

FILE
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**Public Utilities
Commission of Ohio**

PUCO

SEP -6 PM 1:56

ED-DOCKETING DIV

Memo

To: Docketing Division
From: George Martin, Grade Crossing Planner, Rail Division 
Re: In the matter of the authorization of the Columbus & Ohio River Railroad to install active grade crossing warning devices in Guernsey and Licking Counties
Date: September 6, 2012

The Ohio Rail Development Commission (ORDC) has authorized funding for the Columbus & Ohio River Railroad (CUOH) to install mast-mounted flashing lights and roadway gates at the following crossings:

Guernsey County, City of Cambridge, Phillips Rd, DOT# 151709J

Licking County, Madison Township, Staddens Bridge Rd/CR 315, DOT# 151784V

Licking County, City of Heath, Keller Dr, DOT# 151800C

Licking County, City of Pataskala, Connors Rd, DOT# 151817F

The crossings were surveyed between November 14, 2011, and March 16, 2012, and were found to warrant the upgrades.

The projects will be paid for with federal funds, and are actual cost. As the plans and estimates have already been submitted and approved, staff requests an Entry with completion of the projects in nine months. Construction may commence at once. Staff requests that the following language be incorporated in the Entry:

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. 12- 2466 -RR-FED In the matter of the authorization of the Columbus & Ohio River Railroad to install an active grade crossing warning devices in Guernsey and Licking Counties

Please serve the following parties of record

Ms Susan Kirkland
Ohio Rail Development Commission
1980 West Broad St, 2nd Floor
Columbus, Oh 43223

Mr Chris Layman
Ohio Central System
47849 Papermill Rd
Coshocton, Oh 43812

AEP
1 Riverside Plaza
Columbus, Oh 43215

Mr B J King, Public Services Department
621 W Broad St
Pataskala, Oh 43062

Mr Tom Lanning,
Street Department
1700 Burgess
Cambridge, Oh 43725

Mr William Lozier

Licking County Engineer

20 S Second St

Newark, Oh 43055

Mr John Groff

Building & Zoning

1287 Hebron Rd

Heath, Oh 43056

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

TO: Rob Marvin, Director of Transportation, PUCO
Leah Thomas-Dalton, Deputy Chief, PUCO

FROM: Susan Kirkland, Manager, Safety Section, ORDC

BY: Tod Darfus, Project Manager, ORDC

SUBJECT: Guernsey County, C&ORR
Phillips Road, 151 709 J, PID 93328

DATE: September 5, 2012

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on April 16, 2012. The Ohio Rail Development Commission (ORDC) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. A copy of the diagnostic review form is attached.

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

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

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

Thank you for your assistance with these matters.

Attachment: Diagnostic Review
Plan & Estimate

c: George Martin, PUCO
T.Darfus (file)

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

TO: Rob Marvin, Director of Transportation, PUCO
Leah Thomas-Dalton, Deputy Chief, PUCO

FROM: Susan Kirkland, Manager, Safety Section, ORDC

BY: Tod Darfus, Project Manager, ORDC

SUBJECT: Licking County, C&ORR
Staddens Bridge Road, 151 784 V, PID 92761

DATE: September 5, 2012

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on November 14, 2011. The Ohio Rail Development Commission (ORDC) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. A copy of the diagnostic review form is attached.

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

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

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

Thank you for your assistance with these matters.

Attachment: Diagnostic Review
Plan & Estimate

c: George Martin, PUCO
T.Darfus (file)

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

TO: Rob Marvin, Director of Transportation, PUCO
Leah Thomas-Dalton, Deputy Chief, PUCO

FROM: Susan Kirkland, Manager, Safety Section, ORDC

BY: Tod Darfus, Project Manager, ORDC

SUBJECT: Licking County, C&ORR
Keller Drive, 151 800 C, PID 92768

DATE: September 5, 2012

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on December 9, 2011. The Ohio Rail Development Commission (ORDC) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. A copy of the diagnostic review form is attached.

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

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

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

Thank you for your assistance with these matters.

Attachment: Diagnostic Review
Plan & Estimate

c: George Martin, PUCO
T.Darfus (file)

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

TO: Rob Marvin, Director of Transportation, PUCO
Leah Thomas-Dalton, Deputy Chief, PUCO

FROM: Susan Kirkland, Manager, Safety Section, ORDC

BY: Tod Darfus, Project Manager, ORDC

SUBJECT: Licking County, C&ORR
Connors Road, 151 817 F, PID 92758

DATE: September 5, 2012

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on December 9, 2011. The Ohio Rail Development Commission (ORDC) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. A copy of the diagnostic review form is attached.

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

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

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

Thank you for your assistance with these matters.

Attachment: Diagnostic Review
Plan & Estimate

c: George Martin, PUCO
T.Darfus (file)



Diagnostic Review Team Survey

Date: 3/16/2012

Location Data

Street or Road Name: Phillips Road

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

US DOT No.: 151709J

County: Guernsey (GUE)

Township:

City:
(In or Near)

Cambridge

Railroad Name: Columbus & Ohio River

Railroad Division: OH

Branch/Line Name: Camb Sub

Nearest RR
Timetable Station: Cambridge

RR Milepost: 53.18

On-Site Review Team

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

1. Tod Darfus - ORDC - 614.374.9298 - tod.darfus@dot.state.oh.us
2. GEORGE MARTIN PUCO 614-752-9107
3. Todd Hensley OCRR 740-502-7214
4. Tom Lanning Cambridge Street Dept 740-432-7748
5. _____
6. _____
7. _____
8. _____
9. _____

Tod Darfus

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	☒ Yes	☐ No	1 poor
'Stop' Signs	☐ Yes	☒ No	
'Stop Ahead' Signs	☐ Yes	☒ No	
Pavement Markings (condition?)	☐ Yes	☒ No	
Crossbucks	☒ Yes	☐ No	2 NEW
Number of Tracks Signs	☐ Yes	☒ No	
Inventory Tags	☒ Yes	☐ No	2 NEW
Interconnected Highway Traffic Signal	☐ Yes	☒ No	
Mast-Mounted Flashing Lights	☐ Yes	☒ No	
Cantilever Flashing Lights	☐ Yes	☒ No	Number: Length:
Side Lights	☐ Yes	☒ No	
Automatic Gates	☐ Yes	☒ No	Number: Length:
Bells	☐ Yes	☒ No	Number:
Sidewalk Gate Arms	☐ Yes	☒ No	
'No Turn' Signs	☐ Yes	☒ No	
Illumination	☒ Yes	☐ No	
Is crossing flagged by train crew?	☐ Yes	☒ No	
Other	☐ Yes	☒ No	

Safety Data (Obtain crash reports, if possible, prior to review)		
	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	3 (8/24/2007, 9/11/2007, 6/1/2011)	
Hazard Ranking	9	Date Run: 3/7/2012
Railroad Data		
Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	1	2 train M W F
< 1 per day		
Day thru trains	1	Day Trains
Night thru trains	0	
Daytime switching movements	0	
Nighttime switching movements	0	
Total number of tracks	1 FORMTEXT	1
Number of main tracks	1	1
Number of other tracks	0	
Maximum train speed	25	25
Typical train speed		25
Amtrak		No
If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) ☒ Yes ☐ No		
If multiple tracks, can two trains occupy crossing at the same time? ☐ Yes ☒ No		
Can one train block the motorists' view of another train at crossing? ☐ Yes (Explain below) ☒ No		
Can one or more tracks be eliminated through the crossing? ☐ Yes ☒ No		
Are there other track(s) crossing this same roadway within 100 ft of this crossing? ☐ Yes ☒ No		
If yes, Crossing DOT # (if different) _____		
If yes, distance _____ (take measurement between track centerlines at closest point along roadway)		
Roadway Data		
Local Highway Authority:	City of Cambridge	
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	1468 (2009)	1468
Highway paved	☒ Yes ☐ No	☒ Yes ☐ No
Roadway Surface: ☒ Blacktop ☐ Gravel ☐ Concrete ☐ Other _____		
Roadway width: 24 ft.		
Number of highway lanes	2	2
Urban or Rural	Rural	Rural
Vehicle Speed: 55 MPH		
School Bus Operation: ☒ No ☒ Yes	4 Amount	Total a day
Hazardous Materials Trucks: ☐ No ☒ Yes	3 Amount	
Shoulders: ☒ No ☐ Yes		
Is the shoulder surfaced? ☒ No ☐ Yes		
Is there existing guardrail along roadway in crossing vicinity? ☒ No ☐ Yes		
Is stopping site distance adequate? (See Table 2) ☒ Yes ☐ No If no, deficient approach(es) _____		

Potential Red Flags / Project Challenges

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

NONE

Crossing Consolidation or Closure:

No

Real Estate or ROW:

City = RR = 45' South 60' North

Culverts / Drainage / Ballast Conditions:

N/A

Roadway and/or Sidewalks:

N/A

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

N/A

Environmental:

N/A

Other:

Company called Go Frac is expanding
rail spur to hold 60 cars

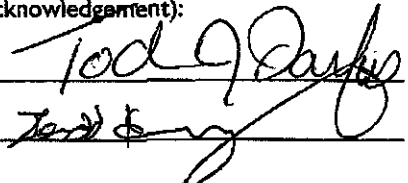
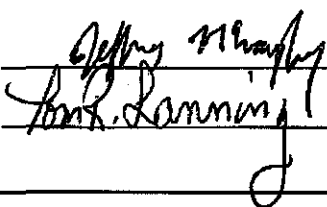
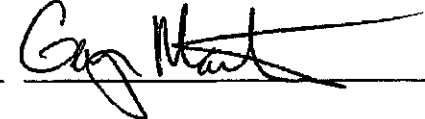
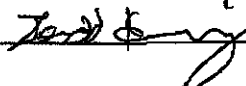
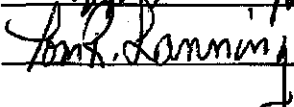
Diagnostic Team Recommendations

	Quadrants Needed
☒ Install/upgrade active devices	
☐ Automatic Flashing Lights (AFLS)	
☐ AFLS / Cants	
☒ AFLS / Gates	
☐ AFLS / Gates / Cants	
☒ Bells / number	1
☐ Upgrade circuitry / type	
☐ Sidelights	
☐ Guardrail Needed	
☐ Install/Replace curb	
☒ Bungalow placement & offset from rail & highway	25 / 50 SE Quad
☐ Other (define)	

Comments:

☐ 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

Sidewalk

Parkway

Roadway

Roadway

Parkway

Sidewalk

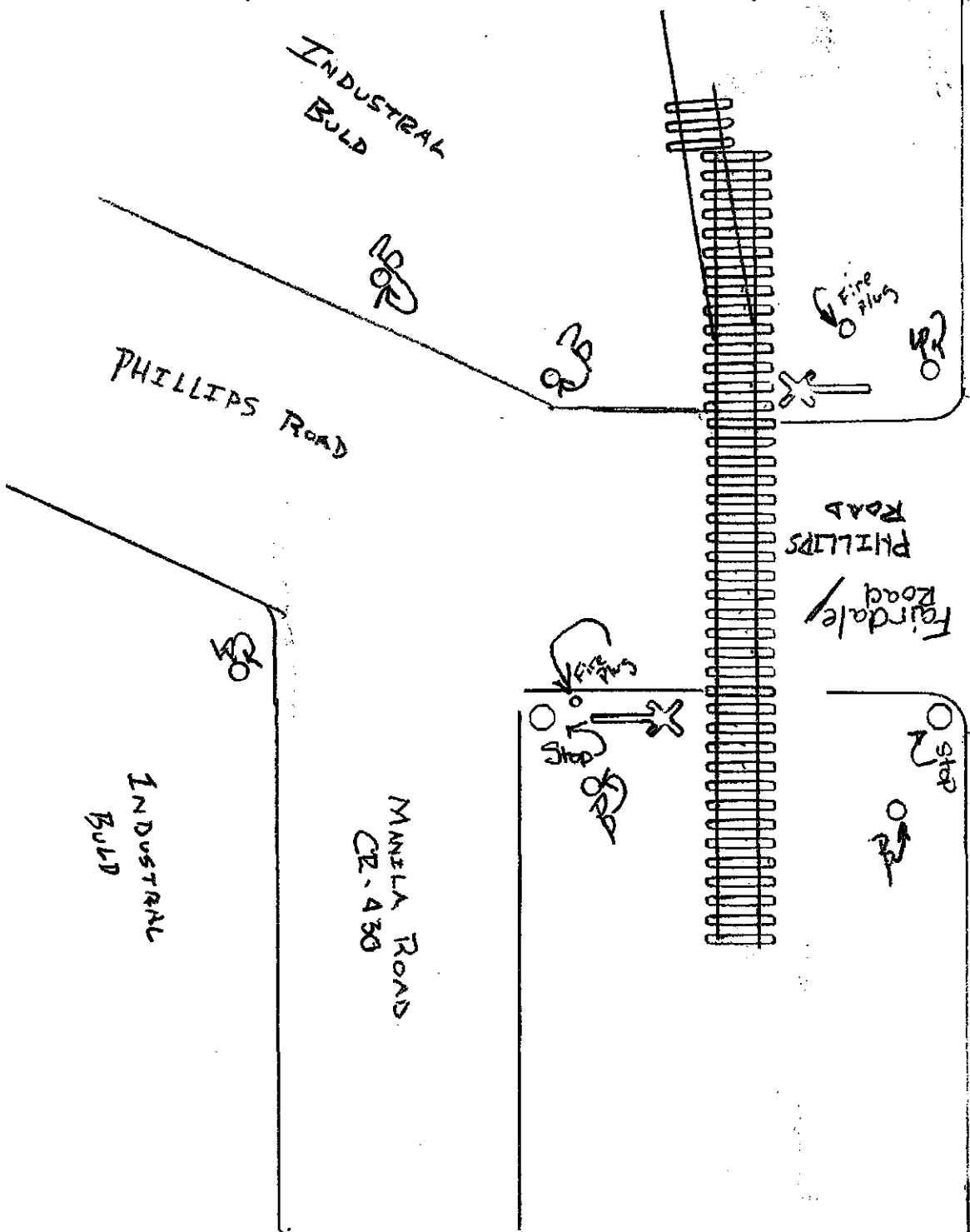
Show North Direction

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

Measurements by: _____

Field Sketch

Include utilities as marked by OUPS and LHA; include ROW boundaries as indicated by railroad and LHA.



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

Sketch by: _____

TABLE I

Clearing Sight Distances

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

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

Notes:

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

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

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

Table 2

Stopping Sight Distances

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

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

Notes:

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

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

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



Diagnostic Review Team Survey

Date: 11/14/11

Location Data

Street or Road Name: <u>Staddens Bridge Rd</u>			
Route/Road Number (i.e. Twpl, Co., SR or US)		(include SLM if State or US route)	AAR-DOT No.
<u>315</u>		<u>151</u>	<u>784</u>
County:	Township:	City: (In or Near)	
<u>Licking</u>	<u>Madison</u>	<u>Newark</u>	
Railroad Name:	Railroad Division:	Branch/Line Name:	
<u>Columbus & Ohio River</u>	<u>Louisville</u>		
Nearest RR Timetable Station:		RR Milepost:	
<u>Wejant</u>		<u>100.6</u>	

On-Site Review Team

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

1.	<u>Tom Dertus</u>	<u>ORDC</u>	<u>614-374-9298</u>
2.	<u>Susan Arduini</u>	<u>ORDC</u>	<u>614-644-0307</u>
3.	<u>JEFF CASTO</u>	<u>PUCD</u>	<u>614-301-5412</u>
4.	<u>DAN BIRRELL</u>	<u>OHCR</u>	<u>740 295 4122</u>
5.	<u>ERIC HAHN</u>	<u>OHCR</u>	<u>740 502 4990</u>
6.	<u>GEORGE MARTIN</u>	<u>PUCO</u>	<u>614-752-9107</u>
7.	<u>DAVE HOLTON</u>	<u>WINDSTREAM</u>	<u>740-349-8894</u>
8.	<u>JACKIE CAUGHENBUGH</u>	<u>WINDSTREAM</u>	<u>740-349-8866</u>
9.	<u>TY YOTHO</u>	<u>LCE</u>	<u>740-670-5289</u>

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	☒ Yes	☐ No	2 good
'Stop' Signs	☐ Yes	☒ No	
'Stop Ahead' Signs	☐ Yes	☒ No	
Pavement Markings (condition?)	☒ Yes	☐ No	Fair to Poor
Crossbucks	☒ Yes	☐ No	2
Number of Tracks Signs	☐ Yes	☒ No	
Inventory Tags	☒ Yes	☐ No	2
Interconnected Highway Traffic Signal	☐ Yes	☒ No	
Mast-Mounted Flashing Lights	☐ Yes	☒ No	
Cantilever Flashing Lights	☐ Yes	☒ No	Number: Length:
Side Lights	☐ Yes	☒ No	
Automatic Gates	☐ Yes	☒ No	Number: Length:
Bells	☐ Yes	☒ No	Number:
Sidewalk Gate Arms	☐ Yes	☒ No	
'No Turn' Signs	☐ Yes	☒ No	
Illumination	☒ Yes	☐ No	0 crossing
Is crossing flagged by train crew?	☐ Yes	☒ No	
Other	☐ Yes	☒ No	

Safety Data (Obtain crash reports, if possible, prior to review)		
	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	0	0
Hazard Ranking	778 Date Run:	778 10/27/11
Railroad Data		
Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	3	1 per 5 day
< 1 per day		2 movements per day
Day thru trains	3	
Night thru trains	0	
Daytime switching movements	6	
Nighttime switching movements	0	
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks	0	
Maximum train speed		25
Typical train speed		10 mph
Amtrak	No	No
If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table I) ☒ Yes ☐ No? SE Quad		
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:		
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	1706 (2005)	1627
Highway paved	☒ Yes ☐ No	☒ Yes ☐ No
Roadway Surface: ☒ Blacktop ☐ Gravel ☐ Concrete ☐ Other _____		
Roadway width: 20 ft		20'
Number of highway lanes	2	
Urban or Rural	Rural local	
Vehicle Speed: 55 MPH		
School Bus Operation: ☐ No ☒ Yes 10 Amount total 5 each		
Hazardous Materials Trucks: ☐ No ☒ Yes 3 Amount		
Shoulders: ☐ No ☒ Yes		
Is the shoulder surfaced? ☒ No ☐ Yes		
Is there existing guardrail along roadway in crossing vicinity? ☒ No ☐ Yes		
Is stopping site distance adequate? (See Table 2) ☒ Yes ☐ No If no, deficient approach(es) SE Ray Springs to fail		

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

NOT / APP

Crossing Consolidation or Closure:

NOT / APP

Real Estate or ROW:

County ROW = 60' BORDER ROW = 100' each

Culverts / Drainage / Ballast Conditions:

NO ISSUE

Roadway and/or Sidewalks:

NO ISSUE

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

NO

Environmental:

NOT / APP

Other:

Bungalow to be placed in North West Quad

Diagnostic Team Recommendations

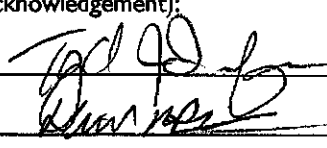
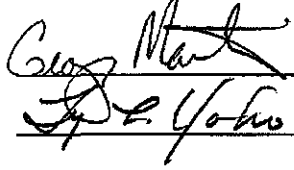
	Quadrants Needed
☒ Install/upgrade active devices	
☐ Automatic Flashing Lights (AFLS)	
☐ AFLS / Cants	
☒ AFLS / Gates	
☐ AFLS / Gates / Cants	
☒ Bells / number	/
☐ Upgrade circuitry / type	
☐ Sidelights	
☐ Guardrail Needed	
☐ Install/Replace curb	
☐ Bungalow placement & offset from rail & highway	
☐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

Comments:

Bungalow in HW Quad

☐ 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

Sidewalk

Parkway

Roadway

Roadway

Parkway

Sidewalk

Show North Direction

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

Measurements by: _____

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.



Diagnostic Review Team Survey

Date: 12/9/2011

Location Data

Street or Road Name: Keller Road Drive			
Route/Road Number (i.e. Twp., Co., SR or US)		US DOT No.: 151800C	
County: Licking (LIC)	Township: No Twp	City: (In or Near) Heath	
Railroad Name: Columbus & Ohio River Railroad	Railroad Division: Louisville Southern	Branch/Line Name: On Sub	
Nearest RR Timetable Station: Heath		RR Milepost: 108.06	

On-Site Review Team

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

1. Tod Darfus - ORDC - 614.374.9298 - tod.darfus@dot.state.oh.us
2. DAN BIRRELL 740-295-4122 DBIRRELL@BWR.R.COM
3. GEORGE MARTIN PUCO 614-752-9107 GEORGE.MARTIN@PUC.STATE.OH.US
4. JOHN GROFF HEATH 740-522-1420 jgroff@heathohio.gov
5. EDDIE HUNT - HEATH - (740)-522-1420 x 210 - ehunt@heathohio.gov
6. JOAN VERMAATEN - H.N.L.C.P.A. - (740) 288-5500, 222 - jvermaaten@hnlcpa.com
7. Scott Haines Jobs Henderson + Assoc. - (740) 344-5451 - shaines@jobshenderson.com
8. _____
9. _____

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	☐ Yes	☒ No	NONE ?
'Stop' Signs	☐ Yes	☒ No	
'Stop Ahead' Signs	☐ Yes	☒ No	
Pavement Markings (condition?)	☒ Yes	☐ No	2 good
Crossbucks	☒ Yes	☐ No	
Number of Tracks Signs	☐ Yes	☒ No	
Inventory Tags	☒ Yes	☐ No	poor
Interconnected Highway Traffic Signal	☐ Yes	☒ No	
Mast-Mounted Flashing Lights	☒ Yes	☐ No	2
Cantilever Flashing Lights	☐ Yes	☒ No	Number: Length:
Side Lights	☐ Yes	☒ No	
Automatic Gates	☐ Yes	☒ No	Number: Length:
Bells	☐ Yes	☒ No	Number:
Sidewalk Gate Arms	☐ Yes	☒ No	
'No Turn' Signs	☐ Yes	☒ No	
Illumination	☐ Yes	☒ No	
Is crossing flagged by train crew?	☐ Yes	☒ No	
Other	☐ Yes	☐ No	

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

	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	0	
Hazard Ranking	380	Date Run: 12/1/2011

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	18	12
< 1 per day		
Day thru trains	8	
Night thru trains	2	
Daytime switching movements	6	2
Nighttime switching movements	2	
Total number of tracks		
Number of main tracks	1	
Number of other tracks	0	
Maximum train speed	40	30
Typical train speed		
Amtrak		No

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

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 Heath

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	3134 (2005)	2745
Highway paved	☒ Yes ☐ No	☐ Yes ☐ No
Roadway Surface: ☒ Blacktop ☐ Gravel ☐ Concrete ☐ Other _____		
Roadway width: <u>24</u> ft.		
Number of highway lanes		2
Urban or Rural	Urban	Urban
Vehicle Speed: _____ MPH	35mph	35
School Bus Operation: ☒ No ☒ Yes _____ Amount		Y
Hazardous Materials Trucks: ☐ No ☒ Yes <u>?</u> Amount		0
Shoulders: ☐ No ☒ Yes		
Is the shoulder surfaced? ☒ No ☐ Yes		
Is there existing guardrail along roadway in crossing vicinity? ☒ No ☐ Yes		
Is stopping site distance adequate? (See Table 2) ☒ Yes ☐ No	If no, deficient approach(es) _____	

Quadrant _____ Curb and Gutter: ☐ Functional (Curb height = 4" or more) ☐ Non-functional (Curb height = Less than 4") ☒ None	Quadrant _____ Curb and Gutter: ☐ Functional (Curb height = 4" or more) ☐ Non-functional (Curb height = Less than 4") ☒ None
---	---

Pedestrians: ☒ No ☐ Yes

Is sidewalk present? ☒ No ☐ Yes

Is there a nearby intersection that could cause queuing over the crossing? ☒ No ☐ Yes

If yes,

Distance _____

Is this intersection signalized? ☒ No ☐ Yes

Are the signals currently interconnected with the existing crossing warning devices? ☒ No ☐ Yes

Is there a 'Do not Stop on Track' sign? ☒ No ☐ Yes

Is a roadway improvement project (e.g. widening, turn lanes, nearby new or upgraded traffic signal, sidewalk) planned at or near this location in the foreseeable future? ☒ No ☐ Yes

If yes,

Improvement type _____ Lead Agency _____ Timeline/completion _____

Is it the consensus of the Diagnostic Review Team that this is a potential closure project? ☒ No ☐ Yes

Explain reasons:

Type of Development

☒ Open Space ☒ Industrial ☐ Residential	☐ Institutional ☐ Commercial
--	---

Location of nearby schools:

2 Miles

Utility Information

Is commercial power available? ☐ No ☒ Yes

Utility Provider (Company Name) AEP

Phone Number _____

Nearest Available Power Source @ crossing

What other utilities are present? Gas vent present Fiber Optic South of tracks parallel
 (add locations to sketch)

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):

NA

Crossing Consolidation or Closure:

NA

Real Estate or ROW:

Heath = 60 - on south side

Culverts / Drainage / Ballast Conditions:

✓ Culvert conditions

Culvert - No fault parallel to track - prediction problem in island

Roadway and/or Sidewalks:

N/A

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

Overlapping circuitry - Dent Terr

Environmental:

No

Other:

Diagnostic Team Recommendations

	Quadrants Needed
☒ Install/upgrade active devices	
☒ Automatic Flashing Lights (AFLS)	
☐ AFLS / Cants	
☒ AFLS / Gates	
☐ AFLS / Gates / Cants	
☒ Bells / number	1
☐ Upgrade circuitry / type	
☐ Sidelights	
☐ Guardrail Needed	
☐ Install/Replace curb	
☐ Bungalow placement & offset from rail & highway	35 & 25 - same quad as existing
☐ Other (define)	

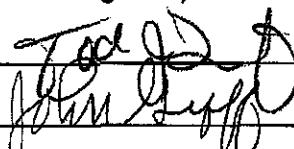
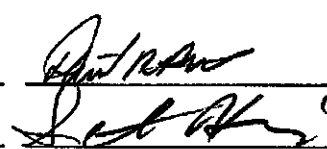
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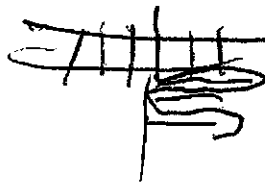
☐ Install/upgrade traffic signal preemption

☐ No improvements needed

☐ Other (define)

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

Field Dimensions

Sidewalk

Parkway

Roadway

Roadway

Parkway

Sidewalk

Show North
Direction

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

Measurements by: _____

Field Sketch

Include utilities as marked by OUPS and LHA; include ROW boundaries as indicated by railroad and LHA.

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

Sketch by: _____

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.



Ohio Rail Development Commission
1980 W. Broad Street, 2nd Floor
Columbus, OH 43221

Diagnostic Review Team Survey

Date: 12/9/2011

Location Data

Street or Road Name: Connors Ave SW (Adams Lane)			
Route/Road Number (i.e. Twp., Co., SR or US)		US DOT No.: 151817F	
County: Licking (LIC)	Township: NO / TWP - All Inc	City: (In or Near)	Summit Station: Pataskala?
Railroad Name: Columbus & Ohio River Railroad	Railroad Division: Louisville	Southern Div	Branch/Line Name: CN Sub
Nearest RR Timetable Station: Summit		RR Milepost: 121.53	

On-Site Review Team

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

1. Tod Darfus - ORDC - 614.374.9298 - tod.darfus@dot.state.oh.us
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3. DAN BIRRELL OHCR 740 295 4122 DBIRRELL@GWRRI.COM
4. BS King CITY OF PATASKALA 740-927-0145 bking@ci.pataskala.oh.us
5. Tim Boland City of Pataskala 740-564-2416 TBOLAND@CI.PATASKALA.OH.US
6. _____
7. _____
8. _____
9. _____

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	☒ Yes	☐ No	1 fair
'Stop' Signs	☐ Yes	☒ No	
'Stop Ahead' Signs	☐ Yes	☒ No	
Pavement Markings (condition?)	☐ Yes	☒ No	
Crossbucks	☒ Yes	☐ No	2
Number of Tracks Signs	☐ Yes	☒ No	
Inventory Tags	☒ Yes	☐ No	2
Interconnected Highway Traffic Signal	☐ Yes	☒ No	
Mast-Mounted Flashing Lights	☐ Yes	☒ No	
Cantilever Flashing Lights	☐ Yes	☒ No	Number: Length:
Side Lights	☐ Yes	☒ No	
Automatic Gates	☐ Yes	☒ No	Number: Length:
Bells	☐ Yes	☒ No	Number:
Sidewalk Gate Arms	☐ Yes	☒ No	
'No Turn' Signs	☐ Yes	☒ No	
Illumination	☐ Yes	☒ No	
Is crossing flagged by train crew?	☐ Yes	☒ No	
Other	☐ Yes	☒ No	

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

	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	0	0
Hazard Ranking	644	Date Run: 12/1/2011 12-9-11

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	10	10
< 1 per day		
Day thru trains	5	5
Night thru trains	5	5
Daytime switching movements	0	
Nighttime switching movements	0	
Total number of tracks		
Number of main tracks	1	
Number of other tracks	0	1
Maximum train speed	30	
Typical train speed		20
Amtrak		No

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 Pataskala

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	512 (2005)	512
Highway paved	☒ Yes ☐ No	☒ Yes ☐ No
Roadway Surface: ☒ Blacktop ☐ Gravel ☐ Concrete ☐ Other _____		
Roadway width: <u>18</u> ft.		
Number of highway lanes		2
Urban or Rural	Rural	rural
Vehicle Speed: _____ MPH	35mph	25

School Bus Operation: ☒ No ☒ Yes _____ Amount 2 buses a dayHazardous Materials Trucks: ☒ No ☐ Yes _____ 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>N/W</u> Curb and Gutter: ☐ Functional (Curb height = 4" or more) ☐ Non-functional (Curb height = Less than 4") ☒ None	Quadrant <u>S/E</u> Curb and Gutter: ☐ Functional (Curb height = 4" or more) ☐ Non-functional (Curb height = Less than 4") ☒ None
--	--

Pedestrians: ☒ No ☐ Yes

Is sidewalk present? ☒ No ☐ Yes

Is there a nearby intersection that could cause queuing over the crossing? ☒ No ☐ Yes

If yes,
Distance _____

Is this intersection signalized? ☒ No ☐ Yes

Are the signals currently interconnected with the existing crossing warning devices? ☒ No ☐ Yes

Is there a 'Do not Stop on Track' sign? ☒ No ☐ Yes

Is a roadway improvement project (e.g. widening, turn lanes, nearby new or upgraded traffic signal, sidewalk) planned at or near this location in the foreseeable future? ☒ No ☐ Yes

If yes,
Improvement type _____ Lead Agency _____ Timeline/completion _____

Is it the consensus of the Diagnostic Review Team that this is a potential closure project? ☒ No ☐ Yes

Explain reasons:

Type of Development

☐ Open Space ☐ Industrial ☒ Residential	☐ Institutional ☐ Commercial	Location of nearby schools:
---	---	-----------------------------

Utility Information

Is commercial power available? ☐ No ☒ Yes

Utility Provider (Company Name) AEP Phone Number _____

Nearest Available Power Source ○ Crossing Columbia Gas of Ohio

What other utilities are present? Fiber Optic par to South side of Tracks
(add locations to sketch)

Is(are) there potential utility conflict(s) ☐ Yes ☐ No ☒ Unknown

Comments:
SW Licking Sewer & Water

Potential Red Flags / Project Challenges

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

N/A

Crossing Consolidation or Closure:

NO

Real Estate or ROW:

City = 30 RR = 37 1/2 to South 25' N

Culverts / Drainage / Ballast Conditions:

No problems - Surface needs to be replaced

Roadway and/or Sidewalks:

No Problems

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

Dark Territory - poss overlap at Mink Road

Environmental:

N/A

Other:

Diagnostic Team Recommendations

	Quadrants Needed
☒ Install/upgrade active devices	
☒ Automatic Flashing Lights (AFLS)	
☐ AFLS / Cants	
☒ AFLS / Gates	
☐ AFLS / Gates / Cants	
☒ Bells / number	1
☐ Upgrade circuitry / type	
☒ Sidelights	sits @ T intersection
☐ Guardrail Needed	
☐ Install/Replace curb	
☒ Bungalow placement & offset from rail & highway	25 x 35
☐ Other (define)	

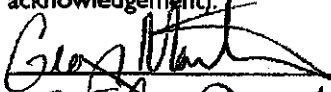
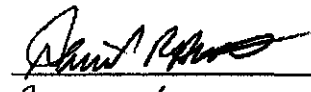
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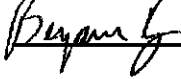
☐ Install/upgrade traffic signal preemption

☐ No improvements needed

☐ Other (define)

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

Field Dimensions

Sidewalk

Parkway

Roadway

Roadway

Parkway

Sidewalk

Show North Direction

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

Measurements by: _____

Field Sketch

Include utilities as marked by OUPS and LHA; include ROW boundaries as indicated by railroad and LHA.

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

Sketch by: _____

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.