

# Memo

**To:** Docketing Division  
**From:** Jill Henry, Rail Specialist, Rail Division  
**Cc:** PUCO Legal Department  
**Date:** 10/29/19

**Re:** PUCO Case No. 19-1995-RR-FED- In the Matter of a Request for the Closure of South Street DOT#155-772P Crossing and the Upgrade of Railroad Street DOT#155-771H in the Village of Milton Center, Wood County.

On May 23, 2019, the Ohio Rail Development Commission (ORDC) authorized funding for CSX Transportation, Inc. (CSX) to consolidate crossings in the Village of Milton. The crossings were surveyed, on September 23, 2015, and were found to warrant the upgrades. The electric utility provider for the crossings is First Energy Corp.- Toledo Edison.

The following crossings will be part of the project as follows:

DOT#	Street	Description of Work
155-771H	Railroad Street	Lights and Gates/Hump remediation on West side of crossing.
155-772P	South Street	Closure to vehicles and pedestrians

The project will be paid for with federal funds and is actual cost. The plans and estimates for the project in the amount of \$369,069.00 have been approved. Additionally, CSX will pay the Village of Milton Center \$10,000 to be used for any purpose in exchange for the crossing closure. ORDC will pay up to \$4,000 to the Village of Milton Center for the permanent barricades at the crossing closure.

The Village of Milton Center will be responsible for the installation barricades at the closed crossing.

Construction may commence at once. **Staff requests a Finding & Order with completion of the project in twelve months.** Staff requests that the following language be incorporated in the Finding & Order:

**It is expected that all work necessary for FHWA acceptance of the warning devices will be completed by the in-service due date and that the railroad will be responsible for this work. This work includes, but is not limited to:**

- **Any ancillary work to make the warning devices function as designed and visible to the roadway user, and**
- **MUTCD compliance, including minor roadway work if necessary.**

**Please serve the following parties of record:**

CSX Transportation, Inc.  
Amanda DeCesare  
CSX Public Projects  
3131A Spring Grove Avenue  
Cincinnati, OH 45225

Ohio Rail Development Commission  
Cathy Stout  
Safety Manager  
1980 West Broad Street  
Mail Stop #3140  
Columbus, OH 43223

Village of Milton Center  
Debra Plath  
Mayor  
22230 Defiance Street  
Milton Center, OH 43541

First Energy Corp.- Toledo Edison

**OHIO RAIL DEVELOPMENT COMMISSION  
INTER-OFFICE COMMUNICATION**

**TO:** Randall Schumacher, Supervisor, Rail Division, PUCO

**FROM:** Cathy Stout, Manager, Safety Section, ORDC

**BY:** Don Damron, Project Manager, ORDC

**SUBJECT:** Village of Milton Center Consolidation, Wood County

- Railroad St. DOT #155771H - Install flashing lights and roadway gates and remediate the hump on the west approach.
- South St. DOT #155772P - Close crossing to vehicles and pedestrians
- PID# 108337

**DATE:** October 23, 2019

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The Public Utilities Commission of Ohio (PUCO) and the Ohio Rail Development Commission established Diagnostic Review Team Surveys (DTRS) at the subject highway/railroad crossing locations on 9/23/2015. The Ohio Rail Development Commission (ORDC) and the Public Utilities Commission of Ohio (PUCO) attended the Diagnostic Surveys. The Diagnostic Review Team recommended that the Railroad St. warning devices be upgraded to flashing lights and gates and that the crossing hump be remediated on the west side. The DRTS also recommended that the South St. crossing be closed. Copies of the Diagnostic Review Team Survey forms, the railroad plans and estimates, and the Village of Milton Center Consolidation Agreement # 33071 are attached.

The PE for Railroad St. has already been provided by the railroad. ORDC approved the site plans and estimates as provided. Please issue a 12-month construction-only order for the consolidation project outlined above. This authorization is made with the stipulation and understanding that an approved estimate may contain entries for items or activities that may be cited and found to be ineligible for federal participation during the project audit.

It is expected that all work necessary for FHWA acceptance of the warning devices will be completed by the in-service due date and that the railroad will be responsible for this work. This work includes, but is not limited to:

- any ancillary work to make warning devices function as designed and visible to the roadway user, and
- MUTCD compliance – including minor roadway work if necessary.

Thank you for your assistance with these matters.

Attachments: Diagnostic Review Team Surveys  
CSX Force Account Estimate  
Proposed Crossing Layouts

cc: Jill Henry, Rail Specialist, PUCO  
ORDC Project Manager (file)



## Rail Development Commission

Mike DeWine, Governor  
Jon Husted, Lt. Governor

Mark Policinski, Chair

October 23, 2019

Amanda DeCesare  
Project Manager – Public Projects  
CSX Transportation  
500 Meijer Drive, Suite 305  
Florence, KY 41042

RE: Village of Milton Center Consolidation, Wood County – Construction Authorization

- Railroad St. DOT #155771H - Install flashing lights and roadway gates and remediate the hump on the west approach.
- South St. DOT #155772P - Close crossing to vehicles and pedestrians
- PID# 108337; CSX ACCT. CODE: OH1322

Dear Ms. DeCesare:

The plan and estimate (FAE) dated 9/23/2019 for the Railroad Street, 155771H, installation of FLS&G, has been reviewed and is acceptable. CSX Transportation may proceed with the construction of the proposed grade crossing warning system in accordance with the abbreviated plan.

The cost estimate of \$356,044.00 for the FLS&G is acceptable. The cost estimate for the asphalt work needed to remediate the hump is \$13,0250. The total reimbursement for the FLS&G along with the hump remediation is limited to \$369,069.00. This authorization is made with the stipulation and understanding that the approved estimate may contain entries for items or activities that may be cited and found to be ineligible for federal participation during the project audit. Additional costs must be approved in writing by the Ohio Rail Development Commission (ORDC) prior to being incurred. Emergency verbal authorizations by ORDC may be permitted and will be confirmed by ORDC in writing within ten (10) business days of the verbal approval. Please note that CSX must provide ORDC with a plan stamped by a professional engineer licensed in the State of Ohio prior to acceptance and close out of the project.

This authorization is contingent upon CSX accepting the following instructions:

1. The CSX project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Don Damron, ORDC, email [don.damron@dot.ohio.gov](mailto:don.damron@dot.ohio.gov), mobile: 614-917-8466, and to the Public Utilities Commission of Ohio at [Jill.henry@puc.state.oh.us](mailto:Jill.henry@puc.state.oh.us). The CSX project foreman will also notify the same of any stops and re-starts of the work activity and of the date work was completed for the project.

2. CSX will arrange for utilities to be located at the project site by the Ohio Utilities Protection Service (OUPS) prior to any construction activities at the site. Utilities that are not participating members of the service must be contacted directly by CSX.
3. The CSX project foremen will notify Don Damron at (614) 917-8466 or by email at [don.damron@dot.ohio.gov](mailto:don.damron@dot.ohio.gov) of any changes in the scope of work, cost overruns, material changes, etc. which are not included in the approved plan and estimate and secure approval of same before the work is performed.
4. Open cut of roadways is *not permitted* except in unusual circumstances and must be coordinated with the local highway authority and preapproved by ORDC.
5. CSX will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.
6. CSX will furnish two (2) copies of the final all-inclusive bill to ORDC stating the exact dates of starting and completing work, the initial and final dates of construction and location where the accounts may be audited.
7. This installation will include any ancillary work to make the warning devices function as designed and meet MUTCD.

Thank you for your assistance with these matters.

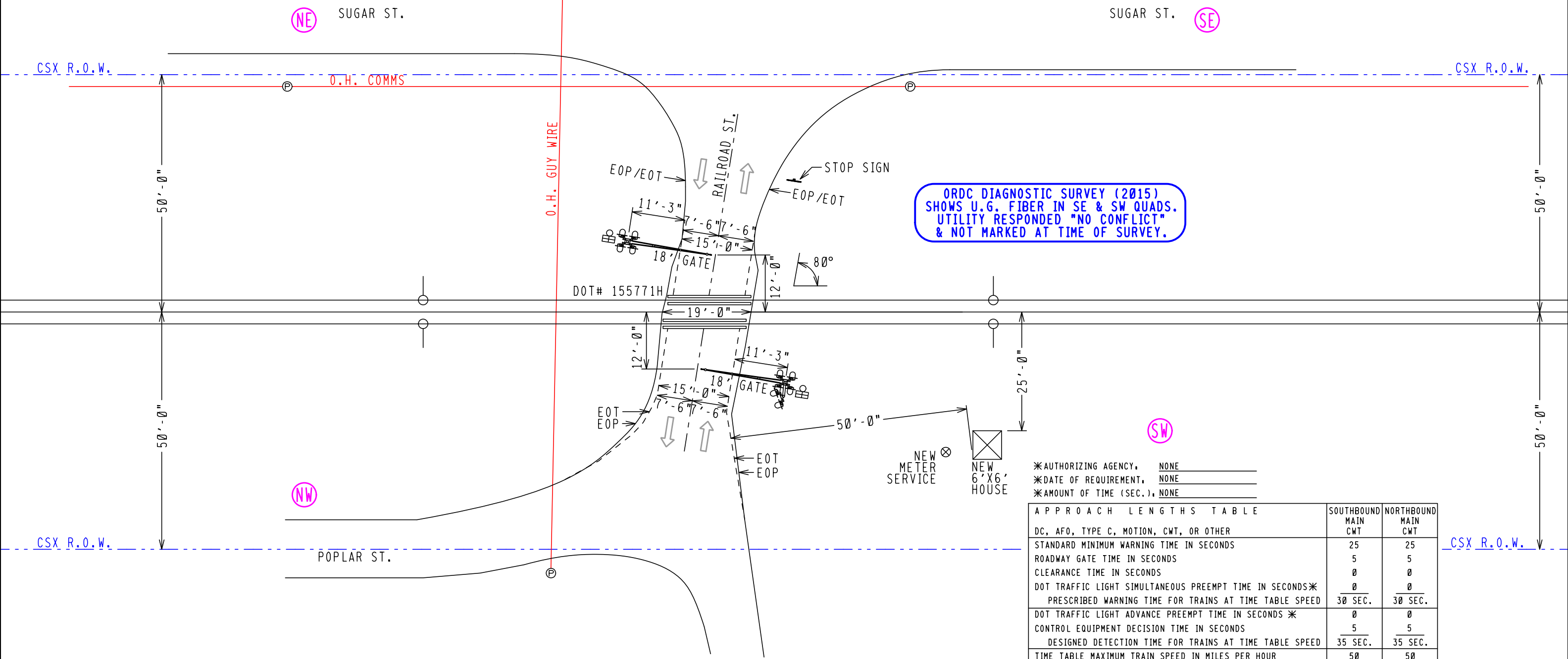
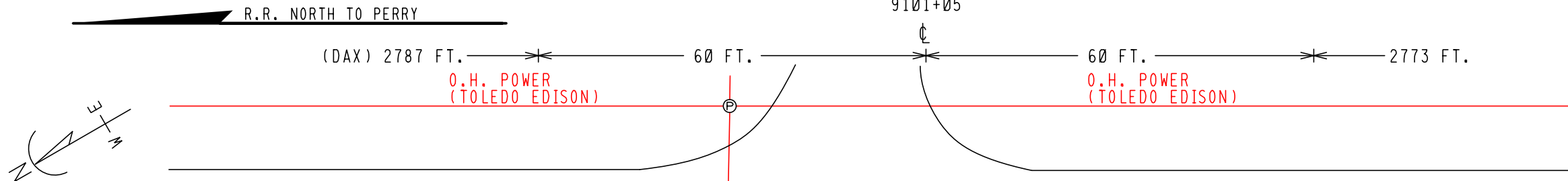
Sincerely,



Donald J Damron  
Project Manager

C: Randall Schumacher, Chief, Rail Division, PUCO  
Jill Henry, Rail Specialist, PUCO  
Heather Hamilton, ORDC  
ORDC (file)





ORDC DIAGNOSTIC SURVEY (2015)  
SHOWS U.G. FIBER IN SE & SW QUADS.  
UTILITY RESPONDED "NO CONFLICT"  
& NOT MARKED AT TIME OF SURVEY.

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

A P P R O A C H L E N G T H S T A B L E			SOUTHBOUND MAIN CWT	NORTHBOUND MAIN CWT
DC, AFO, TYPE C, MOTION, CWT, OR OTHER				
STANDARD MINIMUM WARNING TIME IN SECONDS			25	25
ROADWAY GATE TIME IN SECONDS			5	5
CLEARANCE TIME IN SECONDS			0	0
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS*			0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED			30 SEC.	30 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS *			0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS			5	5
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED			35 SEC.	35 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR			50	50
BUFFER SPEED IN MILES PER HOUR			5	4
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR			55	54
APPROACH DISTANCE TO ISLAND EDGE IN FEET			2787	2773
HALF WIDTH OF ISLAND IN FEET			60	60
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT			172.81	171.74

PRELIMINARY

FILE NAME, BE17227.H01

REVISION DATES

DATE DRAWN, 08-14-19

09-12-19

DRAWN BY, GMW

- -

CHECKED BY, SAF

- -

PRS #, 34P000947

- -

PRODUCED FOR,

RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS

PRODUCED BY,

A Caterpillar Company

LEGEND,

CSX ROW ---

R/R POLELINE ---

GAS ---

FIBER OPTIC ---

GUARD RAIL ---

O.H. POWER ---

FENCE x x x x x

WATER ---

SEWER ---

METER SERVICE ⊗

POLE ⊕

FIRE PLUG ⊙

SEWER CAP ⊖

GAS VENT ⊕

GPS COORDINATES

N41°18'04"

W83°49'47"

ELEV, 692'

M.P. BE-172.27

STREET NAME, RAILROAD ST.

CITY & STATE, MILTON CENTER, (WOOD), OH

DOT, 155771H

PROJECT #, OH2019793

OP #, OH1322

PROPOSED CROSSING LAYOUT

SCALE = 20:1

**ESTIMATE SUBJECT TO REVISION AFTER:** 3/21/2020**DOT NO.:** 155771H**CITY:** Milton Center**COUNTY:** Wood**STATE:** OH**DESCRIPTION:** Railroad St. - Installation of FLS&G, with sidelights in the SW quadrant.**REGION:** Louisville**SUB-DIV:** Toledo**MILE POST:** BE-172.27**AGENCY PROJECT NUMBER:** PID # 108337**PRELIMINARY ENGINEERING:**

212	Contracted & Administrative Engineering Services	\$	10,000
	<b>Subtotal</b>	<b>\$</b>	<b>10,000</b>

**CONSTRUCTION ENGINEERING/INSPECTION:**

212	Contracted & Administrative Engineering Services	\$	5,000
	<b>Subtotal</b>	<b>\$</b>	<b>5,000</b>

**FLAGGING SERVICE: (Contract Labor)**

70	Labor (Conductor-Flagman)	0	Days @	\$ 350.00	\$	-
50	Labor (Foreman/Inspector)	0	Days @	\$ 504.00	\$	-
70	Additive	153.20%	(Transportation Department)		\$	-
50	Additive	149.90%	(Engineering Department)		\$	-
230	Expenses		(Engineering Department)	0	Days @	\$ 75.00
230	Expenses		(Transportation Department)	0	Days @	\$ 45.00
	<b>Subtotal</b>				\$	-

**SIGNAL & COMMUNICATIONS WORK:** \$ 341,044**TRACK WORK:** \$ -**PROJECT SUBTOTAL:** \$ 356,044.11900 **CONTINGENCIES:** 0.00% \$ -**PROJECT TOTAL:** \*\*\*\*\* \$ 356,044.11**CURRENT AUTHORIZED BUDGET:** \*\*\*\*\* \$ -**TOTAL SUPPLEMENT REQUESTED:** \*\*\*\*\* **\$ 356,044.11****DIVISION OF COST:**

Agency	100.00%	\$	356,044
Railroad	0.00%	\$	-
		<b>\$</b>	<b>356,044</b>

**NOTE: Estimate is based on FULL CROSSING CLOSURE during work by Railroad Forces.**

This estimate has been prepared based on site conditions, anticipated work duration periods, material prices, labor rates, manpower and resource availability, and other factors known as of the date prepared. The actual cost for CSXT work may differ based upon the agency's requirements, their contractor's work procedures, and/or other conditions that become apparent once construction commences or during the progress of the work

Office of Chief Engineer Public Projects--Jacksonville, Florida

Estimated prepared by: SE

Approved by: **AJD** CSXT Public Project Group

DATE: 09/23/19 REVISED: 12/11/18 DATE: 09/25/19

# CSX TRANSPORTATION

## Outside Party Estimate

Railroad St. - ENG-04969 - OH2019793 - OH1322 - Estimate

Milton Center, Ohio

DOT: 155771H

OP: OH1322

CSX Project: OH2019793

### Summary

Material .....	\$64,981
Sales Tax .....	\$4,679
Labor:	
Construction Labor (181 man-days) .....	\$77,665
Shop Labor (7 man-days) .....	\$2,975
Subsistence (0 man-days) .....	\$0
Railroad Engineering, Construction .....	\$12,096
Railroad Engineering, Preliminary .....	\$4,890
Additives to Construction Labor .....	\$116,420
Additives to Shop Labor .....	\$4,460
Additives to Track Labor .....	\$0
Additives to Engineering .....	\$0
Equipment Expense (0 work days) .....	\$0
Waste Management (37 work days) .....	\$444
Contract Engineering .....	\$24,338
Freight .....	\$5,099
Poleline Removal .....	\$0
AC Power Service .....	\$15,000
Salvage .....	-\$1
VAC TRUCK .....	\$8,000

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TOTAL ESTIMATE COST .....	\$341,044
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Date: 09/19/2019

Estimated By: Adam Ronsick

Note: This estimate should be considered void one year from date of estimate.



# CSX TRANSPORTATION

## Signal Project Estimation

**Shop Material List for CSX Project: OH2019793 (Effective: 09/19/2019)**  
**BE 172.27 - Location 1 - Railroad St.**

CATALOG_NUM	QTY	Unit Price	COST	SHORT_DESC
020.0017120.1	6	11.35	68.10	BLOCK TERMINAL 12 POST SINGLE STRIP AAR 14.1.6 WITH 1 AAR 14.1.11 WASHER AND 1 AAR 14.1.11 CLAMP NUT TORQUED ONTO EACH TERMINAL AT 40 IN/LBS, 12 AAR 14.1.11 WASHERS AND 24 AAR 14.1.11 BINDING NUTS UNASSEMBLED SAFE 023390-11X TDH 800-0001
020.0017125.1	6	3.20	19.20	BLOCK TERMINAL 2 POST AAR 14.1.8 WITH 1 AAR 14.1.11 WASHER AND 1 AAR 14.1.11 CLAMP NUT TORQUED ONTO EACH TERMINAL AT 40 IN/LBS, 2 AAR 14.1.11 WASHERS AND 4 AAR 14.1.11 BINDING NUTS UNASSEMBLED SAFE 023612-1X TDH 800-0002
020.0018234.1	1	77.88	77.88	CABLE CONVERTER PROTOCOL/MEDIA WAYSIDE ACCESS GATEWAY (WAG) 25 PIN MALE TO 25 PIN MALE NULL 20FT LONG, SAFETRAN P/N Z706-02027-0020
020.0021965.1	1	8.96	8.96	EXTRACTOR DWG 59688-4 TERMINAL GRS CAT P3-308 REF 18 1/16" STEEL WIRE COVERED W/INSULATING TUBING BILMAR 59688
020.0022651.1	2	107.16	214.32	PLUGBOARD KIT TYPE B1 OR ST1 RELAY ASSEMBLY WITH 12 EACH 14-10 CRIMP TERMINALS, 1 EACH VOLT/CURRENT (3E) AND (1E) TEST TERMINALS, INSULATORS AND CLIPS CSX REF NO C30 ALSTOM 59686-5 GR1, SAFETRAN P/N 420000-78X
020.0025595.1	1	20.41	20.41	WRENCH DWG 55393-3 GR1 "E" TERMINAL POST NUT GRS CAT P3-320 REF G NATIONAL ELEC GATE P/N EDG-5951
020.0053360.1	3	387.88	1163.64	CHARGER BATTERY ELC 12/20 D 20 AMP 10-19.9 VDC ROTARY SW VOLTAGE ADJ W/ 10' TEMP COMPENSATION PROBE 0.1 TO 0.25 V RIPPLE AT BATTERY TERMINALS 120V/240V AC INPUT ONLY NRS P/N 22290-10
020.0055602.1	2	11.39	22.78	RELAY POTTER BRUMFIELD KHAU17D12-12V 160 OHMS CONTACTS 4FB CSX REFERENCE N41 SOC 1389 NEUTRAL NON-VITAL 12VDC USE WITH SOCKET BASE 020.0056514.1
020.0056514.1	2	6.27	12.54	SOCKET RELAY POTTER & BRUMFIELD 27E894 NEWARK 46F3583 DIN RAIL MOUNT 15 PIN NO GROUNDING LUG FOR PB TYPE KHAU 4FB NON VITAL RELAY (020.2901190.1)
020.0064060.1	1	16.12	16.12	PLATE RELAY MOUNTING FOR 2 EACH TYPE KHAU OR OCTAL RELAY SOCKETS ON GRS B1 SIZE PLATE W/FOUR RUBBER GROMMETS ORDER TYPE KHAU (020.0056514.1) OR OCTAL (020.0056515.1) RELAY SOCKETS SEPARATELY CSX SS700 REF C49 AND C46 PTMW P/N 66501380
020.0167501.1	26	37.91	985.66	ARRESTER HYBRID LOW VOLTAGE,2, 0-30V DC OR 0-24V AC RATED AT 15 AMP COMPLETE WITH FAIL SAFE OPEN MECHANISM, FUSED SEMICONDUCTOR, TEST EYE WITH NUT, 6" BLUE LEAD, SEE SS382 BOURNS P/N 167501
020.0660077.1	1	622.01	622.01	ARRESTER GE 9L10KAC213L FOR 240 VOLT SINGLE PHASE 3 WIRE CIRCUIT PROTECTOR INCLUDES LINE TO LINE AND LINE TO GROUND PROTECTION
020.0770060.1	8	16.03	128.24	ARRESTER US&S N451552-0201 TRACK SERIES RED LABEL USGA 250V DC 175V AC W/O BASE (DO NOT USE ON AC CIRCUITS FOR NEW WORK, SEE SS382) US&S RSE-17A1
020.0770105.1	2	22.14	44.28	ARRESTER HARMON 202217-000 AGE-1 TRACK AIR GAP EQUALIZER 18 VOLT
020.1940055.1	1	14.50	14.50	CONTAINER TUBE HOLDER CIRCUIT PRINT PLAN 24" SCHD 20 4" PVC PIPE WITH SOLID PVC CAP GLUED ONE END AND VENTED PVC CAP VENT MUST BE NON CORROSIVE NON CONDUCTIVE MATERIAL REMOVABLE ON OTHER END CONTAINER MUST BE CLEANED OF ALL MILL MARK
020.2503073.1	1	1091.71	1091.71	MODULE SAFETRAN VHF COMMUNICATOR (A80276-3) USED WITH KEYDOWN CAPABILITY SAFETRAN P/N 8000-80276-0003
020.2503079.1	2	484.90	969.80	MODULE SAFETRAN GROUND FAULT DETECTOR (A80297-2) USED WITH REMOTE MONITORING & ALARM REPORTING W/WAMS SAFETRAN P/N 8000-80297-0002
020.2503081.1	1	69.04	69.04	MODULE SAFETRAN ECHELON TERMINATION UNIT (A80078) USE WITH REMOTE MONITORING & ALARM REPORTING W/WAMS SAFETRAN P/N 8000-80078-0001
020.2503090.1	1	1087.41	1087.41	CONVERTER PROTOCOL/MEDIA WAYSIDE ACCESS GATEWAY (WAG) RS-485, RS-432 AND SAFETRAN ECHELON LAN COMMUNICATIONS PROTOCOL USE WITH SAFETRAN GCP-4000 HIGHWAY CROSSING SYSTEMS SAFETRAN P/N 9000-53457-0002
020.2503200.1	1	1089.40	1089.40	KIT SAFETRAN GCP-4000 ILOD PKG. FOR USE WITH SEAR-III INCLUDES: 2 EA A80271 INTEL LIGHT OUT DETECTOR 2 EA A80078 ECHELON TERMINATIONS BURCO PACKAGE #131-0886
020.2503210.1	1	11070.54	11070.54	PREDICTOR SAFETRAN GCP-4000 2-TRK DUAL CASE W/RECORDER INCL 2 EA A80403 CPU II+ (1 MAIN/1 STBY) 2 EA A80418 TRACK MODULES (1 MAIN/1 STBY)2 EA A80405 SSCC-III A89468 TRANSFER A80407-3 DISPLAY & A80410 SEAR-III SAFETRAN P/N 82A0-80465-002C0
020.3430110.1	1	363.23	363.23	RELAY SAFETRAN 400004 500 OHMS CONTACTS 4FB-2F-1B CSX REFERENCE S3 SOC 1252 NEUTRAL (REPLACES GRS 56001-783 GR2 TYPE B1 CAT A62-277 REF B8)
020.3430130.1	1	409.74	409.74	RELAY SAFETRAN 400023 500 OHMS CONTACTS 6FB HEAVY DUTY CSX REFERENCE S7
020.3652615.1	1	61.32	61.32	RESISTOR ADJUSTABLE 0.340 TO 3.00 OHMS 2.24A 15W SAFETRAN 029602-8AX
020.4200340.1	8	1.74	13.92	LINK TEST ASSEMBLY 1" CENTERS YELLOW INSULATOR ON OFFSET LINK DOES NOT REQUIRE BRASS TEST NUT, TDH SOLUTIONS P/N 800-0112
020.4200350.1	9	1.89	17.01	LINK TEST ASSEMBLY 2-3/8" CENTERS YELLOW INSULATOR ON OFFSET LINK DOES NOT REQUIRE BRASS TEST NUT, TDH SOLUTIONS P/N 800-0114
020.4201045.1	400	0.15	60.00	NUT HEX CLAMP (FLAT NUT) AAR 14.1.11-7 14-24 NS-2 THD FLAT BRASS NICKEL PLATED FOR AAR BINDING POST W/14-24 THD SAFETRAN 023832 TDH SOLUTIONS 800-0006 MIN/MULT ORDER QTY 400
020.8000067.1	2	14.21	28.42	LOCK AMERICAN H10SIGRA CSX SIGNAL PADLOCK WITH BLACK CHROME SHACKLE W/O KEY USE ON VITAL SWITCH AND SIGNAL EQUIPMENT
022.8005160.1	1	984.03	984.03	KIT 4G CELL AND VHF ANTENNA CROSSING HOUSE INSTALL FOR REMOTE MONITORING - REPLACE TESSCO 397722

# CSX TRANSPORTATION

## Signal Project Estimation

**Shop Material List for CSX Project: OH2019793 (Effective: 09/19/2019)**  
**BE 172.27 - Location 1 - Railroad St.**

[illegible]

**Total Cost: \$ 21,678.61**

# CSX TRANSPORTATION

## Signal Project Estimation

**Field Material List for CSX Project: OH2019793 (Effective: 09/19/2019)**  
**BE 172.27 - Location 1 - Railroad St.**

CATALOG_NUM	QTY	Unit Price	COST	SHORT_DESC
014.8006169.1	2	9.80	19.60	SIGN PERMANENT EMERGENCY NOTIFICATION (VEHICLE BLOCKING RD CRSSING) ALUM BLADE WHI HIGH INTENSITY PRISMATIC LTRS ON BLU BACKGROUND COMPLETE W/DOT ID AND MP PER CSX DWG 2719 ENTER DOT ID & MP IN REQ NOTE TO SUPPLIER USE 014.8006170.1
020.0010447.1	2	10.40	20.80	BOX GROUND ROD CONNECTION ENCLOSURE COMPLETE WITH 7" COVER TWO HEX HEAD 3/8" SS BOLTS AND 10" X 9" ENCLOSURE WITH 2 KNOCKOUTS FOR GROUND WIRE ENTRY AND EXIT PENCELL P/N PE-6HDHK-BLA
020.0013375.1	16	5.60	89.60	BOND FROG LEG (MAIN) RAIL PLUG 10" X 3/16" SINGLE BARE CONDUCTOR ERICO P/N SBPMJ310, D&W P/N BSB-6CH-10
020.0013686.1	2	79.58	159.16	BOOTLEG KIT CSX RAIL CONN W/15 FT 3/16 IN BDSTRAND 6/64 IN JKT 2 TK CONN ERICO SBPAC3-A/2 CLIP ERICO SBA248A 4 RL PT CDWELD STPL 3/8 X 1 3/4 IN 2 ERICO SBA2363 SLVES 2 RAYCHEM OR AMP 6 IN TUBIN 2 PLEXICO 3408 DWG&WILSON P/N BLTS-8-80B
020.0013908.1	400	7.24	2896.00	CABLE UG COMPOSITE 19 CONDUCTOR INCLUDES 13 CONDUCTOR #14 AWG SOLID AND 6 CONDUCTOR #6 AWG SOLID CSX SS360 SHOW LENGTH ON EACH REEL FURNISH IN 1000 FT LENGTHS OKONITE P/N 206-11-6283
020.0025145.1	2	368.28	736.56	SHUNT ENCLOSURE WAYSIDE MOUNT ASSEMBLY COMPLETE WITH LOCK AND LABELS, DOES NOT INCLUDE ARRESTERS, SEE SS227 INTERRAIL P/N IRS-SEC8
020.0053220.1	150	2.50	375.00	CABLE POWER UG 3 COND NO 6 AWG - SHOW LENGTH ON EACH REEL - FURNISH IN 1000 FT LENGTHS - OKOSEAL 45 MM PVC JACKET, OKONITE 112-10-3854
020.0055421.1	6	28.22	169.32	BRACKET SIGN 4" OR 5" MAST W/1/2" U-BOLT FOR ALL SIGNS REQUIRING 5/16" BOLT L&W P/N 7A1041-1X1
020.0056628.1	1	6957.66	6957.66	SIGNAL 02216-L GCWD GATE ASSY DWG SS222 INCLS 18 FBRGL ARM W/3 LGTS 2-WAY MAIN & 1-WAY LEFT SIDE- STREET IND 12" LGTS ON EXT ARM 24" BACKGS&HOODS LED LAMPS 5" ALUM MAST JCT BOX BASE XING SIGN & PINNACLE SAFE P/N 074000-02216-L
020.0056674.1	1	6207.51	6207.51	SIGNAL 0220-L GCWD GATE ASSY DWG SS222 INCLS 18 FBRGL ARM W/3 LIGHTS 2-WAY MAIN IND 12" LIGHTS 24" BACKGNDS HOODS LED LAMPS 5" ALUM MAST JCT BOX BASE XNG SIGN & PINNACLE SAFE P/N 074000-0220-L
020.0056823.1	1	17.71	17.71	TAPE UG RED CABLE MARKER IMPRINT TO READ "CAUTION BURIED SIGNAL CABLE BELOW CSX TRANSPORTATION" REEF IND INC TERRATAPE 0911456 1000 ROLL
020.0057275.1	400	1.14	456.00	WIRE UG TRACK TWISTED PAIR NO. 6 AWG SOLID CONDUCTOR WITH ONE RED AND ONE BLACK NEOPRENE JACKET SHOW LENGTH ON EACH REEL FURNISH IN 1050 FT REELS OKONITE P/N 150-12-3933
020.1040322.1	20	118.29	2365.80	BATTERY SAFT SPL165, 165 AH POCKET PLATE NICKEL CADMIUM BATTERY FEATURING ULTRA LOW MAINTENANCE, GAS RECOMBINATION TECHNOLOGY
020.1040324.1	9	185.81	1672.29	BATTERY SAFT SPL250, 250 AH POCKET PLATE NICKEL CADMIUM BATTERY FEATURING ULTRA LOW MAINTENANCE, GAS RECOMBINATION TECHNOLOGY
020.1040540.1	1	31.25	31.25	TRAY BATTERY FIBER CO 82687-1-P 12" WIDTH 24" LONG CSX DWG 82687 USE IN 4X6 HOUSE SEE SS390
020.1040550.1	3	45.76	137.28	TRAY BATTERY FIBER CO 82687-3-P 12" WIDTH 38" LENGTH CSX DWG 82687 FOR USE WITH FLOODED (NON-VALVE REGULATED) CELLS SS390
020.1150750.1	300	1.09	327.00	BOND STRAND 3/16" DIA 7 STRANDS OF 19 STR EACH 6 WITH 12 STRS TINNED OUTER WIRES AROUND 7 NOT TINNED THE 6 TWISTED AROUND 1 CENTER STRAND OF 19 STRS NOT TINNED WITH 6/64" PVC FLORESCENT ORANGE JACKET INSULATION ERICO SBS8TINS664
020.1304014.1	20	6.51	130.20	KIT BOND, CADWELD PLUS WEB OF RAIL BOND 3/16 DIA. 4" LARGE TAB STYLE 100 EACH INCLUDES 5 EA. 4-1/2" COMBO GRINDING/CLEANING WHEEL, NEW MOLDS (L & R), PACKAGE OF 100, ERICO P/N SBTBBU4ACWPW2
020.1360014.1	1	850.29	850.29	PACKAGE FOREMANS CARE FOR ALUMINUM TYPICAL BOM FOR USE ON ALL MAJOR HIGHWAY CROSSING SIGNAL PROJECTS INCL GROUNDING MATERIALS BOOTLEGS BITS CASE WIRE DUCT SEAL AMP TERMINALS TAPE NO-OX-ID GREASE PADLOCKS TAGS PAINT PAINT BRUSHES
020.1360016.1	1	24.61	24.61	PACKAGE SAFETY FOR BURCO CONTAINERS COMPLETE WITH ONE EACH SAFETY LOCK TAG 3-1/4" X 4-1/4" DOUBLE SIDED RED WITH WHITE LETTERS AND ONE EACH SIGNAL H10 PADLOCK (020.8000067.1) BURCO P/N 846-0003
020.1360104.1	1	1559.40	1559.40	LAYOUT AC METER SERVICE WITH 30' POLE CSX DWG SS351 SH 2 ITEMS 1 TO 40 W/100A LOAD CTR WITH UP TO #2 AWG WIRE CAPABILITY -INCLUDES 2P70A BREAKER-P/N 212-0009
020.2500429.1	1	90.60	90.60	INDUCTOR 8V617-200 DUMMY LOAD SAFETRAN
020.2500605.1	2	395.60	791.20	SHUNT SAFETRAN 62775-86 NARROW BAND 86HZ
020.2530280.1	2	323.68	647.36	FILTER EPC 800-080055-107 TF-86
020.3901895.1	2	100.16	200.32	TIP FLEX HWY CROSSING GATE 24 IN LONG ENGINEERING GRADE RED & WHITE STRIPES W/2 MTG BOLTS & INSTALL INSTRUCTIONS ONE SMALL & ONE LARGE RIBBED ADAPTERS USE W/FIBERGLASS GATE ARMS TIP MADE BY MARCUM DEVELOPMENT CO, MARCUM P/N RAC-230RFK
020.3920200.1	2	177.44	354.88	BELL GCWD ELECTRONIC 4" OR 5" MAST 8 TO 13 VOLTS DC GSI PN EB-3-360-5 ASC PN 81848
020.3930010.1	2	3.70	7.40	KIT GATE ARM WARNING STICKER KIT INCLUDES 1-EA 5"X3" STICKER 1-EA 5"X3" PADLOCK TAG 2-EA 11"X3" STICKER PER SS222
020.4200340.1	25	1.74	43.50	LINK TEST ASSEMBLY 1" CENTERS YELLOW INSULATOR ON OFFSET LINK DOES NOT REQUIRE BRASS TEST NUT, TDH SOLUTIONS P/N 800-0112
020.4200900.1	6	0.19	1.14	CONNECTOR SHEATHING AMP 329860 FOR NO. 14 WIRE

# CSX TRANSPORTATION

## Signal Project Estimation

**Field Material List for CSX Project: OH2019793 (Effective: 09/19/2019)**  
**BE 172.27 - Location 1 - Railroad St.**

[illegible]

**Total Cost: \$ 27,965.59**

# CSX TRANSPORTATION

## Signal Project Estimation

**Consumable Material List for CSX Project: OH2019793 (Effective: 09/19/2019)**  
**BE 172.27 - Location 1 - Railroad St.**

[illegible]

**Total Cost: \$ 12,041.39**

# CSX TRANSPORTATION

## Signal Project Estimation

**Field Material List for CSX Project: OH2019793 (Effective: 09/19/2019)**  
**BE 172.63 - Location 2 - Sugar St.**

[illegible]



# CSX TRANSPORTATION

## Signal Project Estimation

**Field Material List for CSX Project: OH2019793 (Effective: 09/19/2019)**  
**BE 172.80 - Location 3 - TR 40 (Milton Rd.)**

[illegible]

**Total Cost: \$ 559.21**



## Vorst Paving, Inc.

14373 Road 23M  
Cloverdale, OH 45827  
419-453-3166  
419-453-2166 fax

## Estimate

DATE	ESTIMATE #
10/16/2019	2046

NAME / ADDRESS
Ohio Rail Commission

					PROJECT
ITEM	DESCRIPTION	QTY	COST	TOTAL	
Asphalt	Furnish & install asphalt wearing surface, Railroad St, Milton Center, OH- Hump Remediation - includes grinding and tack	65	165.00	10,725.00	
Signs	Furnish and set up road barricades and signs for road closures, \$1000 to open, \$1000 to close		2,000.00	2,000.00	
Labor	Backfill - price per ton	10	30.00	300.00	
Thank you for the opportunity to provide an estimate. We look forward to doing business with you.					
<b>TOTAL</b>				\$13,025.00	





THIS PLAN DOES ☐ DOES NOT ☒  
 SUPERSEDE PLAN DATED, 01-23-18  
 CSX PROJECT # 0H2017442

107658 09-28-18  0H2018690 XRL/CSW/CWT


 106485 0H2017442  
 01-23-18 XRL/JWG/  
**xorail**


REVISIONS 11-07-11 JRC 012010094	TRACK PLAN HORIZONTAL SCALE: 1 INCH = 500 FEET				 RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS			
	DESIGNED ORS/JSH	DIGITIZED ORS/JSH	CHECKED ORS/BGS	DATE 08/06/90	NEXT FILE BE17400	NEXT SH T01	FILE BE17300	SHEET T01

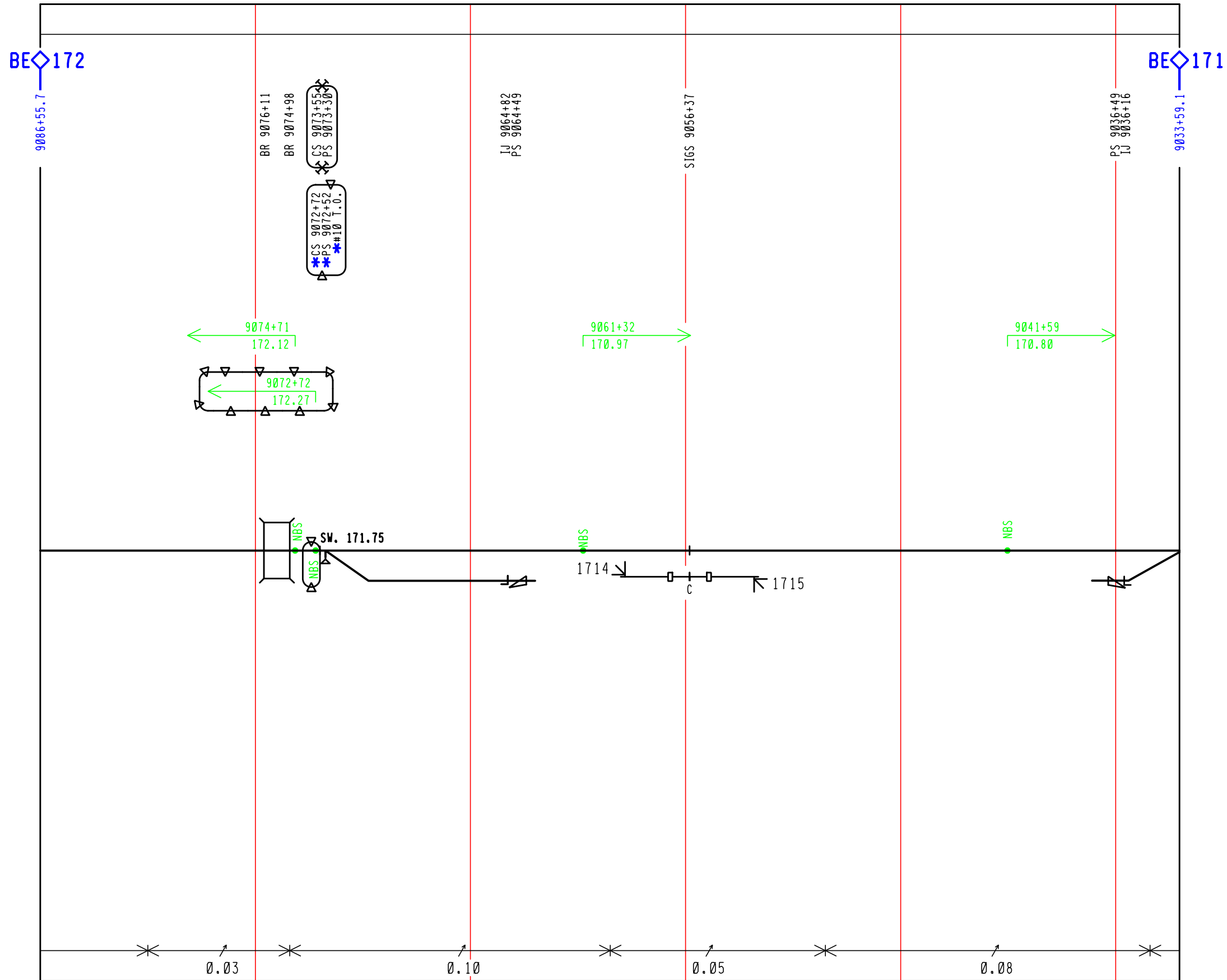


THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED, 09-28-18  
CSX PROJECT # 0H2018690

THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED 01-23-18  
CSX PROJECT # 0H2017442




<b>TRACK PLAN</b> <b>HORIZONTAL SCALE.</b> <b>1 INCH = 500 FEET</b>				 <b>RAIL TRANSPORT GROUP ENGINEERING</b> <b>COMMUNICATIONS AND SIGNALS</b>			
DESIGNED ORS/JSH	DIGITIZED ORS/JSH	CHECKED ORS/BGS	DATE 08/06/90	NEXT FILE BE17100	NEXT SH T01	FILE BE17200	SHEET T01



\* = PER SURVEY

**PRELIMINARY**


  
 A Caterpillar Company

= NOTE  
 = OUT  
 = IN

DATE: 08/20/19  
 CSX# 0H2019793  
 PRS/TDF/SAF



REVISIONS
05-22-13 ORS
01-14-14 FCS
01-28-12 SUE
01-19-10 OH199040
01-19-10 OH199040A
01-24-12 XRL
02-01-10 OH2011099
06-24-15 XRL
02-01-10 OH2014067
02-28-17 XRL
02-01-10 OH2016035

TRACK PLAN HORIZONTAL SCALE: 1 INCH = 500 FEET							
DESIGNED ORS/JSH	DIGITIZED ORS/JSH	CHECKED ORS/BGS	DATE 08/06/19	NEXT FILE BE17000	NEXT SH T01	FILE BE17100	SHEET T01


  
 RAIL TRANSPORT GROUP ENGINEERING  
 COMMUNICATIONS AND SIGNALS


INDEX  
CONTENTS

SH. NO.		REVISION NO.								
		1	2	3	4	5	6	7	8	9
I01	INDEX AND REVISIONS	X	X	X	X	X				
S01	TRACK AND SIGNAL PLAN	X	X	X	X	X				
E01	POWER DISTRIBUTION	X	X	X	X	X				
C01	CROSSING DETECTION CIRCUITRY	X	X	X	X					
C02	DETECTION DEVICE PROGRAM	X	X	X	X					
C03	CROSSING WARNING DEVICE GATE CIRCUITRY	X	X	X	X					
C04	CROSSING WARNING DEVICE LIGHT CIRCUITRY	X	X	X	X					
C05	RECORDER AND DTMF CONTROLLER CIRCUITS	X	X	X	X					
C06	RECORDER PROGRAM	X	X	X	X					


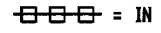

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 = REVISION COMPLETED

**PRELIMINARY**

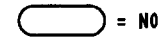
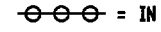

THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED **09-28-18**  
CSX PROJECT # **0H2018690**

 = NOTE  
**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company  
DATE **08/20/19**  
CSX# **0H2019793**  
PRS/TDF/SAF

THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED **01-23-18**  
CSX PROJECT # **0H2017442**

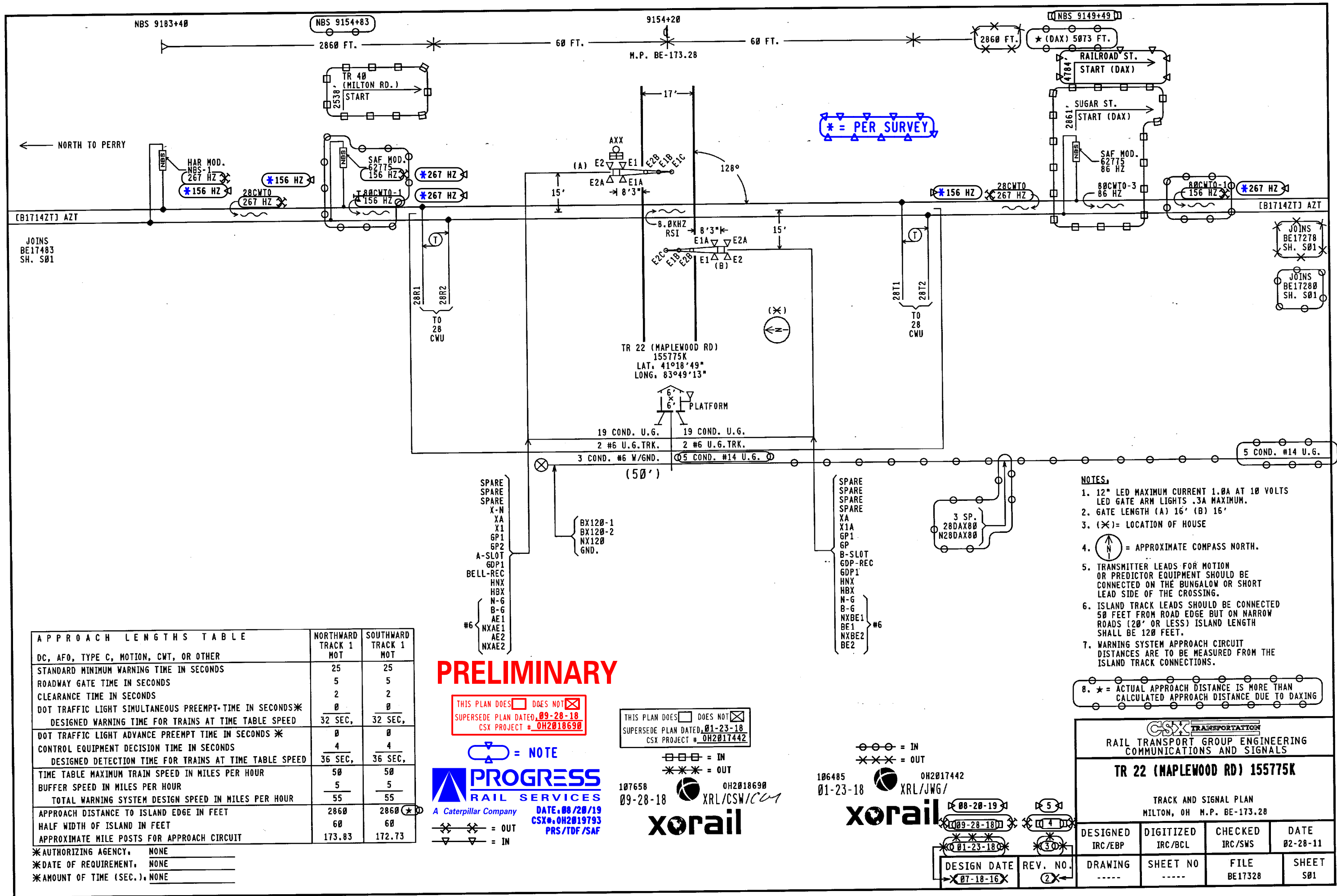
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 = OUT

107650 0H2018690  
09-28-18 XRL/CSW/CLY  
**xorail**

 = NOTE  
 = IN  
 = OUT  
106485 0H2017442  
01-23-18 XRL/JWG/  
**xorail**

DESIGN DATE **08-20-19**  
REV. NO. **5**  
DESIGN DATE **09-28-18**  
REV. NO. **4**  
DESIGN DATE **01-23-18**  
REV. NO. **3**  
DESIGN DATE **07-18-16**  
REV. NO. **2**

REVISIONS				
REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	0H2010094	02-28-11	10-25-11	11-07-11
2	0H2016035	07-18-16	01-10-17	02-28-17
3	0H2017442	01-23-18		
TO BE COMPLETED ON A.I.S.				
4	0H2018690	09-28-18		
TO BE COMPLETED ON A.I.S.				
5	0H2019793	08-20-19		
TO BE COMPLETED ON A.I.S.				
CSX TRANSPORTATION				
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS				
TR 22 (MAPLEWOOD RD) 155775K				
INDEX AND REVISIONS MILTON, OH M.P. BE-173.28				
DESIGNED IRC/EBP	DIGITIZED IRC/BCL	CHECKED IRC/SWS	DATE 02-28-11	
DRAWING -----	SHEET NO -----	FILE BE17328	SHEET 101	



- NOTES:**
1. 12" LED MAXIMUM CURRENT 1.0A AT 10 VOLTS LED GATE ARM LIGHTS .3A MAXIMUM.
  2. GATE LENGTH (A) 16' (B) 16'
  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.
  8. \* = ACTUAL APPROACH DISTANCE IS MORE THAN CALCULATED APPROACH DISTANCE DUE TO DAXING

**CSX TRANSPORTATION**  
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

**TR 22 (MAPLEWOOD RD) 155775K**

TRACK AND SIGNAL PLAN  
MILTON, OH M.P. BE-173.28

DESIGNED IRC/EBP	DIGITIZED IRC/BCL	CHECKED IRC/SWS	DATE 02-28-11
DRAWING -----	SHEET NO -----	FILE BE17328	SHEET S01

APPROACH LENGTHS TABLE		
DC, AFO, TYPE C, MOTION, CWT, OR OTHER	NORTHWARD TRACK 1 MOT	SOUTHWARD TRACK 1 MOT
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25
ROADWAY GATE TIME IN SECONDS	5	5
CLEARANCE TIME IN SECONDS	2	2
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT-TIME IN SECONDS*	0	0
DESIGNED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	32 SEC.	32 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	36 SEC.	36 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	50	50
BUFFER SPEED IN MILES PER HOUR	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	55	55
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2860	2860
HALF WIDTH OF ISLAND IN FEET	60	60
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	173.83	172.73

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

**PRELIMINARY**

THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED 09-28-18  
CSX PROJECT # 0H2018690

**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company

DATE 08/20/19  
CSX 0H2019793  
PRS/TDF/SAF

THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED 01-23-18  
CSX PROJECT # 0H2017442

107658 09-28-18 0H2018690 XRL/CSW/CCV

**xorail**

106485 01-23-18 0H2017442 XRL/JWG/



**xorail**

DESIGN DATE 07-18-16  
REV. NO. 2

# INDEX CONTENTS


SH. NO.		REVISION NO.								
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I01	INDEX AND REVISIONS									
S01	TRACK AND SIGNAL PLAN									
P01	MINIMUM PROGRAM STEPS REPORT CWE-80									
E01	POWER DISTRIBUTION									
C01	DETECTION DEVICE CONSIST CWE-80									
C02	DETECTION DEVICE CONSIST CWE-80									
C03	DETECTION CIRCUITRY CWE-80									
<del>C06</del>	<del>C04</del> CROSSING WARNING DEVICE LIGHT CIRCUITRY									
<del>C07</del>	<del>C05</del> CROSSING WARNING DEVICE CIRCUITRY									
<del>C08</del>	<del>C06</del> SEAR II: CONFIGURATION & FUNCTIONS									

C04	DETECTION CIRCUITRY CWE-80									
C05	DETECTION CIRCUITRY CWE-80									
G01	INTERNAL SOFTWARE AND GATES LOGIC DIAGRAMS									




 = PLANS SENT TO FIELD (DISTRIBUTED)  
 = PLANS AS-IN-SERVED (UP TO DATE)

**PRELIMINARY**

THIS PLAN DOES ☐ DOES NOT ☒  
 SUPERSEDE PLAN DATED **09-28-18**  
 CSX PROJECT # **0H2018690**

 = NOTE  
**PROGRESS**  
 RAIL SERVICES  
 A Caterpillar Company  
 DATE: **08/20/19**  
 CSX # **0H2019793**  
 PRS/TDF/SAF

THIS PLAN DOES ☐ DOES NOT ☒  
 SUPERSEDE PLAN DATED **01-23-18**  
 CSX PROJECT # **0H2017442**

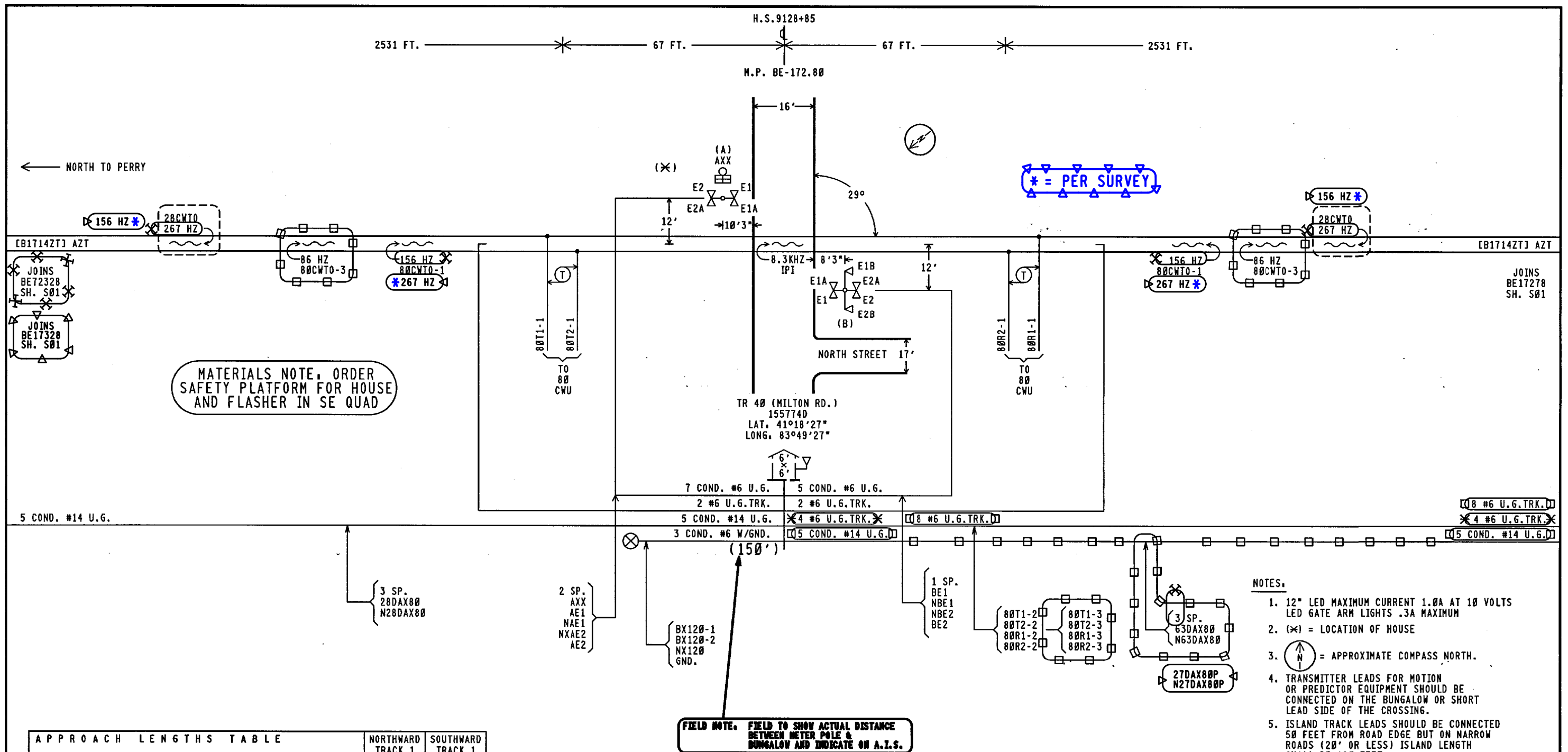
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 = OUT

107658 0H2018690  
 09-28-18 XRL/CSW/COY  
**xorail**

NEW WORK  
 106485 0H2017442  
 01-23-18 XRL/JWG/  
**xorail**

REVISIONS				
REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	0H2017442	01-23-17		
TO BE COMPLETED ON A.I.S.				
2	0H2018690	09-28-18		
TO BE COMPLETED ON A.I.S.				
3	0H2019793	08-20-19		
TO BE COMPLETED ON A.I.S.				
CSX TRANSPORTATION				
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS				
TR 40 (MILTON RD.) 1557740				
INDEX AND REVISIONS MILTON CENTER, OH M.P. BE-172.80				
DESIGNED XRL	DIGITIZED XRL	CHECKED XRL	DATE 01-23-18	
DESIGN DATE 01-23-18	REV. NO. 1	DRAWING ----	SHEET NO ----	SHEET 101





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

APPROACH LENGTHS TABLE	NORTHWARD TRACK 1 CWT	SOUTHWARD TRACK 1 CWT
DC, AFO, TYPE C, MOTION, CWT, OR OTHER	25	25
STANDARD MINIMUM WARNING TIME IN SECONDS	0	0
ROADWAY GATE TIME IN SECONDS	2	2
CLEARANCE TIME IN SECONDS	0	0
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS *	27 SEC.	27 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS *	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	5	5
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED	32 SEC.	32 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	50	50
BUFFER SPEED IN MILES PER HOUR	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	55	55
APPROACH DISTANCE TO ISLAND EDGE IN FEET	2531	2531
HALF WIDTH OF ISLAND IN FEET	67	67
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	173.30	172.31

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

**PRELIMINARY**

THIS PLAN DOES ☐ DOES NOT ☒  
 SUPERSEDE PLAN DATED 09-28-18  
 CSX PROJECT # 0H2018690

**PROGRESS**  
 RAIL SERVICES  
 A Caterpillar Company

DATE 08/20/19  
 CSX # 0H2019793  
 PRS/TDF/SAF

THIS PLAN DOES ☐ DOES NOT ☒  
 SUPERSEDE PLAN DATED 01-23-18  
 CSX PROJECT # 0H2017442

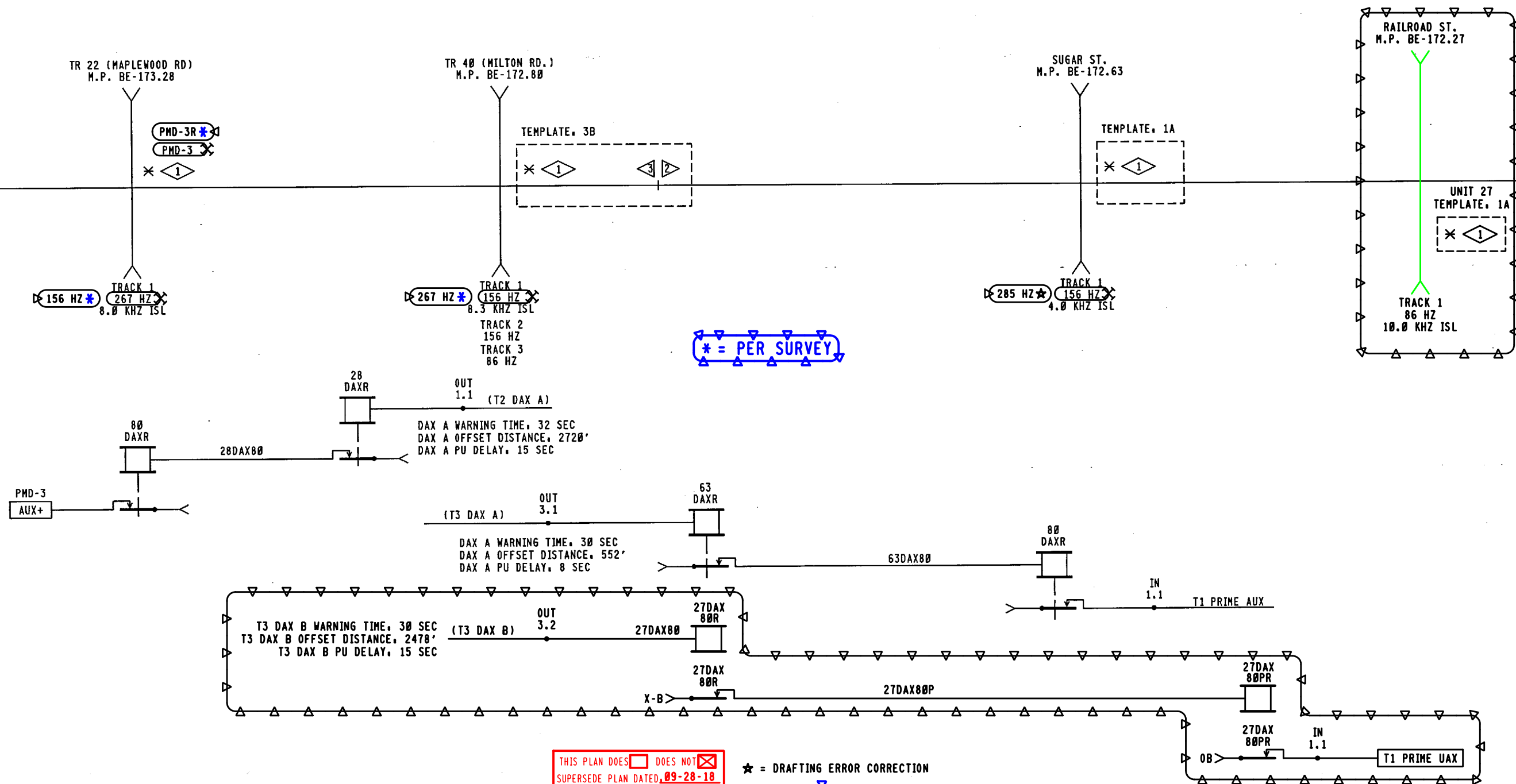
**xorail**  
 107650 09-28-18  
 0H2018690 XRL/CSW/CW

**NEW WORK**  
 106485 01-23-18  
 0H2017442 XRL/JWG/  
**xorail**

DESIGN DATE 01-23-18  
 REV. NO. 1  
 40006CP.S01  
 REV. 09-04-15  
 009-28-18

CSX TRANSPORTATION RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS			
TR 40 (MILTON RD.) 155774D			
TRACK AND SIGNAL PLAN MILTON CENTER, OH M.P. BE-172.80			
DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	01-23-18
DRAWING	SHEET NO	FILE	SHEET
----	----	BE17280	S01

← R.R. NORTH TO PERRY



THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED 09-28-18  
CSX PROJECT # 0H2018690

**PRELIMINARY**

★ = DRAFTING ERROR CORRECTION

**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company

DATE 08/20/19  
CSX # 0H2019793  
PRS/TDF/SAF

**NEW WORK**  
107658 09-28-18  
0H2018690  
XRL/CSW/K27  
**xorail**

**CSX TRANSPORTATION**  
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

**TR 40 (MILTON RD.) 155774D**

INTERNAL SOFTWARE AND GATES LOGIC DIAGRAMS  
MILTON CENTER, OH M.P. BE-172.80

SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE
◇	BI-DIRECTIONAL	◇	SIMULATED BI-DIRECTIONAL	▷	UNI-DIRECTIONAL	□	GCP 4000 UNIT	✕	ISLAND	UAX	SOFTWARE UAX INPUT	V	EXTERNAL VITAL AND GATE	D	INTERNAL SOFTWARE GATE

DESIGNED XRL	DIGITIZED XRL	CHECKED XRL	DATE 09-28-18
DESIGN DATE 09-28-18	REV. NO. 2	DRAWING -----	SHEET NO -----
FILE BE17280	SHEET 601		



Minimum Program Steps Report

Location and SIN

DOT Number: 155774D  
Milepost Number: BE-172.80  
Site Name: TR 40 (MILTON RD)

SIN: 712538400916 \*

\* Parameter is part of office check number calculation.

MCF and Template Selection

MCF Name: GCP-T6X-02-8.mcf  
MCF Revision: 028  
MCFCRC: 2D89077E

Template = 3B.2 B1, 2 Rem pairs (OCCN) \*

\* Parameter is part of office check number calculation.

Minimum Program Steps

MS4000 configuration

Track 1, GCP Frequency = 267 Hz (OCCN,TCN) (Hidden) \*  
Track 1, Isl Frequency = 8.3 kHz (OCCN) (Hidden) \*

MS4000 Predictor

Track 1, Prime Warning Time = 27 sec (OCCN) (Hidden) \*

PREDICTORS, track 2

Track 2, Dax A Used = Yes (OCCN) \*

PREDICTORS, track 3

Track 3, Dax B Used = Yes (OCCN) \*

GCP, track 1

Track 1, GCP Freq Category = Other (Set in Field)  
Track 1, GCP Frequency = 267 Hz (OCCN,TCN) \*  
Track 1, Approach Distance = 2531 ft (OCCN,TCN) \*  
Track 1, GCP Transmit Level = High (Set in Field,TCN)  
Track 1, Island Distance = 130 ft (Set in Field,TCN)

GCP, track 1 prime

Track 1, Prime Warning Time = 27 sec (OCCN) \*

GCP, track 2

Track 2, GCP Frequency = 156 Hz (OCCN,TCN) \*  
Track 2, Approach Distance = 2353 ft (OCCN,TCN) \*  
Track 2, GCP Transmit Level = High (Set in Field,TCN)

GCP, track 2 prime

Track 2, Prime Warning Time = 27 sec (OCCN) \*  
Track 2, Prime Offset Distance = 178 ft (OCCN) \*

GCP, track 2 Dax A

Track 2, Dax A Warning Time = 32 sec (OCCN) \*  
Track 2, Dax A Offset Distance = 2720 ft (OCCN) \*

GCP, track 3

Track 3, GCP Frequency = 86 Hz (OCCN,TCN) \*  
Track 3, Approach Distance = 2309 ft (OCCN,TCN) \*  
Track 3, GCP Transmit Level = High (Set in Field,TCN)

GCP, track 3 Dax A

Track 3, Dax A Warning Time = 30 sec (OCCN) \*  
Track 3, Dax A Offset Distance = 552 ft (OCCN) \*

GCP, track 3 Dax B

Track 3, Dax B Warning Time = 30 sec (OCCN) \*  
Track 3, Dax B Offset Distance = 2478 ft (OCCN) \*

ISLAND, track 1

Track 1, Isl Frequency = 8.3 kHz (OCCN) \*

ADVANCED, out of service  
00S Control = Display+00S IPs (OCCN) \*

ADVANCED, out of service 2  
T2 00S Control = 00S Input 1 (OCCN) \*  
T3 00S Control = 00S Input 1 (OCCN) \*

ADVANCED, site options  
Daylight Savings = 0n (Set in Field)

SSCC

Gates Used = No (OCCN) \*

SSCC, 1

SSCC 1, Flash Rate = 55 (OCCN) \*

SSCC, 2

SSCC 2, Flash Rate = 55 (OCCN) \*

OUTPUT, assignment page 1

OUT 1.1 = T2 Dax A (OCCN) \*  
OUT 3.1 = T3 Dax A (OCCN) \*  
OUT 3.2 = T3 Dax B (OCCN) \*

IO, assignment SSCC

IN 7.2 = Not Used (OCCN) \*  
IN 7.4 = Not Used (OCCN) \*  
IN 7.5 = Not Used (OCCN) \*  
IN 8.2 = Out Of Service IP 1 (OCCN) \*

SEAR

DI 1 = Gnd Flt Tester 1 (OCCN) \*  
DI 2 = Gnd Flt Tester 2 (OCCN) \*  
Rly 1 = Ground Fault Test (OCCN) \*  
Rly 2 = AC Control (OCCN) \*

SEAR, slot 7-8 inputs

IN 7.1 = TSS 1 (OCCN) \*  
IN 8.3 = POK 2 (OCCN) \*

Express, MS4000 configuration

Track 1, GCP Frequency = 267 Hz (OCCN,TCN) (Hidden) \*

Express, MS4000 Predictor

Track 1, Prime Warning Time = 27 sec (OCCN) (Hidden) \*

\* Parameter is part of office check number calculation.

Check Numbers

Office Check Number: 2BE9E322  
Config. Check Number: 7A1786A3  
(Based on MCF Revision 028)

Parameters not part of office check number calculation:

Track 1, GCP Freq Category = Other (Set in Field)  
Track 1, GCP Transmit Level = High (Set in Field)  
Track 1, Island Distance = 130 ft (Set in Field)  
Track 2, GCP Transmit Level = High (Set in Field)  
Track 3, GCP Transmit Level = High (Set in Field)  
Daylight Savings = 0n (Set in Field)

Comments

(none)

**PRELIMINARY**

**PROGRESS**  
RAIL SERVICES

A Caterpillar Company

**NEW WORK**

DATE: 08/20/19  
CSX# 0H2019793  
PRS/TDF/SAF

--- = OUT

**CSX TRANSPORTATION**  
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

TR 40 (MILTON RD.) 155774D

MINIMUM PROGRAM STEPS REPORT CWE-80  
MILTON CENTER, OH M.P. BE-172.80

DESIGNED PRS/TDF	DIGITIZED PRS/RMJ	CHECKED PRS/SAF	DATE 08-20-19
---------------------	----------------------	--------------------	------------------

DESIGN DATE 08-20-19	REV. NO. 3	DRAWING -----	SHEET NO -----	FILE BE17280	SHEET P01
-------------------------	---------------	------------------	-------------------	-----------------	--------------

Minimum Program Steps Report

Location and SIN

DOT Number: 155774D  
Milepost Number: BE-172.80  
Site Name: TR 40 (MILTON RD)

SIN: 712538400916 \*

\* Parameter is part of office check number calculation.

MCF and Template Selection

MCF Name: GCP-T6X-02-6.mcf  
MCF Revision: 26  
MCFCRC: 494D2656

Template = 3B:2 B1, 2 Rem pairs (OCCN) \*

\* Parameter is part of office check number calculation.

Minimum Program Steps

TEMPLATE: track 1-B1, Island  
Track 1: GCP Frequency = 156 Hz (OCCN) \*  
Track 1: Approach Distance = 2531 ft (OCCN) \*  
Track 1: Prime Warning Time = 27 sec (OCCN) \*  
Track 1: GCP Transmit Level = High (Set in Field, TCN)  
Track 1: Isl Frequency = 8.3 kHz (OCCN) \*

TEMPLATE: track 2-Remote Prime  
Track 2: GCP Frequency = 156 Hz (OCCN) \*  
Track 2: Approach Distance = 2353 ft (OCCN) \*  
Track 2: Prime Warning Time = 27 sec (OCCN) \*  
Track 2: Prime Offset Distance = 178 ft (OCCN) \*  
Track 2: GCP Transmit Level = High (Set in Field, TCN)

TEMPLATE: track 2 Daxes  
Track 2: Dax A Used = Yes (OCCN) \*  
Track 2: Dax A Warning Time = 32 sec (OCCN) \*  
Track 2: Dax A Offset Distance = 2720 ft (OCCN) \*

TEMPLATE: track 3-Remote Dax  
Track 3: GCP Frequency = 86 Hz (OCCN) \*  
Track 3: Approach Distance = 2309 ft (OCCN) \*  
Track 3: Dax A Warning Time = 30 sec (OCCN) \*  
Track 3: Dax A Offset Distance = 552 ft (OCCN) \*  
Track 3: GCP Transmit Level = High (Set in Field, TCN)

TEMPLATE: SSCC  
Gates Used = No (OCCN) \*

TEMPLATE: OOS  
OOS Control = Display OOS IPs (OCCN) \*  
OOS Timeout = 1 hrs (Set in Field)  
T2 OOS Control = OOS Input 1 (OCCN) \*  
T3 OOS Control = OOS Input 1 (OCCN) \*

TEMPLATE: OP assignment 1  
OUT 1.1 = T2 Dax A (OCCN) \*  
OUT 3.1 = T3 Dax A (OCCN) \*

TEMPLATE: IP assignment SSCC  
IN 7.2 = Not Used (OCCN) \*  
IN 7.4 = Not Used (OCCN) \*  
IN 7.5 = Not Used (OCCN) \*  
IN 8.2 = Out Of Service IP 1 (OCCN) \*

GCP: track 1  
Track 1: Island Distance = 130 ft (Set in Field, TCN)

ADVANCED: site options  
Daylight Savings = 0n (Set in Field)

SSCC: 1  
SSCC 1: Flash Rate = 55 (OCCN) \*

SSCC: 2  
SSCC 2: Flash Rate = 55 (OCCN) \*

SEAR  
DI 1 = Gnd Flt Tester 1 (OCCN) \*  
DI 2 = Gnd Flt Tester 2 (OCCN) \*  
RIy 1 = Ground Fault Test (OCCN) \*  
RIy 2 = AC Control (OCCN) \*

SEAR: slot 7-8 inputs  
IN 7.1 = TSS 1 (OCCN) \*  
IN 8.1 = TSS 2 (OCCN) \*  
IN 8.3 = POK 2 (OCCN) \*

\* Parameter is part of office check number calculation.

Check Numbers

Office Check Number: 0277CBA5  
Config. Check Number: 70EDD944  
(Based on MCF Revision 26)

Parameters not part of office check number calculation:

Track 1: GCP Transmit Level = High (Set in Field)  
Track 2: GCP Transmit Level = High (Set in Field)  
Track 3: GCP Transmit Level = High (Set in Field)  
OOS Timeout = 1 hrs (Set in Field)  
Track 1: Island Distance = 130 ft (Set in Field)  
Daylight Savings = 0n (Set in Field)

Comments

<none>

**PRELIMINARY**

THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED: 09-28-18  
CSX PROJECT #: 0H2018690

ALL OUT  
THIS SHEET IS VOID  
WHEN AS IN SERVICED.

**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company  
DATE: 08/20/19  
CSX: 0H2019793  
PRS/TDF/SAF

THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED: 01-23-18  
CSX PROJECT #: 0H2017442

\*\*\* = OUT

**NEW WORK**

107658 09-28-18 XRL/CSWK  
0H2018690

**xorail**

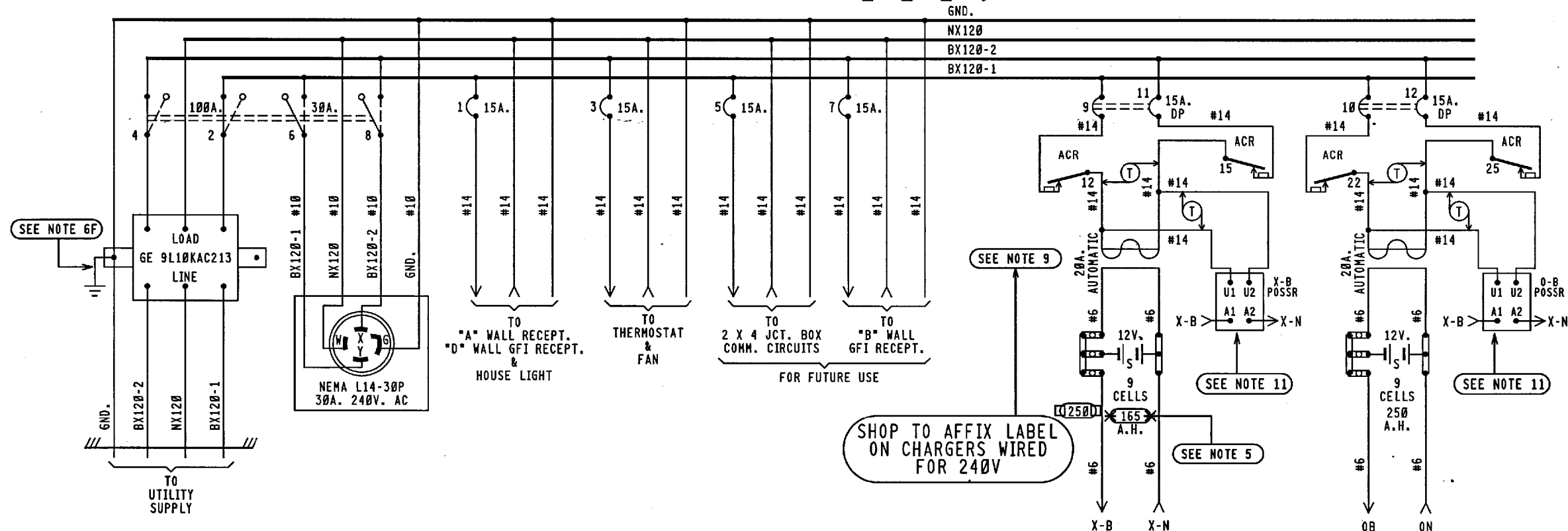
**CSX TRANSPORTATION**  
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

**TR 40 (MILTON RD.) 155774D**

MINIMUM PROGRAM STEPS REPORT CWE-80  
MILTON CENTER, OH M.P. BE-172.80

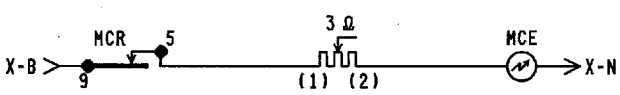
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DESIGN DATE 09-28-18	REV. NO. 2	DRAWING -----	SHEET P01(A)

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12	B	B77	9	F	11 F	12	F	B8	12	F	B8	12	F	B8
15	B	C30	10		12	15	F	C30	15	F	C30	15	F	C30
22	B					22			22			22		
25	B					23			23			23		
32						25			25			25		
35						32			32			32		
						35			35			35		



BX120-1 | BX120-2  
 8.0 AMPS | 8.0 AMPS  
 MAXIMUM LOAD  
 CALCULATED PER SS360

- NOTES:
- REFERENCES ARE PER SCMS-13.
  - ARRESTERS ARE PER SS382.
  - SHELF RELAY PLACEMENT ON CONSIST CHART HAS NO SIGNIFICANCE.
  - PLUG-IN RELAYS ARE VIEWED FROM THE FRONT OF RACK.
  - BATTERY A.H. CAPACITY SHOWN IS THE MINIMUM REQUIREMENT.
  - WIRING
    - A - FEED TO ALL BUSSES, LIGHT CIRCUITS, MOTOR CIRCUITS TO BE #10 FLEX.
    - B - 120-VOLT FEED FROM ENTRANCE TO POWER BUSS TO BE #10 FLEX.
    - C - ALL TRACK WIRES TO BE #10 FLEX.
    - D - ALL OTHERS TO BE #16 FLEX UNLESS NOTED.
    - E - ALL BATTERY OUTPUTS TO BE #6 PER SS360.
    - F - GROUND WIRE NOT NECESSARY WHEN GE ARRESTER IS MOUNTED ON GROUND PLANE OR METAL ENCLOSURE AFFIXED DIRECTLY TO BUNGALOW METALLIC STRUCTURAL MEMBER.
  - CIRCUIT INTERRUPTERS 2 & 4 ARE MECHANICALLY INTERLOCKED WITH CIRCUIT INTERRUPTERS 6 & 8.
  - LABEL ALL PRIMARY POWER WIRES WITH RED TAGS.
  - CHARGERS WIRED FOR 240VAC
  - CIRCUIT BREAKERS PANEL- Q0124L1256 (24 SPACES)
  - SOLID STATE VOLTAGE MONITOR BENDER MOD. VME 420-DW-1 DIN RAIL MOUNTED. OUTPUTS CONFIGURED NORMALLY CLOSED(NC). UNDERVOLTAGE SENSING MINIMUM OF 216 VOLTS AC.



SHOP TO AFFIX LABEL ON CHARGERS WIRED FOR 240V

X-B POSSR				OB POSSR			
11	F	21	F	N70	11	F	21

WALL/DIN RAIL MOUNTED

**PRELIMINARY**

THIS PLAN DOES ☐ DOES NOT ☒  
 SUPERSEDE PLAN DATED 09-28-18  
 CSX PROJECT # 0H2018690

**PROGRESS**  
 RAIL SERVICES

A Caterpillar Company  
 DATE: 08/20/19  
 CSX# 0H2019793  
 PRS/TDF/SAF

THIS PLAN DOES ☐ DOES NOT ☒  
 SUPERSEDE PLAN DATED 01-23-18  
 CSX PROJECT # 0H2017442

☒ = IN  
☒ = OUT

107658 09-28-18 0H2018690 XRL/CSW/

**xorail**

6'X 6' PTC CROSSING HOUSE

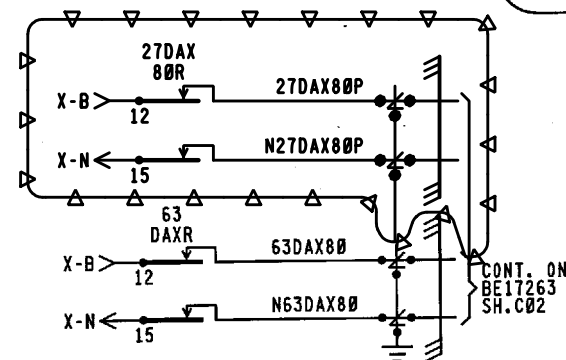
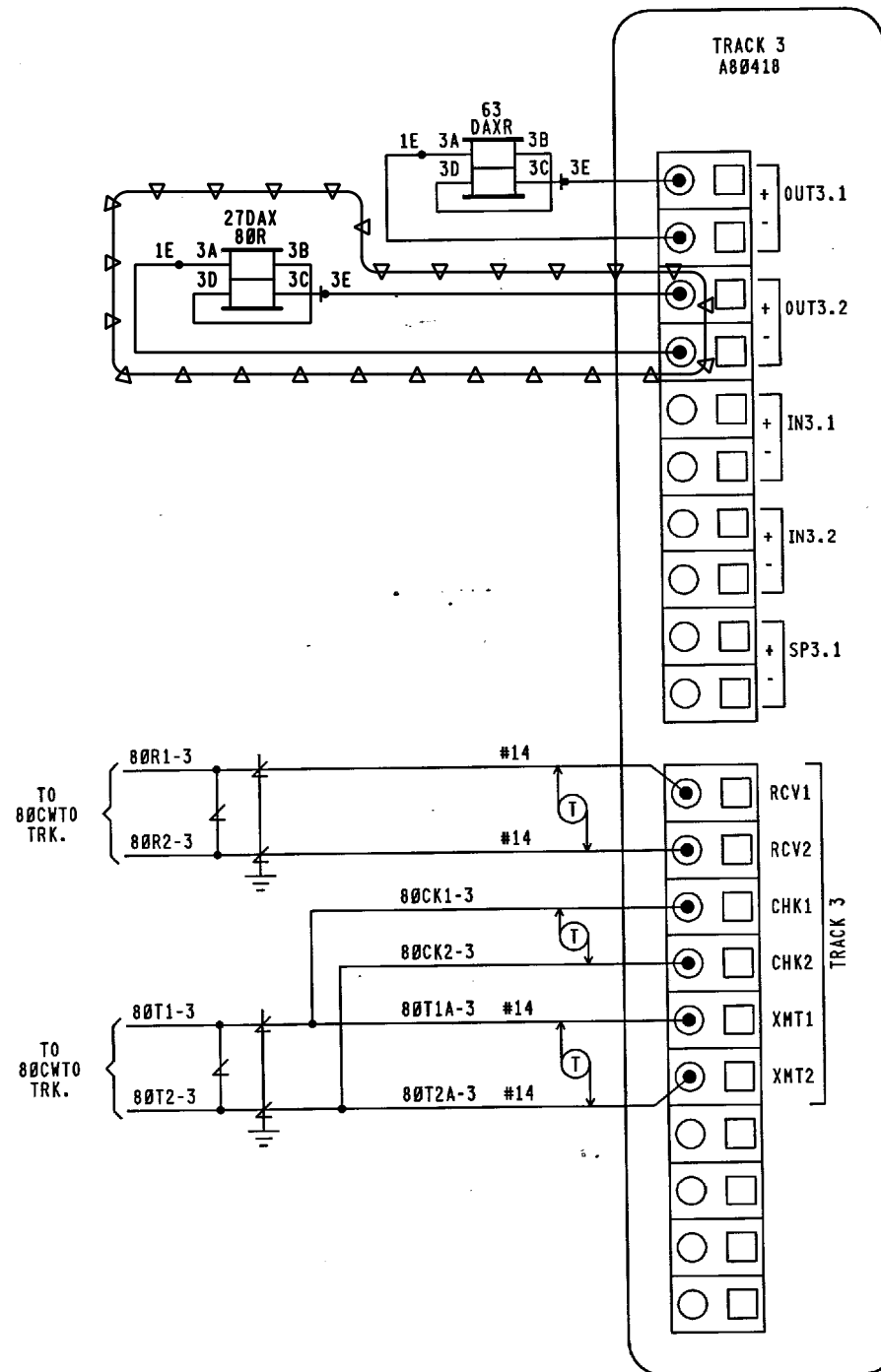
CSX TRANSPORTATION  
 RAIL TRANSPORT GROUP ENGINEERING  
 COMMUNICATIONS AND SIGNALS

TR 40 (MILTON RD.) 1557740

POWER DISTRIBUTION  
 MILTON CENTER, OH M.P. BE-172.80

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	01-23-18
DRAWING	SHEET NO	FILE	SHEET
----	----	BE17280	E01

= NOTE  
**NEW WORK**  
 106485 01-23-18 0H2017442 XRL/JWG/  
**xorail**  
 4000GCP.E01  
 REV. 01-24-17  
 09-28-18 01-23-18  
 DESIGN DATE REV. NO.  
 01-23-18 1



**NOTES:**

1. = HLVA2-1675-01 HYBRID LOW VOLTAGE ARRESTER, UNLESS NOTED.

**PRELIMINARY**

THIS PLAN DOES ☐ DOES NOT ☒  
 SUPERSEDE PLAN DATED **09-28-18**  
 CSX PROJECT # **0H2018690**

**PROGRESS**  
 RAIL SERVICES  
 A Caterpillar Company  
 DATE: 08/20/19  
 CSX # 0H2019793  
 PRS/TDF/SAF

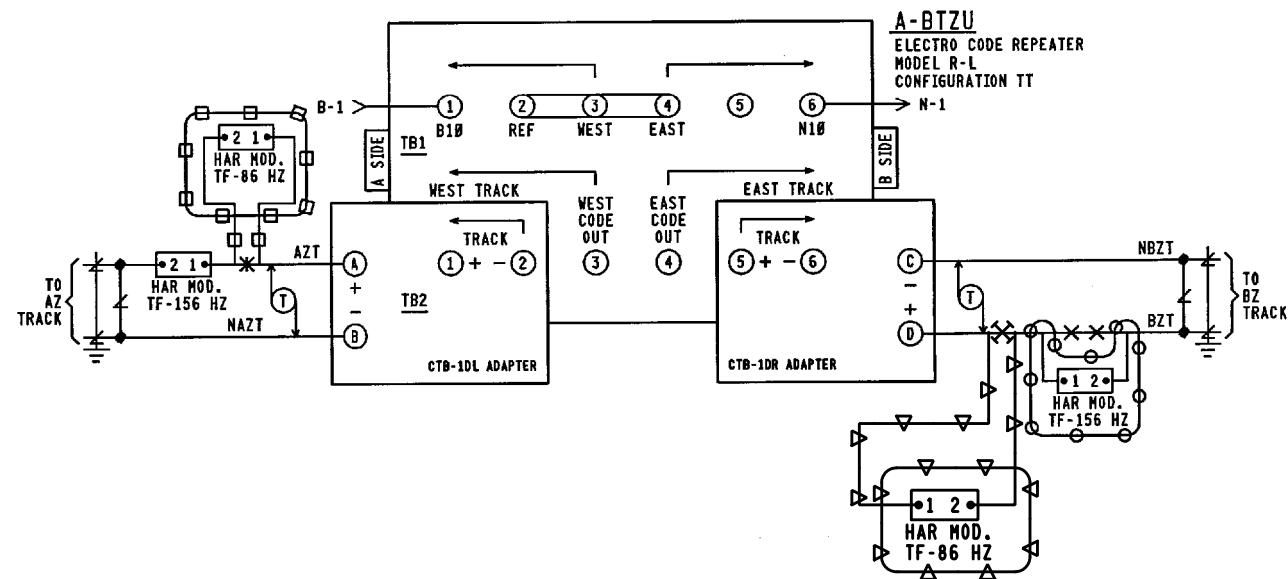
\*\*\* = OUT  
**NEW WORK**  
 107658 0H2018690  
 09-28-18 XRL/CSW/  
**xorail**

CSX TRANSPORTATION			
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS			
TR 40 (MILTON RD.)		155774D	
DETECTION CIRCUITRY CWE-80 MILTON CENTER, OH M.P. BE-172.80			
DESIGNED XRL	DIGITIZED XRL	CHECKED XRL	DATE 09-28-18
DRAWING -----	SHEET NO -----	FILE BE17200	SHEET C04A

4000GCP.C02  
 REV. 09-04-15  
 DESIGN DATE 09-28-18  
 REV. NO. 2  
 DRAWING ----  
 SHEET NO. ----  
 FILE BE17280  
 SHEET C04A



DESIGNED SWE	DIGITIZED SWE	CHECKED SWE	DATE 11-01-99
NEXT FILE BE17278	NEXT SH E01	FILE BE17278	SHEET S01



**PRELIMINARY**

THIS PLAN DOES ☐ DOES NOT ☒  
 SUPERSEDE PLAN DATED **09-28-18**  
 CSX PROJECT # **0H2018690**

**PROGRESS**  
 RAIL SERVICES

A Caterpillar Company  
 DATE: **08/20/19**  
 CSX # **0H2019793**  
 PRS/TDF/SAF

THIS PLAN DOES ☐ DOES NOT ☒  
 SUPERSEDE PLAN DATED **01-23-18**  
 CSX PROJECT # **0H2017442**

☒ = IN  
 \*\*\* = OUT

107650  
 09-28-18  
 0H2018690  
 XRL/CSW/C

**xorail**

106485  
 01-23-18  
 0H2017442  
 XRL/JWG/  
**xorail**

REVISIONS		CSX TRANSPORTATION			
11-10-03 SWE	0H1999048	RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS			
01-19-04 SAF	0H20000520	<b>REPEATING CUT</b>			
09-01-16 SSE	0H2015034	CIRCUITS MILTON CENTER, OH M.P. BE-172.78			
DESIGNED SWE	DIGITIZED SWE	CHECKED SWE	DATE 11-01-99		
NEXT FILE -----	NEXT SH -----	FILE BE17278	SHEET C01		




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
SH. NO.		REVISION NO.								
		1	2	3	4	5	6	7	8	9
I01	INDEX AND REVISIONS	✓	✓							
S01	TRACK AND SIGNAL PLAN	✓	✓							
G01	INTERNAL SOFTWARE AND GATES LOGIC DIAGRAMS	✓	✓							
P01	MINIMUM PROGRAM STEPS REPORT CWE-63	✓								
E01	POWER DISTRIBUTION	✓								
C01	DETECTION DEVICE CONSIST CWE-63	✓								
C02	CROSSING DETECTION CIRCUITRY	✓	✓							
C03	CROSSING DETECTION CIRCUITRY	✓								
C04	CROSSING WARNING DEVICE GATE CIRCUITRY	✓								
C05	CROSSING WARNING DEVICE LIGHT CIRCUITRY	✓								
C06	CROSSING WARNING DEVICE CIRCUITRY	✓								
C07	SEAR II <sub>1</sub> CONFIGURATION & FUNCTIONS	✓								

✓ = PLANS SENT TO FIELD (DISTRIBUTED)  
✓ = PLANS AS-IN-SERVICED (UP TO DATE)

**PRELIMINARY**

THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED **09-28-18**  
CSX PROJECT # **0H2018690**

 = NOTE  
**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company  
DATE: **08/20/19**  
CSX # **0H2019793**  
PRS/TDF/SAF

 = NOTE  
**NEW WORK**  
107658 0H2018690  
09-28-18 XRL/CSW/CCY  
**xorail**

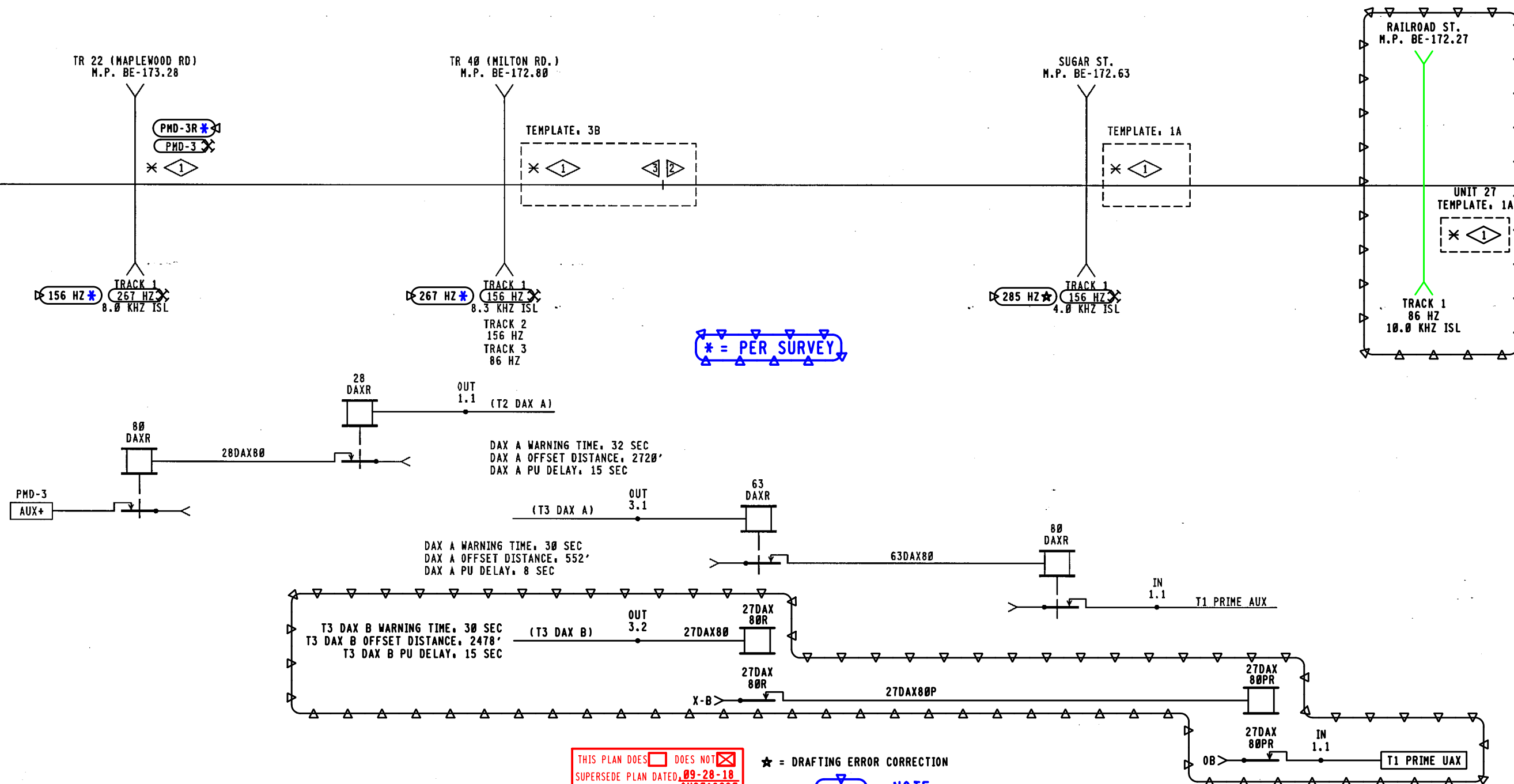
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REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	0H2018690	09-28-18		
TO BE COMPLETED ON A.I.S.				
3	0H2019793	08-20-19		
TO BE COMPLETED ON A.I.S.				

CSX TRANSPORTATION				
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS				
SUGAR ST. 155773W				
INDEX AND REVISIONS MILTON CENTER, OH M.P. BE-172.63				
DESIGNED XRL	DIGITIZED XRL	CHECKED XRL	DATE 09-28-18	
DESIGN DATE 09-28-18	REV. NO. 1	DRAWING -----	SHEET NO. -----	FILE BE17263
08-20-19		2		





← R.R. NORTH TO PERRY



THIS PLAN DOES NOT  
SUPERSEDE PLAN DATED 09-28-18  
CSX PROJECT # 0H2018690

★ = DRAFTING ERROR CORRECTION

⬢ = NOTE

**PRELIMINARY**

**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company

DATE: 08/20/19  
CSX # 0H2019793  
PRS/TDF/SAF

**NEW WORK**

107658  
09-28-18

0H2018690

XRL/CSW/CL

**xorail**

**CSX TRANSPORTATION**  
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

**SUGAR ST. 155773W**

INTERNAL SOFTWARE AND GATES LOGIC DIAGRAMS  
MILTON CENTER, OH M.P. BE-172.63

SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE
◇	BI-DIRECTIONAL	◁	SIMULATED BI-DIRECTIONAL	▷	UNI-DIRECTIONAL	□	GCP 4000 UNIT	✱	ISLAND	UAX	SOFTWARE UAX INPUT	V	EXTERNAL VITAL AND GATE	D	INTERNAL SOFTWARE GATE

40006CP.001  
REV. 09-04-15

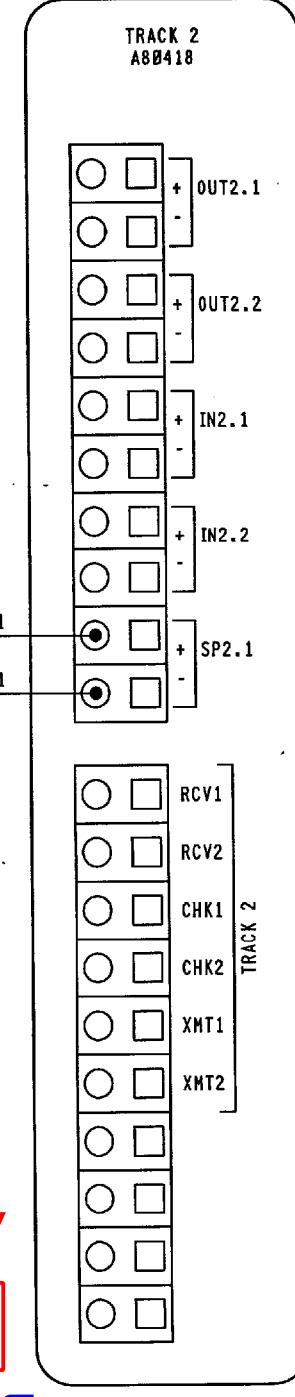
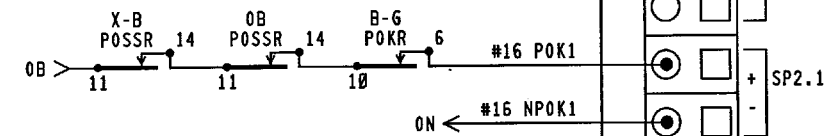
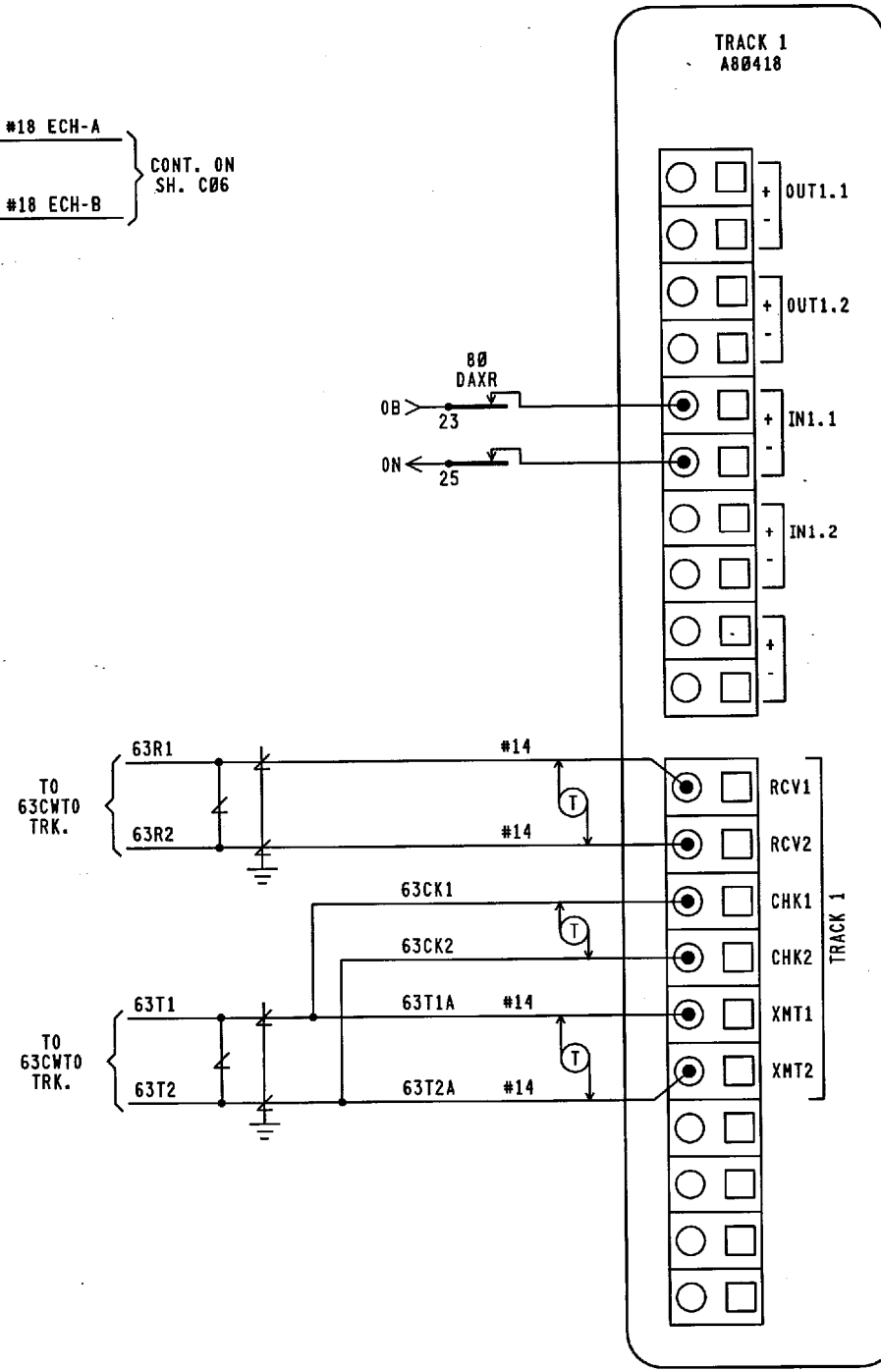
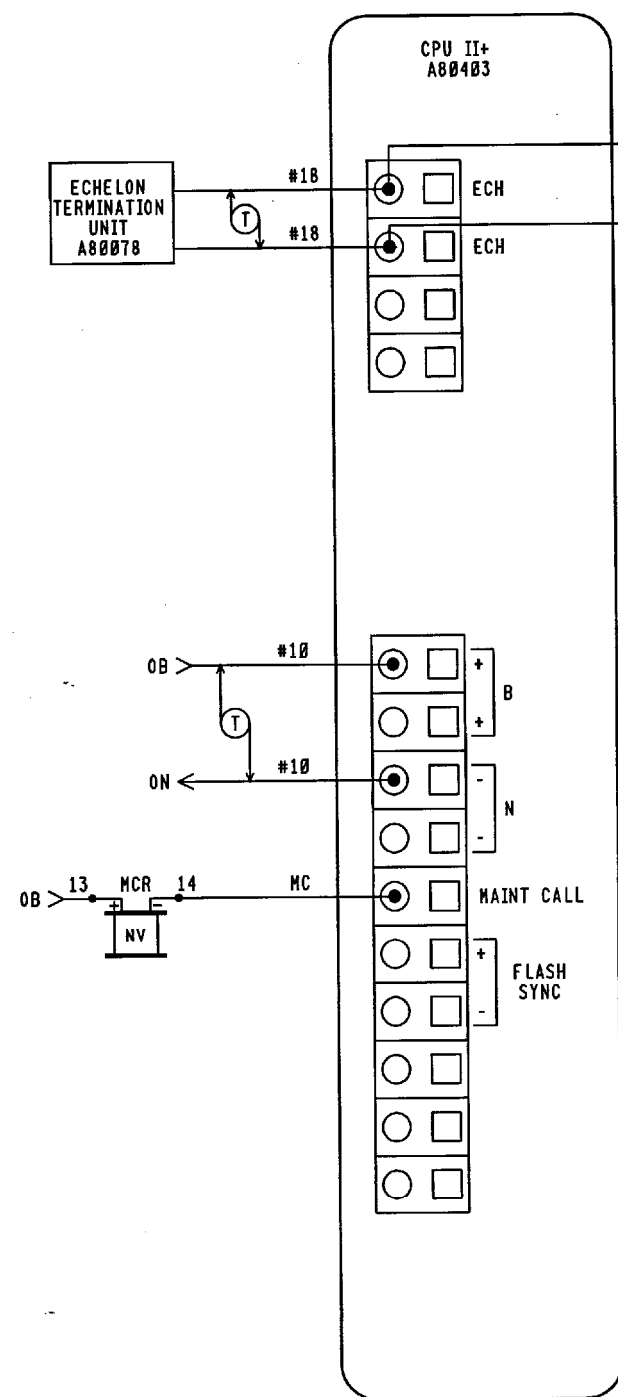
DESIGN DATE  
09-28-18

REV. NO.  
1

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	09-28-18
DRAWING	SHEET NO	FILE	SHEET
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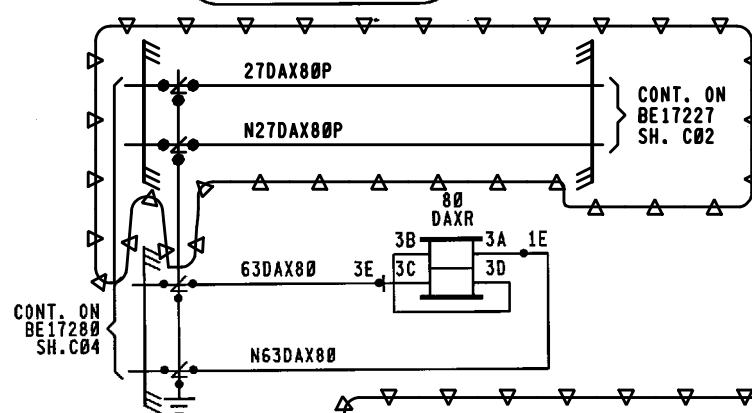
08-20-19

2



**PRELIMINARY**

THIS PLAN DOES ☐ DOES NOT ☒  
 SUPERSEDE PLAN DATED 09-28-18  
 CSX PROJECT # 0H2018690



**PROGRESS RAIL SERVICES**  
 A Caterpillar Company  
 DATE: 08/20/19  
 CSX # 0H2019793  
 PRS/TDF/SAF

**NEW WORK**  
 107658 09-28-18  
 0H2018690  
 XRL/CSX

**xorail**

**NOTES:**  
 1. HLVA2-1675-01 HYBRID LOW VOLTAGE ARRESTER, UNLESS NOTED.

**NOTE:**  
 ECHELON CONNECTIONS NOT TO EXCEED 53' IN LENGTH AND TOTAL LENGTH COMBINED NOT TO EXCEED 430' WITH A MAXIMUM OF 8 NODES. RECOMMEND USE BELDEN WIRE CABLE #8461 OR EQUIVALENT.

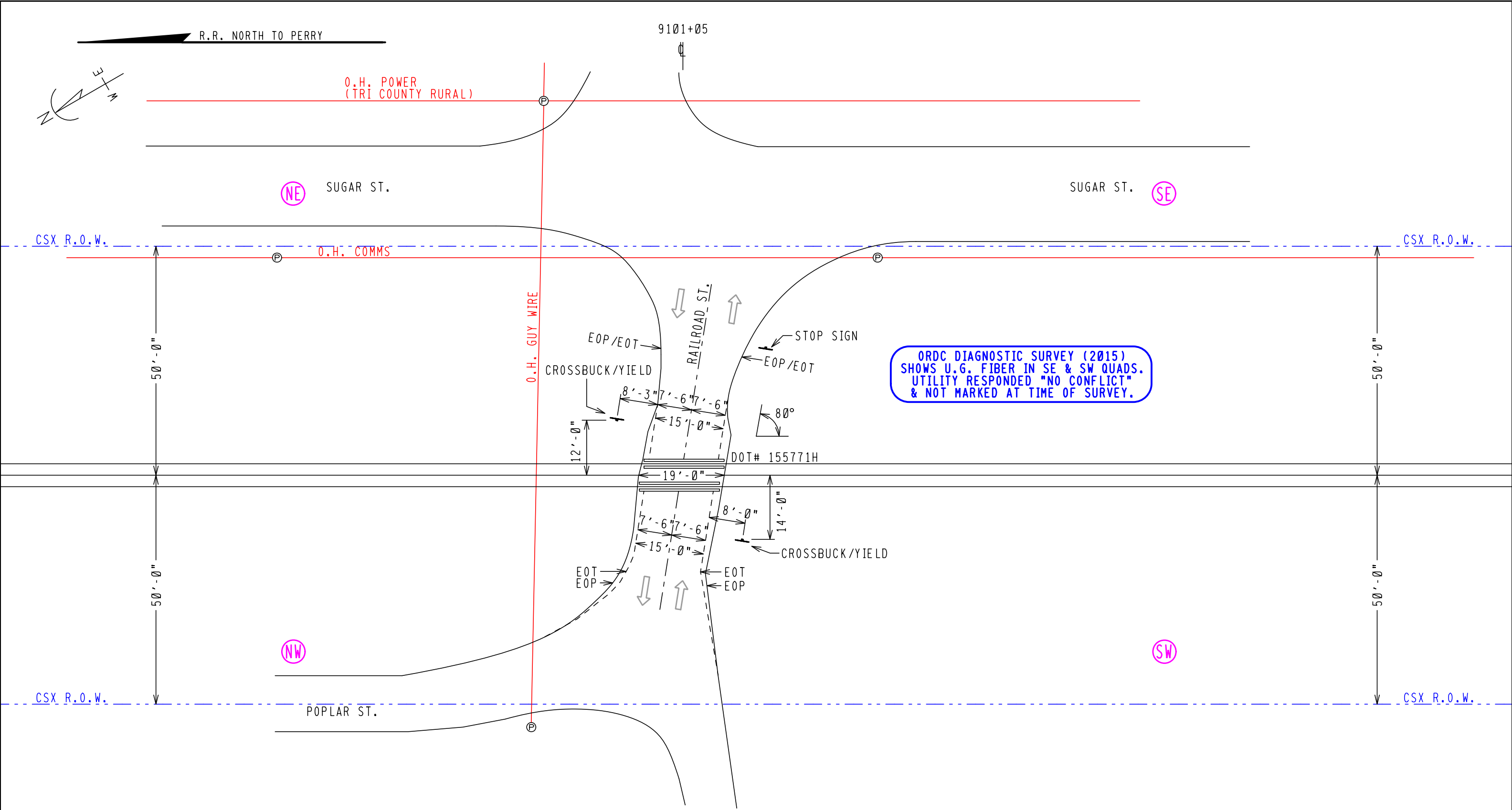
CSX TRANSPORTATION			
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS			
SUGAR ST. 155773W			
DETECTION CIRCUITRY CWE-63 MILTON CENTER, OH M.P. BE-172.63			
DESIGNED XRL	DIGITIZED XRL	CHECKED XRL	DATE 09-28-18
DRAWING	SHEET NO	FILE BE17263	SHEET C02

4000GCP.C02 REV. 09-04-15

DESIGN DATE 09-28-18 REV. NO. 1

08-20-19 2





**PRELIMINARY**

FILE NAME, BE17227.H02		REVISION DATES		PRODUCED FOR,		PRODUCED BY,		LEGEND,		GUARD RAIL		METER SERVICE		GPS COORDINATES		STREET NAME, RAILROAD ST.			
DATE DRAWN, 08-07-19		- -		 RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS		 A Caterpillar Company		CSX ROW - - - - -		O.H. POWER - - - - -		POLE		N41°18'04"		CITY & STATE, MILTON CENTER, (WOOD), OH			
DRAWN BY, GMW		- -						R/R POLELINE - - - - -		FENCE * * * * *		FIRE PLUG		W83°49'47"		DOT, 155771H		EXISTING CROSSING LAYOUT SCALE = 20:1	
CHECKED BY, SAF		- -						GAS - - - - -		WATER - - - - -		SEWER CAP		ELEV, 692'		PROJECT #, OH2019793			
PRS #, 34P000947		- -						FIBER OPTIC - - - - -		SEWER - - - - -		GAS VENT		M.P. BE-172.27		OP #, OH1322			



TR 22  
(MAPLEWOOD RD.)  
DAX START

TR 40  
(MILTON RD.)  
START

0H2018690

SUGAR ST.  
START

DEFIANCE ST.  
START

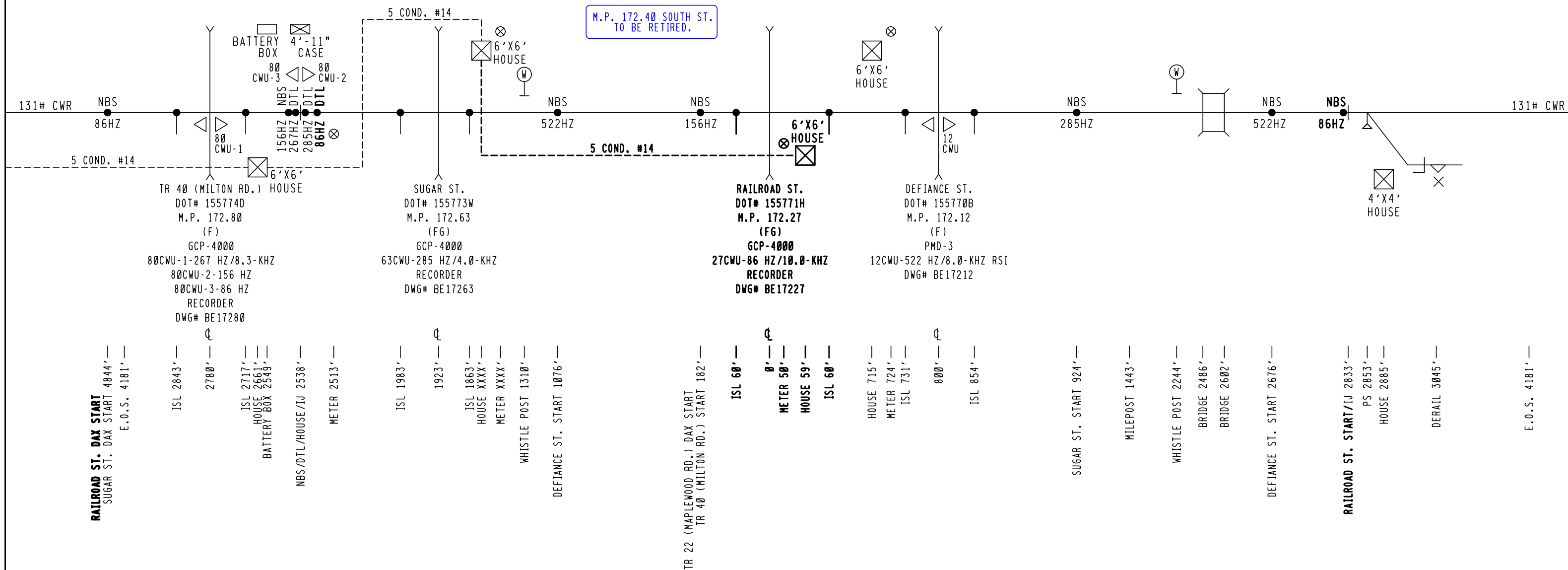
RAILROAD ST.  
SUGAR ST.  
DAX START

0H2018690 - SUGAR ST.  
UNPROTECTED CROSSING AT TIME OF SURVEY.  
GCP-4000 DESIGN HAS NOT YET BEEN INSTALLED.

DEFIANCE ST.  
START

M.P. 172.40 SOUTH ST.  
TO BE RETIRED.

ELECTRIC LOCK  
M.P. BE-171.75  
#10 T.O.  
4'X4' HOUSE  
ELECTROLOGIXS  
DWG# BE17175





# PRELIMINARY

FILE NAME, BE17227.H04	REVISION DATES	PRODUCED FOR,	PRODUCED BY,	LEGEND,	GUARD RAIL	METER SERVICE	GPS COORDINATES	STREET NAME, RAILROAD ST.	
DATE DRAWN, 08-14-19	09-12-19	 RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS	 A Caterpillar Company	CSX ROW -- -- -- --	O.H. POWER	POLE	N41°18'04"	CITY & STATE, MILTON CENTER, (WOOD), OH	
DRAWN BY, GMW	- -			R/R POLELINE	FENCE	FIRE PLUG	W83°49'47"	DOT, 155771H	PROPOSED TRACK LAYOUT
CHECKED BY, SAF	- -			GAS-- -- -- -- --	WATER-- -- -- -- --	SEWER CAP	ELEV. 692'	PROJECT #, 0H2019793	
PRS #, 34P000947	- -			FIBER OPTIC-- -- -- --	SEWER-- -- -- -- --	GAS VENT	M.P. BE-172.27	OP #, 0H1322	

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S01	TRACK AND SIGNAL PLAN									
G01	INTERNAL SOFTWARE AND GATES LOGIC DIAGRAMS									
P01	MINIMUM PROGRAM STEPS REPORT CWE-27									
E01	POWER DISTRIBUTION									
C01	DETECTION DEVICE CONSIST CWE-27									
C02	DETECTION CIRCUITRY CWE-27									
C03	DETECTION CIRCUITRY CWE-27									
C04	CROSSING WARNING DEVICE GATE CIRCUITRY									
C05	CROSSING WARNING DEVICE LIGHT CIRCUITRY									
C06	CROSSING WARNING DEVICE CIRCUITRY									
C07	SEAR II: CONFIGURATION & FUNCTIONS									

 = PLANS SENT TO FIELD (DISTRIBUTED)  
 = PLANS AS-IN-SERVICED (UP TO DATE)

PRELIMINARY

 = NOTE

  
A Caterpillar Company  
NEW WORK

DATE: 08/20/19  
CSX # 0H2019793  
PRS/TDF/SAF

DESIGN DATE  
08-20-19

REV. NO.  
1

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	0H2019793	08-20-19		

TO BE COMPLETED ON A.I.S.

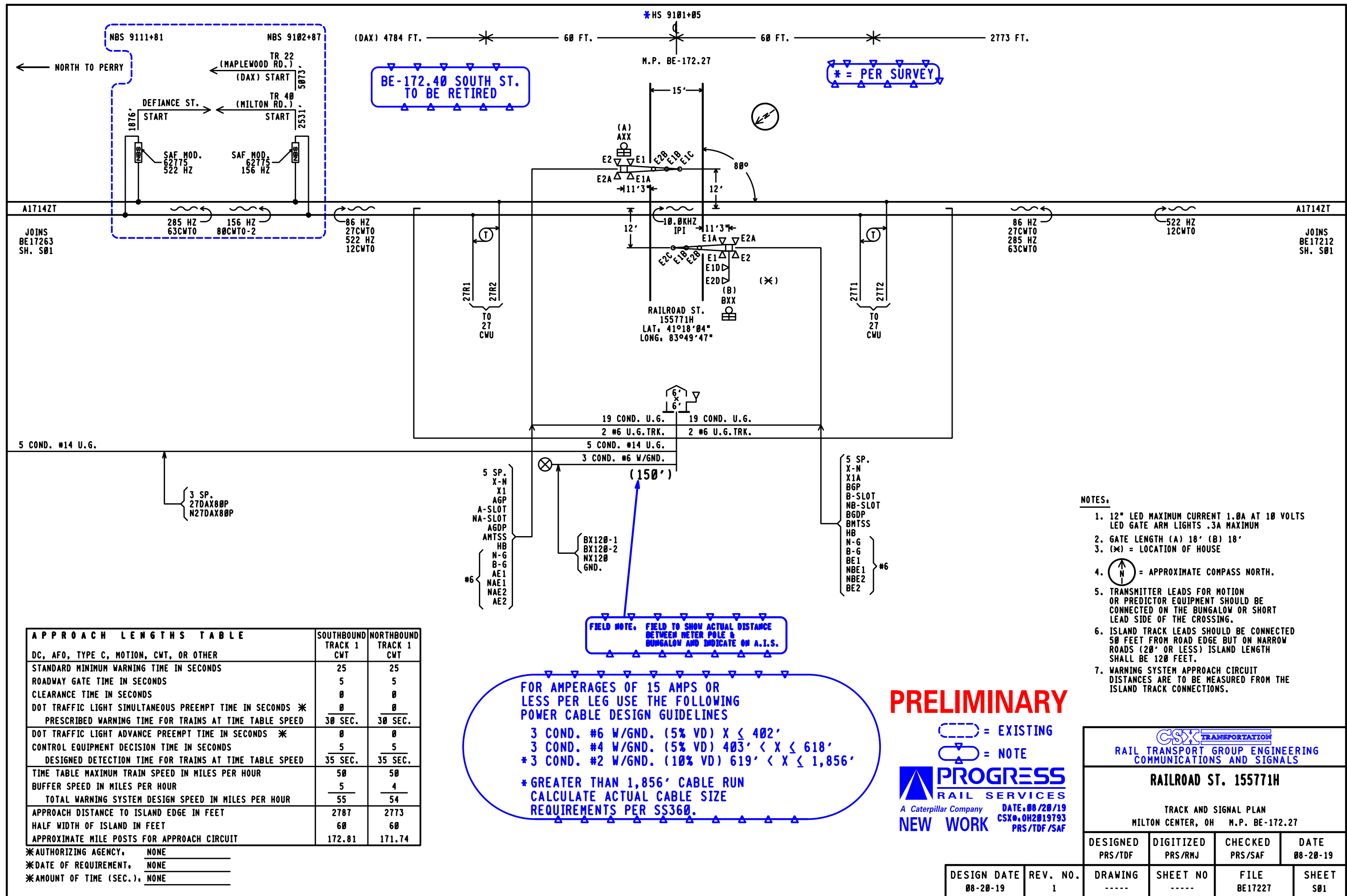
  
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

RAILROAD ST. 155771H

INDEX AND REVISIONS  
MILTON CENTER, OH M.P. BE-172.27

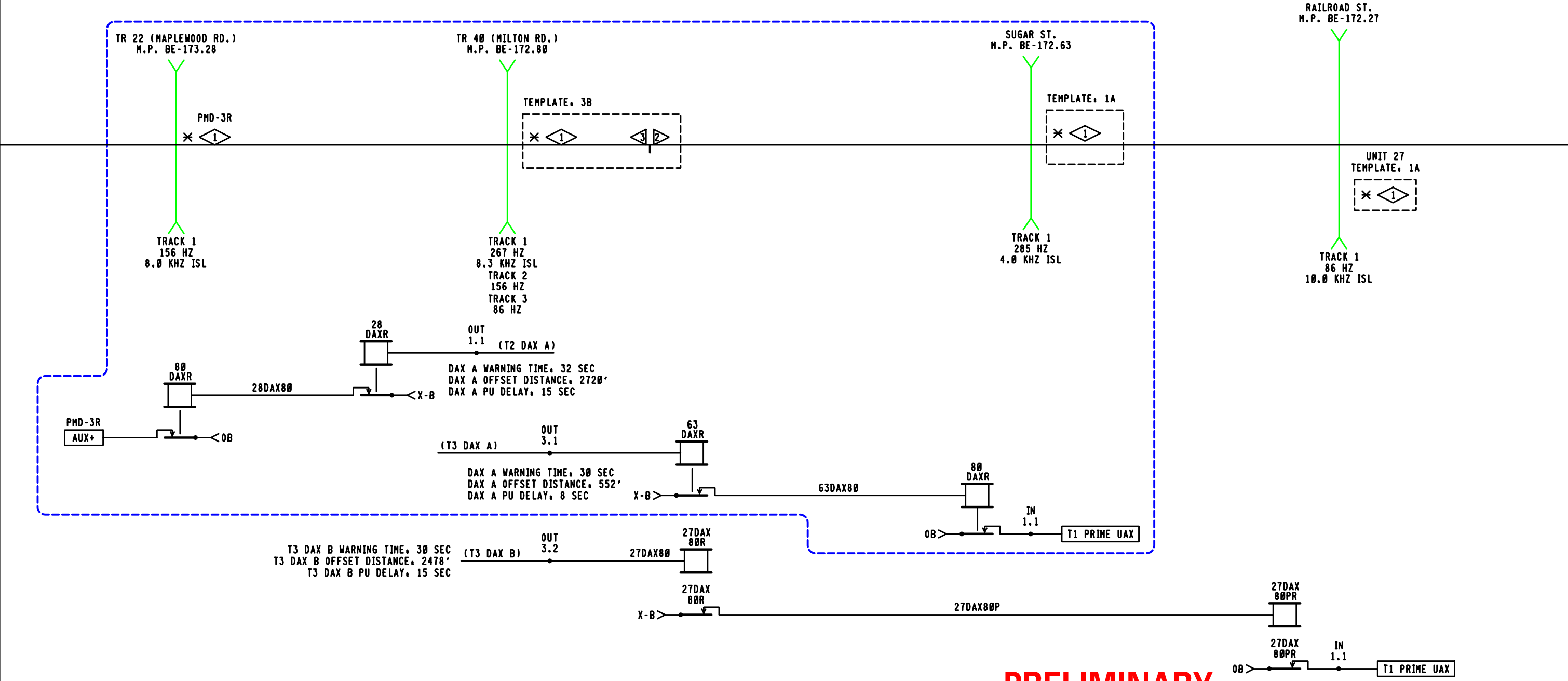
DESIGNED PRS/TDF	DIGITIZED PRS/RMJ	CHECKED PRS/SAF	DATE 08-20-19
DRAWING -----	SHEET NO -----	FILE BE17227	SHEET I01







← NORTH TO PERRY



**PRELIMINARY**

**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company  
**NEW WORK**

DATE: 08/20/19  
CSX# 0H2019793  
PRS/TDF/SAF

**CSX TRANSPORTATION**  
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

**RAILROAD ST. 155771H**

INTERNAL SOFTWARE AND GATES LOGIC DIAGRAMS  
MILTON CENTER, OH M.P. BE-172.27

DESIGNED PRS/TDF	DIGITIZED PRS/RMJ	CHECKED PRS/SAF	DATE 08-20-19
DRAWING -----	SHEET NO -----	FILE BE17227	SHEET 601

SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE	SYMBOL	DEFINE
	BI-DIRECTIONAL		SIMULATED BI-DIRECTIONAL		UNI-DIRECTIONAL		GCP 4000 UNIT		ISLAND		SOFTWARE UAX INPUT		EXTERNAL VITAL AND GATE		INTERNAL SOFTWARE GATE

DESIGN DATE 08-20-19	REV. NO. 1
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Minimum Program Steps Report

Location and SIN

DOT Number: 155771H  
Milepost Number: BE-172.27  
Site Name: RAILROAD ST

SIN: 712500000016 \*

\* Parameter is part of office check number calculation.

MCF and Template Selection

MCF Name: GCP-T6X-02-8.mcf  
MCF Revision: 028  
MCFCRC: 2D89077E

Template = 1A.6 Trk B1 (OCCN) \*

\* Parameter is part of office check number calculation.

Minimum Program Steps

MS4000 configuration

Track 1, GCP Frequency = 86 Hz (OCCN,TCN) (Hidden) \*  
Track 1, Prime UAX = IP (OCCN) (Hidden) \*  
Track 1, Isl Frequency = 10.0 kHz (OCCN) (Hidden) \*  
IN 1.1 = T1 Prime UAX (OCCN) (Hidden) \*

MS4000 Predictor

Track 1, Prime Warning Time = 30 sec (OCCN) (Hidden) \*

BASIC, module configuration  
Chassis Type = Dual Two Track (OCCN) \*

GCP, track 1

Track 1, GCP Frequency = 86 Hz (OCCN,TCN) \*  
Track 1, Approach Distance = 2773 ft (OCCN,TCN) \*  
Track 1, GCP Transmit Level = High (Set in Field,TCN)

GCP, track 1 prime

Track 1, Prime Warning Time = 30 sec (OCCN) \*  
Track 1, Prime UAX = IP (OCCN) \*

ISLAND, track 1

Track 1, Isl Frequency = 10.0 kHz (OCCN) \*

ADVANCED, out of service  
OOS Control = Display+OOS IPs (OCCN) \*

ADVANCED, site options  
Daylight Savings = 0n (Set in Field)

SSCC, 1

SSCC-1 Gate Delay = 5 sec (OCCN) \*  
SSCC-1 Number of GDS = 1 (OCCN) \*  
SSCC 1, Flash Rate = 55 (OCCN) \*

SSCC, 2

SSCC-2 Gate Delay = 5 sec (OCCN) \*  
SSCC-2 Number of GPs = 1 (OCCN) \*  
SSCC-2 Number of GDS = 1 (OCCN) \*  
SSCC 2, Flash Rate = 55 (OCCN) \*

INPUT, assignment page 1  
IN 1.1 = T1 Prime UAX (OCCN) \*

IO, assignment SSCC

IN 7.2 = Not Used (OCCN) \*  
IN 8.2 = Out of Service IP 1 (OCCN) \*  
IN 8.4 = GD 2.1 (OCCN) \*  
IN 8.5 = GP 2.1 (OCCN) \*

SEAR

DI 1 = Gnd Flt Tester 1 (OCCN) \*  
DI 2 = Gnd Flt Tester 2 (OCCN) \*  
Rly 1 = Ground Fault Test (OCCN) \*  
Rly 2 = AC Control (OCCN) \*

SEAR, slot 7-8 inputs

IN 7.1 = TSS 1 (OCCN) \*  
IN 8.1 = TSS 2 (OCCN) \*  
IN 8.3 = POK 2 (OCCN) \*

Express, MS4000 configuration

Track 1, GCP Frequency = 86 Hz (OCCN,TCN) (Hidden) \*  
Track 1, Prime UAX = IP (OCCN) (Hidden) \*  
IN 1.1 = T1 Prime UAX (OCCN) (Hidden) \*

Express, MS4000 Predictor

Track 1, Prime Warning Time = 30 sec (OCCN) (Hidden) \*

\* Parameter is part of office check number calculation.

Check Numbers

Office Check Number: 32D1AED7  
Config. Check Number: 6DF71475  
(Based on MCF Revision 028)

Parameters not part of office check number calculation:

Track 1, GCP Transmit Level = High (Set in Field)  
Daylight Savings = 0n (Set in Field)

Comments

<none>

UPDATE WHEN ATCS  
ADDRESS RECEIVED

PRELIMINARY

  
A Caterpillar Company  
NEW WORK  
DATE: 08/20/19  
CSX# 0H2019793  
PRS/TDF/SAF

  
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

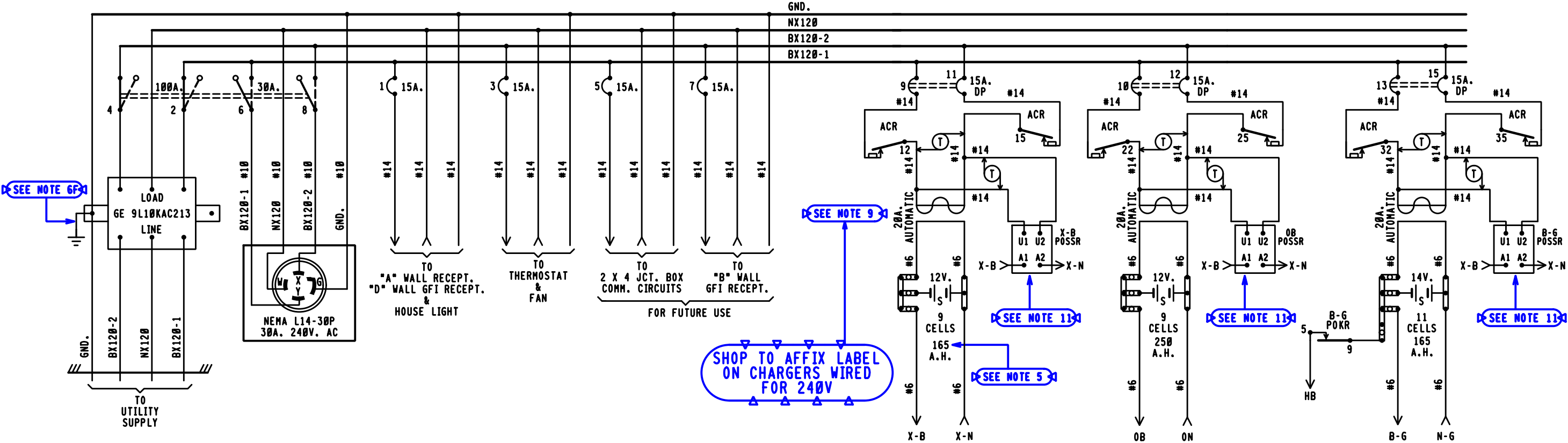
RAILROAD ST. 155771H

MINIMUM PROGRAM STEPS REPORT CWE-27  
MILTON CENTER, OH M.P. BE-172.27

DESIGNED PRS/TDF	DIGITIZED PRS/RMJ	CHECKED PRS/SAF	DATE 08-20-19
DRAWING -----	SHEET NO -----	FILE BE17227	SHEET P01

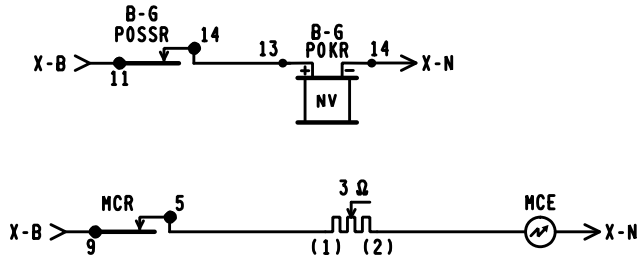
DESIGN DATE 08-20-19	REV. NO. 1
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TOP ROW											
ACR			MCR			27DAX80PR					
12	B	B77	9	F	11	12	F	B8			
15	B	C30	10		12	15	F	C30			
22	B					22					
25	B		B-6 POKR			23					
32	B		9	F	11	25					
35	B		10	F	12	32					
						35					



BX120-1	BX120-2
11.0 AMPS	11.0 AMPS
MAXIMUM LOAD CALCULATED PER SS360	

- NOTES:
- 1 - REFERENCES ARE PER SCMS-13.
  - 2 - ARRESTERS ARE PER SS302.
  - 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.
    - F - 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.
  - 8 - LABEL ALL PRIMARY POWER WIRES WITH RED TAGS.
  - 9 - CHARGERS WIRED FOR 240VAC
  - 10 - CIRCUIT BREAKERS PANEL- Q0124L125G (24 SPACES)
  - 11 - SOLID STATE VOLTAGE MONITOR BENDER MOD. VME 420-DW-1 DIN RAIL MOUNTED. OUTPUTS CONFIGURED NORMALLY CLOSED(NC). UNDERVOLTAGE SENSING MINIMUM OF 210 VOLTS AC.



X-B POSSR					OB POSSR					B-6 POSSR				
11	F	21	F	N70	11	F	21	F	N70	11	F	21	F	N70

WALL/DIN RAIL MOUNTED

**PRELIMINARY**

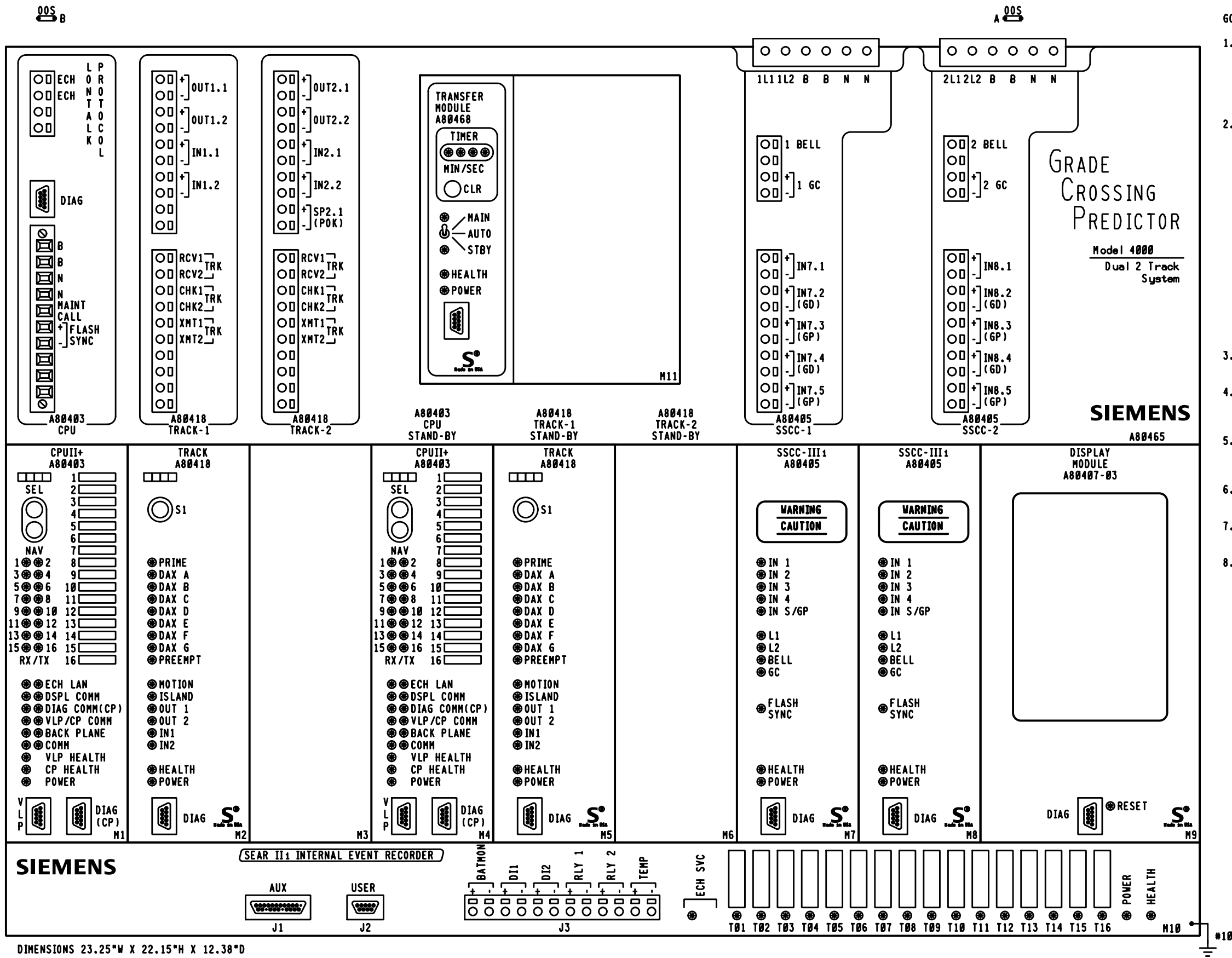
**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company

**NEW WORK**

DATE: 08/20/19  
CSX# 0H2019793  
PRS/TDF/SAF

6'X 6' PTC CROSSING HOUSE

RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS			
RAILROAD ST. 155771H			
POWER DISTRIBUTION MILTON CENTER, OH M.P. BE-172.27			
DESIGNED PRS/TDF	DIGITIZED PRS/RMJ	CHECKED PRS/SAF	DATE 08-20-19
DRAWING -----	SHEET NO -----	FILE BE17227	SHEET E01



GCP 4000 APPLICATION NOTES:

1. THE GRADE CROSSING PREDICTOR (GCP) IS A MODULAR MICROPROCESSOR CONTROLLED SYSTEM THAT IS DEPLOYED TO CONTINUALLY MONITOR THE APPROACHES TO RAILROAD GRADE CROSSINGS AND TO CONTROL THE LAMPS, GATES AND BELLS ASSOCIATED WITH THOSE CROSSINGS. WHEN EQUIPPED WITH THE SEAR II MODULE THE GCP 4000 WILL RECORD EVENTS AND REPORT ALARMS WHEN CONNECTED TO AN OFFICE SYSTEM.

2. THE GCP 4000 GCP (A80465) IS A TWO TRACK REDUNDANT UNIT CAPABLE OF DRIVING 4 INDEPENDENT FLASHER AND GATE SIGNALS AND RECORDING EVENTS AND REPORTING ALARMS. THIS A80465 INCLUDES THE FOLLOWING MODULES:

SLOT	MODULE	FUNCTION	PART NO.
M1	CPU-II+	MAIN	A80403
M2	TRACK-1	MAIN	A80418
M3	PANEL	NONE	D39325
M4	CPU-II+	STANDBY	A80403
M5	TRACK-1	STANDBY	A80418
M6	PANEL	NONE	D39325
M7	SSCC-III1	A SIGNAL	A80405
M8	SSCC-III1	B SIGNAL	A80405
M9	DISPLAY MODULE		A80407-03
TOP CENTER	TRANSFER UNIT		A80468
LOWER BAY	SEAR II1	RECORDER	A80410

3. EACH TRACK MODULE HAS TWO PROGRAMMABLE INPUTS AND TWO PROGRAMMABLE OUTPUTS.

4. THE SEAR II1 INTERNAL EVENT RECORDER HAS INPUTS FOR ONE BATTERY MONITOR, TWO NON-VITAL INPUTS AND TWO PROGRAMMABLE RELAY DRIVES (HEEL/Front).

5. LOCATED ON THE FRONT OF EACH MODULE THERE ARE LED LIGHTS TO INDICATE THE ACTIVITY OF CERTAIN FUNCTIONS OCCURRING INSIDE THE GCP.

6. BETWEEN SLOT 1 & 2 THERE IS A CHASSIS IDENTIFICATION CHIP (CIC) SOCKET AND AN ECD CONNECTOR (DB-25 FEMALE).

7. UPON THE FAILURE OF A MODULE IN SLOTS M1-M3 THE AUTOMATIC TRANSFER UNIT SWITCHES TO THE STANDBY MODULES IN SLOTS M4-M6.

8. THE GCP 4000 GCP (A80465) MAY USE RIO MODULES IN SLOTS M3 AND M6.

**PRELIMINARY**

**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company  
NEW WORK  
DATE: 08/20/19  
CSX# 0H2019793  
PRS/TDF/SAF

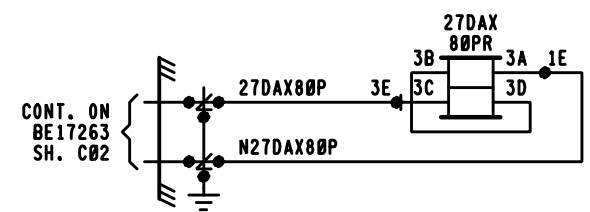
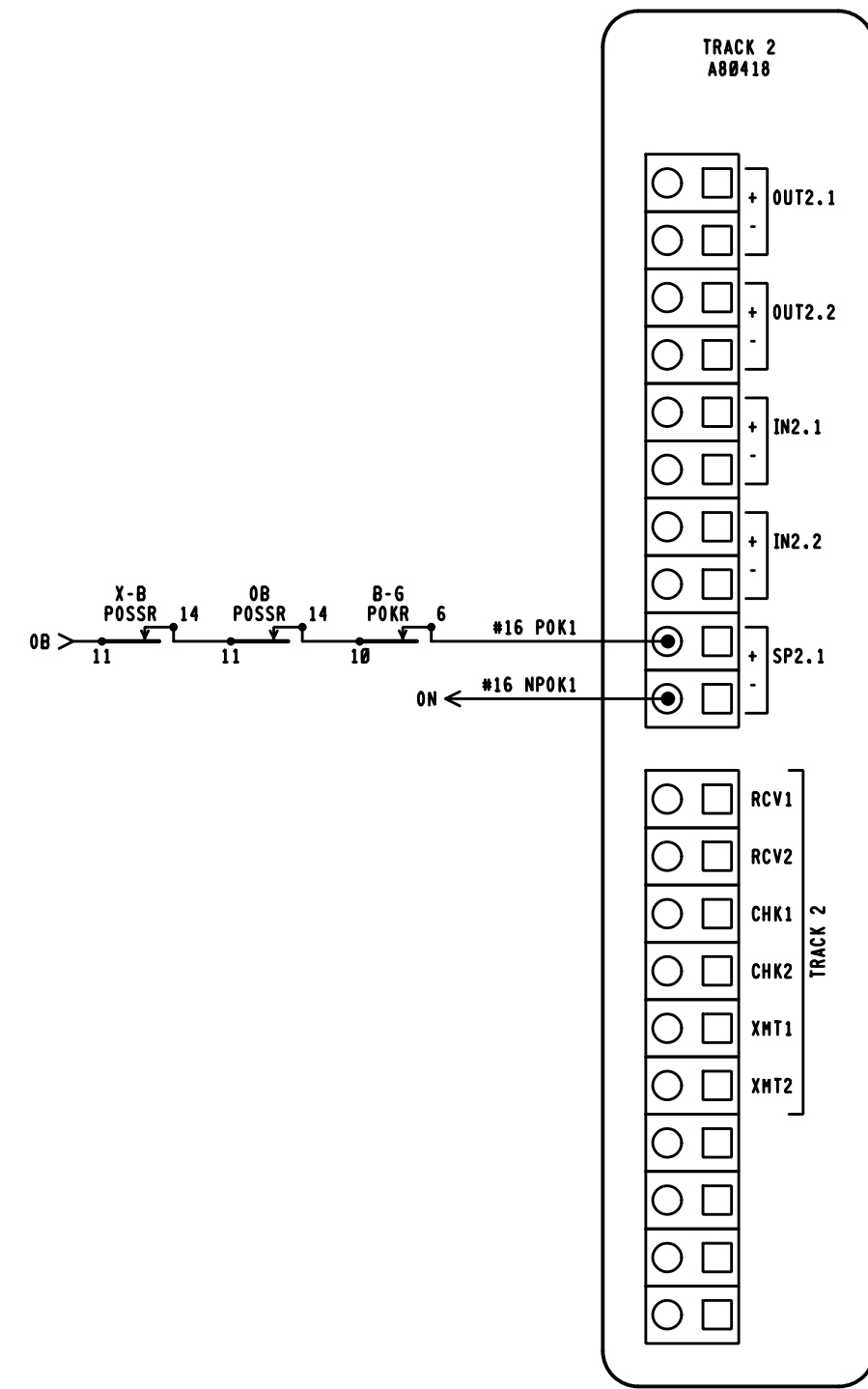
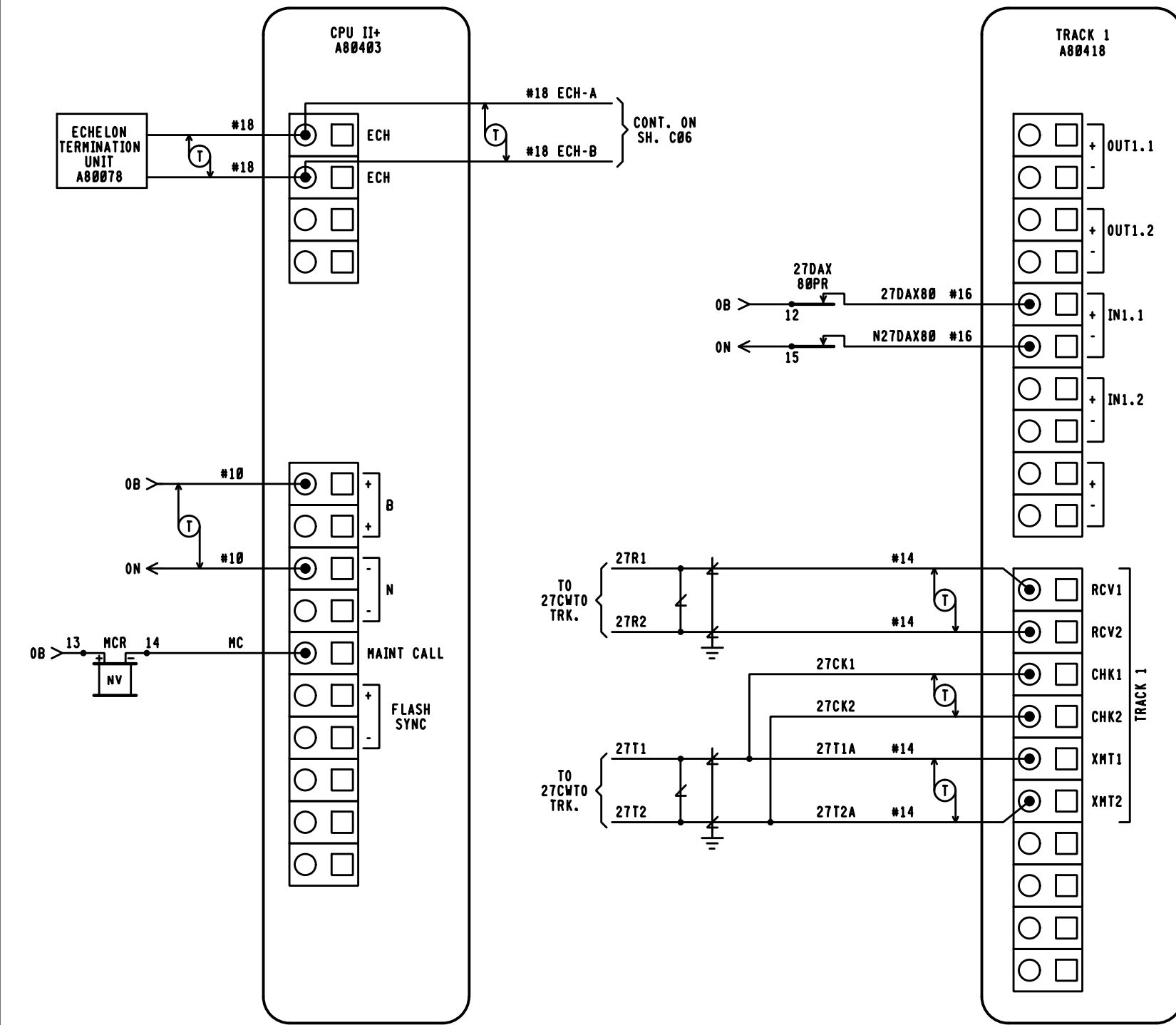
**CSX TRANSPORTATION**  
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

RAILROAD ST. 155771H

DETECTION DEVICE CONSIST CWE-27  
MILTON CENTER, OH M.P. BE-172.27

DESIGNED PRS/TDF	DIGITIZED PRS/RMJ	CHECKED PRS/SAF	DATE 08-20-19
DRAWING -----	SHEET NO -----	FILE BE17227	SHEET C01

DESIGN DATE 08-20-19	REV. NO. 1
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- NOTES:
- ECHOLON CONNECTIONS NOT TO EXCEED 53' IN LENGTH AND TOTAL LENGTH COMBINED NOT TO EXCEED 430' WITH A MAXIMUM OF 8 NODES. RECOMMEND USE BELDEN WIRE CABLE #8461 OR EQUIVALENT.
  - HLVA2-1675-01 HYBRID LOW VOLTAGE ARRESTER, UNLESS NOTED.

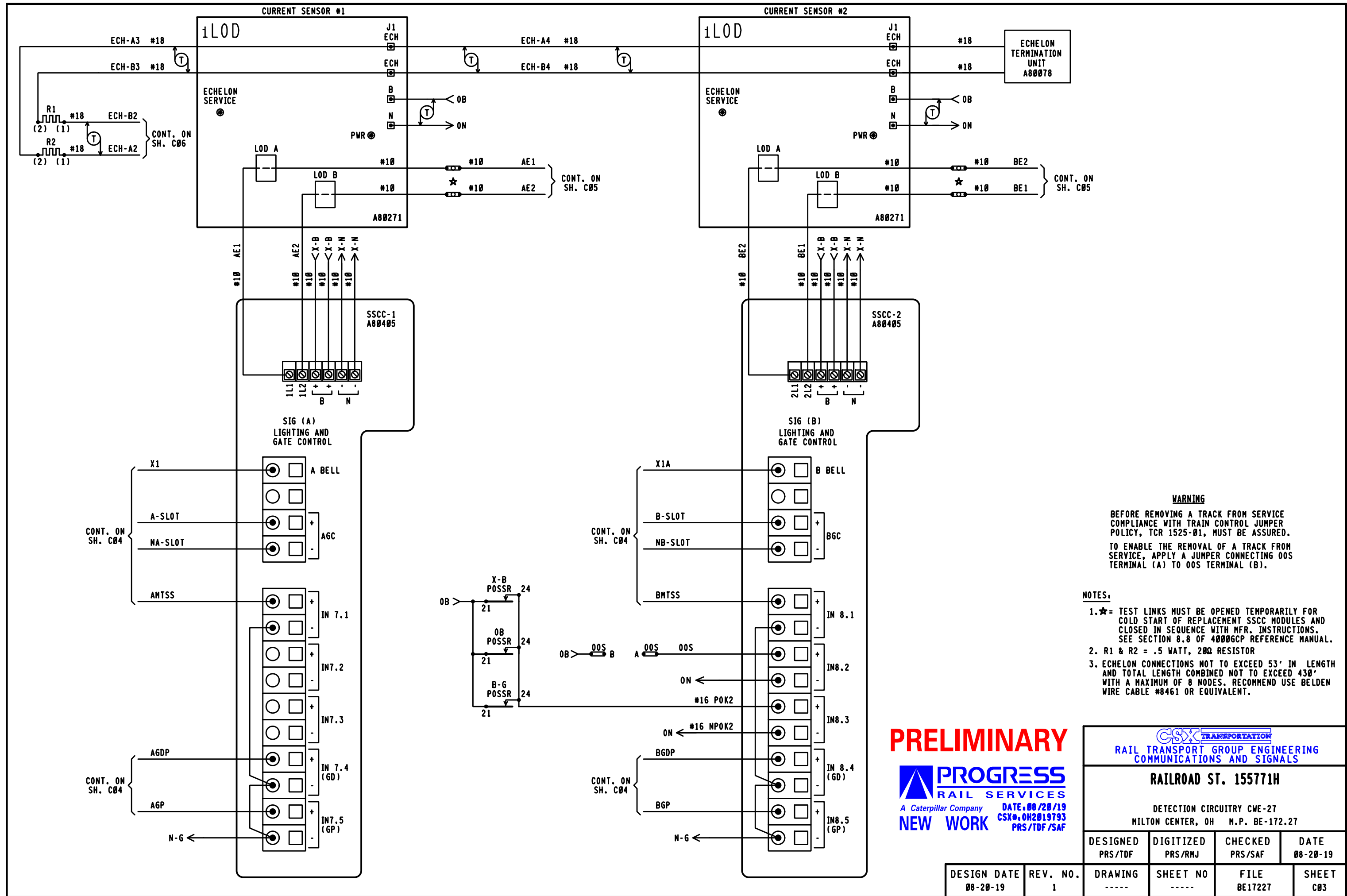
**PRELIMINARY**

**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company

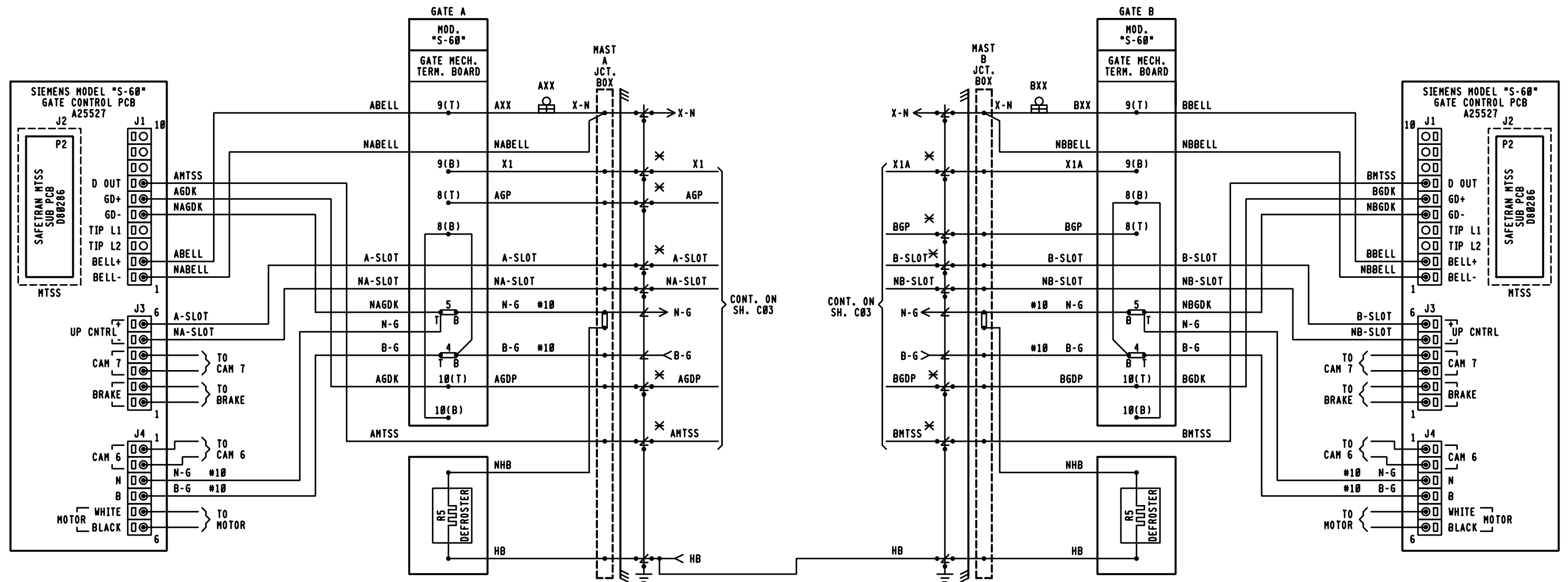
DATE: 08/20/19  
CSX 0.0H2019793  
PRS/TDF/SAF

**NEW WORK**

CSX TRANSPORTATION RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS			
RAILROAD ST. 155771H			
DETECTION CIRCUITRY CWE-27 MILTON CENTER, OH M.P. BE-172.27			
DESIGNED PRS/TDF	DIGITIZED PRS/RMJ	CHECKED PRS/SAF	DATE 08-20-19
DESIGN DATE 08-20-19	REV. NO. 1	DRAWING -----	SHEET C02







- NOTES:
- ✕ = TEST LINKS MUST BE OPEN TEMPORARILY FOR COLD START OF REPLACEMENT SSCC MODULES AND CLOSED IN SEQUENCE WITH MFR. INSTRUCTIONS. SEE SECTION 8.8 OF 40006CP REFERENCE MANUAL.
  - ⬢ = TERMINAL IN JCT. BOX BASE
  - ALL WIRING #16 UNLESS NOTED OTHERWISE.
  - ⚡ = HLVA2-1675-01 HYBRID LOW VOLTAGE ARRESTER, UNLESS NOTED.

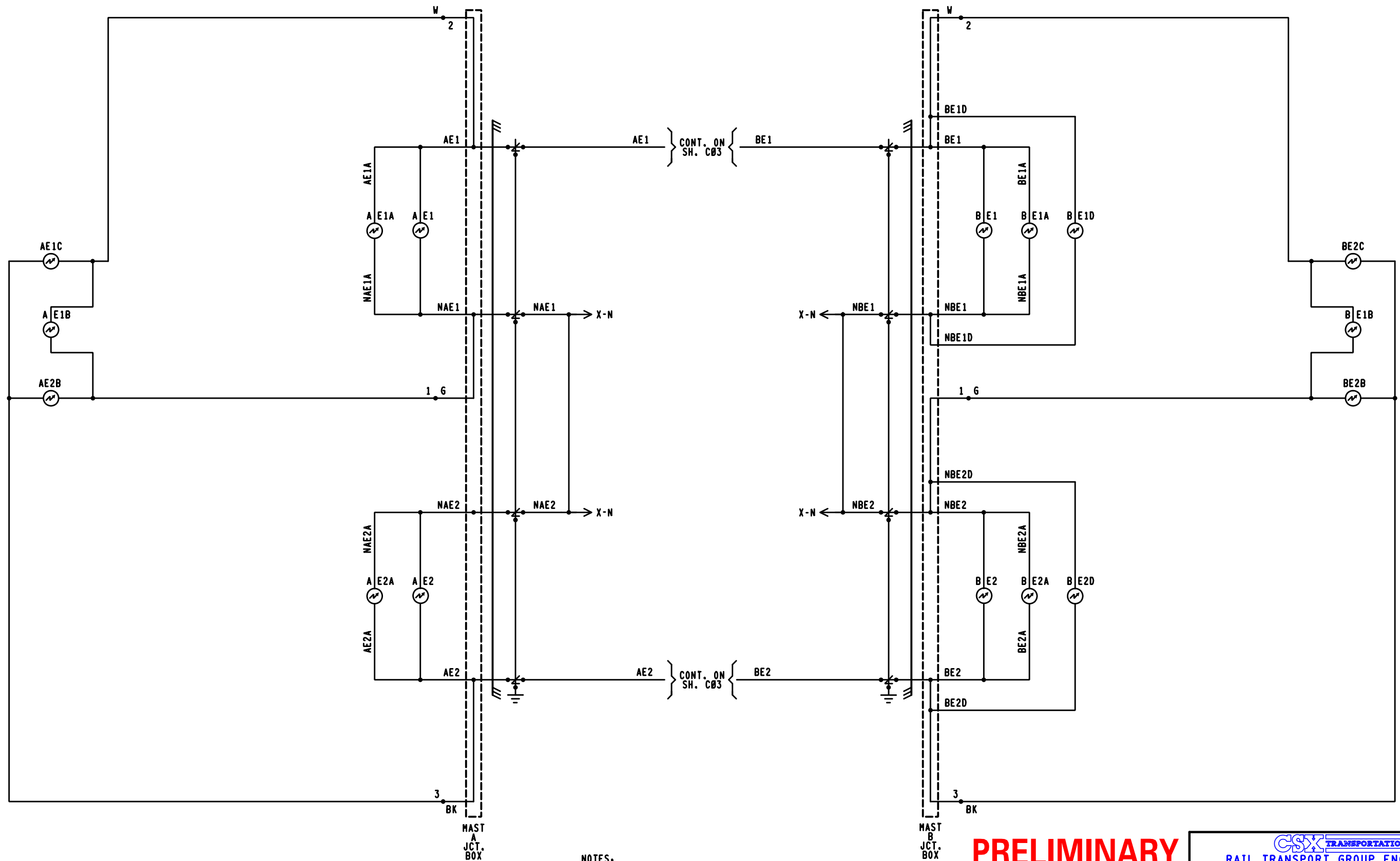
**PRELIMINARY**

**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company



DATE: 08/20/19  
CSX# 0H2019793  
PRS/TDF/SAF

**NEW WORK**

CSX TRANSPORTATION RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS			
RAILROAD ST. 155771H			
CROSSING WARNING DEVICE GATE CIRCUITRY MILTON CENTER, OH M.P. BE-172.27			
DESIGNED PRS/TDF	DIGITIZED PRS/RMJ	CHECKED PRS/SAF	DATE 08-20-19
DESIGN DATE 08-20-19	REV. NO. 1	DRAWING -----	SHEET NO -----
		FILE BE17227	SHEET C04



# NOTES:

1.  = TERMINAL IN JUNCTION BOX
2. WHEN 7 OR MORE LIGHTS ON A SINGLE STRUCTURE REFER TO SS382 FOR REQUIRED ARRESTERING
3. FEEDS TO ALL BUSES AND LIGHT CIRCUITS ARE #10 FLEX
4. UNLESS NOTED ALL OTHER WIRING #16
5. CABLING SPECIFICATIONS SHOWN ON SH. S01
6.  = HLVA2-1675-01 HYBRID LOW VOLTAGE ARRESTER, UNLESS NOTED.

**PRELIMINARY**

**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company

**NEW WORK**

DATE: 08/20/19  
CSX# 0H2019793  
PRS/TDF/SAF

**CSX TRANSPORTATION**  
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

**RAILROAD ST. 155771H**

CROSSING WARNING DEVICE LIGHT CIRCUITRY  
MILTON CENTER, OH M.P. BE-172.27

DESIGN DATE  
08-20-19

REV. NO.  
1

DESIGNED  
PRS/TDF

DIGITIZED  
PRS/RMJ

CHECKED  
PRS/SAF

DATE  
08-20-19

DRAWING  
-----

SHEET NO  
-----

FILE  
BE17227

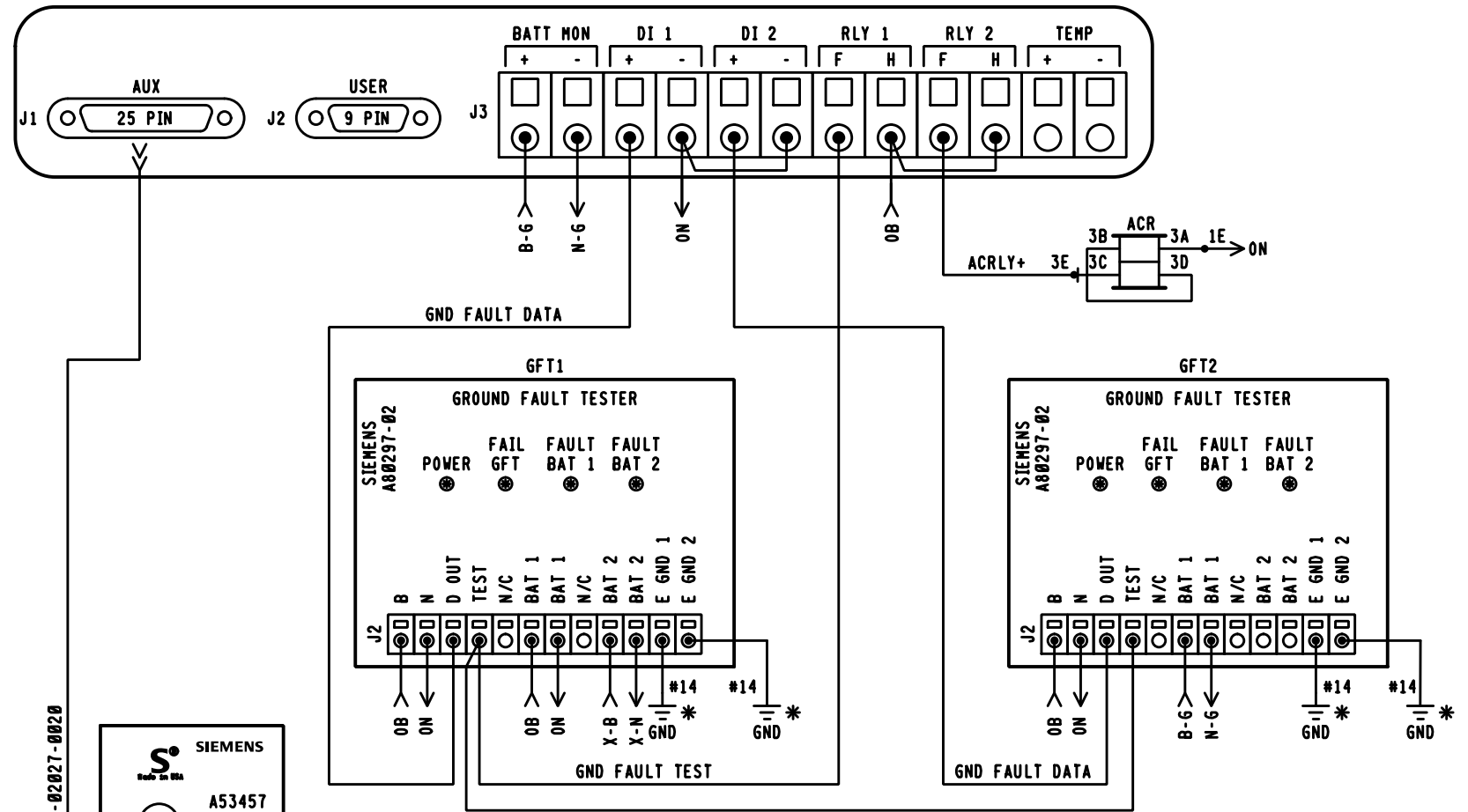
SHEET  
C05



WAYSIDE ACCESS GATEWAY CONFIGURATION	
SITE ATCS ADDRESS	7.125.XXX.XXX.07.01 7.125.LLL.666.SS.DD
SERIAL INTERFACE	38,400,NONE,8,1/NOFLOW
SERIAL FORMAT	RAW
WAG TEST MODE	DISABLED
ECHOLON ADDRESS	01.07
UDP PORTS	5000, 5001, 5002, 5003
ROUTE TABLE EXPIRY	5400 SEC
BROADCAST MEDIUM	IP ETHERNET
TCP PORTS	23, 10023, 6001, 6002
DHCP SERVER	DISABLED
IP ADDRESS	192.168.13.1
TYPE 7 ROUTE LENGTH	12--7RRLL666SS
IP NETWORK MASK	255.255.255.0
WAG CIRCUIT ID	DISABLE
ROUTING REGION DOMAIN 1	0C6SERVER1.JAX.COM
ATCS SERVER UDP PORT NUMBER	6001
TELNET NUMBERS	WAG 6002, SERIAL 10023
DEFAULT GATEWAY IP	192.168.013.031

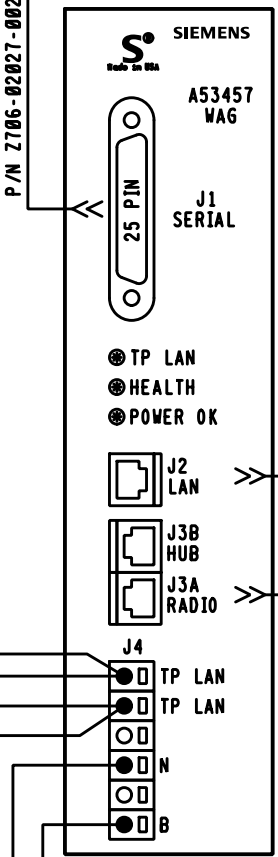
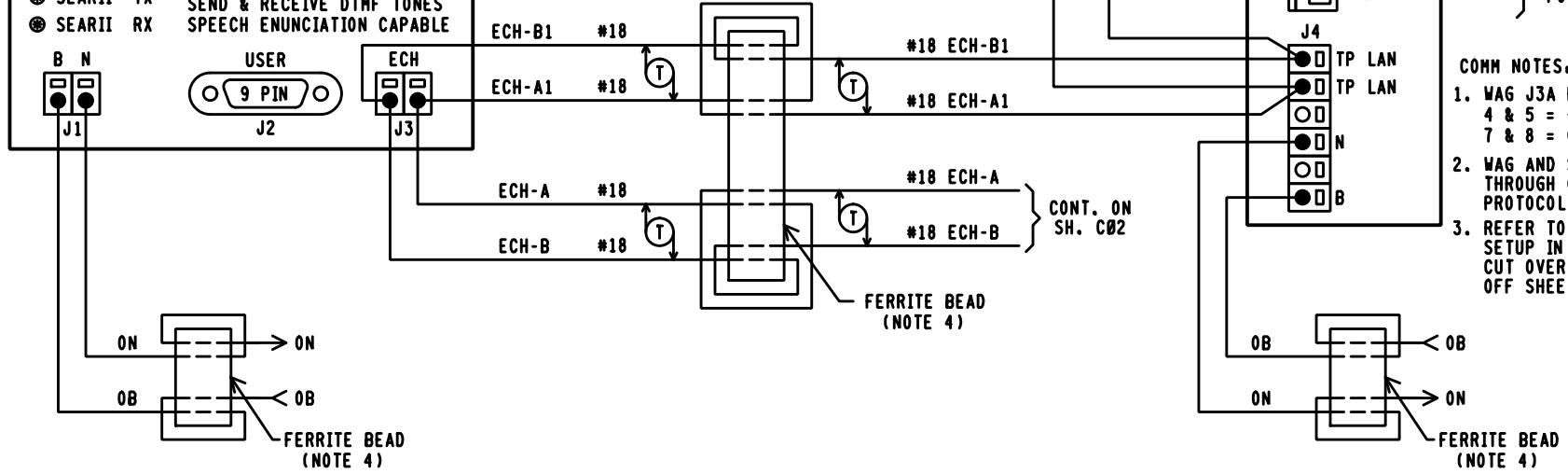
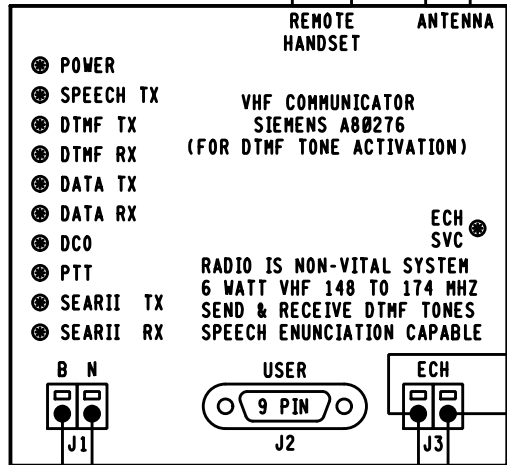
NOTE TO INSPECTOR:  
AT INSTALLATION OF WAG,  
OR UPDATE OF THE  
CONFIGURATION, OR UPDATE  
OF THE EXECUTIVE PROGRAM,  
MARK-UP CONFIGURATION  
TABLE FOR AS IN SERVICE  
PLANS

SEAR II<sub>1</sub> INTERNAL EVENT RECORDER I/O



\*\* POLYPHASE SURGE PROTECTOR  
100 TO 512 MHZ  
MODEL# VHF 150HN

\*\* SHIELDED COAXIAL  
CABLE TO ANTENNA



- COMM NOTES.
- WAG J3A PINOUTS:  
4 & 5 = +12VDC RADIO OUT  
7 & 8 = GND RADIO RETURN
  - WAG AND SEARII<sub>1</sub> ECHOLON COMM  
THROUGH GCP4000 LONTALK  
PROTOCOL CONNECTION
  - REFER TO WAG INSTALLATION AND  
SETUP IN APPENDIX "A" GCP4000 SYSTEM  
CUT OVER TEST PROCEDURE AND CHECK  
OFF SHEET.

GCP PROGRAMMING FOR VHF RADIO

REMOTE DTMF CROSSING ACTIVATION  
(ACTIVATES ENTIRE CROSSING)

TO ACTIVATE PRESS, 771#

TO DE-ACTIVATE PRESS, 771#

(ACTIVATION WILL TIME OUT AFTER 60 SEC.)

- NOTES.
- ALL WIRING #16 UNLESS NOTED OTHERWISE.
  - \* = EARTH GROUND REF. TERMINALS REQUIRED FOR  
DETECTION. DO NOT JUMPER TERMINALS. MUST BE  
CONNECTED TO DIFFERENT POINTS OF BUNGALOW.
  - \*\* = TO BE PROVIDED BY COMMUNICATIONS
  - LOOP WIRE THROUGH FERRITE BEAD TWICE.

**PRELIMINARY**

**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company

DATE: 08/20/19  
CSX# 0H2019793  
PRS/TDF/SAF

CSX TRANSPORTATION RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS			
RAILROAD ST. 155771H			
CROSSING WARNING DEVICE CIRCUITRY MILTON CENTER, OH M.P. BE-172.27			
DESIGNED PRS/TDF	DIGITIZED PRS/RMJ	CHECKED PRS/SAF	DATE 08-20-19
DRAWING -----	SHEET NO -----	FILE BE17227	SHEET C06

DESIGN DATE 08-20-19	REV. NO. 1
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DEFAULTS AND/OR STYLE		FIELD RECORD
SEAR II <sub>1</sub> EXECUTIVE PROGRAM	VERSION: 9V725A01	VERSION: _____
APPLICATION PROGRAM (IF LOADED)	VERSION: 9V864A01	VERSION: _____
SITE SET UP MENU		
FUNCTION	LED DISPLAY	
DATE/TIME	XX-XX-XXXX XX:XX:XX	
AUTOMATIC DST ADJUSTMENT	YES	
TIME ZONE	EASTERN	
SITE NAME	RAILROAD ST.	
MILEPOST	BE-172.27	
DOT NUMBER	155771H	
TESTER TYPE	CROSSING	
DATE FORMAT	MM-DD-YYYY	
TEMP FORMAT	FAHRENHEIT	
INDICATE HOLD (SEC)	0	
INDICATE REFRESH (SEC)	60	
SITE ATCS ADDRESS	7.125.XXX.XXX.99.01 (7.RRR.LLL.GGG.99.01)	
SITE TYPE	COLLECTOR	
OFFICE ADDRESS	2.125.00.0000 (2.RRR.NN.DDDD)	
POLL ID	1	
MODE	GEN/ATCS	
WAMS XID	DISABLED	
OFFICE COMM. DEVICE	<input checked="" type="checkbox"/> WAG (ECHELON) <input type="checkbox"/> DIRECT (RS232) <input type="checkbox"/> MCM (ECHELON) <input type="checkbox"/> MCM (RS232) <input type="checkbox"/> DIAL MODEM <input type="checkbox"/> S200 RADIO (RS422)	
RADIO ATCS ADDR	7.125.XXX.XXX.07.01 (7.RRR.LLL.GGG.NN.01)	
FIELD COMM. DEVICE	<input type="checkbox"/> WAG (ECHELON) <input checked="" type="checkbox"/> NONE <input type="checkbox"/> VHF COMM. (ECHELON) <input type="checkbox"/> VHF COMM. (RS232) <input type="checkbox"/> SPREAD-SPECTRUM (RS232)	
USER PORT BAUD	57,600	
USER PORT DATA BITS	8	
USER PORT PARITY	NONE	
USER PORT STOP BITS	1	
USER PORT FLOW CONTROL	NONE	
AUX PORT BAUD	38,400	
AUX PORT DATA BITS	8	
AUX PORT PARITY	NONE	
AUX PORT STOP BITS	1	
AUX PORT FLOW CONTROL	NONE	

NOTE TO INSPECTOR,  
AT IN SERVICE OF SEAR II<sub>1</sub> OR UPDATE  
OF ITS INTERNAL EXECUTIVE PROGRAM  
OR ITS CSXT APPLICATION PROGRAM,  
NOTE THE VERSION NUMBER OF EACH  
PROGRAM MUST IN THE BLANK FIELDS.

PRELIMINARY



PROGRESS

RAIL SERVICES

A Caterpillar Company

DATE: 08/20/19  
CSX# 0H2019793  
PRS/TDF/SAF

NEW WORK

INSPECTOR NOTE,  
VHF RADIO CHANNEL AND DATA  
CHANNEL = ENGINEERING CHANNEL.  
CHOOSE PROPER FREQUENCY FROM  
VHF RADIO CHANNELS.

LIT BULB COUNT ON EACH CIRCUIT	NO.	TYPE OF BULB	CURRENT READING IN AMP. AT APPROX. 10.0 V ARRAY VOLTAGE
CURRENT SENSOR (1) AE1, LAMP SET UP	4	<input type="checkbox"/> BULBS <input checked="" type="checkbox"/> LED	X.X
CURRENT SENSOR (1) AE2, LAMP SET UP	4	<input type="checkbox"/> BULBS <input checked="" type="checkbox"/> LED	X.X
CURRENT SENSOR (2) BE1, LAMP SET UP	5	<input type="checkbox"/> BULBS <input checked="" type="checkbox"/> LED	X.X
CURRENT SENSOR (2) BE2, LAMP SET UP	5	<input type="checkbox"/> BULBS <input checked="" type="checkbox"/> LED	X.X

VHF RADIO CHANNELS			
1	161.130	5	161.550
2	160.710	6	160.785
3	160.560	7	160.785
4	160.860	8	160.785

NOTE 7

MENU → CONFIGURATION →  
MODULES → ADD MODULE

MODULE TYPE	WAG
MODULE NAME	DEFAULT
WAG ECHELON NODE	7

NOTE,  
REFER TO WAG INSTALLATION AND  
SETUP IN APPENDIX "A" GCP4000 SYTEM  
CUT OVER, TEST PROCEDURE AND CHECK  
OFF SHEET.

MEASURE BATTERY VOLTAGE AT INPUT		
BATTERY VOLTAGE	0B	_____ VOLTS
BATTERY VOLTAGE	X-B	_____ VOLTS
BATTERY VOLTAGE	B-6	_____ VOLTS

NOTE 6

PROGRAM MENU SELECT	
EDIT DIGITAL INPUTS	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
EDIT BATTERIES	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
EDIT RELAYS	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
EDIT TEST LED'S	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
EDIT ILOD1 SENSOR ★	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
EDIT ILOD2 SENSOR ★	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
EDIT ILOD3 SENSOR ★	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
EDIT ILOD4 SENSOR ★	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
EDIT VHF SETTINGS	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
GCP4K ATCS SUBNODE	16

★ STAR = OPTIONS SHOWN DEPENDANT ON  
NUMBER OF ILODS SELECTED

NOTE 9

NOTE 8

NOTE 1

NOTE 2

NOTE 3

NOTE 4

NOTE 5

CONTROL SYSTEM CONFIGURATION MENU QUESTIONS	
OPTION	SELECTION
RESET NAMES / MODULES	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
RAILROAD NUMBER	125
CROSSING CONFIGURATION	NORMAL <input checked="" type="checkbox"/> SPLIT GATE <input type="checkbox"/> EXTERNAL ENTRANCE GATE CONTROLLER(S) <input type="checkbox"/>
AND1 USED AS XR	NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>
AND2 USED AS XR	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
AND3 USED AS XR	NO <input type="checkbox"/> YES <input type="checkbox"/>
AND4 USED AS XR	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
AND5 USED AS XR	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
AND6 USED AS XR	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
AND7 USED AS XR	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
AND8 USED AS XR	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
ENTRANCE GATES*	0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/>
GATE POSITION FAIL*	20 SECS.
BATTERY BANKS*	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/>
BATT MON USED*	NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>
OB RESOLUTION*	0.2 <input type="checkbox"/> 0.5 <input type="checkbox"/> 1.0 <input checked="" type="checkbox"/>
X-B RESOLUTION*	0.2 <input type="checkbox"/> 0.5 <input type="checkbox"/> 1.0 <input checked="" type="checkbox"/> NOT PRESENT <input type="checkbox"/>
X-B2 RESOLUTION*	0.2 <input type="checkbox"/> 0.5 <input type="checkbox"/> 1.0 <input type="checkbox"/> NOT PRESENT <input checked="" type="checkbox"/>
BATT MON RESOLUTION*	0.2 <input type="checkbox"/> 0.5 <input type="checkbox"/> 1.0 <input checked="" type="checkbox"/> NOT PRESENT <input type="checkbox"/>
INTERNAL CROSSING CONTROLLERS*	0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/>
EXTERNAL CROSSING CONTROLLERS*	0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/>
VHF COMMUNICATOR*	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
DTMF ACTVATION*	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
ACTIVATION CODE	771
ACTIVATION TIMEOUT	(60 SEC)
ILOD MODULES*	0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>
ANY LED BULBS USED*	NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>
AUTO INSPECTIONS*	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
BELL SENSORS*	0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>
BELL SENSOR TSS 1*	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
BELL SENSOR TSS 2*	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
BELL SENSOR TSS 3*	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
BELL SENSOR TSS 4*	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
BELL SENSOR TSS 5*	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
BELL SENSOR TSS 6*	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
BELL SENSOR TSS 7*	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
BELL SENSOR TSS 8*	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
BELL ON*	GATES LOWERING <input checked="" type="checkbox"/> GATES MOVING <input type="checkbox"/> ALWAYS <input type="checkbox"/>
GFT'S	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
BATTERIES ON GFT1	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/>
GATE TIP SENSORS*	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
RTU	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
VHF VOICE CHANNEL	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/>
VHF DATA CHANNEL	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/>
USE NON-CRITICAL FEATURE*	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
FULL APPROACH MOVE ALARMS*	ACTIVATE <input checked="" type="checkbox"/> DO NOT ACTIVATE <input type="checkbox"/>
ENABLE PASSWORD	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>

NOTES.

- OPTION AVAILABLE IF VHF COMMUNICATOR = YES  
LAST 3 DIGITS OF DOT NUMBER.
- OPTION AVAILABLE IF ILODS.
- OPTION AVAILABLE IF BELL SENSORS.
- OPTION AVAILABLE IF GATES.
- OPTION AVAILABLE IF VHF RADIO.
- ONLY YES IN SPECIAL CIRCUMSTANCES.
- SELECT "MENU" THEN "CONFIGURATION" FROM SEAR II  
INTERFACE KEYPAD TO ACCESS MODULE CONFIGURATION  
MENU.
- BATTERY BANKS\* = NUMBER OF BANKS EXCLUDING  
THE BANK APPLIED TO THE BAT MON SEAR INPUT
- YES ON INITIAL SETUP

CSX TRANSPORTATION

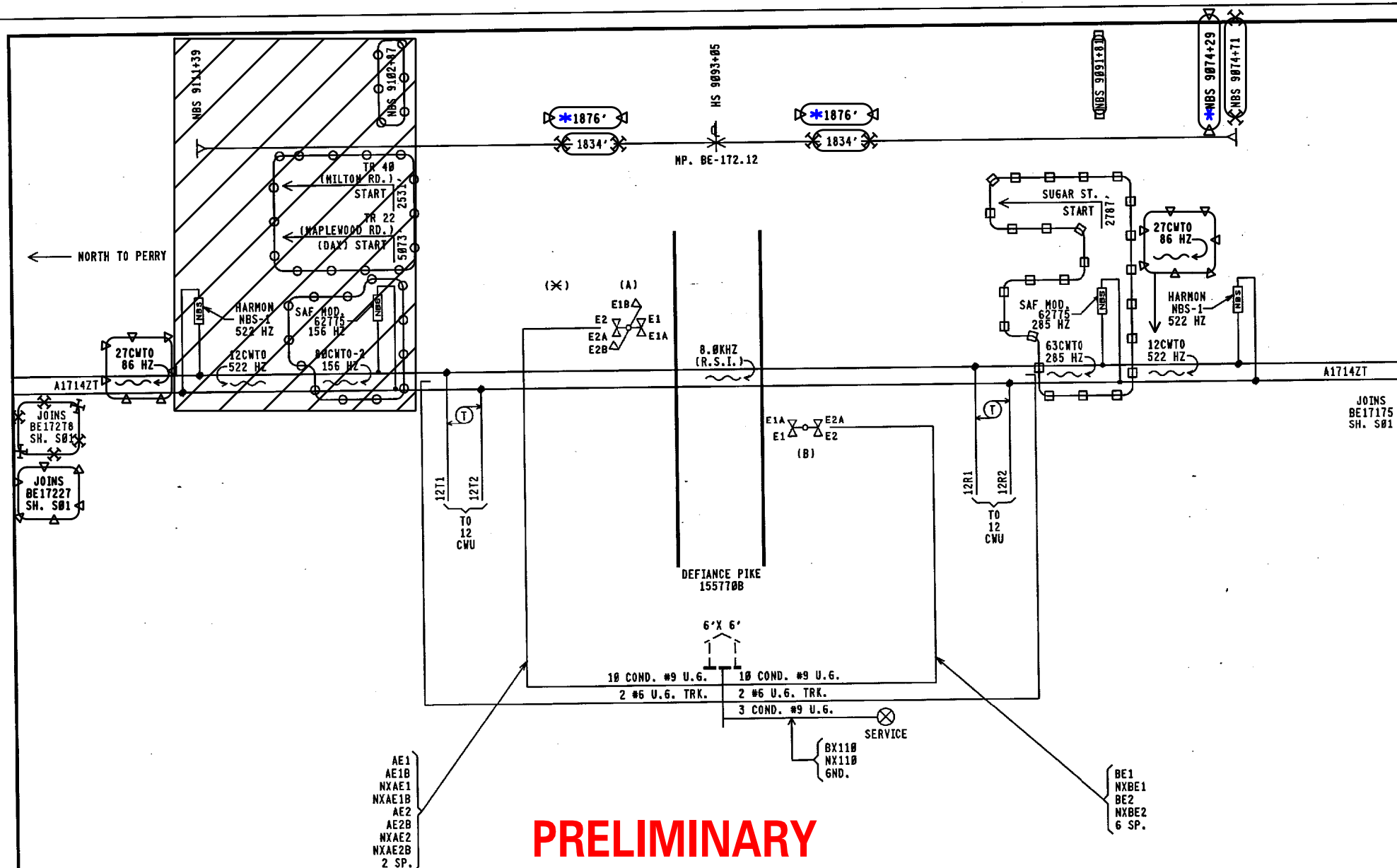
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

RAILROAD ST. 155771H

SEAR II<sub>1</sub> CONFIGURATION & FUNCTIONS  
MILTON CENTER, OH M.P. BE-172.27

DESIGNED PRS/TDF	DIGITIZED PRS/RMJ	CHECKED PRS/SAF	DATE 08-20-19
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DESIGN DATE 08-20-19	REV. NO. 1	DRAWING -----	SHEET NO -----	FILE BE17227	SHEET C07
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REVISIONS	
01-28-02 SWE	OH1999040, OH1999040A
11-18-03 SWE	OH1999040
01-19-04 SAF	OH2000052D
07-19-10 XRL	OH2010040
01-24-12 XRL	OH2011099
05-29-13 IRC	OH2012055
02-28-17 XRL	OH2016035

**PRELIMINARY**

**\* = PER SURVEY**

THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED **09-28-18**  
CSX PROJECT # **OH2018698**

☒ = SHOWN ELSEWHERE

☒ = NOTE

**PROGRESS**  
RAIL SERVICES  
A Caterpillar Company  
DATE: 08/20/19  
CSX: OH2019793  
PRS/TDF/SAF

☒ = OUT  
☒ = IN

THIS PLAN DOES ☐ DOES NOT ☒  
SUPERSEDE PLAN DATED **01-23-18**  
CSX PROJECT # **OH2017442**

☒ = IN

107658  
09-28-18  
**xorail**  
OH2018698  
XRL/CSW

106485  
01-23-18  
**xorail**  
OH2017442  
XRL/JWG/

NOTES:

1. 12" LED MAXIMUM CURRENT 1.7A AT 10 VOLTS
2. ISLAND DISTANCE BETWEEN FEED WIRES 120" MIN.
3. THE TRANSMITTER LEADS FOR MOTION OR PREDICTOR EQUIPMENT SHOULD BE CONNECTED ON THE BUNGALOW OR SHORT LEAD SIDE OF CROSSING.

**CSX TRANSPORTATION**  
RAIL TRANSPORT GROUP ENGINEERING  
COMMUNICATIONS AND SIGNALS

**DEFIANCE PIKE 155770B**

TRACK AND SIGNAL PLAN  
HILTON CENTER, OH M.P. BE-172.12

DESIGNED SWE	DIGITIZED SWE	CHECKED SWE	DATE 11-01-99
NEXT FILE BE17212	NEXT SH E01	FILE BE17212	SHEET S01

SH. NO.	INDEX CONTENTS	REVISION NO.								
		1	2	3	4	5	6	7	8	9
I01	TITLE, NOTES, INDEX & REVISIONS	X	X							
S01	TRACK & SIGNAL PLAN	X	X							
P01	ELECTROLOGIXS PROGRAM	X								
E01	POWER DISTRIBUTION	X								
E02	ELECTROLOGIXS MODULE CONFIGURATION	X								
C01	ELECTROLOGIXS CIRCUITS	X								
C02	ELECTROLOGIXS TRACK CIRCUITS	X	X							
C03	ELECTROLOGICS I/O CIRCUITS	X								

 = DESIGN COMPLETED  
 = REVISION COMPLETED

PRELIMINARY

= NOTE

PROGRESS

RAIL SERVICES

A Caterpillar Company

DATE: 08/20/19

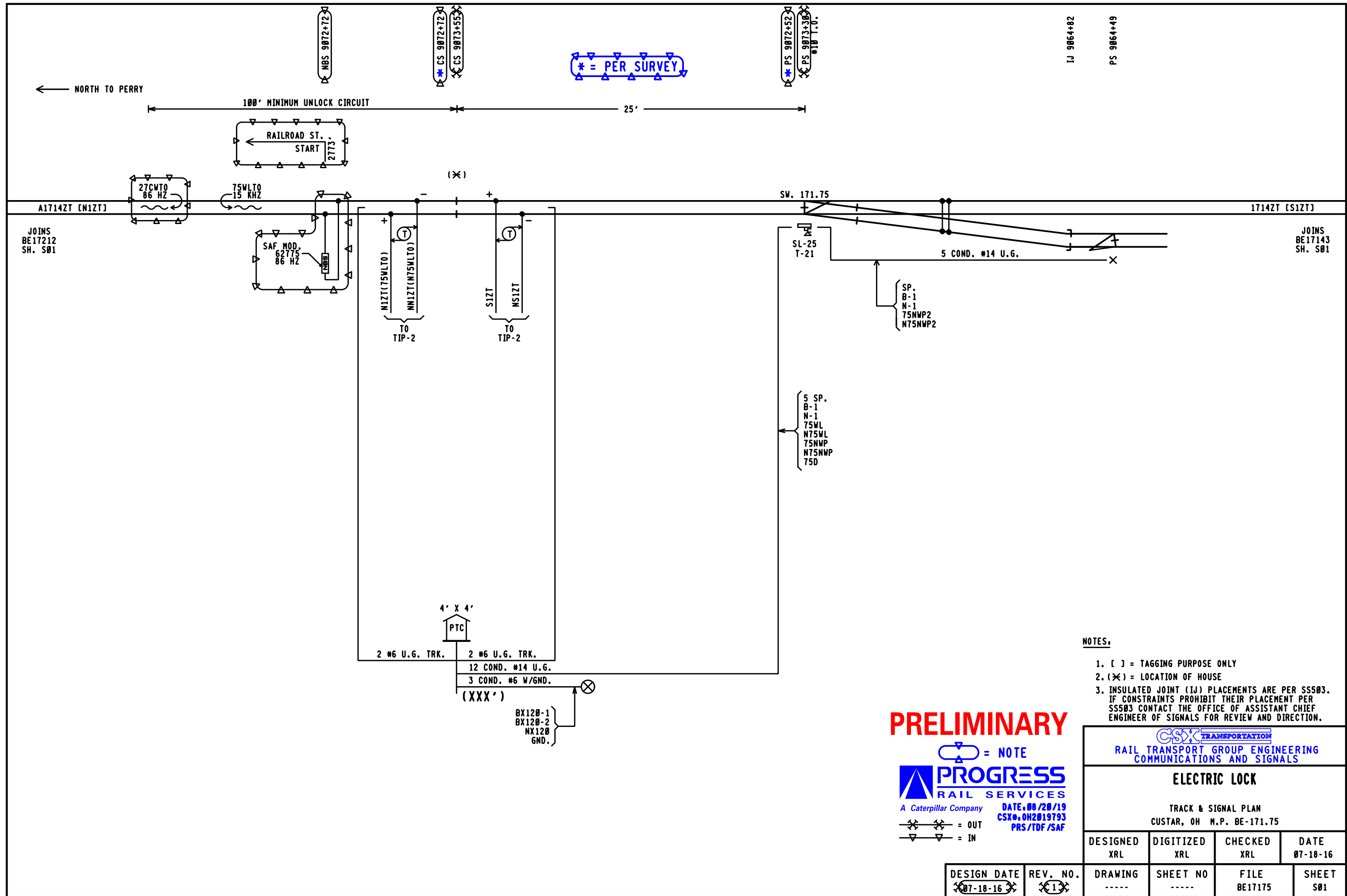
CSX# 0H2019793

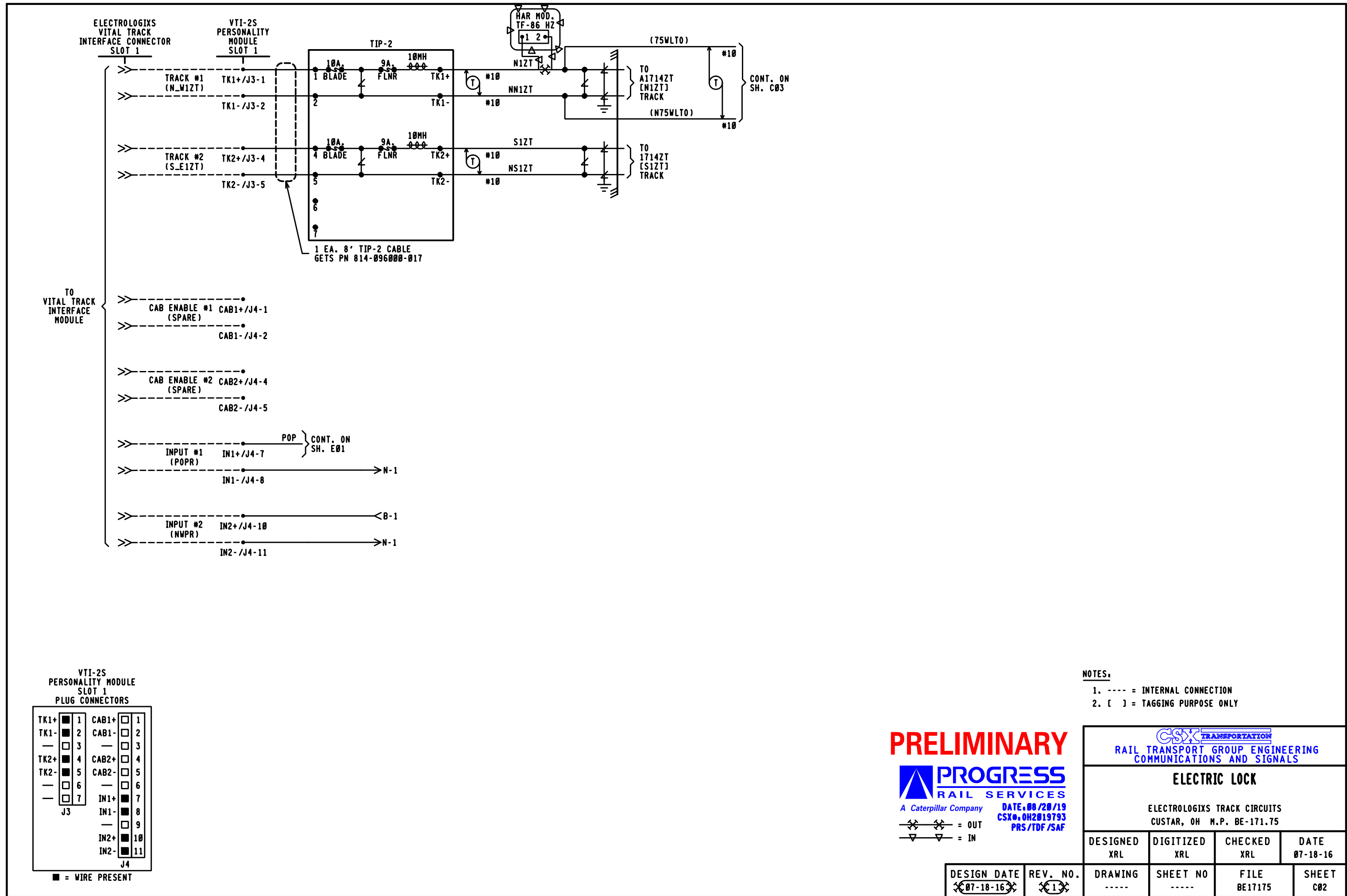
PRS/TDF/SAF

= OUT

= IN

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
<del>07-18-16</del>	<del>1</del>	-----	-----	BE17175	I01
08-20-19	2				









# OHIO RAIL DEVELOPMENT COMMISSION

Mail Stop #3140, 1980 West Broad Street, Columbus OH 43223

Mike DeWine, Governor • Mark Policinski, ORDC Chairman

May 23, 2019

Ms. Amanda DeCesare  
CSX Transportation, Inc.  
3131A Spring Grove Ave  
Cincinnati, OH 45225

Re: Authorization for plans and estimates for a consolidation project involving one grade crossing closure and a warning device upgrade in Milton Center, Wood County

- South St. DOT #155772P Close crossing to vehicles and pedestrians
- Railroad St. DOT #155771H Install flashing lights and roadway gates and remediate the hump on the west approach.
- PID# 108337

Dear Ms. DeCesare:

Diagnostic Review Team Surveys were held at the above grade crossings on 9/23/2015. The South St. crossing has been recommended for closure and the Railroad St crossing was recommended for the installation of flashing lights and gates including the remediation of the hump on the west approach.

CSX is authorized to proceed with the engineering, site plans, and cost estimates for this project. This authorization is made with the stipulation and understanding that any field work needs prior approval before work begins. This authorization is made with the stipulation and understanding that an approved estimate may contain entries for items or activities that may be cited and found to be ineligible for federal participation during the project audit. Please note that the railroad must provide ORDC with a plan stamped by a professional engineer licensed in the State of Ohio prior to acceptance and close out of the project.

The diagnostic review forms are attached and the recommendations for the crossings are included. Please note any recommendations, if any, made by the team with regard to requirements for this location. Any minor roadway work necessary for MUTCD compliance should be incorporated into the plans and estimates and such costs including the cost of remediating the humped approach will flow through the railroad reimbursement process.

The Project Manager for this project is Don Damron. Don can be reached at (614) 917-8466 or [don.damron@dot.ohio.gov](mailto:don.damron@dot.ohio.gov), if you have any questions.

Sincerely,

Donald J. Damron  
Project Manager

C: Randall Schumacher, Chief, Rail Division, PUCO  
Jill Henry, Rail Specialist, PUCO  
Heather Hamilton, ORDC  
ORDC (file)

Attachments: Diagnostic Review Team Survey forms, Consolidation Agreement, Purchase Order



[www.rail.ohio.gov](http://www.rail.ohio.gov)

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY



IN THE MATTER OF A GRADE  
CROSSING CONSOLIDATION AND  
UPGRADE PROJECT IN THE VILLAGE OF  
MILTON CENTER IN WOOD COUNTY  
IN THE STATE OF OHIO

AGREEMENT NO. 33071

### AGREEMENT

THIS AGREEMENT ("AGREEMENT") is entered into on this 26<sup>th</sup> day of March, 2019 by and among the Ohio Rail Development Commission ("ORDC") and the Staff of the Public Utilities Commission of Ohio ("PUCO") (hereinafter collectively referred to as the "STATE"), The Village of Milton Center ("VILLAGE"), and CSX Transportation ("RAILROAD").

#### WITNESSETH:

WHEREAS, the Public Utilities Commission of Ohio ("PUCO") has statutory authority to regulate and promote the welfare and safety of railroad employees and the traveling public pursuant to Ohio Revised Code ("ORC") §4905.04; and

WHEREAS, the Ohio Rail Development Commission ("ORDC") is charged with the statutory authority under ORC §4981.03 to develop, promote, and support safe, adequate, and efficient rail service throughout the State of Ohio; and

WHEREAS, PUCO has authority to order closure of public grade crossings to vehicular traffic within governmental limits pursuant to ORC §4907.474; and

WHEREAS, the Moving Ahead for Progress in the 21<sup>st</sup> Century Act thereto provide funding for the cost to eliminate hazards at public grade crossings, which funding is administered jointly by the PUCO and ORDC pursuant to ORC §4907.476; and

WHEREAS, the parties hereto propose to facilitate the modifications identified in this AGREEMENT in accordance with the Title 23 Code of Federal Regulations ("CFR") and applicable provisions of Title 23 of the United States Code pursuant to the terms hereof; and

WHEREAS, this agreement and any information or documentation relating thereto is for the purpose of identifying, evaluating, and/or planning the safety enhancement of railway-highway crossings which may be implemented utilizing federal-aid highway funds; and

WHEREAS, the RAILROAD agrees to cooperate with the STATE in the implementation of projects in furtherance of the public safety; and

WHEREAS the STATE, VILLAGE and RAILROAD will execute this AGREEMENT to specify details for the modifications at the designated grade crossing; and

WHEREAS, the parties, intending to be legally bound, further agree that the public grade crossing identified in Section II of this AGREEMENT should be permanently closed to vehicular and pedestrian traffic as part of the safety project to be implemented by this AGREEMENT.

NOW, THEREFORE, for and in consideration of the mutual promises and covenants contained herein, the parties agree as follows:

I. GENERAL REQUIREMENTS

There are numerous public highway/grade crossings located within the limits of the VILLAGE. The purpose of this AGREEMENT is to enhance the safety of the traveling public who are required to regularly travel through these public grade crossings.

The VILLAGE has authority over the grade crossings identified in Section II and III below.

II. GRADE CROSSING CLOSURE ("PROJECT")

The VILLAGE agrees to permanently close, to all vehicular and pedestrian traffic of any kind, the following grade crossing:

Highway ID	DOT #
South Street	155772P

The VILLAGE shall barricade or make modifications to the roadway on each side of the tracks, at the grade crossing to be closed to ensure elimination of the crossings. Such modifications to the roadway shall be in conformance with the Manual on Uniform Traffic Control Devices ("MUTCD"). Notwithstanding provisions in Section III of this agreement, this work must be completed within six (6) months of a construction authorization being issued by ORDC. Construction authorization will be issued upon execution of this AGREEMENT and the securing of federal funds by the ORDC.

The VILLAGE shall remove the advance warning signs and pavement markings if applicable from the crossings to be closed.

RAILROAD shall remove all pavements from the crossing area within RAILROAD right-of-way and remove all existing warning devices from the crossings to be closed.

Following receipt of public input, the VILLAGE has enacted an Resolution number 18-04, dated April 10, 2018, that expresses its commitment to this action, the form and substance of which are acceptable to ORDC and PUCO.

### III. GRADE CROSSING IMPROVEMENTS

In consideration of the commitment by the VILLAGE to permanently close the South Street grade crossing to all vehicular and pedestrian traffic of any kind designated in Section II, grade crossing improvements will be accomplished as follows (the "improvements"):

<u>Highway ID</u>	<u>DOT #</u>	<u>Improvement</u>
Railroad Street	155771H	Installation of flashing lights and roadway gates. Remediation of the hump on the west approach.

In addition, RAILROAD and ORDC agrees to provide the following incentive:

1. \$10,000.00 of funds from RAILROAD which may be used by the VILLAGE for any purpose.
2. Up to \$4,000.00 reimbursement from ORDC to the VILLAGE for the actual cost of barricading the roadway.

After completion of the improvements, the RAILROAD shall operate, maintain and renew, at its sole expense, all warning devices and railroad equipment constructed or changed under the terms of this AGREEMENT in good operating order. Nothing stated herein shall deny the RAILROAD the right to seek reimbursement of the costs for the maintenance and renewal of the improvements and other of its facilities constructed or changed under the terms of this AGREEMENT, if such reimbursement is then provided for by Federal Highway Administration ("FHWA") regulations and/or the ORC.

### IV. COST ALLOCATION AND BILLING

As set forth in Section II of this AGREEMENT the actual costs for the removal of advance warning signs and pavement markings for the grade crossing to be closed shall be borne one hundred percent (100%) by the VILLAGE.

As set forth in Section II of this AGREEMENT, the actual costs for the removal of warning devices and crossing surface at the grade crossing to be closed will be borne one hundred percent (100%) by RAILROAD.

As set forth in Section III of this AGREEMENT the actual costs for improvements to Railroad Street will be borne one hundred percent (100%) by ORDC.

As set forth in Section III(1) of this AGREEMENT the funds in the total amount of \$10,000.00 shall be borne one hundred percent (100%) by RAILROAD. The VILLAGE shall invoice RAILROAD for this amount subsequent to the permanent closure of the roadway.

As set forth in Section III(2) of this AGREEMENT the ORDC will reimburse the VILLAGE up to \$4,000.00 for barricading of the road to be closed. The VILLAGE shall invoice ORDC for the amount to be reimbursed subsequent to the permanent closure of the roadway.

In total the actual costs of the improvements to be borne by ORDC set forth in Section II and Section III of this AGREEMENT shall not be greater than \$334,000.00 unless otherwise approved in writing by ORDC.

The costs assigned to ORDC shall be satisfied through the expenditure of federal funds administered by ORDC and subject to approval by the FHWA. In the event that delays or difficulties arise in securing necessary federal approvals which, in the opinion of ORDC, render it impracticable to utilize federal funds for the construction of this project, then at any time before RAILROAD is authorized to purchase or furnish the items included under this AGREEMENT, ORDC may serve formal notice of cancellation upon RAILROAD and the VILLAGE, and this AGREEMENT shall become null and void. ORDC shall reimburse RAILROAD and the VILLAGE for all costs and expenses reasonably incurred on account of the improvements prior to such cancellation, including costs associated with winding down the project.

RAILROAD shall be responsible for initially paying all of their actual costs to install the improvements identified in Section III. However, ORDC shall be legally bound to reimburse RAILROAD for its costs for the improvements, as set forth above, upon proper application therefore by RAILROAD, consistent with the terms of this AGREEMENT and in accordance with all applicable federal regulations.

All plans, specifications, estimates of costs, acceptance of work, and procedures in general, to facilitate the construction of the safety improvements described above, shall conform in all respects to applicable federal laws, rules, regulations, orders, and approvals applicable to federal aid projects. ORDC shall reimburse RAILROAD in accordance with FAPG 140, Subchapter B. and 23 C.F.R., Part 646, or any subsequent amendments thereto, in such amounts and form as are proper and eligible for payment from federal aid highway funds. RAILROAD shall render its billings to ORDC in accordance with said rules and regulations, and RAILROAD shall also provide and furnish such itemized records of and substantiating data for such costs as may be required.

RAILROAD may bill ORDC monthly or periodically for its costs when costs exceed \$1,000.00. RAILROAD shall submit two (2) copies of its bill and in accordance with said rules and regulations as they have been issued or as thereafter may be supplemented or revised. A final bill covering actual cost and showing details shall be submitted to ORDC within ninety (90) days after completion of the improvements. ORDC shall pay all bills within sixty (60) days after receipt thereof, except that ORDC may hold a retainer on all bills not to exceed eight percent (8%) until final payment. Final payment for all amounts due RAILROAD shall be made by ORDC within sixty (60) days after a final audit has been performed and approved by ORDC. The audit shall occur within 180 days of submission of RAILROAD's final bill. RAILROAD agrees to cooperate and assist, as requested, in any such audit.

At any time during normal business hours upon three (3) business days written notice and as often as ORDC/PUCO may deem necessary and in such a manner as not to interfere with the normal business operations, RAILROAD shall make available to ORDC, for examination, and to appropriate state agencies or officials, all of its records with respect to matters covered by this AGREEMENT including, but not limited to, records of personnel and conditions of employment and shall permit ORDC to audit, examine and make excerpts or transcripts from such records.

In the event of a controversy as to the eligibility for reimbursement of any charges claimed against the improvement as set forth in Section III of this AGREEMENT, the decision of the ORDC regarding same shall be final. However, RAILROAD and/or the VILLAGE may appeal the decision of the ORDC to a court of competent jurisdiction for further review.

No work requiring reimbursement under this AGREEMENT shall be commenced by the parties until all of the following have occurred: (1) this AGREEMENT shall have been approved by ORDC/PUCO; (2) all financial obligations of ORDC/PUCO, as provided for in this contract, are subject to the provisions of § 126.07 of the ORC and shall not be valid and enforceable unless funds are appropriated by the Ohio General Assembly and encumbered by ORDC/PUCO; (3) RAILROAD has been notified by ORDC/PUCO to proceed with construction of the improvements. Work on the improvements shall commence within 30 days of the occurrence of events (1), (2) and (3) described herein. Buying and assembling of materials shall be construed as compliance with the foregoing thirty (30) day provision. Said work shall be pursued diligently by RAILROAD until completed.

RAILROAD agrees that STATE, or its duly authorized representatives, shall, during STATE normal business hours, upon reasonable notice, in accordance with RAILROAD safety rules and regulations, and accompanied by RAILROAD personnel, be permitted to examine the records and data maintained by RAILROAD related to this AGREEMENT as may be necessary to monitor RAILROAD's compliance with this AGREEMENT.

RAILROAD shall maintain all books, documents, papers, program agreements, accounting records, and other evidence pertaining to this AGREEMENT, its revenues and expenditures, and shall provide such information upon request of STATE or its designee and shall permit STATE to examine and audit those books, records, and the accounting procedures and practices of the RAILROAD relevant to this AGREEMENT. All documents and information shall be made available for review and audit at a mutually-agreeable location within the state of Ohio. The records shall be retained for three years after receipt of final payment to the RAILROAD from the STATE.

RAILROAD will comply with the requirements of the ODOT Railroad Audit Circulars, available at:

<http://www.dot.state.oh.us/Divisions/Finance/Auditing/Pages/RailUtilities.aspx.aspx>

#### V. NOTIFICATION

All notices, consents, demands, requests and other communications which may or are required to be given hereunder shall be in writing and shall be deemed duly given if personally delivered or sent by facsimile and confirmed by telephone or sent by electronic mail, or sent by United States mail, registered or certified, return receipt requested, postage prepaid, to the addresses set forth hereunder or to such other address as the other party hereto may designate in written notice transmitted in accordance with this provision.

If to VILLAGE:      Village of Milton Center  
22230 Defiance Street  
MILTON CENTER, OH 43541

If to RAILROAD:      CSX Transportation, Inc.  
Attn: Public Projects (MI, OH, KY, IN, IL)  
500 Meijer Drive, Ste. 305  
Florence, KY 41042

If to PUCO:          Public Utilities Commission of Ohio  
Railroad Division  
180 East Broad Street, 4<sup>th</sup> Floor  
Columbus, Ohio 43215-3793

If to ORDC:          Ohio Rail Development Commission  
Mail Stop 3140  
1980 West Broad Street  
Columbus, Ohio 43223

RAILROAD shall furnish notification to STATE at least five (5) working days prior to the date work is scheduled to start at the PROJECT site of the modifications so arrangements can be made for inspection. RAILROAD shall also notify STATE of any stoppage and resumption of the work activity, and the reasons therefore, and the date the PROJECT work on the modifications was completed. Notification may be sent by email to [catherine.stout@dot.ohio.gov](mailto:catherine.stout@dot.ohio.gov) with confirmation of receipt or by telephone to the Manager, Safety Programs at 614-644-0313.

RAILROAD shall furnish written notification to the Local Highway Authority at least fourteen (14) working days prior to starting any work requiring the establishment of a detour for highway traffic.

VILLAGE shall furnish notification to STATE at least five (5) working days prior to the date work is scheduled to start at the PROJECT site of the modifications so arrangements can be made for inspection.

#### VI. TERMINATION

Said AGREEMENT shall terminate at the end of the present US Transportation Bill. If construction under this AGREEMENT is not completed by that date, it is the express intention of the parties to renew this AGREEMENT on each successive biennium period until such time as all work contemplated under this AGREEMENT has been satisfactorily completed. If it appears to ORDC or PUCO that RAILROAD has failed to perform satisfactorily any requirements of this AGREEMENT or if RAILROAD is in violation of any provision of this AGREEMENT, or upon just cause, ORDC or PUCO may terminate the AGREEMENT after providing RAILROAD with written notice, in accordance with the notice provisions of this AGREEMENT, of its failure to perform satisfactorily any requirement of this AGREEMENT (the "Notice"), which shall provide RAILROAD with a thirty (30) day period to cure any and all defaults under this AGREEMENT.

During the thirty (30) day cure period, RAILROAD shall incur only those obligations or expenditures which are necessary to enable RAILROAD to achieve compliance as set forth in the Notice. If it is determined that RAILROAD cannot cure its default, RAILROAD shall immediately cease work under this AGREEMENT, take all necessary or appropriate steps to limit disbursements and minimize costs, and provide a report, as of the date of receipt of the Notice, setting forth the status of the work completed, the cost of the work completed and such other information as STATE shall deem pertinent.

If this AGREEMENT is terminated for breach or failure to satisfactorily perform, the breaching party shall reimburse the non-breaching party any of its costs not reimbursed by the STATE.

It is expressly understood by the parties that none of the rights, duties, and obligations described in this AGREEMENT shall be binding on any party until all statutory provisions of the ORC, including but not limited to ORC § 126.07 and 126.08 have been complied with, and until such



time that all necessary funds are made available and forthcoming from the appropriate state agency and such expenditure of funds is approved, if necessary, by the Controlling Board of the State of Ohio pursuant to ORC §127.16 , or in the event that federal funds are used, until such time that the ORDC gives RAILROAD written notice that such funds have been made available to the ORDC by the ORDC's funding source.

VII. REPRESENTATIONS AND WARRANTIES

A. RAILROAD: RAILROAD for itself, represents and warrants the following:

- (1) RAILROAD has the power and authority to enter into this AGREEMENT;
- (2) RAILROAD has the authority to carry out its obligations under this AGREEMENT; and
- (3) No personnel of RAILROAD, any subcontractor of RAILROAD, public official, employee or member of the governing body of the particular locality where this AGREEMENT shall be completed, who exercises any functions or responsibilities in connection with the review or approval of the work completed under this AGREEMENT, shall prior to the completion of said work, voluntarily or involuntarily acquire any personal monetary interest, direct or indirect, which is incompatible or in conflict with the discharge or fulfillment of his functions or responsibilities with respect to the completion of the work contemplated under this AGREEMENT. Any person who, prior to or after the execution of this AGREEMENT, acquires any personal monetary interest, involuntarily or voluntarily, shall immediately disclose his interest to STATE in writing. Thereafter, such person shall not participate in any action affecting the work under this AGREEMENT unless the STATE determines that, in light of the personal monetary interest disclosed, his participation in any such action would not be contrary to the public interest.

B. ORDC/PUCO/VILLAGE: ORDC, PUCO and VILLAGE represent and warrant that they have the power and authority to enter into this AGREEMENT and to carry out their obligations under this AGREEMENT.

VIII: OHIO ETHICS LAW REQUIREMENTS

RAILROAD affirms that it is not in violation of ORC §102.04, as that section is applicable to this AGREEMENT and RAILROAD.

IX. FALSIFICATION OF INFORMATION

Any person who provides a false statement to secure economic development assistance may be guilty of falsification, a misdemeanor of the first degree, pursuant to ORC §2921.13(D)(1),

which is punishable by a fine of not more than One Thousand Dollars (\$1,000) and/or a term of imprisonment of not more than six (6) months.

X. EQUAL EMPLOYMENT OPPORTUNITY

In performing this AGREEMENT, the RAILROAD shall not discriminate against any employee, applicant for employment, or other person because of race, color, religion, gender, national origin (ancestry), military status (past, present or future), disability, age (forty (40) years of age or older), genetic information, or sexual orientation. The RAILROAD will ensure that applicants are hired and that employees are treated during employment without regard to their race, color, religion, gender, national origin (ancestry), military status (past, present or future), disability, age (forty (40) years of age or older), genetic information, or sexual orientation. The RAILROAD shall incorporate the foregoing requirements of this paragraph in all of its contracts for any of the work prescribed herein (other than subcontracts for standard commercial supplies or raw materials) and will require all of its subcontractors for any part of such work to incorporate such requirements in all such subcontracts.

XI. OHIO ELECTIONS LAW

RAILROAD represents that its participation in this AGREEMENT does not violate ORC §3517.13.

XII. DRUG FREE WORKPLACE

In the event that work performed pursuant to the terms of this AGREEMENT will be done while on state property, RAILROAD hereby certifies that its rules require all of its employees, while working on state property, will not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.

XIII. INDEMNIFICATION AND RELEASE

RAILROAD agrees to indemnify and hold the ORDC and its agents harmless against any and all losses, claims, causes of action, destruction, liability (including, without limitation, strict or absolute liability in tort or by statute), charges, costs or expenses (including, without limitation, counsel fees to the extent permitted by law) caused by RAILROAD's negligent, intentional, willful or wanton actions or inactions relating to the PROJECT, including such actions or inaction of any employees of RAILROAD, but not for any portion of the damages attributable, as determined by a court of competent jurisdiction, by the negligence or willful misconduct of the ORDC or any of its agents. RAILROAD agrees to reimburse the ORDC for any judgments which may be obtained against the ORDC to the extent covered by the foregoing sentence, and defend against any claims or legal actions if requested in writing by the ORDC relating to the PROJECT, to the extent covered by the foregoing sentence.

#### XIV. UNUSUAL CIRCUMSTANCES AFFECTING PERFORMANCE

In the event that RAILROAD cannot meet any or all of the obligations placed upon it by the terms of this AGREEMENT, (1) RAILROAD shall immediately notify STATE in writing, and (2) STATE may, at its sole discretion, make reasonable efforts to assist RAILROAD in meeting its obligations under the AGREEMENT.

If RAILROAD is unable to complete the PROJECT within the time period set forth in the Order issued by the PUCO, RAILROAD must request an extension of time to complete the PROJECT. All such requests must be submitted to the PUCO in accordance with PUCO guidelines.

#### XV. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS

**XV.01** RAILROAD agrees to comply with all applicable federal, state, and local laws in the conduct of the work hereunder. RAILROAD accepts full responsibility for payments of all applicable unemployment compensation, insurance premiums, workers' compensation premiums, all income tax deductions, social security deductions, and any and all other taxes or payroll deductions required for all employees engaged by RAILROAD on the performance of the work authorized by this AGREEMENT. Further, if RAILROAD has knowingly made a false statement to the ORDC to obtain this grant of Funds, RAILROAD shall be required to return all Funds immediately pursuant to ORC §9.66(C)(2) and shall be ineligible for any future economic development assistance from the State, any state agency or a political subdivision pursuant to ORC §9.66(C)(1). Any person who provides a false statement to secure economic development assistance may be guilty of falsification, a misdemeanor of the first degree, pursuant to ORC §2921.13(D)(1), which is punishable by a fine of not more than One Thousand Dollars (\$1,000) and/or a term of imprisonment of not more than six (6) months.

**XV.02** In the conduct of the work under this AGREEMENT, the RAILROAD, for itself, its assignees, and successors in interest, agrees to comply with the following non-discrimination statutes and authorities, if and as applicable, including but not limited to:

- a.) Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- b.) The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of federal or federal aid programs and projects);
- c.) Federal-Aid Highway Act of 1973 (23 U.S.C. § 324 et seq.) (prohibits discrimination on the basis of sex);

- d.) Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794 et seq.), as amended (prohibits discrimination on the basis of disability) and 49 CFR Part 27;
- e.) The Age Discrimination Act of 1975, as amended (42 U.S.C. § 6101 et seq.) (prohibits discrimination on the basis of age);
- f.) The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage, and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of federal aid recipients, sub-recipients, and contractors, whether such programs or activities are federally funded or not);
- g.) Titles II and III of the Americans with Disabilities Act (42 U.S.C. §§ 12131-12189), as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38 (prohibits discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities);
- h.) The Federal Aviation Administration’s Non-Discrimination Statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- i.) Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);
- j.) Executive Order 13166, Improving Access to Services for People with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP), and related regulations, as applicable.

**XV.03** In the conduct of the work under this AGREEMENT, the RAILROAD for itself, its assignees and successors in interest further agrees as follows:

- a.) **Compliance with Regulations:** The RAILROAD (hereinafter includes consultants), with regard to the work performed by it under this AGREEMENT, will comply with applicable laws and regulations relative to non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, FHWA, as they may be amended from time to time, which are herein incorporated by reference and made a part of this AGREEMENT.
- b.) **Non-Discrimination:** The RAILROAD, with regard to the work performed by it under this AGREEMENT, will not discriminate on the grounds of race, color, national origin, sex, age, disability, low-income status, or limited English proficiency in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The RAILROAD will not participate directly or indirectly in the discrimination prohibited by applicable laws and

regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

- c.) Solicitations for Subcontractors, including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the RAILROAD for work to be performed under a subcontract relating to this PROJECT, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this AGREEMENT and under applicable laws and regulations relative to nondiscrimination on the grounds of race, color, national origin, sex, age, disability, low-income status, or limited English proficiency.
- d.) Information and Reports: The RAILROAD will provide all information and reports relating to the PROJECT as required by applicable laws and regulations, and will permit reasonable access to its books, records, accounts, other sources of information and its facilities relating to the PROJECT as may be determined by the ORDC or FHWA to be pertinent to ascertain compliance with such applicable laws and regulations.
- e.) Sanctions for Noncompliance: In the event of the RAILROAD's demonstrated noncompliance with the nondiscrimination provisions of this AGREEMENT, ORDC will impose such contract sanctions as it or FHWA may determine to be appropriate, including, but not limited to:
  - i. withholding payments to the RAILROAD under the AGREEMENT until the RAILROAD complies; and/or
  - ii. cancelling, terminating, or suspending the AGREEMENT, in whole or in part.
- f.) Incorporation of Provisions: The RAILROAD will include the provisions of this Section 18.03 in every subcontract relating to the PROJECT, including procurements of materials and leases of equipment, unless exempt by applicable laws and regulations. The RAILROAD will take action with respect to any subcontract or procurement as ORDC or FHWA may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided that, if the RAILROAD becomes involved in or is threatened with litigation by a subcontractor or supplier because of such direction, the RAILROAD may request ORDC to enter into any litigation to protect the interests of the ORDC. In addition, the RAILROAD may request the United States to enter into the litigation to protect the interests of the United States.

**XV.04** Certain state and local approvals and conflicting requirements are preempted as applied to rail facilities operating in interstate commerce under the Interstate Commerce Commission Termination Act of 1995 (ICCTA), 49 U.S.C. §10501, and Federal Railway Safety Act of 1970 (FRSA), 49 U.S.C. § 20101. RAILROAD does not waive and expressly preserves any claims or defenses related to such ICCTA or FRSA preemption related to any aspect of this AGREEMENT or activities RAILROAD undertakes pursuant to this AGREEMENT.

#### **XVI. DISPUTE RESOLUTION**

In the event the RAILROAD desires clarification or explanation of, or disagrees with, any matter concerning the AGREEMENT, or the interpretation or application of any and all federal or state statutes, rules, regulations, laws or ordinances, the matter must be submitted in writing to the STATE. If the dispute cannot be resolved, and the RAILROAD has failed to comply materially with the terms and conditions of this AGREEMENT, then procedures for suspension and/or termination may be instituted as provided for under this AGREEMENT, or this matter may be submitted to a court of competent jurisdiction for final determination.

#### XVI. NO WAIVER

No delay or omission to exercise any right or option accruing to the STATE upon any breach by RAILROAD shall impair any such right or option or shall be construed to be a waiver thereof, but any such right or option may be exercised from time to time and as often as may be deemed necessary by STATE. Further, if any term, provision, covenant or condition contained in this AGREEMENT is breached by either party and thereafter such breach is waived in writing by the other party, such waiver shall be limited to the particular breach so waived and shall not be deemed to waive any other breach hereunder.

#### XVIII. CONSTRUCTION

This AGREEMENT shall be governed by the laws of the State of Ohio as to all matters, including but not limited to, matters of validity, construction, effect and performance.

#### XIX. BUY AMERICA

RAILROAD shall furnish steel and iron products that are made in the United States according to the applicable provisions of federal regulations stated in 23 CFR 635.410 and State of Ohio laws, and ORC §§ 153.011 and 5525.21, and State of Ohio Department of Transportation Construction and Material Specifications, 109.09.

The RAILROAD affirms to have read and understands Executive Order 2011-12K and shall abide by those requirements in the performance of this AGREEMENT. Notwithstanding any other terms of this AGREEMENT, the STATE reserves the right to recover any funds paid for services the RAILROAD performs outside the United States for which it did not receive a waiver from the Director of the Ohio Department of Administrative Services.

#### XX. FORUM AND VENUE

All actions brought against the STATE regarding this AGREEMENT shall be forumed and venued in a court of competent subject matter jurisdiction in Franklin County, Ohio.

#### XXI. SEVERABILITY

Whenever possible, each provision of this AGREEMENT shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this AGREEMENT is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions of this AGREEMENT.

#### XXII. ENTIRE AGREEMENT

This AGREEMENT and its exhibits and any documents referred to herein constitute the complete understanding of the parties and merge and supersede any and all other discussions, agreements and understandings, either oral or written, between the parties with respect to the subject matter hereof.

#### XXIII. DUPLICATE COUNTERPARTS

This AGREEMENT may be executed in one or more counterparts, each of which shall be deemed to be a duplicate original, but all of which taken together shall be deemed to constitute a single AGREEMENT.

#### XXIV. CAPTIONS

The captions in this AGREEMENT are for the convenience of reference only and in no way define, limit or describe the scope or intent of this AGREEMENT or any part hereof and shall not be considered in any construction hereof.

#### XXV. AMENDMENTS OR MODIFICATIONS

Any party may at any time during the term of this AGREEMENT request amendment or modification. Requests for amendment or modification of this AGREEMENT shall be in writing to the other parties and shall specify the requested changes and the justification for such changes. All parties shall then review the request for modification. Should the parties all agree to modification of the AGREEMENT, then an amendment shall be drawn, approved, and executed in the same manner as this AGREEMENT.

Any revisions to this AGREEMENT shall be made in writing and agreed upon by all parties.

#### XXVI. SUCCESSORS OR ASSIGNS

This AGREEMENT shall be binding upon the successors and assigns of the RAILROAD. It is understood that this AGREEMENT, and any subsequent amendments thereto, shall apply to



crossings owned by the RAILROAD that may, in the future, become subject to the PROJECT and therefore qualify for modifications as described above.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed as of the date and year set forth below.

CSX TRANSPORTATION

By Tony C Bellamy

Print Name Tony C. Bellamy

Title Director of Project Management - Public Projects

Date 12/7/18

VILLAGE OF MILTON CENTER

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Staff of the PUBLIC UTILITIES  
COMMISSION OF OHIO

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

OHIO RAIL DEVELOPMENT  
COMMISSION

By \_\_\_\_\_

Print Name Matthew Dietrich

Title Executive Director

Date \_\_\_\_\_

crossings owned by the RAILROAD that may, in the future, become subject to the PROJECT and therefore qualify for modifications as described above.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed as of the date and year set forth below.

CSX TRANSPORTATION

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Staff of the PUBLIC UTILITIES  
COMMISSION OF OHIO

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

VILLAGE OF MILTON CENTER

By Plath

Print Name Debra Plath

Title Mayor

Date 3/23/19

OHIO RAIL DEVELOPMENT  
COMMISSION

By \_\_\_\_\_

Print Name Matthew Dietrich

Title Executive Director

Date \_\_\_\_\_

crossings owned by the RAILROAD that may, in the future, become subject to the PROJECT and therefore qualify for modifications as described above.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed as of the date and year set forth below.

CSX TRANSPORTATION

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

VILLAGE OF MILTON CENTER

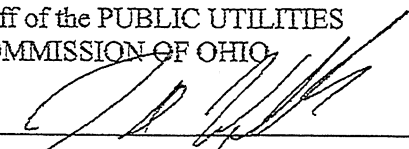
By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Staff of the PUBLIC UTILITIES  
COMMISSION OF OHIO


By  \_\_\_\_\_

Print Name JOHN D. WILLIAMS

Title TRANSPORTATION DIRECTOR

Date 12/5/18

OHIO RAIL DEVELOPMENT  
COMMISSION

By  \_\_\_\_\_

Print Name Matthew Dietrich

Title Executive Director

Date 3/26/19



## Diagnostic Review Team Survey

**Reason for Survey:**

(e.g. formula, accident, constituent, etc.)

Formula

*RANK = 3161*

Date:

*SEPT. 23, 2015*

### Location Data

Street or Road Name: <i>Railroad Street</i>			
Route/Road Number (i.e. Twp., Co., SR or US)		US DOT No.: <i>155771H</i>	
County: <i>WOO</i>	Township:	City: (In or Near)	Vil. Of <i>Milton Center</i>
Railroad Name: <i>CSX Transportation</i>	Railroad Division: <i>Louisville</i>	Branch/Line Name: <i>TOLEDO SUB DIVISION</i>	
Nearest RR Timetable Station: <i>Custar</i>		RR Milepost: <i>172.27</i> ✓	

### On-Site Review Team

(Include: Name - Organization - Phone Number - Email)

- DON DAMRON, OH RAIL DEV. COMM. (614) 917-8466 don.damron@dot.ohio.gov*
- GEORGE MARTIN PUCO 614-752-9107*
- AMANDA DECESARE CSX 859 372 6124*
- GREG GROWBACH ORDC 614-275-1346*
- Marg ~~Kucharski~~ m.c Council 419-277-7283-marg*
- 
- 
- 
- 

### Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<i>RAILROAD ST ONLY</i>
'Stop' Signs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<i>FOR PARALLEL STREETS</i>
'Stop Ahead' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Pavement Markings (condition?)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Number of Tracks Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Inventory Tags	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<i>#155771H - BOTH SIDES</i>
Interconnected Highway Traffic Signal	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Mast-Mounted Flashing Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Cantilever Flashing Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number: Length:
Side Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Automatic Gates	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number: Length:
Bells	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number:
Sidewalk Gate Arms	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
'No Turn' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Illumination	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<i>EAST SIDE ONLY</i>
Is crossing flagged by train crew?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Other	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

**Safety Data (Obtain crash reports, if possible, prior to review)**

	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	0	
Hazard Ranking	3161	Date Run: 8/18/15

**Railroad Data**

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	9	10
< 1 per day		
Day thru trains	3	4
Night thru trains	6	6
Daytime switching movements		
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	50	OK
Typical train speed	50	OK
Amtrak		<del>OK</del> NONE

If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) ☒ Yes ☐ NoIf multiple tracks, can two trains occupy crossing at the same time? ☐ Yes ☒ NoCan one train block the motorists' view of another train at crossing? ☐ Yes (Explain below) ☒ NoCan one or more tracks be eliminated through the crossing? ☐ Yes ☒ NoAre there other track(s) crossing this same roadway within 100 ft of this crossing? ☐ Yes ☒ No

If yes, Crossing DOT #(if different) \_\_\_\_\_

If yes, distance \_\_\_\_\_ (take measurement between track centerlines at closest point along roadway)

**Roadway Data**

Local Highway Authority: Village of Milton Center

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	44 (2001)	
Highway paved	X Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Roadway Surface: <input checked="" type="checkbox"/> Blacktop <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____		
Roadway width: 14 ft.		
Number of highway lanes	2	
Urban or Rural	Urban	
Vehicle Speed: 25 MPH		
School Bus Operation: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes _____ Amount		
Hazardous Materials Trucks: <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes .03 Amount		PROBABLY USE DEFIANCE ST.
Shoulders: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is the shoulder surfaced? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is there existing guardrail along roadway in crossing vicinity? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is stopping site distance adequate? (See Table 2) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If no, deficient approach(es) _____

Quadrant <u>SW</u> Curb and Gutter: <input type="checkbox"/> Functional (Curb height = 4" or more) <input type="checkbox"/> Non-functional (Curb height = Less than 4") <input checked="" type="checkbox"/> None	Quadrant <u>NE</u> Curb and Gutter: <input type="checkbox"/> Functional (Curb height = 4" or more) <input type="checkbox"/> Non-functional (Curb height = Less than 4") <input checked="" type="checkbox"/> None
Pedestrians: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
Is sidewalk present? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is there a nearby intersection that could cause queuing over the crossing? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, Distance <u>33 FEET / 37 FEET</u> Is this intersection signalized? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Are the signals currently interconnected with the existing crossing warning devices? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Is there a 'Do not Stop on Track' sign? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is a roadway improvement project (e.g. widening, turn lanes, nearby new or upgraded traffic signal, sidewalk) planned at or near this location in the foreseeable future? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, Improvement type _____ Lead Agency _____ Timeline/completion - _____	
Is it the consensus of the Diagnostic Review Team that this is a potential closure project: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Explain reasons:	
Type of Development	
<input type="checkbox"/> Open Space <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Institutional <input type="checkbox"/> Commercial Location of nearby schools: <u>COSTAR / WESTON</u>
Utility Information	
Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Utility Provider (Company Name) <u>TOLEDO EDISON</u> Phone Number _____ Nearest Available Power Source _____	
What other utilities are present? <input type="checkbox"/> Gas <input type="checkbox"/> Cable <input type="checkbox"/> Telephone <input checked="" type="checkbox"/> Fiber Optic Cable (add locations to sketch) <input type="checkbox"/> Petroleum <input type="checkbox"/> Water <input type="checkbox"/> Sanitary Sewer <input type="checkbox"/> Other _____	
Is(are) there potential utility conflict(s) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
Comments: <u>UG. FIBER ON SOUTH SIDE OF ROAD CROSSING.</u> <u>POTENTIAL IMPACT ON LOCATION OF GATE MECH IN SW QUAD.</u>	

## Potential Red Flags / Project Challenges

Traffic Signal Preemption (include traffic signal intersection name and LHA with jurisdiction over traffic signal, if known):

NA

Crossing Consolidation or Closure:

POTENTIAL UPGRADE AS PART OF CONSOLIDATION PROJECT.

Real Estate or ROW:

NA

Culverts / Drainage / Ballast Conditions:

NA

Roadway and/or Sidewalks:

ROAD PROFILE (HUMP) NEEDS SOME IMPROVEMENT.

Circuitry (e.g. reaches out to other crossings, specific needs, etc.):

NA

Environmental:

Other:

ADJACENT CHEMICAL COMPANY DOES NOT USE THIS CROSSING



## Diagnostic Team Recommendations

	Quadrants Needed
<input checked="" type="checkbox"/> Install/upgrade active devices	
<input type="checkbox"/> Automatic Flashing Lights (AFLS)	
<input type="checkbox"/> AFLS / Cants	
<input checked="" type="checkbox"/> AFLS / Gates	
<input type="checkbox"/> AFLS / Gates / Cants	
<input type="checkbox"/> Bells / number	
<input type="checkbox"/> Upgrade circuitry / type	
<input checked="" type="checkbox"/> Sidelights	NEEDED IN SW QUAD
<input type="checkbox"/> Guardrail Needed	
<input type="checkbox"/> Install/Replace curb	
<input type="checkbox"/> Bungalow placement & offset from rail & highway	
<input checked="" type="checkbox"/> Other (define)	

### Comments:

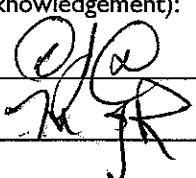


- ADDRESS HUMP ELIMINATION W/ COUNTY ENG.
- CLOSE SOUTH ST, THEN UPGRADE RAILROAD ST. W L&G.
- CLOSURE BASED ON CONSOLIDATION AGREEMENT W MILTON CENTER.

☐ Install/upgrade traffic signal preemption

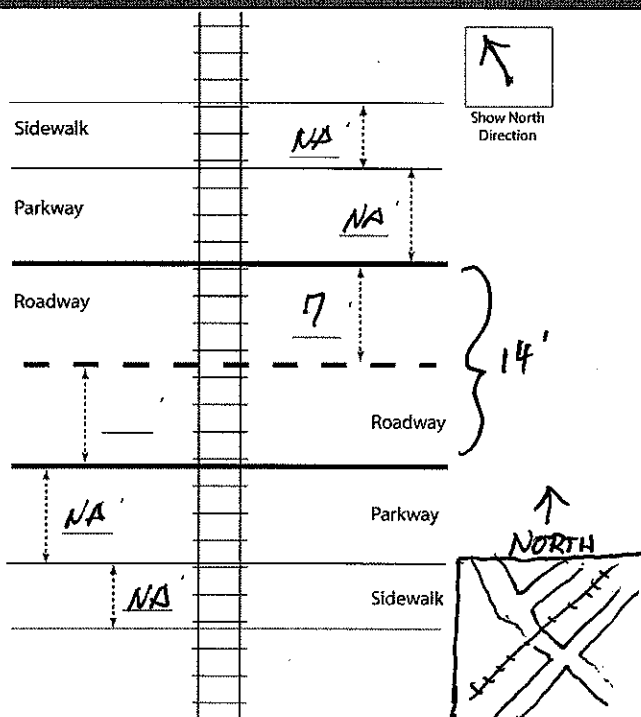
☐ No improvements needed

☐ Other (define)

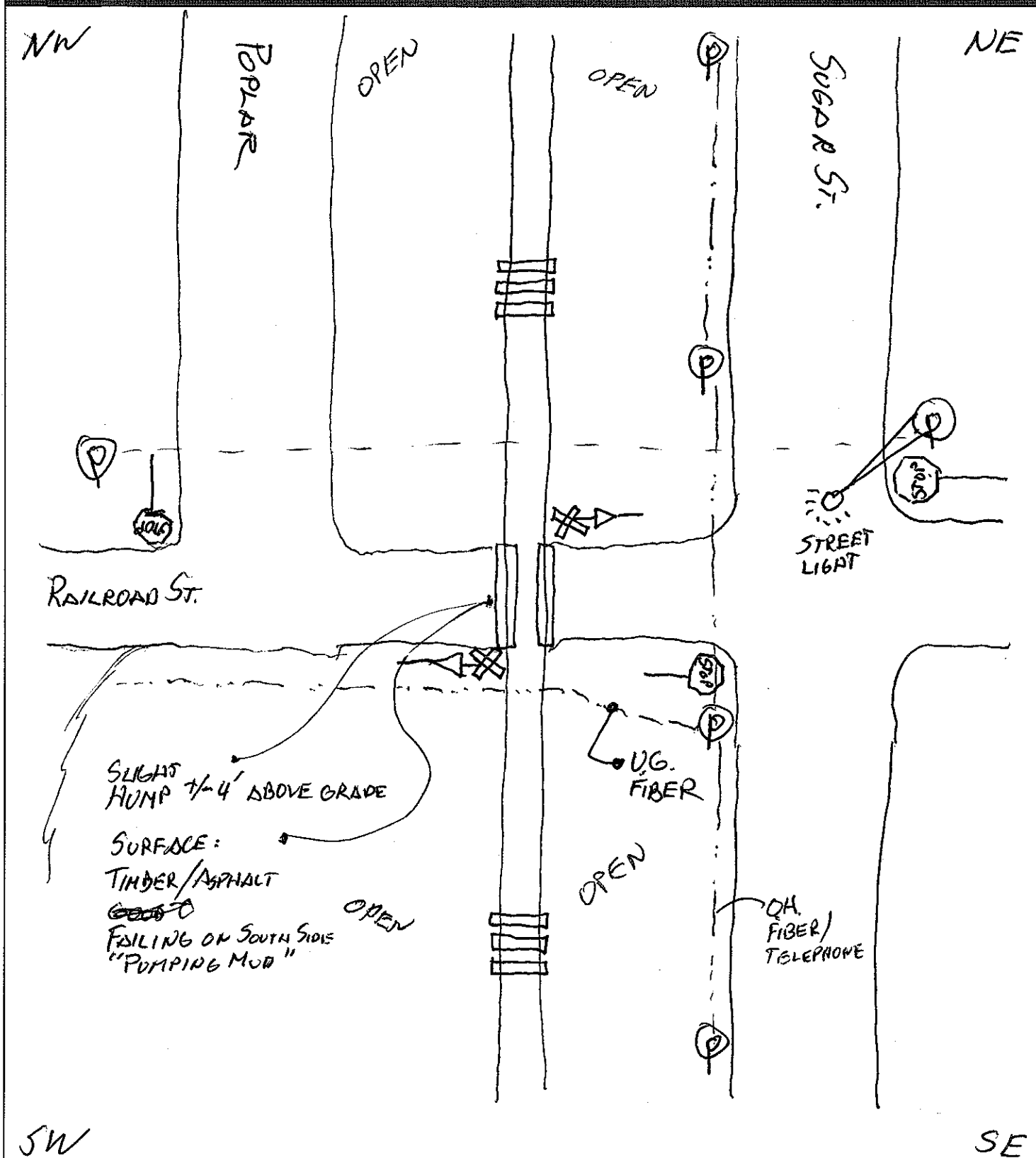
Acknowledgement of Recommendations (each entity represented at the diagnostic must have at least one signature acknowledgement):

## Field Dimensions



# Field Sketch



Crossing Angle ☐ 0-29° ☐ 30-59° ☒ 60-90° Measured in \_\_\_\_\_ Quadrant?

Sketch by: DJD

SEPT. 23, 2015

TABLE 1

## Clearing Sight Distances

Maximum Authorized Train Speed	Distance (dT) Along Railroad from Crossing (ft)
1 - 10	240
15	360
20	480
25	600
30	720
35	840
40	960
45	1080
50	1200
55	1320
60	1440
65	1560
70	1680
75	1800
80	1920
85	2040
90	2160

Source: R-H Grade Crossing Handbook Table 36 (pp. 132-133)

## Notes:

All calculated distances are rounded up to the next higher 5-foot increment.

Distances indicated are for 65-ft double bottom semi-tractor trailers and level single track 90 degree crossings; and may need to be adjusted for multiple tracks, skewed crossings or approaches on grades.

Clearing Sight Distance is to be measured in each vehicle travel direction at non-gated crossings as viewed from a point 25 feet from centerline of nearest track in the center of whichever travel lane is nearest the direction along track being measured.

Table 2

## Stopping Sight Distances

Highway Vehicle Speed	Distance (dH) Along Roadway from Crossing (ft)
0	n/a
5	50
10	70
15	105
20	135
25	180
30	225
35	280
40	340
45	410
50	490
55	570
60	660
65	760
70	865

Source: R-H Grade Crossing Handbook Table 36 (pp. 132-133)

## Notes:

All calculated distances are rounded up to the next higher 5-foot increment.

Distances indicated are for 65-ft double bottom semi-tractor trailers on dry level pavements.

Stopping Sight Distance is to be measured on each roadway approach to crossing from stop bar.



## Diagnostic Review Team Survey

**Reason for Survey:**

(e.g. formula, accident, constituent, etc.)

Formula

RANK = 3429

Date:

SEPT. 22, 2015

### Location Data

Street or Road Name:

South Street

Route/Road Number

(i.e. Twp., Co., SR or US)

US DOT No.:

155772P

County:

WOO

Township:

City:

(In or Near)

Vil. Of Milton Center

Railroad

Name:

CSX Transportation

Railroad

Division:

Louisville

Branch/Line

Name:

Nearest RR

Timetable Station:

Custar

RR Milepost:

172.4

### On-Site Review Team

(Include: Name - Organization - Phone Number - Email)

1. DON DAMRON, OH RAIL DEV. COMM. (614) 917-8466 don.damron@dot.ohio.gov
2. GEORGE MARTIN PUCO 614-752-9107
3. AMANDA DECESARE CSX 859 372 6124
4. GREG GROWBACH ORDC 614-275-1346
5. MARG KUBICKI m.c. Council 419-277-7283-marg
- 6.
- 7.
- 8.
- 9.

### Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	SUGAR ST. ONLY BOTH SIDES
'Stop' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	(NOT PARALLEL STREETS)
'Stop Ahead' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Pavement Markings (condition?)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Number of Tracks Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Inventory Tags	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	#155772P - BOTH SIGNS
Interconnected Highway Traffic Signal	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Mast-Mounted Flashing Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Cantilever Flashing Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number: Length:
Side Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Automatic Gates	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number: Length:
Bells	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number:
Sidewalk Gate Arms	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
'No Turn' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Illumination	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	EAST SIDE ONLY
Is crossing flagged by train crew?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Other	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Safety Data (Obtain crash reports, if possible, prior to review)		
	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	0	
Hazard Ranking	3429	Date Run: 8/18/15
Railroad Data		
Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	9	10
< 1 per day		
Day thru trains	3	4
Night thru trains	6	6
Daytime switching movements		
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	50	OK
Typical train speed	50	OK
Amtrak		
If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 1200' @ 50 MPH		
If multiple tracks, can two trains occupy crossing at the same time? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Can one train block the motorists' view of another train at crossing? <input type="checkbox"/> Yes (Explain below) <input checked="" type="checkbox"/> No		
Can one or more tracks be eliminated through the crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Are there other track(s) crossing this same roadway within 100 ft of this crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If yes, Crossing DOT # (if different) _____		
If yes, distance _____ (take measurement between track centerlines at closest point along roadway)		
Roadway Data		
Local Highway Authority:		Village of Milton Center
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	44 (2001)	
Highway paved	X Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Roadway Surface: <input checked="" type="checkbox"/> Blacktop <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____		
Roadway width: 12 ft.		
Number of highway lanes	2	
Urban or Rural	Urban	
Vehicle Speed: 20 MPH 25-?		
School Bus Operation: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes _____ Amount		
Hazardous Materials Trucks: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes .03 Amount		
Shoulders: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is the shoulder surfaced? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is there existing guardrail along roadway in crossing vicinity? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is stopping site distance adequate? (See Table 2) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, deficient approach(es) _____		

Quadrant <u>SW</u> Curb and Gutter: <input type="checkbox"/> Functional (Curb height = 4" or more) <input type="checkbox"/> Non-functional (Curb height = Less than 4") <input checked="" type="checkbox"/> None	Quadrant <u>NE</u> Curb and Gutter: <input type="checkbox"/> Functional (Curb height = 4" or more) <input type="checkbox"/> Non-functional (Curb height = Less than 4") <input checked="" type="checkbox"/> None
---	---

Pedestrians:    ☐ No    ☒ Yes    SOME  
 Is sidewalk present?    ☒ No    ☒ Yes

Is there a nearby intersection that could cause queuing over the crossing?    ☐ No    ☒ Yes  
 If yes,  
 Distance 33' EAST / 32' WEST  
 Is this intersection signalized?    ☒ No    ☐ Yes  
 Are the signals currently interconnected with the existing crossing warning devices?    ☒ No    ☐ Yes  
 Is there a 'Do not Stop on Track' sign?    ☐ No    ☐ Yes

Is a roadway improvement project (e.g. widening, turn lanes, nearby new or upgraded traffic signal, sidewalk) planned at or near this location in the foreseeable future?    ☒ No    ☐ Yes  
 If yes,  
 Improvement type \_\_\_\_\_ Lead Agency \_\_\_\_\_ Timeline/completion - \_\_\_\_\_

Is it the consensus of the Diagnostic Review Team that this is a potential closure project?    ☐ No    ☒ Yes  
 Explain reasons:                     

Type of Development	
<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential	Location of nearby schools: <u>CUSTAR AND WESTON</u>

### Utility Information

Is commercial power available?    ☐ No    ☒ Yes  
 Utility Provider (Company Name) TOLEDO EDISON      Phone Number \_\_\_\_\_  
 Nearest Available Power Source ALONG SUGAR ST.  
 What other utilities are present?    ☐ Gas    ☐ Cable    ☐ Telephone    ☐ Fiber Optic Cable  
 (add locations to sketch)    ☐ Petroleum    ☐ Water    ☐ Sanitary Sewer  
☐ Other \_\_\_\_\_

Is(are) there potential utility conflict(s)    ☐ Yes    ☐ No    ☒ Unknown

Comments:  

NOT MARKED

## Potential Red Flags / Project Challenges

Traffic Signal Preemption (include traffic signal intersection name and LHA with jurisdiction over traffic signal, if known):

NA

Crossing Consolidation or Closure:

↓ POTENTIAL CLOSURE

Real Estate or ROW:

NA

Culverts / Drainage / Ballast Conditions:

NA

Roadway and/or Sidewalks:

NA

Circuitry (e.g. reaches out to other crossings, specific needs, etc.):

NA

Environmental:

ENVIRONMENTAL REVIEW NEEDED FOR CLOSURE.

Other:



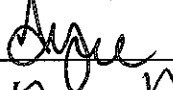
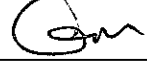

## Diagnostic Team Recommendations

	Quadrants Needed
<input type="checkbox"/> Install/upgrade active devices	
<input type="checkbox"/> Automatic Flashing Lights (AFLS)	
<input type="checkbox"/> AFLS / Cants	
<input type="checkbox"/> AFLS / Gates	
<input type="checkbox"/> AFLS / Gates / Cants	
<input type="checkbox"/> Bells / number	
<input type="checkbox"/> Upgrade circuitry / type	
<input type="checkbox"/> Sidelights	
<input type="checkbox"/> Guardrail Needed	
<input type="checkbox"/> Install/Replace curb	
<input type="checkbox"/> Bungalow placement & offset from rail & highway	
<input checked="" type="checkbox"/> Other (define)	

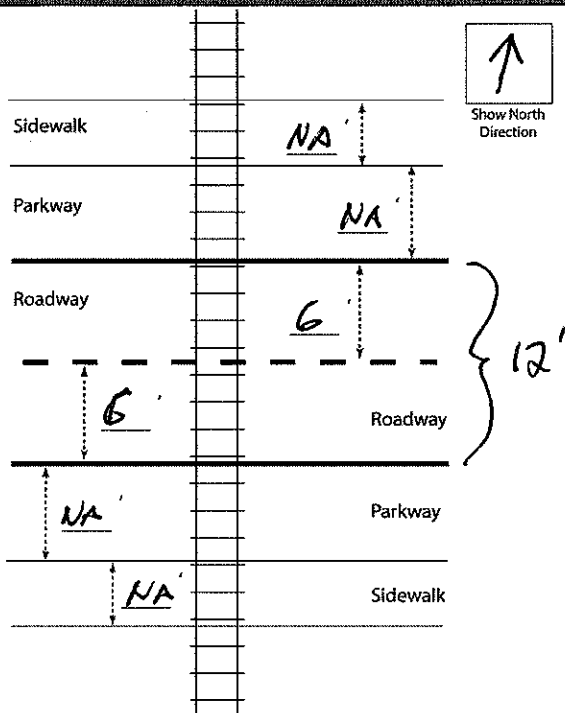
Comments: "CLOSE" OR POTENTIAL UPGRADE IF A FUNDING SOURCE CAN BE FOUND.

<input type="checkbox"/> Install/upgrade traffic signal preemption	
<input type="checkbox"/> No improvements needed	
<input type="checkbox"/> Other (define)	

Acknowledgement of Recommendations (each entity represented at the diagnostic must have at least one signature acknowledgement):

## Field Dimensions

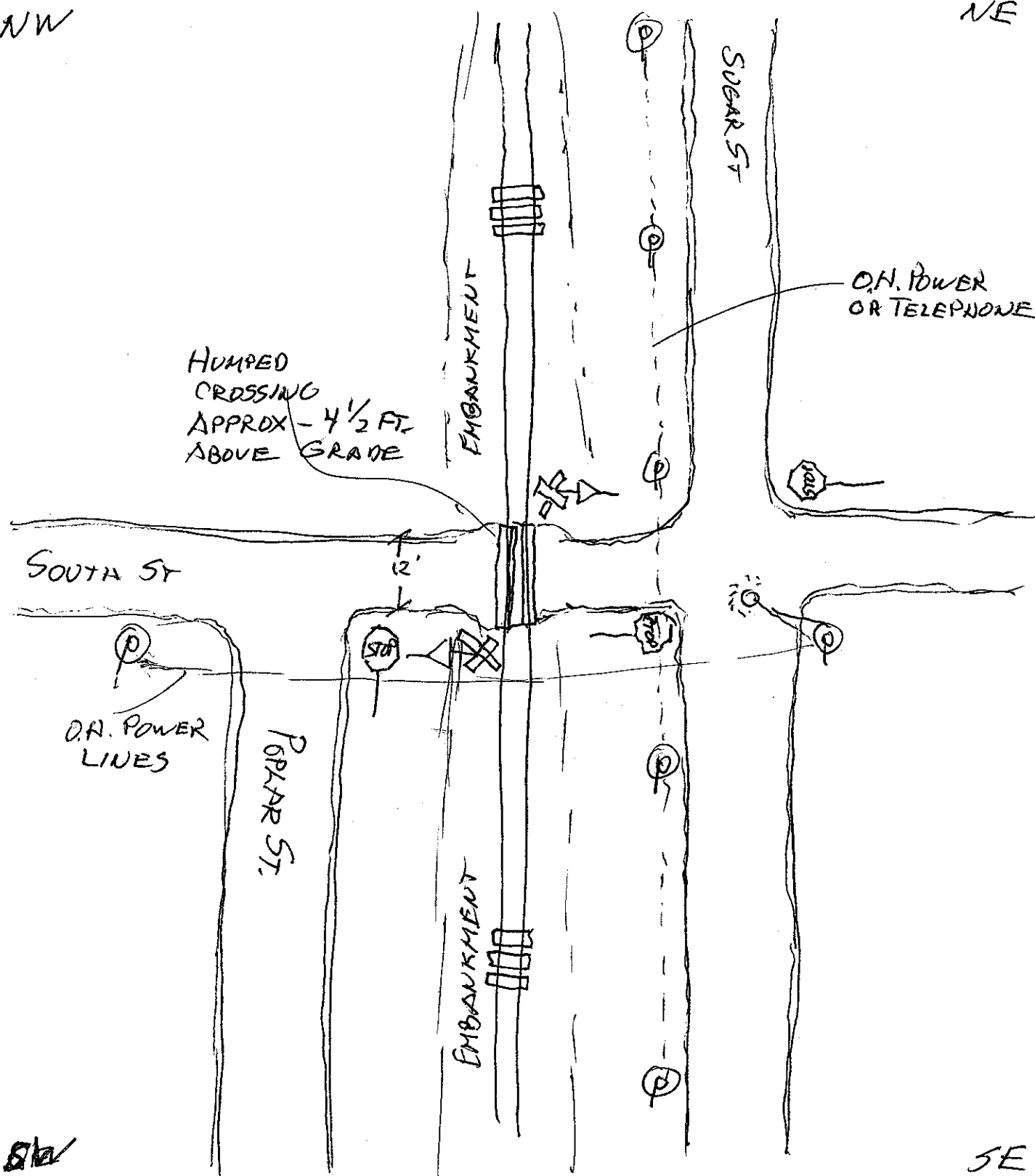


• CSX WILL INVESTIGATE TRAIN OPERATIONS TO INSURE THAT CROSSINGS ARE NOT BLOCKED.  
 • MOWING ROW IS ISSUE.

# Field Sketch

NW

NE



Crossing Angle ☐ 0-29° ☐ 30-59° ☒ 60-90° Measured in \_\_\_\_\_ Quadrant?

Sketch by: DJD

SEPT. 22, 2015

TABLE 1

## Clearing Sight Distances

Maximum Authorized Train Speed	Distance (dT) Along Railroad from Crossing (ft)
1 - 10	240
15	360
20	480
25	600
30	720
35	840
40	960
45	1080
50	1200
55	1320
60	1440
65	1560
70	1680
75	1800
80	1920
85	2040
90	2160

Source: R-H Grade Crossing Handbook Table 36 (pp. 132-133)

## Notes:

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**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**10/30/2019 2:04:24 PM**

**in**

**Case No(s). 19-1995-RR-FED**

Summary: Application In the Matter of a Request for the Closure of South Street DOT#155-772P Crossing and the Upgrade of Railroad Street DOT#155-771H in the Village of Milton Center, Wood County. electronically filed by Mrs. Jill A Henry on behalf of PUCO/Rail Division