

Memo

To: Docketing Division

From: George Martin, Grade Crossing Planner, Rail Division *GM*

Re: In the matter of the authorization of Norfolk Southern Railway to install an active grade crossing warning device in Ottawa County

Date: February 16, 2011

The Ohio Rail Development Commission (ORDC) has authorized funding for Norfolk Southern Railway (NS) to install mast-mounted flashing lights and roadway gates at Ottawa County, near Oak Harbor, Benton-Carroll Rd/CR 23, DOT# 473769H. On December 16, 2010, a train/vehicle collision occurred at the crossing that resulted in a fatality.

On January 10, 2011, staff from ORDC, NS, the Commission and Ottawa County surveyed the crossing and determined that an upgrade of the warning devices was appropriate.

This project will be actual cost and will be federally funded. Staff requests an Entry with plans and an estimate to be submitted within 90 days and completion within one year. Upon approval of the plans and estimate by ORDC, construction may commence. A suggested case coding and heading would be:

PUCO Case No. 11- *863* -RR-FED In the matter of the authorization of Norfolk Southern Railway to install an active grade crossing warning device in Ottawa County

C: Legal Department

Please serve the following parties of record

Ms Susan Kirkland

Ohio Rail Development Commission

1980 West Broad St

Columbus, Oh 43223

Mr Rick Ray

Norfolk Southern Railway

1200 Peachtree St NE, Box 123

Atlanta, Ga 30309

Mr David Brunkhorst

Ottawa County Engineer

315 Madison St, Rm 106

Port Clinton, Oh 43452-1993

Toledo Edison

76 S Main St

Akron, Oh 44308

OHIO RAIL DEVELOPMENT COMMISSION
INTER-OFFICE COMMUNICATION

TO: George Martin, Planner, Railroad Division, PUCO
FROM: Susan Kirkland, Supervisor, Rail-Highway Safety Section
BY: Tod Darfus, Project Manager
SUBJECT: Grade Crossing Warning Projects
DATE: February 11, 2011

You may authorize the Norfolk Southern Railroad to proceed with the non-field work for the project listed below. This construction 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 construction portion and preliminary engineering will be financed with federal funds.

Please initiate a one (1) year order with the plan and estimate due in ninety (90) days for the following.

Ottawa-Benton-Carroll Road/CR-23 AAR # 473 769 H

Thank you for your assistance with this matter.

TD:td

c: File



Diagnostic Review Team Survey

Date

1/10/11

Location Data

Street or Road Name:

BENTON-CARROLL Rd CR-23

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

(include SLM if State or US route)

AAR-DOT No.:

473769 H

County:

Ottawa

Township:

Benton-Carroll

City:

(In or Near) Oak Harbor

Railroad
Name:

Norfolk-Southern

Railroad
Division:

Lake

Branch/Line
Name:

Toledo Dist

Nearest RR

Timetable Station:

Oak Harbor

RR Milepost:

23.04

On-Site Review Team

(Include: Name - Organization - Phone Number)

1. GEORGE MARTIN PUCO 614-752-9107

2. E. J. Gherin NS 419-697-5035

3. DAN REINSEL WLE 330-767-7202

4. Ted D. S. J. S. OR-DC 614-374-5298

5. Joseph F. Verb Ottawa Co. Highway 419-898-0403

6. DAVID BRUMMARTER OCEAN 419-734-6777

7.

8.

9.

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments	
Advance Warning Signs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2	
'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	<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	2	
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		
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	1 - overhead lamp	
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	/	
Hazard Ranking	Date Run:	
Railroad Data		
Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day		6
< 1 per day		
Day thru trains		3
Night thru trains		3
Daytime switching movements		5070
Nighttime switching movements		5050
Total number of tracks		1
Number of main tracks		1
Number of other tracks		0
Maximum train speed		50
Typical train speed		50
Amtrak		NO
If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If multiple tracks, can two trains occupy crossing at the same time? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Can one train block the motorists' view of another train at crossing? <input type="checkbox"/> Yes (Explain below) <input checked="" type="checkbox"/> No		
Are there other track(s) crossing this same roadway within 100 ft of this crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If yes, Crossing DOT # (if different) _____		
If yes, distance _____ (take measurement between track centerlines at closest point along roadway)		
Roadway Data		
Local Highway Authority: <u>O'Hawa County</u>		
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	725	725
Highway paved	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" 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: <u>24</u> ft.		
Number of highway lanes	2	2
Urban or Rural	Rural	Rural
Vehicle Speed: _____ MPH	55	55
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <u>64</u> Amount		
Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <u>1</u> Amount		
Shoulders: <input type="checkbox"/> No <input checked="" 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 _____ 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 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"/> Institutional <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	Location of nearby schools: <div style="text-align: center; font-size: 1.2em;">2.5 mile</div>
Utility Information	
Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
Utility Provider (Company Name) <u>First Energy</u> Phone Number _____	
Nearest Available Power Source <u>@ Crossing</u>	
What other utilities are present? <u>Water Carroll w/s district - Fiber</u>	
Is there potential utility conflict(s) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
Diagnostic Team Recommendations	
	Quadrants Needed
<input type="checkbox"/> Install/upgrade active devices	
<input type="checkbox"/> Automatic Flashing Lights (AFLS)	
<input type="checkbox"/> AFLS / Cants	
<input checked="" type="checkbox"/> AFLS / Gates	
<input type="checkbox"/> AFLS / Gates / Cants	
<input type="checkbox"/> Upgrade circuitry	
<input checked="" type="checkbox"/> Sidights	
<input type="checkbox"/> Guardrail Needed	
<input type="checkbox"/> Install/Replace curb	
<input type="checkbox"/> Other (define)	
Comments: <div style="text-align: center; font-size: 1.2em;">All in team agrees to upgrade to Light & Gates</div>	
<input type="checkbox"/> Install/upgrade traffic signal preemption <input type="checkbox"/> No improvements needed <input type="checkbox"/> Other (define)	

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

See attached overhead Photo

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

Sketch by: JP

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.