

Appendix 17.4-F

Inks Lake Interchange, Concepts and Evaluation

AJAX PROJECT

**Environmental Assessment Certificate Application / Environmental Impact Statement
for a Comprehensive Study**

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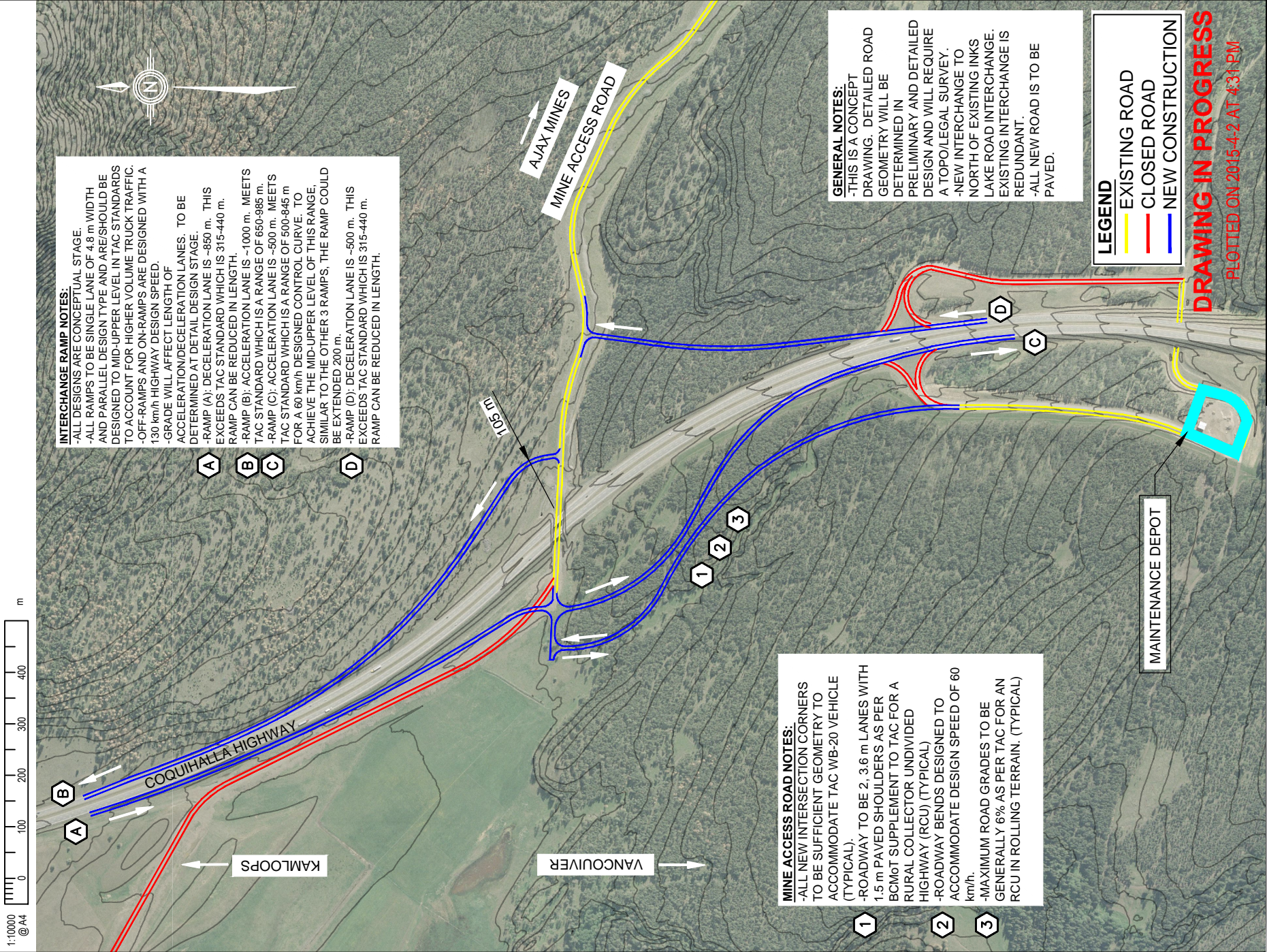
INTERCHANGE RAMP NOTES:
 -ALL DESIGNS ARE CONCEPTUAL STAGE.
 -ALL RAMPS TO BE SINGLE LANE OF 4.8 m WIDTH AND PARALLEL DESIGN TYPE AND ARE/SHOULD BE DESIGNED TO MID-UPPER LEVEL IN TAC STANDARDS TO ACCOUNT FOR HIGHER VOLUME TRUCK TRAFFIC.
 -OFF-RAMPS AND ON-RAMPS ARE DESIGNED WITH A 130 km/h HIGHWAY DESIGN SPEED.
 -GRADE WILL AFFECT LENGTH OF ACCELERATION/DECELERATION LANES. TO BE DETERMINED AT DETAIL DESIGN STAGE.
 -RAMP (A): DECELERATION LANE IS ~850 m. THIS EXCEEDS TAC STANDARD WHICH IS 315-440 m. RAMP CAN BE REDUCED IN LENGTH.
 -RAMP (B): ACCELERATION LANE IS ~1000 m. MEETS TAC STANDARD WHICH IS A RANGE OF 650-985 m.
 -RAMP (C): ACCELERATION LANE IS ~500 m. MEETS TAC STANDARD WHICH IS A RANGE OF 500-845 m FOR A 60 km/h DESIGNED CONTROL CURVE. TO ACHIEVE THE MID-UPPER LEVEL OF THIS RANGE, SIMILAR TO THE OTHER 3 RAMPS, THE RAMP COULD BE EXTENDED 200 m.
 -RAMP (D): DECELERATION LANE IS ~500 m. THIS EXCEEDS TAC STANDARD WHICH IS 315-440 m. RAMP CAN BE REDUCED IN LENGTH.

MINE ACCESS ROAD NOTES:
 -ALL NEW INTERSECTION CORNERS TO BE SUFFICIENT GEOMETRY TO ACCOMMODATE TAC WB-20 VEHICLE (TYPICAL)
 ① -ROADWAY TO BE 2, 3.6 m LANES WITH 1.5 m PAVED SHOULDERS AS PER BCMoT SUPPLEMENT TO TAC FOR A RURAL COLLECTOR UNDIVIDED HIGHWAY (RCU) (TYPICAL)
 ② -ROADWAY BENDS DESIGNED TO ACCOMMODATE DESIGN SPEED OF 60 km/h.
 ③ -MAXIMUM ROAD GRADES TO BE GENERALLY 6% AS PER TAC FOR AN RCU IN ROLLING TERRAIN. (TYPICAL)

GENERAL NOTES:
 -THIS IS A CONCEPT DRAWING. DETAILED ROAD GEOMETRY WILL BE DETERMINED IN PRELIMINARY AND DETAILED DESIGN AND WILL REQUIRE A TOPO/LEGAL SURVEY.
 -NEW INTERCHANGE TO NORTH OF EXISTING INKS LAKE ROAD INTERCHANGE. EXISTING INTERCHANGE IS REDUNDANT.
 -ALL NEW ROAD IS TO BE PAVED.

LEGEND
 - EXISTING ROAD (Yellow line)
 - CLOSED ROAD (Red line)
 - NEW CONSTRUCTION (Blue line)

DRAWING IN PROGRESS
 PLOTTED ON 2015-4-2 AT 4:31 PM



CONCEPT DRAWING



AJAX MINES TIA
 ACCESS TO HIGHWAY 5

Revision / Amendment	Approved	Date	Designed	Approved	Date
01 DRAFT FOR REVIEW	BT	MAR 2015	SERGE LEVESQUE	BARBARA THOMAS	MAR 2015
02 DRAFT FOR REVIEW	MR	APR 2015	Drawn	Sketches	1:10000

OPTION 1 (PREFERRED)
 ALL NEW RAMPS (DIAMOND INTERCHANGE)

Project No:
 H-90434.01

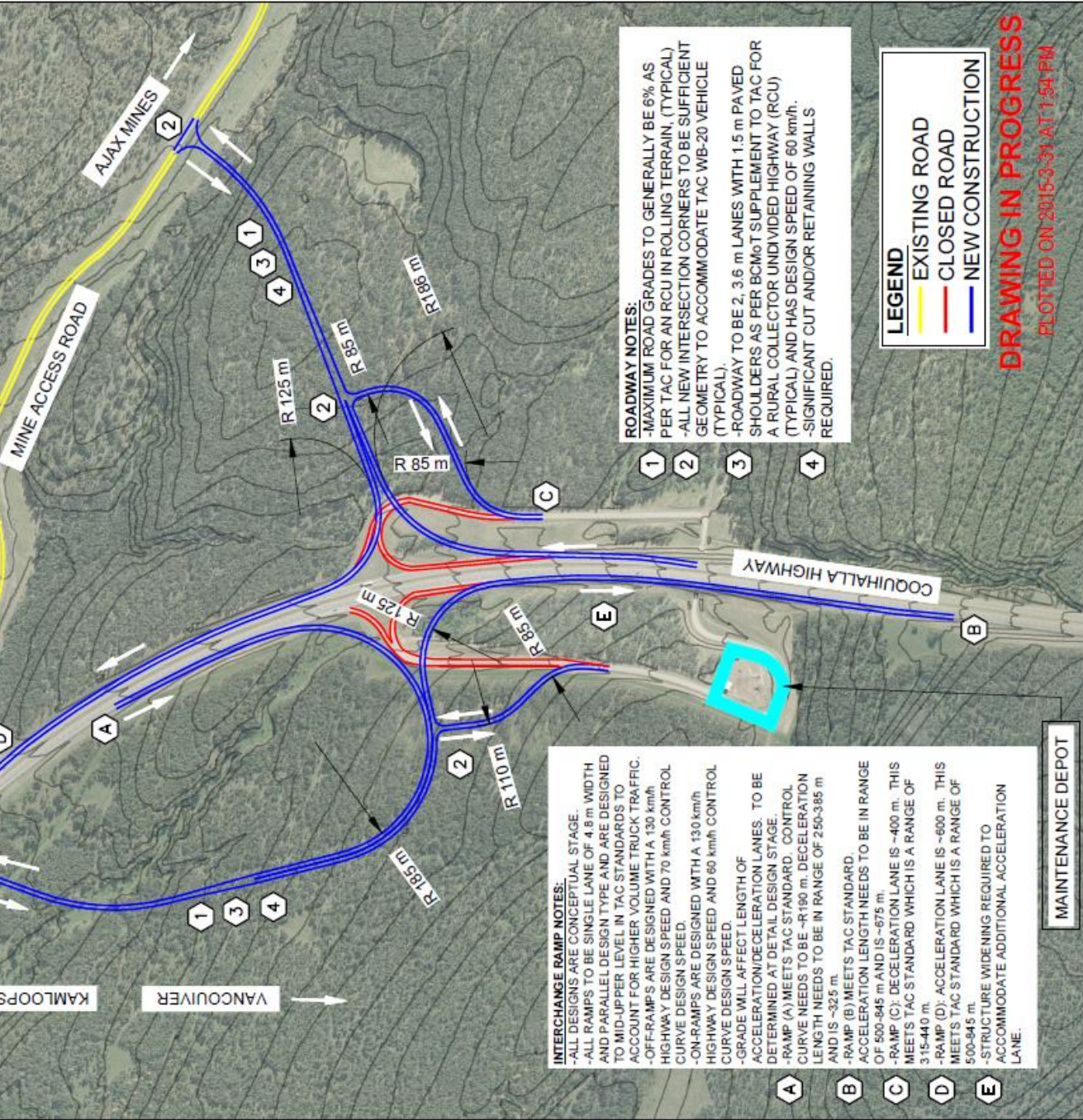
Revision	Sheet No.	Revision
01	01	02

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@ A4



MINE ACCESS ROAD TO
BECOME PUBLIC ROAD
EAST OF THIS POINT

GENERAL NOTES:
 -THIS IS A CONCEPT DRAWING.
 -DETAILED ROAD GEOMETRY WILL BE DETERMINED IN PRELIMINARY AND DETAILED DESIGN AND WILL REQUIRE A TOPOGRAPHIC SURVEY.
 -GEOMETRIC IMPROVEMENTS, AND ACCESS TO MINE ACCESS ROAD, VIA EXISTING INKS LAKE ROAD INTERCHANGE.
 -ALL NEW ROAD IS TO BE PAVED.



INTERCHANGE RAMP NOTES:
 -ALL DESIGNS ARE CONCEPTUAL STAGE.
 -ALL RAMP TO BE SINGLE LANE OF 4.5 m WIDTH AND PARALLEL DESIGN TYPE AND ARE DESIGNED TO MID-UPPER LEVEL IN TAC STANDARDS TO ACCOUNT FOR HIGHER VOLUME TRUCK TRAFFIC.
 -OFF-RAMP'S ARE DESIGNED WITH A 130 km/h HIGHWAY DESIGN SPEED AND 70 km/h CONTROL CURVE DESIGN SPEED.
 -ON-RAMP'S ARE DESIGNED WITH A 130 km/h HIGHWAY DESIGN SPEED AND 60 km/h CONTROL CURVE DESIGN SPEED.
 -GRADE WILL AFFECT LENGTH OF ACCELERATION/DECELERATION LANES, TO BE DETERMINED AT DETAIL DESIGN STAGE.
 -RAMP (A) MEETS TAC STANDARD. CONTROL CURVE NEEDS TO BE ~R180 m. DECELERATION LENGTH NEEDS TO BE IN RANGE OF 250-385 m AND IS ~325 m.
 -RAMP (B) MEETS TAC STANDARD.
 -ACCELERATION LENGTH NEEDS TO BE IN RANGE OF 500-845 m AND IS ~675 m.
 -RAMP (C): DECELERATION LANE IS ~400 m. THIS MEETS TAC STANDARD WHICH IS A RANGE OF 315-440 m.
 -RAMP (D): ACCELERATION LANE IS ~600 m. THIS MEETS TAC STANDARD WHICH IS A RANGE OF 500-845 m.
 -STRUCTURE WIDENING REQUIRED TO ACCOMMODATE ADDITIONAL ACCELERATION LANE.

ROADWAY NOTES:
 -MAXIMUM ROAD GRADES TO GENERALLY BE 6% AS PER TAC FOR AN RCU IN ROLLING TERRAIN, (TYPICAL)
 -ALL NEW INTERSECTION CORNERS TO BE SUFFICIENT GEOMETRY TO ACCOMMODATE TAC WB-20 VEHICLE (TYPICAL).
 -ROADWAY TO BE 2, 3.6 m LANES WITH 1.5 m PAVED SHOULDERS AS PER BCMoT SUPPLEMENT TO TAC FOR A RURAL COLLECTOR UNDIVIDED HIGHWAY (RCU) (TYPICAL) AND HAS DESIGN SPEED OF 60 km/h.
 -SIGNIFICANT CUT AND/OR RETAINING WALLS REQUIRED.

LEGEND
 -EXISTING ROAD
 -CLOSED ROAD
 -NEW CONSTRUCTION

DRAWING IN PROGRESS
 PLOTTED ON 2015-03-31 AT 1:54 PM

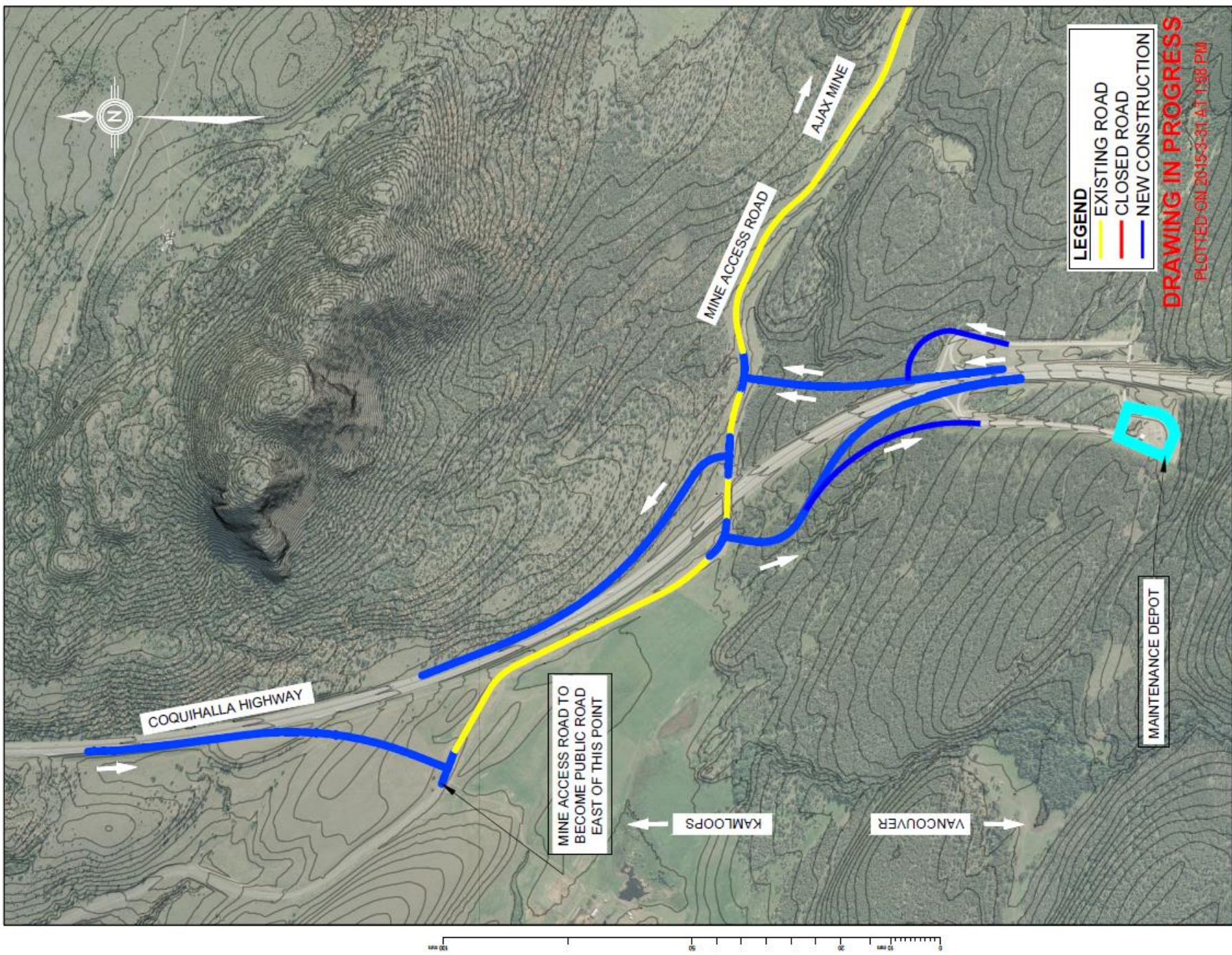
MAINTENANCE DEPOT

CONCEPT DRAWING



AJAX MINES TIA
ACCESS TO HIGHWAY 5

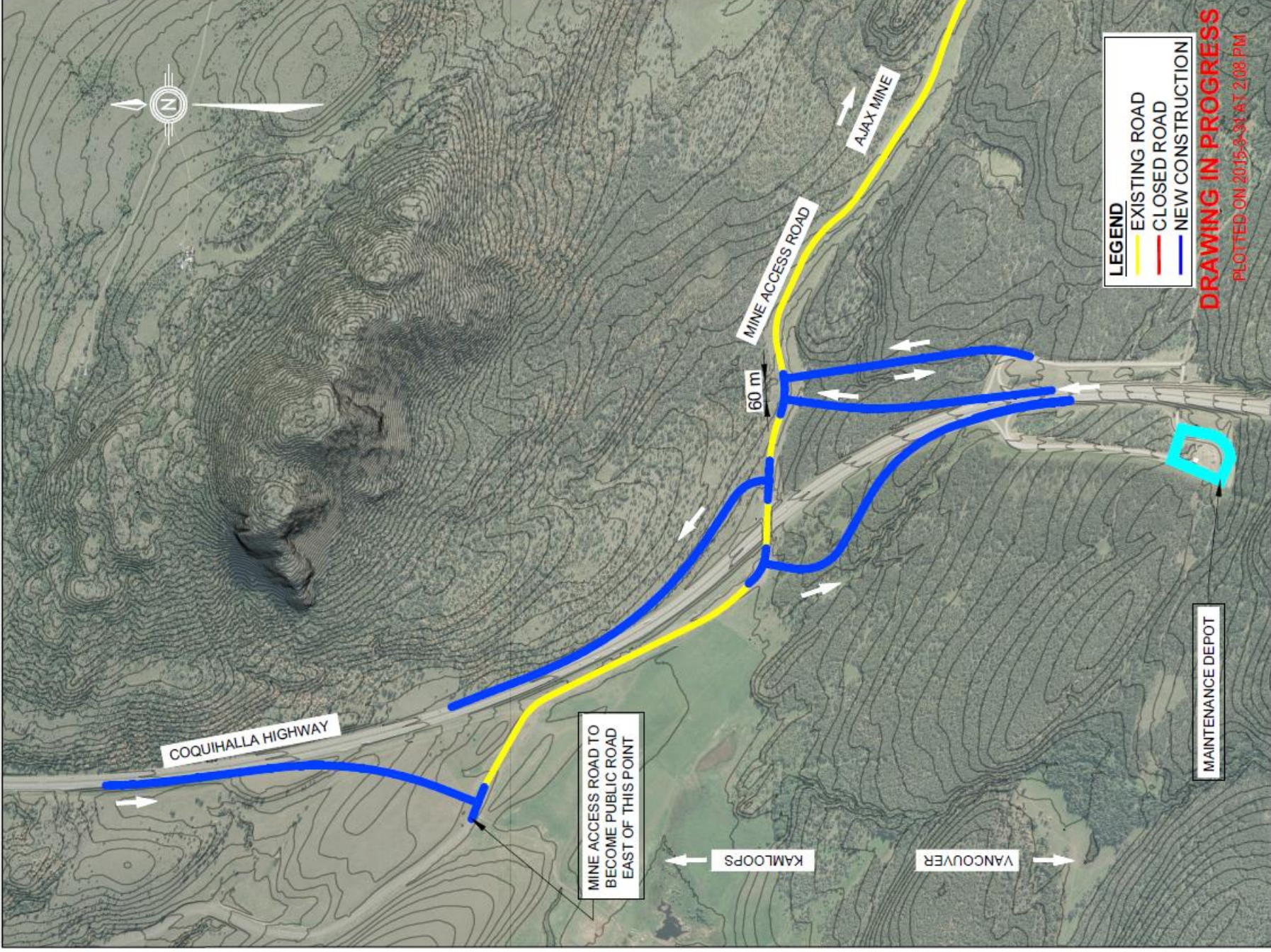
Revision/Amendment	Approved/Date	Engineer	Project	Client
01	DRAFT FOR REVIEW BT MAR 2015	SERGE LEVESQUE	BARBARA THOMAS	Canada
		Scale	1:1000	
		Drawn	MICHAEL BAILEY	
		Sheet No.	02	01
		Project No.	H-90434.01	
		Sheet	OPTION 2	
		Project	ALL NEW RAMPS AND CONNECTORS	



LEGEND
 — EXISTING ROAD
 — CLOSED ROAD
 — NEW CONSTRUCTION

DRAWING IN PROGRESS
 PLOTTED ON 2015-03-31 AT 1:58 PM

CONCEPT DRAWING		OPUS Victoria Office +1 250 921 6160		Sub 3.0, 1:207 Douglas St Victoria BC V8W 2E7 Canada		Sheet AJAX MINES TIA ACCESS TO HIGHWAY 5	
01	DRAFT FOR REVIEW	BT	MAR 2015	Approved SERGE LEVESQUE	Approved MAR 2015	Approved BARBARA THOMAS	Option OPTION 3
				Drawn MICHAEL BAILEY	Scale 1:5000	Project No. H-90434.01	Sheet No. 03
							Block 01



CONCEPT DRAWING		OPUS Victoria Office +1 250 922 9940		Sub 3.0: 407 Douglas St Victoria BC V8W 2E1 Canada		Sheet	
Author	BT	Engineer	SEERGE LEVESQUE	Approver	BARBARA THOMAS	Appropriate	MAR 2015
01 DRAFT FOR REVIEW	BT	Checked	MICHAEL BAILEY	Scale	1:5000	Project No.	H-90434.01
		Approved Date	MAR 2015			Sheet No.	04
						Revision	01
AJAX MINES TIA ACCESS TO HIGHWAY 5				OPTION 4 ALL NEW RAMPS (DIAMOND INTERCHANGE)			

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MINE ACCESS ROAD TO
BECOME PUBLIC ROAD
EAST OF THIS POINT

MINE ACCESS ROAD

AJAX MINE

KAMLOOPS

VANCOUVER

MAINTENANCE DEPOT

COQUHALLA HIGHWAY

LEGEND

- EXISTING ROAD
- CLOSED ROAD
- NEW CONSTRUCTION

DRAWING IN PROGRESS
PLOTTED ON 2015-3-31 AT 2:10 PM

**CONCEPT
DRAWING**



Subs 3.0: 1:3071 Doughty &
Holland 05:16 W 2E1
Canada

Approval
DATE: MAR 2015

BY: BARBARA THOMAS

Scale:
1:1000

Project No:
H-90434.01

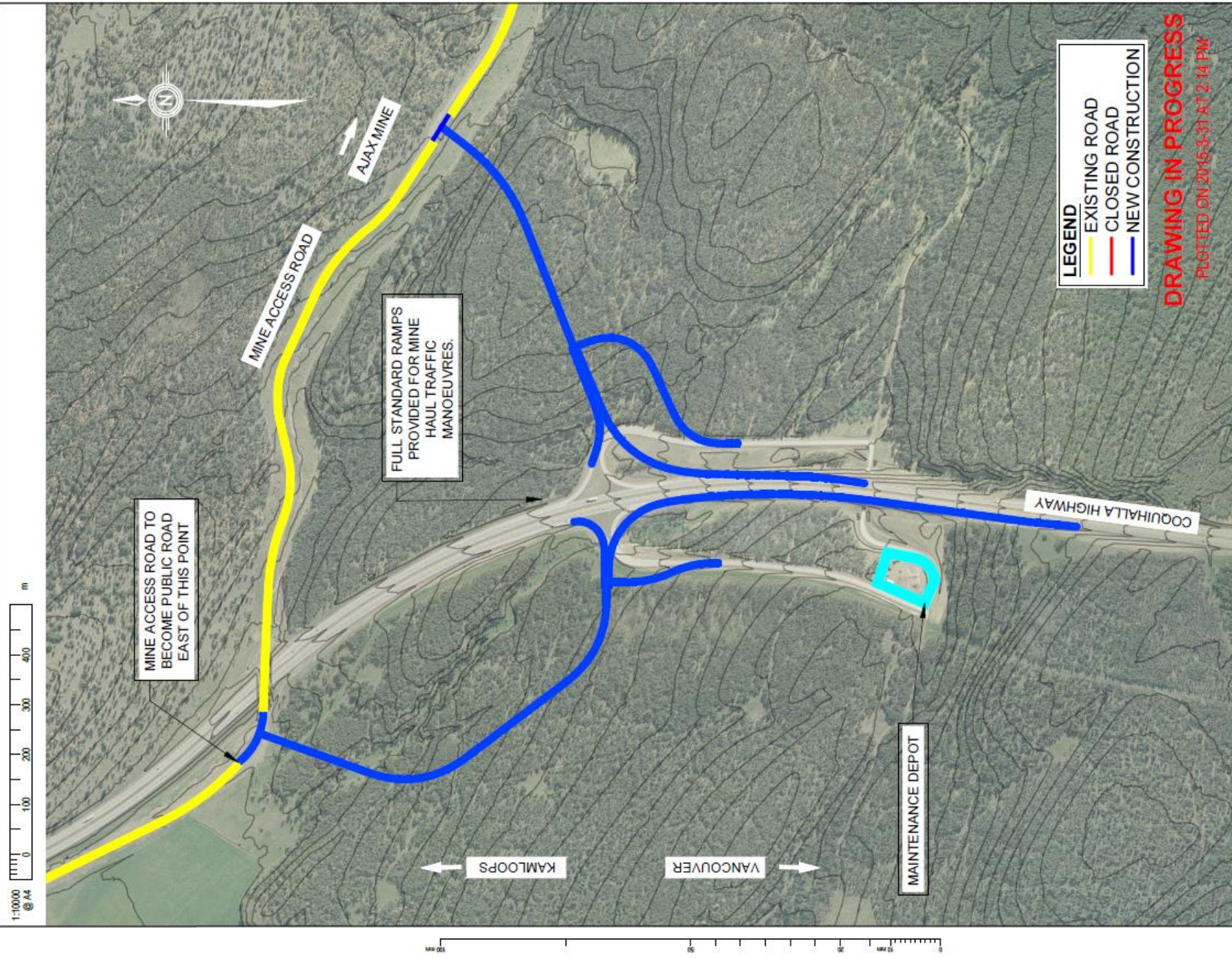
OPTION 5

NEW CONNECTORS (EXISTING RAMPS RETAINED)

Sheet No: 05

Revision: 01

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LEGEND
 — EXISTING ROAD
 — CLOSED ROAD
 — NEW CONSTRUCTION

DRAWING IN PROGRESS
 PLOTTED ON 2015-3-31 AT 2:14 PM

CONCEPT DRAWING		OPUS Victoria Office +1 250 952 5940		Subj: 310, 1307 Douglas St Victoria BC V8W 2E7 Canada		Sheet AJAX MINES TIA ACCESS TO HIGHWAY 5	
Drawn/Checked:	Approved/Date:	Prepared:	Approved:	Prepared/Date:	Sheet Title		
01 DRAFT FOR REVIEW	BT MAR 2015	SEERGE LESQUELLE Drawn	BARBARA THOMAS Scale	MAR 2015	OPTION 6 TWO NEW RAMPS AND CONNECTORS		
		MICHAEL BAILEY 1:1000			Project No. H-90434.01		
					Sheet No. 06		
					Revision 01		

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@ A4
0 100 200 300 400
m



MINE ACCESS ROAD TO
BECOME PUBLIC ROAD
EAST OF THIS POINT

MINE ACCESS ROAD

AJAX MINE

KAMLOOPS

VANCOUVER

UNDERPASS TO BE MANAGED
BY TRAFFIC SIGNALS OR A
WIDENED CULVERT

MAINTENANCE DEPOT

COQUHALLA HIGHWAY

LEGEND

- EXISTING ROAD
- CLOSED ROAD
- NEW CONSTRUCTION

DRAWING IN PROGRESS
PLOTTED ON 2015-3-30 AT 2:12 PM

**CONCEPT
DRAWING**



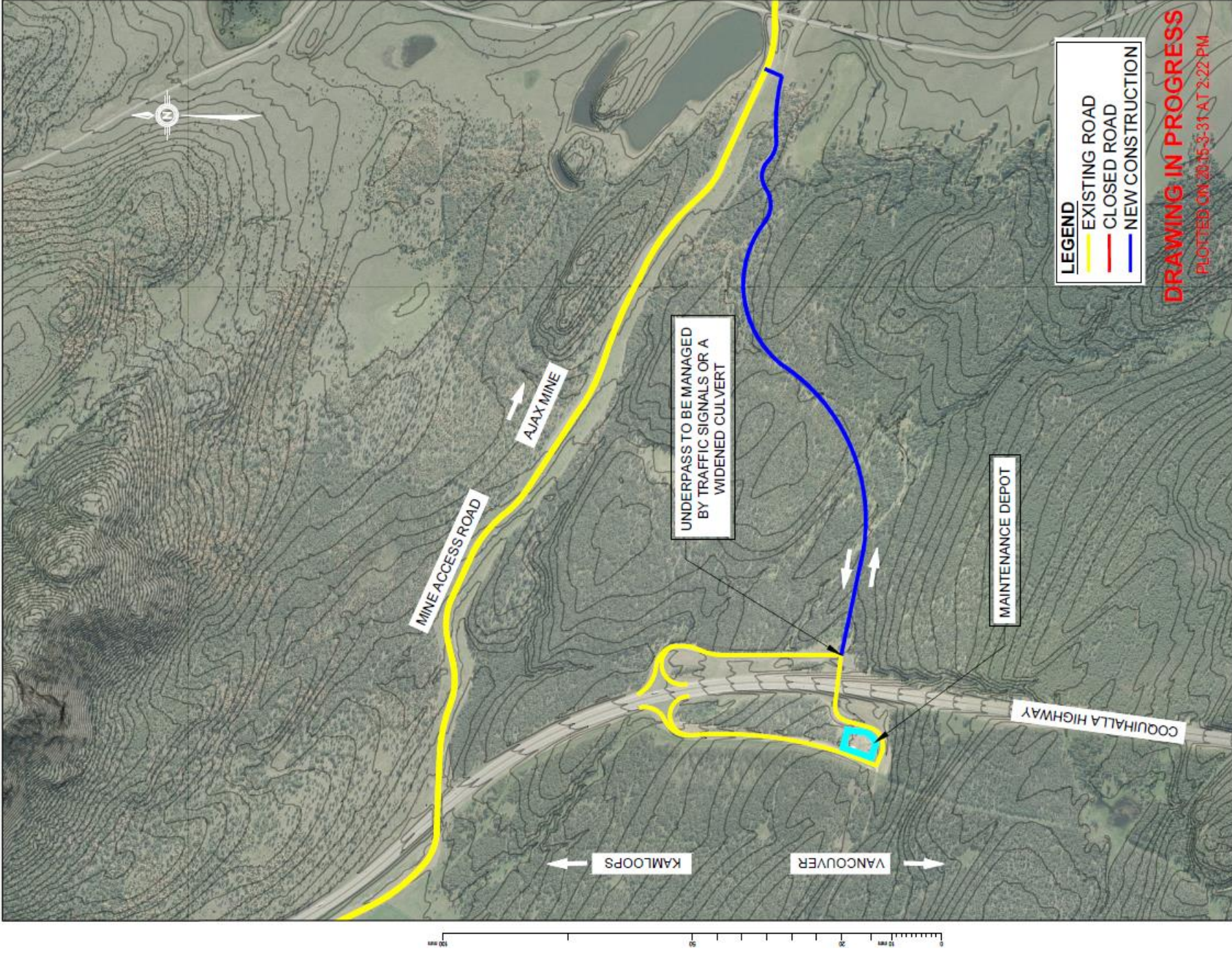
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Victoria BC, V6W 2E7
Canada

AJAX MINES TIA
ACCESS TO HIGHWAY 5

Revision	Description	Approved	Date	Prepared	Checked	Appointed
01	DRAFT FOR REVIEW	BT	MAR 26 15	KEVIN COLEMAN	BARBARA THOMAS	MAR 20 15
				MICHAEL BAILEY		

**OPTION 7
ADD WIDER CULVERT**


Sheet	Revision
H-90434.01	07
	01



LEGEND

- EXISTING ROAD
- CLOSED ROAD
- NEW CONSTRUCTION

DRAWING IN PROGRESS
 PLOTTED ON 2015-03-31 AT 2:22 PM

CONCEPT DRAWING		 OPUS Victoria Office 4120 122 Street Victoria, BC V8W 2E7 Canada		Sheet: AXJAX MINES TIA ACCESS TO HIGHWAY 5	
		Approved Date: BT MAR 2015	Approved: APR 30 15	Project No: H-90434.01	
Revision / Amendment: 01	Draft For Review	Designer: LINDSAY MCCALLEY	Reviewer: BARBARA THOMAS	Option: OPTION 8	
		Drawn: MICHAEL BAILEY	Scale: 1:5000	Bed No: 08	
Original Sheet Size: A1 (24x36)		Plot Date: 2015-03-31 at 2:22:11 PM Path: G:\Projects - Admin\H-90434.01 - Ajax Mines TIA\Working Documents\Drawings\CONCEPT\20150325_Drawing Set\20150325_H-90434.01_1.jpg6 Option 08_01.dwg		Drawn: 01	