



RFP NO. BES116 – ESCSO Tunnel Project Financial Audit Report

August 1, 2011

July 19, 2011

Jim Hagerman
City of Portland
Bureau of Environmental Services
1120 SW Fifth Avenue,
Room 1000
Portland OR 97204

Dear Mr. Hagerman:

It is our pleasure to submit our report containing results of the East Side CSO financial Audit. Our report is comprised of the following sections:

SECTION 1 Executive Summary
SECTION 2 Objectives and Methodology
SECTION 3 Observations and Recommendations
EXHIBITS

Feel free to contact me at (407) 256-0509 should you have any questions or require additional clarification regarding this report and its contents.

Sincerely,



Roy W. Block
President,
R W Block Consulting, Inc.

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SECTION 1 EXECUTIVE SUMMARY

At the request of the City of Portland (“City”), RWBC has completed its audit of the ESCSO Tunnel Project. The objective of this work was to (1) test adherence of applications for payment to contract terms and conditions; (2) verify the existence of sound processes, procedures and controls in the administration of the project; and (3) review of construction change orders for adherence to contract terms and conditions.

This report provides 33 observations and associated recommendations. We note that observations may be comprised of a finding, no exception or other type of comment. Recommendations associated with each observation are intended to either deal with an identified issue or if applicable, to provide a forward looking suggestion for improvement that can be applied on future projects.

The ESCSO Tunnel Project is administered using a fixed fee-cost reimbursable contracting methodology. The unique physical requirements of this project created a wide range of risks to the City such as unforeseen site conditions and performance risks. In fact, during the pre-construction phase over 251 risks were identified by a wide range of project stakeholders. The selected project delivery and associated contract structure were designed to optimize contractor performance while providing the City with the best opportunity for overall project success (cost and schedule). As such we recognize that this type of contract is unique in the cost reimbursable nature of its structure and understand the reasoning behind such structure.

In general we found that the ESCSO Tunnel Project is administered using industry standard processes and procedures for cost, schedule and project administration. These practices include sound risk identification and mitigation processes, use of key performance indicators, use of web based project management software, standardized workflow, document management and qualified staff. We also found that based on our review, costs submitted (including executed change orders) were supported and submitted according to contract terms and conditions.

Our audit does highlight certain areas where we believe project savings should have been passed to the City, retainage was invoiced to the City but not paid by KBB to its subcontractors, and where calculation of earned fee components used a performance period that excluded time after substantial completion. We also found that there is conflicting contract language where certain costs would not be eligible under one section of the general conditions yet allowable under another.

The sections that follow expand our analysis of the ESCSO contract review. RWBC reserves its right to modify the contents of this report should additional information be provided that may modify our analysis and associated conclusions. We appreciate the opportunity to perform this work for the City and are available to provide additional information regarding the contents of this audit.

Sincerely,
R. W. Block Consulting, Inc.

SECTION 2 OBJECTIVES and METHODOLOGY

RWBC was tasked with performing a financial audit and review of processes/procedures used to administer the ESCSO Tunnel Project. The objective of this work was to (1) test adherence of applications for payment to contract terms and conditions; (2) verify the existence of sound processes, procedures and controls in the administration of the project; and (3) review of construction change orders for adherence to contract terms and conditions.

Our methodology used to reach our project objectives were as follows:

POLICY AND PROCEDURE REVIEW

Activities performed in our review of BES policies and procedures included holding interviews with project executives and project staff and review of existing documentation including:

- June 2004 Project Management Plan
- March 2008 East Side Combined Sewer Overflow and Tunnel Project Construction Management Guidelines
- Schedule narratives 055 and 061
- Status Report No. 57
- Monthly Report No. 60
- Executed Construction Contract

This approach allowed RWBC to test whether existing procedures were followed and to identify potential areas of improvement. RWBC used data gathered from interviews with staff, reports and project manuals to verify that stated processes were followed and that critical project data was reported and tracked. Results of effort are included in SECTION 3, Part 3.

APPLICATION FOR PAYMENT REVIEW

RWBC selected three applications for payment for review, #91 (covering period December 14, 2009 to January 3, 2010), #102 (covering period June 14, 2010 to June 27, 2010) and #118 (covering period February 14, 2011 to February 27, 2011). Review process for each application for payment included the following activities:

- Verification of mathematical accuracy of application for payment
- Verification that supporting documentation was included in application for payment
- Verification that amounts invoiced by subs to KBB were paid by KBB on a sample basis
- Verification that amounts invoiced by KBB were paid by the City
- Review of labor, material and subcontractor billings
- Verification that labor costs were paid on a sample of staff

- Verification that subcontractors were paid by KBB on a sample basis

Results of this effort are included in Section 3, Part 1.

CHANGE ORDER REVIEW

RWBC performed a review of seven (7) executed construction change orders covering the period of our audit (2009-2011 April) including supporting documentation, discussion of approved change orders with Project staff and review of associated documents including construction contract, and record of negotiations where applicable.

Results of this effort are included in Section 3, Part 2.

SECTION 3 OBSERVATIONS AND RECOMMENDATIONS

This section is organized into three parts as follows: Part 1 – observations relating to applications for payment, segregated by applicable pay application; Part 2- observations relating to change order reviews; and Part 3 – observation relating to process/procedures review.

PART 1 - PAY APPLICATIONS REVIEW

OBSERVATIONS PERTAINING TO PAY APPLICATION #118

OBSERVATION 1: RWBC reviewed trade employee certified payrolls for the periods covered by Pay Application #118 and confirmed that the wages, deductions and benefits paid were in conformance with the union requirements and were consistent with the wages and benefits included in the KBB Pay Application. No exceptions were found in performing this activity.

RECOMMENDATION: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 2: We found that billing rates used by Kiewit field supervisory personnel are not routinely tested in each pay application by BES staff, even on a sample basis, to see if they reconcile to actual payroll costs. RWBC did test wages claimed for supervisory personnel on a sample basis and found no exceptions.

RECOMMENDATION: We recommend that for the balance of this project and moving forward, on other future projects with similar cost reimbursable structures, billing rates be tested against actual payroll costs on a sample basis within each pay application.

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 3: RWBC found no exceptions to direct labor amounts billed by KBB and those paid to their staff. As part of the labor cost analysis, RWBC selected 10 individuals at random to verify that amounts invoiced for direct labor charges were actually paid to staff. KBB provided supporting documentation and our analysis is provided as **EXHIBIT 1**.

RECOMMENDATION: N/A

MANAGEMENT COMMENTS: None



AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 4: Based on a sample review of subcontractor invoices, RWBC found that KBB paid its subcontractors, on average, within 18.8 days of receipt of invoice. Additionally, on a sample basis we traced invoiced amounts submitted by subcontractors to actual checks paid by KBB as shown in **EXHIBIT 2**. Explanation for variance between subcontractor invoiced amounts and KBB payments are also provided in **EXHIBIT 2**. We found no unreconciled variances and find that payment to subcontractors on a cycle that is 30 days or less is a leading practice in jobsite administration.

RECOMMENDATIONS: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 5: We found a Kiewit invoice to KBB for cell phones for two individuals in the amount of \$253.30. This charge is not allowable under General Conditions Article 103.05 which states that telephone service is part of the Fee. However, RWBC did find an internal BES document dated September 3, 2008 whereby KBB argued that cell phone use had replaced radios for field communication and the City concurred that such can be charged as a reimbursable cost for field personal only. The individuals charged for the cell phones are field supervisory personal. No exceptions noted by RWBC given City approval of such charges.

RECOMMENDATIONS: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 6: We found conflicting requirements in the contract pertaining to travel related costs. For example we found an invoice from Bilfinger Berger Civil, Inc. in the amount of \$49,626.06 for the relocation of the Metzger family back to Germany. This charge appears to conflict with General Conditions Article 103.04 (B10) which states that travel costs are not reimbursable unless they are for the direct performance of the work by salaried personnel. However, General Conditions Article 109.10 does state that subsistence and travel allowances are an eligible category of cost reimbursement. We do not take exception to this charge given the existence of Article 109.10 and upon verification that BES staff approved these charges under General Conditions Article 109.10.



RECOMMENDATIONS: We recommend that on future project more consistent language be defined to avoid potentially conflicting contract term(s) language.

MANAGEMENT COMMENTS: “We agree that these two General Conditions clauses can be considered conflicting. We will revise these clauses for clarity on the Master Specification file should this type of contract be used again.”

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 7: We found an invoice from Bilfinger Berger Civil, Inc. to KBB for labor in the amount of \$48,778.24 for the period January 16, 2011 through January 31, 2011. KBB is the joint venture entity while BBC is a billing party to the KBB joint venture. RWBC found no subcontract agreement between these two entities, which would normally be expected as they are different legal entities. We further note, however, General Condition Article 103.02B states that a subcontract agreement may not be required: “costs incurred by any member or members of the joint venture will be treated as if they were incurred by the joint venture...”.

RECOMMENDATION: We recommend that on future projects subcontract agreements be used to distinguish legal entities and ensure a more transparent process for flow of funds.

MANAGEMENT COMMENTS: “This observation and recommendation is confusing. Subcontract agreements are clearly specified in the General Conditions as distinguishing between legal business entities. However, as stated in the audit observation, Kiewit and Bilfinger Berger are joint venture partners under the contract and, as such, there should be no subcontracting agreement between the two companies. General Conditions Section 103.03 B. states that: “Costs incurred by any member or members of the joint venture will be treated as if they were incurred by the joint venture...” It’s not clear what change would be made on future projects.”

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: This recommendation is intended to highlight the fact that the Joint Venture is typically a separate legal entity from each joint venture member. This project partnering structure is done by entities companies to limit financial or other type of risk through the creation of a new legal entity where revenue and expenses are shared based on agreed upon splits. Our recommendation was a forward looking suggestion to provide more clarity regarding financial transactions between joint venture and member entities. This would provide more transparency as to the source of costs and tracking of costs and could be accomplished by the simple requirement to have a subcontract agreement if JV member entity is billing costs to JV. This is a common practice on many other construction



projects and provides the City with clearer demarcation of how costs are being generated, especially on a fixed fee/cost plus type of construction contract.

OBSERVATION 8: We found a payroll credit document in the amount of \$37,310 as a Journal Number 4492 which was not included in the summary amount. An email from KBB dated March 31, 2011, in response to the City’s inquiry, stated it was included by error and will be adjusted in a future pay application. This credit relates to corrections for individuals’ cost invoiced as a reimbursable costs in prior pay applications but for which portions of their time is not reimbursable.

RECOMMENDATION: We recommend that BES staff ensure this credit is properly reflected and recorded.

MANAGEMENT COMMENTS: “Agreed. We have confirmed that this was credited back to the City in Payment Application No. 122.”

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 9: We found that the Other Fee Component (OFC), totaling \$17,500,000, of the Total Fee calculation of \$64,500,000 did not incorporate the time period between substantial and final completion of the work in the earned calculation thereby allowing KBB to earn this component of the fee in an accelerated manner.

KBB’s fee is comprised of the following:

Mobilization and Initial Costs	\$5,100,000
Progress of the Work Costs	41,900,000
Other Fee Components (CFC)	<u>17,500,000</u>
TOTAL:	<u>\$64,500,000</u>

Mobilization and Initial Costs have been fully paid in previous pay applications which is consistent with GC Article 109.17 requiring such to be paid in the first six months following notice to proceed (NTP).

The OFC has been calculated using the cumulative number of days from NTP to the end of the applicable pay period divided by 2004 days, the time from NTP to Substantial Completion as follows:

$$\text{Earned OFC} = \frac{\text{Cumulative No. Of Days from NTP to End of Pay Period}}{2004 \text{ Days (Substantial Completion less NTP)}}$$



Thus the total OFC of \$17,500,000 , divided by 2004, days equals \$8,732.53/day or \$122,255.42 for this 14 day pay application period. This calculation is consistent with other applications for payment. Through Pay Application #118, a total of \$15,762,176 of OFC has been earned.

General Condition Article 109.17 (A3) states that the time-related cost portion of the Fee is to be paid over the life of the contract. The contract time is defined under General Conditions Article 101.01 as the time to perform all work; thus, the contract time would extend to Final Completion rather Substantial Completion as is currently used in earned calculation of OFC. Final Completion extends for an additional 90 days subsequent to substantial completion and we note that the KBB schedule shows work activities after Substantial Completion.

Extending the earned period from NTP to Final Completion yields a performance period of 2094 days, equating to a daily OCF rate of \$8,357.21 ($\$17,500,000 / 2094 = \$8,357.21$). Using this interpretation of the contract, the total "Progress of the Work Fee" would yield a total OCF earned of \$15,084,764 through this pay period.

Applying the entire performance period through Final Completion in lieu of Substantial Completion yields \$677,412 in accelerated OCF fee earned ($\$15,762,176^1$ less $\$15,084,764^2 = \$677,412$) in cumulative and \$5,254.48 on Pay Application #118 specifically ($\$122,255.42 - \$117,001.00 = \$5,254.42$). We fully recognize that the amount to be billed is a lump sum amount that is fixed and will ultimately be paid in full to KBB, we questions the rate at which this Fee component is earned.

Similarly, the same was found in Applications for Payment 102 and 91.

RECOMMENDATION: We recommend that either (1) the contract language pertaining to performance period (through Substantial Completion) in any agreement for OCF calculation be reflected and consistent with existing practice for calculating OCF; or (2) that the OCF be adjusted to recognize the performance period through Final Completion; or (3) show a formal agreement where the performance period did not include the period from Substantial Completion to Final Completion.

MANAGEMENT COMMENTS: "Acknowledged. This portion of the fee was paid based upon the total calendar days to beneficial occupancy, which occurs at contract substantial completion, not final completion. Liquidated Damages would begin at the date of substantial completion, not final completion under the terms of this contract. As

¹ Earned using Substantial Completion as end point of performance period

² Earned using Final Completion as end point of performance period



it turned out, the only reason the project is not being activated three months earlier than scheduled is due to the weather window for outfall tie-ins that is only available in the summer months. However, 109.17 states that Time Related Costs will be paid “over the life of the contract.” So we agree this is an area for clarification”

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 10: We found an accelerated payment of \$5,866 for “Progress of Work Fee” in Pay Application #118. We also note that this error was corrected in a subsequent Pay Application #119.

The “Progress of the Work Fee” is and has been calculated based upon a cost loaded schedule prepared and updated monthly. The current schedule for this pay period has a Report Date of March 11, 2011 and a Data Date of February 27, 2011. The cost loaded schedule excludes certain elements of the costs which are not considered to be a reflective measure of progress or work in place. Most notable of the exclusions is equipment cost. In Pay Application #118 the amount earned to date is \$219,524,082 and this amount is divided by \$231,032,782 which is the full amount to be earned in the cost loaded schedule: a similar calculation is used throughout in previous pay applications. This methodology yields 95.019% complete or a “Progress of the Work Fee” for the pay period to date of \$39,812,961. Thus, the “Progress of the Work Fee” due on Pay Application No. 118 is as follows:

Total Earned to Date -	\$39,812,961
Less, Previous Payments -	<u>39,663,378</u>
Due Pay Application #118 -	<u>\$ 149,583</u>

The amount paid on Pay Application is \$155,449 or \$5,866 above the amount calculated by the KBB. This error was pointed out by KBB and corrected on Pay Application #119. The difference represents a \$5,866 overpayment on this fee component for the pay period. We also note that this is not an overpayment, but rather an accelerated partial payment as fee is a fixed amount and will ultimately be paid in full to KBB.

RECOMMENDATION: N/A

MANAGEMENT COMMENTS: “Agreed. This was corrected on the next payment application.”

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A



OBSERVATION 11: We found that the full salvage value of disposed equipment was not fully taken at time of sale on Pay Application #118 as this amount would have resulted in a negative application for payment condition (KBB would have written a check to City).

An Equipment Summary is provided in Pay Application #118 which tallies purchased and salvaged costs. Rental equipment is included as follows:

Equipment Purchased to Date -	\$35,953,316
Equipment Salvage Value to Date -	<u>5,590,190</u>
Equipment Cost to Date -	<u>\$30,363,126</u>

In Pay Application #118 there was no equipment purchases recorded. Documents show equipment sold in the amount of \$1,407,000. KBB supporting documentation for each piece of equipment sold was provided. For example, the tunnel boring machine (TBM) was sold for \$1,777,658.08, however, only \$1,200,000 of this total was applied on Pay Application #118. The full credit amount of \$1,777,658,08 would have resulted in a negative pay application. It was noted that the balance of the credit will be applied on the next pay application. RWBC verified that the balance of \$577,658 was credited on Pay Application #119.

RECOMMENDATION: We recommend revising payout procedures for salvage value on future projects to avoid negative invoiced amounts from general contractor/construction manager.

MANAGEMENT COMMENTS: "Full salvage value of disposed equipment couldn't be fully taken at the time of sale due to the City's new financial software system's inability to accept credits. In response to this, staff was required to distribute salvage credits on equipment to various pay items within the payment and, at times, carry it over to subsequent payments. However, this problem has since been resolved with the City's financial software and these distributed credits no longer occur."

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 12: There was no retainage withheld on Pay Application #118. The City had opted not to withhold additional retainage after 50% of the project had been completed. This is the City's decision and is allowed in accordance with GC Article 109.17 (K1). However, it is noted in the Pay Application #118 Review Memo dated 4/1/11 that retainage has been released completely. Up until this time retainage had been secured through a letter of credit with Northern Trust and by letter dated 8/17/10



Northern Trust had extended the Letter of Credit through 8/8/11. The letter represented \$9,707,980 and is consistent with the required retainage at a 50% completion level of the project as demonstrated below:

Contract Amount (Includes ERC, Fee and Change Orders) -	\$388,291,149
50% of Contract Amount -	194,145,575
5% Retainage -	\$9,707,279

The City has the right to eliminate or reduce retainage during the contract in accordance with GC Article 109.17 (K1) subject to the contractors request and the Owner’s Representatives approval. Thus, currently the City is not holding retainage on the project.

RECOMMENDATION: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATIONS PERTAINING TO PAY APPLICATION #102

OBSERVATION 13: We found no exceptions upon review of certified payroll records for trade employees. RWBC reviewed wages, deductions and benefits paid were in conformance with the union requirements and consistent with union requirements.

RECOMMENDATION: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 14: RWBC selected a sample of 10 individuals to review whether wages and deductions were actually reflected in employee payroll records. RWBC obtained copies of paycheck/wire transfer documentation to test these amounts and found no exceptions. Details of this analysis are contained in **EXHIBIT 3**.

RECOMMENDATIONS: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A



OBSERVATION 15: RWBC reviewed a sample of 17 subcontracts to test whether amounts invoiced by subcontractors to KBB were paid as well as the pay cycle between KBB and its subcontractors. RWBC found that KBB paid its subcontractors, on average, within 16.1 days of receipt of invoice. Explanation for variance between subcontractor invoiced amounts and KBB payments are also provided in **EXHIBIT 4**.
RECOMMENDATIONS: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 16: RWBC found that as of Pay Application #102 there was no retainage withheld on KBB by the City yet we found that KBB withheld retainage on subcontractors and billed grossed up values (that included retainage withheld from subcontractors) to the City. This condition yields an accelerated recovery of costs totaling \$13,888.20 given that the City did not hold retainage on KBB: it would pay 100% of submitted costs. **EXHIBIT 4** contains the supporting data for this observation.

RECOMMENDATIONS: We recommend that BES review the practice of KBB withholding retainage on subcontractors yet billing for subcontractor values that included retainage to the City that paid costs face value without withholding retainage.

MANAGEMENT RESPONSE: “Part of KBB’s scope of work is the management of subcontracts as required in General Conditions Section 103.03 E and 107.02. As such, the withholding of retainage from subcontractor payments is reasonable and expected under the terms of the contract to protect the City’s interests as well as those of the prime contractor. Paying gross values that include retainage to KBB does not, in our opinion, yield “an accelerated recovery of costs”, since KBB must hold this retainage in escrow and pay it in full upon completion of the work in accordance with the terms of their subcontracts. This also has no effect on the City’s ability to hold retainage on all payments to KBB. Whether the City or KBB holds subcontractor retainage has the same financial result.”

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: There are two issues raised by management: (1) subcontractor administration for which we have no comments; and (2) the practice of billing for retainage to the City that is withheld from a subcontractor. With regards to item (2) we believe that the City should only be billed for costs incurred. Billing for retainage not yet paid to subcontractors, regardless whether held in an escrow account, is not the intent of a cost reimbursable arrangement – where costs must be incurred first to be reimbursed.



OBSERVATION 17: We found two instances where prompt payment savings, totaling \$1,481.76, (Ross Island & LaFarge) were not passed to the City. General Conditions Article 109.12 states that the contractor “shall take advantage of all practicable discounts on bills of materials and supplies and such discounts shall be reflected on all bills and invoices submitted to the Owner”. **EXHIBIT 4** contains details on the elements comprising prompt payment savings on selected subcontractors.

RECOMMENDATION: We recommend that these costs be credited to the city if not incurred.

MANAGEMENT RESPONSE: “The specifications are somewhat conflicting on this issue. Specification 109.08 also addresses this subject. It states, in part, that “Payments will be at actual cost, . . .” and continues under Paragraph A.: “If a commercial trade discount is offered or available to the purchaser, shall be credited to the Owner, even though the discount may not have actually been taken. The Owner will not take any discounts for prompt or early payment, whether or not offered or taken.” This last sentence was included in the contract to provide an additional incentive to the contractor to pay local suppliers expeditiously. However, it has been the general practice to reimburse the actual cost, which would include any prompt payment savings. This ambiguity will be clarified in the Master Specification for this type of contract.”

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: If a credit is due to the City then such credit should be provided to the City.

OBSERVATION 18: RWBC found two invoices from Bilfinger Civil, Inc to KBB for labor in the amount of \$121,786.98 for the periods from May 1, 2010 to May 15, 2010 and from June 1, 2010 to June 15, 2010 without a subcontractor agreement with KBB. These invoices are for personnel billed at a loaded billing rate. RWBC found no subcontract agreement for such costs between two separate entities. However, a subcontract agreement may not be required after review of General Conditions Article 103.02B which states that “costs incurred by any member or members of the joint venture will be treated as if they were incurred by the joint venture itself and reimbursable to the same extent as other costs incurred by the joint venture.”

RECOMMENDATION: We recommend that on future projects we recommend that subcontract agreements be used to distinguish legal entities and ensure a more transparent process for flow of funds (See **OBSERVATION 8**).



MANAGEMENT RESPONSE: “Similar response to OBSERVATION 7. All proposals received during procurement for this contract were from joint ventures. There would not be a subcontract agreement between the two joint venture partners.”

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: See Auditor’s response to OBSERVATION 7.

OBSERVATIONS PERTAINING TO PAY APPLICATION #91

OBSERVATION 19: RWBC reviewed certified payroll records for trade employees in Pay Application #91 and confirmed that wages, deductions and benefits paid were in conformance with the union requirements and consistent with wages and benefits in the KBB application for payment. No exceptions noted

RECOMMENDATION: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 20: RWBC reviewed a sample of 10 individuals payroll costs to determine if wages and deductions were also reflected on paychecks/direct deposit statements. Copies of paychecks/wire transfer advices were provided by KBB. No exceptions were found.

RECOMMENDATIONS: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 21: We found that the July 9, 2009 contract award date for Emmert International precedes the bid date of September 1, 2009 (Reference City Contract #301-173 dated July 9, 2009 totaling \$1,186,375.00 for Emmert International).

RECOMMENDATION: We recommend that an explanation of this control deficiency be provided to include how the City received fair and equitable pricing given this condition.

MANAGEMENT COMMENTS: “The original subcontract procurement to relocate the tunnel boring machine was performed in late 2008/early 2009. The initial proposals were received in February 2009, followed by final proposals from two firms in March 2009, as indicated in KBB’s October 14, 2009 recommendation memo attached to the Emmert International subcontract in Constructware. After procurement was completed,



the following is the actual sequence of approval, based on the Transmittal dates in Constructware:

- Draft subcontract submitted by KBB to BES on September 8, 2009
- Bond submitted by KBB to BES on October 12, 2009
- Approved Payment Bonds from BES to KBB on October 16, 2009
- Subcontract from KBB to BES for review on October 16, 2009
- Approved subcontract from BES to KBB on October 23, 2009

The City began its review on September 8, the date the draft subcontract was submitted. However, all of the backup information wasn't received until October 16, 2009, which is why it was not routed prior to that date. The approval routing began on October 20, 2009 and finished on October 23, 2009. The cost item in Constructware indicates a date of October 23, 2009, which is the correct date the City completed the approval process.

Consequently, there are some erroneous dates in the attachments. The July 9, 2009 subcontract included in Constructware is actually an unsigned draft subcontract issued after the procurement process was completed. The date on the signed contract was never changed from the original July 9 date. Also, the BES memo should have been dated October 20, 2009 rather than September 20, since it was created on Oct 19th and modified on Oct 20th. These will be corrected. However, based on the attached documentation in the Constructware subcontract file, it should be clear that a fair and equitable process of procurement was completed by April 2009. Work under the subcontract did not begin until November 2009."

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: We recommend that subcontract documents reflect dates that are aligned with actual activities. Supporting documentation provided for our review contained conflicting information as highlighted above.

PART 2 - OBSERVATIONS RELATING TO CHANGE ORDER REVIEW

There were seven (7) approved change orders covering our review period. All change orders were no cost change orders.

OBSERVATION 22: The executed change order documents for change orders #1 (Safety Incentive Program) and #2 (Tunnel Incentive Pay) do not have language as to the



reason the change was approved in a manner that could be understood by someone without day-to-day knowledge of the project.

Change Order #1 was a change in the distribution of Safety incentive Program General Conditions Article 107 I. items 3 thru 7 from \$25,000 available per quarter to: "The incentive will be awarded on a quarterly basis under a pre-determined "weighted average" approach based on planned craft manhours...This revised safety incentive program will be initiated for the 3rd Quarter 2007. Therefore, the total remaining available incentive from July 2007 through November 2011 will be as follows..."

Although the change is described in the executed documents, the reason behind the change is ambiguous. Questions such as to how determination was reached that changes as presented were in the best interests of the City could not be answered upon review of executed change order documents.

RECOMMENDATION: We recommend that BES provide an explanation as to the reason for change in a more expanded manner for change orders #1 and #2 such that it could be clearly understood (finding of fact) by a non-project/BES staff or other individual.

MANAGEMENT RESPONSE: "Regarding Change Order #1, the reason for the change was noted in Item No. 4 of the attachment: "The amount of safety incentive available each quarter will be based on the ratio of the planned man-hours for that quarter to the total planned man-hours remaining...to project completion... The proposed distribution of available incentive has been slightly adjusted for anticipated actual conditions and to provide a consistent distribution based on expected level of work performed."

In other words, the incentive was adjusted based on workforce size: larger at peak work periods and smaller at the beginning and end of the project due to a smaller workforce. The total potential distribution over the life of the contract remained unchanged.

Regarding Change Order #2, we concur that a written explanation for the change would be beneficial. We will add an explanatory memo to the attachments. However, the potential cost savings from the tunnel incentive is indicated on the spreadsheet attached in the Constructware documentation (as explained under OBSERVATION 24 below.

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: Concur with management's decision to add memorandum to file to provide explanation as to the reason for why the proposed change was executed.

OBSERVATION 23: Change order #1 and #2 were approved as no cost change orders. Change order #1 provided payment for \$25,000 maximum available per quarter to an



award based on a pre-determined weighted average approach calculated using planned craft manhours. We found neither quantification of potential additional costs (above \$25,000) nor description of the fact that if the resulting calculation was above \$25,000/quarter, there are additional costs associated with the change order.

Similarly, under Change Order #2, there was a change in the way incentive programs are paid and revised language that used a “reasonable” test was introduced yet no quantification of potential additional costs were found or discussion of impact in the executed change order documents.

RECOMMENDATION: We recommend that additional language be incorporated into the change order document to clarify potential cost impacts of this change. If final costs for incentive payment are known, we recommend that a variance analysis be shown to highlight whether these change orders were truly no additional cost (from baseline budget approvals for applicable line item)

MANAGEMENT RESPONSE: “The safety incentive plan was a part of the original contract, covered in General Conditions Section 107.13 I – Safety Incentive Program. This specified a maximum monetary incentive of \$25,000 for each quarter of the project, including the Contractor’s 20% contribution. As indicated under the response to OBSERVATION 23, Change Order #1 simply revised the potential payment terms to better reflect the size of the workforce under the contract without increasing the total potential amount of the awards over the life of the contract, i.e. the number of workers on the project would ramp up at the beginning, peak during the main part of the work, and then begin to diminish as the project approached its last year. The revision of the payout terms better reflected the safety incentive with respect to the size of the workforce, especially in the latter part of the contract when there would be very few workers left to receive the quarterly distribution. Consequently, there was no cost increase to the contract.

Change Order #2 was for Tunnel Incentive Pay involving tunnel production rates that significantly exceeded the assumed baseline rate over a minimum period of time. No dollar amount was specified because in accordance with General Conditions Section 109.13 A., there was no change to the fixed fee, contract time, or scope of work. The tunnel incentive pay was paid as a reimbursable cost to workers directly involved in tunneling only under specified circumstances where significant costs are saved from the ERC for tunneling due to production rates of 50% or more above the baseline rate in the ERC. As shown on the attachment from Change Order #2, at an estimated cost of \$800,000 per month for tunnel labor alone, not including equipment salvage, segment production costs, or other time-related costs of mining, to earn the minimum incentive,

the crews had to produce an additional 420 lf of tunnel in the month. After the \$21,000 incentive pay for the resulting 50% monthly increase in production, a direct savings to the City of approximately \$340,000 per month from the ERC was realized as well as a time savings off the project critical path of approximately 10 working days per month

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: The explanatory discussion provided by management above would have provided the cost-related impact discussion we referred to in the observation.

PART 3 - OBSERVATIONS RELATING TO PROCESS/PROCEDURES REVIEW

This section of the audit provides the result of our review of the East Side Combined Sewer Overflow and Tunnel Project's project management policies and procedures for the construction phase of the project as well as to conduct a review of the implementation of the project management processes. The observations that follow are the result of our review of project documents and interviews with BES staff.

OBSERVATION 24: We found that the BES project contains formalized policies and procedures specifically designed the project and contract. RWBC found that a Project Management Plan (PMP) was prepared and submitted during the design phase of the project by the consultant team that clearly outlined roles, responsibilities and project management process and procedures. During the construction phase the March 2008 East Side Combined Sewer Overflow and Tunnel Project Construction Management Guidelines (Guidelines) were also developed. These guidelines provide a description of roles and responsibilities and processes for administering construction contract. Examples of procedures and protocols established in the Guidelines include:

1. Team organization: Provided organizational chart and roles and responsibilities for management team and key staff positions (for example scheduler and other technical support staff). Key areas of responsibility and oversight were described for the positions, including but not limited to, those related to overseeing and managing design changes, claims, schedule, payment issues and project labor matters.
2. Records management: Established records management and document control processing systems and process for creating, distributing and storing all project documents.



3. Meetings: Established a meeting structure for administering regular project meetings to exchange information, raise questions, identify issues, resolve problems, and review work schedules. The stated objective of these meetings was to maintain project safety, quality, and safety.
4. Submittals: Established a process for the creation, transmittal, review and response to technical and non-technical submittals. Submittals were required to demonstrate the contractor's compliance with contract provisions, plans and specifications.
5. Schedule: Described the construction and baseline schedules uses for the project including specific requirements for the preparation and update of detailed schedules by the contractor. This procedure also identified owner and contractor responsibilities for updating, maintaining, reviewing and monitoring the construction schedule.
6. Project Controls/Payments: Provided guidelines for monitoring construction costs. The project estimated reimbursable cost was used as the basis for the budget of the project. The budget served as a plan against which the costs to date were measured. Actual quantities and costs were compared against the budget.
7. Reporting: Provided guidelines for monthly reporting, including a monthly summary report on schedule and cost; an estimate to completion report; and internal audit reports.
8. Other areas: The guidelines also established policies and procedures for: contract changes, disputes/claims, procurement, safety, public information, quality assurance, environmental monitoring and compliance, and risk management.

Conclusions reached in this observation were based on interviews with BES staff and review of the project management documents, including: June 2004 Project Management Plan, March 2008 East Side Combined Sewer Overflow and Tunnel Project Construction Management Guidelines, Schedule Narratives 055 and 061, Status Report No. 57, and Monthly Report No. 60.

RECOMMENDATION: N/A

MANAGEMENT COMMENTS: None

AUDITOR'S RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 25: We found that BES established a construction and baseline schedule and followed update procedures and industry standards in progress updates.



BES, in conjunction with KBB, established a baseline schedule based on the original bid estimate. BES and KBB used construction scheduling (Primavera Project Planner) to administer the schedule. KBB is responsible for the daily management and maintenance of the project construction schedule. BES project control and scheduling staff are responsible for oversight of the project construction schedule and performance of quality reviews. BES and KBB meet monthly to review the project construction schedule and identify/address potential issues as well as establish corrective action plans where necessary. A monthly scheduled narrative is prepared by KBB based on the monthly schedule update. The narrative summarizes work that occurs in an applicable month and provides updates for remaining schedule activities based on actual work performed since the last update. The narrative tracks baseline schedule milestones including NTP, substantial completion and final completion. The narrative also provides updates on critical path items, progress of work, upcoming activities, schedule changes, and schedule issues.

A summary of the schedule is also provided in both the BES and KBB monthly reports. The summary includes percent complete by time, percent complete by cost, and percent complete by progress information. It also includes a schedule status summary that identifies any re-sequencing of tasks, schedule impacts (including early completion items, on-time items, and delays) and milestones completed.

As reported in the March 2011 Monthly Report No. 60, the project schedule status was:

Baseline (corrected)

Contract Status March 11 Update

Finish Date	Substantial Completion	17 Aug 11	19 Aug 11
	Project Completion	25 Oct 11	16 Nov 11

Based on interviews with BES staff, the project is expected to experience minor delays due to weather events.

Conclusions reached in this observations were the results of interviews with BES staff and review of Schedule Narratives 055 and 061, ALL 3 Week Schedule for Owners Meeting 258 and 268, Status Report No. 57, and March 2011 Monthly Report No. 60.

RECOMMENDATIONS: N/A

MANAGEMENT COMMENTS: None

AUDITOR'S RESPONSE TO MANAGEMENT COMMENTS: N/A



OBSERVATION 26: RWBC found that risk management processes and system are in place and is managed according to standard industry practices.

A risk register was initially developed at the 60% design level. During the start up phase of construction, BES, KBB and other specialists held a series of risk management workshops to develop a construction risk register. The risk register identified project risk areas (e.g. access/permits, tunnel construction, ground improvement, catastrophic events, etc.) as well as specific risks within each. The probability and degree of risk occurring was then assigned to each risk based on a 1 to 5 probability scale, depending on expected risk. The management system also included inputs for budget risk assessment, risk and contingency analysis, and current/actual risk assessment. Mitigation measures were provided to reduce the probability or impacts of occurrence and apportions costs should the risk event occur.

The risk register was reviewed at monthly meetings and updated on a quarterly basis. BES had a Risk Service Manager who was responsible for the risk management process and program management and oversight. SR International is the lead re-insurer for the Builders Risk insurance, provided under the Owner Controlled Insurance Program (OCIP) and they appointed ARUP to carry out on-site risk surveys during construction. Based on the review of the reports mentioned above, SR International key issues and recommendations were:

1. “The project appears to have implemented a rigorous risk management system which brings relevant experience from the west side project as well as from other projects around the world...”

2. ARUP also conducted a review of the East Side CSO documentation to establish the level of compliance with the Code of Practice for Risk Management of Tunnel Works, published by the International Tunneling Insurance Group.

Based on the review of their May 2006 report, their findings concluded that the project team had satisfied the letter of the Code of Practice in almost all areas. Where that was not the case, adequate equivalent documentation was provided to show that the Code of Practices was satisfied. The report concluded that: “The project team appears to be highly competent and well versed in the process of risk assessment and management of identified risks.”

Conclusions reached in this observation were based on interviews with BES staff and review of the following documents: ARUP Insurer’s Survey, Visit 1; Risk Assessment Update #8 printed on 4/20/2009; Risk Assessment Update #11 printed on 01/30/2011; and the May 2006 Marsh Ltd. Report on benchmarking against the Code of Practice for the Management of Tunnel Works.



RECOMMENDATIONS: We recommend that on future similar projects a more systematic review and audit process be conducted with each application for payment. This proactive approach will allow for real time identification of issues and shorten time to resolution of such issues.

MANAGEMENT COMMENTS: “It does not appear that the subject of the Recommendation regarding a “systematic review and audit process” of payment applications is consistent with the subject of risk management and the conclusion as written in OBSERVATION 28. We would concur with the recommendation for a systematic review of each application for payment. However, since we had three full-time cost control staff as part of our progress payment review process, we would request more detail for the recommended “pro-active approach” along with an explanation of how this Recommendation is tied to the risk management process described in the Observation

AUDITOR’S RESPONSE TO MANAGEMENT COMMENTS: See Observation 27 which was segregated as its own observation regarding use of real-time auditing of applications for payment rather than look-back audits as has been the practice.

OBSERVATION 27: We found that given the cost reimbursable nature of this project, the project would have benefited from the development and implementation of a real time external auditing program administered by either BES program management staff or other qualified resource.

RECOMMENDATION: In order to have maximum benefit of outside audits on contracts, especially ones that are cost reimbursable in nature, audits should be implemented real time or as close to real time as feasible. This reduces the time between payment and review of payment. Our recommendation was to consider engaging outside auditor(s) to sample review pay applications in real time: concurrently or just after payment so that findings or other needed compliance modifications could be implemented immediately.

OBSERVATION 28: We found that BES and KBB used project performance measures that were also tracked on a periodic basis.

Both BES and KBB prepared monthly status reports on the project’s performance. These reports were reviewed in monthly management meetings and were used to assess overall project performance. The monthly reports and data were also used to provide progress and performance updates to the Portland City Council and to a public oversight committee that was formed as an advisory panel for BES staff and the City

Council during the implementation of the project. Examples of key performance indicators that were tracked and reported include percent complete by time, cost, and progress (based on updated project schedule earned value of actual work completed); notice to proceed date, substantial completion date and total number of contract days remaining; original contract date and approved change orders for time; original contract amount and approved change orders for cost; total costs to date from contractor and ERC budget to date; community relations including presentations, complaints, requests, and praise, committee meetings, media, publications, and special events; project controls including cost and schedule reviews; safety statistics; and major quantities of work.

The BES report provided monthly updates and progress reports on the following:

- General Project Information
- Highlights of the Month
- Construction Status
- Safety
- City Forces
- Quality Control
- Community Relations
- Project Controls
- Status Log

KBB's report provided monthly updates and progress reports on the following:

- Project Summary
- Safety
- Quality
- Progress of Work
- Project Administration
- Personnel
- Subcontracting
- Equipment
- Schedule
- Business / Financial
- Progress Photos

Conclusions reached in this observation were based on interviews with BES staff and review of the following documents: Citizens Oversight Committee webpage; March 2008 East Side Combined Sewer Overflow and Tunnel Project Construction



Management Guidelines, Status Report No. 38 and No. 57, and Monthly Reports No. 59 and No. 60.

RECOMMENDATION: N/A

MANAGEMENT COMMENTS: None

AUDITOR'S RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 29: We found that BES allocated sufficient resources and measures to perform critical control functions given the current phase of the project. We note, additionally, that this type of contracting methodology requires extensive administrative support, especially on the cost accounting side.

In the March 2008 East Side Combined Sewer Overflow and Tunnel Project Construction Management Guidelines, BES identified Project Controls Manager, Project Controls Specialist and Project Scheduler positions responsible for managing the project controls and scheduling system. These positions were also supported by technical staff. Duties conducted by these positions during the course of the project included: preparation on monthly performance reports, overseeing schedule and change management programs, cash flow tracking, cost estimating and cost control, review of schedule updates, monitoring progress of work, identifying scheduling issues and potential contract interferences, performing cost and schedule analysis required to support change order negotiations, tracking all measurement and payment issues with information provided by Field Engineers, and checking certified payrolls.

Conclusions reached in this observation were based upon interviews with BES staff and review of project documents, including monthly status reports, monthly schedule narratives, cost estimate comparisons and cash flow documentation.

RECOMMENDATION: N/A.

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 30: We found that BES staff performed independent cost estimates to validate initial KBB budget proposals.

The Project Controls Manager, in conjunction with other BES staff, led the effort to develop the independent cost estimate for the construction phase of the project. The estimates were based on a 60% design level of the project. BES prepared a detailed cost build up based on individual bid items for construction. BES used data from the west side CSO project to aid in the development of their cost build up. The independent estimate provided full detailed costs of the various cost components of the project.



A standard contractor type joint venture bid comparison was made with the main categories of costs such as labor, equipment, permanent materials, subcontractors, etc. for each item, compared, coming up with a total direct cost.

Due to the nature of contact certain costs which are normally carried in the indirect's were also included. The first read of the independent cost estimates were within 1%. An independent expert was brought in to conduct a review of the cost estimates. The conclusion of the review was that the costs detailed within both the BES independent estimate and the contractors estimate for construction reflected the scope of the contract at the 60% design level stage.

Conclusions reached in this observation were based on interviews with BES staff and review of the following documents: Eastside CSO Tunnel, Shafts & Pipelines Project Initial ERC Review; the Eastside CSO Tunnel, Shafts & Pipelines Project, BES Estimate; and the Eastside CSO Project Review BES and KBB 60% Design Level Cost Estimates Memo.

RECOMMENDATION: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 31: We found that BES had adequate records and document management systems in place.

BES used Autodesk Constructware as a web-based document and file management tool. Constructware allows for electronic tracking of file activity, a client-defined structure with independent security settings, and automatic reference (xref) file detection. In addition, the executive dashboard component allows users to review projects at a summary level and individually as well, examining information such as job costs, change orders and contract history.

This system was successfully used on the west side CSO project and BES staff members were very familiar with the system when they implemented it on the east side CSO project. BES staff conducted training sessions with the contractor staff on how to use Constructware and specifically the structure that had been established for managing the project documents and records.

BES assigned an administrator who was responsible for the overall management of the system and who was responsible for setting permission rights in the system. Constructware was used to share and store project files and documentation and to manage and review project submittals (see more detail about this process in #9 below).



RWBC was given access to the entire site and as a result the document management process was greatly expedited.

Conclusions reached in this observation were based on interviews with BES staff, interface with the Autodesk Constructware system and review of customized reports created by BES staff and produced through Constructware.

RECOMMENDATION: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 32: We found that BES conducted project management, quality control and executive safety meetings including:

1. Contractor's Coordination: evaluate project progress between BES and KBB management and staff, measure progress against weekly or monthly look-ahead schedule, discuss if any work was undertaken out of sequence and to prepare work plans. At this meeting project safety performance was reviewed and tracked schedule progress on project safety events, project related meetings, quality, operations, engineering and procurements.
2. Quality Council: BES and KBB management staff reviewed quality related issues and identified areas of improvement.
3. Executive Safety Committee: overall work progress from a worker safety perspective was reviewed, review of project safety statistics, and contract safety incentive award was determined.

Conclusions reached in this observation are based on interviews with BES staff and review of the following documents: February 28, 2007 Executive Safety Committee Meeting minutes; 002-060 3/16/2011 ALL Quality Council Meeting materials, LL_3_Week_Schedule_for_Owners_Meeting_268_on_052611.pdf; and 4/11/2006 ESCSO Quality Council Meeting #002.

RECOMMENDATIONS: N/A

MANAGEMENT COMMENTS: None

AUDITORS RESPONSE TO MANAGEMENT COMMENTS: N/A

OBSERVATION 33: We found that BES followed the submittals process as described in the March 2008 East Side Combined Sewer Overflow and Tunnel Project Construction Management Guidelines.

BES used Constructware to manage project submittals as well as the receipt of hard copy documentation. The submittals process was managed by BES administrative staff. They were responsible for daily monitoring of the transmittal module in Constructware. As submittals were received they were coded so that the administrative staff knew who to notify that a submittal was received ready for their review. Hard copies were also distributed to reviewers. Reviewers had three weeks to review and then respond to a submittal. Reviewers logged their comments through a correspondence module in Constructware that was accessible to only BES staff.

The BES Construction Manager was responsible for managing the review and response process for submittals. Once all comments were logged on a submittal the Construction Manager would review and approve and then transmit the revisions and/or approvals to the contractor through a correspondence notification in Constructware. The Construction Manager also reviewed a list of all pending submittals in a weekly construction meeting with BES and KBB staff. The Construct Manager created a report template that he was able to produce daily to review the status of active submittals that indicated when reviewers were notified of submittal, the primary response due date, days in review and any outstanding items.

Conclusions reached in this observation were based on interviews with BES staff and review of the following documents: February 28, 2007 Executive Safety Committee Meeting minutes; 002-060 3/16/2011 ALL Quality Council Meeting materials, LL_3_Week_Schedule_for_Owners_Meeting_268_on_052611.pdf; and 4/11/2006 ESCSO Quality Council Meeting #002.

RECOMMENDATION: N/A

RECOMMENDATION: N/A

MANAGEMENT COMMENTS: None

AUDITOR'S RESPONSE TO MANAGEMENT COMMENTS: N/A

EXHIBITS

EXHIBIT 1 - INVOICED VERSUS PAID EMPLOYEE PAYMENT ANALYSIS

Portland ESCSO Project
 Pay Application No. 118
 Kiewit - Bilfinger Berger JV (KBB)

EMPLOYEE NUMBER	EMPLOYEE NAME	EMPLOYEE CLASSIFICATION	PERIOD ENDING	GROSS WAGES ¹	NET WAGES ¹	WAGES PAID	VARIANCE	KBB CHECK DATE/EFT DATE	KBB CHECK/EFT DATE
					(A)	(B)	(C)=(B)-(A)		
2261	Bierman, Aaron T	JV Field Supervision	2/20/11	\$ 1,181.50	\$ 810.19	\$ 810.19	\$ -	2/24/11	4204824
NA	Schoeff, Michael J	JV Field Supervision	2/20/11	1,215.00	777.24	777.24	\$ -	2/24/11	4204815
NA	Frelich, Jenae M	JV Field Supervision	2/20/11	1,628.12	1,011.49	1,011.49	\$ -	2/24/11	4204794
NA	Cyrus, Donnie L	JV Field Supervision	2/20/11	1,202.50	774.31	774.31	\$ -	2/24/11	4204821
10587	Cookson, Andrew J	Operating Engineer	2/20/11	1,452.33	1,015.99	1,015.99	\$ -	2/23/11	4677946
10066	Peel, Gregory L	Operating Engineer	2/20/11	1,960.20	1,192.48	1,192.48	\$ -	2/23/11	4677967
21683	Anderson, Doug S	Laborer	2/20/11	1,443.75	916.06	916.06	\$ -	2/23/11	4678049
21329	Sullivan, David W	Laborer	2/20/11	1,463.44	1,035.46	1,035.46	\$ -	2/23/11	4677932
60285	Hancock, Carl	Carpenter	2/20/11	2,249.27	1,403.17	1,403.17	\$ -	2/23/11	4678070
60046	Hyke, Ryan S	Piledriver	2/20/11	1,946.10	1,120.15	1,120.15	\$ -	2/23/11	4677951
				\$ 15,742.21	\$ 10,056.54	\$ 10,056.54	\$ -		

Notes

(1). Certified Payroll amounts for WE 2/20/11 and certified by M. Culhane, Business Manager for KBB.

EXHIBIT 2 - SUBCONTRACTOR/KBB PAYMENTS and PAYMENT CYCLE ANALYSIS

Portland BES - Subcontractor Payment Cycle, PAY APPLICATION No. 118

Kiewit - Bilfinger Berger JV (KBB)

SUBCONTRACTOR	INVOICE NUMBER	INVOICE DATE	INVOICE PERIOD	AMOUNT INVOICED BY SUBCONTRACTOR OR	Date	AMOUNT PAID BY KBB	VARIANCE (See Comments)	KBB Check Date	KBB Check No.	DAYS OUTSTANDING	COMMENT
	(A)	(B)		(C)		(D)	(E)=(D)-(C)	(F)	(G)	(H)=(F)-(B)	(I)
Ross Island Sand & Gravel	587508	02/08/11	02/08/10	\$ 3,290.00	02/12/10	\$ 3,291.75	\$ 1.75	02/24/11	1770289	16	KBB corrected invoice amount to \$3,465 and applied retainage. KBB Invoiced City \$3,465
Courtesy Janitorial Services	7068	02/17/11	-	2,215.03	-	2,215.03	-	02/24/11	1770290	7	
Mowry Rebar	Multiple	01/26/11	10/10 - Current	29,694.67	-	23,409.36	(6,285.31)	02/28/11	1772600	33	KBB corrected quantities to \$23,951.06 and applied retainage; KBB invoiced City \$23,951.
Bent Enterprises dba Fillz	9671 & 9691	02/01/11	1/17/11 - 1/29/11	6,520.00	/27/11 & 2/8/11	6,520.00	-	02/24/11	1770291	23	
Bent Enterprises dba Fillz	9704	02/09/11	1/31/11 - 2/4/11	850.00	40,223.00	850.00	-	02/24/11	1770292	15	
Advantage Precast	-	02/15/11	02/16/11	\$ 23,224.52	02/15/11	\$ (153.48)	\$ (23,378.00)	NA	NA	NA	This represents an Invoiced amount previously paid and correction made for overpayment. There was a \$153.48 credit invoiced to the City to reconcile correction.
									AVERAGE:	18.8	

EXHIBIT 3 - INVOICED VERSUS PAID EMPLOYEE PAYMENT ANALYSIS

Portland ESCSO Project
 Pay Application No. 102
 Kiewit - Bilfinger Berger JV (KBB)

EMPLOYEE NUMBER	EMPLOYEE NAME	EMPLOYEE CLASSIFICATION	PERIOD ENDING	GROSS WAGES ¹	NET WAGES ¹	WAGES PAID	VARIANCE	KBB CHECK DATE/EFT DATE	KBB CHECK/EFT DATE
					(A)	(B)	(C)=(B)-(A)		
10231	Boursaw, Jason A	Operating Engineer	6/20/10	\$ 1,146.05	\$ 715.79	\$ 715.79	6/23/10	-	4538118
10306	Dever, Londale K	Operating Engineer	6/20/10	1,577.68	782.52	782.52	6/23/10	-	4538132
20594	Brady, Craig M	Laborer	6/20/10	1,785.75	1,335.72	1,335.72	6/23/10	-	4538145
21741	Mack, Bradley J	Laborer	6/20/10	866.25	717.04	717.04	6/23/10	-	4538210
60160	Hambright, Ryan D	Carpenter	6/20/10	1,163.20	862.47	862.47	6/23/10	-	4538188
60335	Arley, L. Stanley	Pile Driver - App	6/20/10	1,033.60	793.92	793.92	6/23/10	-	4538072
2220	Sumner, Charles A	JV Field Supervision	6/20/10	1,353.00	822.92	822.92	-	6/24/10	3878667
2212	DeArmond, Jessica B	JV Field Supervision	6/20/10	1,181.50	736.10	736.10	-	6/24/10	3878676
-	Koester, Matthew N	JV Field Supervision	6/20/10	1,239.25	872.43	872.43	-	6/24/10	3878660
-	Constable, Russel C	JV Field Supervision	6/20/10	1,991.00	1,413.10	1,413.10	-	6/24/10	3878648
				\$ 13,337.28	\$ 9,052.01	\$ 9,052.01			

Notes

1. Amounts are from Certified Payroll for WE 6/20/10 and certified by M. Culhane, Business Manager for KBB

EXHIBIT 4 - SUBCONTRACTOR/KBB PAYMENTS and PAYMENT CYCLE ANALYSIS

Portland BES - Subcontractor Payment Cycle, PAY APPLICATION No. 102

Kiewit - Bilfinger Berger JV (KBB)

SUBCONTRACTOR	INVOICE NUMBER	INVOICE DATE	INVOICE PERIOD	AMOUNT INVOICED BY SUBCONTRACTOR	Date	AMOUNT PAID BY KBB	VARIANCE (See Comments)	KBB Check Date	KBB Check No.	DAYS OUTSTANDING	COMMENT
	(A)	(B)		(C)		(D)	(E)=(D)-(C)	(F)	(G)	(H)=(F)-(B)	(I)
Frank Thomas Trucking	-	No Date	06/09/10	\$ 640.00	06/14/10	\$ 640.00	\$ -	06/24/10	1649345	15	
Bent Enterprises	9074/9062/9040	6/8/10-6/16/10	6/1/10 - 6/10/10	21,460.00	06/17/10	21,460.00	\$ -	06/28/10	1651355	12	
Dryer Electric	10892/10895	6/7/10 & 6/14/10	5/31/10 - 6/13/10	19,142.28	-	18,185.16	\$ (957.12)	06/28/10	1651358	15	Retainage held on Sub. BES invoiced \$19,142.
Dryer Electric	10891/10896	6/7/10 & 6/14/10	5/31/10 - 6/13/10	14,869.13	-	14,869.13	\$ -	06/28/10	1651356	15	
American Sweeping	6163	6/16/2010	6/2/10 - 6/10/10	3,562.75	06/18/10	3,384.61	\$ (178.14)	06/28/10	1651357	12	Retainage held on Sub. BES invoiced \$3,563
Northwest Enforcement	10-KBB13	6/15/2010		8,160.20	-	8,160.20	\$ -	07/06/10	1655764	21	
Northwest Underwater Construct	135	6/17/2010		2,145.50	06/21/10	2,145.50	\$ -	06/28/10	1651369	11	
Ross Island Sand & Gravel	Multiple	Multiple	6/1/10 - 6/18/10	217,247.10	-	206,384.74	\$ (10,862.36)	06/28/10	1651354	10	Retainage held on Sub. BES invoiced \$217,247
Morrisey & Sons	36	6/14/2010	5/24/10 - 6/11/10	6,560.00	06/14/10	6,560.00	\$ -	06/28/10	1651360	14	
Morse Brothers/ dba Knife River	992688/252/375	6/1/10,6/2/10,6/3/10	6/1/10 - 6/3/10	6,274.38	06/08/10	6,274.38	\$ -	06/28/10	1651361	25	
LaFarge	Multiple	Multiple	5/31/10 - 6/18/10	32,688.08	-	32,381.15	\$ (306.93)	06/28/10	1651362	25	Realized invoice savings by timely payment to sub. Invoiced BES \$32,688
Jammies Environmental	Multiple	6/8/10 - 6/18/10	5/4/10 - 6/10/10	14,574.63	-	13,845.90	\$ (728.73)	07/02/10	1654731	22	Retainage held on Sub. BES invoiced \$14,575
Construction Services, Inc.		5/31/10,6/6/10,6/15/10	5/27/10 - 6/11/10	3,333.75	-	3,333.75	\$ -	07/02/10	1654732	17	
JW Underground	4	6/22/2010	Thru 6/22/10	23,235.00	-	22,073.25	\$ (1,161.75)	07/02/10	1654733	10	JV added \$10,185 of unit price work on 6/28/10 and added retainage. Invoiced BES \$23,235
Frank Thomas Trucking	-	-	6/15-16/10	880.00	-	880.00	\$ -	07/02/10	1654734	18	
Morse Brothers/ dba Knife River	Multiple	6/4/10 - 6/15/10	6/4/10 - 6/15/10	16,346.14	6/16/10 - 6/21/10	16,346.14	\$ -	07/02/10	1654736	17	
Ross Island Sand & Gravel	Multiple	Multiple	6/1/10 - 6/17/10	58,741.38	-	57,566.55	\$ (1,174.83)	07/02/10	1654735	15	Realized invoice savings by timely payment to sub. Invoiced BES \$58,741
				\$ 449,860.32		\$ 434,490.46	\$ (15,369.86)		AVERAGE:	16.12	

Notes

- Reverse side of check not provided. SubContractor acknowledged receipt through Waiver.
- Check copy not available. Print out provided confirms check number, date, and amount.
- Total amount of retainage withheld from subcontractors but invoiced to City = \$13,888.20
- Total amount of early pay savings realized but savings not included on City invoice = \$1,481.76