

OFFICE OF THE CITY CONTROLLER



**PUBLIC WORKS & ENGINEERING DEPARTMENT
ENGINEERING TESTING SERVICES
SPECIAL REVIEW FOLLOW-UP**

Sylvia R. Garcia, City Controller

Judy Gray Johnson, Chief Deputy City Controller

Steve Schoonover, City Auditor

Report No. 02-18



OFFICE OF THE CONTROLLER
CITY OF HOUSTON
TEXAS

SYLVIA R. GARCIA

December 20, 2002

The Honorable Lee P. Brown, Mayor
City of Houston, Texas

SUBJECT: Public Works & Engineering Department
Engineering Testing Services Special Review Follow-Up (Report No. 02-18)

Dear Mayor Brown:

The City Controller's Office Audit Division has completed a Follow-Up of the Public Works & Engineering Department's Engineering Testing Services Special Review Report (report) that was issued in July 1998. The findings and recommendations that were presented at the time of the report were distributed to the Mayor and City Council Members.

Our review was designed to determine the progress the department has made towards implementation of the recommendations made in the original report. The review consisted primarily of conducting on-site interviews with department personnel and reviewing relevant documentation related to recommendations implemented. The auditors concluded that the Department has made progress in the implementation of recommendations identified in the report or implemented alternative procedures in certain instances.

We appreciate the cooperation extended to our auditors by Department personnel during the course of their work.

Respectfully submitted,

Sylvia R. Garcia
City Controller

xc: City Council Members
Stephen Tinnermon, Chief of Staff, Mayor's Office
Albert Haines, Chief Administrative Officer
Jon C. Vanden Bosch, Director, Public Works & Engineering Department
Philip Scheps, Director, Finance and Administration Department

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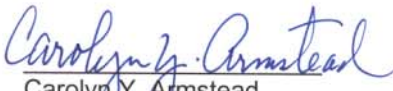
SCOPE AND PURPOSE

We have completed a follow-up review of the findings and recommendations that were presented in the Public Works & Engineering Department Engineering Testing Services Special Review Report No. 98-27 (report) dated July 6, 1998. Our review was designed to determine the progress the department has made towards implementation of the recommendations made to the department in the original report.

The review consisted principally of conducting on-site interviews with department personnel; reviewing relevant documentation related to recommendations implemented; and creating a compliance matrix categorizing the status of action taken by management. The scope was limited to the recommendations from the report. The review included examining the Public Works & Engineering Department's responses in detail to determine whether management considered the recommendations and strategies for implementation as presented in the report and whether progress was made since its issuance.

CONCLUSION

Based on the results of our review, we conclude the Public Works & Engineering Department has made progress in implementation of the recommendations detailed in the report or has implemented alternative procedures in certain instances. Management provided explanations for recommendations not implemented.


Carolyn Y. Armstead
Auditor-in-Charge


Kenneth Teer
Audit Manager


Steve Schoonover
City Auditor

EXHIBIT 1

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EXHIBIT 1

**PUBLIC WORKS & ENGINEERING DEPARTMENT
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AUDIT FINDING	RECOMMENDATION	ACTION STATUS	WORK PERFORMED	MANAGEMENT RESPONSES
<p>from PW&E's Quality Control Technical Support Group to determine if the Testing Contractors met the requirements of the construction contract designating such services. PW&E was unable to provide the assistance we requested primarily due to staff turnover within PW&E.</p> <p>In addition, we noted that the 22 Testing Contractors submitted their own format and style of their testing services report. The various formats could not be reviewed and compared in an efficient manner.</p>	<p>approval. In addition, the construction contractor should be required to sign all testing services reports.</p> <p>1-4 In the event that there is a failed test, the inspector should recommend the corrective action, if any, that should be taken by the construction contractor. The recommended corrective action should be approved by an engineer that is responsible for the engineering design of the project to ensure that the construction work performed is safe and meets the City's requirements. In addition, all significant failed tests and the corresponding follow-up action should be reported to PW&E's Quality Control Technical Support Division.</p>	Implemented	<p>inspector or if no inspector signature, then the reports were signed by the contractor.</p> <p>Examined memo by Dep. Director of the Construction Div. and written procedures dated January 2002. Verified in selected projects files the indication of failed tests with corrective action and approved by the contractor.</p>	<p>services. The testing lab companies were directed to distribute testing lab reports to the contractors, per City of Houston Specification, Section 1454-1.05B. Currently the contractor receives a copy of all testing reports but does not sign for the testing unless the inspector is not available.</p> <p>1-4 In place as indicated in the June 16, 2000 memo from the Deputy Director of Construction Division and as specified by the training text.</p>
	<p>1-5 To facilitate the City's review of the Testing Contractors' reports, the City should develop and require a standardized format for the reporting. The City should</p>	Not Implemented	<p>Audit Division concurs with PW&E's response.</p>	<p>1-5 It's impractical for all testing labs to change their reporting formats due to costs considerations. However, all reports meet the standard requirements of ASTM.</p>

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	<p>also require the Testing Contractors to submit their reports in an electronic format to facilitate the distribution of the test results to the PW&E divisions.</p> <p>1-6 The PW&E Quality Control Technical Support Division should send representatives to the construction sites on a random basis to ensure that quality inspections are being performed in accordance with the City's policies and procedures.</p> <p>1-7 The City should consider hiring an independent engineering firm to determine if the Testing Contractors met the requirements of the construction contracts and that adequate testing had been performed.</p>	<p>Not Implemented</p> <p>Alternative Implemented</p>	<p>Through discussions with Sr. Engineer of Environmental Services Branch and Manager of the Geotechnical Services Section, they are short staffed at this time. However, random site inspections will resume when staffing level increases. Audit Division concurs with PW&E's response.</p> <p>Through discussions with Senior Engineer of Environmental Services Branch and Manager of the Geotechnical Services Section, the City requires the testing labs to have the A2LA accreditation and their technicians to be certified or they are not considered for the projects.</p>	<p>1-6 Random site visits are not currently being done. These visits were discontinued when the construction group was reorganized and the Quality Control Technical Support Division became the Geotechnical Services Section. We plan on hiring a person to re-establish site visits.</p> <p>1-7 The City currently requires all labs to have A2LA (American Association for Laboratory Accreditation), to ascertain the lab qualifications. In addition, construction managers are required to oversee the testing activities during the construction period.</p>

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	<p>standard Testing Contract form.</p> <p>2-4 Finally, the systems of internal control for the selection of a Testing Contractor would be further enhanced if the PW&E personnel who are involved in the Testing Contractor selection process, be segregated from the Testing Contractor invoice payment process.</p> <p>2-5 To improve the systems of internal control for the payment process, the Testing Contractor should send their invoice and testing services reports to the inspector who was overseeing the construction project to verify that the testing services were performed. The invoices should then be reviewed and approved by a designated engineer for the project. Finally, the invoices should be forwarded to PW&E's division management for their review and approval for payment.</p>	<p>Implemented</p> <p>Alternative Implemented</p>	<p>Examined written procedures dated January 2002.</p> <p>Examined the Invoice Tracking Log.</p>	<p>2-4 In place, as outlined in the training text. Personnel who are involved in the selection process are not involved in the invoice payment process.</p> <p>2-5 We currently use a procedure very similar to the one recommended, except the invoice is routed from PW&E Geotechnical Services Section, in order to pay the testing contractors in a timely manner. This also allows the Geotechnical Services Section to log in the invoice and keep track of it all throughout the payment process.</p>

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TESTING AND CONSTRUCTION CONTRACT CLOSE-OUT PROCESS					
<p>Based on an analysis of a listing of all Testing Contracts and construction contracts as of April 1998, we noted that 88 Testing Contracts within FMS had an active status although the corresponding 99 construction contracts had been closed in FMS. Additionally, we noted that 62 of the 88 Testing Contracts had unexpended budgets.</p> <p>Additionally, we noted that of the 72 substantially completed GHWP construction contracts as of April 1998, six did not have a corresponding Testing Contract within the City's FMS. In addition, we noted that 32 of the 66 Testing Contracts pertaining to the substantially completed projects were less than 50% expended.</p>	<p>3</p>	<p>PW&E should review the list of open Testing Contracts and their process for closing active Testing Contracts. PW&E should make the necessary revisions to ensure that the Testing Contracts are closed in accordance with their policies and procedures on a timely basis.</p>	<p>Implemented</p>	<p>Examined the Closed Construction Log and verified closed amount on log to the AMS system.</p>	<p>In place, testing contracts are being closed with (or before) the construction contracts.</p>

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AUDIT FINDING	RECOMMENDATION	ACTION STATUS	WORK PERFORMED	MANAGEMENT RESPONSES	
SCOPE OF SERVICES PERFORMED WERE NOT INCLUDED IN A TESTING CONTRACT					
<p>In our investigation of certain books and records maintained by the PW&E's Quality Control Technical Support Group, we noted that the City executed a Testing Contract with Hercules Engineering and Testing Services, Inc. (Hercules), contract number 36707 in the amount of \$240,000, to provide testing services pertaining to the Houston Police Headquarters Renovations at 1200 Travis, GFS No. G-0072-03-3. According to the invoices and supporting documentation related to construction contract 36707, the City has paid approximately \$198,000 relating to certain management studies and emergency clean-up work pertaining to asbestos abatement.</p> <p>Neither the asbestos abatement nor the property management services were included in the scope of services in contract number 36707. The contract specifically describes the work to be performed to be "All subsurface investigations, material control and inspections, mix designs, sampling and testing..."</p>	4	<p>To reduce the risk of contractors performing services that are not within the scope of their agreement with the City, PW&E should review and revise its policies and procedures to ensure that the each work order is within the scope of the City's approved contract. Such review and revisions would include training the City's personnel to ensure that no additional work outside the scope of the original contract is performed unless authorized in either a change order or a new contract.</p>	<p>Implemented</p>	<p>Examined established specification for laboratory services and selected project files for indication of worked performed. No exceptions noted.</p>	<p>In place, testing laboratory services are defined in Specification, Section 01454. Testing labs are not required to provide services outside the scope of services defined in their contract.</p>

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ACCOUNTING DISTRIBUTION OF TESTING CONTRACTOR INVOICES				
Based on certain records and correspondence obtained from PW&E's Quality Control Technical Support Group, we noted that as of February 16, 1998, approximately 70 Testing Contractors' invoices totaling \$240,000 could not be processed for payment because over 30 of the related Testing Contracts had no remaining budget. We understand that in prior periods an assistant director of a PW&E division would authorize payment of these invoices using alternate Testing Contracts which were under budget.	5	<p>5-1 The current unpaid Testing Contractors' invoices totaling approximately \$240,000 should be processed for payment as soon as possible. To ensure that the correct additional amounts of funding are being requested from City Council by PW&E, an analysis of all related Testing Contracts should be performed. As part of the additional funding request, consideration should be given to including an amount for certain late payment interest penalties.</p>	Implemented	<p>5-1 Completed and paid through Geotechnical Services Section (formerly Quality Control). There are no past due invoices at the present time.</p>
	<p>5-2 The City should determine the scope and extent of the analysis of the payments made by the City to the Testing Contractors in the past years to ascertain whether the payments were charged to the proper Testing Contract accounts in FMS and the appropriate funding source. The City could</p>	Not Implemented	<p>Through discussions with the Senior Engineer of the Environmental Services Branch, it was indicated payment to the improper funding source does not exist with the current procedures that are in place. Examined Invoice Tracking Log. Audit Division concurs with PW&E's response.</p>	<p>5-2 Forming a special project team is not deemed necessary at this time. The funding source is defined by the Design Section at the time of preparation of RCAs for the construction contract awards. All invoices are paid through the Accounting Section of Resource Management and charged to the established funding source.</p>

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		accomplish this task by forming a special project team. A listing should be developed by the project team of all invoices that need to be transferred to a different funding source than originally charged.			