Public Utilities
Commission of Ohio

Memo

To: Docketing Division

From: Jill Henry, Rail Specialist, Rail Division

Cc: PUCO Legal Department

Date: 1/26/2022

Re: PUCO Case No. 22-63-RR-FED- In the Matter of a Request for the Installation of Active Warning Devices at the Indiana & Ohio Railway Grade Crossing, DOT#151-326G, on Goshen Road/CR 57 in Clermont County, Ohio.

On December 31, 2019, the Ohio Rail Development Commission (ORDC) authorized funding for Indiana & Ohio Railway (IORY) to install lights and gates at Goshen Road/CR 57, DOT#151-326G in Clermont County, Ohio. The crossing was surveyed, on July 25, 2019, and was found to warrant the upgrade. The electric utility provider for this crossing is Duke Energy 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 $278,101.00 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:

Indiana & Ohio Railway Company
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

Clermont County Engineer
Jeremy Evans
County Engineer
2381 Clermont Center Drive
Batavia, OH 45103

Duke Energy Ohio

OHIO RAIL DEVELOPMENT COMMISSION
INTER-OFFICE COMMUNICATION

TO: **John Williams, Transportation Director, PUCO**

FROM: **Allen Bell, Manager, Safety Section, ORDC**

BY: **Eric Thompson, Project Manager, Safety Section, ORDC**

SUBJECT: **Clermont County-Co Rd. 57 Goshen DOT# 151326G PID# 111189**

DATE: **11/30/2021**

The Ohio Rail Development Commission (ORDC) established a diagnostic survey at the subject location on July 25, 2019. The Public Utilities Commission of Ohio (PUCO) 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.

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

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

Ohio | Rail Development Commission

Mike DeWine, Governor
Jon Husted, Lt. Governor

Scott Corbitt, Chairman

Mr. Len Wagner
President & Legal Official (SVP)
Genesee & Wyoming/IORY
200 Meridian Centre Suite 270
Rochester, NY 14618

RE: Construction Authorization Grade Crossing Warning Device Improvements
Clermont, Goshen Rd.,/CR57, DOT#151326G, PID#111189

Dear Mr. Wagner:

The plan dated 6/4/2021 and estimate dated 8/26/2021, for the referenced project is acceptable. Genesee & Wyoming/IORY 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 $278, 101.00. 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 IORY accepting the following instructions:

1. IORY's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to IORY, ORDC, Eric.Thompson@dot.Ohio.Gov (513) 312-0530, and to the Public Utilities Commission of Ohio, email Jill.henry@puc.state.oh.us. IORY'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. IORY 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 IORY.

3. IORY's project foremen will notify Eric Thompson at (513) 312-0530 or Eric.Thompson@dot.Ohio.gov of any changes in the scope of work, cost overruns, material changes, etc. which are not included in the approved plan and estimate and secure approval of same before the work is performed.

4. Open cut of roadways is *not permitted* except in unusual circumstances and must be coordinated with the local highway authority and preapproved by ORDC.

5. IORY will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed Purchase Order to reference when billing.

6. IORY 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,

Eric Thompson
Project Manager

Attachment: ODOT P.O.

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

Force Account Estimate

Estimate to Complete

Railroad:	Indiana & Ohio Railway Company (IORY)	**Region:**	MIDWEST
Agency:	ORDC	**State:**	OH
DOT #:	151326G	**COUNTY:**	Clermont
ROADWAY:	CR 57 / Goshen Rd	**CITY:**	Goshen
DESCRIPTION:	Installation of Cantilever and gate combos, cantilever mast light on jerry arm, platform and handrail needed along with 2-tier berm wall in NE quad, two bells, new 6x6 bungalow with PMD-4R and above grade platform, camera system. 35' guardrail, 2 new property gates, remove 8 abandoned poleline.		
AGENCY PROJECT NUMBER:	PID 111189	**ESTIMATE SUBJECT TO REVISION AFTER:**	**02/22/22**

PRELIMINARY ENGINEERING:					
Contracted & Administrative Engineering Services				$	13,100
Subtotal				**$**	**13,100**
CONSTRUCTION & CLOSEOUT:					
Contracted & Administrative Engineering Services				$	21,100
Subtotal				**$**	**21,100**
FLAGGING SERVICE:					
Contracted or Railroad Flagmen Services		10	Days	$	14,000
Subtotal				**$**	**14,000**
UTILITY WORK:					
Power Service				$	10,135
Other				$	6,980
Subtotal				**$**	**17,115**
CONTRACT WORK:					
Outside Services				$	-
Design & Labor & Material				$	212,786
Subtotal				**$**	**212,786**
RAILROAD TRACK:					
Labor & Material				$	-
Subtotal				**$**	**-**
RAILROAD SIGNAL & COMMUNICATION:					
Labor & Material				$	-
Subtotal				**$**	**-**
PROJECT SUBTOTAL:				**$**	**278,101**
Public Project Admin:	**0.00%**			$	-
Contingencies:	**0.00%**			$	-
PROJECT TOTAL:	**********			**$**	**278,101**
CURRENT AUTHORIZED BUDGET:	**********			$	-
TOTAL SUPPLEMENT REQUESTED:	**********			**$**	**278,101**

DIVISION OF COST:

Agency	100.00%	$	278,101
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:	01/06/20	**REVISED:**	08/26/21	**DATE:**	08/26/21

INDIANA & OHIO RAILWAY

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

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

STATE OF OHIO
SCOTT L WERTANS
E-73435
REGISTERED PROFESSIONAL ENGINEER

INDIANA I & O OHIO

TITLE AND INDEX

INDIANA & OHIO RAILWAY

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET
00 OF 12

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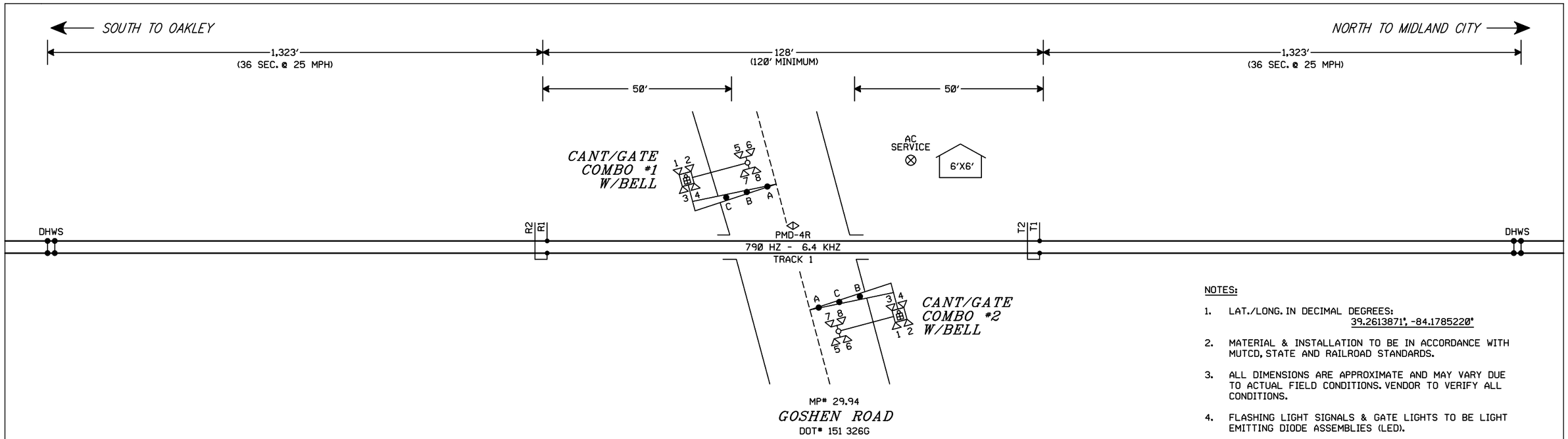

NOTES:

1. LAT./LONG. IN DECIMAL DEGREES: 39.2613871°, -84.1785220°
2. MATERIAL & INSTALLATION TO BE IN ACCORDANCE WITH MUTCD, STATE AND RAILROAD STANDARDS.
3. ALL DIMENSIONS ARE APPROXIMATE AND MAY VARY DUE TO ACTUAL FIELD CONDITIONS. VENDOR TO VERIFY ALL CONDITIONS.
4. FLASHING LIGHT SIGNALS & GATE LIGHTS TO BE LIGHT EMITTING DIODE ASSEMBLIES (LED).
5. BEWARE OF OVERHEAD WIRES.
6. SEE APPROACH CIRCUIT DISTANCE CALCULATION TABLE FOR PLANNED WARNING TIME AND TRAIN SPEED PER TRACK.
7. APPROACH DISTANCES ARE TO BE MEASURED FROM THE TERMINATIONS TO CLOSEST SET OF TRACK LEADS AT CROSSING.
8. CONDUIT MUST BE BORED.
9. VENDOR IS RESPONSIBLE TO LOCATE AND PROTECT ALL UTILITIES WITHIN LIMITS OF CONSTRUCTION.
10. CAMERA SYSTEM TO BE SUPPLIED AND INSTALLED BY VENDOR.
11. ENSURE ALL DITCHES ALONG THE TRACKS IN ALL FOUR QUADRANTS HAVE POSITIVE DRAINAGE FLOW TO 100′ FROM THE HIGHWAY.
12. CULVERT INLET 25′ WEST OF NEAR RAIL. OUTLET NOT LOCATED BY CULVERT IS UNDER HIGHWAY PARALLEL TRACK.
13. INSTALL NEW PROPERTY GATE 75′ FROM HIGHWAY AND REMOVE OLD GATE IN NW QUADRANT.
14. INSTALL NEW PROPERTY GATE 75′ FROM HIGHWAY AND REMOVE OLD GATE IN SW QUADRANT.
15. REMOVE 8 SPANS ABANDONED POLELINE.
16. EROSION CONTROL REQUIRED TO KEEP ALL MATERIALS AWAY FROM ADJACENT STREAM IN NE QUADRANT.
17. MAIN ELECTRICAL PANEL TO ACCOUNT FOR 240VAC/100A AC SERVICE.
18. GATE & CANT LENGTHS:
    GATE #1: 18′
    CANT #1: 14′
    GATE #2: 18′
    CANT #2: 14′

LEGEND:

- TEST TERMINAL
- EQUALIZER
- ARRESTOR TO GROUND
- TWISTED WIRE 2 TURNS PER FOOT
- INSULATED NUT
- PVC SCHEDULE 80 CONDUIT (INSTALLED AT MIN 36" DEEP)
- LOCATION OF AC SERVICE

APPROACH DISTANCE CALCULATION

	TRACK 1	
	SOUTH	NORTH
ACTUAL PRIME CROSSING WARNING TIME	30 SEC	30 SEC
TIME FOR CROSSING CLEARANCE DISTANCE > 35′	+ 2 SEC	+ 2 SEC
TRAFFIC PRE-EMPTION TIME	+ 0 SEC	+ 0 SEC
TOTAL CALCULATED DESIGN WARNING TIME	32 SEC	32 SEC
EQUIPMENT RESPONSE TIME	+ 4 SEC	+ 4 SEC
BUFFER TIME	+ 0 SEC	+ 0 SEC
TOTAL WARNING TIME FOR APPROACH DISTANCE CALCULATION	36 SEC	36 SEC
CALCULATED AT MAXIMUM TRAIN SPEED	× 25 MPH	× 25 MPH
RATIO OF FEET PER SECOND TO MILES PER HOUR	× 1.47	× 1.47
APPROACH LENGTH (ROUNDED UP TO THE NEXT FOOT)	1323 FEET	1323 FEET

REVISIONS

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STATE OF OHIO
SCOTT L WERTANS
E-73435
REGISTERED PROFESSIONAL ENGINEER
3/1/21

INDIANA & OHIO RAILWAY

CROSSING TRACK LAYOUT

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET
01 OF 12

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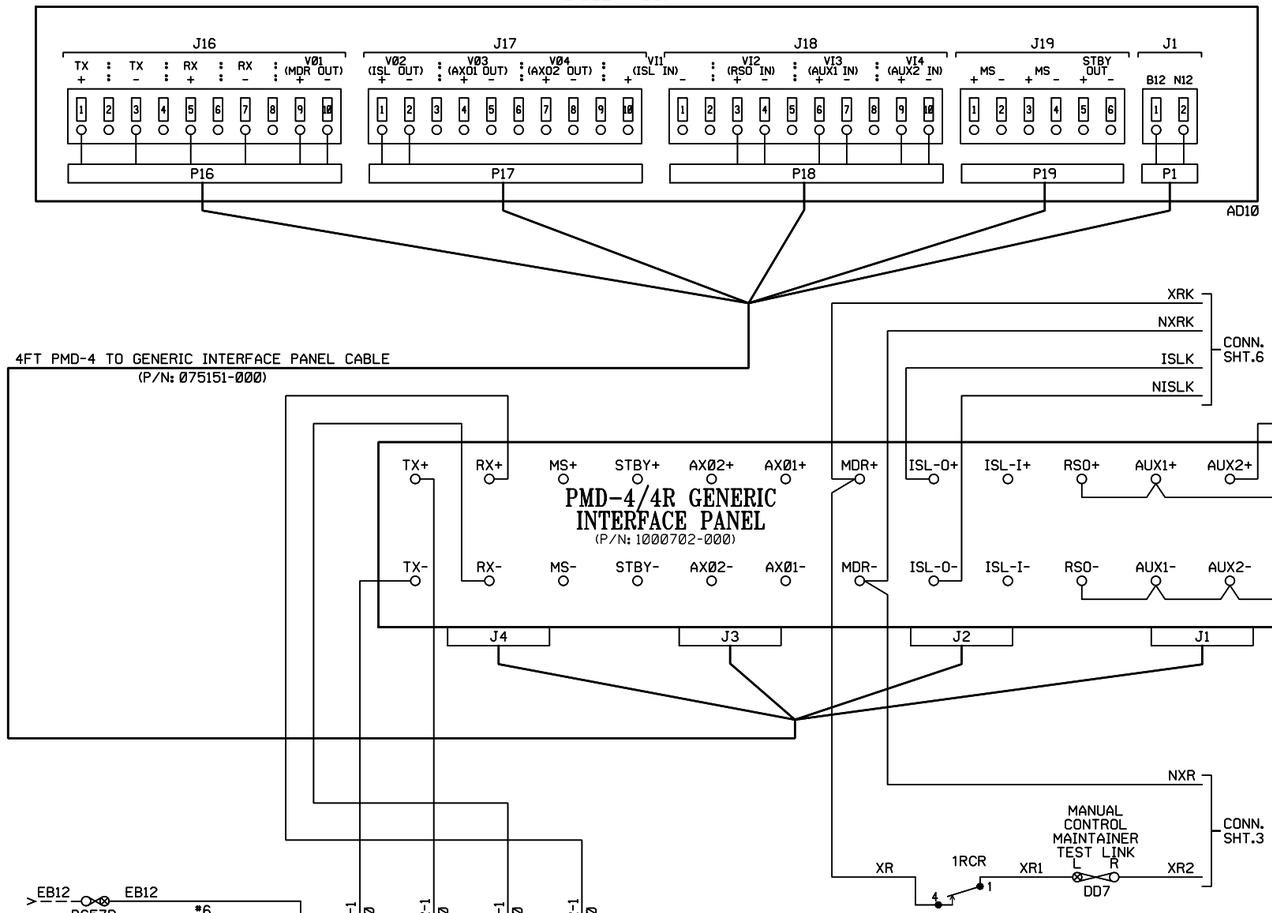
PMD-4R



4FT PMD-4 TO GENERIC INTERFACE PANEL CABLE
(P/N: 075151-000)

XRK
NXRK
ISLK
NISLK
CONN. SHT.6

OOSK — CONN. SHT.6

OOS TERMINAL
AC22 AC24

OOS

EB12 — EB12 — BC56R

WARNING
USE OF THIS JUMPER TERMINAL WILL COMPLETELY DISABLE THIS CROSSING WARNING SYSTEM. PROPER PROTECTION MUST BE IN PLACE FROM THE TRAIN DISPATCHER BEFORE USING ANY CUT-OUT DEVICE.

EB12 — EB12 — BC54R

EN12 — EN12 — BC54L

NXR
MANUAL CONTROL MAINTAINER TEST LINK L R
CONN. SHT.3
XR 1RCR XR1 XR2
DD7

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

NOTE:
DL = DEFAULT LEVEL
NA = NON APPLICABLE

PMD-4R SETUP PARAMETERS	
APPLICATION INFO	
APPLICATION	PMD-4R_MD[CWJOOS
APPLICATION CHECKSUM	7591
APPLICATION CRC	323D
CHASSIS ID	7
MDR1 SETTINGS	
MDR1 WARNING TIME (SEC)	32
MDR1 CW OR MD	CW
MDR1 AP TIME	NA
MDR1 AUX RECOVERY DELAY	5 (DL)
FREQUENCY	
APPROACH TRACK FREQUENCY (HZ)	790 HZ
BASIC APPROACH SETTINGS	
MASTER/SLAVE	MASTER
TRANSMITTER GAIN	200
TCA	FIELD ADJUST
DIRECTION MODE UNI/BI	BI
LIA	FIELD ADJUST
APPROACH LENGTH	1323 FT
AUTO RX ENABLE/DISABLE	ENABLED
ADVANCE APPROACH SETTINGS	
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
ISLAND SETTINGS	
ISLAND TYPE INTERNAL/EXTERNAL	INTERNAL
ISLAND ENABLED	ENABLED
ISLAND DISABLE TIMEOUT	2 HR
ISLAND FREQUENCY (HZ)	6.4 KHZ
ISLAND LOSS OF SHUNT (LOS)	4
ISLAND FAULT DELAY	2
TRANSMITTER GAIN	0

CONSTANT WARNING KEY NUMBER
XXXX-XXXX-XXXX

SHOP TO PROVIDE WHEN INSTALLED

REVISIONS

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STATE OF OHIO — SCOTT L WERTANS E-73435 — REGISTERED PROFESSIONAL ENGINEER — 3/1

PMD-4R CIRCUITRY & PROGRAM

INDIANA & OHIO RAILWAY

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET 02 OF 12

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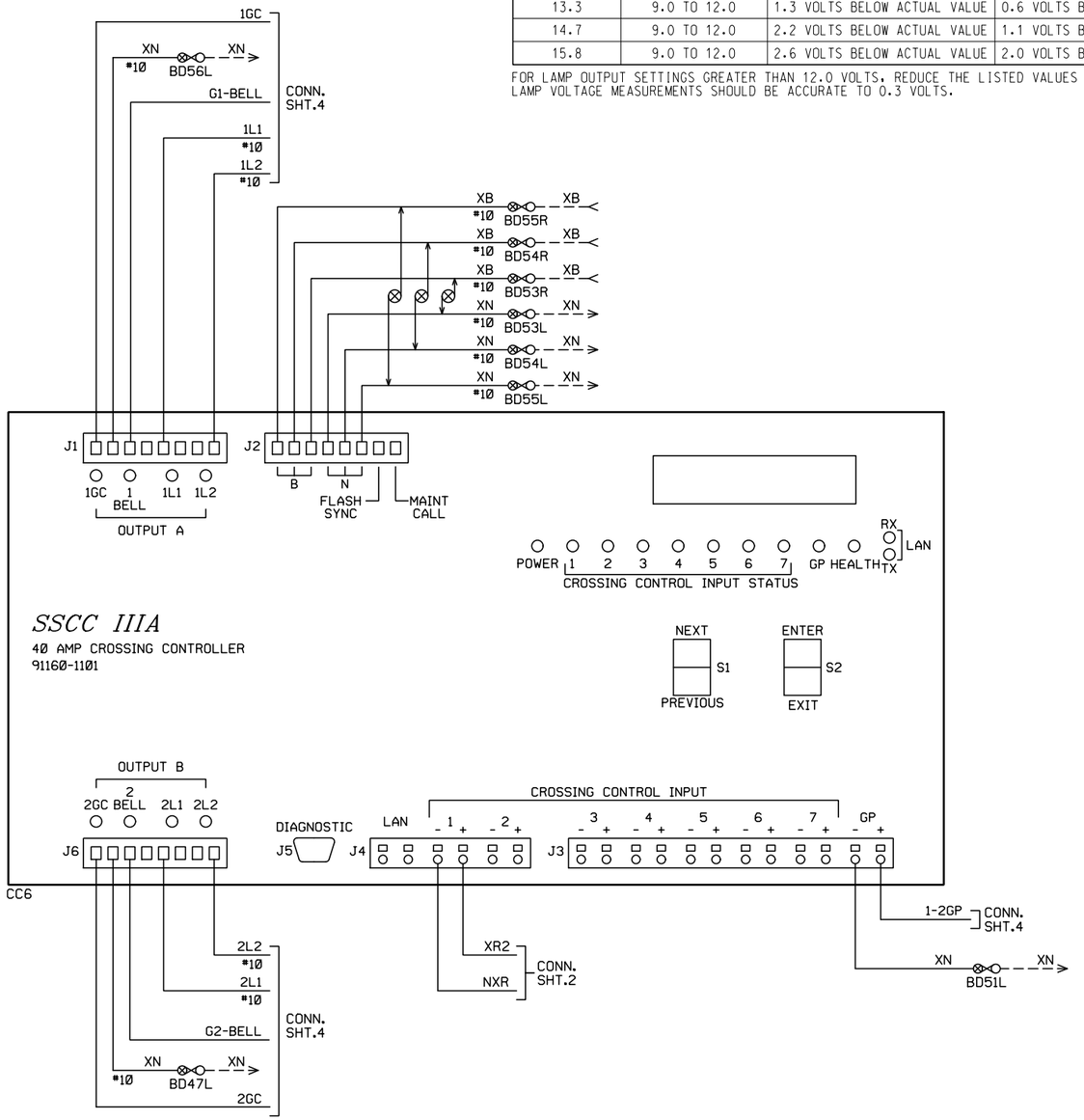
MULTIMETER READING VARIANCE FROM ACTUAL LAMP VOLTAGE

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 MEASUREMENTS SHOULD BE ACCURATE TO 0.3 VOLTS.



CROSSING CONTROLLER SSCCIIIA 40 - AMPERE UNIT, 91160-1101

PROGRAM	NOTES	INITIAL SETTING BY: _____ DATE: _____
FLASH RATE:	30-70 FLASHES/MINUTE DEFAULT = 50	50 FLASHES/MINUTE
GATES USED:	YES/NO DEFAULT = YES	☑ YES ☐ NO
1GC DELAY:	3-20 SEC., DEFAULT = 4	4 SECONDS
2GC DELAY (40A UNIT):	3-20 SEC., DEFAULT = 4	4 SECONDS
GATE RISING BELL:	ON/OFF, DEFAULT = ON	☐ ON ☑ OFF
ENABLED INPUTS:	1 THRU 1 ONLY	☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7
MIN ACTIVATION TIME:	0-30 SEC., DEFAULT = 0	0 SECONDS
ENABLED OUTPUTS: (40A ONLY)	DEFAULT = A + B	☑ A + B ☐ A ☐ B
DAYLIGHT SAVINGS:	DEFAULT = DISABLED	☑ ENABLED ☐ DISABLED
DATE:	N/A	☐ DATE SET
TIME:	24-FORMAT	☐ TIME SET
PASSWORD:	DEFAULT = DISABLED	☐ ENABLED ☑ 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	☑ DISABLED ☐ ENABLED _____ VOLTS
AUX I/O:	DEFAULT = NONVITAL OUTPUT	☑ NV OUTPUT ☐ FLASH SYNC IN ☐ FLASH SYNC OUT
DETECT LAMP NEUTRAL WIRE	YES/NO DEFAULT = NO	☐ YES ☑ NO
TEST CONFIGURE		
LAMP TEST CANCEL TIMER:	1 - 15 MINUTES, DEFAULT = 5	5 MINUTES
LAMP TEST DELAY TIMER:	30 - 120 SEC., DEFAULT = 30	30 SECONDS
LAMP TEST ON TIMER:	15 - 60 SEC., DEFAULT = 15	15 SECONDS
QUERY		
QUERY CONFIG VERSIONS:		MCF NAME: BASIC.MCF.F MCF CRC: _____ CAPABILITY NAME: _____

SETUP LAMP VOLTAGES	INITIAL SETTINGS BY: _____ DATE: ___/___/___ METER: _____
FAR GATE	1L1= _____ VOLTS 1L2= _____ VOLTS 2L1= _____ VOLTS 2L2= _____ VOLTS
SSCCIIIA	1L1= _____ VOLTS 1L2= _____ VOLTS 2L1= _____ VOLTS 2L2= _____ VOLTS
NEAR GATE	1L1= _____ VOLTS 1L2= _____ VOLTS 2L1= _____ VOLTS 2L2= VOLTS

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

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

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.

STATE OF OHIO SCOTT L WERTANS E-73435 REGISTERED PROFESSIONAL ENGINEER

CROSSING CONTROLLER CIRCUITRY

INDIANA & OHIO RAILWAY

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET 03 OF 12

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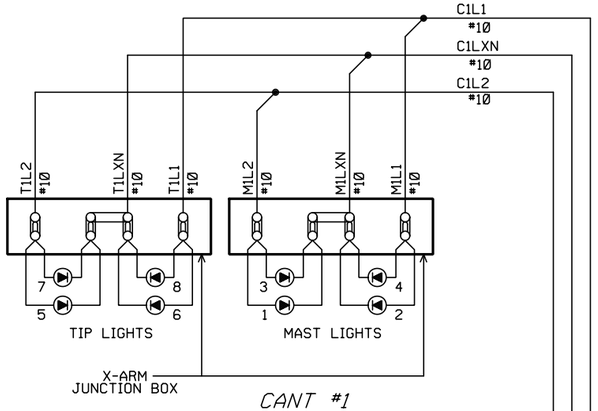
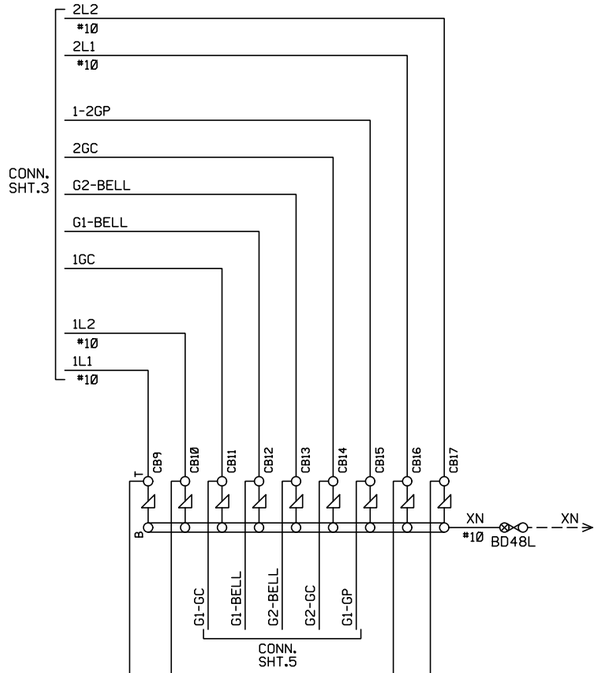
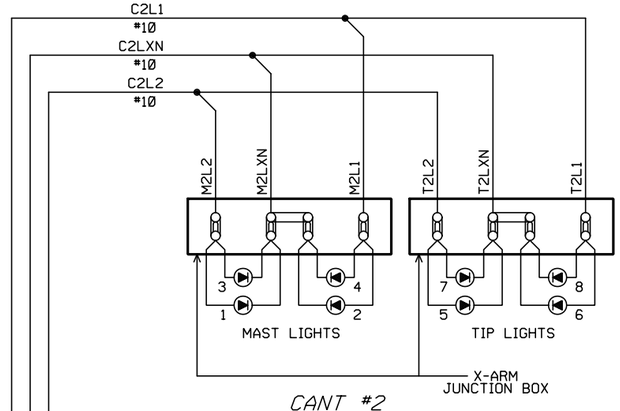
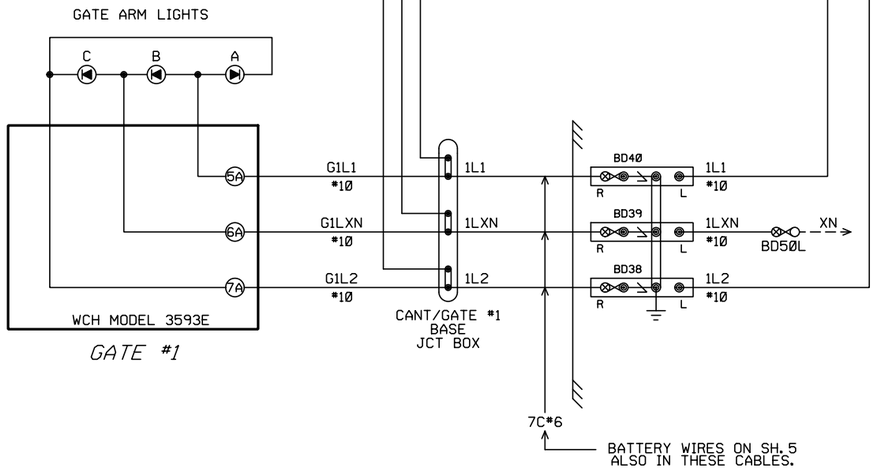


CANT #1

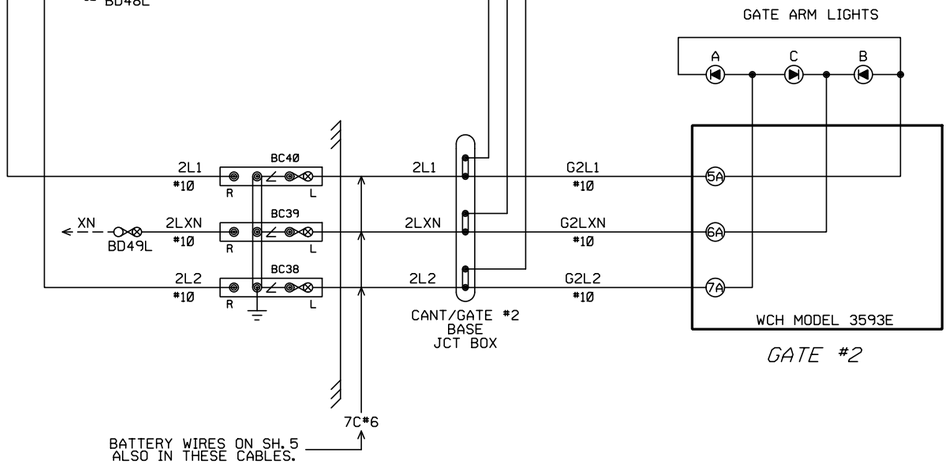




CANT #2



GATE #1



GATE #2

NOTE:

1. ALL WIRING IN THE BUNGALOW IS #16 AWG FLEX UNLESS OTHERWISE NOTED.

LEGEND:

-TEST TERMINAL
-EQUALIZER
-ARRESTOR TO GROUND
-TWISTED WIRE 2 TURNS PER FOOT
-INSULATED NUT

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.

STATE OF OHIO
SCOTT L WERTANS
E-73435
REGISTERED PROFESSIONAL ENGINEER
3/11

INDIANA
I & O
OHIO

GATE/CANT LIGHTING CIRCUITRY

INDIANA & OHIO RAILWAY

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET
04 OF 12

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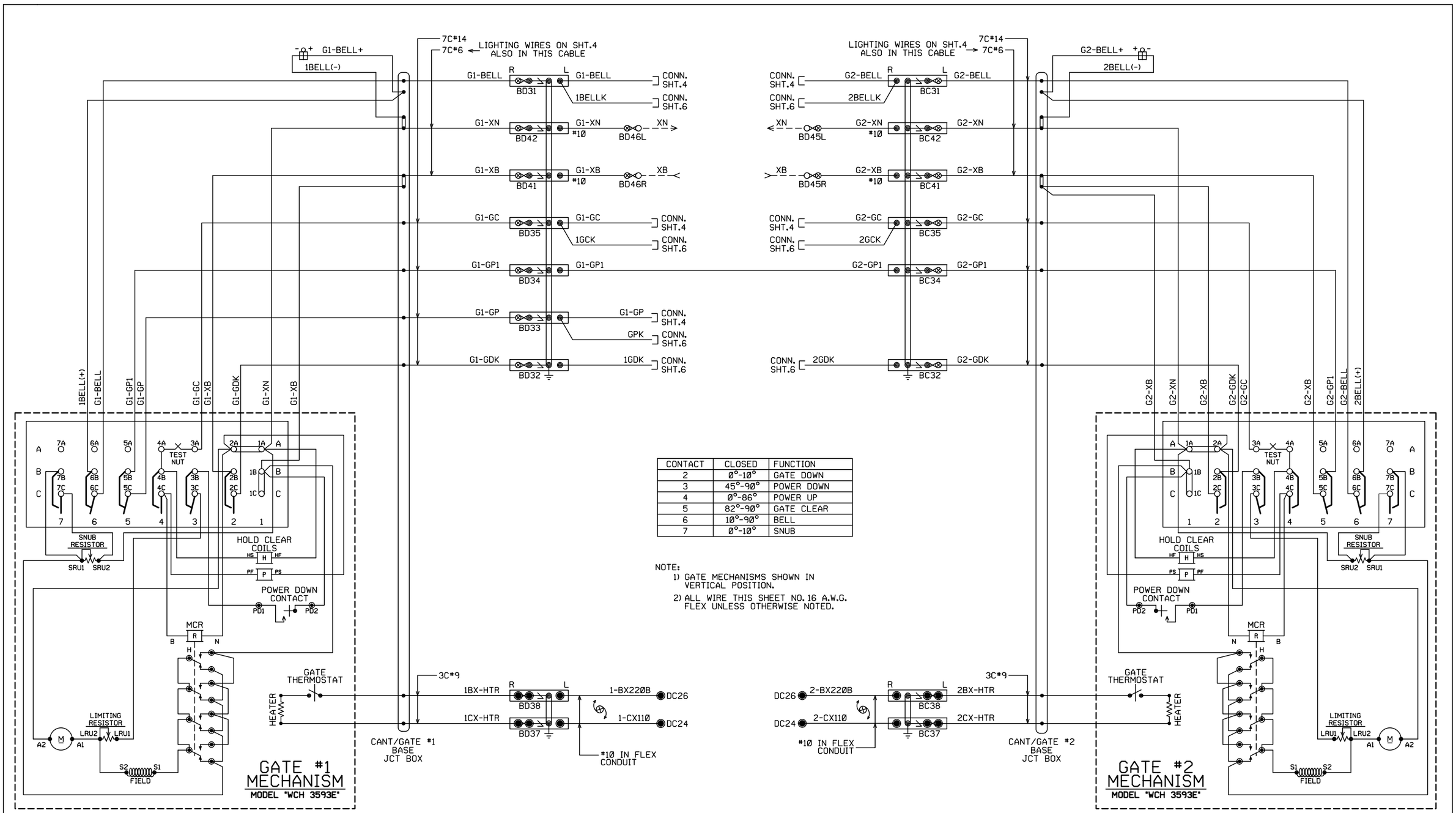


CONTACT	CLOSED	FUNCTION
2	0°-10°	GATE DOWN
3	45°-90°	POWER DOWN
4	0°-86°	POWER UP
5	82°-90°	GATE CLEAR
6	10°-90°	BELL
7	0°-10°	SNUB

NOTE:
1) GATE MECHANISMS SHOWN IN VERTICAL POSITION.
2) ALL WIRE THIS SHEET NO. 16 A.W.G. 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.

STATE OF OHIO
SCOTT L WERTANS
E-73435
REGISTERED PROFESSIONAL ENGINEER

GATE MECH CIRCUITRY

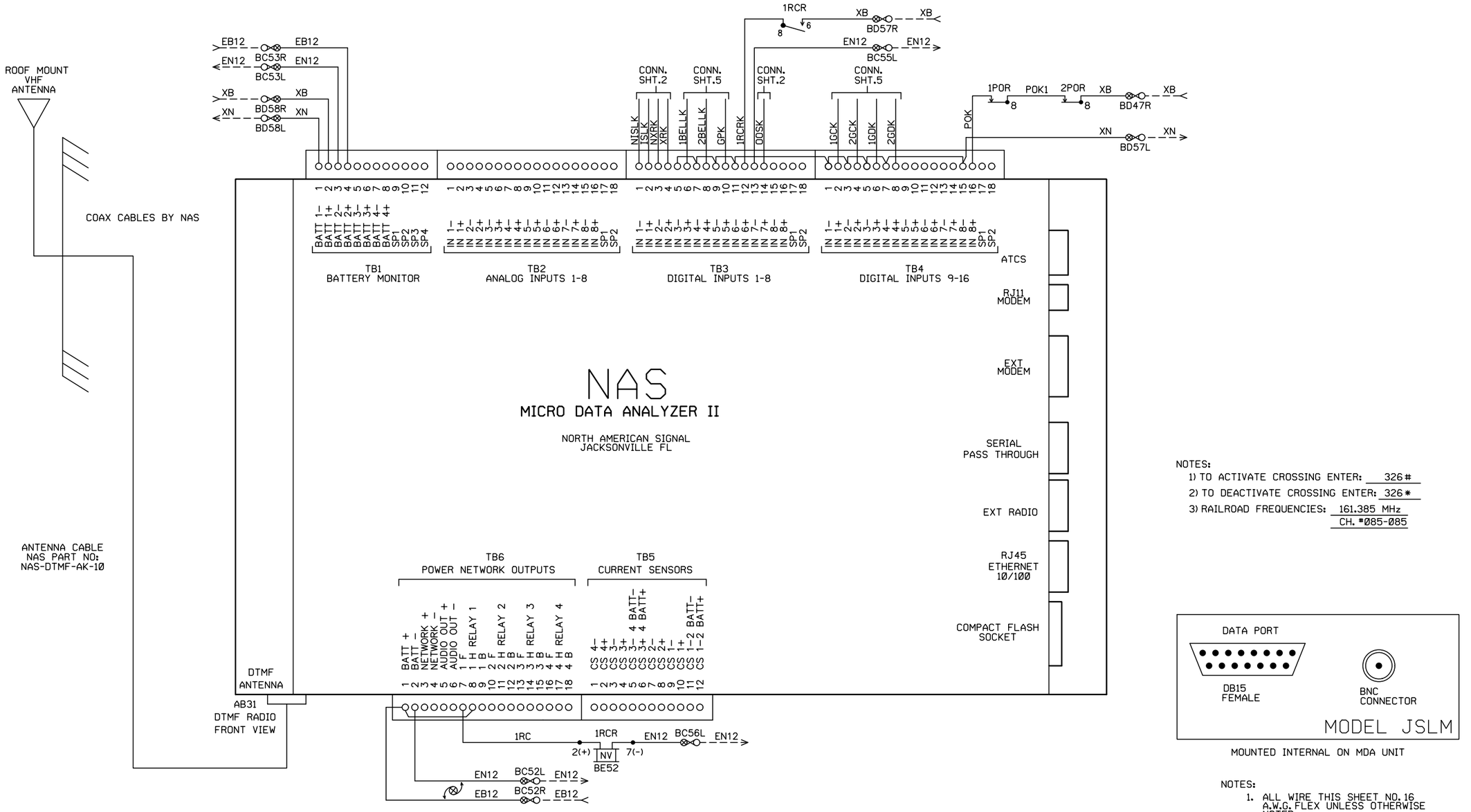
INDIANA & OHIO RAILWAY

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET
05 OF 12

IORY029_94X05.dgn



NOTES:
1) TO ACTIVATE CROSSING ENTER: 326#
2) TO DEACTIVATE CROSSING ENTER: 326*
3) RAILROAD FREQUENCIES: 161.385 MHz CH. #085-085

MOUNTED INTERNAL ON MDA UNIT

NOTES:
1. ALL WIRE THIS SHEET NO. 16 A.W.G. FLEX UNLESS OTHERWISE NOTED.
2. ⊗ DENOTES TWISTED WIRE PAIR.
3. ⊸⊗ DENOTES TEST TERMINAL.

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.

STATE OF OHIO SCOTT L WERTANS E-73435 REGISTERED PROFESSIONAL ENGINEER 3/1/21

DATA RECORDER CIRCUITRY

INDIANA & OHIO RAILWAY

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET 06 OF 12

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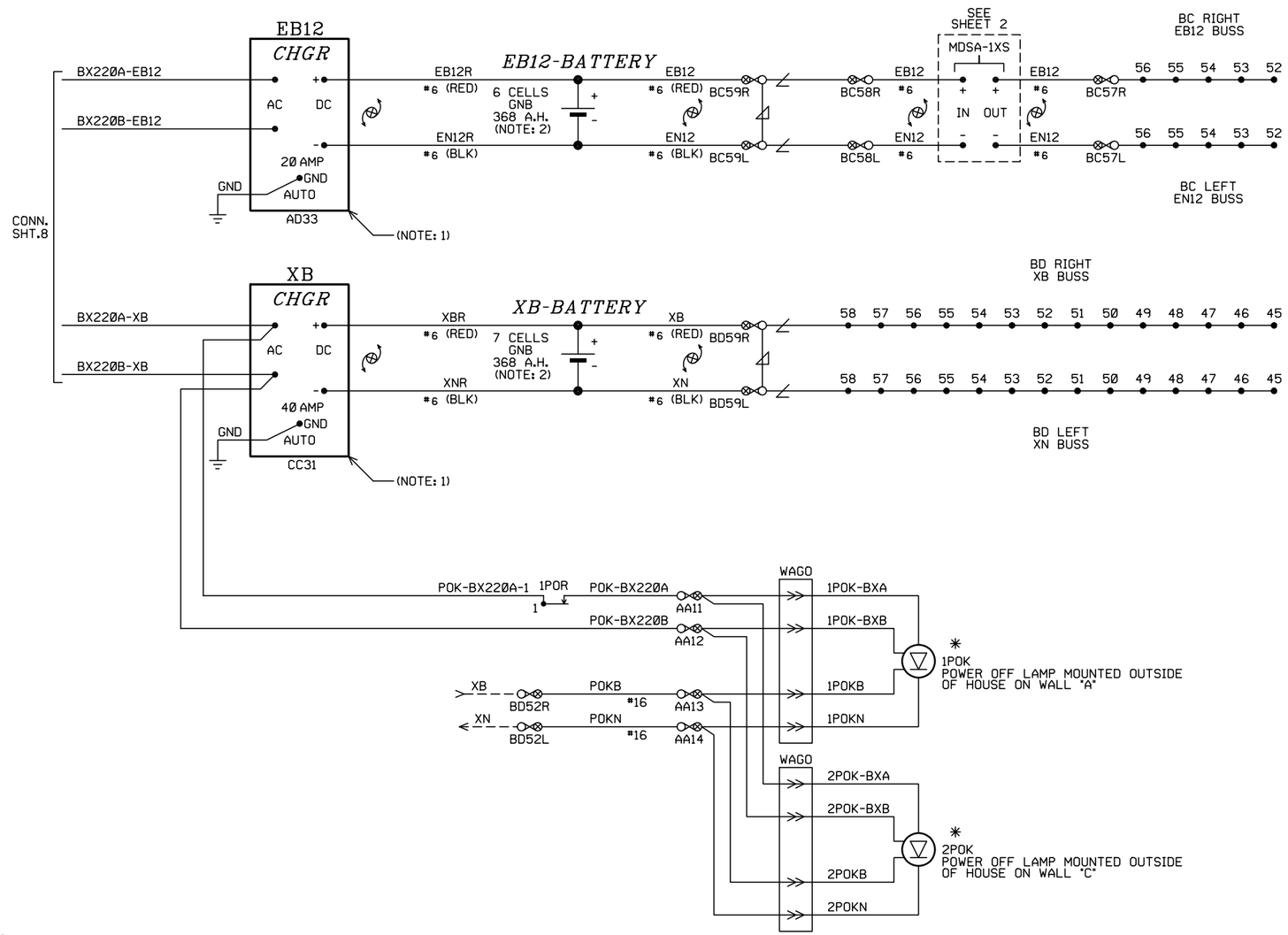


NOTES:

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

LEGEND:

- -TEST TERMINAL
- -EQUALIZER
- -ARRESTOR TO GROUND
- -TWISTED WIRE 2 TURNS PER FOOT
- -INSULATED NUT
- * - LIGHTS ARE 12VDC, 4-WIRE LED. (P/N: LC2-001WB-WG4) VELCORP GEMS

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.

STATE OF OHIO SCOTT L WERTANS E-73435 REGISTERED PROFESSIONAL ENGINEER 3/31

DC POWER DISTRIBUTION

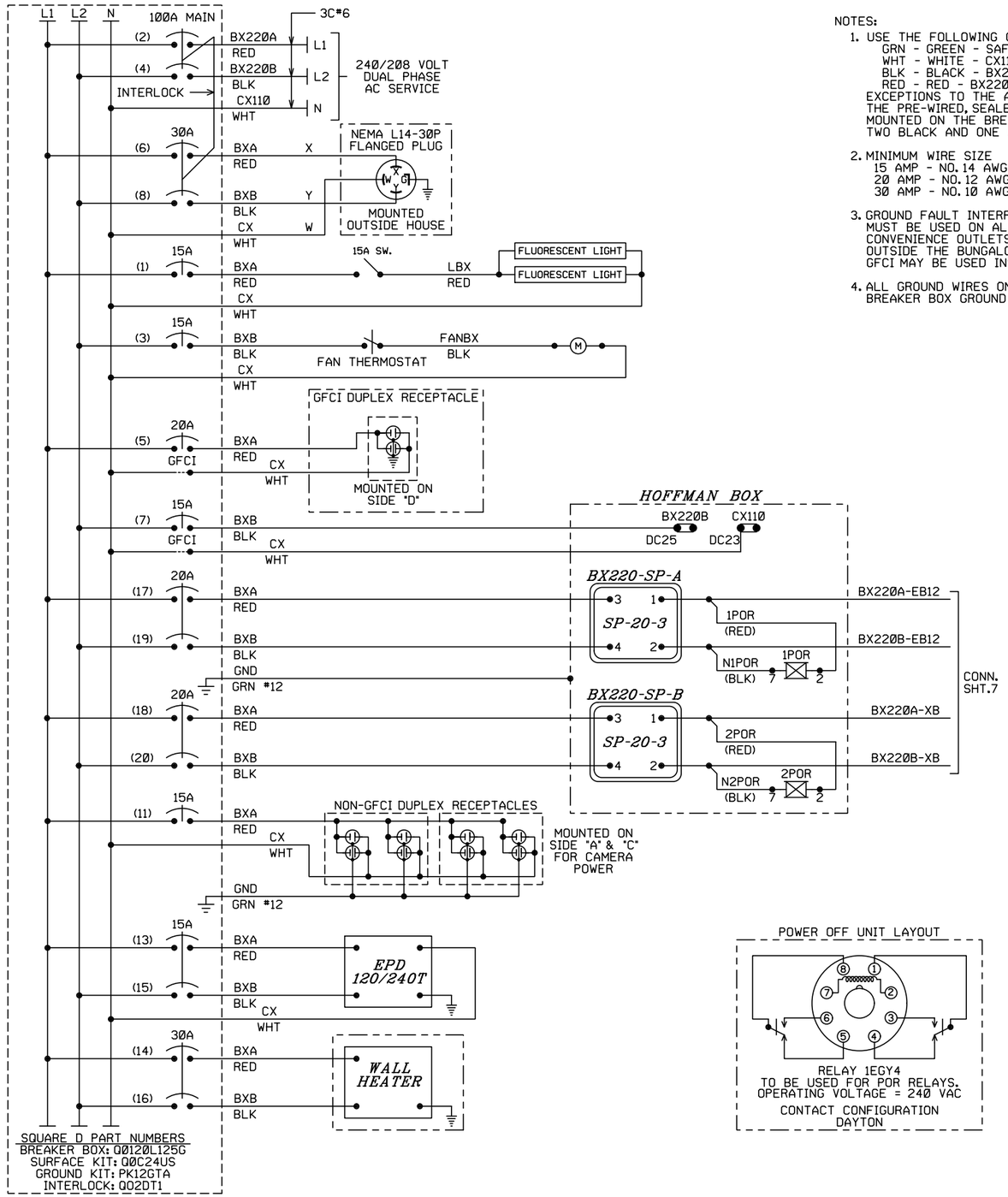
INDIANA & OHIO RAILWAY

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET 07 OF 12

IORY029_94X07.dgn



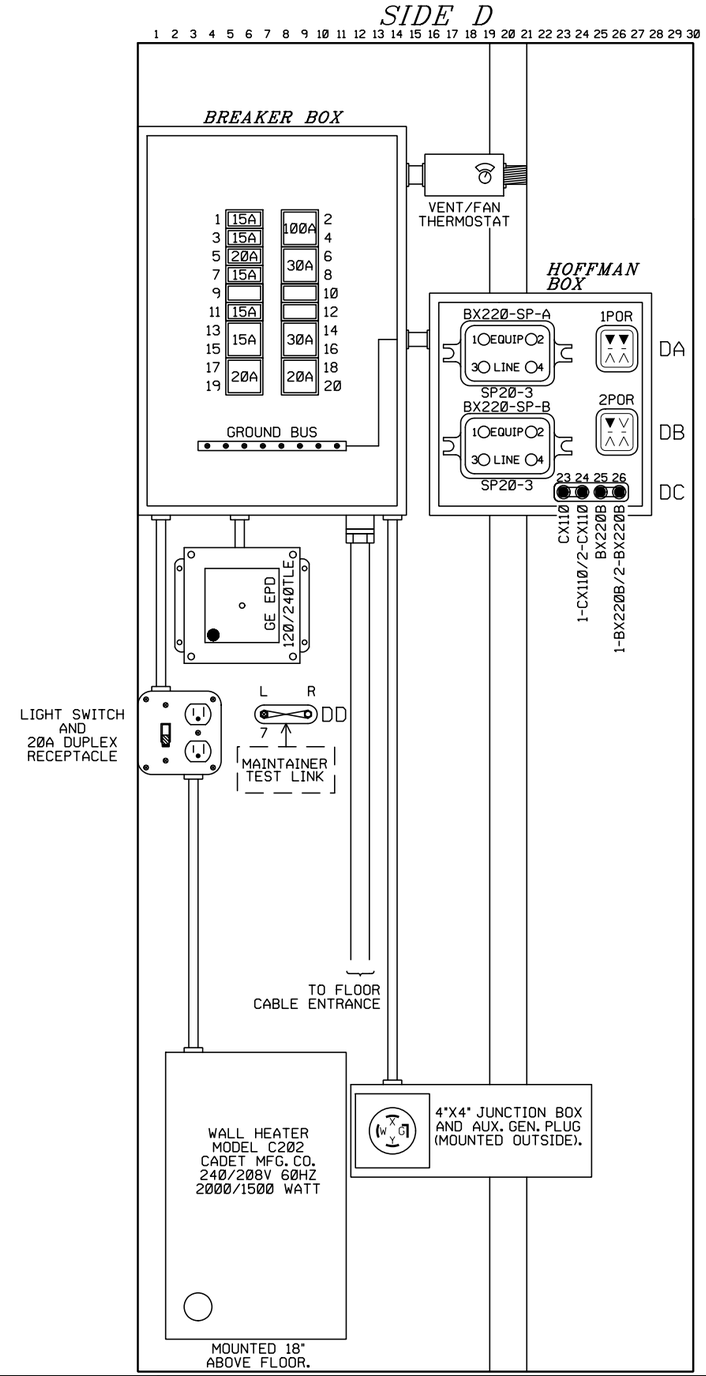
NOTES:

1. USE THE FOLLOWING COLOR CODE:
   GRN - GREEN - SAFETY EQUIPMENT GROUND
   WHT - WHITE - CX110 (NEUTRAL)
   BLK - BLACK - BX220B (L2)
   RED - RED - BX220A (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.

2. 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

3. 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.

4. ALL GROUND WIRES ON THIS SHEET RUN TO BREAKER BOX GROUND BUS.



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.

STATE OF OHIO
SCOTT L WERTANS
E-73435
REGISTERED PROFESSIONAL ENGINEER
3/21

INDIANA & OHIO RAILWAY

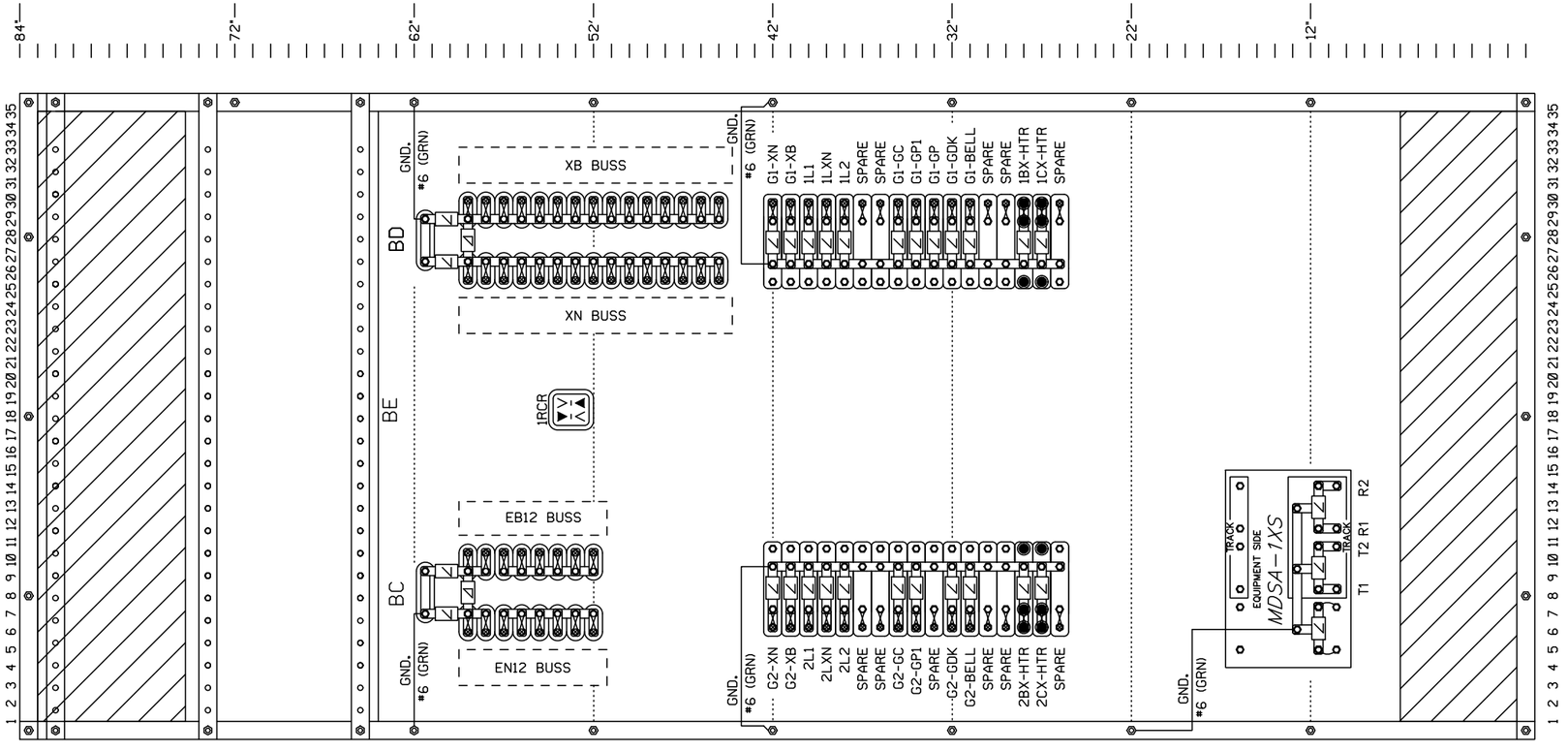
SIDE D DETAIL - AC POWER DISTRIBUTION

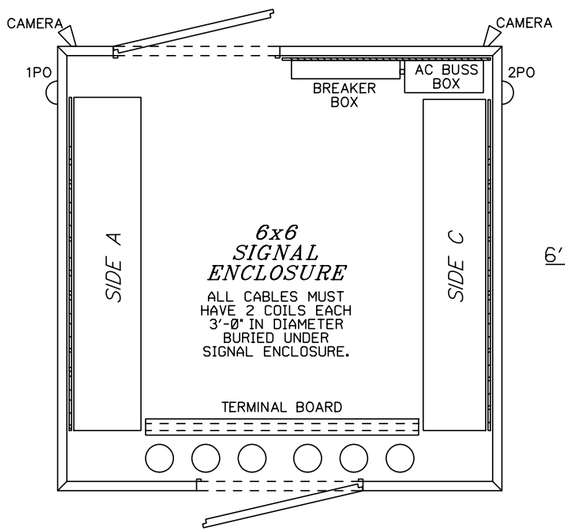
DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET 08 OF 12

IORY029_94X08.dgn

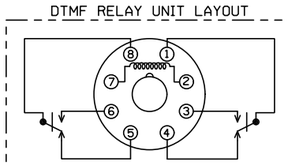




6'X6' SIGNAL ENCLOSURE LAYOUT

"NOT TO SCALE"

DTMF RELAY UNIT LAYOUT



RELAY 5EMH3
TO BE USED FOR 1RCR RELAY.
OPERATING VOLTAGE = 12 VDC
CONTACT CONFIGURATION
DAYTON

BATTERY BUSS DETAILS

ROW BC

B12 BATT(-)	59	B12 BATT(+)
MDSA-1XS IN-	58	MDSA-1XS IN+
MDSA-1XS OUT-	57	MDSA-1XS OUT+
1RCR_7(-)	56	AC24
MDA II TB3 IN 7(-)	55	
GIP-N12	54	GIP-B12
MDA II TB1 BATT 2(-)	53	MDA II TB1 BATT 2(+)
MDA II TB6 BATT-	52	MDA II TB6 BATT+
EN12 BUSS (LEFT)		EB12 BUSS (RIGHT)

ROW BD

XB BATT(-)	59	XB BATT(+)
MDA II TB1 BATT 1(-)	58	MDA II TB1 BATT 1(+)
MDA II TB4 IN 8(-)	57	1RCR_6
SSCC IIIA J1(1GC-)	56	
SSCC IIIA J2(N)	55	SSCC IIIA J2(B)
SSCC IIIA J2(N)	54	SSCC IIIA J2(B)
SSCC IIIA J2(N)	53	SSCC IIIA J2(B)
AA14	52	AA13
SSCC IIIA J3(GP-)	51	
BD39L	50	
BC39R	49	
CB17B	48	
SSCC IIIA J6(2GC-)	47	2POR_8
BD42L	46	BD41L
BC42R	45	BC41R
XN BUSS (LEFT)		XB BUSS (RIGHT)

NOTE: NO EQUIPMENT ALLOWED IN SHADED AREAS.

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.

STATE OF OHIO
SCOTT L WERTANS
E-73435
REGISTERED PROFESSIONAL ENGINEER
6/3/21

INDIANA
I & O
OHIO

SIDE B DETAIL - TERMINAL BOARD

INDIANA & OHIO RAILWAY

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET
09 OF 12

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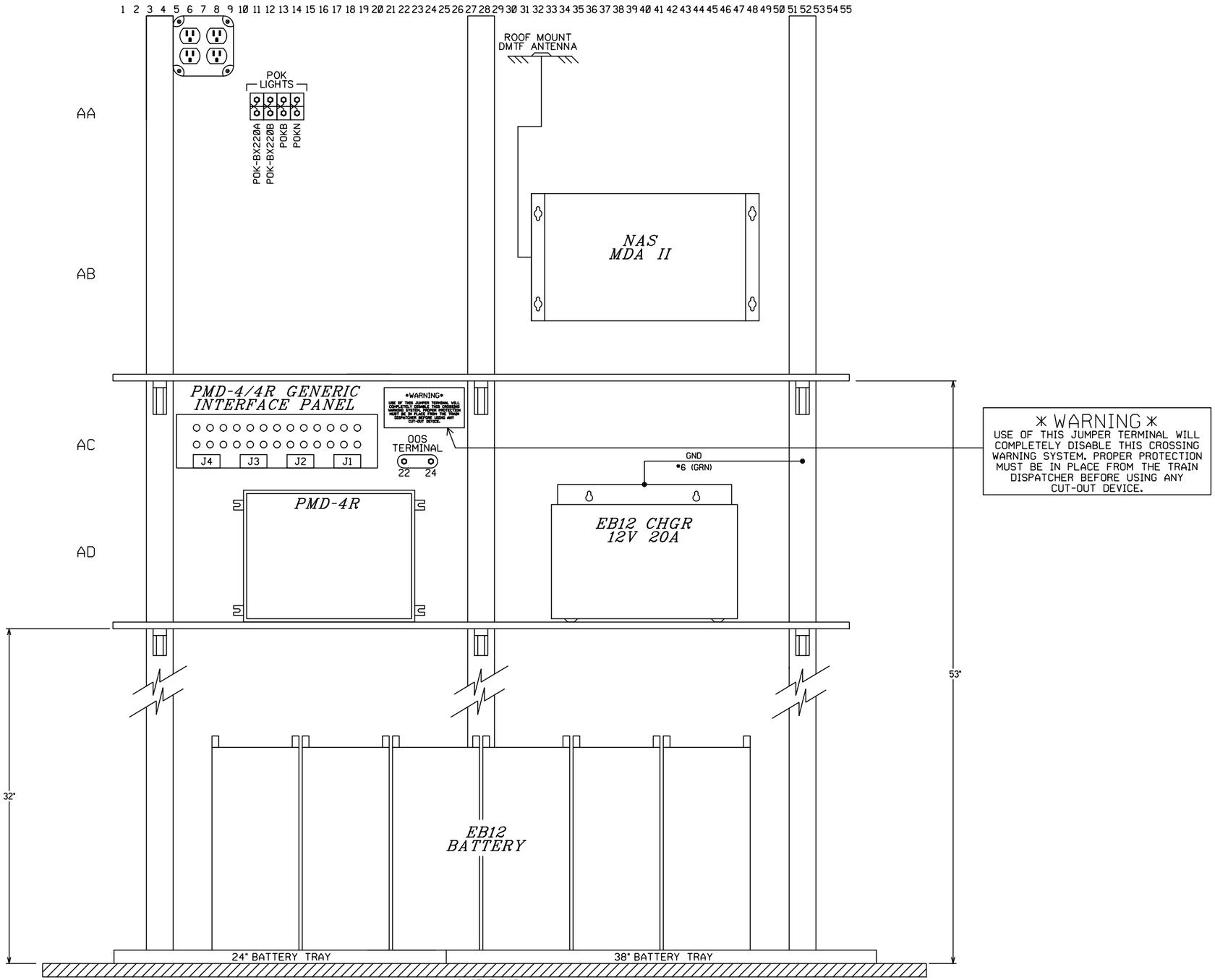


SIDE A

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.

STATE OF OHIO
SCOTT L WERTANS
E-73435
REGISTERED PROFESSIONAL ENGINEER
6/24/21

INDIANA I & O OHIO

SIDE A DETAIL

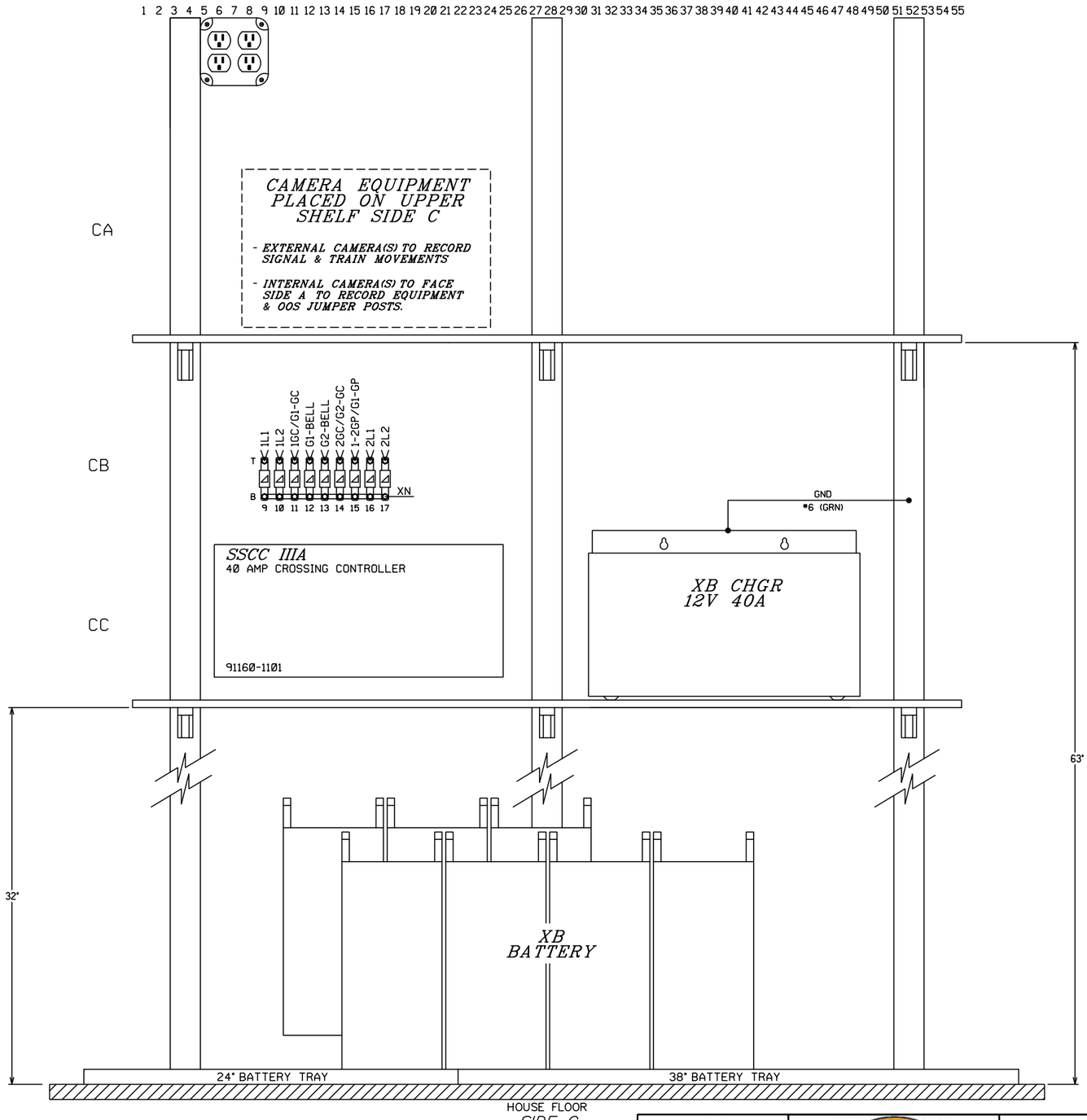
INDIANA & OHIO RAILWAY

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET 10 OF 12

IORY029_94X10.dgn



REVISIONS

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STATE OF OHIO
SCOTT L WERTANS
E-73435
REGISTERED PROFESSIONAL ENGINEER

INDIANA I&O OHIO

SIDE C DETAIL

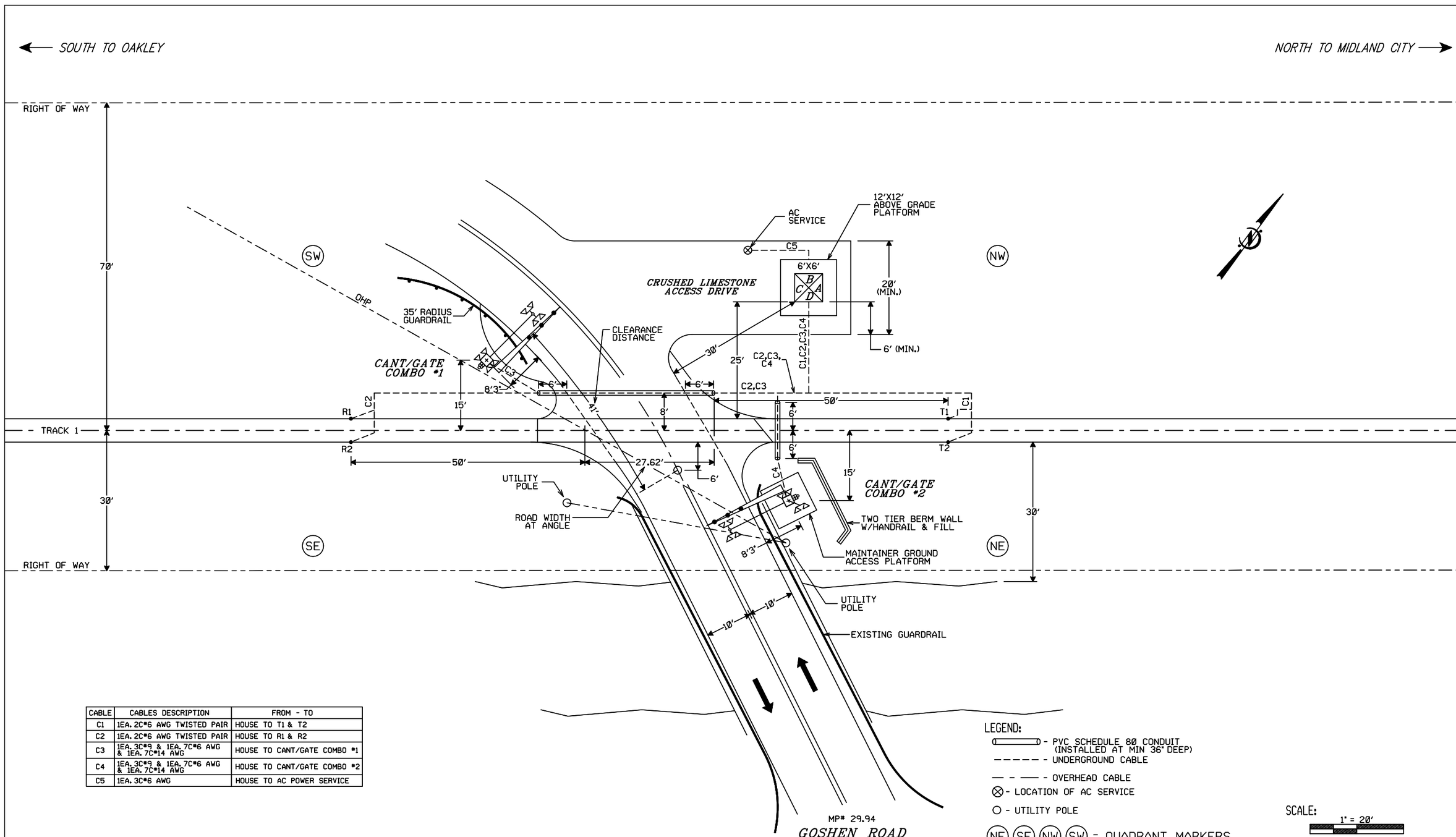
INDIANA & OHIO RAILWAY

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET
11 OF 12

IORY029_94X11.dgn



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. 3C*9 & 1EA. 7C*6 AWG & 1EA. 7C*14 AWG	HOUSE TO CANT/GATE COMBO *1
C4	1EA. 3C*9 & 1EA. 7C*6 AWG & 1EA. 7C*14 AWG	HOUSE TO CANT/GATE COMBO *2
C5	1EA. 3C*6 AWG	HOUSE TO AC POWER SERVICE

LEGEND:

- PVC SCHEDULE 80 CONDUIT (INSTALLED AT MIN 36" DEEP)
- UNDERGROUND CABLE
- OVERHEAD CABLE
- ⊗ - LOCATION OF AC SERVICE
- ○ - UTILITY POLE

(NE) (SE) (NW) (SW) = QUADRANT MARKERS

SCALE: 1" = 20'
0' 5' 10' 20'

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.

STATE OF OHIO
SCOTT L WERTANS
E-73435
REGISTERED PROFESSIONAL ENGINEER

INDIANA I&O OHIO

TRACK AND CABLE LAYOUT

INDIANA & OHIO RAILWAY

DRAWN: PRS
DESIGNED: MST
CHECKED: JMW
DATE: 06-04-21

GOSHEN ROAD
GOSHEN, (CLERMONT), OHIO
DOT# 151 326G MILEPOST# 29.94

SHEET 12 OF 12

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Ohio | Rail Development Commission

Mike DeWine, Governor
Jon Husted, Lt. Governor

Mark Policinski, Chair

12/31/2019

Indiana & Ohio Railway
13901 Sutton Park Dr STE 345
Jacksonville, FL 32224

RE: Clermont County Goshen Rd./CR57
DOT # 151326G

Dear Mr. Jacob Smith:

A diagnostic review was held at the above grade crossing on 7/25/2019. The crossing has been recommended for the installation of lights, gates and cantilevers.

Indiana & Ohio Railway 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 5), 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 Michael Lynch can be reached at (614) 395-1824, or Michael.Lynch@dot.ohio.gov, if you have any questions.

Sincerely,

Michael Lynch

Project Manager

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

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

Ohio | Public Utilities Commission
Mike DeWine, Governor
Sam Randazzo, Chairman

October 15, 2019

Indiana & Ohio Railway
Mr. Jacob Smith
Director of Public Projects
Genesee& Wyoming Railroad Services, Inc.
13901 Sutton Park Drive STE 345
Jacksonville, FL 32224

Re: Clermont County, Goshen Road/CR 57,
DOT#151-326G, hereinafter referred to
as the "Project"

Dear Mr. Smith:

The Public Utilities Commission of Ohio (PUCO) has identified and the Ohio Rail Development Commission (ORDC) surveyed, on July 25, 2019, 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. 5773, dated February 16, 1989, entered into by the State of Ohio and Indiana & Ohio Railroad ("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

Indiana & Ohio Railroad

By _____

Title President

Date 11-1-19

Matthew Dietrich
Executive Director
Ohio Rail Development Commission

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

Indiana & Ohio Railroad

By _____

Title _____

Date _____

Matthew Dietrich
Executive Director
Ohio Rail Development Commission

Date 10-25-19

(3) 1:00 pm

CR 57 / Goshen Road (DOT #151326G), Clermont County, Indiana & Ohio Railway
7/25/2019

Crossing at a glance: Rank 593

ORDC Notes: Constituent complaint 4/19-Rough track. Streets are curved on track approach.

Please Sign In

Name	Title	Organization	Phone Number	Email	Signature
Michael Lynch	Project Manager	ORDC	614-395-1824	michael.lynch@dot.ohio.gov	Michael Lynch
Stephen Baker		PUCO	513-673-7627	stephen.baker@puco.ohio.gov	
Chris Horton		IORY	513-222-8086	chris.horton@gwrr.com	
~~Doug Royer~~		Clermont County		droyer@clermontcountyohio.gov	
~~Jeremy Evans~~		Clermont County		jpevans@clermontcountyohio.gov	
Woody Woodmansee		Clermont County	513-732-8888	wwoodmansee@clermontcountyohio.gov	Woody Woodmansee
			513-732-8062		
Jeff Smith		Clermont County			

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

Date: 7/25/2019

Location Data			
Street or Road Name:	CR 57 / Goshen Road		
County: Clermont	Township:	US DOT No.:	151326G
City (in or near): near Goshen	Railroad Name: IORY	RR Milepost:	29.94

Safety Data (Obtain crash reports, if possible)		
	Initial Information (from database)	**Revised**
Number & dates of vehicle crashes in previous 5 years:	NONE	
Number & dates of pedestrian/bicycle crashes in previous 5 years:	NONE	
Hazard Ranking: 593	Date Run: 03/18/2019	

Existing Traffic Control Devices			
Type of Warning Devices	**Installed?**		**Quantity/Comments**
HIGHWAY			
Advance Warning Signs (condition?)	☑ Yes	☐ No	GOOD
'Stop' Signs	☑ Yes	☐ No	
'Stop Ahead' Signs	☐ Yes	☑ No	
Pavement Markings (condition?)	☑ Yes	☐ No	GOOD
Dynamic Envelope Markings (condition?)	☐ Yes	☑ No	
Illumination	☐ Yes	☑ No	
'No Turn' Signs (highway/passive)	☐ Yes	☑ No	
Barriers/fencing (pedestrian/bicycle)	☐ Yes	☑ No	
LOOK Sign	☐ Yes	☑ No	
Do Not Stop On Track Sign	☐ Yes	☑ No	
RAILROAD			
Crossbucks	☐ Yes	☑ No	
Crossbucks – assembly with Stop	☑ Yes	☐ No	
Crossbucks – assembly with Yield	☐ Yes	☑ No	
Mast-Mounted Flashing Lights	☐ Yes	☑ No	
Cantilever Flashing Lights	☐ Yes	☑ No	Number: Length:
Side Lights	☐ Yes	☑ No	
LED or Incandescent Lights? Size?	☐ Yes	☑ No	
Automatic Gates	☐ Yes	☑ No	Number: Length:
Bells	☐ Yes	☑ No	Number:
Sidewalk/Pedestrian Gate Arms	☐ Yes	☑ No	Number: Length:
'No Turn' Signs (railroad/active)	☐ Yes	☑ No	
Is crossing flagged by train crew?	☐ Yes	☑ No	
OTHER	☐ Yes	☐ No	

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	6	4
<1 per day? Trains per week	-	
Day thru trains	4	2
Night thru trains	2	2
Switching	0	
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks	-	
Maximum train speed	25 ✓	
Typical train speed	10-25 ✓	
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 SINGLE TRACK

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 PASSIVE

Roadway Data

Local Highway Authority: Clermont County

Roadway Characteristics	Initial Information (from database)	Revised
Average Daily Traffic	~~488~~	2,400
Highway Paved	☑ Yes ☐ No	☐ Yes ☐ No

Roadway Surface: ☑ Blacktop ☐ Gravel ☐ Concrete Other_____

Roadway width (paved/travelled way): 20 ft

Number of Highway Lanes	2	
Urban or Rural	Rural - Local	
Vehicle Speed: 40 MPH ✓		

School Bus Operation: ☑ Yes ☑ No Amount 4-6

Location of nearby schools: GOSHEN LOCAL

Hazardous Materials Trucks: ☑ Yes ☐ No Amount (from FRA) 5% LHA verified/changed?

Shoulders: ☐ Yes ☐ No

Is the Shoulder Surfaced? ☐ Yes ☑ No If yes, shoulder width: _____ ft.

Is there existing guardrail along the roadway in crossing vicinity? ☑ Yes ☐ No	EAST SIDE OF CROSSING.
Crossing Angle ☐ 0-29° ☐ 30-59° ☑ 60-90° Measured in _____ Quadrant?	

Quadrant _____ Curb & Gutter:	Quadrant _____ Curb & Gutter:
☐ Functional (Curb height = 4" or more)	☐ Functional (Curb height = 4" or more)
☐ Non-functional (Curb height = less than 4")	☐ Non-functional (Curb height = less than 4")
☑ None	☑ None

Is there a nearby intersection that could cause queuing over the crossing? ☐ Yes ☑ No

If yes, distance _____

Is this intersection signalized? ☐ Yes ☑ No

Are there signals currently interconnected with the existing crossing warning devices? ☐ Yes ☑ No

Is there a 'Do Not Stop on Track' sign? ☐ Yes ☑ 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? ☐ Yes ☑ 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) DUKE

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: maybe utilities underground. overhead doesn't present a problem.

Surface

Surface review form completed? ☐ Yes ☐ No

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:

yes.

Roadway and/or Sidewalks:

NO

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

NO

Environmental:

yes. Waterway very close.

Utilities:

might be utilities underground.

Power Pole might need moved to accomodate better visibility for Flashing lights

~~Other:~~

Potential Closure

Is it the consensus of the Diagnostic Review Team that this is a potential closure project?	NO. No Alternative to get around.
Explain reasons:	

Diagnostic Team Recommendations

	Quadrants Needed
☐ **No improvements needed**	
☑ **Install/upgrade active devices**	
☐ Automatic Flashing Lights (AFLS)	
☐ AFLS /Cants	
☐ AFLS / Gates	
☑ AFLS / Gates / Cants	Both quads
☑ Bells / number	TWO.
☐ Upgrade circuitry / type	
☐ Sidelights	
☐ LED Upgrades	
☑ Guardrail Needed	Heavey snow causes cars to slide off road.
☑ Install/Replace curb	If necessary.
☑ Bungalow placement & offset from rail & highway	
☐ Other (define)	

Comments: Tree Trimming to be done by locals.

☐ Install/upgrade traffic signal preemption

Other (define): ~~Local to install (2) flashing light ADVANCE WARNING SIGN.~~

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):

MCJ _____ _____ _____

J. S. _____ _____ _____

WW _____ _____ _____

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	1180	670
60	615	1,095	1,195	1,345	1,445	710	580	1060	700	1420	810
70	715	1,275	1,395	1,570	1,680	830	680	1240	810	1650	940
80	820	1,460	1,590	1,790	1,925	950	780	1420	930	1890	1080
90	920	1,640	1,790	2,015	2,165	1060	870	1590	1040	2120	1210

*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.

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in

Case No(s). 22-0063-RR-FED

Summary: Application In the Matter of a Request for the Installation of Active Warning Devices at the Indiana & Ohio Railway Grade Crossing, DOT#151-326G, on Goshen Road/CR 57 in Clermont County, Ohio. electronically filed by Mrs. Jill A. Henry on behalf of PUCO/Rail Division