Project Board

A G E N D A C O N F I D E N T I A L

Subject: Regular Project Board meeting Project Meeting #22

Date: January 15, 2015

Time: 1:00 p.m. – 2:00 p.m.

Location: s.15

AGENDA

Item		Board Requirement	Lead	Time
22.1.	Call to Order and Approval of Agenda	Decision	K. Richter	1:00
22.2	Approval of Minutes from July 24, 2014	Decision	K. Richter	1:05
Projec	t Status Updates			
22.3	Director's Project Update	Information	A. Farrell	1:10
22.4	Financial Update	Information	A. Farrell	1:30
New E	Business			
22.5	Evergreen Extension Service Plan	Information	A. Farrell	1:40
22.6	System Safety Certification Process	Information	J. Eastman	1:50
22.7	Future Meetings	Information	A. Farrell	1:59
22.8	Adjournment		K. Richter	2:00

Meeting Number #22

January 15, 2015

Project Board Members Present:

Grant Main - Regrets Fred Cummings Ian Jarvis Kevin Richter

Project Board Support:

Amanda Farrell
David Beckley
David Chang
John Eastman
Raymond Louie
Stu Jackes
James Harvey
Jon Buckle
Dave Stewart
Sarah Rocchi

Kate Sloan – Note Taker

19.1 Call to Order and Approval of Agenda – K. Richter

The meeting was called to order at 1:11p.m. The meeting was chaired by K. Richter.

The agenda was approved as circulated.

19.2 Approval of Minutes from February 13, 2014 – K. Richter

The minutes of the July 14, 2014 ELRT Project Board meeting were approved as circulated.

Action Item Review:

There were no open actions to review.

Project Status Updates

19.3 Director's Project Update- A. Farrell

A. Farrell distributed a Project Board Update presentation to supplement the Progress Report and Project Status dashboard that was circulated in the meeting materials.

A. Farrell provided an overview of the document highlighting the following:

- <u>Properties</u>: The Project has completed 97% of the total property files. The Project Team continues to work on the remaining property files. EGRT has access to all properties needed for construction.
- <u>Federal Funding</u>: The Project continues to meet bi-weekly with the Federal Government to provide progress updates. Changes to the federal cash flows were made in December to reflect construction progress.
- First Nations: EGRT continues to provide contract opportunities for First Nations

Project Board Minutes

CONFIDENTIAL

January 15, 2015

Environmental: The environmental compensation work is well underway. In late
November, there was a sediment issue at Pinnacle creek due to adjacent construction
work, which was immediately addressed by EGRT. In late August, the EAO conducted a
project site inspection. The inspection report was provided in January which indicated
one minor issue which had already been resolved on site.

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- <u>Communications</u>: Over last quarter, the Project continued with an extensive community relations program (door-to-door visits, construction bulletins and traffic advisories).
 Community relations have been focused on the tunnel boring operations and the issues encountered during TBM maintenance. A community meeting was held on Jan. 14 with Port Moody residents in the Cecile Drive area.
- Concurrent works: The station plazas designs are 90% complete and will be tender ready for Spring 2015. The Klahanie tender package for the wall and landscaping was released in December and closes Jan. 16. The work will begin at the end of March.
- <u>Parking</u>: The City of Coquitlam provided a letter to the Project on parking at the end of the line at Lafarge Lake –Douglas Station. The City would like to see a parking structure provided by the Project. The Project is preparing a response to the letter. The Project is providing additional parking at Coquitlam Central Station.
- <u>Public art:</u> The Project is working with the municipalities and TransLink to incorporate public art in the station plaza designs.

R. Louie provided an overview of design and construction highlighting the following:

- <u>Design</u>: Guideway and station design is mainly complete and systems designs is about 95% complete.
- <u>Construction:</u> The elevated guideway along North Road is complete. The segmental
 truss is progressing well along Pinetree Way and is currently at Lincoln Avenue. The atgrade guideway through Port Moody is complete. All station sites are under
 construction. The timber pile installation is progressing well along the CPR tracks
 (Section 425) and will be completed by end of January.
- <u>Tunnel:</u> The tunnel is approx. one third complete (675m). The tunnel boring is progressing slower than anticipated due to challenges faced during maintenance interventions. Two sinkholes occurred while the TBM was stopped for maintenance one at Chateau Place and one at Cecile Drive. Currently, the TBM is stopped under Cecile Drive and EGRT is assessing how to complete the maintenance. The next planned intervention will be at Clarke Road and Seaview Drive.
- <u>Casting:</u> The casting of guideway segments was completed in December 2014 and the casting of tunnel liners is almost complete.

Project Board Minutes

CONFIDENTIAL

January 15, 2015

- <u>Trackwork and LIM Rail installation:</u> Trackwork is progressing with approx. 30% of the single track completed (Segment 1 and 3 complete). The switch machines have been installed at Burquitlam and Lougheed stations. Cable trays are currently being installed for the power installation.
- <u>Testing & Commissioning:</u> The testing plan is anticipated to commence in early May 2015.
- Vehicles: The assembly of the first vehicle will be completed in early February 2015.
 Bombardier is scheduled to deliver the first train in August 2015.

19.4 Financial Update – A. Farrell

A. Farrell provided an overview of the financial status of the Project:

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New Business

19.5 Evergreen Extension Service Plan – R. Louie

R. Louie provided an overview of the following:

- TransLink proposed to modify the opening day operating plan by extending the Expo Line terminus from Lougheed Town Centre Station to Production Way Station.
- This proposed operational plan will accommodate SFU students by maintaining the same level of service by limiting their number of transfers as today.
- TransLink completed train simulations with BCRTC to confirm operational feasibility.
- This operational plan does not impact ridership and capacity for opening day on the Evergreen Line.
- The Province has reviewed the details of this plan with TransLink and is supportive.
- The modifications to the signage need to be confirmed with contractor to avoid impacts to EGRT's schedule.

19.6 System Safety Certification Process – J. Eastman

- J. Eastman reviewed the Safety Certification Memo and provided the following overview:
 - During the testing and commissioning phase, there will be a series of Safety Certificates required that will relate to each systems component of which the Tunnel Ventilation System is one of the most critical.

Project Board Minutes

CONFIDENTIAL

January 15, 2015

- Although most the work related to this system will be designed, tested and commissioned by the Primary Contractor, there are elements at the Operating and Maintenance Centre (OMC) that will be undertaken by TransLink.
- The inputs from both parties will then have to be combined into a single all-embracing Safety Certificate that BCRTC will need when it applies for an Operating Permit from the BC Safety Authority.
- As part of this process, TransLink needs to identify the personnel that will be undertaking
 the Safety Certification within TransLink's scope of work. TransLink was scheduled to
 identify the personnel by October 2014; however, this date was missed.
- It is critical that the personnel are identified as soon as possible to prevent delays with the contractor. The Testing and Commissioning phase is anticipated to begin May 2015.
- TransLink noted that the procurement process for resources is underway and the RFQ should be released shortly. Due to the specialized skills required, the resourcing has been challenging.
- The Province recommended a follow-up update teleconference to track the progress of this issue.

19.7 Future Meetings – A. Farrell

The next quarterly meeting is tentatively scheduled for late April.

<u>Action</u>

Call to be scheduled in next two weeks to discuss Safety Certification Memo.

19.8 Adjournment – K. Richter

The meeting was adjourned at 2:08pm.

EVERGREEN LINE









Fast, Frequent Convenient 2015-52373

Evergreen Line Project

Project Board Update CONFIDENTIAL

Presented by: Amanda Farrell

January 2015







1. General

- Property
- Funding Partners
- Communications and Community Relations
- First Nations
- Environmental
- Risks







2. Primary Contract – Design

- Design progress
 - Guideway design 100% Complete
 - Station design 100% Complete
 - Systems design 95% Complete







3. Primary Contract - Construction

Work On-Site

- North/Clarke Road: Elevated guideway complete
- Port Moody: At-grade guideway complete
- Pinetree: Elevated guideway progressing
- All Station sites under construction
- Section 425: More than 6,236 of 6,342 timber piles installed

Casting

- All 1,005 guideway segment casting completed in Dec 2014
- More than 9,896 of 10,384 tunnel liner segments cast







4. Primary Contract - Construction

- Trackwork
 - Track work 6346 metres installed
 - Walkway 4773 metres installed
 - Lim Rail 1000 metres installed
- Tunnel Boring (Critical Path)
 - Main boring re-commenced June 2014
 - Bored 675 meters







5. Primary Contract – Construction

- Testing and Commissioning
 - Commence Lougheed Town Centre to Burquitlam Station early May 2015







North Road Elevated guideway complete









South Portal PPS construction









Bored Tunnel construction









At-Grade guideway construction









Trackwork







Evergreen

Fast, Frequent Caroff 66 FRA-2015-52373

Timber Piling / MSE Wall construction











Pinetree Elevated guideway construction









Lougheed Town Centre Station construction









Burquitlam Station construction









Moody Centre Station construction









Inlet Station construction









Coquitlam Central Station construction









Lincoln Station construction









Lafarge Lake - Douglas Station construction









20. Vehicles

- 28 new vehicles
 - Final design complete
 - Assembly of first vehicle complete early February 2015
 - Commence testing
 - First train delivery August 2015







21. Concurrent Works

- Concurrent Works
 - Station Plazas
 - 90% Design Complete
 - Tender ready Spring 2015
 - Parking
 - South Portal
 - Klahanie/Suterbrook: Acoustic Wall and landscaping
 - Public Art







22. Project Budget and Financial Update

Budget - \$1,431 million

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Project Board Update

February 2, 2015

Project Board Members Present:

Grant Main Fred Cummings Ian Jarvis Kevin Richter

Project Board Support:

Amanda Farrell
David Beckley
David Chang
Dave Stewart
Raymond Louie
Wendy Itagawa
John Eastman
Stu Jackes
Sarah Rocchi

Project Board Update - A. Farrell

TBM Progress Update

The TBM maintenance is progressing well. EGRT has commenced dewatering the area in the vicinity of the TBM face and has established a stable ground face in front of the TBM chamber. Crews have commenced changing the cutter head tools and this work will take approximately 10 days to complete. Once the maintenance is complete, the TBM will commence boring towards Clarke Road.

During the TBM maintenance, a sinkhole formed within the fenced area on Cecile Drive. As a precautionary measure, Cecile Drive was completely closed to public traffic. The Project team is working with EGRT to re-open the north lane once a further safety assessment is complete. This area of the roadway will be restored once the TBM boring has resumed.

The next TBM maintenance location is planned for Clarke Road and Seaview Drive. EGRT has started subsurface work at this location which includes jet grouting and dewatering wells.

The Project held a community meeting for Port Moody residents in the Cecile Drive/Seaview Drive area. The meeting addressed concerns on tunnel operations, traffic impacts, and property issues.

Safety Certification Personnel

TransLink provided an update. A prequalification process had commenced and the posting had been released with a closing date of February 18, 2015. TransLink indicated that the position could be filled within two weeks of the procurement closing. A Project Board update meeting will be scheduled in early March to provide on update on this procurement progress.

Action:

 R. Louie to provide a summary of TransLink actions and timing of deliverables in relation to the Safety Certification process.

Project Board Update

CONFIDENTIAL

February 2, 2015

Vehicle Contract

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Project Board

A G E N D A CONFIDENTIAL

Subject: Project Board update teleconference

Date: March 6, 2015

Time: 12:30 p.m. – 1:00 p.m.

Location: s.17

AGENDA

Item		Board Requirement	Lead	Time
1.	Call to Order and Approval of Agenda	Decision	G. Main	12:30
Pro	ject Status Updates			
2.	TBM Progress Update	Information	A. Farrell	12:35
3.	Safety Certification Personnel	Information	D. Beckley	12:45
4.	Vehicle Contract Update	Information	A. Farrell	12:55
5.	Adjournment		G. Main	1:00

Project Board Update

March 6, 2015

Project Board Members Present:

Grant Main Fred Cummings Doug Allen Kevin Richter **Project Board Support:**

Amanda Farrell David Beckley David Chang Raymond Louie Wendy Itagawa Stu Jackes

Project Board Update – A. Farrell

Tunnel Boring Machine (TBM) Progress Update

The TBM is currently averaging 12 rings a day and has bored just over 1000 meters (50%). The next planned maintenance for the TBM will occur at Seaview and Clarke Road where the cutterhead will undergo a full tool replacement. The contractor is currently preparing this site by constructing a grout wall and installing two dewatering wells. The TBM maintenance is scheduled to start next week. A community open house was held on March 5 to provide residents with an update on tunnel construction activities. Approximately 30 residents attended the open house session. The previous TBM maintenance occurred at Cecile Drive where the contractor encountered challenges during the maintenance process and as a result, endured a longer stoppage at this location. Currently, Cecile Drive has one lane open with alternating traffic while the remediation work is completed in the other lane. Based on current progress, the scheduled breakthrough for the TBM will be early July 2015. The Project overall schedule has been shifted from Summer 2016 to Fall 2016.

Safety Certification Personnel

TransLink continues the procurement process for retaining their systems safety certification personnel. The Invitation to Prequalify (ITP) for these positions was originally scheduled to close on Feb. 18, 2015 but was extended and closed on Feb. 24, 2015. TransLink noted that they are currently completing the evaluation process and anticipate having the personnel available by the end of March 2015. TransLink noted that both TransLink and BCRTC staff are progressing with the work until the personnel are retained. The Province prepared a matrix of deliverables for the TransLink activities, and this was issued by letter to TransLink on March 5. The Project and TransLink will work closely to track the progress of the deliverables.

Vehicle Contract

s.13,s.17

Project Board

A G E N D A CONFIDENTIAL

Subject: Regular Project Board meeting Project Meeting #23

Date: May 1, 2015

Time: 8:30 p.m. – 10:30 p.m.

Location: s.15

AGENDA

Item		Board Requirement	Lead	Time
23.1.	Call to Order and Approval of Agenda	Decision	G. Main	8:30
23.2	Approval of Minutes from January 15, February 2, and March 6, 2014	Decision	G. Main	8:35
Projec	t Status Updates			
23.3	Director's Project Update	Information	A. Farrell	8:40
23.4	Financial Update	Information	A. Farrell	9:20
New B	Business			
23.5	Future Meetings	Information	A. Farrell	9:50
23.6	Adjournment		G. Main	10:30

Meeting Number #23

May 1, 2015

Project Board Members Present:

Grant Main - Regrets
Fred Cummings
Ian Jarvis
Patrick Livolsi

Project Board Support:

Amanda Farrell
David Beckley
David Chang
John Eastman
Raymond Louie
Stu Jackes
James Harvey
Jon Buckle
Kate Sloan – Note Taker

23.1 Call to Order and Approval of Agenda – P. Livolsi

The meeting was called to order at 8:32a.m. The meeting was chaired by G. Main.

The agenda was approved as circulated.

23.2 Approval of Minutes from February 13, 2014 – P. Livolsi

The minutes of the following meetings minute were approved as circulated:

- January 15, 2014 ELRT Project Board meeting
- February 2, 2015 ELRT Project Board Special Update
- March 6, 2015 ELRT Project Board Special Update

Action Item Review:

There were no open actions to review.

Project Status Updates

23.3 Director's Project Update- A. Farrell

A. Farrell distributed a Project Board Update presentation to supplement the Progress Report and Project Status dashboard that was circulated in the meeting materials.

A. Farrell provided an overview of the document highlighting the following:

- <u>Properties</u>: EGRT has access to all properties needed for construction. The Project continues to work on property extensions where needed. The Project and TransLink need to resolve the TransLink SRW agreements. TransLink and Project representatives are scheduling meetings with property owners in June to move this forward.
- Federal Funding: The Project continues to hold quarterly meetings with the Federal funding partners including Transport Canada and PPP Canada. The next meeting is

Project Board Minutes

CONFIDENTIAL

May 1, 2015

- scheduled for June 4th. The Project re-forecasted cash flows leading up to the end of fiscal 2014/15 to account for slower tunnel progress. The forecasted cash flows for 2015/16 may need further adjustment depending on tunnel progress.
- <u>First Nations</u>: The Project continues to work on the implementation of the Benefits Agreements with First Nations. The Project has met the contracting obligations and continues to make available procurement opportunities. The Project team continues to work with Kwikwetlem to incorporate cultural pieces in the Coguitlam Station.
- <u>Environmental</u>: There are no major environmental issues at this time. During the dewatering for the TBM maintenance, EGRT encountered elevated Chromium levels. The water was appropriately handled and disposed within the regulations.
- s.13,s.17
- <u>Vehicles</u>: Bombardier continues production and testing of Train 1 in Kingston and the
 assembling of Trains 2 to 7 in Plattsburg. Project and BCRTC representatives conducted
 a site inspection in April to verify progress. The first train is scheduled to be delivered in
 August.
- <u>TransLink Deliverables:</u> The Project continues to meet regularly with TransLink.
 TransLink has identified the Safety Certification personnel needed for the integration and safety certification process. The Project and TransLink working closely to ensure the integrated schedule and deliverables are met.
- <u>Communications</u>: The Project continues with a comprehensive community relation program including a dedicated Project website, 24/7 phone line, distribution of information bulletins, door to door visits and community meetings.

R. Louie provided an overview of design and construction highlighting the following:

- <u>Design</u>: The design is complete for the guideway and stations. The systems design for the radio communications is almost complete.
- <u>Stations:</u> The station construction is progressing well. Lougheed Town Centre Station and Burguitlam Station are the most advanced stations.
- <u>Construction</u>: The elevated guideway is complete and the at-grade guideway is mainly complete with a small section of track slab remaining to be installed along the CPR corridor.
- Casting: All segment casting is complete for the tunnel and guideway.
- Bored tunnel: The tunnel boring is over 50% complete and TBM is currently at Seaview and Clarke awaiting maintenance. EGRT is doing additional jet grouting to stabilize the ground in front of the TBM to allow the TBM maintenance to be safety completed. Crews will need to change the cutterhead tools and also some repairs. EGRT has also commenced jet grouting at the next planned maintenance location at Clarke and Robinson. The Project continues to monitor the tunnel schedule closely.

- <u>Trackwork and LIM Rail installation:</u> Trackwork is currently approximately 60% complete with 10895 metres installed.
- <u>Testing & Commissioning:</u> The Project is working closely with TransLink and BCRTC
 as the testing of Segment 1 is schedule to commence in June. The Project submitted the
 7 plans to the Registrar of Railways and is awaiting a response. In advance of testing,
 the Project is conducting walkthroughs with EGRT and BCSA.
- Concurrent works: The Klahanie acoustic wall and landscaping construction work is in progress and will be completed this summer. The tender package for the Rona building modifications to accommodate the new parking facility is in development.

23.4 Financial Update - A. Farrell

A. Farrell provided an overview of the financial status of the Project: s.17

New Business

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23.6 Future Meetings – A. Farrell

- s.13,s.17
- The next quarterly meeting to be confirmed.

23.7 Adjournment – G. Main

Project Board Minutes CONFIDENTIAL

May 1, 2015

The meeting was adjourned at 9:45 a.m.



EVERGREEN LINE









Evergreen Line Project

Project Board Update CONFIDENTIAL

Presented by: Amanda Farrell

May 2015







1. General

- Property
- Funding Partners
- Communications and Community Relations
- First Nations
- Environmental
- Risks







2. Primary Contract – Design

- Design progress
 - Guideway design 100% Complete
 - Station design 100% Complete
 - Systems design 95% Complete







3. Primary Contract - Construction

Guideway

- Elevated guideway complete
- Port Moody: At-grade guideway complete
- Timber piling complete and MSE wall progressing

Casting

- 1,005 guideway segment casting complete
- 10,384 tunnel liner segments casting complete







4. Primary Contract - Construction

Trackwork

- Track work 10895metres installed (60%)
- Walkway 8513 metres installed (60%)
- LIM Rail 5362 metres installed (30%)
- Power Rail 4222 metres installed (20%)
- Tunnel Boring (Critical Path)
 - 54 % complete (1041 metres)
 - Intervention at Seaview and Clarke ongoing







5. Primary Contract – Construction

Stations

- Lougheed (85%)
- Burquitlam (70%)
- Moody Centre (65%)
- Inlet Centre (70%)
- Coquitlam (60%)
- Lincoln (40%)
- Lafarge Lake Douglas (65%)

Testing and Commissioning

 Commence Lougheed Town Centre to Burquitlam Station June 2015







North Road Elevated guideway complete









South Portal PPS construction

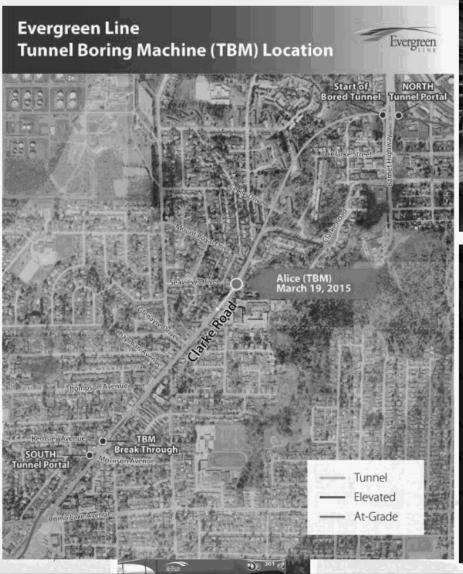








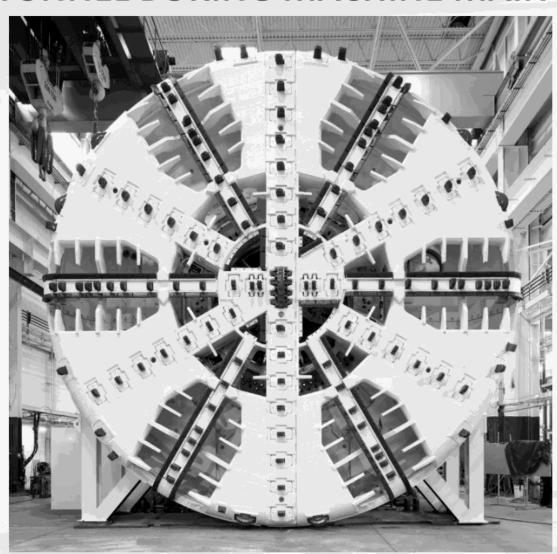
Bored Tunnel construction

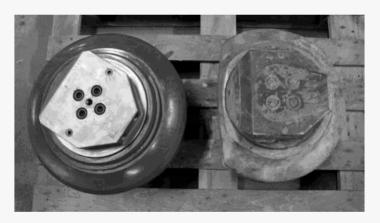






TUNNEL BORING MACHINE MAINTENANCE





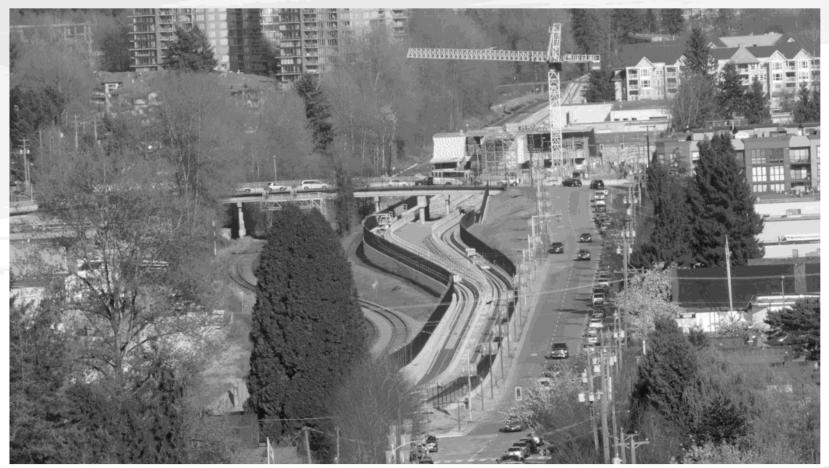
New and worn cutter wheels



New and worn ripper tools

Tunnel boring machine face

At-Grade guideway construction









Trackwork











Timber Piling / MSE Wall construction











Pinetree Elevated Guideway Construction









Lougheed Town Centre Station construction











Burquitlam Station construction









Moody Centre Station construction









Inlet Station construction



Inlet Centre Station looking west



Inlet Centre Station west headhouse



Inlet Centre Station looking east



Inlet Centre Station passenger platform and guideway

Coquitlam Central Station construction











Lincoln Station construction









Lafarge Lake - Douglas Station construction









21. Vehicles

- 28 new vehicles
 - Final design complete
 - Testing of vehicles commenced
 - First train delivery August 2015







22. Concurrent Works

- Concurrent Works
 - Station Plazas
 - Tender ready May 2015
 - Parking
 - Klahanie/Suter Brook: Acoustic Wall and landscaping
 - Public Art







23. Project Budget and Financial Update

Budget - \$1,431 million

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Project Board

A G E N D A C O N F I D E N T I A L

Subject: Project Board Update Teleconference

July 28, 2015

Time: 1:30 p.m. – 3:00 p.m.

Location: s.17

AGENDA

Item	Board Requirement	Lead	Time
Call to Order and Approval of Agenda	Decision	P. Livolsi	1:30
Project Status Updates			
2. Project Update	Information	A. Farrell	1:35
_{3.} s.13,s.17	For Decision	A. Farrell	1:45
4.	For Decision	A. Farrell	2:25
5. Adjournment		P. Livolsi	3:00

Project Board Update

July 28, 2015

Project Board Members Present:

Grant Main
Nancy Bain
Fred Cummings
Doug Allen
Patrick Livolsi

Project Board Support:

Amanda Farrell
David Beckley
David Chang
Raymond Louie
Wendy Itagawa
Stu Jackes
Cathy MacLay
James Harvey (teleconference)

Project Board Update – A. Farrell

- The Project is overall 70% complete which includes all EGRT work and Province led work. The elevated and at-grade guideways are complete and the majority of the trackwork has been installed. The tunnel boring is just over 50% complete. The Testing and Commissioning of Segment 1 began in June and the first test train was on the guideway on July 11th.
- The Tunnel Boring Machine (TBM) maintenance continues under Seaview and Clarke which includes a full tool replacement and welding repairs. The next planned maintenance stop is at Robinson and Clarke Road intersection. The TBM breakthrough is scheduled for late this year.
- The schedule for opening the Evergreen Line is Fall 2016; this is contingent on good progress on the remainder of the tunnel construction. The project team is working closely with EGRT to examine options to support the schedule.
- The first MKIII train is scheduled to be delivered late summer.

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