NAUMAN SMITH SHISSLER & HALL

Benjamin C. Dunlap, Jr., Esquire bdunlapjr@nssh.com (717) 236-3010, Ext. 121

June 1, 2023

Via Electronic Filing
Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
400 North Street
Harrisburg, PA 17120

Re: Application of the Commonwealth of Pennsylvania, Department of Transportation for approval to alter two (2) public at-grade crossings by the installation of new warning devices where State Route 1041 (DOT 145 463 A) in Lower Tyrone Township, and where State Route 0819 (DOT 145 459 K) in Dawson Borough, cross, at grade, two (2) tracks of CSX Transportation Inc., in Fayette County all in accordance with the Federal Grade Crossing Program and the allocation of costs incident thereto
Docket No. A-2019-3011890

Dear Secretary Chiavetta:

Enclosed for filing please find the Situation Plans, for the review of all parties of record and the approval of the Pennsylvania Public Utility Commission. Also enclosed are the Detailed Circuitry Plans, for the review of the Pennsylvania Department of Transportation and the approval of the Pennsylvania Public Utility Commission, filed on behalf of CSX Transportation, Inc., in the above-referenced matter, as ordered in Paragraph 3 the Secretarial Letter dated August 3, 2022. Copies have been served upon all interested parties as indicated on the Certificate of Service.

Sincerely yours,

Benjamin C. Dunlap, Jr.

Benjamin C. Dunlap, Jr.

Enclosures
BCDjr/ino
cc: All parties of record
Michael Sliper
Kara Stenella
Robert Rossman
Kevin Lewandowski
Sadiya Leftridge
Erin Goglia

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of the Commonwealth of Pennsylvania, Department of Transportation for approval to alter two (2) public at-grade crossings by the installation of new warning devices where State Route 1041 (DOT 145 463 A) in Lower Tyrone Township, and where State Route 0819 (DOT 145 459 K) in Dawson Borough, cross, at grade, two (2) tracks of CSX Transportation Inc., in Fayette County all in accordance with the Federal Grade Crossing Program and the allocation of costs incident thereto	:	Docket No. A-2019-3011890 ELECTRONICALLY FILED

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing **Situation and Detailed Circuit Plans** upon the parties as indicated below in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a party).

Via Email:

Eric W. White, Esquire
Assistant Counsel
Pennsylvania Department of Transportation
Office of Chief Counsel
P.O. Box 8212
Harrisburg, PA 17105-8212
ewwhite@pa.gov

Kayla L. Rost, Esquire
Pennsylvania Public Utility Commission
Bureau of Investigation and Enforcement
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120
karost@pa.gov

Ronald Hull, P.E.
Rail Safety Engineering Section PUC
400 North St.,3rd Floor
Harrisburg, PA 17120
RHULL@pa.gov

Thomas A Ryczek, Jr.
District Grade Crossing Administrator
Engineering District 12-0
825 N. Gallatin Ave
Uniontown, PA 15401
tryczek@pa.gov

Rachel D. Duda, P.E.
Assistant District Executive – Design
Engineering District 12-0
825 North Gallatin Avenue
Uniontown, PA 15401
rduda@pa.gov

Deborah Barum
Verizon Pennsylvania, LLC
15 E. Montgomery Place
Pittsburgh, PA 15212
deborah.d.delia@verizon.com

Theodore Toth
Verizon Pennsylvania
508 Old Frankston Road
Monroeville, PA 15146
deborah.d.delia@verizon.com

Shannon Wood
Fayette County Commissioners
610 East Main Street
Uniontown, PA 15401
dlohr@fayettepa.org

Don Morchesky
West Penn Power
143 West Penn Drive
Jeanette, PA 15644
TICKET_SCREENING@FIRSTENERGYCORP.COM

June Murtland
Lower Tyrone Township
456 Banning Road
Dawson, PA 15428
lowertyrone@atlanticbbn.net

Mike Zavatchen
Columbia Gas of Pennsylvania
1452 Gun Club Road
Uniontown, PA 15401
ldugan@nisource.com

Annette Ruvo
Dawson Borough
PO Box A
Dawson, PA 15428
dawsonborough@yahoo.com

Bob Softcheck, PE, PLS
North Fayette County Municipal Authority
1634 University Drive
PO Box 368
Dunbar, PA 15431
nfcmakm@zoominternet.net

Rick Moslen
Comcast
200 Industry Drive
Pittsburgh, PA 15275
Richard_Moslen@comcast.com

Via US First Class Mail:

Eric Teeter
Atlantic Broadband
320 Bailey Avenue
Uniontown, PA 15401

/s/ Ijeoma N. Okereke
Ijeoma N. Okereke, Legal Assistant

Dated: June 1, 2023

SITUATION PLANS

R.R. WEST TO WEST PITTSBURGH

5136+78 ℄

2530 FT. — 69 FT. — ℄ — 69 FT. — 2530 FT.

N

W E

NW

NE

SW

SE

SIDEWALK

U.G. GAS (COLUMBIA GAS)

SR 819 (LAUGHLIN ST.)

SIDEWALK

BUILDING

HOUSE

STOP SIGN

BUILDING

CSX R.O.W.

SIDEWALK

CSX R.O.W.

SIDEWALK

NOTE 3

NOTE 1

11'-0"

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

RAILROAD ST.

U.G. GAS (COLUMBIA GAS)

RAILROAD ST.

30'-0"

EOP/EOT

15' GATE

90°

EOT

EOP/EOT

20'-0"

11'-0"

9'-0"

30'-0"

10'-6"

12'-6"

4'-3"

STOP SIGN

4'-3"

12'-0"

10'-0"

(#1 MAIN)

(#1 MAIN)

(#2 MAIN)

(#2 MAIN)

U.G. FIBER (VERIZON)

7'-8"

EOP

EOT

12'-0"

19' GATE

9'-0"

5'-8"

(15'-10" V.O.H.C. 1ST)

EXISTING METER SERVICE

SIDEWALK

CSX R.O.W.

NOTE 4

NOTE 3

SIGN

8'-3"

STREET SIGN

CSX R.O.W.

20'-0"

15'-0"

NEW 6'X6' HOUSE

83'-0" TO E.O.R.

PARKING LOT

NOTE 2

SIDEWALK

HOUSE

22'-0"

11'-0" 11'-0"

20'-0"

O.H. FIBER (VERIZON) (18'-6" O.H. FIBER)

EOT

EOP

(NORTH FAYETTE) WATER MAIN

VAC TRUCK REQUIRED

COMMERCIAL BUILDING

HOUSE

NOTES.

1. REPAVE AND INSTALL CURB (TO BE INSTALLED BY OTHERS)
2. POWER LINES NEED TO BE RAISED OR RELOCATED.
3. INSTALL GUARD RAILS.
4. FIELD TO DETERMINE EXACT PLACEMENT OF XING HOUSE BASED ON R.O.W. AS WELL AS PARKING LOT.

✳AUTHORIZING AGENCY, PADOT

✳DATE OF REQUIREMENT, NA

✳AMOUNT OF TIME (SEC.), 0 SEC. (SIMULTANEOUS)

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	1	1
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS ✳	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	31 SEC.	31 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	35 SEC.	35 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	45	45
BUFFER SPEED IN MILES PER HOUR	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	50	50
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2530	2530
HALF WIDTH OF ISLAND IN FEET	69	69
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.36	275.38

PRELIMINARY

FILE NAME, BF27587.H01	REVISION DATES
DATE DRAWN, 04-18-19	03-10-23
DRAWN BY, GMW	04-06-23
CHECKED BY, SAF	- -
PRS #, 34P000825	- -

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 Ⓜ	GPS COORDINATES
R/R POLELINE	O.H. POWER	POLE Ⓟ	N40°02'51"
GAS	FENCE	FIRE PLUG Ⓕ	W79°39'31"
FIBER OPTIC	WATER	SEWER CAP Ⓢ	ELEV. 851'
	SEWER	GAS VENT Ⓥ	M.P. BF-275.87

STREET NAME, SR 819 (LAUGHLIN ST.)	
CITY & STATE, DAWSON, (FAYETTE), PA	
DOT, 145459K	PROPOSED CROSSING LAYOUT
PROJECT #, PA2019559	SCALE = 20.1
OP #, PA0364	

R.R. WEST TO WEST PITTSBURGH

5156+46 ℄

3059 FT. 63 FT. 63 FT. 3059 FT.
3059 FT. 63 FT. 63 FT. 3059 FT.

N W E

SR 1041 (RIVER RD.)

NW NE SW SE

CSX R.O.W.

1'-0" 20'-0" 10'-0" 10'-0" 1'-0"

EOT EOP

GUY WIRE (26'-11" V.O.H.C.)

U.G. WATER (N. FAYETTE)

O.H. POWER (WEST PENN POWER) (32'-4" V.O.H.C.)

EXISTING 6'X6' HOUSE

150°

37'-3"

27'-0"

28'-0"

BRIDGE

(#1 MAIN)

(#2 MAIN)

14'-0"

24'-0"

15'-0"

8'-3" 18' GATE

EOP EOT

DOT# 145463A

44'-6"

55'-6"

O.H. POWER (WEST PENN POWER)
(31'-3" V.O.H.C. 1ST)
(+19'-2" V.O.H.C. 2ND)

O.H. FIBER (VERIZON)

O.H. FIBER (VERIZON)
(22'-6" V.O.H.C. 1ST)
(+4'-2" V.O.H.C. 2ND)
(+22'-2" V.O.H.C. 3RD)

OVERHEAD COMM. WIRES ARE NOT UP TO CSX STANDARD CLEARANCE OF 13'-6"

HAND DIGGING MAY BE REQUIRED IN SE QUAD

U.G. FIBER (VERIZON)

15'-0" 12'-0" 14'-0"

3'-0"

18' GATE 141 CANT 8'-3"

EXISTING METER SERVICE

1'-0" 19'-0" 9'-0" 10'-0" 2'-0"

EOT EOP

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

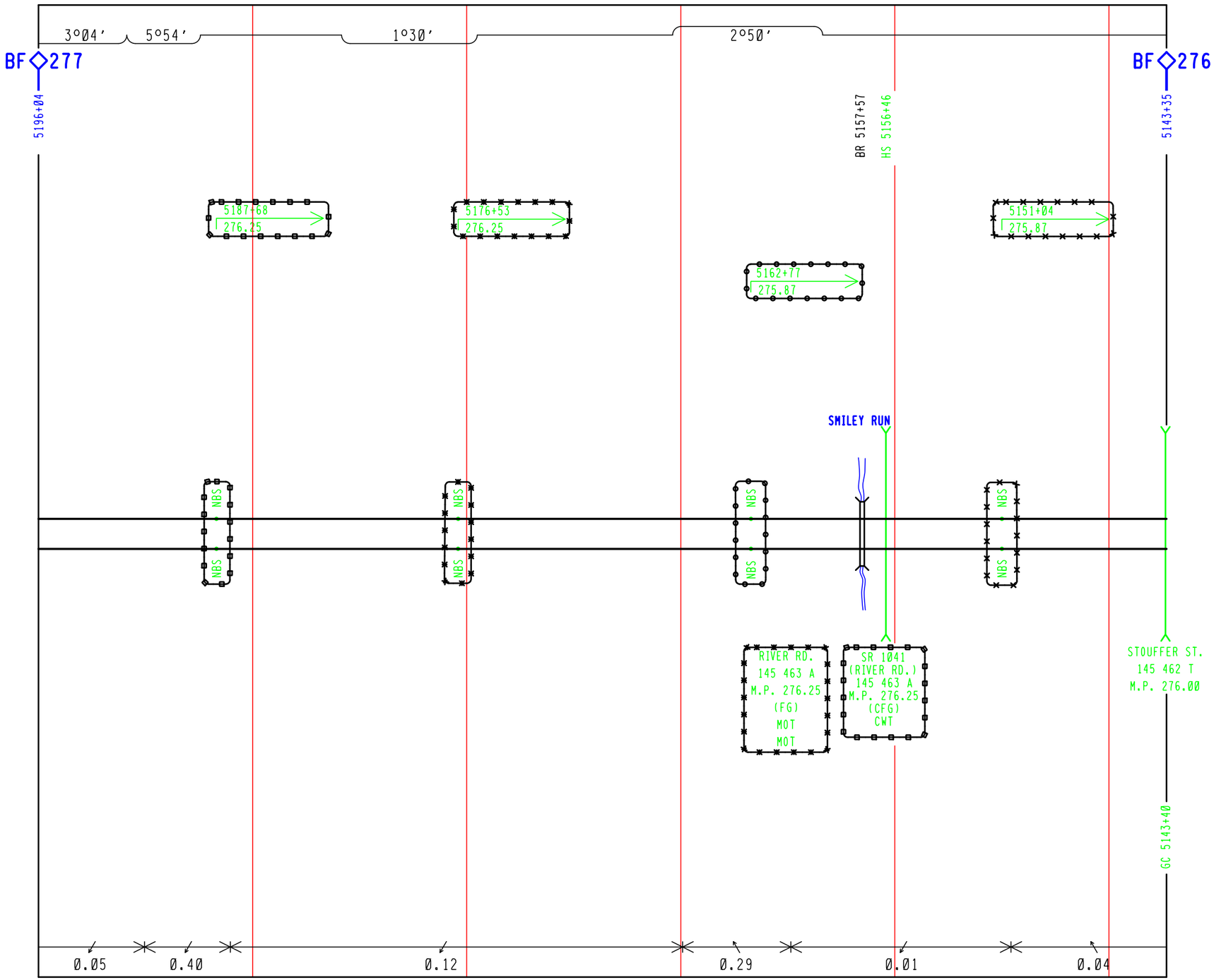
APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	EASTBOUND #1 MAIN CWT	WESTBOUND #1 MAIN CWT	EASTBOUND #2 MAIN CWT	WESTBOUND #2 MAIN CWT
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25	25	25
ROADWAY GATE TIME IN SECONDS	5	5	5	5
CLEARANCE TIME IN SECONDS	9	9	9	9
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS ✳	0	0	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	39 SEC.	39 SEC.	39 SEC.	39 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	43 SEC.	43 SEC.	43 SEC.	43 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	45	45	45	45
BUFFER SPEED IN MILES PER HOUR	5	5	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	50	50	50	50
APPROACH DISTANCE TO ISLAND EDGE IN FEET	3059	3059	3059	3059
HALF WIDTH OF ISLAND IN FEET	63	63	63	63
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.84	275.66	276.84	275.66

PRELIMINARY

FILE NAME, BF27625.H01	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, SR 1041 (RIVER RD.)
DATE DRAWN, 04-29-19	03-10-23			CSX ROW	O.H. POWER	POLE Ⓟ	N40°03'01"	CITY & STATE, DAWSON, (FAYETTE), PA
DRAWN BY, RMJ	- -			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'53"	DOT, 145463A
CHECKED BY, SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 852'	PROJECT #, PA2019555
PRS #, 34P000823	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-276.25	OP #, PA0358

PROPOSED CROSSING LAYOUT
SCALE = 20:1

DETAILED CIRCUIT PLANS



THIS PLAN DOES ☐ DOES NOT ☒
SUPERSEDE PLAN DATED 03-10-23
CSX PROJECT # PA20019559

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

= OUT
= IN

DATE 03-10-23
CSX# PA20019555
PRS/CDT/SAF

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

= OUT
= IN

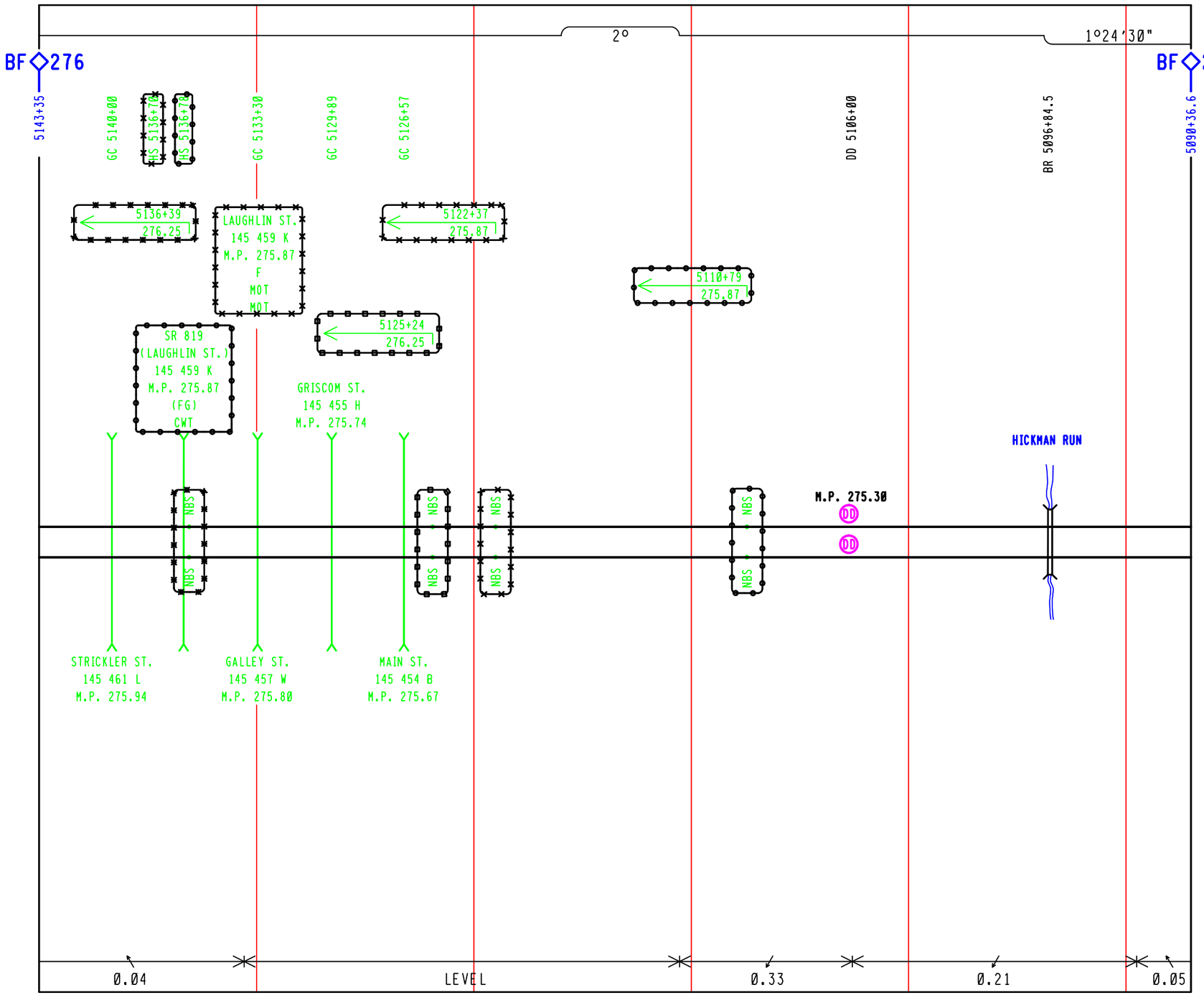
DATE 03-10-23
CSX# PA20019559
PRS/TGG/SAF

REVISIONS		
11-22-06 IRS PA20006028A	09-21-09 IRS PA20006028	

TRACK PLAN
HORIZONTAL SCALE: 1 INCH = 500 FEET

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

DESIGNED	DIGITIZED	CHECKED	DATE	NEXT FILE	NEXT SH	FILE	SHEET
IRS/LLK	IRS/LLK	IRS/JEK	11-22-06	BF27700	T01	BF27600	T01



THIS PLAN DOES ☐ DOES NOT ☒
SUPERSEDE PLAN DATED 03-10-23
CSX PROJECT # PA2019559

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE 03-10-23
CSX# PA2019555
PRS/CDT/SAF

= OUT
= IN

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE 03-10-23
CSX# PA2019559
PRS/TGG/SAF

= OUT
= IN

REVISIONS		
11-22-06 IRS PA2006028A	09-21-09 IRS PA2006028	09-22-22 IRS PA2022023

TRACK PLAN
HORIZONTAL SCALE:
1 INCH = 500 FEET

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

DESIGNED	DIGITIZED	CHECKED	DATE	NEXT FILE	NEXT SH	FILE	SHEET
IRS/LLK	IRS/LLK	IRS/JEK	11-22-06	BF27600	T01	BF27500	T01

R.R. WEST TO WEST PITTSBURGH

5156+46 ℄

3059 FT. 63 FT. 63 FT. 3059 FT.
3059 FT. 63 FT. 63 FT. 3059 FT.

N W E

SR 1041 (RIVER RD.)

NW NE SW SE

CSX R.O.W.

1'-0" 20'-0" 10'-0" 10'-0" 1'-0"

EOT EOP

GUY WIRE (26'-11" V.O.H.C.)

U.G. WATER (N. FAYETTE)

O.H. POWER (WEST PENN POWER) (32'-4" V.O.H.C.)

EXISTING 6'X6' HOUSE

150°

37'-3"

27'-0"

28'-0"

BRIDGE

(#1 MAIN)

(#2 MAIN)

14'-0"

24'-0"

15'-0"

8'-3" 18' GATE

EOP EOT

DOT# 145463A

44'-6"

55'-6"

O.H. POWER (WEST PENN POWER)
(31'-3" V.O.H.C. 1ST)
(+19'-2" V.O.H.C. 2ND)

O.H. FIBER (VERIZON)

O.H. FIBER (VERIZON)
(22'-6" V.O.H.C. 1ST)
(+4'-2" V.O.H.C. 2ND)
(+22'-2" V.O.H.C. 3RD)

OVERHEAD COMM. WIRES ARE NOT UP TO CSX STANDARD CLEARANCE OF 13'-6"

HAND DIGGING MAY BE REQUIRED IN SE QUAD

U.G. FIBER (VERIZON)

15'-0" 12'-0" 14'-0"

3'-0"

18' GATE 141 CANT 8'-3"

EXISTING METER SERVICE

1'-0" 19'-0" 9'-0" 10'-0" 2'-0"

EOT EOP

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

APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	EASTBOUND #1 MAIN CWT	WESTBOUND #1 MAIN CWT	EASTBOUND #2 MAIN CWT	WESTBOUND #2 MAIN CWT
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25	25	25
ROADWAY GATE TIME IN SECONDS	5	5	5	5
CLEARANCE TIME IN SECONDS	9	9	9	9
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS ✳	0	0	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	39 SEC.	39 SEC.	39 SEC.	39 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	43 SEC.	43 SEC.	43 SEC.	43 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	45	45	45	45
BUFFER SPEED IN MILES PER HOUR	5	5	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	50	50	50	50
APPROACH DISTANCE TO ISLAND EDGE IN FEET	3059	3059	3059	3059
HALF WIDTH OF ISLAND IN FEET	63	63	63	63
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.84	275.66	276.84	275.66

PRELIMINARY

FILE NAME, BF27625.H01	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, SR 1041 (RIVER RD.)
DATE DRAWN, 04-29-19	03-10-23			CSX ROW	O.H. POWER	POLE Ⓟ	N40°03'01"	CITY & STATE, DAWSON, (FAYETTE), PA
DRAWN BY, RMJ	- -			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'53"	DOT, 145463A
CHECKED BY, SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 852'	PROJECT #, PA2019555
PRS #, 34P000823	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-276.25	OP #, PA0358

PROPOSED CROSSING LAYOUT
SCALE = 20:1

R.R. WEST TO WEST PITTSBURGH

5156+46 ℄

1944 FT. 63 FT. 63 FT. 1944 FT.
1944 FT. 63 FT. 63 FT. 1944 FT.

N E W

SR 1041 (RIVER RD.)

NW NE SW SE

CSX R.O.W.

1'-0" 20'-0" 10'-0" 10'-0"

EOT EOP

1'-0"

8'-3"

18' GATE

CANT

GUY WIRE (26'-11" V.O.H.C.)

U.G. WATER (N FAYETTE)

O.H. POWER (WEST PENN POWER) (32'-4" V.O.H.C.)

EXISTING 6'X6' HOUSE

37'-3"

27'-0"

28'-0"

16'-6"

BRIDGE

(#1 MAIN)

DOT# 145463A

44'-6"

(#2 MAIN)

14'-0"

O.H. POWER (WEST PENN POWER)
(31'-3" V.O.H.C. 1ST)
(+19'-2" V.O.H.C. 2ND)

55'-6"

BRIDGE

24'-0"

O.H. FIBER (VERIZON)

O.H. FIBER (VERIZON)
(22'-6" V.O.H.C. 1ST)
(+4'-2" V.O.H.C. 2ND)
(+22'-2" V.O.H.C. 3RD)

U.G. FIBER (VERIZON)

15'-6"

12'-0"

3'-10"

EXISTING METER SERVICE

19'-0" 9'-0" 10'-0"

2'-0"

PRELIMINARY

FILE NAME: BF27625.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: SR 1041 (RIVER RD.)
DATE DRAWN: 04-12-19	- -			CSX ROW	O.H. POWER	POLE Ⓟ	N40°03'01"	CITY & STATE: DAWSON, (FAYETTE), PA
DRAWN BY: TDF	- -			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'53"	DOT: 145463A
CHECKED BY: SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 852'	PROJECT #: PA2019555
PRS #: 34P000823	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-276.25	OP #: PA0358

EXISTING CROSSING LAYOUT
SCALE = 20:1

R.R. WEST TO WEST PITTSBURGH

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

BF 276

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

SR 819
(LAUGHLIN ST.)
START

SR 819
(LAUGHLIN ST.)
START

SR 1041
(RIVER RD.)
START

SR 1041
(RIVER RD.)
START

DEFECT DETECTOR
M.P. BF-275.30
8'X8' HOUSE

6'X6'
HOUSE

8'X8'
COMM.
HOUSE

136# CWR #1 MAIN
122# CWR

136# CWR #2 MAIN

NBS 522HZ

NBS 979HZ

#1 MAIN

#2 MAIN

NBS 522HZ

NBS 979HZ

DD #1 MAIN 122# CWR

DD #2 MAIN 140# CWR
136# CWR

6'-9"
CASE

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

STRICKLER ST.
DOT# 145461L
M.P. 275.94
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

GRISCOM ST.
DOT# 145455H
M.P. 275.74
XB

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

E.O.S. 4027'

SR 1041 (RIVER RD.) START 2007'

BRIDGE 142'

BRIDGE 93'

ISL 63'

0'

HOUSE 48'
ISL 63'

METER 98'

SPEED CHANGE 265'

SR 819 (LAUGHLIN ST.) START 701'

1298'
MILE POST 1321'

1630'

CASE 1859'
ISL 1904'

METER 1968'
1992'

SR 1041 (RIVER RD.) START 2023'

ISL 2032'

2310'

2651'

2988'

SPEED CHANGE 3161'
COMM. HOUSE 3176'

METER 3239'

SR 819 (LAUGHLIN ST.) START 3401'

METER 3654'
DD 5447'
HOUSE 5476'
DD 5493'

METER 5516'

STEP-DOWN TRANSFORMER 5526'

BRIDGE 5938'

BRIDGE 5984'

E.O.S. 6711'

PRELIMINARY

FILE NAME: BF27625.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: SR 1041 (RIVER RD.)
DATE DRAWN: 04-12-19	- -			CSX ROW	O.H. POWER	POLE Ⓟ	N40°03'01"	CITY & STATE: DAWSON, (FAYETTE), PA
DRAWN BY: RS	- -			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'53"	DOT: 145463A
CHECKED BY: SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 852'	PROJECT #: PA2019555
PRS #: 34P000823	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-276.25	OP #: PA0358

EXISTING TRACK LAYOUT

R.R. WEST TO WEST PITTSBURGH

N E W

SR 819 (LAUGHLIN ST.) START

(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

DESIGN AGAINST
PA2019559

SR 1041 (RIVER RD.) START

SR 1041 (RIVER RD.) START

DEFECT DETECTOR
M.P. BF-275.30
8'X8' HOUSE

6'X6' HOUSE

8'X8' COMM. HOUSE

136# CWR #1 MAIN
122# CWR
136# CWR #2 MAIN

NBS 151HZ NBS 267HZ

#1 MAIN
#2 MAIN

NBS 151HZ #1 MAIN NBS 267HZ DD 122# CWR
NBS 151HZ #2 MAIN NBS 267HZ DD 140# CWR 136# CWR

6'X6' 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
XB

STRICKLER ST.
DOT# 145461L
M.P. 275.94
XB

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

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

GRISCOM ST.
DOT# 145455H
M.P. 275.74
XB

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

E.O.S. 4027'
SR 1041 (RIVER RD.) START 3122'
SR 819 (LAUGHLIN ST.) START 631'
BRIDGE 142'
BRIDGE 93'
ISL 63'
0'
HOUSE 48'
ISL 63'
METER 98'
SPEED CHANGE 265'
1298'
MILE POST 1321'
1630'
ISL 1899'
HOUSE 1855'
1968'
METER 1992'
ISL 2037'
2310'
2651'
2988'
SR 1041 (RIVER RD.) START 3122'
SPEED CHANGE 3161'
COMM. HOUSE 3176'
METER 3239'
SR 819 (LAUGHLIN ST.) START 4567'
DD 5447'
HOUSE 5476'
DD 5493'
METER 5516'
STEP-DOWN TRANSFORMER 5526'
BRIDGE 5938'
BRIDGE 5984'
E.O.S. 6711'

PRELIMINARY

FILE NAME: BF27625.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: SR 1041 (RIVER RD.)
DATE DRAWN: 04-12-19	03-10-23			CSX ROW	O.H. POWER	POLE Ⓟ	N40°03'01"	CITY & STATE: DAWSON, (FAYETTE), PA
DRAWN BY: RS	- -			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79°39'53"	DOT: 145463A
CHECKED BY: SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 852'	PROJECT #: PA2019555
PRS #: 34P000823	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-276.25	OP #: PA0358

PROPOSED TRACK LAYOUT

INDEX

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I01	TITLE, NOTES, INDEX AND REVISIONS	☒	☒	☒	⊠					
S01	TRACK AND SIGNAL PLAN	☒	☒							
E01	POWER DISTRIBUTION (LOCATION A)	☒	☒							
E02	POWER DISTRIBUTION (LOCATION B)		☒							
C01	ELECTRO CODE 5 UNIT 1TZU TRACK I/O (LOCATION A)	☒	☒		⊠					
C02	ELECTRO CODE 5 UNIT 2TZU TRACK I/O (LOCATION A)	☒	☒		⊠					
C03	ELECTRO CODE 5 UNIT 1TZU LAMP OUTPUTS (LOCATION A)	☒	☒							
C04	ELECTRO CODE 5 UNIT 2TZU LAMP OUTPUTS (LOCATION A)	☒	☒							
C05	ELECTRO CODE 5 UNIT 1TZU COLORLIGHT BACKPLANE (BP-1) (LOCATION A)	☒	☒							
C06	ELECTRO CODE 5 UNIT 1TZU PROGRAM (LOCATION A)	☒	☒	☒						
C07	ELECTRO CODE 5 UNIT 2TZU COLORLIGHT BACKPLANE (BP-1) (LOCATION A)	☒	☒							
C08	ELECTRO CODE 5 UNIT 2TZU PROGRAM (LOCATION A)	☒	☒	☒						

☒ = DESIGN COMPLETED

⊠ = REVISION COMPLETED

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2006028	07-23-07	04-18-09	09-21-09
2	PA2013018	08-17-13	08-16-16	01-05-17
3	PA2019584	10-17-19	03-07-22	07-01-22
4	PA2019555	03-10-23		

TO BE COMPLETED ON A.I.S.

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE:03-10-23
CSX#:PA2019555
PRS/CDT/SAF

= OUT
= IN

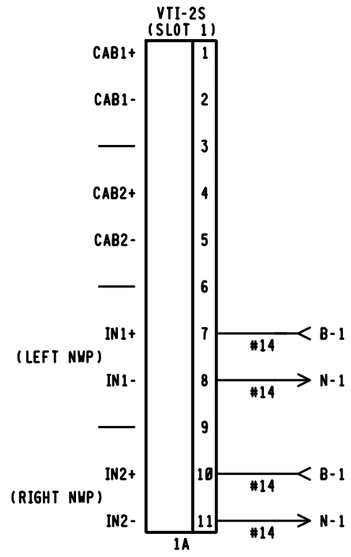
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

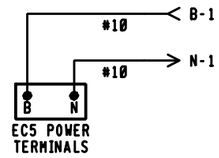
SIGNALS 2772/2773

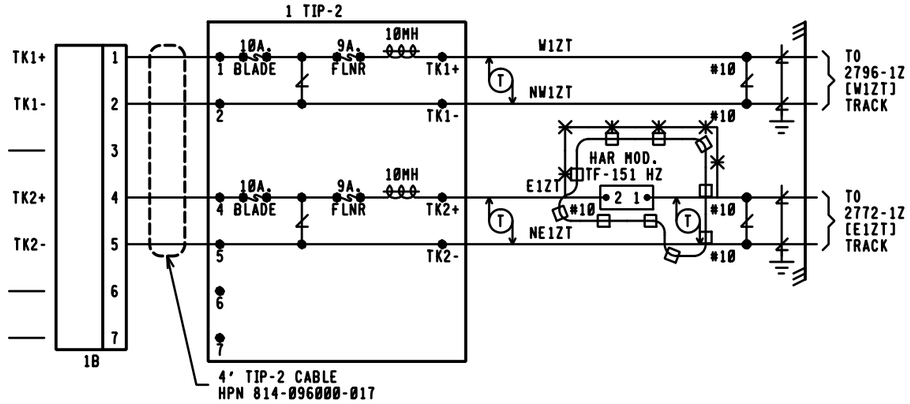
TITLE, NOTES, INDEX AND REVISIONS
LAUREL RUN, PA M.P. BF-277.27

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
10-17-19	3	-----	-----	BF27727	I01
03-10-23	4				







NOTE.

[ ] =TAGGING PURPOSES ONLY

LOCATION A
EC5 UNIT 1TZU TRACK I/0

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE:03-10-23
CSX#:PA2019555
PRS/CDT/SAF

= OUT
= IN

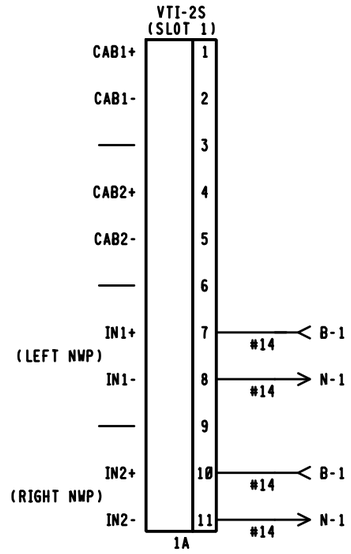
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

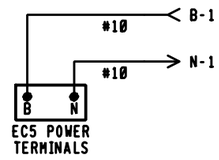
SIGNALS 2772/2773

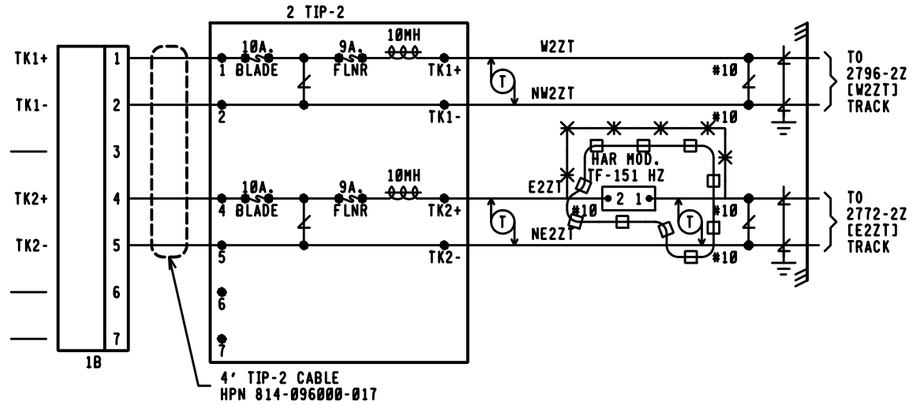
ELECTRO CODE 5 UNIT 1TZU TRACK I/O
LAUREL RUN, PA M.P. BF-277.27

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
08-17-13	2	-----	-----	BF27727	C01
03-10-23	4				







NOTE.

[ ] =TAGGING PURPOSES ONLY

LOCATION A
EC5 UNIT 2TZU TRACK I/0

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

= OUT
= IN

DATE.03-10-23
CSX#.PA2019555
PRS/CDT/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SIGNALS 2772/2773

ELECTRO CODE 5 UNIT 2TZU TRACK I/O
LAUREL RUN, PA M.P. BF-277.27

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
08-17-13	2	-----	-----	BF27727	C02
03-10-23	4				

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S01	TRACK AND SIGNAL PLAN	⊠	⊘	◈						
E01	POWER DISTRIBUTION	⊠		◈						
C01	CROSSING DETECTION CIRCUITRY	⊠								
C02	DETECTION DEVICE PROGRAM	⊠								
C03	CROSSING WARNING DEVICE CIRCUITRY	⊠								
C04	CROSSING WARNING DEVICE CIRCUITRY	⊠								
C05	RECORDER CIRCUITS	⊠								
C06	RECORDER PROGRAM	⊠								

⊠ = DESIGN COMPLETED

⊠ = REVISION COMPLETED

E02	ELECTROLOGIXS XP4 MODULE LAYOUT	◈
C01	XP4 CROSSING DETECION AND I/O CIRCUITS	◈
C02	XP4 SET UP INFORMATION	◈
C03	CROSSING WARNING DEVICE GATE CIRCUITRY	◈
C04	CROSSING WARNING DEVICE LIGHT CIRCUITRY	◈
C05	SEAR II CIRCUITS	◈
C06	SEAR II CONFIGURATION AND FUNCTIONS	◈
C07	SEAR II CHANNELS	◈
C08	WAYSIDE ACCESS GATEWAY	◈
C09	CROSSING COMMUNICATIONS EQUIPMENT	◈

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2006028	07-23-07	04-18-09	09-21-09
2	PA2019559	03-10-23		

TO BE COMPLETED ON A.I.S.

3	PA2019555	03-10-23

TO BE COMPLETED ON A.I.S.

THIS PLAN DOES ☐ DOES NOT ☒
SUPERSEDE PLAN DATED 03-10-23
CSX PROJECT # PA2019559

PRELIMINARY

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

= OUT
= IN

DATE 03-10-23
CSX#: PA2019555
PRS/CDT/SAF

PRELIMINARY

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

= OUT
= IN

DATE 03-10-23
CSX#: PA2019559
PRS/TGG/SAF

RIVER RD. 145463A

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

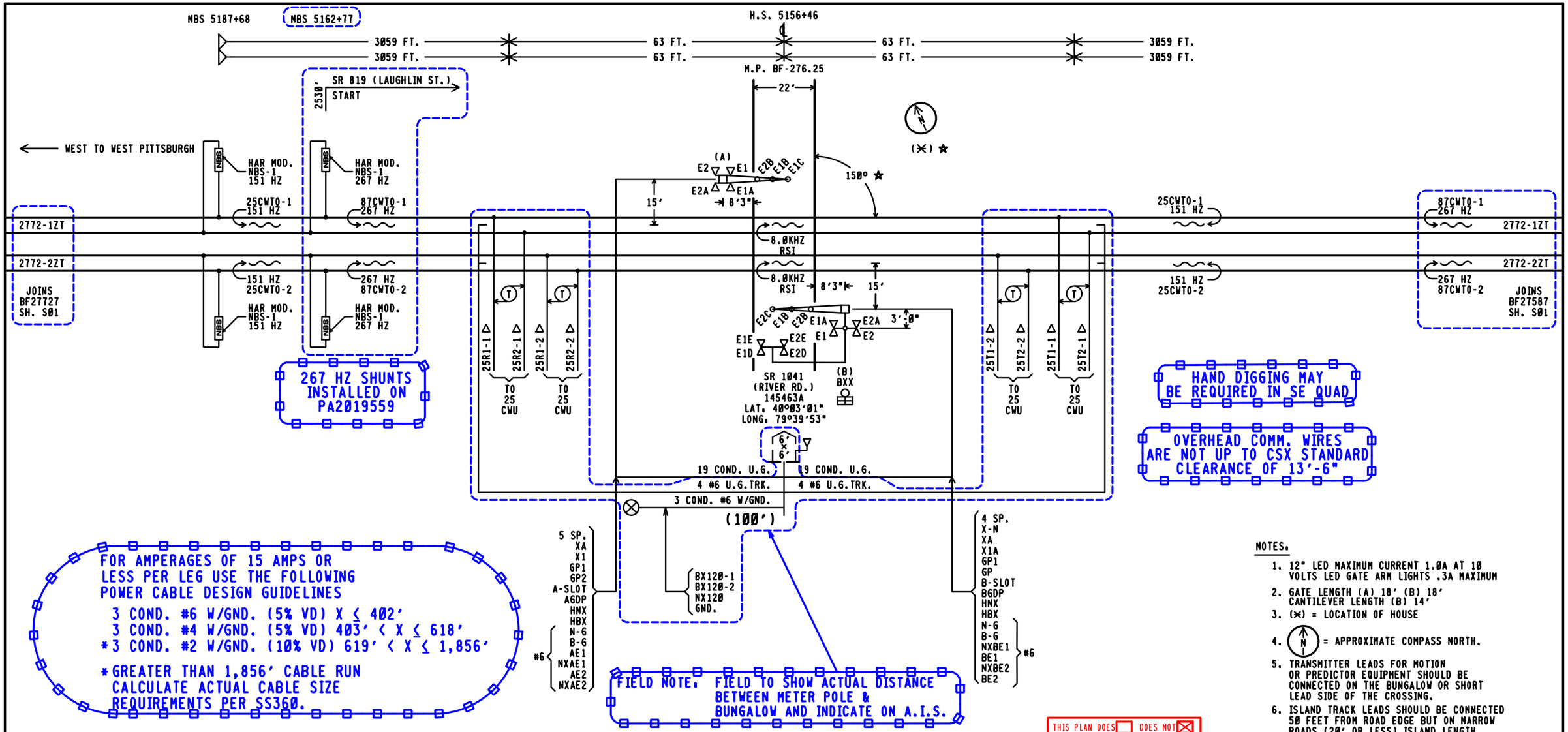
SR 1041 (RIVER RD.) 145463A

INDEX AND REVISIONS
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27625	I01

03-10-23 03-10-23 2 3



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.

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

APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	EASTBOUND MAIN CWT	WESTBOUND MAIN CWT	EASTBOUND MAIN CWT	WESTBOUND MAIN CWT
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25	25	25
ROADWAY GATE TIME IN SECONDS	5	5	5	5
CLEARANCE TIME IN SECONDS	9	9	9	9
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS *	0	0	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	39 SEC.	39 SEC.	39 SEC.	39 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	43 SEC.	43 SEC.	43 SEC.	43 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	45	45	45	45
BUFFER SPEED IN MILES PER HOUR	5	5	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	50	50	50	50
APPROACH DISTANCE TO ISLAND EDGE IN FEET	3059	3059	3059	3059
HALF WIDTH OF ISLAND IN FEET	63	63	63	63
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.84	275.66	276.84	275.66

*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) 18' (B) 18' CANTILEVER LENGTH (B) 14'
3. (*) = 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.

THIS PLAN DOES ☐ DOES NOT ☒ SUPERSEDE PLAN DATED XX/XX/XX
CSX PROJECT # PA2019559

PRELIMINARY

★ = EXISTING PER SURVEY
△ = NOMENCLATURE CHANGE ONLY
(- - -) = EXISTING
(———) = NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
— = OUT

DATE: 03-10-23
CSX#: PA2019555
PRS/CDT/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS

SR 1041 (RIVER RD.) 145463A

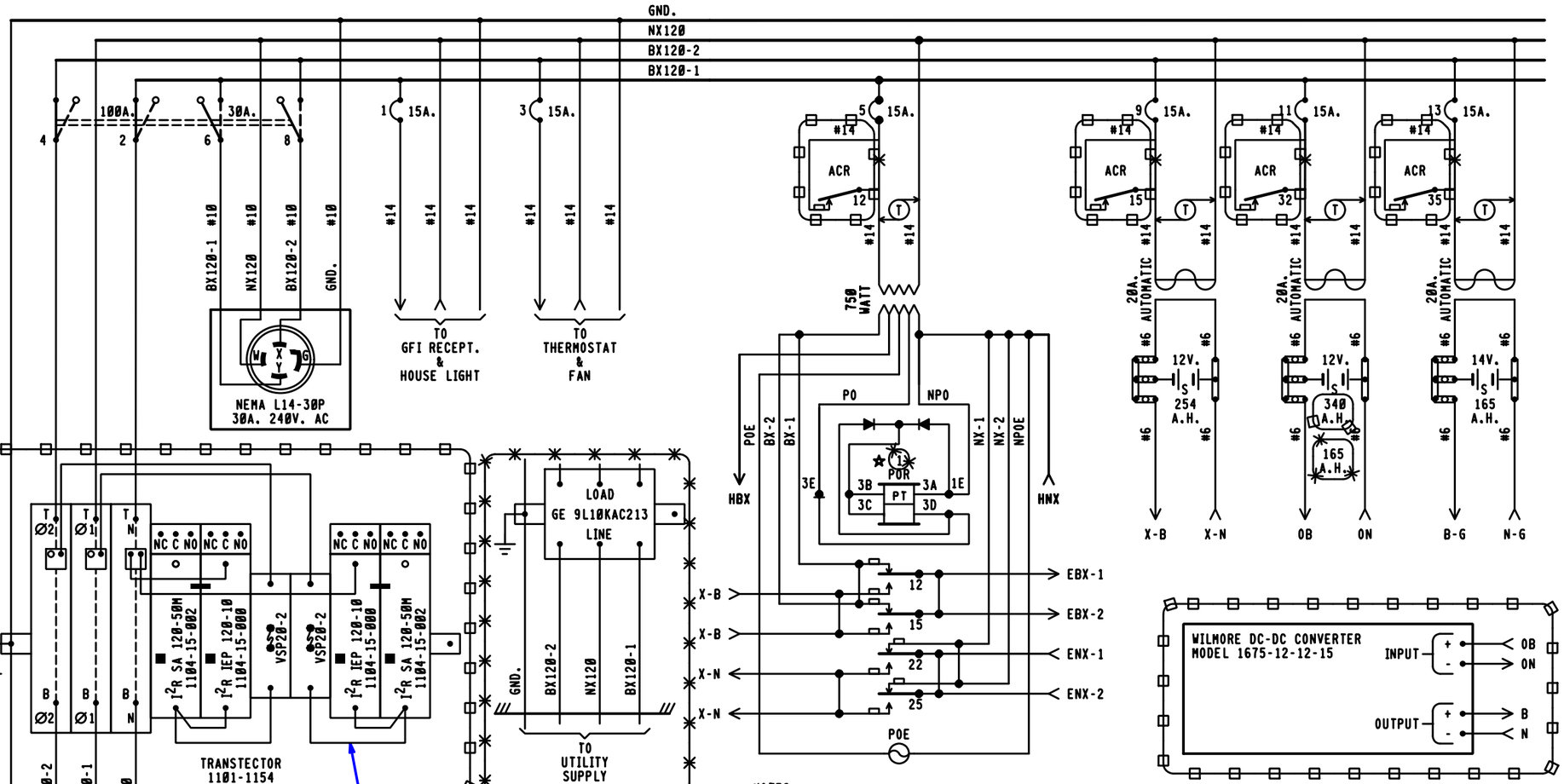
TRACK AND SIGNAL PLAN
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/CDT	PRS/CDT	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	3	-----	-----	BF27625	S01 (A)*

TOP ROW

XR			XPR			GPR			EOR			POR			ACR		
12	FB	B8	22	F	B36	12	B	B82	12	FB	B81	12	FB	B62	12	B	B77
15	FB	C30	25	F	C30	15	B	C30	15	FB	C30	15	FB	C30	15	B	C30
22						22	B		32	FB		22	FB		22		
23						25	B		35	FB		25	FB		25		
25	F					32	F					32	F		32	B	
32						35	B					35			35	B	
35																	



NOTES:

1 - REFERENCES ARE PER SCMS-13.
2 - ARRESTERS ARE PER SS382.
3 - SHELF RELAY PLACEMENT ON CONSIST CHART HAS NO SIGNIFICANCE.
4 - PLUG-IN RELAYS ARE VIEWED FROM THE FRONT OF RACK.
5 - BATTERY A.H. CAPACITY SHOWN IS THE MINIMUM REQUIREMENT.
6 - 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 - GROUND WIRE NOT NECESSARY WHEN GE ARRESTER IS MOUNTED ON GROUND PLANE OR METAL ENCLOSURE AFFIXED DIRECTLY TO BUNGALOW METALLIC STRUCTURAL MEMBER.
7 - CIRCUIT INTERRUPTERS 2 & 4 ARE MECHANICALLY INTERLOCKED WITH CIRCUIT INTERRUPTERS 6 & 8.

PRELIMINARY

★ = DRAFTING ERROR CORRECTION

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE 03-10-23
CSX#.PA2019555
PRS/CDT/SAF

= OUT
= IN

RIVER RD. 145463A
6'X6' RELAY HOUSE W/FARADAY SHIELD

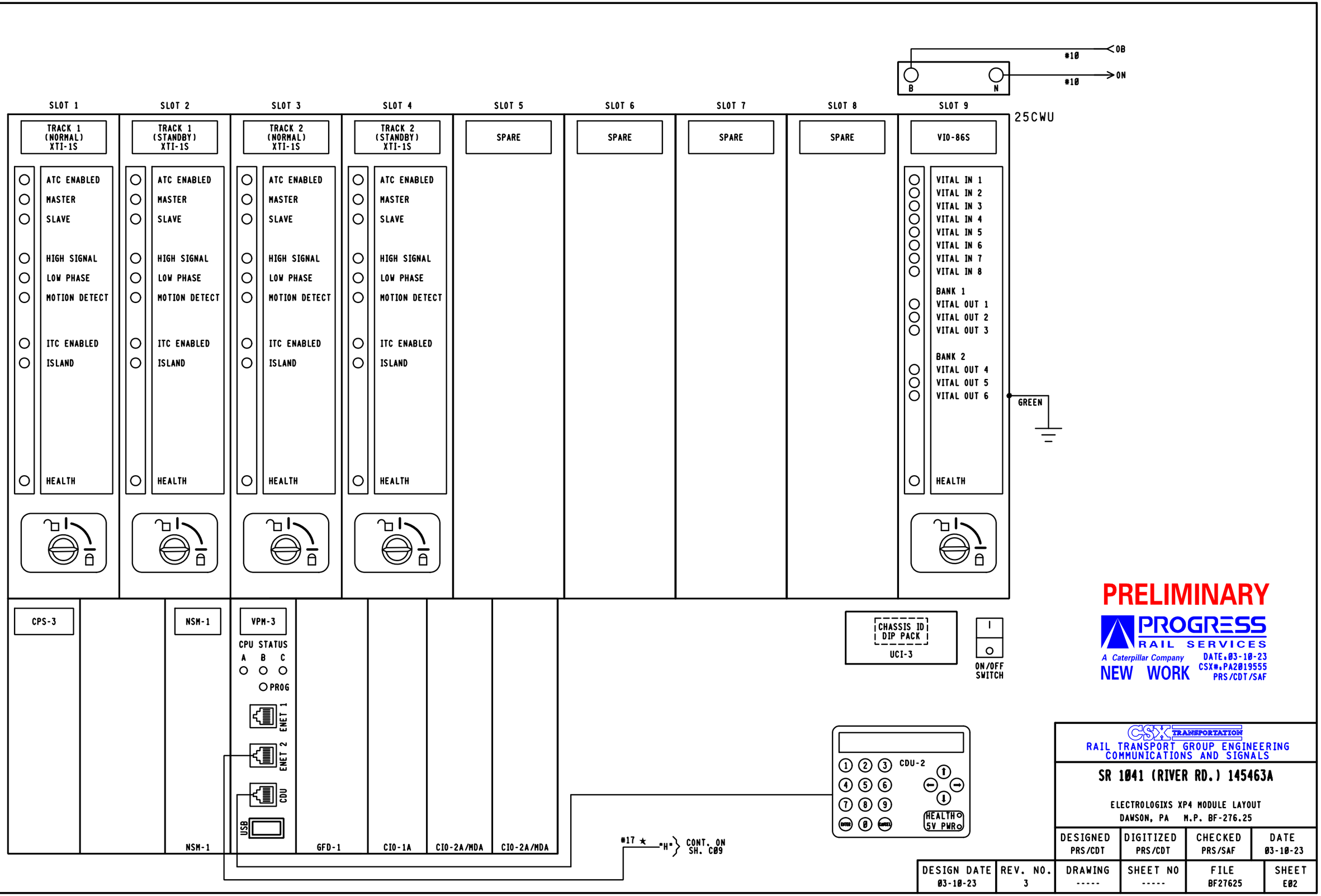
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

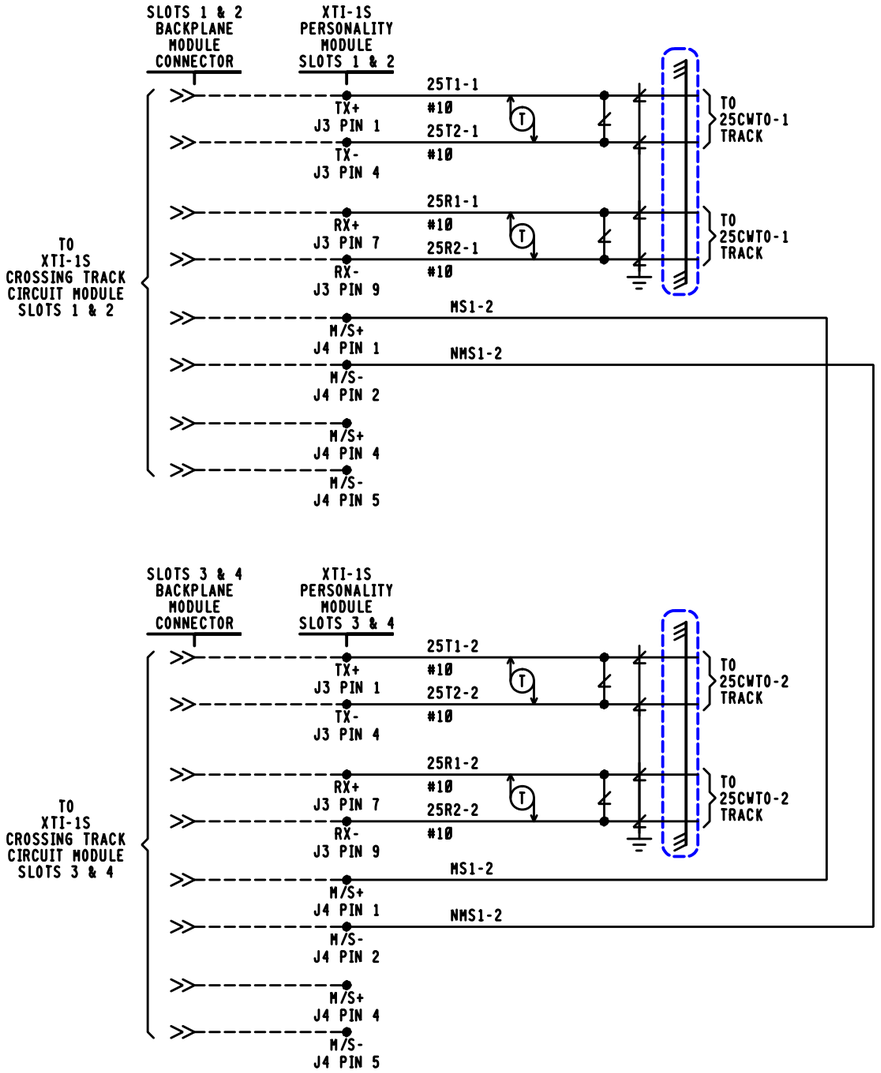
SR 1041 (RIVER RD.) 145463A

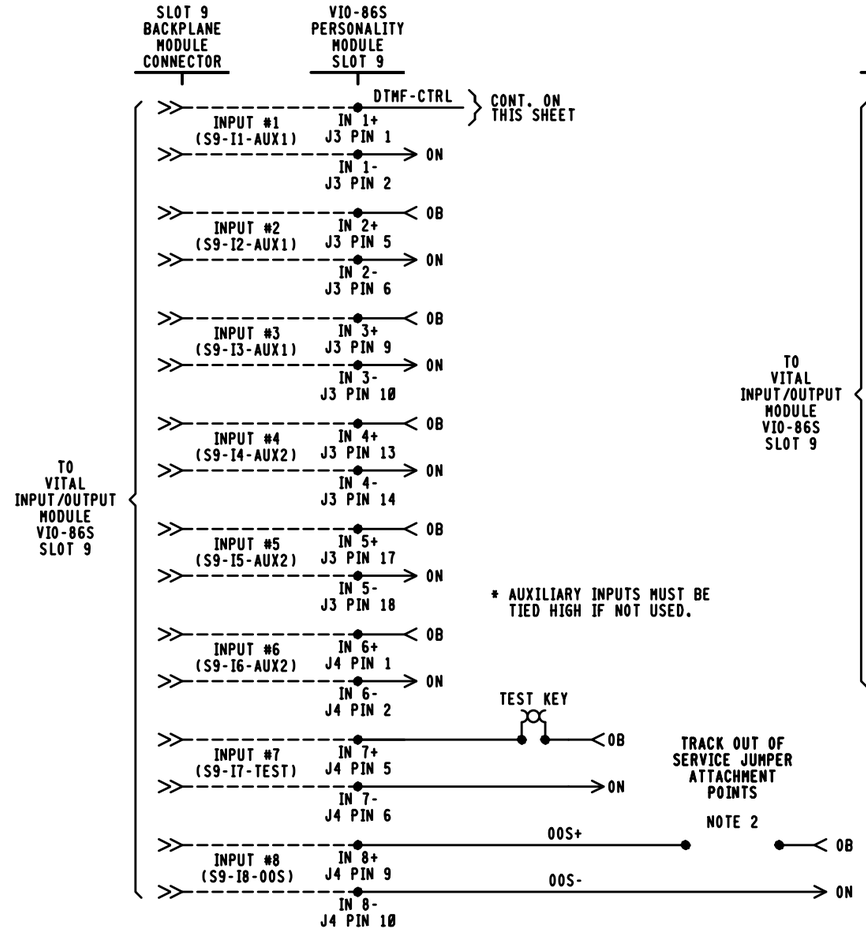
POWER DISTRIBUTION
DAWSON, PA M.P. BF-276.25

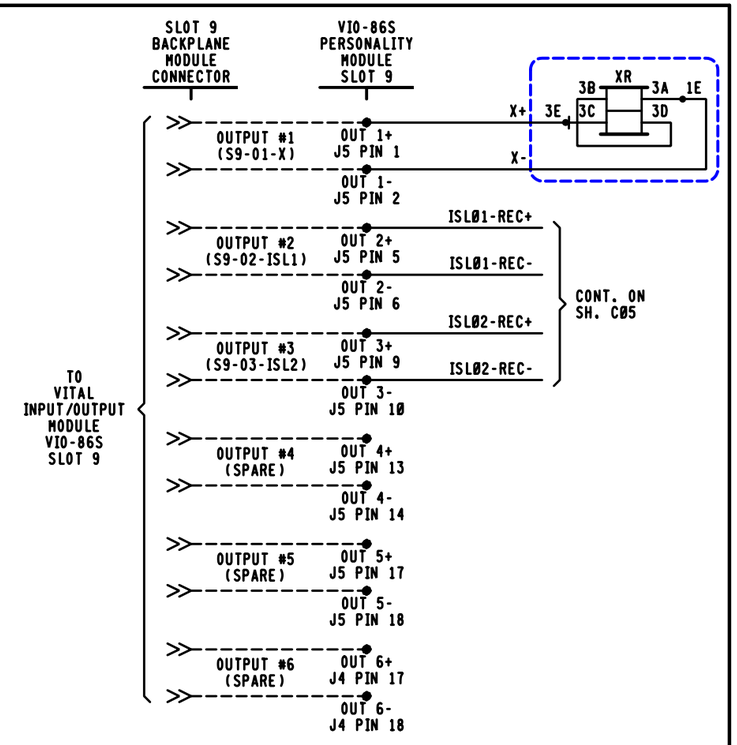
DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

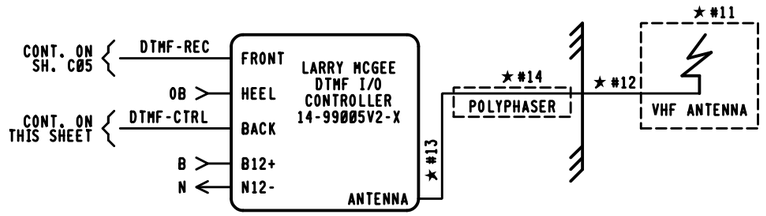
DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27625	E01
03-10-23	3				


#10 OB
#10 ON
B
N
SLOT 1
SLOT 2
SLOT 3
SLOT 4
SLOT 5
SLOT 6
SLOT 7
SLOT 8
SLOT 9
25CWU
TRACK 1 (NORMAL) XTI-1S
TRACK 1 (STANDBY) XTI-1S
TRACK 2 (NORMAL) XTI-1S
TRACK 2 (STANDBY) XTI-1S
SPARE
SPARE
SPARE
SPARE
VIO-86S
ATC ENABLED
MASTER
SLAVE
HIGH SIGNAL
LOW PHASE
MOTION DETECT
ITC ENABLED
ISLAND
HEALTH
VITAL IN 1
VITAL IN 2
VITAL IN 3
VITAL IN 4
VITAL IN 5
VITAL IN 6
VITAL IN 7
VITAL IN 8
BANK 1
VITAL OUT 1
VITAL OUT 2
VITAL OUT 3
BANK 2
VITAL OUT 4
VITAL OUT 5
VITAL OUT 6
GREEN
CPS-3
NSM-1
VPM-3
CPU STATUS
A B C
PROG
ENET 1
ENET 2
CDU
USB
GFD-1
CIO-1A
CIO-2A/MDA
CIO-2A/MDA
CHASSIS ID DIP PACK
UCI-3
ON/OFF SWITCH
CDU-2
HEALTH
5V PWR
#17 ★ "H" CONT. ON SH. C09
PRELIMINARY
PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE 03-10-23
CSX# PA20195555
PRS/CDT/SAF
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS
SR 1041 (RIVER RD.) 145463A
ELECTROLOGIXS XP4 MODULE LAYOUT
DAWSON, PA M.P. BF-276.25
DESIGNED PRS/CDT
DIGITIZED PRS/CDT
CHECKED PRS/SAF
DATE 03-10-23
DESIGN DATE 03-10-23
REV. NO. 3
DRAWING -----
SHEET NO -----
FILE BF27625
SHEET E02









PROGRAMMING FOR DTMF RADIO

REMOTE DTMF CROSSING ACTIVATION (ACTIVATES ENTIRE CROSSING)	
TO ACTIVATE PRESS.	463*
TO DE-ACTIVATE PRESS.	463#
(ACTIVATION WILL TIME OUT AFTER 60 SEC.)	

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	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. DTMF USES LAST 3 DIGITS (NUMBERS) OF THE CROSSING DOT# TO OPERATE CROSSING PROTECTION DEVICES.
4. ★ = REFER TO SH. C09

PRELIMINARY

( ) = EXISTING

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE.03-10-23
CSX#.PA2019555
PRS/CDT/SAF

✱——✱ = OUT

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 1041 (RIVER RD.) 145463A

XP4 CROSSING DETECTION AND I/O CIRCUITS
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/CDT	PRS/CDT	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	3	-----	-----	BF27625	C01 (A)✱

SITE SPECIFIC MDR DESCRIPTIONS AND SETTINGS					
NAME		MDR1		MDR2	
FUNCTION		XR		XR	
WARNING TIME		39		39	
CW/MD		CW		CW	
AP TIME(PREEMPT)		NA		NA	
CWE-WT		80		80	
AUX RECOVERY DELAY		5		5	
TRACK		TK 1	TK 2	TK 1	TK 2
TRACK ASSIGNED		ASSIGNED	UNASSIGNED	UNASSIGNED	ASSIGNED
OFFSET DISTANCE		0'	NA	NA	0'
MD RESTART		0*	NA	NA	0*
SUDDEN SHUNT ZONE		0*	NA	NA	0*
POSITIVE START	PSEN	DISABLE	NA	NA	DISABLE
	PSRX	NA	NA	NA	NA
	PST	NA	NA	NA	NA
POST JOINT DETECT	PJEN	ENABLE	NA	NA	ENABLE
	PJRX	15	NA	NA	15
	PJDT	15	NA	NA	15
CLEAR JOINT LOS	CJ-LOS MODE	STANDARD	NA	NA	STANDARD
	CJ-LOS RX	15	NA	NA	15
	CJ-LOS TIME	99	NA	NA	99

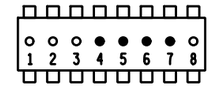
BASIC TRACK SETUP		
	TRACK 1	TRACK 2
FREQUENCY	151 HZ	151 HZ
MASTER/SLAVE	MASTER	SLAVE
RX ADJUST	100 *	100 *
TCA	*	*
DIRECTION MODE	BI	BI
LIA	*	*
ADVANCED APPROACH	*	*
NBS COMP RX	*	*
TRK ISLAND ASSIGN	ISL1	ISL2
APPROACH LENGTH	3059'	3059'
AUTO RX	ENABLE	ENABLE

ADVANCED TRACK SETUP			
		TRACK 1	TRACK 2
MOTION DET TIMER	MDEN	DISABLE	DISABLE
	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	1	1

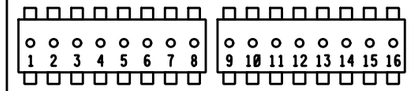
APPLICATION SOFTWARE INFORMATION	
NAME	9XXS-2.01
REV.	1.0
CHECKSUM	E49B
CRC	FF9E
CH. I.D.	225

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)

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

VITAL SELECTION DIP SHUNTS		
#	NAME	STATE
1	MI_BELL_SW	PUNCHED OUT
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

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE.03-10-23
CSX#.PA2019555
PRS/CDT/SAF

-*-*- = OUT

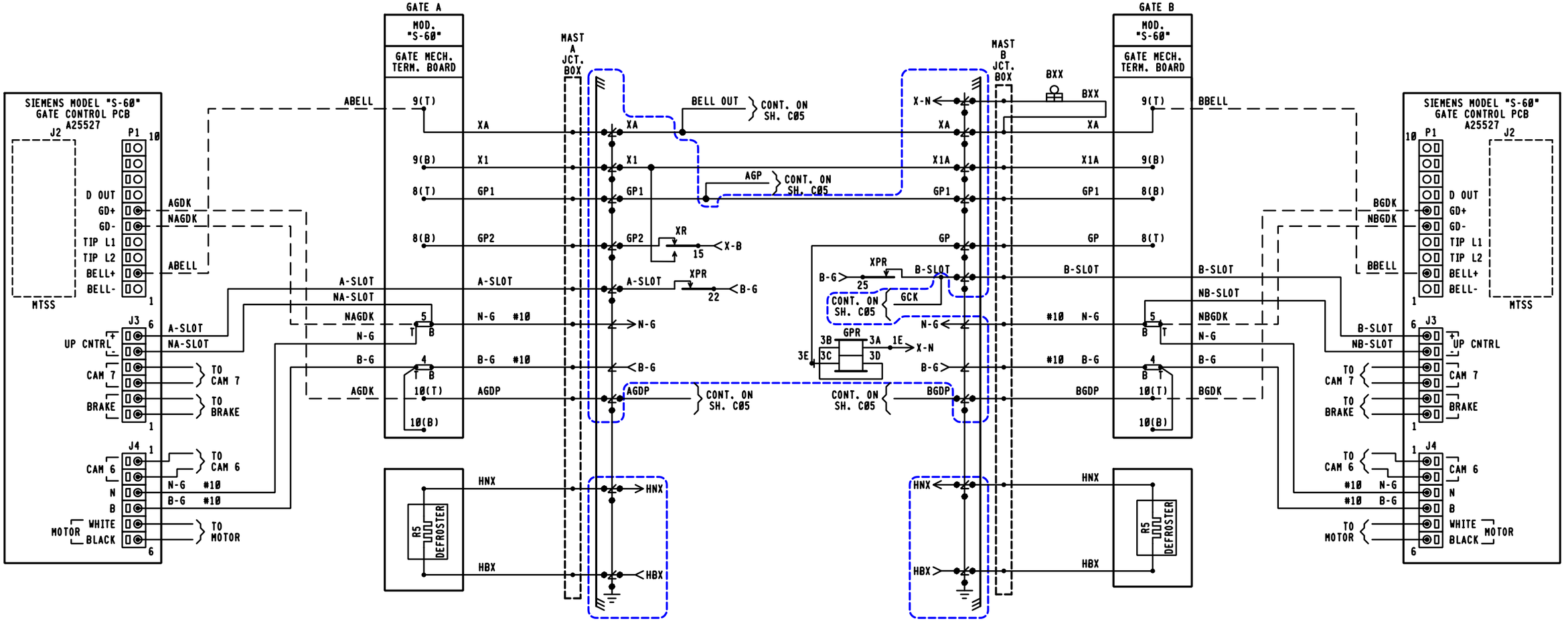
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

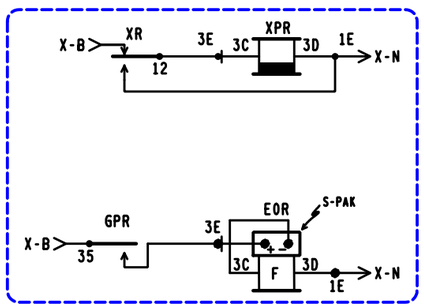
SR 1041 (RIVER RD.) 145463A

XP4 SET UP INFORMATION
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/CDT	PRS/CDT	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	3	-----	-----	BF27625	C02 A





PRELIMINARY

( ) = EXISTING

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK = OUT

DATE 03-10-23
CSX#: PA2019555
PRS/CDT/SAF

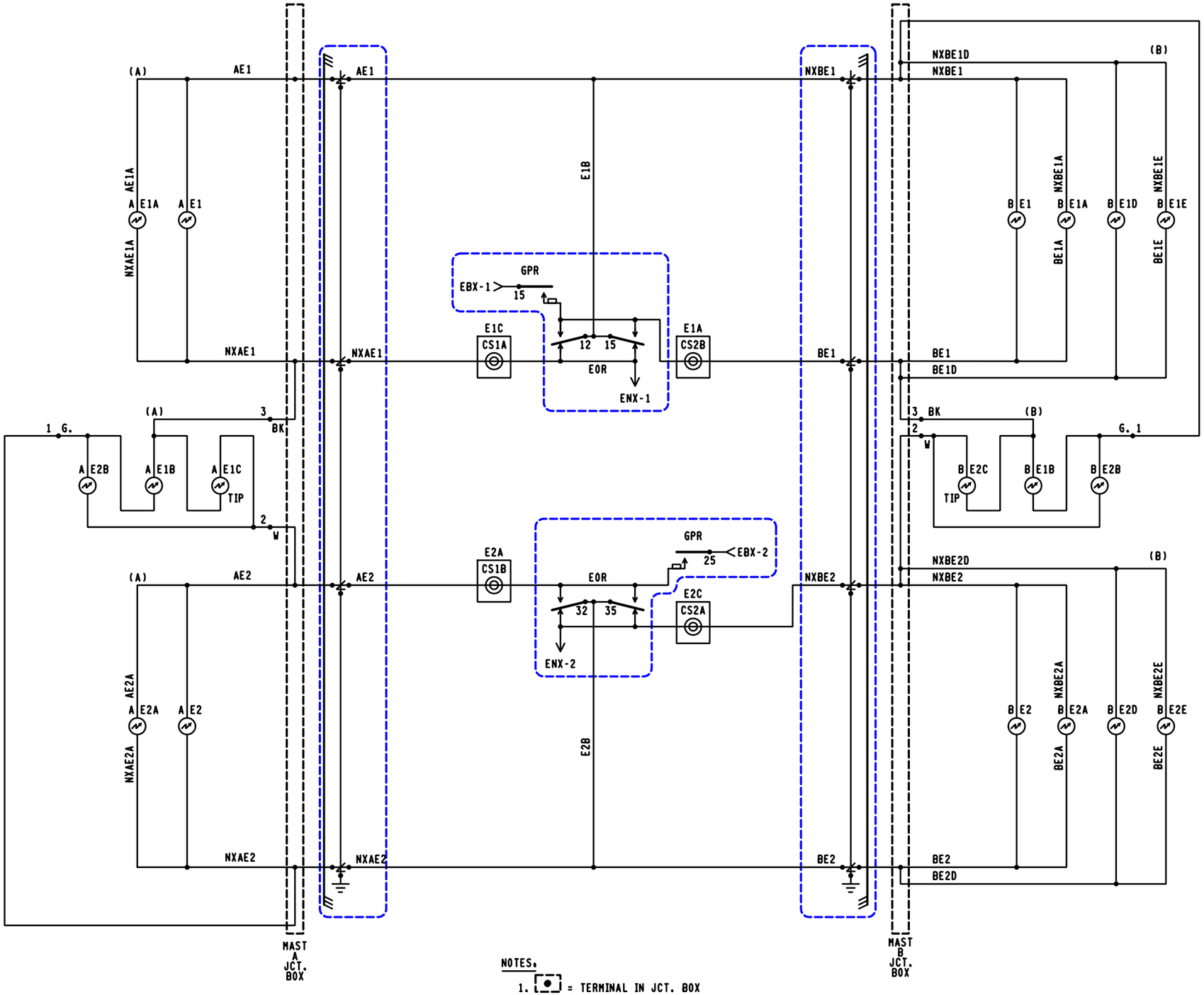
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 1041 (RIVER RD.) 145463A

CROSSING WARNING DEVICE GATE CIRCUITRY
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/CDT	PRS/CDT	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	3	-----	-----	BF27625	C03 A



NOTES:

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

PRELIMINARY

= EXISTING

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE: 03-10-23
CSX#: PA2019555
PRS/CDT/SAF

= OUT

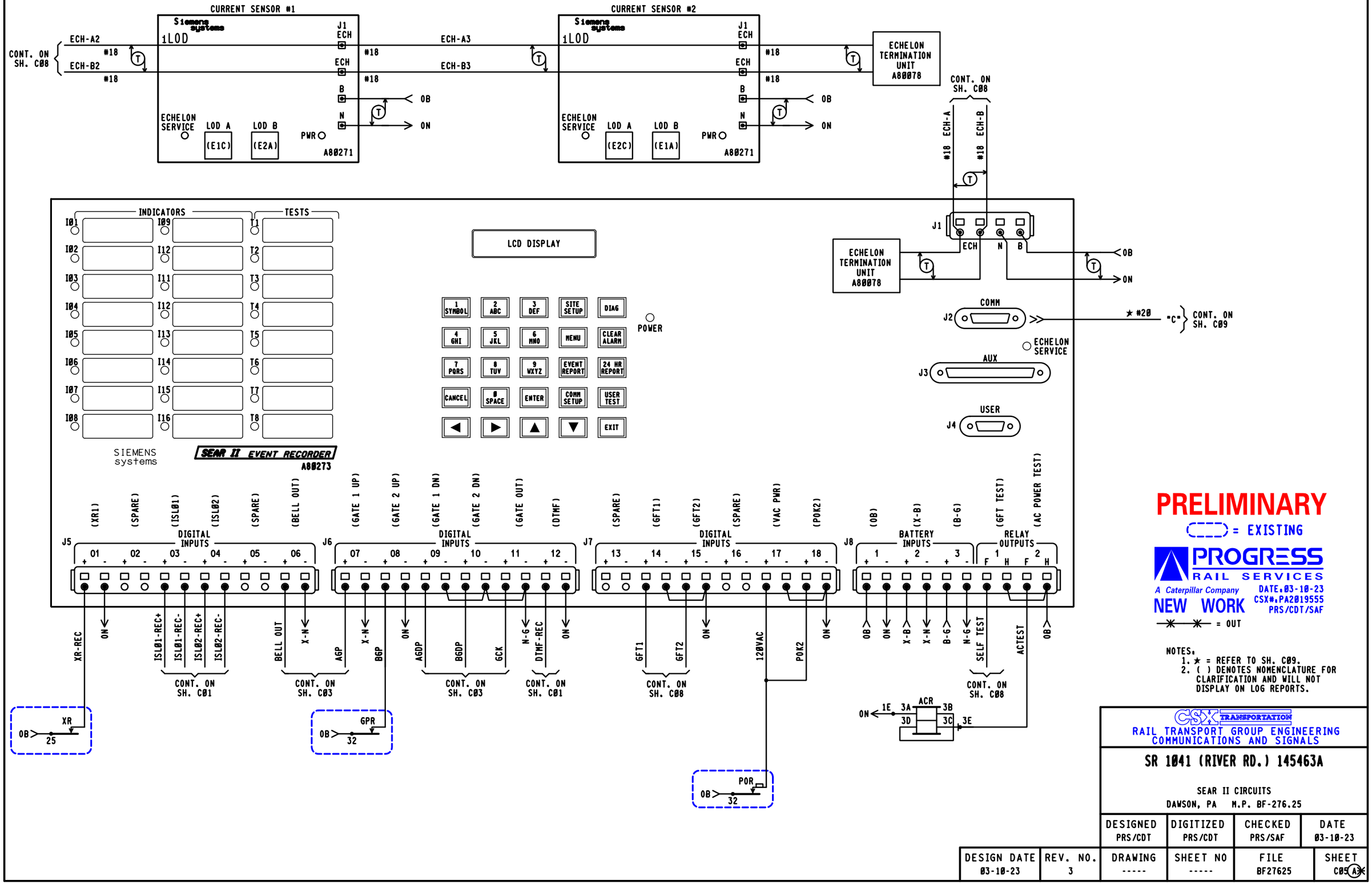
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 1041 (RIVER RD.) 145463A

CROSSING WARNING DEVICE LIGHT CIRCUITRY
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/CDT	PRS/CDT	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	3	-----	-----	BF27625	C04 (A)



PRELIMINARY

(----) = EXISTING

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK — DATE 03-10-23
CSX#: PA2019555
PRS/CDT/SAF

✱—✱ = OUT

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

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 1041 (RIVER RD.) 145463A

SEAR II CIRCUITS
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/CDT	PRS/CDT	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	3	-----	-----	BF27625	C05 A

	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	SR 1041 (RIVER RD.)	
MILEPOST	BF-276.25	
DOT NUMBER	145463A	
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	7.125.304.016.99.01	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)	NOTE 6
RADIO ATCS ADDRESS	7.125.304.016.01.01	
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)	

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 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
CURRENT SENSOR (2) E2C. LAMP SET UP	6	□BULBS ■LED	X.X
CURRENT SENSOR (2) E1A. LAMP SET UP	6	□BULBS ■LED	X.X

MEASURE BATTERY VOLTAGE AT INPUT		
BATTERY VOLTAGE	0B	XXXX VOLTS
BATTERY VOLTAGE	X-B	XXXX VOLTS
BATTERY VOLTAGE	B-G	XXXX VOLTS

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	GCP3K □ MS4K □ 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 □

PRELIMINARY

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

= OUT

DATE. 03-10-23
CSX#. PA2019555
PRS/CDT/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 1041 (RIVER RD.) 145463A

SEAR II CONFIGURATION AND FUNCTIONS
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/CDT	PRS/CDT	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	3	-----	-----	BF27625	C06 A

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	
TAG	GCOUT1 (GCK)	DTMF-REC	SP
OFF NAME	OFF (DESCENT)	OFF (NO GATE KEYED)	
ON NAME	ON (ASCENT ON)	ON (ACTIVATE)	
ON DEBOUNCE TIME	100 ms	100 ms	1000 ms
OFF DEBOUNCE TIME	100 ms	100 ms	1000 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		120 VAC	POK2
TAG	SP	120 VAC	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)	1.0 (VOLTS)	1.0 (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.

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE.03-10-23
CSX#.PA2019555
PRS/CDT/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 1041 (RIVER RD.) 145463A

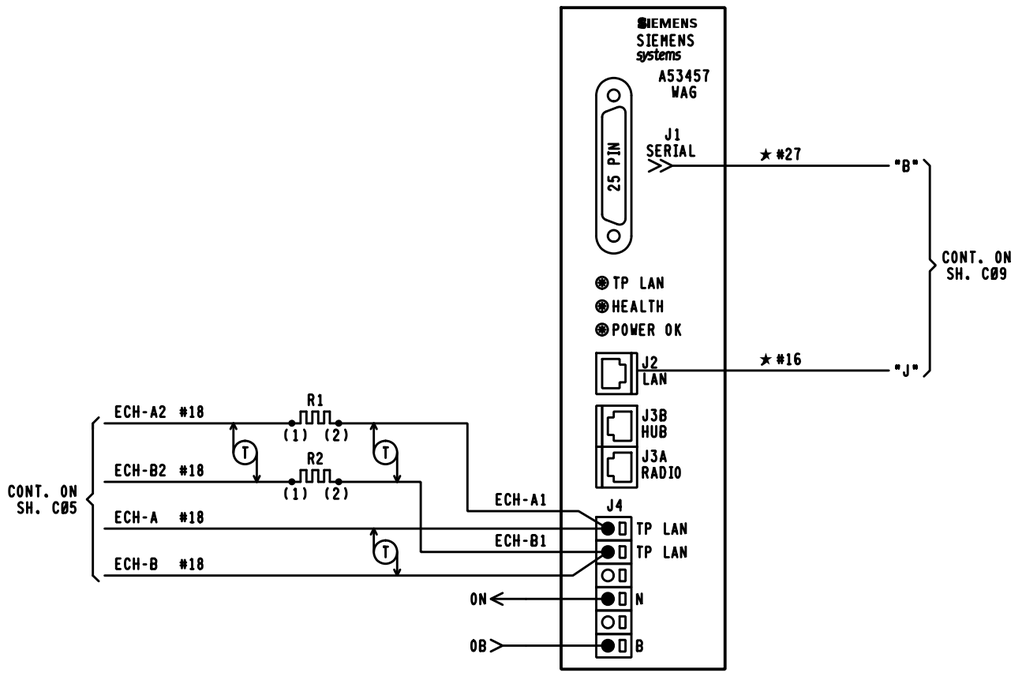
SEAR II CHANNELS
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/CDT	PRS/CDT	PRS/SAF	03-10-23

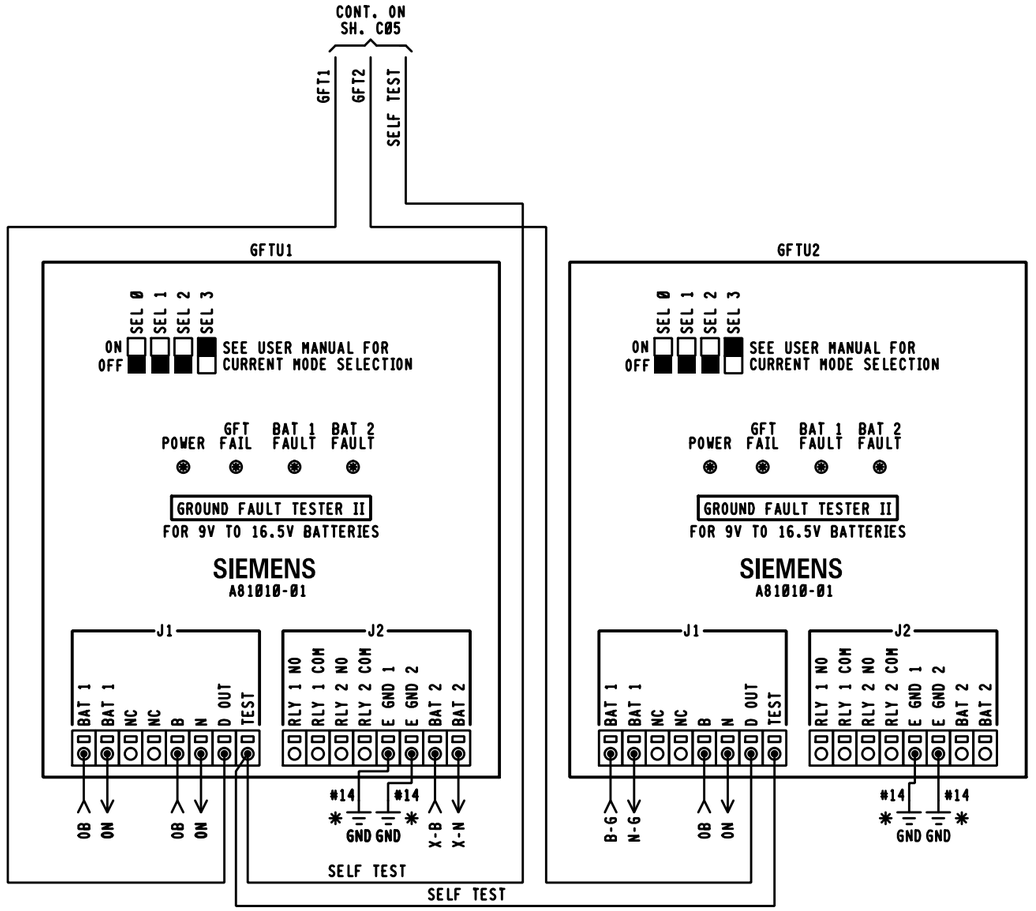
DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	3	-----	-----	BF27625	C07

WAYSIDE ACCESS GATEWAY CONFIGURATION	
SITE ATCS ADDRESS	7.125.304.016.07.01
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--7RRRLLLGGGSS
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



NOTES:
1. ★ = REFER TO SH. C09.
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, 20Ω RESISTOR

PRELIMINARY

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE: 03-10-23
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PRS/CDT/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
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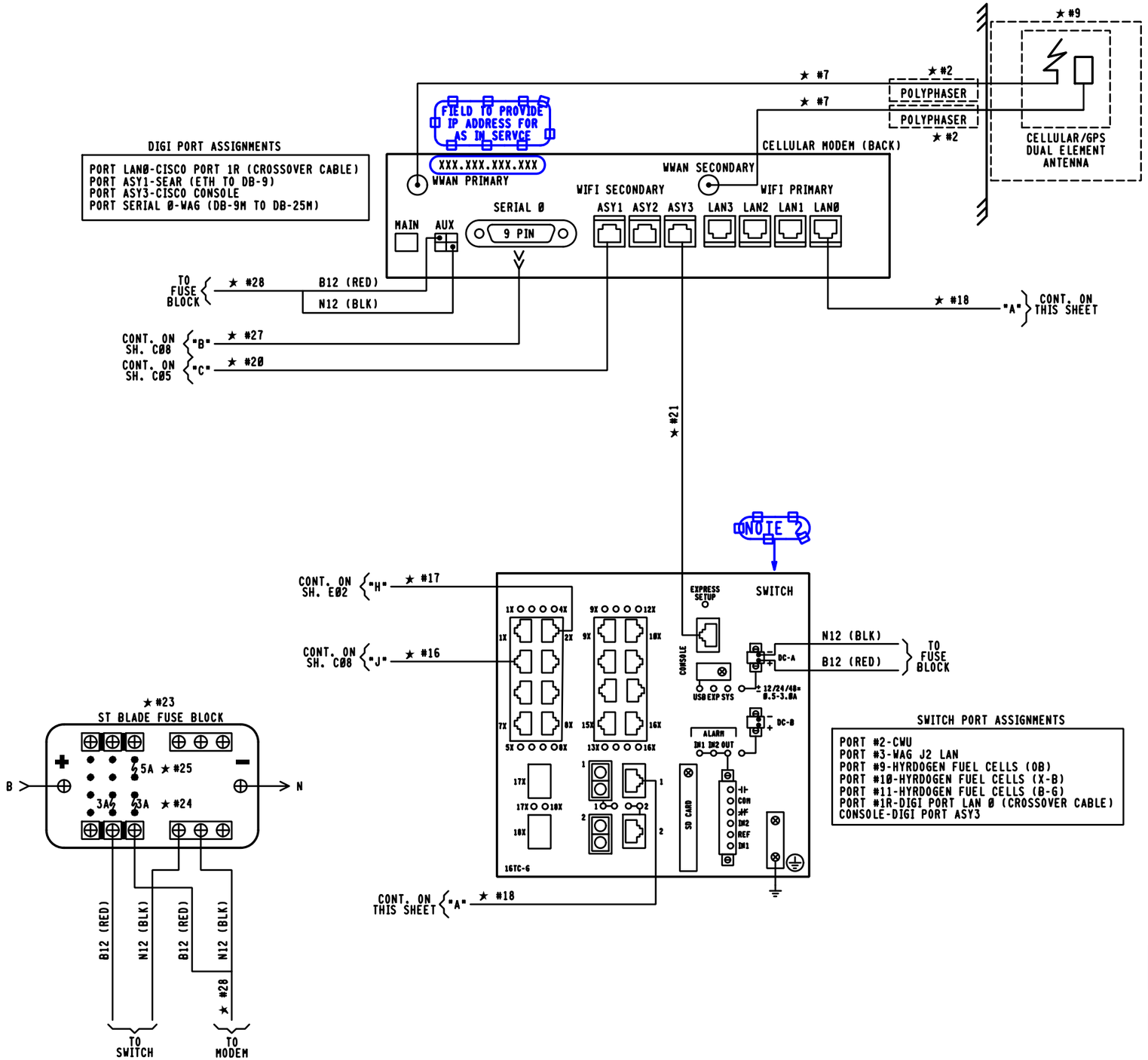
WAYSIDE ACCESS GATEWAY
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/CDT	PRS/CDT	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	3	-----	-----	BF27625	C08



★ CSDA-30348-KIT (020.0000367.1)		
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.

PRELIMINARY

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE: 03-10-23
CSX#: PA2019555
PRS/CDT/SAF

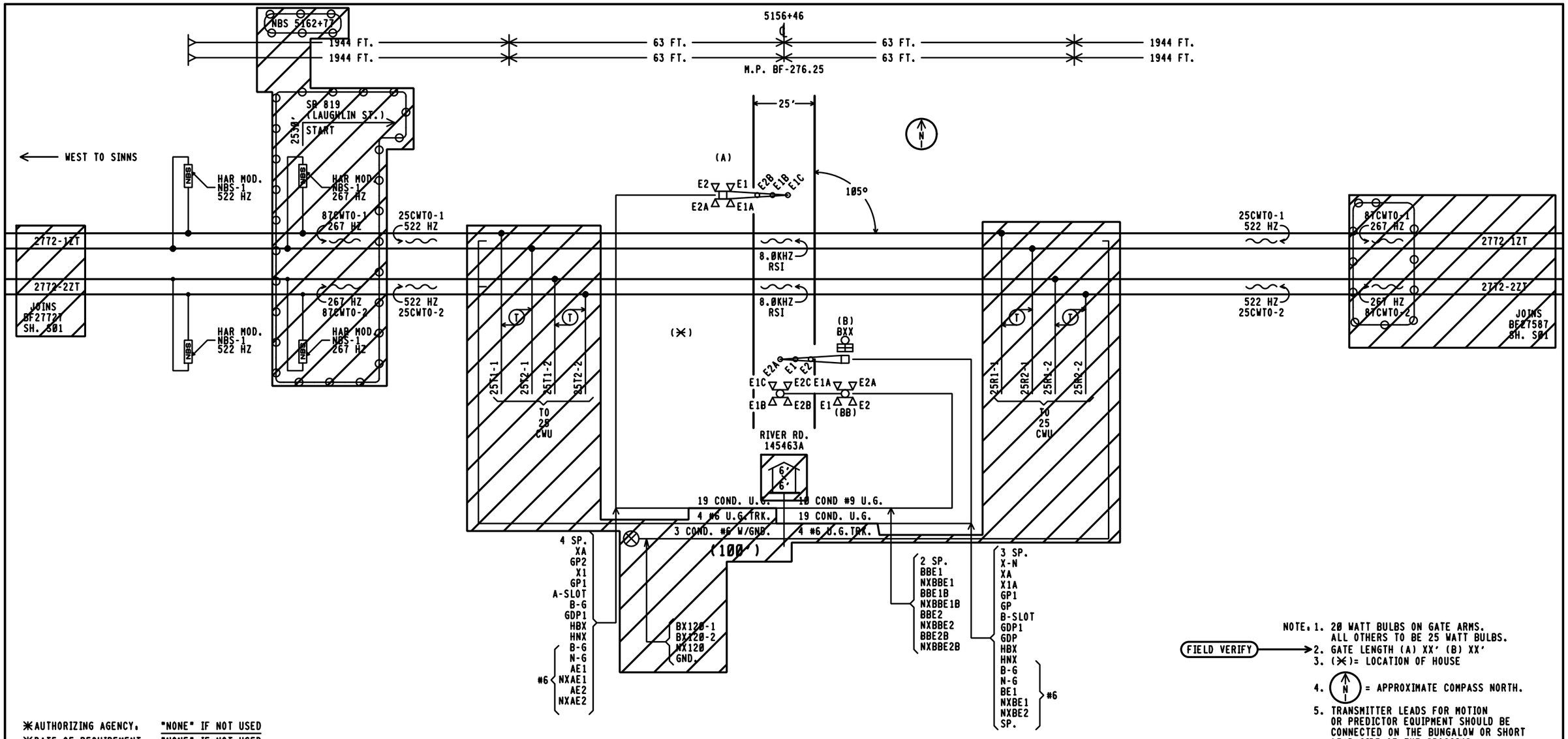
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 1041 (RIVER RD.) 145463A

CROSSING COMMUNICATIONS EQUIPMENT
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/CDT	PRS/CDT	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	3	-----	-----	BF27625	C09



✳AUTHORIZING AGENCY, "NONE" IF NOT USED
✳DATE OF REQUIREMENT, "NONE" IF NOT USED
✳AMOUNT OF TIME (SEC.), "NONE" IF NOT USED

APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	WESTWARD TRACK 1 MOTION	EASTWARD TRACK 1 MOTION	WESTWARD TRACK 2 MOTION	EASTWARD TRACK 2 MOTION
STANDARD MINIMUM WARNING TIME IN SECONDS	20	20	20	20
ROADWAY GATE TIME IN SECONDS	5	5	5	5
CLEARANCE TIME IN SECONDS	2	2	2	2
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS ✳	0	0	0	0
DESIGNED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	27 SEC.	27 SEC.	27 SEC.	27 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS ✳	0	0	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	3	3	3	3
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	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	1944	1944	1944	1944
HALF WIDTH OF ISLAND IN FEET	63	63	63	63
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	275.81	276.63	275.81	276.63

PRELIMINARY

= SHOWN ELSEWHERE

ALL ELSE OUT
THIS SHEET IS VOID
WHEN AS IN SERVICED.

PROGRESS RAIL SERVICES
A Caterpillar Company
DATE.03-10-23
CSX#.PA2019555
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PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company
DATE.03-10-23
CSX#.PA2019559
PRS/T66/SAF

✕—✕ = OUT
o—o = IN

NOTE. 1. 20 WATT BULBS ON GATE ARMS.
ALL OTHERS TO BE 25 WATT BULBS.
FIELD VERIFY → 2. GATE LENGTH (A) XX' (B) XX'
3. (✕)= 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

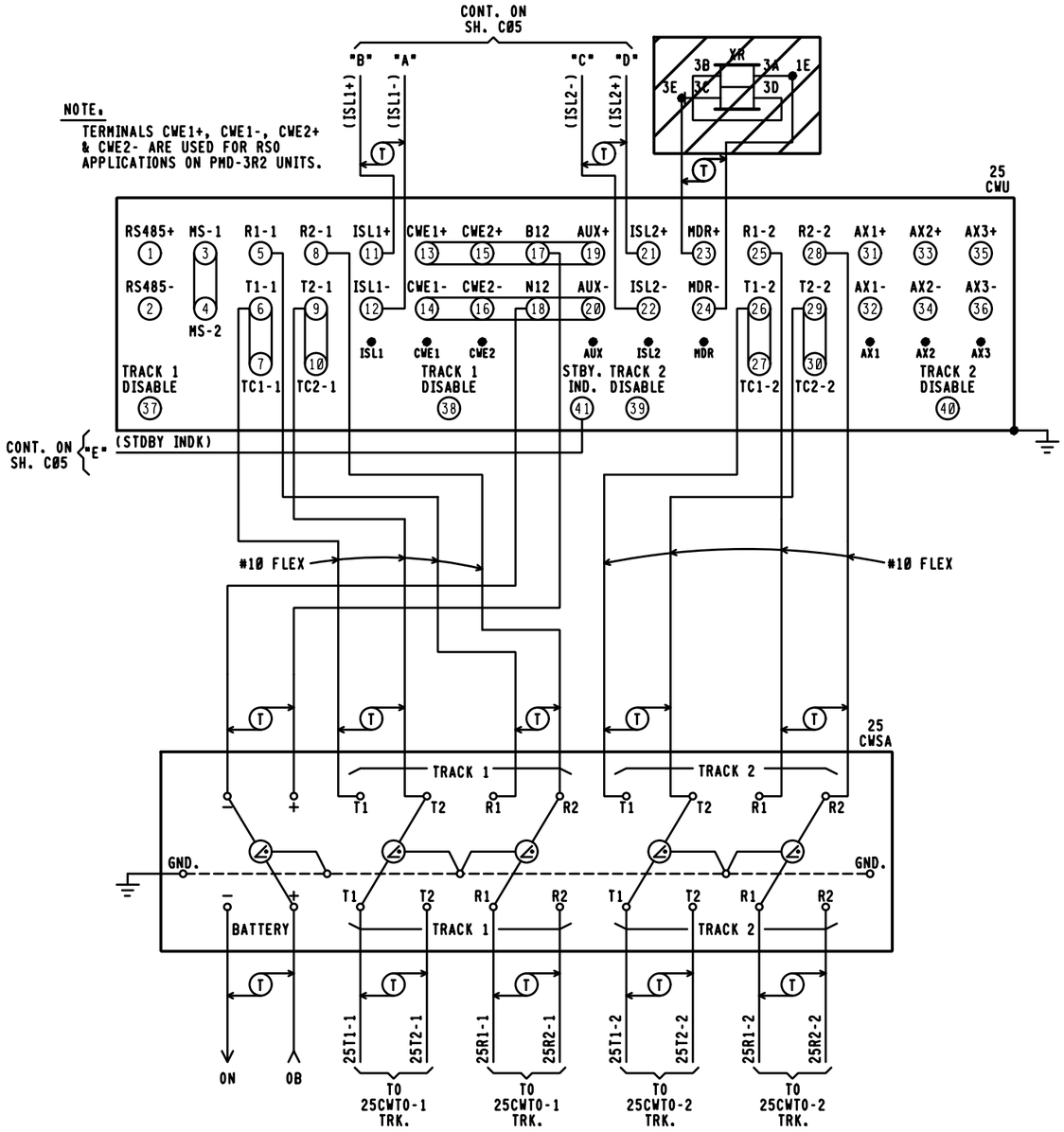
RIVER RD. 145463A

TRACK AND SIGNAL PLAN
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27625	S01
03-10-23	2				

NOTE.
TERMINALS CWE1+, CWE1-, CWE2+ & CWE2- ARE USED FOR RSO APPLICATIONS ON PMD-3R2 UNITS.



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PROGRESS RAIL SERVICES
A Caterpillar Company

DATE:03-10-23
CSX#:PA2019555
PRS/CDT/SAF

NORMAL SYSTEM

CABINET SWITCHES

MASTER/SLAVE SWITCHES ARE LOCATED IN THE UPPER BAY OF CABINET

THESE SWITCHES ARE LOCATED ON MOTHERBOARD

SYSTEM CONFIGURATION				
S13 & S14 DIP SWITCH POSITIONS				
SWITCH #	1	2	3	4
SWITCH POSITION	ON	OFF	ON	OFF
	NOR. APPR.		PMD MODE	

	FREQUENCY SELECT					
TRACK 1	S11 & S12 DIP SWITCH POSITIONS 522 HZ					
	SWITCH #	1	2	3	4	5
	SWITCH POSITION	ON	ON	ON	ON	OFF
TRACK 2	S15 & S16 DIP SWITCH POSITIONS 522 HZ					
	SWITCH #	1	2	3	4	5
	SWITCH POSITION	ON	ON	ON	ON	OFF

STANDBY SYSTEM

CABINET SWITCHES

MASTER/SLAVE SWITCHES ARE LOCATED IN THE UPPER BAY OF CABINET

MASTER/SLAVE

MASTER SLAVE S1 TRACK 1

MASTER SLAVE S2 TRACK 2

THESE SWITCHES ARE LOCATED ON MOTHERBOARD

SYSTEM CONFIGURATION				
S5 & S6 DIP SWITCH POSITIONS				
SWITCH #	1	2	3	4
SWITCH POSITION	ON	OFF	ON	OFF
	NOR. APPR.		PMD MODE	

	FREQUENCY SELECT					
TRACK 1	S3 & S4 DIP SWITCH POSITIONS 522 HZ					
	SWITCH #	1	2	3	4	5
	SWITCH POSITION	ON	ON	ON	ON	OFF
TRACK 2	S7 & S8 DIP SWITCH POSITIONS 522 HZ					
	SWITCH #	1	2	3	4	5
	SWITCH POSITION	ON	ON	ON	ON	OFF

TLM MODULE JUMPERS

STANDBY ONLY (TOGGLE MODE) W1 — 3 2 1 (*)

ISL 1 DISABLE (ENABLE MODE) W2 — 3 2 1 (*)

ISL 2 DISABLE (ENABLE MODE) W3 — 3 2 1 (*)

MINUTE TIMEOUT SWITCH

SETTING (☆) 9 MINUTES

NOTE.
PIN 1 IS IDENTIFIED BY ASTERICK BELOW IT.
(☆) = MAY BE SET PER FIELD CONDITIONS.

TRACK 1 NORMAL RSI JUMPERS

LOS 0
LOS 1
LOS 2
FAULT 0
FAULT 1

TRACK 2 NORMAL RSI JUMPERS

LOS 0
LOS 1
LOS 2
FAULT 0
FAULT 1

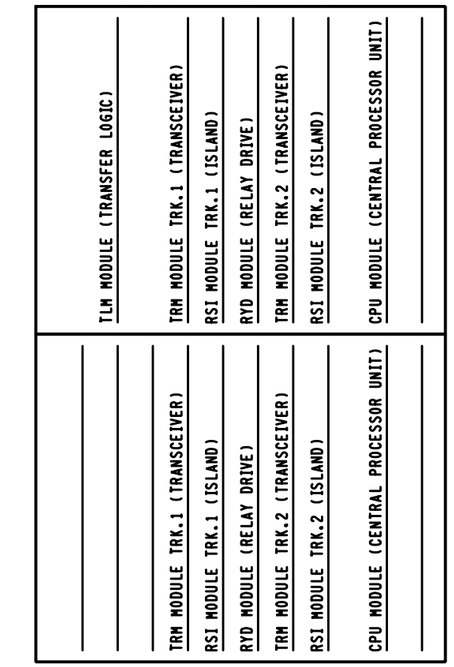
TRACK 1 STANDBY RSI JUMPERS

LOS 0
LOS 1
LOS 2
FAULT 0
FAULT 1

TRACK 2 STANDBY RSI JUMPERS

LOS 0
LOS 1
LOS 2
FAULT 0
FAULT 1

25CWU PMD-3R2 MODULES REQUIRED



FRONT VIEW

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

RIVER RD. 145463A

CROSSING DETECTION CIRCUITRY
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27625	C01

25CWU

TRM LOCAL PARAMETERS PMD-3R2 DESIGN CARD

		DEFAULTS & /OR STYLE	FIELD RECORD	
OPERATING PROGRAM PROG	VERSION AND COMPILE DATE	35.0 MM/DD/YY	__/__/__	NA
SYSTEM MONITOR PROGRAM EPRM	VERSION AND COMPILE DATE	20.2 MM/DD/YY	__/__/__	NA
ADJUSTMENT	RANGE	DEFAULT	TRACK 1	TRACK 2
#1 RX	100 IS INTENDED	NA		
#2 PH (PHASE)	INTENDED ABOVE 32 (NOT ADJUSTABLE)	NA		
#3 CW / MD	CW OR MD NOT ADJUSTABLE FROM MD TOWARD CW (SEE TCR 430-01 FOR CONSTRAINTS)	MD	MD	MD
#4 UNI/BI (IF CW IS CHOSEN IN #3)	UNI OR BI	BI	BI	BI
#5 LIA (IF CW IS CHOSEN IN #3)	-9 TO +9	LIA=0	NA	NA
#6 WT (IF CW IS CHOSEN IN #3)	23 TO 99	WT=99	NA	NA
#7 TC	WHEN IN CONFORMANCE WITH PMD-3R MANUAL, ADJUST TC FOR A TRANSMITTER CHECK MONITOR VALUE LESS THAN 470	NA		
#8 B (BALLAST COMPENSATION)	50 TO 250 (FIELD ADJUSTMENT - ADJUST ONLY WHEN IN CONFORMANCE WITH DATA ACCUMULATED AT THIS SITE AND IN COMPLIANCE WITH SUPERVISOR INSTRUCTIONS & PMD-3R MANUAL)	NA		
#9 PC (PHASE COMPENSATION)	0 TO +10 (FIELD ADJUSTMENT - ADJUST ONLY WHEN IN CONFORMANCE WITH SUPERVISOR INSTRUCTIONS & PMD-3R MANUAL)	PC=0		
#10 FREQ	REFERENCE, NOT ADJUSTABLE FROM MENU	NA	522 HZ	522 HZ
#11 FS-T (FALSE SHUNT TIMER)	ENTRANCE TO SUDDEN FALSE SHUNT SUB-MENU	NA	NA	NA
#12 FR (FALSE SHUNT % OF RX APPROACH)	0 TO 80 NOT ADJUSTABLE FROM ZERO UNTIL AFTER STRICT DESIGN REVIEW FOR SITE APPLICATION CONFLICTS, FR=0 MEANS DISABLED (SEE TCR 430-01 FOR CONSTRAINTS)	FR=0	FR=0	FR=0
#13 FT (FAULT TIMER)	0 TO 99 MINUTES (FACTORY DEFAULT IS 10)	FT=10	NA	NA
#14 AR-T (APPROACH RELEASE TIMER)	ENTRANCE TO SUB-MENU FOR RESIDUAL FALSE SHUNT STARTED DURING TRAIN PASSAGE	NA	NA	NA
#15 AR (FALSE SHUNT % OF RX APPROACH)	0 TO 80 NOT ADJUSTABLE FROM ZERO UNTIL AFTER STRICT DESIGN REVIEW FOR SITE APPLICATION CONFLICTS AR=0 MEANS DISABLED (SEE TCR 430-01 FOR CONSTRAINTS)	AR=0	AR=0	AR=0
#16 AT (FAULT TIMER)	0 TO 99 MINUTES (FACTORY DEFAULT IS 10)	AT=10	AT=10	AT=10
#17 HS (HIGHEST STABLE R VALUE)	REFERENCE, NOT ADJUSTABLE FROM MENU	NA	NA	NA
#18 LP (LOWEST STABLE PHASE)	REFERENCE, NOT ADJUSTABLE FROM MENU	NA	NA	NA
#19 SD (SELF DIAGNOSTICS)	REFERENCE, NOT ADJUSTABLE FROM MENU, BUT MENU CAN REVIEW, THEN CLEAR DIAGNOSTIC CODES	NA	NA	NA
#20 REC (TRAIN RECORD DISPLAY)	REFERENCE, SEQUENTIAL DISPLAY OF PREVIOUS WARNING TIME RECORDS (NO ADJUSTMENT)	NA	NA	NA
#21 PRN (PRINTER/LAPTOP READY)	STARTS DOWNLOAD OF INTERNAL TRAIN EVENT LOG WHEN SERIAL PORT CABLE CONNECTED	NA	NA	NA
#22 LSP (LOCAL SERIAL PORT)	ENTRANCE TO SUB-MENU FOR SETTING SPEED OF SERIAL PORT DOWNLOADS	NA	NA	NA
#23 @ (BAUD RATE)	BAUD RATE OF 38,400 IS 384 AND DEFAULT	@=384	@=384	@=384
#24 DB (DATA BITS)	7 OR 8 8 IS DEFAULT	DB=8	DB=8	DB=8
#25 PA (PARITY)	O, E, OR N N IS DEFAULT	PA=N	PA=N	PA=N
#26 AR (AUTO RX)	UP OR DN DN IS FACTORY DEFAULT (FIELD ADJUSTMENT - ADJUST TO "UP" ONLY WHEN BC HAS BEEN PREVIOUSLY STABILIZED THROUGH ADJUSTMENT, AND ONLY WHEN IN CONFORMANCE WITH SUPERVISOR INSTRUCTIONS AND PMD-3R MANUAL)	AR=DN	AR=DN	AR=DN
#27 RX (POTENTIOMETER VALUE)	REFERENCE, DISPLAY ONLY	NA	NA	NA
#28 VERS (PROGRAM VERSION)	REFERENCE, SEQUENTIAL DISPLAY OF EPROM AND SOFTWARE VERSIONS	NA	NA	NA

PRELIMINARY
ALL OUT
THIS SHEET IS VOID
WHEN AS IN SERVICED.

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE 03-10-23
CSX#,PA2019555
PRS/CDT/SAF

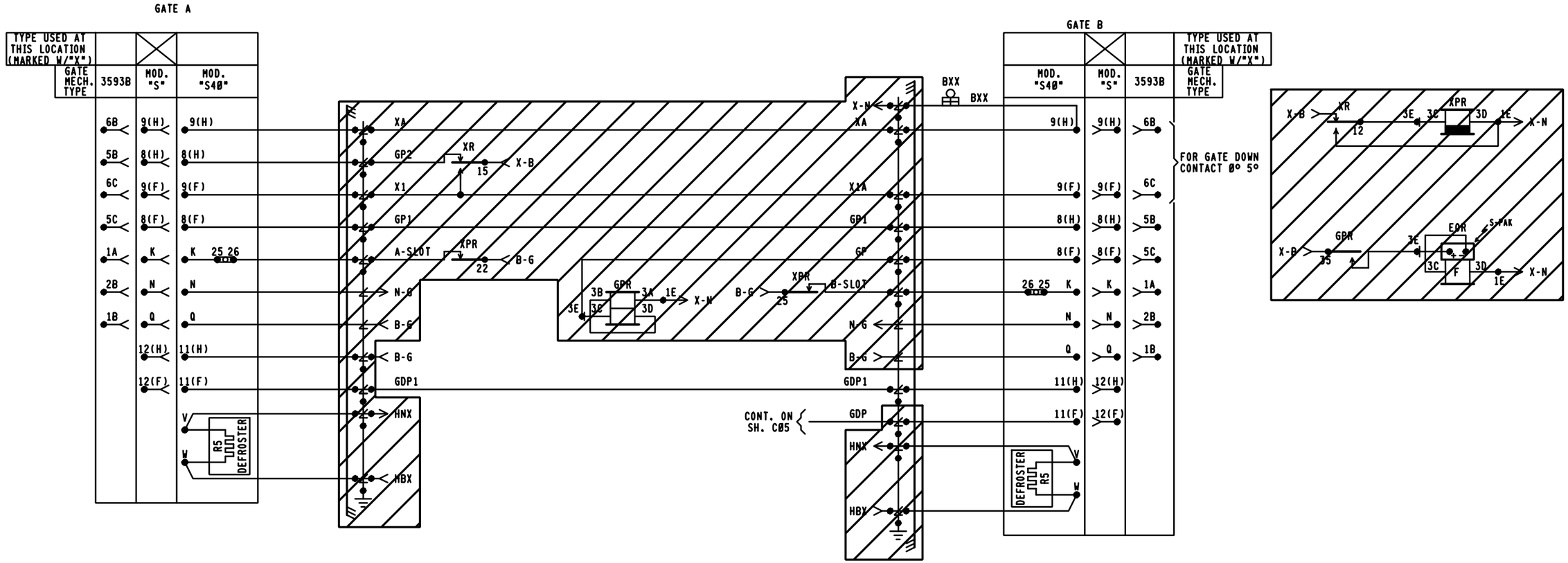
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

RIVER RD. 145463A

DETECTION DEVICE PROGRAM
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27625	C02



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PROGRESS RAIL SERVICES
A Caterpillar Company

DATE: Ø3-1Ø-23
CSX#: PA2Ø19555
PRS/CDT/SAF

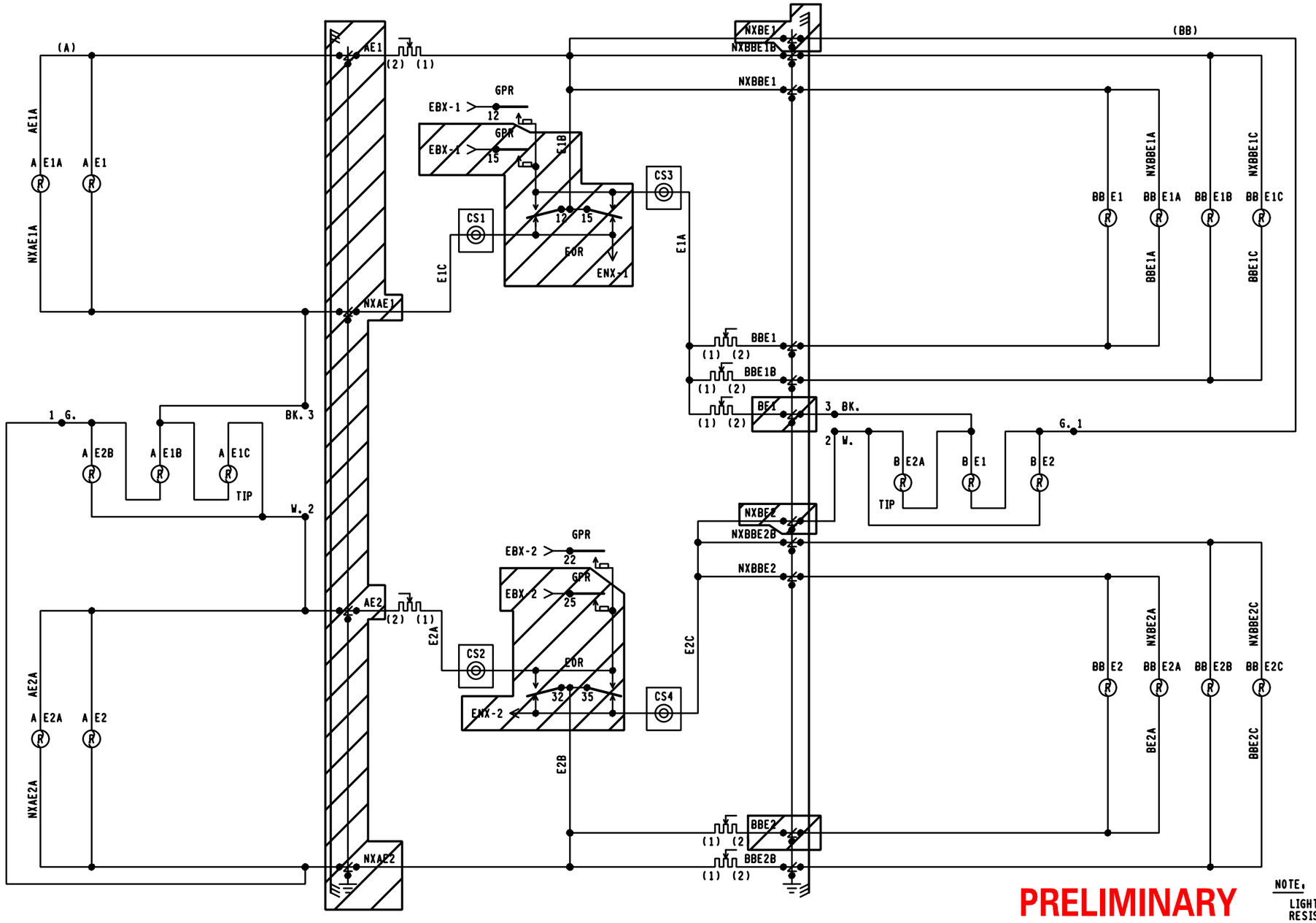
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

RIVER RD. 145463A

CROSSING WARNING DEVICE CIRCUITRY
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	Ø7-23-Ø7

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27625	CØ3



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PROGRESS RAIL SERVICES
A Caterpillar Company

DATE.03-10-23
CSX#.PA2019555
PRS/CDT/SAF

NOTE.

LIGHT RESISTOR IS A 1.5 OHM, 15 WATT, ADJUSTABLE RESISTOR. (1) = INSULATED TERMINAL.

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

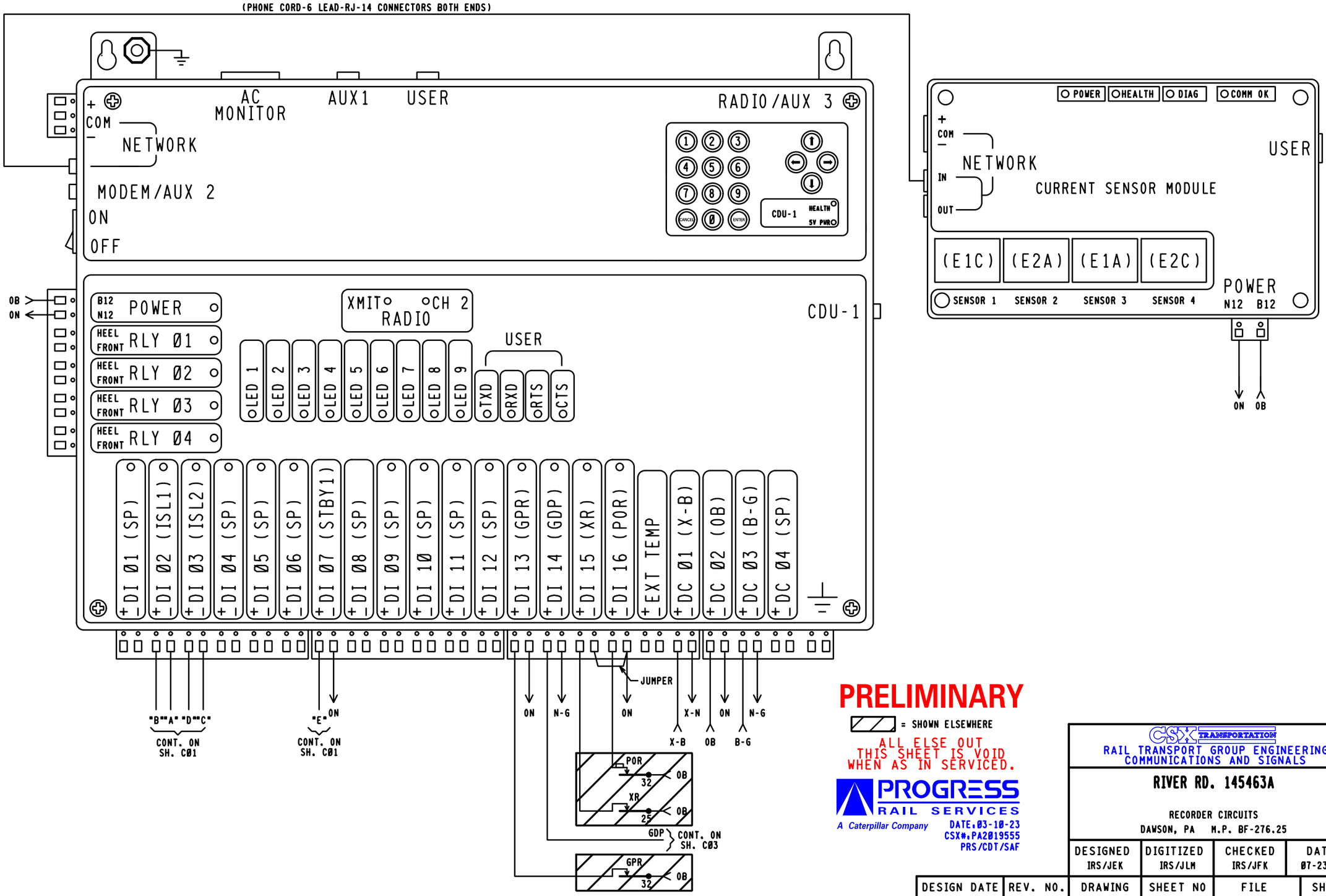
RIVER RD. 145463A

CROSSING WARNING DEVICE CIRCUITRY
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27625	C04

(PHONE CORD-6 LEAD-RJ-14 CONNECTORS BOTH ENDS)



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PROGRESS RAIL SERVICES
A Caterpillar Company

DATE.Ø3-1Ø-23
CSX#.PA2Ø19555
PRS/CDT/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

RIVER RD. 145463A

RECORDER CIRCUITS
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	Ø7-23-Ø7

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27625	CØ5

	DEFAULTS AND/OR STYLE	FIELD RECORD
HAWK EXECUTIVE PROGRAM	VERSION 2.7, COMPILED ON NOV. 11, 2003	VERSION ____, COMPILED ON _____ (FIELD TO ENTER)
CSXT USER PROGRAM (IF LOADED)	VERSION 1.01, COMPILED ON 12-01-03 (MM-DD-YY)	VERSION _____, COMPILED ON _____ (FIELD TO ENTER)
SYSTEM SETTINGS		
DATE & TIME (ENABLE DAYLIGHT SAVINGS TIME = Y (YES)	MM-DD-YY 23: 01:59	n/a
MILE POST	XYZ-789.01	BF-276.25
SITE NAME	MAIN ST. (SR-17, US-1)	RIVER RD.
DOT NUMBER	123456A	145463A

BATTERY INPUTS	DC 01	DC 02	DC 03	DC 04
CHANNEL	1	2	3	4
BATTERY CHANNEL NAMES	X-B BULB BATTERY	OB ELECTRONIC BATTERY	B-G GATE BATTERY	SPARE
BATTERY CHANNEL I.D.	X-B	OB	B-G	SP
SAMPLE PERIOD	500 ms	500 ms	500 ms	10,000 ms
RESOLUTION	00.2 V	00.2 V	01.0 V	02.0 V

DIGITAL INPUTS	DI 01	DI 02	DI 03	DI 04	DI 05
CHANNEL	1	2	3	4	5
NAME		ISLAND TRACK 1	ISLAND TRACK 2		
ID	SP	ISL1	ISL2	SP	SP
ON NAME		ISL1 UP	ISL2 UP		
OFF NAME		ISL1 DN	ISL2 DN		
ON DEBOUNCE TIME	1000 ms	100 ms	100 ms	1000 ms	1000 ms
OFF DEBOUNCE TIME	1000 ms	100 ms	100 ms	1000 ms	1000 ms
TOGGLE PERIOD	500 ms	500 ms	500 ms	500 ms	500 ms

DIGITAL INPUTS	DI 06	DI 07	DI 08	DI 09	DI 10
CHANNEL	6	7	8	9	10
NAME		STANDBY1			
ID	SP	STBY1	SP	SP	SP
ON NAME		STANDBY UNIT			
OFF NAME		PRIMARY UNIT			
ON DEBOUNCE TIME	1000 ms	100 ms	1000 ms	1000 ms	1000 ms
OFF DEBOUNCE TIME	1000 ms	100 ms	1000 ms	1000 ms	1000 ms
TOGGLE PERIOD	500 ms	500 ms	500 ms	500 ms	500 ms

DIGITAL INPUTS	DI 11	DI 12	DI 13	DI 14	DI 15	DI 16
CHANNEL	11	12	13	14	15	16
NAME			GPR	GDP	XR	POR
ID	SP	SP	GPR	GDP	XR	POR
ON NAME			GATE VERTICAL	GATE HORIZ	XR UP	POR UP
OFF NAME			LIGHTS FLASH	NOT HORIZ	XR DN	POR DN
ON DEBOUNCE TIME	1000 ms	1000 ms	100 ms	100 ms	100 ms	100 ms
OFF DEBOUNCE TIME	1000 ms	1000 ms	100 ms	100 ms	100 ms	100 ms
TOGGLE PERIOD	500 ms	500 ms	500 ms	500 ms	500 ms	500 ms

MODULE-DIGITAL 4 QUAD CURRENT SENSOR SERIAL NUMBER: [_____] (BLANK UNTIL AIS RECEIVED)				
RESOLUTION (AMPS RMS) : [00.2] ARMS				
AUTOMATICALLY ALLOCATED DIGITAL INPUT	DI 17	DI 18	DI 19	DI 20
DIGITAL 4 QUAD CURRENT SENSOR	1	2	3	4
NAME	E1C	E2A	E1A	E2C
ID	E1C	E2A	E1A	E2C
LIT BULB COUNT ON EACH CIRCUIT	4	4	6	6
CURRENT READING IN AMPS AT APPROXIMATE 10.0 VOLTS BULB VOLTAGE	9	9	14	14

CHANNEL	1	2	3	4
NAME	RELAY OUTPUT 01	RELAY OUTPUT 02	RELAY OUTPUT 03	RELAY OUTPUT 04
I.D.	RLY01	RLY02	RLY03	RLY04
ON NAME	ON	ON	ON	ON
OFF NAME	OFF	OFF	OFF	OFF
PULSE DURATION	1000 ms	1000 ms	1000 ms	1000 ms

PORT	USER	AUX 1	MODEM/AUX 2
BAUD RATE	38400	9600	9600
PARITY	N	N	N
DATA BITS	8	8	8
STOP BITS	1	1	1
FLOW CONTROL	NONE	NONE	NONE

PRELIMINARY

ALL OUT
THIS SHEET IS VOID
WHEN AS IN SERVICED.

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE:03-10-23
CSX#:PA2019555
PRS/CDT/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

RIVER RD. 145463A

RECORDER PROGRAM
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27625	C06

INDEX

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E01	POWER DISTRIBUTION	⊠								
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⊠ = DESIGN COMPLETED

⊠ = REVISION COMPLETED

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2019559	03-10-23		
2	PA2019555	03-10-23		

TO BE COMPLETED ON A.I.S.

TO BE COMPLETED ON A.I.S.

THIS PLAN DOES ☐ DOES NOT ☒
SUPERSEDE PLAN DATED 03-10-23
CSX PROJECT # PA2019559

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE 03-10-23
CSX# PA2019555
PRS/CDT/SAF

= OUT
= IN

PRELIMINARY

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE 03-10-23
CSX# PA2019559
PRS/TGG/SAF

= OUT

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

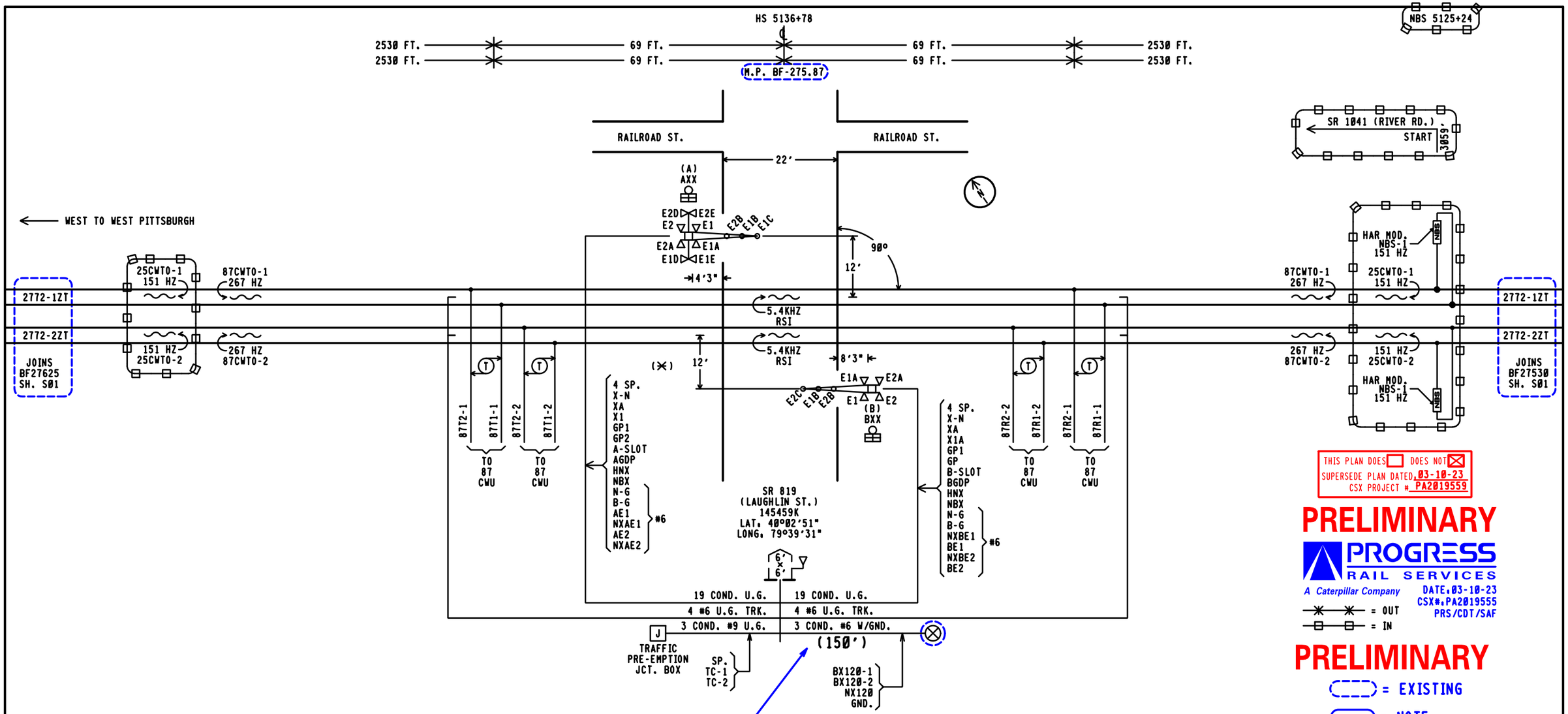
SR 819 (LAUGHLIN ST.) 145459K

INDEX AND REVISIONS
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	I01 A

2



FIELD NOTE.

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

✳AUTHORIZING AGENCY. PADOT

✳DATE OF REQUIREMENT. NA

✳AMOUNT OF TIME (SEC.). 0 SEC. (SIMULTANEOUS)

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	1	1
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS ✳	0	0
DESIGNED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	31 SEC.	31 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	35 SEC.	35 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	45	45
BUFFER SPEED IN MILES PER HOUR	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	50	50
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2530	2530
HALF WIDTH OF ISLAND IN FEET	69	69
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.36	275.38

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.

NOTES.

1. 12" LED MAXIMUM CURRENT 1.0A AT 10 VOLTS LED GATE ARM LIGHTS .3A MAXIMUM
2. GATE LENGTH (A) 15' (B) 19'
3. (✳) = 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.

THIS PLAN DOES ☐ DOES NOT ☒
SUPERSEDE PLAN DATED 03-10-23
CSX PROJECT # PA2019559

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company
DATE 03-10-23
CSX#. PA2019555
PRS/CDT/SAF
✳—✳ = OUT
☐—☐ = IN

PRELIMINARY

▭ = EXISTING
▭ = NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE 03-10-23
CSX#. PA2019559
PRS/TGG/SAF
✳—✳ = OUT

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 819 (LAUGHLIN ST.) 145459K

TRACK AND SIGNAL PLAN
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	✳1✳	-----	-----	BF27587	S01(A)✳

INDEX

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SH. NO.		REVISION NO. 1	2	3	4	5	6	7	8	9
I01	TITLE, NOTES, INDEX AND REVISIONS	X	X	X	X/					
S01	TRACK AND SIGNAL PLAN	X	X							
E01	POWER DISTRIBUTION (LOCATION A)	X	X							
E02	POWER DISTRIBUTION (LOCATION B)		X							
C01	ELECTRO CODE 5 UNIT 1TZU TRACK I/O (LOCATION A)	X	X		X/					
C02	ELECTRO CODE 5 UNIT 2TZU TRACK I/O (LOCATION A)	X	X		X/					
C03	ELECTRO CODE 5 UNIT 1TZU LAMP OUTPUTS (LOCATION A)	X	X							
C04	ELECTRO CODE 5 UNIT 2TZU LAMP OUTPUTS (LOCATION A)	X	X							
C05	ELECTRO CODE 5 UNIT 1TZU COLORLIGHT BACKPLANE (BP-1) (LOCATION A)	X	X							
C06	ELECTRO CODE 5 UNIT 1TZU PROGRAM (LOCATION A)	X	X	X						
C07	ELECTRO CODE 5 UNIT 2TZU COLORLIGHT BACKPLANE (BP-1) (LOCATION A)	X	X							
C08	ELECTRO CODE 5 UNIT 2TZU PROGRAM (LOCATION A)	X	X	X						

X/ = DESIGN COMPLETED

X = REVISION COMPLETED

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2006028	07-23-07	04-18-09	09-21-09
2	PA2013018	08-17-13	08-16-16	01-05-17
3	PA2019584	10-17-19	03-07-22	07-01-22
4	PA2019555	03-10-23		

TO BE COMPLETED ON A.I.S.

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE:03-10-23
CSX#:PA2019555
PRS/CDT/SAF

= OUT
= IN

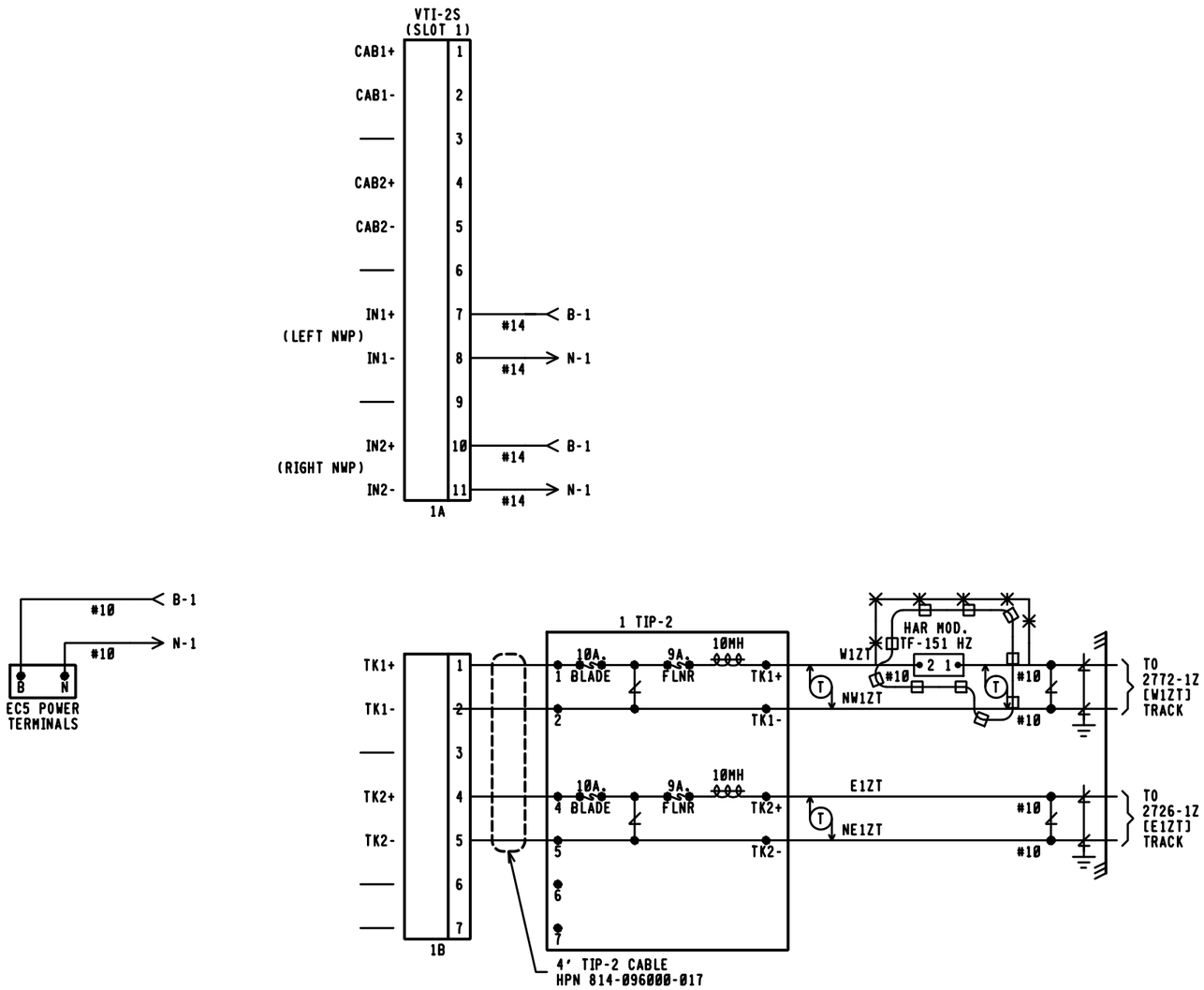
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SIGNALS 2748/2749

TITLE, NOTES, INDEX AND REVISIONS
DAWSON, PA M.P. BF-274.81

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
10-17-19	3	-----	-----	BF27481	I01
03-10-23	4				



NOTE.

[ ] =TAGGING PURPOSES ONLY

LOCATION A
EC5 UNIT 1TZU TRACK I/O

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

= OUT
= IN

DATE.03-10-23
CSX#.PA2019555
PRS/CDT/SAF

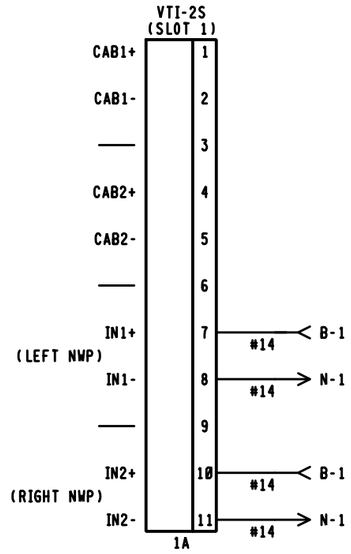
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

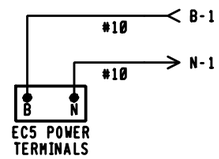
SIGNALS 2748/2749

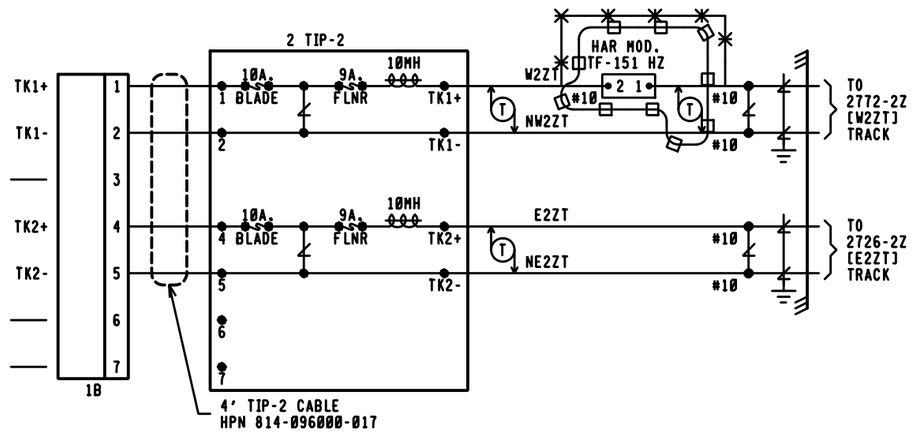
ELECTRO CODE 5 UNIT 1TZU TRACK I/O
DAWSON, PA M.P. BF-274.81

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
08-17-13	2	-----	-----	BF27481	C01
03-10-23	4				







NOTE.

[ ] =TAGGING PURPOSES ONLY

LOCATION A
EC5 UNIT 2TZU TRACK I/O

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

= OUT
= IN

DATE.03-10-23
CSX#.PA2019555
PRS/CDT/SAF

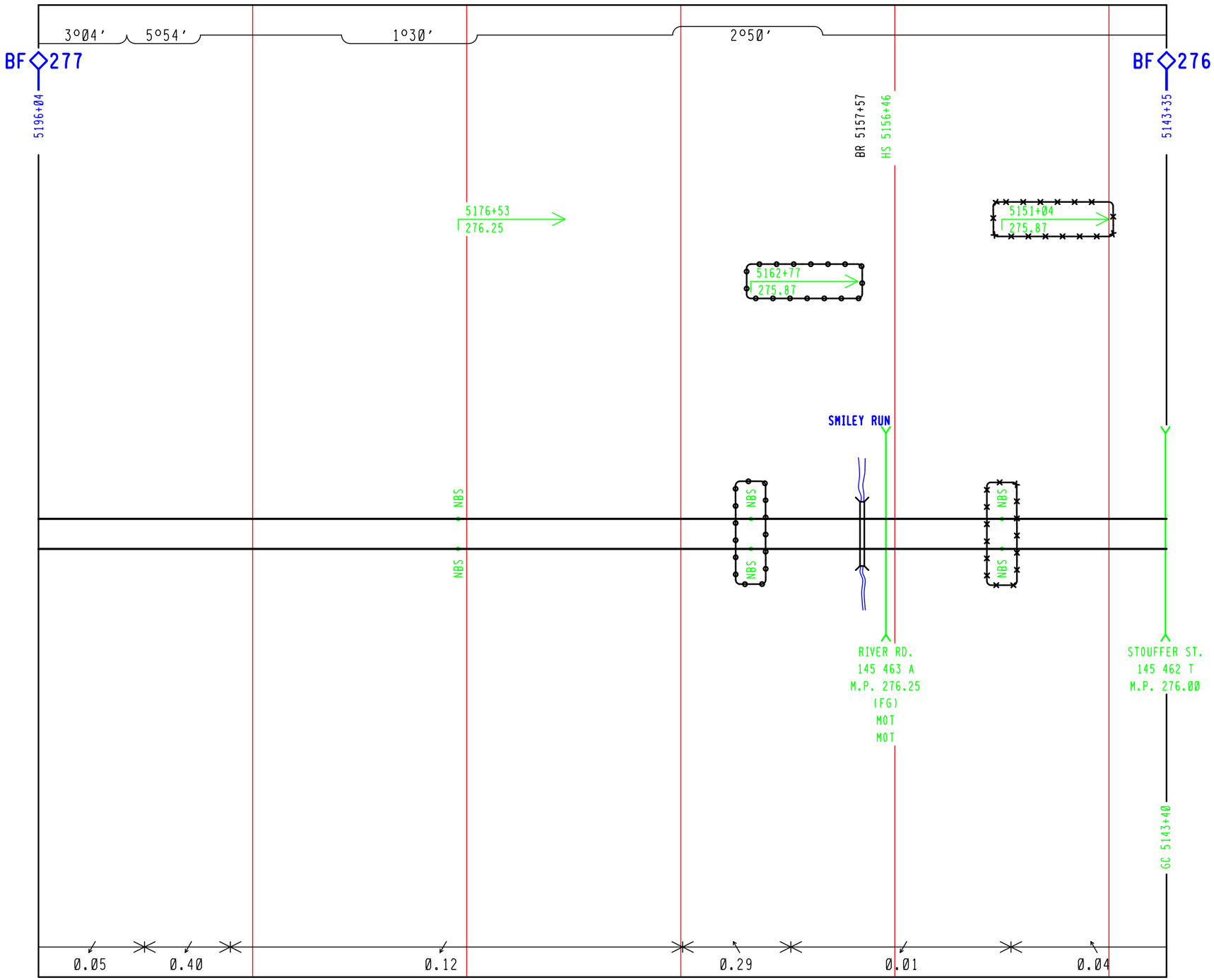
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SIGNALS 2748/2749

ELECTRO CODE 5 UNIT 2TZU TRACK I/O
DAWSON, PA M.P. BF-274.81

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
~~08-17-13~~	~~2~~	-----	-----	BF27481	C02
03-10-23	4				



PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE:03-10-23
CSX#:PA2019559
PRS/TGG/SAF

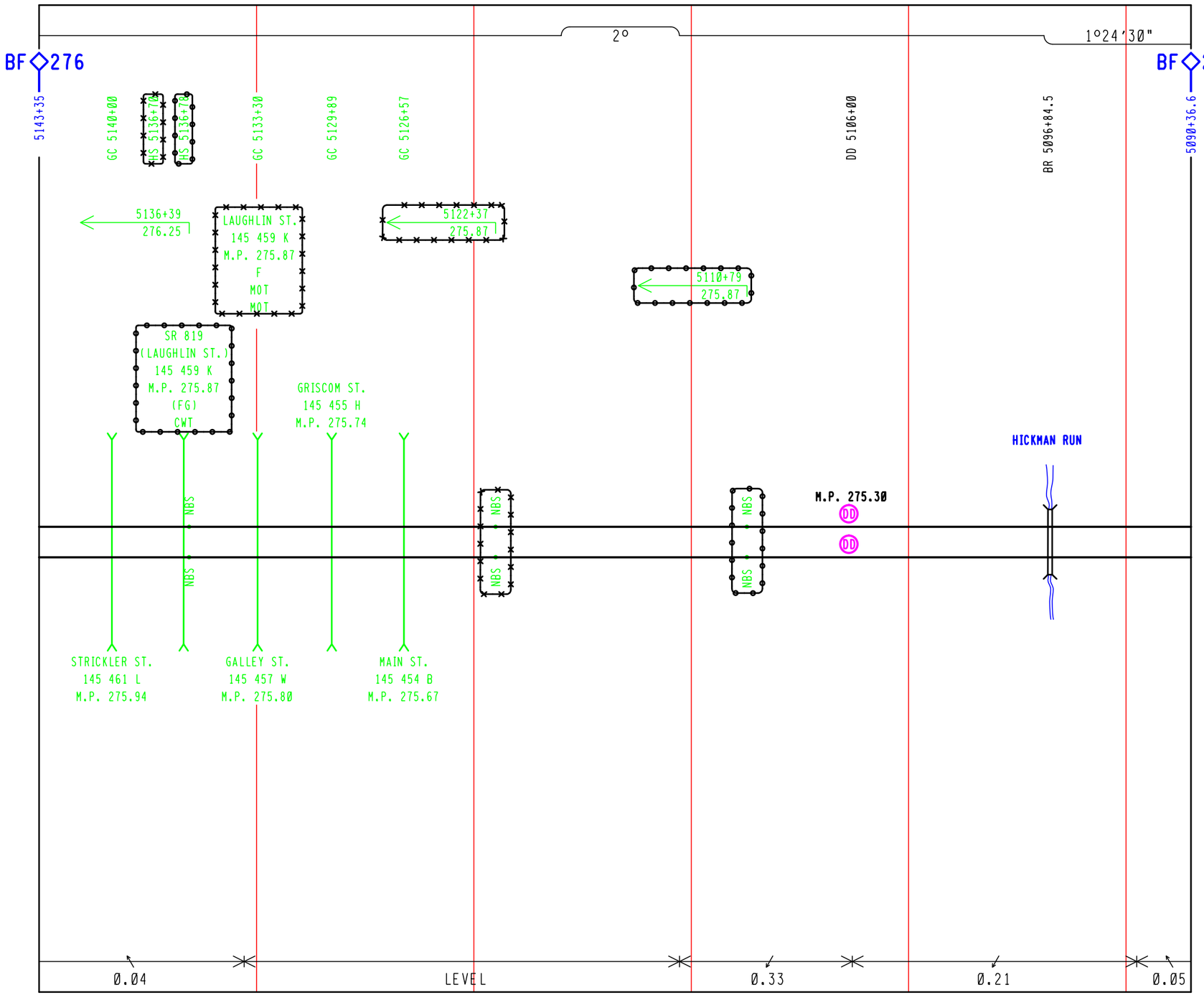
= OUT
= IN

REVISIONS	
11-22-06 IRS PA2006028A	
09-21-09 IRS PA2006028	

TRACK PLAN
HORIZONTAL SCALE:
1 INCH = 500 FEET

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

DESIGNED	DIGITIZED	CHECKED	DATE	NEXT FILE	NEXT SH	FILE	SHEET
IRS/LLK	IRS/LLK	IRS/JEK	11-22-06	BF27700	T01	BF27600	T01



PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

= OUT
= IN

DATE: 03-10-23
CSX#: PA2019559
PRS/TGG/SAF

REVISIONS		
11-22-06 IRS PA2006028A		
09-21-09 IRS PA2006028		
09-22-22 IRS PA2022023		

TRACK PLAN
HORIZONTAL SCALE:
1 INCH = 500 FEET

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

DESIGNED	DIGITIZED	CHECKED	DATE	NEXT FILE	NEXT SH	FILE	SHEET
IRS/LLK	IRS/LLK	IRS/JEK	11-22-06	BF27600	T01	BF27500	T01

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S01	TRACK AND SIGNAL PLAN	⊠	⊘							
E01	POWER DISTRIBUTION	⊠								
C01	CROSSING DETECTION CIRCUITRY	⊠								
C02	DETECTION DEVICE PROGRAM	⊠								
C03	CROSSING WARNING DEVICE CIRCUITRY	⊠								
C04	CROSSING WARNING DEVICE CIRCUITRY	⊠								
C05	RECORDER CIRCUITS	⊠								
C06	RECORDER PROGRAM	⊠								

⊠ = DESIGN COMPLETED

⊠ = REVISION COMPLETED

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2[illegible]6028	07-23-07	04-18-09	09-21-09
2	PA2019559	03-10-23		

TO BE COMPLETED ON A.I.S.

PRELIMINARY

⬭ = NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

⊠——⊠ = OUT
⊘——⊘ = IN

DATE.03-10-23
CSX#.PA2019559
PRS/TGG/SAF

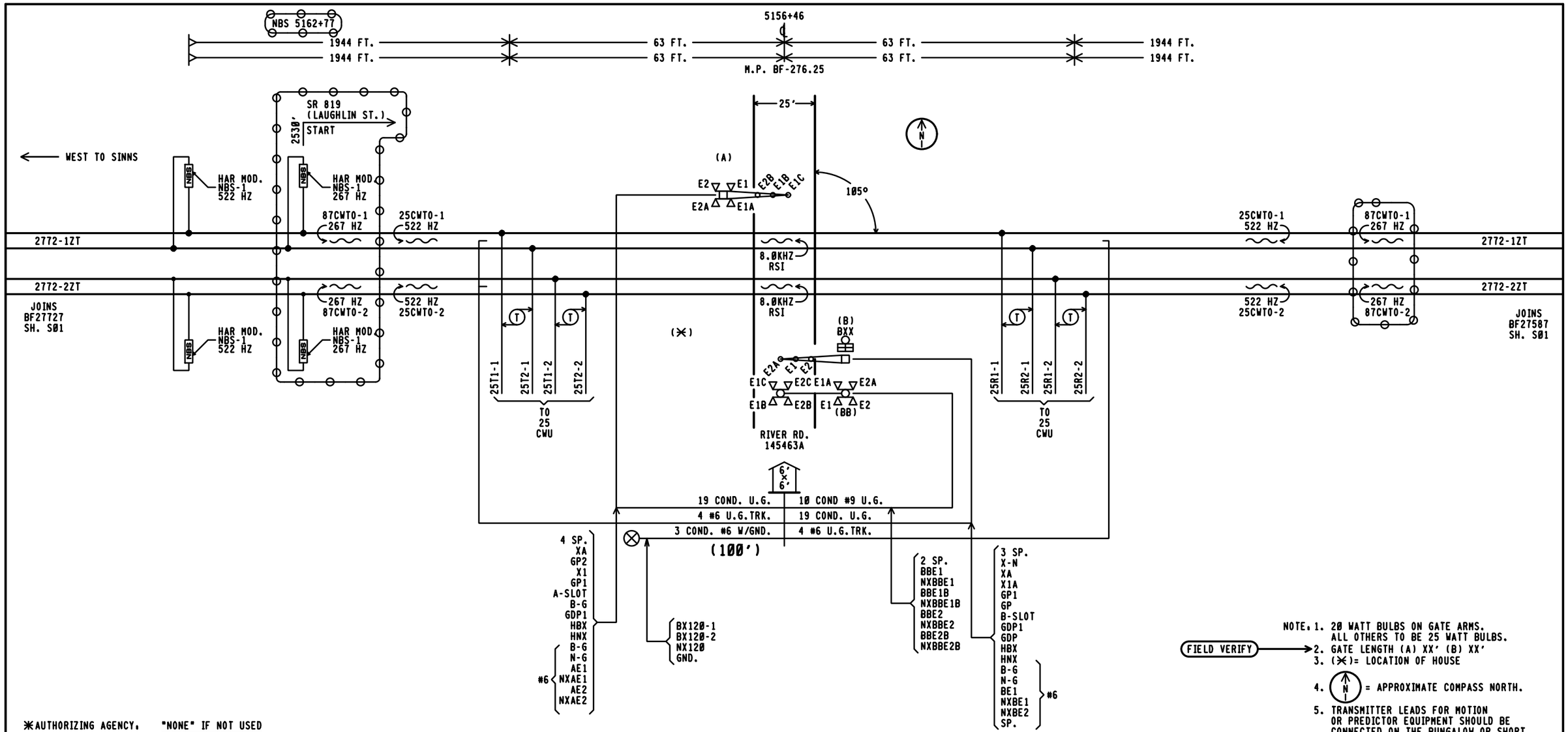
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

RIVER RD. 145463A

INDEX AND REVISIONS
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27625	I01
03-10-23	2				



FIELD VERIFY

NOTE.
1. 20 WATT BULBS ON GATE ARMS. ALL OTHERS TO BE 25 WATT BULBS.
2. GATE LENGTH (A) XX' (B) XX'
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.

*AUTHORIZING AGENCY, "NONE" IF NOT USED
*DATE OF REQUIREMENT, "NONE" IF NOT USED
*AMOUNT OF TIME (SEC.), "NONE" IF NOT USED

APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	WESTWARD TRACK 1 MOTION	EASTWARD TRACK 1 MOTION	WESTWARD TRACK 2 MOTION	EASTWARD TRACK 2 MOTION
STANDARD MINIMUM WARNING TIME IN SECONDS	20	20	20	20
ROADWAY GATE TIME IN SECONDS	5	5	5	5
CLEARANCE TIME IN SECONDS	2	2	2	2
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS *	0	0	0	0
DESIGNED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	27 SEC.	27 SEC.	27 SEC.	27 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS *	0	0	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	3	3	3	3
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	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	1944	1944	1944	1944
HALF WIDTH OF ISLAND IN FEET	63	63	63	63
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	275.81	276.63	275.81	276.63

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE.03-10-23
CSX#.PA2819559
PRS/T66/SAF

X—X = OUT
O—O = IN

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

RIVER RD. 145463A

TRACK AND SIGNAL PLAN
DAWSON, PA M.P. BF-276.25

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27625	S01
03-10-23	2				

R.R. WEST TO WEST PITTSBURGH

5136+78 ℄

2530 FT. — 69 FT. — ℄ — 69 FT. — 2530 FT.

N

W E

NW

NE

SW

SE

SIDEWALK

U.G. GAS (COLUMBIA GAS)

SR 819 (LAUGHLIN ST.)

SIDEWALK

BUILDING

HOUSE

STOP SIGN

BUILDING

CSX R.O.W.

SIDEWALK

CSX R.O.W.

SIDEWALK

NOTE 3

NOTE 1

11'-0"

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

RAILROAD ST.

U.G. GAS (COLUMBIA GAS)

RAILROAD ST.

30'-0"

EOP/EOT

15' GATE

90°

EOT

EOP/EOT

20'-0"

11'-0"

9'-0"

30'-0"

10'-6"

12'-6"

4'-3"

STOP SIGN

4'-3"

12'-0"

10'-0"

(#1 MAIN)

(#1 MAIN)

(#2 MAIN)

(#2 MAIN)

U.G. FIBER (VERIZON)

7'-8"

EOP

EOT

12'-0"

19' GATE

9'-0"

5'-8"

(15'-10" V.O.H.C. 1ST)

EXISTING METER SERVICE

SIDEWALK

CSX R.O.W.

NOTE 4

NOTE 3

SIGN

8'-3"

STREET SIGN

CSX R.O.W.

20'-0"

15'-0"

NEW 6'X6' HOUSE

83'-0" TO E.O.R.

PARKING LOT

NOTE 2

SIDEWALK

HOUSE

22'-0"

11'-0" 11'-0"

20'-0"

O.H. FIBER (VERIZON) (18'-6" O.H. FIBER)

EOT

EOP

(NORTH FAYETTE) WATER MAIN

VAC TRUCK REQUIRED

COMMERCIAL BUILDING

HOUSE

NOTES.

1. REPAVE AND INSTALL CURB (TO BE INSTALLED BY OTHERS)
2. POWER LINES NEED TO BE RAISED OR RELOCATED.
3. INSTALL GUARD RAILS.
4. FIELD TO DETERMINE EXACT PLACEMENT OF XING HOUSE BASED ON R.O.W. AS WELL AS PARKING LOT.

✳AUTHORIZING AGENCY, PADOT

✳DATE OF REQUIREMENT, NA

✳AMOUNT OF TIME (SEC.), 0 SEC. (SIMULTANEOUS)

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	1	1
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS ✳	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	31 SEC.	31 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	35 SEC.	35 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	45	45
BUFFER SPEED IN MILES PER HOUR	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	50	50
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2530	2530
HALF WIDTH OF ISLAND IN FEET	69	69
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.36	275.38

PRELIMINARY

FILE NAME, BF27587.H01	REVISION DATES
DATE DRAWN, 04-18-19	03-10-23
DRAWN BY, GMW	04-06-23
CHECKED BY, SAF	- -
PRS #, 34P000825	- -

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 Ⓜ	GPS COORDINATES
R/R POLELINE	O.H. POWER	POLE Ⓟ	N40°02'51"
GAS	FENCE	FIRE PLUG Ⓕ	W79°39'31"
FIBER OPTIC	WATER	SEWER CAP Ⓢ	ELEV. 851'
	SEWER	GAS VENT Ⓥ	M.P. BF-275.87

STREET NAME, SR 819 (LAUGHLIN ST.)	
CITY & STATE, DAWSON, (FAYETTE), PA	
DOT, 145459K	PROPOSED CROSSING LAYOUT
PROJECT #, PA2019559	SCALE = 20.1
OP #, PA0364	

R.R. WEST TO WEST PITTSBURGH

5136+78 ℄

1203 FT. — 64 FT. — 64 FT. — 1369 FT.

N W E

NW NE SW SE

SR 819 (LAUGHLIN ST.)

SIDEWALK

BUILDING

STOP SIGN

HOUSE

CSX R.O.W.

RAILROAD ST.

U.G. GAS (COLUMBIA GAS)

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

EOP/EOT

EOT

EOP

STOP SIGN

90°

30'-0"

10'-6"

12'-6"

2'-6"

11'-2"

5'-8"

20'-0"

11'-0"

9'-0"

(#1 MAIN)

(#2 MAIN)

U.G. FIBER (VERIZON)

9'-0"

7'-8"

(15'-10" V.O.H.C. 1ST)

CASE

83'-0" TO E.O.R.

20'-0"

PARKING LOT

SIGN

17'-6"

5'-6"

EXISTING METER SERVICE

STREET SIGN

22'-0"

11'-0" 11'-0"

O.H. FIBER (VERIZON)

(18'-6" O.H. FIBER)

COMMERCIAL BUILDING

(NORTH FAYETTE) WATER MAIN

PRELIMINARY

FILE NAME: BF27587.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: SR 819 (LAUGHLIN ST.)
DATE DRAWN: 04-18-19	- -			CSX ROW	O.H. POWER	POLE Ⓟ	N40° 02'51"	CITY & STATE: DAWSON, (FAYETTE), PA
DRAWN BY: GMW	- -			R/R POLELINE	FENCE	FIRE PLUG Ⓕ	W79° 39'31"	DOT: 145459K
CHECKED BY: SAF	- -			GAS	WATER	SEWER CAP Ⓢ	ELEV. 851'	PROJECT #: PA2019559
PRS #: 34P000825	- -			FIBER OPTIC	SEWER	GAS VENT Ⓥ	M.P. BF-275.87	OP #: PA0364

EXISTING CROSSING LAYOUT
SCALE = 20:1

R.R. WEST TO WEST PITTSBURGH

N W E

(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
8'X8' HOUSE

6'X6' HOUSE

8'X8' COMM. HOUSE

136# CWR #1 MAIN
122# CWR

136# CWR #2 MAIN

NBS 522HZ **NBS 267HZ**

#1 MAIN

#2 MAIN

NBS 522HZ

6'X6' HOUSE

#1 MAIN **NBS 267HZ** DD 122# CWR

#2 MAIN **NBS 267HZ** DD 140# CWR 136# CWR

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

STRICKLER ST.
DOT# 145461L
M.P. 275.94
XB

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

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

GRISCOM ST.
DOT# 145455H
M.P. 275.74
XB

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

E.O.S. 5995'

SR 1041 (RIVER RD.) START 3975'

SR 819 (LAUGHLIN ST.) START 2599'

BRIDGE 2110'

BRIDGE 2061'

ISL 2031'

1968'

HOUSE 1920'
ISL 1905'

METER 1870'

SPEED CHANGE 1703'

670'
MILE POST 647'

338'

HOUSE 83'

ISL 69'

0'
METER 24'
SR 1041 (RIVER RD.) START 55'

ISL 69'

342'

683'

1020'

SPEED CHANGE 1193'

COMM. HOUSE 1208'

METER 1271'

SR 819 (LAUGHLIN ST.) START 2599'

DD 3479'
HOUSE 3508'
DD 3525'
METER 3548'

STEP-DOWN TRANSFORMER 3558'

BRIDGE 3970'

BRIDGE 4016'

E.O.S. 4743'

PRELIMINARY

FILE NAME, BF27587.H04	REVISION DATES
DATE DRAWN, 04-12-19	03-10-23
DRAWN BY, RS	- -
CHECKED BY, SAF	- -
PRS #, 34P000823	- -

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 ⊗	GPS COORDINATES
R/R POLELINE	O.H. POWER	POLE Ⓟ	N40°02'51"
GAS	FENCE	FIRE PLUG Ⓕ	W79°39'31"
FIBER OPTIC	WATER	SEWER CAP Ⓢ	ELEV. 851'
	SEWER	GAS VENT Ⓥ	M.P. BF-275.87

STREET NAME, SR 819 (LAUGHLIN ST.)	
CITY & STATE, DAWSON, (FAYETTE), PA	
DOT, 145459K	PROPOSED TRACK LAYOUT
PROJECT #, PA2019559	
OP #, PA0364	

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E01	POWER DISTRIBUTION	⧄								
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C01	XP4 CROSSING DETECTION AND I/O CIRCUITS	⧄								
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C09	CROSSING COMMUNICATIONS EQUIPMENT	⧄								

⧄ = DESIGN COMPLETED

☒ = REVISION COMPLETED

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2019559	03-10-23		

TO BE COMPLETED ON A.I.S.

PRELIMINARY

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE.03-10-23
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= OUT

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 819 (LAUGHLIN ST.) 145459K

INDEX AND REVISIONS
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
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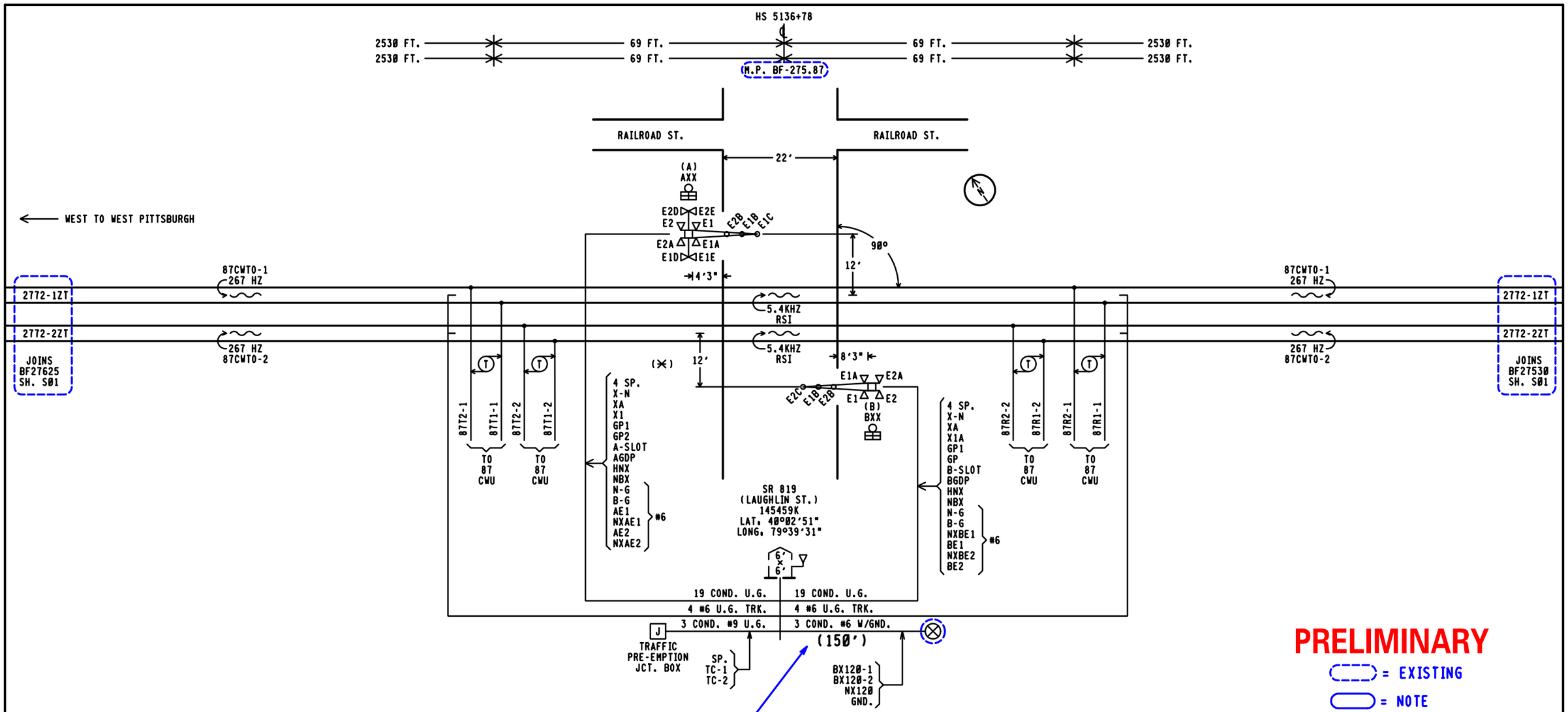
DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	I01 (A)



FIELD NOTE.

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

✳AUTHORIZING AGENCY. PADOT
✳DATE OF REQUIREMENT. NA
✳AMOUNT OF TIME (SEC.). Ø SEC. (SIMULTANEOUS)

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	1	1
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS ✳	Ø	Ø
DESIGNED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	31 SEC.	31 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS ✳	Ø	Ø
CONTROL EQUIPMENT DECISION TIME IN SECONDS	4	4
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED	35 SEC.	35 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	45	45
BUFFER SPEED IN MILES PER HOUR	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	50	50
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2530	2530
HALF WIDTH OF ISLAND IN FEET	69	69
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	276.36	275.38

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.

NOTES.

1. 12" LED MAXIMUM CURRENT 1.0A AT 10 VOLTS LED GATE ARM LIGHTS .3A MAXIMUM
2. GATE LENGTH (A) 15' (B) 19'
3. (✳) = 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.

PRELIMINARY

= EXISTING

= NOTE

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SR 819 (LAUGHLIN ST.) 145459K

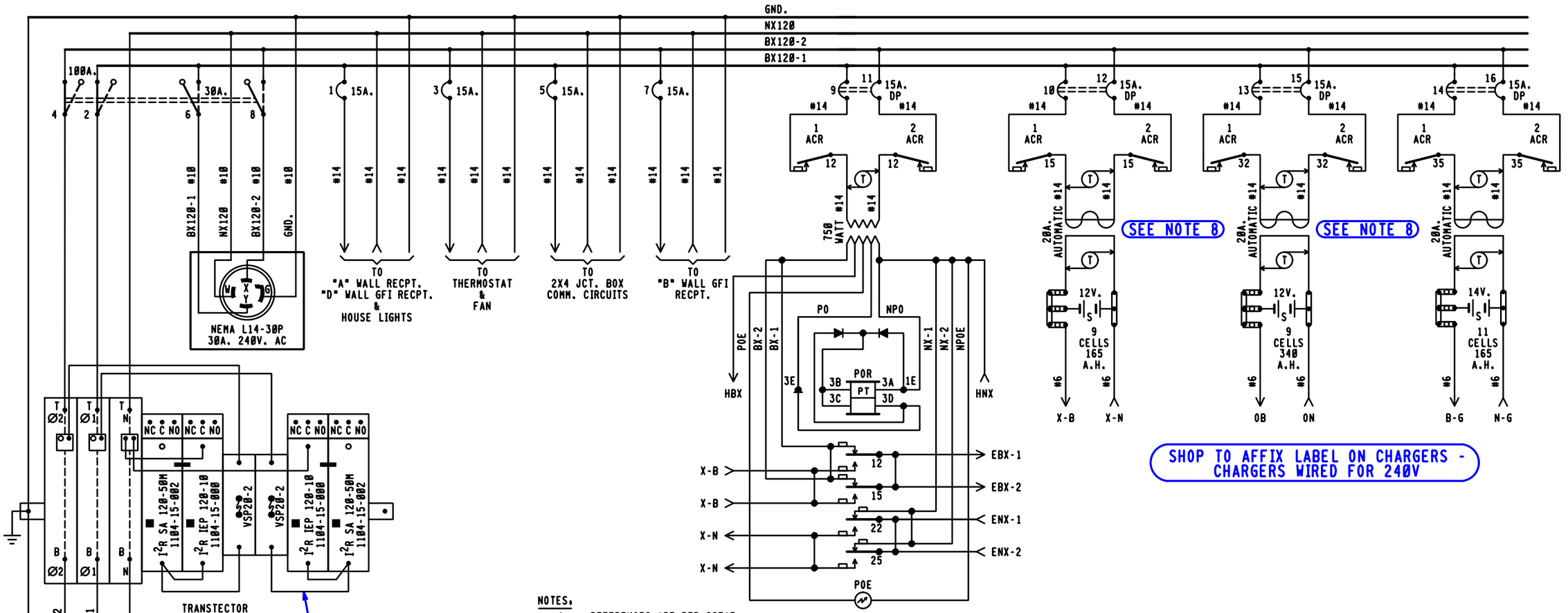
TRACK AND SIGNAL PLAN
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	S01 (A)

TOP ROW

XR			XPR			GPR			EOR			PER					POR			1ACR			2ACR		
12	FB	B8	22	F	B36	12	B	B82	12	FB	B81	12	F	B8			12	FB	B62	12	B	B77	12	B	B77
15	FB	C30	25	F	C30	15	B	C30	15	FB	C30	15	F	C30			15	FB	C30	15	B	C30	15	B	C30
22						22			32	FB		22					22	FB		22			22		
23	F					25			35	FB		23					25	FB		25			25		
25	F					32	F					25					32	F		32	B		32	B	
32	F					35	B					32					35			35	B		35	B	
35												35	F												



WHEN A MODULE IS GREEN, IT IS HEALTHY. WHEN RED, IT HAS FAILED AND NEEDS REPLACING.

SHOP TO AFFIX LABEL ON CHARGERS - CHARGERS WIRED FOR 240V

BX120-1	BX120-2
14.1 AMPS	14.1 AMPS

MAXIMUM LOAD CALCULATED PER SS360

WILMORE DC-DC CONVERTER
MODEL 1675-12-12-15
INPUT (+ / -) → 0B, 0N
OUTPUT (+ / -) → B, N

NOTES.

1 - REFERENCES ARE PER SS713.
2 - ARRESTERS ARE PER SS382.
3 - SHELF RELAY PLACEMENT ON CONSIST CHART HAS NO SIGNIFICANCE.
4 - PLUG-IN RELAYS ARE VIEWED FROM THE FRONT OF RACK.
5 - BATTERY A.H. CAPACITY SHOWN IS THE MINIMUM REQUIREMENT.
6 - 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.
7 - CIRCUIT INTERRUPTERS 2 & 4 ARE MECHANICALLY INTERLOCKED WITH CIRCUIT INTERRUPTERS 6 & 8.
8 - CHARGERS WIRED FOR 240VAC
9 - CIRCUIT BREAKERS PANEL- Q0124L125G (24 SPACES)

PRELIMINARY

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NEW WORK

DATE 03-10-23
CSX# PA2019559
PRS/TGG/SAF

⟶⟵ = OUT
⬭ = NOTE

6'X 6' PTC RELAY HOUSE

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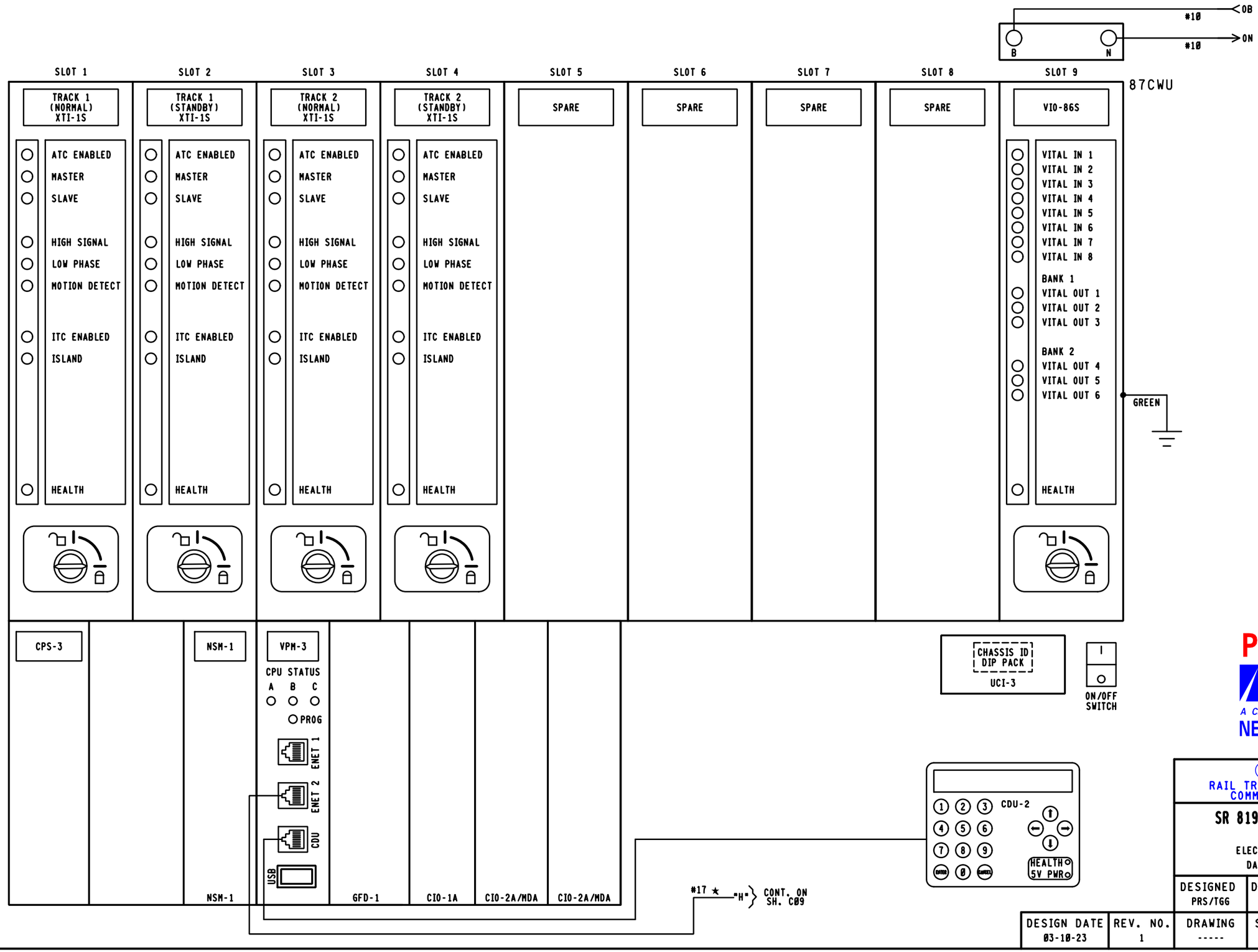
SR 819 (LAUGHLIN ST.) 145459K

POWER DISTRIBUTION
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	E01 (A)



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PROGRESS RAIL SERVICES
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NEW WORK

DATE: 03-10-23
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PRS/TGG/SAF

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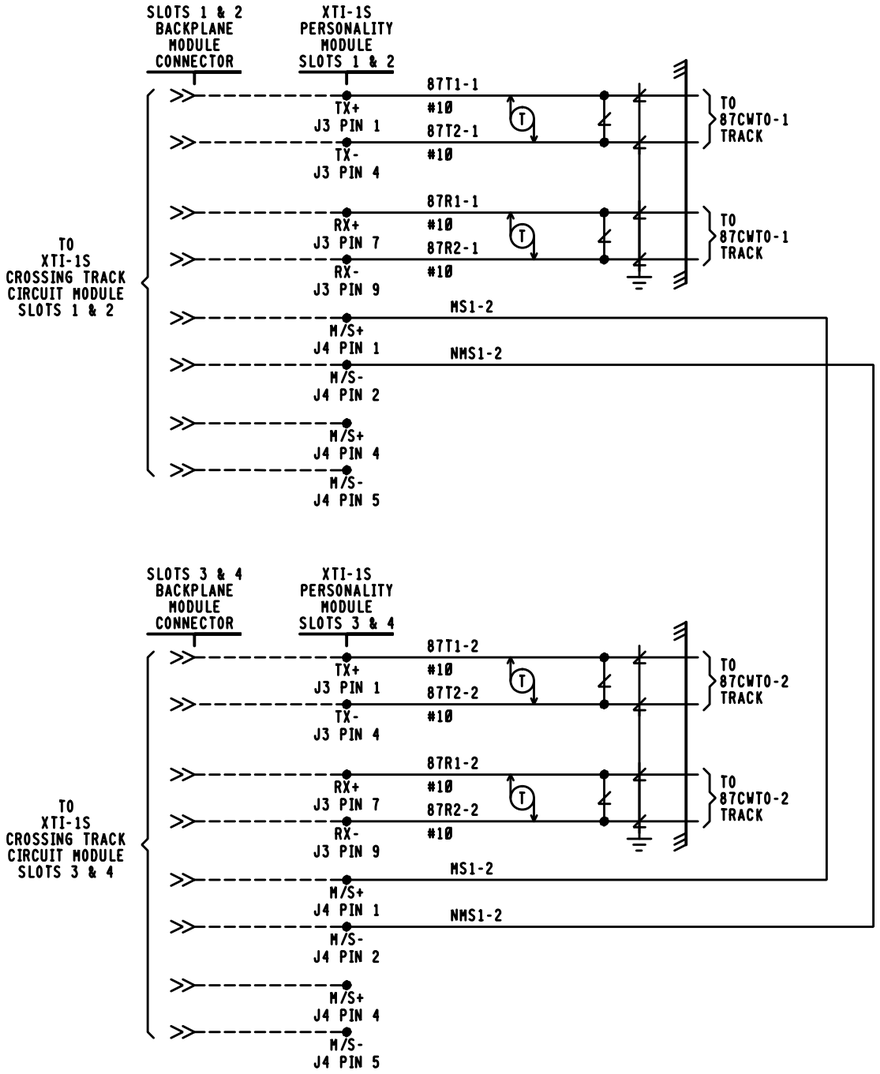
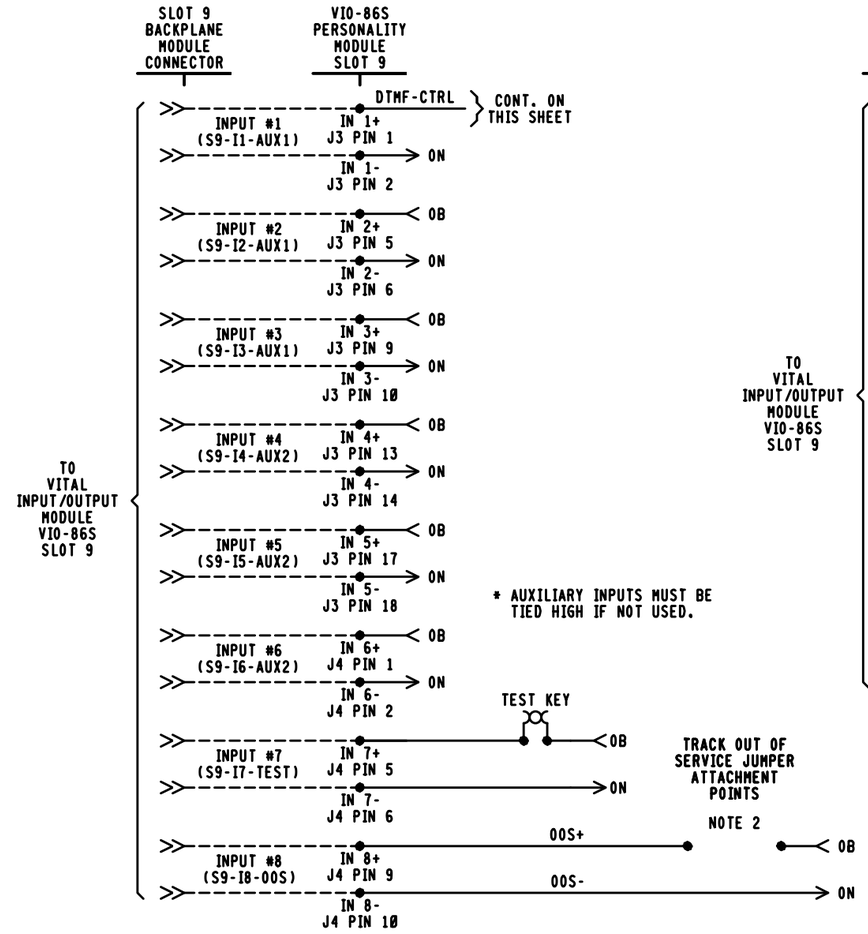
SR 819 (LAUGHLIN ST.) 145459K

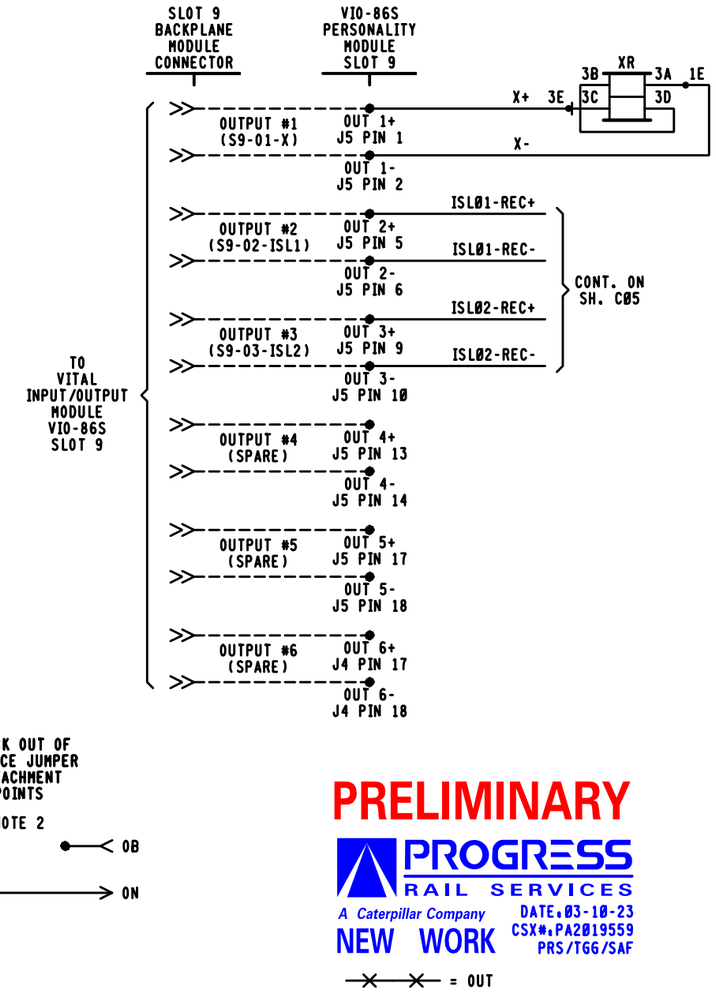
ELECTROLOGIXS XP4 MODULE LAYOUT
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	E02





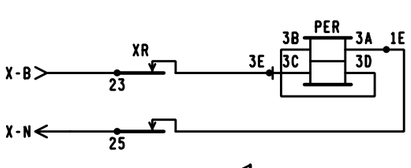


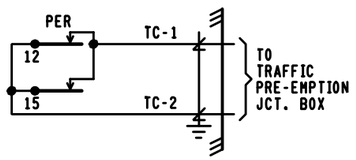
PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company
NEW WORK
DATE.03-10-23
CSX#.PA2019559
PRS/TGG/SAF

= OUT

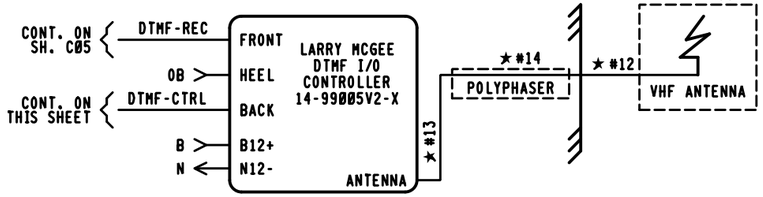
NOTES
1. ALL WIRE THIS SHEET #16 AWG UNLESS NOTED.
2. APPROACH DISABLE JUMPER INPUT. THIS INPUT IS USED IN COMBINATION WITH THE SOFT APPROACH DISABLE ACCESSED THROUGH THE CDU-2 KEYPAD. BOTH BITS MUST BE HIGH TO DISABLE AN APPROACH. THE OPERATOR IS SOLELY RESPONSIBLE FOR CROSSING PROTECTION WHEN THE APPROACH DISABLE FUNCTION IS ACTIVATED.
3. DTMF USES LAST 3 DIGITS (NUMBERS) OF THE CROSSING DOT# TO OPERATE CROSSING PROTECTION DEVICES.
4. ★ = REFER TO SH. C09





PROGRAMMING FOR DTMF RADIO

REMOTE DTMF CROSSING ACTIVATION (ACTIVATES ENTIRE CROSSING)	
TO ACTIVATE PRESS.	459 *
TO DE-ACTIVATE PRESS.	459 #
(ACTIVATION WILL TIME OUT AFTER 60 SEC.)	



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	ISL01 OUTPUT
OUTPUT 3	ISL02 OUTPUT
OUTPUT 4	(NOT USED)
OUTPUT 5	(NOT USED)
OUTPUT 6	(NOT USED)

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SR 819 (LAUGHLIN ST.) 145459K

XP4 CROSSING DETECTION AND I/O CIRCUITS
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	C01 (A)

SITE SPECIFIC MDR DESCRIPTIONS AND SETTINGS					
NAME		MDR1		MDR2	
FUNCTION		XR		XR	
WARNING TIME		31		31	
CW/MD		CW		CW	
AP TIME(PREEMPT)		NA		NA	
CWE-WT		80		80	
AUX RECOVERY DELAY		5		5	
TRACK		TK 1	TK 2	TK 1	TK 2
TRACK ASSIGNED		ASSIGNED	UNASSIGNED	UNASSIGNED	ASSIGNED
OFFSET DISTANCE		0'	NA	NA	0'
MD RESTART		0*	NA	NA	0*
SUDDEN SHUNT ZONE		0*	NA	NA	0*
POSITIVE START	PSEN	DISABLE	NA	NA	DISABLE
	PSRX	NA	NA	NA	NA
	PST	NA	NA	NA	NA
POST JOINT DETECT	PJEN	ENABLE	NA	NA	ENABLE
	PJRX	15	NA	NA	15
	PJDT	15	NA	NA	15
CLEAR JOINT LOS	CJ-LOS MODE	STANDARD	NA	NA	STANDARD
	CJ-LOS RX	15	NA	NA	15
	CJ-LOS TIME	99	NA	NA	99

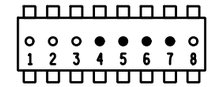
BASIC TRACK SETUP		
	TRACK 1	TRACK 2
FREQUENCY	267 HZ	267 HZ
MASTER/SLAVE	MASTER	MASTER
RX ADJUST	100 *	100 *
TCA	*	*
DIRECTION MODE	BI	BI
LIA	*	*
ADVANCED APPROACH	*	*
NBS COMP RX	*	*
TRK ISLAND ASSIGN	ISL1	ISL2
APPROACH LENGTH	2530'	2530'
AUTO RX	ENABLE	ENABLE

ADVANCED TRACK SETUP			
		TRACK 1	TRACK 2
MOTION DET TIMER	MDEN	DISABLE	DISABLE
	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	5.4 KHZ	5.4 KHZ
LOSS OF SHUNT	2 SEC.	2 SEC.
FAULT DELAY	1	1

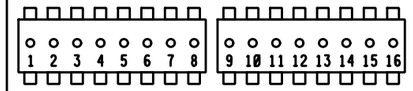
APPLICATION SOFTWARE INFORMATION	
NAME	9XXS-2.01
REV.	1.0
CHECKSUM	E49B
CRC	FF9E
CH. I.D.	225

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)

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

VITAL SELECTION DIP SHUNTS		
#	NAME	STATE
1	MI_BELL_SW	PUNCHED OUT
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

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE.03-10-23
CSX#.PA2019559
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—X—X— = OUT

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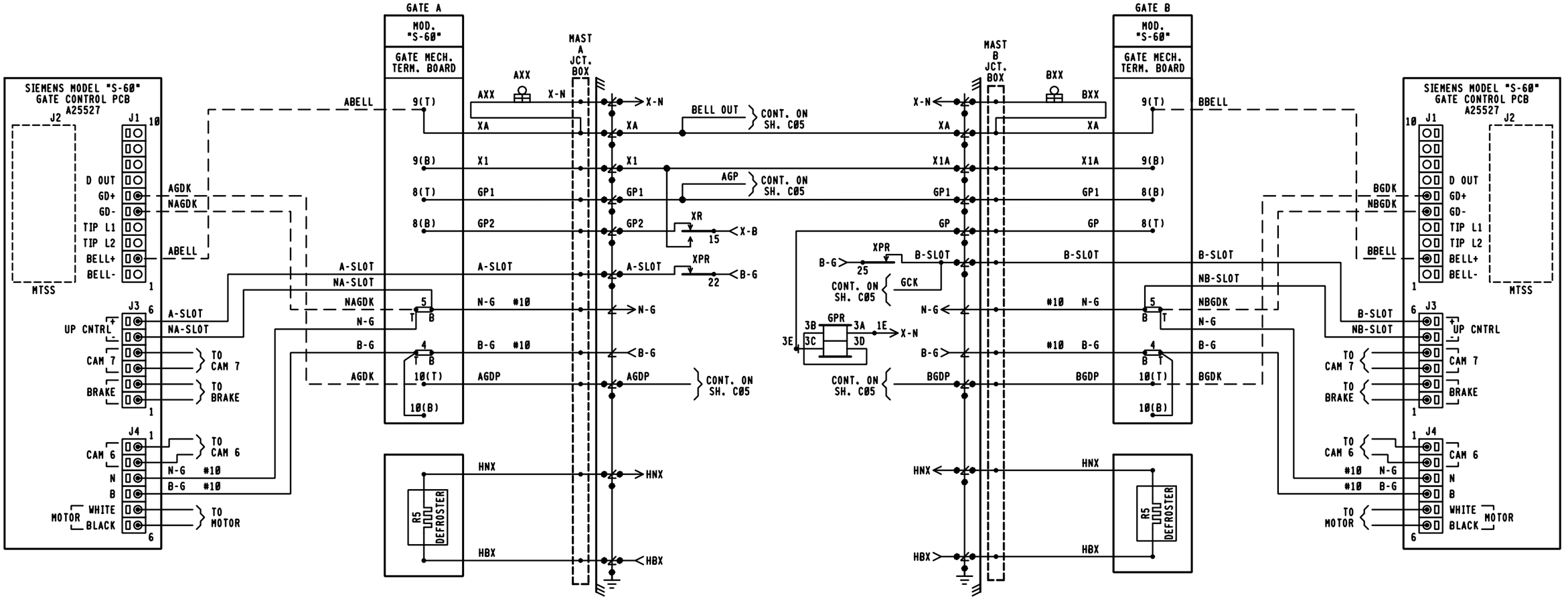
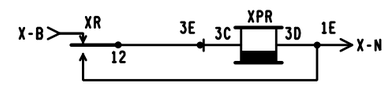
SR 819 (LAUGHLIN ST.) 145459K

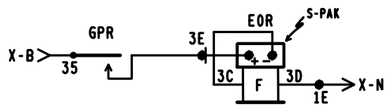
XP4 SETUP INFORMATION
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	C02 (A)







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A Caterpillar Company

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DATE:03-10-23
CSX#:PA2019559
PRS/TGG/SAF

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CSX TRANSPORTATION
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SR 819 (LAUGHLIN ST.) 145459K

CROSSING WARNING DEVICE GATE CIRCUITRY
DAWSON, PA M.P. BF-275.87

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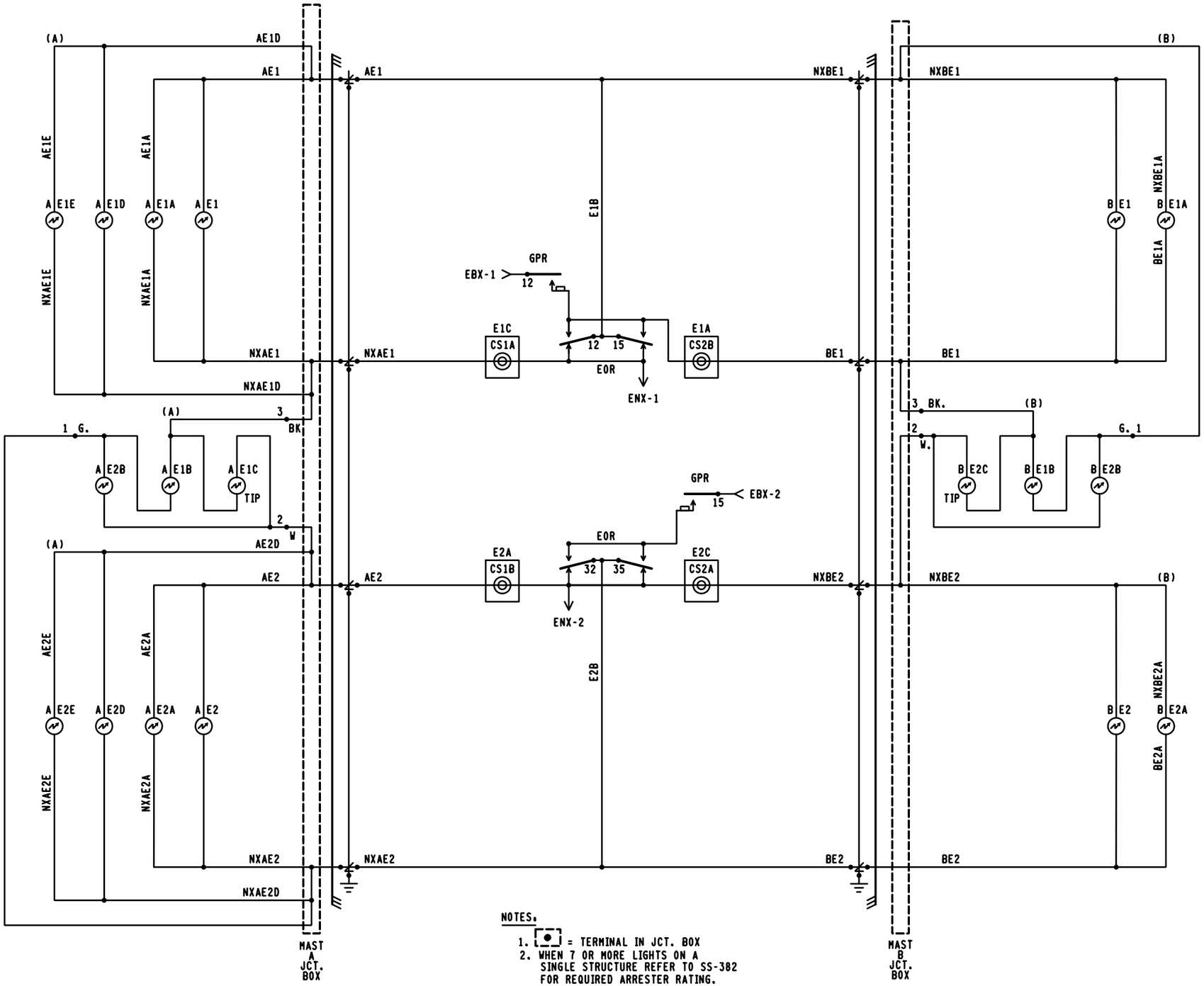
03-10-23	1	-----	-----	BF27587	C03 (A)



NOTES:

1. [•] = TERMINAL IN JCT. BOX
2. WHEN 7 OR MORE LIGHTS ON A SINGLE STRUCTURE REFER TO SS-382 FOR REQUIRED ARRESTER RATING.
3. •/• = HLVA2-1675-01 HYBRID LOW VOLTAGE ARRESTER, UNLESS NOTED.

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE:03-10-23
CSX#:PA2019559
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—X—X— = OUT

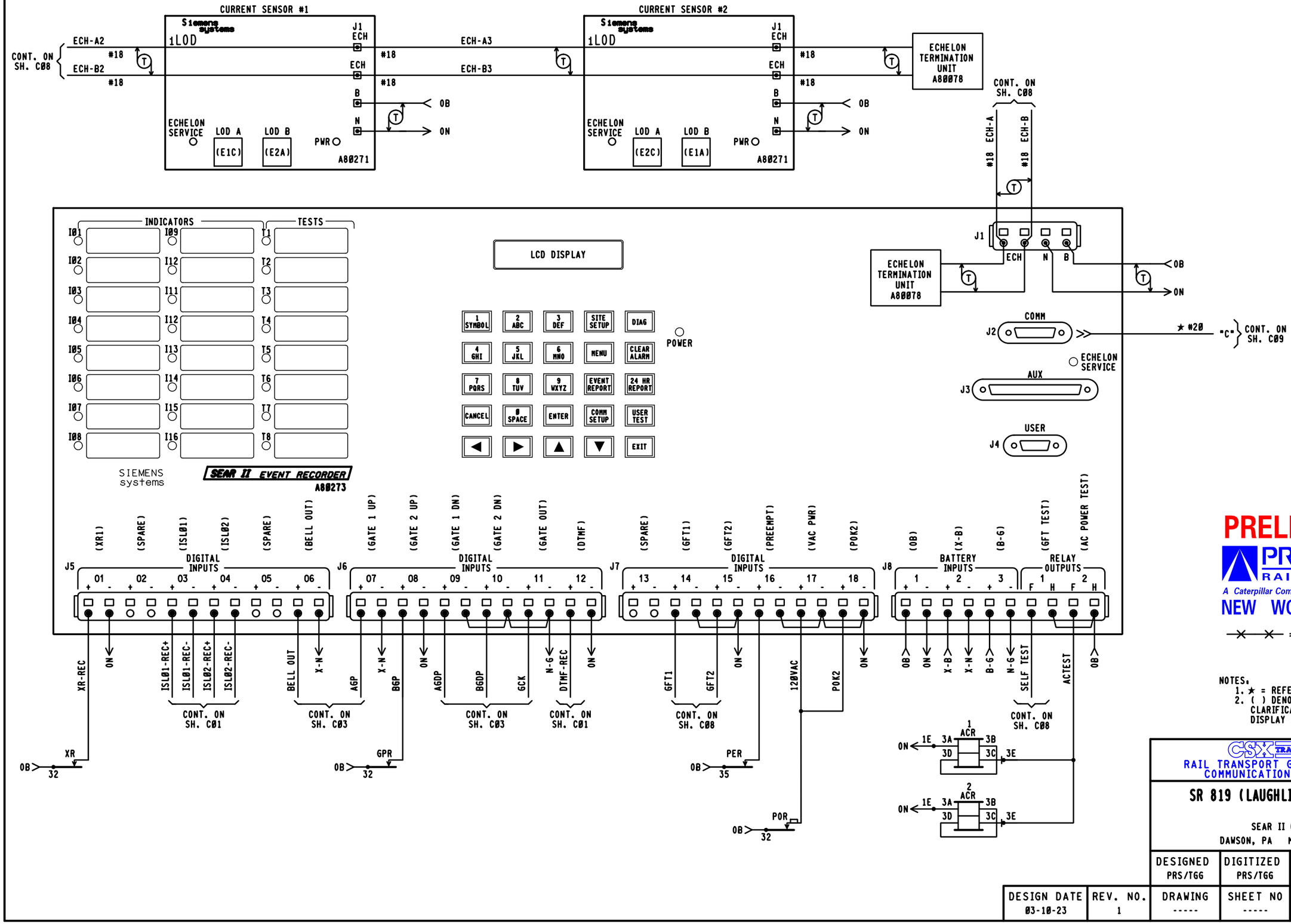
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 819 (LAUGHLIN ST.) 145459K

CROSSING WARNING DEVICE LIGHT CIRCUITRY
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	C04 (A)



PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE: 03-10-23
CSX#: PA2019559
PRS/TGG/SAF

= OUT

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

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 819 (LAUGHLIN ST.) 145459K

SEAR II CIRCUITS
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	C05 (A)

	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	SR 819 (LAUGHLIN ST.)	
MILEPOST	BF-275.87	
DOT NUMBER	145459K	
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	7.125.304.015.99.01 (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)	NOTE 6
RADIO ATCS ADDRESS	7.125.304.015.01.01	
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)	

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 7.620.100.100.99.01 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	GCP3K □ MS4K □ 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	
NOTE 4 ACTIVATION CODE 2	XXX	
NOTE 4 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 GFT1	1 □ 2 ■	
FULL APPROACH MOVE ALARMS	ACTIVATED ■ DO NOT ACTIVATE □	

FIELD TO PROVIDE BATTERY VOLTAGES 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	6	□BULBS ■LED	X.X
CURRENT SENSOR (1) E2A, LAMP SET UP	6	□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

PRELIMINARY

( ) = NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE.03-10-23
CSX#.PA2019559
PRS/TGG/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 819 (LAUGHLIN ST.) 145459K

SEAR II CONFIGURATION AND FUNCTIONS
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	C06

DISCRETE INPUTS	DI 01	DI 02	DI 03	DI 04	DI 05	DI 06
CHANNEL	1	2	3	4	5	6
NAME	XR (TRACK)		ISLAND 1 (TRACK)	ISLAND 2 (TRACK)		BELL OUT (BELL PWR)
TAG	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	
TAG	GCOUT1 (GCK)	DTMF-REC	SP
OFF NAME	OFF (DESCENT)	OFF (NO GATE KEYED)	
ON NAME	ON (ASCENT ON)	ON (ACTIVATE)	
ON DEBOUNCE TIME	100 ms	100 ms	1000 ms
OFF DEBOUNCE TIME	100 ms	100 ms	1000 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	PREEMPT	120 VAC	POK2
TAG	PREEMPT (PER)	120 VAC	POK2
OFF NAME	DOWN (PER)	OFF (ALL POWER OFF)	OFF (ALL POWER OFF)
ON NAME	UP (PER)	ON (ALL POWER ON)	ON (ALL POWER ON)
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

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)	1.0 (VOLTS)	1.0 (VOLTS)	1.0 (VOLTS)
AVERAGING 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

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE.03-10-23
CSX#.PA2019559
PRS/TGG/SAF

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

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SR 819 (LAUGHLIN ST.) 145459K

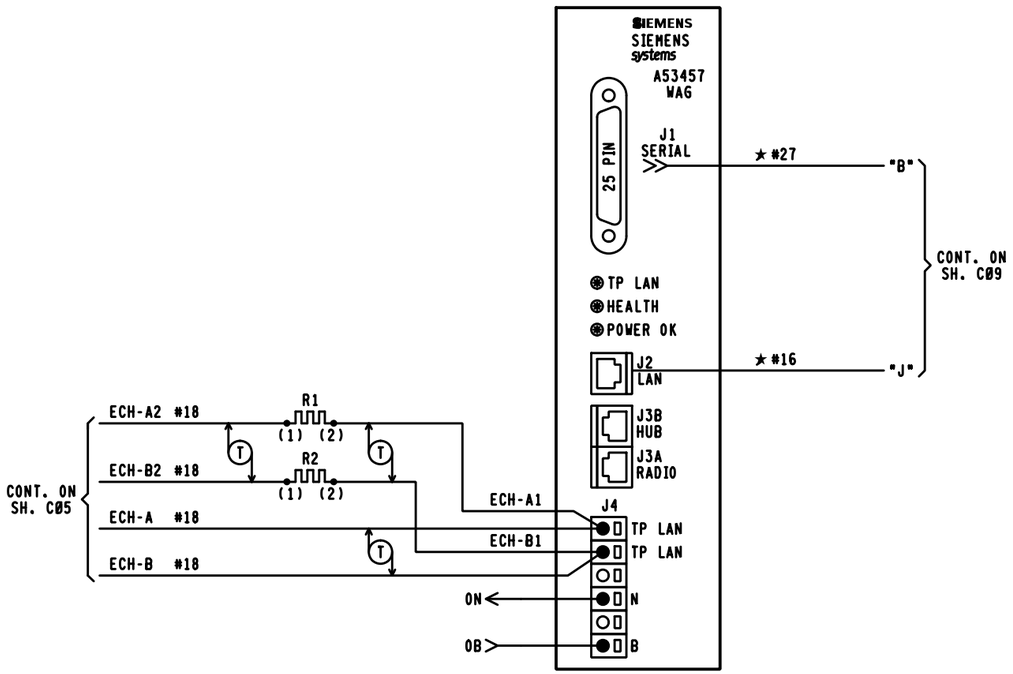
SEAR II CHANNELS
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

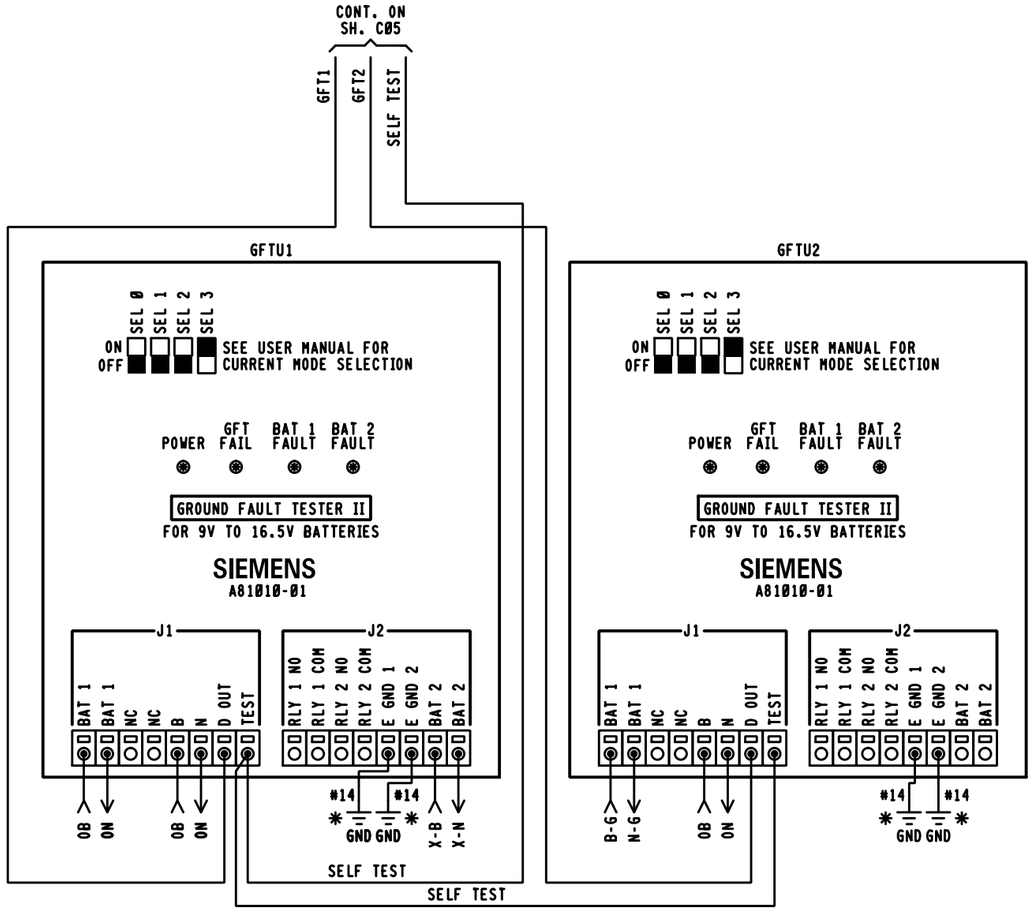
DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	C07

WAYSIDE ACCESS GATEWAY CONFIGURATION	
SITE ATCS ADDRESS	7.125.304.015.07.01
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--7RRRLLLGGGSS
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



NOTES,
1. ★ = REFER TO SH. C09.
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, 20Ω RESISTOR

PRELIMINARY

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

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CSX TRANSPORTATION
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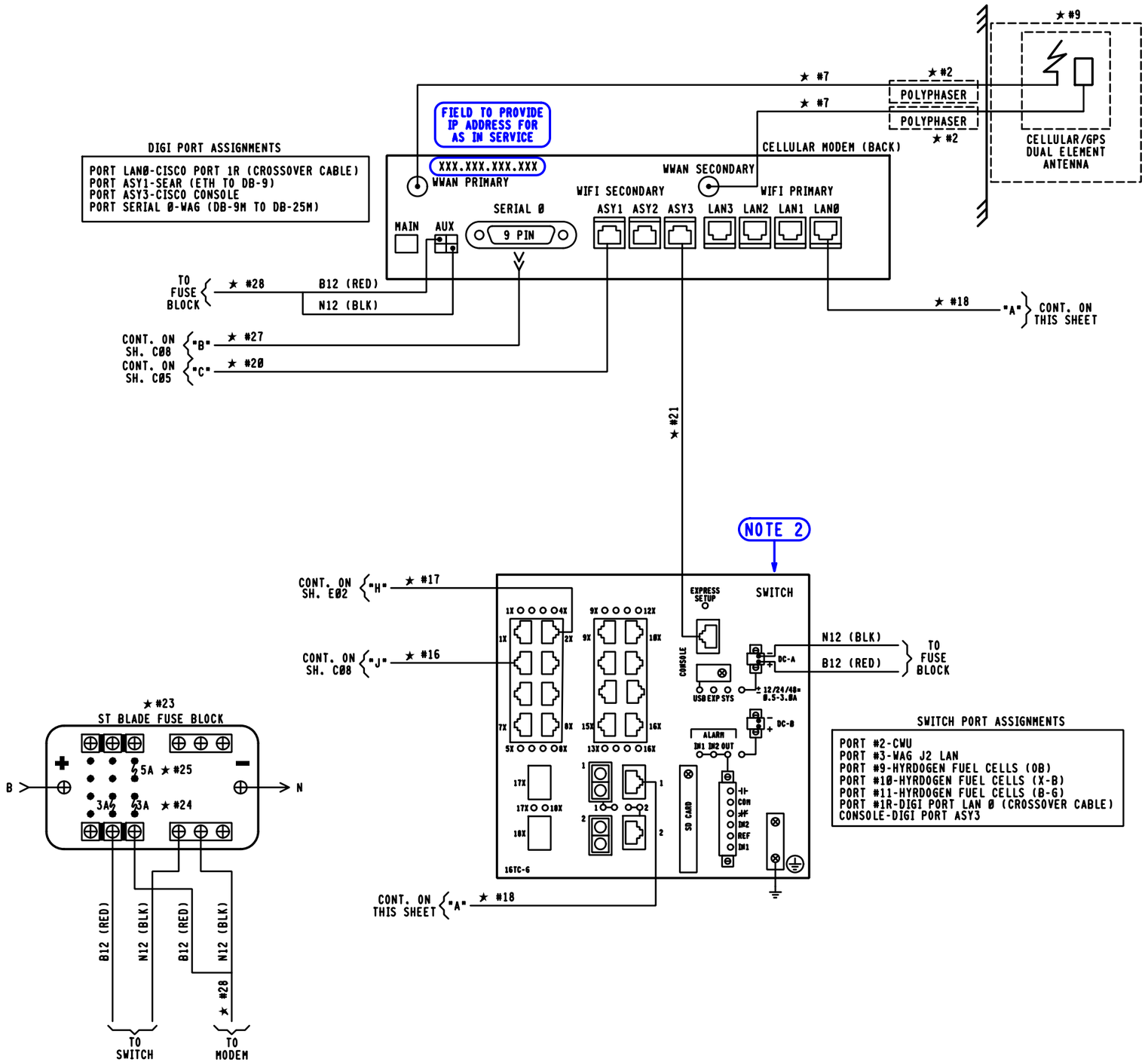
SR 819 (LAUGHLIN ST.) 145459K

WAYSIDE ACCESS GATEWAY
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	C08



★ CSDA-30348-KIT (020.0000367.1)		
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.

SWITCH PORT ASSIGNMENTS

PORT #2-CWU
PORT #3-WAG J2 LAN
PORT #9-HYRDOGEN FUEL CELLS (OB)
PORT #10-HYRDOGEN FUEL CELLS (X-B)
PORT #11-HYRDOGEN FUEL CELLS (B-G)
PORT #1R-DIGI PORT LAN 0 (CROSSOVER CABLE)
CONSOLE-DIGI PORT ASY3

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

PRELIMINARY

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

NEW WORK

DATE.03-10-23
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CSX TRANSPORTATION
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COMMUNICATIONS AND SIGNALS

SR 819 (LAUGHLIN ST.) 145459K

CROSSING COMMUNICATIONS EQUIPMENT
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
PRS/TGG	PRS/TGG	PRS/SAF	03-10-23

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
03-10-23	1	-----	-----	BF27587	C09

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S01	TRACK AND SIGNAL PLAN	X								
E01	POWER DISTRIBUTION	X								
C01	CROSSING DETECTION CIRCUITRY	X								
C02	DETECTION DEVICE PROGRAM	X								
C03	CROSSING WARNING DEVICE CIRCUITRY	X								
C04	RECORDER CIRCUITS	X								
C05	RECORDER PROGRAM	X								

= DESIGN COMPLETED

= REVISION COMPLETED

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2006028	07-23-07	04-18-09	09-21-09

PRELIMINARY

ALL OUT
THIS SHEET IS VOID
WHEN AS IN SERVICED.

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE.03-10-23
CSX#.PA2019559
PRS/TGG/SAF

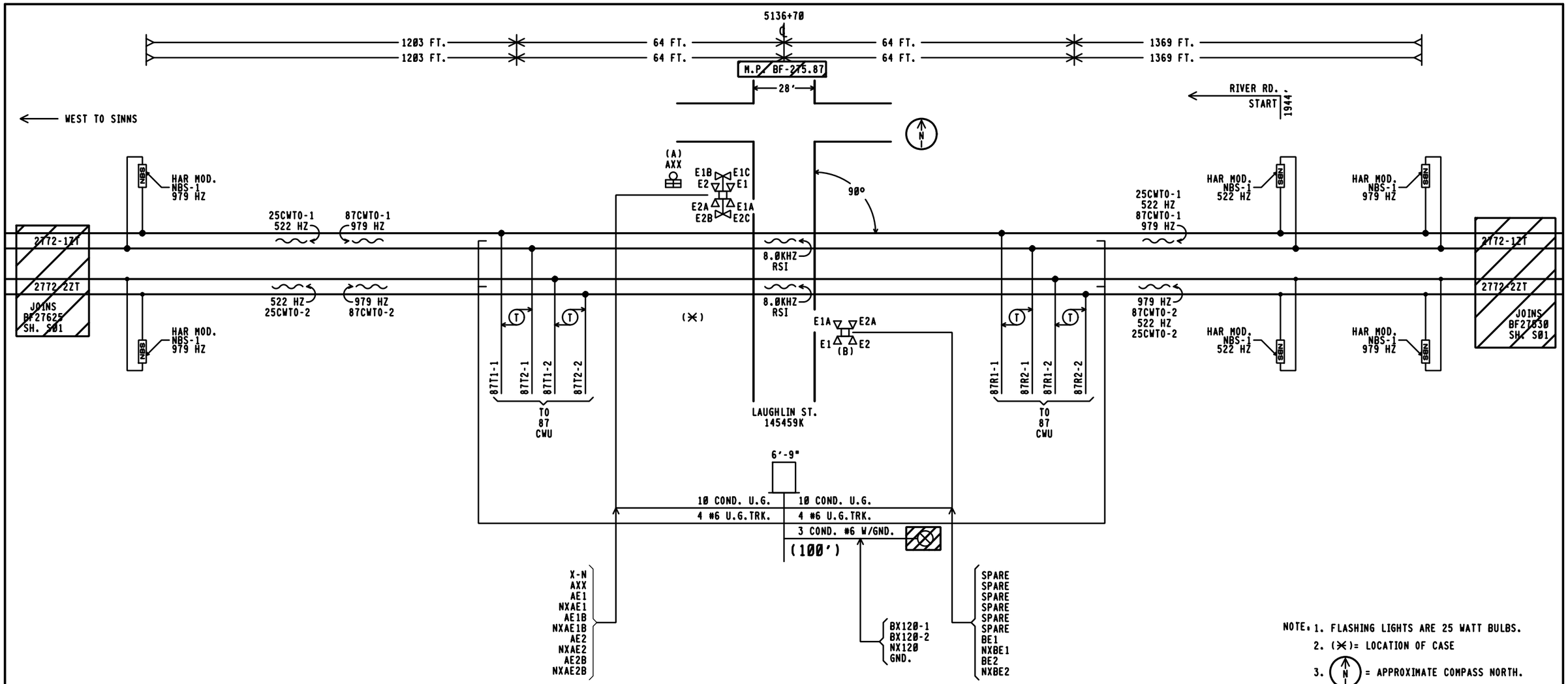
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

LAUGHLIN ST. 145459K

INDEX AND REVISIONS
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27587	I01



✳AUTHORIZING AGENCY, "NONE" IF NOT USED
✳DATE OF REQUIREMENT, "NONE" IF NOT USED
✳AMOUNT OF TIME (SEC.), "NONE" IF NOT USED

APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	WESTWARD TRACK 1 MOTION	EASTWARD TRACK 1 MOTION	WESTWARD TRACK 2 MOTION	EASTWARD TRACK 2 MOTION
STANDARD MINIMUM WARNING TIME IN SECONDS	20	20	20	20
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
DESIGNED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	21 SEC.	21 SEC.	21 SEC.	21 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS ✳	0	0	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	3	3	3	3
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED	24 SEC.	24 SEC.	24 SEC.	24 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	30	30	30	30
BUFFER SPEED IN MILES PER HOUR	5	5	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	35	35	35	35
APPROACH DISTANCE TO ISLAND EDGE IN FEET	1369	1203	1369	1203
HALF WIDTH OF ISLAND IN FEET	64	64	64	64
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	275.62	276.11	275.62	276.11

NOTE:
1. FLASHING LIGHTS ARE 25 WATT BULBS.
2. (✳)= LOCATION OF CASE
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.

▨ = SHOWN ELSEWHERE

PRELIMINARY

ALL ELSE OUT
THIS SHEET IS VOID
WHEN AS IN SERVICED.

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE: 03-10-13
CSX#: PA2019559
PRS/TGG/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

LAUGHLIN ST. 145459K

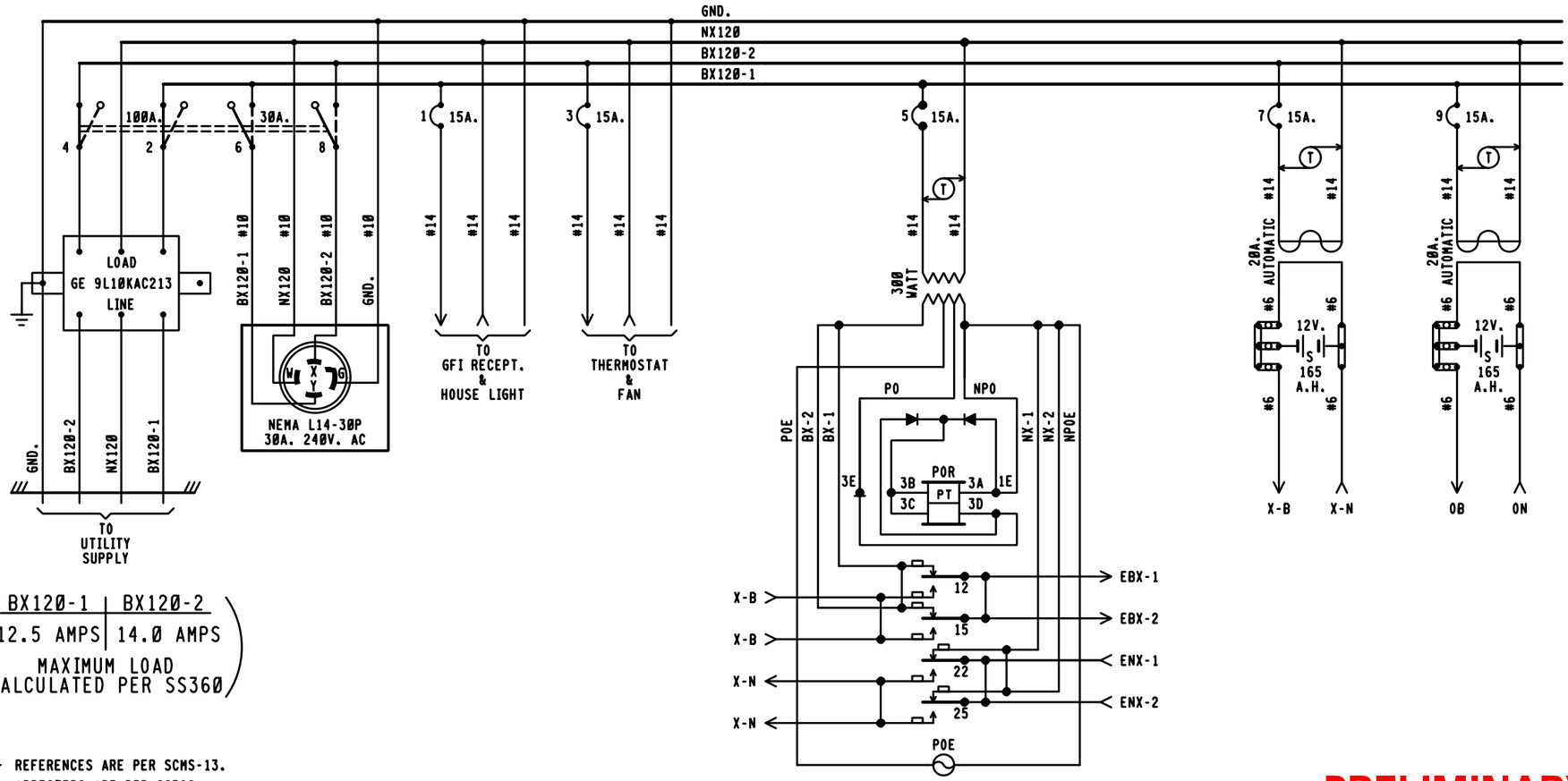
TRACK AND SIGNAL PLAN
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27587	S01

TOP ROW

						XR			EOR		POR		
						12 B / 15 B / 22 / 25 F / 32 B / 35 B — B82 C30			12 FB / 15 FB / 32 FB / 35 FB — B81 C30		12 FB / 15 FB / 22 FB / 25 FB / 32 F / 35 — B62 C30		



BX120-1	BX120-2
12.5 AMPS	14.0 AMPS

MAXIMUM LOAD
CALCULATED PER SS360

NOTES:

1 - REFERENCES ARE PER SCMS-13.
2 - ARRESTERS ARE PER SS382.
3 - SHELF RELAY PLACEMENT ON CONSIST CHART HAS NO SIGNIFICANCE.
4 - PLUG-IN RELAYS ARE VIEWED FROM THE FRONT OF RACK.
5 - BATTERY A.H. CAPACITY SHOWN IS THE MINIMUM REQUIREMENT.
6 - 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 - GROUND WIRE NOT NECESSARY WHEN GE ARRESTER IS MOUNTED ON GROUND PLANE OR METAL ENCLOSURE AFFIXED DIRECTLY TO BUNGALOW METALLIC STRUCTURAL MEMBER.
7 - CIRCUIT INTERRUPTERS 2 & 4 ARE MECHANICALLY INTERLOCKED WITH CIRCUIT INTERRUPTERS 6 & 8.

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PROGRESS RAIL SERVICES
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DATE.03-10-23
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6'-9" RELAY CASE W/FARADAY SHIELD

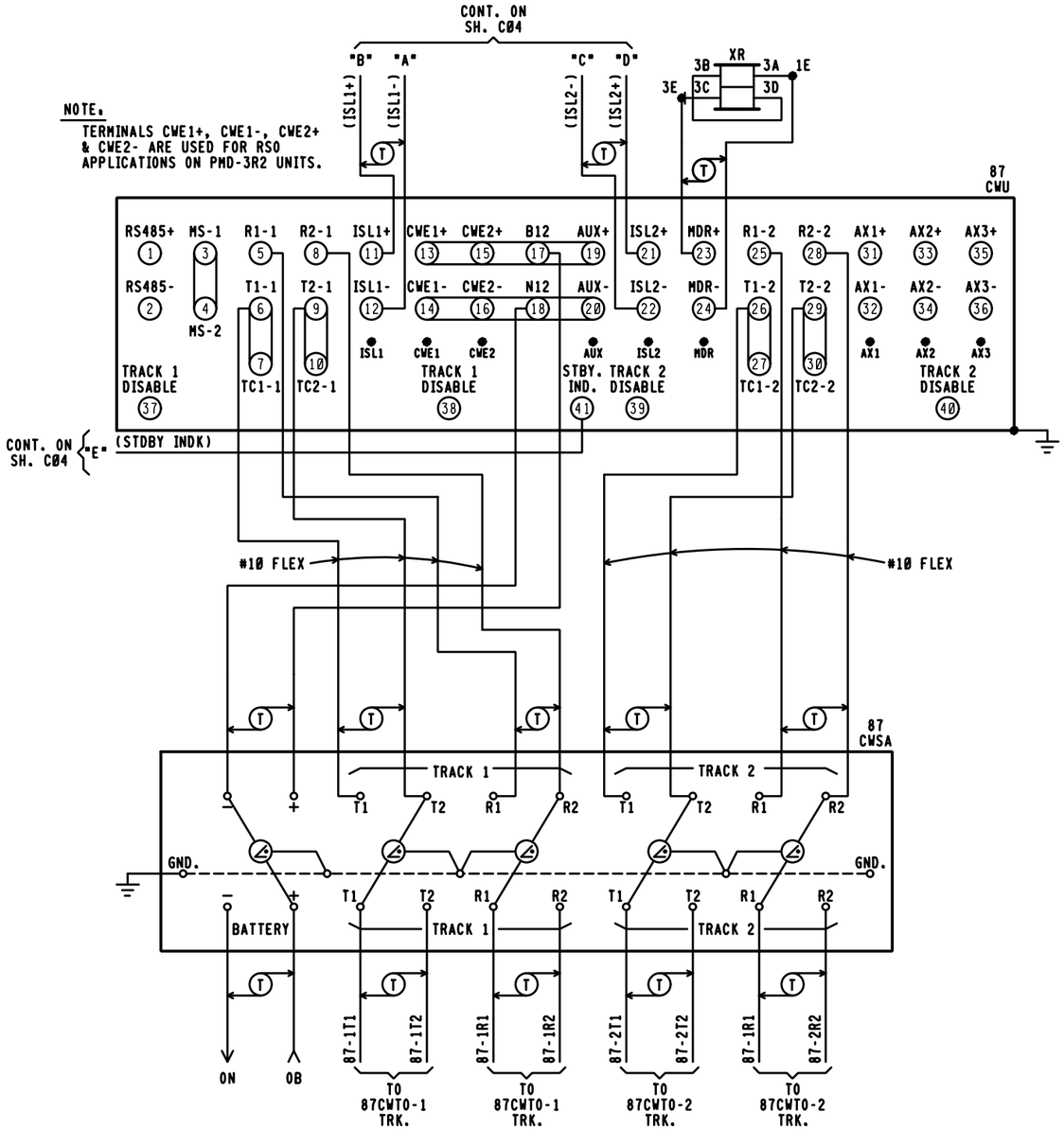
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

LAUGHLIN ST. 145459K

POWER DISTRIBUTION
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27587	E01



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PROGRESS RAIL SERVICES
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DATE: 03-10-23
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PRS/TGG/SAF

NORMAL SYSTEM

CABINET SWITCHES
MASTER/SLAVE SWITCHES ARE LOCATED IN THE UPPER BAY OF CABINET
THESE SWITCHES ARE LOCATED ON MOTHERBOARD

SYSTEM CONFIGURATION				
S13 & S14 DIP SWITCH POSITIONS				
SWITCH #	1	2	3	4
SWITCH POSITION	ON	OFF	ON	OFF
	NOR. APPR.		PMD MODE	

FREQUENCY SELECT						
TRACK 1	S11 & S12 DIP SWITCH POSITIONS 979 HZ					
	SWITCH #	1	2	3	4	5
	SWITCH POSITION	OFF	ON	OFF	ON	ON
TRACK 2	S15 & S16 DIP SWITCH POSITIONS 979 HZ					
	SWITCH #	1	2	3	4	5
	SWITCH POSITION	OFF	ON	OFF	ON	ON

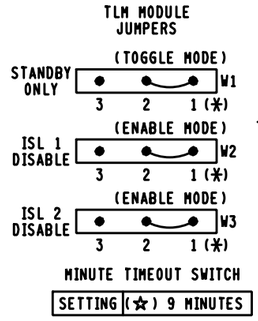
STANDBY SYSTEM

CABINET SWITCHES
MASTER/SLAVE SWITCHES ARE LOCATED IN THE UPPER BAY OF CABINET
MASTER/SLAVE: MASTER / SLAVE — S1 TRACK 1; MASTER / SLAVE — S2 TRACK 2
THESE SWITCHES ARE LOCATED ON MOTHERBOARD

SYSTEM CONFIGURATION				
S5 & S6 DIP SWITCH POSITIONS				
SWITCH #	1	2	3	4
SWITCH POSITION	ON	OFF	ON	OFF
	NOR. APPR.		PMD MODE	

FREQUENCY SELECT						
TRACK 1	S3 & S4 DIP SWITCH POSITIONS 979 HZ					
	SWITCH #	1	2	3	4	5
	SWITCH POSITION	OFF	ON	OFF	ON	ON
TRACK 2	S7 & S8 DIP SWITCH POSITIONS 979 HZ					
	SWITCH #	1	2	3	4	5
	SWITCH POSITION	OFF	ON	OFF	ON	ON

TLM MODULE JUMPERS

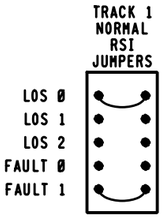


MINUTE TIMEOUT SWITCH

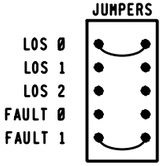
SETTING	(☆) 9 MINUTES

NOTE.
PIN 1 IS IDENTIFIED BY ASTERICK BELOW IT.
(☆) = MAY BE SET PER FIELD CONDITIONS.

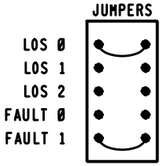
TRACK 1 NORMAL RSI JUMPERS



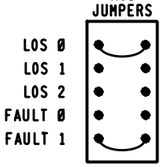
TRACK 2 NORMAL RSI JUMPERS



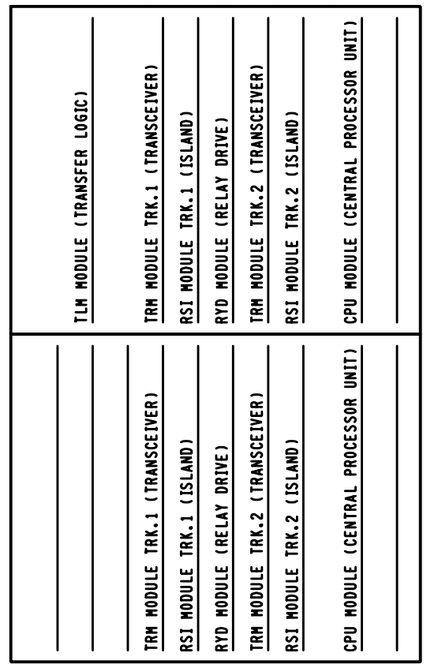
TRACK 1 STANDBY RSI JUMPERS



TRACK 2 STANDBY RSI JUMPERS



87CWU
PMD-3R2 MODULES REQUIRED



FRONT VIEW

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

LAUGHLIN ST. 145459K

CROSSING DETECTION CIRCUITRY
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27587	C01

87CWU

TRM LOCAL PARAMETERS PMD-3R2 DESIGN CARD

		DEFAULTS & /OR STYLE	FIELD RECORD	
OPERATING PROGRAM PROG	VERSION AND COMPILE DATE	35.0 MM/DD/YY	__/__/__	NA
SYSTEM MONITOR PROGRAM EPRM	VERSION AND COMPILE DATE	20.2 MM/DD/YY	__/__/__	NA
ADJUSTMENT	RANGE	DEFAULT	TRACK 1	TRACK 2
#1 RX	100 IS INTENDED	NA		
#2 PH (PHASE)	INTENDED ABOVE 32 (NOT ADJUSTABLE)	NA		
#3 CW / MD	CW OR MD NOT ADJUSTABLE FROM MD TOWARD CW (SEE TCR 430-01 FOR CONSTRAINTS)	MD	MD	MD
#4 UNI/BI (IF CW IS CHOSEN IN #3)	UNI OR BI	BI	BI	BI
#5 LIA (IF CW IS CHOSEN IN #3)	-9 TO +9	LIA=0	NA	NA
#6 WT (IF CW IS CHOSEN IN #3)	23 TO 99	WT=99	NA	NA
#7 TC	WHEN IN CONFORMANCE WITH PMD-3R MANUAL, ADJUST TC FOR A TRANSMITTER CHECK MONITOR VALUE LESS THAN 470	NA		
#8 B (BALLAST COMPENSATION)	50 TO 250 (FIELD ADJUSTMENT - ADJUST ONLY WHEN IN CONFORMANCE WITH DATA ACCUMULATED AT THIS SITE AND IN COMPLIANCE WITH SUPERVISOR INSTRUCTIONS & PMD-3R MANUAL)	NA		
#9 PC (PHASE COMPENSATION)	0 TO +10 (FIELD ADJUSTMENT - ADJUST ONLY WHEN IN CONFORMANCE WITH SUPERVISOR INSTRUCTIONS & PMD-3R MANUAL)	PC=0		
#10 FREQ	REFERENCE, NOT ADJUSTABLE FROM MENU	NA	979 HZ	979 HZ
#11 FS-T (FALSE SHUNT TIMER)	ENTRANCE TO SUDDEN FALSE SHUNT SUB-MENU	NA	NA	NA
#12 FR (FALSE SHUNT % OF RX APPROACH)	0 TO 80 NOT ADJUSTABLE FROM ZERO UNTIL AFTER STRICT DESIGN REVIEW FOR SITE APPLICATION CONFLICTS, FR=0 MEANS DISABLED (SEE TCR 430-01 FOR CONSTRAINTS)	FR=0	FR=0	FR=0
#13 FT (FAULT TIMER)	0 TO 99 MINUTES (FACTORY DEFAULT IS 10)	FT=10	NA	NA
#14 AR-T (APPROACH RELEASE TIMER)	ENTRANCE TO SUB-MENU FOR RESIDUAL FALSE SHUNT STARTED DURING TRAIN PASSAGE	NA	NA	NA
#15 AR (FALSE SHUNT % OF RX APPROACH)	0 TO 80 NOT ADJUSTABLE FROM ZERO UNTIL AFTER STRICT DESIGN REVIEW FOR SITE APPLICATION CONFLICTS AR=0 MEANS DISABLED (SEE TCR 430-01 FOR CONSTRAINTS)	AR=0	AR=0	AR=0
#16 AT (FAULT TIMER)	0 TO 99 MINUTES (FACTORY DEFAULT IS 10)	AT=10	AT=10	AT=10
#17 HS (HIGHEST STABLE R VALUE)	REFERENCE, NOT ADJUSTABLE FROM MENU	NA	NA	NA
#18 LP (LOWEST STABLE PHASE)	REFERENCE, NOT ADJUSTABLE FROM MENU	NA	NA	NA
#19 SD (SELF DIAGNOSTICS)	REFERENCE, NOT ADJUSTABLE FROM MENU, BUT MENU CAN REVIEW, THEN CLEAR DIAGNOSTIC CODES	NA	NA	NA
#20 REC (TRAIN RECORD DISPLAY)	REFERENCE, SEQUENTIAL DISPLAY OF PREVIOUS WARNING TIME RECORDS (NO ADJUSTMENT)	NA	NA	NA
#21 PRN (PRINTER/LAPTOP READY)	STARTS DOWNLOAD OF INTERNAL TRAIN EVENT LOG WHEN SERIAL PORT CABLE CONNECTED	NA	NA	NA
#22 LSP (LOCAL SERIAL PORT)	ENTRANCE TO SUB-MENU FOR SETTING SPEED OF SERIAL PORT DOWNLOADS	NA	NA	NA
#23 @ (BAUD RATE)	BAUD RATE OF 38,400 IS 384 AND DEFAULT	@=384	@=384	@=384
#24 DB (DATA BITS)	7 OR 8 8 IS DEFAULT	DB=8	DB=8	DB=8
#25 PA (PARITY)	O, E, OR N N IS DEFAULT	PA=N	PA=N	PA=N
#26 AR (AUTO RX)	UP OR DN DN IS FACTORY DEFAULT (FIELD ADJUSTMENT - ADJUST TO "UP" ONLY WHEN BC HAS BEEN PREVIOUSLY STABILIZED THROUGH ADJUSTMENT, AND ONLY WHEN IN CONFORMANCE WITH SUPERVISOR INSTRUCTIONS AND PMD-3R MANUAL)	AR=DN	AR=DN	AR=DN
#27 RX (POTENTIOMETER VALUE)	REFERENCE, DISPLAY ONLY	NA	NA	NA
#28 VERS (PROGRAM VERSION)	REFERENCE, SEQUENTIAL DISPLAY OF EPROM AND SOFTWARE VERSIONS	NA	NA	NA

PRELIMINARY
ALL OUT
THIS SHEET IS VOID
WHEN AS IN SERVICED.

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE:03-10-23
CSX#:PA2019559
PRS/TGG/SAF

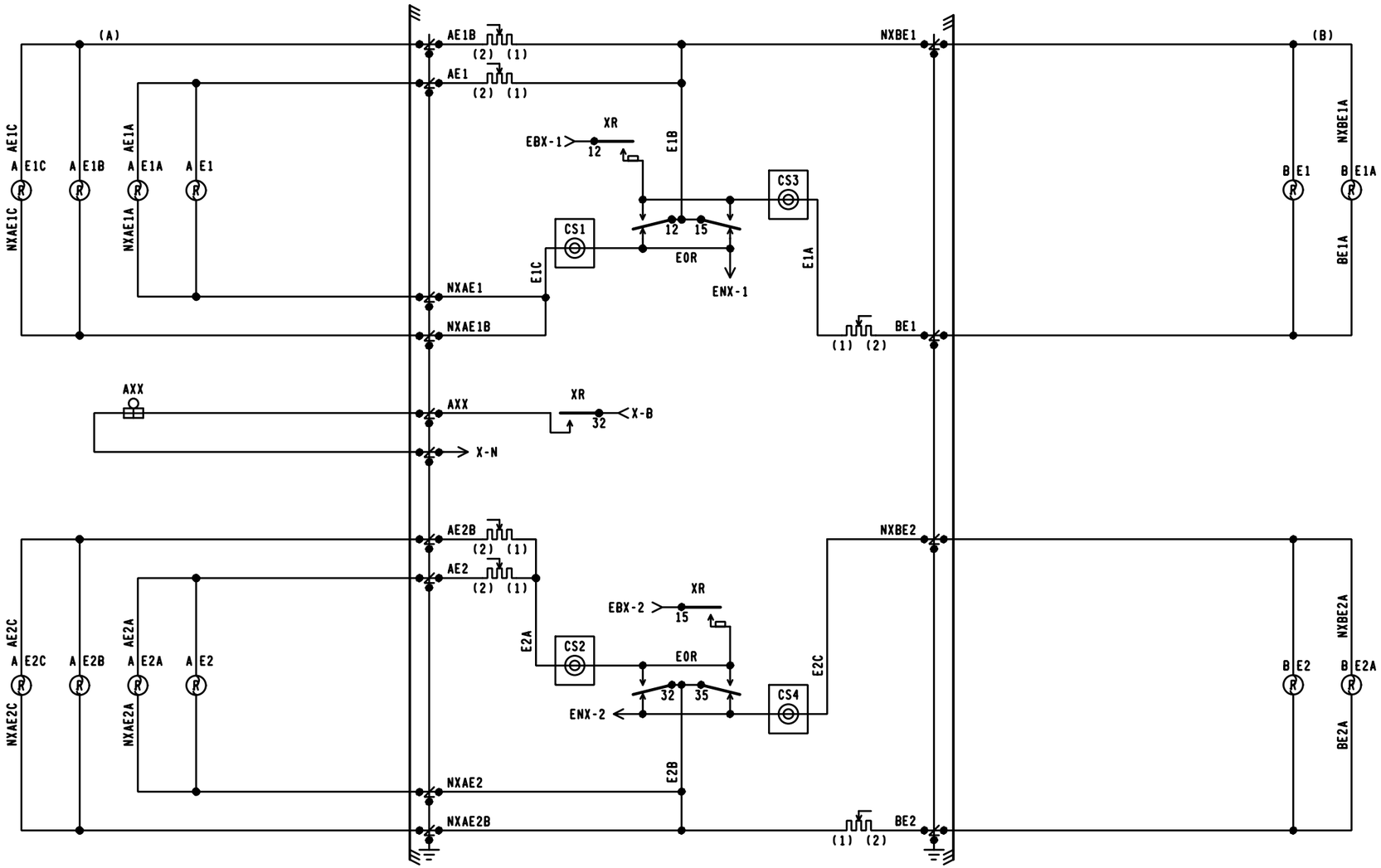
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

LAUGHLIN ST. 145459K

DETECTION DEVICE PROGRAM
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27587	C02



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PROGRESS RAIL SERVICES
A Caterpillar Company

DATE:03-10-23
CSX#:PA2019559
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NOTE:
LIGHT RESISTOR IS A 1.5 OHM, 15 WATT, ADJUSTABLE RESISTOR. (1) = INSULATED TERMINAL.

CSX TRANSPORTATION
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COMMUNICATIONS AND SIGNALS

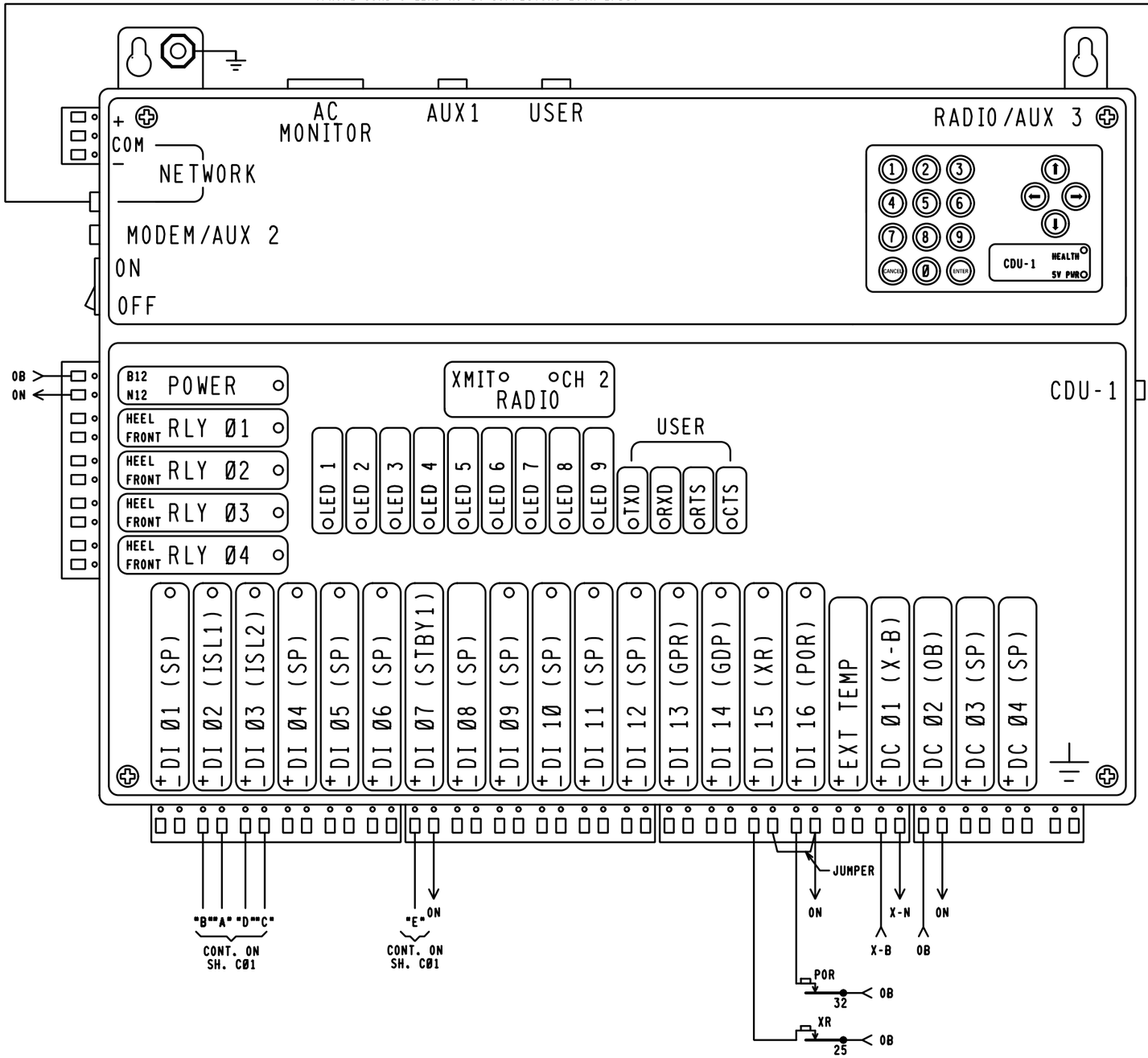
LAUGHLIN ST. 145459K

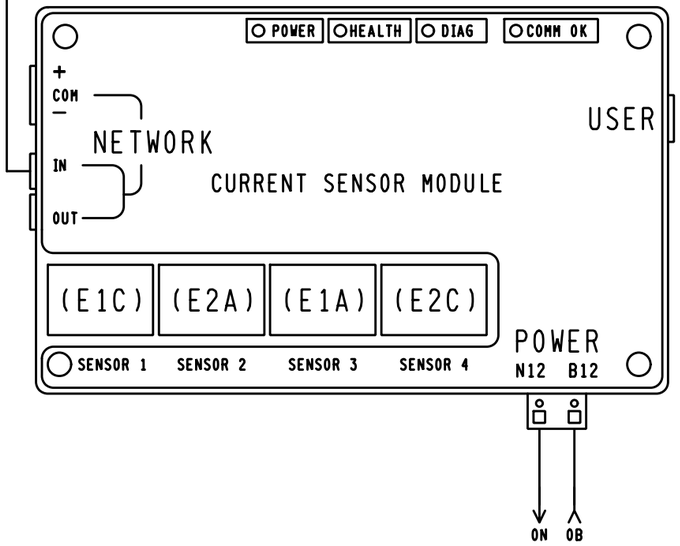
CROSSING WARNING DEVICE CIRCUITRY
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27587	C03

(PHONE CORD-6 LEAD-RJ-14 CONNECTORS BOTH ENDS)





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PROGRESS RAIL SERVICES
A Caterpillar Company

DATE: Ø3-10-23
CSX#: PA2Ø19559
PRS/TGG/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

LAUGHLIN ST. 145459K

RECORDER CIRCUITS
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	Ø7-23-Ø7

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27587	CØ4

	DEFAULTS AND/OR STYLE	FIELD RECORD
HAWK EXECUTIVE PROGRAM	VERSION 2.7, COMPILED ON NOV. 11, 2003	VERSION ____, COMPILED ON _____ (FIELD TO ENTER)
CSXT USER PROGRAM (IF LOADED)	VERSION 1.01, COMPILED ON 12-01-03 (MM-DD-YY)	VERSION ____, COMPILED ON _____ (FIELD TO ENTER)
SYSTEM SETTINGS		
DATE & TIME (ENABLE DAYLIGHT SAVINGS TIME = Y (YES)	MM-DD-YY 23: 01:59	n/a
MILE POST	XYZ-789.01	BF-275.87
SITE NAME	MAIN ST. (SR-17, US-1)	LAUGHLIN ST.
DOT NUMBER	123456A	145459K

BATTERY INPUTS	DC 01	DC 02	DC 03	DC 04
CHANNEL	1	2	3	4
BATTERY CHANNEL NAMES	X-B BULB BATTERY	OB ELECTRONIC BATTERY	SPARE	SPARE
BATTERY CHANNEL I.D.	X-B	OB	SP	SP
SAMPLE PERIOD	500 ms	500 ms	500 ms	10,000 ms
RESOLUTION	00.2 V	00.2 V	01.0 V	02.0 V

DIGITAL INPUTS	DI 01	DI 02	DI 03	DI 04	DI 05
CHANNEL	1	2	3	4	5
NAME		ISLAND TRACK 1	ISLAND TRACK 1		
ID	SP	ISL1	ISL1	SP	SP
ON NAME		ISL1 UP	ISL1 UP		
OFF NAME		ISL1 DN	ISL1 DN		
ON DEBOUNCE TIME	1000 ms	100 ms	100 ms	1000 ms	1000 ms
OFF DEBOUNCE TIME	1000 ms	100 ms	100 ms	1000 ms	1000 ms
TOGGLE PERIOD	500 ms	500 ms	500 ms	500 ms	500 ms

DIGITAL INPUTS	DI 06	DI 07	DI 08	DI 09	DI 10
CHANNEL	6	7	8	9	10
NAME		STANDBY1			
ID	SP	STBY1	SP	SP	SP
ON NAME		STANDBY UNIT			
OFF NAME		PRIMARY UNIT			
ON DEBOUNCE TIME	1000 ms	100 ms	1000 ms	1000 ms	1000 ms
OFF DEBOUNCE TIME	1000 ms	100 ms	1000 ms	1000 ms	1000 ms
TOGGLE PERIOD	500 ms	500 ms	500 ms	500 ms	500 ms

DIGITAL INPUTS	DI 11	DI 12	DI 13	DI 14	DI 15	DI 16
CHANNEL	11	12	13	14	15	16
NAME					XR	POR
ID	SP	SP	SP	SP	XR	POR
ON NAME					XR UP	POR UP
OFF NAME					XR DN	POR DN
ON DEBOUNCE TIME	1000 ms	1000 ms	1000 ms	1000 ms	100 ms	100 ms
OFF DEBOUNCE TIME	1000 ms	1000 ms	1000 ms	1000 ms	100 ms	100 ms
TOGGLE PERIOD	500 ms	500 ms	500 ms	500 ms	500 ms	500 ms

MODULE-DIGITAL 4 QUAD CURRENT SENSOR SERIAL NUMBER: [_____] (BLANK UNTIL AIS RECEIVED)				
RESOLUTION (AMPS RMS) : [00.2] ARMS				
AUTOMATICALLY ALLOCATED DIGITAL INPUT	DI 17	DI 18	DI 19	DI 20
DIGITAL 4 QUAD CURRENT SENSOR	1	2	3	4
NAME	E1C	E2A	E1A	E2C
ID	E1C	E2A	E1A	E2C
LIT BULB COUNT ON EACH CIRCUIT	4	4	2	2
CURRENT READING IN AMPS AT APPROXIMATE 10.0 VOLTS BULB VOLTAGE	10	10	5	5

CHANNEL	1	2	3	4
NAME	RELAY OUTPUT 01	RELAY OUTPUT 02	RELAY OUTPUT 03	RELAY OUTPUT 04
I.D.	RLY01	RLY02	RLY03	RLY04
ON NAME	ON	ON	ON	ON
OFF NAME	OFF	OFF	OFF	OFF
PULSE DURATION	1000 ms	1000 ms	1000 ms	1000 ms

PORT	USER	AUX 1	MODEM/AUX 2
BAUD RATE	38400	9600	9600
PARITY	N	N	N
DATA BITS	8	8	8
STOP BITS	1	1	1
FLOW CONTROL	NONE	NONE	NONE

PRELIMINARY

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PROGRESS RAIL SERVICES
A Caterpillar Company

DATE:03-10-23
CSX#:PA2019559
PRS/TGG/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

LAUGHLIN ST. 145459K

RECORDER PROGRAM
DAWSON, PA M.P. BF-275.87

DESIGNED	DIGITIZED	CHECKED	DATE
IRS/JEK	IRS/JLM	IRS/JFK	07-23-07

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27587	C05

INDEX

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I01	INDEX AND REVISIONS	X	⊘							
S01	SITE LAYOUT - PR MicroHBD 2 TRACK	X	⊘							
G01	POWER DISTRIBUTION	X								
G02	DEFECT DETECTOR CIRCUITS - TRACK 1	X								
G03	DEFECT DETECTOR CIRCUITS - TRACK 2	X								
G04	TIS FIELD INTERFACE PANEL - TRACK 1	X								
G05	HBD1 WIRING - TRACK 1	X								
G06	HBD2 WIRING - TRACK 2	X								
G07	IN-TIE DRAGGING EQUIPMENT - TRACK 1	X								
G08	IN-TIE DRAGGING DIAGRAM - TRACK 1	X								
G09	DRAGGER WOOD TIE APPLICATION - TRACK 2	X								

= DESIGN COMPLETED

= REVISION COMPLETED

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2022023	-----	05-09-22	09-22-22
2	PA2019559	03-10-23		

TO BE COMPLETED ON A.I.S.

PRELIMINARY

= NOTE

PROGRESS RAIL SERVICES
A Caterpillar Company

DATE:03-10-23
CSX#:PA2019559
PRS/TGG/SAF

= OUT

= IN

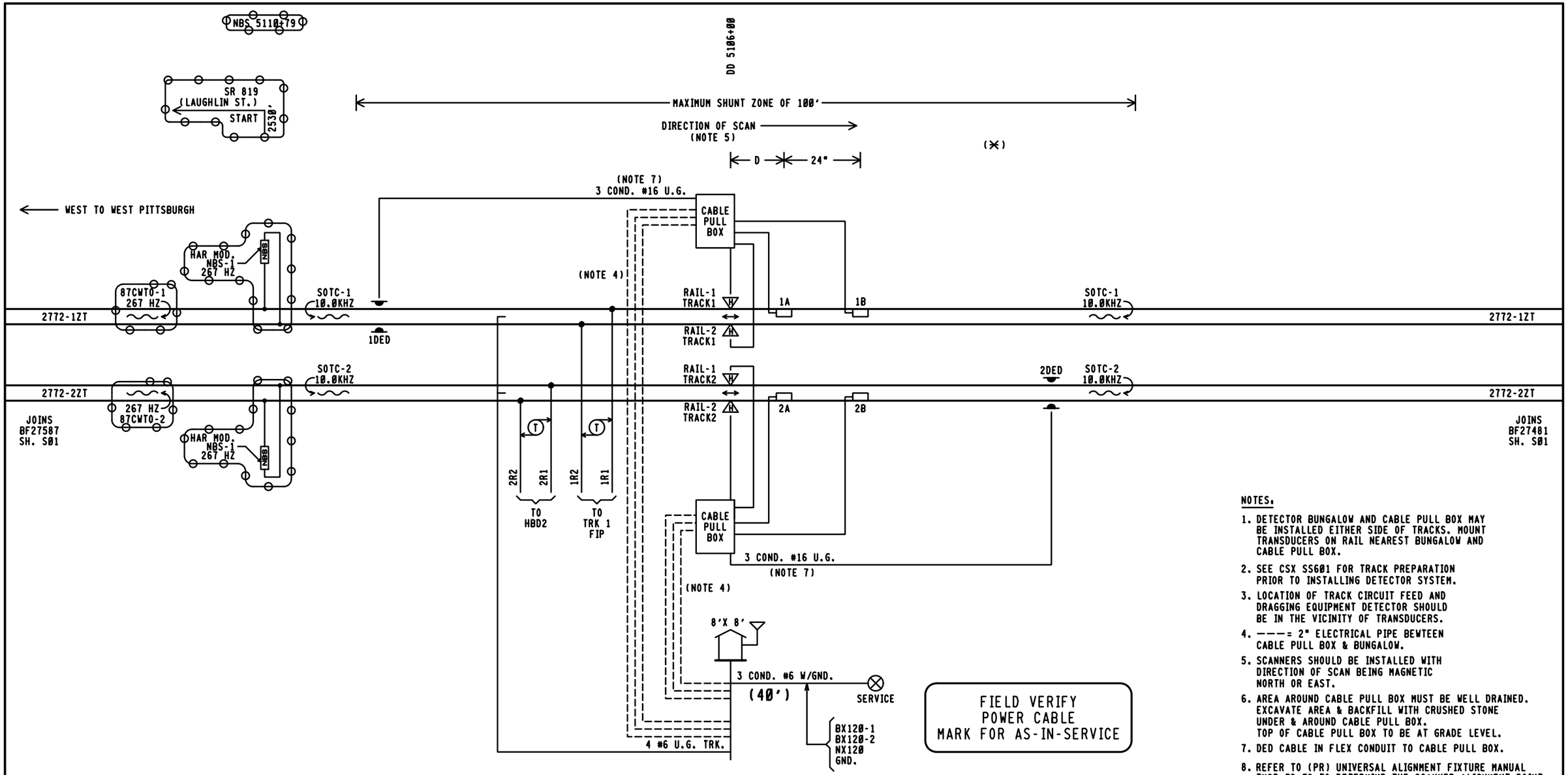
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

DAWSON DEFECT DETECTOR

INDEX AND REVISIONS
DAWSON, PA M.P. BF-275.30

DESIGNED	DIGITIZED	CHECKED	DATE
CSX	IRS/DI	IRS/LLB	09-22-22

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
-----	1	-----	-----	BF27530	I01
03-10-23	2				



NOTES:

1. DETECTOR BUNGALOW AND CABLE PULL BOX MAY BE INSTALLED EITHER SIDE OF TRACKS. MOUNT TRANSDUCERS ON RAIL NEAREST BUNGALOW AND CABLE PULL BOX.
2. SEE CSX SS601 FOR TRACK PREPARATION PRIOR TO INSTALLING DETECTOR SYSTEM.
3. LOCATION OF TRACK CIRCUIT FEED AND DRAGGING EQUIPMENT DETECTOR SHOULD BE IN THE VICINITY OF TRANSDUCERS.
4. ———= 2" ELECTRICAL PIPE BEWTEEN CABLE PULL BOX & BUNGALOW.
5. SCANNERS SHOULD BE INSTALLED WITH DIRECTION OF SCAN BEING MAGNETIC NORTH OR EAST.
6. AREA AROUND CABLE PULL BOX MUST BE WELL DRAINED. EXCAVATE AREA & BACKFILL WITH CRUSHED STONE UNDER & AROUND CABLE PULL BOX. TOP OF CABLE PULL BOX TO BE AT GRADE LEVEL.
7. DED CABLE IN FLEX CONDUIT TO CABLE PULL BOX.
8. REFER TO (PR) UNIVERSAL ALIGNMENT FIXTURE MANUAL TM83-02-08 TO DETERMINE THE SCANNER ALIGNMENT POINT.
9. (X) = LOCATION OF BUNGALOW

PRELIMINARY

PROGRESS RAIL SERVICES
A Caterpillar Company

X——X = OUT
O——O = IN

DATE: 03-10-23
CSX#: PA2019559
PRS/TGG/SAF

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

DAWSON DEFECT DETECTOR

SITE LAYOUT - PR MicroHBD 2 TRACK
DAWSON, PA M.P. BF-275.30

DESIGNED	DIGITIZED	CHECKED	DATE
CSX	IRS/DI	IRS/LLB	09-22-22

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
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