

FILE

Public Utilities
Commission of Ohio

Memo

To: Docketing Division
From: George Martin, Grade Crossing Planner, Rail Division
Re: In the matter of the authorization of CSX Transportation to install an active grade warning device in Hardin County
Date: May 31, 2016

The Ohio Rail Development Commission (ORDC) has authorized funding for CSX Transportation (CSX) to install mast-mounted flashing lights and roadway gates at Hardin County, near Ridgeway, SR 273, DOT# 513784X. The crossing was surveyed on October 21, 2015, and was found to warrant the upgrade. The electric utility provider at the crossing is Mid Ohio Energy Cooperative

The project will be paid for with federal funds, and is actual cost. The plan and estimate for the project in the amount of \$258,359.00 has been approved. Construction may commence at once. Staff requests a Finding & Order with completion of the project within 9 months and 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.

A suggested case coding and heading would be:

PUCO Case No. 16- **1213** -RR-FED: In the matter of the authorization of CSX Transportation to install an active grade crossing warning device in Hardin County

C: Legal Department

Please serve the following parties of record

RECEIVED-DOCKETING DIV
2016 MAY 31 PM 12:16
PUCO

Ms Cathy Stout
Ohio Rail Development Commission
1980 West Broad St, Mailstop #3140
Columbus, Oh 43223

Ms Amanda DeCesare
CSX Transportation
500 Meijer Dr, Ste 305
Florence, Ky 41042

Mid Ohio Energy Cooperative
555 W. Franklin St
Kenton, OH 43326

Ms Sandy Knott
ODOT District 1
1885 North McCullough St.
Lima, Ohio 45801

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

TO: Randall Schumacher, Supervisor, Rail Division, PUCO
FROM: Cathy Stout, Manager, Safety Section, ORDC
BY: Don Damron, Project Manager, ORDC
SUBJECT: Hardin County, SR 273 – 4.02 / CSX Transportation
DOT# 513784
PID# 102009
DATE: May 25, 2016

The Ohio Rail Development Commission (ORDC) established a Diagnostic Review Team Survey at the subject highway/railroad crossing location on 10/21/2015. The Public Utilities Commission of Ohio (PUCO) 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 10/25/2015
CSX Force Account Estimate dated 3/30/2016
Proposed Crossing Layout – PE Approved Signal Layout

cc: George Martin, PUCO
ORDC Project Manager (file)



OHIO RAIL DEVELOPMENT COMMISSION

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

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

May 25, 2016

Amanda DeCesare
Project Manager – Public Projects
CSX Transportation
500 Meijer Drive, Suite 305
Florence, KY 41042

RE: Grade Crossing Warning Device Improvement – Construction Authorization
Hardin County, SR 273 – 4.02
DOT# 513784X
PID# 102009
CSX ACCT. CODE: OH1090

Dear Ms. DeCesare:

The Force Account Estimate dated 3/30/2016 for the referenced project has been reviewed and is acceptable and the Proposed Crossing Layout has been approved as to signal layout only. CSX Transportation may proceed with the construction of the proposed grade crossing warning device upgrade in accordance with the abbreviated plan. This authorization is made with the stipulation and understanding that the approved estimate may contain entries for items or activities that may be cited and found to be ineligible for federal participation during the project audit. Reimbursement of eligible actual cost is limited to \$258,359.00. Additional costs must be approved in writing by the Ohio Rail Development Commission (ORDC) prior to being incurred. Emergency verbal authorizations by ORDC may be permitted and will be confirmed by ORDC in writing within ten (10) business days of the verbal approval.

This authorization is contingent upon CSX Transportation accepting the following instructions:

1. CSX'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, 1980 West Broad Street, Columbus Ohio 43223, or email don.damron@dot.ohio.gov, (mobile: 614-917-8466; office: 614-466-2509), and to the Public Utilities Commission of Ohio at George.martin@puc.state.oh.us (phone: 614-752-9107). The CSX 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. CSX 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 CSX.



www.rail.ohio.gov

phone: 614.644.0306

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3. CSX 's project foremen will notify Don Damron at 614-917-8466 (mobile phone) or don.damron@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. CSX will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.
5. CSX 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.

Thank you for your assistance with these matters.

Sincerely,

A handwritten signature in black ink, appearing to read "Donald J. Damron". The signature is fluid and cursive, with the first name "Donald" and last name "Damron" clearly distinguishable.

Donald J. Damron
Project Manager

C: Randall Schumacher, Supervisor, Rail Division, PUCO
George Martin, Grade Crossing Planner, PUCO
ORDC (file)



Diagnostic Review Team Survey

Reason for Survey:

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

Constituent

Date: 10/21/2015

Location Data

Street or Road Name:

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

SR 273-4.02

US DOT No.:

513784X ✓

County:

HAR

Township:

City:

(In or Near)

Near Ridgeway

Railroad
Name:

CSX Transportation

Railroad
Division:

Great Lakes

Branch/Line
Name:

Toledo

Nearest RR

Timetable Station:

Ada

RR Milepost:

80.64

On-Site Review Team

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

1. DON DAMRON, OHIO RAIL DEV. COMM., 614 917 8466 dondamron@dot.ohio.gov
2. Rob Elliott CSX 419-346-2937 Robert_Elliott@csx.com
3. Sandy Knott ODOT 419-999-6741 Sandy.Knott@dot.state.oh.us
4. GEORGE MARTIN PUCO 614-752-9107
5. Chris Vermillion ODOT 419-999-6742 Chris.Vermillion@dot.state.oh.us
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	
'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	
Number of Tracks Signs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	(3 TRACKS)
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 checked="" type="checkbox"/> Yes	<input 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	LIGHT FACING BUNGALOW
Is crossing flagged by train crew?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
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	0 (10/9/90)	
Hazard Ranking	1602 Date Run: 7/29/15	

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	10	30
< 1 per day		
Day thru trains	10	
Night thru trains	11	
Daytime switching movements	4	NO SWITCHING CURRENTLY
Nighttime switching movements		DUE TO PANELS
Total number of tracks	3	
Number of main tracks	1	
Number of other tracks	2	
Maximum train speed	50	10 MPH ON SIDING
Typical train speed	50	
Amtrak		

If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) ☐ Yes ☐ No 50 MPH = 1200'

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:	State of Ohio	
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	790 (2010) (2X w DETOUR)	720 630/90 (TRUCKS)
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: 24 ft.		
Number of highway lanes	2 ✓	
Urban or Rural	Rural ✓	
Vehicle Speed: 55 MPH	✓	
School Bus Operation: <input type="checkbox"/> No X Yes 12 Amount	14 BUSES / DAY	
Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes .06% Amount		
Shoulders: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is the shoulder surfaced? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	1' EXTENDED BERM	
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) _____	

55 MPH = 590'

Quadrant _____ 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 _____ 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 checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
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 checked="" type="checkbox"/> No <input type="checkbox"/> 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? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Explain reasons: _____	
Type of Development	
<input checked="" type="checkbox"/> Open Space <input type="checkbox"/> Industrial <input type="checkbox"/> Residential	<input type="checkbox"/> Institutional <input type="checkbox"/> Commercial Location of nearby schools: <i>NEW COMBINED HIGH/ELEM. SCHOOL EAST OF CROSSING IN MOUNT VICTORY</i>
Utility Information	
Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Utility Provider (Company Name) <i>MID-OHIO</i> Phone Number _____ Nearest Available Power Source <i>EXISTING POWER DROP SERVES EXISTING BUNGALOW IN NE QUAD.</i> What other utilities are present? (add locations to sketch) <input type="checkbox"/> Gas <input type="checkbox"/> Cable <input type="checkbox"/> Telephone <input checked="" 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: <i>UG FIBER ALONG WEST SIDE OF TRACKS.</i>	

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.):

NA

Environmental:

NA

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	NE / SW QUADS
<input type="checkbox"/> AFLS / Gates / Cants	
<input type="checkbox"/> Bells / number	
<input type="checkbox"/> Upgrade circuitry / type	
<input type="checkbox"/> Sidelights	
<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:

ODOT: "UPDATES PROVIDE BENEFITS FOR SAFETY" / PUCO: "Yes"

CONSENSUS: UPGRADE TO L+G WILL IMPROVE VISIBILITY OF SECOND TRAINS

☐ Install/upgrade traffic signal preemption

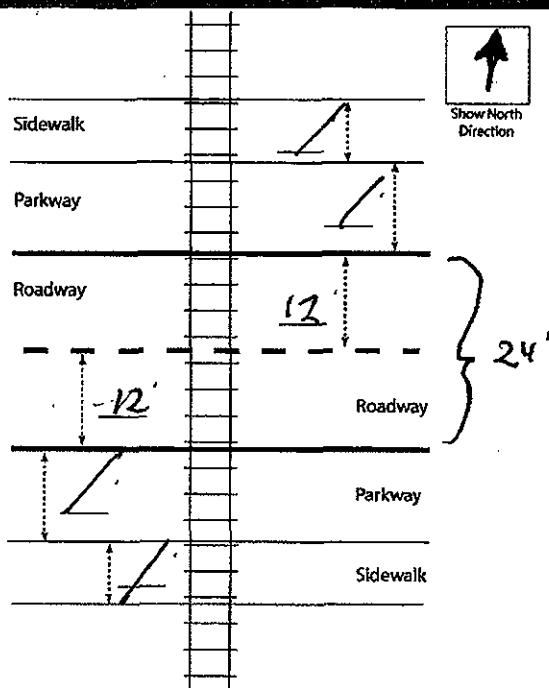
☐ No improvements needed

☐ Other (define)

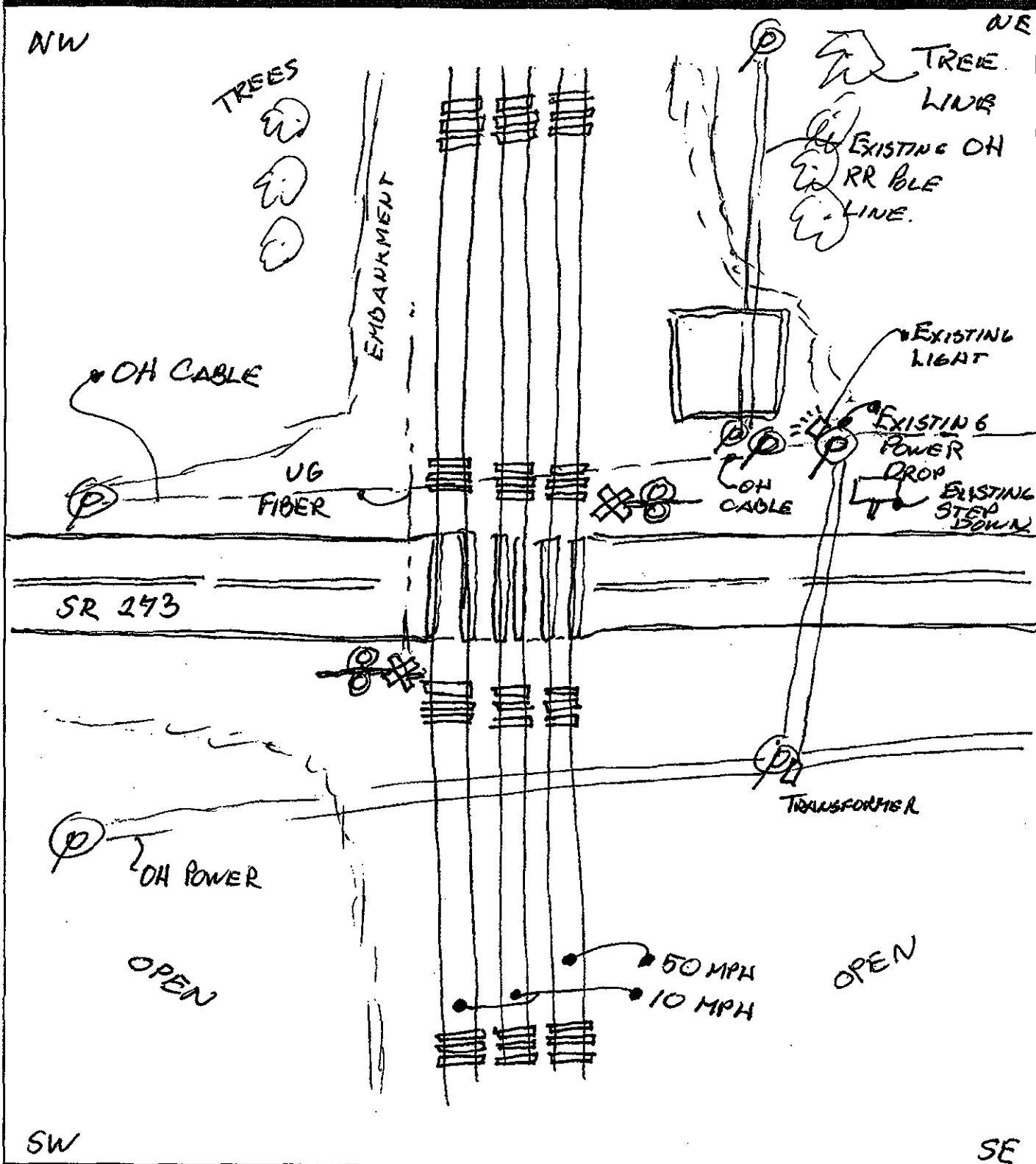
Acknowledgement of Recommendations (each entity represented at the diagnostic must have at least one signature acknowledgement):

Field Dimensions



Field Sketch



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

Sketch by: DJO

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.

Tom Zeinz

From: Tom Zeinz <tzeinz1@sbcglobal.net>
Sent: Sunday, April 10, 2016 3:58 PM
To: 'Catherine.Stout@dot.ohio.gov'; 'Don.Damron@dot.ohio.gov'
Cc: 'Susan.Arduini@dot.ohio.gov'
Subject: FW: HAR - SR 273-4, DOT # 513784X, CSX Transportation Design.
Attachments: OH1090 Construction FAE 4-4-16 .pdf; OH2016006_H01.pdf; OH2016006_FINAL PLANS.PDF; HAR SR 273-4.02 513784X.pdf

Cathy & Don,

Looks good. Go ahead and authorize, if you wish, and I'll sign and seal when I'm next in.

Tom Zeinz
Highway-Railroad Safety Consulting, LLC

From: Susan.Arduini@dot.ohio.gov [mailto:Susan.Arduini@dot.ohio.gov]
Sent: Thursday, April 7, 2016 3:27 PM
To: Tom Zeinz <tzeinz1@sbcglobal.net> <tzeinz1@sbcglobal.net>
Cc: Don.Damron@dot.ohio.gov
Subject: HAR - SR 273-4, DOT # 513784X, CSX Transportation Design.

Tom,

FYI – Diagnostic Form attached.

Don – This is being printed for you.

Susan Arduini
Grade Crossing Safety
Ohio Rail Development Commission
614-644-0307

From: Henning, Nicole (External) [mailto:Nicole_Henning@csx.com]
Sent: Thursday, April 07, 2016 3:03 PM
To: Damron, Donald <Don.Damron@dot.ohio.gov>; Henry, Jill <jill.henry@puc.state.oh.us>; Martin, George <george.martin@puc.state.oh.us>; Stout, Catherine <Catherine.Stout@dot.ohio.gov>; Arduini, Susan <Susan.Arduini@dot.ohio.gov>
Cc: Elliott, Scott (External) <Scott_Elliott@csx.com>; DeCesare, Amanda <Amanda_DeCesare@csx.com>
Subject: DESIGN SUBMITTAL-Ridgeway, OH - SR 273-4, OH2016006, OH1090, PID 102009 Design Distribution

Please find attached the Design Submittal for the above named grade crossing upgrade. If you should have any questions please contact Scott Elliott at (904) 359-1276.

Thank you.
Nicole Henning
Engineering Assistant to Amanda DeCesare
(MI, OH, IN, IL)
CSX Transportation
500 Meijer Drive Suite 305