned Google Forms creates an easy-to-share document for the Committee's review. To accommodate Committee members' different scoring/reviewing approaches, there will be flexibility in offering the info both separately and as a single, consolidated document, with staff support. The evaluation criteria to guide decision making is also made clearer through a scoring rubric available to CPEC members to use as part of their review of submissions and to facilitate Committee discussion and consensus.
6. **Impact report for successful applicants.** Those for whom funding is granted must now submit a brief Google Form response within 60 days of their initiative's completion. This comprises a practical summary of the event itself, a personal evaluation (i.e. did you achieve your goals?), challenges faced, and any other feedback they would like to share about the OAA's funding program.

Again, none of these changes alter the criteria for the program, the overall administration, or the established practice of having CPEC decide on submissions below the \$10,000 threshold and forward to Council those applicants above that amount for consideration using contingency funds.

On a related note, OAA staff is now tracking total amounts for submission requests since 2020 to determine whether the currently allocated amount of \$80,000 annually is sufficient. In other words, staff is examining what is the cumulative total for requests that meet the program's goals, but are denied funding due to budgetary constraints—the goal is to see whether this amount is trending up. For Fiscal Year 2025, the same \$80,000 amount has been shared for consideration of the Audit and Finance Committee.

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**Action**

None. For information only.

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**Attachments:** Public Awareness Funding Language on Website

# Public Awareness Funding

Under its [five-year strategic plan](#), the OAA has identified public education as a key pillar with the goal to advance the public's understanding and recognition that architecture is integral to the quality of life and well-being of our society.

The OAA offers **Public Awareness Funding** in amounts from \$500 to \$10,000 to applicants who share this important goal and are actively working to expand an awareness of the value of architecture in their communities. OAA funds are provided with minimal prescriptions with the trust that community groups know best how to engage and serve their communities.

**Funds are released semi-annually with deadlines in Mid-March and Mid-September. Any requests for more than \$10,000 may only be awarded at the discretion of OAA Council. (This requires a longer timeline.)**

The OAA also provides in-kind promotional support to deserving applicants, whether they receive funding or not.

## + How to Apply

Interested applicants must submit an [application form](#). (The questions are also listed below.) These submissions are evaluated by the OAA's [Communications and Public Education Committee \(CPEC\)](#).

Aside from basic project/applicant information, the questions that must be completed using the form in the link above include:

- Have you received OAA funding in the past (along with dates and amounts)?
- Who is the target audience? What is the expected impact on this audience related to architecture awareness?
- Why have you requested funding from the OAA for this project?
- Please provide a brief project timeline and/or action plan.
- What do you want to achieve with this project? How will you know whether you are successful?
- Please include a budget detailing how you arrived at your requested amount and how the funds will be spent. Include funding from other sources, if applicable.
- Occasionally, CPEC is able to offer a lower amount of funding than initially requested. Please briefly describe how your project or your funding request can be scaled down should a lower funding tier be available instead.

## + Eligibility

The OAA welcomes proposals from:

- Not-for-profits and charitable organizations;
- Grassroots organizations;
- Informal collectives;
- Individuals; and
- Other deserving applicants (at the discretion of the Committee).

The Public Awareness Funding can be used to fund **upcoming** projects and initiatives such as:

- Community events;
- Lectures;
- Workshops;
- Exhibitions;
- Day camps; and
- Innovative learning tools.

The OAA's Public Awareness Funding program will not support:



- Illegal activities, harmful activities, or activities contrary to the Ontario Human Rights Code;
- Projects that have already happened;
- Projects outside Ontario;
- Commercial/profit-driven projects;
- Projects or technical tools focused solely on those within the architectural profession;
- Projects contrary to the OAA's [vision, mandate, and values](#); or
- Projects contrary to the OAA's [Conflict of Interest Policy](#).

#### + Evaluation Process

CPEC will consider a variety of projects that align with the OAA's [vision, mandate, and strategic plan](#) while demonstrating the potential to advance public awareness about architecture. The Committee will evaluate submissions against the following key criteria:

- clear focus on public awareness, appreciation, and understanding of architecture and the allied arts and sciences;
- ability to address the OAA's key strategic themes of [climate action](#) and [equity, diversity, inclusion](#), and [Reconciliation](#);
- innovation, creativity, and relevance;
- demonstrated need for funding;
- ability to reach a broad public audience, especially youth;
- feasibility and likelihood of success; and
- expected impact.

Successful funding recipients may be asked to include the OAA logo on any promotional materials associated with their projects. **Recipients must also submit a brief impact report within 60 days of their project's completion.** This offers a practical summary of the event itself, a personal evaluation (i.e. did you achieve your goals?), challenges faced, and any other feedback you'd like to share about the OAA's funding program.

#### + Timelines

Funds are released semi-annually with deadlines in mid-March and mid-September. For 2025, the approximate timelines are as follows:

##### **Deadline One: Monday, March 17, 2025**

- April: CPEC reviews and approves of funding requests
- Early May: decisions are communicated to applicants, with funding issued via cheque
- Late May: OAA Council reviews any requests above \$10,000
- Early June: funding issued to successful applicants above \$10,000

##### **Deadline Two: Monday, September 15, 2025**

- October: CPEC reviews and approves of funding requests
- November: decisions are communicated to applicants, with funding issued via cheque
- Early December: OAA Council reviews any requests above \$10,000
- Mid December: funding issued to successful applicants above \$10,000.

Please direct any questions, comments, or concerns to Mariam Tokhy, the OAA's interim public outreach specialist, at [MariamT@oaa.on.ca](mailto:MariamT@oaa.on.ca). Due to the volume of submissions received and the competitive nature of the funding, specific feedback cannot be provided on individual applications, either before or after final decisions have been made. However, OAA staff will work with you to clarify or make accommodations if any part of the application process is a barrier to your submission.

# Memorandum

**To: Council**

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Speigel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 6.5.b

**From:** Governance Committee

William (Ted) Wilson (Chair)	Settimo Vilardi
Susan Speigel	Michelle Longlade
Elaine Mintz	

**Date:** August 26, 2024

**Subject:** Update from OAA Governance Committee

**Objective:** To provide Council with an update regarding recent activities of the Governance Committee.

---

The Governance Committee met on July 4, 2024, and Aug 19, 2024.

The following items of note were discussed by the Committee:

## Act Modernization

Once the amendments to Regulation 27 are in place in relation to Schedule 1 of Bill 157, focus will return to the larger Act Modernization project. Engagement with the Governance Committee, as previously directed by Council will continue accordingly. At this stage, some of the auditing of the legislation has already been completed by legal counsel. The Executive Director and Registrar continue to collect and track opportunities for improvement of the Act Modernization. Through various meetings, the OAA has been made aware that the PEO is also interested in seeking modernization to their Act.

## Student Hours Eligibility

The Governance Committee reconfirmed the OAA/ROAC position regarding eligibility of the student hours under the IAP as follows:

1. *Obtained while the student is enrolled and attending a CACB/NAAB accredited program of architecture; and,*
2. *Completing the final two years of a CACB/NAAB accredited Master's degree program.*

It was noted that there are occasional instances where a student may only be required to complete 1.5 years or 1 year accredited Masters (this is individually based).

Notwithstanding the eligibility requirements, the OOTR would consider this eligible for student hours. It would seem overly restrictive to apply a two-year time frame where one does not exist for such an individual. The Committee supports the Registrar in this right touch approach.

### **Council Dates 2025**

The Committee reviewed the proposed dates for the 2025 Council meetings and annual general meeting of members. See separate memo and agenda item within this Council package.

### **PRC Terms of Reference (TOR)**

The Committee received a request to consider a reduction in number of members outlined in the TOR for the Practice Review Committee. The Committee agreed with this approach. This will be addressed in the appointment of individuals to the Committee in December.

### **Council Training**

The Committee has reviewed some ideas regarding the ongoing Council training including that will be part of the Annual Planning Session. The Committee continues to recognize the importance of ongoing training for Council to meet our legal obligations.

### **Volunteer Recruitment and Retention**

Current as well as new potential strategies for recruitment of members to run for election to OAA Council were reviewed. The Committee has agreed to develop an Information Webinar before the election season begins, which has been offered to members in August of this year. In addition, there will be a focused effort to identify and encourage those individuals that may be retiring from the OAA Committee to run for Council. Finally, as Local Society Visits resume in person this year, there will be a focus on volunteer recruitment.

The Committee had also reviewed how other organizations foster interest from within their membership for Council and Committee, including the notion of a more formal nominations process. Doyle presented information regarding the process and budget to establish a Nominations Committee as well as other resources that would be required. OAA staff conducted a benchmarking analysis of other regulators that have a Nominations Committee. The regulators who have a Nominations Committee do so based on the Act that governs them. The *Architects Act* does not provide the OAA with the requirement for a Nominations Committee. As such, there would be some additional risks for implementing a Nominations Committee.

The Committee decided it would review the effectiveness of Council Recruitment next year.

### **HR Multiyear Roadmap**

The Committee approved updates to the staff policy on Recruitment. The Committee also approved a new staff policy on Anti-Discrimination.

In concert with senior management, the Committee reviewed the process relating to a succession/transition plan for the Executive Director role. As this is a key role and an important part of business continuity, the Operational Review specifically recommended having a plan for this role. This is an ongoing discussion and is well in hand.

The Human Resources Manager has done benchmarking with other Regulatory Bodies, such as the PEO, on best practices of recruitment, EDI, compensation, and performance management. These efforts are directly tied to the OAA Strategic Plan in terms of futureproofing the Association in relation to staffing and addressing recommendations from the 2021 Operational Review.

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### **Action**

For information only.

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### **Attachments**

None

# Memorandum

**To: Council**

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
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FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 6.5.c

**From:** Kristiana Schuhmann, Vice President & PRC Chair

**Date:** September 4, 2024

**Subject:** Practice Resource Committee (PRC) - Update.

**Objective:** To update Council on Practice Resource Committee (PRC) activities.

---

## Activities Report – Practice Resource Committee (PRC)

Practice Resource Committee held its fourth meeting of 2024 on Thursday August 22. The meeting was conducted virtually. The meeting focused on the following key items:

### General Updates:

The PRC continued discussing the recent launch of the new Ontario Building Code 2024, noting that it will take the industry time to gain an understanding of the changes between the 2012 version and that of 2024. Staff is working on updates to the OBC Data Matrices and assessing changes to about a dozen related Practice Tips and their associated attachments.

Members are being encouraged to avail themselves of the webinars being offered by MMAH which are providing a good overview of the new Code. The MMAH will also be sharing recordings of these webinars online. OBOA is also offering detailed training this fall which is open to OAA members as well.

An update on the impact of the new OBC 2024 will be offered to members via the Practice Newsletter in September.

Document Development and Maintenance

OAA/OGCA Take Over Procedures (Document 100):

- Refer to September 2024 Council Memo entitled “Updates to OAA-OGCA Document 100-2018 (OAA-OGCA Take-Over Procedures CA)) from Vice President & Chair, Practice Resource Committee.

PT.25 Design-Build: Using OAA 600–2021:

- Refer to September 2024 Council Memo entitled “Updates to Practice Tip PT.25 Design Build” from Vice President & Chair, Practice Resource Committee.

PT.30 Retention of Specialist Consultants:

- Refer to September 2024 Council Memo entitled “Updates to Practice Tip PT.30 Retention Specialist Consultants” from Vice President & Chair, Practice Resource Committee.

Other general practice topics/Emerging Issues discussed:

- Certifying Payment for the Undisputed Amount of a CD – From the Hotline
- 

**Action**

None. For information only.

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**Attachments**

None.

# Memorandum

**To: Council**

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
Elaine Mintz	Greg Redden
Anna Richter	Kristiana Schuhmann
Susan Spiegel	Edward (Ted) Watson
William (Ted) Wilson	Thomas Yeung
Marek Zawadzki	

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 6.5.d

**From:** Susan Spiegel, Chair, Policy Advisory Coordination Team (PACT)

Len Abelman	Toon Dreessen
James Eduful	Ibrahim El-Hajj
Cory Stechyshyn	John Stephenson
Ted Watson	

**Date:** September 9, 2024

**Subject:** Update on the Policy Advisory Coordination Team's (PACT) work.

**Objective:** To update Council on PACT's ongoing work.

---

PACT met last on June 27, 2024. At that meeting, the Committee selected the 2024 Queen's Park Picks and shared their feedback about this year's OAA Conference. PACT will meet again on September 11, 2024.

Their work continues to progress on several files, including:

- Queen's Park Picks: With the nine QP Picks selected, research is now underway to develop the website articles and exhibit boards for each building that will be featured in 2024. The buildings represent a diverse range of housing typologies and PACT is confident that each pick will spur great discussion about affordability, climate action, and design innovations.

The QPP event will take place in person on October 22, 2024 from 5:30 pm to 7:00 pm at the Main Legislative Building at Queen's Park. OAA staff is currently working on securing commitment from key elected officials to provide remarks at the event.

- Updating the Site Plan Approval Study: Altus has commenced work on updating the Site Plan Approval study, including conducting a survey with the OAA

membership about their experiences with the site plan process since the passage of Bill 23 in 2018. Altus is on track to complete the update by late fall and will attend the December meeting of Council in order to present their findings.

- Meeting with MMAH: Further to the Association's [submission on Bill 185](#), OAA staff met with Ministry staff to discuss zoning barriers that are frustrating the development of additional residential units. OAA staff were updated on the work the Ministry is doing since the passage of Bill 185 and in particular, how the government is defining 'as of right' zoning. OAA staff shared the previous positions that the Association has taken on key pieces of legislation related to housing as well as information about its Housing Affordability report released in 2019 and the upcoming update to the Site Plan Approval study. Through constructive conversation, the OAA continues to position itself as a stakeholder to government.

The topics of discussion at the meeting included:

- Defining what "as-of-right" is;
- Identifying existing solutions to zoning barriers; and,
- The possibility of new housing legislation being introduced in the upcoming session of government.

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**Action**

None. For information only.

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**Attachments**

None.



# Memorandum

**To:** Council

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
Natasha Krickhan	Jenny Lafrance
Michelle Longlade	Lara McKendrick
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Susan Spiegel	Edward (Ted) Watson
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Marek Zawadzki	

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 6.5.e

**From:** Loloa Alkasawat, Councillor and Chair of the Interns Committee

**Date:** September 6, 2024

**Subject:** Interns Committee – Update

**Objective:** To Update Council on the Interns Committee Activities

The Interns Committee (the Committee) is a discretionary committee of the OAA tasked with performing functions on behalf of Council. The Interns Committee has organized its efforts around its annual work plan as follows:

## Work Plan Item - Mentorship

The final version of the updated Mentorship Guide has been posted to the [OAA website](#). Outreach initiatives for this work plan item are complete.

## Work Plan Item - Ongoing Communications: Building Connections

1. The Committee has determined they would like to work with groups like BAC (Becoming Architects Canada) – leveraging opportunities for advocacy via other stakeholder groups; to provide input and subject matter expertise to these groups. To share resources, plan events, or other collaborations that would benefit Intern Architects and Student Associates, and form partnerships for upcoming events and potentially provide funding.

The Committee would like to position itself to be the voice for those beginning their careers or new to the profession in Ontario and has composed draft outreach email templates to several advocacy associations (i.e. Ontario architectural societies, BAC, BEAT, SOSA, etc.) in order to facilitate collaboration between organizations.

2. The annual virtual Meet the OAA Event has been scheduled for Tuesday October 29, 2024 in the evening from 6:00pm to 7:30pm. OAA Communications will be assisting the 2024 event. The OAA Communications team will promote the event in OAA e-news, send out direct emails to the OAA membership and the Ontario schools of architecture, create a Zoom webinar link, etc. Additional items to include on the 2024 presentation is information on the new Ontario licensing

requirements, the mentorship directory, the Mentorship Guide, and any other internship or licensure items that are new for 2024/2025.

**Work Plan Item - Instructional Videos**

The Committee plans to develop instructional videos which will encompass the licensure process in Ontario. A group within the Committee is researching examples from other jurisdictions. Committee members have drafted video scripts for 2 of 3 potential mini videos. Videos to be short, concise and specific (1 to 1.5 minutes). Videos to include graphics, animation, narration, script, etc.

- Video 1 = Navigating the IAP
- Video 2 = Understanding the Hour requirements of the IAP
- Video 3 = Maintaining OAA Licence

Committee felt that video 3 can be undertaken by another OAA Committee, OAA staff or as part of an OAA webinar.

Once the Committee has a project work plan for this item it will be presented to Council for review and approval.

**Work Plan Item - Acceptance of Undergraduate Student Experience in the IAP**

The Committee has drafted a letter to the OAA President which may be submitted as a memo to OAA Council. The letter proposes to amend the acceptance of student architectural experience hours in order to include undergraduate student experience gained after the completion of five academic terms in a pre-professional architecture degree.

Currently that OAA accepts student hours gained while enrolled in an accredited Master Program as per the IAP student hour declaration form.

**Work Plan Item - ExAC Assessment**

The Committee will be seeking more information regarding the CExAC process of results reviews, scoring and concerns/complaints regarding the ExAC.

Committee proposing a survey to exam takers; committee members to consider proposed survey questions, a survey consultant, budget, delivery/distribution of survey, etc.

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**Action**

None. For information Only.

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**Attachments**

None

# Memorandum

**To:** Council

Settimo Vilardi	Loloa Alkasawat
J. William Birdsell	Jim Butticci
Kimberly Fawcett-Smith	Christina Karney
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FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 7.1

**From:** Melanie Walsh, Manager Finance

**Date:** September 6, 2024

**Subject:** Conference 2024 Feedback

**Objective:** To provide Council with an update on Conference 2024

---

*OAA Conference 2024, Housing: Pushing the Envelope*, reflected the urgency and importance of addressing housing challenges in our society bringing together a diverse range of architecture experts and professionals to the Niagara Falls Convention Centre, with the Marriott on the Falls serving as the designated host hotel.

MCC Destination Management, OAA's Conference event planners, prepared the attached document based on the Virtual Keynote and Overall Conference Surveys.

For those that attended and completed the survey for the Virtual Keynote held in March with a total of 824 viewers, 98.2% rated the event as good or excellent with 94.6% of attendees preferring the Virtual Keynote format as a kick off to registration.

A total of 711 attendees were registered for the OAA Conference, totalling \$405,117.40 in revenue. Over 60 sponsors signed on for the 2024 Conference, with a total revenue of \$308,000 bringing our total revenue to \$713,709. For those that completed the survey, 94% thought the 2024 Conference experience was good or excellent; 89% felt the Continuing Education programming was good or excellent; and, 92% felt the Experiential Learning was good or excellent.

Although many of the fixed (significant) costs were contracted items transferred from 2020's cancellation based on pre-pandemic Conference formats, MCC and the Conference Manager were able to reduce a number of variable costs which has resulted

in an estimated deficit of \$175k, which is a considerable difference from the estimated deficit of \$350K+ projected in Q2.

In August, members of the staff Conference Team, Executive Committee, the ConEd Advisory Committee, and CPEC met at the OAA to receive a presentation on the official conference feedback which is attached. The group engaged in brainstorming and discussed specific items towards improvements for next year's conference in Ottawa.

---

**Action**

None. For information only.

---

**Attachments**

OAAConference2024\_Feedback

# MCC

## EVENT REPORT

OAA Conference 2024 | Reporting & Survey Feedback Summary

Effective: **September 4, 2024**

**MCC** DESTINATION  
MANAGEMENT  
A GLOBAL DMC PARTNER

**Global  
DMC  
Partners** 

# MCC

VIRTUAL KEYNOTE OVERVIEW

## PROGRAM IN REVIEW

Data Analysis | Survey Feedback





1,008

total registered

824

total unique viewers

81.7%

registrant to viewer conversion rate

Last in-person attendance was 2019 where audience was 379.  
(65% of the overall Conference audience)

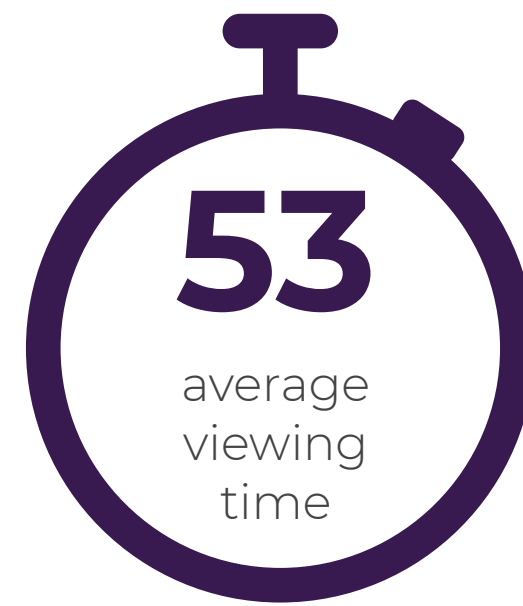
2023 Virtual Keynote Attendance: 456

Overall, webinar conversion rates into live webinar attendees is about **35%** on average.\*

\*Based on 2022 Event Industry Webinar Benchmarks

Your Event Performance

Average viewing time for webinar attendees



Industry Comparisons

Average viewing time for webinar attendees\*\*



Audience Engagement | Questions

your event

industry comparisons

18

15

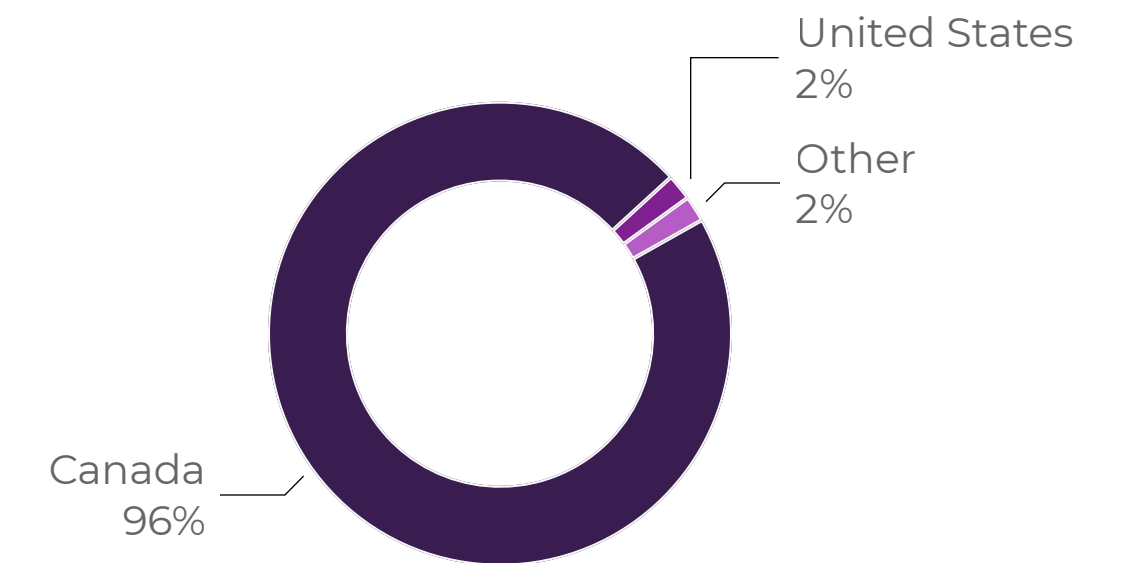
total number of questions asked

average number of webinar questions\*

\*source: ON24 2023 Webinar Benchmarks Report

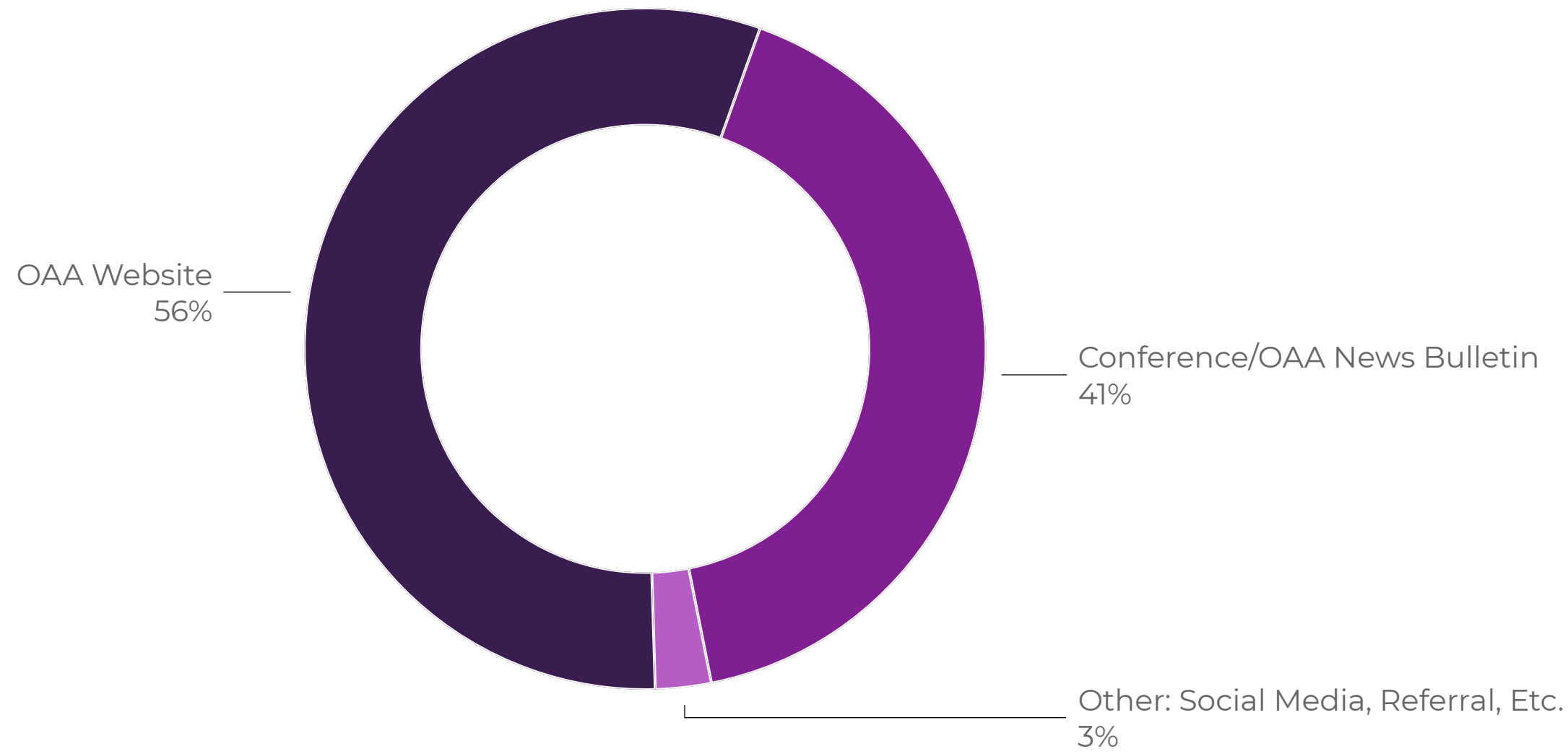
\*\*source: ON24 Digital Engagement Benchmarks 2023

Audience Attendance by Location



Canada	794
United States	15
Austria	1
Finland	1
Germany	2
Hong Kong SAR	2
Italy	1
Lebanon	1
Mexico	1
Morocco	1
Portugal	1
United Arab Emirates	2
United Kingdom	2

### Key Communications Vehicles for Information Related to Event



**97%**

of attendees heard about the event from Bulletins or the website.

### Preferred Event Delivery Format

**94.6%**

of attendees prefer a virtual event format before Conference.





98.2%

rated this event  
good or excellent

Session Feedback:

96.0%

thought the session's  
content was relevant to the  
audience and the profession  
*(scoring 3 or greater)*

96.5%

thought the session's  
scope and depth of  
the content presented  
met expectations  
*(scoring 3 or greater)*

Keynote Speaker Feedback | Vishaan Chakrabarti:

4.7/5

displayed competency  
in the topic presented  
*(Scored 1-5. 5 being excellent)*

4.7/5

expressed ideas  
clearly and effectively  
*(Scored 1-5. 5 being excellent)*

4.6/5

created an engaging  
environment for  
learning  
*(Scored 1-5. 5 being excellent)*

\* percentage total of those that strongly agree or agree by respondents

Cross-section of Survey Comments:

*Was really happy to be introduced to PAU's inspiring work and was glad I could easily log on and participate.*

*that was an EXCELLENT presentation! completely agree about the damage "starchitects" have been to the profession of architecture. have him again!*

*I expected more sessions on the changes to the OBC with respect to duplexing and triplexing existing single family homes .*

*This presentation was one of the better OAA presentations that I've attended. It covered practical topics with a theoretical approach that wasn't so academic to be inaccessible. Mr. Chakrabarti was knowledgeable and presented very well.*

*I enjoyed so much Vishaan Chakrabarti's presentation and answers in the Q&A. I have so much respect for how he has leveraged his diverse background to his projects so these align with his philosophy and worldview while being strategic so his practice is sustainable.*

*Thank you for making this free and virtual.*

*Please have more of these webinars.*

*In person is great, but with limited time these online seminars are fantastic. Thank you!*



# MCC

IN-PERSON CONFERENCE OVERVIEW

## PROGRAM IN REVIEW

Data Analysis | Survey Feedback\*

\*Please note, in 2024, the overall response rate to the survey was significantly lower than in past years. Therefore, the sample size is smaller and may not accurately reflect the sentiments and views of all attendees. We share this data to gain understanding of some attendee views.

# 711

total registered

additional to registered

**71**

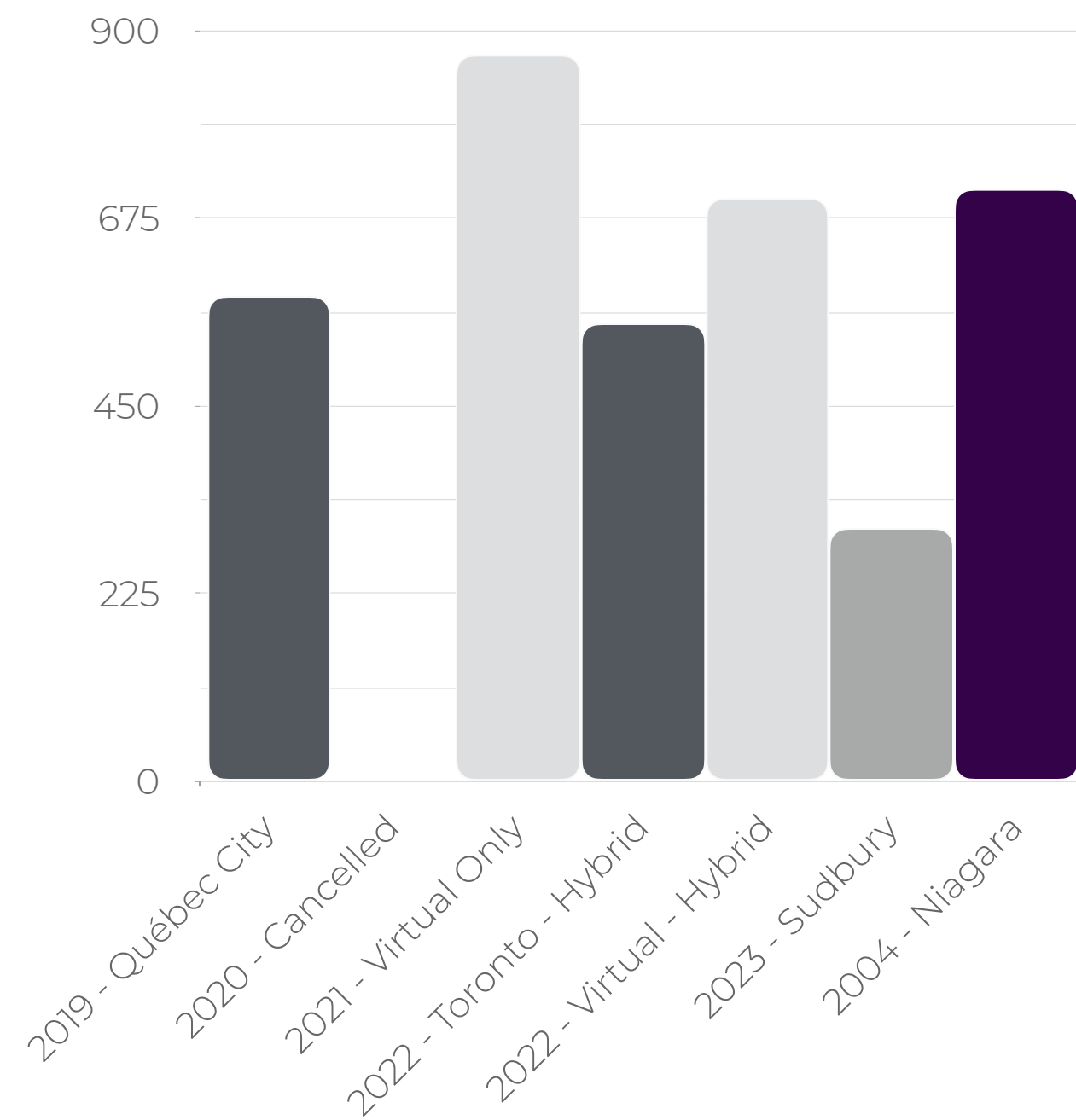
non-member speaker experts

**70**

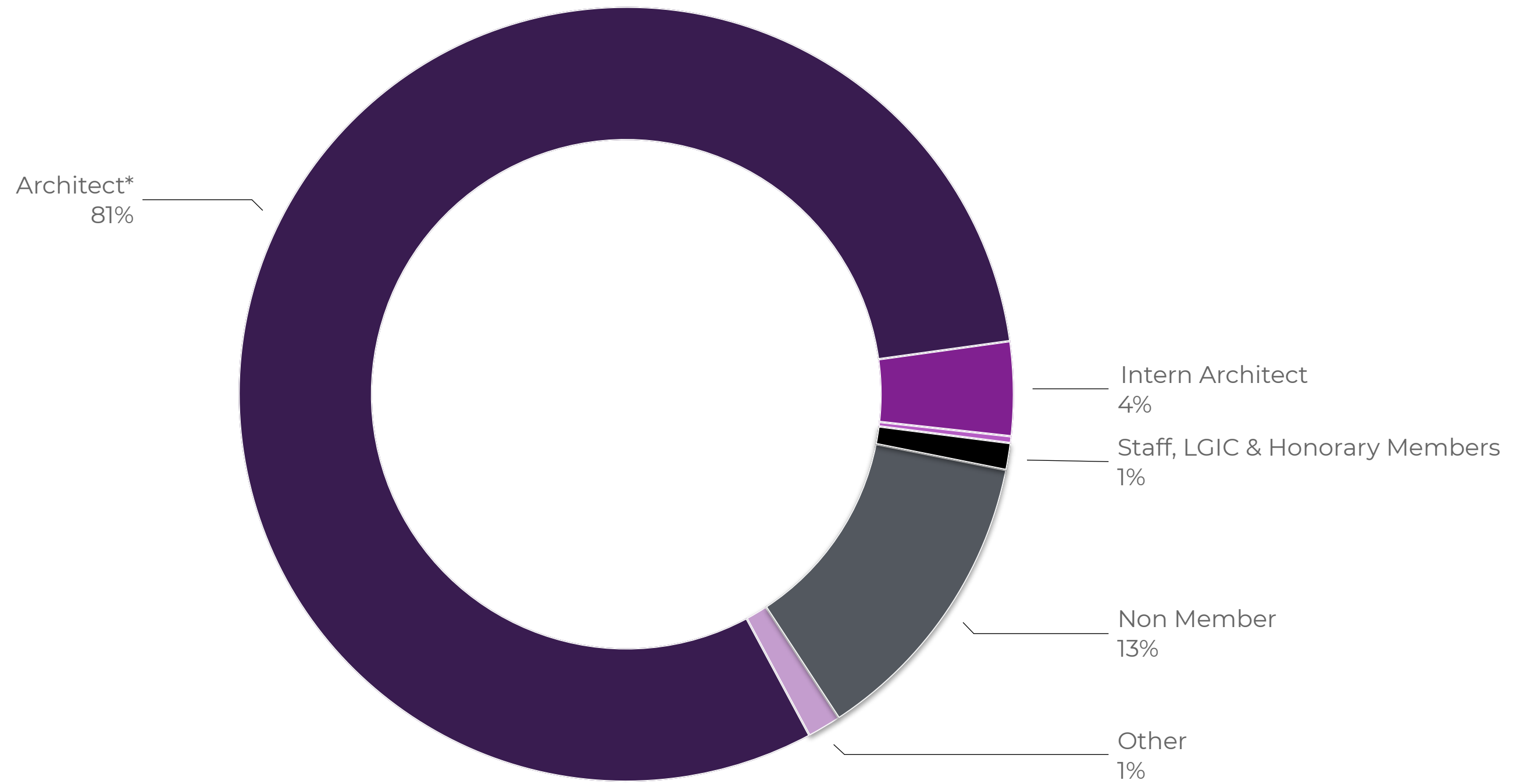
sponsors (non-members)

**852**

grand total in system and outside system



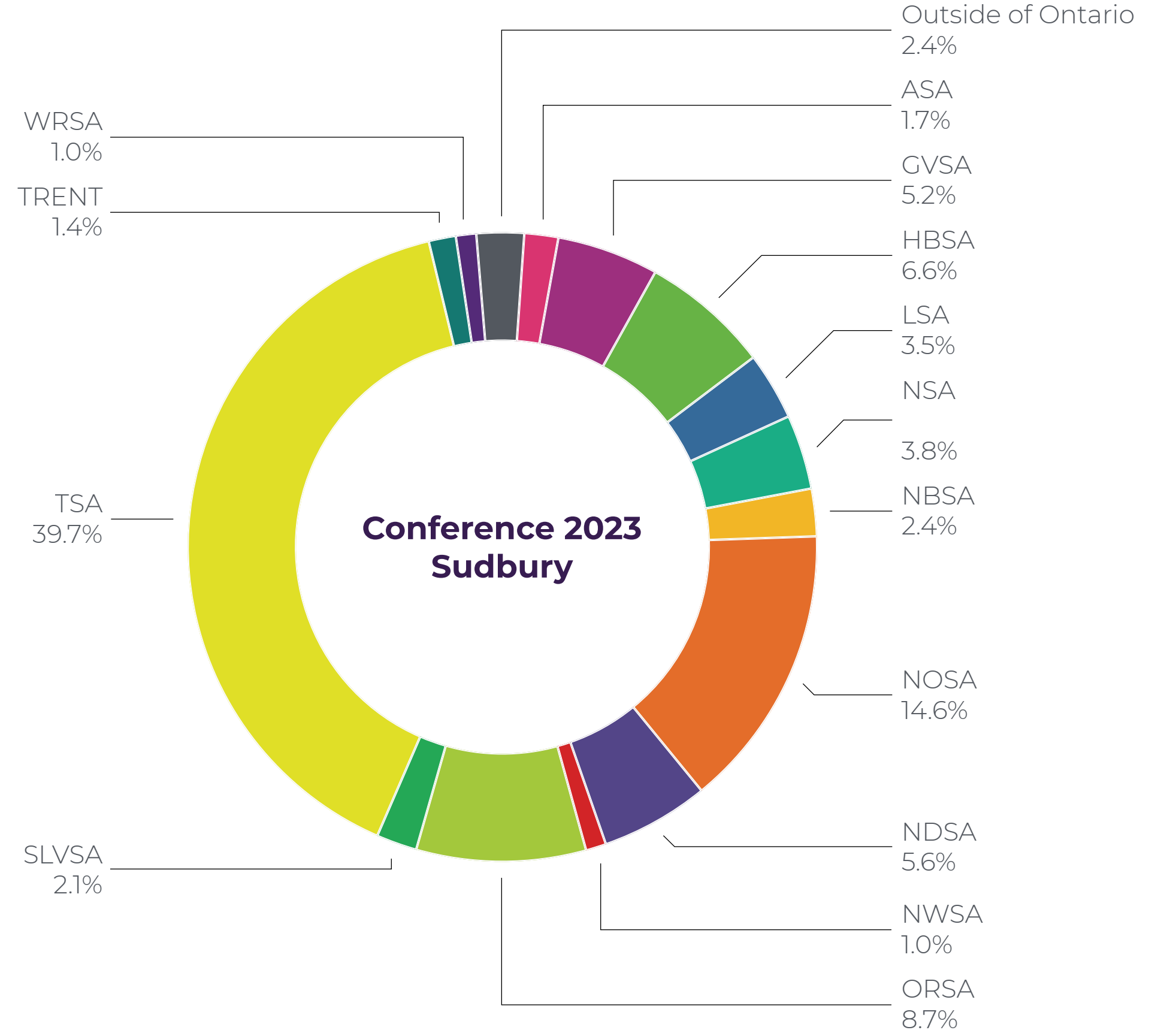
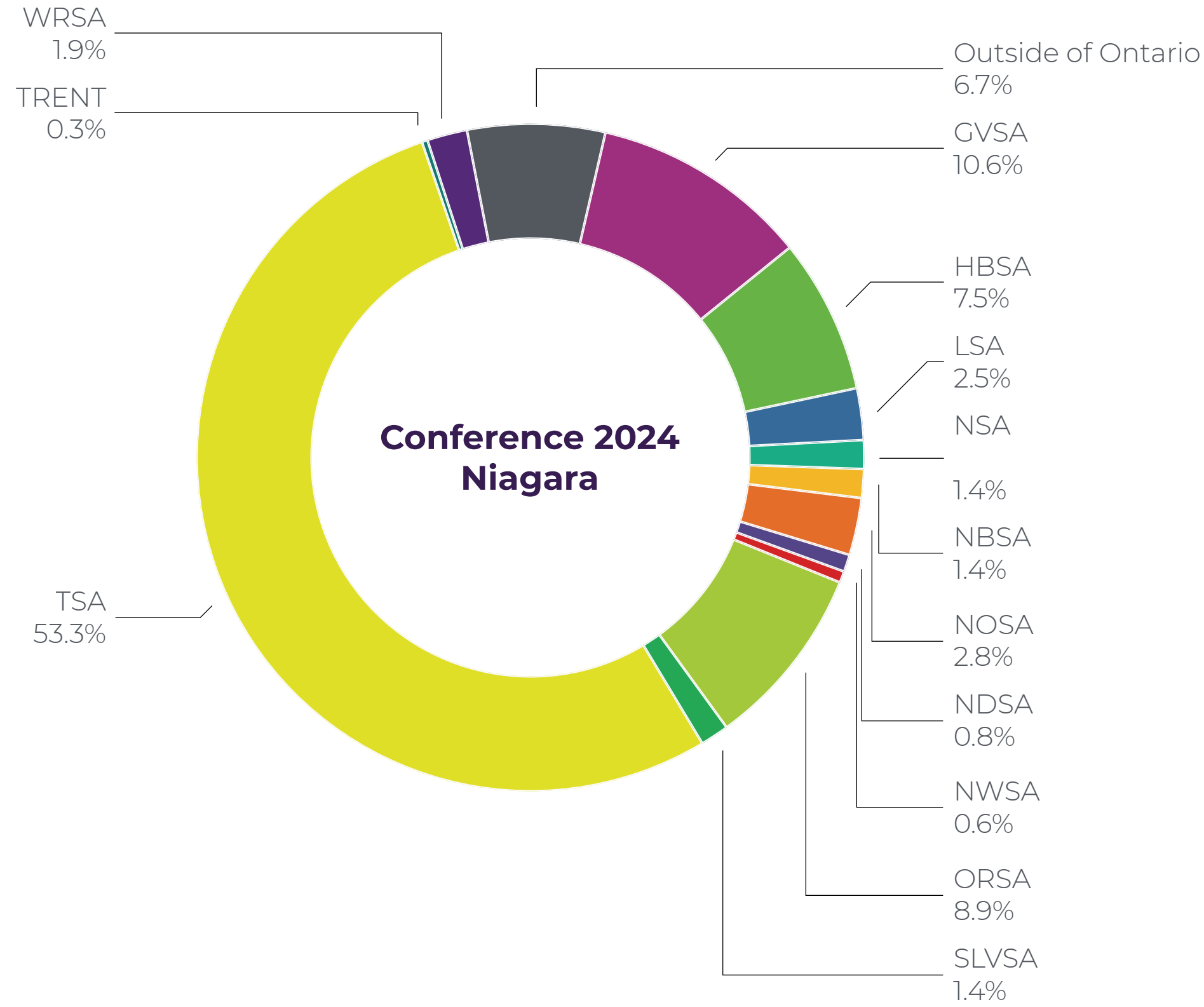
## Breakdown by Attendee Type



\* Architect (Practicing, Long Standing & Non-practicing)



**Society Member Involvement Year Over Year**  
2023 Reflects AI Mapping Locations Using Local Society Map

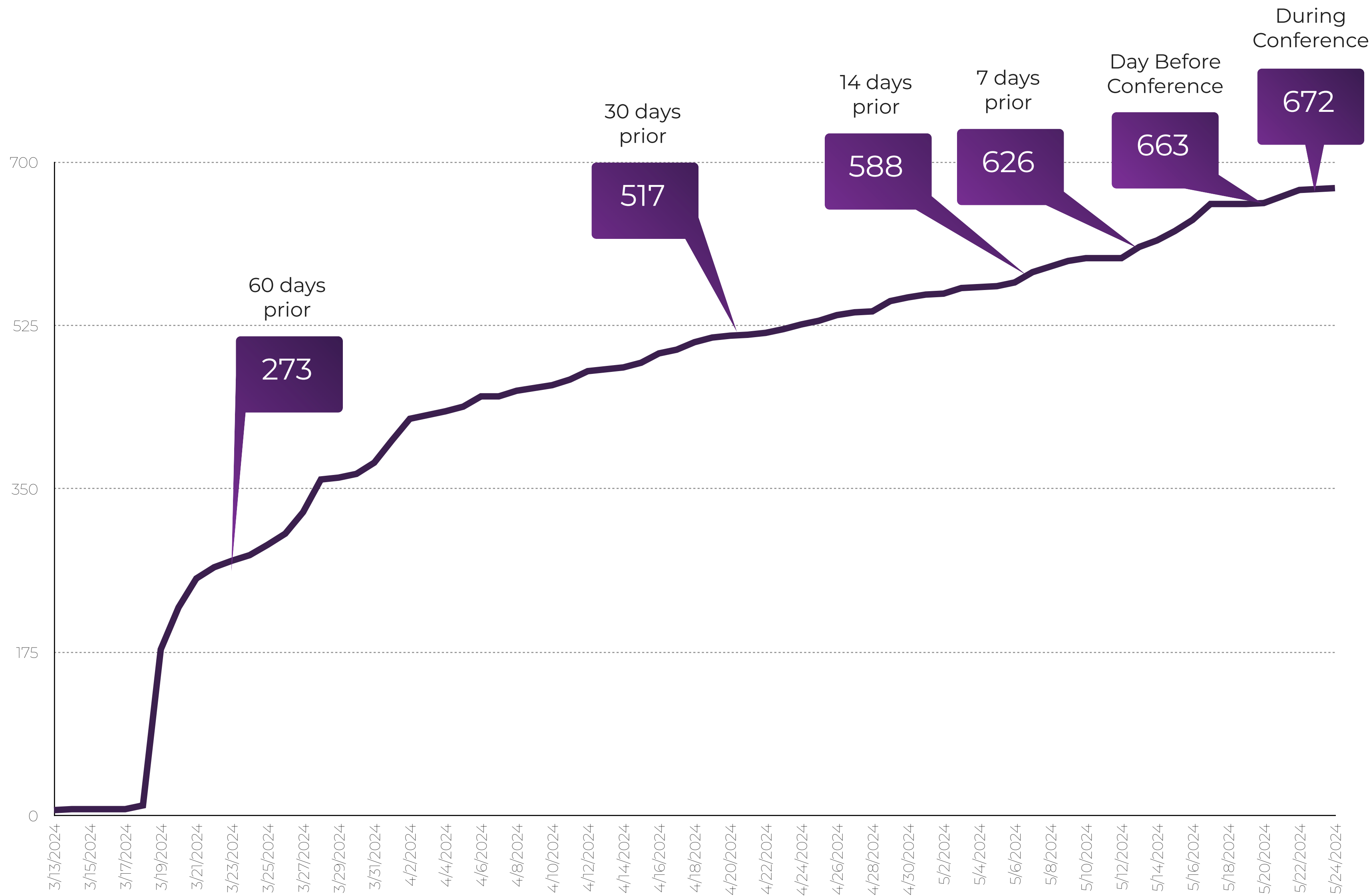


- Algoma Society of Architects (ASA)
- Grand Valley Society of Architects (GVSA)
- Hamilton/Burlington Society of Architects (HBSA)
- London Society of Architects (LSA)
- Niagara Society of Architects (NSA)
- North Bay Society of Architects (NBSA)
- Northern Ontario Society of Architects (NOSA)
- Northumberland Durham Society of Architects (NDSA)
- Northwestern Ontario Society of Architects (NWSA)
- Ottawa Regional Society of Architects (ORSA)
- St. Lawrence Valley Society of Architects (SLVSA)
- Toronto Society of Architects (TSA)
- Trent Society of Architects (TRENT)
- Windsor Region Society of Architects (WRSA)

\* Not Disclosed were omitted from the breakdown.  
Approx. 10% did not disclose locations.

# Key Benchmarks | In-person Conference

Based on Registration Database



Date | March 13 to May 24, 2024

# 672

total registered  
(Full and daily packages only)

In the lead-up to the event, the email marketing campaigns and social marketing resulted in

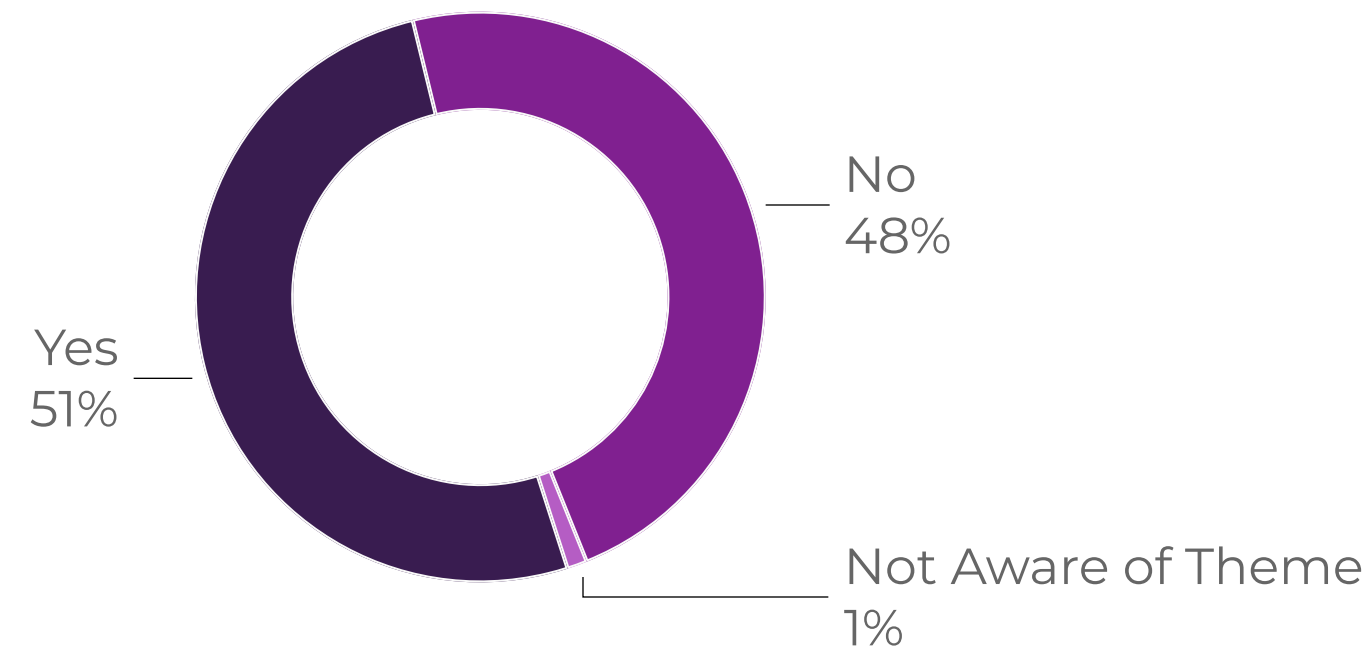
# 114%

registration growth in the two weeks..

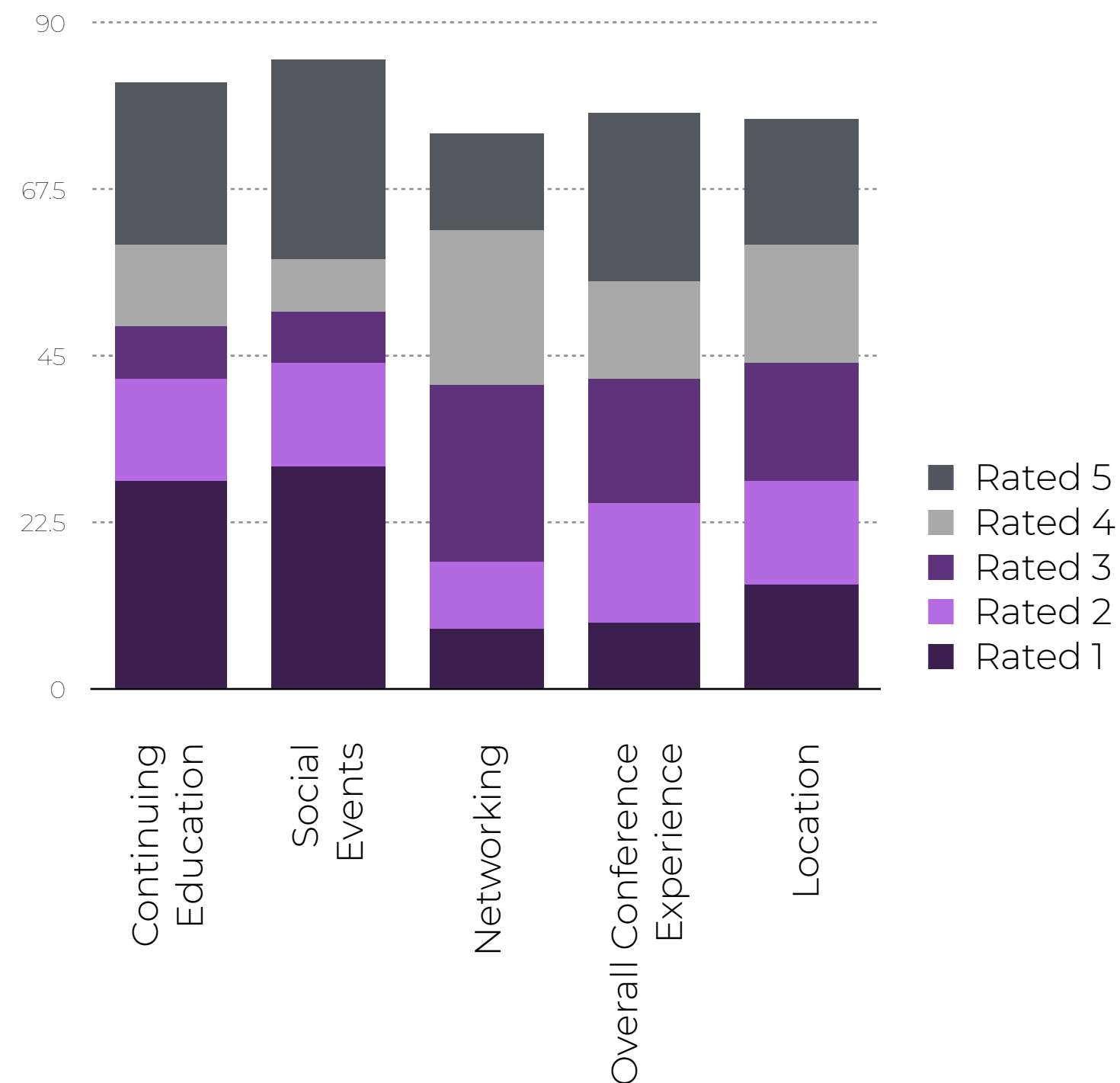
# 9

packages sold during Conference  
(Full and daily packages only)

**Did this year's theme "Housing: Pushing the Envelope" affect your decision to attend the Conference?**



**Why did you choose to attend this year?**



# 94%

thought the 2024 Conference experience was good or excellent.

# 4.3/5

overall score

## Survey Feedback

*Great conference, I liked the location, selected venues for events and coned tours and overall was an excellent experience. If it was something to change, it would have been great to have a break between the daytime courses and the evening events to rest and change, 1-2 hours would have been great.*

*Experiential tours for Continuing Education were Excellent this year and very appreciated.*

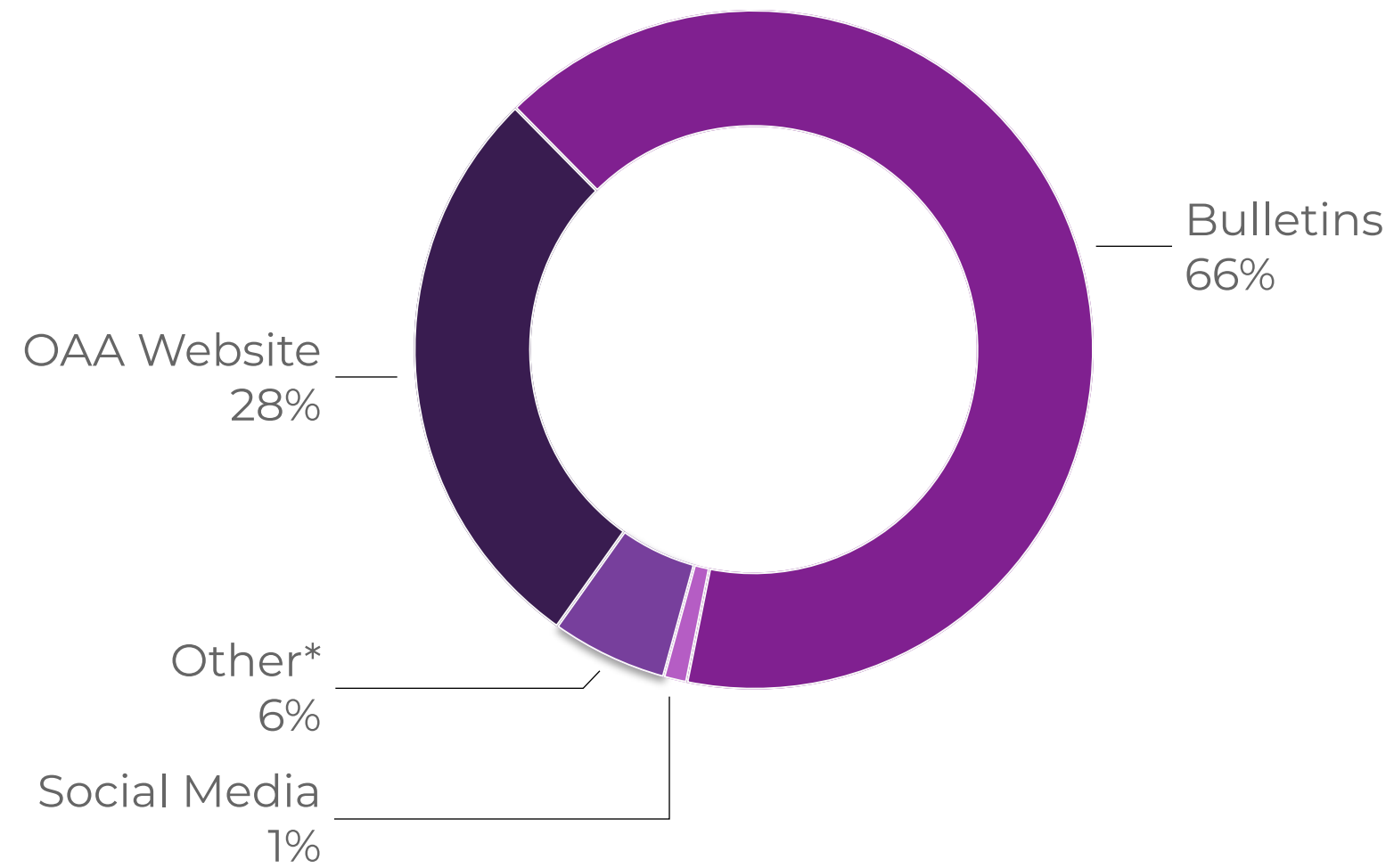
*Some sessions were surprisingly light on content, not enough detail.*

*It was an excellent conference experience! After Covid it was really necessary to get back to seeing architects!*

*I really enjoyed the conference this year and am glad that I decided to go. It was worth the trip.*

*The slightly depressing but very relevant and interesting intro panel discussion which lead to con-ed sessions on what CAN and IS being done to address housing and ending with a story reminding us of how architecture and the built environment affects people I think was actually quite affective. Don't really think that was planned but it made for a wholistically excellent experience actually*

**Key Communications Vehicles for Information Related to Conference**



\*Referral, Etc.

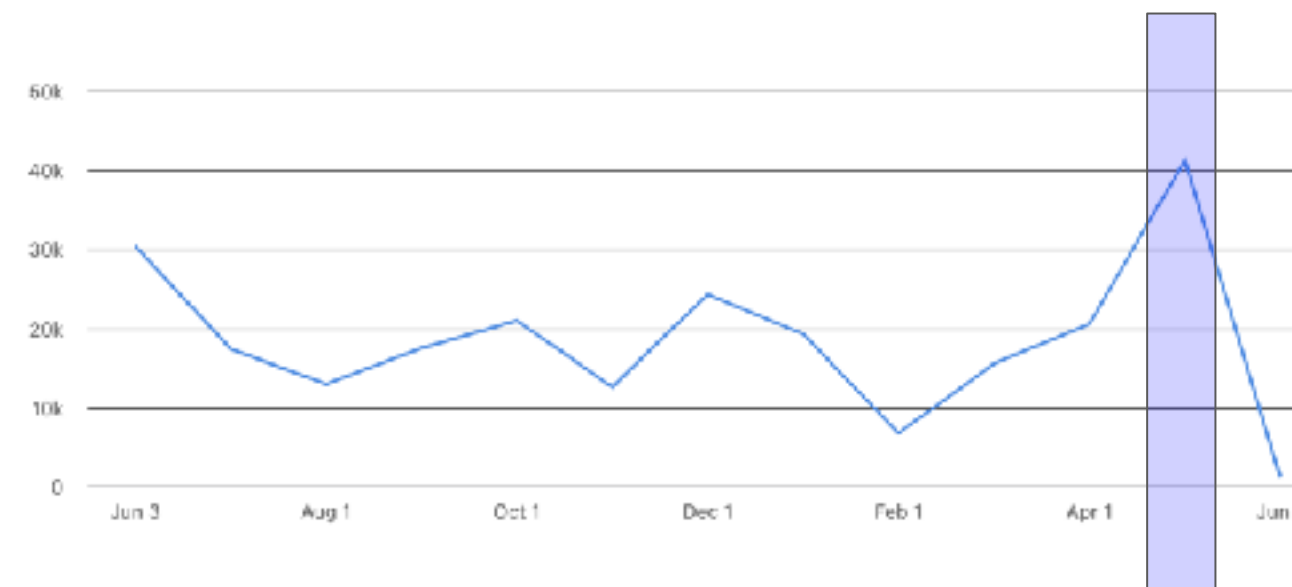
**94%**  
 of attendees heard about the event from Bulletins or the website.

**Social Analytics**

- LinkedIn was the standout channel, with the event driving the most engagement all year
- Engagement was above average across all channels
- Sponsor videos among the top-10 most viewed posts on LinkedIn for month of June

Channel	People reached	Impressions
	5,175	14,883
	4,157	21,308
	4,002	11,765
	X does not report this data	6,408
<b>TOTAL</b>	<b>13,334+</b>	<b>54,364</b>

**LinkedIn • 41K+ views on content**



May 2024 saw more impressions (41,214) than any month in the last year.

Event coverage over 3 days (May 22-24) drove 14,883 impressions, or 36% of May's total and 14% of 2024's total reach so far.

**Instagram • Reach**



In total, the OAA reached 4,157 people during the event (May 22-24), or 33% of May's total.

Conference-related content accounted for 4% of 2024's total reach.



**Pre-registration:**

**70.1%**

thought the online registration process was good or excellent.

**Website**

**67.8%**

felt the website experience was good or excellent.

**Recreational Tours**

**123**

total registered

**17%** of registered attendees participated.

**96%**

thought this event was good or excellent.

For comments from surveys that provided suggestions and requests, staff are reviewing to determine next steps, improved processes for 2025, feature upgrades to software and added technology.

Overall experience feedback was positive. Guests enjoyed recreational offerings. Criticism focused on unstructured learning for recreational experiences, which was a result of moving Architectural Tours to Experiential Learning.

**Transfer from Toronto**

**44**

total registered

**71%**

thought this addition was good or excellent.

**Local Shuttles**

**96%**

thought this addition was good or excellent.

Comments varied from: appreciation of the service and information about the service.





**314**

total registered

**4.2/5**

**89%** of the audience thought this session was good or excellent

*2023 Plenary Attendance: 168  
2022 Plenary Attendance: 349*



**271**

total registered

**3.5/5**

**56%** of the audience thought this session was good or excellent



**Classroom Learning:**

**3055**

total seats registered  
**3707** seats available  
2024 pickup is **82.4%**

**89.0%**

Thought the  
ConEd programming  
was good or excellent.

**Experiential Learning:**

**418**

total seats registered  
**448** seats available  
2024 pickup is **93.3%**

**92.0%**

of the survey respondents  
(who participated) liked  
these types of sessions.

For comments from surveys that provided suggestions and requests, staff are reviewing to determine next steps and improved processes for 2025.

*related to classroom learning...*

*I say "good" for con-ed but some were excellent, some were good and some were what I would say 'needs improvement' for.. but generally they were good. I think the biggest issue I saw is conferences in general and then the events especially on top of that are expensive so you end up with not a very diverse crowd (majority old white men). Would be nice to try to come up with an approach to improve that*

\*\*\*

*I enjoyed the conference. Good & wide range of topics.  
Relaxed atmosphere. Well done*

*related to experiential learning...*

*Experiential tours for Continuing Education were excellent  
this year and very appreciated.*

### Opening Night Party

**375**

total registered

**98%**

thought this event was good or excellent.

Those that attended liked the Power Station. One felt it was too dark.

### Recognition Lunch

**308**

total registered

**65%**

thought this event was good or excellent.

A few comments focused on the sustainable menu not being sufficient.

### Awards of Excellence

**315**

total registered

**78%**

thought this event was good or excellent.

### Society Event: NSA Night

**102**

total registered

**14%** of attendees participated.

Those that attended liked the event. Some did not like that the venue changed and it was confusing.

**85%**

thought this event was good or excellent.

### Archifête

**346**

total registered

**70** sponsors

**22** presenters

**438** grand total

**113%** of registered attendees participated.

**88%**

thought this event was good or excellent.

61

sponsors

41 sponsors in 2023  
60 sponsors in 2022

\$364.5k

Up from 2022 \$243.5k  
149.7% Increase YOY

86.5%

of attendees  
visited sponsors

Lunch & Learns

1036

total registered

18 lunch and learn sessions

1035 total available spaces  
100% of registered attendees  
participated.

*It would be nice to have more displays and times for viewing displays*

\*\*\*

*I think a passport with stamps that showed you visited the sponsors (say 10) could be used as one hour of structured learning.*

\*\*\*

*I did try to make sure to make my way around. It was difficult to find time anytime other than the end of the day since con-eds and lunches took up most of the time... I have seen other conferences do breakfast con-eds/speakers that are less formal in the sponsor area and I found that worked well (sessions at 7am are a real challenge for me... I didn't even realize there were actual, structured sessions at those times - assumed they would be more of these relaxed, grab breakfast and sit or walk around type sessions)*

\*\*\*

*Sponsors do their job...their marketing approaches reach people, I have no need to specifically go to them.*

\*\*\*

*There wasn't really enough down-time between sessions to go all the way to the exhibit hall. If some of the sponsors were set up outside the lecture rooms, I may have been more inclined to browse.*

\*\*\*

*Visited all of them to thank them and ask if they were meeting lots of people and hoping to see them in Ottawa next year*

# 93%

felt the destination met their expectations as a host city

**Marriott on the Falls**

## 3.8/5

**Marriott Fallsview Hotel and Spa**

## 4.0/5

**Niagara Falls Convention Centre**

## 4.2/5

**Niagara Falls Exchange**

## 4.2/5

**Niagara Parks Power Station**

## 4.7/5

**Ravine Vineyard Estate Winery**

## 4.7/5

*It was better than expected. did not expect much as Niagara Falls is a well known city to me. Attended due to proximity of venue to my home.....not specifically because it was held in Niagara Falls*

\*\*\*

*I really liked the location. I liked the fact that the venue locations were within walking distance to the falls, and the city is well served by GO Transit.*

\*\*\*

*We absolutely loved Niagara Falls as a location - but we also loved Sudbury last year. It's all about the spirit of a place.*

\*\*\*

*Awesome location. However for those people having to travel through Toronto, a 1530h departure meant an arduously long drive back home. I would not attend any events past noon on a Friday afternoon ever again.*

\*\*\*

*Architecture is a bit odd in the city I think the choice of event locations was great. Niagara can be a little cheesy but the event locations were all great*

\*\*\*

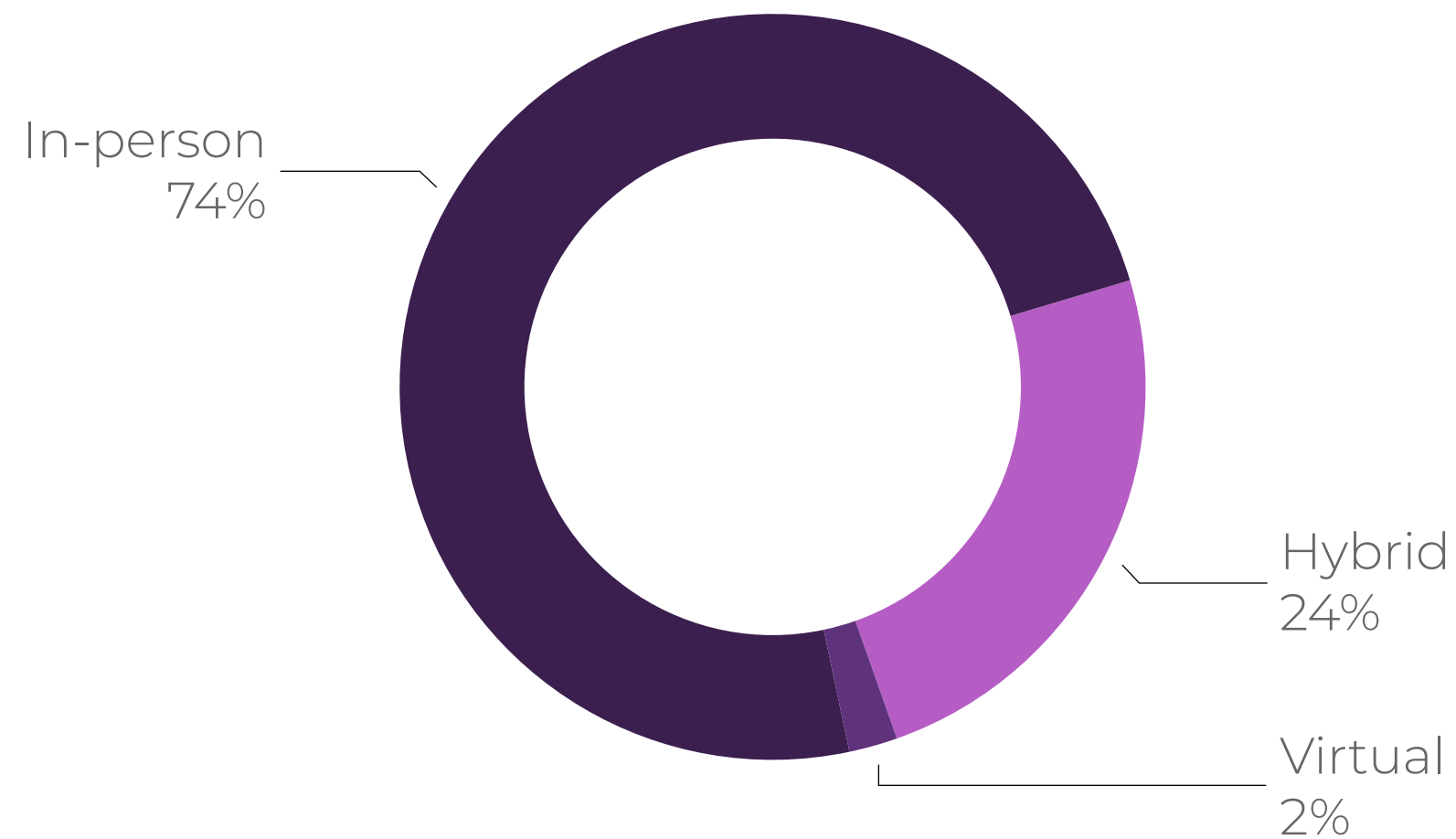
*Always like going to Niagara Falls.*



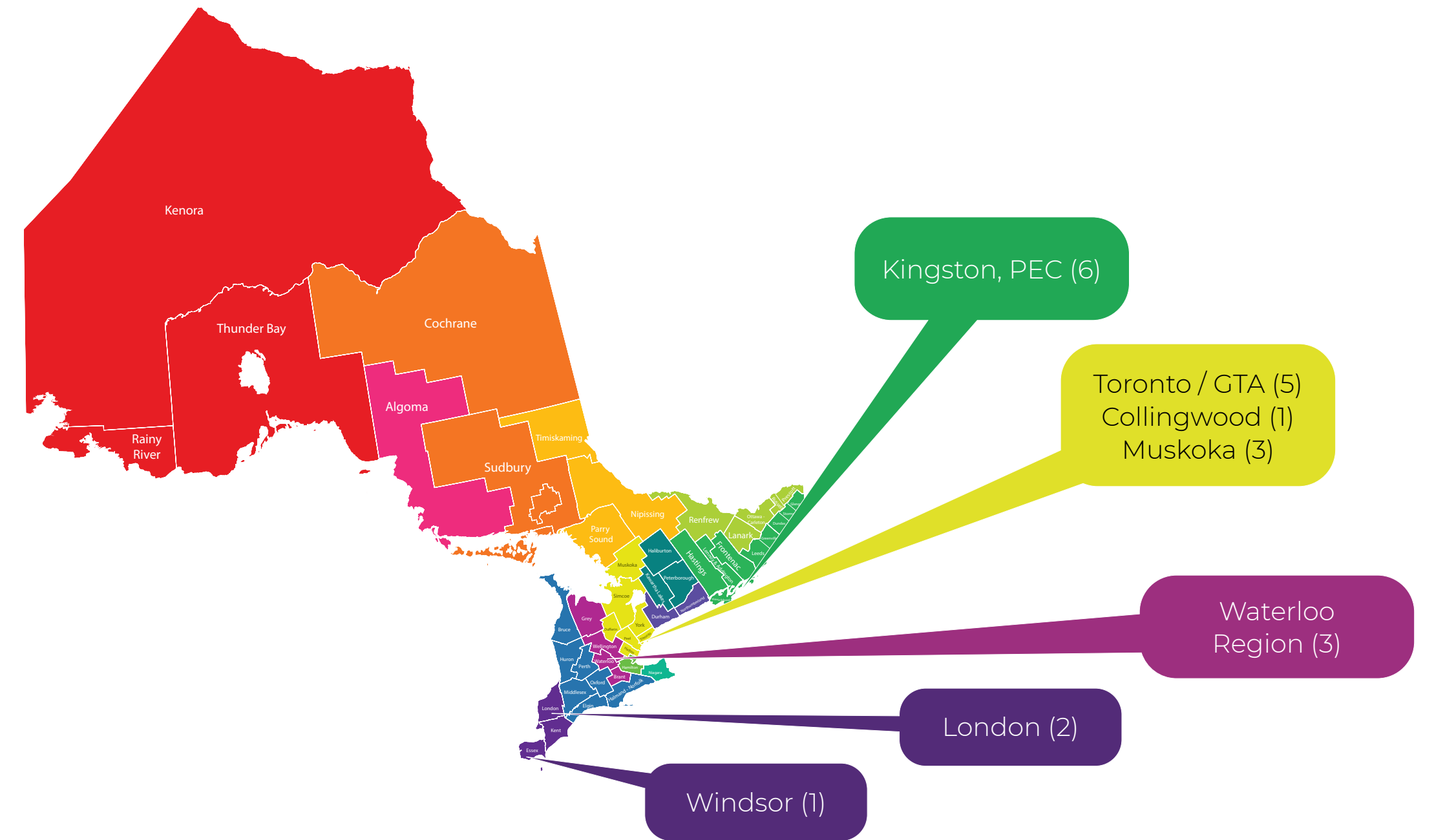
# 50%

plans to attend next year's in-person Conference

### Preferred format:



### Suggestions for future destinations:



#### Outside Ontario / Within Canada

- Victoria (1)
- West coast (1)
- Calgary (1)
- Banff (1)
- Québec City (3)
- Montréal (4)
- Mount Tremblant (1)
- Halifax/Nova Scotia/Maritimes/East Coast (4)

#### Outside Ontario / US Destinations

- Chicago (3)
- Charleston (1)
- New York (2)
- Detroit (1)
- Buffalo (1)

#### Future RAIC Conferences

- RAIC Conference 2025 | June 1-4, Montreal, Quebec
- RAIC Conference 2026 | May 5-9, Vancouver, British Columbia
- RAIC Conference 2027 | May 4-8, Calgary, Alberta
- RAIC Conference 2028 | TBA- coming soon
- RAIC Conference 2029 | June 3-6, Montreal, Quebec
- RAIC Conference 2030 | May 7-11, Vancouver, British Columbia

**Theme Suggestions**

emerging construction and design technologies  
 The future of AI and the profession.  
 Future of technology and its impact on Architectural Profession  
 1) Approvals Processes - Collaborative Impressions  
 2) The Master Builder - Risen from the Ashes  
 More Housing should continue...lots left unsaid and require further learning/investigation.

'Emerging Tech' to improve design and construction productivity and increase the quality of life for the professionals.  
 AI and the Profession  
 procurement and fees/contracts  
 Artificial Intelligence. (This could be a good theme if you locate a future conference in Kitchener Waterloo what with the location being close to BlackBerry and the U of Waterloo).

Social crisis and housing affordability, community healing & building

Ways Architects assist with societal change, city planning, sea level changes, habitation in the Canadian north. Do we encourage immigration to remote areas as opposed to already uncontrolled existing urban areas

Housing was the perfect topic for 2024. Climate change/resilience would be a good future theme, lots of topic to drill down into.

Climate change. It will greatly impact not only the way we build and live, but also where we will build and live. Together with housing, this is the most urgent topic in our industry.

Singapore: Building affordable housing but creating a vivid, enjoyable, and bonded community

Transit Architecture  
 Technological advances (AI, AR/VR, custom product development, parametric modeling, new computer programs to aid in generative design, use of video game engines, energy modeling, etc.) and how they can advance the potential of architectural design

Human layer: Designing for people. Spaces that promote health and wellness. Brining depleting ecosystems into spaces

The Dichotomy of Urban Planning and Architecture

Collaboration - between firms, multi-disciplinary approaches, between new and old firms suggested topics\_ context of historic restoration, renovation, adaptive re - use, and additions.  
 May be new Code changes information will be helpful

**Themes Not Important**

No. My reaction may be negative to the theme of the conference, however, I want to say that this is one of the most enjoyable set of continuing education sessions my opera attended in almost 38 years of practice



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# OAA Society Chairs Meeting Report

May 21, 2024

FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 7.2

Society Reps:	Algoma, Curtis Berkenbosch HBSA, Jennifer Kinnunen LSA, Mauricio Bernal NBSA, Jean Phillippe Larocque NWOSA, Cory Stechyshyn (virtual) WRSA, Suzanne Stiers (virtual) ORSA, Christopher Moise (virtual) TSA, Ana-Francisca de la Mora NDSA, Reginald Freethy	GVSA, Ana Gascon Marco LSA, Tim Wickens Niagara, Kevin Emrich NBSA, Ruth Elder NOSA, Amber Salach ORSA, Darryl Hood SLVSA, Chris Howard TSA, Joël León Trent, Matthew Z. Philip
Council Liaison:	Settimo Vilardi, President (WRSA) Christina Karney (HBSA) Jenny LaFrance (ORSA) Natasha Krickhan (TSA) Ted Wilson (NBSA, NOSA, NWOSA, Algoma)	Bill Birdsell (GVSA, LSA) Greg Redden (Niagara) Lara McKendrick (SLVSA) Thomas Yeung (NDSA)
OAA Staff:	Kristi Doyle, Executive Director  Mariam Tokhy, Interim Public Outreach Specialist	Kathryn Hunks, Architectural Graduate

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The Society Chairs and Councillor liaisons of the Ontario Association of Architects held their annual meeting on May 21, 2024 at the Marriot on the Falls, Niagara Falls, Ontario. The meeting was held in conjunction with the OAA's annual conference. The meeting agenda included a focussed discussion regarding Society finances and fees, as well as a workshop approach to discussions regarding how the societies might function most effectively into the future. The Society Chairs were asked to complete a short survey in advance of attending the meeting to collect information regarding specific pressures the Societies were experiencing as they are currently structured and administered.

OAA President, Settimo Vilardi offered welcome remarks and served as the Chair of the meeting.

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## 1.0 Finance Discussion

OAA Executive Director, Kristi Doyle made a short presentation to recap the discussion that occurred during the April 2024 Society Chairs virtual check-in meeting. This served as the foundation for the open discussion which followed.

A copy of the PPT is attached. After the presentation, the group was asked to consider the following questions:

### **Questions for Group consideration (individual Society membership fees)**

1. Is there an appetite to increase the individual membership fee for Local Societies as a group?
2. If so, what is the amount of the increase?
3. If there are only some supporting an increase, do they want to proceed on their own, and at what amount?

### **Questions for Group consideration (per capita sliding scale for Societies)**

4. Is there consensus on a recommendation to increase the sliding scale per capita funding model?
5. If so, is there a desired approach (% increase, eliminate the scale and have one amount per capita, different amounts for each societies based on a criteria)?
6. What additional information and/or data will council need to make an informed decision based on a recommendation from the group?

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## **2.0 Open Discussion**

The following represents a summary of the discussion that occurred regarding the above noted questions.

### **2.1 Funding/Fees**

Some felt strongly that there should be one membership fee across all Societies which represents a consistent approach to all members. A varied membership fee may lead to the perception of a hierarchy amongst the Societies.

Some felt that an appropriate way to approach funding for Societies is to include a standard levy on all annual fee renewal invoices for a member's geographic society. There were concerns, however, in terms of charging a fee to those that do not wish to be involved in the Society. In addition, it was noted that the OAA can not require mandatory membership in a Society as a condition of annual licence renewal.

Many Societies felt that they have been unable to take on as much as they would like due to limited financial resources. Chairs expressed concerns that funding provided by the OAA was barely enough to cover basic operational expenses. The increasing cost of hosting in-person events was mentioned, along with the idea that every Society wants to do something but they need more funds to do so. It was suggested that the OAA provide each Society with a base funding amount and then top-ups as required, in addition to a much needed upward adjustment to the sliding scale amount currently provided by the OAA. It was noted that not all Societies are preparing an annual budget, which will be important to support an increase.

The relationship between membership fees and perception was brought up. Would being a member of a Society consider their membership more valuable if fees were increased? Another key point was identified - if other OAA fees increased, so should the financial support to Societies. As noted, this increase in financial support would be a way to recognize Societies as key partners.

#### Action Items

After a productive discussion, the group agreed that it would be useful to survey the membership regarding a possible Society fee membership increase before moving forward. It was agreed that the OAA would take the lead on drafting the survey, however it would seem most appropriate for the individual Societies to be involved in distributing the survey to their membership – it would be more personal. The Group also agreed that the OAA should be asked to consider a base level of funding for each Society. It was also agreed that Societies should prepare an annual budget in order to demonstrate the costs that are incurred each year by the Society so that an increase on the sliding scale, or base funding can be supported.

### **2.2 Resources/Collaboration**

The idea of resource collaboration was also discussed. There was a general consensus that shared resources like a Mailchimp/Eventbrite account would be advantageous. As discussed, Societies that offer initiatives of value, like ConEd and K-12 programming, could potentially be shared to avoid duplicating efforts. A spirit of collaboration was brought out at the meeting.

#### Action Items

There is a need to assess resources that already exist and leverage them accordingly. OAA staff will take on the effort to determine what programs and administrative supports are already in use by the Society, and consider ways to share those resources. Enhancing the existing Toolkit on the OAA's Website could be a successful approach, but collaboration with Societies is essential.

### **2.3 Membership Engagement/Benefits**

Incentivizing membership was another key point of discussion. The following question was raised: How do you maintain membership while appreciating those that do the work, especially when this comes out of your limited budget? It was noted that Societies operate on a volunteer basis and this must be considered when making decisions and changes to funding. It was also suggested that structured ConEd be provided for Society Executive Committee members, with Volunteerism identified as a potential ConEd topic area eligible for structured or unstructured hours. Offering honorariums for executives was also mentioned, and it was noted that this would help in the succession process.

Benefits of being a Society member were considered, including shared platforms of some sort, or access to Ontario-wide events. As noted, these might give people more purpose to join Local Societies, specifically in relation to those that don't have the same capacity as larger Societies.

The question of how to reach members was also raised. The limitations of email communications were noted, with specific reference to privacy laws. The OAA's Website and social media channels were identified as helpful tools to display

encouragement and promotion of Societies. It was suggested that the OAA launch a campaign to encourage people to join Local Societies.

#### Action Items

Establishing benefits for Society executives is a critical move to maintain the longevity of Societies. Incentivizing Society membership should be done in a collaborative way to support Societies of all sizes. OAA staff to review the parameters of the Continuing Education Program to determine if ConEd hours can be gained through member involvement.

### **2.4 Role of the Local Societies**

The unique identity of each Society was acknowledged and it was agreed that the individual identities of each Society should be supported. The Local Societies were identified as one of the OAA's important assets, as they help represent the entire province. Chairs were recognized as passionate people who immensely value their Societies, but the difficulty in running a Society and keeping it afloat was acknowledged. Based on this discussion it was evident that there was little appetite for the OAA to be more prescriptive in the activities that the societies should be undertaking. However, there continues to be a desire for administrative support from the OAA. A discussion ensued regarding the availability of additional staff resources, noting however, that the OAA does not currently have the capacity to take on additional administrative duties.

#### Action Items

It was suggested that the OAA give consideration to providing more administrative support to the Local Societies. A framework and business case for this would need to be developed, and the capacity of the OAA should be determined and clarified.

### **2.5 Role of the OAA**

It was requested that the OAA provide membership statistics including the number of members within each Society's catchment area, number of individuals that opt into Society vs. those that don't, member type by category, etc. As noted, this data would be helpful for Chairs to understand the level of engagement in their Societies.

In regards to the OAA's oversight and more prescriptive roles and responsibilities, it was noted that realistic minimum mandates are acceptable if they are truly minimum and attainable by smaller Societies. A roadmap of guidelines for operations and public outreach could be useful, but there was collective agreement that the OAA should not be prescriptive in its expectations from Societies.

It was agreed that budget reporting is necessary in order to support the request to the OAA to provide more funding to Societies. The question of the OAA's "Big Vision" regarding Local Societies was raised, with the understanding that this is an ongoing topic. It was concluded that understanding specific Society initiatives and goals moving forward would help facilitate a productive and mutually beneficial relationship between the OAA and the Local Societies.

#### Action Items

The OAA has a key role in supporting Societies and should provide data to facilitate their operations. Basic Society guidelines can be outlined by the OAA, but these expectations should not be limiting or prescriptive in any way.

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### **Summary: Next Steps**

- OAA staff to draft survey regarding fee increases, what would people support, and why we are doing this. Societies to assist in facilitating the survey.
- OAA staff to gather statistics on membership/number of people in the Society catchment area, and how many are not clicking the box in their area.
- OAA to provide more visibility and advertisement of Societies on socials and website - launch more communications to encourage members to join.
- Societies to provide information to support increase in OAA funding and/or base criteria for funding (Annual Budget, Annual Report, programming needs, etc.). OAA Staff to formalize this request.
- OAA to provide clarity regarding basic Society expectations and requirements (for example: requiring Societies to provide an annual report with detailed financials/bank balance, financial policies around establishing bank accounts, and maximum balances, etc.)
- OAA to review ConEd hours and allocation for member participation on a Society Executive Committee.



TORONTO SOCIETY OF ARCHITECTS

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FOR COUNCIL MEETING  
September 19, 2024  
(open)  
ITEM: 8.1

May 09, 2024

Settimo Vilardi, President OAA  
Natasha Krikchan, OAA Councillor, Society Liaison to the TSA  
Kristi Doyle, Executive Director OAA

**RE: Continuing Education Program -- Learning Category Amendment to Recognize On-Site Learning (Building Tours) as Structured Hours**

Dear Settimo, Natasha, and Kristi,

We are writing on behalf of the Executive of Toronto Society of Architects (TSA) to request the Ontario Association of Architects (OAA) Council to review the existing policy on qualifying activities for Structured Learning Hours as part of the OAA's Continuing Education Program. More specifically, **we request that the OAA reconsider the eligibility of building tours as Structured Learning given their significant value as on-site learning experiences.**

For over 10 years, the TSA has organized numerous tours with the belief that first-hand experience and being on site provides invaluable educational value, equal if not more to those of lectures. In particular, our Building Tours program has provided hundreds of members with the opportunity to visit projects—both complete and under construction—and hear directly from the architects, engineers, clients, and construction managers behind these buildings. These visits foster candid conversations within the profession and provide real life examples to issues of design, code compliance, sustainability and heritage preservation that better prepare our members to serve their province. At times, these tours might be the only opportunity some members have to see certain building types under construction and learn from their fellow members.

Our Building Tours program is an essential part of our educational offerings and we have systems in place to ensure attendees are checked in and participate throughout the duration of the event. We also provide opportunities for questions and discussions throughout the tour, similar to the requirements for Structured Learning during lectures. The only difference with our webinars or in-person courses is that these learning opportunities happen on-site instead of in front of a screen or blackboard. We have provided a number of attachments that provide further information on this program, including logistics, previous tour guides, and content covered that highlight this equivalency.

Currently, as stated on the OAA's Continuing Education Program website, tours of any kind are only eligible for unstructured learning hours. We believe this should be expanded to acknowledge the value of on-site education as equal to that of in-class and distance learning. This could be accomplished by amending the In-Person Learning category to include building tours led by architects or other design professionals as part of the eligible programs.



We hope the OAA Council is supportive of this update given the value of on-site learning and its equivalency to current Structured Learning opportunities as we work together to make a stronger, more competent and better informed profession in service of all Ontarians.

On behalf of the Toronto Society of Architects Executive,

Ana-Francisca de la Mora, OAA, FRAIC  
Chair

Barbora Vokac Taylor, OAA, MRAIC  
Vice Chair

Pamela Bruneau, OAA  
Treasurer

Joël León Danis, OAA, FRAIC  
Executive Director





## Structured Learning Requirements vs. Building Tours

The following table provides a comparison between the requirements for Structured Learning Hours for the OAA Continuing Education Program and the TSA Building Tours program. Requirements listed for OAA Structured Learning were obtained from the OAA website on April 22, 2024.

Requirement	OAA Structured Learning	TSA Building Tour
Topics	<p>Learning activities relevant to the practice and/or business of architecture and addressing at least one of the following subject matters:</p> <ul style="list-style-type: none"> <li>• architectural design;</li> <li>• Ontario Building Code or National Building Code of Canada;</li> <li>• environment and energy;</li> <li>• heritage buildings restoration;</li> <li>• legal issues and legislation related to architectural practice and the construction industry;</li> <li>• practice management or project management;</li> <li>• risk management; and</li> <li>• sustainable design and green architecture.</li> </ul>	<p>TSA Building Tours are always led by at least one architect and at least more or more additional members of the design team for the project being visited.</p> <p>Discussions during the tour range from architectural design to code compliance, sustainability, and heritage retention, among many others. As the tour is both led and attended by design professionals, they are valuable learning opportunities to observe, learn and question how designs translate into built realities and the challenges faced on site.</p> <p>Many of the tours are also led during construction, allowing for a unique opportunity to learn from the construction process.</p>
Duration and structure	<p>Minimum one hour in length and must include a questions/answers component.</p>	<p>All TSA Building Tours are a minimum of 1 to 1.5 hours in length. Questions are encouraged throughout the length of the tour, including a final question period at the end.</p>
Proof of Attendance	<p>Must be supported by evidence of participation which must include:</p> <ul style="list-style-type: none"> <li>• Presentation title, total time, and date of completion;</li> <li>• Attendee's name; and</li> <li>• Provider's name, logo and contact information.</li> </ul>	<p>All attendees for a TSA Building Tour are checked in when arriving at the tour starting point and are required to stay with the group for the duration of the visit.</p> <p>The TSA already produces certificates of attendance with the required information for lectures and could easily use the same technology to produce certificates for our Building Tours.</p>
Categories	<p>Structured Learning is currently limited to the following educational categories:</p> <ul style="list-style-type: none"> <li>• In-Person Learning: attendance in lectures, college or university courses, or Lunch &amp; Learns;</li> <li>• Distance Education: participation in webinars or online education modules or courses; and</li> <li>• Teaching: public speaking engagements in a professional capacity for the purpose of informing others</li> </ul>	<p>The TSA requests that the OAA amend the Structured Learning categories to recognize the value of building tours as On-Site Learning, equivalent to other In-Person Learning.</p> <p>We recommend the In-Person Learning definition is amended as follows:</p> <p>"In-Person learning: attendance <b>to guided visits to building sites and projects</b>, lectures, college or university course, or Lunch &amp; Learns"</p>



## Past TSA Building Tours

The following is a list of building tours organized by the Toronto Society of Architects between 2015 and 2023. During 2020-2021 the tours program moved to a virtual only format in response to the pandemic in the form of Home Tours and Virtual Building Tours which are not listed below.

Site	Year	Tour Guides
Massey Hall Revitalization	2023	Sharon Vattay, Principal, GBCA Graham Baxter, Senior Associate, KPMB Architects
Waterworks*	2023	Andrew Pruss, Principal, ERA Architects Duncan Bates, Senior Associate, Diamond Schmitt Gary Switzer, CEO, MOD Developments Stratton Townley, Director, Development, Woodcliffe Landmark Properties
Mirvish Village*	2023	Joseph Troppmann, Senior Associate, Diamond Schmitt Architects Ashraf Hanna, Contract Administrator, Diamond Schmitt Architects Krenar Sulejmani, Contract Administrator, Diamond Schmitt Architects Dat Pham, OAA Intern Architect, Diamond Schmitt Architects Neima Hoseini, OAA Intern Architect, Diamond Schmitt Architects
Centre for Aerospace and Aviation	2022	Tim Roy, Chairperson, Aerospace/Aviation, Centennial College Steve Hoffman, Avionics Professor, Centennial College Jamie Milks, Program Coordinator and Professor, Centennial College Robert Allen, Partner, MJMA Timothy Belanger, Partner, MJMA Sean Solowski, Architect, MJMA Stephen Phillips, Senior Vice President & Business Leader, Buildings, Stantec
The Port Lands*	2022	Shannon Baker, Project Director, Parks and Public Realm, Waterfront Toronto Chris Glaisek, Chief Design Officer, Waterfront Toronto Don Forbes, Project Director, Soil Remediation and Earthworks, Waterfront Toronto
University College Revitalization	2022	John Shnier, Partner, Kohn Shnier Architects Graeme Stewart, Principal, ERA Architects
Centre for Engineering Innovation and Entrepreneurship	2019	Robert (Bob) Davies, Principal, Montgomery Sisam Architects Shannon Wiley, Associate, Montgomery Sisam Architects
King Portland Centre	2019	Michael Conway, Associate Partner, Hariri Pontarini Architects
80 Atlantic*	2019	Richard Witt – Principal-In-Charge, OAA Michelle Xuereb – Director of Innovation/Project Lead, OAA Wayne McMillan
York University Station	2018	William Bradley, Partner at Adamson Associates Architects Andrew McAlpine, Principal, Arup Joanna Kervin Director, Third Party, Planning & Property

		Toronto-York Spadina Subway Extension Dept. at TTC
Finch West Station	2018	Welland Sin, Associate Manager of Architecture at IBI Group Ana-Francisca de la Mora, Associate Manager of Architecture at IBI Group Mohammad Majdabadi, Vice President of LEA Consulting Ltd. Peter Ojala, Vice President of LEA Consulting Ltd. Ian Trites, Head Architectural Design for TTC
Pioneer Village Station	2018	Richard Stevens, Chief Architect Welland Sin, Architect – Associate Manager, IBI Group Bruce Han, Project Architect – Associate Manager, IBI Group Ian Trites, Head Architectural Design for TTC
Centre for Engineering Innovation and Entrepreneurship*	2017	Robert (Bob) Davies, Principal, Montgomery Sisam Architects Shannon Wiley, Associate, Montgomery Sisam Architects
Goldring Centre for High Performance Sport	2017	Ted Watson, Principal-in-Charge, MJMA Aaron Letki, Project Architect, MJMA
Daniels Building, One Spadina	2017	Katherine Faulkner, President and Founding Principal, NADAAA Claudina Sula, Partner, Adamson Associates Architects
Cooper Koo Family YMCA	2016	Andrew Filarski, MacLennan Jaunkalns Miller Architects (MJMA) Janouque LeRiche, MacLennan Jaunkalns Miller Architects (MJMA) Jason Wah, MacLennan Jaunkalns Miller Architects (MJMA) Alex Versluis, VP of Property Management, YMCA of Greater Toronto
Goldring Student Centre	2016	Carol Phillips, Principal, Moriyama & Teshima Architects Phil Silverstein, Associate, Moriyama & Teshima Architects
Union Station*	2016	Manuela Istrate, Metrolinx (Project Manager in previous role with Zeidler Partnership) Ricky Mugford, Metrolinx (Interior Design in previous role with Zeidler Partnership) Rob Eley, Partner, Zeidler Vaidila Banelis, Senior Partner, Zeidler
Ryerson Student Learning Centre	2015	Vaidila Banelis, Senior Partner, Partner-in-Charge, Zeidler Partnership Mike Smith, Project Manager, Zeidler Partnership
Rotman School of Management Expansion	2015	Bruce Kuwabara, Founding Partner and Partner-in-Charge. KPMB Luigi LaRocca, Principal and Project Architect, KPMB
Aga Khan Museum and the Ismaili Centre	2015	Po Ma, Project Architect, Moriyama & Teshima Architects Nick Onody, Project Architect, Moriyama & Teshima Architects

\* Tours done under construction

# | TSA Building Tours

A photograph of two construction workers on a balcony. The worker on the left is wearing a white hard hat, an orange safety vest over a grey patterned shirt, and a black backpack. He is pointing towards the left. The worker on the right is wearing a yellow hard hat, an orange safety vest over a black shirt, and glasses. They are both looking out over a cityscape. The background shows a modern building with large windows and balconies.

October 11, 2023

**TSA**

TORONTO  
SOCIETY OF  
ARCHITECTS

# I **About TSA Building Tours**

- TSA Building Tours provide special, behind-the-scenes access to some of our city's newest buildings—some still under construction— led by the people behind the design including architects, owners, engineers, and consultants.
- The tours' main focus is on professional education, providing unique pedagogic insights into the design and construction process and allowing attendees to learn directly from those involved during the process.
- The TSA currently organizes 4-5 building tours every summer, with 3 in-person visits and 1-2 as virtual experiences. Buildings featured in tours are selected to showcase a diversity of programming types, scale and studios involved, and for their location accessibility.

# I **What makes them so valuable?**

## **Straight from the Source**

Building Tours are highly engaging opportunities to see and learn about projects directly from the team who worked on them.

## **Unique Experiences**

With no two alike, each tour is a unique learning and sharing experience.

## **Site Experience**

Many tours are under-construction, providing insight into the construction process and effective CA practices. Particularly valuable for those who might not get as much exposure to this in their own offices!

## **Professional Competency & Proliferation of Best Practices**

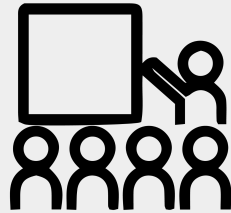
They provide attendees an opportunity to learn how others are tackling similar issues and better understand building types that are not a part of their own practice.

# I Building Tours Attendance and Reach | 2023



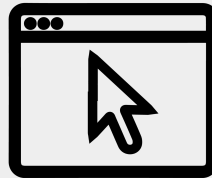
**4**

Building  
Tours



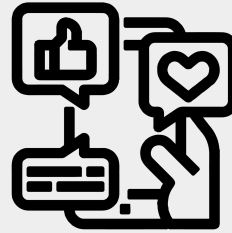
**141**

In-Person  
Attendees



**880+**

Virtual Tour  
Viewers



**70,000**

Social Media  
Reactions/Comments\*



**1.7M+**

Social Media  
Views\*

\*Based on likes, comments, and views from LinkedIn and Instagram content produced about the Building Tours.



# I Planning a Building Tour

6-8 months before the season begins	<b>Identify Sites</b> <ul style="list-style-type: none"><li>• Put out an open call for building tour proposals.</li><li>• Discuss and produce short list of potential sites.</li></ul>
2-3 months before the season begins	<b>Reach-Outs &amp; Coordination</b> <ul style="list-style-type: none"><li>• Contact firms from chosen buildings to confirm interest.</li><li>• Meet with studio and guides to discuss route, content, capacity, and logistics.</li></ul>
2 months before the tour	<b>Obtain Materials</b> <ul style="list-style-type: none"><li>• Acquire materials about the building to use in marketing and the website.</li></ul>
1-2 months before the tour	<b>Publish Tour &amp; Open Registration</b> <ul style="list-style-type: none"><li>• Tickets go on sale and attendees register through Eventbrite.</li></ul>
Day of tour	<b>Event Day</b>
1-2 days following the tour	<b>Attendee Follow Ups</b> <ul style="list-style-type: none"><li>• Attendees receive a follow up email with a feedback survey.</li></ul>

# I The Day-of Timeline

5:50 - 6:10 PM	<b>Arrive on Site &amp; Final Check-In with Guides</b> <ul style="list-style-type: none"><li>• Confirm if any of the plan or route has changed due to unknown factors.</li><li>• Instruct guides on how to use the microphone for the speaker system.</li></ul>
6:10 - 6:30 PM	<b>Attendee Check-In</b> <ul style="list-style-type: none"><li>• All attendees are checked-in before the tour by staff and volunteers.</li><li>• Confirming waiver forms are signed and correct PPE in place, if required.</li></ul>
6:30 - 8:00 PM	<b>Tour</b> <ul style="list-style-type: none"><li>• Begins with TSA event &amp; speaker introduction and land acknowledgement.</li><li>• Then the guides introduce the tour and the context of the site.</li><li>• Tours have multiple stops covering diverse subjects, and there are opportunities for questions at each stop and throughout the tour.</li></ul>
8:00 PM	<b>Event Ends</b> <ul style="list-style-type: none"><li>• We share closing remarks, thanking the guides and encouraging attendees share their photos online and complete the feedback survey.</li></ul>

# I Other Logistical Considerations

- **Accessibility**

- Depending on the site, sound amplification devices may be beneficial and/or required.
- Planning for an accessible route is best (be sure to consider wheelchair friendly spaces, but also things like walkers, crutches, strollers, etc.) If an accessible route is not possible due to site constraints, this information must be shared in advance with attendees.
- Provide attendees the opportunity to share any accessibility needs at registration.

- **Member Preference**

- Tours are provided at a discounted rate to TSA Members.
- Members also receive early-bird access to tour tickets (which comes in handy with the popularity of our tours!).

- **PPE Requirements**

- Make sure PPE requirements are clearly communicated as they vary site to site.



# TSA Building Tour: Mirvish Village

July 19, 2023

Diamond Schmitt Architects

# I Building Tour: Mirvish Village | More Info

<b># of Tour Guides</b>	5
<b>Tour Guide Roles</b>	Senior Associate, Contract Administrators, Intern Architects
<b>Attendees</b>	38
<b>Group Size</b>	2 groups; ~20 people per group.
<b>Duration of Tour</b>	1.5 hours
<b>PPE Required</b>	Yes
<b>Key Topics</b>	Heritage retention, mixed-use development and code challenges, TGS, public consultations, BIM and CA coordination, affordability, high rise construction.
<b>Uniqueness</b>	This tour began with a short presentation on the background of the site where each of the team members had a chance to speak, providing an opportunity to hear from diverse perspectives on the project, from interns to senior architects.





# TSA Building Tour: Waterworks Project

August 15, 2023

ERA Architects, Diamond Schmitt Architects, MOD Developments, Woodcliffe Landmark Properties

# I Building Tour: Waterworks | More Info

<b># of Tour Guides</b>	4
<b>Tour Guide Roles</b>	Principal, Senior Associate, Developers
<b>Attendees</b>	58
<b>Group Size</b>	2 groups; ~30 people per group.
<b>Duration of Tour</b>	1.5-2 hours
<b>PPE Required</b>	No
<b>Key Topics</b>	Heritage retention and adaptive reuse, public/private ownership, sustainability and heritage strategies, mixed-use development, zoning.
<b>Uniqueness</b>	This tour featured the unique opportunity to learn more about the financial aspects of the project as we were joined by two of the developers on the project.





# TSA Building Tour: Massey Hall

September 12, 2023

KPMB, GBCA

Photos by Kurtis Chen

# I Building Tour: Massey Hall | More Info

<b># of Tour Guides</b>	2
<b>Tour Guide Roles</b>	Principal/Architectural Historian, Senior Associate
<b>Attendees</b>	45
<b>Group Size</b>	1 group
<b>Duration of Tour</b>	2 hours
<b>PPE Required</b>	No
<b>Key Topics</b>	Revitalization vs. restoration, heritage retention, accessibility retrofits, design of performance and event spaces, new meets old, acoustic design.
<b>Uniqueness</b>	This tour was 3 years in the making for the TSA, and it proved incredibly popular, selling out in under 20 minutes!

# I Attendee Feedback & Where to Improve

- **More Tours!** Our most frequent feedback received is that we do not host enough building tours to keep up with the interest out there.
- **Structured ConEd:** Many of our attendees are OAA Members and we are often asked why these tours are not eligible for structured learning hours despite their educational value.
- **Small-Scale Buildings:** Because of the size of our tours, most of our featured buildings are quite large. We have received a growing number of requests to feature small-scale projects that show innovation within the realm of Part 9.
- **Additional Virtual Tours:** Attendees have also shared that they appreciate the effort made to do virtual tours in addition to in-person ones. Many of these comments are in reference to accessibility and making the opportunities available beyond the limited capacity of an in-person tour.



# | TSA Building Tours

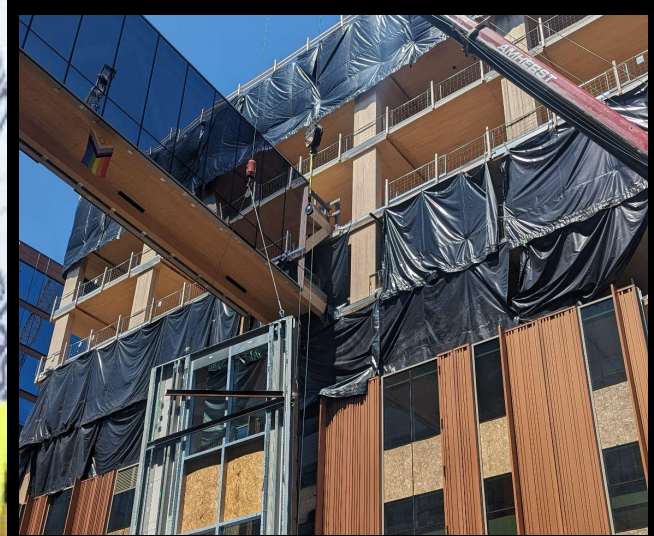
*Bonus: Virtual Tours!*

October 11, 2023

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**TSA Virtual Building Tour: Limberlost Place**  
**July 7, 2023**  
Moriyama Teshima Architects



# I Virtual Building Tour: Limberlost Place | More Info

<b># of Tour Guides</b>	2
<b>Tour Guide Roles</b>	Principal/CA, Associate
<b>Viewers</b>	880
<b>Duration of Tour</b>	38 minutes
<b>Key Topics</b>	Mass-timber, sustainability, CA, design to construction, mechanical systems including passive ventilation strategies, code and zoning challenges.
<b>Uniqueness</b>	<p>This virtual tour provides a rare visit of an under-construction site to everyone, regardless of their position, location, or affiliation. We have received great feedback from industry professionals, as well as the general interested public, about this accessible opportunity to view and learn more about the site.</p> <p>This tour has also allowed us to produce reels that have reached over a million viewers all across the world.</p>

# I Some Logistical Considerations

- **A/V Consideration**

- Audio is the biggest challenge in a virtual tour. Investing in the proper audio equipment that is recording audio separate to the video makes a big difference in the finished product.
- We use a phone to record the TSA videos, but have also invested in a gimbal to make it a smooth experience.
- If sites are large, editing is a must to eliminate long walks between stops. Same doesn't apply to smaller buildings (like our Home Tours).

- **Accessibility**

- Captions should be added to the video to ensure audio is accessible, especially if there is background noise on site.
- Make sure to edit the captions as many of the terms used by architects are not commonly understood by AI and automatic transcription methods.



# | TSA Building Tours

A photograph of two construction workers on a balcony. The worker on the left is wearing a white hard hat, an orange safety vest over a grey patterned shirt, and a black backpack. He is pointing towards the left. The worker on the right is wearing a yellow hard hat, glasses, and an orange safety vest over a black shirt. They are both looking out over a cityscape with modern buildings and a clear sky.

October 11, 2023

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