

JUNE 2018

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# CITY OF CHICAGO OFFICE OF INSPECTOR GENERAL

## PUBLIC BUILDING COMMISSION CONSTRUCTION CHANGE ORDERS AUDIT



REPORT OF THE OFFICE OF INSPECTOR GENERAL



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**JUNE 12, 2018**

**TO THE EXECUTIVE DIRECTOR AND CHAIRMAN OF THE AUDIT  
COMMITTEE OF THE PUBLIC BUILDING COMMISSION OF CHICAGO:**

The City of Chicago Office of Inspector General (OIG) has completed an audit of the Public Building Commission of Chicago's (PBC) change order review and approval process. Based on the audit results, OIG concluded that PBC designed a robust process to review and approve change orders. However, ineffective implementation of the process permitted errors and inconsistencies in the recording of information and recovery of damages. Because PBC allowed contractors to submit inconsistent information and did not hold architects accountable for errors, the agency cannot demonstrate to its clients that it is effectively safeguarding public dollars.

OIG recommends that PBC improve its change order review and approval process by requiring contractors to submit cost proposals using a standardized digital form, as well as implementing an electronic document control system for change order reviews and approvals. In addition, PBC should revise and consistently implement its policy for recovering damages from architects to ensure that all damages calculations are reviewed and the rationales for damages decisions are recorded. PBC agreed with all of OIG's recommendations and stated that it has already begun to implement improvements to its change order management.

Consistently enforcing the change order review and approval process will enable PBC to provide reasonable assurance to its clients that it diligently reviewed all proposals to ensure the work was justified and reasonably priced, and that it sought to recover all damages attributable to architect errors. In addition, consistent enforcement of the process will signal to architects and contractors that PBC applies a fair and transparent standard, but also intends to hold them accountable for all work performed. We thank PBC staff and management for their cooperation through this audit.

Respectfully,

A handwritten signature in blue ink, appearing to be "J. Ferguson", is written over a faint, larger signature.

Joseph M. Ferguson  
Inspector General  
City of Chicago

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## ACRONYMS

AOR	Architect of Record
CAFR	Comprehensive Annual Financial Report
CDB	Illinois Capital Development Board
CO	Change Order
CW	Citadon Collaboration Workspace
E & O	Errors and Omissions
OH & P	Overhead and Profit
OIG	Office of Inspector General
PBC	Public Building Commission of Chicago
PCO	Proposed Change Order
PM	Project Manager
RON	Record of Negotiation

## I. EXECUTIVE SUMMARY

The Office of Inspector General (OIG) conducted an audit of the Public Building Commission of Chicago's (PBC) change order review and approval process. PBC manages the planning, design, and construction of public buildings such as schools, firehouses, and libraries for local government clients such as the City of Chicago, Chicago Public Library, Chicago Public Schools, Chicago Park District, and City Colleges of Chicago.

The objective of the audit was to determine if PBC could provide reasonable assurance to its clients that change orders were justified and reasonably priced.

A change order is an agreement between a contractor and a client that authorizes a departure from the original contract terms, and provides information on how the change will affect the cost, time, and scope of work. For example, in the course of a construction project, a contractor may discover that additional concrete is required to complete the building's foundation. PBC's Development Division, which includes both project managers (PMs) employed by PBC and PMs engaged under contracts, is responsible for managing and reviewing change orders to ensure that the changes are justified and the contractors' costs reasonable.

Under PBC's established process for reviewing and approving change orders, PMs complete standardized forms during their review of the proposed work and submit them to PBC management for approval. If the reviewing PM determines a necessary change is attributable to an error or omission by the architect—for example, a failure to include a component in the original drawings—the PM executes what PBC calls an "errors and omissions" (E & O) change order. In this situation, PBC may ultimately hold the architect liable for any damages caused by the mistake.

OIG identified nine PBC construction projects underway in 2014 and 2015 where the change order costs were projected to exceed 5% of the original contract price excluding the contingency and site work allowance, which is an industry standard threshold for determining whether thorough review is warranted. For each project, we assessed whether the documentation complied with PBC's change order review and approval process. We also reviewed E & O changes to determine if PBC sought to recover damages attributed to the architect. We found at least 1 problem in 99 out of 228, or 43.4%, of the change orders we reviewed, including proposals that lacked the necessary detail and instances where contractors overbilled PBC clients. Overbilling and insufficiently detailed proposals undermine PBC's ability to assure its clients that increases in contracted project costs are necessary and reasonable. In addition, we found that the Commission inconsistently applied its E & O damage recovery policy. As a result, PBC could not provide its clients or the public with reasonable assurance that it made adequate efforts to recover damages related to architects' errors or omissions.

OIG concluded that PBC designed a robust process to review and approve change orders. However, ineffective implementation permitted errors and inconsistencies in the recording of information and recovery of damages. Because PBC allowed contractors to submit inconsistent

information and did not hold architects accountable for errors, the Commission cannot demonstrate that it effectively safeguarded public funds. OIG recommends that PBC improve its change order review and approval process by requiring contractors to submit cost proposals on a standardized digital form, and by implementing an electronic document control system for change order reviews and approvals. In addition, PBC should revise, and then consistently implement, its E & O damage recovery policy to ensure that damage calculations are reviewed and decision rationales are recorded.

In response to OIG's audit, PBC stated that it agrees with all of our recommendations and proposed several corrective actions to improve the way it manages change orders. Specifically, PBC has already begun to utilize a standardized electronic cost proposal form that facilitates accurate calculations and requires contractors to itemize labor and material costs. PBC has also conducted internal change order trainings and begun to require additional staff to review change orders. Finally, PBC will update its E & O Manual to include language requiring that all E & O Committee decisions be documented and stored in a centralized location.

The specific recommendations related to each finding, as well as PBC's response, are described in the "Audit Findings and Recommendations" section of this report.



## II. BACKGROUND

The Public Building Commission Act of 1955 authorized units of local government in Illinois to establish public building commissions for the purpose of “centralizing, insofar as is practicable, the activities of the different branches of government...to make possible the construction, acquisition or enlargement of public improvements, buildings and facilities....”<sup>1</sup> In 1956, the Chicago City Council adopted a resolution creating PBC in order to meet “an urgent need for modern public buildings and facilities so that government services can be conducted efficiently and economically.”<sup>2</sup>

PBC’s principal role is to manage construction projects for local government clients such as the City of Chicago, Chicago Public Library, Chicago Public Schools, Chicago Park District, and City Colleges of Chicago.<sup>3</sup> In recent years, PBC has overseen the construction of numerous schools, firehouses, and libraries, among other public buildings. PBC is responsible for managing “each project through planning, financing, land acquisition, site preparation and remediation, design, construction and furnishing.”<sup>4</sup> The Commission is headed by an executive director and, according to its Comprehensive Annual Financial Report (CAFR), employed 48 staff in 2016.<sup>5</sup> In addition to its professional staff, PBC has an eleven-member Board of Commissioners, which is currently chaired by the Mayor of Chicago.<sup>6</sup> The Chicago Board of Education, Chicago Park District, Cook County Board of Commissioners, Forest Preserve District of Cook County, and Metropolitan Water Reclamation District of Greater Chicago each appoint one representative to the Board, and the remaining five members are appointed by the Chairman, with the advice and consent of the Chicago City Council.<sup>7</sup>

In 2016, PBC had \$154.5 million in total operating revenue and \$149.3 million in total operating expenses, for a net operating income of \$5.2 million.<sup>8</sup> The Commission’s principal sources of revenue are rental income from entities leasing space at the Daley Center, which PBC owns and operates, and the administrative fees and project management fees charged to clients.

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<sup>1</sup> 50 ILCS 20/2.

<sup>2</sup> City of Chicago, Municipal Code, § 2-140-010.

<sup>3</sup> Public Building Commission of Chicago, “Projects By Sister Agency,” accessed February 16, 2018, <http://www.pbcchicago.com/projects-by-sister-agency/>.

<sup>4</sup> Public Building Commission of Chicago, “Who is the PBC?” accessed January 19, 2018, <http://www.pbcchicago.com/whoispbcc/>.

<sup>5</sup> Public Building Commission of Chicago, “Comprehensive Annual Financial Report for the Years Ended December 31, 2016 and 2015,” June 30, 2017, pdf 86, accessed February 16, 2018, [http://www.pbcchicago.com/wp-content/uploads/2018/02/CAFR2016\\_PBC\\_FINAL\\_20170630.pdf](http://www.pbcchicago.com/wp-content/uploads/2018/02/CAFR2016_PBC_FINAL_20170630.pdf). The PBC web site lists 42 employees as of March 16, 2018. Public Building Commission of Chicago, “Our Team,” accessed March 16, 2018, <http://www.pbcchicago.com/whoispbcc/our-team/>.

<sup>6</sup> Public Building Commission of Chicago, “Commissioners,” accessed February 16, 2018, <http://www.pbcchicago.com/commissioners/>.

<sup>7</sup> Public Building Commission of Chicago, “Commissioners,” accessed February 16, 2018, <http://www.pbcchicago.com/commissioners/>.

<sup>8</sup> Public Building Commission of Chicago, “Comprehensive Annual Financial Report for the Years Ended December 31, 2016 and 2015,” June 30, 2017, 11, accessed February 16, 2018, [http://www.pbcchicago.com/wp-content/uploads/2018/02/CAFR2016\\_PBC\\_FINAL\\_20170630.pdf](http://www.pbcchicago.com/wp-content/uploads/2018/02/CAFR2016_PBC_FINAL_20170630.pdf).

Specifically, PBC charges an administrative fee of 3% of a client’s construction costs, as estimated during the undertaking budget process.<sup>9</sup> PBC also charges for its project management services, and bills clients as those costs are incurred.<sup>10</sup> PBC estimates management costs during the undertaking budget process based on a project’s scope, size, length, risk, and complexity. Unlike administrative fees, project management fees fluctuate with project changes. Figure 1 provides the total administrative and project management fees as of April 12, 2018 for the nine projects we reviewed in this audit.<sup>11</sup>

**FIGURE 1: PBC fees received from clients for the nine audited construction projects**

Project	Client	Administrative Fee	Project Management Fee	Total
Turf Field by NTA	Chicago Public Schools	\$ 123,987	\$ 245,938	\$ 369,925
Jones College Prep Reno Existing HS- Phases I and II	Chicago Public Schools	\$ 196,944	\$ 367,508	\$ 564,452
Dunne Tech Academy Modernization- Scope A	Chicago Public Schools	\$ 219,000	\$ 588,683	\$ 807,683
Dunne Tech Academy Modernization- Scope B	Chicago Public Schools			
Stevenson ES Annex	Chicago Public Schools	\$ 348,558	\$ 787,880	\$ 1,136,438
Chinatown Branch Library	Chicago Public Library	\$ 260,498	\$ 884,745	\$ 1,145,243
Edgewater Branch Library	Chicago Public Library	\$ 246,743	\$ 981,875	\$ 1,228,618
Ping Tom Park Field House	Chicago Park District	\$ 359,000	\$ 875,099	\$ 1,234,099
Albany Park Branch Library	Chicago Public Library	\$ 285,000	\$ 1,155,501	\$ 1,440,501

Source: PBC

## A. CHANGE ORDER REVIEW AND APPROVAL PROCESS

A change order is an agreement between a contractor and a client that authorizes a departure from the originally-approved contract terms, and provides information on how the change will affect the cost, time, and scope of work.<sup>12</sup> PBC’s *Standard Terms and Conditions for Construction Contracts* (“Book 2”),<sup>13</sup> defines a change order as,

the document signed by the Contractor and the Commission, or, in circumstances stated in Book 2, the Commission alone, which authorized either an adjustment in the Contract sum and/or Contract time or a change in the Work that may not result in such an adjustment. All Change Orders shall be within the general scope of the contract and cannot represent cardinal changes to the contract.<sup>14</sup>

<sup>9</sup> The undertaking budget, which is completed prior to project launch, is PBC’s commitment to the client on the scope, schedule, and cost of a project.

<sup>10</sup> PBC may provide project management through PBC PMs or PMs engaged under contract.

<sup>11</sup> See the Scope section of this report for further information on the projects selected for review. PBC fees for Jones College Prep include Phase I and Phase II; OIG did not review Phase II.

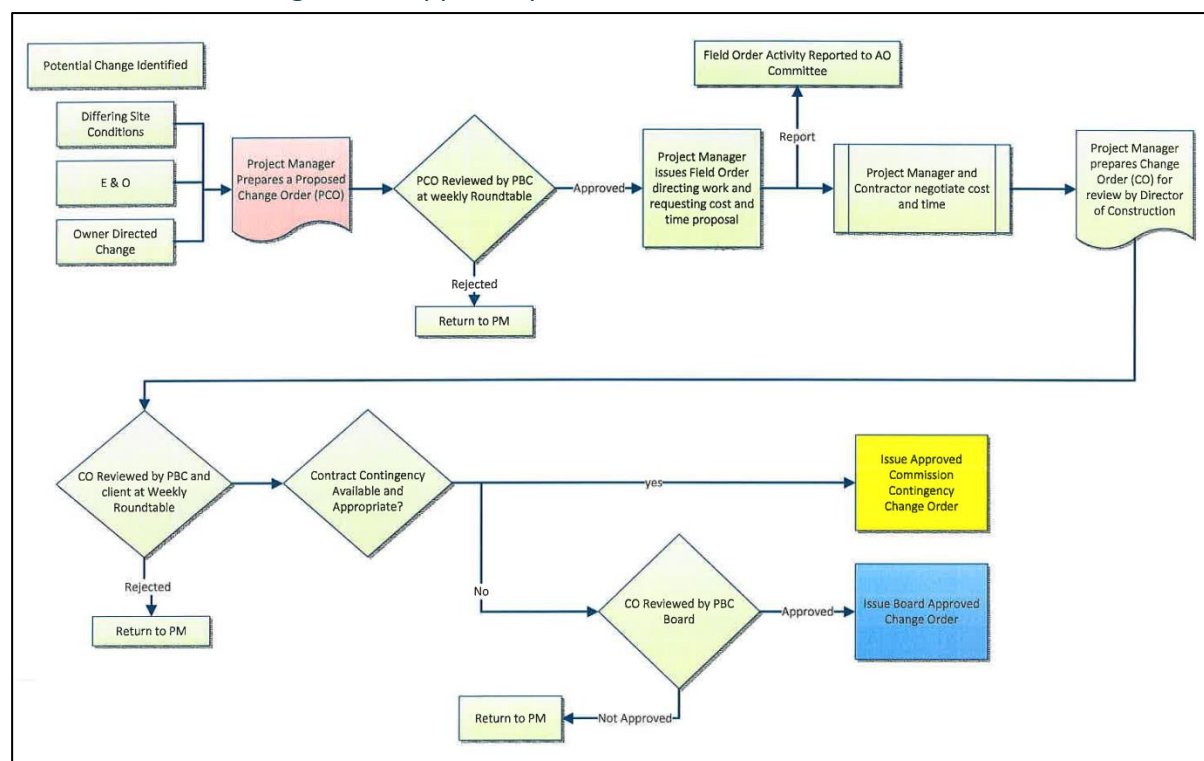
<sup>12</sup> Ron Risner, *The Practitioner’s Blueprint to Construction Auditing*, (IIA Research Foundation, 2012), 262.

<sup>13</sup> PBC contracts comprise the project drawings, three “books,” and any amendments thereto. Book 1 is *Project Information, Instructions to Bidders, and Execution Documents*; Book 2 is *Standard Terms and Conditions for Construction Contracts*; and Book 3 is *Technical Specifications*.

<sup>14</sup> This language is from the sample design-bid-build construction project agreement available at Public Building Commission of Chicago, “Book 2: Standard Terms and Conditions for Construction Contracts,” June 2017, § 1.01 (2), accessed January 11, 2018, <http://www.pbcchicago.com/wp-content/uploads/2017/08/Book2.pdf>.

PBC's Development Division, which includes PBC project managers (PM) and contracted PMs, manages and reviews change orders to ensure that the changes are justified and the contractors' costs are reasonable. According to PBC, all change orders are subject to the review and approval process illustrated in Figure 2 and described below.

FIGURE 2: PBC'S change order approval process



Source: PBC

The change order review and approval process begins when a PBC client, a contractor, or the Commission itself identifies a need for a potential change in a project. As shown in Figure 2, PBC classifies a potential change as “Differing Site Conditions,” “E & O” (errors & omissions), or “Owner Directed Change.” Owner-directed changes are those requested by the client, such as using a different paint color than specified in the plans or relocating a playground. When the client requests a change, PBC develops time and cost estimates to inform the client’s final decision, but does not attempt to dissuade the client from making the change. Differing-site-conditions changes are related to issues with a construction site that could not have been anticipated until work was underway. For example, during excavation, a contractor may find buried communication lines or vaults from a building that previously stood on the site. E & O changes, which we describe in detail below in subsection II.C, occur when a reviewing PM determines a change is necessary due to an error or omission by the architect. If a change order does not fit into one of these three categories, PBC classifies it as “other” on the Proposed Change Order (PCO) form.<sup>15</sup>

<sup>15</sup> We include copies of this and other related forms as appendices to this report. The PCO form is Appendix A.



Once a potential change is identified, the PM prepares a PCO that includes a description, the justification, the estimated cost, the estimated impact on the project's schedule, and any supporting documentation.<sup>16</sup> The PM submits the PCO for consideration at the weekly meeting of the Commission's Roundtable Committee, which consists of PBC staff and, occasionally, client representatives.<sup>17</sup> If the Roundtable approves the PCO, the PM issues a Field Order (see Appendix B) and the contractor begins work.<sup>18</sup> The contractor has 14 days following receipt of the Field Order to submit a "Contractor's Proposal" (see Appendix C) detailing the proposed cost of the change and indicating how much time it will add to the project. During construction, it is the PM's role to ensure that the contractor's work is consistent with the quality and quantity of materials and labor described in the Field Order. Upon submission of the Contractor Proposal, the PM evaluates it—based on their familiarity with the project, their PCO cost estimate, and the supporting documentation—and negotiates a final price with the contractor.<sup>19</sup> The PM records the outcome of the negotiation, as well as any important details, in the Record of Negotiation (RON) form (see Appendix D).

After the final price is negotiated, the PM drafts a final Change Order (CO) for review by the Director of Construction and the Roundtable.<sup>20</sup> Following Roundtable approval, PBC's Executive Director may proceed directly to issuing the CO if there are "Contract Contingency" funds available.<sup>21</sup> PBC's Contract Contingency is a reserve fund used to cover changes in the cost of construction that may occur over the life of a project. The Contract Contingency, which is usually set at 3% of the construction budget, is built into the original contract price; therefore, its use does not change the value of the contract.<sup>22</sup> If the Contract Contingency has already been exhausted, the PBC Board must approve the CO, because issuance requires a change in the contract value.<sup>23</sup> Once the CO is approved, PBC uploads it to a document management system,

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<sup>16</sup> Typical supporting documentation includes narratives, marked contract drawings, and photographs. According to PBC, the PM bases the cost estimate at this stage on the best information available at the time, including material costs, labor costs, and the cost of similar changes on other projects.

<sup>17</sup> The following PBC personnel attend Roundtable meetings: Chief of Staff, Chief Development Officer, Director of Program Controls and Reporting, Deputy Managing Architect, Manager of Change Management, and Deputy Director of Planning and Design. In addition to the required personnel, project managers and finance staffers may attend Roundtable meetings if necessary. PBC stated that all clients are invited to Roundtable meetings, but not all attend.

<sup>18</sup> The standard contract requires the contractor to begin work upon receiving a signed Field Order, and otherwise prohibits the contractor from undertaking work not contemplated by the contract, except in cases of emergency. Public Building Commission of Chicago, "Book 2: Standard Terms and Conditions for Construction Contracts," June 2017, Article 17, accessed January 11, 2018, <http://www.pbcchicago.com/wp-content/uploads/2017/08/Book2.pdf>.

<sup>19</sup> If a contractor proposes a change that PBC feels it needs assistance repricing, the Commission will hire an independent estimator to determine whether the proposed costs are reasonable.

<sup>20</sup> We use the term "Director of Construction" because PBC used that term in the process chart we present above as Figure 2. The Commission recently changed this title to "Chief Development Officer."

<sup>21</sup> In this situation, the Executive Director issues the CO on a Contingency Usage Authorization form (see Appendix F).

<sup>22</sup> Any Contract Contingency that remains unused upon completion of a project is returned to the client.

<sup>23</sup> In this situation, the Board issues the CO on a Contract Change Order form (see Appendix G). Such changes are generally funded from the Project (as opposed to Contract) Contingency, which is a reserve amount established in PBC's undertaking budget agreement with the client. The Project Contingency, which is typically set at 5% of the construction budget, is generally used for unexpected work that is not covered by the contract (e.g., legal fees or

Citadon Collaboration Workspace (CW), and inputs the final change order information in a project management system, Primavera Contract Manager. The collection of documents supporting a change order is called the “packet.” In addition to maintaining packets in CW, the Commission keeps hard copies at its offices.

## B. OVERHEAD AND PROFIT

PBC allows contractors to apply a markup for overhead and profit (OH & P) on change orders. OH & P covers a contractor’s indirect costs, such as the salaries of administrative staff working in the contractor’s office.<sup>24</sup> PBC’s standard contract states that OH & P covers a contractor’s costs associated with “field and office supervision, engineering, field and main office expense, premium on bonds, small tools, and incidental job burdens, general building and excess liability insurance, and transportation.”<sup>25</sup> The standard contract provides that,

the Contractor will be allowed 15% for overhead and profit on labor performed by his own forces and material purchases. Subcontractors, likewise, will be permitted an allowance of 15% for overhead and profit on their own work. The Contractor will further be allowed 6% on all of his subcontractor’s work. The Subcontractor is not allowed any additional markup if the work is further subcontracted. The Contractor may include in its labor proposal only those workers and foremen directly involved in the Work. All other supervision is included in the 15% overhead and profit allowed. The Contractor will be entitled to payment for labor, union fringe benefits, insurance, unemployment insurance, social security, and taxes paid on labor. No overhead or profit will be allowed on social security, unemployment insurance, or other insurance or premium time. The Contractor’s material costs will include invoiced costs, transportation, applicable sales or use taxes, and actual rental costs.<sup>26</sup>

## C. ERRORS AND OMISSIONS

E & O changes are necessitated by problems related to a project’s technical drawings or specifications. At the outset of a project, PBC presents the Architect of Record (AOR) with a set of design or other standards, which guide the development of the drawings. For example, a client may request that the AOR include a specific type of light fixture in the design because the client uses the same fixture at its other locations. In addition, the AOR is required to design the project to comply with the “code.”<sup>27</sup> If an AOR fails to design a project according to the standards or code, the work required to correct the error requires an E & O change order. PBC

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environmental planning), but PBC may also use these funds to cover change orders when a Contract Contingency is exhausted.

<sup>24</sup> Ron Risner, *The Practitioner's Blueprint to Construction Auditing*, (IIA Research Foundation, 2012), 270.

<sup>25</sup> Public Building Commission, “Book 2: Standard Terms and Conditions For Construction Contracts,” June 2017, § 17.04(3), accessed January 16, 2018, <http://www.pbcchicago.com/wp-content/uploads/2017/08/Book2.pdf>.

<sup>26</sup> Public Building Commission, “Book 2: Standard Terms and Conditions For Construction Contracts,” June 2017, § 17.04(2.a(4)), accessed January 16, 2018, <http://www.pbcchicago.com/wp-content/uploads/2017/08/Book2.pdf>.

<sup>27</sup> According to PBC policy, “Code refers to state or federal statutes including rules and regulations issued, pursuant to the statute; local ordinance including the Chicago Building Code; or requirements of any utility company.”

attempts to limit the frequency of E & O changes by reviewing all contract documents with the awarded contractor and the AOR prior to the start of construction. If an issue is discovered during construction, however, the PM or any Roundtable member may classify any resulting change orders as E & O.

The 2012 Errors & Omissions Committee Manual (E & O Manual) sets forth PBC's policies and procedures for E & O change orders. If the PM classifies a proposed change as an E & O on the PCO form, the PM must also complete an E & O Preliminary Analysis form (see Appendix E) categorizing the potential change amounts as "A-list" or "B-list." There are three general categories of A-list changes: those that result from the AOR failing to design to code; those that require "removal and replacement work" valued at more than \$5,000; and those with estimated values of more than \$50,000.<sup>28</sup> B-list changes are those that require "removal and replacement work" valued at \$5,000 or less.

The PM presents an E & O Preliminary Analysis to the Roundtable. If the Roundtable members agree that the requested change is correctly classified as E & O, the change proceeds to the E & O Committee. This Committee, which the Manual defines as comprising the Chief Development Officer, Chief Operating Officer, Director of Design, Deputy Director of Design, Director of Construction, Program Manager, and Deputy Program Manager, reviews the PCO and E & O Preliminary Analysis. If the E & O Committee agrees that the change is correctly classified as an A-list E & O, then the Director of Design sends a letter informing the architect and, if the architect responds, prepares PBC's reply.<sup>29</sup>

Upon completion of a project, it is the assignment of PBC's Director of Design to present all A-list and B-list E & Os to the E & O Committee, which determines whether to pursue damages from the AOR. Per the Manual, the Committee is required to pursue all damages caused by failure to design to code; damages for all E & Os where PBC's damages exceed \$5,000; and damages for all A-List and B-List E & Os where damages exceed \$1,000 if the total value of E & O changes exceeds 1% of the value of work included in the contractor's base bid price. The AOR is required to respond to all A-list E & O changes and B-list E & O changes over \$1,000 if the total value of all E & O changes for the project exceeds 1%. The AOR may seek a reduction in damages or submit documentary evidence that they are not liable. Upon receiving the AOR's response, the Director of Design analyzes the file and, based on their evaluation of whether the AOR breached the pertinent standards of care, recommends a range within which the Board might seek to settle the dispute. If the Committee approves this range, PBC may negotiate a settlement with the AOR.

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<sup>28</sup> "Removal and replacement work" refers to work the contractor must perform in order to remove the existing structure and replace it with the correct structure.

<sup>29</sup> As described in Finding 2 of this report, there is currently no "Director of Design" position at PBC.

### III. OBJECTIVE, SCOPE, AND METHODOLOGY

#### A. OBJECTIVE

The objective of the audit was to determine if PBC could provide reasonable assurance to its clients that change orders were justified and were reasonably priced.

#### B. SCOPE

OIG reviewed PBC's 2014 and 2015 CAFRs<sup>30</sup> to identify construction projects anticipated to accrue change order costs exceeding 5% of the original contract price excluding the contingency and site work allowance.<sup>31</sup> Figure 3 identifies those nine projects, as well as the actual cost of changes to each project as of March 18, 2018.

**FIGURE 3: Percent change from original base construction amount for the nine audited construction projects**

CAFR Year	Project	Client	Original Base Construction Amount	Approved Changes	Percent Change
2015	Dunne Tech Academy Modernization- Scope B	Chicago Public Schools	\$ 1,488,014.00	\$ 102,251.88	6.9%
2014	Edgewater Branch Library	Chicago Public Library	\$ 7,249,000.00	\$ 544,714.60	7.5%
2014	Ping Tom Park Field House	Chicago Park District	\$ 11,750,677.00	\$ 886,565.06	7.5%
2015	Albany Park Branch Library	Chicago Public Library	\$ 7,515,000.00	\$ 580,082.25	7.7%
2015	Jones College Prep Reno Existing HS- Phase I	Chicago Public Schools	\$ 2,564,000.00	\$ 207,139.37	8.1%
2014	Stevenson ES Annex	Chicago Public Schools	\$ 9,579,000.00	\$ 845,174.78	8.8%
2015	Dunne Tech Academy Modernization- Scope A	Chicago Public Schools	\$ 4,492,000.00	\$ 449,207.28	10.0%
2015	Chinatown Branch Library	Chicago Public Library	\$ 8,452,600.00	\$ 925,481.61	10.9%
2015	Turf Field by NTA	Chicago Public Schools	\$ 2,849,570.00	\$ 491,412.25	17.2%

Source: PBC

In addition, based on information gathered during our meetings with PBC clients, OIG reviewed specific construction issues at Minnie Mars Jamieson Elementary School Annex, Engine Company 16, the 12<sup>th</sup> District Police Station, Ping Tom Park Field House, and the Turf Field at National Teachers Academy.

#### C. METHODOLOGY

To evaluate the effectiveness of PBC's change order review and approval process, OIG reviewed change order management best practices. We interviewed current and former PBC staff, other construction oversight professionals (such as Ron Risner, author of the *Practitioner's Blueprint to Construction Auditing*, and staff at the Illinois Capital Development Board), and PBC clients,

<sup>30</sup> Public Building Commission, "Comprehensive Annual Financial Report for the years ended December 31, 2014 & 2013," 69, accessed January 8, 2018, <http://www.pbcchicago.com/wp-content/uploads/2017/06/20142013CAFR.pdf>; and Public Building Commission, "Comprehensive Annual Financial Report for the years ended December 31, 2015 & 2014," 70, accessed January 8, 2018, <http://www.pbcchicago.com/wp-content/uploads/2017/06/2015CAFR.pdf>.

<sup>31</sup> *The Practitioner's Blueprint to Construction Auditing* advises that projects with total change orders in excess of 5%, and especially those in excess of 10%, of the original contract price warrant a thorough review. Ron Risner, *The Practitioner's Blueprint to Construction Auditing*, (IIA Research Foundation, 2012), 114.

including staff from Chicago Public Schools, Chicago Park District, Chicago Public Library, Chicago Police Department, Chicago Fire Department, Department of Fleet and Facility Management, Department of Procurement Services, and Department of Planning and Development. We also conducted walk-throughs of construction sites.

To determine whether PBC followed its change order review and approval process—which we outline in Figure 2—for the nine projects listed in Figures 1 and 3, we compared the change order documents to the change order logs associated with each project to determine whether the logs included all changes.<sup>32</sup> After determining the logs were complete, we created formulas to flag change orders treated in ways that did not fully align with PBC’s formal process. Finally, we manually reviewed every flagged change order to determine whether it complied with PBC’s policies, including the E & O Manual and the standard contract.<sup>33</sup> When possible, we calculated the financial impact of the problems we discovered.

## D. STANDARDS

We conducted this audit in accordance with generally accepted Government Auditing Standards issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

## E. AUTHORITY AND ROLE

The authority to perform this audit is established in the City of Chicago Municipal Code § 2-56-030 which states that OIG has the power and duty to review the programs of City government in order to identify any inefficiencies, waste, and potential for misconduct, and to promote economy, efficiency, effectiveness, and integrity in the administration of City programs and operations. Our jurisdiction extends to PBC pursuant to an intergovernmental agreement executed by the City and PBC.

The role of OIG is to review PBC operations and make recommendations for improvement.

PBC management is responsible for establishing and maintaining processes to ensure that its programs operate economically, efficiently, effectively, and with integrity.

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<sup>32</sup> PMs use PBC’s change order log to track construction changes over the lifetime of a project. The log includes fields for cost estimates and the final negotiated cost.

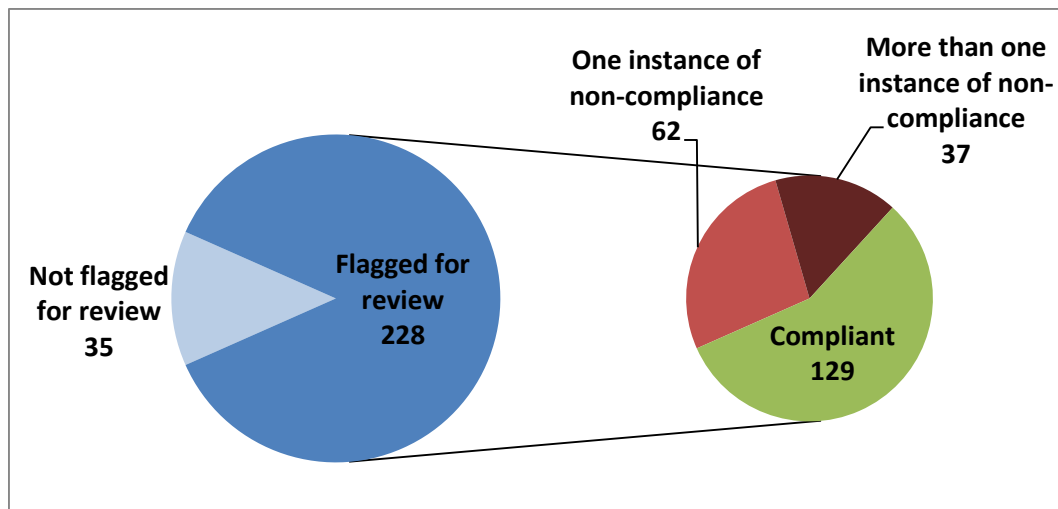
<sup>33</sup> To guide our manual review of change orders packets, we relied on OIG’s interpretation of PBC’s processes and contracts, as well as insights gained during interviews. While, as we describe below in Finding 1, this audit identified over 100 issues in the change orders reviewed, we do not claim to have discovered all existing issues.

## IV. FINDINGS AND RECOMMENDATIONS

**FINDING 1: Due to inconsistencies and errors in change orders, PBC could not assure its clients that all increases in project costs were justified and reasonable.**

OIG reviewed change orders for the nine projects listed in above Figures 1 and 3 to determine whether they met PBC's requirements for approval.<sup>34</sup> The projects included 263 change orders. Using a formula to flag changes that appeared not to comply with PBC's policies, we selected 228 of the 263 orders for further scrutiny. We discovered at least one instance of non-compliance with PBC's approval process or the Commission's standard contract terms in 99 of the 228, or 43.4%, of these change orders. Figure 4 illustrates the results of our review. Of these 99 change orders, we found that 37, or 37.4%, had more than one problem. In total, we discovered 144 problems across the 99 change orders. PBC's inconsistent administration of its approval process and exercise of its contract management authority enabled contractors to charge disallowed costs, and undermined the Commission's ability to provide its clients with reasonable assurance that approved change orders were sufficiently justified and reasonable.

**FIGURE 4: Change orders that did not comply with PBC policies and contract terms**



Source: OIG analysis.

<sup>34</sup> Following discussions with PBC clients, OIG also reviewed and found a problem with a change order for the 12<sup>th</sup> Police District Station. That change order is included among those of the nine projects selected for further scrutiny in this finding.



The 144 instances of non-compliance that OIG discovered comprised 14 contractor miscalculations, 43 changes lacking detailed cost proposals, 53 packets with missing documents, and 34 non-sequential approval dates. We describe each below.

- 14 instances of miscalculated costs

OIG reviewed each of the 14 miscalculations and determined that PBC permitted contractors to pass on at least \$6,906.70 in disallowed costs to the Commission's clients. We also determined that contractors underbilled PBC by \$1,226.80. However, we could not determine the total dollar amount in miscalculations, because some contractor invoices did not provide itemized lists for labor, material, and OH & P. Without this itemization, we could not review the rate at which the contractors charged OH & P, or determine if they correctly calculated labor and material costs. In addition, PBC does not maintain a database of subcontractors' work. Thus, for example, when we discovered that a subcontractor had misapplied the OH & P rate on one project, we could not follow up by reviewing that subcontractor's work on different projects to determine if similar misapplications occurred.

Such misapplications of OH & P constituted the majority of cost miscalculations that OIG discovered. For example, we found instances of contractors overbilling by applying OH & P at a compound rate (that is, adding 10% overhead to the subtotal and then an additional 5% profit, instead of adding a flat 15% to the subtotal), charging OH & P for work that had been further subcontracted by the subcontractor, and applying OH & P at a rate exceeding the contractually provided 15%. We also found instances of overbilling where contractors did not claim tax exemptions available to PBC, then passed the unnecessary expense on to the Commission. Finally, in some instances, contractors made arithmetic errors that caused them to underbill PBC.

- 43 changes that lacked detailed cost proposals

Nearly one third of the 144 instances of non-compliance with PBC's change order policies and contractual terms involved a failure to provide sufficient detail regarding the proposed change. In one instance, for example, a single order described work performed by six subcontractors. The proposals submitted by four of the six did not provide itemized lists for OH & P. Of those four proposals, two did not itemize material costs and two did not itemize labor costs. Nonetheless, PBC approved \$29,850.03 in changed work by the four subcontractors, plus an additional \$1,791.00 in OH & P for the general contractor.

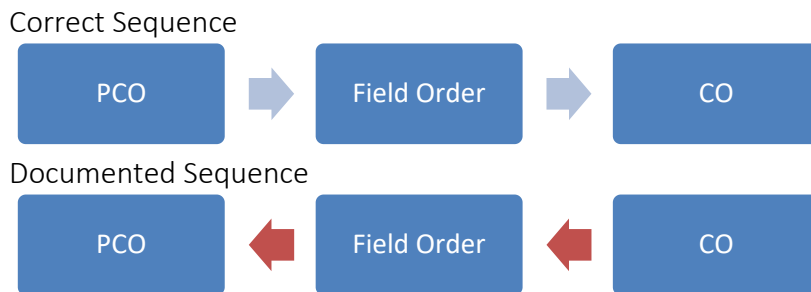
- 53 change order packets that lacked required documentation

In this category, OIG found that 46 of the 53 change order packets did not include the required Contractor Proposal form and/or Field Order. Of the remaining seven packets, three included Field Orders that were unsigned and four were missing other documentation necessary to confirm the cost of work.

- 34 approval dates that did not match PBC’s change order review and approval process

OIG discovered numerous non-sequential approval dates on documents within particular change order packets, suggesting either that the approvers did not follow the process illustrated in Figure 2, or that the dates were incorrect and PBC did not recognize the issue when it reviewed the packets prior to finalizing the orders. For example, as we illustrate in Figure 5 below, one packet showed approvals occurring in reverse, with the Contract Change Order (January 26, 2015) incorrectly approved months before the Field Order (August 6, 2015), which was, in turn, incorrectly approved before the PCO (August 7, 2015).

**FIGURE 5: Illustration of non-sequential approval**



PBC told OIG that the integrity of change order packets is of utmost importance. Change order documentation is the physical manifestation of PBC’s change order oversight; incomplete and inaccurate record keeping thus undermines PBC’s ability to assure its clients that change orders were properly reviewed to confirm that contractors’ costs were reasonable and that the work performed was justified. Without a detailed contractor cost proposal, it is not clear how a PM could have evaluated a contractor’s estimate. Consistent paperwork plays the additional crucial roles of protecting PBC and its clients when disputes with contractors arise, and preventing knowledge loss in the event of staff turnover. Finally, non-sequential approval dates create the impression that PBC approved changes before the contractor’s proposal was properly reviewed.

OIG identified a number of causes for the miscalculations and inconsistencies described above. To begin, PBC does not require contractors to submit cost proposals using a form that separately itemizes the material costs, labor costs, and OH & P. Consequently, some contractors did not provide sufficient detail, or submitted costs in a lump sum instead of breaking out costs into line items. This increased the possibility that disallowed costs would be passed on to PBC clients. In one instance, for example, the contractor submitted a barely-legible, hand-written proposal that misapplied the OH & P rate, resulting in an overbilling. The lack of a standardized form also allowed contractors to use their discretion in deciding when and how to charge OH & P, and whether to pass along potentially unnecessary expenses, such as taxes that could have been avoided by taking available exemptions.

Notably, PBC stated that it may not seek to recover overbillings even when it catches them, because it operates with the understanding that construction is a “relationship business.” In order to maintain good relationships, PBC may choose not to hold contractors accountable for

every error. For example, in one change order reviewed by OIG, the contractor had originally billed for travel time as part of its labor cost. PBC ultimately negotiated a lower total labor cost with the contractor which did not itemize travel cost. PBC stated that, while travel time was not an allowable cost, it did not require the contractor to show that the reduced labor charge excluded travel. PBC management also acknowledged that it allows contractors to apply OH & P at rates as high as 15.99% on self-performed work and 6.99% on work performed by subcontractors, despite the fact that the standard contract caps such mark ups at 15.00% and 6.00%, respectively.

Furthermore, PBC's change order review and approval process, unlike its other processes, does not proceed through CW, the Commission's electronic document management system. Instead, PMs send and receive change order documents via email, uploading them to CW only at the conclusion of a project. Relying on manual methods to send, receive, and upload documents increases the likelihood they will be misplaced.

Finally, regarding non-sequential approvals, PBC stated that the dates on change order forms did not necessarily reflect the day the approval meetings occurred. The Commission explained that if a client wanted a reliable indicator of when approval occurred, it could ask PBC for Roundtable meeting minutes. Nonetheless, management acknowledged deficiencies in its change order review and approval processes, and stated that it would work to improve them.

## RECOMMENDATIONS

OIG recommends that PBC make the following improvements to its change order review and approval procedures.

1. PBC should ensure that each change order proposal includes all critical information and that the information is maintained electronically. For example, PBC should provide contractors with a cost proposal form that requires a detailed explanation of each item of proposed work. This form should require itemized lists for labor and materials, and automatically apply OH & P at the rate provided under the contract. In designing an effective standardized, electronic cost proposal form, PBC should survey other jurisdictions that already use electronic forms, such as the Illinois Capital Development Board (CDB).
2. PBC should immediately end the practice of allowing contractors to recover OH & P at rates exceeding those provided in the contract.
3. PBC should strengthen its process for checking the accuracy of contractor change order proposals. In addition, the Commission should adopt a default approach of seeking to recover any refund due its clients in each case it discovers miscalculations (provided that the cost of recovery does not exceed the total collected). PBC's decision-making in this context should take into account the particular client's threshold for what constitutes a material loss; recovery should always be pursued when that threshold is crossed.

4. PBC should consider creating a system for tracking the projects in which each subcontractor participates in order to facilitate efforts to audit invoices and cost proposals in the future.
5. PBC should use an electronic system for change order review and approval, similar to the system used for its other business processes. Any system PBC implements should ensure that all change order documents are kept on file and that the recorded approval dates reflect the dates the approvals actually occurred.

## MANAGEMENT RESPONSE

*"As part of the PBC's on-going Change Management training and continued efforts to identify efficiencies and process improvements, Contractor Change Order Proposal Forms have been updated and implemented for use as tools and templates on new projects. The updated tools and templates reflect current operations and best practices, which include electronic versions of the Contractor Change Order Proposal as well as a new Subcontractor Proposal. The forms include calculations for Overhead & Profit.*

*"The forms were introduced for testing in early 2018, and have been rolled out on new projects. The forms are intended to reflect the requirements of the Contract terms and conditions. A PDF copy of the sample Contractor Change Order Proposal is available on our website:*

*[http://www.pbcchicago.com/wp-content/uploads/2018/06/CN - PBC ExhibitOChangeOrderProposalTemplate.pdf](http://www.pbcchicago.com/wp-content/uploads/2018/06/CN_PBC_ExhibitOChangeOrderProposalTemplate.pdf)*

*"The PBC's new electronic Change Order Forms will allow for accurate and concise calculations of Contractor and Subcontractor OH&P rates, consistent with the PBC's Contract terms and conditions.*

*"As noted, the PBC has designed a robust process to review and approve Change Orders. PBC is committed to identifying efficiencies and process improvements to effectively deliver cost efficient and quality Projects on behalf of our clients.*

*"It is the PBC's process to review the Change Order for accuracy. During the negotiation process of the Contractor's Change Order proposal, the PBC's Project Manager (PM) and Contractor conduct detailed reviews of the proposed costs and any corresponding schedule impacts. This includes, but is not limited to final scope confirmation and reconciliation; time and material costs; daily field and site observation reports prepared by the PBC and its Architect of Record (AOR) respectively; subcontractor or supplier invoices; project schedule information; weather impact reports; original and/or updated order of magnitude estimates from the PBC's PM or independent cost estimator; RS Means cost data; Requests for Information (RFIs); and submittal information, as applicable. The parties involved in the negotiations may include the AOR, Engineer of Record (EOR), PBC's independent cost estimator and/or specialty consultants, and the Client. Additional reviews are completed by the PBC's Change Management team, along with a final review by the Roundtable Committee, and clients where applicable.*

*"As part of the Contractor's invoice review and approval process, PBC's Finance team conducts a detailed review of the Contractor's request for payment, which also includes any/all Change Order approvals. If discrepancies are identified by PBC's Finance team, the Contractor's invoice is returned for clarifications and/or revisions.*

*"To further strengthen the current review process, PBC has developed updated training, processes, resources, and tools – to which continued training is a key component. For example, 17 training sessions have been conducted with the PBC's Development staff, including Deputies, PM, and Assistant PMs, since 2017. Additionally, Change Orders are preliminary reviewed by additional staff, including Deputies and the Chief Development Officer prior to the final approval process to spot check for discrepancies in proposal or supporting documentation. Where discrepancies are identified, the PBC's Change Management team will return the Change Order documentation to the PBC's PM for additional review, clarification, or revisions. If an issue is identified after the approval of a Final Change Order, PBC will pursue recovery, as applicable, in consultation with its Clients.*


*"PBC will review current processes, available technology, and costs to determine the feasibility for implementing this recommendation. PBC will research other agencies and industry standards as part of continued process improvements.*

*"As noted, PBC believes that the integrity of the Change Order packets is of utmost importance. PBC will review current processes, available technology and costs to determine the feasibility for implementing an electronic system.*

*"Notwithstanding the implementation of an electronic system, PBC has developed and implemented Change Order packet checklists to ensure document record consistency. Final Change Order documentation is saved to Collaboration Workspace (CW), the PBC's document management system.*

*"Approval dates are maintained as part of the Roundtable Meeting Minutes. In addition, any/all Board Actions are recorded in meeting minutes as well. It is the practice of the PBC to save the meeting minutes in a specific central location within CW as well as issue to our client. Board Actions are available on our website and detail the Project, Contractor, Amount, and Approval date.*

*"However, we agree to strengthen our documentation/forms to ensure that the Change Order packets reflect the approval date(s) noted in other final records."*



## FINDING 2: Because PBC enforced its Errors and Omissions Policy in an inconsistent manner, the Commission could not provide adequate assurance to its clients or the public that it properly pursued recoverable damages attributable to architect errors.

PBC's E & O Manual establishes policies and procedures for recovering damages attributable to AOR errors. OIG reviewed the 22 changes categorized as E & O for the 9 projects we audited to determine if PBC sought to recover damages from the AOR per the procedures described in the E & O Manual. We found that PBC could not demonstrate that it had diligently attempted to recover damages related to \$769,654.70 in change orders it attributed to E & Os, or explain why it chose not to make any efforts to pursue damages for an additional \$230,978.36 in such change orders.

As described in the Background section of this report, the E & O Manual establishes the policies and procedures for holding AORs accountable for damages due to errors and omissions. Specifically, the E & O Manual requires PBC to notify the AOR of A-list E & Os and afford the AOR an opportunity to respond to the allegation of fault.<sup>35</sup> The E & O Committee considers the AOR's response, if any, in deciding whether to approve pursuing damages. PBC is also required to inform the AOR about the policies and procedures related to E & O adjudication during the project kick-off meeting, as well as identify them in the AOR's contract.

OIG found that PBC inconsistently enforced the policies and procedures described in its E & O Manual. As a result, PBC could not provide reasonable assurance that it safeguarded public dollars by seeking to recover money that architects owed to its clients, nor could it demonstrate to its clients and the business community that it does not engage in preferential treatment in its recovery practices. In addition to this direct potential financial impact, the Commission's lax enforcement of its damage recovery policies may serve as a disincentive for architects to produce high-quality drawings when engaged in PBC projects. For the 22 A-list E & Os identified by PMs at the PCO stage, PBC sent only 7, or 31.8%, of the required letters. In addition, we learned that the E & O Committee was not convening the meetings required by the Manual. Because PBC has not consistently provided AORs the opportunity to respond to alleged E & Os, and the E & O Committee has not consistently met to determine what damages to pursue, the Commission may not be able to hold AORs accountable for damages related to the \$769,654.70 in E & O change orders identified by PMs for the open projects we reviewed.

Moreover, PBC's file for the one closed project in our sample, the Edgewater Branch Library, shows that PMs attributed \$230,978.36 in change orders to AOR errors and omissions. The E & O

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<sup>35</sup> According to the E & O Manual, "An A-List letter is sent to the AOR after the PCO has been approved by Roundtable."



Committee did not meet to discuss this matter, but the Managing Architect reviewed the PM's recommendations and elected not to pursue damages. The Managing Architect did not record a reason for deciding not to seek damages, and, in conversations with OIG, criticized PBC's E & O Manual as too punitive towards AORs.<sup>36</sup>

OIG further found that PBC's E & O Manual has not been updated since 2012, and does not reflect PBC's current operations. For example, the Manual provides that the E & O Committee has seven members. According to PBC's online organizational chart, however, six of the seven positions are currently vacant. PBC explained that, in the absence of an active E & O Committee, Roundtable members were conducting some Committee functions. In addition, the E & O Manual does not require PBC to maintain documents related to its pursuit of damages in a specific location, or to document the rationales underlying its decisions concerning whether and in what amount to seek damages. Because PBC does not maintain A-List letters and damage calculation decisions in a database, the Commission could not locate all of the A-list letters we requested during the audit.

Beyond the shortcomings of the E & O Manual, OIG found that E & O enforcement varies depending on the PBC personnel involved. For example, a former staff member who helped revise the Manual in July 2012 stated that they consistently sought damages for AOR errors. Similarly, current PBC staff stated that they intend to enforce the policy and pursue any damages owed to clients. However, a second former staff member stated that the E & O Manual was ineffective, that the E & O Committee did not meet during their tenure, and that recouping costs from the AOR is complicated. This same individual characterized construction as a "relationship business," endorsing the perspective that, in order to maintain its relationships with architects, PBC may choose not to pursue every dollar due to an error or omission. Such conduct may create the appearance that PBC prioritizes its arms-length business relationships above its duty to its clients and its responsibility to safeguard public funds.

## RECOMMENDATION

OIG encourages PBC to implement short-term and longer-term improvements to its E & O practices. In the short term, PBC should update the E & O Manual to include language requiring recording and storing in a central location all decisions made by the E & O Committee, including any damage calculations and rationales for not pursuing damages. In addition, PBC should update the Manual, as well as the Commission's actual practices, to reflect its current organizational structure. PBC should put in place mechanisms to ensure the E & O policies are consistently applied, including a requirement that the E & O Committee meet to make decisions regarding damages, and to ensure that AORs are notified in a timely fashion when errors are discovered.

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<sup>36</sup> The E & O Policy provides a methodology for determining damages and acknowledges that damages may be less than the total cost of the change. In the case of Edgewater Library, the Managing Architect determined that only \$15,320.44 of the \$230,978.36 could be assessed as damages. Yet, their calculation of damages, like their decision not to pursue any damages, was not documented.

In the long term, PBC should consider a comprehensive review of its E & O Manual. If, during the review, PBC identifies policies and procedures it believes are insufficient, it should revise the E & O Manual to make it more effective. As part of the revision process, PBC should research the practices of similar organizations, such as CDB, and determine whether to adopt them.

## MANAGEMENT RESPONSE

*"The PBC is committed to enforcing the E&O policy and the pursuit of damages where applicable. The E&O manual is referenced in the Architect's contract and provides the basis for determining if the Architect has met the 'standard of care' expected within the design of the project and the construction documents. The goal of the E&O Committee and policy is to improve the quality of the design professional's services as demonstrated in the construction documents. It is not to provide a 'windfall' (unjust enrichment) to the client; however, the PBC reserves the right to recover from the Architect damages resulting from determined errors or omissions. Any damages recovered are returned to the Project and ultimately the client.*

*"A fundamental point in the policy is that damages are an actual loss resulting from the E&O. The conceptual starting point for determination of actual loss is that the Owner would have had to pay the construction cost for a properly designed project regardless. Therefore, if the Architect makes an error or there is an omission in the Project, the Owner's actual damage is the difference between the cost of the work if it had been part of the bid and cost of the work required to correct the work – it may not be the entire cost of the Change. An error discovered after construction has occurred can result in damages in the amount to remove incorrect construction and replace with the correction. The analysis of the alleged E&O takes into consideration the actual loss to the Owner in determining the amount of the damage.*

*"Several of the projects identified in the Audit are currently in the process of determining damages or reviewing the Architect's responses to the notification of alleged E&O. The final determination of damages sought has not yet been completed.*


*"The PBC acknowledges that the most recent draft of the Manual does not reflect the current organizational structure or titles due to attrition and strategic realignment. The PBC also agrees with the recommendation of including language requiring recording and storing in a central location all decisions made by the E&O Committee. It is already PBC practice to save notifications, recommendations, damage calculations and rationales as well as the responses from the Architects on current projects to a specific central location within the PBC's document management system.*

*"The PBC agrees the E&O policies must be consistently applied. To that end, the PBC team has worked to streamline and establish consistent distribution of notifications to the Architects of alleged E&Os and scheduled Committee meetings to review findings. The PBC has also developed enhanced tools to clarify and communicate the decision-making process and rationale for when an alleged E&O occurs and how the damages are assessed.*

*“The PBC also agrees with the recommendation of a comprehensive review of the E&O manual. This would be the opportunity to address inconsistencies between the Manual and the PBC organizational structure, add language regarding documentation, and adopt updated policies and procedures. Incorporating ‘state of the art’ practices from other organizations will be researched and considered.”*


## APPENDIX A: PCO FORM

This is PBC's PCO form, which the PM completes after a desired change is identified.

	<b>Proposed Change Order (Pink)</b>	
Public Building Commission of Chicago   Richard J. Daley Center   50 West Washington Street, Room 200   Chicago, Illinois 60602   (312) 744-3090   pbcchicago.com		
Date:	PCO No.:	
	Field Order No.:	
	Bulletin No.:	
Project Number:	File Path:	03-08-14-01
Project Name:	Project Address:	
Contractor:	Contract No.:	
<b>TECHNICAL DESCRIPTION OF CHANGE:</b>		
<div></div>		
<b>JUSTIFICATION FOR CHANGE:</b>		
<div></div>		
<b>Funding:</b>		
Commission's Contract Contingency:	<input type="checkbox"/>	Original Contract Award Amount: \$
Project Contingency:	<input type="checkbox"/>	Estimated Amount of this Change: \$
Funding Required:	<input type="checkbox"/>	
<b>Reason for Change (Check):</b>		
<input type="checkbox"/> Differing Site Conditions	<input type="checkbox"/> Client Directed	<input type="checkbox"/> Error or Omission - A <input type="checkbox"/> Other
		<input type="checkbox"/> Error or Omission - B
<b>Estimated Impact to Substantial Completion Date:</b>		
<input type="checkbox"/> Increased	<input type="checkbox"/> Decreased by: _____ Days	Current Substantial Completion Date: _____
<input type="checkbox"/> No Change		
_____ Approved – Client Agency (if Required)		_____ Recommend – PBC Director of Construction
_____ Approved – PBC Executive Director		
Date Printed: 1/10/2017 6:26 PM File Code Here / PCO_PBC_Pink/ProposedChangeOrder_20161207		
Page 1 of 1		

## APPENDIX B: FIELD ORDER FORM

This is PBC's Field Order form, which the PM completes after the Roundtable has approved a PCO.

	<h3>Field Order</h3>	<small>Public Building Commission of Chicago   Richard J. Daley Center   50 West Washington Street, Room 200   Chicago, Illinois 60602   (312) 744-3090   pbcchicago.com</small>	
		<b>Field Order No.:</b>	
		<b>Change Order No.:</b>	
		<b>Date</b>	
Project Number:		File Path:	03-08-14-04
Project Name:		Contract Number:	
To:			
<p>You are hereby authorized and directed to immediately proceed with the work as set forth below, subject to the future execution of a formal Change Order.</p> <p>All work is to be in accordance with the terms and conditions of the Contract Documents. It is understood that you cannot be paid for this work until a formal Change Order is executed.</p>			
<b>Description:</b>			
<b>Proposal Due By:</b>			
<b>Method of Payment:</b>			
<input type="checkbox"/> Proposal Basis <input type="checkbox"/> Unit Price Basis <input type="checkbox"/> T&M <input type="checkbox"/> No Compensation			
<b>Comments:</b>			
_____ Project Manager (signature)		_____ Date	
<b>Attachments:</b>			
<small>Date Printed: 1/10/2017 6:26 PM File Code Here / FO_PBC_FieldOrder_20161207</small>			

## APPENDIX C: CONTRACTOR PROPOSAL FORM


This is PBC's Contractor Proposal form, which the contractor is required to submit with a change order request.

<b>PUBLIC BUILDING COMMISSION OF CHICAGO</b>				
<b>EXHIBIT O</b>				
<b>CONTRACTOR PROPOSAL</b>				
 <b>PUBLIC BUILDING COMMISSION OF CHICAGO</b> Daley Center Plaza, Room 200 Chicago, Illinois 60602				
<b>CONTRACTOR PROPOSAL</b>				
<b>Contractor:</b>		<b>Bulletin No.:</b>		
		<b>Project Name:</b>		
		<b>PBC Contract No.</b>		
		<b>Architect / Consultant:</b>		
<hr/>				
<small>Note: Detailed breakdown of costs for each subcontractor and each trade performed by the General Contractor and documentation supporting any request for time extension must be submitted with this proposal form.</small>				
<b>I. WORK OF SUBCONTRACTORS</b>				
<u>Subcontractor Firm Name</u>	<u>Trade</u>	<u>Value of Work</u>	<u>6% Markup</u>	<u>Total</u>
<hr/>	<hr/>	\$	\$	\$
<hr/>	<hr/>	\$	\$	\$
<hr/>	<hr/>	\$	\$	\$
<hr/>	<hr/>	\$	\$	\$
<hr/>	<hr/>	\$	\$	\$
(A) Total of Work by Subcontractors				\$
<b>II. GENERAL CONTRACTORS WORK</b>				
<u>Description of Work</u>	<u>Value of Work</u>	<u>15% Markup</u>	<u>Total</u>	
<hr/>	\$	\$	\$	
<hr/>	\$	\$	\$	
<hr/>	\$	\$	\$	
<hr/>	\$	\$	\$	
<hr/>	\$	\$	\$	
<hr/>	\$	\$	\$	
(B) Total of Work by General Contractor			\$	
<b>III. PROPOSAL</b>				
(C) Total Cost of Work of this Bulletin (A+B)			\$	
(D) Time Extension - Additional days requested			<hr/> days	
<hr/>				
<small>The Total Cost (Line C) and the Time Extension (Line D) represent all costs and additional time required to complete all aspects of the work included in this Bulletin. No additional costs or time extension related to this Bulletin will be requested by the Contractor.</small>				
<hr/>				
<b>Prepared and Submitted for Approval by:</b>				
<hr/>		<hr/>		<hr/>
Contractor		By:		Date
<hr/>				
<small>PBC: Book 2_Standard Terms and Conditions For Construction Contracts_SAMPLE_June 2017</small>				
<small>Page 160 of 163</small>				



## APPENDIX D: RON FORM

This is PBC's RON form, which the PM uses to document their negotiations with the contractor over the cost of work.


		<b>Record of Negotiation</b>		
<small>Public Building Commission of Chicago   Richard J. Daley Center   50 West Washington Street, Room 200   Chicago, Illinois 60602   (312) 744-3090   pbccchicago.com</small>				
<b>Project Name:</b>	Project Name Here		<b>Change Order No.</b> 1	
<b>Description of Change:</b>	<div>Description of Change here.</div>		<b>Project No.</b> 05130	
			<b>Contract No.</b> C1471	
<b>Contractor Proposal:</b>	\$1,000.00	<b>PCO Estimate:</b>	\$1,500.00	
		<b>Other Estimate:</b>	\$	
<b>PARTIES INVOLVED</b>				
<b>Name</b>		<b>Company</b>		
John Doe		John Doe Company		
Helen May		ABC Contractors		
<b>NEGOTIATION NOTES</b>				
<div>Negotiation notes here.</div>				
<b>SUMMARY &amp; RECOMMENDATION</b>				
<b>Significant Cost Items</b>	<b>Contractor Proposal \$</b>	<b>PCO Estimate \$</b>	<b>Negotiated Price \$</b>	<b>Comments</b>
Plumbing	\$500.00	\$1,000.00	\$250.00	
Fixture	\$500.00	\$500.00	\$250.00	
<b>Final Cost:</b>	<b>\$1,000.00</b>	<b>\$1,500.00</b>	<b>\$500.00</b>	
The undersigned has determined that the final negotiated price of <u>\$500.00</u> is fair and reasonable and recommends the approval of this Change Order.				
Project Manager _____		Date _____		Signature (other) _____
				Date _____

This is PBC's E & O Preliminary Analysis form, which the PM completes if a PCO is classified as E & O.

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## APPENDIX F: CONTINGENCY USAGE AUTHORIZATION FORM

This is PBC's Contingency Usage Authorization form, which the Executive Director approves if there are Contract Contingency funds available to pay for the change.

	<b>Contingency Usage Authorization (Yellow)</b>	
	Public Building Commission of Chicago   Richard J. Daley Center   50 West Washington Street, Room 200   Chicago, Illinois 60602   (312) 744-3090   pbcchicago.com	
Date:		Change Order No.:
PBC Contract No.:		File Path: 03-08-14-06
Project Number:		Project Address:
Project Name:		
Original Contract Award:		
<b>CONTRACTOR</b>		
Name:		Address:
<p>Project changes as described in the Record of Negotiation dated _____ attached hereto and incorporated herein. Except as herein modified all terms and conditions of the Contract remain unchanged and in full force and effect. By executing this Change Order, Contractor certifies that it has reviewed and accepts the compensation and/or time extension provided in full accord and satisfaction for this Change Order and that it expressly waives and releases any and all additional claims and demands relating to, or arising of, the matters covered by the Change Order as more fully described in the exhibit attached hereto including, but not limited to: direct, indirect, overhead, home or field office costs, profits, damages, disruptions and impact.</p>		
Contingency Usage Amount:		\$ _____
Time Extension this change		Days _____
Revised Substantial Completion Date		
_____ Contractor Authorized Signature		_____ Date
<p>The undersigned has determined with regards to this Change Order that the circumstances said to necessitate the change in performance were not reasonably foreseeable at the time the contract was signed, or that the change is germane to the original contract as signed, or that the change order is in the best interest of the Public Building Commission of Chicago and is authorized by law.</p>		
<b>PUBLIC BUILDING COMMISSION OF CHICAGO</b>		
Reviewed By: _____		
_____ Executive Director		_____ Client Agency (if Required)
<p>Date Printed: 1/10/2017 6:25 PM File Code Here / CCO_PBC_YellowContingencyUsageAuthorizationwithTime_20161207</p>		

## APPENDIX G: CONTRACT CO FORM

This is PBC's Contract CO form, which the PBC Board approves if there are no Contract Contingency funds available to pay for the change.

	<b>Contract Change Order (Blue)</b>	
	Public Building Commission of Chicago   Richard J. Daley Center   50 West Washington Street, Room 200   Chicago, Illinois 60602   (312) 744-3090   pbcchicago.com	
Date:	PBC Contract No.:	Change Order No.:
Project Number:		File Path:
Project Name:		Project Address:
Original Contract Award:		
<b>CONTRACTOR:</b>		
Name:	Address:	
Project changes as described in the Record of Negotiation dated _____ attached hereto and incorporated herein. Except as herein modified all terms and conditions of the Contract remain unchanged and in full force and effect. By executing this Change Order, Contractor certifies that it has reviewed and accepts the compensation and/or time extension provided in full accord and satisfaction for this Change Order and that it expressly waives and releases any and all additional claims and demands relating to, or arising of, the matters covered by the Change Order as more fully described in the exhibit attached hereto including, but not limited to: direct, indirect, overhead, home or field office costs, profits, damages, disruptions and impact.		
	Change Order Amount:	\$ _____
	Time Extension this change	_____ Days
	Revised Substantial Completion Date	_____
_____ Contractor Authorized Signature		_____ Date
The undersigned has determined with regards to this Change Order that the circumstances said to necessitate the change in performance were not reasonably foreseeable at the time the contract was signed, or that the change is germane to the original contract as signed, or that the change order is in the best interest of the Public Building Commission of Chicago and is authorized by law.		
<b>PUBLIC BUILDING COMMISSION OF CHICAGO</b>		
_____ Reviewed By		
_____ Executive Director		_____ Client Agency (if Required)
Date Printed: 1/10/2017 6:26 PM File Code Here / CO_PBC_Blue ContractChangeOrderTimeExtension_20161207		
Page 1 of 1		

## MISSION

The City of Chicago Office of Inspector General (OIG) is an independent, nonpartisan oversight agency whose mission is to promote economy, efficiency, effectiveness, and integrity in the administration of programs and operations of City government. OIG achieves this mission through,

- administrative and criminal investigations by its Investigations Section;
- performance audits of City programs and operations by its Audit and Program Review Section;
- inspections, evaluations and reviews of City police and police accountability programs, operations, and policies by its Public Safety Section; and
- compliance audit and monitoring of City hiring and employment activities by its Hiring Oversight Unit.

From these activities, OIG issues reports of findings and disciplinary and other recommendations to assure that City officials, employees, and vendors are held accountable for violations of laws and policies; to improve the efficiency, cost-effectiveness government operations and further to prevent, detect, identify, expose and eliminate waste, inefficiency, misconduct, fraud, corruption, and abuse of public authority and resources.

## AUTHORITY

OIG's authority to produce reports of its findings and recommendations is established in the City of Chicago Municipal Code §§ 2-56-030(d), -035(c), -110, -230, and 240.

*Cover image courtesy of City of Chicago Department of Fleet and Facility Management*

### PUBLIC INQUIRIES:

DANIELLE PERRY: (773) 478-0534

[DPERRY@IGCHICAGO.ORG](mailto:DPERRY@IGCHICAGO.ORG)

### TO SUGGEST WAYS TO IMPROVE CITY GOVERNMENT, VISIT OUR WEBSITE:

[WWW.CHICAGOINSPECTORGENERAL.ORG/GET-INVOLVED/HELP-IMPROVE-CITY-GOVERNMENT](http://WWW.CHICAGOINSPECTORGENERAL.ORG/GET-INVOLVED/HELP-IMPROVE-CITY-GOVERNMENT)

### TO REPORT FRAUD, WASTE, AND ABUSE IN CITY PROGRAMS:

CALL OIG'S TOLL-FREE HOTLINE  
(866) 448-4754 / TTY: (773) 478-2066

### OR VISIT OUR WEBSITE

[WWW.CHICAGOINSPECTORGENERAL.ORG/GET-INVOLVED/FIGHT-WASTE-FRAUD-AND-ABUSE](http://WWW.CHICAGOINSPECTORGENERAL.ORG/GET-INVOLVED/FIGHT-WASTE-FRAUD-AND-ABUSE)