



Revision/	Description/Description	Date/Date
5		
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0	ISSUED FOR TENDER	18/J/16

CANADA BORDER SERVICES AGENCY (CBSA)

Project title/Titre du projet

CBSA IPIL-RFID Douglas & Pacific Highway Port of Entry

Consultant Signature Only

Designed by/Concept par
AES/INNA

Drawn by/Dessiné par
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PREETIPAL PALL

Drawing title/Titre du dessin
DOUGLAS ELECTRICAL LAYOUT

Project No./No. du projet R.081242.001	Sheet/Feuille E101 03 OF 09	Revision no./La Révision no. 0
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LEGEND

- POWER CONDUCTOR (ROUTED IN EXISTING CONDUIT)
- POWER CONDUCTOR (PROVIDE NEW CONDUIT)
- EXISTING SIGNAL CONDUIT
- NEW SIGNAL CONDUIT CW POLY PULLSTRING
- DENOTES NEW CONCRETE WORK BY CIVIL CONTRACTOR
- ↑ CONDUIT RUN OUT THROUGH CONCRETE ISLAND

POWER CABLE SPECIFICATIONS:
(LEAVE 1.8m AT TERMINATION POINT)

POWER CONDUCTORS
12 AWG STRANDED THHN, 600 VAC.

BRANCH CIRCUIT CONDUCTOR INSULATION COLOUR:
NEUTRAL WHITE (WH)
LINE BLACK (BK)
GROUND GREEN (GR)

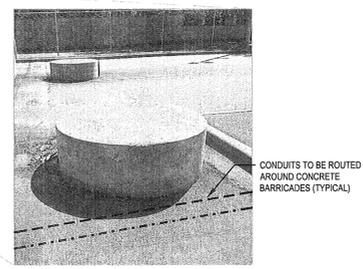
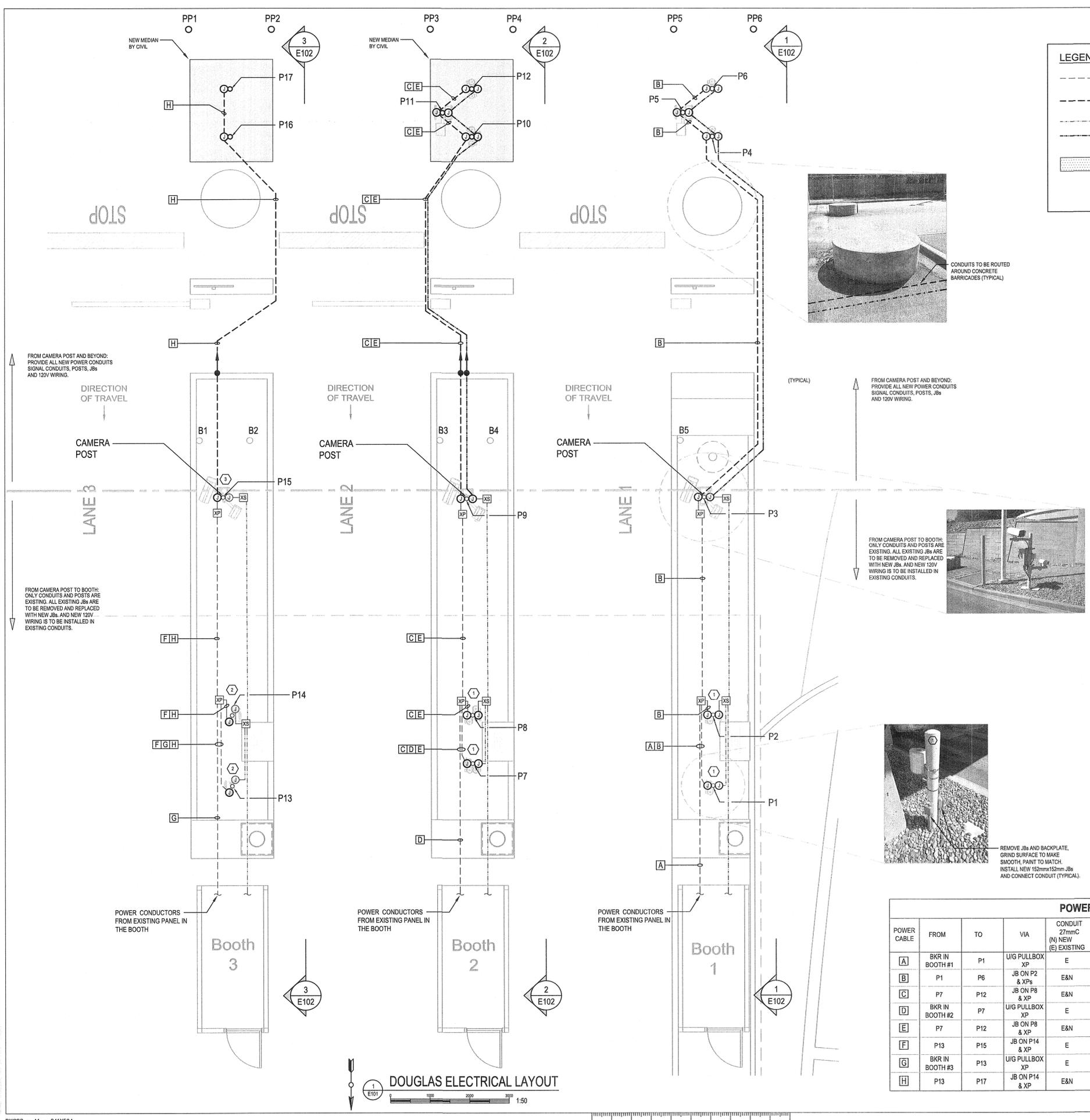
SYSTEM POWER CONDUCTOR INSULATION COLOUR:
NEUTRAL WHITE (WH)
LINE RED (RD)
GROUND GREEN (GR)

EMITTER POWER CONDUCTOR INSULATION COLOUR:
NEUTRAL BLUE (BL)
LINE BROWN (BR)
GROUND GREEN (GR)

POWER REQUIREMENTS:
PROVIDE DEDICATED 20AMP SINGLE POLE NON-GFI TYPE BREAKER (BKR) PER LANE AND LABEL LPR-LANE#X, WHERE X IS THE LANE NUMBER.

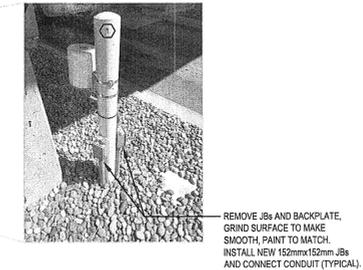
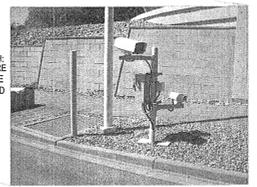
KEYED NOTES:

- PROCEDURE FOR THE REMOVAL OF THE EXISTING SINGLE GANG JB'S AND REPLACING THEM WITH TWO 152mmx152mm JB'S (ONE FOR POWER AND ONE FOR SIGNAL):
 - CUT EXISTING CONDUIT AT FOOT OF POST
 - REMOVE JB'S AND BACKPLATE, GRIND SURFACE TO MAKE SMOOTH, PAINT TO MATCH.
 - INSTALL NEW 152mmx152mmx103mm JB'S
 - EXTEND NEW CONDUIT UP THE POST. PROVIDE STRAPPING.
 - RE-CONNECT TO NEW JB VIA LIQUIDTITE FLEXIBLE CONNECTORS AND PROVIDE CONTINUITY.
 - PAINT AND MAKE GOOD.
- AT POSTS P13 AND P14, THE EXISTING SIGNAL JB IS TO REMAIN AS IS. ONLY THE POWER JB IS TO BE REMOVED AND REPLACED. REFER TO MODIFIED PROCEDURE BELOW:
 - CUT EXISTING POWER CONDUIT AT FOOT OF POST
 - REMOVE POWER JB AND BACKPLATE, GRIND SURFACE TO MAKE SMOOTH, PAINT TO MATCH.
 - INSTALL NEW 152mmx152mmx103mm POWER JB
 - EXTEND NEW POWER CONDUIT UP THE POST. PROVIDE STRAPPING.
 - RE-CONNECT TO NEW POWER JB VIA LIQUIDTITE FLEXIBLE CONNECTORS AND PROVIDE CONTINUITY.
 - PAINT AND MAKE GOOD.
 - AVOID INCIDENTAL DAMAGE TO EXISTING SIGNAL JB'S OR CONDUITS. MAKE GOOD AS NECESSARY.
- AT POST P15, THE NEW JB IS FOR POWER CONDUCTORS ONLY. THE EXISTING SIGNAL CONDUIT INSTALLATION IS TO REMAIN AT THIS POST.



FROM CAMERA POST AND BEYOND: PROVIDE ALL NEW POWER CONDUITS, SIGNAL CONDUITS, POSTS, JB'S AND 120V WIRING.

FROM CAMERA POST TO BOOTH: ONLY CONDUITS AND POSTS ARE EXISTING. ALL EXISTING JB'S ARE TO BE REMOVED AND REPLACED WITH NEW JB'S AND NEW 120V WIRING IS TO BE INSTALLED IN EXISTING CONDUITS.



POWER CABLE SCHEDULE

POWER CABLE	FROM	TO	VIA	CONDUIT 27mmC (N) NEW (E) EXISTING	VOLTAGE (V)	POWER CABLE REQUIREMENT BREAKER (A)	WIRE SIZE (AWG)	REMARKS	CONDUCTOR INSULATION COLOUR
A	BKR IN BOOTH #1	P1	U/G PULLBOX XP	E	120	20	#12	120 VAC BRANCH POWER CONDUCTORS	WH BK + GR
B	P1	P6	JB ON P2 & XP's	E&N	120	-	#12	SYSTEM POWER CONDUCTORS	WH RD + GR
C	P7	P12	JB ON P8 & XP	E&N	120	-	#12	LANE #2 SYSTEM POWER CONDUCTORS	WH RD + GR
D	BKR IN BOOTH #2	P7	U/G PULLBOX XP	E	120	20	#12	LANE #2 120 VAC BRANCH POWER CONDUCTORS	WH BK + GR
E	P7	P12	JB ON P8 & XP	E&N	120	-	#12	LANE #1 EMITTER POWER CONDUCTORS	BL BR + GR
F	P13	P15	JB ON P14 & XP	E	120	-	#12	LANE #3 SYSTEM POWER CONDUCTORS	WH RD + GR
G	BKR IN BOOTH #3	P13	U/G PULLBOX XP	E	120	20	#12	LANE #3 120 VAC BRANCH POWER CONDUCTORS	WH BK + GR
H	P13	P17	JB ON P14 & XP	E&N	120	-	#12	LANE #2 EMITTER POWER CONDUCTORS	BL BR + GR

