



## **Annual Capital Project Management Update – 2021 BIFAC Approved Contracts**

Item 10H

June 17, 2022

Building Investment, Finance and Audit Committee

**Report:** BIFAC:2022-81

**To:** Building Investment, Finance and Audit Committee  
("BIFAC")

**From:** Vice President, Facilities Management

**Date:** May 11, 2022

### **PURPOSE**

The purpose of this report is to provide an update on planned capital construction approved by the BIFAC in 2021. This report provides details on how construction projects are managed, along with the processes and procedures in place to vet and manage cost and budget changes.

### **RECOMMENDATIONS**

It is recommended that the BIFAC receive this report for information.

### **BACKGROUND**

In 2021, TCHC delivered over 1,600 planned capital projects, ranging from small scale component replacements to complete and holistic tower renewals. Attachment 1 outlines the current status of capital project contract awards approved by the BIFAC in 2021, including a summary of change orders and anticipated construction end dates for these projects.

TCHC's capital projects are managed and delivered by following three key phases:

1. Capital planning
2. Project design
3. Construction delivery

Each phase of capital delivery implements cost control measures to reduce significant changes at the latter end of a project, as costs tend to increase throughout the duration of a project.

Facilities Management has established governance protocols and practices internally to ensure that changes to budgets are vetted by the appropriate level of staff authority. These processes are aligned with TCHC's Procurement Policy, and ensure that project changes are reviewed and approved by senior staff, procurement review committees, the President and CEO, and the Board of Directors, in keeping with budget thresholds and signing authorities.

## **PROJECT CHANGES AND COST CONTROL**

Change orders are a formal means of incorporating modifications into a construction project contract, and are a key cost control measure for TCHC. Change orders are modifications to the original scope of work, schedule, and/or budget.

The industry average for change orders is typically 5-20% of the original construction contract value, with the majority of construction projects incurring change orders between 10-15% (source: Ameresco Canada Inc.).

Renovation work will typically land in the higher end of the range. In the case of TCHC, the delivery of capital construction in fully occupied buildings, coupled with an aging portfolio and the state of facility conditions, presents a variety of challenges for project managers, and often contributes to additional scope of work arising during construction.

In keeping with industry best practice, TCHC tracks change orders against the following categories:

### **1. TCHC (Owner) Directed**

TCHC (Owner) Directed is defined as changes to the project scope that arise through owner discretion and recommendation. For TCHC, this often means expanding work to address similar building requirements or

deficiencies coincident to the original work, but excluded from the contract. For example, extending a corridor flooring replacement into a tenant common room that is in poor repair.

## 2. Unforeseeable Site Conditions

For TCHC, the largest cause of change orders arises from unforeseen issues within existing building conditions. This is, in part, due to portfolio age (87% of the portfolio is over 30 years old and 49% is over 50 years old) and a capital repair plan that has been, until recent years, historically underfunded.

Often, poor building conditions and extensive degradation are concealed until the onset of construction work. While destructive testing, condition assessments and investigations are conducted routinely at the start of significant capital projects, TCHC is still vulnerable to additional costs due to unforeseeable site conditions.

## 3. Design Changes, Omissions and Oversight

Project cost control begins with a high-quality set of accurate contract documents. The professional design services who prepare contract documents are subject to the same limitations as other professional practices, such as medicine or law. Building owners, like TCHC, can rely on architects and engineers to prepare these documents with a reasonable standard of care and skill. It is to be expected that construction documents can and will contain some degree of inaccuracy or inconsistency. This is especially true of renovation projects where consultants must accurately map out existing conditions with limited access, or are required to rely on older building plans and survey materials provided by the owner.

## 4. Other/Miscellaneous

Working in occupied buildings while delivering a significant amount of capital work can lead to a wide range of additional costs that are often unique to TCHC. For example, in order to reduce risk to the company, TCHC may need to enact Constructor fees, which are built into construction contracts in anticipation of multiple construction teams at a site. In addition, special provisions may be required to address the needs of a tenant or tenant group who require additional support or accommodation during construction. It is also common that a project may take on additional scope that was planned for a future project. For improved efficiencies and to minimize disruption to tenants, this scope is added to an existing project.

Table 1: 2021 Change Orders by Reason

<b>Reason for Change Order</b>	<b>% of Change orders</b>
Unforeseeable Site Conditions	33%
TCHC (Owner) Directed	28%
Other	20%
Design Changes and Omissions	19%
<b>Total</b>	<b>100%</b>

**CONCLUSIONS:**

In 2021, TCHC delivered its full \$350M capital plan with a change order rate of 11.78% across completed projects. This is well within the industry average for retrofit work in occupied conditions.

TCHC will continue to adhere to industry norms in terms of construction project management. TCHC will maintain rigorous and effective cost control measures throughout the capital delivery process, in keeping with TCHC's Procurement Policy.

**SIGNATURE:**

*"Allen Murray"*

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Allen Murray  
Vice President, Facilities Management

**ATTACHMENT:**

1. BIFAC Approved Capital Project Contract Awards: Status Update

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**Attachment 1: BIFAC Approved Capital Project Contract Awards: Status Update**

Date of Meeting	Report #	Report Title	Original Approved Amount	Vendor	Estimated Project Completion Date	Scope	Cumulative Change Order Amount	Cumulative Change Order %	Current Status
February 26, 2021	TCHC:2021-03	Integrated Project Delivery (Design and Construction) of an Energy Retrofit at Leslie Finch	\$7,821,068.00	TAF - The Atmospheric Fund		Replace heating and ventilation systems at end of life that require upgrades. Improve the quality of building systems, provide energy savings, and support TCHC's energy efficiency goals, including achieving National Co-Investment Fund energy reduction targets.	N/A	N/A	Not yet started. Loan agreement still under negotiation.
March 11, 2021	BIFAC:2021-22	Garage Restoration Services at Trimbee Court (30 Denarda Street) (RFQ 20288-PP)	\$2,893,920.00	Roma Building Restoration	2023 (three phase project)	Drainage improvement, partial slab replacement and localized concrete repair to prevent further deterioration of the structural components to be delivered under a phased approach, with phase one taking place in 2021, phase two in 2022, and phase three in 2023.	N/A	N/A	Vendor disqualified post award for not complying with RFQ requirement to hold submitted bid price
April 15, 2021	BIFAC:2021-34	Construction Services for Seven New Tenant Service Hubs (RFQ 21009-PP, Groups 2&3)	\$2,078,106.68 \$1,525,539.00	Stratcor Inc (4 Projects) Martinway Contracting (3 projects)	Various	Full construction services for interior improvements and a Tenant Service Hub at each of the seven locations including interior demolition, new partition walls, interior finishes, electrical, mechanical and security related work.	Stratcor: \$287,462.32 (4 projects) Martinway: \$ 249,476.62 (3 projects)	14.0% 16.0%	Stratcor: All projects completed Martinway: 1 complete 2 in progress

Date of Meeting	Report #	Report Title	Original Approved Amount	Vendor	Estimated Project Completion Date	Scope	Cumulative Change Order Amount	Cumulative Change Order %	Current Status
May 18, 2021	BIFAC:2021-47	Garage Restoration Services at Trimbee Court (30 Denarda Street) (RFQ 20288-PP)	\$3,029,525.00	Dan Michael Construction	2023 (three phase project)	Drainage improvement, partial slab replacement and localized concrete repair to prevent further deterioration of the structural components to be delivered under a phased approach, with phase one taking place in 2021, phase two in 2022, and phase three in 2023.	Phase 1: \$0 Phase 2: \$0 Phase 3: Not yet started	Phase 1: 0% Phase 2: 0% Phase 3: Not yet started	Phase 1 complete Phase 2 in progress Phase 3 to begin Q4 2022
July 22, 2021	TCHC:2021-43	Comprehensive Retrofit Construction – Envelope, Mechanical and Electrical at 4100 & 4110 Lawrence Avenue East (RFQ 20317 PP)	\$7,936,875.00 (4110 Lawrence) \$7,725,060.00 (4100 Lawrence)	Trinity Services	August 2023	Comprehensive retrofit construction envelope, mechanical and electrical at 4100 and 4110 Lawrence Ave East due to extensive water penetration into tenant units	\$220,788.75 (4110 Lawrence) \$138,369.00 (4100 Lawrence)	2.7% 1.8%	In progress
September 2, 2021	BIFAC:2021-85	Portable Terminal Air Conditioning Unit (“PTAC”) System Replacement and In-suite Ventilation Upgrade at 145 Mutual Street (RFP 21102-PP)	\$3,977,414.21	Martinway Contracting	December 2022	Removal of PTAC units and installation of new, highly energy efficient air-source heat pump system. Auxiliary work will include infilling the envelope at the former PTAC opening, a new drywall bulkhead, and the replacement of bathroom exhaust fans with low continuous running fans.	\$26,708.00	0.7%	In progress
September 2, 2021	BIFAC:2021-86	Decommissioning, Abatement, Demolition and Site Grading Services at Firgrove Crescent (RFP 21084PP)	\$4,959,650.00	Budget Environmental Disposal	June 2022	Decommissioning, abatement, demolition and site grading services at Firgrove Crescent.	\$4,307.63	0.1%	In progress