Cost

VandenBerghe, Alissa (Consultant)

From: Paananen, Ron
Sent: Thursday, June 26, 2008 4:02 PM
Subject: Central Waterfront Project Update **Please Read**

AWV Team:

During tonight's meeting with the Stakeholder Advisory Committee, we will present new information regarding our central waterfront project. You may hear about this on the television or the radio, or tomorrow morning in the newspaper. If you have any questions, or if others contact you with questions, please pass them along to me or to the communications team.

Here's what we're telling people tonight:

The state, county and city have developed eight scenarios for the central waterfront. The scenarios cover a range of options, from a smaller road along the central waterfront and a greater emphasis on transit and surface street improvements, to more lanes for vehicles and less emphasis on transit and surface street improvements. All of the options reduce capacity on SR 99 and look to I-5, surface streets, and transit to carry more trips. The scenarios also include demand management strategies and investments in commute trip reduction.

Project purpose change

The specific scenarios are:

A. Demand management and low capital
B. Surface boulevard and transit
C. Alaskan Way and Western Avenue couplet
D. Four-lane elevated
E. Four-lane integrated elevated
F. Four-lane bored tunnel
G. Four-lane cut-and-cover tunnel
H. Four-lane lidded trench

Six-lane replacement options for SR 99 are not being studied further, because information about them has already been developed through our earlier environmental process. Three SR 99 options – a retrofit of the existing viaduct, an Elliott Bay crossing, and a six-lane Alaskan Way surface expressway – are no longer being considered by the agencies because they do not meet the guiding principles established by the governor, county executive, and mayor

We will now begin to evaluate the eight scenarios against the six guiding principles (www.wsdot.wa.gov/NR/rdonlyres/F73A82CE-E0B1-4067-956F-095D0D750AC6/0/GuidingPrinciples_Feb08.pdf). The team will work this summer to assess how the scenarios perform, and will make modifications and re-form them into new packages based on the performance data.

You can find all the scenarios online (to be posted around 4:30 p.m.) at: www.wsdot.wa.gov/Projects/Viaduct/library-meetingmaterials.htm.

Ron

VandenBerghe, Alissa (Consultant)

From: Williamson, Alec

Sent: Sunday, November 23, 2008 9:26 AM

To: Dye, Dave; Paananen, Ron; White, John; Preedy, Matt; Smith, Helena Kennedy; Greco, Theresa

Cc: Jarnagan, Harry (Consultant); Robison, Jim (Consultant); Rigsby, Mike (Consultant); Parsons, Jim; Clark, Gordon T. (Consultant); Morrison, Mike (Consultant)

Subject: SAC Cost Estimate Q&A tomorrow

Attachments: Cost Estimate Q and A 11-21-08 ARW.doc

Hi everyone- I thought the attached information might be useful as we go through questions tomorrow on cost with the SAC on the bored tunnel option. This may also be useful in deciding which options WSDOT thinks should be carried forward and developed into hybrid scenarios. The numbers in the tables are all very rough approximations of course at this early stage of planning.

Please let me know if you have questions or would like to discuss this further.

Thanks,
Alec

Cost Estimate Q and A:

Q: How can the bored tunnel option be $3.5 billion when compared to figures from the Cascadia Institute indicate that the cost should be much less?

A. The bored tunnel cost estimate includes many project elements in addition to the tunnel itself, including connecting roadways at each end near King Street and Mercer, the central seawall from Washington to Pine Street, viaduct removal, waterfront utility relocations, a new connecting roadway from the waterfront to Belltown and surface Alaskan Way restoration. The estimated cost for the bored tunnel and connecting roadways is $2.5 billion, while the remaining project elements are estimated to cost $1 billion. Of the $2.5 billion, about $1 billion is included to account for escalation, contingencies, and risk.

If the Battery Street tunnel were to be de-commissioned after opening the new tunnel, additional savings of up to $100 million could be realized.

A quick summary of potential sources and uses indicates that a bored tunnel solution is worthy of continued study.

Project Element	Cost	Potential Funding Source	Potential Amount
Bored Tunnel and Approach structures	$1.5 billion		
Bored Tunnel Escalation, Risk and Contingencies	$1.0 billion		
		Central Waterfront funding: TPA, Federal, Nickel	$1.3 billion
		Additional verbal commitment from Governor	$400 million
		Savings in Moving Forward Program*	$200 million
		Tolling Revenue**	$??? million
		Federal Stimulus Package	???

*Savings TBD but could include elimination of King Street viaduct transition structure, elimination of Lenora to BST project and BST decommissioning

**The feasibility of tolling is unknown at this time.

Seawall, Waterfront Utilities, Armory Way connector, Alaskan Way restoration, waterfront street car and waterfront urban design	$600 million		
Escalation, Risk and Contingencies for above items	$400 million		
		Waterfront LID	???
		Utility Rate Increase	???
		Corps of Engineers Seawall Funding	???

Decoupling seawall and waterfront reconstruction from the SR 99 bored tunnel construction could have financing advantages due to the flexibility it provides in the timing of projects and the timing of potential revenues.

Q: Why does the bored tunnel option take so long to construct? Could it be constructed faster?

A: While the overall project might take up to 9 ½ years. traffic would be operating in the new tunnel about 7 ½ years after the start of construction. Several factors could reduce that duration even further: using two boring machines instead of one- this could save 18 months; increased production rates- if the tunnel machines progress more quickly than our more conservative assumptions, additional time could be saved.

An important consideration is that while the overall duration is longer than the other options, construction and traffic impacts could be reduced dramatically if the viaduct were to remain open during tunnel construction.

Time
2.5 yrs

VandenBerghe, Alissa (Consultant)

From: Dye, Dave

Sent: Monday, December 08, 2008 4:57 PM

To: 'JCODL@aol.com'; Agnew, Bruce; Alaskan Way Viaduct; grace.crunican@seattle.gov; harold.taniguchi@metrokc.gov; Paananen, Ron; ron.posthuma@metrokc.gov; sextonr@wellsfargo.com; Washj@foster.com; bobd@keepclam.com; david@mlkclc.org; warren@ballardoil.com; pehrsonj@comcast.net; bayouwonder@comcast.net; bregards@speakeasy.net; maholnc@bumgardner.biz; jim@ohalloran.cc; jaltman8@comcast.net; mpmccumber@comcast.net; todd.vogel@nuladvisers.org; cary@peopleswaterfront.org; genensusan@comcast.net; vlad@voka.us; donnewby@msn.com; peter@RHPPublishing.com; Parsons, Jim; DJohnConey@aol.com; kfletcher@pugetsound.org; rob@transportationchoices.org; sranf@Mariners.org; Powers. Bob; reneer@discovery.org; chuck.ayers@cascadebicycleclub.org; local19pres@Qwest.net; carol@pikeplacemarket.org; erichardson@seedseattle.org; sjtaoka@yahoo.com; mike.obrien@cascade.sierraclub.org

Cc: Hammond. Paula; Grotefendt, Amy (Consultant)

Subject: RE: Letter to Project Team and Stakeholders from leading tunnel experts

John - I don't think they have been provided but I might be wrong (that happens a lot)...I've seen the drafts so I know they exist and we need to get them out if we haven't already...stand by while I chase this down.

-dave

From: JCODL@aol.com [mailto:JCODL@aol.com]
Sent: Monday, December 08, 2008 4:52 PM
To: Dye, Dave; Agnew, Bruce; Alaskan Way Viaduct; grace.crunican@seattle.gov; harold.taniguchi@metrokc.gov; Paananen, Ron; ron.posthuma@metrokc.gov; sextonr@wellsfargo.com; Washj@foster.com; bobd@keepclam.com; david@mlkclc.org; warren@ballardoil.com; pehrsonj@comcast.net; bayouwonder@comcast.net; bregards@speakeasy.net; maholnc@bumgardner.biz; jim@ohalloran.cc; jaltman8@comcast.net; mpmccumber@comcast.net; todd.vogel@nuladvisers.org; cary@peopleswaterfront.org; genensusan@comcast.net; vlad@voka.us; donnewby@msn.com; peter@RHPPublishing.com; Parsons, Jim; DJohnConey@aol.com; kfletcher@pugetsound.org; rob@transportationchoices.org; sranf@Mariners.org; Powers, Bob; reneer@discovery.org; chuck.ayers@cascadebicycleclub.org; local19pres@Qwest.net; carol@pikeplacemarket.org; erichardson@seedseattle.org; sjtaoka@yahoo.com; mike.obrien@cascade.sierraclub.org
Cc: Hammond, Paula
Subject: Re: Letter to Project Team and Stakeholders from leading tunnel experts

Hi David. Have the stakeholders been provided with specific numbers relating to risks, design allowances or inflation for each of the alternatives? I remember asking for them at one of the late November meetings to try to get a handle on an apples to apples comparison.

timeline tunnel end run around SAC process

John O.

In a message dated 12/8/2008 4:45:52 P.M. Pacific Standard Time, DyeD@wsdot.wa.gov writes:

> Bruce - Thanks for providing the attached information...it took a lot of work to assemble and I think it will be helpful for people interested in this conversation.
>
> I do have some questions, though. First, the cost information states that the costs are not adjusted for inflation...this is a potential problem. (Are the numbers reported on page 11 actual project costs regardless of year or are they all normalized to 2008?) If it's the latter, it's probably not that big a deal. If not, it is. The department (and other public works agencies) have seen (until just recently) constant upwards pressure on all the indices related to construction materials, equipment and labor. Did you know

that between 2003 and 2008 there was the same level of increase in these indices as there was the entire 13 year period prior? (Something on the order of a 50% increase.) This means that project costs reported on the attached table that occurred just 5 years ago could be significantly higher today. Of course, the ability to accurately predict future increases is another matter and it is important to note that WSDOT has narrowed the range of inflation applied to these estimates to better match today's economic situation. While there is substantial debate about the rate of inflation over the next several years, not many are predicting substantial deflation. Do you have other information?

Another question is what is and is not included in the cost estimates reported on the attached charts? Are they all inclusive, with things like utilities, roadways, and portals and portal structures and ventilation facilities etc. or are they contract prices for the tunnel boring only? My experience in project estimate cost comparisons says there is no real standard practice in that regard, and again, inclusive "central waterfront" cost estimates might be substantially different than tunnel boring-only costs. We really need to get that sorted out for our "apples-to-apples" comparison.

Finally, with regard to risks, design allowances and inflation, we believe the level of contingencies is appropriate given the level of design for the project options (some are better known than others). Our assumptions were closely scrutinized by the Expert Review Panel assembled a couple of years ago and again by the independent cost review completed for the RTID work program. What would be helpful is to hear from your experts, specifically, what they suggest for design allowance, risk, and general inflation for a project of this magnitude at this level of design. If they think we are high, I'd be very interested in the specific points of view and how we could adjust those costs.

Again, thanks for providing this information. I look forward to hearing from you.

David Dye
Deputy Secretary, Washington State Department of Transportation

From: Renee Roline [mailto:reneer@discovery.org] **On Behalf Of** Bruce Agnew
Sent: Monday, December 08, 2008 3:36 PM
To: Alaskan Way Viaduct; Grace Crunican; Dye, Dave; harold.taniguchi@metrokc.gov; Paananen, Ron; ron.posthuma@metrokc.gov; sextonr@wellsfargo.com; Tayloe Washburn; Bob Donegan; David Freiboth; warren@ballardoil.com; pehrsonj@comcast.net; bayouwonder@comcast.net; bregards@speakeasy.net; maholnc@bumgardner.biz; jim@ohalloran.cc; Jeff Altman; mpmccumber@comcast.net; todd.vogel@nuladvisers.org; cary@peopleswaterfront.org; genensusan@comcast.net; vlad@voka.us; donnewby@msn.com; Peter Philips; Parsons, Jim; John Coney; Kathy Fletcher; Rob Johnson; sranf@Mariners.org; Powers, Bob; Renee Roline; chuck.ayers@cascadebicycleclub.org; local19pres@Qwest.net; Carol Binder; erichardson@seedseattle.org; sjtaoka@yahoo.com; mike.obrien@cascade.sierraclub.org; JCODL@aol.com
Subject: Letter to Project Team and Stakeholders from leading tunnel experts

Dear Project Team and Stakeholders,

Enclosed you will find a letter from leading tunneling experts and their opinion on the cost estimates that have been presented regarding the bored-tunnel option (F).

Please review **page 11 of the attached power point** which shows the cost estimate provided by the project team in comparison with actual project costs from bored tunnels around the world. The Alaskan Way estimate appears to be significantly higher than any other tunnel project.

Feel free to contact us with any questions.

Thank you,

Bruce Agnew

206-228-4011

VandenBerghe, Alissa (Consultant)

From: Bob Donegan [bobd@keepclam.com]

Sent: Tuesday, December 09, 2008 5:48 PM

To: 'Renee Roline'; Agnew, Bruce; Dye, Dave; Alaskan Way Viaduct; 'Grace Crunican'; harold.taniguchi@metrokc.gov; Paananen, Ron; ron.posthuma@metrokc.gov; sextonr@wellsfargo.com; 'Tayloe Washburn'; 'David Freiboth'; warren@ballardoil.com; pehrsonj@comcast.net; bayouwonder@comcast.net; bregards@speakeasy.net; mahlonc@bumgardner.biz; jim@ohalloran.cc; 'Jeff Altman'; mpmccumber@comcast.net; todd.vogel@nuladvisers.org; cary@peopleswaterfront.org; genensusan@comcast.net; vlad@voka.us; donnewby@msn.com; 'Peter Philips'; Parsons, Jim; 'John Coney'; 'Kathy Fletcher'; 'Rob Johnson'; sranf@Mariners.org; Powers, Bob; chuck.ayers@cascadebicycleclub.org; 'Carol Binder'; erichardson@seedseattle.org; sjtaoka@yahoo.com; mike.obrien@cascade.sierraclub.org; JCODL@aol.com; Judd, Ron; 'Mike Wussow'

Cc: Hammond, Paula; 'Richard Prust'; 'Vladimir Khazak'; 'Kern Jacobson (MacCap Advisors)'; gerhard@dr-sauer.com; 'Richard J. Robbins'; 'Don Stark'; 'Harvey W. Parker'; rspage@hntb.com

Subject: RE: Letter to Project Team and Stakeholders from leading tunnel experts

Thanks for your efforts here to find out if the deep bore is affordable or not. At last night's Stakeholder meeting 10 of the 17 stakeholders indicated some interest in Tayloe's Over and Under Hybrid option, but asked two consistent questions about the cost of the tunnel and the length of time it took to build it (or them).

Rather than doing this by e-mail, can we convene the project team's experts with the outside experts in one room, with all charts, drawings, research, estimates, and do it face to face rather than by e-mail? David very successfully convened the internal and external retrofit experts and did the same thing. All of these tunneling experts know each other, have worked together and since they are engineers and not politicians, are unafraid of arguing bluntly about what works and what doesn't.

I would be glad to join if I can help in any way. If I can't help, I'd be glad to bring chowder.

Bob
All Viaduct, All the Time

From: Renee Roline [mailto:reneer@discovery.org]
Sent: Tuesday, December 09, 2008 5:22 PM
To: Bruce Agnew; David Dye; Alaskan Way Viaduct; Grace Crunican; harold.taniguchi@metrokc.gov; Paananen, Ron; ron.posthuma@metrokc.gov; sextonr@wellsfargo.com; Tayloe Washburn; Bob Donegan; David Freiboth; warren@ballardoil.com; pehrsonj@comcast.net; bayouwonder@comcast.net; bregards@speakeasy.net; mahlonc@bumgardner.biz; jim@ohalloran.cc; Jeff Altman; mpmccumber@comcast.net; todd.vogel@nuladvisers.org; cary@peopleswaterfront.org; genensusan@comcast.net; vlad@voka.us; donnewby@msn.com; Peter Philips; Parsons, Jim; John Coney; Kathy Fletcher; Rob Johnson; sranf@Mariners.org; Powers, Bob; chuck.ayers@cascadebicycleclub.org; Carol Binder; erichardson@seedseattle.org; sjtaoka@yahoo.com; mike.obrien@cascade.sierraclub.org; JCODL@aol.com; Ron Judd; Mike Wussow
Cc: Paula Hammond; Richard Prust; Vladimir Khazak; Kern Jacobson (MacCap Advisors); gerhard@dr-sauer.com; Richard J. Robbins; Don Stark; Harvey W. Parker; rspage@hntb.com
Subject: Re: Letter to Project Team and Stakeholders from leading tunnel experts

David,

Before yesterday's stakeholder meeting we provided you a letter raising concerns about the cost estimates for the deep bored tunnel signed by a group of tunneling experts. You responded with questions outlined below. Attached is the response from the experts I received today. I would be happy to arrange a meeting with them and the project team to go over the cost issues in greater detail. Our belief is that the deep bored tunnel should proceed for further analysis based on the issues raised by this group.

If anyone on this email has not received a copy of the original letter raising four concerns regarding the cost estimates, please contact me and I will provide you with the letter and background information.

Thank you,

Bruce Agnew
206-228-4011

On 12/8/08 4:50 PM, "Bruce Agnew" <bagnew@discovery.org> wrote:

Thanks, David for such a prompt response. I will ask the team of tunneling experts to respond in detail to all the issues you raised as quickly as possible.
Bruce Agnew
Cascadia Center

On 12/8/08 4:44 PM, "Dye, Dave" <DyeD@wsdot.wa.gov> wrote:

Bruce - Thanks for providing the attached information...it took a lot of work to assemble and I think it will be helpful for people interested in this conversation.

I do have some questions, though. First, the cost information states that the costs are not adjusted for inflation...this is a potential problem. (Are the numbers reported on page 11 actual project costs regardless of year or are they all normalized to 2008?) If it's the latter, it's probably not that big a deal. If not, it is. The department (and other public works agencies) have seen (until just recently) constant upwards pressure on all the indices related to construction materials, equipment and labor. Did you know that between 2003 and 2008 there was the same level of increase in these indices as there was the entire 13 year period prior? (Something on the order of a 50% increase.) This means that project costs reported on the attached table that occurred just 5 years ago could be significantly higher today. Of course, the ability to accurately predict future increases is another matter and it is important to note that WSDOT has narrowed the range of inflation applied to these estimates to better match today's economic situation. While there is substantial debate about the rate of inflation over the next several years, not many are predicting substantial deflation. Do you have other information?

Another question is what is and is not included in the cost estimates reported on the attached charts? Are they all inclusive, with things like utilities, roadways, and portals and portal structures and ventilation facilities etc. or are they contract prices for the tunnel boring only? My experience in project estimate cost comparisons says there is no real standard practice in that regard, and again, inclusive "central waterfront" cost estimates might be substantially different than tunnel boring-only costs. We really need to get that sorted out for our "apples-to-apples" comparison.

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hear from your experts, specifically, what they suggest for design allowance, risk, and general inflation for a project of this magnitude at this level of design. If they think we are high, I'd be very interested in the specific points of view and how we could adjust those costs.

Again, thanks for providing this information. I look forward to hearing from you.

David Dye
Deputy Secretary, Washington State Department of Transportation

From: Renee Roline [mailto:reneer@discovery.org] **On Behalf Of** Bruce Agnew
Sent: Monday, December 08, 2008 3:36 PM
To: Alaskan Way Viaduct; Grace Crunican; Dye, Dave; harold.taniguchi@metrokc.gov; Paananen, Ron; ron.posthuma@metrokc.gov; sextonr@wellsfargo.com; Tayloe Washburn; Bob Donegan; David Freiboth; warren@ballardoil.com; pehrsonj@comcast.net; bayouwonder@comcast.net; bregards@speakeasy.net; maholnc@bumgardner.biz; jim@ohalloran.cc; Jeff Altman; mpmccumber@comcast.net; todd.vogel@nuladvisers.org; cary@peopleswaterfront.org; genensusan@comcast.net; vlad@voka.us; donnewby@msn.com; Peter Philips; Parsons, Jim; John Coney; Kathy Fletcher; Rob Johnson; sranf@Mariners.org; Powers, Bob; Renee Roline; chuck.ayers@cascadebicycleclub.org; local19pres@Qwest.net; Carol Binder; erichardson@seedseattle.org; sjtaoka@yahoo.com; mike.obrien@cascade.sierraclub.org; JCODL@aol.com
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Feel free to contact us with any questions.

Thank you,

Bruce Agnew
206-228-4011

VandenBerghe, Alissa (Consultant)

From: Waters, Mia
Sent: Wednesday, December 10, 2008 5:23 PM
To: (LoAn@pbworld.com); Williamson, Alec; Helmann, Craig; Pope, David; Palmer, Brian
Cc: (Baker@pbworld.com); (Ladner@pbworld.com); Smith, Helena Kennedy
Subject: RE: Friday's AWV Meeting -- Prep
Follow Up Flag: Follow up
Flag Status: Red

Hi everyone,

I had a tickler on my desk about the agenda as well.

Here's a proposed first draft for Friday's agenda. Thoughts?

AWV Bored Tunnel Financial Feasibility Analysis Group ← PDR - Results, Mtg Info *
Friday, December 12, 2008 – 10 am to 11 am
Wells Fargo Building (Location? Alec?)
Call in number – xxx – xxx- xxxx

1. Review agenda – any changes needed? – Alec, Tony, or Mia
2. Final traffic modeling results – Craig H.
3. Toll rate review - Brent
4. Review O&M Estimates, confirm/fatal flaws? – David Pope?
5. Project Capital Cost Distribution – Brent
6. Example financial model results w/Gordon's numbers – Brent
7. Report needs and reporting methods - ??
8. Next steps?

Thanks,
Mia
206/464-1209

From: Baker, T Brent [mailto:Baker@pbworld.com]
Sent: Wednesday, December 10, 2008 4:47 PM
To: Waters, Mia
Subject: FW: Friday's AWV Meeting -- Prep
Importance: High

FYI

— Brent

From: Baker, T Brent
Sent: Wednesday, December 10, 2008 3:03 PM
To: 'Helmann, Craig'; Lo, Anthony K.; Smith, Helena Kennedy; Ladner, Scott; Palmer, Brian
Cc: Beach, Tracy; 160067; Pope, David
Subject: Friday's AWV Meeting -- Prep
Importance: High

All --

PDR → We expect to have preliminary financial results for the AWV bored tunnel toll analysis this Friday for the meeting. This will include daily traffic data; a toll traffic and revenue table (annualized) with gross tolls, O&M costs and net tolls; a toll schedule chart showing the tolls in current and future dollars; information on the unfunded capital cost need, and a simple depiction of the toll funding contribution to the central waterfront tunnel, including toll dollar amount contributed.

Tony, please assemble an agenda and make sure that we have materials available at the meeting and distributed to anyone not attending in persion (we've created a folder on the server for meeting materials in PDF). Also, please work with Scott to share our capital cost assumptions and check with Alec on any agenda items he may have. * →

Craig, can you please bring whatever summary level modeling results we should share with the group. Since it won't be new information, I'd suggest making it newly consolidated to just show the toll scenario we are analyzing. Suggest not showing daily

revenue calcs – we'll be showing our annual revenue amounts.

Scott / Brian, please share with David Pope our O&M estimates for his upfront review if he has not already seen these.

Helena, please let us know ASAP if you decide to change the current five year uniform capital needs assumption as we discussed this morning, and point us to who can provide those numbers if so.

Thanks!

Brent

T. Brent Baker
Principal Consultant
PB Consult
999 Third Avenue | Suite 2200 | Seattle, WA 98104-4020
206.382.5284 | cell: 206.310.3291 | fax: 206.382.5222 | baker@pbworld.com

VandenBerghe, Alissa (Consultant)

From: White, John
Sent: Thursday, December 11, 2008 7:27 PM
To: Preedy, Matt; Williamson, Alec
Cc: Paananen, Ron; Jarnagan, Harry (Consultant); Greco, Theresa
Subject: Bore tunnel 30% design — was design this far along? @ 9-11-08 why if had been off the table

In thinking about all the ensuing questions that may be asked of us, we might be well served in being ready to answer to the appr cost of preliminary design for the bored tunnel.

I hesitate to ask this question of PB initially, given our understanding over the limits of their ongoing work under this contract. I am cc-ing Ron to defer to his thoughts, and I can certainly do napkin math and come up with a starting number, but we may want to think about this a bit, and Hatch Mott has background we can leverage in thinking about this.

Ron - we can defer thinking about this if you think it is premature to ask the question.

John

VandenBerghe, Alissa (Consultant)

From: John Reilly [jjreils@attglobal.net]
Sent: Friday, December 12, 2008 2:35 PM
To: White, John
Cc: Paananen, Ron
Subject: Re: Draft Bored Tunnel SAC Agenda

John - we (Harvey, Don Phelps and I) can get up to speed quickly - and I'm here over the weekend so can do this easily.

Monday maybe you and Ron and I could meet before the 9 am UCO Leadership meeting at Goldsmith to go over roles, responsibilities, actions and timeframe - say at 8 am?. After that we have the Monday call with Cascadia (conference call or meeting?). Let me know.

Regards, John Reilly
Web: www.JohnReilly.us
Email: JJReils@ATTGlobal.net
Cell: +1-508-904-3434

----- Original Message -----
From: White, John
To: Reilly, John ; Parsons, Jim (Consultant) ; Grotefendt, Amy ; Paananen, Ron
Cc: Don Phelps ; Harvey Parker ; Williamson, Alec ; Rigsby, Mike (Consultant) ; Dye, Dave ; Preedy, Matt
Sent: Friday, December 12, 2008 2:08 PM
Subject: RE: Draft Bored Tunnel SAC Agenda

John,

We agree that it is a tight agenda, I'll defer to others on whether to add another 30 mins (until 8pm). We are making a slight adjustment to the agenda, to give Bruce Agnew a chance to introduce whoever he lines up to represent the industry response he solicited and then let them speak to the letter content. Mike Rigsby's team is working up some materials to be made available electronically that will assist you, Harvey and Don in getting up to speed. It is extremely important that ahead of Tuesday night's meeting, we share our thoughts and key messages and ensure we are well aligned on the basic agency response and the work the team has done.

John

From: John Reilly [mailto:jjreils@attglobal.net]
Sent: Friday, December 12, 2008 12:59 PM
To: Parsons, Jim (Consultant); Grotefendt, Amy; Paananen, Ron; White, John
Cc: Don Phelps; Harvey Parker; Williamson, Alec; Rigsby, Mike (Consultant); Dye, Dave; Preedy, Matt
Subject: Re: Draft Bored Tunnel SAC Agenda

Thanks John - the agenda looks good except 2 hours is not a lot of time to cover all this. In terms of getting up to speed quickly, are there documents available today (physically or electronically) that we could read over the weekend?

Harvey and I can adapt the "Tunneling 101" presentation we've given to WSDOT and other agencies for this group and we will include Don Phelps. 20 minutes with some questions sounds OK.

Don - the Tunneling 101 file is too big to email, I'll see if I can get a .pdf that is possible.

Regards, John Reilly
Web: www.JohnReilly.us
Email: JJReils@ATTGlobal.net
Cell: +1-508-904-3434

---- Original Message ----
From: White, John
To: Paananen, Ron ; Grotefendt, Amy ; Parsons, Jim (Consultant)
Cc: Preedy, Matt ; Dye, Dave ; Rigsby, Mike (Consultant) ; Williamson, Alec ; Reilly, John
Sent: Friday, December 12, 2008 12:20 PM
Subject: Draft Bored Tunnel SAC Agenda

I have attached a draft agenda to be fine-tuned. The PSRC Boardroom is available, since we figured we may need a bit more space than we have here. So far we have lined up Harvey Parker, John Reilly and Don Phelps as subject matter experts for WSDOT, and the team is putting together basic materials related to development of our concepts, including:

- Layouts and cross-sections for dual and single bore alignments, showing key constraints;
- Summary of key schedule and cost assumptions and data;
- Identified opportunities and risks;

We have assumed the meeting to take place on Tuesday, which would leave a day to follow up before the Thurs SAC meeting. We are hoping to set up a meeting/conference call between some of our experts and some of the experts associated with the Cascadia letter. This would allow us to walk through our assumptions and policies on the soft costs with them, which is at the heart of the debate. We have assumed that we will only have key staff present to represent the current planning effort. Also as part of the agenda, I have assumed that we would want our experts to make a brief educational presentation on bored tunneling, including the Seattle history.

At this point, I'd assume Amy's staff can take ownership of the agenda and logistics based on input from this group, while we focus on aligning our representatives, messaging, materials, and then engage the letter writers.

John

VandenBerghe, Alissa (Consultant)

From: White, John
Sent: Friday, December 12, 2008 4:09 PM
To: Preedy, Matt; Greco, Theresa
Subject: FW: Bored Tunnel

From: Dye, Dave
Sent: Friday, December 12, 2008 3:15 PM
To: White, John; Paananen, Ron; Grotefendt, Amy
Cc: Morrison, Mike (Consultant)
Subject: Bored Tunnel

Hey John - could you have someone get me a quick one-pager that shows the SR 99 component (including couplet) breakdown with loaded costs for the bored tunnel...something like:

- Seawall
- Utility Relocation
- Alaskan Way-Western Couplet
- Bored Tunnel (and length) for both twin bore and single bore as best we know them
- Other City Street Work
- Transit
- Other

Approximations are fine - I'll need for meeting with Gov tomorrow...thanks!

-dave

VandenBerghe, Alissa (Consultant)

From: Williamson, Alec
Sent: Saturday, December 13, 2008 11:28 AM
To: Waters, Mia
Cc: baker@pbworld.com; White, John; Preedy, Matt; Greco, Theresa
Subject: bored tunnel expenditure spread for tolling arw 12-13-08.xls
Attachments: bored tunnel expenditure spread for tolling arw 12-13-08.xls

Mia/Brent- Hopefully this sheet will suffice for the potential expenditure side of your quick tolling analysis study. If at all possible I would like to have a couple of bookends since the bored tunnel configuration and implementation is not determined yet and since the range in cost is substantial. I did not include any of the waterfront work, but in this scenario it would occur after bored tunnel construction (perhaps starting in 2020 or so.) I am not sure that tolling revenues would be used for that other work- I think it would be funded in other ways and the tolling revenue would be used for continued operations and maintenance. Of course there are myriad assumptions in all of this but I think this is a reasonable approach for now. let me know if you have questions or need additional information.

Thanks,
Alec

Tunnel Configuration	Fiscal 2010	Fiscal 2011	Fiscal 2012	Fiscal 2013
Single Bore	98,200,000	106,700,000	97,200,000	285,000,000
Twin Bore	137,400,000	149,400,000	136,100,000	399,000,000

PE				
	Peliminary Geotech	7/1/2009	6/30/2010	12
	Environmental Doc	7/1/2009	6/30/2011	24
	Conceptual Design	7/1/2009	11/30/2009	5
	Preliminary Design	12/1/2009	4/30/2010	5
	Final Design			0
	30	5/3/2010	7/30/2010	3
	60	8/2/2010	11/30/2010	4
	90	12/1/2010	2/28/2011	3
	100	3/1/2011	4/29/2011	2
	HQ PS&E Review	5/2/2011	7/1/2011	2
	Bid & Award	7/5/2011	12/1/2011	5
ROW		7/1/2009	6/30/2011	24
Construction				
	Construction Management & Traffic/En	12/1/2011	2/28/2018	76
	Demobilization	1/2/2018	2/28/2018	2

Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017	Fiscal 2018
308,000,000	363,900,000	134,300,000	129,900,000	183,700,000
431,200,000	509,400,000	188,000,000	181,900,000	257,200,000

Fiscal 2019	Total
150,000,000	1,856,900,000
150.000,000	2,539.700,000

VandenBerghe, Alissa (Consultant)

From: Poor, Geraldine [Poor.G@portseattle.org]
Sent: Monday, December 15, 2008 2:09 PM
To: warren@ballardoil.com; Agnew, Bruce; cliffordbenson@hotmail.com; suzanne.benson@pacer.com; tinstitute: JohnB@ARGOSYCRUISES.COM; rickb@totalterminals.com; dbryan@victoriaclipper.com; kevin@ecoss.org; kevinc@blaser-die.com; chandlrm@seattle.gov; kchristopher@westernports.com; kevinc@argosycruises.com; ken@premiertransport.net; kevin@seattlefreight.com; jean.cox@seattlepier66.com; rebekah@aquariumsociety.org; bobd@keepclam.com; terry.finn@bnsf.com; david@mlkclc.org; dgatchet@roadlink.com; dgmic@qwest.net; gibbs61@msn.com; ronh@tridentseafoods.com; genensusan@comcast.net; jan.jacobs@americanseafoods.com; kkingery@d1meba.org; gkipp@theroyergroup.com; mark.knudsen@ssamarine.com; jeffl@unitedmotorfreight.com; lee.macgregor@ssamarine.com; dmackenzie@pspilots.org; mmoore@pmsaship.com; jcodl@aol.com; vince_sup@msn.com; ko@carnitech.net; joppenheimer@columbiahospitality.com; pdotley@comcast.net; ralphp@argosycruises.com; mike@processheating.com; david_pickles@apl.com; Powers, Bob; sranf@mariners.org; jrasmussen@victoriaclipper.com; jroyer@pmsaship.com; Schmidt, Karen ; jons@downtownseattle.com; espencer@grahamdunn.com; kims@cityice.net; wtabler@pspilots.org; thompj@genieind.com; joe.todaro@shipperstransport.com; larry@WTASSNS.com; local19pres@Qwest.net; bwaldman@mariners.org; rwallace@wallaceproperties.com; elizabeth.j.warman@boeing.com; eugene@ecwassociates.com; paul.weisdepp@ssamarine.com; White, John; Peterw@Nelsontrucking.com; Paananen, Ron; ron.posthuma@kingcounty.gov
Subject: Port Commission motion on AWV today

Today, the Port Commission will consider a motion asking that the state, city and county carry a bored tunnel option forward for further study.
The motion is based on our mutual interests to support transportation capacity and economic vitality and to minimize impacts on the waterfront.

The meeting begins at 4:00 pm; this is scheduled to be the first item on the agenda. Attached is a link to the live audio/video if you are interested in tuning in: http://www.portseattle.org/about/organization/commission/commissionaudio.shtml

We look forward to our next meeting with the Working Waterfront Forum this Wednesday, December 17, 7:30 am at Pier 69.

Geri Poor
Manager, Regional Transportation
206-728-3778
Poor.g@portseattle.org

Timeline for tunnel – Port has motion in place by 12-15-08 even though state decision not made + bored tunnel presentation was only made 12-8-08 1 week before

cost
enviro
strategies

From: White, John
Sent: Tuesday, December 23, 2008 7:57 AM
To: Dye, Dave; Paananen, Ron; Grotefendt, Amy (Consultant)
Subject: Re: Bored tunnel

Thanks Dave. PB has been looking at revised mark-ups, we will update the costs as appropriate and get them out to you, Ron and John Reilly for a reality check.

I assume we stick with the single bore for now (at least at the low end), assuming we can make the cross-section work without significant upsizing?

John

From: Dye, Dave
To: Paananen, Ron; White, John; Grotefendt, Amy (Consultant)
Sent: Tue Dec 23 07:39:16 2008
Subject: Re: Bored tunnel

John - please check with mike r and gordon because they were getting vibes from new york the estimate was too conservative - I suggest whatever lower number is developed beome the lower end of the range with current estimate the high end...thanks.

-dave

From: Paananen, Ron
To: White, John; Grotefendt, Amy (Consultant)
Cc: Dye, Dave
Sent: Tue Dec 23 06:51:26 2008
Subject: Bored tunnel

The Governor asked a few questions about the bored tunnel. We need some material that clearly shows how much the tunnel will cost, what is included in the basic cost, and how it would be funded. We need to tell the story about what it does for capacity (compared to the existing viaduct) and what are the disruptions associated with building a bored tunnel. A good schedule should assembled to show when the tunnel would be open to traffic. John, the team should put together the most aggressive schedule they can conceive, like doing an EA for environmental, purchasing the machine in advance, using design-build - all the usual stuff.

The project would be the SR 99 components only. Minimal work on the waterfront: no seawall. Tear down and basic connection back to Battery Street Tunnel.

Has anyone heard back from Cascadia? We need thier feedback to help in reconsideration of the risk and contingency numbers.

Dave may want to add a few comments.

VandenBerghe, Alissa (Consultant)

From: John Reilly [jjreils@attglobal.net] – wsdot consultant
Sent: Wednesday, December 24, 2008 7:57 AM
To: White, John
Cc: Grotefendt, Amy; Paananen, Ron
Subject: AWV, Governor, decision. SAC initiatives, Happy Holidays

John - good to talk to you last night about the AWV tunnel alternative and the Cascadia / SAC efforts.

I'll be interested in seeing the Richard Prust / Cascadia Center memo - please forward it when rec'd. Basically, from the communications I've seen, Cascadia and the SAC members are trying to get and understand (and then perhaps challenge - Note 1) the costs of the tunnel - relative to the WSDOT numbers - and in particular understand and challenge the add-ons and markups - the thought is that these are too high and then the markups compound leading to a much too high result (Note 2). They are also thinking about the NEPA requirements with the thought that the tunnel alternative is simpler with better performance, less impact and therefore less liable to be challenged by a lot of stakeholders.

I've heard that there is an idea (Governor, SAC?) to fund the other elements (transit, streets, I-5) separately. And, that the Governor has been talking to the stakeholders, has acknowledged support for the deep bore, would like more information but needs to make a decision now.

If Cascadia / Stakeholders were to call me (they have my contact infor but none has called), I'd tell them:

Note 1 - I think that the PB/Ken Fiorentine [sp?] - Arup - HMM/Phelps tunnel cost numbers are all comparable and we could easily come to agreement (see Note 3)

Note 2 - this is also a concern of mine (that the add-on line items are high and they may compound unreasonably) but, see Note 3

Note 3 - as I stated at the Tuesday Dec 16 SAC evening presentation/questions, and informally after last Thursday's SAC final meeting, if we ran even a quick CEVP-type analysis on the tunnel we could have better construction cost numbers and the uncertainty could be quantified to give a reasonable "range of probable cost" - then WSDOT might determine a budget number less than the 90% range number as was done after the 2006 ERP. At this point, without that data and analysis, we have to use a "high" number (see Note 4) to account for the current uncertainties.

Note 4 - the high number could be reduced, as Mike R has already done internally, with some better analysis of the add-on costs and their uncertainty. this would not necessarily take a CEVP workshop - it could be done more simply with a small number of knowledgeable people (the usual characters we all know and love).

And, to be clear, the major uncertainty here is the political process (including the reliability of a preferred decision), the NEPA/Environmental process (impact, time) the appropriate "design allowance" and funding/cashflow.

Let me know how this evolves, have a great Christmas and happy holidays - talk to you soon (we have our office kid's party starting at noon, EST, but I'm available by email and cell phone).

Regards, John Reilly
Web: www.JohnReilly.us
Email: JJReils@ATTGlobal.net
Cell: +1-508-904-3434
----- Original Message -----
From: Renee Roline
To: White, John ; Bruce Agnew ; Richard Prust ; Rita Brogan ; Bob Donegan
Cc: Paananen, Ron ; Reilly, John
Sent: Tuesday, December 23, 2008 6:31 PM

Subject: Re: Meeting with tunneling experts

Thank you John for your follow up.

We have been working on this all day today and should have a memo in your hands by tomorrow morning. Richard at Arup, will be finishing up tonight.

Thank you again for the opportunity to provide this to you.

Renée Roline
Projects Coordinator
Cascadia Center for Regional Development
208 Columbia Street | Seattle, WA 98104
Direct 206-292-0401 ext 120 | Fax 206-682-5320
reneer@discovery.org

On 12/23/08 3:16 PM, "White, John" <WhiteJH@wsdot.wa.gov> wrote:

> Hi Bruce and Renée,
>
> Hope all is well and you are both looking forward to some nice holiday relaxation time. That said, I did want to check in regarding the status of follow-up thoughts from Arup based on the SAC discussion last week. As time is getting very short ahead of a Gov's recommendation, and we are responding to the many bored tunnel questions being asked of us, the opportunity to chime in with any additional thoughts ahead of a decision is right now.
>
> If Arup has formulated so thoughts based on the SAC discussion and cost information we provided, please forward them to us so that they can be factored into the work the agency is doing to support and inform the decision-making process. If a bored tunnel is to advance, there will be plenty of opportunity for Arup and others to further engage in the design process and potentially construction, but ahead of that we need to pull together the best tunnel thinking available related to thoughts on costs and construction options.
>
> quid pro quo
>
> Feel free to respond by e-mail or to give me a call on my cell, 206-310-4838.
>
> Happy holidays,
>
> John
>
> John H. White, P.E.
> Program Director
> Alaskan Way Viaduct and Seawall Replacement Program
> WSDOT Urban Corridors Office
> Business: (206) 382 - 5270
> Cell: (206) 450 - 2975
>
> **From:** Bruce Agnew [mailto:bagnew@discovery.org]
> **Sent:** Monday, December 15, 2008 9:42 AM
> **To:** Agnew, Bruce; White, John
> **Cc:** Renée Roline
> **Subject:** Re: Meeting with tunneling experts
>
> John

Lets go ahead with the phone call today at 11 to review how to proceed.
Bruce

On 12/15/08 9:36 AM, "Bruce Agnew" <bagnew@discovery.org> wrote:

> John,
>
> It looks as though our local tunnel experts will be out of town this week. I've asked if they are reachable by phone but as of now it doesn't appear so. Is there a way you could provide us with your detailed cost estimate report on the bored tunnel? They could then review and give feedback which may actually be a rather effective way to compare notes.
>
> Thanks,
>
> Renée Roline
> Projects Coordinator
> Cascadia Center for Regional Development
> 208 Columbia Street | Seattle, WA 98104
> Direct 206-292-0401 ext 120 | Fax 206-682-5320
> reneer@discovery.org

VandenBerghe, Alissa (Consultant)

From: Wellander, Chris A. [WellanderC@pbworld.com]
Sent: Wednesday, December 24, 2008 10:16 AM
To: Williamson, Alec; White, John; Grotefendt, Amy (Consultant); Van Ness, Kristy (Consultant); Clark, Gordon T. (Consultant); Mattern, Dave (Consultant)
Cc: Atchison, Alexandra; Wojcicki, Laura
Subject: RE: Traffic Results

Follow Up Flag: Follow up
Flag Status: Red

Attachments: Transportation Notes_Alec.doc; Bored Tunnel Performance (3).xls


Transportation Notes_Alec.doc ...


Bored Tunnel Performance (3).x...

All

Attached is an updated set of transportation notes which incorporate Alec's comments as well as an estimate of 2030 travel time along surface Alaskan Way. It still needs some input on the duration of construction of the north and south transition pieces.

Also attached is an updated set of tables documenting various performance measures (e.g., speeds, throughput, capacity).

Let me know if you have any questions.

Thanks.

-Chris

From: Williamson, Alec [mailto:WilliAR@wsdot.wa.gov]
Sent: Wed 12/24/2008 8:23 AM
To: Wellander, Chris A.; White, John; Grotefendt, Amy (Consultant); Van Ness, Kristy (Consultant); Clark, Gordon T. (Consultant); Mattern, Dave (Consultant)
Cc: Atchison, Alexandra; Wojcicki, Laura
Subject: RE: Traffic Results

Hi Chris/Alex- Thanks for putting this together so quickly. It is a very good summary. My comments are attached- a few of them will need a little follow up work, but not much. I have moved the key points up front and mainly want more of an emphasis on the safety benefits.

Thanks,
Alec

-----Original Message-----
From: Wellander, Chris A. [mailto:WellanderC@pbworld.com]
Sent: Wednesday, December 24, 2008 12:02 AM
To: White, John; Williamson, Alec; Grotefendt, Amy (Consultant); Van Ness, Kristy (Consultant); Clark, Gordon T. (Consultant); Mattern, Dave (Consultant)
Cc: Atchison, Alexandra; Wojcicki, Laura
Subject: RE: Traffic Results

Amy

Attached are my notes related to the transportation elements. I added a few more categories than what you had in the outline....feel free to use as you see fit. Also attached is the updated spreadsheet with a variety of tables. It's still missing a 2030 estimate of travel time for the Elliott/Western traffic that would have to use the surface under the bored tunnel concept. Alex Atchison will forward you that result tomorrow.

Let me know if you have any questions.

-Chris

From: Wellander, Chris A.
Sent: Tue 12/23/2008 4:29 PM
To: White, John; Williamson, Alec; Grotefendt, Amy (Consultant); Van Ness, Kristy (Consultant); Clark, Gordon T. (Consultant); Mattern, Dave (Consultant); Wellander, Chris A.
Cc: Atchison, Alexandra; Wojcicki, Laura
Subject: Traffic Results

All

Attached are some summary tables for the initial traffic results for Bored tunnel vs. Existing. We may be able to add a quick and dirty 2030 estimate of travel times for the tunnel by tomorrow morning....assuming a 10% growth in traffic between 2015 and 2030 (based on a combination of population growth for the zones primarily served by AWV and employment growth in the CBD).

Amy, I'll take a shot at some bullet points to address other aspects in your outline.

Let me know if you have any questions.

Chris

Chris A. Wellander
Senior Transportation Engineering Manager Parsons Brinckerhoff
999 Third Avenue, Suite 2200
Seattle, WA 98104

(206) 382-5296
(206) 240-7889 (mobile)

WellanderC@PBworld.com

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VandenBerghe, Alissa (Consultant)

From: Dye, Dave
Sent: Wednesday, December 24, 2008 1:44 PM
To: Agnew, Bruce
Cc: Alaskan Way Viaduct: 'grace.crunican@seattle.gov'; 'harold.taniguchi@metrokc.gov'; Paananen, Ron: 'ron.posthuma@metrokc.gov'; 'sextonr@wellsfargo.com'; 'Washj@foster.com'; 'bobd@keepclam.com'; 'david@mlkclc.org'; 'warren@ballardoil.com'; 'pehrsonj@comcast.net'; 'bayouwonder@comcast.net'; 'bregards@speakeasy.net'; 'mahlonc@bumgardner.biz'; 'jim@ohalloran.cc'; 'jaltman8@comcast.net'; 'mpmccumber@comcast.net'; 'todd.vogel@nuladvisers.org'; 'cary@peopleswaterfront.org'; 'genensusan@comcast.net'; 'vlad@voka.us'; 'donnewby@msn.com'; 'peter@RHPPublishing.com'; Parsons, Jim; 'djohnconey@aol.com'; 'kfletcher@pugetsound.org'; 'rob@transportationchoices.org'; 'sranf@Mariners.org'; Powers, Bob; 'chuck.ayers@cascadebicycleclub.org'; 'carol@pikeplacemarket.org'; 'erichardson@seedseattle.org'
Subject: Re: Letter pertaining to AWV replacement
Attachments: image001.jpg; image003.png

Bruce - Thanks for such a quick response to our request for additional information. We'll get our team working on a review right way and I'll look forward to more conversations in the coming weeks. Take care and have a very happy holiday season!

-dave

From: Bruce Agnew
To: Dye, Dave
Cc: Alaskan Way Viaduct; Grace Crunican ; harold.taniguchi@metrokc.gov ; Paananen, Ron; ron.posthuma@metrokc.gov ; sextonr@wellsfargo.com ; Tayloe Washburn ; Bob Donegan ; David Freiboth ; warren@ballardoil.com ; pehrsonj@comcast.net ; bayouwonder@comcast.net ; bregards@speakeasy.net ; mahlonc@bumgardner.biz ; jim@ohalloran.cc ; Jeff Altman ; mpmccumber@comcast.net ; todd.vogel@nuladvisers.org ; cary@peopleswaterfront.org ; genensusan@comcast.net ; vlad@voka.us ; donnewby@msn.com ; Peter Philips ; Parsons, Jim; John Coney ; Kathy Fletcher ; Rob Johnson ; sranf@Mariners.org ; Powers, Bob; chuck.ayers@cascadebicycleclub.org ; Carol Binder ; erichardson@seedseattle.org ; sjtaoka@yahoo.com ; mike.obrien@cascade.sierraclub.org ; JCODL@aol.com ; Judd, Ron; Mike Wussow ; Ron Sims ; Greg Nickels ; Zehnder, Cindy; Hammond, Paula; Richard Prust ; Vladimir Khazak ; Kern Jacobson (MacCap Advisors ; gerhard@dr-sauer.com ; Richard J. Robbins ; Don Stark ; Harvey W. Parker ; rspage@hntb.com ; White, John; Reilly, John; Agnew, Bruce
Sent: Wed Dec 24 11:53:36 2008
Subject: Letter pertaining to AWV replacement

December 22, 2008

Mr. David Dye
WSDOT
PO Box 47300
Olympia, WA 98504-7300

Dear Mr. Dye:

This letter responds to your request that we provide you our best thinking about deep bore tunnel costs. We would like to thank you for meeting with members of our team and for sharing information among colleagues. Much of our thinking has been presented in our previous letters and in last week's discussions with the stakeholder committee. The main conclusions are:

See 1-07-09 Email Emily Claus Letter There

VandenBerghe, Alissa (Consultant)

From: Morrison, Mike (Consultant)
Sent: Monday, December 29, 2008 2:21 PM
To: Williamson, Alec
Subject: RE: Bored Tunnel Briefing Paper
Follow Up Flag: Follow up
Flag Status: Red

Alec,

I do not have a copy of the Bored Tunnel Briefing Paper. If you have a copy, would you please send it to me.

Thanks!

Best Regards,
Mike Morrison
Program Estimator
Alaskan Way Viaduct Program
AWV&SRP Office: 206-267-6535
Cell: 206-799-7798
VMC Office: 425-885-2185
VMC E-Mail valuemike@aol.com

From: Williamson, Alec
Sent: Monday, December 29, 2008 2:10 PM
To: White, John; Rigsby, Mike (Consultant)
Cc: Clark, Gordon T. (Consultant); Grotefendt, Amy (Consultant); Morrison, Mike (Consultant); valuemike@aol.com
Subject: RE: Bored Tunnel Briefing Paper

Couplet costs are estimated and called out separately from the tunnel costs and within the program costs section of the spreadsheet. The "tunnel only" cost does not include any connector roadway between the waterfront and Belltown nor does it include viaduct demolition. The viaduct demolition is shown in the "other" category in the program costs section. This estimate attempted to show what a tunnel only contract might cost as a subtotal of the program.

Hope this helps.

Alec

From: White, John
Sent: Monday, December 29, 2008 1:32 PM
To: Rigsby, Mike (Consultant)
Cc: Williamson, Alec
Subject: RE: Bored Tunnel Briefing Paper
Importance: High

Mike,

Within the cost estimate table, are you saying that Gordon has the couplet costs embedded in the tunnel estimate?

We need to be clear on this, as we were asked about an option that did not include all the couplet work. Also wanted to chat about the costs to take down the viaduct, since I had assumed those were embedded as well.

John

From: Rigsby, Mike (Consultant)
Sent: Monday, December 29, 2008 12:43 PM
To: Williamson, Alec; Grotefendt, Amy (Consultant); White, John; Wellander, Chris; Clark, Gordon T. (Consultant); Van Ness, Kristy (Consultant); Mattern, Dave (Consultant)
Subject: RE: Bored Tunnel Briefing Paper

That is my understanding as well.

Mike Rigsby
Parsons Brinckerhoff
Alaskan Way Viaduct and Seawall Replacement Program
206-382-6352

From: Williamson, Alec
Sent: Monday, December 29, 2008 12:41 PM
To: Grotefendt, Amy (Consultant); White, John; Wellander, Chris; Rigsby, Mike (Consultant); Clark, Gordon T. (Consultant); Van Ness, Kristy (Consultant); Mattern, Dave (Consultant)
Subject: RE: Bored Tunnel Briefing Paper

The "transit" estimate of $9-12 million I believe is the waterfront streetcar cost estimate.

From: Grotefendt, Amy (Consultant)
Sent: Monday, December 29, 2008 9:29 AM
To: White, John; Williamson, Alec; Wellander, Chris; Rigsby, Mike (Consultant); Clark, Gordon T. (Consultant); Van Ness, Kristy (Consultant); Mattern, Dave (Consultant)
Subject: Bored Tunnel Briefing Paper

Attached is the draft briefing paper on the single deep bored tunnel based on the information I've received from all of you -- sorry for the delay in getting it out for review. I've also attached all the source material so you can review that if something is missing or you want to check facts.

Please send any comments back to me by noon so we can finalize it this afternoon.
Thanks
AJG

VandenBerghe, Alissa (Consultant)

From: White, John
Sent: Monday, December 29, 2008 10:00 AM
To: Preedy, Matt; Greco, Theresa; Rigsby, Mike (Consultant); Williamson, Alec
Subject: FW:
Follow Up Flag: Follow up
Flag Status: Red
Attachments: image001.jpg; image003.png; Viaduct Deep Bore Dec 24 letter to Dye - Final version.doc

Want to ensure you all see this letter from Cascadia/Arup. Looks like we will be getting some direction on how to proceed today, more to come later.

John

From: Bruce Agnew [mailto:bagnew@discovery.org]
Sent: Wednesday, December 24, 2008 2:30 PM
To: Dye, Dave
Cc: White, John
Subject:

December 22, 2008

Mr. David Dye
WSDOT
PO Box 47300
Olympia, WA 98504-7300

Dear Mr. Dye:

This letter responds to your request that we provide you our best thinking about deep bore tunnel costs. We would like to thank you for meeting with members of our team and for sharing information among colleagues. Much of our thinking has been presented in our previous letters and in last week's discussions with the stakeholder committee. The main conclusions are:

1. A bored tunnel option provides replacement through capacity while reducing construction and longer term community impacts.
2. Highway tunnels in these conditions are feasible and there is a large body of experience from within and outside the US.
3. Based on a survey of other tunnel projects both in the US and internationally the reported AWV replacement cost is higher than might be expected.
4. The 9.5 year construction schedule also appears long when compared with other projects.

We appreciate the opportunity to attend and present at the Stakeholders meeting last week, and thank you for providing a copy of your presentations. While we have not received a detailed breakdown of your estimate or schedule we have carried out an initial assessment of the figures provided and have compared these figures with those from other similar highway tunnels. Based on this analysis we continue to believe that the project cost estimates for the tunnel options are significantly higher than those of similar recent tunneling projects, and we explain some of the reasons we believe this to be the case below:

- **Cost comparison and Savings**
  While we do not have your detailed cost breakdown, based on the information provided we have the

VandenBerghe, Alissa (Consultant)

om: White, John
Sent: Tuesday, December 30, 2008 4:57 PM
To: Preedy, Matt; Greco, Theresa; Reilly, John; Rigsby, Mike (Consultant); Williamson, Alec
Subject: FW: AWV Cost Estimates - Follow Up

Follow Up Flag: Follow up
Flag Status: Red

FYI.

-----Original Message-----
From: Dye, Dave
Sent: Tuesday, December 30, 2008 3:22 PM
To: Paananen, Ron; Hammond, Paula; Grotefendt, Amy (Consultant); Judd, Ron; Ziegler, Jennifer; Stone, Craig; White, John
Subject: RE: AWV Cost Estimates - Follow Up

Hey all - we had a pretty good discussion at the AWV office today regarding project cost estimates, with most of the focus on the bored tunnel. You may have seen some e-mail from me earlier suggesting that the costs for the single-bore could be somewhat lower than the $2.13 billion figure used originally. Based on my conversations today, I'm inclined to say the $2.13 billion figure is the right figure to build a finance plan around...here's why:

- The probable cost range from which we pulled that figure is about $1.9 billion to $2.4 billion, with most probable being $2.13 billion.
- This range is not a full CEVP range - probably more like the 30% to 70% CEVP range -- a full 10% to 90% range might be something more like $1.6 to $3.0 billion, with the 60% about the same as our $2.13 billion (some conjecture here, but informed conjecture).
- ARUP and Cascadia are suggesting the tunnel can be done in the $1.6 to $1.8 range, closer to the lower end of what we might expect to see in our full range when the CEVP is conducted. There is no doubt that there is optimism in that number.
- Taking what we learned from our expert review panel in 2006, we would expect to see the wider range given where we are in the design process and that targeting the number somewhere around 50-60% for finance plan development seems reasonable.
- We'll pull together a few tunnel experts in the next couple of weeks to check our approach on this but don't expect a major shift in this number.

So, that's a long way of saying I think we should stick with the $2.13 billion number for financial planning purposes...in a conversation with the other members of the tri-agency today they concur. Along those lines, work about who pays for what and transportation performance and construction impacts etc. continues so we will have good information for our 9-3 workshop at the city on Friday. That's it for now, and of course, all subject to change. Talk to you soon.

-dave

Dec. 30 agreement #2.13 Billion

VandenBerghe, Alissa (Consultant)

From: Rigsby, Mike (Consultant)
Sent: Tuesday, December 30, 2008 5:01 PM
To: White, John; Williamson, Alec; Clark, Gordon T. (Consultant); Mattern, Dave (Consultant); Van Ness, Kristy (Consultant); Grotefendt, Amy (Consultant); Morrison, Mike (Consultant)
Cc: Dye, Dave; Paananen, Ron
Subject: RE: Draft Bored Tunnel Briefing Paper

Here are some late-breaking edits as a result of our meeting with Dave Dye today. Dave asked that we develop a "Most Probable Range" around the $2.130B that we published for the single bored tunnel at our workshop on Dec 16: $1.987B - $2.130B - $2.426B. In addition, Alec asked that the ROW costs be increased in a range from $60M - $100M. Incorporating both of those changes, yields the matrix below:

Essential Elements	$M	$M	$M
Construction Costs	896	961	1096
CM & Final Design	280	300	342
Contingency & Risk	510	547	623
Inflation	262	281	320
ROW	60	88	100
TOTAL	2008	2177	2481

This matrix should replace the one in the memo. Please let me know if you have comments or questions. Thanks.

Mike Rigsby
Parsons Brinckerhoff
Alaskan Way Viaduct and Seawall Replacement Program
206-382-6352

From: White, John
Sent: Monday, December 29, 2008 4:54 PM
To: Williamson, Alec; Rigsby, Mike (Consultant); Clark, Gordon T. (Consultant); Mattern, Dave (Consultant); Van Ness, Kristy (Consultant)
Subject: FW: Draft Bored Tunnel Briefing Paper

Here is the version I just sent, along with the brief description. More to come tomorrow, thanks for all the great input to this memo.

John

From: White, John
Sent: Monday, December 29, 2008 4:51 PM
To: Dye, Dave; Paananen, Ron
Cc: Grotefendt, Amy (Consultant); Reilly, John; Stone, Craig; Greco, Theresa; Preedy, Matt
Subject: Draft Bored Tunnel Briefing Paper

Dave & Ron,

Here is a draft paper that we hope addresses the request to provide thoughts on a mostly stand-alone bored tunnel

option, based on the transportation benefits achieved by the bored tunnel. As I am sure you will understand, much of what is presented is based on the opinions of the project team, and will require further assessment in order to confirm and validate those opinions.

There are a couple of things to mention in particular:

- The cost estimate numbers and ranges are a bit generalized, and assume that with further assessment, we will find consensus in making reductions to some of the mark-ups that have come into question. I believe we may be discussing an early January workshop to address these questions. That said, the numbers here are solely based on professional opinion within the team, so care should be taken in how they are used. As stated before, the upper end of the range is our previously presented 'probable' cost, with the lower end of the range being the team opinion part.
- There is a variety of opinion and debate regarding how the environmental planning process would proceed, though it is clear that based on the work we have done to date, there is very strong opinion (within UCO, AGO and FHWA) as to the need to retain multiple options within the next draft or supplemental draft EIS. Based on continued analysis, one or more of the other options may not be warranted to continue on beyond the next draft document for reasons stated in the paper.
- We have presented some professional opinion related to 2030 transportation operation that will take further work to validate.

Hope this is along the lines of what you were hoping for. Some sections may have more detail than is desired at this point, please inform if there are any areas you think a more summarized or generalized discussion is appropriate. See you tomorrow.

John

John H. White, P.E.
Program Director
Alaskan Way Viaduct and Seawall Replacement Program
WSDOT Urban Corridors Office
Business: (206) 382 - 5270
Cell: (206) 450 - 2975

Fronting Cost

From: White, John
Sent: Monday, January 05, 2009 6:09 PM
To: Dye, Dave; Paananen, Ron
Subject: RE: Seattle Tube

On it. Looking at the main selling points, it would seem our current proposal matches them. Also would seem like our current proposal would be less expensive, but I obviously can't back that up. Will engage John and PB and pull some thoughts together.

John

From: Dye, Dave
Sent: Monday, January 05, 2009 3:11 PM
To: White, John; Paananen, Ron
Subject: Seattle Tube

Could you all do some leg work on this for me - John Reilly might be helpful since he worked on a previous idea for a ST tunnel under 5th...didn't work but can't remember why...a two-pager about pros/cons would be good...and why we landed on the waterfront/1st ave...thanks.

-dave

From: Dye, Dave
Sent: Monday, January 05, 2009 3:07 PM
To: Judd, Ron; Winkler, Barb (GOV); Ziegler, Jennifer
Subject: RE: Meeting Request

Cost by others

Ron - Just so you know,these are not the Cascadia people who have been helping us with cost estimating for a single bore tunnel under 1st ave...they have a different vision about building tunnels under 5th and 6th avenues (and longer) than we are looking at...there is a web site, something like seattletube.org that you should peruse to get a sense of their vision...it does not line up with our plan or cost estimates...all that said, later in the week next week will work for me as this meeting comes together - thanks!

-dave

From: Judd, Ron (GOV) [mailto.Ron.Judd@GOV.WA.GOV]
Sent: Monday, January 05, 2009 2:59 PM
To: Winkler, Barb (GOV); Ziegler, Jennifer
Cc: Dye, Dave
Subject: RE: Meeting Request

I think that we should let them know that we have received all of their information and that our WSDOT has spent time with the Cascadia folks. The soonest would be a scheduled meeting with staff...Jennifer and me or others Wednesday or Thursday of next week.

From: Winkler, Barb (GOV)
Sent: Monday, January 05, 2009 2:53 PM
To: Judd, Ron (GOV); Ziegler, Jennifer (GOV)

Subject: FW: Meeting Request

Who should respond?

****

Barb Winkler
Executive Scheduler for
Governor Christine Gregoire
Office of the Governor
PO Box 40002
Olympia, WA 98504-0002
(360) 902-4125
Barb.Winkler@gov.wa.gov

****

From: MeetingRequestForm@gov.wa.gov [mailto:MeetingRequestForm@gov.wa.gov]
Sent: Saturday, January 03, 2009 11:49 AM
To: Winkler, Barb (GOV)
Subject: Meeting Request

First Name: David
Last Name: Petrich
Contact Middle Initial: B
Organization: Citizens for Seattle Tube - Viaduct Alternative
Street Address: 1927 Post Alley
Address Line 2:
City: Seattle
State: WA
Zip: 98126
Area Code: 206
Phone Prefix: 355
Phone Suffix: 7356
Phone Extension:
Fax Area Code:
Fax Prefix:
Fax Suffix:
E-mail: dave@seattletube.org
Date Requested: at her convenience
Time Requested: at her convenience
Reason For Meeting: SEATTLE ALASKAN WAY VIADUCT REPLACEMENT - UPTOWN BORED TUNNEL & CORRIDOR TRAFFIC IMPROVEMENT SCHEME Citizens for Seattle Tube has been promoting a bored tunnel under the City for two years with an eye on creating a solution that would include more than just replacing the Alaskan Way Viaduct route. We would like the opportunity to explain the advantages of a multifaceted traffic scheme that will solve a wide range of issues plaguing the city of Seattle. Some of these advantages include: - Use of Existing Right of Ways. - Solid Ground Location for Tunnel Boring. - Low Impact Construction Zones away from existing traffic areas. - Link to I-90 to Reduce I-5 Condition and Improve Ballard-West Seattle Access to East Side. - Integration with Sound Transit Light Rail Project. - Can be Built Without Disruption to Existing Traffic System. - Smooth Integration with SDOT West Seattle Freeway Improvements. - Does Not Require Waterfront

Seawall Replacment. Bruce Agnew of Cascadia and Seattle City Councilman Tom Rassmusun have reviewed our plan and commented that it should be seriously studied as a viable option to solving some of Seattle's traffic issues. We hereby request a 30 minute meeting with the Governor to present the aspects of our plan and to answer any questions she may have.
Location:
Meeting Street Address.
Meeting City:
Meeting State: WA
Meeting Zip:
Others Attending - Headcount: Bruce Agnew of Cascadia, Ralph Allen and David Petrich of Citizens for Seattle Tube
Has the Governor participated in the past: No
Additional information: additional information about Seattle Tube can be found online at www.seattletube.org

VandenBerghe, Alissa (Consultant)

From: Paananen, Ron
Sent: Tuesday, January 06, 2009 4:17 PM
To: Grotefendt, Amy (Consultant); White, John
Subject: FW: For Review -- Hybrid Costs and Funding Matrices

For your consideration in doing the table, I don't how we flopped the numbers. Another reason to perhaps lump utility relocation as one number.

From: Rigsby, Mike (Consultant)
Sent: Friday, January 02, 2009 3:27 PM
To: Paananen, Ron; Grotefendt, Amy (Consultant); White, John; Dye, Dave; Williamson, Alec; Preedy, Matt; Morrison, Mike (Consultant)
Subject: RE: For Review -- Hybrid Costs and Funding Matrices

Not quite. My current understanding of the fully marked up public utility costs for the bored tunnel scenario including all markups, risk, contingency, and inflation is:

- $268M for the bored tunnel hybrid scenario
    - $168M apportioned to the bored tunnel (included in the $2.1B)
    - $100M apportioned to the central waterfront

These are conceptual and somewhat subjective apportionments. There is a significant opportunity to reduce utility costs in the bored tunnel at the north portal that has not been taken.

Mike Rigsby
Alaskan Way Viaduct and Seawall Replacement Project
206-382-6352

From: Paananen, Ron
Sent: Fri 1/2/2009 12:58 PM
To: Rigsby, Mike (Consultant); Grotefendt, Amy (Consultant); White, John; Dye, Dave; Williamson, Alec; Preedy, Matt; Morrison, Mike (Consultant)
Subject: Re: For Review -- Hybrid Costs and Funding Matrices

So, the way I understand it, there is $100 million for the tunnel and $152 million on the waterfront for a total of $252 million of utility relocation (SPU and SCL) for the bored tunnel hybrid.

From: Rigsby, Mike (Consultant)
To: Grotefendt, Amy (Consultant); Paananen, Ron; White, John; Dye, Dave; Williamson, Alec; Preedy, Matt; Morrison, Mike (Consultant)
Sent: Fri Jan 02 12:08:08 2009
Subject: RE: For Review -- Hybrid Costs and Funding Matrices

There are a lot of ways to slice and dice these estimates and different approaches will yield different results. After my brief review, I had the following comments:

- The utility relocation costs for Surface/Transit look low at $150M. I would estimate $233M.
- The utility relocation costs for Elevated look low at $150. I would estimate $210.

- The utility relocation costs for Bored Tunnel look high at $152M. I would estimate $100M since $168M for utilities was included in the $2.1B for the bored tunnel.
- Surface street costs for the Bored tunnel look to be high at $280M. Not sure what was assumed couplet or Alaskan Way Surface street.
- Total costs for the Bored Tunnel at $2.963B look high to me. I would estimate $2.817B.

Please let me know if you have any questions or need to discuss further.

Mike Rigsby
Alaskan Way Viaduct and Seawall Replacement Project
206-382-6352

From: Grotefendt, Amy (Consultant)
Sent: Wed 12/31/2008 11:50 AM
To: Paananen, Ron; White, John; Powers, Bob; 'bob.chandler@seattle.gov'; 'Posthuma, Ron'; Parsons, Jim; Dye, Dave; Rigsby, Mike (Consultant); Williamson, Alec; Preedy, Matt; 'bennett@concurinc.net'; Morrison, Mike (Consultant)
Cc: 'Tracie Sunday'; Van Ness, Kristy (Consultant); 'OClaire, Christina'
Subject: RE: For Review -- Hybrid Costs and Funding Matrices

Attached is the revised spreadsheet based on this morning's meeting.

Use only the first worksheet. Please DO NOT use the worksheets that include detail about each hybrid. Those have not been updated to reflect the summary sheet -- Powers and Posthuma will bring back up with them to explain the surface and transit numbers on the summary sheet. I think the plan is also for Powers to bring print outs of this summary sheet and try to have a computer and projector there as well.

Thanks and good luck on Friday!
AJG

From: Grotefendt, Amy (Consultant)
Sent: Tuesday, December 30, 2008 5:43 PM
To: Paananen, Ron; White, John; 'robert.powers@seattle.gov'; 'bob.chandler@seattle.gov'; 'Posthuma, Ron'; 'James D. Parsons'; Dye, Dave; Rigsby, Mike (Consultant); Williamson, Alec; Preedy, Matt; 'bennett@concurinc.net'; Morrison, Mike (Consultant)
Cc: 'Tracie Sunday'; Van Ness, Kristy (Consultant)
Subject: For Review -- Hybrid Costs and Funding Matrices

Attached are spreadsheets which reflect two things:

1. The conversation at today's tri-agency about the total costs of the elements (transit, city streets, etc.) should be included in three hybrid alternatives as well as which agencies should be responsible for the costs of the elements. (reflected on the first worksheet)

2. Details about the line items for two of the three hybrid scenarios (reflected on the next three worksheets). The bored tunnel hybrid is not as detailed, which I think will be part of the conversation during tomorrow morning's meeting. Some of the "total" numbers on the summary sheet do not necessarily match the totals when the details are added up: I think we'll need to verify which elements we actually want to include in each hybrid scenario and revise the totals accordingly. The details match what was included in Mike Morrison's cost sheet as of Dec. 18.

And this is my best guess based on multiple conversations, emails, and spreadsheets -- I am sure there are still things that are wrong. If you do make changes directly on the spreadsheets, please highlight them in yellow so

they're easy to find. You can also drop off changes at Kristy's office in the morning -- I'll be there in the morning.

Thanks
AJG

From: Claus, Emily (Consultant)

Sent: Wednesday, January 07, 2009 11:06 AM

To: Paananen, Ron; Powers, Bob; ron.posthuma@kingcounty.gov

Cc: Tracie Sunday; Hannah McIntosh; OClaire, Christina; Grotefendt, Amy (Consultant); Van Ness, Kristy (Consultant)

Subject: Cascadia/Arup Letter

Attachments: Viaduct Deep Bore Dec 24 letter to Dye - Final version.doc

Ron, Bob and Ron,

Please find attached the letter we received from Cascadia/Arup after the bored tunnel briefing. We are planning to send an e-mail to the SAC in the next couple of days letting them know that there is no meeting on January 15th and to send the meeting summaries from the bored tunnel briefing and Dec. 18 SAC meeting. We would also like to include this letter from Cascadia/Arup in the e-mail to the SAC. Please let me know if you have any concerns.

Thank you,
Emily

Emily Claus
Communications Team
Alaskan Way Viaduct and Seawall Replacement Program
206-267-3841
clause@wsdot.wa.gov

December 22, 2008

Mr. David Dye
WSDOT
PO Box 47300
Olympia, WA 98504-7300

Dear Mr. Dye:

This letter responds to your request that we provide you our best thinking about deep bore tunnel costs. We would like to thank you for meeting with members of our team and for sharing information among colleagues. Much of our thinking has been presented in our previous letters and in last week's discussions with the stakeholder committee. The main conclusions are:

1. A bored tunnel option provides replacement through capacity while reducing construction and longer term community impacts.
2. Highway tunnels in these conditions are feasible and there is a large body of experience from within and outside the US.
3. Based on a survey of other tunnel projects both in the US and internationally the reported AWV replacement cost is higher than might be expected.
4. The 9.5 year construction schedule also appears long when compared with other projects.

We appreciate the opportunity to attend and present at the Stakeholders meeting last week, and thank you for providing a copy of your presentations. While we have not received a detailed breakdown of your estimate or schedule we have carried out an initial assessment of the figures provided and have compared these figures with those from other similar highway tunnels. Based on this analysis we continue to believe that the project cost estimates for the tunnel options are significantly higher than those of similar recent tunneling projects, and we explain some of the reasons we believe this to be the case below:

- **Cost comparison and Savings**

  While we do not have your detailed cost breakdown, based on the information provided we have the following broad comments which are based on the twin bored option, although several hold true for the single bore:

  It appears that the AWV Construction Estimate of $1.2bn (which includes 25% design contingency and contractor mobilization, overhead and profit) is in line with consortia's construction bid prices for PPP projects of a similar nature. These hard bids were prepared on the basis of a preliminary design and include design and construction risk and contingency. Based on this analysis we would expect a construction estimate of between $1.2 and $1.4bn including risk and much of the contingency that has been included as separate line items in the estimate presented.

  The design fee of 15.75% and the construction administration figure of 15.5% appear high in our experience. We would anticipate them to be of the order of 10% and 6% respectively. We would also not expect the uplift for risk, contingency and escalation to be applied to these items, or the uplift for risk to be applied to contingency.

  Based on these observations we believe that the project can be competed for less than $2Bn including the Right of Way costs.

  As a comparison against a bid project, these figures assume that the project proceeds largely to the anticipated schedule and do not include the impacts of any substantial project delays or other extreme events.

  It is not clear from the figures provided where the demolition of the existing viaduct is included in the estimate. We assume that this is not included in the tunnel costs.

From: White, John
Sent: Tuesday, January 06, 2009 7:56 PM
To: Grotefendt, Amy (Consultant); Paananen, Ron; Dye, Dave
Subject: Re: Simplified Cost Table

We should have the validated cost and cost range by mid-morning tomorrow, along with the basic schedule. We are convening our expert trio all day tomorrow for final review. Hope to have some initial thoughts on cash flow by COB tomorrow as well.

Indications from the Reilly review today were positive, with kudos on the tunnel base estimate work (turns out our lead estimator from Jacobs has history bidding tunnel projects).

John

From: Grotefendt, Amy (Consultant)
To: White, John; Paananen, Ron; Dye, Dave
Sent: Tue Jan 06 19:19:56 2009
Subject: RE: Simplified Cost Table

$1.9 Billion Figure

Here is the updated table -- I changed the cost of the bored tunnel to $1.9 billion since we were moving the $100 million in funding down to the utilities line. Hopefully this is close now -- Reilly will hopefully be confirming numbers for us in the morning. Thanks. AJG

From: White, John
Sent: Tue 1/6/2009 5:12 PM
To: Paananen, Ron; Dye, Dave; Grotefendt, Amy (Consultant)
Subject: RE: Simplified Cost Table

One more question: does the City utility funding commitment start after the State Moving Fwd investment, or are we not planning on expending the full $65M in the south end?

From: Paananen, Ron
Sent: Tuesday, January 06, 2009 4:52 PM
To: Dye, Dave; White, John; Grotefendt, Amy (Consultant)
Subject: RE: Simplified Cost Table

I think we talked about extending the portal to Harrison, which is probably more like a block or two, but I don't think we had a exact location for the portal to extend from. My notes from the meeting are at the viaduct office. We may just want to get a couple of folks from the City together with project team to nail it down. I'll touch base with Powers.

From: Dye, Dave
Sent: Tuesday, January 06, 2009 4:24 PM
To: White, John; Paananen, Ron; Grotefendt, Amy (Consultant)
Subject: Re: Simplified Cost Table

I think we agreed to extend tunnel portal north half a block to accomodate street crossings - that's it - the rest is by others since we spent our money...ron, okay?

-dave

From: White, John
To: Dye, Dave; Paananen, Ron; Grotefendt, Amy (Consultant)
Sent: Tue Jan 06 16:21:57 2009
Subject: RE: Simplified Cost Table

Thanks for clarifying that. I had been wondering if there was any investment in city grid connections north of BST, and had initially thought that was what the $100M was for. Was north of BST understanding clarified?

John

From: Dye, Dave
Sent: Tuesday, January 06, 2009 4:19 PM
To: Paananen, Ron; Grotefendt, Amy (Consultant); White, John
Subject: Re: Simplified Cost Table

Concur - put it in the utility column...

From: Paananen, Ron
To: Grotefendt, Amy (Consultant); Dye, Dave; White, John
Sent: Tue Jan 06 16:14:37 2009
Subject: RE: Simplified Cost Table

My only comment is the $100 million from the City towards the tunnel. This represents the public utility relocation costs associated with the tunnel. It should probably be shown as such, or we could just lump it into a total cost for utility relocation, and not distinguish between the Alaskan Way utility costs and tunnel utility relocation costs.

From: Grotefendt, Amy (Consultant)
Sent: Tuesday, January 06, 2009 3:25 PM
To: Dye, Dave; Paananen, Ron; White, John
Subject: Simplified Cost Table

We talked about this on the call yesterday – is this a happy medium between the details and Jennifer's abbreviated handout from Saturday? I'm also thinking something like this could go in the folio with the funding information. I think she needs this for the governor's briefing paper.

Still working on...

-Schedule that shows 2015
-Summary of travel time benefits

Dave - I'm assuming you're chasing the jobs info with OFM? If not let us know.

With all of that I think everything Jennifer needs is a work in progress. Let me know if we're missing anything.

From: White, John
Sent: Wednesday, January 07, 2009 4:02 PM
To: Bandy, Mark
Subject: Fw: Bored Tunnel Information

You'll appreciate this

From: Dye, Dave
To: Grotefendt, Amy (Consultant); Ziegler, Jennifer; Paananen, Ron
Cc: White, John; Brown, Lloyd
Sent: Wed Jan 07 15:59:47 2009
Subject: RE: Bored Tunnel Information

Amy - a couple of comments (and great job getting this together):

1. funding table looks great
2. traffic memo is missing "the three key takeaways"...like: SR 99 bored tunnel moves more vehicles north south through town than the existing viaduct and battery street tunnel (like 20 plus thousand) which is good for our regional economy; The SR 99 bored tunnel maintains today's travel times for regional through trips in 2030! (drop all the 2 minute add stuff due to growth - polishing the turd stuff - who really knows?); Revised schedule is great but drop the reference to "environmental impact statement" in the note and say "environmental document" - keep our options open.

other than that, all good...

-dave

From: Grotefendt, Amy (Consultant)
Sent: Wednesday, January 07, 2009 3:07 PM
To: Ziegler, Jennifer; Dye, Dave; Paananen, Ron
Cc: White, John; Brown, Lloyd
Subject: Bored Tunnel Information

Sorry for the delay...

Attached are three things:

PDF

1. Updated cost and funding sources table
2. Traffic performance memo
3. Revised schedule

Please let us know if you see any changes needed in these materials or you have questions.
Thanks
AJG

From: Ziegler, Jennifer (GOV) [Jennifer.Ziegler@gov.wa.gov]
Sent: Wednesday, January 07, 2009 4:04 PM
To: Dye, Dave; Grotefendt, Amy (Consultant); Paananen, Ron
Cc: White, John; Brown, Lloyd
Subject: RE: Bored Tunnel Information

I just pulled pieces out of the traffic memo and inserted them in the brief--so I'll just add the take-away items referenced below.

From: Dye, Dave [mailto:DyeD@wsdot.wa.gov]
Sent: Wednesday, January 07, 2009 4:00 PM
To: Grotefendt, Amy (Consultant); Ziegler, Jennifer (GOV); Paananen, Ron
Cc: White, John; Brown, Lloyd
Subject: RE: Bored Tunnel Information

Amy - a couple of comments (and great job getting this together):

1. funding table looks great
2. traffic memo is missing "the three key takeaways"...like: SR 99 bored tunnel moves more vehicles north south through town than the existing viaduct and battery street tunnel (like 20 plus thousand) which is good for our regional economy; The SR 99 bored tunnel maintains today's travel times for regional through trips in 2030! (drop all the 2 minute add stuff due to growth - polishing the turd stuff - who really knows?); Revised schedule is great but drop the reference to "environmental impact statement" in the note and say "environmental document" - keep our options open.

other than that, all good...

-dave

From: Grotefendt, Amy (Consultant)
Sent: Wednesday, January 07, 2009 3:07 PM
To: Ziegler, Jennifer; Dye, Dave; Paananen, Ron
Cc: White, John; Brown, Lloyd
Subject: Bored Tunnel Information

Sorry for the delay...

Attached are three things:

1. Updated cost and funding sources table
2. Traffic performance memo
3. Revised schedule

Please let us know if you see any changes needed in these materials or you have questions.
Thanks
AJG

From: John Reilly [jjreils@attglobal.net]
Sent: Saturday, January 10, 2009 8:50 AM
To: Williamson, Alec; Greco, Theresa; Preedy, Matt; Morrison, Mike (Consultant); White, John
Cc: Grotefendt, Amy; Smith, Brian (Consultant); Jarnagan, Harry (Consultant)
Subject: Re: Latest spreadsheet that tracks the costs for the single bored tunnel (State Costs Only)

Mike & John - I'll review the schedule chart today (that Mike and I discussed yesterday) and send comments so Mike can be ready with the cash flow input for discussion and review Monday if necessary.

John - I'll plan to be at the AWV office first thing Monday.

Amy - I'd like to see the current version of the CEVP-type 1-pager when possible.

Regards, John Reilly
Web: www.JohnReilly.us
Email: JJReils@ATTGlobal.net
Cell: +1-508-904-3434

----- Original Message -----
From: White, John
To: Morrison, Mike (Consultant) ; Preedy, Matt ; Greco, Theresa ; Reilly, John ; Williamson, Alec
Cc: Jarnagan, Harry (Consultant) ; Smith, Brian (Consultant)
Sent: Friday, January 09, 2009 10:04 PM
Subject: Re: Latest spreadsheet that tracks the costs for the single bored tunnel (State Costs Only)

Thanks Mike and everyone who worked on this. We'll talk cash flow further Monday. I don't see us widely distributing tunnel-only cash flow, since what will matter is how it overlays with all of the Moving Fwd revisions we will be implementing. With a decision we will be moving quickly to make those scope determinations so that we can come up with a first cut at cumulative cash flow, which is what we need to report to a host of people.

See you Monday

John

From: Morrison, Mike (Consultant)
To: Dye, Dave; Paananen, Ron; White, John; Preedy, Matt; Greco, Theresa; Reilly, John; Williamson, Alec
Cc: Jarnagan, Harry (Consultant); Smith, Brian (Consultant)
Sent: Fri Jan 09 16:39:26 2009
Subject: Latest spreadsheet that tracks the costs for the single bored tunnel (State Costs Only)

Lady and Gentlemen,

Attached you will find for your information a copy of the latest spreadsheet for the costs for the single bored tunnel. I am using the "Second Contingency Line" which was added to move the "mid range" value from $1.7M to $1.9M to capture adjustments. Since the $1.9M was finalized earlier this week, several adjustments have been made including increasing the ROW costs, removing some of the surface street costs at the North end and replacing them with a placeholder for 3 at grade "bridge" at $15M each.

If you print this, you may wish to use legal or 11 x 17 inch paper.

I will try to keep up with the changes that you make. So please let me know when they occur, so the backup is

adjusted accordingly.

Thanks!

We are now working on a draft for cash flow for this "budget". John Reilly, Matt Preedy and I have talked about approaches to this effort today. Our current plan is to have a "draft copy" on Monday for others to review.

Best Regards,

Mike Morrison
Program Estimator
Alaskan Way Viaduct Program
AWV&SRP Office: 206-267-6535
Cell: 206-799-7798
VMC Office: 425-885-2185
VMC E-Mail valuemike@aol.com

Alaskan Way Viaduct Winnowing Scenarios

	January	August	December 11 Hybrids Emerge	January 13
A	Demand Mgmt/ Low Capital	Demand		
B	Surface Boulevard AK Way	Surface		
C	Alaskan Way Couplet Waterfront Expressway Retrofit	Couplet	Couplet	
D	4-Lane Elevated	Elevated	Elevated	
E	Integrated Elevated Elliot Bay Bridge	Integrated		
F	Bored Tunnel	Bored Tunnel		Bored Tunnel
G	4-Lane Cut & Cover Tunnel	Cut & Cover		
H	4-Lane Lidded Trench	Trench		

not sure source

From: White, John
Sent: Tuesday, January 13, 2009 8:08 AM
To: WSDOT UCO Alaskan Way Viaduct Project
Subject: Viaduct Announcement

As all or most of you have surmised from the bits and pieces that have leaked over the past few days, this morning Governor Gregoire, Mayor Nickels and KC Exec Sims are making a joint recommendation to replace the existing central waterfront viaduct with a 4-lane single bore tunnel. This announcement comes with a financial plan that includes major financial contributions from the City, County and Port of Seattle, supporting a total package of appr. $4.25B in improvements. Important to us is the detail that the three agencies now take ownership of their respective projects within the package. Thus the City moves forward on the financing and planning for the seawall replacement, the First Ave streetcar, the waterfront promenade, and utility relocation, while the County moves forward with the financing and programming of supplemental bus service, some park and rides, and a new bus base.

So what is the State's responsibility? Delivering the bored tunnel, the surface connections at the north end, restoring Alaskan Way, and the Moving Forward program. Those of you intimate with the Moving Forward projects will realize that we will need to make a few adjustments to match the north and south end projects up with a single bore tunnel. After some alignment planning this week, we will promptly commence those efforts, as well as the strategy development for delivering the bored tunnel on an accelerated schedule utilizing design-build. All in all we are in for quite a ride...it is important to remember that this is not a done deal until the State legislature has concurred with our plan, our efforts over the next couple weeks will be focused on outlining the plan that we will present to the legislature.

As always, thanks for all of your dedicated efforts in support of this program.

John

9-28-09
Current MOA @ City for ?

From: Tobin, Victoria
Sent: Tuesday, January 13, 2009 12:18 PM
To: Paananen, Ron
Subject: RE: Viaduct Announcement

Thanks Ron.
V

-----Original Message-----
From: Paananen, Ron
Sent: Tuesday, January 13, 2009 11:51 AM
To: Tobin, Victoria
Subject: FW: Viaduct Announcement

meant to copy you

-----Original Message-----
From: Paananen, Ron
Sent: Tuesday, January 13, 2009 11:50 AM
To: Stone, Craig
Subject: Viaduct Announcement

How does this look for an UCO all staff message?

Today was a milestone for the Alaskan Way Viaduct Program. Many of you have probably seen or heard the news of today's announcement that the viaduct will be replaced with a 4 lane bored tunnel. The tunnel will carry a realigned SR 99 away from the central waterfront and connect surface SR 99 near Qwest Field on the south end and near Harrison Street, north of the Battery Street Tunnel. The Governor, Mayor and County Executive also announced other transportation improvements for City Streets and in transit service. The attached letter of agreement formalizes the commitment of the three agencies and responsibilities for funding and implementing the projects identified in the program. The State's responsibility is to identify funding for, and construct the bored tunnel, complete the moving forward projects, and demolish the existing viaduct.

The announcement is the culmination of a lengthy stakeholder process lead by the City, County and State to come to a consensus decision on the best way to resolve a very complicated set of questions. In the end, the decision to pursue a bored tunnel along with City Street and Transit improvements gained broad support and clearly became the right choice.

With this agreement, the project team has a new challenge and a focused project to pursue. The Governor and Paula have set an aggressive goal of opening the new tunnel to traffic in 2015. John White has a lot of things he's thinking about right now and there a many questions about the best way to get the tunnel built. It will be exciting as we work to finalize the details of the project over the next few months and pursue it to completion.

Stay tuned, and thanks for everyone that contributed to getting us to a pivotal point in the project.

Craig and Ron.

Cost
Consul
PR
Leg

From: White, John
Sent: Wednesday, January 14, 2009 10:05 PM
To: 'valuemike@aol.com'; Rigsby, Mike (Consultant); Reilly, John; Jarnagan, Harry (Consultant); Williamson, Alec
Cc: Bandy, Mark; Greco, Theresa; Preedy, Matt
Subject: Fw: Viaduct O&M

PDR

Please see the below legislative request. We need to quickly pull together annual O&M costs for the existing viaduct, and projected for the new elevated and bored tunnel. I believe we worked with NWR to provide I-90 correlating data for the tunnel, did we look at other more recent tunnels to ensure we had a few data points in developing our estimate for the tunnel?

We need to rerspond to this tomorrow (Thurs).

John

From: Dye, Dave
To: White, John; Bandy, Mark
Sent: Wed Jan 14 20:56:54 2009
Subject: Fw: Viaduct O&M

Please root these out - I recall very early numers from mcCormick and mark bandy - need base for today, new elevated and tunnel (and net delta from today) - thanks...

From: Parker, Christie
To: Dye, Dave; Paananen, Ron
Sent: Wed Jan 14 18:45:18 2009
Subject: Viaduct O&M

Hi, Dave & Ron.

I know you gentlemen have a lot going on, but I just wanted to send a gentle reminder that you promised to send the operations & maintenance estimates for the viaduct tunnel.

Thanks in advance.

Christie Parker
Fiscal Analyst
Washington State House of Representatives
Transportation Committee
(360) 786-7322
parker.christie@leg.wa.gov

PR
Cost

VandenBerghe, Alissa (Consultant)

From: White, John
Sent: Thursday, January 15, 2009 8:14 AM
To: Greco, Theresa; Jarnagan. Harry (Consultant); Morrison, Mike (Consultant); Preedy, Matt
Cc: Smith, Brian (Consultant); Bandy, Mark; Reilly, John
Subject: Re: LEGISLATIVE REQUEST: Viaduct O&M

PLEASE do not submit any response to the question until we can correlate the previous rough numbers we generated with the current discussions with John R/Harvey P and Mark B/NWR.

Thanks!

From: Greco, Theresa
To: Jarnagan, Harry (Consultant); Morrison, Mike (Consultant); White, John; Preedy, Matt
Cc: Smith, Brian (Consultant)
Sent: Thu Jan 15 08:05:57 2009
Subject: RE: LEGISLATIVE REQUEST. Viaduct O&M

I provided the answer to Mike from Dave McCormick and Pat Moylan for the estimates. He indicated $500K in their annual budget for the viaduct which Mike captured in the estimates.

Theresa

From: Jarnagan, Harry (Consultant)
Sent: Thursday, January 15, 2009 7:02 AM
To: Morrison, Mike (Consultant)
Cc: Smith, Brian (Consultant); Greco, Theresa
Subject: LEGISLATIVE REQUEST: Viaduct O&M
Importance: High

Mike,

Below is a legislative request, which we get a lot of when the Leg is in session.

John White needs a response today. Please let me know who has been on the hook for these O&M figures in the recent past (I believe that some O&M discussion had been held as part of the decision making process?), and we need to ensure that that individual is fully aware that we are looking to them to provide this data.

Thanks.

Harry Jarnagan
Deputy Program Manager

Alaskan Way Viaduct &
Seawall Replacement Program
Seattle, WA

Office: 206-267-6893
Cell: 209-327-8577

VandenBerghe, Alissa (Consultant)

From: Smith, Brian (Consultant)
Sent: Thursday, January 15, 2009 5:39 PM
To: Jarnagan, Harry (Consultant); Greco, Theresa; White, John; Madden, Tom; Benito, Roland; Sowers, David; Amiri, Ali; Williamson, Alec; Lacy, Paul; Anderson, Mark - UCO; Johnson, Paul (UCO); Johnson, R. Paul ; Robison, Jim (Consultant); Morrison, Mike (Consultant); Preedy, Matt
Subject: RE: Rough Estimate of Moving Forward Reductions given Bored Tunnel
Follow Up Flag: Follow up
Flag Status: Red

To clarify events that occurred after this analysis, Alec Williamson indicated that $100 million was considered rather than $150 million.

Brian C. Smith
Program Controls Manager
Alaskan Way Viaduct Program
999 3rd Ave, Suite 2424
Seattle, WA 98104
206.267.6525

From: Jarnagan, Harry (Consultant)
Sent: Thursday, January 15, 2009 5:33 PM
To: Greco, Theresa; White, John; Madden, Tom; Benito, Roland; Sowers, David; Amiri, Ali; Williamson, Alec; Lacy, Paul; Anderson, Mark - UCO; Johnson, Paul (UCO); Johnson, R. Paul ; Robison, Jim (Consultant); Morrison, Mike (Consultant); Preedy, Matt
Cc: Smith, Brian (Consultant)
Subject: Rough Estimate of Moving Forward Reductions given Bored Tunnel
Importance: High

As requested by Matt Preedy, attached is an estimate of Moving Forward project reductions that could be re-assigned to Central Waterfront. This was prepared by Brian Smith, who offered these notes, shown below in blue font, for your information:

Please find attached an estimate of the potential contribution of deferred Moving Forward project elements to the Central Waterfront scenarios. These projects consist of Lenora to Battery St. Tunnel, Stage 2 of Battery Street Tunnel Fire & Life Safety Improvements and Stages 3 & 4 of Holgate to King Viaduct Replacement projects. An initial estimate of the potential contribution is **$150 million**.

The potential contribution from Stages 3/4 of Holgate to King does not consist of the Revision 0 of the proposed 09-11 Budget (Governor's Budget) due to the **preliminary** results from the CEVP recently held for the Holgate to King Project. Page 2 of the attached analysis indicates that a combination of underages and overages results in a net increase of about $80 million to the entire Holgate to King Project (based upon the 60% percentile using the Expert Review Panel escalation factor). In the event that the Holgate to King Project is asked to contribute Stages 3 and 4, at least $80 million needs to be held back in order to cover the forecasted increase for Stage 2, and this would add in a small safety factor for Phase 1 as well (which is projected to under-run).

For all projects, a round number for a potential contribution to the Central Waterfront from Moving Forward deferrals is $150 million. Of course if a more conservative approach is desired (say if the CEVP results use a higher Percentile), this estimate could be lowered.

Please let me or Brian know if you have any questions about this. Thanks.

Harry Jarnagan
Deputy Program Manager

Alaskan Way Viaduct &
Seawall Replacement Program
Seattle, WA

Office: 206-267-6893
Cell: 209-327-8577

From: Ziegler, Jennifer (GOV) [Jennifer.Ziegler@gov.wa.gov]
Sent: Tuesday, January 27, 2009 1:50 PM
To: Dye, Dave; Hopkins, David A.; Arnis, Amy
Cc: Paananen, Ron
Subject: RE: Potential Viaduct Tolling Language

Perfect. I'll make that change.

From: Dye, Dave [mailto:DyeD@wsdot.wa.gov]
Sent: Tuesday, January 27, 2009 1:43 PM
To: Ziegler, Jennifer (GOV); Hopkins, David A.; Arnis, Amy
Cc: Paananen, Ron
Subject: RE: Potential Viaduct Tolling Language

Hey Jennifer - A suggestion in blue (I think) below - if we create a little wiggle room about mitigation for diversion we could think a little more broadly about tolling in the area...we already know how sensitive to tolling SR 99 alone is, so this would give us some space to see what other scenarios might help balance transportation...and also might create without saying so directly some information we can plug in to our I-5 thinking...

-dave

From: Ziegler, Jennifer (GOV) [mailto:Jennifer.Ziegler@gov.wa.gov]
Sent: Tuesday, January 27, 2009 1:37 PM
To: Hopkins, David A.; Arnis, Amy
Cc: Dye, Dave; Paananen, Ron
Subject: Potential Viaduct Tolling Language
Importance: High

Senate staff is working on a Viaduct bill. I'd like to suggest some tolling study language to them. Could you get me your feedback on the following language:

The department must prepare a traffic and revenue study for the state route 99 deep bore tunnel. The study must include the following information:

- Analysis of the potential diversion from state route 99 to other parts of the transportation system resulting from tolls on the facility;
- Analysis of potential mitigation measures to offset or reduce diversion from state route 99;
- A summary of the amount of revenue generated from tolling the deep bore tunnel; and
- Analysis of the impact of tolls on the performance of the facility.

The department must provide the results of the study to the Governor and the Legislature by January 2010.

Staff would like to get something to the code reviser by the end of the day, so feedback this afternoon would be great. Thank you.

Jennifer Ziegler, Transportation Policy Advisor

Governor's Executive Policy Office
PO Box 43113
Olympia, WA 98504-3113
Office-(360) 902-0643
Cell-(360) 239-5892

From: Dye, Dave
Sent: Monday, February 02, 2009 12:02 PM
To: Hammond, Paula; Paananen, Ron; White, John
Cc: Grotefendt, Amy (Consultant); Reilly, John; McLemore, Susanne
Subject: FW: Cost Estimating Manual

hey all - could you take a look at my draft response below and help clean it up, sharpen it, embellish on it etc. I think calling out some of the experts who helped us in our estimate and risk workshop and who will keep working with us in their unbiased roles will be helpful. Let's shoot for getting something back mid-week...obviously, cost, traffic performance, freight routing continue to come up so getting all those facts gathered will help...status on the overall package?

-dave

From: Simpson, Rep. Geoff [mailto:Simpson.Geoff@leg.wa.gov]
Sent: Monday, February 02, 2009 10:06 AM
To: Hammond, Paula; Dye, Dave
Subject: Cost Estimating Manual

Paula & David –

It is extraordinary to me that the estimate you have provided the legislature for the SR 99 tunnel comes in exactly at the amount of money that the state currently has available for the project. In your own **"Cost Estimating Manual for WSDOT Projects"** published this past November I find several interesting passages, starting with the intro: "Estimators should be shielded from pressures to keep estimates within programmed or desired amounts

based on funding availability."

Your comments imply that the estimate was adjusted to fit available funding - nothing could be further from the truth. The $2.82 billion was (and is) the established cap of state investment in the overall project based on a "replacement in kind" project estimate updated in November 2006 consistent with previous legislative intent (expressed in several budget provisos). That amount does not represent the cost of the tunnel or the entire AWV improvement program, but rather, continues the commitment of that level of funding into the overall viaduct program.

During discussions with the Stakeholder Advisory Committee, the City, County, State and others, the limitations of state funding at this amount was discussed often. Options were developed and screened keeping this limitation in mind but without letting it completely limit our thinking...there was a strong desire to develop a multi-modal, systems solution around the SAC table. That is why all of the three final options - simple elevated replacement (all inclusive @ $3.5 billion), surface-transit (@$3.3 billion), and the deep bored tunnel (@ $4.25 billion) exceeded the $2.8 billion state funding level. The specifics of each option varied in how the state's funding was expended, but all realized that additional funding from the City and County would be necessary to fund the viaduct program.

The south end completion (moving forward projects) are about $900 million, along with the SR 99 tunnel (about $1.9 billion), removal of the existing viaduct ($80 million), and construction of a replacement four-lane Alaskan Way with a direct connection to Elliott and Western Ave (about $200 million) is about $3.1 billion, which exceeds the states funding. When transit improvements, seawall replacement, other city street improvements, and utility relocations are added, the entire program cost is about $4.25 billion. Thus, a funding partnership is required to complete the program - even the basic "state" project needs the $300 million contribution from the port to work.

The manual indicates that when projects are at a 0%-2% maturity, the estimates can vary by as much as +200%, and even when using CEVP on a project that is at between 1%-15% design – as your agency claims to have used for the tunnel – the estimates can vary by as much as +100%. Did WSDOT actually conduct a formal CEVP for the tunnel as indicated should be done during the design phase, or has the Department arrived at its estimate based on the self-modeling spreadsheet? What percentage of design has been completed for the tunnel and for the project as a whole?

The overall engineering level on the tunnel is near the 1% level, so your recitation of the variable nature of the project costs are well stated. And, while it is accurate to say WSDOT has not completed a full CEVP for the tunnel option, we have conducted an actual quantity-based estimate to which risk factors and inflation variation were applied. The range of cost presented ($1.2 to $2.2 billion) reflects the degree of variability given our level of design work, and is consistent with our cost estimating manual guidance. I should note that this estimate has been heavily influenced by our own experts and outside tunneling experts. The irony is most of the outside tunneling experts believe we have overestimated the price of the tunnel. However, given where we are in the process, we feel confident in our $1.9 billion most likely estimate as presented last week.

Regarding the funding spreadsheet, as noted above, the $2.8 billion state cap is a reality the project faces. All three of the final options (elevated replacement, surface-transit, bored tunnel) exceeded that amount. During negotiations with the principals involved, it became clear that the level of interest in "adding money to the project pot" depended a great deal on the option selected. None of our partners were interested in financially participating in any of the elevated options. In the end, the City of Seattle was willing to exercise a number of taxing options to allow the State to concentrate its funding on the SR 99 component (aka tunnel) and agreed to pick up the rest (less KC-Metro infrastructure and service) because they believed they benefitted most from the tunnel solution.

The manual indicates that "When a utility is located on an easement and WSDOT acquires the property through ROW acquisitions, WSDOT must pay all relocation costs in addition to providing the affected utility with a new easement." How does this relate to the agreement that Seattle provide the utility relocation costs? Would that typically be the responsibility of the state? The same question applies to the seawall replacement. As I recall, the seawall replacement has always been considered to be within the scope of the projects.

The issues regarding funding liability for the seawall and utility relocation are complex and subject to legal opinion. In general, financial responsibility for utility relocation depends on the specific rights the utility has acquired from the department. In this case, the City of Seattle owns the property upon which the viaduct rests, and the state owns the structure. Without going too far into this because of potential litigation down the road, suffice it to say it can be argued either way. (We included it in the "all inclusive" estimate of $2.8 billion but certain legislative leaders never agreed the state would cover those expenses.) The seawall is similar, in that as far as it is an integral part of maintaining the on-going performance of the state highway, it could be argued it would be the state's responsibility. However, it could also be argued that the foundations of the viaduct could be designed to obviate the need for the structural support of the seawall and then it would not be needed. (We included it in the "all inclusive" estimate of $2,8 billion but certain legislative leaders never agreed the state would cover those expenses either.)

And finally, (for now) what level of independent review has been conducted of the estimate you have provided to the legislature?

Cascadia and other tunnel experts have been very active in reviewing the tunnel estimate work to date. As noted earlier, their consultants (and others) still feel our tunnel estimates are too high, but our change of scope from twin bores to a single larger-bore tunnel brought the two estimates much closer in line. WSDOT has also engaged a panel of tunneling experts separate from the project design consultant that have reviewed the base estimate and contributed to the sizing of risk and contingency add ons. They have stated their support for the cost ranges

shared last week.

Thanks,

Geoff

From: White, John
Sent: Tuesday, February 03, 2009 9:13 AM
To: Arany, Sally (Consultant)
Cc: Paananen, Ron
Subject: FHWA/WSDOT strategy meeting

Sally,

Can you work with FHWA to identify options for this meeting? We might want to meet down there as a courtesy. I am cc-ing Ron in case he wants to attend. On our side we'll want myself, Matt, Theresa and Sasha (and maybe David Mattern will need to discuss with Sasha).

John

-----Original Message-----
From: Mathis, Daniel [mailto:Daniel.Mathis@fhwa.dot.gov]
Sent: Tuesday, February 03, 2009 8:39 AM
To: White, John
Subject: RE: 5768/SB - AWV Bill Analysis Comments Due COB 2/4/09

I suggest Pete Jilek, Sharon Love, Randy Everett (by telephone if possible), and Dave Ortez (also by phone). I'd like to participate, as well.

-----Original Message-----
From: White, John [mailto:WhiteJH@wsdot.wa.gov]
Sent: Monday, February 02, 2009 8:23 PM
To: Mathis, Daniel
Cc: Arany, Sally (Consultant)
Subject: Re: 5768/SB - AWV Bill Analysis Comments Due COB 2/4/09

I agree Dan, we'll look at options tomorrow. Who should be invited from FHWA?

John

----- Original Message -----
From: Mathis, Daniel <Daniel.Mathis@fhwa.dot.gov>
To: White, John
Sent: Mon Feb 02 20:11:24 2009
Subject: RE: 5768/SB - AWV Bill Analysis Comments Due COB 2/4/09

Thanks John. I was thinking we (FHWA and WSDOT) need to get together soon and discuss/strategize next steps. Please let us know when your ready to meet and talk.

- Dan

From: White, John [mailto:WhiteJH@wsdot.wa.gov]
Sent: Mon 2/2/2009 7:45 PM
To: Mathis, Daniel
Subject: Fw: 5768/SB - AWV Bill Analysis Comments Due COB 2/4/09

Dan,

Just wanted to forward to you the link to current WA Senate sponsored legislation related to the viaduct. As you will see (or maybe have already seen), it declares an emergency and calls for expedited process to build a bored tunnel. We have also had some discussion with Sen Patty Murray's office regarding the possibility of fed stimulus package language

aligned with the state legislation, not sure what is or isn't happening with that.

Still engaged in numerous legislative briefings, and despite the many questions. the momentum appears in our favor at the moment. Talk to you soon..

John.

From: Arany, Sally (Consultant)
To: Reilly, John; Rigsby, Mike (Consultant); Jarnagan, Harry (Consultant); Visconty, Sasha (Consultant); Preedy, Matt; Greco, Theresa; Williamson, Alec; Paananen, Ron; Hopkins, David A.
Cc: White, John
Sent: Mon Feb 02 16:53:01 2009
Subject: 5768/SB - AWV Bill Analysis Comments Due COB 2/4/09

All,

PDR

Please read the bill http://apps.leg.wa.gov/billinfo/summary.aspx?bill=5768&year=2009#documents and send your comments to John as soon as possible, but no later than end of day Wednesday. The PDF contains comments from HQ.

Thanks,
Sally

TOLLING ORG OPERATIONS

VandenBerghe, Alissa (Consultant)

From: Baker, T Brent [Baker@pbworld.com]
Sent: Wednesday, February 11, 2009 5:10 PM
To: Van Ness, Kristy (Consultant)
Cc: Rigsby, Mike (Consultant); Arnis, Amy; Smith, Helena Kennedy; Paananen, Ron; 160067
Subject: RE: Preliminary Draft Toll Feasibility Results for the Bored Tunnel Concept
Importance: High
Attachments: AWV Toll Feasibility Initial Memo 12-22-08 DRAFT v3.2.pdf

Kristy, attached is the AWV tolling memo with revised draft labeling as requested.

— Brent

From: Van Ness, Kristy (Consultant) [mailto:VanNesK@consultant.wsdot.wa.gov]
Sent: Wednesday, February 11, 2009 4:31 PM
To: Baker, T Brent
Cc: Rigsby, Mike (Consultant); Arnis, Amy; Smith, Helena Kennedy; Paananen, Ron
Subject: RE: Preliminary Draft Toll Feasibility Results for the Bored Tunnel Concept

Could you please replace the "Preliminary Draft for Internal Discussion" text with "Preliminary Draft - for Discussion Purposes" in bold, large type, red letters, per Ron's request?

Thank you,
Kristy

From: Baker, T Brent [mailto:Baker@pbworld.com]
Sent: Wednesday, February 11, 2009 2:42 PM
To: Van Ness, Kristy (Consultant)
Cc: Rigsby, Mike (Consultant); Arnis, Amy; Smith, Helena Kennedy; Paananen, Ron
Subject: RE: Preliminary Draft Toll Feasibility Results for the Bored Tunnel Concept
Importance: High

Kristy --

Here is the requested memo regarding the toll funding potential for the SR 99 AWV tunnel (same content as the 12/19/08 memo Ron provided except this one fixes a few typos and was redated 12/22/08).

Note that this is labeled "Preliminary Draft for Internal Discussion" -- I don't know if this was prepared in its current iteration for wide distribution (there is no language that sets the context, describes what "Scenario F" is, etc.) and we have not received any comments or further direction on this since December.

Let us know if we need to modify this in any way before you send it to the Cascadia Group.

Regards,
Brent

T. Brent Baker
Principal Consultant
PB Consult
999 Third Avenue | Suite 2200 | Seattle, WA 98104-4020
206.382.5284 | cell: 206.310.3291 | fax: 206.382.5222 | baker@pbworld.com

need Jan 7 Re Real Estate Tax Plan

From: Van Ness, Kristy (Consultant) [mailto:VanNesK@consultant.wsdot.wa.gov]
Sent: Wednesday, February 11, 2009 12:55 PM
To: Baker, T Brent
Cc: Rigsby, Mike (Consultant)
Subject: FW: Preliminary Draft Toll Feasibility Results for the Bored Tunnel Concept
Importance: High

Was this finalized? If there is a final, or an updated version, can I get a copy of it? Ron asked me to send it to Cascadia, based on a request I received yesterday.

VandenBerghe, Alissa (Consultant)

From: Williamson, Alec
Sent: Thursday, February 12, 2009 11:31 AM
To: Jarnagan, Harry (Consultant)
Cc: Preedy, Matt; Amiri, Ali; Greco, Theresa; Anderson, Ward; Smith, Brian (Consultant)
Subject: FW: REQUEST REVIEW / APPROVAL: Book Descriptions for Projects. TEIS Budget Incl for Reference
Importance: High
Attachments: Revised Project Descriptions Rev 2E 2-10-09.doc; TEIS Budget and Aging Revision 2E 2-6-09.pdf

Please see my suggested edits in the attachment. I really think we need to rename this tunnel and stop referring to it as "central waterfront".

Thanks,
Alec

From: Jarnagan, Harry (Consultant)
Sent: Thursday, February 12, 2009 6:59 AM
To: Preedy, Matt; Williamson, Alec; Amiri, Ali
Cc: Greco, Theresa; Anderson, Ward; Smith, Brian (Consultant)
Subject: REQUEST REVIEW / APPROVAL: Book Descriptions for Projects. TEIS Budget Incl for Reference
Importance: High

UCO Program Management at Goldsmith has requested revised "book descriptions" for all of our projects. The first attachment shows our proposed book descriptions. Request your review and approval or comment by noon today, if possible. Glenn Davis at Goldsmith is awaiting these, which will be part of our budget submittal to the Legislature for this session.

Also included is the budget and aging report from TEIS for our revised AWV program based on the bored tunnel alternative. The book descriptions in the attached Word document will replace what is shown on the TEIS report, pending your approval. Note that the $400 million difference between the current law budget of $2.4 billion and the $2.8 billion state funding commitment has been 'pulled" from each project and aggregated in a separate project, shown on the last page of the TEIS attachment and designated as project 809936U. This was done to highlight to the Legislature the amount and aging of the unfunded component of the program. I expect that these amounts will be integrated back into the appropriate projects once the Legislature completes their budget approval action.

Thanks in advance for your help, and please let me know if you have any questions on this.

Harry Jarnagan
Deputy Program Manager

Alaskan Way Viaduct &
Seawall Replacement Program
Seattle, WA

Office: 206-267-6893
Cell: 209-327-8577

TEIS - Capital Projects Bu)ing and Reporting System

Project Detail Report

SR 99/S Massachusetts St to Union St - Electrical Line Relocation

Project ID (PIN):	809936A	**Bond Eligible:** N	**Percent Complete:**	**Revenue Pkg:**	Nickel and TPA
Description:	Electrical Line Relocation				
Book Description:	Electrical utilities on the Alaskan Way Viaduct from S Massachusetts St to Union St must be relocated. Five network distribution feeders and two transmission lines will be relocated in two or more stages.				
Budget Version:	AWVGOV1 (1 28 09 1:36PM, Updated: 2 6 09 2:27PM)				
Agency:	Department of Transportation		**DOT Region:**	Urban Corridors	
Location:	Downtown Seattle		**Major Corridor:**	SR 99, Seattle - Alaskan Way Viaduct	
Route:	099		**Urban Area:**	Seattle-Tacoma-Everett	
Begin - End Mile Posts:	26.55 - 40.48		**Improvement Type:**	Structure, Replace HISTORY	
County:	King		**Program / Sub-Program:**	Improvement / Mobility	
Legislative District(s):	11,32,36,37,43,46		**Sub-Category:**	Urban Mobility	

PROJECT STATUS

Phase	Start Date	End Date	Phase Status
Preliminary Engineering	02 29 2008	11 30 2009	Admin Approval to meet Leg Intent
Right of Way	03 10 2008	06 30 2010	Admin Approval to meet Leg Intent
Construction	07 28 2008	06 20 2013	Admin Approval to meet Leg Intent

Milestone	Date
D Project Definition Complete	11 14 2006
E Environmental Doc Complete	11 30 2007
R Right of Way Certification	02 04 2008
B Begin Preliminary Engineering	02 29 2008
A Advertisement Date	05 27 2008
O Operationally Complete	04 20 2013

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Preliminary Engineering	0	0	10,928,180	1,371,759	0	0	0	0	0	0	0	12,299,939
State - TPA	0	0	10,928,180	1,371,759	0	0	0	0	0	0	0	12,299,939
Right of Way	0	0	498,336	1,000,000	0	0	0	0	0	0	0	1,498,336
State - TPA	0	0	498,336	1,000,000	0	0	0	0	0	0	0	1,498,336
Construction	0	0	19,564,024	7,030,332	19,195,333	0	0	0	0	0	0	45,789,689
Local - MVA	0	0	0	224,880	0	0	0	0	0	0	0	224,880
State - TPA	0	0	19,564,024	6,805,452	19,195,333	0	0	0	0	0	0	45,564,809
Total	0	0	30,990,540	9,402,091	19,195,333	0	0	0	0	0	0	59,587,964
Local - MVA	0	0	0	224,880	0	0	0	0	0	0	0	224,880
State - TPA	0	0	30,990,540	9,177,211	19,195,333	0	0	0	0	0	0	59,363,084

TEIS - Capital Projects Bu ing and Reporting System

Project Detail Report

SR 99/Lenora St to Battery St Tunnel - Earthquake Upgrade

Project ID (PIN): 809936B **Bond Eligible:** N **Percent Complete:** **Revenue Pkg:** Nickel and TPA

Description: Earthquake Upgrade

Book Description: SR99 Alaskan Way Viaduct will be seismically retrofit from Bent 34 to the abutment near the south end of the Battery Street Tunnel. Retrofit includes on-ramps, off-ramps, and bridge deck overhang; also included are bridge rail, deck overlay, expansion joint, bridge drain, signing, striping, illumination, and ITS work.

Budget Version: AWVGOVI (1 28 09 1:36PM, Updated: 2 6 09 2:27PM)

Agency: Department of Transportation
Location: Downtown Seattle
Route: 099
Begin - End Mile Posts: 26.55 - 40.48
County: King
Legislative District(s): 11,32,36,37,43,46

DOT Region: Urban Corridors
Major Corridor: SR 99, Seattle - Alaskan Way Viaduct
Urban Area: Seattle-Tacoma-Everett
Improvement Type: Structure, Replace HISTORY
Program / Sub-Program: Improvement Mobility
Sub-Category: Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status
Preliminary Engineering	03 03 2008	06 23 2011	Admin Approval to meet Leg Intent

Milestone	Date
D Project Definition Complete	11 14 2006
B Begin Preliminary Engineering	03 03 2008
E Environmental Doc Complete	11 24 2009
R Right of Way Certification	03 07 2011
O Operationally Complete	01 03 2013

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Preliminary Engineering	0	0	3,293,644	0	0	0	0	0	0	0	0	3,293,644
Ded Fed PNRS - MV	0	0	1,498,580	0	0	0	0	0	0	0	0	1,498,580
State - Nic	0	0	840,000	0	0	0	0	0	0	0	0	840,000
State - TPA	0	0	955,064	0	0	0	0	0	0	0	0	955,064
Total	0	0	3,293,644	0	0	0	0	0	0	0	0	3,293,644
Ded Fed - MVA	0	0	1,498,580	0	0	0	0	0	0	0	0	1,498,580
State - Nic	0	0	840,000	0	0	0	0	0	0	0	0	840,000
State - TPA	0	0	955,064	0	0	0	0	0	0	0	0	955,064

TEIS - Capital Projects Bud[illegible]ing and Reporting System

Project Detail Report

SR 99/Battery St Tunnel - Fire and Safety Improvement

Project ID (PIN): 809936C **Bond Eligible:** N **Percent Complete:** **Revenue Pkg:** Nickel and TPA

Description: Fire and Safety Improvement

Book Description: The Battery Street Tunnel fire and life safety sytems are deficient. These systems will be rehabilitated, including carbon monoxide ventilation, fire sprinklers, illumination, communcation and controls, ITS elements, power, and emergency egresses. The tunnel will also be seismically retrofit.

Budget Version: AWVGOV1 (1/28/09 1:36PM, Updated: 2/6/09 2:27PM)

Agency: Department of Transportation
Location: Downtown Seattle
Route: 099
Begin - End Mile Posts: 26.55 - 40.48
County: King
Legislative District(s): 11,32,36,37,43,46

DOT Region: Urban Corridors
Major Corridor: SR 99, Seattle - Alaskan Way Viaduct
Urban Area: Seattle-Tacoma-Everett
Improvement Type: Structure, Replace HISTORY
Program / Sub-Program: Improvement Mobility
Sub-Category: Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status
Preliminary Engineering	03/03/2008	06/28/2019	Admin Approval to meet Leg Intent
Right of Way	03/10/2008	06/05/2017	Admin Approval to meet Leg Intent
Construction	07/23/2009	06/30/2021	Admin Approval to meet Leg Intent

Milestone	Date
D Project Definition Complete	11/14/2006
B Begin Preliminary Engineering	03/03/2008
R Right of Way Certification	01/20/2009
A Advertisement Date	06/01/2009
O Operationally Complete	11/30/2020

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Preliminary Engineering	0	0	12,044,946	1,259,816	0	0	0	0	0	0	0	13,304,762
State - TPA	0	0	12,044,946	1,259,816	0	0	0	0	0	0	0	13,304,762
Right of Way	0	0	1,687,720	0	0	0	0	0	0	0	0	1,687,720
State - TPA	0	0	1,687,720	0	0	0	0	0	0	0	0	1,687,720
Construction	0	0	0	5,040,608	450,000	500,000	0	0	0	0	0	5,990,608
State - TPA	0	0	0	5,040,608	450,000	500,000	0	0	0	0	0	5,990,608
Total	0	0	13,732,666	6,300,424	450,000	500,000	0	0	0	0	0	20,983,090
State - TPA	0	0	13,732,666	6,300,424	450,000	500,000	0	0	0	0	0	20,983,090

TEIS - Capital Projects Bud[illegible]ing and Reporting System
Project Detail Report
SR 99/S Holgate St to S King St - Viaduct Replacement

Project ID (PIN): 809936D **Bond Eligible:** N **Percent Complete:** **Revenue Pkg:** Nickel and TPA

Description: Viaduct Replacement

Book Description: A portion of the existing Alaskan Way Viaduct will be removed and replaced with a transportation facility tht has improved earthquake resistance and retains or improves mobility for people and goods. Work includes a new interchange in the vicinity of Royal Brougham Way and a railway grade separation structure at South Atlantic Street. Also included are improvements to local bike pedestrian facilities, signing, illumination, ITS, drainage, and utilities. BNSF track west of Alaskan Way will be modificed and or relocated.

Budget Version: AWVGOV1 (1 28 09 1:36PM, Updated: 2 6 09 2:27PM)

Agency:	Department of Transportation	**DOT Region:**	Urban Corridors
Location:	Downtown Seattle	**Major Corridor:**	SR 99, Seattle - Alaskan Way Viaduct
Route:	099	**Urban Area:**	Seattle-Tacoma-Everett
Begin - End Mile Posts:	26.55 - 40.48	**Improvement Type:**	Structure, Replace HISTORY
County:	King	**Program / Sub-Program:**	Improvement Mobility
Legislative District(s):	11,32,36,37,43,46	**Sub-Category:**	Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status
Preliminary Engineering	03 04 2008	10 29 2009	Admin Approval to meet Leg Intent
Right of Way	03 10 2008	05 31 2013	Admin Approval to meet Leg Intent
Construction	08 17 2009	06 30 2014	Admin Approval to meet Leg Intent

Milestone	Date
D Project Definition Complete	11 14 2006
B Begin Preliminary Engineering	03 04 2008
E Environmental Doc Complete	10 16 2008
R Right of Way Certification	02 24 2009
A Advertisement Date	06 01 2009
O Operationally Complete	12 31 2012

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Preliminary Engineering	0	0	64,454,468	8,266,795	5,000,000	0	0	0	0	0	0	77,721,263
Ded Fed PNRS - MV	0	0	40,520,182	2,708,625	0	0	0	0	0	0	0	43,228,807
Local - MVA	0	0	1,050	0	0	0	0	0	0	0	0	1,050
State - Nic	0	0	2,384,754	0	0	0	0	0	0	0	0	2,384,754
State - TPA	0	0	21,548,482	5,558,170	5,000,000	0	0	0	0	0	0	32,106,652
Right of Way	0	0	16,188,232	27,797,571	4,886,137	0	0	0	0	0	0	48,871,940
Ded Fed PNRS - MV	0	0	1,405,800	7,182,924	4,886,137	0	0	0	0	0	0	13,474,861
State - Nic	0	0	1,300,000	0	0	0	0	0	0	0	0	1,300,000
State - TPA	0	0	13,482,432	20,614,647	0	0	0	0	0	0	0	34,097,079
Construction	0	0	4,355,843	184,858,777	145,860,551	40,000,000	10,000,000	0	0	0	0	385,075,171
Ded Fed PNRS - MV	0	0	0	11,716,147	0	0	0	0	0	0	0	11,716,147
Local - MVA	0	0	0	2,572,121	0	0	0	0	0	0	0	2,572,121
State - TPA	0	0	4,355,843	170,570,509	145,860,551	40,000,000	10,000,000	0	0	0	0	370,786,903

Project Description Report

SR 99/S Holgate St to S King St - Viaduct Replacement

Project ID (PIN):	809936D	**Bond Eligible:**	N	**Percent Complete:**	**Revenue Pkg:** Nickel and TPA
Description:	Viaduct Replacement				
Book Description:	A portion of the existing Alaskan Way Viaduct will be removed and replaced with a transportation facility tht has improved earthquake resistance and retains or improves mobility for people and goods. Work includes a new interchange in the vicinity of Royal Brougham Way and a railway grade separation structure at South Atlantic Street. Also included are improvements to local bike pedestrian facilities, signing, illumination, ITS, drainage, and utilities. BNSF track west of Alaskan Way will be modificed and or relocated.				
Budget Version:	AWVGOV1 (1-28-09 1:36PM, Updated: 2-6-09 2:27PM)				
Agency:	Department of Transportation			**DOT Region:**	Urban Corridors
Location:	Downtown Seattle			**Major Corridor:**	SR 99, Seattle - Alaskan Way Viaduct
Route:	099			**Urban Area:**	Seattle-Tacoma-Everett
Begin - End Mile Posts:	26.55 - 40.48			**Improvement Type:**	Structure, Replace HISTORY
County:	King			**Program / Sub-Program:**	Improvement Mobility
Legislative District(s):	11,32,36,37,43,46			**Sub-Category:**	Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status
Preliminary Engineering	03-04-2008	10-29-2009	Admin Approval to meet Leg Intent
Right of Way	03-10-2008	05-31-2013	Admin Approval to meet Leg Intent
Construction	08-17-2009	06-30-2014	Admin Approval to meet Leg Intent

Milestone	Date
D Project Definition Complete	11-14-2006
B Begin Preliminary Engineering	03-04-2008
E Environmental Doc Complete	10-16-2008
R Right of Way Certification	02-24-2009
A Advertisement Date	06-01-2009
O Operationally Complete	12-31-2012

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Total	0	0	84,998,543	220,923,143	155,746,688	40,000,000	10,000,000	0	0	0	0	511,668,374
Ded Fed - MVA	0	0	41,925,982	21,607,696	4,886,137	0	0	0	0	0	0	68,419,815
Local - MVA	0	0	1,050	2,572,121	0	0	0	0	0	0	0	2,573,171
State - Nic	0	0	3,684,754	0	0	0	0	0	0	0	0	3,684,754
State - TPA	0	0	39,386,757	196,743,326	150,860,551	40,000,000	10,000,000	0	0	0	0	436,990,634

TEIS - Capital Projects Bu)ing and Reporting System

Project Detail Report

SR 99/S King St to Lenora St - Central Waterfront Viaduct Replacement

Project ID (PIN): 8099361 **Bond Eligible:** N **Percent Complete:** **Revenue Pkg:** Nickel and TPA

Description: Central Waterfront Viaduct Replacement

Book Description: The seismically vulnerable Alaskan Way Viaduct and Seawall along the Central Waterfront will be replaced with an alternative that will be selected through a collaborative process involving the Governor of the State of Washington, Mayor of the City of Seattle, and Executive of King County.

Budget Version: AWVGOV1 (1 28 09 1:36PM, Updated: 2 6 09 2:27PM)

Agency:	Department of Transportation	**DOT Region:**	Urban Corridors
Location:	Downtown Seattle	**Major Corridor:**	SR 99, Seattle - Alaskan Way Viaduct
Route:	099	**Urban Area:**	Seattle-Tacoma-Everett
Begin - End Mile Posts:	26.55 - 40.48	**Improvement Type:**	Structure, Replace HISTORY
County:	King	**Program / Sub-Program:**	Improvement Mobility
Legislative District(s):	11,32,36,37,43,46	**Sub-Category:**	Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status
Preliminary Engineering	03 04 2008	09 01 2011	Admin Approval to meet Leg Intent
Right of Way	03 10 2008	06 03 2013	Admin Approval to meet Leg Intent
Construction	06 07 2011	06 30 2021	Admin Approval to meet Leg Intent

Milestone	Date
D Project Definition Complete	11 14 2006
B Begin Preliminary Engineering	03 04 2008
R Right of Way Certification	04 11 2011
E Environmental Doc Complete	06 30 2011
O Operationally Complete	11 30 2020

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Preliminary Engineering	0	0	28,299,496	49,000,000	14,616,412	27,000,000	0	0	0	0	0	118,915,908
Ded Fed ER - MVA	0	0	4,500,000	0	0	0	0	0	0	0	0	4,500,000
Ded Fed HP - MVA	0	0	5,600,824	2,253,631	0	0	0	0	0	0	0	7,854,455
Ded Fed PNRS - MV	0	0	11,037,263	8,399,336	0	0	0	0	0	0	0	19,436,599
Local - MVA	0	0	317,420	0	0	0	0	0	0	0	0	317,420
State - Nic	0	0	0	2,795,270	161,505	0	0	0	0	0	0	2,956,775
State - TPA	0	0	6,843,989	35,551,763	14,454,907	27,000,000	0	0	0	0	0	83,850,659
Right of Way	0	0	15,991,199	69,053,883	46,000,000	9,000,000	0	0	0	0	0	140,045,082
State - Nic	0	0	13,831,440	1,214,220	107,959	0	0	0	0	0	0	15,153,619
State - TPA	0	0	2,159,759	67,839,663	45,892,041	9,000,000	0	0	0	0	0	124,891,463
Construction	0	0	0	0	316,410,268	627,271,783	316,632,464	0	0	0	0	1,260,314,515
Ded Fed ER - MVA	0	0	0	0	28,032,813	12,467,187	0	0	0	0	0	40,500,000
Federal BR - MVA	0	0	0	0	0	46,300,000	26,300,000	0	0	0	0	72,600,000
Restric St - SpC	0	0	0	0	16,960,277	30,439,723	0	0	0	0	0	47,400,000
State - MVA	0	0	0	0	34,701,678	78,048,322	87,250,000	0	0	0	0	200,000,000
State - Nic	0	0	0	0	11,305,674	55,451,032	58,215,000	0	0	0	0	124,971,706

Project D] Report

SR 99/S King St to Lenora St - Central Waterfront Viaduct Replacement

Project ID (PIN): 809936I **Bond Eligible:** N **Percent Complete:** **Revenue Pkg:** Nickel and TPA

Description: Central Waterfront Viaduct Replacement

Book Description: The seismically vulnerable Alaskan Way Viaduct and Seawall along the Central Waterfront will be replaced with an alternative that will be selected through a collaborative process involving the Governor of the State of Washington, Mayor of the City of Seattle, and Executive of King County.

Budget Version: AWVGOV1 (1 28 09 1:36PM, Updated: 2 6 09 2:27PM)

Agency:	Department of Transportation	**DOT Region:**	Urban Corridors
Location:	Downtown Seattle	**Major Corridor:**	SR 99, Seattle - Alaskan Way Viaduct
Route:	099	**Urban Area:**	Seattle-Tacoma-Everett
Begin - End Mile Posts:	26.55 - 40.48	**Improvement Type:**	Structure, Replace HISTORY
County:	King	**Program / Sub-Program:**	Improvement Mobility
Legislative District(s):	11,32,36,37,43,46	**Sub-Category:**	Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status
Preliminary Engineering	03 04 2008	09 01 2011	Admin Approval to meet Leg Intent
Right of Way	03 10 2008	06 03 2013	Admin Approval to meet Leg Intent
Construction	06 07 2011	06 30 2021	Admin Approval to meet Leg Intent

Milestone	Date
D Project Definition Complete	11 14 2006
B Begin Preliminary Engineering	03 04 2008
R Right of Way Certification	04 11 2011
E Environmental Doc Complete	06 30 2011
O Operationally Complete	11 30 2020

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
State - TPA	0	0	0	0	225,469,826	404,565,519	144,867,464	0	0	0	0	774,842,809
Total	0	0	44,290,695	118,053,883	377,026,680	663,271,783	316,632,464	0	0	0	0	1,519,275,505
Ded Fed - MVA		0	21,138,087	10,652,967	28,032,813	12,467,187	0	0	0	0	0	72,291,054
Federal BR - MVA	0	0	0	0	0	46,300,000	26,300,000	0	0	0	0	72,600,000
Local - MVA	0	0	317,420	0	0	0	0	0	0	0	0	317,420
Restrig St - SpC	0	0	0	0	16,960,277	30,439,723	0	0	0	0	0	47,400,000
State - MMA	0	0	0	0	34,701,678	78,048,322	87,250,000	0	0	0	0	200,000,000
State - Nic	0	0	13,831,440	4,069,490	11,575,138	55,451,032	58,215,000	0	0	0	0	143,082,100
State - TPA	0	0	9,003,748	103,391,426	285,756,774	440,565,519	144,867,464	0	0	0	0	983,584,931

TEIS - Capital Projects Bu)ing and Reporting System

Project Detail Report

SR 99/Viaduct Project - Transit Enhancements and Other Improvements

Project ID (PIN): 809936F **Bond Eligible:** N **Percent Complete:** **Revenue Pkg:** Nickel and TPA

Description: Transit Enhancements and Local Improvements

Book Description: Construction of the "Moving Forward" projects on the Alaskan Way Viaduct and Seawall Replacement Program will impact the movement of people and goods. Transit enhancements and other improvements will be implemented to mitigate these impacts.

Budget Version: AWVGOVT (1 28 09 1:36PM, Updated: 2 6 09 2:27PM)

Agency:	Department of Transportation	**DOT Region:**	Urban Corridors
Location:	Downtown Seattle	**Major Corridor:**	SR 99, Seattle - Alaskan Way Viaduct
Route:	099	**Urban Area:**	Seattle-Tacoma-Everett
Begin - End Mile Posts:	0.00	**Improvement Type:**	Structure, Replace HISTORY
County:	King	**Program / Sub-Program:**	Improvement Mobility
Legislative District(s):	11,32,36,37,43,46	**Sub-Category:**	Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status
Preliminary Engineering	03 04 2008	06 26 2009	Admin Approval to meet Leg Intent
Construction	11 26 2008	07 02 2012	Admin Approval to meet Leg Intent

Milestone		Date
D	Project Definition Complete	11 14 2006
B	Begin Preliminary Engineering	03 04 2008
E	Environmental Doc Complete	09 29 2008
A	Advertisement Date	10 31 2008
O	Operationally Complete	12 31 2012

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Preliminary Engineering	0	0	4,279,015	780,000	0	0	0	0	0	0	0	5,059,015
Ded Fed PNRS - MV	0	0	1,634,432	0	0	0	0	0	0	0	0	1,634,432
State - Nic	0	0	1,487,770	0	0	0	0	0	0	0	0	1,487,770
State - TPA	0	0	1,156,813	780,000	0	0	0	0	0	0	0	1,936,813
Construction	0	0	4,536,038	84,303,709	14,812,362	0	0	0	0	0	0	103,652,109
Ded Fed PNRS - MV	0	0	2,470,807	27,399,407	419,127	0	0	0	0	0	0	30,289,341
State - Nic	0	0	0	20,349,949	1,705,871	0	0	0	0	0	0	22,055,820
State - TPA	0	0	2,065,231	36,554,353	12,687,364	0	0	0	0	0	0	51,306,948
Total	0	0	8,815,053	85,083,709	14,812,362	0	0	0	0	0	0	108,711,124
Ded Fed - MV A	0	0	4,105,239	27,399,407	419,127	0	0	0	0	0	0	31,923,773
State - Nic	0	0	1,487,770	20,349,949	1,705,871	0	0	0	0	0	0	23,543,590
State - TPA		0	3,222,044	37,334,353	12,687,364			0	0	0	0	53,243,761

TEIS - Capital Projects Bud[illegible]ing and Reporting System

Project Detail Report

SR 99/Alaskan Way Viaduct and Seawall - Replacement EIS

Project ID (PIN): 809936K **Bond Eligible:** Y **Percent Complete:** **Revenue Pkg:** 03 Nickel

Description: EIS

Book Description: This will complete the environmental review of the project.

Budget Version: AWVGOV1 (1-28-09 1:36PM, Updated: 2-6-09 2:27PM)

Agency: Department of Transportation
Location: Seattle
Route: 099
Begin - End Mile Posts: 29.20 - 32.02
County: King
Legislative District(s): 11,36,37,43

DOT Region: Urban Corridors
Major Corridor: SR 99, Seattle - Alaskan Way Viaduct
Urban Area: Seattle-Tacoma-Everett
Improvement Type: Bridge Replacement (Structural)
Program / Sub-Program: Improvement - Mobility
Sub-Category: Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status
Preliminary Engineering	07-28-2003	06-29-2009	Legislative Approval

Milestone	Date
B Begin Preliminary Engineering	07-28-2003
E Environmental Doc Complete	06-02-2008

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Preliminary Engineering	17,730,157	0	0	0	0	0	0	0	0	0	0	17,730,157
Ded Fed Demo - MVA	1,987,000	0	0	0	0	0	0	0	0	0	0	1,987,000
Ded Fed PNRS - MV	5,741,656	0	0	0	0	0	0	0	0	0	0	5,741,656
State - Nic	10,001,501	0	0	0	0	0	0	0	0	0	0	10,001,501
Total	17,730,157	0	0	0	0	0	0	0	0	0	0	17,730,157
Ded Fed - MVA	7,728,656	0	0	0	0	0	0	0	0	0	0	7,728,656
State - Nic	10,001,501	0	0	0	0	0	0	0	0	0	0	10,001,501

TEIS - Capital Projects Bu[illegible]ing and Reporting System

Project Detail Report

SR 99/Alaskan Way Viaduct and Seawall - Replacement R/W

Project ID (PIN): 809936L **Bond Eligible:** Y **Percent Complete:** **Revenue Pkg:** Nickel and TPA

Description: Right of way

Book Description: Provides for early purchase of property.

Budget Version: AWVGOV1 (1 28 09 1:36PM, Updated: 2 6 09 2:27PM)

Agency: Department of Transportation

Location: Seattle

Route: 099

Begin - End Mile Posts: 29.20 - 32.02

County: King

Legislative District(s): 11,36,37,43

DOT Region: Urban Corridors

Major Corridor: SR 99, Seattle - Alaskan Way Viaduct

Urban Area: Seattle-Tacoma-Everett

Improvement Type: Bridge Replacement (Structural)

Program / Sub-Program: Improvement Mobility

Sub-Category: Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status	Milestone	Date
Right of Way	11 24 2003	06 28 2013	Legislative Approval		

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Right of Way	48,504,819	0	0	0	0	0	0	0	0	0	0	48,504,819
State - Nic	48,504,819	0	0	0	0	0	0	0	0	0	0	48,504,819
Total	48,504,819	0	0	0	0	0	0	0	0	0	0	48,504,819
State - Nic	48,504,819	0	0	0	0	0	0	0	0	0	0	48,504,819

TEIS - Capital Projects Bu[illegible]ing and Reporting System

Project Detail Report

SR 99/Alaskan Way Viaduct and Seawall - Replacement Corridor Design

Project ID (PIN):	809936M	**Bond Eligible:**	Y	**Percent Complete:**	**Revenue Pkg:** 03 Nickel
Description:	Design				
Book Description:	This work completes design of the first stage of the overall project to replace the viaduct and seawall				
Budget Version:	AWVG0V1 (1 28 09 1:36PM, Updated: 2 6 09 2:27PM)				
Agency:	Department of Transportation			**DOT Region:**	Urban Corridors
Location:	Seattle			**Major Corridor:**	SR 99, Seattle - Alaskan Way Viaduct
Route:	099			**Urban Area:**	Seattle-Tacoma-Everett
Begin - End Mile Posts:	29.20 - 32.02			**Improvement Type:**	Bridge Replacement (Structural)
County:	King			**Program / Sub-Program:**	Improvement - Mobility
Legislative District(s):	11,36,37,43			**Sub-Category:**	Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status	Milestone	Date
Preliminary Engineering	01 07 2004	02 20 2009	Leg Dir with Secretary Approval	B Begin Preliminary Engineering	01 07 2004
				D Project Definition Complete	11 14 2006

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Preliminary Engineering	95,962,230	0	1,193,342	2,402,923	0	0	0	0	0	0	0	99,558,495
Ded Fed Demo - MVA	1,983,928	0	0	0	0	0	0	0	0	0	0	1,983,928
Ded Fed HP - MVA	2,016,586	0	0	0	0	0	0	0	0	0	0	2,016,586
Ded Fed PNRS - MV	68,491,149	0	0	0	0	0	0	0	0	0	0	68,491,149
Local - MVA	1,734,985	0	1,193,342	2,402,923	0	0	0	0	0	0	0	5,331,250
State - Nic	21,735,582	0	0	0	0	0	0	0	0	0	0	21,735,582
Total	95,963,230	0	1,193,342	2,402,923	0	0	0	0	0	0	0	99,558,495
Ded Fed - MVA	72,491,663	0	0	0	0	0	0	0	0	0	0	72,491,663
Local - MVA	1,734,985	0	1,193,342	2,402,923	0	0	0	0	0	0	0	5,331,250
State - Nic	21,735,582	0	0	0	0	0	0	0	0	0	0	21,735,582

TEIS - Capital Projects Budgeting and Reporting System
Project Detail Report
SR 99/Alaskan Way Viaduct Yesler Way Vicinity - Stabilize Foundation

Project ID (PIN): 809936P **Bond Eligible:** N **Percent Complete:** **Revenue Pkg:** Nickel and TPA

Description: Stabilize Foundation

Book Description: The Alaskan Way Viaduct was damaged during the Nisqually earthquake on February 28, 2001. This work will stablize the foundations of Bents 93 and 94. Further damage to this section of the Alaskan Way Viaduct foundation will be prevented.

Budget Version: AWVGOV1 (1/28/09 1:36PM, Updated: 2/6/09 2:27PM)

Agency: Department of Transportation
Location: SEATTLE
Route: 099
Begin - End Mile Posts: 31.05 - 31.06
County: King
Legislative District(s): 37,43

DOT Region: Urban Corridors
Major Corridor: SR 99, Seattle - Alaskan Way Viaduct
Urban Area: Seattle-Tacoma-Everett
Improvement Type: Misc. Structure Repair HISTORY
Program / Sub-Program: Improvement Mobility
Sub-Category: Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status
Preliminary Engineering	03/01/2006	09/04/2007	Secretary Approval
Right of Way	07/02/2007	09/04/2007	Secretary Approval
Construction	09/17/2007	08/31/2009	Secretary Approval

Milestone	Date
B Begin Preliminary Engineering	03/01/2006
D Project Definition Complete	05/21/2007
E Environmental Doc Complete	06/26/2007
R Right of Way Certification	08/06/2007
O Operationally Complete	04/30/2008

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Preliminary Engineering	117,705	0	140,419	0	0	0	0	0	0	0	0	258,124
Ded Fed FR - MVA	101,815	0	120,182	0	0	0	0	0	0	0	0	221,997
State - Nic	15,890	0	20,237	0	0	0	0	0	0	0	0	36,127
Right of Way	0	0	71,498	0	0	0	0	0	0	0	0	71,498
Ded Fed FR - MVA	0	0	51,615	0	0	0	0	0	0	0	0	51,615
State - Nic	0	0	19,883	0	0	0	0	0	0	0	0	19,883
Construction	0	0	3,720,298	0	0	0	0	0	0	0	0	3,720,298
Ded Fed FR - MVA	0	0	3,198,637	0	0	0	0	0	0	0	0	3,198,637
State - TPA	0	0	521,661	0	0	0	0	0	0	0	0	521,661
Total	117,705	0	3,932,215	0	0	0	0	0	0	0	0	4,049,920
Ded Fed - MVA	101,815	0	3,370,434	0	0	0	0	0	0	0	0	3,472,249
State - Nic	15,890	0	40,120	0	0	0	0	0	0	0	0	56,010
State - TPA	0		521,661	0	0	0	0	0	0	0	0	521,661

TEIS - Capital Projects Budgeting and Reporting System

Project Detail Report

SR 99/Alaskan Way Viaduct Surface Restoration & Construction Transit Cen

Project ID (PIN): 809936TC **Bond Eligible:** N **Percent Complete:** 0% **Revenue Pkg:**

Description:

Book Description:

Budget Version: AWVGOVT (1-28-09 1:36PM, Updated: 2-6-09 2:27PM)

Agency: Department of Transportation
Location: Downtown Seattle
Route: 099
Begin - End Mile Posts: 0.00
County: King
Legislative District(s): 11,32,36,37,43,46

DOT Region: Urban Corridors
Major Corridor: SR 99, Seattle - Alaskan Way Viaduct
Urban Area: Seattle-Tacoma-Everett
Improvement Type: Bridge Replacement (Structural)
Program / Sub-Program: Improvement - Mobility
Sub-Category: Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status	Milestone	Date
Preliminary Engineering					
Right of Way					
Construction					

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Preliminary Engineering	0	0	0	0	0	33,000,000	0	0	0	0	0	33,000,000
Local - MVA	0	0	0	0	0	33,000,000	0	0	0	0	0	33,000,000
Right of Way	0	0	0	0	0	15,000,000	0	0	0	0	0	15,000,000
Local - MVA	0	0	0	0	0	15,000,000	0	0	0	0	0	15,000,000
Construction	0	0	0	0	0	7,000,000	245,000,000	0	0	0	0	252,000,000
Local - MVA	0	0	0	0	0	7,000,000	245,000,000	0	0	0	0	252,000,000
Total	0	0	0	0	0	55,000,000	245,000,000	0	0	0	0	300,000,000
Local - MVA	0	0	0	0	0	55,000,000	245,000,000	0	0	0	0	300,000,000

TEIS - Capital Projects Bud[illegible]ng and Reporting System
Project Detail Report
SR 99/Alaskan Way Viaduct and Seawall - Replacement

Project ID (PIN): 809936[illegible] **Bond Eligible:** Y **Percent Complete:** 0% **Revenue Pkg:**

Description:

Book Description:

Budget Version: AWVGOV1 (1/28/09 1:36PM, Updated: 2/6/09 2:27PM)

Agency: Department of Transportation
Location: Downtown Seattle
Route: 099
Begin - End Mile Posts: 0.00
County: King
Legislative District(s): 11,32,36,37,43,46

DOT Region: Urban Corridors
Major Corridor: SR 99, Seattle - Alaskan Way Viaduct
Urban Area: Seattle-Tacoma-Everett
Improvement Type: Bridge Replacement (Structural)
Program / Sub-Program: Improvement - Mobility
Sub-Category: Urban Mobility

PROJECT STATUS

Phase	Start Date	End Date	Phase Status	Milestone	Date
Right of Way					
Construction					

PROJECT COSTS

Phase/Fund	Prior	05-07	07-09	09-11	11-13	13-15	15-17	17-19	19-21	21-23	Future	Total
Right of Way	0	0	0	49,189,040	0	0	0	0	0	0	0	49,189,040
Unfunded - NOS	0	0	0	49,189,040	0	0	0	0	0	0	0	49,189,040
Construction	0	0	0	95,911,600	261,536,266	5,000,000	15,000,000	0	0	0	0	377,447,866
Unfunded - NOS	0	0	0	95,911,600	261,536,266	5,000,000	15,000,000	0	0	0	0	377,447,866
Total	0	0	0	145,100,640	261,536,266	5,000,000	15,000,000	0	0	0	0	426,636,906
Unfunded - NOSI	0	0	0	145,100,640	261,536,266	5,000,000	15,000,000	0	0	0	0	426,636,906

From: White, John
Sent: Friday, February 20, 2009 7:28 PM
To: Reilly, John; 'harveyparker@compuserve.com'
Cc: Paananen, Ron
Subject: Re: Tunnel System

Thanks Harvey and John, we have more than enough to fill in the details needed for this response.

Have a great weekend,

John

From: John Reilly
To: Harvey W. Parker
Cc: harveyparker@compuserve.com ; White, John; Paananen, Ron
Sent: Fri Feb 20 18:07:11 2009
Subject: Re: Tunnel System

Dear all:

Harvey's points are good but I think simple answers to the key points of the letter is best here. We can discuss Monday.

Regards, John Reilly
Web: www.JohnReilly.us
Email: JJReils@ATTGlobal.net
Cell: +1-508-904-3434

> ----- Original Message -----
> **From:** Harvey W. Parker
> **To:** John Reilly
> **Cc:** harveyparker@compuserve.com ; White, John ; Ron Paananen
> **Sent:** Friday, February 20, 2009 8:51 PM
> **Subject:** Re: Tunnel System
>
> I agree with both Ron and John. Here are some other words. Maybe John Reilly can check some of the facts for me and suggest whether I am on the right track or not. Surely this is too much but one can just cut it down to what makes sense for a response.
> ---
> "WSDOT took many precautions before deciding on the single large tunnel. Of course, WSDOT carefully evaluated the cost, schedule, and the risks associated with both smaller twin tunnels and the larger single tunnel. The overall cost and schedule of a single large tunnel were significantly less for the single large tunnel. The savings would be about $1/2 Billion or more and the schedule is expected to be _____ years shorter This is because of many reasons. The size of any tunnel bore must be large enough to accommodate the full width and height of the traffic lanes plus all ventilation, fire and life safety, and auxiliary equipment. Smaller tunnels have a sharp curvature which restricts available height for trucks and for ventilation ducts etc. The twin tunnel scheme could not work with 36-ft-diameter tunnels but rather would require at least 43-ft-diameter tunnels. Moreover, there would be more complex and more expensive right-of-way acquisition and there would have to be larger and

more complex and more expensive ventilation structures for the twin tunnel scheme. Usually tunnels are spaced about 1 diameter apart so the overall width of the construction zone would be about 150 ft or more if each tube went below a different street.

With respect to construction risk, both the small tunnel and the large tunnel would be excavated from the safety of a protective steel shield. However, unlike the single large tunnel, the twin tunnel scheme would require connections between the tunnels, called cross passages, for fire and life safety every 600 ft or so. These would be extremely difficult, expensive and risky to construct in the anticipated soils.

The scheduled opening on 2015 would be more difficult to meet with the twin tunnel scheme. It would require purchase of 2 TBM's and coordination of the construction would be extremely difficult. Moreover, it is anticipated that construction of the structure and roadway can begin earlier and be faster and more efficient in the single tunnel making the overall schedule shorter

It has been demonstrated in many cases that tunnels behave well in earthquakes. Both tunnel schemes would be safe in an earthquake because the movements of the soil would be small in both cases. Moreover, this 54 ft diameter single tunnel will have an approximate inside diameter of ___ ft which is much smaller (__%) than the existing Mt. Baker Ridge Tunnel which has an inside diameter of about 63 ft and which behaved extremely well during the Nisqually Earthquake.

In fact, the Mt Baker Ridge Tunnel is an excellent example of how WSDOT cares for most of the other issues you bring up in your letter. This design of this tunnel was way ahead of other tunnels and similar careful approach to the issues of drainage, fire safety, security, communications, traffic flow and control etc will be given to the new Alaskan Way tunnel. It is used every day by _____ vehicles and no concern is every voiced because it is inherently pleasant and safe. There are several double-deck tunnels around the world that have similar problems and lessons learned from these projects will be applied to the Alaskan Way tunnel project. Of course, no matter what, safety is our top priority.

Thank you for your concern. We trust that we answered your questions."

Ron, John, and John. This is just a strawman to get someone started. Maybe we should say 43 to 45 ft. It is dangerous to get it exactly to one foot and a range may be better I may be off on some of the issues and facts so they need to be checked. If you can use any of this, ok. If not, let me know what else I can do. If you want to, you could attach one of the leaflets that are given out to drivers in Europe.....or attach some information about just how good Mt Baker Ridge really is.

Best regards,
Harvey

At 07:28 PM 2/20/2009 -0500, John Reilly wrote:

> ï»¿
> John - agree with Ron's key points, adding that the cost and risks associated with the cross passages is very significant. Additionally, to meet schedule in 2015 the twin tunnels require purchasing 2-43' dia. TBMs. A 43' TBM is maybe 75% of the cost of a 54' machine.
>
> Harvey - your comments?
>
> Regards, John Reilly
> Web: www.JohnReilly.us
> Email: JJReils@ATTGlobal.net

Cell: +1-508-904-3434

----- Original Message -----
From: White, John
To: Reilly, John ; harveyparker@compuserve.com
Sent: Friday, February 20, 2009 7:11 PM
Subject: Fw: Tunnel System

Do either of you wish to contribute any basic thoughts to this?

From: Paananen, Ron
To: White, John; Grotefendt, Amy (Consultant); Van Ness, Kristy (Consultant)
Sent: Fri Feb 20 15:10:05 2009
Subject: FW: Tunnel System

I'll let you guys expand on my two sentence answer

From: Paananen, Ron
Sent: Fri 2/20/2009 3:06 PM
To: Hammond, Paula; Dye, Dave
Subject: RE: Tunnel System

I will work with the team on a response. Our previous work on a twin bore showed that the bores would have to be 43 feet in diameter, not 36 as Mr. Still suggests. Twin bore requires cross passages every 600 feet or so between the tunnels for emergency egress. From our analyis, going from twin 43 foot tunnels to one 54 foot saved about $600 million. This was confirmed by several tunnel experts.

From: Hammond, Paula
Sent: Thu 2/19/2009 7:21 PM
To: Dye, Dave; Paananen, Ron
Subject: Fw: Tunnel System

Would one of you care to respond? Thanks
Paula

From: Nelson Still
To: Hammond, Paula
Sent: Thu Feb 19 19:14:04 2009
Subject: Fw: Tunnel System

Dear Madam,
I am forwarding this correspondence in case you did not receive the previous email.
Kind regards
Nelson R Still

--- On Mon, 2/9/09, Nelson Still <stillknotty@yahoo.com> wrote:
From: Nelson Still <stillknotty@yahoo.com>
Subject: Tunnel System
To: "Paula Hammon (DOT)" <hammonp@wsdot.wa.gov>

Date: Monday, February 9, 2009, 1:22 AM

February 8, 2009

Paula Hammond

Dear Madam:

Further to my previous letter dated 16 January 2009 regarding the building of a tunnel system to replace the Alaskan Way viaduct I wish to make some further points as follows:

1) A tunnel boring machine of 36Ê¼ diameter would be + - 40% cheaper than the 54Ê¼ machine. The smaller machine is probably available second hand and also has a better re-sale value.

2) Even if one tunnel was closed for some reason the other tunnel could still service traffic flow north and south.

3) The smaller bore tunnel would be structurally stronger and could withstand seismic disturbance better than the larger tunnel. Whichever design is used a gel should be pumped into the surrounding strata for added protection from water penetration or seismic disturbance.

4) The tunnels would have an incline that would allow any water (example flooding) to flow in the desired direction and then pumped out. The highest elevation would face the prevailing winds and this would allow exhaust gases in the tunnel dissipate quicker.

5) In the twin tunnel system, only the road deck would require concrete and this would be a substantial saving. The sidewalls and the headwall would only require fireproofing.

6) A good audio system and video system would be required so that drivers and passengers could be advised on any problem and what to do.

7) Drivers would have to know in the event of an evacuation that they must switch off, leave the keys in the ignition, doors unlocked and move quickly to the safety area (probably the adjacent tunnel).

8) Fire protection of the actual tunnel lining (concrete segments) must be very carefully considered. Damage control from terrorist action must also be considered.

9) Traffic flow would be both lanes going south in tunnel #1 and both lanes going north in tunnel #2. Alternatively traffic in both tunnels could have one lane going north and one lane going south which means that in the event of an emergency (example fire) the tunnel could be cleared very quickly,

10) The alternative method as described in 9) would allow traffic in one lane to do a u-turn and exit the tunnel quickly

11) Fire hoses and phones every 200 yards which could be used by drivers in an emergency.

12) The twin tunnel system would allow drivers and passengers to exit from one tunnel to the other for safety reasons. The safety of persons using the tunnels is of the utmost importance. It has to be top priority

Sincerely,

Nelson R Still

23800 S E Tiger Mountain Road #29

Issaquah

WA 98027

Tel: 425 635 8715

VandenBerghe, Alissa (Consultant)

From: Conte, Rick (Consultant)
Sent: Friday, March 06, 2009 1:30 PM
To: White, John; Rigsby, Mike (Consultant)
Cc: Paananen, Ron; Williamson, Alec
Subject: RE: Central Waterfront Planning team
Follow Up Flag: Follow up
Flag Status: Red

Thanks John – much appreciated

From: White, John
Sent: Friday, March 06, 2009 11:17 AM
To: Conte, Rick (Consultant); Rigsby, Mike (Consultant)
Cc: Paananen, Ron; Williamson, Alec
Subject: RE: Central Waterfront Planning team

Rick & Mike,

I'll add a few other complimentary thoughts adding to what Ron already said:

The 'systems planning' level planning associated with the year long tri-agency partnership effort presented numerous complicated challenges for the PB design team that required innovative and cooperative thinking in order to meet the multiple objectives addressed within six guiding principles. The team was successful in their role supporting the tri-agency and Independent Project Management team, consistently applying creative thought to the various ways of meeting the multimodal transportation objectives related to the movement of people and goods. In particular, towards the end of the public stakeholder process and entering into the formal tri-agency conferencing period that lead to the final recommendation, the PB team was instrumental in developing tunnel concepts and estimates that stood the test of the multiple independent peer reviews required for WSDOT to have the required high confidence level necessary to support the recommended deep single bore tunnel.

John

IPM

Cost story

From: Paananen, Ron
Sent: Wednesday, March 04, 2009 5:01 PM
To: Conte, Rick (Consultant); Williamson, Alec; White, John
Cc: Rigsby, Mike (Consultant)
Subject: RE: Central Waterfront Planning team

Here are my thoughts:

In January 2009, Washington Governor Cris Gregoire, Seattle Mayor Greg Nickels, and King County Executive Ron Sims announced they had reached consensus on the best replacement option for the SR 99 Viaduct along Seattle's central waterfront. The decision capped over a year of stakeholder involvement lead jointly by WSDOT, the City of Seattle and King County. WSDOT's project team, with PB leading a multi-discipline consultant team, played a vital role in supporting the agencies" stakeholder process. Engineering support was required as replacement scenarios were developed and analyzed. Material was prepared so that information could be conveyed in a comprehensive way to the 30 stakeholders. Visuals prepared by the PB team were particularly effective in conveying complex

information. The process was widely accepted as open and transparent, and the team was viewed as well prepared and credible to the stakeholders and public, allowing a bored tunnel to emerge as the preferred replacement for the viaduct. In the end, PB's support of the project and an extremely visible public process contributed to a successful outcome.

From: Conte, Rick (Consultant)
Sent: Monday, March 02, 2009 8:49 AM
To: Williamson, Alec; Paananen, Ron; White, John
Cc: Rigsby, Mike (Consultant)
Subject: Central Waterfront Planning team

Gentlemen, we are submitting Gordon's Central Waterfront Planning team for one of PB's annual awards. The category is Client Success. I would appreciate it if you could take a few minutes to comment on the team's contribution to the Partnership Process and its outcome. If possible, I would like to get your thoughts by Thursday. Some of the key criteria for this award that may apply are as follows:

- Client was actively involved in the process
- Client benefited from PB initiative/innovation/effort
- Client viewed positively by media/public as result of the effort
- Use of innovation
- Use of technology

Thanks in advance for anything you can offer.

Rick

From: Ziegler, Jennifer (GOV) [Jennifer.Ziegler@gov.wa.gov]
Sent: Monday, March 09, 2009 9:34 AM
To: Paananen, Ron; Dye, Dave; Grotefendt, Amy (Consultant); Judd, Ron
Subject: RE: Brightwater sinkhole/bored tunnel

Fantastic--thank you. I've given Pearse and Laura a heads-up.

From: Paananen, Ron [mailto:PaananR@wsdot.wa.gov]
Sent: Monday, March 09, 2009 9:33 AM
To: Ziegler, Jennifer (GOV); Dye, Dave; Grotefendt, Amy (Consultant); Judd, Ron (GOV)
Subject: Re: Brightwater sinkhole/bored tunnel

Jennifer - this is dave on ron's blackberry - we have a room full of national tunneling experts and will cobble some thoughts together...stand by...

-dave

From: Ziegler, Jennifer (GOV)
To: Dye, Dave; Paananen, Ron; Grotefendt, Amy (Consultant); Judd, Ron
Sent: Mon Mar 09 09:28:25 2009
Subject: FW: Brightwater sinkhole/bored tunnel

So, I have to believe we will hear about this. Are there some distrinctions we can make?

From: Charles Knutson [mailto:CharlesK@seattlechamber.com]
Sent: Monday, March 09, 2009 8:58 AM
To: dstark@smithandstark.com; Bob Donegan; Jon Scholes; pmcroberts@smithandstark.com; Ziegler, Jennifer (GOV)
Subject: Brightwater sinkhole/bored tunnel

Let's prepare for possible questions about this...

Brightwater likely caused Kenmore sinkhole

By Kristi Heim
Seattle Times staff reporter

A sinkhole 15 feet deep, likely related to tunneling for King County's new sewage-treatment pipeline, opened up in Pauline Chihara's driveway early Sunday in Kenmore.

Chihara got up at 6:30 a.m. to walk her dogs and saw something that "looked like somebody dug up some dirt," she said. As she got closer she realized the hole encompassed the entire end of her driveway, at 61st Avenue Northeast and Northeast 195th Street. The hole widened during the day Sunday as chunks of pavement crumbled into it, she said.

When her roommate, Jeff Rochon, came home about 3:30 a.m. he drove right over the spot that would later collapse. He said he's glad he didn't get home any later.

"I'm real thankful for that," Rochon said. "It's really dark in that area. That would have been quite the wake-up to

From: Ziegler, Jennifer (GOV) [Jennifer.Ziegler@gov.wa.gov]
Sent: Friday, March 20, 2009 1:54 PM
To: Paananen, Ron
Subject: FW: Before 2PM PLEASE

Here is Ron's response. I'm in my office when you are ready.

From: Judd, Ron (GOV)
Sent: Friday, March 20, 2009 1:46 PM
To: Ziegler, Jennifer (GOV)
Subject: RE: Before 2PM PLEASE

YES, YES, YES!!!!! What would be the downside. She has told Frank that this is a go home issue. Maynot want to disclose THAT to Mary but we need to let her know that not getting this bill is NOT AN OPTION.

From: Ziegler, Jennifer (GOV)
Sent: Friday, March 20, 2009 1:43 PM
To: Judd, Ron (GOV)
Subject: Fw: Before 2PM PLEASE

Do you want someone to tell Mary that Govermor wants the bill?

From: Fleckenstein, Mary
To: 'Paananen, Ron' ; Dye, Dave; Ziegler, Jennifer (GOV)
Sent: Fri Mar 20 13:40:14 2009
Subject: RE: Before 2PM PLEASE

Do you have to have the bill? What happens if you don't get it? What does this do to the timeline?

From: Paananen, Ron [mailto:PaananR@wsdot.wa.gov]
Sent: Friday, March 20, 2009 1:36 PM
To: Fleckenstein, Mary; Dye, Dave; Ziegler, Jennifer
Subject: RE: Before 2PM PLEASE

The most important issue right now is getting the bored tunnel adopted by the legislature as the replacement for the SR 99 Viaduct. This will allow us to initiate an Environmental Impact Statement with a preferred alternative.

Then the critical work between now and 2011 will be completion of the EIS. We will be starting that effort shortly (once we know the tunnel is officially the project) and all the work we have done over the past 8 years will help facilitate the EIS timeline. We expect to issue the Draft EIS by the end of this year. The work we are doing right now is to determine what will be included in the document. We want the scope to be as narrow as possible to make the EIS process go quickly.

Contracting strategies are currently being developed. There will likely be several construction contracts, with the tunnel itself being delivered as one Design-Build Contract. We expect to issue the Request for Proposals (RFP) for the tunnel contract in mid 2010. This will allow the design-builder to begin final design work, setting the stage for construction work to begin once the Final EIS is completed and a record of decision issued by FHWA. Some utility work can occur prior to the completion of the EIS, but major construction will not happen before that.

We are getting ready to conduct soil investigation on the tunnel alignment. This will involve drilling and getting soil samples past the depth of the tunnel.

From: Fleckenstein, Mary [mailto:Fleckenstein.Mary@leg.wa.gov]
Sent: Friday, March 20, 2009 1:04 PM
To: Dye, Dave; Paananen, Ron; Ziegler, Jennifer
Subject: Before 2PM PLEASE
Importance: High

What has to happen by when for construction on the bored tunnel to begin in 2011? What are the critical dates that have to be hit? And which dates are specific to the bored tunnel, as opposed to other aspects of the project?

TIME
COST
LEG PROCESS
MESSAGE

From: White, John
Sent: Friday, March 20, 2009 4:26 PM
To: Paananen, Ron; Meredith, Julie
Subject: Re: Leg. Contacts

10-4.

From: Paananen, Ron
To: Meredith, Julie; White, John
Sent: Fri Mar 20 16:17:14 2009
Subject: Leg. Contacts

See Daves note below. There is a lot of leg contact activity right now. So we don't inadvertantly send mixed messages, I will be reviewing the responses before they go out. Nothing wrong with the TBM answer.

From: Paananen, Ron
To: Dye, Dave
Cc: Reinmuth, Steve; Auyoung, Dillon
Sent: Fri Mar 20 15:28:01 2009
Subject: Re: TBM Costs

Sure. I will get the word out.

From: Dye, Dave
To: Paananen, Ron
Cc: Reinmuth, Steve; Auyoung, Dillon
Sent: Fri Mar 20 15:21:31 2009
Subject: Re: TBM Costs

Yep - we better get the word out to all 520 and AWV staff (quickly and quietly) that all further leg staff contacts on these two projects comes through you personally, okay?

-dave

Steve and Dillion - things are heating up so please route staff questions you get to Ron - thanks!

From: Paananen, Ron
To: Dye, Dave
Sent: Fri Mar 20 14:54:48 2009
Subject: Fw: TBM Costs

And we answer other questions too.

From: Fleckenstein, Mary
To: Leiste, Willy; White, John
Cc: Hicks, Elissa; Paananen, Ron; Hopkins, David A.

Sent: Fri Mar 20 14:45:31 2009
Subject: RE: TBM Costs

Y'all did great by me today. Thank you so much.

From: Leiste, Willy [mailto:LeisteW@wsdot.wa.gov]
Sent: Friday, March 20, 2009 2:18 PM
To: White, John; Fleckenstein, Mary
Cc: Hicks, Elissa; Paananen, Ron; Hopkins, David A.
Subject: RE: TBM Costs

Thanks, John, for your quick attention to this for us. Your assistance is greatly appreciated!!

Willy

From: White, John
Sent: Friday, March 20, 2009 1:57 PM
To: Mary Fleckenstein (fleckenstein.mary@leg.wa.gov)
Cc: Hicks, Elissa; Leiste, Willy; Paananen, Ron; Hopkins, David A.
Subject: FW: TBM Costs

Mary,

As discussed, a bit more detail on the tunnel boring machine procurement, costs and schedule.

John

John H. White, P.E.
Program Director
Alaskan Way Viaduct and Seawall Replacement Program
WSDOT Urban Corridors Office
Business: (206) 382 - 5270
Cell: (206) 450 - 2975

From: Greco, Theresa
Sent: Wednesday, March 18, 2009 1:09 PM
To: Leathers, Kathryn
Cc: Smith, Helena Kennedy; White, John
Subject: TBM Costs

Good afternoon, Kathryn.

What we recently learned from credible tunneling sources (including tunnel contractors and boring machine manufacturers) is the cost of the tunnel boring machine (TBM) can range from $60-85 million depending on the type of machine -- slurry or earth pressure balance (EPB). We anticipate that a design/build contractor would purchase the TBM as part of a larger fixed price contract to build the main tunnel structure. Given that the experienced tunnel contractors have established relationships with the TBM manufacturers worldwide, they would negotiate the final price and design terms with the manufacturer, based on performance requirements stipulated by WSDOT.

We anticipate bringing the tunneling contractor on early to work with us as they would determine the type of machine (based on soil conditions from core samples), and would work directly with the TBM manufacturer on the design and construction of the machine. In recent weeks, we have spoken and met with several TBM

manufacturers and tunnel contractors that have the ability to construct and operate a 54" TBM. There appear to be four companies worldwide that have the proven ability to construct this large of a TBM, and two of them have said that we should expect 16 – 18 months total for design, construction, shipping and on-site assembly of the machine. Per our current draft scheduling efforts, this would have the TBM on-site and operating in 2012.

Take care and have a good afternoon.

Theresa Greco
Deputy Director
Programs and Services
Alaskan Way Viaduct & Seawall Replacement Program
(W) 206-267-3785
(C) 206-713-0298
Email: grecot@wsdot.wa.gov

Schedule — late Mar to Dec 2009

2009 9 mos
2010 12 mos
2011 12 mos
2012

From: Leathers, Kathryn [Leathers.Kathryn@leg.wa.gov]
Sent: Monday, March 23, 2009 1:46 PM
To: Dye, Dave
Cc: Paananen, Ron
Subject: FW: AWV estimates
Importance: High

Dave - Sorry for the repeat request without giving anyone a reasonable amount of time to respond, but I'm in need of this information as soon as possible. In the event that Ron has not seen my below email or is busy on other matters, I thought I'd try contacting you to see if you can expedite a response.

Thank you. Kathryn

From: Leathers, Kathryn
Sent: Monday, March 23, 2009 10:41 AM
To: 'Paananen, Ron'
Subject: AWV estimates
Importance: High

Hi Ron,

I need to clarify what is included in the $1.9B projected cost of the bored tunnel.

My notes from a meeting in January indicate that the 1.9B figure is a "tunnel plus" estimate, and includes demolition of the existing viaduct structure, construction of the connection to Elliot, and other related work. My notes also indicate that the projected base cost of the tunnel is about 965M. However, I am having conversations with folks who are under the impression that the 1.9B is solely for the tunnel.

Can you clarify the estimated base cost of the tunnel and also what is included in the 1.9B estimate?

Thank you. Kathryn

Send to Gene or Rebuff w/Gene + Cascadia Docs

PR Strategy "Story"

Scheduling $1.9 million

From: White, John
Sent: Tuesday, March 24, 2009 5:49 PM
To: Dye, Dave; Paananen, Ron
Cc: Reilly, John; 'harveyparker@compuserve.com'; Preedy, Matt; Greco, Theresa; Phelps, Don (Consultant); Van Ness, Kristy (Consultant); 'Brenda Bohlke'
Subject: Tunnel estimating and validation story, new folios
Importance: High
Attachments: Tunnel_Experience_foliov4_Mar09.pdf; BoredTunnel_CostFunding_foliov5_Mar09.pdf; Bore Tunnel Estimating v1.doc

Dave and Ron,

Per Dave's request, I have taken a cut at the estimating story and justification for our confidence in the current tunnel estimate. I am attaching the Word document for those who wish to suggest edits in Word, and am pasting it into this e-mail for those like Ron who might need to respond from a Blackberry. I have also attached what we believe are the final drafts of our two folios which address the estimating subject. We would like to hear from you regarding the folios as well, since we hope to start using these publicly ASAP.

John

Tunnel Cost Estimating & Validation Approach

Throughout the evolution of the bored tunnel cost estimates, the WSDOT project management team has consistently engaged highly experienced professionals in the world of underground construction and tunnels. The initial estimate was for a dual bore tunnel, and was developed by the lead estimator for the General Engineering Consultant Parsons Brinkerhoff (PB), Ken Fiorentino, who is with Jacobs Engineers. Ken has over 32 years of tunneling experience, including 27 years as a contractor estimating and building tunnels in the US and around the world. In order to ensure confidence in the initial estimate, the owner's Program Management Consultant Hatch Mott MacDonald (HMM) was asked to prepare a parallel independent estimate for the dual bore tunnel design. HMM are involved in tunnel planning, design and construction around the world, and utilized staff not directly involved with the project, ultimately producing an independent estimate that was within 5% of the PB estimate. WSDOT's lead Program Estimator, Mike Morrison, independently reviewed and validated the estimates prepared by both PB and HMM, in order to ensure consistency in approach and key assumptions. Mike is an independent consultant with over 43 years of experience specializing in estimating and value engineering, including 14 years as the chief estimator at CH2M HILL.

In December, WSDOT developed a single bore tunnel proposal as a way to save time and money over the dual bore proposal, along with an estimate that accounted for changes from the previous design. This occurred very close to the time that the Stakeholder Advisory Committee (SAC) announced their preference towards a bored tunnel. In announcing their preference, the SAC consulted with the Cascadia Center for Regional Development, a regional transportation policy organization who had retained a number of independent bored tunneling experts and had issued a letter advocating that a bored tunnel could be built for less cost and time than had been initially presented by WSDOT. This lead to a mid-December SAC workshop on bored tunnel construction where WSDOT engaged John Reilly and Harvey Parker, in addition to PB and HMM. John and Harvey are both independent consultants with over 45 years of underground construction and tunneling experience across the world, with Harvey being a past president of the International Tunneling Association and John being a past

president of the national Underground Construction Association. At the SAC workshop, Cascadia and their primary independent tunneling experts from Arup, who are an international consulting firm specializing in tunneling, shared their thoughts on the bored tunnel planning and estimates with WSDOT, focusing on areas where they said our estimates appeared high. After review of the dual and single bore tunnel estimates at the workshop, all parties agreed to the approximate overall expected construction cost of the bored tunnel.

Subsequent to the SAC workshop, in early January WSDOT held a bored tunnel estimate review and validation workshop focused on the single bore tunnel plan. Present at this workshop were WSDOT management and all of WSDOT's bored tunnel experts previously referenced (Ken Fiorentino from Jacobs, Mike Morrison, Don Phelps from HMM, John Reilly, and Harvey Parker). The focus of the workshop was specifically to review the detailed estimate, including all critical assumptions behind the baseline estimate and the risk, contingency, and escalation components that added to the baseline estimate comprise the basis for the current $1.9 billion tunnel estimate. Don Phelps from HMM was present at this point, bringing over 35 years of tunneling experience to the estimate review. As advisory consultants to WSDOT, Don, John and Harvey had Ken and his team break down the estimate for them, reviewed risk and contingency specific to each key component of the estimate, then they built the estimate back up to the summary level, concurring as a group that the single bored tunnel could be built within the $1.9 billion allocated (assuming that the scope is adequately maintained and the schedule is not allowed to extend significantly).

** In mid-March WSDOT commissioned an independent panel of seven tunneling experts from around the nation and world, all of whom had between 30 and 50 years of experience in tunneling and underground construction, with most of the panel having worked as contractors responsible for building hundreds of existing tunnels around the nation and world (including more recent 47 to 50 foot diameter tunnels in Germany and China that compare well with the proposed single bore tunnel). They were specifically tasked with providing input towards WSDOT's implementation plan (number and types of contracts, schedule, risks, important considerations, etc), and not asked to review and weigh in on the detailed construction estimate. The basics of the $1.9 billion estimate, key assumptions, and the estimate review and validation process and participants were presented to them. Per Dr. Brenda Bohlke, who chaired the panel and is the current President of the national Underground Construction Association: "During the construction strategy workshop, the expert industry panel had the opportunity to learn about the projected project cost and the basis of its development. They were confident in the approach that had been used, and that those instrumental in the development of the costs had the experience and proper estimating methods for large complex urban tunneling programs. Three separate reviews of the cost estimates lent additional confidence to the cost estimates."

* who paid for these people # amt -

** " " "

VandenBerghe, Alissa (Consultant)

From: John Reilly [jjreils@attglobal.net]
Sent: Tuesday, March 24, 2009 8:29 PM
To: White, John
Cc: Dye, Dave; Paananen. Ron; harveyparker@compuserve.com; Preedy, Matt; Greco, Theresa; Phelps, Don (Consultant); Van Ness, Kristy (Consultant); Brenda Bohlke
Subject: Re: Tunnel estimating and validation story, new folios
Importance High
Attachments: Bore Tunnel Estimating Phelps & Parker & Reilly Comments 24Mar09.doc

John et. al. - my comments, additions and thoughts regarding the text, added to Harvey's and Don's input. Regarding the China tunnels, Otto did not work on these tunnels, Gianni has consulted on many China tunnels regularly since 2000. He is familiar with the Chinese manufacturers (in association with the German TBM manufacturer) and contractors but did not work directly on the 2-large Shanghai TBMs. Text edited accordingly.

Brenda - please review and concur with your quote at the end of the text or modify appropriately.

Hope this is helpful.

Regards, John Reilly
Web: www.JohnReilly.us
Cell: +1-508-904-3434

----- Original Message -----
From: Harvey W. Parker
To: White, John
Cc: Dye, Dave ; Paananen, Ron ; Reilly, John ; harveyparker@compuserve.com ; Preedy, Matt ; Greco, Theresa ; Phelps, Don (Consultant) ; Van Ness, Kristy (Consultant) ; Brenda Bohlke
Sent: Tuesday, March 24, 2009 7:42 PM
Subject: Re: Tunnel estimating and validation story, new folios

Here are my comments on the Attachment on top of Phelps' edits. Did both Braach and Arigioni actually work on the China tunnels? Or were they reviewing the projects in detail?

Best regards,
Harvey

At 05:48 PM 3/24/2009 -0700, White, John wrote:

> Dave and Ron,
>
> Per Dave's request, I have taken a cut at the estimating story and justification for our confidence in the current tunnel estimate. I am attaching the Word document for those who wish to suggest edits in Word, and am pasting it into this e-mail for those like Ron who might need to respond from a Blackberry. I have also attached what we believe are the final drafts of our two folios which address the estimating subject. We would like to hear from you regarding the folios as well, since we hope to start using these publicly ASAP
>
> John

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basis for the current $1.9 billion tunnel estimate. Don Phelps from HMM was present at this point, bringing over 35 years of tunneling experience to the estimate review. As advisory consultants to WSDOT, Don, John and Harvey had Ken and his team break down the estimate for them, reviewed risk and contingency specific to each key component of the estimate, then they built the estimate back up to the summary level, concurring as a group that the single bored tunnel could be built within the $1.9 billion allocated (assuming that the scope is adequately maintained and the schedule is not allowed to extend significantly).

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Cost 3

From: White, John
Sent: Monday, March 30, 2009 2:41 PM
To: Paananen, Ron; Greco, Theresa; Preedy, Matt
Subject: RE: AWV Bill

Thought the same thing, we are checking on what should be in that box...

From: Paananen, Ron
Sent: Monday, March 30, 2009 2:39 PM
To: Greco, Theresa; White, John; Preedy, Matt
Subject: RE: AWV Bill

Something doesn't add up on the table. We show no construction expenditures for Early Electrical stage 1. If you add the totals, it adds up to more than $65 million.....

From: Greco, Theresa
Sent: Monday, March 30, 2009 10:33 AM
To: Paananen, Ron; White, John; Preedy, Matt
Subject: RE: AWV Bill

Here is budget and expenditures for Utility work:

Utility Contracts

	Budget	Expended
Early Electrical Stage 1		
PE	$8,600,000	$8,600,000
RW	$500,000	$500,000
CN	$25,800,000	$0
	$34 900,000	$9,100,000
Early Electrical Stage 2		
PE	$3,700,000	
RW	$1,000,000	
CN	$20,000,000	
	$24,700,000	0
Holgate to King Stage 1		
PE	$3,360,000	$3,360,000
RW	$3,000,000	$100,000
CN	$21,000,000	
Total	$27,360,000	$3,460,000
Holgate to King Stage 2		
PE	$203,077	
RW	$0	
CN	$2,500,000	
Total	$2,703,077	0

Total Utilities (not including EE Stage 2)	**$64,900,000**	**$12,560,000**

From: Paananen, Ron
Sent: Monday, March 30, 2009 8:34 AM
To: White, John; Preedy, Matt; Greco, Theresa
Subject: FW: AWV Bill

So, we need an accounting of how much we have spent so far on early electrical and other City owned utilities, how much is in the contract under way, how much is in phase 1 of Holgate to King, and how much we anticipate in phase 2.

From: Dye, Dave
Sent: Saturday, March 28, 2009 10:45 AM
To: Leathers, Kathryn; Paananen, Ron
Cc: Redfield, Beth; Ziegler, Jennifer
Subject: RE: AWV Bill

Kathhryn - Two things....first, we have about $65 million budgeted for Moving Forward utility relocations, some of which are currently under contract and some of which will be under contract soon...but not the whole $65 million...Ron can get that specific number but if memory serves I think projects we currently have under way or on ad have about 40-45 million of utility work...maybe a little more...

In looking at the language again, I think we would be much better off to use the other option and say no utility relocation shall be paid for by the state for construction of the bored tunnel and removal of the existing viaduct - this is where the really big money is (like 200 to 300 million) that everyone wants to avoid - if we use the language as is I'm concerned that we will be precluded from fulfilling our current contract obligations...Ron?

-dave

From: Leathers, Kathryn [mailto:Leathers.Kathryn@leg.wa.gov]
Sent: Sat 3/28/2009 10:31 AM
To: Dye, Dave; Paananen, Ron
Cc: Redfield, Beth; Ziegler, Jennifer
Subject: FW: AWV Bill

Dave & Ron,

Whoever agrees to fix this will probably want to know how much we've already spent on utilities, some basic info re the work that's been done (e.g., who owns these utilities; which Moving Forward project required utility work), and probably whether we have any more utility work that the state is planning on doing.

Judy is here today and will be available to us by email tomorrow as well. I would prefer to have some more information for her before bringing it up, so if you can get me some general info this weekend I would appreciate it, but I think we'll give her the heads up this weekend regardless. Thanks. Kathryn

From: Redfield, Beth
Sent: Friday, March 27, 2009 8:08 PM
To: Leathers, Kathryn

Subject: RE: AWV Bill

Would this be a stand alone amendment? Or is there one already offered by an agreeable sponsor to hang it in?

From: Leathers, Kathryn
Sent: Friday, March 27, 2009 7:58 PM
To: 'Ziegler, Jennifer (GOV)'; Redfield, Beth; Dye, Dave
Cc: PaananR@WSDOT.WA.GOV
Subject: RE: AWV Bill

I guess all of the options bring attention to the fact that the state is paying (or has paid) for some utility work, and, as you know, the utility thing is a sensitive issue for some. Bummer. Okay, well, I think the lesser of the evils is to refer to utility relocation related to construction of the tunnel, but I'll draft whatever anyone wants me to. K

From: Ziegler, Jennifer (GOV) [mailto:Jennifer.Ziegler@gov.wa.gov]
Sent: Friday, March 27, 2009 7:48 PM
To: Redfield, Beth; Dye, Dave; Leathers, Kathryn
Cc: PaananR@WSDOT.WA.GOV
Subject: Re: AWV Bill

Would it make sense to reference a specific date? Maybe utility relocation after January 2010? My only concern with additional is that a baseline is not referenced. The other option could be to just refer to utility relocation related to construction of the tunnel.

From: Redfield, Beth <Redfield.Beth@leg.wa.gov>
To: Dye, Dave; Ziegler, Jennifer (GOV); Leathers, Kathryn <Leathers.Kathryn@leg.wa.gov>
Cc: Paananen, Ron <PaananR@WSDOT.WA.GOV>
Sent: Fri Mar 27 19:28:45 2009
Subject: RE: AWV Bill

Kathryn is staff on this bill and wonders if we simply add the word "additional" would that work? See below.

Viaduct bill, 5768, Sec 1(2):

(2) The state route number 99 Alaskan Way viaduct replacement project finance plan must include state funding not to exceed two billion four hundred million dollars and must also include at least four hundred million dollars in toll revenue. These funds must be used solely to build a replacement tunnel, as described in subsection (1) of this section, and to remove the existing state route number 99 Alaskan Way viaduct. All costs associated with city utility relocations for state work as described in this section must be borne by the city of Seattle and provided in a manner that meets project construction schedule requirements as determined by the department. **State funding is not authorized for any additional utility relocation**

costs, or for central seawall or waterfront promenade improvements.

It might be difficult to frame the acceptable utility work. Can we say "additional utility relocation costs" and be okay?

From: Dye, Dave [mailto:DyeD@wsdot.wa.gov]
Sent: Friday, March 27, 2009 3:12 PM
To: Ziegler, Jennifer; Redfield, Beth
Cc: Paananen, Ron
Subject: AWV Bill

Just so I don't forget, the language in the viaduct bill passed by the senate that says the funding provided cannot be used to relocate utilities needs some tweaking (or creative interpretation with agreement) because we have already spent money for utility relocation in the south end and are doing a bit more to prepare for the south end project under the moving forward program...I think the bill's intention speaks to the tunnel utilities and those on the existing viaduct (and north portal) but I want to make sure we don't get ourselves boxed in -- should we consider tweaks to the language - rumor has it it may move out of committee on Monday...

-dave

- cost
- Cos portion

VandenBerghe, Alissa (Consultant)

From: Leathers, Kathryn [Leathers.Kathryn@leg.wa.gov]
Sent: Tuesday, March 31, 2009 10:30 AM
To: Paananen, Ron
Subject: RE: When Elliott/Western ramps close down

Thank you, Ron.

From: Paananen, Ron [mailto:PaananR@wsdot.wa.gov]
Sent: Tuesday, March 31, 2009 10:05 AM
To: Leathers, Kathryn
Subject: FW: When Elliott/Western ramps close down

Kathryn, John White told me you had a question about when the Elliot / Western Ramps will close. Mary Fleckenstein had a similar question. The e-mail string below contains the answer, along with some funding discussion.

From: Fleckenstein, Mary [mailto:Fleckenstein.Mary@leg.wa.gov]
Sent: Tuesday, March 31, 2009 8:18 AM
To: Dye, Dave; Paananen, Ron
Subject: RE: When Elliott/Western ramps close down

Thank you. That's an answer I can clearly understand.

From: Dye, Dave [mailto:DyeD@wsdot.wa.gov]
Sent: Tuesday, March 31, 2009 8:14 AM
To: Fleckenstein, Mary; Paananen, Ron
Subject: Re: When Elliott/Western ramps close down

Yes

From: Fleckenstein, Mary
To: Paananen, Ron
Cc: Dye, Dave
Sent: Tue Mar 31 08:06:23 2009
Subject: RE: When Elliott/Western ramps close down
So does that mean the state is responsible for the bridge over the RR mainline?

From: Paananen, Ron [mailto:PaananR@wsdot.wa.gov]
Sent: Tuesday, March 31, 2009 8:03 AM
To: Fleckenstein, Mary
Cc: Dye, Dave
Subject: RE: When Elliott/Western ramps close down

Who is the contracting agency is yet to be determined, but the agreement between the Governor, Mayor and County Executive clearly shows the state financially responsible for tearing down the viaduct, constructing the 4 lane surface Alaskan Way with connections to Elliot and Western. The agreement also shows the City financially responsible for the promenade ($100 million) and seawall replacement ($250 million). While the bill specifically calls

out the seawall and promenade as not eligible for state funding (along with city utility relocation), it is silent on the viaduct demo, surface street construction and connection to Elliot / Western.

From: Fleckenstein, Mary [mailto:Fleckenstein.Mary@leg.wa.gov]
Sent: Tuesday, March 31, 2009 7:49 AM
To: Paananen, Ron
Subject: RE: When Elliott/Western ramps close down

Who's building the bridge over the RR mainline? The City?

Did you read the language in our bill directing the city to do these various pieces of the project? Is there anything on the list that's not the city's responsibility as you understand it?

From: Paananen, Ron [mailto:PaananR@wsdot.wa.gov]
Sent: Tuesday, March 31, 2009 7:42 AM
To: Dye, Dave; Fleckenstein, Mary
Cc: Ziegler, Jennifer
Subject: RE: When Elliott/Western ramps close down

$290 million is the estimate we have included for the items Dave mentioned. We are finalizing some visuals that show how the connection of Elliot and Western to the waterfront will work. The connection sits in the footprint of the existing viaduct where today it is a side by side roadway over the BNSF RR mainline tracks. There will be some period of disruption in 2016 while the viaduct is removed and the Elliot / Western connection is built. One other detour that will be available is the Broad Street connection to the waterfront. By 2016, the City is scheduled to be done with repairs to the seawall, and there will be room to keep surface Alaskan Way open as the viaduct is torn down. Maybe not a great detour, but one that will be available. There are other mitigation strategies that will be developed specific to that closure.

PDR

From: Dye, Dave
Sent: Monday, March 30, 2009 10:36 PM
To: 'Fleckenstein.Mary@leg.wa.gov'; Paananen, Ron
Cc: Ziegler, Jennifer
Subject: Re: When Elliott/Western ramps close down

Mary - the project budget for the bored tunnel includes 290 million (ron, check my number) to pay for removal of the viaduct and construction of a 4-lane replacement alaskan way with a direct connector up the hill from about pike (where the viaduct is today) to elliott and western - the budget also includes the moving forward projects and the bored tunnel itself - total funding for these elements is 3.1 billion - 2.4 billion state, 400 million tolls and 300 million port - no city money -- their responsibility is for city streets (other than alaskan way) and utilities and seawall...

We're working hard on the construction sequencing and phasing, and we will do everything we can to minimize the time the direct alaskan way connection up the hill is under construction - my guess right now were probably looking at 6 months minimum and likely longer - during this time traffic will have to go thru the tunnel to mercer, thru town or on I-5...not perfect but way less disruptive than our earlier construction plans...let me know if you have any questions...

-dave

From: Fleckenstein, Mary
To: Paananen, Ron; Dye, Dave
Cc: Ziegler, Jennifer
Sent: Mon Mar 30 20:16:18 2009

Subject: RE: When Elliott/Western ramps close down

So, let's see if I have this right. The ramps at Elliot and Western stay open until the bored tunnel is completed, and then they'd close and you'd start tearing down the viaduct. The projects in my previous sentence are all state projects. You haven't quite figured out how you will move traffic from Elliot and Western to surface street Alaskan Way - and this is a city project. So what's the assurance the city will have this figured out, funded and constructed in the time frame necessary to make this work?

Thanks.

From: Paananen, Ron [mailto:PaananR@wsdot.wa.gov]
Sent: Monday, March 30, 2009 5:17 PM
To: Dye, Dave; Fleckenstein, Mary
Cc: Ziegler, Jennifer
Subject: RE: When Elliott/Western ramps close down

Dave is correct. When the bored tunnel opens in late 2015, the ramps at Elliot and Western would close with the viaduct. The exact staging of a connection from Elliot and Western to the surface street Alaskan Way have not been worked out, but given the large volume of traffic that uses the ramps, detour staging will be critical to minimizing disruption when the viaduct closes. Our focus since the decision to go with the bored tunnel has been on maintaining viaduct traffic as the tunnel portals are constructed.

From: Dye, Dave
Sent: Monday, March 30, 2009 4:53 PM
To: 'Fleckenstein.Mary@leg.wa.gov'; Paananen, Ron
Cc: Ziegler, Jennifer
Subject: Re: When Elliott/Western ramps close down

Mary - as we just discussed, the ramps to elliott/western can stay open until 99 traffic is moved to the tunnel - then, removal of the viaduct commences and the viaduct's north end would be on the critical path to get it down and clear it out (including ramps) - I'll ask.Ron his best guesstimate of the time between ramp removal connector opening...stay tuned...

-dave

From: Fleckenstein, Mary
To: Dye, Dave; Paananen, Ron
Sent: Mon Mar 30 15:24:07 2009
Subject: When Elliott/Western ramps close down

When are the Elliott and Western ramps scheduled to close down? I recall their closure would be almost the last thing that happens before the bored tunnel opens to traffic. Can the grade separation over the railroad tracks be built with the E/W ramps open?

From: Leathers, Kathryn [Leathers.Kathryn@leg.wa.gov]
ent: Tuesday, April 07, 2009 8:27 AM
To: Paananen, Ron; Hammond, Paula
Subject: RE: AWV - Rep. Dickerson Amd

Thank you, Ron. I'll try to incorporate those comments. Kathryn

---Original Message---
From: Paananen, Ron [mailto:PaananR@wsdot.wa.gov]
Sent: Monday, April 06, 2009 9:23 PM
To: Hammond, Paula; Leathers, Kathryn
Subject: RE: AWV - Rep. Dickerson Amd

I will add a little more to the Aurora Bridge discussion.

There are backups on SR 99 at the south end of the Aurora Bridge due to the ramps that access north Queen Anne. The local street intersections near the bridge at these ramps can be managed better to prevent backups onto SR 99. To a lesser degree, the same is true for the northbound off ramp to Bridge Way at the north end of the bridge.

From: Hammond, Paula
Sent: Mon 4/6/2009 4:22 PM
To: 'Leathers, Kathryn'; Paananen, Ron
Subject: RE: AWV - Rep. Dickerson Amd

Kathryn,
on is driving, so I'm reading this to him, and I'll type our response in blue below:
Paula

From: Leathers, Kathryn [mailto:Leathers.Kathryn@leg.wa.gov]
Sent: Monday, April 06, 2009 3:55 PM
To: Paananen, Ron
Cc: Hammond, Paula
Subject: AWV - Rep. Dickerson Amd
Importance: High

Hi Ron,

At Rep. Dickerson's request, I asked the City to identify specific language in the amendment that they believed addressed state responsibilities. Below is their initial response. Rep. Dickerson has asked me to work with you/WSDOT for the purpose of getting this amendment right - that is, it is her intent to exclude work that is the state's responsibility.

In other words, I will be re-drafting her amendment, as needed, and I need some help in getting it right. Can you please review the City's responses, including the comment made by David, and let me know whether the City's comments accurately reflect WSDOT's understanding of the state's responsibilities?

Thank you,

Kathryn - 786-7114

From: davidfoster9@gmail.com [mailto:davidfoster9@gmail.com]

Sent: Monday, April 06, 2009 3:06 PM
To: Leathers, Kathryn
Subject: Fw: Amendment

Kathryn - Here's a quick response. We also believe this puts the federal funding for Spokane St at risk due to the timing of the legislation/bids and federal requirements.

Sent via BlackBerry by AT&T

From: "Robert Powers"
Date: Mon, 06 Apr 2009 13:19:51 -0700
To: <davidfoster9@gmail.com>; Andrew Glass Hastings<andrew.glasshastings@Seattle.Gov>; Bob Chandler<Bob.Chandler@Seattle.Gov>; Tracie Sunday<Tracie.Sunday@Seattle.Gov>; Tracy Burrows<Tracy.Burrows@Seattle.Gov>
Subject: Amendment

hey David - give me a call when you get this

Powers

Page 1, Section B, lines 20-23.

* There are no traffic lights on SR 99 between Spokane Street and the Aurora Bridge, nor are there any planned as part of this project. True, and SR 99 will become the tunnel.

Page 1, Section C, lines 24-27 through page 2, lines 1-2:

* The State is responsible for the design and construction of the SR 99 South End Replacement (from Holgate to King streets). True

* The State is responsible for the design and construction of the SR 519 Project True

Page 2, Section D, lines 3-5:

* The city is working with the state on the design of the north portal to the bored tunnel, which will play an important role in providing access. The state is responsible for construction, and associated costs, of the north portal as part of the agreement. This is a true statement

Page 2, Section B, lines 16-17:

Policies related to the Aurora Bridge are a state responsibility. The city operates the Aurora Bridge by state law, and operates city streets that are adjacent to the Aurora Bridge. I'm assuming "Policies" means operational policies, so these are the city's responsibility. I don't know what the issue is with on-street parking, but the city controls that.

Page 2, Section B(iii), lines 22-23:

* The city is working with the state on the design of the north portal to the bored tunnel, which will play an important role in providing access. The state is responsible for construction, and associated costs, of the north portal as part of the agreement. This is a true statement

Page 2, section C, lines 32-34 through Page 3, lines 1-2:

* The city is not responsible for the costs associated with construction of the new Alaskan Way, the SR 99 South End replacement and the SR 519 projects. This section should be clarified to reflect that. (For example - the city is responsible for the efficient operation of Alaskan Way, but not for building it.) This is a true statement and a good clarification.

From: John Reilly [jjreilis@attglobal.net]
Sent: Monday, April 20, 2009 4:38 PM
To: White, John; Paananen, Ron
Subject: Re: AWV Question - terms and interpretations

John - yes, need to work this with Harry, Mike M and others (e.g Rigsby, Fiorentino). Let's discuss - see also following (from the WSDOT CEVP Glossary). In CEVP Contingency is stripped out and replaced by risk events. Generically, in non-CEVP estimates, Contingency includes provision for unknowns but not Allowances - which are include provision for known but unquantified elements (and part of "base cost" in CEVP). None of this is clean or easily explained - depends on the process. e.g. risk consequences can be positive or negative - sometimes labeled "risk and opportunity".

Cheers

John Reilly
Web: www.JohnReilly.us
Cell: +1-508-904-3434

Allowance	Additional resources included in an estimate to cover the cost of known but undefined requirements for an activity or work item. A Base Cost.
Design Allowance	Additional resources included in an estimate to cover the cost of known but undefined requirements for a *design element.*
Construction Allowance	Additional resources included in an estimate to cover the cost of known but undefined requirements for a *construction activity* or work item.

SOURCE: WSDOT CEVP® Definition

Base Cost	The Base Cost represents the cost which can reasonably be expected if the project materializes as planned. There is typically relatively small uncertainty or variance. Base Costs are initially estimated by the Project Team and reviewed and validated during the Risk Workshop by the Cost Team and Subject Matter Experts.
Base Cost Estimate	The sum of Base Costs excluding Contingencies and Risk Events.
Base Cost Validation	A detailed examination of Base Costs for the particular project under consideration to assess validity, reasonableness, consistency and accuracy of these costs.

SOURCE: WSDOT CEVP® Working Definition

Contingency (see also allowance, reserve)	A markup applied to account for substantial uncertainties in quantities, unit costs and the possibility of currently unforeseen risk events related to quantities, work elements or other project requirements.

SOURCE: WSDOT CEVP® Definition

A margin of resource or specification in excess of the base estimate (for example, of money available for the conduct of a project, or float with the initial project plan, or over specification of product characteristics) to enable the achievement of project objectives in the face of the impact of specific risk events.

SOURCE: Project Risk Analysis and Management Guide, 2004 APM Publishing

Design Contingency

A markup applied to cover the cost of undefined and as-yet unknown design requirements -- it is expected to be zero at completion of design.

SOURCE: WSDOT CEVP® Definition

Construction Contingency

Additional applied to cover the cost of undefined and as-yet unknown construction requirements - expected to be zero at completion of construction.

SOURCE: WSDOT CEVP® Definition

Risk Events

Uncertain events that affect the defined project resulting in impacts to cost, schedule, safety, performance or other characteristic but do not include the minor variance inherent in Base Costs. Examples include political, policy and/or management changes, changes in regulations and laws, earthquakes, fires, floods, unknown archeological sites, et al. (NOTE: Some may use the term "risk" to connote a negative event consequence and opportunity a positive event consequence.)

Risk

The combination of the probability of an uncertain event and its consequences. A positive consequence presents an *opportunity*; a negative consequence poses a *threat*.

Exposure to the consequences of uncertainty. In a project context, it is the chance of something happening that will have an impact upon objectives. It includes the possibility of loss or gain, or variation from a desired or planned outcome, as a consequence of uncertainty associated with following a particular course of action. Risk thus has two elements: the likelihood or probability of something happening; and the consequences or impacts if it does.

Source: "Project Risk Management Guidelines", 2005 by Cooper, Grey, Raymond, Walker

Project risk - the exposure of stakeholders to the consequences of variations in outcome. The overall risk affecting the whole project, defined by components associate with risk events, other sources of uncertainty and associated dependencies, to be managed at the strategic level.

SOURCE: Project Risk Analysis and Management Guide, 2004 APM Publishing

----- Original Message -----
From: White, John
To: Reilly, John ; Paananen, Ron
Sent: Monday, April 20, 2009 4:10 PM

Subject: Re: AWV Question

From here on out we clearly need to be consistent in how we use the words risk and contingency.

From: John Reilly
To: Paananen, Ron; White, John
Sent: Mon Apr 20 15:32:54 2009
Subject: Re: AWV Question

Ron - I concur.

Regards, John Reilly
Web: www.JohnReilly.us
Cell: +1-508-904-3434

----- Original Message -----
From: Paananen, Ron
To: Reilly, John ; White, John
Sent: Monday, April 20, 2009 3:19 PM
Subject: FW: AWV Question

Maybe this looks better

-----Original Message-----
From: Paananen, Ron
Sent: Monday, April 20, 2009 3:17 PM
To: Dye, Dave
Subject: FW: AWV Question

OK, here's a response

Kathryn, you are close. The risk associated with the tunnel itself ($1.9 billion) is about 31% or $418 million. Escalation is estimated at $166 million. Add this to the base cost of $1329 million (which includes construction, design, right of way and administration) to get to the $1.9 billion tunnel estimate.

The risk for the bored tunnel was established based on extensive input from worldwide tunneling experts and cost estimators.
Its important to recognize that the two projects have very different risk profiles. The bored tunnel avoids some the high risk issues on the waterfront such as seawall construction, extensive utility relocation, and resources issues working close to Elliot Bay. Additionally, business and traffic disruption increase the risk of construction on the waterfront. This was also true for the cut and cover tunnel. Building the new elevated structure itself is relatively straight forward, except for the fact that it is located on the waterfront and all the complications of doing the project around the existing viaduct.

The bored tunnel, while utilizing complicated construction methods, avoids most of the major risk items associated with a capacity replacement on the waterfront.

-----Original Message-----
From: Leathers, Kathryn [mailto:Leathers.Kathryn@leg.wa.gov]
Sent: Saturday, April 18, 2009 12:31 PM
To: Paananen, Ron; Dye, Dave

Subject: RE: AWV Question

Ron - Am I calculating the risk for tunnel correctly at about 29% (700M risk, using 2,400 for total state funds; if state total funding is 2,800, risk would be 25%, same as elevated)? Thanks. K

-----Original Message-----
From: Paananen, Ron [mailto:PaananR@wsdot.wa.gov]
Sent: Friday, April 17, 2009 7:12 PM
To: Leathers, Kathryn; Dye, Dave
Subject: RE: AWV Question

Kathryn, Orlando
During the stakeholder process, we analyzed what was known as Scenario M, known as the Elevated Bypass option. The SR 99 component was a 4 lane elevated structure without midtown ramps at Columbia and Seneca. This allowed the elevated to function well with 4 lanes - as the Columbia / Seneca traffic is accommodated with the new south end ramps.

For the SR 99 portion of the estimate, scenario M included the following:

*
Prior expenditures and moving forward - $1,067 million
*
Central Waterfront - $1,662 million

Recall that the prior expenditures and moving forward includes the viaduct replacement from Holgate to King Street, or about 40% of the total viaduct length Extensive reconstruction of the Battery Street Tunnel was also included, along with traffic mitigation projects.

The $1,662 million central waterfront elevated estimate includes reconstruction of the seawall, public utility relocation, surface restoration including a new surface street (4 lanes from Pike to Columbia, and 6 lanes from Columbia to Atlantic). That estimate can be broken down as follows: Base $1,157 million; Risk $289 million and Escalation at $216 million. The Risk represents about 25% of the base estimate.

Let me know if you need more information.

From: Leathers, Kathryn [mailto:Leathers.Kathryn@leg.wa.gov]
Sent: Thu 4/16/2009 10:36 AM
To: Dye, Dave
Cc: Paananen, Ron
Subject: AWV Question

Dave - I've been asked to find out the total amount of contingency/risk funds that were included in the replacement/rebuild cost estimates. I looked back at my notes & files, but haven't been able to locate that information. In short, I need to know:

* Total cost estimates for the rebuild; and
* Total contingency/risk funding included in the total cost estimates.

Thank you,
Kathryn

From: Leathers, Kathryn [Leathers.Kathryn@leg.wa.gov]
Sent: Tuesday, April 21, 2009 10:58 AM
To: Paananen, Ron; Dye, Dave
Subject: RE: AWV Question

This is great. Thank you, Ron. Kathryn

---Original Message---
From: Paananen, Ron [mailto:PaananR@wsdot.wa.gov]
Sent: Tuesday, April 21, 2009 10:54 AM
To: Leathers, Kathryn; Dye, Dave
Subject: RE: AWV Question

Kathryn, you are close. The risk associated with the tunnel itself ($1.9 billion) is about 31% or $418 million. Escalation is estimated at $166 million. Add this to the base cost of $1329 million (which includes construction, design, right of way and administration) to get to the $1.9 billion tunnel estimate.

The risk for the bored tunnel was established based on extensive input from worldwide tunneling experts and cost estimators.
Its important to recognize that the two projects have very different risk profiles. The bored tunnel avoids some the high risk issues on the waterfront such as seawall construction, extensive utility relocation, and resources issues working close to Elliot Bay. Additionally, business and traffic disruption increase the risk of construction on the waterfront. This was also true for the cut and cover tunnel. Building the new elevated structure itself is relatively straight forward, except for the fact that it is located on the waterfront and all the complications of doing the project around the existing viaduct.

The bored tunnel, while utilizing complicated construction methods, avoids most of the major risk items associated with a capacity replacement on the waterfront.

The following table summarizes the numbers. Remember that this excludes Moving forward and prior expenditures. For the elevated, this is $1.067 billion. Because the bored tunnel does not rely on continued use of the Battery Street Tunnel, Moving Forward and Prior expenditures for the bored tunnel are $900 million. We have also allocated $290 million for surface street restoration, and $30 million for further traffic mitigation.

Elevated Structure

Bored Tunnel

Base

$1.157 billion

$1.329 billion

Risk

$289 million (25%)

$418 million (31%)

Escalation

$216 million

$166 million

Total

$1.662 billion

$1.913 billion

Give me a call if you need further clarification.

From: Leathers, Kathryn [mailto:Leathers.Kathryn@leg.wa.gov]
Sent: Sat 4/18/2009 12:31 PM
To: Paananen, Ron; Dye, Dave
Subject: RE: AWV Question

Ron - Am I calculating the risk for tunnel correctly at about 29% (700M risk, using 2,400 for total state funds; if state total funding is 2,800, risk would be 25%, same as elevated)? Thanks. K

----Original Message----
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Sent: Friday, April 17, 2009 7:12 PM
To: Leathers, Kathryn; Dye, Dave
Subject: RE: AWV Question

Kathryn, Orlando
During the stakeholder process, we analyzed what was known as Scenario M, known as the Elevated Bypass option. The SR 99 component was a 4 lane elevated structure without midtown ramps at Columbia and Seneca. This allowed the elevated to function well with 4 lanes - as the Columbia / Seneca traffic is accommodated with the new south end ramps.

For the SR 99 portion of the estimate, scenario M included the following:

* Prior expenditures and moving forward - $1,067 million
* Central Waterfront - $1,662 million

Recall that the prior expenditures and moving forward includes the viaduct replacement from Holgate to King Street, or about 40% of the total viaduct length. Extensive reconstruction of the Battery Street Tunnel was also included, along with traffic mitigation projects.

The $1,662 million central waterfront elevated estimate includes reconstruction of the seawall, public utility relocation, surface restoration including a new surface street (4 lanes from Pike to Columbia, and 6 lanes from Columbia to Atlantic). That estimate can be broken down as follows: Base $1,157 million; Risk $289 million and Escalation at $216 million. The Risk represents about 25% of the base estimate.

Let me know if you need more information.

From: Leathers, Kathryn [mailto:Leathers.Kathryn@leg.wa.gov]
Sent: Thu 4/16/2009 10:36 AM
To: Dye, Dave
Cc: Paananen, Ron
Subject: AWV Question

Dave - I've been asked to find out the total amount of contingency/risk funds that were included in the replacement/rebuild

cost estimates. I looked back at my notes & files, but haven't been able to locate that information. In short, I need to know:

Total cost estimates for the rebuild; and
Total contingency/risk funding included in the total cost estimates.

Thank you,
Kathryn

From: Van Ness, Kristy (Consultant)
Sent: Monday, April 27, 2009 3:38 PM
To: 'Margie Slovan'
Subject: RE: cost estimate

Hi Margie -

Sorry for the delay - I was trying to have it in your inbox before you got back to the office!

Here's the info that Ron was discussing for cost estimates:

The risk associated with the tunnel itself ($1.9 billion) is about $418 million. Escalation is estimated at $166 million. The design for the tunnel is very preliminary, however, and there are things we do not know yet. To account for this in the cost estimate, we estimated the risks and identified a potential cost if none of the risks materialize and a potential cost if all of the risks materialize. Our estimate also accounts for seven years of inflation from now until the tunnel is complete in 2015.

Bored tunnel cost estimate	Cost (millions)
Construction	$944
Right-of-way costs	$149
Preliminary and final design	$118
Construction management and administration	$118
Risk	$418
Escalation (per Global Insight)	$166
TOTAL	**$1,913**

Let me know if you have questions!

Thanks,

Kristy

-----Original Message-----
From: Margie Slovan [mailto:margies@djc.com]
Sent: Monday, April 27, 2009 3:08 PM
To: Van Ness, Kristy (Consultant)
Subject: cost estimate

Kristy: can I get the breakdown of that viaduct cost estimate in an email?

Margie Slovan
Transportation & Government Reporter
Seattle Daily Journal of Commerce
(206) 622-8272

Van Ness, Kristy (Consultant) wrote:
>
> *Washington State Department of Transportation – News*
>
> Urban Corridors Office – 401 2^nd Avenue S., Suite 560 - Seattle, WA

From: White, John
Sent: Tuesday, May 12, 2009 9:43 AM
To: Van Ness, Kristy (Consultant)
Cc: Paananen, Ron; Grotefendt, Amy (Consultant); Lenz, KaDeena (Consultant)
Subject: RE: Viaduct info request from L.Lange

Q. A - A reasonable statement would be on average 2%. In some areas we have a bit more detail, in others less. We are starting to advance the design beyond the 2% level in support of the EIS and tunnel RFP.

Q. B - Concur. We need to stick to using the December/January table you are showing until we have new CEVP results later this summer.

One nuance of the risk and contingency discussion that I am sensitive to is not saying 'there will not be any cost overruns', rather saying we know there will be additional costs related to final design as well as during construction, and our cost-risk (CEVP) estimating process projects and accounts for those expected additional costs. Thus we are confident in our ability to stay within the budget thresholds that we have been given, assuming we can maintain scope and schedule reasonably well. Saying 'there will not be cost overruns' is not a realistic statement, saying we believe we can deliver within the set budget is reasonable.

From: Van Ness, Kristy (Consultant)
Sent: Monday, May 11, 2009 5:41 PM
To: White, John
Cc: Paananen, Ron; Grotefendt, Amy (Consultant); Lenz, KaDeena (Consultant)
Subject: FW: Viaduct info request from L.Lange

Larry's writing for a local Web site - below is an email from him with a few questions.

Question A: What % of design is completed on the bored tunnel? (As Larry asks, "as of this week")

Question B: Here's information that I have - please let me know if you have any edits to it, or things you think I should add.

The risk and contingency associated with the tunnel itself ($1.9 billion) is about $418 million. Escalation is estimated at $166 million. The design for the tunnel is very preliminary, however, and there are things we do not know yet. To account for this in the cost estimate, we estimated the risks and identified a potential cost if none of the risks materialize and a potential cost if all of the risks materialize. Our estimate also accounts for seven years of inflation from now until the tunnel is complete in 2015.

Bored tunnel cost estimate	Cost (millions)
Construction	$944
Right-of-way costs	$149
Preliminary and final design	$118
Construction management and administration	$118
Risk and Contingency	$418
Escalation (per Global Insight)	$166
TOTAL	**$1,913**

Thanks! I'd like to send him information tomorrow, if at all possible.

-Kristy

Kristy Van Ness (Laing)
Communications Manager
Alaskan Way Viaduct and Seawall Replacement Program
206.382.6361
cell: 206.300.4312
email: VanNesK@wsdot.wa.gov

From: Larry Lange [mailto:twolanges@gmail.com]
Sent: Monday, May 11, 2009 4:22 PM
To: Van Ness, Kristy (Consultant)
Subject: Fwd: Viaduct info request from L Lange

Kristy, I just left you a voice-mail message.
I'm working on a followup viaduct story for a local web site (now that I'm no longer at the P-I).

I'm looking for two basic things:

a. the percentage of design completed on the bored tunnel, as of this week.

b. a breadown of the elements included in the $4.24 billion cost, including the amount for contingency Last I recall that amount was about 10 percent but I need to check that.

I need the information in the next day or so and would appreciate it if you could e-mail it to me at my personal e-mail address, where I'm working:

twolanges@gmail.com

Thanks again for the help.
I hope all's well with all of you and I'm glad you apparently survived the budget battles.

Larry Lange

VandenBerghe, Alissa (Consultant)

From: White, John
Sent: Tuesday, May 12, 2009 8:17 AM
To: Paananen, Ron; Grotefendt, Amy (Consultant); Van Ness, Kristy (Consultant)
Subject: Re: WSDOT Response to Your Column in Sunday's Seattle Times

We should discuss the independent panel of experts for this summer. I need to make sure we have a clear expectation on how we are handling the tunnel estimate review.

From: Paananen, Ron
To: Grotefendt, Amy (Consultant); Van Ness, Kristy (Consultant); White, John
Sent: Tue May 12 07:51:36 2009
Subject: FW: WSDOT Response to Your Column in Sunday's Seattle Times

fyi

From: Hammond, Paula
Sent: Mon 5/11/2009 5:11 PM
To: 'dwestneat@seattletimes.com'
Cc: Dye, Dave; Paananen, Ron; Larsen, Chad; Aldridge, Jo
Subject: WSDOT Response to Your Column in Sunday's Seattle Times

May 11, 2009

Dear Mr. Westneat:

I read with interest your column in Sunday's *Seattle Times* about cost overruns on large infrastructure projects and your reference to the 2002 and more recent research papers published by Dr. Flyvbjerg about cost overruns on a very significant number of infrastructure projects.

WSDOT has long strived to improve its project cost estimating accuracy. These efforts were renewed again in 2002 when, in response to industry experience like that referenced by Dr. Flyvbjerg and considering the large Seattle projects that were then in the planning phase, we developed the Cost Estimate Validation Process (CEVP®).

We believe this process more accurately captures the range of potential costs for these large infrastructure projects than the traditional cost estimating approach. It takes into account many of the factors that contribute to cost overruns, including escalation of labor and material, inflation, right-of-way costs, schedule, construction phasing, normal risks and very real potential risks that are outside the control of the public agency. It also involves independent experts so that we take into account recent experiences from around the world.

The cost of the bored tunnel was developed using an approach similar to CEVP and recognized the early stage of design of the bored tunnel. We are advancing the design of the bored tunnel and plan to conduct a full CEVP evaluation this summer. Our approach for estimating the costs of the bored tunnel takes several steps:

- We began by estimating the base cost, or cost of construction materials and labor. The base cost of building the bored tunnel plus the north and south portals is approximately $1.1 billion. This base cost assumes that the project goes as planned.
- A workshop was then held with members of the project team and independent experts to validate the base cost and identify and quantify potential uncertainties. Uncertainties are made up of risks and opportunities, including elements that are at an early stage of design. In the workshop experts estimate the range of probable costs and schedule impacts of the potential uncertainties.
- The final step was to calculate the affect that the identified risks and their probable costs and schedule impacts would have on the base costs of the project. This step developed a potential range of costs for the bored tunnel ranging from $1.2 billion to $2.2 billion. The $2.2 billion, or high end of the range, is the estimated cost of the bored tunnel if many things that can go wrong do go wrong on the project. The $1.2 billion or low end of the range is the predicted cost if very few things go wrong. We believe the most likely cost of the bored tunnel is $1.9 million.

We will be identifying strategies for addressing the risk items that could affect the cost and schedule of the project as we proceed. For example, the cost of delay on this project is estimated to be $10 million per month. Focusing on things that could lengthen the schedule – such as not getting necessary permits on time or problems that could slow down construction – and identifying ways to avoid those delays is one way for us to minimize cost overruns.

We agree that how costs are estimated and managed on this project warrants a watchful eye from the public and elected officials. Our track record, the recent record of several tunnel projects around the world, the current economic environment, and the work done using CEVP® since 2002 gives us reason to believe that it is not only possible but probable to manage this project and deliver it within the estimated cost range. Still, your vigilance and skepticism is welcomed. Even though I'm not from Missouri, I guess we'll "just have to show you" we can do this. "Some" pressed us to lower the cost estimate. Our mantra of transparency and my personal ethic of integrity call for clear accountability on the progress of this project, ever step of the way.

A recent survey by Arup, an independent international tunnel firm, found that several comparable tunnels recently completed around the world have been delivered for costs significantly less than the cost estimate per lane mile of the SR 99 tunnel. To date, a number of independent experts and contractors have reviewed the SR 99 tunnel range estimate and have responded that the estimate appears reasonable for this early stage of design for budgeting purposes. And finally, an independent panel of engineering experts will be convened this summer in accordance with the requirements of ESSB 5768 to review the project cost estimate as it is updated this summer, with findings reported back to the Legislature this fall.

We would welcome the opportunity to meet with you to discuss in more detail how we estimate costs for the Alaskan Way Viaduct and other projects in the Puget Sound region. Ron Paananen, Deputy Urban Corridors Administrator, will be contacting you to set up a briefing time or you may contact him directly at 206-267-0499. In the meantime, I have attached a presentation made in December 2008 to the viaduct stakeholder advisory committee, which presents the concerns we have had since 2001 about cost overruns and our process for addressing them.

Thank you,

Paula Hammond
Secretary of Transportation