From: Meredith, Julie

**Sent:** Friday, March 20, 2009 4:32 PM **To:** Paananen, Ron; White, John

Subject: Re: Leg. Contacts

That sounds good. I still want the Dori monson calls (said tongue in cheek).

Was the noise wall clip really bad? The project was on time and under buidget!

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**

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Email: grecot@wsdot.wa.gov