

VandenBerghe, Alissa (Consultant)

From: Jarnagan, Harry (Consultant)
Sent: Wednesday, April 15, 2009 6:10 AM
To: Williamson, Alec
Subject: FW: Bored Tunnel Contracting Options Schedules: Issues that have Arisen Since Meeting Yesterday
Importance: High
Follow Up Flag: Follow up
Flag Status: Red

Alec,

Apologies for not having included you in the first send-out of this email.

Harry Jarnagan
Deputy Program Manager

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Seawall Replacement Program**
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From: Jarnagan, Harry (Consultant)
Sent: Wednesday, April 15, 2009 5:56 AM
To: Preedy, Matt; Everett, Susan
Cc: White, John; Greco, Theresa; Phelps, Don (Consultant); Oblas, Vic (Consultant); Ludington, Chris (Consultant); Smith, Brian (Consultant)
Subject: Bored Tunnel Contracting Options Schedules: Issues that have Arisen Since Meeting Yesterday
Importance: High

Matt and Susan,

Shortly after our group meeting yesterday, Don Phelps, Vic Oblas, Chris Ludington, Brian Smith, and I met to commence work on the various contracting options schedules that are required to be reviewed early next week. Per your direction, we are making you aware of the following issues. I would have preferred to meet with you personally, but your schedules for the next few days did not show any available time for this, so I am sending these to you via this email:

1. UTILITIES:

- There may be a case to be made for including utilities relocation scope into the South Portal TBM Launch contract. This is because:
 - We won't know the definite scope of utilities relocation required until an appropriate level of design is completed by the DB Contractor.
 - It's possible that utilities will not require relocation per se, but only will need to be supported in-place.

- One possible method of managing utilities relocation would be to:
 - Complete a higher level of design for the utilities than for other portions of the tunnel to ensure a more complete knowledge of the required utilities relocation scope.
 - Plan to relocate the utilities in the field in advance.
 - In the RFP documents to the short-listed DB Contractors, strictly define the South Portal limits and indicate that utility interferences will be cleared within that envelope.
 - Associated with the bullet immediately above, tell the short-listed DB Contractors in the RFP document that they proceed at their own risk if they choose to work outside of the defined South Portal limits.

- In addition to the utilities in the immediate area of the TBM launch site, it's likely that the City will require the relocation of utilities in that area where the tunnel is vertically close (i.e., from King to vicinity Cherry Street). These utilities could be affected by the tunnel settlement trough, and soil grouting could infiltrate the utility lines. Vic Oblas' experience on the Bus Tunnel was that the City required utility relocation along Third Avenue for similar reasons then, and it's likely that this will be repeated on our tunnel project.

2. TBM EXTRACTION PIT: It makes no sense to include the TBM Extraction Pit scope anywhere but in the North Portal scope. Options 1A and 1B envision that the Extraction Pit scope be included with the tunnel bore contract, and this is not advisable.

3. NORTH-TO-SOUTH TUNNEL BORE: One option not fully investigated, but which might have advantages, is to launch the TBM at the North Portal, and then drive southward. One advantage to consider is that there are no utilities to relocate in advance in that area, allowing more time to deal with the utilities in the South Portal footprint. There may be right-of-way acquisition disadvantages. The team suggests that this option be investigated along with the other options.

4. NO SEPARATE SCHEDULE FOR OPTION 1C: Option 1C is very similar in concept to Option 1B, so the schedule development team is not planning to present a separate schedule for 1C.

5. TIME FOR NEXT REVIEW MEETING: Don Phelps and Vic Oblas will both be fully engaged in a tunnel workshop on Wednesday and Thursday of this week, and both of them have unavoidable conflicts on Friday. They request that the timing of the next schedule review meeting be moved to the afternoon of Tuesday, April 21st, instead of Monday, April 20th.

Please let us know if you have any comments on the above. Thanks.

Harry Jarnagan
Deputy Program Manager

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