

Memo

To: Docketing Division
From: Jill Henry, Rail Specialist, Rail Division
Cc: PUCO Legal Department
Date: 11/21/16



Re: PUCO Case No. 16-2202-RR-FED- In the Matter of a Request for Installation of Active Warning Devices at the Wheeling & Lake Erie Railway Crossing, DOT# 001-962S, Scott Road in Crawford County, Ohio.

On November 2, 2016, the Ohio Rail Development Commission (ORDC) authorized funding for Wheeling & Lake Erie Railway to install active warning devices at the Scott Road, DOT#001-962S, grade crossing in Crawford County, Ohio. The crossing was surveyed on March 20, 2016 and was found to warrant the upgrade. The electric utility provider for this crossing is North Central 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 \$230,699.24 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:

Wheeling & Lake Erie Railway
Tim Andrews
Signals & Communications Supervisor
100 East First Street
Brewster, Ohio 44613

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

Crawford County Engineer
Mark Baker
815 Whetstone Street
Bucyrus, Ohio 44820

North Central Electric Cooperative

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

TO: Jill Henry, Rail Division, PUCO
FROM: Cathy Stout, Manager, Safety Section, ORDC
BY: Joe Reinhardt, Project Manager, ORDC
SUBJECT: Crawford County, Scott Road, WLE
DOT 001962S, PID 103090
DATE: November 2, 2016

The Ohio Railroad Development Commission established a diagnostic survey at the subject location on Scott Road. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. Copies of the diagnostic review form and the plan and estimate are attached.

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

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

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

Thank you for your assistance with these matters.

Attachment: Diagnostic Review
Plan & Estimate

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



OHIO RAIL DEVELOPMENT COMMISSION

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

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

November 2, 2016

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

RE: Crawford County, Scott Road
DOT 001962S, PID# 103090

Dear Mr. Andrews:

The plan and estimate dated October 4, 2016, for the referenced project has been reviewed and is acceptable. 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 \$230,699.24. 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 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 Joseph Reinhardt, ORDC, email joe.reinhardt@dot.state.oh.us and to the Public Utilities Commission of Ohio at George.martin@puc.state.oh.us. 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.
3. WLE's project foremen will notify Joe Reinhardt at joe.reinhardt@dot.state.oh.us (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 will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

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.

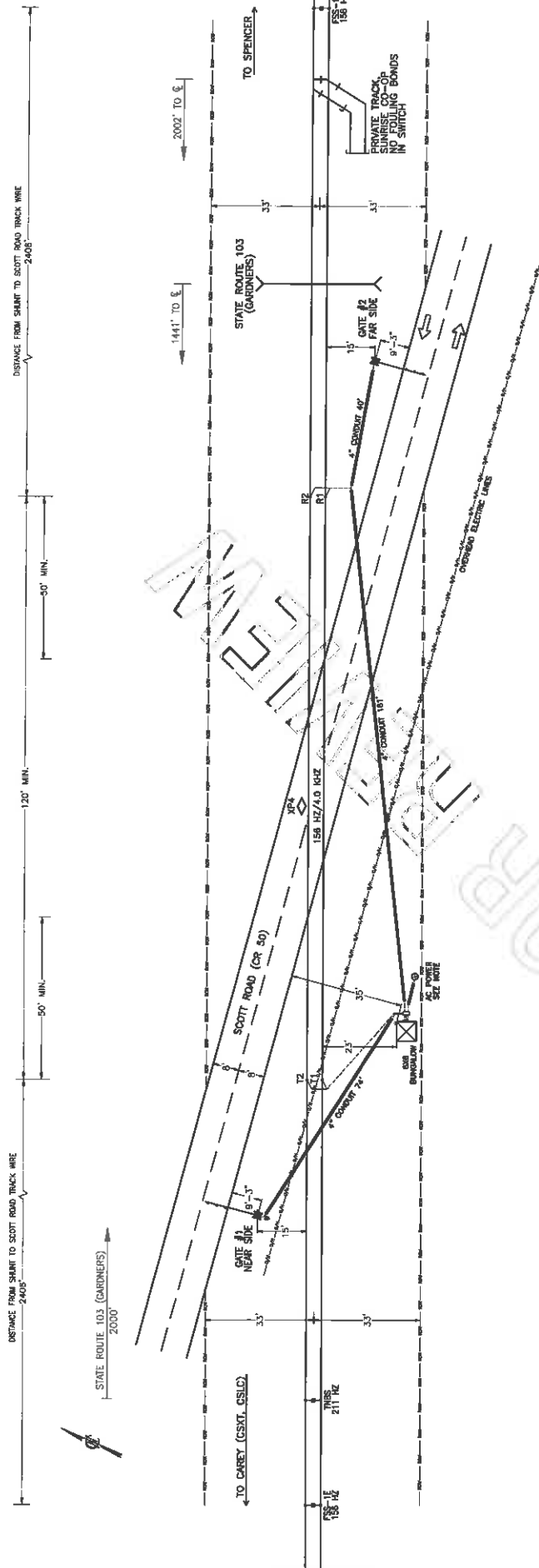
Thank you for your assistance with these matters.

Sincerely,



Joseph Reinhardt
Project Manager

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



SIGNALS:

ALL LIGHTS TO BE LED.
DATE 11-17
DATE 12-17

APPROACH AND WARNING TIME CALCULATION	TRACK
MINIMUM TIME:	20 SEC.
PLUS CLEARANCE TIME	11 SEC.
MINIMUM TIME (MRT)	31 SEC.
PLUS BUFFER TIME	5 SEC.
TOTAL WARNING TIME (TW)	36 SEC.
PLUS EQUIPMENT RESPONSE TIME	5 SEC.
PLUS ADVANCE PRE-EJECTION TIME	N/A
TOTAL APPROACH TIME (AT)	41 SEC.
MAXIMUM TRAIN SPEED	40 MPH
TIME RATIO OF FT/SEC TO MPH	1.4667
TOTAL (MINIMUM) APPROACH DISTANCE	2406 FT.

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2761 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

□ = PULL BOX
--- = OVER HEAD LINE

LOCATION: SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

ORIGINAL DATE	09-06-18	TITLE	SITE LAYOUT
DESIGNER	CTC	BY	CAREY
CHECKED	CTC	DATE	09-06-18
DATE	09-06-18	SCALE	1"=30'
PROJECT	001 9525	SHEET	01 OF 20

REGION
BLOCK

CONSTRUCTION NOTES

- 1.) INSTALL NEW 6' X 6' BUNGALOW IN SOUTHWEST QUADRANT.
- 2.) INSTALL (2) NEW FLASHING LIGHTS WITH GATES.
- 3.) 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.
- 4.) BUNGALOW LOCATION SHOWN ON THE PLAN IS SUBJECT TO CHANGE WITHIN RAILROAD RIGHT-OF-WAY IF UNDERGROUND OBSTRUCTIONS PREVENT THE INSTALLATION OF THE BUNGALOW IN THE LOCATION SHOWN.

FOR REVIEW

W&LE		Wheeling & Lake Erie Railway	
LOCATION		SCOTT ROAD (CR 50) CRAWFORD COUNTY, OHIO	
PROJECT DATE	09/08/2015	TYPE	CONSTRUCTION NOTES
DRAWN	CTC	BY	CAREY
CHECKED	CTC	DATE	08/11/15
PROJECT	CTC	JOB NO.	001-9625
REVISION BLOCK		NO.	01A OF 21

CROSSING SIGNAL ALIGNMENT

LEGEND

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



ALIGNMENT

FRONT LIGHTS
ADJUST LIGHT UNIT VERTICALLY TO ALIGN AXIS OF BEAM 5 FT. 8 IN. 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. 8 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.

W&LE
Wheeling & Lake Erie
Railroad

LOCATION

SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

CROSSING DATE	09/04/2018	FILE	CROSSING SIGNAL ALIGNMENT
DESIGNER	CTC	BY	CAREY
REVIEWER	CTC	DATE	08.11
CHECKED	CTC	BY	001-9523
		SHEET	02 OF 21

REVISION
BLOCK

1.) CROSSING IS LOCATED: LATITUDE 40.9818918
LONGITUDE -82.7484418

THIS SIDE FACING-
ROADWAY

**Wheeling & Lake Erie
Railway**

SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

LOCATION

DATE: 09/08/2016

TIME: 10:00

BY: J. CAREY

FOR: N.T.S.

SHEET: 03 OF 21

W&LE

REVISION BLOCK

THIS SIDE FACING ROADWAY

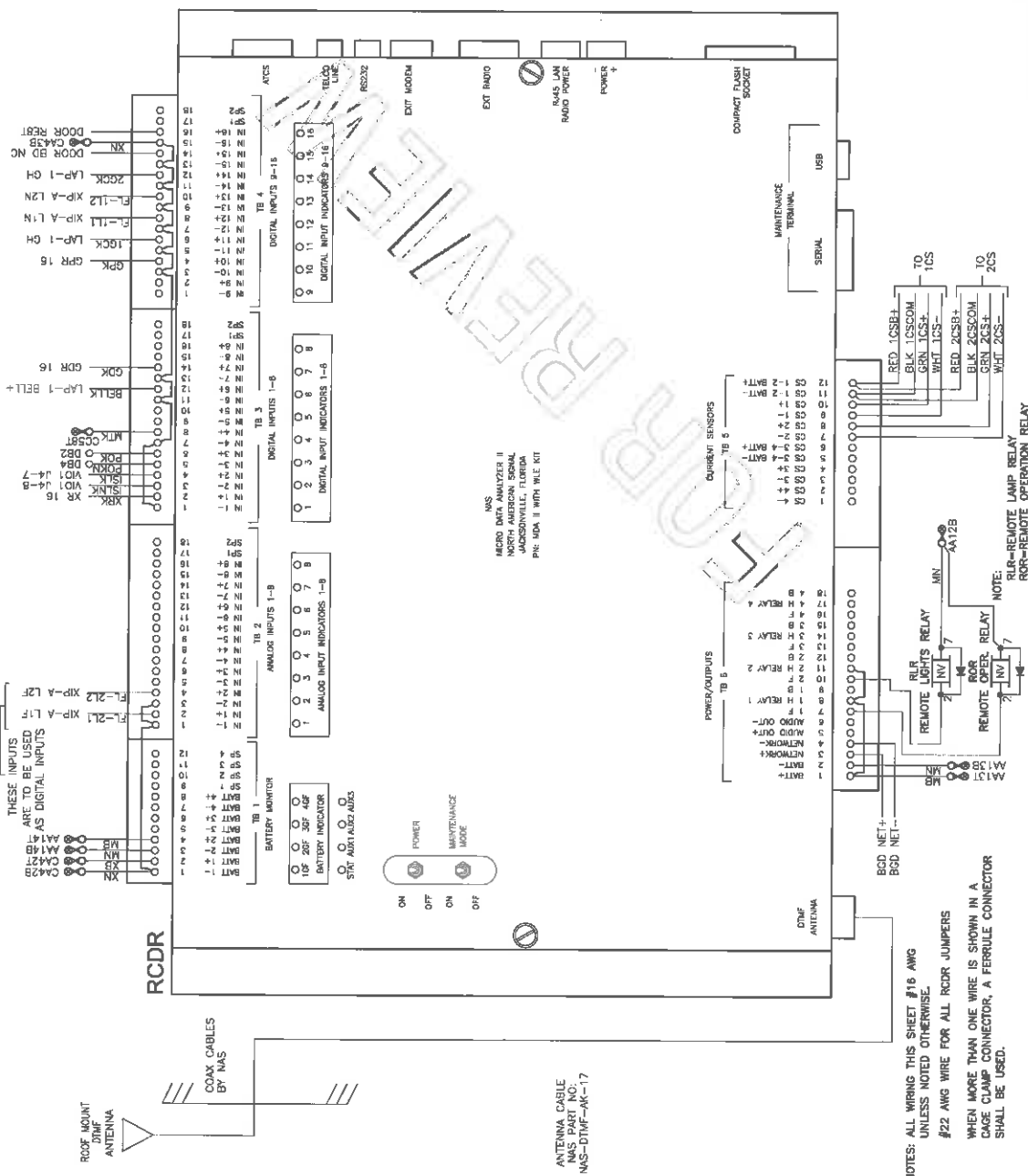
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3	09/08/2016	J. CAREY	10:00	
4	09/08/2016	J. CAREY	10:00	
5	09/08/2016	J. CAREY	10:00	
6	09/08/2016	J. CAREY	10:00	
7	09/08/2016	J. CAREY	10:00	
8	09/08/2016	J. CAREY	10:00	
9	09/08/2016	J. CAREY	10:00	
10	09/08/2016	J. CAREY	10:00	
11	09/08/2016	J. CAREY	10:00	
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66	09/08/2016	J. CAREY	10:00	
67	09/08/2016			

APPLICATION SOFTWARE INFORMATION			
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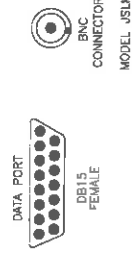
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● = TAB PUNCHED OUT

EXECUTIVE INFORMATION			
VPM-3	VERSION	PART NUMBER	CROSSING SOFTWARE
083024-716			

ADJUSTMENT NAME	MDR1		HIGHWAY CROSSING		MDR2		HIGHWAY CROSSING	
WARNING TIME	35 SEC		35 SEC		35 SEC		35 SEC	
CH/MD	CW		CW		CW		CW	
AP TIME	00 SEC		00 SEC		00 SEC		00 SEC	
CWE-WT	00 SEC		00 SEC		00 SEC		00 SEC	
AUX RECOVERY DELAY	05 SEC		05 SEC		05 SEC		05 SEC	
TRACK ASSIGNED	TK1	TK2	TK3	TK4	TK5	TK6	TK7	TK8
OFFSET: DISTANCE	ASSIGN	ASSIGN	ASSIGN	ASSIGN	ASSIGN	ASSIGN	ASSIGN	ASSIGN
MD RESTART	0 FT	0 FT	0 FT	0 FT	0 FT	0 FT	0 FT	0 FT
SUDDEN SHUNT ZONE	*	*	*	*	*	*	*	*
POSITIVE	PSEN	PSEN	PSEN	PSEN	PSEN	PSEN	PSEN	PSEN
START	PSRX	PSRX	PSRX	PSRX	PSRX	PSRX	PSRX	PSRX
	PST	PST	PST	PST	PST	PST	PST	PST
POST JOINT	PJEN	PJEN	PJEN	PJEN	PJEN	PJEN	PJEN	PJEN
PURX	PJRX	PJRX	PJRX	PJRX	PJRX	PJRX	PJRX	PJRX
DETECT	FJDT	FJDT	FJDT	FJDT	FJDT	FJDT	FJDT	FJDT



VHF ACTIVATION CODES:
LIGHTS ON = 9621#
LIGHTS OFF = 9621*
GATES DOWN = 962#
GATES UP = 962*



DTMF RADIO
FRONT VIEW

Amtrak Railway

SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

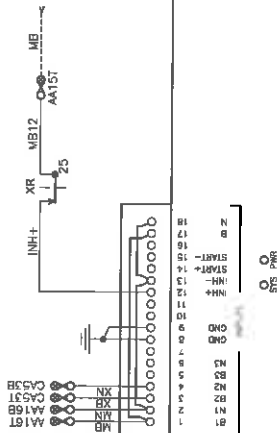
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DESIGNER	CTC	SUB	CAREY
DRAWN	CTC	ROOM	BB.81
CHECKER	CTC	FOOT NO.	001-952S
		CIE NO.	CN16160
		SCALE	N.T.S.
		SHEET	08 OF 21

REVISION
BLOCK

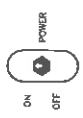
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UNLESS NOTED OTHERWISE

#22 AWG WIRE FOR ALL RCDR JUMPERS

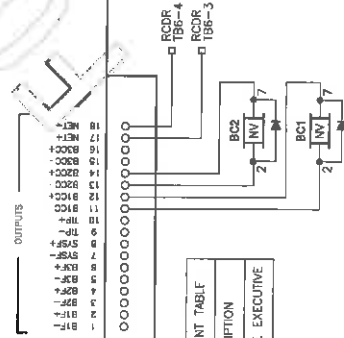
WHEN MORE THAN ONE WIRE IS SHOWN IN A
CLAMP CONNECTOR, A FERRULE CONNECTOR
SHALL BE USED.



BGD



NAS
BATTERY GROUND DETECTOR
CIRCUITRY
JACKSONVILLE, FLORIDA



NAS CONTROLLER SOFTWARE CONFIGURATION MANAGEMENT TABLE			
APPLICATION	FILE NAME	DATE	DESCRIPTION
GFD EXEC	XXX	XX/XX/XXXX	GFD MODULE EXECUTIVE

NOTES: ALL WIRING THIS SHEET #18 AWG
UNLESS NOTED OTHERWISE.
#22 AWG WIRE FOR ALL RCOR JUMPERS
WHEN MORE THAN ONE WIRE IS SHOWN IN A
CAGE CLAMP CONNECTOR, A FERRULE CONNECTOR
SHALL BE USED.

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(2 MA)

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(12 HOURS)

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(12 HOURS)

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(12 HOURS)

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(12 HOURS)

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(12 HOURS)

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

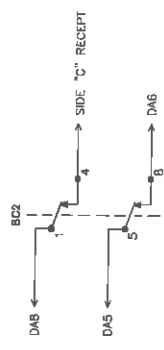
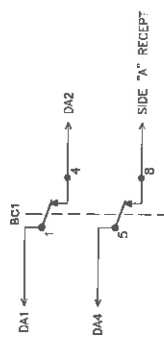
(12 HOURS)

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(12 HOURS)

SW1 CURRENT 1/10 MA



W&L
Wheeling & Lake Erie
Railway

LOCATION
SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

REVISION	DATE	BY	CHK'D	DATE
01	09/05/2013	W&L	W&L	09/05/2013
02	09/05/2013	W&L	W&L	09/05/2013
03	09/05/2013	W&L	W&L	09/05/2013
04	09/05/2013	W&L	W&L	09/05/2013
05	09/05/2013	W&L	W&L	09/05/2013
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78	09/05/2013	W&L	W&L	09/05/2013
79	09/05/2013	W&L	W&L	09/05/2013
80	09/05/2013	W&L	W&L	09/05/2013
81	09/05/2013	W&L	W&L	09/05/2013
82	09/05/2013	W&L	W&L	09/05/2013
83	09/05/2013	W&L	W&L	09/05/2013
84	09/05/2013	W&L	W&L	09/05/2013
85	09/05/2013	W&L	W&L	09/05/2013
86	09/05/2013	W&L	W&L	09/05/2013
87	09/05/2013	W&L	W&L	09/05/2013
88	09/05/2013	W&L	W&L	09/05/2013
89	09/05/2013	W&L	W&L	09/05/2013
90	09/05/2013	W&L	W&L	09/05/2013
91	09/05/2013	W&L	W&L	09/05/2013
92	09/05/2013	W&L	W&L	09/05/2013
93	09/05/2013	W&L	W&L	09/05/2013
94	09/05/2013	W&L	W&L	09/05/2013
95	09/05/2013	W&L	W&L	09/05/2013
96	09/05/2013	W&L	W&L	09/05/2013
97	09/05/2013	W&L	W&L	09/05/2013
98	09/05/2013	W&L	W&L	09/05/2013
99	09/05/2013	W&L	W&L	09/05/2013
100	09/05/2013	W&L	W&L	09/05/2013



SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

ORIGINAL DATE	08/08/2018	FILE	LAP-G-1
DISCOUNTER	CIC	PUH	CAREY
DISPATCH	CIC	WSP	89.81
CHECKER	CIC	DOO NO	501-962S
			10 OF 21

[illegible]

 - INSULATED NUT

NOTES:

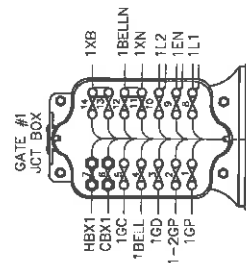
* BELL TO BE ELECTRONIC.

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

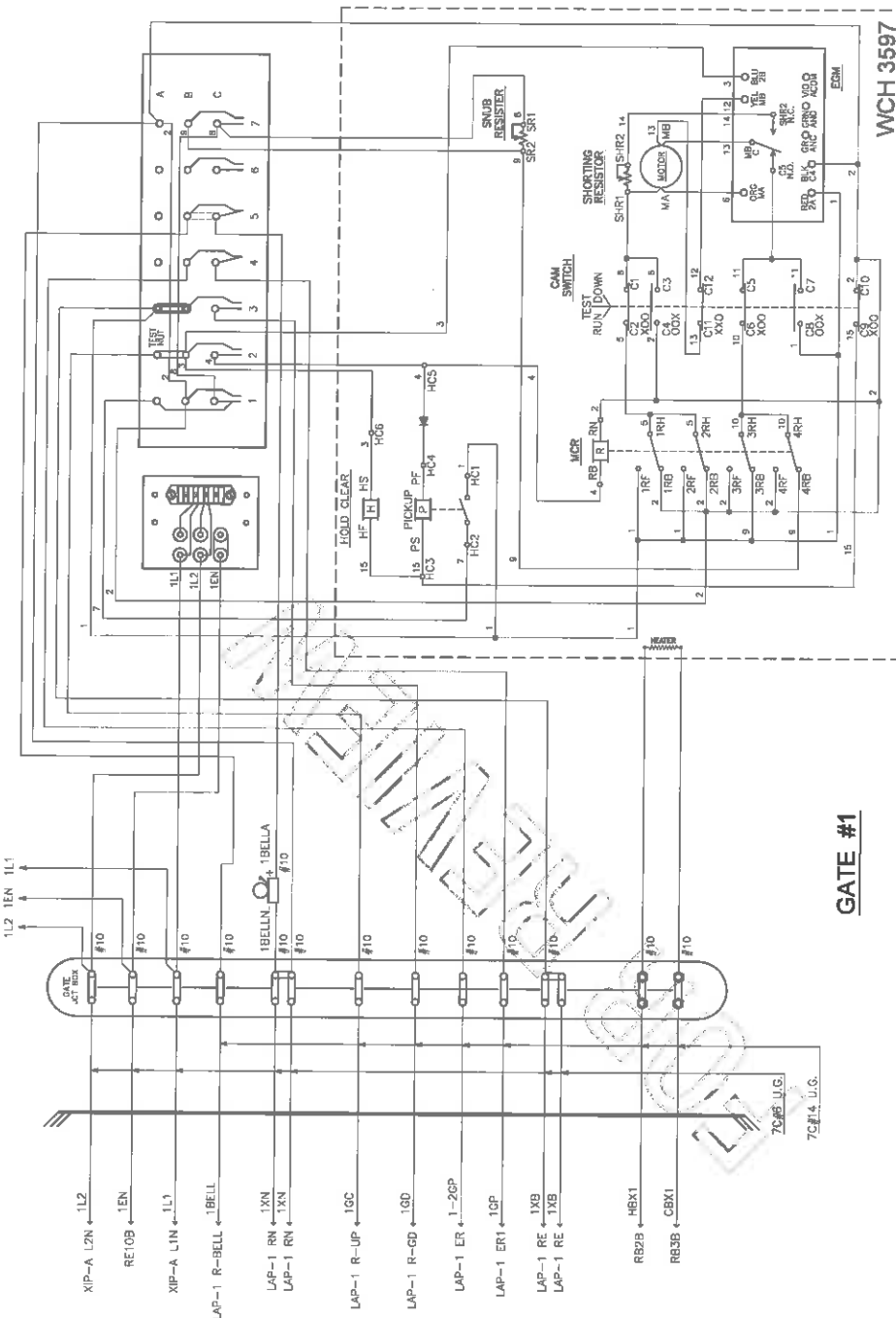
ADD STRAP FROM:

ADD SIMP
3A TO 3B



-----> CABLES TO HOUSE

TO MAST MOUNTED FLASHERS
(SHEET 13 FOR DETAILS)



GATE #1

WCH 3597

Amey Whooly & Lark Ltd

W78A

LOCATION:

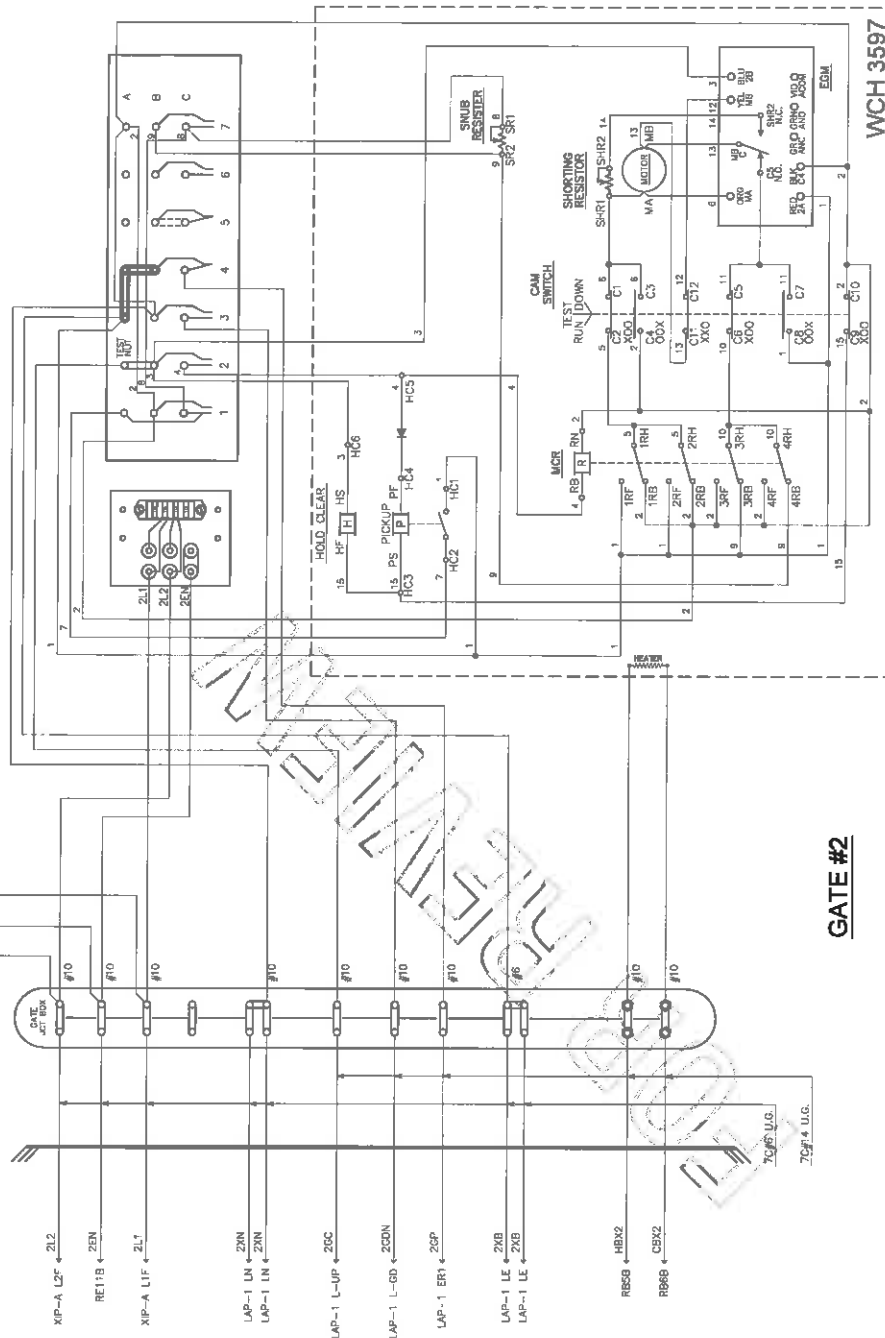
SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

CHANGE FROM TYPICAL: N

ORIGINAL DATE	09/06/2016	WILL	GATE #1 MECHANISM (NEAR SIDE)
DRIVER	CTC	SUR	CAREY
TRUCKMAN	CTC	RRUP	88.81
CHUCKER	CTC	DOJ NO.	001-9625
			12 OF 21

REVISION
BLOCK

TO MOUNTED FLASHERS
(SHEET 15 FOR DETAILS)
2L2 2EN 2L1



GATE #2

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:

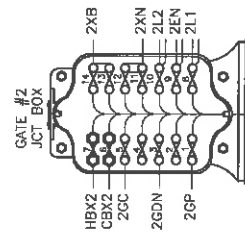
○ = INSULATED NUT

NOTES:

* BELL TO BE ELECTRONIC.
X → INTERNAL GATE WIRES THAT SHARE ELECTRICAL CONNECTIONS WITH OTHER WIRES THAT ARE ASSIGNED THE SAME NUMBER.

REFER TO SHEET 15 FOR GATE ARM LIGHT WIRING

ADD STRAP FROM:
3A TO 4A AND 4A TO 4B



CABLES TO HOUSE

REVISION
BLOCK

CHANGE FROM TYPICAL Y

W&LE

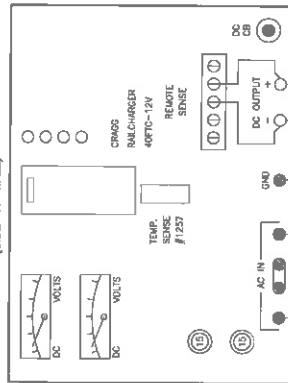
LOCUS 80

**Wheeling & Lake Erie
Railway**

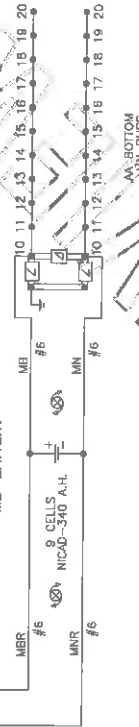
SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

ORIGINAL DATE 09/08/2016	FILE	GATE #2 MECHANISM (FAR SIDE)
DESIGNER C.T.C.	BY CAREY	DATE 01/15/10
DRAWN BY C.T.C.	BY B.B.1	DATE N.T.S.
CHECKED BY C.T.C.	BY 001-8525	DATE 14 21

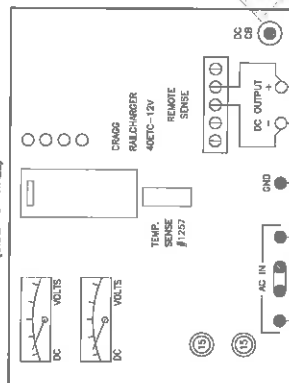
MB-CHARGER (SIDE "A" WALL)



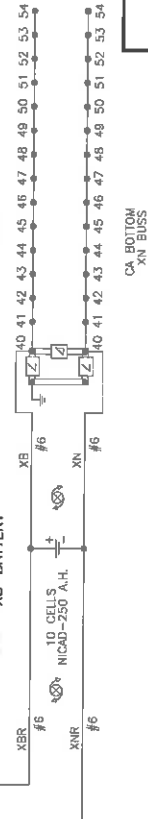
MB-BATTERY



XB-CHARGER (SIDE "C" WALL)



XB-BATTERY



BATTERY BUSS DETAILS

20	VI01 J3-5
19	VI01 J3-2
18	VI01 J3-11
17	PO DB3
16	PO DB1
15	PO DB3
14	SPARE
13	RCDR TB1-3
12	RCDR TB6-2
11	RCDR TB6-1
10	RCDR TB6-2
9	RCDR TB6-1
8	RCDR TB6-2
7	RCDR TB6-1
6	RCDR TB6-2
5	RCDR TB6-1
4	RCDR TB6-2
3	RCDR TB6-1
2	RCDR TB6-2
1	RCDR TB6-1
0	RCDR TB6-2

AA
MN BUSS
(BOTTOM)

MB BUSS
(TOP)

BATTERY BUSS DETAILS

54	SPARE
53	BOD K2
52	SPARE
51	LAP-1 N
50	LAP-1 N
49	LAP-1 N
48	LAP-1 N
47	LAP-1 N
46	LAP-1 N
45	LAP-1 N
44	LAP-1 N
43	LAP-1 N
42	LAP-1 N
41	LAP-1 N
40	LAP-1 N

CA
XN BUSS
(BOTTOM)

XB BUSS
(TOP)

W&L

**Whooling & Laidley
Railway**

LOCATION

SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

DATE	09/05/2018	TIME	11:00	BY	BATTERY CHARGER
DESIGNED	CTC	CHECKED	CTC	DATE	09/05/2018
DRAWN	CTC	SCALE	1"=2'	SHEET	16 OF 21

REVISION
BLOCK

CHANGE FROM TYPICAL Y

BACK OF RIGHT SIDE

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

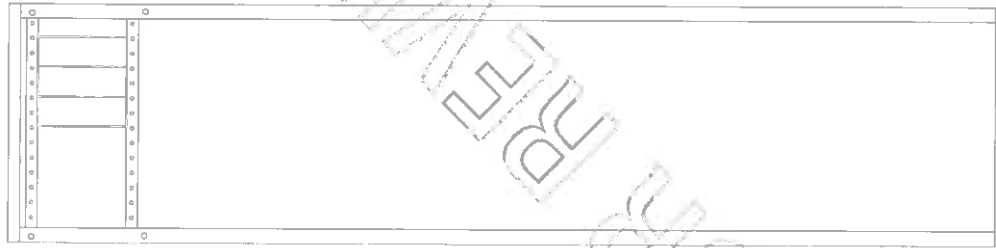
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

100 ohm

GND

BACK OF LEFT SIDE

BACK OF LEFT SIDE



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

SIDE 'B' BACK

CHANGE FROM TYPICAL: Y

REVISION
BLOCK

318M

**Whoolley & Laro Eto
Railway**

LOCATION:

SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

ORIGINAL DATE	09/06/2016	TITLE	RACK BACK VIEW
---------------	------------	-------	----------------

DESIGNER	CTC	SUB	CAREY
09/06/2016		RACK	

CRAP-15000	CTC	RRAP	88.81
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CHECKER	CTC	DOI NO. 001-9625
---------	-----	------------------

BACK VIEW

7000

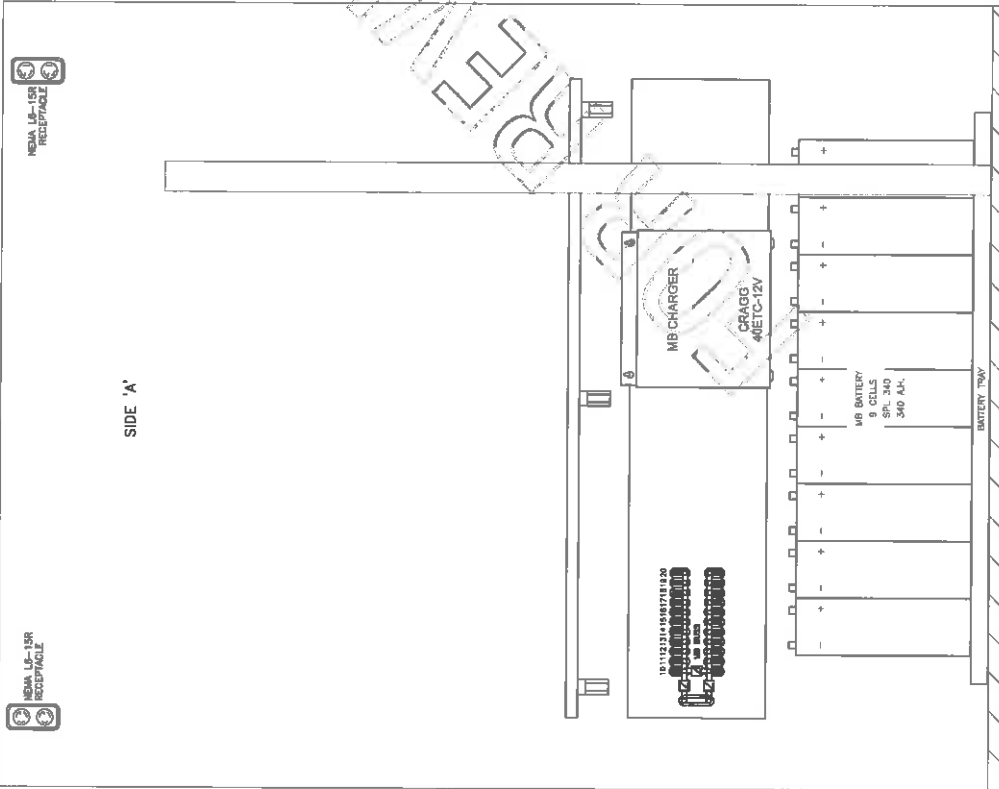
S29 SHEET

5112/1000

1"=2'

09191N3

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65



SIDE 'A'

AD

AC

NOT FOR CONSTRUCTION

W&L

**Wheeling & Lake Erie
Railway**

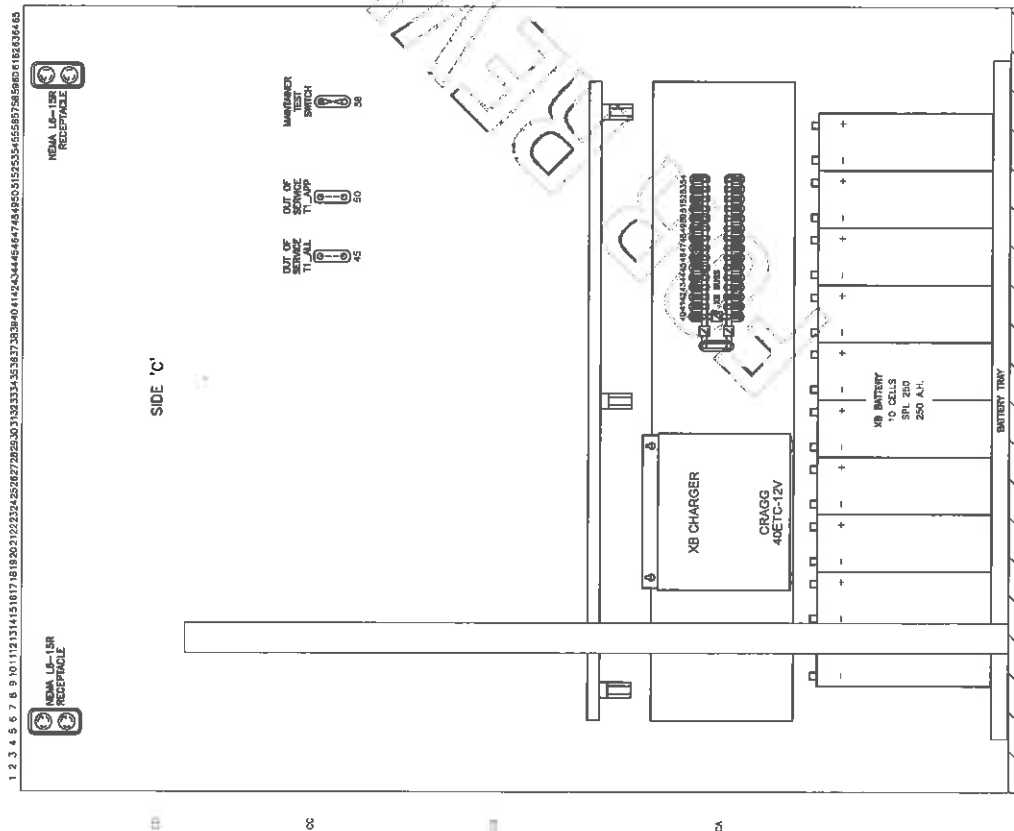
LOCATION

SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

DATE	09/09/2018	TITLE	SIDE "A"
DESIGNED BY	CTC	CAREY	
CHECKED BY	CTC	W&L	CR16160
PROJECT NO.	001-9623	SCALE	1"=2'
SHEET	20	OF	21

CHANGE FROM TYPICAL N

REVISION
BLOCK



NOTE:

P.O.I. MOUNTED ON SIDE OF HOUSE
PARALLEL TO TRACK

6' X 6' ALUMINUM
BUNGALOW
PTMW PN:91000584 C

SIDE "B"

SIDE "A"
THIS SIDE TO FIELD



NEMA L6-15R
RECEPTACLE

OUT OF SERVICE T1_ALL		45
OUT OF SERVICE T1_APP		50
MAINTENANCE TEST SWITCH		59

104542434245416748495051525354

XB BATTERY
10 CELLS
SPL 250
250 A.H.

BATTERY TRAY	
--------------	--

Whoolley & Loke Ltd
Railway

LOCATION

SCOTT ROAD (CR 50)
CRAWFORD COUNTY, OHIO

3784

[illegible]

WHEELING & LAKE ERIE RAILWAY COMPANY

Tim Andrews
Signal & Communication Supervisor

100 East First Street
Brewster, OH 44613

Tel. 330-767-7255

tandrews@wlerwy.com

Fax: 330-767-3213

03 October 2016

Ohio Rail Development Commission
Mr. Jim Tucker
1980 West Broad Street, Room 2B
Columbus, OH 43223

Re: Estimate for Railroad Crossing Warning System at Scott Rd. DOT 001-962-S

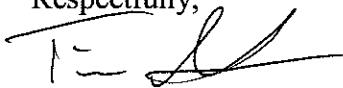
Dear Mr. Tucker,

I am providing this estimate for the crossing package and installation at Scott Rd. Award of the material package will be the result of a competitive bid; copies of the submitted quotes will be forwarded to your office when they are completed. Installation will be performed under our continuing construction agreement with CTC LLC.

<i>Engineering Services, CTC (breakout attached)</i>	<i>\$194,477.87</i>
<i>Fill Materials, transport, hauling</i>	<i>\$5,500.00</i>
<i>Preliminary Installation Services, Crosier (breakout attached)</i>	<i>\$18,093.37</i>
<i>Electric Service, Emery</i>	<i>\$3,950.00</i>
<i>Electric Utility fees</i>	<i>\$2,000.00</i>
<i>WLE Direct Signal & MOW Labor</i>	<i>\$5,500.00</i>
<i>Galvanized signal foundations</i>	<i>\$1,178.00</i>
 <i>TOTAL</i>	 <i>\$230699.24</i>

Please contact me if additional details are required.

Respectfully,



Tim Andrews

Notes

1: Direct purchase from Fabricated Metals, 60' galvanized gate foundation, \$589.00 ea.

Wheeling & Lake Erie Railway Co.
Crawford County, Ohio - Scott Rd. DOT# 001 962S
Project Estimate - CN16160

ENGINEERING					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SIGNAL DESIGNER	80	HR	32.69		\$2,615.20
SIGNAL CHECKER, LEVEL 1	10	HR	39.66		\$396.60
SIGNAL CHECKER, LEVEL 2/FIELD ENGINEER		HR	39.66		\$0.00
SUBTOTAL					\$3,011.80
G&A BURDEN FOR LABOR					\$5,330.89
FIXED FEE					\$834.27
ENGINEERING TOTAL					\$9,176.95

PROJECT MANAGEMENT					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SENIOR SIGNAL ENGINEER	12	HR	\$75.48		\$905.76
PROJECT MANAGER	24	HR	\$39.66		\$951.84
CONSTRUCTION MANAGER	40	HR	\$39.66		\$1,586.40
ACCOUNTING, LEVEL1	16	HR	\$39.81		\$636.96
ADMINISTRATIVE	4	HR	\$25.48		\$101.92
SUBTOTAL					\$4,182.88
G&A BURDEN FOR LABOR					\$7,403.70
FIXED FEE					\$1,158.66
PROJECT MANAGEMENT TOTAL					\$12,745.24

CONSTRUCTION LABOR					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SIGNAL FOREMAN	80	HR	\$29.04		\$2,323.20
SIGNALMAN	80	HR	\$23.40		\$1,872.00
SIGNAL HELPER	160	HR	\$19.00		\$3,040.00
SUBTOTAL					\$7,235.20
G&A BURDEN FOR LABOR					\$12,806.30
FIXED FEE					\$2,004.15
CONSTRUCTION LABOR TOTAL					\$22,045.65

CONSTRUCTION LABOR EXPENSES					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
EMPLOYEE MEALS (PER DIEM)	32	EA	\$30.00		\$960.00
EMPLOYEE TRAVEL & LODGING	32	EA	\$60.00		\$1,920.00
MOBILIZATION	5	EA	\$1,000.00		\$5,000.00
SUBTOTAL					\$2,880.00
CONSTRUCTION LABOR EXPENSES TOTAL					\$10,760.00

Wheeling & Lake Erie Railway Co.
Crawford County, Ohio - Scott Rd. DOT# 001 962S
Project Estimate - CN16160

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
TRUCK, BOOM, ART, TELESCOPING	40	HR	\$55.95		\$2,238.00
TRAILER, UTILITY, 4 TIRE, 12,000lbs SC410	80	HR	\$7.55		\$604.00
RENTAL EQUIPMENT (FORK LIFT/BACKHOE/SKYTRAK)	1	WK	\$1,200.00		\$1,200.00
EQUIPMENT DELIVERY/PICKUP	1	LS	\$150.00		\$150.00
SUBTOTAL					\$5,448.80
CONSTRUCTION EQUIPMENT TOTAL					\$5,448.80

MATERIAL					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
HOUSE MATERIAL (SEE ATTACHED DETAIL)	1	LS			\$66,418.70
FIELD MATERIAL(SEE ATTACHED DETAIL)	1	LS			\$53,882.53
HOUSE AND SIGNAL WIRING	1	LS			\$8,000.00
FILL DIRT		TN	\$7.50		\$0.00
CONCRETE		YD	\$500.00		\$0.00
COVER ROCK		TN	\$26.50		\$0.00
BORING 4"		FT	\$35.00		\$0.00
ELECTRICAL PERMITS		EA	\$3,500.00		\$0.00
METER POLE ASSY AND INSTALLATION		EA	\$2,500.00		\$0.00
FREIGHT & CONTAINER PRICE	1	LS			\$6,000.00
SUBTOTAL					\$134,301.23
MATERIAL TOTAL					\$134,301.23

TOTAL PROJECT ESTIMATE	\$194,477.87
-------------------------------	---------------------

HOUSE MATERIALS					
Description	QTY	UOM	MANUFACTURER PN	Unit Price	Total Price
HOUSE 6X6 AL WLE W/2-23" RKS	1	EA	PTMW	\$11,500.00	\$11,500.00
ASSY XP4 SINGLE TRACK REDUNDANT 40 AMP CC	1	EA	16-220004433-00	\$28,205.00	\$28,205.00
ASSY MDSA-1A	1	EA	250204-001C	\$315.00	\$315.00
ASSY TSA-1A W/TTA3 ARRESTORS	1	EA	250787-000	\$134.00	\$134.00
CHARGER 40A 12V CRAGG 40ETC12V	2	EA	017061-203	\$790.00	\$1,580.00
RECTIFIER POWER CORD 14/4 SJE BLK	70	FT		\$1.00	\$70.00
BATTERY NICAD 425 AH SPL-425	9	EA		\$390.00	\$3,510.00
BATTERY NICAD 250 AH SPL-340	10	EA		\$350.00	\$3,500.00
TRAY BATTERY 12 X 27" POLYETHYLE	4	EA	7438-01	\$32.96	\$131.82
THERMOSTAT SPDT REMOTE BULB 8A	1	EA	009186-004	\$73.94	\$73.94
RLY DPDT 12VDC 5A OCT	4	EA	007192-032	\$13.22	\$52.89
SCKT RLY 8-PIN OCT SCREW PNLMT	4	EA	132246-001	\$4.48	\$17.91
ASSY AGA-1 ARRESTOR	10	EA	202216-001	\$20.76	\$207.57
ASSY AGE-1 EQUALIZER	2	EA	202217-000	\$21.75	\$43.49
XIP CABLE 20FT	2	EA	750470-004	\$97.00	\$194.00
POWER OFF LIGHT KIT	1	EA	LC2-005WD	\$116.40	\$116.40
CDU-1 CONTROL AND DISPLAY UNIT	1	EA	251124-000	\$455.00	\$455.00
NUT INSULATED HARMON	20	EA	013986-000	\$2.97	\$59.40
XIP MODULE INTERFACE PANEL	1	EA	227561-000	\$562.00	\$562.00
LAMP ARRESTOR PANEL (LAP-G)	1	EA	227062-000	\$909.00	\$909.00
TIP LIGHT DIODE	2	EA	227194-100	\$50.00	\$100.00
MICRO DATA ANALYZER II WLE PK	1	EA	072113-100	\$6,880.00	\$6,880.00
MDA CURRENT SENSOR	2	EA		\$220.00	\$440.00
BATTERY GROUND DETECTOR	1	EA	NAS	\$1,250.00	\$1,250.00
RELAY 500 OHM 6FB NEUTRAL	3	EA	ST1 400000	\$750.00	\$2,250.00
RELAY PLUGBOARD B1 W/10-14 CRIMP TERMINALS	3	EA		\$203.00	\$609.00
2 POS RELAY RACK	1	EA	PTMW	\$200.00	\$200.00
TEST LINK W/PLT & INSUL	40	EA	032257-002	\$1.98	\$79.20
WIRE 16AWG/19 TC EPR/PVC BLU	500	FT	012092-002	\$0.22	\$110.00
WIRE 10AWG/19 TC EPR/PVC BLU	550	FT	012092-000	\$0.62	\$338.80
WIRE 6AWG/19THHN BLK	50	FT	012253-000	\$0.79	\$39.60
WIRE 6AWG/19 THHN RED	50	FT	012253-003	\$0.84	\$41.80
WIRE 6AWG/19 THHN GRN	30	FT	012253-002	\$0.75	\$22.44
CABLE RAW 3/14AWG PWR 300V	30	FT	012690-010	\$0.77	\$23.10
RES ADJ WW 15W 5.69 OHM PNLMT	1	EA	002238-101	\$26.09	\$26.09
CONN PLUG L6-15 250V 15A 2P3W	2	EA	132286-001	\$11.53	\$23.06
ASSY 2WAY TERM BLK W/AAR HARD	40	EA	202810-000	\$15.82	\$632.72
ASSEMBLY, 4 POST TERMINALBLOCK	10	EA	203032-000	\$43.48	\$434.83
ASSY TERM STRIP DBL POST 12	5	EA	250094-300	\$19.77	\$98.84
GROUND POST P5-162	4	EA	113047-000	\$25.94	\$103.75
WRENCH AAR TERMINAL	1	EA	095058-001	\$15.28	\$15.28
KIT APRVD SM PARTS/SL XING	1	EA	180394-590	\$1,058.90	\$1,058.90
LABEL, DANGER 240 V, 1.75 X 2.	1	EA	SQS109	\$3.86	\$3.86

FIELD MATERIALS

Description	QTY	UOM	MANUFACTURER PN	Unit Price	Total Price
KIT TORQUE WRENCH S/T 070981X	1	EA	2587-01	\$256.38	\$256.38
SO CORD 10/3	60	FT		\$0.90	\$54.00
GATE ARM 16-32' UHI LED LGHTS	2	EA	076045-014	\$613.73	\$1,227.47
SLEEVE 4 ALUMINUM REC #92958	2	EA	14187-01	\$44.33	\$88.66
LED INSERT DIALIGHT FLX4000	8	EA	076048-109	\$520.00	\$4,160.00
DECAL, DOT STRIP	2	EA		\$16.00	\$32.00
BELL ELECTRONIC CROSSING 4/5"	1	EA	6147-01	\$210.03	\$210.03
ASSY WLE STANDARD FLASHER/GATE W/O ARM, GATE ARM LIGHTS, GATE KEEPER	2	ASSY	CTC	\$14,300.00	\$28,600.00
TAPE MARKER BURIED RR CABLE	1	EA	029989-000	\$21.43	\$21.43
CABLE UG 3 COND #6 W/GRND AWG SOLID	200	FT	1013-02	\$5.10	\$1,020.00
CABLE UG 7 COND #6 AWG SOLID	800	FT	1077-02	\$8.30	\$6,640.00
CABLE UG 7 COND #14 AWG SOLID	800	FT	1023-02	\$3.05	\$2,440.00
WIRE UG TRK #6 AWG DUPLEX	600	FT	1094-02	\$2.05	\$1,230.00
PVC CONDUIT PACKAGE	1	LOT		\$2,500.00	\$2,500.00
PVC CEMENT, 1QT W/BRUSH TOP	1	EA		\$7.15	\$7.15
GRINDING WHEEL 6IN X 1IN	4	EA		\$30.00	\$120.00
BOOTLEG KIT/1 PR TRACKWIRE WLE STANDARD	2	EA	HAX001BLXW2-KT	\$42.10	\$84.20
BOND JOINT 5/16" X 7" TAB ERICO #SB-	300	EA	2161-01	\$5.41	\$1,623.60
WIRE #6 SOFT BARE COPPER	60	FT	1436-01	\$0.40	\$23.76
CARTRIDGE SB25 POWDER W/ATTACHMETAL FOR	300	EA	1026-39	\$1.55	\$465.30
ROD 5/8 X 8 NS GRD***USE-02***	6	EA	1357-01	\$14.72	\$88.31
CONNECTION SBNT1-161G ONE-SHOTFOR 5/8 IN	6	EA	1029-01	\$6.17	\$37.03
CADWELD TYPE GR 5/8GRDX#6WIRE	6	EA	005755-002	\$7.10	\$42.57
BOND STRAND 8-STR 3/16" TINNEDSBS8TINSUL	100	FT	4133-01	\$1.21	\$121.00
ASSY FSS-1A 86HZ-267HZ	2	EA	250849-000	\$867.00	\$1,734.00
PLATE SHUNT 24"X26"X1/4" GALV.	4	EA	6193-01	\$67.06	\$268.22
SCREW LAG 3/4" X 6" BLACK GRIMLET PO	20	EA	2000-01	\$0.81	\$16.28
TAPE ELECTRICAL 3M #33+ 3/4" PLASTIC	2	RL	1190-01	\$3.62	\$7.24
DUCTSEAL 1LB BLOCK	10	EA		\$3.30	\$33.00
FOAM INSULATING SPRAY	4	EA		\$12.25	\$49.00
STAPLE GROUND WIRE 1-1/16"X3"	50	EA	113005-000	\$0.32	\$15.95
TIE CABLE .184 X 7.31" HIG TEMSELF LOCKI	100	EA	4125-01	\$0.04	\$4.40
LUG RNG 1/4" 12-10AWG INS BLK	100	EA	032114-008	\$0.01	\$1.10
TAG ST-5 SNAPOUT 11 TAGS/CARD MI# 010301	50	EA	2090-01	\$2.28	\$113.85
STAPLE COPPERWELD 3/8 X 1-3/4 144 IN. RO	50	EA	1148-01	\$0.26	\$13.20
GREASE RUST PREVENTIVE NO OXID"A SPECIAL	1	EA	1906-01	\$9.83	\$9.83
CLIP TRACK WIRE RETAINER - ERICO #SBA	10	EA	1118-01	\$1.97	\$19.69
COMPOUND DUCT SEAL 5 LB PLUG PERMAGUM #	5	PK	1179-01	\$10.68	\$53.41
EMERGENCY SIGN SIGNAL	2	EA	SIG SIGN	\$140.00	\$280.00
FIELD TAG KIT	1	EA	FLDTGKT	\$170.48	\$170.48



OHIO RAIL DEVELOPMENT COMMISSION

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

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

June 23 2016

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

RE: Crawford County, Scott Road
DOT 001962S, PID 103090

Dear Mr. Andrews:

A diagnostic review was held at the above grade crossing on March 30, 2016. The crossing has been recommended for the installation of lights and gates.

WLE is authorized to proceed with the site plans and cost estimates (PE) for this project. This authorization is made with the stipulation and understanding that any field work needs prior approval before work begins. This authorization is made with the stipulation and understanding that an approved estimate may contain entries for items or activities that may be cited and found to be ineligible for federal participation during the project audit.

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

The diagnostic review form is attached. Please note any recommendations (page 5), if any, made by the team with regard to requirements for this location. Any minor roadway work necessary for MUTCD compliance should be incorporated into the PE and such costs will flow through the railroad reimbursement process.

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

Sincerely,

Joseph N. Reinhardt
Project Manager

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



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY



Diagnostic Review Team Survey

Reason for Survey:

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

Constituent – AOT

Date: 3/30/2016

Location Data

Street or Road Name: Scott Road			
Route/Road Number (i.e. Twp., Co., SR or US) CR 50		US DOT No.: 001962S	
County: CRA	Township: -	City: (In or Near) Near New Washington	
Railroad Name: Wheeling & Lake Erie	Railroad Division:	Branch/Line Name: Main	
Nearest RR Timetable Station: Plymouth		RR Milepost: 88.81	

On-Site Review Team

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

1. Joe Reinhardt ORDC 614-644-0291
2. Bryan Wainwright C.C. Eng. Office 419-563-1522
3. Tim Andrews WLE 330-767-7255
4. George Martin PUCO 614-752-9107
5. _____
6. _____
7. _____
8. _____
9. _____

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	☒ Yes	☐ No	2
'Stop' Signs	☒ Yes	☐ No	2
'Stop Ahead' Signs	☐ Yes	☒ No	
Pavement Markings (condition?)	☒ Yes	☐ No	2
Crossbucks	☒ Yes	☐ No	2
Number of Tracks Signs	☐ Yes	☒ No	
Inventory Tags	☐ Yes	☒ No	
Interconnected Highway Traffic Signal	☐ Yes	☒ No	
Mast-Mounted Flashing Lights	☐ Yes	☒ No	
Cantilever Flashing Lights	☐ Yes	☒ No	Number: Length:
Side Lights	☐ Yes	☒ No	
Automatic Gates	☐ Yes	☒ No	Number: Length:
Bells	☐ Yes	☒ No	Number:
Sidewalk Gate Arms	☐ Yes	☒ No	
'No Turn' Signs	☐ Yes	☒ No	
Illumination	☐ Yes	☒ No	
Is crossing flagged by train crew?	☐ Yes	☒ No	
Other	☐ Yes	☒ No	

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

	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	0	
Hazard Ranking	1871	Date Run: 2/26/2016

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	4	
< 1 per day		
Day thru trains	1	
Night thru trains	3	
Daytime switching movements		
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	40	
Typical train speed	40	
Amtrak		

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

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

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

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

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

If yes, Crossing DOT # (if different) _____

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

Roadway Data

Local Highway Authority: Crawford County

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	621 (2014)	
Highway paved	X Yes ☐ No	☐ Yes ☐ No
Roadway Surface: ☒ Blacktop ☐ Gravel ☐ Concrete ☐ Other _____		
Roadway width: 16 ft.		
Number of highway lanes	2	
Urban or Rural	Rural	
Vehicle Speed: 55 MPH		
School Bus Operation: ☐ No ☒ Yes _____ Amount		
Hazardous Materials Trucks: ☐ No ☒ Yes .05 Amount		
Shoulders: ☒ No ☐ Yes		
Is the shoulder surfaced? ☒ No ☐ Yes		
Is there existing guardrail along roadway in crossing vicinity? ☒ No ☐ Yes		
Is stopping site distance adequate? (See Table 2) ☒ Yes ☐ No If no, deficient approach(es) _____		

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

Potential Red Flags / Project Challenges

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

Crossing Consolidation or Closure:

Real Estate or ROW:

Culverts / Drainage / Ballast Conditions:

Roadway and/or Sidewalks:

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

Environmental:

Other:

OK
3/20/16

Diagnostic Team Recommendations

	Quadrants Needed
☒ Install/upgrade active devices	
☐ Automatic Flashing Lights (AFLS)	
☐ AFLS / Cants	
☒ AFLS / Gates	NE SW
☐ AFLS / Gates / Cants	
☐ Bells / number	
☐ Upgrade circuitry / type	
☐ Sidelights	
☐ Guardrail Needed	
☐ Install/Replace curb	
☐ Bungalow placement & offset from rail & highway	
☐ Other (define)	

Comments:

Very skewed crossing & has foggy conditions.

☐ Install/upgrade traffic signal preemption	
☐ No improvements needed	
☐ Other (define)	

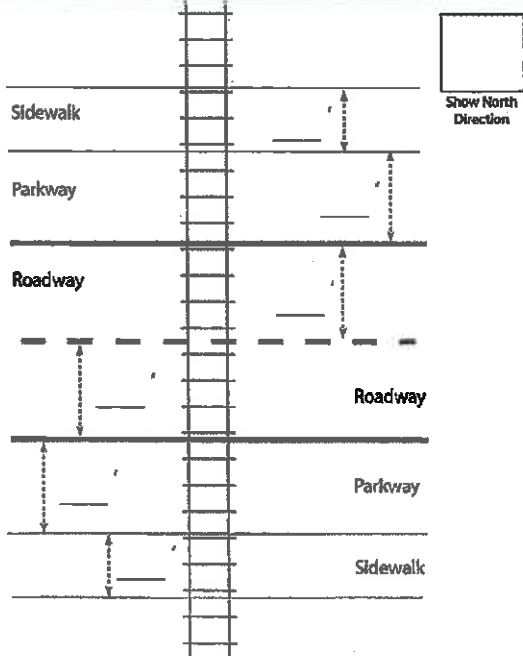
Acknowledgement of Recommendations (each entity represented at the diagnostic must have at least one signature acknowledgement):



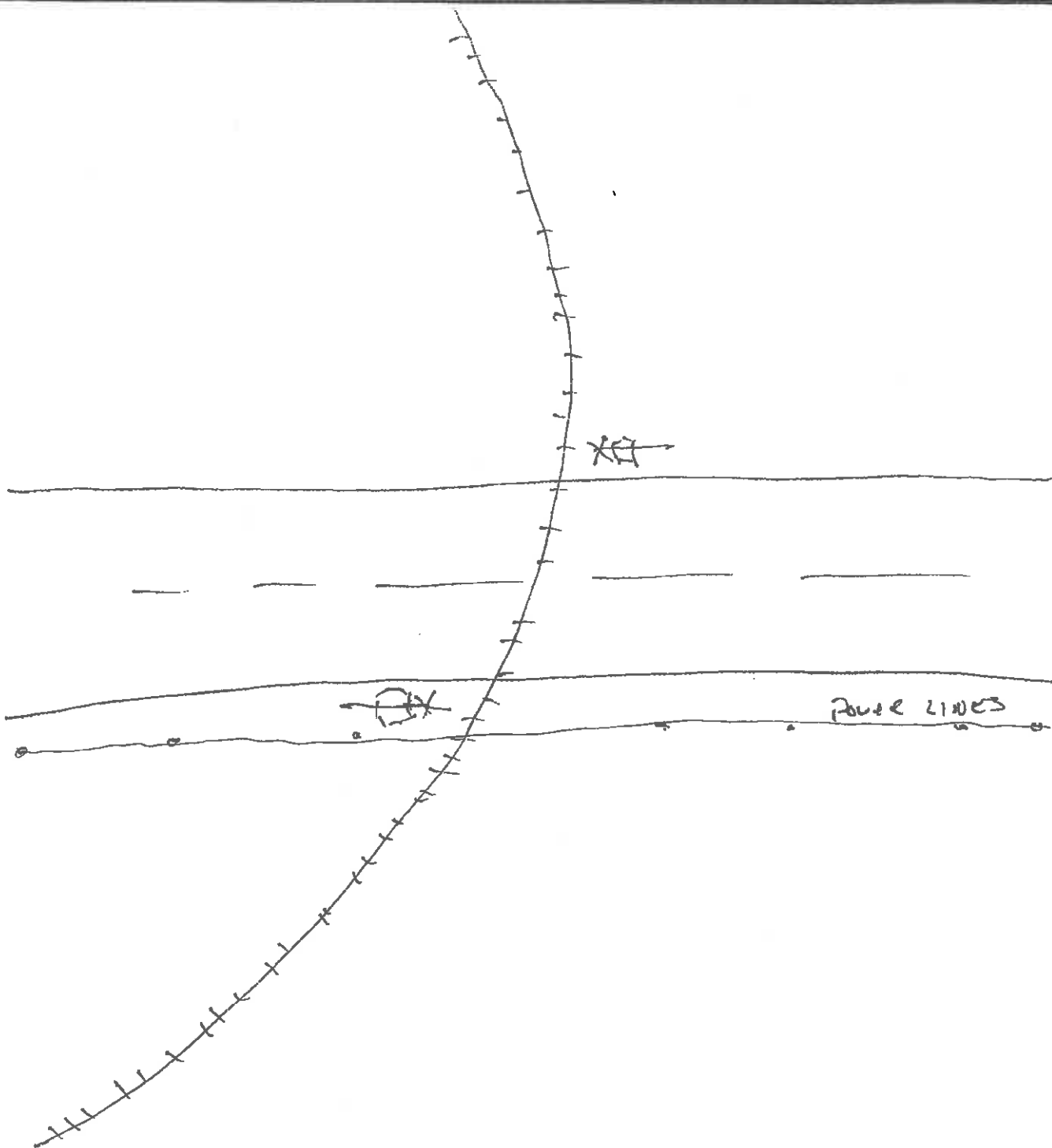




Field Dimensions

	
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Field Sketch



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

Sketch by: 

TABLE I**Clearing Sight Distances**

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

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

Notes:

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

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

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

Table 2**Stopping Sight Distances**

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

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

Notes:

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

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

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

JWK
6/30/16

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

11/21/2016 11:53:07 AM

in

Case No(s). 16-2202-RR-FED

Summary: Application In the Matter of a Request for the Installation of Active Warning Devices at the Wheeling & Lake Erie Railway Crossing, DOT#001-962S, Scott Road in Crawford County, Ohio. electronically filed by Mrs. Jill A Henry on behalf of PUCO/Rail Division