

# Memo

To: Docketing Division  
From: Jill Henry, Rail Specialist, Rail Division  
Cc: PUCO Legal Department  
Date: 10/30/17

Re: PUCO Case No. 17-2200-RR-FED- In the Matter of a Request for the Installation of Active Warning Devices at the CF&E Railroad Crossing, DOT# 532-677J, Van Atta Road in Hardin County, Ohio.

---

On March 23, 2017, the Ohio Rail Development Commission (ORDC) authorized funding for Chicago Ft. Wayne & Eastern Railroad (CF&E) to install lights and gates at the Van Atta Road, DOT#532-677J, grade crossing in Hardin County, Ohio. The crossing was surveyed on October 27, 2016 and was found to warrant the upgrade. The electric utility provider for this crossing is AEP-Ohio.

The project will be paid for with federal funds and is actual cost. The plans and estimates for the project in the amount of \$186,950.00 (subject to revision after bid tabulation) 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:**

Chicago Ft. Wayne & Eastern Railroad  
Scott Sandoval  
AVP, Engineering, Midwest Region Railroads  
Genesee & Wyoming  
4349 Easton Way, Suite 110  
Columbus, Ohio 43219

Patrick Engineering  
Joseph Bolzenius  
Project Manager  
3650 Olentangy River Road, Suite 110  
Columbus, Ohio 43214

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

Hardin County Engineer  
Michael Smith  
County Engineer  
1040 W. Franklin Street  
Kenton, Ohio 43326

American Electric Power- AEP

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

**TO:** Randall Schumacher, Rail Division Chief, PUCO  
**FROM:** Cathy Stout, Manager, Safety Section, ORDC  
**BY:** Don Damron, Project Manager, ORDC  
**SUBJECT:** Hardin County, TR 55 Van Atta Rd. / CFE  
DOT# 532677J  
PID# 104592  
**DATE:** October 3, 2017

---

The Public Utilities Commission of Ohio (PUCO) established a Diagnostic Review Team Survey at the subject highway/railroad crossing location on 10/27/16. The Ohio Rail Development Commission (ORDC) attended the Diagnostic Survey. The Diagnostic Review Team recommended the improvement of warning devices to flashing lights and roadway gates. Copies of the Diagnostic Review Team Survey form and the railroad plan and estimate are attached.

The PE has already been provided by the railroad. ORDC approved the site plans and estimates as provided. Please issue a construction-only order for the project outlined above. 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.

**Attachments:**

Diagnostic Review Team Survey dated 10/27/16  
CFE Force Account Alternative B – Shorten Approaches Estimate dated 7/27/2017  
Proposed Crossing Layout – PE Approved Signal Display Layout

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

October 3, 2016

Scott Sandoval  
AVP, Engineering, Midwest Region Railroads  
Genesee & Wyoming/OHCR  
4349 Easton Way, Suite 110  
Columbus, OH 43219

Re: Construction Authorization, Grade Crossing Warning Device Improvement  
Chicago, Fort Wayne, and Eastern Railroad  
TR 55, Van Atta Rd., Hardin County  
DOT# 532677J; PID# 104592

Dear Mr. Sandoval:

The plan and estimate dated 7/27/2017 for the referenced project has been reviewed and is acceptable. The Chicago, Fort Wayne & Eastern Railroad may proceed with the construction of the proposed grade crossing warning device improvement in accordance with the abbreviated plan. Construction may include but is not limited to circuitry design, installation of service poles, procurement of materials and signal construction. In accordance with the *ODOT Railroad Audit Circular No. 4 Subcontracted Costs for Railroads* please provide ORDC with all relevant bid documents and bid tabs pertaining to this project.

This construction authorization is for Alternative B – Shorten Approaches and 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 project costs are limited to \$186,950.00 and will be adjusted based on the provided bid tabulations if applicable. Additional costs must be approved in writing by the ORDC prior to being incurred. In an 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 construction authorization is contingent upon Chicago, Fort Wayne & Eastern Railroad (CFE) accepting the following instructions:

1. CFE must provide the results of the construction bids and tabulations in advance of awarding any contracts for construction.
2. CFE's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Don Damron, ORDC, Mail Stop #3140, 1980 West Broad Street, 2<sup>nd</sup> Floor, Columbus Ohio 43223, or email [don.damron@dot.ohio.gov](mailto:don.damron@dot.ohio.gov), or by cell phone at 614-917-8466, office phone at 614-466-2509; and to the Public Utilities Commission of Ohio at [George.martin@puc.state.oh.us](mailto:George.martin@puc.state.oh.us) (phone 614-752-9107). The Chicago, Fort Wayne & Eastern Railroad 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.

3. CFE 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 Chicago, Fort Wayne & Eastern Railroad.
4. CFE's project foremen will notify Don Damron at 614-917-8466 (cell) or [don.damron@dot.state.oh.us](mailto:don.damron@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. Approval for cost overruns must be approved by the ORDC and the PUCO.
5. Open cut of roadways is *not permitted* except in unusual circumstances and must be coordinated with the local highway authority and preapproved by ORDC.
6. CFE will furnish two (2) copies of each partial bill to ORDC. Please find the attached ODOT Purchase Order to reference when billing.
7. CFE 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.
8. The installation of the new warning device system will include any ancillary work needed to make the warning devices function as designed and to satisfy MUTCD requirements.

Thank you for your assistance with these matters.

Sincerely,



Donald J. Damron  
Project Manager

- C: Randall Schumacher, Rail Division Chief, PUCO  
Jill Henry, Rail Specialist, PUCO  
Joseph S. Bolzenius, PE, PS, LEED AP, Patrick Engineering  
Susan Arduini, ORDC  
ORDC (file)

pw:\LSPW.patrick.int:RAIL\Documents\G\_and\_W\Ohio\_Valley\_Region\21777.805\_Van\_Atta\_Rd\PE-Track\Van\_Atta\_XP001.dgn 9/11/2017 1:25:33 PM tsabo

← TO LAFAYETTE

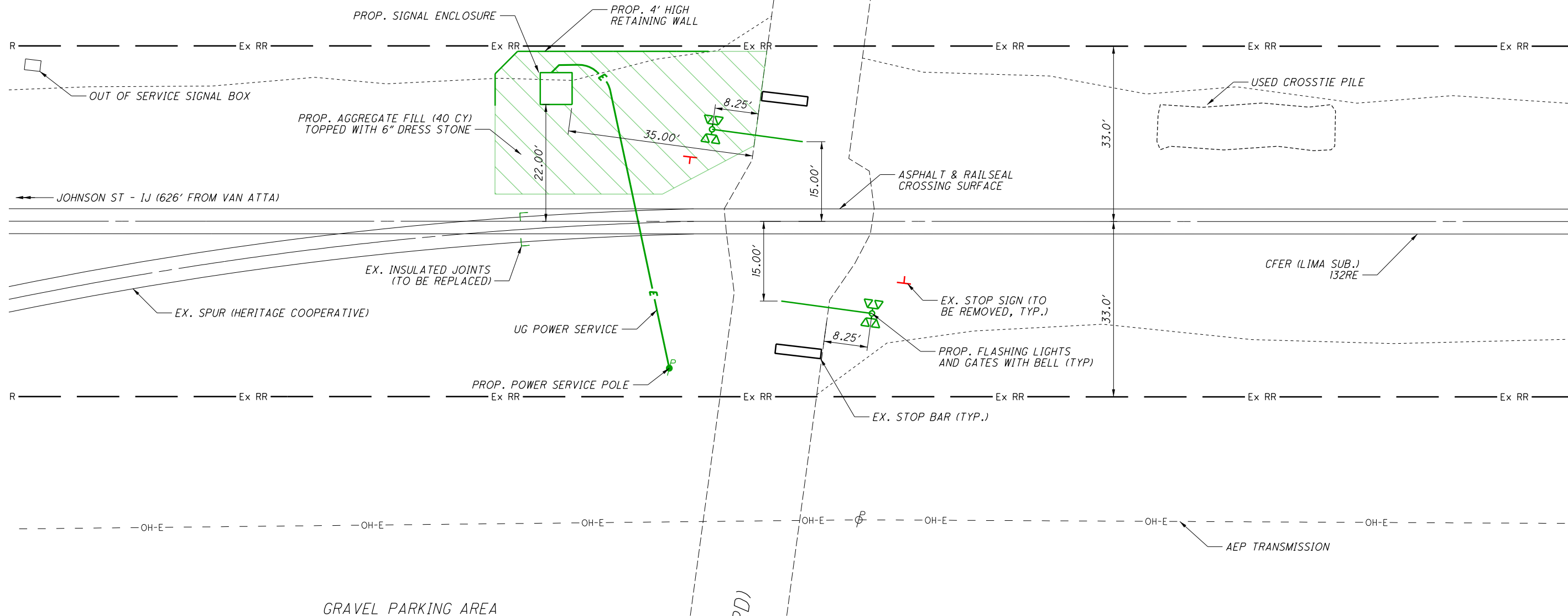
TO DUNKIRK →

CROSSING INFORMATION

6 TRAINS PER DAY  
AVERAGE SPEED - 40 MPH  
LOCAL ROADWAY AUTHORITY - CITY OF ADA AND HARDIN COUNTY

FIELD

FIELD



GRAVEL PARKING AREA

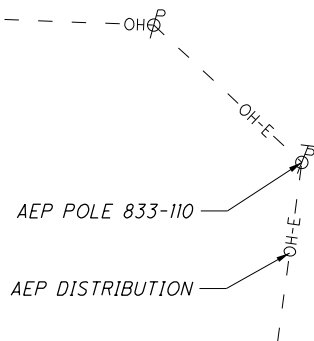
FIELD

TR-55 (VAN ATTA RD)

SCOPE OF WORK

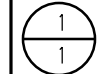
- INSTALL RETAINING WALL
- INSTALL AGGREGATE DRIVE WITH 6" DRESS STONE SURFACE
- INSTALL 6x6 SIGNAL HOUSE
- INSTALL FLASHING LIGHTS AND GATES WITH BELLS
- RELOCATE AND REPLACE INSULATED JOINTS FOR ADJACENT CROSSING STARTS
- REPLACE INSULATED JOINTS AND INSULATION AT SWITCH
- REMOVE EXISTING STOP SIGNS

PATRICK ENGINEERING - 9/11/17



VAN ATTA ROAD - MP 244.65 (532677J)  
PROPOSED SITE LAYOUT

TR-55  
AT CFER





## ALTERNATIVE B - SHORTEN APPROACHES



### Force Account Estimate - TR 55 / Van Atta Rd (PID 104592) **INDIANA & OHIO RAILWAY COMPANY (IORY)**

Ada, OH (Hardin County)

DOT#: 532677J  
Railroad # 17CFER13R  
RR MP: 244.65

#### SUMMARY

<b>CROSSING WARNING SYSTEM</b>	\$ 129,480.00
(Includes all labor, materials, equipment, shop wiring, and installation)	
<b>SITE CIVIL ITEMS</b>	\$ -
(Includes all labor, materials, and equipment for MUTCD compliance)	
<b>CROSSING SURFACE/RESURFACE</b>	\$ -
(Includes all labor, materials, and equipment)	
<b>TRACK GRADE AND REHABILITATION</b>	\$ -
(Includes all labor, materials, and equipment)	
<b>PRELIMINARY ENGINEERING</b>	\$ 8,000.00
(Includes labor for all Engineering including site plans, Agency Coordination, and Project Management)	
<b>CONSTRUCTION ENGINEERING</b>	\$ 16,000.00
(Includes labor for all Engineering including circuitry plans, Agency Coordination, and Project Management)	
<b>CONSTRUCTION ENGINEERING INSPECTION</b>	\$ 5,500.00
(Includes all labor and mileage for site inspections during construction)	
<b>UTILITY CROSSING</b>	\$ -
(0 new utility crossings @ \$4000 per crossing, includes application, engineering review, and right of entry)	
<b>FLAGGING SERVICES</b>	\$ 5,000.00
(Estimated Flagging Services cost based on 5 days @ \$1000 per day)	
<b>AC POWER SERVICE</b>	\$ 4,000.00
(Includes all Coordination and Power Service Charges not included in other costs)	
<b>OTHER (DESCRIPTION REQUIRED)</b>	\$ 18,970.00
(Shorten Ada crossing approaches to avoid overlapping circuitry)	
<b>TOTAL ESTIMATE COST</b>	<b>\$ 186,950.00 (USD)</b>

Estimate Prepared By: J. Bolzenius, PE  
Date: 7/27/2017

#### NOTE:

This Estimate has been prepared based on site conditions, anticipated work duration periods, material prices, labor rates, manpower, resource availability, and other factors known as of the date prepared. The actual cost for Railroad work may differ based upon the agency's requirements, their contractors work procedures, and/or other conditions that become apparent once construction commences or during the progress of the work. If any extended time elapses from the date of this Estimate, the Railroad will reserve the right to update the estimate to current price values, and require agency's approval before any work by Railroad will commence.

Preliminary Crossing Warning System Estimate

**Railroad:** CFER  
**Crossing Name:** Van Atta Rd  
**City, (County), State :** Ada, (Hardin), OH  
**Railroad #:** 17CFER13R  
**FRA#:** 532 677J  
**Patrick Engineering #:** 21777.805

ITEM	UNIT COST	UNITS	TOTAL
6'x6' Wired House with Equipment	\$ 46,500.00	1 EA	\$ 46,500.00
Gate/Flasher Assembly; Insulated Joints	\$ 26,750.00	2 EA	\$ 53,500.00
		<b>SUBTOTAL</b>	<b>\$ 100,000.00</b>
Freight & Handling			\$ 2,000.00
		<b>TOTAL MATERIALS</b>	<b>\$ 102,000.00</b>
Foreman (1)	\$ 162.00	20 hrs	\$ 3,240.00
Lead Signalman (2)	\$ 121.50	40 hrs	\$ 4,860.00
Signalman (2)	\$ 94.50	40 hrs	\$ 3,780.00
		<b>TOTAL INSTALLATION &amp; WIRING</b>	<b>\$ 11,880.00</b>
Equipment per day	\$ 1,000.00	1 Day	\$ 1,000.00
Insulated Joint Removal/Installation	\$ 2,000.00	1.5 Day	\$ 3,000.00
Bungalow Wiring and Test	\$ 5,800.00	2 Day	\$ 11,600.00
		<b>TOTAL EQUIPMENT</b>	<b>\$ 15,600.00</b>
<b>TOTAL CROSSING WARNING SYSTEM</b>			<b>\$ 129,480.00</b>



Preliminary Crossing Warning System Estimate

**Railroad:** CFER  
**Crossing Name:** S Johnson St & S Gilbert St  
**City, (County), State :** Ada, (Hardin), OH  
**Railroad #:** 17CFER13R  
**FRA#:** 532 678R  
**Patrick Engineering #:** 21777.805

ITEM	UNIT COST	UNITS	TOTAL
IJ's & Miscellaneous Field Material	\$ 10,500.00	1 EA	\$ 10,500.00
		<b>SUBTOTAL</b>	<b>\$ 10,500.00</b>
Freight & Handling			\$ 500.00
		<b>TOTAL MATERIALS</b>	<b>\$ 11,000.00</b>
Foreman (1)	\$ 162.00	5 hrs	\$ 810.00
Lead Signalman (2)	\$ 121.50	10 hrs	\$ 1,215.00
Signalman (2)	\$ 94.50	10 hrs	\$ 945.00
		<b>TOTAL INSTALLATION &amp; WIRING</b>	<b>\$ 2,970.00</b>
Equipment per day	\$ 1,000.00	1 Day	\$ 1,000.00
Insulated Joint Removal/Installation	\$ 2,000.00	2 Day	\$ 4,000.00
Bungalow Wiring and Test	\$ 5,800.00	0 Day	\$ -
		<b>TOTAL EQUIPMENT</b>	<b>\$ 5,000.00</b>
<b>TOTAL CROSSING WARNING SYSTEM</b>			<b>\$ 18,970.00</b>



# OHIO RAIL DEVELOPMENT COMMISSION

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

John R. Kasich, Governor • James G. Bradley, Chairman

March 23, 2016

Mr. John Hilborn  
Vice President-Engineering, Ohio Valley Region Railroads  
Genesee & Wyoming/OHCR  
4349 Easton Way, Suite 110  
Columbus, OH 43219

RE: Grade Crossing Warning Device Improvements,  
Hardin County, TR 55, Van Atta Rd., DOT# 532677J, PID# 104592

Dear Mr. Hilborn:

A diagnostic review was held at the above grade crossing on 10/27/2016. The crossing has been recommended for the installation of automatic flashing lights and gates.

Genesee & Wyoming/Chicago, Fort Wayne and Eastern Railroad (CFE), is authorized to proceed with the engineering design, site plans and cost estimates 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 Engineering Design and Site Layout Plan it will be evaluated and a construction-only Order will be requested from PUCO. Please submit the Engineering Design 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 or sidewalk work necessary for MUTCD compliance should be incorporated into the Site Layout Plan and such costs will flow through the railroad reimbursement process.

The ORDC Project Manager for this project is Don Damron. Don can be reached at 614-466-2509 (office), or 614-917-8466 (cell), or [don.damron@dot.state.oh.us](mailto:don.damron@dot.state.oh.us), if you have any questions.

Sincerely,

Donald J. Damron  
Project Manager

C: Randall Schumacher, Supervisor, Rail Division, Transportation Department, PUCO  
Jill Henry, Rail Specialist, PUCO  
ORDC (file)

Attachments: Diagnostic Review Team Survey dated 10/27/2016  
ORDC/NS Letter Agreement dated 1/24/2017



[www.rail.ohio.gov](http://www.rail.ohio.gov)

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY



(TR-55)



## RAILROAD/HIGHWAY GRADE CROSSING SITE SURVEY

RAILROAD NAME:	Chicago, Ft. Wayne & Eastern Railroad (CFER)		
LOCATION:	Ada, OH		
PROJECT#:	RR#	17CFER13R	Patrick# 21777.805
SURVEYED BY:	Troy Sabo	DATE:	6/30/17
ROADWAY:	Van Atta Rd	DOT#:	532677J
SUBDIVISION:	Lima Sub	MILEPOST:	244.65
REGION:	Midwest	SPEED:	40 MPH
LATITUDE:	40.772649	LONGITUDE:	-83.804045
NEAREST ADDRESS:	3300 TR 55, Ada, OH 45810		
	Crossing within city limits?		No
REVISED:			

### PROJECT SCOPE (PER AGENCY ORDER/DRTS FINDINGS):

Install new flashing lights and gates with bells			
Special Requirements of City			
Permits	N/A	Type:	Fee: \$
Bonds	N/A	Type:	Fee: \$

### RAILROAD CONCERNS/SCOPE ADJUSTMENTS:

Overlapping approach with Ada crossings (single AC/DC circuit)

### SURVEY ATTENDEES:

Name	Title	Company	Email/Phone
Troy Sabo	Assistant PM	Patrick Engineering	614-498-0344
Bryan Taff	Signal Maintainer	CFER	513-805-1398



(TR-55)



## SECTION 1 - EXISTING WARNING DEVICES

### 1.1 - EXISTING WARNING DEVICES/CONTROL EQUIPMENT (show on sketch)

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

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

Location of shunts and type (hardwire, wide and/or narrow band):

*Hardwire shunt for Ada crossings 626' west of crossing surface*

Location of IJ's, bypass and/or tuned-joint couplers:

*Insulated joints 626' west of crossing surface for Ada crossings and in Heritage Cooperative switch.*

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

Crossing does not currently have active warning devices.

1.2 - ARE FOUNDATIONS POURED IN PLACE:

N/A

1.3 - EXISTING MASTS OF CAST OR ALUMINUM:

N/A

1.4 - ROOM AT CROSSING TO STORE EQUIPMENT:

Yes

If no, specify where equipment can be stored:

1.5 - ARE EXISTING CIRCUITRY PLANS AVAILABLE:

N/A

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

Passive

1.7 – IS THE ROADWAY BEING RELOCATED:

No

1.8 – IS THERE A FRA INVENTORY REPORT:

Yes



(TR-55)



## SECTION 2 - PROPOSED WARNING DEVICES

### 2.1 - PROPOSED WARNING DEVICES/CONTROL EQUIPMENT (show on sketch)

Signage	Quantity	Description
Crossbucks	2	
Stop Signs	-	
Yield Signs	-	
Track Signs	-	
SORS	-	
ENS/DOT	2	
NLT/NRT	-	
Equipment	Quantity	Description (Mast size, lens size, orientation, manufacturer, etc.)
Flashing Lights	-	
Flashing Lights and Gates	2	
Cantilevers	-	
Cant/Gate Combo	-	
Ped Gates	-	
Bells	2	
Bridge Signals	-	
Signal Enclosure	1	6x6 house
Highway/Rail grade crossing warning equipment type	1	TBD

#### NOTES:

Existing switch is used for occasional storage of MOW equipment, very few switching moves.

#### 2.2 - TYPE OF FOUNDATIONS TO BE USED:

Steel pyramid

#### 2.3 - ARE FOUR QUADRANT GATES TO BE INCLUDED:

No

If yes, specify exit gate delay/dwell time:

#### 2.4 - ARE SIDELIGHTS REQUIRED\*:

No

If yes, specify street/distance from track/quadrant:

\*If parallel roadway exists, make certain there is sufficient room to install signal in that quadrant per MUTCD clearances. Said clearances are required to the front as well as the side of signals.

#### 2.5 - CROSSING CONTROL EQUIPMENT TERMINATION:

NBS

#### 2.6 - ADDITIONAL EQUIPMENT RECOMMENDED:

None

#### 2.7 - IS ADDITIONAL FILL MATERIAL REQUIRED:

Yes for signal house

If yes, specify location and estimate quantity:

NW quad (40 CY)

#### 2.8 - BERM/CRIB WALL/PLATFORM REQUIRED:

Yes

If yes, specify location, size and type:

NW quad (4' high)



(TR-55)

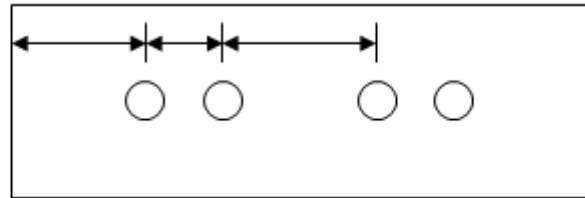
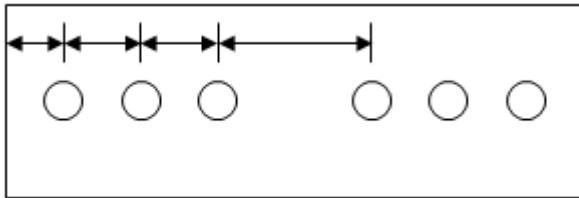


## SECTION 3 – TRACK AND RAIL

### 3.1 – EXISTING TRACK CONDITIONS

Track	Rail Weight	CWR	JT	Bond Type	Track Speed	Track Control	Rusty Rail	Ballast Condition
Mainline	132RE	X			40		No	Fair
Siding								
Siding								
Industry	132RE		X				Yes	Fair
Storage								

SPECIFY INSULATED JOINT DIMENSIONS AND TYPE (show location on sketch):



3.2 - ARE COMP JOINTS PRESENT:

No

If yes, show location and sizes on FIELD SKETCH.

3.3 - ARE GUAGE RODS PRESENT:

No

Insulated / Non-Insulated:

If yes, show location and number on FIELD SKETCH.

3.4 - DO SWITCHES REQUIRE INSULATION:

Yes

If yes, show switches on FIELD SKETCH.

3.5 - ANY SHUNT-TYPE SWITCHES:

No

If yes, describe type and show on FIELD SKETCH:

3.6 - SHUNT ENHANCEMENT REQUIRED:

No

If yes, specify type:

3.7 – HOW MANY TRACKS THROUGH THE ROADWAY:

1

What is the distance between tracks (center-to-center):

3.8 – INDICATE ANY SCHEDULED TRACK REARRANGEMENT OR REMOVAL

None currently scheduled



(TR-55)



**3.9 –BALLAST CONDITIONS:**

Has a ballast study/reading been performed to determine the ballast resistance?

No

If yes, attach a copy of the results.

Has a spectrum frequency analysis been performed?

No

If yes, attach a copy of the results.

**3.10 – IS THE PROPOSED CROSSING LOCATED IN SIGNAL TERRITORY?**

No

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

**3.11 – ARE THERE ANY EXISTING TRACK CIRCUITS?**

No

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

**3.12 – ARE THERE ANY TIE-INS OR MODIFICATIONS TO EXISTING CROSSINGS OR SIGNAL SYSTEMS?**

No

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

**3.13 – ARE THERE ANY OVERLAPS IN APPROACHES WITH EXISTING CROSSINGS?**

Yes

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

Ada crossings

**3.14 – ARE THERE ANY SPECIAL TRAIN MOVES OR REGULAR STOPPING OR SWITCHING IN THE PROPOSED APPROACHES?**

Yes

If yes, describe:

Occasional switching

**3.15 – ARE THERE ANY QUIET ZONE REQUIREMENTS IN PROPOSED AREA OF CROSSING?**

No

If yes, describe:

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

No

If yes, describe and show on FIELD SKETCH:

**3.17 – ARE THERE ANY SPECIAL DPU/STATE SPEED RESTRICTIONS FOR CROSSING?**

No

If yes, describe:



(TR-55)



**3.18 – ARE THERE DAXing REQUIREMENTS FOR THIS OR ADJACENT CROSSINGS?**

No

If yes, describe:

**3.19 – OPERATIONS**

Number of Day train moves (6a-6p):

2

Number of Night train moves (6p-6a):

0

Are cars left on tracks near crossing:

No

## SECTION 4 – PRE-EMPTION

**4.1 - PRE-EMPTION CIRCUITRY REQUIRED:**

No

If no, skip to section 6. If yes, specify name, distance and direction to intersection:

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

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

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

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

**4.2 - AUTHORIZING AGENCY:**

**4.3 - ROADWAY TRAFFIC ENGINEER:**

**4.4 - DATE OF REQUIREMENT:**

## SECTION 5 – JOINT RAILROAD

**5.1 - IS TRACK LEASED FROM ANOTHER RAILROAD:**

No

If yes, specify railroad and division of maintenance:

**5.2 - DOES ANOTHER RAILROAD OPERATE AT CROSSING:**

NS

**5.3 - DOES THE FOREIGN RR CROSS OR GO PARALLEL:**

No

**5.4 - ANY JOINT FACILITIES WITHIN ONE MILE:**

No

If yes, specify railroad and division of maintenance:





(TR-55)



## SECTION 6 – POLELINE

6.1 - ARE RAILROAD POLELINES PRESENT

No

If no, skip to section 5. If yes, show on sketch.

6.2 - REMOVE ABANDONED POLELINE:

If yes, specify number of spans to be removed:

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

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

## SECTION 7 – UTILITIES

7.1 - IS COMMERCIAL POWER AVAILABLE:

Yes

Specify location of nearest pole:

70'

If no, from where and how far must it come to service this location

7.2 - POWER COMPANY NAME/CONTACT INFORMATION:

AEP

7.3 - NEW METER SERVICE REQUIRED:

Yes

Specify 110VAC or 220VAC

If no, specify existing meter number:

7.4 - EXISTING UTILITY INFORMATION

Company Name	Type of Utility	Phone Number	Conflicts



(TR-55)



**7.5 - DESCRIBE ANY OVERHEAD UTILITY CONFLICTS:** (height of lines and proximity to devices to be installed)  
None marked

**7.6 - DESCRIBE ANY UNDERGROUND UTILITY CONFLICTS:**  
None marked

**7.7 - UTILITIES AND PIPELINES PARALLEL TO TRACKS:** No

**7.8 - NEARBY COMMERCIAL HIGH TENSION LINES:** Yes, parallel to tracks

**7.9 - NEARBY COMMERCIAL SUBSTATIONS:** No

**7.10 - NEARBY SOLAR SUBSTATIONS:** No

**7.11 - NEARBY PROPANE/NATURAL GAS SUBSTATIONS:** No

## SECTION 8 – OBSTRUCTIONS

**8.1 - OBSTRUCTIONS TO VISIBILITY OF DEVICES:** No

If yes, show on sketch.

**8.2 - OBSTRUCTIONS TO VISIBILITY ALONG TRACKS:** No

If yes, show on sketch.

**8.3 - OBSTRUCTION SOLUTION (PROVIDE CONTACT INFORMATION OF OWNER):**

## SECTION 9 – ROADWAY DATA

(Show on attached crossing sketch)

**9.1 - TYPE OF ROADWAY SURFACE:** Asphalt

If different, specify crossing surface type: Asphalt and rail seal

**9.2 - EXISTING ROADWAY WIDTH:** 18'

If present, specify shoulder width: \_\_\_\_\_

**9.3 - PROPOSED ROADWAY WIDTH:** 18'

If present, specify shoulder width: \_\_\_\_\_



(TR-55)



9.4 - CROSSING ANGLE:	80
9.5 - VEHICLE SPEED:	45 MPH
9.6 - IS CURBING PRESENT/REQUIRED:	No
9.7 - ARE SIDEWALKS PRESENT:	No
If yes, will they interfere with warning devices:	
9.8 - ARE PEDESTRIAN GATES REQUIRED:	No
9.9 - WIDTH AND TYPE OF MEDIAN:	N/A
9.10 - LOCATION AND DISTANCE FROM XING TO DRIVEWAYS AND SIDE STREETS:	Gravel drive along R/W
9.11 - DOES EXISTING DOT/AAR# MATCH INFORMATION PROVIDED:	Yes

## SECTION 10 – SITE INFORMATION

10.1 - ENCROACHMENTS WITHIN RR PROPERTY:	No
If yes, describe, photograph, and include on FIELD SKETCH:	
10.2 - WILL TOPOGRAPHY AFFECT INSTALLATION:	Yes
If yes, describe, photograph, and include on FIELD SKETCH:	
10.3 - WILL DRAINAGE BE AFFECTED:	No
If yes, describe, photograph, and include on FIELD SKETCH:	
10.4 - CULVERTS BE EXTENDED/RELOCATED/REQUIRED:	No
10.5 - CONDUIT LENGTH REQUIRED:	100'
10.6 - UNUSUAL/GEOGRAPHY FEATURES:	No
10.7 - MINES OR SPURS IN AREA:	No
10.8 - RIVER LOCKS:	No



(TR-55)



10.9 – ARE USCGS SURVEY MARKERS PRESENT: No

If yes, describe, photograph, and include on FIELD SKETCH (DO NOT REMOVE MARKERS):

10.10 – ANY ELECTRIFIED ROADS OR TRANSISTS IN AREA: No

10.11 – HAS RAILROAD EXPERIENCED ANY PROBLEMS AT THIS CROSSING RELATED TO TRAIN OPERATIONS: N/A

10.12 – SCRAP DISPOSAL: No TYPE: N/A FEE: N/A

10.13 - ADDITIONAL COMMENTS/DETAILS/CONFLICTS:

Existing switch is used for occasional storage of MOW equipment, very few switching moves. Ada crossings (Johnson St is closest) utilizes a AC/DC circuit, terminating 626' from Van Atta crossing surface. Ada crossings to be upgraded to motion detection or IJs will need to be relocated on both ends of the approach.

10.14 - NE QUADRANT:

10.15 - NW QUADRANT:

10.16 - SE QUADRANT:

10.17 - SW QUADRANT:

## SECTION 11 – PHOTO LOG

[illegible]



(TR-55)



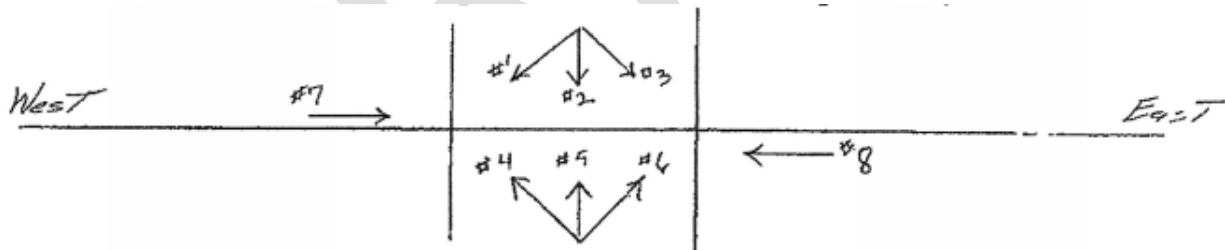
## SECTION 12 –ADDITIONAL INSTRUCTIONS

**12.1** A minimum of two field sketches is required. One should show a 'closeup' view of the crossing and the second should show the approaches to the crossing. **If the closeup view sketch is too congested, then include separate drawings for existing and proposed.** Pertinent structures beyond the approach limits of the crossing should be noted/shown if there is a possibility of these affecting project crossing installation/operation.

These sketches are to include, but not limited to:

- Cut sections (relayed and non-relayed)
- Switches (elec. Lock, bolt lock, H.T. derails, etc)
- Signal locations (automatic and controlled)
- Other road crossings (protected and unprotected) – take pictures.
- Slide fences, DED/TSA's, HBD,
- Non-interlocked RR crossings
- Mileposts
- Angle of crossing
- Speed of trains
- Snow blowers within approach of crossings
- Bridges (type, height, length) – take pictures
- AC meter service location
- Roadway dimensions (width, shoulders, median, sidewalk, etc.)
- Locate utilities and pipelines (underground and overhead) – take photos.

**12.2** Take a minimum of eight (8) pictures, as shown below, and number each picture according to the numbered arrows on your field sketch. If additional pictures are taken, show additional numbered arrows on the field sketch to which pictures correspond.



**12.3** - If AAR/DOT number plate is posted, include in picture.

**12.4** - Take pictures inside any cases and/or signal houses.

**12.5** – If copies plans are not available, then take pictures of circuit plans





Van Atta Rd 001 - Western Railroad Approach and Cooperative Turnout - SW QUAD looking West



Van Atta Rd 002 - Western Railroad Approach and Cooperative Turnout - SW QUAD looking West





Van Atta Rd 003 - Cooperative Turnout Insulated Joints - SW QUAD looking North



Van Atta Rd 004 - Cooperative Turnout Insulated Joints - SW QUAD looking North





Van Atta Rd 005 - Cooperative Turnout Insulated Joints and Crossing Surface - SW QUAD looking Northeast



Van Atta Rd 006 - Cooperative Turnout Switch Points and Crossing Surface - SW QUAD looking East





Van Atta Rd 007 - Western Railroad Approach and Gravel Drive - SW QUAD looking Northeast



Van Atta Rd 008 - Western Railroad Approach and Gravel Drive - NW QUAD looking West





Van Atta Rd 009 - Eastern Railroad Approach and Used Crosstie Pile - NE QUAD looking East



Van Atta Rd 010 - Existing Passive Warning Devices - NW QUAD looking South





Van Atta Rd 011 - AEP Transmission Pole - SE QUAD looking East





Van Atta Rd 012 - Existing Passive Warning Devices - SE QUAD looking North



Van Atta Rd 013 - AEP Distribution Pole - SW QUAD looking West



Van Atta Rd 014 - Heritage Cooperative Driveway - SW QUAD looking South





Van Atta Rd 015 - Johnson Street Warning Devices - SW QUAD looking Northeast



**Public Utilities  
Commission**

Asim Z. Haque, Chairman

**Commissioners**

Lynn Slaby  
M. Beth Trombold  
Thomas W. Johnson  
Vacant

January 24, 2017

Chicago, Ft. Wayne & Eastern Railroad  
Mr. John Hilborn  
Vice President-Engineering, Midwest Region Railroads\*  
4349 Easton Way, Suite 110  
Columbus, OH 43219

Re: 1) Hardin County, Van Atta Road,  
DOT#532-677J, hereinafter  
referred to as the "Project"

Dear Mr. Hilborn:

The Public Utilities Commission of Ohio (PUCO) has identified and the Ohio Rail Development Commission (ORDC) surveyed, on October 27, 2016, the above mentioned grade crossing for warning device upgrades. The location has been approved for flashing lights and roadway gates.

The Project shall comply with Agreement No. 00037-C, dated August 27, 2004, entered into by the State of Ohio and Chicago Ft. Wayne & Eastern Railroad (CFE). 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 or ORDC's construction authorization. The RAILROAD shall provide written notification of the construction start date to PUCO and ORDC no later than five (5) business days prior to such date.



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

Sincerely,



Milan Orbovich  
Director of Transportation  
Public Utilities Commission of Ohio

Date 1/24/17

Chicago Ft. Wayne & Eastern Railroad

By \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_



Matthew Dietrich  
Executive Director  
Ohio Rail Development Commission

Date 1-27-17

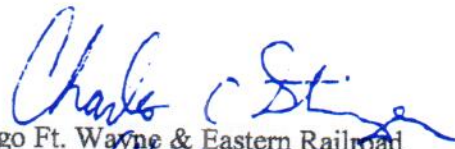
Please indicate your acceptance of the terms and conditions of this Letter of Agreement by signing and returning one (1) copy to Ms. Jill Henry, Rail Specialist, Rail Division, Public Utilities Commission of Ohio, 180 E. Broad Street, Columbus, Ohio 43215-3793.

Sincerely,



Milan Orbovich  
Director of Transportation  
Public Utilities Commission of Ohio

Date 1/24/17



Chicago Ft. Wayne & Eastern Railroad  
Charles Stringer

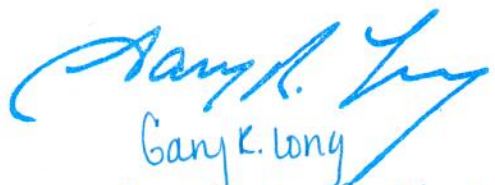
By Ast. Treasurer

Title \_\_\_\_\_

Date 2-24-17

Matthew Dietrich  
Executive Director  
Ohio Rail Development Commission

Date \_\_\_\_\_



Gary K. Long  
Senior Vice President  
2-24-17



## Diagnostic Review Team Survey

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

Formula

Date: 10/27/2016

## Location Data

Street or Road Name: Van Atta Road

Route/Road Number  
(i.e. Twp., Co., SR or US)

US DOT No.: 532677J ✓

County: HAR

Township: Liberty

City:  
(In or Near) Near AdaRailroad  
Name: Chicago Ft. Wayne & EasternRailroad  
Division: Midwest RegionBranch/Line  
Name:Nearest RR  
Timetable Station: Kirk

RR Milepost: 244.65

## On-Site Review Team

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

1. DON DAMRON, ORDC, (614) 917-8466, don.damron@dot.ohio.gov
2. *[Signature]* (419) 959-9452
3. *[Signature]* 419-236-8963
4. Luke Underwood, Hardin County Engineer, 419-674-2222, lunderwood.hcc@hardincounty.com
5. Jerry Gibson, PUCO, 419-234-8416
6. Lincoln G. Harrison, PUCO, 419-204-7537
7. Bryan TAPP, CFER, (513) 805-1398, bryan.tapp@owrn.com
8. \_\_\_\_\_
9. \_\_\_\_\_

## Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	BOTH SIDES OF XING
'Stop' Signs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	BOTH SE & NW QUADS
'Stop Ahead' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Pavement Markings (condition?)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Number of Tracks Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	ONE TRACK
Inventory Tags	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Interconnected Highway Traffic Signal	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Mast-Mounted Flashing Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Cantilever Flashing Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number: Length:
Side Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Automatic Gates	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number: Length:
Bells	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number:
Sidewalk Gate Arms	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
'No Turn' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Illumination	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Is crossing flagged by train crew?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	MAY FLAG SWITCHING AT CROSSING
Other	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Safety Data (Obtain crash reports, if possible, prior to review)		
	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	1 (3/30/16)	
Hazard Ranking	223	Date Run: 9/30/16
Railroad Data		
Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	3	4-5 CURRENTLY
< 1 per day		MAY INCREASE
Day thru trains	2	
Night thru trains	1	
Daytime switching movements		
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	40	OK
Typical train speed	40	OK
Amtrak		
If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If multiple tracks, can two trains occupy crossing at the same time? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Can one train block the motorists' view of another train at crossing? <input type="checkbox"/> Yes (Explain below) <input checked="" type="checkbox"/> No		
Can one or more tracks be eliminated through the crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Are there other track(s) crossing this same roadway within 100 ft of this crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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:		Liberty Township
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	403 (2007)	INCREASING DUE TO NEW
Highway paved	X Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No LOCAL BUSINESSES
Roadway Surface: <input checked="" type="checkbox"/> Blacktop <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____		
Roadway width: 18 ft.		
Number of highway lanes	2	
Urban or Rural	Rural	OK
Vehicle Speed: 55 MPH		OK
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Amount 1 AM / 1 PM		
Hazardous Materials Trucks: <input type="checkbox"/> No X Yes .05 Amount ✓		
Shoulders: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is the shoulder surfaced? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is there existing guardrail along roadway in crossing vicinity? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is stopping site distance adequate? (See Table 2) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, deficient approach(es) _____		

Quadrant <u>SE</u> Curb and Gutter: <input type="checkbox"/> Functional (Curb height = 4" or more) <input type="checkbox"/> Non-functional (Curb height = Less than 4") <input checked="" type="checkbox"/> None	Quadrant <u>NW</u> Curb and Gutter: <input type="checkbox"/> Functional (Curb height = 4" or more) <input type="checkbox"/> Non-functional (Curb height = Less than 4") <input checked="" type="checkbox"/> None
Pedestrians: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <u>CROSS-COUNTRY TEAM RUNS FROM COLLEGE</u>	
Is sidewalk present? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is there a nearby intersection that could cause queuing over the crossing? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, Distance _____	
Is this intersection signalized? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Are the signals currently interconnected with the existing crossing warning devices? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is there a 'Do not Stop on Track' sign? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is a roadway improvement project (e.g. widening, turn lanes, nearby new or upgraded traffic signal, sidewalk) planned at or near this location in the foreseeable future? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <u>POSSIBLE RE-SURFACE / NOT SCHEDULED</u> If yes, Improvement type _____ Lead Agency _____ Timeline/completion - _____	
Is it the consensus of the Diagnostic Review Team that this is a potential closure project? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Explain reasons: _____	
<b>Type of Development</b>	
<input checked="" type="checkbox"/> Open Space <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	Location of nearby schools: <u>NORTH &amp; WEST OF CROSSING ON (81-SR)</u>
<b>Utility Information</b>	
Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
Utility Provider (Company Name) <u>AEP</u> Phone Number _____	
Nearest Available Power Source <u>NEAR SITE</u>	
What other utilities are present? (add locations to sketch) <input type="checkbox"/> Gas <input type="checkbox"/> Cable <input type="checkbox"/> Telephone <input type="checkbox"/> Fiber Optic Cable <input type="checkbox"/> Petroleum <input type="checkbox"/> Water <input type="checkbox"/> Sanitary Sewer <input type="checkbox"/> Other _____	
Is(are) there potential utility conflict(s) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	
Comments: _____	

## Potential Red Flags / Project Challenges

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

NA

Crossing Consolidation or Closure:

NA

Real Estate or ROW:

NA

Culverts / Drainage / Ballast Conditions:

NA

Roadway and/or Sidewalks:

NA

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

SWITCH/INDUSTRIAL SPUR IN SW QUAD SERVES  
HERITAGE (FARM FERTILIZERS)

Environmental:

NA

Other:



## Diagnostic Team Recommendations

### Quadrants Needed

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

### Comments:

CONSENSUS: UPGRADE TO LIGHTS AND GATES.

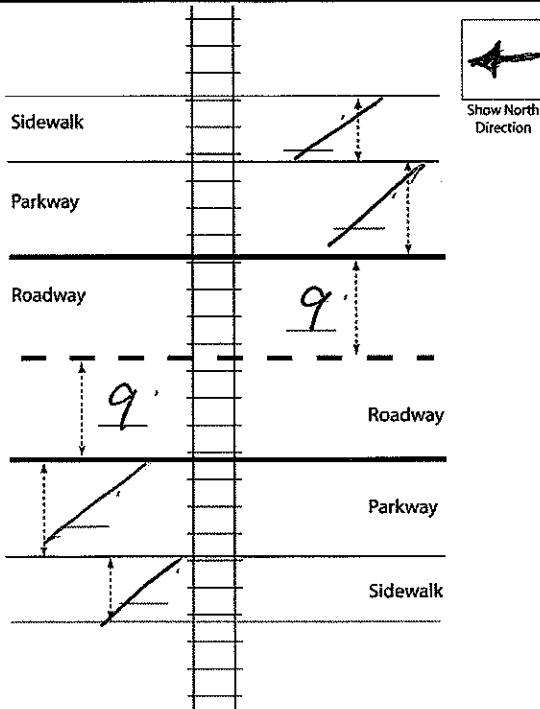
- ☐ Install/upgrade traffic signal preemption
- ☐ No improvements needed
- ☐ Other (define)

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

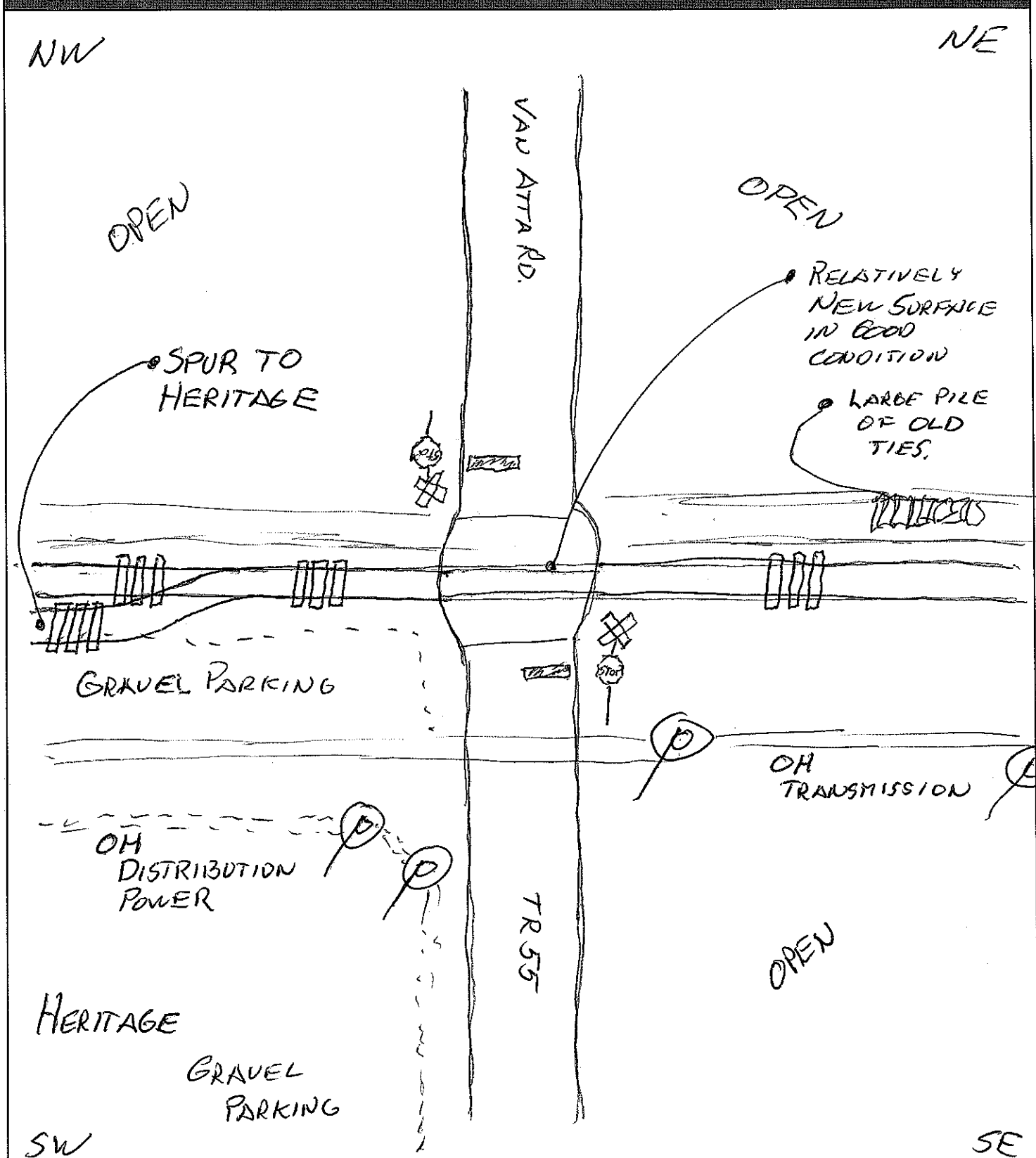
*[Signatures]*

WB Taff

## Field Dimensions



Field Sketch



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

Sketch by: DJO

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.

**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**10/30/2017 4:57:30 PM**

**in**

**Case No(s). 17-2200-RR-FED**

Summary: Application In the Matter of a Request for the Installation of Active Warning Devices at the CF&E Railroad Crossing, DOT# 532-677J, Van Atta Road in Hardin County, Ohio. electronically filed by Mrs. Jill A Henry on behalf of PUCO/Rail Division