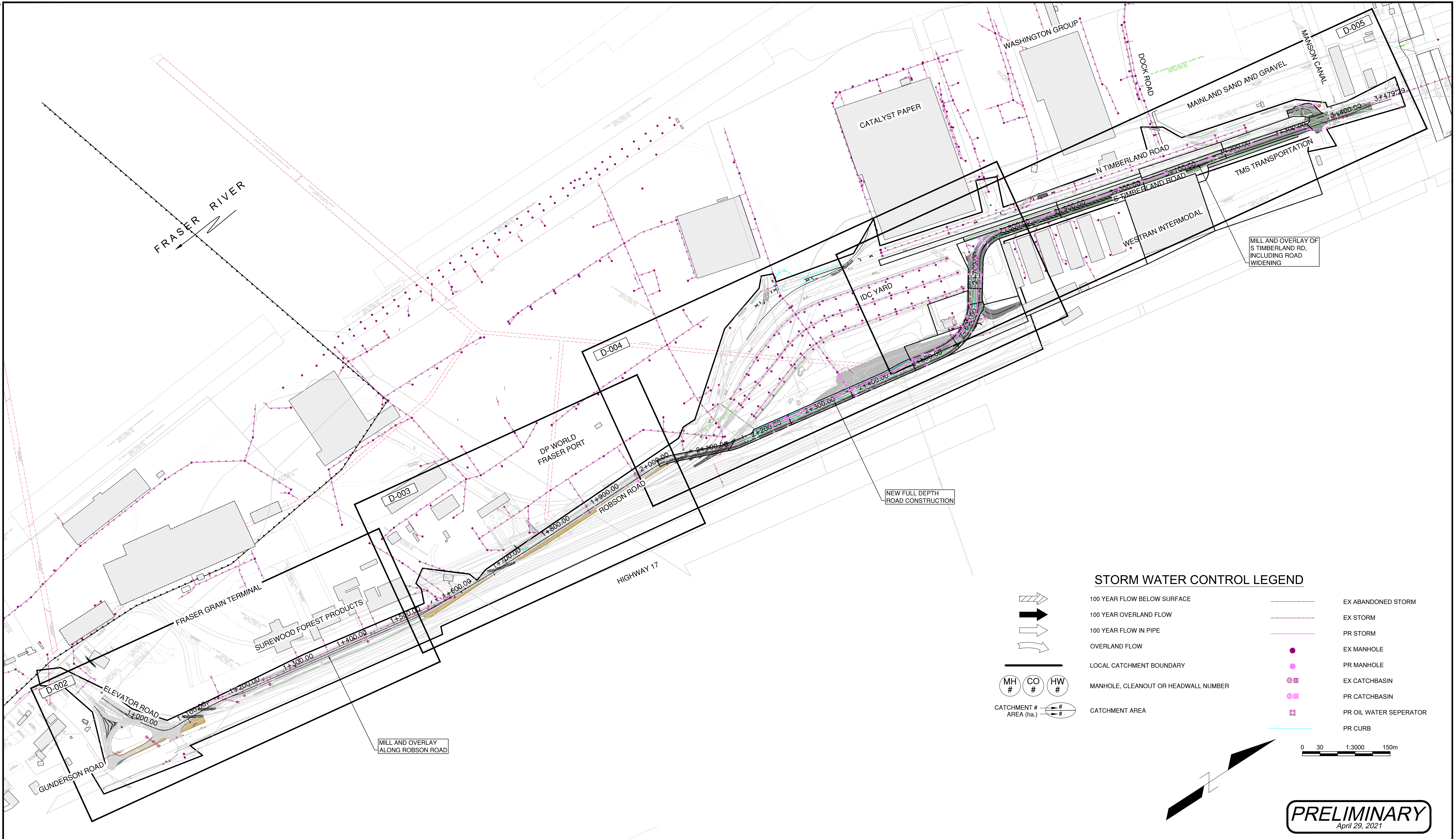
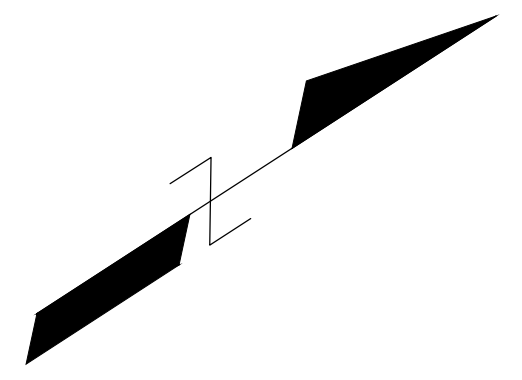
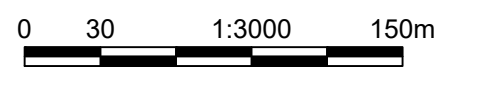


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**STORM WATER CONTROL LEGEND**

- 100 YEAR FLOW BELOW SURFACE
- 100 YEAR OVERLAND FLOW
- 100 YEAR FLOW IN PIPE
- OVERLAND FLOW
- LOCAL CATCHMENT BOUNDARY
- MANHOLE, CLEANOUT OR HEADWALL NUMBER
- CATCHMENT # AREA (ha.)
- EX ABANDONED STORM
- EX STORM
- PR STORM
- EX MANHOLE
- PR MANHOLE
- EX CATCHBASIN
- PR CATCHBASIN
- PR OIL WATER SEPERATOR
- PR CURB



**PRELIMINARY**  
 April 29, 2021

**NOT FOR  
 CONSTRUCTION**  
 April 29, 2021



DESIGN BY A. LAW  
 DRAWN BY G. JUNG  
 APPROVED R. MOORE  
 DATE 2021/04/23  
 SCALE 1:3000  
 PMV SITE

GREATER VANCOUVER GATEWAY 2030  
 OPTION STUDY  
 FSP/ TRANSPORTATION IMPROVEMENTS  
 STORMWATER MANAGEMENT PLAN (OVERALL)

Ref.No.	REFERENCE
1	WSP PROJECT NO. 20M-00758-00

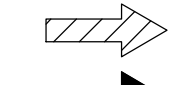


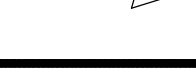
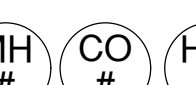
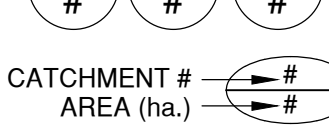










No.	Date	REVISION	Dr'n	Ch'd
B	2021/04/23	ISSUED FOR PER SUBMISSION	GJ	AL
A	20/12/18	ISSUED FOR 30% DESIGN	GJ	AL

VANCOUVER FRASER PORT AUTHORITY  
 ENGINEERING DEPARTMENT

SIZE D DWG. D-001 SHEET 1 of 5 REV. B

DATE: 2021/04/29 - 9:51am  
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**STORM WATER CONTROL LEGEND**

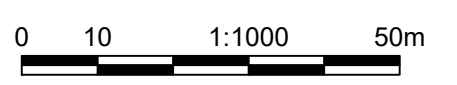
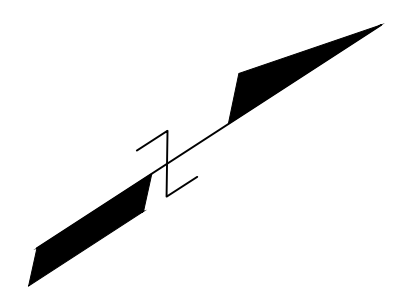
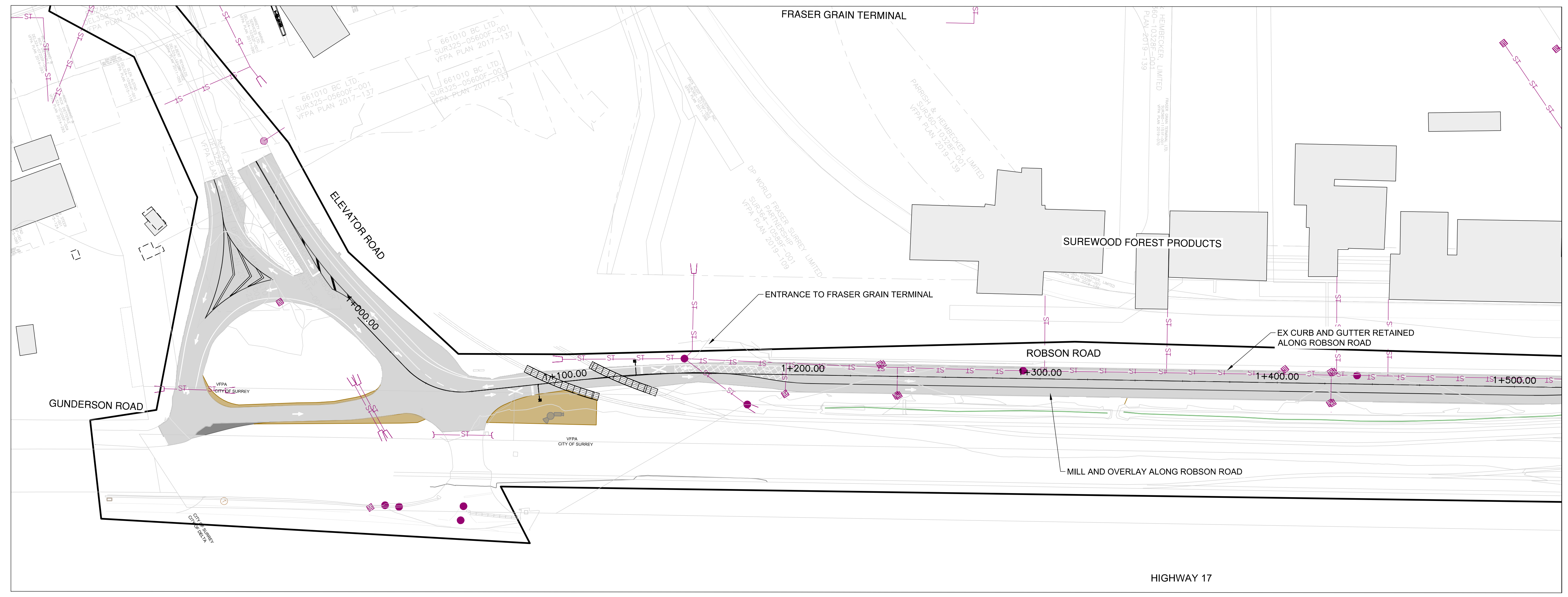
-  100 YEAR FLOW BELOW SURFACE
-  100 YEAR OVERLAND FLOW
-  100 YEAR FLOW IN PIPE
-  OVERLAND FLOW
-  LOCAL CATCHMENT BOUNDARY
-  MANHOLE, CLEANOUT OR HEADWALL NUMBER
-  CATCHMENT AREA (ha.)
-  EX ABANDONED STORM
-  EX STORM
-  PR STORM
-  EX MANHOLE
-  PR MANHOLE
-  EX CATCHBASIN
-  PR CATCHBASIN
-  PR OIL WATER SEPERATOR
-  PR CURB

**GENERAL NOTES:**

ALL PROPOSED CATCHBASIN LOCATIONS ARE PRELIMINARY LOCATIONS ONLY, SUBJECT TO CHANGE DURING DETAILED DESIGN (TYP.)

ALL EXISTING CATCHBASINS TO REMAIN. CONTRACTOR TO CLEAN CATCHBASINS, MILL & OVERLAY EX. ROBSON ROAD SURFACE PAVEMENT TO FACILITATE DRAINAGE

SECTION 1 TOTAL IMPERVIOUS AREA REDUCTION = 0%



**PRELIMINARY**  
 April 29, 2021

PLAN

1	WSP PROJECT NO. 20M-00758-00
Ref.No.	REFERENCE

**NOT FOR CONSTRUCTION**  
 April 29, 2021



No.	Date	REVISION	Dr'n	Ch'd
A	20/12/18	ISSUED FOR 30% DESIGN	GJ	RM



DESIGN BY	A. LAW
DRAWN BY	G. JUNG
APPROVED	R. MOORE
DATE	2020/12/18
SCALE	1:1000
PMV SITE	

GREATER VANCOUVER GATEWAY 2030 OPTION STUDY	
FSPL TRANSPORTATION IMPROVEMENTS STORMWATER MANAGEMENT PLAN - SHEET 1 OF 4	
SIZE	DWG.
D	D-002
SHEET	REV.
2 of 5	A

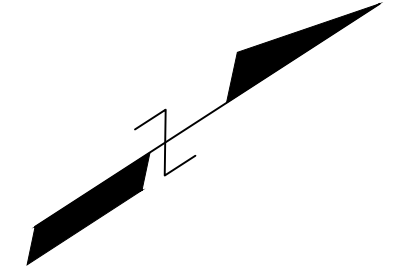
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**GENERAL NOTES:**

ALL PROPOSED CATCHBASIN LOCATIONS ARE PRELIMINARY LOCATIONS ONLY, SUBJECT TO CHANGE DURING DETAILED DESIGN (TYP.)

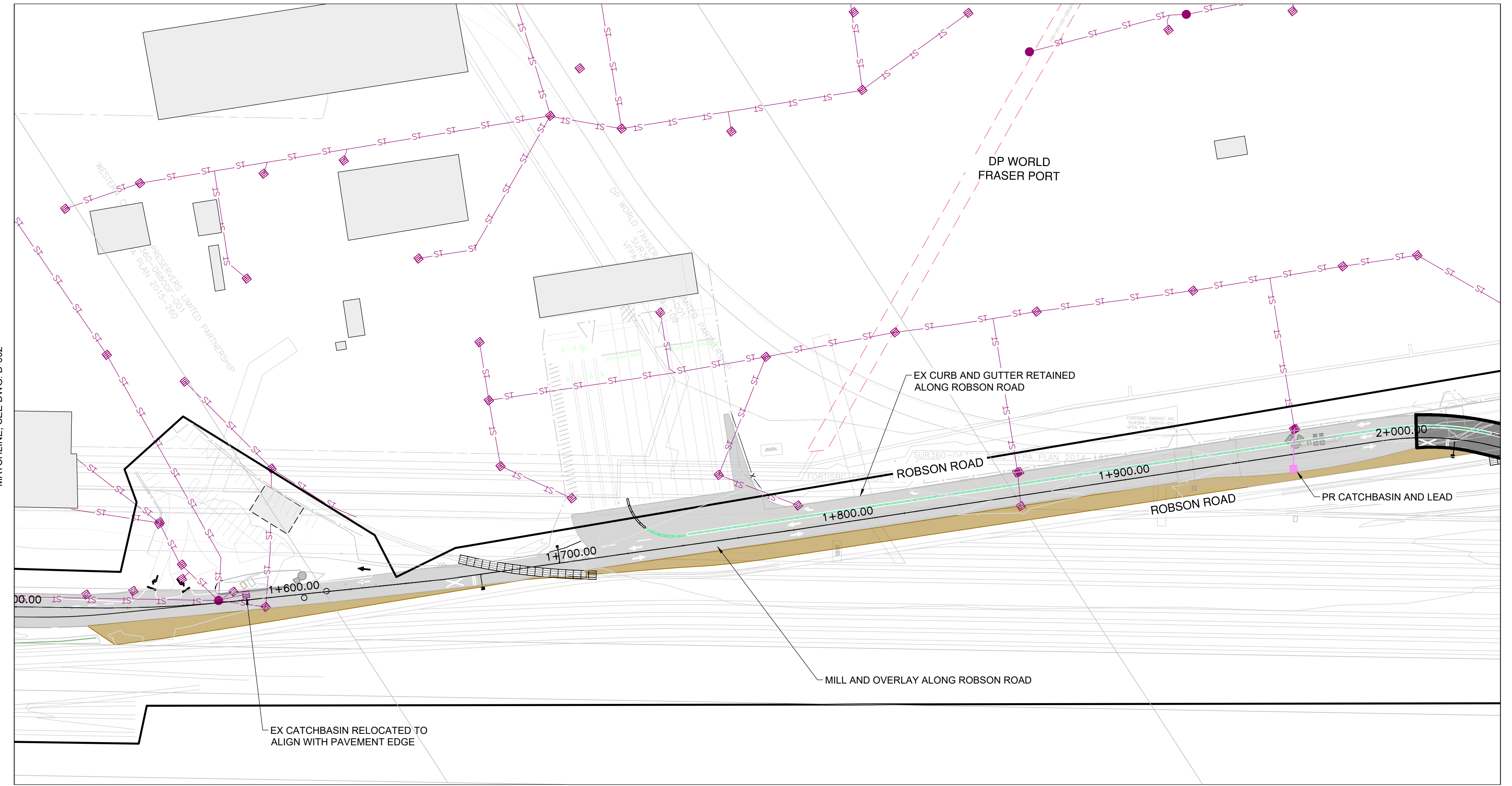
ALL EXISTING CATCHBASINS TO REMAIN. CONTRACTOR TO CLEAN CATCHBASINS, MILL & OVERLAY EX. ROBSON ROAD SURFACE PAVEMENT TO FACILITATE DRAINAGE

SECTION 1 TOTAL IMPERVIOUS AREA REDUCTION = 0%



### STORM WATER CONTROL LEGEND

	100 YEAR FLOW BELOW SURFACE		EX ABANDONED STORM
	100 YEAR OVERLAND FLOW		EX STORM
	100 YEAR FLOW IN PIPE		PR STORM
	OVERLAND FLOW		EX MANHOLE
	LOCAL CATCHMENT BOUNDARY		PR MANHOLE
	MANHOLE, CLEANOUT OR HEADWALL NUMBER		EX CATCHBASIN
	CATCHMENT # AREA (ha.)		PR CATCHBASIN
			PR OIL WATER SEPERATOR
			PR CURB



PLAN

**PRELIMINARY**  
April 29, 2021

**NOT FOR CONSTRUCTION**  
April 29, 2021

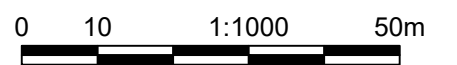


DESIGN BY	A. LAW
DRAWN BY	G. JUNG
APPROVED	R. MOORE
DATE	2020/12/18
SCALE	
PMV SITE	

GREATER VANCOUVER GATEWAY 2030	
OPTION STUDY	
FSPL TRANSPORTATION IMPROVEMENTS	
STORMWATER MANAGEMENT PLAN - SHEET 2 OF 4	
SIZE	D
DWG.	D-003
SHEET	3 of 5
REV.	A

Ref.No.	1	WSP PROJECT NO. 20M-00758-00
REFERENCE		

No.	Date	REVISION	Dr'n	Ch'd
A	20/12/18	ISSUED FOR 30% DESIGN	GJ	RM



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 TITLE BLOCK: DL-TE.dwg

**Release Rate & Detention Volume Calculations**

Project Name: Fraser Port Project # 20M-00758-00  
 Description: SWMP calculations Date: 2020-11-25

**PRE-DEVELOPMENT CATCHMENT AREA**

Grass	1501 m <sup>2</sup>	R= 0.4	for	1501 m <sup>2</sup>
Gravel	12478 m <sup>2</sup>	R= 0.7	for	12478 m <sup>2</sup>
Hard surfaces	6033 m <sup>2</sup>	R= 0.9	for	6033 m <sup>2</sup>
<b>Total</b>	<b>20012 m<sup>2</sup></b>	<b>R= 0.74</b>	<b>for</b>	<b>20012 m<sup>2</sup></b>

Predevelopment % Impervious: 30%

**Pre-development Peak Flows**

Catchment Area (A) 20012 m<sup>2</sup> (as above)

Storm Duration 1440 min (24hr)  
 5-year Rainfall Intensity 3.3 mm/h Kwantlen Park 5 year IDF

Q = RAIN 13.6 L/s

**POST-DEVELOPMENT CATCHMENT AREA**

Hard Surfaces	17015 m <sup>2</sup>	R= 0.9	for	17015 m <sup>2</sup>
Gravel	2220 m <sup>2</sup>	R= 0.7	for	2220 m <sup>2</sup>
Grass	777 m <sup>2</sup>	R= 0.4	for	777 m <sup>2</sup>
<b>Total</b>	<b>20012 m<sup>2</sup></b>	<b>R= 0.86</b>	<b>for</b>	<b>20012 m<sup>2</sup></b>

Post development Percent Impervious: 85%

**Post-development Peak Flows**

Catchment Area (A) 20012 m<sup>2</sup> (as above)

Storm Duration 1440 min (24hr)  
 5-year Rainfall Intensity (I) 3.3 mm/h Kwantlen Park 5 year IDF

Q = RAIN 15.8 L/s

**DETENTION AMENITY**

Rainfall Intensity (I mm/hr) = AC x I<sup>B</sup>  
 Coeff. AC= 17.286  
 Coeff. B = -0.52

**DETAIN POST-DEVELOPMENT STORM EVENT & RELEASE AT PRE-DEVELOPMENT LEVELS**

Duration (min)	Intensity (mm/h)	Peak Flow (m <sup>3</sup> /s)	Inflow Runoff Volumet (m <sup>3</sup> )	Max Release Rate (m <sup>3</sup> /s)	Volume (m <sup>3</sup> )
5	62.9	0.3003	90.09	0.0136	86.0
8	49.3	0.2352	112.89	0.0136	106.4
10	43.9	0.2094	125.65	0.0136	117.5
15	35.5	0.1696	152.65	0.0136	140.4
60	17.3	0.0825	296.94	0.0136	248.1
120	12.1	0.0575	414.16	0.0136	316.4
240	8.4	0.0401	577.65	0.0136	382.1
360	6.8	0.0325	701.76	0.0136	408.4
720	4.7	0.0227	978.77	0.0136	392.1
1440	3.3	0.0158	1365.14	0.0136	191.8

**DETENTION VOLUMES**

Available Runoff	408.4 m <sup>3</sup>
Actual Volume Detained	408.7 m <sup>3</sup>

**Storm Sewer Design - Rational Method**  
 WSP CANADA INC.  
 Job #20M-00758-00

Consultant: WSP CANADA INC.  
 Project No.: 20M-00758-00  
 Project Description: Fraser Port

Location: Section 2 - Proposed Road

Storm Sewer Design Criteria:  
 Rainfall Intensity (5-year storm)  
 Rainfall Intensity (100-year storm)  
 Q = RAIN  
 Q = C<sup>1</sup>IA  
 Rainfall Data Location: KP

Sheet 1 of 1  
 File Name: 20M-00758-00  
 Completed by: AL  
 Updated: Nov. 30, 2020  
 Checked by: RM  
 Date: Dec. 3, 2020

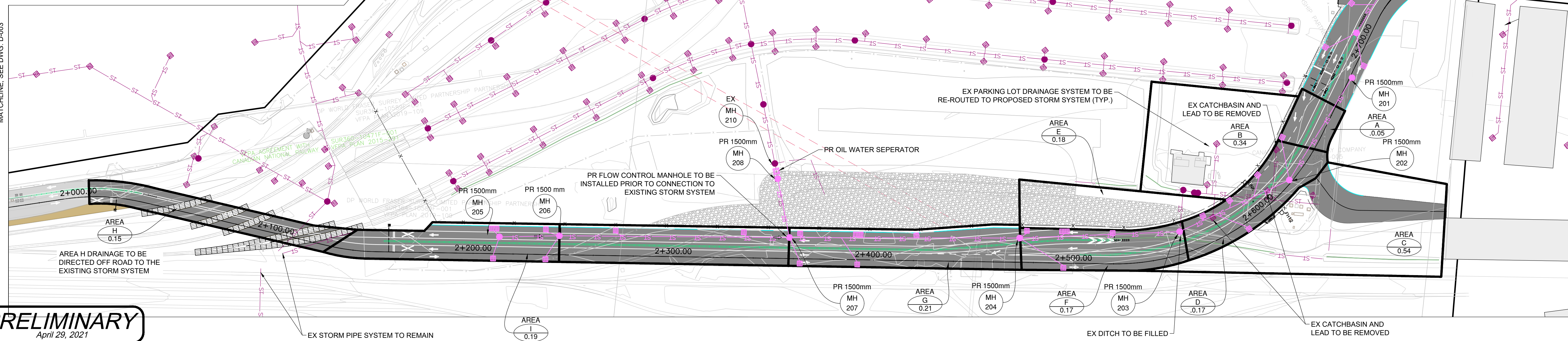
Manhole	From	To	Drainage Area Description	Area (ha)	Runoff Coefficient					C <sup>1</sup> A (ha)	Time of Concentration (min)	Total Time (min)	Flow				Slope (%)	Pipe Dia. (mm)	Manning's "n"	Q Cap. (L/s)	V Cap. (m/s)	Length (m)	X-Sect Area (m <sup>2</sup> )	Wetted Perim. (m)	Inc. Travel Time to Downstream Manhole (min)	Ratio Q(5)/Q Cap.	Ratio Q(100)/Q Cap.	Q(100) Slope	Comments
					C <sup>1</sup>	C <sup>2</sup>	C <sup>3</sup>	C <sup>4</sup>	C <sup>5</sup>				I(5)	I(100)	Q(5)	Q(100)													
Prop 201	Prop 202	A	A	0.05	0.90	0.95	0.05	0.05	0.05	15.00	15.45	35.5	63.7	4.4	8.4	0.50	1050	0.013	1930.9	2.23	60.0			0.45	0.2	0	0.00	Major Flow Routes	
		B	B	0.34	0.80	0.95	0.27	0.32	0.37																				
		C	C	0.50	0.50	0.60	0.25	0.30	0.57																				
		D	D	0.17	0.90	0.95	0.15	0.16	0.72																				
		E	E	0.18	0.80	0.95	0.14	0.17	0.86																				
Prop 202	Prop 203	F	F	0.17	0.90	0.95	0.15	0.16	1.02	1.16	15.90	16.50	34.5	61.7	97.5	199.6	0.50	1050	0.013	1930.9	2.23	80.0			0.60	4.4	9	0.00	
Prop 203	Prop 204	G	G	0.21	0.90	0.95	0.19	0.20	1.21	1.36	16.50	17.36	33.8	60.4	113.4	229.0	0.50	1050	0.013	1930.9	2.23	115.0			0.86	5.9	12	0.01	
Prop 204	Prop 208																												
Prop 205	Prop 206	I	I	0.19	0.90	0.95	0.17	0.18	1.02	1.16	15.90	16.50	34.5	61.7	97.5	199.6	0.50	1050	0.013	1930.9	2.23	35.0			0.26	0.9	2	0.00	
Prop 206	Prop 207	J	J	0.20	0.90	0.95	0.18	0.19	0.35	0.37	15.26	16.12	35.2	63.1	34.4	65.0	0.50	1050	0.013	1930.9	2.23	115.0			0.86	1.8	3	0.00	
Prop 207	Prop 208								1.56	1.73	16.97	17.19	33.3	59.4	144.3	286.6	0.50	1050	0.013	1930.9	2.23	30.0			0.22	7.5	15	0.01	

**STORM WATER CONTROL LEGEND**

- 100 YEAR FLOW BELOW SURFACE
- 100 YEAR OVERLAND FLOW
- 100 YEAR FLOW IN PIPE
- OVERLAND FLOW
- LOCAL CATCHMENT BOUNDARY
- MANHOLE, CLEANOUT OR HEADWALL NUMBER
- CATCHMENT #
- AREA (ha.)
- EX ABANDONED STORM
- EX STORM
- PR STORM
- EX MANHOLE
- PR MANHOLE
- EX CATCHBASIN
- PR CATCHBASIN
- PR OIL WATER SEPERATOR
- PR CURB

PLAN 0 10 1:1000 50m

**GENERAL NOTES:**  
 ALL PROPOSED CATCHBASIN LOCATIONS ARE PRELIMINARY LOCATIONS ONLY, SUBJECT TO CHANGE DURING DETAILED DESIGN (TYP.)



**PRELIMINARY**  
 April 29, 2021

**NOT FOR CONSTRUCTION**  
 April 29, 2021



GREATER VANCOUVER GATEWAY 2030  
 OPTION STUDY  
 FSPL TRANSPORTATION IMPROVEMENTS  
 STORMWATER MANAGEMENT PLAN - SHEET 3 OF 4

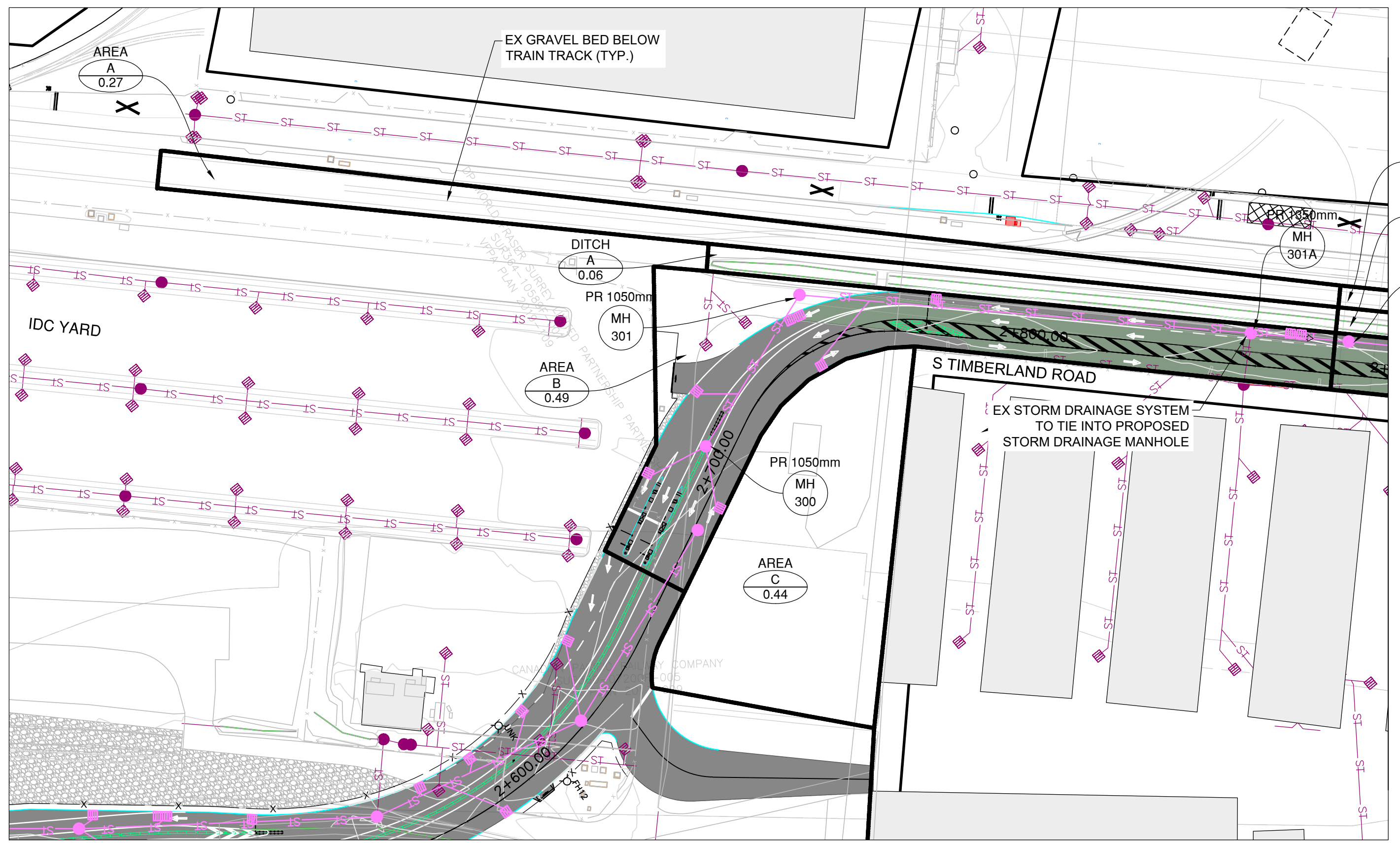
No.	Date	REVISION	Dr'n	Ch'd
B	2021/04/23	ISSUED FOR PER SUBMISSION	GJ	RM
A	20/12/18	ISSUED FOR 30% DESIGN	GJ	RM

Ref.No.	REFERENCE
1	WSP PROJECT NO. 20M-00758-00

DESIGN BY: A. LAW  
 DRAWN BY: G. JUNG  
 APPROVED: R. MOORE  
 DATE: 2021/04/23  
 SCALE:  
 PMV SITE:

SHEET 4 of 5  
 REV. B

DATE: 2021/04/29 - 9:51am  
 PATH: P:\50-20000TR5\20M-00758-00 - VFPA FSPL\Technical\01 - General\03 - Drawings\Production\20M-00758-00-D-001toD-005.dwg  
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### Storm Sewer Design - Rational Method

WSP CANADA INC.  
Job #20M-00758-00

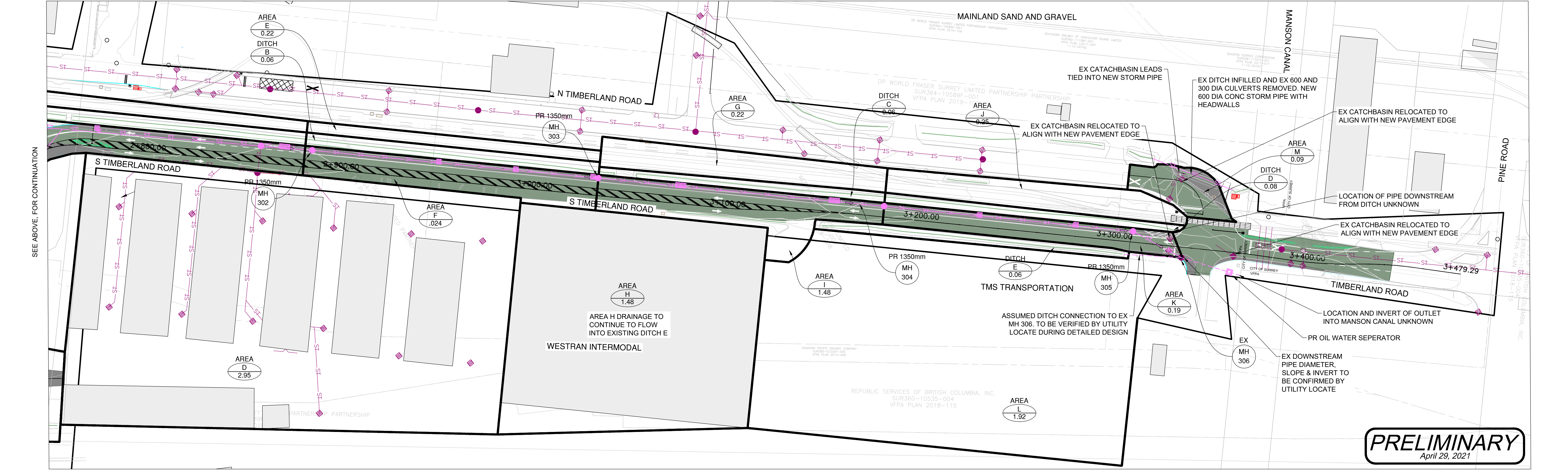
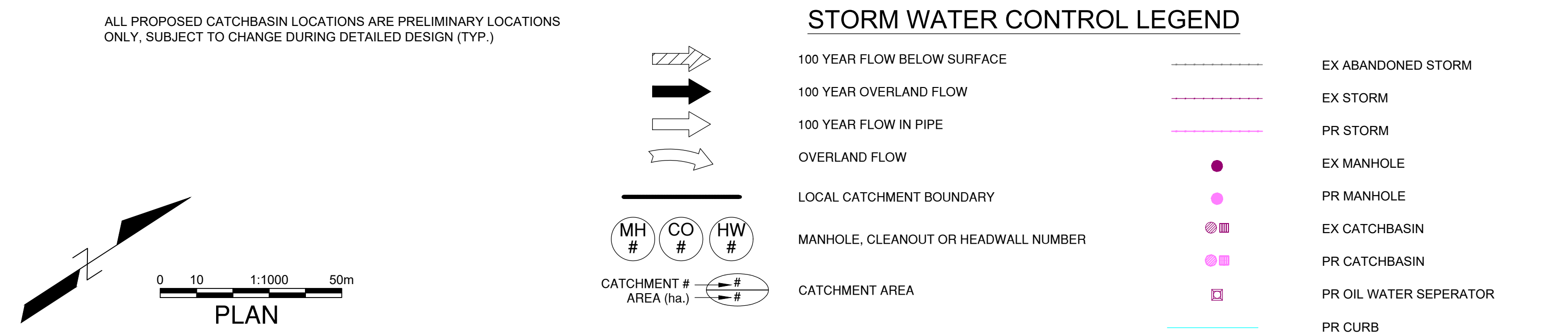
Consultant: WSP CANADA INC.  
 Project No.: 20M-00758-00  
 Project Description: Fraser Port

Location: Section 3 - Timberland Road

Storm Sewer Design Criteria:  
 Rainfall Intensity (3-year storm)  
 Rainfall Intensity (100-year storm)  
 $Q = \text{RAIN} \times \text{C}^* \times \text{A}$

Rainfall Data Location: KP

Manhole	Drainage Area Description	Area (ha)	Runoff Coefficient	C*A	Total C*A (ha)	Time of Concentration (min)	Total Time (min)	Intensity (mm/hr)	Flow (L/s)	Sewer Design Q Cap. (L/s)	V Cap. (m³)	Length (m)	X-Section Area (m²)	Wetted Perim. (m)	Inc. Travel Time to Downstream Manhole (min)	Ratio Q(5)/Q Cap. (%)	Ratio Q(100)/Q Cap. (%)	Slope	Comments
Prop 300	Prop 301	A	0.44	0.60	0.26	0.32	15.00	35.5	63.7	26.1	56.1	0.50	250	0.013	42.0	0.86	48.0		Major Flow Routes
Prop 301	Prop 301A	B	0.49	0.90	0.95	0.44	0.47	0.89	1.01										
Prop 301A	Prop 302	D	2.95	0.80	0.95	2.36	2.80	3.28	3.84										
Prop 302	Prop 303	E	0.22	0.70	0.84	0.15	0.18	0.34	4.03										
Prop 303	Prop 304	F	0.24	0.90	0.95	0.22	0.23	0.35	4.26										
Prop 304	Prop 305	G	0.22	0.70	0.84	0.15	0.18	0.34	4.29										
Prop 305	Prop 306	H	1.48	0.90	0.95	1.18	1.41	5.77	8.71										
Unknown pipe diameter & invert at Ex. 306*																			



**PRELIMINARY**  
April 29, 2021

**NOT FOR CONSTRUCTION**  
April 29, 2021



DESIGN BY: A. LAW  
 DRAWN BY: G. JUNG  
 APPROVED: R. MOORE  
 DATE: 2020/12/18  
 SCALE:  
 PMW SITE:

GREATER VANCOUVER GATEWAY 2030  
 OPTION STUDY  
 FSPL TRANSPORTATION IMPROVEMENTS  
 STORMWATER MANAGEMENT PLAN - SHEET 4 OF 4

D-005

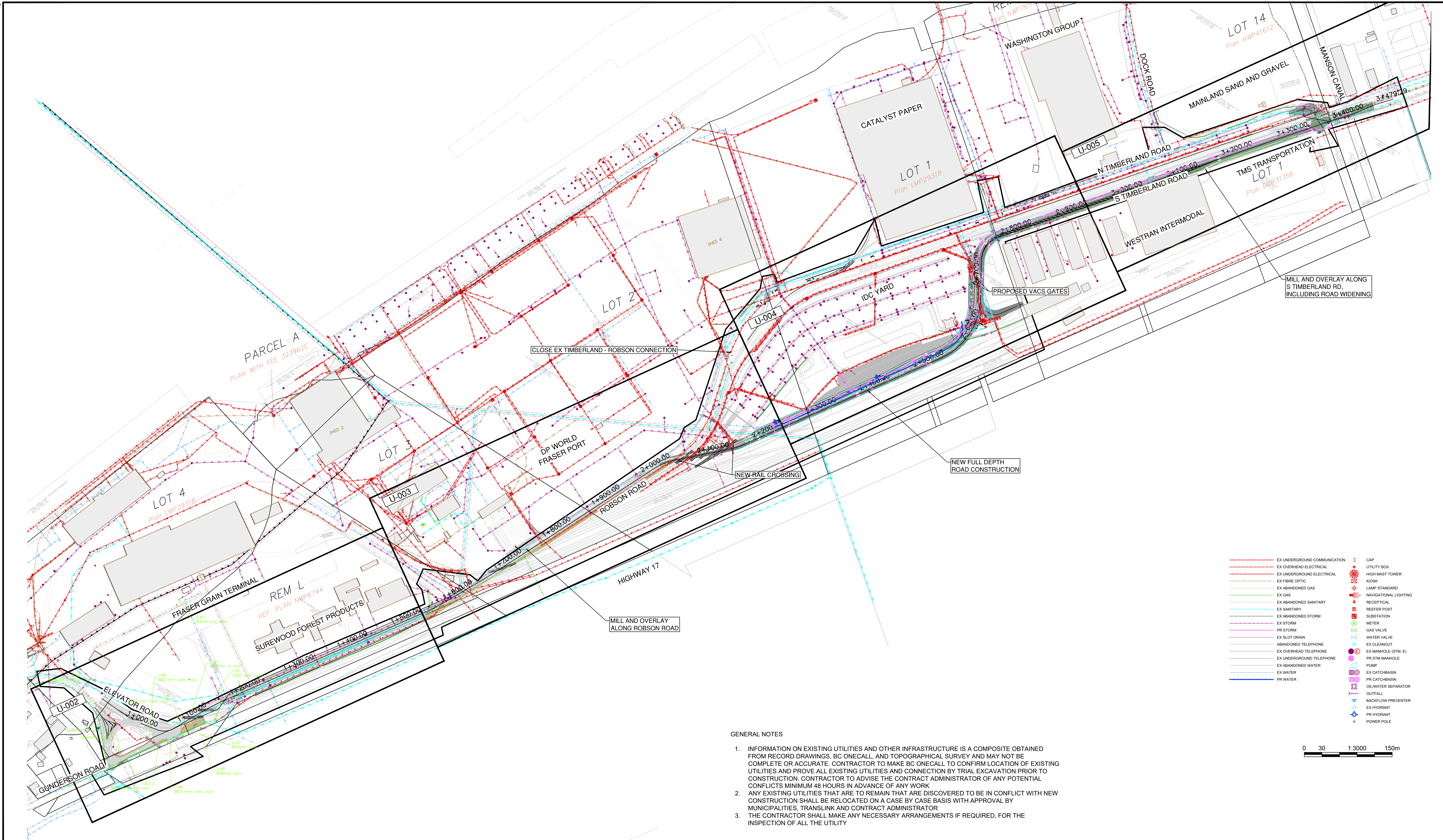
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REV. A

Ref.No.	REFERENCE
1	WSP PROJECT NO. 20M-00758-00

No.	Date	REVISION	Dr'n	Ch'd
A	20/12/18	ISSUED FOR 30% DESIGN	GJ	RM

VANCOUVER FRASER PORT AUTHORITY  
 ENGINEERING DEPARTMENT

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MILL AND OVERLAY ALONG S TIMBERLAND RD. INCLUDING ROAD WIDENING

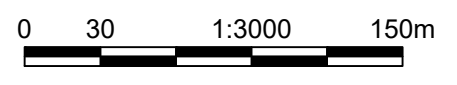
NEW FULL DEPTH ROAD CONSTRUCTION

MILL AND OVERLAY ALONG ROBSON ROAD

GENERAL NOTES

1. INFORMATION ON EXISTING UTILITIES AND OTHER INFRASTRUCTURE IS A COMPOSITE OBTAINED FROM RECORD DRAWINGS, BC ONECALL, AND TOPOGRAPHICAL SURVEY AND MAY NOT BE COMPLETE OR ACCURATE. CONTRACTOR TO MAKE BC ONECALL TO CONFIRM LOCATION OF EXISTING UTILITIES AND PROVE ALL EXISTING UTILITIES AND CONNECTION BY TRIAL EXCAVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO ADVISE THE CONTRACT ADMINISTRATOR OF ANY POTENTIAL CONFLICTS MINIMUM 48 HOURS IN ADVANCE OF ANY WORK.
2. ANY EXISTING UTILITIES THAT ARE TO REMAIN THAT ARE DISCOVERED TO BE IN CONFLICT WITH NEW CONSTRUCTION SHALL BE RELOCATED ON A CASE BY CASE BASIS WITH APPROVAL BY MUNICIPALITIES, TRANSLINK AND CONTRACT ADMINISTRATOR.
3. THE CONTRACTOR SHALL MAKE ANY NECESSARY ARRANGEMENTS IF REQUIRED, FOR THE INSPECTION OF ALL THE UTILITY.

EX UNDERGROUND COMMUNICATION	CAP
EX OVERHEAD ELECTRICAL	UTILITY BOX
EX UNDERGROUND ELECTRICAL	HIGH MAST TOWER
EX FIBRE OPTIC	KIOSK
EX ABANDONED GAS	LAMP STANDARD
EX GAS	NAVIGATIONAL LIGHTING
EX ABANDONED SANITARY	RECEPTICAL
EX SANITARY	REEFER POST
EX ABANDONED STORM	SUBSTATION
EX STORM	METER
PR STORM	GAS VALVE
EX SLOT DRAIN	WATER VALVE
ABANDONED TELEPHONE	EX CLEANOUT
EX OVERHEAD TELEPHONE	EX MANHOLE (STM. E)
EX UNDERGROUND TELEPHONE	PR STM MANHOLE
EX ABANDONED WATER	PUMP
EX WATER	EX CATCHBASIN
PR WATER	PR CATCHBASIN
	OIL/WATER SEPARATOR
	OUTFALL
	BACKFLOW PREVENTER
	EX HYDRANT
	PR HYDRANT
	POWER POLE



**NOT FOR CONSTRUCTION**  
 April 29, 2021



DESIGN BY	R. MOORE
DRAWN BY	G. JUNG
APPROVED	R. ROGERS
DATE	2021/04/23
SCALE	1:3000
PMV SITE	

GREATER VANCOUVER GATEWAY 2030  
 OPTION STUDY  
 FSP TRANSPORTATION IMPROVEMENTS  
 UTILITY PLAN (OVERALL)

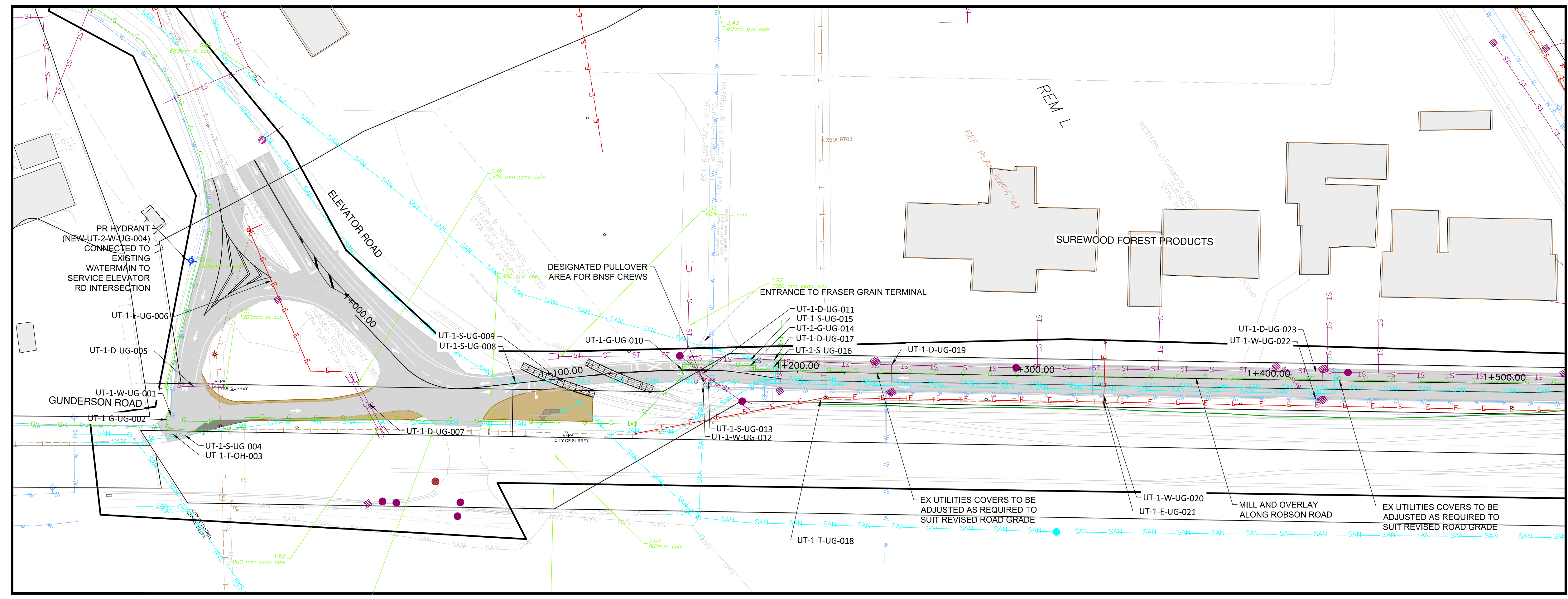
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VANCOUVER FRASER PORT AUTHORITY  
 ENGINEERING DEPARTMENT

SIZE	DWG.	U-001	SHEET	REV.
D			1 of 5	B

DATE: 2021/04/29 - 9:47am  
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 TITLE BLOCK: DL-TE.dwg



Legend:

- EX UNDERGROUND COMMUNICATION
- EX OVERHEAD ELECTRICAL
- EX UNDERGROUND ELECTRICAL
- EX FIBRE OPTIC
- EX ABANDONED GAS
- EX GAS
- EX ABANDONED SANITARY
- EX SANITARY
- EX ABANDONED STORM
- EX STORM
- PR STORM
- EX SLOT DRAIN
- ABANDONED TELEPHONE
- EX OVERHEAD TELEPHONE
- EX UNDERGROUND TELEPHONE
- EX ABANDONED WATER
- EX WATER
- PR WATER
- CAP
- UTILITY BOX
- HIGH MAST TOWER
- KIOSK
- LAMP STANDARD
- NAVIGATIONAL LIGHTING
- RECEPTICAL
- REEFER POST
- SUBSTATION
- METER
- GAS VALVE
- WATER VALVE
- EX CLEANOUT
- EX MANHOLE (STM. E)
- PR STM MANHOLE
- PUMP
- EX CATCHBASIN
- PR CATCHBASIN
- OIL/WATER SEPARATOR
- OUTFALL
- BACKFLOW PREVENTER
- EX HYDRANT
- PR HYDRANT
- POWER POLE

Scale: 0 10 1:1000 50m

PLAN

**NOT FOR CONSTRUCTION**  
 April 29, 2021



DESIGN BY: R. MOORE  
 DRAWN BY: G. JUNG  
 APPROVED: R. ROGERS  
 DATE: 2020/12/18  
 SCALE: 1:1000  
 PMV SITE:

GREATER VANCOUVER GATEWAY 2030  
 OPTION STUDY  
 FSPL TRANSPORTATION IMPROVEMENTS  
 UTILITIES DESIGN - SHEET 1 OF 4

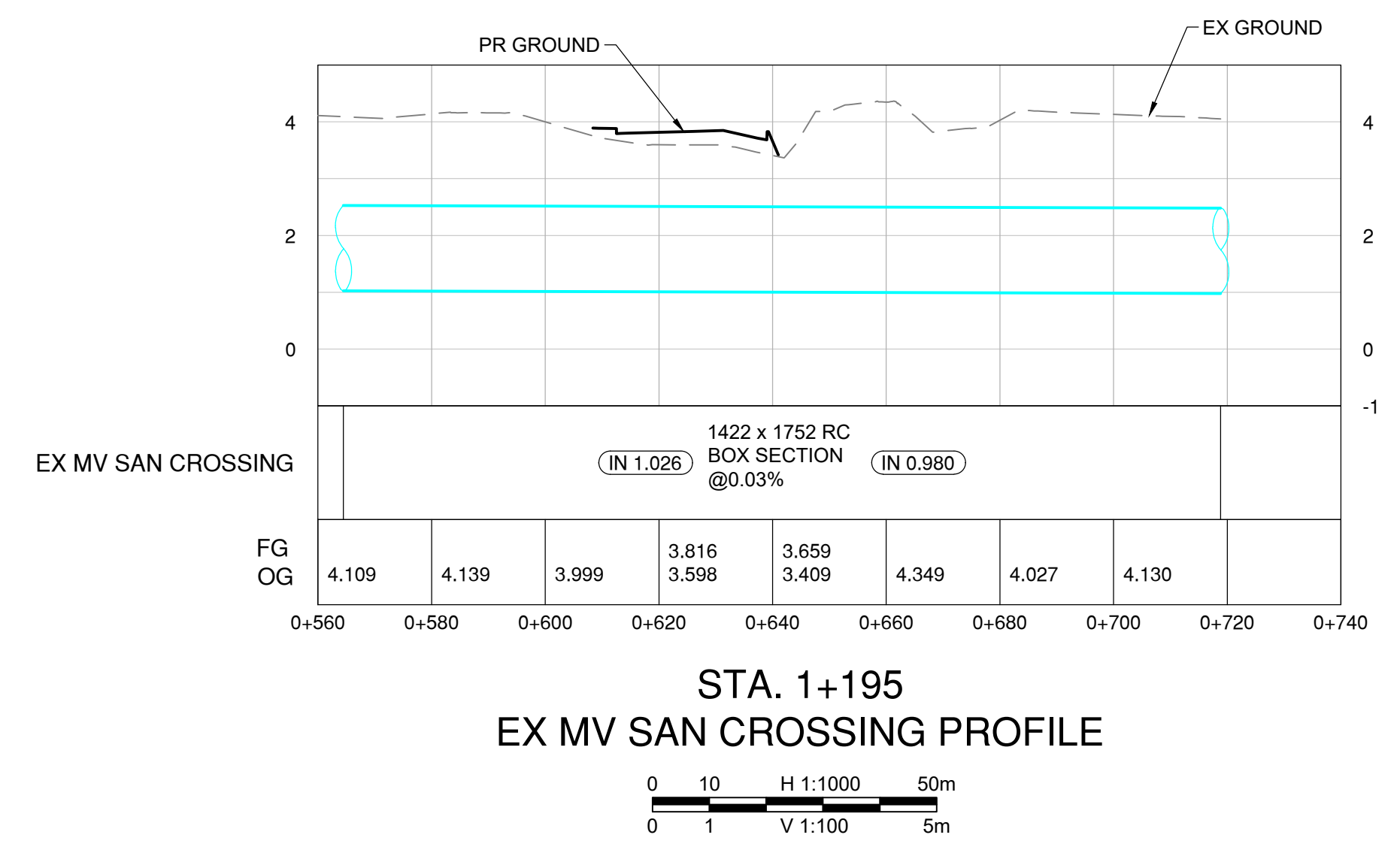
Ref.No.	REFERENCE
1	WSP PROJECT NO. 20M-00758-00

No.	Date	REVISION	Dr'n	Ch'd
A	20/12/18	ISSUED FOR 30% DESIGN	GJ	RM

VANCOUVER FRASER PORT AUTHORITY  
 ENGINEERING DEPARTMENT

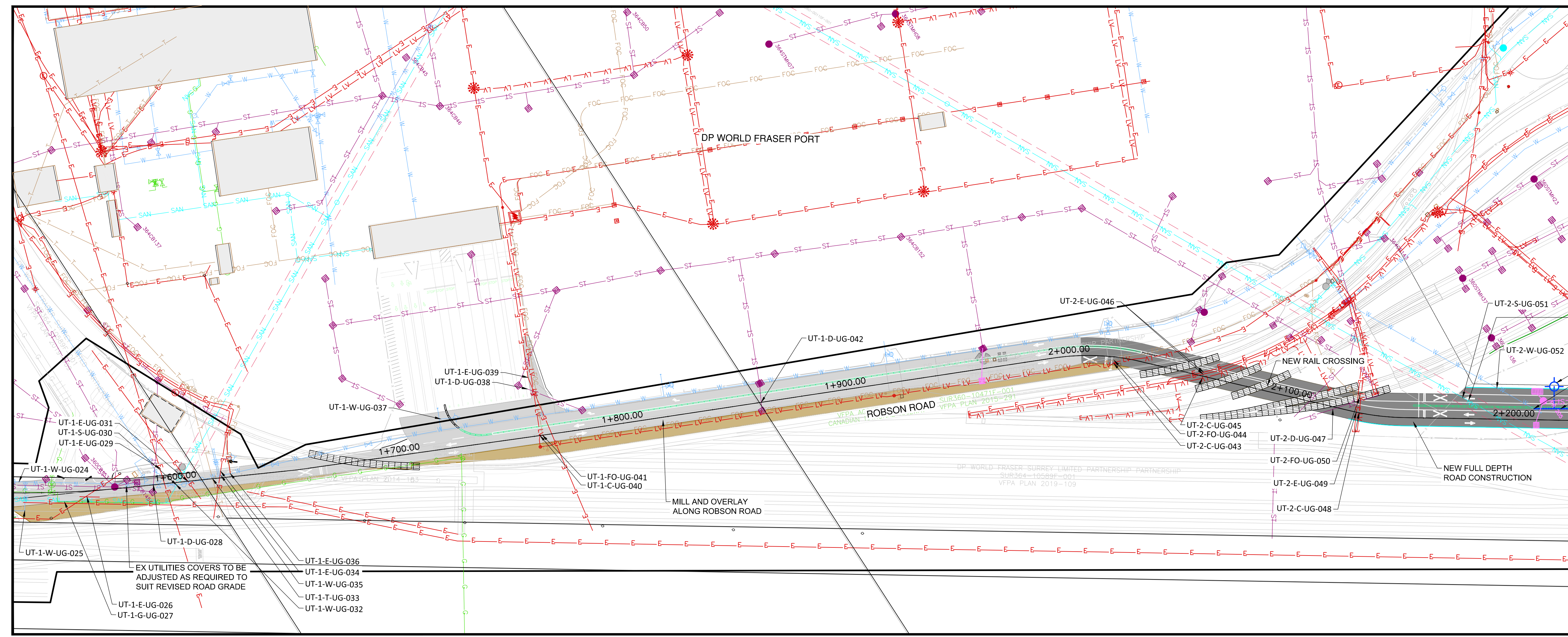
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D			2 of 5	A

DATE: 2021/04/29 - 9:48am  
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 TITLE BLOCK: DL-TR.dwg



STA. 1+195  
 EX MV SAN CROSSING PROFILE

0 10 50m  
 H 1:1000  
 0 1 5m  
 V 1:100



EX 1422mm X 1752mm R.C. METRO VANCOUVER SANITARY BOX SECTION CROSSING AT STA. 1+195. SEE PROFILE ON THIS SHEET

PR HYDRANT (NEW-UT-2-W-UG-002)

PR WATERMAIN TO TIE INTO EXISTING 200 DIA PVC WATERMAIN

PR 200 DIA PVC WATERMAIN (NEW-UT-2-W-UG-001)

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- PR STORM
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- BACKFLOW PREVENTER
- EX HYDRANT
- PR HYDRANT
- POWER POLE

PLAN 0 10 50m  
 1:1000

**NOT FOR CONSTRUCTION**

April 29, 2021



DESIGN BY R. MOORE  
 DRAWN BY G. JUNG  
 APPROVED R. ROGERS  
 DATE 2021/04/23  
 SCALE 1:1000  
 PMV SITE

GREATER VANCOUVER GATEWAY 2030  
 OPTION STUDY  
 FSP TRANSPORTATION IMPROVEMENTS  
 UTILITIES DESIGN - SHEET 2 OF 4

Ref.No.	REFERENCE
1	WSP PROJECT NO. 20M-00758-00

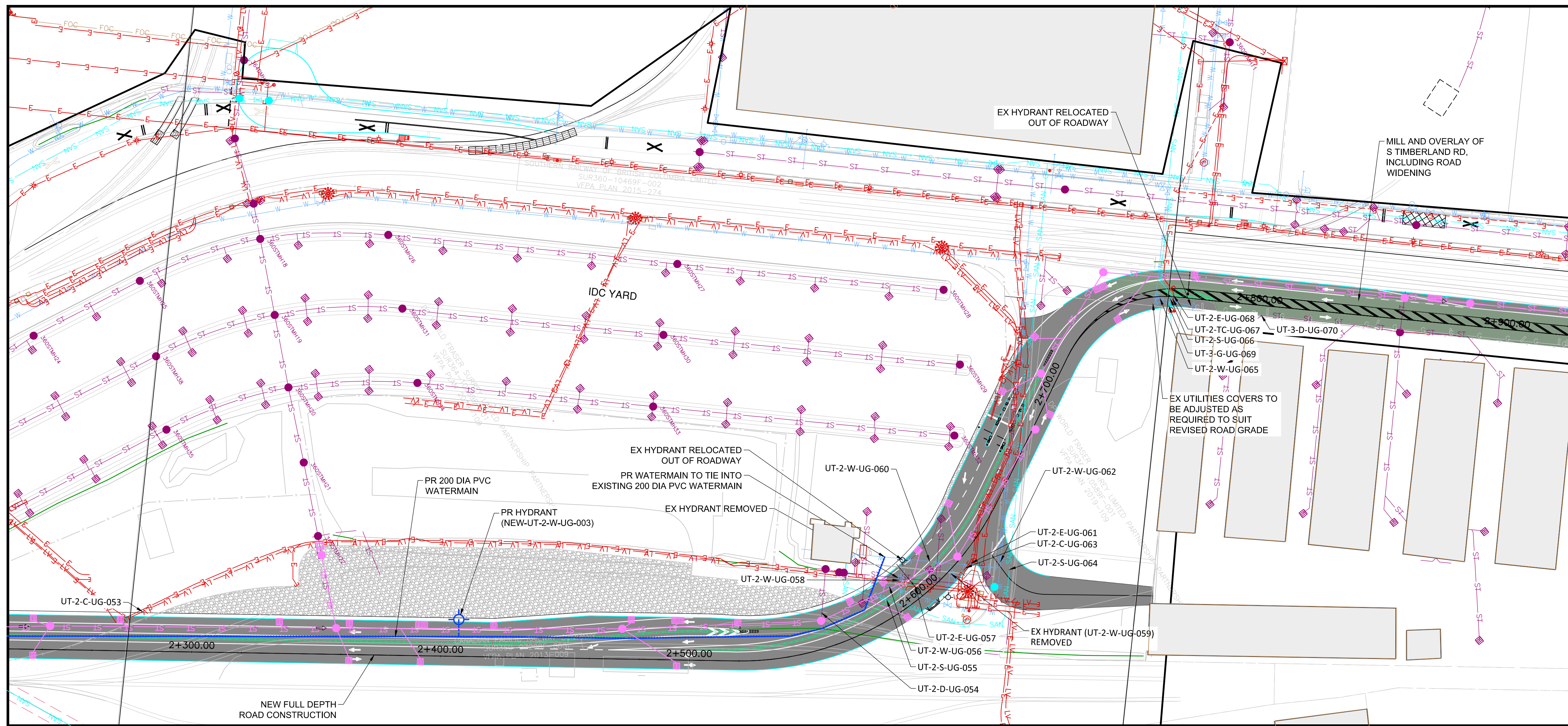
No.	Date	REVISION	Dr'n	Ch'd
B	2021/04/23	ISSUED FOR PER SUBMISSION	GJ	RM
A	20/12/18	ISSUED FOR 30% DESIGN	GJ	RM

VANCOUVER FRASER PORT AUTHORITY  
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SIZE	DWG.	U-003	SHEET	REV.
D			3 of 5	B



DATE: 2021/04/29 - 9:48am  
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- EX UNDERGROUND COMMUNICATION
- EX OVERHEAD ELECTRICAL
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- EX FIBRE OPTIC
- EX ABANDONED GAS
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PLAN

**NOT FOR  
CONSTRUCTION**  
April 29, 2021



DESIGN BY R. MOORE  
 DRAWN BY G. JUNG  
 APPROVED R. ROGERS  
 DATE 2021/04/23  
 SCALE 1:1000  
 PMV SITE

GREATER VANCOUVER GATEWAY 2030  
 OPTION STUDY  
 FSP TRANSPORTATION IMPROVEMENTS  
 UTILITIES DESIGN – SHEET 3 OF 4

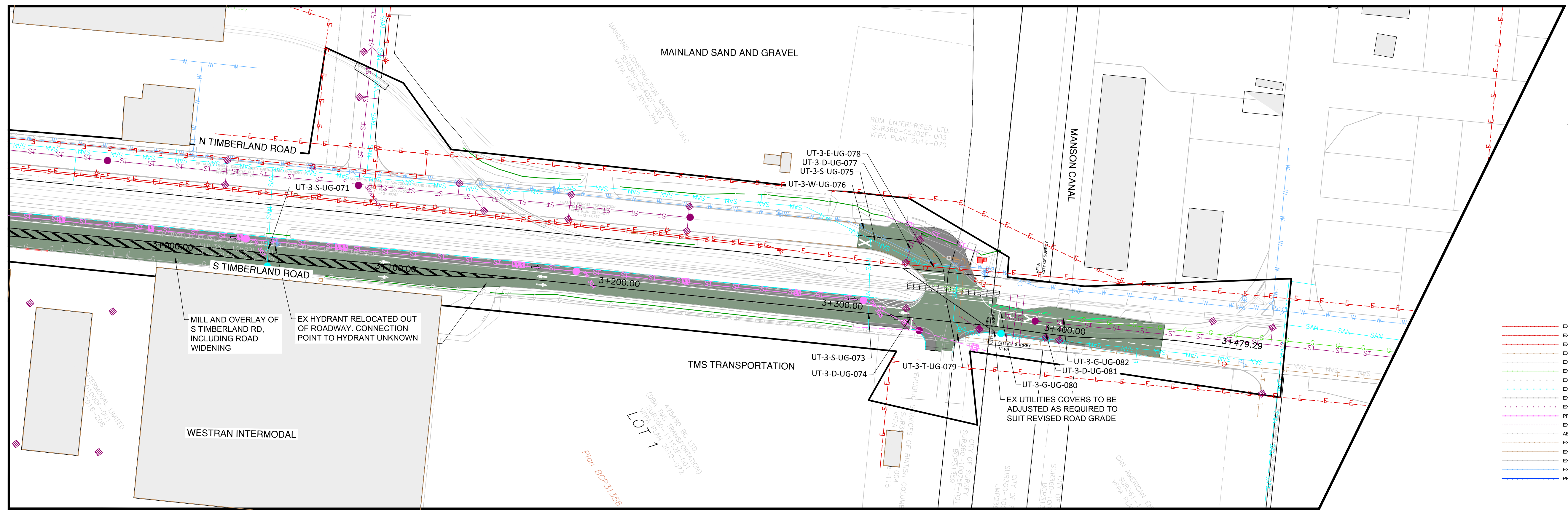
Ref.No.	REFERENCE
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No.	Date	REVISION	Dr'n	Ch'd
B	2021/04/23	ISSUED FOR PER SUBMISSION	GJ	RM
A	20/12/18	ISSUED FOR 30% DESIGN	GJ	RM

VANCOUVER FRASER PORT AUTHORITY  
 ENGINEERING DEPARTMENT

SIZE	Dwg.	U-004	SHEET	REV.
4	of 5		4	B

DATE: 2021/04/29 - 9:48am  
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 TITLE BLOCK: DL-TE.dwg



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PLAN 0 10 1:1000 50m

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April 29, 2021



DESIGN BY R. MOORE  
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GREATER VANCOUVER GATEWAY 2030  
 OPTION STUDY  
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 UTILITIES DESIGN - SHEET 4 OF 4

Ref.No.	REFERENCE
1	WSP PROJECT NO. 20M-00758-00

No.	Date	REVISION	Dr'n	Ch'd
A	20/12/18	ISSUED FOR 30% DESIGN	GJ	RM

VANCOUVER FRASER PORT AUTHORITY  
 ENGINEERING DEPARTMENT

SIZE D	DWG.	U-005	SHEET 5 of 5	REV. A
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