

# Memo

To: Docketing Division  
From: Jill Henry, Rail Specialist, Rail Division  
Cc: PUCO Legal Department  
Date: 6/12/17

Re: PUCO Case No. 17-1424-RR-FED- In the Matter of a Request for the Installation of Active Warning Devices at the Norfolk Southern Railway Crossing, Walbridge East Road/TR 68 DOT#473-833E, in Ottawa County, Ohio.

---

On November 1, 2016, the Ohio Rail Development Commission (ORDC) authorized funding for Norfolk Southern Railway to install active warning devices at Walbridge East Road/TR 68 DOT#473-833E, in Ottawa County, Ohio. The crossing was surveyed on April 17, 2015 and found to warrant the upgrades. The electric utility provider for this crossing is Toledo Edison- First Energy.

The project will be paid for with federal funds and is actual cost. The plans and estimates for the project in the amount of \$299,178.00 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

Eastman & Smith LTD.  
Mr. Casey Talbott  
Attorney for Norfolk Southern  
One SeaGate 24<sup>th</sup> Floor  
P.O. Box 10032  
Toledo, Ohio 43699-0032

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

Allen Township, Ottawa County  
Mr. Craig Blausey, Chairman/Trustee  
21030 W. Toledo Street  
P.O. Box 440  
Williston, Ohio 34368

Toledo Edison- First Energy

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

**TO:** Randall Schumacher, Supervisor, Rail Division, PUCO  
**FROM:** Cathy Stout, Manager, Safety Section, ORDC  
**BY:** Don Damron, Project Manager, ORDC  
**SUBJECT:** Ottawa County, TR 68, Walbridge E. Rd. / Norfolk Southern  
DOT# 473833E, PID# 101712  
**DATE:** April 11, 2017

---

The Public Utilities Commission of Ohio (PUCO) established a Diagnostic Review Team Survey at the subject highway/railroad crossing location on 4/17/15 and the Ohio rail Development Commission (ORDC) attended the Diagnostic.

The Diagnostic Review Team recommended the installation of new active warning devices, flashing lights and gates. The Diagnostic Review Team Survey form is attached.

The proposed Crossing Site Layout and Cost Estimates for this project have already been provided by Norfolk Southern and ORDC approved the plans and estimates as provided. Please issue a construction-only order for the project outlined above. This authorization is made with the stipulation and understanding that an approved estimate may contain entries for items or activities that may be cited and found to be ineligible for federal participation during the project audit.

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

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

Thank you for your assistance with these matters.

Attachments:

Diagnostic Review Team Survey dated 4/17/2015  
NS Plans and Estimates dated 2/15/2017

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



# OHIO RAIL DEVELOPMENT COMMISSION

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

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

April 11, 2017

Mr. Stephen Klinger  
Norfolk Southern Corporation  
Administrator Grade Crossing Program  
1200 Peachtree St. NE, Box 123  
Atlanta, GA 30309

RE: Automatic Grade Crossing Warning System – Construction Authorization  
TR 68, Wallbridge E. Rd., Ottawa County, DOT# 473833E  
Ohio PID# 101712, NS S&E Project # 10.2193

Dear Mr. Klinger:

The plan and estimate dated 2/15/2017 for the referenced project has been reviewed and is acceptable. This project is authorized for construction under the master agreement between Ohio Rail Development Commission, Public Utilities Commission of Ohio and Norfolk Southern executed on December 19, 2012. Norfolk Southern 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 \$299,178.00. 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 Norfolk Southern Corporation accepting the following instructions:

1. Norfolk Southern's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Don Damron, ORDC, Mail Stop #3140, 1980 West Broad Street, 2<sup>nd</sup> Floor, Columbus Ohio 43223, or email [don.damron@dot.state.oh.us](mailto:don.damron@dot.state.oh.us), or by cell phone at 614-917-8466, office phone at 614-466-2509; and to the Public Utilities Commission of Ohio at [George.martin@puc.state.oh.us](mailto:George.martin@puc.state.oh.us) (phone 614-752-9107). The Norfolk Southern 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. Norfolk Southern 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 Norfolk Southern.



[www.rail.ohio.gov](http://www.rail.ohio.gov)

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

3. Norfolk Southern's project foremen will notify Don Damron at 614-917-8466 (cell) or [don.damron@dot.state.oh.us](mailto:don.damron@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.
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.
5. Norfolk Southern will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.
6. Norfolk Southern 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. The installation of the new warning device system will include any ancillary work needed to make the warning devices function as designed and to satisfy MUTCD requirements.

Thank you for your assistance with these matters.

Sincerely,



Donald J. Damron  
Project Manager

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





Norfolk Southern Corporation  
Communications and Signal Department  
1200 Peachtree Street, N.E.  
Atlanta, Georgia 30309-3579

February 15, 2017  
CX1112474

Re: Ottawa County, Williston, NS Lake Division, Toledo District, regarding the modification of the automatic grade crossing warning devices at Walbridge East Road, DOT# 473833E, Milepost T-015.97, PID# 101712

Don Damron  
Ohio Rail Development Commission  
Project Manager  
1980 W. Broad Street  
Mail Stop 3140  
Columbus, Ohio 43223

Dear Mr. Damron:

Attached for your review and approval are electronic copies of the detailed cost estimate, material list and engineering plans for this crossing.

Although we cannot give you an exact date of installation at this time we can provide our average installation time, which is 6 months after authorization from the state. After this project is authorized, we will order material and schedule for installation once we have received approvals from ODOT's District Office.

Please note this will be a new signalized crossing and will get AC power service for this location from an existing power feed at Nissen Road via underground cable.

If you have any questions or concerns, please contact Mike Rappatta at 404-582-6377 or [mike.rappatta@nscorp.com](mailto:mike.rappatta@nscorp.com).

Sincerely,

A handwritten signature in blue ink that reads "B.L. Sykes".

B.L. Sykes  
(mlr)



15-Feb-17

**Detailed Estimate for Grade Crossing Warning Devices**

City/State: WILLISTON, OH

Road: WALBRIDGE EAST RD  
(TR 68)

MilePost: T-15.97

DOT/AAR: 473833E

State Proj. No.: PID #: 101712

County: OTTAWA

S&amp;E Proj. No.: 10.2193

File Number:

Man Days: 150

***Purchases - Others***		
Meals and Lodging:	\$20,517.84	
Rental of Equipment:	\$28,047.81	
(2 Trucks, 1 Backhoe w/ Trailer and 1 Pipe-Pusher for 25 Days)		
Construction Supervision Vehicle:	\$4,290.37	
Purchases - Other Total:		\$52,856.02
***Material And Additives***		
Material Cost:	\$107,130.00	
Sales and Use Tax:	\$8,570.00	
Material Handling Freight:	\$10,713.04	
Material Total:		\$126,413.04
***Labor And Additives***		
Labor Cost:	\$48,300.00	
(6 man crew at \$1,932.00 a day for: 25 days)		
Payroll Tax & Overheads:	\$41,180.58	
Preliminary Engineering:	\$16,320.20	
Construction Supervision:	\$14,108.43	
Labor Total:		\$119,909.21
Project Cost:		\$299,178.27
Scrap / Salvage Credit:		\$0.00
<b>Project Total:</b>		<b>\$299,178.00</b>

Estimated on: 15-Feb-17

Estimated by: n5s2v

**Estimate valid for 1 year from date of estimate**





Highway Crossing Signalization Program - Material List

Do not substitute items without permission from S & E Engineering

City:	WILLISTON
Road:	WALBRIDGE EAST RD (TR 68)
Mile Post:	T-15.97
Drawing Number:	TOTM01597
State ProjectNumber:	PID #: 101712
County:	OTTAWA
A A R Number:	473833E
Project Number:	10.2193
File Number:	
New File Number:	CX1112474
WBS:	F-03770
Store Number:	
Supervisor:	Z. McCARTNEY
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	

Location: WILLISTON					OH	S&E Proj. No.: 10.2193	AFE No.: F-03770	Drawing No.: TOTM01597			
Store No.:					P.O.Number:		Date Required:	Date Shipped:	Vendor: Interrail Engineering, INC		
Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed Date Date Date Quan. Quan. Quan.			Quantity Returned (Credit)	Special Instructions
3	670-360693-4	EA	\$5.80	\$17.40	AAR/DOT NUMBER PLATE/DECAL, ORDER 3 PER PROJECT. 60 DAY LEAD TIME. SUPPLIED BY S'TRAN.						
1	165-006505-4	EA	\$1,075.23	\$1,075.23	AC SERVICE, COMPLETE LESS METER BASE, ASSEMBLED ON 30' POLE						
4	670-119241-4	EA	\$25.01	\$100.04	ARRESTOR, LIGHTNING HEAVY DUTY CLEAR VIEW SAFETRAN 022585-1X						
20	105-002620-4	EA	\$302.42	\$6,048.40	BATTERY, NICAD 340AH, MODEL SPL340						
1	670-503047-4	EA	\$181.50	\$181.50	BELL, CROSSING ELECTRONIC GENERL SIGNAL, EB-3-360-5 CR 02-044350						
3	001-000011-4	EA	\$5,000.00	\$15,000.00	BERM WALL, 4' HIGH X 5' WIDE, 35LF						
2	670-980689-4	EA	\$75.48	\$150.96	BRACKET HIGH WIND, (RIGID 3'), WIG- 191036, WALRUS TUSK TYPE						
2	670-561375-4	EA	\$1,208.79	\$2,417.58	BRACKET, GATE SAVER, NEG385102GS, SPRING LOADED SWING AWAY ADAPTER FOR FIBERGLASS/ALUMINUM GATES, USE WITH GATE 38' AND LESS						
1	670-356949-4	EA	\$90.00	\$90.00	CABLE, 10' GENERATOR HOOK UP, SERRMI P/N 40524. FEMALE CONNECTOR						
350	465-939422-4	LF	\$2.93	\$1,025.50	CABLE, UG 12 CONDUCTOR NO 14 AWG SOLID EACH CONDUCTOR WITH 5/64 IN INSULATION 10 MIL						
350	465-292862-4	LF	\$1.49	\$521.50	CABLE, UG 2-6 TWISTED, S-23 OKONITE 113-12-3933 SOLID TINNED CONDUCTOR						
350	465-292929-4	LF	\$4.55	\$1,592.50	CABLE, UG 5 COND. NO. 6 AWG SOLID COPPER CABLE TO MEET NS CORP. SPEC. FOR SIGNAL						
600	465-292945-4	LF	\$1.63	\$978.00	CABLE, UG 5-14, S-54 OKONITE 206-14-6885						
600	465-791835-4	FT	\$3.84	\$2,304.00	CABLE, UG AC ENTRANCE 3C#6-7X OKONITE FMPF-L 094-078 TR W/G 1 X 8 7X W010 BRZ TAPE 600V PRODUCT CODE 206-11-6070						
2	670-010671-4	EA	\$738.15	\$1,476.30	CHARGER, BATTERY CRAGG MODEL 40 DTC-12V, 40 AMP, P/N 520940						
80	165-544477-4	FT	\$3.22	\$257.60	CONDUIT, 4"x10' PVC, SCHEDULE 80 BELL CONNECTOR AT ONE END, 1/2 PT. GLUE IN KIT 670-123298-4						

APPROVED BY STATE	APPROVED BY RAILROAD	CAR NUMBER	SEAL NUMBER
-------------------	----------------------	------------	-------------

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed			Quantity Returned (Credit)	Special Instructions
2	670-664917-4	EA	\$87.64	\$175.28	CONNECTOR KIT, WELDED FAR RAIL, CONSISTING OF RUBBER HOSE PROPERLY DRILLED, BONDSTRAND, 1 SPLICING SLEEVE, 1 REDUCING SLEEVE, 3 CLAMPS, 1 TRACK CLIP, 1 WEB WELDED TRACK CONNECTOR, 1 WELD METAL, SAFETRAN 111359-2X		Date Quan.	Date Quan.	Date Quan.		
2	670-632520-4	EA	\$79.69	\$159.38	CONNECTOR KIT, WELDED NEAR RAIL, CONSISTING OF, RUBBER HOSE PROPERLY DRILLED, BONDSTRAND, SPLICING SLEEVE, 1 REDUCING SLEEVE, 5 CLAMPS, 1 TRACK CLIP, 1 WEB WELDED TRACK CONNECTOR, 1 WELD METAL, SAFETRAN 111359-1X						
2	670-793404-4	EA	\$1,205.32	\$2,410.64	COUNTERWEIGHT PKAGE, 17-24'GATE S'TRAN S- MECH ONLY, STAINLESS, TO INCLUDE HUB, SUPPORT ARMS						
4	670-760012-4	EA	\$9.95	\$39.80	COVER, FOR 1 WAY FLASHING LIGHT ASSY. 18 OZ. BLACK VINYL COATED NYLON. ====TO COVER 2 LAMPS=====						
1	670-986650-4	EA	\$370.21	\$370.21	DISPOSAL, CONSTRUCTION DEBRIS AND CLEANING X'ING EQUIPMENT CONTAINER						
1	670-000004-4	EA	\$700.00	\$700.00	FCC LICENSE FOR MONITOR/RADIO						
1	670-012724-4	EA	\$359.64	\$359.64	FILTER, ELECTRO CODE 156HZ REJECTION PART # TF-156						
2	670-015231-4	EA	\$599.40	\$1,198.80	FOUNDATION, DIXIE,S-2 GATE 2'6"X2'6"X5'6" ASSEMBLED						
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	670-675667-4	EA	\$30,238.53	\$30,238.53	GCP4000 - 1 TRK (2TC) - REDUNDANT - 40/40 AMP WIRED RACK EQUIP. FOR 6X8 XING SHELTER, (INCL. 2 TRK CHASSIS A80465, 2 TRK MODS. A80418, 2-SSCC A80405, 2 CPU A80403, 1 SEAR A80410, 1 DISPLAY A80407, , 2-40 AMP CHARGERS) IPN: 003131-1X						
1	670-974821-4	EA	\$45.20	\$45.20	INDUCTOR, SIMULATED TRACK SAFETRAN 8V617-2200						
1	670-477991-4	EA	\$410.00	\$410.00	KIT, GROUNDING ASSY FOR AL I/S INCLUDES 8 GRD RDS,200'4WIRE,12 4 WIRE ONE-SHOTS. ERICO SBK206						
1	670-123298-4	EA	\$345.97	\$345.97	KIT, HARDWARE SUPPLIES REQUIRED X'ING P'CKAGES. WEB CONNECTORS FOR SHUNT(8EA) TAPE, AMPS,P'GUM PAINT,SLEEVES,TAGS,GLUE, 100 EA WHITE TAGS, )NE CAN BLUE MARKING PAINT ETC...						

APPROVED BY STATE	APPROVED BY RAILROAD	CAR NUMBER	SEAL NUMBER
-------------------	----------------------	------------	-------------

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed			Quantity Returned (Credit)	Special Instructions
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		Date Quan.	Date Quan.	Date Quan.		
2	670-005058-4	EA	\$1,786.08	\$3,572.16	LAMP ASSY, LED, 5" MAST BACK TO BACK LIGHTS (IPN: 042003- L487XNS)						
4	670-440826-4	EA	\$2.22	\$8.88	LINK, SAFETRAN 024620-1X INSL TESTING COMP 1 IN CENTER SIGNAL CIRCUITS CR 02-286662						
4	255-590880-4	EA	\$16.72	\$66.88	LOCK, AMERICAN LOCK MODEL H-10KA KEYED ALIKE TO PRIVATE KEYWAY D456 AND STAMPED "NS SIG"						
2	670-637778-4	EA	\$1,384.63	\$2,769.26	MAST, 5" ALUMINUM 13'10" WITH DOUBLE JCT. BOX BASE. S'TRAN P# 070519-11AX.						
2	670-875060-4	EA	\$2,596.32	\$5,192.64	MECHANISM, GATE MODEL S-60, WITH DEFROSTER , WITHOUT MINI TRACKSIDE SENSOR S'TRAN # 0740007-X002A3						
4	670-000001-4	EA	\$726.23	\$2,904.92	MISC. EXPENSE, MATERAIL/FILL						
1	000-000000-4	EA	\$5,000.00	\$5,000.00	MISC. EXPENSE, UNDERGROUND BORING						
2	670-014233-4	EA	\$1,087.52	\$2,175.04	MODULE, DAX FOR 3000 GCP SAFETRAN #80016						
2	670-001347-4	EA	\$59.67	\$119.34	PACKAGE, HARDWARE SIGN 5 IN. MOUNTING, SERRMI A1250-5, HARMON @200965-000, OR						
1	255-646807-4	EA	\$32.59	\$32.59	PADLOCK, SAFETRAN PART NO. 030399-29X SCREW TYPE FOR CIR CONTROLLER AND BTY. BOX						
1	670-514605-4	EA	\$11.11	\$11.11	PINNACLE, W-C SECT 1-11, 4"& 5" REF K1 110-8 OR SAFETRAN NO. @035045-503X						
2	670-259211-4	EA	\$47.25	\$94.50	PLUG BOARD KIT, TYPE B-1 & VOLTAGE TEST TERMINAL, SAFETRAN 420000-75X						
1	165-902002-4	EA	\$303.43	\$303.43	PROTECTOR, SURGE 120/240VAC, ERICO P/N EPD120/240TDFL						
5	465-002899-4	EA	\$22.24	\$111.20	REEL, CABLE DISPOSABLE FOR CROSSING SIGNAL PACKAGES						
2	670-456936-4	EA	\$145.69	\$291.38	RELAY RACK, SWING, FARADAY SHELTER FOR ONE RELAY, SSFETRAN P/N T15331						
2	670-707995-4	EA	\$510.12	\$1,020.24	RELAY, TYPE B1, NEV LINE, 900 OHMS,.008 AMPERES GRS A62- 308 OR SAFETRAN @400003						
4	435-805560-4	EA	\$2.78	\$11.12	SAND, 25LB BAG FOR CABLE ENTRANCE INTO THE SHELTER						

APPROVED BY STATE	APPROVED BY RAILROAD	CAR NUMBER	SEAL NUMBER
-------------------	----------------------	------------	-------------

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed			Quantity Returned (Credit)	Special Instructions
1	670-113448-4	EA	\$910.23	\$910.23	SEARIII, ( VHFC w/ANTENNA ) - VHF COMMUNICATOR, SAFETRAN P/N A80276, 1/ PER CROSSING		Date Quan.	Date Quan.	Date Quan.		
1	670-749325-4	EA	\$237.18	\$237.18	SHELF, FOLDING, FOR LAPTOP USE IN FARADAY 6X8 SHELTER, SAFETRAN 052852-128X						
1	670-755523-4	EA	\$9,744.79	\$9,744.79	SHELTER, 6'X8' ALUMN FARADAY W/1EA EQUIPMENT RACK, W/CABLE CHUTES BEHIND TERMINAL BOARD, W/GEN RECEPTICAL, BREAKER BOX GFI OUTLET FOR LAPTOP SHELF SAFETRAN 058400-68-85						
2	670-586967-4	EA	\$42.98	\$85.96	SHUNT COVER W/LAG SCREWS, 19"X19", SERRMI #40271, ORDER 1 PER SHUNT						
2	670-645460-4	EA	\$575.56	\$1,151.12	SHUNT, MULTI-FREQ. #62775-8621 SAFETRAN NARROW BAND						
2	670-393331-4	EA	\$53.74	\$107.48	SIGN, CROSSING ENS MALFUNCTION ASSEMBLY FOR 4" AND 5" MAST, SAFETRAN #T17215						
2	670-016346-4	EA	\$149.68	\$299.36	SIGN, X-BUCK, HI-INTENSIVE REFLECTIVE FRT. & BACK FOR ALL STATES, SAFETRAN# 035200-91X						
1	670-330382-4	RL	\$18.06	\$18.06	TAPE, THOR 3" DURATEC, ORANGE 1000' LENGTHS. "WARNING STOP DIGGING"						
10	670-478560-4	EA	\$20.56	\$205.60	TERMINAL BLOCK, ERICO 4 POST P/N B2700A2C1WH W/HARDWARE LESS LIGHTNING ARRESTOR						

Total Material: \$107,130.43

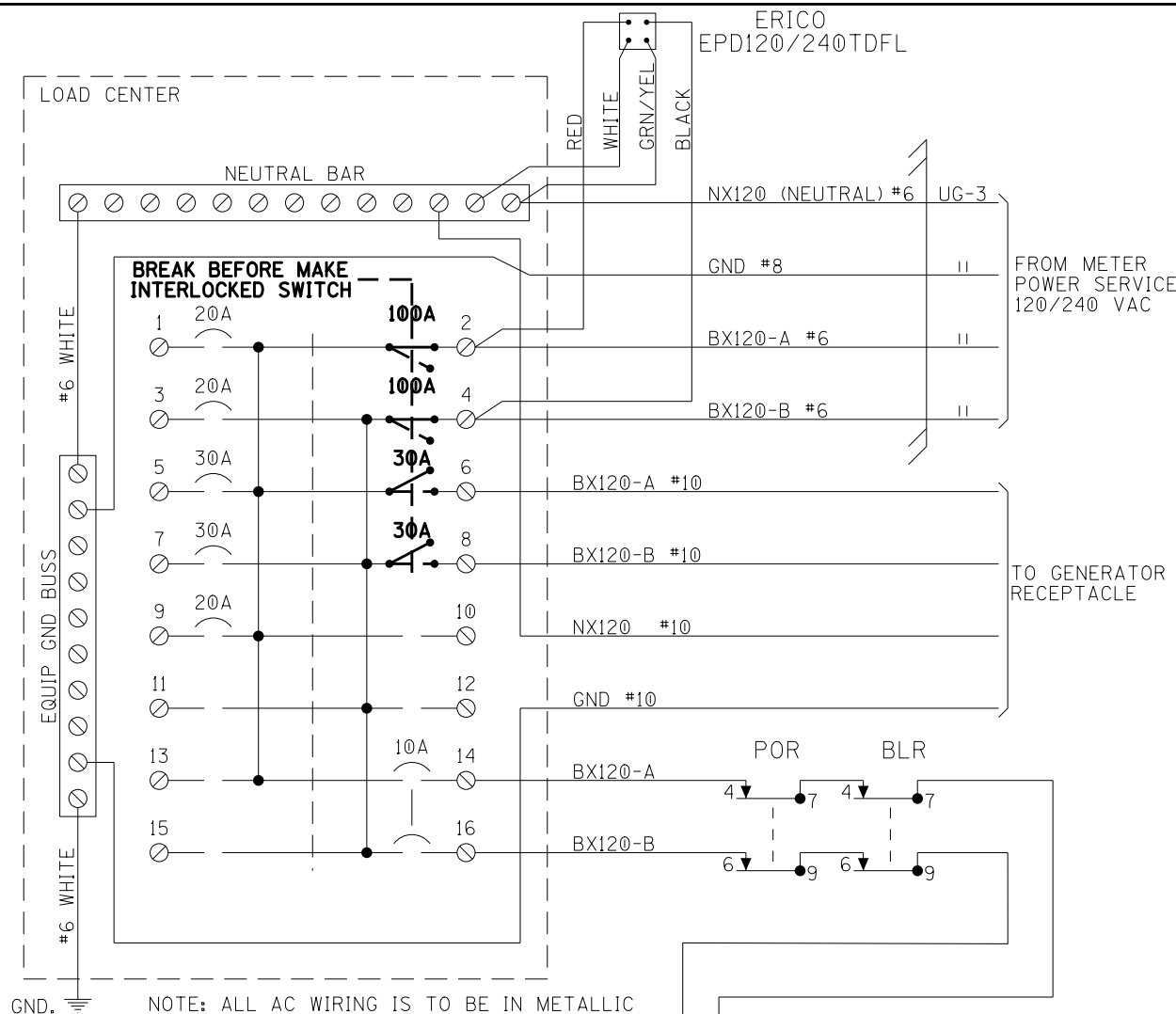
APPROVED BY STATE	APPROVED BY RAILROAD	CAR NUMBER	SEAL NUMBER
-------------------	----------------------	------------	-------------



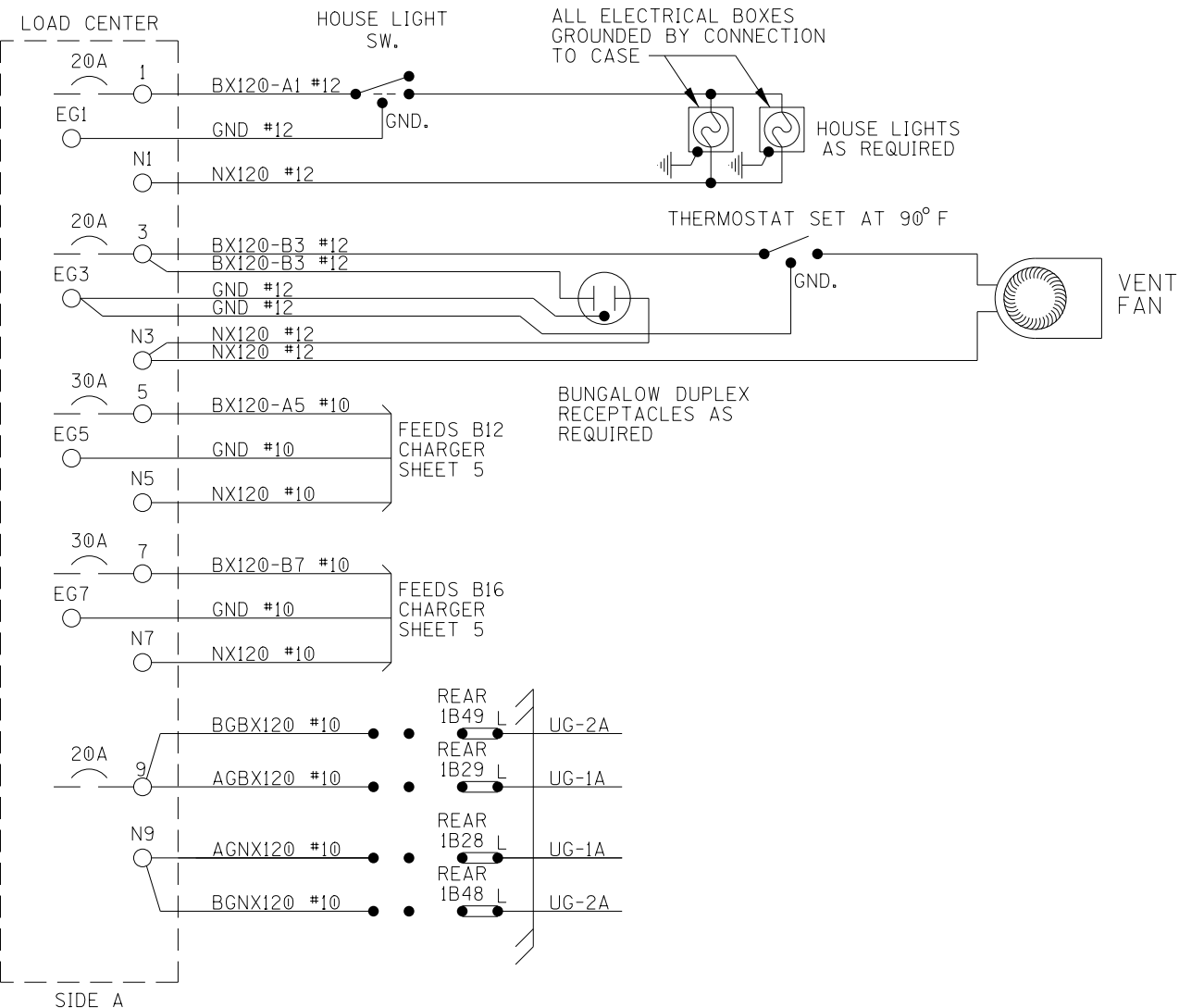








MECH INTERLOCK—FR4DTIM4LA



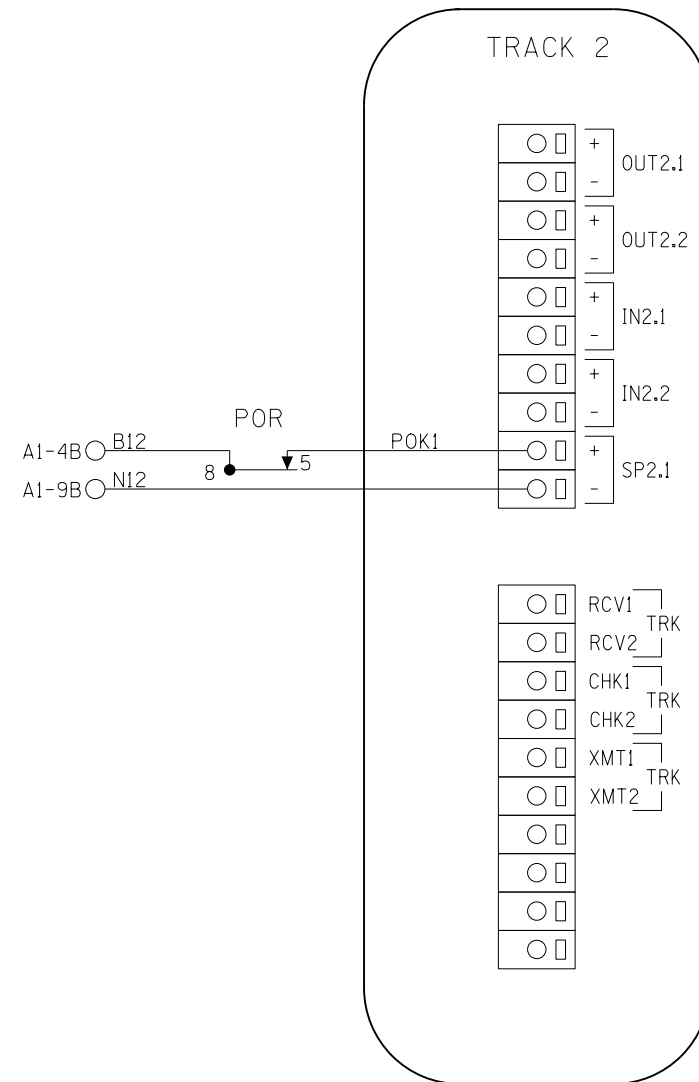
PROPERTY  
NORFOLK SOUTHERN RAILWAY CO.


PROPERTY  
NORFOLK SOUTHERN RAILWAY CO.



[illegible]

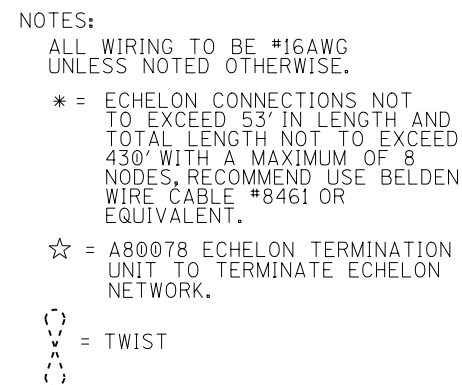
[illegible]

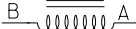

$$\begin{array}{c} \text{---} \\ \diagdown \quad \diagup \\ \text{---} \\ \diagup \quad \diagdown \\ \text{---} \end{array} = \text{TWIST}$$


DESIGNED BY:		 <b>NORFOLK SOUTHERN</b>	
JWB	01-06-17		
DRAWN BY:		OFFICE OF ASST. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: T-015.97
IRE	01-06-17	WILLISTON, OH FLGS AT W. WALBRIDGE EAST RD.	
CHECKED BY:			
DBS	01-07-17		
IN SERVICE:		TOLEDO DISTRICT	FILE No. R-
	- -	CADD or DWG. No. TOTM01597.09	SHEET No. 9 of 22

[illegible]

PROPERTY  
NORFOLK SOUTHERN RAILWAY CO.



BLR		
⑥	⑤	④
③	②	①
<p>BACK 3 2 1</p> <p>FRONT 6 5 4</p> <p>HEEL 9 8 7</p> <p>B  A</p> <p>POTTER BRUMFIELD RELAY (FRONT VIEW) KUMP-14D18-12</p>		
⑧		⑨
⑨	⑧	⑦

DESIGNED BY:		 <b>NORFOLK SOUTHERN</b>	
JWB	01-06-17		
DRAWN BY:		OFFICE OF ASST. VICE PRESIDENT	M.P.: T-015.97
IRE	01-06-17	COMM. & SIGNAL, ATLANTA, GA.	
CHECKED BY:		WILLISTON, OH	
DBS	01-07-17	FLGS AT W. WALBRIDGE EAST RD.	
IN SERVICE:		TOLEDO DISTRICT	FILE R-
	- -	CADD or DWG. No. TOTM01597.10	SHEET 10 of 22
















LEFT TWO ROWS TERMINAL BOARD 1



"1A"

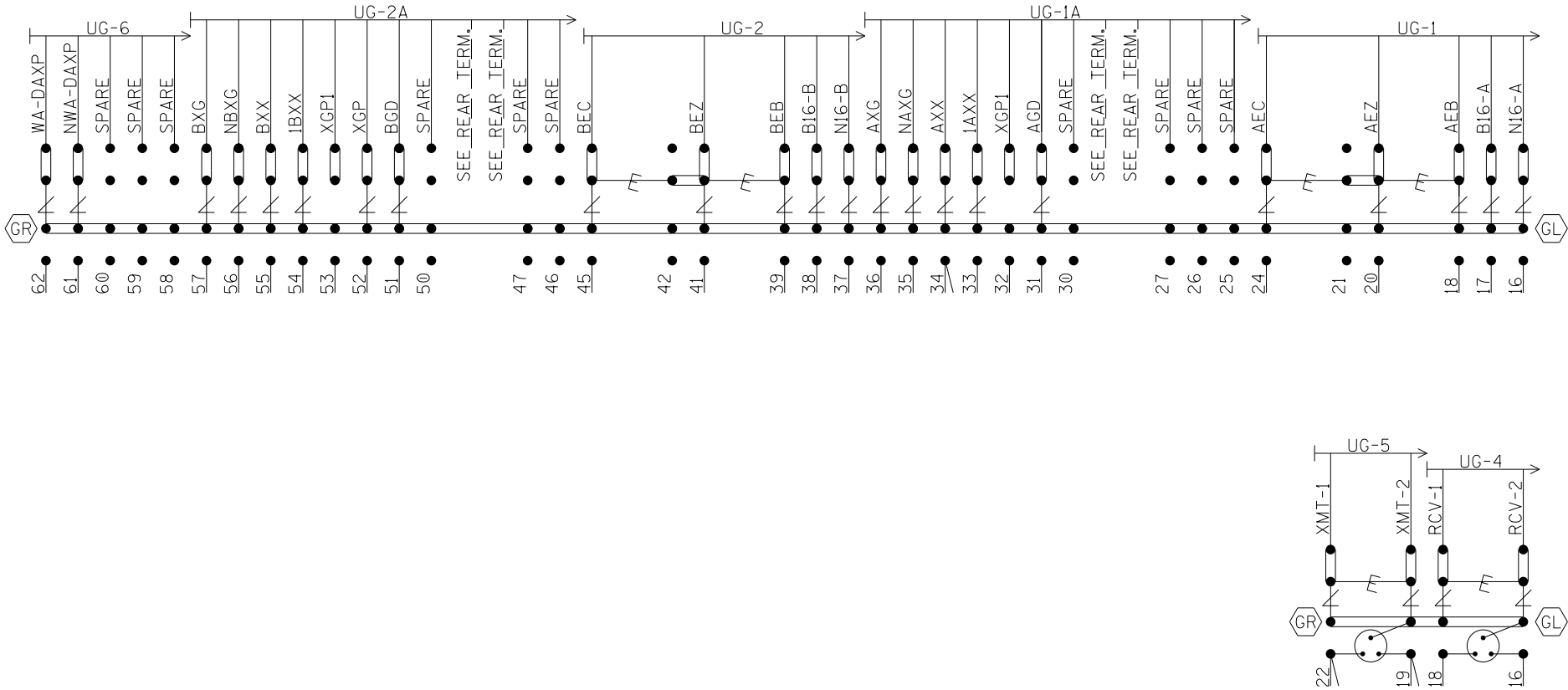
"1B"

NOTE: INSTALL TEST LINKS ON ALL TRACK WIRES AND ON ALL LOW VOLTAGE UNDERGROUND CABLE TERMINATIONS.


SEE FARADAY SHIELD DETAILS - 1A & 1B FOR HOW THIS PORTION OF THE FARADAY SHIELD IS PREDRILLED. ONLY INSTALL AND USE THE TERMINALS NEEDED.

-  = Heavy Duty Equalizer (022700-1X)
-  = Clearview Lightning Arrester (022585-1X)
-  = LPC-10560-51

-  = TERMINALS GROUNDED TO SHIELD.
-  4 POST BLOCKS USE EITHER -  
GR - SERMMI PART NO. 61278  
GL - SERMMI PART NO. 61278-1.



BACKBOARD 1A & 1B


DESIGNED BY:		 <b>NORFOLK SOUTHERN</b>	
JWB	01-06-17		
DRAWN BY:		OFFICE OF ASS'T. VICE PRESIDENT	
IRE	01-06-17	COMM. & SIGNAL, ATLANTA, GA.	
CHECKED BY:		M.P.: T-015.97	
DBS	01-07-17	WILLISTON, OH	
IN SERVICE:		FLGS AT W. WALBRIDGE EAST RD.	
		TOLEDO DISTRICT	
		FILE No. R-	
		SHEET No. 16 of 22	
		CADD or DWG. No. TOTM01597.16	

REVISION  
INITIALS

PROPERTY  
NORFOLK SOUTHERN RAILWAY CO.

REVISION  
INITIALS

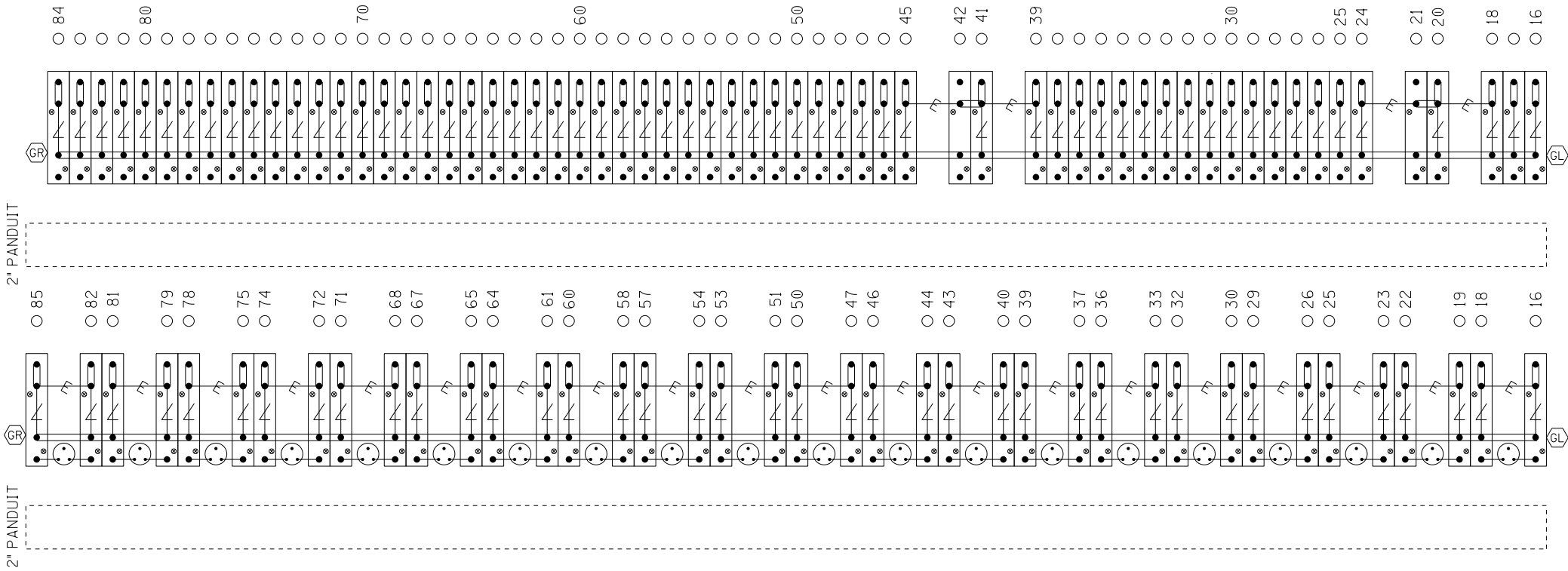


DESIGNED BY:		 <b>NORFOLK SOUTHERN</b>	
JWB	01-06-17		
DRAWN BY:		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: T-015.97
IRE	01-06-17	WILLISTON, OH FLGS AT W. WALBRIDGE EAST RD.	
CHECKED BY:			
DBS	01-07-17		
IN SERVICE:		TOLEDO DISTRICT	FILE NO. R-
	- -	CADD or DWG. No. TOTM01597.17	SHEET 17 of 22

NOTE: IF THE FARADAY SHIELD WOULD EVER NEED TO BE DRILLED IN THE FIELD, PROPER PRECAUTIONS MUST BE TAKEN TO INSURE METAL SHAVINGS DO NOT GET INTO EXISTING TERMINALS/WIRES.

AREA BELOW IS SCALED WITH AS=.75

TERMINAL BOARD 1  
LEFT HALF  
"1A"  
"1B"




⚡ = Heavy Duty Equalizer  
(022700-1X)  
Clearview  
⚡ = Lightning Arrester  
(022585-1X)  
⚡ = LPC-10560-51

GR = TERMINALS GROUNDED TO SHIELD.  
4 POST BLOCKS USE EITHER -  
GR - SERMMI PART NO. 61278  
GL - SERMMI PART NO. 61278-1.

FARADAY SHIELD 1A & 1B

= INDICATES PLACEMENT  
OF PANDUIT

THIS SHEET IS FOR REFERENCE ONLY,  
TO REFLECT HOW THE FARADAY SHIELD  
IS PREDRILLED. ONLY INSTALL AND USE  
THE TERMINALS NEEDED.

DESIGNED BY: JWB 01-06-17	 <b>NORFOLK SOUTHERN</b>	
DRAWN BY: IRE 01-06-17	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: T-015.97
CHECKED BY: DBS 01-07-17	WILLISTON, OH FLGS AT W. WALBRIDGE EAST RD.	
IN SERVICE: - -	TOLEDO DISTRICT	FILE No. R-
	CADD or DWG. No. TOTM01597.18	SHEET No. 18 of 22

REVISION  
INITIALS

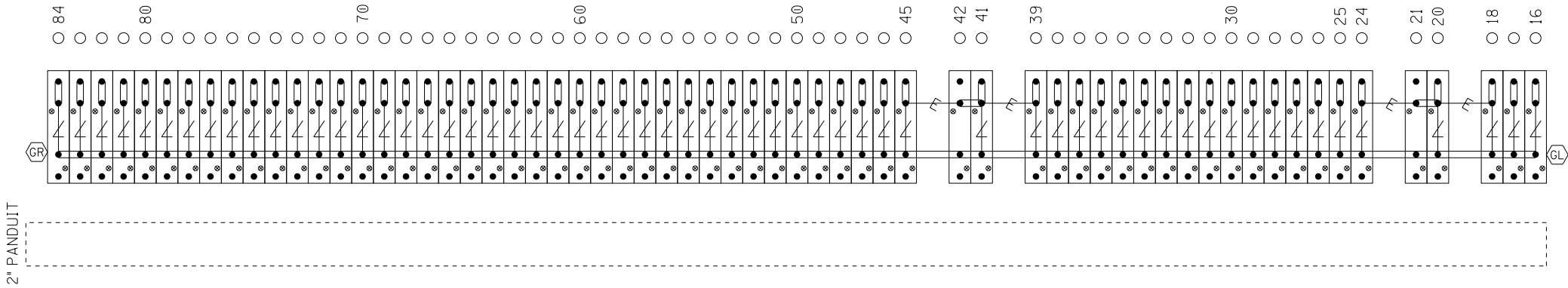
PROPERTY  
NORFOLK SOUTHERN RAILWAY CO.

NOTE: IF THE FARADAY SHIELD WOULD EVER NEED TO BE DRILLED IN THE FIELD, PROPER PRECAUTIONS MUST BE TAKEN TO INSURE METAL SHAVINGS DO NOT GET INTO EXISTING TERMINALS/WIRES.

AREA BELOW IS SCALED WITH AS=.75

TERMINAL BOARD 1  
RIGHT HALF

"1C"



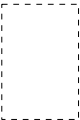
⚡ = Heavy Duty Equalizer  
(022700-1X)

∠ = Clearview  
Lightning Arrestor  
(022585-1X)

⦿ = LPC-10560-51

⦿ = TERMINALS GROUNDED TO SHIELD.  
4 POST BLOCKS USE EITHER -  
GR - SERMMI PART NO. 61278  
GL - SERMMI PART NO. 61278-1.

FARADAY SHIELD 1C




= INDICATES PLACEMENT  
OF PANDUIT

THIS SHEET IS FOR REFERENCE ONLY,  
TO REFLECT HOW THE FARADAY SHIELD  
IS PREDRILLED. ONLY INSTALL AND USE  
THE TERMINALS NEEDED.

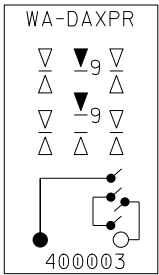
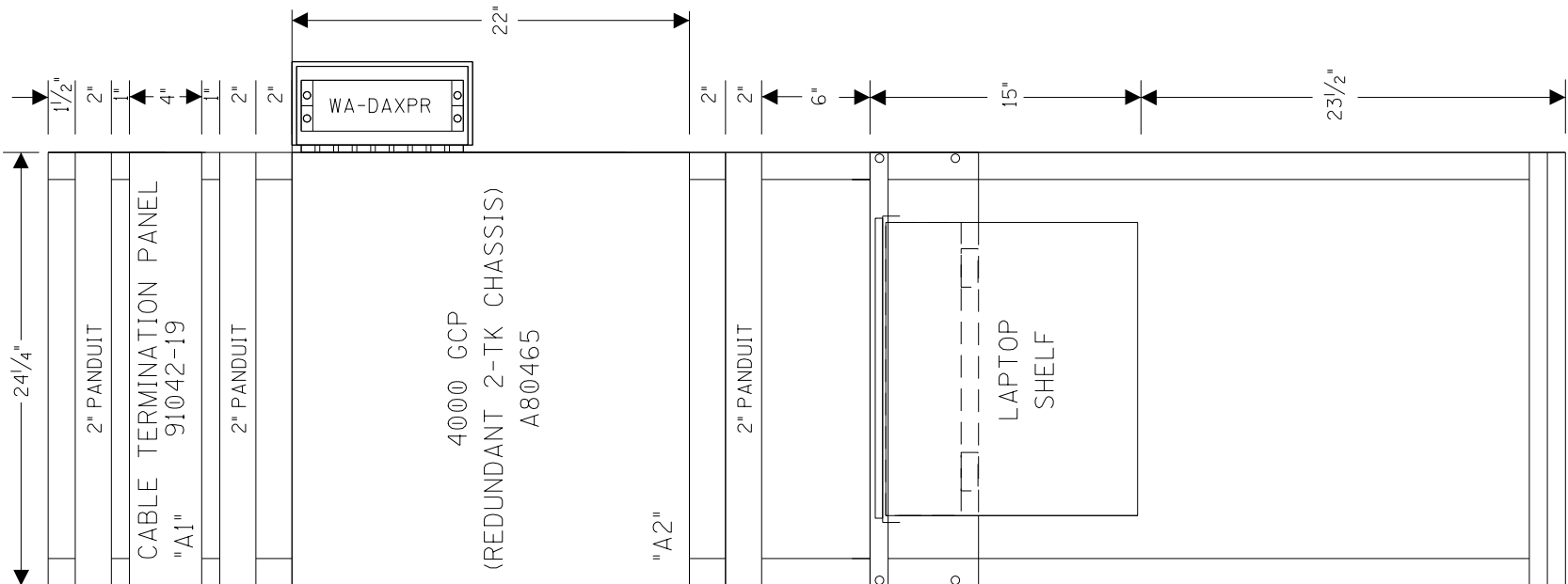
REVISION  
INITIALS

PROPERTY  
NORFOLK SOUTHERN RAILWAY CO.

DESIGNED BY: JWB 01-06-17	 <b>NORFOLK SOUTHERN</b>	
DRAWN BY: IRE 01-06-17	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: T-015.97
CHECKED BY: DBS 01-07-17	WILLISTON, OH FLGS AT W. WALBRIDGE EAST RD.	
IN SERVICE: - -	TOLEDO DISTRICT	FILE No. R-
	CADD or DWG. No. TOTM01597.19	SHEET 19 of 22



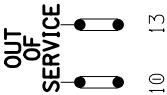
EQUIPMENT RACK  
FRONT



SIDE "C"



GFI  
RECPT.



HOUSE SIDE C LAYOUT &  
RACK PLACEMENT

REVISION  
INITIALS

"CA"

"CB"

"CC"


"CD"

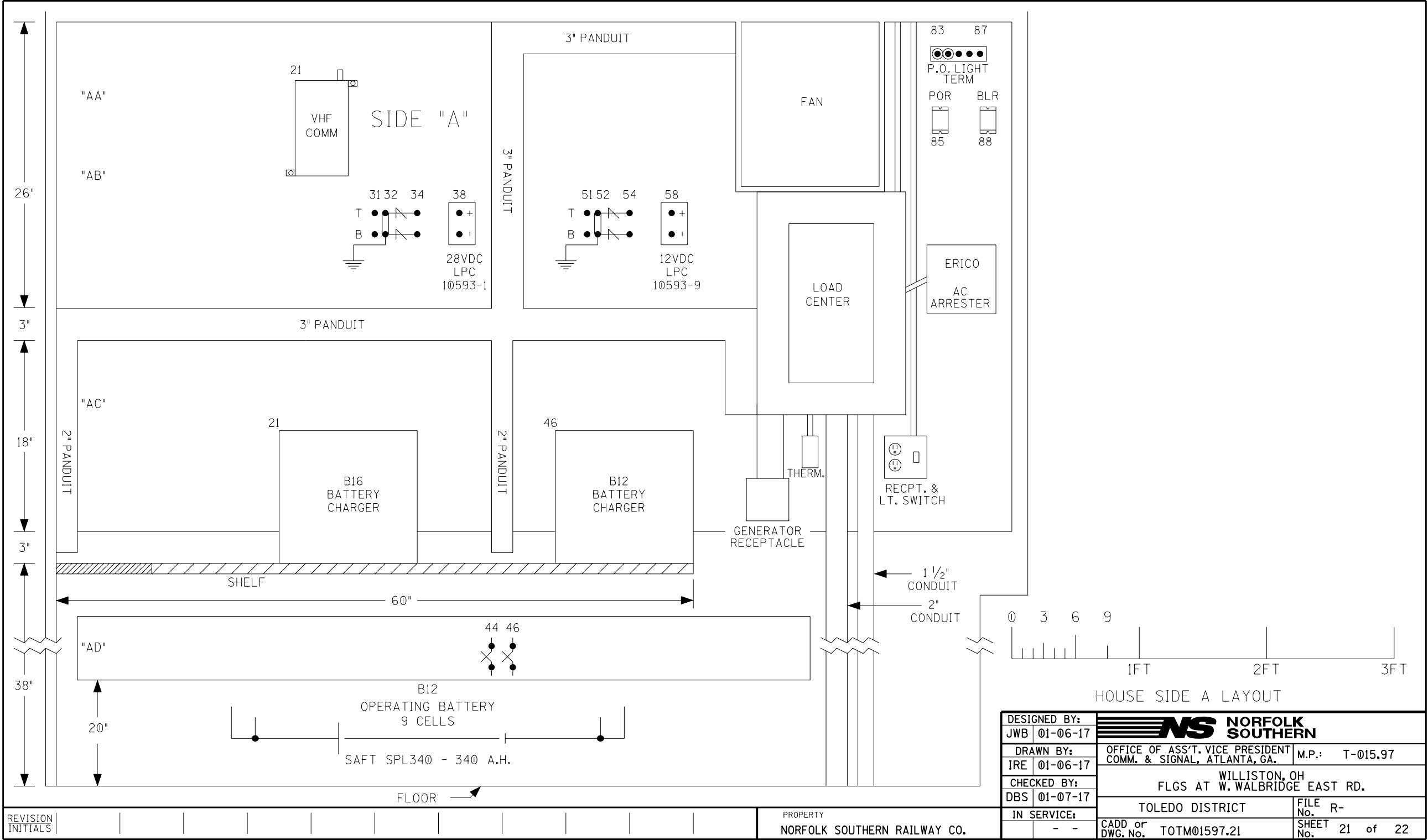
"CE"

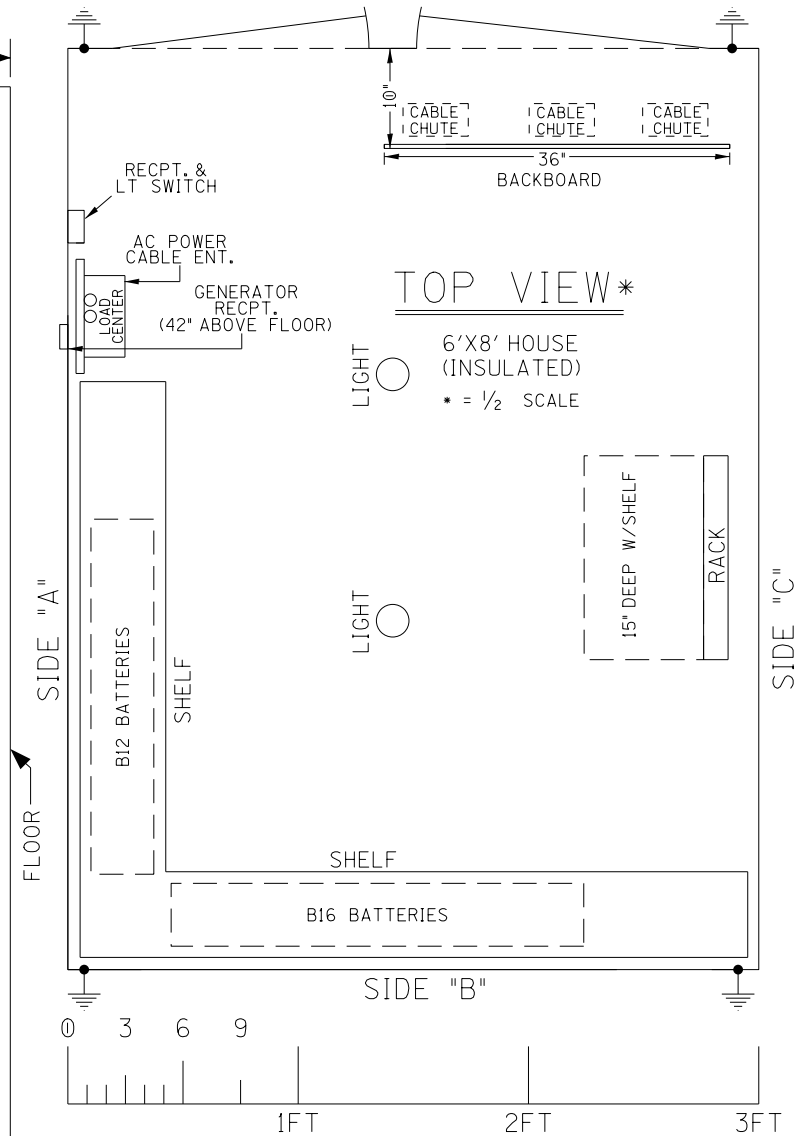
"CF"


"CG"

PROPERTY  
NORFOLK SOUTHERN RAILWAY CO.

DESIGNED BY:		 <b>NORFOLK SOUTHERN</b>	
JWB	01-06-17		
DRAWN BY:		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: T-015.97
IRE	01-06-17		
CHECKED BY:		WILLISTON, OH	
		FLGS AT W. WALBRIDGE EAST RD.	
DBS	01-07-17		
IN SERVICE:		TOLEDO DISTRICT	FILE No. R-
	- -	CADD or DWG. No. TOTM01597.20	SHEET 20 of 22






DESIGNED BY:		 <b>NORFOLK SOUTHERN</b>	
JWB	01-06-17		
DRAWN BY:		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: T-015.97
IRE	01-06-17	WILLISTON, OH FLGS AT W. WALBRIDGE EAST RD.	
CHECKED BY:			
DBS	01-07-17	TOLEDO DISTRICT FILE No. R-	
IN SERVICE:			
	- -	CADD or DWG. No. TOTM01597.22	SHEET 22 of 22 No.

[illegible]

PROPERTY  
NORFOLK SOUTHERN RAILWAY CO.

SH. NO.	CONTENTS
NX1	INDEX SHEET
1	LAYOUT
2	PROFILE
3	CABLE PLAN
4	LOAD CENTER
5	B12 & B16 CHARGERS & BATTERIES
6	4000 GCP 2-TK CHASSIS & MODULE LAYOUT
7	4000 GCP PROGRAMMING SETUP
8	4000 GCP PROGRAMMING SETUP
9	CONNECTORS FOR TRACK MODULES
10	CPU MODULE, SEAR IIi & VHF HOOK-UPS
11	SEAR IIi PROGRAMMING SETUP
12	SSCC#1 MODULE HOOK-UP
13	SSCC#2 MODULE HOOK-UP
14	SIGNAL "A" S60 GATE & FLASHER CIRCUITS
15	SIGNAL "B" S60 GATE & FLASHER CIRCUITS
16	BACKBOARD 1A & 1B
17	REAR BACKBOARD 1A & 1B
18	FARADAY SHIELD 1A & 1B
19	FARADAY SHIELD 1C
20	HOUSE SIDE C LAYOUT & RACK PLACEMENT
21	HOUSE SIDE A LAYOUT
22	HOUSE SIDE B LAYOUT & TOP VIEW

INDEX SHEET

DESIGNED BY:		 <b>NORFOLK SOUTHERN</b>		
JWB	01-06-17			
DRAWN BY:		OFFICE OF ASS'T. VICE PRESIDENT	M.P.: T-015.97	
IRE	01-06-17	COMM. & SIGNAL, ATLANTA, GA.		
CHECKED BY:		WILLISTON, OH		
DBS	01-07-17	FLGS AT W. WALBRIDGE EAST RD.		
IN SERVICE:		TOLEDO DISTRICT	FILE No. R-	
	- -	CADD or DWG. No. TOTM01597.NX1	SHEET No. 1 of 22	

REVISION  
INITIALS

PROPERTY  
NORFOLK SOUTHERN RAILWAY CO.



# OHIO RAIL DEVELOPMENT COMMISSION

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

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

November 1, 2016

Mr. Stephen Klinger  
Norfolk Southern Corporation  
Administrator Grade Crossing Program  
1200 Peachtree St. NE, Box 123  
Atlanta, GA 30309

RE: Grade Crossing Warning Device Improvements  
Ottawa County, TR 68, Walbridge East Rd.  
DOT# 473833E  
PID# 101712

Dear Mr. Klinger:

A diagnostic review was held at the above grade crossing on 4/17/2015. The crossing has been recommended for the installation of automatic flashing lights and gates.

Norfolk Southern Corporation is authorized to proceed with the site plans and cost estimates (PE) for this project. This authorization is made with the stipulation and understanding that any field work needs prior approval before work begins. This authorization is also 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 form is attached. Please note any recommendations (page 5), 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 ORDC Project Manager for this project is Don Damron. Don can be reached at 614-466-2509 (office), or 614-917-8466 (cell), or [don.damron@dot.state.oh.us](mailto:don.damron@dot.state.oh.us), if you have any questions.

Sincerely,

Donald J. Damron  
Project Manager

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

Attachments: Diagnostic Review Team Survey dated 4/17/2015  
ORDC/NS Letter Agreement dated 9/15/2015



[www.rail.ohio.gov](http://www.rail.ohio.gov)

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY



# OHIO RAIL DEVELOPMENT COMMISSION

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

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

September 15, 2016

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

Subject: Grade Crossing Warning Device Improvements  
Ottawa County, TR 68, Walbridge E. Rd., DOT # 473833E, PID 101712

Dear Mr. Klinger:

A diagnostic review was conducted at the subject grade crossing on 4/17/15. As a result of the review, the devices will be upgraded to automatic flashing lights and roadway gates.

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 21<sup>st</sup> 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

2016 OCT 13 AM 10:22

RECEIVED  
ORDC



[www.rail.ohio.gov](http://www.rail.ohio.gov)

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

Norfolk Southern Railway Company:

By: *Hugon Kemble*

Title: *General Manager*

Date: *9/23/2016*

OTT TR 68 Walbridge E. Rd NS 473833E PID 101712



## Diagnostic Review Team Survey

**Reason for Survey:**  
(e.g. formula, accident, constituent, etc.)

Formula

**Date:** 4/17/2015

### Location Data

Street or Road Name: Walbridge East Road

Route/Road Number  
(i.e. Twp., Co., SR or US) TR 68

US DOT No.: 473833E

County: OTT

Township: Allen

City:  
(In or Near)

Near Williston

Railroad  
Name: Norfolk Southern Railroad

Railroad  
Division: Dearborn

Branch/Line  
Name: Toledo Dist.

Nearest RR  
Timetable Station: Williston

RR Milepost: 15.97

### On-Site Review Team

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

1. Joshua S Leber C&S 419-552-6310 joshua.leber@ns.com
2. Don DAMRON; ORDC; (614)917-8466 don.damron@dot.state.oh.us
3. SCOTT EVERHART, ALLEN TWP. TRUSTEE 419.936.9614 SCOTT.APRGEAR@NET
4. Mike Harker Allen Twp Maint Supv 419-466-0357
5. GERALD MARTIN PUCO 614-752-9107 m.harker144@gmail.com
6. CRAIG BLAUSER ALLEN TWP Trustee 419-466-0331 cblausen1@attahoo.com
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_

### Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments	
Advance Warning Signs (condition?)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
'Stop' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
'Stop Ahead' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Pavement Markings (condition?)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Number of Tracks Signs	<input 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 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 type="checkbox"/> No		

OS NOTE:  
(SIGNAL TO SE SOME MAY  
STOP AT CROSSING)



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	1389	Date Run: 4/7/2015
Railroad Data		
Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	16	MORE TRAINS AS OF APRIL 1
< 1 per day		W+LE TRAINS = 4/DAY
Day thru trains	8	AT LEAST ONE/DAY
Night thru trains	8	#344 BUILT IN HOLSTERS YARD
Daytime switching movements		
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	50	OK
Typical train speed	50	MAY BE 35-40
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 type="checkbox"/> No		
Can one or more tracks be eliminated through the crossing? <input type="checkbox"/> Yes <input 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:		Allen Township
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	89 (2007)	(800/7 DAYS) 120/DAY
Highway paved	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Roadway Surface: <input checked="" type="checkbox"/> Blacktop <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____		
Roadway width: 16 ft.		
Number of highway lanes		2 LANES
Urban or Rural	Urban	
Vehicle Speed: 55 MPH		
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes 4 Amount 2 AM / 2 PM		
Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes _____ Amount FERTILIZER PEXINT TO THE WEST		
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 <span style="float: right;">MAY BE A FEW PEDESTRIANS</span>	
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 type="checkbox"/> No <input type="checkbox"/> Yes Are the signals currently interconnected with the existing crossing warning devices? <input type="checkbox"/> No <input type="checkbox"/> Yes Is there a 'Do not Stop on Track' sign? <input 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 type="checkbox"/> No <input checked="" type="checkbox"/> Yes Explain reasons: <span style="font-family: cursive;">FIRE &amp; EMS ON EITHER SIDE NOT PRIMARY ROUTE (IMPACT SCHOOL BUS ROUTE AS WELL)</span>	
<b>Type of Development</b>	
<input checked="" type="checkbox"/> Open Space <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Institutional <input type="checkbox"/> Commercial Location of nearby schools: <span style="font-family: cursive;">SW OF CROSSING</span>
<b>Utility Information</b>	
Is commercial power available? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Utility Provider (Company Name) <span style="font-family: cursive;">TOL. EDISON</span> Phone Number _____ Nearest Available Power Source <span style="font-family: cursive;">AT NISSEN</span>	
What other utilities are present? (add locations to sketch) <input type="checkbox"/> Gas <input type="checkbox"/> Cable <input type="checkbox"/> Telephone <input checked="" type="checkbox"/> Fiber Optic Cable <input type="checkbox"/> Petroleum <input type="checkbox"/> Water <input type="checkbox"/> Sanitary Sewer <input type="checkbox"/> Other _____	
Is(are) there potential utility conflict(s) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
Comments: <span style="font-family: cursive;">FIBER CROSSES ROAD FROM N TO S SIDE OF TRACKS: - NE QUAD = NORTH OF TRACKS - SW QUAD = SOUTH OF TRACKS</span>	

## 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:

POSSIBLE CONSOLIDATION PROJECT

Real Estate or ROW:

RR = 50' EITHER SIDE 100'  
ROAD = 60' TOT ROW

Culverts / Drainage / Ballast Conditions:

DITCH IN SW QUAD MAY IMPACT GATE MECH FOUNDATION  
CLEAN DITCH WORK RECENTLY COMPLETED.

Roadway and/or Sidewalks:

NA

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

INTERMEDIATE SIGNAL AT NISSEN

Environmental:

CONSOLIDATION WILL INVOLVE ENVIRONMENTAL REVIEW

Other:



## Diagnostic Team Recommendations

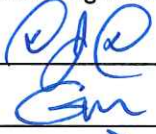
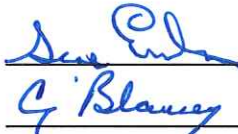

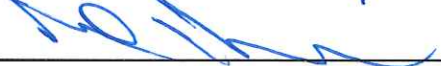
	Quadrants Needed
<input type="checkbox"/> Install/upgrade active devices	
<input type="checkbox"/> Automatic Flashing Lights (AFLS)	
<input type="checkbox"/> AFLS / Cants	
<input type="checkbox"/> AFLS / Gates	
<input type="checkbox"/> AFLS / Gates / Cants	
<input type="checkbox"/> Bells / number	
<input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

Comments: **CONSENSUS:**

POTENTIAL CLOSURE (DISCUSSION AND MTG W TOWNSHIP & PUBLIC);  
 \*IF NOT POSSIBLE TO CLOSE THEN UPGRADE WITH L+G.\*

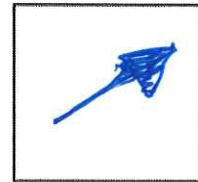
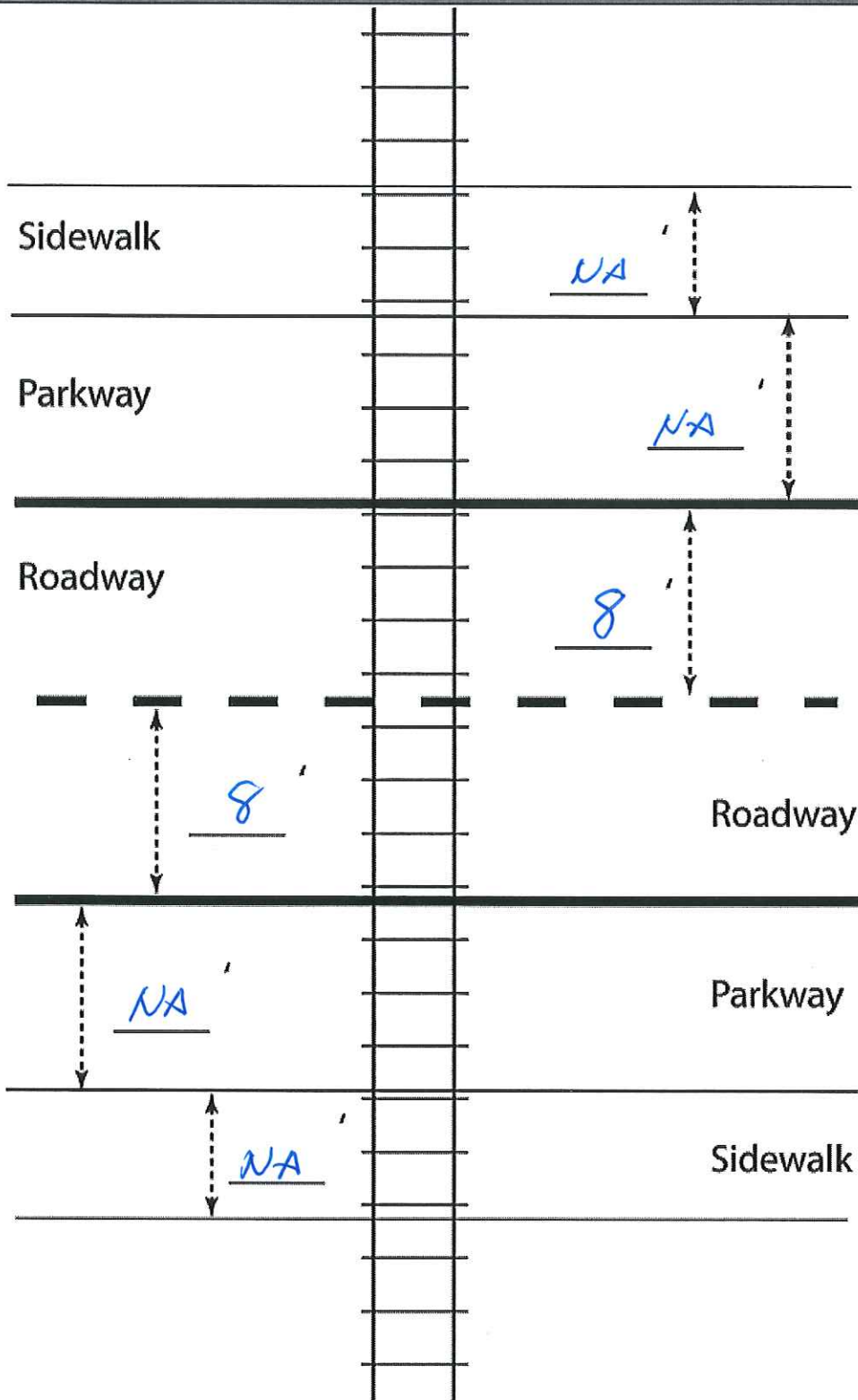
<input type="checkbox"/> Install/upgrade traffic signal preemption	
<input type="checkbox"/> No improvements needed	
<input type="checkbox"/> Other (define)	

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



  
 \_\_\_\_\_  
 \_\_\_\_\_  


\*PUCO/DROC/NS WILL NOT PETITION TO CLOSE CROSSING.

# Field Dimensions



Show North Direction

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

Measurements by: POD

## Field Sketch

Include utilities as marked by OUPS and LH



A; include ROW boundaries as indicated by railroad and LHA.

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

Sketch by: \_\_\_\_\_



## Field Sketch

Include utilities as marked by OUPS and LHA; include  
R



OW 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.



**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**6/12/2017 8:08:19 AM**

**in**

**Case No(s). 17-1424-RR-FED**

Summary: Application In the Matter of a Request for the Installation of Active Warning Devices at the Norfolk Southern Railway Crossing, Walbridge East Road/TR 68 DOT#473-833E, in Ottawa County, Ohio. electronically filed by Mrs. Jill A Henry on behalf of PUCO/Rail Division