

Memo

To: Docketing Division
From: Jill Henry, Rail Specialist, Rail Division
Cc: PUCO Legal Department
Date: 11/2/17

Re: PUCO Case No. 17-2286-RR-FED- In the Matter of a Request for the Installation of Active Warning Devices at IORY Railroad Crossings, DOT#151-913H, Pearl Street, in Fayette County & DOT#514-791L, Quarry Road, in Fairfield County, Ohio.

On March 7, 2017, the Ohio Rail Development Commission (ORDC) authorized funding for Indiana & Ohio Railway (IORY) to install lights and gates at the Pearl Street, DOT#151-913H, in Fayette County & Quarry Road, DOT#514-791L, in Fairfield County, Ohio. The crossings were surveyed on October 18, 2016 and were found to warrant the upgrades. The electric utility provider the Pearl Street crossing is Dayton Power and Light and for Quarry Road is American Electric Power- AEP.

The projects will be paid for with federal funds and are actual cost. The plans and estimates for the projects in the amount of \$198,481.97 for Pearl Street and \$161,980.00 for Quarry Road (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:

Indiana & Ohio Railway
Scott Sandoval
AVP, Engineering
Midwest Region Railroads
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

City of Washington CH
Tim Mitchel
City Engineer
220 Park Avenue
Washington CH, Ohio 43160

City of Lancaster
Mitch Noland
City Engineer
121 E. Chestnut Street
Lancaster, Ohio 43130

Dayton Power & Light

AEP-Ohio

INTER-OFFICE COMMUNICATION

TO: Randall Schumacher, Supervisor, Rail Division, PUCO
FROM: Cathy Stout, Manager, Safety Section, ORDC
BY: Eric Neff, Safety Manager, Safety Section, ORDC
SUBJECT: Fayette County, Pearl Street, DOT 151913H, PID# 104595
Fairfield County, Quarry Road, DOT 514791L, PID# 104638
DATE: October 17, 2017

The Ohio Rail Development Commission (ORDC) established a diagnostic survey at the subject location on November 18, 2016. The Public Utilities Commission of Ohio (PUCO) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. Copies of the diagnostic review forms and the plans and estimates are attached.

PE has already been provided by the railroad. ORDC accepts the site plans and estimates as provided. Please issue a construction-only order for the projects 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.

Attachment: Diagnostic Review
Plan & Estimate

c: Jill Henry, Rail Division Specialist, 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

October 17, 2017

John Hilborn, P.E.
Genesee & Wyoming/IORY
Vice President – Engineering
4349 Easton Way, Suite 110
Columbus, Ohio 43219

RE: Fayette County, Pearl Street, DOT 151913H, PID# 104595
Fairfield County, Quarry Road, DOT 514791L, PID# 104638

The plans and estimates dated September 5, 2017 for the referenced projects are acceptable. The Genesee & Wyoming/IORY may proceed with the construction of the proposed grade crossing warning systems in accordance with the abbreviated plans. Construction may include but is not limited to associated railroad track, curb and sidewalk construction circuitry design, installation of service poles, procurement of materials and signal construction. Please note ODOT Railroad Audit Circular No.4 Subcontracted Costs for Railroads and accordingly provide ORDC with any relevant bid documents and bid tabs pertaining to this project. 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 costs are limited to the following:

- \$198,481.97 Fayette County, Pearl Street, DOT 151913H, PID# 104595
- \$161,980.00 Fairfield County, Quarry Road, DOT 514791L, PID# 104638

and will be adjusted based on bid tabulations if applicable. 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 the Genesee & Wyoming/IORY accepting the following instructions:

1. The Genesee & Wyoming/IORY's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Eric Neff, ORDC, email: eric.neff@dot.ohio.gov and to Jill Henry the Public Utilities Commission of Ohio at email: jill.henry@puco.ohio.gov. NS'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. The Genesee & Wyoming/IORY's 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 the Genesee & Wyoming/IORY.



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phone: 614.644.0306

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3. The Genesee & Wyoming/IORY's project foremen will notify notify Eric Neff at 614-745-6760 (telephone) or eric.neff@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. The Genesee & Wyoming/IORY will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.
6. The Genesee & Wyoming/IORY will furnish two (2) copies of the final all-inclusive bill to ORDC stating the exact dates of starting and completing work, the initial and final dates of construction and location where the accounts may be audited.
7. This installation will include any ancillary work to make the warning devices function as designed and meet MUTCD.

Thank you for your assistance with these matters.

Sincerely,

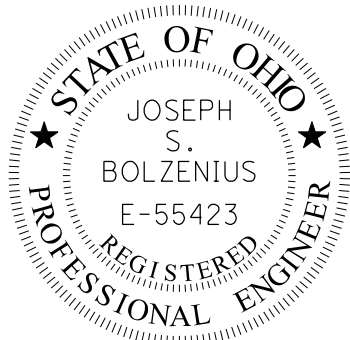
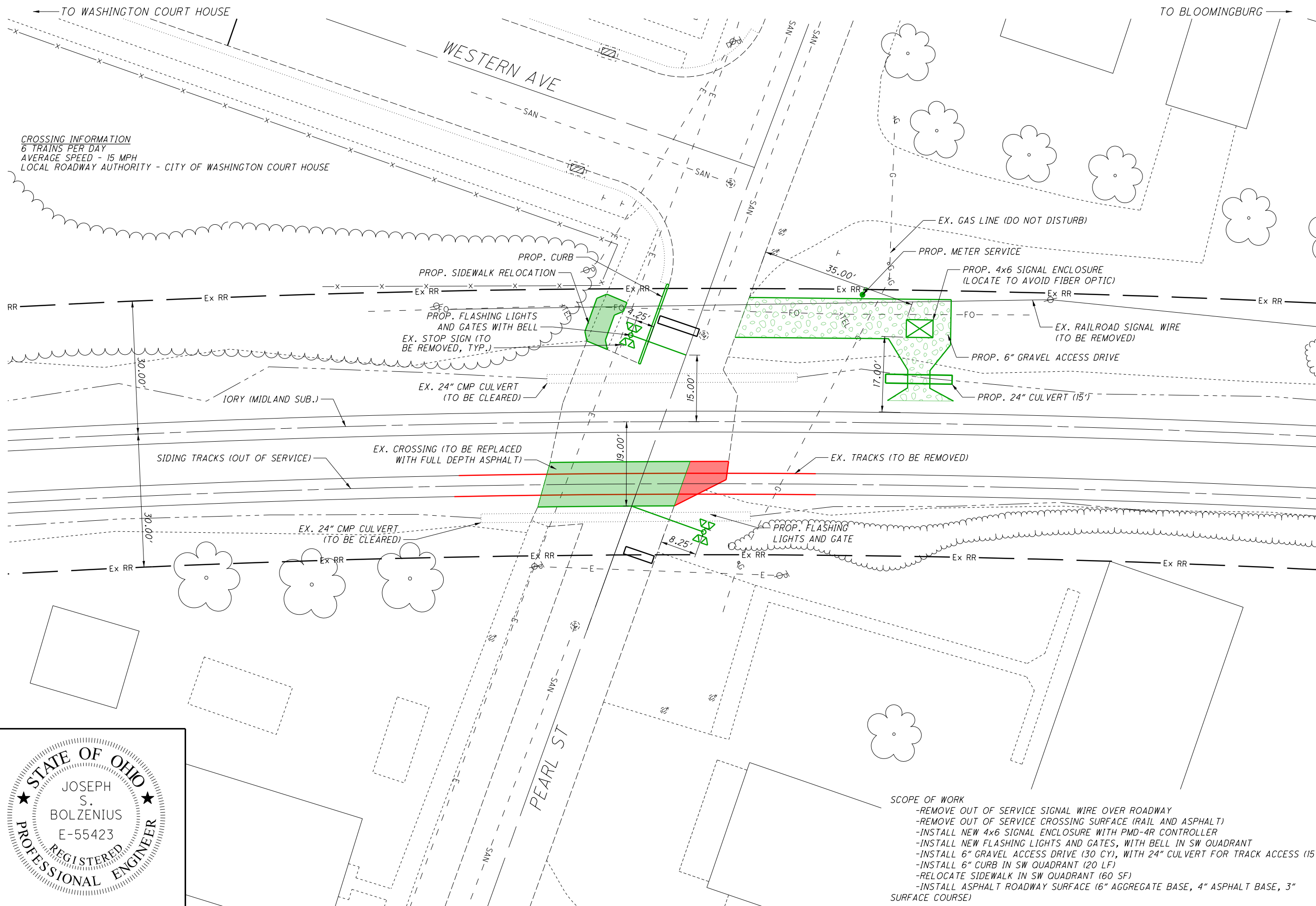
[Eric Neff](#)

Eric Neff
Project Manager

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

pw:\LSL\PW.patrick\int:RAIL\Documents\G_and_W\Ohio_Valley_Region\21777.806_Pearl\PE-Track\Pearl_XP001.dgn 7/27/2017 5:22:22 PM tsabo

CROSSING INFORMATION
6 TRAINS PER DAY
AVERAGE SPEED - 15 MPH
LOCAL ROADWAY AUTHORITY - CITY OF WASHINGTON COURT HOUSE

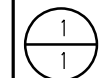


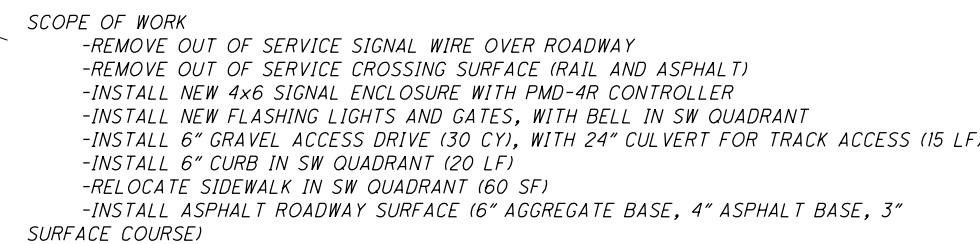
SCOPE OF WORK
-REMOVE OUT OF SERVICE SIGNAL WIRE OVER ROADWAY
-REMOVE OUT OF SERVICE CROSSING SURFACE (RAIL AND ASPHALT)
-INSTALL NEW 4x6 SIGNAL ENCLOSURE WITH PMD-4R CONTROLLER
-INSTALL NEW FLASHING LIGHTS AND GATES, WITH BELL IN SW QUADRANT
-INSTALL 6" GRAVEL ACCESS DRIVE (30 CY), WITH 24" CULVERT FOR TRACK ACCESS (15 LF)
-INSTALL 6" CURB IN SW QUADRANT (20 LF)
-RELOCATE SIDEWALK IN SW QUADRANT (60 SF)
-INSTALL ASPHALT ROADWAY SURFACE (6" AGGREGATE BASE, 4" ASPHALT BASE, 3" SURFACE COURSE)

PATRICK ENGINEERING - 7/27/17

PEARL STREET - MP 77.77 (151913H)
PROPOSED SITE LAYOUT

PEARL STREET
AT IORY





PATRICK ENGINEERING - 9/05/17



Force Account Estimate - Pearl St (PID 104595)

INDIANA & OHIO RAILWAY COMPANY (IORY)

Washington Courthouse, OH (Fayette County)

DOT#: 151913H
Railroad # 17IORY20R
RR MP: 77.77

SUMMARY

CROSSING WARNING SYSTEM	\$ 112,480.00
(Includes all labor, materials, equipment, shop wiring, and installation)	
SITE CIVIL ITEMS	\$ 14,496.97
(Includes all labor, materials, and equipment for MUTCD compliance)	
CROSSING SURFACE/RESURFACE	\$ -
(Includes all labor, materials, and equipment)	
TRACK GRADE AND REHABILITATION	\$ -
(Includes all labor, materials, and equipment)	
PRELIMINARY ENGINEERING	\$ 10,000.00
(Includes labor for all Engineering including site plans, Agency Coordination, and Project Management)	
CONSTRUCTION ENGINEERING	\$ 28,250.00
(Includes labor for all Engineering including circuitry plans, Agency Coordination, and Project Management)	
CONSTRUCTION ENGINEERING INSPECTION	\$ 5,500.00
(Includes all labor and mileage for site inspections during construction)	
UTILITY CROSSING	\$ -
(0 new utility crossings @ \$4000 per crossing, includes application, engineering review, and right of entry)	
FLAGGING SERVICES	\$ 5,000.00
(Estimated Flagging Services cost based on 5 days @ \$1000 per day)	
AC POWER SERVICE	\$ 4,000.00
(Includes all Coordination and Power Service Charges not included in other costs)	
OTHER (DESCRIPTION REQUIRED)	\$ 18,755.00
(Upgrade SR-41 to PMD-4 to eliminate interference with Pearl St crossing)	
TOTAL ESTIMATE COST	\$ 198,481.97 (USD)

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: IORY
Crossing Name: Pearl St
City, (County), State : Washington Court House, (Fayette), OH
Railroad #:
FRA#: 151 913H
Patrick Engineering #: 21777.806

ITEM	UNIT COST	UNITS	TOTAL
6'x6' Wired House with Equipment	\$ 45,500.00	1 EA	\$ 45,500.00
Gate/Flasher Assembly	\$ 20,250.00	2 EA	\$ 40,500.00
		SUBTOTAL	\$ 86,000.00
Freight & Handling			\$ 2,000.00
		TOTAL MATERIALS	\$ 88,000.00
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
		TOTAL INSTALLATION & WIRING	\$ 11,880.00
Equipment per day	\$ 1,000.00	1 Day	\$ 1,000.00
Bungalow Wiring and Test	\$ 5,800.00	2 Day	\$ 11,600.00
		TOTAL EQUIPMENT	\$ 12,600.00
TOTAL CROSSING WARNING SYSTEM			\$ 112,480.00

Estimate:

Site Civil Costs

<u>Line #</u>	<u>Item Number</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
<u>Description</u>					
<u>Supplemental Description</u>					

Group 0010: Roadway

0001	609E14000	20.000	FT	\$25.11194	\$502.24
CURB, TYPE 2-A					
0002	511E51510	1.000	CY	\$540.00000	\$540.00
CLASS QC2 CONCRETE, SIDEWALK					
0003	611E10200	15.000	FT	\$204.87469	\$3,073.12
24" CONDUIT, TYPE A					
0004	304E20000	30.000	CY	\$78.82707	\$2,364.81
AGGREGATE BASE					
0005	202E23000	380.000	SY	\$16.12610	\$6,127.92
PAVEMENT REMOVED					
0006	304E20000	6.000	CY	\$78.82707	\$472.96
AGGREGATE BASE					
0007	301E46000	4.000	CY	\$242.25751	\$969.03
ASPHALT CONCRETE BASE, PG64-22					
0008	441E50000	3.000	CY	\$148.96476	\$446.89
ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22					

Total for Group 0010:\$14,496.97



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RAILROAD/HIGHWAY GRADE CROSSING SITE SURVEY

RAILROAD NAME:	Indiana & Ohio Railway Company		
LOCATION:	Washington Court House, OH		
PROJECT#:	RR#	17IORY20R	Patrick# 21777.806
SURVEYED BY:	Troy Sabo	DATE:	7/13/17
ROADWAY:	Pearl St	DOT#:	151913H
SUBDIVISION:	Midland	MILEPOST:	77.77
REGION:	Midwest	SPEED:	25 MPH
LATITUDE:	39.544591	LONGITUDE:	-83.441941
NEAREST ADDRESS:	725 Pearl Street, Washington Court House, OH 43160		
	Crossing within city limits?		Yes
REVISED:			

PROJECT SCOPE (PER AGENCY ORDER/DRTS FINDINGS):

Flashing lights and gates with bell in SW quad for sidewalk. Railroad to remove siding track and surface for single track. Curb and sidewalk relocation required in SW quad.

Special Requirements of City

Permits	N/A	Type:	Fee: \$
Bonds	N/A	Type:	Fee: \$

RAILROAD CONCERNS/SCOPE ADJUSTMENTS:

North Street (SR-41) currently utilizes PMD-2 @ 560 Hz. RR is concerned that any additional shunts or changes in frequency will negatively affect the unit, and replacement parts are impossible to get. Recommend upgrading the controller at SR-41. Overhead pole line is out of service and may interfere with gates, to be removed.

SURVEY ATTENDEES:

Name	Title	Company	Email/Phone
Troy Sabo	Asst. Project Manager	Patrick Engineering	614-498-0344
Adam Richter	Signal Supervisor	IORY	513-335-4812



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):

Ex. NBS for Delaware St (392 Hz), SR-38 (626 Hz) and North St (560 Hz) approx. 1300' approaches

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

Multiple IJs throughout approaches, currently bonded around

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

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:

Limited

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



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	1	
Bridge Signals	-	
Signal Enclosure	1	6x6 house
Highway/Rail grade crossing warning equipment type	1	PMD-4R

NOTES:

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:

No

2.7 - IS ADDITIONAL FILL MATERIAL REQUIRED:

Yes

If yes, specify location and estimate quantity:

NE quad for signal foundation

2.8 - BERM/CRIB WALL/PLATFORM REQUIRED:

No

If yes, specify location, size and type:

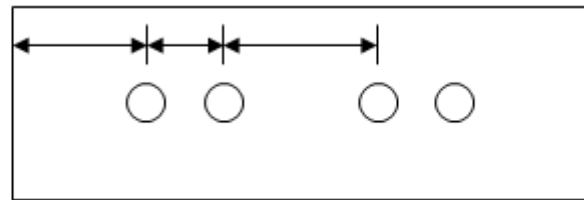
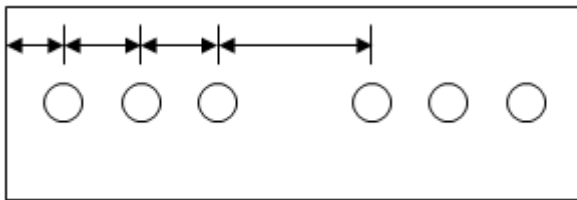


SECTION 3 – TRACK AND RAIL

3.1 – EXISTING TRACK CONDITIONS

Track	Rail Weight	CWR	JT	Bond Type	Track Speed	Track Control	Rusty Rail	Ballast Condition
Mainline	122CB		X	Head	25		No	Fair
Siding								
Siding								
Industry								
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:

No

If yes, show switches on FIELD SKETCH.

3.5 - ANY SHUNT-TYPE SWITCHES:

No

If yes, describe type and show on FIELD SKETCH:

3.6 - SHUNT ENHANCEMENT REQUIRED:

No

If yes, specify type:

3.7 – HOW MANY TRACKS THROUGH THE ROADWAY:

2

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

14'

3.8 – INDICATE ANY SCHEDULED TRACK REARRANGEMENT OR REMOVAL

OOS siding track to be removed as part of project



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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.

Delaware, SR-38, and North St

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

No

If yes, describe:

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

No

If yes, describe:

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

No

If yes, describe and show on FIELD SKETCH:

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

No

If yes, describe:



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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):

3

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

3

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:

Yes

If yes, specify railroad and division of maintenance:

CSX owns, IORY maintains

5.2 - DOES ANOTHER RAILROAD OPERATE AT CROSSING:

No

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:

**SECTION 6 – POLELINE****6.1 - ARE RAILROAD POLELINES PRESENT**

Yes

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

6.2 - REMOVE ABANDONED POLELINE:

Yes

If yes, specify number of spans to be removed:

1+

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

No

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

No

SECTION 7 – UTILITIES**7.1 - IS COMMERCIAL POWER AVAILABLE:**

Yes

Specify location of nearest pole:

80' west

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
AT&T	Fiber		
Vectren	Gas		



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7.5 - DESCRIBE ANY OVERHEAD UTILITY CONFLICTS: (height of lines and proximity to devices to be installed)

Out of service pole line to be removed to ensure proper gate clearance. Need verification of height from AEP to ensure power and secondary users provide enough clearance.

7.6 - DESCRIBE ANY UNDERGROUND UTILITY CONFLICTS:

Fiber optic interferes with proposed signal house location.

7.7 - UTILITIES AND PIPELINES PARALLEL TO TRACKS: No

7.8 - NEARBY COMMERCIAL HIGH TENSION LINES: No

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:

9.2 - EXISTING ROADWAY WIDTH: 40' (crossing length)

If present, specify shoulder width:

9.3 - PROPOSED ROADWAY WIDTH: 40' (crossing length)

If present, specify shoulder width:



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9.4 - CROSSING ANGLE:	70
9.5 - VEHICLE SPEED:	25 MPH
9.6 - IS CURBING PRESENT/REQUIRED:	Required
9.7 - ARE SIDEWALKS PRESENT:	Yes
If yes, will they interfere with warning devices:	Require relocation
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:	60' NW to Western Ave
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:	Signal location will be in ditch, house on hill with ditch between tracks.
10.3 - WILL DRAINAGE BE AFFECTED:	Yes
If yes, describe, photograph, and include on FIELD SKETCH:	
10.4 - CULVERTS BE EXTENDED/RELOCATED/REQUIRED:	No
10.5 - CONDUIT LENGTH REQUIRED:	150'
10.6 - UNUSUAL/GEOGRAPHY FEATURES:	No
10.7 - MINES OR SPURS IN AREA:	No
10.8 - RIVER LOCKS:	No



PEARL STREET



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: No

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

10.13 - ADDITIONAL COMMENTS/DETAILS/CONFLICTS:

Out of service crossing removal shall ensure proper sidewalk grade. Both 24" CMP culverts are plugged and need to be cleaned to ensure proper drainage.

10.14 - NE QUADRANT:
OMUTCD location of signal is on top of existing culvert. Relocate culvert or signal?

10.15 - NW QUADRANT:
OMUTCD location of house is on Fiber Optic line. Consider alternative location?

10.16 - SE QUADRANT:
No additional comments.

10.17 - SW QUADRANT:
Sidewalk to be relocated to avoid counterweight.



PEARL STREET



SECTION 11 – PHOTO LOG

Image #	Description	QUAD	Direction
001	Crossing Surface and Northbound Approach	SW	SE
002	Crossing Surface and Northbound Approach	SW	SE
003	Warning Devices and Northbound Approach	SW	SE
004	Private Fence Along Right of Way	SW	W
005	Private Fence Along Right of Way	SW	W
006	Railroad Ditch Flowing From Surface	SW	SW
007	Railroad Ditch Flowing To Surface	SW	NE
008	24" CMP Culvert, Plugged	SW	NE
009	24" CMP Culvert, Plugged	NW	S
010	Gas Marker, Perpendicular to Tracks	NW	N
011	Gas Marker and Vent, Perpendicular to Tracks	NW	NW
012	AT&T Fiber Optic Marker, Parallel to Tracks	N	NE
013	Crossing Surface and Southbound Approach	SE	NW
014	Water Valve in Driveway	NE	N
015	Gas Marker and Vegetation	NE	N
016	24" CMP Culvert, Plugged	NE	SW
017	Existing Roadway Grade	SW	E
018	24" CMP Culvert, Plugged	SE	SW
019	24" CMP Culvert, Plugged	SE	SW



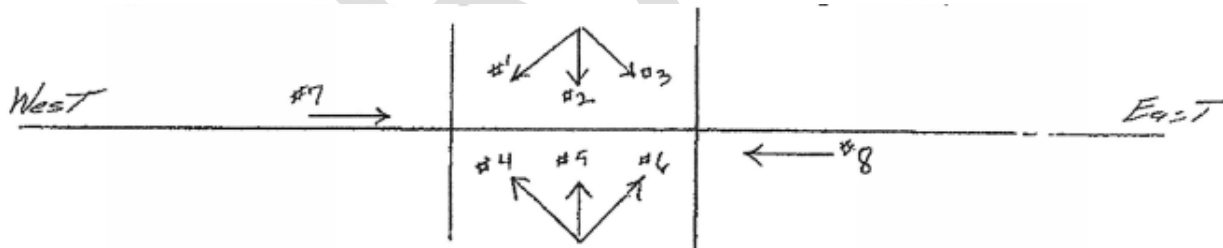
SECTION 12 –ADDITIONAL INSTRUCTIONS

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



Pearl 001 - Crossing Surface and Northbound Approach - SW QUAD looking Southeast



Pearl 002 - Crossing Surface and Northbound Approach - SW QUAD looking Southeast



Pearl 003 - Warning Devices and Northbound Approach - SW QUAD looking Southeast



Pearl 004 - Private Fence Along Right of Way - SW QUAD looking West



Pearl 005 - Private Fence Along Right of Way - SW QUAD looking West

Washington Court House, OH – Pearl Street
DOT# 151913H



Pearl 006 - Railroad Ditch Flowing From Surface - SW QUAD looking Southwest

Washington Court House, OH – Pearl Street
DOT# 151913H

RR M.P. 77.77

Project# 17IORY20R



Pearl 007 - Railroad Ditch Flowing To Surface - SW QUAD looking Northeast



Pearl 008 - 24" CMP Culvert, Plugged - SW QUAD looking Northeast



Pearl 009 - 24" CMP Culvert, Plugged - NW QUAD looking South

Washington Court House, OH – Pearl Street
DOT# 151913H



Pearl 010 - Gas Marker, Perpendicular to Tracks - NW QUAD looking North

Washington Court House, OH – Pearl Street
DOT# 151913H



Pearl 011 - Gas Marker and Vent, Perpendicular to Tracks - NW QUAD looking Northwest



Pearl 012 - AT&T Fiber Optic Marker, Parallel to Tracks - N QUAD looking Northeast

Washington Court House, OH – Pearl Street
DOT# 151913H



Pearl 013 - Crossing Surface and Southbound Approach - SE QUAD looking Northwest



Pearl 014 - Water Valve in Driveway - NE QUAD looking North



Pearl 015 - Gas Marker and Vegetation - NE QUAD looking North



Pearl 016 - 24" CMP Culvert, Plugged - NE QUAD looking Southwest

Washington Court House, OH – Pearl Street
DOT# 151913H

RR M.P. 77.77

Project# 17IORY20R



Pearl 017 - Existing Roadway Grade - SW QUAD looking East



Pearl 018 - 24" CMP Culvert, Plugged - SE QUAD looking Southwest



Pearl 019 - 24" CMP Culvert, Plugged - SE QUAD looking Southwest

Washington Court House, OH – Pearl Street
DOT# 151913H

RR M.P. 77.77

Project# 17IORY20R



OHIO RAIL DEVELOPMENT COMMISSION

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

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

March 7, 2017

John Hilborn, P.E.
Genesee & Wyoming/IORY
Vice President – Engineering
4349 Easton Way, Suite 110
Columbus, Ohio 43219

RE: Fayette County, Pearl Street, DOT 151913H, PID# 104595
Fairfield County, Quarry Road, DOT 514791L, PID# 104638

Dear Mr. Hilborn:

Diagnostic reviews were held at the above grade crossings on November 18, 2016. The crossings have been recommended for the installation of lights and gates.

The Genesee & Wyoming/IORY 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 forms are 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

I am the Project Manager for this project. I can be reached at (614) 752.0399, or Eric.Neff@dot.ohio.gov, if you have any questions.

Sincerely,

Eric T. Neff

Eric Neff
Project Manager

C: Jill Henry, PUCO, Grade Crossing Planner
ORDC (file)



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY



**Public Utilities
Commission**

Asim Z. Haque, Chairman

Commissioners

Lynn Slaby
M. Beth Trombold
Thomas W. Johnson
Vacant

January 24, 2017

Indiana & Ohio Railway Company
Mr. John Hilborn
Vice President-Engineering, Midwest Region Railroads*
4349 Easton Way, Suite 110
Columbus, OH 43219

Re: 1) Fayette County, Pearl Street,
DOT#151-913H, 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 18, 2016, the above mentioned grade crossing for warning device upgrades. The location has been approved for flashing lights and roadway gates. Surface improvements will be included in this project.

The Project shall comply with Agreement No. 5773, dated February 16, 1989, Reconstruction Agreement No. 4425, dated August 26, 1985, and Supplemental Agreement No. 4425-A dated May 8, 2019, entered into by the State of Ohio and Indiana & Ohio Railway (IORY). 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

Indiana & Ohio Railway

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

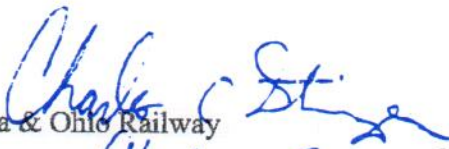
Date 1/24/17

Indiana & Ohio Railway

By

Title

Date



Charles Stranger

Asst. Treasurer

2-27-17

Matthew Dietrich
Executive Director
Ohio Rail Development Commission

Date _____



Gary R. Long
Senior Vice President

2-27-17

Diagnostic Review Team Survey

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

Formula

Date: 10/18/2016

Location Data

Street or Road Name: Pearl Street

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

US DOT No.: 151913H

County: FAY

Township:

City:
(In or Near)

City of Washington Court House

Railroad Name: Indiana & Ohio Railway

Railroad Division: OH

Branch/Line Name:

Nearest RR
Timetable Station: Washington C.H.

RR Milepost: 77.77

On-Site Review Team

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

1. Joe Reinhardt ORDC 614-644-0291
2. Timothy L. Mitchell City of WCH 740-636-2380
3. JEFF ASTO PVCD 614-301-5412
4. Steve Lowe IORY 513 505 0613
5. _____
6. _____
7. _____
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	2
'Stop' Signs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2
'Stop Ahead' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Pavement Markings (condition?)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2
Number of Tracks Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Inventory Tags	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Emergency
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 checked="" type="checkbox"/> No	
Other	<input type="checkbox"/> Yes	<input checked="" 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 (7/31/15) & (1/18/91)	
Hazard Ranking	215 Date Run: 9/30/16	

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	4	4
< 1 per day		
Day thru trains	2	3
Night thru trains	2	3
Daytime switching movements		
Nighttime switching movements		
Total number of tracks	3	1
Number of main tracks	2	1
Number of other tracks	1 T-4244(3)	
Maximum train speed	40	15
Typical train speed	40	15
Amtrak		

If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table I) ☐ 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:	City of Washington Court House	
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	361 (2013)	314 2016
Highway paved	X Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Roadway Surface:	<input checked="" type="checkbox"/> Blacktop <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____	
Roadway width:	16 ft.	
Number of highway lanes	2	
Urban or Rural	Urban	
Vehicle Speed: MPH	25	
School Bus Operation:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes _____ Amount	
Hazardous Materials Trucks:	<input type="checkbox"/> No X Yes .02 Amount 12 Times	
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>SW</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>NE</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: ☐ 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: _____

Type of Development		
<input type="checkbox"/> Open Space <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Institutional <input type="checkbox"/> Commercial	Location of nearby schools: _____

Utility Information

Is commercial power available? ☐ No ☒ Yes

Utility Provider (Company Name) Dayton Power & Light Phone Number _____

Nearest Available Power Source _____

What other utilities are present? (add locations to sketch)

<input checked="" type="checkbox"/> Gas	<input checked="" type="checkbox"/> Cable	<input checked="" type="checkbox"/> Telephone	<input checked="" type="checkbox"/> Fiber Optic Cable
<input type="checkbox"/> Petroleum	<input type="checkbox"/> Water	<input checked="" type="checkbox"/> Sanitary Sewer	
<input type="checkbox"/> Other _____			

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:

Two feet drain pipes running parallel of the tracks
on both side of tracks.

Roadway and/or Sidewalks:

In the south quadrant is a sidewalk that needs to
be relocated.

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

Environmental:

Other:

Diagnostic Team Recommendations

	Quadrants Needed
<input checked="" type="checkbox"/> Install/upgrade active devices	
<input type="checkbox"/> Automatic Flashing Lights (AFLS)	
<input type="checkbox"/> AFLS / Cants	
<input checked="" type="checkbox"/> AFLS / Gates	2
<input type="checkbox"/> AFLS / Gates / Cants	
<input checked="" type="checkbox"/> Bells / number	ONE BELL
<input type="checkbox"/> Upgrade circuitry / type	
<input type="checkbox"/> Sidelights	
<input type="checkbox"/> Guardrail Needed	Southwest & move sidewalk south
<input checked="" type="checkbox"/> Install/Replace curb	Install SW Quad & move sidewalk south
<input type="checkbox"/> Bungalow placement & offset from rail & highway	
<input checked="" type="checkbox"/> Other (define)	

Comments:

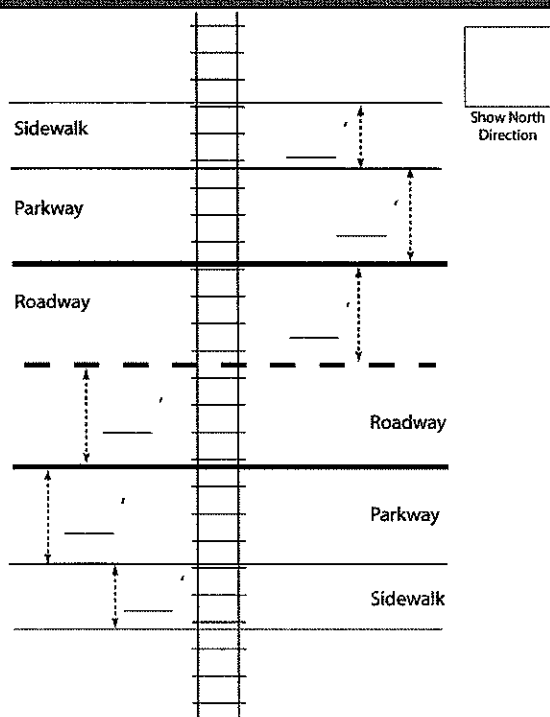
Remove siding track on east side of new surface,
RR will confirm this track can be removed.

- ☐ 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):

JNR T.I.M. JHC

Field Dimensions



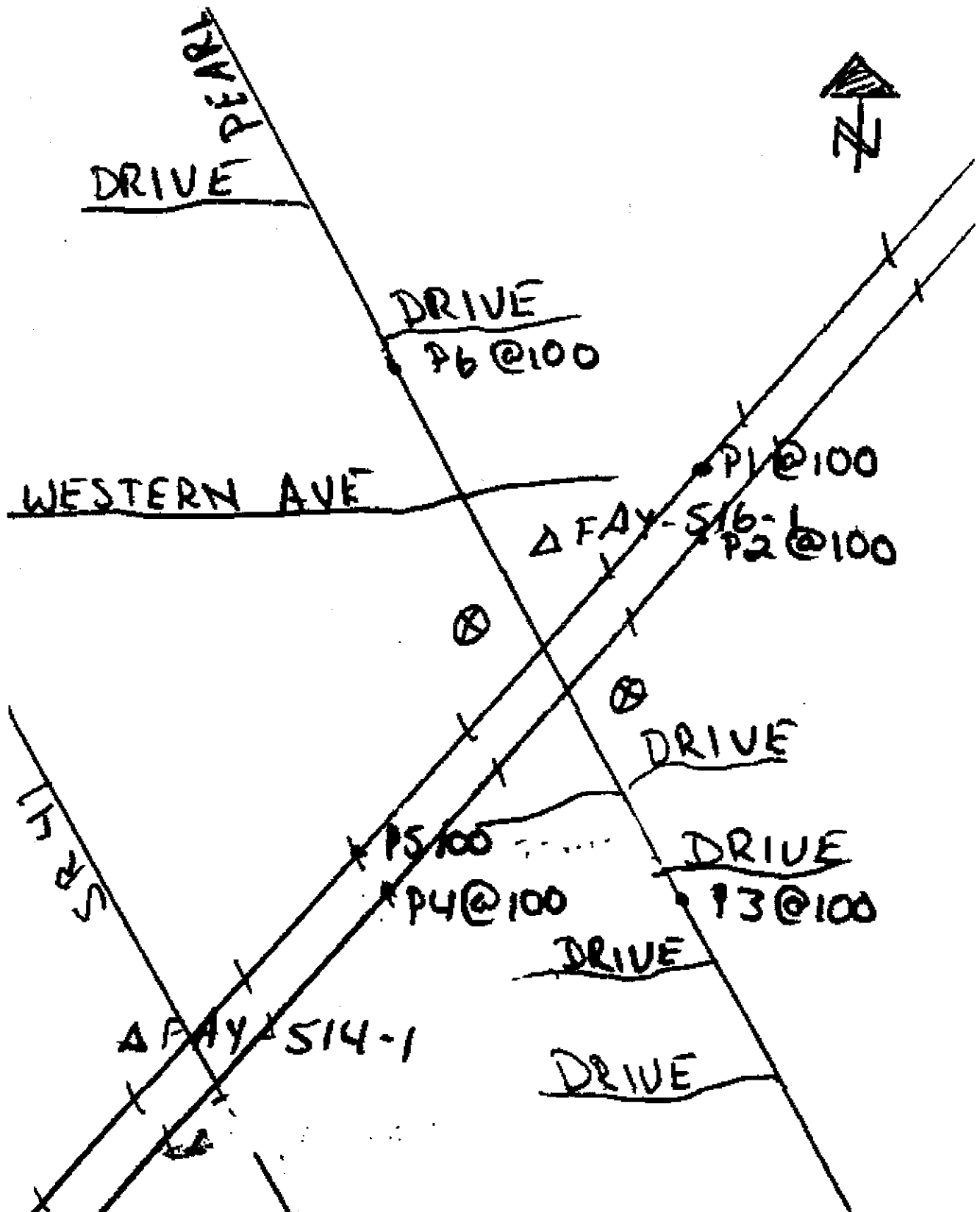


TABLE I

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
<u>25</u>	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.

10-18-16
JWZ

INTER-OFFICE COMMUNICATION

TO: Randall Schumacher, Supervisor, Rail Division, PUCO
FROM: Cathy Stout, Manager, Safety Section, ORDC
BY: Eric Neff, Safety Manager, Safety Section, ORDC
SUBJECT: Fayette County, Pearl Street, DOT 151913H, PID# 104595
Fairfield County, Quarry Road, DOT 514791L, PID# 104638
DATE: October 17, 2017

The Ohio Rail Development Commission (ORDC) established a diagnostic survey at the subject location on November 18, 2016. The Public Utilities Commission of Ohio (PUCO) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. Copies of the diagnostic review forms and the plans and estimates are attached.

PE has already been provided by the railroad. ORDC accepts the site plans and estimates as provided. Please issue a construction-only order for the projects 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.

Attachment: Diagnostic Review
Plan & Estimate

c: Jill Henry, Rail Division Specialist, 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

October 17, 2017

John Hilborn, P.E.
Genesee & Wyoming/IORY
Vice President – Engineering
4349 Easton Way, Suite 110
Columbus, Ohio 43219

RE: Fayette County, Pearl Street, DOT 151913H, PID# 104595
Fairfield County, Quarry Road, DOT 514791L, PID# 104638

The plans and estimates dated September 5, 2017 for the referenced projects are acceptable. The Genesee & Wyoming/IORY may proceed with the construction of the proposed grade crossing warning systems in accordance with the abbreviated plans. Construction may include but is not limited to associated railroad track, curb and sidewalk construction circuitry design, installation of service poles, procurement of materials and signal construction. Please note ODOT Railroad Audit Circular No.4 Subcontracted Costs for Railroads and accordingly provide ORDC with any relevant bid documents and bid tabs pertaining to this project. 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 costs are limited to the following:

- \$198,481.97 Fayette County, Pearl Street, DOT 151913H, PID# 104595
- \$161,980.00 Fairfield County, Quarry Road, DOT 514791L, PID# 104638

and will be adjusted based on bid tabulations if applicable. 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 the Genesee & Wyoming/IORY accepting the following instructions:

1. The Genesee & Wyoming/IORY's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Eric Neff, ORDC, email: eric.neff@dot.ohio.gov and to Jill Henry the Public Utilities Commission of Ohio at email: jill.henry@puco.ohio.gov. NS'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. The Genesee & Wyoming/IORY's 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 the Genesee & Wyoming/IORY.



www.rail.ohio.gov

phone: 614.644.0306

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3. The Genesee & Wyoming/IORY's project foremen will notify notify Eric Neff at 614-745-6760 (telephone) or eric.neff@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. The Genesee & Wyoming/IORY will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.
6. The Genesee & Wyoming/IORY will furnish two (2) copies of the final all-inclusive bill to ORDC stating the exact dates of starting and completing work, the initial and final dates of construction and location where the accounts may be audited.
7. This installation will include any ancillary work to make the warning devices function as designed and meet MUTCD.

Thank you for your assistance with these matters.

Sincerely,

[Eric Neff](#)

Eric Neff
Project Manager

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

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← TO LANCASTER

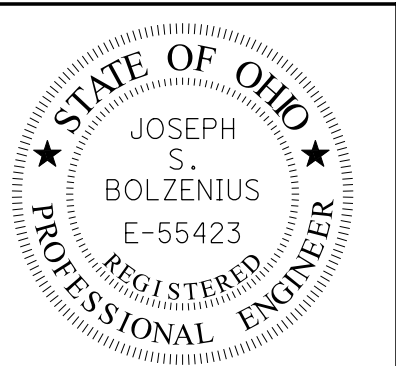
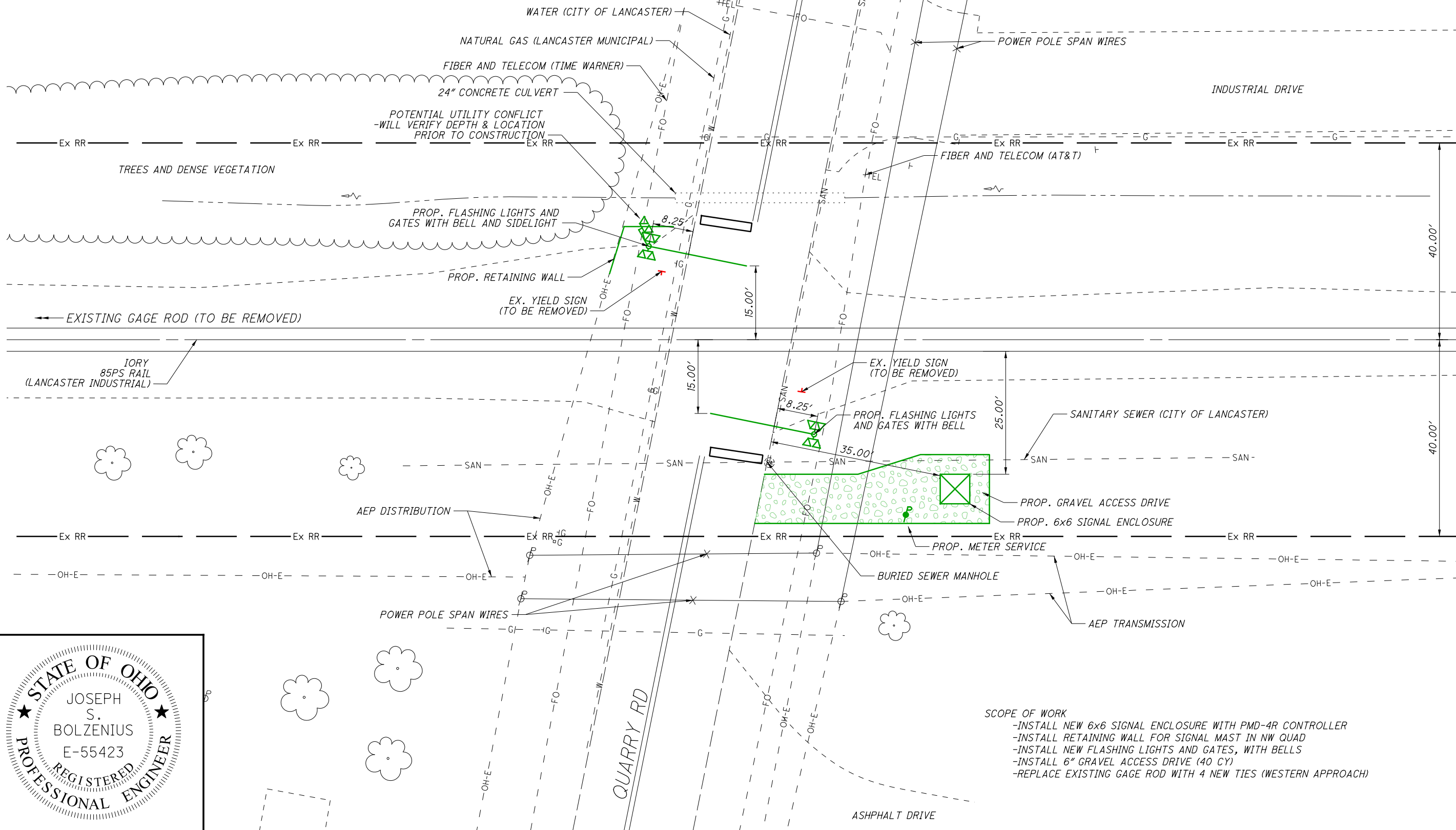
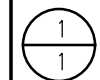
CROSSING INFORMATION
2 TRAINS PER DAY
AVERAGE SPEED - 10 MPH
LOCAL ROADWAY AUTHORITY - CITY OF LANCASTER

END OF LINE →



QUARRY ROAD - MP 2.69 (514791L)
PROPOSED SITE LAYOUT

QUARRY ROAD
AT IORY

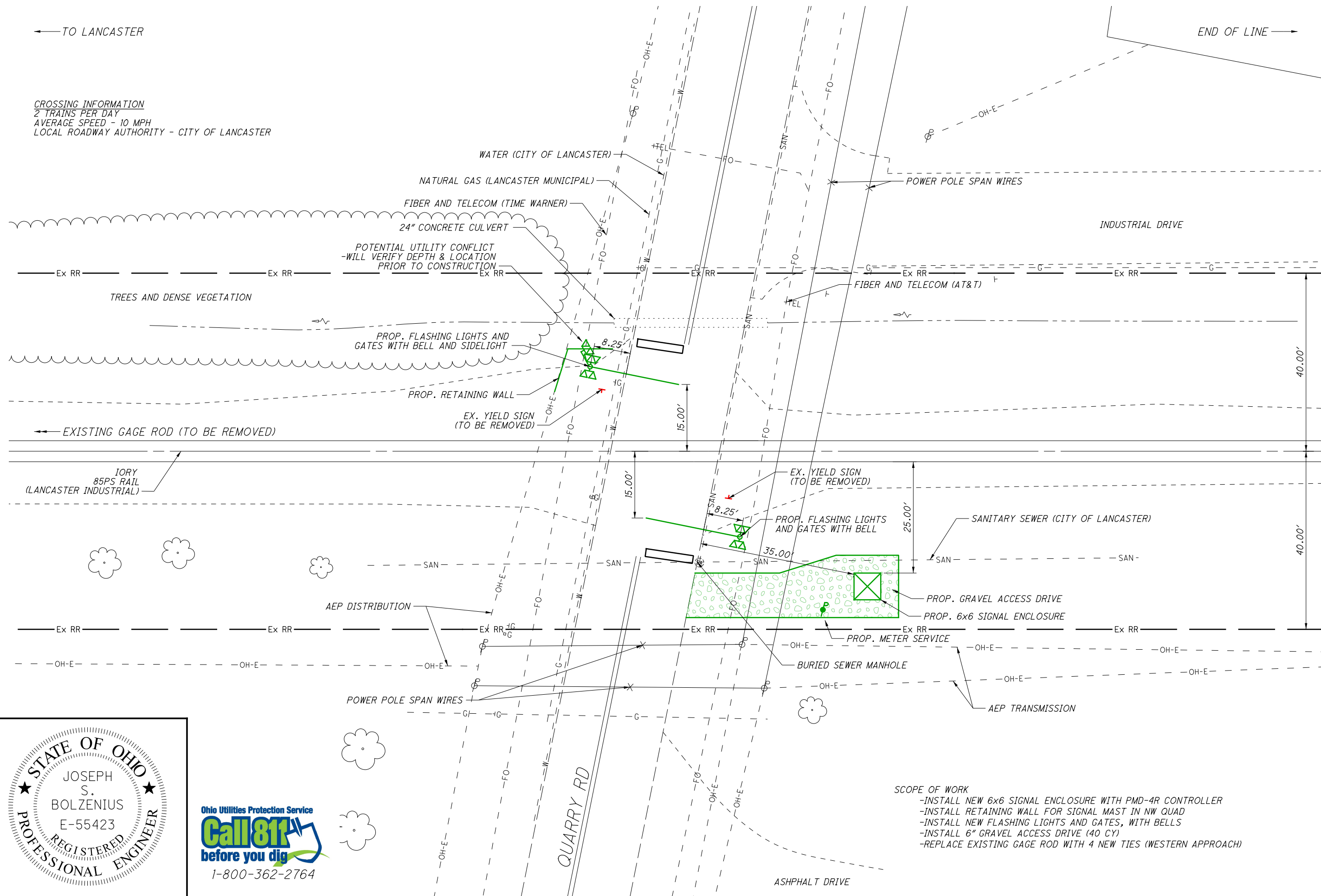


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← TO LANCASTER

CROSSING INFORMATION
2 TRAINS PER DAY
AVERAGE SPEED - 10 MPH
LOCAL ROADWAY AUTHORITY - CITY OF LANCASTER

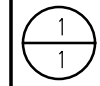
END OF LINE →



- SCOPE OF WORK
- INSTALL NEW 6x6 SIGNAL ENCLOSURE WITH PMD-4R CONTROLLER
 - INSTALL RETAINING WALL FOR SIGNAL MAST IN NW QUAD
 - INSTALL NEW FLASHING LIGHTS AND GATES, WITH BELLS
 - INSTALL 6" GRAVEL ACCESS DRIVE (40 CY)
 - REPLACE EXISTING GAGE ROD WITH 4 NEW TIES (WESTERN APPROACH)

QUARRY ROAD - MP 2.69 (514791L)
PROPOSED SITE LAYOUT

QUARRY ROAD
AT IORY





Force Account Estimate - Quarry Rd (PID 104638)

INDIANA & OHIO RAILWAY COMPANY (IORY)

Lancaster, OH (Fairfield County)

DOT#: 514791L
Railroad # 17IORY21R
RR MP: 2.69

SUMMARY

CROSSING WARNING SYSTEM	\$ 123,480.00
(Includes all labor, materials, equipment, shop wiring, and installation)	
SITE CIVIL ITEMS	\$ -
(Included in Crossing Warning System)	
CROSSING SURFACE/RESURFACE	\$ -
(Includes all labor, materials, and equipment)	
TRACK GRADE AND REHABILITATION	\$ -
(Includes all labor, materials, and equipment)	
PRELIMINARY ENGINEERING	\$ 8,000.00
(Includes CONTRACT Labor for all Engineering, Agency Coordination, and Project Management)	
CONSTRUCTION ENGINEERING	\$ 16,000.00
(Includes CONTRACT Labor for all Engineering, Agency Coordination, and Project Management)	
CONSTRUCTION ENGINEERING INSPECTION	\$ 5,500.00
(Estimated Construction Engineering Inspection cost)	
UTILITY CROSSING	\$ -
(0 new utility crossings @ \$4000 per crossing, includes application, engineering review, and right of entry)	
FLAGGING SERVICES	\$ 5,000.00
(Estimated Flagging Services cost based on 5 days @ \$1000 per day)	
AC POWER SERVICE	\$ 4,000.00
(Includes all Coordination and Power Service Charges not included in other costs)	
OTHER (Description Required)	\$ -
TOTAL ESTIMATE COST	\$ 161,980.00 (USD)

Estimate Prepared By: J. Bolzenius, PE

Date: 7/31/2017

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: IORY
Crossing Name: Quarry Rd
City, (County), State : Lancaster, (Fairfield), OH
Railroad #: 17IORY21R
FRA#: 514 791L
Patrick Engineering #: 21777.807

ITEM	UNIT COST	UNITS	TOTAL
6'x6' Wired House with Equipment	\$ 46,500.00	1 EA	\$ 46,500.00
Gate/Flasher Assembly	\$ 25,250.00	2 EA	\$ 50,500.00
		SUBTOTAL	\$ 97,000.00
Freight & Handling			\$ 2,000.00
		TOTAL MATERIALS	\$ 99,000.00
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
		TOTAL INSTALLATION & WIRING	\$ 11,880.00
Equipment per day	\$ 1,000.00	1 Day	\$ 1,000.00
Bungalow Wiring and Test	\$ 5,800.00	2 Day	\$ 11,600.00
		TOTAL EQUIPMENT	\$ 12,600.00
TOTAL CROSSING WARNING SYSTEM			\$ 123,480.00



QUARRY ROAD



RAILROAD/HIGHWAY GRADE CROSSING SITE SURVEY

RAILROAD NAME:	Indiana & Ohio Railway Company			
LOCATION:	Lancaster, OH			
PROJECT#:	RR#	17IORY21R	Patrick#	21777.807
SURVEYED BY:	Troy Sabo		DATE:	7/14/17
ROADWAY:	Quarry Rd		DOT#:	514791L
SUBDIVISION:	Lancaster Ind.		MILEPOST:	2.69
REGION:	Midwest		SPEED:	10 MPH
LATITUDE:	39.714409		LONGITUDE:	-82.543529
NEAREST ADDRESS:	240 Quarry Rd SE, Lancaster, OH 43130			
	Crossing within city limits?			Yes
REVISED:				

PROJECT SCOPE (PER AGENCY ORDER/DRTS FINDINGS):

New flashing lights and gates with bells and sidelights in NW quadrant. Style C circuitry recommended due to rusty rail conditions.

Special Requirements of City

Permits	N/A	Type:	Fee: \$
Bonds	N/A	Type:	Fee: \$

RAILROAD CONCERNS/SCOPE ADJUSTMENTS:

Style C is appropriate for rusty rail, but AC interference from transmission lines will likely interfere.
Motion sensor with shunt enhancement recommended. Currently one gage rod in western approach, to be replaced with 4 new ties.

SURVEY ATTENDEES:

Name	Title	Company	Email/Phone
Troy Sabo	Asst. Project Manager	Patrick Engineering	614-498-0344
Adam Richter	Signal Supervisor	IORY	513-335-4812
Lauren Leman	Signal Maintainer	IORY	



QUARRY ROAD



SECTION 1 - EXISTING WARNING DEVICES

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

Signage	Quantity	Description	Reuse/Replace
Crossbucks	2		
Stop Signs	-		
Yield Signs	2		
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):
None

Location of IJ's, bypass and/or tuned-joint couplers:
None

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

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

**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	Sidelights in NW quad for driveway
Cantilevers	-	
Cant/Gate Combo	-	
Ped Gates	-	
Bells	2	
Bridge Signals	-	
Signal Enclosure	1	6x6 house
Highway/Rail grade crossing warning equipment type	1	PMD-4

NOTES:

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*:Yes

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

Driveway 50' NE of crossing

*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:**2.6 - ADDITIONAL EQUIPMENT RECOMMENDED:**Shunt enhancement**2.7 - IS ADDITIONAL FILL MATERIAL REQUIRED:**Yes

If yes, specify location and estimate quantity:

2.8 - BERM/CRIB WALL/PLATFORM REQUIRED:Yes

If yes, specify location, size and type:

20' in NW quad for signal foundation



QUARRY ROAD

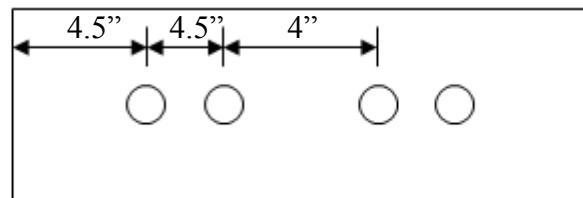
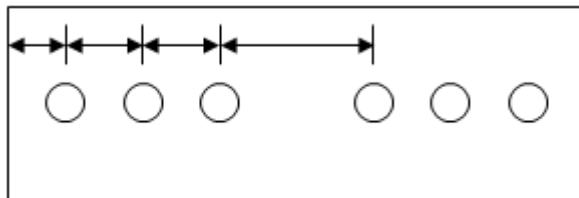


SECTION 3 – TRACK AND RAIL

3.1 – EXISTING TRACK CONDITIONS

Track	Rail Weight	CWR	JT	Bond Type	Track Speed	Track Control	Rusty Rail	Ballast Condition
Mainline	85PS		X	None	10		Yes	Poor
Siding								
Siding								
Industry								
Storage								

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



3.2 - ARE COMP JOINTS PRESENT:

Yes

If yes, show location and sizes on FIELD SKETCH.

100PS to 85PS at crossing surface

3.3 - ARE GUAGE RODS PRESENT:

Yes

Insulated / Non-Insulated:

Non-insulated, west of surface

If yes, show location and number on FIELD SKETCH.

3.4 - DO SWITCHES REQUIRE INSULATION:

No

If yes, show switches on FIELD SKETCH.

3.5 - ANY SHUNT-TYPE SWITCHES:

No

If yes, describe type and show on FIELD SKETCH:

3.6 - SHUNT ENHANCEMENT REQUIRED:

Yes

If yes, specify type:

2TC

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.



QUARRY ROAD



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?

No

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

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

No

If yes, describe:

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

No

If yes, describe:

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

No

If yes, describe and show on FIELD SKETCH:

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

No

If yes, describe:



QUARRY ROAD



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 (3 days a week)

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:

Yes

If yes, specify railroad and division of maintenance:

CSX owns, IORY maintains

5.2 - DOES ANOTHER RAILROAD OPERATE AT CROSSING:

No

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:



QUARRY ROAD



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:

80' west of proposed service pole

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
AEP	Electric		No
Time Warner	Telecom		Yes
AT&T	Telecom		Yes
Lancaster Municipal	Gas		No
City Of Lancaster	Sewer		No
City Of Lancaster	Water		No



QUARRY ROAD



7.5 - DESCRIBE ANY OVERHEAD UTILITY CONFLICTS: (height of lines and proximity to devices to be installed)
Power lines west of road need verification of line height to ensure 10' clearance. Overhead lines east of road are non-energized and will not require relocation.

7.6 - DESCRIBE ANY UNDERGROUND UTILITY CONFLICTS:
Telecom lines near signal foundations, will require hand digging and possible field adjustments.

7.7 - UTILITIES AND PIPELINES PARALLEL TO TRACKS: Yes, overhead transmission

7.8 - NEARBY COMMERCIAL HIGH TENSION LINES: No

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:

9.2 - EXISTING ROADWAY WIDTH: 25' (crossing length)

If present, specify shoulder width:

9.3 - PROPOSED ROADWAY WIDTH: 25' (crossing length)

If present, specify shoulder width:



QUARRY ROAD



9.4 - CROSSING ANGLE:	80
9.5 - VEHICLE SPEED:	35 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:	50' N to driveway
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:	Yes
If yes, describe, photograph, and include on FIELD SKETCH:	
10.4 - CULVERTS BE EXTENDED/RELOCATED/REQUIRED:	No
10.5 - CONDUIT LENGTH REQUIRED:	50'
10.6 - UNUSUAL/GEOGRAPHY FEATURES:	No
10.7 - MINES OR SPURS IN AREA:	No
10.8 - RIVER LOCKS:	No



QUARRY ROAD



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:

No

10.12 – SCRAP DISPOSAL:

No

TYPE:

N/A

FEE:

N/A

10.13 - ADDITIONAL COMMENTS/DETAILS/CONFLICTS:

Circuitry design should take into account old rusty rail (will require head and web bonds) and AC interference from transmission lines.

10.14 - NE QUADRANT:

Driveway for private company, requires sidelights.

10.15 - NW QUADRANT:

Retaining wall required for signal foundation to avoid existing ditch and culvert. Underground Fiber, Gas and Water.

10.16 - SE QUADRANT:

Fill required for driveway. Underground Fiber and Sewer

10.17 - SW QUADRANT:



QUARRY ROAD



SECTION 11 – PHOTO LOG

Image #	Description	QUAD	Direction
001	Existing Yield Signs	SE	N
002	Overhead Electric Lines	SE	S
003	Gas Line Markings	SW	N
004	Existing Yield Signs and Overhead Lines	SW	N
005	Gas Line Marker	SW	W
006	AEP Distribution Pole	SW	W
007	Overhead Lines and Gas Marker	SW	N
008	Proposed Signal House Location	SW	E
009	Existing Roadway Grade	SW	N
010	Eastern Railroad Approach	SW	E
011	Northern Roadway Approach	SW	N
012	Gas Marker	SW	N
013	Gas Marker and Valve	NW	S
014	Existing Yield Signs and Overhead Lines	NW	S
015	Private Driveway	NW	SE
016	2' Diameter Concrete Culvert Pipe	NW	S
017	Concrete Culvert Pipe and Telecom Pedestals	NE	W
018	Northern Roadway Approach and Telecom Pedestals	NW	N
019	Telecom Line Markings	NE	SW
020	Telecom Line Markings and Existing Yield Signs	NE	S
021	Gas Line Markings	NE	SW
022	Gas and Telecom Line Markings	NE	SW
023	Telecom Line Markings	NW	W
024	Gas and Telecom Line Markings	SE	W



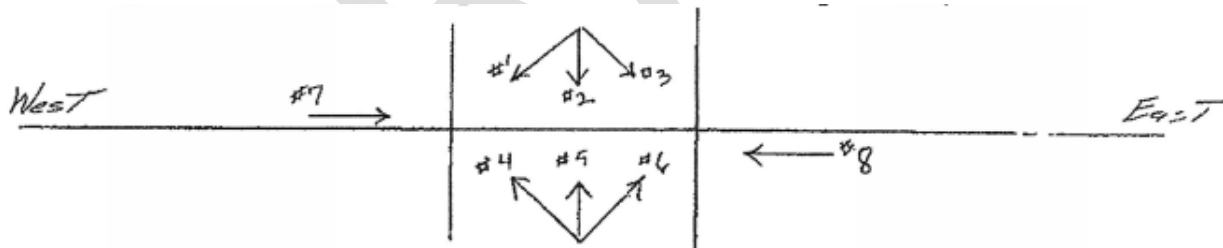
SECTION 12 –ADDITIONAL INSTRUCTIONS

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



Quarry Rd 001 - Existing Yield Signs – SE QUAD looking North



Quarry Rd 002 - Overhead Electric Lines – SE QUAD looking South



Quarry Rd 003 - Gas Line Markings - SW QUAD looking North



Quarry Rd 004 - Existing Yield Signs and Overhead Lines - SW QUAD looking North



Quarry Rd 005 - Gas Line Marker - SW QUAD looking West

Lancaster, OH – Quarry Road
DOT# 514791L



Quarry Rd 006 - AEP Distribution Pole - SW QUAD looking West



Quarry Rd 007 - Overhead Lines and Gas Marker - SW QUAD looking North



Quarry Rd 008 - Proposed Signal House Location - SW QUAD looking East



Quarry Rd 009 - Existing Roadway Grade - SW QUAD looking North



Quarry Rd 010 - Eastern Railroad Approach - SW QUAD looking East



Quarry Rd 011 - Northern Roadway Approach - SW QUAD looking North



Quarry Rd 012 - Gas Marker - SW QUAD looking North



Quarry Rd 013 - Gas Marker and Valve - NW QUAD looking South

Lancaster, OH – Quarry Road
DOT# 514791L



Quarry Rd 014 - Existing Yield Signs and Overhead Lines - NW QUAD looking South



Quarry Rd 015 - Private Driveway - NW QUAD looking Southeast



Quarry Rd 016 - 2' Diameter Concrete Culvert Pipe - NW QUAD looking South

Lancaster, OH – Quarry Road
DOT# 514791L



Quarry Rd 017 - Concrete Culvert Pipe and Telecom Pedestals - NE QUAD looking West



Quarry Rd 018 - Northern Roadway Approach and Telecom Pedestals - NW QUAD looking North



Quarry Rd 019 - Telecom Line Markings - NE QUAD looking Southwest



Quarry Rd 020 - Telecom Line Markings and Existing Yield Signs - NE QUAD looking South



Quarry Rd 021 - Gas Line Markings - NE QUAD looking Southwest



Quarry Rd 022 - Gas and Telecom Line Markings - NE QUAD looking Southwest



Quarry Rd 023 - Telecom Line Markings - NW QUAD looking West



Quarry Rd 024 - Gas and Telecom Line Markings - SE QUAD looking West



OHIO RAIL DEVELOPMENT COMMISSION

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

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

March 7, 2017

John Hilborn, P.E.
Genesee & Wyoming/IORY
Vice President – Engineering
4349 Easton Way, Suite 110
Columbus, Ohio 43219

RE: Fayette County, Pearl Street, DOT 151913H, PID# 104595
Fairfield County, Quarry Road, DOT 514791L, PID# 104638

Dear Mr. Hilborn:

Diagnostic reviews were held at the above grade crossings on November 18, 2016. The crossings have been recommended for the installation of lights and gates.

The Genesee & Wyoming/IORY 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 forms are 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.

I am the Project Manager for this project. I can be reached at (614) 752.0399, or Eric.Neff@dot.ohio.gov, if you have any questions.

Sincerely,

Eric T. Neff

Eric Neff
Project Manager

C: Jill Henry, PUCO, Grade Crossing Planner
ORDC (file)



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY



**Public Utilities
Commission**

Asim Z. Haque, Chairman

Commissioners

Lynn Slaby
M. Beth Trombold
Thomas W. Johnson
Vacant

January 24, 2017

Indiana & Ohio Railway Company
Mr. John Hilborn
Vice President-Engineering, Midwest Region Railroads*
4349 Easton Way, Suite 110
Columbus, OH 43219

Re: 1) Fairfield County, Quarry Road,
DOT#514-791L, 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 18, 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. 5773, dated February 16, 1989, entered into by the State of Ohio and Indiana & Ohio Railway (IORY). 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

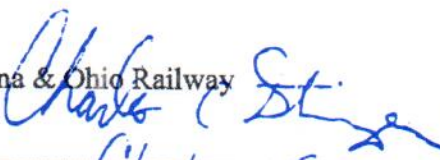
Date 1/24/17

Indiana & Ohio Railway

By


Title

Date


Charles Stringer
Ast. Treasurer
2-24-17

Matthew Dietrich
Executive Director
Ohio Rail Development Commission

Date _____


Gary R. Long
Senior Vice President
2-27-17

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 1/30/17

Indiana & Ohio Railway

By _____

Title _____

Date _____



Matthew Dietrich
Executive Director
Ohio Rail Development Commission

Date 1-27-17



Diagnostic Review Team Survey

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

Formula

Date: 10/18/2016

Location Data

Street or Road Name: Quarry Road

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

US DOT No.: 514791L

County: FAI

Township:

City:
(In or Near)

City of Lancaster

Railroad Name: Indiana & Ohio Railway

Railroad Division:

Branch/Line Name:

Nearest RR
Timetable Station: Lancaster

RR Milepost: 2.69

On-Site Review Team

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

1.	Joe Burkhardt	ORDC	614-644-0291
2.	[Signature]	IORY	513-505-0613
3.	[Signature]	LOOT	740-608-1012
4.	Curt Shonk	Lancaster	740-687-6614
5.	Mitch Noland	Lancaster	" " "
6.	Jeff Cristo	POCD	614-8403015412
7.	Tim Deitz	Lancaster DOT	(740) 608-1743
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	
'Stop' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
'Stop Ahead' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Pavement Markings (condition?)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	W/ VIELD
Number of Tracks Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Inventory Tags	<input type="checkbox"/> Yes	<input checked="" 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 checked="" type="checkbox"/> No	
Other	<input type="checkbox"/> Yes	<input checked="" 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	0	
Hazard Ranking	705	Date Run: 9/30/16

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	4	2
< 1 per day		
Day thru trains	4	1
Night thru trains	2	1
Daytime switching movements		
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	25	10
Typical train speed	25	10
Amtrak		

If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) ☒ Yes ☐ NoIf multiple tracks, can two trains occupy crossing at the same time? ☐ Yes ☒ NoCan one train block the motorists' view of another train at crossing? ☐ Yes (Explain below) ☒ NoCan one or more tracks be eliminated through the crossing? ☐ Yes ☒ NoAre 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: City of Lancaster

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	1732 (2010)	
Highway paved	X Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Roadway Surface: <input checked="" type="checkbox"/> Blacktop <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____		
Roadway width: 16 ft.		
Number of highway lanes	2	
Urban or Rural	Urban	
Vehicle Speed: 35 MPH	35	

School Bus Operation: ☐ No ☒ Yes _____ AmountHazardous Materials Trucks: ☐ No X Yes 12 AmountShoulders: ☒ No ☐ YesIs the shoulder surfaced? ☒ No ☐ YesIs there existing guardrail along roadway in crossing vicinity? ☒ No ☐ YesIs stopping site distance adequate? (See Table 2) ☒ Yes ☐ No If no, deficient approach(es) _____

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	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
---	---

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:

Type of Development

<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:
---	-----------------------------

Utility Information

Is commercial power available? ☐ No ☒ Yes

Utility Provider (Company Name) _____ Phone Number _____

Nearest Available Power Source _____

What other utilities are present? (add locations to sketch)

<input checked="" type="checkbox"/> Gas	<input checked="" type="checkbox"/> Cable	<input checked="" type="checkbox"/> Telephone	<input checked="" type="checkbox"/> Fiber Optic Cable
<input type="checkbox"/> Petroleum	<input checked="" type="checkbox"/> Water	<input checked="" type="checkbox"/> Sanitary Sewer	
<input type="checkbox"/> Other _____			

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:

JWR
10-18-16

Diagnostic Team Recommendations

	Quadrants Needed
<input checked="" type="checkbox"/> Install/upgrade active devices	
<input type="checkbox"/> Automatic Flashing Lights (AFLS)	
<input type="checkbox"/> AFLS / Cants	
<input checked="" type="checkbox"/> AFLS / Gates	SE 1 NW
<input type="checkbox"/> AFLS / Gates / Cants	
<input checked="" type="checkbox"/> Bells / number	
<input type="checkbox"/> Upgrade circuitry / type	
<input checked="" type="checkbox"/> Sidelights	NW
<input type="checkbox"/> Guardrail Needed	
<input type="checkbox"/> Install/Replace curb	
<input type="checkbox"/> Bungalow placement & offset from rail & highway	
<input type="checkbox"/> Other (define)	

Comments:

Type C circuitry recommended

☐ Install/upgrade traffic signal preemption

☐ No improvements needed

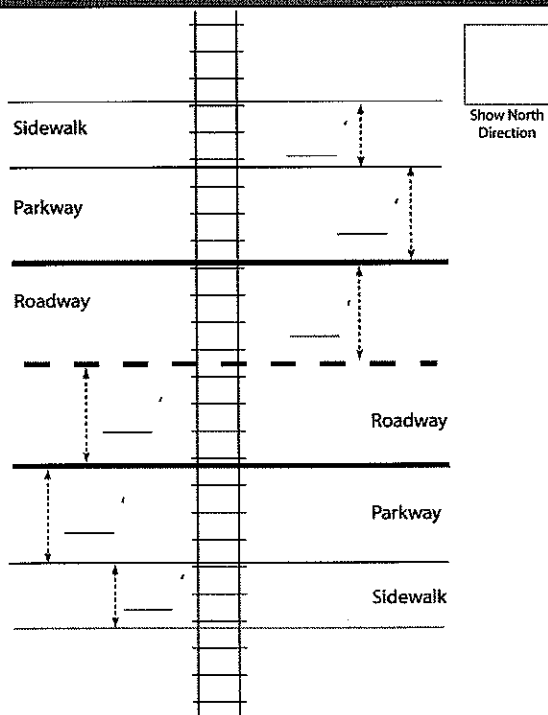
☐ Other (define)

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

MAN
MAN

DHC
52

Field Dimensions



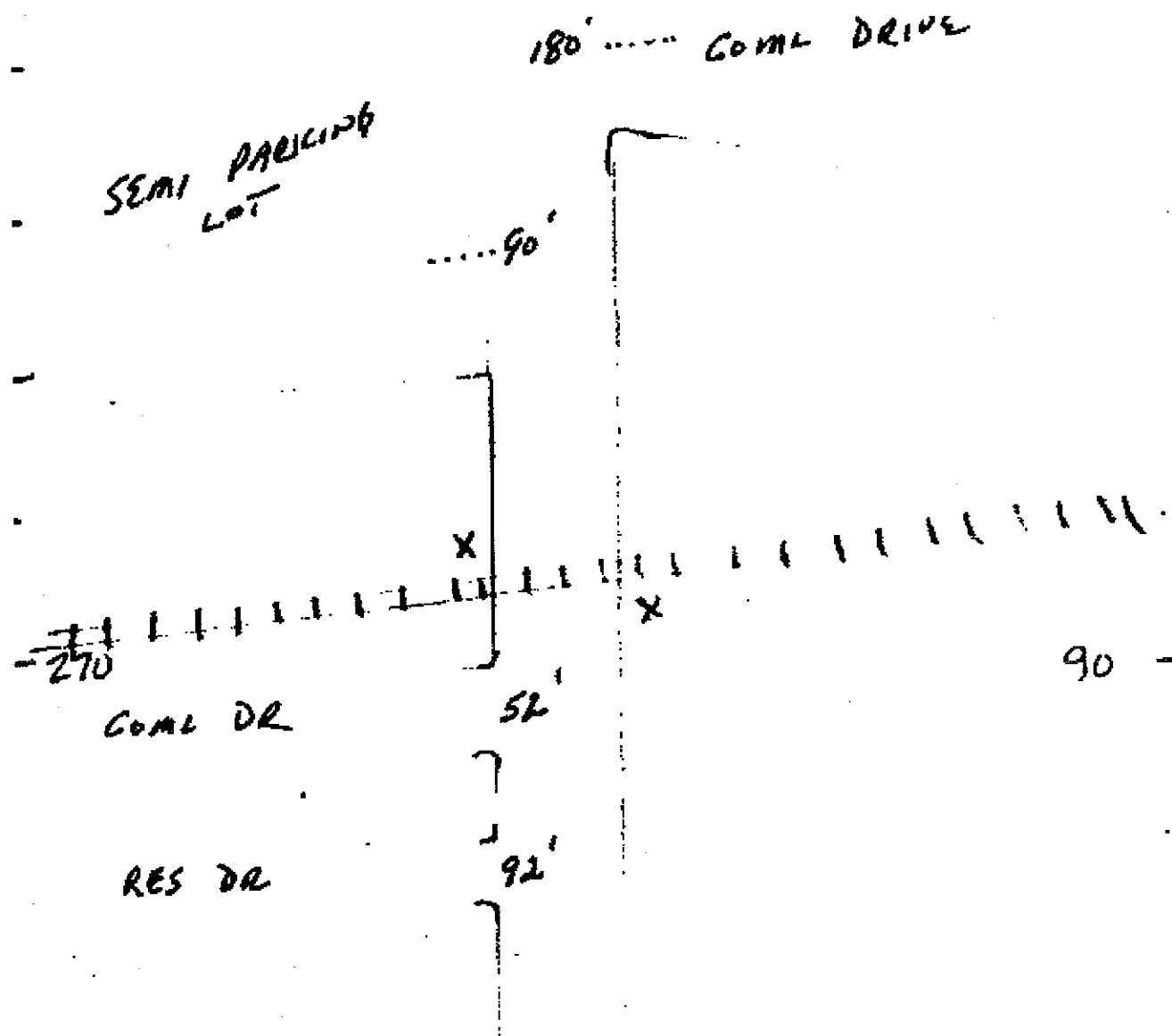


TABLE 1

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.

FWL
10-18-16

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

11/3/2017 9:36:56 AM

in

Case No(s). 17-2286-RR-FED

Summary: Application In the Matter of a Request for the Installation of Active Warning Devices at IORY Railroad Crossings, DOT#151-913H, Pearl Street, in Fayette County & DOT#514-791L, Quarry Road, in Fairfield County, Ohio. electronically filed by Mrs. Jill A Henry on behalf of PUCO/Rail Division