

June 27, 2013

REPORT TO COUNCIL

TO THE COMMISSIONER:

Transmitted herewith is the Certificate of Completion, Acknowledgement, Receipt & Certification (ARC), Maintenance Bond and Final Report with contractor Kiewit-Bilfinger Berger, Project No. E05516, Contract No. C36496.

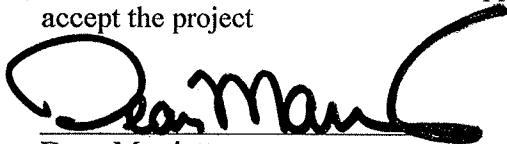
Notice to Proceed was issued on March 21, 2006 with a contract length of 2,004 days.

The Contractor completed the work on September 14, 2011, within contract time.

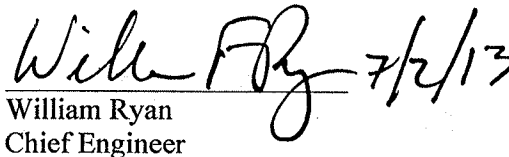
Change Orders 1 through 8 increased the contract amount by \$7,245,000 and the contract time by 0 days.

All payments have been paid to the contractor. The final contract amount is \$370,571,512, which is 2.8% under the original contract amount of \$381,291,149.

It is recommended that the Council approve the Certificate of Completion, ARC, Maintenance Bond, Final Report and accept the project



Dean Marriott
Bureau Director



William Ryan
Chief Engineer

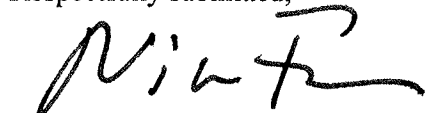
TO THE COUNCIL:

The Commissioner concurs with the above report, and

RECOMMENDS

That the Council approve the Certificate of Completion, the ARC, Maintenance Bond, Final Report, and accept the project.

Respectfully submitted,



Nick Fish
Commissioner



CITY OF PORTLAND
ENVIRONMENTAL SERVICES

WILLAMETTE RIVER CSO TUNNEL PROGRAM

EAST SIDE CSO TUNNEL PROJECT
211 SE Caruthers, Suite 200, Portland OR 97214
Telephone: 503-823-2902

MEMORANDUM

Date: December 4th, 2012
To: Dean Marriott, Director
From: William F. Ryan, Chief Engineer *WFR*
Copies: Virgil Adderley, Julius Strid, Chuck Crawley, Scott Gibson, Neil Choate, Joe Panis,
Project File E05516, Constructware
Subject: Evaluation of East Side Combined Sewer Overflow Tunnel Project Alternate
Contracting Process

Introduction

This memo will serve as the final evaluation of the East Side CSO Tunnel Project alternate contracting process as required by Oregon Revised Statutes (ORS) Chapter 279C.355. In addition, this memo will also cover some lessons learned during the course of administering the cost reimbursable plus fixed fee (CRFF) construction contract for consideration in administering any future construction contracts utilizing this method.

Per ORS 279C.355, "The evaluation must include but is not limited to the following matters:

- (a) The actual project cost as compared with original project estimates;
- (b) The amount of any guaranteed maximum price;
- (c) The number of project change orders issued by the contracting agency;
- (d) A narrative description of successes and failures during the design, engineering and construction of the project; and
- (e) An objective assessment of the use of the alternative contracting process as compared to the findings required by ORS 279C.335.

(3) The evaluations required by this section:

- (a) Must be made available for public inspection; and
- (b) Must be completed within 30 days of the date the contracting agency accepts:

(A) The public improvement project, or..."

Attached to this memo is a copy of the original Findings of Fact as noted in item (e) above which was approved by City Council on May 26, 2004. Also attached is the East Side CSO Contractor Procurement Process Summary, from which the basic chronology is listed below:

- May 6, 2004: Findings of Fact submitted to Mayor's Office
- May 26, 2004: City Council approves waiver of "low bid" requirement
- July 2, 2004: Request for Qualifications Issued
- Sept. 27, 2004: Request for Proposals Issued
- Jan. 20, 2005: Kiewit/Bilfinger Berger JV (KBB) award recommendation by contractor selection committee
- June 30, 2005: Notice-to-Proceed to KBB for Pre-construction Phase Services Agreement
- Mar. 21, 2006: Notice-to-Proceed to KBB for Construction Services Contract
- Sept. 14, 2011: Acceptance of Notice of Substantial Completion
- Feb. 29, 2012: Final Contract Acceptance

Project Description

In August of 1991, the City of Portland's Bureau of Environmental Services (BES) entered into a combined sewer overflow (CSO) abatement agreement with the Oregon Department of Environmental Quality (DEQ). The agreement required the City to control 55 combined sewer overflows by December 1, 2011, with intervening major deadlines to complete specific parts of the work. The first phase of the program, completed on schedule, required controlling overflows into the Columbia Slough by December 2000. The second phase of the program, also completed on schedule, focused on the Willamette River, and required 16 outfalls to be controlled by December 1, 2006. The main project required to meet the final 2011 compliance date deadline was the East Side CSO Tunnel, Shafts and Pipelines Project. This phase of the program intercepts the remaining outfalls along the east side of the Willamette River.

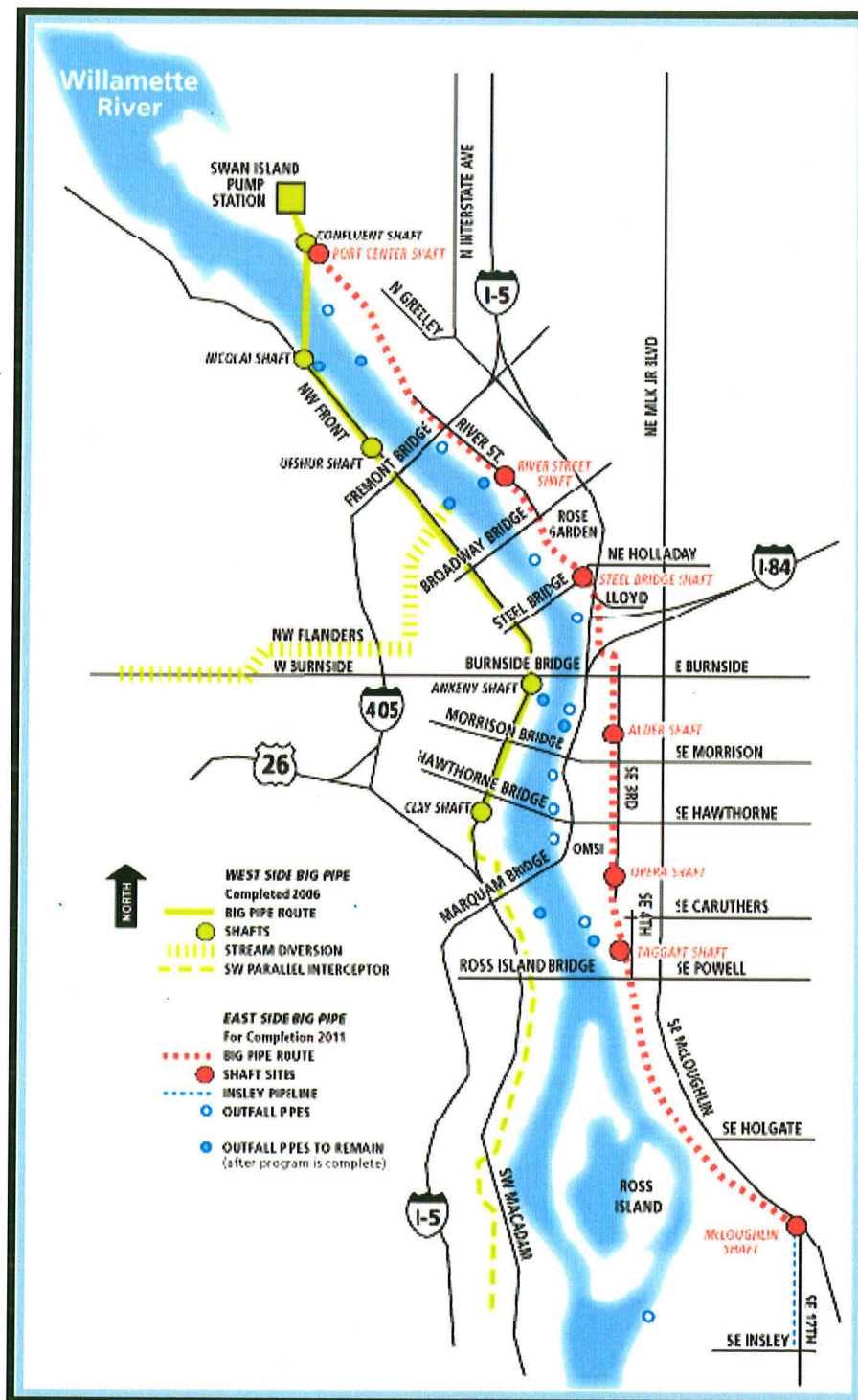
The East Side CSO Tunnel Project consisted of a combination of near surface pipelines and a deep tunnel that collects and transports CSO flow from combined sewer areas in East Portland to the City's existing wastewater treatment plant (see Fig. 1). The major facilities associated with this work included:

- East Side CSO Tunnel: 29,200 lineal feet of 22-ft internal diameter soft ground tunnel
- Seven Major Shafts: six along the tunnel route to direct overflows to the tunnel in addition to a temporary mining shaft
- Connecting Pipelines: 10,100 lineal feet of connecting sewers from overflow diversion structures to the main shafts, ranging in diameter from 18 to 84 inches.

The tunnel was constructed at depths ranging between 85 feet and 150 feet below the ground surface under water pressures up to 3 bars (atmospheres). One slurry pressure tunnel boring machine (TBM) was utilized, a larger version of the machines used for the first time in the U.S. on the West Side CSO Tunnel Project. Soil conditions varied from soft sand/silt alluvium to open and cemented gravel formations. A series of gravity conduits and six drop structures were constructed along the tunnel route connecting existing combined sewer outfalls to the tunnel. The tunnel alignment ran along the east side of the Willamette River and passed under the Springwater Corridor next to Ross Island, beneath the Central Eastside Industrial District, along the Rose Quarter, and under the northeast railroad corridor to Swan Island. The tunnel

terminates at the Swan Island CSO Pump Station, constructed under the West Side CSO Tunnel contract (see Fig. 1). Flows from the pump station discharge into the existing Peninsular Force Main and, under high flow conditions, the new Portsmouth Force Main, both connected to existing sewer tunnels that convey flow to the Columbia Boulevard Wastewater Treatment Plant.

Figure 1. ESCSO Project Map



The main objectives of BES were to complete this very challenging project within the agreed-upon completion date, within a defined budget, utilizing as many local, minority, women-owned, and emerging small businesses as possible, and with a strong worker safety plan. There were a number of scenarios whereby the project schedule could have slipped over the project time. In fact, some major events did occur but were mitigated during construction. Failure to complete this project on time would have resulted in prolonged environmental contamination and loss of public and regulatory confidence in BES in addition to fines that could be levied by the DEQ. In order to maximize the probability of meeting the regulatory date, all available opportunities for increasing the "float" within the schedule were evaluated. The project cost had a significant impact on BES' ability to accomplish other projects in its capital improvement program during the five-year nine-month contract time period and it was critical for BES to be able to accurately monitor costs as the project proceeded.

(a) Actual Project Cost Compared with Original Project Estimates

The final amount for closing out the entire East Side CSO construction contract with KBB is \$370,571,512 million. The contract budget amount as approved by City Council in 2006 was \$426,291,149 (a \$381 million initial contract amount plus \$45 million in inflation over the five-year nine-month contract time) + a contingency of \$38 million = \$464,291,149. During the course of the contract, three change orders increased the contract amount by \$7,245,000 as described below. Therefore, the final contract amount is <\$17,964,637 million> under the construction contract amount (in 2011 dollars) and \$62,964,637 under the approved budget.

Item	Item Amounts	Actual Cost	Over (Under) Run
Estimated Reimbursable Cost (ERC)			
Equipment	\$30,597,855	\$25,518,822	(\$5,079,033)
Equipment Maintenance	\$16,146,066	\$7,016,707	(\$9,129,359)
Subtotal	\$46,743,921	\$32,535,529	(\$14,208,392)
Electrical	\$3,081,880	\$5,818,615	\$2,736,735
Surface Sitework & Restoration	\$17,264,477	\$12,036,880	(\$5,227,597)
Open Cut Pipelines & Surf. Facilities	\$9,220,583	\$10,103,278	\$882,695
Microtunnel Pipelines	\$9,270,771	\$11,681,544	\$2,410,773
Instrumentation & Monitoring	\$2,996,794	\$1,692,832	(\$1,303,962)
Dewatering & Ground Control	\$7,727,405	\$3,520,066	(\$4,207,339)
Main Shaft Excavation & Backfill	\$51,688,107	\$42,167,808	(\$9,520,299)
Slurry TBM Tunnel	\$62,976,570	\$72,069,242	\$9,092,672
Tunnel Precast Fabrication	\$33,040,994	\$30,084,064	(\$2,956,930)
Structural Concrete	\$24,458,950	\$27,506,626	\$3,047,676
Indirects	\$48,320,697	\$49,690,857	\$1,370,160
Subtotal	\$270,047,228	\$266,371,812	(\$3,675,416)
Subtotal – 3/21/2006 ERC	\$316,791,149	\$298,907,341	(\$17,883,808)
Contractor Fee	\$64,500,000	\$64,500,000	\$0
Inflation over 5 3/4 yr contract	\$45,000,000	\$0 (Incl. Above)	(\$45,000,000)
Total - 3/21/2006 Contract @ NTP	\$426,291,149	\$363,407,341	(\$62,883,808)

Change Order No. 3	\$7,000,000	\$6,948,665	(\$1,259,525)
Change Order No. 5	\$180,000	\$157,858	(\$22,142)
Change Order No. 8	\$65,000	\$57,648	(\$7,352)
Subtotal - Change Orders	\$7,245,000	\$7,164,171	(\$80,829)
Total Contract at Completion	\$433,536,149	\$370,571,512	(\$62,964,637)

(b) Amount of Any Guaranteed Maximum Price

As on the West Side CSO contract, this contract did not utilize a guaranteed maximum price (GMP). The use of a GMP on this project was not considered advisable for several reasons:

- Since the contractor would basically “guarantee” a not-to-exceed price, the GMP would have to include all of the potential project risk, which can be considerable on an underground project. This would likely have resulted in “sticker shock” to BES and a potential contract amount greater than the project’s budget in BES’ capital improvement program.
- Potential underground differing site conditions could drive up the price of the GMP, since it would be based on underground conditions expected as a result of the designer’s geotechnical investigation, but prior to any actual work being done. Disagreements could arise regarding whether changes or differing site conditions are “inside” or “outside” the GMP, i.e. whether the GMP should be adjusted upward under these situations.
- After review of a number of local alternate contracts utilizing a GMP prior to the West Side CSO Tunnel Project, it appeared that the word “guaranteed” was actually a misnomer. In all of the contracts investigated, the final project cost was at or higher than the original GMP, or significant scope reductions were made to keep the project within the GMP or Owner’s original cost projections.
- The use of this alternate contract type without a GMP on the West Side CSO Tunnel Project completed in 2006 proved to be highly successful. The West Side contract had finished within the budget amount estimated by both BES and the West Side contractor.

Rather than a GMP, an Estimated Reimbursable Cost (ERC) was used. This consisted of two independent estimates, one by the contractor and one by BES, of the reimbursable costs of the project. These estimates were then both analyzed and compared by an outside tunneling consultant under contract with BES. After his analysis was completed, a final ERC was established. The ERC plus an agreed-upon amount to cover cost inflation over the contract period, along with the contractor’s fixed fee, determined the construction contract amount and was then used as the project cost baseline from which actual costs were measured. In addition, a joint project risk analysis between BES, the design consultant, and the contractor was performed to establish a project contingency to account for potential risks inherent in the work not included in the ERC. This was established at \$38 million or 9% of the contract amount. This contingency budget was then periodically decreased by BES over the life of the contract as the construction risks passed or were mitigated.

(c) Project Change Orders

There were a total of eight change orders to the contract. However, it should be understood that based on the contract general conditions, a change order was issued only if there were additions to the work which affected the fixed fee, contract time, or general conditions themselves.

Consequently, only three of the change orders actually changed the contract price (two due to the addition of work originally planned under a separate contract which was more cost-effectively handled by KBB and one to cover the impacts to KBB as a result of schedule acceleration of the Portland Streetcar contract on the same work-site during the construction period). The cost of these change orders was reimbursed to the project from other capital projects under which the work was originally covered. Three other change orders were issued for non-compensable changes to the general conditions. The remaining changes to the work were handled by construction change directives, which may have increased or decreased the actual reimbursable cost of a particular work item as compared to that listed in the estimated reimbursable cost, but did not affect the fixed fee or contract time. As stated above, the final cost over the 5 ¾-year contract time was significantly less than the original contract amount.

The actual change orders issued on the project were:

<u>No.</u>	<u>Description</u>	<u>Cost (\$)</u>	<u>Time (days)</u>
1	Safety Incentive Program	0	0
2	Tunnel Incentive Pay	0	0
3	Addition of OF 44A (reimbursed to project from BES Job No.	7,000,000	0
4	General Conditions Section 103.03 F.	0	0
5	Portland Streetcar Impacts (reimbursed to BES by the Portland Bureau of Transportation)	158,000	0
6	General Conditions Section 107.15 B.	0	0
7	General Conditions Section 103.06 P.	0	0
8	Repair Guilds Lake Junction Structure	65,000	0
Total		\$7,245,000	0

(d) Successes and Failures during Design, Engineering, and Construction

Successes

There were many successes accomplished on the project. This section of the report addresses the more significant ones.

Based on a contractor suggestion, the use of steel-fiber reinforced concrete was used for the precast tunnel segments rather than the originally designed steel rebar segments. Based on preliminary cost estimates, this design change was shown to potentially save \$3 million in labor costs during segment fabrication. However, there had only been one other use of steel-fiber reinforced concrete for tunnel segments used in the U.S., although it had been successfully utilized in Europe. Consequently, after the segment concrete design was revised assuming the mixing of steel-fibers directly into the concrete, an extensive testing program was then performed to determine the correct type and amount of fiber to be used and the resulting concrete strength. Based on the successful testing results, a concrete mix design was developed and used for all the concrete segments except those at the shaft connections and in the soft sand/silt

alluvium. Based on the actual segment production, the subsequent cost savings was approximately \$5 million.

An alternate method of tunnel break in/out at the shafts was also proposed after the shaft slurry wall subcontract bid came in approximately \$10 million under the original estimate. Cement-bentonite panels were installed during slurry wall installation along the outside of the shaft wall at the area of the tunnel boring machine entry. This eliminated the use of jet-grout plugs, which saved approximately \$15 million in construction cost.

The type of contract also resulted in a significant cost-saving opportunity when KBB suggested elimination of an intermediate jacking shaft immediately adjacent to the Willamette River in a difficult area along the OF 46 microtunnel pipeline. This required a 3,011 foot long microtunnel drive, which was the longest attempted in North America up to that time. BES decided that the potential risk of a "stuck machine" was outweighed by the potential cost savings in elimination of the intermediate shaft. In spite of the encountering of soft soils, wood debris, and old railroad spikes, the microtunnel boring machine successfully completed the drive. With any other contract, the contractor would have been unlikely to attempt this approach. This change to the work resulted in an approximate \$1 million savings to the contract.

Failures

Although there were no contract issues that could be considered "failures" on the project, there was an area of concern in subcontract administration. Under this type of contract, although all subcontracts and subcontract changes must be approved by BES, BES actually had limited control over how the contractor managed the subcontracts. There can be a tendency for "scope creep" to individual subcontracts, since once a subcontractor is on-site, it may be easier for the prime contractor to continue to add work to a subcontractor, rather than go through the time and effort to procure additional subcontracts. This occurred early in the project when a subcontractor at the main mining site performing temporary instrumentation work continued to perform services requested by contractor's field staff at various other work sites on the project outside of the subcontractor's original scope. There was another instance of unit price quantities of a hauling subcontract significantly exceeding the original subcontract scope prior to submission of a subcontract change order to BES.

(e) Objective Assessment of the Contracting Process as Compared to the Findings

1. Competition

The contractor procurement process utilized was as described in the Findings of Fact under the supervision of Bureau of Purchases (BOP) staff. No objections were raised to the contracting process during the public advertisement period of the Findings of Fact or at the subsequent City Council hearing. A non-restrictive open solicitation was then used which resulted in Statements of Qualifications received from five international joint ventures. Three joint ventures were then sent Requests for Proposals (RFP) and all responded with proposals. After a four-hour interview with each finalist, a final selection was made by an objective 11-member panel based on weighted criteria specified in the RFP. A protest was then filed by the second place proposer, which was subsequently denied by the Purchasing Director, appealed to the Purchasing Board of Appeals (denied again) and subsequently appealed before City Council, which also heard and denied the protest. This process added approximately two months delay to the planned notice-to-proceed date.

2. Operational, Budget, and Financial Data

The East Side CSO Project became operational on September 14, 2011, 2 ½ months ahead of the ASFO completion date of December 1, 2011. Since that time, the facility has been operating as intended. A major advantage of the contracting approach from a schedule standpoint was the ability to begin project construction in March 2006 prior to the design of the project being complete. At the time of construction notice-to-proceed, the design documents were approximately 90% complete. Concurrent design and construction saved both time and cost, since under a traditional competitive bidding process, contractor procurement could not have begun until after the design documents were 100% complete, well after the March 2006 notice-to-proceed date. This would have necessitated construction acceleration in order to meet the ASFO deadline.

In addition, the use of a ten-month pre-construction services phase with the contractor while design was underway allowed the incorporation of many contractor value engineering suggestions into the design drawings which lowered cost. Specific items to be noted were the request by the contractor to redesign many of the outfall diversion structures to make construction more efficient, and the use of unused tunnel segments for the drop shaft vortices instead of concrete formwork, saving an estimated \$3 million in construction costs alone.

The pre-construction services phase also allowed time for the tunnel boring machine (TBM) selection, advertisement, manufacturer selection, and procurement prior to the start of construction. The machine selected (slurry mixshield TBM) proved to be the ideal type of TBM for the soil and groundwater conditions, resulting in a finished tunnel four months early with no cost overruns or TBM failures.

3. Public Benefits

As previously stated, the project was complete and operational prior to the mandated ASFO deadline. It was also completed well below BES' original allotted budget for the project, thus not affecting the implementation of any other BES capital projects. Consequently, the benefits to the public are the reduction of combined sewer overflows along the east side of the river as required while minimizing the financial impact to the Portland sewer ratepayers.

4. Value Engineering

In addition to saving valuable schedule time, the other major advantage of the pre-construction services phase was having the selected contractor review the design drawings prior to completion to offer cost-saving suggestions based on their construction expertise. This resulted in a number of changes to the design, which significantly lowered potential project costs, the most significant of which is described above. Other cost-saving suggestions by the contractor which were incorporated into the work included a special seal design between the segments and shaft wall which deleted the need for a jet grout plug on the outside of the shafts at TBM entries and exits.

5. Specialized Expertise

Through the use of a Request for Qualifications, the BES had the ability to select only those joint venture contractors that had the necessary expertise to be able to successfully complete a project of this magnitude. From five original joint ventures that submitted Statements of Qualifications, three were sent Requests for Proposals based on their saturated soft ground tunneling experience as well as the necessary financial capability. A review of the subsequent proposals that were

submitted indicated three different approaches to the project by each of the three joint ventures. Since "Project Approach and Fee" was the most highly weighted selection criteria, this allowed the selection committee to give greater weight to the approach that proposed the most cost-effective method of completing the project on time. The selected contractor showed that the use of one tunnel boring machine in this case rather than two would reduce the cost of the project without jeopardizing the ability to meet the mandated completion date. This approach was successfully utilized.

6. Market Conditions

The Bureau of Purchases carried out the prime contractor procurement process using the same advertising venues as are used for the conventional bidding process for a project of this size. Consequently, the same local and U.S. construction markets were reached. However, the type of contract also generated interest from European contractors with significant soft ground tunneling expertise, which have historically not been interested in the standard U.S. "low bid" approach. The eventual selected contractor was a German/American joint venture. Subcontracting was advertised by the prime contractor beyond the Portland market only where there was no local expertise for that particular type of work, such as shaft slurry walls and secant pile installation. All other subcontracting was procured in the Portland metropolitan area, for which there was sufficient local contractor interest to accomplish the work.

Based on a detailed review of the plans to identify potential subcontracting opportunities at the start of the work, approximately \$26 million in subcontracting opportunities was identified for local minority, women, and emerging small businesses (M/W/ESB). At the end of the project, the total M/W/ESB participation was over \$31 million, exceeding the original goal by over \$5 million. The additional M/W/ESB opportunities which arose during the course of the contract were matched by the capacity of the local contracting market.

7. Technical Complexity

The RFP selection criteria not only included the requirements for the technical expertise to perform the tunneling work but also the ability to manage a project of this size, including the multitude of anticipated subcontracts. All joint ventures responding to the RFP demonstrated this experience. Since the selected contractor had full responsibility for all aspects of the work, coordination issues between work elements and individual subcontractors was performed by the prime contractor as part of the fixed fee. Consequently, coordination between various areas of work (especially the shaft wall and tunneling interface) did not become a significant issue or area of extra cost.

8. Funding Sources

The project was funded with capital bonds to be paid by Portland ratepayers as originally anticipated. The alternate contracting approach was a benefit in the projection of fiscal year cash flow as both the BES and the contractor could track the identical costs as they were incurred and perform joint cost projections for comparison during various stages of the contract. This provided a much more accurate budget projection for each fiscal year. It also allowed a better projection of upcoming subcontracting opportunities for dissemination to the local contracting market on a periodic basis.

Conclusion

Although not without risk, the alternate contracting method used for the East Side CSO Tunnel Project proved to be ideally suited to the type of work covered under the contract. The early contractor procurement eliminated the standard six month bid/award period after design completion. The pre-construction services phase allowed the contractor to make cost-saving suggestions to the contract documents, to get started on early procurement of the TBM, and to start construction prior to the design being 100% complete.

During the entire course of the pre-construction and construction phases, opportunities for cost savings which arose that were utilized by the contractor resulted in direct financial benefit to BES. In addition, due to economic conditions, the original projection of \$45 million in inflation costs over the life of the contract did not materialize. Instead of these savings accruing to the contractor, which would have been the case under a low bid contract, all of the savings from the low inflation costs were realized by BES.

This contract method also resulted in an excellent three-way working relationship between BES, the designer Parsons Brinckerhoff, and the contractor Kiewit/Bilfinger Berger JV. Contractor-requested design modifications were done quickly, ahead of the contractor's schedule, with cost-savings accruing directly to BES. The typical owner-contractor adversarial relationship never materialized, since the project objectives of both entities are aligned under this type of contract: the owner looking for schedule savings which result in a reduction in direct costs, and the contractor looking for schedule savings to minimize overhead and maximize profit.

It is recommended that during the planning of any major City of Portland construction contract, a construction contract procurement and contracting strategy be done during the very early phases of project design, which analyzes all contracting options available to determine the most cost-effective strategy for meeting project-specific success criteria.

Attachments:

- A. Findings of Fact Memo
- B. ESCSO Contractor Procurement Process Summary

ORDINANCE No. 178445

* Authorize an exemption to the competitive bidding process to the Bureau of Purchases for the Bureau of Environmental Services, East Side Combined Sewer Overflow Tunnel, pursuant to ORS 279.015(2)(a) and (b), Project No. 5516 (Ordinance)

The City of Portland ordains:

Section 1. The Council finds:

1. The Bureau of Environmental Services, under an Amended Stipulation and Final Order (ASFO), must complete design and construction of the East Side Combined Sewer Overflow (CSO) Tunnel Project by December 1, 2011.
2. The Bureau has determined that selecting and contracting with a contractor early in the design process will facilitate meeting the ASFO deadline.
3. Use of an alternative bidding process will not impair opportunities for minority, women and emerging small businesses and may, in fact, provide flexibility to the general contractor that facilitates greater opportunities for such firms.
4. The Findings of Fact (Exhibit "A") supports the exemption of a contract from the regular competitive bidding process, consistent with ORS 279.011(6) (a) to (h).

NOW, THEREFORE, the council directs:

- a. The East Side CSO Tunnel Project No. 5516 is exempt from the competitive bidding requirements of ORS 279.
- b. The Purchasing Agent is authorized to conduct an alternative bidding process to select a contractor for this project.
- c. Upon Council's acceptance of the Purchasing Agent's report for recommendation of the contractor for the East Side CSO Tunnel Project No. 5516, the Mayor and Auditor are authorized to execute a contract for the construction of the East Side CSO Tunnel Project.
- d. The Mayor and the Auditor are authorized to draw and issue checks chargeable to the appropriate budget when demand is present and approved by the proper authorities.

Section 2. The Council declares that an emergency exists because a delay in proceeding with this project could delay completion of the project on schedule. Therefore, this ordinance shall be in full force and effect from and after its passage by the Council.

Passed by the Council, May 26, 2004

Mayor Vera Katz

Sue Klobertanz

May 6, 2004

145-22-110/proj. 5516

Gary Blackmer

Auditor of the City of Portland

By /S/ Susan Parsons

Deputy

BACKING SHEET INFORMATION

AGENDA NO. 589-2004

ORDINANCE/RESOLUTION/COUNCIL DOCUMENT NO. 178445

COMMISSIONERS VOTED AS FOLLOWS:		
	YEAS	NAYS
FRANCESCONI	===	===
LEONARD	X	
SALTZMAN	X	
STEN	X	
KATZ	X	

EXHIBIT "A"
EAST SIDE CSO TUNNEL PROJECT

FACTUAL FINDINGS
PROPOSED EXEMPTION FROM COMPETITIVE BIDDING

PROJECT BACKGROUND: In August of 1994, the City and the Bureau of Environmental Services entered into a combined sewer overflow (CSO) abatement agreement with the Oregon Department of Environmental Quality (DEQ). The agreement calls for City compliance with an Amended Stipulation and Final Order (ASFO) to control 55 combined sewer overflows by December 1st, 2011, with intervening major deadlines to complete specific parts of the work. The first part includes facilities for controlling overflows into the Columbia Slough, which were completed and operational by the specified deadline of December 1st, 2000. The second part, the West Side CSO Projects, involves the construction of improvements to control overflows from the west side of the Willamette River, which are currently under construction and must be complete and operational by December 1st, 2006. The final part of this work, the East Side CSO Tunnel Project, involves the construction of improvements to control overflows from the east side of the Willamette River, which must be complete and operational by December 1st, 2011.

The East Side CSO Tunnel Project, which is to be constructed under this process, includes the construction of a soft ground tunnel to control overflows from the east side of the Willamette River and is estimated to cost \$500-600 million. Acting as both a conveyance and storage conduit, the tunnel will intercept existing combined sewer outfalls along the east side of the Willamette River and will convey captured flow to a new pump station currently being constructed as part of the West Side CSO Projects on Swan Island. The tunnel will have an inside diameter of approximately 22 feet and will be constructed at depths ranging between 85 feet and 175 feet below the ground surface. A series of gravity conduits and deep drop shafts will be constructed along the tunnel route to connect existing combined sewer outfalls to the tunnel. Several of these deep shafts will also be used to provide access to the tunnel. The tunnel will extend for approximately 30,000 lineal feet from the vicinity of SE Insley Street and SE McLoughlin Blvd, proceeding north while paralleling the east bank of the Willamette River to a connection with the West Side CSO Tunnel at the Confluent Structure now under construction on Swan Island.

COMPETITION: The alternate contracting process will not limit competition or encourage favoritism in the selection process when compared to the standard "low bid" process. The Bureau of Environmental Services (BES) will issue a Request for Qualifications (RFQ) followed by a Request for Proposals (RFP) for a Contractor for this project in accordance with established RFP procedures that will attract competition for this contract from numerous contractors in the construction community. Potential Contractors will submit Statements of Qualifications to perform the work. A Selection Committee consisting of personnel from BES, Bureau of Purchases, and others from the community will evaluate the Statements of Qualifications and develop a short list of contractors for

submittal of proposals. Those selected will be asked to submit proposals. The Selection Committee will then select a contractor based on evaluation of the proposals. The selection process will be completed under the supervision of Bureau of Purchases staff. The evaluation process will be based on a predefined combination of demonstrable technical qualifications and the proposed fixed fee. Subcontracted portions of the work will be contracted by the Contractor through a conventional competitive bidding process.

OPERATIONAL, BUDGET AND FINANCIAL DATA: The Project will construct new facilities to implement sewage discharge reductions that must be complete and operational by December 1st, 2011, as ordered by DEQ. Failure to complete them on time will result in prolonged environmental contamination, loss of public and regulatory confidence in the City and BES, and may also result in massive fines being levied against the City. It is therefore imperative that the construction be completed on time. The most viable alternative for controlling overflows from the east side of the Willamette River is the East Side CSO Tunnel plan described above. Although constructing these facilities will be a massive undertaking, this plan carries both the lowest risk and lowest construction and operating cost compared to any other alternative identified to date. This plan also offers the greatest flexibility, reliability, and ease of operation. Unfortunately, this facility plan cannot be completed by the prescribed deadline with any assurance unless alternative contracting is used.

Alternative contracting will allow some elements of the project to be constructed while others are still under design. Concurrent design and construction through this approach will not only save time but will also reduce costs, while helping to ensure the City minimizes risk of failing to meet the prescribed deadline. Employing the Contractor during the design phase will allow the Contractor to assist in selecting appropriate construction methods and sequencing and in developing a realistic comprehensive construction schedule before the construction phase begins. The alternative contracting process will also provide value engineering and constructability reviews well before the final construction documents are completed. This should ultimately result in fewer change orders and significant savings for the City over conventional contracting. By utilizing this alternate contracting process on the West Side CSO Project, the City has been able to reduce project costs to date by approximately \$30 million due to the benefits of the contractor's review of the design documents prior to design completion.

The project also includes acquisition of highly technical one-of-a-kind equipment that may require custom manufacturing, taking longer to acquire. Retaining the contractor early will allow the contractor and BES an opportunity to select and order appropriate equipment well before construction begins so it will be on site and ready for installation when needed. As a result, it is more likely that the alternative contracting process will be able to meet the Bureau's budget and will save the taxpayer's money by reducing change orders and result in the lowest overall project cost.

PUBLIC BENEFITS: BES cannot fail to meet its commitment to complete and make operable its East Side CSO Tunnel Project by the stipulated December 1st, 2011 deadline. Electing to adopt reasonable measures such as alternative contracting to meet its commitments falls well within the Bureau's fundamental mission of maintaining the livability of the City. Meeting this deadline will provide a timely elimination of combined sewer overflows to the Willamette River that are no longer tolerable. Finally, alternative contracting will allow construction of the current facility plan at the

lowest life-cycle cost of any other technically feasible alternative identified to date. Alternative contracting will thus allow the public to receive the benefits of both timeliness and lowest cost.

VALUE ENGINEERING: The alternate contracting process will give the Contractor an opportunity to partner with BES design and construction staff in performing value engineering and constructability reviews. In contrast, contractor input into the project while it is being designed is not possible using the conventional design-bid-build construction process. That input will reduce overall project costs and more efficiently attain the project objectives. The Contractor can therefore see conditions while design is ongoing and thus has the opportunity for input. The Contractor's specialized construction experience and knowledge will also help identify and resolve issues prior to construction and will aid in early identification of effective measures to minimize disruption of the Central Eastside Industrial District during construction. This partnering will also reduce change orders, claims, design modifications, and delays, resulting in significant cost savings and delivery of quality facilities on time.

SPECIALIZED EXPERTISE: The project will construct a long, large diameter tunnel more than a hundred feet beneath the water table and the surface of the Willamette River. It will also excavate and shore several large diameter shafts to equal or greater depths, below the groundwater. Extensive modification of in-place soils and management of groundwater will undoubtedly be needed for success. It is therefore absolutely essential that the contractor have proven experience with tunneling, shaft construction, and ground modification of the sort needed for these projects. Special expertise can be acquired more effectively through the Contractor qualification selection process because the City can evaluate the depth of a contractor's experience and past performance. In contrast, the conventional bidding method relies on a prequalification process in which a wide range of levels of expertise may be sufficient for the project to permit bidding.

Second, it is imperative that such experience be brought to bear during the design phase of this project. Expertise in construction methodology, sequencing, scheduling, and cost estimating in deep tunneling and shaft construction work is essential. The alternate contracting process will provide the best opportunity to select the most knowledgeable Contractor with the necessary specialized expertise for this project and to make this expertise available during the project design phase. In contrast, the conventional bidding method does not permit the City to use the Contractor's expertise to help design the project. Therefore, specialized expertise on this project requires use of the alternative contracting process to maximize the City's chances of success.

MARKET CONDITIONS: The alternate contracting process reaches the same market as the conventional bidding process would. The specialized skills and size of the major components of work necessary for the East Side CSO Tunnel Project reach the national and international market place. Competitive contracting to this market will be obtained during the solicitation for qualifications and proposals. Other key elements of work for the project that are not completed by the selected contractor will be subcontracted out. A large portion of this work will be subcontracted out to the local market, using the traditional competitive bidding process.

The alternative contracting process has the added benefit of allowing the selected contractor to solicit bids for various aspects of work (equipment, labor, etc) while the portions of work are ready to go out to bid. This allows the alternatively selected contractor extra time to coordinate construction activities

between its various resources to minimize construction risks and delays. The contractor will be able to prepare material and equipment submittals early and thus issue purchase orders to suppliers and vendors for timely delivery. This will also provide a lengthened opportunity to identify and reach out to qualified historically underutilized businesses that may otherwise not have an opportunity to participate in the projects. Overall, the alternate contracting process provides the best assurance that the most qualified and cost effective subcontractors, suppliers, and vendors will be available to meet the demanding schedule at minimum cost.

TECHNICAL COMPLEXITY: Several elements of this project require specialized expertise, as described above. In addition, the complexity of the elements of work requires the Contractor to understand and be able to manage all aspects of work. By providing an overall Contractor for the various elements of work, key coordination issues such as shaft construction can be developed with input from the Contractor. Since the Contractor will be responsible for supplying and coordinating the various crews to complete the work, he/she can better coordinate the phasing and interface points.

5. Under a conventional bidding process, the various elements would be contracted under separate bids presenting potential claims and conflicts between the various contractors, working at interface points, also risking unacceptable project delays. In addition, perhaps the greatest technical challenge is the need to tunnel well below the water table through open gravels known to exist in the stratum through which the tunnel will be driven. Specifying and selecting the tunnel boring machine to meet this challenge must be done early in the construction phase and can only be properly done by the contractor responsible for its ultimate performance.

FUNDING SOURCES: Ratepayer-supported revenue bonds will fund the construction cost of this project, currently estimated at \$500-600 million. The alternate contracting process will likely be viewed favorably by bond rating agencies, given the size and complexity of this work, the benefits of this bidding approach as discussed above, and the positive experience of the bureau with a similar bidding approach for the West Side CSO Project. Maintaining high bond ratings is key to keeping borrowing costs low which enables the bureau to keep ratepayer fees lower than they otherwise would be.

East Side Combined Sewer Overflow (CSO) Tunnel Project
Proposed Contractor Procurement Process
April 2, 2004

Introduction

In accordance with ORS 278.015, the Bureau of Environmental Services (BES) intends to request authorization by City Council through a public process to waive the "low-bid" contractor procurement process and use an alternate contracting process for the East Side CSO Tunnel Project, similar to what was done on the West Side CSO Project. The driving criteria for use of an alternate process are:

- The project is technically very challenging, with potentially significant impacts to existing businesses, structures and properties requiring specialized contractor expertise,
- The principal construction elements have critical time constraints, which can be mitigated with contractor procurement prior to design completion,
- Contractor participation during the design phase would benefit the project with early selection and sequencing of viable construction methods, tunnel boring machine selection and procurement, realistic comprehensive scheduling, constructability reviews, evaluation of cost-saving opportunities and development of a project partnership rather than an adversarial relationship,
- The City would have more influence on subcontracting opportunities for M/W/ESB firms.
- The alternate process used for the West Side CSO Project has proven to be very successful and has elicited considerable support for construction contracting innovation from the underground engineering and contracting community.

Process

The alternate contracting process will be modeled after the West Side CSO contractor procurement process run through the Bureau of Purchases and include:

- Initial advertisement in major construction publications soliciting potential contractor interest (e.g., Engineering News Record, North American Tunneling Magazine, etc.)
- Issuance of a Request for Qualifications (RFQ)
- Request for Proposals (RFP) from qualified contracting ventures
- Question and answer session with each contracting entity to clarify proposal requirements
- Receipt and evaluation of Proposals from interested contracting ventures
- "Contacts to Contracts" meeting where each proposer presents their approach to creating M/W/ESB subcontracting opportunities at the office of the Oregon Association of Minority Entrepreneurs,
- Maximum four-hour interviews with each proposing joint venture.

In order to potentially increase contractor interest, payment of a stipend to partially offset costs of proposal preparation and interviews for finalists is an approach to consider.

Based on conversations with prior proposers, preparation costs can be in the area of \$500,000. We may want to consider up to ½ of this amount.

Selection Committee

A selection committee will be set up to review the Statements of Qualifications, Proposals, and to participate in contractor interviews. The committee will consist of BES personnel representing bureau management, design staff, construction management staff, operations and maintenance, and business opportunities, and outside personnel. A list of potential candidates (none of whom have yet been contacted) is attached. In addition, a technical review committee will be utilized for input in the process which may include an additional tunneling expert from the design consultant, a tunneling expert from an outside firm, Bureau of Purchases staff, a bureau risk manager and other technical staff involved with the project.

Criteria

The initial proposed review criteria for the proposals and interviews are:

- Project approach and fixed fee
- Key personnel
- Project Management Plan
- M/W/ESB subcontracting and workforce training and hiring plan
- Safety
- Approach to Partnering

Attachment

Project No. E05516

CERTIFICATE OF COMPLETION

for the construction of East Side Combined Sewer Overflow Tunnel Project

according to the provisions of Ordinance No. 178445 Contract No. 36496

Name of Contractor: Kiewit-Bilfinger Berger, Joint Venture

Contract Signed: March 21, 2012

Contract Expires: October 31, 2012

Contract Completed: February 28, 2012

Delinquent - 0 - days

This work was inspected as to quality and quantity of work done in construction and found to have been completed, in compliance with the plans, specifications, and requirements under the above named Ordinance.

WFR
Construction Division Manager Date

Will F. Ry 7/2/13
Chief Engineer Date

Chris O'Leary 6/27/13
Construction Project Manager Date

I hereby certify that I have completed my contract work under the above numbered Contract and furnished the materials and performed the work in accordance with the plans and specifications.

Jeffrey P. Pifer
Contractor

Title

Date

ACKNOWLEDGEMENT, RELEASE AND CERTIFICATION**1. Acknowledgement**Contractor acknowledges that amount earned is \$370,571,512 on Contract No. 36496.**2. Release:**

Contractor releases the City of Portland, its officers, agents and employees from any and all other claims for additional compensation that it does or might have as a result of its performance of work on this contract

3. Certification

Contractor certifies that:

- a) All work required by this Contract is complete;
- b) All amounts due for labor, materials and all other obligations under this Contract were paid by the Contractor;
- c) All actions for injuries or damages arising out of its operations and work were fully and finally settled, or are fully covered by insurance protecting the Contractor, the City of Portland, its officers, agents and employees, and any additional insurance required by the contract; and
- d) Any claim brought against the Contractor by an employee, subcontractor, or supplier has been fully and finally settled, or if not resolved, is fully covered and payable by the Contractor's performance and payment bond, or, if no bond was required, by the Contractor itself, in the event that such claim is correct.

APPROVED AS TO FORM

James H. Van Dyke
 CITY ATTORNEY 6/19/13

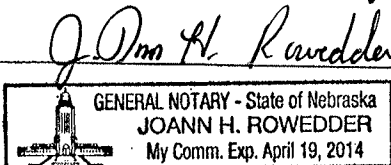
Jeffrey P. Petersen
 Signature

Kiewit – Bilfinger Berger, Joint Venture
 10121 SE Sunnyside Rd, Suite 265
 Clackamas, Oregon 97015

Senior Vice President
 Title

State of Nebraska)
) ss:
 County of Douglas)

This instrument was acknowledged before me on May 24, 2013 (date),
 by Jeffrey P. Petersen (name) as Senior Vice President (title)
 of Kiewit - Bilfinger Berger (company).



NOTARY PUBLIC FOR Nebraska (State)
 My Commission Expires: 4-19-2014

RIDER

To be attached to and form part of:

Bond Number 41S104704614BCM, 104691536, 82054487, 8837464
dated 3/8/2006

issued by the TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA,
FEDERAL INSURANCE COMPANY,
FIDELITY AND DEPOSIT COMPANY OF MARYLAND,
ZURICH AMERICAN INSURANCE COMPANY

in the amount of \$76,258,229.80

on behalf of KIEWIT-BILFINGER BERGER, A JOINT VENTURE
(Principal)

and in favor of CITY OF PORTLAND
(Obligee)

Now therefore, it is agreed that in consideration of the premium charged, the attached bond shall be amended as follows:

The completion date of the Maintenance/Warranty Bond shall be amended:

FROM: 12/31/2011
TO: 2/28/2012

It is further understood and agreed that all other terms and conditions of this bond shall remain unchanged.

This Rider is to be Effective this 1st day of May, 2013.
Signed, Sealed & Dated this 1st day of May, 2013.

KIEWIT-BILFINGER BERGER, A JOINT VENTURE

By: 

(Principal)

(Sureties)

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

By: 

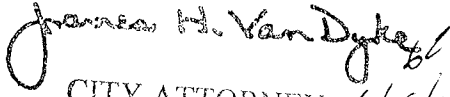
Wayne G. McVaugh, Attorney-in-Fact

FEDERAL INSURANCE COMPANY

By: 

Wayne G. McVaugh, Attorney-in-Fact

APPROVED AS TO FORM


CITY ATTORNEY 6/19/13

FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: _____

Wayne G. McVaugh, Attorney-in-Fact

ZURICH AMERICAN INSURANCE COMPANY

By: _____

Wayne G. McVaugh, Attorney-in-Fact

MAINTENANCE/WARRANTY BOND

KNOW ALL MEN BY THESE PRESENTS that we, Kiewit-Bilfinger Berger, A Joint Venture, as Principal, and *see below, a corporation organized and existing under the laws of the State of *see below, and duly authorized to transact a surety business in the State of Oregon, as surety, are held and firmly bound unto the CITY OF PORTLAND, a municipal corporation of the State of Oregon, in the penal sum of \$ 76,258,229.80 Dollars (\$ 76,258,229.80), lawful money of the United States of America, for the payment whereof well and truly to be made, we and each of us, jointly and severally, bind ourselves, our and each of our heirs, executors, administrators successors and assign, firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH:

THAT WHEREAS the Principal did on the (), enter into Contract with the City of Portland for East Side Combined Sewer Overflow, that was completed on (2/28/12), which requires a two-year Maintenance and Warranty as described in Section 107.14 of the City of Portland Standard Construction Specifications, and which Contract hereby is made a part hereof as if fully copies herein;

NOW THEREFORE, if the Principal herein shall faithfully and truly observe the terms, provisions, conditions, stipulations, directions, and requirements of said contract and shall in all respects, whether the same be enumerated herein or not, faithfully comply with the same and shall assume the defense of indemnify and save harmless the City of Portland, its officers, agents, and employees from all claims, liabilities, loss, damage or injury which may have been suffered or claimed to have been suffered to persons or property directly or indirectly resulting from or arising out of the operations or conduct of said Principal or any subcontractor in the performance of the work under said contract and shall indemnify and make whole the City for any injury or damage to any street, highway, avenue, or road or any part thereof, resulting from the operations or conduct of said Principal or any subcontractor in connection with performance or conduct of the work under said contract, and shall in all respects faithfully keep and observe all of said terms, provision, conditions, stipulations, directions, and requirements, then this obligation is void, otherwise, it shall remain in full force and effect.

WITNESS our hand and seals this 8th day of March, 2006

Kiewit-Bilfinger Berger, A Joint Venture
Contractor

BY: Jeffrey Peterson

TITLE: VICE PRESIDENT - KIEWIT CONSTRUCTION COMPANY
MANAGING PARTNER

Travelers Casualty and Surety Company of America

Surety

See Additional Sureties Signature page

By: Eugene P. Dessureau

Attorney-In-Fact Eugene P. Dessureau

APPROVED


City Attorney

Travelers Casualty and Surety Company of America, Connecticut
Federal Insurance Company, Indiana
Fidelity and Deposit Company of Maryland, Maryland
Zurich American Insurance Company, New York


Additional Surety Signature page

Bond No. 41SB104632228BCM
104691536/82054487/8837464

Federal Insurance Company

By 
Eugene P. Dessureau, Attorney-in-Fact

Fidelity and Deposit Company of Maryland

By 
Eugene P. Dessureau, Attorney-in-Fact

Zurich American Insurance Company

By 
Eugene P. Dessureau, Attorney-in-Fact

TRAVELERS **POWER OF ATTORNEY**

Farmington Casualty Company
 Fidelity and Guaranty Insurance Company
 Fidelity and Guaranty Insurance Underwriters, Inc.
 St. Paul Fire and Marine Insurance Company
 St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
 Travelers Casualty and Surety Company
 Travelers Casualty and Surety Company of America
 United States Fidelity and Guaranty Company

Attorney-In Fact No. 226028

Certificate No. 005329237

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Richard A. Jacobus, Douglas R. Wheeler, Maureen McNeill, Wayne G. McVaugh, Elizabeth Marrero, Jaquanda S. Long, and Marina Tapia

of the City of Philadelphia, State of Pennsylvania, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 11th day of January, 2013.

Farmington Casualty Company
 Fidelity and Guaranty Insurance Company
 Fidelity and Guaranty Insurance Underwriters, Inc.
 St. Paul Fire and Marine Insurance Company
 St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
 Travelers Casualty and Surety Company
 Travelers Casualty and Surety Company of America
 United States Fidelity and Guaranty Company



State of Connecticut
 City of Hartford ss.

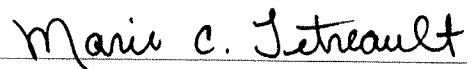
By: 

Robert L. Raney, Senior Vice President

On this the 11th day of January, 2013, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
 My Commission expires the 30th day of June, 2016.




 Marie C. Tetreault, Notary Public



POWER OF ATTORNEY

Farmington Casualty Company
 Fidelity and Guaranty Insurance Company
 Fidelity and Guaranty Insurance Underwriters, Inc.
 Seaboard Surety Company
 St. Paul Fire and Marine Insurance Company

St. Paul Guardian Insurance Company
 St. Paul Mercury Insurance Company
 Travelers Casualty and Surety Company
 Travelers Casualty and Surety Company of America
 United States Fidelity and Guaranty Company

Attorney-In Fact No. 213323

Certificate No. 000005259

KNOW ALL MEN BY THESE PRESENTS: That Seaboard Surety Company is a corporation duly organized under the laws of the State of New York, that St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Maryland, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc. is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

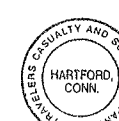
Eugene P. Dessureau, Stephen W. Freeman, Robert E. Walsh, Robin V. Russell, Patricia S. Wise, Beatrice Saint-Felix, Michele E. H. Blanco, and Michael A. Youngblut

of the City of Chevy Chase, State of Maryland, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 14th day of November, 2005.

Farmington Casualty Company
 Fidelity and Guaranty Insurance Company
 Fidelity and Guaranty Insurance Underwriters, Inc.
 Seaboard Surety Company
 St. Paul Fire and Marine Insurance Company

St. Paul Guardian Insurance Company
 St. Paul Mercury Insurance Company
 Travelers Casualty and Surety Company
 Travelers Casualty and Surety Company of America
 United States Fidelity and Guaranty Company



State of Connecticut
 City of Hartford ss.

By:

George W. Thompson
 George W. Thompson, Senior Vice President

On this 14th day of November, 2005, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., Seaboard Surety Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
 My Commission expires the 30th day of June, 2006.



Marie C. Tetreault
 Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., Seaboard Surety Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

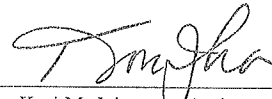
FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kori M. Johanson, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., Seaboard Surety Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 8th day of March, 20 06


Kori M. Johanson, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.stpaultravelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.



**Chubb
Surety**

**POWER
OF
ATTORNEY**

**Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company**

**Attn: Surety Department
15 Mountain View Road
Warren, NJ 07059**

Know All by These Presents, That **FEDERAL INSURANCE COMPANY**, an Indiana corporation, **VIGILANT INSURANCE COMPANY**, a New York corporation, and **PACIFIC INDEMNITY COMPANY**, a Wisconsin corporation, do each hereby constitute and appoint **Richard A. Jacobus, Gerard Leib, Jaquanda Long, Maureen McNeill, Wayne G. McVaugh, Mary C. O'Leary, Marina Tapia and Darella White** of Philadelphia, Pennsylvania and, **Wayne Dodson and Kenneth Gerrity** of Winston-Salem, North Carolina

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** have each executed and attested these presents and affixed their corporate seals on this **18th** day of **October, 2012**.

Kenneth C. Wendel, Assistant Secretary

David B. Norris, Jr., Vice President

STATE OF NEW JERSEY

County of Somerset

ss.

On this **18th** day of **October, 2012** before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY**, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel, being by me duly sworn, did depose and say that he is Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By-Laws and in deponent's presence.

Notarial Seal



KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2316685
Commission Expires July 16, 2014

Notary Public

CERTIFICATION

Extract from the By-Laws of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY**:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** (the "Companies") do hereby certify that

- (i) the foregoing extract of the By-Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U.S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this **1st** day of **May, 2013**.



Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903- 3493 Fax (908) 903- 3656

e-mail: surety@chubb.com



Chubb
Surety

POWER
OF
ATTORNEY

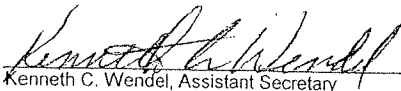
Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company

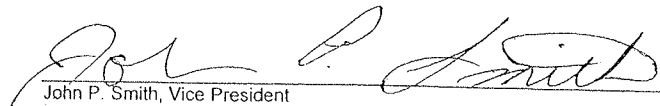
Attn: Surety Department
15 Mountain View Road
Warren, NJ 07059

Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint Eugene P. Dessureau, Stephen W. Freeman, Robert E. Walsh, John J. Younger, Robin V. Russell, Patricia S. Wise, Beatrice Saint-Felix, Michael A. Youngblut, Michele E. H. Blanco of Chevy Chase, Maryland

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have each executed and attested these presents and affixed their corporate seals on this 23rd day of October, 2004


Kenneth C. Wendel, Assistant Secretary


John P. Smith, Vice President

STATE OF NEW JERSEY

County of Somerset

ss.

On this 23rd day of October, 2004

before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel, being by me duly sworn, did depose and say that he is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with John P. Smith, and knows him to be Vice President of said Companies; and that the signature of John P. Smith, subscribed to said Power of Attorney is in the genuine handwriting of John P. Smith, and was thereto subscribed by authority of said By-Laws and in deponent's presence.

Notarial Seal



KATHERINE KALBACHER
NOTARY PUBLIC OF NEW JERSEY
No. 2316685
Commission Expires July 8, 2009



Notary Public

CERTIFICATION

Extract from the By-Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

- (i) the foregoing extract of the By-Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U.S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 8th day of March, 2006




Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903- 3493 Fax (908) 903- 3656
e-mail: surety@chubb.com

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by **THOMAS O. MCCLELLAN, Vice President**, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Douglas R. WHEELER, Mary C. O'LEARY, Maureen MCNEILL, Wayne G. MCVAUGH, Elizabeth MARRERO, Jaquanda LONG and Marina TAPIA**, all of Philadelphia, Pennsylvania, EACH its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

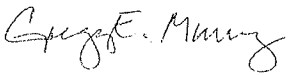
The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

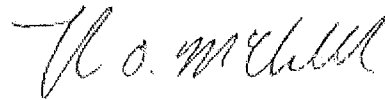
IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 20th day of February, A.D. 2013.

ATTEST:

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND**



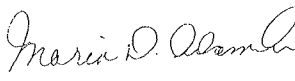
By: 
Assistant Secretary
Gregory E. Murray


Vice President
Thomas O. McClellan

State of Maryland
City of Baltimore

On this 20th day of February, A.D. 2013, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **THOMAS O. MCCLELLAN, Vice President, and GREGORY E. MURRAY, Assistant Secretary**, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me *duly sworn*, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



Maria D. Adamski, Notary Public
My Commission Expires: July 8, 2015



Power of Attorney
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY

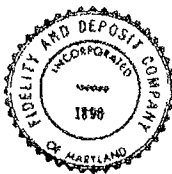
KNOW ALL MEN BY THESE PRESENTS: That the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, and the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, corporations of the State of Maryland, by WILLIAM J. MILLS, Vice President, and GREGORY E. MURRAY, Assistant Secretary, in pursuance of authority granted by Article VI, Section 2, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, does hereby nominate, constitute and appoint **Robert E. WALSH, Eugene P. DESSUREAU, Stephen W. FREEMAN, Michael A. YOUNGBEUT, Michele E. H. BLANCO, Robin V. RUSSELL, Patricia S. WISE and Beatrice SAINT-FELIX**, all of Chevy Chase, Maryland, **EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in Baltimore, Md., in their own proper persons. This power of attorney revokes that issued on behalf of Robert E. WALSH, Eugene P. DESSUREAU, Edward T. EGAN, Stephen W. FREEMAN, Michael M. TRACY, Phyllis J. WILLEY, Laura L. BROWN, Robin V. RUSSELL, Patricia S. WISE, dated May 29, 2003.

The said Assistant Secretary does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article VI, Section 2, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President and Assistant Secretary have hereunto subscribed their names and affixed the Corporate Seals of the said FIDELITY AND DEPOSIT COMPANY OF MARYLAND, and the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, this 23rd day of September, A.D. 2004.

ATTEST:

FIDELITY AND DEPOSIT COMPANY OF MARYLAND
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY



Gregory E. Murray

Gregory E. Murray Assistant Secretary

By:

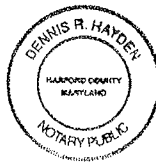
William J. Mills

William J. Mills
Vice President

State of Maryland } ss:
City of Baltimore }

On this 23rd day of September, A.D. 2004, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, came WILLIAM J. MILLS, Vice President, and GREGORY E. MURRAY, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, and the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself depose and saith, that they are the said officers of the Companies aforesaid, and that the seals affixed to the preceding instrument is the Corporate Seals of said Companies, and that the said Corporate Seals and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



Dennis R. Hayden

Dennis R. Hayden

Notary Public

My Commission Expires: February 1, 2009

EXTRACT FROM BY-LAWS OF FIDELITY AND DEPOSIT COMPANY OF MARYLAND

"Article VI, Section 2. The Chairman of the Board, or the President, or any Executive Vice-President, or any of the Senior Vice-Presidents or Vice-Presidents specially authorized so to do by the Board of Directors or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Resident Vice-Presidents, Assistant Vice-Presidents and Attorneys-in-Fact as the business of the Company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertaking, recognizances, stipulations, policies, contracts, agreements, deeds, and releases and assignments of judgements, decrees, mortgages and instruments in the nature of mortgages,...and to affix the seal of the Company thereto."

EXTRACT FROM BY-LAWS OF COLONIAL AMERICAN CASUALTY AND SURETY COMPANY

"Article VI, Section 2. The Chairman of the Board, or the President, or any Executive Vice-President, or any of the Senior Vice-Presidents or Vice-Presidents specially authorized so to do by the Board of Directors or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Resident Vice-Presidents, Assistant Vice-Presidents and Attorneys-in-Fact as the business of the Company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertaking, recognizances, stipulations, policies, contracts, agreements, deeds, and releases and assignments of judgements, decrees, mortgages and instruments in the nature of mortgages,...and to affix the seal of the Company thereto."

CERTIFICATE

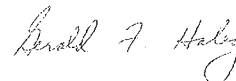
I, the undersigned, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, and the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that the Vice-President who executed the said Power of Attorney was one of the additional Vice-Presidents specially authorized by the Board of Directors to appoint any Attorney-in-Fact as provided in Article VI, Section 2, of the respective By-Laws of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, and the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990 and of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed."

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies,

this 8th day of March, 2006.



Assistant Secretary

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by **THOMAS O. MCCLELLAN, Vice President**, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Darella E. WHITE, Douglas R. WHEELER, Richard A. JACOBUS, Mary C. O'LEARY, Maureen MCNEILL, Wayne G. MCVAUGH and Elizabeth MARRERO, all of Philadelphia, Pennsylvania, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

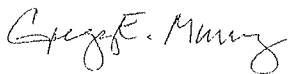
The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

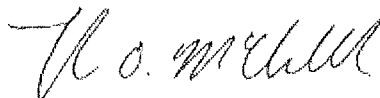
IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 18th day of April, A.D. 2012.

ATTEST:

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND**



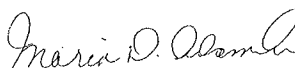
By: 
Assistant Secretary
Gregory E. Murray


Vice President
Thomas O. McClellan

State of Maryland
City of Baltimore

On this 18th day of April, A.D. 2012, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **THOMAS O. MCCLELLAN, Vice President, and GREGORY E. MURRAY, Assistant Secretary**, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



Maria D. Adamski, Notary Public
My Commission Expires: July 8, 2015



ZURICH AMERICAN INSURANCE COMPANY
One Liberty Plaza, [30th Floor], New York, New York, 10006
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the ZURICH AMERICAN INSURANCE COMPANY, a corporation created by and existing under the laws of the State of New York with its Executive Offices located in Schaumburg, Illinois, does hereby nominate, constitute and appoint **Phyllis J. Willey, Eugene P. Dessureau, Stephen W. Freeman, Michael M. Tracy, Edward T. Egan, Robert E. Walsh, Laura L. Brown and Robin V. Russell, all of Chevy Chase, Maryland**, EACH its true and lawful Attorneys-In-Fact with power and authority hereby conferred to sign, seal, and execute in its behalf, during the period beginning with the date of issuance of this power, **Any and all bonds, undertakings, recognizances or other written obligations in the nature thereof**, and to bind ZURICH AMERICAN INSURANCE COMPANY thereby, and all of the acts of said Attorney[s]-in-Fact pursuant to these presents are hereby ratified and confirmed. This Power of Attorney is made and executed pursuant to and by the authority of the following By-Law duly adopted by the Board of Directors of the Company which By-Law has not been amended or rescinded.

Article VI, Section 5. "...The President or a Vice President in a written instrument attested by a Secretary or an Assistant Secretary may appoint any person Attorney-In-Fact with authority to execute surety bonds on behalf of the Company and other formal underwriting contracts in reference thereto and reinsurance agreements relating to individual policies and bonds of all kinds and attach the corporate seal. Any such officers may revoke the powers granted to any Attorney-In-Fact."

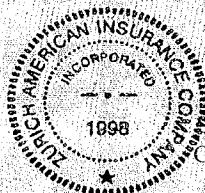
This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY by unanimous consent in lieu of a special meeting dated December 15, 1998

"RESOLVED, that the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the seal of the Company may be affixed by facsimile on any Power of Attorney pursuant to Article VI, Section 5 of the By-Laws, and the signature of a Secretary or an Assistant Secretary and the seal of the Company may be affixed by facsimile to any certificate of any such power. Any such power or any certificate thereof with such facsimile signature and seal shall be valid and binding on the Company. Furthermore, such power so executed, sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, shall continue to be valid and binding on the Company."

IN WITNESS WHEREOF, the ZURICH AMERICAN INSURANCE COMPANY has caused these presents to be executed in its name and on its behalf and its Corporate Seal to be hereunto affixed and attested by its officers thereunto duly authorized, this **7th day of March, A.D. 2001**. This power of attorney revokes that issued on behalf of Phyllis J. Willey, Eugene P. Dessureau, Stephen W. Freeman, Michael M. Tracy, Edward T. Egan, Robert E. Walsh, Laura L. Brown, and Robin V. Russell, dated August 29, 2000.

WARNING: This Power of Attorney is printed on paper that deters unauthorized copying or faxing.

ZURICH AMERICAN INSURANCE COMPANY



STATE OF MARYLAND
COUNTY OF BALTIMORE

SS:

T. E. Smith
T. E. Smith

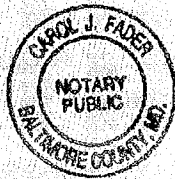
Secretary

Marilyn G. Norman
Marilyn G. Norman

Senior Vice President

On the 7th day of March, A.D. 2001, before the subscriber, a Notary Public of the State of Maryland and County of Baltimore, duly Notary Public commissioned and qualified, came the above named Vice President and Secretary of ZURICH AMERICAN INSURANCE COMPANY, to me personally known to be the individuals and officers described in and who executed the preceding instrument and they each acknowledged the execution of the same and being by me duly sworn, they severally and each for himself deposed and said that they respectively hold the offices in said Corporation as indicated, that the Seal affixed to the preceding instrument is the Corporate Seal of said Corporation, and that the said Corporate Seal, and their respective signature as such officers, were duly affixed and subscribed to the said instrument pursuant to all due corporate authorization.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above.



Notary Public

My Commission Expires: August 1, 2004

This Power of Attorney limits the acts of those named therein to the bonds and undertaking specifically named therein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

CERTIFICATE

I, the undersigned, a Secretary of the ZURICH AMERICAN INSURANCE COMPANY, do hereby certify that the foregoing Power of Attorney is still in full force and effect, and further certify that Article VI, Section 5 of the By-Laws of the Company and the Resolution of the Board of Directors set forth in said Power of Attorney are still in force.

IN TESTIMONY WHEREOF I have hereto subscribed my name and affixed the seal of said Company

the 8th day of March 2006

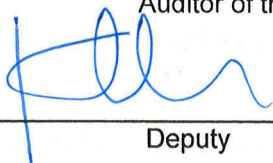
L. L. Goucher

Secretary



Agenda No.
REPORT NO.
 Title

Accept completion of East Side Combined Sewer Overflow Tunnel, Project No. E05516 (Report); Contract No. 36496

INTRODUCED BY Commissioner/Auditor: Nick Fish	CLERK USE: DATE FILED <u>JUL 26 2013</u>
COMMISSIONER APPROVAL Mayor—Finance and Administration - Hales Position 1/Utilities - Fritz Position 2/Work - Fish Position 3/Affairs - Saltzman Position 4/Safety - Novick	LaVonne Griffin-Valade Auditor of the City of Portland  By: _____ Deputy
BUREAU APPROVAL Bureau: BES Bureau Head: <i>Deanna</i> Prepared by: Christa Overby Date Prepared: June 27, 2013	ACTION TAKEN: JUL 31 2013 ACCEPTED
Financial Impact & Public Involvement Statement Completed <input checked="" type="checkbox"/> Amends Budget <input type="checkbox"/>	
City Auditor Office Approval: required for Code Ordinances	
City Attorney Approval: required for contract, code, easement, franchise, charter, Comp Plan	
Council Meeting Date July 24, 2013	

AGENDA
TIME CERTAIN <input type="checkbox"/> Start time: _____ Total amount of time needed: _____ (for presentation, testimony and discussion)
CONSENT <input checked="" type="checkbox"/>
REGULAR <input type="checkbox"/> Total amount of time needed: _____ (for presentation, testimony and discussion)

FOUR-FIFTHS AGENDA	COMMISSIONERS VOTED AS FOLLOWS:	
	YEAS	NAYS
1. Fritz	1. Fritz	<input checked="" type="checkbox"/>
2. Fish	2. Fish	<input checked="" type="checkbox"/>
3. Saltzman	3. Saltzman	<input checked="" type="checkbox"/>
4. Novick	4. Novick	<input checked="" type="checkbox"/>
Hales	Hales	<input type="checkbox"/>