GENERAL NOTES

1. DIMENSIONS ARE IN METRIC UNLESS OTHERWISE NOTED.
2. ELEVATIONS ARE IN METERS TO GEODETIC DATUM.
3. WHEN A CONFLICT BETWEEN THE SPECIFICATIONS ARISES, THE MOST STRINGENT SHALL APPLY.
4. EXCAVATE AND CONFIRM HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UNDERGROUND WORKS AT CONNECTION AND CROSSING POINTS 48 HOURS PRIOR TO STARTING CONSTRUCTION ON ANY NEW WORK, IMMEDIATELY INFORM ENGINEER OF ANY CONFLICTS.
5. WHERE A TRENCH IS UNDER OR WITHIN 1.0m OF THE EDGE OF A ROAD OR DRIVEWAY, USE PITRUN GRAVEL BACKFILL FROM THE TOP OF THE PIPE BEDDING TO THE TOP OF THE ROAD, PARKING OR DRIVEWAY SUBGRADE.
6. DO NOT START ANY BACKFILL OPERATION UNTIL THE WORKS HAVE BEEN INSPECTED BY THE ENGINEER.
7. AFTER CONSTRUCTION, RESTORE WORK AREAS AND ALL EXISTING FEATURES TO THEIR ORIGINAL CONDITION OR BETTER AND AS FOLLOWS:
   - REINSTATE TRENCHES IN ACCORDANCE WITH BYLAW 1000 DETAIL G4 & G5.
   - REINSTATE ASPHALT EITHER HALF-LANE OF FULL LANE ALONG ROADWAYS AS REQUIRED BASED ON GROUND CONDITIONS.
   - ALL LANDSCAPING, RETAINING WALLS, DITCHES, CULVERTS, SEEPAGE PITS, STREET SIGNAGE, AND IRRIGATION TO BE REINSTATED TO THE ORIGINAL CONDITION OR BETTER. PROVIDE 150 mm DEPTH TOPSOIL AND SEED WHERE REQUIRED.
   - REINSTATE ROAD SHOULDERS WITH 100 mm RAP COMPACTED TO 95% MODIFIED PROTRACTOR DENSITY.
   - FOR TEMPORARY TRENCH RESTORATION, PLACE COLD MIX ON DISTURBED, PREVIOUSLY PAVED AREAS PRIOR TO EACH WEEKEND OR HOLIDAY SHUTDOWNS.
8. MAINTAIN VEHICULAR AND PEDESTRIAN ACCESS ON ALL ROADS AND PARKING AREAS DURING CONSTRUCTION IN ACCORDANCE WITH TRAFFIC MANAGEMENT PLAN.
9. ADJUST ALL PROPOSED AND EXISTING APPURTENANCES TO MEET THE FINAL DESIGN GRADES.
10. COMPACT TRENCH BACKFILL AND ROAD BASE TO 100% STANDARD PROCTOR DENSITY FOR THE TOP 300mm AND 95% STANDARD PROCTOR BELOW.
11. DENSO TAPE AND WRAP ALL BURIED COUPLINGS, JOINT RESTRAINTS AND TIE RODS, INCLUDING ALL BURIED NUTS, BOLTS AND WASHERS.
12. UNLESS OTHERWISE NOTED ALL CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH CONTRACT DOCUMENTS FOR WSES PROJECT NO. 225-24, THE CITY OF LANGFORD BYLAW 1000, THE CITY OF LANGFORD SUPPLEMENTS TO THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS, AND MASTER MUNICIPAL CONSTRUCTION DOCUMENTS, (VOLUME II), AND MOTT 2025 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
13. OBTAIN AND PAY FOR A BY-LAW 33 PERMIT TO CONSTRUCT WORKS ON A MUNICIPAL RIGHT OF WAY FROM THE CITY OF LANGFORD ENGINEERING DEPARTMENT 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.
14. LOCATION OF EXISTING SITE SERVICES WERE OBTAINED INFORMATION PROVIDED BY CRD WATER, FORTIS, CABLE, TELUS, AND BC HYDRO.
15. BC HYDRO, TELUS, CABLE, AND FORTIS FACILITIES ARE SHOWN SCHEMATIC ON THE DRAWINGS, CONTACT "BC ONE CALL" AT 1-800-474-6886 A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION.
16. ENSURE THAT ALL EXISTING SERVICES REMAIN IN SERVICE DURING CONSTRUCTION.
17. PROTECT ALL TREES FROM DAMAGE DURING CONSTRUCTION, HAND DIG WHERE ROOTS OVER 50 mm Ø ARE ENCOUNTERED. OBTAIN PERMISSION FROM THE ENGINEER AND CITY OF LANGFORD PRIOR TO REMOVAL OF ANY TREES ON PRIVATE OR PUBLIC PROPERTY.
18. CONTRACTOR TO MAINTAIN AN UP-TO-DATE SET OF AS-CONSTRUCTED DRAWINGS AT ALL TIMES. AS-CONSTRUCTED DRAWINGS TO BE DELIVERED TO THE ENGINEER PRIOR TO SUBSTANTIAL PERFORMANCE FOR PREPARATIONS OF FINAL DRAWINGS.
19. ALL MANHOLES TO BE 1050 mm Ø UNLESS OTHERWISE NOTED ON DRAWINGS.
20. ASPHALT REINSTATEMENT TO BE REVIEWED WITH THE CITY OF LANGFORD, MOTT AND WSES PRIOR TO PAVING TO CONFIRM FINAL PAVING EXTENTS.
21. NOTIFY CITY OF LANGFORD ENGINEERING DEPARTMENT IF RE-INSTATEMENT/RE-CONSTRUCTION OF ANY ROCK PITS REQUIRED.
22. CONTRACTOR TO SUPPLY TRAFFIC MANAGEMENT PLAN AND PARKING PLAN TO CITY AND MOTT FOR REVIEW AND APPROVAL PRIOR TO ISSUANCE OF BYLAW 33 PERMIT.
23. ANY DISTURBED MONUMENTS OR PINS TO BE RE-INSTATEMENT BY BCLS AT CONTRACTORS EXPENSE.

SEWER

1. GRAVITY SEWER PIPE UP TO AND INCLUDING 150mm DIAMETER TO BE PVC DR28, AND DR35 FOR 200mm DIAMETER AND OVER. PIPE TO BE C.S.A. APPROVED PVC.
2. SEWER FORCEMAIN PRESSURE PIPE TO BE AS NOTED. PRESSURE TEST TO 150psi FOR ONE HOUR WITH ZERO LEAKAGE.
3. ALL FORCE MAIN BENDS AND TEES TO HAVE TRUST BLOCKS AND JOINT RESTRAINTS.

HYDRO, TELEPHONE, CABLE, STREET LIGHTING AND GAS (SEE PBX DRAWINGS & SPECIFICATIONS)

1. CONTACT "BC ONE CALL" AT 1-800-474-6886 A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION.
2. BC HYDRO, TELUS, CABLE AND GAS FACILITIES ARE SHOWN SCHEMATICALLY ON THIS DRAWING. REFER TO UTILITY COMPANY DRAWINGS FOR CONSTRUCTION DETAILS.
3. CONSTRUCT UNDERGROUND HYDRO, TELEPHONE AND CABLE AS SPECIFIED AND IN ACCORDANCE WITH BC HYDRO, TELUS AND CABLE STANDARD SPECIFICATIONS AND DRAWINGS.

ENVIRONMENTAL PROTECTION NOTES

1. ALL MACHINES SHALL CARRY SPILL KITS.
2. CONTRACTOR TO CONFORM TO LANGFORD WATERCOURSE AND DRAINAGE REGULATION BYLAWS DURING CONSTRUCTION. ANY REQUIRED PERMITS TO BE OBTAINED BY CONTRACTOR PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE AND POST AN EMERGENCY RESPONSE PLAN IN CASE OF ANY SPILLS.
4. PROTECT ALL TREES FROM DAMAGE DURING CONSTRUCTION. HAND DIG WHERE ROOTS OVER 50mm ARE ENCOUNTERED.

GEOTECHNICAL

1. EXCAVATED SLOPES AND FOUNDATIONS TO BE INSPECTED AND APPROVED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER.
2. SHORING DESIGN SHALL BE PERFORMED BY THE CONTRACTORS PROFESSIONAL ENGINEER.
3. EXTENT OF EXCAVATIONS SHALL BE LIMITED SUCH THAT ALL ROADWAYS REMAIN UNOBSTRUCTED DURING CONSTRUCTION AND EXISTING FEATURES SUCH AS TREES, BUILDINGS AND BURIED UTILITIES ARE UNDISTURBED UNLESS NOTED OTHERWISE.
4. REFER TO WSP GEOTECHNICAL REPORT DATED MAY 27, 2025 FOR SOIL AND WATER TABLE ELEVATIONS.

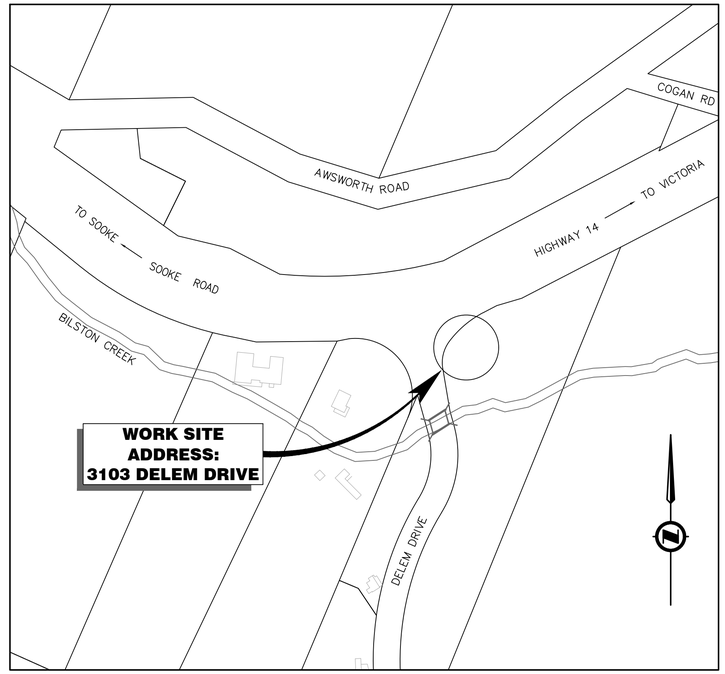
SURVEY AND MAPPING

1. CONTRACTOR TO ENSURE EXISTING MONUMENTS ARE NOT DISTURBED DURING CONSTRUCTION. ANY MONUMENTS IN DANGER OF DISTURBANCE ARE TO BE REFERENCED AND REPLACED AT THE CONTRACTORS EXPENSE BY A B.C.L.S. IF DISTURBED.
2. PRE-CONSTRUCTION SURVEY BY LEVEL GEOMATICS, JUNE 9, 2025.
3. PRE-CONSTRUCTION SURVEY IS BASED ON GROUND LEVEL COORDINATES, AND GEODETIC SURVEY OF CANADA DATUM.
4. CONTRACTOR TO CONFIRM LOCATION OFF ALL UTILITIES PRIOR TO ANY CONSTRUCTION.
5. CONTRACTOR CAN REQUEST DIGITAL DRAWINGS FOR SURVEY CONTROL AND LAYOUT.

SITE 1 - DELEM DRIVE PUMP STATION

DRAWING LIST

Sheet No.	Drawing No.	Sheet Title
GENERAL/CIVIL		
1	C1	LOCATION PLAN AND GENERAL NOTES
2	C2	SITE PLAN
3	C3	SECTIONS
4	C4	WET WELL ELEVATION
5	C5	DETAILS
STRUCTURAL		
6 to 7	S1.0 to S2.0	ALL STRUCTURAL
ELECTRICAL		
8 to 33	E001 to E601	ALL ELECTRICAL
BARSKI (OWNER SUPPLIED)		
34	25-101	DELEM LIFT STATION



LOCATION PLAN (LANGFORD)
1:2000

WEST SHORE ENVIRONMENTAL SERVICES LP
DELEM DRIVE SANITARY SEWAGE PUMP STATION
WSES PROJECT: 225-24

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — J.F. Howard #25981 2026-06-19

ISSUED FOR NRFP
JUNE 19, 2026

LEGEND

PROPOSED	EXISTING	DESCRIPTION
		PROPERTY LINE
		EASEMENT LINE
	108	GROUND CONTOUR
		CURB AND GUTTER
		PAVED ROAD EDGE
		GRAVEL ROAD EDGE
		SANITARY SEWER & MANHOLE
		SANITARY FORCEMAIN
		STORM SEWER & MANHOLE
		CATCH BASIN
		STORM HEADWALLS & CULVERT
		WATERMAIN AND VALVE
		FIRE HYDRANT
		BC GAS MAIN & VALVE
		BC HYDRO/TEL DUCTS
		UTILITY POLE & ANCHOR
		STREETLIGHT DUCT
		STREETLIGHT
		FENCE
		TREE/VEGETATION LINE
		PATH/TRAIL
		TOP OF BANK
		TOE OF BANK

REV NO	REVISIONS	DATE	DRAWN	APPR'D

West Shore Environmental Services

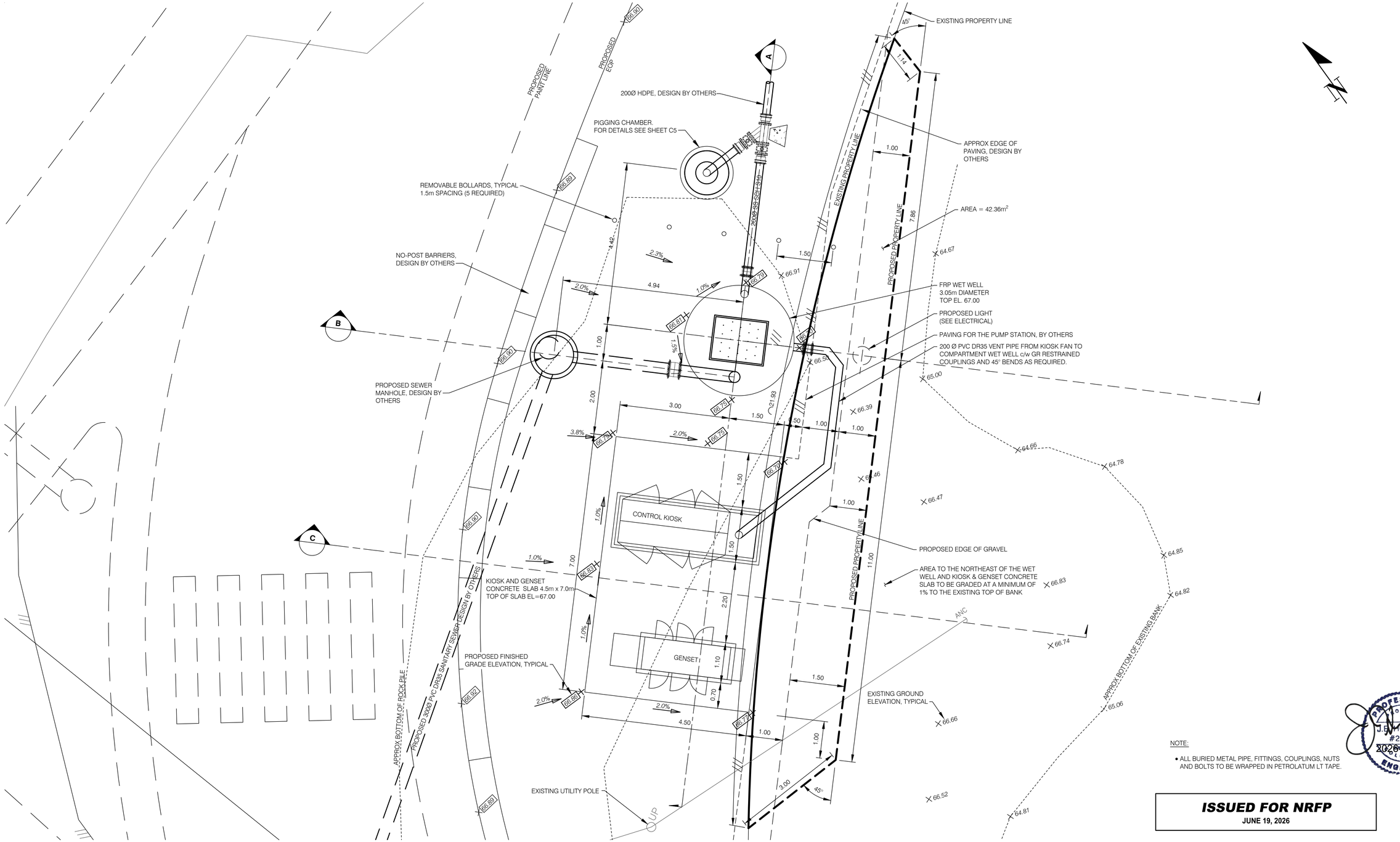
SANITARY SEWER

DELEM DRIVE
SEWAGE PUMP STATION
LOCATION PLAN AND GENERAL NOTES

colquitz engineering

SCALE AS NOTED	DATE 2026-05-06	DWG. NO. 1 OF 5
DRAWN BY SH	DESIGN BY LP	
CHECKED BY	APPROVED BY	
	DRAWING NO. C1	REV.

PLOT DATE: June 16, 2026 - G:\Shared drives\Colquitz\Projects\300 - Utility&Society\311.001 - WSES - Delem PS-46 - Drawings\DelemPS 2026-05-07 SH.dwg



DELEM DRIVE PUMP STATION SITE PLAN

1:50

NOTE:

- ALL BURIED METAL PIPE, FITTINGS, COUPLINGS, NUTS AND BOLTS TO BE WRAPPED IN PETROLATUM LT TAPE.

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — J. PATRICK #25981 — 2026-06-19

ISSUED FOR NRFP
JUNE 19, 2026

REV NO	REVISIONS	DATE	DRAWN	APPR'D

West Shore Environmental Services

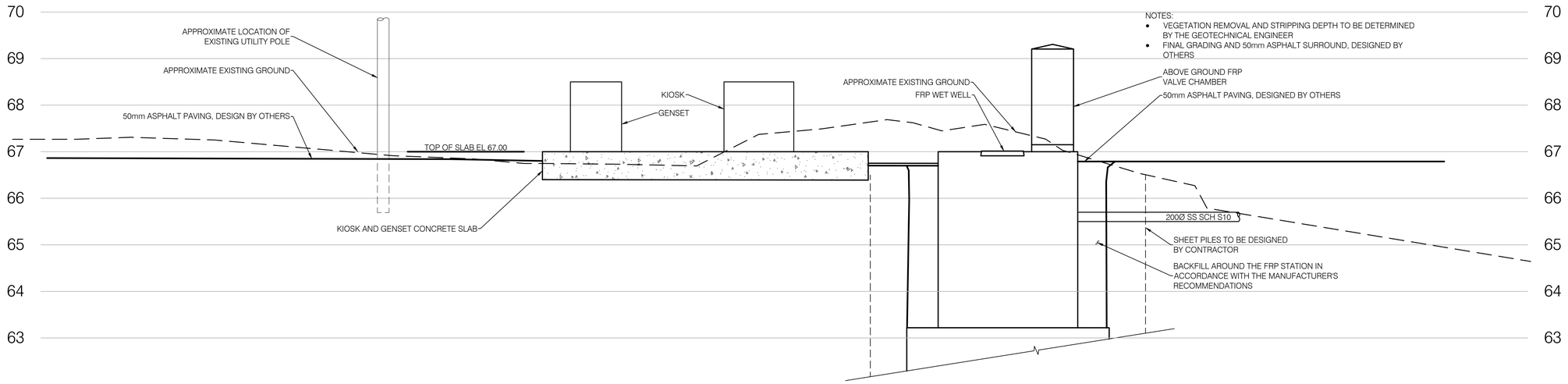
SANITARY SEWER

DELEM DRIVE
SEWAGE PUMP STATION
SITE PLAN

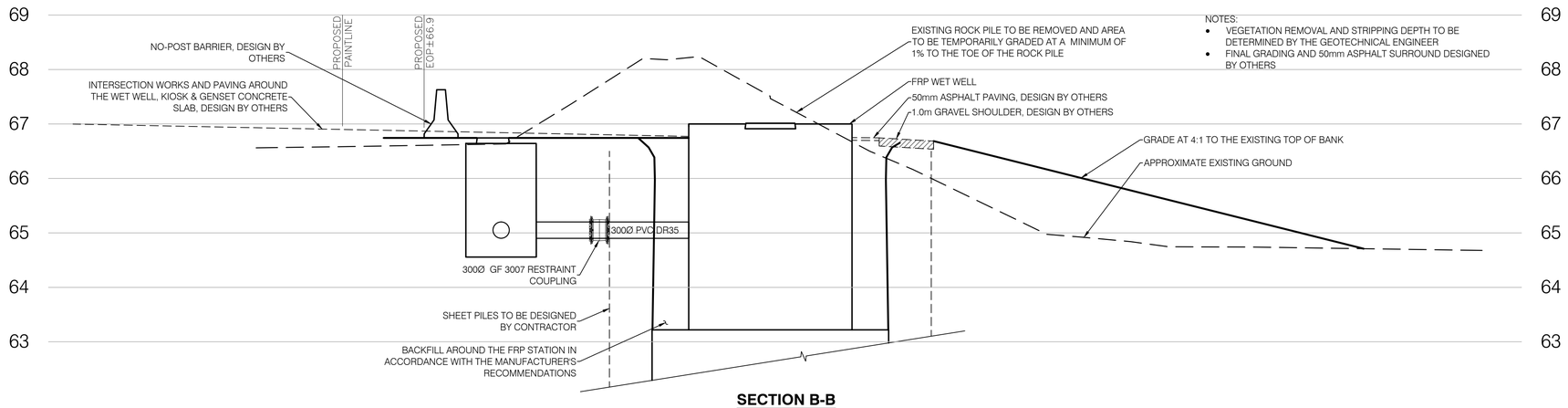
colquitz engineering

SCALE AS NOTED	DATE 2026-05-06	DWG. NO. 2 OF 5
DRAWN BY SH	DESIGN BY LP	
CHECKED BY	APPROVED BY	
	DRAWING NO. C2	REV.

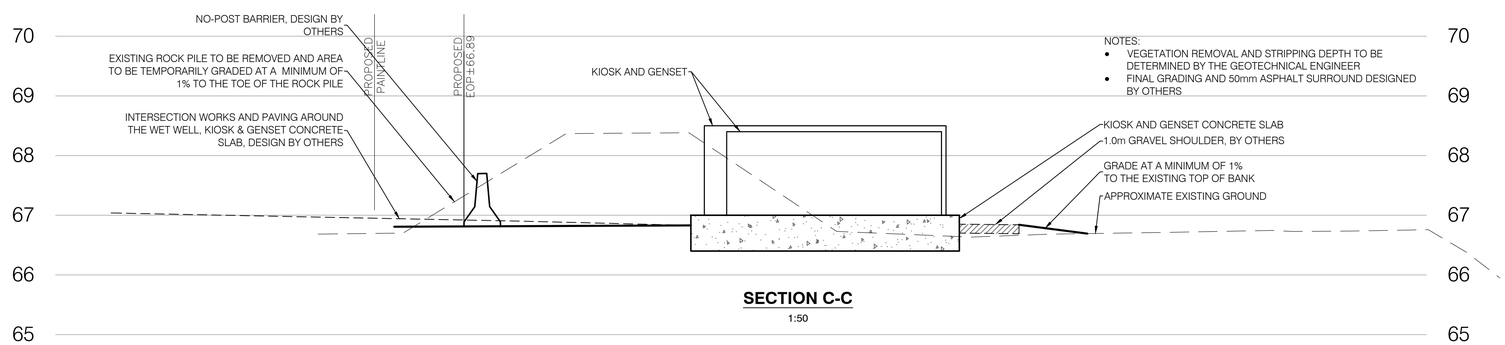
PLOT DATE: June 15, 2026 - G:\Shared drives\Colquitz\Projects\300 - Utility&Society\311.001 - WSES - Delem PS\40 - Drawings\Delem\S: 2026-05-07 SH.dwg



SECTION A-A
1:50



SECTION B-B
1:50



SECTION C-C
1:50

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA
J.B. HOWARD
#25981
2026-06-19

ISSUED FOR NRFP
JUNE 19, 2026

0 1.5 3 Meters

REV NO	REVISIONS	DATE	DRAWN	APPR'D

West Shore Environmental Services

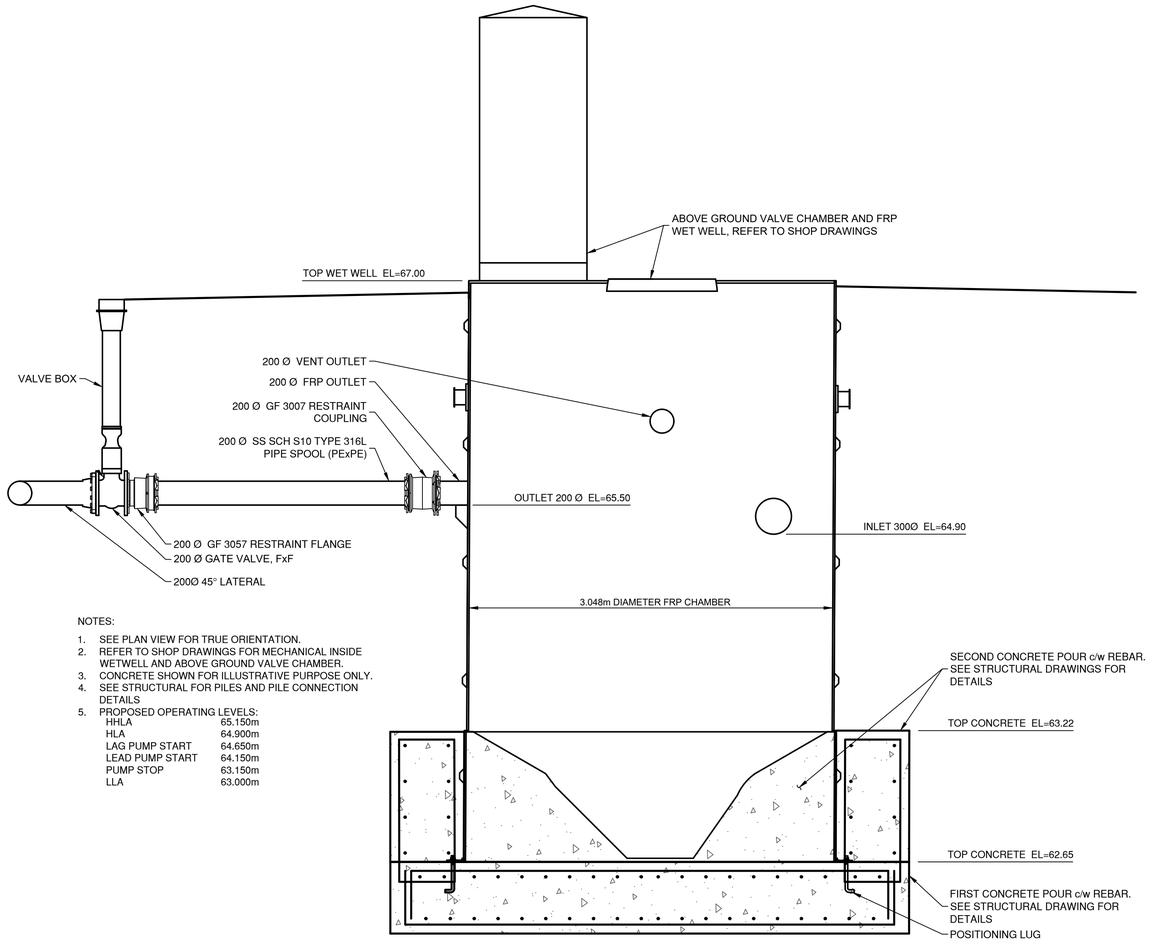
SANITARY SEWER

DELEM DRIVE
SEWAGE PUMP STATION
SECTIONS

colquitz engineering

SCALE AS NOTED	DATE 2026-05-06	DWG. NO. 3 OF 5
DRAWN BY SH	DESIGN BY LP	
CHECKED BY	APPROVED BY	
	DRAWING NO. C3	REV.

PLOT DATE: June 16, 2026 - G:\Shared drives\Colquitz\Projects\300 - Utility&Society\311.001 - WSES - Delem PS\40 - Drawings\Delem PS 2026-05-07 SH.dwg



WET WELL SECTION

1:25

NOTES:

1. SEE PLAN VIEW FOR TRUE ORIENTATION.
2. REFER TO SHOP DRAWINGS FOR MECHANICAL INSIDE WETWELL AND ABOVE GROUND VALVE CHAMBER.
3. CONCRETE SHOWN FOR ILLUSTRATIVE PURPOSE ONLY.
4. SEE STRUCTURAL FOR PILES AND PILE CONNECTION DETAILS
5. PROPOSED OPERATING LEVELS:

HHLA	65.150m
HLA	64.900m
LAG PUMP START	64.650m
LEAD PUMP START	64.150m
PUMP STOP	63.150m
LLA	63.000m

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA #25981 J.B. LOMAN

2026-06-19

ISSUED FOR NRFP

JUNE 19, 2026

0 0.75 1.5 Meters

REV NO	REVISIONS	DATE	DRAWN	APPR'D

West Shore Environmental Services

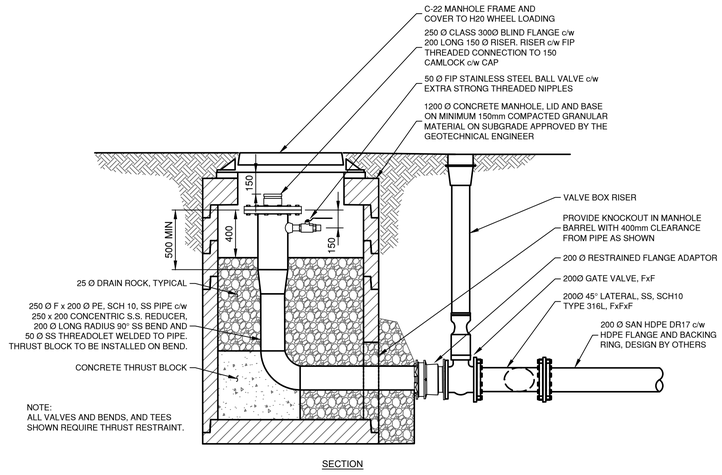
SANITARY SEWER

DELEM DRIVE
SEWAGE PUMP STATION
WET WELL

colquitz engineering

SCALE AS NOTED	DATE 2026-05-06	DWG. NO. 4 OF 5
DRAWN BY SH	DESIGN BY LP	
CHECKED BY	APPROVED BY	
	DRAWING NO. C4	REV.

PLOT DATE: June 15, 2026 - G:\Shared drives\Colquitz\Projects\300 - Utility&Society\311.001 - WSES - Delem PS\40 - Drawings\Delem PS 2026-05-07 SH.dwg



PIGGING CHAMBER
1:25

ORANGE COLOR IN BACKGROUND

City of Langford

DELEM DRIVE SANITARY SEWAGE PUMP STATION

By: West Shore Environmental Services

Construction Period : _____ to _____

Prime Contractor: LOGO

Civil Engineer: colquitz engineering

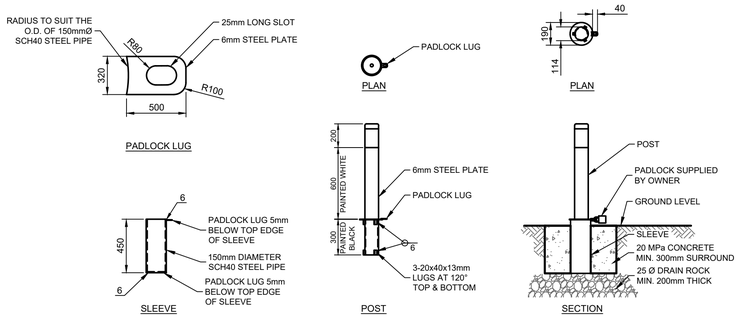
FOR INFORMATION PLEASE CALL (250) XXX-XXXX

CONTRACTOR'S 24 HR EMERGENCY #

NOTES:

1. A MINIMUM OF TWO SIGNS ARE REQUIRED AND ARE TO BE SUPPLIED & INSTALLED BY THE CONTRACTOR IN LOCATIONS AS DIRECTED BY THE CITY'S REPRESENTATIVE.
2. SIGNS WILL BE 1.2m WIDE x 1.2m HIGH AND MADE OF 20mm PLYWOOD MOUNTED SECURELY ON SUPPORT POSTS.

PROJECT SIGN
NTS



REMOVABLE BOLLARD
1:25

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — J. PATRICK #25981 — 2026-06-19

ISSUED FOR NRFP
JUNE 19, 2026

0 0.75 1.5 Meters

REV NO	REVISIONS	DATE	DRAWN	APPR'D

West Shore Environmental Services

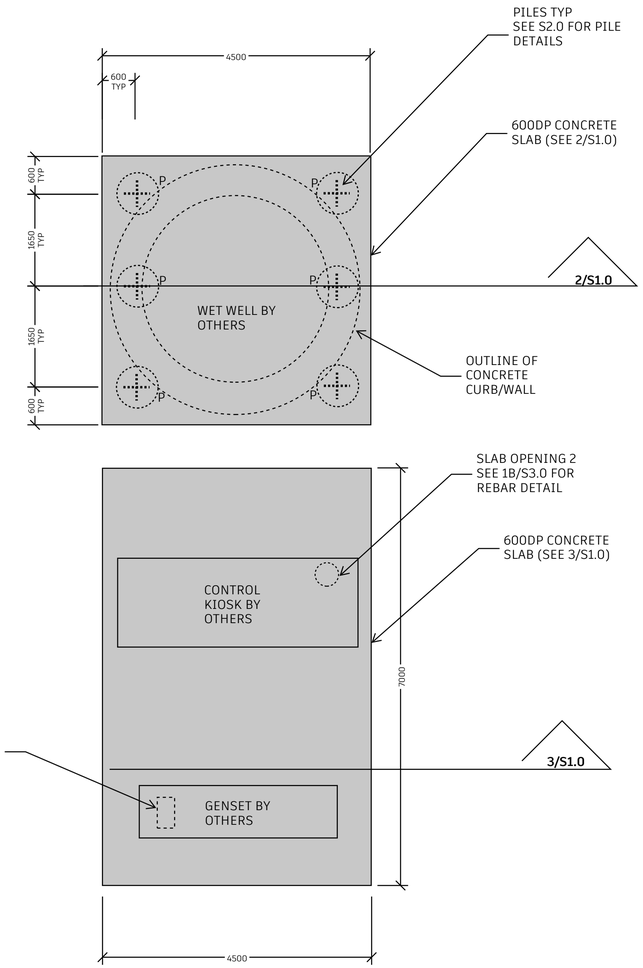
SANITARY SEWER

DELEM DRIVE
SEWAGE PUMP STATION
DETAILS

colquitz engineering

SCALE AS NOTED	DATE 2026-05-06	DWG. NO. 5 OF 5
DRAWN BY SH	DESIGN BY LP	
CHECKED BY	APPROVED BY	
	DRAWING NO. C5	REV.

PLOT DATE: June 15, 2026 - G:\Shared drives\Colquitz\Projects\300 - Utility\Society\311.001 - WSES - Delem PS\40 - Drawings\DelemPS 2026-05-07 SH.dwg



1. PUMP STATION PLAN AND PILE LAYOUT
(1:50)

PILE	Pf (kN)	Hf (kN)
P	200	20

GENERAL NOTES:

1. STRUCTURAL DESIGN IS BASED ON CIVIL DRAWINGS PROVIDED TO GC ENGINEERING BY COLQUITZ ENGINEERING FOR DELEM DRIVE PUMP STATION DATED 2026-04-17
2. DO NOT SCALE FROM THESE DRAWINGS

CONCRETE:
1. CONCRETE IS TO BE MIXED, PLACED AND CURED TO CSA A23.1/23.2
2. MAX AGGREGATE SIZE TO BE 20mm
3. f'c = 50 MPa, C-XL
4. REJECT ALL CONCRETE WHEN TIME BETWEEN BATCHING AND PLACING EXCEEDS 2 HOURS
5. DO NOT ADD WATER TO CONCRETE ON SITE UNLESS APPROVED BY ENGINEER
6. CONSOLIDATE ALL CONCRETE USING MECHANICAL VIBRATORS
7. CURING OF CONCRETE TO MEET THE REQUIREMENTS FOR THE EXPOSURE CLASS AS OUTLINED IN CSA A23.1. CURING COMPOUNDS ARE NOT PERMITEED FOR EXPOSURE CLASS C-XL CONCRETE.
8. DO NOT USE ADMIXTURES OTHER THAN AIR ENTRAINMENT, STANDARD WATER REDUCERS OR SUPER PLASTICIZERS WITHOUT PRIOR APPROVAL OF ENGINEER. CALCIUM CHLORIDE ADMIXTURES ARE NOT PERMITTED.
9. PROVIDE 4-7% AIR ENTRAINMENT FOR ALL EXTERIOR CONCRETE

CONCRETE REINFORCEMENT:
1. CONFORM TO CSA G30 SERIES, fy = 400MPa FOR ALL REINFORCEMENT
2. CLEAR COVER TO REINFORCEMENT IS:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	75mm

3. REBAR TYP BEND REFER TO ASA TYPICAL BAR BENDS.

DESIGN DATA

DESIGN CODE: BCBC2024 , IMPORTANCE FACTOR (Is) = 1

DEAD LOADS:

PERMANENET EQUIPMENTS	7.2kPa
CONCRETE	24kN/m3

WIND LOADS: HOURLY WIND PRESSURE (1/50) 0.57kPa
TERRAIN: ROUGH, INTERNAL CATEGORY II

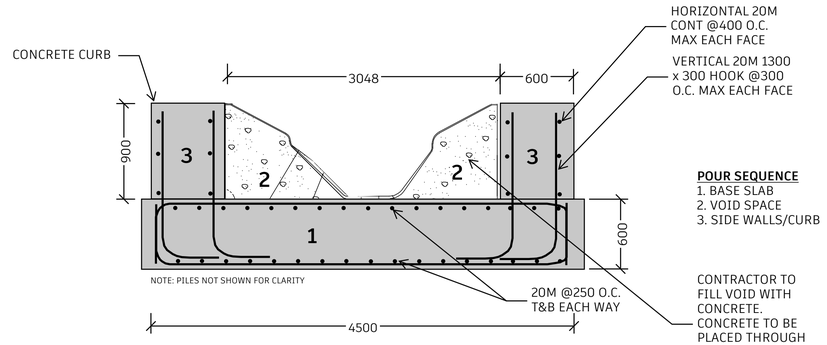
SEISMIC DATA Sa(0.2) = 1.32 Sa(5.0) = 0.13 Sa(0.5) = 1.19 Sa(10.0) = 0.045
Sa(1.0) = 0.697 PGA = 0.59 Sa(2.0) = 0.415 PGV = 0.85

STEEL PILE
EACH STEEL PILE IS DESIGNED FOR MAX VERTICAL LOAD OF 200kN AND MAXIMUM LATERAL LOAD OF 80kN AT THE TOP OF THE PILE

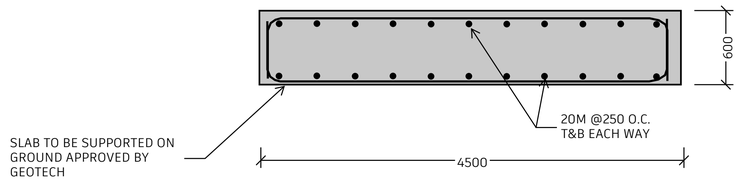
STEEL

PROVIDE STRUCTURAL STEEL TO CSA/CAN-G40.20-13/G40.21-13 OR ASTM STANDARD A 992/A992M. THE FOLLOWING SHOULD HAVE GRADES MINIMUM OF:

STRUCTURAL SHAPES	350W
HOLLOW STRUCTURAL SECTIONS	350W CLASS 'C'
BASE PLATES/PILE CAP	300W
PIPE SECTIONS	ASTM A53, 241W



2. WET WELL SLAB AND CURB SECTION
(1:30)



3. GENSET AND KIOSK SLAB SECTION
(1:30)

GC
Engineering
Victoria Office 778 533 9242
2148 Panaview Heights Victoria, BC V9M 1M2

Note
This drawing, as an instrument of service, is the property of the Engineer and may not be reproduced without permission and unless the reproduction carries their name. All designs and other information shown on this drawing are for the use on the specified project only and shall not be used otherwise without the written permission of the Engineer.

Written dimensions shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions shown on the job and the Engineer shall be informed of any variations from the dimensions and conditions shown on the drawing. Shop drawings shall be submitted to the Engineer for approval prior to proceeding with fabrication.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
G. CAISSON
29 40198
ENGINEER
2026-06-12

Permit to Practice # 1003407
P.Eng. Permit

No.	DESCRIPTION	BY	DATE
4	ISSUED FOR NRFP	GC	26-06-19
3	ISSUED FOR 95% REVIEW	GC	26-04-29
2	REVISION 1	GC	25-08-14
1	ISSUED FOR 90% REVIEW	GC	25-08-12

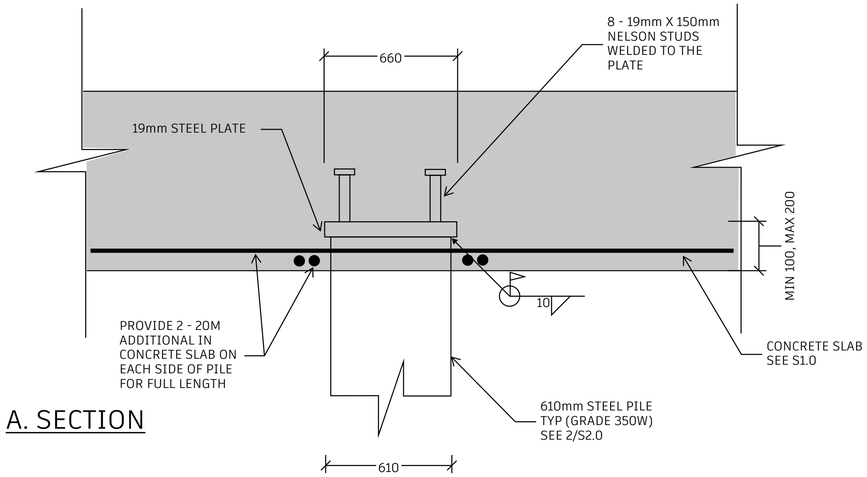
REVISIONS

Project
DELEM DRIVE PUMP STATION

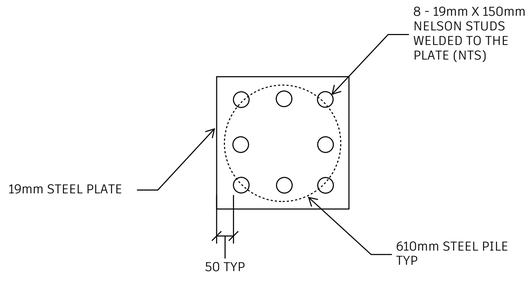
Title
CONCRETE SLABS AND PILE LAYOUT

Scale AS NOTED	Revision No.
Project No. 25116	
Drawn: PD	Drawing No.
Designed: PD	**S1.0**
Design Checked: GC Date 26-06-19	
Discipline Review: GC Date 26-06-19	

File Path

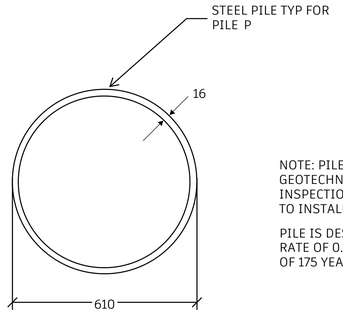


A. SECTION



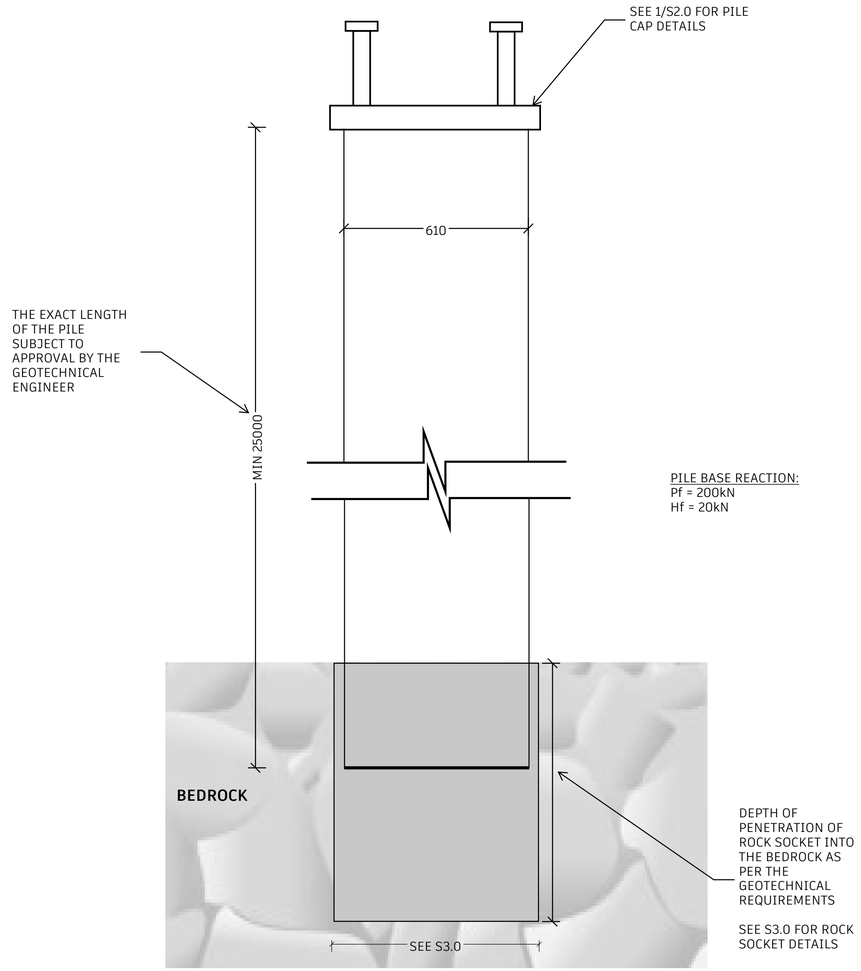
B. TOP VIEW

1. PILE CAP TYP DETAIL
(NTS)



NOTE: PILE CONTRACTOR TO CONTACT GEOTECHNICAL ENGINEER FOR INSPECTION OF DRILLED HOLE PRIOR TO INSTALLATION OF STEEL PILE

PILE IS DESIGNED FOR CORROSION RATE OF 0.02MM/ YEAR AND LIFESPAN OF 175 YEARS



2. STEEL PILE TYP DETAIL
(1:10)

File Path

GC
Engineering
Victoria Office 778 533 9242
2148 Panaview Heights Victoria, BC V9M 1M2

Note
This drawing, as an instrument of service, is the property of the Engineer and may not be reproduced without permission and unless the reproduction carries their name. All designs and other information shown on this drawing are for the use on the specified project only and shall not be used otherwise without the written permission of the Engineer.

Written dimensions shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions shown on the job and the Engineer shall be informed of any variations from the dimensions and conditions shown on the drawing. Shop drawings shall be submitted to the Engineer for approval prior to proceeding with fabrication.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA G. GIBSON # 45180 ENGINEERING
2026-06-12
Permit to Practice # 1003407
P.Eng. Permit

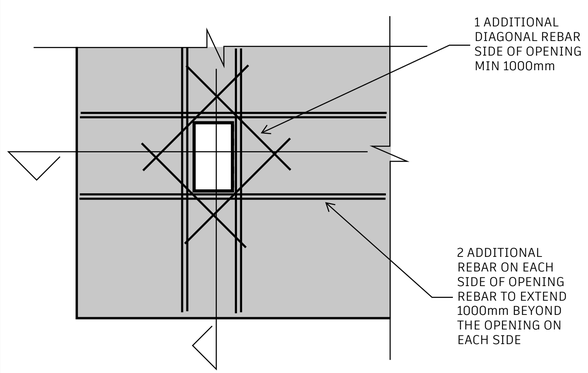
No.	DESCRIPTION	BY	DATE
4	ISSUED FOR NRFP	GC	26-06-19
3	ISSUED FOR 95% REVIEW	GC	26-04-29
2	REVISION 1	GC	25-08-14
1	ISSUED FOR 90% REVIEW	GC	25-08-12

REVISIONS

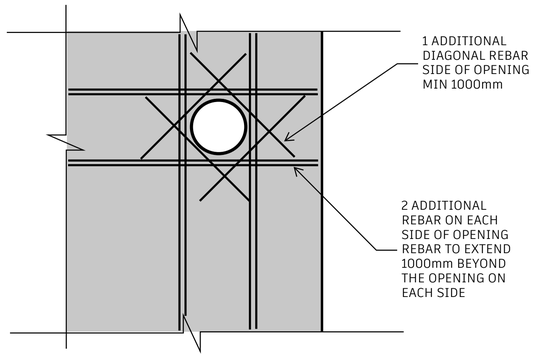
Project
DELEM DRIVE PUMP STATION

Title
PILE AND PILE CAP DETAIL

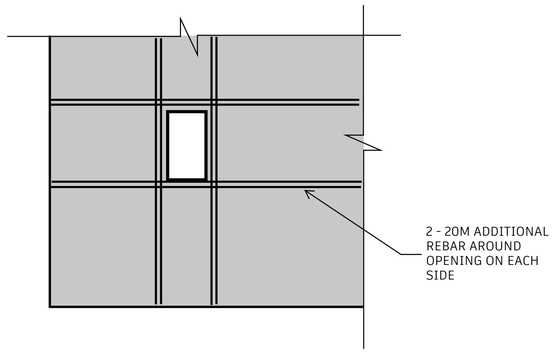
Scale AS NOTED	Revision No.
Project No. 25116	
Drawn: PD	Drawing No.
Designed: PD	**S2.0**
Design Checked: GC Date 26-06-19	
Discipline Review: GC Date 26-06-19	



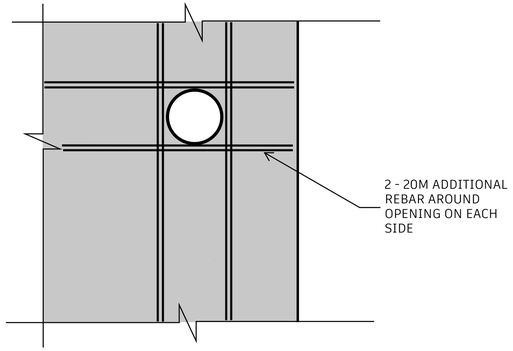
I. PARTIAL PLAN - ADDITIONAL TOP LAYER REBAR



I. PARTIAL PLAN - ADDITIONAL TOP LAYER REBAR



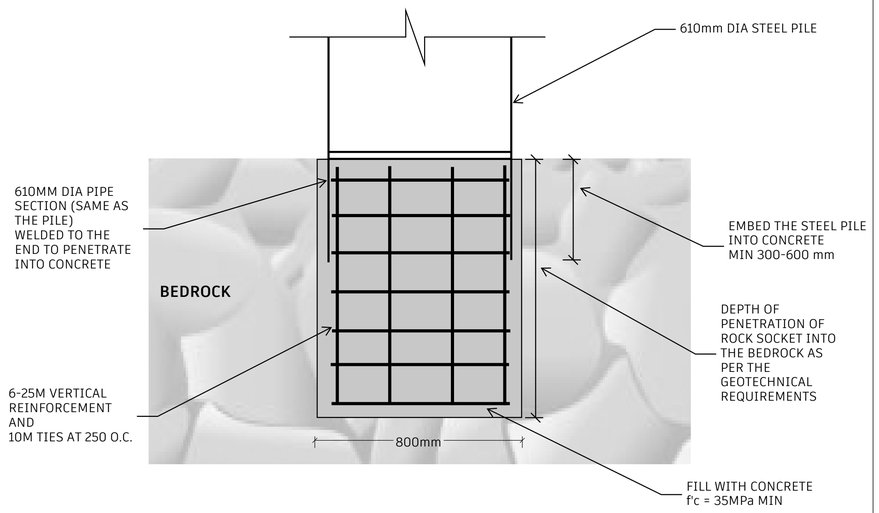
II. PARTIAL PLAN - ADDITIONAL BOT LAYER REBAR



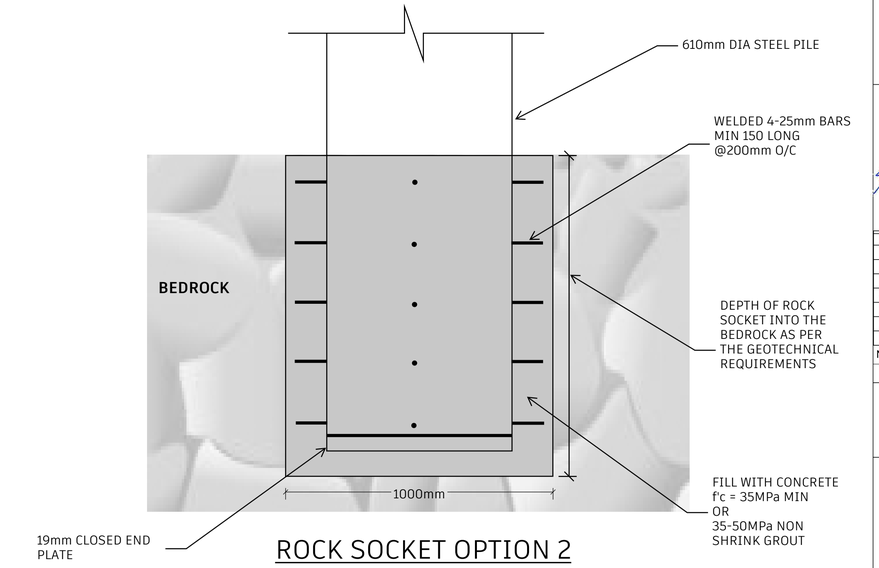
II. PARTIAL PLAN - ADDITIONAL BOT LAYER REBAR

1A. REBAR DETAIL AROUND OPENING 1
(1:20)

1B. REBAR DETAIL AROUND OPENING 2
(1:20)



ROCK SOCKET OPTION 1



ROCK SOCKET OPTION 2

2. ROCK SOCKET DETAILS
(1:10)

GC
Engineering
Victoria Office 778 533 9242
2148 Panaview Heights Victoria, BC V9M 1M2

Note
This drawing, as an instrument of service, is the property of the Engineer and may not be reproduced without permission and unless the reproduction carries their name. All designs and other information shown on this drawing are for the use on the specified project only and shall not be used otherwise without the written permission of the Engineer.

Written dimensions shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions shown on the job and the Engineer shall be informed of any variations from the dimensions and conditions shown on the drawing. Shop drawings shall be submitted to the Engineer for approval prior to preceeding with fabrication.

EGBC Permit # 1003407
PROFESSIONAL ENGINEER
G. CARSON
45186
PROVINCE OF BRITISH COLUMBIA
2026-06-12
P.Eng. Permit

No.	DESCRIPTION	BY	DATE
4	ISSUED FOR NRFP	GC	26-06-19
3	ISSUED FOR 95% REVIEW	GC	26-04-29
2	REVISION 1	GC	25-08-14
1	ISSUED FOR 90% REVIEW	GC	25-08-12

REVISIONS

Project
DELEM DRIVE PUMP STATION

Title
REBAR AND ROCK SOCKET DETAILS

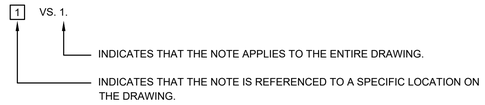
Scale AS NOTED	Revision No.
Project No. 25116	
Drawn: PD	Drawing No.
Designed: PD	S3.0
Design Checked: GC Date 26-06-19	
Discipline Review: GC Date 26-06-19	

File Path

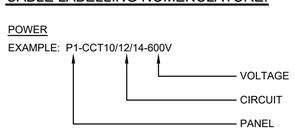
GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE. ALL CONCRETE BASES AND JB SYMBOLS ARE NOT TO SCALE.

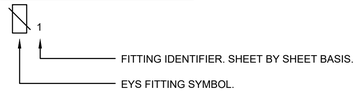
NOTES LEGEND:



CABLE LABELLING NOMENCLATURE:



EYS FITTING SYMBOLOGY:



LINE TYPE LEGEND

LINE	DESCRIPTION
———	120/240V CONDUIT/CABLE
——— – ———	COMMUNICATIONS OR LOW VOLTAGE CONDUIT/CABLE
——— · ———	347/600V CONDUIT/CABLE
- - - - - - - -	GROUNDING
———┐	CAPPED CONDUIT
— — —	FIELD WIRING

NOMENCLATURE:

A	- AMBER
AS	- AUTOSTART
BCH	- BC HYDRO
C	- COIL
C/W	- COMPLETE WITH
CBX	- CIRCUIT BREAKER ("X" DENOTES NUMBER)
CCT	- CIRCUIT
CEC	- CANADIAN ELECTRICAL CODE, PART 1, LATEST EDITION
CMD	- COMMAND
COMM	- COMMUNICATION
CT	- CURRENT TRANSFORMER
CTRL	- CONTROL
DDC	- DIRECT DIGITAL CONTROL
DPDT	- DOUBLE POLE DOUBLE THROW
DS	- KIOSK DOOR SWITCH
EMR	- EMERGENCY RUN
ERR	- EMERGENCY RUN RELAY
ETM	- ELAPSED TIME METER
F	- FUSE
FLS	- FLYGT LEAKAGE SENSOR
FRUN	- FAN RUN
FS	- FLOAT SWITCH
G	- GREEN
GEN	- GENERATOR
GFCI	- GROUND FAULT CIRCUIT INTERRUPTER
GFLT	- GROUND FAULT RELAY
GND	- GROUND
HLOA	- HIGH-LOW-OFF-AUTO
HMI	- HUMAN MACHINE INTERFACE
HOA	- HAND-OFF-AUTO CONTROL
HP	- HORSE POWER
HSW	- HATCH SWITCH
HTR	- HEATER
IS	- IN SERVICE
LTG	- LIGHTING
LVL	- LEVEL
MGB	- MASTER GROUND BUS
MM	- MILLIMETER
N	- NEUTRAL
NC	- NORMALLY CLOSED
NO	- NORMALLY OPEN
OL	- OVERLOAD
OT	- OVERTEMPERATURE
PEC	- PHOTOELECTRIC CELL
PFC	- POWER FACTOR CORRECTION
PLC	- PROGRAMMABLE LOGIC CONTROLLER
PMR	- PHASE LOSS MONITOR RELAY
POTS	- PLAIN OLD TELEPHONE SERVICE
PWR	- POWER
Px	- PUMP ("x" DENOTES NUMBER)
R	- RED
RLY	- RELAY
RPVC	- RIGID POLYVINYL CHLORIDE
RR	- REMOTE RUN
RS	- REMOTE START
RTU	- REMOTE TELEMETRY UNIT
SLF	- SECONDARY LOW FLOAT
SPD	- SURGE PROTECTION DEVICE
SPDT	- SINGLE POLE DOUBLE THROW
SS	- SOFT STARTER
SST	- ELECTRONIC SOLID STATE TRIP DEVICE
TD	- TIME DELAY
TEMP	- TEMPERATURE
TRSW	- TRANSFER SWITCH
UPS	- UNINTERRUPTIBLE POWER SUPPLY
US	- ULTRASONIC SENSOR
UTS	- UP TO SPEED
UV	- ULTRAVIOLET
VFD	- VARIABLE FREQUENCY DRIVE
VFR	- VENTILATION FAN RELAY
XFMR	- TRANSFORMER
W	- WHITE
ZS	- POSITION SWITCH

LEGEND

	LUMINAIRE (REFER TO SITE PLAN FOR TYPE AND WATTAGE)		ANTENNA
	POWER/COMMUNICATIONS UTILITY POLE		VENTILATION FAN
	CIRCUIT BREAKER	FS	FLOAT SWITCH
	FUSE		HYDROSTATIC LEVEL TRANSDUCER
	OVERLOAD PROTECTION	M	MAGNETIC FLOW METER SENSOR
	TRANSFORMER	HS	HATCH SWITCH
	LINE REACTOR		DISCONNECT
X.X kVAR	POWER FACTOR CORRECTION CIRCUIT	G	ILLUMINATED PUSH BUTTON (INDICATOR LIGHT)
M	BC HYDRO METER AND METER BASE	PMR	PHASE LOSS MONITOR RELAY
	CURRENT TRANSFORMER	SPD	SURGE PROTECTION DEVICE
M Px	PUMP MOTOR	ETM	ELAPSED TIME METER
	GENERATOR	X	CONTACTOR/RELAY COIL
	HEATING/COOLING THERMOSTAT		NORMALLY OPEN CONTACT
	DUAL RECEPTACLE 120V (GFCI)		NORMALLY CLOSED CONTACT
T	WALL MOUNTED THERMOSTAT (DUAL STAGE HEATING AND COOLING)		FLOAT SWITCH
$	SINGLE POLE LIGHT SWITCH		
	EXPLOSION PROOF EYS FITTING		PUSH BUTTON (NORMALLY OPEN)
	GROUND ELECTRODE/ROD		PUSH BUTTON (NORMALLY CLOSED)
	QUADRUPLE RECEPTACLE 120V (GFCI)		GROUND
		EXP	EXPLOSION PROOF LIGHT FIXTURE
		ISB	INTRINSICALLY SAFE BARRIER
		ISR	INTRINSICALLY SAFE RELAY

DRAWING No.	REV.	DISCRIPTION
E001	-	LEGEND AND GENERAL NOTES
E100	-	SITE PLAN
E101	-	AREA ENLARGEMENT
E200	-	POWER DISTRIBUTION - SINGLE LINE DIAGRAM
E210	-	COMMUNICATIONS AND INSTRUMENTATION BLOCK DIAGRAM
E300	-	DETAILS (1 OF 2)
E301	-	DETAILS (2 OF 2)
E310	-	KIOSK (1 OF 2)
E311	-	KIOSK (2 OF 2)
E312	-	VALVE KIOSK
E400	-	CONTROL CABINET LAYOUT
E401	-	PUMP CABINET LAYOUT
E402	-	VENTILATION FAN CONTROL LAYOUT
E500	-	CONTROLS (1 OF 5) VFD CONTROL PUMP 1
E501	-	CONTROLS (2 OF 5) TYPICAL VFD CONTROL PUMP 2
E502	-	CONTROLS (3 OF 5) VFD CONTROL VENTILATION FAN
E503	-	CONTROLS (4 OF 5) CONTROL LADDER
E504	-	CONTROLS (5 OF 5) CONTROL LADDER
E505	-	PLC WIRING (1 OF 7) PLC I/O, RACK 0, SLOT 1
E506	-	PLC WIRING (2 OF 7) PLC I/O, RACK 0, SLOT 1
E509	-	PLC WIRING (3 OF 7) PLC I/O, RACK 0, SLOT 2
E511	-	PLC WIRING (4 OF 7) PLC I/O, RACK 0, SLOT 3
E513	-	PLC WIRING (5 OF 7) PLC I/O, RACK 0, SLOT 4
E515	-	PLC WIRING (6 OF 7) PLC I/O, RACK 0, SLOT 4
E516	-	PLC WIRING (7 OF 7) PLC I/O, RACK 0, SLOT 5
E600	-	TYPICAL PLC/RTU CABINET WIRING TERMINATIONS (1 OF 2)
E601	-	TYPICAL PLC/RTU CABINET WIRING TERMINATIONS (1 OF 2)

ISSUED FOR NRFP
NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — M. J. SCOPICK — 54922

DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: LEGEND AND GENERAL NOTES

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E001	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000_WSES Delem Drive\E001-NOTES, 14/06/2026 10:43 AM, LOGAN MINARD



SITE PLAN
0 1:250 10m

BC 1C

CHECK BEFORE YOU DIG

CONTRACTOR SHALL CONFIRM THE LOCATIONS OF ALL UNDERGROUND UTILITIES.

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

NOTES:

1. BC HYDRO DESIGN COORDINATION IN PROGRESS AT TIME OF SUBMISSION.
2. ROGERS TELECOMMUNICATION DESIGN COORDINATION IN PROGRESS AT TIME OF SUBMISSION.
3. CONDUIT ROUTING IS DIAGRAMMATIC TO CONVEY DESIGN INTENT ONLY. CONTRACTOR FIELD FIT CONDUIT TO AVOID EQUIPMENT CONFLICTS.

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT
West Shore
Environmental Services

PROJECT
DELEM DRIVE
SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL
PROFESSIONAL ENGINEER · PROVINCE OF BRITISH COLUMBIA · M. J. MCCRIMMON · 54822 · ENGINEER

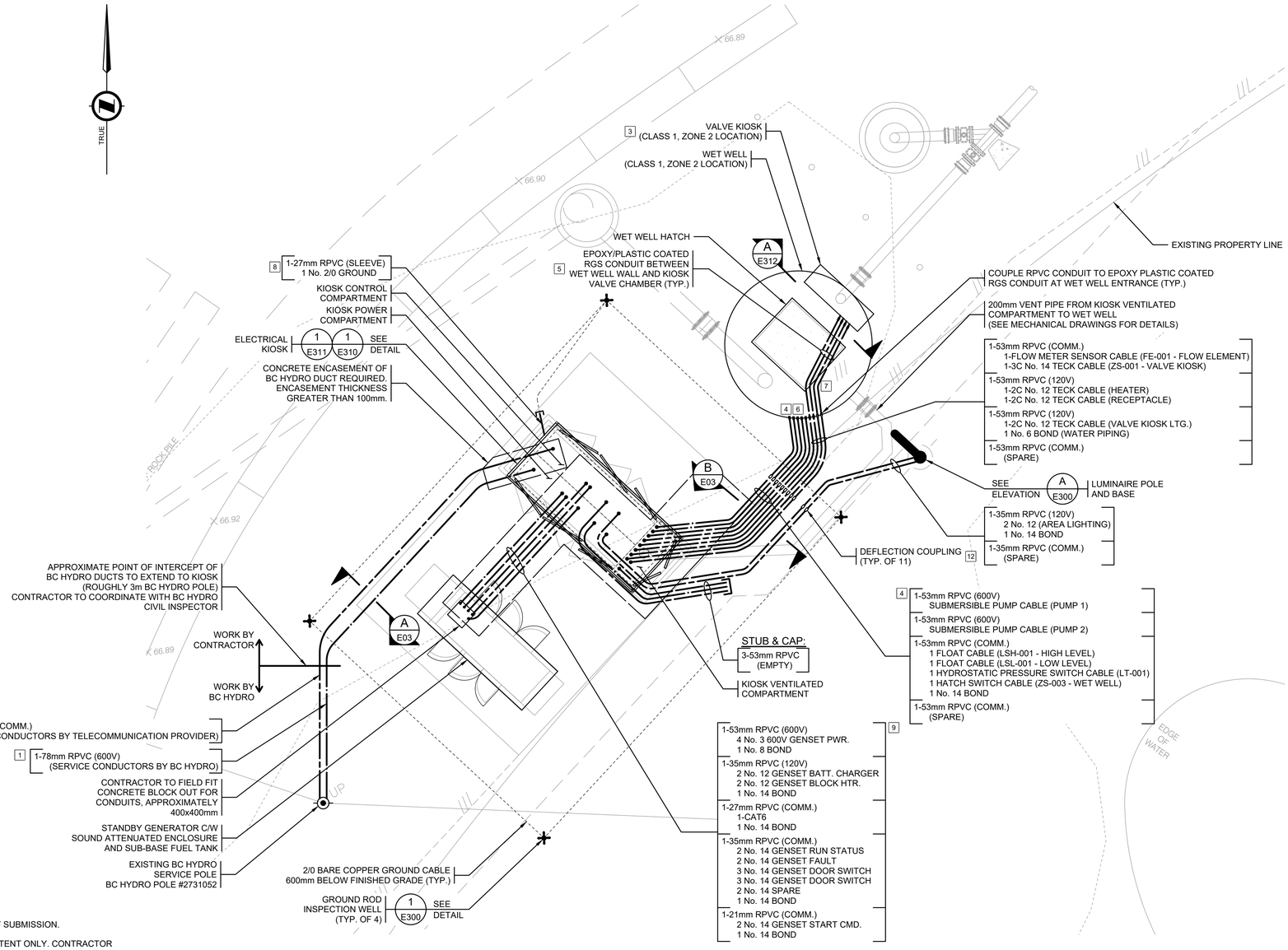
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE
SITE PLAN

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E100	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000_WSES Delem Drive\E100 SITE PLAN, 18/06/2026 2:14 PM, LOGAN.MINARD



NOTES:

1. BC HYDRO DESIGN COORDINATION IN PROGRESS AT TIME OF SUBMISSION.
2. CONDUIT ROUTING IS DIAGRAMMATIC TO CONVEY DESIGN INTENT ONLY. CONTRACTOR FIELD FIT CONDUIT TO AVOID EQUIPMENT CONFLICTS.
3. ORIENTATION AND SIZE OF VALVE CHAMBER IS CONCEPT ONLY. VALVE KIOSK DIMENSIONS AND LOCATION PER CIVIL/MECHANICAL DESIGN.
4. CONDUITS TO ENTER WET WELL RADIALLY.
5. EPOXY/PLASTIC COATED CONDUITS TO BE SUPPORTED AS PER CEC. CONTRACTOR TO COORDINATE APPROPRIATE CONDUIT SUPPORT MOUNTING FEATURES WITH WET WELL MANUFACTURER DURING SHOP DRAWING REVIEW PROGRESS. CAP AND SEAL UNUSED THREADED CONNECTION BETWEEN WET WELL AND VALVE CHAMBER.
6. CONDUITS TO ENTER WET WELL IN TWO ROWS OF FOUR (4) THAT ARE VERTICALLY SPACED BY SIX (6) INCHES.
7. CONTRACTOR TO FIELD FIT CONDUITS TO HANG OFF CROSS BEAMS IN WET WELL AND ENSURE THEY ARE NOT OBSTRUCTING FLOAT OR PUMP REMOVAL.
8. EXTEND GROUND SLEEVE BEYOND CONCRETE SLAB.
9. CONDUITS EXPECTED TO BE IN-SLAB DEPTH OF 450mm PER CEC 12-012.
10. ROGER TELECOMMUNICATION DESIGN IN PROGRESS AT TIME OF SUBMISSION.
11. SEE CIVIL, MECHANICAL, AND GEOTECHNICAL DRAWINGS FOR GROUND FILL REQUIREMENTS.
12. DEFLECTION CONDUITS ALLOW FOR APPROXIMATELY 30 DEGREES OF CONDUIT DEFLECTION. CONTRACTOR TO CONTACT ENGINEER IF EXPECTED GROUND SETTLEMENT IS LARGER THAN 30 DEGREES OF DEFLECTION. LOCATE DEFLECTION CONDUIT APPROXIMATELY CENTERED BETWEEN WET WELL AND KIOSK SLAB.

AREA ENLARGEMENT 1 - SANITARY PUMP STATION
1:50

0 1:50 2.5m

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

BC 1C

CHECK BEFORE YOU DIG

CONTRACTOR SHALL CONFIRM THE LOCATIONS OF ALL UNDERGROUND UTILITIES.

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: 1000208

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, M. J. SCOPICH # 54822

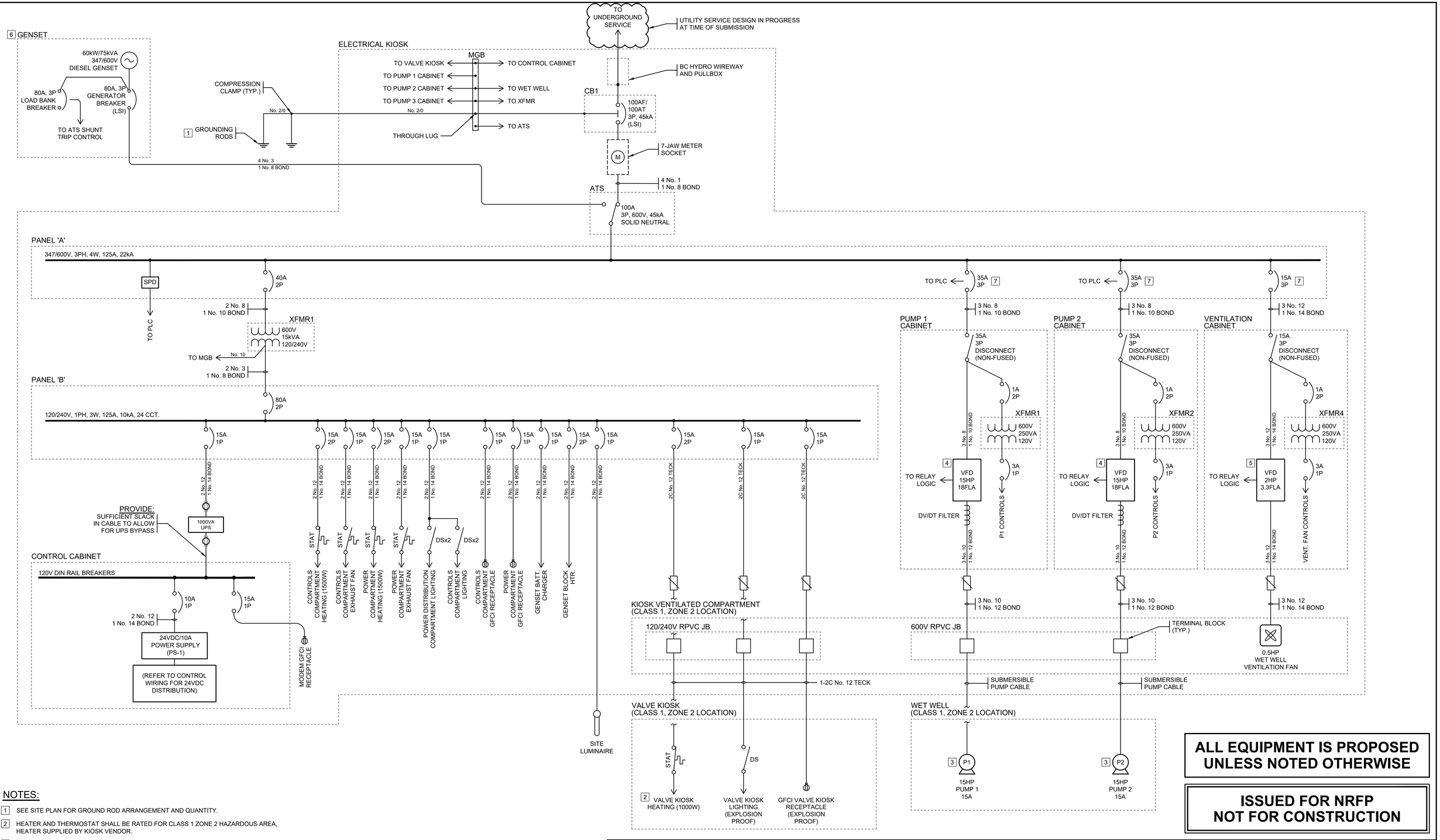
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: AREA ENLARGEMENT

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E101	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000_WSES Delem Drive\E101-AREA ENLARGEMENT, 16/06/2026 2:14 PM, LOGAN MINARD



NOTES:

1. SEE SITE PLAN FOR GROUND ROD ARRANGEMENT AND QUANTITY.
2. HEATER AND THERMOSTAT SHALL BE RATED FOR CLASS 1 ZONE 2 HAZARDOUS AREA, HEATER SUPPLIED BY KIOSK VENDOR.
3. SUBMERSIBLE PUMP BASIS OF DESIGN: FLYGT NP 3153 MT 3-435.
4. PUMP VFD BASIS OF DESIGN: EATON DG1-35018FB-C21C. SIZED FOR CONSTANT TORQUE APPLICATION.
5. VENT FAN VFD BASIS OF DESIGN: EATON DG1-353D3FB-C21C.
6. GENERATOR BASIS OF DESIGN: CAT/FINNING D60GC C4.4 WITH 24-HOUR SUBBASE FUEL TANK AND LEVEL 2 FACTORY SOUND ATTENUATED ENCLOSURE.
7. BREAKER SIZING IS PER VFD MANUFACTURES RECOMMENDATION.

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

**ISSUED FOR NRFP
NOT FOR CONSTRUCTION**

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — M. J. SCOPICK — # 54822

DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL
POWER DISTRIBUTION - SINGLE LINE DIAGRAM

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E200	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000_WSES Delem Drive\E200-SINGLE LINE DIAGRAM, 26/06/2026 2:14 PM, LOGAN MINARD

ELECTRICAL KIOSK

CONTROLS COMPARTMENT

CONTROL PANEL (CP-1)

PLC

4 FIREWALL

1 CAT6

NETWORK SWITCH

HMI INTERFACE

TO VFD-001 / TO VFD-002 / TO VFD-003 / TO ATS-001 / TO GEN-1

TO JOINT USE UTILITY POLE

COAX CABLE (BY SHAW)

UTILITY SERVICE DESIGN IN PROGRESS AT TIME OF SUBMISSION

3 5 ROGERS MODEM

W ATS ON GENERATOR
W ATS ON UTILITY
W AC CONTROL POWER ON
R COMMUNICATIONS FAULT
R WET WELL LOW LEVEL
R WET WELL HIGH LEVEL
R UPS LOW BATTERY
R PLC FAULT

24VDC POWER SUPPLY (PS-001)

HS 004 INTRUSION BYPASS SWITCH

ISR / ISB

TO NETWORK SWITCH

PUMP 1 CABINET

PB 100 FAULT RESET
PB 101 REVERSE JOG
ETM ELAPSED TIME METER
HS 003 HOA SWITCH
VFD CTRL. PANEL
R SEAL LEAK
R OVERTEMP
R VFD FAULT
G RUNNING
W READY

PUMP 1 VFD (VFD-001)

TSH 001 / MSH 001

PUMP MONITORING RELAY

PUMP 2 CABINET

PB 200 FAULT RESET
PB 201 REVERSE JOG
ETM ELAPSED TIME METER
HS 002 HOA SWITCH
VFD CTRL. PANEL
R SEAL LEAK
R OVERTEMP
R VFD FAULT
G RUNNING
W READY

PUMP 2 VFD (VFD-002)

TSH 002 / MSH 002

PUMP MONITORING RELAY

VENTILATION CABINET

PB 020 FAULT RESET
HS 001 HIGH/LOW SWITCH
VFD CTRL. PANEL
G RUNNING
R FAULT
W READY

VENT FAN VFD (VFD-004)

POWER COMPARTMENT

2 ATS COMMUNICATION MODULE

1 CAT 6 (MODBUS TCP)

RS485 SERIAL

AUTO TRANSFER SWITCH (ATS-001)

ZS 007 DOOR POSITION SWITCH (ZS-007)

ZS 008 DOOR POSITION SWITCH (ZS-008)

SURGE PROTECTIVE DEVICE (SPD-001)

POWER MONITORING RELAY (PMR-001)

R POWER FAULT

FIT 001 FLOW METER TRANSMITTER (FIT-001)

UPS (UPS-001)

ZS 005 DOOR POSITION SWITCH (ZS-005)

ZS 006 DOOR POSITION SWITCH (ZS-006)

VENTILATED COMPARTMENT (CLASS 1, ZONE 2 LOCATION)

COMM. JB

600V JB

FS 001 VENT FAN AIR FLOW SWITCH (FS-001)

ZS 004 DOOR POSITION SWITCH (ZS-004)

VALVE KIOSK (CLASS 1, ZONE 2 LOCATION)

ZS 001 DOOR POSITION SWITCH (ZS-001)

FE 001 FLOW METER (FE-001)

VENT FAN COMPARTMENT (CLASS 1, ZONE 2 LOCATION)

ZS 010 DOOR POSITION SWITCH (ZS-010)

WET WELL (CLASS 1, ZONE 2 LOCATION)

LSL 001 LOW LEVEL (LSL-001)

LSH 001 HIGH LEVEL (LSH-001)

LT 001 HYDROSTATIC PRESSURE SENSOR (LT-001)

ZS 003 HATCH POSITION SWITCH (ZS-003)

PUMP 1 MONITORING SENSOR (P-001)

PUMP 2 MONITORING SENSOR (P-002)

GENERATOR

STANDBY GENERATOR

STANDBY GENERATOR (GEN-1)

ZS 002 DOOR POSITION SWITCH (ZS-002)

ZS 009 DOOR POSITION SWITCH (ZS-009)

CABLE LEGEND

- HIGH SPEED DATA (RS485, RS232, POTS)
- COAXIAL CABLE
- CONTROL CABLE
- ETHERNET (CAT 6)
- POWER OVER ETHERNET (CAT 6)
- COMPUTER CABLE/ANALOG SIGNAL

NOTES:

1. REFER TO CONTROL DRAWINGS FOR LIGHTING CONTROL AND KIOSK INTRUSION.
2. BASIS OF DESIGN: ASCO COMMUNICATION MODULE.
3. THE PREFERRED SCADA COMMUNICATION MEDIA IS THROUGH HARDWIRE INTERNET SERVICE. ALTERNATIVE IMPLEMENTATION OF CELLULAR MODEM MAY BE CONSIDERED IF TIMELINE FOR TELECOMMUNICATIONS CONNECTION PROVES PROHIBITIVE.
4. OWNER TO SUPPLY FIREWALL.
5. MODEM SUPPLIED BY TELECOMMUNICATIONS PROVIDER.

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: 1000208

PROFESSIONAL SEAL

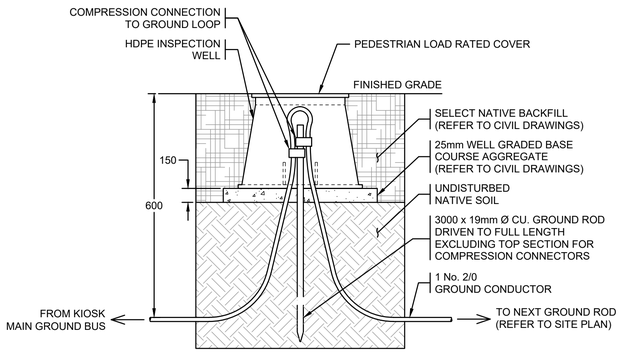
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

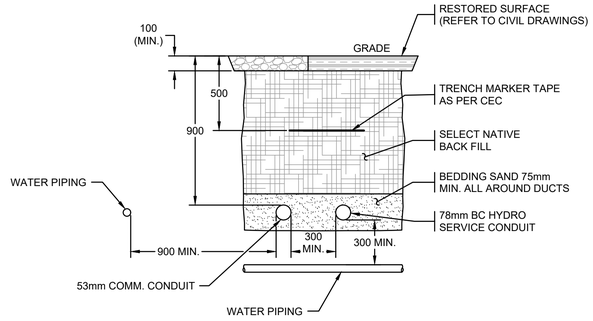
TITLE: ELECTRICAL COMMUNICATIONS AND INSTRUMENTATION BLOCK DIAGRAM

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E210	-

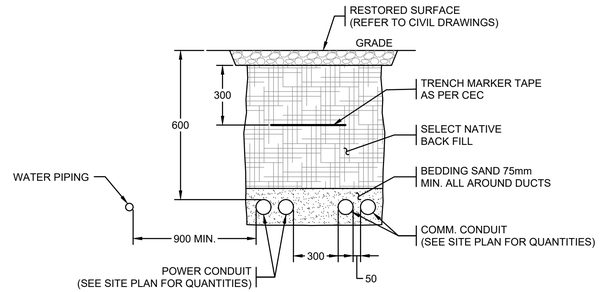
P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E210-COMMUNICATION BLOCK DIAGRAM - 6/08/2026 2:14 PM - LOGAN MINARD



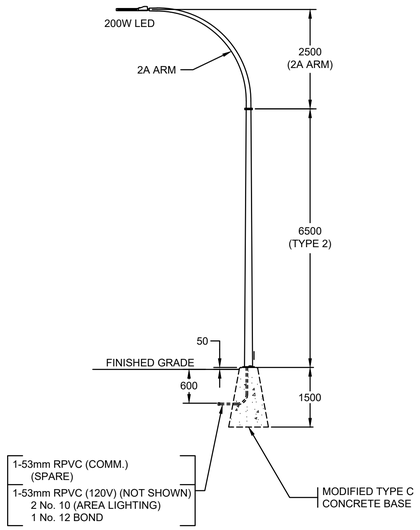
DETAIL 1 / E101
N.T.S.



SECTION A / E101 TYPICAL TRENCH SECTION
N.T.S.



SECTION B / E101 TYPICAL TRENCH SECTION
N.T.S.



ELEVATION A / E101 LUMINAIRE POLE
1:75

0 1:75 5

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP
NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

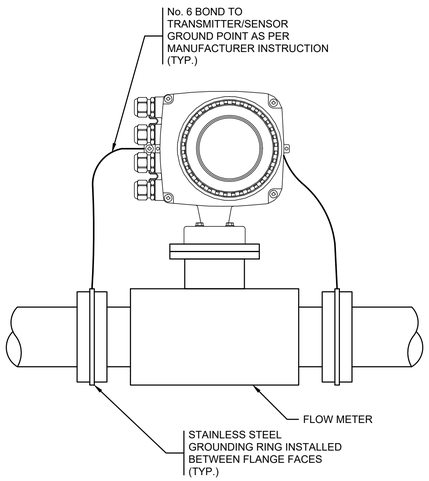
PROFESSIONAL SEAL: PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA 54822 — DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

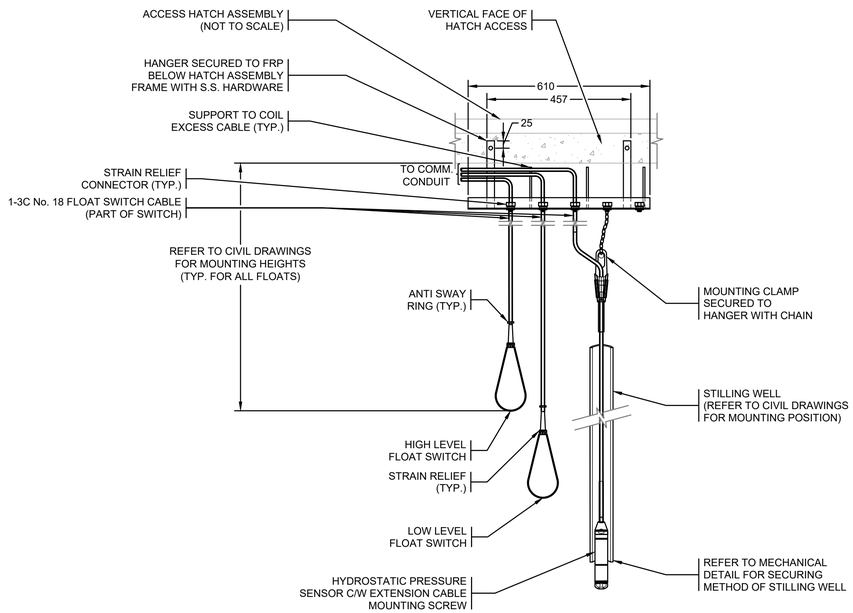
TITLE: ELECTRICAL DETAILS (1 OF 2)

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E300	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000_-WSES Delem Drive\E300-DETAILS (1 OF 2).-16/06/2026 2:14 PM- LOGAN.MINASD

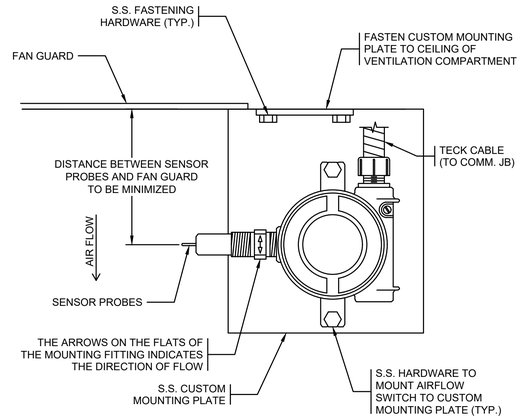


DETAIL 1 MAGNETIC FLOWMETER GROUND RING
N.T.S.



DETAIL 2 HORIZONTAL LEVEL REGULATOR HANGER
1:10

0 1:10 500mm



DETAIL 3 AIRFLOW SWITCH
N.T.S

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL

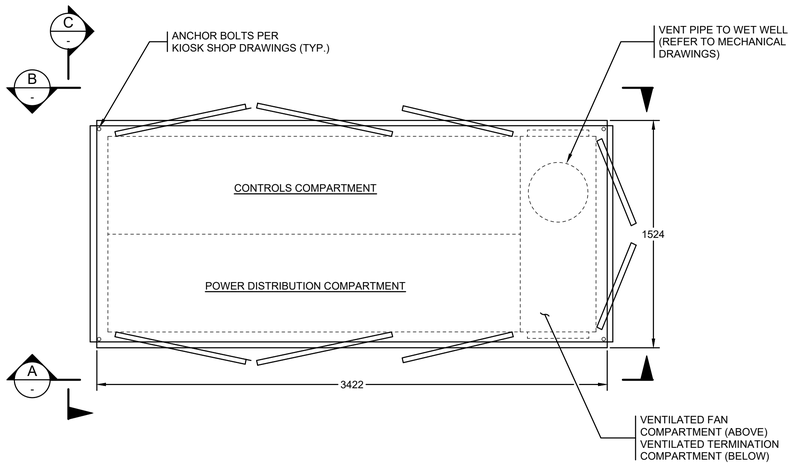
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL DETAILS (2 OF 2)

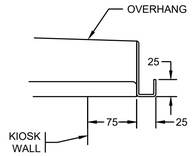
SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E301	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E301 DETAILS (2 OF 2) - 16/06/2026 2:14 PM - LOGAN.MINARD



DETAIL 1 - KIOSK - TOP VIEW
1:20 (E100)

0 1:20 1

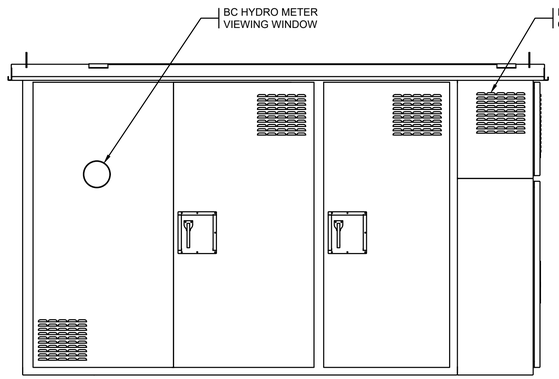


DETAIL 2 - KIOSK - KIOSK OVERHANG
N.T.S.

NOTES:

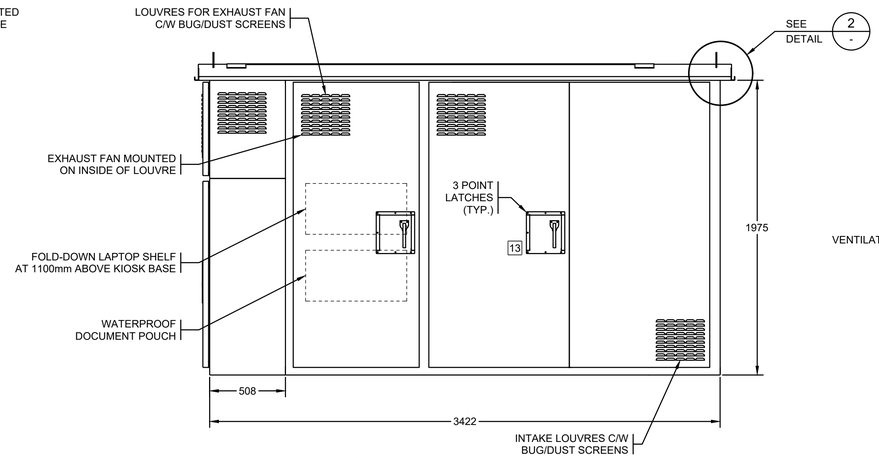
1. KIOSK SHALL BE CSA TYPE 3R RATED. OUTER SHELL SHALL BE MARINE GRADE ALUMINIUM AND SHALL BE WELDED TO ROOF ASSEMBLY, EQUIPMENT MOUNTING PANEL MOUNTS AND BASE PLATES. KIOSK SHALL INCLUDE STRUCTURAL BRACING TO ACCOMMODATE TRANSPORTATION, WIND, SNOW AND ICE LOADING. KIOSK MANUFACTURER SHALL BE RESPONSIBLE FOR OBTAINING CERTIFICATION FROM APEGBC REGISTERED PROFESSIONAL ENGINEER. KIOSK MANUFACTURER SHALL INCLUDE ANCHOR REQUIREMENTS CONSIDERING WIND LOADING, SEISMIC LOADING, DEAD LOADS, AND SNOW LOADING.
2. KIOSK DIMENSIONS ARE APPROXIMATE ONLY. KIOSK MANUFACTURER SHALL PRODUCE DETAILED SHOP DRAWINGS WHICH SHALL INCLUDE INTERNAL EQUIPMENT LAYOUTS FOR REVIEW BY ENGINEER PRIOR TO PRODUCTION. THE MANUFACTURER SHALL ENSURE THE KIOSK IS SIZED APPROPRIATELY TO HOUSE THE INTENDED EQUIPMENT.
3. ALL LOUVERS SHALL HAVE BUG SCREENS.
4. KIOSK DOORS SHALL INCLUDE A GAS SPRING. ALL LATCHES SHALL BE 3-POINT LATCHING SYSTEM WITH PAD LOCKABLE HANDLES AND CONTAIN PROVISION FOR DOUBLE PADLOCK CAPABILITY. THE LATCH MUST CONTAIN MINIMUM 13mm DIAMETER HOLE TO RECEIVE PADLOCK.
5. KIOSK TO BE POWDER COATED ANSI 61 GRAY. CONTRACTOR SHALL SUPPLY AND INSTALL ANTI-GRAFFITI SHRINK-WRAPPED IMAGE AROUND ALL SIDES OF ELECTRICAL KIOSK. OWNER SHALL PROVIDE IMAGE DURING SHOP DRAWING REVIEW PROCESS.
6. ALL COMPARTMENTS SHALL HAVE REMOVABLE MOUNTING PANELS. ALL INTERIOR PANELS SHALL BE 10 GA. GALVANIZED POWDER COATED WHITE.
7. ALL COUPLINGS BETWEEN THE COMPARTMENTS SHALL BE PLACED AND WELDED AT THE ENCLOSURE FABRICATION SHOP.
8. THE FAN COMPARTMENT SHALL BE CONTINUOUSLY WELDED PROVIDING A COMPLETELY SEALED ENCLOSURE. VENTILATED FAN COMPARTMENT SHALL BE SEALED FROM VENTILATED TERMINATION COMPARTMENT.
9. KIOSK SUPPLIER TO PROVIDE CONDUIT STUB-UP TEMPLATE FOR USE BY INSTALLATION CONTRACTOR.
10. PROVIDE 12mm THICK NEOPRENE CLOSED CELL GASKET BETWEEN KIOSK BASE AND CONCRETE PAD.
11. INCLUDE PROVISION FOR EXTERIOR ANTENNA PER BC HYDRO STANDARDS.
12. KIOSK SERVICE ENTRANCE SECTION TO CONFORM TO BC HYDRO SECONDARY REVENUE METERING GUIDE SECTION 4.2.3 FOR REQUIREMENTS IN MUNICIPAL KIOSK APPLICATIONS AND BC HYDRO INFORMATION BULLETIN ADVISORY No. 2021.003 R0.|

13 LATCH MUST HAVE PROVISION FOR DUAL PAD-LOCK PER BC HYDRO STANDARDS.



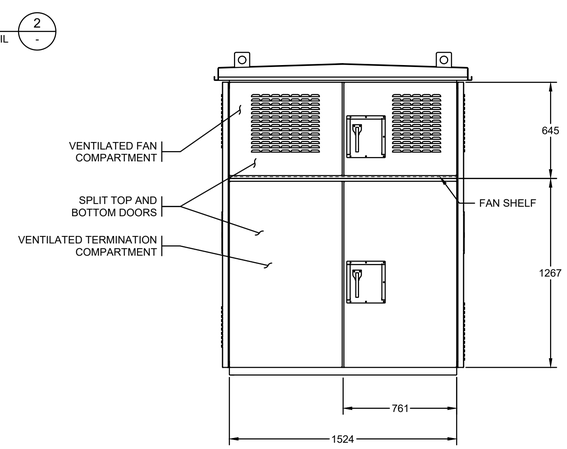
SECTION A - KIOSK - POWER DISTRIBUTION COMPARTMENT
1:20

0 1:20 1



SECTION B - KIOSK - CONTROLS COMPARTMENT
1:20

0 1:20 1



SECTION C - KIOSK - VENTILATED COMPARTMENT
1:20

0 1:20 1

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

FUNCTIONAL DESIGN ONLY
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

**ISSUED FOR NRFP
NOT FOR CONSTRUCTION**

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER OF BRITISH COLUMBIA — M. J. McCORMICK — 54622 — ENGINEER

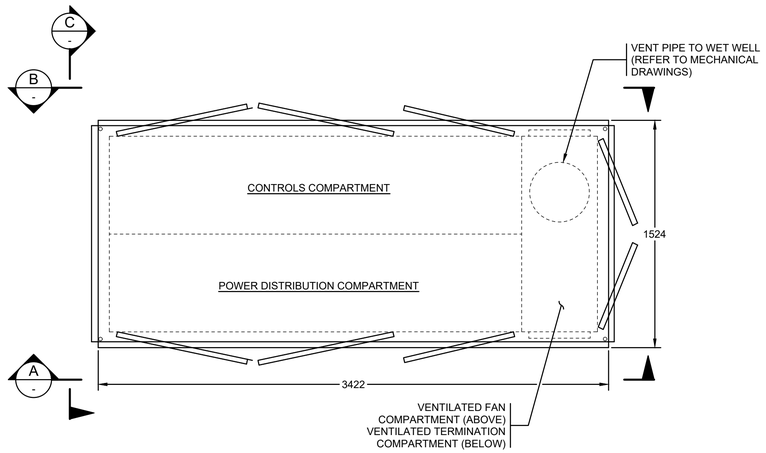
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL
KIOSK (1 OF 2)

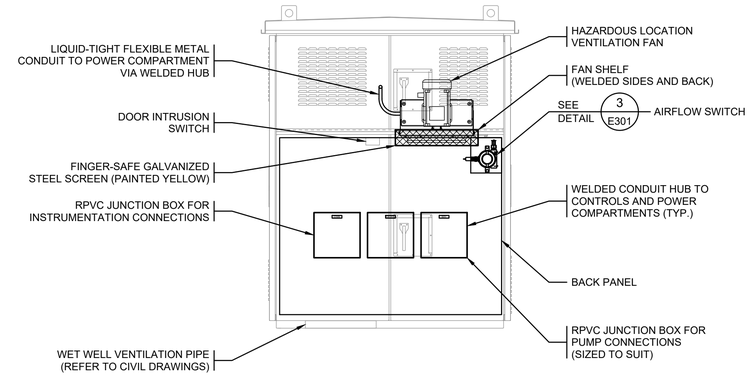
SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E310	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E310-KIOSK (1 OF 2) - 16/06/2026 2:14 PM - LOGAN MINARD



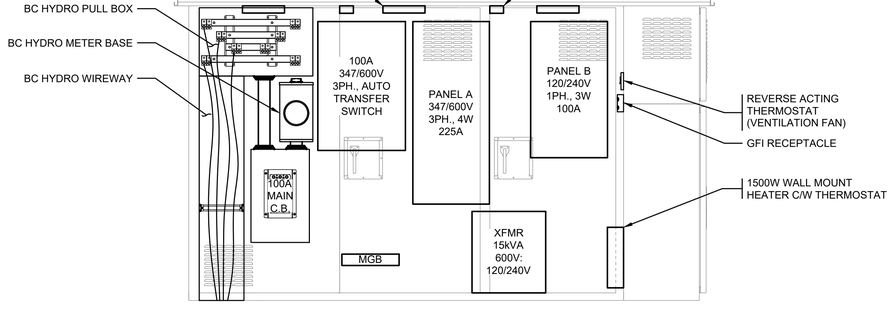
DETAIL 1 / E100 KIOSK - TOP VIEW
1:20

0 1:20 1



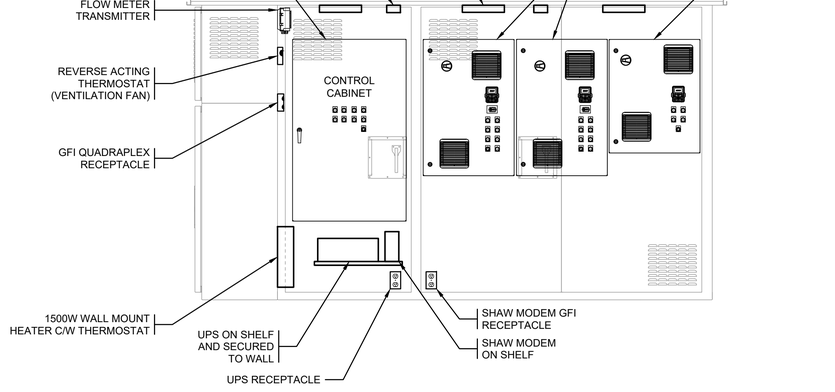
SECTION C / - KIOSK - VENTILATED COMPARTMENT
1:20

0 1:20 1



SECTION A / - KIOSK - POWER DISTRIBUTION COMPARTMENT
1:20

0 1:20 1



SECTION B / - KIOSK - CONTROLS COMPARTMENT
1:20

0 1:20 1

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

FUNCTIONAL DESIGN ONLY
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA M. J. MCCORMICK 54022

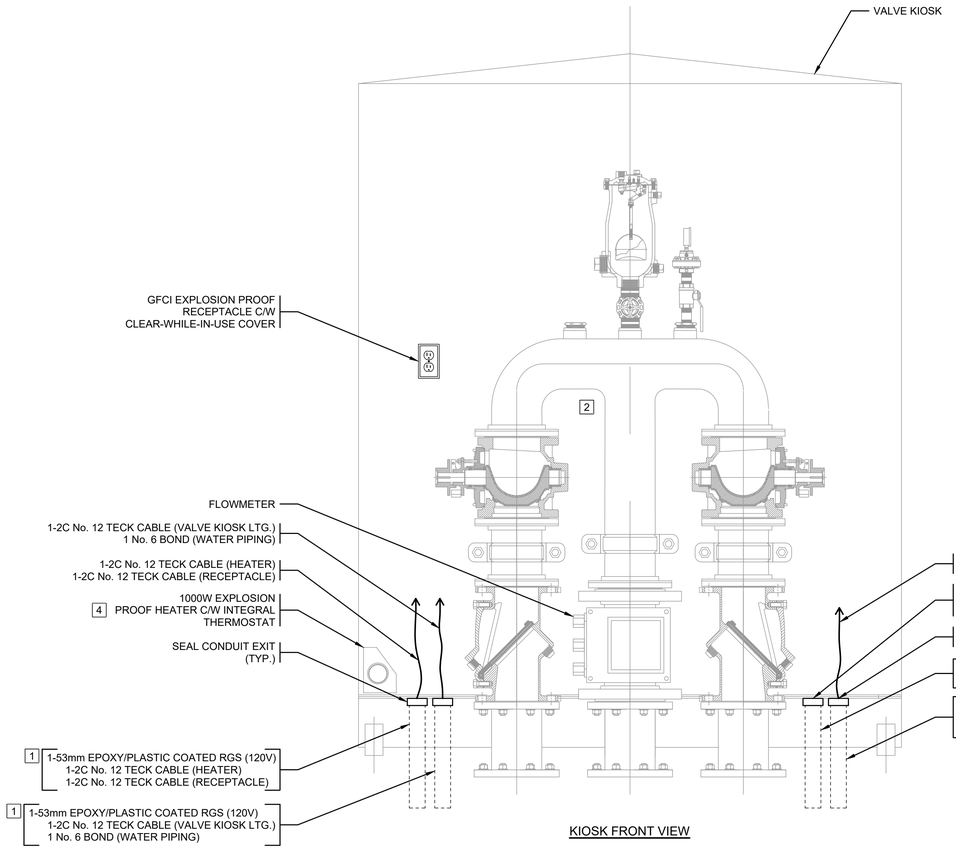
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

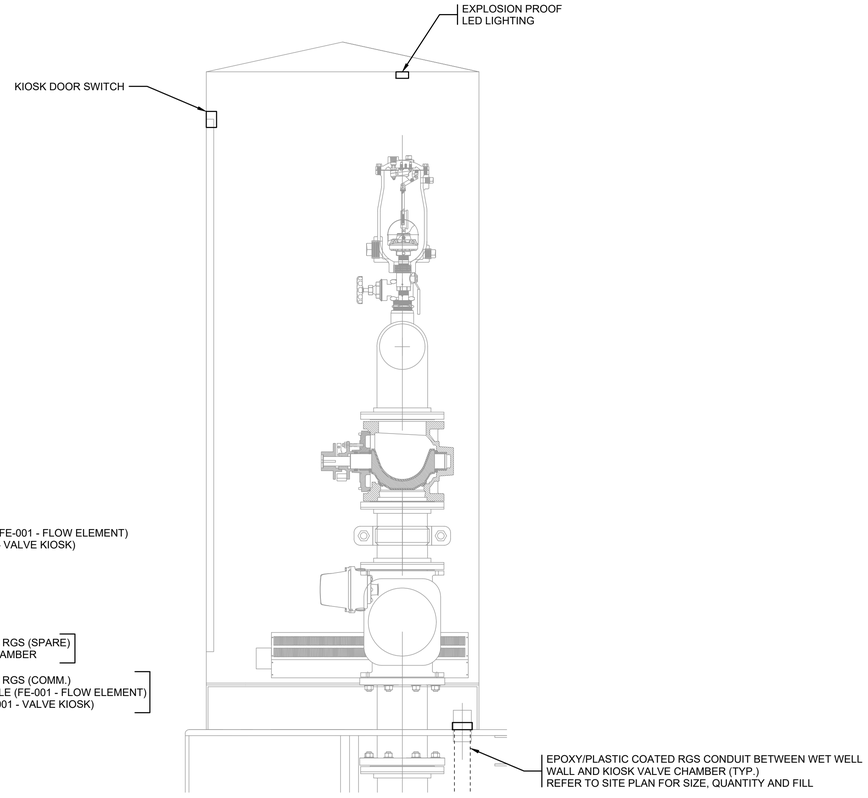
TITLE: ELECTRICAL
KIOSK (2 OF 2)

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E311	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E311-KIOSK (2 OF 2)- 1606(2026-2-14 PM, LOGAN.MINARD



KIOSK FRONT VIEW



KIOSK SIDE VIEW

SECTION A E101 VALVE CHAMBER KIOSK
N.T.S.

0 1:10 500mm

NOTES:

1. CONTRACTOR TO INSTALL No. 6 BOND BETWEEN WATER PIPING BOND LOCATION AND KIOSK STRUCTURE.
2. CABLES TO BE SECURED TO PIPING SUPPORTS.
3. EPOXY/PLASTIC COATED CONDUITS TO BE SUPPORTED AS PER CEC. CONTRACTOR TO COORDINATE APPROPRIATE CONDUIT SUPPORT MOUNTING FEATURES WITH WET WELL MANUFACTURER DURING SHOP DRAWING REVIEW PROGRESS.
4. HEATER PROVIDED BY WET WELL VENDOR.

REFER TO CIVIL DRAWINGS FOR SITE SPECIFIC MECHANICAL DETAILS

FUNCTIONAL DESIGN ONLY
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, M. J. McCORMICK, 54052

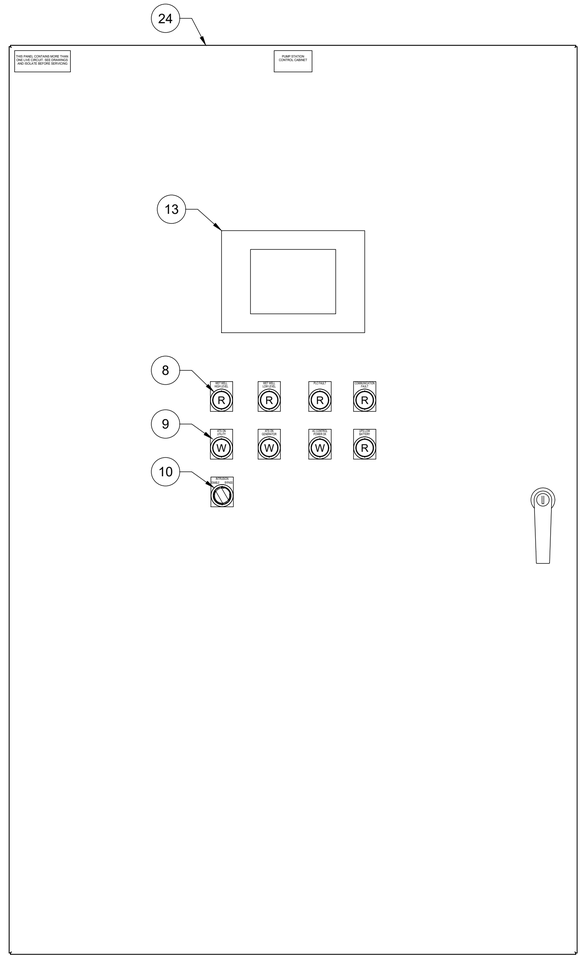
DATE: 2026-06-19

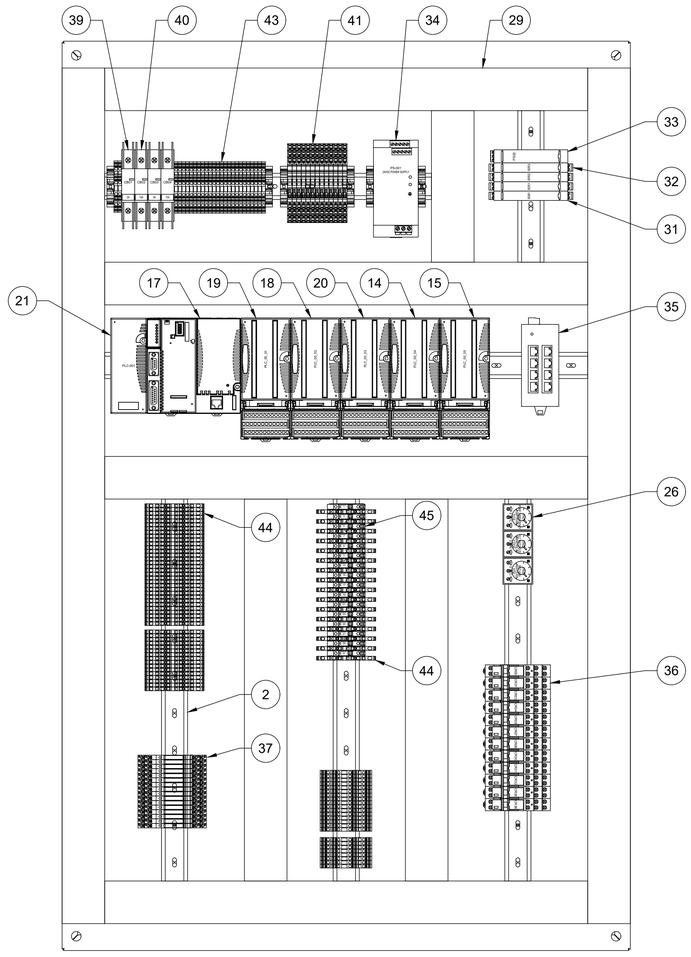
PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL VALVE KIOSK

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E312	-

P:\241000_WSES Delem Pump Station\Drawings\ACAD\241000_WSES Delem Drawn\E312-ELEVATIONS_VALVE KIOSK_16/06/2026 2:14 PM_LOGAN.MINARD





DETAIL 1 / E311 CONTROL CABINET LAYOUT
N.T.S.

ITEM	QTY	CATALOG	MFG	DESCRIPTION
2	6	199-DR1	AB	ZINC/STEEL DIN RAIL EN 50022 (35mm x 7.5mm x 1m)
8	5	M22-DL-R-K11-R	EATON	M22 ILLUMINATED PUSHBUTTON FLUSH MOMENTARY, RED
9	3	M22-DL-W-K11-W	EATON	M22 ILLUMINATED PUSHBUTTON FLUSH MOMENTARY, WHITE
10	1	M22-WKV216874	EATON	2 POSITIONS SWITCH, MAINTAINED
13	1	IC755CSS06RDA	EMERSON	HMI, QUICK PANEL 6", WITH VIEW AND CONTROL
14	1	IC200ALG260	GE	PLC VERSAMAX ANALOG I/O MODULE 8-CHANNEL, ANALOG INPUT
15	1	IC200ALG320	GE	PLC VERSAMAX ANALOG I/O MODULE 4-CHANNEL, ANALOG OUTPUT
16	5	IC200CHS022	GE	PLC VERSAMAX I/O CARRIER, COMPACT BOX STYLE
17	1	IC200CPUE05	GE	PLC VERSAMAX CONTROLLER, 128K CONFIGURABLE USER MEMORY, 2 SERIAL PORT, 1 ETHERNET INTERFACE
18	1	IC200MDL640	GE	PLC VERSAMAX DIGITAL I/O MODULE 16-POINT, DISCRETE INPUT
19	1	IC200MDL650	GE	PLC VERSAMAX DIGITAL I/O MODULE 32-POINT, DISCRETE INPUT
20	1	IC200MDL740	GE	PLC VERSAMAX DIGITAL I/O MODULE 16-POINT, DISCRETE OUTPUT
21	1	IC200PWR002	GE	PLC VERSAMAX POWER SUPPLY
24	1	EN4SD483010GY	HAMMOND	ENCLOSURE TYPE 12, 48 x 30 x 10 - Steel/Gray
26	3	1914639	IDEC	GT3A-3AD24 ANALOG TIMING RELAY, ON DELAY, DELAYED DPDT
29	9	G2X3WH6	PANDUIT	WIDE FINGER, SLOTTED WIRING DUCT (WHITE)
31	1	2865340	PHOENIX CONTACT	MACX MCR-EX-SL-RPSSI-I - POWER/INPUT ISOLATING AMPLIFIER
32	3	2865476	PHOENIX CONTACT	MACX MCR-EX-SL-2NAM-RO INTRINSICALLY SAFE SWITCH AMPLIFIER, 2-CHANNEL
33	1	2865625	PHOENIX CONTACT	MACX MCR-PTB
34	1	2866763	PHOENIX CONTACT	QUINT-PS/1AC/24VDC/10A POWER SUPPLY
35	1	2891002	PHOENIX CONTACT	FL SWITCH SFNB 8TX - 8-PORT NETWORK SWITCH, UNMANAGED
36	12	2903350	PHOENIX CONTACT	RIF-1-RSC-LDP-24DC/2X21 - RELAY MODULE
37	16	2903361	PHOENIX CONTACT	RIF-0-RPT-24DC/1 - RELAY MODULE
39	1	2907559	PHOENIX CONTACT	TMC 81C 02A - MINIATURE CIRCUIT BREAKER
40	3	2907571	PHOENIX CONTACT	TMC 81C 15A - MINIATURE CIRCUIT BREAKER
41	13	2908262	PHOENIX CONTACT	PTCB E1 24DC/1-8A NO
42	6	3022218	PHOENIX CONTACT	END BRACKET - CLIPFIX 35
43	50	1021500000	WEIDMULLER	STANDARD DESIGN TERMINAL BLOCK - WDK 2.5
44	64	1608570000	WEIDMULLER	TERMINAL BLOCK - ZDU 2.5/4 AN
45	16	1886580000	WEIDMULLER	WSI 4 - FUSE TERMINAL BLOCK

1 / - BILL OF MATERIALS

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

FUNCTIONAL DESIGN ONLY
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services
PROJECT: DELEM DRIVE SANITARY PUMP STATION

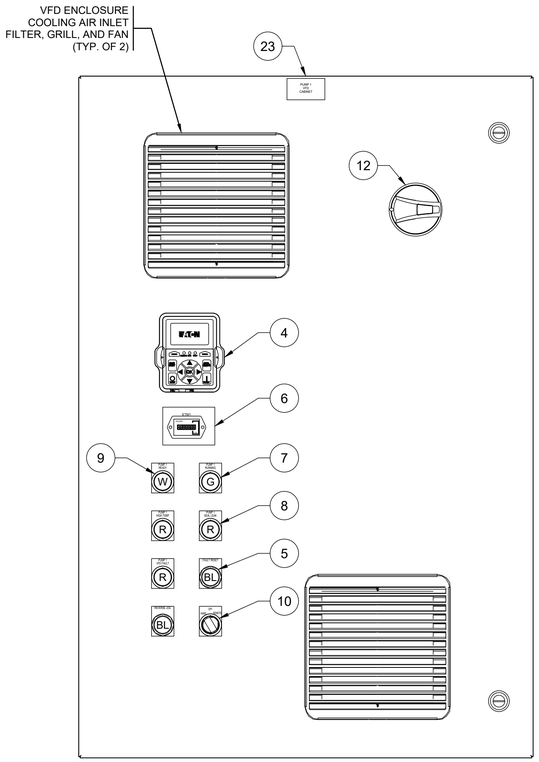
EGBC PERMIT #: **1000208**
PROFESSIONAL SEAL: PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, 54052, M. J. SCOBIE
DATE: 2026-06-19

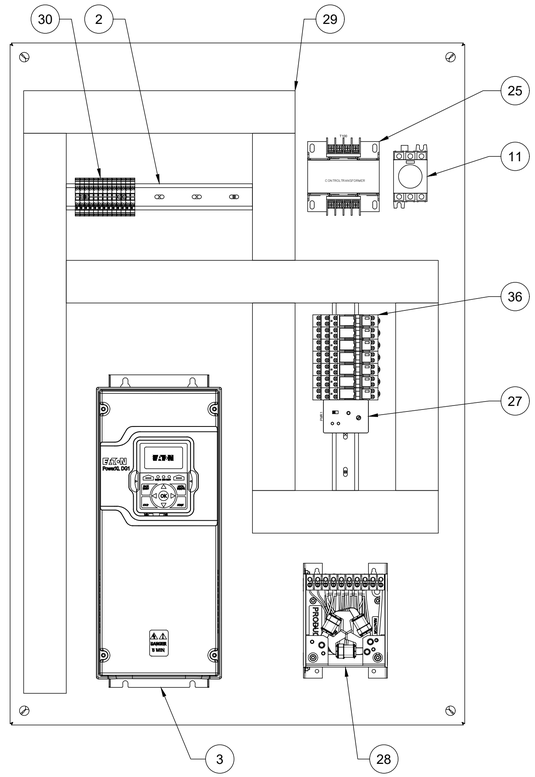
PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL CONTROL CABINET LAYOUT

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E400	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E400-CONTROL CABINET LAYOUT, 16/06/2026 2:14 PM, LOGAN MINARD





DETAIL 1 / E311 PUMP CABINET LAYOUT
N.T.S.

ITEM	QTY	CATALOG	MFG	DESCRIPTION
2	2	199-DR1	AB	ZINC/STEEL DIN RAIL EN 50022 (35mm x 7.5mm x 1m)
3	1	DG1-35018FB-C21C	EATON	DG1 GENERAL PURPOSE DRIVE 575V (525-600V) FRAME 2, 1/IP21, 18A, 11 kW, 15 HP
4	1	DXG_KEY_RMTKIT	EATON	POWERXL DG1 REMOTE KEYPAD KIT
5	2	E22E1A	EATON	PUSH BUTTON - MOMENTARY, NEMA 4/4X/13
6	2	E42DI2448230	EATON	ELAPSED TIME METER
7	1	M22-DL-G-K11-G	EATON	M22 ILLUMINATED PUSHBUTTON FLUSH MOMENTARY, GREEN
8	3	M22-DL-R-K11-R	EATON	M22 ILLUMINATED PUSHBUTTON FLUSH MOMENTARY, RED
9	1	M22-DL-W-K11-W	EATON	M22 ILLUMINATED PUSHBUTTON FLUSH MOMENTARY, WHITE
10	1	M22-WKV216874	EATON	2 POSITIONS SWITCH, MAINTAINED
11	1	R5A3016U	EATON	R5 SERIES NON-FUSIBLE DISCONNECT THREE-POLE ROTARY SWITCH ONLY, 16AMP
12	1	SHB00N12	EATON	R5/R9 SERIES SH00 EXTERNAL HANDLE BLACK 3R, 12
23	1	EN4SD362412GY	HAMMOND	ENCLOSURE TYPE 12, 36 x 24 x 12 - Steel/Gray
25	1	SP250ACP	HAMMOND POWER	CONTROL TRANSFORMER, 250VA, 600:120VAC
27	1	TCP2G100	MACROMATIC	SEAL LEAKAGE/TEMPERATURE RELAY
28	1	DVSP0012E	MTE	DV SENTRY DV/DT FILTER
29	7	G2X3WH6	PANDUIT	WIDE FINGER, SLOTTED WIRING DUCT (WHITE)
30	13	1088728	PHOENIX CONTACT	PTV 4 - FEED-THROUGH TERMINAL BLOCK
36	7	2903350	PHOENIX CONTACT	RIF-1-RSC-LDP-24DC/2X21 - RELAY MODULE

1 / - BILL OF MATERIALS

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

FUNCTIONAL DESIGN ONLY
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT
West Shore Environmental Services

PROJECT
DELEM DRIVE
SANITARY PUMP STATION

EGBC PERMIT #: 1000208

PROFESSIONAL SEAL
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA M. J. MCCRAE # 54822

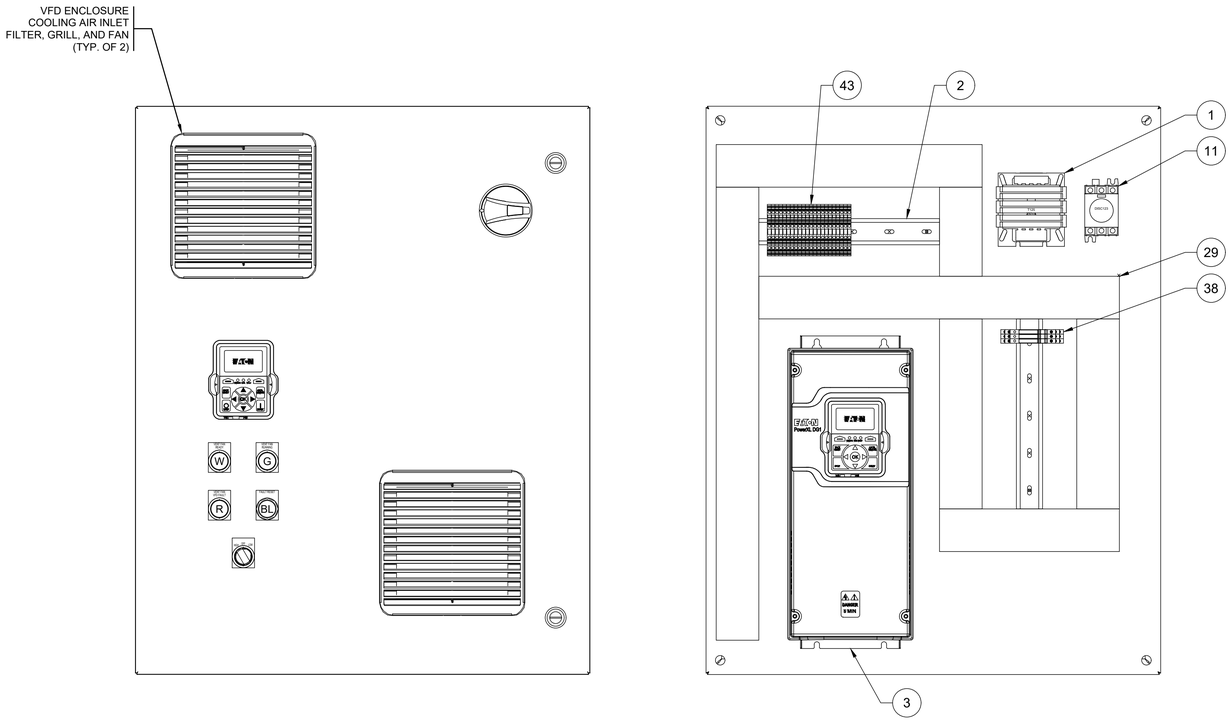
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE
ELECTRICAL
PUMP CABINET LAYOUT

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E401	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E401-PUMP CONTROL CABINET LAYOUT - 16/06/2026 2:15 PM - LOGAN.MINARD



DETAIL 1/E311 VENTILATION CABINET LAYOUT
N.T.S.

ITEM	QTY	CATALOG	MFG	DESCRIPTION
1	1	1497-A-CXSX-3-N	AB	CONTROL CIRCUIT TRANSFORMER, TYPE 1497
2	2	199-DR1	AB	ZINC/STEEL DIN RAIL EN 50022 (35mm x 7.5mm x 1m)
3	1	DG1-35018FB-C21C	EATON	DG1 GENERAL PURPOSE DRIVE 575V (525-600V) FRAME 2, 1/IP21, 18A, 11 kW, 15 HP
4	1	DXG_KEY_RMTKIT	EATON	POWERXL DG1 REMOTE KEYPAD KIT
5	1	E22E1A	EATON	PUSH BUTTON - MOMENTARY, NEMA 4/4X/13
7	1	M22-DL-G-K11-G	EATON	M22 ILLUMINATED PUSHBUTTON FLUSH MOMENTARY, GREEN
8	1	M22-DL-R-K11-R	EATON	M22 ILLUMINATED PUSHBUTTON FLUSH MOMENTARY, RED
9	1	M22-DL-W-K11-W	EATON	M22 ILLUMINATED PUSHBUTTON FLUSH MOMENTARY, WHITE
10	1	M22-WKV216874	EATON	2 POSITIONS SWITCH, MAINTAINED
11	1	R5A3016U	EATON	R5 SERIES NON-FUSIBLE DISCONNECT THREE-POLE ROTARY SWITCH ONLY, 16AMP
12	1	SHB00N12	EATON	R5/R9 SERIES SH00 EXTERNAL HANDLE BLACK 3R, 12
22	1	EN4SD302412GY	HAMMOND	ENCLOSURE TYPE 12, 30 x 24 x 12 - Steel/Gray
29	7	G2X3WH6	PANDUIT	WIDE FINGER, SLOTTED WIRING DUCT (WHITE)
38	3	2903374	PHOENIX CONTACT	RIF-0-RSC-24DC/21 - RELAY MODULE
43	22	1021500000	WEIDMULLER	STANDARD DESIGN TERMINAL BLOCK - WDK 2.5

1/- BILL OF MATERIALS

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

FUNCTIONAL DESIGN ONLY
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

**ISSUED FOR NRFP
NOT FOR CONSTRUCTION**

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: 1000208

PROFESSIONAL SEAL

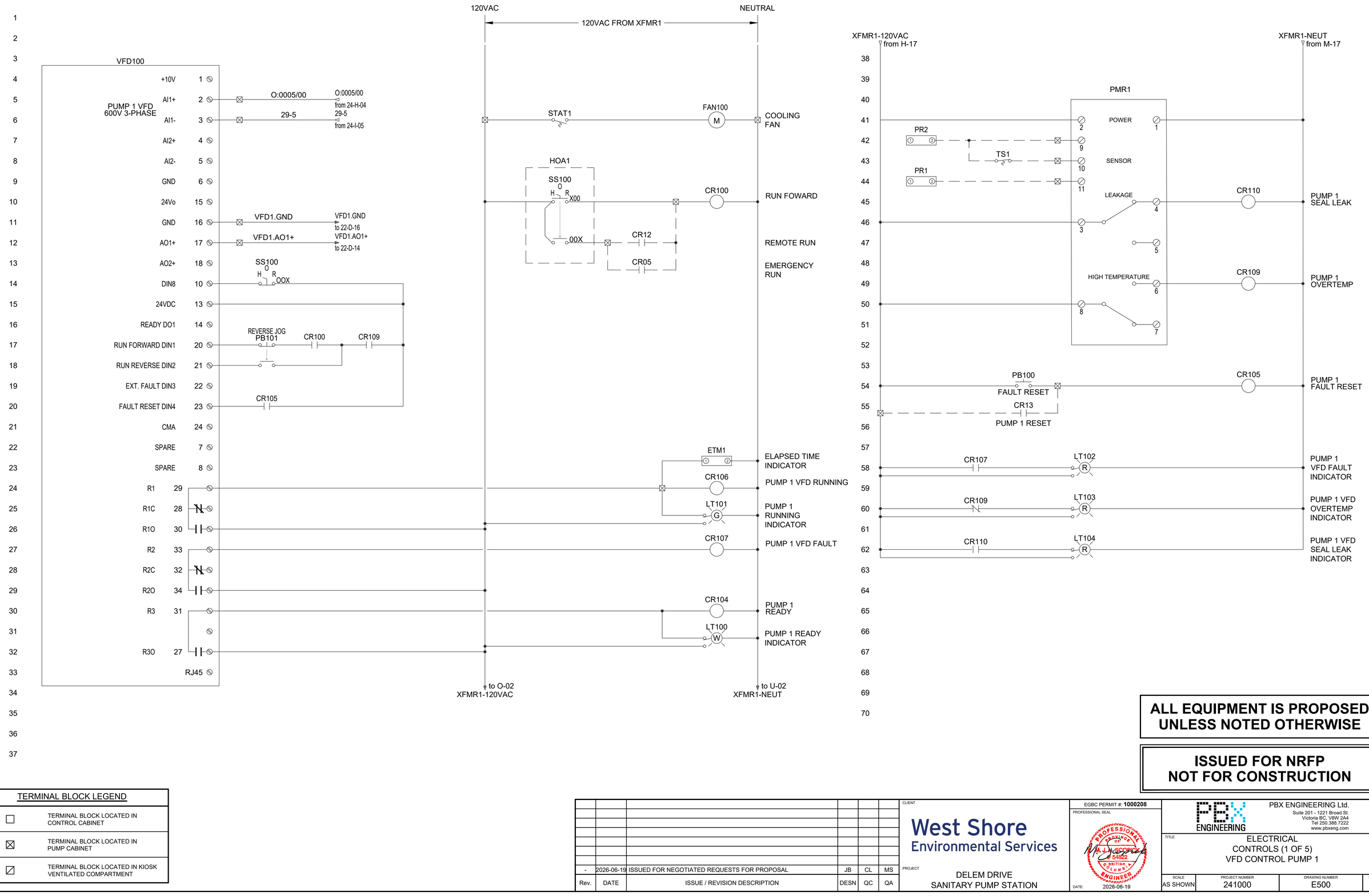
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL
VENTILATION FAN CONTROL LAYOUT

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E402	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E402-VENTILATION FAN CONTROL LAYOUT - 16/06/2026 2:15 PM LOGAN.MINARD



ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

TERMINAL BLOCK LEGEND

☐	TERMINAL BLOCK LOCATED IN CONTROL CABINET
☒	TERMINAL BLOCK LOCATED IN PUMP CABINET
⊘	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT
West Shore Environmental Services

PROJECT
DELEM DRIVE
SANITARY PUMP STATION

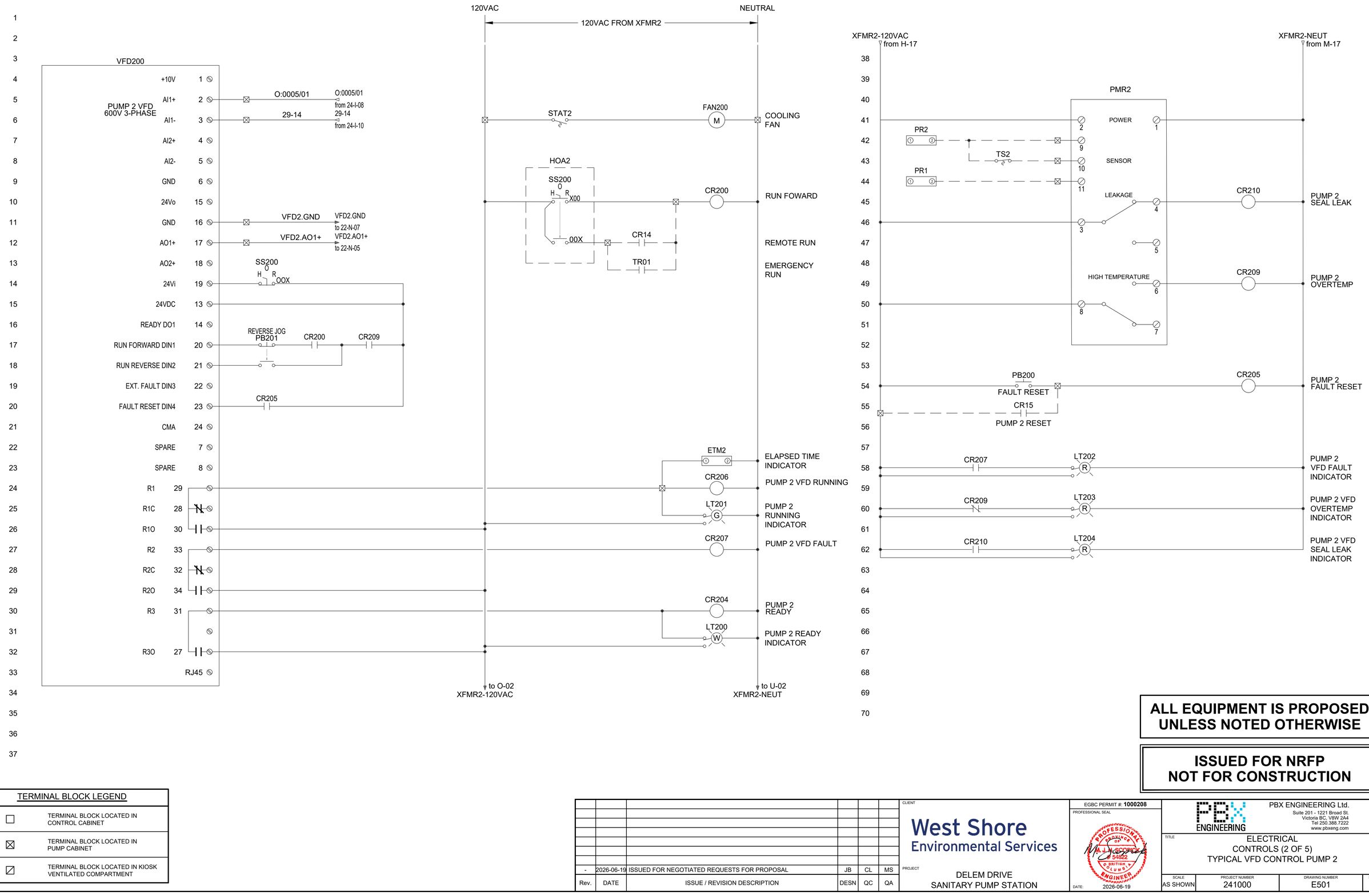
EGBC PERMIT #: **1000208**
PROFESSIONAL SEAL
PROFESSIONAL ENGINEER — M. J. SCOPEL — 54622 — BRITISH COLUMBIA — ENGINEER
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE
ELECTRICAL
CONTROLS (1 OF 5)
VFD CONTROL PUMP 1

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E500	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E500-PUMP 1 VFD WIRING - 16/06/2026 2:15 PM - LOGAN MINARD



TERMINAL BLOCK LEGEND	
□	TERMINAL BLOCK LOCATED IN CONTROL CABINET
⊠	TERMINAL BLOCK LOCATED IN PUMP CABINET
⊘	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER, M. J. SCOPEL, 54622, PROVINCE OF BRITISH COLUMBIA

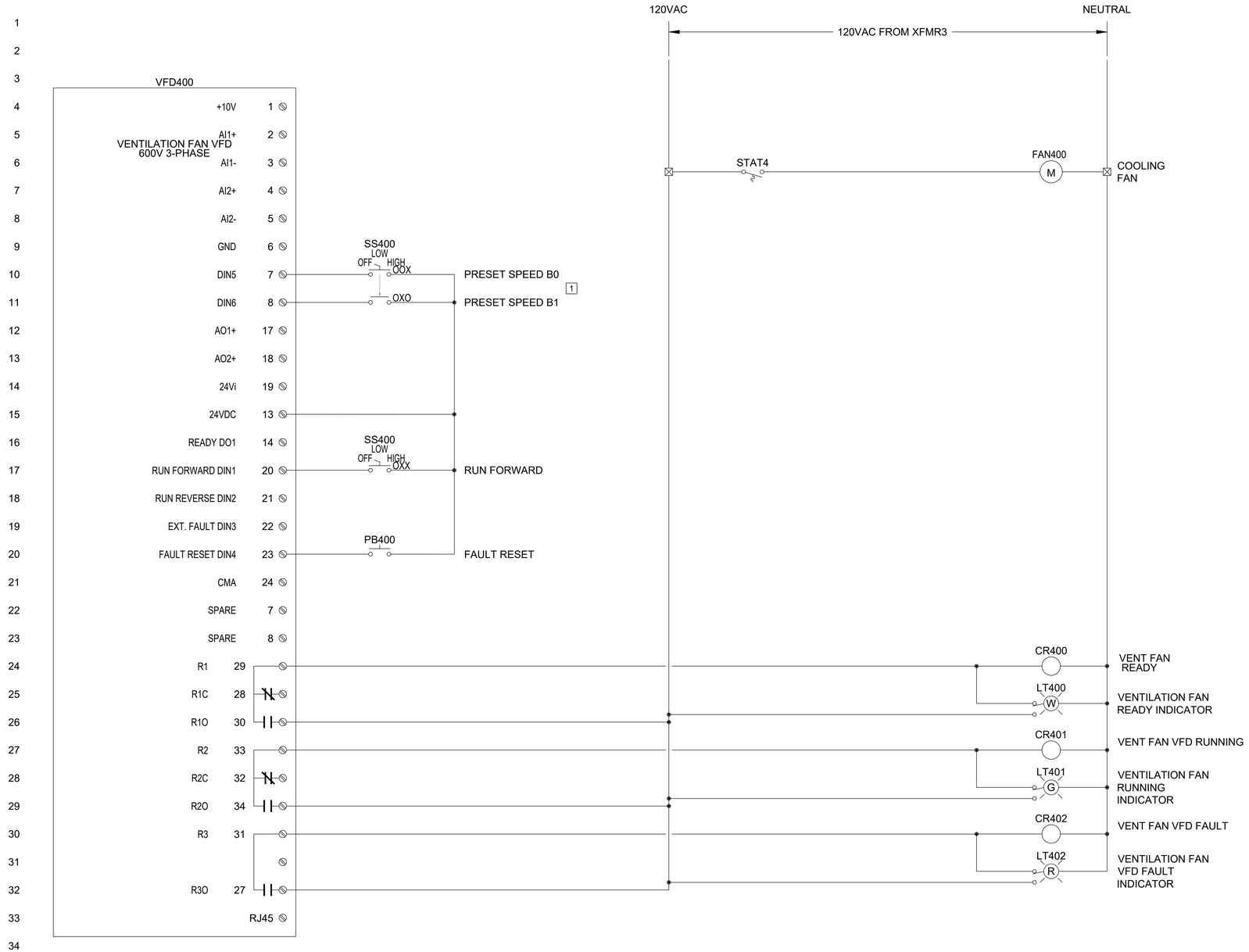
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL
CONTROLS (2 OF 5)
TYPICAL VFD CONTROL PUMP 2

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E501	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E501-PUMP 2 VFD WIRING, 16/06/2026 2:15 PM, LOGAN MINARD



NOTES:

1. VFD PRESET SPEED B0 (LOW) SHOULD BE CONFIGURED AT A MOTOR SPEED NOT LESS THAN THE SPEED REQUIRED TO MAINTAIN A MINIMUM 12 AIR CHANGERS PER HOUR IN THE WET WELL TO MAINTAIN CLASS 1 ZONE 2 RATING.

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP
NOT FOR CONSTRUCTION

TERMINAL BLOCK LEGEND	
☐	TERMINAL BLOCK LOCATED IN CONTROL CABINET
☒	TERMINAL BLOCK LOCATED IN PUMP CABINET
▨	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, # 54922, M.J. SCOPICK

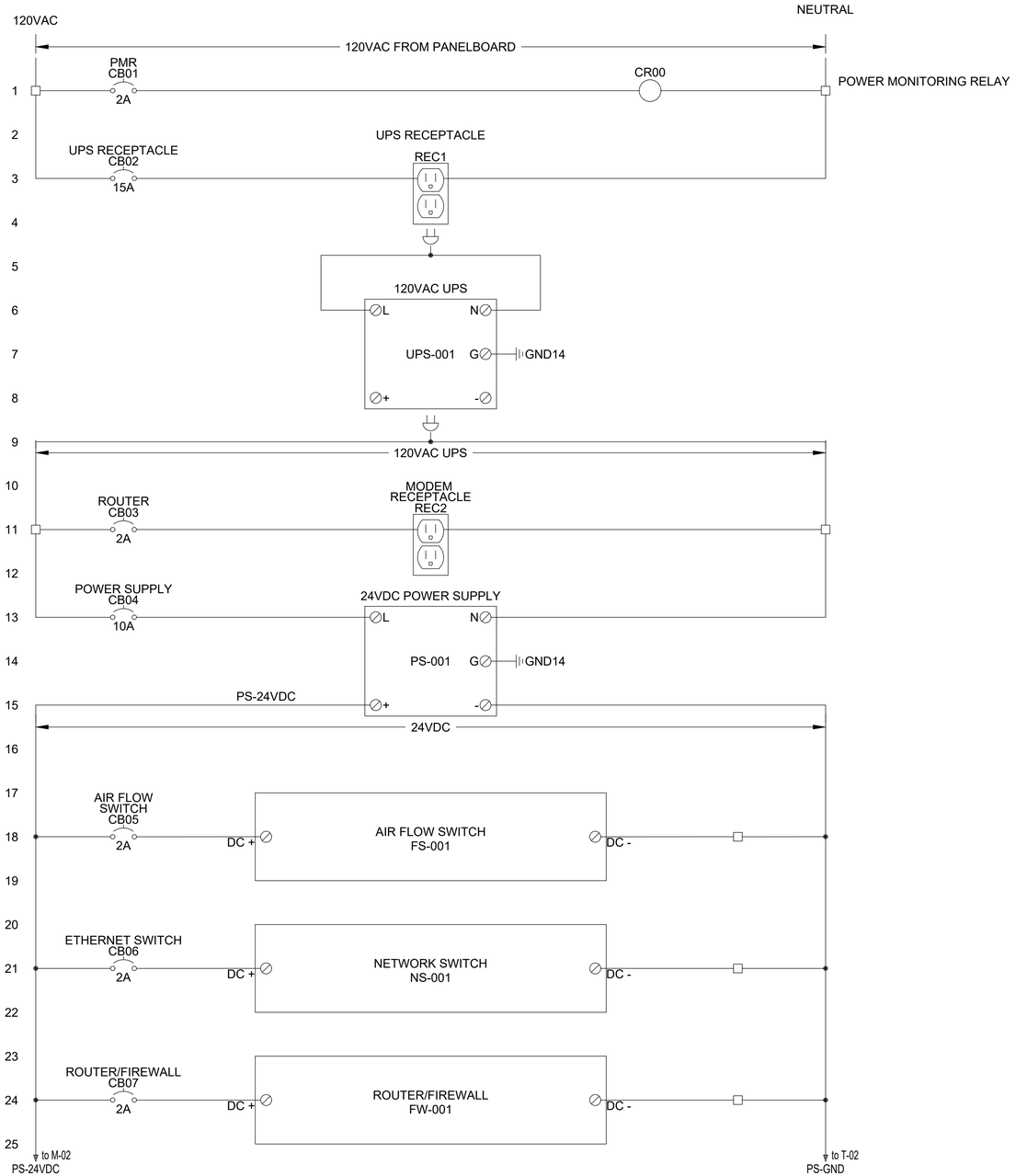
DATE: 2026-06-19

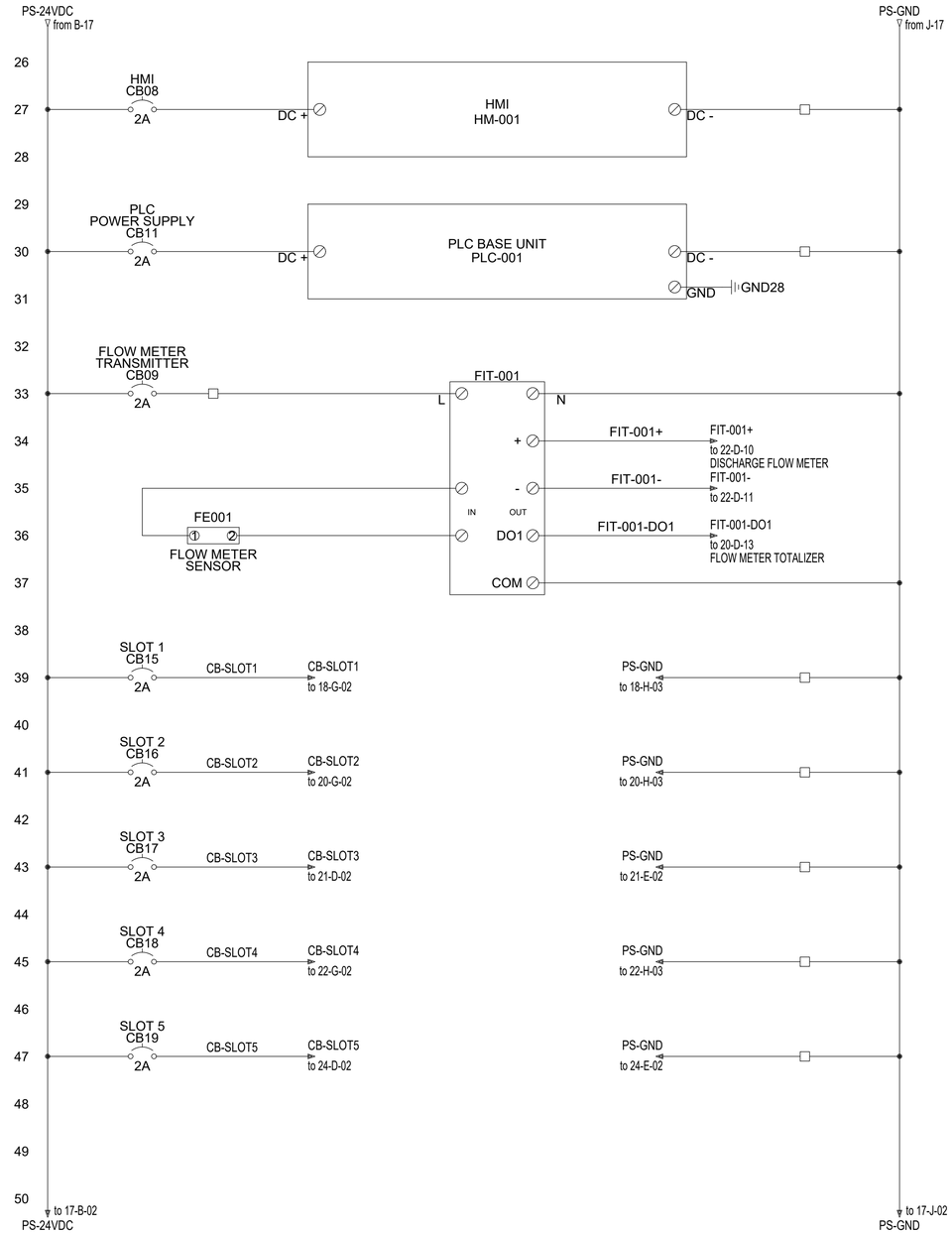
PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL CONTROLS (3 OF 5) VFD CONTROL VENTILATION FAN

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E502	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000_WSES Delem Drive\E502\VENTILATION FAN VFD WIRING, 16/06/2026 2:15 PM, LOGAN.MINARD





TERMINAL BLOCK LEGEND	
☐	TERMINAL BLOCK LOCATED IN CONTROL CABINET
☒	TERMINAL BLOCK LOCATED IN PUMP CABINET
▨	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, M. J. McCORMICK, 54822, ENGINEER

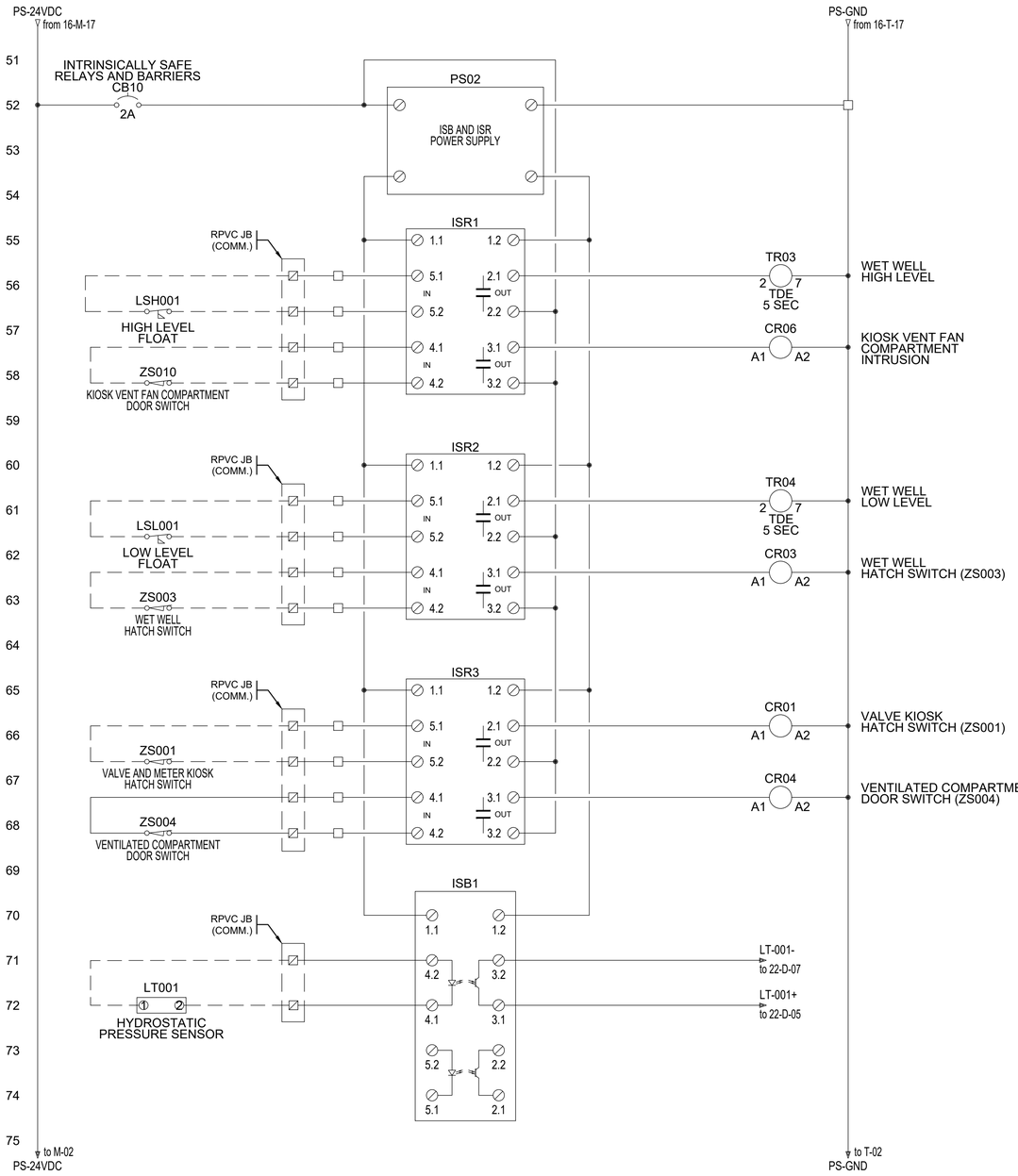
DATE: 2026-06-19

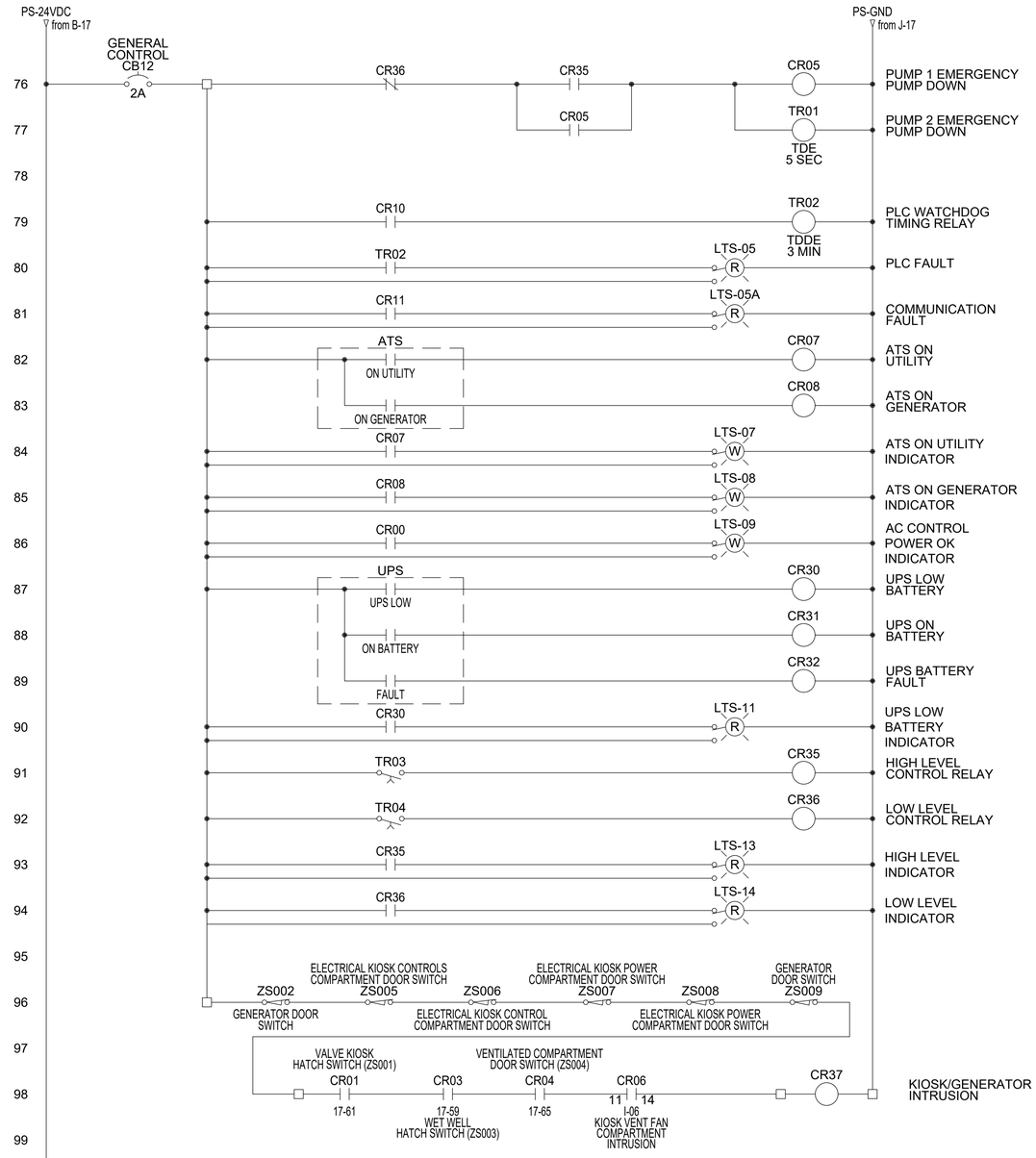
PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL CONTROLS (4 OF 5) CONTROL LADDER

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E503	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000_WSES Delem Drive\E503 CONTROL LADDER (4 OF 5).dwg 16/06/2026 2:15 PM LOGAN MINARD





TERMINAL BLOCK LEGEND	
☐	TERMINAL BLOCK LOCATED IN CONTROL CABINET
☒	TERMINAL BLOCK LOCATED IN PUMP CABINET
⊘	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, M. J. MCGREER, 54822

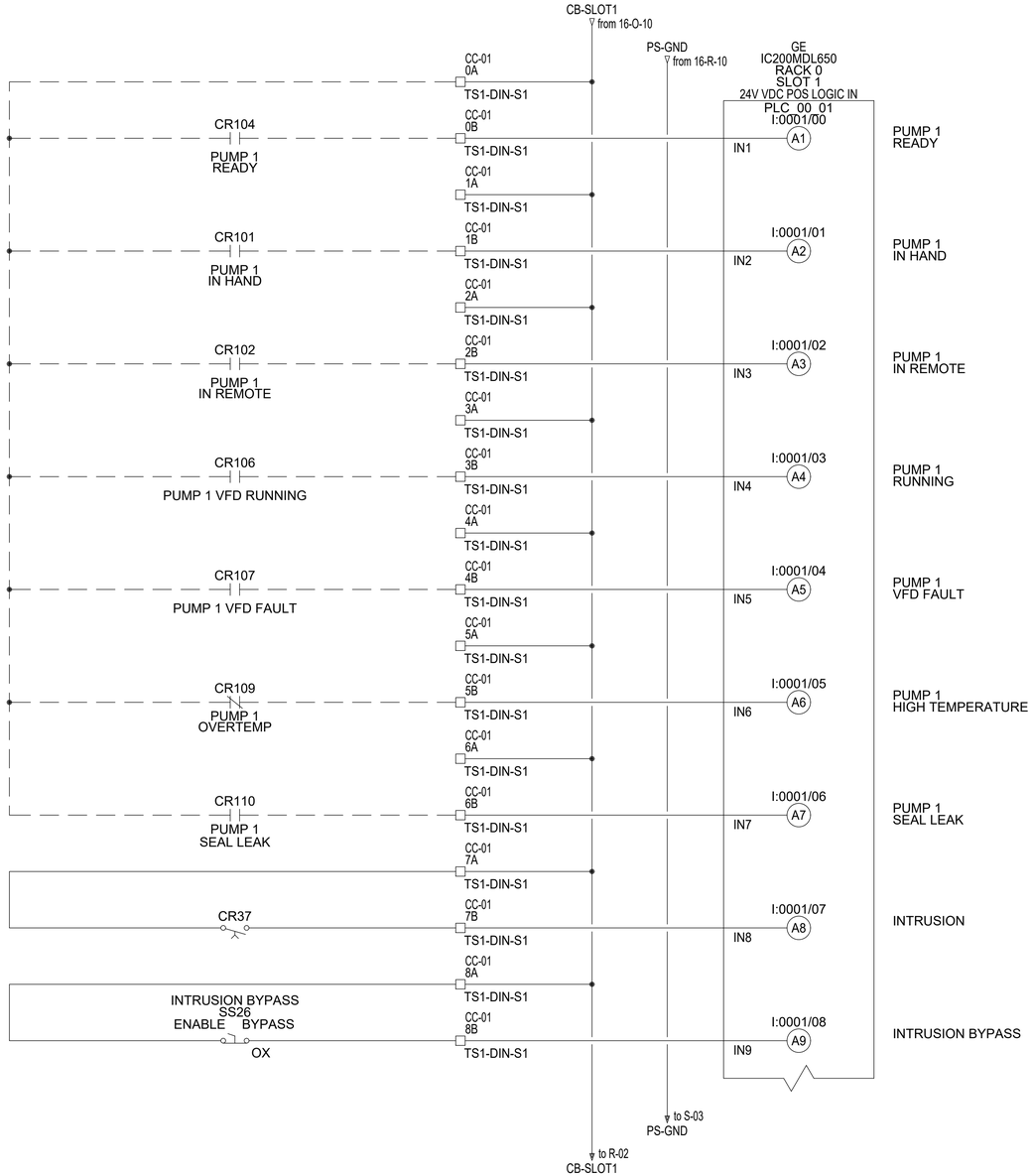
DATE: 2026-06-19

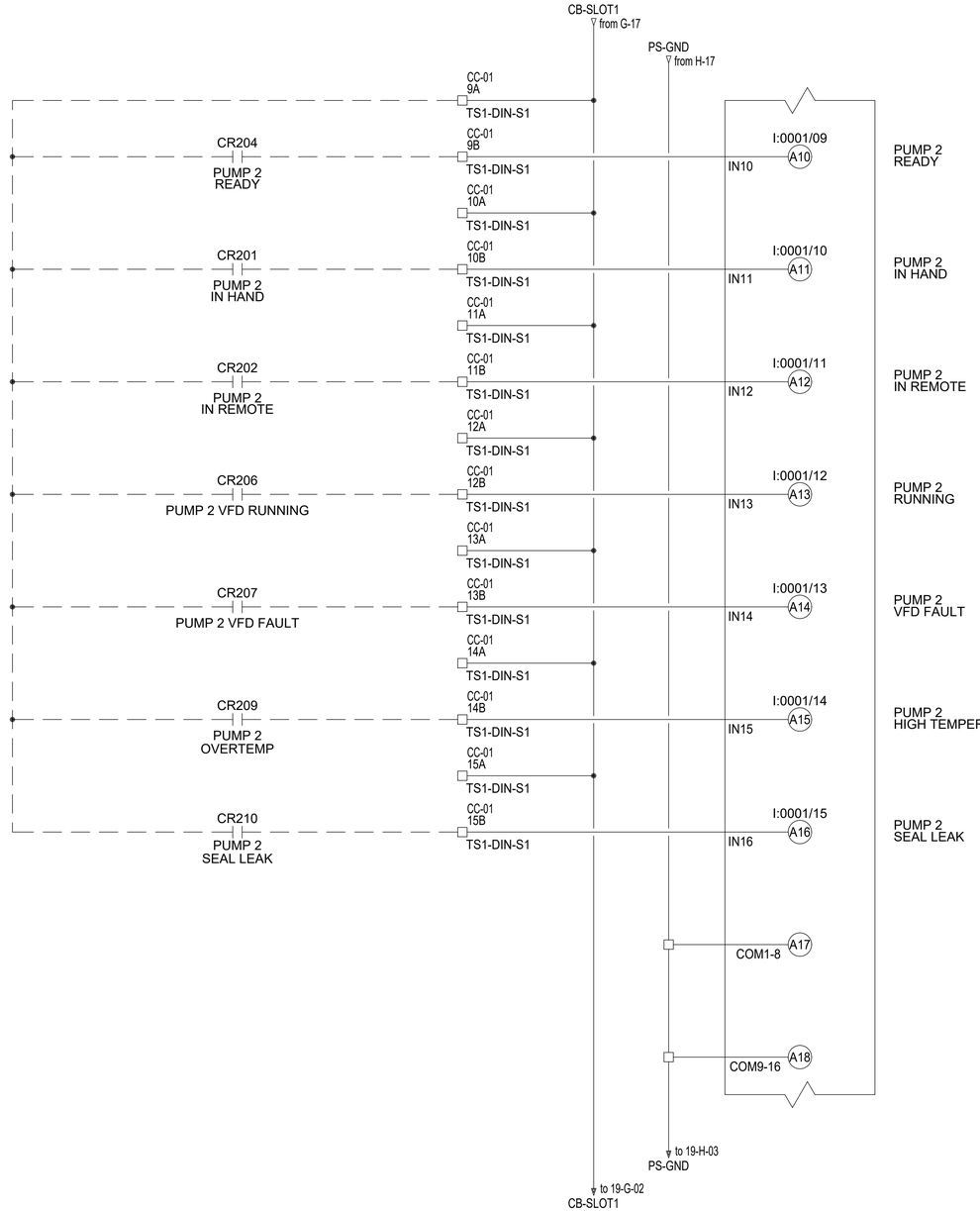
PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL CONTROLS (5 OF 5) CONTROL LADDER

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E504	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E504-CONTROL LADDER (2 OF 2).dwg, 16/06/2026 2:16 PM, LOGAN.MINARD





ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP
NOT FOR CONSTRUCTION

TERMINAL BLOCK LEGEND

☐	TERMINAL BLOCK LOCATED IN CONTROL CABINET
☒	TERMINAL BLOCK LOCATED IN PUMP CABINET
▨	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER OF BRITISH COLUMBIA — M. J. SCOTT — 54822 — ENGINEER

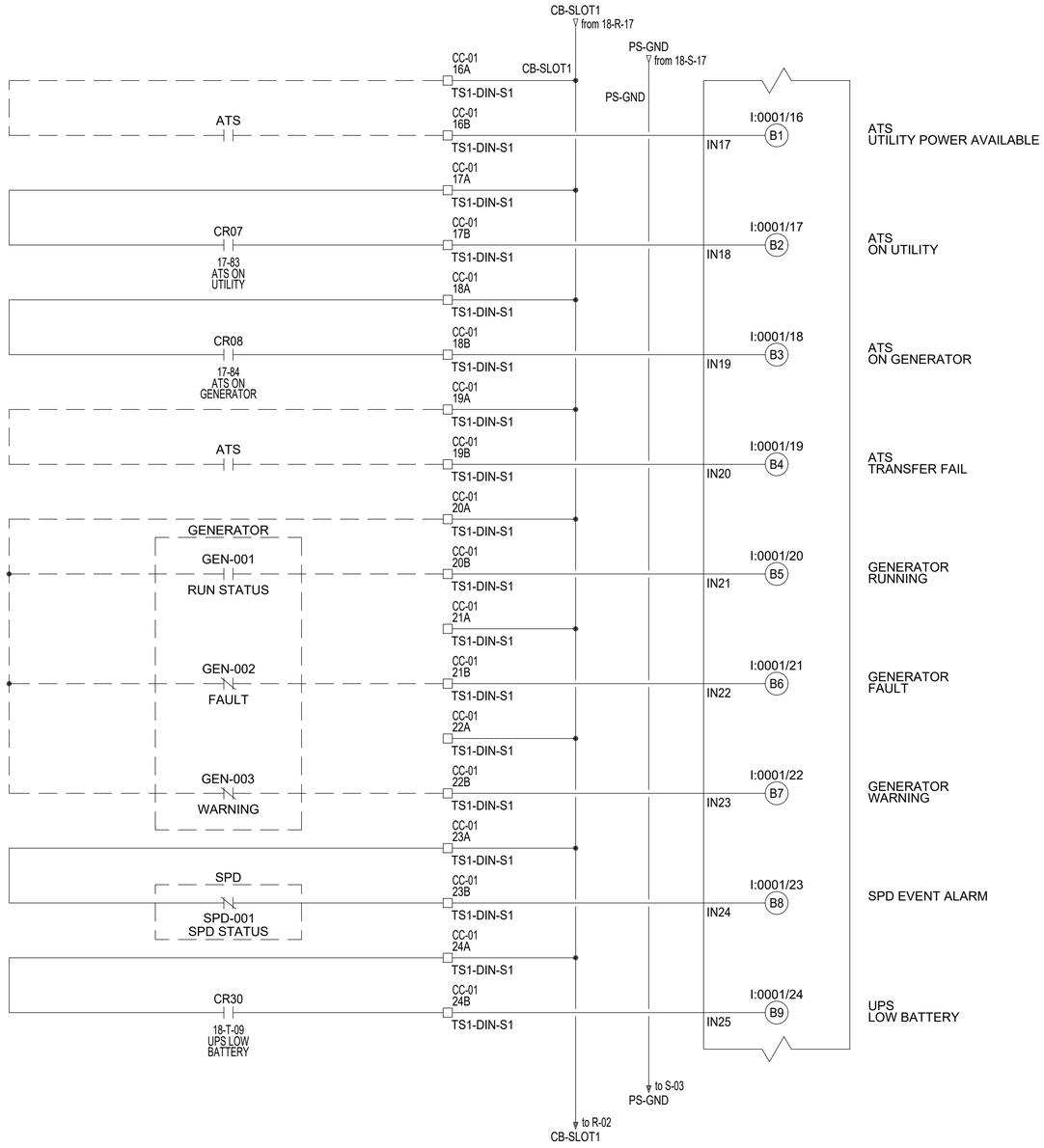
DATE: 2026-06-19

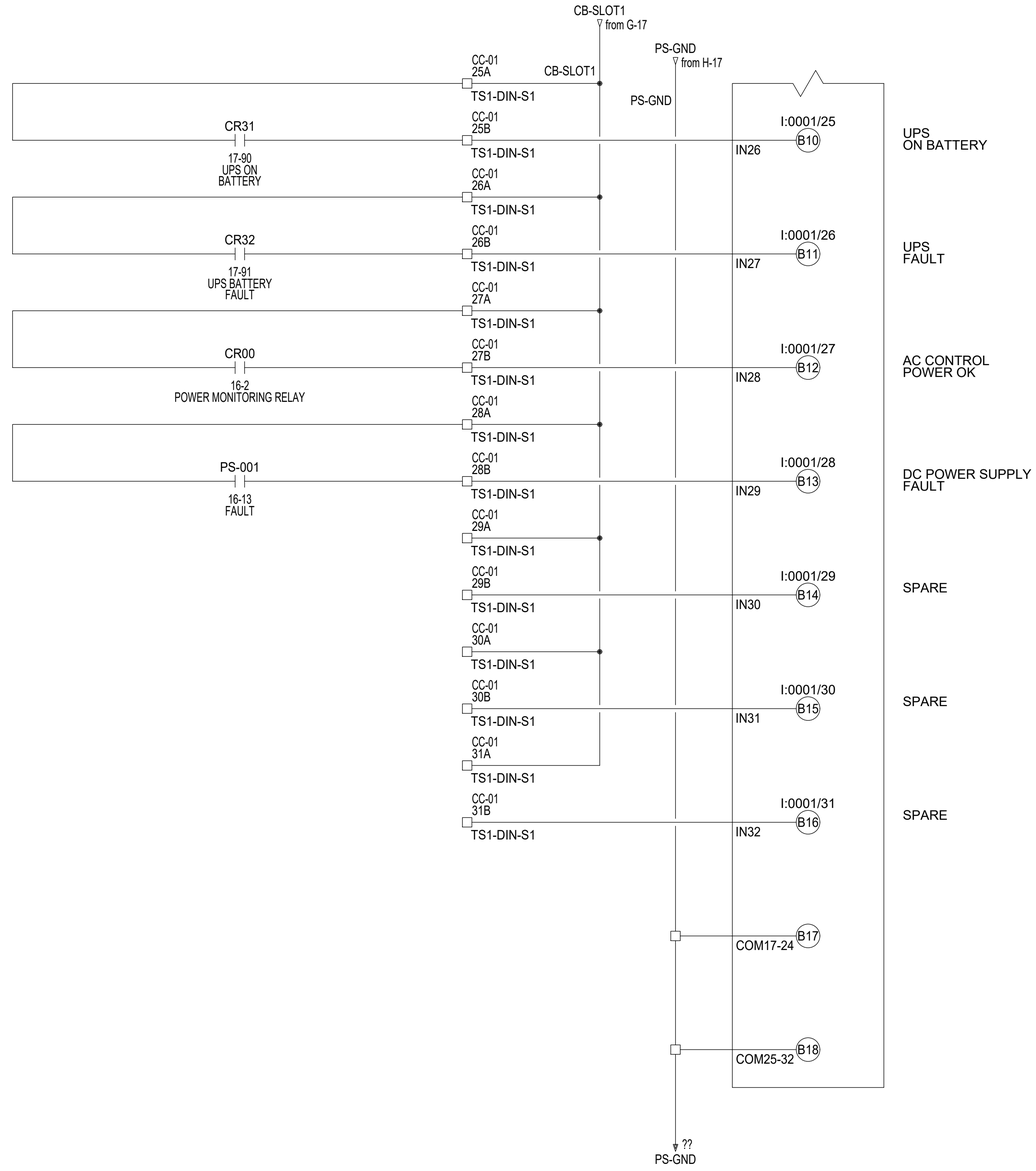
PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL
PLC WIRING (1 OF 7)
PLC I/O, RACK 0, SLOT 1

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E505	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000_WSES Delem Drive\E505-PLC I-O, RACK 0, SLOT 1- 16/06/2026 2:15 PM LOGAN MINARD





TERMINAL BLOCK LEGEND	
☐	TERMINAL BLOCK LOCATED IN CONTROL CABINET
☒	TERMINAL BLOCK LOCATED IN PUMP CABINET
☒	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL

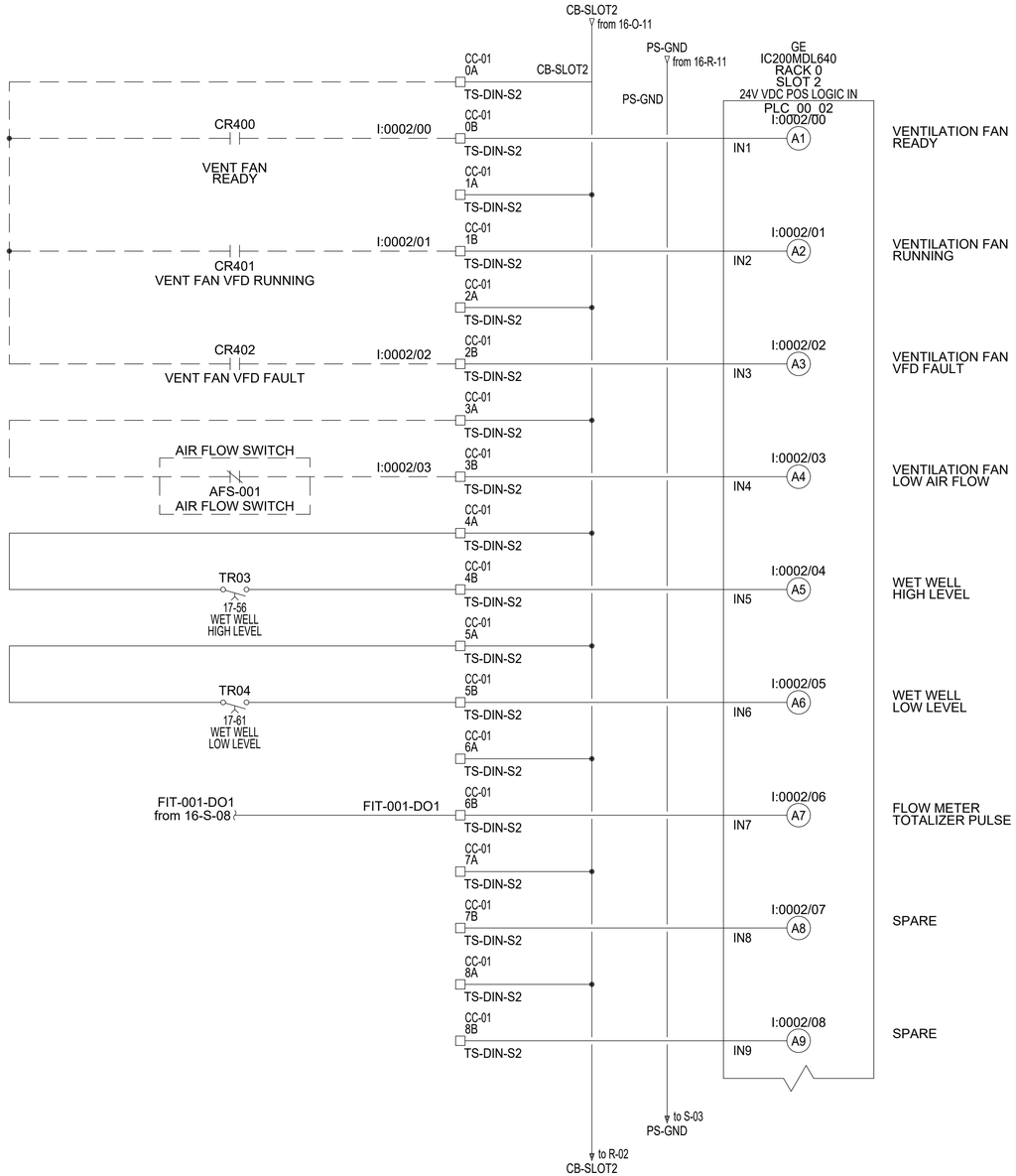
DATE: 2026-06-19

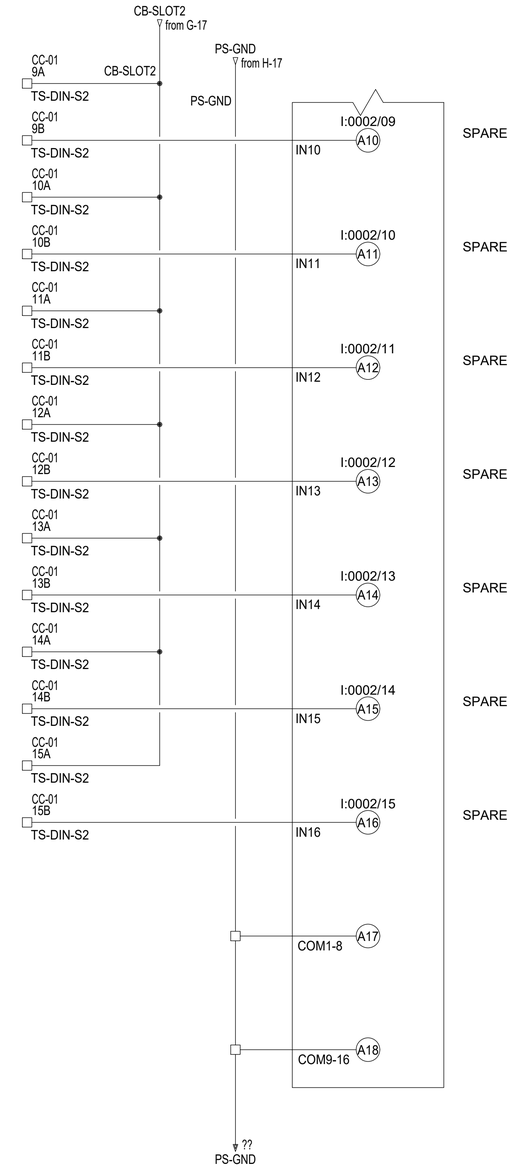
PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL
PLC WIRING (2 OF 7)
PLC I/O, RACK 0, SLOT 1

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E506	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E506-PLC I/O, RACK 0, SLOT 1- 16/06/2026 2:15 PM- LOGAN.MINARD





TERMINAL BLOCK LEGEND	
☐	TERMINAL BLOCK LOCATED IN CONTROL CABINET
☒	TERMINAL BLOCK LOCATED IN PUMP CABINET
▨	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, M. J. SCOTTEN, 54822, ENGINEER

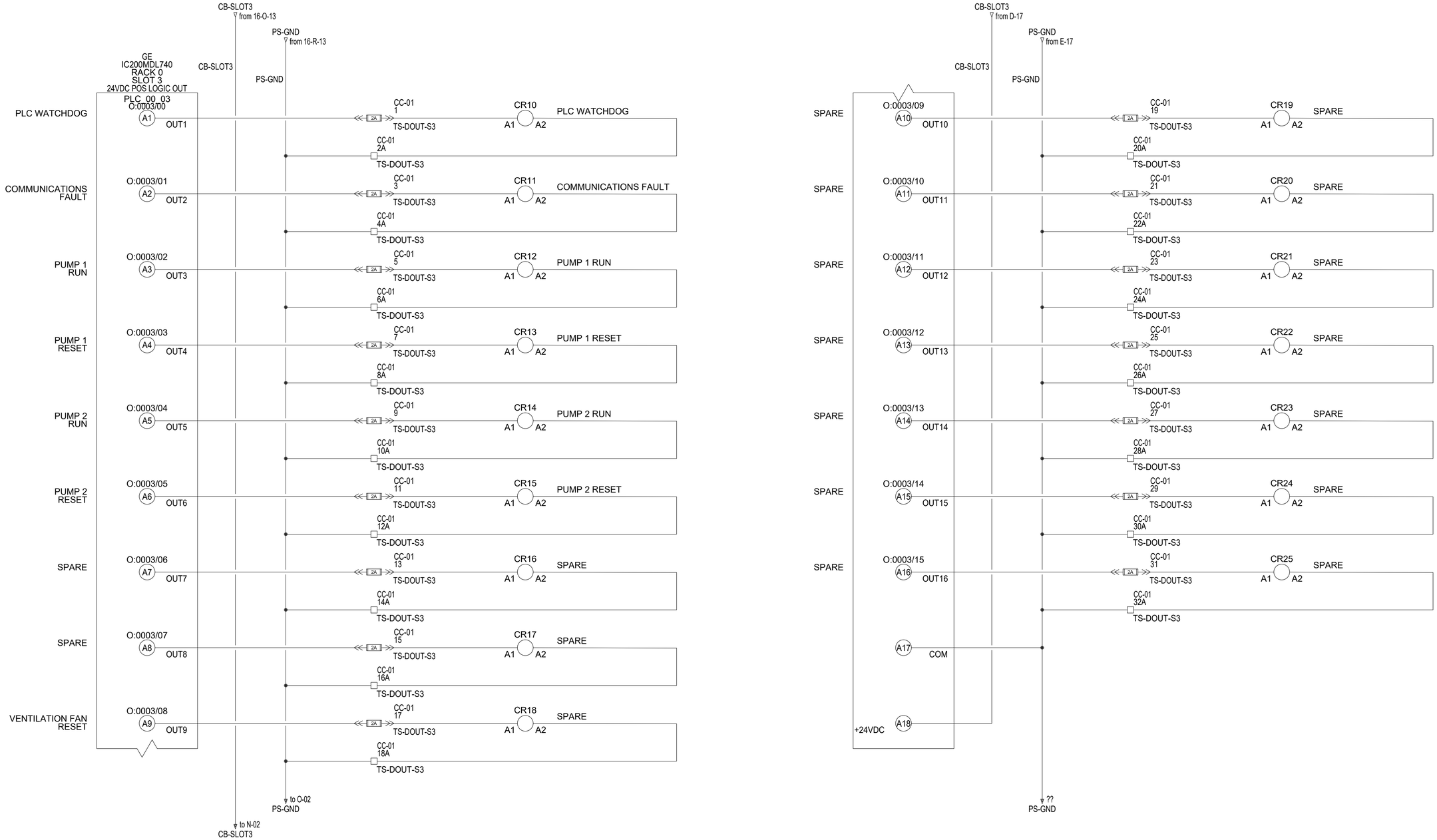
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL
PLC WIRING (3 OF 7)
PLC I/O, RACK 0, SLOT 2

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E509	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000_WSES Delem Drive\E607 PLC I-O, RACK 0, SLOT 2 - 16/06/2026 2:15 PM LOGAN MINARD



TERMINAL BLOCK LEGEND	
☐	TERMINAL BLOCK LOCATED IN CONTROL CABINET
☒	TERMINAL BLOCK LOCATED IN PUMP CABINET
▨	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: 1000208

PROFESSIONAL SEAL

PROFESSIONAL ENGINEER — M.J. MCCRIE — 54822 — BRITISH COLUMBIA — ENGINEER

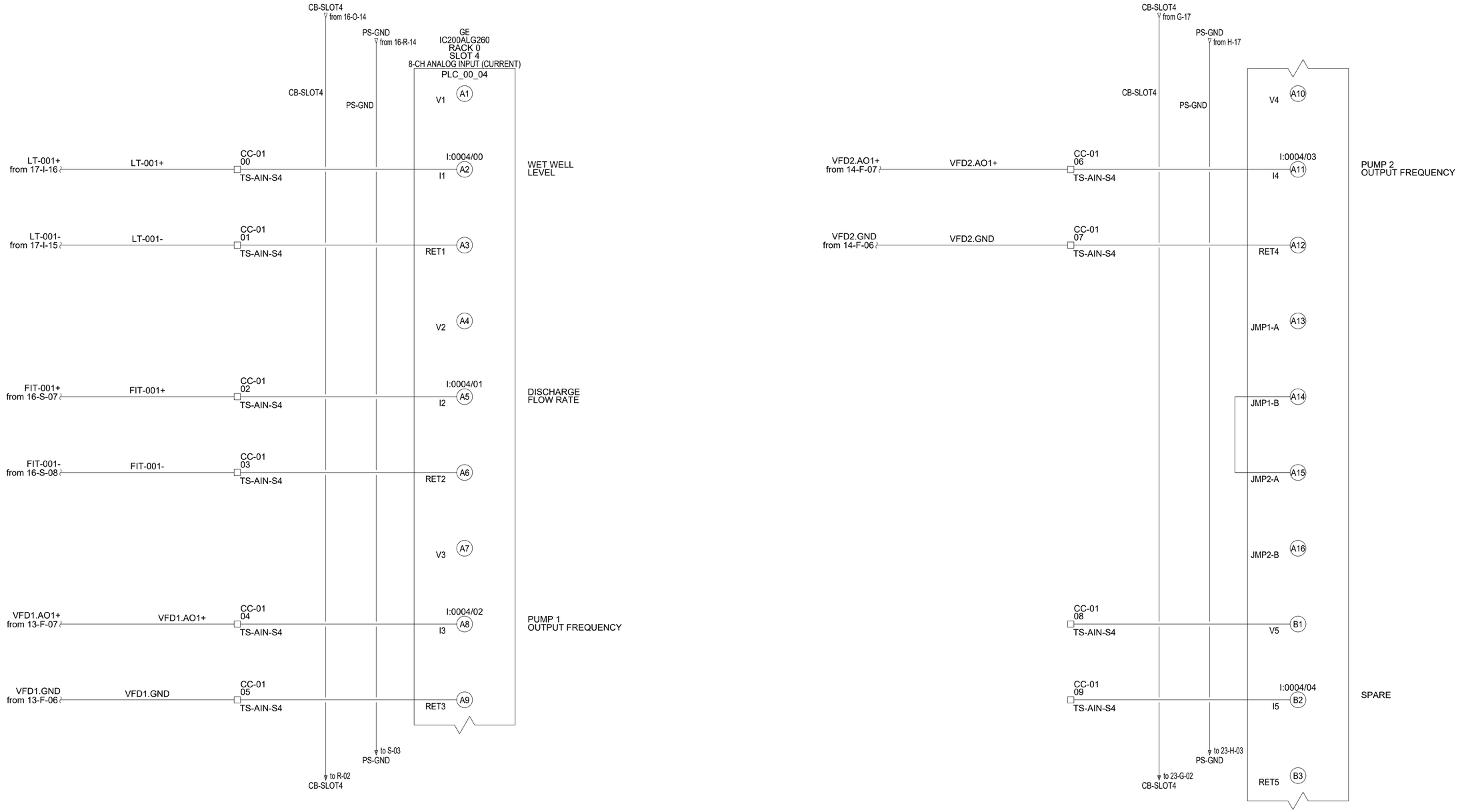
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL
PLC WIRING (4 OF 7)
PLC I/O, RACK 0, SLOT 3

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E511	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000_WSES Delem Drive\E508-PLC I-O, RACK 0, SLOT 3, 16/06/2026 2:15 PM, LOGAN.MINARD



TERMINAL BLOCK LEGEND	
☐	TERMINAL BLOCK LOCATED IN CONTROL CABINET
☒	TERMINAL BLOCK LOCATED IN PUMP CABINET
⊘	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

**ISSUED FOR NRFP
NOT FOR CONSTRUCTION**

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER, M. J. SCOPICK, 54822, PROVINCE OF BRITISH COLUMBIA

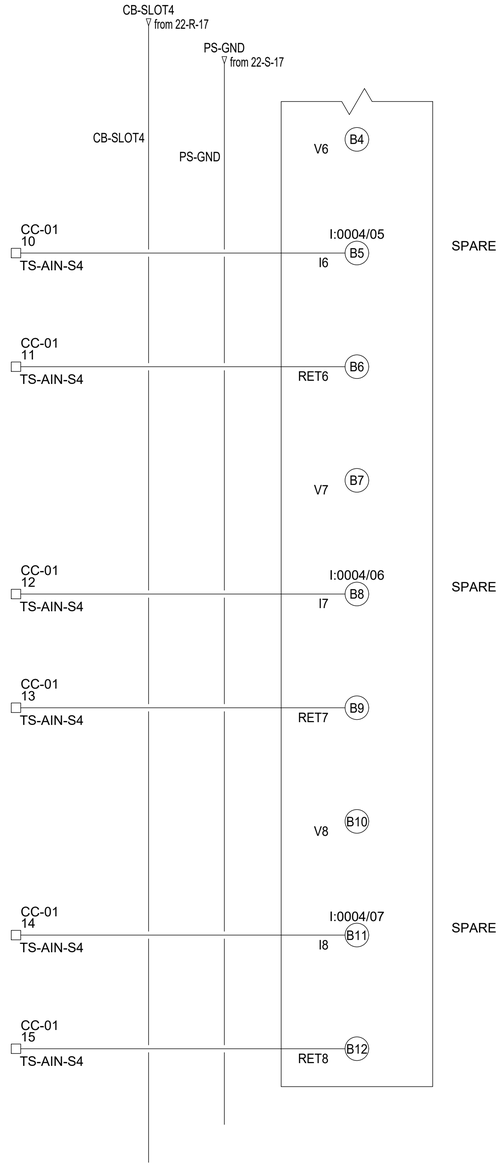
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL
PLC WIRING (5 OF 7)
PLC I/O, RACK 0, SLOT 4

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E513	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E500-PLC I-O, RACK 0, SLOT 4, 16/06/2026 2:15 PM, LOGAN MINARD



TERMINAL BLOCK LEGEND	
☐	TERMINAL BLOCK LOCATED IN CONTROL CABINET
☒	TERMINAL BLOCK LOCATED IN PUMP CABINET
⧄	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: 1000208

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, M. J. SCOPICK, 54822

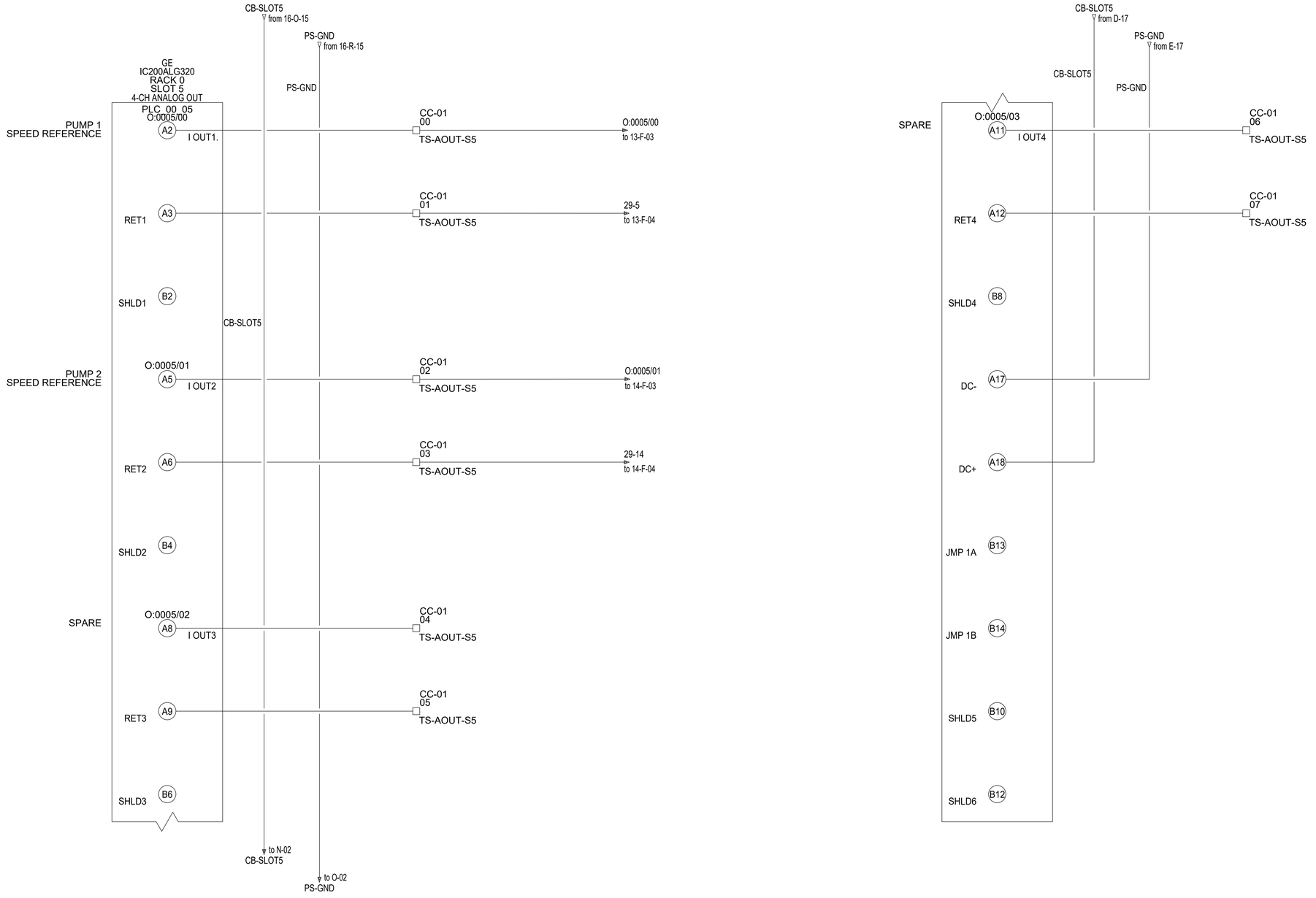
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL
PLC WIRING (6 OF 7)
PLC I/O, RACK 0, SLOT 4

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E515	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E515-PLC I-O, RACK 0, SLOT 4, 16/06/2026 2:15 PM, LOGAN MINARD



TERMINAL BLOCK LEGEND	
☐	TERMINAL BLOCK LOCATED IN CONTROL CABINET
☒	TERMINAL BLOCK LOCATED IN PUMP CABINET
⧄	TERMINAL BLOCK LOCATED IN KIOSK VENTILATED COMPARTMENT

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL

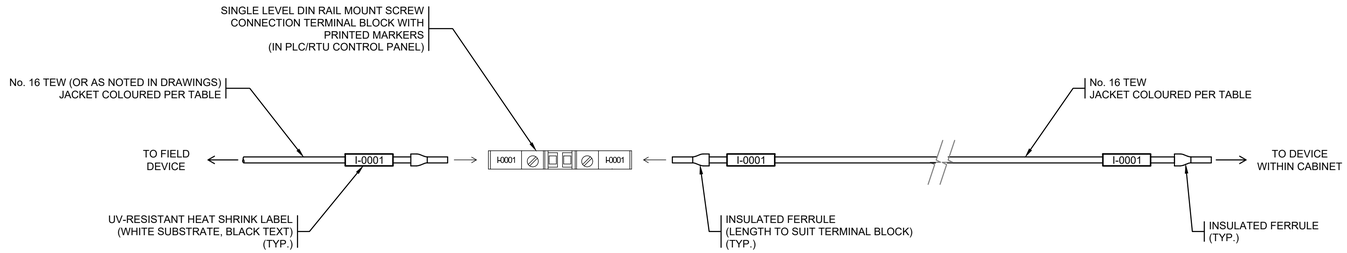
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: ELECTRICAL
PLC WIRING (7 OF 7)
PLC I/O, RACK 0, SLOT 5

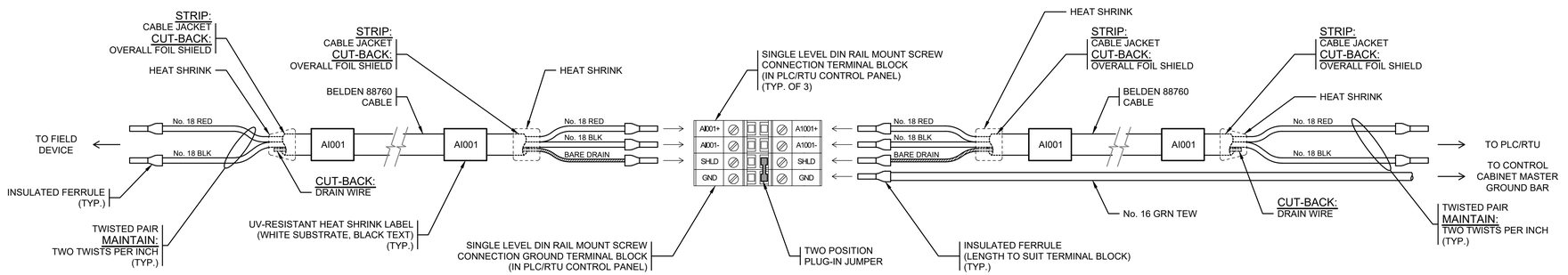
SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E516	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000 - WSES Delem Drive\E511-PLC-I_O_RACK-0_SLOT-5_16/06/2026 2:15 PM_LOGAN.MINARD

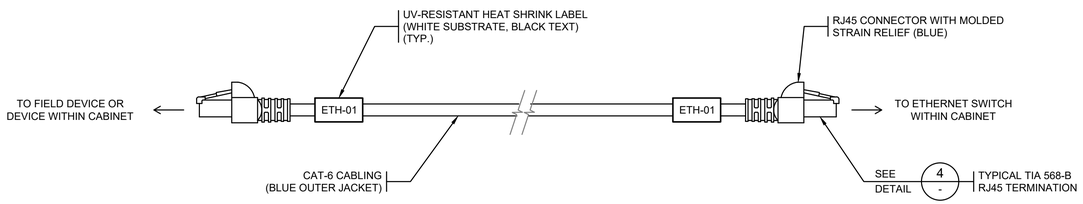


DETAIL 1 - N.T.S. TYPICAL DISCRETE CONTROL FIELD WIRING TERMINATION METHOD

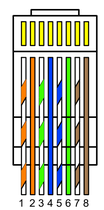
INSTRUMENTATION FIELD WIRING COLOUR CODE	
FUNCTION	COLOUR
AC HOT	BLACK
AC NEUTRAL	WHITE
DC POSITIVE	BLUE
DC NEGATIVE	GREY
GENERATOR START	YELLOW
GROUND	GREEN



DETAIL 2 - N.T.S. TYPICAL ANALOG CONTROL FIELD WIRING TERMINATION METHOD

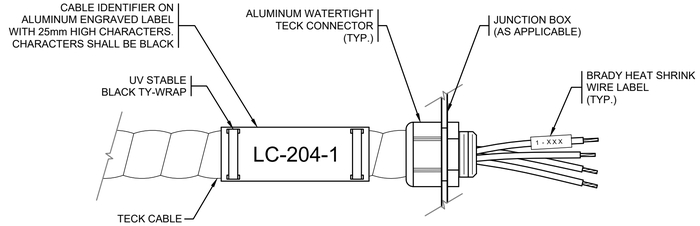


DETAIL 3 - N.T.S. TYPICAL ETHERNET CABLING TERMINATION METHOD



PIN	COLOUR
1	WHT/ORG
2	ORG
3	WHT/GRN
4	BLU
5	WHT/BLU
6	GRN
7	WHT/BRN
8	BRN

DETAIL 4 - N.T.S. TYPICAL TIA 568-B RJ45 TERMINATION (CLIP FACING AWAY)



DETAIL 5 - N.T.S. TECK CABLE TERMINATION

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL

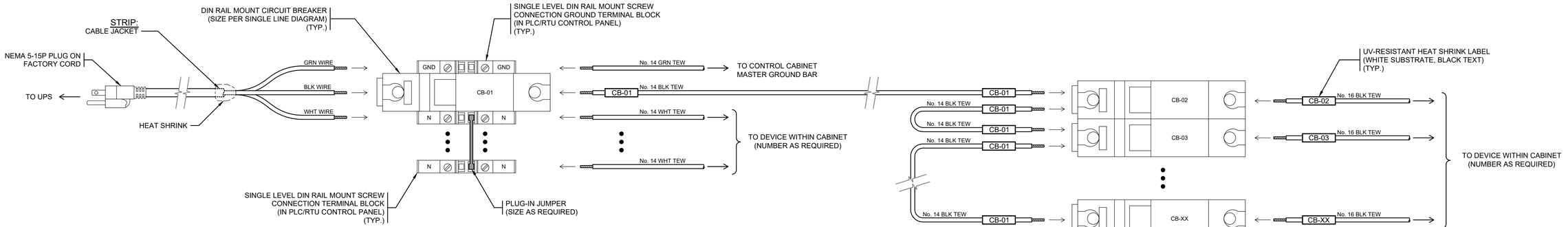
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

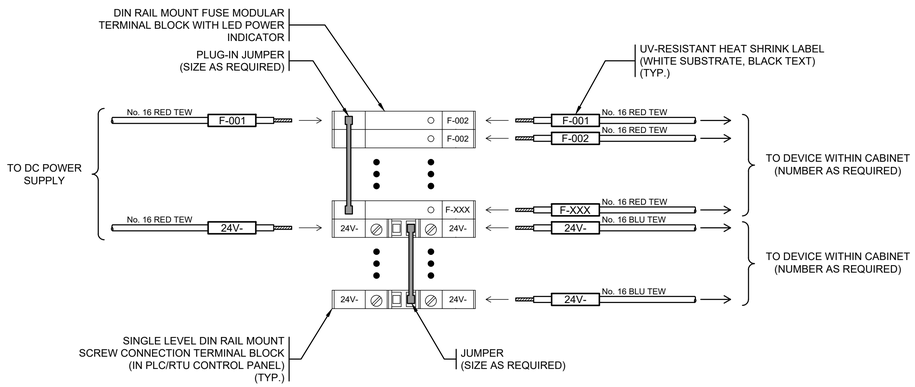
TITLE: TYPICAL PLC/RTU CABINET WIRING TERMINATIONS (1 OF 2)

SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E600	-

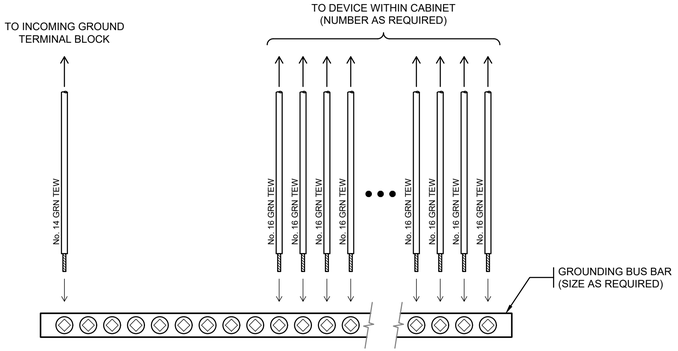
P:\241000_WSES_Delem Drive Pump Station\Drawings\ACAD\241000_WSES Delem Drive\E600-TYPICAL PLC & RTU WIRING TERMINATION, 19/06/2026 2:15 PM, LOGAN.MINARD



DETAIL 1 - TYPICAL 120V AC DISTRIBUTION WIRING TERMINATION METHOD
N.T.S.



DETAIL 2 - TYPICAL DC DISTRIBUTION WIRING TERMINATION METHOD
N.T.S.



DETAIL 3 - TYPICAL MASTER GROUND BUS TERMINATION METHOD
N.T.S.

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR NRFP NOT FOR CONSTRUCTION

Rev.	DATE	ISSUE / REVISION DESCRIPTION	DESN	QC	QA
-	2026-06-19	ISSUED FOR NEGOTIATED REQUESTS FOR PROPOSAL	JB	CL	MS

CLIENT: West Shore Environmental Services

PROJECT: DELEM DRIVE SANITARY PUMP STATION

EGBC PERMIT #: **1000208**

PROFESSIONAL SEAL: PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — M. J. SCOPPEE — 54822 — ENGINEER

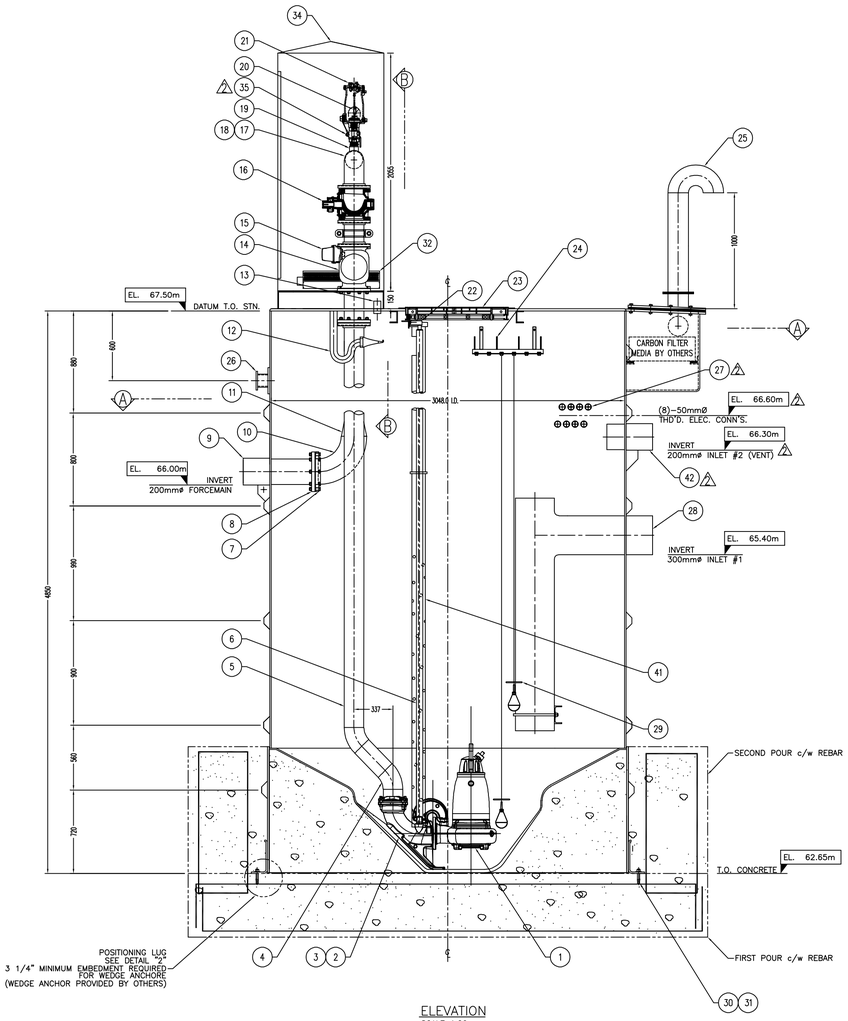
DATE: 2026-06-19

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

TITLE: TYPICAL PLC/RTU CABINET WIRING TERMINATIONS (2 OF 2)

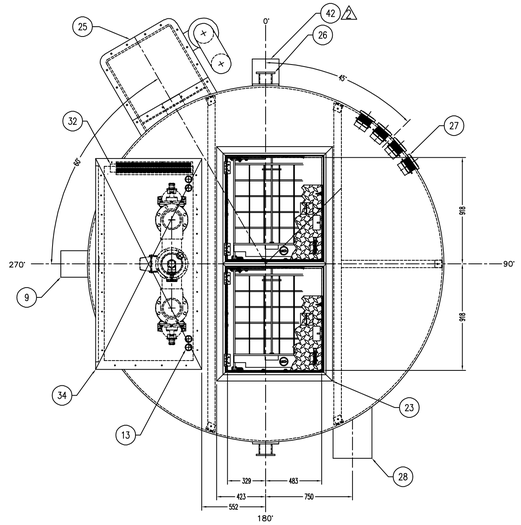
SCALE	PROJECT NUMBER	DRAWING NUMBER	REV.
AS SHOWN	241000	E601	-

P:\241000_WSES Delem Drive Pump Station\Drawings\ACAD\241000_WSES Delem Drive\E601 TYPICAL PLC & RTU WIRING TERMINATION_16/06/2026 2:15 PM LOGAN MINARD

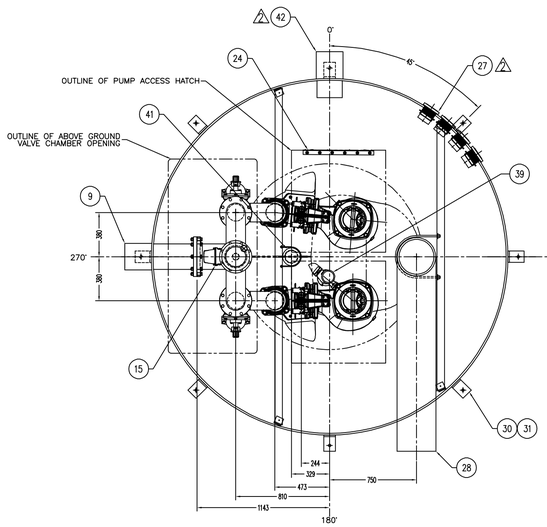


ELEVATION
SCALE 1:20

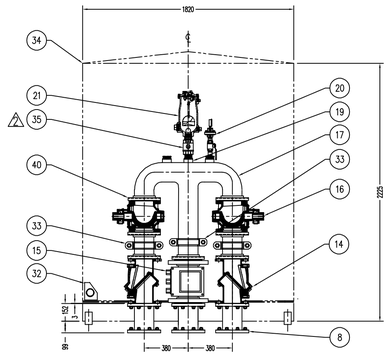
NOTES:
SEE PLAN VIEW FOR TRUE ORIENTATION.
CONCRETE SHOWN FOR ILLUSTRATIVE PURPOSE ONLY.
FOUNDATION TO BE DESIGNED & SUPPLIED BY OTHERS.



PLAN
SCALE 1:20



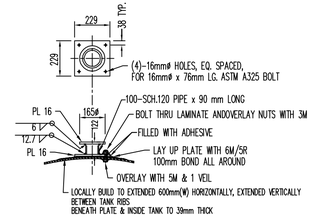
SECTION "A–A"
SCALE 1:20 – PUMP LAYOUT



SECTION "B–B"
SCALE 1:20 – VALVE VAULT PIPING

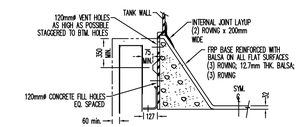
PROPOSED OPERATING LEVELS

HHLA	65.150m
HLA	64.900m
LAG PUMP START	64.650m
LEAD PUMP START	64.150m
PUMP STOP	63.150m
LLA	63.000m

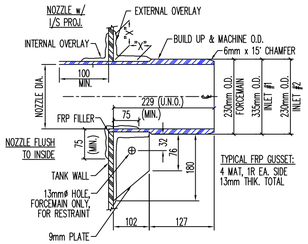


TRUNNION NOTES:
122mm TOTAL LENGTH
MATERIAL: PIPE–ASTM A106 Gr B/1–18 SCH.120
MATERIAL:PLATE–A572 Gr 50 , 16mm THK
COATING: COAL TAR EPOXY
LOAD RATING: 25,000 LB TANK WITH 2 TRUNNIONS.
12,500 LB PER TRUNNION.

DETAIL "1" – 100mmø LIFTING TRUNNION
N.T.S.



DETAIL "2" – BOTTOM BASE T.O.P.
N.T.S.



TYPICAL FRP GUSSET:
4 MAT, 1R EA. SIDE
13mm THK. TOTAL

NOZZLE NOTES:
A MINIMUM OF 2 LAYERS OF WOVEN ROVING IS REQUIRED FOR NOZZLE PORTION OF OVERLAY. TANK PORTION OF OVERLAY SHALL BE SAME THICKNESS AS TANK WALL. DIMENSION "X" SHALL BE GREATER THAN ONE HALF THE NOZZLE DIAMETER. INTERNAL OVERLAY TO HAVE A MINIMUM OF 2 LAYERS MATT. FRP REINFORCING MATERIAL TO BE CUT TO A SHAPE TO ENSURE A SMOOTH LAMINATE.

O.D.'s REPRESENT THICKNESSES REQUIRED FOR ADEQUATE NOZZLE STRENGTH.
TO BE CONNECTED TO EXTERIOR PIPING WITH A FLEXIBLE COUPLER.

DETAIL "3" – TYPICAL NOZZLE, MACHINED
N.T.S.

FABRICATION DESIGN STANDARDS

1. XYLEM SPECIFICATION GE–1008–04, REVISION MAY 2002
2. AMEC 4S–10.01 MANUFACTURE AND INSTALLATION FOR FRP STRUCTURES
3. AMEC 4S–10.02 FRP PRESSURE PIPE, FITTINGS AND FLANGES

GENERAL NOTES

1. WINDING ANGLE – 75°
2. TANK WALL – VARIES WITH ELEVATION
3. LINER – C–GLASS VEIL AND (2)–1 1/2 oz. MATT
4. RESIN – ISOPHTHALIC
5. INTERIOR FINISH – WHITE ISOPHTHALIC NPG GELCOAT
6. EXTERIOR (ABOVE GRADE) TO HAVE DARK GREEN URETHANE PAINTED FINISH
7. DIMENSIONS ARE IN MILLIMETERS U.N.O.
8. APPROX. SHIPPING WEIGHT: 5443 kg (12,000 LBS.)

INSTALLATION RECOMMENDATIONS

THE FOLLOWING RECOMMENDATIONS ARE BASED ON FLYGT EXPERIENCE AND ARE IN NO WAY MEANT TO REPLACE THE ENGINEERS INSTRUCTIONS OR SPECIFICATIONS AND MUST BE USED IN CONJUNCTION WITH THE EXISTING AND ANTICIPATED CONDITIONS AT THE JOBSITE.

1. USE THE LIFTING LUGS PROVIDED FOR VERTICAL HANDLING.
2. USE SLINGS AROUND THE MAIN TANK FOR HORIZONTAL HANDLING.
3. ENSURE UNIT IS STANDING VERTICAL ON CONCRETE PAD.
4. BOLT UNIT FIRMLY AND SQUARELY IN PLACE, SHIM WHERE NECESSARY.
5. FILL ANNULUS BETWEEN THE TANK SHELL AND OUTSIDE OF THE "T.O.P." SUMP WITH CONCRETE. REBAR TO CONNECT SECOND POUR TO CONCRETE BASE PAD.
6. MAINTAIN A DRY SITE UNTIL BACKFILLING OPERATIONS COMMENCE.
7. PLEASE REFER TO BARSKI BACKFILL PROCEDURE FOR FRP VERTICAL TANKS DOCUMENT
8. PLACE THE BACKFILL IN EQUAL INCREMENTS NOT EXCEEDING 300mm THICK AROUND THE STATION TO PREVENT UNBALANCED LOADS BEING IMPOSED DURING BACKFILLING OPERATIONS. PROGRESSIVELY TAMP BACKFILL AROUND STATION TO FULL HEIGHT TO REDUCE SETTLEMENT TO AN ABSOLUTE MINIMUM.

BILL OF MATERIALS

ITEM	DESCRIPTION	QTY.
1	FLYGT PUMPS, NP–3153 MT, DN150, 217mm IMPELLOR (BY XYLEM)	2
2	TOP DN150 DISCHARGE ELBOW, P/N 620 03 10–R	1
3	TOP DN150 DISCHARGE ELBOW, P/N 620 04 10–L	1
4	150mmø 45° ELBOW, 316 SS	4
5	150mmø RISER PIPE, 316 SS	2
6	50mmø GUIDE BAR, SCH.40, 316 SS	4
7	200mm–150ø FLANGE, 316 SS	1
8	200mm–150ø FLANGE, FRP	2
9	200mmø FORCEMAIN, MACHINED, FRP (SEE DETAIL "3")	1
10	200mmø 90° LR ELBOW, 316 SS	1
11	200x150mmø CONCENTRIC REDUCER, 316 SS	1
12	50mmø DRAIN & TIDEFLEX VALVE (FROM VALVE CHAMBER)	1
13	50mmø THREADED ELECTRICAL CONNECTION (VALVE CHAMBER), PVC	4
14	150mmø SWING CHECK VALVE, GA INDUSTRIES, MODEL 200–D	2
15	150mm FLOW METER, PROMAG W400	1
16	150mmø PLUG VALVE, GA INDUSTRIES, MODEL A517	2
17	150mmø 90° SR ELBOW, 316 SS	2
18	150mmø STRAIGHT TEE, 316 SS	1
19	50mmø NPT COUPLER, 316 SS c/w 1 PLUG	3
20	PRESSURE GA./DIAPHRAGM SEAL ASSY.; 50mmø/6mmø ISOLATION VALVE; 50mmø NPT TEE; REDUCER BUSHING	1
21	50mmø NPT AIR RELEASE VALVE, VALMATIC 48A	1
22	50mmø UPPER GUIDE BAR BRACKET, STAINLESS STEEL	2
23	XYLEM "SAFE–HATCH" ALUM./STEEL, MODEL 13–43 00 82	2
24	HORIZONTAL LEVEL REGULATOR HANGER, STAINLESS STEEL	1
25	CARBON ENCLOSURE c/w 150mmø GOOSENECK VENT, FRP	1
26	LIFTING TRUNION, 100mm–SCH.120 PIPE, M.S. EPOXY COATED	2
27	50mmø THREADED ELECTRICAL THROUGH WALL CONNECTION, FRP	8
28	300mmø INLET #1, MACHINED, FRP, WITH DROP TEE (SEE DETAIL "3")	1
29	ANTI–SWAY RING, STAINLESS STEEL	2
30	POSITIONING LUG, EPOXY COATED, M.S. (SEE DETAIL "2")	8
31	3/4"x4–3/4" WEDGE ANCHOR BOLTS, GALV. CS	8
32	OUELET 1000W EXPLOSION PROOF HEATER	1
33	150mmø VICTAULIC COUPLER 489 SS	3
34	2055x1820x914mm ABOVE GROUND VALVE CHAMBER, FRP c/w 25mm THK. INSULATION	1
35	50mmø NPT BALL VALVE	1
36	20mm PUMP BASE BOLTS, STAINLESS STEEL (NOT SHOWN)	8
37	CHAIN HOOKS (NOT SHOWN ON DRAWING)	2
38	CABLE HANGERS (NOT SHOWN ON DRAWING)	2
39	STANDARD MIX FLUSH VALVE, MODEL 4901 (BY XYLEM)	1
40	150mm–150ø FLANGE, 316 SS	10
41	100mmø PERFORATED STILLING WELL c/w REMOVABLE CAP, FRP	1
42	200mmø INLET #2, MACHINED, FRP (SEE DETAIL "3")	1

REV	DATE	DESCRIPTION	BY
2	2025/06/27	ADJUST ELECTRICAL, ADD VENT INLET & FLOAT ELEVATIONS	MW
1	2025/06/03	ADJUST INLET, ELECTRICAL, ADD STILLING WELL, HEADER ADJUSTED	MW
0	2025/05/12	ISSUED FOR APPROVAL	MW

TOLERANCES (U.N.O.)

LINEAR	ANGULAR
X ± 1.5	X.X ± 1/2°

BARSKI INDUSTRIES (1985) LTD.
2378 WESTLAKE RD.
KELOWNA, B.C.
V1Z 2V2

NOTICE: THIS DRAWING HAS NOT BEEN PUBLISHED AND IS THE SOLE PROPERTY OF BARSKI INDUSTRIES (1985) LTD. AND IS LENT TO THE BORROWER FOR HIS CONFIDENTIAL USE ONLY; AND IN CONSIDERATION OF THE LOAN OF THIS DRAWING, THE BORROWER PROMISES AND AGREES TO RETURN IT UPON REQUEST AND AGREES THAT IT SHALL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY, NOR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS FURNISHED.

CLIENT	XYLEM COQUITLAM, BC
ENGINEER	
PROJECT	DELEM TOP SEWAGE LIFT STATION
TITLE	3048.0mm I.D. DELEM LIFT STATION
ENG BY:	
DATE:	
CAD FILE:	DELEM
PROJECT:	
CAD BY:	M.WOODCOCK
DATE:	2025/05/12
SCALE:	AS SHOWN
APP BY:	
DATE:	
DRAWING NUMBER	25–101
REV	2
ISSUED BY:	
DATE:	

West Shore
Environmental Services

CITY OF LANGFORD

WEST SHORE ENVIRONMENTAL SERVICES LP

BRITISH COLUMBIA | Ministry of Transportation and Transit

CONSULTANT PROJECT NO. 2955G

HIGHWAY No. 14 (SOOKE ROAD)

SANITARY SEWER EXTENSION

PERMIT# 1003310
PROFESSIONAL ENGINEER
J. T. BRADLEY
47368
BRITISH COLUMBIA
ENGINEER
2026-10-07

ISSUED FOR TENDER

06-Oct-2026

_____ DIRECTOR, ENGINEERING DATE:_____(YYYY-MM-DD)	_____ REGIONAL DIRECTOR DATE:_____(YYYY-MM-DD)

DRAWING INDEX	
DRAWING NO.	DESCRIPTION
C000	COVER SHEET
C001	LOCATION PLAN, KEY PLAN AND LEGEND
C201	PLAN/PROFILE STA. 0+00 TO 1+95
C202	PLAN/PROFILE STA. 0+00 TO 0+90
C203	PLAN/PROFILE STA. 0+90 TO 2+20
C204	PLAN/PROFILE STA. 2+20 TO 4+15
C205	PLAN/PROFILE STA. 4+15 TO 6+00
C206	PLAN/PROFILE STA. 6+00 TO 7+30
C501	DETAILS

West Shore
Environmental Services

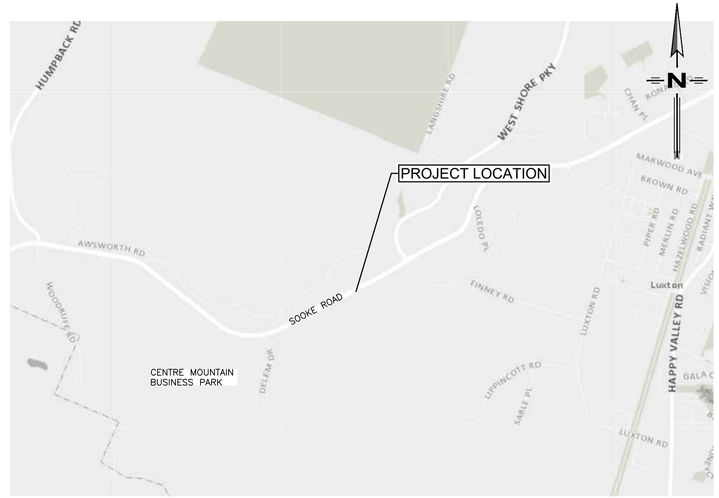
CITY OF LANGFORD

WEST SHORE ENVIRONMENTAL SERVICES LP

BRITISH COLUMBIA | Ministry of Transportation and Transit

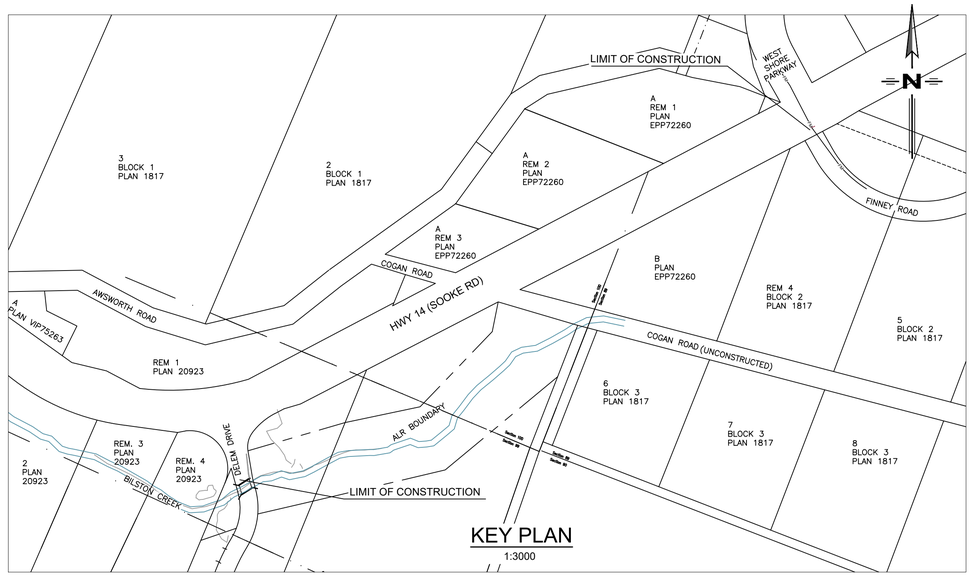
PROJECT NO. 2655G

HIGHWAY No. 14 (SOOKE ROAD)
SANITARY SEWER EXTENSION



LOCATION PLAN
N.T.S

PROJECT SURVEY CONTROL			
POINT NAME	NORTHING	EASTING	ELEVATION
94H1511	365953.700	458178.499	89.843



KEY PLAN
1:3000

LEGEND - PROPOSED

LINETYPES

- 10+00 — CENTERLINE
- SAN — SANITARY - GRAVITY MAIN
- FM — SANITARY - FORCE MAIN

LEGEND - EXISTING

LINETYPES

- PROPERTY LINE
- PAINT LINE - SOLID
- PAINT LINE - DASHED
- PAVEMENT EDGE
- GRAVEL SHOULDER
- CONCRETE ROADSIDE BARRIER
- FENCE
- TOP OF SLOPE
- BOTTOM OF SLOPE

SYMBOLS

- SIGN
- UTILITY POLE

PERMIT# 1003310
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA
J. J. BARTLEY
47358
ENGINEER
2026-10-07

ISSUED FOR TENDER
06-Oct-2026

DIRECTOR, ENGINEERING
DATE:_____(YYYY-MM-DD)

REGIONAL DIRECTOR
DATE:_____(YYYY-MM-DD)

ISLANDER ENGINEERING LTD.

BRITISH COLUMBIA — MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE

CAD FILENAME: 2955G SOOKE RD SEWER DESIGN.dwg
DATE: 2026-04-17

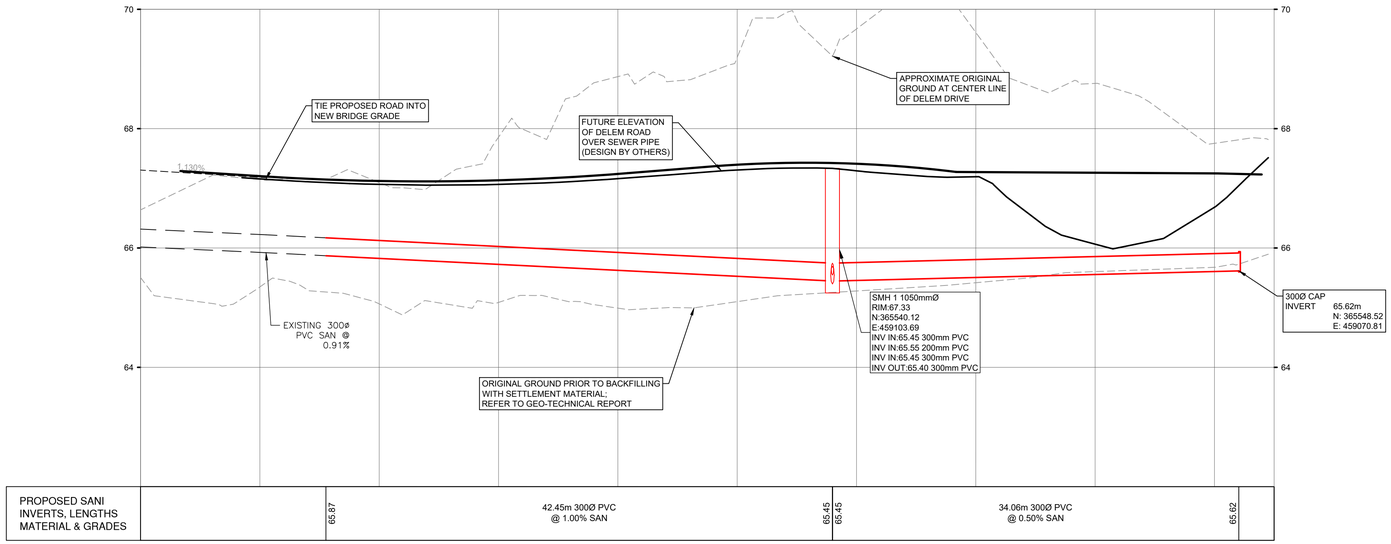
REV	DATE	REVISIONS	SIGNATURE
A	DEC/24	ISSUED FOR REVIEW	JBB
B	FEB/25	ISSUED FOR REVIEW	JBB
C	MAR/25	ISSUED FOR REVIEW	MWB
D	MAR/26	ISSUED FOR MOTT REVIEW	MWB
E	APR/17	ISSUED FOR 90% REVIEW	TM
F	OCT/06	ISSUED FOR TENDER	TM

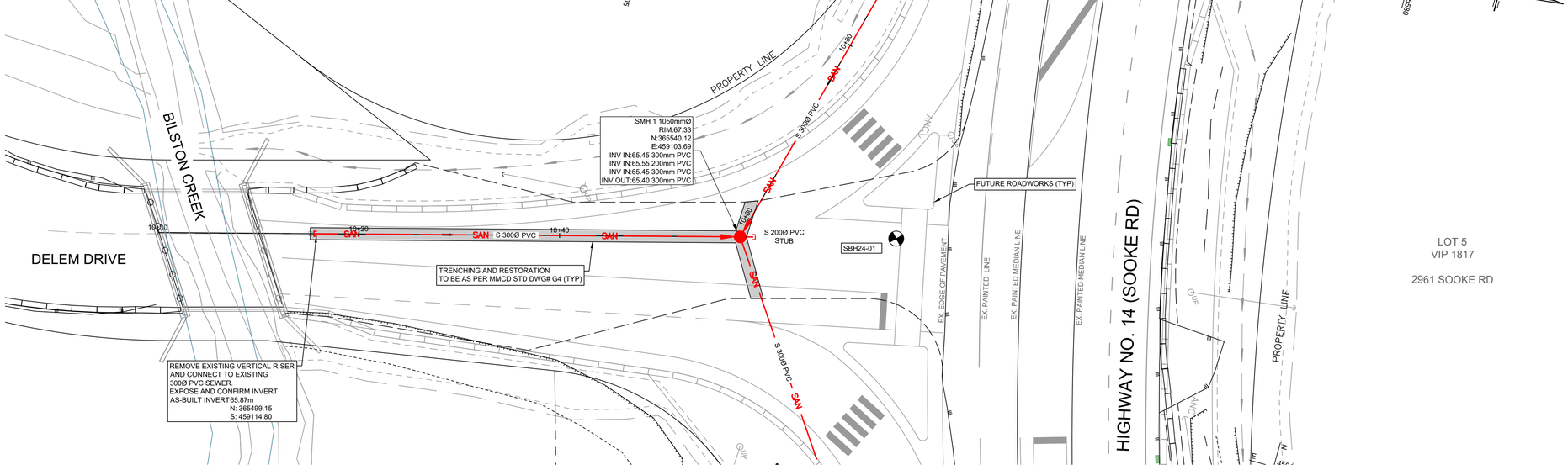
LOCATION PLAN, KEY PLAN AND LEGEND
HIGHWAY NO. 14 (SOOKE ROAD)
SANITARY SEWER EXTENSION

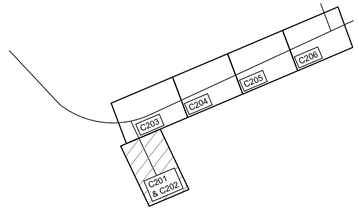
JOSH BARTLEY, P.Eng
SENIOR DESIGNER
DATE 2026-04-17

DESIGNED MWB DATE 2026-04-17
QUALITY CONTROL JBB DATE 2026-04-17
QUALITY ASSURANCE JBB DATE 2026-04-17
DRAWN MWB DATE 2026-04-17

FILE NUMBER	PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	2955G	1	C001	E







KEY PLAN
N.T.S.

PERMIT# 1003310
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
41368
ENGINEER
2026-10-07

ISSUED FOR TENDER

06-Oct-2026

ISLANDER ENGINEERING LTD.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 1:250 (0, 2.5, 5, 7.5, 10 Meters)

CAD FILENAME: 2955G_CMBP.dwg

DATE: 2026-04-17

REV	DATE	REVISIONS	SIGNATURE
A	DEC/24	ISSUED FOR REVIEW	JBB
B	FEB/25	ISSUED FOR REVIEW	JBB
C	MAR/25	ISSUED FOR REVIEW	MWB
D	MAR/26	ISSUED FOR MOTT REVIEW	MWB
E	APR/17	ISSUED FOR 90% REVIEW	TM
F	OCT/06	ISSUED FOR TENDER	TM

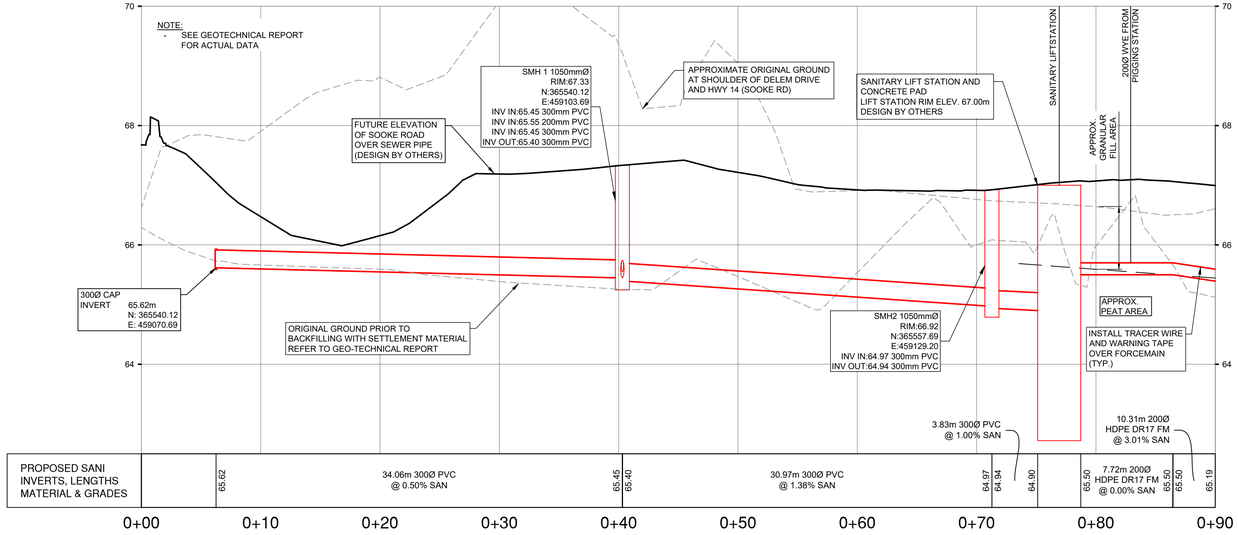
PLAN/PROFILE

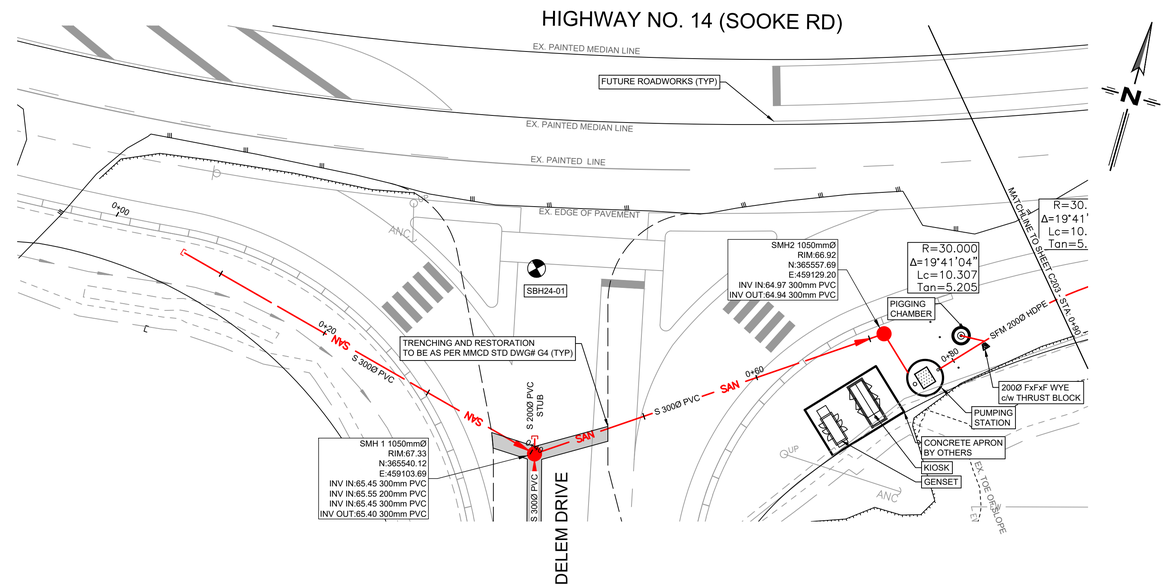
HIGHWAY NO. 14 (SOOKE ROAD)
SANITARY GRAVITY SEWER EXTENSION
STA. 10+00 TO STA. 10+95

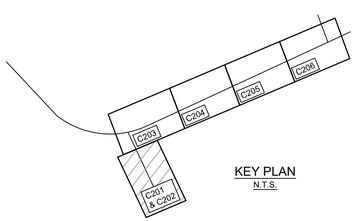
JOSH BARTLEY, P.Eng
SENIOR DESIGNER
DATE 2026-04-17

DESIGNED MWB DATE 2026-04-17
QUALITY CONTROL JB DATE 2026-04-17
QUALITY ASSURANCE JB DATE 2026-04-17
DRAWN MWB DATE 2026-04-17

FILE NUMBER	PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	2955G	1	C201	E







KEY PLAN
N.T.S.

PERMIT# 1003310
PROFESSIONAL ENGINEER
J. BARTLEY
47358
BRITISH COLUMBIA
ENGINEER
2026-10-07

ISSUED FOR TENDER

06-Oct-2026

ISLANDER ENGINEERING LTD.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 2.5 5 7.5 10 Meters
1:250

CAD FILENAME: 2955G_CMBP.dwg
DATE: 2026-04-17

REV	DATE	REVISIONS	SIGNATURE
A	DEC/24	ISSUED FOR REVIEW	MWB
B	FEB/25	ISSUED FOR REVIEW	MWB
C	MAR/25	ISSUED FOR REVIEW	MWB
D	MAR/26	ISSUED FOR MOTT REVIEW	MWB
E	APR/17	ISSUED FOR 90% REVIEW	TM
F	OCT/06	ISSUED FOR TENDER	TM

PLAN/PROFILE

HIGHWAY NO. 14 (SOOKE ROAD) SANITARY SEWER EXTENSION

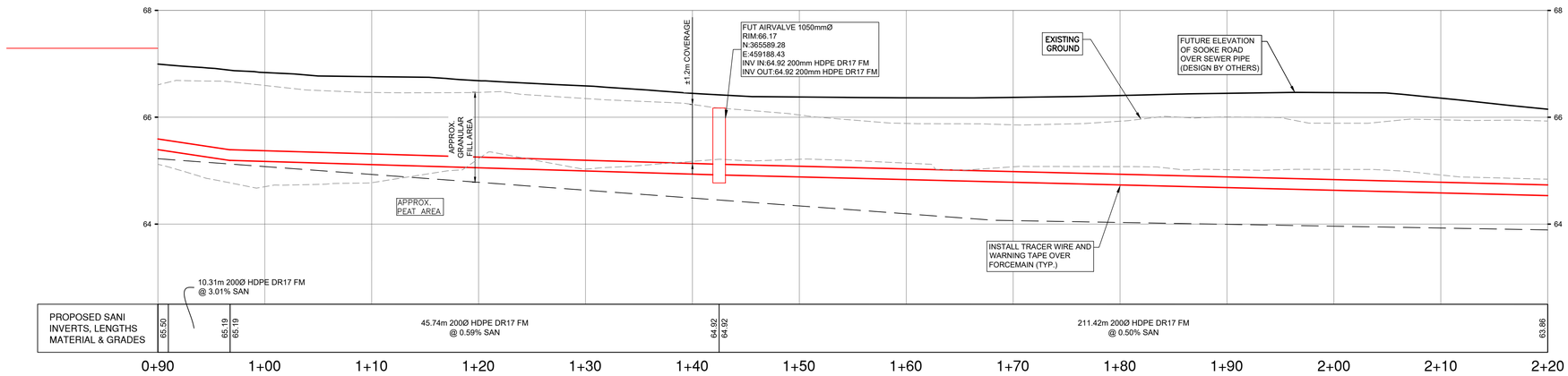
STA. 0+00 TO STA. 0+90

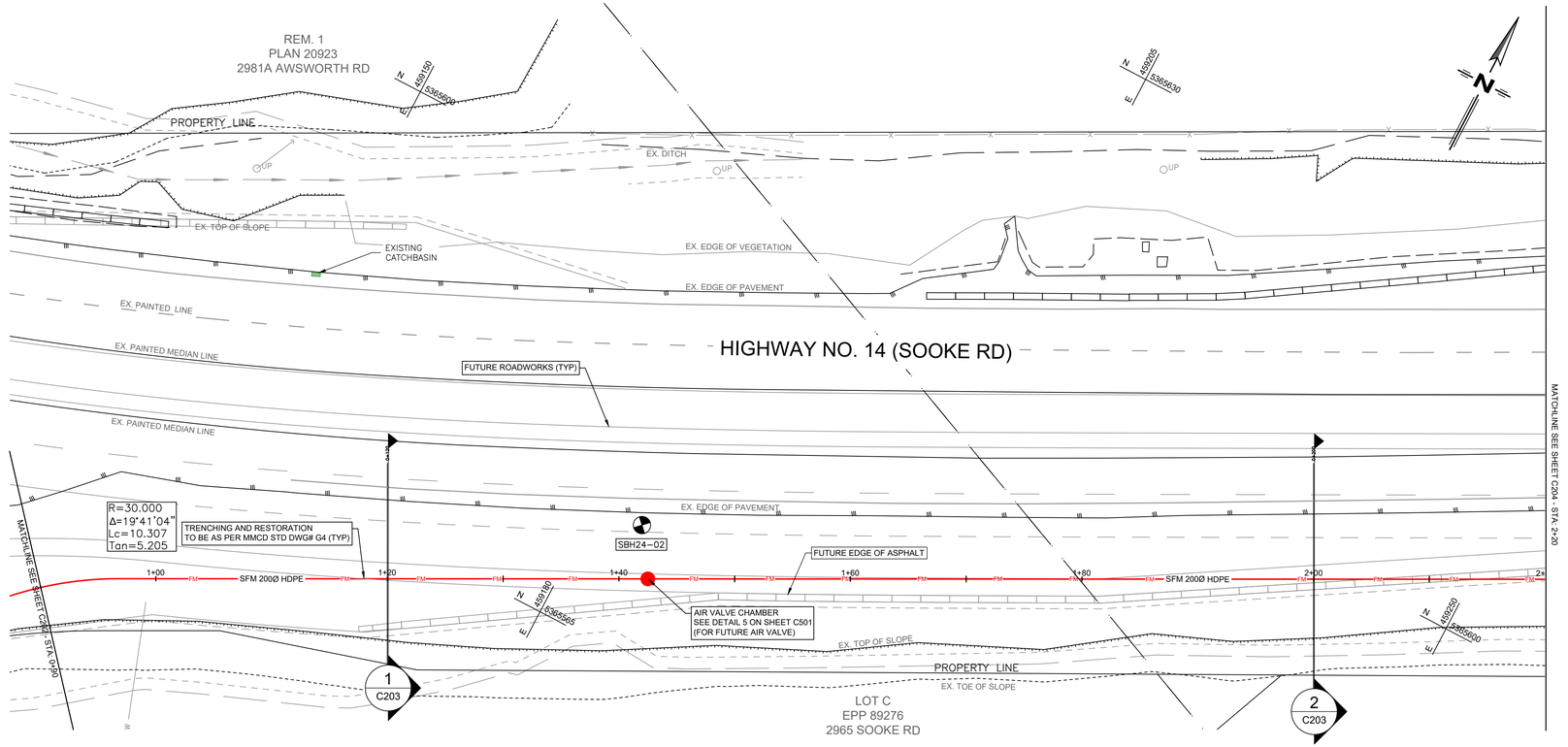
JOSH BARTLEY, P.Eng
SENIOR DESIGNER
DATE 2026-04-17

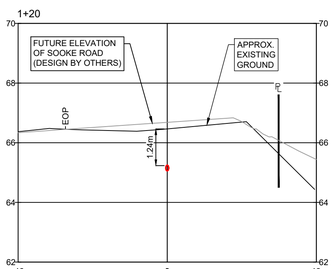
DESIGNED MWB DATE 2026-04-17
QUALITY CONTROL JB DATE 2026-04-17
QUALITY ASSURANCE JB DATE 2026-04-17
DRAWN MWB DATE 2026-04-17

FILE NUMBER	PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	2955G	1	C202	E

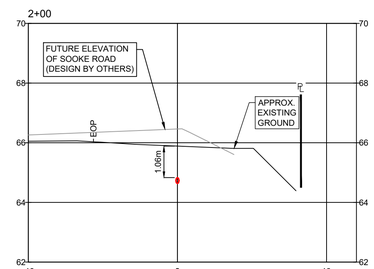
NOTE:
- SEE GEOTECHNICAL REPORT FOR ACTUAL DATA



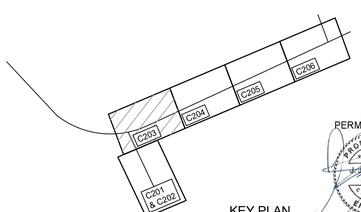




1 C203 TYPICAL SECTION (1+20)
SCALE: H: 1:200 V: 1:100



2 C203 TYPICAL SECTION (2+00)
SCALE: H: 1:200 V: 1:100



KEY PLAN
N.T.S.

PERMIT# 1003310
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA
JOSH BARTLEY
41368
2026-10-07

ISSUED FOR TENDER

06-Oct-2026

ISLANDER ENGINEERING LTD.

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 1:250 (0, 2.5, 5, 7.5, 10 Meters)
CAD FILENAME: 2295G_CMBP.dwg
DATE: 2026-04-17

REV	DATE	REVISIONS	SIGNATURE
A	DEC/24	ISSUED FOR REVIEW	MWB
B	FEB/25	ISSUED FOR REVIEW	MWB
C	MAR/25	ISSUED FOR REVIEW	MWB
D	MAR/26	ISSUED FOR MOTT REVIEW	MWB
E	APR/17	ISSUED FOR 90% REVIEW	TM
F	OCT/06	ISSUED FOR TENDER	TM

PLAN/PROFILE

HIGHWAY NO. 14 (SOOKE ROAD)
SANITARY SEWER EXTENSION
STA. 0+90 TO STA. 2+20

JOSH BARTLEY, P.Eng
SENIOR DESIGNER
DATE 2026-04-17

DESIGNED MWB DATE 2026-04-17
QUALITY CONTROL JB DATE 2026-04-17
QUALITY ASSURANCE JB DATE 2026-04-17
DRAWN MWB DATE 2026-04-17

FILE NUMBER	PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	2955G	1	C203	E

NOTE:
- SEE GEOTECHNICAL REPORT FOR ACTUAL DATA

±1.2m COVERAGE

APPROX. GRANULAR FILL AREA

APPROX. PEAT AREA

EXISTING GROUND

FUTURE ELEVATION OF SOOKE ROAD OVER SEWER PIPE (DESIGN BY OTHERS)

INSTALL TRACER WIRE AND WARNING TAPE OVER FORCEMAIN (TYP.)

SEWER FORCEMAIN FLUSHOUT
RIM:65.49
N:5365669.15
E:459374.63
INV 63.863
(SEE DETAIL 1 ON SHEET C501)

EXPANSION CHAMBER 1200mmØ
RIM:65.65
N:365705.75
E:459411.02
INV IN:64.11 200mm HDPE DR17 FM
INV OUT:64.11 200mm HDPE DR17 FM
(SEE DETAIL 3 ON SHEET C501)

64.92 — 211.42m 200Ø HDPE DR17 FM @ 0.50% SAN — 63.86 / 63.86 — 39.79m 200Ø HDPE DR17 FM @ 0.61% SAN — 64.11 / 64.11 — 35.16m 200Ø HDPE DR17 FM @ 0.62% SAN — 64.32

2+20 2+30 2+40 2+50 2+60 2+70 2+80 2+90 3+00 3+10 3+20 3+30 3+40 3+50 3+60 3+70 3+80 3+90 4+00 4+10 4+15

REM. 1
PLAN 20923

2981A AWSWORTH RD

LOT 5
PL VIP 1817

2961 SOOKE RD

COGAN RD
(UNCONSTRUCTED)

A
REM. 3
PLAN EPP72260

2954 SOOKE RD

N 459759 5365850
N 459930 5365700
N 459809 5365720

EX. TOP OF SLOPE
EX. DITCH
PROPERTY LINE
EX. TOE OF SLOPE
EX. TREE/BUSH LINE
EX. EDGE OF GRAVEL
EX. EDGE OF PAVEMENT
EX. CRB
EX. PAINTED TRAFFIC LINE
EX. PAINT MEDIAN LINE
EX. PAINTED MEDIAN LINE

MATCHLINE SEE SHEET C203 - STA. 2+20

MATCHLINE SEE SHEET C205 - STA. 4+15

FUTURE ROADWORKS (TYP)

SBH24–03
SBH24–04
SBH24–05

R.003 (6P)

TRENCHING AND RESTORATION TO BE AS PER MMCD STD DWG# G4 (TYP)

EDGE OF PROPOSED ASPHALT SURFACE

2+20 2+40 2+60 2+80 SFM 200Ø HDPE 3+00 3+20 3+40 3+60 SFM 200Ø HDPE 3+80 4+00 SFM 200Ø HDPE

200Ø IN-LINE FxF GATE VALVE c/w MECHANICAL RESTRAINTS

EXPANSION CHAMBER (SEE DETAIL 3 ON SHEET C501)

11.25° BEND OR 50m RADIUS = 1.0m FROM CHAMBER c/w THRUST BLOCK AND RESTRAINTS

SEWER FORCEMAIN FLUSHOUT (SEE DETAIL 1 ON SHEET C501)

TOP OF SLOPE
EX. TOE OF SLOPE

N 459589 5365850

PROPERTY LINE

3 C204

4 C204

REM. 1
BLOCK 3
PLAN 1817

2961 SOOKE RD

COGAN RD
(UNCONSTRUCTED)

B
PLAN
EPP72260

2953
SOOKE RD

2+55

FUTURE ELEVATION OF SOOKE ROAD (DESIGN BY OTHERS)

APPROX. EXISTING GROUND

1.27m

TYPICAL SECTION (2+55)
SCALE: H: 1:200 V: 1:100

3+85

FUTURE ELEVATION OF SOOKE ROAD (DESIGN BY OTHERS)

APPROX. EXISTING GROUND

1.32m

TYPICAL SECTION (3+85)
SCALE: H: 1:200 V: 1:100

C204

C203 C204 C205 C206 C207 & C202

KEY PLAN
N.T.S.

PERMIT# 1003310
PROFESSIONAL ENGINEER
J.D. BARTLEY
41068
PROVINCE OF BRITISH COLUMBIA
ENGINEER
2026-10-07

ISSUED FOR TENDER

06-Oct-2026

ISLANDER ENGINEERING LTD.

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 2.5 5 7.5 10 Meters
1:250

CAD FILENAME: 2295G_CMBP.dwg
DATE: 2026-04-17

REV	DATE	REVISIONS	SIGNATURE
A	DEC/24	ISSUED FOR REVIEW	MWB
B	FEB/25	ISSUED FOR REVIEW	MWB
C	MAR/25	ISSUED FOR REVIEW	MWB
D	MAR/26	ISSUED FOR MOTT REVIEW	MWB
E	APR/17	ISSUED FOR 90% REVIEW	TM
F	OCT/06	ISSUED FOR TENDER	TM

PLAN/PROFILE

HIGHWAY NO. 14 (SOOKE ROAD) SANITARY SEWER EXTENSION

STA 2+20 TO STA 4+15

JOSH BARTLEY, P.Eng
SENIOR DESIGNER
DATE 2026-04-17

DESIGNED	MWB	DATE	2026-04-17
QUALITY CONTROL	JB	DATE	2026-04-17
QUALITY ASSURANCE	JB	DATE	2026-04-17
DRAWN	MWB	DATE	2026-04-17

FILE NUMBER	PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	2295G	1	C204	E

NOTE:
- SEE GEOTECHNICAL REPORT FOR ACTUAL DATA

FUTURE ELEVATION OF SOOKE ROAD OVER SEWER PIPE (DESIGN BY OTHERS)

±1.2m COVERAGE

EXISTING GROUND

AIRVALVE 1050mmØ
RIM:66.23
N:365780.46
E:459540.40
INV OUT:65.02 200mm HDPE DR17 FM
INV OUT:65.03 200mm HDPE DR17 FM

±1.2m COVERAGE

APPROX. GRANULAR FILL AREA

11.25° BEND OR 50m RADIUS c/w THRUST BLOCK AND RESTRAINTS

INSTALL TRACER WIRE AND WARNING TAPE OVER FORCEMAIN (TYP.)

APPROX. GRANULAR FILL AREA

EXISTING ARCH CULVERT.
APPROX. 1.88m W x 1.26m H.
TOP 64.74m
INV. 63.55m

APPROX. PEAT AREA

PROPOSED SANI INVERTS, LENGTHS MATERIAL & GRADES	64.11	35.16m 200Ø HDPE DR17 FM @ 0.62% SAN	64.32	64.32	114.97m 200Ø HDPE DR17 FM @ 0.61% SAN	65.03	65.02	125.41m 200Ø HDPE DR17 FM @ 0.50% SAN	64.39

68 / 66 / 64

4+15 4+20 4+30 4+40 4+50 4+60 4+70 4+80 4+90 5+00 5+10 5+20 5+30 5+40 5+50 5+60 5+70 5+80 5+90 6+00

PROPERTY LINE

LOT A
PL EPP72260
2954 SOOKE RD

PROPERTY LINE

UP

EX. TOE OF SLOPE

N 459480 E 5365780

EX. EDGE OF GRAVEL

EX. EDGE OF PAVEMENT

EX. PAINTED TRAFFIC LINE

FUTURE ROADWORKS (TYP.)

EX. PAINT MEDIAN LINE

EX. CONCRETE BUS STOP PAD

EX. TREE/BUSH LINE

EX. ARCH CULVERT

EX. LEFT TURN LANE

MATCHLINE SEE SHEET C205 - STA. 6+00

MATCHLINE SEE SHEET C204 - STA. 4+15

4+20 SFM 200Ø HDPE FM 4+40 4+60 SFM 200Ø HDPE FM 4+80 5+00 SBH24-06 5+20 5+40 5+60 SFM 200Ø HDPE FM 5+80 6+00

EX. FOG LINE

EX. EDGE OF PAVEMENT

EX. TOP OF SLOPE

EX. TREE/BUSH LINE

EX. TOP OF SLOPE

EX. TOE OF SLOPE

REMOVE AND REPLACE SIGNS AS NECESSARY (TYP.)

11.25° BEND OR 50m RADIUS DEFLECTION c/w THRUST BLOCKS AND MECHANICAL RESTRAINTS

N 459480 E 5365720

REMOVE AND REPLACE SIGNS AS NECESSARY (TYP.)

AIR VALVE CHAMBER SEE DETAIL 2 ON SHEET C501

EX. CONCRETE BUS STOP PAD TO BE MAINTAINED

N 459560 E 5365760

N 459595 E 5365775

PROPERTY LINE

LOT 13
EPP72260
2953 SOOKE RD

5 C205

6 C205

4+90

APPROX. EXISTING GROUND

1.15m

EOP

70 / 68 / 66 / 64 / 62

-10 0 10

5 C205 TYPICAL SECTION (4+90)
SCALE: H: 1:200 V: 1:100

5+58

APPROX. EXISTING GROUND

1.20m

EOP

70 / 68 / 66 / 64 / 62

-10 0 10

6 C205 TYPICAL SECTION (5+58)
SCALE: H: 1:200 V: 1:100

KEY PLAN
N.T.S.

C205 C204 C205 C206 C201 & C202

PERMIT# 1003310
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
JOSHUA BARTLEY
41368
ENGINEER
2026-10-07

ISSUED FOR TENDER
06-Oct-2026

ISLANDER ENGINEERING LTD.

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 2.5 5 7.5 10 Meters
1:250

CAD FILENAME: 2295G_CMBP.dwg
DATE: 2026-04-17

REV	DATE	REVISIONS	SIGNATURE
A	DEC/24	ISSUED FOR REVIEW	MWB
B	FEB/25	ISSUED FOR REVIEW	MWB
C	MAR/25	ISSUED FOR REVIEW	MWB
D	MAR/26	ISSUED FOR MOTT REVIEW	MWB
E	APR/17	ISSUED FOR 90% REVIEW	TM
F	OCT/06	ISSUED FOR TENDER	TM

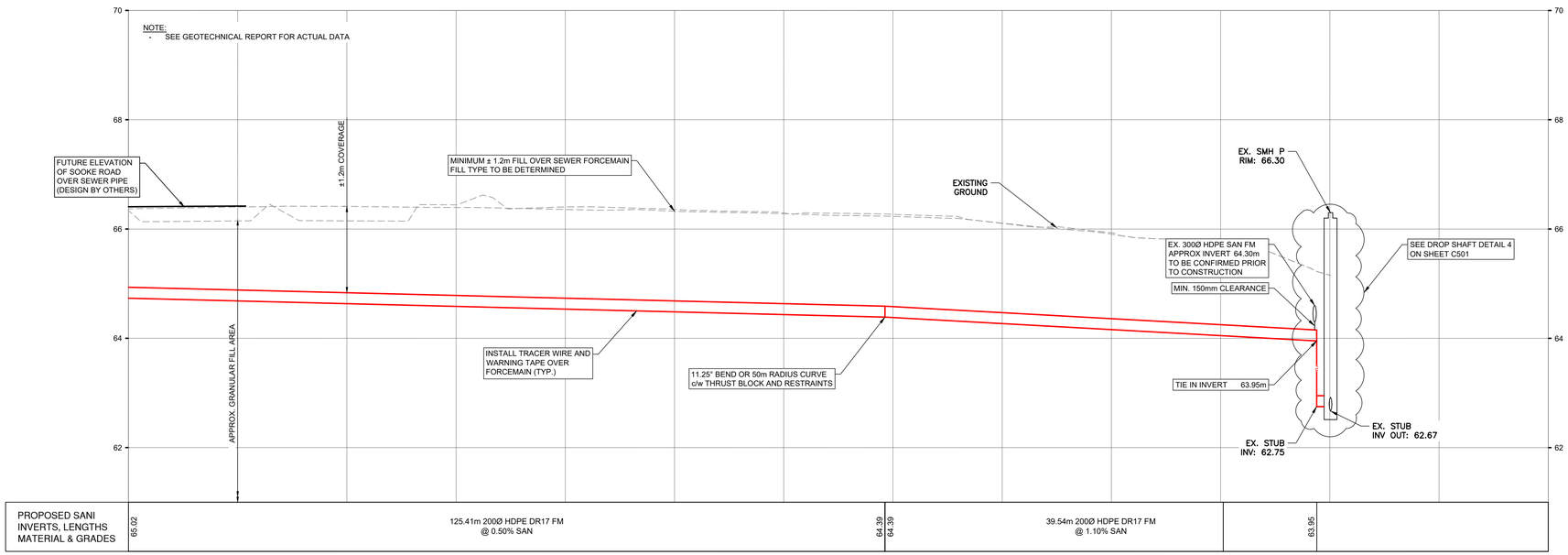
PLAN/PROFILE
HIGHWAY NO. 14 (SOOKE ROAD) SANITARY SEWER EXTENSION
STA 4+15 TO STA 6+00

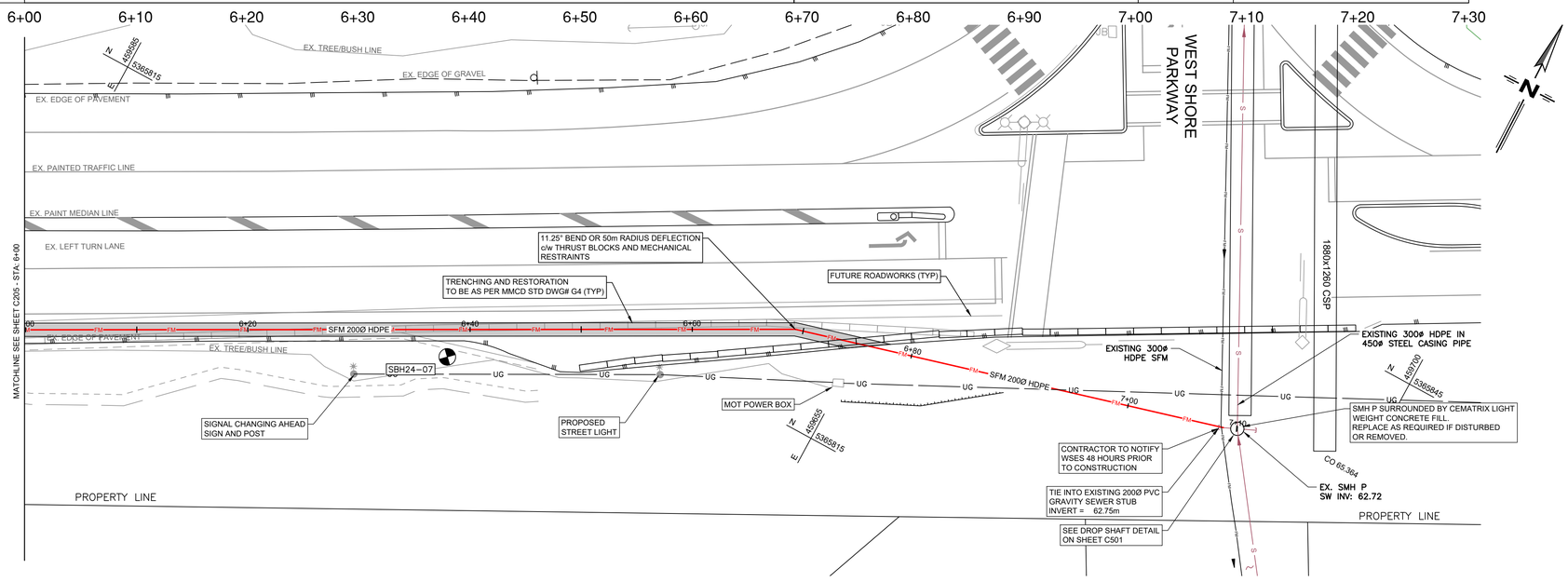
JOSH BARTLEY, P.Eng
SENIOR DESIGNER
DATE 2026-04-17

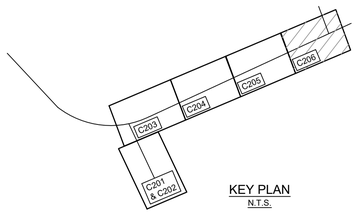
DESIGNED MWB DATE 2026-04-17
QUALITY CONTROL JB DATE 2026-04-17
QUALITY ASSURANCE JB DATE 2026-04-17
DRAWN MWB DATE 2026-04-17

FILE NUMBER	PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	2295G	1	C205	E

NOTE:
- SEE GEOTECHNICAL REPORT FOR ACTUAL DATA







KEY PLAN
N.T.S.

PERMIT# 1003310
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. BARTLEY
41068
ENGINEER
2026-10-07

ISSUED FOR TENDER

06-Oct-2026

ISLANDER ENGINEERING LTD.

SCALE 1:250 (0, 2.5, 5, 7.5, 10 Meters)

CAD FILENAME: 2955G_CMBP.dwg

DATE: 2026-04-17

REV	DATE	REVISIONS	SIGNATURE
A	DEC/24	ISSUED FOR REVIEW	MWB
B	FEB/25	ISSUED FOR REVIEW	MWB
C	MAR/25	ISSUED FOR REVIEW	MWB
D	MAR/26	ISSUED FOR MOTT REVIEW	MWB
E	APR/17	ISSUED FOR 90% REVIEW	TM
F	OCT/06	ISSUED FOR TENDER	TM

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

PLAN/PROFILE

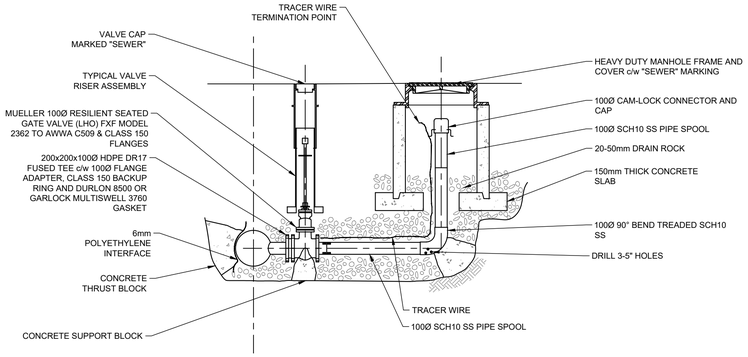
HIGHWAY NO. 14 (SOOKE ROAD) SANITARY SEWER EXTENSION

STA 6+00 TO STA 7+30

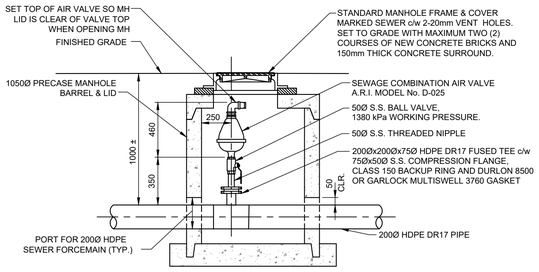
JOSH BARTLEY, P.Eng
SENIOR DESIGNER
DATE 2026-04-17

DESIGNED MWB DATE 2026-04-17
QUALITY CONTROL JB DATE 2026-04-17
QUALITY ASSURANCE JB DATE 2026-04-17
DRAWN MWB DATE 2026-04-17

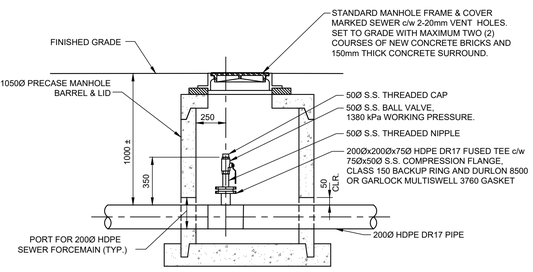
FILE NUMBER	PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	2955G	1	C206	E



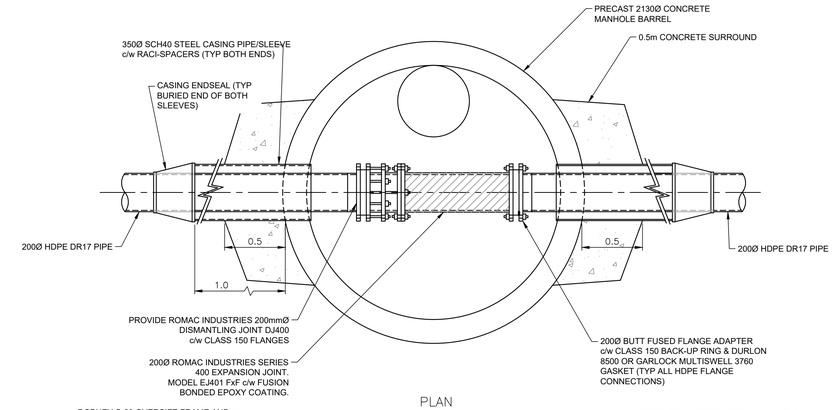
DETAIL 1/9 N.T.S. SEWER FORCEMAIN FLUSH OUT



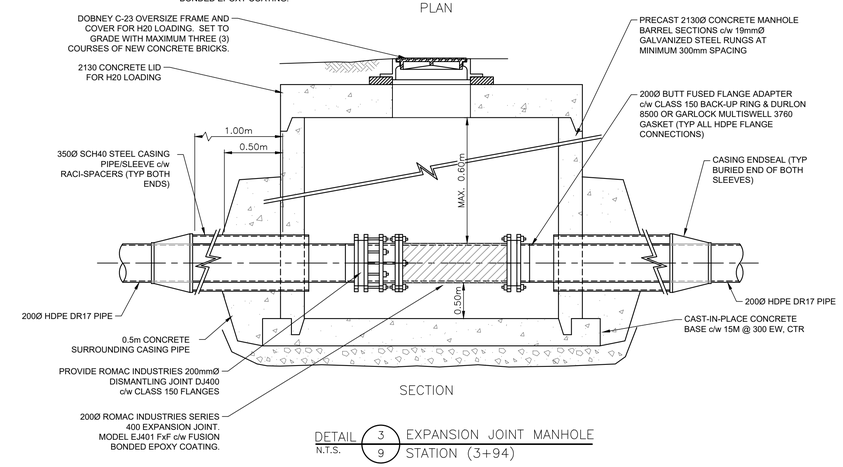
DETAIL 2/9 N.T.S SEWER FORCEMAIN COMBINATION AIR VALVE CHAMBER (STA: 5+43.9)



DETAIL 5/9 N.T.S SEWER FORCEMAIN COMBINATION AIR VALVE CHAMBER FOR FUTURE AIR VALVE (STA: 1+42.5)

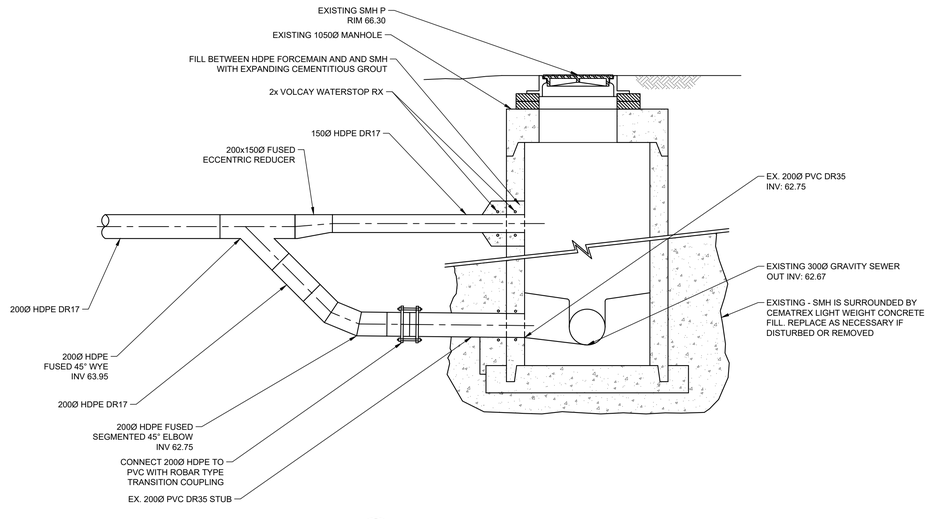


PLAN



SECTION

DETAIL 3/9 N.T.S. EXPANSION JOINT MANHOLE STATION (3+94)



DETAIL 4/9 N.T.S. SANITARY DROP SHAFT STATION (7+34.56)

NOTES:
- ALL HDPE FITTINGS SHALL BE HDPE DR17 PE4710.
- ALL VALVES AND FITTINGS SHALL BE TRIMMED FOR RAW SEWAGE APPLICATION.

PERMIT# 1003310
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA
J. J. BARTLEY
47368
ENGINEER
2026-10-07

ISSUED FOR TENDER

06-Oct-2026

ISLANDER ENGINEERING LTD.

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE AS SHOWN
CAD FILENAME: 2955G_CMBP.dwg
DATE: 2026-04-17

REV	DATE	REVISIONS	SIGNATURE
A	DEC/24	ISSUED FOR REVIEW	MWB
B	FEB/25	ISSUED FOR REVIEW	MWB
C	MAR/25	ISSUED FOR REVIEW	MWB
D	MAR/26	ISSUED FOR MOTT REVIEW	MWB
E	APR/17	ISSUED FOR 90% REVIEW	TM
F	OCT/06	ISSUED FOR TENDER	TM

PLAN/PROFILE

HIGHWAY NO. 14 (SOOKE ROAD)
SANITARY SEWER EXTENSION
DETAILS

JOSH BARTLEY, P.Eng
SENIOR DESIGNER
DATE 2026-04-17

DESIGNED	MWB	DATE 2026-04-17
QUALITY CONTROL	JB	DATE 2026-04-17
QUALITY ASSURANCE	JB	DATE 2026-04-17
DRAWN	MWB	DATE 2026-04-17

FILE NUMBER	PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	2955G	1	C501	F

CITY OF Langford
where it all happens.

BRITISH COLUMBIA | Ministry of Transportation and Transit

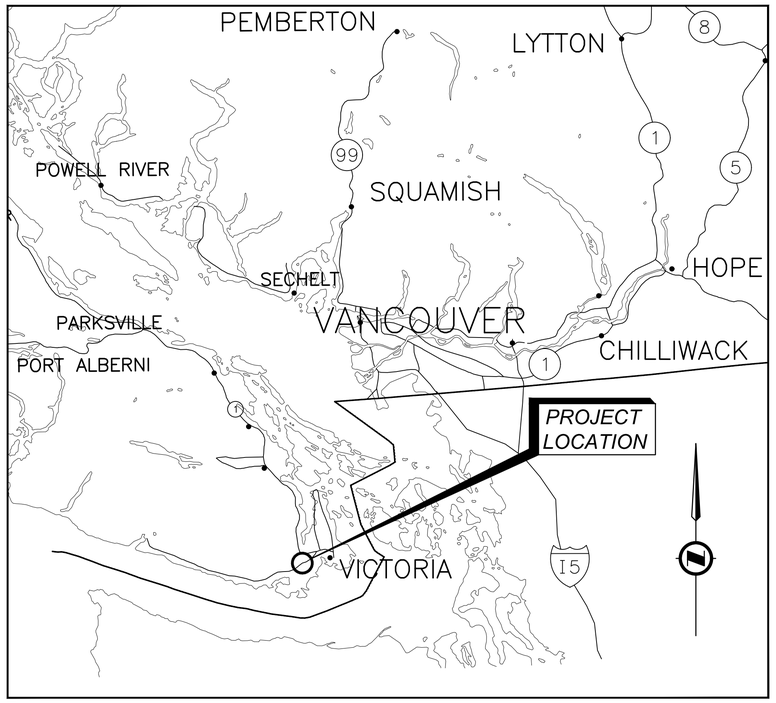
PROJECT No. 2025-02899

HIGHWAY 14 AT DELEM ROAD
INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

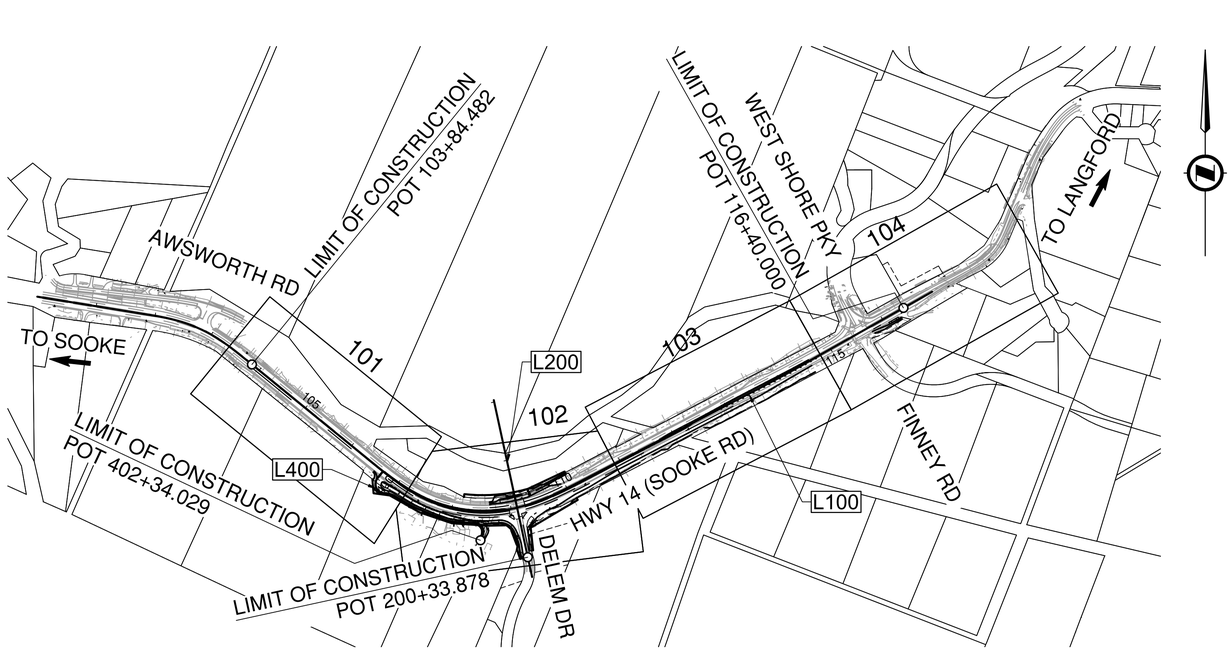
90% DETAILED DESIGN

DRAWING NUMBER: R1-XXXX-000 | REV: PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\000_CoverKeyPlanLegend\R1-XXXX-000.dwg



LOCATION MAP



KEY PLAN

0 50 1:5000 250m

CITY OF Langford where it all happens.

BRITISH COLUMBIA | Ministry of Transportation and Transit

PROJECT NO. 2025-02899

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN AWSWORTH RD TO WEST SHORE PARKWAY

STA POT 103+84.482 TO STA POT 116+40.000

1.26 km

LANDMARK KILOMETRE INVENTORY

SEGMENT 0374

km 3.91 TO km 5.17

DRAWING INDEX

R1-XXXX-000	COVER SHEET
R1-XXXX-001	KEY PLAN / SURVEY CONTROL TABLE / DRAWING INDEX
R1-XXXX-002	LEGEND
R1-XXXX-101 to R1-XXXX-104	PLAN / DRAINAGE
R1-XXXX-201 to R1-XXXX-207	PROFILE
R1-XXXX-301 to R1-XXXX-304	TYPICAL SECTIONS
R1-XXXX-351	DETAILS
R1-XXXX-401 to R1-XXXX-404	GEOMETRICS AND LANING
R1-XXXX-501 to R1-XXXX-502	SPOT ELEVATIONS
R1-XXXX-601 to R1-XXXX-604	SIGNING AND PAVEMENT MARKINGS
TE-20009-1 to TE-20009-5	TRAFFIC SIGNAL AND LIGHTING INSTALLATION

REFERENCE DRAWING INDEX

R1-XXXX-1001 to R1-XXXX-1009 L100 CROSS-SECTIONS

R1-XXXX-1011 to R1-XXXX-1012 L200 CROSS-SECTIONS

R1-XXXX-1013 to R1-XXXX-1016 L400 CROSS-SECTIONS

SURVEY CONTROL TABLE

Date: 2025/06/04 — Origin: GCM 95H2052 / 94H1511

Project: Sooke Highway — **Tack Point:** 0, 0 — **ACSF:** 0.99960945

Horizontal Datum: UTM Zone10N NAD 83 CSRS — **Vertical Datum:** CGVD28 HT2.0

Point ID	Local		Orthometric Height	UTM		Class	Type
	Northing	Easting	HT2_0	Northing	Easting		
374157	366255.054	460045.828	89.606	5364159.263	459866.157	Origin	GCM-95H2052
717173	365953.700	458178.499	89.843	5363858.027	457999.557	Origin	GCM-94H1511
3321	365908.707	458326.556	86.699	5363813.051	458147.557	PROJECT	DTH-MAG GV 3321 RTK
3322	365883.588	458480.191	82.395	5363787.942	458301.132	PROJECT	DTH-MAG GV 3322 RTK
3323	365866.316	458552.131	79.777	5363770.677	458373.043	PROJECT	DTH-MAG GV 3323 RTK
3324	365830.228	458649.187	77.600	5363734.603	458470.061	PROJECT	DTH-MAG GV 3324 RTK
3325	365582.421	458935.993	68.620	5363486.893	458756.755	PROJECT	DTH-MAG GV 3325 RTK
3326	365558.850	459092.499	66.828	5363463.331	458913.200	PROJECT	DTH-MAG GV 3326 RTK
3327	365610.056	459216.345	66.032	5363514.517	459036.998	PROJECT	DTH-MAG GV 3327 RTK
3328	365702.300	459388.903	65.795	5363606.725	459209.489	PROJECT	DTH-MAG GV 3328 RTK
3329	365844.106	459656.920	66.186	5363748.476	459477.401	PROJECT	DTH-MAG GV 3329 RTK
3330	365986.250	459892.990	78.317	5363890.564	459713.379	PROJECT	DTH-MAG GV 3330 RTK
3331	366154.003	459978.183	83.246	5364058.252	459798.539	PROJECT	DTH-MAG GV 3331 RTK
100	365569.436	459156.660	66.589	5363473.913	458977.336	PROJECT	DTH-SPK GV 100 STATIC
101	365574.358	459168.906	66.594	5363478.833	458989.578	PROJECT	DTH-SPK 101 (RTK)

All local coordinates are derived by first scaling from the Tack Point and then removing the millionth digit from the Northing

Notes:

*The HT2_0 Geoid uses the CGVD28 vertical datum

* Corridor control can be derived from robust network adjustments using sources such as Mascot, active, and/or PPP for valid absolute accuracies.

* Project control originates from a corridor point and closes to a network confined within the specific project to provide survey grade relative accuracies.

* "name"static brass cap monuments-year. "G" static tag #-year. "K" multi epoch rtk, "P"closed total station traverse.

DRAWING NUMBER R1-XXXX-001 | REV PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\000_CoverKeyPlanLegend\R1-XXXX-000.dwg

LEGEND

EXISTING LINETYPES

- CULVERT
- DITCH CENTER
- DITCH EDGE
- DECELERATION LANE
- BROKEN WHITE LINE URBAN
- WHITE LINE
- CROSSWALK
- DOUBLE YELLOW LINE
- YELLOW LINE
- EDGE OF PAVEMENT
- GRAVEL
- SIDEWALK
- CONCRETE CURB & GUTTER
- CONCRETE ROADSIDE BARRIER
- CONTOURS MAJOR (90)
- CONTOURS MINOR
- TOP OF BANK
- BOTTOM OF SLOPE
- FENCE (x)
- RETAINING WALL
- PARCELS, LEGAL SUBDIVISIONS
- OVERHEAD ELECTRICAL POWER

EXISTING SYMBOLS

- SANITARY MANHOLE (MH San)
- STORM MANHOLE (MH Storm)
- CATCH BASIN
- WATER MANHOLE (MH Water)
- WATER VALVE (WV)
- FIRE HYDRANT (FH)
- POWER MANHOLE (MH Power)
- LAMP STANDARD (LS)
- GUY WIRE
- TRAFFIC SIGNAL
- TELEPHONE POLE
- SIGN ONE POST
- DAVIT POLE
- CULVERT
- REFERENCE POINT
- CONTROL MONUMENT

PROPOSED LINETYPES

- MAIN ALIGNMENT (L100, 101)
- EDGE OF PAVEMENT
- SHOULDER GRAVEL
- CONCRETE ROADSIDE BARRIER
- 100 mm SOLID SINGLE YELLOW LINE (YL)
- 100 mm SOLID WHITE LINE
- 100 mm WHITE LANE LINE (5, 8, 5)
- 100 mm WHITE CONTINUITY LINE (3, 3, 3)
- ROAD TOES
- CLEARING & GRUBBING BOUNDARY (CL & GR)
- DITCH CENTER
- RETAINING WALL
- FENCE (x)
- RIGHT OF WAY BOUNDARY (PROPOSED PROPERTY LINE)
- SANITARY SEWER FORCE MAIN (SAN)

PROPOSED SYMBOLS

- SIGN ONE POST SQUARE SP635-3.6.1
- ASPHALT SPILLWAY
- RIPRAP OUTFALL

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\000_CoverKeyPlanLegendIR1-XXXX-000.dwg

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE NTS

CAD FILENAME R1-XXXX-000.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

LEGEND

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-002	PB

TO SOOKE

3324
N 365830.228
E 458649.186
EL 77.600

HWY 14 (SOOKE RD)

TS 106+47.769

Lot A
Plan VIP75263
025-656-619

L100
POS 106+67.843 =
L400
POT 399+84.485
N 365631.808
E 458877.057

Ls 90.000
Θs 10°58'18"

104 105 106 107

129°11'41"

L100

POT

SHARED DRIVEWAY ACCESS

MATCH LINE SEE DWG No. R1-XXXX-102

Ls 60.000
Θs 6°44'26"

ST 103+73.611

LIMIT OF CONSTRUCTION
POT 103+84.482

TIE TO EXISTING
N 365810.830
E 458657.411

REM Lot 1
Block 3
Plan VIP1817
001-703-251

REM Lot 2
Block 3
Plan VIP1817
001-703-277

BC
EC
L400-1
400
15.000 Lt
84.556°

L400-2

PRC

L400-3

CONC. BARRIER
PAVEMENT EDGE
GRAVEL
SHOULDER EDGE
TOE LINE (TYP.)
CL & GR (TYP.)
PROPOSED PROPERTY LINE

PAVEMENT EDGE
GRAVEL SHOULDER EDGE
PAVEMENT EDGE
GRAVEL SHOULDER EDGE

L400-1		L400-2		L400-3	
R	12.000 Lt	R	15.000 Lt	R	35.000 Rt
Δ	25°03'06"	Δ	103°03'31"	Δ	30°36'14"
AD	2.666	AD	18.877	AD	9.576
Arc	5.247	Arc	26.981	Arc	18.695
Ec	0.293	Ec	9.111	Ec	1.286
PI	400+02.666	PI	400+25.361	PI	400+43.041
N	365617.605	N	365595.462	N	365595.202
E	458865.706	E	458860.356	E	458888.808
BC	400+00.000	BC	400+06.484	BC	400+33.465
EC	400+05.247	EC	400+33.465	EC	400+52.160

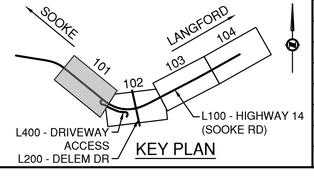
CLEAR AND GRUB AREA THIS SHEET:
0.1379 ha

LEGEND

- FULL DEPTH PAVEMENT
- MILL AND OVERLAY
- MEDIAN ISLAND
- CONCRETE BUS LOADING ZONE
- DRIVEWAY PAVEMENT
- DRIVEWAY GRAVEL
- SIGNAL POLE BACKFILL MATERIAL (TBD)

FOR GEOMETRICS AND LANING
SEE DWG No. R1-XXXX-401 TO R1-XXXX-404

FOR SIGNAGE AND PAVEMENT MARKINGS
SEE DWG No. R1-XXXX-601 TO R1-XXXX-604



KEY PLAN

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-100.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

PLAN / DRAINAGE

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 103+84.482 TO STA 107+20.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-101	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\100_Plans\R1-XXXX-100.dwg

REM Lot 1
Plan VIP20923
003-488-250

Lot 2
Plan VIP20923
003-488-306

REM Lot 3
Plan VIP20923
000-064-017

REM Lot 4
Plan VIP20923
003-521-826

REM Lot 5
Block 3
Plan VIP1817
001-703-285

Lot C
Plan EPP89276
030-827-353

MATCH LINE SEE DWG No. R1-XXXX-101

MATCH LINE SEE DWG No. R1-XXXX-103

L100

Ls 90.000
Θs 10°58'18"
SC 107+37.769

R 235.000 Lt
Δ 66°41'55"
Δc 38°39'37"
AD1 202.755
AD2 224.519
Arc 158.566
Es 49.263

121°07'41"

BC
EC

3325
N 365582.421
E 458935.993
EL 68.620

L400-4

401

109

108

118°21'20"

CL & GR (TYP.)

PAVEMENT EDGE
GRAVEL SHOULDER EDGE

L400-5

093°16'36"

402

BC
EC

TOE LINE (TYP.)

RELOCATE UTILITY POLE BY OTHERS

L400-6

CONC. BARRIER
PAVEMENT EDGE
RETAINING WALL
GRAVEL SHOULDER EDGE
PAVEMENT EDGE

L400-7

PCC
EC
205.1441°
POT 0+00.000

LIMIT OF CONSTRUCTION
POT 402+34.029
TIE TO EXISTING
N 365541.980
E 459941.998

ACCESS TO 2989, 2983, 2979, THROUGH
SHARED DRIVEWAY OFF OF SOOKE ROAD

202

DITCH PROFILE: L100_PD_N1

CS 108+96.335

ASPHALT SPILLWAY C/W CDB-E AND RIPRAP OUTFALL
REFER TO SP504-04

ELECTRICAL SIGNAL POLE BACKFILL MATERIAL TO BE
DETERMINED AT 100% DETAIL DESIGN

PROPOSED PROPERTY LINE

CL & GR (TYP.)

TIE TO EX. PAVEMENT EDGE

L100
POT 109+10.225 =
L200
POT 201+18.989
N 365571.072
E 459101.861

DITCH LINE (TYP.)
TOE LINE (TYP.)

ASPHALT SPILLWAY C/W CDB-E RIPRAP OUTFALL
REFER TO SP504-04

GRAVEL SHOULDER EDGE
PAVEMENT EDGE
CONC. BARRIER

RIPRAP OUTFALL

HWY 14 (SOOKE RD)

Ls 140.000
Θs 17°04'01"
ST 110+36.335

62°29'46"

110

SAN

SOOKE ROAD SANITARY
FORCEMAIN ALIGNMENT
SEE PERMIT #2025-01556

3327
N 365610.056
E 459216.345
EL 66.032

TOE LINE (TYP.)

PAVEMENT EDGE
GRAVEL SHOULDER EDGE

PROPOSED PROPERTY LINE

T00
N 365569.436
E 459156.660
EL 66.589

T01
N 365574.358
E 459168.906
EL 66.594

NEW TRAFFIC SIGNAL
REFER TO ELECTRICAL DRAWINGS

PAVED AREA FOR
MAINTENANCE VEHICLE

SOOKE ROAD SANITARY PUMPSTATION
SEE PERMIT #2025-01556

3326
N 365558.850
E 459092.499
EL 66.828

DITCH PROFILE: L100_PD_S1

DRAINAGE BARRIER SPILLWAY C/W CDB-E AND RIPRAP OUTFALL
REFER TO SP504-05

DRAINAGE BARRIER SPILLWAY C/W CDB-E AND RIPRAP OUTFALL
REFER TO SP504-05

DITCH PROFILE: L200C1_PD1

347°46'42"

DELEM DR

L200

TIE IN TO EX. BRIDGE

APPROXIMATE EX. BRIDGE LINE GEOMETRY

LIMIT OF CONSTRUCTION
POT 200+33.878
TIE TO EXISTING
N 365487.890
E 459119.879

L400-4		L400-5		L400-6		L400-7	
R	60.000 Lt	R	70.000 Lt	R	14.000 Rt	R	50.000 Rt
Δ	8°46'20"	Δ	19°04'45"	Δ	105°59'41"	Δ	7°04'21"
AD	4.602	AD	11.764	AD	18.577	AD	3.090
Arc	9.186	Arc	23.309	Arc	25.899	Arc	6.172
Ec	0.176	Ec	0.982	Ec	9.262	Ec	0.095
PI	400+84.685	PI	401+53.077	PI	402+15.529	PI	402+25.941
N	365573.437	N	365547.417	N	365544.191	N	365523.605
E	458924.848	E	458988.116	E	459050.700	E	459043.943
BC	400+80.083	BC	401+41.313	BC	401+96.952	BC	402+22.851
EC	400+89.269	EC	401+64.623	EC	402+22.851	EC	402+29.023

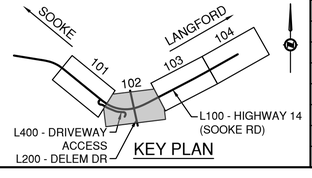
CLEAR AND GRUB AREA THIS SHEET:
0.8235 ha

LEGEND

- FULL DEPTH PAVEMENT
- MILL AND OVERLAY
- MEDIAN ISLAND
- CONCRETE BUS LOADING ZONE
- DRIVEWAY PAVEMENT
- DRIVEWAY GRAVEL
- SIGNAL POLE BACKFILL MATERIAL (TBD)

FOR GEOMETRICS AND LANING
SEE DWG No. R1-XXXX-401 TO R1-XXXX-404

FOR SIGNAGE AND PAVEMENT MARKINGS
SEE DWG No. R1-XXXX-601 TO R1-XXXX-604



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-100.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

PLAN / DRAINAGE

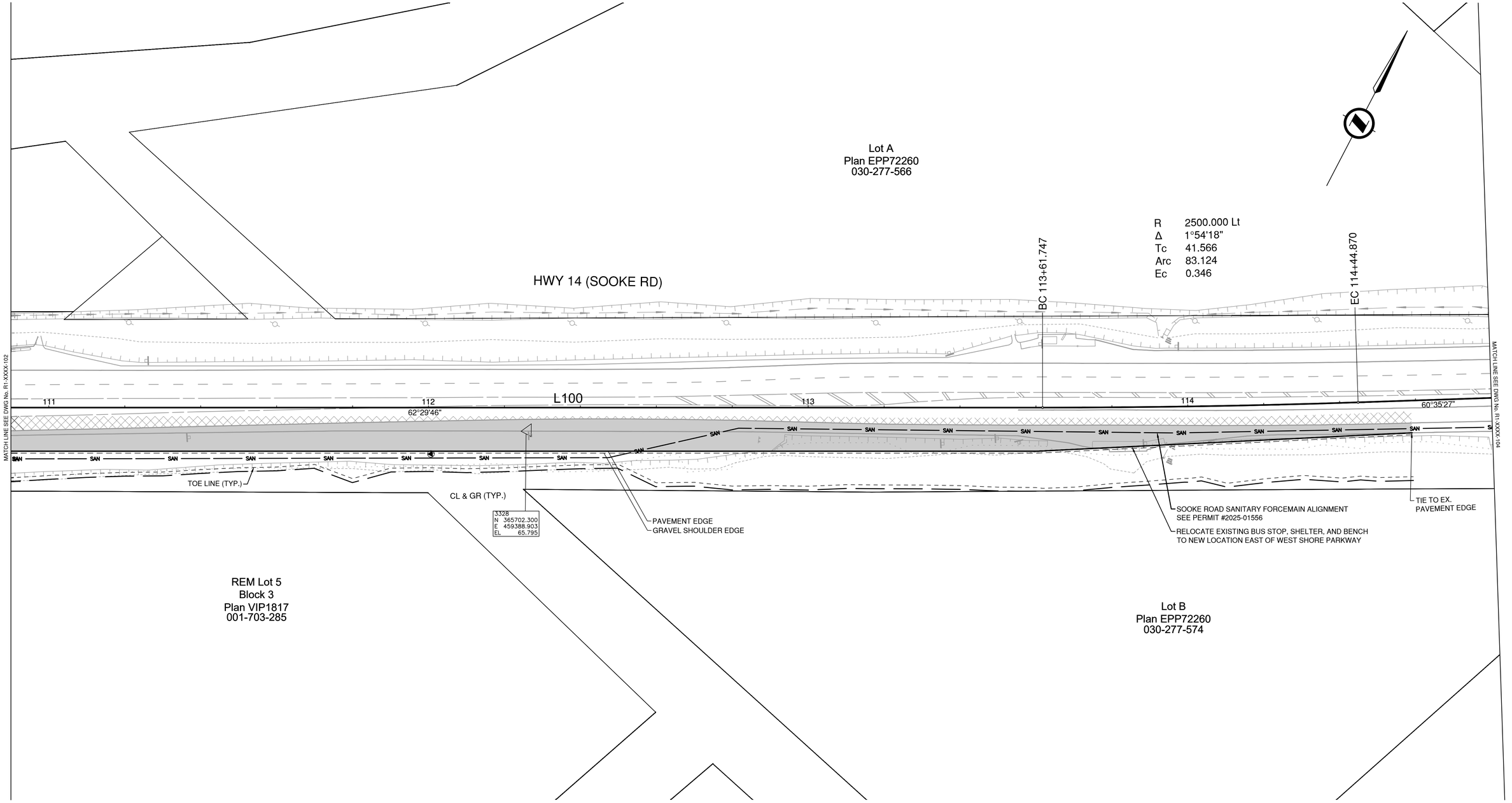
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 107+20.000 TO STA 110+90.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-102	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\100_Plans\R1-XXXX-100.dwg



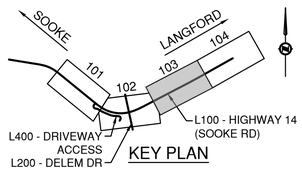
CLEAR AND GRUB AREA THIS SHEET:
0.4511 ha

LEGEND

- FULL DEPTH PAVEMENT
- MILL AND OVERLAY
- MEDIAN ISLAND
- CONCRETE BUS LOADING ZONE
- DRIVEWAY PAVEMENT
- DRIVEWAY GRAVEL
- SIGNAL POLE BACKFILL MATERIAL (TBD)

FOR GEOMETRICS AND LANING
SEE DWG No. R1-XXXX-401 TO R1-XXXX-404

FOR SIGNAGE AND PAVEMENT MARKINGS
SEE DWG No. R1-XXXX-601 TO R1-XXXX-604



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-100.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

PLAN / DRAINAGE

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 110+90.000 TO STA 114+80.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-103	PB

PLOT DATE: 2026/09/29 C:\ADSKVACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\100_Plans\R1-XXXX-100.dwg

Parcel 1
Plan EPP79915
030-935-679

Lot A
Plan EPP79915
030-449-812

Lot A
Plan EPP92243
030-812-356

Lot 2
Plan EPP88662
030-701-112

WEST SHORE PKY

LIMIT OF CONSTRUCTION
POT 116+40.000
TIE TO EXISTING
N 365905.688
E 459749.453

POT 116+95.126

HWY 14 (SOOKE RD)

TO LANGFORD

L100
POT 116+30.792 =
L500
POT 500+86.561
N 365901.177
E 459741.413

MATCH LINE SEE DWG No. R1-XXXX-103

115
60°35'27"
L100
116
60°35'27"
POT
330°35'27"

BUS STOP PULL OUT

TIE TO EX. PAVEMENT EDGE

L500-1
71°28'58"
BC
EC
57°56'58"
L500-2
BC
EC

DITCH PROFILE: L100_PD_R2

TOE LINE (TYP.)
PAVEMENT EDGE
GRAVEL SHOULDER EDGE
CONCRETE SIDEWALK
BUS LANDING ZONE
RAILING
GRAVEL SHOULDER EDGE

3329
N 365844.106
E 459656.920
EL 66.186

SOOKE ROAD SANITARY
FORCEMAIN ALIGNMENT
SEE PERMIT #2025-01556

Plan VIS4981
Building Strata

3330
N 365986.250
E 459892.990
EL 78.317

Lot A
Plan VIP52737
017-429-862

REM Lot 9
Plan VIP22830
003-187-870

Lot 1
Plan EPP72592
030-622-280
MP

FINNEY RD

Lot 1
Plan EPP72592
030-622-280
MP

Lot 8
Plan VIP22830
003-187-926

L500-1		L500-2	
R	60.000 Lt	R	4.000 Lt
Δ	13°32'00"	Δ	87°21'31"
AD	7.119	AD	3.820
Arc	14.172	Arc	6.099
Ec	0.421	Ec	1.531
PI	500+33.406	PI	500+71.168
N	365866.351	N	365886.425
E	459717.666	E	459749.728
BC	500+26.287	BC	500+67.348
EC	500+40.459	EC	500+73.447

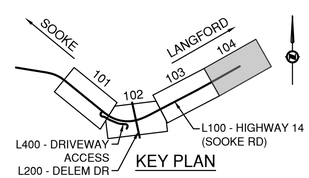
LEGEND

- FULL DEPTH PAVEMENT
- MILL AND OVERLAY
- MEDIAN ISLAND
- CONCRETE BUS LOADING ZONE
- DRIVEWAY PAVEMENT
- DRIVEWAY GRAVEL
- SIGNAL POLE BACKFILL MATERIAL (TBD)

FOR GEOMETRICS AND LANING
SEE DWG No. R1-XXXX-401 TO R1-XXXX-404

FOR SIGNAGE AND PAVEMENT MARKINGS
SEE DWG No. R1-XXXX-601 TO R1-XXXX-604

CLEAR AND GRUB AREA THIS SHEET:
0.0242 ha



KEY PLAN

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-100.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

PLAN / DRAINAGE

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

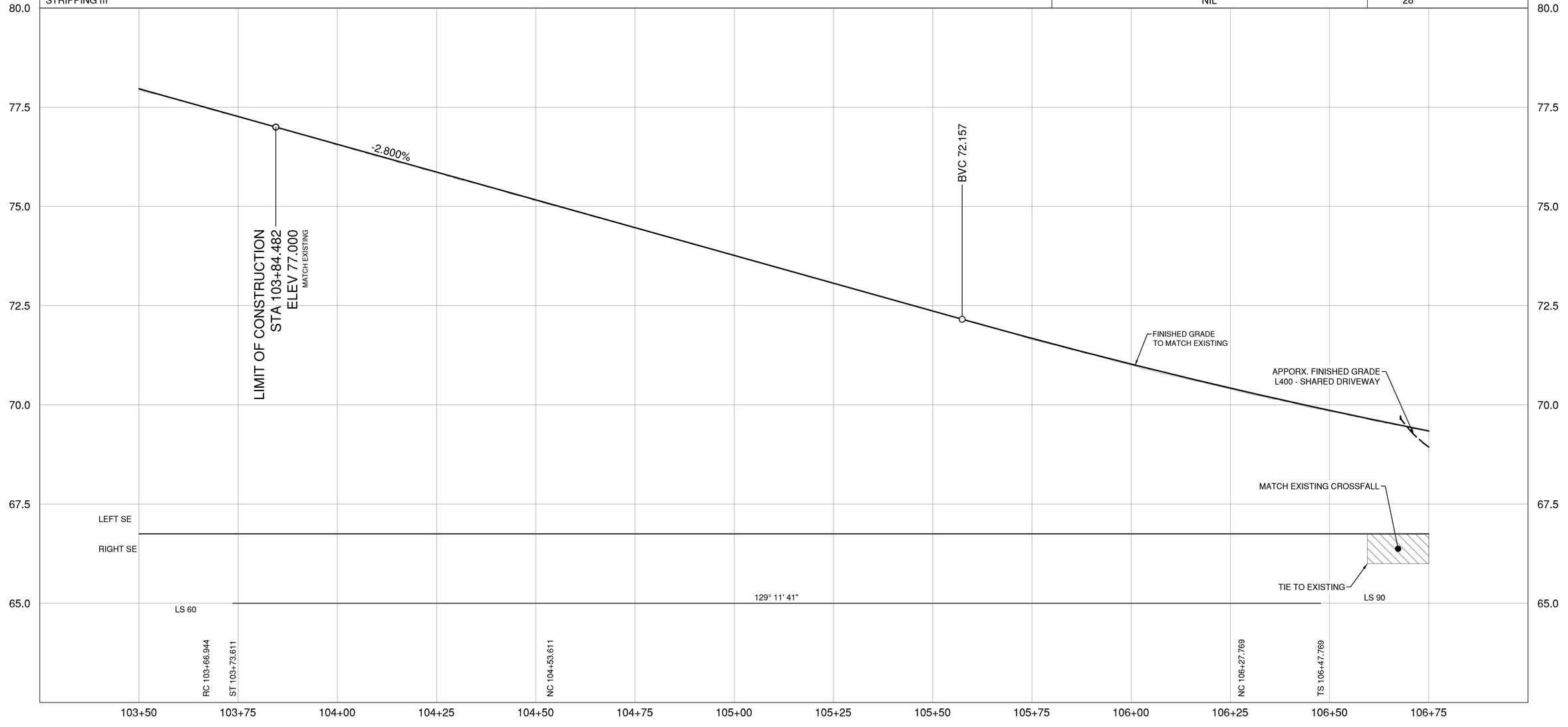
STA 114+80.000 TO STA 116+40.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-104	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\100_Plans\R1-XXXX-100.dwg

EMBANKMENT m³	NIL	38
EXCAVATION m³	NIL	19
STRIPPING m³	NIL	28



L100 - Hwy 14 (SOOKE RD)

DESIGN SPEED	60	km/h	EB
DESIGN SPEED	80	km/h	WB

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 H 1:500 25m
0 0.5 V 1:50 2.5m

CAD FILENAME R1-XXXX-200.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

PROFILE

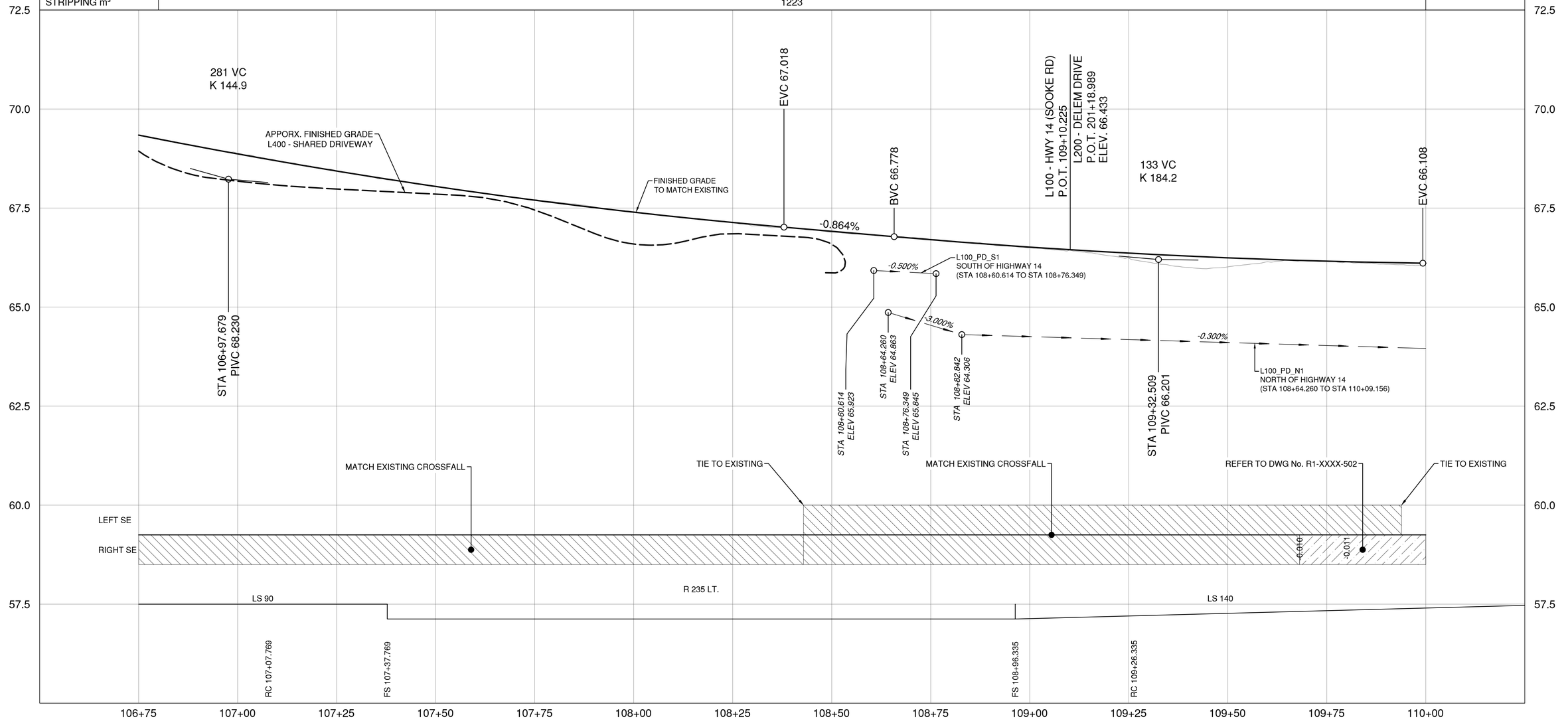
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY
STA 103+84.482 TO STA 106+75.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-201	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\200_Profiles\R1-XXXX-200.dwg

EMBANKMENT m³	513	
EXCAVATION m³	1769	
STRIPPING m³	1223	



L100 - Hwy 14 (SOOKE RD)

DESIGN SPEED	60 km/h	EB
DESIGN SPEED	80 km/h	WB

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 H 1:500 25m
0 0.5 V 1:50 2.5m

CAD FILENAME R1-XXXX-200.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

PROFILE

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

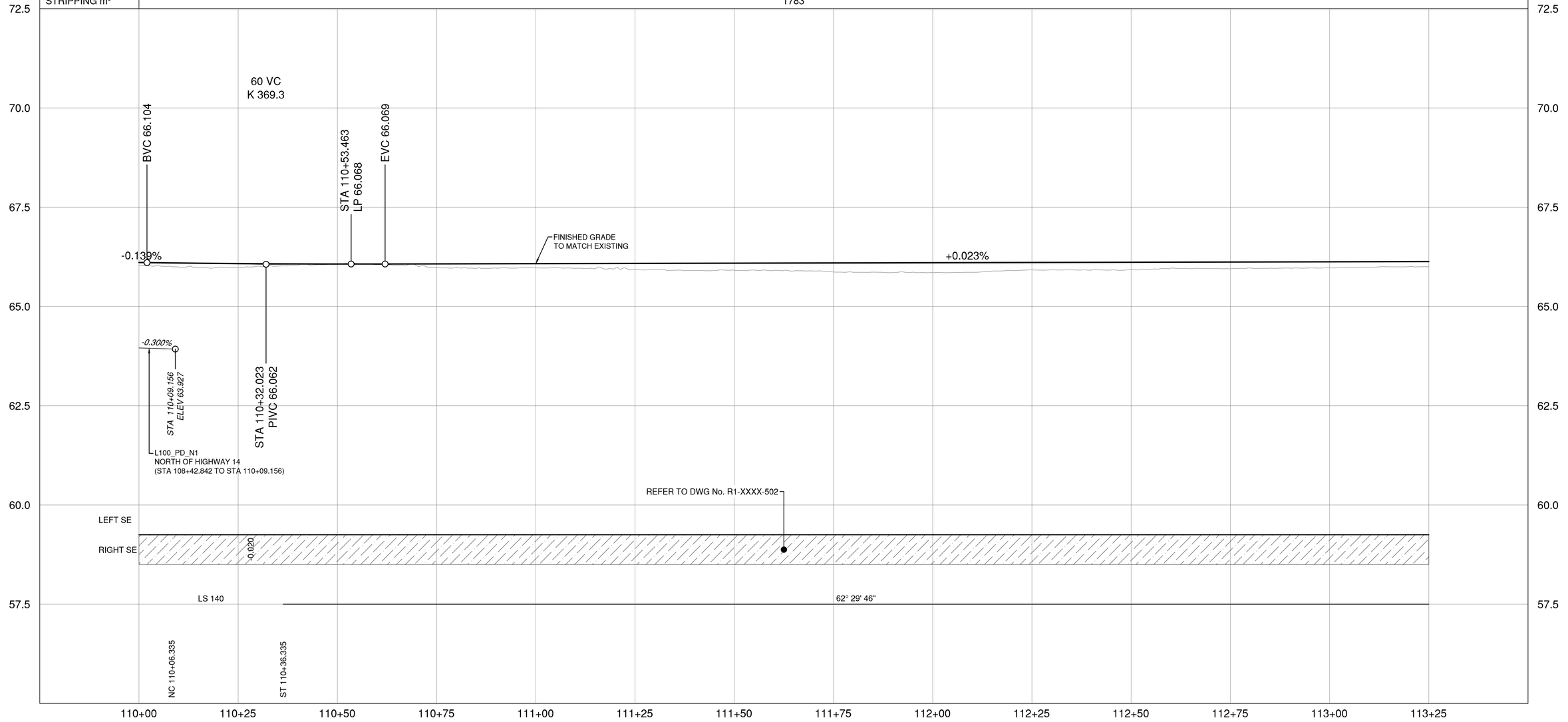
STA 106+75.000 TO STA 110+00.000

DESIGNED	N. THUNSTROM	DATE 2026-09-25
QUALITY CONTROL	M. ELLIOTT	DATE 2026-09-25
QUALITY ASSURANCE	A. SANTOS	DATE 2026-09-25
DRAWN	P. NGO	DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-202	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\200_Profiles\R1-XXXX-200.dwg

EMBANKMENT m³	27	NIL
EXCAVATION m³	1791	
STRIPPING m³	1783	



L100 - Hwy 14 (SOOKE RD)

DESIGN SPEED	60	km/h	EB
DESIGN SPEED	80	km/h	WB

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 H 1:500 25m
0 0.5 V 1:50 2.5m

CAD FILENAME R1-XXXX-200.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

PROFILE

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

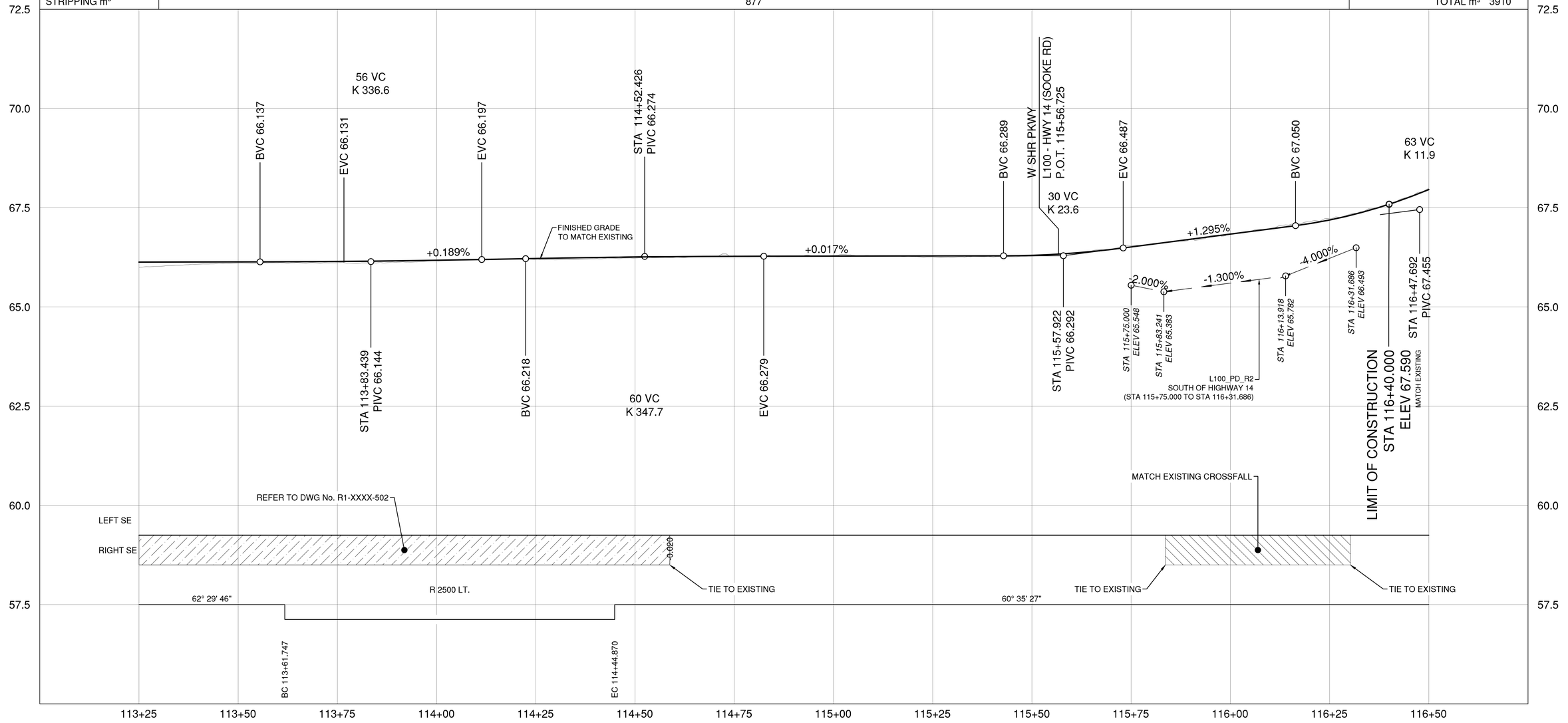
STA 110+00.000 TO STA 113+25.000

DESIGNED	N. THUNSTROM	DATE 2026-09-25
QUALITY CONTROL	M. ELLIOTT	DATE 2026-09-25
QUALITY ASSURANCE	A. SANTOS	DATE 2026-09-25
DRAWN	P. NGO	DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-203	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\200_Profiles\R1-XXXX-200.dwg

EMBANKMENT m³	NIL	97		TOTAL m³ 675
EXCAVATION m³	216	NIL	144	TOTAL m³ 3940
STRIPPING m³	877			TOTAL m³ 3910



L100 - Hwy 14 (SOOKE RD)

DESIGN SPEED	60	km/h	EB
DESIGN SPEED	80	km/h	WB

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 H 1:500 25m
0 0.5 V 1:50 2.5m

CAD FILENAME R1-XXXX-200.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

PROFILE

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

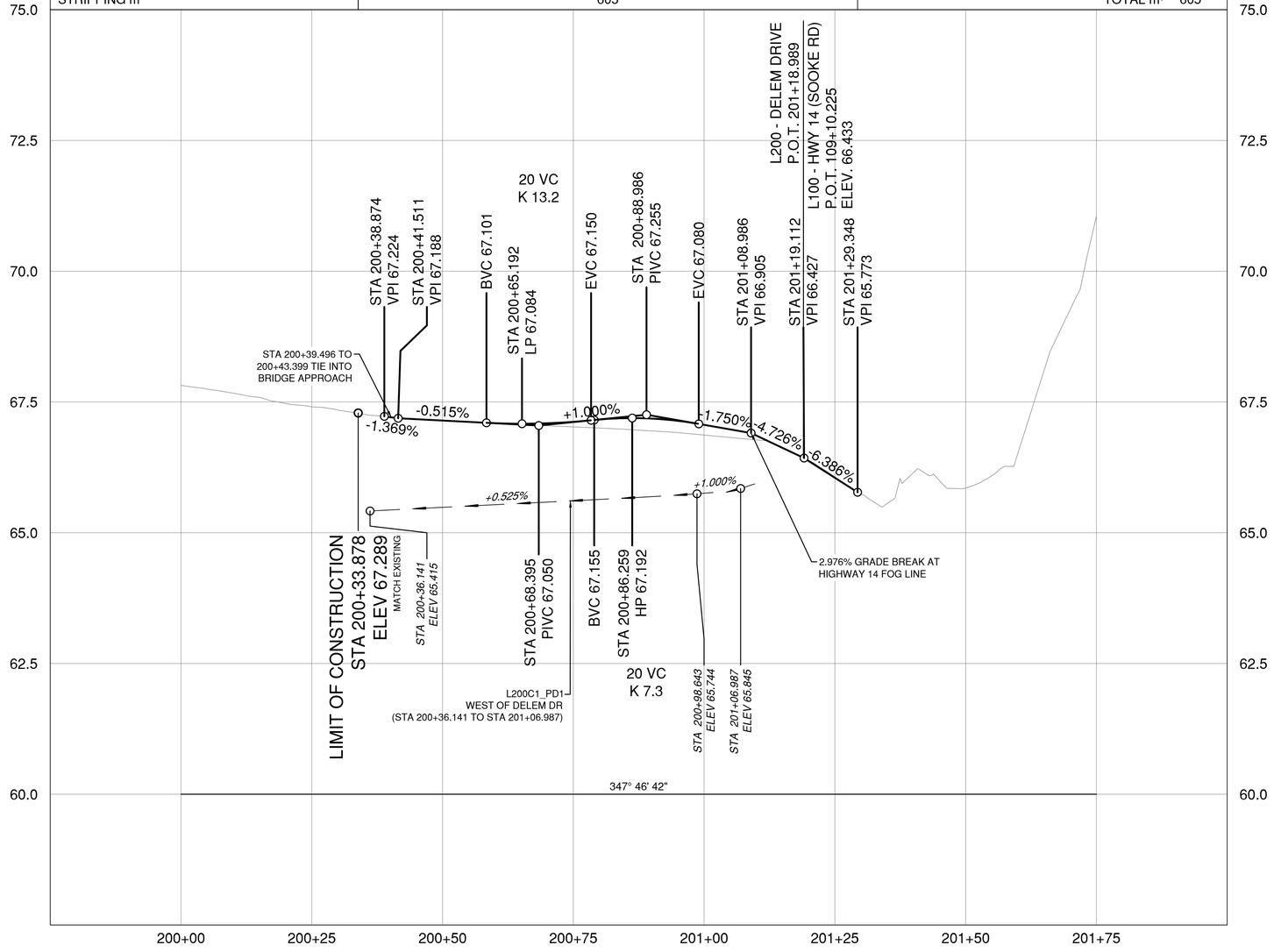
STA 113+25.000 TO STA 116+40.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-204	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\200_Profiles\R1-XXXX-200.dwg

EMBANKMENT m³	265	TOTAL m³ 265
EXCAVATION m³	930	TOTAL m³ 930
STRIPPING m³	605	TOTAL m³ 605



L200 - DELEM DRIVE

DESIGN SPEED 50 km/h

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 H 1:500 25m
0 0.5 V 1:50 2.5m

CAD FILENAME R1-XXXX-200.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

PROFILE

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

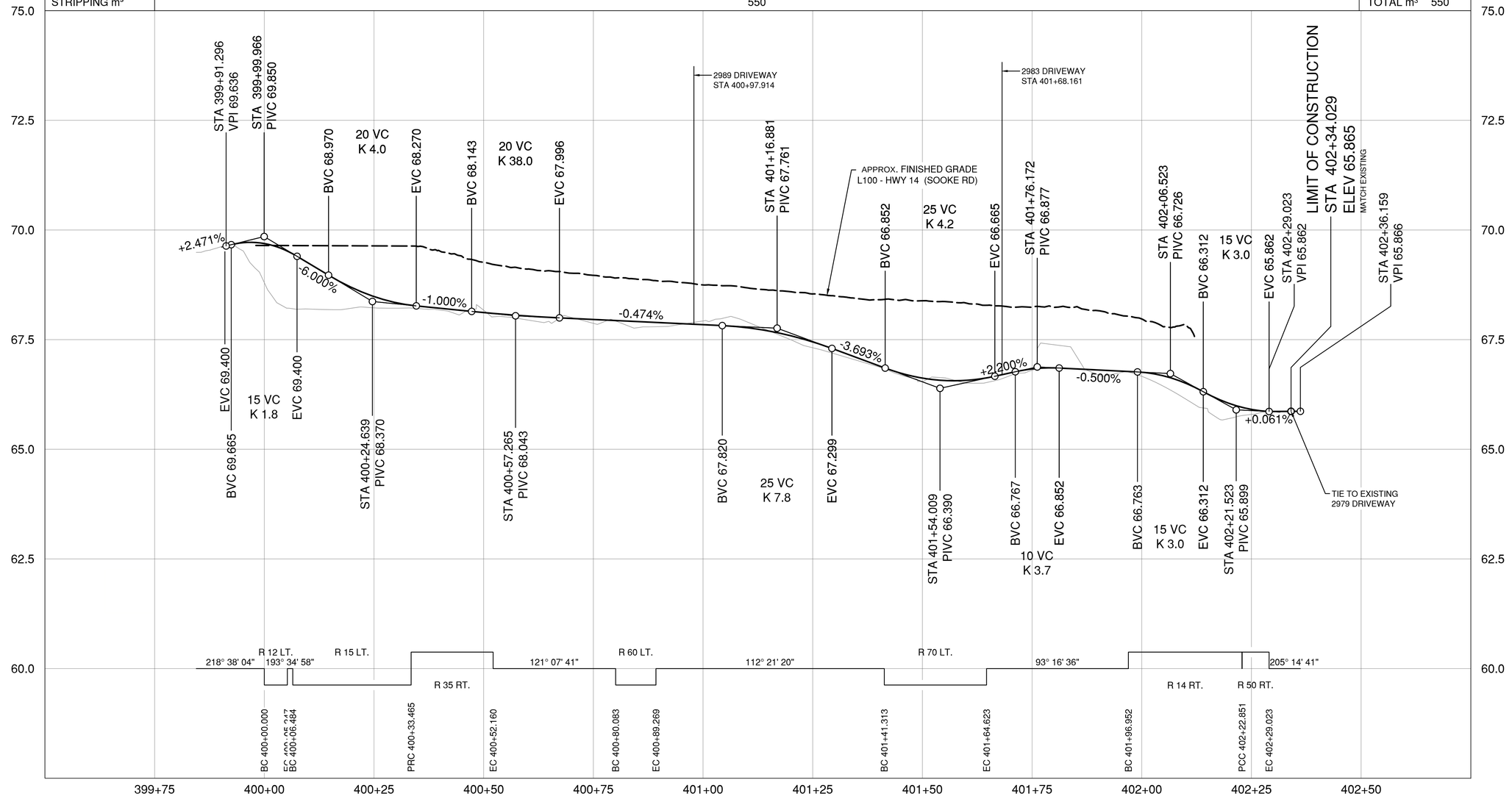
STA 200+38.878 TO STA 201+18.989

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-205	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\200_Profiles\R1-XXXX-200.dwg

EMBANKMENT m³	NIL	449	NIL	16	NIL	TOTAL m³	465
EXCAVATION m³	17	NIL	473			TOTAL m³	490
STRIPPING m³	550					TOTAL m³	550



L400 - SHARED DRIVEWAY

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 H 1:500 25m
0 0.5 V 1:50 2.5m

CAD FILENAME R1-XXXX-200.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

PROFILE

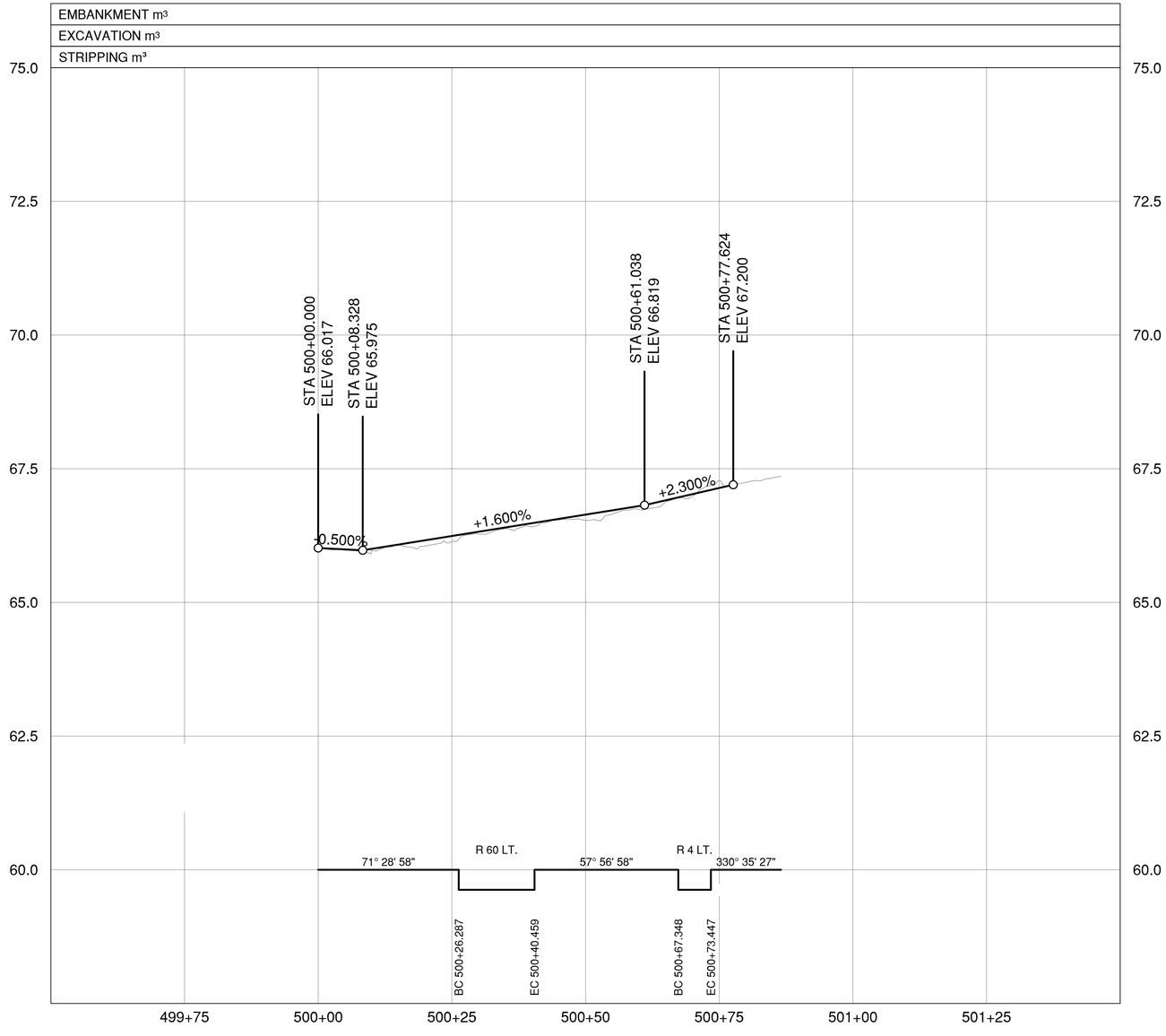
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 400+00.000 TO STA 402+34.029

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-206	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\200_Profiles\R1-XXXX-200.dwg



L500 - FINNEY ACCESS ROAD

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 H 1:500 25m
0 0.5 V 1:50 2.5m

CAD FILENAME R1-XXXX-200.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

PROFILE

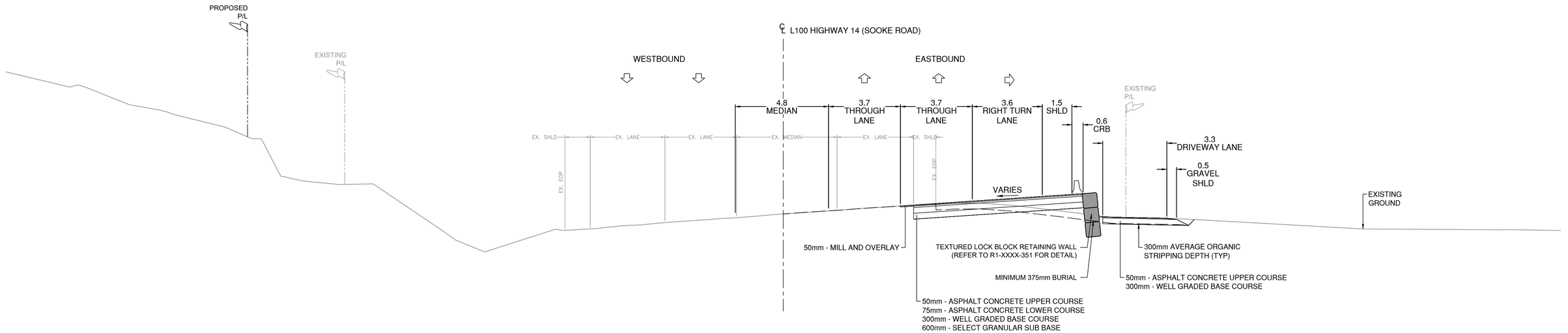
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 500+00.000 TO STA 500+77.624

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

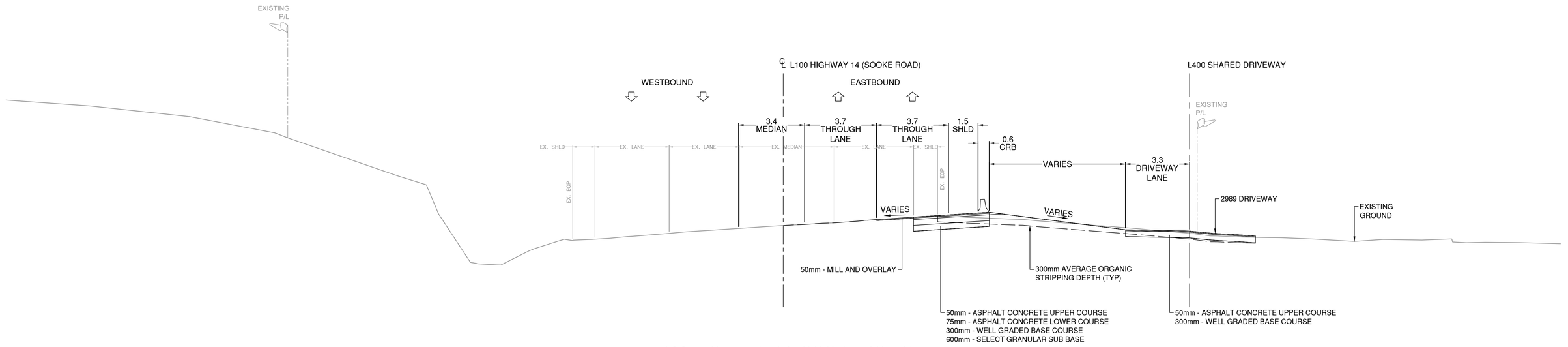
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-207	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\200_Profiles\R1-XXXX-200.dwg



L100 HIGHWAY 14 (SOOKE ROAD)

SECTION @ STA 108+40
STA 108+23.000 TO STA 108+51.000



L100 HIGHWAY 14 (SOOKE ROAD)

SECTION @ STA 107+40
STA 106+78 TO STA 108+40

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 1 1:100 5m

CAD FILENAME R1-XXXX-300.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

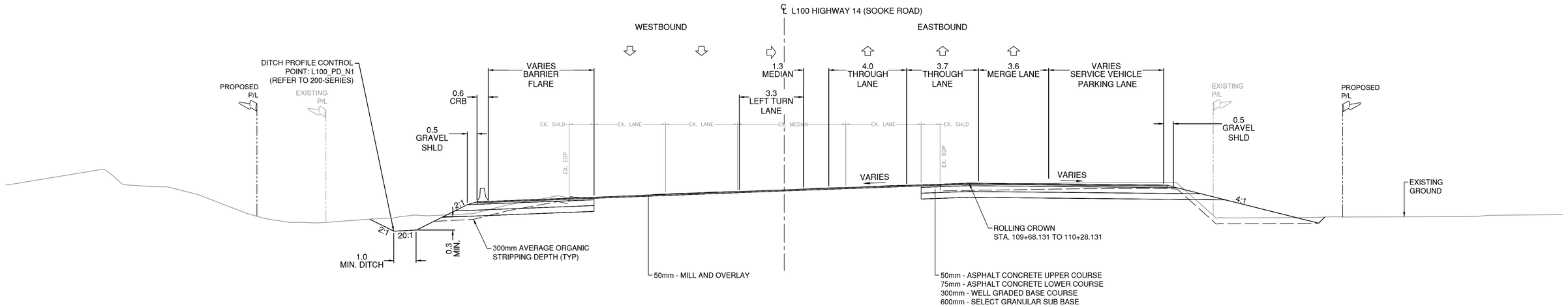
TYPICAL SECTION

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN Y. KIM DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-301	PB

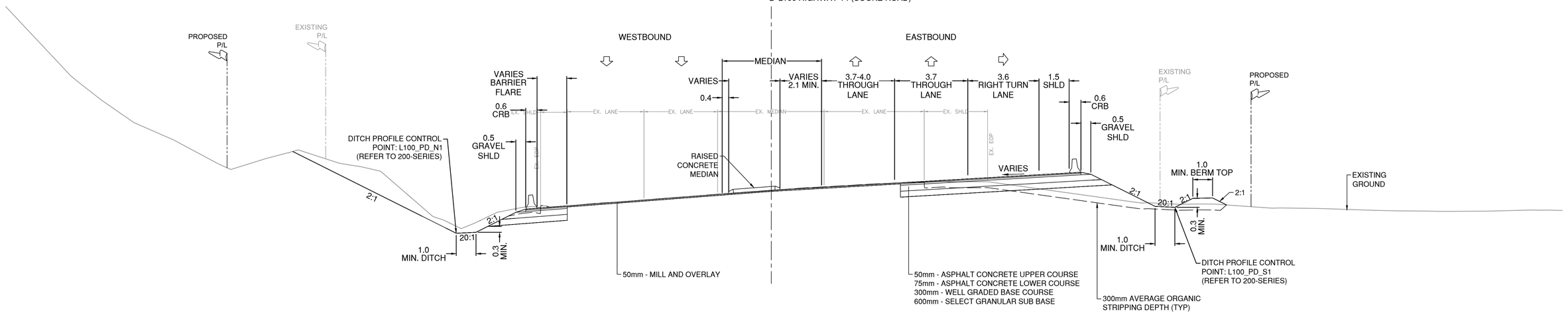
PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\300_TypicalSections\R1-XXXX-300.dwg



L100 HIGHWAY 14 (SOOKE ROAD)

SECTION @ STA 109+73

STA 109+73.000 TO STA110+00.000



L100 HIGHWAY 14 (SOOKE ROAD)

SECTION @ STA 108+75

STA 108+63.000 TO STA 109+73.000

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 1 1:100 5m

CAD FILENAME R1-XXXX-300.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

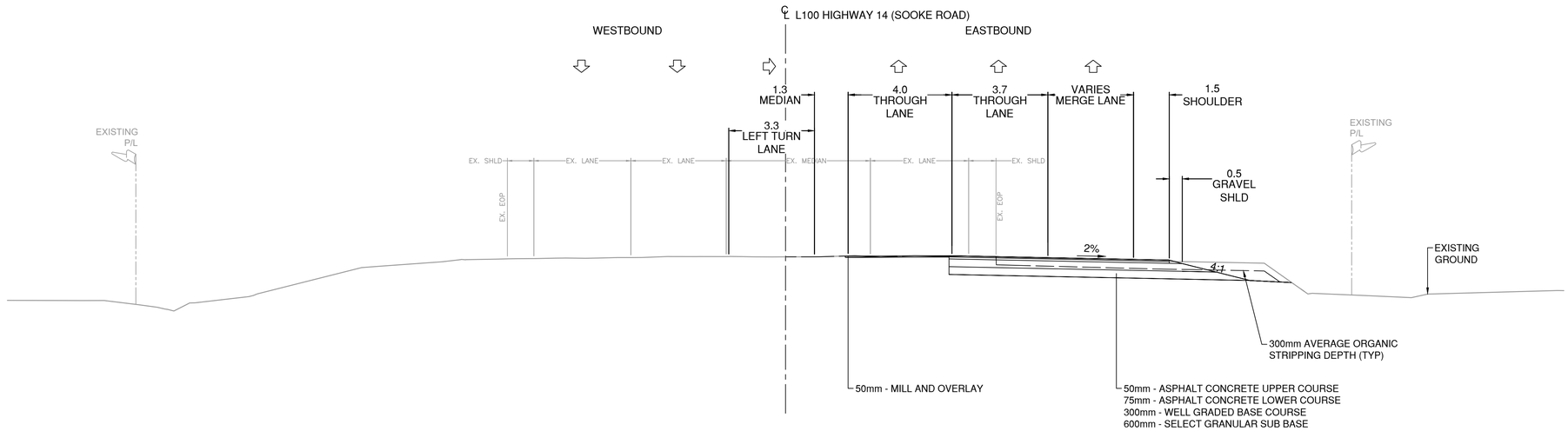
TYPICAL SECTION

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-302	PB

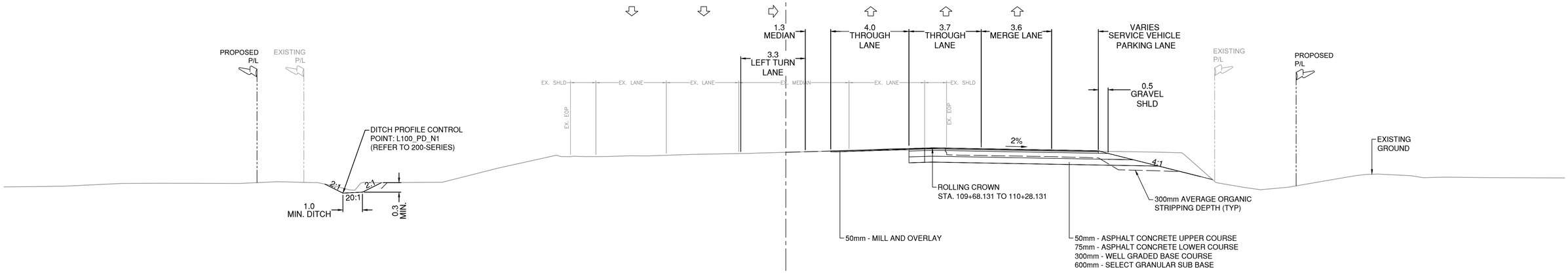
PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\300_TypicalSections\R1-XXXX-300.dwg



L100 HIGHWAY 14 (SOOKE ROAD)

SECTION @ STA 110+40

STA 110+40.000 TO STA 114+58.754



L100 HIGHWAY 14 (SOOKE ROAD)

SECTION @ STA 110+00

STA 110+00.000 TO STA 110+40.000

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT

SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 1 1:100 5m

CAD FILENAME R1-XXXX-300.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

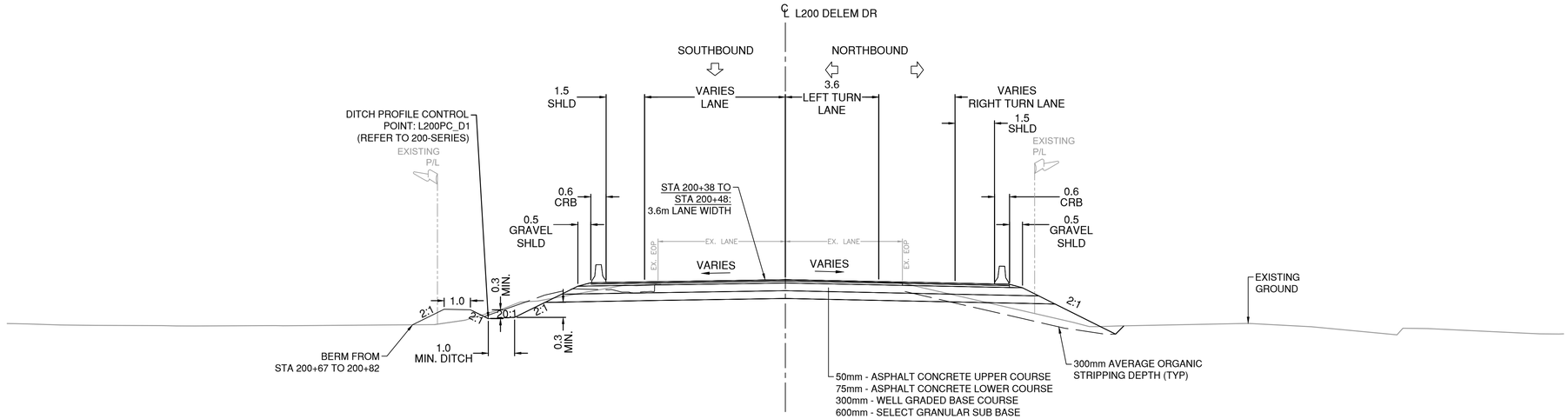
TYPICAL SECTION

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-303	PB

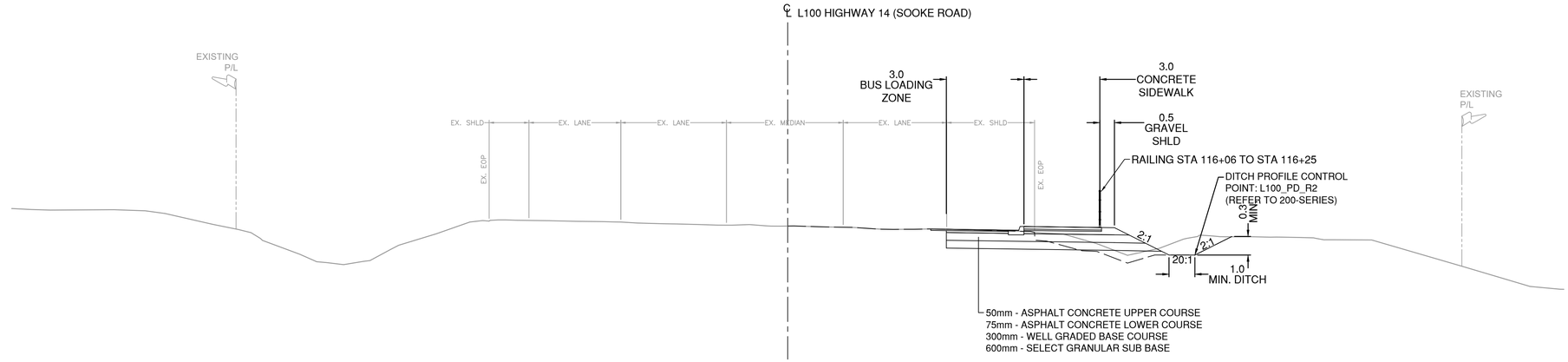
PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\300_TypicalSections\R1-XXXX-300.dwg



L200 DELEM DR

SECTION @ STA 200+70

STA 200+38.929 TO STA 200+82.306



L100 HIGHWAY 14 (SOOKE ROAD)

SECTION @ STA 116+20

STA 116+06.822 TO STA 116+24.821

SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

SCALE 0 1 1:100 5m

CAD FILENAME R1-XXXX-300.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

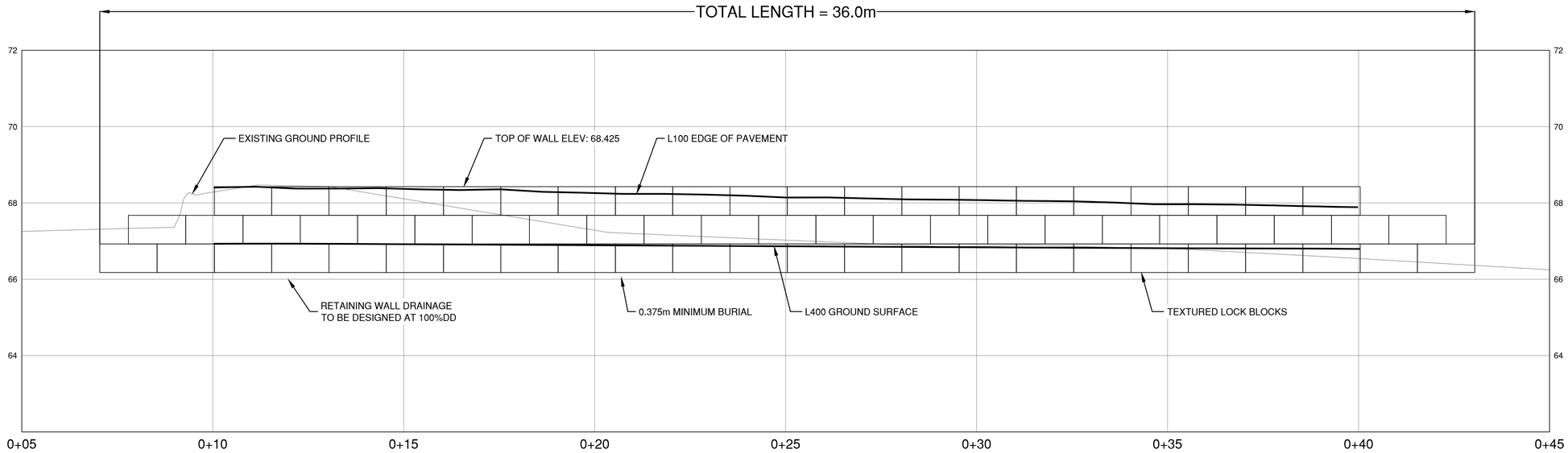
TYPICAL SECTION

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-304	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\300_TypicalSections\R1-XXXX-300.dwg



LOCK BLOCK RETAINING WALL
STA 0+07.042 TO STA 0+43.042

FINAL WALL ARRANGEMENT TO BE CONFIRMED BY CONTRACTOR

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE N.T.S.

CAD FILENAME R1-XXX-350.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

DETAILS

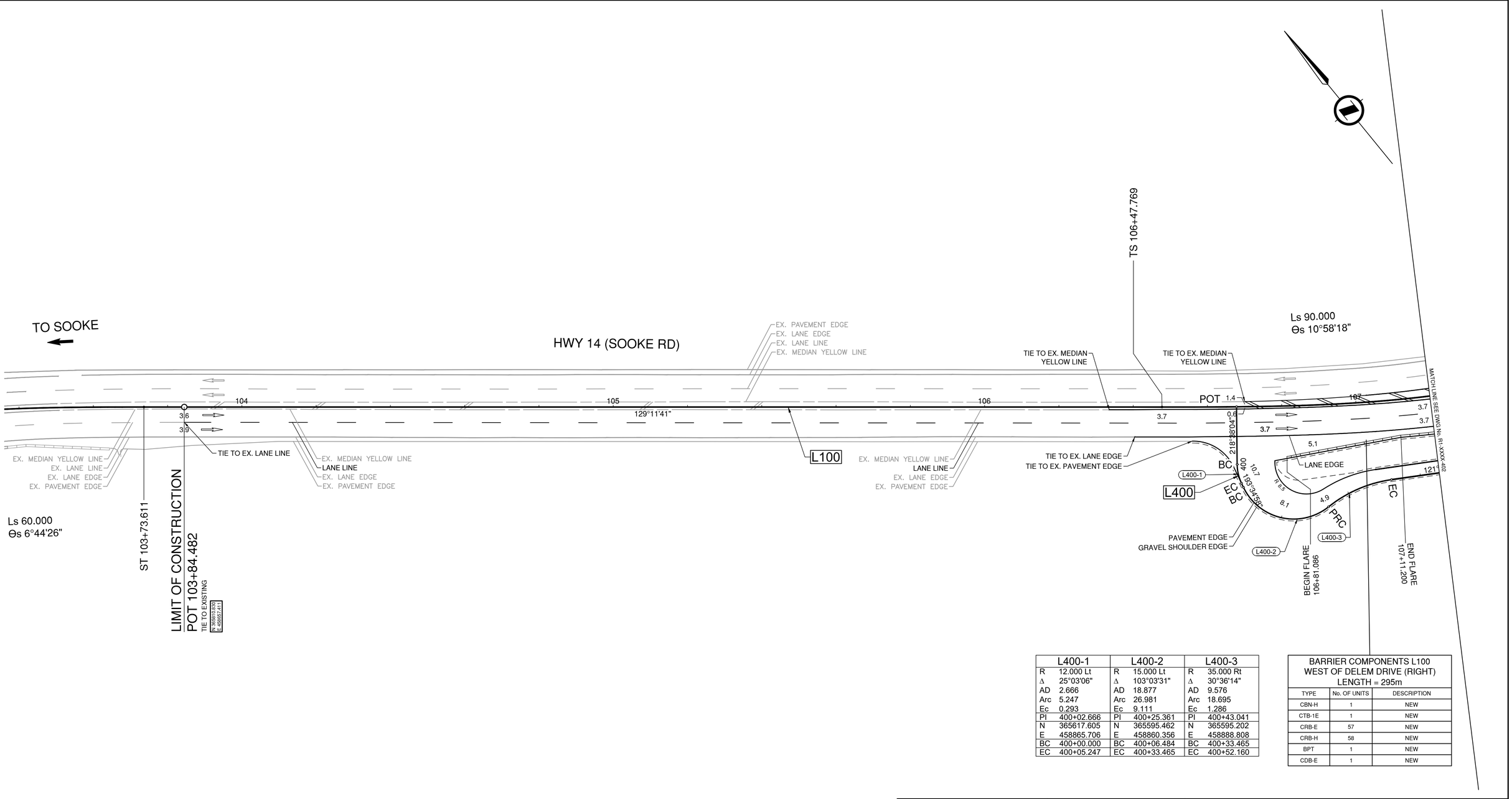
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

LOCK BLOCK RETAINING WALL

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-351	PB

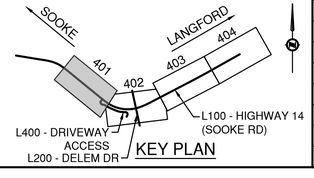
PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\350_Details\R1-XXX-350.dwg



L400-1		L400-2		L400-3	
R	12.000 Lt	R	15.000 Lt	R	35.000 Rt
Δ	25°03'06"	Δ	103°03'31"	Δ	30°36'14"
AD	2.666	AD	18.877	AD	9.576
Arc	5.247	Arc	26.981	Arc	18.695
Ec	0.293	Ec	9.111	Ec	1.286
PI	400+02.666	PI	400+25.361	PI	400+43.041
N	365617.605	N	365595.462	N	365595.202
E	458865.706	E	458860.356	E	458888.808
BC	400+00.000	BC	400+06.484	BC	400+33.465
EC	400+05.247	EC	400+33.465	EC	400+52.160

BARRIER COMPONENTS L100 WEST OF DELEM DRIVE (RIGHT) LENGTH = 295m		
TYPE	No. OF UNITS	DESCRIPTION
CBN-H	1	NEW
CTB-1E	1	NEW
CRB-E	57	NEW
CRB-H	58	NEW
BPT	1	NEW
CDB-E	1	NEW

DESIGN SPEED	60 km/h	EB
DESIGN SPEED	80 km/h	WB



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-400.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

GEOMETRICS AND LANING

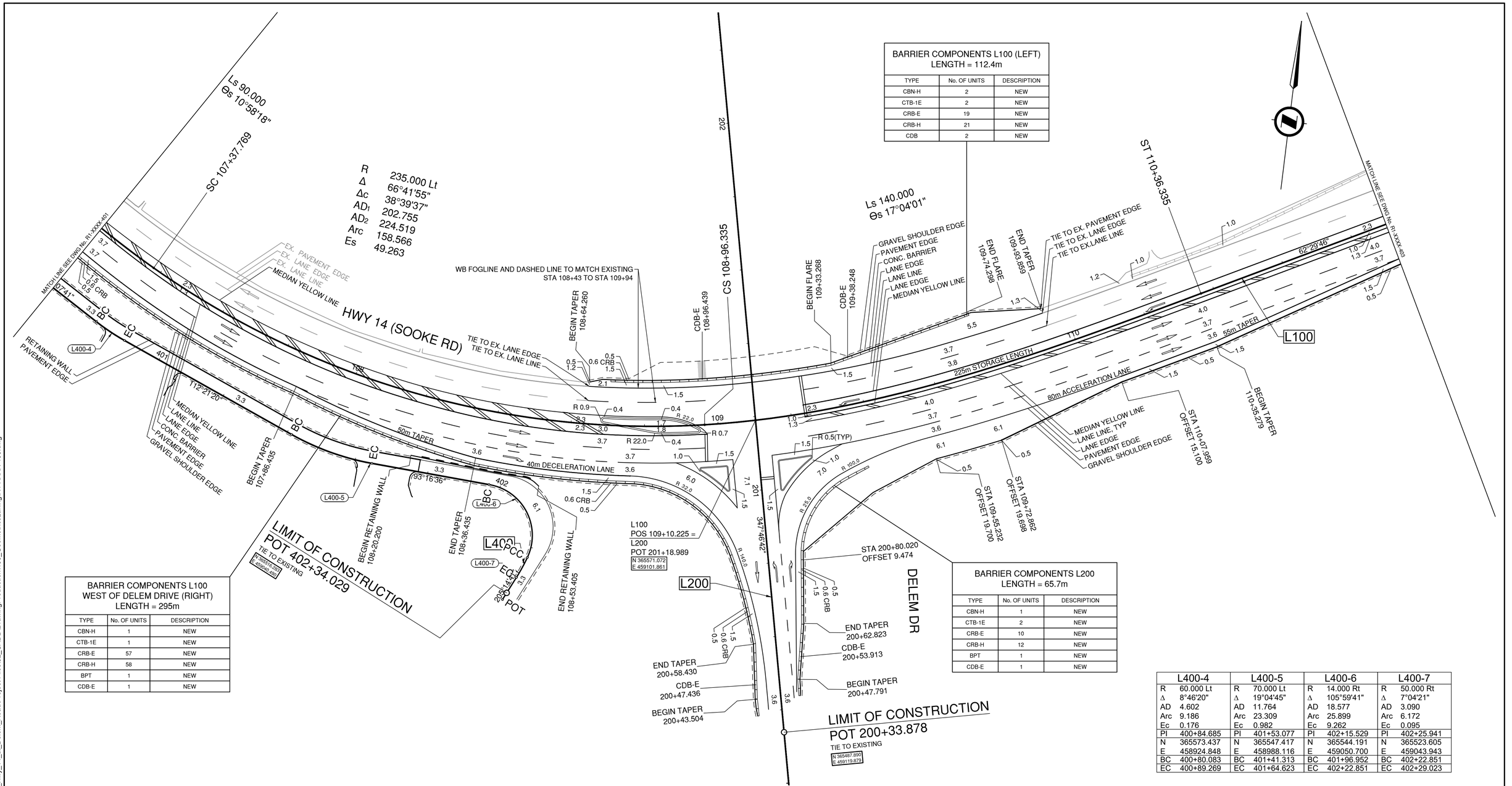
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 103+84.482 TO STA 107+20.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN Y. KIM DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-401	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\400_GeometricsLaning\R1-XXXX-400.dwg



BARRIER COMPONENTS L100 (LEFT) LENGTH = 112.4m		
TYPE	No. OF UNITS	DESCRIPTION
CBN-H	2	NEW
CTB-1E	2	NEW
CRB-E	19	NEW
CRB-H	21	NEW
CDB	2	NEW

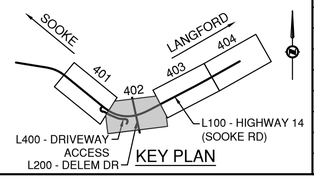
BARRIER COMPONENTS L100 WEST OF DELEM DRIVE (RIGHT) LENGTH = 295m		
TYPE	No. OF UNITS	DESCRIPTION
CBN-H	1	NEW
CTB-1E	1	NEW
CRB-E	57	NEW
CRB-H	58	NEW
BPT	1	NEW
CDB-E	1	NEW

BARRIER COMPONENTS L200 LENGTH = 65.7m		
TYPE	No. OF UNITS	DESCRIPTION
CBN-H	1	NEW
CTB-1E	2	NEW
CRB-E	10	NEW
CRB-H	12	NEW
BPT	1	NEW
CDB-E	1	NEW

L400-4		L400-5		L400-6		L400-7	
R	60.000 Lt	R	70.000 Lt	R	14.000 Rt	R	50.000 Rt
Δ	8°46'20"	Δ	19°04'45"	Δ	105°59'41"	Δ	7°04'21"
AD	4.602	AD	11.764	AD	18.577	AD	3.090
Arc	9.186	Arc	23.309	Arc	25.899	Arc	6.172
Ec	0.176	Ec	0.982	Ec	9.262	Ec	0.095
PI	400+84.685	PI	401+53.077	PI	402+15.529	PI	402+25.941
N	365573.437	N	365547.417	N	365544.191	N	365523.605
E	458924.848	E	458988.116	E	459050.700	E	459043.943
BC	400+80.083	BC	401+41.313	BC	401+96.952	BC	402+22.851
EC	400+89.269	EC	401+64.623	EC	402+22.851	EC	402+29.023

DESIGN SPEED 60 km/h EB

DESIGN SPEED 80 km/h WB



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-400.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

GEOMETRICS AND LANING

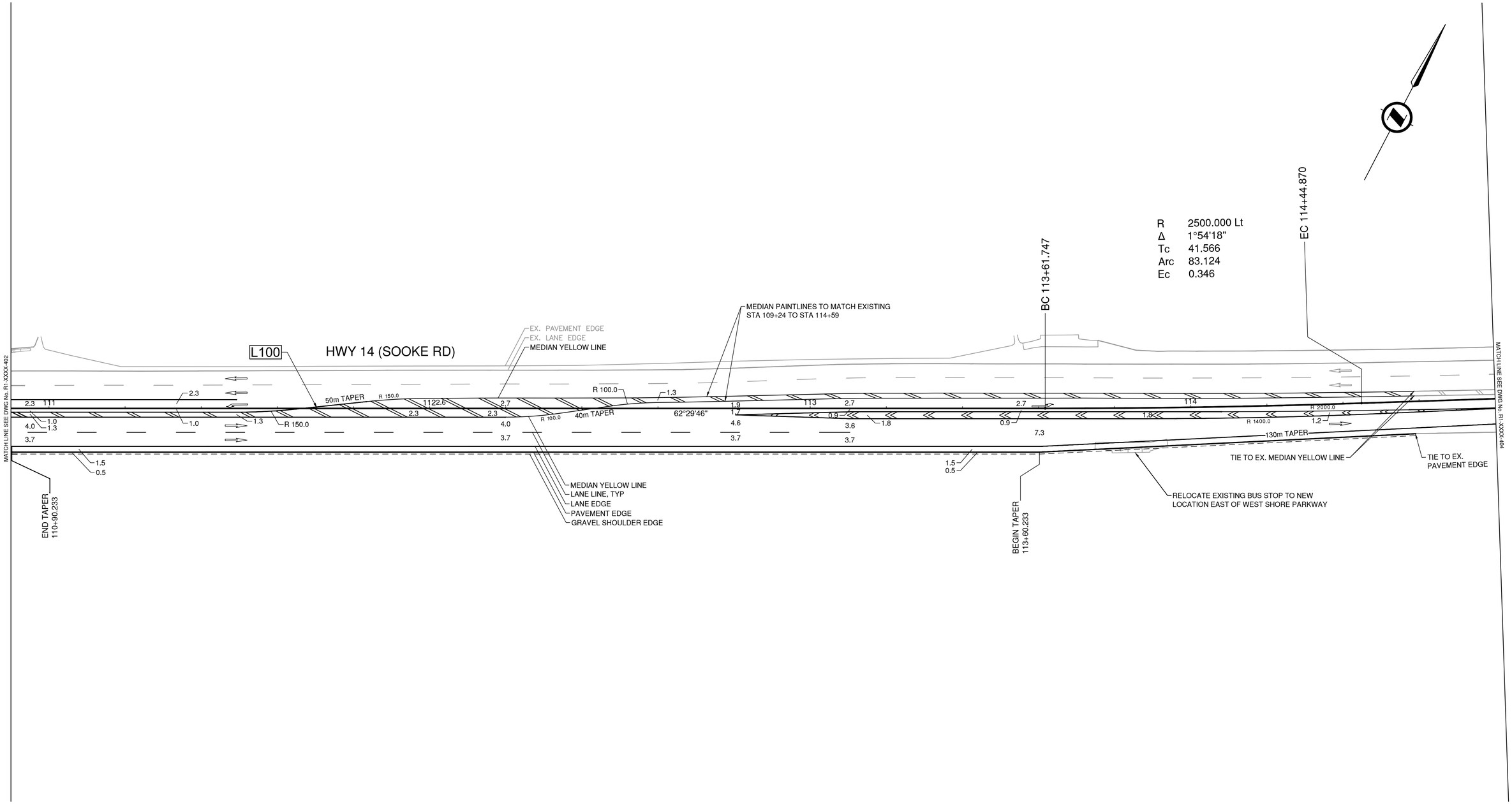
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 107+20.000 TO STA 110+90.000

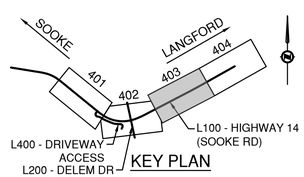
DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-402	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\400_GeometricsLaning\R1-XXXX-400.dwg



DESIGN SPEED	60 km/h	EB
DESIGN SPEED	80 km/h	WB



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-400.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

GEOMETRICS AND LANING

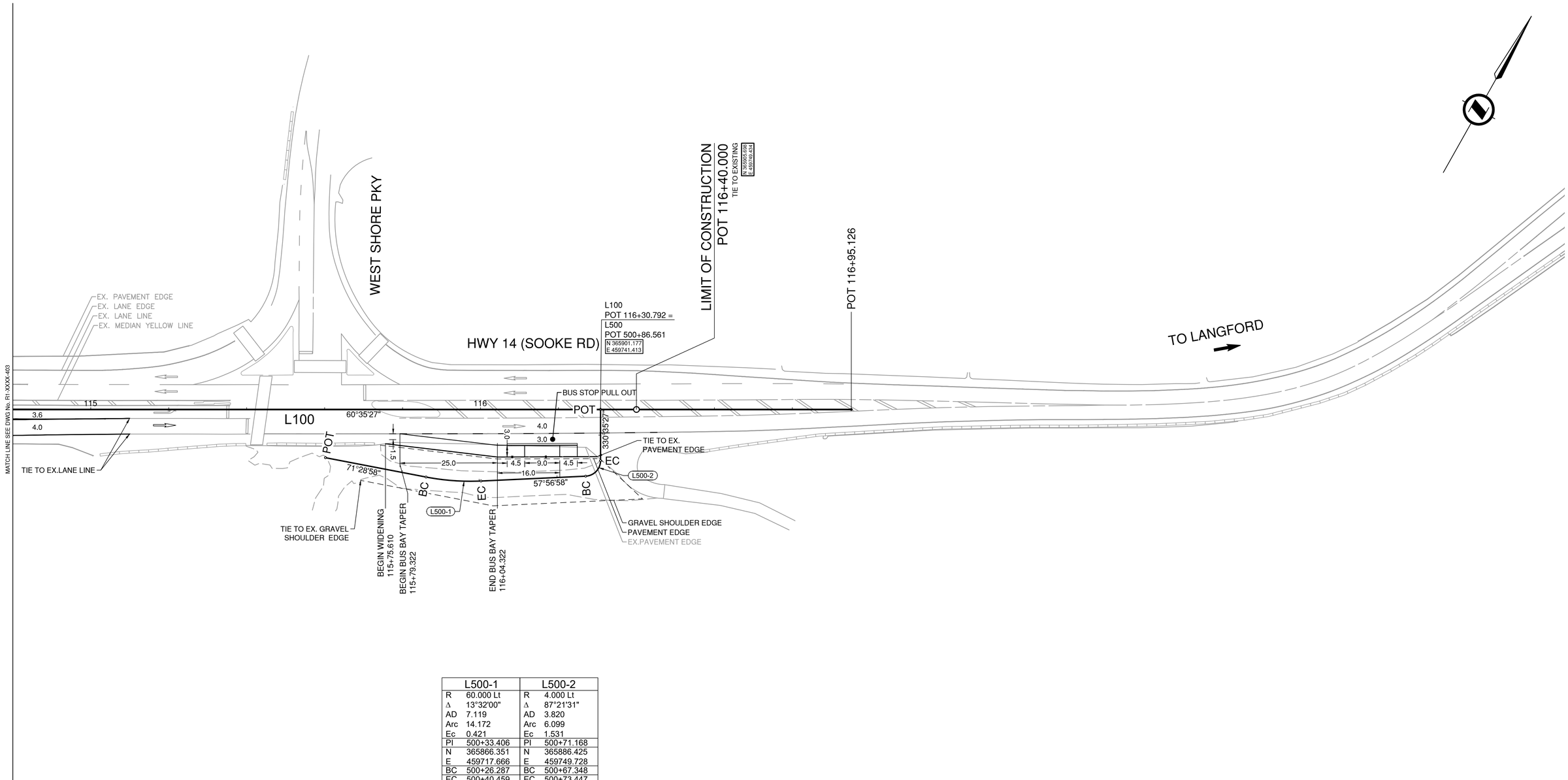
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 110+90.000 TO STA 114+80.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

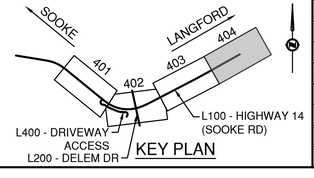
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-403	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\400_GeometricsLaning\R1-XXXX-400.dwg



L500-1		L500-2	
R	60.000 Lt	R	4.000 Lt
Δ	13°32'00"	Δ	87°21'31"
AD	7.119	AD	3.820
Arc	14.172	Arc	6.099
Ec	0.421	Ec	1.531
PI	500+33.406	PI	500+71.168
N	365866.351	N	365886.425
E	459717.666	E	459749.728
BC	500+26.287	BC	500+67.348
EC	500+40.459	EC	500+73.447

DESIGN SPEED	60 km/h	EB
DESIGN SPEED	80 km/h	WB



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-400.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

GEOMETRICS AND LANING

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 114+80.000 TO STA 116+40.000

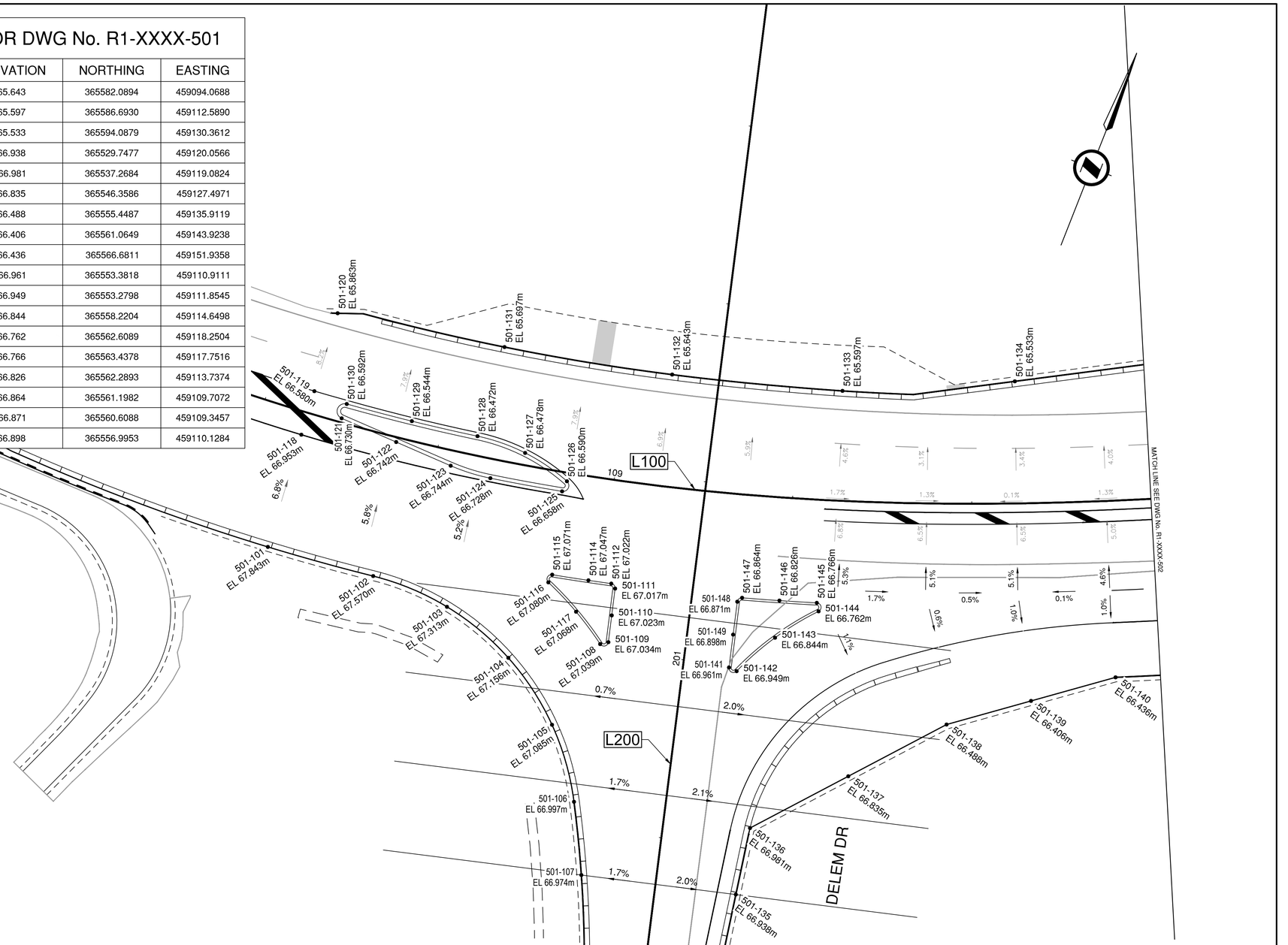
DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-404	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\400_GeometricsLaning\R1-XXXX-400.dwg

POINTS FOR DWG No. R1-XXXX-501			
POINT ID	ELEVATION	NORTHING	EASTING
501-101	67.843	365548.9661	459057.9369
501-102	67.570	365549.8036	459070.0974
501-103	67.313	365549.3068	459078.9970
501-104	67.156	365546.2113	459087.3498
501-105	67.085	365540.7915	459094.4209
501-106	66.997	365533.5042	459099.5936
501-107	66.974	365526.0710	459103.0822
501-108	67.039	365551.0661	459096.4949
501-109	67.034	365551.5702	459097.2858
501-110	67.023	365554.5140	459096.6482
501-111	67.017	365557.4577	459096.0106
501-112	67.022	365557.8417	459095.4214
501-114	67.047	365557.3365	459092.8951
501-115	67.071	365556.5872	459088.8742
501-116	67.080	365555.6380	459088.7586
501-117	67.068	365553.5756	459092.7589
501-118	66.953	365562.0115	459057.2996
501-119	66.580	365567.0745	459057.0523
501-120	65.863	365576.1354	459056.6097
501-121	66.730	365565.2306	459060.9293
501-122	66.742	365564.7591	459067.5424
501-123	66.744	365564.2875	459074.1555
501-124	66.728	365564.4469	459078.7890
501-125	66.658	365565.7194	459086.8224
501-126	66.590	365566.9615	459086.9549
501-127	66.478	365568.3958	459081.5110
501-128	66.472	365568.3915	459075.8813
501-129	66.544	365567.5385	459068.4196
501-130	66.592	365566.9267	459060.9342
501-131	65.697	365578.7690	459075.4170

POINTS FOR DWG No. R1-XXXX-501			
POINT ID	ELEVATION	NORTHING	EASTING
501-132	65.643	365582.0894	459094.0688
501-133	65.597	365586.6930	459112.5890
501-134	65.533	365594.0879	459130.3612
501-135	66.938	365529.7477	459120.0566
501-136	66.981	365537.2684	459119.0824
501-137	66.835	365546.3586	459127.4971
501-138	66.488	365555.4487	459135.9119
501-139	66.406	365561.0649	459143.9238
501-140	66.436	365566.6811	459151.9358
501-141	66.961	365553.3818	459110.9111
501-142	66.949	365553.2798	459111.8545
501-143	66.844	365558.2204	459114.6498
501-144	66.762	365562.6089	459118.2504
501-145	66.766	365563.4378	459117.7516
501-146	66.826	365562.2893	459113.7374
501-147	66.864	365561.1982	459109.7072
501-148	66.871	365560.6088	459109.3457
501-149	66.898	365556.9953	459110.1284



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 2 1:250 12m

CAD FILENAME R1-XXXX-500.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

SPOT ELEVATIONS

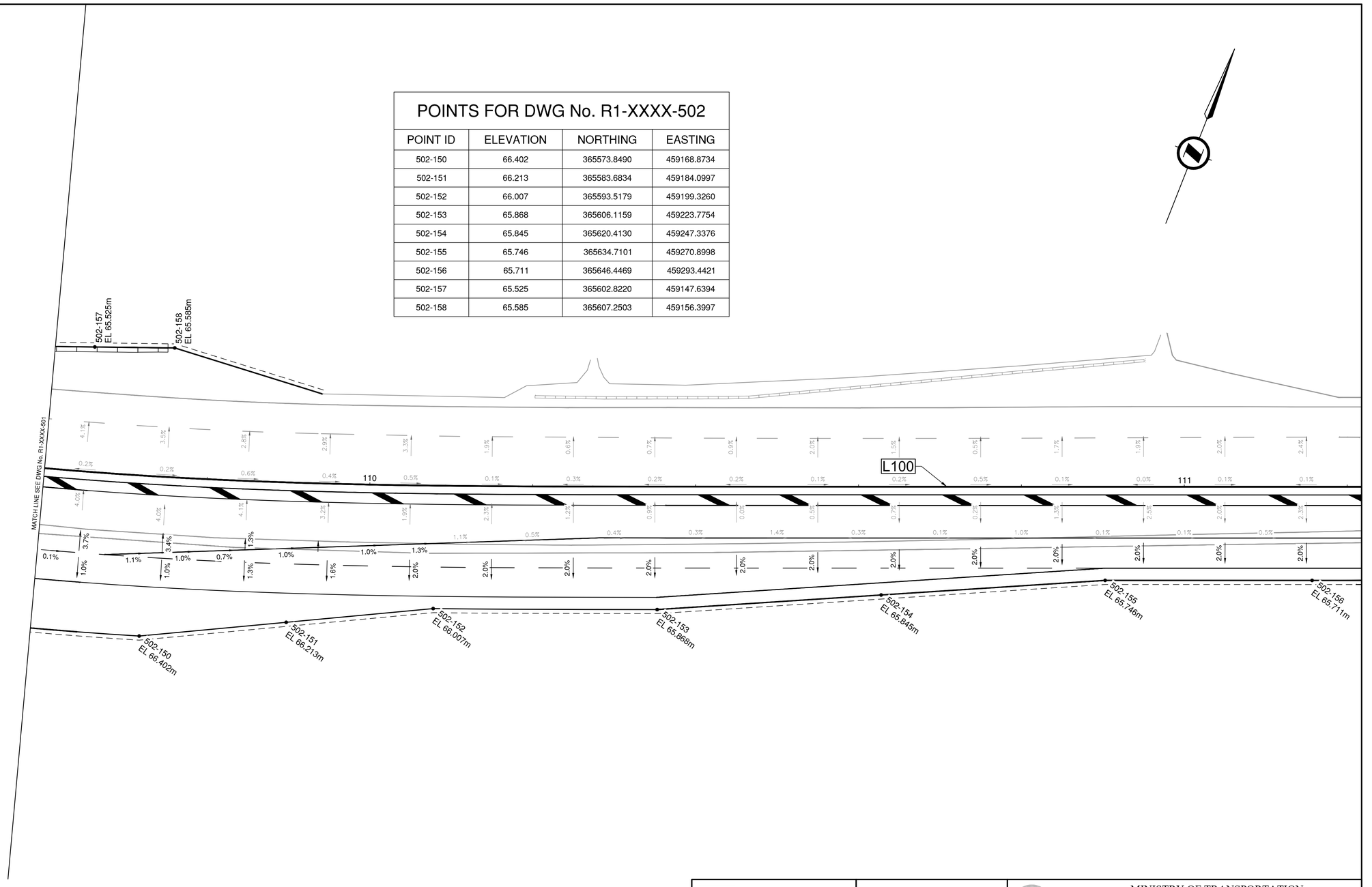
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN Y. KIM DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-501	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\500_SpotElevations\R1-XXXX-500.dwg

POINTS FOR DWG No. R1-XXXX-502			
POINT ID	ELEVATION	NORTHING	EASTING
502-150	66.402	365573.8490	459168.8734
502-151	66.213	365583.6834	459184.0997
502-152	66.007	365593.5179	459199.3260
502-153	65.868	365606.1159	459223.7754
502-154	65.845	365620.4130	459247.3376
502-155	65.746	365634.7101	459270.8998
502-156	65.711	365646.4469	459293.4421
502-157	65.525	365602.8220	459147.6394
502-158	65.585	365607.2503	459156.3997



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 2 1:250 12m

CAD FILENAME R1-XXXX-500.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

SPOT ELEVATIONS

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN Y. KIM DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-502	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\500_SpotElevations\R1-XXXX-500.dwg

TO SOOKE

REMAIN G-009-2A

Awsworth W 1 KM AHEAD

HWY 14 (SOOKE RD)

EX. LANE EDGE
EX. LANE LINE
EX. MEDIAN YELLOW LINE

TIE TO EX. MEDIAN YELLOW LINE

MATCH LINE SEE DWG No. R1-XXXX-602

104 105 106 107

3.6 3.9 5 8 5 3.6 3.7 2.0 3.7 3.7

EX. MEDIAN YELLOW LINE
EX. LANE LINE
EX. LANE EDGE

TIE TO EXISTING LANE

EX. MEDIAN YELLOW LINE
LANE LINE
EX. LANE EDGE

100mm DASHED WHITE LINE

L100

EX. MEDIAN YELLOW LINE
LANE LINE
EX. LANE EDGE

TIE TO EX. MEDIAN YELLOW LINE
TIE TO EX. LANE EDGE

TIE TO EX. PAVEMENT EDGE

1.2

LANE EDGE

1.5

40 10.7

8.1 4.9

NEW R-001

STOP

NEW W-054-R

LIMIT OF CONSTRUCTION
POT 103+84.482
TIE TO EXISTING
N. 5658170.830
E. 456952.414

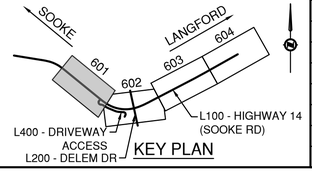
DESIGN SPEED 60 km/h EB

DESIGN SPEED 80 km/h WB

FOR GEOMETRICS AND LANING
SEE DWG No. R1-XXXX-401

PAVEMENT MARKINGS LEGEND

YL	100 mm SOLID SINGLE YELLOW LINE
	100 mm SOLID WHITE LINE
5 8 5	100 mm WHITE LANE LINE
3 3	100 mm WHITE CONTINUITY LINE



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-600.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

SIGNING AND PAVEMENT MARKINGS

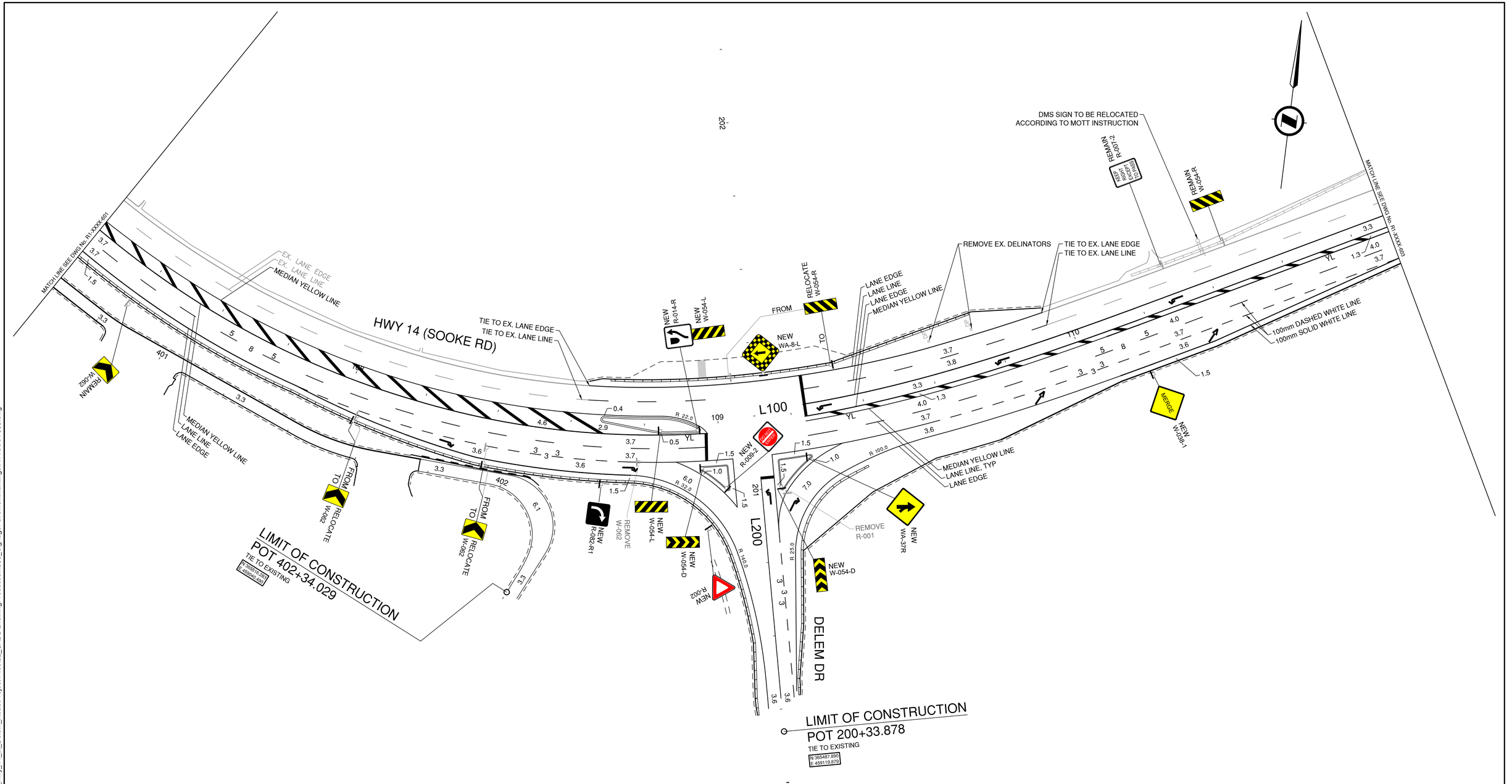
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 103+84.482 TO STA 107+20.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-601	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\600_SignagePavementMarkings\R1-XXXX-600.dwg



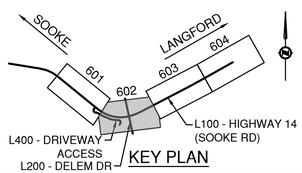
DESIGN SPEED 60 km/h EB

DESIGN SPEED 80 km/h WB

FOR GEOMETRICS AND LANING SEE DWG No. R1-XXXX-401

PAVEMENT MARKINGS LEGEND

YL	100 mm SOLID SINGLE YELLOW LINE
	100 mm SOLID WHITE LINE
5 8 5	100 mm WHITE LANE LINE
3 3 3	100 mm WHITE CONTINUITY LINE



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-600.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

SIGNING AND PAVEMENT MARKINGS

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 107+20.000 TO STA 110+90.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-602	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\600_SignagePavementMarkings\R1-XXXX-600.dwg

HWY 14 (SOOKE RD)

MATCH LINE SEE DWG No. R1-XXXX-602

MATCH LINE SEE DWG No. R1-XXXX-604

L100

TIE TO EX. MEDIAN YELLOW LINE

REMAIN W-401-R

REMAIN P-058

REMAIN BC TRANSIT BUS STOP SIGN

REMAIN P-058

111 112 113 114

YL

3.3 4.0 1.3 3.7 1.5 3.3 1.3 5 8 5 5.0 4.9 4.0 3.7 3.6 4.6 3.6 3.7 3.6 1.8 3.7 3.6 1.8 7.3 1.2

FROM TO

100mm DASHED WHITE LINE
100mm SOLID WHITE LINE

150m

NEW W-401-R
W-401-TA

RELOCATE R-003

60 km/h

RELOCATE R-004

MAXIMUM 60 km/h

NEW W-061-R

RELOCATE G-008-1A

West Shore Parkway

RELOCATE G-011-2
G-011-1
G-011-TaLR

14

RELOCATE R-122-3
RELOCATE R-063-L

RELOCATE P-058

RELOCATE BC TRANSIT BUS STOP SIGN

REMAIN P-058

60km/h SIGN LOCATIONS TO BE CONFIRMED AT 100%DD STAGE

SIGN LOCATIONS TO BE CONFIRMED AT 100%DD STAGE

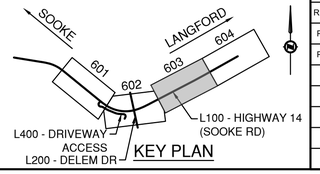
DESIGN SPEED 60 km/h EB

DESIGN SPEED 80 km/h WB

FOR GEOMETRICS AND LANING SEE DWG No. R1-XXXX-401

PAVEMENT MARKINGS LEGEND

- YL — 100 mm SOLID SINGLE YELLOW LINE
- 100 mm SOLID WHITE LINE
- 5 8 — 100 mm WHITE LANE LINE
- 3 3 — 100 mm WHITE CONTINUITY LINE



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-600.DWG
FILE NUMBER 34214
PLOT DATE 2026-09-29

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

SIGNING AND PAVEMENT MARKINGS

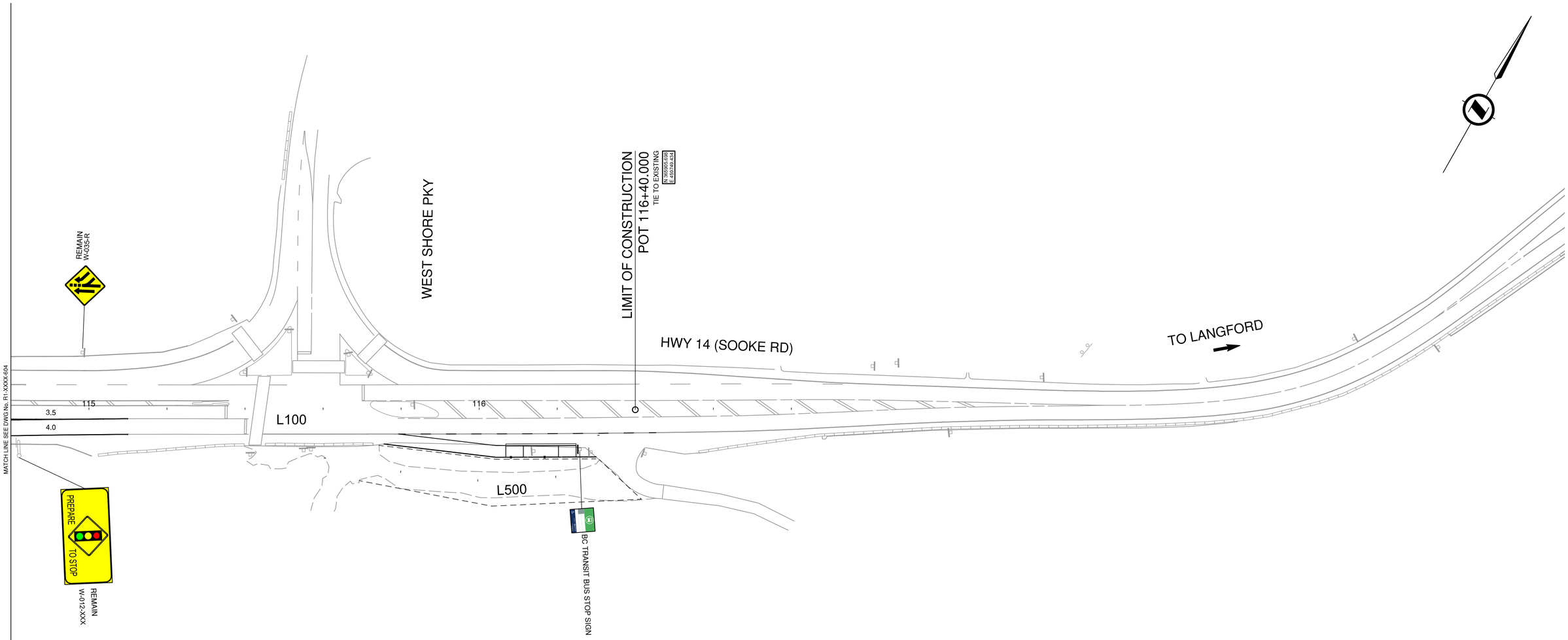
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 110+90.000 TO STA 114+80.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-603	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\600_SignagePavementMarkings\R1-XXXX-600.dwg



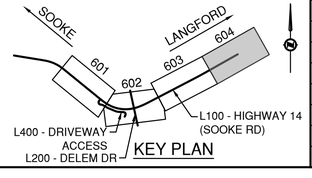
DESIGN SPEED 60 km/h EB

DESIGN SPEED 80 km/h WB

FOR GEOMETRICS AND LANING
SEE DWG No. R1-XXXX-401

PAVEMENT MARKINGS LEGEND

YL	100 mm SOLID SINGLE YELLOW LINE
	100 mm SOLID WHITE LINE
5 8 5	100 mm WHITE LANE LINE
3 3	100 mm WHITE CONTINUITY LINE



ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

SCALE 0 5 1:500 25m

CAD FILENAME R1-XXXX-600.DWG
FILE NUMBER 34214
PLOT DATE 2026-10-02

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-09-25	90% DETAILED DESIGN	A. SANTOS

SIGNING AND PAVEMENT MARKINGS

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

STA 114+80.000 TO STA 116+40.000

DESIGNED N. THUNSTROM DATE 2026-09-25
QUALITY CONTROL M. ELLIOTT DATE 2026-09-25
QUALITY ASSURANCE A. SANTOS DATE 2026-09-25
DRAWN P. NGO DATE 2026-09-25

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-604	PB

PLOT DATE: 2026/10/02 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\600_SignagePavementMarkings\R1-XXXX-600.dwg

HIGHWAY 14 AT DELEM ROAD

TRAFFIC SIGNAL AND LIGHTING INSTALLATION

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT MINISTRY OF TRANSPORTATION AND TRANSIT (MoTT) STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE ELECTRICAL SPECIAL PROVISIONS.
2. ELECTRICAL WORK SHALL CONFORM TO LATEST EDITION OF CANADIAN ELECTRICAL CODE AND BULLETINS PUBLISHED BY TECHNICAL SAFETY BC.
3. ALL WORK SHALL CONFORM TO ALL APPLICABLE REGULATIONS OF WORKSAFE BC.
4. THE CONTRACTOR SHALL SUPPLY ALL MATERIALS, EQUIPMENT AND LABOUR TO COMPLETE THE WORKS, EXCEPT AS NOTED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL FOR ALL WORK INCLUDED IN THIS CONTRACT. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CURRENT MoTT TRAFFIC CONTROL MANUAL FOR WORK ON ROADWAYS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES FOR PERMITS AND INSPECTIONS, AS REQUIRED BY TECHNICAL SAFETY BC.
7. ALL SIGNAL HEAD SECTIONS SHALL BE WIRED SEPARATELY FROM THE HANDHOLE OF THE POLE TO EACH HEAD INCLUDING A SEPARATE NEUTRAL AND BONDING CONDUCTOR FOR EACH HEAD.
8. THE CONTRACTOR SHALL NOT PRE-DRILL HOLES IN A SIGNAL POLE UNTIL AFTER THE BASE FOR THAT POLE HAS BEEN INSTALLED. THE CONTRACTOR SHALL ADVISE THE CONTRACT ADMINISTRATOR OF ANY ADJUSTMENTS MADE TO THE BASE LOCATION WHICH WILL EFFECT THE LOCATIONS OF HARDWARE TO BE MOUNTED ON THAT POLE PRIOR TO DRILLING.
9. ALL REDUNDANT HOLES IN POLES SHALL BE TREATED WITH GALVACON PAINT AND PLUGGED USING SUITABLE GALVANIZED PLUG OR COVER PLATE.
10. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
11. ALL LUMINAIRE, CONCRETE BASES, AND JUNCTION BOX SYMBOLS ARE NOT TO SCALE.
12. CONTRACTOR SHALL CONFIRM THE SERVICE CONNECTION WITH BC HYDRO. CONTACT THE CONTRACT ADMINISTRATOR TO COORDINATE.
13. THE CONTRACTOR SHALL OBTAIN PERMISSION FROM THE MoTT ELECTRICAL SERVICES MANAGER PRIOR TO TURNING OFF OR REMOVING ANY EXISTING ELECTRICAL EQUIPMENT. CONTACT THE CONTRACT ADMINISTRATOR TO COORDINATE.
14. THE CONTRACTOR SHALL ENSURE THERE IS NO INTERRUPTION OF EXISTING NIGHT TIME LIGHTING DURING CONSTRUCTION.
15. ENSURE CLEARANCES FROM OVERHEAD UTILITY LINES MEET UTILITY AND WORKSAFE BC REGULATIONS PRIOR TO CONCRETE BASE INSTALLATION. CONTACT CONTRACT ADMINISTRATOR IN THE EVENT OF CONFLICT.
16. LUMINAIRE NUMBERING EXAMPLE: 1A2 – SERVICE No. 1, CCT. LETTER A, LUM. No. 2.

ELECTRICAL CIVIL NOTES

1. ALL CONDUITS FROM JUNCTION BOXES TO BASES SHALL BE 50mm RPVC.
2. JUNCTION BOXES SHALL BE POSITIONED BEHIND, OR AS AN ALTERNATIVE, TO THE SIDE BUT NOT IN FRONT OF POLES.
3. ALL EMPTY CONDUITS SHALL HAVE A PULL STRING AND SHALL BE CAPPED. PULL STRING SHALL BE POLYPROPYLENE WITH A MINIMUM TENSILE STRENGTH OF 1.1 kN.
4. ALL EXISTING WIRING, CONDUIT AND BASES TO BE REMOVED SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR.
5. ALL CONDUITS SHALL BE VERIFIED AND CLEANED USING THE FOLLOWING PROCEDURE:
   - TO VERIFY INTEGRITY OF CONDUIT, PULL THROUGH EACH DUCT, A HARD RUBBER MANDREL NOT LESS 300mm LONG AND OF A DIAMETER 6mm LESS THAN INTERNAL DIAMETER OF DUCT, PRECEDED BY A SWAB OF SUITABLE DIAMETER TO REMOVE SAND, EARTH AND OTHER FOREIGN MATTER.
   - NOTIFY PROJECT ENGINEER IN THE EVENT OF CONDUIT FAILURE.
   - CLEAN DUCTS BEFORE LAYING, CAP ENDS OF DUCTS DURING CONSTRUCTION AND AFTER INSTALLATION TO PREVENT ENTRANCE OF FOREIGN MATERIALS.
   - TERMINATE CONDUIT ENDS IN THE JUNCTION BOX AS PER STANDARD DRAWINGS.
   - CLEAN AND VACUUM JUNCTION BOXES.
6. SPARE CONDUITS IN CONCRETE BASES SHALL BE CAPPED AT BOTH ENDS.
7. THE CONTRACTOR SHALL NOT USE ANY FACTORY BENDS IN CONDUIT RUNS UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER IN THE FIELD. WHERE FACTORY 90 DEGREE BENDS ARE APPROVED, THE RADIUS SHALL BE GREATER THAN 900mm.
8. SIGNAL POLES SHALL BE INSTALLED DIRECTLY BEHIND EDGE OF PAVEMENT OR 1.0m FROM FACE OF CURB WHERE LOCATED IN TRAFFIC ISLANDS UNLESS NOTED OTHERWISE.
9. LUMINAIRE POLES AND ADVANCE WARNING FLASHER POLES SHALL BE INSTALLED DIRECTLY BEHIND EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

ELECTRICAL MATERIAL SPECIFICATIONS

1. ALL MATERIALS SHALL BE NEW AND SUPPLIED FROM MoTT "RECOGNIZED PRODUCTS LIST" EXCEPT WHERE NOTED. ALL LIKE MATERIALS SHALL BE FROM THE SAME MANUFACTURER.
2. ELECTRICAL MATERIAL, EQUIPMENT AND FITTINGS MUST BEAR EVIDENCE OF C.S.A. APPROVAL OR SPECIAL CERTIFICATIONS ACCEPTABLE TO THE CHIEF ELECTRICAL INSPECTOR. UNAPPROVED ITEMS SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
3. ALL NEW JUNCTION BOXES SHALL BE EQUIPPED WITH STEEL LIDS.
4. CONDUCTORS FROM JUNCTION BOX TO LUMINAIRE POLES SHALL BE:
   2 No. 10 AND 1 No. 10 BOND IN 1–50mm RPVC, UNLESS NOTED OTHERWISE.
5. CONDUCTORS SHALL BE STRANDED COPPER, RW90 XLPE INSULATED UNLESS OTHERWISE NOTED.
6. LED LUMINAIRES SHALL BE SUPPLIED BY THE CONTRACTOR WITH A 10–YEAR WARRANTY. REFER TO THE LED LUMINAIRE PRODUCT LIST TABLE FOR TYPE AND QUANTITY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE MINISTRY WITH PURCHASING INFORMATION, INCLUDING DISTRIBUTOR AND DATE OF PURCHASE.
7. ALL LED LUMINAIRES SHALL BE PROVIDED WITH LAMP WATTAGE LABEL (BLACK LETTERING ON WITH BACKGROUND) TO NEMA STANDARDS.
8. THE MINISTRY SHALL SUPPLY AND INSTALL THE TRAFFIC CONTROLLER, CABINET, AND UPS, COMPLETE FINAL TERMINATIONS IN THE TRAFFIC CONTROLLER AND COMMISSION THE TRAFFIC SIGNAL. CONTRACTOR SHALL LEAVE SIGNAL CONDUCTORS COILED IN JUNCTION BOX NEXT TO CONTROLLER CABINET WITH SUFFICIENT SLACK. CONTRACTOR SHALL SUPPORT THE MINISTRY WITH TESTING AND TROUBLESHOOTING DURING SIGNAL COMMISSIONING AS REQUIRED. CONTRACTOR SHALL SUPPLY ALL NEW MATERIALS EXCEPT AS NOTED OTHERWISE.
9. REFER TO CONTRACT SPECIFICATIONS FOR SIGNING REQUIREMENTS.
10. JUNCTION BOXES AND POLE HAND COVERS SHALL BE EQUIPPED WITH TAMPERPROOF BOLTS.
11. ALL LUMINAIRE POLE CONCRETE BASES SHALL BE SUPPLIED WITH TWO 50mm RPVC RACEWAYS AS PER MoTT STANDARD SPECIFICATION DRAWING No. SP635–1.1.3A.
12. NEW ELECTRICAL PANELS SHALL BE 10kAIC RATED UNLESS NOTED OTHERWISE.

DRAWING INDEX

DWG No.	REV.	DESCRIPTION
TE–20009–1	–	TITLE PAGE – DRAWING INDEX – NOTES
TE–20009–2	–	SITE PLAN
TE–20009–3	–	SITE PLAN ENLARGEMENT
TE–20009–4	–	ELEVATIONS – DETAILS
TE–20009–5	–	ELEVATIONS

SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" FOR APPLICABLE STANDARD DRAWINGS

LED LUMINAIRE PRODUCT LIST

MANUFACTURER	MODEL No.	WATTAGE	DISTRIBUTION TYPE	QUANTITY
AEL	ATB0–P203–MVOLT–R2–4K–NL–SH	70W	TYPE II	5
AEL	ATB0–P203–MVOLT–R2–4K–NL–P7–PCLL	70W	TYPE II	1
AEL	ATB0–P303–MVOLT–R2–4K–NL–SH	106W	TYPE II	5

LEGEND (SOLID FILL DENOTES EXISTING)

- F — LUMINAIRE POLE (SINGLE) 'F' DENOTES FRANGIBLE BASE 'B' DENOTES BREAKAWAY BASE
- LUMINAIRE POLE (DOUBLE)
- COMBINATION LUMINAIRE/TRAFFIC SIGNAL POLE WITH SIDE MOUNTED SIGNAL HEAD
- SIGN WITH AMBER FLASHERS
- COMBINATION LUMINAIRE/SIGN
- SIGN POLE (NON–ILLUMINATED)
- PEDESTRIAN CROSSING RRFB POLE
- LUMINAIRE POLE ON MUNICIPAL SERVICE BASE
- PRIVATE LUMINAIRE (BASE VARIABLE)
- A,B,AT, A2(T) — SIGNAL HEAD VEHICLE PHASE (T) DENOTES TUNNEL VISOR
- PA,PB2 — SIGNAL HEAD PEDESTRIAN PHASE
- ppb — PEDESTRIAN PUSHBUTTON
- PEC — PHOTO ELECTRIC CELL
- RPVC — RIGID P.V.C. CONDUIT
- R.C. — RIGID STEEL CONDUIT
- RRFB — RAPID RECTANGULAR FLASHING BEACON
- F.C. — FLEXIBLE CONDUIT (LIQUID TIGHT)
- POST MOUNTED FLASHER
- TEST SWITCH
- 1P 2P — BREAKER
- NEUTRAL BAR
- OVERHEAD FLASHING BEACON
- POST TOP MOUNTED LUMINAIRE
- WALL MOUNTED LUMINAIRE
- POWER POLE
- RAISED CURB
- PROPERTY LINE
- EDGE OF GRAVEL SHOULDER
- EDGE OF PAVEMENT
- PAINT LINE
- ELECTRICAL EQUIPMENT TO BE REMOVED
- 10 — JUNCTION BOX – No. DENOTES TYPE
- CJB — CONCRETE JUNCTION BOX OR VAULT
- DIAMOND DETECTOR LOOP (WITH LOOP LEADER)
- PRE–FORMED DETECTOR LOOP
- ROUND DETECTOR LOOP
- SQUARE COUNT LOOP
- RECTANGULAR COUNT LOOP

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

MINISTRY OF TRANSPORTATION AND TRANSIT
ELECTRICAL AND ITS ENGINEERING

CAD FILENAME: 20009–1.DWG
PROJECT #:
PERMIT TO PRACTICE #: 1000208

REV	DATE	REVISIONS	DRAWN
–	JUL/26	TRAFFIC SIGNAL AND LIGHTING INSTALLATION	PBX

TRAFFIC SIGNAL AND LIGHTING INSTALLATION
HIGHWAY 14 AT DELEM DRIVE
LANGFORD

TITLE PAGE – DRAWING INDEX – NOTES

ANNIE BEAUVILLIER, P.ENG.
ELECTRICAL ENGINEER OF RECORD
(FOR CURRENT REVISION)
DATE: JULY 10, 2026

SHEET NUMBER: SHEET 1 OF 5

SEAL

DESIGNED JGT DATE JUL/26
QUALITY CONTROL AJB DATE JUL/26
QUALITY ASSURANCE AB DATE JUL/26
TRAN ELECTRICAL DESIGN REVIEW DATE

HWY.DIST	REG	DRAWING NUMBER
2	1	TE–20009–1 –

CANCEL PRINTS BEARING PREVIOUS LETTER

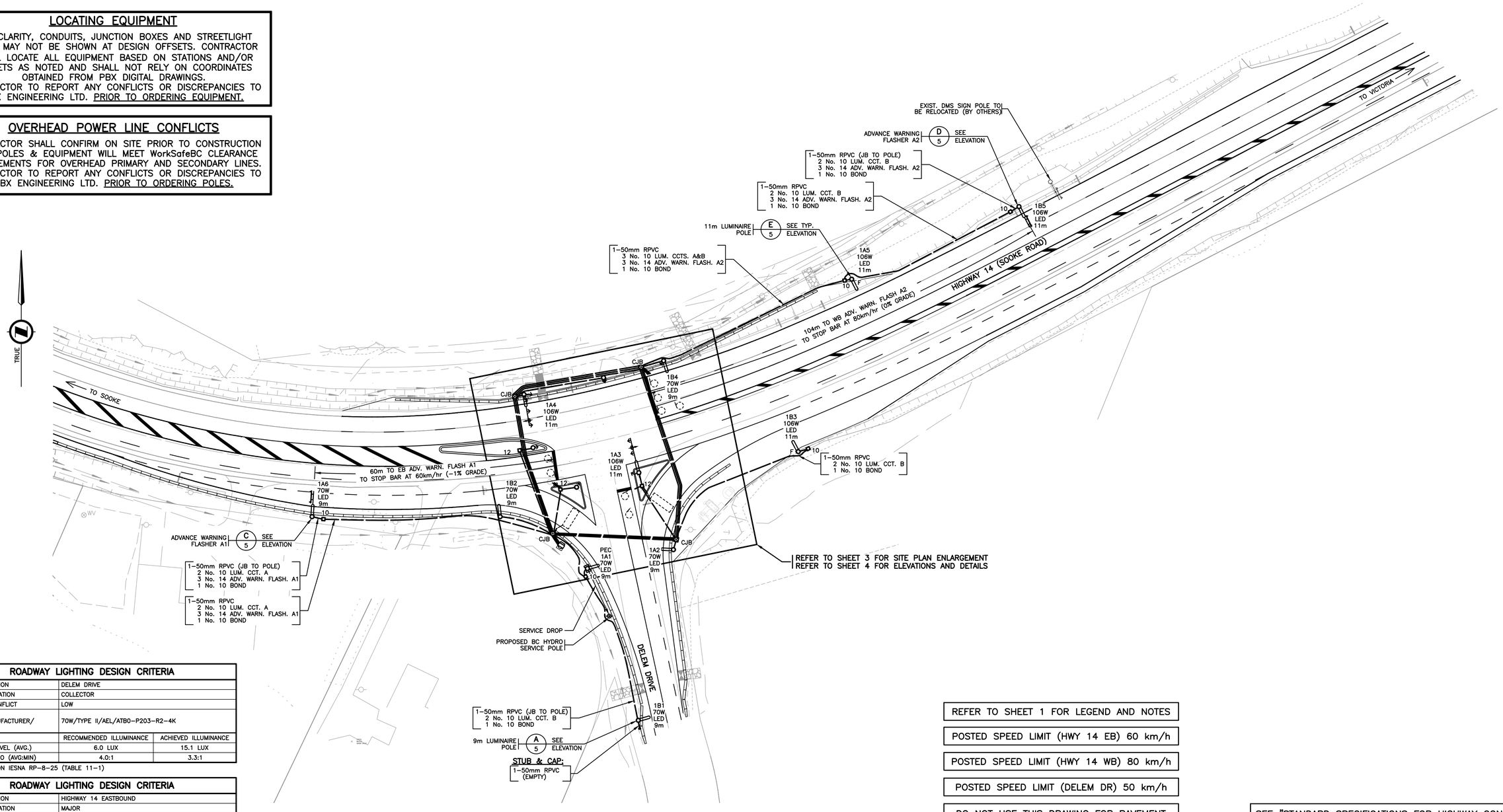
P:\250264 Langford Hwy 14 at Delem Rd\Drawings\ACAD\20009–1; 10/07/2026 12:10 PM; JAMES.THOMPSON

LOCATING EQUIPMENT

FOR CLARITY, CONDUITS, JUNCTION BOXES AND STREETLIGHT POLES MAY NOT BE SHOWN AT DESIGN OFFSETS. CONTRACTOR SHALL LOCATE ALL EQUIPMENT BASED ON STATIONS AND/OR OFFSETS AS NOTED AND SHALL NOT RELY ON COORDINATES OBTAINED FROM PBX DIGITAL DRAWINGS.
CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO PBX ENGINEERING LTD. PRIOR TO ORDERING EQUIPMENT.

OVERHEAD POWER LINE CONFLICTS

CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO CONSTRUCTION THAT POLES & EQUIPMENT WILL MEET WorkSafeBC CLEARANCE REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO PBX ENGINEERING LTD. PRIOR TO ORDERING POLES.



REFER TO SHEET 3 FOR SITE PLAN ENLARGEMENT
REFER TO SHEET 4 FOR ELEVATIONS AND DETAILS

SITE PLAN
0 1:500 25

ROADWAY LIGHTING DESIGN CRITERIA		
ROADWAY LOCATION	DELEM DRIVE	
ROAD CLASSIFICATION	COLLECTOR	
PEDESTRIAN CONFLICT	LOW	
WATTAGE/TYPE/ LUMINAIRE MANUFACTURER/ MODEL NUMBER	70W/TYPE II/AEL/ATB0-P203-R2-4K	
	RECOMMENDED ILLUMINANCE	ACHIEVED ILLUMINANCE
ILLUMINATION LEVEL (AVG.)	6.0 LUX	15.1 LUX
UNIFORMITY RATIO (AVG:MIN)	4.0:1	3.3:1

NOTE: BASED ON IESNA RP-8-25 (TABLE 11-1)

ROADWAY LIGHTING DESIGN CRITERIA		
ROADWAY LOCATION	HIGHWAY 14 EASTBOUND	
ROAD CLASSIFICATION	MAJOR	
PEDESTRIAN CONFLICT	LOW	
WATTAGE/TYPE/ LUMINAIRE MANUFACTURER/ MODEL NUMBER	70W/TYPE II/AEL/ATB0-P203-R2-4K	
	RECOMMENDED ILLUMINANCE	ACHIEVED ILLUMINANCE
ILLUMINATION LEVEL (AVG.)	9.0 LUX	12.2 LUX
UNIFORMITY RATIO (AVG:MIN)	3.5:1	3.5:1

NOTE: BASED ON IESNA RP-8-25 (TABLE 11-1)
CRITERIA CONVERTED TO ILLUMINANCE PER IESNA RP-8-25 SECTION 11.6 DUE TO CURVATURE OF ROADWAY

ROADWAY LIGHTING DESIGN CRITERIA		
ROADWAY NAME	HIGHWAY 14 WESTBOUND	
CLASSIFICATION	MAJOR	
PEDESTRIAN CONFLICT	LOW	
WATTAGE/TYPE/ LUMINAIRE MANUFACTURER/ MODEL NUMBER	106W/TYPE II/AEL/ATB0-P303-R2-4K	
	RECOMMENDED	DELIVERED
LUMINANCE (AV.)	0.6 cd/m²	0.9 cd/m²
VEILING LUMINANCE	L_{MAX}/L_{AV} = 0.3:1	L_{MAX}/L_{AV} = 0.3:1
UNIFORMITY	L_{AV}/L_{MIN} = 3.5:1 L_{MAX}/L_{MIN} = 6.0:1	L_{AV}/L_{MIN} = 2.2:1 L_{MAX}/L_{MIN} = 5.3:1

NOTE: BASED ON IESNA RP-8-25 (TABLE 11-1)

REFER TO SHEET 1 FOR LEGEND AND NOTES

POSTED SPEED LIMIT (HWY 14 EB) 60 km/h

POSTED SPEED LIMIT (HWY 14 WB) 80 km/h

POSTED SPEED LIMIT (DELEM DR) 50 km/h

DO NOT USE THIS DRAWING FOR PAVEMENT MARKING AND SIGNING STANDARDS

SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" FOR APPLICABLE STANDARD DRAWINGS

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

BC 1C

CHECK BEFORE YOU DIG

CONTRACTOR SHALL CONFIRM THE LOCATIONS OF ALL UNDERGROUND UTILITIES.

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

MINISTRY OF TRANSPORTATION AND TRANSIT
BRITISH COLUMBIA
ELECTRICAL AND ITS ENGINEERING

CAD FILENAME 20009-2.DWG
PROJECT #
PERMIT TO PRACTICE # 1000208

REV	DATE	REVISIONS	DRAWN
–	JUL/26	TRAFFIC SIGNAL AND LIGHTING INSTALLATION	PBX

TRAFFIC SIGNAL AND LIGHTING INSTALLATION
HIGHWAY 14 AT DELEM DRIVE
LANGFORD

SITE PLAN

ANNIE BEAUVILLIER, P.ENG.
ELECTRICAL ENGINEER OF RECORD (FOR CURRENT REVISION)
DATE: JULY 10, 2026

SHEET NUMBER
SHEET 2 OF 5

SEAL

DESIGNED JGT DATE JUL/26
QUALITY CONTROL AJB DATE JUL/26
QUALITY ASSURANCE AB DATE JUL/26
TRAN ELECTRICAL DESIGN REVIEW DATE

HWY.DIST	REG	DRAWING NUMBER
2	1	TE-20009-2 –

CANCEL PRINTS BEARING PREVIOUS LETTER

P:\250264_Langford_Hwy_14_at_Delem_Rd\Drawings\ACAD\20009-2.dwg 10/07/2026 4:48 PM JAMES.THOMPSON

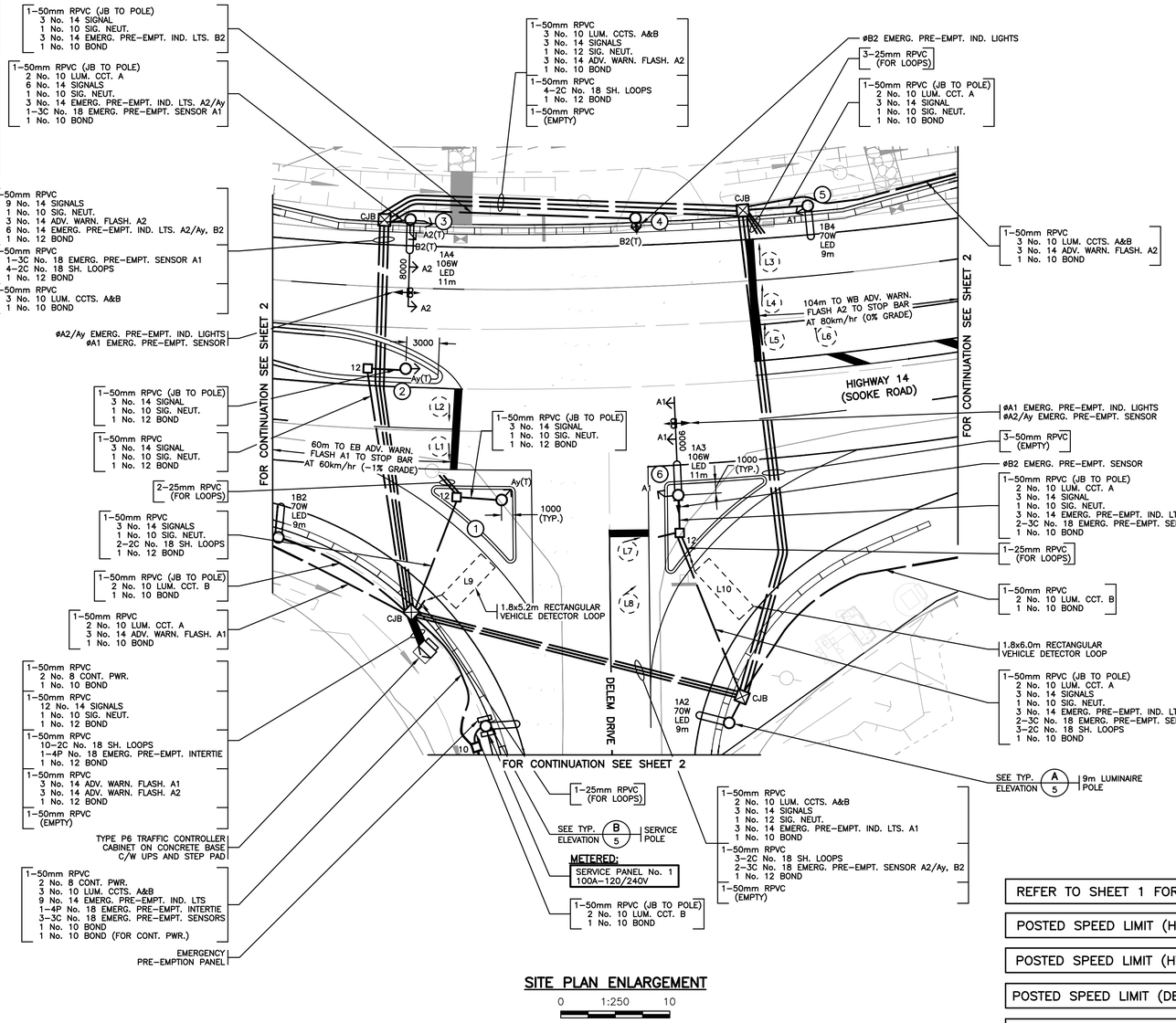
LOCATING EQUIPMENT

FOR CLARITY, CONDUITS, JUNCTION BOXES AND STREETLIGHT POLES MAY NOT BE SHOWN AT DESIGN OFFSETS. CONTRACTOR SHALL LOCATE ALL EQUIPMENT BASED ON STATIONS AND/OR OFFSETS AS NOTED AND SHALL NOT RELY ON COORDINATES OBTAINED FROM PBX DIGITAL DRAWINGS.
CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO PBX ENGINEERING LTD. PRIOR TO ORDERING EQUIPMENT.

OVERHEAD POWER LINE CONFLICTS

CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO CONSTRUCTION THAT POLES & EQUIPMENT WILL MEET WorkSafeBC CLEARANCE REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO PBX ENGINEERING LTD. PRIOR TO ORDERING POLES.

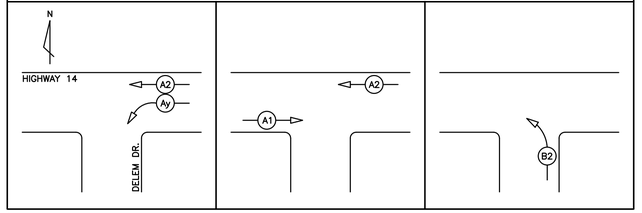




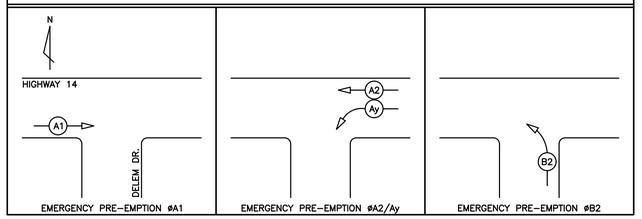
SITE PLAN ENLARGEMENT

0 1:250 10

SIGNAL DISPLAY



SIGNAL DISPLAY



CONDUCTOR COLOUR CODE

ITEM	SIGNAL SECTION	CONDUCTOR COLOUR
A1	RED YELLOW GREEN	RED YELLOW BLUE
A2	RED YELLOW GREEN	RED YELLOW (RED T.T.) BLUE
Ay	RED YELLOW GREEN ARROW	RED (BLUE T.T.) YELLOW (RED T.T.) BLUE (WHITE T.T.)
B2	RED YELLOW GREEN ARROW	RED BROWN (ORANGE T.T.) BLUE (WHITE T.T.)
CONTROLLER POWER		BLACK
LUMINAIRE CCT. A LUMINAIRE CCT. B		RED BLACK
ISLAND FLASHER		ORANGE
NEUTRAL		WHITE
GROUND/BOND		GREEN
ADVANCE WARNING FLASHER No. A1		YELLOW BROWN
ADVANCE WARNING FLASHER No. A2		YELLOW (RED T.T.) BROWN

NOTE: T.T. DENOTES TAPE TRACER.

DETECTOR LOOP DETAILS

LOOP			INDUCTANCE			PHASE
LOOP No.	SIZE(m)	TURNS	LOOP	LEAD	TOTAL	
L 1	1.8 ø	4	95	17	112	A1
L 2	1.8 ø	4	95	19	114	A1
L 3	1.8 ø	5	140	50	190	A2
L 4	1.8 ø	5	140	52	192	A2
L 5	1.8 ø	5	140	54	194	Ay
L 6	1.8 ø	5	140	55	195	Ay
L 7	1.8 ø	4	95	36	131	B2
L 8	1.8 ø	4	95	38	133	B2
L 9	1.8 x 5.2	3	138	7	145	COUNT
L 10	1.8 x 6.0	3	154	36	190	COUNT

EMERGENCY PRE-EMPTION CONDUCTOR LABELLING

ITEM	LABEL	COLOUR	CONDUCTOR TYPE
EMERG. PRE-EMPT. CAB. PWR.	N/A	BLACK/WHITE	RW90
EMERG. PRE-EMPT. SENSOR øA1	S1	N/A	BELDEN 8770
EMERG. PRE-EMPT. SENSOR øA2	S2	N/A	BELDEN 8770
EMERG. PRE-EMPT. SENSOR øB2	S3	N/A	BELDEN 8770
WHITE EMERG. INDICATION LIGHT øA1 BLUE EMERG. INDICATION LIGHT øA1	PE-A1-WH PE-A1-BL	RED RED (WHITE T.T.)	RW90 RW90
WHITE EMERG. INDICATION LIGHT øA2 BLUE EMERG. INDICATION LIGHT øA2	PE-A2-WH PE-A2-BL	RED RED (WHITE T.T.)	RW90 RW90
WHITE EMERG. INDICATION LIGHT øB2 BLUE EMERG. INDICATION LIGHT øB2	PE-B2-WH PE-B2-BL	RED RED (WHITE T.T.)	RW90 RW90
EMERG. PRE-EMPT. INTERTIE øA1	PE-A1-INT	N/A	BELDEN 9388
EMERG. PRE-EMPT. INTERTIE øA2	PE-A2-INT	N/A	
EMERG. PRE-EMPT. INTERTIE øB2	PE-B2-INT	N/A	

NOTE:
T.T. DENOTES TAPE TRACER.

INTERSECTION LIGHTING DESIGN CRITERIA

INTERSECTION NAME	HWY 14 AT DELEM ROAD	
ROAD CLASSIFICATION	MAJOR/COLLECTOR	
PEDESTRIAN CONFLICT	LOW	
WATTAGE/TYPE/ LUMINAIRE MANUFACTURER/ MODEL NUMBER	70W LED/TYPE 2/AEL/ATB0_P203_R2_4K 106W LED/TYPE 2/AEL/ATB0_P303_R2_4K	
	RECOMMENDED ILLUMINANCE	ACHIEVED ILLUMINANCE
ILLUMINATION LEVEL (AVG.)	15.0 LUX	18.6 LUX
UNIFORMITY RATIO (AVG:MIN)	3.0:1	2.0:1

NOTE: BASED ON IESNA RP-8-25 (TABLE 12-1)

REFER TO SHEET 1 FOR LEGEND AND NOTES

POSTED SPEED LIMIT (HWY 14 EB) 60 km/h

POSTED SPEED LIMIT (HWY 14 WB) 80 km/h

POSTED SPEED LIMIT (DELEM DRIVE) 50 km/h

DO NOT USE THIS DRAWING FOR PAVEMENT MARKING AND SIGNING STANDARDS

SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" FOR APPLICABLE STANDARD DRAWINGS

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

CHECK BEFORE YOU DIG

CONTRACTOR SHALL CONFIRM THE LOCATIONS OF ALL UNDERGROUND UTILITIES.

BC 1C

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND TRANSIT
ELECTRICAL AND ITS ENGINEERING

CAD FILENAME 20009-3.DWG
PROJECT #
PERMIT TO PRACTICE # 1000208

REV	DATE	REVISIONS	DRAWN
-	JUL/26	TRAFFIC SIGNAL AND LIGHTING INSTALLATION	PBX

TRAFFIC SIGNAL AND LIGHTING INSTALLATION
HIGHWAY 14 AT DELEM DRIVE
LANGFORD

SITE PLAN - ENLARGEMENT

ANNIE BEAUVILLIER, P.ENG.
ELECTRICAL ENGINEER OF RECORD
(FOR CURRENT REVISION)
DATE: JULY 10, 2026

SHEET NUMBER
SHEET 3 OF 5

SEAL

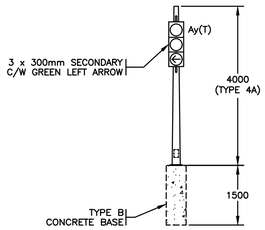
DESIGNED	JGT	DATE	JUL/26
QUALITY CONTROL	AJB	DATE	JUL/26
QUALITY ASSURANCE	AB	DATE	JUL/26
TRAN ELECTRICAL DESIGN REVIEW		DATE	

HWY.DIST	REG	DRAWING NUMBER
2	1	TE-20009-3 -

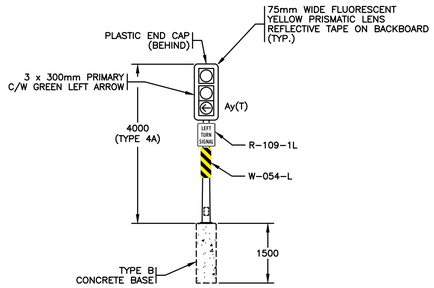
CANCEL PRINTS BEARING PREVIOUS LETTER

P:\250264_Langford_Hwy_14_at_Delem_Rd\Drawings\ACAD\20009-3; 10/07/2026 4:49 PM; JAMES.THOMPSON

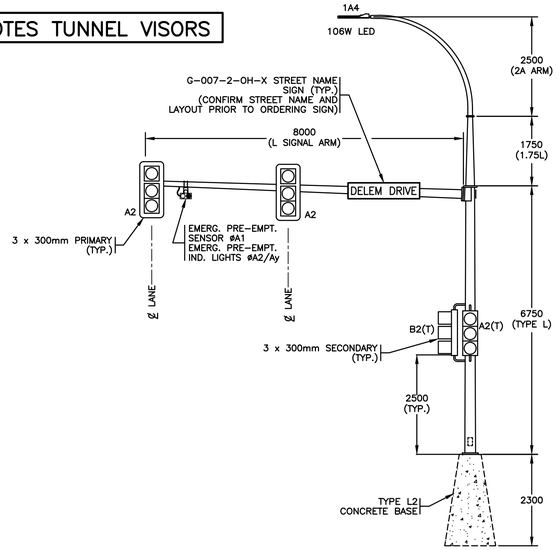
'T' DENOTES TUNNEL VISORS



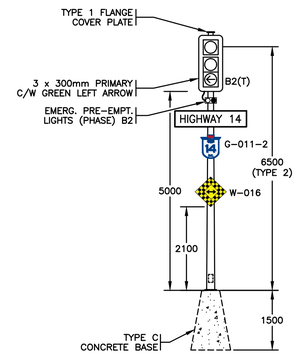
①



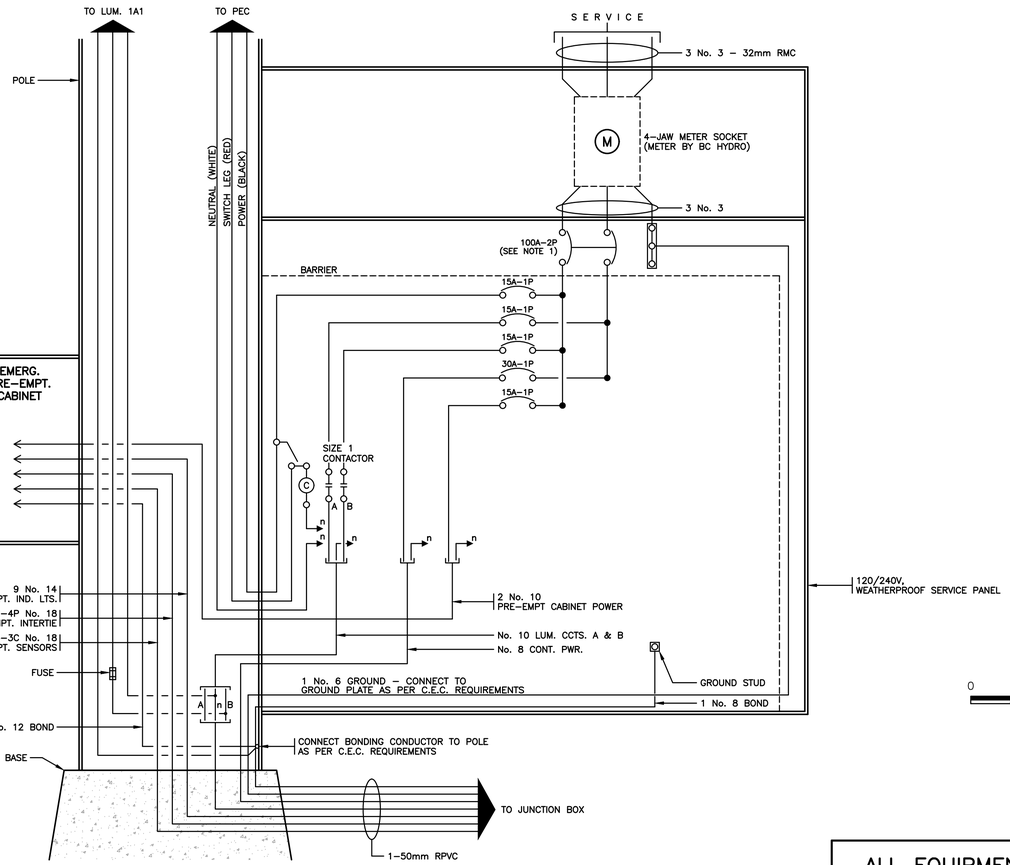
②



③



④

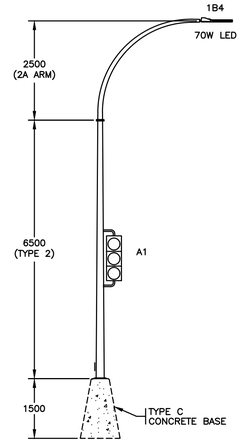


NOTES:

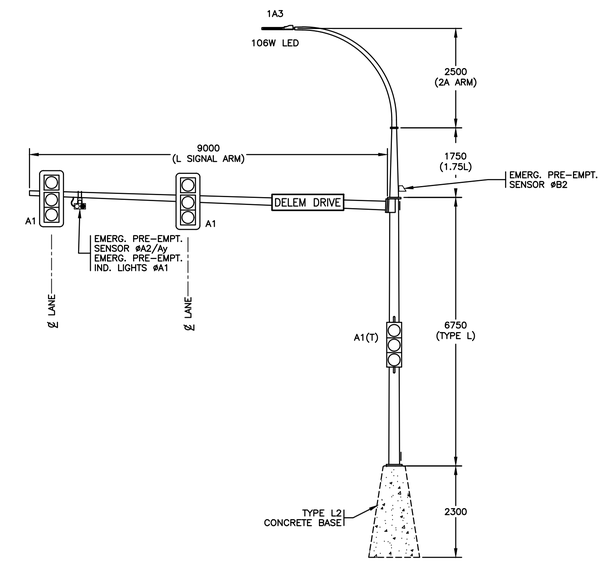
1. BREAKER TERMINALS SHALL BE RATED FOR 75 DEGREE CONDUCTOR TERMINATION TEMPERATURE (OR HIGHER).

WIRING DIAGRAM – SERVICE PANEL No. 1

N.T.S.



⑤



⑥

ELEVATIONS

0 1:75 5

CONTRACTOR SHALL PROVIDE SIGNED AND SEALED SHOP DRAWINGS FOR ALL SIGNAL POLES TO BE INSTALLED VERIFYING THAT SIGNAL POLE LOADING PASSES MINISTRY REQUIREMENTS. POLE LOADING SHALL CONSIDER ALL SIGNAL HEADS, SIGNS, LUMINAIRES, AND OTHER EQUIPMENT MOUNTED ON THE POLE STRUCTURE AS REQUIRED.

SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" FOR APPLICABLE STANDARD DRAWINGS

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

DO NOT USE THIS DRAWING FOR SIGNING STANDARDS

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

MINISTRY OF TRANSPORTATION AND TRANSIT
BRITISH COLUMBIA
ELECTRICAL AND ITS ENGINEERING

CAD FILENAME 20009-4.DWG
PROJECT #
PERMIT TO PRACTICE # 1000208

REV	DATE	REVISIONS	DRAWN
–	JUL/26	TRAFFIC SIGNAL AND LIGHTING INSTALLATION	PBX

TRAFFIC SIGNAL AND LIGHTING INSTALLATION
HIGHWAY 14 AT DELEM DRIVE
LANGFORD

ELEVATIONS – DETAILS

ANNIE BEAUVILLIER, P.ENG.
ELECTRICAL ENGINEER OF RECORD
(FOR CURRENT REVISION)
DATE: JULY 10, 2026

SHEET NUMBER
SHEET 4 OF 5

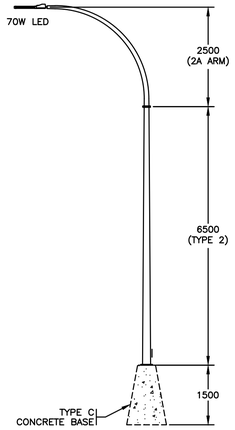
SEAL

DESIGNED JGT DATE JUL/26
QUALITY CONTROL AJB DATE JUL/26
QUALITY ASSURANCE AB DATE JUL/26
TRAN ELECTRICAL DESIGN REVIEW DATE

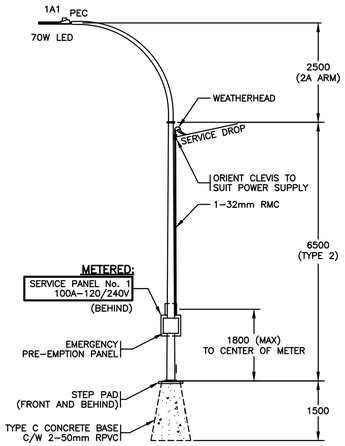
HWY DIST	REG	DRAWING NUMBER
2	1	TE-20009-4 –

CANCEL PRINTS BEARING PREVIOUS LETTER

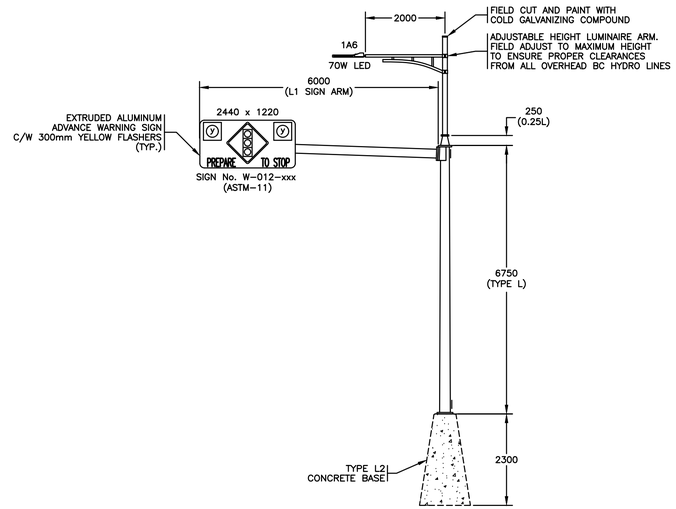
P:\250264 Langford Hwy. 14 at Delem Rd\Drawings\ACAD\20009-4. 10/07/2026 4:51 PM JAMES.THOMPSON



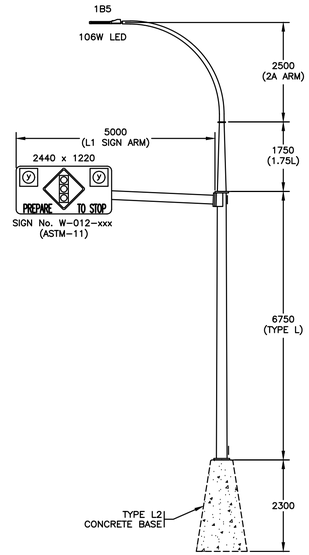
TYP. ELEVATION (A/2)(A/3) 9m LUMINAIRE POLE
1:75



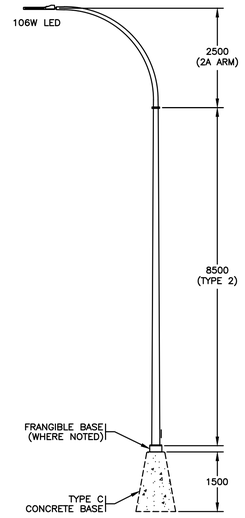
ELEVATION (B/3) SERVICE POLE
1:75



ELEVATION (C/2) ADVANCE WARNING FLASHER A1
1:75



ELEVATION (D/2) ADVANCE WARNING FLASHER A2
1:75



ELEVATION (E/2) 11m LUMINAIRE POLE
1:75

ELEVATIONS
0 1:75 5

SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" FOR APPLICABLE STANDARD DRAWINGS

CONTRACTOR SHALL PROVIDE SIGNED AND SEALED SHOP DRAWINGS FOR ALL SIGNAL POLES TO BE INSTALLED VERIFYING THAT SIGNAL POLE LOADING PASSES MINISTRY REQUIREMENTS. POLE LOADING SHALL CONSIDER ALL SIGNAL HEADS, SIGNS, LUMINAIRES, AND OTHER EQUIPMENT MOUNTED ON THE POLE STRUCTURE AS REQUIRED.

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

DO NOT USE THIS DRAWING FOR SIGNING STANDARDS

PBX ENGINEERING Ltd.
Suite 201 - 1221 Broad St.
Victoria BC, V8W 2A4
Tel 250.388.7222
www.pbxeng.com

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND TRANSIT
ELECTRICAL AND ITS ENGINEERING

CAD FILENAME 20009-5.DWG
PROJECT #
PERMIT TO PRACTICE # 1000208

REV	DATE	REVISIONS	DRAWN
–	JUL/26	TRAFFIC SIGNAL AND LIGHTING INSTALLATION	PBX

TRAFFIC SIGNAL AND LIGHTING INSTALLATION
HIGHWAY 14 AT DELEM DRIVE
LANGFORD

ELEVATIONS

ANNIE BEAUVILLIER, P.ENG.
ELECTRICAL ENGINEER OF RECORD
(FOR CURRENT REVISION)
DATE: JULY 10, 2026

SHEET NUMBER
SHEET 5 OF 5

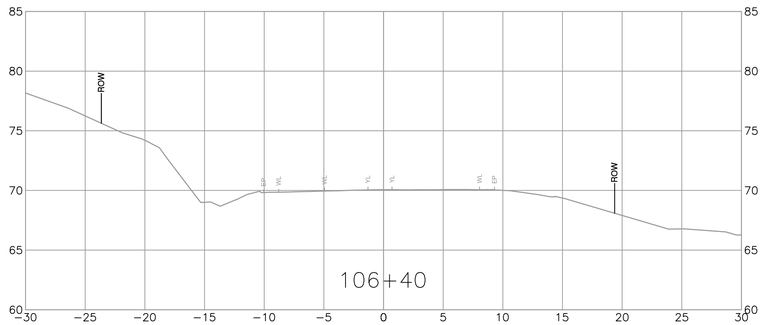
SEAL

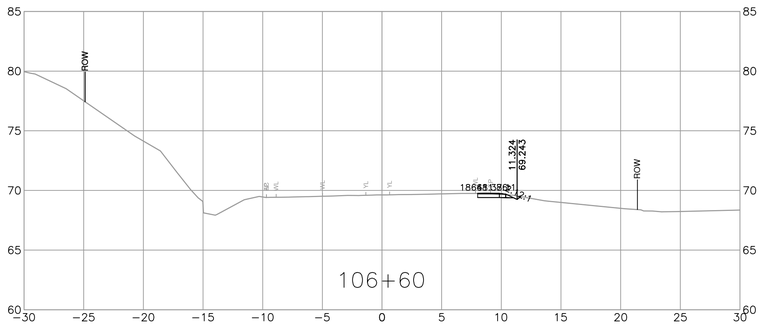
DESIGNED JGT DATE JUL/26
QUALITY CONTROL AJB DATE JUL/26
QUALITY ASSURANCE AB DATE JUL/26
TRAN ELECTRICAL DESIGN REVIEW DATE

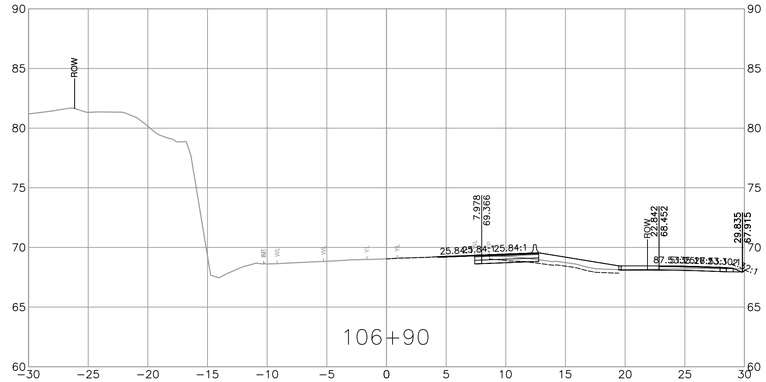
HWY.DIST	REG	DRAWING NUMBER
2	1	TE-20009-5 –

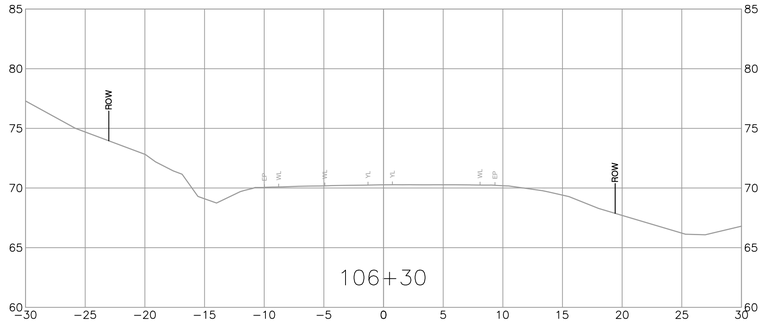
CANCEL PRINTS BEARING PREVIOUS LETTER

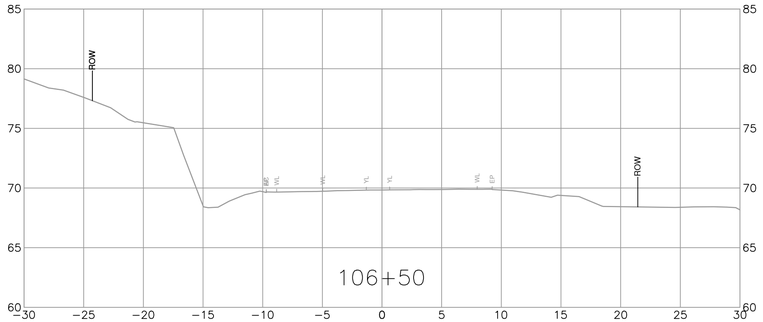
P:\250264_Langford_Hwy 14 at Delem Rd\Drawings\ACAD\20009-5; 10/07/2026 4:51 PM; JAMES.THOMPSON

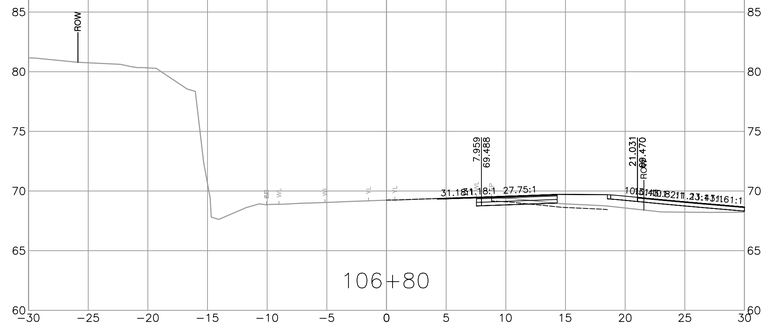


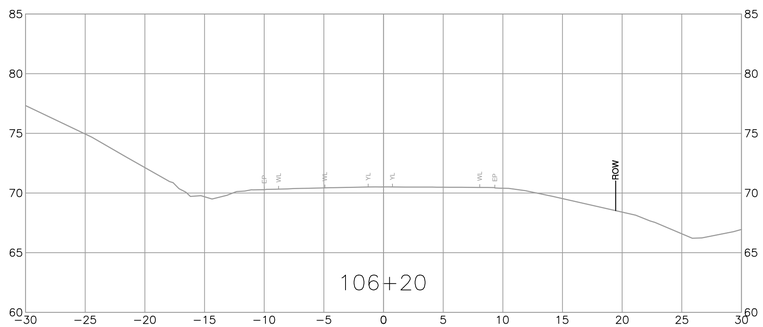


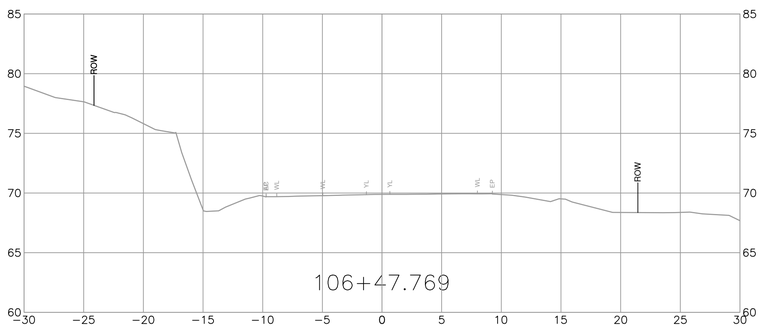


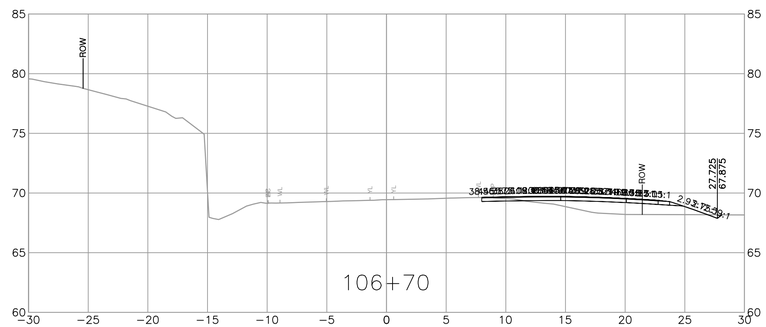












SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

TEMPLATE CROSS SECTIONS

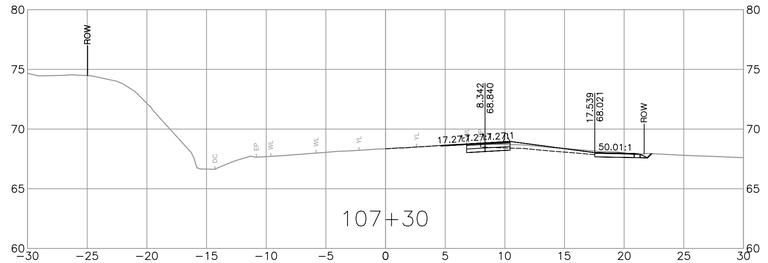
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

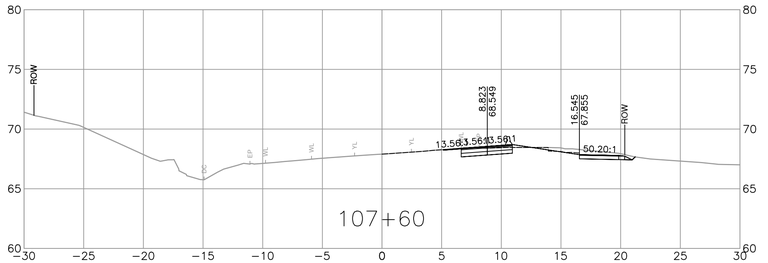
L100

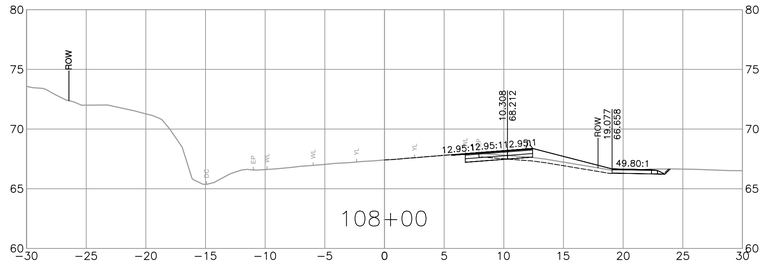
SCALE 0 2 1:250 12m

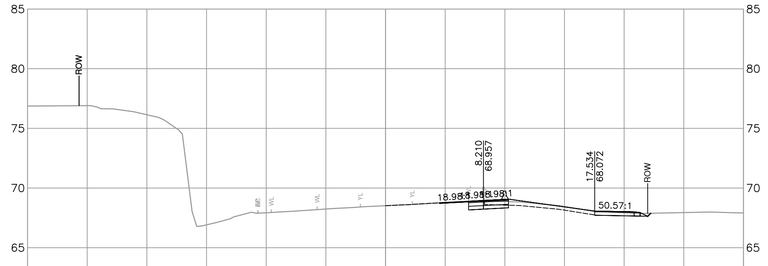
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1001	PB

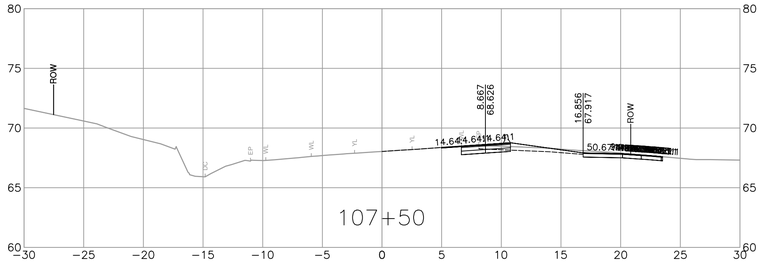
PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

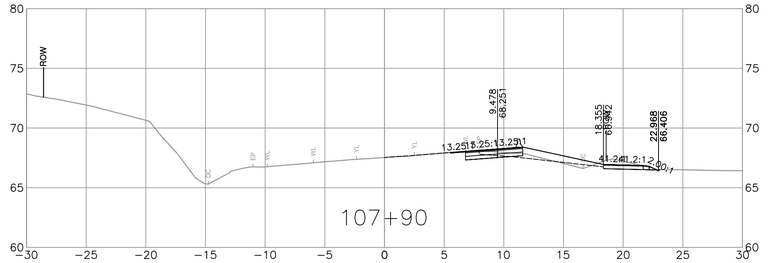


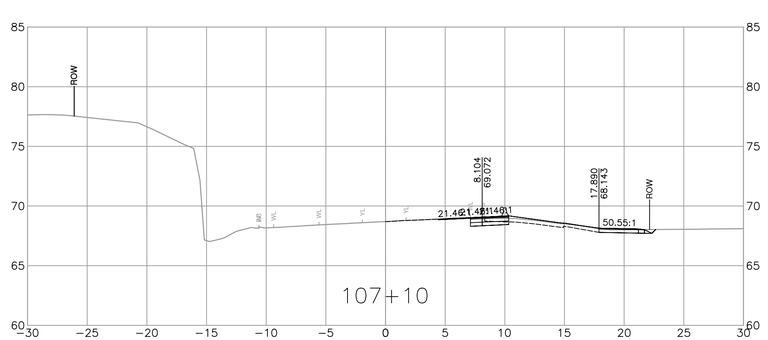


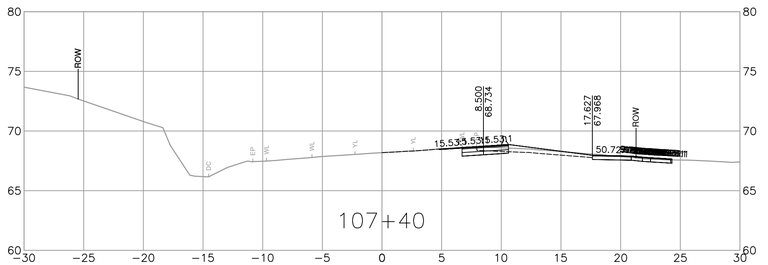


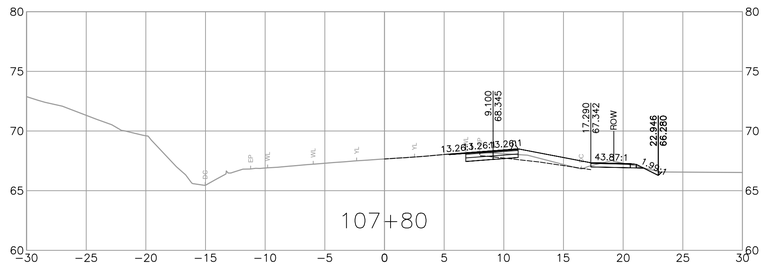


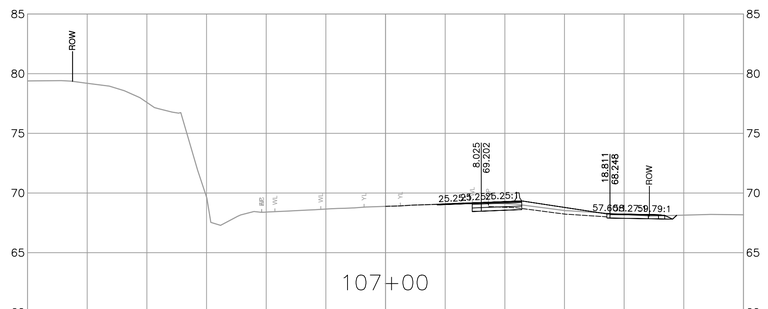


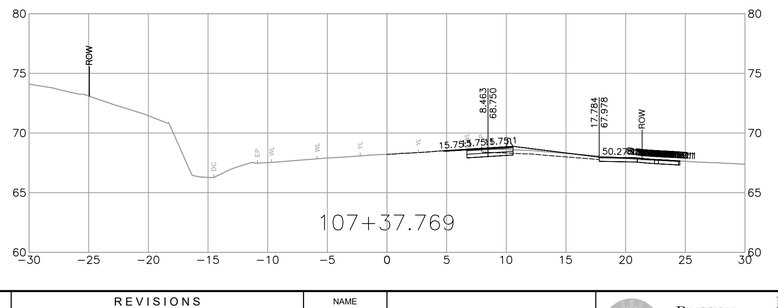


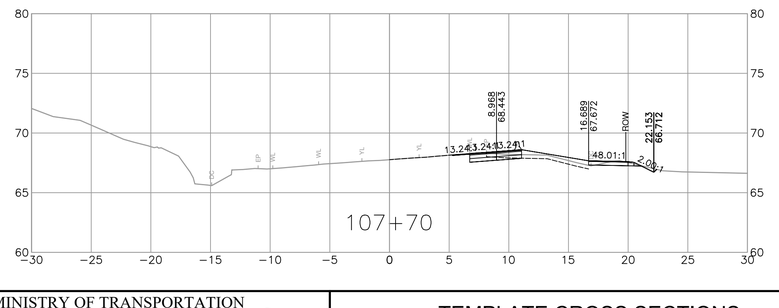












ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

TEMPLATE CROSS SECTIONS

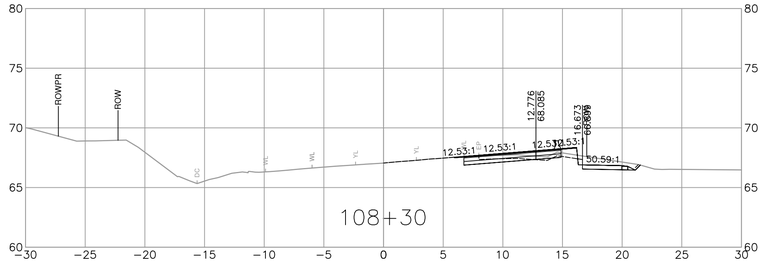
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

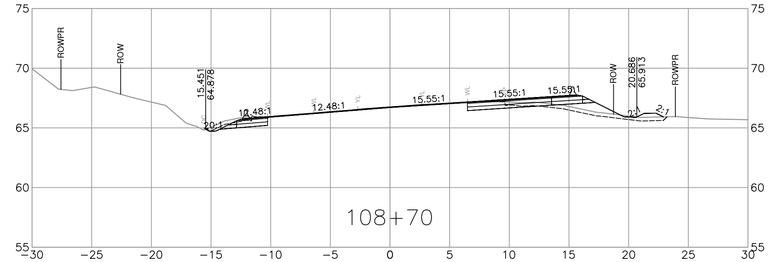
L100

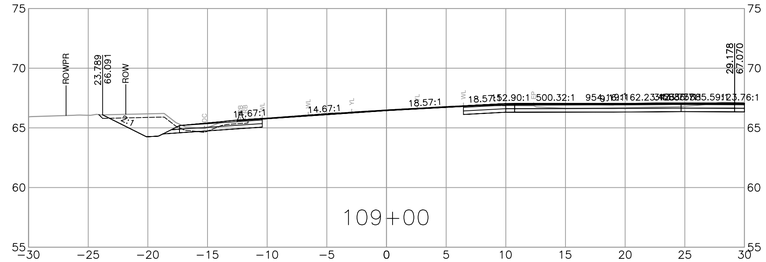
SCALE 0 2 1:250 12m

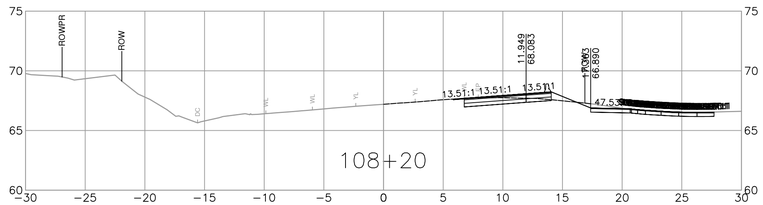
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1002	PB

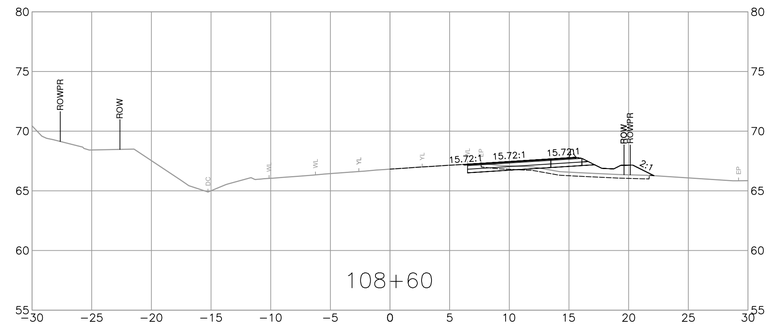
PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

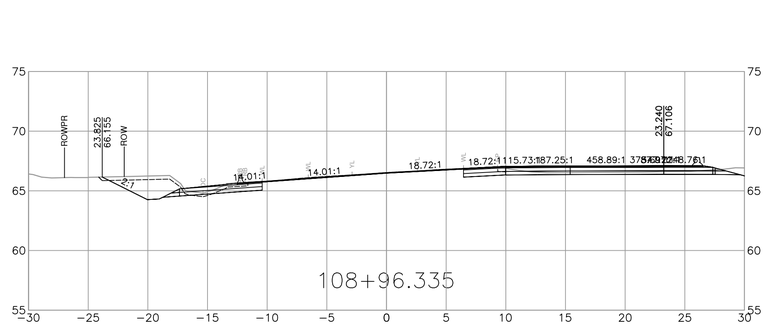


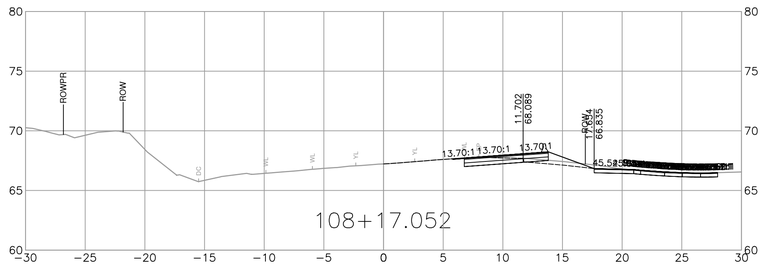


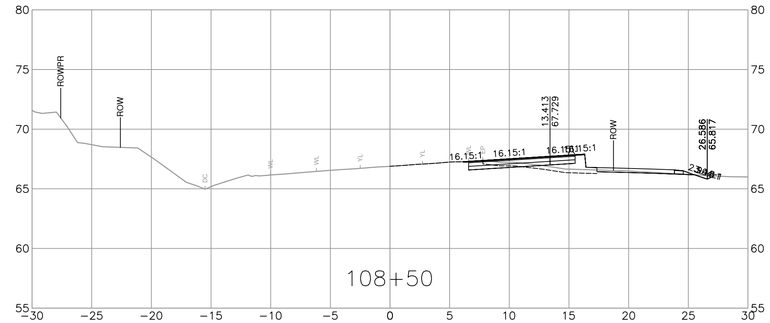


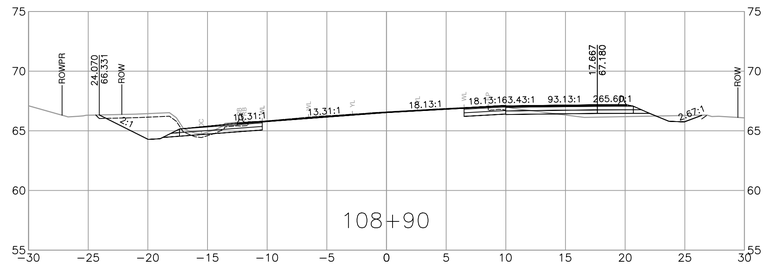


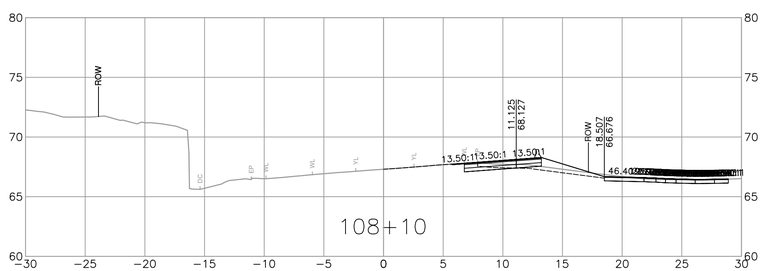


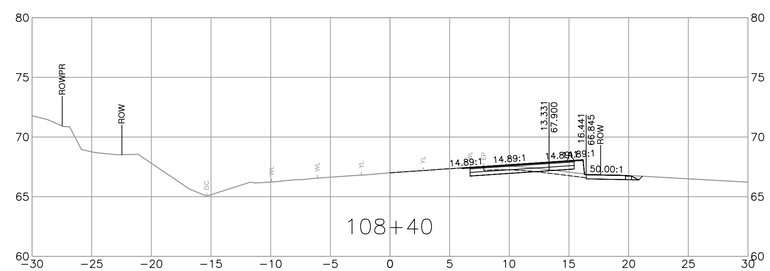


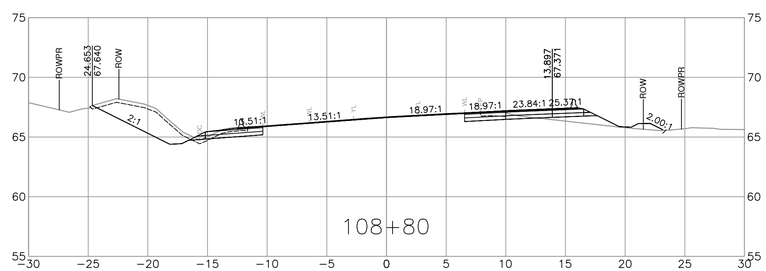












PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

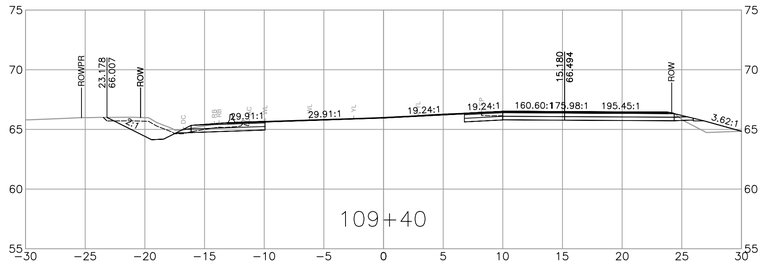
TEMPLATE CROSS SECTIONS

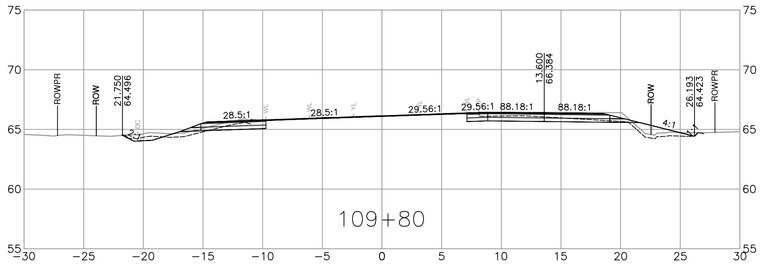
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

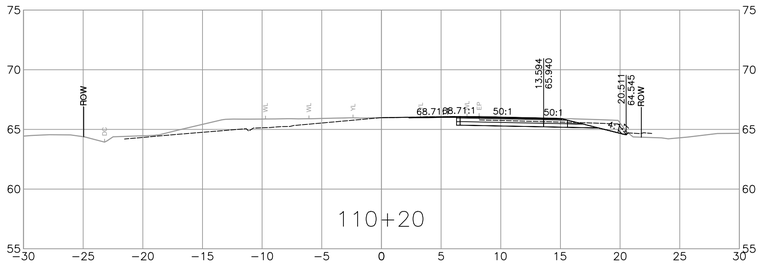
L100

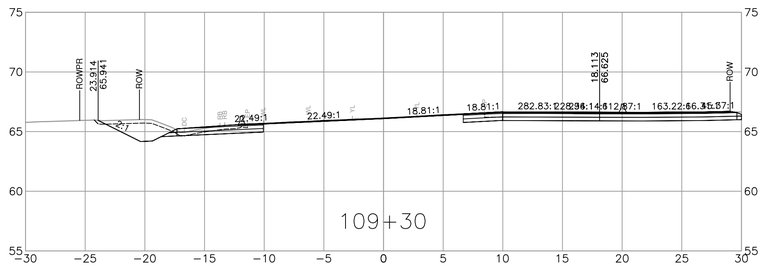
SCALE 0 2 1:250 12m

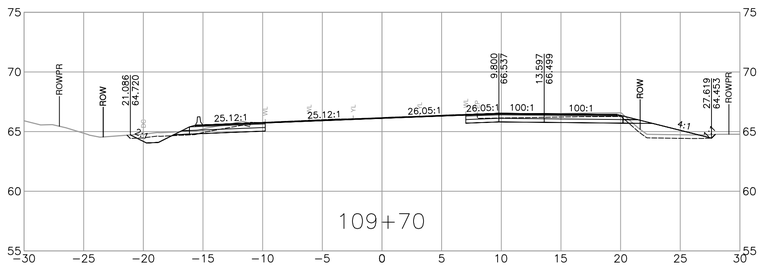
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1003	PB

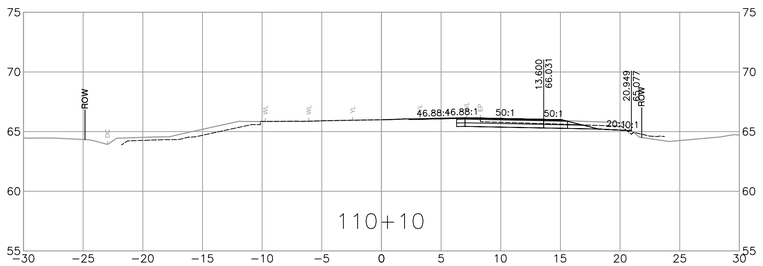


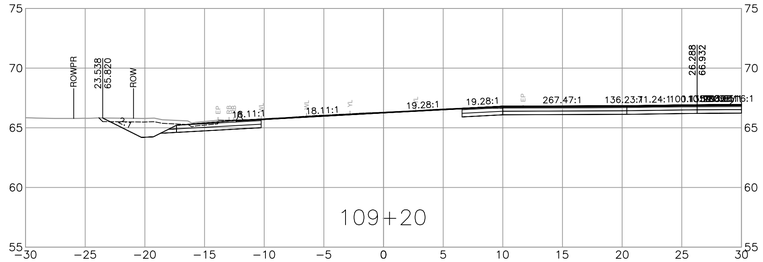


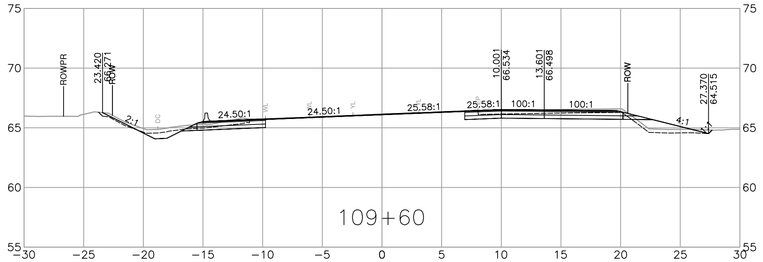


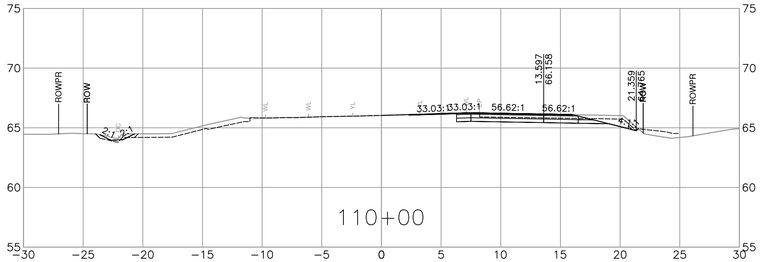


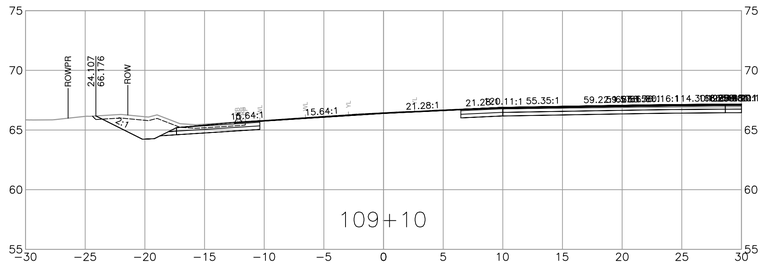


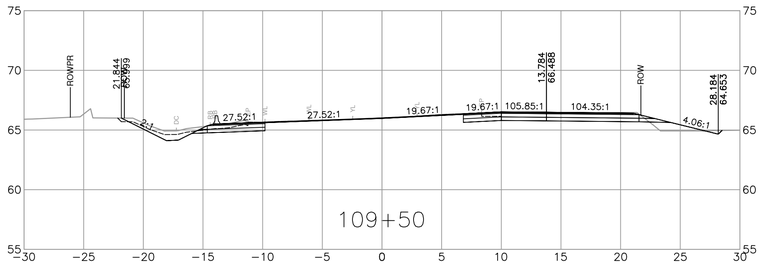


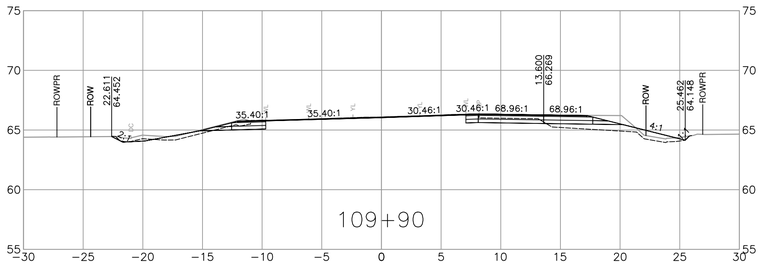












PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

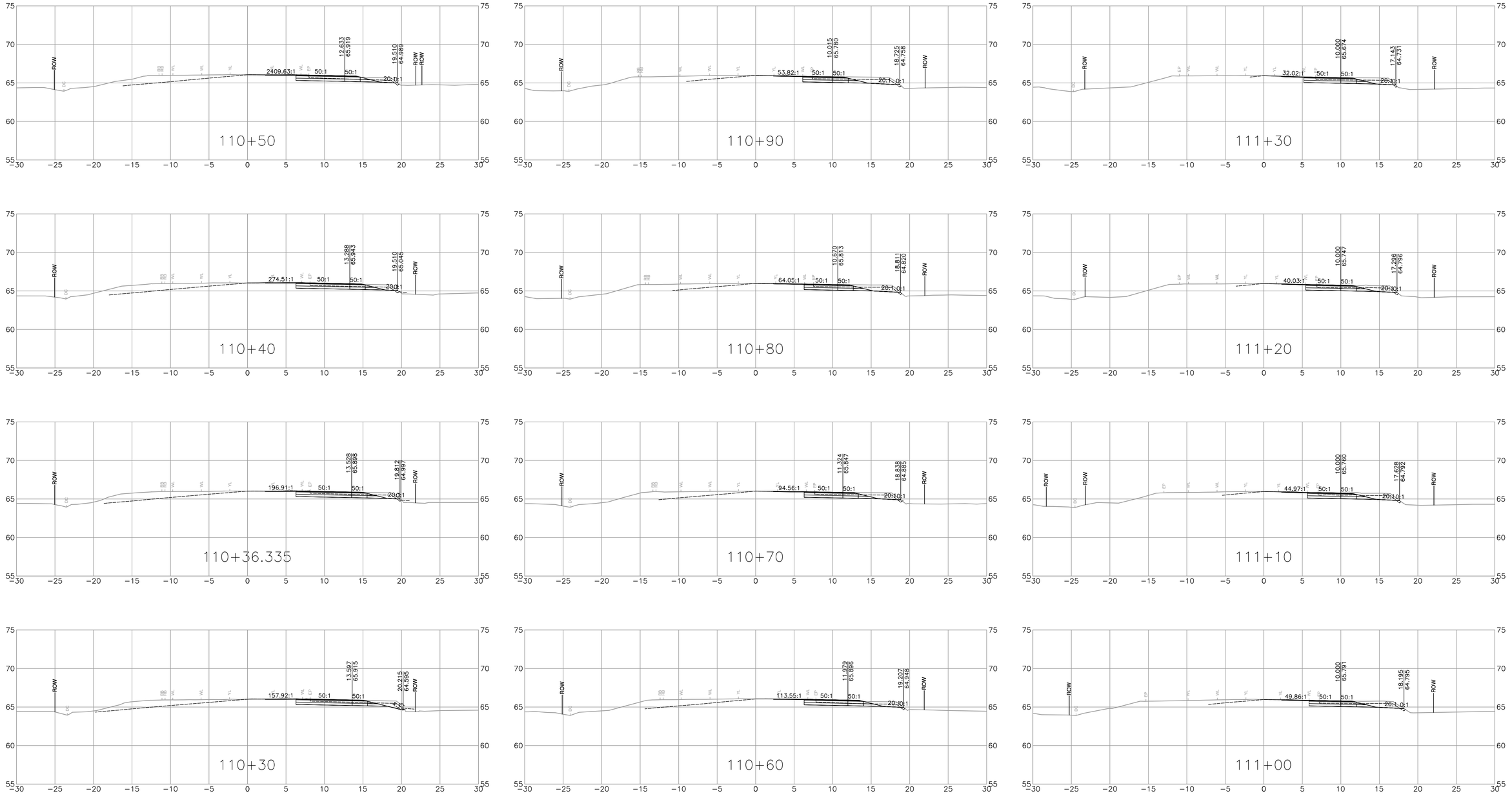
TEMPLATE CROSS SECTIONS

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

L100

SCALE 0 2 1:250 12m

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1004	PB



PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

ISL

SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

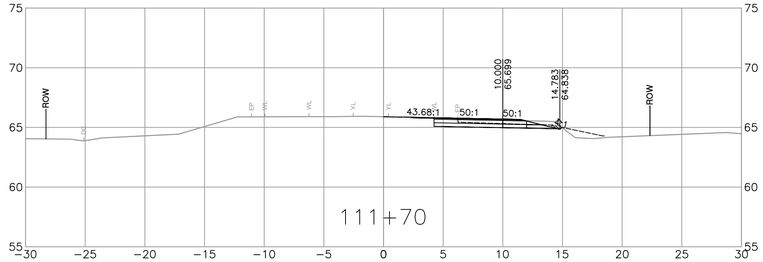
TEMPLATE CROSS SECTIONS

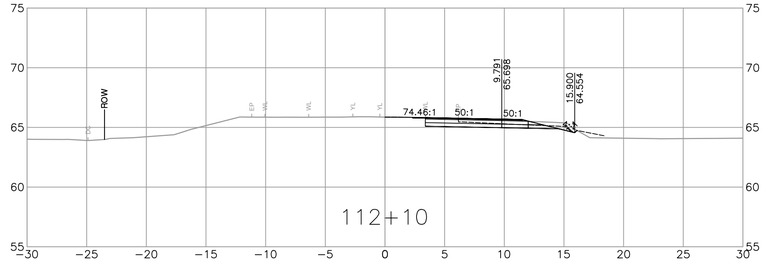
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

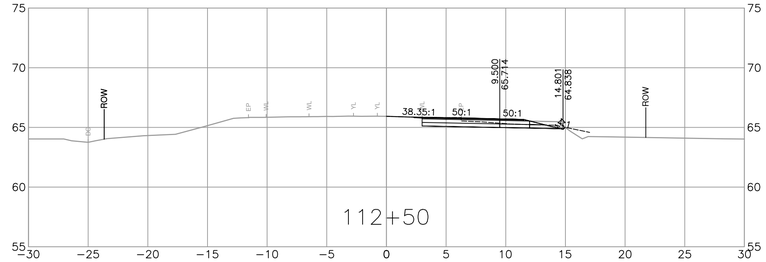
L100

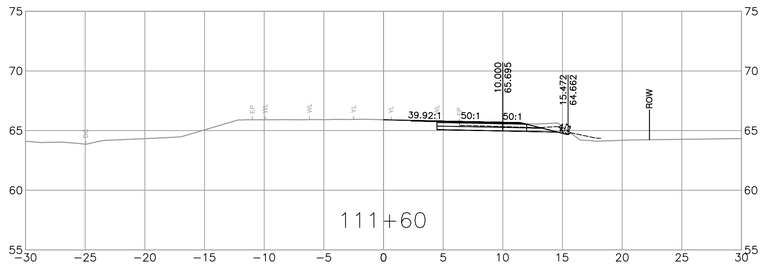
SCALE 0 2 1:250 12m

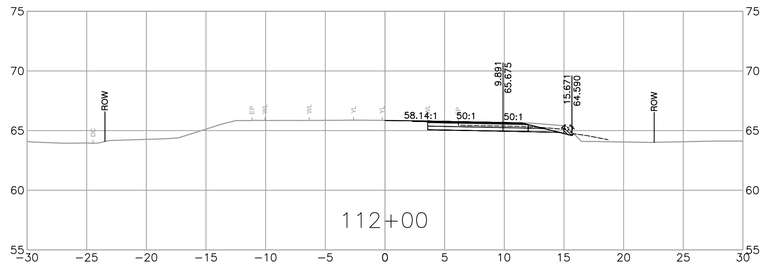
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1005	PB

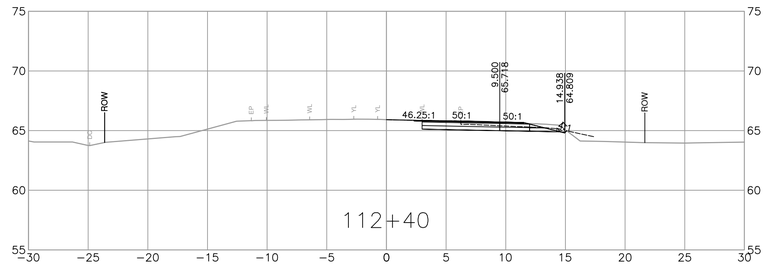


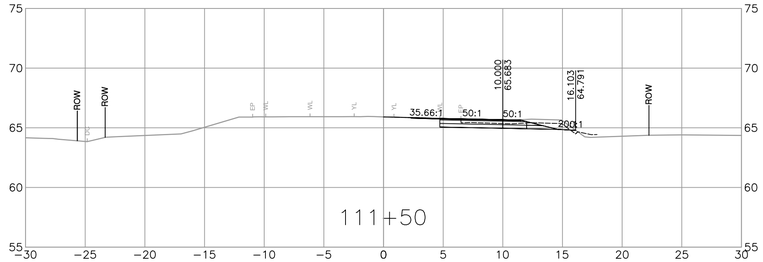


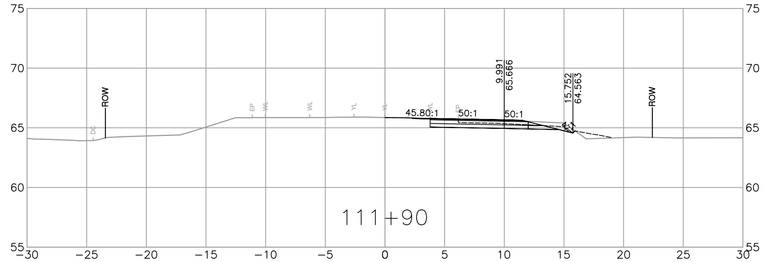


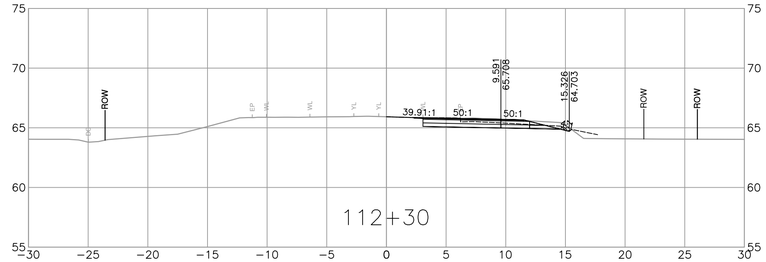


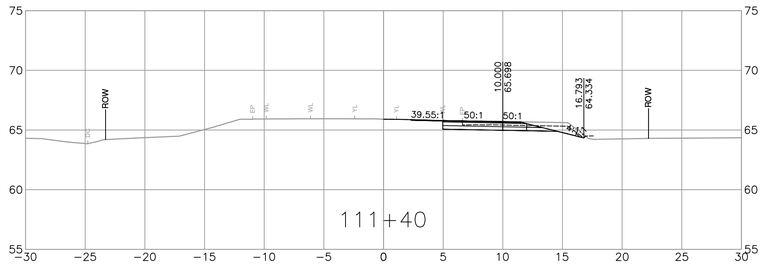


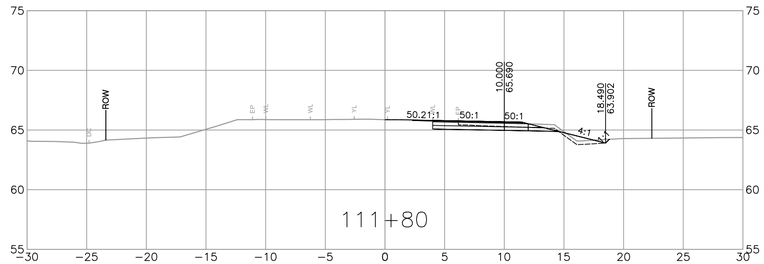


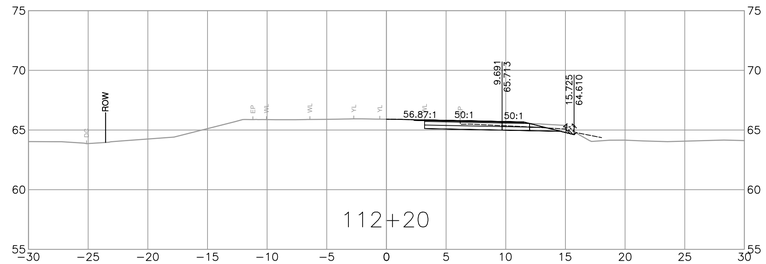












ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

TEMPLATE CROSS SECTIONS

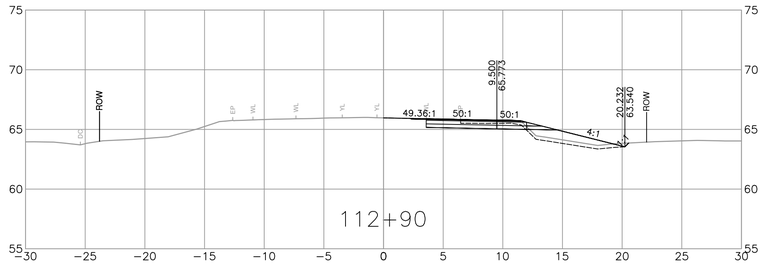
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

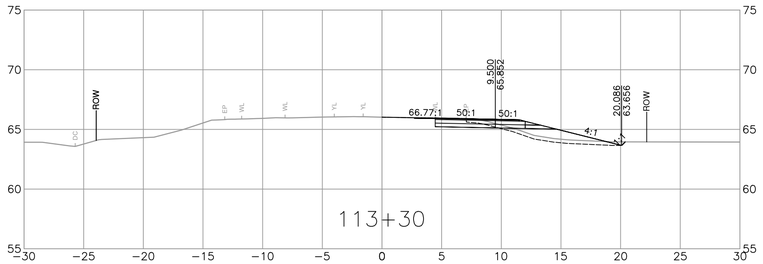
L100

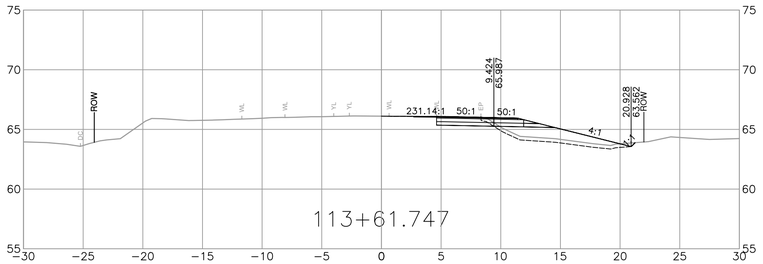
SCALE 0 2 1:250 12m

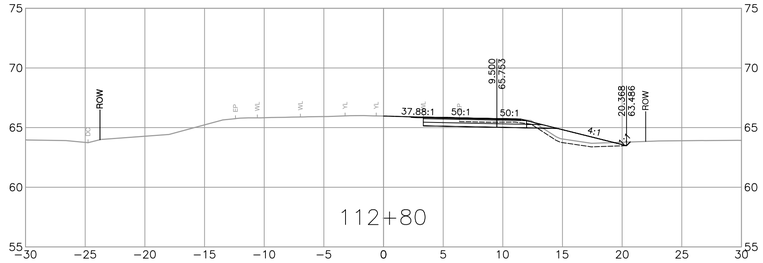
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1006	PB

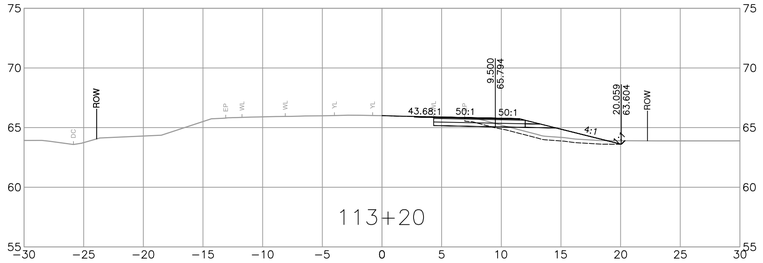
PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

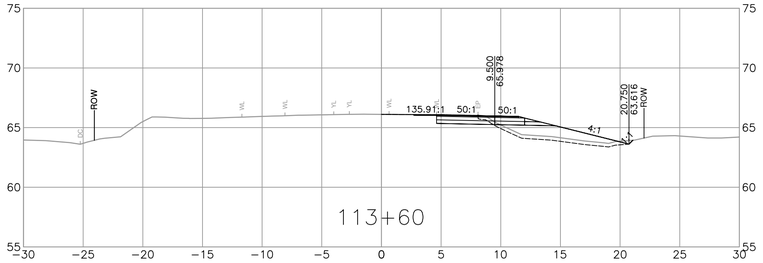


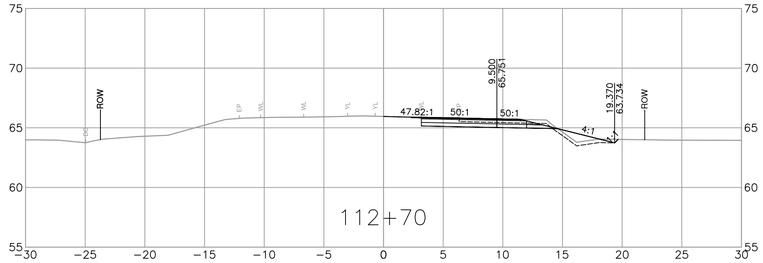


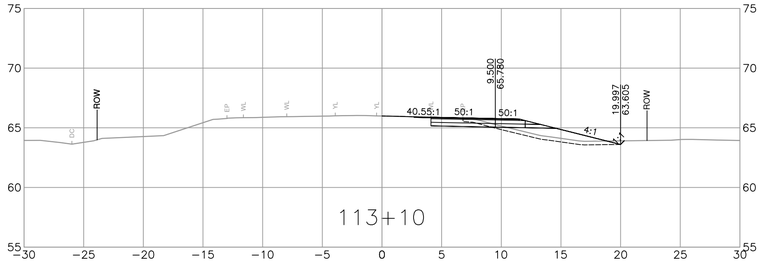


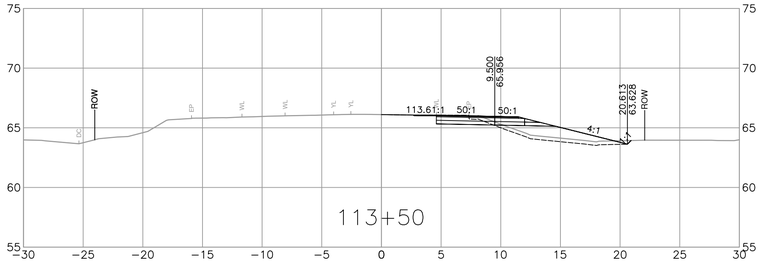


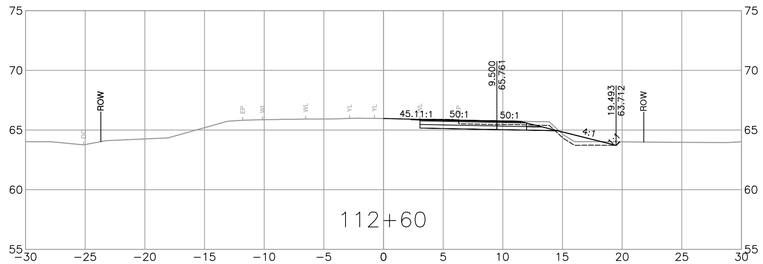


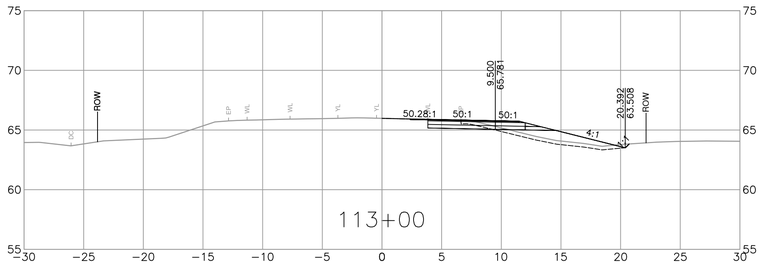


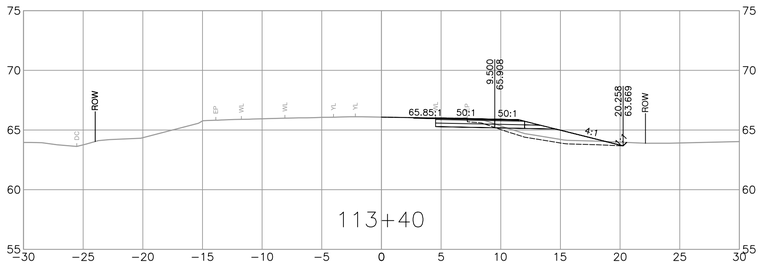












PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

ISL

SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

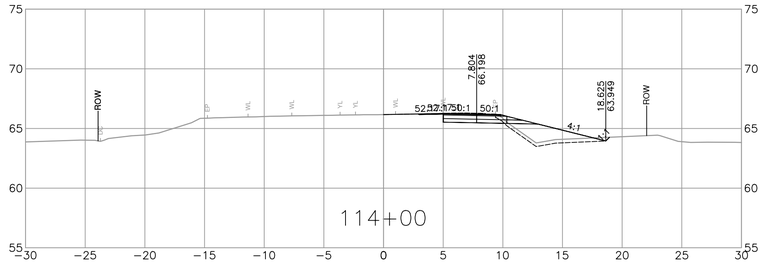
TEMPLATE CROSS SECTIONS

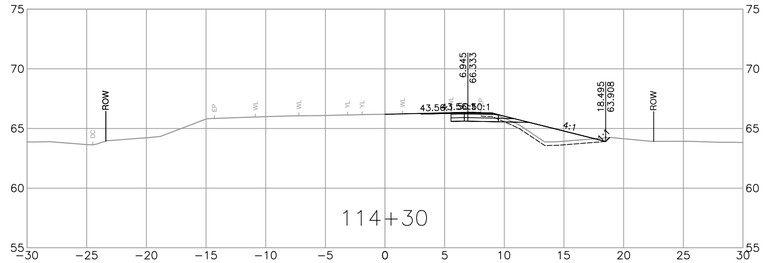
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

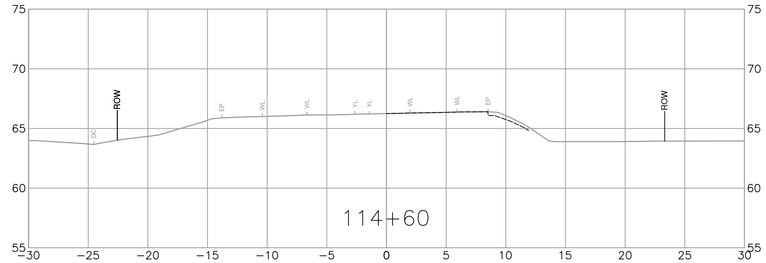
L100

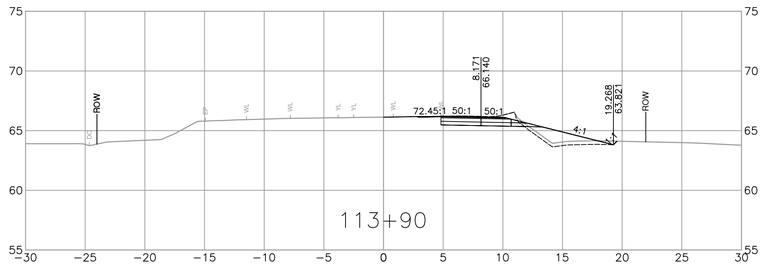
SCALE 0 2 1:250 12m

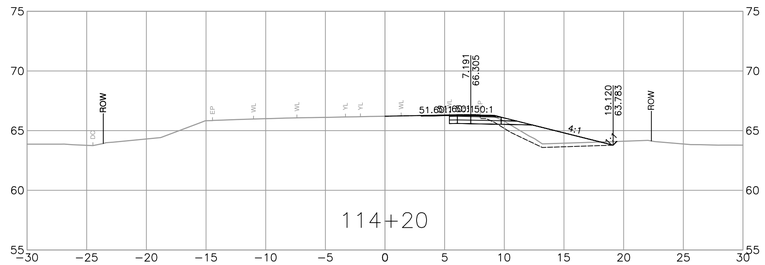
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1007	PB

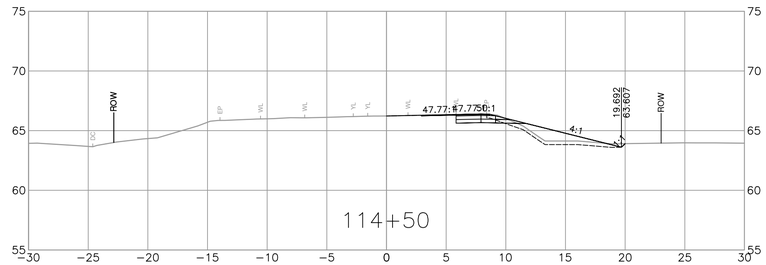


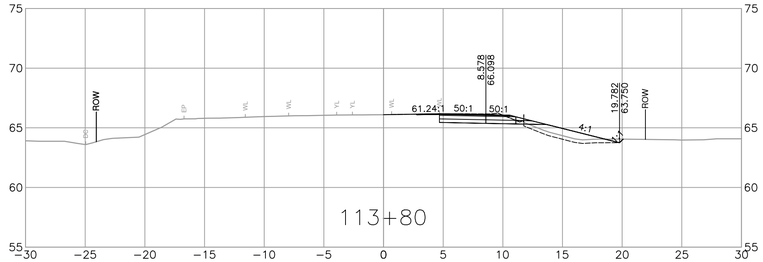


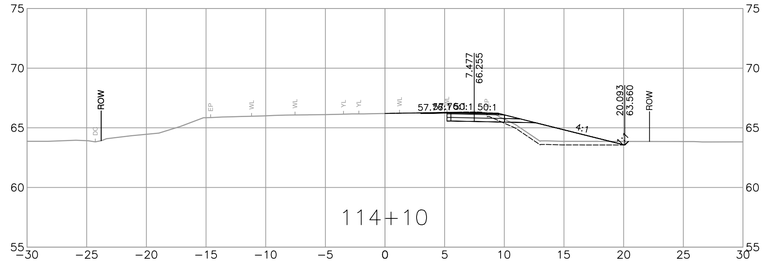


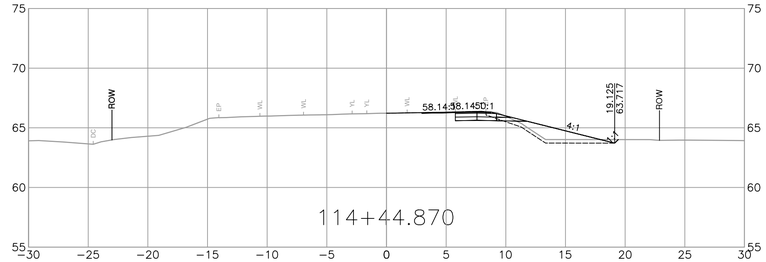


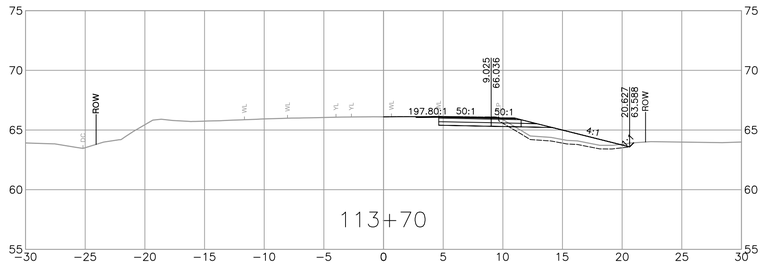


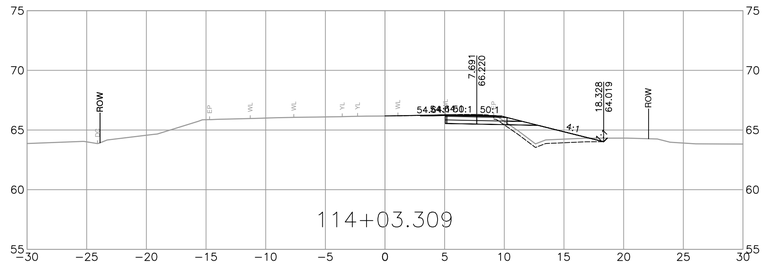


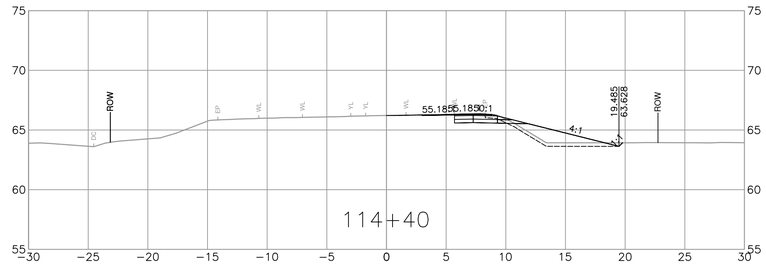












ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

TEMPLATE CROSS SECTIONS

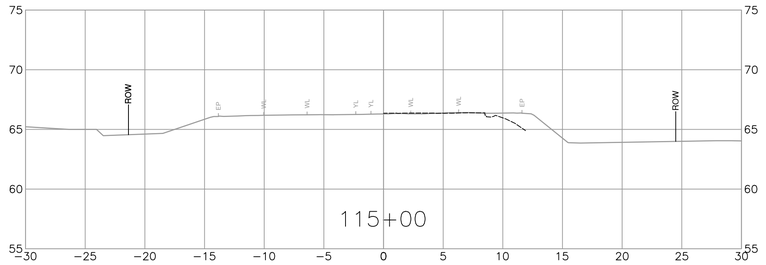
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

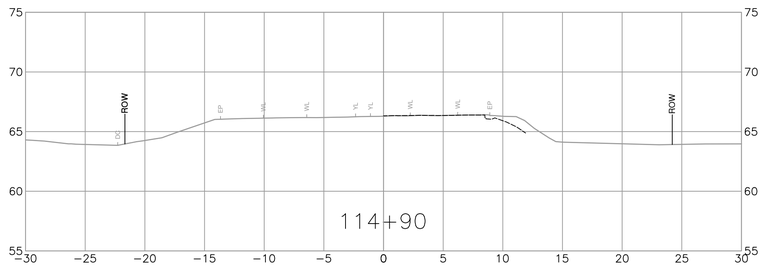
L100

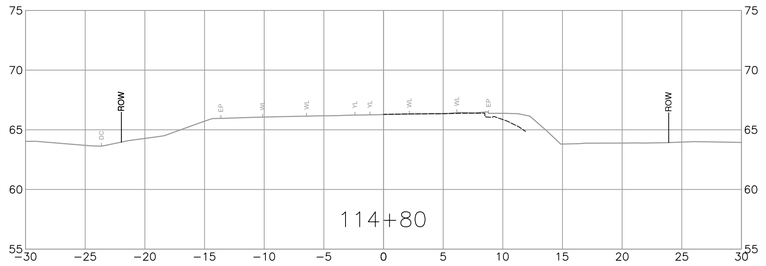
SCALE 0 2 1:250 12m

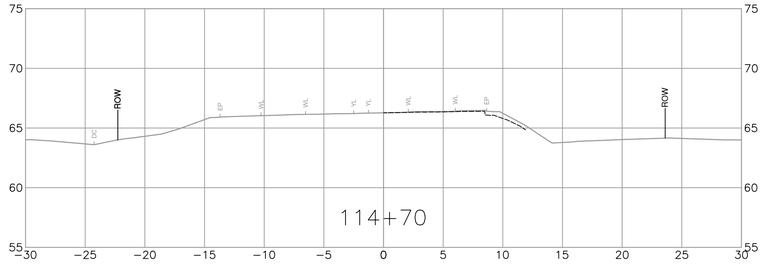
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1008	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg









PLOT DATE: 2026/09/29 C:\ADSKVACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

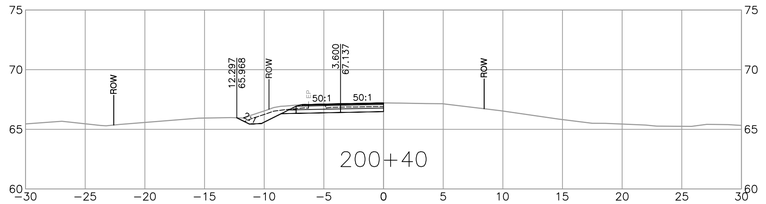
TEMPLATE CROSS SECTIONS

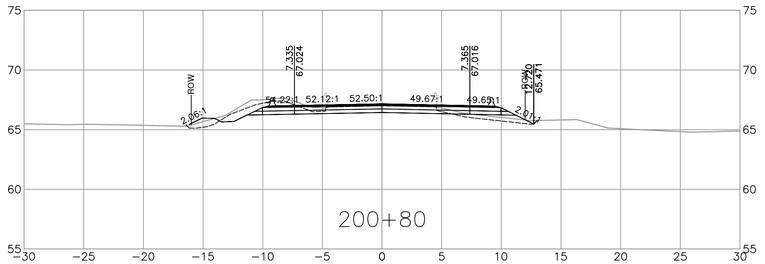
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

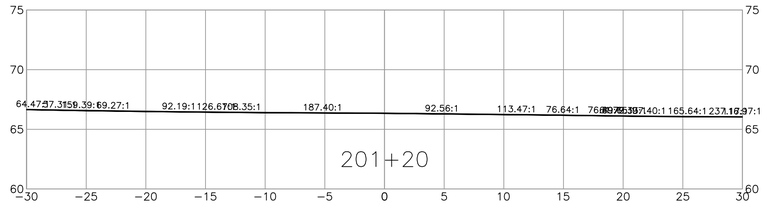
L100

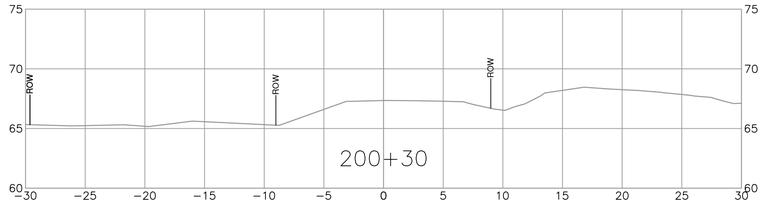
SCALE 0 2 1:250 12m

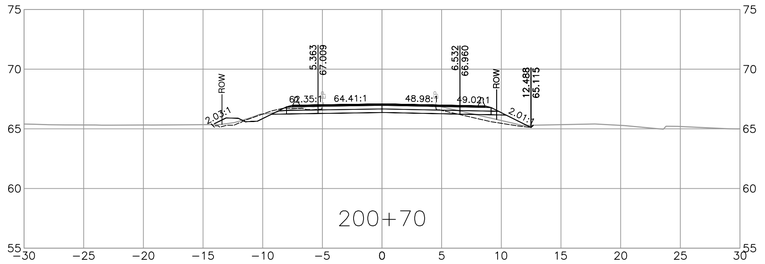
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1009	PB

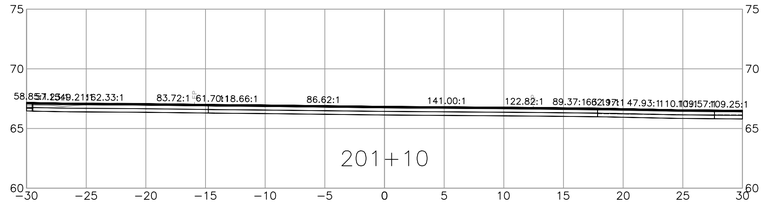


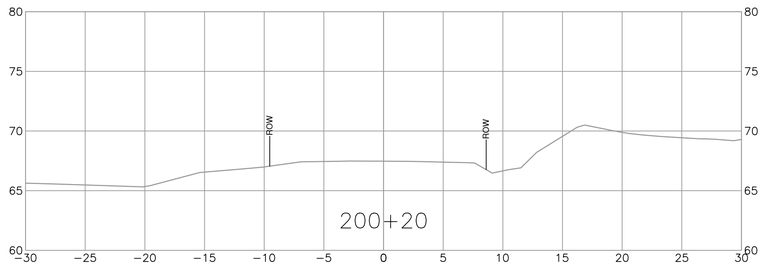


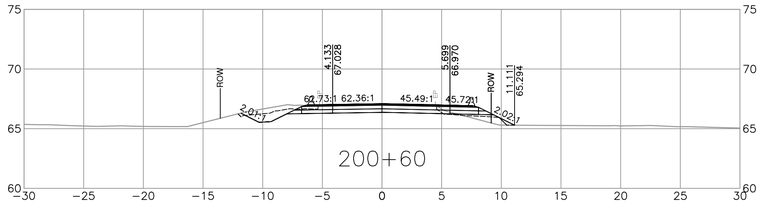


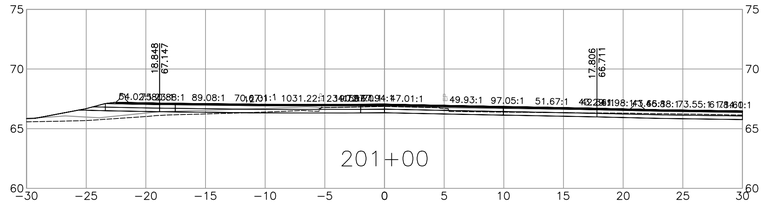


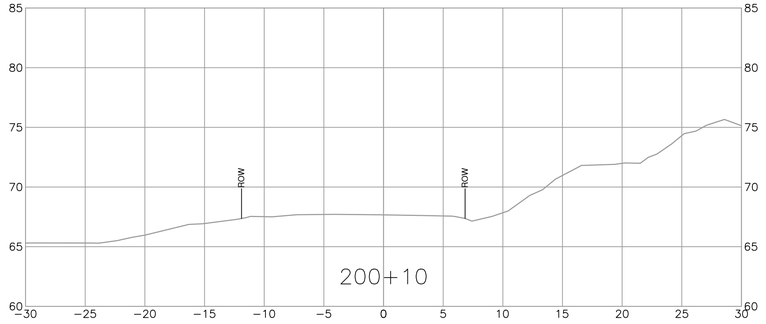


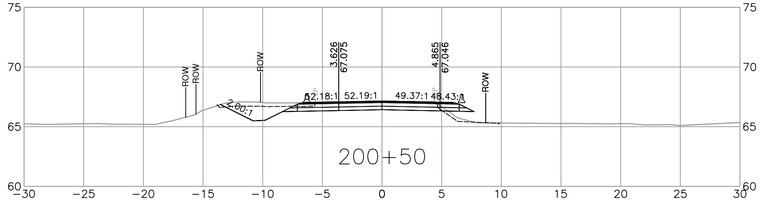


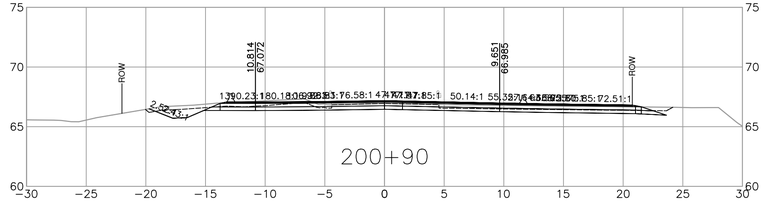












ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

TEMPLATE CROSS SECTIONS

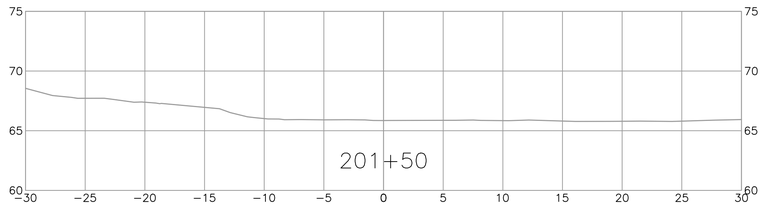
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

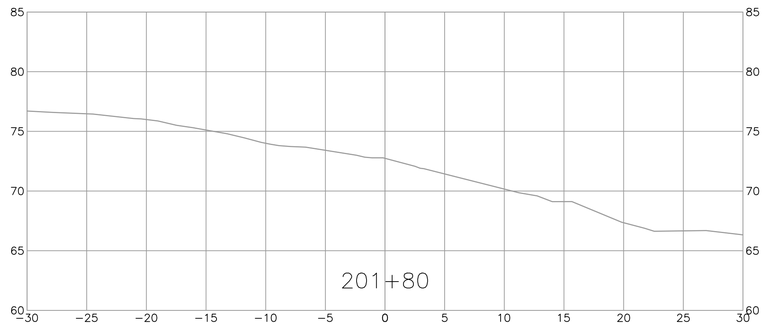
L200

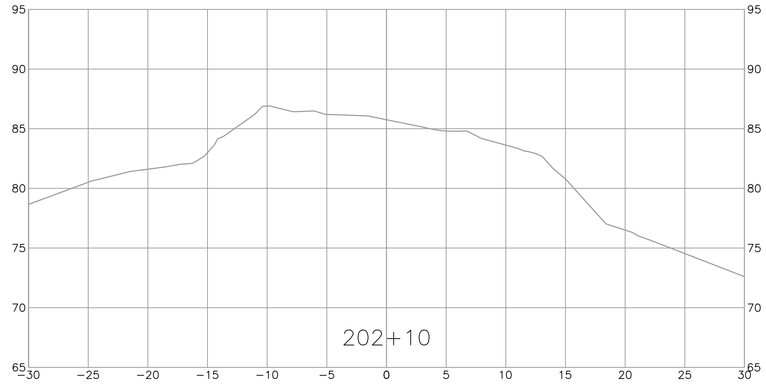
SCALE 0 2 1:250 12m

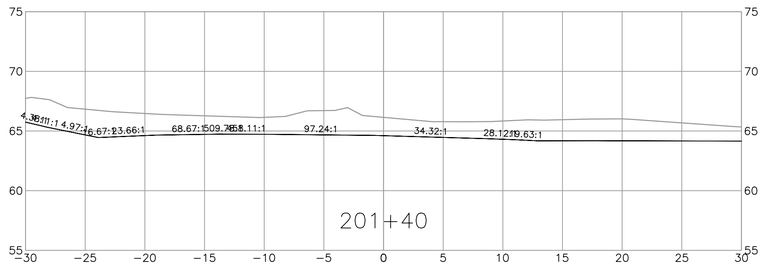
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1011	PB

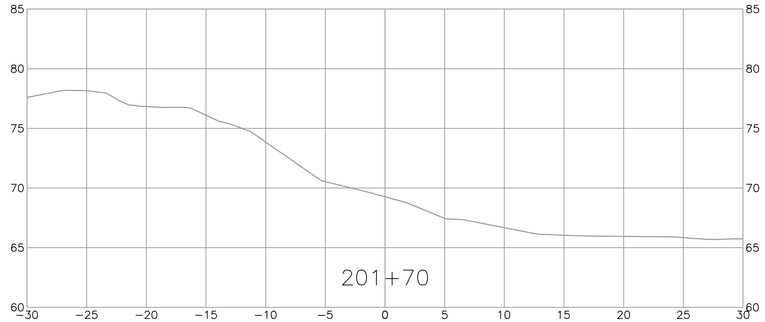
PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

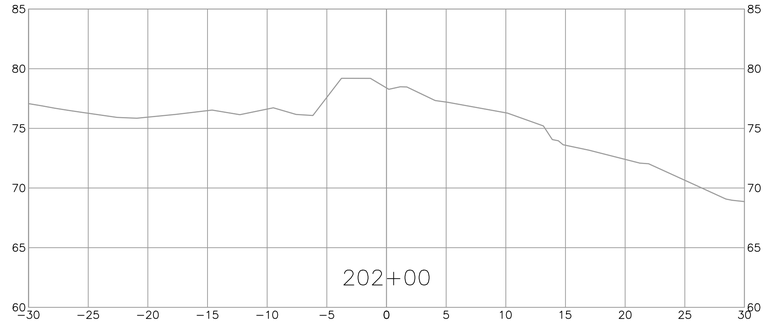


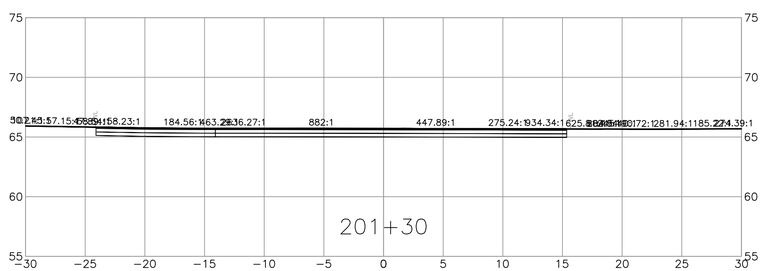


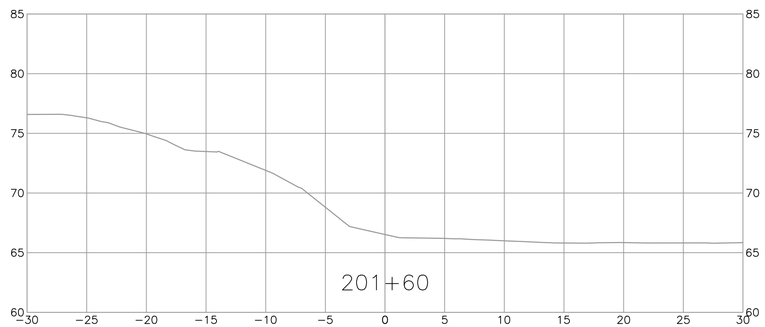


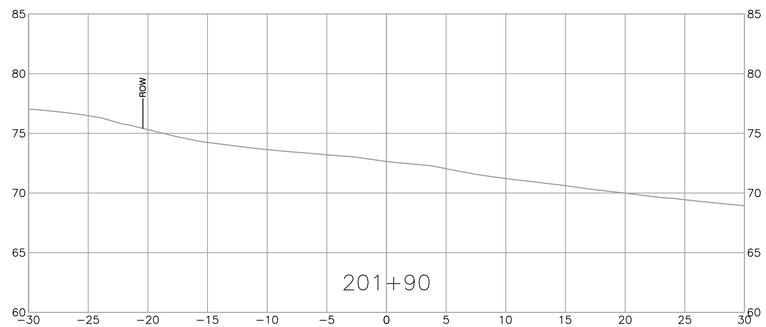












ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PA	2026-03-25	50% DETAILED DESIGN	A. SANTOS
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

TEMPLATE CROSS SECTIONS

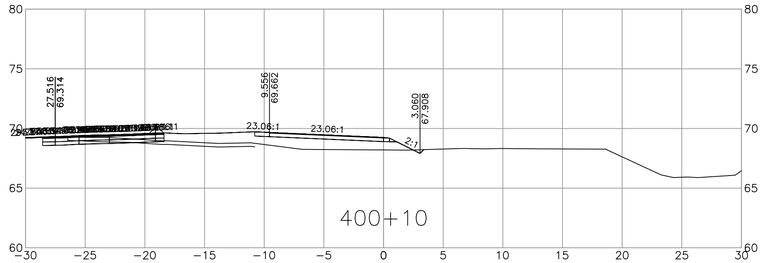
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

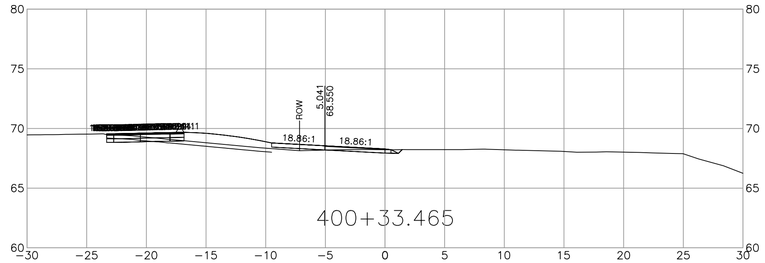
L200

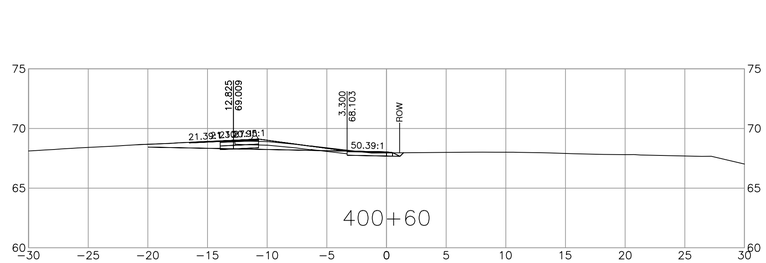
SCALE 0 2 1:250 12m

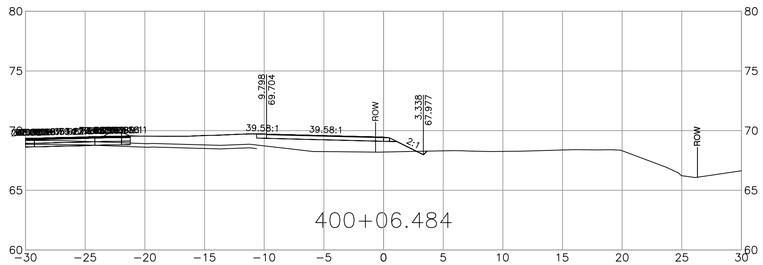
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1012	PB

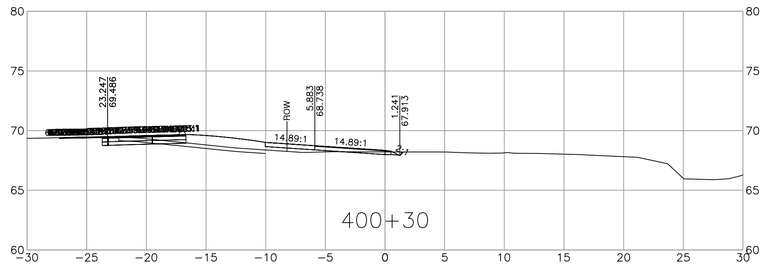
PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

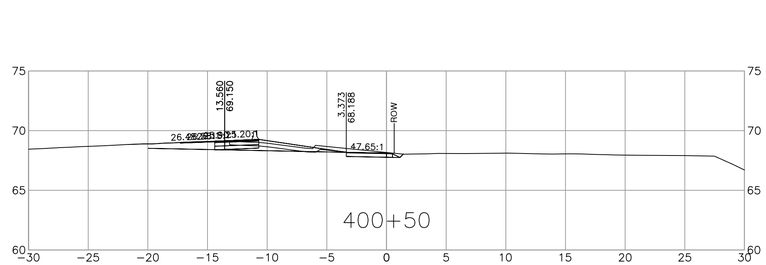


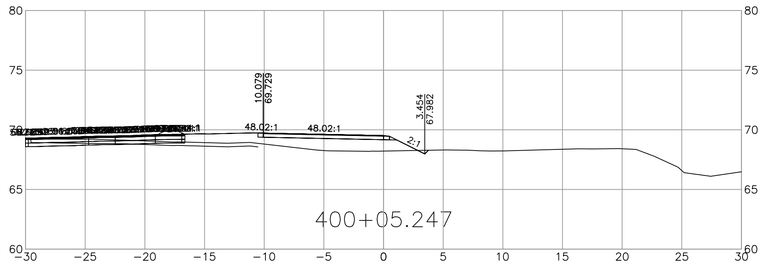


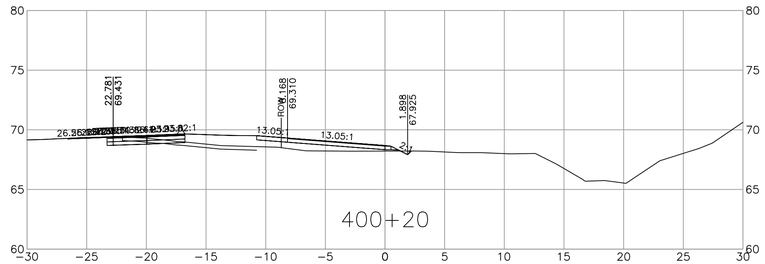


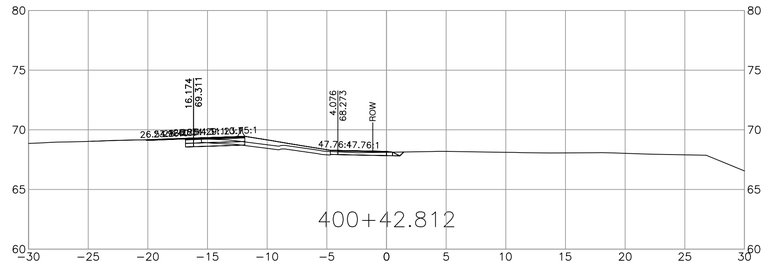


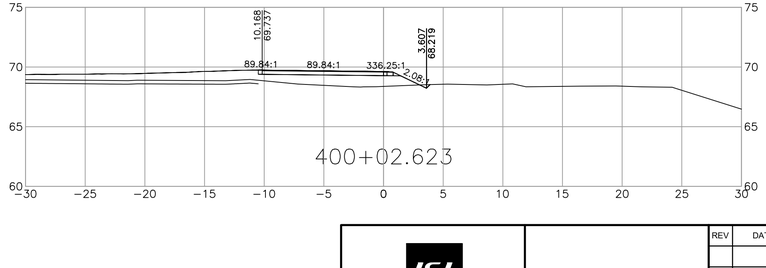


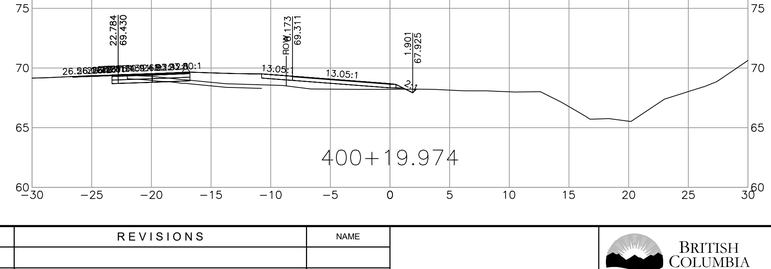


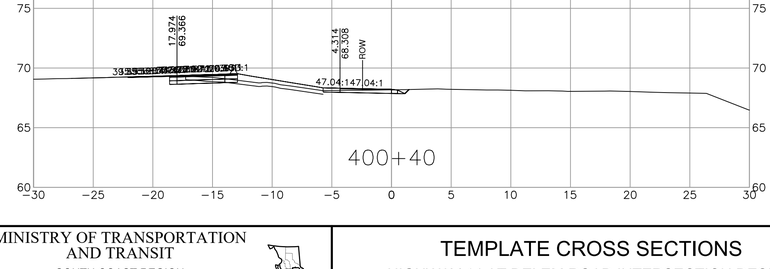












ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS
	#		

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

TEMPLATE CROSS SECTIONS

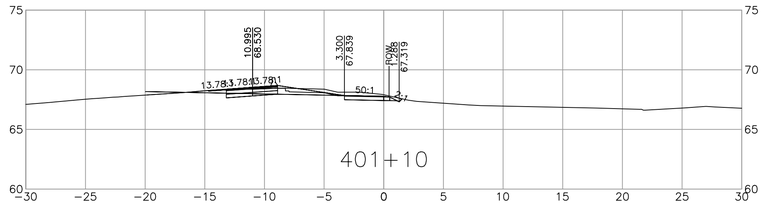
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

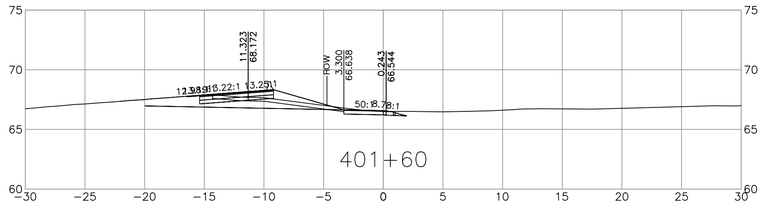
L400

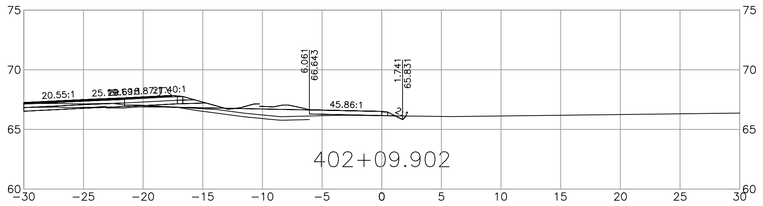
SCALE 0 2 1:250 12m

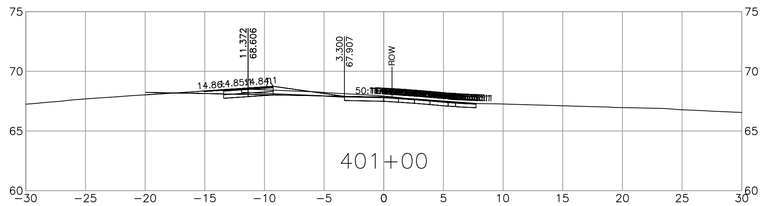
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1013	PB

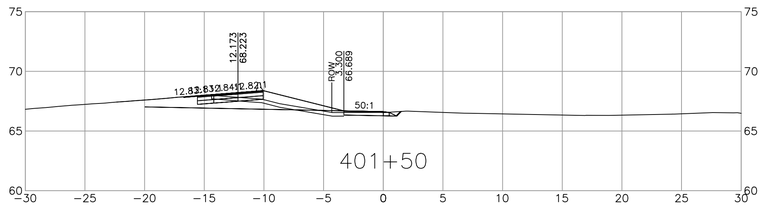
PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

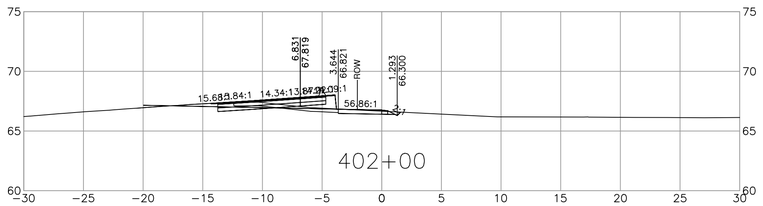


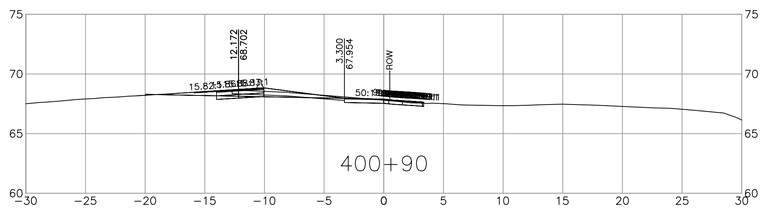


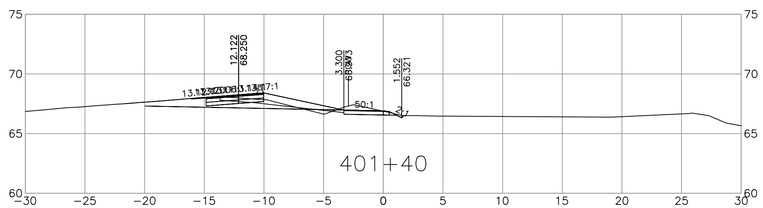


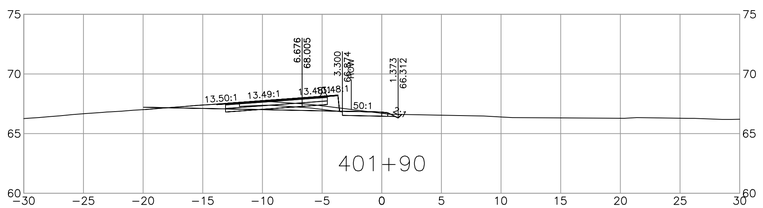


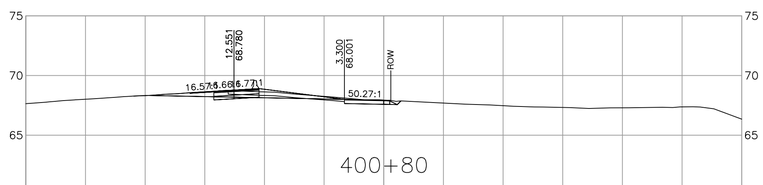






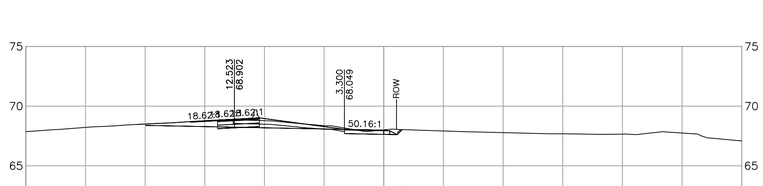


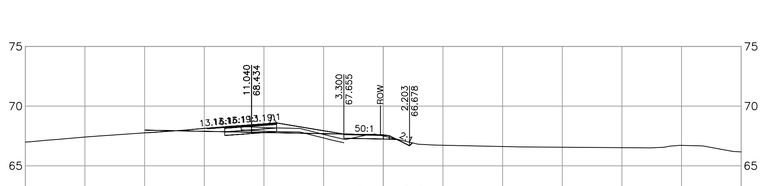


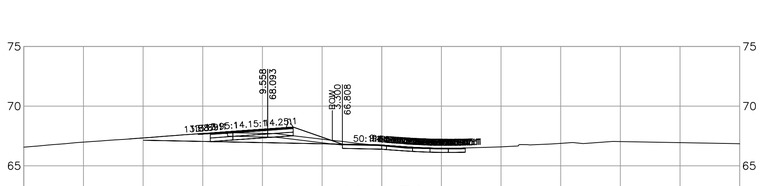












ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

TEMPLATE CROSS SECTIONS

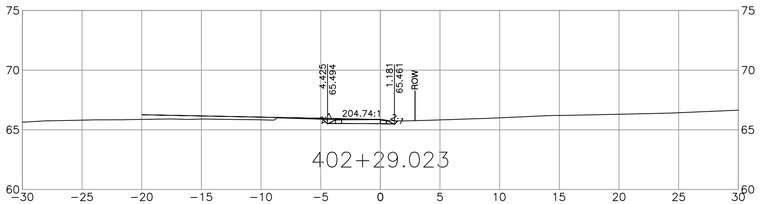
HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

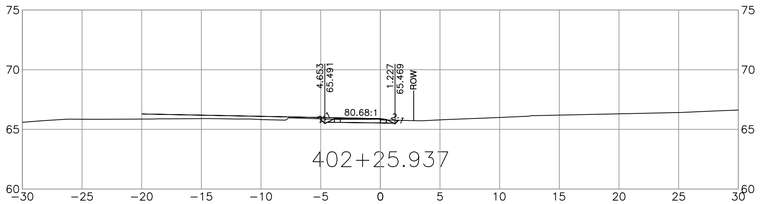
L400

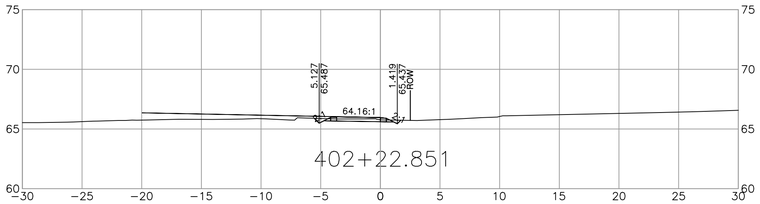
SCALE 0 2 1:250 12m

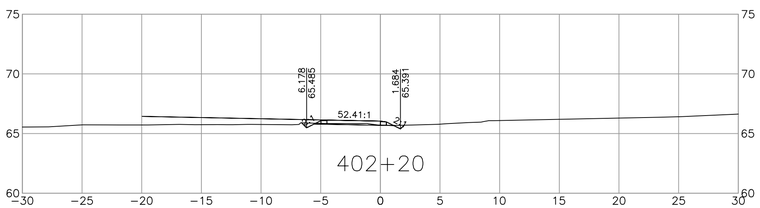
PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1014	PB

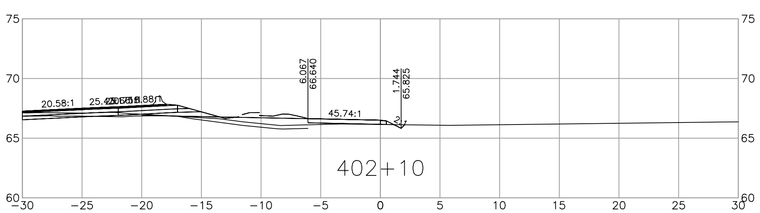
PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

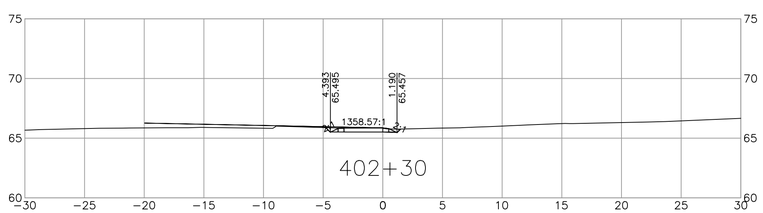












ISL
SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

TEMPLATE CROSS SECTIONS

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

L400

SCALE 0 2 1:250 12m

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1015	PB

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

PLOT DATE: 2026/09/29 C:\ADSK\ACCDocs\ISL\34214_CLN_Hwy_14_at_Delem_Road\Project Files\02_CADD\DrawingProduction\1000_DesignSections\R1-XXXX-1000.dwg

ISL

SUITE 201, 8506 - 200 STREET
LANGLEY, BRITISH COLUMBIA, V2Y 0M1
PH : 604.371.0091 FAX : 604.371.0098

CITY OF Langford where it all happens.

REV	DATE	REVISIONS	NAME
PB	2026-08-18	90% DETAILED DESIGN	A. SANTOS

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

CAD FILENAME R1-XXXX-1000
FILE NUMBER 34214
PLOT DATE 2026-09-29

DESIGNED N. THUNSTROM DATE 2026-08-18
QUALITY CONTROL M. ELLIOTT DATE 2026-08-18
QUALITY ASSURANCE A. SANTOS DATE 2026-08-18
DRAWN P. NGO DATE 2026-08-18

TEMPLATE CROSS SECTIONS

HIGHWAY 14 AT DELEM ROAD INTERSECTION DESIGN
AWSWORTH ROAD TO WEST SHORE PARKWAY

L400

SCALE 0 2 1:250 12m

PROJECT NUMBER	REG	DRAWING NUMBER	REV
2025-02899	1	R1-XXXX-1016	PB