April 8, 2013

Washington State Senators and Representatives
Congresswoman Jaime Herrera Beutler
Concerned Citizens

Dear Elected Officials and Fellow Citizens:

Re: *Report #6 Columbia River Crossing – Cost Allocation Discrepancies*

Thank you for the opportunity to communicate to you and your colleagues the results of our forensic accounting analysis of the Columbia River Crossing (CRC) project.

The CRC project is a bi-state highway and transit project along the Interstate 5 corridor between Oregon and Washington that proposes to rebuild interchanges in both states, build a new bridge across the Columbia River, and extend light rail transit from Portland, Oregon into Vancouver, Washington.

Executive Summary

Acuity Group was hired in April 2011 to analyze documents and compile data in an attempt to provide clarity related to the expenditures of the Columbia River Crossing project. Our previous five reports have documented questionable contracting practices, apparent contract overruns, potential violations of the Washington State Open Public Meetings act, proposed CRC expenditures outside the scope of the CRC "project area" costing tens of millions of dollars, an analysis of the funding plan for the project which identified funding shortfalls, and questionable subcontractor relationships which call into question the project office's adherence to employment related regulations.

This report is a result of our analysis of the CRC project's detailed budget (i.e. Base Cost Estimate) and the contradictions found between this document and the CRC's public communication and published maps which purport to show legislators and public officials the cost of each component.

According to the CRC's own detailed budgets, the costs to build the interchanges in Oregon and Washington are expected to cost ***hundreds of millions more*** than what is being reported to legislators, public officials, and the citizens of Oregon and Washington. Conversely, the CRC's own detailed budget shows that the cost to tear down and rebuild the interstate bridge is ***hundreds of millions less*** than what is being reported.

1603 Officers Row Vancouver, WA 98661
P : 360-573-5158 **M :** 360-601-4151 **E :** tcouch@acuityforensics.com
www.acuityforensics.com

It is the conclusion of this analysis that tolls, which are being reported to you as the revenue source for "the interstate bridge portion of the project", will actually include a significant portion of each state's interchange costs as well. In essence, anyone paying a toll will not only be paying for the cost of the bridge, but they will also be subsidizing the cost of the interchanges for each state[1].

Table 1 is a summary of the discrepancies discovered.

Table 1. Budget Discrepancy Summary

Project Component	Escalated Cost per CRC Published Map and Public Statements[(a)]	Escalated Cost per CRC Budget	Difference
Oregon Interchanges	$ 595,000,000	$ 796,473,365	$ 201,473,365
Interstate Bridge	$ 1,200,000,000	$ 791,300,910	$ (408,699,090)
Washington Interchanges	$ 435,000,000	$ 713,426,623	$ 278,426,623
Transit (Light Rail)	$ 830,000,000	$ 824,799,102	$ (5,200,898)
Totals	**$ 3,060,000,000**	**$ 3,126,000,000**	**$ 66,000,000**

(a) - We are uncertain why the CRC's map does not match their CEVP report for a $3.126 Billion project - assume rounding

What's more, based on our analysis of this budget we discovered that the CRC project is planning a "Phase 1" project. In short, the $3.5 billion project being considered eliminates several northbound interchange fixes, including: "Victory Braid, Marine Drive East, I-5 North Flyover at Marine Drive, and the North Connections at SR 500" **(See Exhibit A).** We question whether the elimination of these I-5 northbound components will affect northbound commutes and freight mobility.

While we cannot opine as to why these discrepancies exist, we do believe we have found the methodology behind the discrepancies. In short, we found that when we allocated the cost of the overpasses associated with each interchange to the cost of the interstate bridge, we were able to reconcile to the CRC's public communications and maps.

We question why the CRC's source documents do not match statements made by project office representatives in public forums. We further question whether decision makers would have made alternative decisions had they known the true costs of the components of the project and how those costs were being shifted away from the each state's transportation budget and instead to the cost of the bridge, where the costs will be covered by toll payers.

Over the course of more than a year, we have reported significant questionable transactions related to the Columbia River Crossing project. It is our opinion that these irregularities are sufficient enough to warrant a call by

[1] Toll collection will also "cover" interest on debt service, toll collection costs, and operation and maintenance of the bridge.

legislators and local leaders to halt this project and demand a full investigation into these matters prior to any additional expenditure of funds.

We reserve the right to amend our findings if new or additional information becomes available.

Background

In August 2012, we requested a detailed budget for the proposed CRC project via a Public Records Request. We received a response that our request was denied because we had not asked for a "*specific identifiable record.*[2]" We provided a clarification to the CRC project office who then returned to us a Cost Estimate Validation Process (CEVP) report, dated August 2011. And thus closed our request for a detailed budget.

The CEVP report was not a budget, but rather a technical report. This 134 page report[3] describes the CEVP process as follows:

- A base cost estimate was reviewed by project team members during a CEVP workshop in May 2011.
- Two projects were considered:
    - Full Build with a $2.742 billion base cost
    - Phase 1 project with a $2.578 billion base cost
- The base cost estimate for each option excluded risk, inflation, and opportunity costs.
- The base cost estimate for each option excluded estimated costs to date (e.g. planning and preliminary engineering costs) of $205.5 million.

In essence, the CEVP process takes the base cost estimates, which are reported in current year (2011) dollars and then factors in risk, inflation, and opportunity costs to determine an estimate of the project's cost in terms of year of expenditure (YOE) dollars (2022).

Table 2 summarizes the results of the CEVP process and the results of escalating each base cost estimate to year of expenditure dollars.

Table 2. Summary of CEVP Results

Project Component	Base Cost Report	Estimated Planning and Engineering Costs To Date	Total Base Cost Estimate	60% Confidence Level	90% Confidence Level
Phase 1 Project	$ 2,371,980,981	$ 205,500,000	$ 2,577,480,981	$ 3,126,000,000	$ 3,490,000,000
Full Build Project	$ 2,536,809,000	$ 205,500,000	$ 2,742,309,000	$ 3,365,000,000	$ 3,746,000,000

[2] Email from CRC Project Office Representative Michael Williams, August 9, 2012
[3] Full CEVP report available upon request

Immediately, one can see that the escalated costs for the Phase 1 project at $3.1 billion and $3.49 billion are the "common knowledge" costs reported by project office representatives to the public. The amounts escalated for a Full Build project have not been part of any of the numerous Transportation Oversight Committee meetings, City Council meetings, and other meetings in front of both Oregon and Washington Legislators. The CRC project office consistently reports a project that will cost "between" $3.1 and $3.5 billion.

The CEVP report Summary **(Exhibit B)** and key findings indicate that the project office decided on the Phase 1 project as a result of the CEVP process:

> *"For the project as defined in this CEVP, results indicate that at a **60 percent confidence level**, the **Phase 1** FEIS alternative could be built at a cost of approximately **$3,126M (YOE)** and could be completed by March 2022[4]" [Emphasis Added]*

No similar summary or "key findings" exist for a full build project in the CEVP report.

We specifically requested the Base Cost Estimate reports from the CRC project office. We received two separate reports, one entitled "Base Cost Estimate – Deck Truss Option Phase 1" and "Base Cost Estimate – Deck Truss Option Full Build." These budgets were approximately 23 pages long and were segregated as follows:

- Marine Drive Interchange
- Hayden Island Interchange
- SR 14 Interchange
- Mill Plain Blvd Interchange
- Fourth Plain Blvd Interchange
- SR 500 Interchange
- Existing Columbia River Bridges
- New Columbia River Bridges
- Transit – Expo to State Line
- Transit – State Line to Clark College
- Park and Ride Structures
- Support Facilities and Vehicles

In addition to being segregated by project component, and further segregated by whether costs were related to "Highway" or "Transit"; we noted the significant level of detail included for each component. For example, the linear feet of pavement between "stations", costs of barriers, costs of excavation and fill, construction staging and mitigation are represented in this report. See the Phase 1 Base Cost Estimate report at **Exhibit A.**

[4] CEVP report, page ES-i

We question why these Base Costs Estimates or "budgets" were not provided to us upon our first and second requests for them in early August 2012.

We undertook an analysis of these Base Cost Estimate reports to understand how they reconciled not only to the CEVP report, but also the CRC "Costs by Component" Maps **(Exhibit C)** which were provided during nearly every public meeting we attended over the course of the last year.

We noted that each of these base cost estimate reports equaled to the CEVP report findings, but excluded the estimated costs to date of $205.5 million; as the CEVP report indicated they would. However, we were able to easily reconcile these "costs to date" as seen in Table 2 above.

While we were able to reconcile the Base Cost Estimate reports to the CEVP Report, as one would expect; we were unable to reconcile the costs by component per these reports to the Cost by Component Maps **(Exhibit C)** as we expected to, given the notation on one of the maps which clearly indicates that it should reconcile to the CEVP report:

> *"Total costs based on 2011 CEVP and 95 foot bridge height = $3.1 billion"*

As will be reported below, we discovered that not only do the total costs per the maps not reconcile to the CEVP report; but that the costs of the individual components are apparently significantly misreported. This is important because the costs per the CRC maps are what are reported to the decision makers and the public by CRC project representatives. In fact, as recently as March 26, 2012, Nancy Boyd used the costs per the map in a communication to Congresswoman Jamie Herrera Beutler.

Detailed Findings and Observations

Before any real analysis could take place, it required a detailed reconciliation of the Base Cost Estimate reports to the CEVP report. We found, however that while the Base Cost Estimate provided costs at a component level, the CEVP report only provided escalated costs for the project as a whole. We had to calculate the escalated costs of the project components and test our calculation, as follows:

Step 1 - Summarize the total base costs of each component as per the Base Cost Estimate report, which totaled $2,371,980,981 **(Exhibit D).**

Step 2 - Because the estimated costs-to-date of $205.5 million were excluded in the Base Cost estimate, we had to allocate those costs among the cost of all components. We did this by allocating the $205.5 million to each component, based on that component's % of cost of the total project **(Exhibit E).**

Step 3 – Add the results of Step 1 and Step 2 **(Exhibit E).** This result brought us to the base cost estimate of $2,577,480,981 as per the CEVP report.

Step 4 – Determine the risk and escalation "factor" used to bring the Base Cost Estimate reported costs to the CEVP escalated costs. This was done simply by taking the difference between the two reports, and dividing the result by the Base Cost Estimate. It was determined that for a Phase 1 project, at a 60% confidence level, the project office increased the Base Cost Estimate by 21.281205% **(Exhibit F).**

Step 5 – Mark up all components by factor determined in Step 4 to calculate escalated cost of components **(Exhibit F).**

Step 6 – Compare totals calculated to CEVP Report, CRC Map, and other published documents to determine validity of calculation.

It is important to note that we tested our work and found that our calculations appear reasonable. For one, our calculation of escalated cost components shows a total transit cost of $824 million – just 6 million (or less than 1%) different than the stated cost per the map and other documents submitted to the Federal Transit Administration of $830 Million.

Our calculation of the escalated Ruby Junction facility indicates that the base cost of $37.2 million is $51.2 million in escalated dollars. The project office's Ruby Junction escalated cost was reported to the FTA at $50.68 million – a difference between our calculation and theirs of approximately $500,000 or 1%.

Lastly, in a March 26, 2013 communication to Jamie Herrera Beutler, Nancy Boyd indicates that the cost of the Steel Bridge improvements will be $300,000 and that a Tri-Met administrative facility will cost $2.7 million. These items were listed separately in the base cost estimate at $250,000 and $2.0 million, respectively. Our calculations indicate that the escalated costs of these items will be $343,000 and $2.75 million respectively – indicating that the CRC's internal costs of components as reported to Congresswoman Beutler closely resemble the same calculation we made.

Given that we were able to successfully reconcile the Base Cost Estimates to the escalated costs per the CEVP report and other published CRC documentation, we question why the information that CRC project office officials provide to elected officials and the public does not appear to match their own budgeted numbers.

The details of these discrepancies are defined below.

1. ***CRC Map Total Costs Do Not Reconcile to the CEVP Report***

   The CEVP report brings forward a Phase 1 project that started out at a cost of $2.578 billion, but after risk and escalation, is expected to cost $3.126 billion when it is completed in 2022. The $3.126 billion cost is the stated cost at a 60% "confidence level"; which is described as the confidence level that the project could be built at that amount in Year of Expenditure (YOE) dollars. Conversely, the Phase 1 project is stated with a 90% confidence level that it can be built for $3.490 billion dollars.

When the component costs on the CRC map **(Exhibit C)** are totaled, they sum to $3,060 billion **(See Table 1 above)** and do not reconcile to either the $3.126 billion, or the $3.490 billion stated CEVP costs – even though the map clearly indicates that the costs are "as per the CEVP report". The difference between the $3.060 billion in costs on the map and the $3,126 billion per the CEVP report is **$66,000,000.**[5]

We question why the stated costs per the CRC project office's map does not match to any amount reported on the CEVP report.

2. ***Base Costs for Interchanges Exceed Escalated Costs of Interchanges per CRC Map***
We noted immediately that the base (non-escalated) costs for the Oregon and Washington interchanges exceeded the costs being reported on the CRC maps (which are reported at the higher, escalated YOE dollars). **See Exhibit D.**

This is highly questionable. How can the base costs, which are shown in 2011 year dollars and have not yet been increased for inflation and risk be ***more*** than what is being reported to decision makers and the public as the inflated/escalated YOE dollars?

3. ***Escalating Interchange Costs to Year of Expenditure dollars indicates they are hundreds of millions more costly than reported by the CRC Map***
Once the calculation of risk and escalation was performed against all project components, it became evident that Oregon and Washington interchange costs were being significantly underreported to the public. Each state's cost of interchanges is underreported by more than $200 million – and the total underreport combined exceeds **$479 million** (or one-third of the stated cost), as Table 3 represents:

Table 3. Washington and Oregon Interchange Cost Discrepancies

Project Component	Escalated Cost per CRC Published Map and Public Statements	Escalated Cost per CRC Budget	Difference
Oregon Interchanges	$ 595,000,000	$ 796,473,365	$ (201,473,365)
Washington Interchanges	$ 435,000,000	$ 713,426,623	$ (278,426,623)
(Under) Over Report of Costs	**$ 1,030,000,000**	**$ 1,509,899,988**	**$ (479,899,988)**

4. ***Interstate Bridge costs appear to be hundreds of millions less than what is being reported.***
The base costs of tearing down and rebuilding the interstate bridge was reported to cost $600,432,090 **(See Exhibits A and D).** Escalating the costs to year of expenditure dollars equates to an escalated cost of $791,300,910.

[5] We recognize that one map indicates that Light Rail will cost $830 M while another map indicates the cost will be $850 M. This would change the overall cost per the map by only $20M and would still not equate to the CEVP report. Further, reporting the Light Rail at $830 appears to be accurate once the base costs are escalated to YOE expenditures (See Table 1).

We question why, given the costs per their own budget, the CRC continues to report the cost of building the bridge to be more than $1.2 billion. When coupled with the omission of a full $66 million from their reported maps, the total underreporting of the interchanges above equates to the total over-reporting of the cost of the interstate bridge.

This analysis leads us to the conclusion that there are more than $475 million of interchange costs included in the "cost of the interstate bridge" as per the CRC maps. See Table 4.

Table 4. Interstate Bridge Cost Discrepancies

Project Component	Escalated Cost per CRC Published Map and Public Statements[(a)]	Escalated Cost per CRC Budget	Difference
Interstate Bridge	$ 1,200,000,000	$ 791,300,910	$ 408,699,090
Unknown Difference between CEVP Report and CRC Map			$ 66,000,000
(Under) Over Report of Costs	**$ 1,200,000,000**	**$ 791,300,910**	**$ 474,699,090**

5. ***Toll payers will subsidize costs of interchanges***

The CRC project office maps **(Exhibit C**) indicate that the funding source to pay for the interstate bridge will be from tolls. As a result of the analysis above, it appears that tolls will not only be used to pay for the cost of the interstate bridge, but will also be used to subsidize one-third of the cost of the interchanges. According to the CRC's FEIS, Washington State citizens comprise of more than 65% of all commute time trips in the morning and afternoons. As such, it appears that a portion of the tolls they pay will also pay for Oregon's interchanges. Given the disparity between the number of Oregon State citizens who commute each day (i.e. a "reverse commute"); the "subsidizing" of Washington's interchange costs by Oregon citizens does not appear to be equitable.

6. ***The project is not an even one-third split amongst funding sources***

A large "selling point" of the CRC project has been a constant message that funding sources available to pay for the project are equitably split one-third each between: the two states, federal funds, and toll collection. However, this is only true using the CRC's map, which has proven to be incorrect.

If the CRC were to accurately report costs to legislators, and receive funds from each source "equitably", it appears that each state's interchanges combine to nearly 50% of the project's costs, with 25% each for the cost of the interstate bridge and light rail. By shifting the costs of the interchanges away from each state and instead to the bridge, where the amount will be paid for with tolls, the CRC's current "selling point" inequitably shifts the burden of costs to those paying the tolls. See Table 5.

Table 5. Costs Reflected as a Percentage of Total Project

Project Component	Percentage of Costs per CRC Map and Public Statements	Percentage of Costs per CRC Escalated Budget	Difference
Oregon Interchanges	19.44%	25.48%	6.03%
Interstate Bridge	39.22%	25.31%	-13.90%
Washington Interchanges	14.22%	22.82%	8.61%
Transit (Light Rail)	27.12%	26.39%	-0.74%

7. Escalated Costs at 90% Confidence Level

For your information we have used the same scenarios as related above, to escalate the base cost report to the 90% confidence level of $3.490 billion. The costs of the components of the project in that scenario are detailed at **Exhibit G** and summarized in Table 6.

Table 6. Costs of CRC Components at 90% Confidence Level

Project Component	Component Costs with $3.490 Billion Project (90% Confidence Level)	
Oregon Interchanges	$	889,216,907
Interstate Bridge	$	796,499,975
Washington Interchanges	$	883,442,157
Transit (Light Rail)	$	920,840,960
Totals	**$**	**3,490,000,000**

8. Eliminating costs of overpasses from each interchange appears to match the CRC's maps

We noted during our review of the Base Cost Estimate Report **(Exhibit A),** that under the headings of each interchange component, there was a subheading called "bridges." It appeared that these subheadings of "bridges" were actually the costs to build the overpasses on each interchange.

We theorized that the costs of the overpasses were the components that were being shifted to the costs of the bridge, and thus reallocated those costs away from the interchange they were associated with and instead allocated them to the Interstate Bridge line item. We then escalated the costs, as per the methodology described above. The results were that the costs of each component matched the CRC maps **(Exhibit H)**. As such, it appears that the shifting of costs on this project directly relates to the overpasses for each interchange.

Closing Comments

Our analysis calls into question the CRC's public statements as they relate to the costs of the interchanges and interstate bridge. The CRC's own detailed budgets clearly show that interchange costs exceed what is being reported, before they are increased for risk and escalation. Once these interchange costs are appropriately escalated for risk and inflation, their expected costs increase even more and thus increase the disparity between what is communicated to the public and what their own budgets are reporting - by nearly one-half billion dollars.

By nearly the same margin of the underreporting of the interchange costs, the cost to tear down and build the new interstate bridge is being reported as far more than the CRC's own budgets report. The result is the apparent shift of funding burden away from the states and instead to those who will be paying the tolls.

Our methodology not only matches CRC statements and other published documentation, our methodology indicates that the shifting of costs between interchanges and the bridge directly relates to the cost of the overpasses on each interchange.

We cannot opine as to the reason for these contradictory statements or why these costs have apparently been shifted on the maps and communications to you, and thus no longer match the detailed budgets supporting them. We can only report to you the information provided to us by the CRC project office, and describe to you our methodology and resulting conclusions.

All information provided to you comes directly from the CRC project office or readily available public documents. This is the sixth in a series of reports published by our office since October 2012. These reports indicate a long history of questionable business practices, manipulation of public process, and an unwillingness to be forthcoming with information elected officials need to make informed decisions. These questionable business practices are sufficient enough to warrant an investigation by an appropriate agency and a halt to the spending of additional taxpayer dollars.

We would welcome the opportunity to provide additional documentation or answer any questions you may have as it relates to our analysis of the Columbia River Crossing.

If you have any questions or comments, please don't hesitate to call us at 360.573.5158.

Sincerely,

Tiffany R. Couch, CPA/CFF, CFE

LIST OF EXHIBITS