

Memo

To: Docketing Division
From: Jill Henry, Rail Specialist, Rail Division
Cc: .PUCO Legal Department
Date: 10/5/16



Re: PUCO Case No. 16-1991-RR-FED- In the Matter of a Request for the Installation of Active Warning Devices at the Wheeling & Lake Erie Railroad Grade Crossing, DOT# 473-167S, on Goudy Road in Wayne County, Ohio.

On September 21, 2016, the Ohio Rail Development Commission (ORDC) authorized funding for Wheeling & Lake Erie Railroad (WE) to install mast mounted lights and gates at the Goudy Road, DOT#473-167S, grade crossing in Wayne County, Ohio. The crossing was surveyed on October 14, 2015 and was found to warrant the upgrade. The electric utility provider for this crossing is Ohio Edison, First Energy Corporation.

The project will be paid for with federal funds and is actual cost. The plans and estimates for the project in the amount of \$299,972.96 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:

Wheeling & Lake Erie Railway Company
Tim Andrews
Signals & Communications Supervisor
100 E. First Street
Brewster, Ohio 44613

Ohio Rail Development Commission
Cathy Stout
1980 West Broad Street
Mail Stop #3140
43223

Sugar Creek Township, Wayne County
Melvin R. Wyss
Trustee
P.O. Box 224
Dalton, Ohio 44618

Ohio Edison/First Energy

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

TO: Jill Henry, Rail Division, PUCO

FROM: Cathy Stout, Manager, Safety Section, ORDC

BY: Joe Reinhardt, Project Manager, ORDC 

SUBJECT: Wayne County, Goudy Road
DOT 473167S, PID 101928

DATE: September 21, 2016

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on Goudy Road. The Ohio Rail Development Commission (ORDC) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. 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 for nine months. 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.

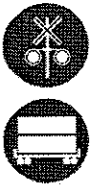
It is expected that all work necessary for FHWA acceptance of the warning devices will be completed by the in-service due date and that the railroad will be responsible for this work. This work includes, but is not limited to:

- 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: 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 • Mark Policinski, ORDC Chairman

September 21, 2016

NOTE: Approve
PE with Gates at
10'-3"

Mr. Tim Andrews
Wheeling & Lake Erie Railway
100 East First Street
Brewster, Ohio 44613

RE: Wayne County, Goudy Road
DOT 473167S, PID# 101928

Dear Mr. Andrews:

The plan and estimate dated September 12, 2016, for the referenced project has been reviewed and is acceptable. WLE 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 \$299,972.96. 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 WLE accepting the following instructions:

1. WLE's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Joseph Reinhardt, ORDC, email joe.reinhardt@dot.state.oh.us and to the Public Utilities Commission of Ohio at George.martin@puc.state.oh.us. WLE'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. WLE 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 WLE.
3. WLE's project foremen will notify Joe Reinhardt at joe.reinhardt@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. WLE will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.



www.rail.ohio.gov

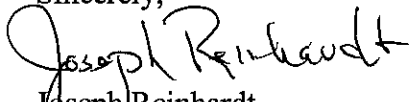
phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

6. WLE 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,


Joseph Reinhardt
Project Manager

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

WHEELING & LAKE ERIE RAILWAY COMPANY

Tim Andrews
Signal & Communication Supervisor
Tel. 330-767-7255

tandrews@wlerwy.com

100 East First Street
Brewster, OH 44613
Fax: 330-767-3213

September 6, 2016

Ohio Rail Development Commission
Mr. Joe Reinhardt
1980 West Broad Street, Room 2B
Columbus, OH 43223

Re: Estimate for Railroad Crossing Warning System at Goudy Rd. DOT 473-167-S

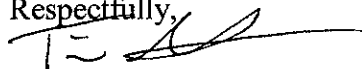
Dear Mr. Joe Reinhardt,

I am providing this estimate for the crossing package and installation at Goudy Rd. Award of the material package will be the result of a competitive bid; copies of the submitted quotes will be forwarded to your office when they are completed. Installation will be performed under our continuing construction agreement with CTC LLC.

Engineering Services, CTC (breakout attached)	\$192,551.24
Fill Materials, transport, hauling	\$10,000.00
Preliminary Installation Services, Crosier	\$27,710.05
Electric Service, Emery	\$3,950.00
Electric Utility fees	\$7,000.00
WLE Direct Signal & MOW Labor	\$19,379.67
Galvanized signal foundations	\$1,178.00
Stella Jones Ties and Crossing timbers	\$18,109.00
A&K RR Materials- Rail, anchors, spikes, plates, rail clips	\$9,115.80
Delta Asphalt - Paving Services	\$10,500.00
Morrison MetalWeld - thermite weld kits	\$479.20
TOTAL:	\$299,972.96

Please contact me if additional details are required.

Respectfully,



Tim Andrews

Direct purchase from Fabricated Metals, 60' galvanized gate foundation, \$589.00 ea.

Wheeling & Lake Erie Railway Co.
Dalton, Ohio - Goudy Rd. DOT# 473 167S
Project Estimate - CN16099

ENGINEERING					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SIGNAL DESIGNER	80	HR	32.69		\$2,615.20
SIGNAL CHECKER, LEVEL 1	10	HR	39.66		\$396.60
SIGNAL CHECKER, LEVEL 2/FIELD ENGINEER		HR	39.66		\$0.00
SUBTOTAL					\$3,011.80
G&A BURDEN FOR LABOR					\$5,511.59
FIXED FEE					\$852.34
ENGINEERING TOTAL					\$9,375.73

PROJECT MANAGEMENT					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SENIOR SIGNAL ENGINEER	12	HR	\$75.48		\$905.76
PROJECT MANAGER	24	HR	\$39.66		\$951.84
CONSTRUCTION MANAGER	40	HR	\$39.66		\$1,586.40
ACCOUNTING, LEVEL1	16	HR	\$39.81		\$636.96
ADMINISTRATIVE	4	HR	\$25.48		\$101.92
SUBTOTAL					\$4,182.88
G&A BURDEN FOR LABOR					\$7,654.67
FIXED FEE					\$1,183.76
PROJECT MANAGEMENT TOTAL					\$13,021.31

CONSTRUCTION LABOR					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SIGNAL FOREMAN	80	HR	\$29.04		\$2,323.20
SIGNALMAN	80	HR	\$23.40		\$1,872.00
SIGNAL HELPER	160	HR	\$19.00		\$3,040.00
SUBTOTAL					\$7,235.20
G&A BURDEN FOR LABOR					\$13,240.42
FIXED FEE					\$2,047.56
CONSTRUCTION LABOR TOTAL					\$22,523.18

CONSTRUCTION LABOR EXPENSES					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
EMPLOYEE MEALS (PER DIEM)	32	EA	\$30.00		\$960.00
EMPLOYEE TRAVEL & LODGING	32	EA	\$60.00		\$1,920.00
MOBILIZATION	5	EA	\$1,000.00		\$5,000.00
SUBTOTAL					\$2,880.00
CONSTRUCTION LABOR EXPENSES TOTAL					\$10,760.00

Wheeling & Lake Erie Railway Co.
Dalton, Ohio - Goudy Rd. DOT# 473 167S
Project Estimate - CN16099

CONSTRUCTION EQUIPMENT					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
TRUCK, PU, 1 TON CREW CAB	80	HR	\$15.71		\$1,256.80
TRUCK, BOOM, ART, TELESCOPING	40	HR	\$55.95		\$2,238.00
TRAILER, UTILITY, 4 TIRE, 12,000lbs SC410	80	HR	\$7.55		\$604.00
RENTAL EQUIPMENT (FORK LIFT/BACKHOE/SKYTRAK)	1	WK	\$1,200.00		\$1,200.00
EQUIPMENT DELIVERY/PICKUP	1	LS	\$150.00		\$150.00
SUBTOTAL					\$5,448.80
CONSTRUCTION EQUIPMENT TOTAL					\$5,448.80

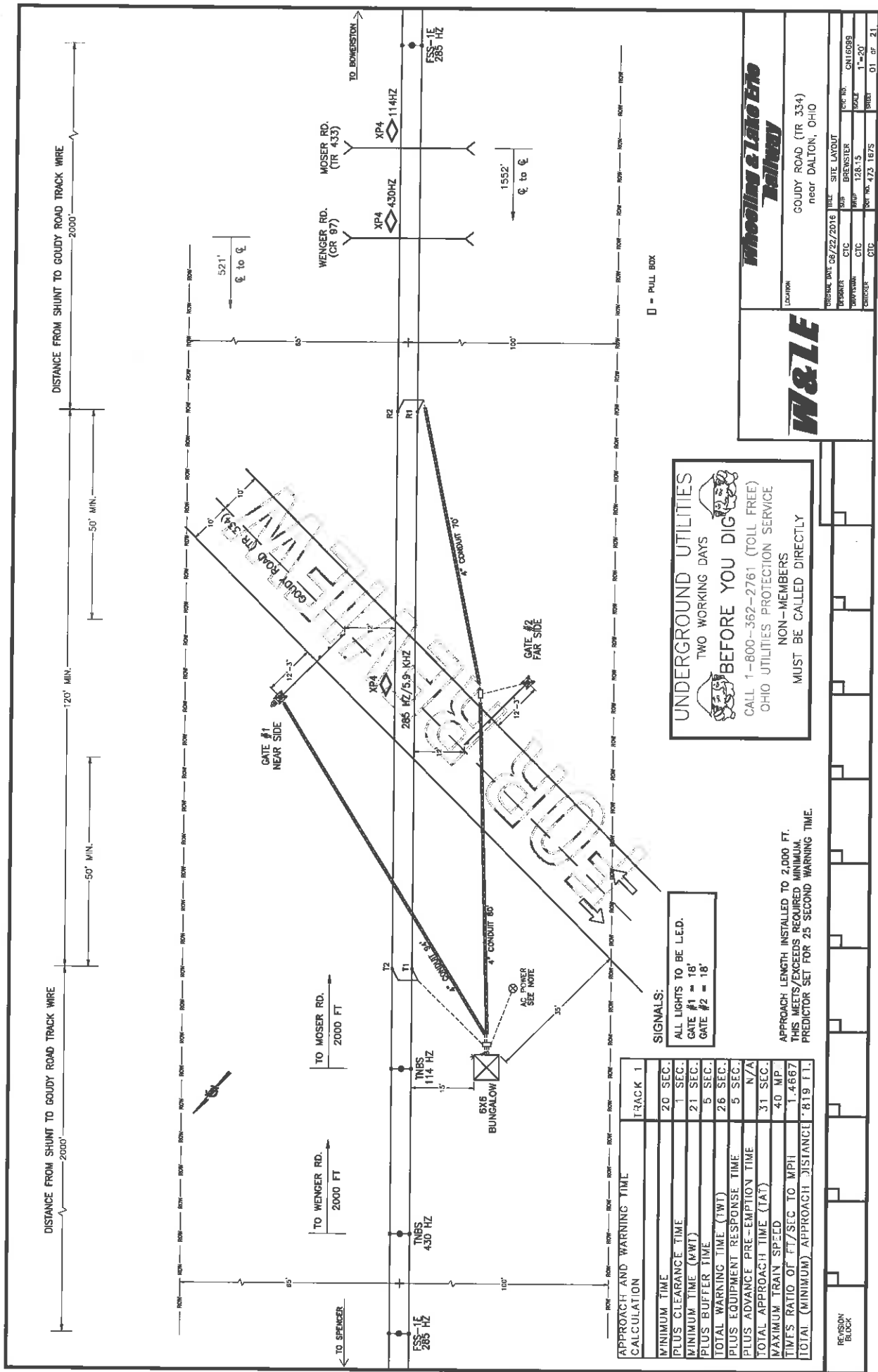
MATERIAL					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
HOUSE MATERIAL (SEE ATTACHED DETAIL)	1	LS			\$66,418.70
FIELD MATERIAL(SEE ATTACHED DETAIL)	1	LS			\$51,003.53
HOUSE AND SIGNAL WIRING	1	LS			\$8,000.00
FILL DIRT		TN	\$7.50		\$0.00
CONCRETE		YD	\$500.00		\$0.00
COVER ROCK		TN	\$26.50		\$0.00
BORING 4"		FT	\$35.00		\$0.00
ELECTRICAL PERMITS		EA	\$3,500.00		\$0.00
METER POLE ASSY AND INSTALLATION		EA	\$2,500.00		\$0.00
FREIGHT & CONTAINER PRICE	1	LS			\$6,000.00
SUBTOTAL					\$131,422.23
MATERIAL TOTAL					\$131,422.23

TOTAL PROJECT ESTIMATE	\$192,551.24
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HOUSE MATERIALS					
Description	QTY	UOM	MANUFACTURER PN	Unit Price	Total Price
HOUSE 6X6 AL WLE W/2-23" RKS	1	EA	PTMW	\$11,500.00	\$11,500.00
ASSY XP4 SINGLE TRACK REDUNDANT 40 AMP CC	1	EA	16-220004433-00	\$28,205.00	\$28,205.00
ASSY MDSA-1A	1	EA	250204-001C	\$315.00	\$315.00
ASSY TSA-1A W/TTA3 ARRESTORS	1	EA	250787-000	\$134.00	\$134.00
CHARGER 40A 12V CRAGG 40ETC12V	2	EA	017061-203	\$790.00	\$1,580.00
RECTIFIER POWER CORD 14/4 SJE BLK	70	FT		\$1.00	\$70.00
BATTERY NICAD 425 AH SPL-425	9	EA		\$390.00	\$3,510.00
BATTERY NICAD 250 AH SPL-340	10	EA		\$350.00	\$3,500.00
TRAY BATTERY 12 X 27" POLYETHYLE	4	EA	7438-01	\$32.96	\$131.82
THERMOSTAT SPDT REMOTE BULB 8A	1	EA	009186-004	\$73.94	\$73.94
RLY DPDT 12VDC 5A OCT	4	EA	007192-032	\$13.22	\$52.89
SCKT RLY 8-PIN OCT SCREW PNLMT	4	EA	132246-001	\$4.48	\$17.91
ASSY AGA-1 ARRESTOR	10	EA	202216-001	\$20.76	\$207.57
ASSY AGE-1 EQUALIZER	2	EA	202217-000	\$21.75	\$43.49
XIP CABLE 20FT	2	EA	750470-004	\$97.00	\$194.00
POWER OFF LIGHT KIT	1	EA	LC2-005WD	\$116.40	\$116.40
CDU-1 CONTROL AND DISPLAY UNIT	1	EA	251124-000	\$455.00	\$455.00
NUT INSULATED HARMON	20	EA	013986-000	\$2.97	\$59.40
XIP MODULE INTERFACE PANEL	1	EA	227561-000	\$562.00	\$562.00
LAMP ARRESTOR PANEL (LAP-G)	1	EA	227062-000	\$909.00	\$909.00
TIP LIGHT DIODE	2	EA	227194-100	\$50.00	\$100.00
MICRO DATA ANALYZER II WLE PK	1	EA	072113-100	\$6,880.00	\$6,880.00
MDA CURRENT SENSOR	2	EA		\$220.00	\$440.00
BATTERY GROUND DETECTOR	1	EA	NAS	\$1,250.00	\$1,250.00
RELAY 500 OHM 6FB NEUTRAL	3	EA	ST1 400000	\$750.00	\$2,250.00
RELAY PLUGBOARD B1 W/10-14 CRIMP TERMINALS	3	EA		\$203.00	\$609.00
2 POS RELAY RACK	1	EA	PTMW	\$200.00	\$200.00
TEST LINK W/PLT & INSUL	40	EA	032257-002	\$1.98	\$79.20
WIRE 16AWG/19 TC EPR/PVC BLU	500	FT	012092-002	\$0.22	\$110.00
WIRE 10AWG/19 TC EPR/PVC BLU	550	FT	012092-000	\$0.62	\$338.80
WIRE 6AWG/19THHN BLK	50	FT	012253-000	\$0.79	\$39.60
WIRE 6AWG/19 THHN RED	50	FT	012253-003	\$0.84	\$41.80
WIRE 6AWG/19 THHN GRN	30	FT	012253-002	\$0.75	\$22.44
CABLE RAW 3/14AWG PWR 300V	30	FT	012690-010	\$0.77	\$23.10
RES ADJ WW 15W 5.69 OHM PNLMT	1	EA	002238-101	\$26.09	\$26.09
CONN PLUG L6-15 250V 15A 2P3W	2	EA	132286-001	\$11.53	\$23.06
ASSY 2WAY TERM BLK W/AAR HARD	40	EA	202810-000	\$15.82	\$632.72
ASSEMBLY, 4 POST TERMINALBLOCK	10	EA	203032-000	\$43.48	\$434.83
ASSY TERM STRIP DBL POST 12	5	EA	250094-300	\$19.77	\$98.84
GROUND POST P5-162	4	EA	113047-000	\$25.94	\$103.75
WRENCH AAR TERMINAL	1	EA	095058-001	\$15.28	\$15.28
KIT APRVD SM PARTS/SL XING	1	EA	180394-590	\$1,058.90	\$1,058.90
LABEL, DANGER 240 V, 1.75 X 2.	1	EA	SQS109	\$3.86	\$3.86

FIELD MATERIALS

Description	QTY	UOM	MANUFACTURER PN	Unit Price	Total Price
KIT TORQUE WRENCH S/T 070981X	1	EA	2587-01	\$256.38	\$256.38
SO CORD 10/3	60	FT		\$0.90	\$54.00
GATE ARM 16-32' UHI LED LGHTS	2	EA	076045-014	\$613.73	\$1,227.47
SLEEVE 4 ALUMINUM REC #92958	2	EA	14187-01	\$44.33	\$88.66
LED INSERT DIALIGHT FLX4000	8	EA	076048-109	\$520.00	\$4,160.00
DECAL, DOT STRIP	2	EA		\$16.00	\$32.00
BELL ELECTRONIC CROSSING 4/5"	1	EA	6147-01	\$210.03	\$210.03
ASSY WLE STANDARD FLASHER/GATE W/O ARM, GATE ARM LIGHTS, GATE KEEPER	2	ASSY	CTC	\$14,300.00	\$28,600.00
TAPE MARKER BURIED RR CABLE	1	EA	029989-000	\$21.43	\$21.43
CABLE UG 3 COND #6 W/GRND AWG SOLID	200	FT	1013-02	\$5.10	\$1,020.00
CABLE UG 7 COND #6 AWG SOLID	600	FT	1077-02	\$8.30	\$4,980.00
CABLE UG 7 COND #14 AWG SOLID	600	FT	1023-02	\$3.05	\$1,830.00
WIRE UG TRK #6 AWG DUPLEX	700	FT	1094-02	\$2.05	\$1,435.00
PVC CONDUIT PACKAGE	1	LOT		\$2,500.00	\$2,500.00
PVC CEMENT, 1QT W/BRUSH TOP	1	EA		\$7.15	\$7.15
GRINDING WHEEL 6IN X 1IN	4	EA		\$30.00	\$120.00
BOOTLEG KIT/1 PR TRACKWIRE WLE STANDARD	2	EA	HAX001BLXW2-KT	\$42.10	\$84.20
BOND JOINT 5/16" X 7" TAB ERICO #SB-	300	EA	2161-01	\$5.41	\$1,623.60
WIRE #6 SOFT BARE COPPER	60	FT	1436-01	\$0.40	\$23.76
CARTRIDGE SB25 POWDER W/ATTACHMETAL FOR	300	EA	1026-39	\$1.55	\$465.30
ROD 5/8 X 8 NS GRD***USE-02***	6	EA	1357-01	\$14.72	\$88.31
CONNECTION SBNT1-161G ONE-SHOTFOR 5/8 IN	6	EA	1029-01	\$6.17	\$37.03
CADWELD TYPE GR 5/8GRDX#6WIRE	6	EA	005755-002	\$7.10	\$42.57
BOND STRAND 8-STR 3/16" TINNEDSBS8TINSUL	100	FT	4133-01	\$1.21	\$121.00
ASSY FSS-1B 267HZ-560HZ	2	EA	250849-001	\$460.00	\$920.00
PLATE SHUNT 24"X26"X1/4" GALV.	4	EA	6193-01	\$67.06	\$268.22
SCREW LAG 3/4" X 6" BLACK GRIMLET PO	20	EA	2000-01	\$0.81	\$16.28
TAPE ELECTRICAL 3M #33+ 3/4" PLASTIC	2	RL	1190-01	\$3.62	\$7.24
DUCTSEAL 1LB BLOCK	10	EA		\$3.30	\$33.00
FOAM INSULATING SPRAY	4	EA		\$12.25	\$49.00
STAPLE GROUND WIRE 1-1/16"X3"	50	EA	113005-000	\$0.32	\$15.95
TIE CABLE .184 X 7.31" HIG TEMSELF LOCKI	100	EA	4125-01	\$0.04	\$4.40
LUG RNG 1/4" 12-10AWG INS BLK	100	EA	032114-008	\$0.01	\$1.10
TAG ST-5 SNAPOUT 11 TAGS/CARD MI# 010301	50	EA	2090-01	\$2.28	\$113.85
STAPLE COPPERWELD 3/8 X 1-3/4 144 IN. RO	50	EA	1148-01	\$0.26	\$13.20
GREASE RUST PREVENTIVE NO OXID"A SPECIAL	1	EA	1906-01	\$9.83	\$9.83
CLIP TRACK WIRE RETAINER - ERICO #SBA	10	EA	1118-01	\$1.97	\$19.69
COMPOUND DUCT SEAL 5 LB PLUG PERMAGUM #	5	PK	1179-01	\$10.68	\$53.41
EMERGENCY SIGN SIGNAL	2	EA	SIG SIGN	\$140.00	\$280.00
FIELD TAG KIT	1	EA	FLDTGKT	\$170.48	\$170.48



□ = PULL BOX

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2761 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

SIGNALS:
ALL LIGHTS TO BE L.E.D.
GATE #1 = 18'
GATE #2 = 18'

APPROACH AND WARNING TIME CALCULATION	
MINIMUM TIME	20 SEC.
PLUS CLEARANCE TIME	1 SEC.
MINIMUM TIME (MWT)	21 SEC.
PLUS BUFFER TIME	5 SEC.
TOTAL WARNING TIME (TWT)	26 SEC.
PLUS EQUIPMENT PRE-EMPTION TIME	5 SEC.
PLUS ADVANCE PRE-EMPTION TIME	N/A
TOTAL APPROACH TIME (TAT)	31 SEC.
MAXIMUM TRAIN SPEED	40 MP
TIME'S RATIO OF FT/SEC TO MPH	1.4667
TOTAL (MINIMUM) APPROACH DISTANCE	819 FT.

APPROACH LENGTH INSTALLED TO 2,000 FT.
THIS MEETS/EXCEEDS REQUIRED MINIMUM
PREDICTOR SET FOR 25 SECOND WARNING TIME.

Wheeling & Lake Erie
Railway

LOCATION
GOUDY ROAD (TR 334)
near DALTON, OHIO

REVISION BLOCK

REVISION	DATE	BY	CHK'D BY	DATE
1	08/22/2016	BRENNER	CHIGORIS	
2		CHIGORIS		
3				
4				
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		LOCATION GOUDY ROAD (TR 334) near DALTON, OHIO	
REVISION BLOCK	ORIGINAL DATE 08/22/2016	TITLE CONSTRUCTION NOTES	CTR NO. 01618699
	DESIGNER CTR	SUB BREWSTER	CTR NO. 01618699
	TYPED BY CTR	REVISED 12/1/15	SCALE N.T.S.
	CTR	100' MAG.	473' 1675'
	CTR	473' 1675'	DIA OF 21'

CROSSING SIGNAL ALIGNMENT

LEGEND

Ⓐ	GATE #1 FRONT MAST LIGHTS
Ⓑ	GATE #1 BACK MAST LIGHTS
Ⓒ	GATE #2 FRONT MAST LIGHTS
Ⓓ	GATE #2 BACK MAST LIGHTS



ALIGNMENT

FRONT LIGHTS
ADJUST LIGHT UNIT VERTICALLY TO ALIGN AXIS OF BEAM 5 FT. 9 IN. ABOVE PAVEMENT AT SELECTED ALIGNMENT DISTANCE. BOTH LAMPS SHOULD BE ALIGNED TO SAME POINT.

BACK LIGHTS
ADJUST LIGHT UNIT HORIZONTALLY TO ALIGN AXIS OF BEAM TO CENTER OF APPROACH LANE IN APPROACH TO SIGNAL AT SELECTED ALIGNMENT DISTANCE. MAINTAINING VERTICAL ALIGNMENT. BOTH LAMPS SHOULD BE ALIGNED TO SAME POINT.

ADJUST LIGHT UNIT VERTICALLY TO ALIGN AXIS OF BEAM 5 FT. 6 IN. ABOVE PAVEMENT AT A POINT 50 FT. IN APPROACH TO THE SIGNAL ON OPPOSITE SIDE OF TRACK.

ADJUST LIGHT UNIT HORIZONTALLY TO ALIGN AXIS OF BEAM TO A POINT 50 FT. IN APPROACH TO THE SIGNAL ON OPPOSITE SIDE OF TRACK AND IN CENTER OF APPROACH TRAVEL WAY.

Wheeling & Lake Erie
Railway

LOCATION

GOUDY ROAD (TR. 334)
near DALTON, OHIO

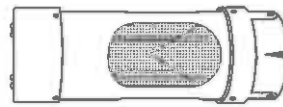
DATE	06/12/2016	FILE	CROSSING SIGNAL ALIGNMENT
DESIGNED BY	CTC	DRAWN BY	BREWSTER
CHECKED BY	CTC	SCALE	1/2"=1'
PROJECT NO.	473 1875	SHEET NO.	02 OF 21

W&LE

REVISION
BLOCK

SITE LAYOUT NOTES

- 1.) CROSSING IS LOCATED: LATITUDE 40.7628709
LONGITUDE -81.709120



THIS SIDE FACING
ROADWAY

W&LE

**Wheeling & Lake Erie
Railway**

LOCATION: Goudy Road (TR 334)
near Dalton, Ohio

REVISION		DATE	SITE LAYOUT NOTES
REVISION	CIC	06/22/2016	B&W BREWSTER
			CIC NO. 0416099
			REVISION
			SCALE
			N.T.S.
			SHEET
			03 OF 21

REVISION
BLOCK

CHANGE FROM TYPICAL 11

ADJUSTMENT NAME		MDR1	
NAME		HIGHWAY CROSSING	
WARNING TIME		26 SEC	
CW/MD		CW	
AP TIME		00 SEC	
CWE WT		00 SEC	
AUX RECOVERY DELAY		05 SEC	
TRACK ASSIGNED		TK1	TK2
OFFSET DISTANCE		ASSIGN	ASSIGN
MD RESTART		0 FT	0 FT
SUDDEN SHUNT ZONE		PSEN	PSEN
POSITIVE START		PSRX	PSRX
POST		NA	NA
PUEN		DISABLE	DISABLE
POST JOINT DETECT		PUJX	PUJX
		NA	NA

BASIC TRACK SETUP		TK1	TK2	TK3	TK4
FREQUENCY		295 HZ			
MASTER/SALVE		MASTER			
RX ADJUST		100			
TCA		*			
DIRECTION MODE		BI			
LUA		*			
ADVANCED APR. CAL		INACTIVE			
NBS COMP. RX		ISL1			
TRK ISLAND ASSIGN					
APPROACH LENGTH		2000 FT			
AUTO RX		ENABLE			

ADVANCED TRACK SETUP		TK1	TK2	TK3	TK4
MOTION DET. TIMER		MDEN	DISABLE		
		MDT	10 MIN		
FALSE SHUNT		FSEN	DISABLE		
		FSRX	NA		
		FST	NA		
APPROACH RELEASE		AREN	DISABLE		
		ARRX	NA		
		ART	NA		
LOS TIME		16 SEC			
L-LOS TIME		5 SEC			
NIRML_SHTR_VFSHRT		NIRML *			

ISLAND SETUP		TK1	TK2	TK3	TK4
ENABLE/DISABLE		TK1	ENABLE		
FREQUENCY		5.9 KHZ			
LOSS OF SHUNT		4 SEC			
FAULT DELAY		1			

APPLICATION SOFTWARE INFORMATION	
NAME	*
REV.	1
CHECKSUM	
CRC	
CHASSIS ID	
CHASSIS ID	
LOCATED BEHIND UCI-3	
CHASSIS ID	00000000

0 = TAB INTACT
● = TAB PUNCHED OUT

EXECUTIVE INFORMATION	
VPM-3	PART NUMBER
CROSSING SOFTWARE	083024-716

XC SETUP		OFF	SSFRM
CROSSING TEST MODE		FWC-1	ON
FLASH RATE		ON	
VOLTAGE REGULATION		1.1 VOLTAGE	10.0
L1 VOLTAGE		1.2 VOLTAGE	10.0
GATE 1 DELAY		3 SEC	
GATE 2 DELAY		3 SEC	

SHUNT RECORDS

APPROACH 1 (EAST)	NO SHUNT		100% SHUNT		50% SHUNT		LIA ADDED ± 1 to ±9
	RX	PHASE	RX	PHASE	RX	PHASE	
Track 1	Normal						
Track 2	Standby						
Track 3	Standby						
Track 4	Standby						
APPROACH 2 (WEST)							
Track 1	Normal						
Track 2	Standby						
Track 3	Standby						
Track 4	Standby						

INITIAL VALUES WHEN PLACED IN SERVICE

NOTES:
* = FIELD ADJUSTMENT
NA = NOT APPLICABLE

W&LE
Wheeling & Lake Erie
Railway

LOCATION

GOUDY ROAD (TR 334)
near DALTON, OHIO

CHANGE FROM TYPICAL

ISSUE DATE	06/22/2016	FILE	XPM SETUP SHEET
DESIGNER	CTC	CHKD BY	BREWSTER
DRAWN BY	CTC	SCALE	128:15
CHECKED BY	CTC	DATE	N.T.S.
PROJECT	CTC	JOB NO.	273 1675
		SHEET	05 of 21

**W87**

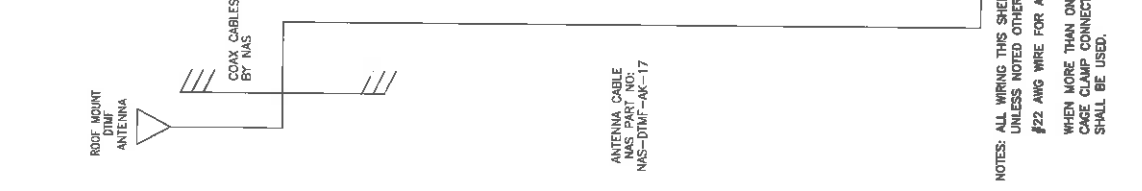
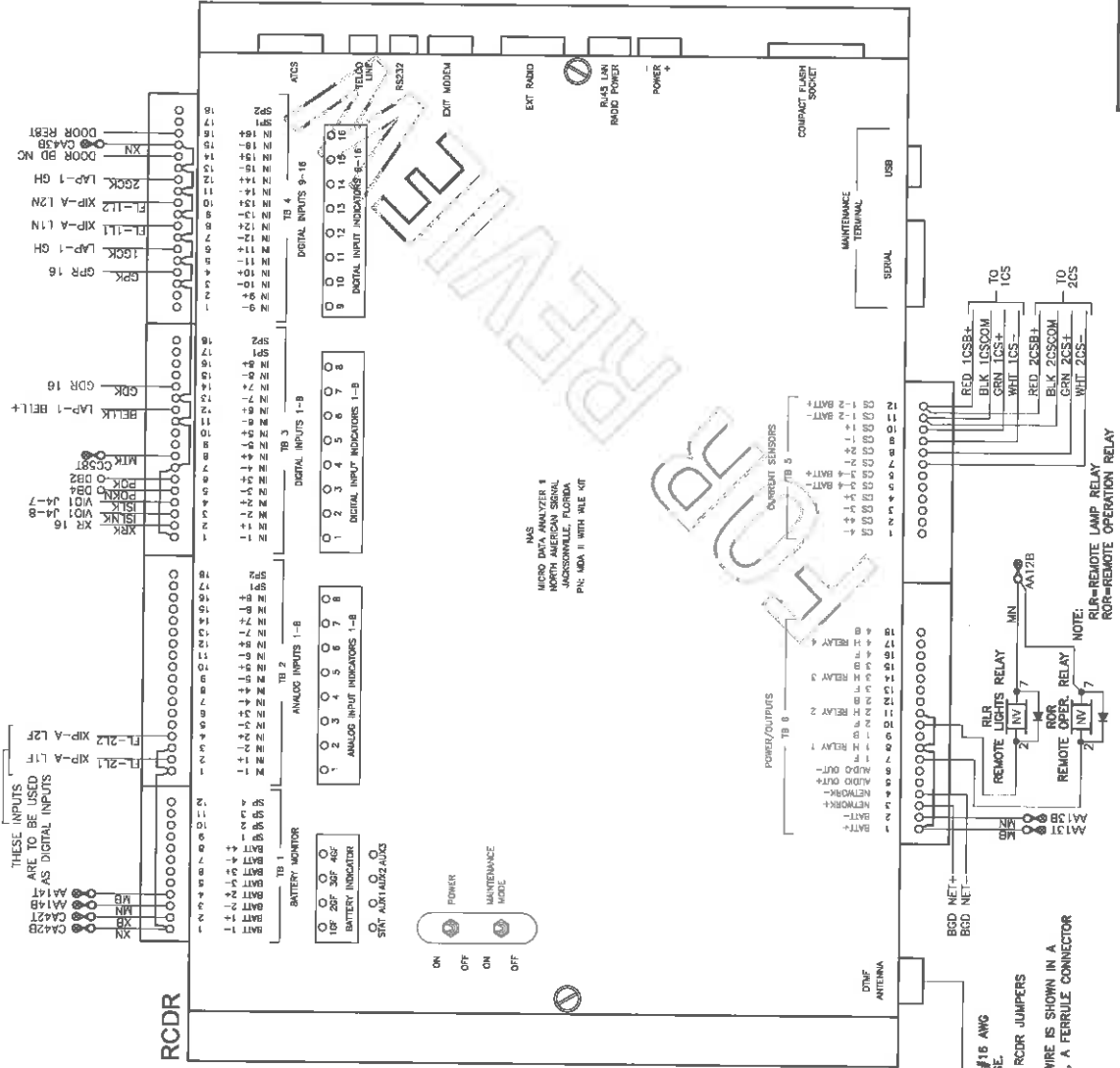
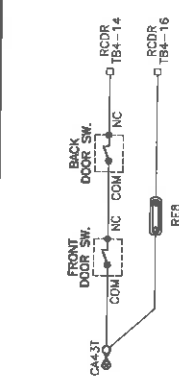
LOCATION:

GOUDY ROAD (TR 334)
near DALTON, OHIO

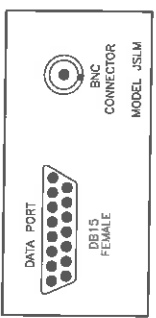
CHANGE FROM TYPICAL: Y

ORIGINAL DATE	FILE	TRACK CONNECTION CIRCUITS
06/22/2016	SW	016 NO.
	CTC	BREWSTER
	00418400	126.15
	CTC	SCALE
	CHECKER	001 NO. 473 1675
	CTC	PRDA
		0161099
		N.T.S.
		06 1 st 21

REVISION
BLOCK



VHF ACTIVATION CODES:
LIGHTS ON = 6501#
LIGHTS OFF = 6501*
GATES DOWN = 650#
GATES UP = 650*



MOUNTED INTERNAL ON MDA UNIT
DTMF RADIO
FRONT VIEW

Whooling & Lohr Inc
Trinity

GOUDY ROAD (TR 334)
near DALTON, OHIO

DATE	08/22/2016	TIME	REORDER
PROJECT	CTC	BY	BRENNER
PROJECT	CTC	NO.	128.15
PROJECT	CTC	NO.	473.1875
PROJECT	CTC	NO.	473.1875

LOCATION	GOUDY ROAD (TR 334)
LOCATION	near DALTON, OHIO

DATE	08/22/2016
TIME	REORDER
BY	BRENNER
NO.	128.15
NO.	473.1875
NO.	473.1875

LOCATION	GOUDY ROAD (TR 334)
LOCATION	near DALTON, OHIO

DATE	08/22/2016
TIME	REORDER
BY	BRENNER
NO.	128.15
NO.	473.1875
NO.	473.1875

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LOCATION	near DALTON, OHIO

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LOCATION	GOUDY ROAD (TR 334)
LOCATION	near DALTON, OHIO

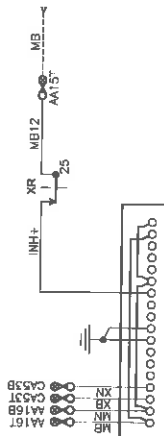
NOTES: ALL WIRING THIS SHEET #18 AWG
UNLESS NOTED OTHERWISE.

#22 AWG WIRE FOR ALL RCDR JUMPERS

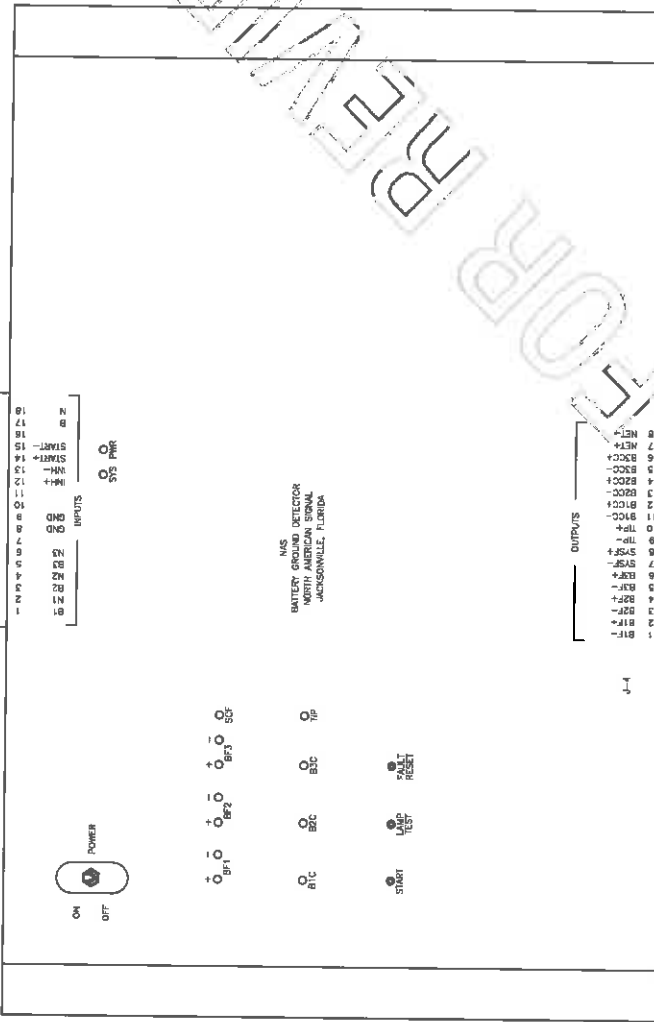
WHEN MORE THAN ONE WIRE IS SHOWN IN A
CAGE CLAMP CONNECTOR, A FERRULE CONNECTOR
SHALL BE USED.

REVISION
BLOCK

ANTENNA CABLE
NAS-4K-17
NAS-DTMF-4K-17



BGD



NAS
BATTERY GROUND DETECTOR
JACKSONVILLE, FLORIDA

NAS CONTROLLER SOFTWARE CONFIGURATION MANAGEMENT TABLE			
APPLICATION	FILE NAME	DATE	DESCRIPTION
GFD EXEC	XXX	XX/XX/XXXX	GFD MODULE EXECUTIVE

NOTES: ALL WIRING THIS SHEET #16 AWG
UNLESS NOTED OTHERWISE.
#22 AWG WIRE FOR ALL RCOR JUMPERS

WHEN MORE THAN ONE WIRE IS SHOWN IN A
CAGE CLAMP CONNECTOR, A FERRULE CONNECTOR
SHALL BE USED.

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(2 MA)

SW1 VALUES CLOSED
POSITION (BINARY)

- SW1 = 1
- SW2 = 2
- SW3 = 4
- SW4 = 8
- SW5 = 16
- SW6 = 32
- SW7 = 64
- SW8 = 128

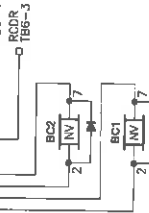
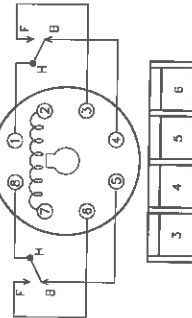
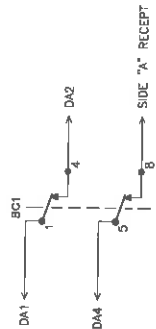
SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(12 HOURS)

SW1 VALUES CLOSED
POSITION (BINARY)

- SW1 = 1
- SW2 = 2
- SW3 = 4
- SW4 = 8
- SW5 = 16
- SW6 = 32
- SW7 = 64
- SW8 OPEN=HOUR CLOSED=DAYS



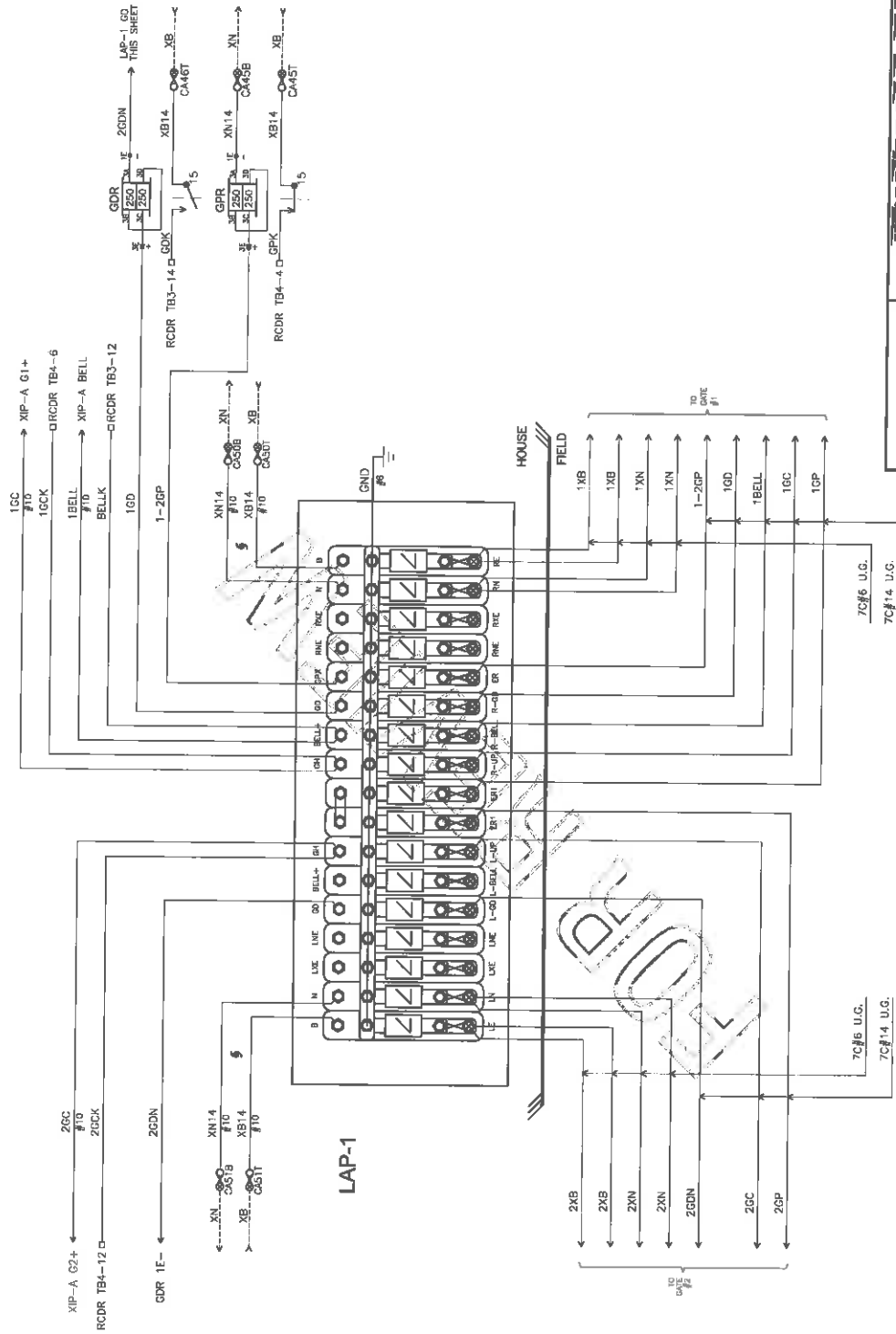
W&L
Wheeler & Latta
Railway

LOCATION
GOUDY ROAD (TR 334)
near DALTON, OHIO

CHANGES FROM TYPICAL: N

REVISION	DATE	BY	DESCRIPTION
1	06/22/2016	BGD	INITIAL
2		BREWSTER	CTC
3		CTC	RCOR
4		CTC	TBB-4
5		CTC	TBB-3
6		CTC	DA1
7		CTC	DA2
8		CTC	DA4
9		CTC	DA5
10		CTC	DA6
11		CTC	SIDE 'A' RECEPT
12		CTC	SIDE 'C' RECEPT
13		CTC	RCOR
14		CTC	TBB-4
15		CTC	TBB-3
16		CTC	DA1
17		CTC	DA2
18		CTC	DA4
19		CTC	DA5
20		CTC	DA6
21		CTC	SIDE 'A' RECEPT
22		CTC	SIDE 'C' RECEPT
23		CTC	RCOR
24		CTC	TBB-4
25		CTC	TBB-3

REVISION
BLOCK



NOTES: ALL WIRING THIS SHEET #16 AWG
UNLESS NOTED OTHERWISE.

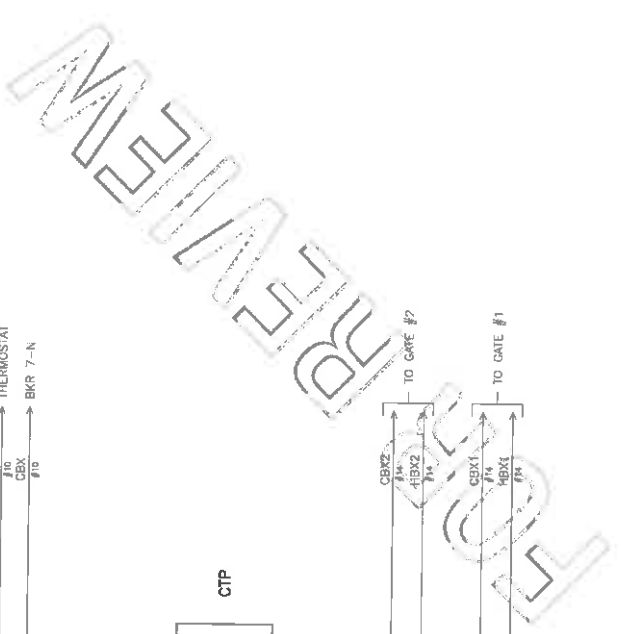
W&LE
Wheeling & Lake Erie
Railway

LOCATION: Goudy Road (TR 334)
near Dalton, Ohio

DATE	06/22/2016	TYPE	LAP-G-1
DESIGNED BY	CTC	DRAWN BY	BREWSTER
CHECKED BY	CTC	DATE	128.15
PROJECT NO.	473 1675	SHEET NO.	21

CHANGE FROM TYPICAL: N

REVISION
BLOCK



 = INSULATED NUT

W87E

LOCATION

CHANGE FROM TYPICAL: NREVISION
BLOCK

TO MAST MOUNTED FLASHERS
(SHEET 13 FOR DETAILS)
1L2 TEN 1L1

CONTACT	CLOSED	FUNCTION	TENSION
1B	75-90 DEG.	POWER DOWN	18-28 OZ.
1F	0-70 DEG.	SNUB DOWN	18-28 OZ.
2	0-66 DEG.	POWER UP	18-28 OZ.
3	0-10 DEG.	GATE DOWN	16-24 OZ.
4	82-90 DEG.	GATE CLEAR	16-24 OZ.
5	10-90 DEG.	BELL	16-24 OZ.
6	SPARE	SPARE	16-24 OZ.
7	0-2 DEG.	SNUB	16-24 OZ.

LEGEND:

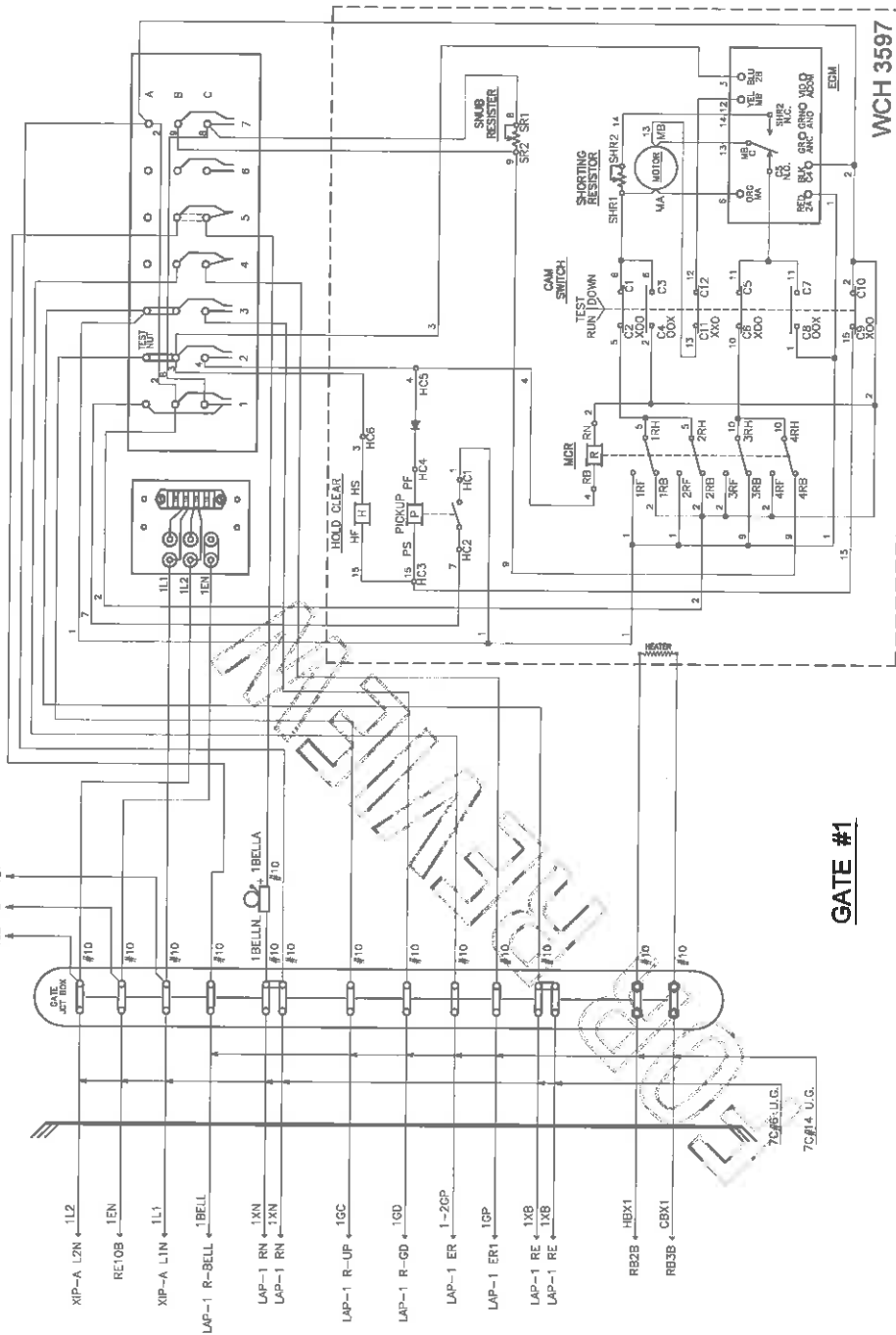
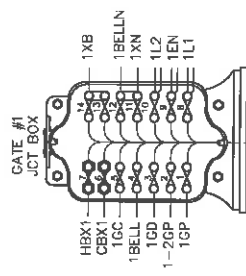
○ = INSULATED NUT

NOTES:

* BELL TO BE ELECTRONIC.
X = INTERNAL GATE WIRES THAT SHARE ELECTRICAL CONNECTIONS WITH OTHER WIRES THAT ARE ASSIGNED THE SAME NUMBER.

REFER TO SHEET 13 FOR GATE ARM LIGHT WIRING

ADD STRAP FROM:
3A TO 3B



W&LE
Wheeling & Lake Erie
Railway

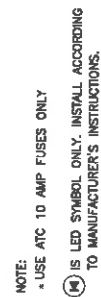
GOUDY ROAD (TR 334)
near DALTON, OHIO

LOCATION

CHANGE FROM SYMBOL N

DATE	08/23/2016	JULIE	GATE #1 MECHANISM (NEAR SIDE)
DESIGNED	CTC	BAK	BREWSTER
PROJECT	CTC	TRAP	128.15
PREPARED	CTC	DOT NO.	473 1675
		SHEET	12 OF 21

REVISION
BLOCK



NOTE:

* USE ATC 10 AMP FUSES ONLY

(M) IS LED SYMBOL ONLY. INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS

Whooling & Lalo Eto Railway

LOCATION

W87E

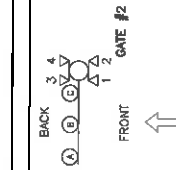
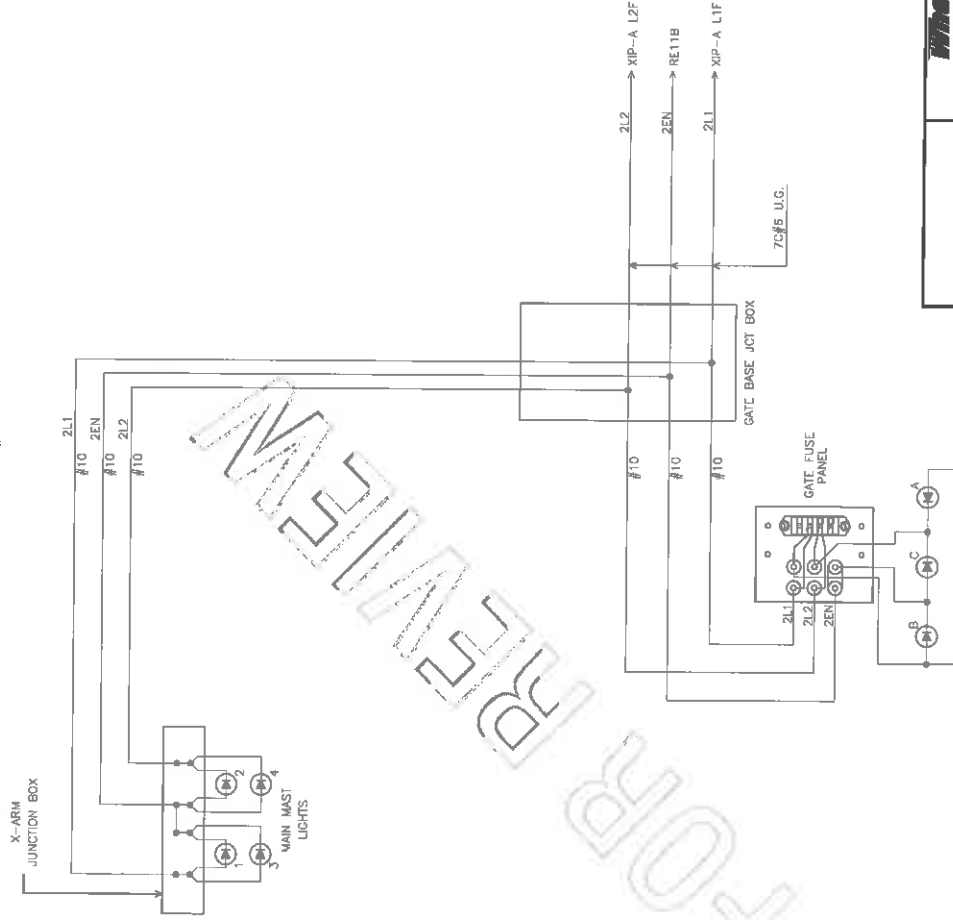
GOUDY ROAD (TR 334)
near DALTON, OHIO

	TITLE	GATE #1 LIGHTS (NEAR SIDE)
PROGRAM DATE	06/22/2018	
SAMPLE	SAM BREWSTER	CIN B99
SHIP NAME	RAMP	SOLE
	CTC	N.T.S.
	CTC	
COLLECTOR	JOHN NO. 473	1575
		SHEET 13 OF 21

CHANGE FROM TYPICAL: Y

REVISION
BLOCK

GATE #2



NOTE:
• USE ATC 10 AMP FUSES ONLY

(M) IS LED SYMBOL ONLY. INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

Wheeling & Lake Erie
Railway

LOCATION: GOUDY ROAD (TR 334)
near DALTON, OHIO

DATE	FILE	GATE #2 LIGHTS (FAR SIDE)
05/22/2018	100	128.15
DESIGNED BY	CTC	BREWSTER
CHECKED BY	CTC	128.15
DATE	100	128.15
BY	100	128.15
NO.	473	167S
SHEET	15	OF 21

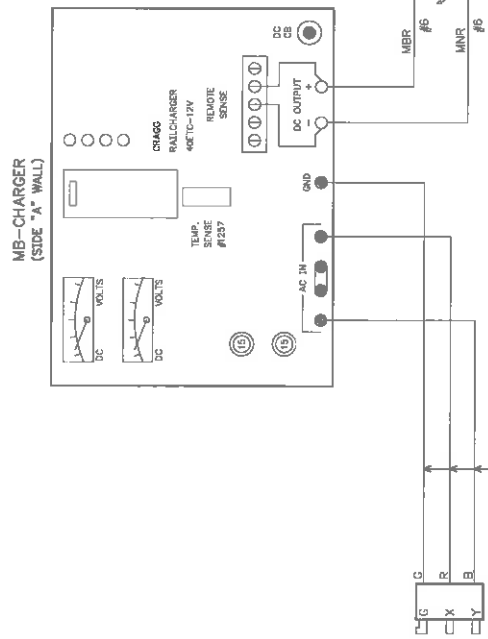
W&LE

REVISION	DATE	BY	DESCRIPTION
1			CHANGE FROM TYPICAL Y



20	W01 J3-5
19	W01 J3-2
18	W01 J3-1
17	PO D83
16	BGD N1
15	SPARE
14	RCOR TB1-3
13	RCOR TB6-2
12	RLR-7
11	MDSA-1 B-
10	MIN BATT-

MB-BATTERY

AD-CHARGER
(SIDE "C" WALL)

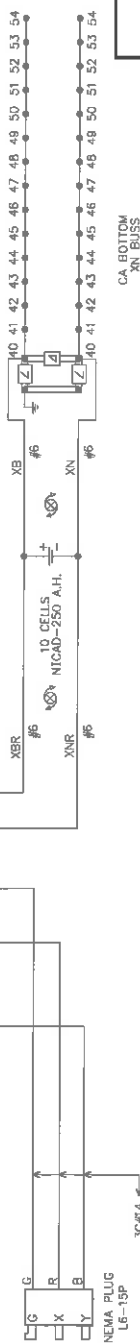
SPARE	54	SPARE	54	SPARE
BCD B2	53	BCD B2	53	BCD N2
XR 15	52	XR 15	52	SPARE
LAP-1 B	51	LAP-1 B	51	LAP-1 N
LAP-1 A	50	LAP-1 A	50	LAP-1 N
XIP-A B	49	XIP-A B	49	XIP-A N
DDR 25	48	DDR 25	48	1XC-A J5-2
DDR 12	47	DDR 12	47	1XC-A J5-10
DDR 15	46	DDR 15	46	1XP-A C1-
C568*	45	C568*	45	QPR 1E
FD COM	44	FD COM	44	1XC-A J5-14
RDR TB1-2	43	RDR TB1-2	43	1RCOR TB4-15
XIP-A LIB-B	42	XIP-A LIB-B	42	1RCOR TB1-1
XB BATT+	40	XB BATT+	40	1XP-A LIB-N
				1XN BATT-

XB BUSS
(TOP)

XN BUSS
(BOTTOM)

CA TOP
KB BUSS

XB-BATTERY

CA BOTTOM
XN BUSS

1

1

90

1

378A

1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432

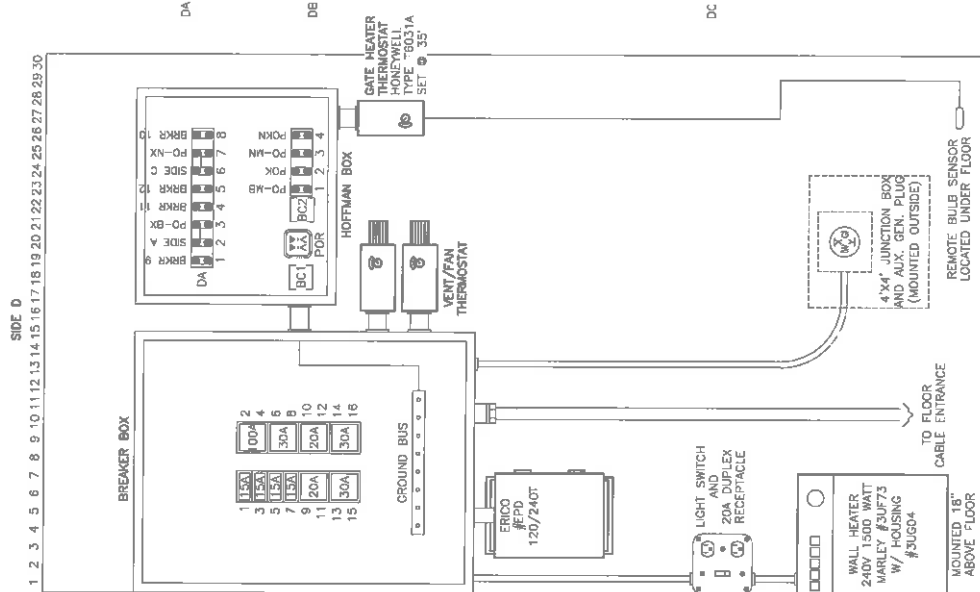
LOCATION

GOUDY ROAD (TR 334)
near DALTON, OHIO

CHANGE FROM TYPICAL: Y

REVISION
BILBY

ORIGINAL DATE	06/22/2016	WFL	BATTERY CHARGER		
DESIGNER	CTC	DATE	BREWSTER	DWG NO.	CN16089
APPROVER	CTC	GROUP	128.15	SCALE	1"=2'
CHECKER	CTC	DWG NO.	473.1675	SHEET	16 OF 21



-WHEN AC IS OFF AND BATTERY IS DISCHARGED LED IS OFF.

RELAY KRPATIAN240
TO BE USED FOR FOR RELAY

RELAY KRPA11AN240
TO BE LISTED FOR DOB RELAY

CONTACT CONFIGURATION
POTTER & BRUMFIELD
KRP411 SERIES

CHANGE FROM TYPICAL: N REVISION
B100K

Whooling & Lolo Eto

3784

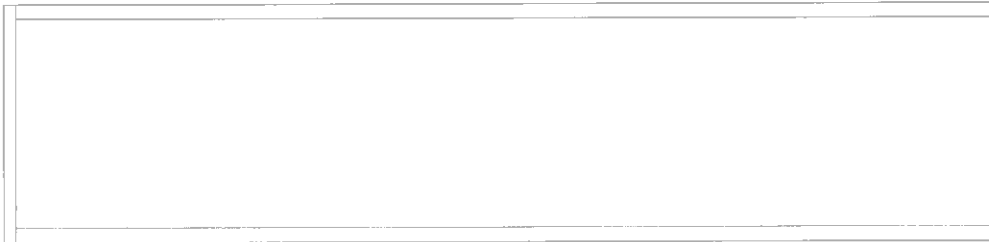
LOUDY ROAD (TR 334)
near DALTON, OHIO

ORIGINAL DATE 06/22/2016		TITLE AC POWER DISTRIBUTION	
ENGINEER	CTC	RAI	BREWSTER
DRAWN	CTC	RAI	128.15
CHECKED	CTC	DOY NO.	473 1575
			SHEET 17 OF 21

10

BACK OF RIGHT SIDE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



R9B

R9L

R9S

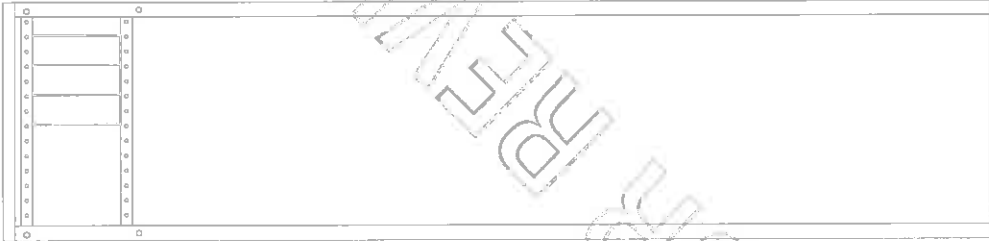
R9D

R9B

R9B

BACK OF LEFT SIDE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



L9B

L9B

L9B

L9B

L9B

SIDE 'B' BACK

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

CHANGE FROM TYPICAL: Y

REVISION
BLOCK

W&L

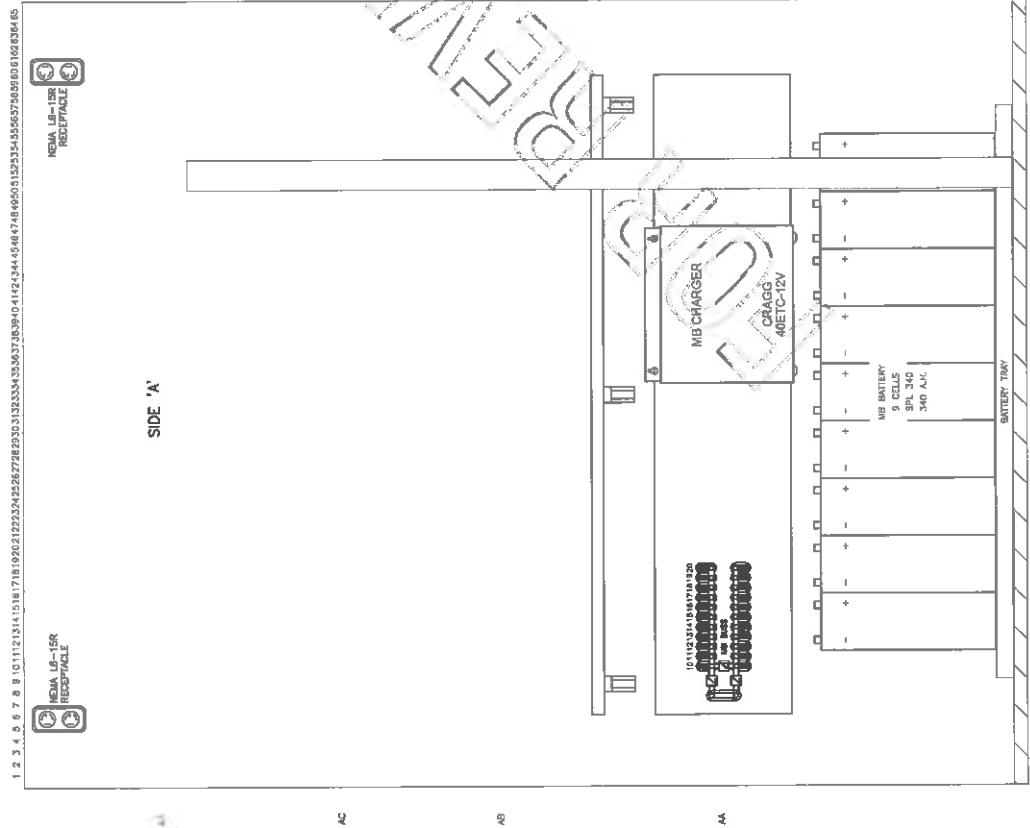
**Whooling & Lato Eto
Talley**

LOCATION

GOODY ROAD (TR. 334)
near DALTON, OHIO

ORIGINAL DATE 06/22/2016 TITLE BACK BACK VIEW

DESIGNER	CTC	DRAWN	CTC	CHECKED	CTC	DATE	06/22/2016
PROJECT	125.15	SCALE	1"=2'	SHEET	19 OF 21	PROJECT	125.15



W&L

Whooling & Lath & Co
Railway

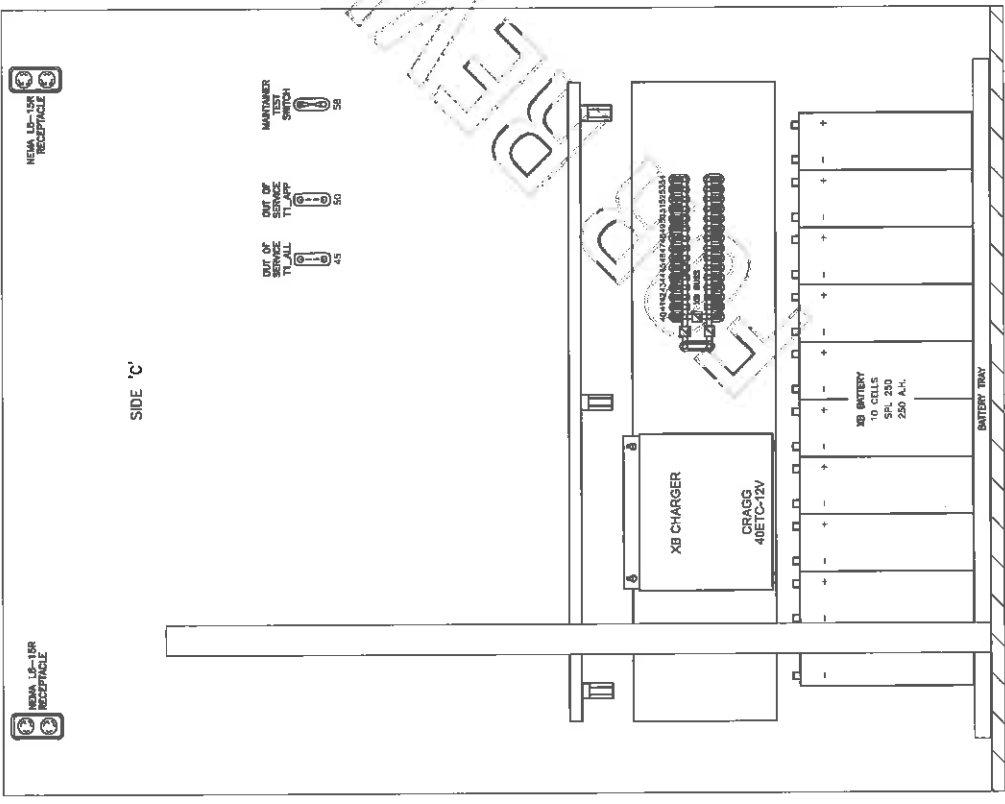
LOCATION: GOUDY ROAD (TR. 334)
near DALTON, OHIO

DESCRIPTION	DATE	BY	FOR
DESIGNED	08/22/2016	W&L	NEW
CHECKED	08/22/2016	W&L	NEW
APPROVED	08/22/2016	W&L	NEW
DATE	08/22/2016	BY	FOR
DATE	08/22/2016	BY	FOR
DATE	08/22/2016	BY	FOR

REVISION BLOCK

CHARGE FROM TYPICAL N

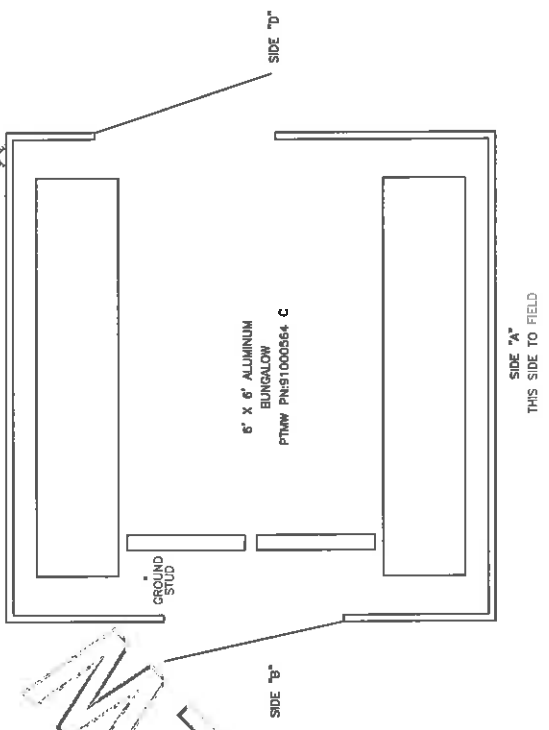
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



THIS SIDE TO TRACKS
SIDE "C"

NOTE:

P.O.I. MOUNTED ON SIDE OF HOUSE
PARALLEL TO TRACK



THIS SIDE TO FIELD

W&L

Whoolley & Latta Inc
Railway

LOCATION

GOUDY ROAD (TR 334)
near DALTON, OHIO

ISSUED DATE 06/22/2016

FILE

SIDE "C"

DESIGNER CTC

SUB BREXSTER

DATE 12/8/15

SCALE 1"=2'

PROJECT NO. 473 1675

SHEET 21 OF 21

REVISION BLOCK

CHARGE FROM TYPICAL R



OHIO RAIL DEVELOPMENT COMMISSION

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

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

June 6, 2016

Mr. Tim Andrews
Wheeling & Lake Erie Railway
100 East First Street
Brewster, Ohio 44613

RE: Wayne County, Goudy Road
DOT 473167S, PID 101928

Dear Mr. Andrews:

A diagnostic review was held at the above grade crossing on October 14, 2015. The crossing has been recommended for the installation of lights and gates.

WLE
NS 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 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 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: George Martin, PUCO, Grade Crossing Planner
ORDC (file)



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY



Diagnostic Review Team Survey

Reason for Survey:

(e.g. formula, accident, constituent, etc.)

Formula

Date:

10-14-2015

Location Data

Street or Road Name: Goudy Rd			
Route/Road Number (i.e. Twp., Co., SR or US) TR 334		US DOT No.: 473167S	
County: WAY	Township: Sugar Creek Twp	City: (In or Near) Near Dalton	
Railroad Name: Wheeling & Lake Erie RR	Railroad Division:	Branch/Line Name: Main	
Nearest RR Timetable Station: Dalton		RR Milepost: 128.15	

On-Site Review Team

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

1. John Berhardt ORDC 614-644-0291
2. George Martin PULC 614-752-9107
3. Melvin R. Wynn Inc - 330-857-3481
4. Tim Andrews WLE 330-417-5541
5. _____
6. _____
7. _____
8. _____
9. _____

Existing Traffic Control Devices

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

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

	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	0	
Hazard Ranking	1302	Date Run: 8/18/15

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	12	
< 1 per day		
Day thru trains	6	
Night thru trains	6	
Daytime switching movements		
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	50	40
Typical train speed	50	40
Amtrak		

If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) ☐ Yes ☒ No

If multiple tracks, can two trains occupy crossing at the same time? ☐ Yes ☒ No

Can one train block the motorists' view of another train at crossing? ☐ Yes (Explain below) ☒ No

Can one or more tracks be eliminated through the crossing? ☐ Yes ☒ No

Are there other track(s) crossing this same roadway within 100 ft of this crossing? ☐ Yes ☒ No

If yes, Crossing DOT #(if different) _____

If yes, distance _____ (take measurement between track centerlines at closest point along roadway)

Roadway Data

Local Highway Authority: Sugar Creek Twp.

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	151 (2013)	
Highway paved	☒ Yes ☐ No	☐ Yes ☐ No
Roadway Surface: ☒ Blacktop ☐ Gravel ☐ Concrete ☐ Other _____		
Roadway width: <u>10</u> ft.		
Number of highway lanes	<u>2</u>	
Urban or Rural	<u>Rural</u>	
Vehicle Speed: <u>55</u> MPH	<u>55</u>	
School Bus Operation: ☐ No ☒ Yes <u>4</u> Amount		
Hazardous Materials Trucks: ☐ No ☐ Yes <u>.05</u> Amount		
Shoulders: ☒ No ☐ Yes		
Is the shoulder surfaced? ☒ No ☐ Yes		
Is there existing guardrail along roadway in crossing vicinity? ☒ No ☐ Yes		
Is stopping site distance adequate? (See Table 2) ☒ Yes ☐ No If no, deficient approach(es) _____		

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

Pedestrians: ☒ No ☐ Yes
 Is sidewalk present? ☒ No ☐ Yes

Is there a nearby intersection that could cause queuing over the crossing? ☒ No ☐ Yes
 If yes,
 Distance _____
 Is this intersection signalized? ☒ No ☐ Yes
 Are the signals currently interconnected with the existing crossing warning devices? ☒ No ☐ Yes
 Is there a 'Do not Stop on Track' sign? ☒ No ☐ Yes

Is a roadway improvement project (e.g. widening, turn lanes, nearby new or upgraded traffic signal, sidewalk) planned at or near this location in the foreseeable future? ☒ No ☐ Yes
 If yes,
 Improvement type _____ Lead Agency _____ Timeline/completion - _____

Is it the consensus of the Diagnostic Review Team that this is a potential closure project? ☒ No ☐ Yes
 Explain reasons:
 Used Often for buses & Farm Fields All Quads.

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

Utility Information

Is commercial power available? ☒ No ☐ Yes
 Utility Provider (Company Name) AEP Phone Number _____
 Nearest Available Power Source _____
 What other utilities are present? (add locations to sketch)
☐ Gas ☐ Cable ☐ Telephone ☐ Fiber Optic Cable
☐ Petroleum ☐ Water ☐ Sanitary Sewer
☐ Other _____
 Is(are) there potential utility conflict(s) ☐ Yes ☐ No ☒ Unknown
 Comments:

Potential Red Flags / Project Challenges

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

Crossing Consolidation or Closure:

Real Estate or ROW:

Culverts / Drainage / Ballast Conditions:

Roadway and/or Sidewalks:

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

Environmental:

Other:

QWK
10-14-15

Diagnostic Team Recommendations

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

Comments:

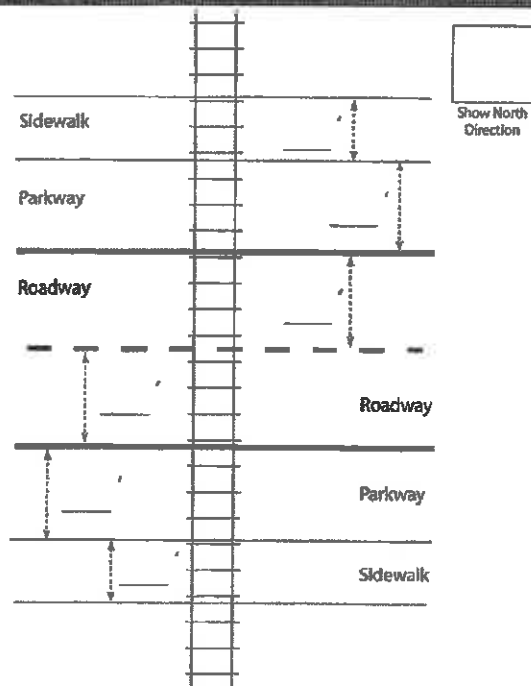
Berm Walls Need & Poor 250' Sect / Poor Surface

☐ Install/upgrade traffic signal preemption	
☐ No Improvements needed	
☐ Other (define)	

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

 M. R. W.
  TSA

Field Dimensions



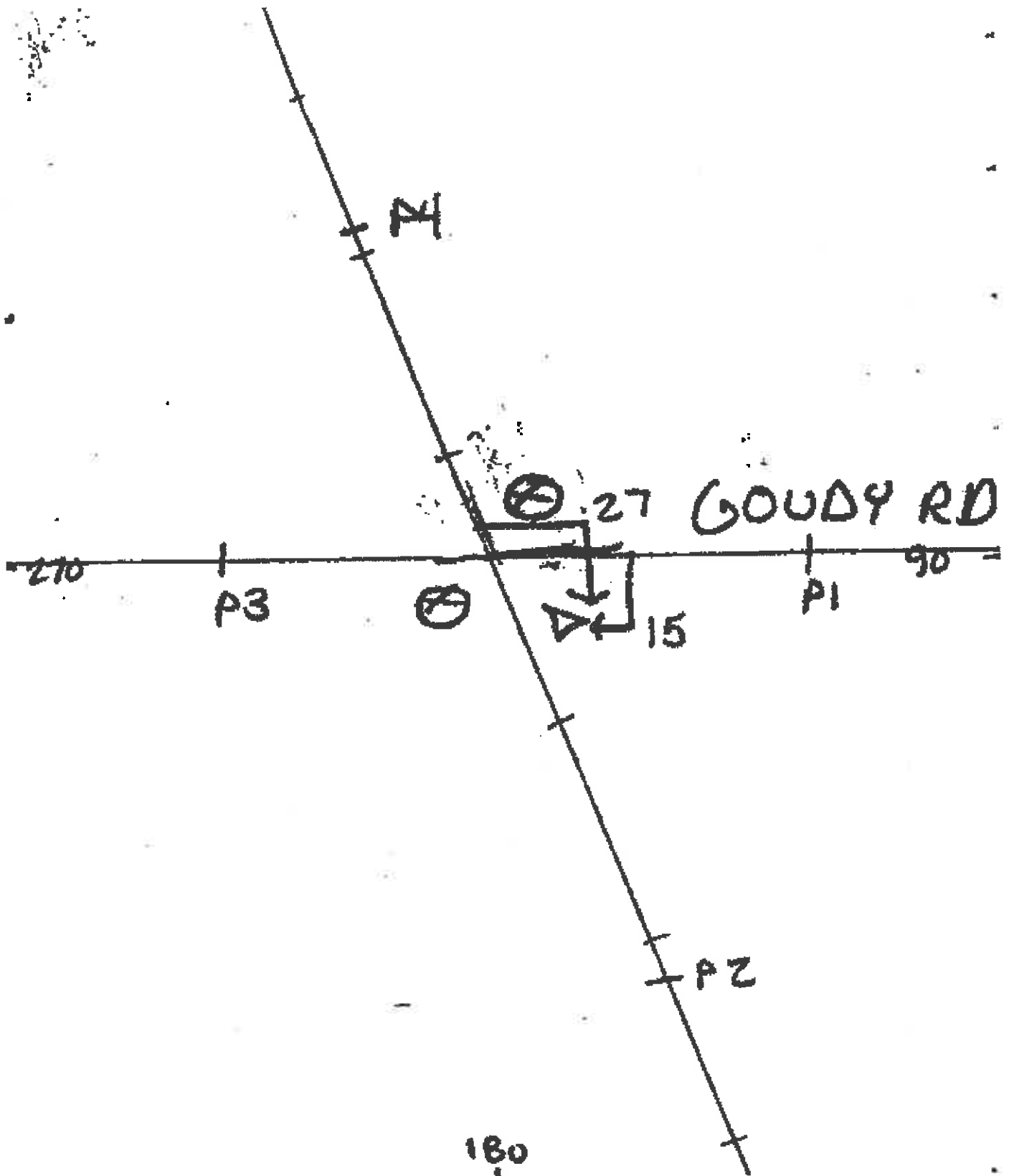


TABLE 1

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.

Handwritten signature
12-14-15

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

10/7/2016 9:32:11 AM

in

Case No(s). 16-1991-RR-FED

Summary: Application In the Matter of A Request for the Installation of Active Warning Devices at the Wheeling & Lake Erie Railroad Crossing, DOT#473-167S, Goudy Road in Wayne County, Ohio. electronically filed by Mrs. Jill A Henry on behalf of PUCO/Rail Division