

Memo

To: Docketing Division

From: Thomas Persinger, Rail Project Specialist, Rail Division

Cc: PUCO Legal Department

Date: 7-15-2022

Re: PUCO Case No. 22-708-RR-FED In the Matter of a Request for the Installation of Active Warning Devices at the Wheeling & Lake Erie Railroad Grade Crossing, DOT# 002-030Y at TR 41/Stewart Road in Lorain County, Ohio.

On February 28, 2022, the Ohio Rail Development Commission (ORDC) authorized funding for Wheeling & Lake Erie Railroad (WE) to install lights and gates at TR 41/Stewart Road (DOT#002-030Y) in Lorain County, Ohio. The crossing was surveyed, on August 24, 2021, and was found to warrant the upgrade. The electric utility provider for this crossing is Lorain Medina Rural Electric Cooperative.

The project will be paid for with federal funds and is actual cost. The plans and estimates for the project in the amount of \$262,340.93 have been approved. Construction may commence at once. **Staff requests a Finding & Order with completion of the project in twelve months.** Staff requests that the following language be incorporated in the Finding & Order:

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

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

Please serve the following parties of record:

Wheeling & Lake Erie Railway Company
Tim Andrews
Signals & Communications Supervisor
100 E. First Street
Brewster, OH 44613

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

Huntington Township, Lorain County
Robert Holmes
Chairman, Board of Trustees
45955 State Route 162
Wellington, OH 44090

Lorain Medina Rural Electric Cooperative
22898 West Road
PO Box 158
Wellington, OH 44090

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

TO: John Williams, Transportation Director, PUCO
FROM: Allen Bell, Manager, Safety Section, ORDC
BY: James Tucker, Project Manager, ORDC J.T.
SUBJECT: Lorain County, TR41/Stewart Rd. Wheeling & Lake Erie
DOT #002-030Y, PID 116119
DATE: July 15, 2022

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on August 24, 2021. 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 plan and estimate are attached

PE has already been provided by the railroad. ORDC approves the site plans and estimates as provided. Please issue a construction-only order for the project outlined above for twelve months. This construction authorization is made with the stipulation and understanding that any field work needs prior approval before the work begins. This authorization is made with the stipulation and understanding that an approved estimate may contain entries for items or activities that may be cited and found to be ineligible for federal participation during the project audit.

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

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

Thank you for your assistance with these matters.

Attachment: Diagnostic Review
PE Authorization
Plan & Estimate
Letter Agreement

c: Jill Henry, Rail Division Chief, PUCO
Thomas Persinger, Rail Specialist, PUCO
Heather Hamilton, ORDC



Rail Development Commission

Mike DeWine, Governor
Jon Husted, Lt. Governor

Scott Corbitt, Chair

July 15, 2022

Mr. Tim Andrews
Wheeling & Lake Erie Railway
100 East First Street
Brewster, OH 44613

RE: Grade Crossing Warning Device Improvements
Lorain County, TR41/Stewart Rd, DOT#002-030Y, PID#116119.

Dear: Mr. Andrews

The plan dated March 1, 2022, and estimate dated June 10, 2022, for the referenced project has been reviewed and is acceptable. The Wheeling & Lake Erie Railway (WLE) 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 \$262,340.93. 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 but must be confirmed in writing within ten (10) business days of the verbal approval.

This authorization is contingent upon WLE accepting the following instructions:

1. WLE's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to James Tucker, ORDC, email james.tucker@dot.ohio.gov, and to the Public Utilities Commission of Ohio, email thomas.persinger@puco.ohio.gov. WLE'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. WLE 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 WLE. **If it is known that there are utilities that need to be relocated the WLE needs to start that coordination work as soon as possible in order to avoid project delays.**
3. WLE's project foremen will notify James Tucker at 614-398-6897 (telephone) or james.tucker@dot.ohio.gov (email) of any changes in the scope of work, cost overruns, material

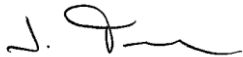


changes, etc. which are not included in the approved plan and estimate and secure approval of same before the work is performed.

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. WLE shall send copies of each partial bill to ORDC.Invoice@dot.ohio.gov. Please find the enclosed Purchase Order to reference when billing.
6. WLE 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,



James Tucker
Project Manager

Attachment: ODOT P.O.

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



CONSTRUCTION NOTES

- 1.) INSTALL NEW 6' X 6' BUNGALOW IN SOUTHWEST QUADRANT.
- 2.) INSTALL (2) NEW FLASHING LIGHTS WITH GATES.
- 3.) ADD SIDE LIGHTS TO GATE #2 FOR PRIVATE DRIVE
- 4.) APPROACH OVERLAPS SHUNT FOR SR 58.
- 5.) METER POLE LOCATION SHOWN ON THE PLAN IS SUBJECT TO CHANGE WITHIN RAILROAD RIGHT-OF-WAY IF UNDERGROUND OBSTRUCTIONS PREVENT THE INSTALLATION OF THE POLE IN THE LOCATION SHOWN.
- 6.) BUNGALOW AND SIGNAL LOCATIONS SHOWN ON THE PLAN ARE SUBJECT TO CHANGE WITHIN RAILROAD RIGHT-OF-WAY IF UNDERGROUND OBSTRUCTIONS PREVENT THE INSTALLATION OF THE BUNGALOW/SIGNALS IN THE LOCATION SHOWN.

PRELIMINARY

REVISION
BLOCK



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**Wheeling & Lake Erie
Railway**

LOCATION

STEWART ROAD (TWP 41)
near ROCHESTER, OH

41.0850441,-82.2338787

ORIGINAL DATE	03-01-2022	TITLE	CONSTRUCTION NOTES
DESIGNER	RGPT	SUB	CAREY
DRAFTSMAN	RGPT	RRMP	N - 117.80
CHECKER	RGPT	DOT NO.	002 030Y
		SCALE	N.T.S.
		SHEET	01A of 21

CROSSING SIGNAL ALIGNMENT

LEGEND

Ⓐ	GATE #1 FRONT MAST LIGHTS
Ⓑ	GATE #1 BACK MAST LIGHTS
Ⓒ	GATE #2 FRONT MAST LIGHTS
Ⓓ	GATE #2 BACK MAST LIGHTS



ALIGNMENT

FRONT LIGHTS
ADJUST LIGHT UNIT VERTICALLY TO ALIGN AXIS OF BEAM 5FT. 6IN. ABOVE PAVEMENT AT SELECTED ALIGNMENT DISTANCE. BOTH LAMPS SHOULD BE ALIGNED TO SAME POINT.

ADJUST LIGHT UNIT HORIZONTALLY TO ALIGN AXIS OF BEAM TO CENTER OF APPROACH LANE IN APPROACH TO SIGNAL AT SELECTED ALIGNMENT DISTANCE, MAINTAINING VERTICAL ALIGNMENT. BOTH LAMPS SHOULD BE ALIGNED TO SAME POINT.

BACK LIGHTS
ADJUST LIGHT UNIT VERTICALLY TO ALIGN AXIS OF BEAM 5 FT. 6 IN. ABOVE PAVEMENT AT A POINT 50 FT. IN APPROACH TO THE SIGNAL ON OPPOSITE SIDE OF TRACK.

ADJUST LIGHT UNIT HORIZONTALLY TO ALIGN AXIS OF BEAM TO A POINT 50 FT. IN APPROACH TO THE SIGNAL ON OPPOSITE SIDE OF TRACK AND IN CENTER OF APPROACH TRAVEL WAY.



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Railway

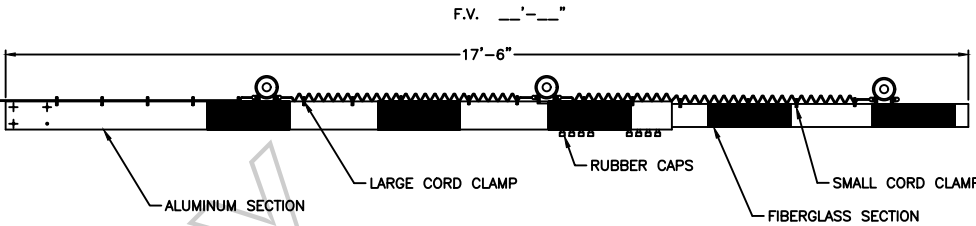
LOCATION STEWART ROAD (TWP 41) near ROCHESTER, OH 41.0850441,-82.2338787		
ORIGINAL DATE 03-01-2022	TITLE CROSSING SIGNAL ALIGNMENT	
DESIGNER RGPT	SUB CAREY	CTC NO. CN22015
DRAFTSMAN RGPT	RRMP N - 117.80	SCALE N.T.S.
CHECKER RGPT	DOT NO. 002 030Y	SHEET 02 of 21

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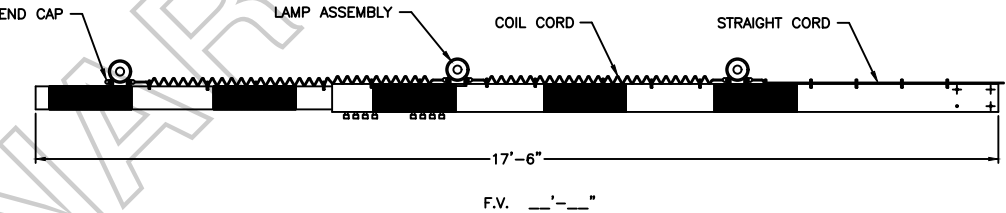
SITE LAYOUT NOTES

1.) CROSSING IS LOCATED: LATITUDE 41.0850441
LONGITUDE -82.2338787

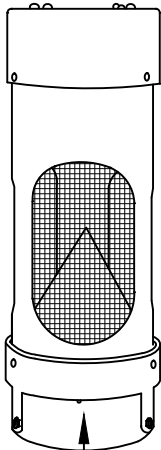
GATE #1



GATE #2



ELECTRONIC CROSSING BELL
GSI MODEL EB-3-360-5



THIS SIDE FACING
ROADWAY

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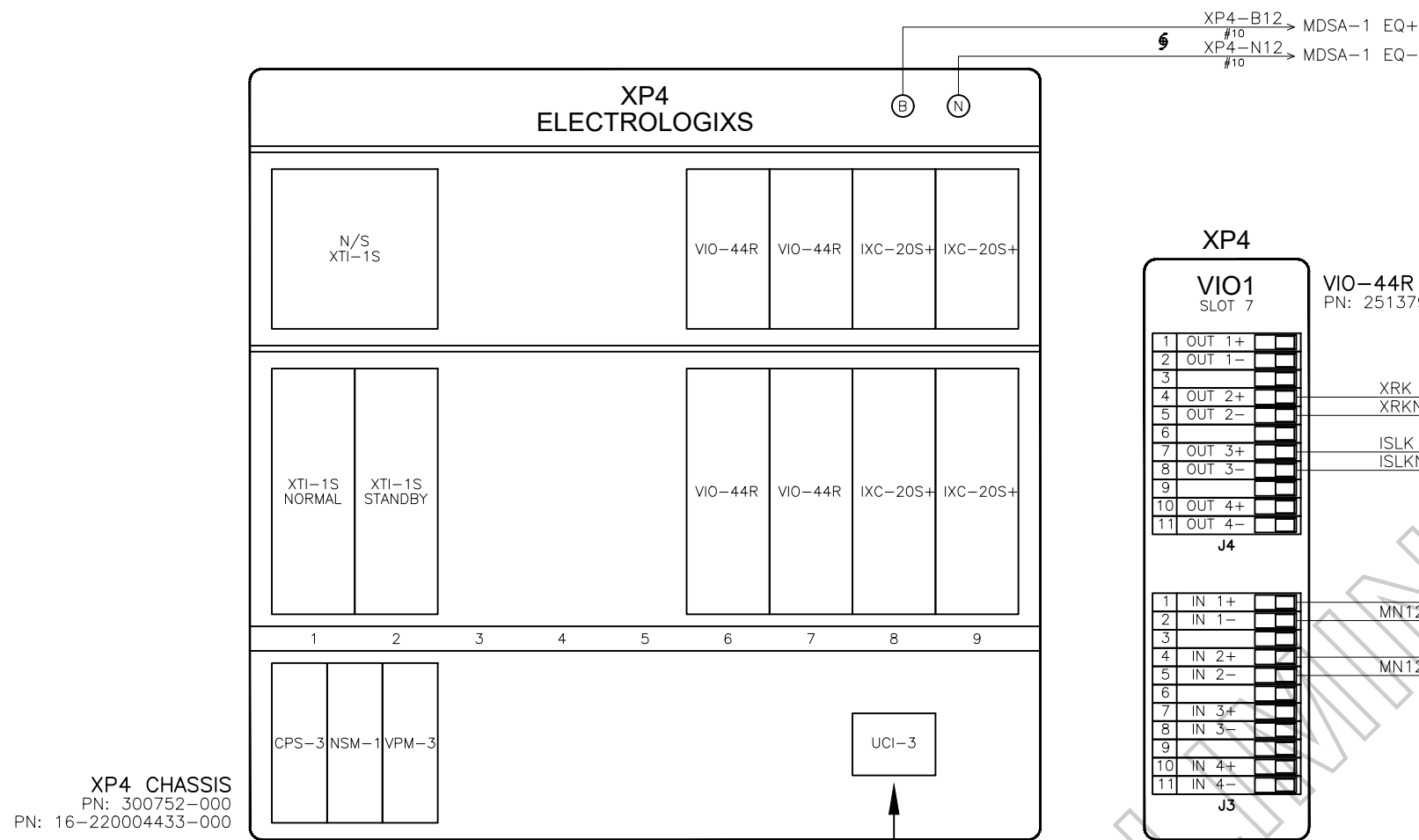
CHANGE FROM TYPICAL: N



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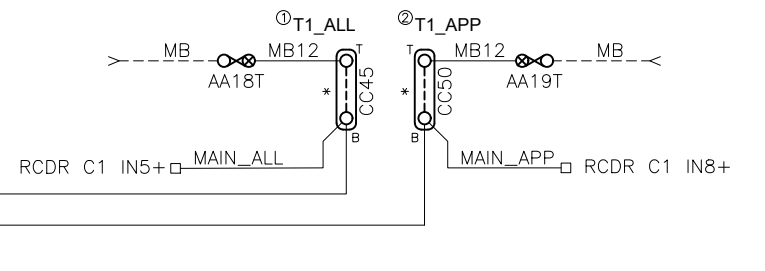
Whoollong & Lake Erie Railway		
LOCATION		
STEWART ROAD (TWP 41) near ROCHESTER, OH		
41.0850441,-82.2338787		
ORIGINAL DATE	03-01-2022	TITLE SITE LAYOUT NOTES
DESIGNER	RGPT	SUB CAREY
DRAFTSMAN	RGPT	CTC NO. CN22015
CHECKER	RGPT	RRMP N - 117.80
		SCALE N.T.S.
		SHEET 03 of 21



CDU-1
PN: 251124-000

CDU-1 IS MOUNTED
IN FRONT OF CPS-3, NSM-1
AND VPM-3 MODULES

- * PLACE JUMPER TO TAKE DESIGNATED FUNCTION OUT OF SERVICE
- ① "ALL" = HIGHWAY GRADE CROSSING WARNING SYSTEM REMOVED FROM SERVICE & NON-FUNCTIONAL.
- ② "APP" = ISLAND FUNCTION ONLY. HIGHWAY GRADE CROSSING WARNING SYSTEM APPROACHES REMOVED FROM SERVICE & NON-FUNCTIONAL.



NOTE: ALL WIRING THIS SHEET #16 AWG
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Railway

LOCATION STEWART ROAD (TWP 41) near ROCHESTER, OH 41.0850441,-82.2338787		
ORIGINAL DATE 03-01-2022	TITLE XP4/VIO CIRCUITS	
DESIGNER RGPT	SUB CAREY	CTC NO. CN22015
DRAFTSMAN RGPT	RRMP N - 117.80	SCALE N.T.S.
CHECKER RGPT	DOT NO. 002 030Y	SHEET 04 of 21

ADJUSTMENT NAME		MDR1				MDR2			
NAME		HIGHWAY CROSSING				HIGHWAY CROSSING			
WARNING TIME		31 SEC				25 SEC			
CW/MD		CW				CW			
AP TIME		00 SEC				00 SEC			
CWE-WT		00 SEC				00 SEC			
AUX RECOVERY DELAY		05 SEC				05 SEC			
		TK1	TK2	TK3	TK4	TK1	TK2	TK3	TK4
TRACK ASSIGNED		ASSIGN				ASSIGN			
OFFSET DISTANCE		0 FT				0 FT			
MD RESTART		*				*			
SUDDEN SHUNT ZONE		*				*			
POSITIVE START	PSEN	DISABLE				DISABLE			
	PSRX	NA				NA			
	PST	NA				NA			
POST JOINT DETECT	PJEN	DISABLE				DISABLE			
	PJRX	NA				NA			
	PJDT	NA				NA			

BASIC TRACK SETUP				
	TK1	TK2	TK3	TK4
FREQUENCY	753 HZ			
MASTER/SLAVE	MASTER			
RX ADJUST	100			
TCA	*			
DIRECTION MODE	BI			
LIA	*			
ADVANCED APR. CAL	INACTIVE			
NBS COMP RX	*			
TRK ISLAND ASSIGN	ISL1			
APPROACH LENGTH	2112 FT			
AUTO RX	ENABLE			

IXC SETUP				
CROSSING TEST MODE		OFF		
FLASH RATE		55FPM		
		IXC-1	IXC-2	IXC-3
VOLTAGE REGULATION	ON			
L1 VOLTAGE	* 10.0			
L2 VOLTAGE	* 10.0			
GATE 1 DELAY	3 SEC			
GATE 2 DELAY	3 SEC			

ADVANCED TRACK SETUP				
		TK1	TK2	TK3
MOTION DET TIMER	MDEN	DISABLE		
	MDTT	10 MIN		
FALSE SHUNT	FSEN	DISABLE		
	FSRX	NA		
APPROACH RELEASE	FST	NA		
	AREN	DISABLE		
	ARRX	NA		
	ART	NA		
LOS TIME		16 SEC		
IJ-LOS TIME		5 SEC		
NRML_SHHTR_VRSHRT		NRML *		

ISLAND SETUP				
	TK1	TK2	TK3	TK4
ENABLE/DISABLE	ENABLE			
FREQUENCY	4.0 KHZ			
LOSS OF SHUNT	4 SEC			
FAULT DELAY	1			

APPROACH 1 (EAST)		NO SHUNT		100% SHUNT		50% SHUNT		LIA ADDED
		RX	PHASE	RX	PHASE		RX	PHASE
Track 1	Normal							
	Standby							
Track 2	Normal							
	Standby							
APPROACH 2 (WEST)								
Track 1	Normal							
	Standby							
Track 2	Normal							
	Standby							

INITIAL VALUES WHEN PLACED IN SERVICE

APPLICATION SOFTWARE INFORMATION	
NAME	*
REV.	1
CHECKSUM	*
CRC	*
CHASSIS ID	*
LOCATED BEHIND UCI-3	CHASSIS ID
	1 2 3 4 5 6 7 8 ⦿ ⦿ ⦿ ⦿ ⦿ ⦿ ⦿ ⦿ □ □ □ □ □ □ □ □

- ⦿ = TAB INTACT
● = TAB PUNCHED OUT

EXECUTIVE INFORMATION		
VPM-3	VERSION	PART NUMBER
CROSSING SOFTWARE	*	083024-726

NOTES:
* = FIELD ADJUSTMENT
NA = NOT APPLICABLE

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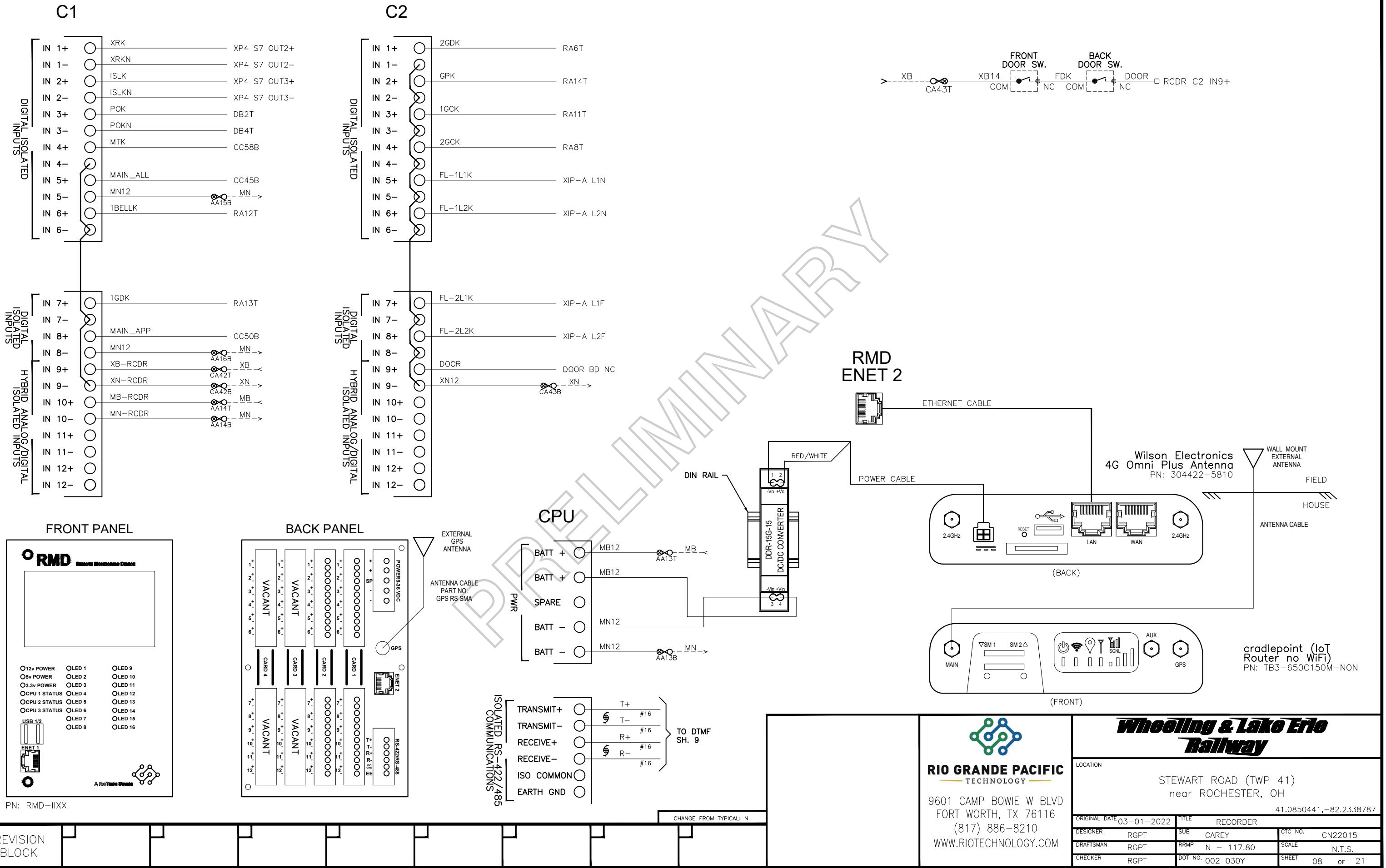


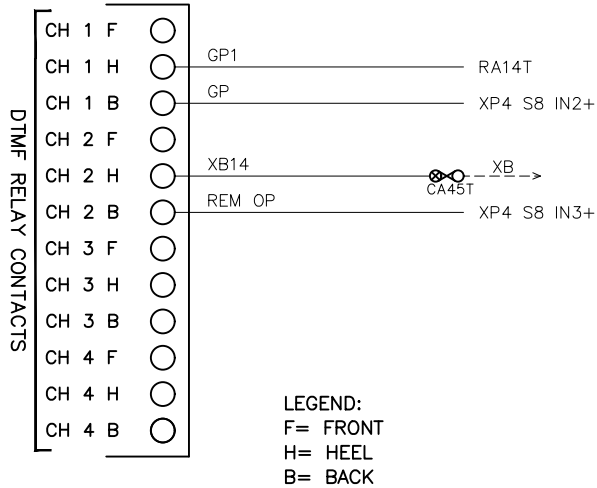
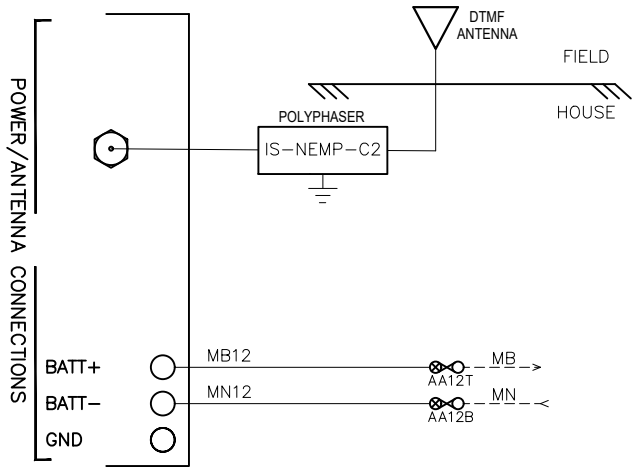
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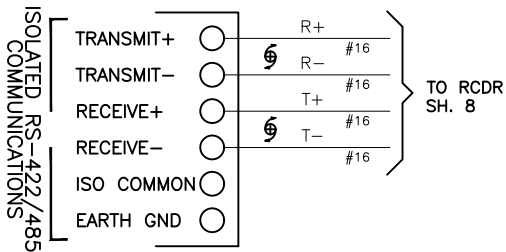
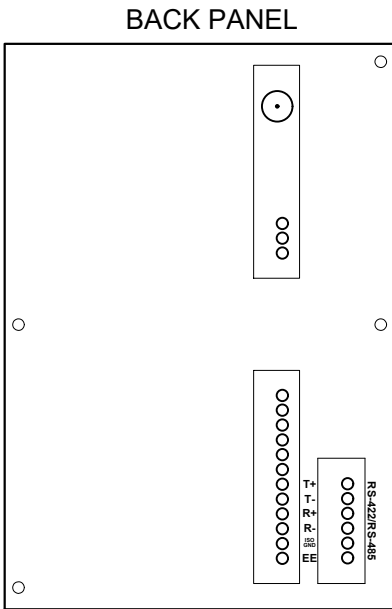
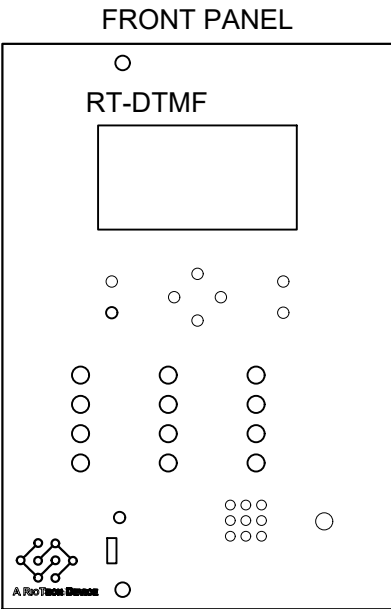
Whooling & Lake Erie
Railway

LOCATION		
STEWART ROAD (TWP 41) near ROCHESTER, OH		
41.0850441,-82.2338787		
ORIGINAL DATE	03-01-2022	TITLE
		XP4 SETUP SHEET
DESIGNER	RGPT	SUB
		CAREY
DRAFTSMAN	RGPT	CTC NO.
		CN22015
CHECKER	RGPT	RRMP
		N - 117.80
		SCALE
		N.T.S.
		SHEET
		05 of 21





LEGEND:
F= FRONT
H= HEEL
B= BACK



DTMF CONTROLS				
	CHANNEL 1	CHANNEL 2	CHANNEL 3	CHANNEL 4
ACTIVATION CODE	5781#	578#		
DEACTIVATION CODE	5781*	578*		
DTMF RECEIVE DEBOUNCE TIME	25 MS			
RECIEVE TIMEOUT	5000 MS			

CHANNEL SETTINGS				
	CHANNEL 1	CHANNEL 2	CHANNEL 3	CHANNEL 4
CHANNEL TIMEOUT	2 min	2 min		
CHANNEL INVERT	NO	NO	NO	NO

PLAYBACK SETTINGS				
	CHANNEL 1	CHANNEL 2	CHANNEL 3	CHANNEL 4
ACTIVATION RESPONSE	CHANNEL 1 ACTIVE	CHANNEL 2 ACTIVE	CHANNEL 3 ACTIVE	CHANNEL 4 ACTIVE
DEACTIVATION RESPONSE	CHANNEL 1 INACTIVE	CHANNEL 2 INACTIVE	CHANNEL 3 INACTIVE	CHANNEL 4 INACTIVE
TIMEOUT RESPONSE	CHANNEL 1 TIMEOUT	CHANNEL 2 TIMEOUT	CHANNEL 3 TIMEOUT	CHANNEL 4 TIMEOUT
AUDIO RESPONSE TIME	500 MS			
FORCE AUDIO RESPONSE TIME	1000 MS			

RADIO SETTINGS	
FREQUENCY	161.250 MHz
TX POWER	6
SQUELCH ON	-74.3
SQUELCH OFF	-74.3
AAR CHANNEL	76

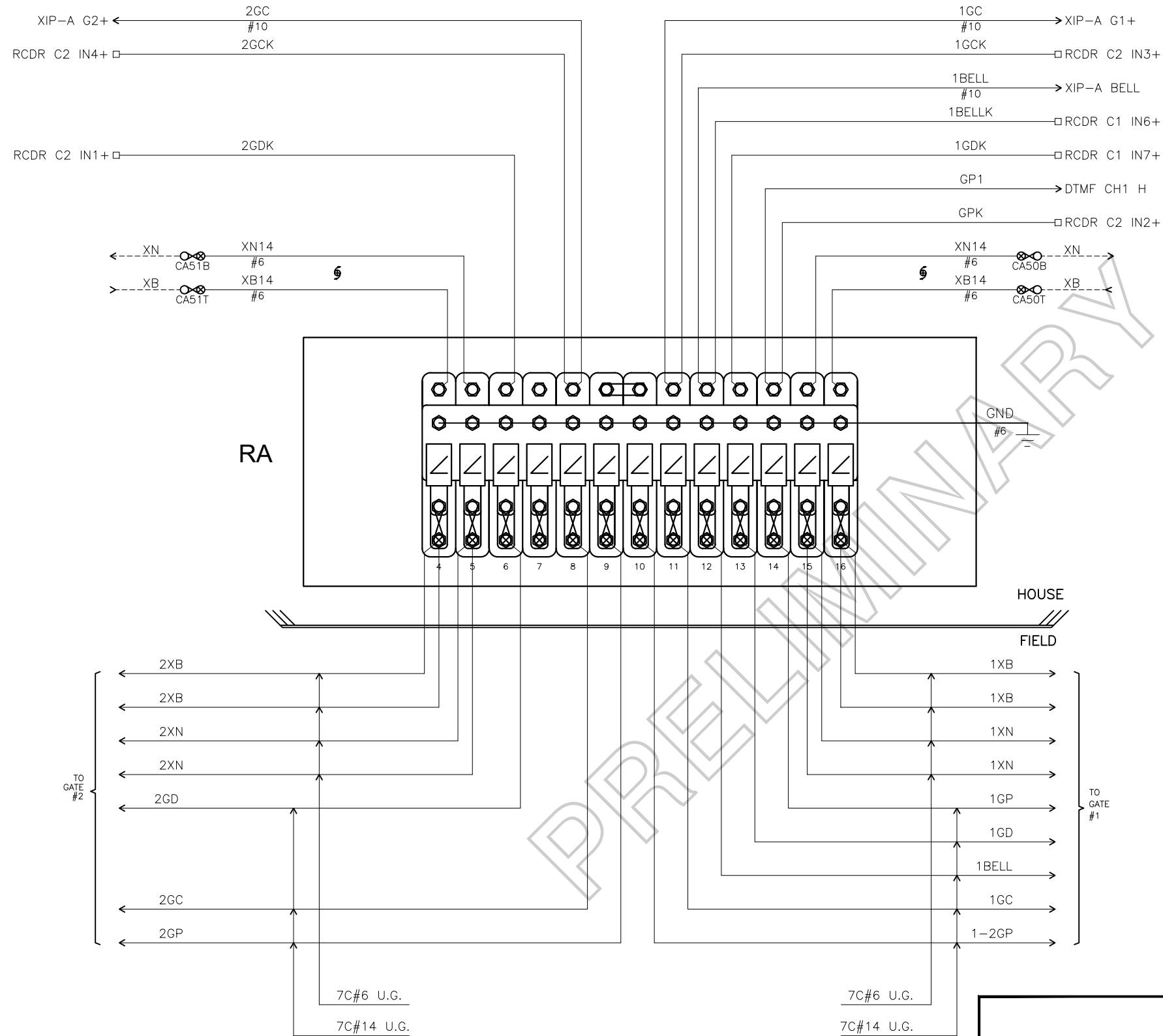
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Railway

LOCATION		
STEWART ROAD (TWP 41) near ROCHESTER, OH		
41.0850441,-82.2338787		
ORIGINAL DATE	03-01-2022	TITLE DTMF UNIT
DESIGNER	RGPT	SUB CAREY
DRAFTSMAN	RGPT	RRMP N - 117.80
CHECKER	RGPT	DOT NO. 002 030Y
		SCALE N.T.S.
		SHEET 09 of 21



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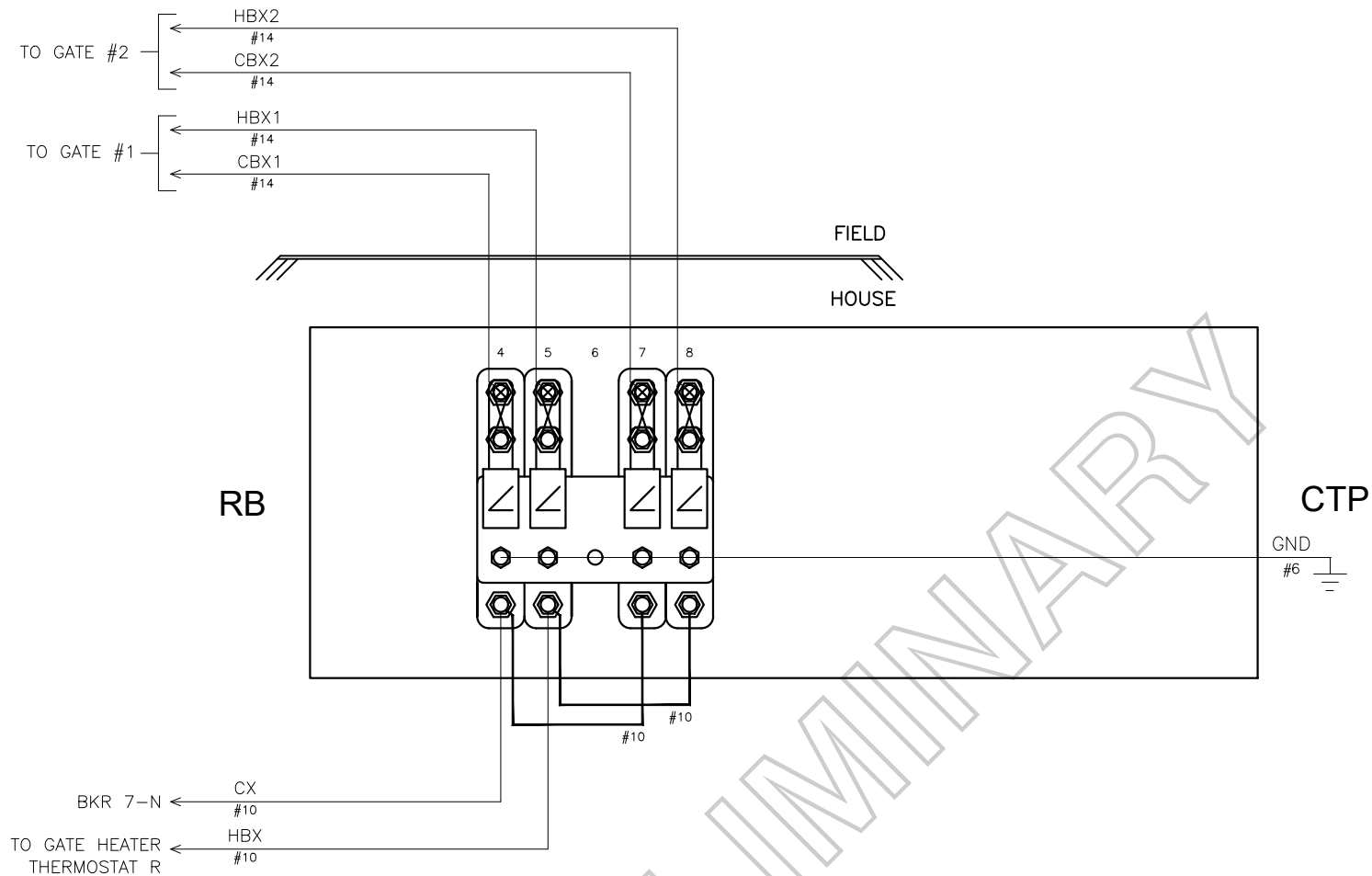


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Railway

LOCATION STEWART ROAD (TWP 41) near ROCHESTER, OH 41.0850441,-82.2338787		
ORIGINAL DATE 03-01-2022	TITLE ARRESTOR PANEL	
DESIGNER RGPT	SUB CAREY	CTC NO. CN22015
DRAFTSMAN RGPT	RRMP N - 117.80	SCALE N.T.S.
CHECKER RGPT	DOT NO. 002 030Y	SHEET 10 of 21



LEGEND:

 = INSULATED NUT

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LOCATION STEWART ROAD (TWP 41) near ROCHESTER, OH 41.0850441,-82.2338787		
ORIGINAL DATE 03-01-2022	TITLE CABLE TERMINATION PANEL	
DESIGNER RGPT	SUB CAREY	CTC NO. CN22015
DRAFTSMAN RGPT	RRMP N - 117.80	SCALE N.T.S.
CHECKER RGPT	DOT NO. 002 030Y	SHEET 11 of 21

CONTACT	CLOSED	FUNCTION	TENSION
1B	75-90 DEG.	POWER DOWN	18-28 OZ.
1F	0-70 DEG.	SNUB DOWN	18-28 OZ.
2	0-86 DEG.	POWER UP	18-28 OZ.
3	0-10 DEG.	GATE DOWN	16-24 OZ.
4	82-90 DEG.	GATE CLEAR	16-24 OZ.
5	10-90 DEG.	BELL	16-24 OZ.
6	SPARE	SPARE	16-24 OZ.
7	0-2 DEG.	SNUB	16-24 OZ.

LEGEND:

 = INSULATED NUT

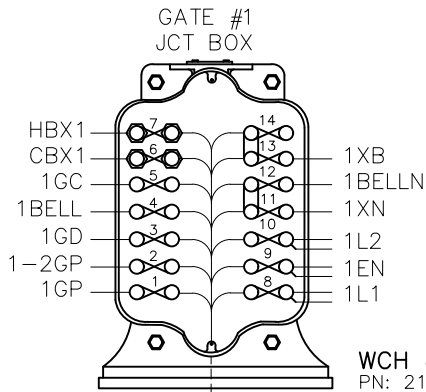
NOTES:

* BELL TO BE ELECTRONIC.

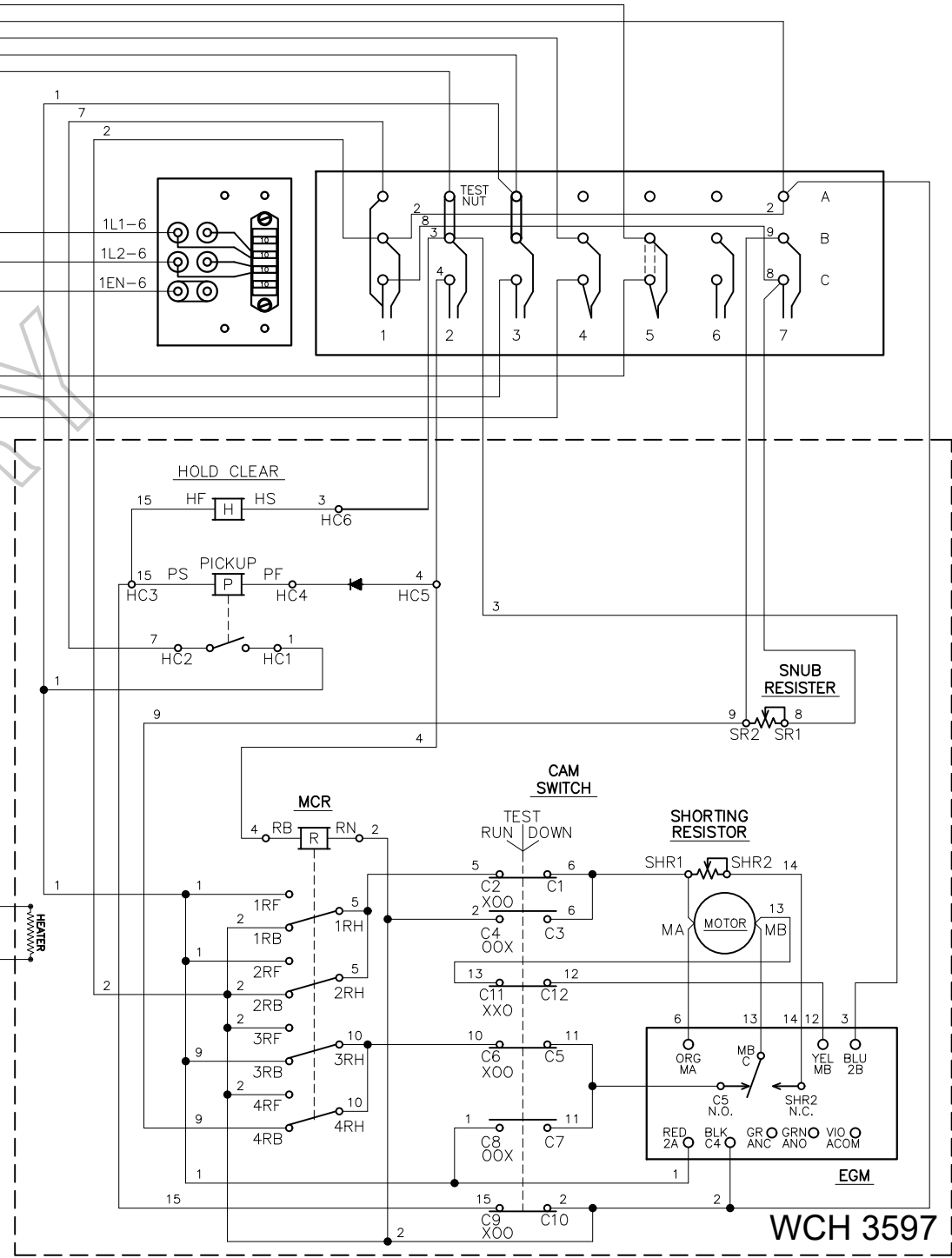
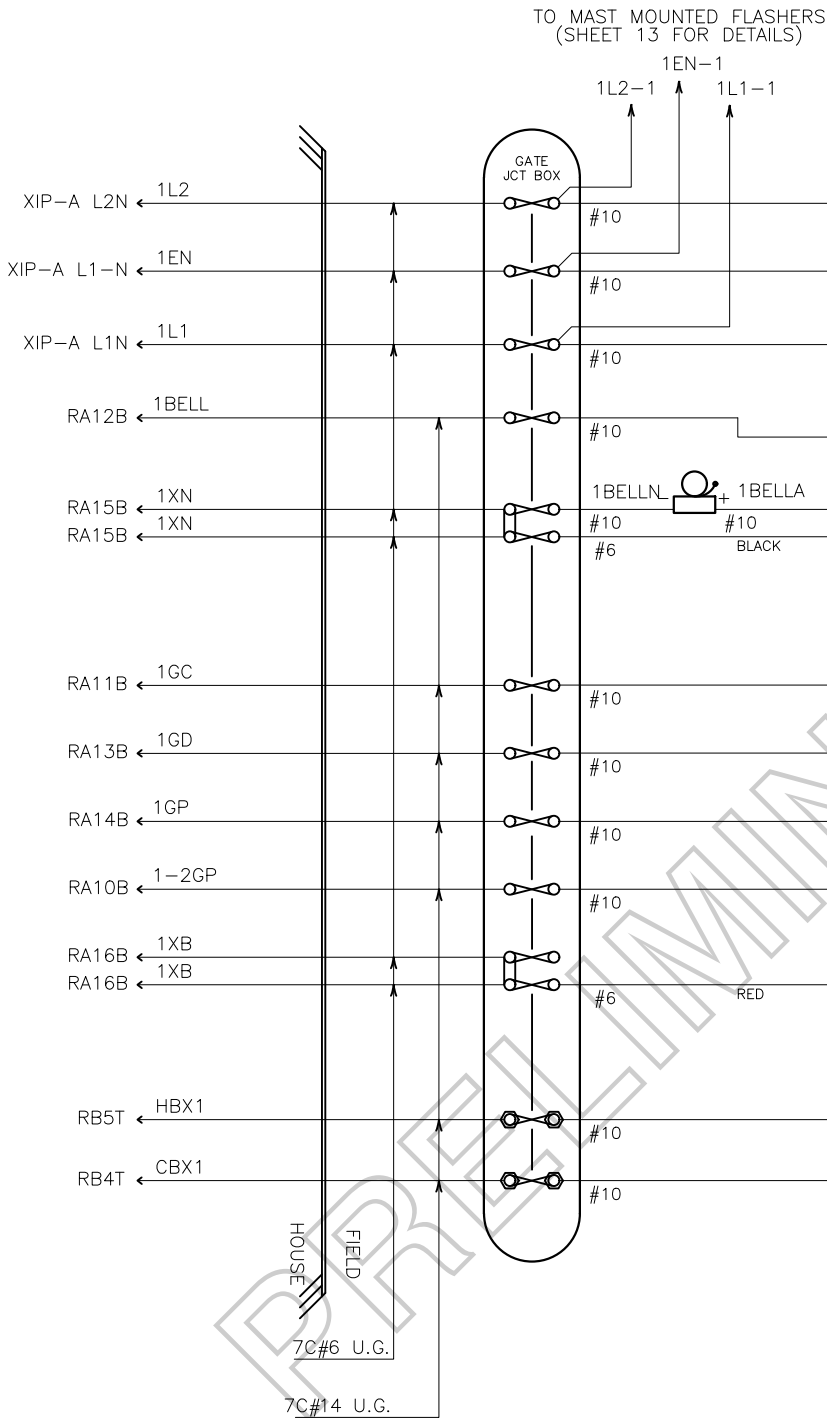
 = INTERNAL GATE WIRES THAT SHARE ELECTRICAL CONNECTIONS WITH OTHER WIRES THAT ARE ASSIGNED THE SAME NUMBER.

REFER TO SHEET 13 FOR GATE ARM LIGHT WIRING

ADD BOLD STRAPS AND JUMPERS AS SHOWN.



-----> CABLES TO HOUSE



PN: 3597-131-P-H-MI

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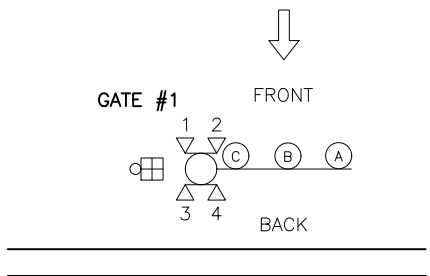
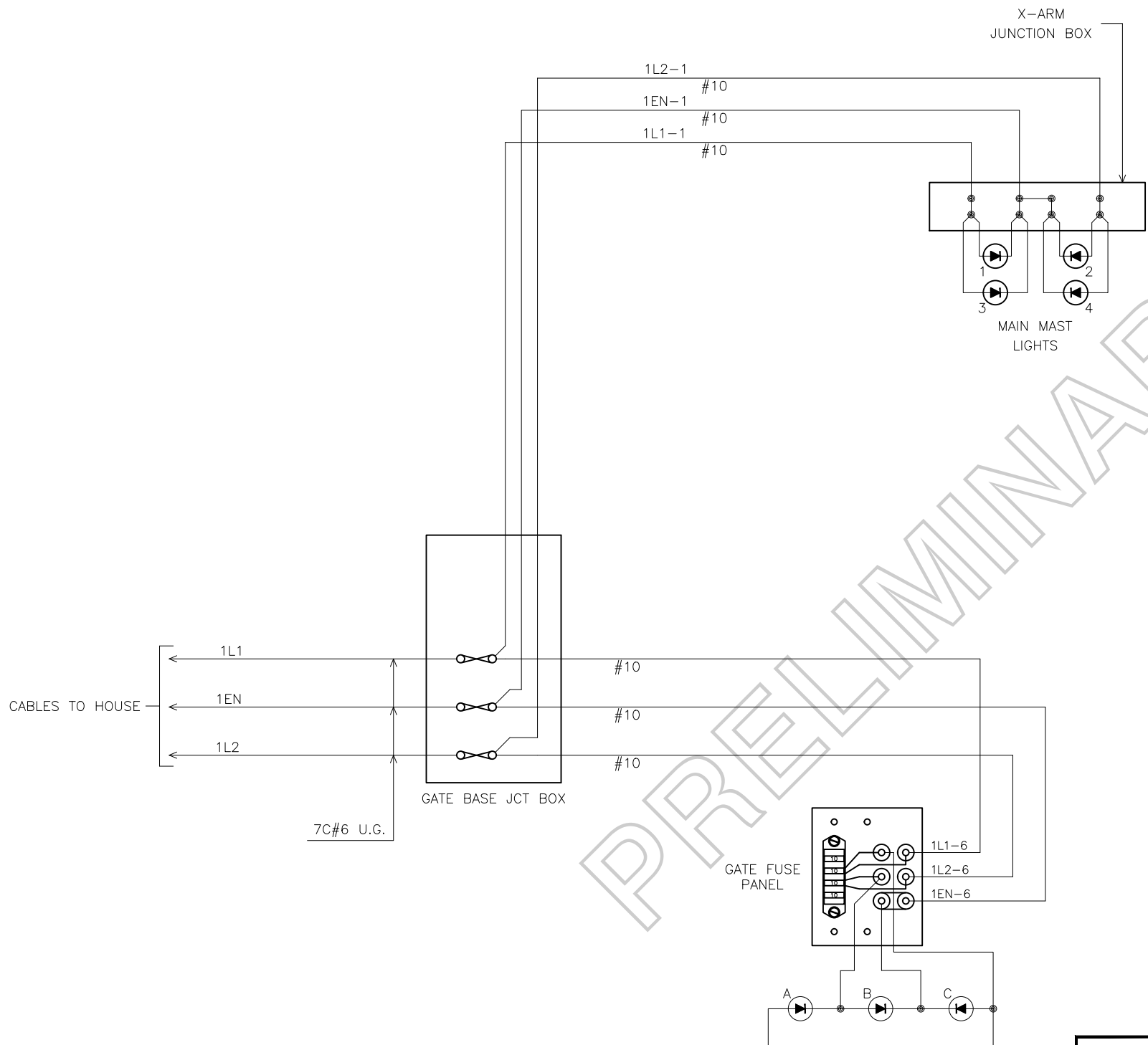
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LOCATION STEWART ROAD (TWP 41) near ROCHESTER, OH 41.0850441,-82.2338787		
ORIGINAL DATE 03-01-2022	TITLE GATE #1 MECHANISM (NEAR SIDE)	
DESIGNER RGPT	SUB CAREY	CTC NO. CN22015
DRAFTSMAN RGPT	RRMP N - 117.80	SCALE N.T.S.
CHECKER RGPT	DOT NO. 002 030Y	SHEET 12 of 21

GATE #1



NOTE:
* USE ATC 10 AMP FUSES ONLY
◀ IS LED SYMBOL ONLY. INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

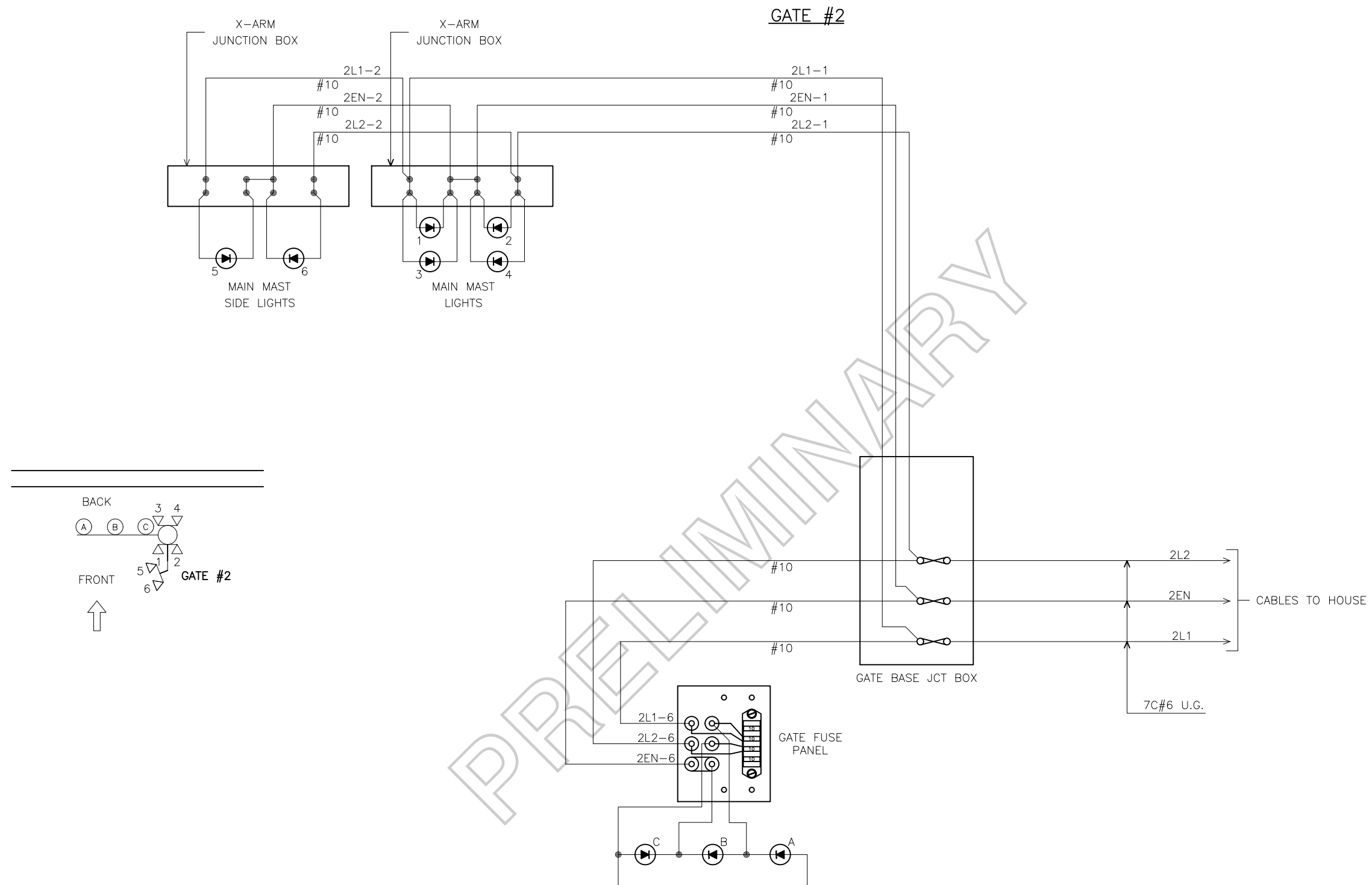
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CHANGE FROM TYPICAL: Y

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Railway

LOCATION STEWART ROAD (TWP 41) near ROCHESTER, OH 41.0850441,-82.2338787		
ORIGINAL DATE 03-01-2022	TITLE GATE #1 LIGHTS (NEAR SIDE)	
DESIGNER RGPT	SUB CAREY	CTC NO. CN22015
DRAFTSMAN RGPT	RRMP N - 117.80	SCALE N.T.S.
CHECKER RGPT	DOT NO. 002 030Y	SHEET 13 of 21



NOTE:

* USE ATC 10 AMP FUSES ONLY

⬤ IS LED SYMBOL ONLY. INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

REVISION
BLOCK

CHANGE FROM TYPICAL: Y



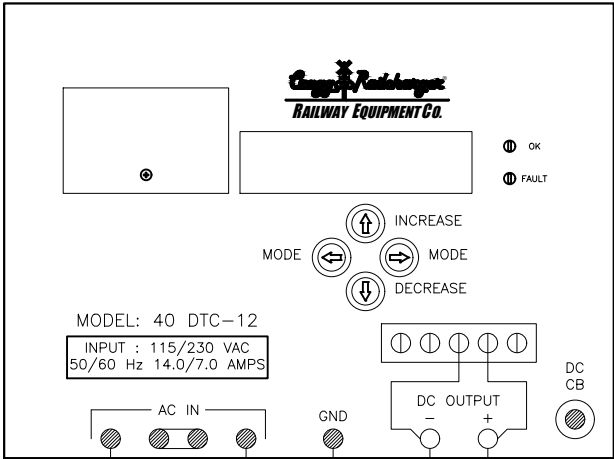
RIO GRANDE PACIFIC
TECHNOLOGY

9601 CAMP BOWIE W BLVD
FORT WORTH, TX 76116
(817) 886-8210
WWW.RIOTECHNOLOGY.COM

Whooling & Lake Erie
Railway

LOCATION		
STEWART ROAD (TWP 41) near ROCHESTER, OH		
41.0850441,-82.2338787		
ORIGINAL DATE	03-01-2022	TITLE
		GATE #2 LIGHTS (FAR SIDE)
DRAFTSMAN	RGPT	SUB
		CAREY
CHECKER	RGPT	CTC NO.
		CN22015
	RRMP	SCALE
		N - 117.80
	DOT NO.	SHEET
		002 030Y
		15 of 21

MB-CHARGER
(SIDE "A" WALL)



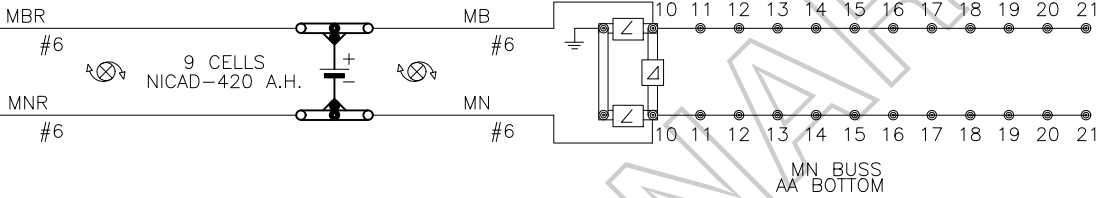
BASIC SETUP			
NO.	ABBREVIATION	DEFAULT SETTING	DESIRED SETTING
1	PASSWORD	5	5
2	USER LEVEL	BASIC	BASIC
3	BATTERY TYPE	LEAD ACID OR NI-CAD	NI-CAD
4	NUMBER OF CELLS	-	9
5	VOLTS PER CELL	-	1.42

BATTERY BUSS DETAILS

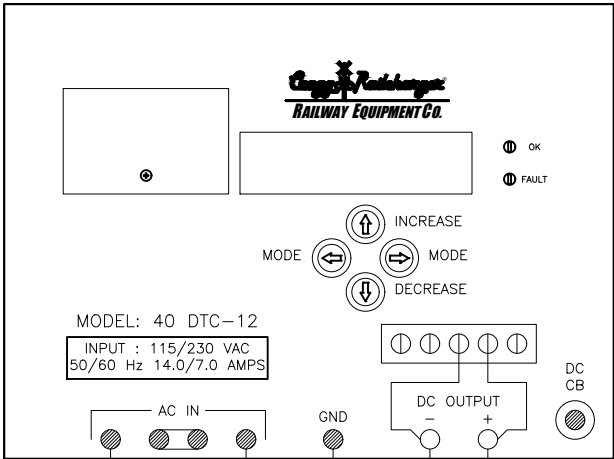
SPARE	21	SPARE
SPARE	20	SPARE
CC50T	19	XP4 S7 IN2-
CC45T	18	XP4 S7 IN1-
DB1T	17	DB3T
SPARE	16	RCDR C1 IN8-
SPARE	15	RCDR C1 IN5-
RCDR C1 IN10+	14	RCDR C1 IN10-
RCDR CPU BATT+	13	RCDR CPU BATT-
DTMF BATT+	12	DTMF BATT-
MDSA-1 B+	11	MDSA-1 B-
MB BATT+	10	MN BATT-

MB BUSS (TOP) AA MN BUSS (BOTTOM)

MB-BATTERY



XB-CHARGER
(SIDE "C" WALL)



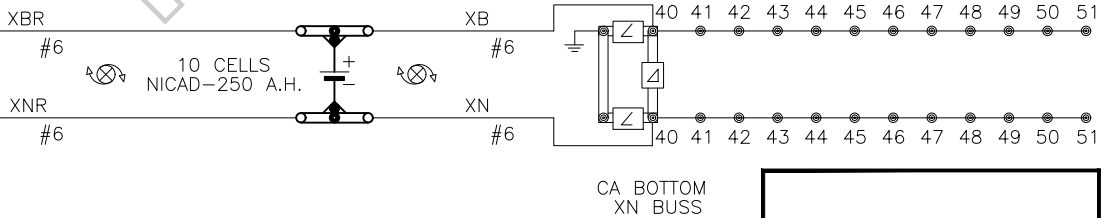
BASIC SETUP			
NO.	ABBREVIATION	DEFAULT SETTING	DESIRED SETTING
1	PASSWORD	5	5
2	USER LEVEL	BASIC	BASIC
3	BATTERY TYPE	LEAD ACID OR NI-CAD	NI-CAD
4	NUMBER OF CELLS	-	10
5	VOLTS PER CELL	-	1.42

BATTERY BUSS DETAILS

RA4T	51	RA5T
RA16T	50	RA15T
XIP-A B	49	XIP-A N
SPARE	48	SPARE
SPARE	47	SPARE
SPARE	46	SPARE
DTMF CH2 H	45	XIP-A G1-
CC58T	44	XP4 S8 IN4-
FD COM	43	RCDR C2 IN9-
RCDR C1 IN9+	42	RCDR C1 IN9-
XIP-A L1B-B	41	XIP-A L1B-N
XB BATT+	40	XN BATT-

XB BUSS (TOP) CA XN BUSS (BOTTOM)

XB-BATTERY



NEMA PLUG
L6-15P

3C#14

NEMA PLUG
L6-15P

3C#14

CHANGE FROM TYPICAL: Y

REVISION
BLOCK

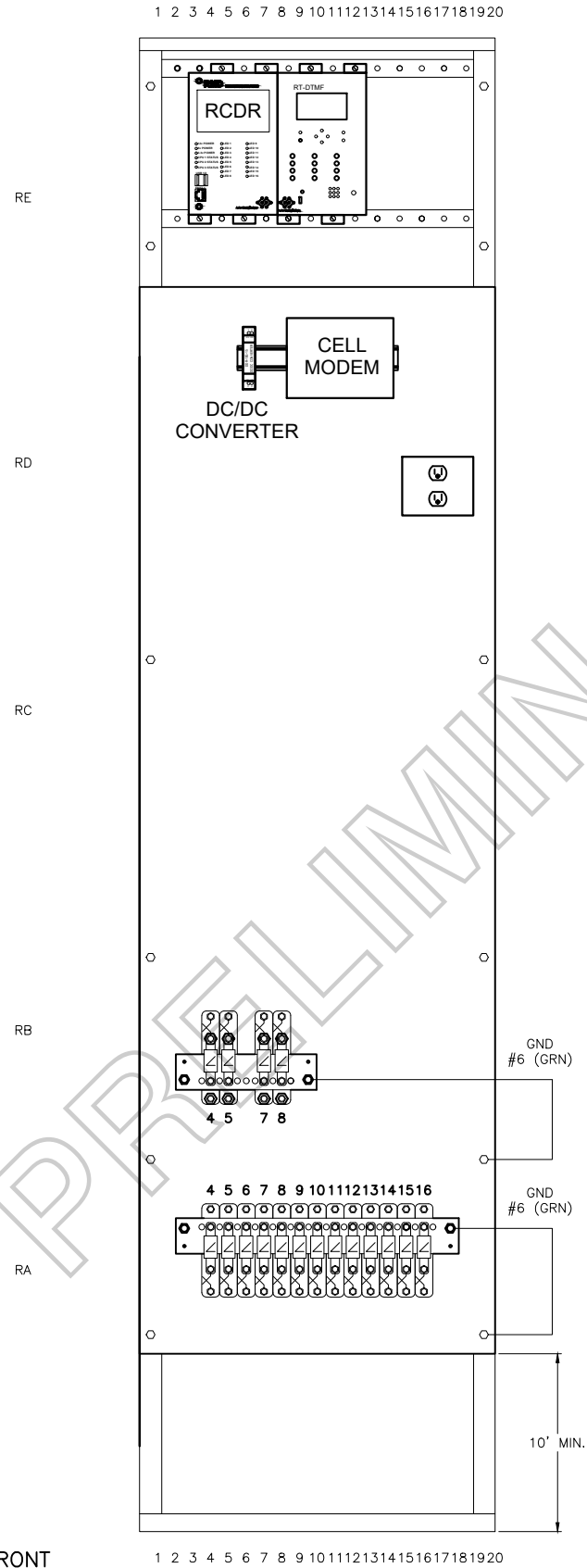
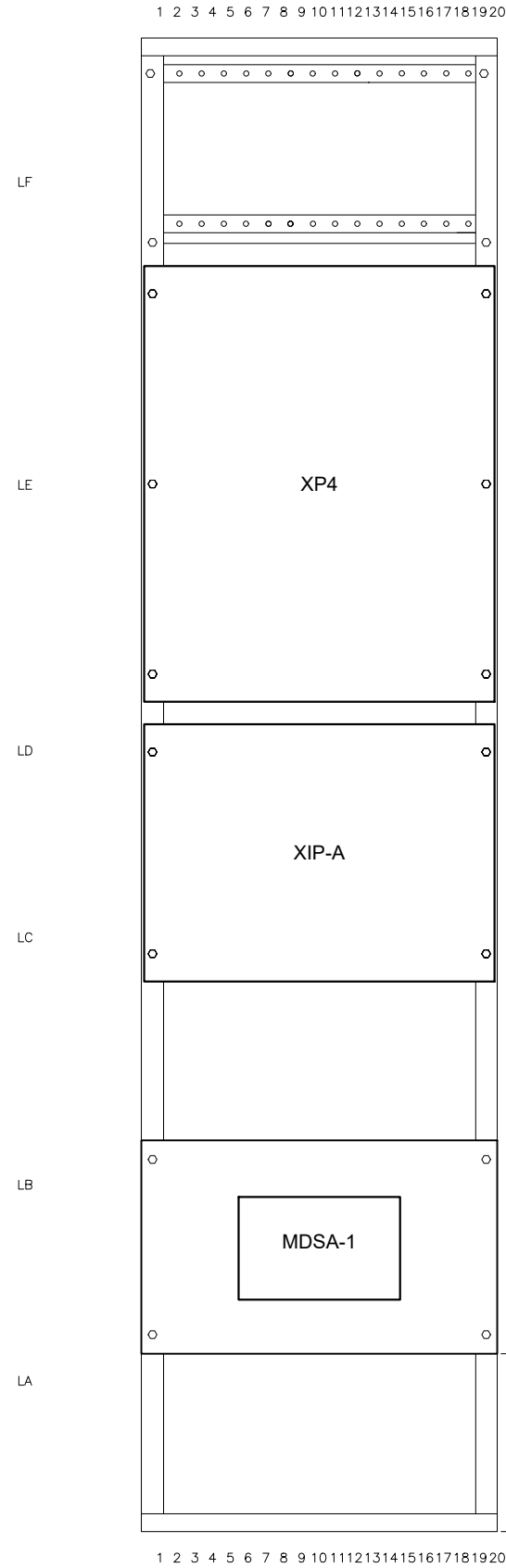


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Whooling & Lake Erie
Railway

LOCATION STEWART ROAD (TWP 41) near ROCHESTER, OH 41.0850441,-82.2338787		
ORIGINAL DATE 03-01-2022	TITLE BATTERY CHARGERS	
DESIGNER RGPT	SUB CAREY	CTC NO. CN22015
DRAFTSMAN RGPT	RRMP N - 117.80	SCALE 1"=2'
CHECKER RGPT	DOT NO. 002 030Y	SHEET 16 of 21



SIDE 'B' FRONT

CHANGE FROM TYPICAL: Y

REVISION
BLOCK


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**Wheeling & Lake Erie
Railway**

LOCATION			STEWART ROAD (TWP 41) near ROCHESTER, OH		
			41.0850441,-82.2338787		
ORIGINAL DATE	03-01-2022	TITLE	RACK FRONT VIEW		
DESIGNER	RGPT	SUB	CAREY	CTC NO.	CN22015
DRAFTSMAN	RGPT	RRMP	N - 117.80	SCALE	1"=2'
CHECKER	RGPT	DOT NO.	002 030Y	SHEET	18 of 21

BACK OF RIGHT SIDE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

RFB

REB

RDB

RCB

RBB

RAB



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

BACK OF LEFT SIDE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

LFB

LEB

LDB

LCB

LBB

LAB

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

SIDE 'B' BACK

PRELIMINARY

CHANGE FROM TYPICAL: Y

REVISION
BLOCK



RIO GRANDE PACIFIC
TECHNOLOGY

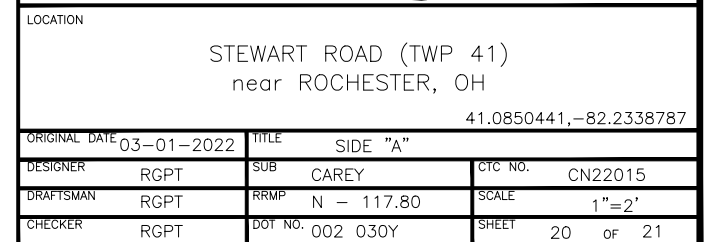
9601 CAMP BOWIE W BLVD
FORT WORTH, TX 76116
(817) 886-8210
WWW.RIO TECHNOLOGY.COM

**Wheeling & Lake Erie
Railway**

LOCATION			STEWART ROAD (TWP 41) near ROCHESTER, OH		
			41.0850441,-82.2338787		
ORIGINAL DATE	03-01-2022	TITLE	RACK BACK VIEW		
DESIGNER	RGPT	SUB	CAREY	CTC NO.	CN22015
DRAFTSMAN	RGPT	RRMP	N - 117.80	SCALE	1"=2'
CHECKER	RGPT	DOT NO.	002 030Y	SHEET	19 of 21



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SHEET 21 OF 21

From: [Tim Andrews](#)
To: [Tucker, Jim](#); [Henry, Jill](#); [Hamilton, Heather](#)
Subject: RE: Stewart Rd, DOT#002030Y, PID#116119
Date: Friday, June 17, 2022 10:51:57 AM
Attachments: [image001.png](#)

Jim,

We will remove the sidelights. I forgot to take it off after shifting the driveway by installing the guard rail. The W&LE will be paying shifting the driveway at cost if needed for the landowner but the guard rail is part of this project to keep them from trying to use it. In the past if we do not block it off they will continue utilizing it. If they continue using it they will have the ability to turn in front of the gates unprotected (similar to SR603 in Plymouth). We will also not be shifting the farmers crossing down the track and giving them a private drive as was brought up at the meeting. That would make it much more unsafe. The forklift is actually for 2 pieces of equipment. One at the container location and the other on the job site due to container drop location logistics. If we are able to find somewhere closer to put the container only one forklift would be rented.

Thanks.

Tim Andrews | Signal & Communications Supervisor

Wheeling & Lake Erie Railway

100 East First Street, Brewster, Ohio 44613

330-767-7255 office | 330-417-5541 cell | www.wlerwy.com

From: James.Tucker@dot.ohio.gov [mailto:James.Tucker@dot.ohio.gov]

Sent: Friday, June 17, 2022 10:39 AM

To: Tim Andrews <tandrews@wlerwy.com>; jill.henry@puco.ohio.gov;

Heather.Hamilton@dot.ohio.gov

Subject: RE: Stewart Rd, DOT#002030Y, PID#116119

Tim,

Couple of things I need to address before we move forward on this one.

- The sidelight needs to be removed from Gate #2
- The plan shows guardrail. Will the Wheeling be installing this outside of our project?
- Why is the forklift rented for two weeks instead of one like the backhoe?

Thanks,



James Tucker

Safety Project Manager

1980 West Broad Street, Mail Stop #3140

Columbus, Ohio 43223

614-644-0283 (o)

614-398-6897 (m)

James.tucker@dot.ohio.gov

From: Tim Andrews <tandrews@wlerwy.com>

Sent: Friday, June 10, 2022 9:17 AM

To: Tucker, Jim <James.Tucker@dot.ohio.gov>; Henry, Jill <jill.henry@puco.ohio.gov>; Hamilton, Heather <Heather.Hamilton@dot.ohio.gov>

Subject: Stewart Rd, DOT#002030Y, PID#116119

Jim,

Please see the attached plans and estimates for Stewart Rd. Please let me know if you have any questions.

Thanks,

Tim Andrews | Signal & Communications Supervisor

Wheeling & Lake Erie Railway

100 East First Street, Brewster, Ohio 44613

330-767-7255 office | 330-417-5541 cell | www.wlerwy.com

CAUTION: This is an external email and may not be safe. If the email looks suspicious, please do not click links or open attachments and forward the email to csc@ohio.gov or click the Phish Alert Button if available.

WHEELING & LAKE ERIE RAILWAY COMPANY

Tim Andrews
Signal & Communication Supervisor
Tel. 330-767-7255

tandrews@wlerwy.com

100 East First Street
Brewster, OH 44613
Fax: 330-767-3213

June 10, 2022

Ohio Rail Development Commission
Mr. Jim Tucker
1980 West Broad St
Mail Stop #3140
Columbus, OH 43223

Estimate for Railroad Crossing Warning System at Stewart Rd - DOT: 002-030-Y

Dear Mr. Tucker,

I am providing this estimate for the crossing package and installation at Stewart Rd. The material package and installation of the project will be completed under our continuing agreement with RioTech. Copies of the material and installation cost are attached.

Engineering Services/Labor/Material, RioTech (breakout attached)	\$210,685.70
Preliminary Installation Services, Crosier (breakout attached)	\$31,755.23
Electric Service	\$7,500.00
WLE Direct Signal Labor	\$5,500.00
Galvanized signal foundations	\$3,400.00
Stone for fill	\$3,500.00
 TOTAL	 \$262,340.93

Please contact me if additional details are required.

Respectfully,



Tim Andrews

Notes

1: Direct purchase from Fabricated Metals, 60' galvanized gate foundation,
\$1,700.00 ea.

Wheeling & Lake Erie Railway
Spencer, OH - Hunter Rd - DOT#473578X
Riotech Project Estimate



ENGINEERING				
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>	<i>Amount</i>
DIAGNOSTIC TECHNICIAN	16	HR	\$68.53	\$1,096.48
CADD TECHNICIAN	40	HR	\$36.25	\$1,450.00
SIGNAL DESIGNER	40	HR	\$65.67	\$2,626.80
SIGNAL ENGINEER - CHECK	4	HR	\$65.67	\$262.68
SIGNAL ENGINEER - SEAL (IF APPLICABLE)	4	HR	\$66.53	\$266.12
LOGIC PROGRAMMER	8	HR	\$66.53	\$532.24
SUBTOTAL				\$6,234.32
G&A	164%			\$10,224.28
FIXED FEE	10%			\$1,645.86
ENGINEERING TOTAL				\$18,104.47

PROJECT MANAGEMENT				
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>	<i>Amount</i>
PROJECT MANAGER - SIGNAL	24	HR	\$44.57	\$1,069.68
SR. PROJECT MANAGER - SIGNAL	4	HR	\$67.64	\$270.56
PURCHASING MANAGER	24	HR	\$31.22	\$749.28
ACCOUNTING	8	HR	\$40.00	\$320.00
SYSTEMS PROJECT SPECIALIST	4	HR	\$23.76	\$95.04
SUBTOTAL				\$2,504.56
G&A	164%			\$4,107.48
FIXED FEE	10%			\$661.20
PROJECT MANAGEMENT TOTAL				\$7,273.24

EAF LABOR				
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>	<i>Amount</i>
EAF SUPERVISOR	8	HR	\$ 31.48	\$251.84
EAF LEAD FOREMAN	32	HR	\$ 29.57	\$946.24
LEAD WIREMAN	56	HR	\$ 21.37	\$1,196.72
APPLICATION PROGRAMMING	1	HR	\$ 1,500.00	\$1,500.00
TEST	8	HR	\$ 35.00	\$280.00
TEST - SPECIFIC	4	HR	\$ 68.53	\$274.12
QA/QC	10	HR	\$ 35.38	\$353.80
SUBTOTAL				\$4,802.72
G&A	164%			\$7,876.46
FIXED FEE	10%			\$1,267.92
EAF LABOR TOTAL				\$13,947.10

Wheeling & Lake Erie Railway
Spencer, OH - Hunter Rd - DOT#473578X
Riotech Project Estimate



CONSTRUCTION LABOR				
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>	<i>Amount</i>
MANAGER OF FIELD SVCS	8	HR	\$44.57	\$356.56
CONSTRUCTION SUPERVISOR	80	HR	\$36.90	\$2,952.00
CREW FOREMAN	80	HR	\$30.84	\$2,467.20
CREWMAN 3	80	HR	\$22.71	\$1,816.80
CREWMAN 1	80	HR	\$19.54	\$1,563.20
SUBTOTAL				\$9,155.76
G&A	164%			\$15,015.45
FIXED FEE	10%			\$2,417.12
CONSTRUCTION LABOR TOTAL				\$26,588.33

CONSTRUCTION LABOR EXPENSES				
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>	<i>Amount</i>
DIAGNOSTIC EXPENSES	1	EA	\$500.00	\$500.00
CREW MEALS	32	EA	\$56.00	\$1,792.00
CREW LODGING	32	EA	\$100.00	\$3,200.00
MOBILIZATION	1	EA	\$1,500.00	\$1,500.00
SUBTOTAL				\$6,992.00
FIXED FEE	0%			\$0.00
CONSTRUCTION LABOR EXPENSES TOTAL				\$6,992.00

CONSTRUCTION EQUIPMENT				
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>	<i>Amount</i>
TRUCK, PU, 1 TON CREW CAB	80	HR	\$15.71	\$1,256.80
TRAILER, UTILITY (12,000lb SC410)	80	HR	\$7.55	\$604.00
RENTAL EQUIPMENT (BACKHOE W/18" BKT)	1	WK	\$1,600.00	\$1,600.00
RENTAL EQUIPMENT (FORKLIFT - 8K)	2	WK	\$1,600.00	\$3,200.00
EQUIPMENT DELIVERY/PICKUP	6	LS	\$250.00	\$1,500.00
DIESEL FUEL SURCHARGE	40	GAL	\$5.00	\$200.00
SUBTOTAL				\$8,360.80
FIXED FEE	0%			\$0.00
CONSTRUCTION EQUIPMENT TOTAL				\$8,360.80

MATERIAL				
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>	<i>Amount</i>
MATERIAL	1	LS	SEE ATTACHED DETAIL	\$113,561.67
MATERIAL INBOUND FREIGHT	1	LS	\$4,000.00	\$4,000.00
FILL DIRT	40	TN	\$25.89	\$1,035.60
COVER ROCK (3/4" CRUSHED - WHITE)	25	TN	\$26.50	\$662.50
PALLET CHARGE - GATES	2	EA	\$100.00	\$200.00
SHIPPING CONTAINER, 40'	4	WK	\$15.00	\$60.00
PVC PACKAGE	1	PKG	\$2,500.00	\$2,500.00
SUBTOTAL				\$122,019.77
TAX (IF APPLICABLE)	-			\$0.00
FIXED FEE	0%			\$0.00
MATERIAL TOTAL				\$122,019.77

Wheeling & Lake Erie Railway
Spencer, OH - Hunter Rd - DOT#473578X
Riotech Project Estimate



<i>SUBCONTRACTOR</i>				
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>	<i>Amount</i>
SUBCONTRACTOR SVC - CONTAINER DELIVERY	1	LS	\$4,500.00	<i>\$4,500.00</i>
SUBCONTRACTOR SVC - CONTAINER PICKUP	1	LS	\$2,500.00	<i>\$2,500.00</i>
SUBCONTRACTOR SVC - HORIZONTAL BORING (4" HDPE)	0	FT	\$45.00	<i>\$0.00</i>
SUBCONTRACTOR SVC - METER POLE (PERMIT & INSTALL)	0	LS	\$5,000.00	<i>\$0.00</i>
SUBCONTRACTOR SVC - PORTA-POTTY	2	MN	\$200.00	<i>\$400.00</i>
<i>SUBTOTAL</i>				<i>\$7,400.00</i>
<i>FIXED FEE</i>	<i>0%</i>			<i>\$0.00</i>
<i>SUBCONTRACTOR TOTAL</i>				<i>\$7,400.00</i>
<i>TOTAL PROJECT ESTIMATE</i>				<i>\$210,685.70</i>

Stewart Road - Project #

VENDOR	DESCRIPTION	PART NUMBER	QTY	UOM	UNIT PRICE	TOTAL
A.C.E.	Labels, wire marker sleeve	HX-375-2-WT-2	1	EA	\$630.00	\$630.00
Allied	Relay, 8-pin KRPA style, 10A/240VAC	70198711	1	EA	\$26.59	\$26.59
Allied	Socket, 8-pin KRPA style	70199343	1	EA	\$8.66	\$8.66
Allied	Spring, Hold down for KRPA style relay	70198576	1	EA	\$1.05	\$1.05
Alstom	Controller, ElectroLogIXS XP4	16-220004433	1	EA	\$37,775.85	\$37,775.85
Alstom	MDSA-1X Surge arrestor panel	250204-100	1	EA	\$730.80	\$730.80
Alstom	XIP Panel, 20 Amp	227561-000	1	EA	\$731.85	\$731.85
Alstom	Cable, 12 ft (cable #1) (Need 1 for XIP)	075046-002	1	EA	\$197.40	\$197.40
Alstom	Cable, 12 ft (cable #2) (Need 1 for XIP)	075047-002	1	EA	\$197.40	\$197.40
Alstom	Insulated Nut, 1 3/16"	013986-000	20	EA	\$4.20	\$84.00
Alstom	FSS-1B, (267Hz - 560Hz) Tunable Shunts	250849-001	2	EA	\$1,080.45	\$2,160.90
ARMS	Cell Modem, LMU-5541, Vanguard	LMU5541LW-H000-G1000	1	EA	\$525.00	\$525.00
Mouser Electronics	Terminal Ring, HD, 1/4", insulated, #10 - #12 (yellow w/blk stripe)	2-320569-6	100	EA	\$0.99	\$98.70
Digikey	DC-DC Converter, din rail mount	DDR-15G-15	1	EA	\$27.30	\$27.30
Elliott Elect	5/8" X 8' Copper Ground Rod	95082476	6	EA	\$14.07	\$84.42
Erico	Terminal, 4-post, Block Kit, w/ 14-24 AAR Hardware	B2700A2C1WH	17	EA	\$38.41	\$652.95
Erico	RailSurge Plane Strip Busbar (36")	B2700HC36T	2	EA	\$67.99	\$135.98
Erico	Wheel, grinding	SB22122	3	EA	\$57.24	\$171.71
Erico	Mold,Web Signal Bond,3/16	SBB200C	1	EA	\$117.19	\$117.19
Erico	5/8" Ground Rod Weld	SBNT1161G	6	EA	\$18.15	\$108.93
Erico	Cadweld Plus Rail Joint Bond Kit, XS Style (Kit of 60)	SBS24882CWP	180	EA	\$8.83	\$1,589.49
Erico	Arrestor, DC	EPD2050F	17	EA	\$65.94	\$1,120.98
Erico	Arrestor, AC	EPD2170F	4	EA	\$67.90	\$271.61
G&B	Shunt Enclosure, Orange	500-400-100-09-Orange	2	EA	\$570.15	\$1,140.30
Graybar	Panduit, Wire Duct, 2"X3"X6' Gray	95032476	18	FT	\$8.35	\$150.26
Graybar	Panduit, Cover, 6' Gray	88197241	18	FT	\$1.58	\$28.35
Graybar	Wire, Ground, #6AWG, Bare Copper	BARE-CU-SD-6-SOL-315S	60	FT	\$1.09	\$65.52
Graybar	Duct seal, 5lb	31-605	3	EA	\$19.66	\$58.97
Graybar	Cable, SJ Cord 4c/14	BJ11404-14/4-SJ00W-300V	50	FT	\$1.41	\$70.35
Graybar	Nema Plug, Locking, (L6-15P) 15A/240V	HBL4570C	2	EA	\$23.97	\$47.94
Grainger	Decal, Danger 240V (5"x3.5")	3XDU5	1	EA	\$3.15	\$3.15
GSI	Gate Keeper, 2-Way, w/Hardware & Buffer Spring	SK-1000-SW40	2	EA	\$1,359.75	\$2,719.50
GSI	Gate, Alum/Polyglass 19'-32', Hi Intensity tape	SG-1932-FT-HI	2	EA	\$450.45	\$900.90
GSI	Bell, Electronic, 5" Base	EB-3-360-5	1	EA	\$225.75	\$225.75
J&A Industries	Terminal, Battery, 3-PT	225481-000	4	EA	\$33.60	\$134.40
J&A Industries	Battery Tray, 12"x27"	027003-001	4	EA	\$52.92	\$211.68
L&W	Connector, Buss strap (1" - 36 holes)	9A2216-36	4	EA	\$23.25	\$92.99
NEG	Wind Bracket, 36", 5"MTG w/hardware	NEG-191036	2	EA	\$110.25	\$220.50
NEG	Sign, Emergency, ENS, 15X9 Blue	NEG S-I-13-15x9ENS	2	EA	\$15.75	\$31.50
Okonite	Wire, Case, #16AWG 1000' spool, Blue	152-11-3002	2	EA	\$231.00	\$462.00
Okonite	Wire, Case, #10AWG 1000' spool, Blue	152-11-3038	2	EA	\$514.50	\$1,029.00
Okonite	Cable, 7/C#6, Armored	206-11-6247	500	FT	\$10.27	\$5,134.50
Okonite	Cable, 7C#14, Armored	206-11-6887	500	FT	\$3.47	\$1,732.50
Okonite	Cable, 3C#6 w/Ground for A/C power	206-11-6070	300	FT	\$5.31	\$1,593.90
Okonite	Wire, Track, 2C/#6, Twist, Solid	150-12-3933	300	FT	\$2.16	\$648.90
PTMW	Bungalow, Alum. 6 X6 w/Heater	91000564 D-1	1	EA	\$12,231.45	\$12,231.45
PTMW	Door Magnetic Switch Assy	14979 PH	2	EA	\$56.70	\$113.40
PTMW	Kit Antenna Mount, GPS w/ Brkt (Item #41253)	TBD	1	EA	\$107.63	\$107.63
Railway Equip	E-Z gate LED lamp kit	9298-1120	2	EA	\$183.75	\$367.50
Railway Equip	Battery Charger, 40DTC-12V	520940	2	EA	\$882.00	\$1,764.00
Rebel	Terminal, 2X6 W/ Flat nut/washer	220-0101	12	EA	\$15.52	\$186.23
Rebel	Terminal, Block, 2 3/8" center - 2 post w/hardware	220-0301	5	EA	\$5.51	\$27.56
Rebel	Nut, AAR Flat Nut	220-0001	300	EA	\$0.21	\$63.00
Rebel	Nut, AAR Crown Nut	220-0000	300	EA	\$0.26	\$78.75
Rebel	Washer, AAR Flat	220-0003	300	EA	\$0.11	\$31.50
Rebel	Gold Test Nut	220-0008	100	EA	\$0.92	\$92.40
Rebel	Strap, 1" offset test link	220-0506	100	EA	\$0.89	\$89.25
Rebel	Strap, 2 3/8" flat test strap	220-0516	1	EA	\$1.52	\$1.52
Rebel	Strap, 2 3/8" flat strap	220-0507	2	EA	\$0.79	\$1.58
Rebel	Sign, Crossbuck (NO brackets or hardware)	070-0065	2	EA	\$99.75	\$199.50
Rebel	Pinnacle, 5"	010-9034	1	EA	\$22.97	\$22.97
Rebel	5" Sign Kit (Brackets/extensions/Ubolts/hardware)	070-5008	4	EA	\$72.35	\$289.38
Rebel	Lock, Barrel Style	290-0000	4	EA	\$55.91	\$223.65
Reynolds	Wire, Case, #6AWG, Green	N6GNM	100	FT	\$0.84	\$84.00
Reynolds	Wire, Case, #6AWG, Black	N6BM	100	FT	\$0.84	\$84.00
Reynolds	Wire, Case, #6AWG. Red	N6RD	100	FT	\$0.84	\$84.00
Riotech	Recorder, RMD (includes 3' harness & wago strips)	RMD-IIXX	1	EA	\$4,068.75	\$4,068.75
Riotech	Bootleg Kit, Crossing complete, 1 Track		1	EA	\$362.25	\$362.25
Riotech	DTMF Controller		1	EA	\$2,938.95	\$2,938.95

Riotech	DIN Rail, 35mm x 2', Zinc-plated, w/end caps		1	EA	\$26.25	\$26.25
Riotech	Cable, 3' Cat6 Ethernet cable		1	EA	\$15.75	\$15.75
Riotech	DTMF Antenna Kit (Antenna, Polyphaser, Coax, Etc.)		1	EA	\$157.50	\$157.50
Riotech	Field Tag Kit		1	EA	\$262.50	\$262.50
Saft	Battery, SPL 250 Ni-Cad	SPL+250	10	EA	\$236.25	\$2,362.50
Saft	Battery, SPL 420 Ni-Cad	SPL+420	9	EA	\$409.50	\$3,685.50
Siemens	Test Nut wrench, 11"	032619-22X	1	EA	\$71.43	\$71.43
Siemens	Arrestor, Air Gap, With Cover	4000-44615-001X	4	EA	\$29.06	\$116.26
Siemens	Equalizer, Air Gap, with Cover/Hardware	4000-44700-001X	2	EA	\$26.85	\$53.70
Tessco Technologies	Antenna, 136-512 MHz Base Station Adapter Kit	36522	1	EA	\$49.92	\$49.92
Tessco Technologies	Antenna, 1/4 Wave, 152-162 MHz, Black	35951	1	EA	\$18.07	\$18.07
Tessco Technologies	LMR-240UF UltraFlex	40260	4	FT	\$1.25	\$5.00
Tessco Technologies	UHF Male Crip-RS8X, LMR24	33449	1	EA	\$5.21	\$5.21
Tessco Technologies	N Nale-RG8X, LMR240	36997	1	EA	\$13.14	\$13.14
Tessco Technologies	Dual Fitting-UHF Conn. On RG Cable with Heat Shrink	485797	1	EA	\$19.55	\$19.55
Tessco Technologies	LMR-240UF UltraFlex	40260	5	FT	\$1.25	\$6.25
Tessco Technologies	BNC Male Crimp-RG8X, LMR24	22462	1	EA	\$7.37	\$7.37
Tessco Technologies	N Male-RG8X, LMR 240	36997	1	EA	\$13.14	\$13.14
Tessco Technologies	Dual Fitting-RG Cable with Heat Shrink	434760	1	EA	\$12.69	\$12.69
Tessco Technologies	VHF Combiner Arrestor, N/F to N/F	433721	1	EA	\$147.05	\$147.05
Transportation Solutions	12" Red Led Crossing w/sidelights	RG6-RTFB-01BV3-H7	10	EA	\$157.50	\$1,575.00
Vantex	Tie-wrap, 11 1/2" (100 pk)	LTS11-0	2	EA	\$23.57	\$47.15
Vantex	Terminal, Ring, 1/4", insulated, #14 - #16, Blue (100 pk)	NB14	1	EA	\$33.76	\$33.76
Vantex	Terminal, Ring, 1/4" non-insulated, #6, Battery Lug	T6-14	70	EA	\$0.79	\$55.13
WCH	Mast, Gate, 18'X5" w/pigtail (single-sided Jct Box)	715-324-2-GS	2	EA	\$606.90	\$1,213.80
WCH	Jct box, Gate, 5" single (28 terminals & 1 1/2" flange)	2149-A-143	2	EA	\$485.10	\$970.20
WCH	Mech, Model 3597	3597-131-P-H-MI	2	EA	\$4,644.15	\$9,288.30
WCH	Crossarm Assy, 5" Mtg., 2 Way	975-0804-5	2	EA	\$767.55	\$1,535.10
WCH	Crossarm Assy, 5" Mtg., 1 Way Front	975-0804-X-5	1	EA	\$412.65	\$412.65
WCH	Supporting bracket & Dowel Mast assy	3565-267-5	1	EA	\$404.25	\$404.25
WCH	Counterweight Pkg, 17'-32', Stud plate, L&R arms	CTWT-AL-32	2	EA	\$1,503.60	\$3,007.20
WCH	Wrench, Torque (KIT)	3590-K-9	1	EA	\$200.55	\$200.55
Wilson Elec	Antenna, 4G Omni Plus Directional Kit	304422-5810	1	EA	\$105.00	\$105.00
					TOTAL	\$113,561.67

Crosier Industrial Construction Ltd

8938 Peck Rd
Ravenna, Ohio 44266
Ph (330) 592-3082
trailnrnrbob@hotmail.com

Crosier Industrial Construction, LLC		Date		9-May-22	
Project Cost Estimate		Invoice Number		TBD	
Project: Stewart Road		Work Auth:		WLE Tim Andrews	
		Rate/Hr	Hours	Total	
Equipment Operator (backhoe, excavator)	ST	\$ 28.00	84	\$ 2,352.00	
	OT	\$ 40.50		\$ -	
Laborer, skilled	ST	\$22.00	84	\$ 1,848.00	
	OT	\$31.50		\$ -	
Project Manager		\$50.00	84	\$ 4,200.00	
Administrative		\$30.00	1	\$ 30.00	
Sub-Total				\$ 8,430.00	
G&A Burden for Labor				\$ 5,058.00	
Total Labor				\$ 13,488.00	
EQUIPMENT		Rate/hr	Hours	Total	
E-55		\$ 47.50	70	\$ 3,325.00	
E-32		\$ 33.90		\$ -	
Dump Truck		\$ 43.20	24	\$ 1,036.80	
Directional Drill		\$ 67.50	12	\$ 810.00	
Digger Derrick		\$ 58.24	8	\$ 465.92	
Truck		\$ 25.60	84	\$ 2,150.40	
Trailer		\$ 6.00		\$ -	
HydroTamper		\$ 18.00		\$ -	
Tamper		\$ 5.00	6	\$ 30.00	
Traffic cones		\$ 0.15	84	\$ 12.60	
Traffic signs		\$ 0.25	84	\$ 21.00	
Total Equipment				\$ 7,851.72	
MATERIALS		Quantity	Price/Each	Total	
4" pvc conduit		220	\$ 11.00	\$ 2,420.00	
4" sweep		6	\$ 49.00	\$ 294.00	
4" 45 degree		2	\$ 30.00	\$ 60.00	
4" coup		10	\$ 4.85	\$ 48.50	
2" pvc conduit		100	\$ 4.00	\$ 400.00	
2" sweep		3	\$ 32.95	\$ 98.85	
2" 45 degree		4	\$ 4.50	\$ 18.00	
PVC cement		1	\$ 20.00	\$ 20.00	
Pull rope		330	\$ 0.15	\$ 49.50	
Ground Rods		2	\$ 19.00	\$ 38.00	
Pull Box	17 x 30 x 18	2	\$ 450.00	\$ 900.00	
Total material				\$ 4,346.85	
Job sub-total				\$ 25,686.57	
Profit Addition				10% \$ 2,568.66	
AC Pole				\$ 3,500.00	
TOTAL PROJECT EST				\$ 31,755.23	

\$13,488.00
\$7,851.72
\$4,346.85
\$25,686.57

Scope of Work:
2/15/22: Set AC pole

Terms for Invoices are Net 30 days. Thank you.

Crosier Industrial Construction Ltd

8938 Peck Rd
Ravenna, Ohio 44266

Ph (330) 592-3082

trailmrbob@hotmail.com

- 4/2/22: Measure and lay out for new crossing. Excavate and install new temp 3c/9 cable from new AC pole to flasher case. Backfill. Excavate and begin assembling berm wall.**
- 4/11/22: Complete berm wall installation. Backfill around wall.**
- 4/12/22: Excavate and install far foundation. Install conduit under tracks. Backfill and tamp.**
- 4/13/22: Bore road and pull back 5" conduit**
- 4/18/22: Excavate and install all conduit on far side. Backfill and tamp.**
Excavate and install AC, track wire and 5" conduit to bungalow pull box location. Backfill/tamp.
Spread and tamp gravel. Haul one load gravel.
- 4/19/22: Excavate and install far pull box. Backfill with gravel and tamp. Spread and tamp gravel.**
Haul 4 loads of limestone.
- 4/20/22: Remove existing near side flasher and foundation. Excavate for new gate foundation and conduit.**
Reinstall flasher and foundation. Backfill and tamp. Spread and tamp gravel. Haul 4 loads of gravel.
- 4/21/22: Place bungalow pull box. Spread and tamp gravel. Haul 4 loads of gravel.**
- 4/22/22: Install safety railing. Place pull rope and ground rods. Spread and tamp gravel. Haul 2 loads of gravel.**
- 4/25/22: Spread and tamp gravel. Finish grade. Haul 4 loads of gravel.**

Other responsibilities as needed:

- * Coordinate delivery of fill material.
- * Transport foundations, conduit, pull box to site
- * Remove spoils and debris
- * Supply and erect traffic control devices for work zone safety
- * Call Ohio Utility Protection Service as required by Ohio Law
- * Establish Railroad Roadway Worker Protection daily to comply with Federal Regulation



Rail Development Commission

Mike DeWine, Governor
Jon Husted, Lt. Governor

Scott Corbitt, Chair

February 28, 2022

Mr. Tim Andrews
Wheeling & Lake Erie Railway
100 East First Street
Brewster, Ohio 44613

RE: Grade Crossing Warning Device Improvements
Lorain County, TR41/Stewart Rd. DOT#002-030Y, PID#116119

Dear Mr. Andrews:

A diagnostic review was held at the above grade crossing on August 24, 2021. The crossing has been recommended for the installation of flashing lights and roadway gates.

Wheeling & Lake Erie 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 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 James Tucker. James can be reached at (614) 398-6897, or james.tucker@dot.ohio.gov, if you have any questions.

Sincerely,

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
Jennifer French, Chair

Commissioners

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

December 13, 2021

Wheeling & Lake Erie Railroad
Mr. Tim Andrews
Signals & Communications Supervisor
100 E. First Street
Brewster, Ohio 44613

Re: Lorain County, TR 41/Stewart Road,
DOT#002-030Y, hereinafter referred to as the
"Project"

Dear Mr. Andrews:

The Public Utilities Commission of Ohio (PUCO) has identified and the Ohio Rail Development Commission (ORDC) surveyed, on August 24, 2021, 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 Master Warning Devices Agreement No. 0001-A, dated September 17, 1990, & Reconstruction Agreement #6781, dated February 10, 1992, and entered into by the State of Ohio and Wheeling & Lake Erie 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.

Page 2 of 2
TR 41/Stewart Road
Lorain County
Wheeling & Lake Erie Railroad

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, Chief, Rail Division, Public Utilities Commission of Ohio, 180 E. Broad Street, Columbus, Ohio 43215-3793 or by e-mail at jill.henry@puo.ohio.gov.

Sincerely,



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



Matthew Dietrich
Executive Director
Ohio Rail Development Commission

Wheeling & Lake Erie Railroad

By TEA

Title SAC Supervisor

Date 12-14-21

12/15/2021
Date _____

TR 41 / Stewart Road (DOT #002030Y), Huntington Township, Lorain County, Wheeling & Lake Erie
8/24/2021

Crossing at a glance: 002030Y

ORDC Notes:

Please Sign In

James Tucker	Project Manager	ORDC
Name	Title	Organization
614-398-6897	james.tucker@dot.ohio.gov	
Phone Number	Email	Signature
John Hatfield	Maintainer	Wheeling & Lake Erie
Name	Title	Organization
	Phone Number	Email
Randy Johr	Inspector	PUCO
Name	Title	Organization
	Phone Number	Email
Robert Holmes	Trustee	Huntington Twp.
Name	Title	Organization
	Phone Number	Email
Jed Lamb	Trustee	Huntington Twp.
Name	Title	Organization
	Phone Number	Email
Walter Rollin	Trustee	Huntington Twp.
Name	Title	Organization
	Phone Number	Email
		X Signature
Name	Title	Organization
	Phone Number	Email
		Signature
Name	Title	Organization
	Phone Number	Email
		Signature

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

Date: 8/24/2021

Location Data			
Street or Road Name:		Stewart Road / TR 41	
County:	Lorain	Township:	Huntington Twp.
		US DOT No.:	002030Y
City (in or near):	Rochester	Railroad Name:	WE
		RR Milepost:	117.8
Safety Data (Obtain crash reports, if possible)			
	Initial Information (from database)		Revised
Number & dates of vehicle crashes in previous 5 years:	n/a		
Number & dates of pedestrian/bicycle crashes in previous 5 years:	n/a		
Hazard Ranking:	1559	Date Run:	07/06/2021

Existing Traffic Control Devices		
Type of Warning Devices	Installed?	Quantity/Comments
HIGHWAY		
Advance Warning Signs (condition?)	☒ Yes ☐ No	2 - Good
'Stop' Signs	☐ Yes ☒ No	
'Stop Ahead' Signs	☒ Yes ☒ No	2 - Good
Pavement Markings (condition?)	☐ Yes ☒ No	Gave LHA PUCO Grant Paper
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	2 - Good
Crossbucks – assembly with Stop	☒ Yes ☐ No	2 - Good
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 DataType of Train: ☒ Freight ☐ Intercity Passenger ☐ Transit ☐ Shared Use Transit ☐ Commuter ☐ Tourist/Other

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	6	7
<1 per day? Trains per week		
Day thru trains	3	4
Night thru trains	3	
Switching		
Total number of tracks		
Number of main tracks	1	
Number of other tracks		
Maximum train speed	40 mph	ok
Typical train speed	30 - 40 mph	
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 ☒ NoCan one train block the motorists' view of another train at the crossing? ☐ Yes (explain below) ☒ NoCan one or more tracks be eliminated through the crossings? ☐ Yes ☒ No

Comments:

Circuitry: ☐ Constant Warning Time ☐ Motion Detection ☐ AFO ☐ PTC ☐ DC ☐ Other _____

Roadway Data		
Local Highway Authority: Huntington Twp.		
Roadway Characteristics	Initial Information (from database)	Revised
Average Daily Traffic	277 (2013)	
Highway Paved	☒ Yes ☐ No	☐ Yes ☐ No
Roadway Surface: ☒ Blacktop ☐ Gravel ☐ Concrete Other _____		
Roadway width (paved/travelled way): <u>20</u> ft		
Number of Highway Lanes	2	
Urban or Rural	rural	
Vehicle Speed: _____ MPH		55mph
School Bus Operation: ☒ Yes ☒ No Amount <u>4</u> LHA confirmed		
Location of nearby schools:		
Hazardous Materials Trucks: ☐ Yes ☒ No Amount (from FRA) _____ 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		
Crossing Angle ☒ 0-29° ☐ 30-59° ☐ 60-90° Measured in _____ Quadrant?		
Quadrant <u>NE</u> Curb & Gutter:	Quadrant <u>SW</u> 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)	Lorain Medina Rural Electric
Nearest Available Power Source	@ 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 is new

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? SW

Potential Red Flags / Project Challenges

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

N/A

Crossing Consolidation or Closure:

N/A

Real Estate or ROW:

private drive in SE Quad appears to be on RR R.O.W
RR = 47' South and 33' North

Culvert / Drainage / Ballast Conditions:

mod in Ballast

Roadway and/or Sidewalks:

N/A

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

greaser located near crossing
overlap with SR58 circuitry

Environmental:

N/A

Utilities:

N/A

Other:

Potential Closure

Is it the consensus of the Diagnostic Review Team that this is a potential closure project?

NO

Explain reasons: LHA WAS NOT INTERESTED.

Diagnostic Team Recommendations

☐ No improvements needed	Quadrants Needed
☒ Install/upgrade active devices	
☐ Automatic Flashing Lights (AFLS)	
☐ AFLS / Cants	
☒ AFLS / Gates	NE + SW Quads
☐ AFLS / Gates / Cants	
☒ Bells / number	1 - Bell
☐ Upgrade circuitry / type	
☐ Sidelights	
☒ LED Upgrades	12" LED
☐ Guardrail Needed	
☐ Install/Replace curb	
☒ Bungalow placement & offset from rail & highway	TBD
☒ Other (define)	
Comments: DRIVE in SW Quad needs to be addressed between the RR and home owner.	
☐ Install/upgrade traffic signal preemption	
Other (define): I gave the LHA the POCO Grant paper to help with adding pavement markings.	

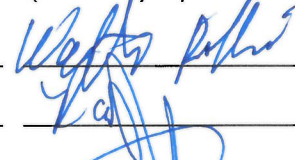
Diagnostic Team Recommendations (cont.)

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):


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). 22-0708-RR-FED

Summary: Application In the Matter of a Request for the Installation of Active Warning Devices at the Wheeling & Lake Erie Railroad Grade Crossing, DOT# 002-030Y at TR 41/Stewart Road in Lorain County, Ohio. electronically filed by Mr. Thomas Persinger on behalf of PUCO/Rail Division