

Memo

To: Docketing Division
From: Jill Henry, Rail Specialist, Rail Division
Cc: PUCO Legal Department
Date: 4/13/17

Re: PUCO Case No. 17-998-RR-RCP- In the Matter of a Request for an Upgrade to the Active Warning Devices at the Norfolk Southern Railway Crossing, Vermilion Road DOT#524-037N, in Erie County, Ohio.

On September 27, 2016, the Ohio Rail Development Commission (ORDC) authorized funding for Norfolk Southern Railway to install a cantilever flashing light in the southeast quadrant and upgrade the remaining lights to LED lights at Vermilion Road DOT#524-037N, in Erie County, Ohio. The crossing was surveyed on April 7, 2016 and found to warrant the upgrades. The electric utility provider for this crossing is First Energy-Ohio Edison.

The project will be paid for with federal funds and is actual cost. The plans and estimates for the project in the amount of \$105,328.00 have been approved. Construction may commence at once. **Staff requests a Finding & Order with completion of the project in nine months.** Staff requests that the following language be incorporated in the Finding & Order:

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

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

Please serve the following parties of record:

Norfolk Southern Railway Company
Stephen Klinger
Public Projects Engineer
1200 Peachtree Street NE
Atlanta, GA 30309-3597

Norfolk Southern Railway Company
Cayela Wimberly
Director Grade Crossing Safety
1200 Peachtree Street NE
Atlanta, GA 30309-3597

Ohio Rail Development Commission
Cathy Stout
Safety Manager
1980 West Broad Street
Mail Stop #3140
Columbus, Ohio 43223

City of Vermilion
Mayor Eileen Bulan
5511 Liberty Avenue
Vermilion, Ohio 44089

City of Vermilion
Tony Valeruis
Service Director
5511 Liberty Avenue
Vermilion, Ohio 44089

KS Associates
Lynn S. Miggins
City of Vermilion Engineer
260 Burns Road Suite 100
Elyria, Ohio 44035

First Energy-Ohio Edison

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

TO: Randall Schumacher, Supervisor, Rail Division, PUCO
FROM: Cathy Stout, Manager, Safety Section, ORDC
BY: Eric Neff, Safety Manager, Safety Section, ORDC
SUBJECT: ERI - Vermilion Road, DOT # 524037N, PID 103770, NS Project 10.3130
DATE: April 5, 2017

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on April 7, 2016. The Ohio Rail Development Commission (ORDC) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates and cantilevers. Copies of the diagnostic review form and the plan and estimate are 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 authorization is made with the stipulation and understanding that an approved estimate may contain entries for items or activities that may be cited and found to be ineligible for federal participation during the project audit.

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

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

Thank you for your assistance with these matters.

Attachment: Diagnostic Review
Plan & Estimate

c: Jill Henry, Rail Division Specialist, PUCO
ORDC Project Manager (file)



OHIO RAIL DEVELOPMENT COMMISSION

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

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

April 5, 2017

Mr. Stephen Klinger
Norfolk Southern
Public Projects Engineer
1200 Peach Street NE, Box 123
Atlanta, Ga. 30309

RE: ERI - Vermilion Road, DOT # 524037N, PID 103770, NS Project 10.3130

Dear Mr. Klinger:

The plan and estimate dated February 9, 2017, for the referenced project has been reviewed and is acceptable. The project is authorized for construction under the master agreement between Ohio Rail Development Commission, Public Utilities Commission of Ohio and Norfolk Southern (NS) executed on December 19, 2012. NS may proceed with the construction of the proposed grade crossing warning system 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 \$105,328.00. 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 NS accepting the following instructions:

1. NS's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Eric Neff, ORDC, email: eric.neff@dot.ohio.gov and to Jill Henry the Public Utilities Commission of Ohio at email: jill.henry@puco.ohio.gov. NS's project foreman will also notify the same of any stops and re-starts of the work activity and of the date work was completed for the project.
2. NS 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 NS.
3. NS's project foremen will notify Eric Neff at 614-752-0399 (telephone) or eric.neff@dot.ohio.gov (email) of any changes in the scope of work, cost overruns, material changes, etc. which are not included in the approved plan and estimate and secure approval of same before the work is performed.
4. Open cut of roadways is not permitted except in unusual circumstances and must be coordinated with the local highway authority and preapproved by ORDC.



www.rail.ohio.gov

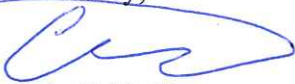
phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

5. NS will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.
6. NS will furnish two (2) copies of the final all-inclusive bill to ORDC stating the exact dates of starting and completing work, the initial and final dates of construction and location where the accounts may be audited.
7. This installation will include any ancillary work to make the warning devices function as designed and meet MUTCD.

Thank you for your assistance with these matters.

Sincerely,



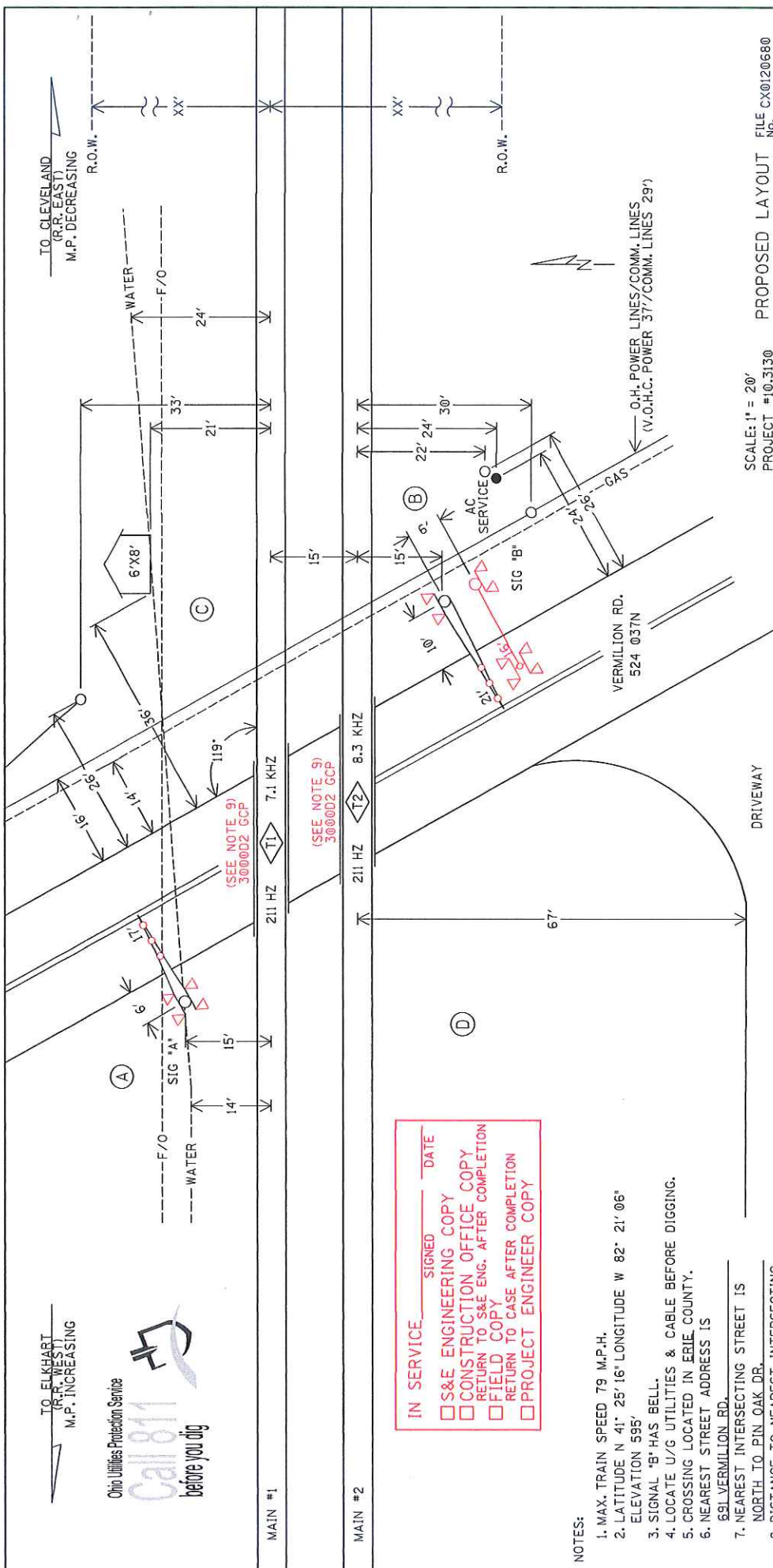
Eric T. Neff
Project Manager, Safety Programs

Attachments: Letter Agreement
State of Ohio Purchase Order

C: Randall Schumacher, Rail Division Supervisor, PUCO (email)
Jill Henry, Grade Crossing Planner, PUCO (email)
Susan Arduini, ORDC (email)
ORDC (file)

TO ELKHART
(R.R. WEST)
M.P. INCREASING

Ohio Utilities Protection Service
Call 811
before you dig



IN SERVICE _____ SIGNED _____ DATE _____

☐ S&E ENGINEERING COPY

☐ CONSTRUCTION OFFICE COPY

☐ RETURN TO S&E ENG. AFTER COMPLETION

☐ FIELD COPY

☐ RETURN TO CASE AFTER COMPLETION

☐ PROJECT ENGINEER COPY

- NOTES:
1. MAX. TRAIN SPEED 79 M.P.H.
 2. LATITUDE N 41° 25' 16" LONGITUDE W 82° 21' 06" ELEVATION 595'
 3. SIGNAL "B" HAS BELL.
 4. LOCATE U/G UTILITIES & CABLE BEFORE DIGGING.
 5. CROSSING LOCATED IN ERIE COUNTY.
 6. NEAREST STREET ADDRESS IS 691 VERMILION RD.
 7. NEAREST INTERSECTING STREET IS NORTH TO PIN OAK DR.
 8. DISTANCE TO NEAREST INTERSECTING STREET IS 225 FT.
 9. UPGRADE ISLAND AND PROCESSOR MODULE IN EXISTING 300002 GCP TO LATEST SOFTWARE VERSION.
- (A) (B) (C) (D) = QUADRANT MARKERS

SCALE: 1" = 20'

PROJECT #10.3130

PROPOSED LAYOUT FILE CX0120680

DESIGNED BY: _____

DRAWN BY: _____

CHECKED BY: _____

IN SERVICE: _____

FILE No. _____

CHICAGO LINE 36002204.S1

CADD OF DWG. No. _____

SHEET 1 of 3

PROPERTY PENNSYLVANIA R.R.

NORFOLK SOUTHERN

OFFICE OF ASST. VICE PRESIDENT
COMM. & SIGNAL, ATLANTA, GA.

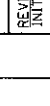
M.P.: CD-220.34

VERMILION, OH

PROPOSED CFLGS AT VERMILION RD.

APPROVED AS TO SIGNAL
DISPLAY UPGRADE ONLY

Thomas R. Dyer
3/4/17



1. MAX. TRAIN SPEED 79 M.P.H.
2. LATITUDE N 41° 25' 16" LONGITUDE W 82° 21' 06"
ELEVATION 595'
3. CROSSING LOCATED IN ERIE COUNTY.
4. NEAREST STREET ADDRESS IS
691 VERMILION RD.
5. NEAREST INTERSECTING STREET IS
NORTH TO PIN OAK DR.
6. DISTANCE TO NEAREST INTERSECTING
STREET IS 225 FT.

A B C D = QUADRANT MARKERS



09-Feb-17

Detailed Estimate for Grade Crossing Warning Devices

City/State: VERMILION, OH
MilePost: CD-220.34
State Proj. No.:
S&E Proj. No.: 10.3130
Man Days: 72

Road: VERMILION RD
DOT/AAR: 524037N
County: ERIE
File Number:

Purchases - Others		
Meals and Lodging:	\$9,848.56	
Rental of Equipment:	\$13,462.95	
(2 Trucks, 1 Backhoe w/ Trailer and 1 Pipe-Pusher for 12 Days)		
Construction Supervision Vehicle:	\$2,059.38	
Purchases - Other Total:		\$25,370.89
Material And Additives		
Material Cost:	\$21,634.00	
Sales and Use Tax:	\$1,731.00	
Material Handling Freight:	\$2,163.42	
Material Total:		\$25,528.42
Labor And Additives		
Labor Cost:	\$23,184.00	
(6 man crew at \$1,932.00 a day for: 12 days)		
Payroll Tax & Overheads:	\$19,766.68	
Preliminary Engineering:	\$4,705.91	
Construction Supervision:	\$6,772.05	
Labor Total:		\$54,428.64
Project Cost:		\$105,327.95
Scrap / Salvage Credit:		\$0.00
Project Total:		\$105,328.00

Estimated on: 09-Feb-17

Estimated by: ndr3j

Estimate valid for 1 year from date of estimate



Norfolk Southern Railway
Highway Crossing Signalization Program - Material List



Do not substitute items without permission from S & E Engineering

City:	VERMILION
Road:	VERMILION RD
Mile Post:	CD-220.34
Drawing Number:	36002204
State Project Number:	
County:	ERIE
A A R Number:	524037N
Project Number:	10.3130
File Number:	
New File Number:	CX0120680
WBS:	F-03656
Store Number:	S805
Supervisor:	L. R. DONNELLY
Tax Code:	
Vendor to supply the following copies after pricing:	
1 Set - Material Management with original Invoice	
2 Sets - with plans shipped in car with material	
1 Set - S&E Gen. Supt. Construction w/copy of invoice	

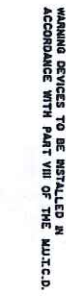
cotton: VERMILION				OH	S&E Proj. No.: 10.3130	AFE No.: F-03656	Drawing No.: 36002204	Vendor: Interrail Engineering, INC			
ore No.: S805					P.O.Number:	Date Required:	Date Shipped:				
ty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed Date Quan.	Quantity Returned (Credit)	Special Instructions		
3	670-360693-4	EA	\$5.55	\$16.65	AAR/DOT NUMBER PLATE/DECAL, ORDER 3 PER PROJECT. 60 DAY LEAD TIME. SUPPLIED BY STRAN.						
4	670-119241-4	EA	\$25.01	\$100.04	ARRESTOR, LIGHTNING HEAVY DUTY CLEAR VIEW SAFETRAN 022585-1X						
50	465-292929-4	LF	\$4.13	\$1,032.50	CABLE, UG 5 COND. NO. 6 AWG SOLID COPPER CABLE TO MEET NS CORP. SPEC. FOR SIGNAL						
1	670-739076-4	EA	\$2,788.52	\$2,788.52	CANTILEVER, WT/F ARM 16' W/WALKWAY KIT SAFTRAN #071294-16NS1						
40	165-544477-4	FT	\$2.61	\$365.40	CONDUIT, 4"x10' PVC, SCHEDULE 80 BELL CONNECTOR AT ONE END, 1/2 PT. GLUE IN KIT 670-123298-4						
1	670-986650-4	EA	\$354.27	\$354.27	DISPOSAL, CONSTRUCTION DEBRIS AND CLEANING X'ING EQUIPMENT CONTAINER						
4	670-000003-4	EA	\$255.85	\$1,023.40	FILL/STONE #57, QUANTITY IS BASED ON TRUCK LOAD PLUS DELIVERY COST						
1	670-744631-4	EA	\$3,172.00	\$3,172.00	FOUNDATION, CFLS FOR SAFETRAN MODEL "WT/F" ARMS 12' TO 30' SINGLE MAST, DIXIE# DP4B-SM12-26-4, 5'10" CR 02-205902						
2	670-005377-4	EA	\$338.00	\$676.00	GATE ARM, ALUMINUM, 17-24 FT, ARM ASSEMBLY, INCLUDES GATE GUARD FOR GATE LIGHT CABLE. HIGH INTENSITY VERTICAL STRIPES.						
1	670-123298-4	EA	\$361.54	\$361.54	KIT, HARDWARE SUPPLIES REQUIRED X'ING PKGAGES. WEB CONNECTORS FOR SHUNT(8EA) TAPE, AMPS,P/GUM PAINT,SLEEVES,TAGS,GLUE, 100 EA WHITE TAGS, JNE CAN BLUE MARKING PAINT ETC...						
2	670-092155-4	EA	\$160.00	\$320.00	LAMP ASSY, LED GATE ARM KIT (INCLUDES 3 LAMPS COMPLETE WITH CABLES AND MTG. HARDWARE) REC # 9298-1120						
1	670-005054-4	EA	\$921.25	\$921.25	LAMP ASSY, LED, 12" MAST 1 WAY FRONT LIGHTS (IPN: 042003-L489XNS)						
2	670-005057-4	EA	\$952.05	\$1,904.10	LAMP ASSY, LED, 4" CANT JURY ARM MAST (FRONT OR BACK) (IPN: 042003-L001534)						
1	670-005066-4	EA	\$959.37	\$959.37	LAMP ASSY, LED, 5" MAST 1 WAY BACK LIGHTS (IPN: 042003-L001493)						
1	670-005058-4	EA	\$1,786.08	\$1,786.08	LAMP ASSY, LED, 5" MAST BACK TO BACK LIGHTS (IPN: 042003-L487XNS)						

APPROVED BY STATE	APPROVED BY RAILROAD	CAR NUMBER	SEAL NUMBER
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Location: VERMILION			OH	S&E Proj. No.: 10.3130	AFE No.: F-03656	Drawing No.: 36002204	Vendor: Interrail Engineering, INC		
Core No.: S805			P.O.Number:		Date Required:	Date Shipped:			
Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed Date Quan.	Quantity Returned (Credit)	Special Instructions
1	670-440826-4	EA	\$2.22	\$8.88	LINK, SAFETRAN 024620-1X INSL TESTING COMP 1 IN CENTER SIGNAL CIRCUITS CR 02-286662				
1	255-590880-4	EA	\$16.72	\$16.72	LOCK, AMERICAN LOCK MODEL H-10KA KEYED ALIKE TO PRIVATE KEYWAY D456 AND STAMPED "NS SIG"				
1	670-179911-4	EA	\$4,250.00	\$4,250.00	MAST, 12" CANTILEVER, FOR 12'-20' WT/F ARMS, INCL. LADDER KIT (IPN: 071271-20NS)				
1	670-000001-4	EA	\$726.23	\$726.23	MISC. EXPENSE, MATERAIL/FILL				
2	670-001355-4	EA	\$74.00	\$148.00	PACKAGE, HARDWARE SIGN 12 IN. (USE WITHWT/F MAST) MOUNTING, SERRMI A1250-8, HARMON @180004/0007,				
1	465-002899-4	EA	\$22.24	\$22.24	REEL, CABLE DISPOSABLE FOR CROSSING SIGNAL PACKAGES				
2	180-000029-4	EA	\$27.17	\$54.34	RESISTOR UNIT, 2 OHM ADJUSTABLE SAFETRAN NO. 029602-6X FOR TRACK CIRCUITS CR 02-425807				
2	435-805560-4	EA	\$2.78	\$5.56	SAND, 25LB BAG FOR CABLE ENTRANCE INTO THE SHELTER				
2	670-554843-4	EA	\$77.05	\$154.10	SIGN, 2 TRACK SIGN, HIGH INTENSITY, SAFETRAN #035207-2HX				
2	670-016346-4	EA	\$143.23	\$286.46	SIGN, X-BUCK, HI-INTENSIVE REFLECTIVE FRT. & BACK FOR ALL STATES, SAFETRAN# 035200-91X				
1	670-397239-4	EA	\$40.23	\$40.23	SIGN, CROSSING ENS MALFUNCTION ASSEMBLY FOR 12" MAST, SAFETRAN #T17216				
1	670-330382-4	RL	\$18.06	\$18.06	TAPE, THOR 3" DURATEC, ORANGE 1000' LENGTHS. "WARNING STOP DIGGING"				
4	670-478560-4	EA	\$20.56	\$82.24	TERMINAL BLOCK, ERICO 4 POST P/N B2700A2C1WH W/HARDWARE LESS LIGHTNING ARRESTOR				
30	465-458198-4	FT	\$0.20	\$40.00	WIRE, NO.16, 1 CONDUCTOR, CASE, FLEXIBLE, 19 STRAND, 2/64 IN. INSULATION				

Total Material: \$21,634.18

APPROVED BY STATE	APPROVED BY RAILROAD	CAR NUMBER	SEAL NUMBER
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8.	61-21-35	PLAN REVISED ACCOUNT OF CP-222 INSTALLED.	CALC	SR
9.	61-21-35	SYSTEM FILE NO. MW/AFR NO. 96-4519 IN SERVICE 69-65-03 PERL NS	PARS	
10.	61-21-35-16	PLAN REVISED ACCOUNT OF UPGRADE INCANDESCENT LAMPS TO LED ARMAYS	JNB	IME DI
11.	69-01-18 3138	PROJL NO. 18 3138 IN SERVICE.	PERL	

[illegible]

CT-1525-NC2 36002204.0
5-8-81

HARMON ELECTRONICS, INC.

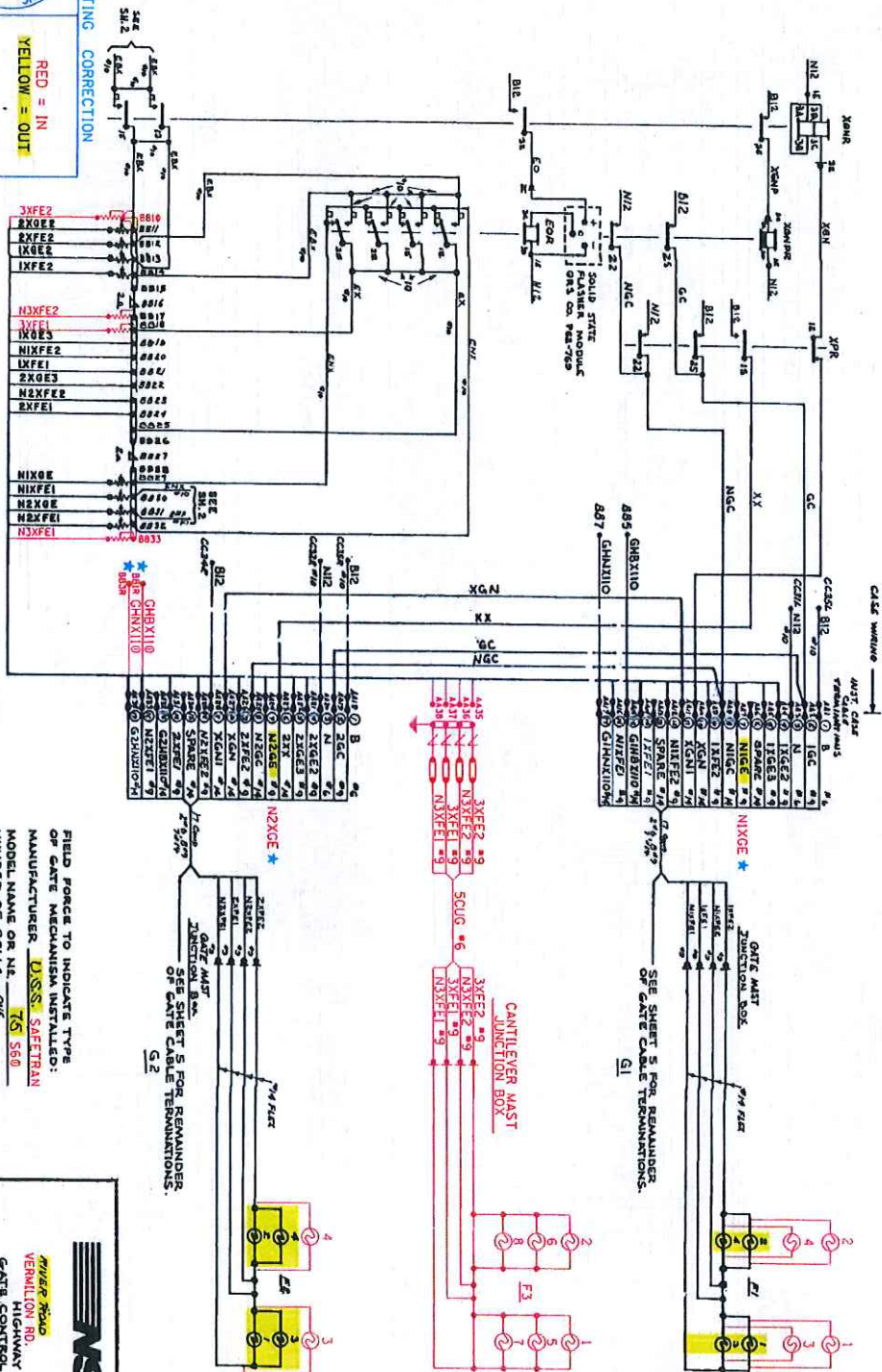


**HIGHWAY CROSSING
GRADE CROSSING PREDICTOR
MODEL GCP3000D2**

ISSUE DATE:	09-05-03	36002204
REV.	9	06-23-11
SHEET	3	



★ = DRAFTING CORRECTION
 RED = IN
 YELLOW = OUT
 DATE: 12-05-2016
 NS PROJ #10,3130
 IRE/JWB/OBS



FIELD FORCE TO INDICATE TYPE
 OF GATE MECHANISM INSTALLED:
 MANUFACTURER DISC SAFETIAN
 MODEL NAME OR NO. 76 S60
 NUMBER OF BELLS ONE
 (SEE SHEET 5 FOR TYPICAL MECHANISMS)

NS NORFOLK SOUTHERN

POWER PHOTO VERNILLION, OH
 VERNILLION RD.
 HIGHWAY CROSSING
 GATE CONTROL, LIGHTING CIRCUITS
 AND CABLE TERMINATIONS

ISSUE DATE: JUNE 21, 1985
 REV 8 09-05-03
 SHEET 45
 3600-2204
 36002204-05

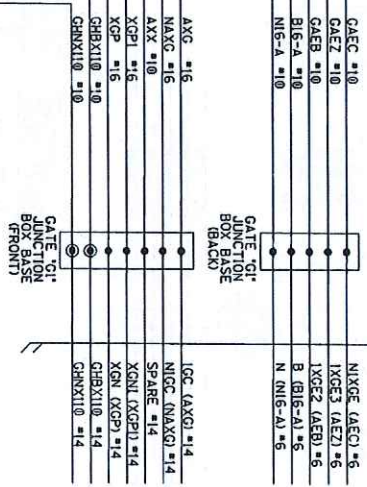
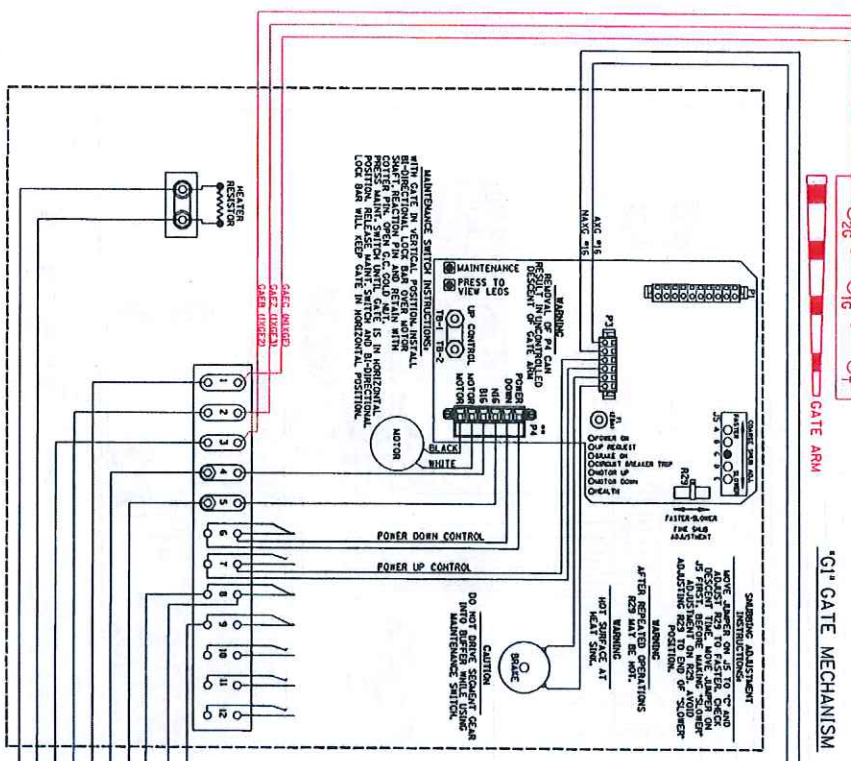
CONTACT SPACE	CONTACT	FUNCTION OF CONTACT
6	70°-90°	POWER DOWN CONTROL
7	0°-89°	POWER UP CONTROL
8	83°-90°	FLASHING LGT. CONTROL
9	5°-90°	BELL CONTROL
10	0°-5°	GATE DOWN INDICATION
11		SPARE
12		SPARE

SAFETRAN MODEL 'S60' GATE

SHEET REDRAWN PER
FIELD SURVEY

INTERIOR ENGINEERING
15251
ACCEPTED
DATE: 12-05-2016
NS PROJ: 106.3130
IRE/JNE/DBS

NEW SHEET
RED = IN
BLACK = EXISTING



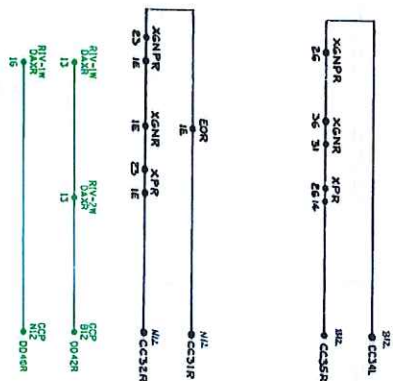
NS
NORFOLK
SOUTHERN

VERMILION, OH
VERMILION, OH
VERMILION, OH

HIGHWAY CROSSING
G1 GATE LIGHTS WITH 'X' MARK
S60 GATE MECHANISM

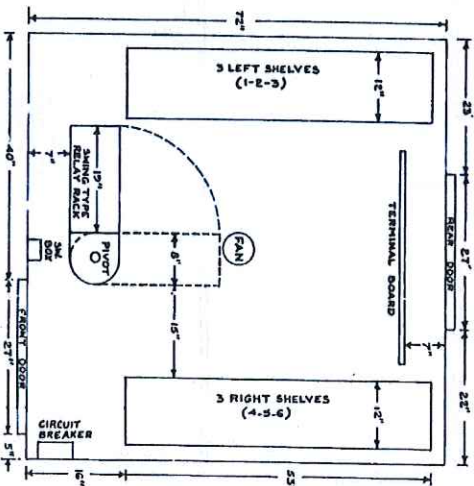
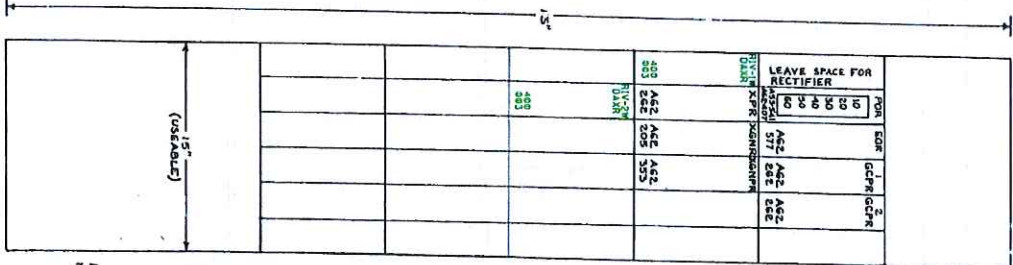
ISSUE DATE: 12-05-16
REV. 1
12-05-16
SHEET 05
36022204

RELAY ENERGY LAYOUT
TEAR VIEW



RELAY FUNCTIONS

RELAY FUNCTIONS	RELAY FUNCTIONS	RELAY FUNCTIONS	RELAY FUNCTIONS
XGNR	12-XGN	12-EX	12-EX
15-XGN	15-EX	15-EX	15-EX
22-XGN	22-EX	22-EX	22-EX
25-XGN	25-EX	25-EX	25-EX
32-XGN	32-EX	32-EX	32-EX
35-XGN	35-EX	35-EX	35-EX
12-CC3IR	12-CC3IR	12-CC3IR	12-CC3IR
15-CC3IR	15-CC3IR	15-CC3IR	15-CC3IR
22-CC3IR	22-CC3IR	22-CC3IR	22-CC3IR
25-CC3IR	25-CC3IR	25-CC3IR	25-CC3IR
32-CC3IR	32-CC3IR	32-CC3IR	32-CC3IR
35-CC3IR	35-CC3IR	35-CC3IR	35-CC3IR



SHEET REDRAWN PER
FIELD SURVEY

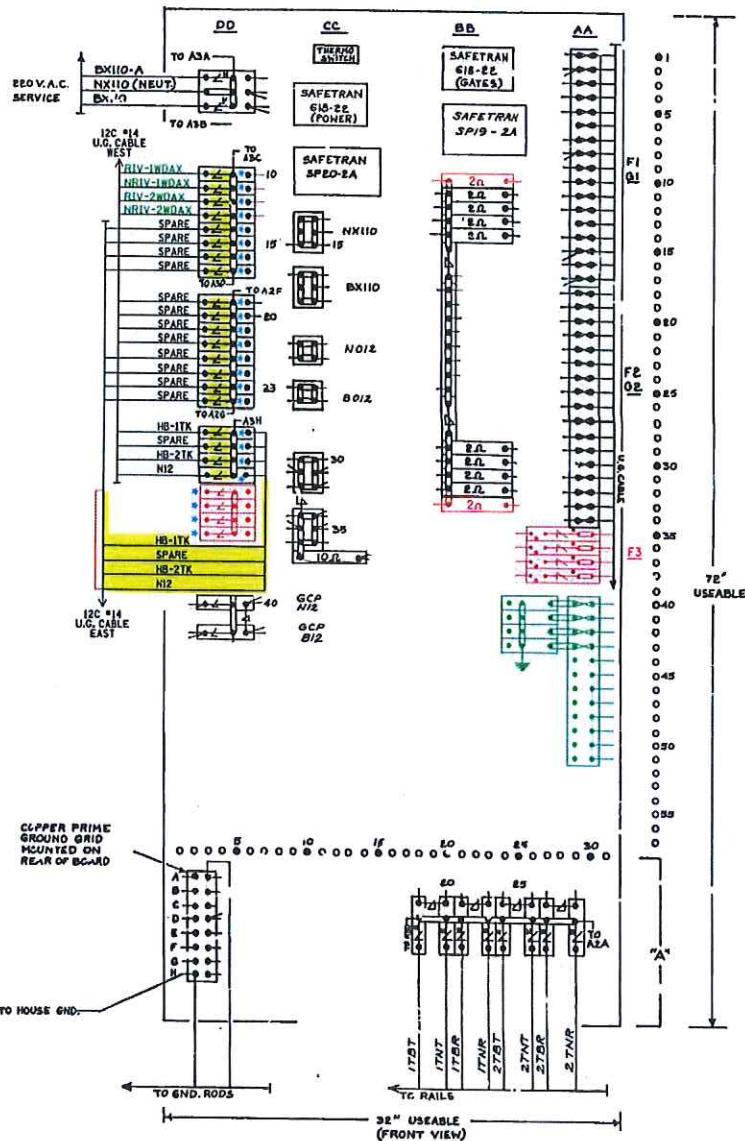


NS NORFOLK
SOUTHERN

VERMILION RD.
RIVER ROAD
VERMILION, OH

ISSUE DATE: JUNE 21, 1985
3600-2204
SHEET 8 9

3600-2204
SHEET 8 9



- 2.0 ADJ. - SAFETRAN 029602-5X
 10.0 FIXED - SAFETRAN 019245-3X
 - TERMINAL STRIP WABCO N10593T
 - 3 POST PORCELAIN BASE-SAFETRAN 021485-23X
 - ARRESTOR-SAFETRAN 02E469-20X
 - ARRESTOR, HEAVY DUTY-SAFETRAN 02E615-4X
 - EQUALIZER-SAFETRAN 02E700-1X
 - TERMINAL BLOCK-SAFETRAN-023617-13X
 - BUSS LINK-WABCO NEO6754
 - TEST LINK ASSY-SAFETRAN 024620-1X
 GROUNDED CONNECTIONS TO BE IN ACCORDANCE WITH STANDARD PLAN CS-9001-A.

SCALE 1/8" = 1'

ISSUE DATE: JUNE 21, 1985 3600-2204

REV 8 3 01-05-85 [SHEET] 810

VERIFICATION, OH

NONMAY CROSSING

TERMINAL BOARD ASY. SEVENT

07-GCP

3600228481

INTERIOR ENGINEERING

15261

DATE: 12-05-2016

NS PROJ. #10,3130

IRE/JMB/OBS

RED = IN

YELLOW = OUT

GREEN = PER SURVEY

SHEET REDRAWN PER FIELD SURVEY

* = DRAFTING CORRECTION



OHIO RAIL DEVELOPMENT COMMISSION

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

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

August 24, 2016

Norfolk Southern Railway Company
Mr. Stephen Klinger
Administrator Highway Grade Crossing Improvements
1200 Peachtree Street
Atlanta, GA 30309-3597

2016 SEP 26 PM 1:57
RECEIVED
ORDC

Subject: Grade Crossing Warning Device Modifications
Erie County, Vermilion Road, DOT # 524037N, PID 103770

Dear Mr. Klinger:

A diagnostic review was conducted at the subject grade crossing on 4/7/16. As a result of the review, the devices will receive LED upgrades and cantilevered flashing lights.

This project shall be completed in compliance with Agreement No. 17450, dated December 19, 2012, entered into by the State of Ohio and Norfolk Southern Railway Company (NS) and incorporated as if fully rewritten herein. This construction shall also meet the general terms and conditions under the Moving Ahead for Progress in the 21st Century Act (MAP-21) and subsequent amendments and the State of Ohio's Federally Funded Warning Device Program.

Preliminary engineering (PE) and construction costs shall be borne one hundred percent (100%) by ORDC. Reimbursable costs will be limited by the ORDC based on approved estimates and bid tabulations, if applicable. These limits will be quantified by the ORDC in its construction authorization to NS and may be amended by the ORDC based on revised estimates and bid tabulations.

This Letter Agreement and the approved plans constitute the scope of the project. NS shall notify ORDC in writing of any changes in the scope of work which are not in the approved plans and estimates and secure approval in writing of same before the work is performed.

PE will not be commenced by NS prior to ORDC issuing a PE authorization. PE will be submitted by NS to ORDC within ninety (90) days or other time specified by ORDC in the PE authorization. Construction will not be commenced by NS prior to ORDC issuing a construction authorization. Construction will be completed by NS within nine (9) months or other time specified in the time specified by ORDC in the construction authorization.

Please indicate your acceptance of the terms and conditions of this Letter Agreement by signing and returning one (1) copy to me at the address listed above and retain a copy for your files. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be a duplicate original, but all of which taken together shall be deemed to constitute a single Agreement.

Sincerely,

Matthew R. Dietrich
Executive Director



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

Norfolk Southern:

By: Anthony Rouselle

Title: General Manager

Date: 8/31/16

X:\tr agreements\ERI Vermilion Rd PID 103770 NS



OHIO RAIL DEVELOPMENT COMMISSION

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

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

September 27, 2016

Mr. Stephen Klinger
Public Projects Engineer
1200 Peachtree Street, Box 123
Atlanta, Ga. 30309

RE: Marion County, Silver Street, DOT 481538V, PID 103769
Marion County, SR 739, DOT 481532E, PID 103759
Erie County, Vermilion Road, DOT 524037N, PID 103770

Dear Mr. Klinger:

Diagnostic reviews were held at the above grade crossings. These crossings have been recommended for certain upgrades in the diagnostic surveys. Please take note to these recommendations individually.


NS is authorized to proceed with the site plans and cost estimates (PE) for these projects. This authorization is made with the stipulation and understanding that any field work needs prior approval before work begins. This authorization is made with the stipulation and understanding that an approved estimate may contain entries for items or activities that may be cited and found to be ineligible for federal participation during the project audit.

The ORDC is not requesting that the PUCO issue an Order at this time. When the ORDC receives the PE it will be evaluated and a construction-only Order will be requested from PUCO. Please submit the PE to ORDC within 90 days of receipt of this letter.

The diagnostic review forms are attached. Please note any recommendations for each crossing in the survey, if any, made by the team with regard to requirements for this location. Any minor roadway work necessary for MUTCD compliance should be incorporated into the PE and such costs will flow through the railroad reimbursement process

The Project Manager for this project is Joe Reinhardt. He can be reached at (614) 644.0291, or Joe.Reinhardt@dot.state.oh.us, if you have any questions.

Sincerely,


Joseph N. Reinhardt
Project Manager

C: Jill Henry, PUCO
ORDC (file)



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

**OHIO RAIL DEVELOPMENT
COMMISSION**



Ohio Rail Development Commission
Mail Stop 3140, 1980 W. Broad Street,
Columbus, OH

High Hazard Crossing With Active Warning Devices			
Street Name: Vermillion Rd.		County: ERI	
LHA: City of Vermillion		USDOT#: 524037N	
Nearest City: City of Vermillion		Hazard Rank: 1	
Roadway Information			
ADT: 2441 (2012)	Posted Speed Limit: None Listed.		
Railroad: Norfolk Southern	Number of Tracks: 2		
Train Count: 55	Speed Over Crossing: 79		
Storage Distance (Ft.): 1030	Train Detection Type: CWT		
Accidents			
Accident Factors		3 of Accidents in Last 5 Years:	
		0 of Fatalities in Last 5 Years:	
Accident Date	8/2/2014	6/29/2014	6/17/2014
Position of Accident	Moving over Crossing	Moving over Crossing	Moving over Crossing
Circumstance	Rail equip. struck by highway user	Rail equip. struck by highway user	Rail equip. struck by highway user
Visibility/Time of Day	Day	Day	Day
Weather Conditions	Clear	Clear	Clear
Crossing Interconnect.	No	No	Yes
Crossing Illuminated	Yes	Yes	Yes
Drove Around Train	No	No	No
Highway User Action	Drove around the gate	Stopped then proceeded	Drove around the gate
Alcohol/Drug Related?			
Driver Speeding?			
Other Notes: 8/1/2014: NS Train Struck a Hwy-user that failed to yield at a crossing. 6/29/2014: MOW equipment did not stop at crossing and struck a vehicle. 6/27/2014: Driver drove around gate and was struck by MOW equipment.			
Recommendations: <i>South side - add cantilever assy. w/ lights</i> <i>also (flashing both directions) and LEDs should replace w/ lights.</i> <i>City [Southbound advance warning sign should be replaced</i> <i>[refresh paint markings around crossing</i> <i>City [Mayor could investigate driveway loop detectors for</i> <i>boarded → connect w/ hidden driveway sign on north side</i> <i>of crossing</i>			

County: ERI

Route: Vermillion Rd.

DOT#: 524037N

Date: 4/7/2016

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	<input checked="" type="radio"/> Yes	<input type="radio"/> No	2 / SB Bad NB good
'Stop' Signs	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
'Stop Ahead' Signs	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Pavement Markings (condition?)	<input checked="" type="radio"/> Yes	<input type="radio"/> No	2
Crossbucks	<input checked="" type="radio"/> Yes	<input type="radio"/> No	2 good
Number of Tracks Signs	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Inventory Tags	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Interconnected Highway Traffic Signal	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Mast-Mounted Flashing Lights	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cantilever Flashing Lights	<input type="radio"/> Yes	<input checked="" type="radio"/> No	Number: Length:
Side Lights	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Automatic Gates	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Number: 2 Length:
Bells	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Number: 1
Sidewalk Gate Arms	<input type="radio"/> Yes	<input checked="" type="radio"/> No	1
'No Turn' Signs	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Illumination	<input checked="" type="radio"/> Yes	<input type="radio"/> No	2
Is crossing flagged by train crew?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Other	<input type="radio"/> Yes	<input type="radio"/> No	

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	55	
< 1 per day		
Day thru trains	18	
Night thru trains	20	
Daytime switching movements	17	
Nighttime switching movements	0	
Total number of tracks	2	
Number of main tracks	2	
Number of other tracks		
Maximum train speed	79	
Typical train speed		
Amtrak		yes.
If multiple tracks, can two trains occupy crossing at the same time? <input checked="" type="radio"/> Yes <input type="radio"/> No		
Can one train block the motorists' view of another train at crossing? <input checked="" type="radio"/> Yes (Explain below) <input type="radio"/> No		
Can one or more tracks be eliminated through the crossing? <input type="radio"/> Yes <input checked="" type="radio"/> No		
Are there other track(s) crossing this same roadway within 100 ft of this crossing? <input checked="" type="radio"/> Yes <input type="radio"/> No		
If yes, Crossing DOT # (if different) _____		
If yes, distance _____ (take measurement between track centerlines at closest point along roadway)		

County: ERI

Route: Vermillion Rd.

DOT#: 524037N

Date: 4/7/2016

Roadway Data		
Local Highway Authority: City of Vermillion		
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic 2441 (2012)		
Highway paved	Yes X No	Yes No
Roadway Surface: <u>Blacktop</u> Gravel Concrete Other _____		
Roadway width: ____ ft. <u>24'</u>		
Number of highway lanes	2	
Urban or Rural	Urban	
Vehicle Speed: ____ MPH	Not Listed.	<u>35</u>
School Bus Operation: No Yes X Amount <u>13</u> <u>8</u>		
Hazardous Materials Trucks: No Yes X Amount <u>.03</u>		
Shoulders: No <u>Yes</u>		
Is the shoulder surfaced? No <u>Yes</u>		
Is there existing guardrail along roadway in crossing vicinity? No <u>Yes</u>		
Is stopping site distance adequate? (See Table 2) <u>Yes</u> No If no, deficient approach(es) _____		
Quadrant <u>NW</u> Curb and Gutter: Functional (Curb height = 4" or more) Non-functional (Curb height = Less than 4") <u>None</u>	Quadrant <u>SE</u> Curb and Gutter: Functional (Curb height = 4" or more) Non-functional (Curb height = Less than 4") <u>None</u>	
Pedestrians: No <u>Yes</u>		
Is sidewalk present? <u>No</u> Yes		
Is there a nearby intersection that could cause queuing over the crossing? <u>No</u> Yes		
If yes, Street Name _____ 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 <u>Yes</u>		
If yes, Improvement type <u>Surface</u> Lead Agency <u>Vermillion</u> Timeline/completion <u>2019 - 2020</u>		
Is it the consensus of the Diagnostic Review Team that this is a potential closure project? <u>No</u> Yes		
Explain reasons:		
Type of Development		
Open Space <u>Institutional</u> <u>Industrial</u> Commercial <u>Residential</u>	Location of nearby schools:	

County: ERI

Route: Vermillion Rd.

DOT#: 524037N

Date: 4/7/2016

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:

N/A

Real Estate or ROW:

100' TOTAL 50' EACH side of South Track

Culverts / Drainage / Ballast Conditions:

N/A

Roadway and/or Sidewalks:

S.B. grade (uphill)

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

Environmental:

N/A

Other:

RRE

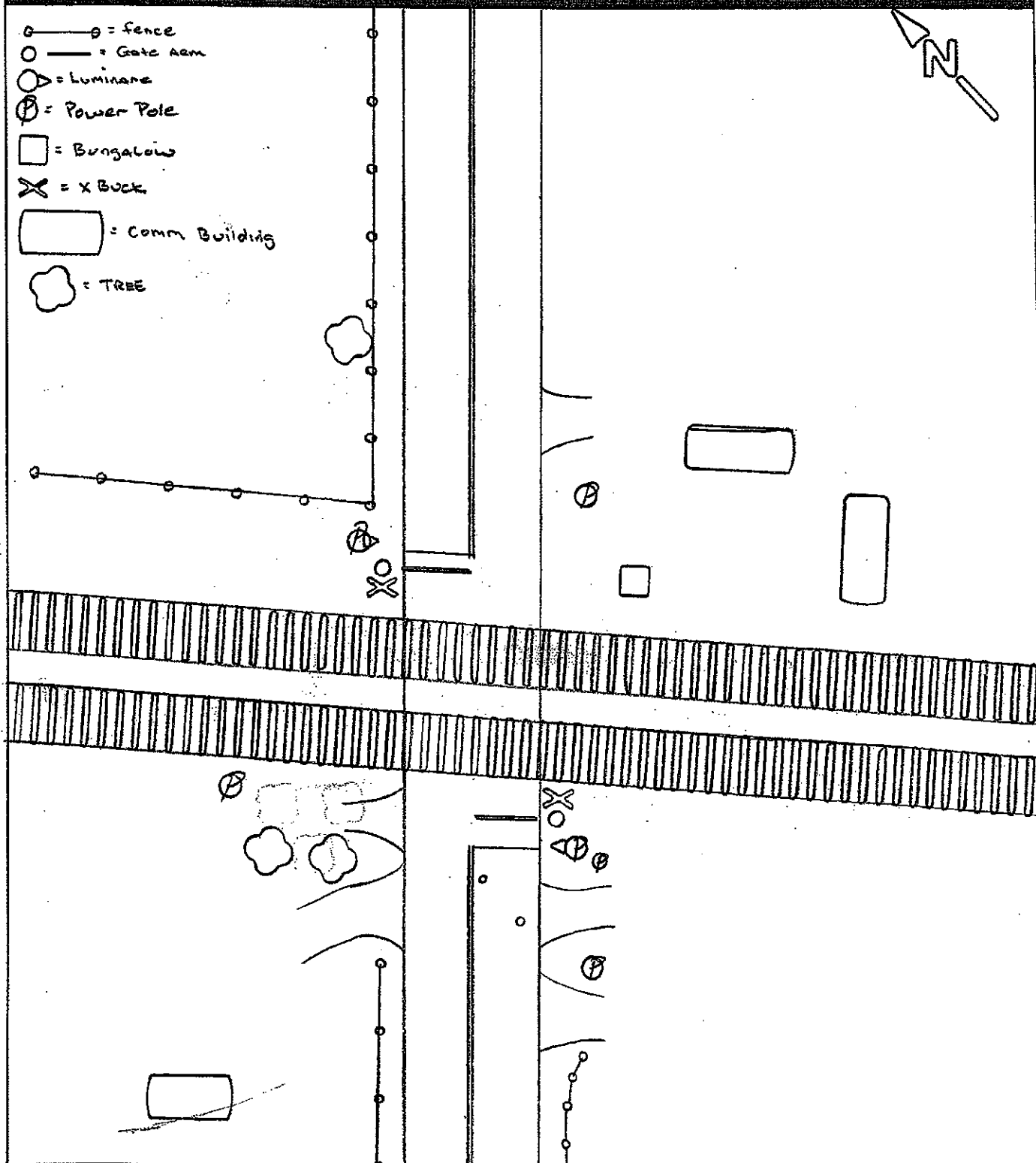
Vermilion Rd.

DOT # 524037N

4-7-16

Field Sketch

- = Fence
 = Gate Arm
 = Luminaire
 = Power Pole
 = Bungalow
 = X Buck
 = Comm Building
 = TREE



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

Sketch by: JT

County: ERI
TABLE 1

Route: Vermillion Rd.

DOT#: 524037N
TABLE 2

Date: 4/7/2016

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.

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

(ERI – Vermillion Road, DOT # 524037N)

4/7/2016

Please print:

[illegible]

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

4/13/2017 2:17:29 PM

in

Case No(s). 17-0998-RR-RCP

Summary: Application In the Matter of a Request for an Upgrade to the Active Warning Devices at the Norfolk Southern Railway Crossing, Vermilion Road DOT#524-037N, in Erie County, Ohio. electronically filed by Mrs. Jill A Henry on behalf of PUCO/Rail Division