

File No.: 04-1000-20-2022-657

March 14, 2023

s.22(1)

Dear s.22(1)

Re: **Request for Access to Records under the Freedom of Information and Protection of Privacy Act (the "Act")**

I am responding to your request of December 20, 2022 under the ***Freedom of Information and Protection of Privacy Act (the Act)*** for:

**All emails from the Transportation Division - Transit Integration & Projects to Coast Mountain Bus Company and TransLink. Date range: August 10, 2021 to August 11, 2021.**

All responsive records are attached. Some information in the records has been severed (blacked out) under s.15(1)(l) of the Act. You can read or download this section here: [http://www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/96165\\_00](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/96165_00).

Under section 52 of the Act, and within 30 business days of receipt of this letter, you may ask the Information & Privacy Commissioner to review any matter related to the City's response to your FOI request by writing to: Office of the Information & Privacy Commissioner, [info@oipc.bc.ca](mailto:info@oipc.bc.ca) or by phoning 250-387-5629.

If you request a review, please provide the Commissioner's office with: 1) the request number (#04-1000-20-2022-657); 2) a copy of this letter; 3) a copy of your original request; and 4) detailed reasons why you are seeking the review.

Yours truly,

*[Signed by Cobi Falconer]*

**Cobi Falconer, MAS, MLIS, CIPP/C**  
**Director, Access to Information & Privacy**  
[cobi.falconer@vancouver.ca](mailto:cobi.falconer@vancouver.ca)  
453 W. 12th Avenue Vancouver BC V5Y 1V4

If you have any questions, please email us at [foi@vancouver.ca](mailto:foi@vancouver.ca) and we will respond to you as soon as possible. Or you can call the FOI Case Manager at 604-871-6584.

Encl. (Response package)

:pm

**From:** ["Manfre, Luiz" <luiz.manfre@vancouver.ca>](mailto:luiz.manfre@vancouver.ca)  
**To:** ["Simon Kai" <SKai@BSCGP.ca>](mailto:SKai@BSCGP.ca)  
["Anita Odchimar" <aodchimar@BSCGP.ca>](mailto:aodchimar@BSCGP.ca)  
["Asgari, Amin" <Amin.Asgari@translink.ca>](mailto:Amin.Asgari@translink.ca)  
["Carreira, Daniel" <Daniel.Carreira@coastmountainbus.com>](mailto:Daniel.Carreira@coastmountainbus.com)  
["Eugene Creamer" <ECreamer@BSCGP.ca>](mailto:ECreamer@BSCGP.ca)  
["Felipe Rodriguez" <FRodriguez@BSCGP.ca>](mailto:FRodriguez@BSCGP.ca)  
["Jordan Fahey" <JFahey@BSCGP.ca>](mailto:JFahey@BSCGP.ca)  
["Liew, Tony" <Tony.Liew@coastmountainbus.com>](mailto:Tony.Liew@coastmountainbus.com)  
["Ma, John K TIC:EX" <john.ma@ticorp.ca>](mailto:john.ma@ticorp.ca)  
["Samilski, Mike TIC:EX" <mike.samilski@ticorp.ca>](mailto:mike.samilski@ticorp.ca)  
["Moises Barbosa" <MBarbosa@BSCGP.ca>](mailto:MBarbosa@BSCGP.ca)  
["Holmstrom, Neil" <neil.holmstrom@vancouver.ca>](mailto:neil.holmstrom@vancouver.ca)  
["Ngan, Caroline" <caroline.ngan@vancouver.ca>](mailto:caroline.ngan@vancouver.ca)  
["Sean O'Sullivan" <sosullivan@BSCGP.ca>](mailto:sosullivan@BSCGP.ca)  
["Cooper, Tracy J TRAN:EX" <tracy.cooper@gov.bc.ca>](mailto:tracy.cooper@gov.bc.ca)  
["Wall, Les" <les.wall@coastmountainbus.com>](mailto:les.wall@coastmountainbus.com)  
["Hoban, Dale" <dale.hoban@vancouver.ca>](mailto:dale.hoban@vancouver.ca)  
["Fatemeh Masoudialavi" <FMasoudialavi@BSCGP.ca>](mailto:FMasoudialavi@BSCGP.ca)  
["Carl Clayton" <carl.clayton@ibigroup.com>](mailto:carl.clayton@ibigroup.com)  
["Alexey Pryadko" <APryadko@BSCGP.ca>](mailto:APryadko@BSCGP.ca)  
["Ricky Ho" <rho@BSCGP.ca>](mailto:rho@BSCGP.ca)  
["Steve Martin" <steve.martin@ibigroup.com>](mailto:steve.martin@ibigroup.com)  
["Mladen Pecanac" <mladen.pecanac@ibigroup.com>](mailto:mladen.pecanac@ibigroup.com)

**Date:** 8/11/2021 10:20:58 AM

**Subject:** RE: BSCGP - South Granville Stage 1 Piling - Revision B (e-amil 3 of 3)

**Attachments:** SG - Stage 1 - Comment Resolution Sheet - 2021-08-11.XLSX  
SG - Stage 1 - TS SL - COV Comments - 2021-08-11.pdf

Hello Simon,

Please find attached the City Comments for South Granville Stage 1 Traffic Signal & Street Lighting Designs, along with the updated Comments Resolution Sheet.  
Please revise and resubmit with an updated Comment Resolution Sheet.

Let me know if you require more information.

Thank you.  
Luiz



---

**From:** Simon Kai <SKai@BSCGP.ca>

**Sent:** Monday, August 9, 2021 6:34 PM

**To:** Manfre, Luiz <Luiz.Manfre@vancouver.ca>; Anita Odchimar <aodchimar@BSCGP.ca>; Asgari, Amin <Amin.Asgari@translink.ca>; Carreira, Daniel <Daniel.Carreira@coastmountainbus.com>; Eugene Creamer <ECreamer@BSCGP.ca>; Felipe Rodriguez <FRodriguez@BSCGP.ca>; Jordan Fahey <JFahey@BSCGP.ca>; Liew, Tony <Tony.Liew@coastmountainbus.com>; Ma, John K TIC:EX <john.ma@ticorp.ca>; Samilski, Mike TIC:EX <mike.samilski@ticorp.ca>; Moises Barbosa <MBarbosa@BSCGP.ca>; Holmstrom, Neil <neil.holmstrom@vancouver.ca>; Ngan, Caroline <Caroline.Ngan@vancouver.ca>; Sean O'Sullivan <sosullivan@BSCGP.ca>; Cooper, Tracy J TRAN:EX <tracy.cooper@gov.bc.ca>; Wall, Les <les.wall@coastmountainbus.com>; Hoban, Dale <Dale.Hoban@vancouver.ca>; Fatemeh Masoudialavi <FMasoudialavi@BSCGP.ca>; Carl Clayton <carl.clayton@ibigroup.com>; Alexey Pryadko <APryadko@BSCGP.ca>; Ricky Ho <rho@BSCGP.ca>; Steve Martin <steve.martin@ibigroup.com>; Mladen Pecanac <mladen.pecanac@ibigroup.com>

**Subject:** [EXT] RE: BSCGP - South Granville Stage 1 Piling - Revision B (e-amil 3 of 3)

**City of Vancouver security warning:** Do not click on links or open attachments unless you were expecting the email and know the content is safe.

---

Hi Luiz, Caroline and Tracy

Attached please find the revised Traffic Signal and Street Lighting Design, as well as the comments resolution sheet for your review.

Please note that subsequent to the previous submission, we need to modify the lighting design because there is a lead time of between 6 to 8 weeks to get the light fixture we need if we go with the span wire option, and another issue is the construction team has modified the temporary waterline design and there will be conflicts to place temporary light poles along the south sidewalk. So the lighting design will now go back to the original option by mounting light poles on lock blocks and place them along the roadside barriers beside traffic.

Regards

**Simon Kai, P.Eng., PTOE**

Cell: 778.871.9853

Broadway Subway Project



---

**From:** Manfre, Luiz <Luiz.Manfre@vancouver.ca>

**Sent:** Monday, July 26, 2021 4:28 PM

**To:** Simon Kai <SKai@BSCGP.ca>; Anita Odchimar <aodchimar@BSCGP.ca>; Asgari, Amin <Amin.Asgari@translink.ca>; Carreira, Daniel <Daniel.Carreira@coastmountainbus.com>; Eugene Creamer <ECreamer@BSCGP.ca>; Felipe Rodriguez <FRodriguez@BSCGP.ca>; Jordan Fahey <JFahey@BSCGP.ca>; Liew, Tony <Tony.Liew@coastmountainbus.com>; Ma, John K TIC:EX



<[john.ma@ticorp.ca](mailto:john.ma@ticorp.ca)>; Samilski, Mike TIC:EX <[mike.samilski@ticorp.ca](mailto:mike.samilski@ticorp.ca)>; Moises Barbosa <[MBarbosa@BSCGP.ca](mailto:MBarbosa@BSCGP.ca)>; Holmstrom, Neil <[Neil.Holmstrom@vancouver.ca](mailto:Neil.Holmstrom@vancouver.ca)>; Ngan, Caroline <[caroline.ngan@vancouver.ca](mailto:caroline.ngan@vancouver.ca)>; Sean O'Sullivan <[sosullivan@BSCGP.ca](mailto:sosullivan@BSCGP.ca)>; Cooper, Tracy J TRAN:EX <[tracy.cooper@gov.bc.ca](mailto:tracy.cooper@gov.bc.ca)>; Wall, Les <[les.wall@coastmountainbus.com](mailto:les.wall@coastmountainbus.com)>; Hoban, Dale <[Dale.Hoban@vancouver.ca](mailto:Dale.Hoban@vancouver.ca)>; Ronetta Seymour <[RSeymour@BSCGP.ca](mailto:RSeymour@BSCGP.ca)>; Fatemeh Masoudialavi <[FMasoudialavi@BSCGP.ca](mailto:FMasoudialavi@BSCGP.ca)>

Cc: Ricky Ho <[rho@BSCGP.ca](mailto:rho@BSCGP.ca)>; Alexey Pryadko <[APryadko@BSCGP.ca](mailto:APryadko@BSCGP.ca)>

Subject: RE: BSCGP - South Granville Stage 1 Piling - Revision B (e-amil 3 of 3)

Hello Simon,

Please find attached the City Comments for South Granville Stage 1 Roadworks and Traffic Signal and Street Lighting Design (received on July 22<sup>nd</sup>), as well as the Comments Resolution Sheet. Please revise and resubmit with an updated Comment Resolution Sheet.

Thank you.

Luiz

---

From: Simon Kai <[SKai@BSCGP.ca](mailto:SKai@BSCGP.ca)>

Sent: Thursday, July 22, 2021 1:29 PM

To: Manfre, Luiz <[Luiz.Manfre@vancouver.ca](mailto:Luiz.Manfre@vancouver.ca)>; Anita Odchimar <[aodchimar@BSCGP.ca](mailto:aodchimar@BSCGP.ca)>; Asgari, Amin <[Amin.Asgari@translink.ca](mailto:Amin.Asgari@translink.ca)>; Carreira, Daniel <[Daniel.Carreira@coastmountainbus.com](mailto:Daniel.Carreira@coastmountainbus.com)>; Eugene Creamer <[ECreamer@BSCGP.ca](mailto:ECreamer@BSCGP.ca)>; Felipe Rodriguez <[FRodriguez@BSCGP.ca](mailto:FRodriguez@BSCGP.ca)>; Jordan Fahey <[JFahey@BSCGP.ca](mailto:JFahey@BSCGP.ca)>; Liew, Tony <[Tony.Liew@coastmountainbus.com](mailto:Tony.Liew@coastmountainbus.com)>; Ma, John K TIC:EX <[john.ma@ticorp.ca](mailto:john.ma@ticorp.ca)>; Samilski, Mike TIC:EX <[mike.samilski@ticorp.ca](mailto:mike.samilski@ticorp.ca)>; Moises Barbosa <[MBarbosa@BSCGP.ca](mailto:MBarbosa@BSCGP.ca)>; Holmstrom, Neil <[neil.holmstrom@vancouver.ca](mailto:neil.holmstrom@vancouver.ca)>; Ngan, Caroline <[Caroline.Ngan@vancouver.ca](mailto:Caroline.Ngan@vancouver.ca)>; Sean O'Sullivan <[sosullivan@BSCGP.ca](mailto:sosullivan@BSCGP.ca)>; Cooper, Tracy J TRAN:EX <[tracy.cooper@gov.bc.ca](mailto:tracy.cooper@gov.bc.ca)>; Wall, Les <[Les.Wall@coastmountainbus.com](mailto:Les.Wall@coastmountainbus.com)>; Hoban, Dale <[Dale.Hoban@vancouver.ca](mailto:Dale.Hoban@vancouver.ca)>; Ronetta Seymour <[RSeymour@BSCGP.ca](mailto:RSeymour@BSCGP.ca)>; Fatemeh Masoudialavi <[FMasoudialavi@BSCGP.ca](mailto:FMasoudialavi@BSCGP.ca)>

Cc: Ricky Ho <[rho@BSCGP.ca](mailto:rho@BSCGP.ca)>; Alexey Pryadko <[APryadko@BSCGP.ca](mailto:APryadko@BSCGP.ca)>

Subject: [EXT] RE: BSCGP - South Granville Stage 1 Piling - Revision B (e-amil 3 of 3)

**City of Vancouver security warning:** Do not click on links or open attachments unless you were expecting the email and know the content is safe.

---

Hi Luiz

Please see attached comments resolution sheet.



Regards

**Simon Kai, P.Eng., PTOE**

Cell: 778.871.9853

Broadway Subway Project



---

**From:** Manfre, Luiz <[Luiz.Manfre@vancouver.ca](mailto:Luiz.Manfre@vancouver.ca)>

**Sent:** Thursday, July 22, 2021 12:48 PM

**To:** Simon Kai <[SKai@BSCGP.ca](mailto:SKai@BSCGP.ca)>; Anita Odchimar <[aodchimar@BSCGP.ca](mailto:aodchimar@BSCGP.ca)>; Asgari, Amin <[Amin.Asgari@translink.ca](mailto:Amin.Asgari@translink.ca)>; Carreira, Daniel <[Daniel.Carreira@coastmountainbus.com](mailto:Daniel.Carreira@coastmountainbus.com)>; Eugene Creamer <[ECreamer@BSCGP.ca](mailto:ECreamer@BSCGP.ca)>; Felipe Rodriguez <[FRodriguez@BSCGP.ca](mailto:FRodriguez@BSCGP.ca)>; Jordan Fahey <[JFahey@BSCGP.ca](mailto:JFahey@BSCGP.ca)>; Liew, Tony <[Tony.Liew@coastmountainbus.com](mailto:Tony.Liew@coastmountainbus.com)>; Ma, John K TIC:EX <[john.ma@ticorp.ca](mailto:john.ma@ticorp.ca)>; Samilski, Mike TIC:EX <[mike.samilski@ticorp.ca](mailto:mike.samilski@ticorp.ca)>; Moises Barbosa <[MBarbosa@BSCGP.ca](mailto:MBarbosa@BSCGP.ca)>; Holmstrom, Neil <[Neil.Holmstrom@vancouver.ca](mailto:Neil.Holmstrom@vancouver.ca)>; Ngan, Caroline <[caroline.ngan@vancouver.ca](mailto:caroline.ngan@vancouver.ca)>; Sean O'Sullivan <[sosullivan@BSCGP.ca](mailto:sosullivan@BSCGP.ca)>; Cooper, Tracy J TRAN:EX <[tracy.cooper@gov.bc.ca](mailto:tracy.cooper@gov.bc.ca)>; Wall, Les <[Les.Wall@coastmountainbus.com](mailto:Les.Wall@coastmountainbus.com)>; Hoban, Dale <[Dale.Hoban@vancouver.ca](mailto:Dale.Hoban@vancouver.ca)>; Ronetta Seymour <[RSeymour@BSCGP.ca](mailto:RSeymour@BSCGP.ca)>; Fatemeh Masoudialavi <[FMasoudialavi@BSCGP.ca](mailto:FMasoudialavi@BSCGP.ca)>

**Cc:** Ricky Ho <[rho@BSCGP.ca](mailto:rho@BSCGP.ca)>; Alexey Pryadko <[APryadko@BSCGP.ca](mailto:APryadko@BSCGP.ca)>

**Subject:** RE: BSCGP - South Granville Stage 1 Piling - Revision B (e-amil 3 of 3)

Hello Simon,

Thank you for sending the drawings. Could you please submit the updated Comment resolution Sheet as well?

Thanks.

Luiz

---

**From:** Simon Kai <[SKai@BSCGP.ca](mailto:SKai@BSCGP.ca)>

**Sent:** Thursday, July 22, 2021 12:08 PM

**To:** Anita Odchimar <[aodchimar@BSCGP.ca](mailto:aodchimar@BSCGP.ca)>; Asgari, Amin <[Amin.Asgari@translink.ca](mailto:Amin.Asgari@translink.ca)>; Carreira, Daniel <[Daniel.Carreira@coastmountainbus.com](mailto:Daniel.Carreira@coastmountainbus.com)>; Eugene Creamer <[ECreamer@BSCGP.ca](mailto:ECreamer@BSCGP.ca)>; Felipe Rodriguez <[FRodriguez@BSCGP.ca](mailto:FRodriguez@BSCGP.ca)>; Jordan Fahey <[JFahey@BSCGP.ca](mailto:JFahey@BSCGP.ca)>; Liew, Tony <[Tony.Liew@coastmountainbus.com](mailto:Tony.Liew@coastmountainbus.com)>; Ma, John K TIC:EX <[john.ma@ticorp.ca](mailto:john.ma@ticorp.ca)>; Samilski, Mike TIC:EX <[mike.samilski@ticorp.ca](mailto:mike.samilski@ticorp.ca)>; Moises Barbosa <[MBarbosa@BSCGP.ca](mailto:MBarbosa@BSCGP.ca)>; Holmstrom, Neil <[neil.holmstrom@vancouver.ca](mailto:neil.holmstrom@vancouver.ca)>; Ngan, Caroline <[Caroline.Ngan@vancouver.ca](mailto:Caroline.Ngan@vancouver.ca)>; Sean O'Sullivan <[sosullivan@BSCGP.ca](mailto:sosullivan@BSCGP.ca)>; Cooper, Tracy J TRAN:EX <[tracy.cooper@gov.bc.ca](mailto:tracy.cooper@gov.bc.ca)>; Wall, Les <[Les.Wall@coastmountainbus.com](mailto:Les.Wall@coastmountainbus.com)>; Hoban, Dale <[Dale.Hoban@vancouver.ca](mailto:Dale.Hoban@vancouver.ca)>; Ronetta Seymour <[RSeymour@BSCGP.ca](mailto:RSeymour@BSCGP.ca)>; Fatemeh Masoudialavi <[FMasoudialavi@BSCGP.ca](mailto:FMasoudialavi@BSCGP.ca)>; Manfre, Luiz

<[Luiz.Manfre@vancouver.ca](mailto:Luiz.Manfre@vancouver.ca)>

Cc: Ricky Ho <[rho@BSCGP.ca](mailto:rho@BSCGP.ca)>; Alexey Pryadko <[APryadko@BSCGP.ca](mailto:APryadko@BSCGP.ca)>

Subject: [EXT] BSCGP - South Granville Stage 1 Piling - Revision B (e-amil 3 of 3)

**City of Vancouver security warning:** Do not click on links or open attachments unless you were expecting the email and know the content is safe.

Tracy and Caroline (Re-sending one file at a time)

I apologize that we did not submit this package to you yesterday as planned, we will work better internally to improve this issue.

Please see attached documents for the South Granville Piling Stage 1 work, submitted for your review and comment, under the Review Procedure.

This submission includes the following documents:

- Electrical and lighting drawings
- TCPs and Roadworks Drawings

The contact person from BSCGP for this work is Ricky Ho (604-818-0762) and Alexey Pryadko (604-258-8521)

Regards

**Simon Kai, P.Eng., PTOE**

Cell: 778.871.9853

Broadway Subway Project







Document Title: Comment Resolution Sheet for South Granville Stage 1 - Traffic Signal & Street Lighting Design

Document Number:

SUBMISSION REVIEW FORM

Revision: 1Jul-26-2021

SUBMISSION REVIEW FORM									
Project <b>Broadway Subway Project</b>				Progress: <b>NA</b>		Response Date			
Document Name: <b>South Granville Stage 1 - Traffic Signal &amp; Street Lighting</b>						Submittal No.			
Submittal Status									
REVIEWED		Submittals that appear to conform to the requirements of the Agreement, including the Design and Construction Specifications and the Proposal Extracts (Design and Construction)							
CORRECT DEFICIENCIES		Submittals that appear to generally conform to the requirements of the Agreement, including the Design and Construction Specifications and the Proposal Extracts (Design and Construction) but in which deficiencies have been found and identified by the Province's review							
REJECTED		Submittals that contain significant deficiencies or do not generally conform to the requirements of the Agreement, including the Design and Construction Specifications and the Proposal Extracts (Design and Construction)							
NOT REVIEWED		Submittals that have not been reviewed by the Province in detail because the Submittals does not comply with the requirements of Schedule 2 [Review and Consent Procedure] are incomplete or otherwise insufficient for the purposes of a Design review, or are received by the Province before the date scheduled in the Submittal Schedule.							
Doc. Ref.	Relevant PA Clause	Comment No.	Reviewer Name	Review Comment	Action Item*	Responder Name	Response	Status	
ROADWORKS - BSP-70901-SGIG-41DD-1008		1	TDM	suggestion to dimension all left turn bays		IBI	Dimension added for clarity	Open	
ROADWORKS - BSP-70901-SGIG-41DD-1008		2	TDM	TYP - we have discussed this many times - this should be shown as a curb and not just paint		IBI	There is an elevation difference between the new road surface and the existing sidewalk	Open	
ROADWORKS - BSP-70901-SGIG-41DD-1008		3	TDM	confirm DDL in place		IBI	Existing DDL is in place - will be refreshed if needed.	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 2		1	TEOD	No longer double davit		GNEC	Updated	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 2		2	TEOD	SL goes through poles 1/14 and JB. Wires need to be disconnected at poly 1000 JB.		GNEC	Updated	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 3		3	TEOD	This is not practical. New head should be installed before old is removed.		GNEC	Changed so that the existing head is removed and returned to city yard after installation of new head.	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 3		4	TDM	as discussed, current cabinet won't allow for actuated LT phases		GNEC	noted.	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 3		5	TEOD	Add note for ex. signal arm and heads to be removed.		GNEC	Added	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 3		6	TDM	please shift to the north so it is not in line with the DDL		GNEC	Shifted so both heads are centered on the lanes.	Open	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 3		7	TEOD	Are fixed-time left turns planned? If so, heads should be 4x300.		GNEC	Fixed-time planned. Heads updated to 4 section	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 3		8	TEOD	Add note for ex. signal arm and heads to be removed.		GNEC	signal arm and signal head to remain as 12/15 is not in conflict with the laning	Open	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 3		9	TEOD	This is not practical. New head should be installed before old is removed.		GNEC	Changed so that the existing head is removed and returned to city yard after installation of new head.	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 4		10	TDM	confirm not repainting the rest of stop bar? last submission has it painted				Open	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		11	TEOD	SL conduits/circuits will be damaged or unusable once new curb is in place. Ensure connection from JB near 5/24 to wood pole is in place, then triplex can carry the SL power West.		GNEC	Updated existing connection, SL to west will be re-fed via wood pole and UG conductors disconnected.	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		12	TEOD	Need SL conductors across this span to feed pole 2/14 and new wood poles to the West.		GNEC	SL conductors are part of this span, refer to note at SW corner of intersection on the drawings	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		13	TEOD	Since none of the poles on this block are staying anymore, disconnection should be at JB, not between these two poles.		GNEC	Moved CoV disconnect note to the Type 2 JB to remain beside pole 1/25	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		14	TEOD	Tie in should be at JB, not pole.		GNEC	Updated	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		15	TEOD	Relocating heads is not practical. New heads should be installed first to allow for seamless cutover, Old heads can be used at other locations.		GNEC	Changed to new heads	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		16	TEOD	Conduit should go to JB, not pole.		GNEC	This wire is a an overhead span to cut down on civil works. Added a callout for the span for clarity.	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		17	TDM	what is the ped clearance between the pole and the barrier?				Open	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		18	TDM	update for the left turns (primary and secondary heads)		GNEC	Updated	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		19	TEOD	If SL is in fact in the Poly 1000 JB, then SL conductors will be needed from this JB to wood pole 1/14 to feed intersection lighting and mid-block poles. Source of power is separate from signal controller power, so overbuilding with #3 JB next to existing poly JB is recommended to pick up SL.		GNEC	Added a type 3 JB to intercept existing SL and extend to new wood pole.	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		20	TDM	please show utilities/water/fire hydrant as previously discussed		GNEC	Existing hydrant is shown on our drawings, it is located by pole 6/24	Open	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		21	TEOD	Pole not being removed anymore, so no need to disconnect.		GNEC	updated	Closed	

Confirm with CMBC if pole can handle load of span and arm.

No response

no response and no dimension added

is it ok to be that close?

TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		22	TEOD	Is this luminaire being transferred to wood pole 10/13?		GNEC	Yes, note has been updated to reflect this	Closed
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		23	TDM	to be updated to match the TSR (E/W left turn )		GNEC	updated	Closed

\*Action Item  
Correct  
Additional Information Required

Status  
Open  
Closed

Document Title: Comment Resolution Sheet for South Granville Stage 1 - Traffic Signal & Street Lighting Design

Document Number:

SUBMISSION REVIEW FORM

Revision:Date: Jul-06-21

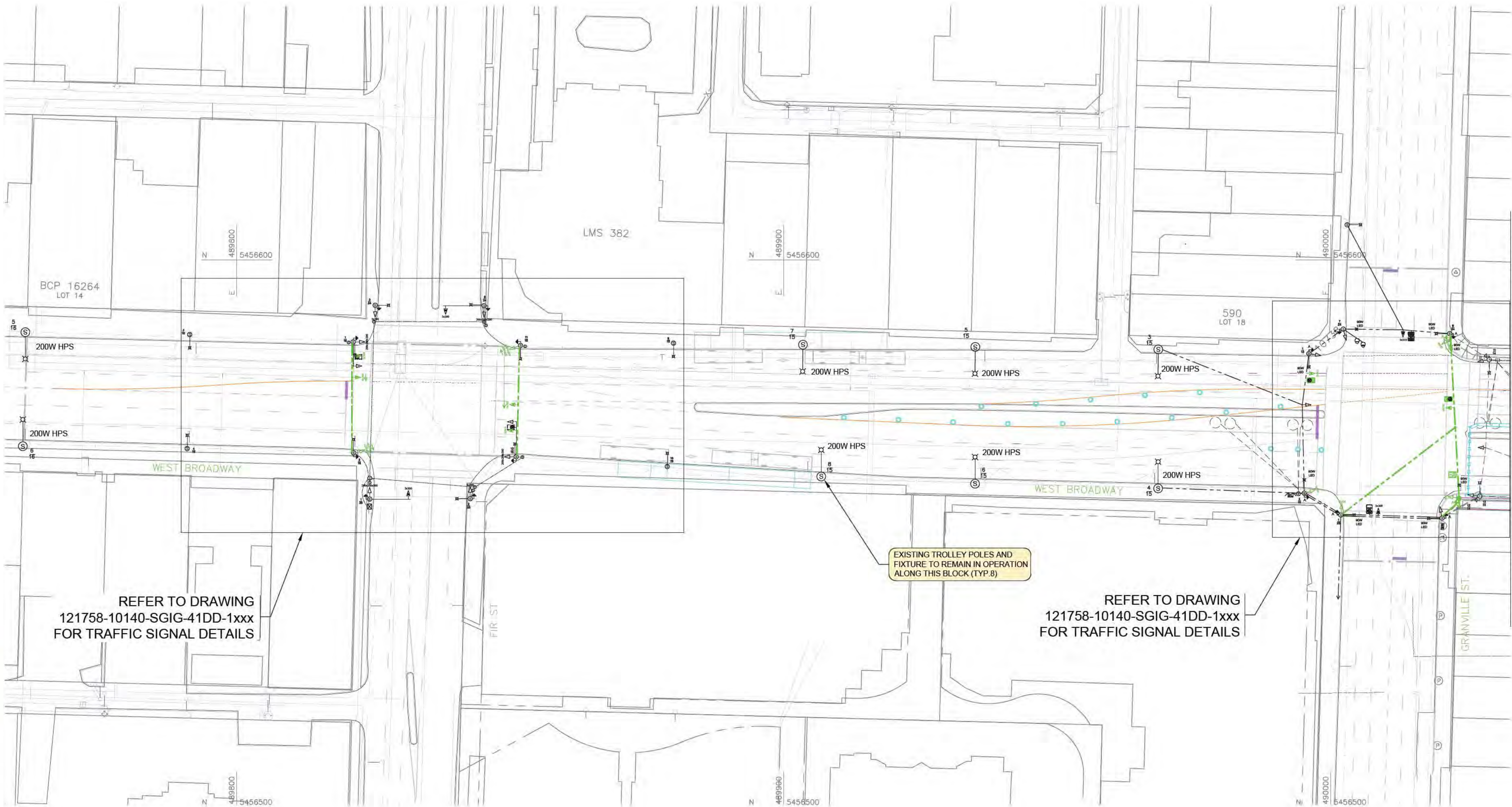
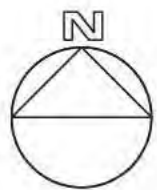
SUBMISSION REVIEW FORM									
Project: <a href="#">Broadway Subway Project</a>				Progress: <a href="#">NA</a>		Response Date			
Document Name: <a href="#">South Granville Stage 1 - Traffic Signal &amp; Street Lighting</a>						Submittal No.			
Submittal Status									
REVIEWED			Submittals that appear to conform to the requirements of the Agreement, including the Design and Construction Specifications and the Proposal Extracts (Design and Construction)						
CORRECT DEFICIENCIES			Submittals that appear to generally conform to the requirements of the Agreement, including the Design and Construction Specifications and the Proposal Extracts (Design and Construction) but in which deficiencies have been found and identified by the Province's review						
REJECTED			Submittals that contain significant deficiencies or do not generally conform to the requirements of the Agreement, including the Design and Construction Specifications and the Proposal Extracts (Design and Construction)						
NOT REVIEWED			Submittals that have not been reviewed by the Province in detail because the Submittals does not comply with the requirements of Schedule 2 [Review and Consent Procedure] are incomplete or otherwise insufficient for the purposes of a Design review, or are received by the Province before the date scheduled in the Submittal Schedule.						
Doc. Ref.	Relevant PA Clause	Comment No.	Reviewer Name	Review Comment	Action Item*	Responder Name	Response	Status	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 1		1	TEOD	Add note (in red text - for COV crews): DISCONNECT SL CONDUCTORS BETWEEN 11/14 AND 9/14	Correct	AR	<a href="#">Corrected</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 1		2	TEOD	One poles to the East are removed, 11/14 and 12/14 will poles will lose SL power. Add triplex from 8/24 and the temp wood poles to provide SL connections, or install additional SL arms.	Correct	AR	<a href="#">Pole 12/14 luminaire was re-fed from #2/25 . Pole 11/14 was removed, will verify lighting levels and adding potential luminaire to pole 8/24 to face south.</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 1		3	TEOD	Add note (in red text - for COV crews): DISCONNECT SL CONDUCTORS BETWEEN 12/14 AND 10/14	Correct	AR	<a href="#">Corrected</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 2		4	TEOD	Add note (in red text - for COV crews): DISCONNECT SL CONDUCTORS BETWEEN 19/14 AND 11/14	Correct	AR	<a href="#">Corrected</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 2		5	TEOD	Please add note that these poles are only to be removed once temporary lighting is in place.	Correct	AR	<a href="#">Corrected</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 2		6	TEOD	Add note (in red text - for COV crews): DISCONNECT SL CONDUCTORS BETWEEN 10/14 AND 12/14	Correct	AR	<a href="#">Corrected</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 2		7	TEOD	FYI existing SL connections shows in dashed-blue line	Correct	AR	<a href="#">Corrected, ex conduit added</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 2		8	TEOD	Pole 7/13 will need to be removed as well and wires disconnected between 7/13 and 5/13.	Correct	AR	<a href="#">Corrected. as part of signal drawing</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 3		9	TDM	is the capacity ok without left turn phases? If we need both left turn phases, cabinet to be upgraded		MP	<a href="#">Will provide Protected Opposing Left Turn Phase except at night time - confirmed controller can accommodate third phase.</a>	Open	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 3		10	TDM	confirm this head meets cone of vision requirements for the left turn bay	Correct	AR	<a href="#">Added extra head to meet cone of vision and span wires</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 4		11	TDM	plan view shows SBRT wanting to remain? if so, show in phasing	Correct	AR	<a href="#">SBRT removed</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 4		12	TDM	since EBLT is being removed, the SBRT overlap would also be removed. Is the idea to keep it?	Correct	AR	<a href="#">SBRT removed</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 4		13	TDM	move ped head to inside of intersection (other side of the pole) for better ped visibility	Correct	AR	<a href="#">Corrected</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 4		14	TEOD	Return LED luminaire to COV National Yard.	Correct	AR	<a href="#">Corrected</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 4		15	TEOD	Add note (in red text - for COV crews): DISCONNECT SL CONDUCTORS BETWEEN 11/14 AND 9/14	Correct	AR	<a href="#">Corrected</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 4		16	TEOD	One poles to the East are removed, 11/14 and 12/14 will poles will lose SL power. Add triplex from 8/24 and the temp wood poles to provide SL connections, or install additional SL arms.	Correct	AR	<a href="#">Pole 12/14 luminaire was re-fed from #2/25 . Pole 11/14 was removed, will verify lighting levels and adding potential luminaire to pole 8/24 to face south.</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 4		17	TEOD	Add note (in red text - for COV crews): DISCONNECT SL CONDUCTORS BETWEEN 12/14 AND 10/14	Correct	AR	<a href="#">Corrected</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 4		18	TDM	rationale for offset from curb? would like to maximize sidewalk width/accessibility as much as possible if possible	Correct	AR	<a href="#">The pole is shown right behind proposed curb to avoid conflict with sign above mounted on building</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		19	TEOD	Note: 4 intersection poles on Broadway are current supporting CMBC turn wires.	Correct	AR	<a href="#">Note box added to drawing to coordinate with CMBC for the relocation of existing support trolley wires</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		20	TEOD	Return LED luminaire to COV National Yard.	Correct	AR	<a href="#">LED lumiinare has been noted as relocate to new pole</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		21	TEOD	Return LED luminaire to COV National Yard.	Correct	AR	<a href="#">LED lumiinare has been noted as relocate to new pole</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		22	TEOD	Intercept existing SL conduit and install #3 JB and 1-53mm RPVC to wood pole for SL feed.	Additional Information Required	AR	<a href="#">Currently it seems that the lighting conductors are coming from the service panel to the north on the laneway and conduit seems to be connected to the existing Type 1 JB which should have existing lighting conductors already. GIS does not show more information. Lighting records would be required to fully confirm or site investigation if possible confirmation by City Crews?</a>	Open	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		23	TDM	please move ped head and EB secondary to this other pole (1/25). they are too far from cross walk alignment and road alignment for visibility	Correct	AR	<a href="#">ped heads and EB secondary relocated to existing pole</a>	Closed	
TRAFFIC SIGNAL & STREET LIGHTING DESIGN - PAGE 5		24	TDM	base plan doesn't match either of the hemlock geometric options. Update based on final option decision TDM will review in full again once updated	Correct	AR	<a href="#">Base plan was updated with latest civil</a>	Closed	

See new comments









FOR CONTINUATION SEE DWG. 121758-10140-SGIG-41DD-1xxx

100 P.S.I. GAS MAIN  
NOTIFY TERASEN GAS INC.  
AT LEAST 72 HOURS PRIOR  
TO CROSSING PIPELINE

\* GAS PRESSURE OVER 100 P.S.I.  
BEFORE CROSSING OR CONSTRUCTING  
WITHIN 2.0m OF PIPELINE APPLY  
TO B.C. GAS INC.

# HIGH VOLTAGE TRANSMISSION DUCT.  
BEFORE CROSSING OR CONSTRUCTING  
WITHIN 6M OF DUCT CONTACT  
BCI ELECTRICAL DIVISION

UTILITY CHECK:

FOR FURTHER INFORMATION  
REFER TO UTILITY PLAN U-1xxx E

OVERHEAD POWER LINE CONFLICTS  
OPERATIONS SHALL CONFIRM ON-SITE PRIOR TO CONSTRUCTION THAT POLES  
AND EQUIPMENT WILL MEET WORKSAFE BC CLEARANCE REQUIREMENTS FOR  
OVERHEAD PRIMARY AND SECONDARY LINES. IF ANY CONFLICTS OR  
DISCREPANCIES ARE IDENTIFIED, OPERATIONS TO CONTACT ELECTRICAL  
DESIGN PRIOR TO COMMENCING CONSTRUCTION

IF UNEXPECTED SITE CONTAMINATION IS ENCOUNTERED,  
PLEASE CONTACT YOUR SUPERVISOR &  
CHRISTIAAN IACOE ENVIRONMENTAL PLANNING AT  
604-873-7564 OR 604-363-2298, IMMEDIATELY

LEGEND			
GENERAL			
EXISTING - BLACK TO BE REMOVED - DASHED			
UNDERGROUND INFRASTRUCTURE & OVERHEAD SPANS			
① JUNCTION BOX	④ 1324 J.B.	PROPOSED T.S. CONDUIT	UTILITIES (AS DEFINED BY LINETYPE)
② POLY 1000 J.B.	⑤ 1730 J.B.	EXISTING T.S. CONDUIT	OVERHEAD MESSENGER CABLE
③ POLY 2000 J.B.	⑥ 2436 J.B.	PROPOSED COMM. DUCT	OVERHEAD MESSENGER ONLY CABLE
⑦ 1116 J.B.	⑧ COMM. VAULT	EXISTING COMM. DUCT	OVERHEAD COMM. FIGURE 8 CABLE
⑨ T.S.M.S.	⑩ GRND. PLATE	PROPOSED S.L. CONDUIT	OVERHEAD TRIPLEX CABLE
⑪ GRND.		EXISTING S.L. CONDUIT	VEHICLE DETECTOR LOOPS - 1.8m Ø
			EXISTING
			PROPOSED
TRAFFIC SIGNAL INFRASTRUCTURE			
PROPOSED TRAFFIC SIGNAL INFRASTRUCTURE SHALL BE SHOWN AS GREEN			
PROPOSED STREET LIGHTING INFRASTRUCTURE SHALL BE SHOWN AS BLUE			
SECONDARY HEAD - 3x200mm	COMBO POLE	DAVIT POLE	CONTROLLER
SECONDARY HEAD WITH ARROW 200x200x300mm / 200x200x300mm	TROLLEY POLE	HYDRO WOOD POLE	SIGNAL SERVICE
PRIMARY / TERTIARY HIGHWAY HEAD 300x200x200mm	S.L. POLE	3.0m (10') POLE (COV)	PB
PRIMARY HEAD - 3x300mm	S.L. POLE (WOOD)	4.0m (13') POLE (MMCO)	CYC. PB
PRIMARY HEAD ARROW - 3x300mm	'S' TYPE POLE	'L' TYPE POLE	ACCESSIBLE PED. SIGNAL
PRIMARY HEAD ARROW - 4x300mm	CAMERA	'M' TYPE POLE	APS
BIKE HEAD - 3x200mm / 3x300mm	COUNTDOWN PED. HEAD	TYPE 2 POLE	A
	LED	SERVICE PANEL	COMMUNICATIONS TERMINAL BLOCK
	L.E.D. LUMINAIRE - WATTAGE AS INDICATED		ANTENNA

RECORD ALL FIELD CHANGES

KEY PLAN

ISSUE/REVISION

REFERENCES

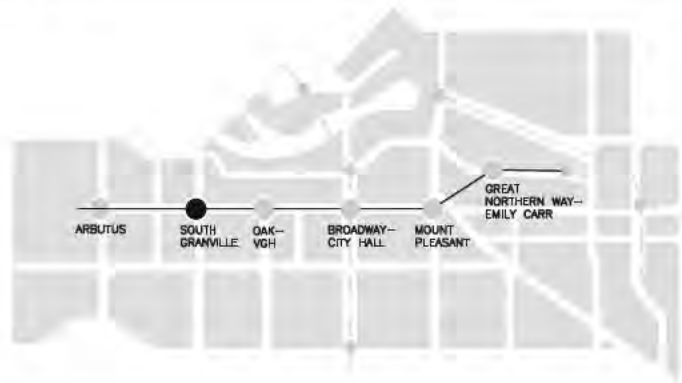
ENGINEER'S SEAL

PROJECT

DB CONTRACTOR

DRAWING INFORMATION

CONTRACT NUMBER



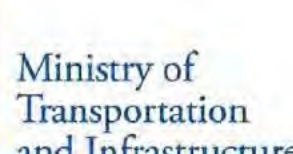
WBS  
3.10.1.4

I/R DATE BY DESCRIPTION(PHASE) APPR REFERENCES

2021-08-05 AR ISSUED FOR FDR 2 CC

2021-07-20 AR ISSUED FOR FDR CC

2021-06-09 AR ISSUED FOR IDR 1 CC



DRW BY GNEC  
DES BY A.REYES  
CHK BY C.COMMANDEUR  
APR BY C.COMMANDEUR

5508501  
PROJECT NUMBER  
BSP  
SHEET TITLE

SCALE  
1:500  
0 1:500 25

SOUTH GRANVILLE STATION  
TRAFFIC CONTROL STAGE 1  
WEST BROADWAY TRAFFIC SIGNAL &  
STREET LIGHTING PLAN (1 OF 2)  
DRAWING NUMBER  
BSP-71006-SGIG-41DD-1xxx



Ø 100 P.S.I. GAS MAIN  
NOTIFY TERASEN GAS INC.  
AT LEAST 72 HOURS PRIOR  
TO CROSSING PIPELINE

\* GAS PRESSURE OVER 100 P.S.I.  
BEFORE CROSSING OR CONSTRUCTING  
WITHIN 2.0m OF PIPELINE APPLY  
TO B.C. GAS INC.

# HIGH VOLTAGE TRANSMISSION DUCT,  
BEFORE CROSSING OR CONSTRUCTING  
WITHIN 6m OF DUCT CONTACT  
BCH ELECTRICAL DIVISION

UTILITY CHECK:  
FOR FURTHER INFORMATION,  
REFER TO UTILITY PLAN U-1xxx

OVERHEAD POWER LINE CONFLICTS  
OPERATIONS SHALL CONFIRM ON-SITE PRIOR TO CONSTRUCTION THAT POLES  
AND EQUIPMENT WILL MEET WORKSAFE BC CLEARANCE REQUIREMENTS FOR  
OVERHEAD PRIMARY AND SECONDARY LINES. IF ANY CONFLICTS OR  
DISCREPANCIES ARE IDENTIFIED, OPERATIONS TO CONTACT ELECTRICAL  
DESIGN PRIOR TO COMMENCING CONSTRUCTION

IF UNEXPECTED SITE CONTAMINATION IS ENCOUNTERED,  
PLEASE CONTACT YOUR SUPERVISOR &  
CHRISTIAAN IACOE ENVIRONMENTAL PLANNING AT  
604-873-7564 OR 604-363-2298, IMMEDIATELY

LEGEND

GENERAL

EXISTING - BLACK  
TO BE REMOVED - DASHED

UNDERGROUND INFRASTRUCTURE & OVERHEAD SPANS

1 JUNCTION BOX

2 POLY 1000 J.B.

3 POLY 2000 J.B.

4 1118 J.B.

5 TSMS

6 GRND

1324 J.B.

1730 J.B.

2436 J.B.

COMM VAULT

GRND PLATE

PROPOSED T.S. CONDUIT

EXISTING T.S. CONDUIT

PROPOSED COMM. DUCT

EXISTING COMM. DUCT

PROPOSED S.L. CONDUIT

EXISTING S.L. CONDUIT

UTILITIES (AS DEFINED BY LINETYPE)

OVERHEAD MESSENGER CABLE

OVERHEAD MESSENGER ONLY CABLE

EXISTING TRIPLEX CABLE

VEHICLE DETECTOR LOOPS - 1.8m Ø

EXISTING

PROPOSED

TRAFFIC SIGNAL INFRASTRUCTURE

PROPOSED TRAFFIC SIGNAL INFRASTRUCTURE  
SHALL BE SHOWN AS GREEN

PROPOSED STREET LIGHTING INFRASTRUCTURE  
SHALL BE SHOWN AS BLUE

SECONDARY HEAD - 3x200mm

SECONDARY HEAD WITH ARROW  
200x200x300mm / 200x200x300x300mm

PRIMARY / TERTIARY HIGHWAY HEAD  
300x200x200mm

PRIMARY HEAD - 3x300mm

PRIMARY HEAD ARROW - 3x300mm

PRIMARY HEAD ARROW - 4x300mm

BIKE HEAD - 3x200mm / 3x300mm

COMBO POLE

TROLLEY POLE

S.L. POLE

S.L. POLE (WOOD)

"S" TYPE POLE

"T" TYPE POLE

"M" TYPE POLE

TYPE 2 POLE

SERVICE PANEL

L.E.D. LUMINAIRE - WATTAGE AS INDICATED

DAVIT POLE

HYDRO WOOD POLE

3.0m (10') POLE (COV)

4.0m (13') POLE (MMCD)

CONTROLLER

PB

CYC. PB

APS

A

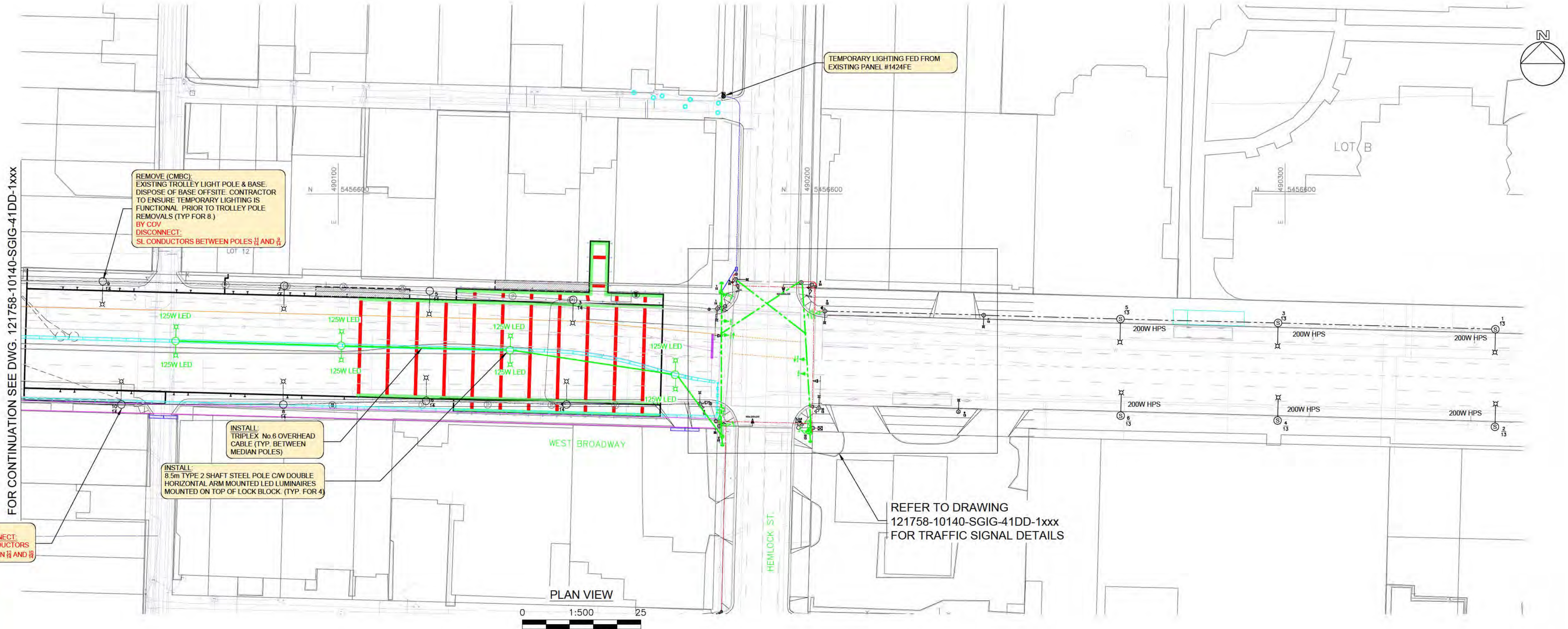
AUDIBLE

COMMUNICATIONS

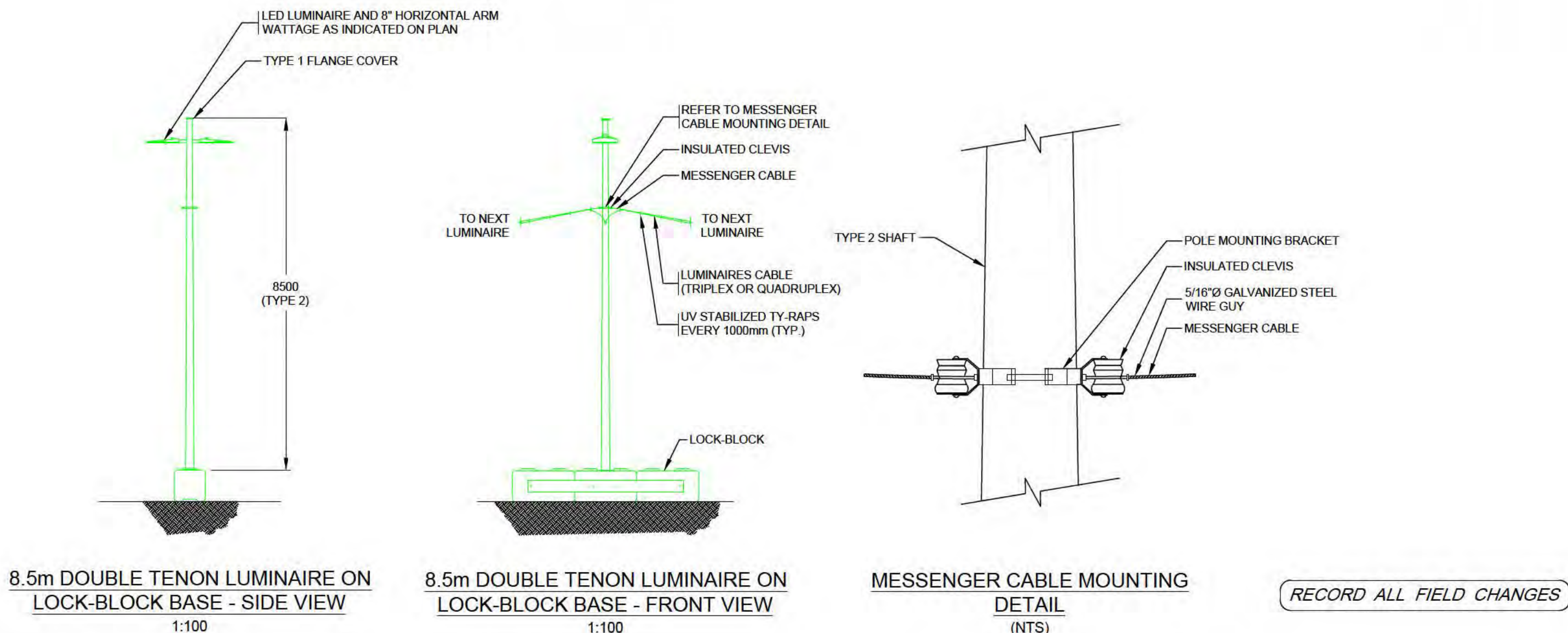
TERMINAL BLOCK

T

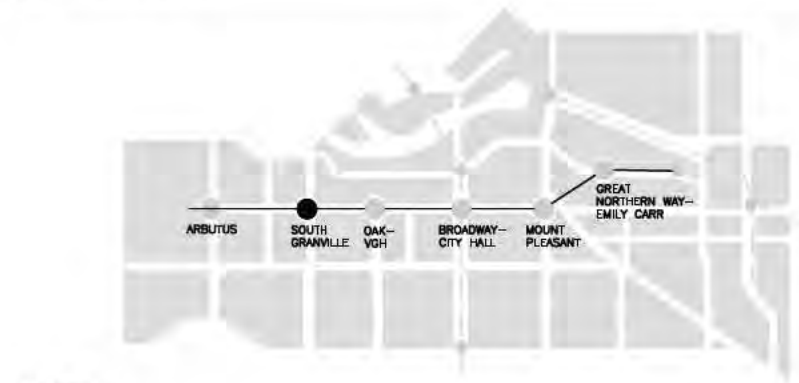
ANTENNA



LIGHTING CRITERIA		
PER: ( TAC TABLE 9.2 AND RP-8-18 TABLE 11-1 )		
ITEM	REQUIRED VALUES	CALCULATED VALUES
STREET NAME(S)	WEST BROADWAY	
LAND USE CLASSIFICATION	COMMERCIAL	
ROADWAY CLASSIFICATION & WIDTH	12.5m (PHASE 1) ARTERIAL	
PEDESTRIAN ACTIVITY LEVEL	HIGH	
LUMINAIRE DESCRIPTION, MANUFACTURER & MODEL	ATB0 P452 MVOLT R3 3K UMS-GALV P7	
PHOTOMETRIC FILE NUMBER	ATB0_P452_R3_3K.ies (STL)	
LUMINAIRE WATTAGE AND LIGHT SOURCE	125W LED	
LIGHT LOSS FACTOR	0.8	
LUMINAIRE DISTRIBUTION CLASSIFICATION AND BUG RATING	TYPE III, B2-U0-G3	
POLE HEIGHT (m)	8.5m	
POLE ARRANGEMENT	MEDIAN MOUNTED	
POLE SPACING (WORST CASE)	35m	
INTERSECTION ILLUMINANCE LEVEL (Eavg)	N/A	N/A
INTERSECTION UNIFORMITY RATIO (Eavg:Emin)	N/A	N/A
ROADWAY LUMINANCE LEVEL (Lavg)	1.2 (Cd/m²)	2.7 EB, 1.2 WB (Cd/m²)*
ROADWAY ILLUMINANCE LEVEL (Lavg)	N/A	N/A
ROADWAY UNIFORMITY RATIO (Lavg:Lmin)	3.0:1	2.1:1 EB, 1.8:1 WB
ROADWAY UNIFORMITY RATIO (Lmax:Lmin)	5.0:1	4.0:1 EB, 2.7:1 WB
ROADWAY VEILING LUMINANCE RATIO (Lmax:Lavg)	0.3:1	0.2 EB, 0.3 WB
SIDEWALK + BIKE LANE HORIZONTAL ILLUMINANCE LEVEL (Eavg)	10.0 lux	15.4 NORTH (lux) 12.6 SOUTH (lux)
SIDEWALK + BIKE LANE HORIZONTAL UNIFORMITY RATIO (Eavg:Emin)	4.0:1	2.3:1 NORTH 2.1:1 SOUTH
*LEVELS ARE TO MEET BOTH EB & WB		



KEY PLAN      ISSUE/REVISION      REFERENCES      ENGINEER'S SEAL      PROJECT      DB CONTRACTOR      DRAWING INFORMATION      CONTRACT NUMBER



WBS	I/R	DATE	BY	DESCRIPTION(PHASE)	APPR	REFERENCES
-----	-----	------	----	--------------------	------	------------

3.10.1.4

2021-08-05	AR	ISSUED FOR FDR 2	CC			
2021-07-20	AR	ISSUED FOR FDR	CC			
2021-06-09	AR	ISSUED FOR IDR 1	CC			



DRW BY GNEC  
DES BY A.REYES  
CHK BY C.COMMANDEUR  
APR BY C.COMMANDEUR

SCALE AS SHOWN

5508501  
PROJECT NUMBER  
BSP  
SHEET TITLE  
SOUTH GRANVILLE STATION  
TRAFFIC CONTROL STAGE 1  
WEST BROADWAY TRAFFIC SIGNAL &  
STREET LIGHTING PLAN (2 OF 2)  
DRAWING NUMBER  
BSP-71006-SGIG-41DD-1xxx



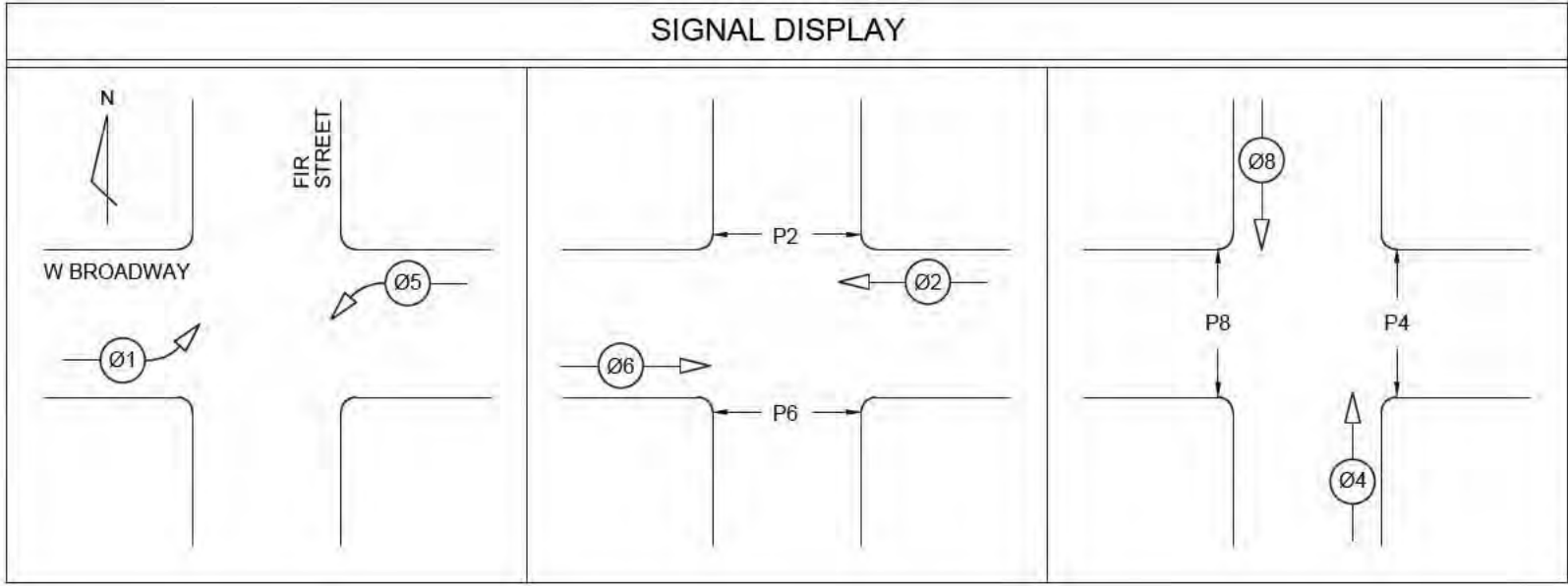
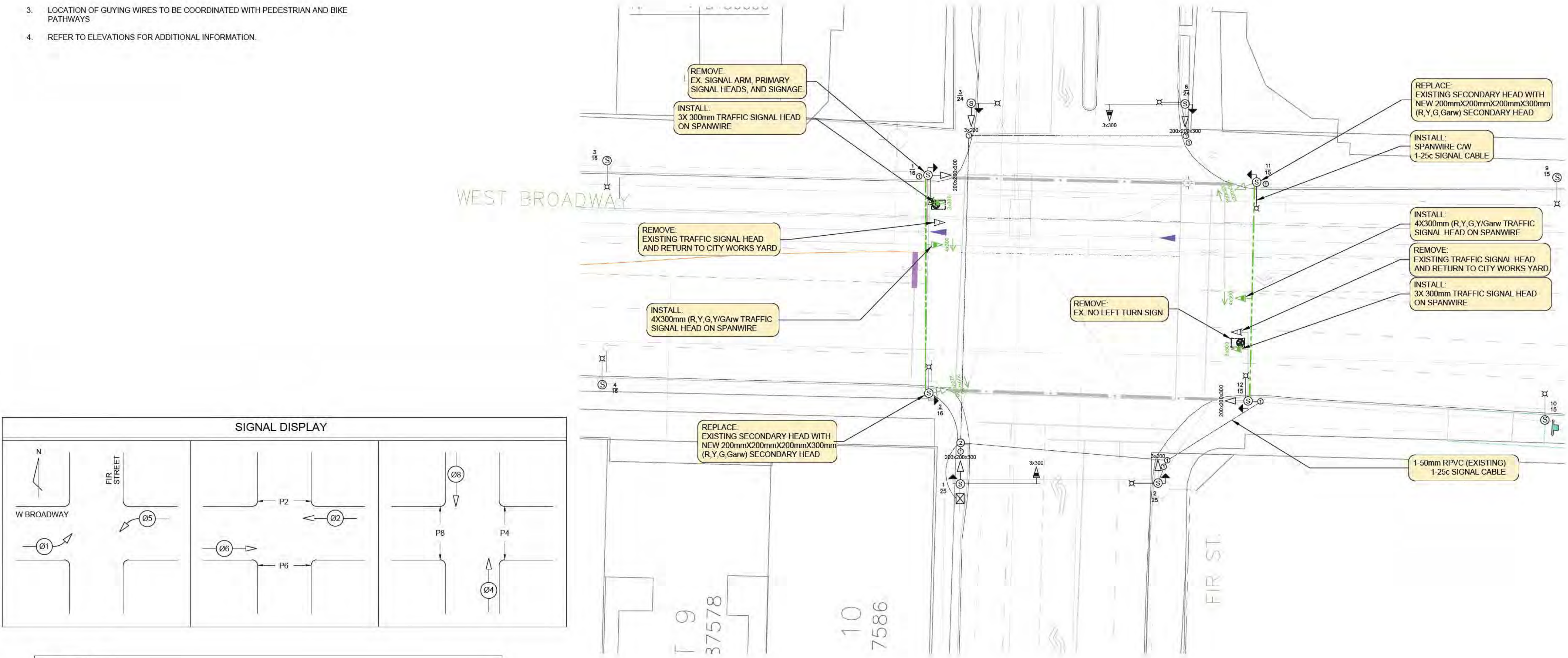
NOTES:

- COV TO COMPLETE THE WIRING CONNECTIONS TO THE TRAFFIC CONTROLLER.
- COV ELECTRICAL CREWS TO ASSIST WITH CUTTING INTO EXISTING LIVE STREETLIGHT WIRES AND MAKING FINAL CONNECTIONS
- REFER TO POLE ELEVATIONS FOR REQUIRED TRAFFIC SIGNAL HEADS

POLE GUYING NOTES:

- REFER TO BC HYDRO ES43 OVERHEAD ELECTRICAL STANDARDS FOR WOOD POLES, OVERHEAD INSTALLATION AND POLE GUYING.
- LOCATION OF GUYING WIRES FOR REFERENCE ONLY. FINAL LOCATION OF GUYING WIRES TO BE REVIEWED ON THE FIELD.
- LOCATION OF GUYING WIRES TO BE COORDINATED WITH PEDESTRIAN AND BIKE PATHWAYS
- REFER TO ELEVATIONS FOR ADDITIONAL INFORMATION.

CONTRACTOR TO WIRE ALL NEW SIGNAL EQUIPMENT PER CITY WIRING STANDARDS DOWN TO POLE HANDHOLES. CONTRACTOR TO COORDINATE WITH COV PRIOR TO MODIFYING/REWIRING OF EXISTING UNDERGROUND CONDUITS AND EXISTING SIGNAL INFRASTRUCTURE. COV TO PERFORM ALL DISCONNECTIONS OF EXISTING SIGNALS AND FINAL CONNECTION OF ALL NEW SIGNAL EQUIPMENT. COORDINATE WITH ELECTRICAL OPS [electrical.ops.scheduling.supervisor@vancouver.ca](mailto:electrical.ops.scheduling.supervisor@vancouver.ca)





## City of Vancouver - FOI 2022-657 - Page 14 of 23



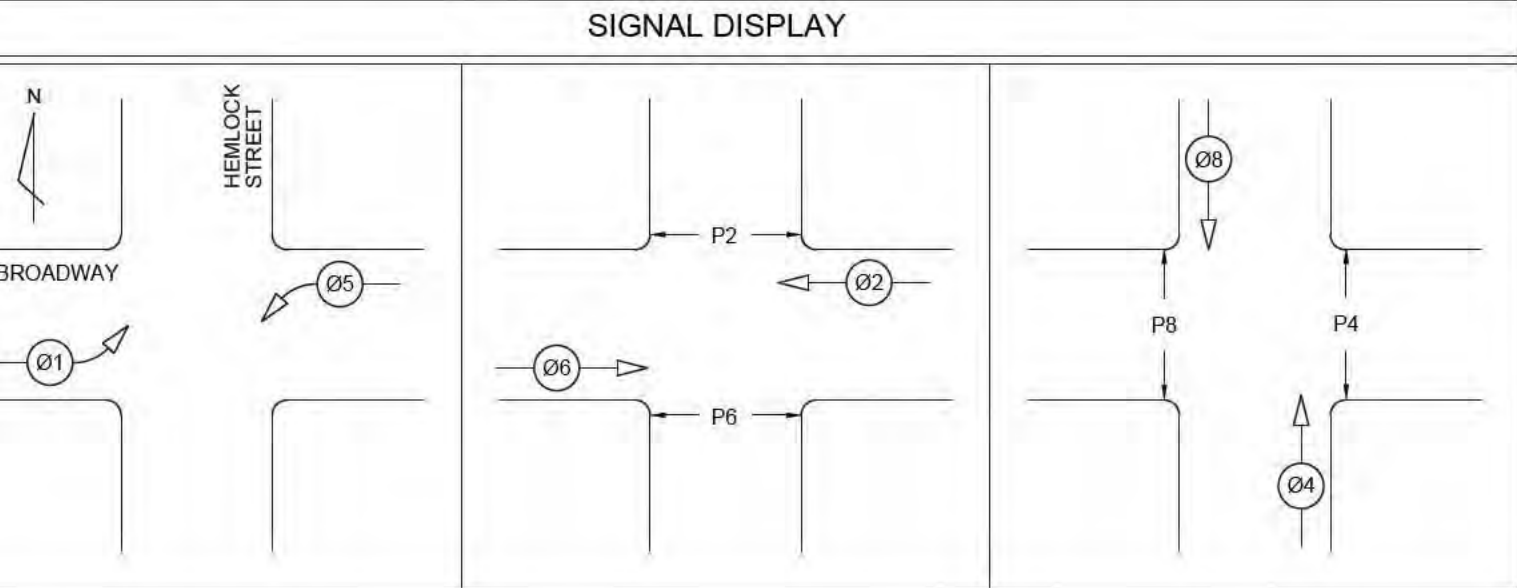
NOTES:

- COV TO COMPLETE THE WIRING CONNECTIONS TO THE TRAFFIC CONTROLLER.
- COV ELECTRICAL CREWS TO ASSIST WITH CUTTING INTO EXISTING LIVE STREETLIGHT WIRES AND MAKING FINAL CONNECTIONS
- REFER TO POLE ELEVATIONS FOR REQUIRED TRAFFIC SIGNAL HEADS

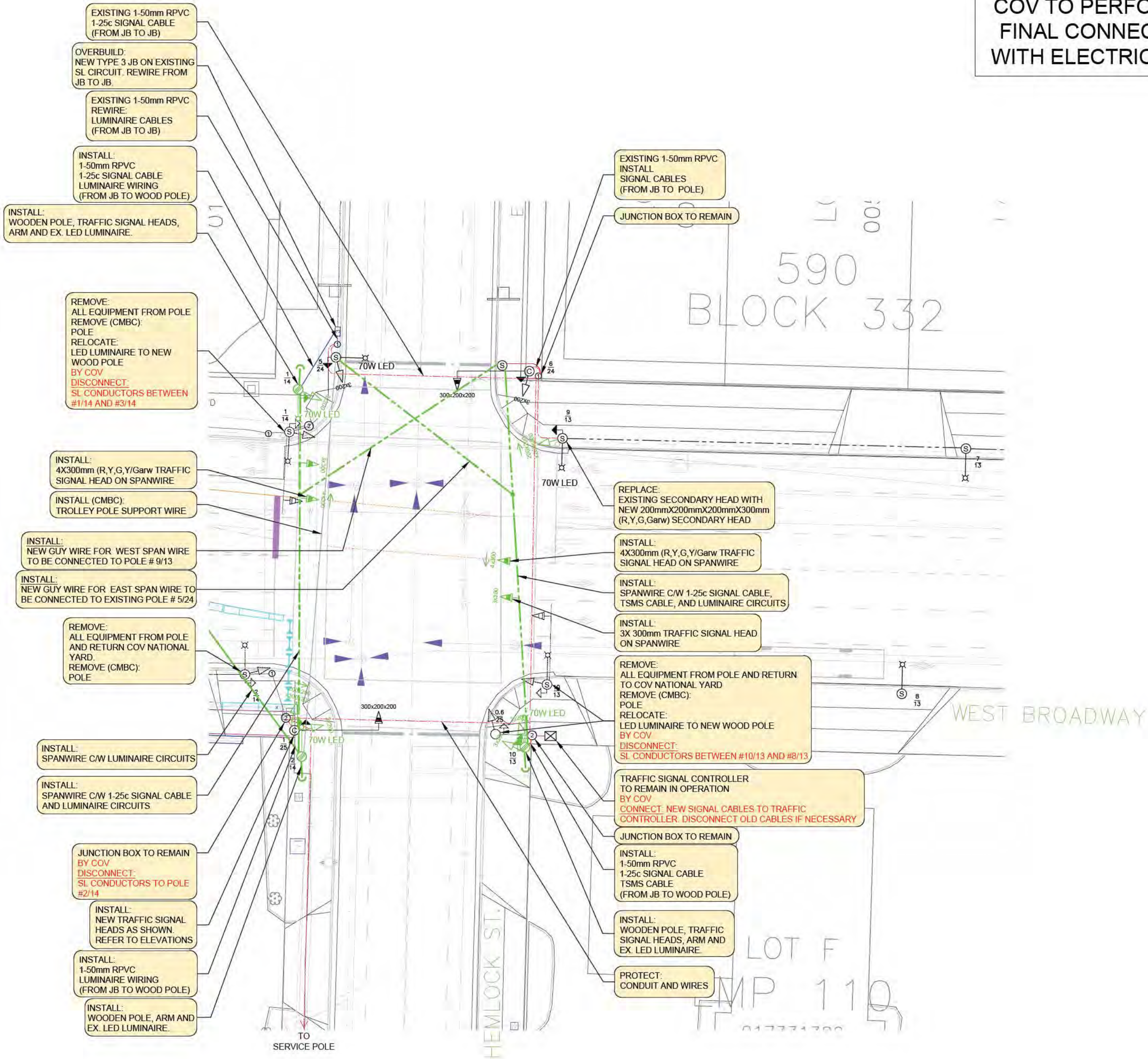
POLE GUYING NOTES:

- REFER TO BC HYDRO ES43 OVERHEAD ELECTRICAL STANDARDS FOR WOOD POLES, OVERHEAD INSTALLATION AND POLE GUYING.
- LOCATION OF GUYING WIRES FOR REFERENCE ONLY. FINAL LOCATION OF GUYING WIRES TO BE REVIEWED ON THE FIELD.
- LOCATION OF GUYING WIRES TO BE COORDINATED WITH PEDESTRIAN AND BIKE PATHWAYS
- REFER TO ELEVATIONS FOR ADDITIONAL INFORMATION.

INTERSECTION DESIGN CRITERIA			
PER: (RP-8-18 TABLE 12-1)			
INTERSECTION (NAME)		W BROADWAY / HEMLOCK STREET	
ROAD CLASSIFICATION		ARTERIAL / COLLECTOR	
PEDESTRIAN CONFLICT		HIGH	
ILLUMINANCE RECOMMENDED/DELIVERED		29.0 lux / 30.5 lux	
UNIFORMITY RECOMMENDED/DELIVERED		3.0:1 / 2.3:1	
LIGHT LOSS FACTOR		0.8	
SPACING		AS SHOWN	
EQUIPMENT:			
FIXTURE TYPE: LED		WATTAGE: 70W	MTG. HEIGHT: 9.0m
			DIST TYPE: II
IES FILE: ATB0_30BLEDE70_R2_3K.ies		MODEL:	AEL AUTOBAHN ATB0
*EXISTING INTERSECTION LED LUMINAIRES ON REMOVED POLES TO BE RELOCATED TO NEW WOOD POLES			



LEGEND			
GENERAL			
EXISTING - BLACK TO BE REMOVED - DASHED			
UNDERGROUND INFRASTRUCTURE & OVERHEAD SPANS			
① JUNCTION BOX	④ 1324 J.B.	PROPOSED T.S. CONDUIT	UTILITIES (AS DEFINED BY LINETYPE)
② POLY 1000 J.B.	⑤ 1730 J.B.	EXISTING T.S. CONDUIT	OVERHEAD MESSENGER CABLE
③ POLY 2000 J.B.	⑥ 2436 J.B.	PROPOSED COMM. DUCT	OVERHEAD MESSENGER ONLY CABLE
⑦ 1116 J.B.	⑧ COMM. VAULT	EXISTING COMM. DUCT	OVERHEAD COMM. FIGURE 8 CABLE
⑨ T.S.M.S. GRND	⑩ GRND PLATE	PROPOSED S.L. CONDUIT	OVERHEAD TRIPLEX CABLE
⑪ T.S.M.S. GRND	⑫ GRND PLATE	EXISTING S.L. CONDUIT	VEHICLE DETECTOR LOOPS - 1.8m Ø
TRAFFIC SIGNAL INFRASTRUCTURE			
PROPOSED TRAFFIC SIGNAL INFRASTRUCTURE SHALL BE SHOWN AS GREEN			
PROPOSED STREET LIGHTING INFRASTRUCTURE SHALL BE SHOWN AS BLUE			
⑬ SECONDARY HEAD - 3x200mm	⑭ COMBO POLE	⑮ DAVIT POLE	⑯ CONTROLLER
⑰ SECONDARY HEAD WITH ARROW - 200x200x300mm / 200x200x300x300mm	⑱ TROLLEY POLE	⑲ HYDRO WOOD POLE	⑳ SIGNAL SERVICE
⑳ PRIMARY / TERTIARY HIGHWAY HEAD - 300x200x200mm	㉑ S.L. POLE	㉒ 3.0m (10') POLE (COV)	㉓ PB PUSHBUTTON
㉔ PRIMARY HEAD - 3x300mm	㉕ S.L. POLE (WOOD)	㉖ 4.0m (13') POLE (MMCD)	㉗ CYC PB CYCLIST PUSHBUTTON
㉘ PRIMARY HEAD ARROW - 3x300mm	㉙ 'S' TYPE POLE	㉚ 'L' TYPE POLE	㉛ APS ACCESSIBLE PED. SIGNAL
㉜ PRIMARY HEAD ARROW - 4x300mm	㉝ CAMERA	㉞ 'M' TYPE POLE	㉟ A AUDIBLE
㊱ BIKE HEAD - 3x200mm / 3x300mm	㊲ COUNTDOWN PED. HEAD	㊳ TYPE 2 POLE	㊴ COMMUNICATIONS TERMINAL BLOCK
	㊵ L.E.D. LUMINAIRE - WATTAGE AS INDICATED	㊶ SERVICE PANEL	㊷ ANTENNA



CONTRACTOR TO WIRE ALL NEW SIGNAL EQUIPMENT PER CITY WIRING STANDARDS DOWN TO POLE HANDHOLES. CONTRACTOR TO COORDINATE WITH COV PRIOR TO MODIFYING/REWIRING OF EXISTING UNDERGROUND CONDUITS AND EXISTING SIGNAL INFRASTRUCTURE. COV TO PERFORM ALL DISCONNECTIONS OF EXISTING SIGNALS AND FINAL CONNECTION OF ALL NEW SIGNAL EQUIPMENT. COORDINATE WITH ELECTRICAL OPS [electrical.ops.scheduling.supervisor@vancouver.ca](mailto:electrical.ops.scheduling.supervisor@vancouver.ca)

CONTRACTOR TO COORDINATE WITH CMBC FOR THE RELOCATION OF TROLLEY SUPPORT WIRES

CONTRACTOR TO ENSURE ALL EXISTING COMMUNICATIONS ARE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. COORDINATE WITH CITY OF VANCOUVER.

DO NOT USE THIS DRAWING FOR PAVEMENT MARKING AND SIGNING STANDARDS

ALL SIGNAL EQUIPEMENT SHALL BE BONDED

ALL OVERHEAD INSTALLATION TO FOLLOW BC HYDRO OVERHEAD STANDARDS

OVERHEAD POWER LINE CONFLICTS: OPERATIONS SHALL CONFIRM ON-SITE PRIOR TO CONSTRUCTION THAT POLES AND EQUIPMENT WILL MEET WORKSAFE BC CLEARANCE REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES. IF ANY CONFLICTS OR DISCREPANCIES ARE IDENTIFIED, OPERATIONS TO CONTACT ELECTRICAL DESIGN PRIOR TO COMMENCING CONSTRUCTION

IF UNEXPECTED SITE CONTAMINATION IS ENCOUNTERED, PLEASE CONTACT YOUR SUPERVISOR & CHRISTIAAN IAGOE ENVIRONMENTAL PLANNING AT 604-673-7564 OR 604-363-2298, IMMEDIATELY

KEY PLAN

ISSUE/REVISION

REFERENCES

ENGINEER'S SEAL

PROJECT

DB CONTRACTOR

DRAWING INFORMATION

CONTRACT NUMBER



WBS  
3.10.1.4

I/R	DATE	BY	DESCRIPTION(PHASE)	APPR	REFERENCES
-	2021-08-05	AR	ISSUED FOR FDR 2	CC	
-	2021-07-20	AR	ISSUED FOR FDR	CC	
-	2021-06-09	AR	ISSUED FOR IDR 1	CC	



DRW BY GNEC  
DES BY A.REYES  
CHK BY C.COMMANDEUR  
APR BY C.COMMANDEUR

5508501  
PROJECT NUMBER  
BSP  
SHEET TITLE

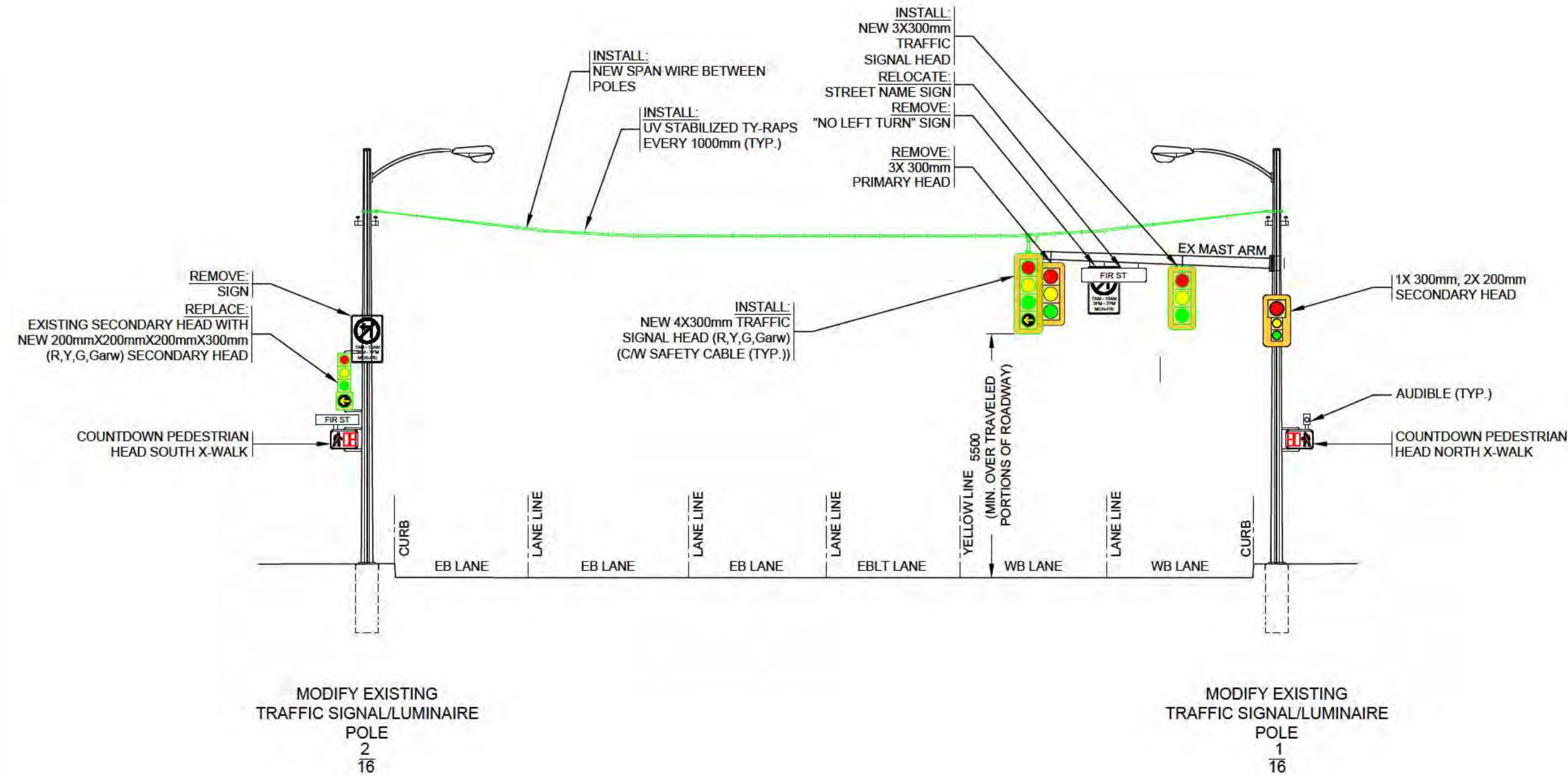
SCALE  
1:250  
0 1:250 10

SOUTH GRANVILLE STATION  
TRAFFIC CONTROL STAGE 1  
HEMLOCK STREET AT WEST BROADWAY  
TRAFFIC SIGNAL PLAN (1 OF 1)  
DRAWING NUMBER  
BSP-71006-SGIG-41DD-1xxx

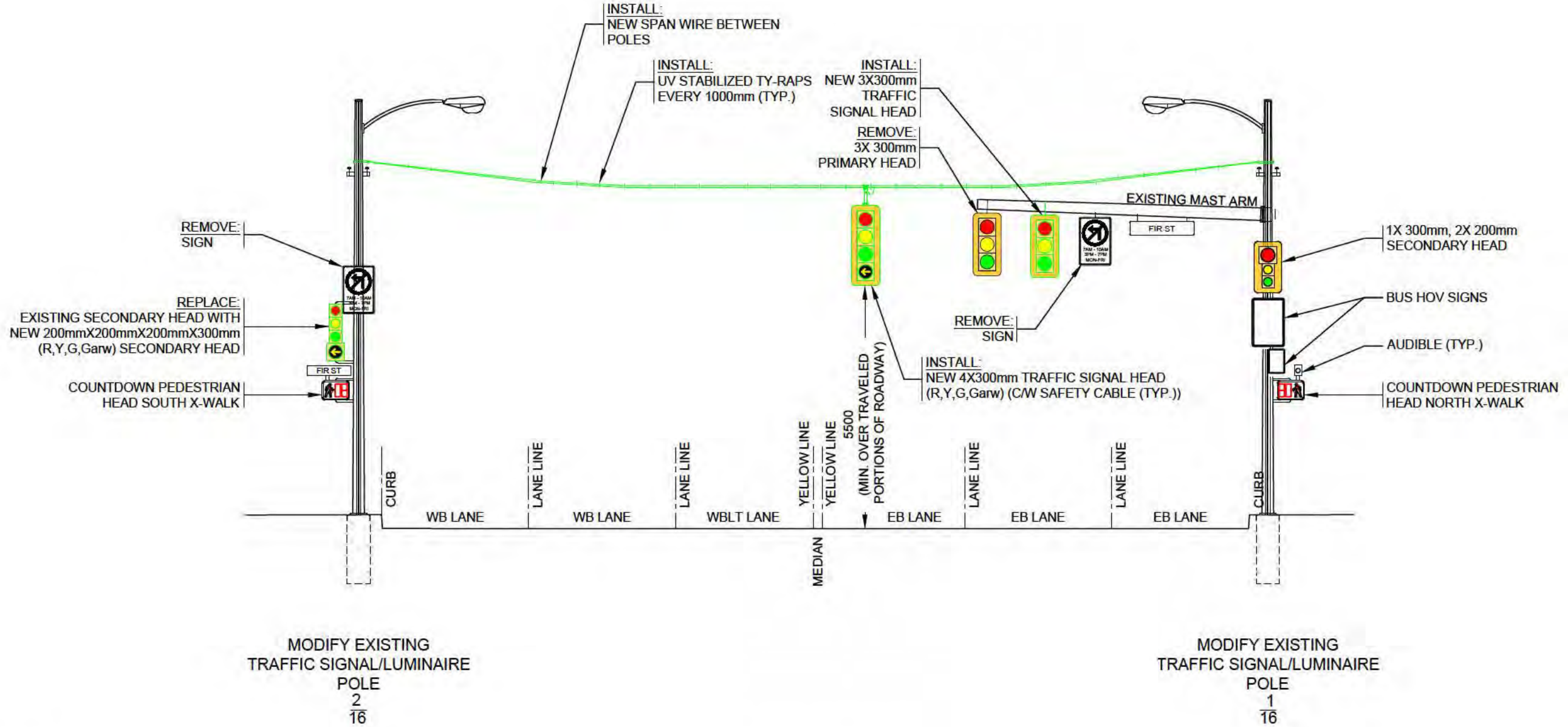


Last saved by: YXU(2021-08-05) Last Plotted: 2021-08-05  
Filename: 121758-10140-SGIG-41DD-0000.DWG

ANSI D 22" x 34"



**WESTBOUND  
WEST BROADWAY**



**EASTBOUND  
WEST BROADWAY**

REFER TO TRAFFIC CONTROL STAGE #1  
SIGNAGE DRAWINGS FOR TRAFFIC  
SIGNS AND PAVEMENT MARKINGS

ALL EQUIPMENT IS PROPOSED  
EXCEPT WHERE NOTED

ALL SIGNAL EQUIPEMENT SHALL  
BE BONDED

ALL OVERHEAD INSTALLATION TO  
FOLLOW BC HYDRO OVERHEAD  
STANDARDS

**POLE GUYING NOTES:**

1. REFER TO BC HYDRO ES43 OVERHEAD ELECTRICAL STANDARDS FOR WOOD POLES, OVERHEAD INSTALLATION AND POLE GUYING.
2. LOCATION OF GUYING WIRES FOR REFERENCE ONLY. FINAL LOCATION OF GUYING WIRES TO BE REVIEWED ON THE FIELD.
3. LOCATION OF GUYING WIRES TO BE COORDINATED WITH PEDESTRIAN AND BIKE PATHWAYS
4. REFER TO ELEVATIONS FOR ADDITIONAL INFORMATION.

**KEY PLAN**

**ISSUE/REVISION**

**REFERENCES**

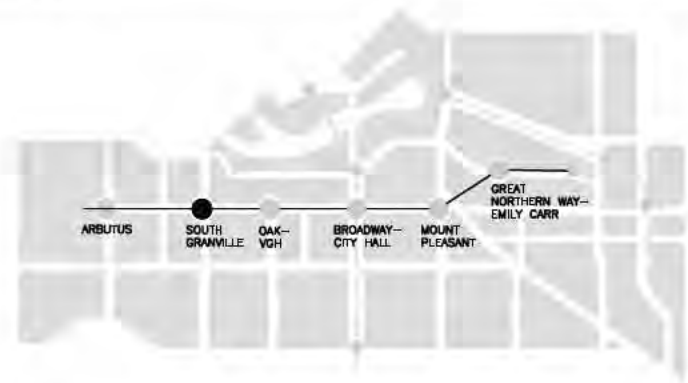
**ENGINEER'S SEAL**

**PROJECT**

**DB CONTRACTOR**

**DRAWING INFORMATION**

**CONTRACT NUMBER**



WBS  
3.10.1.4

I/R	DATE	BY	DESCRIPTION(PHASE)	APPR	REFERENCES
-	2021-08-05	AR	ISSUED FOR FDR 2	CC	
-	2021-07-20	AR	ISSUED FOR FDR	CC	
-	2021-06-09	AR	ISSUED FOR IDR 1	CC	



Ministry of  
Transportation  
and Infrastructure

DRW BY GNEC  
DES BY A.REYES  
CHK BY C.COMMANDEUR  
APR BY C.COMMANDEUR

5508501  
PROJECT NUMBER

BSP

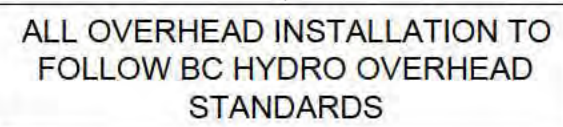
SHEET TITLE

SOUTH GRANVILLE STATION  
TRAFFIC CONTROL STAGE 1  
FIR STREET AT WEST BROADWAY  
TRAFFIC SIGNAL DETAILS (1 OF 1)

DRAWING NUMBER  
BSP-71006-SGIG-41DD-4xxx

SCALE  
1:100  
0 1:100 5



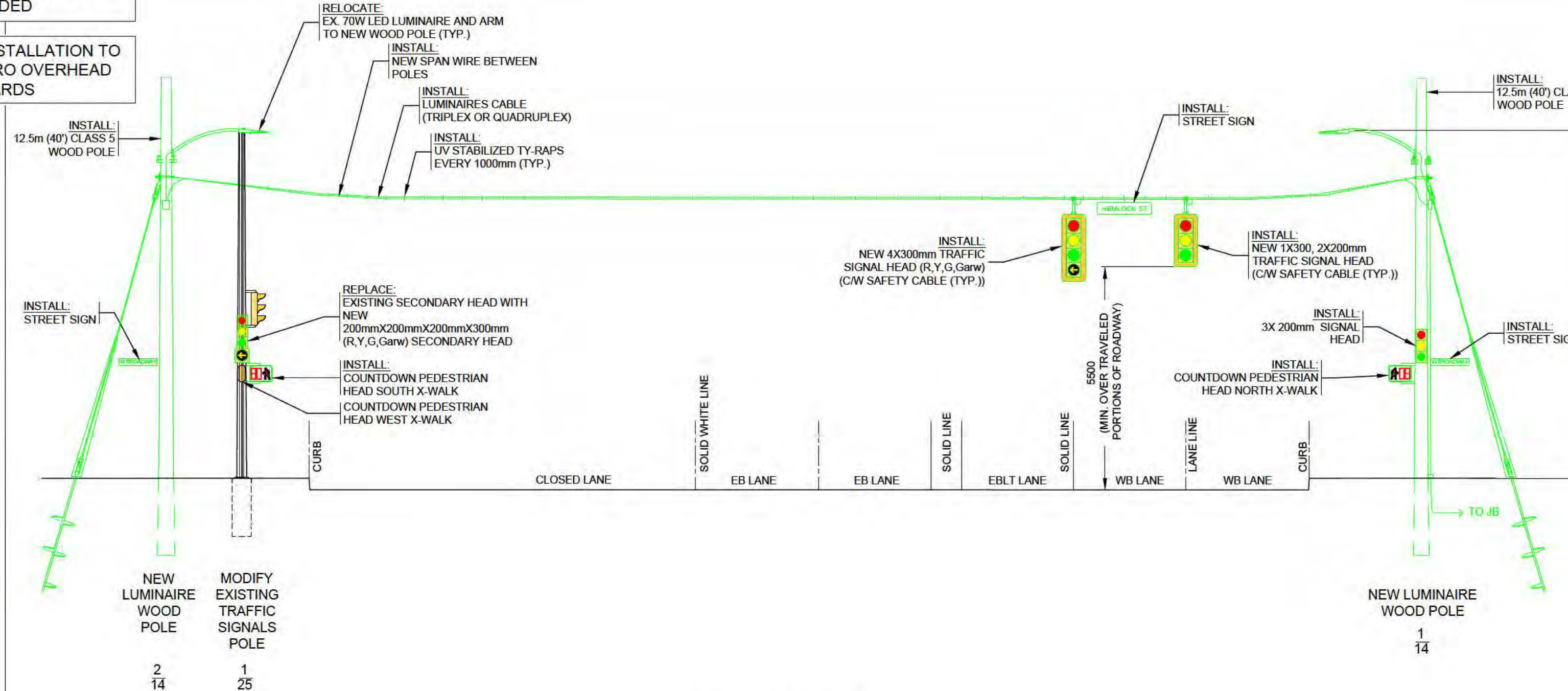
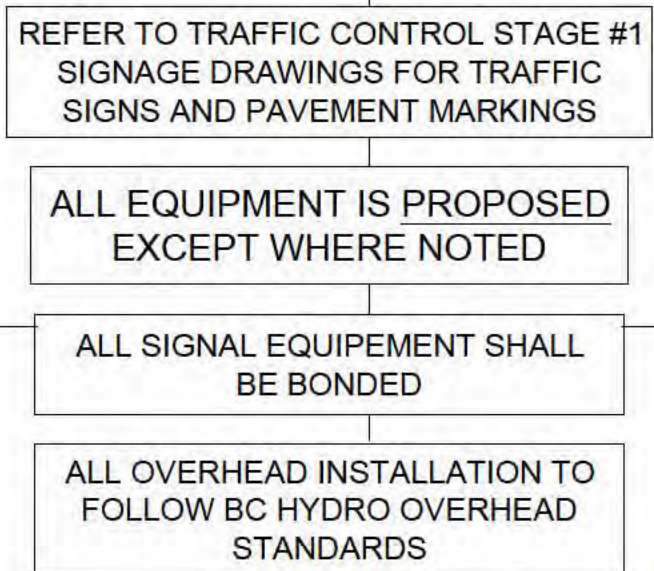


**WESTBOUND**  
**WEST BROADWAY**

1. REFER TO BC HYDRO ES43 OVERHEAD ELECTRICAL STANDARDS FOR WOOD POLES, OVERHEAD INSTALLATION AND POLE GUYING.
2. LOCATION OF GUYING WIRES FOR REFERENCE ONLY. FINAL LOCATION OF GUYING WIRES TO BE REVIEWED ON THE FIELD.
3. LOCATION OF GUYING WIRES TO BE COORDINATED WITH PEDESTRIAN AND BIKE PATHWAYS
4. REFER TO ELEVATIONS FOR ADDITIONAL INFORMATION.

City of Vancouver - FOI 2022-657 - Page 17 of 23





1. REFER TO BC HYDRO ES43 OVERHEAD ELECTRICAL STANDARDS FOR WOOD POLES, OVERHEAD INSTALLATION AND POLE GUYING.
2. LOCATION OF GUYING WIRES FOR REFERENCE ONLY. FINAL LOCATION OF GUYING WIRES TO BE REVIEWED ON THE FIELD.
3. LOCATION OF GUYING WIRES TO BE COORDINATED WITH PEDESTRIAN AND BIKE PATHWAYS
4. REFER TO ELEVATIONS FOR ADDITIONAL INFORMATION.



**BROADWAY**  
Subway Project Corporation

**acciona**

**Ghella**  
a consortium of firms

**GNEC**  
Great Northern Engineering Consultants

**BRITISH COLUMBIA**

Ministry of  
Transportation  
and Infrastructure

DRW BY	GNEC	5508501
DES BY	A.REYES	PROJECT NUMBER
CHK BY	C.COMMANDEUR	BSP
APR BY	C.COMMANDEUR	SHEET TITLE
SCALE	SOUTH GRANVILLE STATION	
	TRAFFIC CONTROL STAGE 1	
	HEMLOCK STREET AT WEST BROADWAY	
	TRAFFIC SIGNAL DETAILS (1 OF 1)	
	DRAWING NUMBER	
	BSP-71006-SGIG-41DD-4xxx	



**From:** [Tabamo, Jobi](#)  
**To:** [Liew, Tony](#)  
**Subject:** RE: PNE no Parking Restrictions  
**Date:** Wednesday, August 11, 2021 4:08:00 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)

---

Hi Tony,

Thanks for the heads up. I'll have our crews install the required signage by August 23<sup>rd</sup>.

**Jobi Tabamo** | Transit Designer, Transit Integration & Projects  
604.829.9860 | [jobi.tabamo@vancouver.ca](mailto:jobi.tabamo@vancouver.ca)

---

**From:** Liew, Tony <Tony.Liew@coastmountainbus.com>

**Sent:** Monday, August 9, 2021 10:33 AM

**To:** Tabamo, Jobi <Jobi.Tabamo@vancouver.ca>

**Subject:** [EXT] PNE no Parking Restrictions

**City of Vancouver security warning:** Do not click on links or open attachments unless you were expecting the email and know the content is safe.

---

Morning Jobi,

I hope you are doing well and hope you can assist with CMBC no parking request for PNE again this year from Monday Aug 23 till Monday September 06, 2021.

Please see attached pdf as to what was done in previous years. Please let me know if there is anything else you need from me.

Thanks

*Tony Liew*

*Operations Logistics Advisor - TComm*

*Coast Mountain Bus Company*

*7740-132 St,*

*Surrey BC V3W 4M9*

*[special.events@coastmountainbus.com](mailto:special.events@coastmountainbus.com)*

*Tel: 778-593-5733*

*Cell: 604-551-1847*



This e-mail and any attachments may contain confidential and privileged information. If you are not the intended recipient, please notify the sender immediately by return e-mail, delete this e-mail and destroy any copies. Any dissemination or use of this information by a person other than the intended recipient is unauthorized and may be illegal.

**From:** [Tabamo, Jobi](#)  
**To:** [Wall, Les](#)  
**Subject:** RE: Renfrew Sewer Upgrades - Venables to Graveley - CMBC Implications  
**Date:** Tuesday, August 10, 2021 1:29:00 PM

---

Hi Les,

Additional info:

The entire stretch (Venables-Grant) will be from about Sept - Spring 2022.

Estimate from Ops is that the center stops will be relocated for 1-2 months when construction adjacent to the stops occurs (boarding to center lane will be relocated as well) but schedule can vary depending on many factors.

---

**From:** Tabamo, Jobi

**Sent:** Friday, August 06, 2021 10:00 AM

**To:** Wall, Les <Les.Wall@coastmountainbus.com>

**Subject:** FW: Renfrew Sewer Upgrades - Venables to Graveley - CMBC Implications

Hi Les,

This was the latest email I was forwarded by Mike. Is this enough info provided from them for us to provide input? Mainly regarding the OH trolley impacts as well as building a platform that extends to the center lane. I'm not sure if I've seen a platform extend two lanes for transit service, what're your thoughts on that? And if its not feasible, we can consolidate the two stops within the work zone to FS/NS Grant, outside of the zone.

I believe they're waiting on us for additional comment – let me know what you think.

Thanks,

Jobi

---

**From:** Dobud, Mike <[Mike.Dobud@vancouver.ca](mailto:Mike.Dobud@vancouver.ca)>

**Sent:** Friday, July 23, 2021 2:03 PM

**To:** Les Wall <[Les.Wall@coastmountainbus.com](mailto:Les.Wall@coastmountainbus.com)>

**Cc:** McLaren, Chris <[Chris.McLaren@vancouver.ca](mailto:Chris.McLaren@vancouver.ca)>; [Mike.Palleschi@coastmountainbus.com](mailto:Mike.Palleschi@coastmountainbus.com); Daniel Carreira ([Daniel.Carreira@coastmountainbus.com](mailto:Daniel.Carreira@coastmountainbus.com)) <[Daniel.Carreira@coastmountainbus.com](mailto:Daniel.Carreira@coastmountainbus.com)>; Tony Liew ([Tony.Liew@coastmountainbus.com](mailto:Tony.Liew@coastmountainbus.com)) <[Tony.Liew@coastmountainbus.com](mailto:Tony.Liew@coastmountainbus.com)>; Ryan, Colin <[Colin.Ryan@vancouver.ca](mailto:Colin.Ryan@vancouver.ca)>

**Subject:** RE: Renfrew Sewer Upgrades - Venables to Graveley - CMBC Implications

Hi Les,

I just wanted to follow up and see if you have had a chance to review the outstanding items noted below? Are you able to provide feedback on the preferred locations of any relocated stops, temp pad requirements for any north & south end relocations and dimensions for the temporary platform for the mid-way northbound stop?

Venables Stops (North End):

- To be relocated North of TMP limits
- CMBC to confirm temp pad requirements
- CMBC (Mike P) to confirm overhead wire transition length (~90m)

Charles Stops (Center):

- NB Stop requires a temporary platform – CMBC to provide dimensions
- NB Stop & Temp platform to be relocated as work progresses through that area.
- CMBC to provide Temp pad dimensions

- SB Stop to be accommodated with 1 Lane NB / 2 Lane SB configuration
- SB Stop to be relocated as work progresses in that area (1.5 Lanes NB & SB)

Grant Stops (South End)

- CMBC to close stops or temporarily relocate South of Work Zone
- CMBC to confirm temp pad requirements
- CMBC (Mike P) to confirm overhead wire transition length (~90m)

Thanks,

**Mike Dobud** | Project Coordinator | Project Delivery

Engineering Services | City of Vancouver

[mike.dobud@vancouver.ca](mailto:mike.dobud@vancouver.ca)

778-996-1501

**From:** Dobud, Mike

**Sent:** Tuesday, July 20, 2021 2:58 PM

**To:** Ryan, Colin <[colin.ryan@vancouver.ca](mailto:colin.ryan@vancouver.ca)>; Tony Liew ([Tony.Liew@coastmountainbus.com](mailto:Tony.Liew@coastmountainbus.com)) <[Tony.Liew@coastmountainbus.com](mailto:Tony.Liew@coastmountainbus.com)>; Daniel Carreira ([Daniel.Carreira@coastmountainbus.com](mailto:Daniel.Carreira@coastmountainbus.com)) <[Daniel.Carreira@coastmountainbus.com](mailto:Daniel.Carreira@coastmountainbus.com)>; Les Wall <[Les.Wall@coastmountainbus.com](mailto:Les.Wall@coastmountainbus.com)>; 'Mike.Palleschi@coastmountainbus.com' <[Mike.Palleschi@coastmountainbus.com](mailto:Mike.Palleschi@coastmountainbus.com)>; McLaren, Chris <[chris.mclaren@vancouver.ca](mailto:chris.mclaren@vancouver.ca)>

**Subject:** RE: Renfrew Sewer Upgrades - Venables to Graveley - CMBC Implications

Hi All,

Thanks for your time this morning. Please see attached updated plan and notes below.

Venables Stops (North End):

- To be relocated North of TMP limits
- CMBC to confirm temp pad requirements
- CMBC (Mike P) to confirm overhead wire transition length (~90m)

Charles Stops (Center):

- NB Stop requires a temporary platform – CMBC to provide dimensions
- NB Stop & Temp platform to be relocated as work progresses through that area.
- CMBC to provide Temp pad dimensions
- SB Stop to be accommodated with 1 Lane NB / 2 Lane SB configuration
- SB Stop to be relocated as work progresses in that area (1.5 Lanes NB & SB)

Grant Stops (South End)

- CMBC to close stops or temporarily relocate South of Work Zone
- CMBC to confirm temp pad requirements
- CMBC (Mike P) to confirm overhead wire transition length (~90m)

Please let me know if I have missed anything or if there is anything to add.

Thanks,

**Mike Dobud** | Project Coordinator | Project Delivery

Engineering Services | City of Vancouver

[mike.dobud@vancouver.ca](mailto:mike.dobud@vancouver.ca)

778-996-1501

-----Original Appointment-----



**From:** Dobud, Mike

**Sent:** Friday, July 16, 2021 2:04 PM

**To:** Ryan, Colin; Tony Liew ([Tony.Liew@coastmountainbus.com](mailto:Tony.Liew@coastmountainbus.com)); Daniel Carreira ([Daniel.Carreira@coastmountainbus.com](mailto:Daniel.Carreira@coastmountainbus.com)); Les Wall; [Mike.Palleschi@coastmountainbus.com](mailto:Mike.Palleschi@coastmountainbus.com)

**Subject:** Renfrew Sewer Upgrades - Venables to Graveley - CMBC Implications

**When:** Tuesday, July 20, 2021 10:00 AM-10:30 AM (UTC-08:00) Pacific Time (US & Canada).

**Where:** Webex

Hi All,

As discussed with Tony, we are moving onto the next segment of work on Renfrew St and are looking to have a quick meeting to discuss the phasing and impacts in regards to wire shifts and bus stops. The overall scope is shown in the attached plan and is currently scheduled to start mid-August and run through spring 2022

Please let me know if there is a conflict with the proposed time.

Thanks,

**Mike Dobud** | Project Coordinator | Project Delivery

Engineering Services | City of Vancouver

[mike.dobud@vancouver.ca](mailto:mike.dobud@vancouver.ca)

778-996-1501

-- Do not delete or change any of the following text. --

**When it's time, join your Webex meeting here.**

Meeting number (access code) **s.15(1)(l)**

Meeting password: **s.15(1)(l)**

[Join meeting](#)

**Tap to join from a mobile device (attendees only)**

[+1-604-646-8916](#) **s.15(1)(l)**

**VANCOUVER LOCAL**

[1-855-699-3239](#) **s.15(1)(l)**

**CANADA/US TOLL FREE**

**Join by phone**

1-604-646-8916 VANCOUVER LOCAL

1-855-699-3239 CANADA/US TOLL FREE

[Global call-in numbers](#) | [Toll-free calling restrictions](#)

If you are a host, [click here](#) to view host information.

Need help? Go to <https://cov.service-now.com/cov>

**IMPORTANT NOTICE:** Please note that this WebEx service allows audio and other information sent during the session to be recorded, which may be discoverable in a legal matter. By joining this session, you automatically consent to such recordings. If you do not consent to being recorded, discuss your concerns with the host or do not join the session.

**Collection Notice and Consent Statement**

Personal information collected, whether via WebEx, email or telephone, will be used by the City of Vancouver only for the purpose of managing attendance and collaborating with other individuals involved in the meeting. Such personal information is collected by the City of Vancouver under the authority of s. 26(c) of the Freedom of Information and Protection of Privacy Act. Questions may be directed to the Director, Access to Information at 453 West 12th Avenue, Vancouver, British Columbia V5Y 1V4 or via telephone at 604-873-7000

NOTE THAT ANY INFORMATION SUBMITTED TO WEBEX WILL BE STORED ON SERVERS IN THE UNITED STATES AND ACCESSED IN THE UNITED STATES OR INTERNATIONALLY WHEN REQUESTED BY COV FOR TECHNICAL SUPPORT PURPOSES AND BY CISCO IN ACCORDANCE WITH WEBEX PRIVACY POLICY