

Memo

To: Docketing Division
From: Jill Henry, Chief, Rail Division
Cc: PUCO Legal Department
Date: 3/21/2022

Re: PUCO Case No. 22-239-RR-FED- In the Matter of a Request for the Installation of Active Warning Devices at the Columbus & Ohio River Railroad Crossing, DOT#510-668Y, Fillman's Bottom Road, in Tuscarawas County, Ohio.

On March 8, 2021, the Ohio Rail Development Commission (ORDC) authorized funding for the Columbus & Ohio River Railroad (CUOH) to install lights and gates at the Fillmans Bottom Road (DOT#510-668Y) grade crossing in Tuscarawas County, Ohio. The crossing was surveyed, on August 13, 2020, and was found to warrant the upgrade. The electric utility provider for this crossing is AEP- Ohio.

The project will be paid for with federal funds and is actual cost. The plans and estimates for the project in the amount of \$216,925.00 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:

Columbus & Ohio River Railroad
Jared Rishel
AVP Engineering Northern Region
Genesee & Wyoming Inc.
4349 Easton Way
Suite 110
Columbus, OH 43219

Alfred Benesch & Company
Ben Biesterveld
G&W Consultant
4614 Red Fox Road
Oshkosh, WI 54904

Ohio Rail Development Commission
Alan Bell
Manager, Grade Crossing Programs
1980 West Broad Street
Mail Stop #3140
Columbus, OH 43223

Tuscarawas County Engineer
Joe Bachman
County Engineer
832 Front Avenue SW
New Philadelphia, OH 44663

Salem Township, Tuscarawas County
Trustees
8276 Stonecreek Road
Newcomerstown, OH 43832

AEP Ohio

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

TO: John Williams, Director, Transportation Department, PUCO

FROM: Cathy Stout, Manager, Safety Section, ORDC

BY: Greg Gronbach, Project Manager, Safety Section, ORDC

SUBJECT: Construction Authorization for TUS CUOH TR208/Fillmans Bottom Rd
DOT# 510668Y PID# 114024

DATE: February 22, 2022

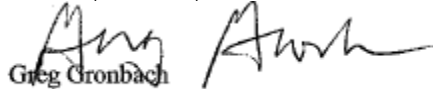
The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on August 13, 2020. The Ohio Rail Development Commission (ORDC) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. Copies of the diagnostic review form and the plan and estimate are attached.

PE has already been provided by the railroad. ORDC accepts the site plans and estimates as provided. Please issue a construction-only order for the project outlined above. ORDC recommends a nine (9) month construction timeline. 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.


Greg Gronbach
Project Manager

Attachment: Diagnostic Review
Letter Agreement
PE Authorization
Plan, Estimate & Material List
Construction Authorization

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



Rail Development Commission

Mike DeWine, Governor
Jon Husted, Lt. Governor

Scott Corbitt, Chair

February 22, 2022

Mr. Len Wagner
President & Legal Official (SVP)
Genesee & Wyoming/CUOH
201 N. Penn Street
Punxsutawney, PA 15767

RE: Construction Authorization for TUS CUOH TR208/Fillmans Bottom Rd DOT# 510668Y PID# 114024

Dear Mr. Wagner:

The plan dated November 24, 2021, and estimate dated December 13, 2021, for the referenced project is acceptable. Genesee & Wyoming/CUOH may proceed with the construction of the proposed grade crossing warning system in accordance with the abbreviated plan. Construction may include but is not limited to circuitry design, installation of service poles, procurement of materials and signal construction.

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 \$216,925.00. 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.

This authorization is contingent upon Genesee & Wyoming/CUOH accepting the following instructions:

1. Genesee & Wyoming/CUOH's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Greg Gronbach, ORDC, email Gregory.Gronbach@dot.ohio.gov, and to the Public Utilities Commission of Ohio at Jill.henry@puco.ohio.gov. Genesee & Wyoming/CUOH'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. Genesee & Wyoming/CUOH 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 Genesee & Wyoming/CUOH.
3. Genesee & Wyoming/CUOH's project foremen will notify Mr. Gronbach at 614-745-6760 (telephone) or Gregory.Gronbach@dot.ohio.gov (email) 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. Genesee & Wyoming/CUOH will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.
6. Genesee & Wyoming/CUOH 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.

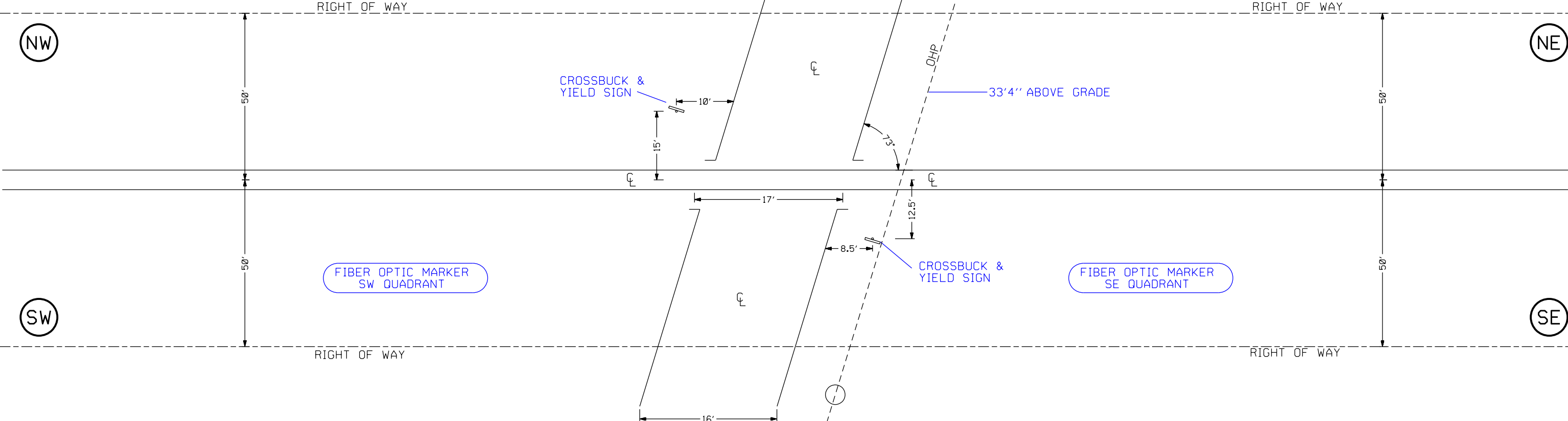
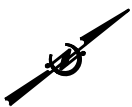

Greg Gronbach
Project Manager

Sincerely,

C: John Williams, Director, Transportation Department, PUCO
Jill Henry, Rail Specialist, PUCO
Heather Hamilton, ORDC
ORDC (file)

← WEST TO PT WASHINGTON

EAST TO GNADENHUTTEN →



MP# 100.99
TR 208/FILLMANS BOTTOM RD.
DOT #510668Y

= NOTE

LEGEND:

- UTILITIY POLE

- NOTES:
- 1. ALL DIMENSIONS ARE APPROXIMATE AND MAY VARY DUE TO ACTUAL FIELD CONDITIONS. VENDOR TO VERIFY ALL CONDITIONS.
 - 2. VENDOR IS RESPONSIBLE TO LOCATE AND PROTECT ALL UTILITIES WITHIN LIMITS OF CONSTRUCTION.
 - 3. 1' SHOULDERS ON SIDES OF HIGHWAY.
 - 4. EXISTING RAIL IS BONDED, REPLACE ALL BONDS.

PRELIMINARY
NOT FOR CONSTRUCTION
THIS DRAWING IS PROVIDED FOR REFERENCE ONLY.
ACTUAL CONDITIONS AND FINAL DESIGN ARE
THE RESPONSIBILITY OF THE DESIGN-BUILD VENDOR.

benesch
engineers • scientists • planners
Alfred Benesch & Company
1230 East Diehl Road, Suite 109
Naperville, IL 60563
630-677-9100 Job No. 00210402.25



"DRAWING NOT TO SCALE"

EXISTING CROSSING LAYOUT

REVISIONS							

THE OPERATION OF THE CIRCUITS AND EQUIPMENT REPRESENTED HEREIN CANNOT BE FULLY CHECKED UNTIL ALL CIRCUITS AND DEVICES ARE CONNECTED TO FORM A COMPLETE SYSTEM, OR AN EFFECTIVE SUBSYSTEM. SUCH SYSTEM OR SUBSYSTEM MUST BE GIVEN OPERATIONAL TESTS BEFORE BEING PLACED IN REGULAR OPERATION.



COLUMBUS & OHIO RIVER RAILROAD		
DRAWN: TCS DESIGNED: TCS CHECKED: BPB DATE: 08/08/21	TR 208/FILLMANS BOTTOM RD. SALAM TWSP, (TUSCARAWAS), OHIO DOT#510668Y MILEPOST#100.99	DRAWING NO. CUOH10099.H02 SHEET 01 OF 01

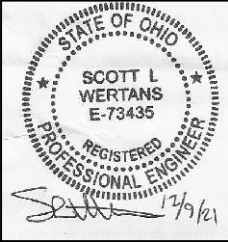
COLUMBUS & OHIO RIVER RAILROAD

FILLMAN'S BOTTOM ROAD

PORT WASHINGTON (TUSCARAWAS), OHIO

DOT# 510-668Y MILEPOST# 100.99

INDEX	
SHEET	DESCRIPTION
00	TITLE AND INDEX
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02	TRACK AND CABLE LAYOUT
03	PMD-4 CONTROL & TRACK CIRCUITRY
04	SSCCIIIA CROSSING CONTROLLER CIRCUITRY
05	GATE LIGHTING CIRCUITRY
06	GATE MECH CIRCUITRY
07	DATA RECORDER CIRCUITRY
08	VIDEO RECORDING CIRCUITRY
09	DC POWER DISTRIBUTION
10	SIDE D AC POWER DISTRIBUTION DETAIL
11	SIDE B TERMINAL BOARD DETAIL
12	SIDE A DETAIL
13	SIDE C DETAIL

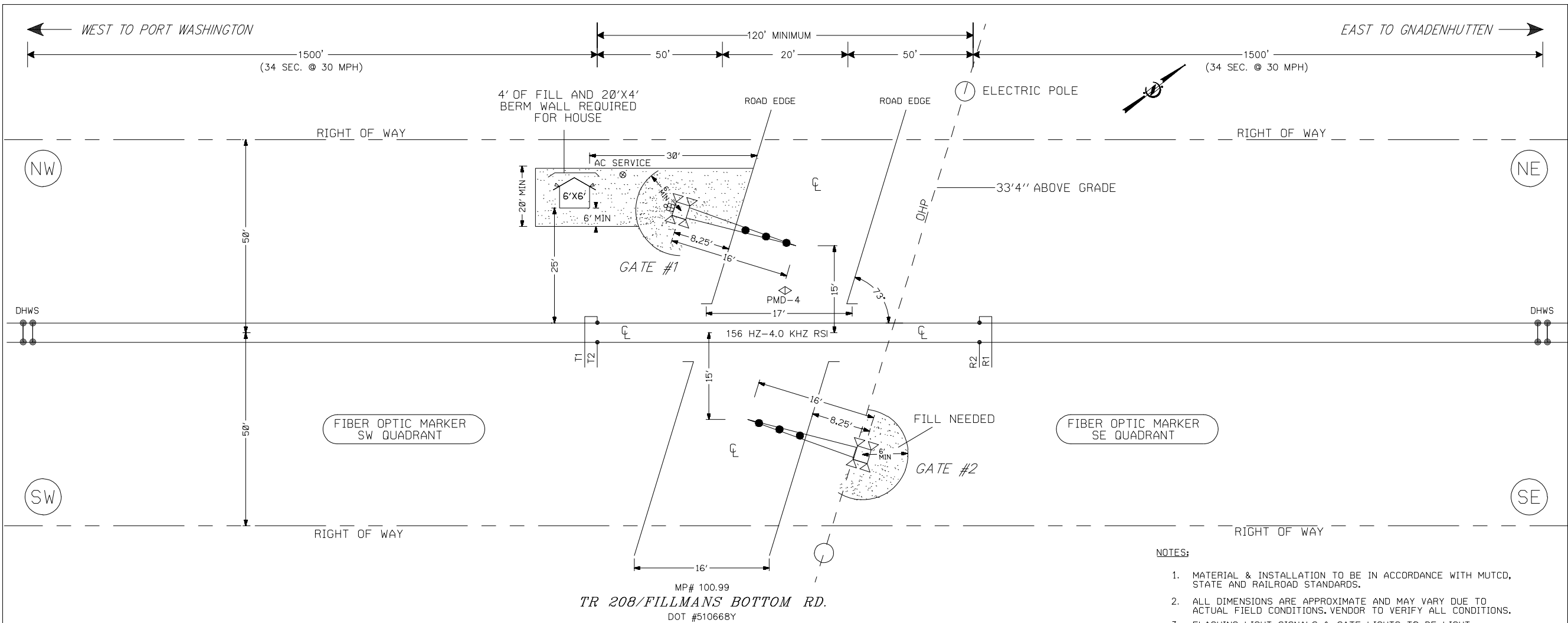


REVISIONS							

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TITLE AND INDEX		
COLUMBUS & OHIO RIVER RAILROAD		
DRAWN: SRE DESIGNED: SRE CHECKED: SRE DATE: 11/24/2021	FILLMAN'S BOTTOM ROAD PORT WASHINGTON, OHIO DOT# 510-668Y MILEPOST# 100.99	SHEET 00 OF 13



APPROACH DISTANCE CALCULATION		
	SOUTH	NORTH
ACTUAL PRIME CROSSING WARNING TIME	30 SEC	30 SEC
TIME FOR CROSSING CLEARANCE DISTANCE > 35'	+ 0 SEC	+ 0 SEC
TRAFFIC PRE-EMPTION TIME	+ 0 SEC	+ 0 SEC
TOTAL CALCULATED DESIGN WARNING TIME	30 SEC	30 SEC
EQUIPMENT RESPONSE TIME	+ 4 SEC	+ 4 SEC
BUFFER TIME	+ 0 SEC	+ 0 SEC
TOTAL WARNING TIME FOR APPROACH DISTANCE CALCULATION	34 SEC	34 SEC
CALCULATED AT MAXIMUM TRAIN SPEED	× 30 MPH	× 30 MPH
RATIO OF FEET PER SECOND TO MILES PER HOUR	1.47	1.47
APPROACH LENGTH (ROUNDED UP TO THE NEXT FOOT)	1500 FEET	1500 FEET

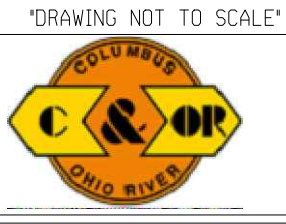
- LEGEND:
- ⊗ - TEST TERMINAL
 - △ - EQUALIZER
 - ⌋ - ARRESTOR TO GROUND
 - ⊗ - TWISTED WIRE 2' TURNS PER FOOT
 - - INSULATED NUT
 - ⊗ - LOCATION OF AC SERVICE

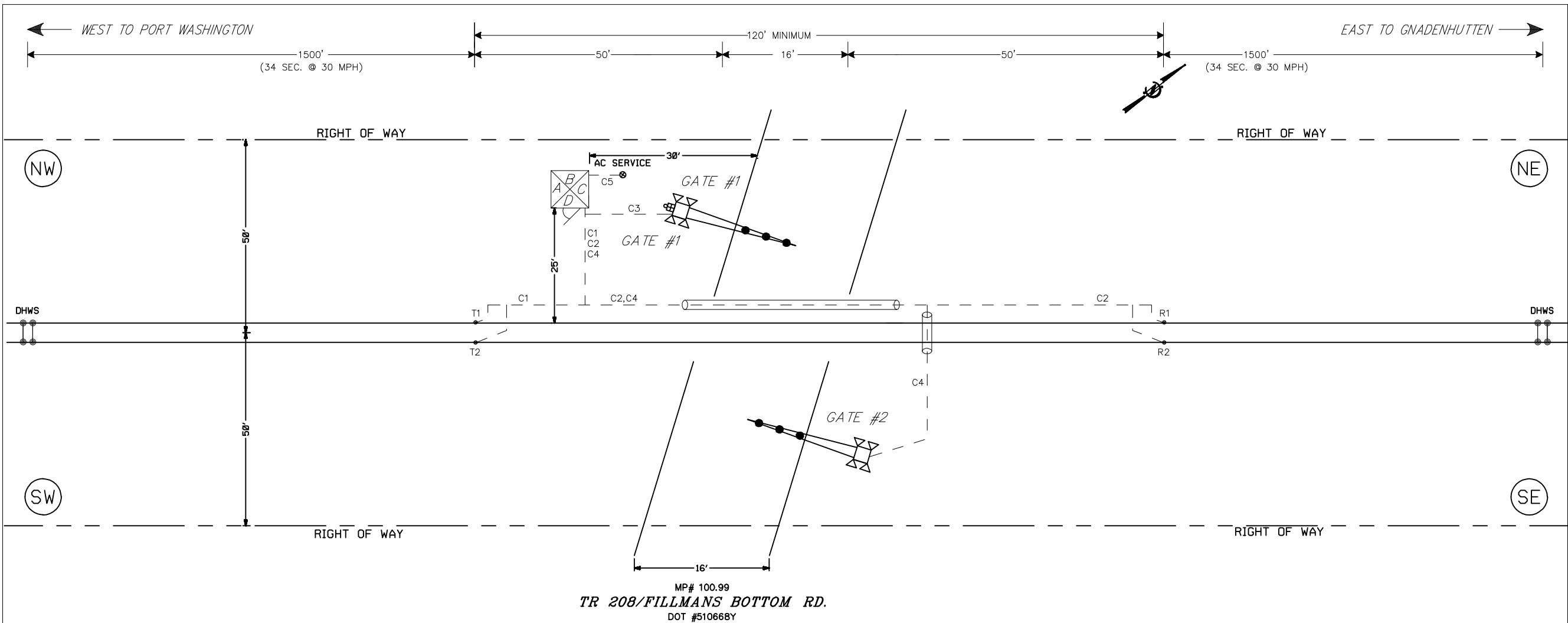


- NOTES:
- MATERIAL & INSTALLATION TO BE IN ACCORDANCE WITH MUTCD, STATE AND RAILROAD STANDARDS.
 - ALL DIMENSIONS ARE APPROXIMATE AND MAY VARY DUE TO ACTUAL FIELD CONDITIONS. VENDOR TO VERIFY ALL CONDITIONS.
 - FLASHING LIGHT SIGNALS & GATE LIGHTS TO BE LIGHT EMITTING DIODE ASSEMBLIES (LED)
 - BEWARE OF OVERHEAD WIRES.
 - SEE APPROACH CIRCUIT DISTANCE CALCULATION TABLE FOR PLANNED WARNING TIME AND TRAIN SPEED PER TRACK.
 - APPROACH DISTANCES ARE TO BE MEASURED FROM THE TERMINATIONS TO CLOSEST SET OF TRACK LEADS AT CROSSING.
 - CONDUIT MUST BE BORED.
 - VENDOR IS RESPONSIBLE TO LOCATE AND PROTECT ALL UTILITIES WITHIN LIMITS OF CONSTRUCTION
 - CAMERA SYSTEM TO BE SUPPLIED BY VENDOR AND INSTALLED BY RR.
 - ENSURE ALL DITCHES ALONG THE TRACKS IN ALL FOUR QUADRANTS HAVE POSITIVE DRAINAGE FLOW TO 100' FROM THE HIGHWAY.
 - BELLS TO STOP RINGING WHEN GATES ARE HORIZONTAL.
 - 1' SHOULDERS BOTH SIDES OF HIGHWAY
 - GATE LENGTHS:
GATE #1: 16'
GATE #2: 16'



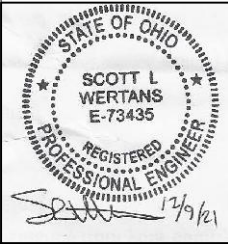
REVISIONS								CROSSING LAYOUT		
								COLUMBUS & OHIO RIVER RAILROAD		
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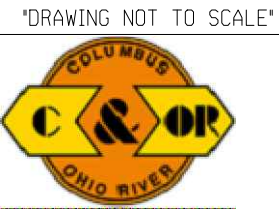
- LEGEND:
- ⊗ - TEST TERMINAL
 - △ - EQUALIZER
 - ∠ - ARRESTOR TO GROUND
 - ⌚ - TWISTED WIRE
2 TURNS PER FOOT
 - - INSULATED NUT
 - - RIGID CONDUIT
 - - DIRECT BURIAL CABLE
 - ⊗ - LOCATION OF AC SERVICE
 - - UTILTY POLE

CABLE	CABLES DESCRIPTION	FROM - TO
C1	1EA. 2C#6 AWG TWISTED PAIR	HOUSE TO T1 & T2
C2	1EA. 2C#6 AWG TWISTED PAIR	HOUSE TO R1 & R2
C3	1EA. 7C#6 AWG & 1EA. 7C#9 AWG	HOUSE TO GATE 1
C4	1EA. 7C#6 AWG & 1EA. 7C#9 AWG	HOUSE TO GATE 2
C5	1EA. 3C#6 AWG	HOUSE TO AC POWER SERVICE



REVISIONS							

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CABLE LAYOUT		
COLUMBUS & OHIO RIVER RAILROAD		
DRAWN: SRE DESIGNED: SRE CHECKED: SRE DATE: 11/24/2021	FILLMAN'S BOTTOM ROAD PORT WASHINGTON, OHIO DOT# 510-668Y MILEPOST# 100.99	SHEET 02 OF 13



NOTE:
DL = DEFAULT LEVEL
NA = NON APPLICABLE

<i>PMD-4R SETUP PARAMETERS</i>	
<i>APPLICATION INFO</i>	
APPLICATION	PMD-4r_md(cw)OOS
APPLICATION CHECKSUM	7591
APPLICATION CRC	3230
CHASSIS ID	7
<i>MDRI SETTINGS</i>	
MDRI WARNING TIME (SEC)	30
MDRI CW OR MD	CW
MDRI AP TIME	NA
MDRI AUX RECOVERY DELAY	5 (DL)
<i>FREQUENCY</i>	
APPROACH TRACK FREQUENCY (HZ)	156 HZ
<i>BASIC APPROACH SETTINGS</i>	
MASTER/SLAVE	MASTER
TRANSMITTER GAIN	200
TCA	FIELD ADJUST
DIRECTION MODE UNI/BI	BI
LIA	FIELD ADJUST
APPROACH LENGTH	1500 FT
AUTO RX ENABLE/DISABLE	ENABLED
<i>ADVANCE APPROACH SETTINGS</i>	
FALSE SHUNT	DISABLED
FALSE SHUNT RX	80
FALSE SHUNT DELAY	10
APPROACH RELEASE	DISABLED
APPROACH RELEASE RX	80
APPROACH RELEASE DELAY	10
LOSS OF SHUNT TIME (LOS)	16
APPROACH SETTING	NORMAL
<i>ISLAND SETTINGS</i>	
ISLAND TYPE INTERNAL/EXTERNAL	INTERNAL
ISLAND ENABLED	ENABLED
ISLAND DISABLE TIMEOUT	2 HR
ISLAND FREQUENCY (HZ)	4.0 KHZ
ISLAND LOSS OF SHUNT (LOS)	2
ISLAND FAULT DELAY	1
TRANSMITTER GAIN	0

PMD-4R CIRCUITRY AND PROGRAM


COLUMBUS & OHIO RIVER RAILROAD

DRAWN: SRE
DESIGNED: SRE
CHECKED: SRE
DATE: 11/24/2022

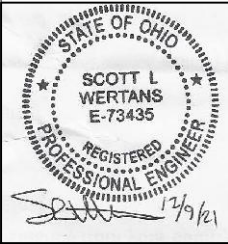
FILLMAN'S BOTTOM ROAD
PORT WASHINGTON, OHIO
DOT# 510-668Y MILEPOST# 100.99

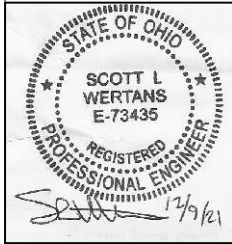
SHEET 03 OF 13

NOTES:

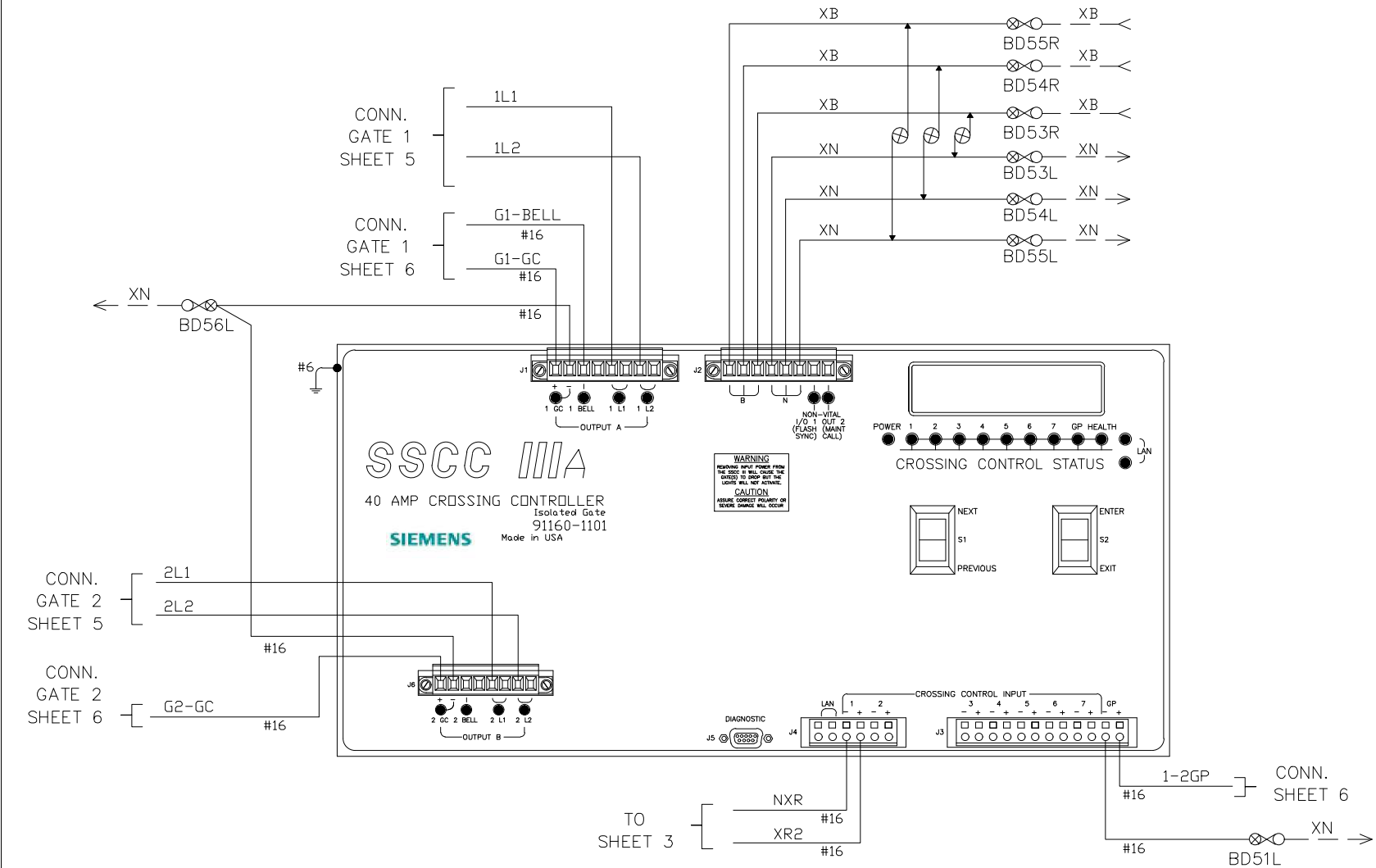
1. ALL WIRE THIS SHEET NO. 16
A.W.G. FLEX UNLESS OTHERWISE
NOTED
2.  DENOTES TWISTED PAIR.

THE OPERATION OF THE CIRCUITS AND EQUIPMENT REPRESENTED HEREIN CANNOT BE FULLY CHECKED UNTIL ALL CIRCUITS AND DEVICES ARE CONNECTED TO FORM A COMPLETE SYSTEM, OR AN EFFECTIVE SUBSYSTEM. SUCH SYSTEM OR SUBSYSTEM MUST BE GIVEN COMPLETE CIRCUIT AND OPERATIONAL TESTS BEFORE BEING PLACED IN REGULAR OPERATION.





- NOTES:
- ALL WIRE THIS SHEET NO. 10 A.W.G. FLEX UNLESS OTHERWISE NOTED
 - ⊕ DENOTES TWISTED PAIR.



MULTIMETER READING VARIANCE FROM ACTUAL LAMP VOLTAGE			
BATTERY BANK VOLTAGE	VALID LAMP OUTPUT RANGE (in volts)	DIGITAL METER (FLUKE 87 OR EQUIVALENT)	ANALOG METER (SIMPSON 260 OR TS111)
13.3	9.0 TO 12.0	1.3 VOLTS BELOW ACTUAL VALUE	0.6 VOLTS BELOW ACTUAL VALUE
14.7	9.0 TO 12.0	2.2 VOLTS BELOW ACTUAL VALUE	1.1 VOLTS BELOW ACTUAL VALUE
15.8	9.0 TO 12.0	2.6 VOLTS BELOW ACTUAL VALUE	2.0 VOLTS BELOW ACTUAL VALUE

FOR LAMP OUTPUT SETTINGS GREATER THAN 12.0 VOLTS, REDUCE THE LISTED VALUES BY 30%. LAMP VOLTAGE ADJUSTMENTS SHOULD BE ACCURATE TO 0.3 VOLTS.

CROSSING CONTROLLER SSCCIIIA 40-AMPERE UNIT, 91160		
PROGRAM	NOTES	INITIAL SETTING BY: _____ DATE: _____
FLASH RATE:	30-70 FLASHES/MINUTE DEFAULT = 50	____ 50 ____ FLASHES/MINUTE
GATES USED:	YES/NO DEFAULT = YES	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
1 GC DELAY:	3-20 SEC., DEFAULT = 4	____ 4 ____ SECONDS
2 GC DELAY (40 AMP UNIT):	3-20 SEC., DEFAULT = 4	____ 4 ____ SECONDS
GATE RISING BELL:	ON/OFF, DEFAULT = ON	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
ENABLED INPUTS:	1 THRU 7 ONLY	<input checked="" type="checkbox"/> 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
MIN ACTIVATION TIME:	0-99 SEC., DEFAULT = 20	____ 0 ____ SECONDS
ENABLED OUTPUTS: (40 amp only)	DEFAULT = A + B	<input checked="" type="checkbox"/> A + B <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> N/A
DAYLIGHT SAVINGS:	DEFAULT = DISABLED	<input checked="" type="checkbox"/> ENABLED <input type="checkbox"/> DISABLED
DATE:	24-FORMAT	<input checked="" type="checkbox"/> TIME SET (SEE NOTE 1.)
TIME:		<input checked="" type="checkbox"/> DATE SET (SEE NOTE 1.)
DAYLIGHT SAVINGS:	DEFAULT = DISABLED	<input checked="" type="checkbox"/> ENABLED <input type="checkbox"/> DISABLED
PASSWORD:	DEFAULT = DISABLED	<input type="checkbox"/> ENABLED <input checked="" type="checkbox"/> DISABLED
CONFIGURE		
LOS TIMERS:	0-20 SECONDS, INPUTS 1-7 ONLY DEFAULT = 0	1: ____ 0 ____ SEC 5: ____ N/A ____ SEC 2: ____ N/A ____ SEC 6: ____ N/A ____ SEC 3: ____ N/A ____ SEC 7: ____ N/A ____ SEC 4: ____ N/A ____ SEC
ATCS ADDRESS:	DEFAULT = 700000000000	
LOW BATTERY:	9.0-15.0 VOLTS, OR DISABLED DEFAULT = DISABLED	<input checked="" type="checkbox"/> DISABLED <input type="checkbox"/> ENABLED _____ VOLTS
AUX I/O:	DEFAULT = NONVITAL OUTPUT	<input checked="" type="checkbox"/> NV OUTPUT <input type="checkbox"/> FLASH SYNC IN <input type="checkbox"/> FLASH SYNC OUT
DETECT LAMP NEUTRAL WIRE	YES/NO DEFAULT = YES	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
TEST CONFIGURE		
LAMP TEST CANCEL TIMER:	1-15 MINUTES, DEFAULT = 5	____ 5 ____ MINUTES
LAMP TEST DELAY TIMER:	30-120 SEC., DEFAULT = 30	____ 30 ____ SEC.
LAMP TEST ON TIMER:	15-60 SEC., DEFAULT = 15	____ 15 ____ SEC.
QUERY		
QUERY CONFIG VERSIONS:		MCF NAME: BASIC.MCF.F MCF CRC: _____ CAPABILITY NAME: _____

STANDARD SETUP LAMP VOLTAGES PROCEDURE
USING TRUE RMS AC/DC METER, OR
CONVERSION TABLE BELOW

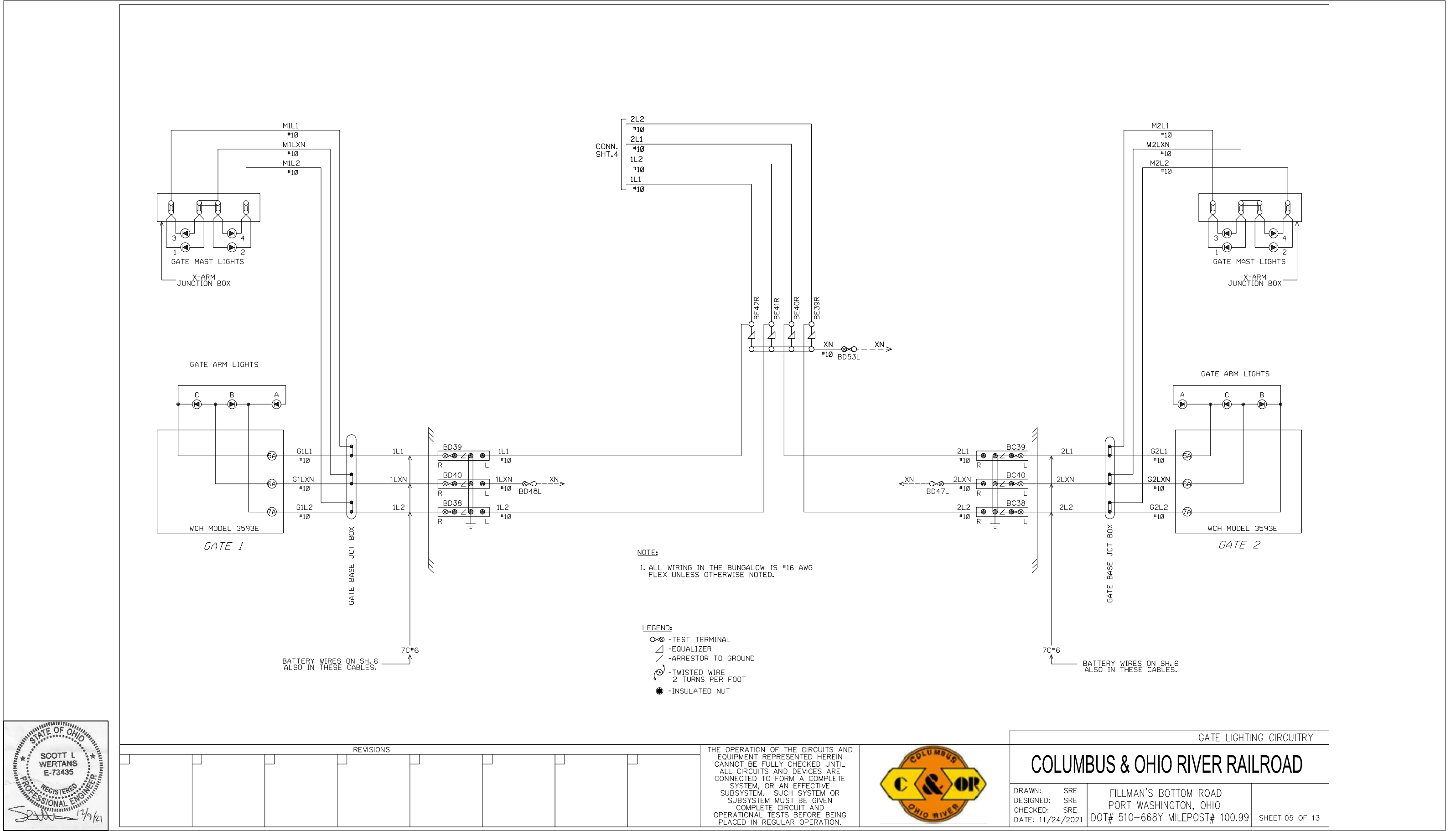
SETUP LAMP VOLTAGES	INITIAL SETTINGS BY: _____ DATE: _____ METER: _____
FAR GATE	1 L1 = _____ VOLTS
	1 L2 = _____ VOLTS
	2 L1 = _____ VOLTS
	2 L2 = _____ VOLTS
SSCC IIIA	1 L1 = _____ VOLTS
	1 L2 = _____ VOLTS
	2 L1 = _____ VOLTS
	2 L2 = _____ VOLTS
NEAR GATE	1 L1 = _____ VOLTS
	1 L2 = _____ VOLTS
	2 L1 = _____ VOLTS
	2 L2 = _____ VOLTS

REVISIONS							

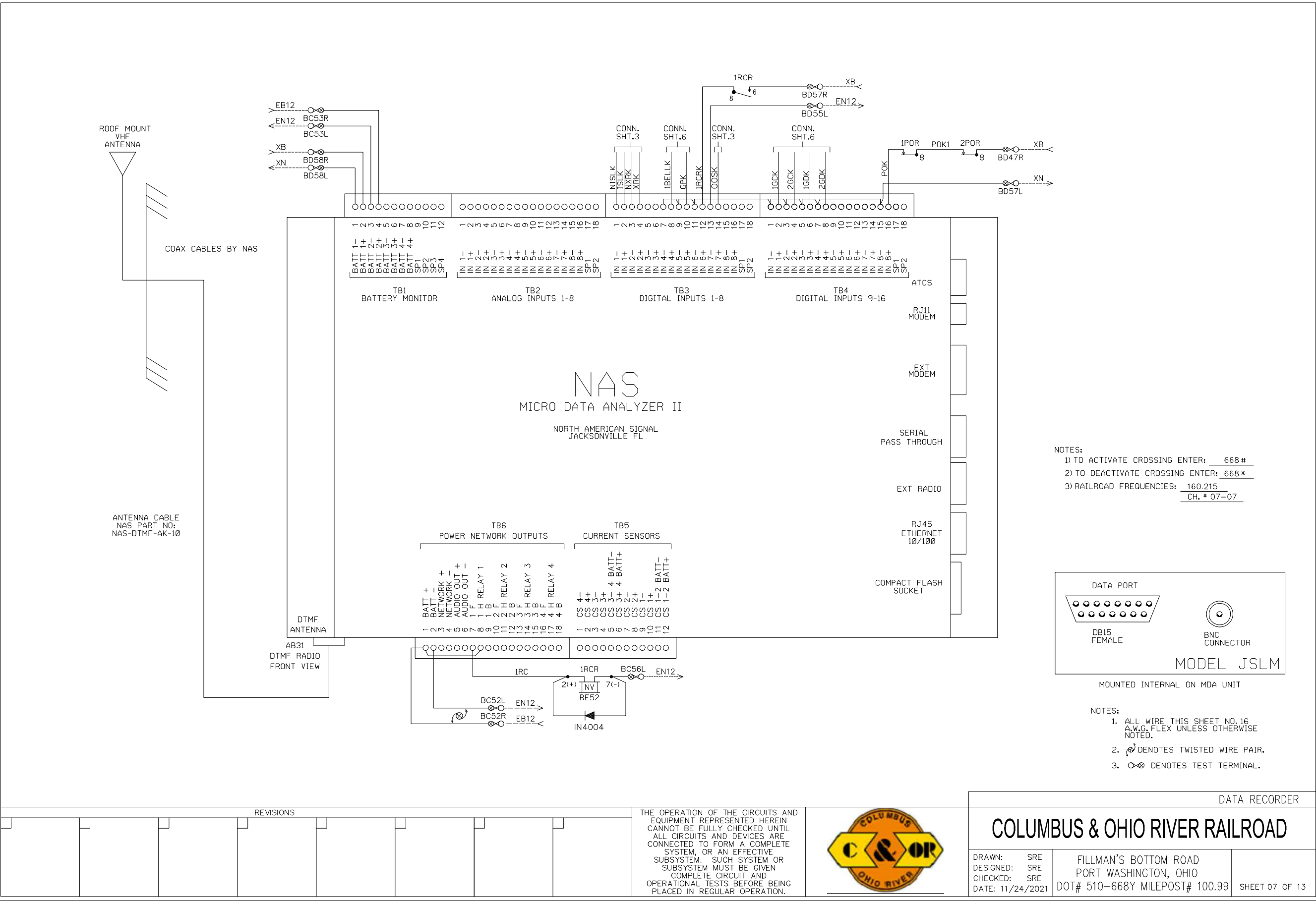
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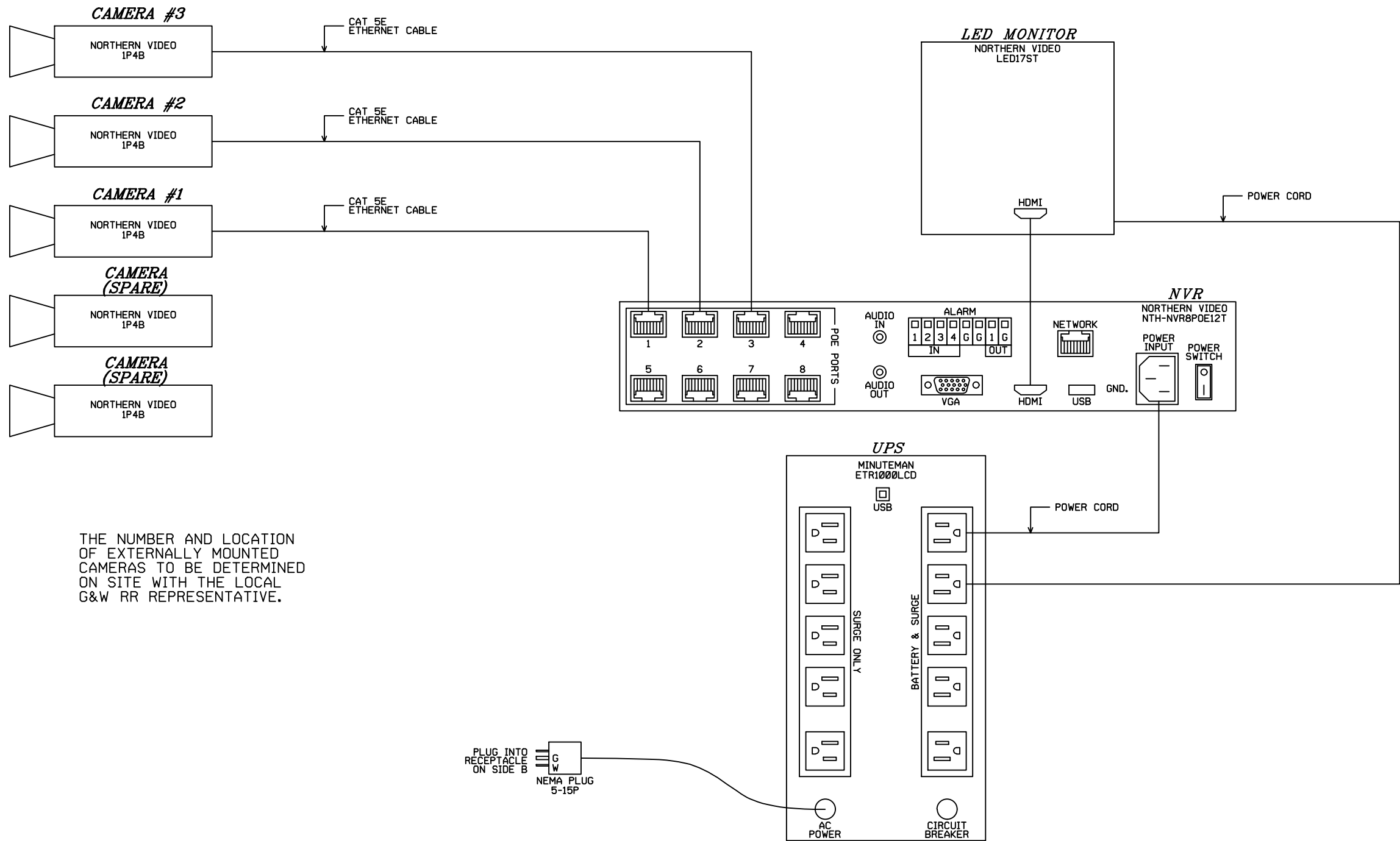


SSCCIIIA CROSSING CONTROLLER		
COLUMBUS & OHIO RIVER RAILROAD		
DRAWN: SRE DESIGNED: SRE CHECKED: SRE DATE: 11/24/2021	FILLMAN'S BOTTOM ROAD PORT WASHINGTON, OHIO DOT# 510-668Y MILEPOST# 100.99	SHEET 04 OF 13

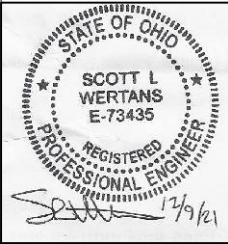


SHEET 06 OF 13





THE NUMBER AND LOCATION
OF EXTERNALLY MOUNTED
CAMERAS TO BE DETERMINED
ON SITE WITH THE LOCAL
G&W RR REPRESENTATIVE.

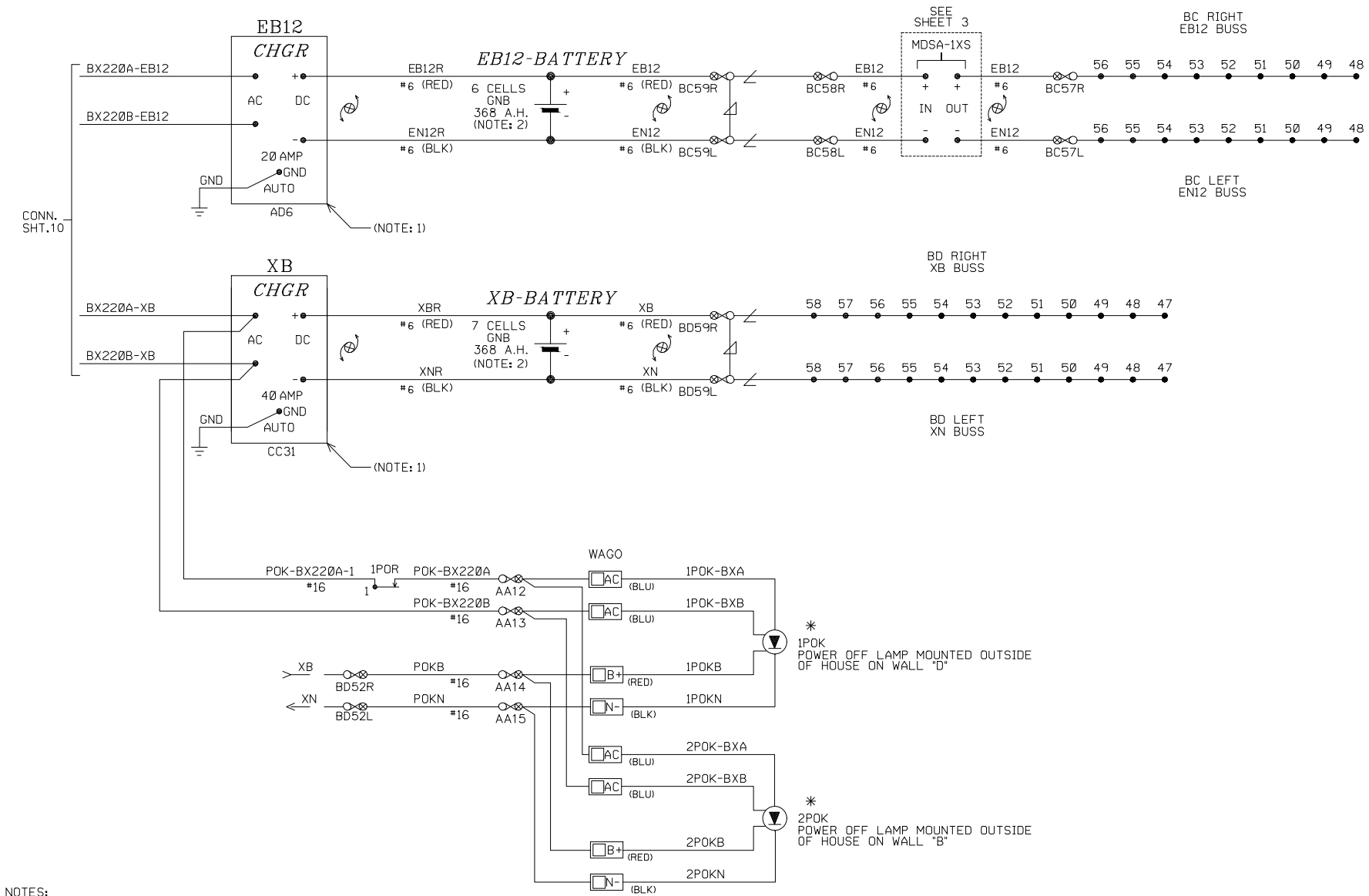
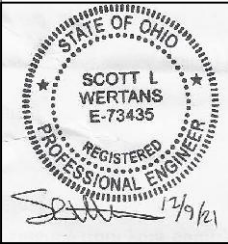


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VIDEO RECORDING CIRCUITS			
COLUMBUS & OHIO RIVER RAILROAD			
DRAWN: SRE	FILLMAN'S BOTTOM ROAD		
DESIGNED: SRE	PORT WASHINGTON, OHIO		
CHECKED: SRE	DOT# 510-668Y MILEPOST# 100.99		
DATE: 11/24/2021	SHEET 08 OF 13		



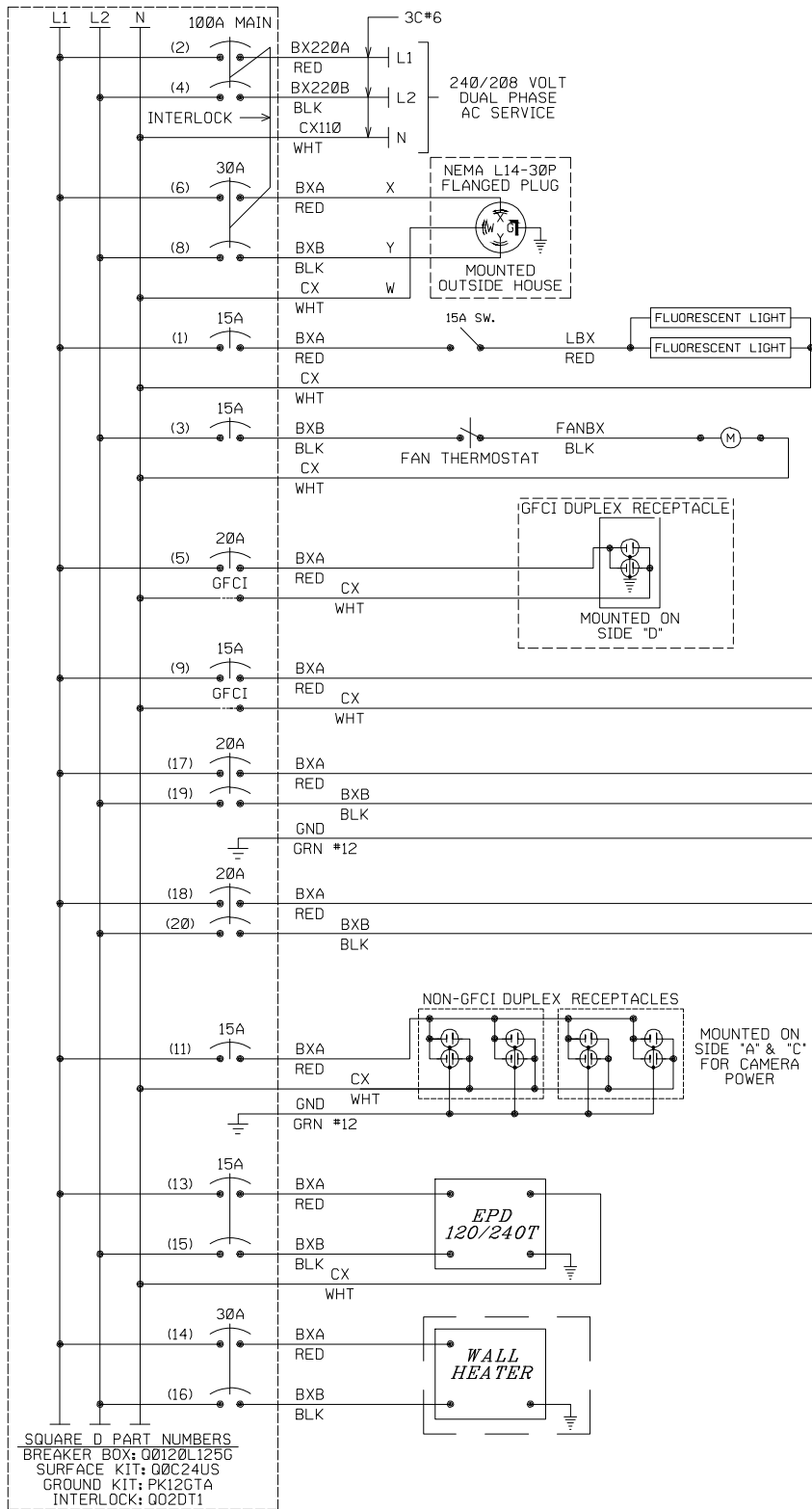
- NOTES:
1. USE 220AC INPUT FOR CHARGERS.
 2. USE 1/4" TERMINALS AT BATTERY CONNECTIONS.
 3. ALL WIRING IN THE BUNGALOW IS #16 AWG FLEX UNLESS OTHERWISE NOTED.

REVISIONS							

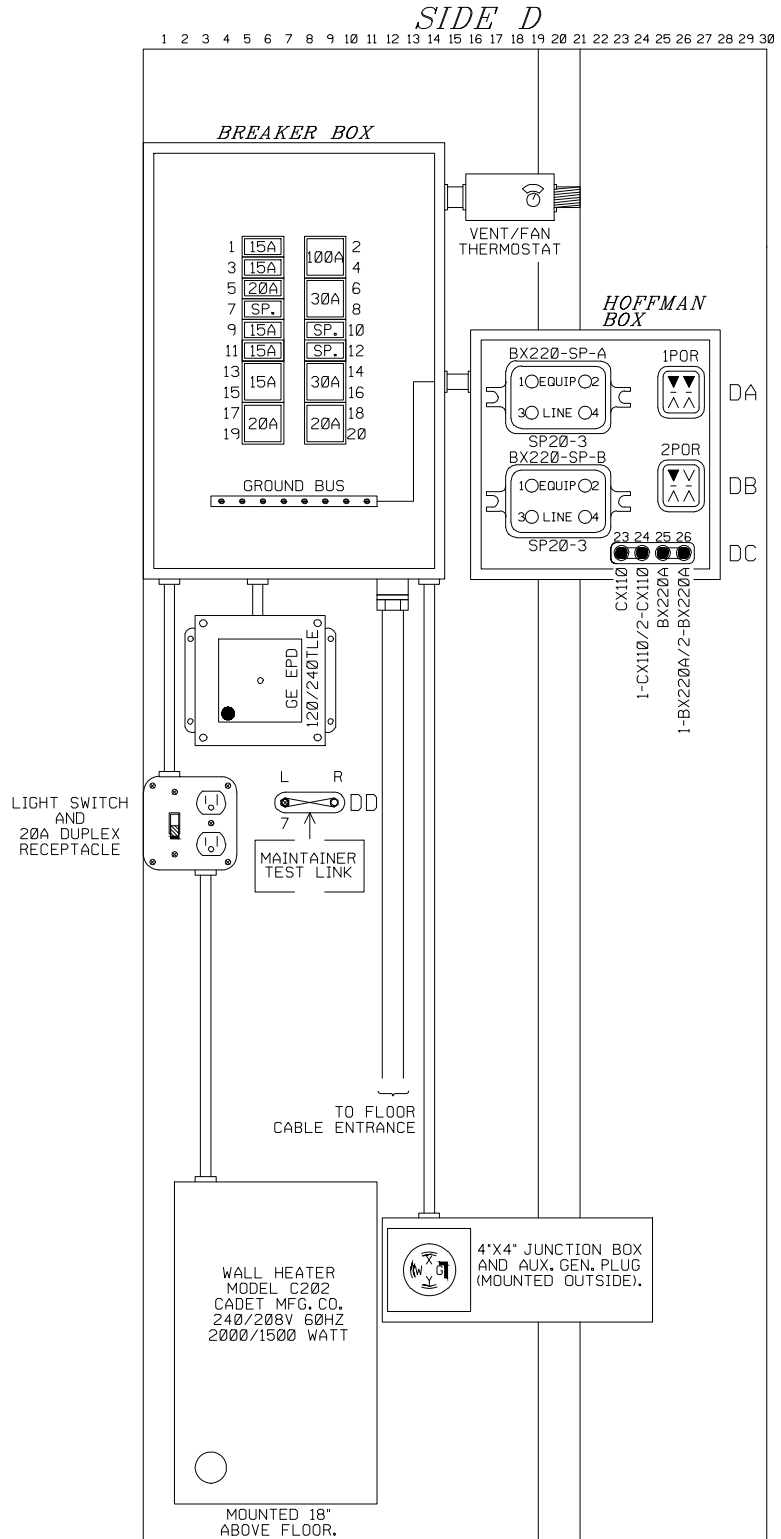
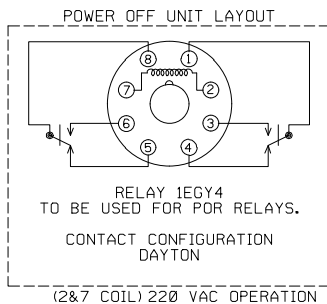
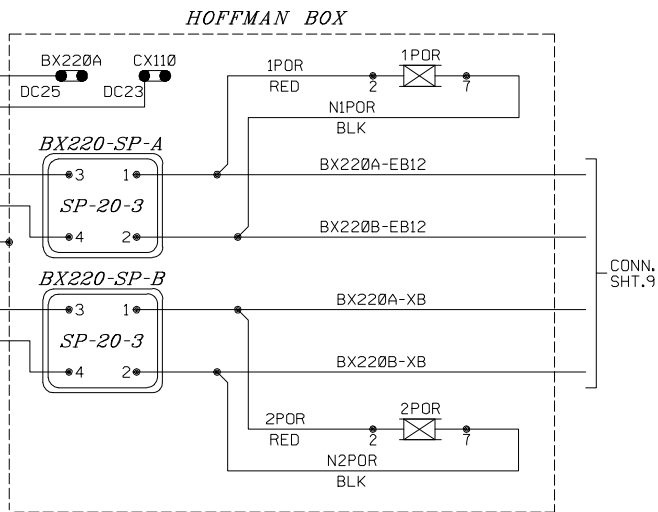
THE OPERATION OF THE CIRCUITS AND EQUIPMENT REPRESENTED HEREIN CANNOT BE FULLY CHECKED UNTIL ALL CIRCUITS AND DEVICES ARE CONNECTED TO FORM A COMPLETE SYSTEM, OR AN EFFECTIVE SUBSYSTEM. SUCH SYSTEM OR SUBSYSTEM MUST BE GIVEN COMPLETE CIRCUIT AND OPERATIONAL TESTS BEFORE BEING PLACED IN REGULAR OPERATION.



DC POWER DISTRIBUTION			
COLUMBUS & OHIO RIVER RAILROAD			
DRAWN: SRE	FILLMAN'S BOTTOM ROAD	SHEET 09 OF 13	
DESIGNED: SRE	PORT WASHINGTON, OHIO		
CHECKED: SRE	DOT# 510-668Y MILEPOST# 100.99		
DATE: 11/24/2021			



- NOTES:
- USE THE FOLLOWING COLOR CODE:
GRN - GREEN - SAFETY EQUIPMENT GROUND
WHT - WHITE - CX110 (NEUTRAL)
BLK - BLACK - BX110B (L2)
RED - RED - BX110A (L1)
EXCEPTIONS TO THE ABOVE COLOR CODE ARE THE PRE-WIRED, SEALED ARRESTOR UNITS MOUNTED ON THE BREAKER BOX WHICH HAVE TWO BLACK AND ONE WHITE WIRE EACH.
 - MINIMUM WIRE SIZE
15 AMP - NO. 14 AWG THHN OR THWN SOLID
20 AMP - NO. 12 AWG THHN OR THWN SOLID
30 AMP - NO. 10 AWG THHN OR THWN SOLID
 - GROUND FAULT INTERRUPT (GFCI) MUST BE USED ON ALL CIRCUITS SERVING CONVENIENCE OUTLETS AND ANY EQUIPMENT OUTSIDE THE BUNGALOW. RECEPTACLE MOUNTED GFCI MAY BE USED INSTEAD OF BREAKER TYPE.
 - ALL GROUND WIRES ON THIS SHEET RUN TO BREAKER BOX GROUND BUS.



SQUARE D PART NUMBERS
BREAKER BOX: 00120L125G
SURFACE KIT: 00C24US
GROUND KIT: PK12GTA
INTERLOCK: 002DT1

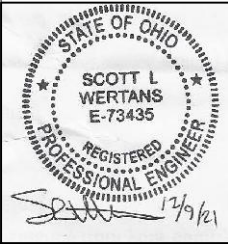
REVISIONS

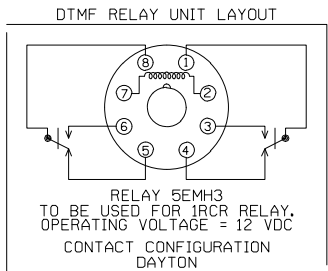
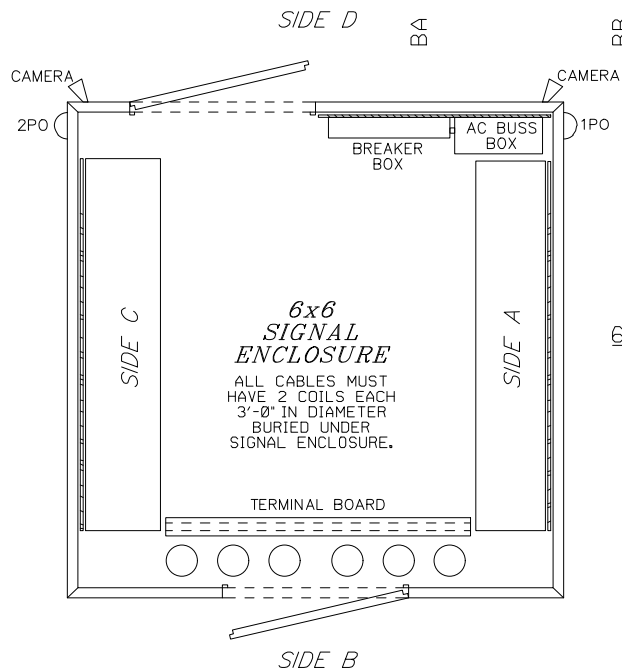
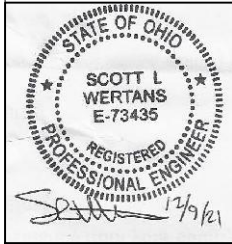
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COLUMBUS & OHIO RIVER RAILROAD

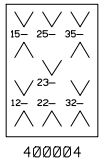
DRAWN: SRE
DESIGNED: SRE
CHECKED: SRE
DATE: 11/24/2021
FILLMAN'S BOTTOM ROAD
PORT WASHINGTON, OHIO
DOT# 510-668Y MILEPOST# 100.99
SHEET 10 OF 13





RELAY CROSS REFERENCE

ALSTOM	SIEMENS
A62-277	400004



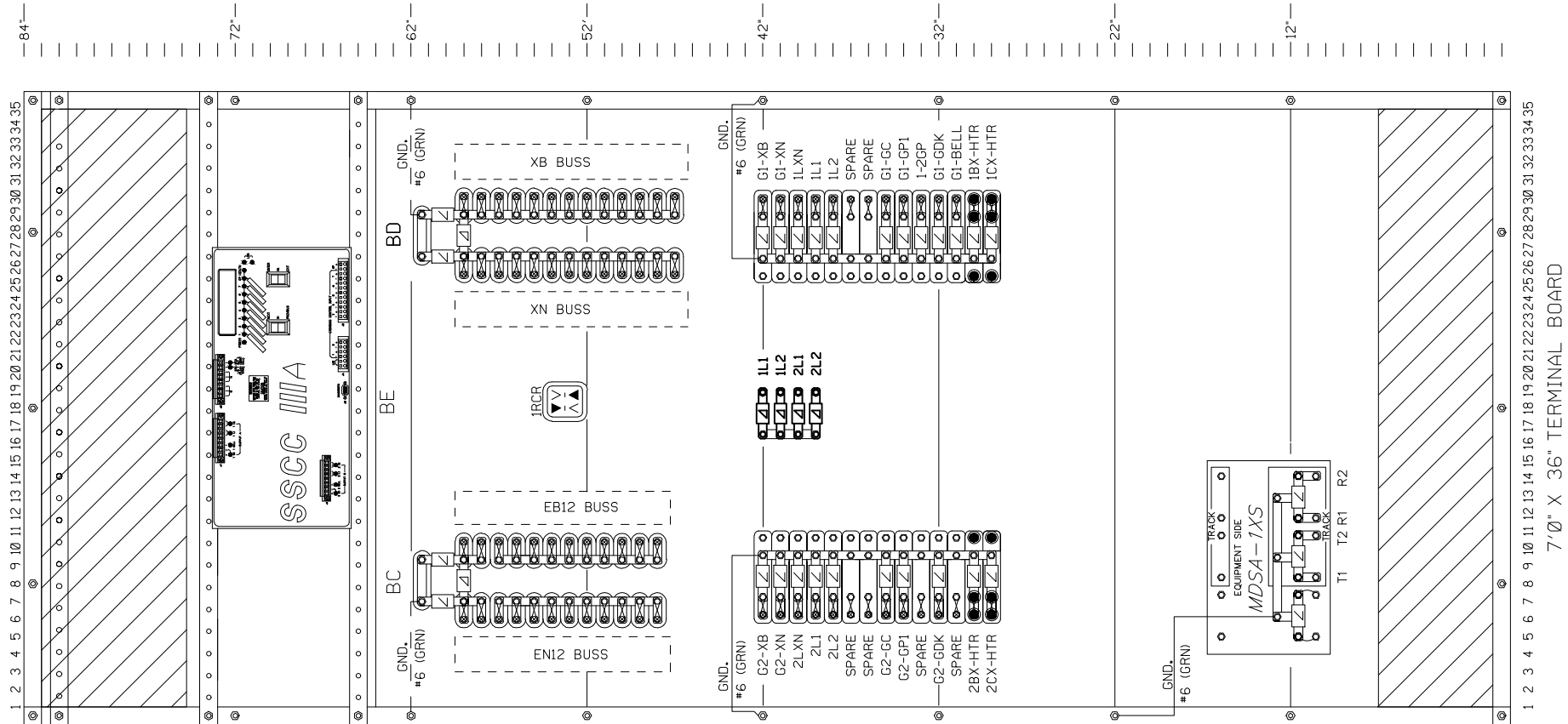
▼ = CONTACT USED
✓ = CONTACT NOT USED

NOTE: NO EQUIPMENT ALLOWED IN SHADED AREAS.



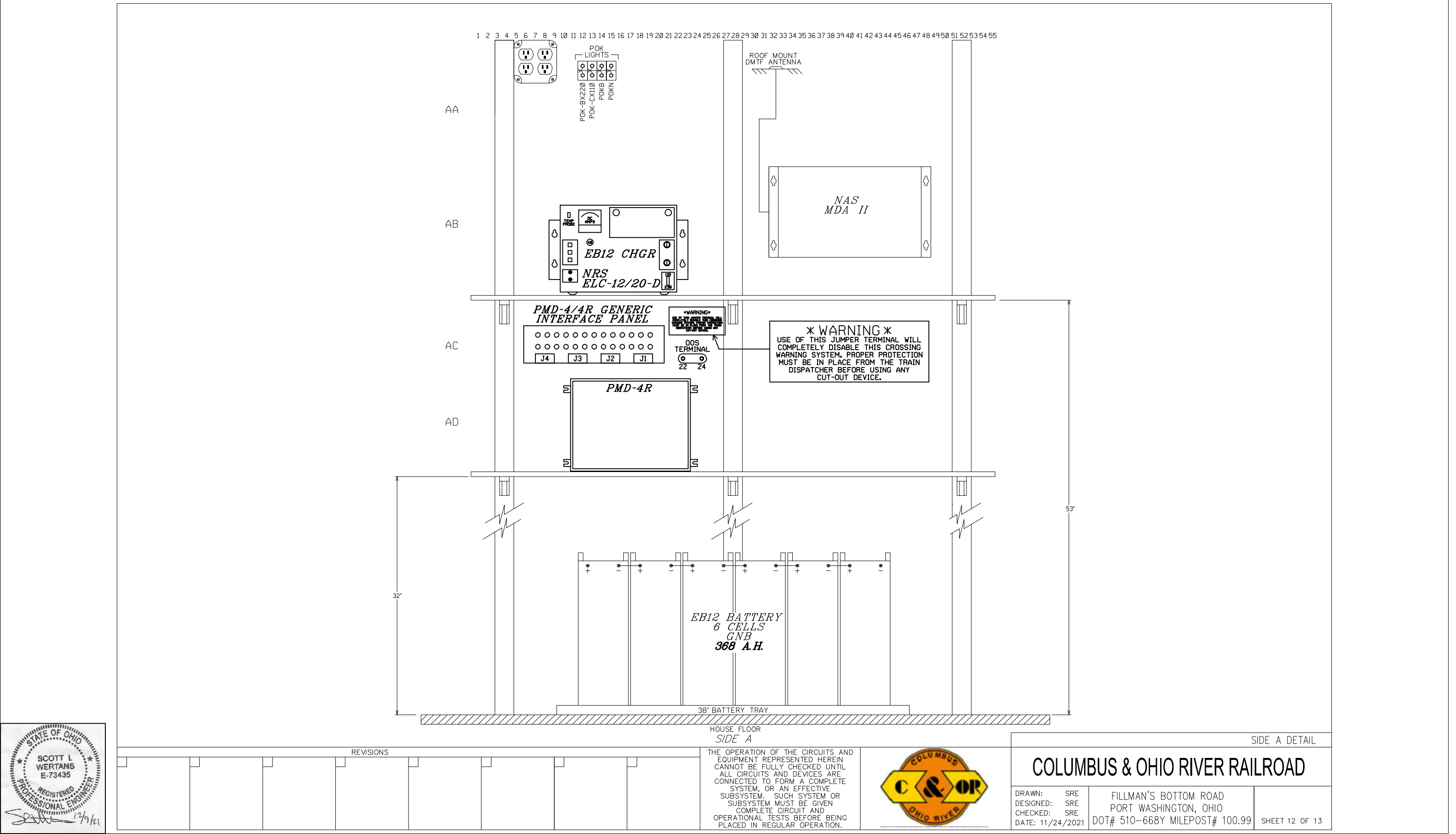
COLUMBUS & OHIO RIVER RAILROAD

DRAWN: SRE DESIGNED: SRE CHECKED: SRE DATE: 11/24/2021	FILLMAN'S BOTTOM ROAD PORT WASHINGTON, OHIO DOT# 510-668Y MILEPOST# 100.99	SHEET 11 OF 13
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BATTERY BUSS DETAILS

ROW BC		ROW BD	
B12 BATT(-)	59	B12 BATT(+)	59
MDSA-1XS IN-	58	MDA II TB1 BATT 1(-)	58
MDSA-1XS OUT-	57	MDA II TB4 IN 8(-)	57
1RCR_7(-)	56	SSCCIIIA-1GC-/2GC-	56
MDA II TB3-13	55	SSCCIIIA-N	55
PMD-4R-N12	54	SSCCIIIA-N	54
MDA II TB1 BATT 2(-)	53	SSCCIIIA-N/BE39L	53
MDA II TB6 BATT-	52	AA15	52
VLG-N12	51	SSCCIIIA-GP-	51
1XLC-25	50	BC41R	50
2XLC-25	49	BD41L	49
EN12 BUSS (LEFT)	48	BC40L	48
		BD40R	47
		XN BUSS (LEFT)	
		XB BUSS (RIGHT)	



STATE OF OHIO
SCOTT L. WERTANS
E-73435
REGISTERED PROFESSIONAL ENGINEER
12/9/21

REVISIONS

HOUSE FLOOR
SIDE A

THE OPERATION OF THE CIRCUITS AND EQUIPMENT REPRESENTED HEREIN CANNOT BE FULLY CHECKED UNTIL ALL CIRCUITS AND DEVICES ARE CONNECTED TO FORM A COMPLETE SYSTEM, OR AN EFFECTIVE SUBSYSTEM. SUCH SYSTEM OR SUBSYSTEM MUST BE GIVEN COMPLETE CIRCUIT AND OPERATIONAL TESTS BEFORE BEING PLACED IN REGULAR OPERATION.

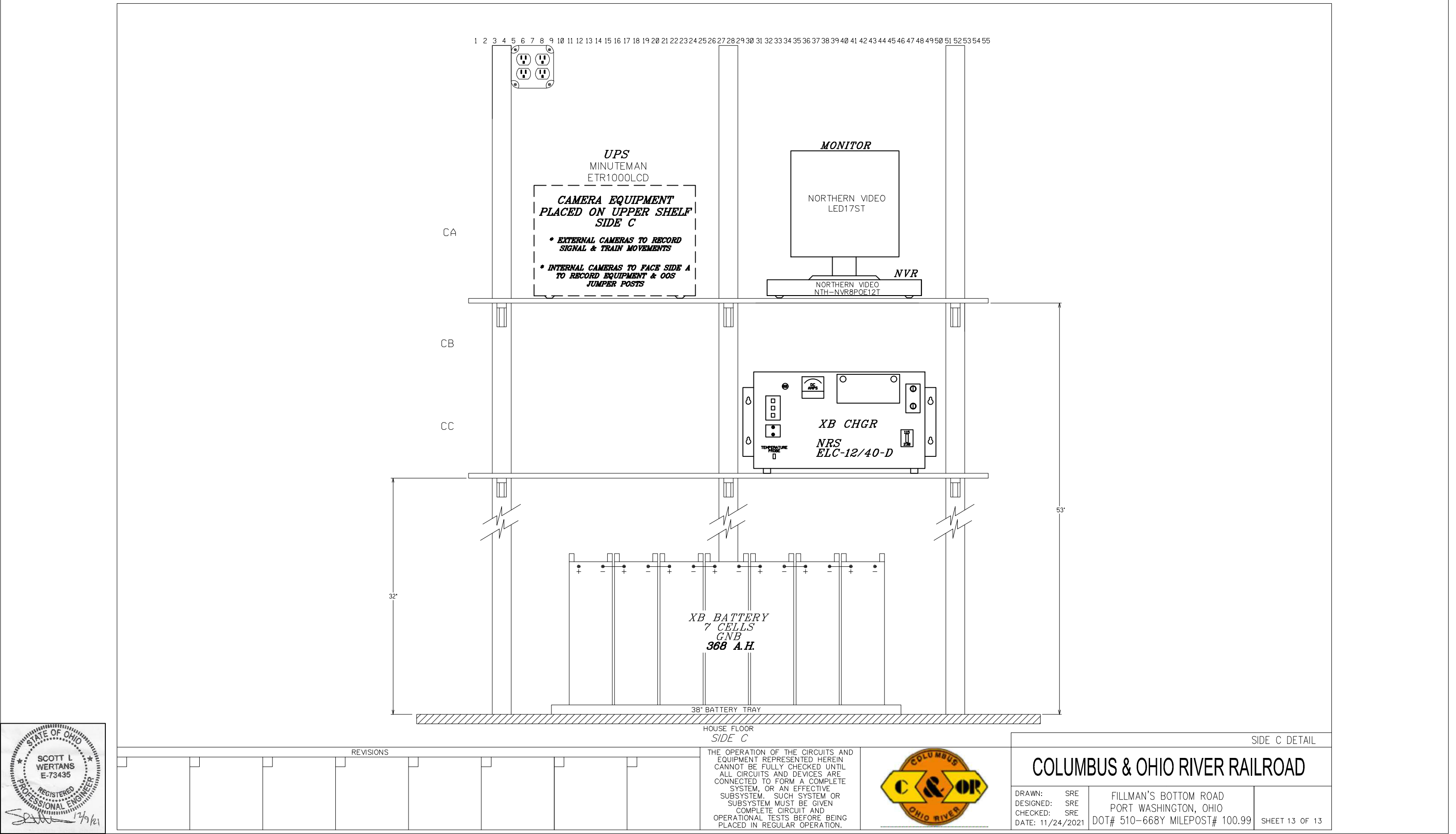


COLUMBUS & OHIO RIVER RAILROAD

DRAWN: SRE
DESIGNED: SRE
CHECKED: SRE
DATE: 11/24/2021

FILLMAN'S BOTTOM ROAD
PORT WASHINGTON, OHIO
DOT# 510-668Y MILEPOST# 100.99

SHEET 12 OF 13



Force Account Estimate

Estimate to Complete

Railroad:	The Columbus & Ohio River Rail Road Company (CUOH)	Region:	NORTHERN
Agency:	ORDC	State:	OH
DOT #:	510668Y	COUNTY:	Tuscarawas
ROADWAY:	TR 208/Fillmans Bottom Rd.	CITY:	Salam Township
DESCRIPTION:	Installation of 12" LED FLS&G, bell, new 6'x6' bungalow with berm wall, PMD-4R w/CWT, even recorder, DHWS.		
AGENCY PROJECT NUMBER:		ESTIMATE SUBJECT TO REVISION AFTER:	
PID# 114024		06/11/22	

PRELIMINARY ENGINEERING:

Contracted & Administrative Engineering Services	\$ 14,800
Subtotal	\$ 14,800

CONSTRUCTION & CLOSEOUT:

Contracted & Administrative Engineering Services	\$ 12,100
Subtotal	\$ 12,100

FLAGGING SERVICE:

Contracted or Railroad Flagmen Services	10 Days	\$ 14,000
Subtotal		\$ 14,000

UTILITY WORK:

Power Service	\$ 10,000
Other	\$ -
Subtotal	\$ 10,000

CONTRACT WORK:

Outside Services	\$ -
Design & Labor & Material	\$ 166,025
Subtotal	\$ 166,025

RAILROAD TRACK:

Labor & Material	\$ -
Subtotal	\$ -

RAILROAD SIGNAL & COMMUNICATION:

Labor & Material	\$ -
Subtotal	\$ -

PROJECT SUBTOTAL:

		\$ 216,925
Public Project Admin:	0.00%	\$ -
Contingencies:	0.00%	\$ -

PROJECT TOTAL:

	*****	\$ 216,925
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CURRENT AUTHORIZED BUDGET:

	*****	\$ -
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TOTAL SUPPLEMENT REQUESTED:

	*****	\$ 216,925
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DIVISION OF COST:

Agency	100.00%	\$ 216,925
Railroad	0.00%	\$ -

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

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 the railroad 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.

Estimated prepared by: BPB	Approved by:	Public Project Department
DATE: 03/08/21	REVISED: 12/13/21	DATE: 12/13/21

	A	B	C
1	CUOH TR-208 (FILLMANS BOTTOM ROAD) #510668Y SALAM TWSP., OH		
2	TCR RAIL SYSTEMS SUPPLIED MATERIAL		
3	6X6 CONTROL HOUSE	1	EA
4	PMD-4R CWT SINGLE TRACK REDUNDANT	1	EA
5	INTERFACE PANEL	1	EA
6	SSCC III A	1	EA
7	CAMERA SYSTEM	1	EA
8	NAS II DATA UNIT	1	EA
9	BATTERY CHARGER 20A	1	EA
10	BATTERY CHARGER 40A	1	EA
11	BATTERY GNB 368 AH	13	CELL
12	4 POST BLOCK	38	EA
13	LIGHTNING ARRESTER, HEAVY DUTY	38	EA
14	EQUALIZER, HEAVY DUTY	4	EA
15	SINGLE ROW TERMINAL	1	EA
16	DOUBLE ROW TERMINAL	8	EA
17	INSUL. TEST LINK ASSEMBLY	90	EA
18	AAR HARDWARE	1	LOT
19	WIRE TERMINATION	1	LOT
20	WIRE TAGS	1	LOT
21	WIRE, #14 TOWER & CASE WIRE (BLUE)	500	FT
22	WIRE, #10 TOWER & CASE WIRE (BLUE)	400	FT
23	WIRE, #6, GREEN	40	FT
24	2C#6 TWISTED CABLE (TRACK)	300	FT
25	7C#6 UG CABLE	300	FT
26	7C#9 UG CABLE	300	FT
27	3C#6 UG CABLE	100	FT
28	RAILROAD SIGNAL LOCK	5	EA
29	GATE CROSSING SIGNAL ASSEMBLY, EQUIPPED WITH 5" MAST, JUNCTION BOX BASE, 2-WAY MAIN MAST LIGHT UNIT WITH 12"LED, RR CROSSING SIGN, ENS SIGN, GATE MECHANISM, GATE ARM W/ LAMPS, HIGH WIND BRACKET, BELL, GALVANIZED FOUNDATION	2	EA
30			
31	ITEMS BELOW PROVIDED BY OTHERS		
32	POWER POLE		
33	CONDUIT		
34	TRACK BONDING MATERIAL		
35	ENGINEERING / CIRCUIT PLANS		
36	BERM WALL		
37			



RAILROAD/HIGHWAY GRADE CROSSING SITE SURVEY

RAILROAD NAME: Columbus & Ohio River Railroad

LOCATION: Port Washington, Ohio (near)

PROJECT#:	RR#	PID#
	21CUOH05R	114024

SURVEYED BY: Mike Forte DATE: 4/30/2021

ROADWAY: TR 208, Fillmans Bottom Rd. DOT#: 510 668Y

SUBDIVISION: Pan MILEPOST: 100.99

REGION: Northern SPEED: 30 mph

LATITUDE: 40.3373994 LONGITUDE: -81.5068280

NEAREST ADDRESS: 2242 Fillman's Bottom Rd., Port Washington, OH 43837

REVISED: _____

PROJECT SCOPE (PER AGENCY ORDER/DRTS FINDINGS):

Install flashing lights & gates with one bell

RAILROAD CONCERNS/SCOPE ADJUSTMENTS:

SURVEY ATTENDEES:

Name	Title	Company	Email/Phone
Mike Forte	Sr. Construction Rep.	Benesch	740-817-1521
Todd Hensley	Signal Supervisor	OHCR	740-502-7214



SECTION 1 - EXISTING WARNING DEVICES

1.1 - EXISTING WARNING DEVICES/CONTROL EQUIPMENT

Signage	Quantity	Description	Reuse/ Replace
Crossbucks	2		Replace
Stop Signs			
Yield Signs	2		Remove
Track Signs			
SORS			
ENS/DOT	2		Replace
NLT/NRT			
Equipment	Quantity	Description (Mast size, lens size, orientation etc.)	Reuse/ Replace
Flashing Lights			
Flashing Lights and Gates			
Cantilevers*			
Cant/Gate Combo			
Bells			
Bridge Signals			
Signal Enclosure			
Highway/Rail grade crossing warning equipment type			
DAXing for Adjacent Xings			

*Include sketch of bolt hole pattern and spacing with measurements if existing cantilever is to be reused.

NOTES (LIST MANUFACTURER/MODEL/QUADRANT IF APPLICABLE) :

1.2 - ARE FOUNDATIONS POURED IN PLACE: NA

1.3 - EXISTING MASTS OF CAST OR ALUMINUM: NA

1.4 - ROOM AT CROSSING TO STORE EQUIPMENT: Yes

If no, specify where equipment can be stored:

1.5 - ARE EXISTING CIRCUITRY PLANS AVAILABLE: NA

1.6 – CROSSING EQUIPMENT AND TYPE, passive, relay, solid state: Passive

1.7 – IS THE ROADWAY BEING RELOCATED: No

1.8 – IS THERE A FRA INVENTORY REPORT: Yes

1.9 – EXISTING TRAIN SPEED, Timetable, General Order: 30 mph



SECTION 2 - PROPOSED WARNING DEVICES

2.1 - PROPOSED WARNING DEVICES/CONTROL EQUIPMENT

Signage	Quantity	Description
Crossbucks	2	
Stop Signs		
Yield Signs		
Track Signs		
SORS		
ENS/DOT	2	
NLT/NRT		
Equipment	Quantity	Description (Mast size, lens size, orientation, etc.)
Flashing Lights		
Flashing Lights and Gates	2	
Cantilevers		
Cant/Gate Combo		
Bells	1	Bell to stop ringing when gates become horizontal
Bridge Signals		
Signal Enclosure	1	6'x6' in NW quad
Highway/Rail grade crossing warning equipment type		PMD-4R CWT

NOTES:

- 2.2 - TYPE OF FOUNDATIONS TO BE USED: Galvanized pyramid
- 2.3 - ARE FOUR QUADRANT GATES TO BE INCLUDED: No
- If yes, specify exit gate delay/dwell time: _____
- 2.4 - ARE SIDELIGHTS REQUIRED: No
- If yes, specify street/distance from track/quadrant: _____
- 2.5 - CROSSING CONTROL EQUIPMENT TERMINATION: DHWS
- 2.6 - ADDITIONAL EQUIPMENT RECOMMENDED: Camera system
- 2.7 - IS ADDITIONAL FILL MATERIAL REQUIRED: Yes, crushed limestone
- If yes, specify quadrant/estimate quantity: 80 tons
- 2.8 - BERM/CRIB WALL/PLATFORM REQUIRED: Yes, house to have 20'x4' wall with handrail



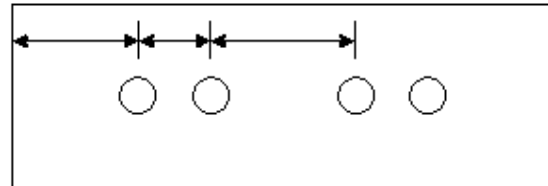
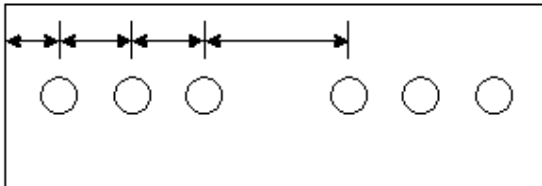
SECTION 3 – TRACK AND RAIL

3.1 - PROPOSED WARNING DEVICES/CONTROL EQUIPMENT

Track	Rail Weight	CWR	Jointed	Bond Type	Track Speed	Track Control	Rusty Rail	Ballast Condition
Mainline	140RE		X	Head & Web	30 mph	TWC	No	Good

NOTE: All joints require new double bonds (Head and Web).

SPECIFY INSULATED JOINT DIMENSIONS AND TYPE:



3.2 - ARE COMP JOINTS PRESENT:

No _____

3.3 - ARE INSULATED JOINTS REQUIRED:

No _____

If yes, quantity and location.

If yes, rail size.

If yes, poly bars or factory bonded joints.

3.4 - DO SWITCHES REQUIRE INSULATION:

No _____

If yes, show switches on FIELD SKETCH.

3.5 - ANY SHUNT-TYPE SWITCHES:

No _____

If yes, describe type and show on FIELD SKETCH:

3.6 - SHUNT ENHANCEMENT REQUIRED:

No _____

If yes, specify type:

3.7 - DO BALLAST CONDITIONS AFFECT INSTALLATION:

No _____

3.8 - HAS A BALLAST STUDY/READING BEEN PERFORMED TO DETERMINE THE BALLAST RESISTANCE:

No _____

If yes, attach a copy of the results.

3.9 - HAS A SPECTRUM FREQUENCY ANALYSIS BEEN PERFORMED:

No _____

If yes, attach a copy of the results.



3.10 - IS THE PROPOSED CROSSING LOCATED IN SIGNAL TERRITORY:

No _____

If yes, describe/attach a copy of the plans, CP, Approach signal(s), HWD, DED, and Rock Slide Detection Fences.

3.11 - ARE THERE ANY EXISTING TRACK CIRCUITS:

No _____

If yes, describe type/attach a copy of the plans.

3.12 - ARE THERE ANY TIE-INS OR MODIFICATIONS TO EXISTING CROSSINGS OR SIGNAL SYSTEMS:

No _____

If yes, describe/attach a copy of the plans.

3.13 - ARE THERE ANY OVERLAPS IN APPROACHES WITH EXISTING CROSSINGS:

No _____

If yes, describe/attach a copy of the plans.

3.14 - ARE THERE ANY SPECIAL TRAIN MOVES OR REGULAR STOPPING OR SWITCHING IN THE PROPOSED APPROACHES:

No _____

If yes, describe:

3.15 - ARE THERE ANY QUIET ZONE REQUIREMENTS IN PROPOSED AREA OF CROSSING:

No _____

If yes, describe:

3.16 - ARE THERE ANY ELECTRONIC (e.g. *NO TURN, DO NOT STOP ON TRACK*) SIGNS REQUIRED:

No _____

If yes, describe and show on FIELD SKETCH.

3.17 - ARE THERE ANY SPECIAL DPU/STATE SPEED RESTRICTIONS FOR CROSSING:

No _____

If yes, describe.

3.18 - ARE THERE DAXing REQUIREMENTS FOR THIS OR ADJACENT CROSSINGS:

No _____

If yes, describe.



SECTION 4 – POLELINE

4.1 - ARE RAILROAD POLELINES PRESENT: No

If no, skip to section 5.

4.2 - REMOVE ABANDONED POLELINE: _____

If yes, specify number of spans to be removed: _____

Will Underground conduit/cable be required as a suitable replacement: _____

Will an interim scheme be needed until the suitable replacement is in place? _____

SECTION 5 – PRE-EMPTION

5.1 - PRE-EMPTION CIRCUITRY REQUIRED: No

If no, skip to section 6.

If yes, specify name, distance and direction to intersection: _____

If yes, specify type of, distance and direction to traffic signal controller cabinet: _____

If yes, specify type of interface, relay, electronic, communication protocol, etc.: _____

If yes, specify cable (6 twisted pair), routing and distance to traffic signal controller cabinet: _____

If yes, specify interface names applicable to traffic signal controller cabinet, AP, SP, Isl Occ, GD, GU, and/or Health: _____

5.4 - AUTHORIZING AGENCY: _____

5.5 - ROADWAY TRAFFIC ENGINEER: _____

5.6 - DATE OF REQUIREMENT: _____



SECTION 6 – JOINT RAILROAD

6.1 - IS TRACK LEASED FROM ANOTHER RAILROAD: No

If yes, specify railroad and division of maintenance: _____

6.2 - DOES ANOTHER RAILROAD OPERATE AT CROSSING: No

6.3 - ANY JOINT FACILITIES WITHIN ONE MILE: No

If yes, specify railroad and division of maintenance: _____

SECTION 7 – UTILITIES

7.1 - IS COMMERCIAL POWER AVAILABLE: Yes

Specify location of nearest pole: NE quadrant, 50' north of tracks

7.2 - POWER COMPANY NAME/CONTACT INFORMATION: AEP

888-710-4237

7.3 - NEW METER SERVICE REQUIRED: Yes, for 240V single phase, 100-amp panel

If no, specify existing meter number: _____

7.4 - EXISTING UTILITY INFORMATION

Company Name	Type of Utility	Phone Number	Conflicts
Ameritech	Fiber Optic Cable	800-362-6427	Unknown
AEP	Electric	800-672-2231	None
	Phone		Unknown

7.5 - DESCRIBE ANY OVERHEAD UTILITY CONFLICTS:

None

7.6 - DESCRIBE ANY UNDERGROUND UTILITY CONFLICTS:

Unknown

7.7 - UTILITIES PARALLEL TO TRACKS: Two F.O.C. on south side of tracks

7.8 - NEAR COMMERCIAL HIGH-TENSION LINES: No

7.9 - NEAR COMMERCIAL SUBSTATIONS: No



SECTION 8 – OBSTRUCTIONS

8.1 - OBSTRUCTIONS TO VISIBILITY OF DEVICES: None

If no, skip to section 9.

8.2 - SOLUTION FOR OBSTRUCTION (PROVIDE CONTACT INFORMATION FOR OWNER):

SECTION 9 – ROADWAY DATA

9.1 - TYPE OF ROADWAY SURFACE: Asphalt

If different, specify crossing surface type: 24' full timber

9.2 - EXISTING ROADWAY WIDTH: 16', widens for crossing surface

If present, specify shoulder width: 1'

9.3 - PROPOSED ROADWAY WIDTH: NA

If present, specify shoulder width:

9.4 - CROSSING ANGLE: 73°

9.5 - VEHICLE SPEED: 55 mph (not posted)

9.6 - IS CURBING PRESENT/REQUIRED: No/No

9.7 - ARE SIDEWALKS PRESENT: No

If yes, will they interfere with warning devices:

9.8 - ARE PEDESTRIAN GATES REQUIRED: No



SECTION 10 – SITE INFORMATION

10.1 - ENCROACHMENTS WITHIN RR PROPERTY: No

If yes, describe, photograph, and include on FIELD SKETCH:

10.2 - WILL TOPOGRAPHY AFFECT INSTALLATION: Yes

If yes, describe, photograph, and include on FIELD SKETCH:

About 4' of fill needed for house, less for gates

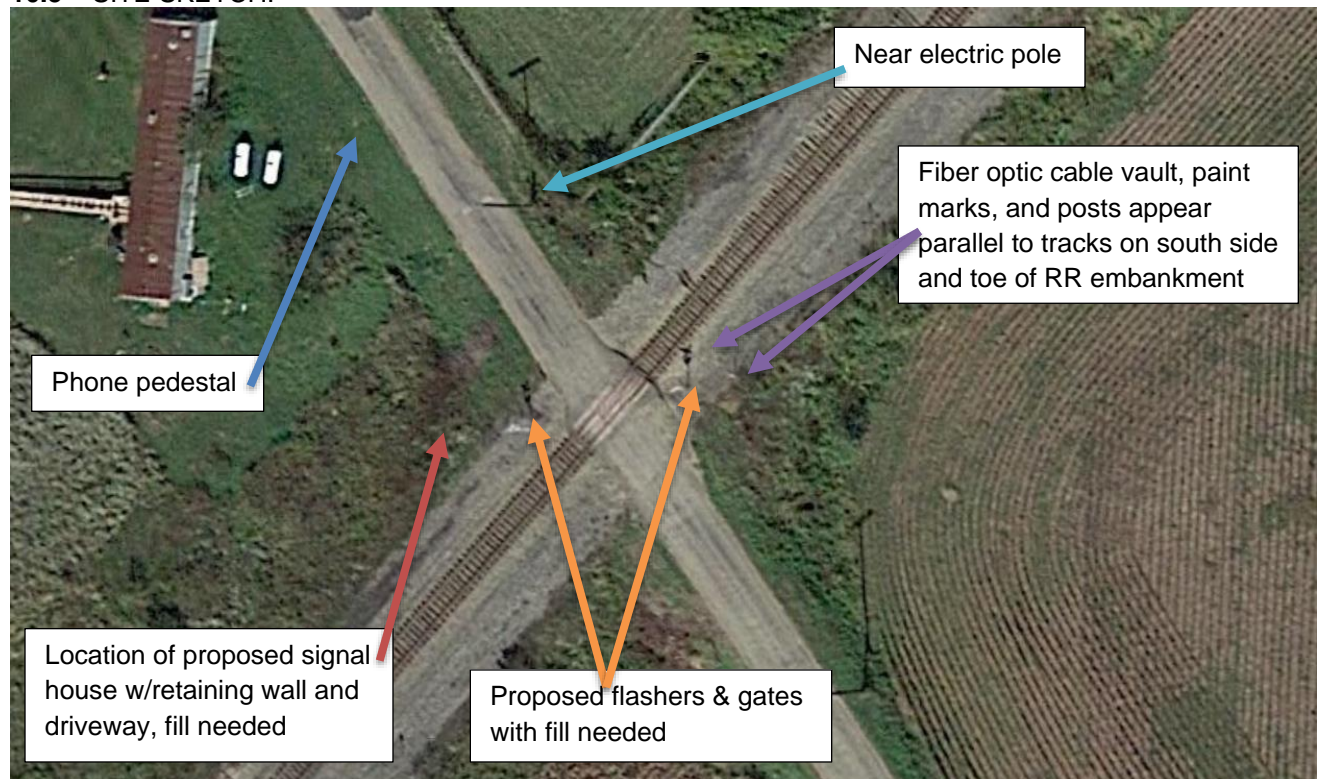
10.2 - WILL DRAINAGE BE AFFECTED: No

If yes, describe, photograph, and include on FIELD SKETCH:

10.3 - CULVERTS BE EXTENDED/RELOCATED/REQUIRED: No

10.4 - CONDUIT LENGTH REQUIRED: Vendor to field verify

10.5 – SITE SKETCH:





10.6 - ADDITIONAL COMMENTS/DETAILS/CONFLICTS:

Existing rail is bonded, replace all bonds.

County GIS map shows 100' of railroad right-of-way and tracks appear offset from centerline about 5' north.

10.7 - NE QUADRANT:

Near electric utility pole with wires along east side of highway.

10.8 - NW QUADRANT:

Existing crossbuck with yield sign and proposed flashers and gate location with fill needed.

A phone pedestal near residence and utility paint marks at the crossing along the west side of highway.

Proposed 6'x6' signal house and driveway. About 4' of fill and berm wall required for house.

10.9 - SE QUADRANT:

Existing crossbuck with yield sign and proposed flashers and gate location with fill needed.

Overhead electric is 33' 4" above grade at proposed gate location.

Fiber optic cable vault and paint marks. Fiber optic marker post at toe of railroad embankment.

Electric utility pole with wires along east side of highway.

10.10 - SW QUADRANT:

Fiber optic cable paint marks. Fiber optic marker post at toe of railroad embankment.



SECTION 11 – PHOTO LOG

NE Quad viewing east



NE Quad viewing south



NE Quad viewing west



SE Quad viewing east, proposed flashers & gate location with fill needed



SE Quad viewing north, proposed flashers & gate location with fill needed



SE Quad viewing west, fiber optic cable vault and paint mark in view, proposed flashers & gate location with fill needed



SW Quad viewing north, near electric pole in view



SW Quad viewing east



NW Quad viewing west, proposed flashers & gate location with fill needed, proposed driveway & signal house location will fill and berm wall required



NW Quad viewing south, proposed flashers & gate location with fill needed



NW Quad viewing east, proposed flashers & gate location with fill needed



Fiber optic cable marker in SW Quad at toe of railroad embankment
(Not shown, similar marker in SE quadrant)





Rail Development Commission

Mike DeWine, Governor
Jon Husted, Lt. Governor

Scott Corbitt, Chair

March 8, 2021

Mr. Len Wagner
President & Legal Official (SVP)
Genesee & Wyoming/CUOH
201 N. Penn Street
Punxsutawney, PA 15767

RE: PE Authorization for TUS CUOH TR208/Fillmans Bottom Rd DOT# 510668Y PID# 114024

Dear Mr. Wagner:

A diagnostic review was held at the above grade crossing on August 13, 2020. The crossing has been recommended for the installation of lights and gates at the Genesee & Wyoming/CUOH grade crossing DOT# 510668Y.

Genesee & Wyoming/CUOH is authorized to proceed with the site plans and cost estimates or bid package 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 form is attached. Please note any recommendations (page 7), if any, made by the team about 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 Greg Gronbach. Greg Gronbach can be reached at (614) 745-6760, or Gregory.Gronbach@dot.ohio.gov, if you have any questions.

Sincerely,


Greg Gronbach
Project Manager

C: John Williams, Director, Transportation Department, PUCO
Jill Henry, Rail Division Chief, PUCO
Heather Hamilton, ORDC
ORDC (file)



Attachments: 3 (diagnostic review form, letter agreement, purchase order)



Public Utilities Commission

Mike DeWine, Governor
Sam Randazzo, Chairman

Commissioners

M. Beth Trombold
Lawrence K. Friedeman
Dennis P. Deters
Daniel R. Conway

November 13, 2020

The Columbus & Ohio River Rail Road Company
Mr. Jared Rishel
AVP Engineering Northern Region
Genesee & Wyoming Inc.
4349 Easton Way
Suite 110
Columbus, OH 43219

Re: Tuscarawas County, Fillmans Bottom
Road/TR 208, DOT#510-668Y,
hereinafter referred to as the "Project"

Dear Mr. Rishel:

The Public Utilities Commission of Ohio (PUCO) has identified and the Ohio Rail Development Commission (ORDC) surveyed, on August 13, 2020, the above mentioned grade crossing for warning device upgrades. The location has been approved for flashing lights and roadway gates.

The Project shall comply with Agreement No. 009-A, dated May 28, 2001, entered into by the State of Ohio and The Columbus & Ohio River Rail Road Company (RAILROAD). Furthermore, the RAILROAD shall comply with all applicable state and federal laws governing grade crossing safety programs.

Reimbursable costs will be limited by ORDC based upon approved estimates and bid tabulations, if applicable. These limits will be quantified by the ORDC in its construction authorization to the RAILROAD and may be amended by the ORDC based upon revised estimates and bid tabulations. Additional costs must be approved in writing by the ORDC prior to being incurred. Emergency verbal authorizations by ORDC may be permitted but must be confirmed in writing within ten (10) business days of the verbal approval.

The RAILROAD shall complete plans and estimates for the Project within ninety (90) days after the RAILROAD is notified of authorization to proceed unless otherwise agreed by ORDC/PUCO and the RAILROAD.

The RAILROAD shall not commence construction prior to PUCO's Order and ORDC's construction authorization. The RAILROAD shall provide written notification of the construction start date to PUCO and ORDC no later than five (5) business days prior to such date.

Please indicate your acceptance of the terms and conditions of this Letter of Agreement by signing and returning one (1) copy to Ms. Jill Henry, Rail Specialist, Rail Division, Public Utilities Commission of Ohio, 180 E. Broad Street, Columbus, Ohio 43215-3793.

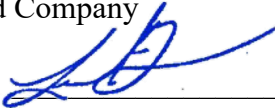
Sincerely,



John D. Williams
Director, Transportation
Public Utilities Commission of Ohio

The Columbus & Ohio River Rail
Road Company

By



Title President

Date 12/11/2020

Matthew Dietrich
Executive Director
Ohio Rail Development Commission

Date



1/21/2021

TR 208 / Fillman's Bottom Road (DOT #510668Y) , Salam Township, Tuscarawas County, CUOH
8/13/2020

Crossing at a glance:

ORDC Notes:

Please Sign In

Greg Gronbach

ORDC

Name	Title	Organization
	Phone Number	Email
		Signature

Todd Hensley

CUOH

Name	Title	Organization
	740-502-7214	
	Phone Number	Email
		Signature

SHAWN ZORFLEY

PUCO

Name	Title	Organization
	330-417-2590	
	Phone Number	Email
		Signature

PATTY ARTH

SALEM TOWNSHIP

Name	Title	Organization
	Phone Number	Email
		Signature

GENARO DEMONTE

TUSCARAWAS CO

Name	Title	Organization
	567-203-3521	
	Phone Number	Email
		Signature

DJ MEEK

SALEM TOWNSHIP

Name	Title	Organization
	330-340-8462	
	Phone Number	Email
		Signature

RAY STOCKER

SALEM TOWNSHIP

Name	Title	Organization
	740-227-0144	
	Phone Number	Email
		Signature

Name	Title	Organization
	Phone Number	Email
		Signature

Reason for Request: Formula
(e.g. formula, accident, constituent, etc.)

Date: 8/13/2020

Location Data		
Street or Road Name: Fillman's Bottom Road		
County: Tuscarawas	Township: Salem	US DOT No.: 510668Y
City (in or near): near Port Washington	Railroad Name: CUOH	RR Milepost: 100.99
Safety Data (Obtain crash reports, if possible)		
	Initial Information (from database)	Revised
Number & dates of vehicle crashes in previous 5 years:	1 - 10/19	
Number & dates of pedestrian/bicycle crashes in previous 5 years:		
Hazard Ranking: 231	Date Run: 04/08/2020	

Existing Traffic Control Devices		
Type of Warning Devices	Installed?	Quantity/Comments
HIGHWAY		
Advance Warning Signs (condition?)	<input type="checkbox"/> Yes <input checked="" 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	
Dynamic Envelope Markings (condition?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Illumination	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
'No Turn' Signs (highway/passive)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Barriers/fencing (pedestrian/bicycle)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
LOOK Sign	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Do Not Stop On Track Sign	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
RAILROAD		
Crossbucks	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Crossbucks – assembly with Stop	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Crossbucks – assembly with Yield	<input checked="" type="checkbox"/> Yes <input 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	
LED or Incandescent Lights? Size?	<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/Pedestrian Gate Arms	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Number: Length:
'No Turn' Signs (railroad/active)	<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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2- BLUE ENS

Railroad Data

Type of Train: ☒ Freight ☐ Intercity Passenger ☐ Transit ☐ Shared Use Transit ☐ Commuter ☐ Tourist/Other

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	2	
<1 per day? Trains per week	-	
Day thru trains	2	
Night thru trains	0	2
Switching	0	
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks	0	
Maximum train speed	30	
Typical train speed	0-30	
Amtrak	-	

Are there other track(s) crossing this same roadway within 100ft of this crossing? ☐ Yes ☒ No

If yes, Crossing DOT# (if different) _____

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

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 the crossing? ☐ Yes (explain below) ☐ No

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

Comments:

Circuitry: ☐ Constant Warning Time ☐ Motion Detection ☐ AFO ☐ PTC ☐ DC ☒ Other None

Roadway Data		
Local Highway Authority:		Salem Township
Roadway Characteristics	Initial Information (from database)	Revised
Average Daily Traffic	77 ^{SOUTH} of crossing at US - 36 (2018)	137 (2014) PER PUCO
Highway Paved	<input checked="" type="checkbox"/> 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 Other _____		
Roadway width (paved/travelled way): <u>23</u> ft		
Number of Highway Lanes	2	
Urban or Rural	Rural - Local	
Vehicle Speed: MPH MPH <u>55</u>		
School Bus Operation: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Amount <u>4</u>		
Location of nearby schools: <u>PORT WASHINGTON ELEMENTARY - LESS THAN 1/2 SOUTH</u>		
Hazardous Materials Trucks: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Amount (from FRA) <u>5%</u> LHA verified/changed?		
Shoulders: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is the Shoulder Surfaced? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, shoulder width: _____ ft.		
Is there existing guardrail along the roadway in crossing vicinity? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Crossing Angle <input type="checkbox"/> 0-29° <input type="checkbox"/> 30-59° <input checked="" type="checkbox"/> 60-90° Measured in _____ Quadrant?		
Quadrant <u>NE</u> Curb & Gutter:	Quadrant <u>SW</u> Curb & Gutter:	
<input type="checkbox"/> Functional (Curb height = 4" or more)	<input type="checkbox"/> Functional (Curb height = 4" or more)	
<input type="checkbox"/> Non-functional (Curb height = less than 4")	<input type="checkbox"/> Non-functional (Curb height = less than 4")	
<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> None	
Is there a nearby intersection that could cause queuing over the crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If yes, distance _____		
Is this intersection signalized? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Are there signals currently interconnected with the existing crossing warning devices? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is there a 'Do Not Stop on Track' sign? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If yes:		
Improvement type _____ Lead Agency _____ Timeline/completion _____		

Pedestrian & Bicycle Data

Regular pedestrian usage: ☐ Yes ☒ No Volumes: ☐ Occasional ☐ <20 ☐ 20-60 ☐ >60

Is sidewalk present in the approach? ☐ Yes ☒ No Quadrants:

Does crossing surface accommodate pedestrians? ☐ Yes ☒ No

Both sides of roadway? ☐ Yes ☒ No If no, which side is paved?

Pedestrian generators in close proximity (e.g. schools, sports/entertainment venues)? ☐ Yes ☒ No

Comments:

Regular bicycle usage: ☐ Yes ☒ No

☐ Roadway ☐ Dedicated Lane (on street) ☐ Dedicated Path (off street) ☐ Shared Use (pedestrian/bicycle) Path
☐ Bikes must use sidewalk

Future plans for pedestrian or bicycle routes? ☐ Yes ☒ No

Comments:

Utility Information

Is commercial power available? ☒ Yes ☐ No

Utility Provider (Company Name) AEP

Nearest Available Power Source At Crossing

What other utilities are present? ☐ Gas ☐ Cable ☐ Telephone ☒ Fiber Optic Cable (add locations to sketch)
☐ Petroleum ☐ Water ☐ Sanitary Sewer ☐ Other

Comments:

Surface

Surface review form completed? ☐ Yes ☒ No SURFACE GOOD

Sight Preview (REFER TO TABLES)

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

Is stopping sight distance adequate? (See Table 2) ☒ Yes ☐ No If no, which quadrant? _____

When considering recommendations for bicycle treatments:

Bicycle sight distance adequate? ☒ Yes ☐ No If no, which quadrant? _____

When considering recommendations for pedestrian treatments:

Pedestrian sight distance adequate? ☒ Yes ☐ No If no, which quadrant? _____

Potential Red Flags / Project Challenges

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

NO

Crossing Consolidation or Closure:

NO

Real Estate or ROW:

NO

Culvert / Drainage / Ballast Conditions:

NO

Roadway and/or Sidewalks:

NO

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

NO

Environmental:

NO

Utilities:

YES - FIBER IN BOTH NE + SW QUADS NEAR AREAS FOR
L/G FOUNDATIONS

Other:

Potential Closure

Is it the consensus of the Diagnostic Review Team that this is a potential closure project? **NO**

Explain reasons: **DUE TO EXPANSION OF MINING IN NW QUAD. ONLY ROAD FOR RESIDENTS.**

Diagnostic Team Recommendations

☐ No improvements needed

Quadrants Needed

☒ Install/upgrade active devices

☐ Automatic Flashing Lights (AFLS)

☐ AFLS / Cants

☒ AFLS / Gates

☐ AFLS / Gates / Cants

☒ Bells / number

☐ Upgrade circuitry / type

☐ Sidelights

☐ LED Upgrades

☐ Guardrail Needed

☐ Install/Replace curb

☒ Bungalow placement & offset from rail & highway

☐ Other (define)

1

NW QUAD

Comments:

☐ Install/upgrade traffic signal preemption

Other (define): **ADVANCED WARNING SIGNS + PAVEMENT MARKINGS TO BE INSTALLED BY TOWNSHIP. PUCO SUPPLEMENT ASST TO BE EMAILED TO TOWNSHIP.**

Diagnostic Team Recommendations (cont.)

PEDESTRIAN/BICYCLE Treatments (additional, not included above)

☐ Crossing Surface (specify)

☐ Sidewalk (specify)

☐ Detectable warning surfaces

☐ LOOK Sign (R15-8)

☐ Stop lines

☐ Illumination

☐ Dynamic envelop markings

☐ Channelization

☐ Path delineation

☐ Fencing/barriers

☐ Other

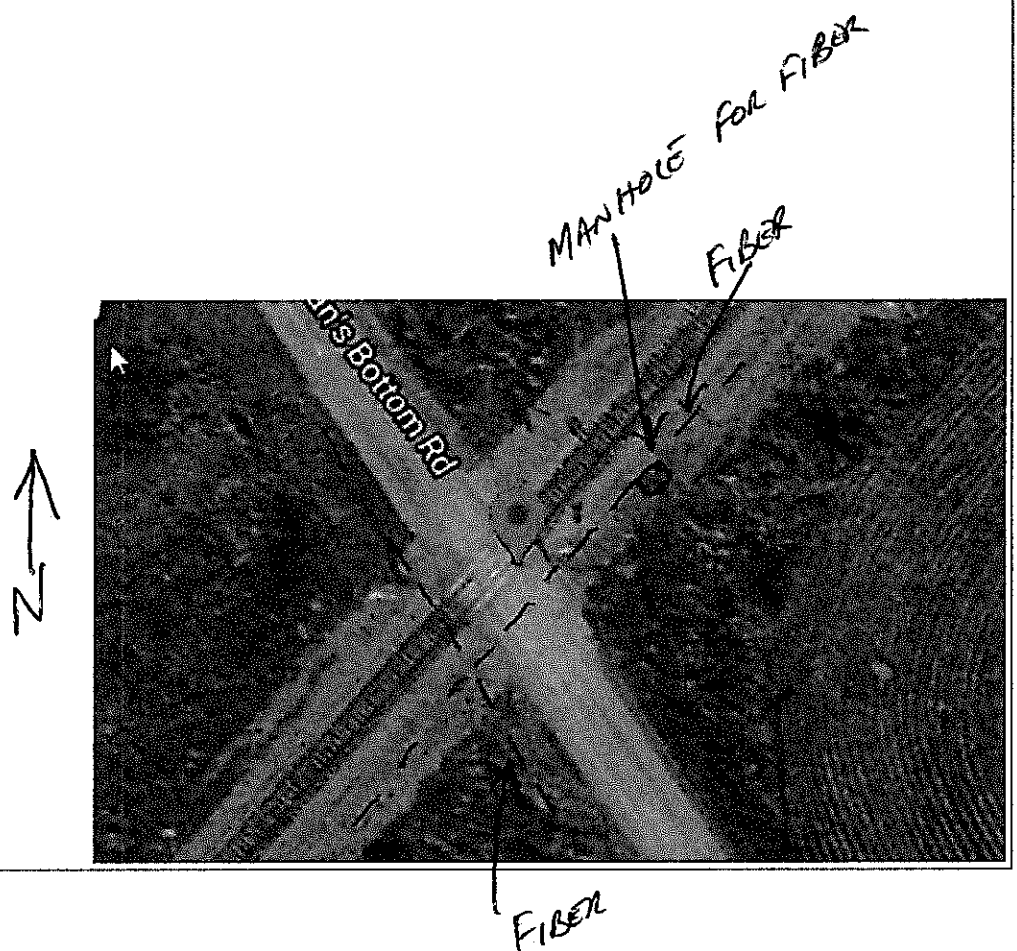
Comments:

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

DJm **GWA** **GRH** **GRH**

Field Sketch (optional)

Include utilities as marked by OUPS and LHA; include ROW boundaries as indicated by railroad and LHA.



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.

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.

Bicycle & Pedestrian Clearing Sight Distances

Clearing Sight Distance from Stop Position*											
Crossing of one track								Crossing 2 Tracks		Crossing 3 Tracks	
Train Speed	Car	Single-unit Truck	Bus	WB-50 Semitruck	65-foot Double Truck	Pedestrian ¹	Bicyclist ²	Pedestrian ¹	Bicyclist ²	Pedestrian ¹	Bicyclist ²
10	105	185	200	225	240	120	100	180	120	240	140
20	205	365	400	450	485	240	200	360	240	480	270
25	255	455	500	560	605	300	250	450	290	590	340
30	310	550	600	675	725	360	290	530	350	710	410
40	410	730	795	895	965	480	390	710	470	950	540
50	515	910	995	1,120	1,205	590	490	890	580	1,180	670
60	615	1,095	1,195	1,345	1,445	710	580	1,060	700	1,420	810
70	715	1,275	1,395	1,570	1,680	830	680	1,240	810	1,650	940
80	820	1,460	1,590	1,790	1,925	950	780	1,420	930	1,890	1,080
90	920	1,640	1,790	2,015	2,165	1,060	870	1,590	1,040	2,120	1,210

*A single track, 90-degree, level crossing

¹ Walking 3.5 feet per second across tracks 15 feet apart, with a 2-second reaction time to reach a decision point 10 feet before the center of the first track, and clearing 10 feet beyond the centerline of the second track.

² Bicycling 8 miles per hour across tracks 15 feet apart, from a stopped position 10 feet before the center of the first track with an acceleration of 2.5 feet per second, and clearing 10 feet beyond the centerline of the second track on a bike of 6 feet length.

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

3/23/2022 4:49:19 PM

in

Case No(s). 22-0239-RR-FED

Summary: Application In the Matter of a Request for the Installation of Active Warning Devices at the Columbus & Ohio River Railroad Crossing, DOT#510-668Y, Fillman's Bottom Road, in Tuscarawas County, Ohio. electronically filed by Mrs. Jill A. Henry on behalf of PUCO/Rail Division