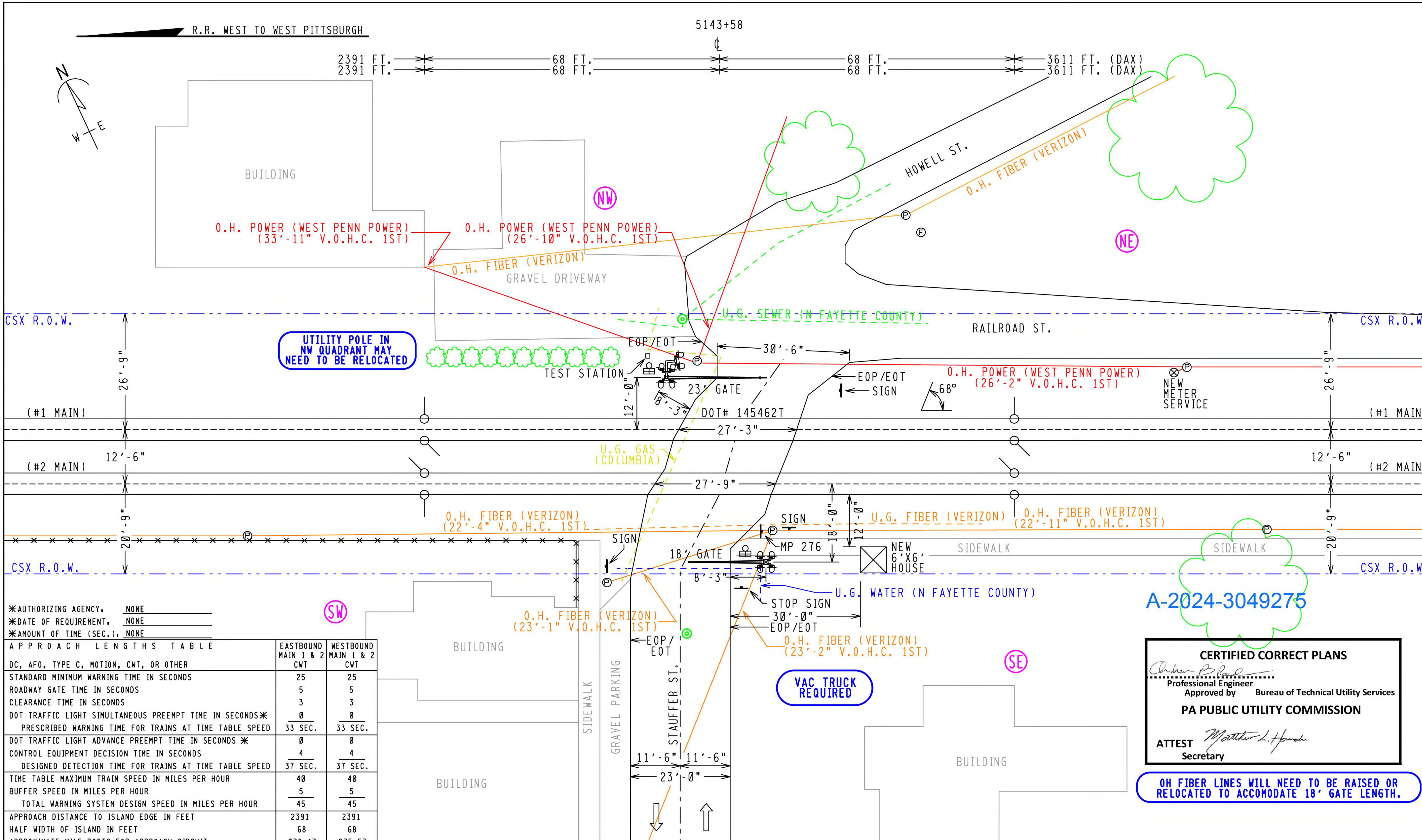

*AUTHORIZING AGENCY: NONE
*DATE OF REQUIREMENT: NONE
*AMOUNT OF TIME (SEC.): NONE

APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	EASTBOUND MAIN 1 & 2 CWT	WESTBOUND MAIN 1 & 2 CWT
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25
ROADWAY GATE TIME IN SECONDS	5	5
CLEARANCE TIME IN SECONDS	3	3
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS*	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	33 SEC.	33 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS *	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	4	4
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED	37 SEC.	37 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	40	40
BUFFER SPEED IN MILES PER HOUR	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	45	45
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2391	2391
HALF WIDTH OF ISLAND IN FEET	68	68
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.47	275.53

FILE NAME: BF27600.H01	REVISION DATES
DATE DRAWN: 01-22-25	02-27-25
DRAWN BY: JMD	04-02-25
CHECKED BY: SAF	- -
PRS #: 34P004256	- -

PRODUCED FOR: CSX TRANSPORTATION — RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS

PRODUCED BY: PROGRESS RAIL SERVICES — A Caterpillar Company

LEGEND:		
CSX ROW	GUARD RAIL	METER SERVICE
R/R POLELINE	O.H. POWER	POLE
GAS	FENCE	FIRE PLUG
FIBER OPTIC	WATER	SEWER CAP
	SEWER	GAS VENT

GPS COORDINATES	
N40°02'54"	STREET NAME: STAUFFER ST.
W79°39'38"	CITY & STATE: DAWSON, (FAYETTE), PA
ELEV. 851'	DOT: 145462T
M.P. BF-276.00	PROJECT #: PA2023021
	OP #: PA0466

PROPOSED CROSSING LAYOUT

SCALE = 20:1

R.R. WEST TO WEST PITTSBURGH

5143+58
℄

N
W
E

BUILDING

O.H. POWER (WEST PENN POWER)
(33'-11" V.O.H.C. 1ST)

O.H. POWER (WEST PENN POWER)
(26'-10" V.O.H.C. 1ST)

O.H. FIBER (VERIZON)

GRAVEL DRIVEWAY

NW

HOWELL ST.

O.H. FIBER (VERIZON)

NE

CSX R.O.W.

U.G. SEWER (N FAYETTE COUNTY)

RAILROAD ST.

CSX R.O.W.

26'-9"

EOP/EOT

30'-6"

TEST STATION

CROSSBUCK

EOP/EOT
SIGN

68°

O.H. POWER (WEST PENN POWER)
(26'-2" V.O.H.C. 1ST)

26'-9"

(#1 MAIN)

DOT# 145462T

27'-3"

(#1 MAIN)

12'-6"

(#2 MAIN)

U.G. GAS
(COLUMBIA)

27'-9"

12'-6"

(#2 MAIN)

20'-9"

O.H. FIBER (VERIZON)
(22'-4" V.O.H.C. 1ST)

SIGN

U.G. FIBER (VERIZON)

O.H. FIBER (VERIZON)
(22'-11" V.O.H.C. 1ST)

SIGN

MP 276

SIDEWALK

SIDEWALK

20'-9"

CSX R.O.W.

CROSSBUCK

U.G. WATER (N FAYETTE COUNTY)

STOP SIGN

SW

O.H. FIBER (VERIZON)
(23'-1" V.O.H.C. 1ST)

EOP/EOT

SE

EOP/
EOT

O.H. FIBER (VERIZON)
(23'-2" V.O.H.C. 1ST)

BUILDING

SIDEWALK

GRAVEL PARKING

STAUFFER ST.

11'-6"

11'-6"

23'-0"

BUILDING

BUILDING

FILE NAME, BF27600.H02	REVISION DATES	PRODUCED FOR,	PRODUCED BY,	LEGEND,	GUARD RAIL	METER SERVICE ⊗	GPS COORDINATES	STREET NAME, STAUFFER ST.	
DATE DRAWN, 01-22-25	02-27-25	CSX TRANSPORTATION	PROGRESS RAIL SERVICES	CSX ROW	O.H. POWER	POLE Ⓟ	N40°02'54"	CITY & STATE, DAWSON, (FAYETTE), PA	
DRAWN BY, JMD	- -	RAIL TRANSPORT GROUP ENGINEERING	A Caterpillar Company	R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'38"	DOT, 145462T	EXISTING CROSSING LAYOUT
CHECKED BY, SAF	- -	COMMUNICATIONS AND SIGNALS		GAS	WATER	SEWER CAP Ⓢ	ELEV. 851'	PROJECT #, PA2023021	SCALE = 20,1
PRS #, 34P004256	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-276.00	OP #, PA0466	

R.R. WEST TO WEST PITTSBURGH

(BOTH TRACKS)
276.2
P-40MPH F-35MPH
P-30MPH F-30MPH

BF 276

(BOTH TRACKS)
275.7
P-30MPH F-30MPH
P-50MPH F-45MPH

SR 819 (LAUGHLIN ST.) START

SR 1041 (RIVER RD.) START

SR 1041 (RIVER RD.) START

SR 819 (LAUGHLIN ST.) START

DEFECT DETECTOR
M.P. BF-275.30
6'X6' HOUSE
BF27530

8'X8' COMM. HOUSE

6'X6' HOUSE

6'X6' DD HOUSE

122# CWR (#1 MAIN)

136# CWR (#2 MAIN)

NBS 522HZ

NBS 979HZ

25 CWU-1

25 CWU-2

87 CWU-1

87 CWU-2

6'-9" CASE

DD

SR 1041 (RIVER RD.)
DOT# 145463A
M.P. 276.25
CFG
PMD-3R2
#1 MAIN-25CWU-1-522 HZ/8.0-KHZ RSI
#2 MAIN-25CWU-2-522 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27625

STAUFFER ST.
DOT# 145462T
M.P. 276.00
XB

SR 819 (LAUGHLIN ST.)
DOT# 145459K
M.P. 275.87
F
PMD-3R2
#1 MAIN-87CWU-1-979 HZ/8.0-KHZ RSI
#2 MAIN-87CWU-2-979 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27587

GALLEY ST.
DOT# 145457W
M.P. 275.80
XB

MAIN ST.
DOT# 145454B
M.P. 275.67
XB

E.O.S. 3500'
SR 1041 (RIVER RD.) START 3305'
BRIDGE 1440'
BRIDGE 1391'
ISL 1361'
1298'
HOUSE 1250'
ISL 1235'
METER 1200'
SPEED CHANGE 1033'
SR 819 (LAUGHLIN ST.) START 597'
0'
MILE POST 23'
CASE 561'
ISL 606'
676'
METER 694'
SR 1041 (RIVER RD.) START 725'
ISL 734'
1012'
1690'
SPEED CHANGE 1863'
COMM. HOUSE 1878'
METER 1941'
SR 819 (LAUGHLIN ST.) START 2103'
WHISTLE POSTS 3020'
DD 4149'
HOUSE 4178'
DD 4195'
METER 4218'
STEP-DOWN TRANSFORMER 4228'
BRIDGE 4640'
BRIDGE 4686'
E.O.S. 5600'

FILE NAME, BF27600.H03	REVISION DATES	PRODUCED FOR, CSX TRANSPORTATION RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS	PRODUCED BY, PROGRESS RAIL SERVICES A Caterpillar Company	LEGEND,	GUARD RAIL	METER SERVICE ⊗	GPS COORDINATES	STREET NAME, STAUFFER ST.
DATE DRAWN, 01-22-25	- -			CSX ROW	O.H. POWER	POLE Ⓟ	N40°02'54"	CITY & STATE, DAWSON, (FAYETTE), PA
DRAWN BY, JMD	- -			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'38"	DOT, 145462T
CHECKED BY, SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 851'	PROJECT #, PA2023021
PRS #, 34P004256	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-276.00	OP #, PA0466

EXISTING TRACK LAYOUT

R.R. WEST TO WEST PITTSBURGH

N E W

(BOTH TRACKS)
276.2
P-40MPH F-35MPH | P-30MPH F-30MPH

BF 276

DESIGN AGAINST
PA2019559
PA2019555

(BOTH TRACKS)
275.7
P-30MPH F-30MPH | P-50MPH F-45MPH

MAIN ST. (DAX) START
GALLEY ST. START
STAUFFER ST. START
SR 1041 (RIVER RD.) START
SR 819 (LAUGHLIN ST.) START

SR 1041 (RIVER RD.) (DAX) START
STAUFFER ST. (DAX) START
SR 819 (LAUGHLIN ST.) (DAX) START
GALLEY ST. START
MAIN ST. START

CUT SECTION
M.P. BF-275.80
8'X8' HOUSE
ELECTROLOGIXS
DWG# BF27580

(4) NEW IJ'S REQUIRED

3C#6 W/GND
8'X8' COMM. HOUSE

DEFECT DETECTOR
M.P. BF-275.30
6'X6' HOUSE
BF27530

5C#14
6'X6' HOUSE

SR 819 (LAUGHLIN ST.)
DOT# 145459K
M.P. 275.87
(FG)
XP4
#1 MAIN-87CWU-1-267 HZ/5.4-KHZ RSI
#2 MAIN-87CWU-2-267 HZ/5.4-KHZ RSI
RECORDER
DWG# BF27587

122# CWR (#1 MAIN)
136# CWR (#2 MAIN)

NBS 151HZ | NBS 392HZ | NBS 267HZ | NBS 86HZ

25 CWU-1
25 CWU-2
00 CWU-1
00 CWU-2
87 CWU-1
87 CWU-2
80-1 CWU-1
80-1 CWU-2
80-2 CWU-1
80-2 CWU-2
67 CWU-1
67 CWU-2

NBS/DTL 86HZ
NBS/DTL 151HZ
NBS/DTL 392HZ
NBS/DTL 267HZ

NBS 267HZ | NBS 392HZ DD

12C#14
19C#14

6'X6' HOUSE
8'X8' HOUSE
6'X6' DD HOUSE

SR 1041 (RIVER RD.)
DOT# 145463A
M.P. 276.25
(CFG)
XP4
#1 MAIN-25CWU-1-151 HZ/8.0-KHZ RSI
#2 MAIN-25CWU-2-151 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27625

STAUFFER ST.
DOT# 145462T
M.P. 276.00
(FG)
XP4
#1 MAIN-00CWU-1-392 HZ/4.0-KHZ RSI
#2 MAIN-00CWU-2-392 HZ/4.0-KHZ RSI
RECORDER
DWG# BF27600

GALLEY ST.
DOT# 145457W
M.P. 275.80
F
XP4
#1 MAIN-80-1CWU-1-86 HZ/7.1-KHZ RSI
#2 MAIN-80-1CWU-2-86 HZ/7.1-KHZ RSI
#1 MAIN-80-2CWU-1-267 HZ
#2 MAIN-80-2CWU-2-267 HZ
RECORDER
DWG# BF27580

MAIN ST.
DOT# 145454B
M.P. 275.67
F
XP4
#1 MAIN-67CWU-1-392 HZ/8.0-KHZ RSI
#2 MAIN-67CWU-2-392 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27567

SR 1041 (RIVER RD.) START 4420'
E.O.S. 3500'
STAUFFER ST. START 2459'
SR 819 (LAUGHLIN ST.) START 1923'
MAIN ST./GALLEY ST. START 1655'
BRIDGE 1440'
BRIDGE 1391'
ISL 1361'
1298'
HOUSE 1250'
ISL 1235'
METER 1200'
SPEED CHANGE 1033'
ISL 68'
0'
MILE POST 23'
HOUSE 35'
ISL 68'
METER 102'
HOUSE 593'
ISL 607'
676'
METER 700'
ISL 745'
ISL 949'
1012'
DTL/NBS/IJ/ISL 1075'
HOUSE 1078'
METER 1090'
ISL 1630'
1690'
ISL 1750'
HOUSE 1763'
SPEED CHANGE 1863'
COMM. HOUSE 1878'
METER 1941'
WHISTLE POSTS 3020'
SR 1041 (RIVER RD.)/STAUFFER ST./SR 819 (LAUGHLIN ST.)/GALLEY ST. START 3679'
MAIN ST. START 4134'
DD 4149'
HOUSE 4178'
DD 4195'
METER 4218'
STEP-DOWN TRANSFORMER 4228'
BRIDGE 4640'
BRIDGE 4686'
E.O.S. 5600'

FILE NAME: BF27600.H04	REVISION DATES	PRODUCED FOR: CSX TRANSPORTATION RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS	PRODUCED BY: PROGRESS RAIL SERVICES A Caterpillar Company	LEGEND:	GUARD RAIL	METER SERVICE ⊗	GPS COORDINATES	STREET NAME: STAUFFER ST.	
DATE DRAWN: 01-22-25	02-27-25			CSX ROW	O.H. POWER	POLE Ⓟ	N40°02'54"	CITY & STATE: DAWSON, (FAYETTE), PA	
DRAWN BY: JMD	04-23-25			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'38"	DOT: 145462T	PROPOSED TRACK LAYOUT
CHECKED BY: SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 851'	PROJECT #: PA2023021	
PRS #: 34P004256	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-276.00	OP #: PA0466	

INDEX

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S01	TRACK AND SIGNAL PLAN	⊠								
E01	POWER DISTRIBUTION	⊠								
E02	RELAY CONSIST	⊠								
E03	ELECTROLOGIXS XP4 MODULE LAYOUT	⊠								
C01	XP4 CROSSING DETECTION AND I/O CIRCUITS	⊠								
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C08	WAYSIDE ACCESS GATEWAY	⊠								
C09	CROSSING COMMUNICATIONS EQUIPMENT	⊠								

⊠ = DESIGN COMPLETED

⊠ = REVISION COMPLETED

⬭ = NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK

DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2023021	04-23-25		

TO BE COMPLETED ON A.I.S.

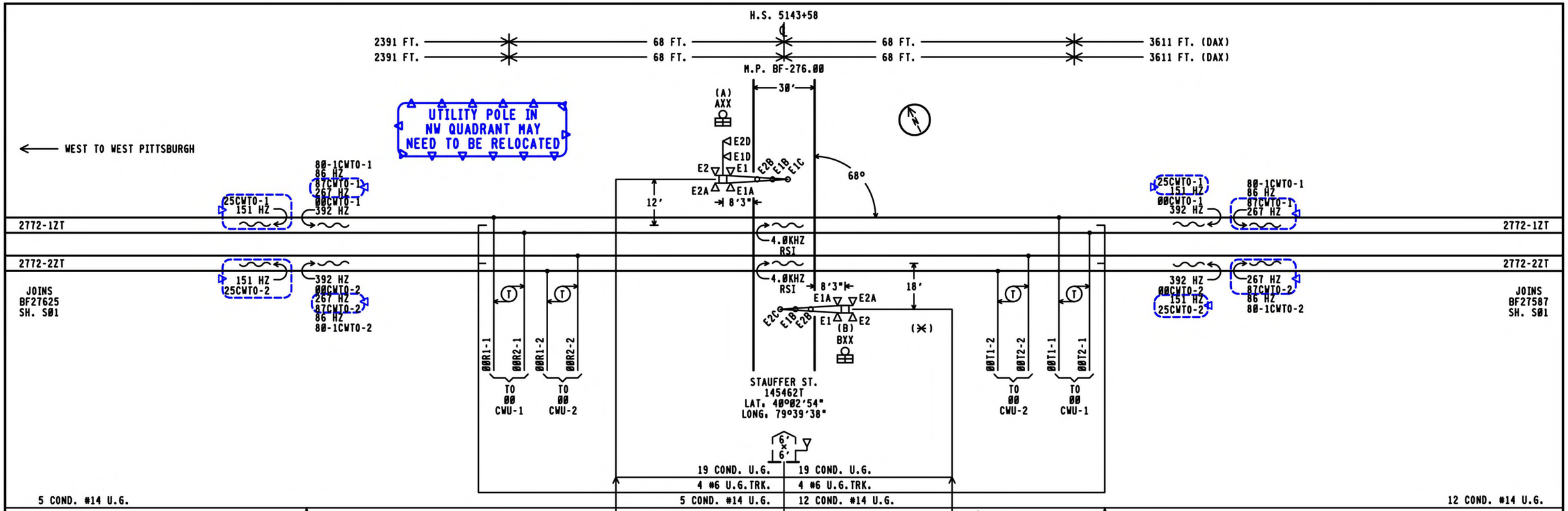
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

INDEX AND REVISIONS
DAWSON, PA M.P. BF-276.00

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27600	I01



APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	EASTBOUND TRACK 1 CWT	WESTBOUND TRACK 1 CWT	EASTBOUND TRACK 2 CWT	WESTBOUND TRACK 2 CWT
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25	25	25
ROADWAY GATE TIME IN SECONDS	5	5	5	5
CLEARANCE TIME IN SECONDS	3	3	3	3
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS *	0	0	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	33 SEC.	33 SEC.	33 SEC.	33 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS *	0	0	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	4	4	4	4
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED	37 SEC.	37 SEC.	37 SEC.	37 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	40	40	40	40
BUFFER SPEED IN MILES PER HOUR	5	5	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	45	45	45	45
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2391	2391	2391	2391
HALF WIDTH OF ISLAND IN FEET	68	68	68	68
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.47	275.53	276.47	275.53

*AUTHORIZING AGENCY. NONE
*DATE OF REQUIREMENT. NONE
*AMOUNT OF TIME (SEC.). NONE

NOTES.

1. 12" LED MAXIMUM CURRENT 1.0A AT 10 VOLTS LED GATE ARM LIGHTS .3A MAXIMUM
2. GATE LENGTH (A) 23' (B) 18'
3. (X) = LOCATION OF HOUSE
4. (N) = APPROXIMATE COMPASS NORTH.
5. TRANSMITTER LEADS FOR MOTION OR PREDICTOR EQUIPMENT SHOULD BE CONNECTED ON THE BUNGALOW OR SHORT LEAD SIDE OF THE CROSSING.
6. ISLAND TRACK LEADS SHOULD BE CONNECTED 50 FEET FROM ROAD EDGE BUT ON NARROW ROADS (20' OR LESS) ISLAND LENGTH SHALL BE 120 FEET.
7. WARNING SYSTEM APPROACH CIRCUIT DISTANCES ARE TO BE MEASURED FROM THE ISLAND TRACK CONNECTIONS.

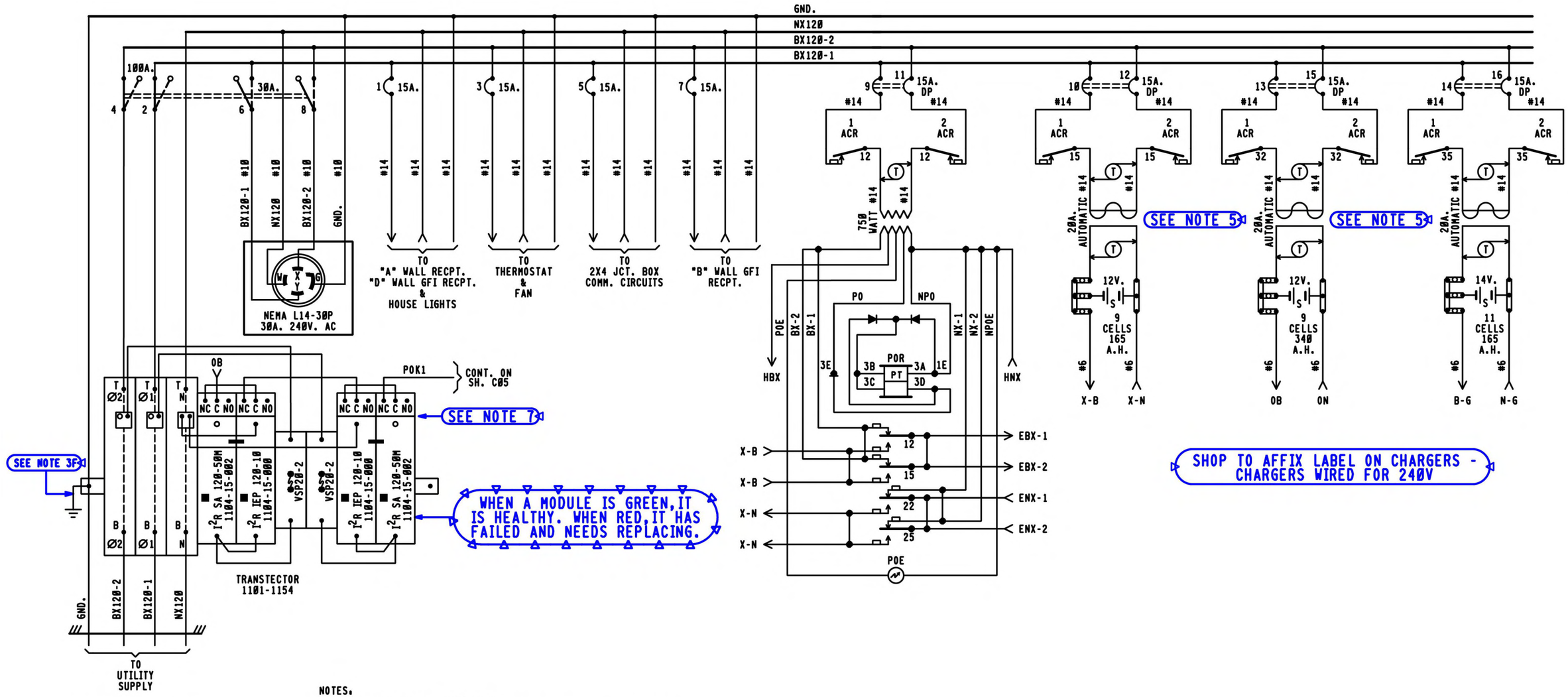
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

TRACK AND SIGNAL PLAN
DAWSON, PA M.P. BF-276.00

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27600	S01

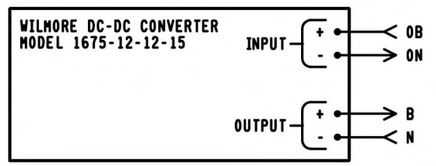


BX120-1	BX120-2
14.1 AMPS	14.1 AMPS

MAXIMUM LOAD CALCULATED PER SS360

NOTES:

1 - ARRESTERS ARE PER SS382.
2 - BATTERY A.H. CAPACITY SHOWN IS THE MINIMUM REQUIREMENT.
3 - WIRING
  A - FEED TO ALL BUSSES, LIGHT CIRCUITS, MOTOR CIRCUITS TO BE #10 FLEX.
  B - 120-VOLT FEED FROM ENTRANCE TO POWER BUSS TO BE #10 FLEX.
  C - ALL TRACK WIRES TO BE #10 FLEX.
  D - ALL OTHERS TO BE #16 FLEX UNLESS NOTED.
  E - ALL BATTERY OUTPUTS TO BE #6 PER SS360.
  F - GROUND WIRE NOT NECESSARY WHEN SURGE SUPPRESSOR IS MOUNTED ON GROUND PLANE OR METAL ENCLOSURE AFFIXED DIRECTLY TO BUNGALOW METALLIC STRUCTURAL MEMBER.
4 - CIRCUIT INTERRUPTERS 2 & 4 ARE MECHANICALLY INTERLOCKED WITH CIRCUIT INTERRUPTERS 6 & 8.
5 - CHARGERS WIRED FOR 240VAC
6 - CIRCUIT BREAKERS PANEL- QO124L1256 (24 SPACES)
7 - FORM C DRY CONTACTS MOUNTED ON TOP OF TRANSTECTOR WIRED TO ALERT A POK INDICATION WHEN A MODULE IS NOT HEALTHY.



= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

6'X 6' PTC RELAY HOUSE

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

POWER DISTRIBUTION
DAWSON, PA M.P. BF-276.00

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27600	E01

TOP ROW

XR			XPR			GPR				EOR			ØØDAX8Ø-1PR			ØØDAX8Ø-2PR			POR				1ACR			2ACR			
12	FB	B8	22	F	B36	12	B	B82		12	FB	B81	12		B8	12		B8	12	FB	B62		12	B	B77	12	B	B77	
15	FB	C3Ø	25	F	C3Ø	15	B	C3Ø		15	FB	C3Ø	15		C3Ø	15		C3Ø	15	FB	C3Ø		15	B	C3Ø	15	B	C3Ø	
22						22				32	FB		22			22			22	FB			22			22			
23						25				35	FB		23	F		23	F		25	FB			25			25			
25	F					32	F						25	F		25	F		32	F			32	B		32	B		
32						35	B						32			32			35				35	B		35	B		
35													35	F		35	F												

NOTES:
1 - REFERENCES ARE PER SS713.
2 - RELAY PLACEMENT ON CONSIST CHART HAS NO SIGNIFICANCE.
3 - PLUG-IN RELAYS ARE VIEWED FROM THE FRONT OF RACK.

6'X 6' PTC RELAY HOUSE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE:Ø4-23-25
CSX#:PA2Ø23Ø21
PRS/AMJ/SAF

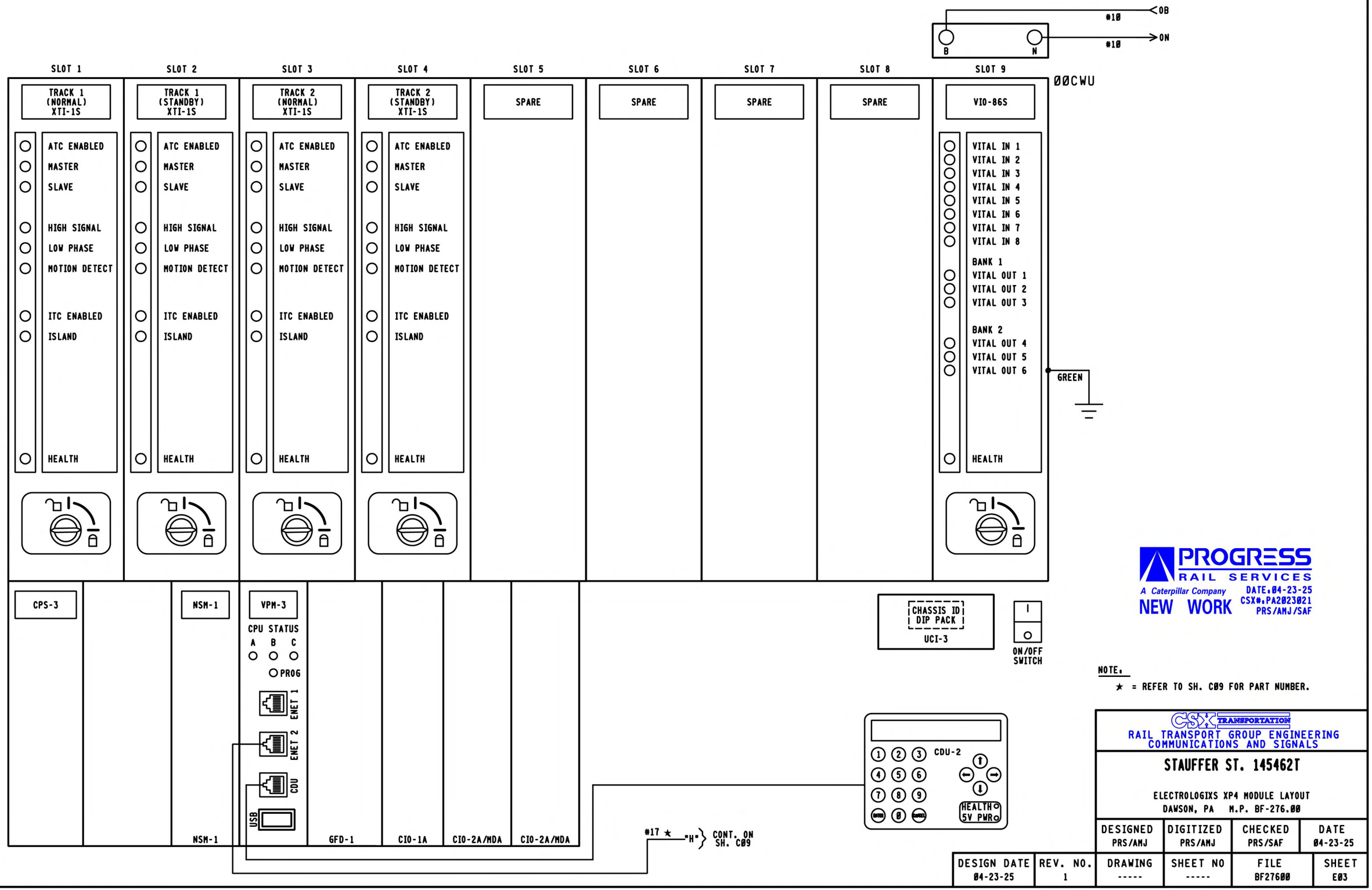
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

RELAY CONSIST
DAWSON, PA M.P. BF-276.ØØ

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	Ø4-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
Ø4-23-25	1	-----	-----	BF27ØØ	EØ2



PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE:Ø4-23-25
CSX#:PA2023Ø21
PRS/AMJ/SAF

NOTE:
★ = REFER TO SH. CØ9 FOR PART NUMBER.

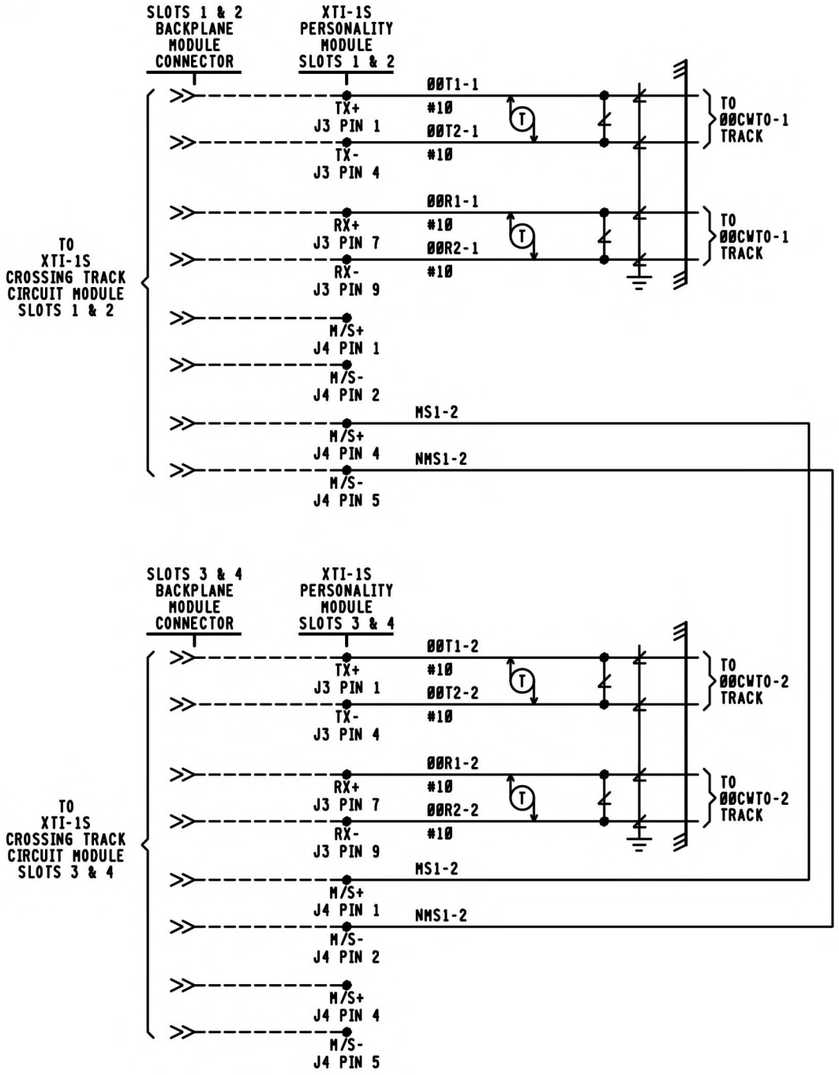
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

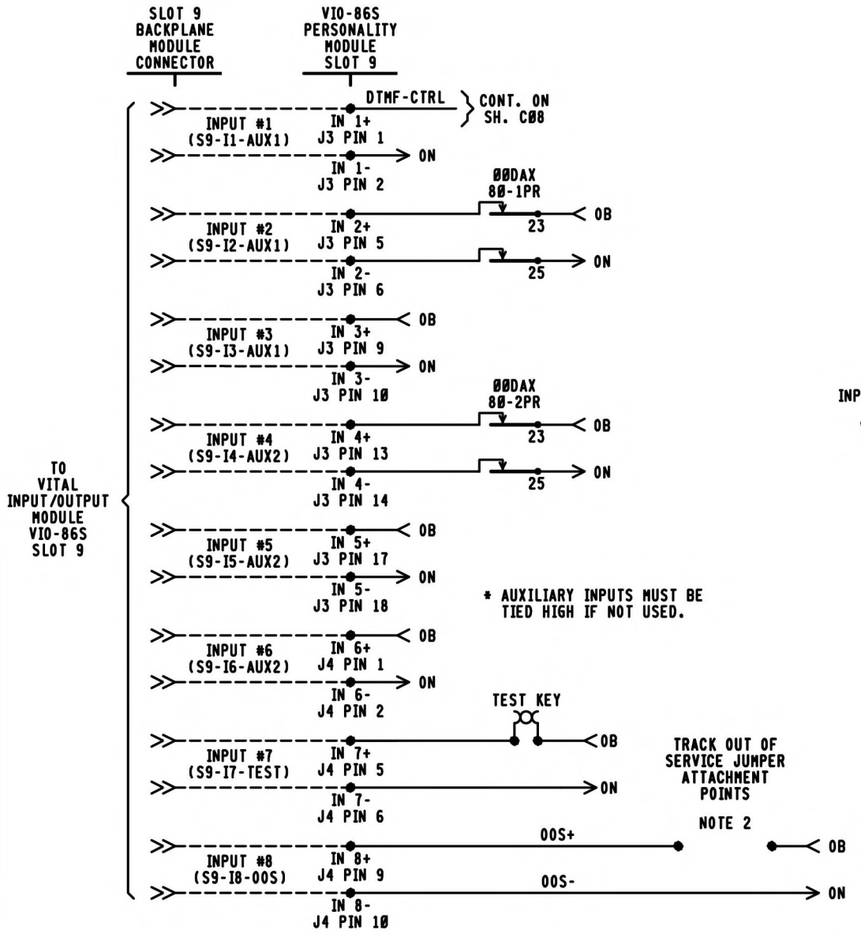
STAUFFER ST. 145462T

ELECTROLOGIXS XP4 MODULE LAYOUT
DAWSON, PA M.P. BF-276.ØØ

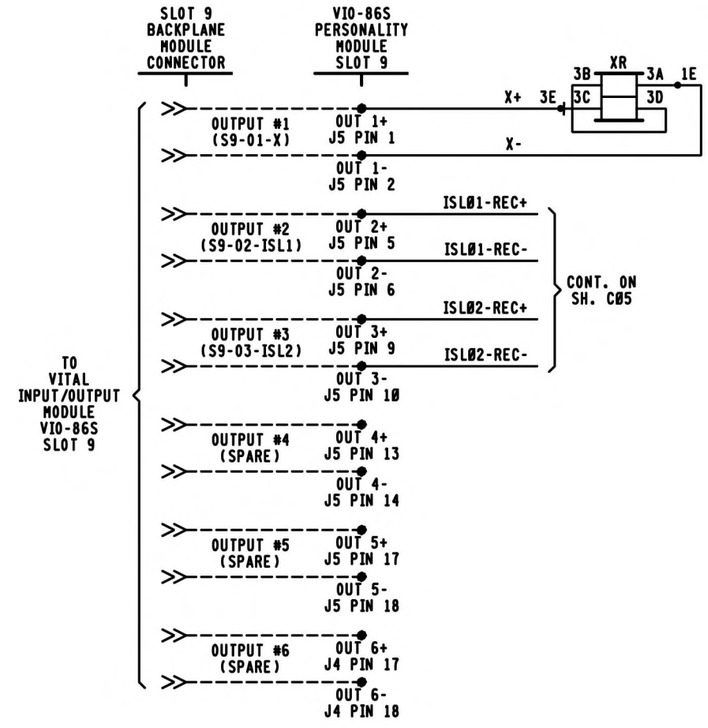
DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	Ø4-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
Ø4-23-25	1	-----	-----	BF27600	EØ3





* AUXILIARY INPUTS MUST BE TIED HIGH IF NOT USED.



SLOT 9 I/O	
INPUT 1	POSITIVE CONTROL AUXILIARY INPUT 1 (AUX1)
INPUT 2	POSITIVE CONTROL AUXILIARY INPUT 2 (AUX1)
INPUT 3	POSITIVE CONTROL AUXILIARY INPUT 3 (AUX1)
INPUT 4	POSITIVE CONTROL AUXILIARY INPUT 4 (AUX2)
INPUT 5	POSITIVE CONTROL AUXILIARY INPUT 5 (AUX2)
INPUT 6	POSITIVE CONTROL AUXILIARY INPUT 6 (AUX2)
INPUT 7	CROSSING ACTIVATION TEST
INPUT 8	OUT OF SERVICE JUMPER INPUT (OOS)
OUTPUT 1	X OUTPUT
OUTPUT 2	ISLØ1 OUTPUT
OUTPUT 3	ISLØ2 OUTPUT
OUTPUT 4	(NOT USED)
OUTPUT 5	(NOT USED)
OUTPUT 6	(NOT USED)

NOTES
1. ALL WIRE THIS SHEET #16 AWG UNLESS NOTED.
2. APPROACH DISABLE JUMPER INPUT. THIS INPUT IS USED IN COMBINATION WITH THE SOFT APPROACH DISABLE ACCESSED THROUGH THE CDU-2 KEYPAD. BOTH BITS MUST BE HIGH TO DISABLE AN APPROACH. THE OPERATOR IS SOLELY RESPONSIBLE FOR CROSSING PROTECTION WHEN THE APPROACH DISABLE FUNCTION IS ACTIVATED.
3. ●⚡● = HLVA2-1675-Ø1 HYBRID LOW VOLTAGE ARRESTER, UNLESS NOTED.

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE:Ø4-23-25
CSX#:PA2Ø23Ø21
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

XP4 CROSSING DETECTION AND I/O CIRCUITS
DAWSON, PA M.P. BF-276.ØØ

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	Ø4-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
Ø4-23-25	1	-----	-----	BF27600	C01

SITE SPECIFIC MDR DESCRIPTIONS AND SETTINGS			
NAME		MDR1	MDR2
FUNCTION		XR	XR
WARNING TIME		33	33
CW/MD		CW	CW
AP TIME(PREEMPT)		NA	NA
CWE-WT		80	80
AUX RECOVERY DELAY		5	5
TRACK		TK 1	TK 2
TRACK ASSIGNED		ASSIGNED	ASSIGNED
OFFSET DISTANCE		0'	0'
MD RESTART		0*	0*
SUDDEN SHUNT ZONE		0*	0*
POSITIVE START	PSEN	DISABLE	DISABLE
	PSRX	NA	NA
	PST	NA	NA
POST JOINT DETECT	PJEN	ENABLE	ENABLE
	PJRX	15	15
	PJDT	15	15
CLEAR JOINT LOS	CJ-LOS MODE	STANDARD	STANDARD
	CJ-LOS RX	15	15
	CJ-LOS TIME	99	99

BASIC TRACK SETUP		
	TRACK 1	TRACK 2
FREQUENCY	392 HZ	392 HZ
MASTER/SLAVE	MASTER	SLAVE
RX ADJUST	100 *	100 *
TCA	*	*
DIRECTION MODE	BI	BI
LIA	*	*
ADVANCED APPROACH	*	*
NBS COMP RX	*	*
TRK ISLAND ASSIGN	ISL1	ISL2
APPROACH LENGTH	2391'	2391'
AUTO RX	ENABLE	ENABLE

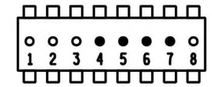
ADVANCED TRACK SETUP			
		TRACK 1	TRACK 2
MOTION DET TIMER	MDEN	ENABLE	ENABLE
	MDTT	10 MIN	10 MIN
FALSE SHUNT	FSEN	DISABLE	DISABLE
	FSRX	NA	NA
	FST	NA	NA
APPROACH RELEASE	AREN	DISABLE	DISABLE
	ARRX	NA	NA
	ART	NA	NA
LOS TIME		16 SEC	16 SEC
IJ-LOS TIME		5 SEC	5 SEC
NRML*SHRT*VRYSHRT		*	*

ISLAND SETUP		
	TRACK 1	TRACK 2
ENABLE/DISABLE	ENABLE	ENABLE
FREQUENCY	4.0 KHZ	4.0 KHZ
LOSS OF SHUNT	2 SEC.	2 SEC.
FAULT DELAY	2	2

VPM3 ETHERNET SETUP	
	IP ADDRESS
ETHERNET PORT 1 (TOP)	192.168.0.11
ETHERNET PORT 2 (BOTTOM)	192.168.1.12

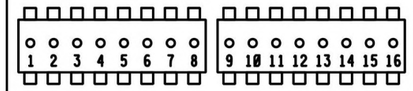
APPLICATION SOFTWARE INFORMATION	
NAME	9XXS-2.01V
REV.	1.0
CHECKSUM	E49B
CRC	FF9E
CH. I.D.	225

CHASSIS ID DIP SHUNTS
LOCATED ON BACKPLANE
UNDERNEATH UCI-3 MODULE



○ = TAB INTACT (MADE)
● = TAB PUNCHED OUT (BROKEN)

VITAL SELECTION DIP SHUNTS
LOCATED INSIDE UCI-3 MODULE
UNDERNEATH EPROM



○ = TAB INTACT (MADE)
● = TAB PUNCHED OUT (BROKEN)

VITAL SELECTION DIP SHUNTS		
#	NAME	STATE
1	NA	INTACT (NOT USED)
2	NA	INTACT (NOT USED)
3	NA	INTACT (NOT USED)
4	NA	INTACT (NOT USED)
5	NA	INTACT (NOT USED)
6	NA	INTACT (NOT USED)
7	NA	INTACT (NOT USED)
8	NA	INTACT (NOT USED)
9	NA	INTACT (NOT USED)
10	NA	INTACT (NOT USED)
11	NA	INTACT (NOT USED)
12	NA	INTACT (NOT USED)
13	NA	INTACT (NOT USED)
14	NA	INTACT (NOT USED)
15	NA	INTACT (NOT USED)
16	NA	INTACT (NOT USED)

NOTES:
* = FIELD ADJUSTMENT
NA = NOT APPLICABLE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

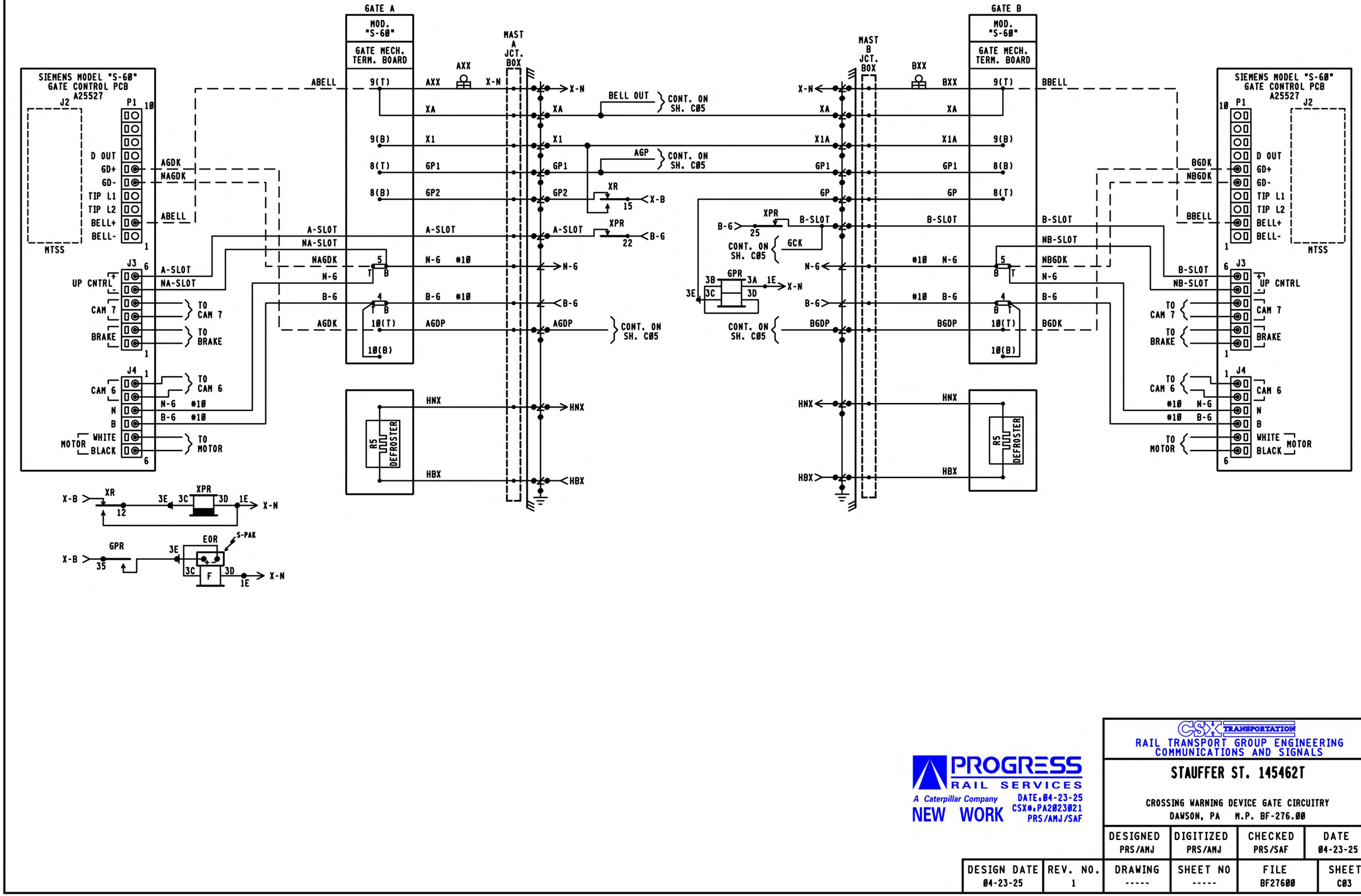
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

XP4 SETUP INFORMATION
DAWSON, PA M.P. BF-276.00

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27600	C02



PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE. 04-23-25
CSX#. PA2023021
PRS/AMJ/SAF

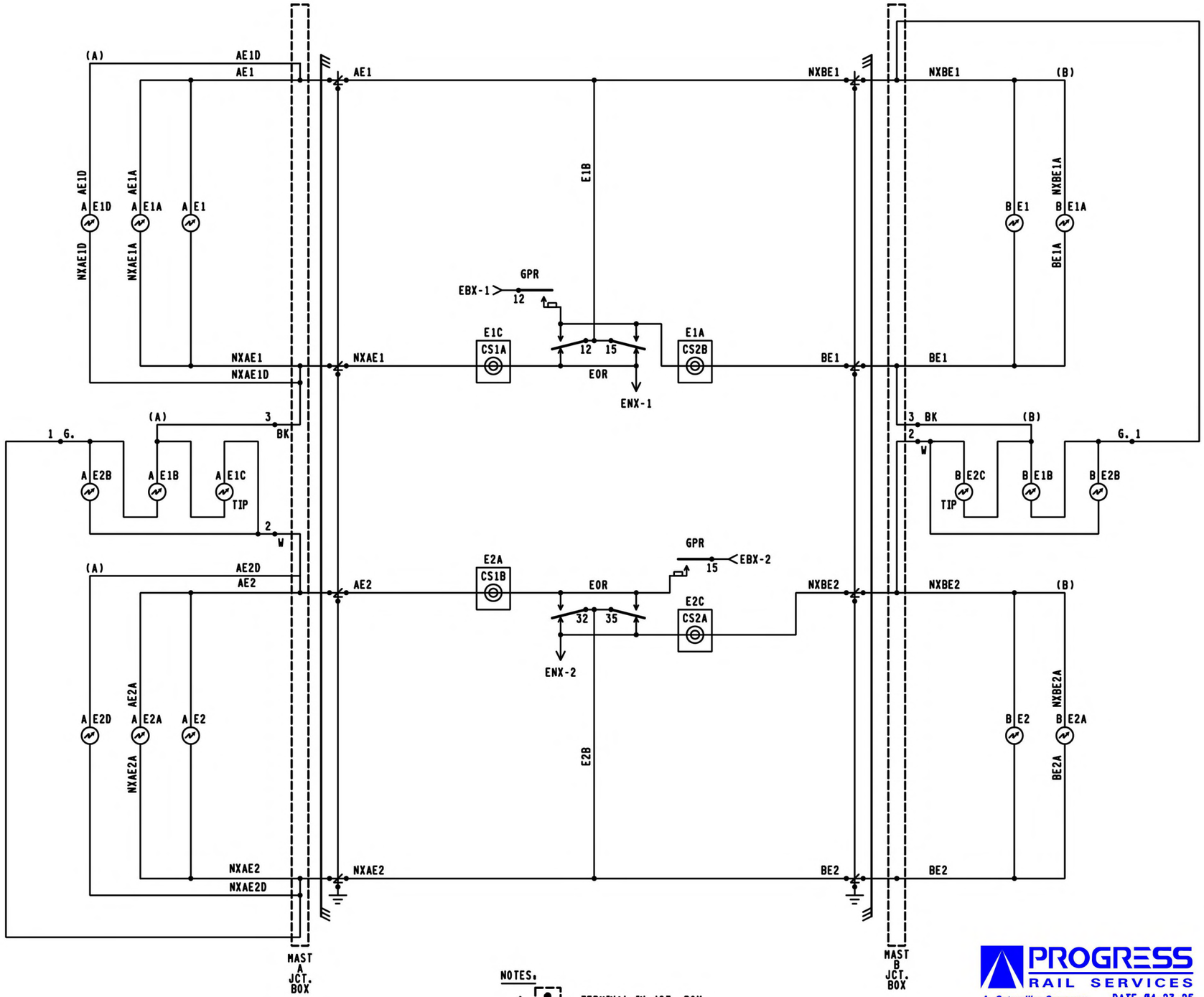
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

CROSSING WARNING DEVICE GATE CIRCUITRY
DAWSON, PA M.P. BF-276.00

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27600	C03



NOTES:

1. [•] = TERMINAL IN JCT. BOX
2. WHEN 7 OR MORE LIGHTS ON A SINGLE STRUCTURE REFER TO SS-382 FOR REQUIRED ARRESTER RATING.

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE.04-23-25
CSX#.PA2023021
PRS/AMJ/SAF

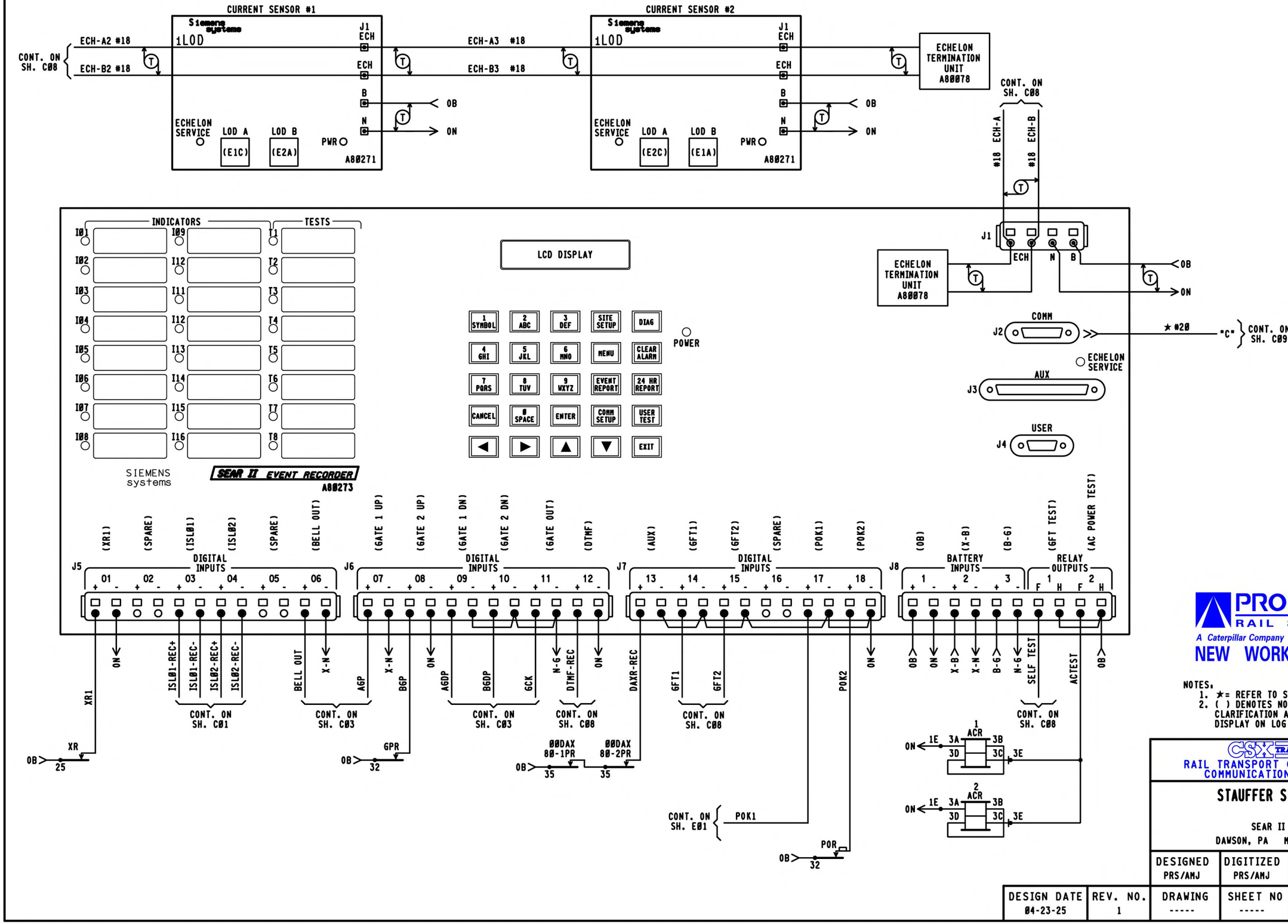
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

CROSSING WARNING DEVICE LIGHT CIRCUITRY
DAWSON, PA M.P. BF-276.00

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27600	C04



PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

NOTES:
1. ★= REFER TO SH. C09 FOR PART NUMBER.
2. ( ) DENOTES NOMENCLATURE FOR CLARIFICATION AND WILL NOT DISPLAY ON LOG REPORTS.

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

SEAR II CIRCUITS
DAWSON, PA M.P. BF-276.00

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27600	C05

	DEFAULTS AND/OR STYLE	FIELD RECORD
SEAR II EXECUTIVE PROGRAM	VERSION. 9V645A01Y	VERSION.
APPLICATION PROGRAM (IF LOADED)	VERSION. _____	VERSION.

FIELD TO PROVIDE SEARII PROGRAM INFORMATION ON AIS

SITE SET UP OPTIONS	
OPTION	SELECTION
DATE	XX-XX-XXXX
TIME	[XX:XX:XX]
DAYLIGHT SAVINGS TIME	YES ■ NO □
TIME ZONE	■ EST □ CST
SITE NAME	STAUFFER ST.
MILEPOST	BF-276.00
DOT NUMBER	145462T
TESTER TYPE	■ CROSSING □ WAYSIDE
DATE FORMAT	■ MM-DD-YYYY □ DD-MM-YYYY
TEMP FORMAT	■ FAHRENHEIT □ CELSIUS
INDICATE HOLDOFF	0
INDICATE REFRESH	60
SITE TYPE	□ NO COMMUNICATION □ DIAL-UP ■ COLLECTOR □ NODE □ BULLHORN/MODE □ CDS902X
SITE ATCS ADDRESS	7.125.304.019.99.01 (7.RRR.LLL.GGG.99.01) — NOTE 5
OFFICE ADDRESS	2.125.00.0000 (2.RRR.NN.DDDD)
OFFICE SITE ADDRESS	NA
BACK UP SITE ADDRESS 1	NA
BACK UP SITE ADDRESS 2	NA
POLL ID (1-99)	1
GEN/ATCS MODE	□ GENISYS ■ GEN/ATCS
XID DISABLED	■ YES □ NO
OFFICE COM. DEVICE	□ DIRECT □ MCM (RS232) □ MCM (ECH) ■ WAG (ECHELON) □ DIAL UP (RS232) □ S200 RADIO (RS422)
RADIO ATCS ADDRESS	7.125.304.019.01.01
OFFICE PHONE NUMBER	1-XXX-XXX-XXXX
INIT. STRING	
FIELD COMM	□ VHF (ECH) □ VHF (RS232) □ WAG (ECH) □ SS (RS232) ■ NONE
USER PORT	BAUD RATE (9600) — NOTE 7
AUX PORT	BAUD RATE (9600)
COMM PORT	BAUD RATE (9600)

NOTE 6

SITE SET UP OPTIONS CONT.		
	OPTION	SELECTION
	RAILROAD NUMBER	125
NOTE 1	CROSSING CONFIGURATION	STANDARD ■ LARGE □ REMOTE □ SPLIT GATE □ ISL ONLY □ CP COLLECTOR □
	NUMBER OF XR INPUTS	0 □ 1 ■ 2 □ 3 □ 4 □
	NUMBER OF ISL INPUTS	0 □ 1 □ 2 ■ 3 □ 4 □
	CONSTANT WARNING DEVICE	GCP □ OTHER ■ NONE □
	TOTAL NUMBER OF GCP NODES	1 □ 2 □ 3 □ 4 □ 5 □
	NUMBER OF REDUNDANT GCP	1 □ 2 □ 3 □ 4 □
	CROSSING CONTROLLER 1	SSCC IIIA / PLUS □ SSCC IV □ OTHER □ NONE ■
	POK2	YES ■ NO □
NOTE 2	MAIN / STANDBY	YES □ NO ■
	AUXILIARY TRACKS	0 ■ 1 □ 2 □
	ENTRANCE GATE	0 □ 1 □ 2 ■ 3 □ 4 □ 5 □ 6 □ 7 □ 8 □
	EXIT GATES	0 ■ 1 □ 2 □ 3 □ 4 □
	GATE POSITION FAIL 10-60 SEC	25
	NUMBER OF UAX INPUTS	0 □ 1 ■ 2 □
	BATTERY BANKS	1 □ 2 □ 3 ■ 4 □ 5 □ 6 □
	OB RESOLUTION	.2 □ .5 □ 1.0 ■
	X-B RESOLUTION	.2 □ .5 □ 1.0 ■ NOT PRESENT □
	B-G RESOLUTION	.2 □ .5 □ 1.0 ■ NOT PRESENT □
	X-B2 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	B-G2 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	X-B3 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	PREEMPTION	NORMAL □ ADVANCED □ NO ■
	KDR INPUT	YES ■ NO □
NOTE 3	VHF COMMUNICATOR	YES □ NO ■
NOTE 4	ACTIVATION CODE 1	XXX
	ACTIVATION CODE 2	XXX
	ACTIVATION CODE 3	XXX
	ACTIVATION TIMEOUT (30 TO 600 SECONDS)	60
	iLOD MODULES	0 □ 1 □ 2 ■ 3 □ 4 □ 5 □ 6 □
	ANY LED BULBS	NO □ YES ■
	AUTO INSPECTIONS	YES ■ NO □
	BELL ON	GATES LOWERING ■ GATES MOVING □ ALWAYS □
	GROUND FAULT DETECTORS	YES ■ NO □
	BATTERIES ON 6FT1	1 □ 2 ■
	FULL APPROACH MOVE ALARMS	ACTIVATED ■ DO NOT ACTIVATE □

NOTES:

1. LARGE CONFIGURATION ASSIGNS RECORDER INPUTS FOR USE WHEN DIGITAL I/O MODULE REQUIRED.
2. IF WARNING DEVICE = NONE MAIN/STANDBY OPTION NOT SHOWN.
3. IF VHF COMMUNICATIONS = NO THEN DTMF ACTIVATION AND CHANNEL OPTIONS ARE NOT SHOWN.
4. LAST 3 DIGITS OF DOT NO. FOR FIRST ACTIVATION CODE.
5. DEFAULT ADDRESS 7.125.100.100.99.01 USED FOR STAND ALONE LOCATIONS.
6. OPTIONS NOT SHOWN IF SITE TYPE = NO COMMUNICATIONS.
7. FORMAT AS, BAUD, DATA BITS, PARITY STOP BITS, FLOW CONTROL.

FIELD TO PROVIDE BATTERY VOLTAGES AND CURRENT READINGS ON AIS

LIT BULB COUNT ON EACH CIRCUIT	NO.	TYPE OF BULB	CURRENT READING IN AMP. AT APPROX. 10.0 V BULB VOLTAGE
CURRENT SENSOR (1) E1C, LAMP SET UP	5	□BULBS ■LED	X.X
CURRENT SENSOR (1) E2A, LAMP SET UP	5	□BULBS ■LED	X.X
CURRENT SENSOR (2) E2C, LAMP SET UP	4	□BULBS ■LED	X.X
CURRENT SENSOR (2) E1A, LAMP SET UP	4	□BULBS ■LED	X.X

MEASURE BATTERY VOLTAGE AT INPUT	
BATTERY VOLTAGE OB	XXXX VOLTS
BATTERY VOLTAGE X-B	XXXX VOLTS
BATTERY VOLTAGE B-G	XXXX VOLTS

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE. 04-23-25
CSX#. PA2023021
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

SEAR II CONFIGURATION AND FUNCTIONS
DAWSON, PA M.P. BF-276.00

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27600	C06

DISCRETE INPUTS	DI 01	DI 02	DI 03	DI 04	DI 05	DI 06
CHANNEL	1	2	3	4	5	6
NAME	XR1		ISLAND 1 (TRACK)	ISLAND 2 (TRACK)		BELL OUT (BELL PWR)
TAG	XR1 (XR)	SP	ISL1	ISL2	SP	BELL OUT (BELL PWR)
OFF NAME	DOWN (XR)		DOWN (ISL1)	DOWN (ISL2)		OFF (BELL PWR)
ON NAME	UP (XR)		UP (ISL1)	UP (ISL2)		ON (BELL PWR)
ON DEBOUNCE TIME	100 ms	1000 ms	100 ms	100 ms	1000 ms	100 ms
OFF DEBOUNCE TIME	100 ms	1000 ms	100 ms	100 ms	1000 ms	100 ms
TOGGLE PERIOD	1000 ms	1000 ms	1000 ms	1000 ms	1000 ms	1000 ms

TSS INPUTS	DI 07	DI 08	DI 09	DI 10
CHANNEL	7	8	9	10
NAME	AGP	BGP	AGDP	BGDP
TAG	AGP (GP)	BGP (GP)	AGDP	BGDP
OFF NAME	LIGHTS FLASH	LIGHTS FLASH	NOT HORIZ	NOT HORIZ
ON NAME	GATE VERTICAL	GATE VERTICAL	GATE HORIZ	GATE HORIZ
ON DEBOUNCE TIME	100 ms	100 ms	100 ms	100 ms
OFF DEBOUNCE TIME	100 ms	100 ms	100 ms	100 ms
TOGGLE PERIOD	1000 ms	1000 ms	1000 ms	1000 ms

DISCRETE INPUTS	DI 11	DI 12	DI 13
CHANNEL	11	12	13
NAME	GATE CONTROL	DTMF	AUX
TAG	GCOUT1 (GCK)	DTMF-REC	AUX (DAXPR)
OFF NAME	OFF (DESCENT)	OFF (NO GATE KEYED)	DOWN (DAXPR)
ON NAME	ON (ASCENT ON)	ON (ACTIVATE)	UP (DAXPR)
ON DEBOUNCE TIME	100 ms	100 ms	100 ms
OFF DEBOUNCE TIME	100 ms	100 ms	100 ms
TOGGLE PERIOD	1000 ms	1000 ms	1000 ms

GFT INPUTS	DI 14	DI 15
CHANNEL	14	15
NAME	GND FAULT TESTER 1 (GFT1,2)	GND FAULT TESTER 2 (GFT3,4)
TAG	GFT1 (GFT1 DATA)	GFT2 (GFT2 DATA)
BATTERY 1 NAME	OB (GND FAULT)	B-G (GND FAULT)
BATTERY 1 TAG	OB (GND FAULT)	B-G (GND FAULT)
BATTERY 2 NAME	X-B (GND FAULT)	SP.
BATTERY 2 TAG	X-B (GND FAULT)	SP.

DISCRETE INPUTS	DI 16	DI 17	DI 18
CHANNEL	16	17	18
NAME		POK1	POK2
TAG	SP	POK1	POK2
OFF NAME		OFF (ALL POWER OFF)	OFF (ALL POWER OFF)
ON NAME		ON (ALL POWER ON)	ON (ALL POWER ON)
ON DEBOUNCE TIME	1000 ms	100 ms	100 ms
OFF DEBOUNCE TIME	1000 ms	100 ms	100 ms
TOGGLE PERIOD	1000 ms	1000 ms	1000 ms

BATTERY INPUTS	BI1	BI2	BI3
CHANNEL	1	2	3
NAME	OB (ELECTRONIC BATT)	X-B (BULB BATT)	B-G (GATE BATT)
TAG	OB	X-B	B-G
SAMPLE PERIOD (ms)	500 (ms)	500 (ms)	500 (ms)
RESOLUTION (V)	0.2 (VOLTS)	0.2 (VOLTS)	1.0 (VOLTS)
AVGERAGING SAMPLES	32 SAMPLES	32 SAMPLES	32 SAMPLES

RELAYS	R01	R02
CHANNEL	1	2
NAME	GFT TEST	AC POWER TEST (ACRLY)
TAG	SELF TEST	AC POWER TEST (ACRLY)
OFF STATE NAME	NOT TESTING	OFF (ACR DN)
ON STATE NAME	TESTING	ON (ACR UP)
UNKNOWN STATE NAME	PULSE	PULSE
ON PULSE TIME (s)	1 (s)	1 (s)
OFF PULSE TIME (s)	1 (s)	1 (s)
TOGGLE PERIOD (s)	1 (s)	1 (s)
DUTY CYCLE	50	50

NOTE. ( ) DENOTES NOMENCLATURE FOR CLARIFICATION AND WILL NOT DISPLAY ON LOG REPORTS.

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE.04-23-25
CSX#.PA2023021
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

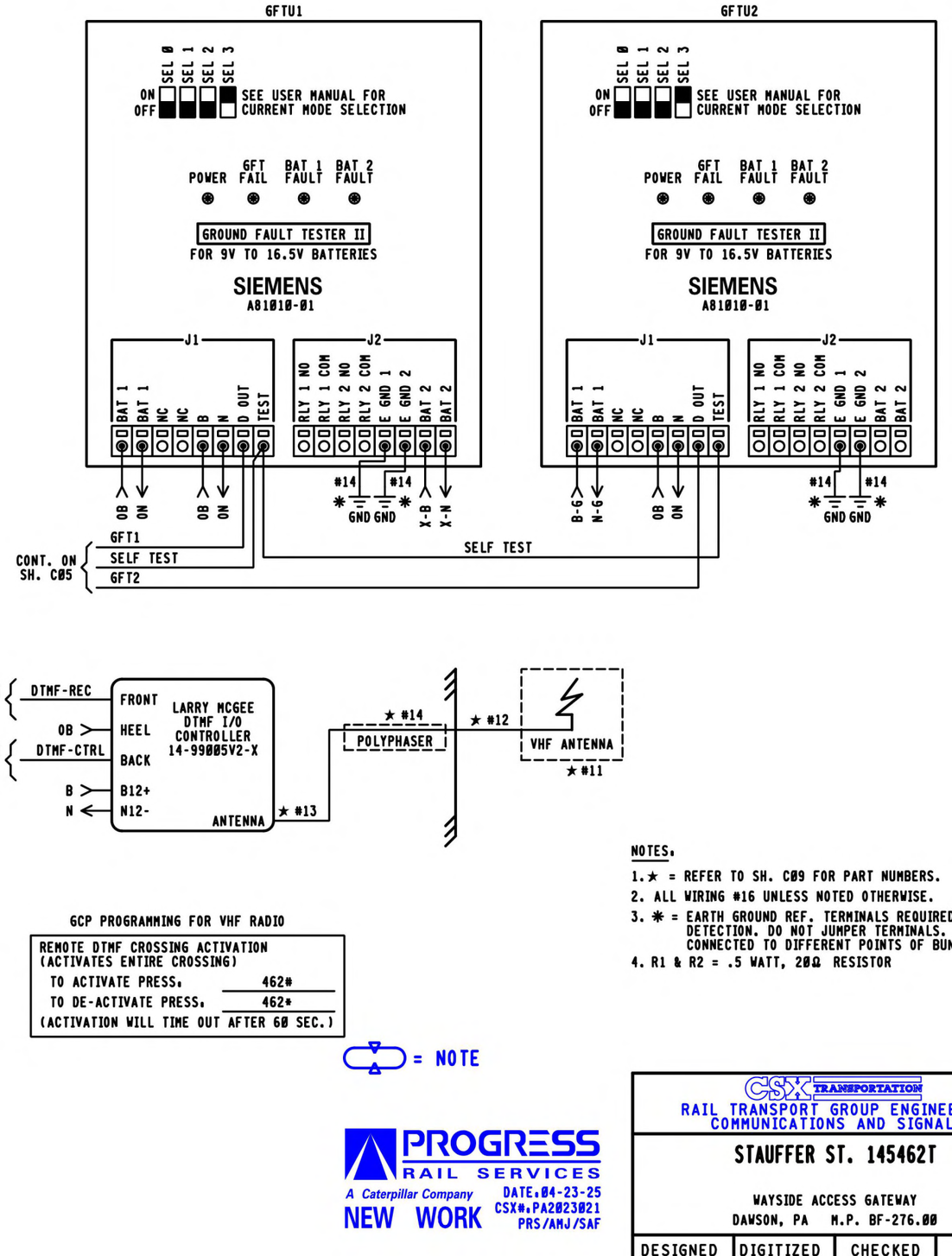
SEAR II CHANNELS
DAWSON, PA M.P. BF-276.00

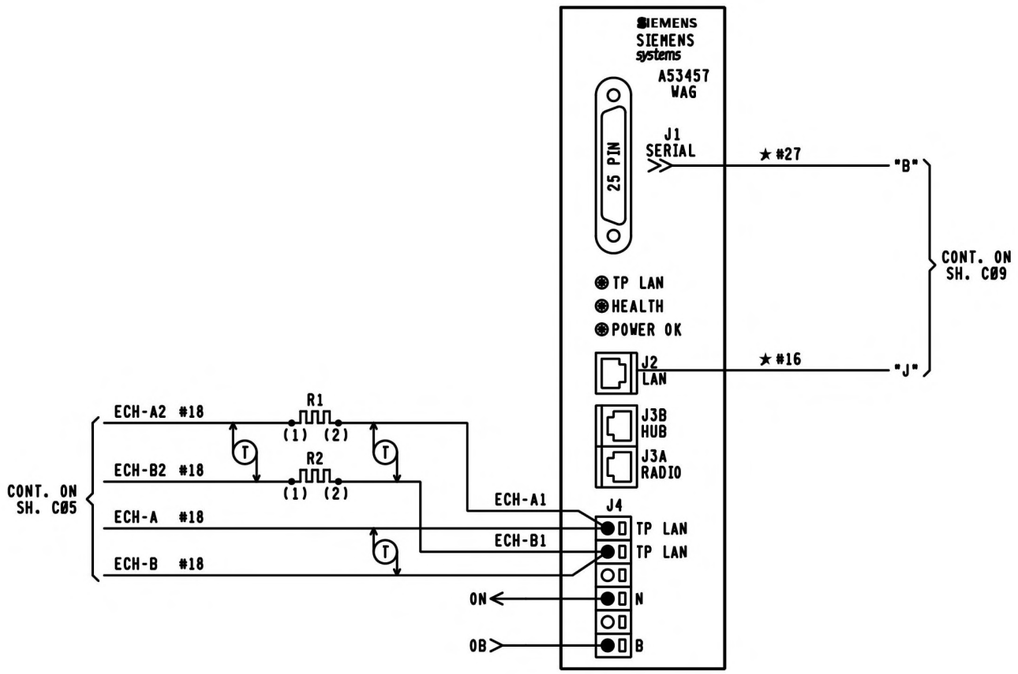
DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27600	C07

WAYSIDE ACCESS GATEWAY CONFIGURATION	
SITE ATCS ADDRESS	7.125.304.019.07.01
SERIAL INTERFACE	9600,NONE,8,1/NOFLOW
SERIAL FORMAT	RAW
WAG TEST MODE	DISABLED
ECHELON ADDRESS	01.01
UDP PORTS	5000, 5001, 5002, 5003
ROUTE TABLE EXPIRY	5400 SEC
BROADCAST MEDIUM	IP ETHERNET
TCP PORTS	6001
DHCP SERVER	DISABLED
IP ADDRESS	192.168.13.1
TYPE 7 ROUTE LENGTH	12--7RRRLLLG66SS
IP NETWORK MASK	255.255.255.000

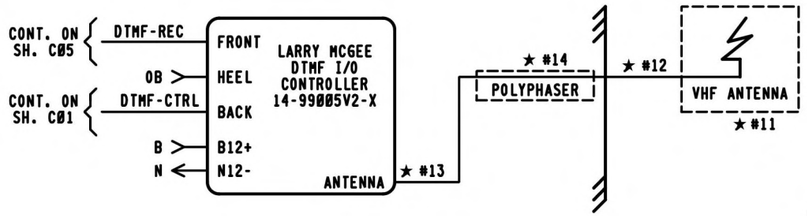
NOTE TO INSPECTOR,
AT INSTALLATION OF CDMA BY COM.
MARK-UP CONFIGURATION TABLE FOR
AS IN SERVICE PLANS





COMM NOTE,

1. WAG J3A PINOUTS,
   4 & 5 = +12VDC RADIO OUT
   7 & 8 = GND RADIO RETURN



GCP PROGRAMMING FOR VHF RADIO

REMOTE DTMF CROSSING ACTIVATION (ACTIVATES ENTIRE CROSSING)	
TO ACTIVATE PRESS,	462#
TO DE-ACTIVATE PRESS,	462*
(ACTIVATION WILL TIME OUT AFTER 60 SEC.)	

NOTES,

1. ★ = REFER TO SH. C09 FOR PART NUMBERS.
2. ALL WIRING #16 UNLESS NOTED OTHERWISE.
3. ✱ = EARTH GROUND REF. TERMINALS REQUIRED FOR DETECTION. DO NOT JUMPER TERMINALS. MUST BE CONNECTED TO DIFFERENT POINTS OF BUNGALOW.
4. R1 & R2 = .5 WATT, 200Ω RESISTOR

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE,04-23-25
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PRS/AMJ/SAF

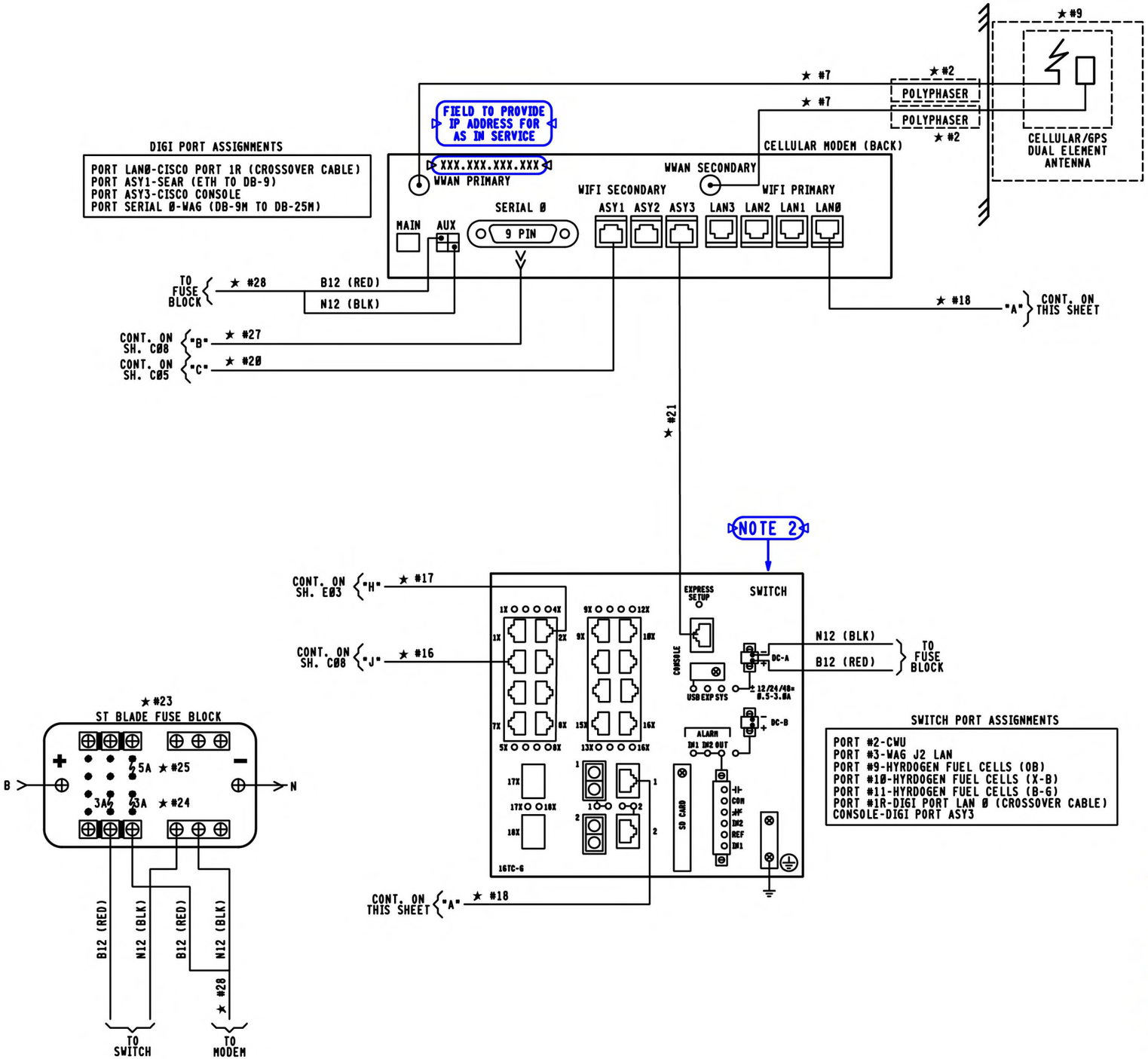
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

WAYSIDE ACCESS GATEWAY
DAWSON, PA M.P. BF-276.00

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27600	C08



★	CSDA-30348-KIT (020.0000493.1)	
REF.	DESCRIPTION	QTY
2	POLYPHASER, TSX-NFF	2 EA.
7	LMR-195, N-MALE TO SMA-MALE, 5 FT	2 EA.
9	MIMO ANTENNA, BLACK, 15FT, AP-MMF-CC6-Q-S222-BL ANTENNA MOUNTING ARM, CSDA-30309-BKTANT1	1 EA.
11	VHF OMNI ANTENNA	1 EA.
12	LMR-200, N-MALE TO N-MALE, 3 FT	1 EA.
13	LMR-240, N-MALE TO BNC-MALE, 10 FT	1 EA.
14	VHF SURGE PROTECTOR N-FEMALE TO FEMALE	1 EA.
16	CAT 6 PATCH CABLE UTP, BOOTED, YELLOW, 20 FT	1 EA.
17	CAT 6 PATCH CABLE UTP, BOOTED, ORANGE, 20 FT	1 EA.
18	CAT 6 PATCH CABLE UTP, BOOTED, RED, X-OVER, 20 FT	1 EA.
20	DIGI-TRANSPORT TO CISCO CABLE, BLUE, 20 FT	3 EA.
21	CAT 6 STP ROLL-OVER PATCH CABLE, BLACK, 20 FT	1 EA.
23	DC PDU WITH 5 FUSED CIRCUITS	1 EA.
24	INDICATOR FUSE, ATO STYLE, 3 AMP	4 EA.
25	INDICATOR FUSE, ATO STYLE, 5 AMP	1 EA.
27	SERIAL CABLE, DB9M TO DB25M, STRAIGHT WIRED, 20 FT	1 EA.
28	DIGI-TRANPORT POWER CABLE, 4-PIN MOLEX TO OPEN END, 14 FT	1 EA.

NOTES:
1. WIRING TO BE #16 UNLESS NOTED.
2. CISCO IE2000 SWITCH OR EQUIVALENT.

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

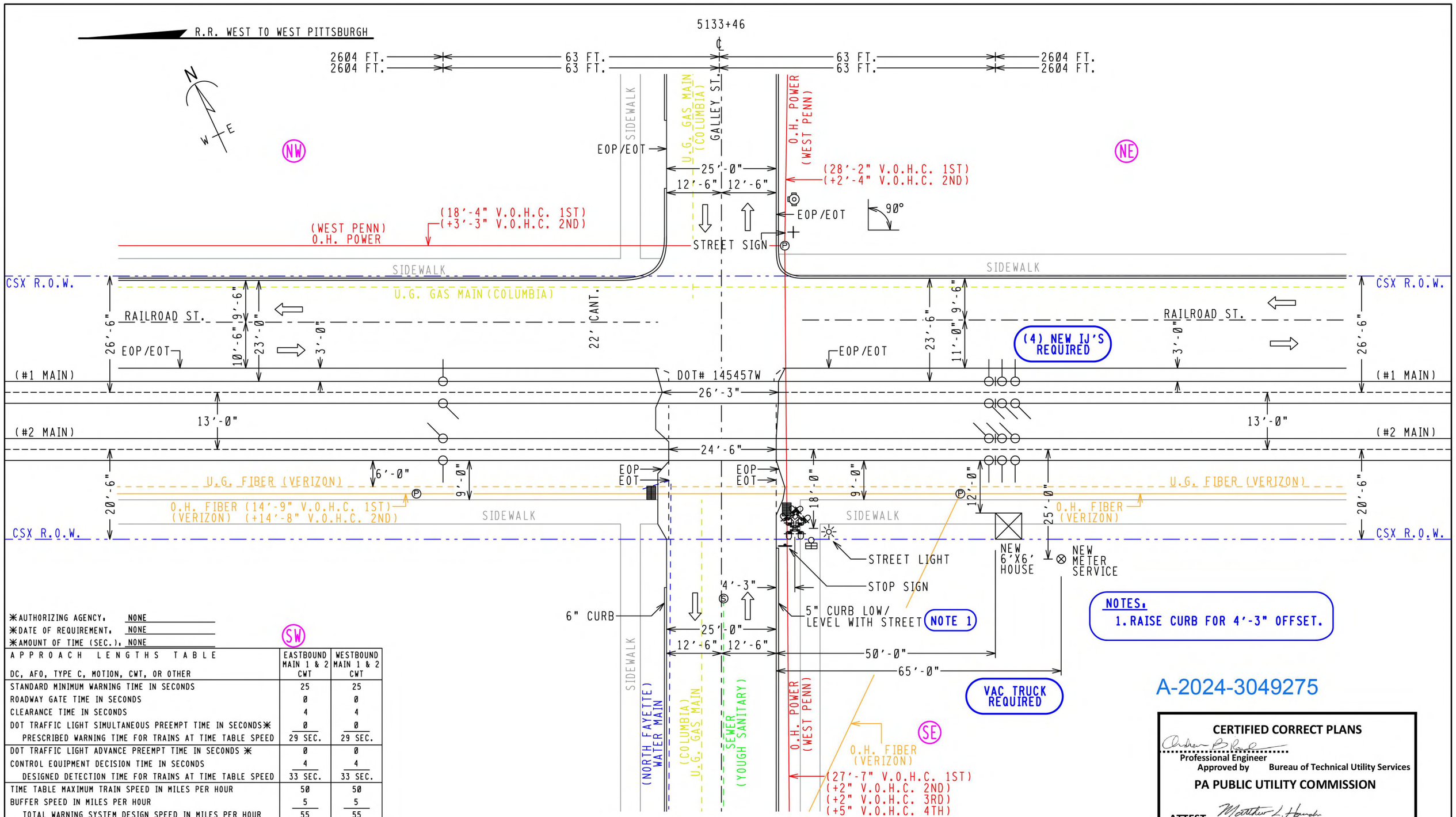
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STAUFFER ST. 145462T

CROSSING COMMUNICATIONS EQUIPMENT
DAWSON, PA M.P. BF-276.00

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27600	C09



NOTES.
1. RAISE CURB FOR 4'-3" OFFSET.

✳AUTHORIZING AGENCY. NONE
✳DATE OF REQUIREMENT. NONE
✳AMOUNT OF TIME (SEC.). NONE

APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	EASTBOUND MAIN 1 & 2 CWT	WESTBOUND MAIN 1 & 2 CWT
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25
ROADWAY GATE TIME IN SECONDS	0	0
CLEARANCE TIME IN SECONDS	4	4
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS✳	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	29 SEC.	29 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS ✳	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	4	4
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED	33 SEC.	33 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	50	50
BUFFER SPEED IN MILES PER HOUR	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	55	55
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2604	2604
HALF WIDTH OF ISLAND IN FEET	63	63
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.31	275.29

A-2024-3049275

CERTIFIED CORRECT PLANS
Professional Engineer
Approved by Bureau of Technical Utility Services
PA PUBLIC UTILITY COMMISSION
ATTEST
Secretary

FILE NAME. BF27580.H01	REVISION DATES
DATE DRAWN. 01-22-25	02-27-25
DRAWN BY. JMD	04-02-25
CHECKED BY. SAF	07-26-25
PRS #. 34P004256	- -

PRODUCED FOR.
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

PRODUCED BY.
PROGRESS RAIL SERVICES
A Caterpillar Company

LEGEND.			
CSX ROW	O.H. POWER	POLE Ⓟ	GUARD RAIL
R/R POLELINE	FENCE	FIRE PLUG Ⓕ	METER SERVICE ⊗
GAS	WATER	SEWER CAP Ⓢ	
FIBER OPTIC	SEWER	GAS VENT Ⓥ	

GPS COORDINATES	STREET NAME. GALLEY ST.
N40°02'49"	CITY & STATE. DAWSON, (FAYETTE), PA
W79°39'27"	DOT. 145457W
ELEV. 851'	PROJECT #. PA2023021
M.P. BF-275.80	OP #. PA0466

PROPOSED CROSSING LAYOUT
SCALE = 20.1

R.R. WEST TO WEST PITTSBURGH

5133+46 ℄

N

W E

NW NE SW SE

SIDEWALK

U.G. GAS MAIN (COLUMBIA)

GALLEY ST.

O.H. POWER (WEST PENN)

25'-0"

12'-6" 12'-6"

(28'-2" V.O.H.C. 1ST)
(+2'-4" V.O.H.C. 2ND)

(18'-4" V.O.H.C. 1ST)
(+3'-3" V.O.H.C. 2ND)

EOP/EOT

(WEST PENN) O.H. POWER

EOP/EOT
STREET SIGN

90°

SIDEWALK

CSX R.O.W.

U.G. GAS MAIN (COLUMBIA)

RAILROAD ST.

26'-6"

10'-6" 9'-6" 23'-0"

3'-0"

EOP/EOT

DOT# 145457W

(#1 MAIN)

26'-3"

13'-0"

(#2 MAIN)

24'-6"

EOP
EOT

6'-0"

6'-0"

U.G. FIBER (VERIZON)

O.H. FIBER (14'-9" V.O.H.C. 1ST)
(VERIZON) (+14'-8" V.O.H.C. 2ND)

SIDEWALK

20'-6"

15'-0"

CROSSBUCK/YIELD SIGN
STREET LIGHT
STOP SIGN

6" CURB

5" CURB LOW/LEVEL WITH STREET
(27'-7" V.O.H.C. 1ST)
(+2" V.O.H.C. 2ND)
(+2" V.O.H.C. 3RD)
(+5" V.O.H.C. 4TH)

(NORTH FAYETTE) WATER MAIN

(COLUMBIA) U.G. GAS MAIN

SEWER (YOUGH SANITARY)

O.H. FIBER (VERIZON)

FILE NAME: BF27580.H02	REVISION DATES	PRODUCED FOR: CSX TRANSPORTATION RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS	PRODUCED BY: PROGRESS RAIL SERVICES A Caterpillar Company	LEGEND:	GUARD RAIL	METER SERVICE Ⓜ	GPS COORDINATES	STREET NAME: GALLEY ST.
DATE DRAWN: 01-22-25	02-27-25			CSX ROW	O.H. POWER	POLE Ⓟ	N40°02'49"	CITY & STATE: DAWSON, (FAYETTE), PA
DRAWN BY: JMD	- -			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'27"	DOT: 145457W
CHECKED BY: SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 851'	PROJECT #: PA2023021
PRS #: 34P004256	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-275.80	OP #: PA0466

EXISTING CROSSING LAYOUT
SCALE = 20:1

R.R. WEST TO WEST PITTSBURGH

(BOTH TRACKS)
276.2
P-40MPH F-35MPH
P-30MPH F-30MPH

BF 276

(BOTH TRACKS)
275.7
P-30MPH F-30MPH
P-50MPH F-45MPH

SR 819 (LAUGHLIN ST.) START

SR 1041 (RIVER RD.) START

SR 1041 (RIVER RD.) START

SR 819 (LAUGHLIN ST.) START

DEFECT DETECTOR
M.P. BF-275.30
6'X6' HOUSE
BF27530

8'X8' COMM. HOUSE

6'X6' HOUSE

122# CWR (#1 MAIN)

136# CWR (#2 MAIN)

NBS 522HZ

NBS 979HZ

25 CWU-1

25 CWU-2

87 CWU-1

87 CWU-2

6'-9" CASE

DD

6'X6' DD HOUSE

SR 1041 (RIVER RD.)
DOT# 145463A
M.P. 276.25
CFG
PMD-3R2
#1 MAIN-25CWU-1-522 HZ/8.0-KHZ RSI
#2 MAIN-25CWU-2-522 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27625

STAUFFER ST.
DOT# 145462T
M.P. 276.00
XB

SR 819 (LAUGHLIN ST.)
DOT# 145459K
M.P. 275.87
F
PMD-3R2
#1 MAIN-87CWU-1-979 HZ/8.0-KHZ RSI
#2 MAIN-87CWU-2-979 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27587

GALLEY ST.
DOT# 145457W
M.P. 275.80
XB

MAIN ST.
DOT# 145454B
M.P. 275.67
XB

E.O.S. 4512'

SR 1041 (RIVER RD.) START 4317'

BRIDGE 2452'

BRIDGE 2403'

ISL 2373'

2310'

HOUSE 2262'
ISL 2247'

METER 2212'

SPEED CHANGE 2045'

SR 819 (LAUGHLIN ST.) START 1609'

1012'

MILE POST 989'

CASE 451'
ISL 406'

336'

METER 318'

SR 1041 (RIVER RD.) START 287'

ISL 278'

0'

678'

SPEED CHANGE 851'
COMM. HOUSE 866'

METER 929'

SR 819 (LAUGHLIN ST.) START 1091'
WHISTLE POSTS 2008'

DD 3137'
HOUSE 3166'
DD 3183'

METER 3206'

STEP-DOWN TRANSFORMER 3216'

BRIDGE 3628'

BRIDGE 3674'

E.O.S. 4588'

FILE NAME, BF27580.H03	REVISION DATES	PRODUCED FOR,	PRODUCED BY,	LEGEND,	GUARD RAIL	METER SERVICE ⊗	GPS COORDINATES	STREET NAME, GALLEY ST.
DATE DRAWN, 01-22-25	- -	CSX TRANSPORTATION	PROGRESS RAIL SERVICES	CSX ROW	O.H. POWER	POLE Ⓟ	N40°02'49"	CITY & STATE, DAWSON, (FAYETTE), PA
DRAWN BY, JMD	- -	RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS	A Caterpillar Company	R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'27"	DOT, 145457W
CHECKED BY, SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 851'	PROJECT #, PA2023021
PRS #, 34P004256	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-275.80	OP #, PA0466

EXISTING TRACK LAYOUT

R.R. WEST TO WEST PITTSBURGH

N E W

(BOTH TRACKS)
276.2
P-40MPH F-35MPH | P-30MPH F-30MPH

BF 276

DESIGN AGAINST
PA2019559
PA2019555

(BOTH TRACKS)
275.7
P-30MPH F-30MPH | P-50MPH F-45MPH

MAIN ST. (DAX) START
GALLEY ST. START
STAUFFER ST. START
SR 1041 (RIVER RD.) START
SR 819 (LAUGHLIN ST.) START

SR 1041 (RIVER RD.) (DAX) START
STAUFFER ST. (DAX) START
SR 819 (LAUGHLIN ST.) (DAX) START
GALLEY ST. START
MAIN ST. START

CUT SECTION
M.P. BF-275.80
8'X8' HOUSE
ELECTROLOGIXS
DWG# BF27580

(4) NEW IJ'S REQUIRED

3C#6 W/GND
8'X8' COMM. HOUSE

DEFECT DETECTOR
M.P. BF-275.30
6'X6' HOUSE
BF27530

SR 819
(LAUGHLIN ST.)
DOT# 145459K
M.P. 275.87
(FG)
XP4
#1 MAIN-87CWU-1-267 HZ/5.4-KHZ RSI
#2 MAIN-87CWU-2-267 HZ/5.4-KHZ RSI
RECORDER
DWG# BF27587

5C#14
6'X6' HOUSE
12C#14
6'X6' HOUSE
19C#14
6'X6' HOUSE
6'X6' HOUSE
6'X6' DD HOUSE

122# CWR (#1 MAIN)
136# CWR (#2 MAIN)

NBS 151HZ | NBS 392HZ | NBS 267HZ | NBS 86HZ

25 CWU-1
25 CWU-2
00 CWU-1
00 CWU-2
87 CWU-1
87 CWU-2
80-1 CWU-1
80-1 CWU-2
80-2 CWU-1
80-2 CWU-2
67 CWU-1
67 CWU-2

NBS/DTL 86HZ
NBS/DTL 151HZ
NBS/DTL 392HZ
NBS/DTL 267HZ

NBS 267HZ | NBS 392HZ DD

SR 1041 (RIVER RD.) DOT# 145463A M.P. 276.25 (CFG) XP4
#1 MAIN-25CWU-1-151 HZ/8.0-KHZ RSI
#2 MAIN-25CWU-2-151 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27625

STAUFFER ST. DOT# 145462T M.P. 276.00 (FG) XP4
#1 MAIN-00CWU-1-392 HZ/4.0-KHZ RSI
#2 MAIN-00CWU-2-392 HZ/4.0-KHZ RSI
RECORDER
DWG# BF27600

GALLEY ST. DOT# 145457W M.P. 275.80 F XP4
#1 MAIN-80-1CWU-1-86 HZ/7.1-KHZ RSI
#2 MAIN-80-1CWU-2-86 HZ/7.1-KHZ RSI
#1 MAIN-80-2CWU-1-267 HZ
#2 MAIN-80-2CWU-2-267 HZ
RECORDER
DWG# BF27580

MAIN ST. DOT# 145454B M.P. 275.67 F XP4
#1 MAIN-67CWU-1-392 HZ/8.0-KHZ RSI
#2 MAIN-67CWU-2-392 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27567

SR 1041 (RIVER RD.) START 5432'
E.O.S. 4512'
STAUFFER ST. START 3471'
SR 819 (LAUGHLIN ST.) START 2935'
MAIN ST./GALLEY ST. START 2667'
BRIDGE 2452'
BRIDGE 2403' / ISL 2373'
2310'
HOUSE 2262' / ISL 2247'
METER 2212'
SPEED CHANGE 2045'
ISL 1080'
1012' MILE POST 989'
HOUSE 977'
ISL 944' / METER 910'
HOUSE 419' / ISL 405'
336'
METER 312' / ISL 267'
ISL 63'
0'
DTL/NBS/IJ/ISL 63'
HOUSE 66' / METER 78' / ISL 618'
678'
ISL 738' / HOUSE 751'
SPEED CHANGE 851' / COMM. HOUSE 866'
METER 929'
WHISTLE POSTS 2008'
SR 1041 (RIVER RD.)/STAUFFER ST./SR 819 (LAUGHLIN ST.)/GALLEY ST. START 2667'
MAIN ST. START 3122'
DD 3137' / HOUSE 3166' / DD 3183' / METER 3206'
STEP-DOWN TRANSFORMER 3216'
BRIDGE 3628'
BRIDGE 3674'
E.O.S. 4588'

FILE NAME: BF27580.H04	REVISION DATES	PRODUCED FOR: CSX TRANSPORTATION RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS	PRODUCED BY: PROGRESS RAIL SERVICES A Caterpillar Company	LEGEND:	GUARD RAIL	METER SERVICE Ⓜ	GPS COORDINATES	STREET NAME: GALLEY ST.	
DATE DRAWN: 01-22-25	02-27-25			CSX ROW	O.H. POWER	POLE Ⓟ	N40°02'49"	CITY & STATE: DAWSON, (FAYETTE), PA	
DRAWN BY: JMD	04-23-25			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'27"	DOT: 145457W	PROPOSED TRACK LAYOUT
CHECKED BY: SAF	07-26-25			GAS	WATER	SEWER CAP Ⓢ	ELEV. 851'	PROJECT #: PA2023021	
PRS #: 34P004256	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-275.80	OP #: PA0466	

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⊠ = DESIGN COMPLETED

⊠ = REVISION COMPLETED

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2023021	04-23-25		

TO BE COMPLETED ON A.I.S.

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK DATE:04-23-25
CSX#:PA2023021
PRS/AMJ/SAF

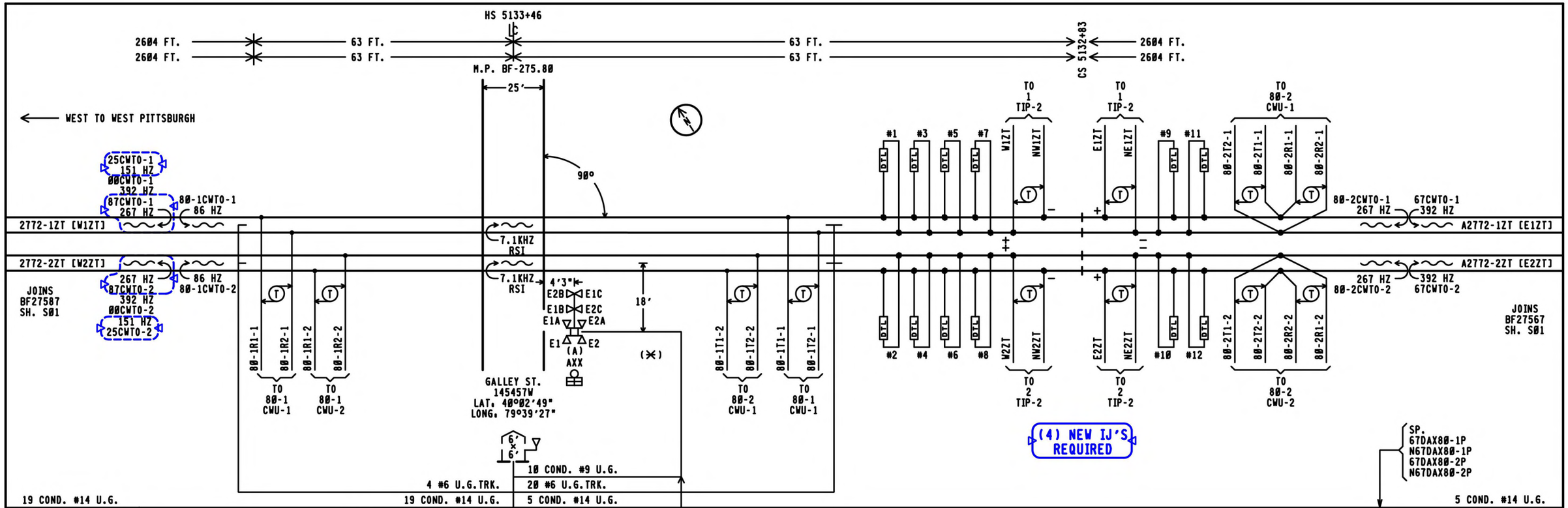
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &

CUT SECTION
INDEX AND REVISIONS
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	I01



APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	EASTBOUND TRACK 1 CWT	WESTBOUND TRACK 1 CWT	EASTBOUND TRACK 2 CWT	WESTBOUND TRACK 2 CWT
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25	25	25
ROADWAY GATE TIME IN SECONDS	0	0	0	0
CLEARANCE TIME IN SECONDS	4	4	4	4
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS *	0	0	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	29 SEC.	29 SEC.	29 SEC.	29 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS *	0	0	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	4	4	4	4
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED	33 SEC.	33 SEC.	33 SEC.	33 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	50	50	50	50
BUFFER SPEED IN MILES PER HOUR	5	5	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	55	55	55	55
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2604	2604	2604	2604
HALF WIDTH OF ISLAND IN FEET	63	63	63	63
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.31	275.29	276.31	275.29

*AUTHORIZING AGENCY. NONE
*DATE OF REQUIREMENT. NONE
*AMOUNT OF TIME (SEC.). NONE

NOTES.

1. 12" LED MAXIMUM CURRENT 1.0A AT 10 VOLTS LED GATE ARM LIGHTS .3A MAXIMUM
2. (⋇) = LOCATION OF HOUSE
3. (N) = APPROXIMATE COMPASS NORTH.
4. TRANSMITTER LEADS FOR MOTION OR PREDICTOR EQUIPMENT SHOULD BE CONNECTED ON THE BUNGALOW OR SHORT LEAD SIDE OF THE CROSSING.
5. ISLAND TRACK LEADS SHOULD BE CONNECTED 50 FEET FROM ROAD EDGE BUT ON NARROW ROADS (20' OR LESS) ISLAND LENGTH SHALL BE 120 FEET.
6. WARNING SYSTEM APPROACH CIRCUIT DISTANCES ARE TO BE MEASURED FROM THE ISLAND TRACK CONNECTIONS.
7. [ ] = TAGGING PURPOSE ONLY
8. INSULATED JOINT (IJ) PLACEMENTS ARE PER SS503. IF CONSTRAINTS PROHIBIT THEIR PLACEMENT PER SS503 CONTACT THE OFFICE OF ASSISTANT CHIEF ENGINEER OF SIGNALS FOR REVIEW AND DIRECTION.

= EXISTING
= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE.04-23-25
CSX#.PA2023021
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &

CUT SECTION
TRACK AND SIGNAL PLAN
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	S01

GENERAL CONFIGURATION

ITEM	SETTING
SITE ID	CUT SECTION BF-275.80
CHASSIS ID	224

VITAL APPLICATION INFORMATION

ITEM	SETTING
NAME	CSX2RPT4__V1V
EPT CRC	E2F7
EPT CHECKSUM	6795

FIELD TO PROVIDE ON A.I.S.

TRACK 1 VITAL SELECTION SETTINGS

SETT.	BIT NAME	TRUE	FALSE	BIT MEANING	
1	N_W1MCODE	X		TRUE IF MAINTENANCE CODE WILL BE RECEIVED FROM THE NORTH/WEST AND WILL BE PASSED SOUTH/EAST. FALSE IF NO MAINTENANCE CODE IS RECEIVED FROM THE NORTH/WEST AND IT IS TO BE INITIATED TO THE SOUTH/EAST.	X
2	S_E1MCODE	X		TRUE IF MAINTENANCE CODE WILL BE RECEIVED FROM THE SOUTH/EAST AND WILL BE PASSED NORTH/WEST. FALSE IF NO MAINTENANCE CODE IS RECEIVED FROM THE SOUTH/EAST AND IT IS TO BE INITIATED TO THE NORTH/WEST.	X
3	N_W1C1SW		X	(FOR SETTING, SEE CHART BELOW)	X
4	N_W1C5SW		X	(FOR SETTING, SEE CHART BELOW)	X
5	S_E1C1SW		X	(FOR SETTING, SEE CHART BELOW)	X
6	S_E1C5SW	X		(FOR SETTING, SEE CHART BELOW)	X
7	BDEO__MODE1		X	TRUE WHEN LIMITED TUMBLEDOWN (BDEO) MODE REQUIRED. FALSE WHEN TRADITIONAL TUMBLEDOWN (TMDAT) MODE REQUIRED.	X
8	SLOT3__ON		X	TRUE WHEN SLOT 3 IS USED FOR ELECTRIC LOCK. FALSE WHEN SLOT 3 NOT USED.	X
9	S_EPOK	X		SETTING 9 TRUE AND SETTING 10 FALSE MAINTENANCE CODE FOR BLOCK POWER-OFF INDICATION WILL BE TRANSMITTED INTO THE SOUTH/EAST TRACK. IF BOTH SETTING ARE TRUE OR BOTH FALSE MAINTENANCE CODE WILL NOT BE TRANSMITTED IN EITHER DIRECTION.	X
10	N_WPOK		X	SETTING 9 FALSE AND SETTING 10 TRUE MAINTENANCE CODE FOR BLOCK POWER-OFF INDICATION WILL BE TRANSMITTED INTO THE NORTH/WEST TRACK. IF BOTH SETTING ARE TRUE OR BOTH FALSE MAINTENANCE CODE WILL NOT BE TRANSMITTED IN EITHER DIRECTION.	X

TRACK 2 VITAL SELECTION SETTINGS

SETT.	BIT NAME	TRUE	FALSE	BIT MEANING	
11	N_W2MCODE	X		TRUE IF MAINTENANCE CODE WILL BE RECEIVED FROM THE NORTH/WEST AND WILL BE PASSED SOUTH/EAST. FALSE IF NO MAINTENANCE CODE IS RECEIVED FROM THE NORTH/WEST AND IT IS TO BE INITIATED TO THE SOUTH/EAST.	X
12	S_E2MCODE	X		TRUE IF MAINTENANCE CODE WILL BE RECEIVED FROM THE SOUTH/EAST AND WILL BE PASSED NORTH/WEST. FALSE IF NO MAINTENANCE CODE IS RECEIVED FROM THE SOUTH/EAST AND IT IS TO BE INITIATED TO THE NORTH/WEST.	X
13	N_W2C1SW		X	(FOR SETTING, SEE CHART BELOW)	X
14	N_W2C5SW		X	(FOR SETTING, SEE CHART BELOW)	X
15	S_E2C1SW		X	(FOR SETTING, SEE CHART BELOW)	X
16	S_E2C5SW	X		(FOR SETTING, SEE CHART BELOW)	X
17	BDEO__MODE2		X	TRUE WHEN LIMITED TUMBLEDOWN (BDEO) MODE REQUIRED. FALSE WHEN TRADITIONAL TUMBLEDOWN (TMDAT) MODE REQUIRED.	X
18	SLOT4__ON		X	TRUE WHEN SLOT 4 IS USED FOR ELECTRIC LOCK. FALSE WHEN SLOT 4 NOT USED.	X

GFD-1 SETTINGS

ITEM	SETTING	
BATTERY 1 NAME	B-1	X
BATTERY 1 FAULT STATUS	NO FAULT	X
BATTERY 1 CALIBRATED VOLTAGE	13.5	X
BATTERY 1 GROUND FAULT THRESHOLD	8	X
BATTERY 1 GROUND FAULT TIME	30	X
BATTERY 1 LOW BATTERY ALARM VOLTAGE	8.0	X
BATTERY 1 HIGH BATTERY ALARM VOLTAGE	16.5	X
BATTERY 2 NAME	WHEN APPLICABLE	X
BATTERY 2 FAULT STATUS	NO FAULT	X
BATTERY 2 CALIBRATED VOLTAGE	13.5	X
BATTERY 2 GROUND FAULT THRESHOLD	8	X
BATTERY 2 GROUND FAULT TIME	30	X
BATTERY 2 LOW BATTERY ALARM VOLTAGE	8.0	X
BATTERY 2 HIGH BATTERY ALARM VOLTAGE	16.5	X
BATTERY 3 NAME	WHEN APPLICABLE	X
BATTERY 3 FAULT STATUS	NO FAULT	X
BATTERY 3 CALIBRATED VOLTAGE	13.5	X
BATTERY 3 GROUND FAULT THRESHOLD	8	X
BATTERY 3 GROUND FAULT TIME	30	X
BATTERY 3 LOW BATTERY ALARM VOLTAGE	8.0	X
BATTERY 3 HIGH BATTERY ALARM VOLTAGE	16.5	X

CHART FOR SETTING CODE 5

SETTING COMBINATION	RESULTANT
N_WC1SW - TRUE AND N_WC5SW - FALSE	CODE 1 IN SOUTH/EAST, CODE 5 OUT NORTH/WEST
N_WC1SW - FALSE AND N_WC5SW - TRUE	CODE 5 IN SOUTH/EAST, CODE 5 OUT NORTH/WEST
N_WC1SW - FALSE AND N_WC5SW - FALSE	CODE 5 NOT TRANSMITTED NORTH/WEST
N_WC1SW - TRUE AND N_WC5SW - TRUE	CODE 5 TRANSMITTED NORTH/WEST CONTINUOUSLY
S_EC1SW - TRUE AND S_EC5SW - FALSE	CODE 1 IN NORTH/WEST, CODE 5 OUT SOUTH/EAST
S_EC1SW - FALSE AND S_EC5SW - TRUE	CODE 5 IN NORTH/WEST, CODE 5 OUT SOUTH/EAST
S_EC1SW - FALSE AND S_EC5SW - FALSE	CODE 5 NOT TRANSMITTED SOUTH/EAST
S_EC1SW - TRUE AND S_EC5SW - TRUE	CODE 5 TRANSMITTED SOUTH/EAST CONTINUOUSLY

NOTES:

1. X = STATUS SET/CHANGED USING THE CDU-2, ALL OTHERS SET IN THE ACE PROGRAM.
2. VPM-3 ETHERNET PORT ENET1 IP ADDRESS IS 192.168.0.11, ENET2 IS 192.168.1.12.
3. POK SETTINGS 9 AND 10 ARE FOR BOTH TRACKS.
4. X = TO BE FILLED OUT DURING FIELD/FACTORY TESTING.

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

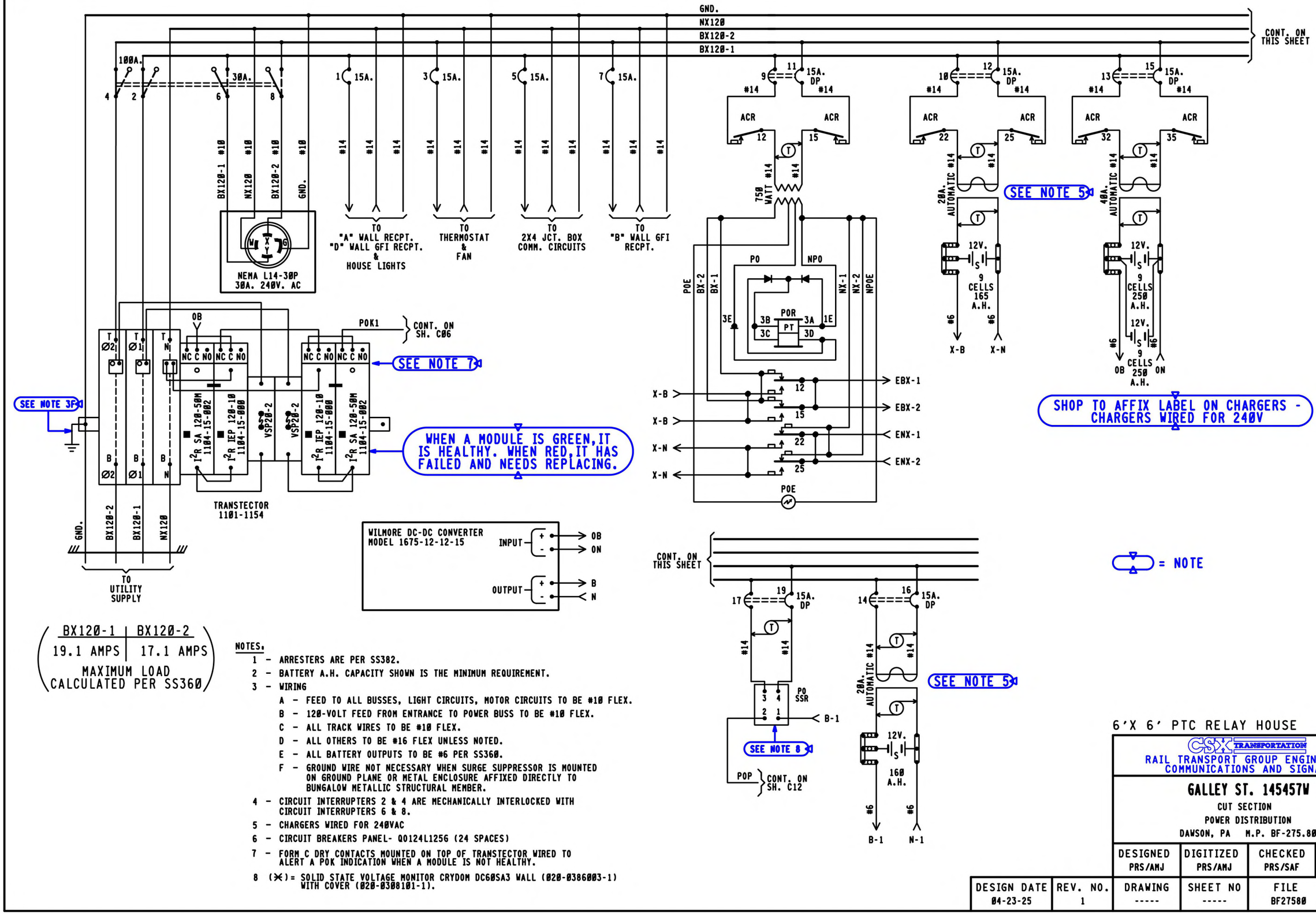
DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &
CUT SECTION
ELECTROLOGIXS PROGRAM
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	P01



BX120-1	BX120-2
19.1 AMPS	17.1 AMPS

MAXIMUM LOAD CALCULATED PER SS360

NOTES.

1 - ARRESTERS ARE PER SS382.

2 - BATTERY A.H. CAPACITY SHOWN IS THE MINIMUM REQUIREMENT.

3 - WIRING

A - FEED TO ALL BUSSES, LIGHT CIRCUITS, MOTOR CIRCUITS TO BE #10 FLEX.

B - 120-VOLT FEED FROM ENTRANCE TO POWER BUSS TO BE #10 FLEX.

C - ALL TRACK WIRES TO BE #10 FLEX.

D - ALL OTHERS TO BE #16 FLEX UNLESS NOTED.

E - ALL BATTERY OUTPUTS TO BE #6 PER SS360.

F - GROUND WIRE NOT NECESSARY WHEN SURGE SUPPRESSOR IS MOUNTED ON GROUND PLANE OR METAL ENCLOSURE AFFIXED DIRECTLY TO BUNGALOW METALLIC STRUCTURAL MEMBER.

4 - CIRCUIT INTERRUPTERS 2 & 4 ARE MECHANICALLY INTERLOCKED WITH CIRCUIT INTERRUPTERS 6 & 8.

5 - CHARGERS WIRED FOR 240VAC

6 - CIRCUIT BREAKERS PANEL- Q0124L1256 (24 SPACES)

7 - FORM C DRY CONTACTS MOUNTED ON TOP OF TRANSTECTOR WIRED TO ALERT A POK INDICATION WHEN A MODULE IS NOT HEALTHY.

8 (✕)= SOLID STATE VOLTAGE MONITOR CRYDOM DC60SA3 WALL (020-0386003-1) WITH COVER (020-0308101-1).

6'X 6' PTC RELAY HOUSE

CSX TRANSPORTATION

RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W

CUT SECTION

POWER DISTRIBUTION

DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	E01

TOP ROW

1XR			2XR				EOR			POR			ACR			25DAX8Ø-1R			25DAX8Ø-2R			ØØDAX8Ø-1R			ØØDAX8Ø-2R			87DAX8Ø-1R			87DAX8Ø-2R		
12	B	B82	12	B	B82		12	FB	B81	12	FB	B62	12	B	B77	12		B8	12		B8	12		B8	12		B8	12		B8	12		B8
15	B	C3Ø	15	B	C3Ø		15		C3Ø	15	FB	C3Ø	15	B	C3Ø	15		C3Ø	15		C3Ø	15		C3Ø	15		C3Ø	15		C3Ø	15		C3Ø
22	B		22	B			32	FB		22	FB		22	B		22			22			22			22			22			22		
23			23				35			25	FB		25	B		23	F		23	F		23	F		23	F		23	F		23	F	
25			25							32	F		32	B		25	F		25	F		25	F		25	F		25	F		25	F	
32	F		32	F						35			35	B		32			32			32			32			32			32		
35	B		35	B												35			35			35			35			35			35		

67DAX8Ø-1R			67DAX8Ø-2R		
12		B8	12		B8
15		C3Ø	15		C3Ø
22			22		
23	F		23	F	
25	F		25	F	
32			32		
35			35		

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK

DATE: Ø4-23-25
CSX#: PA2Ø23Ø21
PRS/AMJ/SAF

6'X 6' PTC RELAY HOUSE

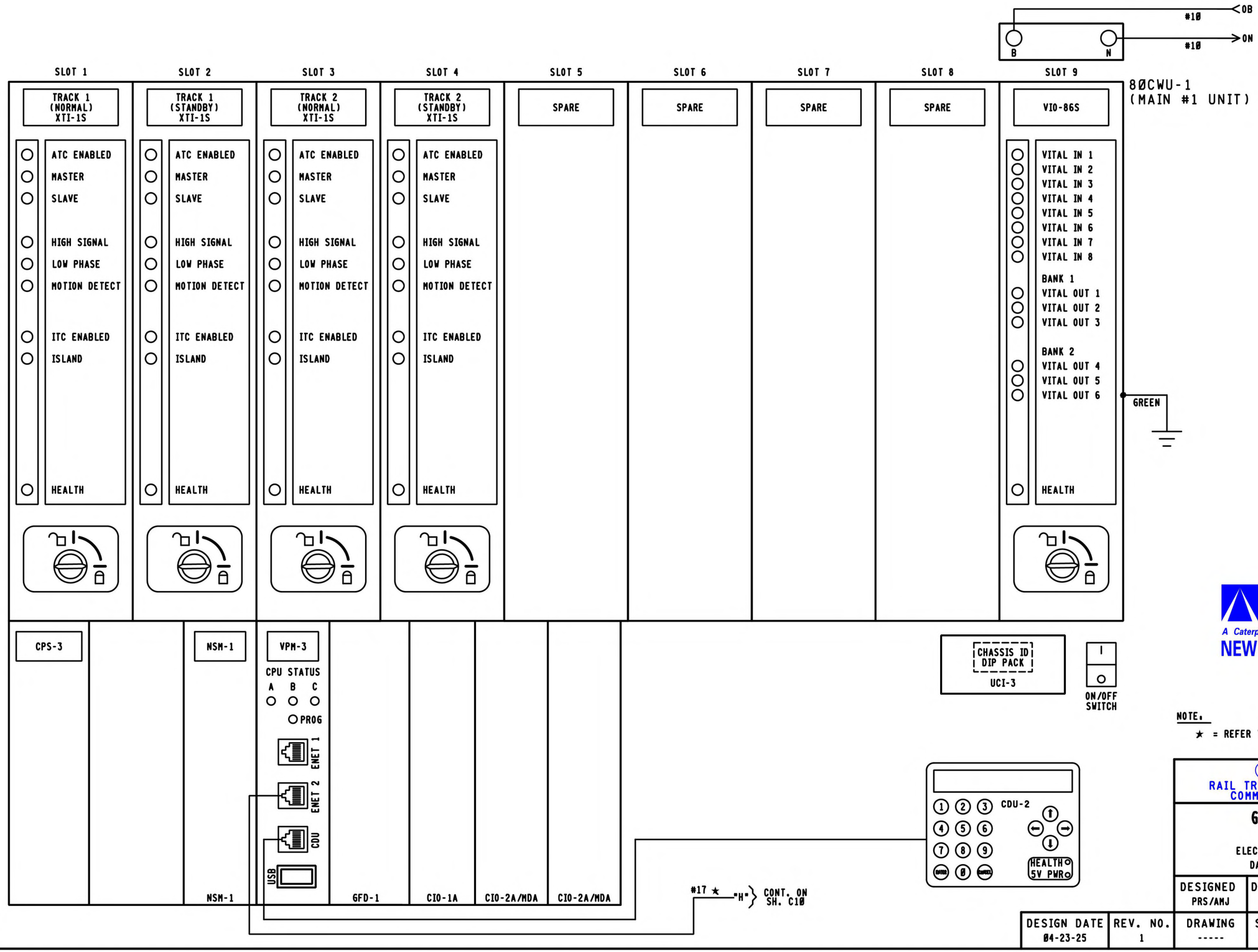
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &

CUT SECTION
RACK 1 LAYOUT AND RELAY DETAIL
DAWSON, PA M.P. BF-275.8Ø

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	Ø4-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
Ø4-23-25	1	-----	-----	BF2758Ø	EØ2



PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE:04-23-25
CSX#:PA2023021
PRS/AMJ/SAF

NOTE:
★ = REFER TO SH. C10 FOR PART NUMBER.

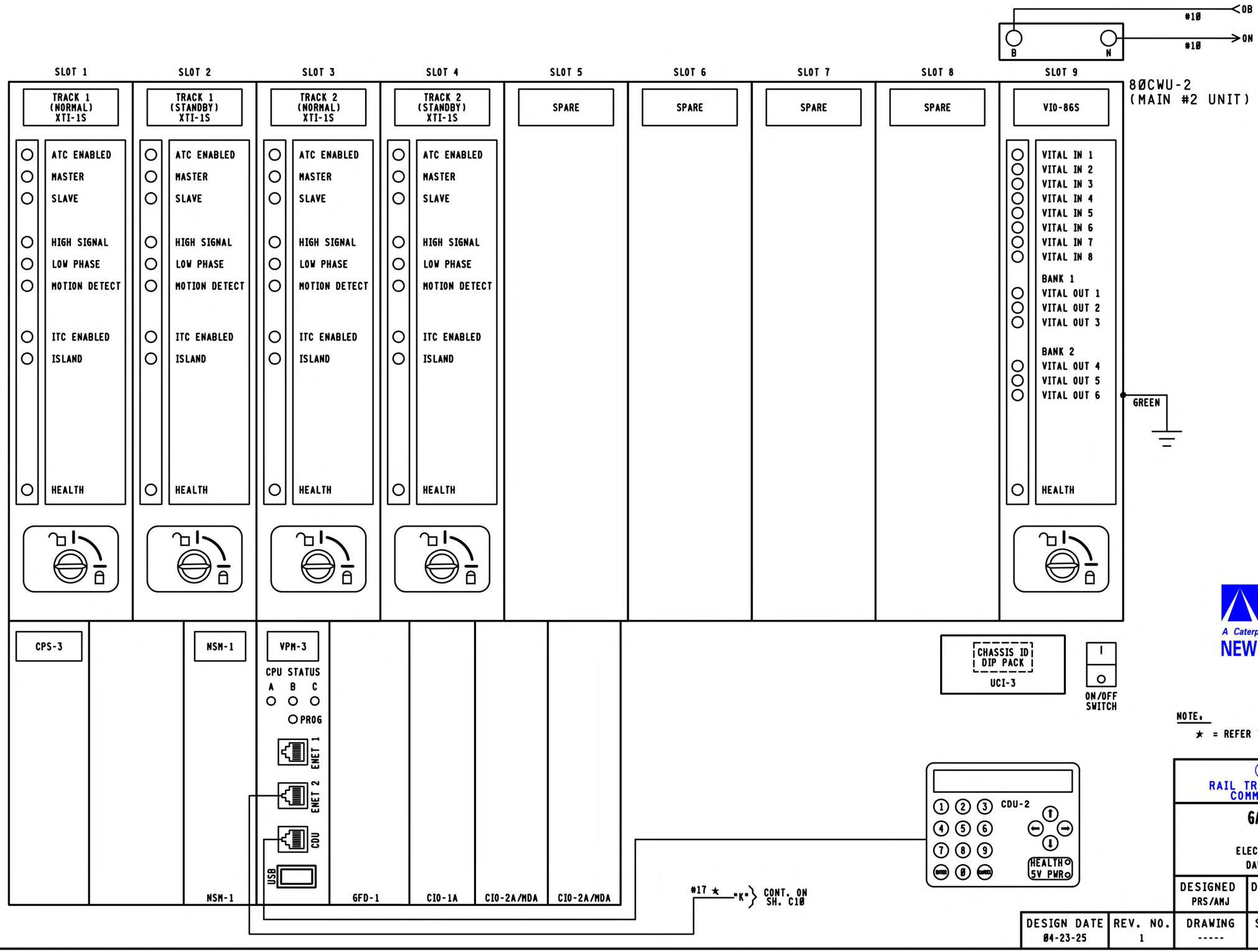
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &

CUT SECTION
ELECTROLOGIXS XP4 MODULE LAYOUT
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	E03



PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE:04-23-25
CSX#:PA2023021
PRS/AMJ/SAF

NOTE:
★ = REFER TO SH. C10 FOR PART NUMBER.

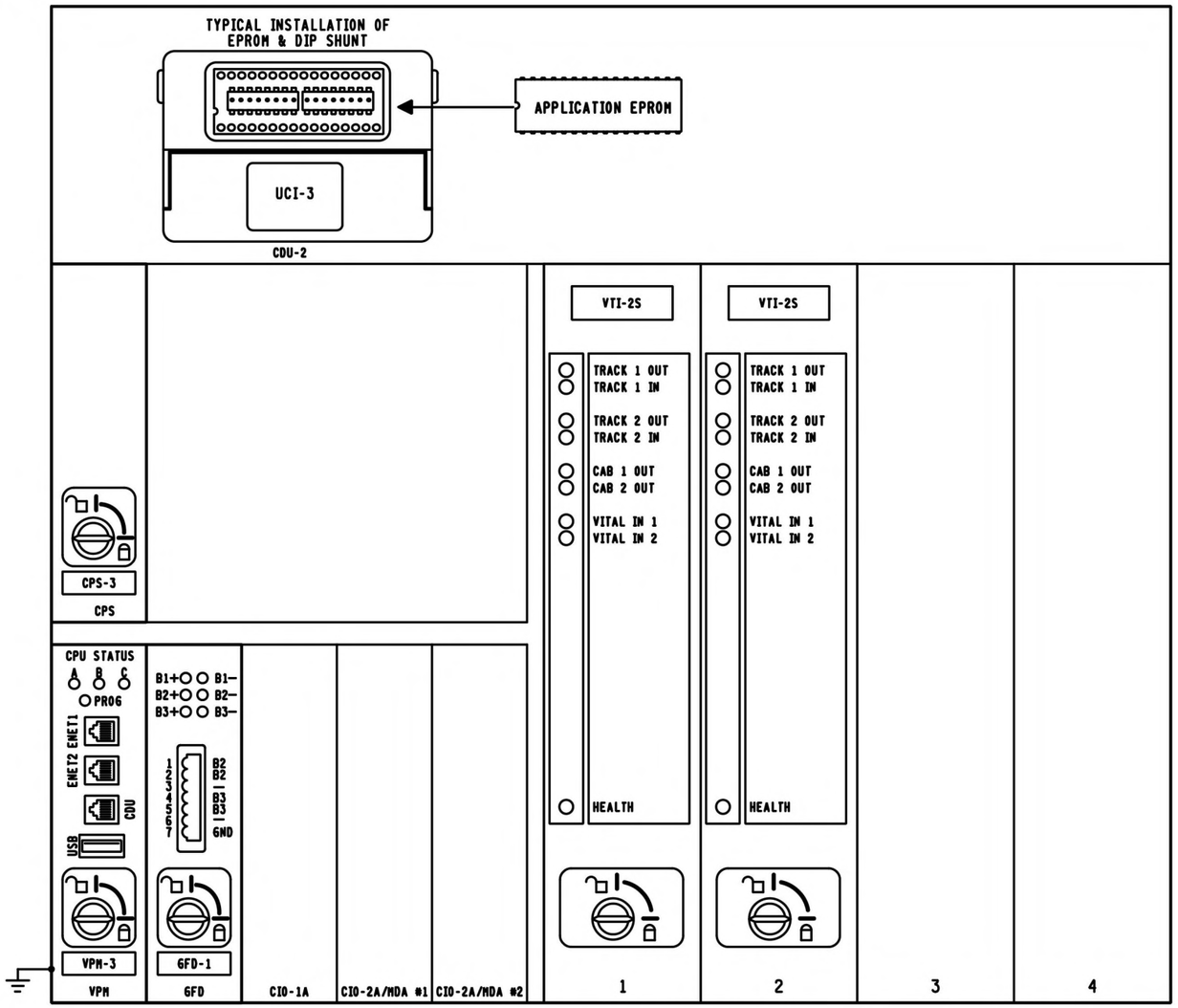
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &

CUT SECTION
ELECTROLOGIXS XP4 MODULE LAYOUT
DAWSON, PA M.P. BF-275.80

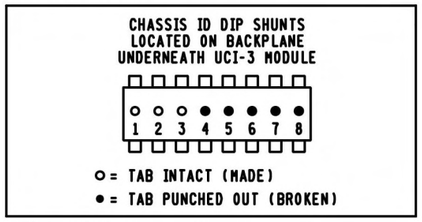
DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	E04

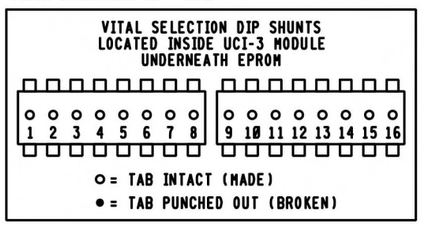


ELECTROLOGIXS 4-SLOT CHASSIS

CHASSIS ID - 224



VITAL SELECTION ID - N/A



MODULE LEGEND:

CDU-2 = CONTROL DISPLAY UNIT
CPS-3 = CENTRAL POWER SUPPLY
VPM-3 = VITAL PERIPHERAL MASTER
GFD-1 = GROUND FAULT DETECTOR
CIO-1A = COMMUNICATION INPUT/OUTPUT
CIO-2A = COMMUNICATION INPUT/OUTPUT
CIO-CLA = COMMUNICATION INPUT/OUTPUT - CLA
CIO-MDA = COMMUNICATION INPUT/OUTPUT
UCI-3 = CHASSIS INFORMATION
VTI-2S = VITAL TRACK INTERFACE
VLD-R16S = VITAL LAMP DRIVER
VIO-86S = VITAL INPUTS/OUTPUTS
WSDMM = WAYSIDE SYSTEM DATA MANAGEMENT MODULE

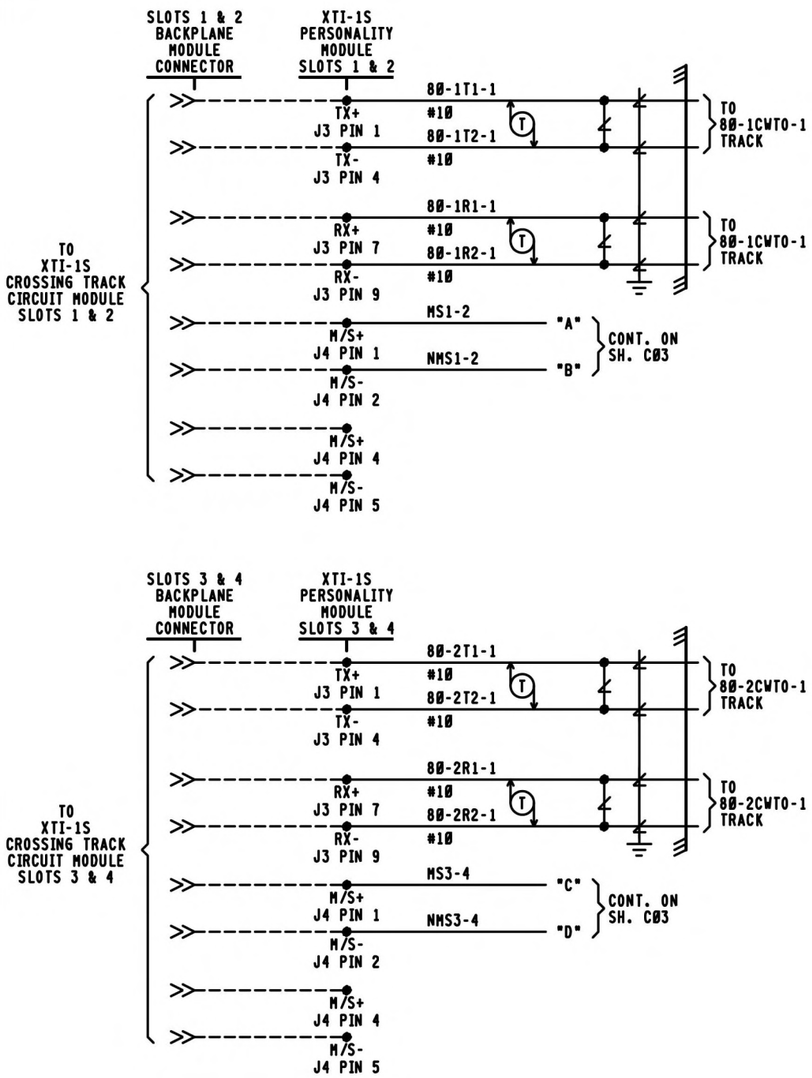
PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

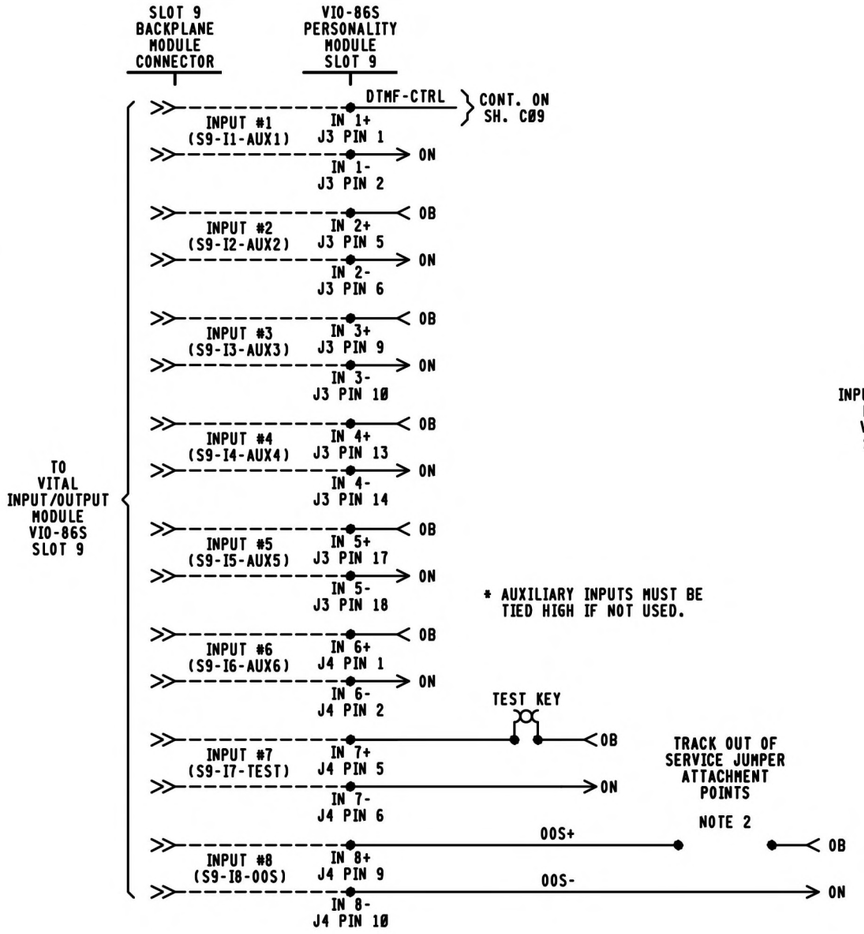
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &
CUT SECTION
ELECTROLOGIXS MODULE CONFIGURATION
DAWSON, PA M.P. BF-275.80

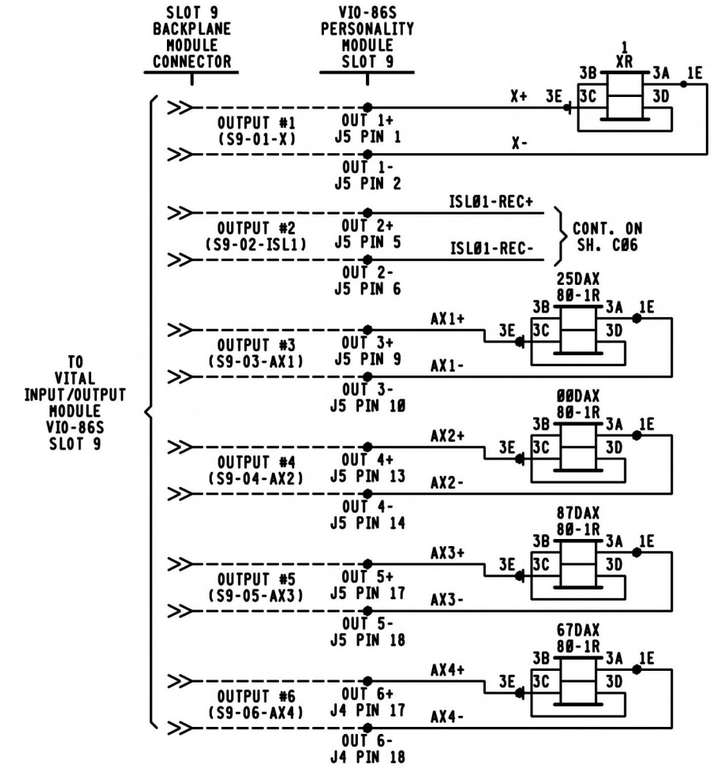
DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

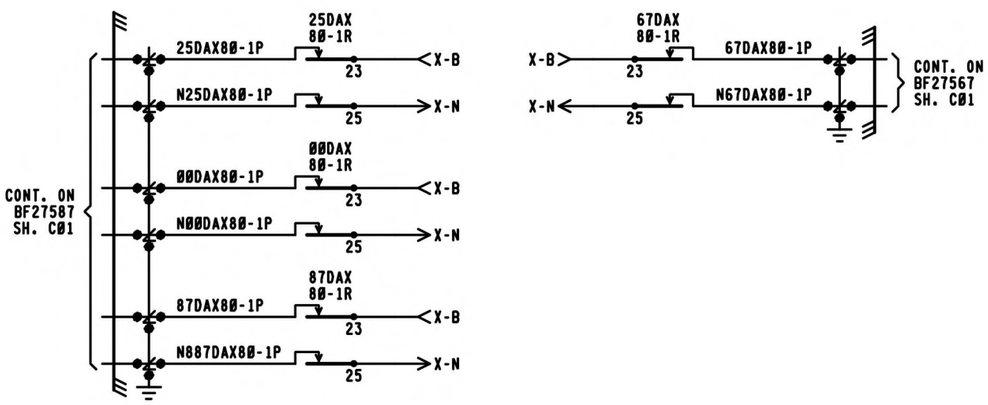
DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	E05





* AUXILIARY INPUTS MUST BE TIED HIGH IF NOT USED.





SLOT 9 I/O	
INPUT 1	POSITIVE CONTROL AUXILIARY INPUT 1 (AUX1)
INPUT 2	POSITIVE CONTROL AUXILIARY INPUT 2 (AUX2)
INPUT 3	POSITIVE CONTROL AUXILIARY INPUT 3 (AUX3)
INPUT 4	POSITIVE CONTROL AUXILIARY INPUT 4 (AUX4)
INPUT 5	POSITIVE CONTROL AUXILIARY INPUT 5 (AUX5)
INPUT 6	POSITIVE CONTROL AUXILIARY INPUT 6 (AUX6)
INPUT 7	CROSSING ACTIVATION TEST
INPUT 8	OUT OF SERVICE JUMPER INPUT (OOS)
OUTPUT 1	X OUTPUT
OUTPUT 2	ISL01 OUTPUT
OUTPUT 3	AX1 OUTPUT
OUTPUT 4	AX2 OUTPUT
OUTPUT 5	AX3 OUTPUT
OUTPUT 6	AX4 OUTPUT

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

NOTES
1. ALL WIRE THIS SHEET #16 AWG UNLESS NOTED.
2. APPROACH DISABLE JUMPER INPUT. THIS INPUT IS USED IN COMBINATION WITH THE SOFT APPROACH DISABLE ACCESSED THROUGH THE CDU-2 KEYPAD. BOTH BITS MUST BE HIGH TO DISABLE AN APPROACH. THE OPERATOR IS SOLELY RESPONSIBLE FOR CROSSING PROTECTION WHEN THE APPROACH DISABLE FUNCTION IS ACTIVATED.
3. ●/● = HLVA2-1675-01 HYBRID LOW VOLTAGE ARRESTER, UNLESS NOTED.

80CWU-1 (MAIN TRACK #1)

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &

CUT SECTION
XP4 CROSSING DETECTION & I/O CIRCUITS
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C01

SITE SPECIFIC MDR DESCRIPTIONS AND SETTINGS											
NAME		MDR1	MDR2	MDR3		MDR4		MDR5		MDR6	
FUNCTION		XR	XR	AX1		AX2		AX3		AX4	
WARNING TIME		29	29	39		33		31		26	
CW/MD		CW	CW	CW		CW		CW		CW	
AP TIME(PREEMPT)		NA	NA	NA		NA		NA		NA	
CWE-WT		80	80	80		80		80		80	
AUX RECOVERY DELAY		5	5	5		5		5		5	
TRACK		TK 1 [1]	TK 2 [3]	TK 1 [1]	TK 2 [3]	TK 1 [1]	TK 2 [3]	TK 1 [1]	TK 2 [3]	TK 1 [1]	TK 2 [3]
TRACK ASSIGNED		ASSIGNED	ASSIGNED	UNASSIGNED	ASSIGNED	UNASSIGNED	ASSIGNED	UNASSIGNED	ASSIGNED	ASSIGNED	UNASSIGNED
OFFSET DISTANCE		0'	0'	NA	2310'	NA	1007'	NA	330'	555'	NA
MD RESTART		0	0	NA	0	NA	0	NA	0	0	NA
SUDDEN SHUNT ZONE		0	0	NA	0	NA	0	NA	0	0	NA
POSITIVE START	PSEN	DISABLE	DISABLE	NA	DISABLE	NA	DISABLE	NA	DISABLE	DISABLE	NA
	PSRX	0	0	NA	0	NA	0	NA	0	0	NA
	PST	0	0	NA	0	NA	0	NA	0	0	NA
POST JOINT DETECT	PJEN	ENABLE	ENABLE	NA	ENABLE	NA	ENABLE	NA	ENABLE	ENABLE	NA
	PJRX	15	15	NA	15	NA	15	NA	15	15	NA
	PJDT	15	15	NA	15	NA	15	NA	15	15	NA
CLEAR JOINT LOS	CJ-LOS MODE	STANDARD	STANDARD	NA	STANDARD	NA	STANDARD	NA	STANDARD	STANDARD	NA
	CJ-LOS RX	15	15	NA	15	NA	15	NA	15	15	NA
	CJ-LOS TIME	99	99	NA	99	NA	99	NA	99	99	NA

BASIC TRACK SETUP		
	TRACK 1 [1]	TRACK 2 [3]
FREQUENCY	86 HZ	267 HZ
MASTER/SLAVE	MASTER	MASTER
RX ADJUST	100 *	100 *
TCA	*	*
DIRECTION MODE	BI	BI
LIA	*	*
ADVANCED APPROACH	*	*
NBS COMP RX	*	*
TRK ISLAND ASSIGN	ISL1 ASSIGN	ISL2 ASSIGN
APPROACH LENGTH	2604'	2604'
AUTO RX	ENABLE	ENABLE

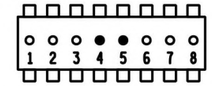
ADVANCED TRACK SETUP			
		TRACK 1 [1]	TRACK 2 [3]
MOTION DET TIMER	MDEN	ENABLE	ENABLE
	MDTT	10 MIN	10 MIN
FALSE SHUNT	FSEN	DISABLE	DISABLE
	FSRX	NA	NA
	FST	NA	NA
APPROACH RELEASE	AREN	DISABLE	DISABLE
	ARRX	NA	NA
	ART	NA	NA
LOS TIME		16 SEC	16 SEC
IJ-LOS TIME		5 SEC	5 SEC
NRML*SHRT*VRYSHRT		*	*

ISLAND SETUP		
	TRACK 1 [1]	TRACK 2 [3]
ENABLE/DISABLE	ENABLE	NA
FREQUENCY	7.1 KHZ	NA
LOSS OF SHUNT	2 SEC.	NA
FAULT DELAY	2	NA

VPM3 ETHERNET SETUP	
	IP ADDRESS
ETHERNET PORT 1 (TOP)	192.168.0.11
ETHERNET PORT 2 (BOTTOM)	192.168.1.12

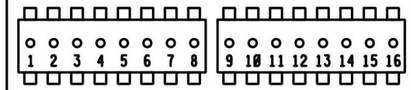
APPLICATION SOFTWARE INFORMATION	
NAME	9XXS-2.04A
REV.	1.0
CHECKSUM	CF59
CRC	5F06
CH. I.D.	231

CHASSIS ID DIP SHUNTS
LOCATED ON BACKPLANE
UNDERNEATH UCI-3 MODULE



○ = TAB INTACT (MADE)
● = TAB PUNCHED OUT (BROKEN)

VITAL SELECTION DIP SHUNTS
LOCATED INSIDE UCI-3 MODULE
UNDERNEATH EPROM



○ = TAB INTACT (MADE)
● = TAB PUNCHED OUT (BROKEN)

VITAL SELECTION DIP SHUNTS		
#	NAME	STATE
1	NA	INTACT (NOT USED)
2	NA	INTACT (NOT USED)
3	NA	INTACT (NOT USED)
4	NA	INTACT (NOT USED)
5	NA	INTACT (NOT USED)
6	NA	INTACT (NOT USED)
7	NA	INTACT (NOT USED)
8	NA	INTACT (NOT USED)
9	NA	INTACT (NOT USED)
10	NA	INTACT (NOT USED)
11	NA	INTACT (NOT USED)
12	NA	INTACT (NOT USED)
13	NA	INTACT (NOT USED)
14	NA	INTACT (NOT USED)
15	NA	INTACT (NOT USED)
16	NA	INTACT (NOT USED)

NOTES:
● = FIELD ADJUSTMENT
NA = NOT APPLICABLE

80CWU-1 (MAIN TRACK #1)

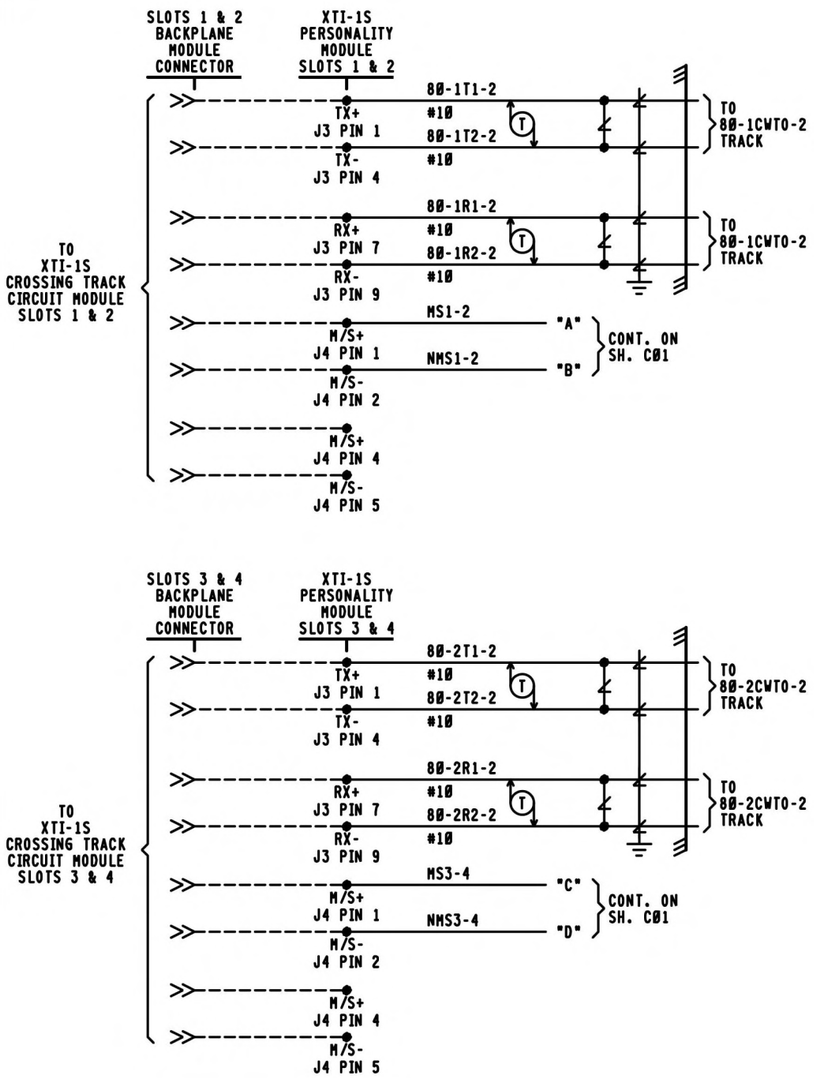
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

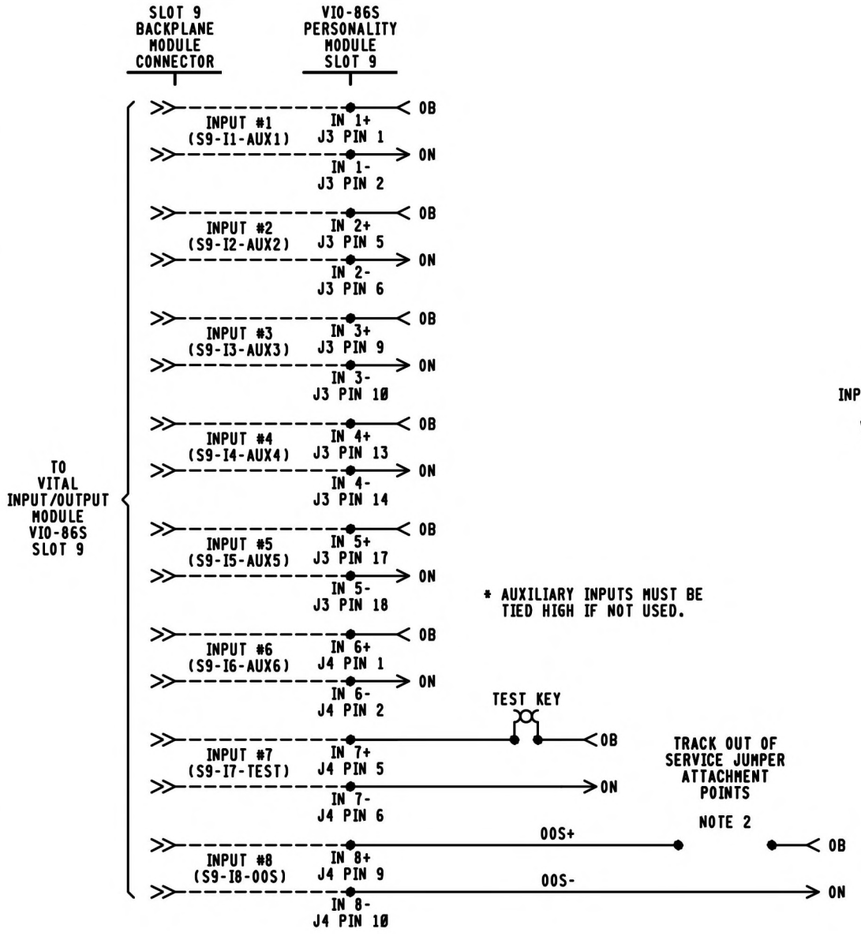
GALLEY ST. 145457W &
CUT SECTION
XP4 SETUP INFORMATION
DAWSON, PA M.P. BF-275.80

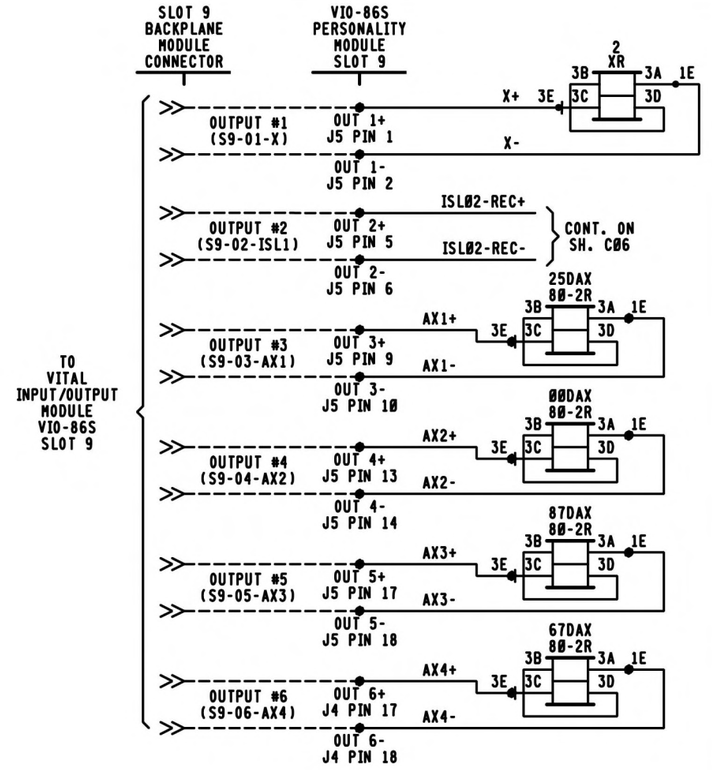
PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE:04-23-25
CSX#:PA2023021
PRS/AMJ/SAF

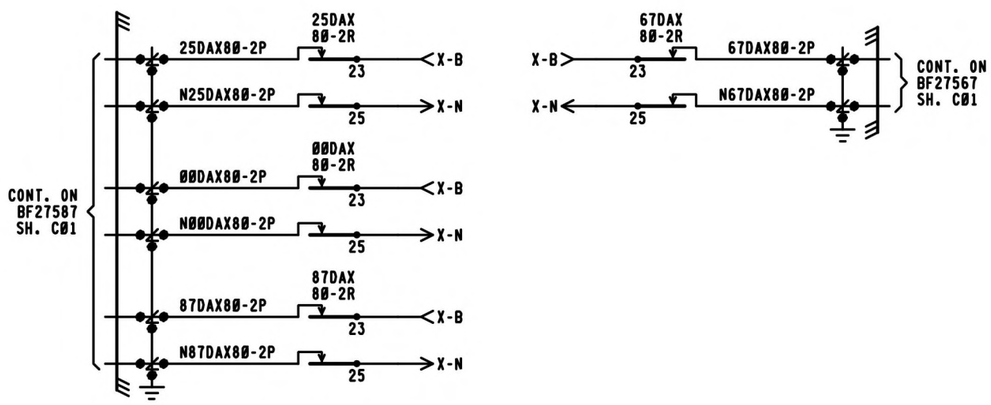
DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C02









SLOT 9 I/O	
INPUT 1	POSITIVE CONTROL AUXILIARY INPUT 1 (AUX1)
INPUT 2	POSITIVE CONTROL AUXILIARY INPUT 2 (AUX2)
INPUT 3	POSITIVE CONTROL AUXILIARY INPUT 3 (AUX3)
INPUT 4	POSITIVE CONTROL AUXILIARY INPUT 4 (AUX4)
INPUT 5	POSITIVE CONTROL AUXILIARY INPUT 5 (AUX5)
INPUT 6	POSITIVE CONTROL AUXILIARY INPUT 6 (AUX6)
INPUT 7	CROSSING ACTIVATION TEST
INPUT 8	OUT OF SERVICE JUMPER INPUT (00S)
OUTPUT 1	X OUTPUT
OUTPUT 2	ISL OUTPUT
OUTPUT 3	AX1 OUTPUT
OUTPUT 4	AX2 OUTPUT
OUTPUT 5	AX3 OUTPUT
OUTPUT 6	AX4 OUTPUT

NOTES
1. ALL WIRE THIS SHEET #16 AWG UNLESS NOTED.
2. APPROACH DISABLE JUMPER INPUT. THIS INPUT IS USED IN COMBINATION WITH THE SOFT APPROACH DISABLE ACCESSED THROUGH THE CDU-2 KEYPAD. BOTH BITS MUST BE HIGH TO DISABLE AN APPROACH. THE OPERATOR IS SOLELY RESPONSIBLE FOR CROSSING PROTECTION WHEN THE APPROACH DISABLE FUNCTION IS ACTIVATED.
3. ●/● = HLVA2-1675-01 HYBRID LOW VOLTAGE ARRESTER, UNLESS NOTED.

80CWU-2 (MAIN TRACK #2)

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &
CUT SECTION
XP4 CROSSING DETECTION & I/O CIRCUITS
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C03

SITE SPECIFIC MDR DESCRIPTIONS AND SETTINGS											
NAME		MDR1	MDR2	MDR3		MDR4		MDR5		MDR6	
FUNCTION		XR	XR	AX1		AX2		AX3		AX4	
WARNING TIME		29	29	39		33		31		26	
CW/MD		CW	CW	CW		CW		CW		CW	
AP TIME(PREEMPT)		NA	NA	NA		NA		NA		NA	
CWE-WT		80	80	80		80		80		80	
AUX RECOVERY DELAY		5	5	5		5		5		5	
TRACK		TK 1 [1]	TK 2 [3]	TK 1 [1]	TK 2 [3]	TK 1 [1]	TK 2 [3]	TK 1 [1]	TK 2 [3]	TK 1 [1]	TK 2 [3]
TRACK ASSIGNED		ASSIGNED	ASSIGNED	UNASSIGNED	ASSIGNED	UNASSIGNED	ASSIGNED	UNASSIGNED	ASSIGNED	ASSIGNED	UNASSIGNED
OFFSET DISTANCE		0'	0'	NA	2310'	NA	1007'	NA	330'	555'	NA
MD RESTART		0	0	NA	0	NA	0	NA	0	0	NA
SUDDEN SHUNT ZONE		0	0	NA	0	NA	0	NA	0	0	NA
POSITIVE START	PSEN	DISABLE	DISABLE	NA	DISABLE	NA	DISABLE	NA	DISABLE	DISABLE	NA
	PSRX	0	0	NA	0	NA	0	NA	0	0	NA
	PST	0	0	NA	0	NA	0	NA	0	0	NA
POST JOINT DETECT	PJEN	ENABLE	ENABLE	NA	ENABLE	NA	ENABLE	NA	ENABLE	ENABLE	NA
	PJRX	15	15	NA	15	NA	15	NA	15	15	NA
	PJDT	15	15	NA	15	NA	15	NA	15	15	NA
CLEAR JOINT LOS	CJ-LOS MODE	STANDARD	STANDARD	NA	STANDARD	NA	STANDARD	NA	STANDARD	STANDARD	NA
	CJ-LOS RX	15	15	NA	15	NA	15	NA	15	15	NA
	CJ-LOS TIME	99	99	NA	99	NA	99	NA	99	99	NA

BASIC TRACK SETUP		
	TRACK 1 [1]	TRACK 2 [3]
FREQUENCY	86 HZ	267 HZ
MASTER/SLAVE	SLAVE	SLAVE
RX ADJUST	100 *	100 *
TCA	*	*
DIRECTION MODE	BI	BI
LIA	*	*
ADVANCED APPROACH	*	*
NBS COMP RX	*	*
TRK ISLAND ASSIGN	ISL1 ASSIGN	ISL2 ASSIGN
APPROACH LENGTH	2604'	2604'
AUTO RX	ENABLE	ENABLE

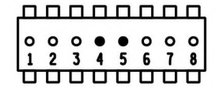
ADVANCED TRACK SETUP			
		TRACK 1 [1]	TRACK 2 [3]
MOTION DET TIMER	MDEN	ENABLE	ENABLE
	MDTT	10 MIN	10 MIN
FALSE SHUNT	FSEN	DISABLE	DISABLE
	FSRX	NA	NA
	FST	NA	NA
APPROACH RELEASE	AREN	DISABLE	DISABLE
	ARRX	NA	NA
	ART	NA	NA
LOS TIME		16 SEC	16 SEC
IJ-LOS TIME		5 SEC	5 SEC
NRML*SHRT*VRYSHRT		*	*

ISLAND SETUP		
	TRACK 1 [1]	TRACK 2 [3]
ENABLE/DISABLE	ENABLE	NA
FREQUENCY	7.1 KHZ	NA
LOSS OF SHUNT	2 SEC.	NA
FAULT DELAY	2	NA

VPM3 ETHERNET SETUP	
	IP ADDRESS
ETHERNET PORT 1 (TOP)	192.168.0.11
ETHERNET PORT 2 (BOTTOM)	192.168.1.12

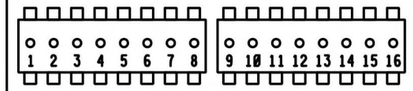
APPLICATION SOFTWARE INFORMATION	
NAME	9XXS-2.04A
REV.	1.0
CHECKSUM	CF59
CRC	5F06
CH. I.D.	231

CHASSIS ID DIP SHUNTS
LOCATED ON BACKPLANE
UNDERNEATH UCI-3 MODULE



○ = TAB INTACT (MADE)
● = TAB PUNCHED OUT (BROKEN)

VITAL SELECTION DIP SHUNTS
LOCATED INSIDE UCI-3 MODULE
UNDERNEATH EPROM



○ = TAB INTACT (MADE)
● = TAB PUNCHED OUT (BROKEN)

VITAL SELECTION DIP SHUNTS		
#	NAME	STATE
1	NA	INTACT (NOT USED)
2	NA	INTACT (NOT USED)
3	NA	INTACT (NOT USED)
4	NA	INTACT (NOT USED)
5	NA	INTACT (NOT USED)
6	NA	INTACT (NOT USED)
7	NA	INTACT (NOT USED)
8	NA	INTACT (NOT USED)
9	NA	INTACT (NOT USED)
10	NA	INTACT (NOT USED)
11	NA	INTACT (NOT USED)
12	NA	INTACT (NOT USED)
13	NA	INTACT (NOT USED)
14	NA	INTACT (NOT USED)
15	NA	INTACT (NOT USED)
16	NA	INTACT (NOT USED)

NOTES:
* = FIELD ADJUSTMENT
NA = NOT APPLICABLE

80CWU-2 (MAIN TRACK #2)

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

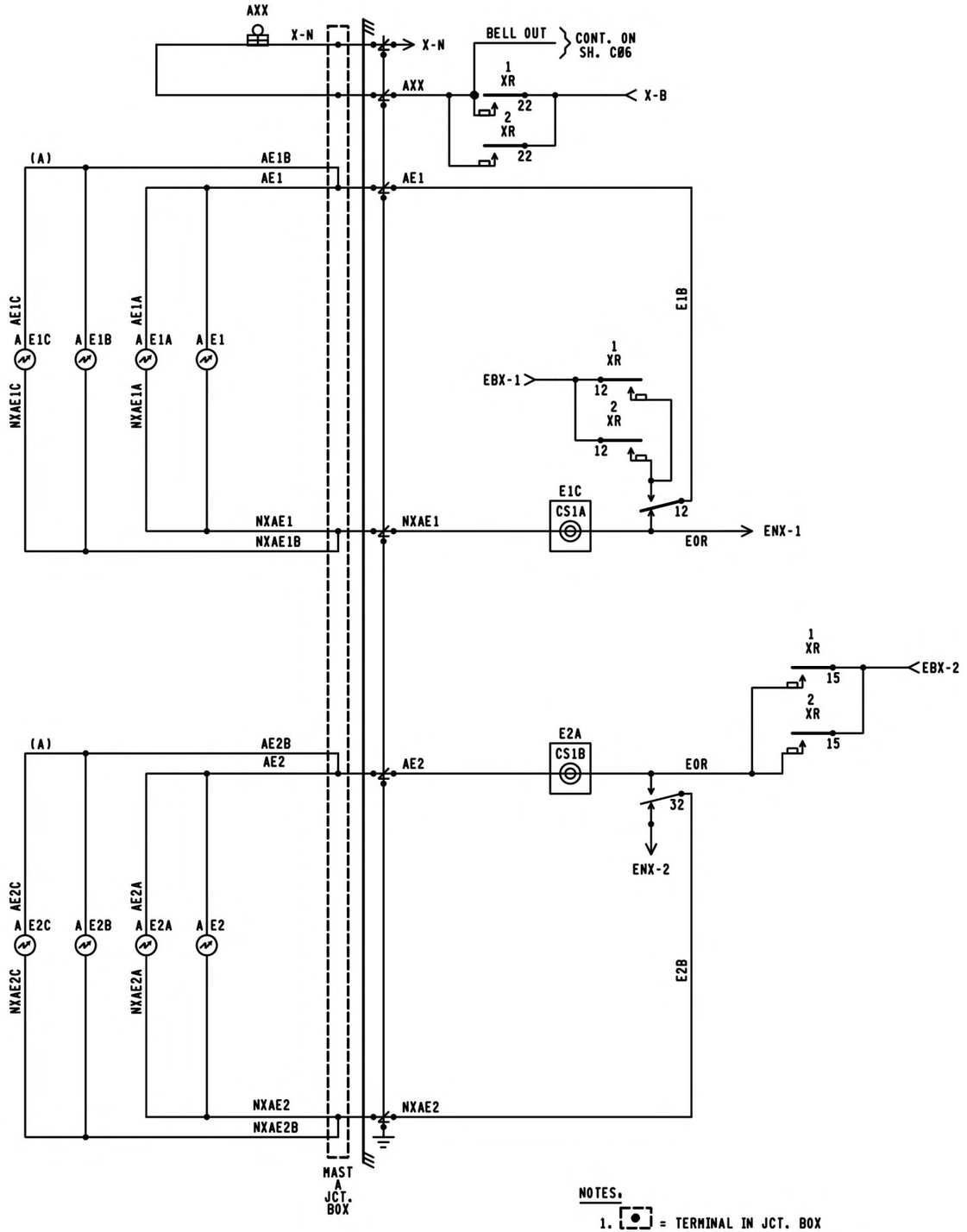
GALLEY ST. 145457W &

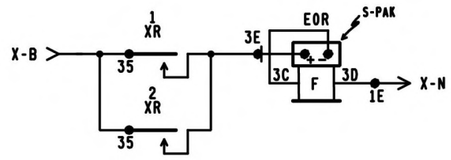
CUT SECTION
XP4 SETUP INFORMATION
DAWSON, PA M.P. BF-275.80

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE:04-23-25
CSX#:PA2023021
PRS/AMJ/SAF

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C04





NOTES.

1. [•] = TERMINAL IN JCT. BOX
2. WHEN 7 OR MORE LIGHTS ON A SINGLE STRUCTURE REFER TO SS-382 FOR REQUIRED ARRESTER RATING.

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &

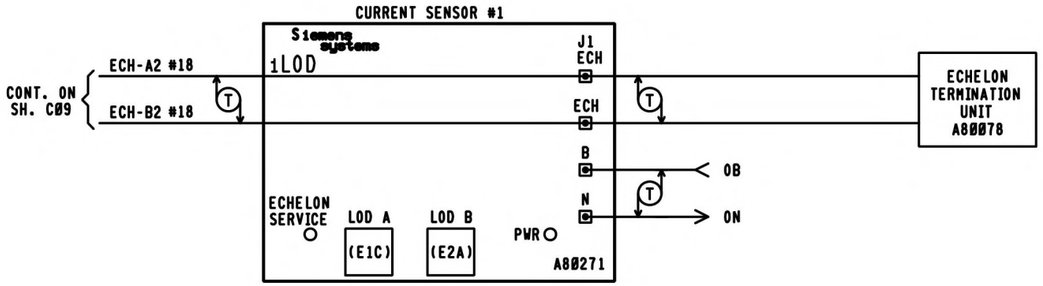
CUT SECTION

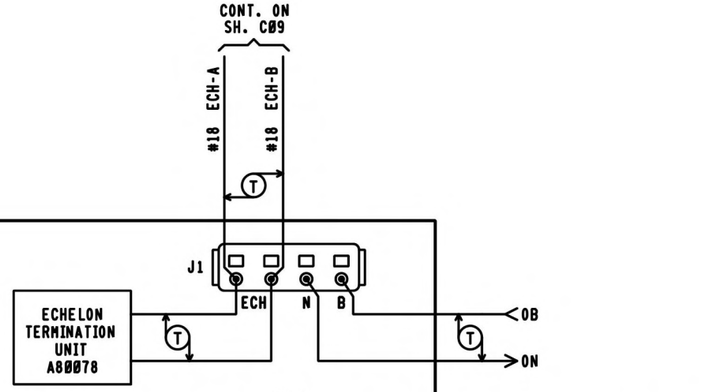
CROSSING WARNING DEVICE LIGHT CIRCUITRY

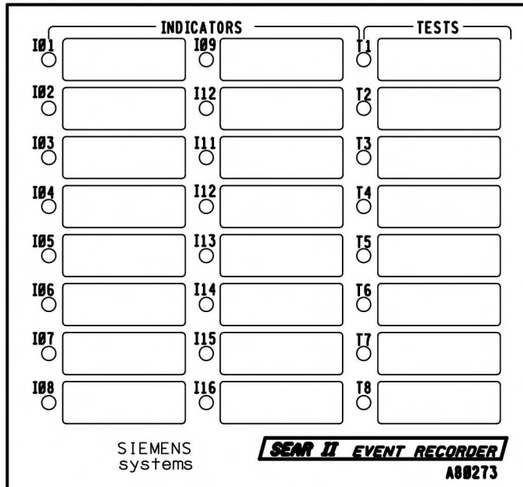
DAWSON, PA M.P. BF-275.80

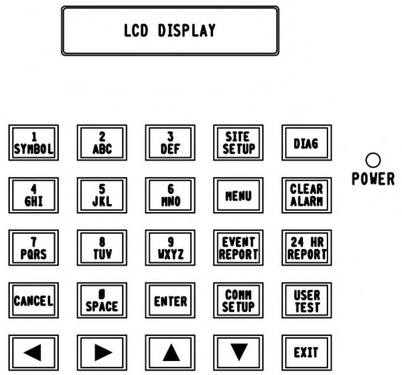
DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

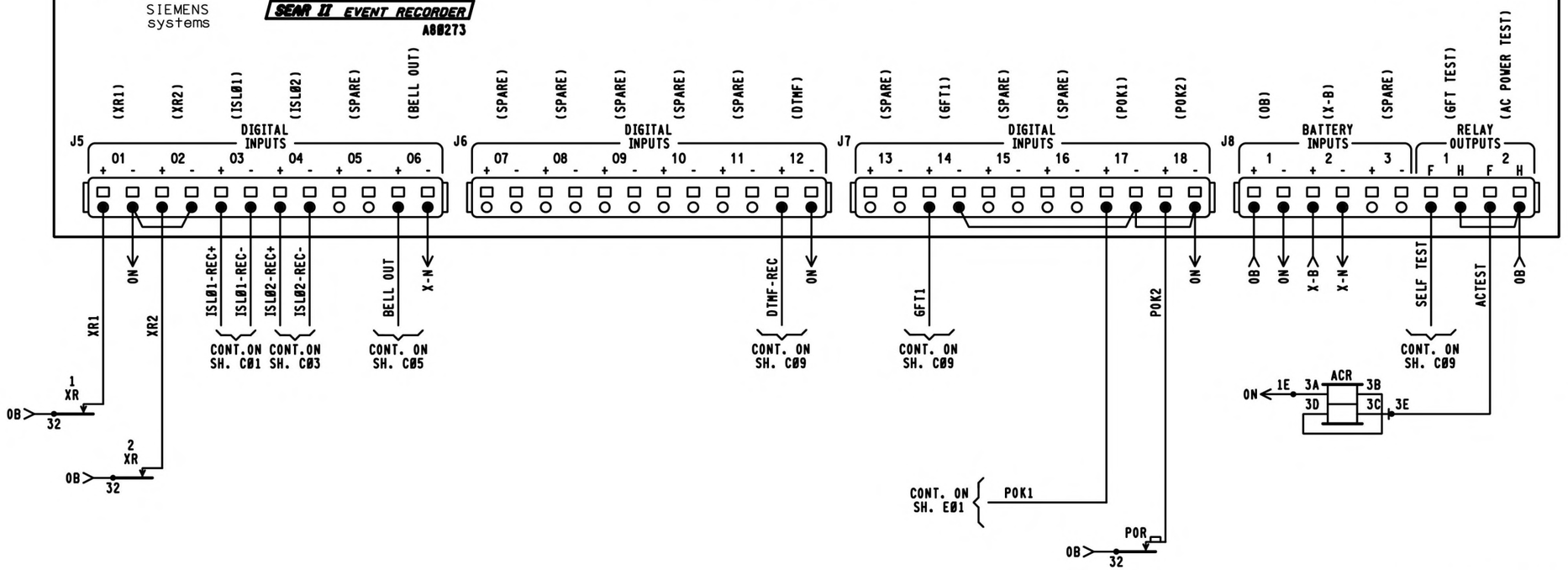
DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C05











PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE:04-23-25
CSX#:PA2023021
PRS/AMJ/SAF

NOTES:
1. ★= REFER TO SH. C10 FOR PART NUMBER.
2. ( ) DENOTES NOMENCLATURE FOR CLARIFICATION AND WILL NOT DISPLAY ON LOG REPORTS.

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &

CUT SECTION
SEAR II CIRCUITS
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C06

	DEFAULTS AND/OR STYLE	FIELD RECORD
SEAR II EXECUTIVE PROGRAM	VERSION. 9V645A01Y	VERSION.
APPLICATION PROGRAM (IF LOADED)	VERSION. _____	VERSION.

FIELD TO PROVIDE SEARII PROGRAM INFORMATION ON AIS

SITE SET UP OPTIONS	
OPTION	SELECTION
DATE	XX-XX-XXXX
TIME	[XX:XX:XX]
DAYLIGHT SAVINGS TIME	YES ■ NO □
TIME ZONE	■ EST □ CST
SITE NAME	GALLEY ST.
MILEPOST	BF-275.80
DOT NUMBER	145457W
TESTER TYPE	■ CROSSING □ WAYSIDE
DATE FORMAT	■ MM-DD-YYYY □ DD-MM-YYYY
TEMP FORMAT	■ FAHRENHEIT □ CELSIUS
INDICATE HOLDOFF	0
INDICATE REFRESH	60
SITE TYPE	□ NO COMMUNICATION □ DIAL-UP ■ COLLECTOR □ NODE □ BULLHORN/MODE □ CDS902X
SITE ATCS ADDRESS	7.125.304.018.99.01 (7.RRR.LLL.GGG.99.01) — NOTE 5
OFFICE ADDRESS	2.125.00.0000 (2.RRR.NN.DDDD)
OFFICE SITE ADDRESS	NA
BACK UP SITE ADDRESS 1	NA
BACK UP SITE ADDRESS 2	NA
POLL ID (1-99)	1
GEN/ATCS MODE	□ GENISYS ■ GEN/ATCS
XID DISABLED	■ YES □ NO
OFFICE COM. DEVICE	□ DIRECT □ MCM (RS232) □ MCM (ECH) ■ WAG (ECHELON) □ DIAL UP (RS232) □ S200 RADIO (RS422)
RADIO ATCS ADDRESS	7.125.304.018.01.01
OFFICE PHONE NUMBER	1-XXX-XXX-XXXX
INIT. STRING	
FIELD COMM	□ VHF (ECH) □ VHF (RS232) □ WAG (ECH) □ SS (RS232) ■ NONE
USER PORT	BAUD RATE (9600)
AUX PORT	BAUD RATE (9600)
COMM PORT	BAUD RATE (9600)

NOTE 6 — NOTE 7

NOTES.

1. LARGE CONFIGURATION ASSIGNS RECORDER INPUTS FOR USE WHEN DIGITAL I/O MODULE REQUIRED.
2. IF WARNING DEVICE = NONE MAIN/STANDBY OPTION NOT SHOWN.
3. IF VHF COMMUNICATIONS = NO THEN DTMF ACTIVATION AND CHANNEL OPTIONS ARE NOT SHOWN.
4. LAST 3 DIGITS OF DOT NO. FOR FIRST ACTIVATION CODE.
5. DEFAULT ADDRESS 7.125.100.100.99.01 USED FOR STAND ALONE LOCATIONS.
6. OPTIONS NOT SHOWN IF SITE TYPE = NO COMMUNICATIONS.
7. FORMAT AS, BAUD, DATA BITS, PARITY STOP BITS, FLOW CONTROL.

SITE SET UP OPTIONS CONT.		
	OPTION	SELECTION
	RAILROAD NUMBER	125
NOTE 1	CROSSING CONFIGURATION	STANDARD ■ LARGE □ REMOTE □ SPLIT GATE □ ISL ONLY □ CP COLLECTOR □
	NUMBER OF XR INPUTS	0 □ 1 □ 2 ■ 3 □ 4 □
	NUMBER OF ISL INPUTS	0 □ 1 □ 2 ■ 3 □ 4 □
	CONSTANT WARNING DEVICE	GCP □ OTHER ■ NONE □
	TOTAL NUMBER OF GCP NODES	1 □ 2 □ 3 □ 4 □ 5 □
	NUMBER OF REDUNDANT GCP	1 □ 2 □ 3 □ 4 □
	CROSSING CONTROLLER 1	SSCC IIIA / PLUS □ SSCC IV □ OTHER □ NONE ■
	POK2	YES ■ NO □
NOTE 2	MAIN / STANDBY	YES □ NO ■
	AUXILIARY TRACKS	0 ■ 1 □ 2 □
	ENTRANCE GATE	0 ■ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7 □ 8 □
	EXIT GATES	0 ■ 1 □ 2 □ 3 □ 4 □
	GATE POSITION FAIL 10-60 SEC	25
	NUMBER OF UAX INPUTS	0 ■ 1 □ 2 □
	BATTERY BANKS	1 □ 2 ■ 3 □ 4 □ 5 □ 6 □
	OB RESOLUTION	.2 □ .5 □ 1.0 ■
	X-B RESOLUTION	.2 □ .5 □ 1.0 ■ NOT PRESENT □
	B-G RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	X-B2 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	B-G2 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	X-B3 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	PREEMPTION	NORMAL □ ADVANCED □ NO ■
	KDR INPUT	YES ■ NO □
NOTE 3	VHF COMMUNICATOR	YES □ NO ■
	ACTIVATION CODE 1	XXX
NOTE 4	ACTIVATION CODE 2	XXX
	ACTIVATION CODE 3	XXX
	ACTIVATION TIMEOUT (30 TO 600 SECONDS)	60
	1LOD MODULES	0 □ 1 ■ 2 □ 3 □ 4 □ 5 □ 6 □
	ANY LED BULBS	NO □ YES ■
	AUTO INSPECTIONS	YES ■ NO □
	BELL ON	GATES LOWERING □ GATES MOVING □ ALWAYS ■
	GROUND FAULT DETECTORS	YES ■ NO □
	BATTERIES ON 6FT1	1 □ 2 ■
	FULL APPROACH MOVE ALARMS	ACTIVATED ■ DO NOT ACTIVATE □

FIELD TO PROVIDE BATTERY VOLTAGES AND CURRENT READINGS ON AIS

LIT BULB COUNT ON EACH CIRCUIT	NO.	TYPE OF BULB	CURRENT READING IN AMP. AT APPROX. 10.0 V BULB VOLTAGE
CURRENT SENSOR (1) E1C, LAMP SET UP	4	□BULBS ■LED	X.X
CURRENT SENSOR (1) E2A, LAMP SET UP	4	□BULBS ■LED	X.X

MEASURE BATTERY VOLTAGE AT INPUT	
BATTERY VOLTAGE OB	XXXX VOLTS
BATTERY VOLTAGE X-B	XXXX VOLTS

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK

DATE. 04-23-25
CSX#. PA2023021
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &
CUT SECTION
SEAR II CONFIGURATION AND FUNCTIONS
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C07

DISCRETE INPUTS	DI Ø1	DI Ø2	DI Ø3	DI Ø4	DI Ø5	DI Ø6
CHANNEL	1	2	3	4	5	6
NAME	XR1	XR2	ISLAND 1 (TRACK)	ISLAND 2 (TRACK)		BELL OUT (BELL PWR)
TAG	XR1 (XR)	XR2 (XR)	ISL1	ISL2	SP	BELL OUT (BELL PWR)
OFF NAME	DOWN (XR)	DOWN (XR)	DOWN (ISL1)	DOWN (ISL1)		OFF (BELL PWR)
ON NAME	UP (XR)	UP (XR)	UP (ISL1)	UP (ISL1)		ON (BELL PWR)
ON DEBOUNCE TIME	1ØØ ms	1ØØ ms	1ØØ ms	1ØØ ms	1ØØØ ms	1ØØ ms
OFF DEBOUNCE TIME	1ØØ ms	1ØØ ms	1ØØ ms	1ØØ ms	1ØØØ ms	1ØØ ms
TOGGLE PERIOD	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms

TSS INPUTS	DI Ø7	DI Ø8	DI Ø9	DI 1Ø
CHANNEL	7	8	9	1Ø
NAME				
TAG	SP	SP	SP	SP
OFF NAME				
ON NAME				
ON DEBOUNCE TIME	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms
OFF DEBOUNCE TIME	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms
TOGGLE PERIOD	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms

DISCRETE INPUTS	DI 11	DI 12	DI 13
CHANNEL	11	12	13
NAME		DTMF	
TAG	SP	DTMF-REC	SP
OFF NAME		OFF (NO GATE KEYED)	
ON NAME		ON (ACTIVATE)	
ON DEBOUNCE TIME	1ØØØ ms	1ØØ ms	1ØØØ ms
OFF DEBOUNCE TIME	1ØØØ ms	1ØØ ms	1ØØØ ms
TOGGLE PERIOD	1ØØØ ms	1ØØØ ms	1ØØØ ms

GFT INPUTS	DI 14	DI 15
CHANNEL	14	15
NAME	GND FAULT TESTER 1 (GFT1,2)	
TAG	GFT1 (GFT1 DATA)	SP.
BATTERY 1 NAME	OB (GND FAULT)	
BATTERY 1 TAG	OB (GND FAULT)	
BATTERY 2 NAME	X-B (GND FAULT)	
BATTERY 2 TAG	X-B (GND FAULT)	

DISCRETE INPUTS	DI 16	DI 17	DI 18
CHANNEL	16	17	18
NAME		POK1	POK2
TAG	SP	POK1	POK2
OFF NAME		OFF (ALL POWER OFF)	OFF (ALL POWER OFF)
ON NAME		ON (ALL POWER ON)	ON (ALL POWER ON)
ON DEBOUNCE TIME	1ØØØ ms	1ØØ ms	1ØØ ms
OFF DEBOUNCE TIME	1ØØØ ms	1ØØ ms	1ØØ ms
TOGGLE PERIOD	1ØØØ ms	1ØØØ ms	1ØØØ ms

BATTERY INPUTS	BI1	BI2	BI3
CHANNEL	1	2	3
NAME	OB (ELECTRONIC BATT)	X-B (BULB BATT)	
TAG	OB	X-B	SP
SAMPLE PERIOD (ms)	5ØØ (ms)	5ØØ (ms)	
RESOLUTION (V)	Ø.2 (VOLTS)	Ø.2 (VOLTS)	
AVGERAGING SAMPLES	32 SAMPLES	32 SAMPLES	

RELAYS	RO1	RO2
CHANNEL	1	2
NAME	GFT TEST	AC POWER TEST (ACRLY)
TAG	SELF TEST	AC POWER TEST (ACRLY)
OFF STATE NAME	NOT TESTING	OFF (ACR DN)
ON STATE NAME	TESTING	ON (ACR UP)
UNKNOWN STATE NAME	PULSE	PULSE
ON PULSE TIME (s)	1 (s)	1 (s)
OFF PULSE TIME (s)	1 (s)	1 (s)
TOGGLE PERIOD (s)	1 (s)	1 (s)
DUTY CYCLE	5Ø	5Ø

NOTE. ( ) DENOTES NOMENCLATURE FOR CLARIFICATION AND WILL NOT DISPLAY ON LOG REPORTS.

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE.Ø4-23-25
CSX#.PA2Ø23Ø21
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

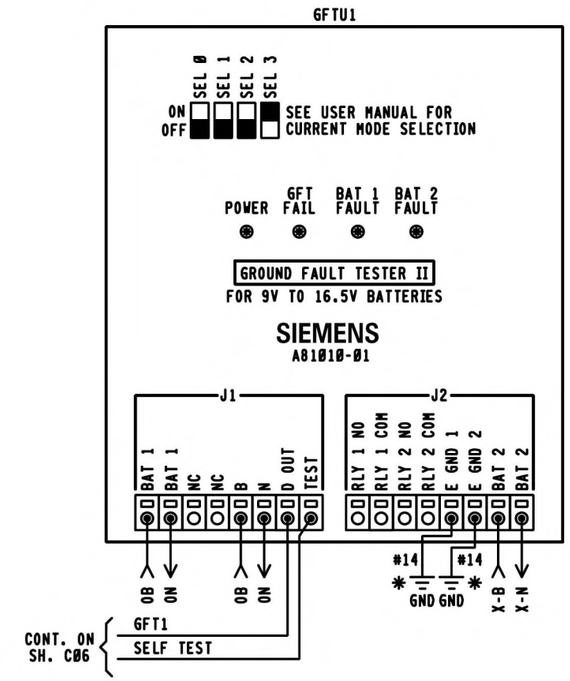
GALLEY ST. 145457W &
CUT SECTION
SEAR II CHANNELS
DAWSON, PA M.P. BF-275.8Ø

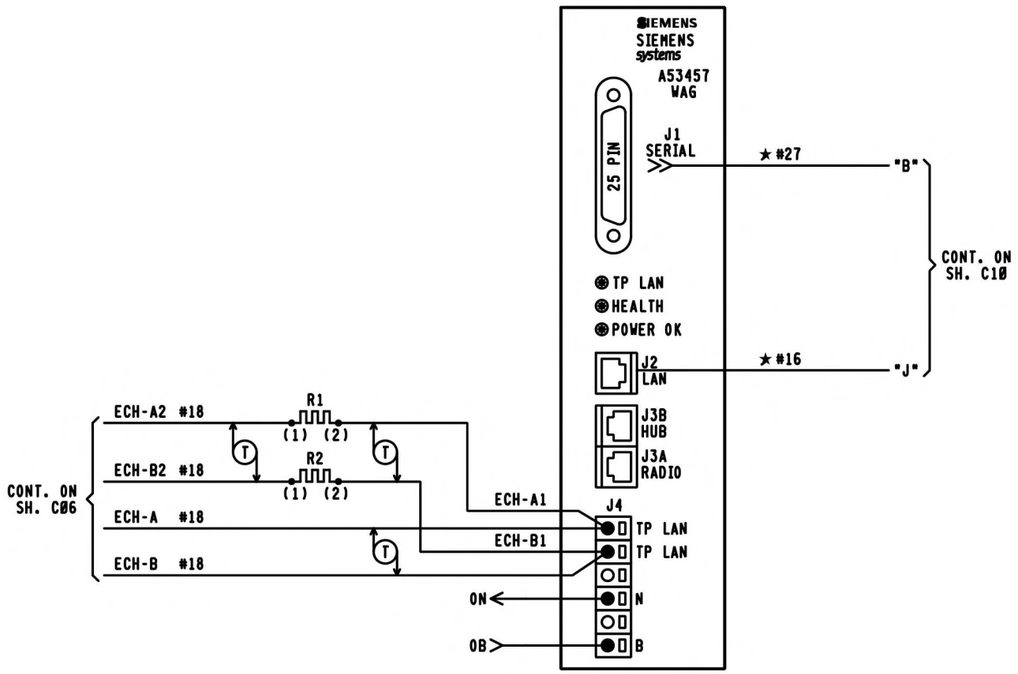
DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	Ø4-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
Ø4-23-25	1	-----	-----	BF27580	CØ8

WAYSIDE ACCESS GATEWAY CONFIGURATION	
SITE ATCS ADDRESS	7.125.304.018.07.01
SERIAL INTERFACE	9600,NONE,8,1/NOFLOW
SERIAL FORMAT	RAW
WAG TEST MODE	DISABLED
ECHELON ADDRESS	01.01
UDP PORTS	5000, 5001, 5002, 5003
ROUTE TABLE EXPIRY	5400 SEC
BROADCAST MEDIUM	IP ETHERNET
TCP PORTS	6001
DHCP SERVER	DISABLED
IP ADDRESS	192.168.13.1
TYPE 7 ROUTE LENGTH	12--7RRRLLLG66SS
IP NETWORK MASK	255.255.255.000

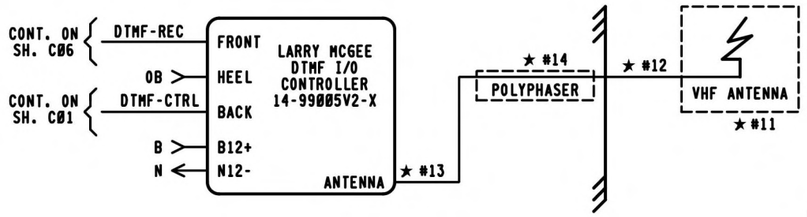
NOTE TO INSPECTOR,
AT INSTALLATION OF CDMA BY COM.
MARK-UP CONFIGURATION TABLE FOR
AS IN SERVICE PLANS





COMM NOTE,

1. WAG J3A PINOUTS,
   4 & 5 = +12VDC RADIO OUT
   7 & 8 = GND RADIO RETURN



GCP PROGRAMMING FOR VHF RADIO

REMOTE DTMF CROSSING ACTIVATION (ACTIVATES ENTIRE CROSSING)	
TO ACTIVATE PRESS,	457#
TO DE-ACTIVATE PRESS,	457*
(ACTIVATION WILL TIME OUT AFTER 60 SEC.)	

NOTES,

1. ★ = REFER TO SH. C10 FOR PART NUMBERS.
2. ALL WIRING #16 UNLESS NOTED OTHERWISE.
3. ✱ = EARTH GROUND REF. TERMINALS REQUIRED FOR DETECTION. DO NOT JUMPER TERMINALS. MUST BE CONNECTED TO DIFFERENT POINTS OF BUNGALOW.
4. R1 & R2 = .5 WATT, 200Ω RESISTOR

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

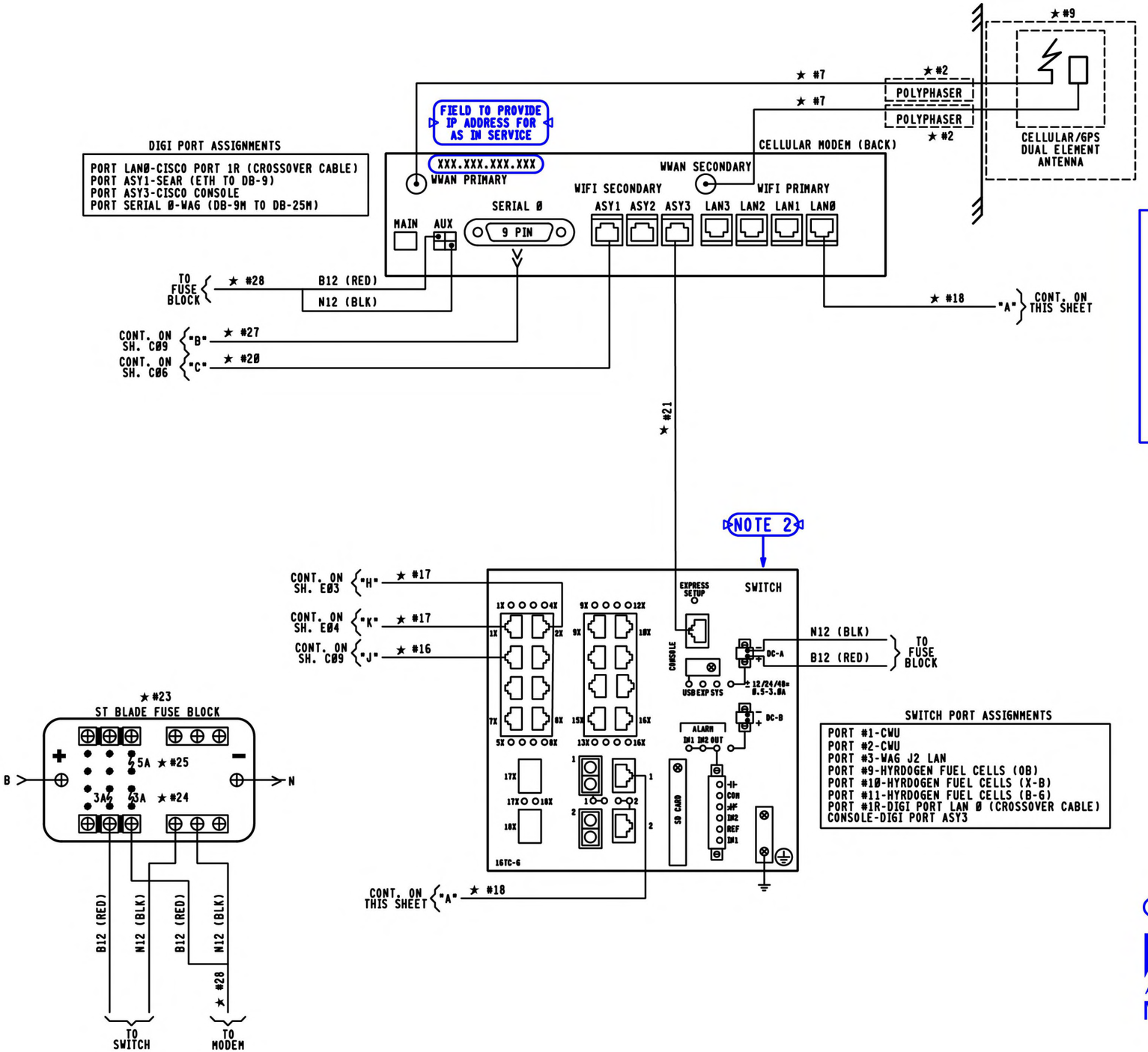
DATE,04-23-25
CSX#,PA2023021
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &
CUT SECTION
WAYSIDE ACCESS GATEWAY
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C09



★	CSDA-30348-KIT (020.0000493.1)	
REF.	DESCRIPTION	QTY
2	POLYPHASER, TSX-NFF	2 EA.
7	LMR-195, N-MALE TO SMA-MALE, 5 FT	2 EA.
9	MIMO ANTENNA, BLACK, 15FT, AP-MMF-CC6-Q-S222-BL ANTENNA MOUNTING ARM, CSDA-30309-BKTANT1	1 EA.
11	VHF OMNI ANTENNA	1 EA.
12	LMR-200, N-MALE TO N-MALE, 3 FT	1 EA.
13	LMR-240, N-MALE TO BNC-MALE, 10 FT	1 EA.
14	VHF SURGE PROTECTOR N-FEMALE TO FEMALE	1 EA.
16	CAT 6 PATCH CABLE UTP, BOOTED, YELLOW, 20 FT	1 EA.
17	CAT 6 PATCH CABLE UTP, BOOTED, ORANGE, 20 FT	2 EA.
18	CAT 6 PATCH CABLE UTP, BOOTED, RED, X-OVER, 20 FT	1 EA.
20	DIGI-TRANSPORT TO CISCO CABLE, BLUE, 20 FT	3 EA.
21	CAT 6 STP ROLL-OVER PATCH CABLE, BLACK, 20 FT	1 EA.
23	DC PDU WITH 5 FUSED CIRCUITS	1 EA.
24	INDICATOR FUSE, ATO STYLE, 3 AMP	4 EA.
25	INDICATOR FUSE, ATO STYLE, 5 AMP	1 EA.
27	SERIAL CABLE, DB9M TO DB25M, STRAIGHT WIRED, 20 FT	1 EA.
28	DIGI-TRANPORT POWER CABLE, 4-PIN MOLEX TO OPEN END, 14 FT	1 EA.

NOTES:

1. WIRING TO BE #16 UNLESS NOTED.
2. CISCO IE2000 SWITCH OR EQUIVALENT.

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK

DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

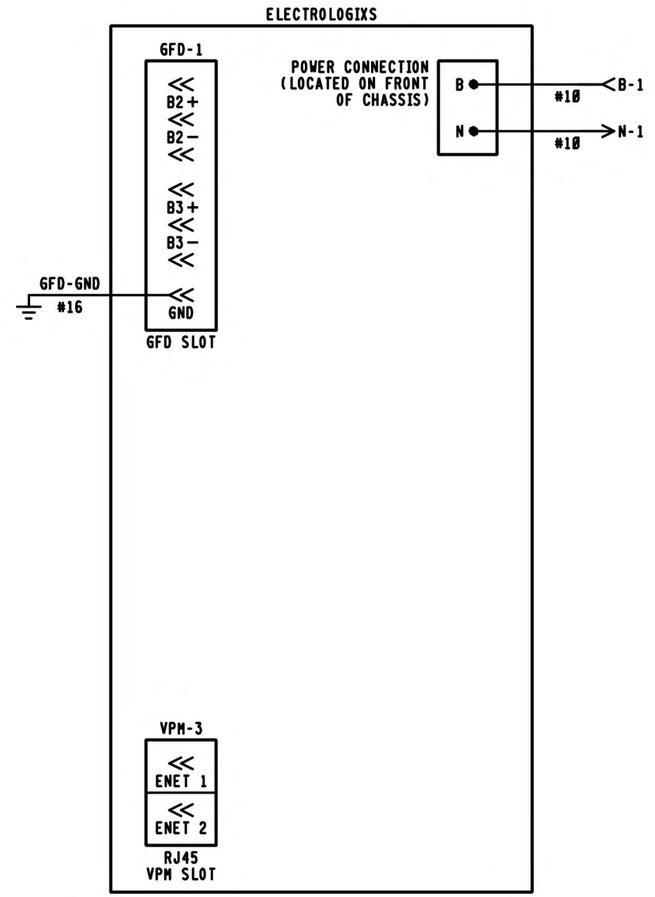
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &

CUT SECTION
CROSSING COMMUNICATIONS EQUIPMENT
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C10



PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK

DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

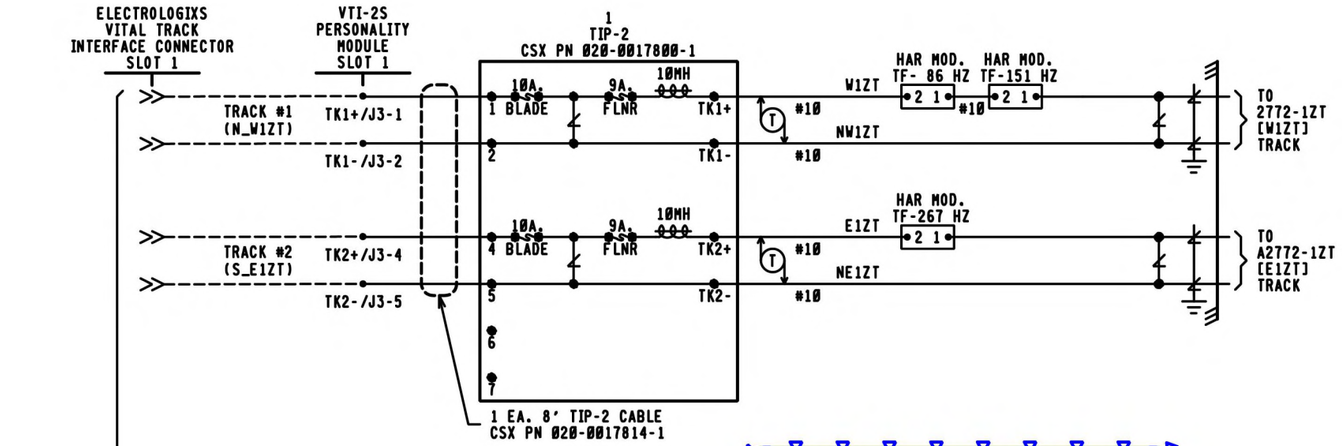
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &

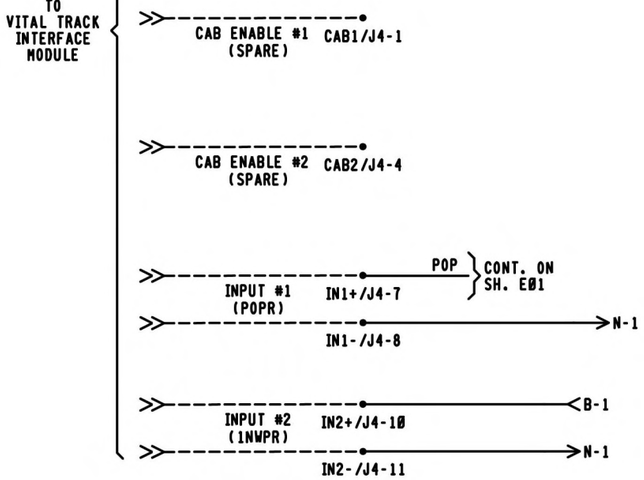
CUT SECTION
ELECTROLOGIXS CIRCUITS
DAWSON, PA M.P. BF-275.80

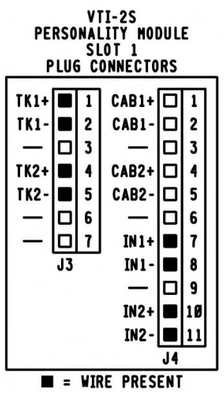
DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C11



THE ROUTING OF TRACK WIRES WITHIN THE BUNGALOW SHOULD BE AS SHORT AND DIRECT AS POSSIBLE, ESPECIALLY FOR THE LONGER TRACK CIRCUITS.





NOTES:

1. ---- = INTERNAL CONNECTION
2. [ ] = TAGGING PURPOSE ONLY
3. POK INPUT PROGRAM TO ACTIVATE CODE 10 ON BOTH TRACKS

TRACK 1

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK

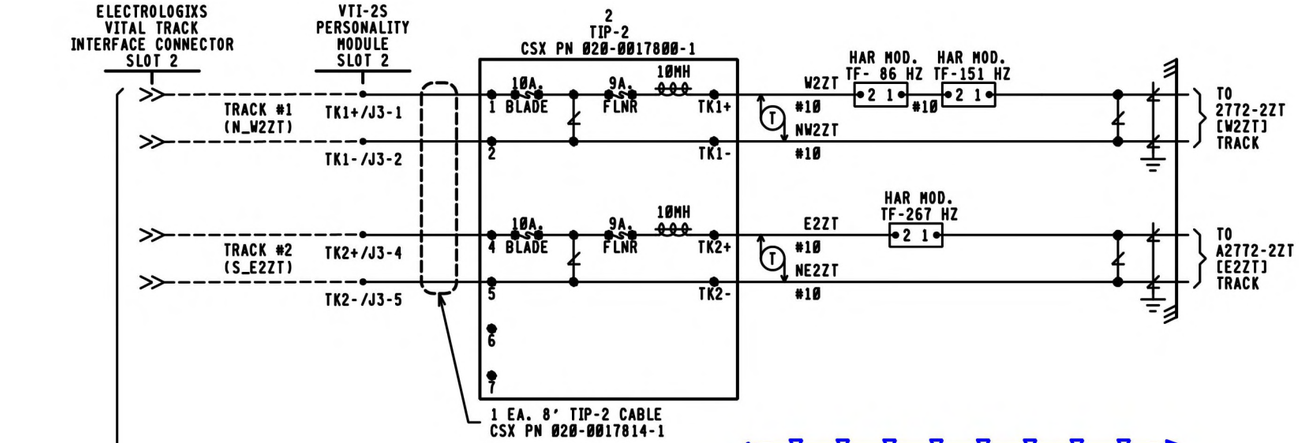
DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &
CUT SECTION
ELECTROLOGIXS TRACK CIRCUITS
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C12



THE ROUTING OF TRACK WIRES WITHIN THE BUNGALOW SHOULD BE AS SHORT AND DIRECT AS POSSIBLE, ESPECIALLY FOR THE LONGER TRACK CIRCUITS.

VTI-2S PERSONALITY MODULE SLOT 2 PLUG CONNECTORS

J3			J4	
TK1+	■	1	CAB1+	□ 1
TK1-	■	2	CAB1-	□ 2
—	□	3	—	□ 3
TK2+	■	4	CAB2+	□ 4
TK2-	■	5	CAB2-	□ 5
—	□	6	—	□ 6
—	□	7	IN1+	□ 7
			IN1-	□ 8
			—	□ 9
			IN2+	■ 10
			IN2-	■ 11

■ = WIRE PRESENT

NOTES:
1. ---- = INTERNAL CONNECTION
2. [ ] = TAGGING PURPOSE ONLY

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE:04-23-25
CSX#:PA2023021
PRS/AMJ/SAF

TRACK 2

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

GALLEY ST. 145457W &
CUT SECTION
ELECTROLOGIXS TRACK CIRCUITS
DAWSON, PA M.P. BF-275.80

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27580	C13

R.R. WEST TO WEST PITTSBURGH

5126+57 ℄

(DAX) 3296 FT. — 60 FT. — 60 FT. — 2384 FT.
(DAX) 3296 FT. — 60 FT. — 60 FT. — 2384 FT.

N E W

NW NE SW SE

BUILDING

SIDEWALK

CSX R.O.W.

9'-6" 9'-6" 19'-0" 4'-0" 26'-9" (EOP/EOT) RAILROAD ST. (EOP/EOT)

(#1 MAIN)

12'-6"

(#2 MAIN)

20'-9" 17'-6"

U.G. WATER (N FAYETTE COUNTY)

CSX R.O.W.

O.H. POWER (WEST PENN) (24'-0" V.O.H.C. 1ST)

O.H. POWER (WEST PENN) (18'-0" V.O.H.C. 1ST) (+1'-0" V.O.H.C. 2ND)

12'-0" 12'-0" 24'-0"

(EOP/EOT) MAIN ST. (EOP/EOT)

4'-0" SIDEWALK

O.H. POWER (WEST PENN) (25'-0" V.O.H.C. 1ST) (+5'-0" V.O.H.C. 2ND)

RAILROAD ST.

(EOP/EOT) 24'-0" 12'-0" 12'-0" (EOP/EOT)

NOTE 1

50'-0"

NEW 6'X6' HOUSE

90°

18'-0"

20' CANT 8'-3"

12'-0"

26'-9"

(#1 MAIN)

12'-6"

(#2 MAIN)

16'-0" 8'-3" 12'-0"

20'-9"

CSX R.O.W.

O.H. POWER (WEST PENN) (17'-0" V.O.H.C. 1ST) (+1'-0" V.O.H.C. 2ND) (+4'-0" V.O.H.C. 3RD)

O.H. POWER (WEST PENN)

BUILDING

GRAVEL DRIVEWAY

BUILDING

NOTES:
1. RELOCATE UTILITY POLE.

A-2024-3049275

CERTIFIED CORRECT PLANS
Professional Engineer
Approved by Bureau of Technical Utility Services
PA PUBLIC UTILITY COMMISSION
ATTEST Secretary

✳AUTHORIZING AGENCY, NONE
✳DATE OF REQUIREMENT, NONE
✳AMOUNT OF TIME (SEC.), NONE

APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	EASTBOUND MAIN 1 & 2 CWT	WESTBOUND MAIN 1 & 2 CWT
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25
ROADWAY GATE TIME IN SECONDS	0	0
CLEARANCE TIME IN SECONDS	1	1
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS✳	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	26 SEC.	26 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS ✳	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	4	4
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED	30 SEC.	30 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	50	50
BUFFER SPEED IN MILES PER HOUR	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	55	55
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2384	2384
HALF WIDTH OF ISLAND IN FEET	60	60
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.13	275.21

FILE NAME, BF27567.H01	REVISION DATES
DATE DRAWN, 01-27-25	02-27-25
DRAWN BY, JMD	05-20-25
CHECKED BY, SAF	- -
PRS #, 34P004256	- -

PRODUCED FOR, CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS

PRODUCED BY, PROGRESS RAIL SERVICES, A Caterpillar Company

LEGEND,			
CSX ROW	O.H. POWER	GUARD RAIL	METER SERVICE Ⓜ
R/R POLELINE	FENCE	POLE Ⓟ	FIRE PLUG Ⓕ
GAS	WATER	SEWER CAP Ⓢ	GPS COORDINATES
FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-275.67

GPS COORDINATES	N40°02'46" W79°39'20"
STREET NAME, MAIN ST.	
CITY & STATE, DAWSON, (FAYETTE), PA	
DOT, 145454B	
PROJECT #, PA2023021	
OP #, PA0466	

PROPOSED CROSSING LAYOUT
SCALE = 20,1

R.R. WEST TO WEST PITTSBURGH

5126+57
℄

N
W
E

NW
NE
SW
SE

BUILDING
BUILDING
SIDEWALK
4'-0" SIDEWALK

12'-0" 12'-0"
24'-0"
(EOP/EOT)
MAIN ST.

O.H. POWER
(WEST PENN)
(25'-0" V.O.H.C. 1ST)
(+5'-0" V.O.H.C. 2ND)

RAILROAD ST.
(EOP/EOT)
24'-0"
12'-0"
12'-0"
(EOP/EOT)

CSX R.O.W.
CSX R.O.W.

O.H. POWER
(WEST PENN)
(24'-0" V.O.H.C. 1ST)

9'-6"
9'-6"
19'-0"
4'-0"
26'-9"
(EOP/EOT)
RAILROAD ST.
(EOP/EOT)

Ⓟ Ⓕ
CROSSBUCK
90°

26'-9"

(#1 MAIN)
(#1 MAIN)

12'-6"
(#2 MAIN)
12'-6"
(#2 MAIN)

20'-9"
17'-6"
Ⓟ

16'-0"

CROSSBUCK

20'-9"

Ⓟ O.H. POWER
(WEST PENN)
(18'-0" V.O.H.C. 1ST)
(+1'-0" V.O.H.C. 2ND)

Ⓟ Ⓟ O.H. POWER
(WEST PENN)
(17'-0" V.O.H.C. 1ST)
(+1'-0" V.O.H.C. 2ND)
(+4'-0" V.O.H.C. 3RD)

Ⓟ O.H. POWER
(WEST PENN)

CSX R.O.W.
U.G. WATER (N FAYETTE COUNTY)
CSX R.O.W.

BUILDING
GRAVEL DRIVEWAY
BUILDING

FILE NAME: BF27567.H02	REVISION DATES	PRODUCED FOR:	PRODUCED BY:	LEGEND:	GUARD RAIL	METER SERVICE Ⓜ	GPS COORDINATES	STREET NAME: MAIN ST.
DATE DRAWN: 01-22-25	02-27-25	CSX TRANSPORTATION	PROGRESS RAIL SERVICES	CSX ROW	O.H. POWER	POLE Ⓟ	N40°02'46"	CITY & STATE: DAWSON, (FAYETTE), PA
DRAWN BY: JMD	- -	RAIL TRANSPORT GROUP ENGINEERING	A Caterpillar Company	R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'20"	DOT: 145454B
CHECKED BY: SAF	- -	COMMUNICATIONS AND SIGNALS		GAS	WATER	SEWER CAP Ⓢ	ELEV. 851'	PROJECT #: PA2023021
PRS #: 34P004256	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-275.67	OP #: PA0466

EXISTING CROSSING LAYOUT
SCALE = 20:1

R.R. WEST TO WEST PITTSBURGH

N E W

(BOTH TRACKS)
276.2
P-40MPH F-35MPH | P-30MPH F-30MPH

BF 276

SR 819
(LAUGHLIN ST.)
START

SR 1041
(RIVER RD.)
START

(BOTH TRACKS)
275.7
P-30MPH F-30MPH | P-50MPH F-45MPH

SR 819
(LAUGHLIN ST.)
START

SR 1041
(RIVER RD.)
START

DEFECT DETECTOR
M.P. BF-275.30
6'X6' HOUSE
BF27530

8'X8'
COMM.
HOUSE

6'X6'
HOUSE

122# CWR
(#1 MAIN)

136# CWR
(#2 MAIN)

NBS 522HZ

NBS 979HZ

25 CWU-1

25 CWU-2

87 CWU-1

87 CWU-2

6'-9"
CASE

DD

6'X6'
DD HOUSE

SR 1041
(RIVER RD.)
DOT# 145463A
M.P. 276.25
CFG
PMD-3R2
#1 MAIN-25CWU-1-522 HZ/8.0-KHZ RSI
#2 MAIN-25CWU-2-522 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27625

STAUFFER ST.
DOT# 145462T
M.P. 276.00
XB

SR 819
(LAUGHLIN ST.)
DOT# 145459K
M.P. 275.87
F
PMD-3R2
#1 MAIN-87CWU-1-979 HZ/8.0-KHZ RSI
#2 MAIN-87CWU-2-979 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27587

GALLEY ST.
DOT# 145457W
M.P. 275.80
XB

MAIN ST.
DOT# 145454B
M.P. 275.67
XB

E.O.S. 5190'

SR 1041 (RIVER RD.) START 4995'

BRIDGE 3130'

BRIDGE 3081'

ISL 3051'

2988'

HOUSE 2940'
ISL 2925'

METER 2890'

SPEED CHANGE 2723'

SR 819 (LAUGHLIN ST.) START 2287'

1690'

MILE POST 1667'

CASE 1129'
ISL 1084'

1014'

METER 996'

SR 1041 (RIVER RD.) START 965'

ISL 956'

678'

0'

SPEED CHANGE 173'
COMM. HOUSE 188'

METER 251'

SR 819 (LAUGHLIN ST.) START 413'
WHISTLE POSTS 1330'

DD 2459'
HOUSE 2488'
DD 2505'

METER 2528'

STEP-DOWN TRANSFORMER 2538'

BRIDGE 2950'

BRIDGE 2996'

E.O.S. 3910'

FILE NAME, BF27567.H03	REVISION DATES	PRODUCED FOR, CSX TRANSPORTATION RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS	PRODUCED BY, PROGRESS RAIL SERVICES A Caterpillar Company	LEGEND,	GUARD RAIL	METER SERVICE ⊗	GPS COORDINATES	STREET NAME, MAIN ST.	
DATE DRAWN, 01-22-25	- -			CSX ROW	O.H. POWER	POLE Ⓟ	N40°02'46"	CITY & STATE, DAWSON, (FAYETTE), PA	
DRAWN BY, JMD	- -			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'20"	DOT, 145454B	EXISTING TRACK LAYOUT
CHECKED BY, SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 851'	PROJECT #, PA2023021	
PRS #, 34P004256	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-275.67	OP #, PA0466	

R.R. WEST TO WEST PITTSBURGH

N E W

(BOTH TRACKS)
276.2
P-40MPH F-35MPH | P-30MPH F-30MPH

BF 276

DESIGN AGAINST
PA2019559
PA2019555

(BOTH TRACKS)
275.7
P-30MPH F-30MPH | P-50MPH F-45MPH

MAIN ST. (DAX) START
GALLEY ST. START
STAUFFER ST. START
SR 1041 (RIVER RD.) START
SR 819 (LAUGHLIN ST.) START

SR 1041 (RIVER RD.) (DAX) START
STAUFFER ST. (DAX) START
SR 819 (LAUGHLIN ST.) (DAX) START
GALLEY ST. START
MAIN ST. START

CUT SECTION
M.P. BF-275.80
8'X8' HOUSE
ELECTROLOGIXS
DWG# BF27580

(4) NEW IJ'S REQUIRED

3C#6 W/GND
8'X8' COMM. HOUSE

DEFECT DETECTOR
M.P. BF-275.30
6'X6' HOUSE
BF27530

5C#14
6'X6' HOUSE

SR 819 (LAUGHLIN ST.)
DOT# 145459K
M.P. 275.87
(FG)
XP4
#1 MAIN-87CWU-1-267 HZ/5.4-KHZ RSI
#2 MAIN-87CWU-2-267 HZ/5.4-KHZ RSI
RECORDER
DWG# BF27587

122# CWR (#1 MAIN) — NBS 151HZ | NBS 392HZ | NBS 267HZ | NBS 86HZ
136# CWR (#2 MAIN) — NBS 151HZ | NBS 392HZ | NBS 267HZ | NBS 86HZ

25 CWU-1
25 CWU-2
00 CWU-1
00 CWU-2
87 CWU-1
87 CWU-2
80-1 CWU-1
80-1 CWU-2
80-2 CWU-1
80-2 CWU-2
67 CWU-1
67 CWU-2

NBS/DTL 86HZ
NBS/DTL 151HZ
NBS/DTL 392HZ
NBS/DTL 267HZ

NBS 267HZ | NBS 392HZ DD

12C#14
19C#14
6'X6' HOUSE
8'X8' HOUSE
6'X6' DD HOUSE

SR 1041 (RIVER RD.)
DOT# 145463A
M.P. 276.25
(CFG)
XP4
#1 MAIN-25CWU-1-151 HZ/8.0-KHZ RSI
#2 MAIN-25CWU-2-151 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27625

STAUFFER ST.
DOT# 145462T
M.P. 276.00
(FG)
XP4
#1 MAIN-00CWU-1-392 HZ/4.0-KHZ RSI
#2 MAIN-00CWU-2-392 HZ/4.0-KHZ RSI
RECORDER
DWG# BF27600

GALLEY ST.
DOT# 145457W
M.P. 275.80
F
XP4
#1 MAIN-80-1CWU-1-86 HZ/7.1-KHZ RSI
#2 MAIN-80-1CWU-2-86 HZ/7.1-KHZ RSI
#1 MAIN-80-2CWU-1-267 HZ
#2 MAIN-80-2CWU-2-267 HZ
RECORDER
DWG# BF27580

MAIN ST.
DOT# 145454B
M.P. 275.67
F
XP4
#1 MAIN-67CWU-1-392 HZ/8.0-KHZ RSI
#2 MAIN-67CWU-2-392 HZ/8.0-KHZ RSI
RECORDER
DWG# BF27567

SR 1041 (RIVER RD.) START 6110'
E.O.S. 5190'
STAUFFER ST. START 4149'
SR 819 (LAUGHLIN ST.) START 3613'
MAIN ST./GALLEY ST. START 3345'
BRIDGE 3130'
BRIDGE 3081'
ISL 3051'
2988'
HOUSE 2940'
ISL 2925'
METER 2890'
SPEED CHANGE 2723'
ISL 1758'
1690'
MILE POST 1667'
HOUSE 1655'
ISL 1622'
METER 1588'
HOUSE 1097'
ISL 1083'
1014'
METER 990'
ISL 945'
ISL 741'
678'
DTL/NBS/IJ/ISL 615'
HOUSE 612'
METER 600'
ISL 60'
0'
ISL 60'
HOUSE 73'
SPEED CHANGE COMM. HOUSE 173'
188'
METER 251'
WHISTLE POSTS 1330'
SR 1041 (RIVER RD.)/STAUFFER ST./SR 819 (LAUGHLIN ST.)/GALLEY ST. START 1989'
MAIN ST. START 2444'
DD 2459'
HOUSE 2488'
DD 2505'
METER 2528'
STEP-DOWN TRANSFORMER 2538'
BRIDGE 2950'
BRIDGE 2996'
E.O.S. 3910'

FILE NAME: BF27567.H04	REVISION DATES	PRODUCED FOR: CSX TRANSPORTATION RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS	PRODUCED BY: PROGRESS RAIL SERVICES A Caterpillar Company	LEGEND:	GUARD RAIL	METER SERVICE Ⓜ	GPS COORDINATES	STREET NAME: MAIN ST.	
DATE DRAWN: 01-22-25	02-27-25			CSX ROW	O.H. POWER	POLE Ⓟ	N40°02'46"	CITY & STATE: DAWSON, (FAYETTE), PA	
DRAWN BY: JMD	04-23-25			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'20"	DOT: 145454B	PROPOSED TRACK LAYOUT
CHECKED BY: SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 851'	PROJECT #: PA2023021	
PRS #: 34P004256	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-275.67	OP #: PA0466	

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⊠ = DESIGN COMPLETED

⊠ = REVISION COMPLETED

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK

DATE.04-23-25
CSX#.PA2023021
PRS/AMJ/SAF

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2023021	04-23-25		

TO BE COMPLETED ON A.I.S.

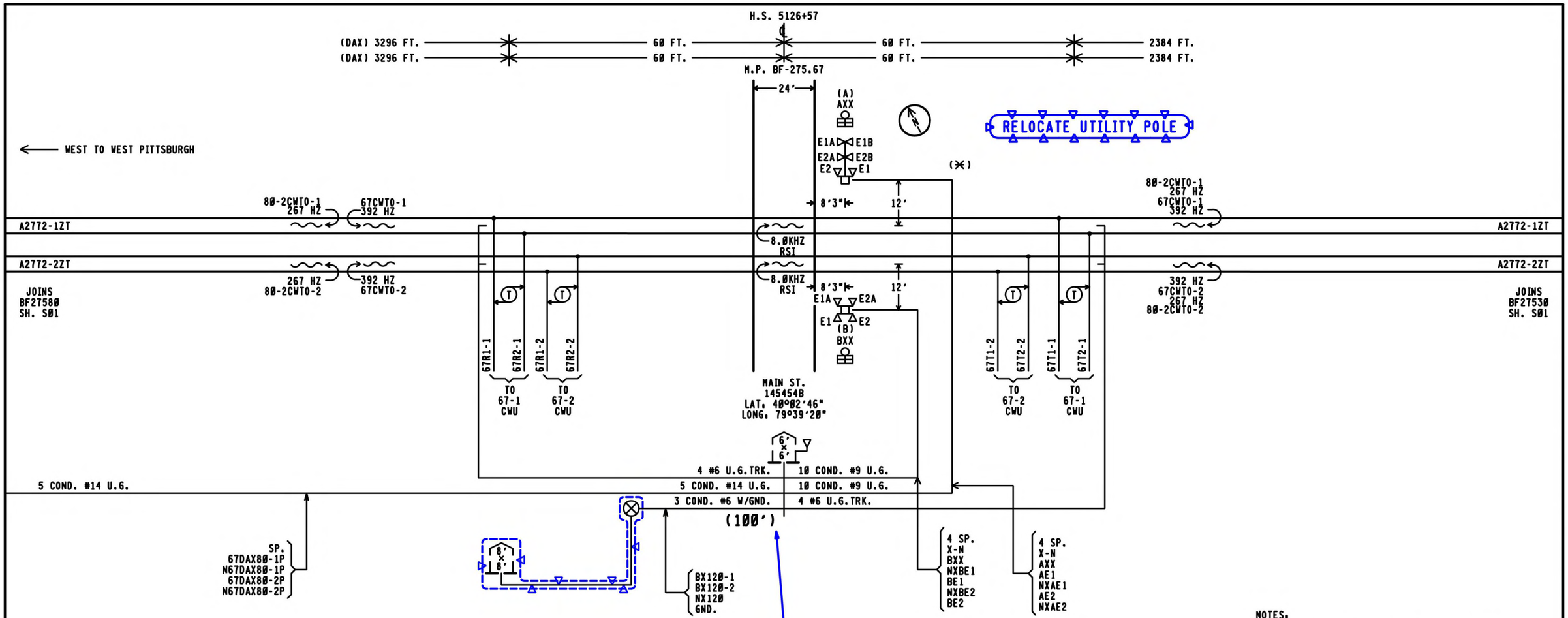
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

MAIN ST. 145454B

INDEX AND REVISIONS
DAWSON, PA M.P. BF-275.67

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27567	I01



APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	EASTBOUND TRACK 1 CWT	WESTBOUND TRACK 1 CWT	EASTBOUND TRACK 2 CWT	WESTBOUND TRACK 2 CWT
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25	25	25
ROADWAY GATE TIME IN SECONDS	0	0	0	0
CLEARANCE TIME IN SECONDS	1	1	1	1
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS *	0	0	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	26 SEC.	26 SEC.	26 SEC.	26 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS *	0	0	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	4	4	4	4
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED	30 SEC.	30 SEC.	30 SEC.	30 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	50	50	50	50
BUFFER SPEED IN MILES PER HOUR	5	5	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	55	55	55	55
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2384	2384	2384	2384
HALF WIDTH OF ISLAND IN FEET	60	60	60	60
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.13	275.21	276.13	275.21

*AUTHORIZING AGENCY. NONE
*DATE OF REQUIREMENT. NONE
*AMOUNT OF TIME (SEC.). NONE

FIELD NOTE: FIELD TO SHOW ACTUAL DISTANCE BETWEEN METER POLE & BUNGALOW AND INDICATE ON A.I.S.

FOR AMPERAGES OF 15 AMPS OR LESS PER LEG USE THE FOLLOWING POWER CABLE DESIGN GUIDELINES

3 COND. #6 W/GND. (5% VD) X ≤ 402'
3 COND. #4 W/GND. (5% VD) 403' < X ≤ 618'
*3 COND. #2 W/GND. (10% VD) 619' < X ≤ 1,856'

*GREATER THAN 1,856' CABLE RUN CALCULATE ACTUAL CABLE SIZE REQUIREMENTS PER SS360.

= EXISTING

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE: 04-23-25
CSX#: PA2023021
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NOTES:

1. 12" LED MAXIMUM CURRENT 1.0A AT 10 VOLTS LED GATE ARM LIGHTS .3A MAXIMUM
2. (X) = LOCATION OF HOUSE
3. (N) = APPROXIMATE COMPASS NORTH.
4. TRANSMITTER LEADS FOR MOTION OR PREDICTOR EQUIPMENT SHOULD BE CONNECTED ON THE BUNGALOW OR SHORT LEAD SIDE OF THE CROSSING.
5. ISLAND TRACK LEADS SHOULD BE CONNECTED 50 FEET FROM ROAD EDGE BUT ON NARROW ROADS (20' OR LESS) ISLAND LENGTH SHALL BE 120 FEET.
6. WARNING SYSTEM APPROACH CIRCUIT DISTANCES ARE TO BE MEASURED FROM THE ISLAND TRACK CONNECTIONS.

CSX TRANSPORTATION
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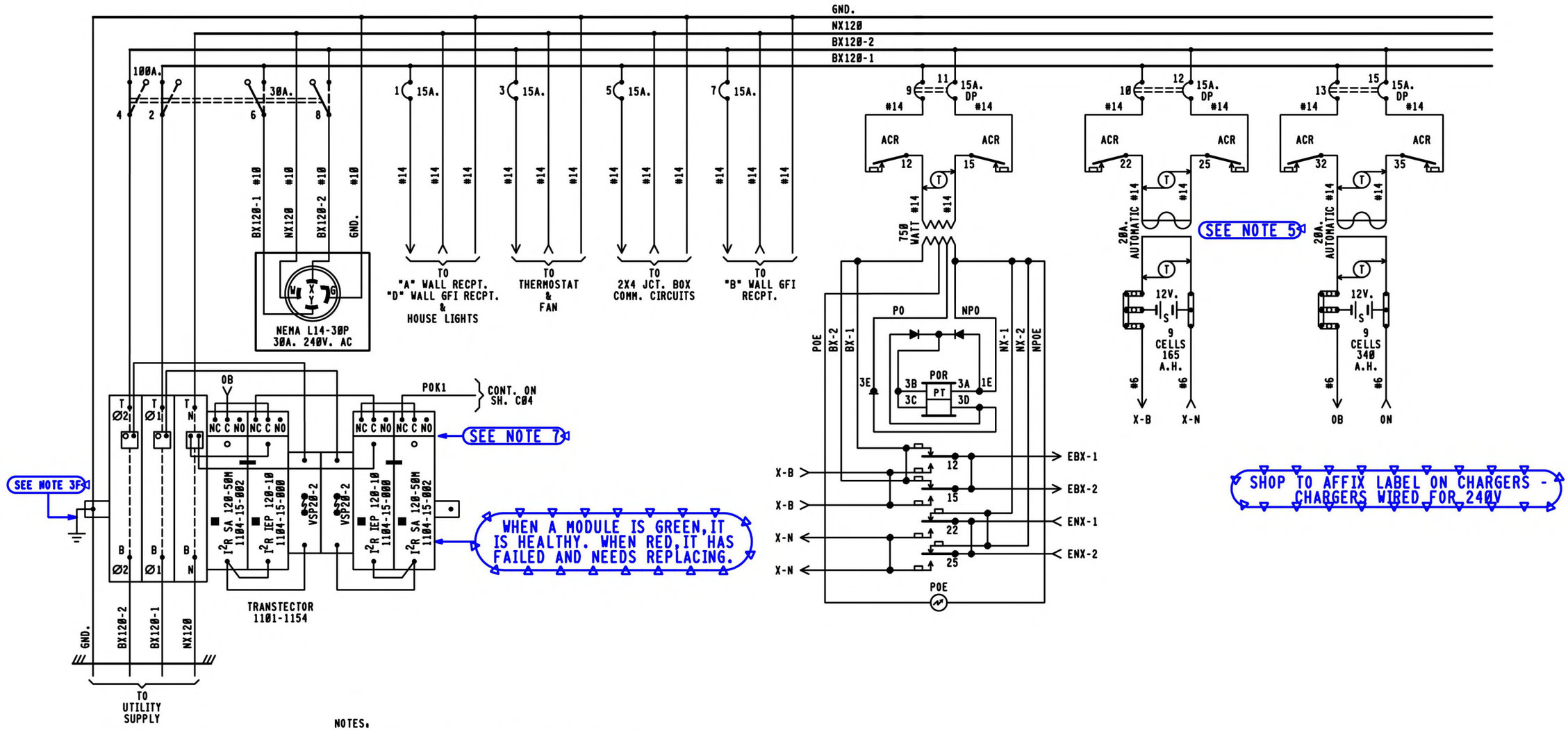
TRACK AND SIGNAL PLAN
DAWSON, PA M.P. BF-275.67

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27567	S01



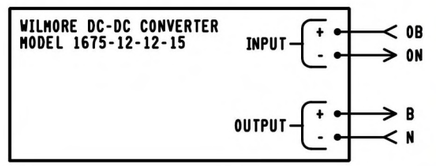
BX120-1	BX120-2
11.1 AMPS	11.1 AMPS

MAXIMUM LOAD CALCULATED PER SS360

NOTES:

1 - ARRESTERS ARE PER SS382.
2 - BATTERY A.H. CAPACITY SHOWN IS THE MINIMUM REQUIREMENT.
3 - WIRING
- A - FEED TO ALL BUSSES, LIGHT CIRCUITS, MOTOR CIRCUITS TO BE #10 FLEX.
- B - 120-VOLT FEED FROM ENTRANCE TO POWER BUSS TO BE #10 FLEX.
- C - ALL TRACK WIRES TO BE #10 FLEX.
- D - ALL OTHERS TO BE #16 FLEX UNLESS NOTED.
- E - ALL BATTERY OUTPUTS TO BE #6 PER SS360.
- F - GROUND WIRE NOT NECESSARY WHEN SURGE SUPPRESSOR IS MOUNTED ON GROUND PLANE OR METAL ENCLOSURE AFFIXED DIRECTLY TO BUNGALOW METALLIC STRUCTURAL MEMBER.

4 - CIRCUIT INTERRUPTERS 2 & 4 ARE MECHANICALLY INTERLOCKED WITH CIRCUIT INTERRUPTERS 6 & 8.
5 - CHARGERS WIRED FOR 240VAC
6 - CIRCUIT BREAKERS PANEL- QO124L1256 (24 SPACES)
7 - FORM C DRY CONTACTS MOUNTED ON TOP OF TRANSTECTOR WIRED TO ALERT A POK INDICATION WHEN A MODULE IS NOT HEALTHY.



= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE: 04-23-25
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PRS/AMJ/SAF

6'X 6' PTC RELAY HOUSE

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
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MAIN ST. 145454B

POWER DISTRIBUTION
DAWSON, PA M.P. BF-275.67

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27567	E01

TOP ROW

XR				EOR			67DAX8Ø-1PR			67DAX8Ø-2PR			POR				ACR				
12	B			12	FB		12			12			12	FB			12	B			
15	B	B82		15	FB	B81	15		B8	15		B8	15	FB	B62		15	B	B77		
22	B	C3Ø		32	FB	C3Ø	22		C3Ø	22		C3Ø	22	FB	C3Ø		22	B	C3Ø		
23				35	FB		23	F		23	F		25	FB			25	B			
25	B						25	F		25	F		32	F			32	B			
32	F						32			32			35				35	B			
35	B						35	F		35	F										

NOTES:
1 - REFERENCES ARE PER SS713.
2 - RELAY PLACEMENT ON CONSIST CHART HAS NO SIGNIFICANCE.
3 - PLUG-IN RELAYS ARE VIEWED FROM THE FRONT OF RACK.

6'X 6' PTC RELAY HOUSE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE:Ø4-23-25
CSX#:PA2Ø23Ø21
PRS/AMJ/SAF

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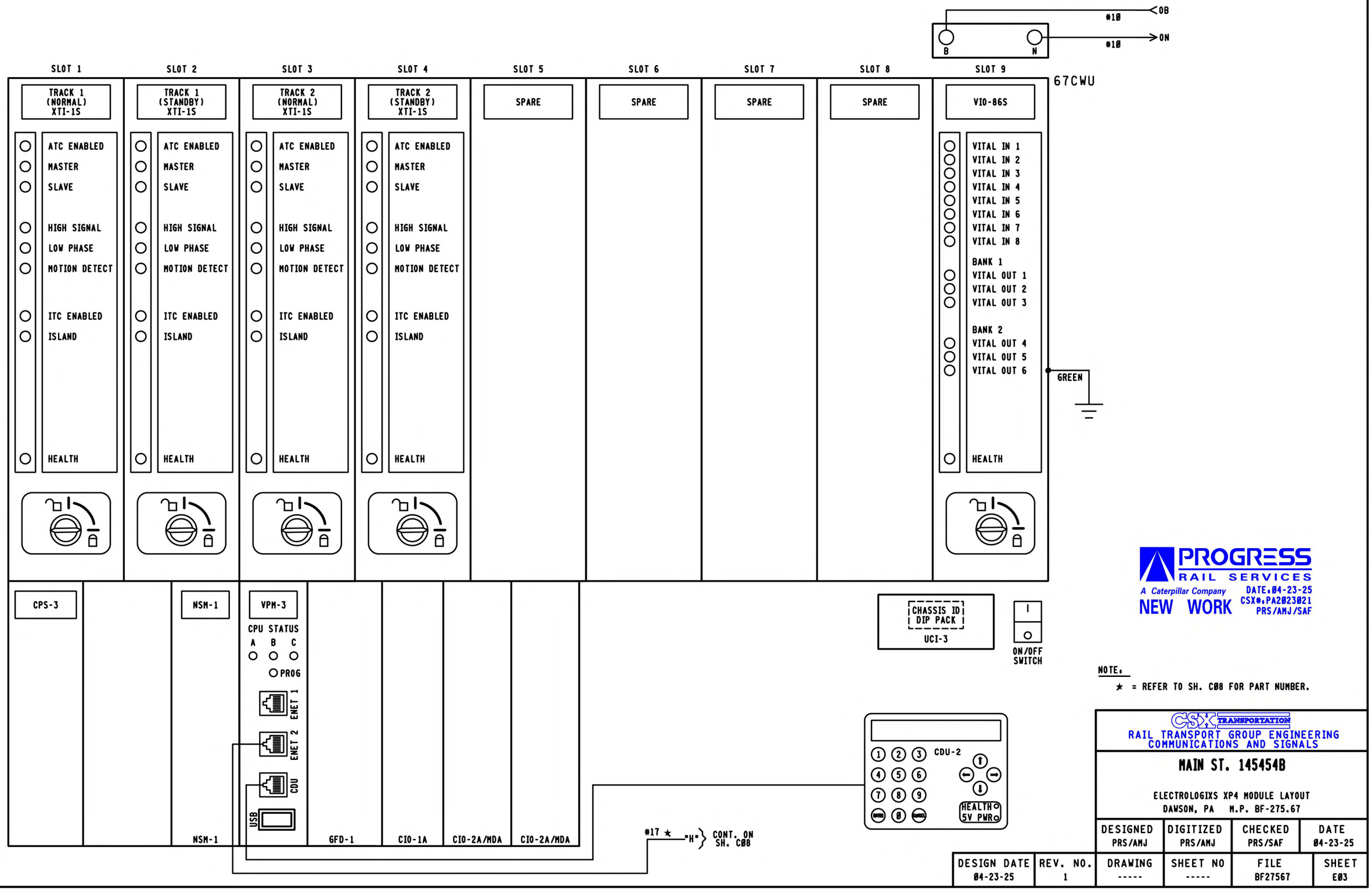
RELAY CONSIST
DAWSON, PA M.P. BF-275.67

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	Ø4-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
Ø4-23-25	1	-----	-----	BF27567	EØ2



PROGRESS RAIL SERVICES
A Caterpillar Company
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CSX#:PA2023021
PRS/AMJ/SAF

NOTE:
★ = REFER TO SH. C08 FOR PART NUMBER.

CSX TRANSPORTATION
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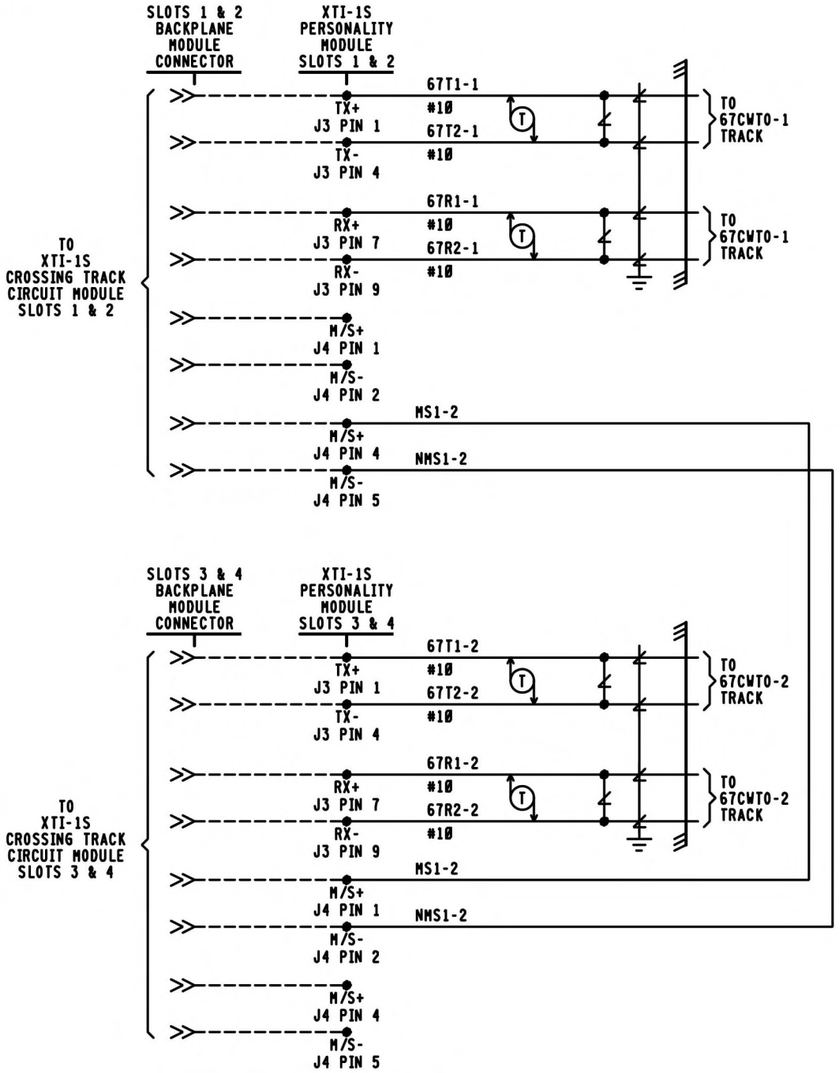
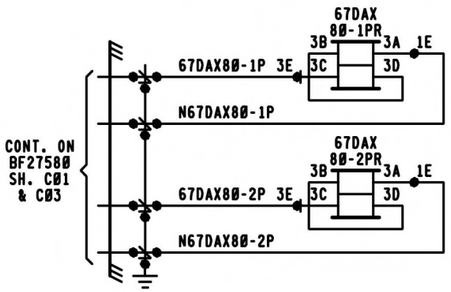
MAIN ST. 145454B

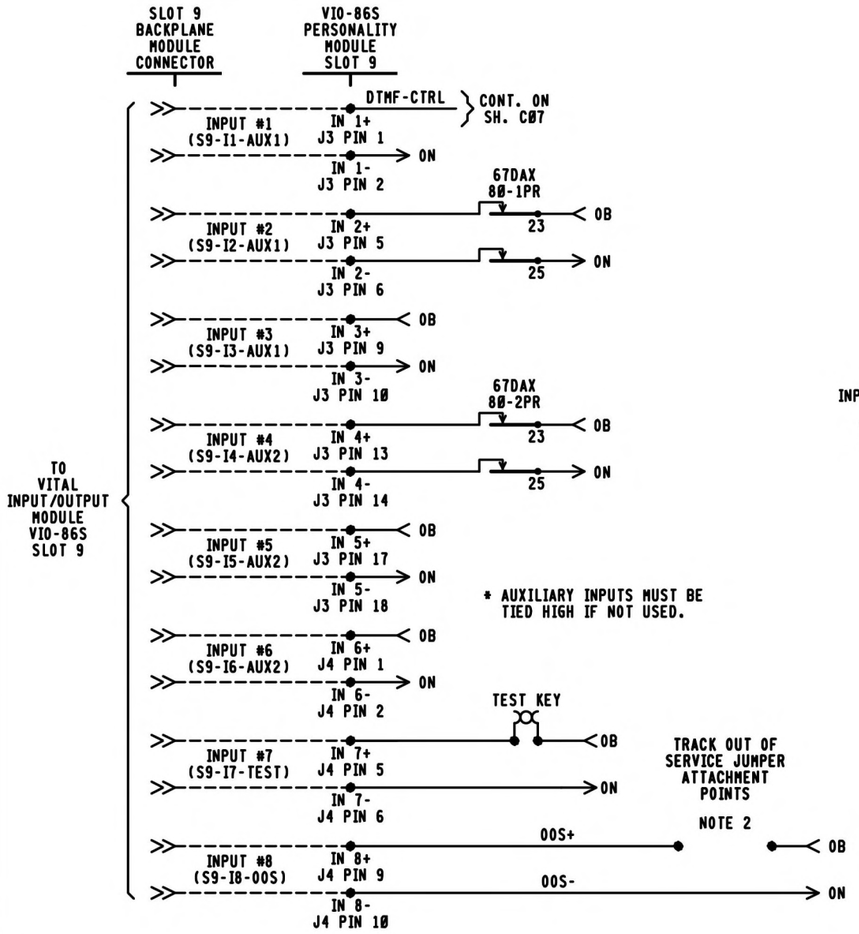
ELECTROLOGIXS XP4 MODULE LAYOUT
DAWSON, PA M.P. BF-275.67

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

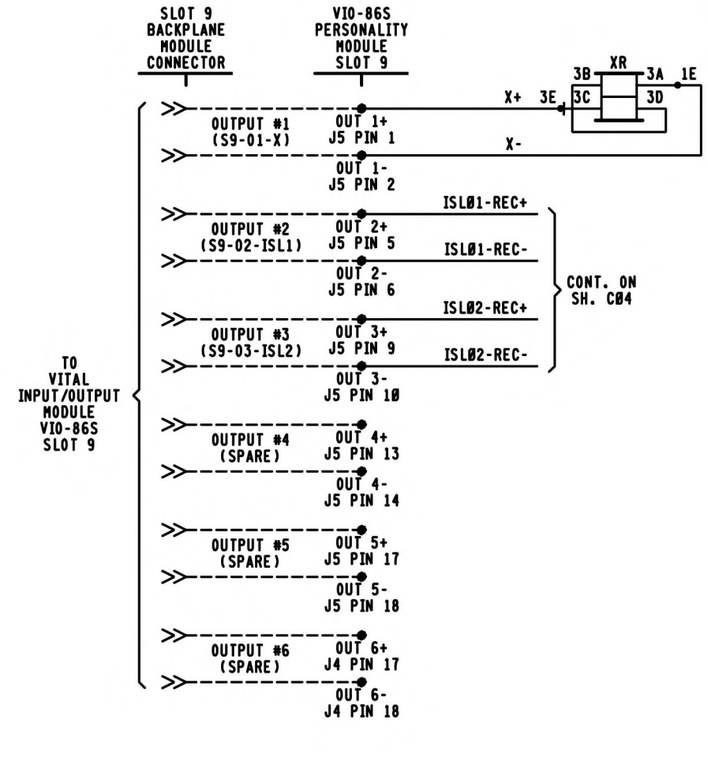
DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27567	E03







* AUXILIARY INPUTS MUST BE TIED HIGH IF NOT USED.



SLOT 9 I/O	
INPUT 1	POSITIVE CONTROL AUXILIARY INPUT 1 (AUX1)
INPUT 2	POSITIVE CONTROL AUXILIARY INPUT 2 (AUX1)
INPUT 3	POSITIVE CONTROL AUXILIARY INPUT 3 (AUX1)
INPUT 4	POSITIVE CONTROL AUXILIARY INPUT 4 (AUX2)
INPUT 5	POSITIVE CONTROL AUXILIARY INPUT 5 (AUX2)
INPUT 6	POSITIVE CONTROL AUXILIARY INPUT 6 (AUX2)
INPUT 7	CROSSING ACTIVATION TEST
INPUT 8	OUT OF SERVICE JUMPER INPUT (00S)
OUTPUT 1	X OUTPUT
OUTPUT 2	ISL01 OUTPUT
OUTPUT 3	ISL02 OUTPUT
OUTPUT 4	(NOT USED)
OUTPUT 5	(NOT USED)
OUTPUT 6	(NOT USED)

NOTES
1. ALL WIRE THIS SHEET #16 AWG UNLESS NOTED.
2. APPROACH DISABLE JUMPER INPUT. THIS INPUT IS USED IN COMBINATION WITH THE SOFT APPROACH DISABLE ACCESSED THROUGH THE CDU-2 KEYPAD. BOTH BITS MUST BE HIGH TO DISABLE AN APPROACH. THE OPERATOR IS SOLELY RESPONSIBLE FOR CROSSING PROTECTION WHEN THE APPROACH DISABLE FUNCTION IS ACTIVATED.
3. ●⁄● = HLVA2-1675-01 HYBRID LOW VOLTAGE ARRESTER, UNLESS NOTED.

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XP4 CROSSING DETECTION AND I/O CIRCUITS
DAWSON, PA M.P. BF-275.67

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SITE SPECIFIC MDR DESCRIPTIONS AND SETTINGS			
NAME		MDR1	MDR2
FUNCTION		XR	XR
WARNING TIME		26	26
CW/MD		CW	CW
AP TIME(PREEMPT)		NA	NA
CWE-WT		80	80
AUX RECOVERY DELAY		5	5
TRACK		TK 1	TK 2
TRACK ASSIGNED		ASSIGNED	ASSIGNED
OFFSET DISTANCE		0'	0'
MD RESTART		0*	0*
SUDDEN SHUNT ZONE		0*	0*
POSITIVE START	PSEN	DISABLE	DISABLE
	PSRX	NA	NA
	PST	NA	NA
POST JOINT DETECT	PJEN	ENABLE	ENABLE
	PJRX	15	15
	PJDT	15	15
CLEAR JOINT LOS	CJ-LOS MODE	STANDARD	STANDARD
	CJ-LOS RX	15	15
	CJ-LOS TIME	99	99

BASIC TRACK SETUP		
	TRACK 1	TRACK 2
FREQUENCY	392 HZ	392 HZ
MASTER/SLAVE	MASTER	SLAVE
RX ADJUST	100 *	100 *
TCA	*	*
DIRECTION MODE	BI	BI
LIA	*	*
ADVANCED APPROACH	*	*
NBS COMP RX	*	*
TRK ISLAND ASSIGN	ISL1	ISL2
APPROACH LENGTH	2384'	2384'
AUTO RX	ENABLE	ENABLE

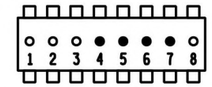
ADVANCED TRACK SETUP			
		TRACK 1	TRACK 2
MOTION DET TIMER	MDEN	ENABLE	ENABLE
	MDTT	10 MIN	10 MIN
FALSE SHUNT	FSEN	DISABLE	DISABLE
	FSRX	NA	NA
	FST	NA	NA
APPROACH RELEASE	AREN	DISABLE	DISABLE
	ARRX	NA	NA
	ART	NA	NA
LOS TIME		16 SEC	16 SEC
IJ-LOS TIME		5 SEC	5 SEC
NRML*SHRT*VRYSHRT		*	*

ISLAND SETUP		
	TRACK 1	TRACK 2
ENABLE/DISABLE	ENABLE	ENABLE
FREQUENCY	8.0 KHZ	8.0 KHZ
LOSS OF SHUNT	2 SEC.	2 SEC.
FAULT DELAY	2	2

VPM3 ETHERNET SETUP	
	IP ADDRESS
ETHERNET PORT 1 (TOP)	192.168.0.11
ETHERNET PORT 2 (BOTTOM)	192.168.1.12

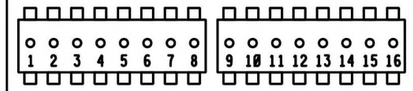
APPLICATION SOFTWARE INFORMATION	
NAME	9XXS-2.01V
REV.	1.0
CHECKSUM	E49B
CRC	FF9E
CH. I.D.	225

CHASSIS ID DIP SHUNTS
LOCATED ON BACKPLANE
UNDERNEATH UCI-3 MODULE



○ = TAB INTACT (MADE)
● = TAB PUNCHED OUT (BROKEN)

VITAL SELECTION DIP SHUNTS
LOCATED INSIDE UCI-3 MODULE
UNDERNEATH EPROM



○ = TAB INTACT (MADE)
● = TAB PUNCHED OUT (BROKEN)

VITAL SELECTION DIP SHUNTS		
#	NAME	STATE
1	NA	INTACT (NOT USED)
2	NA	INTACT (NOT USED)
3	NA	INTACT (NOT USED)
4	NA	INTACT (NOT USED)
5	NA	INTACT (NOT USED)
6	NA	INTACT (NOT USED)
7	NA	INTACT (NOT USED)
8	NA	INTACT (NOT USED)
9	NA	INTACT (NOT USED)
10	NA	INTACT (NOT USED)
11	NA	INTACT (NOT USED)
12	NA	INTACT (NOT USED)
13	NA	INTACT (NOT USED)
14	NA	INTACT (NOT USED)
15	NA	INTACT (NOT USED)
16	NA	INTACT (NOT USED)

NOTES:
* = FIELD ADJUSTMENT
NA = NOT APPLICABLE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
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RAIL TRANSPORT GROUP ENGINEERING
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XP4 SETUP INFORMATION
DAWSON, PA M.P. BF-275.67

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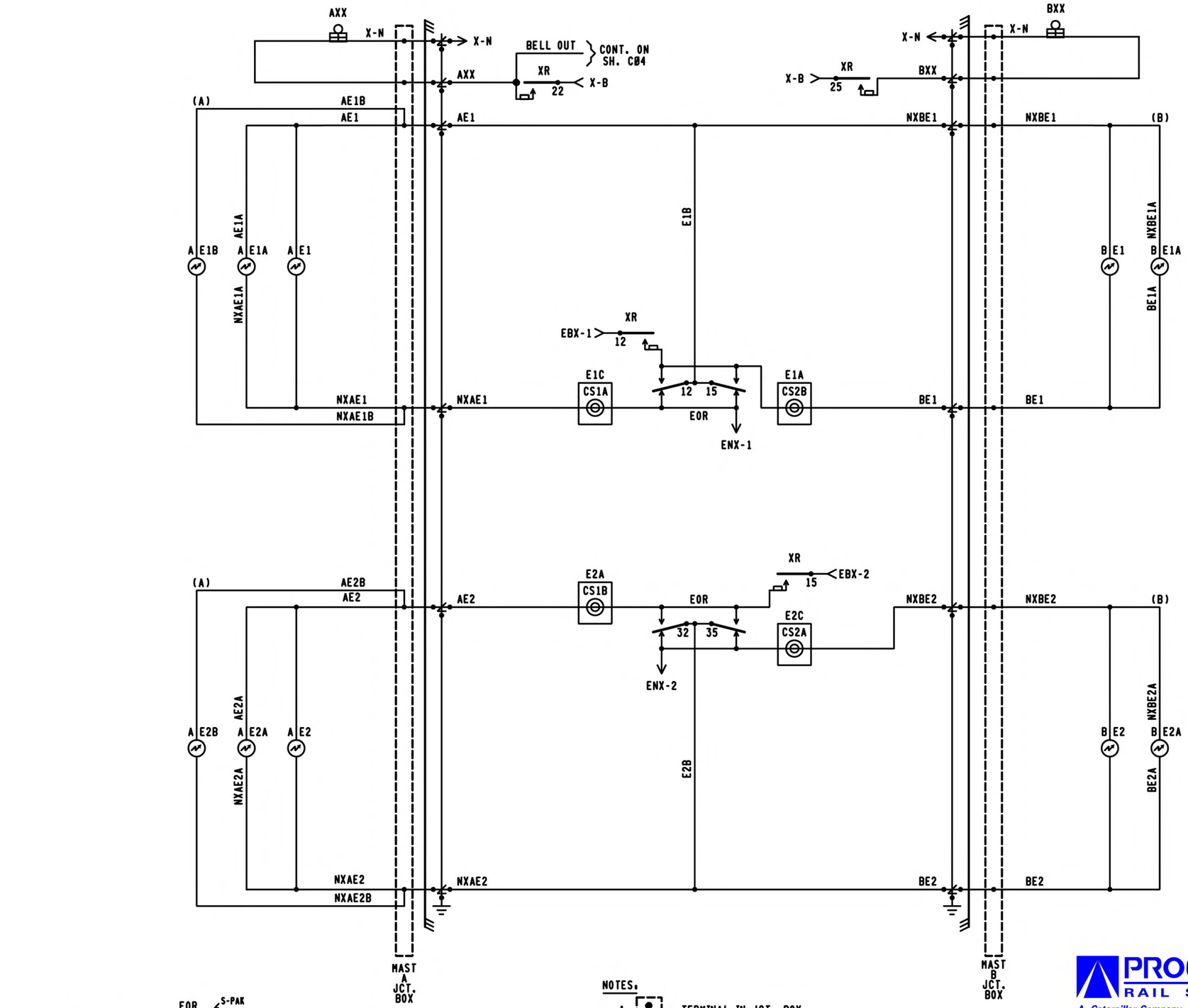
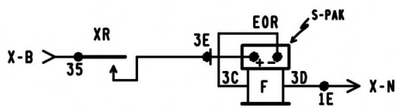
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27567	C02





NOTES:

1. [•] = TERMINAL IN JCT. BOX
2. WHEN 7 OR MORE LIGHTS ON A SINGLE STRUCTURE REFER TO SS-382 FOR REQUIRED ARRESTER RATING.

PROGRESS RAIL SERVICES
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NEW WORK
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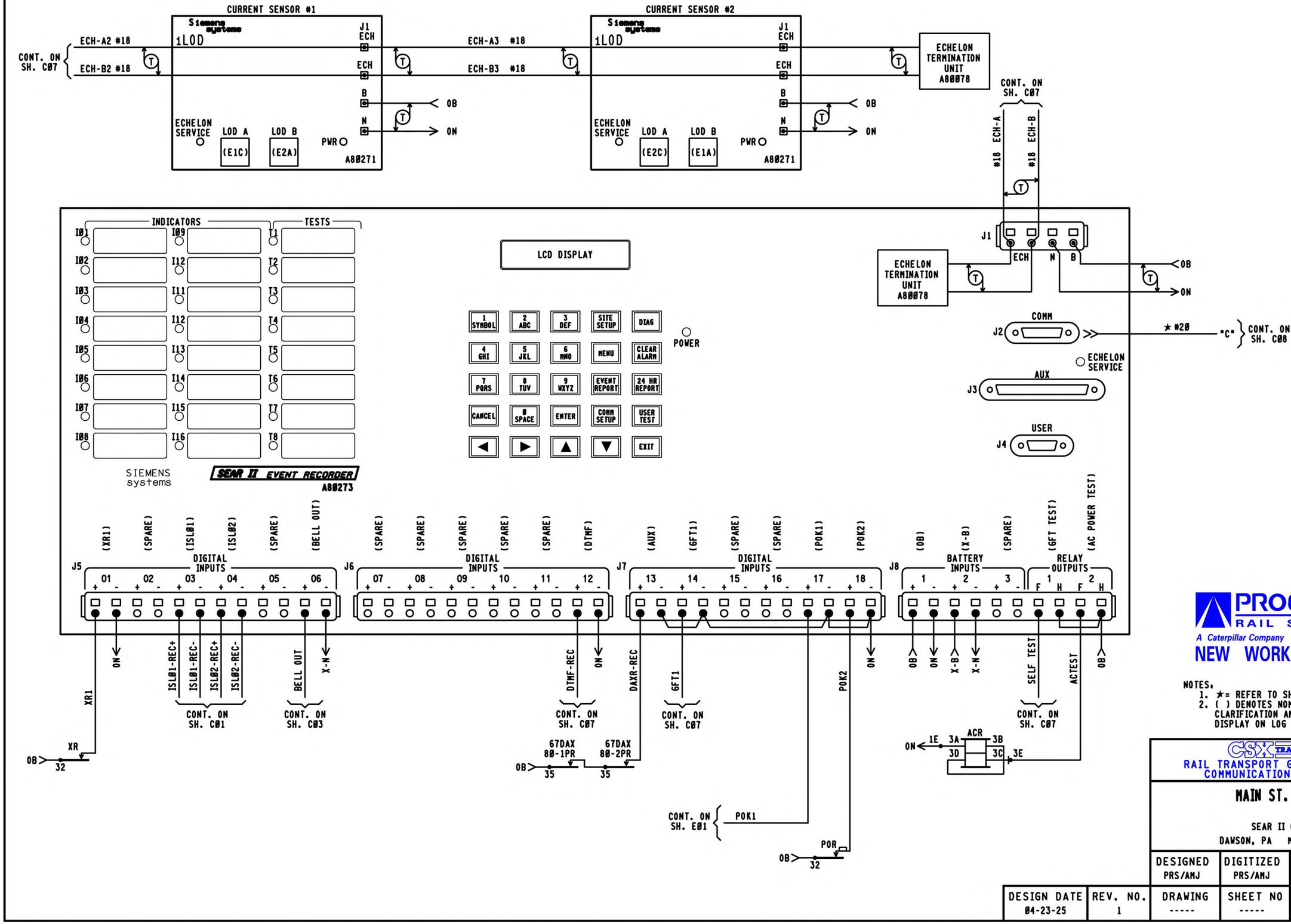
MAIN ST. 145454B

CROSSING WARNING DEVICE LIGHT CIRCUITRY
DAWSON, PA M.P. BF-275.67

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27567	C03



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NEW WORK
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CSX#:PA2023021
PRS/AMJ/SAF

NOTES:
1. ★= REFER TO SH. C08 FOR PART NUMBER.
2. ( ) DENOTES NOMENCLATURE FOR CLARIFICATION AND WILL NOT DISPLAY ON LOG REPORTS.

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

MAIN ST. 145454B

SEAR II CIRCUITS
DAWSON, PA M.P. BF-275.67

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27567	C04

	DEFAULTS AND/OR STYLE	FIELD RECORD
SEAR II EXECUTIVE PROGRAM	VERSION. 9V645A01Y	VERSION.
APPLICATION PROGRAM (IF LOADED)	VERSION. _____	VERSION.

FIELD TO PROVIDE SEARII PROGRAM INFORMATION ON AIS

SITE SET UP OPTIONS	
OPTION	SELECTION
DATE	XX-XX-XXXX
TIME	[XX:XX:XX]
DAYLIGHT SAVINGS TIME	YES ■ NO □
TIME ZONE	■ EST □ CST
SITE NAME	MAIN ST.
MILEPOST	BF-275.67
DOT NUMBER	145454B
TESTER TYPE	■ CROSSING □ WAYSIDE
DATE FORMAT	■ MM-DD-YYYY □ DD-MM-YYYY
TEMP FORMAT	■ FAHRENHEIT □ CELSIUS
INDICATE HOLDOFF	0
INDICATE REFRESH	60
SITE TYPE	□ NO COMMUNICATION □ DIAL-UP ■ COLLECTOR □ NODE □ BULLHORN/MODE □ CDS902X
SITE ATCS ADDRESS	7.125.304.017.99.01 (7.RRR.LLL.GGG.99.01) NOTE 5
OFFICE ADDRESS	2.125.00.0000 (2.RRR.NN.DDDD)
OFFICE SITE ADDRESS	NA
BACK UP SITE ADDRESS 1	NA
BACK UP SITE ADDRESS 2	NA
POLL ID (1-99)	1
GEN/ATCS MODE	□ GENISYS ■ GEN/ATCS
XID DISABLED	■ YES □ NO
OFFICE COM. DEVICE	□ DIRECT □ MCM (RS232) □ MCM (ECH) ■ WAG (ECHELON) □ DIAL UP (RS232) □ S200 RADIO (RS422)
RADIO ATCS ADDRESS	7.125.304.017.01.01
OFFICE PHONE NUMBER	1-XXX-XXX-XXXX
INIT. STRING	
FIELD COMM	□ VHF (ECH) □ VHF (RS232) □ WAG (ECH) □ SS (RS232) ■ NONE
USER PORT	BAUD RATE (9600)
AUX PORT	BAUD RATE (9600)
COMM PORT	BAUD RATE (9600)

NOTE 6 (OFFICE ADDRESS through FIELD COMM)

NOTE 7 (USER PORT through COMM PORT)

NOTES:

1. LARGE CONFIGURATION ASSIGNS RECORDER INPUTS FOR USE WHEN DIGITAL I/O MODULE REQUIRED.
2. IF WARNING DEVICE = NONE MAIN/STANDBY OPTION NOT SHOWN.
3. IF VHF COMMUNICATIONS = NO THEN DTMF ACTIVATION AND CHANNEL OPTIONS ARE NOT SHOWN.
4. LAST 3 DIGITS OF DOT NO. FOR FIRST ACTIVATION CODE.
5. DEFAULT ADDRESS 7.125.100.100.99.01 USED FOR STAND ALONE LOCATIONS.
6. OPTIONS NOT SHOWN IF SITE TYPE = NO COMMUNICATIONS.
7. FORMAT AS, BAUD, DATA BITS, PARITY STOP BITS, FLOW CONTROL.

SITE SET UP OPTIONS CONT.		
	OPTION	SELECTION
	RAILROAD NUMBER	125
NOTE 1	CROSSING CONFIGURATION	STANDARD ■ LARGE □ REMOTE □ SPLIT GATE □ ISL ONLY □ CP COLLECTOR □
	NUMBER OF XR INPUTS	0 □ 1 ■ 2 □ 3 □ 4 □
	NUMBER OF ISL INPUTS	0 □ 1 □ 2 ■ 3 □ 4 □
	CONSTANT WARNING DEVICE	GCP □ OTHER ■ NONE □
	TOTAL NUMBER OF GCP NODES	1 □ 2 □ 3 □ 4 □ 5 □
	NUMBER OF REDUNDANT GCP	1 □ 2 □ 3 □ 4 □
	CROSSING CONTROLLER 1	SSCC IIIA / PLUS □ SSCC IV □ OTHER □ NONE ■
	POK2	YES ■ NO □
NOTE 2	MAIN / STANDBY	YES □ NO ■
	AUXILIARY TRACKS	0 ■ 1 □ 2 □
	ENTRANCE GATE	0 ■ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7 □ 8 □
	EXIT GATES	0 ■ 1 □ 2 □ 3 □ 4 □
	GATE POSITION FAIL 10-60 SEC	25
	NUMBER OF UAX INPUTS	0 □ 1 ■ 2 □
	BATTERY BANKS	1 □ 2 ■ 3 □ 4 □ 5 □ 6 □
	OB RESOLUTION	.2 □ .5 □ 1.0 ■
	X-B RESOLUTION	.2 □ .5 □ 1.0 ■ NOT PRESENT □
	B-G RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	X-B2 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	B-G2 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	X-B3 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	PREEMPTION	NORMAL □ ADVANCED □ NO ■
	KDR INPUT	YES ■ NO □
NOTE 3	VHF COMMUNICATOR	YES □ NO ■
NOTE 4	ACTIVATION CODE 1	XXX
	ACTIVATION CODE 2	XXX
	ACTIVATION CODE 3	XXX
	ACTIVATION TIMEOUT (30 TO 600 SECONDS)	60
	iLOD MODULES	0 □ 1 □ 2 ■ 3 □ 4 □ 5 □ 6 □
	ANY LED BULBS	NO □ YES ■
	AUTO INSPECTIONS	YES ■ NO □
	BELL ON	GATES LOWERING □ GATES MOVING □ ALWAYS ■
	GROUND FAULT DETECTORS	YES ■ NO □
	BATTERIES ON GFT1	1 □ 2 ■
	FULL APPROACH MOVE ALARMS	ACTIVATED ■ DO NOT ACTIVATE □

FIELD TO PROVIDE BATTERY VOLTAGES AND CURRENT READINGS ON AIS

LIT BULB COUNT ON EACH CIRCUIT	NO.	TYPE OF BULB	CURRENT READING IN AMP. AT APPROX. 10.0 V BULB VOLTAGE
CURRENT SENSOR (1) E1C, LAMP SET UP	3	□BULBS ■LED	X.X
CURRENT SENSOR (1) E2A, LAMP SET UP	3	□BULBS ■LED	X.X
CURRENT SENSOR (2) E2C, LAMP SET UP	2	□BULBS ■LED	X.X
CURRENT SENSOR (2) E1A, LAMP SET UP	2	□BULBS ■LED	X.X

MEASURE BATTERY VOLTAGE AT INPUT	
BATTERY VOLTAGE OB	XXXX VOLTS
BATTERY VOLTAGE X-B	XXXX VOLTS

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE. 04-23-25
CSX#. PA2023021
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

MAIN ST. 145454B

SEAR II CONFIGURATION AND FUNCTIONS
DAWSON, PA M.P. BF-275.67

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27567	C05

DISCRETE INPUTS	DI Ø1	DI Ø2	DI Ø3	DI Ø4	DI Ø5	DI Ø6
CHANNEL	1	2	3	4	5	6
NAME	XR1		ISLAND 1 (TRACK)	ISLAND 2 (TRACK)		BELL OUT (BELL PWR)
TAG	XR1 (XR)	SP	ISL1	ISL2	SP	BELL OUT (BELL PWR)
OFF NAME	DOWN (XR)		DOWN (ISL1)	DOWN (ISL2)		OFF (BELL PWR)
ON NAME	UP (XR)		UP (ISL1)	UP (ISL2)		ON (BELL PWR)
ON DEBOUNCE TIME	1ØØ ms	1ØØØ ms	1ØØ ms	1ØØ ms	1ØØØ ms	1ØØ ms
OFF DEBOUNCE TIME	1ØØ ms	1ØØØ ms	1ØØ ms	1ØØ ms	1ØØØ ms	1ØØ ms
TOGGLE PERIOD	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms

TSS INPUTS	DI Ø7	DI Ø8	DI Ø9	DI 1Ø
CHANNEL	7	8	9	1Ø
NAME				
TAG	SP	SP	SP	SP
OFF NAME				
ON NAME				
ON DEBOUNCE TIME	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms
OFF DEBOUNCE TIME	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms
TOGGLE PERIOD	1ØØØ ms	1ØØØ ms	1ØØØ ms	1ØØØ ms

DISCRETE INPUTS	DI 11	DI 12	DI 13
CHANNEL	11	12	13
NAME		DTMF	AUX
TAG	SP	DTMF-REC	AUX (DAXPR)
OFF NAME		OFF (NO GATE KEYED)	DOWN (DAXPR)
ON NAME		ON (ACTIVATE)	UP (DAXPR)
ON DEBOUNCE TIME	1ØØØ ms	1ØØ ms	1ØØ ms
OFF DEBOUNCE TIME	1ØØØ ms	1ØØ ms	1ØØ ms
TOGGLE PERIOD	1ØØØ ms	1ØØØ ms	1ØØØ ms

GFT INPUTS	DI 14	DI 15
CHANNEL	14	15
NAME	GND FAULT TESTER 1 (GFT1,2)	
TAG	GFT1 (GFT1 DATA)	SP.
BATTERY 1 NAME	OB (GND FAULT)	
BATTERY 1 TAG	OB (GND FAULT)	
BATTERY 2 NAME	X-B (GND FAULT)	
BATTERY 2 TAG	X-B (GND FAULT)	

DISCRETE INPUTS	DI 16	DI 17	DI 18
CHANNEL	16	17	18
NAME		POK1	POK2
TAG	SP	POK1	POK2
OFF NAME		OFF (ALL POWER OFF)	OFF (ALL POWER OFF)
ON NAME		ON (ALL POWER ON)	ON (ALL POWER ON)
ON DEBOUNCE TIME	1ØØØ ms	1ØØ ms	1ØØ ms
OFF DEBOUNCE TIME	1ØØØ ms	1ØØ ms	1ØØ ms
TOGGLE PERIOD	1ØØØ ms	1ØØØ ms	1ØØØ ms

BATTERY INPUTS	BI1	BI2	BI3
CHANNEL	1	2	3
NAME	OB (ELECTRONIC BATT)	X-B (BULB BATT)	
TAG	OB	X-B	SP
SAMPLE PERIOD (ms)	5ØØ (ms)	5ØØ (ms)	
RESOLUTION (V)	Ø.2 (VOLTS)	Ø.2 (VOLTS)	
AVGERAGING SAMPLES	32 SAMPLES	32 SAMPLES	

RELAYS	RO1	RO2
CHANNEL	1	2
NAME	GFT TEST	AC POWER TEST (ACRLY)
TAG	SELF TEST	AC POWER TEST (ACRLY)
OFF STATE NAME	NOT TESTING	OFF (ACR DN)
ON STATE NAME	TESTING	ON (ACR UP)
UNKNOWN STATE NAME	PULSE	PULSE
ON PULSE TIME (s)	1 (s)	1 (s)
OFF PULSE TIME (s)	1 (s)	1 (s)
TOGGLE PERIOD (s)	1 (s)	1 (s)
DUTY CYCLE	5Ø	5Ø

NOTE. ( ) DENOTES NOMENCLATURE FOR CLARIFICATION AND WILL NOT DISPLAY ON LOG REPORTS.

PROGRESS RAIL SERVICES
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COMMUNICATIONS AND SIGNALS

MAIN ST. 145454B

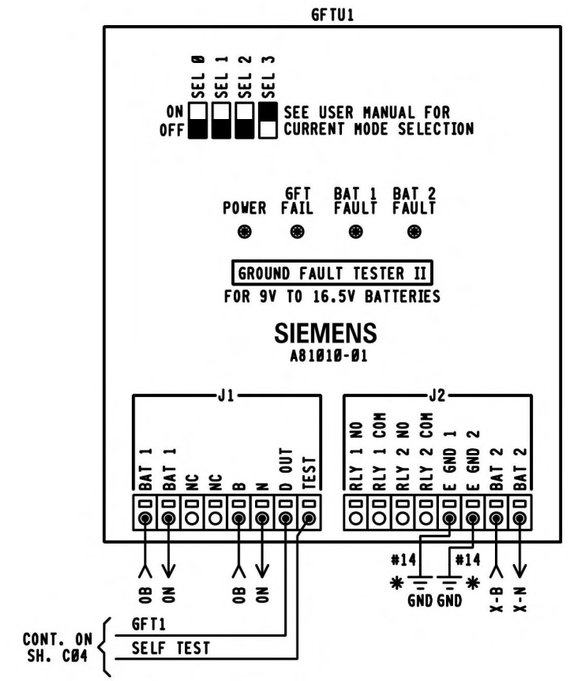
SEAR II CHANNELS
DAWSON, PA M.P. BF-275.67

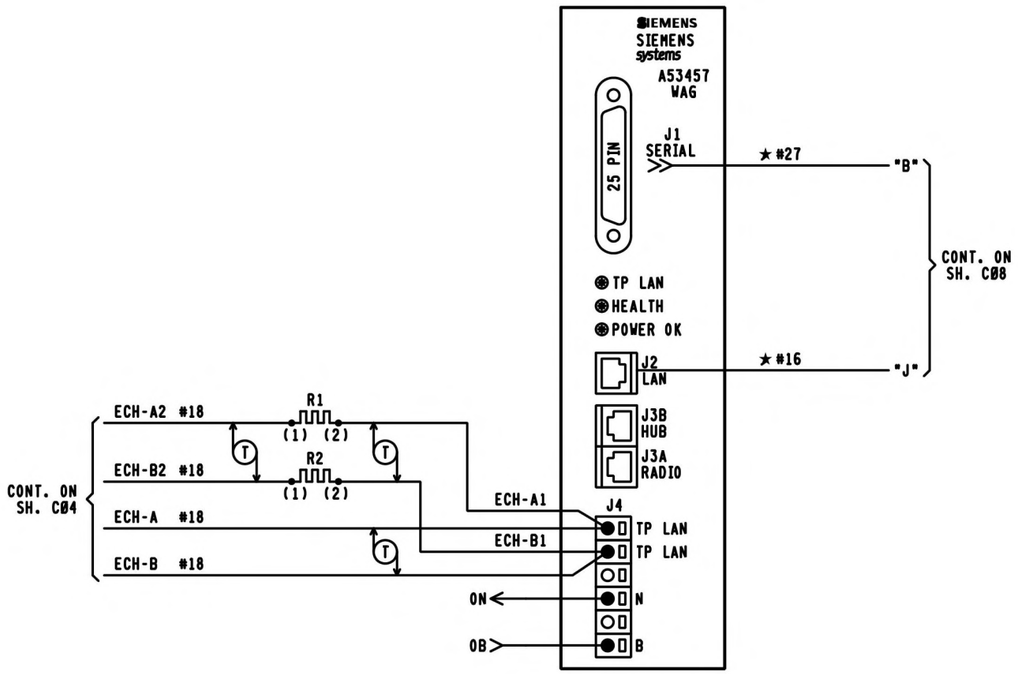
DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	Ø4-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
Ø4-23-25	1	-----	-----	BF27567	CØ6

WAYSIDE ACCESS GATEWAY CONFIGURATION	
SITE ATCS ADDRESS	7.125.304.017.07.01
SERIAL INTERFACE	9600,NONE,8,1/NOFLOW
SERIAL FORMAT	RAW
WAG TEST MODE	DISABLED
ECHELON ADDRESS	01.01
UDP PORTS	5000, 5001, 5002, 5003
ROUTE TABLE EXPIRY	5400 SEC
BROADCAST MEDIUM	IP ETHERNET
TCP PORTS	6001
DHCP SERVER	DISABLED
IP ADDRESS	192.168.13.1
TYPE 7 ROUTE LENGTH	12--7RRRLLLG66SS
IP NETWORK MASK	255.255.255.000

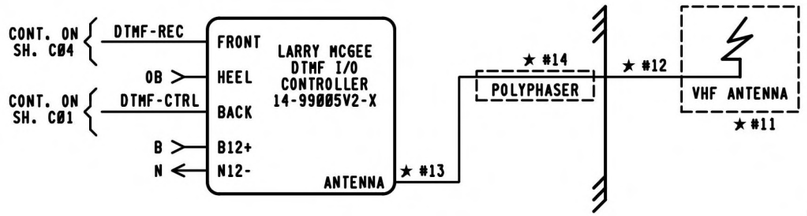
NOTE TO INSPECTOR,
AT INSTALLATION OF CDMA BY COM.
MARK-UP CONFIGURATION TABLE FOR
AS IN SERVICE PLANS





COMM NOTE,

1. WAG J3A PINOUTS,
   4 & 5 = +12VDC RADIO OUT
   7 & 8 = GND RADIO RETURN



GCP PROGRAMMING FOR VHF RADIO

REMOTE DTMF CROSSING ACTIVATION (ACTIVATES ENTIRE CROSSING)	
TO ACTIVATE PRESS,	454#
TO DE-ACTIVATE PRESS,	454*
(ACTIVATION WILL TIME OUT AFTER 60 SEC.)	

NOTES,

1. ★ = REFER TO SH. C08 FOR PART NUMBERS.
2. ALL WIRING #16 UNLESS NOTED OTHERWISE.
3. ✱ = EARTH GROUND REF. TERMINALS REQUIRED FOR DETECTION. DO NOT JUMPER TERMINALS. MUST BE CONNECTED TO DIFFERENT POINTS OF BUNGALOW.
4. R1 & R2 = .5 WATT, 200Ω RESISTOR

= NOTE

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CSX TRANSPORTATION
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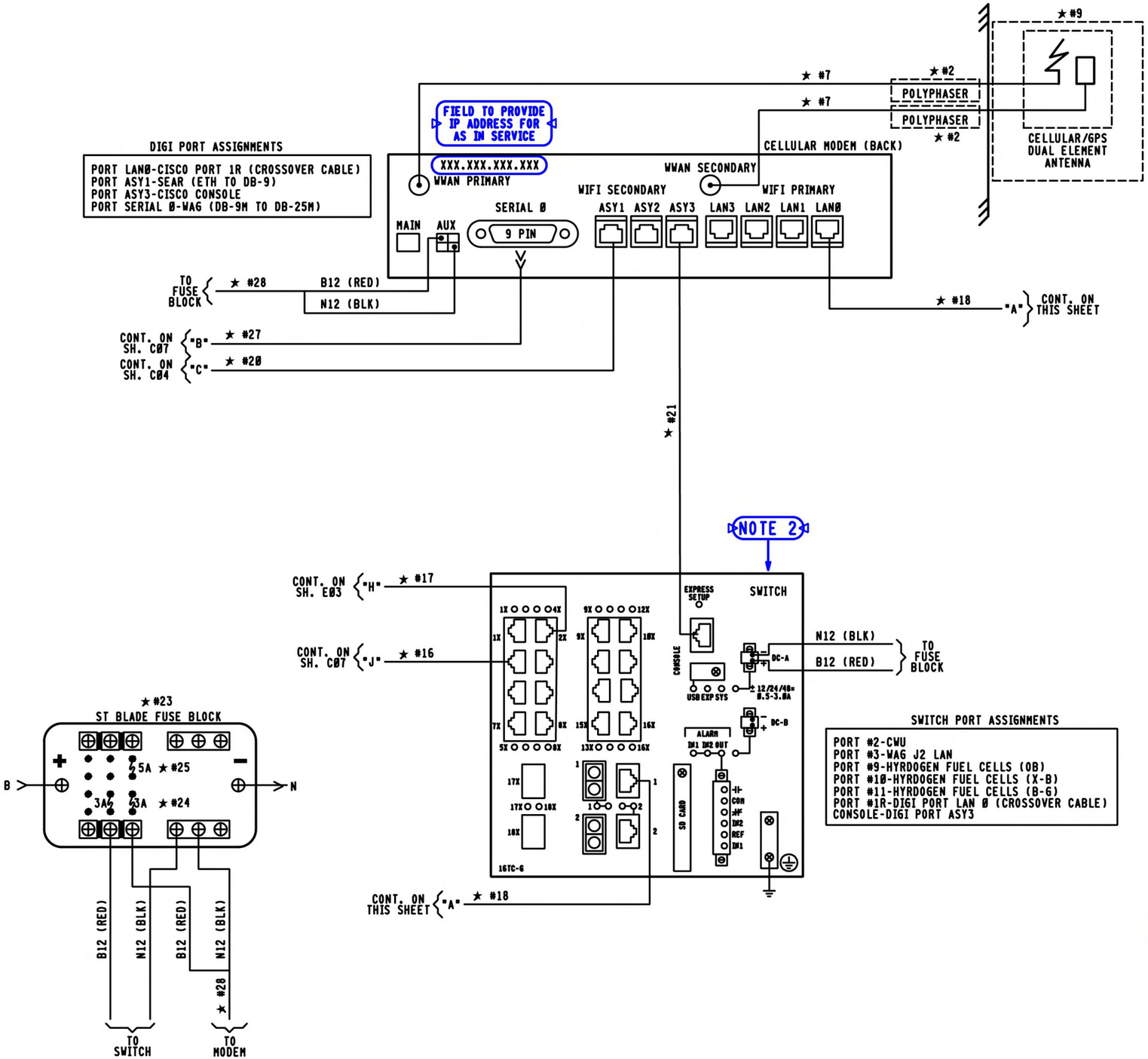
MAIN ST. 145454B

WAYSIDE ACCESS GATEWAY
DAWSON, PA M.P. BF-275.67

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27567	C07



★	CSDA-30348-KIT (020.0000493.1)	
REF.	DESCRIPTION	QTY
2	POLYPHASER, TSX-NFF	2 EA.
7	LMR-195, N-MALE TO SMA-MALE, 5 FT	2 EA.
9	MIMO ANTENNA, BLACK, 15FT, AP-MMF-CCG-Q-S222-BL ANTENNA MOUNTING ARM, CSDA-30309-BKTANT1	1 EA.
11	VHF OMNI ANTENNA	1 EA.
12	LMR-200, N-MALE TO N-MALE, 3 FT	1 EA.
13	LMR-240, N-MALE TO BNC-MALE, 10 FT	1 EA.
14	VHF SURGE PROTECTOR N-FEMALE TO FEMALE	1 EA.
16	CAT 6 PATCH CABLE UTP, BOOTED, YELLOW, 20 FT	1 EA.
17	CAT 6 PATCH CABLE UTP, BOOTED, ORANGE, 20 FT	1 EA.
18	CAT 6 PATCH CABLE UTP, BOOTED, RED, X-OVER, 20 FT	1 EA.
20	DIGI-TRANSPORT TO CISCO CABLE, BLUE, 20 FT	3 EA.
21	CAT 6 STP ROLL-OVER PATCH CABLE, BLACK, 20 FT	1 EA.
23	DC PDU WITH 5 FUSED CIRCUITS	1 EA.
24	INDICATOR FUSE, ATO STYLE, 3 AMP	4 EA.
25	INDICATOR FUSE, ATO STYLE, 5 AMP	1 EA.
27	SERIAL CABLE, DB9M TO DB25M, STRAIGHT WIRED, 20 FT	1 EA.
28	DIGI-TRANPORT POWER CABLE, 4-PIN MOLEX TO OPEN END, 14 FT	1 EA.

NOTES:

1. WIRING TO BE #16 UNLESS NOTED.
2. CISCO IE2000 SWITCH OR EQUIVALENT.

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE: 04-23-25
CSX#: PA2023021
PRS/AMJ/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

MAIN ST. 145454B

CROSSING COMMUNICATIONS EQUIPMENT
DAWSON, PA M.P. BF-275.67

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/AMJ	PRS/AMJ	PRS/SAF	04-23-25

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
04-23-25	1	-----	-----	BF27567	C08