

OFFICE OF THE CITY CONTROLLER



**DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
DRAINAGE AND PAVING CONSTRUCTION
INTERNAL AUDIT**

Chris B. Brown, City Controller

Courtney E. Smith, City Auditor

Report No. 2018-04



**OFFICE OF THE CITY CONTROLLER
CITY OF HOUSTON
TEXAS**

CHRIS B. BROWN

November 14, 2017

The Honorable Sylvester Turner, Mayor
City of Houston, Texas

**SUBJECT: REPORT #2018-04 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING (PWE)
DRAINAGE AND PAVING CONSTRUCTION PERFORMANCE AUDIT**

Mayor Turner:

The Office of the City Controller's Audit Division contracted the professional services of Baker Tilly to complete a performance audit of the drainage and paving construction process as managed by the Department of Public Works and Engineering (PWE). More than 3,900 PWE employees provide many basic services for those who live and work in Houston, including the maintenance of over 16,000 lane miles of streets and drainage. PWE is committed to meeting the City of Houston's mobility and drainage needs. The business model PWE uses to make capital investments in street and drainage infrastructure to meet those needs is ReBuild Houston which emphasizes Pay-As-You-Go Funding.

The primary audit objectives were to focus on Capital Improvement Projects (CIP) funded by the Drainage Utility Charge, which is a component of Rebuild Houston, including the review and testing of activities, transactions and processes in place to:

- Assess individual project compliance with City ordinances, key contractual and regulatory terms and requirements;
- Determine if project funding and accounting treatment, including the use of Rebuild Houston funding sources were compliant with City ordinances; and
- Determine the effectiveness of internal controls.

The engagement scope included activities and transactions for CIP projects that were completed during Fiscal Years (FY) 2014 through 2016.

During the course of the audit, PWE management and staff demonstrated several strengths and best practices as listed below:

- Consistent and well-maintained project documentation;
- Strong controls around appropriate use of applying funding sources to project costs;
- Well-established processes over tracking contractor payments; and
- Consistent adherence to city procurement requirements.

Based on the procedures performed during the audit, we concluded the following:

- Internal controls over contract management and monitoring should be strengthened to ensure consistent administration of contract terms;
- Internal controls and business processes for project funding and accounting treatment are well established and operating effectively;
- Areas were identified areas where additional internal controls could be implemented to provide better oversight and verification of contractor compliance with contract terms and requirements.

In addition, we identified opportunities for the improvement of vendor performance monitoring and procedures and guidance for construction management roles.



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TEXAS

CHRIS B. BROWN

We appreciate the management and staff of PWE for their time and effort, responsiveness, and proactive attention to detail during the course of the audit.

Respectfully submitted,

Chris B. Brown
City Controller

cc: Carol Haddock, Interim Director, Department of Public Works and Engineering
City Council Members
Marvalette Hunter, Chief of Staff, Mayor's Office
Harry Hayes, Chief Operating Officer, Mayor's Office
Joseph Myers, Senior Assistant Director, Department of Public Works and
Engineering
Shannan Nobles, Chief Deputy City Controller, Office of the City Controller
Courtney Smith, City Auditor, Office of the City Controller

**City of Houston
Internal Audit Report**

**Public Works and Engineering Drainage and Paving
Construction Internal Audit**

November 2017



Candor. Insight. Results.



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November 3, 2017

Mr. Chris B. Brown
City of Houston
901 Bagby Street
Houston, TX 77002

Dear Mr. Brown:

Please find enclosed the report for the Performance Audit of the Public Works and Engineering Department - Drainage and Paving Improvement Construction for the fiscal years 2014 through 2016. This performance audit was meant to assess individual Capital Improvement Project (CIP) compliance with City ordinances, key contractual and regulatory terms and requirements, determine if project funding and accounting treatment, including the use of Rebuild Houston funds were compliant with City ordinances, and determine the effectiveness of internal controls.

Please contact Stacey Gill (stacey.gill@bakertilly.com) or me, Russ Hissom (russ.hissom@bakertilly.com) with any questions you may have regarding the report.

We appreciate the opportunity to serve you.

Sincerely,

BAKER TILLY VIRCHOW KRAUSE, LLP

Russell A. Hissom, CPA, CIA, CISA, CRMA, Partner

Enclosures

City of Houston

Public Works and Engineering Drainage and Paving Construction Internal Audit

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EXECUTIVE SUMMARY

Introduction

The Audit Division of the Office of the City Controller engaged Baker Tilly to conduct an internal audit of Capital Improvement Projects (CIP) managed by the City of Houston Department of Public Works and Engineering (PWE). The internal audit focused on specific CIP projects funded via the Drainage Utility Charge, a component of Rebuild Houston, to determine compliance with City of Houston (the City) ordinances, key contractual and regulatory terms and requirements, and the effectiveness of internal controls.

We would like to thank City personnel for the assistance they provided to us during this project. Their assistance was invaluable and without their help and cooperation completion of this project would not have been possible.

Background

The City of Houston Department of Public Works and Engineering (PWE) provides many of the basic services that affect the daily lives of everyone who lives and works in Houston. PWE is staffed with a trained work force of approximately 3,900 employees and operates with an annual budget of approximately \$1.8 billion. PWE's responsibilities include operation and maintenance of the City's streets and drainage, production and distribution of water, collection and treatment of wastewater, and permitting and regulation of public and private construction. This includes the production and distribution of over 146 billion gallons of water per year and the treatment of over 90 billion gallons per year of wastewater. It also includes the maintenance of the City's over 16,000 lane miles of streets, over 60,000 stormwater manholes, over 100,000 stormwater inlets, over 1,100,000 street name and traffic control signs, over 17,000 freeway and under bridge light fixtures, over 50,000 fire hydrants and traffic signals at over 2,450 intersections.

ReBuild Houston

The City's drainage and street projects are funded through the ReBuild Houston proposition, which amends the City's Charter *"to provide for the enhancement, improvement and ongoing renewal of Houston's drainage and streets by creating a Dedicated Pay-As-You-Go Fund for Drainage and Streets"*. The ReBuild Houston business model emphasizes Pay-As-You-Go Funding. In this manner, no new debt is incurred and cash payment means there are no interest payments on new projects. As a result, the City gets twice the product for the same dollars. As old debt is paid off from ad valorem taxes, funds become available for future projects.

There are Four Sources of Funding related to ReBuild Houston:

1. Ad Valorem (Property) Taxes – Currently, 11.8 cents of every \$100 of property value collected from property owners is used to pay off the debt incurred on previous street and drainage projects. As this old debt is paid off, the balance of funds from the 11.8 cents reserved by City Council via Drainage Utility Ordinance No. 2011-254 will be used for new street and drainage projects via Pay-As-You-Go funding.
2. 3rd Party Funding - Third-party funds from several sources such as METRO, TxDOT, Federal Grants, etc. are used in the Capital Improvement Program.

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3. Drainage Utility Charge - A new Drainage Utility Charge took effect July 1, 2011 to help pay for drainage and street projects. The charge is based on the actual impact a property has on drainage infrastructure, determined by calculating the property's impervious surface, converted to potential drainage run-off.
4. Developer Drainage Impact Fee - The Developer Drainage Impact Fee is a one-time fee paid only by new development that results in an increase to the amount of impervious area at the time of building permit. Any new development within a Developer Drainage Impact Fee Service Area (basically within the City Limits) that requires the issuance of a building permit or a connection to the City's drainage system and increases the amount of impervious surface may require payment of a Developer Drainage Impact Fee at the time of building permit.

Project Funding and Approval

Annually, PWE develops the Capital Plan of prioritized capital improvement projects based on funding source projections. Before beginning each project PWE's Engineering and Construction Division must prepare a Request for Council Action (RCA), which is routed to PWE's Financial Management Division to certify funding is available in the financial system (SAP), and then sent back to the Project Manager to obtain approval from the Director. Once approved, the Director's office forwards the RCA to the Agenda Office for City Council approval. If approved by the City Council, a copy of the signed City Ordinance (RCA) and Contract are sent to the Controller's office, at which point the Controller's office certifies the funds and releases the purchase order in SAP to allow payments to be processed.

During the project set up process the funding sources, appropriations, contracts, and purchase orders are set up in the SAP system by PWE's Financial Management Division. The amounts required per funding source is identified in the original RCA submitted by PWE's Engineering and Construction Division and determined based on the unit price cost estimates categorized by work type (paving, storm sewer, water main, etc.). Each funding source has its own funding stream and tracking. Financial Management tracks appropriations for each funding source for CIP projects, including a full reconciliation of all funding source activity and reviews the activity to ensure each item utilized is appropriate for that funding source.

Contractor Payments

The PWE Project Manager compiles the Pay Estimates based on the Daily Construction Reports and then obtains signature approvals from PWE management. The Daily Construction Reports reflect the units completed for each Item Number from the contract schedule of values. These reports are reviewed with and signed by the contractor. PWE Financial Management receives the request for payment and supporting documentation, and performs the payment audit process which includes verifying remaining funds on the contract, confirming SAP shows funds are available, reviewing support documentation for accuracy, etc. The construction contractor will submit a Pay Application which includes the work and materials that the contractor identifies as being completed or utilized. Any differences between the pay application and pay estimate are discussed with the contractor as necessary. Once approved, the payment documentation is sent to the Controller's office for final processing of the payment.

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Project Scope and Objectives

The scope and objective of this engagement was to review and test activities and transactions occurring in Fiscal Years (FY) 2014- 2016 to:

- > Assess individual project compliance with City ordinances, key contractual and regulatory terms and requirements;
- > Determine if project funding and accounting treatment, including the use of Rebuild Houston funds were compliant with City ordinances; and
- > Determine the effectiveness of internal controls.

Baker Tilly randomly selected three CIP projects for review that were complete and had been funded with Drainage Utility Charge funds. The projects selected were as follows:

Project No.	Project Name	Contract Amount
M-000265-0001-4	Rampart Street Area Drainage Improvements Sub-Project I (Beechnut to Jessamine)	\$7,686,124.15
M-000267-0001-4	Shepherd Drive Drainage and Paving	\$21,233,340.85
N-000398-0001-4	Neighborhood Street Reconstruction Program 465	\$15,297,832.98

Refer to **Appendix A** for the total population of CIP projects that were completed during our FY 2014 through FY 2016 scope period and utilized the Drainage Utility Charge component of Rebuild Houston funding.

Procedures Performed

In order to obtain sufficient evidence to achieve engagement objectives and support our conclusions, Baker Tilly performed the following steps:

- **Planning**
 - Conducted kickoff meeting with the Audit Division and PWE Management
 - Developed and submitted an initial data request to obtain construction contracts, relevant City ordinances, funding requirements, and City policies, processes and controls documentation relevant to CIP project management
 - Reviewed City ordinances, construction contracts, and funding requirements and identified key items
 - Reviewed policies and procedures to gain understanding of processes and controls related to CIP project management
 - Conducted interviews and process walkthroughs with key individuals in the PWE Engineering and Construction Division
 - Identified key risks and controls
 - Evaluated design of controls
 - Identified potential areas for process improvements and control gaps
 - Refined work plan based on risks and key ordinances/funding requirements/terms and conditions, and developed test plans
 - Performed sampling of transactions within selected projects and issued data request for fieldwork testing

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- **Fieldwork**
 - Performed testing of selected projects to include verification of:
 - Compliance with key ordinances
 - Compliance with key contract terms and conditions
 - Compliance with key funding and accounting requirements including use of Rebuild Houston funds
 - Documented findings and confirmed with process owners
- **Reporting**
 - Prepared a draft report to include testing results and recommendations
 - Discussed draft findings with process owners and management, and obtained management responses

Audit Methodology

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards and in conformance with the International Standards for the Professional Practice of Internal Auditing. Those standards require that we plan and perform the audit to obtain sufficient and 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.

The scope of our work did not constitute an evaluation of the overall internal control structure of the City of Houston or PWE. Management is responsible for establishing and maintaining a system of internal controls to ensure that City assets are safeguarded, financial activity is accurately reported and reliable, and management and employees are compliant with laws, regulations, and policies and procedures. The objectives are to provide management with reasonable, but not absolute assurance that the controls are in place and effective.

Conclusions

Each conclusion is aligned with the related Objective for consistency and reference. For detailed findings, recommendations, management responses, comments and assessment of responses, see the “Detailed Findings, Recommendations, Management Responses, and Assessment of Responses” section of this report.

Conclusion #1 – (Objective #1: Assess individual project compliance with City ordinances, key contractual and regulatory terms and requirements)

Based on the procedures we performed we conclude there is a need to strengthen internal controls over contract management and monitoring to ensure consistent administration of contract terms and requirements. We also identified opportunities for improvement of vendor performance monitoring and procedures and guidance for construction management roles. **(See Findings #1 through #12)**

Conclusion #2 – (Objective #2: Determine if project funding and accounting treatment, including the use of Rebuild Houston funds were compliant with City ordinances)

Based on the procedures we performed we conclude that internal controls and business processes for project funding and accounting treatment are well established and operating effectively. No findings were identified in this area.

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Conclusion #3 – (Objective #3: Determine the effectiveness of internal controls for these projects)

Based on the results of procedures we performed, we have identified areas where additional internal controls could be implemented to provide better oversight and verification of contractor compliance with contract terms and requirements. **(See Findings #1 through #10)**

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DETAILED FINDINGS, RECOMMENDATIONS, MANAGEMENT RESPONSES, AND ASSESSMENT OF RESPONSES

FINDING #1 – Safety Impact Position Contract Requirement Not Enforced

RISK RATING = MEDIUM

PROJECTS:

- Shepherd Drive Drainage and Paving
- Neighborhood Street Reconstruction Program 465
- Rampart Street Drainage and Paving

FINDING:

The contractors for all three projects reviewed did not comply with Document 00700 - General Conditions Article Nos. 3.8.1.2 - 3.8.1.4. Specifically, the contractor is required to submit *Document 00605 - List of Safety Impact Positions* when additional safety positions are added to the contractor's workforce during performance of the work. A safety impact position refers to a Contractor's employment position involving job duties that if performed with inattentiveness, errors in judgment, or diminished coordination, dexterity, or composure may result in mistakes that could present a real and/or imminent threat to the personal health or safety of the employee, co-workers, and/or the public. These positions are subject to drug testing requirements. For two projects reviewed, Shepherd Drive and Neighborhood Street Reconstruction, *Document 00605 - List of Safety Impact Positions* was not included with the contractor's semi-annual Drug Policy Compliance Declarations, although the contractor's semi-annual Drug Policy Compliance Declarations indicated the contractors did in fact have safety impact positions. For the third project reviewed, Rampart Street Drainage and Paving, one *Document 00605 - List of Safety Impact Positions* was provided for review; however, the document reflected less safety impact positions than identified in the contractor's semi-annual Drug Policy Compliance Declarations and it did not specify the period covered. No additional *Document 00605 - List of Safety Impact Positions* forms were identified in the project files. *Document 00601 - Drug Policy Compliance Agreement* specifically states non-compliance can be considered breach of contract.

The number of safety impact positions and related time period are noted below for each project:

Shepherd Drive: A review of the contractor's semi-annual Drug Policy Compliance Declarations indicated the contractor had between 51 and 93 safety impact positions between the period March 2014 through March 2017, but a List of Safety Impact Positions was not provided.

Neighborhood Street Reconstruction 465: A review of the contractor's semi-annual Drug Policy Compliance Declarations indicated the contractor had between 150 and 200 safety impact positions between the period July 2014 through December 2016, but a List of Safety Impact Positions was not provided.

Rampart Street Drainage and Paving: A review of the contractor's semi-annual Drug Policy Compliance Declarations indicated the contractor had between 44 and 100 safety impact positions between the period May 2014 through February 2016, but only one List of Safety Impact Positions was provided which indicated only 14 safety impact positions.

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RECOMMENDATION:

We recommend the City implement controls to verify the required drug policy compliance documents are accurately completed by the contractor on a timely basis.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

The City agrees with the recommendation to implement controls to verify the required drug policy compliance documents are accurately completed by the contractor on a timely basis. The City intends to establish a Construction Management Support function within each Delivery Line to review documents for Contract compliance.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: Management's response and corrective actions adequately address the issue identified.

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FINDING #2 – Change Order Not Approved by City Council

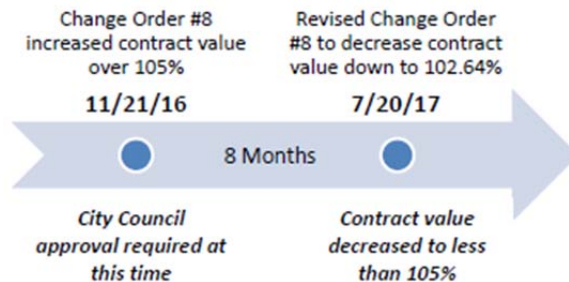
RISK RATING = MEDIUM

PROJECT: Shephard Drive Drainage and Paving

FINDING:

City Council approval was not obtained per the requirements of *Document 00700 - General Conditions and Construction Management Process Manual* for Change Order No. 8 to the construction contract for project M-00267-001-1 Shephard Drive Drainage and Paving. The original contract value for the project was \$21,233,340.85. Change Order No. 8 was executed on November 21, 2016 and increased the contract value to \$22,880,212.69 which was 107.76% of the original contract value. This amount was reflected on subsequent pay estimates through Pay Estimate No. 26 dated April 27, 2017. *Document 00700 - General Conditions Article 7.1.2.2* stipulates approval from City Council is required when a change order added to the value of previous change orders exceeds five percent of the original contract value. Additionally, *Process 3.8 of the Construction Management Process Manual* requires preparation of a Request for Council Action (RCA) for change orders which increase the contract value beyond 105% of the original contract value.

Per management "The dollar amount and percentage that came across on Change Order No. 8 does not allow for items that were not used on the project. Once the items that were not used were removed from the contract, the actual percentage is 104.85. Change order No. 8 was updated to include the negative items that were not used." Additional documentation was provided which showed the originally approved Change Order No. 8 was voided, and a revised Change Order No. 8 was executed on July 20, 2017 which reflected a contract amount of \$21,793,283.31, or 102.64% of the original contract value. However, this revision was nearly eight months after the initial Change Order No. 8 was executed. See below for visual representation of this timeline.



Additionally, Draft Pay Estimate No. 27 was provided which reflects this adjusted contract amount; however, the Work Completed to Date per the pay estimate totaled \$22,262,562.96 which is \$469,269.65 in excess of the contract amount.

RECOMMENDATION:

We recommend the following:

1. The current pay estimate should be revised to reflect Work Completed to Date which does not exceed the contract amount. If the current Work Completed to Date is determined to be accurate and approved by project management, Change Order No. 9 should be drafted which reconciles the contract value to Work Completed to Date.
2. The process to void a change order is not detailed in the *Construction Management Process Manual*. In this case the change order in question was voided 8 months after it had been

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Public Works and Engineering Drainage and Paving Construction Internal Audit

executed. We recommend updating the Process Manual with procedures for revision. If a change order is executed for an erroneous amount, we recommend issuance of a subsequent change order which reconciles any previous errors.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

1. The current practice of the City is to allow for the extension of quantities to complete a scope of work. The extension of quantities that results in the cost being below the 105% of the contract does not require City Council approval or a change in the contract. The City does not execute Change Orders to address differences between planned quantities and placed quantities regardless of the final cost. The Work Completed To Date may very well be above the contract price. If the Work To Date is below the 105% of contract value then there is no need for a Change Order. The City is willing to review this current practice and determine if changes need to be made to make the process clearer.
2. The Change Order No. 8 was never valid. The final cost on the document required City Council Approval. The document was incomplete and made it far in the process before it was caught by this audit. The original document was to have deletions identified to keep the final cost below the 105% threshold. Since the document had no standing it was decided to void the document and prepare a new document with all the information that was originally intended. Allowing an incorrect or invalid document to stand is not appropriate. Processes and procedures are in place to do things correctly. Incorrect activities do not have processes created. Therefore, there is not a need to develop a procedure to issue a subsequent change order to correct an invalid one.

The City will implement controls to prevent this from happening. The City intends to establish a Construction Management Support function within each Delivery Line to review documents for Contract compliance.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: Management's response identified in #1 above and corrective actions adequately address the issue identified.

Management response to recommendation #2 indicates that Change Order No. 8 was never valid; however, it was included in the executed change orders file provided to Baker Tilly for review. Additionally, it was signed by the City Engineer, Managing Engineer, Project Manager and the Contractor. The area for City Council approval signatures was stamped "Not Required – No council Action." Further, the increased contract value of \$22,880,212.69 reflected on Change Order No. 8 was also reflected on subsequent Pay Estimates in 2017. Based on the documentation this is considered a valid change order; therefore, we reiterate Recommendation No. 2.

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FINDING #3 – Deviation from Standard Contract Terms for Liquidated Damages

RISK RATING = MEDIUM

PROJECT: Neighborhood Street Reconstruction Program 465

FINDING:

Liquidated damages are paid out by the contractor for each day of delay beyond the ending work date (Contract Time). Addendum No. 1 to the contract stipulated liquidated damages of \$1,200 per day. Per *Document 00800 - Supplementary Conditions Article 9.1* in the Standard Contract Documents, the mandatory Liquidated Damages per Day was \$1,500. There was no documentation or approval for the contract terms related to liquidated damages to be altered from the standard contract terms. Liquidated damages were enforced on 23 days, which results in an undercharge of \$6,900.

RECOMMENDATION:

We recommend controls be implemented to verify standard terms, including the correct Liquidated Damages per Day are included and enforced on all contracts. If the City agrees to a deviation from standard terms, appropriate approval should be required.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

The 00800 Document is a document to alter the 00700 Document, General Conditions. The 00800 Document does provide "guidelines" for the Liquidated Damages to be applied to the construction contracts. These are only a guide. There are no mandatory numbers to be used. Actual damages should be determined and applied. The Courts have ruled that these methods of applying liquidated damages is arbitrary and capricious thus constituting a penalty and not damages. The City will review the current method of determining the liquidated damages to be applied and propose changes to these methods.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: Management's response and corrective actions adequately address the issue identified.

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FINDING #4 – Contractor Claim Time Period Requirement Not Enforced

RISK RATING = MEDIUM

PROJECT: Rampart Street Drainage and Paving

FINDING:

Document 00700 - General Conditions Article 4.3.1 which stipulates Claims by Contractor must be made within 90 days after occurrence of event giving rise to the Claim was not enforced. The Contractor submitted Change Order No. 1 to request an additional 24 days due to delays associated with several Requests for Information (RFI) which were issued and responded to in October 2014 related to structural design revisions. The RFI was issued October 17, 2014 and the request for additional contract days was not submitted until March 6, 2015 which is 140 days after the event occurred.

RECOMMENDATION:

We recommend implementing controls to ensure contract terms are consistently enforced. Terms not enforced should be documented and subject to the appropriate approval.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

The City agrees with the recommendation to implement controls to verify compliance with contract documents (i.e. 00700 Document) are accurately completed by the contractor on a timely basis. The City intends to establish a Construction Management Support function within each Delivery Line to review documents for Contract compliance.

The City is also reviewing the contract documents, the 00700 Document specifically, to identify terms which are not consistent with current practices. Subject to the appropriate review and approval, these terms will be removed. The 90 Day Rule is an antiquated rule that does not consider the various means of communication. The City Engineer has ruled many times on this issue and the City has been instructed to accept the claim. The City will review the current documents and make any necessary changes.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: If after updating the 00700 contract document the City still intends to make exceptions to certain contract terms and not enforce as written, a procedure should be implemented to document and obtain approval for non-enforcement.

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Public Works and Engineering Drainage and Paving Construction Internal Audit

FINDING #5 – Lack of Vendor Performance Monitoring

RISK RATING = MEDIUM

PROJECT: N/A - Process Improvement Opportunity

FINDING:

During the course of interviews it was noted that there are currently no formal vendor performance monitoring processes in place. Although a review is performed for each contractor, the results of these reviews are not discussed with the contractor and there is no process in place to monitor poorly rated contractors. In addition, these reviews are not used for any consideration of future projects that the vendor bids on for the City, which can lead to poor performing contractors being awarded future projects.

This issue is also a result of the current evaluation criteria being used in the technical evaluation process for selecting a vendor. Most bids are selected based on lowest most responsive bidder only. This means that the bidder with the lowest bid that has provided all of the necessary information will be selected. This does not allow for evaluation of a vendor's past performance with the City or evaluation of the quality of work delivered.

RECOMMENDATION:

We recommend that the City establish a procedure to monitor vendor performance and follow up on areas in which the vendor is not meeting expectations. In addition, the vendor selection process as it relates to skilled work should incorporate review of past performance, to include follow ups on references as well as reviewing internal performance reviews for those vendors that have previously worked for the City.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

The City agrees with the recommendation to establish a procedure to monitor contractor's performance and follow up on areas in which the contractor is not meeting expectations. The current evaluation tool will be reviewed and new review documents and procedures established. These reviews will be provided to the contractor in an After-Action Review setting.

The evaluations are not enough to deem a contractor "responsible". They will be a tool the City can use in making recommendations to the Chief Procurement Officer (CPO) on the lowest most responsible bidder.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: Management's response and corrective actions adequately address the issue identified.

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Public Works and Engineering Drainage and Paving Construction Internal Audit

FINDING #6 – High Sulfur Diesel Fuel Contract Requirement Not Enforced

RISK RATING = LOW

PROJECTS:

- Shepherd Drive Drainage and Paving
- Neighborhood Street Reconstruction Program 465
- Rampart Street Drainage and Paving

FINDING:

Document 00700 - General Conditions Article 9.12.2 was not enforced on the three projects reviewed. This Article states "Contractor shall pay the City an amount equal to \$1,200.00 per diesel operating vehicle or piece of motorized equipment per incident of high sulfur diesel fuel usage."

RECOMMENDATION:

We recommend implementing controls to ensure contract terms are consistently enforced. Terms not enforced should be documented and subject to the appropriate approval. Additionally, contract documents should be reviewed in order to identify terms which are not consistent with current practices. Subject to the appropriate review and approval, these terms should be removed.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

The City agrees with the recommendation to implement controls to verify compliance documents are accurately completed by the contractor on a timely basis. The City intends to establish a Construction Management Support function within each Delivery Line to review documents for Contract compliance.

The City is also reviewing the contract documents, the 00700 Document specifically, to identify terms which are not consistent with current practices. Subject to the appropriate review and approval, these terms will be removed.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: If after updating the 00700 contract document the City still intends to make exceptions to certain contract terms and not enforce as written, a procedure should be implemented to document and obtain approval for non-enforcement.

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FINDING #7 – Non-Compliance Notices Not Formally Executed

RISK RATING = LOW

PROJECT: Neighborhood Street Reconstruction Program 465

FINDING:

Non-Compliance Notice Nos. 1 and 4 had no signature verifying acceptance of corrective action or completion of corrective action. Non-Compliance Notice No. 1 was for cement stabilized sand not meeting compressive strength requirements and Non-Compliance Notice No. 4 was for driveways with water drainage issues. Management provided progress meeting minutes and email correspondence documenting correction of the applicable items; however the Non-Compliance Notices were not completed. Additionally, *Process 3.1 of the Construction Management Process Manual* does not include procedures related to follow-up and closeout of Non-Compliance Notices.

RECOMMENDATION:

We recommend procedures be implemented to verify Non-Compliance Notices are completed in a timely manner. The close out process should include procedures to verify these documents have executed and all items resolved.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

The City agrees with the recommendation to implement controls to verify the Non-Compliance Notices are accurately completed by the contractor and project management staff on a timely basis. The City intends to establish a Construction Management Support function within each Delivery Line to review documents for Contract compliance.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: Management's response and corrective actions adequately address the issue identified.

City of Houston

Public Works and Engineering Drainage and Paving Construction Internal Audit

FINDING #8 – MWSDBE Goal Not Achieved and Variance Threshold Not Defined

RISK RATING = LOW

PROJECT: Neighborhood Street Reconstruction Program 465

FINDING:

The contractor did not achieve Minority, Women, Small and Disadvantaged Business Enterprise (MWSDBE) goals defined in the contract documents for this project. The original contract goal percentage was 18.06% and the percentage achieved was 17.45%, which is a variance of \$88,813 under goal. A summary of project and MWSDBE amounts are as follows:

Total Amount - Project Actual: \$14,577,469
MWSDBE Goal Amount (18.06%): \$2,632,691
MWSDBE Actual Total (17.45%): \$2,543,878
MWSDBE Variance from Goal: -\$88,813

The Office of Business Opportunity (OBO) issued a Close Out Evaluation on June 16, 2017 which stated the contractor met the contract goal but failed to properly notify and provide justification to the OBO for non-use of an originally listed MWSDBE subcontractor. The Close Out Evaluation further stated continuance of this practice may result in an unfavorable rating for the project contractor. The threshold for acceptable deviation from the originally stated goal was not defined in the contract documents.

RECOMMENDATION:

We recommend controls be implemented to ensure a threshold is defined and consistently enforced. In addition, the procedures which result in unfavorable ratings should be verified for consistent enforcement.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

The City utilizes the Office of Business Opportunity (OBO) to review contractor compliance with the MWBE goals established for the contract. OBO reviews the contractor's performance and provides a rating based on the contractor's good faith effort to achieve the goal. The MWBE is a goal and is not an absolute. It is the opinion of this writer that OBO performs a fair review of the effort and provides a fair assessment and rating. These processes can be reviewed and should improvements be identified then every effort will be made to implement the improvements.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: Management's response and corrective actions adequately address the issue identified.

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FINDING #9 – Time Period for Substantial Completion Punch List Items Not Enforced

RISK RATING = LOW

PROJECT: Shephard Drive Drainage and Paving

FINDING:

Document 00700 - General Conditions Article 9.9.7 which requires that punch list items are to be completed in the time period set out in the Certificate of Substantial Completion was not enforced. This Article also stipulates the City may issue a Notice of Noncompliance and correct the applicable deficiencies in accordance with Article 2.5. The applicable Punch List was dated October 28, 2016 and stated the Punch List items were to be completed within 30 days to comply with the contract documents. The Punch List was noted as complete on March 24, 2017 which was 121 days later.

RECOMMENDATION:

We recommend implementing controls to ensure contract terms are consistently enforced. Terms not enforced should be documented and subject to the appropriate approval.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

The City agrees with the recommendation to implement applicable procedures and applicable authorization requirements to ensure project closeout consistent with contractual requirements. The time frames in the 00700 Document are antiquated and need to be updated. The time frames do not add any value to the process and will be reviewed accordingly. The City intends to establish a Construction Management Support function within each Delivery Line to review documents for Contract compliance.

The City is also reviewing the contract documents, the 00700 Document specifically, to identify terms which are not consistent with current practices. Subject to the appropriate review and approval, these terms will be removed.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: If after updating the 00700 contract document the City still intends to make exceptions to certain contract terms and not enforce as written, a procedure should be implemented to document and obtain approval for non-enforcement.

City of Houston

Public Works and Engineering Drainage and Paving Construction Internal Audit

FINDING #10 – Certificate of Final Completion Issued After Required Time Period

RISK RATING = LOW

PROJECT: Shephard Drive Drainage and Paving

FINDING:

The Certificate of Final Completion was not issued within the 10 day period subsequent to the work being verified as complete per the Project Manager. *Document 00700 - General Conditions Article 9.11.2 Section 9.11.2* states "If Project Manager finds the Work has been completed in accordance with the Contract, Contractor shall submit items set out in Paragraph 9.11.4 and, for stipulated price contracts, a final Application for Payment. City Engineer will, within 10 days, issue Certificate of Final Completion stating that to the best of City Engineer's knowledge, information, and belief, the Work has been completed in accordance with the Contract, and will recommend acceptance of the Work by City Council."

Per the Punch List and Certificate of Final Completion, the Date of Final Completion was March 24, 2017. The Certificate of Final Completion was executed by the Senior Inspector and Project Manager on April 28, 2017. It was signed by the Managing Engineer on May 18, 2017 and the City Engineer on May 22, 2017; 24 days after submission from the Project Manager.

RECOMMENDATION:

We recommend applicable procedure and applicable authorization requirements be drafted in order to ensure project closeout consistent with contractual requirements.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

The City agrees with the recommendation to implement applicable procedures and applicable authorization requirements to ensure project closeout consistent with contractual requirements. The time frames in the 00700 Document are antiquated and need to be updated. The time frames do not add any value to the process and will be reviewed accordingly. The City intends to establish a Construction Management Support function within each Delivery Line to review documents for Contract compliance.

The City is also reviewing the contract documents, the 00700 Document specifically, to identify terms which are not consistent with current practices. Subject to the appropriate review and approval, these terms will be removed.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: Management's response and corrective actions adequately address the issue identified.

City of Houston

Public Works and Engineering Drainage and Paving Construction Internal Audit

FINDING #11 – Pay or Play Program Contract Requirement Not Enforced

RISK RATING = LOW

PROJECT: Shephard Drive Drainage and Paving

FINDING:

The procedures we performed show that Pay or Play Program requirements were not enforced per the contract documents. *Document 00700 - General Conditions Article 3.5.4* states the City Controller may deduct funds from amounts owed to the contractor for non-compliance with the Pay or Play Program. A contractor who agrees to "Play" is subject to the following requirements:

1. The employer will contribute no less than \$150 per employee per month toward the total premium cost for single coverage only; and
2. The employee contribution, if any amount, will be no greater than 50% of the total premium cost and no more than \$150 per month
3. Pursuant to E.O. 1-7 section 4.04 a contractor is deemed to have complied with respect to a covered employee who is not provided health benefits if the employee refuses the benefits and the employee's contribution to the premium is no more than \$40 per month.

Throughout the project the contractor was compliant with Requirement No. 1. However, we noted instances where employees contributed greater than 50% of the monthly premium and monthly contributions from a majority of employees with single coverage were \$157.43. This exceeds the amount stipulated in Requirement No. 2. The threshold for acceptable deviation from the originally stated requirements was not defined in the contract documents.

RECOMMENDATION:

We recommend controls be implemented to ensure a threshold is defined and consistently enforced.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

The City agrees with the recommendation to implement controls be implemented to ensure a threshold is defined and consistently enforced. The City intends to establish a Construction Management Support function within each Delivery Line to review documents for Contract compliance. The Pay or Play compliance is administered through the City Small Business department. There needs to be better coordination between the Small Business office and the Delivery Lines responsible for the construction activities. The implementation of the Construction Management Support group should provide for better controls.

The City is also reviewing the contract documents, the 00700 Document specifically, to identify terms which are not consistent with current practices. Subject to the appropriate review and approval, these terms will be removed.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: Management's response and corrective actions adequately address the issue identified.

City of Houston

Public Works and Engineering Drainage and Paving Construction Internal Audit

FINDING #12 – Lack of Formal Procedures/Guidance for Construction Management Roles

RISK RATING = LOW

PROJECT: N/A - Process Improvement Opportunity

FINDING:

During the course of interviews it was noted that there are certain processes where no formal procedures or guidance exists, and therefore management practices may vary depending on the persons responsible. In addition, no formal training is provided for employees new to these positions. This includes but may not be limited to the following:

- Construction Project Management
- Advisor for Third Party Construction Management Firms

RECOMMENDATION:

We recommend that the City review current manuals and where applicable further define and standardize the responsibilities and methods to be used under each of these roles. In addition, we recommend that formal training be developed for new project managers/advisors to further communicate the standards and responsibilities set forth in these procedure manuals.

CAPITAL PROJECTS MANAGEMENT RESPONSE:

The City agrees with the recommendation to review current manuals and where applicable and further define and standardize the responsibilities and methods to be used under each of these roles. Formal training will be developed for new project managers to further communicate the standards and responsibilities set forth in these procedure manuals.

RESPONSIBLE PARTY: Joseph T. Myers, Acting Deputy Director

ESTIMATED DATE OF COMPLETION: 12/31/2018

ASSESSMENT OF RESPONSE: Management's response and corrective actions adequately address the issue identified.

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City of Houston
APPENDICES

APPENDIX A – Drainage Utility Charge Funded CIP Projects 2014 - 2016

The total population of CIP projects that were completed during FY 2014 - 2016 and utilized funding from the Drainage Utility Charge which is a component of ReBuild Houston funding is included in the table below.

Project No.	Project Name	Contract Amount
N-000383-0001-4	Neighborhood Street Reconstruction Project 451	\$4,806,772.58
N-000378-0002-4	NSR 446A	\$5,075,177.07
M-000262-0004-4	Whiteheather Storm Water Improvements Subproject 4	\$6,695,425.90
M-000126-0074-4	FY2012 Local Drainage Project (LDP) Negotiated Work Orders (No. 3)	\$1,000,000.00
N-000733-0002-4	Harvey Wilson Reconstruction: Lockwood to Clinton.	\$5,598,126.90
N-000589-0002-4	W. Tidwell (Tanner) and Hempstead Highway Intersection	\$1,372,947.40
N-000780-0002-4	Hayes Street Paving and Drainage: Briar Forest Drive to Wilcrest Drive	\$5,787,855.80
M-000277-0001-4	Southpark, Southcrest (Phase I)	\$4,917,312.22
M-000297-0001-4	White Oak Bayou Cottage Grove Subdivision Low Impact Development Demonstration Project	\$1,675,737.50
N-000816-0001-4	North Main Reconstruction from 20th Street/Cavalcade To IH-610	\$6,431,822.97
N-000697-0001-4	Airline Drive: North Main to the North Loop (IH 610)	\$9,297,920.00
N-000765-0001-4	Beechnut Rehabilitation: Wilcrest to Kirkwood	\$7,922,595.33
N-000533-0002-4	Ella Blvd. (Wheatley) Paving: Little York to W. Gulf Bank.	\$8,546,950.10
M-000126-0075-4	FY2012 Local Drainage Project (LDP) Negotiated Work Orders (No.2)	\$2,000,000.00
M-000296-0008-4	Inwood Forest Regional Detention Basin	\$1,959,660.80
M-000281-0001-4	Braesmont Dr. Area Drainage and Paving Improvements	\$7,738,858.54
M-000241-0005-4	Pump Station Renewal and Replacement - MUD No. 25 Stormwater Right of Way Maintenance	\$1,296,450.00
N-000674-0003-4	Long Point Reconstruction Hollister Road to Pech Road	\$5,928,204.71
M-000271-0001-4	Millbury Dr. Area Drainage and Paving Improvements	\$6,497,933.20
N-000597-0001-4	Brittmoore Road Reconstruction from Hammerly Blvd. To Clay Road	\$10,426,981.80
M-000290-0002-4	Montrose Area and Midtown Drainage and Pavement Improvements	\$8,948,584.44
N-000713-0001-4	Homestead Road Grade Separation Over UPRR Tracks	\$15,675,816.69
M-000265-0001-4	Rampart Street Area Drainage Improvements Sub-Project I (Beechnut to Jessamine)	\$7,686,124.15
M-000241-0008-4	FY2013 City-wide Stormwater Pump Station Improvement Program (Work Order)	\$1,771,630.50
M-000241-0006-4	FY2012 City-wide Stormwater Pump Station and Flood Warning System Improvement Program	\$1,500,000.00
M-000286-0001-4	Pleasantville Drainage and Paving (Sub-Project 1)	\$11,292,147.50
N-000687-0002-4	West Little York Paving from Wheatley to T.C. Jester	\$12,754,420.96

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APPENDICES

N-000696-0001-4	Northline Paving: Parker to Canino	\$14,389,093.00
N-000385-0001-4	Neighborhood Street Reconstruction Program 453	\$10,154,023.10
N-000708-0001-4	Parker Road: Hardy Toll Road to Eastex Frwy	\$12,698,210.11
M-420126-0076-4	Holcombe Drainage and Paving Improvements	\$3,498,032.94
M-000267-0001-4	Shepherd Drive Drainage and Paving	\$21,233,340.85
N-001315-0001-4	Freedmen's Town Brick Street Restoration	\$4,851,469.50
N-000398-0001-4	Neighborhood Street Reconstruction Program 465	\$15,297,832.98
TOTAL		\$246,727,459.54

City of Houston
APPENDICES

APPENDIX B – Acknowledgement Statement



CITY OF HOUSTON

Department of Public Works and Engineering

Interoffice

Correspondence

To: Chris B. Brown
City Controller

From: Carol Ellinger Haddock, P.E.
Acting Director

Date: October 25, 2017

c: Eric K. Dargan
Joseph T. Myers, P.E.

Subject: **ACKNOWLEDGEMENT OF MANAGEMENT
RESPONSES FOR PERFORMANCE AUDIT**

I acknowledge that the management responses contained in the above referenced report are those of the Department of Public Works and Engineering for the Drainage and Paving Improvement Construction Performance Audit. I also understand that this document will become a part of the final audit report that will be posted on the Controller's website.