
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: greco@wsdot.wa.gov

6/25/2009