

Memo

To: Docketing Division
From: Jill Henry, Rail Specialist, Rail Division
Cc: PUCO Legal Department
Date: 9/6/16



Re: PUCO Case No. 16-1842-RR-FED- In the Matter of a Request for the Installation of Active Warning Devices at CSX Transportation Inc. Grade Crossing, DOT# 518-300Y, on Shoemaker Road in Delaware County, Ohio.

On September 6, 2016, the Ohio Rail Development Commission (ORDC) authorized funding for CSX Transportation, Inc. (CSX) to install mast mounted lights and gates at the Shoemaker Road, DOT#518-300Y, grade crossing in Delaware County, Ohio. The crossing was surveyed on April 28, 2016 and was found to warrant the upgrade. The electric utility provider for this crossing is American Electric Power.

The project will be paid for with federal funds and is actual cost. The plans and estimates for the project in the amount of \$261,165.00 have been approved. Construction may commence at once. **Staff requests a Finding & Order with completion of the project in nine 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
500 Meijer Drive
Suite 305
Florence, KY 41042

Ohio Rail Development Commission
Cathy Stout
1980 West Broad Street
Mail Stop #3140
43223

Oxford Township Trustees, Delaware County
5606 Steamtown Road
Ashley, Ohio 43003

Delaware County Engineer
Doug Riedel
50 Channing Street
Delaware, Ohio 43015

AEP

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

TO: Jill Henry, Rail Division, PUCO
FROM: Cathy Stout, Manager, Safety Section, ORDC
BY: Joe Reinhardt, Project Manager, ORDC
SUBJECT: Delaware County, TR251, Shoemaker Road
DOT 518300Y, CSX, PID 103319
DATE: September 6, 2016

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on Shoemaker Road. The Ohio Rail Development Commission (ORDC) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. Copies of the diagnostic review form and the plan and estimate are attached.

PE has already been provided by the railroad. ORDC approves the site plans and estimates as provided. Please issue a construction-only order for the project outlined above for nine months. This construction authorization is made with the stipulation and understanding that any field work needs prior approval before the 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.

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.

Attachment: Diagnostic Review
Plan & Estimate

c: Jill Henry, PUCO
ORDC Project Manager (file)



OHIO RAIL DEVELOPMENT COMMISSION

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

John R. Kasich, Governor • Mark Policinski, ORDC Chairman

September 6, 2016

Ms. Amanda DeCesare
Project Manager
500 Meijer Drive, Suite 305
Florence, Ky 41042

RE: Delaware County, TR 251, Shoemaker Road
DOT 518300Y, OH1123, PID 103319

Dear Ms. DeCesare:

The plan and estimate dated August 23, 2016, for the referenced project has been reviewed and is acceptable. CSX may proceed with the construction of the proposed grade crossing warning system in accordance with the abbreviated plan. 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. Reimbursement of eligible actual cost is limited to \$261,165. Additional costs must be approved in writing by the 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.

This authorization is contingent upon CSX accepting the following instructions:

1. CSX's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Joseph Reinhardt, ORDC, email Joe.Reinhardt@dot.state.oh.us and to the Public Utilities Commission of Ohio, at George.martin@puc.state.oh.us. CSX's 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. CSX's project foremen will notify Joe Reinhardt at 614-580-7728 or Joe.Reinhardt@dot.state.oh.us 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.



www.rail.ohio.gov

phone: 614.644.0306

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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,



Joseph Reinhardt
Project Manager

C: Randall Schumacher, Rail Division Supervisor, PUCO
George Martin, Grade Crossing Planner, PUCO
Susan Arduini, ORDC
ORDC (file)

**CSX TRANSPORTATION, INC.
FORCE ACCOUNT ESTIMATE**

Page 1

ACCT. CODE : 709 - OH1123

ESTIMATE SUBJECT TO REVISION AFTER: **2/18/2017** DOT NO.: 518300Y
 CITY: Ashley COUNTY: Delaware STATE: OH
 DESCRIPTION: Shoemaker Rd.(TR 251) - Installation of Flashing Light Signals and Gates.

DIVISION: Great Lakes SUB-DIV: Columbus Line MILE POST: QE - 106.19
 AGENCY PROJECT NUMBER: PID 103319

PRELIMINARY ENGINEERING:

212 Contracted & Administrative Engineering Services	\$ 4,000
Subtotal	\$ 4,000

CONSTRUCTION ENGINEERING/INSPECTION:

212 Contracted & Administrative Engineering Services	\$ 1,500
Subtotal	\$ 1,500

FLAGGING SERVICE: (Contract Labor)

070 Labor (Conductor-Flagman)	\$ -
050 Labor (Foreman/Inspector)	\$ -
070 Additive 117.39% (Transportation Department)	\$ -
050 Additive 118.86% (Engineering Department)	\$ -
230 Per Diem (Engineering Department)	\$ -
230 Expenses	\$ -
Subtotal	\$ -

SIGNAL & COMMUNICATIONS WORK: (Details Attached) \$ 255,665

TRACK WORK: (Details Attached) \$ -

PROJECT SUBTOTAL \$ 261,165

900 **CONTINGENCIES:** \$ -

GRAND TOTAL ***** **\$ 261,165**

DIVISION OF COST:

Agency	<u>100.00%</u>	\$ 261,165
Railroad		\$ -
TOTAL *****		\$ 261,165

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 Assistant Chief Engineer Public Projects--Jacksonville, Florida

Estimated prepared by:

BSE

Approved by: AJD

CSXT Public Project Group

DATE:

8/22/2016

REVISED:

DATE: 8/22/2016

Estimate No. 128358
CSX Transportation

Shoemaker Rd.(TR 251) - Install FLS&G. Grade crossing warning device improvements for TR 251 / Shoemaker Road.

Ashley, OH

DOT: 518300Y

OP: OH1123

CSX Project: OH2016029

Summary

Material	\$ 78,336
Sales Tax	\$ 0
Labor:	
Construction Labor (124 man-days).....	\$ 47,120
Shop Labor (7 man-days).....	\$ 2,660
Subsistence (124 man-days).....	\$ 18,600
Track Labor (0 man-days).....	\$ 0
Railroad Engineering, Preliminary	\$ 4,951
Railroad Engineering, Construction	\$ 7,068
Additives to Construction Labor	\$ 56,007
Additives to Shop Labor	\$ 3,162
Additives to Track Labor	\$ 0
Additives to Engineering	\$ 0
Equipment Expenses (0 work days).....	\$ 0
Waste Management (25 work days).....	\$ 300
Contract Engineering	\$ 21,060
Freight	\$ 5,901
Poleline Removal	\$ 0
AC Power Service	\$ 2,500
Salvage	\$ 0
VAC-TRUCK	\$ 8,000

TOTAL ESTIMATE COST	\$ 255,664
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Date: 08/22/2016

Estimated By: Scott Elliott

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

Shop Material List for CSX Project: OH2016029 (Effective: 08/22/2016)
INSTALL FLS&G W/ GCP 4000 (SHOEMAKER RD.)
ASHLEY, OH - QE 106.19

Catalog Num	Cond	Unit Price	Qty	Cost	Description
020-0017120	1	11.52	6	69.12	BLOCK TERMINAL 12 POST SINGLE STRIP AAR 14.1.6 WITH 1 AAR
020-0017125	1	3.26	6	19.56	BLOCK TERMINAL 2 POST AAR 14.1.8 WITH 1 AAR 14.1.11
020-0018234	1	78.12	1	78.12	CABLE CONVERTER PROTOCOL/MEDIA WAYSIDE ACCESS
020-0021965	1	8.96	1	8.96	EXTRACTOR DWG 59688-4 TERMINAL GRS CAT P3-308 REF
020-0022651	1	106.70	1	106.70	PLUGBOARD KIT TYPE B1 OR ST1 RELAY ASSEMBLY WITH 12 EACH
020-0025595	1	20.72	1	20.72	WRENCH DWG 55393-3 GR1 "E" TERMINAL POST NUT GRS CAT
020-0053360	1	387.88	3	1163.64	CHARGER BATTERY ELC 12/20 D 20 AMP 10-19.9 VDC ROTARY SW
020-0055602	1	11.39	2	22.78	RELAY POTTER BRUMFIELD KHAU17D12-12V 160 OHMS
020-0056514	1	5.93	2	11.86	SOCKET RELAY POTTER & BRUMFIELD 27E894 NEWARK
020-0064060	1	16.12	1	16.12	PLATE RELAY MOUNTING FOR 2 EACH TYPE KHAU OR OCTAL RELAY
020-0167501	1	38.51	26	1001.26	ARRESTER HYBRID LOW VOLTAGE,2, 0-30V DC OR 0-24V
020-0660077	1	603.13	1	603.13	ARRESTER GE 9L10KAC213 FOR 240 VOLT SINGLE PHASE 3 WIRE
020-0750090	1	0.11	3	0.33	NUT INSULATED USE ON AAR BINDING POST TERMINAL FOR
020-0770060	1	14.31	8	114.48	ARRESTER US&S N451552-0201 TRACK SERIES RED LABEL USGA
020-0770105	1	22.40	2	44.80	ARRESTER HARMON 202217-000 AGE-1 TRACK AIR GAP EQUALIZER
020-1000354	1	5996.25	1	5996.25	HOUSE SIGNAL 6FT X 6FT WITH PTC UPGRADE PTMW P/N 91000354
020-1940055	1	20.24	1	20.24	CONTAINER TUBE HOLDER CIRCUIT PRINT PLAN 24" SCHD 20 4" PVC
020-2503073	1	1091.71	1	1091.71	MODULE SAFETRAN VHF COMMUNICATOR (A80276-3) USED
020-2503079	1	492.48	2	984.96	MODULE SAFETRAN GROUND FAULT DETECTOR (A80297-2) USED WITH
020-2503090	1	1081.54	1	1081.54	CONVERTER PROTOCOL/MEDIA WAYSIDE ACCESS GATEWAY (WAG)
020-2503200	1	909.80	1	909.80	KIT SAFETRAN GCP-4000 ILOD PKG. FOR USE WITH SEAR-III
020-2503210	1	10561.49	1	10561.49	PREDICTOR SAFETRAN GCP-4000 2-TRK DUAL CASE W/RECORDER
020-3430130	1	417.31	1	417.31	RELAY SAFETRAN 400023 500 OHMS CONTACTS 6FB HEAVY DUTY
020-3652615	1	61.32	1	61.32	RESISTOR ADJUSTABLE 0.340 TO 3.00 OHMS 2.24A 15W SAFETRAN
020-4200340	1	1.74	8	13.92	LINK TEST ASSEMBLY 1" CENTERS YELLOW INSULATOR ON OFFSET

Shop Material List for CSX Project: OH2016029 (Effective: 08/22/2016)
INSTALL FLS&G W/ GCP 4000 (SHOEMAKER RD.)
ASHLEY, OH - QE 106.19

Catalog Num	Cond	Unit Price	Qty	Cost	Description
020-4200350	1	2.06	11	22.66	LINK TEST ASSEMBLY 2-3/8" CENTERS YELLOW INSULATOR ON
020-4201045	1	0.15	400	60.00	NUT HEX CLAMP (FLAT NUT) AAR 14.1.11-7 14-24 NS-2 THD FLAT
020-8000067	1	14.88	2	29.76	LOCK AMERICAN H10SIGRA CSX SIGNAL PADLOCK WITH BLACK
022-8005160	1	523.80	1	523.80	KIT CDMA AND VHF RADIO MATERIAL FOR USE WITH CSX
028-1120501	1	293.44	3	880.32	DEVICE, VOLTAGE MONITOR, EXTENDED TEMPERATURE RANGE OF
Total Cost: \$				25,936.66	

Field Material List for CSX Project: OH2016029 (Effective: 08/22/2016)
INSTALL FLS&G W/ GCP 4000 (SHOEMAKER RD.)
ASHLEY, OH - QE 106.19

Catalog Num	Cond	Unit Price	Qty	Cost	Description
014-8006169	1	10.35	2	20.70	SIGN PERMANENT EMERGENCY NOTIFICATION (VEHICLE
020-0010447	1	9.83	3	29.49	BOX GROUND ROD CONNECTION ENCLOSURE COMPLETE WITH 7"
020-0013686	1	75.94	7	531.58	BOOTLEG KIT CSX RAIL CONN W/15 FT 3/16 IN BDSTRAND 6/64
020-0013908	1	6.79	400	2716.00	CABLE UG COMPOSITE 19 CONDUCTOR INCLUDES 13
020-0025145	1	395.51	4	1582.04	SHUNT ENCLOSURE WAYSIDE MOUNT ASSEMBLY COMPLETE WITH LOCK
020-0052475	1	11.20	4	44.80	ARM EXTENSION 10-1/2" ALUM WITH 3/8" DIAMETER MOUNTING
020-0053220	1	2.59	150	388.50	CABLE POWER UG 3 COND NO 6 AWG - SHOW LENGTH ON EACH
020-0054075	1	963.20	2	1926.40	GATE SAVER COMPLETE WITH SHEAR PIN AND RETURN SPRING
020-0055421	1	23.96	4	95.84	BRACKET SIGN 4" OR 5" MAST W/1/2" U-BOLT FOR ALL SIGNS
020-0056028	1	230.98	2	461.96	SHUNT SAFETRAN 8A077 DUAL WIDE BAND
020-0056674	1	6017.69	1	6017.69	SIGNAL 0220-L GCWD GATE ASSY DWG SS222 INCLS 18 FBRGL ARM
020-0056678	1	6295.13	1	6295.13	SIGNAL 0221-L GCWD GATE ASSY DWG SS222 INCLS ADJ 19 TO 28
020-0056999	1	285.00	1	285.00	CROSSARM 36" OFFSET SIDELT CANTLR BRKT ASSY DOES NOT
020-0057070	1	875.83	1	875.83	CROSSARM 2-WAY, 4" ALUMINUM JUNCTION BOX FOR 4" FLASHING
020-0057275	1	1.14	400	456.00	WIRE UG TRACK TWISTED PAIR NO. 6 AWG SOLID CONDUCTOR
020-1040322	1	127.75	20	2555.00	BATTERY SAFT SPL165, 165 AH POCKET PLATE NICKEL CADMIUM
020-1040324	1	186.48	9	1678.32	BATTERY SAFT SPL250, 250 AH POCKET PLATE NICKEL CADMIUM
020-1040550	1	45.92	3	137.76	TRAY BATTERY FIBER CO 82687-3-P 12" WIDTH 38"
020-1150750	1	1.00	400	400.00	BOND STRAND 3/16" DIA 7 STRANDS OF 19 STR EACH 6 WITH
020-1304014	1	6.14	14	85.96	KIT BOND, CADWELD PLUS WEB OF RAIL BOND 3/16 DIA. 4" LARGE
020-1360014	1	899.65	1	899.65	PACKAGE FOREMANS CARE FOR ALUMINUM TYPICAL BOM FOR USE
020-1360016	1	22.57	1	22.57	PACKAGE SAFETY FOR BURCO CONTAINERS COMPLETE WITH ONE
020-1360104	1	1499.88	1	1499.88	LAYOUT AC METER SERVICE WITH 30' POLE CSX DWG SS351 SH 2
020-2500540	1	327.17	1	327.17	SHUNT SAFETRAN 62780-156 HIGH IMPEDANCE NARROW BAND 156HZ
020-2500615	1	301.96	1	301.96	SHUNT SAFETRAN 62775-156 NARROW BAND 156HZ

Field Material List for CSX Project: OH2016029 (Effective: 08/22/2016)
INSTALL FLS&G W/ GCP 4000 (SHOEMAKER RD.)
ASHLEY, OH - QE 106.19

Catalog Num	Cond	Unit Price	Qty	Cost	Description
020-3901895	1	100.52	2	201.04	TIP FLEX HWY CROSSING GATE 24 IN LONG ENGINEERING GRADE RED
020-3920200	1	178.76	2	357.52	BELL GCWD ELECTRONIC 4" OR 5" MAST 8 TO 13 VOLTS DC GSI PN
020-3930010	1	3.70	2	7.40	KIT GATE ARM WARNING STICKER KIT INCLUDES 1-EA 5"X3"
020-4101642	1	14610.00	1	14610.00	PLATFORM ASSY 2 POST TRACKSIDE FOR 8' X 8' AND
020-4200340	1	1.74	38	66.12	LINK TEST ASSEMBLY 1" CENTERS YELLOW INSULATOR ON OFFSET
020-4200900	1	0.29	10	2.90	CONNECTOR SHEATHING AMP 329860 FOR NO. 14 WIRE
020-7300030	1	189.28	2	378.56	BRACKET BELL FITS SAFETRAN JUNCTION BOX MOUNT, 5" BENT
020-9999991	1	100.00	1	100.00	BLOCKING AND BRACING FOR PROJECTS BURCO DIST
024-0486486	1	333.06	1	333.06	SHUNT SAFETRAN 62780-211 HIGH IMPEDANCE NARROW BAND 211HZ
250-0001836	1	15.21	1	15.21	BREAKER CIRCUIT SQ D QO260
360-0006100	1	35.07	1	35.07	STOOL STEP WOOD 14"X 20" SIGNAL MAINTAINERS CSXT
360-0800145	1	7.54	1	7.54	BROOM WAREHOUSE CORN HVY DUTY 1-1/8" DIA HANDLE
Total Cost: \$				45,749.65	

Consumables List for CSX Project: OH2016029 (Effective: 08/22/2016)
INSTALL FLS&G W/ GCP 4000 (SHOEMAKER RD.)
ASHLEY, OH - QE 106.19

Catalog Num	Cond	Unit Price	Qty	Cost Description
N/A		100.00	10	1000.00 FILL MATERIAL, 1 CUBIC YARD
N/A		500.00	1	500.00 RAVEN AIR-LINK
N/A		800.00	1	800.00 WALKWAY ROCK, 10 CUBIC YARDS
020-0017605	1	0.29	500	145.00 WIRE CASE 10 AWG FLEX CSX SPEC SS796 OKONITE P/N
020-0017607	1	0.72	500	360.00 WIRE CASE TW PR NO 10 AWG FLEX CSX SPEC SS796 TWIST 2
020-0017625	1	0.44	150	66.00 WIRE CASE TWISTED PAIR AWG #14 FLEX TWIST 2 TURNS PER FT
020-0017630	1	0.13	200	26.00 WIRE CASE NO 16 AWG FLEX CSX SPEC SS796 FURN 1000 FT SPOOL
020-0028610	1	0.23	100	23.00 TERMINAL RING PANDUIT PN12-14HDR-D YELLOW NYLON HVY
020-0053510	1	208.13	1	208.13 KIT 240V AC EMERGENCY GENERATOR CABLE AND
020-1360540	1	71.65	1	71.65 BREAKER MAIN/GENERATOR BACKFEED RETAINING GENERATOR
020-1710045	1	2.42	700	1694.00 CONDUIT SDR 13.5 4" ORANGE POLYETHYLENE TRENCHLESS
020-2060072	1	442.00	2	884.00 FOUNDATION HELICAL SCREW-IN ASSEMBLY 7' X 10", USED FOR
020-2060074	1	366.00	2	732.00 EXTENSION 10" X 3' USE WITH XING GATE AND SIGNAL MAST
020-4168917	1	0.50	2	1.00 RESISTOR, FIXED .5W, 20W OHM (REPLACEMENT FOR INVENSYS PN
020-4200880	1	0.53	2	1.06 CONNECTOR TERMINAL 2-3/8" CENTERS AAR 14.1.15-4 NICKEL
020-4200892	1	0.44	27	11.88 CONNECTOR TERMINAL 1" CENTERS AAR 14.1.15-3 NICKEL PLATED
020-4251190	1	0.14	120	16.80 TERMINAL RING PANDUIT PV10-14RD YELLOW VINYL SIZE
020-4251290	1	0.53	30	15.90 TERMINAL RING PANDUIT PV6-14R-T BLUE VINYL SIZE 6
020-4251295	1	0.53	6	3.18 TERMINAL RING PANDUIT PV6-38R-T BLUE VINYL SIZE 6
020-9999992	1	50.00	1	50.00 HOUSE SIGNAL HANDLING CHARGE BURCO DISTRIBUTION
450-0019212	1	0.40	100	40.00 SCREW 10 X 1" SHT METAL PAN HD TYPE A COARSE THREAD
Total Cost: \$				6,649.6

R.R. WEST TO CP HOCKING

FIELD VERIFY

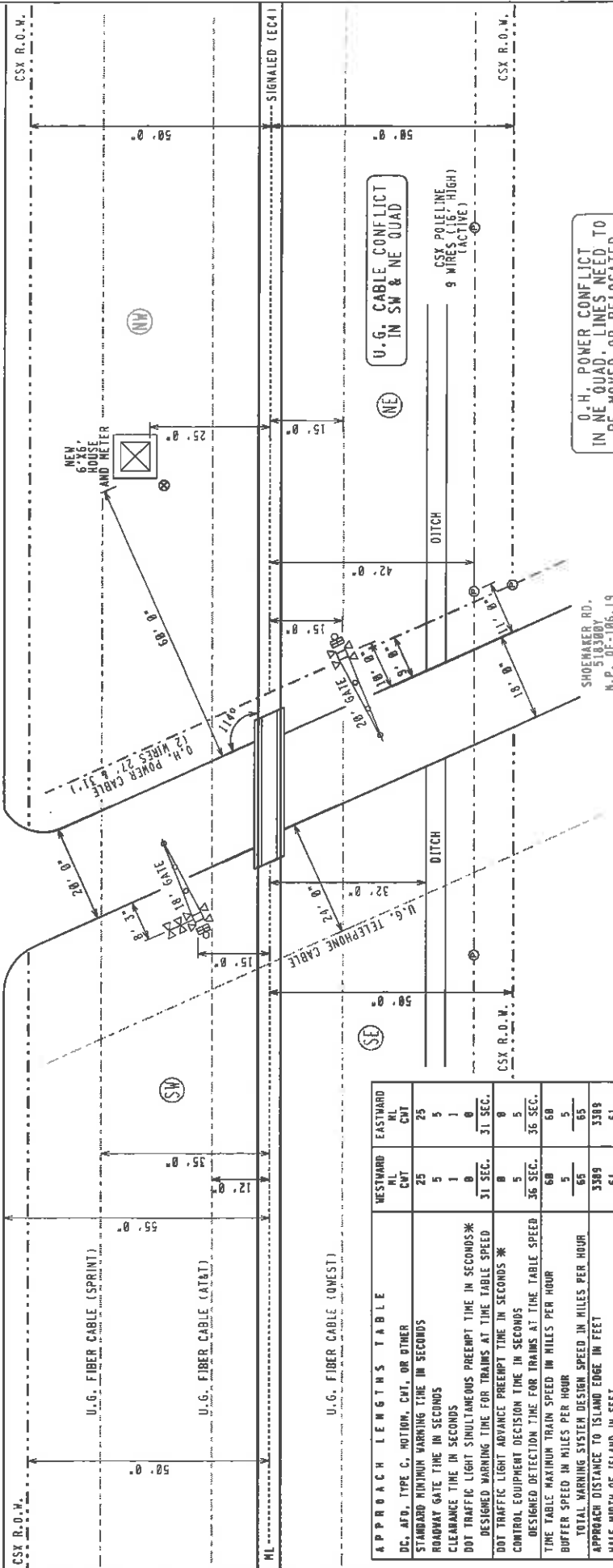
H.S. 5606+96 61 FT. 3389 FT.



CSX MAINTENANCE REQUESTED
PLATFORM FOR NEW 6'X6' HOUSE

STATE ROAD 45

STATE ROAD 45



O.H. POWER CONFLICT
IN NE QUAD. LINES NEED TO
BE MOVED OR RELOCATED

U.G. CABLE CONFLICT
IN SW & NE QUAD

CSX POLE LINE
9 WIRES (1/2" HIGH)
(ACTIVE)

SHOENAKER RD.
510300Y
N.P. 0E-106.19

APPROACH LENGTHS TABLE		EASTWARD	
DC, AFD, TYPE C, MOTION, CWT, OR OTHER	ML	ML	CWT
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25	25
ROADWAY GATE TIME IN SECONDS	5	5	5
CLEARANCE TIME IN SECONDS	1	1	1
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS*	0	0	0
DESIGNED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	31 SEC.	31 SEC.	31 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS *	0	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	5	5	5
DESIGNED DETECTION TIME FOR TRAINS AT THE TABLE SPEED	36 SEC.	36 SEC.	36 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	60	60	60
BUFFER SPEED IN MILES PER HOUR	5	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	65	65	65
APPROACH DISTANCE TO ISLAND EDGE IN FEET	3389	3389	3389
HALF WIDTH OF ISLAND IN FEET	61	61	61
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	106.84	106.84	106.54

* AUTHORIZING AGENCY: NONE
* DATE OF REQUIREMENT: NONE
* AMOUNT OF TIME (1 SEC.): NONE

0 5 10 20

PRODUCED FOR:	PRODUCED BY:	LEGEND	FILE NAME: 0E10619.H01	REVISION DATES	GPS COORDINATES	STREET NAME: SHOENAKER RD. (TR 251)
CSX TRANSPORT GROUP ENGINEERING	Xorail	CSX ROW	DATE DRAWN: 07-18-16	08-05-2016	40°23'08" N	CITY & STATE: ASHLEY, OH M.P. 0E-106.19
COMMUNICATIONS AND SIGNALS	A Webtec Company	R/R POLELINE	DRAWN BY: XRL		82°58'13" W	DOT: 510300Y
		GAS	CHECKED BY: XRL			PROJECT #: 042016029
		FIBER OPTIC	XRL #	CS16-42263		OP #: 041123
						SCALE = 20:1

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C03	CROSSING DETECTION CIRCUITRY									
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C06	CROSSING WARNING DEVICE CIRCUITRY									
C07	SEAR II CONFIGURATION & FUNCTIONS									

☒ PLANS SENT TO FIFD (DISTRIBUTED)
☐ PLANS AS-IN-SERVICED (UP TO DATE)



48086CP, 01
 REV. 09 04-15
 DESIGN DATE REV. NO.
 07-25-16 1

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	012816029	07-25-16		

TO BE COMPLETED ON A.I.S.

RAIL TRANSPORT GROUP ENGINEERING
 COMMUNICATIONS AND SIGNALS

SHOENAKER RD. (TR 251) 5183007

INDEX AND REVISIONS
 ASHLEY, OH R.P. 01-106.19

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	07-25-16
DRAWING	SHEET NO	FILE	SHEET
.....	.....	0010619	001



Minimum Program Steps Report

Location and SIM

DOT Number: 518300Y
Milepost Number: 01-196.19
Site Name: Shoemaker Rd (TR 251)
SIM: 712514000916 *

* Parameter is part of office check number calculation.

HCF and Template Selection

HCF Name: GCP-TEX-02-6.mcf
HCF Revision: 26
HCF CRC: 49407655

Template: 1A.6 Trk B1 (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 = 3389 ft (OCCN) *
Track 1: GCP Transmittal Level = High (Set in Field, TCN)
Track 1: Isl Frequency = 8.5 kHz (OCCN) *

TEMPLATE: SSCC

SSCC-1 Number of 60s = 1 (OCCN) *
SSCC-2 Number of 60s = 1 (OCCN) *
SSCC-2 Number of 60s = 1 (OCCN) *

TEMPLATE: 00S

00S Control = Display 00S IP's (OCCN) *
00S Timeout = 1 hrs (Set in Field)

TEMPLATE: IP assignment SSCC

IN 7.2 = Not Used (OCCN) *
IN 8.2 = Out Of Service IP 1 (OCCN) *
IN 8.4 = 60 2.1 (OCCN) *
IN 8.5 = GP 2.1 (OCCN) *

GCP, track 1
Track 1: Island Distance = 122 ft (Set in Field, TCN)

ADVANCED: site options

Daylight Savings = 0n (Set in Field)

SSCC, 1
SSCC-1 Gate Delay = 5 sec (OCCN) *
SSCC-1: Flash Rate = 55 (OCCN) *

SSCC, 2
SSCC-2 Gate Delay = 5 sec (OCCN) *
SSCC-2: Flash Rate = 55 (OCCN) *

SEAR

DI 1 = 6nd Fit Tester 1 (OCCN) *
DI 2 = 6nd Fit Tester 2 (OCCN) *
RI 1 = Ground Fault Test (OCCN) *
RI 2 = AC Control (OCCN) *

SEAR, slot 7-8 inputs

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

* Parameter is part of office check number calculation.

Check Numbers

Office Check Numbers: 5000000000
Config. Check Numbers: 42245208
(Based on HCF Revision 26)

Parameters not part of office check number calculation

Track 1: GCP Transmittal Level = High (Set in Field)

00S Timeout = 1 hrs (Set in Field)

Track 1: Island Distance = 122 ft (Set in Field)

Daylight Savings = 0n (Set in Field)

Comments

< none >

NEW WORK
CD164240
07-26-16

xorail

RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SHOEMAKER RD. (TR 251) 518300Y

MINIMUM PROGRAM STEPS REPORT CUE-19
ASHLEY, ON N.P. DE-106.19

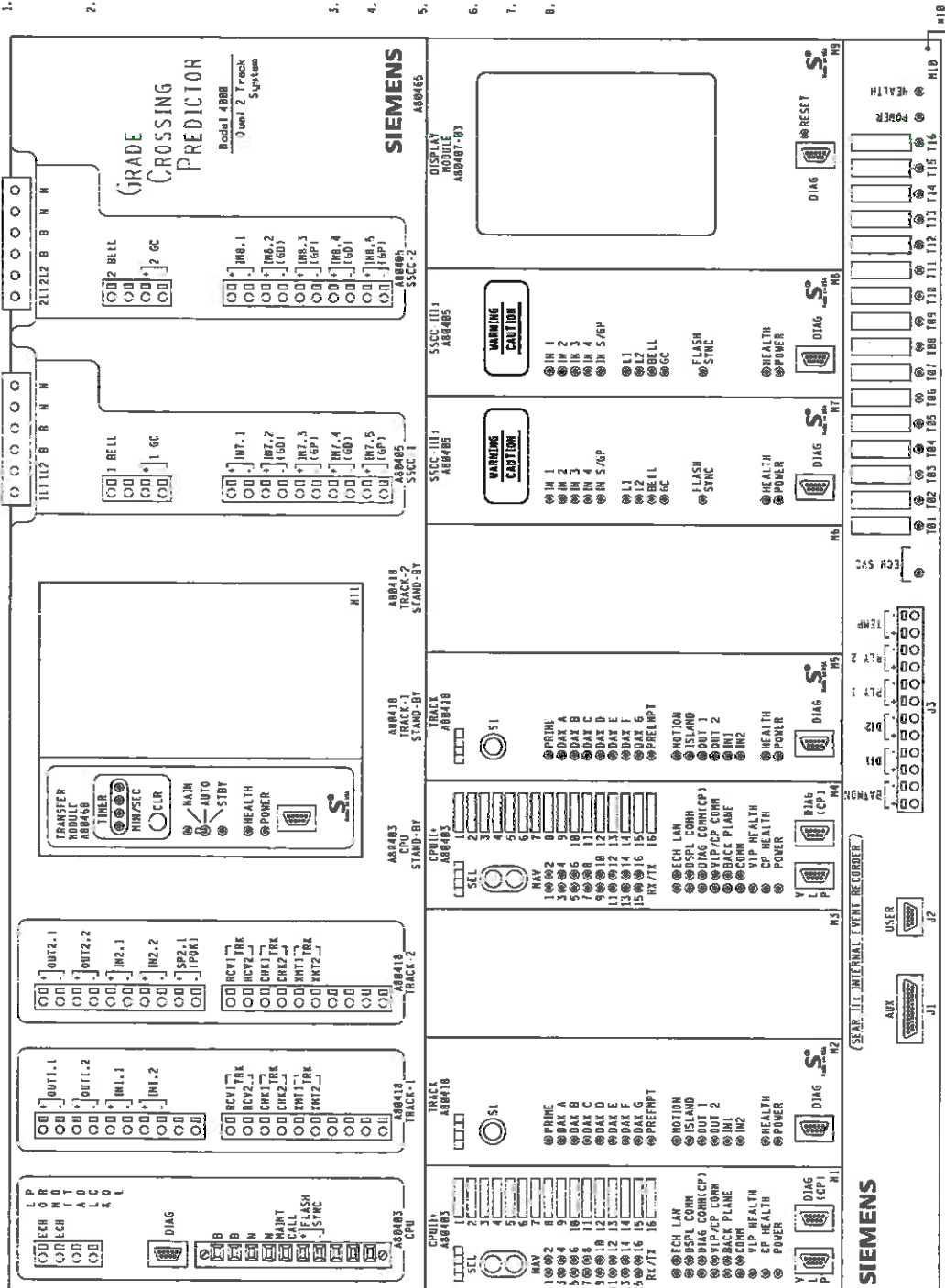
40086CP.PRI
REV. 03-04-13

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	07-26-16
DRAWING	SHEET NO	FILE	SHEET
.....	.....	DE10619	PRI

DESIGN DATE	REV. NO.	1
07-26-16		

095 B

-), THE GCP 4000 GCP (A80465) MAY USE R10 MODULES IN SLOTS M3 AND M5.



DIMENSIONS 25.25"W X 22.16"H X 12.38"D

NEW WORK
082816829
XRL/JWG/
01-26-16
020164240

xorail

**RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS**

SHOENAKER RD. (TR 251) 518300Y

DETECTION DEVICE CONSIST CML-19
ASHLEY, OH M.P. OE-186.19

DESIGN DATE	REV. NO.	DRAWING	SHEET NO.	DIGITIZED	CHECKED	DATE
		XRL	XRL	XRL	XRL	
07-26-16	1	.....	.....		0710619	07-26-16



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.

RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

SHOEMAKER NO. (IR 251) 518300Y

DETECTION CIRCUITS CRY-19

ASHLEY, DR M.P. DE-196.19

NEW WORK

NEW YORK
 CXC01642440
 07-26-16
 042816029
 XRL/JNG/

xerox

4000GCP.C02
REV. 09-04-15

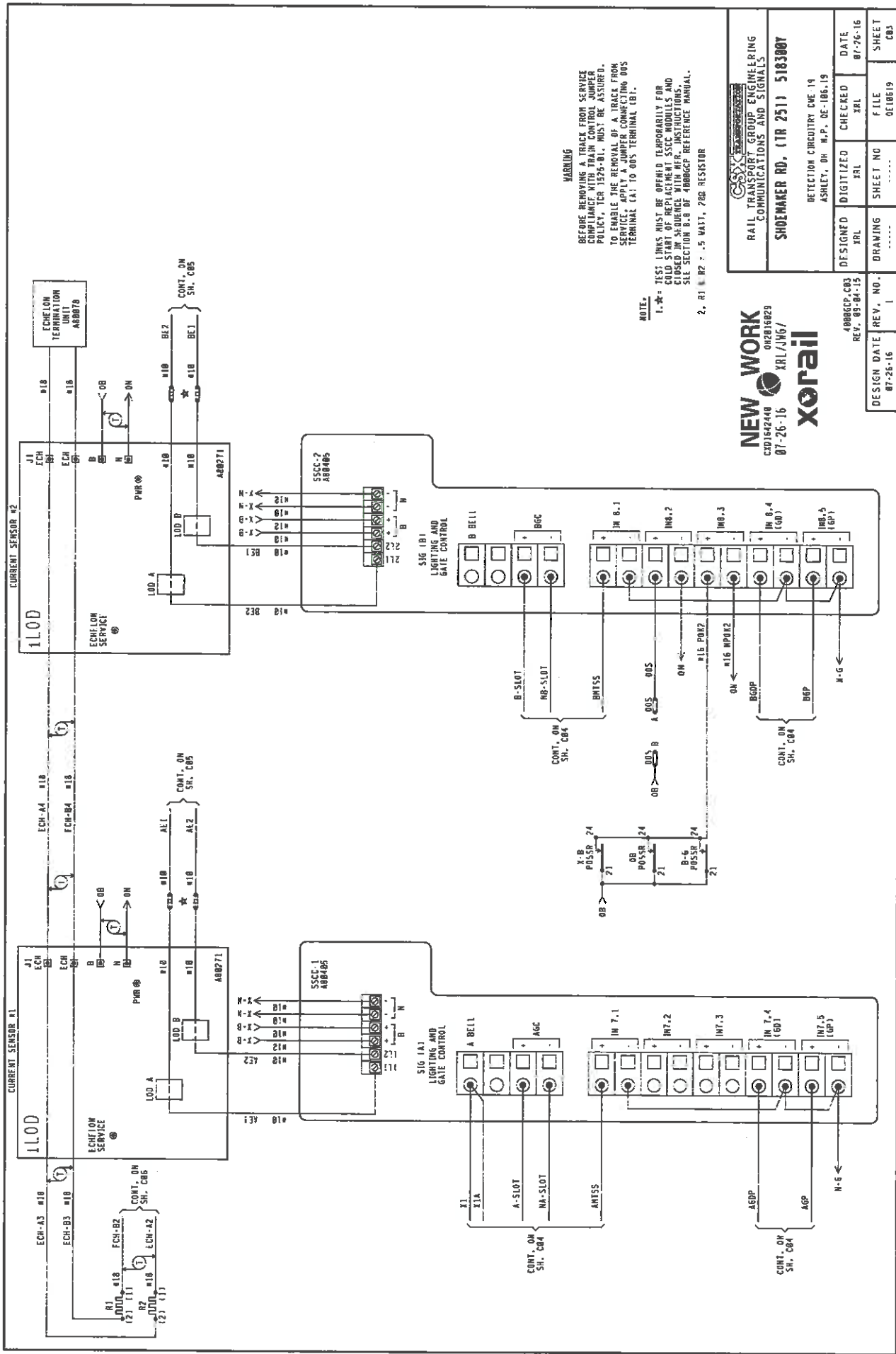
DESIGN DATE	REV. NO.
07-26-16	1

CHECKED	DATE
---------	------

07-26-16
XRL

FILE	SHEETS
OF 18619	283

THE	CLASS
-----	-------



WARNING

BEFORE REMOVING A TRACK FROM SERVICE, COMPLIANCE WITH TRAIN CONTROL JUMPER, POLICY, TCR 1575-81, MUST BE ASSURED. TO ENABLE THE REMOVAL OF A TRACK FROM SERVICE, APPLY A JUMPER CONNECTING 005 TERMINAL (A1) TO 005 TERMINAL (B1).

NOTE:

1. * TEST LINKS MUST BE OPENED TEMPORARILY FOR COLD START OF REPLACEMENT SSCC MODULES AND CLOSED IN SEQUENCE WITH MFR. INSTRUCTIONS. SEE SECTION 8.8 OF 4008GCP REFERENCE MANUAL.
2. R1 & R2 : .5 WATT, 200Ω RESISTOR

NEW WORK
CDJ142440
07-26-16

RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

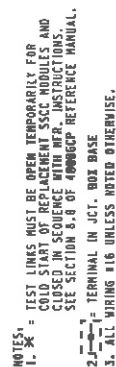
SHOENAKER RD. (TR 251) 5183007

DESIGNED XRL	DRAWING XRL	REV. NO. 1	FILE 010019	SHEET 003
DIGITIZED XRL	CHECKED XRL	DATE 07-26-16		

4008GCP-CB3
REV. 05-04-15

DETECTION CIRCUITRY CUE-19
ASHLEY, BN M.P. DE-106.19

xorail



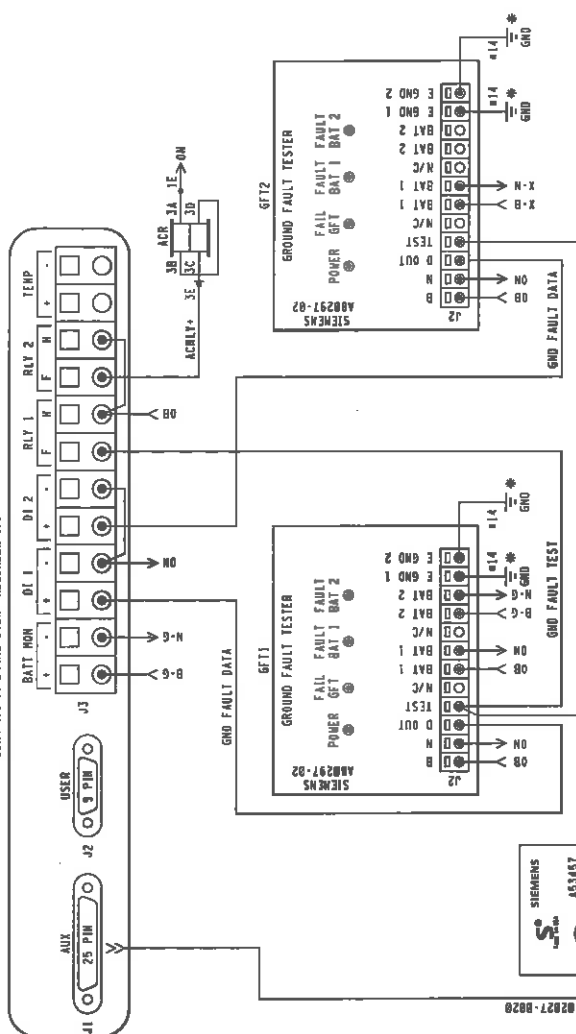
NEW WORK
OH2016029
XRL/JNG/
xorail

48886CP-C04
REV. 09-04-15

DESIGN DATE 87-26-16	REV. NO. 1	DRAWING	SHEET NO	CHECKED JRL	DATE 87-26-16
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**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: INTERNAL EVENT RECORDER (I9



6CP PROGRAMMING FOR WHF RADIO

REWRITE DTIME CROSSING ACTIVATION (ACTIVATES ENTIRE CROSSING)	3000
TO ACTIVATE PRESS.	3000
TO DE-ACTIVATE PRESS.	3000
ACTIVATION WILL TIME OUT AFTER 60	

NEW WORK
NOTE
07-26-16
XRL/JWG/
042816029
Xorail

FROM POWER.

CONV. NOTES.

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

2. WAG AND SEARILL ECHOLON CORN
THROUGH GCP4800 LONTALK
PROTOCOL CONNECTION

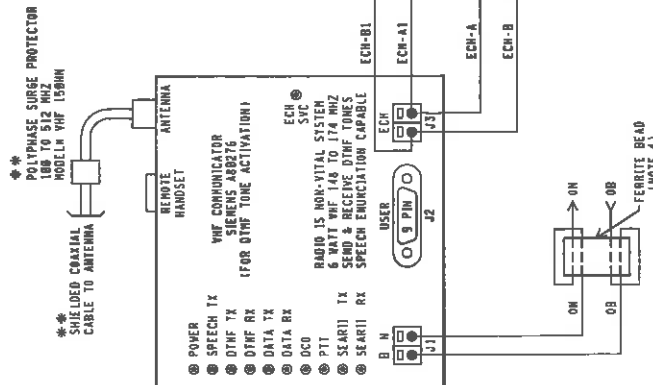
3. REFER TO WAG INSTALLATION AND
SETUP IN APPENDIX "A" GCP4800
CUT OVER TEST PROCEDURE AND
BUFF SUFF.

**RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS**

SHOEMAKER RD. (TR 251) 518300Y

CROSSING WARNING DEVICE CIRCUITRY
ASHLEY, OH M.P. OE-186.19

DESIGN DATE	REV. NO.	DESIGNED	DIGITIZED	CHECKED	DATE
07-26-16	1	XRL	XRL	XRL	07-26-16
DRAWING		SHEET NO	FILE	SHEET	
.....		.....	0210619	CB6	



DEFAULTS AND/OR STYLE		FIELD RECORD
VERSION, 91255AB1	VERSION, 91255AB1	VERSION, _____
VERSION, 91255AB1	VERSION, 91255AB1	VERSION, _____
SITE SET UP MENU		
FUNCTION	LED DISPLAY	
DATE/TIME	XX-XX-XXXX XXXXXXXX	
AUTOMATIC DS1 ADJUSTMENT	YES	
TIME ZONE	EASTERN	
SITE NAME	500HARPER RD. (R 2511)	
MILEPOST	0F-186.19	
DOI NUMBER	5183887	
TESTER TYPE	CROSSING	
DATE FORMAT	MM-DD-YYYY	
TEMP FORMAT	FAHRENHEIT	
INDICATE HOLD (SEC)	0	
INDICATE REFRESH (SEC)	60	
SITE ATCS ADDRESS	7125-440-0000 (9530) (72RRRL) (56L9H00)	
SITE TYPE	COLLECTOR	
OFFICE ADDRESS	2-125-00-0000 (2-888-MM-0000)	
POLL ID	1	
MODE	GENERATES	
MAKS X10	DISABLED	
OFFICE COMM. DEVICE	<input checked="" type="checkbox"/> VAX (TELEPHONE) <input type="checkbox"/> DIRECT (RS232) <input checked="" type="checkbox"/> MCS (TELEPHONE) <input type="checkbox"/> MCS (RS232) <input type="checkbox"/> DIAL MODEM <input type="checkbox"/> S2800 RADIO (RS422)	
RADIO ATCS ADDR	7-125-440-0000 (9530) (72RRRL) (56L9H00)	
FIELD COMM. DEVICE	<input type="checkbox"/> VAX (TELEPHONE) <input checked="" type="checkbox"/> NONE <input type="checkbox"/> VHF COMM. (TELEPHONE) <input type="checkbox"/> VHF COMM. (RS232) <input type="checkbox"/> SPEAR- 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	39,400	
AUX PORT DATA BITS	8	
AUX PORT PARITY	NONE	
AUX PORT STOP BITS	1	
AUX PORT FLOW CONTROL	NONE	

INSPECTOR NOTE:
CURRENT VALUES MAY VARY DEPENDANT ON FIELD
CONDITIONS, MAKE UP PER ACTUAL READINGS FOR
IN-SERVICE REVISION.

NO.	TYPE OF BULB	CURRENT READING IN 115-B V. ACRY. VOLTAGE
6	□ BULBS ■ LED	4.6
6	□ BULBS ■ LED	4.6
4	□ BULBS ■ LED	2.6
4	□ BULBS ■ LED	2.6

MENU	CONFIGURATION	↑	MEASURE BATTERY VOLTAGE AT INPUT			
MODULES	↑	ADD MODULE	BATTERY VOLTAGE	OR	VOLTS	
MODULE TYPE	WAG		BATTERY VOLTAGE	X-B	VOLTS	
MODULE NAME	DEFAULT		BATTERY VOLTAGE	B-G	VOLTS	

NOTE: REFER TO WAG INSTALLATION AND SETUP IN APPENDIX "A" GCP4888 SYTEM CUT OVER, TEST PROCEDURE AND CHECK OFF SHEET.

DATE: 6

NOTE TO INSPECTOR,
AT IN SERVICE OF SEAR III OR UPDATE
OF ITS INTERNAL EXECUTIVE PROGRAM
OR ITS CSRT APPLICATION PROGRAM.
NOTE THE VERSION NUMBER OF EACH
PROGRAM MUST IN THE BLANK FIELDS.


OPTION	CONTROL SYSTEM CONFIGURATION MENU QUESTIONS				SELECTION	
	RESET NAMES / MODULES	NO	YES	NO	YES	NO
RAILROAD NUMBER	125					
CROSSING CONFIGURATION						
AND1 USED AS XR	NORMAL					
AND2 USED AS XR	EXTERNAL ENTRANCE (64FC CONTROLLER(S))					
AND3 USED AS XR	NO					
AND4 USED AS XR	NO					
AND5 USED AS XR	NO					
AND6 USED AS XR	NO					
AND7 USED AS XR	NO					
AND8 USED AS XR	NO					
ENTRANCE GATES	0 0 1 0 2 3 4 0					
	5 0 6 0 7 0 0					
GATE POSITION FAIL	20 SECS.					
BATTERY BANKS	1 0 2 3					
BATT MON USDP	NO					
DB RESOLUTION	0.2 0 0.5 1.0					
X-B RESOLUTION	0.2 0 0.5 1.0					
X-BZ RESOLUTION	0.2 0 0.5 1.0					
HATT NON RESOLUTION	0.2 0 0.5 1.0					
INTERNAL CROSSING CONTROLLERS	0 0 1 0 2					
EXTERNAL CROSSING CONTROLLERS	0 0 1 0 2					
WHF COMMUNICATION	YES					
DTMF ACTIVATION	YES					
ACTIVATION CODE	380					
ACTIVATION TIMEOUT	160 SEC					
LUD MODULES	0 0 1 0 2 3 4					
ANY TED BODIES USED	NO					
AUTO INSPECTIONS	YES					
BELL SENSORS	0 0 1 0 2 3 4					
BELL SENSOR TSS 1*	NO					
BELL SENSOR TSS 2*	NO					
BELL SENSOR TSS 3*	NO					
BELL SENSOR TSS 4*	NO					
BELL SENSOR TSS 5*	NO					
BELL SENSOR TSS 6*	NO					
BELL SENSOR TSS 7*	NO					
BELL SENSOR TSS 8*	NO					
BELL ON*	GATES UNLERRING					
GPT'S	YES					
BATTERIES ON GPT	1 0 2					
GATE ZIP SENSORS	YES					
RTO	NO					
WHF VOICE CHANNEL	NO					
WHF DATA CHANNEL	1 0 2 3 4					
	5 0 6 0 7 0 0					
	1 0 2 3 4 0					
	5 0 6 0 7 0 0					
USE NON-CRITICAL FEATURE*	NO					
FULL APPROACH NOTE ALARMS*	ACTIVATE					
ENABLE PASSWORD	NO					
	DO NOT ACTIVATE					

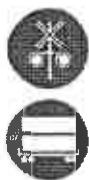
NOTES.

- OPTION AVAILABLE IF VHF COMMUNICATOR = YES
LAST 3 DIGITS OF POT NUMBER.
- OPTION AVAILABLE IF 400PS.
- OPTION AVAILABLE IF BELL SENSORS.
- OPTION AVAILABLE IF GATES.
- OPTION AVAILABLE IF VHF RADIO.
- ONLY YES IN SPECIAL CIRCUMSTANCES.
- SELECT "MENU" THEN "CONFIRMATION" FROM SEAR
INTERACE 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

PROGRAM MENU SELECT		NO	YES
EDIT DIGITAL INPUTS		NO	YES
EDIT BATTERIES		NO	YES
EDIT RELAYS		NO	YES
EDIT TEST LED'S		NO	YES
EDIT ILOU1 SENSOR	☆	NO	YES
EDIT ILOU2 SENSOR	☆	NO	YES
EDIT ILOU3 SENSOR	☆	NO	YES
EDIT ILOU4 SENSOR	☆	NO	YES
EDIT VWF SETTINGS		NO	YES

6CP4K AICS SUBNODE	16
*STAR = OPTIONS SHOWN DEPENDANT ON NUMBER OF LINES SELECTED	

 NEW WORK 4647440 04/28/82 9 26-16 XRL/JMG/		= MORE 4008GCP CQ7 REV. 89-04-15	
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS SHOEMAIER RD. (TR 251) 510300Y		SEAR III CONFIGURATION & FUNCTIONS ASHLEY, OH M.P. DE-106-19	
DESIGNED XRL	DIGITIZED XRL	CHECKED FILE	DATE 87-26-16
DRAWING -----	SHEET NO -----	FILE 07/05/19	SHEET C07



OHIO RAIL DEVELOPMENT COMMISSION

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

John R. Kasich, Governor • Mark Policinski, ORDC Chairman

June 23, 2016

Ms. Amanda DeCesare
Project Manager
500 Meijer Drive, Suite 305
Florence, KY 41042

RE: Delaware County, Shoemaker Road
DOT 518300Y, PID 103319

Dear Mr. DeCesare:

A diagnostic review was held at the above grade crossing on April 28, 2016. The crossing has been recommended for the installation of lights and gates.


CSX is authorized to proceed with the site plans and cost estimates (PE) 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.

The ORDC is not requesting that the PUCO issue an Order at this time. When the ORDC receives the PE it will be evaluated and a construction-only Order will be requested from PUCO. Please submit the PE to ORDC within 90 days of receipt of this letter.

The diagnostic review form is attached. Please note any recommendations (page 5), 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 PE and such costs will flow through the railroad reimbursement process.

The Project Manager for this project is Joe Reinhardt. He can be reached at (614) 644.0291, or Joe.Reinhardt@dot.state.oh.us, if you have any questions.

Sincerely,


Joseph N. Reinhardt
Project Manager

C: George Martin, PUCO, Grade Crossing Planner
ORDC (file)



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY



Diagnostic Review Team Survey

Reason for Survey: PUCO Formula Spring Pick
(e.g. formula, accident, constituent, etc.)

Date: 4/28/2016

Location Data

Street or Road Name: Shoemaker Road			
Route/Road Number (i.e. Twp., Co., SR or US) TR 251		US DOT No.: 518300Y	
County: DEL	Township: Oxford	City: (In or Near) Near Ashley	
Railroad Name: CSX Transportation	Railroad Division: Indianapolis	Branch/Line Name: Columbus Line	
Nearest RR Timetable Station: Delaware		RR Milepost: 106.19	

On-Site Review Team

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

- Joe Penland ORDC 614-644-0291
- GEORGE MARTIN PUCO 614-752-9107
- Jeff Stein CSX 614-778-3702
- Jim Hatten Port Trust 740-815-6984
- John H. Dean Del. RR Task Force 740-363-9105
- Haven Jennings Delaware County EMS 740-833-2194
- Ed Pittman Oxford Twp
- Steve Lewis Oxford Twp STEWIS@OxfordTWP-ORG 740-573-8998
- DOUG RIEDEL DELAWARE COUNTY ENGINEER'S OFFICE 740.272-0071

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
'Stop' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
'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	1- YIELD & 1- Buckeye
Number of Tracks Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Inventory Tags	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Interconnected Highway Traffic Signal	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Mass-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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Is crossing flagged by train crew?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Other	<input type="checkbox"/> Yes	<input checked="" 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	1565	Date Run: 4/6/2016

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	5	
< 1 per day		
Day thru trains	2	
Night thru trains	2	
Daytime switching movements	1	
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	60	
Typical train speed	60	
Amtrak		

If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) ☒ Yes ☐ No

If multiple tracks, can two trains occupy crossing at the same time? ☐ Yes ☒ No

Can one train block the motorists' view of another train at crossing? ☐ Yes (Explain below) ☒ No

Can one or more tracks be eliminated through the crossing? ☐ Yes ☒ No

Are 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: Oxford Twp.

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	317 (2013)	
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: <u>14</u> ft.		
Number of highway lanes	2	
Urban or Rural	Rural	
Vehicle Speed: _____ MPH	<u>55</u>	
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes _____ Amount		
Hazardous Materials Trucks: <input type="checkbox"/> No X Yes <u>05</u> 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>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	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
Pedestrians: <input checked="" type="checkbox"/> No <input 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? XXXX <input checked="" type="checkbox"/> Yes If yes, Distance <u>28' SR42</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 checked="" type="checkbox"/> Open Space <input type="checkbox"/> Institutional <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	Location of nearby schools: _____
Utility Information	
Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Utility Provider (Company Name) <u>AEP</u> Phone Number _____ Nearest Available Power Source _____	
What other utilities are present? (add locations to sketch) <input checked="" type="checkbox"/> Gas <input checked="" type="checkbox"/> Cable <input checked="" type="checkbox"/> Telephone <input checked="" type="checkbox"/> Fiber Optic Cable <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 type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	
Comments: _____	

Potential Red Flags / Project Challenges

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

Crossing Consolidation or Closure:

Real Estate or ROW:

Culverts / Drainage / Ballast Conditions:

Roadway and/or Sidewalks:

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

Environmental:

Other:

OK
4/28/16
OK





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	NE & SW
<input type="checkbox"/> AFLS / Gates / Cants	
<input type="checkbox"/> Bells / number	
<input type="checkbox"/> Upgrade circuitry / type	
<input checked="" type="checkbox"/> Sidelights	SW Quadrant
<input type="checkbox"/> Guardrail Needed	
<input type="checkbox"/> Install/Replace curb	
<input type="checkbox"/> Bungalow placement & offset from rail & highway	
<input type="checkbox"/> Other (define)	

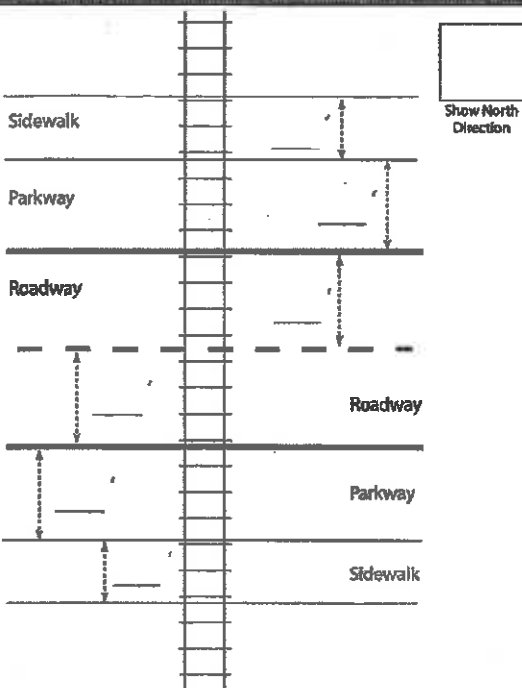
Comments:

<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



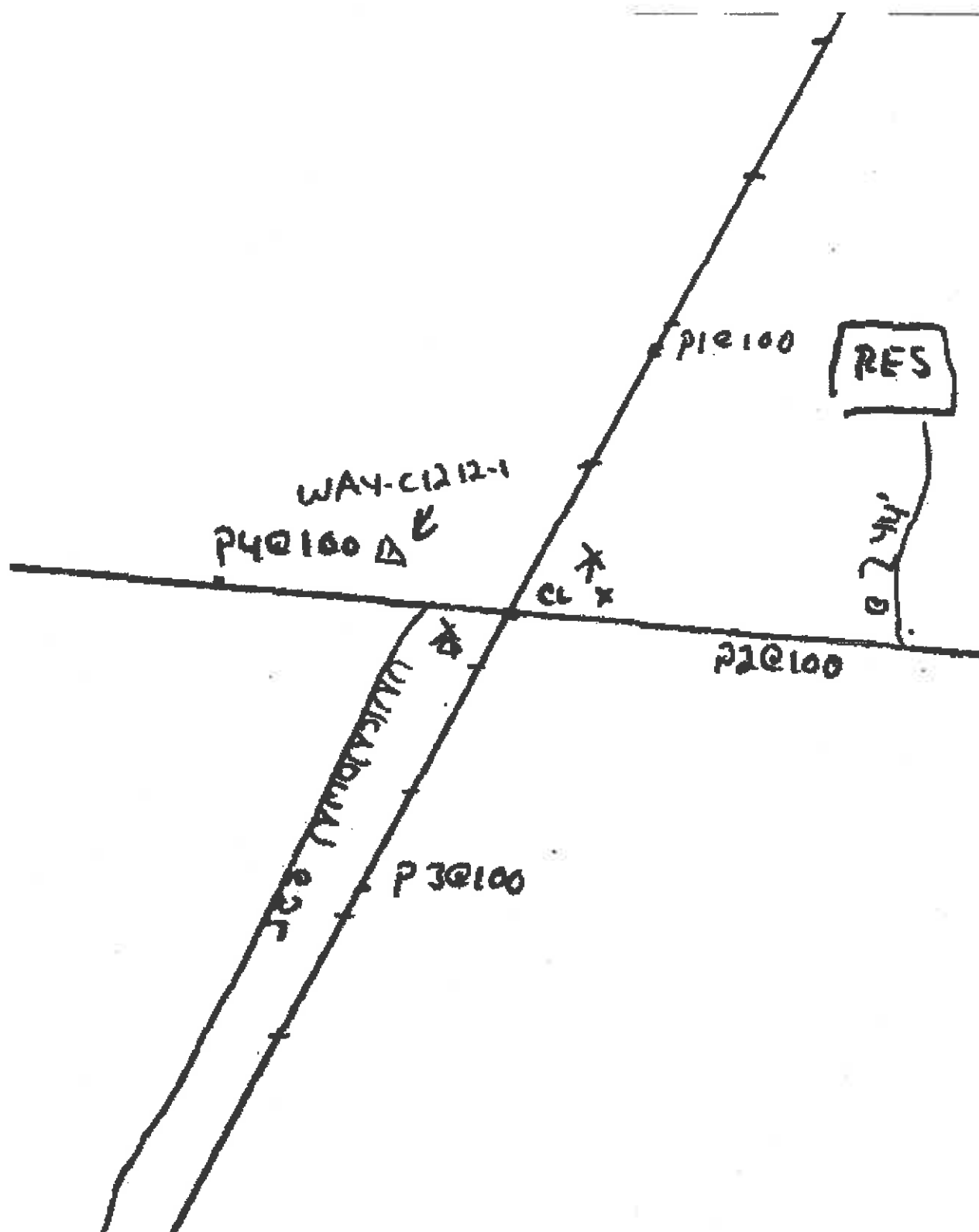


TABLE 1

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.

JNR
4/28/16
OK

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Case No(s). 16-1842-RR-FED

Summary: Application In the Matter of a Request for the Installation of Active Warning Devices at CSX Transportation Inc. Grade Crossing, DOT#518-300Y, on Shoemaker Road in Delaware County, Ohio. electronically filed by Mrs. Jill A Henry on behalf of PUCO/Rail Division