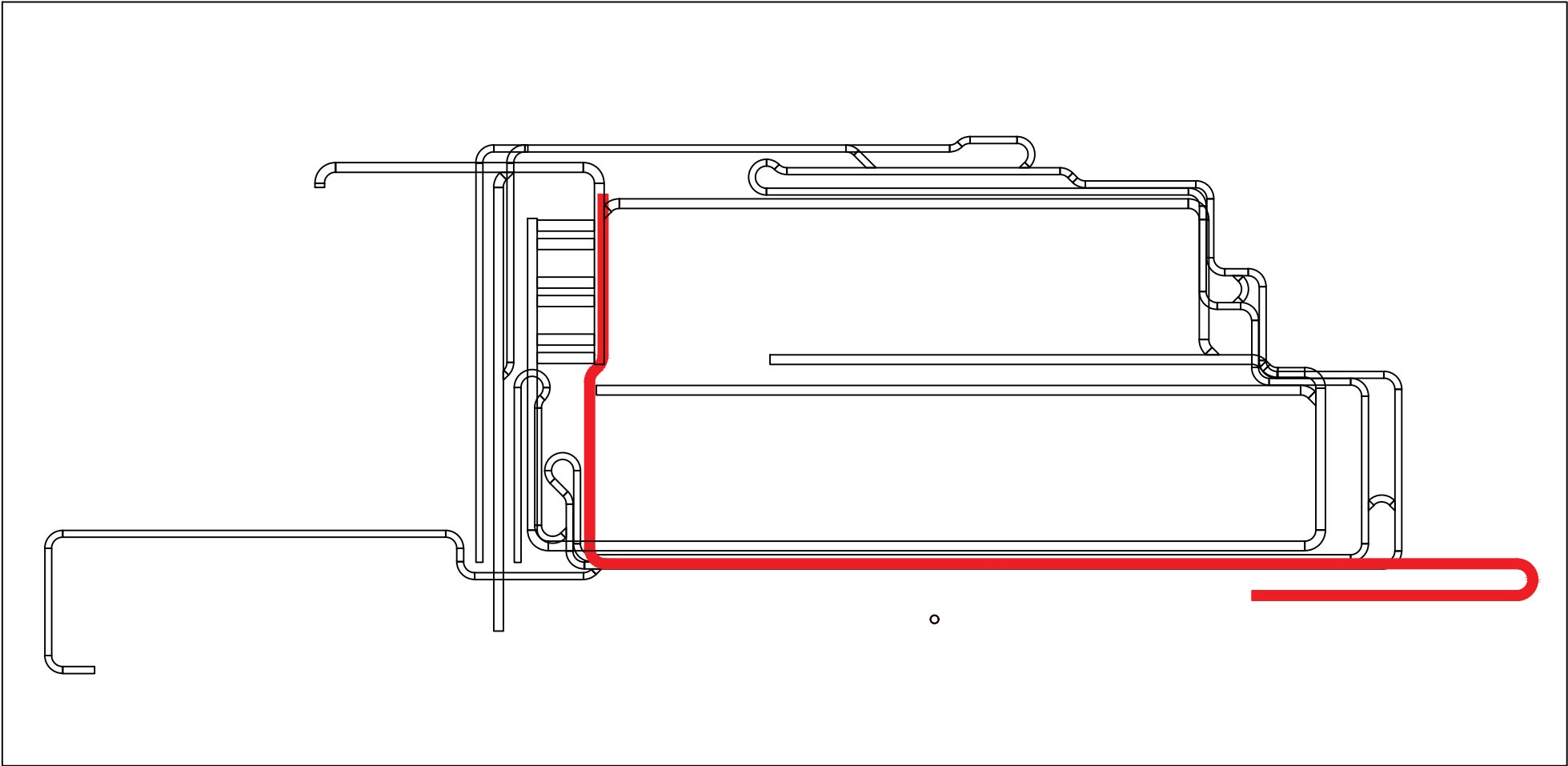


LANs FACILITY CONVEYANCE - EMPTY STORE ORDER TOTE LINE

INTERCONNECT DRAWING PACKAGE BERKSHIRE GREY

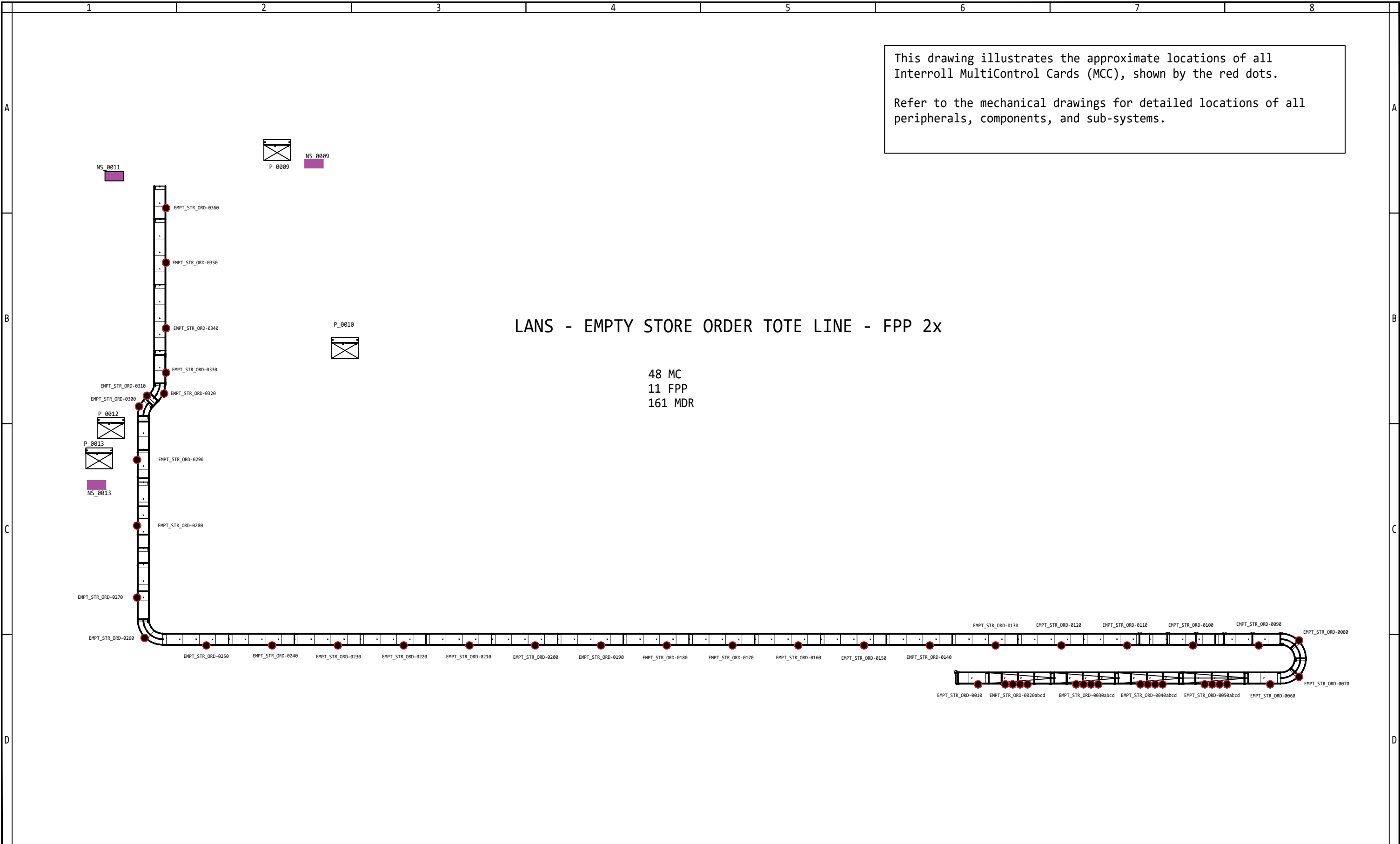


m			
FILENAME	SH	REV	DWGDESC
LANs-E-I	I	-	TITLE SHEET
LANs-E-II	II	-	NOTES
LANs-E-00	00		LANs FACILITY CONVEY EMPTY - MCC - OVERVIEW
LANs-E-01	01		LANs FACILITY CONVEY EMPTY - PULL CORDS
LANs-E-10	10		SECTION - FPP POWER
LANs-E-11	11		LANs FACILITY CONVEY EMPTY - FPP - OVERVIEW
LANs-E-12	12		LANs FACILITY CONVEY EMPTY - FPP L1
LANs-E-13	13		LANs FACILITY CONVEY EMPTY - FPP L2
LANs-E-14	14		LANs FACILITY CONVEY EMPTY - FPP L3
LANs-E-20	20		SECTION - AUX POWER
LANs-E-21	21		LANs FACILITY CONVEY EMPTY - AUX - OVERVIEW
LANs-E-40	40		SECTION - LOGIC POWER
LANs-E-41	41		LANs FACILITY CONVEY EMPTY - LOGIC - OVERVIEW
LANs-E-50	50		SECTION - COMMUNICATION
LANs-E-51	51		LANs FACILITY CONVEY EMPTY - COMM - OVERVIEW
LANs-E-90	90		SECTION - ADDITIONAL INFORMATION
LANs-E-92	92		RAT-HPD CABLE ASSEMBLY V2
LANs-E-93	93		SAFETY ZONE - PULL CORD DEVICE WIRING DETAIL - SINGLE
LANs-E-94	94		BRAKE ROLLER CONNECTIONS
LANs-E-100	100		LANs FACILITY CONVEY EMPTY - MCC CABLES & TERMINATIONS
LANs-E-101	101		LANs FACILITY CONVEY EMPTY - BARCODE CABLES & TERMINATIONS

DRAWING PACKAGE NOTES			
1)	THIS DRAWING PACKAGE IS REPRESENTATIVE OF THE SYSTEM AS IT WAS INSTALLED. ALL FIELD CHANGES MADE AFTER INSTALLATION MAY NOT BE REFLECTED IN THIS DRAWING SET.		
2)	DRAWING PACKAGE CONTAINS WIRING FROM SEVERAL DIFFERENT MACHINE COMPONENTS.		

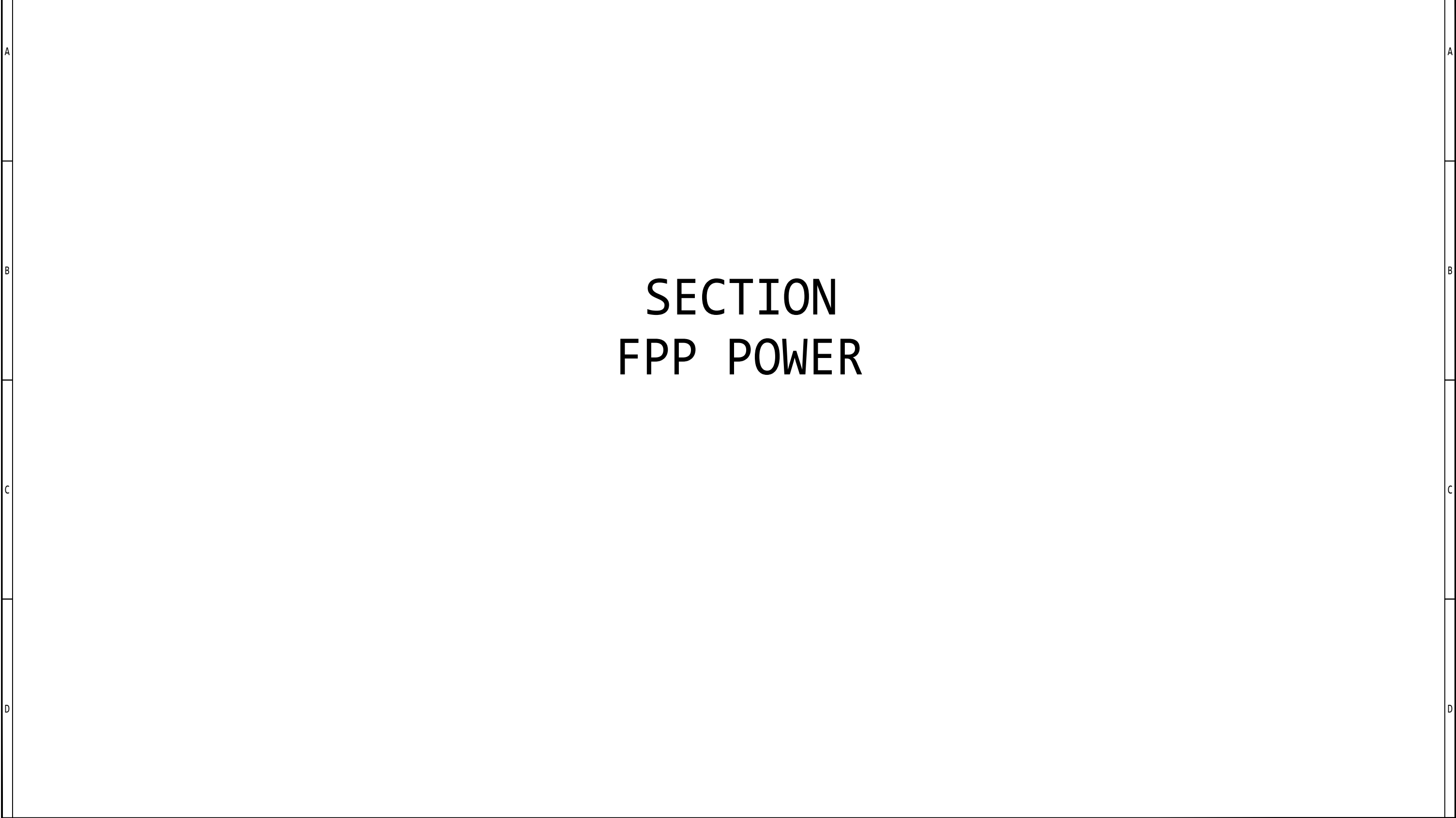
C				<div>140 SOUTH ROAD BEDFORD, MA 01730</div> <div>THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.</div>	DATE 09/22/2020	RPS/SPS INTERCONNECT DRAWING PACKAGE TITLE SHEET	REV	SECT. DETAIL	JOB# 114650
B					SCALE NTS			PREV.	
A					DRAWN MC		A	SHEET I	DWG LANS-E-LP-I
REV	DATE	ENGR.	DESCRIPTION		APPROVED			NEXT II	

	1	2	3	4	5	6	7	8									
A	COMMON ABBREVIATIONS	CABLE LABELING STANDARDS	<div>CABLES CONNECTING TO ELECTRICAL CABINET</div> <div>Leave 5' of slack on the cables to be terminated inside the electrical cabinet.</div>						A								
B			<div>DEVICES, COMPONENTS, AND SUB-SYSTEMS</div> <div>All locations are approximate in this drawing package. Refer to the conveyance CAD and/or mechanical drawings for detailed information.</div>						B								
C									C								
D	<div><div><div>FAMILY CODE</div><div>LOCATION GROUP INDICATOR</div><div>ZONE INDICATOR</div></div><div>D V A 4 0</div><div>COMPONENT LABEL</div></div>	<div><div><div>CABLE INDICATOR</div><div>SHEET NUMBER OF CABLE</div><div>SEQUENTIAL PLACE HOLDER</div></div><div>C B L 6 5 2</div><div>CABLE LABEL</div></div>							D								
C																	
B																	
A																	
REV	DATE	ENGR.	DESCRIPTION	<div><div>BG</div><div>BERKSHIRE GREY</div><div>140 SOUTH ROAD BEDFORD, MA 01730</div></div>		THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.		DATE09/22/2020	SCALENTS	DRAWNMC	APPROVED	RPS INTERCONNECT DRAWING PACKAGE NOTES		REV	SECT. I PREV. SHEET II NEXT 00	DETAIL	JOB# 114650 DWG LANS-E-II

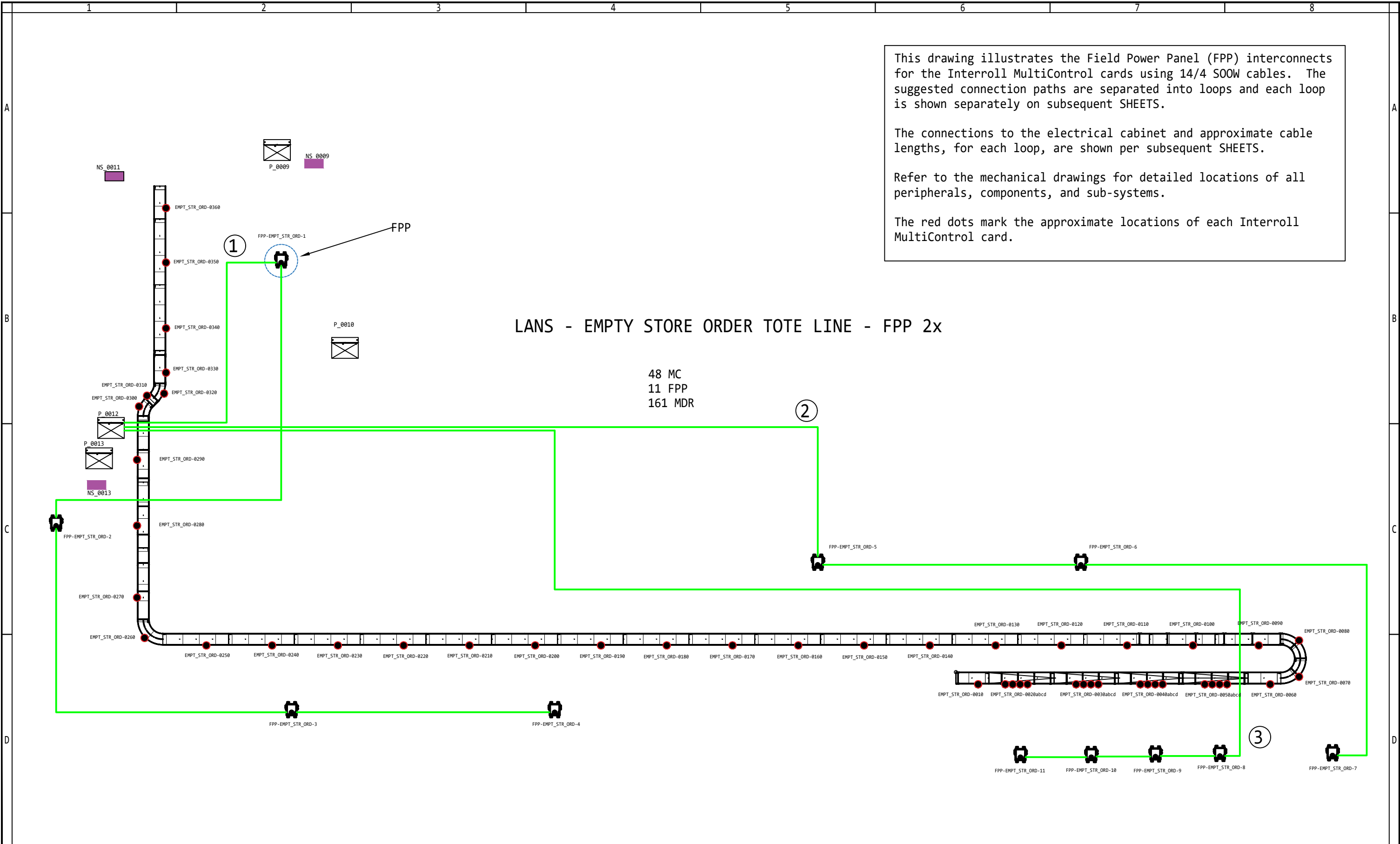



C				<div><div>BG</div><div>BERKSHIRE GREY</div><div>140 SOUTH ROAD BEDFORD, MA 01730</div></div>	THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.	DATE	04/29/2021	RPS/SPS INTERCONNECT DRAWING PACKAGE LANS FACILITY CONVEY EMPTY - MCC - OVERVIEW	REV	SECT.	DETAIL	JOB# 114650
B						SCALE	N/A			PREV.	II	
A						DRAWN	MC		A	SHEET	00	DWG LANS-E-00
REV	DATE	ENGR.	DESCRIPTION			APPROVED				NEXT	01	

SECTION
FPP POWER



C				<div><div>BG</div><div>BERKSHIRE GREY</div><div>140 SOUTH ROAD BEDFORD, MA 01730</div></div>	<div>THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.</div>	DATE	04/29/2021	RPS/SPS INTERCONNECT DRAWING PACKAGE SECTION - FPP POWER	REV	SECT.	DETAIL	JOB# 114650
B						SCALE	N/A			PREV.	01	
A						DRAWN	MC			SHEET	10	
REV	DATE	ENGR.	DESCRIPTION			APPROVED			A	NEXT	11	DWG LANS-E-10



C				 BERKSHIRE GREY 140 SOUTH ROAD BEDFORD, MA 01730	THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.	DATE	04/29/2021	RPS/SPS INTERCONNECT DRAWING PACKAGE LANS FACILITY CONVEY EMPTY - FPP - OVERVIEW	REV	SECT.	DETAIL	JOB# 114650
B						SCALE	N/A			PREV.	10	
A						DRAWN	MC		A	SHEET	11	
REV	DATE	ENGR.	DESCRIPTION			APPROVED				NEXT	12	DWG LANS-E-11

LOOP1 Connection
Electrical Cabinet P-0012
3-PHASE 480VAC 10A
Terminals 5L1, 5L2, 5L3
Approximate total cable length = 85m

This drawing illustrates the Field Power Panel (FPP) interconnects for the Interroll MultiControl cards using 14/4 S00W cables. The suggested connection paths are separated into loops and each loop is shown separately on subsequent SHEETS.

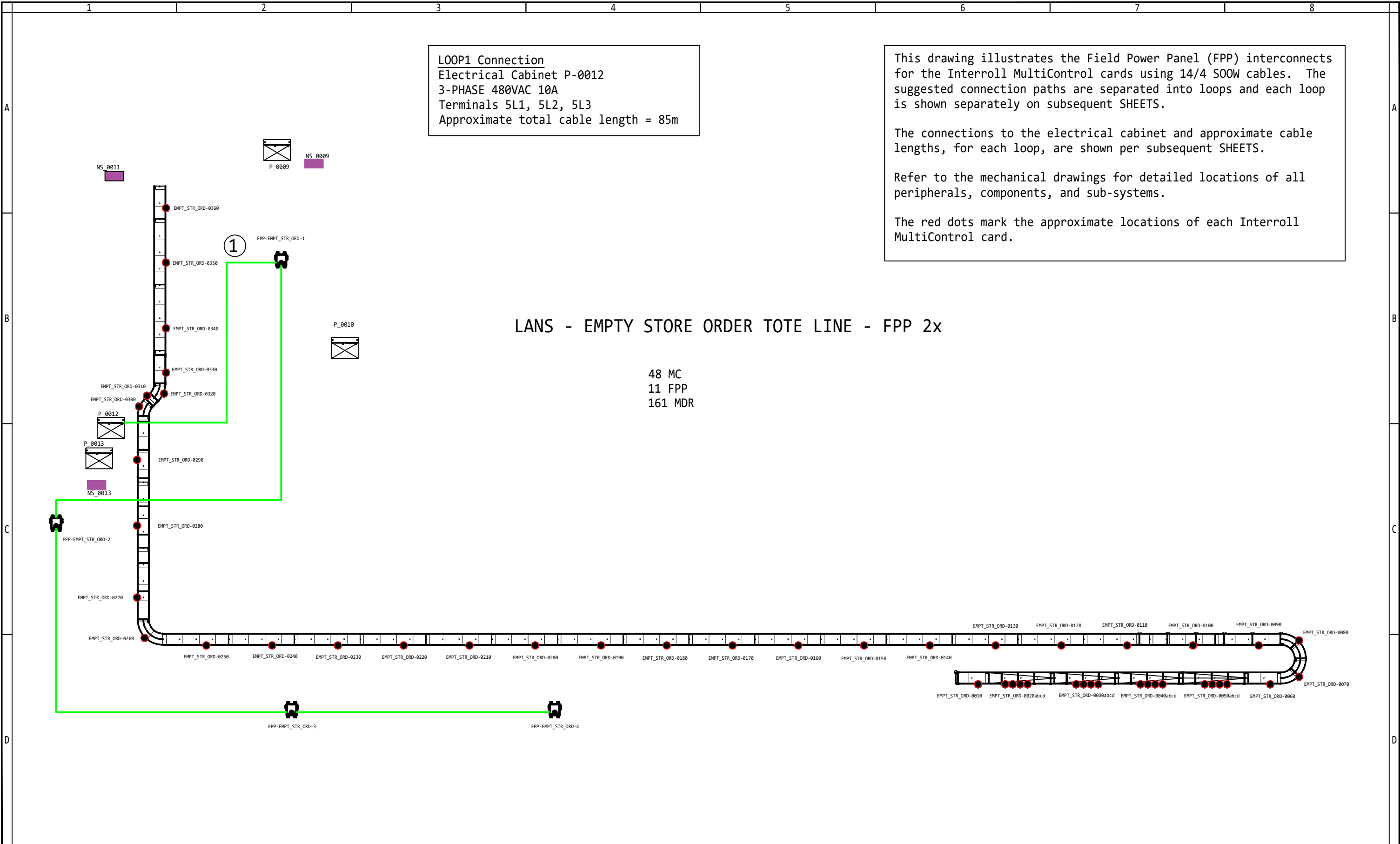
The connections to the electrical cabinet and approximate cable lengths, for each loop, are shown per subsequent SHEETS.


Refer to the mechanical drawings for detailed locations of all peripherals, components, and sub-systems.

The red dots mark the approximate locations of each Interroll MultiControl card.

LANs - EMPTY STORE ORDER TOTE LINE - FPP 2x

48 MC
11 FPP
161 MDR



C				 BERKSHIRE GREY 140 SOUTH ROAD BEDFORD, MA 01730	THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.	DATE	04/29/2021	RPS/SPS INTERCONNECT DRAWING PACKAGE LANs FACILITY CONVEY EMPTY - FPP - L1	REV	SECT.	DETAIL	JOB# 114650
B						SCALE	N/A			PREV.	11	
A						DRAWN	MC		A	SHEET	12	
REV	DATE	ENGR.	DESCRIPTION			APPROVED				NEXT	13	DWG LANs-E-12

LOOP2 Connection
Electrical Cabinet P-0012
3-PHASE 480VAC 10A
Terminals 6L1, 6L2, 6L3
Approximate total cable length = 110m

This drawing illustrates the Field Power Panel (FPP) interconnects for the Interroll MultiControl cards using 14/4 S00W cables. The suggested connection paths are separated into loops and each loop is shown separately on subsequent SHEETS.

The connections to the electrical cabinet and approximate cable lengths, for each loop, are shown per subsequent SHEETS.

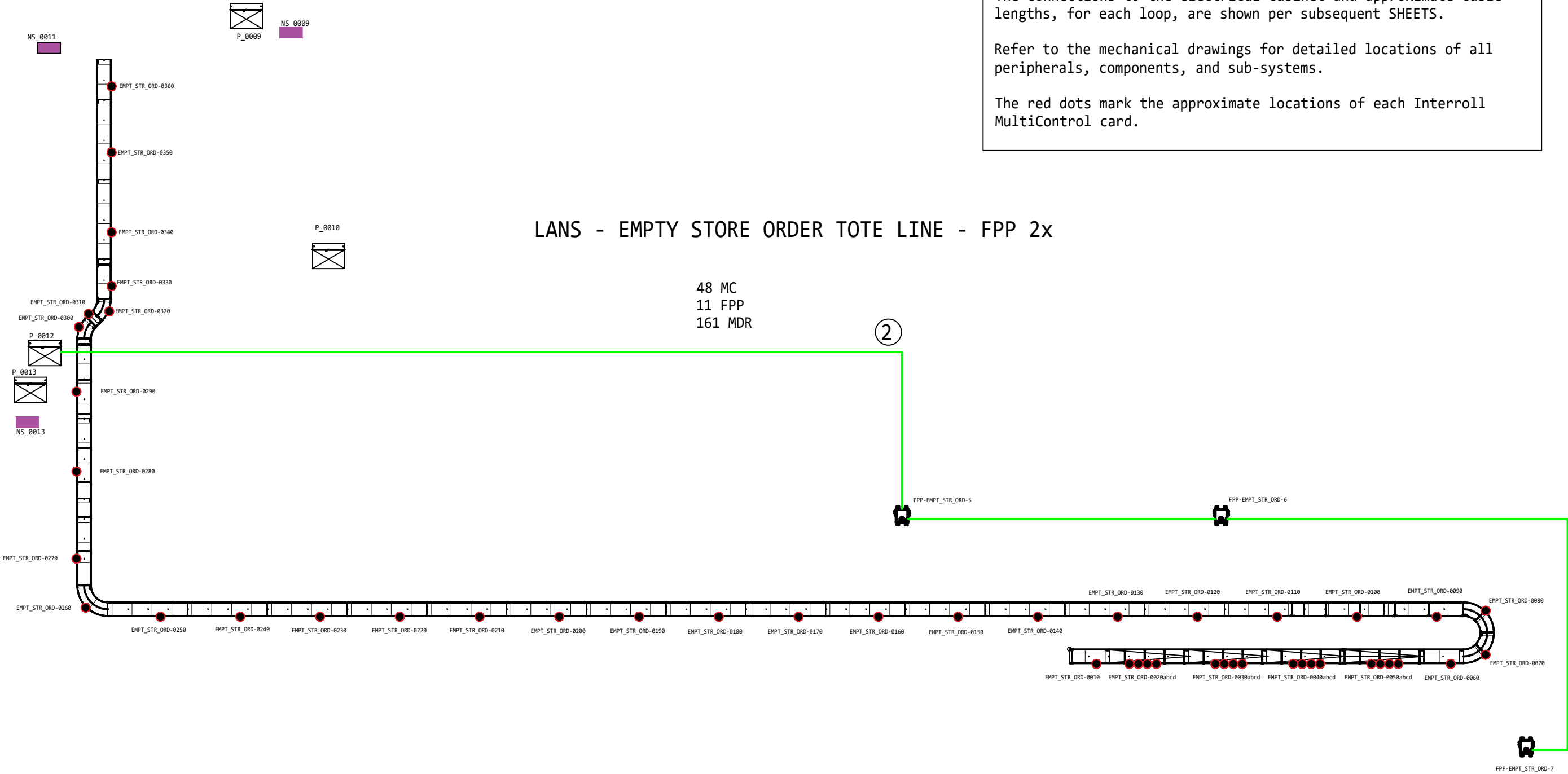
Refer to the mechanical drawings for detailed locations of all peripherals, components, and sub-systems.


The red dots mark the approximate locations of each Interroll MultiControl card.

LANs - EMPTY STORE ORDER TOTE LINE - FPP 2x

48 MC
11 FPP
161 MDR

2



C				 <div>Berkshire Grey 140 South Road Bedford, MA 01730</div>	THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.	DATE	04/29/2021	RPS/SPS INTERCONNECT DRAWING PACKAGE LANs FACILITY CONVEY EMPTY - FPP - L2	REV	SECT.	DETAIL	JOB# 114650
B						SCALE	N/A			PREV.	12	
A						DRAWN	MC			SHEET	13	
REV	DATE	ENGR.	DESCRIPTION			APPROVED			A	NEXT	14	DWG LANs-E-13

LOOP3 Connection
Electrical Cabinet P-0012
3-PHASE 480VAC 10A
Terminals 7L1, 7L2, 7L3
Approximate total cable length = 130m

This drawing illustrates the Field Power Panel (FPP) interconnects for the Interroll MultiControl cards using 14/4 S00W cables. The suggested connection paths are separated into loops and each loop is shown separately on subsequent SHEETS.

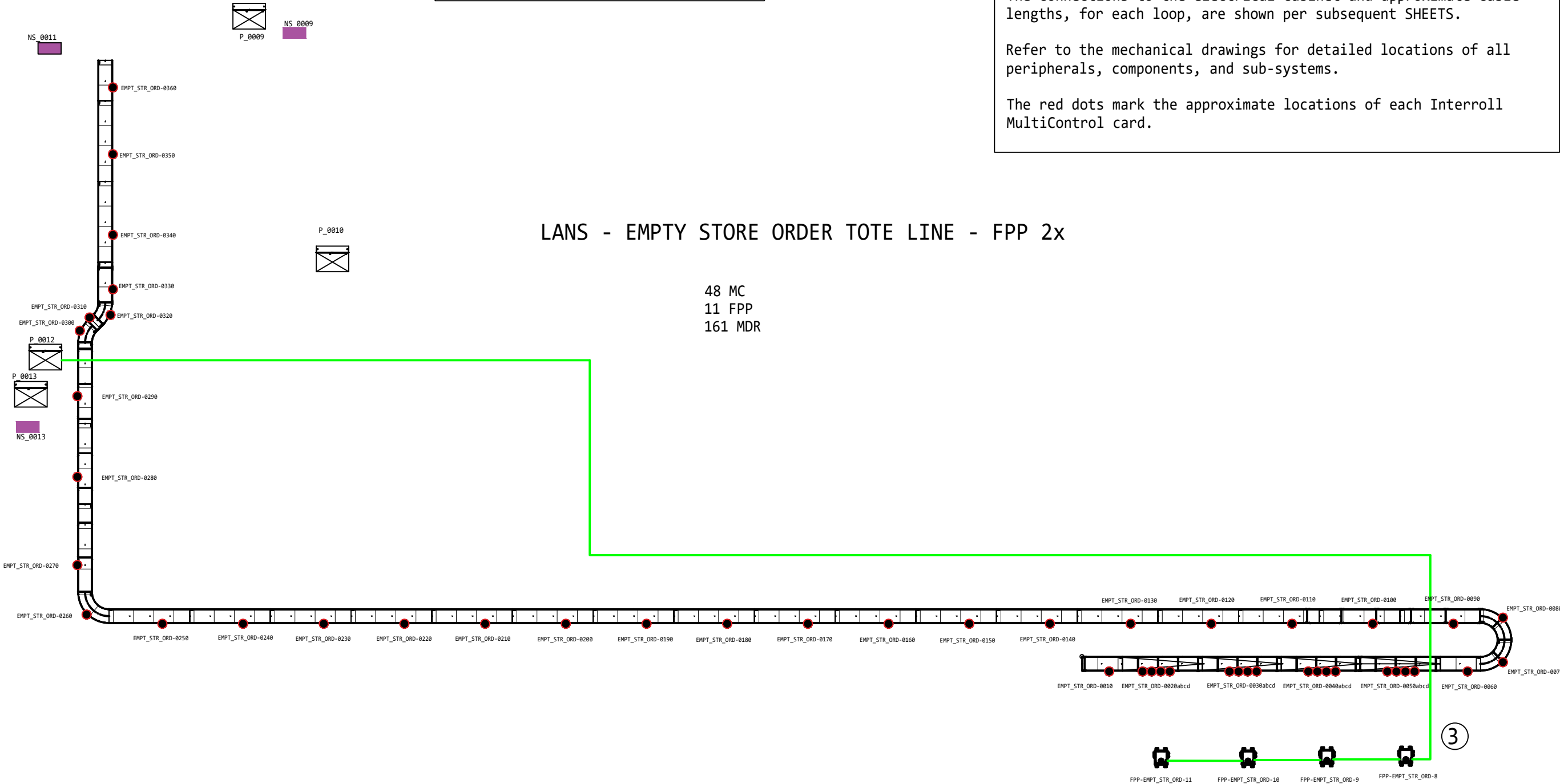
The connections to the electrical cabinet and approximate cable lengths, for each loop, are shown per subsequent SHEETS.

Refer to the mechanical drawings for detailed locations of all peripherals, components, and sub-systems.

The red dots mark the approximate locations of each Interroll MultiControl card.

LANs - EMPTY STORE ORDER TOTE LINE - FPP 2x

48 MC
11 FPP
161 MDR

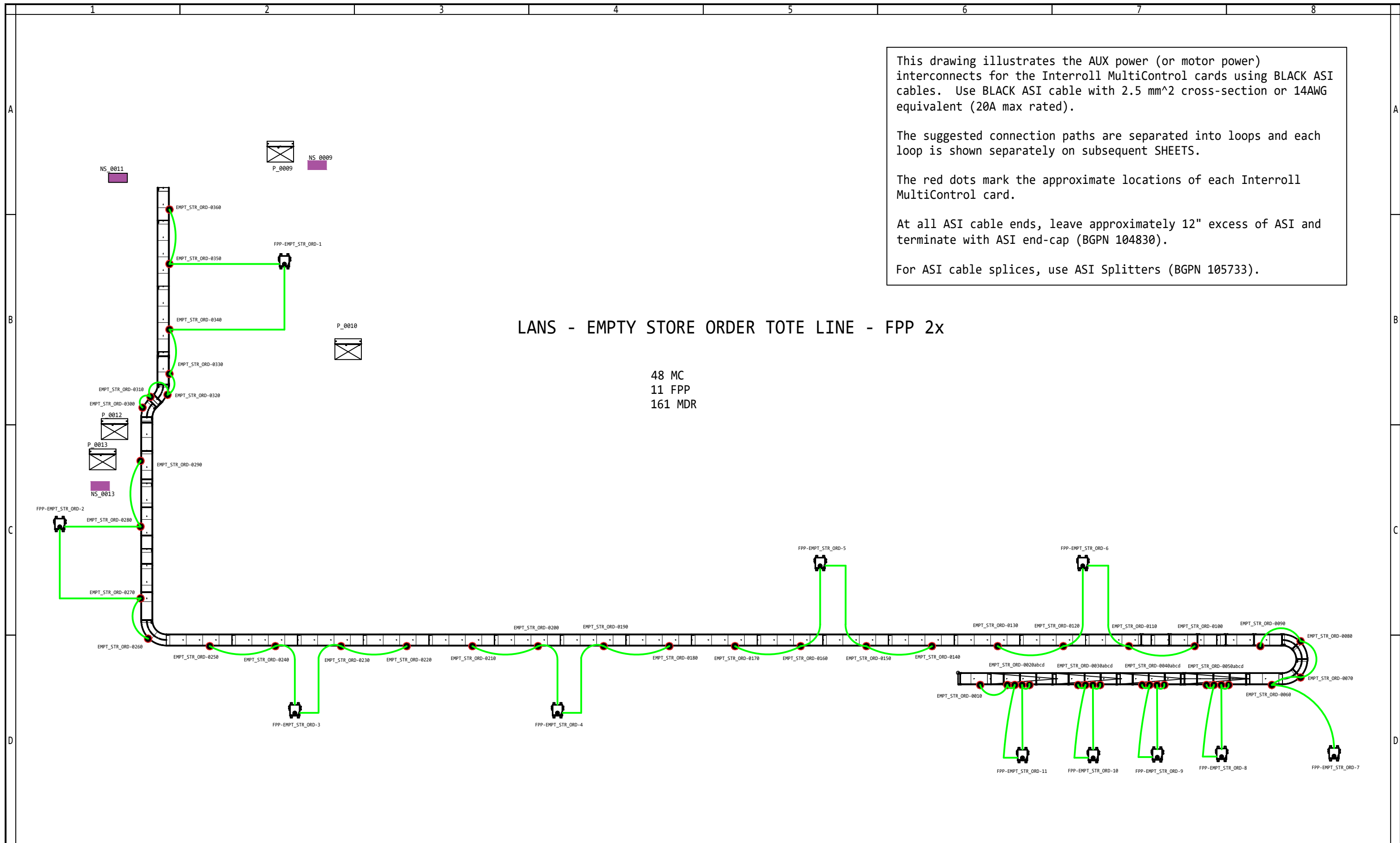


C				<div><div>BG</div><div>BERKSHIRE GREY</div><div>140 SOUTH ROAD BEDFORD, MA 01730</div></div>	THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.	DATE	04/29/2021	RPS/SPS INTERCONNECT DRAWING PACKAGE LANs FACILITY CONVEY EMPTY - FPP - L3	REV	SECT.	DETAIL	JOB#	114650
B						SCALE	N/A			PREV.	13		
A						DRAWN	MC			SHEET	14		
REV	DATE	ENGR.	DESCRIPTION			APPROVED			A	NEXT	20	DWG	LANs-E-14

SECTION
AUX POWER

				1				2				3				4				5				6				7				8							
A																																				A			
B																																				B			
C				SECTION AUX POWER																																C			
D																																				D			

C				<div><div>BG</div><div>BERKSHIRE GREY</div><div>140 SOUTH ROAD BEDFORD, MA 01730</div></div>	THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.	DATE	04/29/2021	RPS/SPS INTERCONNECT DRAWING PACKAGE SECTION - AUX POWER	REV	SECT.	DETAIL	JOB#	114650
B						SCALE	N/A		A	PREV.	14	DWG	LANS-E-20
A						DRAWN	MC			SHEET	20		
REV	DATE	ENGR.	DESCRIPTION			APPROVED				NEXT	21		



This drawing illustrates the AUX power (or motor power) interconnects for the Interroll MultiControl cards using BLACK ASI cables. Use BLACK ASI cable with 2.5 mm² cross-section or 14AWG equivalent (20A max rated).

The suggested connection paths are separated into loops and each loop is shown separately on subsequent SHEETS.


The red dots mark the approximate locations of each Interroll MultiControl card.


At all ASI cable ends, leave approximately 12" excess of ASI and terminate with ASI end-cap (BGPN 104830).

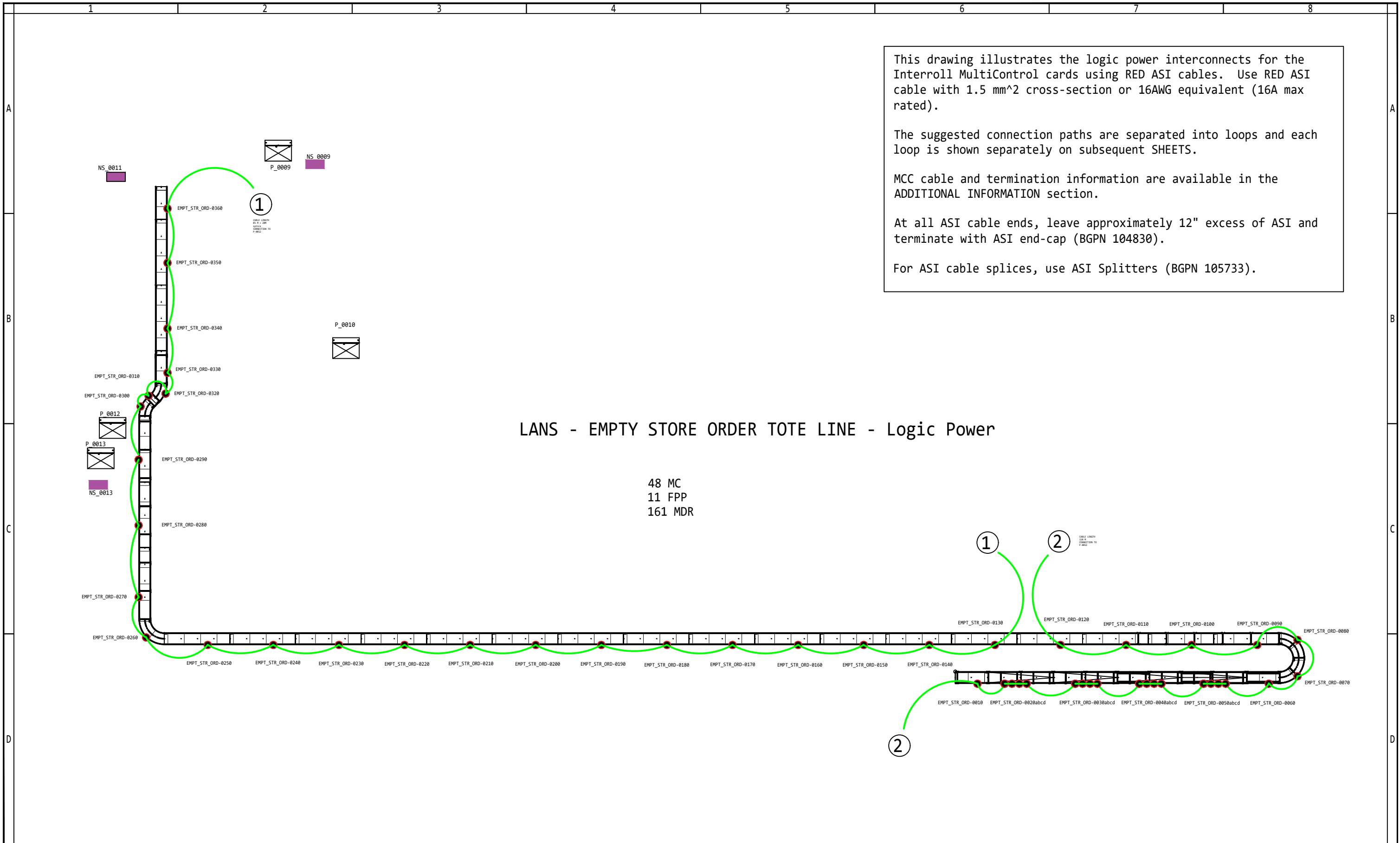
For ASI cable splices, use ASI Splitters (BGPN 105733).

LANS - EMPTY STORE ORDER TOTE LINE - FPP 2x

48 MC
11 FPP
161 MDR

C				<div> BERKSHIRE GREY</div> <div>140 SOUTH ROAD BEDFORD, MA 01730</div>	THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.	DATE	04/29/2021	RPS/SPS INTERCONNECT DRAWING PACKAGE LANS FACILITY CONVEY EMPTY - AUX - OVERVIEW	REV	SECT.	DETAIL	JOB#	114650
B						SCALE	N/A			PREV.	20		
A						DRAWN	MC			SHEET	21	DWG	LANS-E-21
REV	DATE	ENGR.	DESCRIPTION			APPROVED				NEXT	40		

	1	2	3	4	5	6	7	8				
A									A			
B									B			
C									C			
D									D			
C				RPS/SPS				REV	SECT.	DETAIL	JOB#	114650
B				INTERCONNECT DRAWING PACKAGE					PREV.	21		
A				SECTION - LOGIC POWER				A	SHEET	40	DWG	LANS-E-40
REV	DATE	ENGR.	DESCRIPTION	 140 SOUTH ROAD BEDFORD, MA 01730		THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.		DATE 04/29/2021 SCALE N/A DRAWN MC APPROVED				



This drawing illustrates the logic power interconnects for the Interroll MultiControl cards using RED ASI cables. Use RED ASI cable with 1.5 mm² cross-section or 16AWG equivalent (16A max rated).

The suggested connection paths are separated into loops and each loop is shown separately on subsequent SHEETS.


MCC cable and termination information are available in the ADDITIONAL INFORMATION section.

At all ASI cable ends, leave approximately 12" excess of ASI and terminate with ASI end-cap (BGPN 104830).

For ASI cable splices, use ASI Splitters (BGPN 105733).

LANS - EMPTY STORE ORDER TOTE LINE - Logic Power

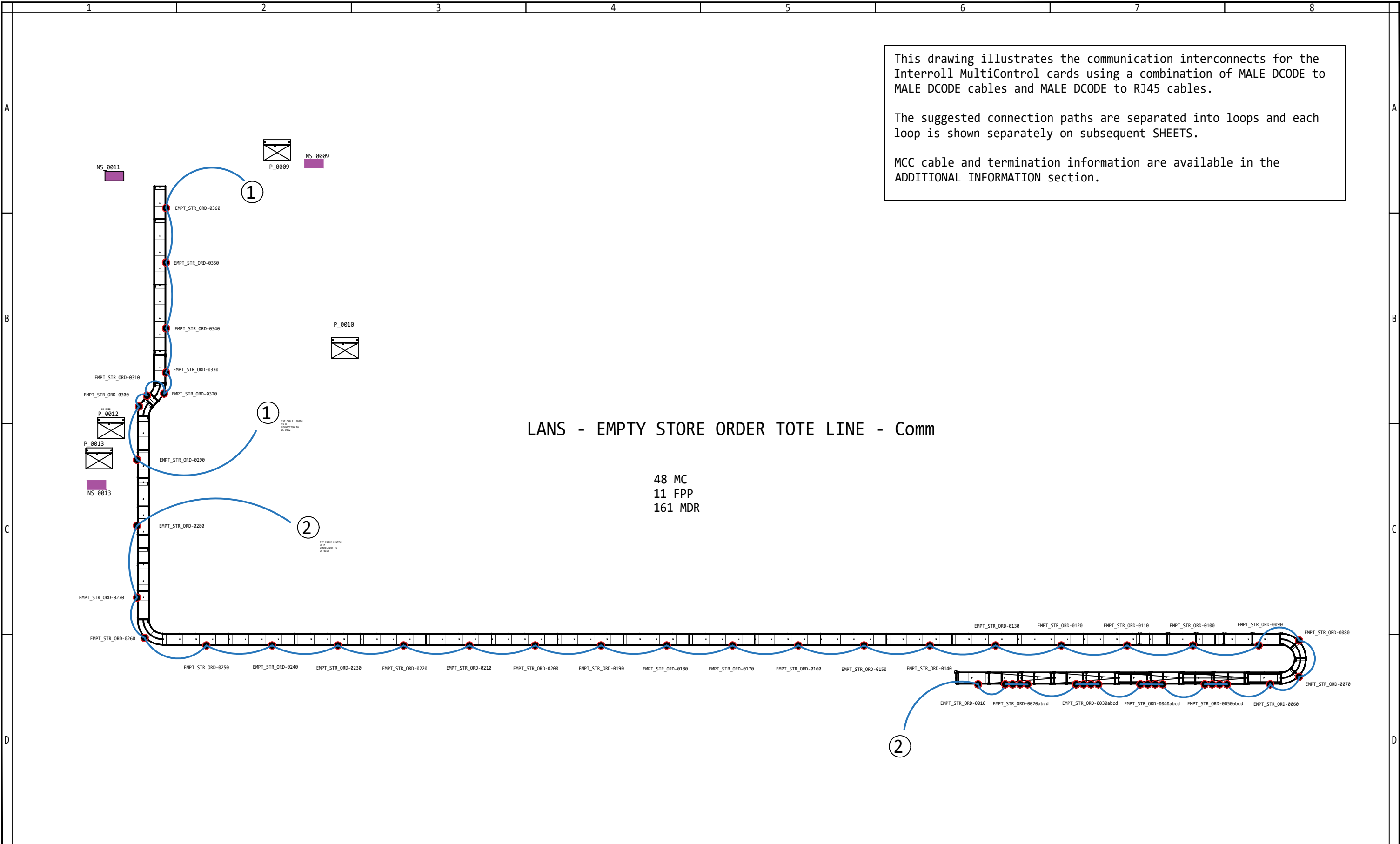
48 MC
11 FPP
161 MDR

C				 <div>BERKSHIRE GREY 140 SOUTH ROAD BEDFORD, MA 01730</div>	THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.	DATE	04/29/2021	RPS/SPS INTERCONNECT DRAWING PACKAGE LANS FACILITY CONVEY EMPTY - LOGIC - OVERVIEW	REV	SECT.	DETAIL	JOB# 114650
B						SCALE	N/A			PREV.	40	
A						DRAWN	MC			SHEET	41	
REV	DATE	ENGR.	DESCRIPTION			APPROVED			A	NEXT	50	DWG LANS-E-41

	1	2	3	4	5	6	7	8			
A									A		
B									B		
C									C		
D									D		
C				DATE04/29/2021				RPS/SPS INTERCONNECT DRAWING PACKAGE SECTION - COMMUNICATION	REV	SECT. DETAIL	JOB# 114650
B				SCALEN/A					A	PREV. 41	DWG LANS-E-50
A				DRAWN MC						SHEET 50	
REV	DATE	ENGR.	DESCRIPTION	140 SOUTH ROAD BEDFORD, MA 01730		THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.		APPROVED			




140 SOUTH ROAD
BEDFORD, MA 01730



LANS - EMPTY STORE ORDER TOTE LINE - Comm

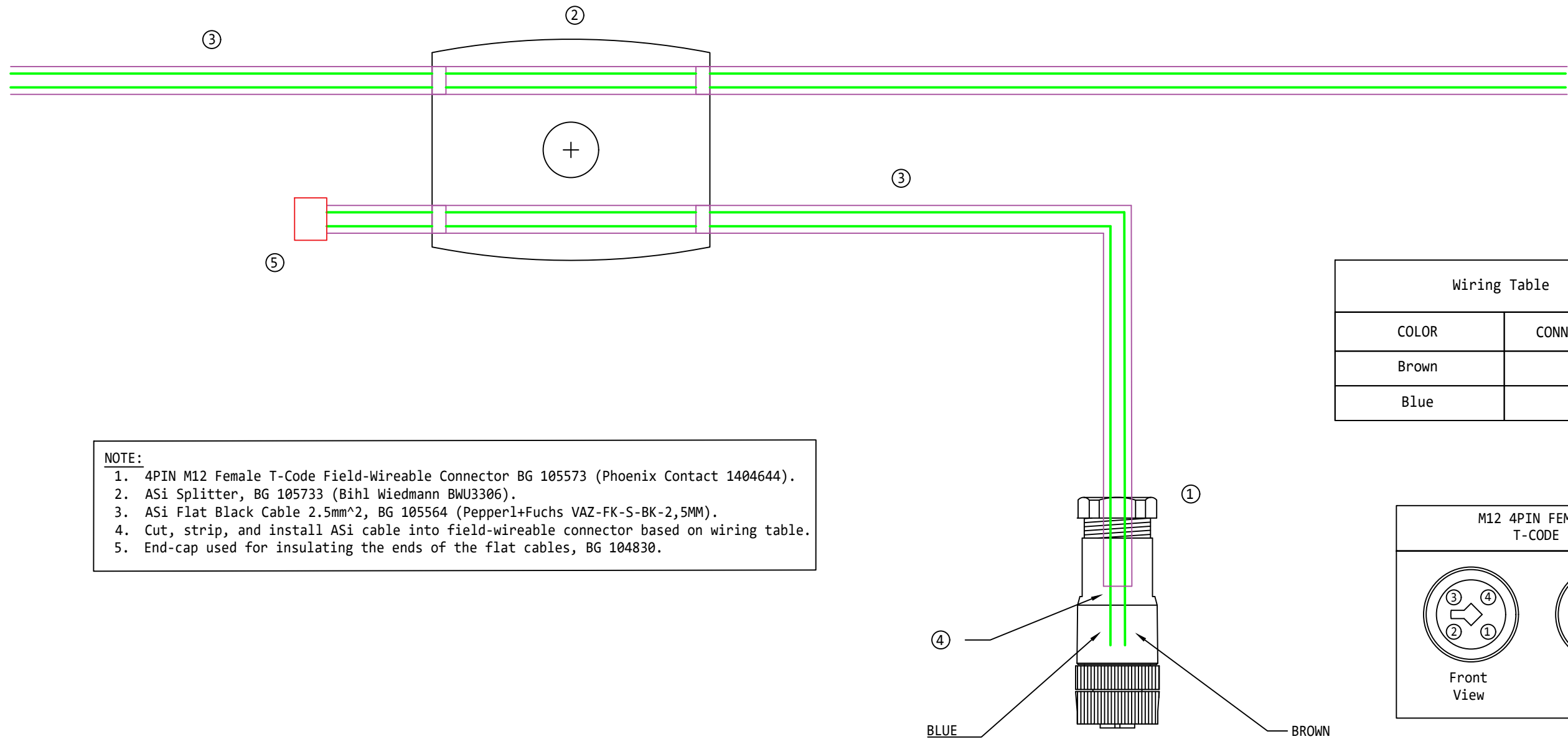
48 MC
11 FPP
161 MDR

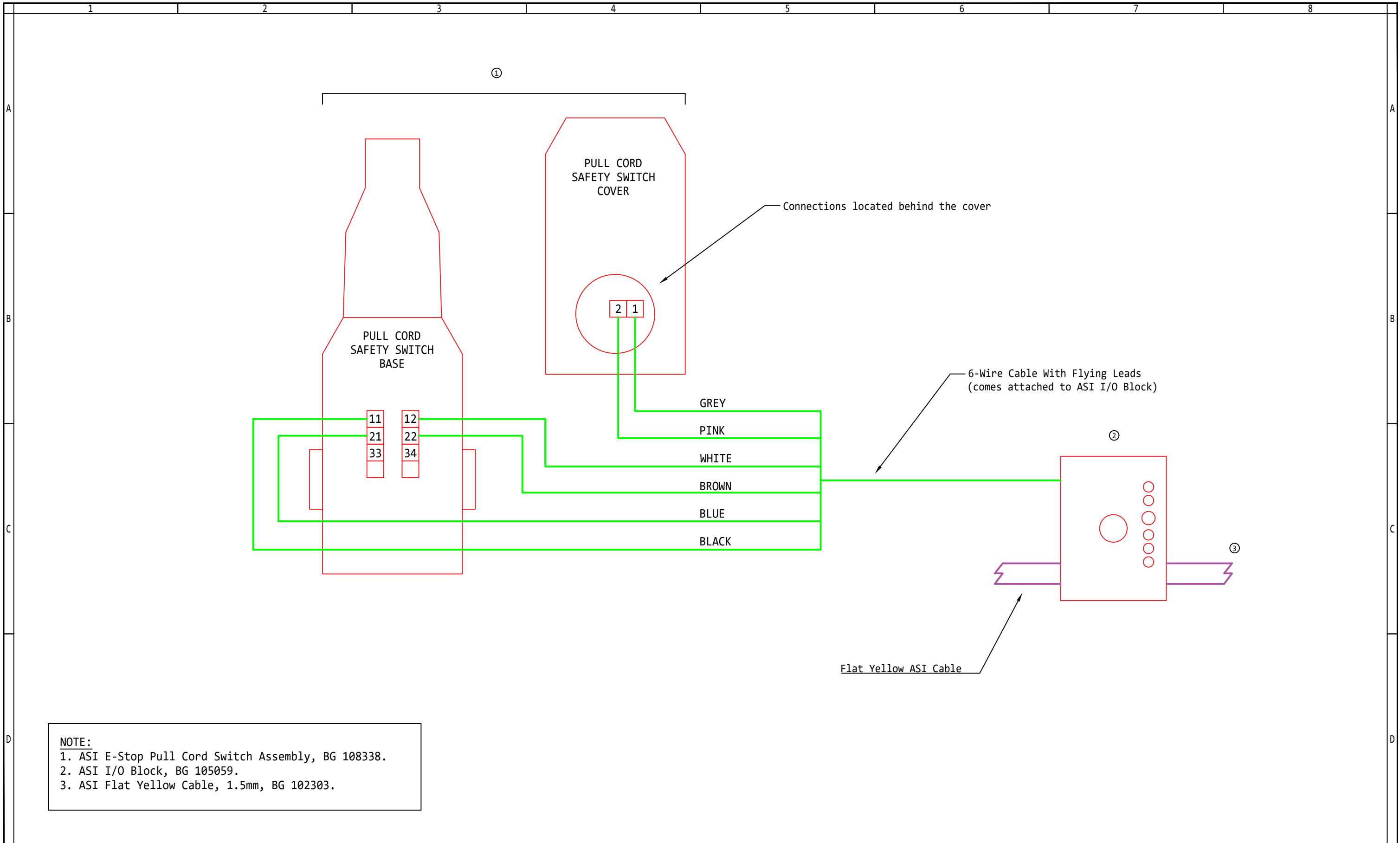
C				 <div>BERKSHIRE GREY</div> <div>140 SOUTH ROAD BEDFORD, MA 01730</div>	THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.	DATE	04/29/2021	RPS/SPS INTERCONNECT DRAWING PACKAGE LANS FACILITY CONVEY EMPTY - COMM - OVERVIEW	REV	SECT.	DETAIL	JOB# 114650
B						SCALE	N/A			PREV.	50	
A						DRAWN	MC			SHEET	51	
REV	DATE	ENGR.	DESCRIPTION			APPROVED			A	NEXT	90	DWG LANS-E-51

SECTION
ADDITIONAL INFORMATION

C				<div><div>BG</div><div>BERKSHIRE GREY</div><div>140 SOUTH ROAD BEDFORD, MA 01730</div></div>	THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.	DATE	04/29/2021	RPS/SPS INTERCONNECT DRAWING PACKAGE SECTION - ADDITIONAL INFORMATION	REV	SECT.	DETAIL	JOB# 114650
B						SCALE	N/A			PREV.	51	
A						DRAWN	MC			SHEET	90	
REV	DATE	ENGR.	DESCRIPTION			APPROVED			A	NEXT	92	DWG LANS-E-90

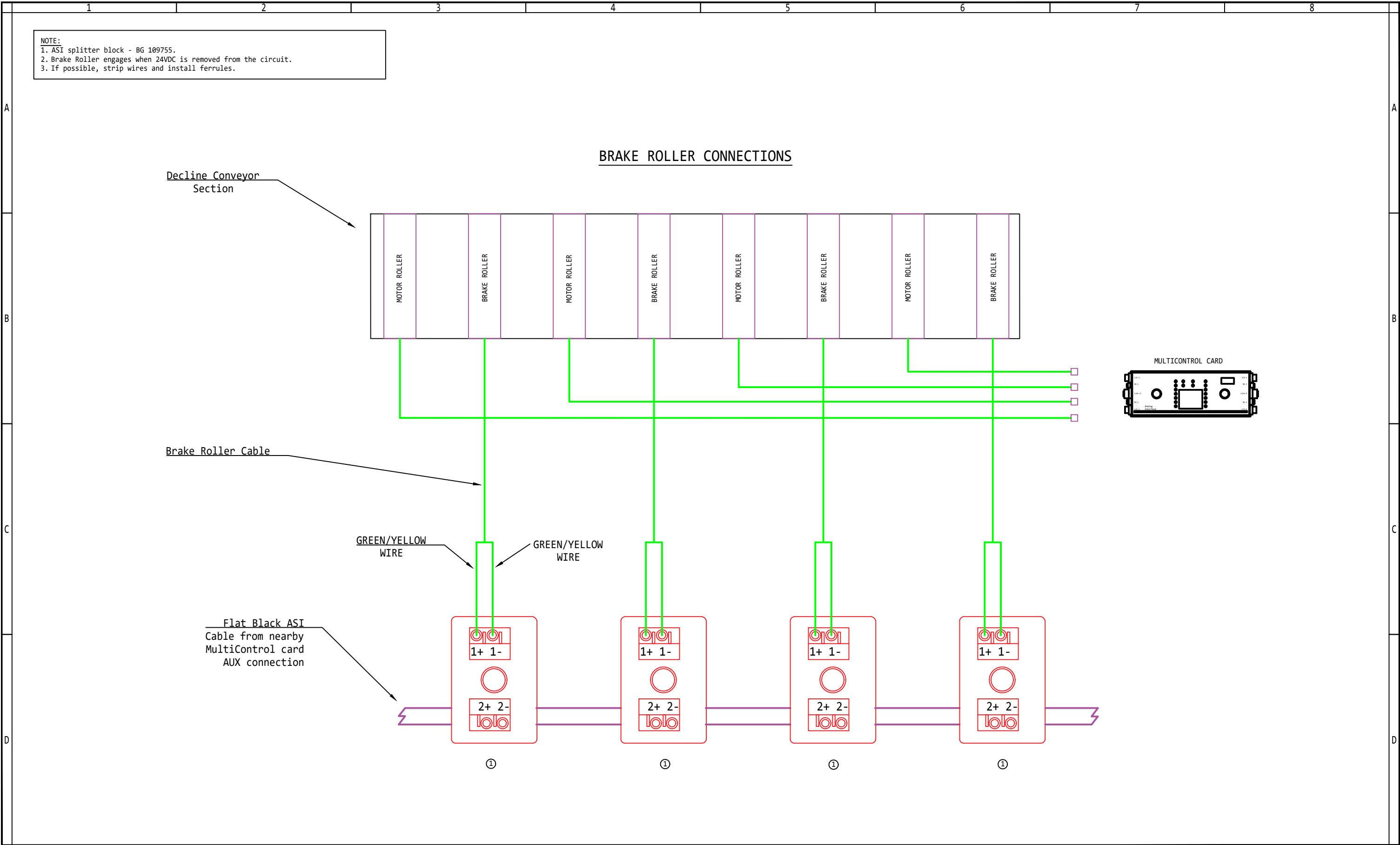
BALI RIGHT-ANGLE TRANSFER HPD CABLE ASSEMBLY V2






NOTE:
1. ASI E-Stop Pull Cord Switch Assembly, BG 108338.
2. ASI I/O Block, BG 105059.
3. ASI Flat Yellow Cable, 1.5mm, BG 102303.

C				<div><div><div>BG</div><div>BERKSHIRE GREY</div></div><div>140 SOUTH ROAD BEDFORD, MA 01730</div></div> <div>THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.</div>	DATE	09/22/2020	RPS/SPS INTERCONNECT DRAWING PACKAGE SAFETY ZONE - PULL CORD DEVICE WIRING DETAIL - SINGLE	REV	SECT.	DETAIL	JOB# 114650	
B					SCALE	N/A			PREV.	92		
A					DRAWN	MC			SHEET	93		DWG LANS-E-93
REV	DATE	ENGR.	DESCRIPTION		APPROVED				NEXT	94		



C				 BERKSHIRE GREY 140 SOUTH ROAD BEDFORD, MA 01730	THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.	DATE	09/22/2020	RPS/SPS INTERCONNECT DRAWING PACKAGE BRAKE ROLLER CONNECTIONS	REV	SECT.	DETAIL	JOB# 114650
B						SCALE	N/A			PREV.	93	
A						DRAWN	MC		A	SHEET	94	
REV	DATE	ENGR.	DESCRIPTION			APPROVED				NEXT	100	DWG LANS-E-94

	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D

Logic Loop (RED ASI)	Electrical Cabinet	Approximate Length (m)	splice from cabinet	P-0012 terminal	this cabinet will be converted use 30A input instead of 60A
1	P-0012	85	20	108	
2	P-0012	110		110	
		195			
Comm Loop	Cable	Network Switch	Approximate Length (m)		
1	DCODE-DCODE	LS-0012	25		
2	DCODE-DCODE	LS-0012	30		

C				<div><div><div><div>BG</div><div>BERKSHIRE GREY</div><div>140 SOUTH ROAD BEDFORD, MA 01730</div></div><div><div>THIS DRAWING IS THE PROPERTY OF BERKSHIRE GREY INC. NEITHER THE DRAWING, NOR INFORMATION DERIVED FROM IT IS TO BE GIVEN TO OTHERS. NO USE IS TO BE MADE OF IT WHICH IS OR MAY BE INJURIOUS TO BERKSHIRE GREY.</div></div></div><div><div>DATE04/29/2021</div><div>SCALEN/A</div><div>DRAWNMC</div><div>APPROVED</div></div></div>	<div>RPS/SPS</div> <div>INTERCONNECT DRAWING PACKAGE</div> <div>LANS FACILITY CONVEY EMPTY - MCC CABLES & TERMINATIONS</div>	REV	SECT.	DETAIL	JOB# 114650
B									
A									
REV	DATE	ENGR.	DESCRIPTION			A	SHEET NEXT	100 101	DWG LANS-E-100

A				B				C				D																			
1				2				3				4				5				6				7				8			
</																															