



# Audit Report

Office of Internal Audit

## Public Works and Assets

### Capital Projects

December 2008



Public Works and Assets

Capital Projects

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OFFICE OF INTERNAL AUDIT  
LOUISVILLE, KENTUCKY

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**Transmittal Letter**

December 16, 2008

The Honorable Jerry E. Abramson  
Mayor of Louisville Metro  
Louisville Metro Hall  
Louisville, KY 40202

**Subject: Audit of Public Works and Assets' Capital Projects**

**Introduction**

An audit of Public Works and Assets' capital projects was performed. The objective was assessing compliance with the intended use of the appropriation and contractual terms with suppliers. The focus was expenditures for the life of the project. A total of three capital projects were selected for review.

The audit was conducted in accordance with Government Auditing Standards issued by the Comptroller General of the United States and with the International Standards for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors.

As a part of the review, the internal control structure was evaluated. The objective of internal control is to provide reasonable, but not absolute, assurance regarding the achievement of objectives in the following categories:

- Achievement of business objectives and goals
- Effectiveness and efficiency of operations
- Reliability of financial reporting
- Compliance with applicable laws and regulations
- Safeguarding of assets

There are inherent limitations in any system of internal control. Errors may result from misunderstanding of instructions, mistakes of judgment, carelessness, or other personnel factors. Some controls may be circumvented by collusion. Similarly, management may circumvent control procedures by administrative oversight.

## Scope

The expenditures for selected Public Works and Assets' (PWA) capital projects were reviewed. The objective was assessing compliance with the intended use of the appropriations and contractual terms with suppliers. The following three projects were included in the review. The total amount of capital funds appropriated for each is noted.

- Metro Street Improvements, \$1,573,200
- Metro Street Tree Planting Program, \$865,000
- City Hall Renovation, \$450,000

Detailed policies and procedures were not considered within the scope of the review, nor was the bid and award process for supplier contracts. The review period covered project inception through March 31, 2008.

An understanding of the capital projects reviewed was obtained through interviews of key personnel. This included obtaining an understanding of project objectives, goals and expenditure activity. Documentation reviewed included Louisville Metro Ordinances, capital budgets, financial system records, purchase orders, invoices, payment documents and other supporting documentation.

A sample of expenditures from each of the three projects was reviewed. The activity was verified to the intended purpose of the appropriation and to the contractual terms for the supplier. In addition, a sample of items procured for the capital projects was verified through visual inspections. The details of the scope and methodology of the review will be addressed in the Observations and Recommendations section of this report. The audit would not identify all issues because it was based on selective review of procedures and data.

## Opinion

It is our opinion that the internal control structure for the PWA capital projects needs improvement. The internal control rating is on page 5 of this report. This rating quantifies the opinion regarding the internal controls. Specific compliance results include the following.

- **Appropriation.** Expenditure activity for the three projects reviewed was in compliance with the intended use of the appropriation. No recommendations were necessary.
- **Contractual.** Expenditure activity for the three projects reviewed was not in compliance with contractual terms.
  - *Competitive Negotiations Documentation.* There were several cases in which project expenditures for items billed on suppliers' invoices were not included in the contractual terms. PWA project managers have been integral in negotiating (via the competitive negotiation process) contracts for PWA capital projects. However, the results of these negotiations have not been consistently documented. The lack of documentation increases the risk of contractual non-compliance, and could create unnecessary risk exposures for Metro if disputes with the supplier should arise. It also makes verifying compliance overly dependent on the memory of key individuals.

- *Documentation Issues.* There were a number of cases in which it could not be determined if the project expenditure was in compliance with contractual terms due to a lack of supporting documentation.

**Corrective Action Plan**

Representatives from Public Works and Assets have reviewed the results and are committed to addressing the issues noted. Corrective action plans are included in this report in the Observations and Recommendations section. We will continue to work with Public Works and Assets to ensure the actions taken are effective to address the issues noted.

Sincerely,

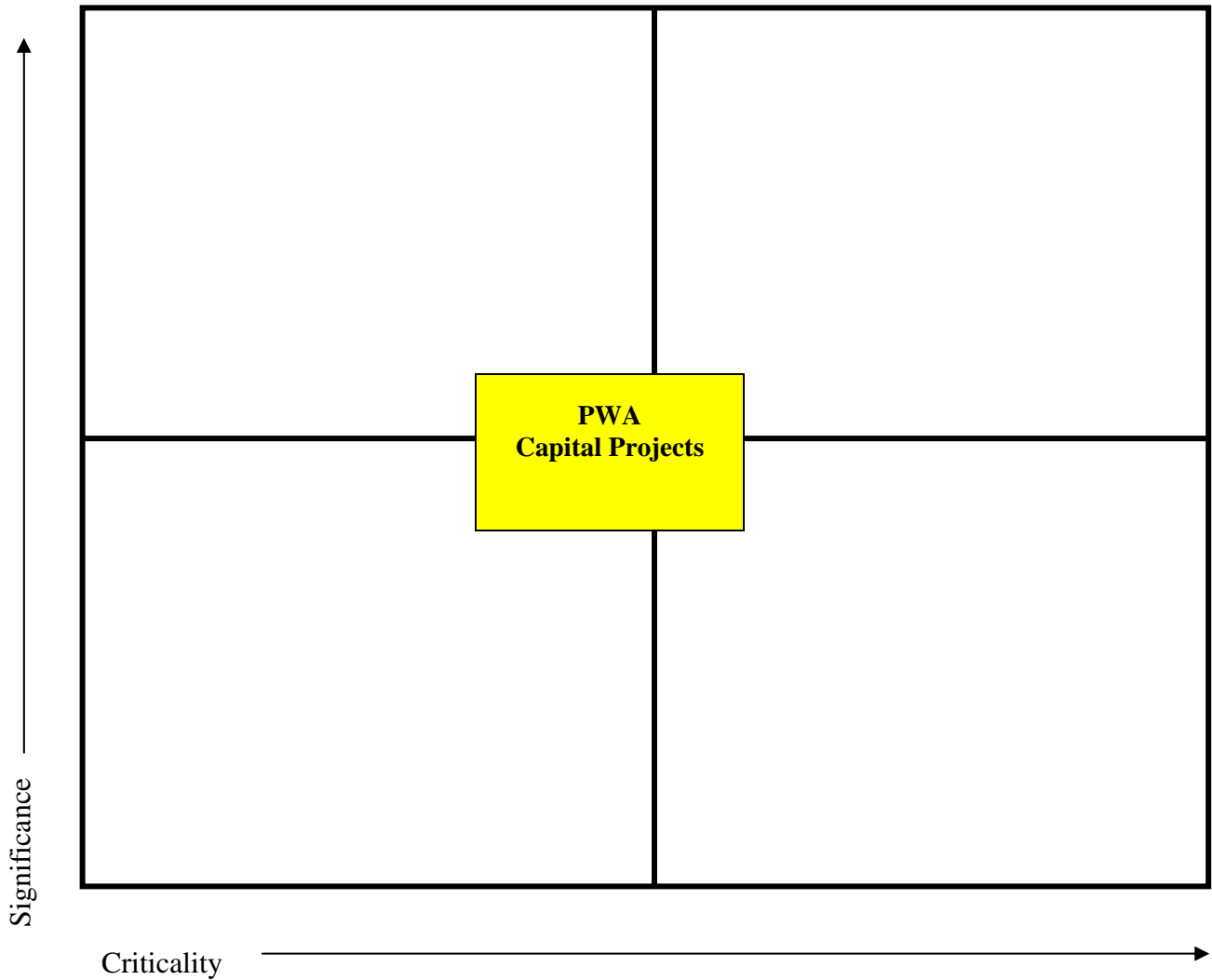


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Michael S. Norman, CIA, CFE, CGAP  
Chief Audit Executive

cc: Louisville Metro Council Government Accountability and Audit Committee  
Director of Public Works and Assets  
Louisville Metro External Auditors

**Internal Control Rating**



<u>Legend</u>			
<u>Criteria</u>	<u>Satisfactory</u>	<u>Needs Improvement</u>	<u>Inadequate</u>
<i>Issues</i>	Not likely to impact operations.	Impact on operations likely contained.	Impact on operations likely widespread or compounding.
<i>Controls</i>	Effective.	Opportunity exists to improve effectiveness.	Do not exist or are not reliable.
<i>Policy Compliance</i>	Non-compliance issues are minor.	Non-compliance issues may be systemic.	Non-compliance issues are pervasive, significant, or have severe consequences.
<i>Image</i>	No, or low, level of risk.	Potential for damage.	Severe risk of damage.
<i>Corrective Action</i>	May be necessary.	Prompt.	Immediate.

## **Background**

Capital projects are authorized by ordinances approved by the Metro Council. The projects involve activities related to acquiring, constructing, maintaining, repairing, or improving Louisville Metro's public works.

Capital projects may be authorized as part of the annual budget process or appropriated at any time during the fiscal year. Each capital project has a specific description that summarizes the scope of work to be performed. Overall project scope can not be significantly changed without the approval of the Metro Council. Projects may also be funded through the issuance of bonds. Bond legislation details the intended use of funds and is approved by ordinance enacted by the Metro Council.

As of March 31, 2008, Public Works and Assets had a total of 203 active capital projects with expenditures totaling approximately \$20,042,600.

This was a scheduled audit.

## **Summary of Audit Results**

### **I. Current Audit Results**

See Observations and Recommendations section of this report.

### **II. Prior Audit Issues**

The Office of Internal Audit has not performed any previous reviews of appropriations for Public Works and Assets capital projects.

### **III. Statement of Auditing Standards**

The audit was performed in accordance with Government Auditing Standards issued by the Comptroller General of the United States and with the International Standards for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors.

### **IV. Statement of Internal Control**

An understanding of the internal control structure was obtained in order to support the final opinion.

### **V. Statement of Irregularities, Illegal Acts, and Other Noncompliance**

The review did not disclose any instances of irregularities, any indications of illegal acts, and nothing was detected during the review that would indicate evidence of such. Any significant instances of noncompliance with laws and regulations are reported in the Observations and Recommendations section of this report.

## **VI. Views of Responsible Officials / Action Plan**

A draft report was issued to Public Works and Assets on November 19, 2008. An exit conference was held at Public Works' administrative offices on December 4, 2008. Attending were Ben Tipton, Mary Braun, Greg Hicks, Matt Frazure, Mark White, and Tim Callahan representing PWA; and Mary Ann Wheatley and Ingram Quick representing Internal Audit. Final audit results were discussed.

The views of Public Works and Assets' officials were received on December 16, 2008 and are included as corrective action plans in the Observations and Recommendations section of the report. The plans indicate a commitment to addressing the issues noted.

LMCO §30.36(B) requires Louisville Metro Agencies to respond to draft audit reports in a timely manner. It specifically states that

*“The response must be forwarded to the Office of Internal Audit within 15 days of the exit conference, or no longer than 30 days of receipt of the draft report.”*

The Public Works and Assets' response was provided within this required timeframe.

## Observations and Recommendations

### Scope and Methodology

The expenditures for selected Public Works and Assets' (PWA) capital projects were reviewed. The objective was assessing compliance with the intended use of the appropriation and contractual terms with suppliers. The focus was expenditures for the life of the project. Detailed policies and procedures were not considered within the scope of the review, nor was the bid and award process for contracts.

The population of PWA capital projects was compiled from various sources. This included reviews of annual capital budget documents, Metro's financial system, and discussions with PWA and Metro Finance personnel. The review period covered project inception through March 31, 2008.

Three capital projects were selected for review. The project name, and total amount of expenditures during the review period, is as follows.

- Metro Street Improvements, \$1,010,013
- Metro Street Tree Planting Program, \$787,276
- City Hall Renovation, \$448,677

The total expenditures for these projects were \$2,245,966, or 11% of the total capital project expenditures for the audit period.

An understanding of the capital projects reviewed was obtained through interviews of key personnel. This included obtaining an understanding of capital project objectives, goals and expenditure activity. Documentation reviewed included Louisville Metro Ordinances, capital budgets, financial system records, purchase orders, invoices, payment documents and other supporting documentation.

A sample of expenditures from each of the three projects was reviewed. The activity was verified to the contractual terms for the supplier, as well as the intended purpose of the appropriation. In addition, a sample of items procured for the capital projects was judgmentally selected and physically verified through visual inspections. The review would not reveal all issues because it was based on selective review of data.

### Observations

Some issues were noted with the administration of PWA capital projects. As a result, the effectiveness of the internal control structure is impaired and needs improvement. Results, along with opportunities noted to strengthen the controls, are as follows.

#1 – Metro Street Improvements

#2 – Metro Street Tree Planting Program

#3 – City Hall Renovation

Details of these begin on the following page.

## #1 – Metro Street Improvements

### Project Summary

This project was incorporated in an issue of a General Obligation bond and appropriations of Capital Cumulative Reserve Funds. The Metro Street Improvement project provides funding for the resurfacing and milling of Metro streets. This includes the repair or replacement of defective curb ramps and associated items necessary to complete the street work.

### Authorizing Legislation

Louisville Metro Ordinance #115, Series 2003  
Louisville Metro Ordinance #214, Series 2003  
Louisville Metro Ordinance #112, Series 2006  
Louisville Metro Ordinance #126, Series 2007

### Authorized Appropriation

\$1,573,200

### Project Expenditures (Inception through March 31, 2008)

\$1,010,013

## Results

Some issues were noted with the administration of the Metro Street Improvements capital project. Specifics include the following.

- **Appropriation.** No issues were noted. The expenditures reviewed were in compliance with the intended use of the appropriation.
- **Contractual.** There were issues noted in determining the capital project expenditures' compliance with contractual terms.
  - There were several cases where the capital project expenditure was not in compliance with the contractual terms. The vendors' invoices included goods that were not included in the contract's price sheet. PWA personnel stated that the additional charges for goods not included in the contract's pricing sheet were the result of negotiations after the bid was accepted. However, the negotiations were not documented. The lack of documentation increases the risk of contractual non-compliance, and could create unnecessary risk exposures for Metro if disputes with the supplier should arise. It also makes verifying compliance overly dependent on the memory of key individuals. The total amount of expenditures associated with these issues was approximately \$24,153.
- **Visual Inspection.** The items selected for inspection were located and no issues were noted. The following are images of some of the items reviewed.



**Brick Street Restoration**



**Bike Lane**

### **Recommendations**

Appropriate personnel should take corrective action to address the issues noted. Specific recommendations include the following.

- ✓ PWA personnel should implement procedures to ensure that the results of competitive negotiations are properly documented. This should focus primarily on ensuring the agreed upon scope of work and price is properly documented and submitted to the Purchasing Division of Finance and Administration. Enough documentation should be provided to enable an independent person to determine the agreed upon contractual terms without input from others.
- ✓ Any negotiations agreed upon by parties subsequent to the bid award should be thoroughly documented and provided to the Purchasing Division of Finance and Administration. Purchasing serves as the official custodian for Louisville Metro contracts. Their files should contain adequate support documentation to record the purpose and authorization of all purchase orders.
- ✓ PWA project managers should review all supporting documentation to ensure project expenditures are in compliance with contractual terms prior to the approval of payment. The documentation should be explicit as to the services performed and goods provided. Enough documentation should be provided to allow a reasonable person to independently verify the expenditure agrees to the contractual terms. If the invoice and supporting documentation do not clearly provide this level of detail, inquiries should be made and explanations noted. Project managers should indicate their review and approval of project expenditures by documenting their signature on all applicable invoices.
- ✓ PWA business office personnel should carefully review vendor invoices to ensure accuracy and appropriateness of amounts indicated, and to ensure project managers have properly indicated their approval to process payment.

## **#2 – Metro Street Tree Planting Program**

### Project Summary

This project was incorporated in an issue of a General Obligation bond and appropriations of Capital Cumulative Reserve Funds. The Metro Street Tree Planting Program provides funding to plant street trees in public rights-of-way. This includes cutting tree wells in the sidewalk or removing obstructions (e.g., tree stumps, dead trees) in order to plant new trees. Funding also includes current tree planting requests and replacement of trees that have died.

### Authorizing Legislation

Louisville Metro Ordinance #115, Series 2003  
Louisville Metro Ordinance #128, Series 2004  
Louisville Metro Ordinance #98, Series 2005  
Louisville Metro Ordinance #126, Series 2007

### Authorized Appropriation

\$865,000

### Project Expenditures (Inception through March 31, 2008)

\$787,276

## **Results**

Some issues were noted with the administration of the Metro Street Tree Planting Program capital project. Specifics include the following.

- **Appropriation.** No issues were noted. The expenditures reviewed were in compliance with the intended use of the appropriation.
- **Contractual.** There were issues noted in determining the capital project expenditures' compliance with the contractual terms.
  - There were several cases where the capital project expenditure was not in compliance with the contractual terms. The vendor's invoice included goods / services that were not included in the contract's price sheet. Though contract specifications permit substitutions upon submission of proof for any plants not obtainable from regional state suppliers, there was no documentation to indicate if this was the case for any of the noncompliance situations involving goods. The lack of compliance with contractual terms could result in payment for goods / services not meeting specifications. The total amount of expenditures associated with these issues was approximately \$4,986.
  - There were several cases where it could not be determined if the capital expenditure was in compliance with the contractual terms and price sheet. Some contracts included an hourly rate for services provided by a three man crew, and rates for tree trimming or removal services based on tree size. However, the invoices did not include support documentation for the amount of hours spent on each job or the size of the trees trimmed or removed. The lack of adequate

support documentation does not allow for the verification of compliance to contractual terms and price sheets. The total amount of expenditures associated with these issues was approximately \$45,643.

- **Visual Inspection.** The items selected for inspection were located and no issues were noted. The following are images of some of the items reviewed.



**Aristocrat Pear Tree**



**Sugar Maple Tree**



**Ginkgo Trees**



**Bald Cypress Tree**

### **Recommendations**

Appropriate personnel should take corrective action to address the issues noted. Specific recommendations include the following.

- ✓ PWA personnel should implement procedures to help ensure that the results of competitive negotiations are properly documented. This should focus primarily on ensuring the agreed upon scope of work and price is properly documented and submitted to the Purchasing Division of Finance and Administration. Enough documentation should be provided to enable an independent person to determine the agreed upon contractual terms without input from others.

- ✓ Any negotiations agreed upon by parties subsequent to the bid award should be thoroughly documented and provided to the Purchasing Division of Finance and Administration. Purchasing serves as the official custodian for Louisville Metro contracts. Their files should contain adequate support documentation to record the purpose and authorization of all purchase orders.
- ✓ When contracts allow for the substitution of goods purchased, care should be taken by PWA personnel to ensure that all contract stipulations are met (e.g., obtain documented proof that a good is unobtainable). Prior approval of substitutions should be obtained before purchases are made to ensure the appropriateness of the substitution.
- ✓ PWA project managers should review all supporting documentation to ensure project expenditures are in compliance with contractual terms prior to the approval of payment. The documentation should be explicit as to the services performed and goods provided. Enough documentation should be provided to allow a reasonable person to independently verify the expenditure agrees to the contractual terms. If the invoice and supporting documentation do not clearly provide this level of detail, inquiries should be made and explanations noted. Project managers should indicate their review and approval of project expenditures by documenting their signature on all applicable invoices.
- ✓ PWA business office personnel should carefully review vendor invoices to ensure accuracy and appropriateness of amounts indicated, and to ensure project managers have properly indicated their approval to process payment.

### **#3 – City Hall Renovation**

#### Project Summary

This project was incorporated in an issue of a General Obligation bond and appropriations of Capital Cumulative Reserve Funds. The project provides funding for the City Hall Renovation Master Plan continuation, lobby renovations, two 3<sup>rd</sup> floor Metro Council offices and building signage. Also, funding provides for various infrastructure improvements in City Hall space relating to Metro Council operations.

#### Authorizing Legislation

Louisville Metro Ordinance #128, Series 2004  
Louisville Metro Ordinance #98, Series 2005

#### Authorized Appropriation

\$450,000

#### Project expenditures (Inception through March 31, 2008)

\$448,677

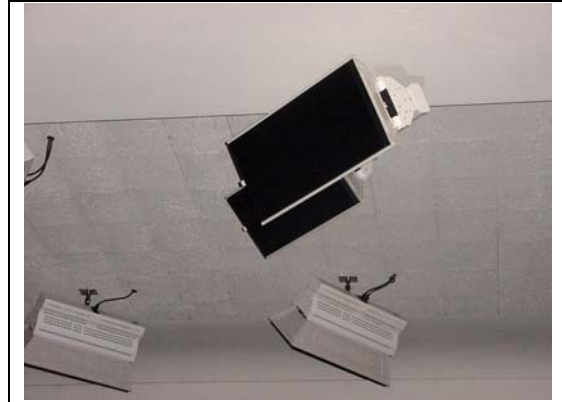
### **Results**

Some issues were noted with the administration of the City Hall Renovation capital project. Specifics include the following.

- **Appropriation.** No issues were noted. The expenditures reviewed were in compliance with the intended use of the appropriation.
- **Contractual.** There were issues noted in determining the capital project expenditures' compliance with the contractual terms.
  - There were two cases in which it could not be determined if the project expenditure was in compliance with the contractual terms and price sheet. In one case, the invoice did not note sufficient details (e.g., man hours, floor measurements) to support the amount due. In another case, though the invoice noted a specific amount due for the goods purchased, the contract price sheet can vary throughout the contract period. There was no support with the invoice to validate the amount charged at that specific point in time. The total amount of expenditures associated with these issues was approximately \$10,338.
- **Visual Inspection.** The items selected for inspection were located and no issues were noted. The following are images of some of the items reviewed.



**Office Renovation - Ceiling and Light Fixture**



**Lighting-Council Chambers**



**Clock Tower Renovation**



**Office Renovation - Paint and Wall Air Unit**

### **Recommendations**

Appropriate personnel should take corrective action to address the issues noted. Specific recommendations include the following.

- ✓ PWA personnel should implement procedures to help ensure that the results of competitive negotiations are properly documented. This should focus primarily on ensuring the agreed upon scope of work and price is properly documented and submitted to the Purchasing Division of Finance and Administration. Enough documentation should be provided to enable an independent person to determine the agreed upon contractual terms without input from others.
- ✓ Any negotiations agreed upon by parties subsequent to the bid award should be thoroughly documented and provided to the Purchasing Division of Finance and Administration. Purchasing serves as the official custodian for Louisville Metro contracts. Their files should contain adequate support documentation to record the purpose and authorization of all purchase orders.

- ✓ PWA project managers should review all supporting documentation to ensure project expenditures are in compliance with contractual terms prior to the approval of payment. The documentation should be explicit as to the services performed and goods provided. Enough documentation should be provided to allow a reasonable person to independently verify the expenditure agrees to the contractual terms. If the invoice and supporting documentation do not clearly provide this level of detail, inquiries should be made and explanations noted. Project managers should indicate their review and approval of project expenditures by documenting their signature on all applicable invoices.
- ✓ PWA business office personnel should carefully review vendor invoices to ensure accuracy and appropriateness of amounts indicated, and to ensure project managers have properly indicated their approval to process payment.

### *Public Works and Assets' Corrective Action Plan*

The following is the corrective action plan submitted by Public Works and Assets.

1. Public Works & Assets has previously established a protocol related to all contract negotiations.
  - Purchasing is first notified of our intent and invited to participate if negotiations are permitted.
  - If negotiations are successful an email recommendation for award is prepared and forwarded to the Director of Public Works & Assets for concurrence. The terms of the negotiations are required as part of this recommendation. In most cases an attachment from the vendor outlining the terms is attached to the email.
  - Upon concurrence, the contract is forwarded to Purchasing for review and either a contract amendment or a new contract is prepared.
  - The new or amended contract incorporates the agreed upon terms.
  
2. Public Works & Assets Project Managers review all invoices for purchases and construction initiated or managed by the respective manager.
  - Upon concurrence with the application for payment the Project Manager will sign / date indicate the PO number and in cases of multiple accounts indicate the appropriate funds distribution from associated accounts.
  - A copy is made for the project file, many times scanned as well.
  - The original is then forwarded to the Business Office for pay document preparation.
  
3. Public Works & Assets currently solicits at least three proposals for all work, capital or maintenance. This three quote process requires the Project Manager to describe in detail the services required to be quoted.
  - Upon receipt of the three quotes a funding source is confirmed and a recommendation for purchase order email is forwarded to the Business Office. The three quotes are listed with vendor quotes attached.
  - Upon PO issuance & completion of work; the sign off process described above is followed.
  
4. PWA business managers will carefully review submitted invoices for accuracy and accountability. Questions will be raised with project managers for addressing and rectifying before final payment approval is granted.



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**Name of Report** Public Works and Assets – Capital Projects

<b>How do you rate this report?</b>			
	<b>Beneficial</b>	<b>Somewhat Helpful</b>	<b>Needs Improvement</b>
Background Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Details	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Length of Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clarity of Writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential Impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Suggestions, comments, ideas, thoughts: \_\_\_\_\_

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