

**Public Utilities
Commission of Ohio**

Memo

To: Docketing Division
From: George Martin, Grade Crossing Planner, Rail Division *GM*
Re: In the matter of the authorization of CSX Transportation to install an active grade crossing warning device in Hardin County
Date: December 11, 2012

The Ohio Rail Development Commission (ORDC) has authorized funding for CSX Transportation (CSX) to install mast mounted flashing lights and roadway gates at the CR 200, DOT# 513779B, grade crossing near Ridgeway, Hardin County. The crossing was surveyed on March 22, 2012 and was found to warrant the upgrade.

The project will be paid for with federal funds, and is actual cost. As the plan and estimate 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- *3190* -RR-FED In the matter of the authorization of CSX Transportation to install an active grade crossing warning device in Hardin County

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business
Technician *Am* Date Processed *12/11/12*

C: Legal Department

Please serve the following parties of record

RECEIVED-DOCKETING DIV
2012 DEC 11 PM 3:00
PUCO

Ms Cathy Stout

Ohio Rail Development Commission

1980 West Broad St, Mailstop #3140

Columbus, Oh 43223

Ms Amanda DeCesare

CSX Transportation

1717 Dixie Hwy, Ste 400

Ft Wright, Ky 41011

Mr Michael Smith

Hardin County Engineer

13177 CR 130

Kenton, Oh 43326-9401

Mid Ohio Energy Cooperative

**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: Hardin County, CSX Transportation (CSX)
CR-200, 513 779 B, PID 93339

DATE: December 10, 2012

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on March 22, 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 plus cantilevers. 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: 3/22/2012

Location Data

Street or Road Name:

Route/Road Number (i.e. Twp., Co., SR or US) CR 200

US DOT No.: 513779B

County: Hardin (HAR)

Township:

City: (In or Near)

Ridgeway

Railroad Name: CSX

Railroad Division: Great Lakes

Branch/Line Name: Toledo / Ch. 9

Nearest RR Timetable Station: Kenton

RR Milepost: 78.45

On-Site Review Team

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

1. Tod Darfus - ORDC - 614.374.9298 - tod.darfus@dot.state.oh.us

2. Michael Smith 419-674-2222 mismithhce@windstream.net

3. Luke Underwood 419-674-2222 Underwood-hce@windstream.net

4. GEORGE MARTIN PUCO 614-757-9107

5. Terry Ludban CSX 724-652-3882

6. Jerry Gibson PUCO 614-966-1150

7. 13177 GL 130

8. KENTON 43726-

9. 9401

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 good
'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	2 fair
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	
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	298	Date Run: 3/7/2012
Railroad Data		
Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	31	31
< 1 per day		
Day thru trains	11	11
Night thru trains	16	16
Daytime switching movements	4	4
Nighttime switching movements	0	
Total number of tracks		
Number of main tracks	1	1
Number of other tracks	0	
Maximum train speed	50	50
Typical train speed		45
Amtrak		
If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If multiple tracks, can two trains occupy crossing at the same time? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Can one train block the motorists' view of another train at crossing? <input type="checkbox"/> Yes (Explain below) <input checked="" type="checkbox"/> No		
Can one or more tracks be eliminated through the crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Are there other track(s) crossing this same roadway within 100 ft of this crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If yes, Crossing DOT #(if different) _____		
If yes, distance _____ (take measurement between track centerlines at closest point along roadway)		
Roadway Data		
Local Highway Authority: Hardin County		
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	192 (2011)	178
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: 28 ft.		
Number of highway lanes	2	2
Urban or Rural	Rural	Rural
Vehicle Speed: 55 MPH		
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes 1 Amount 2		
Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes 2 Amount		
Shoulders: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is the shoulder surfaced? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is there existing guardrail along roadway in crossing vicinity? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is stopping site distance adequate? (See Table 2) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, deficient approach(es) _____		

Quadrant _____ 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: <div style="font-size: 1.2em; margin-top: 10px;">Amish School 1 mile</div>
Utility Information	
Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Utility Provider (Company Name) <u>Mid Ohio</u> Phone Number _____ Nearest Available Power Source <u>0 CROSSING</u> What other utilities are present? <u>Att Fiber - Entry Link</u> (add locations to sketch)	
Is(are) there potential utility conflict(s) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	
Comments:	

Potential Red Flags / Project Challenges

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

No

Crossing Consolidation or Closure:

No

Real Estate or ROW:

County = 60' CSX = 100

Culverts / Drainage / Ballast Conditions:

No

Roadway and/or Sidewalks:

No

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

Wayside - No Overlap

Environmental:

No

Other:

Diagnostic Team Recommendations

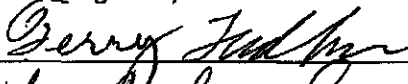
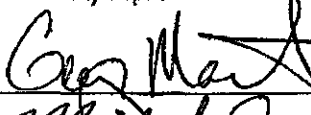




	Quadrants Needed
<input checked="" type="checkbox"/> Install/upgrade active devices	
<input type="checkbox"/> Automatic Flashing Lights (AFLS)	
<input type="checkbox"/> AFLS / Cants	
<input checked="" type="checkbox"/> AFLS / Gates	
<input type="checkbox"/> AFLS / Gates / Cants	
<input checked="" type="checkbox"/> Bells / number	1
<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	NE Quad 25/50
<input type="checkbox"/> Other (define)	

Comments:

Set Foundations
10' from E/P

<input type="checkbox"/> Install/upgrade traffic signal preemption	
<input type="checkbox"/> No improvements needed	
<input type="checkbox"/> Other (define)	

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

Field Dimensions

The diagram shows a cross-section of a road with a central vertical line. On the left side, from top to bottom, are the labels: Sidewalk, Parkway, and Roadway. On the right side, from top to bottom, are the labels: Roadway, Parkway, and Sidewalk. Dashed vertical arrows with horizontal lines at their ends indicate measurement points for each section. A box in the top right corner is labeled "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

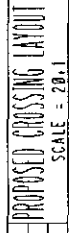
Source: R-H Grade Crossing Handbook Table 36 (pp. 132-133)

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.

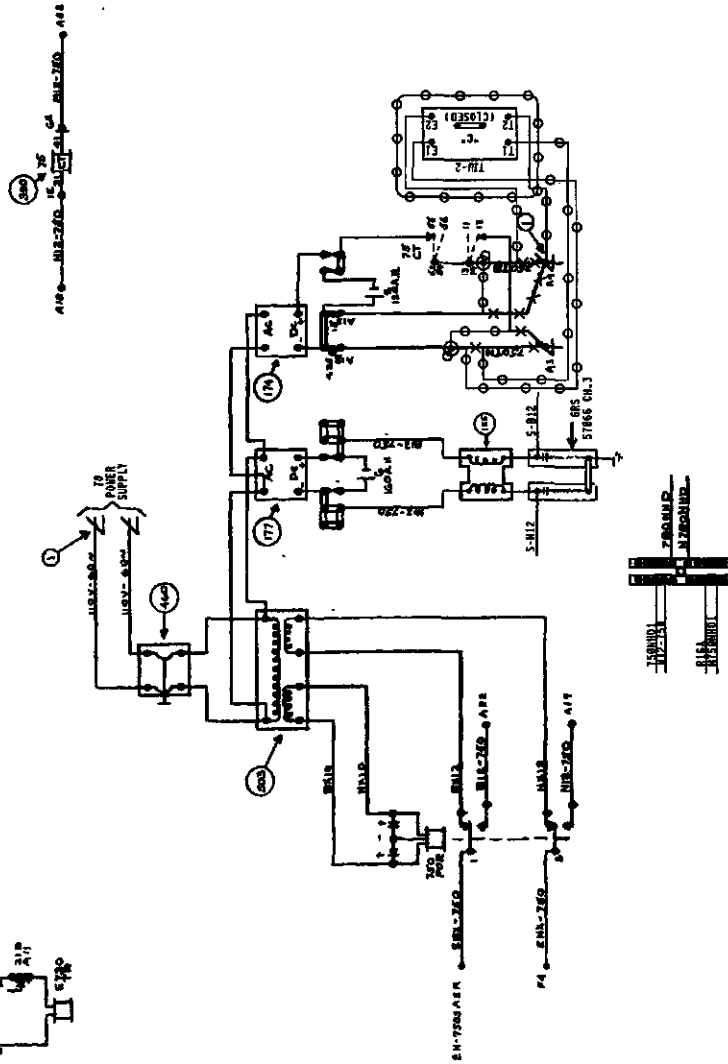


12864

AS-110

750H 750S

JOINS
9707694
SH. 501



TRACKS 11-15

CHRYSLER CREDIT CORP.
150 WEST WYOMING AVE.
NEW YORK, N.Y. 10036
CHRYSLER CREDIT CORP.

CANCELLED

CANCELLED

The Summary:

References

07-11-07

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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83-11-87
VECTOR CREATED BY SVE
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OUT IN
* * *

CRD1231145
 08-20-12
 OH2012060
 XRL/C.WYSUPH/Ccy

xerox

CS&C TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

STANLEY TO CP 124

SIGNALS 7500/7505
TRACK AND SIGNAL PLAN
ENTON, OH M.P. 07-75.

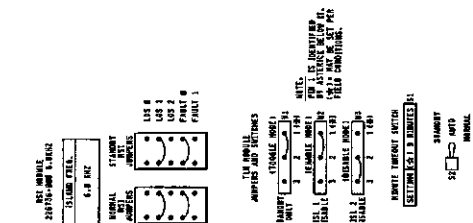
000001 IN 4 JAN 76 ROOM 200

DESIGNED	CSX	DIGITIZED	SNE	CHECKED	CSX	DATE	03-01-
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NEXT FILE	NEXT SH	FILE	SHE
0747500	181	0747500	001

DRAWING 9472-0758	SHEET NO 1	NEXT SH 2
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EXT SH



NEW WORK
C/O 123145
98-28-12
XBL JC. VTSJPH1207
xorail

0'X.0" CROSSING HOUSE

[illegible]

NEW WORK
062812311-45
BB-2B-12
XORAIL
KODAK SAFETY FILM

DRAWING	SHEET NO	NUMBER OF SHEETS	DESIGNED BY	CHECKED BY	DATE
1-22-67895	12	13	NEXT FILE SUPPORT	NEXT SH CUT	RI-29-11



REVISIONS

CA 200 513779B

061103Z MAR 79

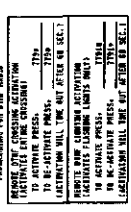
CROSSING HARMERS BEACH STATE CIRCULAR
ROADWAY, ON N.P. 01-70.50

DATE	CHECKED	DIGITIZED	SAVED
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DATE	FILE	CM	INS
21-12-11	7M	MS2/10K	MS2

FILE	NAME	FILE	PRICE
07054	215	0007150	£14

NEW WORK
 2013/11/15
 18-28-12
 01212044
 XRLC, WTSMPH/CAZ
xorail



NEW WORK
 209.232.1.45
 08-28-12
 XRL/C. VTSUPN/CHW
 xorail

NOTES:

1. LAMP CURRENT SENSOR CIRCUIT VISIBLE THROUGH ON SHEET 204.

2.  = SUPPLIED BY CSR COMMUNICATIONS.

8' X 8' CROSSING HOUSE

REVISIONS	DRAWING 8122-4706									
	SHEET NO 18									
01/01/1974 11:15										
DESIGNED TALLACE										
NEXT FILE 817598										
CHECKED TALLACE										
DATE 01-17-74										
REWORKED AND NEW CONTROLLER CIRCUITS SUBMIT, ON R.P. 07-25-74										
CR 208 537798										
MAIL ROOM COMMUNICATIONS AND SIGNALS										

**CSX TRANSPORTATION, INC.
FORCE ACCOUNT ESTIMATE**

Page 1

ACCT. CODE : 709 - OH0896

ESTIMATE SUBJECT TO REVISION AFTER: 3/13/2013 CITY: (near) Ridgeway COUNTY: Hardin DESCRIPTION: CR 200 - Install FLS&G with a bell.	DOT NO.: 513779B STATE: OH
DIVISION: Chicago AGENCY PROJECT NUMBER: PID # 93339	SUB-DIV: Toledo Branch MILE POST: QT - 78.45

PRELIMINARY ENGINEERING:

200	Additive	31.34%		\$	-
230	Expenses			\$	-
212	Contracted & Administrative Engineering Services			\$	2,000
	Subtotal			\$	2,000

CONSTRUCTION ENGINEERING/INSPECTION:

200	Additive	31.34%		\$	-
230	Expenses			\$	-
212	Contracted & Administrative Engineering Services			\$	2,000
	Subtotal			\$	2,000

FLAGGING SERVICE: (Contract Labor)

070	Labor (Conductor-Flagman)			\$	-
050	Labor (Foreman/Inspector)			\$	-
070	Additive	73.76%	(Transportation Department)	\$	-
050	Additive	97.95%	(Engineering Department)	\$	-
230	Per Diem		(Engineering Department)	\$	-
230	Expenses			\$	-
	Subtotal			\$	-

<u>SIGNAL & COMMUNICATIONS WORK:</u>	(Details Attached)	\$	243,209
---	--------------------	----	---------

<u>TRACK WORK:</u>	(Details Attached)	\$	-
---------------------------	--------------------	----	---

ACCOUNTING & BILLING:

040	Labor			\$	3,100
040	Additive	63.03%		\$	1,954
	Subtotal			\$	5,054

PROJECT SUBTOTAL

900	<u>CONTINGENCIES:</u>			\$	-
-----	------------------------------	--	--	----	---

GRAND TOTAL	*****	\$	252,263
--------------------	-------	----	---------

DIVISION OF COST:

	Agency	100.00%		\$	252,263
	Railroad			\$	-
	TOTAL	*****		\$	252,263

NOTE: Estimate is based on FULL CROSSING CLOSURE during work by Railroad Forces.

This estimate has been prepared based on site conditions, anticipated work duration periods, material prices, labor rates, manpower and resource availability, and other factors known as of the date prepared. The actual cost for CSXT work may differ based upon the agency's requirements, their contractor's work procedures, and/or other conditions that become apparent once construction commences or during the progress of the work

Office of Assistant Chief Engineer Public Projects--Jacksonville, Florida

Estimated prepared by:	BSE	Approved by:	AJD	CSXT Public Project Group
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DATE: 9/14/2012	REVISED:	DATE: 9/17/2012	
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Form Revised 05-05-2010-LLS

Project Summary Sheet

Estimate No. 120891
CSX Transportation
CR 200 - Install Automatic Flashing Light Signals and Gates.
(near) Ridgeway, OH

DOT: 513779B

OP: OH0896

CSX Project: OH2012060

Summary

Material	\$ 106,629
Sales Tax	\$ 0
Labor:	
Construction Labor (119 man-days).....	\$ 33,781
Shop Labor (7 man-days).....	\$ 1,470
Subsistence (103 man-days).....	\$ 13,390
Railroad Engineering, Preliminary	\$ 5,079
Railroad Engineering, Construction	\$ 5,067
Additives to Construction Labor	\$ 31,385
Additives to Shop Labor	\$ 1,303
Additives to Track Labor	\$ 0
Additives to Engineering	\$ 3,180
Equipment Expenses (18 work days).....	\$ 11,700
Waste Management (18 work days).....	\$ 216
Contract Engineering	\$ 21,810
Freight	\$ 4,200
Poleline Removal	\$ 0
AC Power Service	\$ 0
Salvage	\$ -1
Vac Truck	\$ 4,000
<hr/>	
TOTAL ESTIMATE COST	\$ 243,210

Date: 09/10/2012

Estimated By: John Morrison

NOTE: This estimate should be considered void one year from date of estimate.

Shop Material List for CSX Project: OH2012060 (Effective: 09/10/2012)
Install FLS&G with HXP-3R
Ridgeway, OH - QT 78.50

Catalog Num	Cond	Unit Price	Qty	Cost	Description
020-0003401	1	8480.00	1	8480.00	HOUSE 8X8L ALUM INCLUDES 7 SHELFs, FARADAY CLOSET, 240V
020-0017120	1	11.52	6	69.12	BLOCK TERMINAL 12 POST SINGLE STRIP AAR 14.1.6 WITH 1 AAR
020-0017125	1	3.54	6	21.24	BLOCK TERMINAL 2 POST AAR 14.1.8 WITH 1 AAR 14.1.11
020-0017211	1	627.20	1	627.20	TRANSFORMER 010520-50X LIGHT 750VA MOD SLT 50 SAFETRAN PRI
020-0017385	1	56.16	1	56.16	CABLE RJ45 TO RJ4 15' GETS P/N 075061-015
020-0021965	1	8.96	1	8.96	EXTRACTOR DWG 59688-4 TERMINAL GRS CAT P3-308 REF
020-0022651	1	55.89	7	391.23	PLUGBOARD KIT TYPE B1 OR ST1 RELAY ASSEMBLY WITH 12 EACH
020-0022701	1	68.00	27	1836.00	ARRESTER LPC 15012-1 0-30V DC OR 0-24V AC RATED AT 15 AMP
020-0025595	1	20.72	1	20.72	WRENCH DWG 55393-3 GR1 "E" TERMINAL POST NUT GRS CAT
020-0053360	1	406.56	3	1219.68	CHARGER BATTERY ELC 12/20 S 20 AMP 10-19.9 VDC ROTARY SW
020-0053510	1	233.11	1	233.11	KIT 240V AC EMERGENCY GENERATOR CABLE AND
020-0055602	1	11.39	1	11.39	RELAY POTTER BRUMFIELD KHAU17D12-12V 160 OHMS
020-0056514	1	7.46	1	7.46	SOCKET RELAY POTTER & BRUMFIELD 27E894 NEWARK
020-0064060	1	16.12	1	16.12	PLATE RELAY MOUNTING FOR 2 EACH TYPE KHAU OR OCTAL RELAY
020-0660077	1	597.41	1	597.41	ARRESTER GE 9L10KAC213 FOR 240 VOLT SINGLE PHASE 3 WIRE
020-0770060	1	13.44	26	349.44	ARRESTER US&S N451552-0201 TRACK SERIES RED LABEL USGA
020-0770105	1	22.40	11	246.40	ARRESTER HARMON 202217-000 AGE-1 TRACK AIR GAP EQUALIZER
020-1940055	1	14.22	1	14.22	CONTAINER CIRCUIT PRINT 24" SCHEDULE 20 4" PVC PIPE WITH
020-2501400	1	987.92	1	987.92	CONTROLLER DTMF RADIO KEY DOWN MODE 6 SET TIMER TO 60
020-2532515	1	32.48	1	32.48	MODULE RESISTOR ISLAND OUTPUT RESISTIVE LOAD ASSEMBLY 560
020-2552672	1	10171.51	1	10171.51	PREDICTOR 250811-2200 HXP-3R W/IDK AND 8KHZ RSI HARMON
020-2552757	1	11650.50	2	23301.00	PREDICTOR HXP-3R2 W/O RSI HARMON P/N 250729-4000
020-3430110	1	321.84	3	965.52	RELAY SAFETRAN 400004 500 OHMS CONTACTS 4FB-2F-1B CSX
020-3430115	1	421.20	1	421.20	RELAY SAFETRAN 400005 500 OHMS CONTACTS 4FB HEAVY DUTY
020-3430135	1	362.64	1	362.64	RELAY SAFETRAN 400213 460 OHMS CONTACTS 2FB CSX

Shop Material List for CSX Project: OH2012060 (Effective: 09/10/2012)
Install FLS&G with HXP-3R
Ridgeway, OH - QT 78.50

Catalog Num	Cond	Unit Price	Qty	Cost	Description
020-3430170	1	413.95	1	413.95	RELAY SAFETRAN 400800-CSX 100/100 OHMS CONTACTS 6FB
020-3430185	1	313.63	1	313.63	RELAY SAFETRAN 400700-X 60 OHMS CONTACTS 4FB CSX
020-4200100	1	6.04	2	12.08	CONNECTOR BUS 1" CENTERS 1/2" X 36" 18 GAGE PUNCHED 1/4" X
020-4200340	1	1.65	8	13.20	LINK TEST ASSEMBLY 1" CENTERS COMPLETE WITH INSULATED
020-4200350	1	2.04	9	18.36	LINK TEST ASSEMBLY 2-3/8" CENTERS COMPLETE WITH
020-4201046	1	0.15	500	75.00	NUT HEX CLAMP (FLAT NUT) AAR 14.1.11-7 14-24 NS-2 THD FLAT
020-8000067	1	14.61	2	29.22	LOCK AMERICAN H10SIGRA CSX SIGNAL PADLOCK WITH BLACK
020-8100031	1	24.38	1	24.38	CABLE EVENT RECORDER HARMON HAWK NETWORK CABLE USED WITH
020-8100044	1	3688.29	1	3688.29	RECORDER EVENT HAWK INCLUDES ETHERNET MODEM AND CURRENT
022-5290559	1	364.00	1	364.00	CONVERTER WILMORE INPUT 10V DC TO 16V DC OUTPUT 13.6V DC
022-8005160	1	563.90	1	563.90	KIT CDMA AND VHF RADIO MATERIAL FOR USE WITH CSX

Total Cost: \$ 55,964.14

Field Material List for CSX Project: OH2012060 (Effective: 09/10/2012)
Install FLS&G with HXP-3R
Ridgeway, OH - QT 78.50

Catalog Num	Cond	Unit Price	Qty	Cost	Description
020-0010447	1	13.02	2	26.04	BOX GROUND ROD CONNECTION ENCLOSURE COMPLETE WITH 7"
020-0010449	1	31.57	6	189.42	BOX, 9 INCH DIA. "FLOWER POT" ENCLOSURE WITH HD
020-0013550	1	463.22	1	463.22	BOX JUNCTION 20 WAY ALUMINUM INCLUDES 4 EACH 10 POST
020-0013687	1	17.76	6	106.56	SPLICE TRACK WIRE TO BONDSTRAND (FLOWER POT KIT)
020-0013908	1	6.90	300	2070.00	CABLE UG COMPOSITE 19 CONDUCTOR INCLUDES 13
020-0017120	1	11.52	2	23.04	BLOCK TERMINAL 12 POST SINGLE STRIP AAR 14.1.6 WITH 1 AAR
020-0017270	1	516.24	1	516.24	CONVERTER 2TC DC-DC USE WITH ISLAND AND OS TRACK CIRCUITS
020-0017605	1	0.31	200	62.00	WIRE CASE 10 AWG FLEX CSX SPEC SS796 OKONITE P/N
020-0017625	1	0.44	100	44.00	WIRE CASE TWISTED PAIR AWG #14 FLEX TWIST 2 TURNS PER FT
020-0025145	1	320.49	8	2563.92	SHUNT ENCLOSURE INTERRAIL P/N IRS-SE8A WAYSIDE MOUNT
020-0052475	1	11.20	4	44.80	ARM EXTENSION 10-1/2" ALUM WITH 3/8" DIAMETER MOUNTING
020-0053066	1	4.10	34	139.40	BOND WEB OF RAIL TRACK CONNECTOR 3/16" DIA X 1" TAB
020-0053220	1	2.44	150	366.00	CABLE POWER UG 3 COND NO 6 AWG - SHOW LENGTH ON EACH
020-0054075	1	1006.88	2	2013.76	GATE GARD NORMAL MOVEMENT COMPLETE WITH SHEAR PIN AND
020-0055421	1	18.61	6	111.66	BRACKET SIGN 4" OR 5" MAST W/1/2" U-BOLT FOR ALL SIGNS
020-0056678	1	6124.91	2	12249.82	SIGNAL 0221-L GCWD GATE ASSY DWG SS222 INCLS ADJ 19 TO 28
020-0056823	1	15.01	1	15.01	TAPE UG RED CABLE MARKER IMPRINT TO READ "CAUTION
020-0057275	1	1.17	4000	4680.00	WIRE UG TRACK TWISTED PAIR NO. 6 AWG SOLID CONDUCTOR
020-0770060	1	13.84	2	27.68	ARRESTER US&S N451552-0201 TRACK SERIES RED LABEL USGA
020-0770105	1	22.40	2	44.80	ARRESTER HARMON 202217-000 AGE-1 TRACK AIR GAP EQUALIZER
020-1040322	1	162.40	20	3248.00	BATTERY SAFT SPL165, 165 AH POCKET PLATE NICKEL CADMIUM
020-1040324	1	224.28	9	2018.52	BATTERY SAFT SPL250, 250 AH POCKET PLATE NICKEL CADMIUM
020-1040540	1	31.36	4	125.44	TRAY BATTERY FIBER CO 82687-1-P 12" WIDTH 24" LONG
020-1040550	1	45.92	1	45.92	TRAY BATTERY FIBER CO 82687-3-P 12" WIDTH 38"
020-1150750	1	0.86	350	301.00	BOND STRAND 3/16" DIA 7 STRANDS OF 19 STR EACH 6 WITH

Field Material List for CSX Project: OH2012060 (Effective: 09/10/2012)
Install FLS&G with HXP-3R
Ridgeway, OH - QT 78.50

Catalog Num	Cond	Unit Price	Qty	Cost Description
020-1360014	1	1013.12	1	1013.12 PACKAGE FOREMANS CARE FOR ALUMINUM TYPICAL BOM FOR USE
020-1360016	1	21.18	1	21.18 PACKAGE SAFETY & SECURMENT WITH 1 EA CAUTION TAG 1 EA
020-2530300	1	190.40	2	380.80 REACTOR TRACK BATTERY MODEL 5025A GETS P/N 250141-001
020-2531180	1	265.93	2	531.86 SHUNT HARMON 250250-979 NBS-1-10 979HZ 10 FT LEADS
020-2531280	1	265.93	2	531.86 SHUNT HARMON 250250-267 NBS-1-10 267HZ 10 FT LEADS
020-2532590	1	360.64	3	1081.92 COUPLING TIU-2 TRK ISOLATION UNIT HPN 250213-1A MODEL 2
020-2541305	1	689.76	2	1379.52 SHUNT HARMON 250849-000 FSS-1A FREQUENCY SELECTEDABLE
020-2541309	1	497.44	2	994.88 SHUNT HARMON 250849-002 FSS-1C/2C FREQUENCY
020-2541315	1	81.00	1	81.00 INDUCTOR 227032-000 250 DUMMY LOAD HARMON
020-2541316	1	81.00	1	81.00 INDUCTOR 227032-001 500 DUMMY LOAD HARMON
020-2541323	1	104.76	1	104.76 INDUCTOR 227032-008 2250 DUMMY LOAD HARMON
020-2541325	1	114.24	1	114.24 INDUCTOR 227032-010 2750 DUMMY LOAD HARMON
020-3263656	1	1.67	34	56.78 SLEEVE BONDSTRAND 3/16" TO 3/16" 100 PER BOX, NICOPRESS
020-3652640	1	45.83	2	91.66 RESISTOR ADJUSTABLE 0.482 TO 5.00 OHMS 1.73A TRACK US&S
020-3901895	1	92.68	2	185.36 TIP FLEX HWY CROSSING GATE 24 IN LONG RED & WHITE STRIPES
020-3920200	1	181.17	1	181.17 BELL GCWD ELECTRONIC 4" OR 5" MAST 8 TO 13 VOLTS DC GSI PN
020-3930010	1	3.70	2	7.40 KIT GATE ARM WARNING STICKER KIT INCLUDES 1-EA 5"X3"
020-4200340	1	1.65	47	77.55 LINK TEST ASSEMBLY 1" CENTERS COMPLETE WITH INSULATED
020-4200900	1	0.27	6	1.62 CONNECTOR SHEATHING AMP 329860 FOR NO. 14 WIRE
020-7300030	1	189.28	1	189.28 BRACKET BELL FITS SAFETRAN JUNCTION BOX MOUNT, 5" BENT
020-9999991	1	100.00	1	100.00 BLOCKING AND BRACING FOR PROJECTS BURCO DIST
250-0001827	1	14.28	1	14.28 BREAKER CIRCUIT SQ D QO235
250-1680406	1	0.50	280	140.00 CONDUIT LIQUID TIGHT 3/4" FLEXIBLE GREY PVC CARLON P/N
250-1680408	1	1.08	280	302.40 CONDUIT LIQUID TIGHT 3/4" NON-METALLIC ORANGE PVC
360-0006100	1	35.07	1	35.07 STOOL STEP WOOD 14"X 20" SIGNAL MAINTAINERS CSXT
360-0800145	1	4.72	1	4.72 BROOM WAREHOUSE CORN HVY DUTY ID300

Total Cost: \$ 39,199.68

Estimate ID: 120891

Consumables List for CSX Project: OH2012060 (Effective: 09/10/2012)
Install FLS&G with HXP-3R
Ridgeway, OH - QT 78.50

Catalog Num	Cond	Unit Price	Qty	Cost Description
N/A		50.00	80	4000.00 FILL MATERIAL, 1 CUBIC YARD
N/A		800.00	1	800.00 WALKWAY ROCK, 10 CUBIC YARDS
013-5000245	1	1208.23	2	2416.46 JOINT INSULATED 136RE 40'-0" EPOXY BONDED ASSEMBLED WITH
020-0017605	1	0.29	350	101.50 WIRE CASE 10 AWG FLEX CSX SPEC SS796 OKONITE
020-0017607	1	0.70	500	350.00 WIRE CASE TW PR NO 10 AWG FLEX CSX SPEC SS796 TWIST 2
020-0017625	1	0.42	150	63.00 WIRE CASE TW PR NO 14 AWG FLEX CSX SPEC SS796 TWIST 2
020-0017630	1	0.13	200	26.00 WIRE CASE NO 16 AWG FLEX CSX SPEC SS796 FURN 1000 FT SPOOL
020-0017635	1	0.80	130	104.00 WIRE SIGNAL DEL 018 NO 6 COPPER STRANDED SINGLE
020-0028610	1	0.22	100	22.00 TERMINAL RING AMP 35628 YELLOW PLASTI-BOND HVY DUTY
020-1710045	1	2.25	250	562.50 CONDUIT SDR 13.5 4" POLYETHYLENE TRENCHLESS
020-2060072	1	750.00	2	1500.00 FOUNDATION HELICAL SCREW-IN ASSEMBLY 7' X 10", USED FOR
020-2060074	1	588.00	2	1176.00 EXTENSION 10" X 3' USE WITH XING GATE AND SIGNAL MAST
020-3261970	1	9.41	2	18.82 DECAL ASSY 2" BLACK PRESSURE SENSITIVE VINYL PRE-MASKED
020-4200880	1	0.53	2	1.06 CONNECTOR TERMINAL 2-3/8" CENTERS AAR 14.1.15-4 NICKEL
020-4200892	1	0.44	27	11.88 CONNECTOR TERMINAL 1" CENTERS AAR 14.1.15-3 NICKEL PLATED
020-4251190	1	0.13	120	15.60 TERMINAL RING AMP 35627 BLACK PLASTI-BOND WIRE SIZE 10-12
020-4251290	1	0.49	30	14.70 TERMINAL WIRE AMP 322051 BLUE WIRE SIZE NO 6 AWG 1/4" STUD
020-4251295	1	0.49	6	2.94 TERMINAL WIRE AMP 322007 BLUE WIRE SIZE NO 6 AWG 3/8" STUD
020-9999992	1	50.00	1	50.00 HOUSE, SIGNAL HANDLING CHARGE, BURCO DISTRIBUTION
280-8020180	1	56.77	4	227.08 WELD FIELD COMPLETE 136RE RAILTECH BOUTET P/N
450-0019212	1	0.02	100	2.00 SCREW 10 X 1" SHT METAL PAN HD TYPE A COARSE THREAD
Total Cost: \$				11,465.54



OHIO RAIL DEVELOPMENT COMMISSION

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

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

December 10, 2012

Ms. Amanda DeCesare
Project Manager – Public Projects
1717 Dixie Highway
Suite 400
Fort Wright, KY 41011

RE: Hardin County, PID # 93339
County Road 200, AAR # 513 779 B

Dear Ms. DeCesare:

The plan and estimates dated September 24, 2012, for the referenced projects has been reviewed and is acceptable. CSX may proceed with the construction of the proposed grade crossing warning systems 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 100% and limited to \$252,263.00. 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 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 Tod Darfus, ORDC, tod.darfus@dot.state.oh.us (email), and to the Public Utilities Commission of Ohio at George.martin@puc.state.oh.us. CSX'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. 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.
3. CSX's project foremen will notify Tod Darfus at 614-374-9298 (telephone) or tod.darfus@dot.state.oh.us (email) of any changes in the scope of work, cost overruns, material changes, etc. which are not included in the approved plan and estimate and secure approval of same before the work is performed.



www.rail.ohio.gov

phone: 614.644.0306

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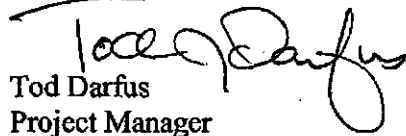
Page – 2

December 10, 2012 – Amanda DeCesare

4. CSX will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed Encumbrance Estimate 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,


Tod Darfus
Project Manager

C: Leah Thomas-Dalton, Rail Division Chief, PUCO
George Martin, PUCO, Grade Crossing Planner
ORDC (file)