



County of Allegheny

Office of the Controller

Allegheny County
Department of Public Works
Operational Analysis Report
For the Period
January 1, 2009 through December 31, 2011
(Non-Audit Service)

May 22, 2013

Chelsa Wagner
Controller

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April 30, 2013

Mr. Steven W. Johnson
Director
Department of Public Works
County Office Building
542 Forbes Avenue, Room 501
Pittsburgh, PA 15219

Allegheny County Department of Public Works
Operational Analysis Report for the Period
January 1, 2009 through December 31, 2011

Dear Mr. Johnson:

The Allegheny County Controller's Office performed an operational analysis of the Department of Public Works. The objectives of our operational analysis were to determine why contractors and consultants that have provided services to Public Works have not been paid timely, and to identify any inefficiencies, waste, or abuse that could be resulting in higher costs to Allegheny County taxpayers. Our analysis focused on the period from January 1, 2009 to December 31, 2011, but did extend to other periods. Our engagement was performed as a non-audit service. Therefore, our engagement was not performed in accordance with *Government Auditing Standards*.

The procedures we performed have resulted in the identification of a number of performance improvement opportunities for Public Works. The results of our procedures are included in the attached report.

Director Steven W. Johnson
April 30, 2013

We would like to thank the management and staff of the Allegheny County Department of Public Works, Office of Budget and Finance, and Department of Administrative Services Division of Purchasing and Supplies for their courtesy and cooperation during our engagement.

Kind regards,



Chelsa Wagner
Controller



Lori A. Churilla
Assistant Deputy Controller, Auditing

CW/lc

cc: Honorable Charles Martoni, President, County Council
Honorable Nicholas Futules, Vice-President, County Council
Honorable Rich Fitzgerald, Allegheny County Executive
Mr. William McKain, County Manager, Allegheny County
Ms. Jennifer Liptak, Chief of Staff, County Executive
Mr. Warren Finkel, Budget Director, Allegheny County
Mr. Joseph Catanese, Director of Constituent Services, County Council
Mr. Walter Szymanski, Budget Director, County Council

Executive Summary

Purpose

The Allegheny County Department of Public Works incurs a significant portion of Allegheny County's annual operating expenditures and the vast majority of the County's capital expenditures on an annual basis. An operational analysis of Public Works has not been performed since its inception. Recently, Allegheny County has received complaints from construction contractors and consultants that have not been paid for services rendered in connection with various Public Works projects. Based on these factors, we deemed it appropriate to conduct an operational analysis of Public Works. Our analysis focused on the period from January 1, 2009 to December 31, 2011, but did extend to other periods. The objectives of our operational analysis were to determine why contractors and consultants that have provided services to Public Works have not been paid timely, and to identify any inefficiencies, waste, or abuse that could be resulting in higher costs to Allegheny County taxpayers.

Background

Prior to the adoption of Allegheny County's Home Rule Charter which was enacted in 2000, County Commissioners formed the Allegheny County Department of Public Works by consolidating four separate County departments: Property & Supplies, Maintenance & Special Services, Engineering & Construction, and Parks Maintenance. Four distinct Divisions comprise Public Works: 1) Administration & Operations, 2) Engineering & Construction, 3) Facilities & Fleet Management, and 4) Road, Bridge, and Park Maintenance. The Administration & Operations Division serves as the hub for all Department operations. This Division is responsible for planning, directing and managing communications, information technology, training and development, human resources, and fiscal affairs for the Department. The Engineering & Construction Division is responsible for providing engineering expertise, architectural design, and construction management services to all County departments and to other governmental agencies. The Division is also involved in preparing and implementing the annual capital budget and oversees the work of professional consultants and contractors engaged in infrastructure improvement projects. The Facilities & Fleet Management Division is responsible for maintaining and improving the County's building infrastructure by providing services such as heating and cooling, building renovation, and building trade services. This Division is responsible for ensuring that County facilities are repaired and properly maintained to provide for a safe and functional environment. This Division also maintains and services the County's heavy equipment and vehicle fleet and administers a fuel purchasing program for fleet operations. The Road, Bridge, and Park Maintenance Division is involved in collaborating with County officials, citizens, and municipalities to identify opportunities for improving County assets and to develop cost-effective and reliable maintenance and repair solutions. In 2007 Public Works was accredited by the American Public Works Association ("APWA"). In 2012 Public Works was granted full re-accreditation by the APWA. Allegheny County's Department of Public Works remains the only public works agency in Pennsylvania that has applied for and received the APWA accreditation.

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Results in Brief

Based on our observations, the diversion of capital funds to finance the County's normal operations and the overestimation of cost reimbursements to be received each year that could be used to finance capital projects have contributed to the County not having the entire amount of the sources of funds specified in the County's annual capital budgets available to finance the County's budgeted capital projects. In addition to inadequate financial resources being allocated to complete the County's budgeted capital projects, it appears that the process being utilized to develop the County's annual capital budgets does not necessarily result in the allocation of the available capital funds to the most appropriate capital projects. Further, weaknesses in Public Works' project management reduce the likelihood that taxpayers are getting the best return on the capital funds actually used to complete projects. To remedy these conditions, Public Works and those charged with governance should take measures to implement the recommendations we have provided in connection with our observations.

The following is a listing of our observations and recommendations that resulted from our operational assessment:

Observation #1: Allegheny County's Annual Operating Budget Shortfalls Have Been Offset by Using One-Time Revenue Sources and Capital Funds

In recent years, Allegheny County's operating expenditures have exceeded its routinely available operating revenues. Non-recurring revenue sources and funding that had been set aside for capital purposes has been used to offset the projected shortfalls in operating revenues. The table below illustrates how capital funds have been repurposed for the 2009 through 2011 budget years.

	2011*	2010 **	2009	Total
Transferred from Capital Fund to Debt Service Fund	\$23,372,670	\$43,467,999	\$14,518,699	\$81,359,368
Transferred from Debt Service Fund to General Fund	\$24,103,268	\$41,918,075	\$11,127,646	\$77,148,989

*Note: In 2011, \$4,800,000 of the transfers from Capital Fund to Debt Service Fund is related to the Certificates of Participation (COPS) refinancing.

**Note: The 2010 Adopted Budget anticipated use of \$30,000,000 in state and federal funding sources to be transferred from the Capital Fund to the Debt Service Fund.

All other transfers were done to offset operating deficits.

Using non-recurring revenue sources and capital funds to offset operating revenue shortfalls has enabled the County to avoid instituting property tax increases or cutting services provided to Allegheny County taxpayers. However, from a long-term financial management perspective, this practice has adversely impacted the County in a number of ways. Offsetting operating

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revenue shortfalls by using non-recurring revenue sources and capital funds results in the County maintaining expenditure levels that cannot be supported with its regularly available operating revenues.

In addition, a capital budget for Allegheny County is developed each year to help ensure that the County's most significant capital needs are properly addressed. Diverting a significant portion of those budgeted capital resources for use in operations on an annual basis impairs Public Works' ability to properly maintain the County's capital assets and address its other capital needs. It is also likely that a failure to properly maintain the County's capital assets will result in higher asset-related expenditures (a higher cost to Allegheny County taxpayers) over time.

Recommendations: The Controller's Office recommends that the Department of Public Works in conjunction with the County Executive and the County Council adopt a policy stating that state and federal reimbursements remain in the capital budget.

Observation #2: Lack of Transparency and Objective Criteria Used to Develop Allegheny County's Annual Capital Budgets

There are a number of factors that can significantly impact the accuracy of the amount of cost reimbursements Public Works projects that it will receive each year, usually resulting in an overestimate of such reimbursements. This is important, because Allegheny County budgets in a manner that provides for every available capital dollar being utilized during the year. Bond proceeds and projected cost reimbursements are by far the two largest sources of funds in Allegheny County's annual capital budgets. The amount of each annual bond issuance is typically determined in advance and reported in the capital budgets at the fixed amount. Because any shortfalls in projected cost reimbursements cannot ordinarily be offset by additional bond proceeds or increases in other financing sources, such shortfalls result in the capital funds needed to complete certain budget-approved capital projects not being available. The County's annual capital budgets were also not revised in recent years when capital funds had been used for operations.

In addition, there is a weakness in Allegheny County's process for budgeting capital expenditures in that there is a lack of transparency and objective criteria used in order to arrive at a final list of capital projects. The process is somewhat arbitrary and does not include objective factors, such as the annual cost to maintain new assets or a grading system for all County owned assets, in order to assure that the appropriate projects are given priority. For example, the County would likely be less willing to accept the construction of a new capital asset if the proposed annual capital budget involved foregoing maintenance or needed renovations to existing County assets. Additionally, changes are made to the initial wish list submitted by Public Works without documentation of the reason for the change. We have summarized below the changes made to the initial wish list developed by Public Works for 2012. Public Works was not able to provide us with and we were not able to determine the reasons for the capital budget changes.

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- 10 projects with budgeted expenditures of \$1,970,527 were added to the proposed 2012 Capital Budget.
- 24 projects with budgeted expenditures of \$21,420,922 were eliminated from the proposed 2012 Capital Budget.
- The budgeted expenditures for 2 projects were increased in the proposed 2012 Capital Budget in the amount of \$270,000.
- The budgeted expenditures for 25 projects were reduced in the proposed 2012 Capital Budget in the amount of \$25,621,545.

Recommendations: The Controller's Office recommends that Public Works:

- Modify the methodology it uses to project cost reimbursements to be received to help ensure that the process does not result in an overestimation of the sources of funds available to fund annual capital projects.
- Annual capital project budget requests be revised to include objective criteria to increase the likelihood that the County's most significant capital needs will be addressed and that Public Works will not undertake capital projects that cannot be completed with the available capital resources.

Observation #3: The Lack of Available Capital Funds Has Resulted in Late Payments to Contractors and Consultants

We selected a sample of 20 capital projects to evaluate the timeliness of payments made to contractors. The sample included a variety of road, bridge, park, and building projects. We determined that 125 (66%) of the 190 payments to contractors for the sampled projects totaling \$26,653,905 were not issued timely. Of the 190 payments:

- 65 (34%) were issued within 45 days of the close of the estimate period
- 65 (34%) were issued 46-90 days after the close of the estimate period
- 30 (16%) were issued 91-180 days after the close of the estimate period
- 30 (16%) were issued more than 180 days after the close of the estimate period, with the slowest issued 581 days after the close of the estimate period

In addition to analyzing the timeliness of payments that have been made in connection with Public Works projects, we also analyzed the payments that have not yet been made. It appears that there were at least 151 unpaid invoices, totaling \$13,486,371 from contractors and consultants pertaining to all Public Works projects as of November 30, 2012.

We observed that:

- 44 (29%) invoices of the 151, totaling \$5,012,896 were less than 45 days old.
- 35 (23%) invoices totaling \$3,808,300 were dated between 45 and 89 days prior to November 30, 2012.
- 47 (31%) of the invoices totaling \$3,653,254 were dated between 90 and 179 day late.

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- 25 (17%) of the invoices totaling \$1,011,921 were dated more than 180 days prior to November 30, 2012, and
- interest is not paid on untimely payments to contractors and consultants.

Public Works management advised us that there are a variety of conditions that could lead to untimely payments to contractors and consultants:

- Public Works identifies errors in invoices that must be corrected by the contractor/consultant before payment can be issued.
- Public Works is not provided with updated insurance certificates that evidence contractually-mandated insurance has been maintained.
- The contracts with the contractors or consultants expire.
- Change orders, which serve as the justification for the invoicing of “extra work,” may not be prepared or processed timely.
- Cost reimbursements must be received in order to have available capital funds to issue payments (this is largely attributable to capital funds being used for operations – see Observations #1 & #2).

Even if Public Works remedies the other conditions identified that could lead to untimely payments, the need to wait for capital funds to become available in order to issue progress payments will continue to hamper the County’s ability to issue the payments timely. Untimely progress payments to contractors and consultants result in Public Works being out of compliance with the established PennDot requirements and/or Pennsylvania statutory regulations.

Recommendations: The Controller’s Office recommends that Public Works:

- Take measures to help ensure that capital funds are available to issue progress payments in connection with capital projects as required. This can be accomplished by developing better projections of cost reimbursements that are intended to serve as funding sources for capital projects, and taking measures to improve its processes for submission and tracking of cost reimbursement requests to facilitate timelier receipt of reimbursements.
- Improve its project management framework which should provide for timelier preparation and review of contractor cost estimates and reduce the likelihood that Public Works will incur costs intended to be reimbursable that will be deemed ineligible for reimbursement.

Observation #4: Public Works has Deviated from Standard Procurement Practices

We determined that Public Works’ standard procurement process was not consistently utilized for all Public Works projects. The Purchasing and Supplies Division of the Department of Administrative Services (“Purchasing”) handled the procurement process for the White Oak Park Restroom project (which was included in our testing sample). Although the project was not designated as an emergency project, management of Public Works explained to us that the procurement process for the project was routed through Purchasing to facilitate faster processing

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and completion of the project. Based on the aforementioned conditions, it appears that routing the non-emergency project through Purchasing's procurement process did not facilitate effective project management and compliance with any applicable requirements. It appears that with respect to the White Oak Park Restroom project, deviating from Public Works' standard procurement process resulted in a number of unfavorable conditions:

- The County's disadvantaged business enterprise (M/W/DBE) utilization goals were not met as the piggybacking of the state contract precluded the County from mandating participation of M/W/DBE firms.
- Field inspection services were not provided for a significant portion of the time construction was performed.
- Public Works' project management files did not contain meeting notes for pre-construction, coordination, or bi-weekly progress meetings. Consequently, we were unable to determine via a review of the files whether such meetings actually took place.
- An electrician was apparently underpaid by \$2.75/hour for one week and a class one operator was apparently underpaid by \$2.54/hour for ten weeks, which represents noncompliance with applicable prevailing wage requirements.
- The Controller's Office inspector identified a number of construction deficiencies throughout the course of the project including an incorrectly installed sanitary drain, an improperly finished floor, improperly compacted backfill along a new block foundation, and spalled driveway asphalt. The contractor also had claimed that a water line was not marked on the project blueprints, and that the contractor would be required to incur \$2,000 in unforeseen costs associated with working around the water line. We were advised that Public Works planned to pay the contractor, but the Controller's Office inspector reviewed the blueprints and determined that the water line had in fact been properly marked, and advised Public Works that the \$2,000 payment was not justified.
- Cost estimates in the standard format were not submitted by the contractor in connection with this project. The two invoices submitted were only signed by the contractor, the project manager, and a Deputy Director of Public Works. The signatures of the inspector and Director of Public Works had not been obtained. There were also no initials on the invoices to evidence Public Works' fiscal review of the invoices. The invoices had also not been routed to the Controller's Office inspector for his review.
- The completion date (pre-final inspection) of the White Oak Park Restroom project was initially anticipated to be December 22, 2011. We were advised by Public Works that the project was not yet complete as of the end of November 2012 as several "punch list" (outstanding) items had not yet been addressed. We were subsequently advised by the Controller's Office inspector that the punch list had been completed in January of 2013.

Recommendations: The Controller's Office recommends that Public Works:

- Utilize its standard procurement process for all construction contracts applicable to capital projects to facilitate compliance with all applicable regulatory requirements and the County's M/W/DBE utilization goals.

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- Consider revising its procurement policies and procedures to allow for greater consideration of cost when evaluating proposals pertaining to projects which are entirely County-funded.

Observation #5: Public Works' Project Management is Ineffective

We selected a sample of 10 recent Public Works projects for testing (see Appendices I and II). We noted a variety of conditions that suggest there are weaknesses in Public Works' project management:

- There was an early construction start for 1 of the 6 sample projects (17%) that were reimbursable that resulted in \$326,580 of projects costs that were intended to be reimbursable to be not eligible for reimbursement.
- It appears that extended overhead may have been incurred in connection with 2 of the 10 sample projects (20%), costing the County up to an additional \$76,634.
- We observed that for 7 of the 10 sampled projects (70%) there were significant periods of time for which field inspector daily diaries (inspection reports) were not included in Public Works' project management files.
- It appears that Public Works did not adequately monitor contractor compliance with prevailing wage requirements for 1 of the 10 sampled projects (10%).
- We observed that the County's combined M/W/DBE utilization goal was not met in connection with 5 of the 10 Public Works projects included in our sample (50%).
- We noted that the project management files for 2 (Coal Valley Road and Parks Restroom Renovations-White Oak) of the 10 sampled projects (20%) contained no sign-in sheets, and therefore provide no documentary evidence to indicate that the project manager made a single site visit during construction. For the other 8 projects, the table below indicates the number of documented project manager site visits and the approximate length of the construction period for each project.

<u>Public Works Project</u>	<u>Documented Project Manager Site Visits</u>	<u>Approximate Length of Construction Period</u>
Saw Mill Run Bridge #6	6	4 months
Girty's Run Bridge #16	6	4.5 months
Miller's Run Bridge #6	5	5 months
McRoberts Run Bridge	8	5 months
Little Deer Creek Bridge #6	6	6 months
Brown's Hill Road	1	20 months
Allegheny County Jail Roof Repairs	1	4 months
Lt. J.C. Stone Field Locker Room	7	8 months

- We determined that 20 of 190 cost estimates (11%) pertaining to the sampled projects were not prepared until more than 45 days after the close of the estimate period.
- For 1 of the 10 sampled projects (10%) we were unable to locate a fully executed copy of a particular change order or the Executive Action that pertained to it. For another 1 of the 10 sampled projects (10%), we noted that a particular fully executed change order

Executive Summary

appears to have been approved after the related work had already been completed. We also noted that for another 1 of the 10 projects (10%), it appears that an excessive number of change orders were approved in connection with the project. The original construction contract amount was \$422,500. Eight change orders had been approved which included 28 additional work items. The aggregate amount of the change orders was \$233,983, which is 55% of the initial contract amount.

- We determined that the Controller's Office inspectors identified construction deficiencies related to 6 of the 10 sampled projects (60%). For 2 of the 10 sampled projects (20%), the deficiencies identified by the Controller's Office inspectors appear to have been significant. The deficiencies identified in connection with 1 of the 2 projects have already been disclosed (see Observation #4). The other project with significant construction deficiencies involved the installation of a 60" pipe to allow a stream to run under a road to facilitate proper drainage. The Controller's Office inspector determined that the downstream end wall was not installed correctly, that the contractor did not install the 60" pipe correctly, did not install the proper pipe bedding, and did not prepare the sub-grade correctly. It is our understanding that an improperly installed downstream end wall could result in the 60" pipe cracking which would result in improper drainage, and that the other conditions could result in potholes and sinking of the road surface.

Recommendations: The Controller's Office recommends that Public Works:

- Take steps to improve its project management framework. Consider:
 - Utilizing project management software
 - Establishing stricter standards for preparing, retaining, and organizing project records
 - Conducting formal employee performance evaluations at least annually
- Refrain from issuing a "Notice to Proceed" to contractors that will be working on reimbursable projects until construction contracts are fully executed and any other applicable requirements are met in order to help ensure that the construction costs incurred will be eligible for reimbursement. To facilitate this, Public Works should ensure that project managers and others involved in the administration of capital projects are made aware of and periodically review any applicable compliance requirements.
- Identify during the planning phase of capital projects the types of conditions that could arise that may result in the unnecessary incurrence of extended overhead (i.e. not having a building permit), and take measures at that time to reduce the likelihood of incurring the additional overhead costs. Should extended overhead costs be incurred in connection with a project, Public Works should consider whether revisions in its planning process are warranted.
- Consider hiring additional field inspectors instead of relying almost exclusively on consultants to provide those services.
- Formally document the process used to select the field inspector for each capital project and include the documentation in the project management files.

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- Reevaluate the process it uses to allocate field inspection services among its projects to determine whether the process being used appropriately minimizes the risk of construction deficiencies.
- Ensure that Paving Operations Quality Control Plans are obtained from contractors, that the Plans are reviewed and approved and compliance with the Plans is monitored by Public Works during construction, and that the Plans are included in project management files.
- Ensure that the monitoring of contractor compliance with prevailing wage requirements is undertaken for every Public Works project as applicable.
- Hold project managers accountable if they do not identify and advise the M/W/DBE Administrator of reductions in the utilization of M/W/DBEs that will result in a failure to meet the County's established M/W/DBE utilization goals.
- Mandate that higher percentages of project manager time be allocated to construction management (which requires site visits).
- Maintain accountability for the timely preparation, review, and approval of contractor cost estimates, and timely review and approval of consultant invoices.
- Make certain that each project is properly planned such that the scope of work is clearly defined and includes all foreseeable items to minimize the need for a large number of change orders. Require change orders to be approved prior to the completion of any additional work.
- Improve communication with the Controller's Office construction inspectors to minimize the likelihood that opportunities for the inspectors to identify any construction deficiencies will be missed.
- Maintain accountability for the completion of punch lists for projects prior to approving the issuance of final payments to contractors.
- Institute formal processes for the evaluation of contractors and field inspectors that provide services in connection with specific capital projects. The process for evaluating field inspectors should involve (at a minimum) determining whether any construction deficiencies had been missed (which could suggest the need for additional training). Contractor performance should be measured (at a minimum) against contractual requirements, and if construction deadlines or other established requirements are not met, Public Works should evaluate the potential for pursuing liquidated damages.
- Require project managers to make post-construction site visits to determine whether any remedial site work is needed prior to the release of maintenance bonds to the contractors.

Executive Summary

- Require project managers to engage in financial management of the capital projects to facilitate budgetary compliance and timely preparation and execution of any needed supplemental reimbursement agreements and timely receipt of cost reimbursements.

Observation #6: Public Works Failure to Properly Submit and Follow Up on Reimbursement Requests Has Resulted in a Substantial Amount of Unclaimed Reimbursements

Based on our review of contractor cost estimates (progress billings) and consultant invoices that had been routed to Public Works' Reimbursement Manager and reimbursement requests submitted to PennDOT by Public Works, as of November 30, 2012 cost reimbursements that had not yet been received was approximately \$25,791,589. Of this amount, \$7,993,026 relates to "retro" projects (projects for which cost reimbursements will not be issued until the project is complete), and \$17,798,563 relates to non-retro projects. As of November 30, 2012, Public Works had only requested reimbursement for \$9,635,438 of the \$17,798,563 in reimbursable costs (54%) incurred in connection with projects that were not "retro" projects.

During our testing, we became aware that 50% of the costs associated with the South Park Tennis Courts project were intended to be reimbursable via a grant from the Pennsylvania Department of Conservation and Natural Resources. It appears that the project manager did not provide the Reimbursement Manager with the information needed in order to prepare and submit cost reimbursement requests. The final payment for this project was made on September 6, 2011. The total costs incurred in connection with the South Park Tennis Courts project were \$373,810, which means that \$186,905 may have been reimbursable.

Recommendations: The Controller's Office recommends that Public Works:

- Improve its project management framework (see Observation #5) to provide for timelier preparation of supplemental reimbursement agreements, provide for adequate reviews of cost estimates to facilitate the timelier submission of complete and accurate cost reimbursement requests, and reduce the likelihood of incurring project costs that are not eligible for reimbursement.
- Ensure that consultants continue to separately identify the costs pertaining to construction management and construction inspection services on the invoices that they present to Public Works for payment.
- Strengthen the process for follow-up on outstanding cost reimbursement requests and consider whether sufficient personnel resources have been allocated to the preparation and monitoring of cost reimbursement requests.

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Observation #7: The Overall Management of Public Works is Inadequate

Based on the understanding of the Department of Public Works that we gained during the performance of our procedures, including interviews we conducted with Public Works personnel and the results of our testing procedures:

- The Public Works Department does not appear to have maintained an effective organizational structure, and focusing more on day-to-day tasks appears to have adversely impacted upper level management's ability to provide the overall direction that the Department needs.
- Formal long-range strategic planning for the Department does not occur. A significant amount of time in recent years appears to have been spent addressing issues that have arisen as opposed to taking proactive measures to prevent unfavorable outcomes.
- Public Works has written policies and procedures, but the deficiencies we have noted in Public Works' project management (see Observation #5) suggest that appropriate measures have not been taken to enforce adherence to them.
- None of the Public Works employees we interviewed could remember formal employee performance evaluations ever being conducted at Public Works. Failure to hold employees accountable for their performance may lead employees to believe that poor performance is acceptable.

Recommendations: The Controller's Office recommends that Public Works:

- Reinststitute an effective organizational structure. The creation of a new Facilities Management Department tasked with managing the County's capital assets (staffed largely by former Public Works employees) will change Public Works' responsibilities, requiring Public Works to redefine its mission and objectives. Public Works should redesign its organizational structure to provide the best opportunity to satisfy its new responsibilities and achieve its revised mission and objectives. This should involve ensuring that upper level management is able to focus on the overall management of the Department instead of day-to-day tasks.
- Engage in long-term strategic planning. Doing so should enable Public Works to become more proactive instead of responding to issues once they have arisen.
- Revise its policies and procedures to the extent that clarity regarding expectations is needed, and take measures to enforce adherence to the established policies and procedures.
- Institute a formal employee performance evaluation process to facilitate maintaining accountability for employee performance.

I. Introduction

Prior to the adoption of Allegheny County's Home Rule Charter which was enacted in 2000, County Commissioners formed the Allegheny County Department of Public Works ("Public Works") by consolidating four separate County departments: Property & Supplies, Maintenance & Special Services, Engineering & Construction, and Parks Maintenance. In 2012 Public Works was granted full re-accreditation by the American Public Works Association ("APWA"). Allegheny County's Department of Public Works remains the only public works agency in Pennsylvania that has applied for and received the APWA accreditation.

Four distinct Divisions comprise Public Works: 1) Administration & Operations, 2) Engineering & Construction, 3) Facilities & Fleet Management, and 4) Road, Bridge, and Park Maintenance. The Administration & Operations Division serves as the hub for all Department operations. This Division is responsible for planning, directing and managing communications, information technology, training and development, human resources, and fiscal affairs for the Department. The Engineering & Construction Division is responsible for providing engineering expertise, architectural design, and construction management services to all County departments and to other governmental agencies. The Division is also involved in preparing and implementing the annual capital budget and oversees the work of professional consultants and contractors engaged in infrastructure improvement projects. The Facilities & Fleet Management Division is responsible for maintaining and improving the County's building infrastructure by providing services such as heating and cooling, building renovation, and building trade services. This Division is responsible for ensuring that County facilities are constructed, renovated, and maintained to provide for a safe and functional environment. This Division also maintains and services the County's heavy equipment and vehicle fleet and administers a fuel purchasing program for fleet operations. The Road, Bridge, and Park Maintenance Division is involved in collaborating with County officials, citizens, and municipalities to identify opportunities for improving County assets and to develop cost-effective and reliable maintenance and repair solutions.

The Department of Public Works incurs a significant portion of Allegheny County's annual operating expenditures and the vast majority of the County's capital expenditures on an annual basis.

<u>Public Works Expenditures</u>	<u>Final Budget</u>	<u>Actual</u>	<u>Variance</u>
2011 Operating	\$27,551,179	\$27,115,516	\$435,663
2010 Operating	\$26,853,557	\$25,869,178	\$984,379
2009 Operating	\$25,237,905	\$25,038,327	\$199,578

I. Introduction

Actual Capital Budgets adopted by project type for 2009 through 2011 are as follows:

Number	Capital Budget Category	2011	2010	2009
521	Bridges	\$45,905,652	\$41,655,254	\$26,329,602
408 miles	Roads	\$16,572,970	\$18,365,850	\$14,652,504
n/a	Port Authority	\$8,833,500	\$8,614,908	\$9,910,779
n/a	Community College	\$1,500,000	\$1,500,000	\$1,500,000
9	Parks	\$8,630,000	\$10,865,000	\$10,720,000
7 Downtown	Buildings	\$13,840,000	\$4,925,000	\$5,023,000
n/a	Equipment	\$17,109,100	\$17,040,342	\$5,105,096
n/a	Other	\$324,000	\$165,000	\$509,000
	Total	\$112,715,222	\$103,131,354	\$73,749,981
	Bond proceeds included in Total	\$68,000,000	\$56,875,000	\$38,400,000

An operational analysis of Public Works has not been performed since its inception. Allegheny County has recently received complaints from construction contractors and consultants that have not been paid for services rendered in connection with various Public Works projects, and some contractors have threatened to terminate work and walk off of job sites as a result of nonpayment. At least one contractor that we are aware of has walked off of a job site. Based on these factors we deemed it appropriate to conduct an operational analysis of Public Works. Our analysis focused on the period from January 1, 2009 to December 31, 2011, but did extend to other periods. The objectives of our operational analysis were to determine why contractors and consultants that have provided services to Public Works have not been paid timely, and to identify any inefficiencies, waste, or abuse that could be resulting in higher costs to Allegheny County taxpayers.

II. Scope and Methodology

We performed an operational assessment of the Allegheny County Department of Public Works to assist those charged with governance of Allegheny County. Our objectives included determining why contractors and consultants that have provided services to Public Works have not been paid timely, and identifying any inefficiencies, waste, or abuse that could be resulting in higher costs to Allegheny County taxpayers. Specifically, we performed the following procedures:

- Evaluated the following based on interviews conducted with and information provided by Public Works personnel:
 - Allegheny County's annual capital budgeting process
 - The organizational structure of Public Works
 - Its procurement processes for construction and professional services
 - Its utilization of minority and women (disadvantaged) business enterprises
 - Its project management practices
 - Its cost reimbursement processes (submission and tracking)
 - Its human resources (HR) processes
- Evaluated the following based on interviews conducted with and information provided by Office of Budget and Finance personnel:
 - The County's annual capital budgeting process
 - The routine process utilized to identify funds on hand to fund capital expenditures.
- Evaluated the following based on interviews conducted with and information provided by Controller's Office personnel:
 - Fund transfers
 - Construction inspections performed for Public Works projects
- Evaluated the following based on interviews conducted with and information provided by Administrative Services Division of Purchasing and Supplies personnel:
 - Public Works procurement practices in general
 - Participation of the Purchasing and Supplies Division in the procurement process for certain Public Works projects
- Reviewed Public Works' project management files to determine whether its procurement process, project management, payment authorization process, and processes pertaining to cost reimbursements are being administered effectively, efficiently, and in compliance with applicable requirements (test basis).
- Identified reimbursable project costs for which reimbursements have not yet been received by Public Works as of November 30, 2012 and analyzed the information.

II. Scope and Methodology

- Identified unpaid contractor and consultant invoices related to Public Works project as of November 30, 2012 and analyzed the information.
- Performed other procedures as deemed necessary or practical.
- Developed a number of recommendations related to our observations that are intended to improve the operations of Public Works.

We conducted our procedures from July through February of 2013. We provided a draft copy of this report to the Director of Public Works for comment. His response begins on page 45.

III. Observations and Recommendations

Observation #1

Allegheny County's Annual Operating Budget Shortfalls Have Been Offset By Using One-Time Revenue Sources and Capital Funds

Developing annual operating budgets for Allegheny County is not a function of the Department of Public Works. We have included this observation in our report because the condition described herein has a significant impact on Public Works' ability to maintain the County's capital assets and address the County's other significant capital needs.

Budgeting is an essential element of the financial planning, control, and evaluation processes of governments. While the manner in which budgetary control is achieved and reported on may vary significantly across governments, budgetary control for governments generally involves comparing estimated and actual revenues and assuring that fixed expenditure limitations are not exceeded. Developing realistic budgets facilitates the maintenance of budgetary control.

In recent years, Allegheny County's operating expenditures have exceeded its routinely available operating revenues. Reimbursements received from state and federal funding sources for significant bridge projects have been used to offset shortfalls in operating revenues.

The repurposing of capital funds was a multiple step process. Ordinarily, capital funds are only to be used to fund capital project expenditures or fund debt service related to capital projects. (See transfers from the Capital Fund to Debt Service in the table below.)

It has become a standard practice to move any excess funds in the debt service fund at each year-end to the general fund, since the funds not actually used to service debt during the year are assumed to be excess allocations of taxpayer-provided revenues to the debt service fund. The transfers to the general fund from the debt service fund, noted in the table below, were largely comprised of the amounts that had been transferred from capital projects accounts to the debt service fund for those years.

Transfers from Capital to Debt Service/ Debt Service to the General Fund:

	2011*	2010 **	2009	Total
Transferred from Capital Fund to Debt Service Fund	\$23,372,670	\$43,467,999	\$14,518,699	\$81,359,368
Transferred from Debt Service Fund to General Fund	\$24,103,268	\$41,918,075	\$11,127,646	\$77,148,989

*Note: In 2011, \$4,800,000 of the transfers from Capital Fund to Debt Service Fund is related to the Certificates of Participation (COPS) refinancing.

**Note: The 2010 Adopted Budget anticipated use of \$30,000,000 in state and federal funding sources to be transferred from the Capital Fund to the Debt Service Fund.

All other transfers were done to offset operating deficits.

III. Observations and Recommendations

Developing operating budgets with operating revenue projections that are unrealistic creates an environment where drastic measures are often necessary in order for the County to avoid deficit spending. Deficits have increased over the period of 2009 to 2011 from elimination of a state Public Safety grant of \$7.5 million, a Pittsburgh Municipal Court funding grant of \$2 million, and increased deficits in the grant funded Court operations.

Using non-recurring revenue sources and capital funds to offset operating revenue shortfalls has enabled the County to avoid instituting property tax increases or cutting services provided to Allegheny County taxpayers. However, from a long-term financial management perspective, this practice has adversely impacted the County in a number of ways. Offsetting operating revenue shortfalls by using non-recurring revenue sources and capital funds results in the County maintaining expenditure levels that cannot be supported with its regularly available operating revenues. In addition, a capital budget for Allegheny County is developed each year to help ensure that the County's most significant capital needs are properly addressed. Diverting a significant portion of those budgeted capital resources for use in operations on an annual basis impairs Public Works' ability to properly maintain the County's capital assets and address its other capital needs. (In our report issued September 19, 2012 entitled *Allegheny County 4th Avenue Parking Garage Report on Analysis and the Closure and Options to Address the Existing Facility and County Parking Needs* we indicated that the lack of available capital funding to make needed repairs to the 4th Avenue Garage adversely impacted Public Works' ability to maintain the facility.) It is also likely that a failure to properly maintain the County's capital assets will result in higher asset-related expenditures (a higher cost to Allegheny County taxpayers) over time.

Recommendation: The Controller's Office recommends that the Department of Public Works in conjunction with the County Executive and the County Council adopt a policy stating that state and federal reimbursements remain in the capital budget.

III. Observations and Recommendations

Observation #2

Lack of Transparency and Objective Criteria Used to Develop Allegheny County's Annual Capital Budgets

Ensuring that the most significant capital needs are effectively addressed and that capital projects that cannot be completed with available capital resources are not undertaken are two important objectives of a capital budgeting process. To facilitate Allegheny County ensuring that it does not undertake capital projects or make capital expenditures that cannot be completed with available financial resources, it is important for the County's annual capital budgets to accurately reflect the amount of sources of funds available to be used for capital purposes. In addition, to improve the likelihood that the County utilizes capital funds in a manner that provides the greatest benefit to Allegheny County taxpayers collectively by addressing the County's most significant capital needs, a process should be in place to objectively identify and prioritize the County's capital needs.

In gaining an understanding of Allegheny County's capital budgeting process, we learned that cost reimbursements that are planned to serve as sources of capital funding for each year are projected as a percent at 80%, 95%, 100% of state and federal funding of expenditures incurred, or no match, based on the type of bridge or road capital project. This method for projecting cost reimbursements appears logical, is very simple to employ, and therefore can be accomplished quickly. However, there are a number of factors that can significantly impact the accuracy of the projected cost reimbursements, usually resulting in an overestimate of such reimbursements.

For a variety of reasons, cost reimbursements are often not received by Public Works timely. Cost reimbursements are not automatic. Public Works must identify costs that are eligible for reimbursement for each project and submit reimbursement requests in the proper format to the applicable funding sources. Cost reimbursement may also be contingent on a variety of factors such that the mere incurrence of project costs would not make the costs eligible for reimbursement. There have been instances in which Public Works has not filed cost reimbursement requests in a timely fashion, which delays the receipt of cost reimbursements. There have also been instances in which reimbursement requests have not been filed in the proper format, which have also resulted in delays in reimbursement (See also Observation #6). Even if Public Works has complied with all applicable funding source requirements and filed reimbursements requests in the proper format and in a timely fashion, there may still be delays associated with funding sources reviewing the requests and issuing reimbursements.

All of the aforementioned circumstances usually result in the actual costs being reimbursed in a given year and being far less than the amount anticipated. This is important, because Allegheny County budgets in a manner that provides for every available capital dollar being utilized during the year. Bond proceeds and projected cost reimbursements are by far the two largest sources of funds in Allegheny County's annual capital budgets. The amount of each annual bond issuance is typically determined in advance and reported in the capital budgets at the fixed amount. Because any shortfalls in projected cost reimbursements cannot ordinarily be offset by additional bond proceeds or increases in other financing sources, such shortfalls result in the capital funds needed to complete certain budget-approved capital projects not being available.

III. Observations and Recommendations

Public Works management has acknowledged that for a variety of reasons cost reimbursements are not being received timely. We have also observed deficiencies in Public Works' processes for submitting cost reimbursement requests and tracking the status of reimbursements (see Observation #6).

The process used to develop Allegheny County's budgeted capital expenditures each year begins with Public Works identifying road, bridge, building, and other projects that it believes should be undertaken. Public Works then develops cost estimates to complete these projects. These projects and estimates are accumulated in a document that has been referred to as a "wish list," because the funding needed to complete all of the projects usually far exceeds available financial resources and the capacity of Public Works to be undertaken. Once the maximum amount of each annual capital budget is known, Public Works meets with the Allegheny County Office of Budget and Finance ("Budget Office") to whittle down the wish list so that the total estimated project costs are less than or equal to the amount of the funding projected to be available. The Budget Office focuses on determining the status of open projects and the extent to which budgeted resources can actually be expected to be used for specific projects during the budget year. Once the Budget Office and Public Works have reached agreement on the projects to be included in the annual capital projects budget and the cost estimates for the projects, the proposed budget is passed on to the County Manager and/or County Executive, who we were advised may add or remove projects based on their awareness of needs and issues. Public Works, which is responsible for the initial prioritization of the capital projects, has no control over the capital projects budget from this point on. Once the County Executive and/or County Manager have made any changes they deem to be appropriate, the proposed capital projects budget is presented to Allegheny County Council to be voted on. Council has the ability to add or remove projects from the budget, or change the amounts to be allocated to specific capital projects. This process for developing Allegheny County's budgeted capital expenditures has been in effect for a number of years.

There is a weakness in Allegheny County's process for budgeting capital expenditures in that there is a lack of transparency and objective criteria used in order to arrive at a final list of capital projects. The process is somewhat arbitrary and does not include objective factors such as the annual cost to maintain new assets or a grading system for all County owned assets to assure that the appropriate projects are given priority. For example, the County would likely be less willing to accept the construction of new capital assets if the capital budget resulted in foregoing important maintenance or did not include needed renovations to existing County facilities. Additionally, Public Works' wish list needs to be based on realistic expectations of the department's capacity.

For illustrative purposes, we have included several tables that summarize changes made to the initial wish list developed by Public Works and the Budget Office for 2012 (see below). Public Works was not able to provide us with and we were not able to determine the capital budget changes that were initiated by the County Executive and/or County Manager. Consequently, we were unable to reach a conclusion regarding any such changes. However, it appears that an itemization of at least the changes to Public Works' initial wish list similar to what is included in the tables provided below, if not also a summary of the capital budget changes proposed by the County Executive and/or County Manager, would facilitate County Council formulating and asking legitimate questions about the proposed capital budget changes to help ensure that the

III. Observations and Recommendations

changes result in a capital budget that better serves the interests of all Allegheny County taxpayers collectively.

Public Works Projects Added to the Proposed 2012 Capital Budget

Public Works Project	Public Works/ Budget Office Initial Request	2012 Approved Capital Budget
Park Restroom Renovations	\$0	\$620,000
North Park Spray Pool	0	600,000
Park Roof Repairs	0	250,000
MIS Data Center Facilities Expansion	0	225,000
Settlers Cabin Park Renovations	0	100,000
Jail Cell Wall Repairs	0	61,250
Courthouse Courtroom Renovations	0	40,000
Controller's Accounting/Auditing Office Renovation	0	30,000
Property Assessment Office Renovations	0	26,277
Air Conditioner Replacement - Court Reporters	0	18,000
Total Additions		\$1,970,527

Public Works Projects Eliminated From Proposed 2012 Capital Budget

Public Works Project	Public Works/ Budget Office Initial Request	2012 Approved Capital Budget
Renovations to 3333 Forbes Avenue (Health Dept.)	\$4,105,000	\$0
Slope Stabilization Program (Roads)	3,086,000	0
Campbell's Run Road Lateral Support Program	2,655,000	0
Thompson Run Road Lateral Support Project	2,336,000	0
County Office Building Energy Savings	2,000,000	0
County Wave Pool Repairs	1,500,000	0
Emergency Generator & Switchgear Installation at the Kane Regional Centers	1,000,000	0
Window Replacement at the Ross and Scott Kanes	800,000	0
Clack Building No. 4 Renovation	750,000	0
Various County Roofs	525,000	0
Various Jail Improvements	500,000	0
Miscellaneous Building Structural Repairs	400,000	0
Exterior Wall Rehabilitation for the Kane Regional Centers	400,000	0
Trail Bridge inspections	300,000	0
Parks Parking Lot Paving	300,000	0
Public Works Online Project Management System	200,000	0
Energy Consultant Services (Buildings)	150,000	0
Traffic Sign Retro-reflectivity Management & Replacement Program (Roads)	100,000	0
Cityworks Citizens Service Request Portal (Equipment)	92,500	0

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County Road Pavement Assessment (Equipment)	90,000	0
Public Works MIS System Maintenance	62,422	0
Sixth Street Bridge	23,000	0
Seventh Street Bridge	23,000	0
Ninth Street Bridge	23,000	0
Total Eliminations		\$21,420,922

Allocations Increased in Proposed 2012 Capital Budget From the Initial Request

Public Works Project	Public Works/ Budget Office Initial Request	2012 Approved Capital Budget
Settlers Cabin Admin Office	\$200,000	\$450,000
Structural Engineering Services (Bridges)	400,000	420,000
Total Increases		\$270,000

Allocations Reduced in Proposed 2012 Capital Budget From Initial Request

Public Works Project	Public Works/ Budget Office Initial Request	2012 Approved Capital Budget
Miscellaneous Bridge Construction	\$10,000,000	\$5,000,000
Brownsville at Broughton-Library Road	5,500,000	640,000
Annual Road and Facility Improvements Program	8,748,000	5,000,000
City County Building Cornice Repairs	3,000,000	400,000
Miscellaneous Bridge Design	4,275,000	2,000,000
Various Park Improvements	1,800,000	190,000
Open End Construction Engineering Services, As Needed (Roads)	1,725,000	860,000
Parking Lot and Entrance Driveway Rehabilitation at the Kane Regional Centers	1,000,000	250,000
4th Avenue Garage Repair	1,000,000	350,000
HVAC and Boiler Replacement for three Kane Regional Centers	1,000,000	500,000
County Elevator Renovations	810,000	400,000
Miscellaneous Bridge Repair (Act 44)	1,500,000	1,125,000
Round Hill Park Restrooms	1,300,000	1,000,000
Intersection Improvement Reconstruction and Partnership Program (Roads)	675,000	425,000
Open End Architectural Agreement (Buildings)	425,000	200,000
Project Management (Bridges)	455,000	250,000
Comprehensive Parks Property Survey Program	225,000	20,000
Open End Roadway & Traffic Engineering Contract	400,000	200,000
Open End Right-of-Way and Property Acquisition Services (Roads)	216,000	50,000
Capital Construction & In-House Paving Program	2,624,400	2,500,000
Project Management for Roads and Bridge Preservation	250,000	150,000

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Little Deer Creek Bridge No. 5	385,652	307,485
Various Park Shelters	450,000	400,000
Miscellaneous Drainage and Lateral Support Program (Roads)	642,978	600,000
In-House Capital Construction (Buildings)	750,000	718,000
Total Reductions		\$25,621,545

Recommendations: The Controller's Office recommends that:

- Public Works modify the methodology it uses to project cost reimbursements to be received to help ensure that the process does not result in an overestimation of the sources of funds available to fund annual capital projects.
- Annual capital project budget requests be revised to include objective criteria to increase the likelihood that the County's most significant capital needs will be addressed and that Public Works will not undertake capital projects that cannot be completed with the available capital resources.

III. Observations and Recommendations

Observation #3

The Lack of Available Capital Funds Has Resulted In Late Payments to Contractors and Consultants

The Pennsylvania Department of Transportation (“PennDOT”) and the Federal government (via PennDOT) subsidize various projects included in Allegheny County’s annual capital budgets. PennDOT has established requirements for such subsidized projects, which include the issuance of progress payments to contractors and consultants within 45 days of the close of each estimate (progress billing) period. Per Section 62 Statute 3932 of the Pennsylvania Code, government agencies are to issue progress payments to contractors and design professionals within 45 days from the date the application for payment is received unless the parties to the agreement have agreed to alternate terms. Unless alternate terms are agreed to, the statute also requires interest to be paid if the progress payments are not made within 15 days of the due date. These statutory requirements apply to all County projects whether or not they are subsidized. Public Works’ policy is to issue progress payments within 45 days of the close of the estimate periods for all projects. We were advised that the policy was established to facilitate compliance with all of the requirements regarding the timing of progress payments.

Notwithstanding the need to make timely progress payments in order to comply with regulatory requirements, liquidating obligations in a timely fashion is generally a good business practice. Contractors typically rely on progress payments to pay laborers and purchase materials to be used later in construction. Untimely payments to contractors could result in contractors incurring unnecessary financing costs associated with completing the projects or hamper their ability to complete projects if financing is not available to them (which is likely the reason that the PA Code requires interest to be paid on late progress payments).

The lack of available capital funds in recent years has resulted in payments pertaining to Public Works projects not being made timely. We selected a sample of 20 capital projects that were all closed after 2005 to evaluate Public Works’ reimbursement processes (see Observation #6) and the timeliness of payments made to contractors. The sample included a variety of road, bridge, park, and building projects. In a sample of 20 projects, 191 cost estimates totaling \$63,387,212, were submitted by contractors. We determined that:

- 1 payment had not yet been issued to the contractor as of November 30, 2012. As of that date, 220 days had passed since the close of the estimate period.
- Only 65 of the 190 payments issued to contractors (34%) were issued within 45 days of the close of the estimate period.
- Of the 125 payments (66%) totaling \$26,653,905 in the aggregate that were not issued to contractors timely:
 - 65 (52%) were issued 46-90 days after the close of the estimate period,
 - 30 (24%) were issued 91-180 days after the close of the estimate period,
 - 30 (24%) were issued more than 180 days after the close of the estimate period, with the slowest issued 581 days after the close of the estimate period.
- The 190 payments were issued 98 days after the close of the estimate period on average.

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In addition to analyzing the timeliness of payments that have been made in connection with Public Works projects, we also analyzed the payments that have not yet been made. Accounts payable for all Public Works' capital projects were reviewed as of November 30, 2012. We identified 151 unpaid invoices, totaling \$13,486,371, from contractors and consultants as detailed below. We also noted that interest is not paid on untimely payments to contractors and consultants.

Number of Days invoices were dated prior to November 30, 2012	# of Invoices	%	\$ of Invoices	%
less than 45 days old	44	29%	5,012,896	37%
45 - 89 days	35	23%	3,808,300	28%
90 - 179 days	47	31%	3,653,254	27%
greater than 180 days	25	17%	1,011,921	8%
	151	100%	13,486,371	100%

Public Works management advised us that there are a variety of conditions that could lead to untimely payments to contractors and consultants:

- Public Works identifies errors in invoices that must be corrected by the contractor/consultant before payment can be issued.
- Public Works is not provided with updated insurance certificates that evidence contractually-mandated insurance has been maintained.
- The contracts with the contractors or consultants expire.
- Change orders, which serve as the justification for the invoicing of "extra work," may not be prepared or processed timely.
- Cost reimbursements must be received in order to have available capital funds to issue payments (this is largely attributable to capital funds being used for operations – see Observations #1 & #2).

The procedures we performed to evaluate Public Works' project management (see Observation #5) and processes pertaining to cost reimbursements (see Observation #6) corroborated several of the assertions about the causes of late payments made by Public Works management. However, the need to wait for cost reimbursements to issue progress payments, which demonstrates a lack of available capital funds, is the most significant of the aforementioned conditions. Even if Public Works remedies the other conditions identified that could lead to untimely payments, the need to wait for capital funds to become available in order to issue progress payments will continue to hamper the County's ability to issue the payments timely.

Untimely progress payments made to contractors and consultants results in Public Works being out of compliance with the established PennDOT requirements and/or the aforementioned Pennsylvania statutory requirements. At least one contractor that we are aware of terminated work and walked off of a job site because they had not received payment for the work they had performed for a lengthy period of time (Frontier Golf, South Park Golf Course Irrigation Project). It is also possible that untimely payments to contractors and consultants could lead to

III. Observations and Recommendations

(or is resulting in) a higher cost to the County. By now it is commonly known that the County has often not paid timely for construction and consulting work performed. Contractors and consultants bidding on County work could include a premium to cover financing costs expected to be incurred to help ensure desired profit margins are achieved.

Recommendations: The Controller's Office recommends that Public Works:

- Take measures to help ensure that capital funds are available to issue progress payments in connection with capital projects as required. This can be accomplished by, developing better projections of cost reimbursements that are intended to serve as funding sources for capital projects, and taking measures to improve its processes for submission and tracking of cost reimbursement requests to facilitate timelier receipt of reimbursements.
- Improve its project management framework which should provide for timelier preparation and review of contractor cost estimates and reduce the likelihood that Public Works will incur costs intended to be reimbursable that will be deemed ineligible for reimbursement.

III. Observations and Recommendations

Observation #4

Public Works Has Deviated From Standard Procurement Practices

We determined that Public Works' standard procurement process was not consistently utilized for all Public Works projects. The Purchasing and Supplies Division of the Department of Administrative Services ("Purchasing") handled the procurement process for the White Oak Park Restroom project (which was included in our testing sample). Although the project was not designated as an emergency project, management of Public Works explained to us that the procurement process for the project was routed through Purchasing to facilitate faster processing and completion of the project. Based on the aforementioned conditions, it appears that routing the non-emergency project through Purchasing's procurement process did not facilitate effective project management and compliance with any applicable requirements. We visited Purchasing to review its procurement file for that project, and learned that Purchasing also handled the procurement processes for several other recent non-routine Public Works projects, including the South Park and Boyce Park Nature Reserve Roof projects and Hartwood Acres Roof/Restroom project. It appears that with respect to the White Oak Park Restroom project, deviating from Public Works' standard procurement process resulted in a number of unfavorable conditions:

- Modification #1 to the contract for construction services was not signed by the (former) County Manager as required, and so it is not clear that he approved of the modification.
- Purchasing had "piggybacked" a state construction contract in lieu of utilizing a request for proposal (RFP) process to award a construction contract to complete the White Oak Park Restroom project which may have resulted in a higher construction cost to the County.
- The County's disadvantaged business enterprise (M/W/DBE) utilization goals were not met as the piggybacking of the state contract precluded the County from mandating participation of M/W/DBE firms.
- Public Works did not provide the prime contractor with a "Notice to Proceed."
- Field inspection services were not provided for a significant portion of the time construction was performed.
- Public Works' project management files did not contain meeting notes for pre-construction, coordination, or bi-weekly progress meetings. Consequently, we were unable to determine via a review of the files whether such meetings actually took place.
- An electrician was apparently underpaid by \$2.75/hour for one week and a class one operator was apparently underpaid by \$2.54/hour for ten weeks, which represents noncompliance with applicable prevailing wage requirements.
- It appears that the project manager initially did not regularly communicate with the Controller's Office inspector assigned to the project regarding the achievement of significant project milestones, which would have facilitated more comprehensive and timely inspections to help ensure that Allegheny County taxpayers were getting their money's worth.
- We observed documentary evidence that the Controller's Office inspector visited the job site 24 times, which was attributable in part to his identification of construction deficiencies that Public Works had not identified and which were initially not being properly addressed.

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- The construction deficiencies identified throughout the course of the project included an incorrectly installed sanitary drain, an improperly finished floor, improperly compacted backfill along a new block foundation, and spalled driveway asphalt. The contractor also had claimed that a water line was not marked on the project blueprints, and that the contractor would be required to incur \$2,000 in unforeseen costs associated with working around the water line. We were advised that Public Works planned to pay the contractor, but the Controller's Office inspector reviewed the blueprints and determined that the water line had in fact been properly marked, and advised Public Works that the \$2,000 payment was not justified.
- Cost estimates in the standard format were not submitted by the contractor in connection with this project. The two invoices submitted were only signed by the contractor, the project manager, and a Deputy Director of Public Works. The signatures of the inspector and Director of Public Works had not been obtained. There were also no initials on the invoices to evidence Public Works' fiscal review of the invoices. The invoices had also not been routed to the Controller's Office inspector for his review.
- Retainage was withheld in connection with the project, but not based on the percentages specified in the contract.
- The completion date (pre-final inspection) of the White Oak Park Restroom project was initially anticipated to be December 22, 2011. We were advised by Public Works that the project was not yet complete as of the end of November 2012 as several "punch list" (outstanding) items had not yet been addressed. We were subsequently advised by the Controller's Office inspector that the punch list had been completed in January of 2013.

Recommendations: The Controller's Office recommends that Public Works:

- Utilize its standard procurement process for all construction contracts applicable to capital projects to facilitate compliance with all applicable regulatory requirements and the County's M/W/M/W/DBE utilization goals.
- Consider revising its procurement policies and procedures to allow for greater consideration of cost when evaluating proposals pertaining to projects which are entirely County-funded.

III. Observations and Recommendations

Observation #5

Public Works' Project Management is Ineffective

We selected a sample of 10 recent Public Works projects for testing (see Appendices I and II). We noted a variety of conditions that suggest there are weaknesses in Public Works' project management:

- There was an early construction start for 1 of the 6 sample projects (17%) that were reimbursable that resulted in \$326,580 of projects costs that were intended to be reimbursable to be not eligible for reimbursement.
- It appears that extended overhead may have been incurred in connection with 2 of the 10 sample projects (20%), costing the County up to an additional \$76,634.
- We were unable to locate documentation indentifying the qualifications and experience of the field inspectors or the rationale for selecting the field inspectors that were assigned to 9 of the 10 projects included in our sample (90%) in Public Works' project management files. The files for 1 project did contain a summary of the inspector's qualifications.
- We observed that for 7 of the 10 sampled projects (70%) there were significant periods of time for which field inspector daily diaries (inspection reports) were not included in Public Works' project management files.
- For 3 of the 6 reimbursable projects included in our sample (50%) we were unable to locate a Paving Operations Quality Control Plan ("QCP") in either Public Works' "office" or "field" project management files. Public Works should have retained a copy of each QCP for use in the field to assist in assessing whether or not the contractor actually followed the QCP during construction.
- It appears that Public Works did not adequately monitor contractor compliance with prevailing wage requirements for 1 of the 10 sampled projects (10%).
- We observed that the County's combined M/W/M/W/DBE utilization goal was not met in connection with 5 of the 10 Public Works projects included in our sample (50%).
- We noted that the project management files for 2 (Coal Valley Road and Park Restroom Renovations-White Oak) of the 10 sampled projects (20%) contained no sign-in sheets, and therefore provide no documentary evidence to indicate that the project manager made a single site visit during construction. For the other 8 projects, the table below indicates the number of documented project manager site visits and the approximate length of the construction period for each project.

<u>Public Works Project</u>	<u>Documented Project Manager Site Visits</u>	<u>Approximate Length of Construction Period</u>
Saw Mill Run Bridge #6	6	4 months
Girty's Run Bridge #16	6	4.5 months
Miller's Run Bridge #6	5	5 months
McRoberts Run Bridge	8	5 months
Little Deer Creek Bridge #6	6	6 months
Brown's Hill Road	1	20 months
Allegheny County Jail Roof Repairs	1	4 months
Lt. J.C. Stone Field Locker Room	7	8 months

III. Observations and Recommendations

- We determined that 20 of 190 cost estimates (11%) pertaining to the sampled projects were not prepared until more than 45 days after the close of the estimate period.
- With respect to the 190 cost estimates, we observed that 214 required signatures had not been obtained from the contractor and/or Public Works personnel and 444 signature dates had been omitted.
- For 1 of the 10 sampled projects (10%) we were unable to locate a fully executed copy of a particular change order or the Executive Action that pertained to it. For another 1 of the 10 sampled projects (10%), we noted that a particular fully executed change order appears to have been approved after the related work had already been completed. We also noted that for another 1 of the 10 projects (10%), it appears that an excessive number of change orders were approved in connection with the project. The original construction contract amount was \$422,500. Eight change orders had been approved which included 28 additional work items. The aggregate amount of the change orders was \$233,983, which is 55% of the initial contract amount.
- We did not observe documentary evidence in the project management files for any of the 10 sampled projects (100%) that demonstrates that the project manager communicated effectively with the Controller's Office inspectors regarding project milestones. This condition could result in opportunities for Controller's Office inspectors to identify construction deficiencies being missed.
- We determined that the Controller's Office inspectors identified construction deficiencies related to 6 of the 10 sampled projects (60%). For 2 of the 10 sampled projects (20%), the deficiencies identified by the Controller's Office inspectors appear to have been significant. The deficiencies identified in connection with 1 of the 2 projects have already been disclosed (see Observation #4). The other project with significant construction deficiencies involved the installation of a 60" pipe to allow a stream to run under a road to facilitate proper drainage. The Controller's Office inspector determined that the downstream end wall was not installed correctly, that the contractor did not install the 60" pipe correctly, did not install the proper pipe bedding, and did not prepare the sub-grade correctly. It is our understanding that an improperly installed downstream end wall could result in the 60" pipe cracking which would result in improper drainage, and that the other conditions could result in potholes and sinking of the road surface.
- For 2 of the 10 sampled projects (20%), we were unable to locate a punch list in the project management files. For the other 8 of the 10 projects (80%), we observed that the punch list included in the project management files had not been completed. (A "punch list" is a list of items often compiled during pre-final or final inspections that identifies items remaining to be completed by the contractor(s) before the project is considered to be complete.)
- For all 10 sampled projects (100%), we were unable to locate completed contractor evaluation forms or evaluations of the field inspectors that served on the projects in Public Works' project management files.

Recommendations: The Controller's Office recommends that Public Works:

- Take steps to improve its project management framework. Consider:
 - Utilizing project management software

III. Observations and Recommendations

- Establishing stricter standards for preparing, retaining, and organizing project records
 - Conducting formal employee performance evaluations at least annually
- Refrain from issuing a “Notice to Proceed” to contractors that will be working on reimbursable projects until construction contracts are fully executed and any other applicable requirements are met in order to help ensure that the construction costs incurred will be eligible for reimbursement. To facilitate this, Public Works should ensure that project managers and others involved in the administration of capital projects are made aware of and periodically review any applicable compliance requirements.
- Identify during the planning phase of capital projects the types of conditions that could arise that may result in the unnecessary incurrence of extended overhead (i.e. not having a building permit), and take measures at that time to reduce the likelihood of incurring the additional overhead costs. Should extended overhead costs be incurred in connection with a project, Public Works should consider whether revisions in its planning process are warranted.
- Consider hiring additional field inspectors instead of relying almost exclusively on consultants to provide those services.
- Formally document the process used to select the field inspector for each capital project and include the documentation in the project management files.
- Reevaluate the process it uses to allocate field inspection services among its projects to determine whether the process being used appropriately minimizes the risk of construction deficiencies.
- Ensure that Paving Operations Quality Control Plans are obtained from contractors, that the Plans are reviewed and approved and compliance with the Plans is monitored by Public Works during construction, and that the Plans are included in project management files.
- Ensure that the monitoring of contractor compliance with prevailing wage requirements is undertaken for every Public Works project as applicable.
- Hold project managers accountable if they do not identify and advise the M/W/DBE Administrator of reductions in the utilization of M/W/DBEs that will result in a failure to meet the County’s established M/W/DBE utilization goals.
- Mandate that higher percentages of project manager time be allocated to construction management (which requires site visits).
- Maintain accountability for the timely preparation, review, and approval of contractor cost estimates, and timely review and approval of consultant invoices.

III. Observations and Recommendations

- Make certain that each project is properly planned such that the scope of work is clearly defined and includes all foreseeable items to minimize the need for a large number of change orders. Require change orders to be approved prior to the completion of any additional work.
- Improve communication with the Controller's Office construction inspectors to minimize the likelihood that opportunities for the inspectors to identify any construction deficiencies will be missed.
- Maintain accountability for the completion of punch lists for projects prior to approving the issuance of final payments to contractors.
- Institute formal processes for the evaluation of contractors and field inspectors that provide services in connection with specific capital projects. The process for evaluating field inspectors should involve (at a minimum) determining whether any construction deficiencies had been missed (which could suggest the need for additional training). Contractor performance should be measured (at a minimum) against contractual requirements, and if construction deadlines or other established requirements are not met, Public Works should evaluate the potential for pursuing liquidated damages.
- Require project managers to make post-construction site visits to determine whether any remedial site work is needed prior to the release of maintenance bonds to the contractors.
- Require project managers to engage in financial management of the capital projects to facilitate budgetary compliance and timely preparation and execution of any needed supplemental reimbursement agreements and timely receipt of cost reimbursements.

III. Observations and Recommendations

Observation #6

Public Works' Failure to Properly Submit and Follow Up on Reimbursement Requests Has Resulted in a Substantial Amount of Unclaimed Cost Reimbursements

Bond proceeds and projected cost reimbursements are by far the two largest sources of funds in Allegheny County's annual capital budgets. Because the County relies on cost reimbursements for the issuance of progress payments to contractors and consultants that provide services in connection with capital projects (see Observation #3), timely receipt of cost reimbursements is critical to the continuation of ongoing projects and regulatory compliance. To facilitate timely receipt of cost reimbursements, Public Works should periodically verify that necessary cost reimbursement agreements are in place, submit complete and accurate cost reimbursement requests timely and in the prescribed format, track the status of outstanding reimbursement requests, and take appropriate action to address circumstances contributing to delays in the receipt of reimbursements. Ensuring that the Public Works personnel responsible for preparing reimbursement requests receive accurate data in the proper format regarding reimbursable capital project costs, conducting periodic checks to identify reimbursable capital project expenditures for which cost reimbursements have not yet been sought, and ensuring that adequate personnel resources have been allocated to the preparation and submission of cost reimbursement requests would also help to ensure that complete and accurate cost reimbursement requests are submitted timely and in the prescribed format.

Based on our review of contractor cost estimates (progress billings) and consultant invoices that had been routed to Public Works' Reimbursement Manager and reimbursement requests submitted to PennDOT by Public Works, costs as of November 30, 2012 had not yet been received was approximately \$25,791,589. Of this amount, \$7,993,026 relates to "retro" projects and \$17,798,563 relates to projects that are not "retro" projects. "Retro" is the term used by Public Works to describe projects for which cost reimbursements will not be issued by funding sources until the project is complete. In recent years, Public Works has opted to conduct many smaller capital projects as retro projects in order to avoid the need to prepare a large number of cost reimbursement requests for (relatively) small dollar amounts. Since smaller capital projects typically have shorter time frames, the delays in the receipts of cost reimbursements associated with retro projects were not perceived to be problematic. However, it is our understanding that Public Works now plans to avoid conducting projects as "retro" projects.

As of November 30, 2012, Public Works had only requested reimbursement for \$9,635,438 of the \$17,798,563 in reimbursable costs (54%) incurred in connection with projects that were not retro projects. The table on the next page indicates the aggregate amount of cost reimbursements requested and still outstanding by year.

III. Observations and Recommendations

<u>Year</u>	<u>Total Amount Outstanding</u>
2009	\$ 18,739
2010	\$ 682,158
2011	\$ 2,755,190
2012	\$ 6,179,351
Total	\$ 9,635,438

Since the data we accumulated about cost reimbursements that had not yet been received by Public Works was based on our review of contractor cost estimates and consultant invoices that had been routed to the Reimbursement Manager, it would not include any unreimbursed costs for which the Reimbursement Manager was not provided documentation. During our testing, we became aware that 50% of the costs associated with the South Park Tennis Courts project were intended to be reimbursable via a grant from the Pennsylvania Department of Conservation and Natural Resources. It appears that the project manager did not provide the Reimbursement Manager with the information needed in order to prepare and submit cost reimbursement requests. The final payment for this project was made on September 6, 2011. The total costs incurred in connection with the South Park Tennis Courts project were \$373,810, which means that \$186,905 may have been reimbursable. Although we did not identify any other such instances during the performance of our procedures, similar circumstances may have resulted in cost reimbursement requests not being submitted in connection with other Public Works projects.

Public Works management advised us that there are a variety of circumstances that could result in delays in the receipt of cost reimbursements:

- Necessary supplemental reimbursement agreements may not be prepared by Public Works and executed in a timely fashion
- Public Works may not submit reimbursement requests to PennDOT in the proper format
- PennDOT may identify errors in contractor invoices or Public Works reimbursement requests that must be corrected before reimbursements can be issued
- PennDOT's process for review of reimbursement requests and issuance of cost reimbursements takes a minimum of 35 days

Recommendations: The Controller's Office recommends that Public Works:

- Improve its project management framework (see Observation #5) to provide for timelier preparation of supplemental reimbursement agreements, provide for adequate reviews of cost estimates to facilitate the timelier submission of complete and accurate cost reimbursement requests, and reduce the likelihood of incurring project costs that are not eligible for reimbursement.
- Ensure that consultants continue to separately identify the costs pertaining to construction management and construction inspection services on the invoices that they present to Public Works for payment.
- Strengthen the process for follow-up on outstanding cost reimbursement requests and consider whether sufficient personnel resources have been allocated to the preparation and monitoring of cost reimbursement requests.

III. Observations and Recommendations

Observation #7

The Overall Management of Public Works is Inadequate

Establishing and maintaining an effective organizational structure, engaging in long-term strategic planning, developing and requiring adherence to appropriate policies and procedures, and creating an environment that provides for the maintenance of accountability for employee performance all serve to facilitate the achievement of organizational objectives.

The Public Works Department does not appear to have maintained an effective organizational structure. We observed during the performance of our procedures that upper level management seemed to spend a significant amount of time performing routine day-to-day tasks. This is apparently attributable to vacancies in a number of positions not being filled for extended periods of time. For example, the vacant Fleet Manager position has not been filled for over a year. We were advised that the duties of the Fleet Manager position had been divided up between the Director and Deputy Directors of the Department. In addition, the most recent Director of the Department formerly held the position of Deputy Director of Maintenance. The Director continued to perform the job duties of the Deputy Director of Maintenance throughout his tenure as Director since the vacancy in his former position was never filled.

Focusing more on day-to-day tasks appears to have adversely impacted upper level management's ability to provide the overall direction that the Department needs. For example, had upper level management focused more on the overall management of Public Works, it may have identified the weaknesses in its project management framework (see Observation #5). We observed that Public Works annually updates a five year capital improvement plan, but we were advised that formal long-range strategic planning for the Department does not occur. A significant amount of time in recent years appears to have been spent addressing issues that have arisen as opposed to taking proactive measures to prevent unfavorable outcomes.

Public Works has written policies and procedures, but the deficiencies we have noted in Public Works' project management (see Observation #5) suggest that appropriate measures have not been taken to enforce adherence to them.

None of the Public Works employees we interviewed could remember formal employee performance evaluations ever being conducted at Public Works. Failure to hold employees accountable for their performance may lead employees to believe that poor performance is acceptable. A good performance evaluation process would involve not only an assessment of past performance, but the setting of goals and objectives for future performance.

The aforementioned weaknesses in the overall management of the Department have had an adverse impact on its operational effectiveness.

III. Observations and Recommendations

Recommendations: The Controller's Office recommends that Public Works:

- Reinststitute an effective organizational structure. The creation of a new Facilities Management Department tasked with managing the County's capital assets (staffed largely by former Public Works employees) will change Public Works' responsibilities, requiring Public Works to redefine its mission and objectives. Public Works should redesign its organizational structure to provide the best opportunity to satisfy its new responsibilities and achieve its revised mission and objectives. This should involve ensuring that upper level management is able to focus on the overall management of the Department instead of day-to-day tasks.
- Engage in long-term strategic planning. Doing so should enable Public Works to become more proactive instead of responding to issues once they have arisen.
- Revise its policies and procedures to the extent that clarity regarding expectations is needed, and take measures to enforce adherence to the established policies and procedures.
- Institute a formal employee performance evaluation process to facilitate maintaining accountability for employee performance.

Project Management Testing Results

List of 10 Projects Tested

Projects funded 80% with State Funds, 20% County Funds:

Saw Mill Run Bridge #6: Superstructure Replacement of Saw Mill Run Bridge #6, City of Pittsburgh, Total Project Cost: \$596,824 including change orders totaling \$1,824.

Girty's Run Bridge #16: Replacement of Girty's Run Bridge #16, Reserve Township and Millvale Borough, Total Project Cost: \$646,236 including change orders totaling \$160,529.

Millers Run Bridge #6: Rehabilitation of Millers Run Bridge #6, South Fayette Township, Total Project Cost: \$524,621 including change orders totaling (\$16,261).

McRoberts Run Bridge: McRoberts Run #5 Pipe Culvert, Jefferson Hills Borough, Total Project Cost: \$245,400 including change orders totaling \$16,913.

Little Deer Creek Bridge #6: Bridge Replacement of Little Deer Creek Bridge #6, West Deer Township, Total Project Cost: \$1,032,731 including change orders totaling \$132,912.

100% Federally Funded:

Browns Hill Road: Browns Hill Road, City of Pittsburgh, Total Project Cost: \$2,737,508 including change orders totaling \$212,163.

100% County Funded:

Coal Valley Road: Slope Stabilization Program Coal Valley Road #1, Borough of Jefferson Hills, Total Project Cost: \$722,024,333 including change orders totaling \$48,018.

Allegheny County Jail Roof Repairs: Construction of the Allegheny County Jail Roof Repairs, City of Pittsburgh, Total Project Cost: \$191,959 including change orders totaling \$57,559.

Park Restroom Renovations: White Oak: General Construction including repair and renovation of White Oak Park Restroom, Total Project Cost: \$293,557.

Lt. J.C. Stone Field Locker Room Facilities: General Construction of the Lt. J.C. Stone Field Locker Room Facilities, North Park, Total Project Cost: \$656,483 including change orders totaling \$233,983.

Testing Results

Early Construction Start Date: 1 of 6 reimbursable projects (17%) started prior to full execution of the contract and PennDOT approval resulting in non-reimbursement of \$326,580 to Allegheny County.

- Browns Hill Road

Extended Overhead: 2 of 10 projects (20%) overhead costs were incurred during compensable delay periods when full production was not achievable. In one instance (Lt. J.C. Stone Field Locker Room Facilities) Public Works failed to obtain the required building permits causing an additional \$25,456 cost to the County and in the other instance (Miller's Run Bridge) Public Works failed to timely acquire right-of-way access causing an additional \$51,178 cost to the County for stored materials.

- Lt. J.C. Stone Field Locker Room Facilities
- Miller's Run Bridge #6

Selection of Field Inspectors: 9 of 10 projects (90%) the Project Management files did not contain documentation to support the notion that project managers evaluated the qualification and experience of field inspectors prior to assignment to County projects.

- Girty's Run Bridge #16
- Millers Run Bridge #6
- McRoberts Run Bridge
- Little Deer Creek Bridge #6
- Browns Hill Road
- Coal Valley Road
- Allegheny County Jail Roof Repairs
- Park Restroom Renovations – White Oak
- Lt. J.C. Stone Field Locker Room Facilities

Allocation of Field Inspection Services to Projects: 7 of 10 projects (70%) the Project Management files did not contain the required Field Inspector's Diaries calling into question the availability of field inspectors to perform oversight responsibilities at the job site.

- McRoberts Run Bridge
- Little Deer Creek Bridge #6
- Browns Hill Road
- Coal Valley Road
- Allegheny County Jail Roof Repairs
- Park Restroom Renovations – White Oak

- Lt. J.C. Stone Field Locker Room Facilities

Quality Control Plans: 3 of 6 reimbursable projects (50%) the Project Management files did not contain the required Quality Control Plan (QCP) calling into question whether or not the field inspector and/or Project Manager monitored the QCP during construction.

- Millers Run Bridge #6
- Little Deer Creek Bridge #6
- Browns Hill Road

Prevailing Wage Rate Compliance Monitoring: 1 of 10 projects (10%) the certified payrolls could not be matched to the Davis-Bacon wage rate scale for one Class I Operator (underpaid hourly rate of \$2.54) for ten consecutive weeks and one electrician (underpaid hourly rate of \$2.75) for one week.

- Park Restroom Renovations – White Oak

Monitoring of Disadvantaged Business Enterprise (M/W/DBE) Utilization Goals: 4 of 10 projects (40%) the County's Disadvantage Business Enterprise utilization goal was not achieved.

- Girty's Run Bridge #16
- Millers Run Bridge #6
- Coal Valley Road
- Allegheny County Jail Roof Repairs

1 of 10 projects (10%) the County could not impose the M/W/DBE goal as the project was a state piggyback contract.

- Park Restroom Renovations – White Oak

Allocation of Project Manager Time to Site Visits: Our testing revealed deficiencies with all 10 (100%) projects. Two of the 10 projects (20%) contained no meeting sign-in sheets or other documentation in the Project Management files to provide proof the Project Manager visited the job site.

- Coal Valley Road
- Park Restroom Renovations – White Oak

8 of 10 projects (80%) did not contain sufficient documentation in the Project Management files to indicate that project managers conducted an adequate number of job site visits to manage the project efficiently and effectively.

- Saw Mill Run Bridge #6- conducted 6 site visits in a period of 4 months.
- Girty's Run Bridge #16- conducted 6 site visits in a period of 4.5 months.
- Millers Run Bridge #6- conducted 5 site visits in a period of 5 months.

- McRoberts Run Bridge- conducted 8 site visits in a period of 5 months.
- Little Deer Creek Bridge #6- conducted 6 site visits in a period of 6 months.
- Browns Hill Road- conducted 1 site visit in a period of 20 months.
- Allegheny County Jail Roof Repairs- conducted 1 site visit in a period of 4 months.
- Lt. J.C. Stone Field Locker Room Facilities- conducted 7 site visits in a period of 8 months.

Timely Preparation of Cost Estimates: 20 (11%) of 190 cost estimates were not prepared within 45 days of the close of the estimate period. These estimates ranged from 46 days to 216 days overdue.

Review and Approval of Cost Estimates: We tested 190 cost estimates, of which each cost estimate form requires seven signatures and dates. Required signatures include the Public Works Director, Deputy Director, Fiscal Manager, Construction Engineer Manager, Project Manager, Field Inspector and the Contractor. Of the 1,330 signatures required in our testing, we noted 214 (16%) missing signatures and 444 (33%) missing dates on cost estimates.

Proper Approval of Change Orders: 3 of 10 projects (30%) were identified with one or more issues related to change orders. In one instance (Girty's Run Bridge) the change order may not have been properly approved. A fully executed copy of the change order or executive action could not be found. In the second instance (Allegheny County Jail Roof Repairs) the change order was related to work already completed. And in the third instance (Lt. J.C. Stone Field Locker Room Facilities) there appeared to be an excessive number of changes orders increasing the cost of the project by 55% or \$233,983.

- Girty's Run Bridge
- Allegheny County Jail Roof Repairs
- Lt. J.C. Stone Field Locker Room Facilities

Communication with the Controller's Office Inspectors: 10 of 10 projects (100%) there is no documentation in the Project Management files to indicate that project managers communicated effectively and efficiently with the Controller's Office inspectors.

- Saw Mill Run Bridge #6
- Girty's Run Bridge #16
- Millers Run Bridge #6
- McRoberts Run Bridge
- Little Deer Creek Bridge #6
- Browns Hill Road
- Coal Valley Road
- Allegheny County Jail Roof Repairs
- Park Restroom Renovations – White Oak
- Lt. J.C. Stone Field Locker Room Facilities

Construction Deficiencies: 6 of 10 projects (60%) Controller's Office inspectors reported construction deficiencies during site visits.

- McRoberts Run Bridge
- Park Restroom Renovations – White Oak
- Girty's Run Bridge #16
- Little Deer Creek Bridge #6
- Browns Hill Road
- Lt. J.C. Stone Field Locker Room Facilities

Completion of Punch List: 2 of 10 projects (20%) the Project Management files did not contain a punch list.

- Allegheny County Jail Roof Repairs
- Lt. J.C. Stone Field Locker Room Facilities

8 of 10 projects (80%) the Project Management files did not contain a completed punch list. Punch list found in the Project Management file was incomplete.

- Saw Mill Run Bridge #6
- Girty's Run Bridge #16
- Millers Run Bridge #6
- McRoberts Run Bridge
- Little Deer Creek Bridge #6
- Browns Hill Road
- Coal Valley Road
- Park Restroom Renovations – White Oak

Liquidated Damages: Public Works does not have a formal process for evaluating the potential for the pursuit of liquidated damages. The Controller's Office inspectors indicated Public Works does not pursue liquidated damages.

Evaluation of Contractors: 10 of 10 projects (100%) the Project Management files did not contain documentation to indicate project managers evaluated contractors at the conclusion of each project.

- Saw Mill Run Bridge #6
- Girty's Run Bridge #16
- Millers Run Bridge #6
- McRoberts Run Bridge
- Little Deer Creek Bridge #6
- Browns Hill Road
- Coal Valley Road
- Allegheny County Jail Roof Repairs

- Park Restroom Renovations – White Oak
- Lt. J.C. Stone Field Locker Room Facilities

Evaluation of Field Inspection Services: 10 of 10 projects (100%) the Project Management files did not contain documentation to indicate project managers evaluated field inspectors at the conclusion of each project.

- Saw Mill Run Bridge #6
- Girty's Run Bridge #16
- Millers Run Bridge #6
- McRoberts Run Bridge
- Little Deer Creek Bridge #6
- Browns Hill Road
- Coal Valley Road
- Allegheny County Jail Roof Repairs
- Park Restroom Renovations – White Oak
- Lt. J.C. Stone Field Locker Room Facilities

Overall, we noted deficiencies in 100% of the projects sampled.

Average Timeframes for the Undertaking of Capital Projects

Project Name	Date Bids Received	County Executive Approval	Number of Days Between Receipt of Bids and County Executive Approval	Date Contract Awarded	Number of Days Between Executive Approval and Contract Award	Date Contract Executed	Number of Days Between Contract Award and Contract Execution	Notice To Proceed Date	Number of Days Between Contract Execution and Notice To Proceed	Number of Days Between Receipt of Bids and Notice To Proceed
Homeville Creek Bridge #7 & #10	7/6/2005	7/22/2005	16	7/26/2005	4	8/15/2005	20	9/22/2005	38	78
Miller's Run Bridge #6	2/24/2010	6/28/2010	124	6/28/2010	0	7/12/2010	14	2/22/2011	225	363
McRoberts Run Bridge	2/9/2011	6/10/2011	121	6/10/2011	0	6/20/2011	10	8/4/2011	45	176
Coal Valley Road #1	6/16/2010	8/30/2010	75	8/30/2010	0	9/10/2010	11	9/29/2010	19	105
2008 Capital Roads Reconstruction Program	4/30/2008	5/27/2008	27	5/30/2008	3	6/17/2008	18	7/10/2008	23	71
2009 Capital Roads Reconstruction Program	5/6/2009	6/24/2009	49	6/24/2009	0	7/3/2009	9	7/6/2009	3	61
Power Back-up at Lexington	5/26/2010	7/27/2010	62	7/27/2010	0	8/6/2010	10	9/13/2010	38	110
Roof Replacement at North Park Golf Pavillion	7/1/2009	8/24/2009	54	8/24/2009	0	9/4/2009	11	10/21/2009	47	112
A/C Jail Roof Repairs	8/26/2009	10/28/2009	63	10/28/2009	0	11/9/2009	12	6/1/2010	204	279
South Park Tennis Courts	7/15/2009	8/24/2009	40	8/24/2009	0	9/22/2009	29	10/6/2009	14	83
Average Number of Days			63		1		14		66	144

The table above indicates the timeframes associated with the undertaking of specific capital projects. Each capital project in the table above was included in the samples we used for the testing we conducted pertaining to procurement, project management, and accounting and cash management.

COUNTY OF



ALLEGHENY

RICH FITZGERALD
COUNTY EXECUTIVE

May 8, 2013

The Honorable Chelsa Wagner
Office of the County Controller
104 County Courthouse
436 Grant Street
Pittsburgh, PA 15219

RE: Response to Controller's "Allegheny County Department of Public Works Operational Analysis Report for the Period January 1, 2009 through December 31, 2011 (Non-Audit Service)"

Controller Wagner:

Thank you for the opportunity to respond to the aforementioned analysis of the Allegheny County Department of Public Works operations for the period January 1, 2009 through December 31, 2011.

As you are likely aware, I started in the position of Director of the Department of Public Works on March 4, 2013. During the job interview process, as well as in the directives that I received from the County Executive and the County Manager, it was made clear to me that addressing some of the challenges within the Department of Public Works (ACDPW) was a priority. The information in your analysis contains many of the challenges that they previously identified to me; therefore, your report confirms their analysis and will assist me as I continue to formulate solutions.

Let me begin by stating that while it is true ACDPW has faced some challenges in paying its' contractors and consultants, these have been timing issues only. ACDPW has never defaulted on any contractual obligations to its vendors, and has no intention of ever doing so. The primary reasons for the delay in payments have been funding related: the late issuance of bonds necessary to finance our capital programs, as well as delays in the receipt of reimbursement funds from the Pennsylvania Department of Transportation (PennDOT). Many of the issues were addressed in October 2012 when the County not only issued bonds to fund its' 2012 capital program, but its' 2013 capital program as well. At the same time, ACDPW made substantial procedural changes to improve the PennDOT reimbursement process detailed later in this response.

Specific responses to your reports' recommendations are attached.

Sincerely,

Steven W. Johnson, P.E.
Director, Allegheny County Department of Public Works

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1. **The Controller's Office recommends that the Department of Public Works in conjunction with the County Executive and the County Council adopt a policy stating that state and federal reimbursements remain in the capital budget.**

The transfer of capital reimbursement funds occurred during fiscal years 2009 through 2011. The present administration assumed office in January 2012, and has publicly stated its' opposition to such transfers; it has even gone so far as to publicly state that it will not engage in such practices. As such, the County Executive and the County Manager have already adopted this practice. Evidence of this can be seen in the fact that no reimbursement transfers were performed for fiscal year 2012, and no transfers were budgeted for fiscal year 2013, the first budget recommendation developed by the new administration.

As to the figures detailed in your report, you note that \$4,800,000 of the total 2011 transfers from the Capital Fund to the Debt Service Fund were related to the refinancing of the County's 1999 Certificates of Participation (COPS), which was a funding mechanism used to renovate the Old Allegheny County Jail into the present Family and Juvenile Court Facility. However, the purpose of this refinancing was to achieve a significant cash flow savings by liquidating a long-standing debt service reserve account, which would have been used to make the final 2028 principal payments on the COPS. These funds were never intended to pay for any of the County's capital projects; therefore, they do not constitute a diversion of funds. Their initial deposit to the Capital Projects Fund was for convenience in the bank wire transfer instructions related to the refinancing; while the later transfer to the Debt Service Fund placed the funds where they ultimately belonged. As such, the 2011 total listed in your report overstates the matter. There are similar, albeit smaller, issues with your 2010 and 2009 totals.

2. **The Controller's Office recommends that Public Works: Modify the methodology it uses to project cost reimbursements to be received to help ensure that the process does not result in an overestimation of the sources of funds available to fund annual capital projects; and, annual capital project budget requests be revised to include objective criteria to increase the likelihood that the County's most significant capital needs will be addressed and that Public Works will not undertake capital projects that cannot be completed with the available capital resources.**

ACDPW inspects every County-owned bridge in compliance with all state/federal guidelines. As such, all bridge ratings are regularly updated in order to prioritize rehabilitation projects in the most objective manner possible. ACDPW uses a separate, internal system to rate County-owned roads for the same purpose.

The process for rehabilitating a major County-owned bridge not only includes contracting with various vendors to perform the work, but also with PennDOT for reimbursement of the expenses. Prior to the commencement of construction, the entire scope of the project is approved by PennDOT and an agreement for the correct reimbursement amount is signed by ACDPW and PennDOT. These agreements are based upon simple formulas: either 95% or 80% reimbursement. On occasion, certain conditions are identified during construction that requires the scope of work to be expanded. In these instances, the contracts with vendors and PennDOT are amended to include the extra work. As a result, overestimations of reimbursement funds only occur in rare instances where PennDOT does not agree to reimburse the additional scope of work. In each instance, these are unknown conditions that could not be planned for in advance.

In the past, state-reimbursed bridge project agreements required that requests for reimbursement occur after projects were completed, and only the federal-funded projects allowed for reimbursement while projects progressed. The latter procedure has been implemented for reimbursements for our state-funded projects; although it requires more effort, it results in earlier receipt of funds that can be used for funding other projects. Working with PennDOT, ACDPW has implemented revised reimbursement procedures so that all projects are reimbursed as work progresses. These new reimbursement procedures have been implemented on all nine of our most recent bridge projects and will be used on all future projects.

Unfortunately, funding restrictions limit the number and size of capital projects the County can undertake in any given fiscal year. Capital projects are funded predominantly through the issuance of general obligation bonds, and managing the size of the County's long-term debt portfolio is an important part of the County's overall financial management. It is the job of the Budget Office and the County Manager to sort through all of the individual departmental capital requests and recommend the overall size of each annual capital program, as well as prioritize projects for that program. For the 2012 Comprehensive Fiscal Plan (CFP), the bond portion of all projects requested by the departments totaled in excess of \$103.1 million. The recommended bond issuance for the 2012 CFP was \$45.9 million. For the 2013 recommendation, the bond portion of all projects requested by the departments totaled in excess of \$111.1 million. The recommended bond issuance for the 2013 CFP was \$55.1 million. Ultimately, the size on the bond issuance for any given year is subject to legislative approval by County Council.

- 3. The Controller's Office recommends that Public Works: Take measures to help ensure that capital funds are available to issue progress payments in connection with capital projects as required. This can be accomplished by developing better projections of cost reimbursements that are intended to serve as funding sources for capital projects, and taking measures to improve its processes for submission and tracking of cost reimbursement requests to facilitate timelier receipt of reimbursements; and, improve its project management framework which should provide for timelier preparation and review of contractor cost estimates and reduce the likelihood that Public Works will incur costs intended to be reimbursable that will be deemed ineligible for reimbursement.**

In 2012, ACDPW initiated an improved system for tracking project reimbursement submissions and receipts, and we will be requiring construction management contractors to use project tracking systems. We have incorporated the use of SharePoint for management of our federally-funded bridge design projects and plan to extend the use of SharePoint to our state-funded bridge design projects.

- 4. The Controller's Office recommends that Public Works: Utilize its standard procurement process for all construction contracts applicable to capital projects to facilitate compliance with all applicable regulatory requirements and the County's M/W/DBE utilization goals; and, consider revising its procurement policies and procedures to allow for greater consideration of cost when evaluating proposals for professional service pertaining to projects which are entirely County-funded.**

In addition to the traditional design-bid-build process used for over 90% of ACDPW contracts, Purchasing contracts are one of several accepted alternatives that can provide cost-effective, rapid completion of simple projects. These Purchasing contracts are most often state or federal schedule

contracts requiring payment of prevailing wages and with state and federally mandated M/W/DBE goals. We are committed to the County M/W/DBE program and the attainment of its goals by our contractors.

- The Controller's Office recommends that Public Works: Take steps to improve its project management framework and consider: Using project management software; Establishing stricter standards for preparing, retaining, and organizing project records; Conducting formal employee performance evaluations at least annually.; Refrain from issuing a "Notice to Proceed" to contractors that will be working on reimbursable projects until construction contracts are fully executed and any other applicable requirements are met in order to help ensure that the construction costs incurred will be eligible for reimbursement. To facilitate this, Public Works should ensure that project managers and others involved in the administration of capital projects are made aware of and periodically review any applicable compliance requirements; Identify during the planning phase of capital projects the types of conditions that could arise that may result in the unnecessary incurrence of extended overhead (i.e., not having a building permit), and take measures at that time to reduce the likelihood of incurring the additional overhead costs. Should extended overhead costs be incurred in connection with a project, Public Works should consider whether revisions in its planning process are warranted; Consider hiring additional field inspectors instead of relying almost exclusively on consultants to provide those services; Formally document the process used to select the field inspector for each capital project and include the documentation in the project management files; Reevaluate the process it uses to allocate field inspection services among its projects to determine whether the process being used appropriately minimizes the risk of construction deficiencies; Ensure that Paving Operations Quality Control Plans are obtained from contractors, that the Plans are reviewed and approved and compliance with the Plans is monitored by Public Works during construction, and that the Plans are included in project management files; Ensure that the monitoring of contractor compliance with prevailing wage requirements is undertaken for every Public Works project as applicable; Hold project managers accountable if they do not identify and advise the DBE Administrator of reductions in the utilization of DBEs that will result in a failure to meet the County's established DBE utilization goals; Mandate that high percentages of project manager time be allocated to construction management (which requires site visits); Maintain accountability for the timely preparation, review, and approval of contractor cost estimates and timely review and approval of consultant invoices; Make certain that each project is properly planned such that the scope of work is clearly defined and includes all foreseeable items to minimize the need for a large number of change orders. Require change orders to be approved prior to the completion of any additional work; Improve communication with the Controller's Office construction inspectors to minimize the likelihood that opportunities for the inspectors to identify any construction deficiencies will be missed; Maintain accountability for the completion of punch lists for projects prior to approving the issuance of final payments to contractors; Institute formal processes for the evaluation of contractors and field inspectors that provide services in connection with specific capital projects. The process for evaluating field inspectors should involve (at a minimum) determining whether any construction deficiencies had been missed (which could suggest the need for additional training). Contractor performance should be measured (at a minimum) against contractual requirements, and if construction deadlines or other established requirements are not met, Public Works should evaluate the potential for pursuing liquidated damages; Require project managers to make post-construction site visits to determine whether any remedial site work is needed prior to the release of maintenance bonds to the contractors; Require project managers to engage in financial management of the capital projects to facilitate budgetary compliance and timely preparation and execution of any needed supplemental reimbursement agreements and timely receipt of cost reimbursements.**

Public Works is in the process of filling critical vacancies and reviewing processes and procedures. We have recently implemented the use of SharePoint to track our federal design projects and will consider implementing the use for our state-funded and county-funded projects. PennDOT is also moving forward with implementing the use of SharePoint and we will incorporate the use of this software in the future where it will best serve the county needs.

While reviewing procedures, the department will look at staffing related to project workload and the possibility of adjustments. We will look at implementing enhanced project monitoring to target some of the deficiencies noted in the aforementioned report. This enhanced project monitoring will incorporate additional qualifications and tracking measures for field inspection staff.

- 6. The Controller's Office recommends that Public Works: Improve its project management framework (see Observation #5) to provide for timelier preparation of supplemental reimbursement agreements, provide for adequate reviews of cost estimates to facilitate the timelier submission of complete and accurate cost reimbursement requests, and reduce the likelihood of incurring project costs that are not eligible for reimbursement; Ensure that consultants continue to separately identify the costs pertaining to construction management and construction inspection services on the invoices that they present to Public Works for payment; Strengthen the process for follow-up on outstanding cost reimbursement requests and consider whether sufficient personnel resources have been allocated to the preparation and monitoring of cost reimbursement requests.**

Public Works' approach to managing its reimbursement program for federal and state transportation funds has gone through significant changes in the past twelve months in an effort to address the deficiencies Public Works identified prior to this audit. A meeting in May 2012 between Public Works officials and PennDOT District 11 officials identified areas such as accurate invoicing by consultants and timely invoicing from the county. Since then all consultants have been directed to accurately split construction design phases as well as construction inspection and management costs. This change took effect fully in the 3rd quarter of 2012.

In addition, ACDPW has addressed how long it takes to get a reimbursement invoice processed to PennDOT. The process from the moment an estimate is received from the field office to the time an invoice is generated to PennDOT has been reduced from weeks to days. All staff responsible for the review and approval of project estimates and pay applications understands that their review should not take more than two (2) business days. Project Managers have also been instructed to ensure that if project costs increase, corresponding amendments or supplements to applicable reimbursement agreements are made right away. These actions help significantly reduce the number of delays in receiving reimbursements from the state.

Finally, by reassigning personnel within the department to processing reimbursement documents, ACDPW has increased reimbursement receipts from PennDOT. Since the beginning of 2013, ACDPW has processed over \$9.5 million in reimbursement requests to the state. In that same time period, the county has received more than \$9.9 million in payments, which reflects that increased activity in pursuing receivables goes back to 2012.

- 7. The Controller's Office recommends that Public Works: Reinstitute an effective organizational structure. The creation of a new Facilities Management Department tasked with managing the County's capital assets (staffed largely by former Public Works employees) will change Public Works' responsibilities, requiring Public Works to redefine its mission and objectives. Public Works should redesign its organizational structure to provide the best opportunity to satisfy its new responsibilities and achieve its revised mission and objectives. This should involve ensuring that upper level management is able to focus on the overall management of the Department instead of day-to-day tasks; Engage in long-term strategic planning. Doing so should enable Public Works to become more proactive instead of responding to issues once they have arisen; Revise its policies and procedures to the extent that clarity regarding expectations is needed, and take measures to enforce adherence to the established policies and procedures; Institute a formal employee performance evaluation process to facilitate maintaining accountability for employee performance.**

As mentioned in responses to the previous six recommendations, ACDPW is reviewing the organization structure, processes and procedures occasioned by the creation of the new Department of Facilities Management and transfer of related responsibilities. Although improvements have been made in many areas – including reimbursement and project management procedures – the County Executive and County Manager have identified many more areas to be addressed and these areas will be improved in accordance with their guidance.