

Memorandum



CITY OF DALLAS
(Report No. A16-010)

DATE: May 27, 2016

TO: Honorable Mayor and Members of the City Council

SUBJECT: Audit of the Department of Public Works' Contract Monitoring¹

In Fiscal Years (FY) 2012 and 2013, the Department of Public Works' (PBW) Facilities Architecture / Engineering Division (Division) provided contract monitoring oversight for 17 Design-Bid-Build capital improvement projects totaling \$16.7 million. The Division's personnel with contract monitoring responsibilities are experienced professionals; however, contract monitoring was performed without:

- Up-to-date formal (written, dated, signed), contract monitoring policies and procedures

Background

The Division is responsible for Capital Improvement Projects funded through voter approved Bond Programs. The Division uses five building construction project delivery methods (see Attachment I).

In FY 2012 and 2013, the Division completed 22 projects totaling approximately \$22.7 million. Seventeen of the 22 projects were completed using the Design-Bid-Build project delivery method which is the focus of this audit.

Design-Bid-Build – The Division selects an architect based on qualifications. The building contractor is selected through a bid or a Request for Competitive Sealed Proposal. The architect is responsible for designing the project and overseeing the building contractor during the construction phase. The architect is to take reasonable measures to safeguard the City of Dallas (City) against defects and deficiencies in the work of the contractor. Communication between the contractor and PBW is directed through the architect.

Source: The PBW and the Office of the City Auditor

¹ This audit was conducted under the authority of the City Charter, Chapter IX, Section 3 and in accordance with the Fiscal Year (FY) 2014 Audit Plan approved by the Dallas City Council. The objective of the audit was to evaluate whether the monitoring process(es) used for selected contracted programs were adequate to ensure compliance with contract terms and conditions. The scope of this audit included the evaluation of completed Design-Bid-Build projects from FY 2012 through FY 2013; however, certain other matters, procedures, and transactions outside that period were reviewed to understand and verify information during the audit period. This performance audit was conducted in accordance with generally accepted government auditing standards. 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Audit Scope Limitation: Because the auditors were initially told that the Division did not have formal contract monitoring policies and procedures, the auditors conducted ten meetings with Division personnel to obtain an understanding of the Division's contract monitoring practices. From March 2014 through July 2014, the auditors made multiple requests to Division personnel to validate the auditors' documented understanding of these meetings. Division personnel, however, did not provide the requested validation for five meetings. As a result, the audit was limited to the results of a Construction Contract Monitoring Survey (Survey) completed by Division personnel to evaluate the design of the Division's construction contract monitoring controls (see Attachment II).

Subsequent Review / Analyses: A draft audit report was provided to the Division in December 2015. Due to concerns expressed by the Director and Assistant Director regarding the audit results, the auditors performed additional procedures, including detailed review and analyses of the Division's construction contract monitoring controls for four projects. The additional testing results further support the original survey findings and conclusions.

- Sufficient (formally documented, consistently performed, and monitored for compliance) contract monitoring activities
- Fully complying with the City of Dallas' (City) General Conditions for Building Construction (General Conditions) and the 1990 Project Management Procedures Manual, Volume 1, Administrative, Sections 11, and 32 to 56 (1990 PMPM)
- A consistent systematic process for filing construction related documents (contract file inventory)

As a result, the Division cannot consistently ensure architects are fulfilling contractual responsibilities to properly monitor the construction contractors' activities and communicate results to the Division. Ultimately, this lack of formal and consistent contract monitoring increases the risk that City facilities are not: (1) constructed properly; and, (2) completed within planned budgets and timeframes.

Contract Monitoring Policies and Procedures Have Not Been Updated Since 1990

The Division does not have up-to-date formal (written, dated, signed), policies and procedures for contract monitoring. The Division currently uses the 1990 PMPM for monitoring Design-Bid-Build projects; however, the 1990 PMPM does not reflect current Division contract monitoring practices. For example, the 1990 PMPM:

Policies and Procedures

Policies and procedures:

- Ensure that fundamental organizational processes are performed in a consistent way that meets the organization's needs
- Exist to effect internal controls

Source: *The Standards for Internal Control in the Federal Government by the Comptroller General of the United States (Green Book) and the Office of the City Auditor*

- Does not include a monitoring requirement for field reports, whereas the City of Dallas' General Conditions and project manuals require architects to document field reports for each visit and submit to the project manager for review. Therefore, Division personnel are not consistently receiving, reviewing, approving, and maintaining architects' field reports.
- Requires the Division: *"to use the Contract Time Statement, the Change Order Tracking Form, and the Section 11 Project Checklist; and, review Stored Materials."* Detailed reviews and analyses of four ² projects indicated that Division personnel are not using these documents and are not reviewing stored

² Auditors did not review one of the four selected projects because project related files were not organized and systematically filed.

materials. According to Division personnel, the architects are responsible for reviewing stored materials.

- States the threshold for change orders approved through City Council resolution is \$15,000. According to Administrative Directive 4-05 (AD 4-05), *Contracting Policy*, (effective April 10, 2013) this threshold is \$50,000.
- States change orders less than \$15,000 are approved through Administrative Action. According to AD 4-05, change orders that are less than \$50,000, where the City Manager's Office has delegated authority for approval to the department, are approved through an Administrative Change Order not an Administrative Action.

Without current formal (written, dated, signed) contract monitoring policies and procedures, the Division must rely on employees' institutional knowledge or customary practices to carry out day-to-day responsibilities. Also, the Division cannot ensure: (1) effective internal controls are in place; (2) internal controls are operating as intended; and, (3) Division personnel are performing their duties consistently to reduce the risk of financial loss and contract noncompliance.

Policies and procedures that address current functions and processes are recognized as good operating practices. Up-to-date policies and procedures would provide the Division with the assurance that every person involved in a process is aware of the tasks that are to be accomplished and the acceptable methods to be used in performing those tasks. Policies and procedures also provide: (1) an effective mechanism for training and evaluating staff performance; and, (2) a smooth transition at the time of staff transfer. The Division's ability to ensure a smooth staff transition is particularly important because a significant percentage of the Division's personnel are eligible to retire within the next two (64 percent) to four (82 percent) years.

According to Administrative Directive 4-09 (AD 4-09), *Internal Control*, each department is required to establish and document a system of internal control procedures specific to its operations, mission, goals, and objectives. The AD 4-09 requires each department to establish the internal controls in accordance with *The Standards for Internal Control in the Federal Government by the Comptroller General of the United States* (Green Book). The Green Book identifies established policies and procedures as a control activity needed to manage risk. Specifically, management is responsible for:

- Documenting in written policies for each unit its responsibility for an operational process' objectives and related risks; and, control activity design, implementation, and operating effectiveness
- Defining policies through day-to-day procedures, depending on the rate of change in the operating environment and complexity of the operational process

- Communicating to personnel the policies and procedures so that personnel can implement the control activities for their assigned responsibilities
- Reviewing policies, procedures, and related control activities periodically for continued relevance and effectiveness in achieving the entity's objectives or addressing related risks

The Division Does Not Have Sufficient Contract Monitoring Activities

The Division does not have sufficient contract monitoring activities (formally documented, consistently performed, and monitored for compliance) to ensure architects are consistently fulfilling contractual responsibilities to:

- Properly monitor the construction contractors
- Communicate the results of the monitoring to the Division

Without having sufficient contract monitoring activities and consistent supporting documentation, such as standard quality control documents, the Division cannot ensure the construction contractors meet contractual obligations, and the City's interests are properly safeguarded.

Division personnel with contract monitoring responsibilities are experienced professionals. According to the Division, these professionals consider various contract monitoring resources when monitoring the architects' contractual responsibilities for ongoing projects (see textbox). The specific manner, however, in which the Division personnel use each contract monitoring resource and document the actual contract monitoring performed is either inconsistent or nonexistent.

Contract Monitoring Resources		
Contract	Monitoring	personnel consider:
• 1990 Project Management Procedures Manual (PMPM)		
• Certain American Institute of Architects' (AIA) standards and documents		
• Administrative Directive 4-05, <i>Contracting Policy</i> effective April 10, 2013 (AD 4-05)		
• Former City Manager Mary Suhm's August 26, 2006 Memo – New Contract Management Process (Starr Solutions)		
• City of Dallas General Conditions for Building Construction		
• Individual bid documents, contracts and project manuals		
• Building Construction Service Agreements		
Source: Division		

For example, according to an interview with one of the professionals, the Division does not use standard quality control documents, such as checklists. Another professional, however, stated the Division uses the American Institute of Architects' (AIA)³ quality

³ The AIA is a professional organization that collects and disseminates best practices as a service to AIA members without endorsement or recommendation.

control documents. The AIA suggests architects use quality control documents to oversee the building contractor. These quality control documents can be modified and used by Division personnel as standard quality control documents to monitor architects' contractual responsibilities for ongoing projects.

To confirm whether Division personnel use quality control documents consistently, a Construction Contract Monitoring Survey⁴ was developed based on AIA best practices. The results indicated that the Division personnel: (1) do not have a common understanding of the architects' responsibilities to prepare, review, and approve quality control documents to adequately monitor the projects; and, (2) do not consistently use quality control documents. For example, as shown in Table I on page six, of the ten Division personnel responding to the survey:

Architects' Responsibilities

- Three answered the architects' responsibility is to *prepare* the Quality Management Phase Checklist (see textbox)
- Another three answered the architects' responsibility is to *review* the Quality Management Phase Checklist
- One answered the architects' responsibility is to *approve* the Quality Management Phase Checklist

<p style="text-align: center;">AIA Quality Control Documents</p> <p>Quality Management Phase Checklist includes three primary parts:</p> <ul style="list-style-type: none">• General Objectives of Phase• Phase Task Checklist• Deliverables for Phase <p>Source: AIA</p>

Division Personnel's Responsibilities

- Two answered the Division personnel's responsibility is to *review* the Quality Management Phase Checklist
- No personnel answered the Division personnel's responsibility is to *approve* the Quality Management Phase Checklist

⁴ The survey (see Attachment II) was sent to 12 Division personnel; 11 surveys were completed and returned. In addition, one of the 11 returned surveys was excluded from the final analysis because the person completing the survey functions primarily as an engineer who does not have the same contract monitoring responsibilities. Therefore, the survey results were based on responses from ten Division personnel.

Table I

**Summary of Division Personnel Survey Responses
 Regarding the Use of American Institute of Architects
 Quality Control Documents⁵**

AIA Quality Control Documents	Prepared by Architects	Reviewed by		Approved by	
		Architects	Division Personnel	Architects	Division Personnel
Quality management phase checklist:					
<ul style="list-style-type: none"> Used as a tool to assist project teams in meeting their obligations for design and—construction projects' timelines 	3 of 10	3 of 10	2 of 10	1 of 10	0 of 10
Phase task checklist:					
<ul style="list-style-type: none"> Used to track the completeness of or status of specific design and construction project related tasks 	0 of 10	5 of 10	4 of 10	0 of 10	2 of 10
Copies of document audits/peer reviews:					
<ul style="list-style-type: none"> Used to improve and maintain the quality of documents as part of an organization's overall quality management program whereby documents are evaluated to determine the extent to which the design and construction projects' requirements are met 	N/A	N/A	10 of 10	N/A	2 of 10

Note: N/A – Not Applicable as determined by auditors
Source: Office of the City Auditor analysis of survey results

In addition, detailed reviews and analyses of four projects indicated 38 percent of the Division personnel's construction contract monitoring activities were not consistent which further supports the survey results.

⁵ The survey (see Attachment II) was sent to 12 Division personnel; 11 surveys were completed and returned. In addition, one of the 11 returned surveys was excluded from the final analysis because the person completing the survey functions primarily as an engineer who does not have the same contract monitoring responsibilities. Therefore, the survey results were based on responses from ten Division personnel.

According to the Green Book, management should establish and operate monitoring activities to monitor the internal control system and evaluate the results. Additionally, management should remediate identified internal control deficiencies on a timely basis.

The Division Does Not Fully Comply with the City of Dallas' General Conditions for Building Construction and the 1990 PMPM

The Division does not fully comply with the City's General Conditions and the 1990 PMPM. General Conditions are a part of the contract documents. The General Conditions define the responsibilities of the owner (City)⁶, the architect, and the contractor as to who prepares, reviews, and approves building construction documents.

Without consistent documentation, the Division cannot demonstrate full compliance with the General Conditions and the 1990 PMPM. Also, without completely following the General Conditions and the 1990 PMPM, the City cannot ensure architects and contractors are in compliance with the contractual requirements.

Division Personnel's Consistent Survey Responses

The Division:

- Has procedures for non-conforming products and materials, dispute resolution, liquidated damages, and project close-outs
- Identifies critical components of building construction projects, such as grading, foundation, structure, steel, and roofing, which require additional observations, testing, or inspections.

Division personnel:

- Prepare and issue notices to proceed, which are formal approvals to start the projects
- Review, approve, and maintain contractor / architect evaluations and project close-out meetings

Source: PBW and the Office of the City Auditor

As shown in Table II on pages eight and nine, the Division usually follows the General Conditions for the preparation and review of documents that are used to monitor key construction phases. However, the survey responses and the detailed reviews and analyses of four projects show Division personnel are not consistently complying with the General Conditions and the 1990 PMPM requirements for document approval.

For example, according to the General Conditions and the 1990 PMPM, the contractor should prepare and submit the contractor construction project schedule for the architects' and Division personnel's information, review, and approval; however, of the ten Division personnel who answered the survey, one answered that architects approve and nine answered that Division personnel approve the contractor construction project schedule.

⁶ Division personnel are the City's representatives.

Table II

**Summary of Division Personnel Survey Responses
 Regarding
 General Conditions Requirements for Building Construction⁷**

General Conditions Requirements for Building Construction Documents	Architects and Division Personnel Responsibilities				
	Prepared by Architects	Reviewed by		Approved by	
		Architects	Division Personnel	Architects	Division Personnel
Contractor construction project schedule:					
<ul style="list-style-type: none"> Revised monthly to reflect the actual status of work 	N/A	10 of 10	10 of 10	1 of 10	9 of 10
<ul style="list-style-type: none"> Submitted with each Application for Payment that is reviewed and approved by the architect and Division personnel 					
Status reports:					
<ul style="list-style-type: none"> Prepared by the contractor to show the progress of the various construction phases of the work (updated construction schedule) 	N/A	10 of 10	10 of 10	1 of 10	0 of 10
<ul style="list-style-type: none"> Submitted with each Application for Payment that is reviewed and approved by the architect and Division personnel 					
Schedule of values:					
<ul style="list-style-type: none"> Showed the percentage of work completed 					
<ul style="list-style-type: none"> Submitted with each Application for Payment that is reviewed and approved by the architect and Division personnel 	N/A	10 of 10	10 of 10	0 of 10	3 of 10
Field reports:					
<ul style="list-style-type: none"> Prepared by the architect 	8 of 10	N/A	10 of 10	N/A	0 of 10
<ul style="list-style-type: none"> Submitted to the Division personnel for review 					

⁷ The survey (see Attachment II) was sent to 12 Division personnel; 11 surveys were completed and returned. In addition, one of the 11 returned surveys was excluded from the final analysis because the person completing the survey functions primarily as an engineer who does not have the same contract monitoring responsibilities. Therefore, the survey results were based on responses from ten Division personnel.

General Conditions Requirements for Building Construction Documents	Architects and Division Personnel Responsibilities				
	Prepared by Architects	Reviewed by		Approved by	
		Architects	Division Personnel	Architects	Division Personnel
Proposal request for change orders / change orders: <ul style="list-style-type: none"> Requested by the contractor who sends a Request for Information to the architect that requires a change in the contract price or schedule Prepared and approved by the architect Sent to the Division personnel for final review and approval 	8 of 10	10 of 10	10 of 10	1 of 10	9 of 10
Application for Certificates of Payment <ul style="list-style-type: none"> Submitted to the architect for review and approval for work completed 	N/A	10 of 10	N/A	3 of 10	N/A

Note: N/A – Not Applicable as determined by auditors
Source: Office of the City Auditor analysis of survey results

Additionally, detailed reviews and analyses of four projects further support the survey findings. Specifically, Division personnel do not comply with 1990 PMPM (see Table III below and Table IV on page ten) as it relates to review and approval. For example, Division personnel’s initials / signatures and review / approval dates were missing on certain contract related documents, such as construction schedules, progress meetings, field reports, and Administrative Change Orders.

Table III

Summary of Division Personnel Overall Consistency Rate for following the 1990 PMPM

Percent of Division Personnel Overall Consistency Rate for Following the 1990 PMPM ¹			
	Table Of Contents	Exhibit 3.1 – Project Management Responsibilities, Authority and Accountability Checklist	Section 11 – Project Checklist
Consistent	61	24	31
Inconsistent	39	76	69

¹ Three Division Personnel were asked to identify the relevant sections in the 1990 PMPM Table of Contents; Exhibit 3.1- Project Management Responsibilities, Authority and Accountability Checklist; and Section 11 – Project Checklist. Based on their answers, auditors evaluated the consistency among the three Division personnel.

Table IV

Summary of Division Personnel Compliance with Selected 1990 PMPM Contract Monitoring Activities

	Percent of Division Personnel Complying with 1990 PMPM ¹			
	Division Personnel I	Division Personnel II	Division Personnel III	Division Personnel IV ²
Compliance	33	19	42	N/A
Non-compliance	67	81	58	N/A

¹ Monitoring activities required in selected sections of the 1990 PMPM were reviewed; as a result, percentages in this table are based on the number of monitoring activities reviewed by auditors.

² Auditors did not review one of the four selected projects because project related files were not organized and systematically filed.

The Division Does Not Have a Consistent Systematic Contract File Inventory for Contract Monitoring Activities

The Division does not have a consistent, systematic process for filing construction related documents (contract file inventory) for construction contract monitoring activities. Specifically, the Division does not follow the Starr Solutions Consulting Group (Starr Solutions) Contract File Inventory (see textbox) for contracts and the associated contract monitoring activities as directed in former City Manager Mary Suhm’s August 26, 2006 Memo – New Contract Management Process. Additionally, the Division does not have specific file maintenance responsibilities for construction contract documents between the architects and Division personnel.

Contract File Inventory
<p>In 2006, the City engaged Starr Solutions Consulting Group to review the City’s contract management process. One recommendation to all City departments from this review was to create a standardized Contract File Inventory containing:</p> <ul style="list-style-type: none"> • Contract file • Correspondence file • Financials file • Procurement file • Administration file <p>Source: Starr Solutions</p>

Without a consistent, systematic process for filing construction related documents, the Division cannot readily verify the Division personnel with contracting monitoring responsibilities are appropriately and consistently monitoring the contracts. For example, for one of the selected projects, the Division personnel responsible for the project had retired from the City. With the assistance of other Division personnel, the auditors were able to locate one box of documents for the selected project. An additional three boxes of documents were subsequently located. The auditors did not review and analyze the project because project related files were not organized and

systematically filed, and there was no assurance the four boxes contained all relevant project files.

According to Division personnel, each individual with contract monitoring responsibilities has the discretion to file and retain the documentation that they deem relevant to their contract monitoring responsibilities. For example, Division personnel maintain certain documents in centralized file cabinets while other documents are maintained in the individual's file cabinets and/or computer (see Table V below).

Table V

Summary of Division Personnel Inconsistent Maintenance Practices of Building Construction Contract/Monitoring Documents

Documents	Division Personnel I	Division Personnel II	Division Personnel III	Division Personnel IV ¹
Contractor construction (project) schedule /liquidated damages	N Drive	Hard Copy	Hard Copy/K Drive	Hard Copy
Status report/Progress meeting	N Drive	Hard Copy	K Drive	Hard Copy
Field reports	N Drive	No Field Reports	K Drive	Hard Copy
Proposal request for change orders / change orders	N Drive and Centralized "Contract File"	N Drive and Centralized "Contract File"	Hard Copy Centralized "Contract File"	Hard Copy
Application for certificates of payment/monthly payments	N Drive	Hard Copy	Hard Copy/K Drive	Hard Copy

¹ Auditors did not review this Division personnel's project because project related files were not organized and systematically filed.

Additionally, the survey results showed the Division personnel were:

- Not familiar with the Contract File Inventory recommended by Starr Solutions. Specifically:
 - Six of ten were not aware of Starr Solutions
 - Two of ten did not respond to survey question number 22 (See Attachment II); however, they did document in the survey's comment column that they were not aware of Starr Solutions or the recommended Contract File Inventory
 - Two of ten stated they adhered to some documentation requirements, but not the Starr Solutions' recommendation

- Not consistent in their responses regarding their file maintenance responsibilities (see Table VI below)

Table VI

**Summary of Division Personnel Survey Responses
 Regarding the Maintenance of Building Construction Contract/
 Monitoring Documents⁸**

Contract/Monitoring Documents	Maintained by	
	Architects	Division Personnel
Contractor construction (project) schedule	3 of 10	8 of 10
Status reports	10 of 10	7 of 10
Schedule of values	5 of 10	8 of 10
Field reports	10 of 10	7 of 10
Quality management phase checklist	2 of 10	3 of 10
Phase task checklist	2 of 10	3 of 10
Copies of audits/peer reviews	N/A	3 of 10

Note: N/A – Not Applicable as determined by auditors
Source: Office of the City Auditor analysis of survey results

According to the Green Book, effective documentation assists in management’s design of internal control by establishing and communicating the who, what, when, where, and why of internal control execution to personnel. Documentation also provides a means to retain organizational knowledge and mitigate the risk of having that knowledge limited to a few personnel, as well as a means to communicate that knowledge as needed to external parties, such as auditors.

We recommend the Director of PBW:

- I. Updates formal (written, signed, dated) policies and procedures for contract monitoring, including specifying document approval and maintenance responsibilities among Division personnel, the architect, and the contractor

⁸ The survey (see Attachment II) was sent to 12 Division personnel; 11 surveys were completed and returned. In addition, one of the 11 returned surveys was excluded from the final analysis because the person completing the survey functions primarily as an engineer who does not have the same contract monitoring responsibilities. Therefore, the survey results were based on responses from ten Division personnel.

- II. Develops and implements standard quality control documents using best practices, such as AIA, to demonstrate sufficient contract monitoring and consistent documentation
- III. Ensures Division personnel comply with the Division's contract monitoring resources
- IV. Implements a consistent, systematic process for filing construction related documents for construction contract monitoring activities

Please see Attachments I and II for Background information and the survey related to the audit and Attachment III for Management's Response to the report recommendations.

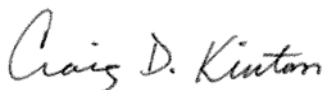
Auditor Follow-Up Comments

While agreeing to implement the recommendations resulting from this audit, management's response to the report includes opening comments that appear to seek to minimize the importance of the issues identified during this audit. These comments, as well as management's conduct throughout the course of the audit, demonstrate a fundamental lack of understanding of:

- The basic concepts of internal control
- Management's responsibilities for the establishment of controls as required by AD 4-05, *Internal Control*
- The importance of consistent documentation and monitoring of the application of internal controls

If you have any questions or need additional information, please contact me at 214-670-3222 or Carol A. Smith, First Assistant City Auditor, at 214-670-4517.

Sincerely,



Craig D. Kinton
City Auditor

Attachments

C: A.C. Gonzalez, City Manager
Jeanne Chipperfield, Chief Financial Officer
Jill A. Jordan, P.E., Assistant City Manager
Rick Galceran, Director – Department of Public Works
Zaida Basora, Assistant Director – Department of Public Works

Background and Methodology

Background

Public Works

The Department of Public Works (PBW) is responsible for Capital Improvement Projects funded through voter approved Bond Programs. The PBW has five divisions: (1) Facilities Architecture / Engineering; (2) Engineering, Construction, and Survey Services; (3) Administration; (4) Pay Citations; and, (5) Air Quality Control / Parking Adjudication / Pavement Management.

The Facilities Architecture / Engineering Division (Division) which is the focus of this audit is responsible for new construction and the renovation of existing City of Dallas (City) facilities. The Division has responsibilities for the oversight of the construction of small scale projects, such as libraries and fire stations, to large scale projects, such as the American Airlines Center, the City Performance Hall, the Winspear Opera House, and the Latino Cultural Center.

Building Construction Project Delivery Methods

The Division uses the following five project delivery methods:

- **Design-Bid-Build:** The City selects an architect based on qualifications and a contractor through a bid or a Request for Competitive Sealed Proposal. An architect is responsible for designing a project and overseeing a contractor during the construction phase. In this delivery method, the architect is to take reasonable measures to safeguard the City against defects and deficiencies in the work of the contractor. Unlike the Design Build method, the City mainly relies on an architect to monitor the construction contractor's activities; as a result, Division personnel have more limited construction contract monitoring responsibilities.
- **Design Build:** The City awards a single contract to a design-builder to design and construct a project. A design-builder undertakes responsibility for both the design and construction of a project. Division personnel are responsible for overseeing both the design and construction of the project.
- **Construction Manager at Risk:** The City selects the architect and the Construction Manager separately and may be involved in the selection of subcontractors and signs contracts with all prime contractors. This project delivery method is based on quality rather than cost and is used for large,

complex projects and multi-phase projects that are time critical because of the guaranteed maximum price included in the contracts and the fast-track delivery.

- **Construction Manager Agent:** The City: (1) selects a firm or entity to provide only traditional construction management / administration services; and, (2) awards a construction contract under a separate procurement process. The Construction Manager Agent performs no construction or general conditions work and provides no guaranteed maximum price.
- **Job Order Contract:** The City selects multiple contractors for certain types of small scale facility construction, repair, or alteration work. Actual work on specific tasks described during the selection process is then ordered from a job order contractor on the basis of unit prices applicable to that task, at the lowest available cost for the task ordered.

The Division's decision to use a specific project delivery method is based upon which method represents the best value for the City for a particular project. The Division generally uses Design-Bid-Build.

Table VI

**Fiscal Years 2012 and 2013
Completed Projects by Project Delivery Method**

Project Delivery Methods	Number of Projects	Amount	Percentage
Design-Bid-Build	17	\$ 16,722,099	74
Design Build	2	5,321,463	23
Construction Manager at Risk	0	0	0
In-house ¹	2	0	0
Unknown ²	1	634,902	3
Totals	22	\$ 22,678,464	100

¹ Amounts are not available in PBW's database because these projects were managed by the Department of Equipment and Building Services prior to PBW's reorganization.

² The Division did not respond to the auditors' inquiry.

Source: PBW

Methodology

- Reviewed the following best practices:
 - American Institute of Architects
 - State of Texas Contract Management Guide
 - State of Washington Best Management Practices for Capital Projects

- National State Auditors Association's Best Practices in Contracting for Construction Services
- *The Standards for Internal Control in the Federal Government* issued by the Government Accountability Office
- Reviewed the following City documents:
 - Administrative Directive (AD) 4-05, *Contracting Policy*
 - AD 4-09, *Internal Control*
 - City of Dallas Construction Contract Management Process Revisions 2006 – Starr Solutions
 - City of Dallas General Conditions for Building Construction
 - 1990 Project Management Procedures Manual Volume I, Administrative, Section 11 (Subsections 91 to 134) and Sections 33 to 55 (1990 PMPM)
 - Sample documents, including an architect's contract, Building Construction Service Agreements, and the Division's project manual
- Interviewed PBW personnel
- Designed and evaluated a survey⁹ (see Attachment II)
- Reviewed and analyzed construction contract monitoring documents for four Design-Bid-Build projects to 1) evaluate the Division's compliance with the 1990 PMPM, Volume I, Administrative, Section 11 (Subsections 91 to 134) and Sections 33 to 56; and, 2) ensure the consistency of monitoring practices among Division personnel

⁹ Survey questions were based on the criteria included in the documents listed in the Methodology section above. The surveys were sent to 12 Division personnel; 11 surveys were completed and returned. In addition, one of the 11 returned surveys was excluded from the final analysis because the person completing the survey functions primarily as an engineer who does not have the same contract monitoring responsibilities.

ATTACHMENT II

Construction Contract Monitoring Survey

What the survey is about: The purpose of this Construction Contract Monitoring Survey is to capture the Department of Public Works – Facilities Architecture / Engineering Division's (**Division**) internal processes for monitoring and ensuring compliance with Design Bid Build construction contracts and Administrative Directive 4-5, *Contracting Policy* (AD 4-5).

Who has to complete the survey: The Division's project managers (project managers) are solely responsible for completing the survey and *should not defer the responsibility to those other than the project managers selected for this survey.*

Why the department has to complete the survey: The Division's project managers selected for the survey will confirm the auditors' understanding of the Division's internal processes for monitoring and ensuring compliance with Design Bid Build construction projects: (1) AD 4-5; (2) City of Dallas General Conditions for Building Construction; (3) Construction contracts, including associated Requests for Proposals or Requests for Competitive Sealed Proposals; (4) Division Building Construction Services Agreements; and, (5) Project Manuals.

How to complete the survey: Complete the survey by responding to each question and include any documentary evidence (if necessary) to support your answers. Please note that auditors have already obtained the City of Dallas General Conditions for Building Construction, the Building Construction Services Agreement, American Institute of Architects (AIA) standard documents, and the Architect Contract. The survey should be signed and dated by all personnel who completed the survey, in the event follow-up is necessary.

When: The deadline is **November 4, 2014**. The Office of the City Auditor will send a reminder on October 28, 2014 to Zaida Basora, Assistant Director, of your Division to assist in meeting the deadline.

Where to send the survey: After completing the survey, send an electronic copy to thandee.kywe@dallascityhall.com and a hard copy of the survey to the Office of the City Auditor at City Hall, 2FN, Attention: Thandee Kywe.

Additional Questions: Contact Carol A. Smith, First Assistant City Auditor, (214) 670-4517 or Thandee Kywe, Assistant City Auditor IV, (214) 939-2524.

	Yes	No	Comments
1. Does the Division have a standardized project management methodology ¹⁰ that project managers are required to comply with the City of Dallas General Conditions for Building Construction and design/contractor/consultant contracts when monitoring building construction projects?			
2. Does the Division identify critical components of the building construction project, such as grading, foundation, structure, steel, and roofing, which require additional observations, testing, or inspections?			
3. For the critical components of the building construction projects, does the Division require:			
a. Independent inspection			
b. In-house inspection			
c. Independent testing			
4. For the critical components of the building construction projects, does the Division review the following reports:			
a. Independent inspection			

¹⁰ Project management methodology is a strictly defined combination of logically related practices, methods, and processes that determine how best to plan, develop, control, and deliver a project throughout the continuous implementation process until successful completion and termination. It is a scientifically proven, systematic, and disciplined approach to project design, execution, and completion.

	Yes	No	Comments
b. In-house inspection			
c. Independent testing			
5. For the critical components of the building construction projects, does the Division maintain the following reports:			
a. Independent inspection			
b. In-house inspection			
c. Independent testing			
6. Does the Division use uniform performance standards to evaluate the Consulting Architect's performance? If so, please provide comments and/or support for your response.			
7. If the Division does not use uniform performance standards, does the Division use another method to evaluate the Consulting Architect's performance? If so, please provide comments and/or support for your response.			
8. Does the project manager prepare and issue a notice to proceed to the general contractor?			
9. Does the project manager review the following:			
a. Quality control plan for design changes			

	Yes	No	Comments
b. The pre-construction conference meeting minutes			
c. Contractor project schedule			
d. Quality management phase checklist			
e. All periodic meeting minutes			
f. All coordination meetings minutes			
g. Field reports			
h. Status reports			
i. Phase task checklist			
j. Contractor submittals			
k. Requests for Information (RFI)			
l. Change orders			
m. Schedule of values			
n. Certificates for payment			
o. Contractor/architect evaluations			

	Yes	No	Comments
p. Project close-out meeting minutes			
q. Copies of any audits/peer reviews of design or construction documents			
10. Does the project manager approve the following:			
a. Quality control plan for design changes			
b. The pre-construction conference meeting minutes			
c. Contractor project schedule			
d. Quality management phase checklist			
e. All periodic meeting minutes			
f. All coordination meetings minutes			
g. Field reports			
h. Status reports			
i. Phase task checklist			
j. Contractor submittals			

	Yes	No	Comments
k. Requests for information (RFI)			
l. Change orders			
m. Schedule of values			
n. Certificates for payment			
o. Contractor/architect evaluations			
p. Project close-out meeting minutes			
q. Copies of any audits/peer reviews of design or construction documents			
11. Does the project manager maintain the following:			
a. Quality control plan for design changes			
b. The pre-construction conference meeting minutes			
c. Contractor project schedule			
d. Quality management phase checklist			
e. All periodic meetings minutes			
f. All coordination meetings minutes			

	Yes	No	Comments
g. Field reports			
h. Status reports			
i. Phase task checklist			
j. Contractor submittals			
k. Requests for information (RFI)			
l. Change orders			
m. Schedule of values			
n. Certificates for payment			
o. Contractor/architect evaluations			
p. Project close-out meeting minutes			
q. Copies of any audits/peer reviews of design or construction documents			
12. Does the Consulting Architect prepare the following:			
a. Quality control plan for design changes			
b. Quality management phase checklist			

	Yes	No	Comments
c. Contractor project schedule			
d. Field reports			
e. Phase task checklist (submittal log)			
f. Contractor submittals			
g. Requests for Information (RFI)			
h. Proposal requests for change orders/change orders			
i. Schedule of values			
j. Certificates of payment			
k. Others (please specify)			
13. Does the Consulting Architect review the following:			
a. Quality control plan for design changes			
b. Quality management phase checklist			
c. Contractor project schedule			
d. Status reports			

	Yes	No	Comments
e. Phase task checklist (submittal log)			
f. Contractor submittals			
g. Requests for Information (RFI)			
h. Proposal requests for change orders/change orders			
i. Schedule of values			
j. Applications for certificates of payment			
k. Others (please specify)			
14. Does the Consulting Architect approve the following:			
a. Quality control plan for design changes			
b. Quality management phase checklist			
c. Contractor project schedule			
d. Status reports			
e. Phase task checklist (submittal log)			
f. Contractor submittals			

	Yes	No	Comments
g. Requests for Information (RFI)			
h. Requests for change orders/change orders			
i. Schedule of values			
j. Applications for certificates of payment			
k. Others (please specify)			
15. Does the Consulting Architect provide the Project Manager and/or the contractor with a formal (written) response for the following:			
a. Quality control plan for design changes			
b. Quality management phase checklist			
c. Contractor project schedule			
d. Status reports			
e. Phase task checklist (submittal log)			
f. Contractor submittals			
g. Requests for Information (RFI)			

	Yes	No	Comments
h. Requests for change orders/change orders			
i. Schedule of values			
j. Applications for certificates of payment			
k. Others (please specify)			
16. Does the Consulting Architect maintain the following:			
a. Quality control plan for design changes			
b. Quality management phase checklist			
c. Contractor project schedule			
d. Field reports			
e. Status reports			
f. Phase task checklist (submittal log)			
g. Contractor submittals			
h. Requests for Information (RFI)			
i. Requests for change orders/change orders			

	Yes	No	Comments
j. Schedule of values			
k. Certificates for payment			
l. Others (please specify)			
17. Does the Division have procedures for the following:			
a. Non-conforming products and materials			
b. Dispute resolution			
c. Liquidated damages			
d. Project close-out			
18. Does the Division review the following items for design contracts:			
a. Milestone checkpoints, such as the contractor's schedule			
b. Phase approvals by the City			
c. Near or long term schedules (construction only)			
d. Cost estimates			
e. Consultant coordination			

	Yes	No	Comments
19. Does the Division maintain the following items for design contracts:			
a. Milestone checkpoints, such as the contractor's schedule			
b. Phase approvals by the City			
c. Near or long term schedules (construction only)			
d. Cost estimates			
e. Consultant coordination			
20. Does the Division review the following items for construction contracts:			
a. Milestone checkpoints, such as the contractor's schedule			
b. Phase approvals by the City			
c. Near or long term schedules			
d. Cost estimates			
e. Consultant coordination			

	Yes	No	Comments
21. Does the Division maintain the following items for construction contracts:			
a. Milestone checkpoints, such as the contractor's schedule			
b. Phase approvals by the City			
c. Near or long term schedules (construction only)			
d. Cost estimates			
e. Consultant coordination			
22. Does the Division maintain project file documentation based on Star solution's "Contract File Inventory" for the following:			
a. Contract file			
b. Correspondence file			
c. Procurement file			
d. Financial file			
e. Administration file			

Signature Page

Print Name

Print Title

Signature

Date

Management's Response

Memorandum

RECEIVED

MAY 20 2016

City Auditor's
Office



CITY OF DALLAS

DATE May 20, 2016

TO Craig D. Kinton, City Auditor

SUBJECT Response to Audit Report:
Audit of the Public Works Department Contract Monitoring

We would first like to say that our Architecture / Engineering Division has delivered an impressive portfolio of successfully completed public buildings which have been recognized locally and nationally for their functional, aesthetic and sustainable designs. These accomplishments were the direct result of our personnel employing sound business practices in the management of the design and construction contracts for the City. We would encourage everyone to visit a new neighborhood library and fire station to experience firsthand these outstanding facilities.

Having said that, we will review and update our policy and procedures to remove any ambiguities or deficiencies from the business model. While the audit points to needed improvements in our process and procedure documentation and the need for the documentation to show compliance with those standards, the audit does not reflect many of the rigorous procedures our personnel employ in managing thousands of activities performed by hundreds of people during the design and construction of our city facilities.

In that spirit, the following are our responses to the audit recommendations in the format provided to us by the auditor's office:

Audit Recommendation I

We recommend the Director of PBW updates formal (written, signed, dated) policies and procedures for contract monitoring, including specifying document approval and maintenance responsibilities among Division personnel, the architect, and the contractor.

Public Works Response / Corrective Action Plan:

Agree. Prior to this audit, Public Works had begun updating its procedures as part of the ISO implementation process and had begun to review best practices for promoting quality control. Additionally, we also determined that it is critical to consider consistency with other City departments that perform similar tasks and account for the new project management software system currently scheduled to be put in place over the course of the next year. There is also a citywide initiative to look at project management practices across departments that could impact the schedule for this action plan. Due to the these initiatives and lack of available staff, we believe the services of a specialty consultant is needed to address Recommendation I as they can meld the requirements from current practices across the City's design and construction departments, best practices from others, potential needed changes to practices to make best use of the new software, and audit practices commensurate with risk levels. It is our intent to engage a consultant by

"Dallas, the City that Works: Diverse, Vibrant and Progressive"

Response to Audit Report:
Audit of the Public Works Department Contract Monitoring
May 20, 2016
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January 2017, contingent upon identification of funding. We anticipate the

consultant taking six months to report on the recommendations and twelve months thereafter to July of 2018 to put the recommendations in place. After that date, it will take one year of operation with the new system to have auditable data for a final implementation date of July 31, 2019.

Implementation Date:
Anticipated implementation date is by July 31, 2019.

Responsible Manager:
The Director of Public Works will be the responsible person.

Audit Recommendation II

We recommend the Director of PBW develops and implements standard quality control documents using best practices, such as AIA, to demonstrate sufficient contract monitoring and consistent documentation.

Public Works Response / Corrective Action Plan:
Agree. Implementation of this recommendation will be incorporated into the implementation plan for the first recommendation.

Implementation Date:
Anticipated implementation date is by July 31, 2019.

Responsible Manager:
The Director of Public Works will be the responsible person.

Audit Recommendation III

We recommend the Director of PBW ensures Division personnel comply with the Division's contract monitoring resources through standard quality control documents.

Public Works Response / Corrective Action Plan:
Agree. Implementation of this recommendation will be incorporated into the implementation plan for the first recommendation.

Implementation Date:
Anticipated implementation date is by July 31, 2019.

Responsible Manager:
The Director of Public Works will be the responsible person.

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Audit Recommendation IV

We recommend the Director of PBW implements a consistent, systematic process for filing construction related documents for construction contract monitoring activities.

Public Works Response / Corrective Action Plan:

Agree. A preliminary process will be developed by staff and put into practice in the short term. However, this preliminary process may be altered as a result of the work by the proposed consultant. That final process may involve the expenditure of as-yet unbudgeted funds for supplemental equipment (ex., digital storage space). Anticipated implementation date for the preliminary process is December 31, 2016 for putting the system in place.

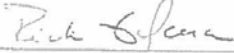
Implementation Date:

Preliminary process to be implemented by November 2017.
The anticipated implementation of the final process is by July 31, 2019.

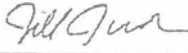
Responsible Manager:

The Director of Public Works will be the responsible person.

Respectfully submitted,



Rick Galcerán, P.E., Director
Public Works Department



Jill A. Jordan, P.E.
Assistant City Manager

○ A.C. González, City Manager
Zaida Basora, FAIA, Assistant Director, Public Works