# Memo

To.	Dookoting	
To:	Docketing	DIVISION

From: Jill Henry, Rail Specialist, Rail Division

Cc: PUCO Legal Department

**Date:** 03/18/2019

**Re:** PUCO Case No. 19-650-RR-FED- In the Matter of a Request for the Installation of Active Warning Devices at the Wheeling & Lake Erie Railroad Grade Crossing, DOT# 482-704N, at Camp Industrial Road in Cuyahoga County, Ohio.

On February 22, 2018, the Ohio Rail Development Commission (ORDC) authorized funding for Wheeling & Lake Erie Railroad (WE) to install lights and gates at Camp Industrial Road in Cuyahoga County, Ohio. The crossing was surveyed, on October 18, 2017, and was found to warrant the upgrade. The electric utility provider for this crossing is Cleveland Electric Illuminating-First Energy Corp.

The project will be paid for with federal funds and is actual cost. The plans and estimates for the project in the amount of \$190,245.62 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 <u>railroad will be responsible</u> 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 Columbus, OH 43223

City of Solon John Busch City Engineer 34200 Bainbridge Road Solon, OH 44139

Cleveland Electric Illuminating-First Energy Corp.

### OHIO RAIL DEVELOPMENT COMMISSION INTER-OFFICE COMMUNICATION

TO:	Randall Schumacher, Rail Division, PUCO
FROM:	Cathy Stout, Manager, Safety Section, ORDC
BY:	James Tucker, Project Manager, ORDC 」、て、
SUBJECT:	Cuyahoga County, Camp Industrial Rd. DOT #482 704N Wheeling & Lake Erie, PID 107138
DATE:	March 5, 2019

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on October 18, 2017. 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 <u>railroad will be responsible</u> 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)



March 6, 2019

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

RE: Cuyahoga County, Camp Industrial Rd. DOT#482704N, PID#107138

Dear: Mr. Andrews

The bid process for the referenced project is acceptable. The Wheeling & Lake Erie (WLE) may proceed with the construction of the proposed grade crossing warning system in accordance with the abbreviated plan stamped October 2, 2018. This authorization is made with the stipulation and understanding that the approved estimate dated March 5, 2019 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 \$190,245.62. 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 but must be confirmed in writing within ten (10) business days of the verbal approval.

This authorization is contingent upon WLE accepting the following instructions:

- WLE's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to James Tucker, ORDC, email james.tucker@dot.ohio.gov, and to the Public Utilities Commission of Ohio, email Jill.henry@puco.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. If it is known that there are utilities that need to be relocated the WLE needs to start that coordination work as soon as possible in order to avoid project delays.
- 3. WLE's project foremen will notify James Tucker at 614-398-6897 (telephone) or james.tucker@dot.ohio.gov (email) of any changes in the scope of work, cost overruns, material changes, etc. which are not included in the approved plan and estimate and secure approval of same before the work is performed.



- 4. Open cut of roadways is *not permitted* except in unusual circumstances and must be coordinated with the local highway authority and preapproved by ORDC.
- 5. WLE will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed Purchase Order to reference when billing.
- 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,

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James Tucker Project Manager

Attachment: ODOT P.O.

C: Randall Schumacher, Supervisor, Rail Division, PUCO Jill Henry, Rail Division Specialist, PUCO ORDC (file)

### WHEELING & LAKE ERIE RAILWAY COMPANY

Tim Andrews Signal & Communication Supervisor Tel. 330-767-7255 March 5, 2019

tandrews@wlerwy.com

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

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

Re: Estimate for Railroad Crossing Warning System at Camp Industrial Rd (DOT 482-704-N)

Dear Mr. Tucker,

I am providing the updated bid cost for Camp Industrial Rd. Award of the material package will go to Progress Rail Services. Installation will be performed under our continuing construction agreement with CTC LLC.

Engineering Services, CTC (breakout attached)	\$134,966.85
Fill Materials, transport, hauling	\$5,500.00
Preliminary Installation Services, Crosier (breakout attached)	\$35,450.77
Electric Service, Emery	\$5,950.00
Electric Utility fees	\$2,500.00
WLE Direct Signal Labor	\$5,000.00
Galvanized signal foundations	\$878.00
TOTAL	\$190,245.62

Please contact me if additional details are required.

Respectfully,

Tim Andrews

Notes 1: Direct purchase of the 60" galvanized gate foundation, \$439.00 ea.



December 10, 2018

Mr. Tim Andrews Wheeling & Lake Erie Railway 100 E. First St. Brewster, Oh 44613

RE: Cuyahoga County, Camp Industrial Rd, DOT #482704N, PID#107138

Dear Mr. Andrews:

The plan and estimate transmitted November 16, 2018, for the referenced project has been reviewed and is acceptable. Wheeling & Lake Erie may proceed with soliciting bids for 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.

A construction authorization will be sent once the bid documents have been received and approved. No field work may be started without a construction authorization from this office.

Sincerely,

James Tucker, Project Manager Ohio Railroad Development Commission

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

# WHEELING & LAKE ERIE RAILWAY COMPANY

**Tim Andrews** Signal & Communication Supervisor

**100 East First Street** Brewster, OH 44613

Tel. 330-767-7255 16 November 2018 tandrews@wlerwy.com

Fax: 330-767-3213

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

Re: Estimate for Railroad Crossing Warning System at Camp Industrial Rd (DOT 482-704-N)

Dear Mr. Tucker,

I am providing this estimate for the crossing package and installation at Camp Industrial 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)	\$112,485.19
Fill Materials, transport, hauling	\$5,500.00
Preliminary Installation Services, Crosier (breakout attached)	\$35,450.77
Electric Service, Emery	\$5,950.00
Electric Utility fees	\$2,500.00
WLE Direct Signal Labor	\$5,000.00
Galvanized signal foundations	\$878.00
TOTAL	\$167,763.96

Please contact me if additional details are required.

Respectfully.

**Tim Andrews** 

Notes 1: Direct purchase of the 60" galvanized gate foundation, \$439.00 ea.

# **Bid Template**

Name of Bidder:	CTC Inc.
Address:	9601 Camp Bowie West
Phone:	817-886-8243
Fax:	817-886-8225
Date:	
Project Location(s):	Camp Industrial Road - Solon, OH. MP. 3.10 DOT# 482 704N

LABOR	Hours	Rate	Ext.
Signal Engineer	4	\$ 100.00	\$ 400.00
Signal Designer	10	\$ 33.65	\$ 336.50
Project Engineer			
Project Administrator			
Signal Circuit Checker	4	\$ 52.88	\$ 211.52
CAD Draftsman	24	\$ 24.00	\$ 576.00
Engineering Assistant			
Construction Manager	24	\$ 43.27	\$ 1,038.48
Project Manager	8	\$ 33.65	\$ 269.20
Signal Supervisor			
Signal Foreman	80	\$ 28.50	\$ 2,280.00
Assistant Foreman	80	\$ 26.00	\$ 2,080.00
Signalman			
Signal Helper	160	\$ 20.00	\$ 3,200.00
Accountant/Billing Clerk			
Other 1			
Other 2			
Other 3			
Total Labor Bid			\$ 10,391.70

MEALS, LODGING AND TRAVEL	Days	Rate	Amount
Meal Per Diem	32	\$ 30.00	\$ 960.00
Lodging Per Diem	32	\$ 70.00	\$ 2,240.00
Airfare			
	Miles	Rate	
Vehicle Mileage			
Total Meals, Lodging and Travel			\$ 3,200.00

<u>EQUIPMENT</u>		Days/Hours	Rate	Amount
Pickup Truck/Foreman's Truck		8	\$ 150.00	\$ 1,200.00
Backhoe		8	\$ 150.00	\$ 1,200.00
Other 1	High Reach Forklift	8	\$ 175.00	\$ 1,400.00
Other 2	Equipment Delivery/Pickup	2	\$ 200.00	\$ 400.00
Other 3	Crew Trailer	80	\$ 7.55	\$ 604.00
Other 4				
Other 5				
Other 6				
Other 7				
Other 8				
Other 9				
Other 10				
Total Equipment				\$ 4,804.00

SUBCONTRACTORS	Name		Amount
Subcontractor 1			
Subcontractor 2			
Subcontractor 3			
Subcontractor 4			
Subcontractor 5			
Subcontractor 6			
Subcontractor 7			
Subcontractor 8			
Total Subcontractors			\$ -
ADDITIVES/RATES		Rate	Amount

ADDITIVES/RATES	Rate	Amount
Fringe Benefit Rate to Labor	30.61%	\$ 3,180.90
General and Administrative Overhead Rate to Labor	120.46%	\$ 12,517.84
General Liability Rate to Labor	12.93%	\$ 1,343.65
Other Approved Additive Rate		
Total Additives		\$ 17,042.39
Profit/Fee Rate to Labor and Additives	12.00%	\$ 3,292.09
TOTAL AMOUNT OF ESTIMATE		<b>\$ 38,730.18</b>

Please complete all relevant fields shaded in gray.

Orange, blue and yellow cells contain formulas that cannot be edited.

Per ODOT/ORDC policy, overheads are reimbursable only when applied to direct labor dollars. Per ODOT/ORDC policy, profit is reimbursable only when applied to direct labor and overhead. Other cost items such as meals, subcontractors, equipment, etc., are not eligible for profit.

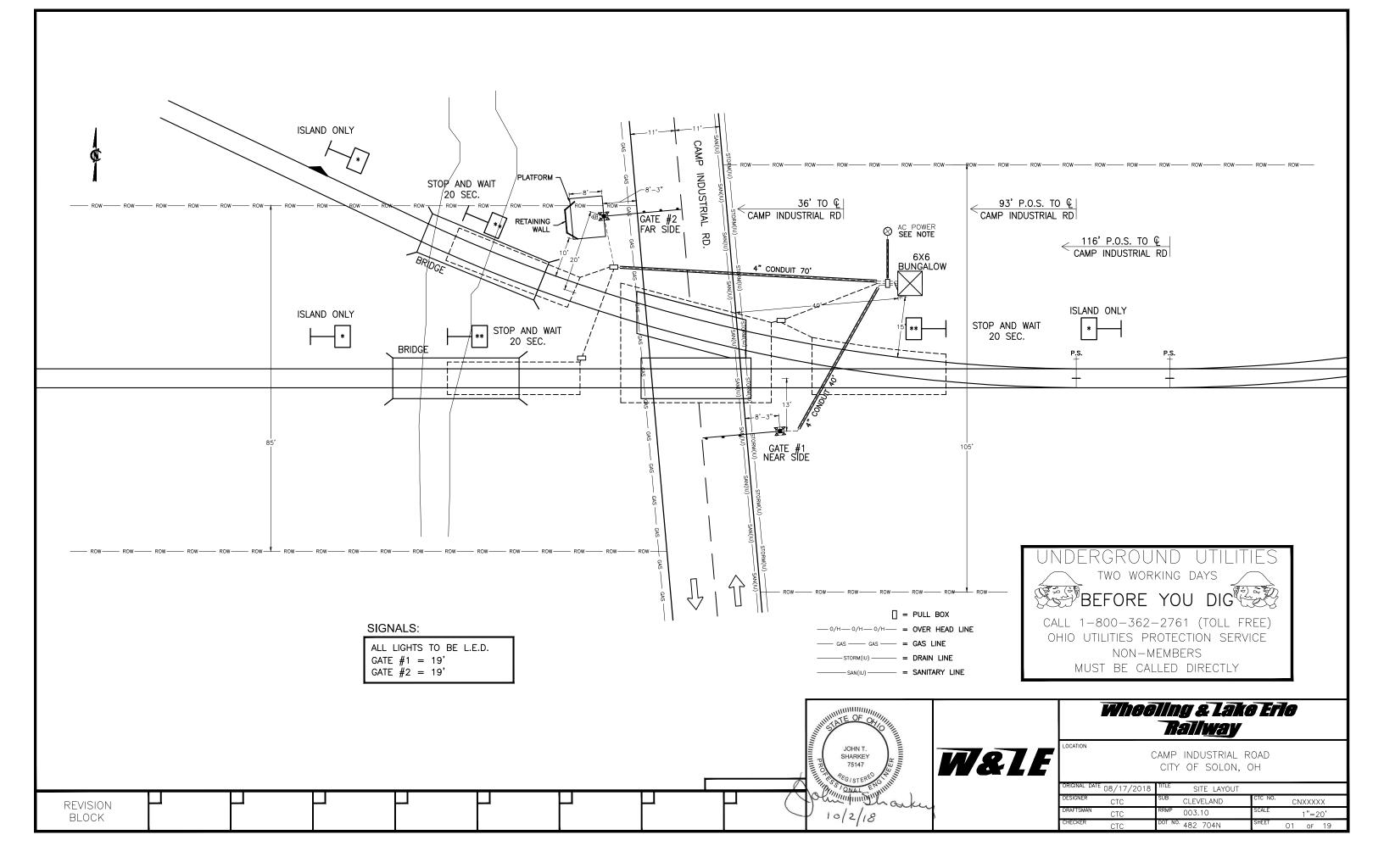
W&LE/ABC Basic House Materials				
DESCRIPTION	QTY	UOM	UNIT PRICE	TOTAL PRICE
Bungalow, Alum. 6 X6 w/Heater P/N 91000564 D-1, PTMW (WLE SPECS)	1	EA	\$9,477.00	\$9,477.00
Assembly Board Equipment 20.31x12.00x0.75, CLSC2 w/Hardware, PTMW	4	EA	\$24.00	\$96.00
Assembly Board Equipment 40.75x12x0.75, CLSC2 w/Hardware, P/N 31217, PTMW	1	EA	\$40.00	\$40.00
Wrench, AAR terminal - 11", P/N 032619-9X, Siemens	1	EA	\$43.63	43.63
Sensor, Hermetic Door Switch, P/N 70168986, Allied Electric	2	EA	\$4.99	9.98
Actuator, Hermetic Door Switch, P/N 70168991, Allied Electric	2	EA	\$1.99	3.98
Decal, Danger 240V (5"X3.5"), P/N 3XDU5, Grainger	1	EA	\$2.94	\$2.94
Decal, MUTCD Emergency Notification, 30"X18", Eagle Traffic	1	EA	\$68.00	\$68.00
Wire, Case, #16AWG 1000' spool, Blue, P/N 152-11-3002, Okonite	0.5	EA	\$198.00	\$99.00
Wire, Case, #10AWG 1000' spool, Blue, P/N 152-11-3038. Okonite	0.5	EA	\$407.00	\$203.50
Wire, Case, #6AWG, Green, P/N N6GNM, Reynolds	100	FT	\$0.35	\$35.00
Wire, Case, #6AWG, Black, P/N N6BM, Reynolds	100		\$0.35	\$35.00
Wire, Case, #6AWG. Red, P/N N6RD, Reynolds	100		\$0.35	\$35.00
MDA-ll With Current Sensors DTMF Radio and GFD - Complete, P/N NAS-WLE, NAS	1	EA	\$6,431.00	\$6,431.00
Controller, SSCC III, 40 Amp, P/N 9000-91160-0101		EA	\$4,120.00	\$4,120.00
Surge Panel, LSP, P/N 9000911700002, Siemens		EA	\$1,114.00	\$1,114.00
U1400, Shelf Mount Detector, 8 Vital Outputs, Reno A&E		EA	\$3,630.00	\$3,630.00
Harness for U1400, 3', P/N 805-3-S, Reno A&E		EA	\$429.00	\$429.00
Wago Terminal Strip w/Reset Button - U1400, P/N CTC-20-1021, CTC Inc.		EA	\$250.00	\$250.00
Wago, Terminal Block, Gray, P/N 280-901, Anixter		EA	\$1.20	\$9.60
Wago, Intermediate Plate, P/N 280-309, Anixter	2	EA	\$0.50	\$1.00
Wago, End Stops, P/N 249-117, Anixter	2	EA	\$0.70	\$1.40
Din Rail, 2 meters, P/N 210-112, Anixter		EA	\$8.95	\$8.95
DinRail End Guard, P/N 209-109, Anixter	2	EA	\$0.95	\$1.90
Relay, 8-pin KRPA style, 10A/240V, P/N 70198711, Allied	1	EA	\$18.62	\$18.62
Relay, 8-pin KRPA style, 10A/12VDC, P/N 70199265, Allied	4	EA	\$15.87	\$63.48
Socket, 8-pin KRPA style, P/N 70199343, Allied		EA	\$5.61	\$28.05
Spring, Hold down for KRPA style relay, P/N 70198576, Allied		EA	\$0.33	\$1.65
Charger, ETC-12V, 40 Amp, P/N 520740, Railway Equipment Co.	2	EA	\$590.00	\$1,180.00
Battery, NiCad 250 A.H., P/N SPL-250, Saft	19	EA	\$225.00	\$4,275.00
Terminal, Battery, 3-PT, P/N 225481-000, J&A Industries	4	EA	\$24.25	\$97.00
Battery Tray 12'x27", P/N 027002-001, J&A	4	EA	\$48.00	\$192.00
Nema Plug, Locking, 15 Amp/240V, P/N L6-15P, Reynolds	2	EA	\$14.50	\$29.00
Power Indicator, 2 Eye/4 Wire, P/N LC2-001WB-WG4, Velcorp Gems		EA	\$139.56	\$139.56
SO Cord, 14 AWG/4 Conductor, P/N SJOOW-14-4-BLK-250R, Graybar	100		\$0.73	\$73.00
Tie-wrap, 11 1/2", PKG 100, Black, P/N LTS11-0, Vantex		EA	\$20.21	\$20.21
Tie-wrap, mounting, PKG 100, P/N TYM, Vantex		EA	\$27.44	\$27.44
Loom, Spiral Wrap 100', Black, P/N SW38-0, Vantex		EA	\$48.54	\$48.54
Panduit, Wire Duct, 2"X3"X6' Gray, P/N G2X3LG6, Graybar		EA	\$4.61	\$13.83
Panduit, Cover, 6' Gray, P/N C2LG6, Graybar		EA	\$1.16	\$3.48
Terminal, 2X6 W/ Flat nut/washer, P/N 220-0101, Rebel		EA	\$10.45	\$62.70
Terminal, Block, 2 3/8" center - 2 post w/hardware, P/N 220-0301, Rebel		EA	\$3.95	\$23.70
Terminal, 4-post, Block Kit, w/ 14-24 AAR Hardware, P/N B2700A2C1WH, Erico		EA	\$21.15	\$126.90
RailSurge Plane Strip Busbar (36"), P/N B2700HC36, Erico		EA	\$36.90	\$36.90
Connector, 2 3/8", strap style, P/N 220-0507, Rebel		EA	\$0.70	\$2.80
Connector, 1", flat, strap style, P/N 220-0501, Rebel		EA	\$0.30	\$10.80
Arrestor, Air Gap, With Cover, P/N 4000-44585-001X, Siemens		EA	\$24.80	\$148.80
Equalizer, Air Gap, with Cover/Hardware , P/N 4000-44700-001X, Siemens		EA	\$23.36	\$46.72
Binding Nut, P/N 13073-000, Rebel	100		\$0.18	\$18.00
Clamp Nut, P/N 13079-000, Rebel	100		\$0.14	\$14.00
Insulated Nut, 1 3/16", P/N 023408-1X, Safetran		EA	\$4.00	\$80.00
Washer, P/N 013074-000, Rebel	100		\$0.07 \$0.55	\$7.00 \$19.70
Gold Test Nut, P/N 13296-001, Rebel		EA	\$0.55 \$1.75	\$18.70 \$59.50
1' Test Link, Flat, P/N 32257-002, Rebel		EA		\$59.50 \$49.00
Terminal Ring, HD, 1/4", insulated, #14 - #16 (yellow w/blk stripe), P/N 2-320569-6, Arrow Elect.	100		\$0.48	\$48.00
Terminal, Ring, 1/4", insulated #14 - #16 (100 pk), P/N NB14, Vantex	1	EA	\$29.87	\$29.87
Terminal, Ring, 1/4" insulated, #10 - #12 (100 pk), P/N NC14, Vantex		EA EA	\$31.24 \$0.67	\$31.24 \$6.70
Terminal, Ring, 1/4" insulated, #6, Blue, P/N T6-14N, Vantex		EA EA	\$0.67	\$6.70 \$7.76
Terminal, Ring, 3/8" non-insulated, #6, Battery Lug, P/N T6-38, Vantex	8	EA		
			TOTAL	\$33,136.83

W&LE/ABC Basic Field Materials				
DESCRIPTION	QTY	UOM	UNIT PRICE	TOTAL PRICE
Cable, 7/C#6, Armored, 206-11-6247, Okonite	250	FT	\$8.11	\$2,027.50
Cable, 7C#14, Armored, 206-11-6887, Okonite	250	FT	\$2.99	\$747.50
Cable, 3C#6, Armored, #206-11-6243, Okonite	150	FT	\$6.00	\$900.00
Loop, RR-418, Red Razzbury Lead in cable, P/N 380-4-4-00, Reno A&E	750	FT	\$3.57	\$2,677.50
Loop Splice Kit, RR-418, P/N CTC-SK-00, Reno A&E	4	EA	\$159.00	\$636.00
Loop Junction Box, CTC-JBK-25, Reno A&E	4	EA	\$182.00	\$728.00
Loop Corner brackets, P/N 428-0021-01, Reno A&E	12	EA	\$7.47	\$89.64
Halex, 3/4" EMT conduit strap, Model 26152	60	EA	\$0.21	\$12.60
Sign, "Stop and Wait 20 Sec", White, Hall Signs	3	EA	\$58.02	\$174.06
Sign, "Island Only", White, Hall Signs	3	EA	\$58.02	\$174.06
Post, 10' #3 Galv U-channel, P/N 089-005000, Hall Signs	6	EA	\$43.80	\$262.80
Hardware, Vandal-Resistant, P/N 400-018301, Hall Signs	6	EA	\$3.50	\$21.00
Bond Wire, 7 1/2" XS Style, P/N SBS24883, Erico	100	EA	\$5.12	\$512.00
Connector, Track, Web of Rail, P/N SBTBBU4A, Erico	100	EA	\$4.63	\$463.00
Rail Welding Material F80, P/N SB25, Erico	200	EA	\$1.56	\$312.00
Wheel, grinding, P/N SB22122, Erico	2	EA	\$35.87	\$71.74
5/8" X 8' Copper Ground Rod P/N 615880. Erico	6	EA	\$9.50	\$57.00
5/8" Ground Rod Weld, P/N SBNT1161G, Erico	6	EA	\$4.48	\$26.88
Wire, Ground, #6AWG, Bare Copper, Graybar	60	FT	\$0.34	\$20.40
Mast, Gate, 18'X5" w/pigtail (single-sided Jct Box), P/N 715-324-2-GS, WCH	2	EA	\$578.00	\$1,156.00
Jct box, Gate, 5" single hole w/24 terminals, P/N 2149-A-139, WCH	2	EA	\$462.00	\$924.00
Pinnacle, 5", P/N 010-9034, Rebel	1	EA	\$17.00	\$17.00
Gate, Model 3597, P/N 3597-131-P-H-M1 (WLE Spec), WCH	2	EA	\$3,762.00	\$7,524.00
Platform, Aluminum, Ground Access, P/N 9453001330, Progress	1	EA	\$1,600.00	\$1,600.00
Crossarm Assy, 5" Mtg., 2 Way, P/N 975-0804-5, WCH	2	EA	\$697.00	\$1,394.00
Lights, 12" LED, P/N 433121680XLTC-00, Arms	8	EA	\$74.00	\$592.00
Counterweight Package, P/N 070755-18X, Siemens	2	EA	\$3,261.00	\$6,522.00
Sign, Crossbuck, No brackets/hardware, P/N 070-0065, Rebel Railway	2	EA	\$84.00	\$168.00
Sign, "2 Track" No hardware, P/N 070-0065, Rebel Railway	2	EA	\$48.00	\$96.00
5" Sign Kit, Brackets/extensions/Ubolts/hardware, P/N 070-5008, Rebel Railway	7	EA	\$56.70	\$396.90
Wind Bracket, 36'', P/N 191036, NEG	2	EA	\$136.00	\$272.00
Bell, Electronic, 5" Base, P/N EB-3-360-5, GSI	1	EA	\$195.00	\$195.00
Gate Keeper, 2-Way, w/Hardware & Buffer Spring, P/N SK-1000-2W, GSI	2	EA	\$1,100.00	\$2,200.00
E-Z Gate (Vertical stripe) LED gate w/lamp kit, P/N 9298-6154, Railway Equip	2	EA	\$649.00	\$1,298.00
Sleeve, 4' Aluminum, P/N 92958, Railway Equipment	2	EA	\$39.00	\$78.00
Wrench, Torque (KIT), P/N 2590-K-9, WCH	1	EA	\$191.00	\$191.00
Sign, Emergency, ENS, 15"X9" Blue, P/N 900-121008, Hall Signs	2	EA	\$15.39	\$30.78
Steel Retaining Wall, 4'H X 5'W panel, Dixie Precast	3	EA	\$750.00	\$2,250.00
Field cable Tag Kit, P/N FLDTGKT, CTC Inc.	1	EA	\$1,100.00	\$1,100.00
Schedule 40 2" & 4" PVC Conduit Kit with Elbows (SEE RFQ)	1	LOT	\$2,500.00	\$2,500.00
Duct seal, 5lb, P/N 31-605, Graybar	2	EA	\$9.41	\$18.82
Lock, Barrel Style	4	EA	\$45.25	\$181.00
	*	-	Total	\$40,618.18

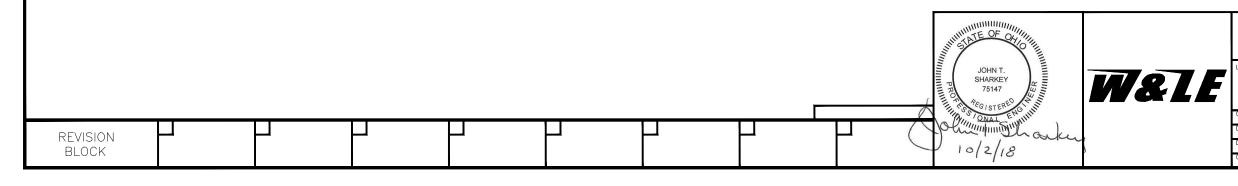
DWG. NO.	DESCRIPTION
00	INDEX
01	SITE LAYOUT
02	CROSSING SIGNAL ALIGNMENT
03	SITE LAYOUT NOTES
04	U-1400 CIRCUITS
05	RECORDER
06	BGD
07	SSCC IIIA
08	LISP
09	CABLE TERMINATION PANEL
10	GATE #1 MECHANISM (NEAR SIDE)
11	GATE #1 LIGHTS (NEAR SIDE)
12	GATE #2 MECHANISM (FAR SIDE)
13	GATE #2 LIGHTS (FAR SIDE)
14	BATTERY CHARGERS
15	AC POWER DISTRIBUTION
16	RACK FRONT VIEW
17	RACK BACK VIEW
18	SIDE "A"
19	SIDE "C"

REV.		GENERAL NOTES						
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	ERATION OF THE CIRCUITS AND E	AUDMENT DEDDECENTED UP						
AND DEVI	CES ARE CONNECTED TO FORM A UST BE GIVEN COMPLETE CIRCUI	A COMPLETE SYSTEM, OR AN	EFFECTIVE	SUBSYSTE	M. SUCH	SYSTEM OR	SUBSYSTEM	1
			1		-11-			
	ATE OF ON THE			<b></b>		<b>y &amp; La</b> all <u>way</u>		0
	JOHN T. SHARKEY 75147 BROTHERS CONTRACTOR	MOTE	LOCATION			INDUSTRIAL		
	75147	W&LE		-	CITY	OF SOLON		
YPICAL: N	Colimnia Estimation	,	DESIGNER	<sup>2</sup> 08/17/201 CTC	SUB	INDEX CLEVELAND	CTC NO.	CNXXXXX
	10/2/18		DRAFTSMAN CHECKER	CTC CTC	RRMP DOT NO	003.10 482 704N	SCALE SHEET	N.T.S. 00 of 19

				г	CHANGE FROM TYPICAL: N	JOHN T. SHARKEY 75147 75147	<b>W</b> 8.
REVISION BLOCK						10/2/18	y D



- - IN THE LOCATION SHOWN.
- 4.) IN THE LOCATION SHOWN.



## CONSTRUCTION NOTES

1.) INSTALL NEW 6' X 6' BUNGALOW IN NORTHEAST QUADRANT.

2.) INSTALL (2) NEW FLASHING LIGHTS WITH GATES.

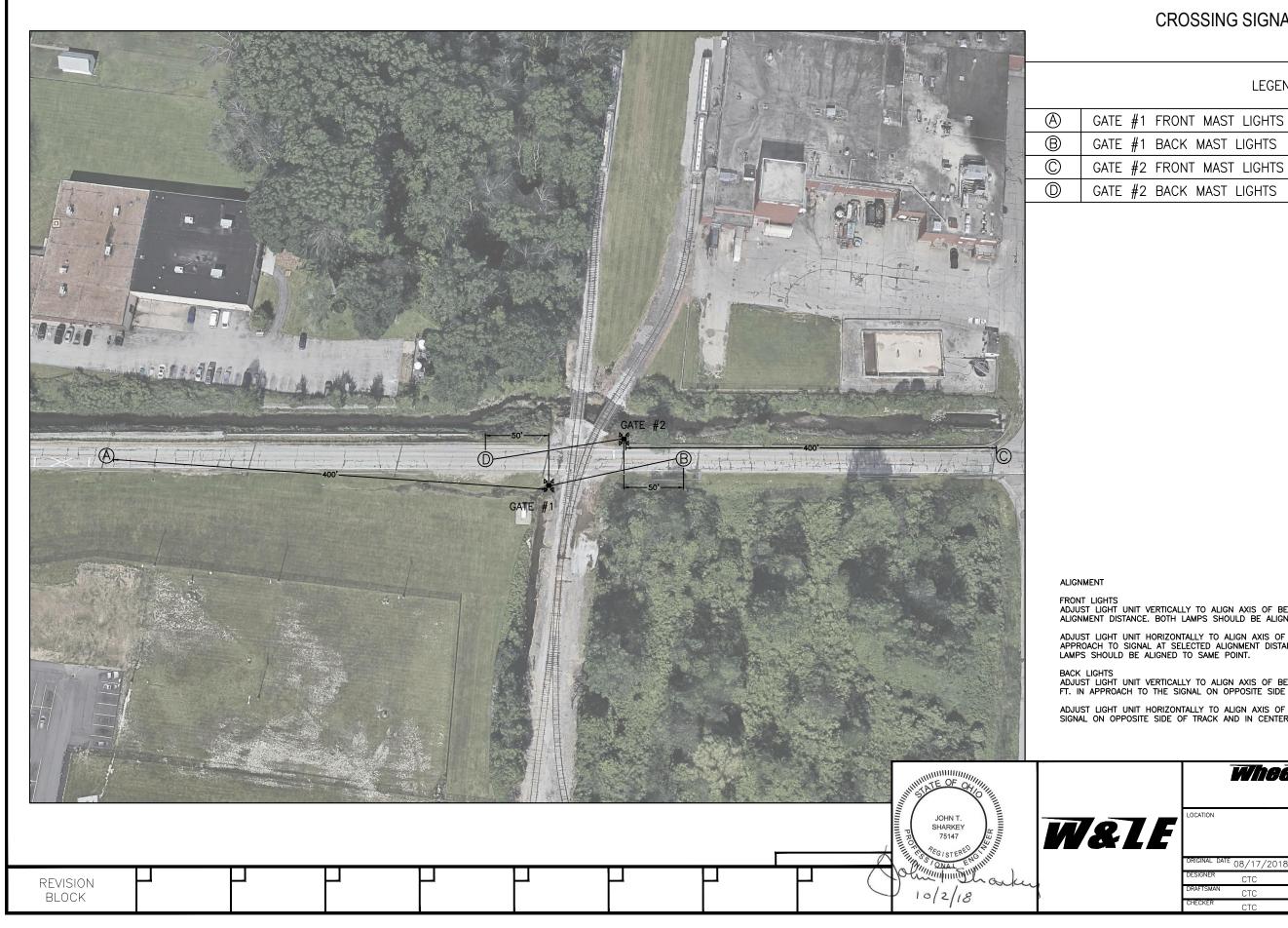
3.) METER POLE LOCATION SHOWN ON THE PLAN IS SUBJECT TO CHANGE WITHIN RAILROAD RIGHT-OF-WAY IF UNDERGROUND OBSTRUCTIONS PREVENT THE INSTALLATION OF THE POLE

BUNGALOW LOCATION SHOWN ON THE PLAN IS SUBJECT TO CHANGE WITHIN RAILROAD RIGHT-OF-WAY IF UNDERGROUND OBSTRUCTIONS PREVENT THE INSTALLATION OF THE BUNGALOW



LOCATION

ORIGINAL DATE 08/17/2018	CONSTRUCTION	NOTES
DESIGNER CTC	SUB CLEVELAND	CTC NO. CNXXXXX
DRAFTSMAN CTC	<sup>RRMP</sup> 003.10	SCALE N.T.S.
CHECKER	<sup>dot no.</sup> 482 704N	SHEET 01A OF 19



### **CROSSING SIGNAL ALIGNMENT**

LEGEND

GATE #1 FRONT MAST LIGHTS GATE #1 BACK MAST LIGHTS

GATE #2 BACK MAST LIGHTS

FRONT LIGHTS ADJUST LIGHT UNIT VERTICALLY TO ALIGN AXIS OF BEAM 5FT. 6IN. ABOVE PAVEMENT AT SELECTED ALIGNMENT DISTANCE. BOTH LAMPS SHOULD BE ALIGNED TO SAME POINT.

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.

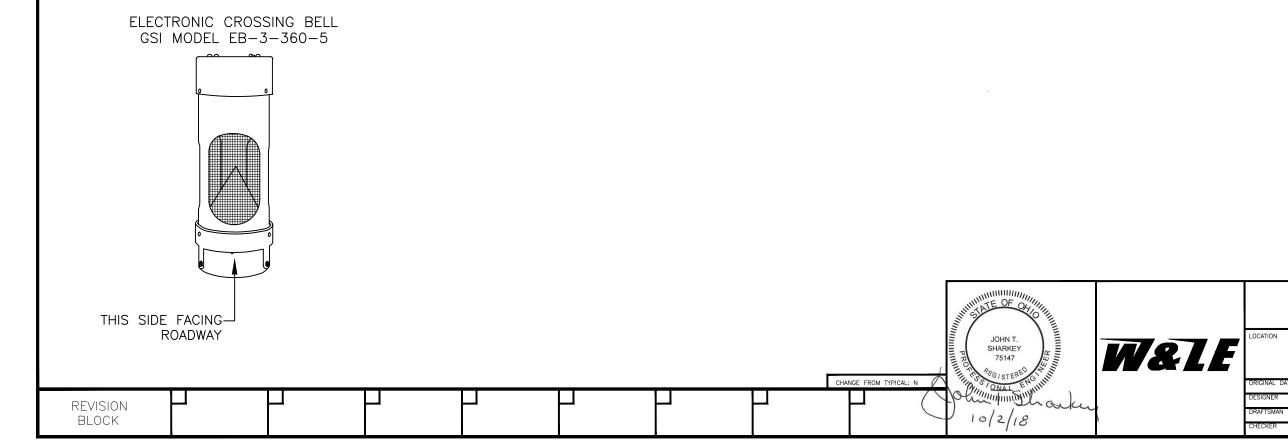
BACK LIGHTS ADJUST LIGHT UNIT VERTICALLY TO ALIGN AXIS OF BEAM 5 FT. 6 IN. ABOVE PAVEMENT AT A POINT 50 FT. IN APPROACH TO THE SIGNAL ON OPPOSITE SIDE OF TRACK.

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.



ORIGINAL DATE	08/17/2018	TITLE	CROSSING SIGN	AL ALIGNM	IENT
DESIGNER	CTC	SUB	CLEVELAND	CTC NO.	CNXXXXX
DRAFTSMAN	CTC	RRMP	003.10	SCALE	N.T.S.
CHECKER	CTC	DOT NO.	482 704N	SHEET	02 of 19

1.) CROSSING IS LOCATED:

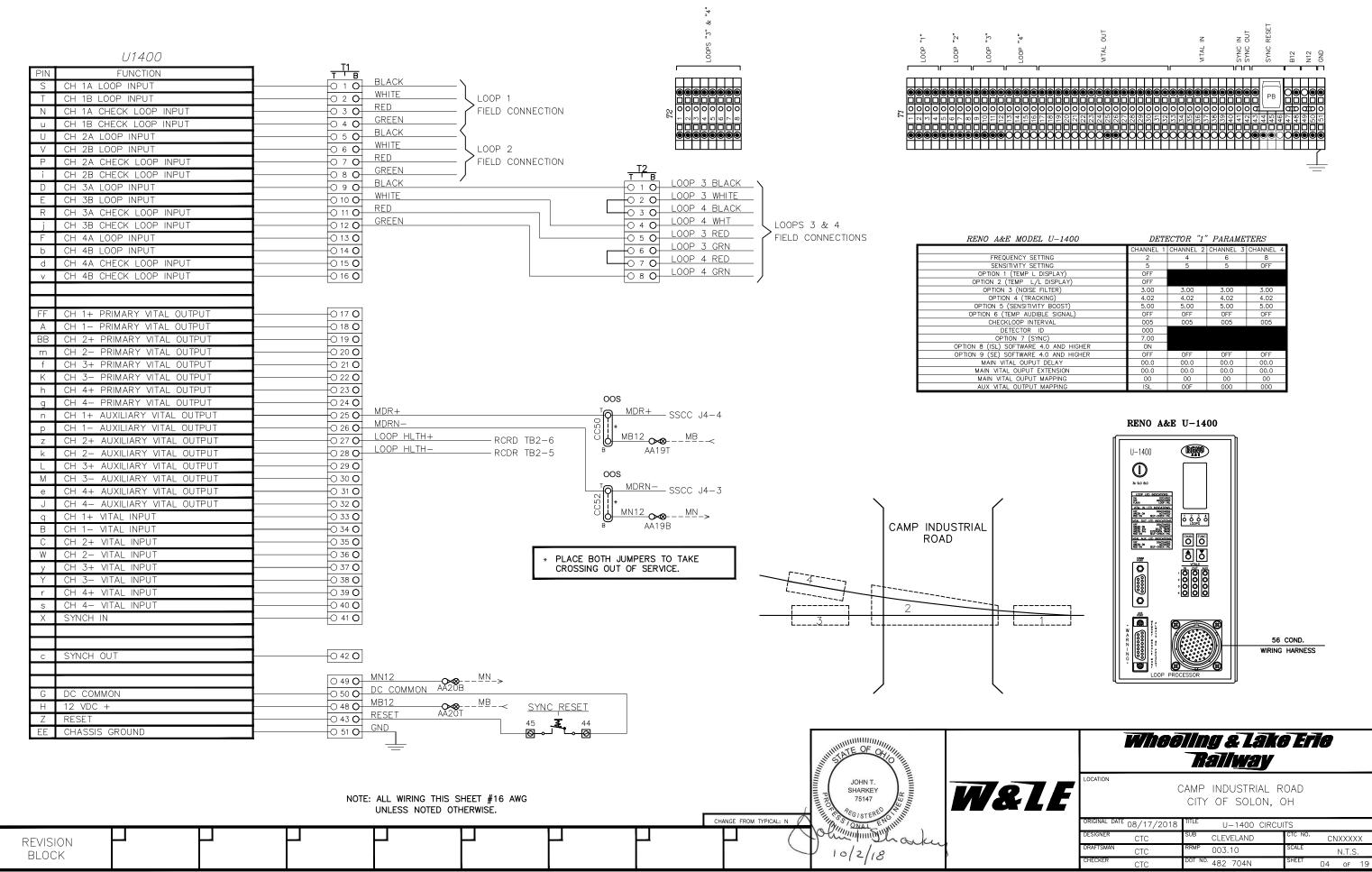


SITE LAYOUT NOTES

### 41.3892179 LATITUDE LONGITUDE -81.4574150

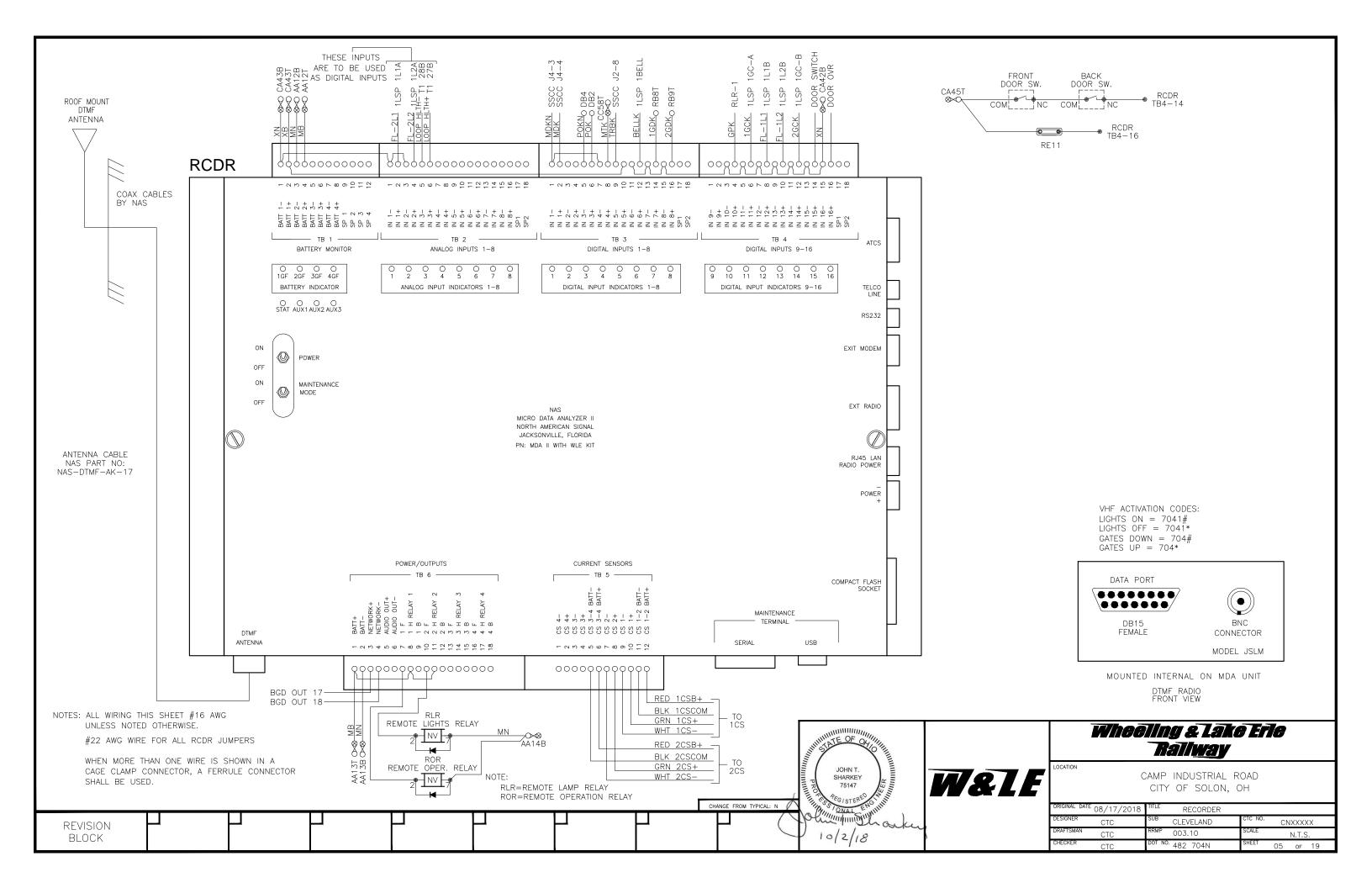


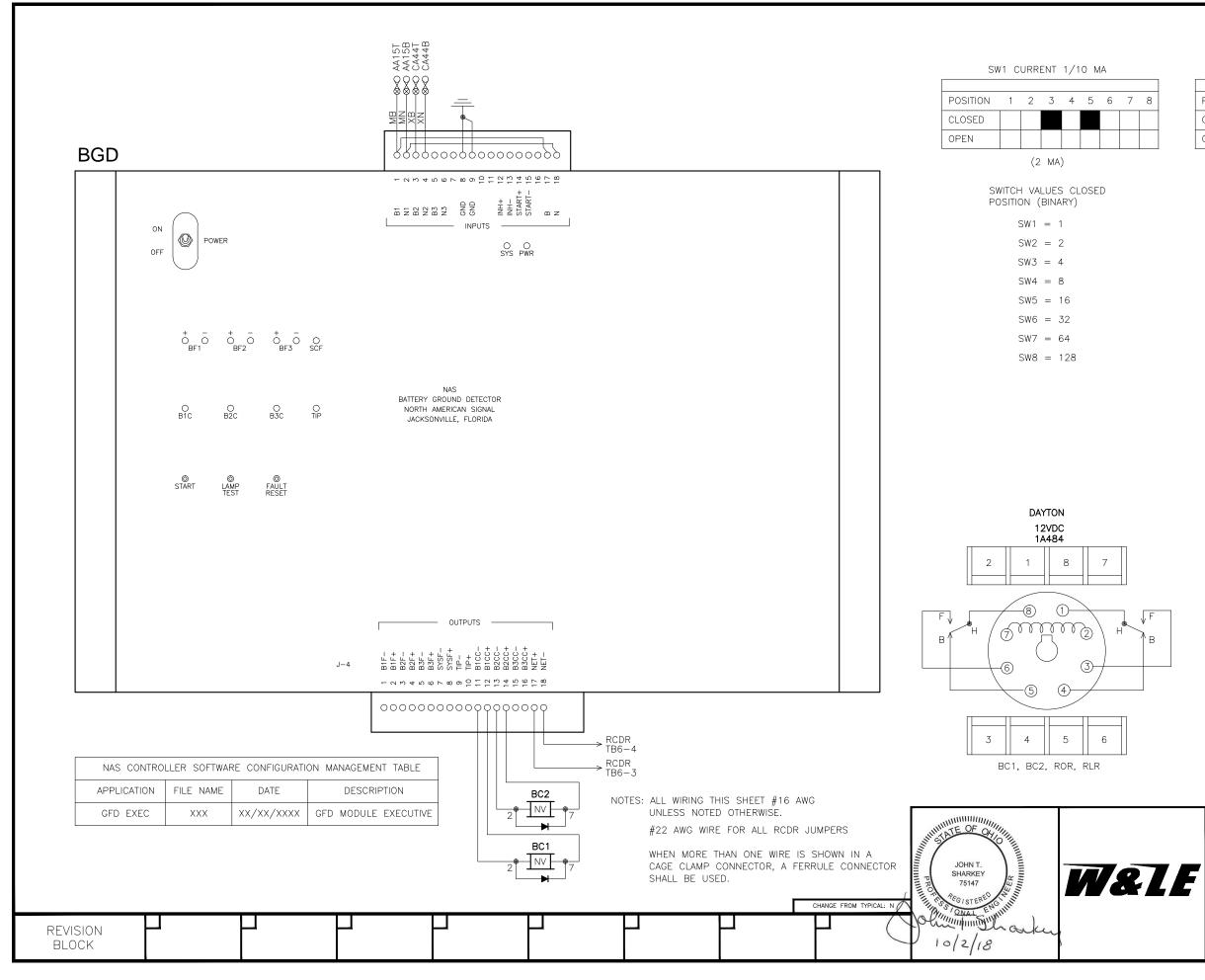
ORIGINAL DATE 08/17/2018		SITE LAYOUT NO	DTES			
DESIGNER CTC	SUB	CLEVELAND	CTC NO.	CN:	хххх	Х
DRAFTSMAN CTC	RRMP	003.10	SCALE	1	۱.T.S	
CHECKER CTC	DOT NO.	482 704N	SHEET	03	OF	19

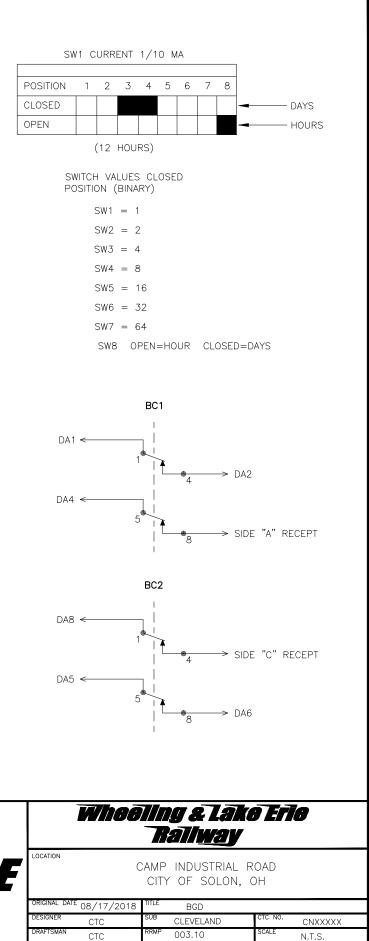


EL U-1400	DETI	ECTOR "1"	PARAME	TERS
	CHANNEL 1	CHANNEL 2	CHANNEL 3	CHANNEL 4
ETTING	2	4	6	8
ETTING	5	5	5	OFF
L DISPLAY)	OFF			
./L DISPLAY)	OFF			
e filter)	3.00	3.00	3.00	3.00
ACKING)	4.02	4.02	4.02	4.02
VITY BOOST)	5.00	5.00	5.00	5.00
DIBLE SIGNAL)	OFF	OFF	OFF	OFF
TERVAL	005	005	005	005
ID	000			
SYNC)	7.00			
E 4.0 AND HIGHER	ON			
E 4.0 AND HIGHER	OFF	OFF	OFF	OFF
UT DELAY	00.0	00.0	00.0	00.0
EXTENSION	00.0	00.0	00.0	00.0
T MAPPING	00	00	00	00
T MAPPING	ISL	00F	000	000

	Whog		<b>g &amp; La</b> all <u>wa</u>		TET	<b>10</b>
LOCATION		CITY	INDUSTRIA OF SOLO			
ORIGINAL DATI	08/17/2018	TITLE	U-1400 (	CIRCUITS	S	
DESIGNER	CTC	SUB	CLEVELAND	C	CTC NO.	CNXXXXX
DRAFTSMAN	CTC	RRMP	003.10	S	SCALE	N.T.S.
CHECKER	OTO	DOT NO	· 482 704N	S	SHEET	04 05 1



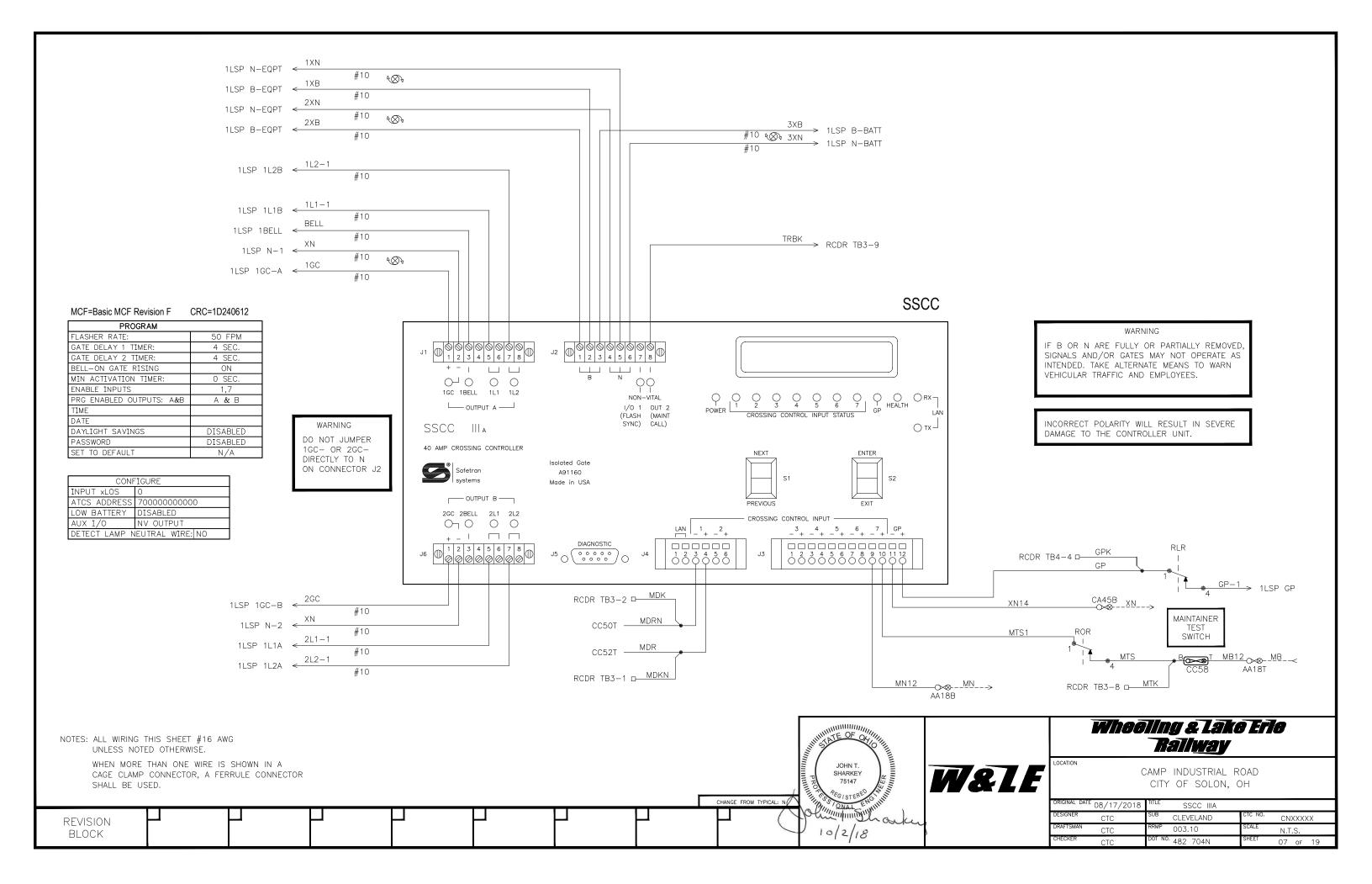


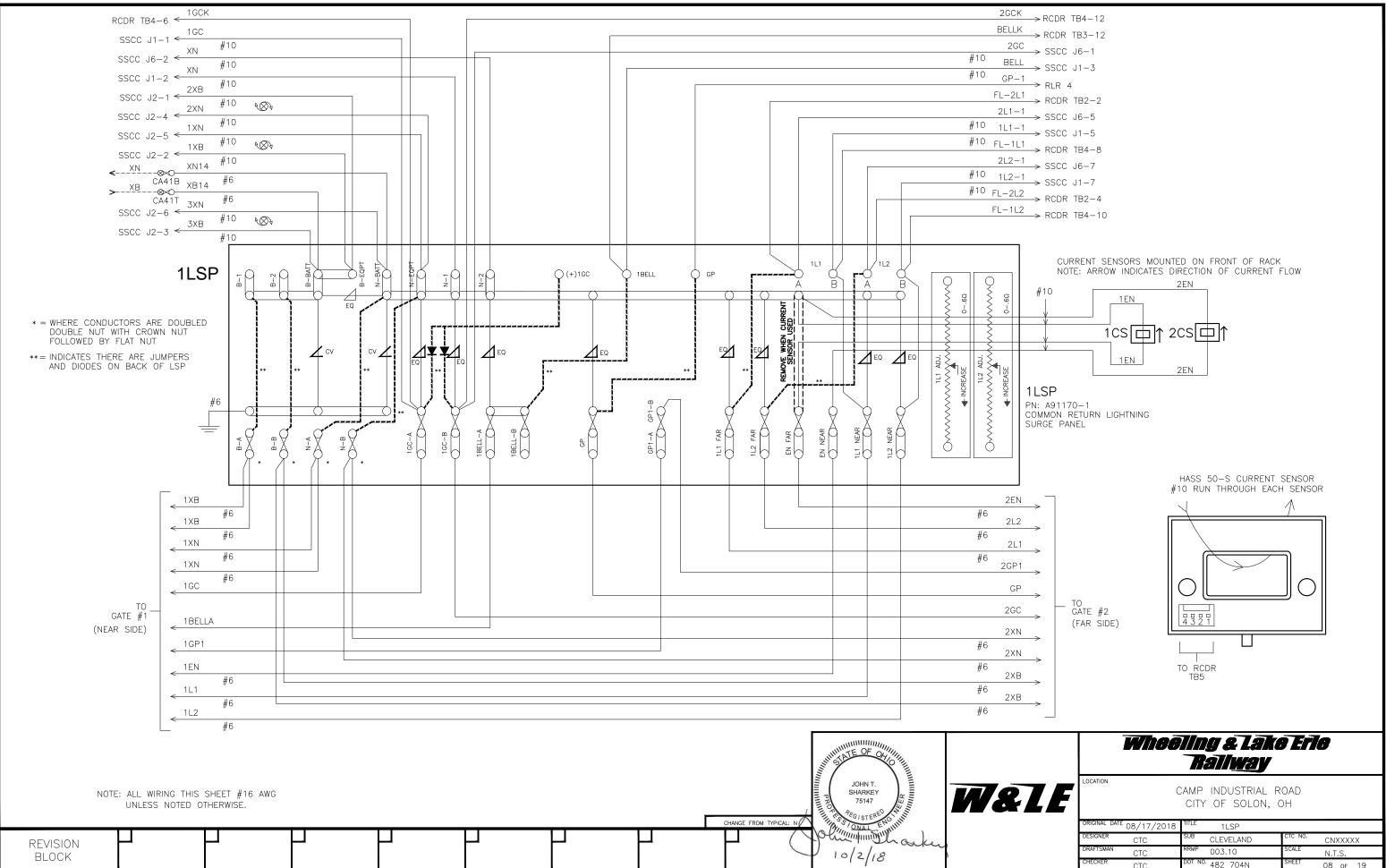


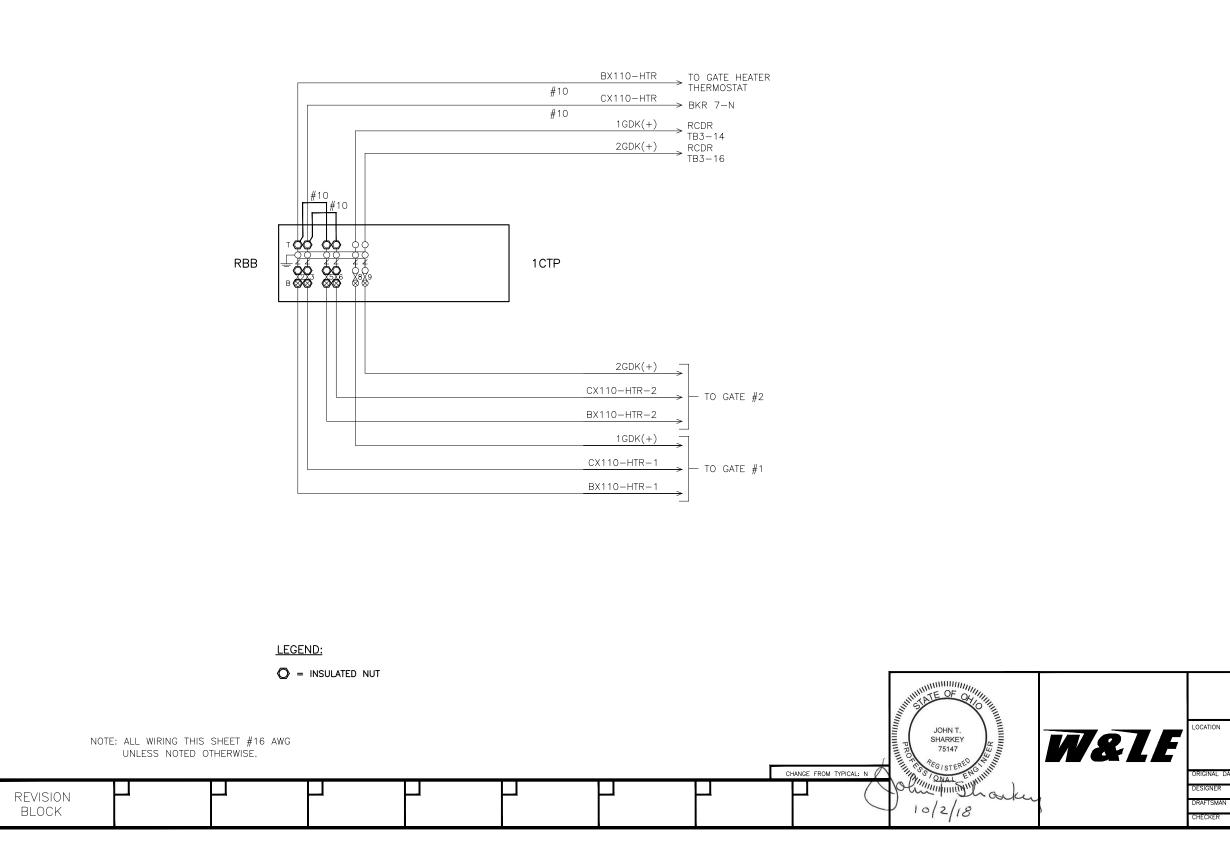
<sup>- NO.</sup> 482 704N

CTC

06 of 19



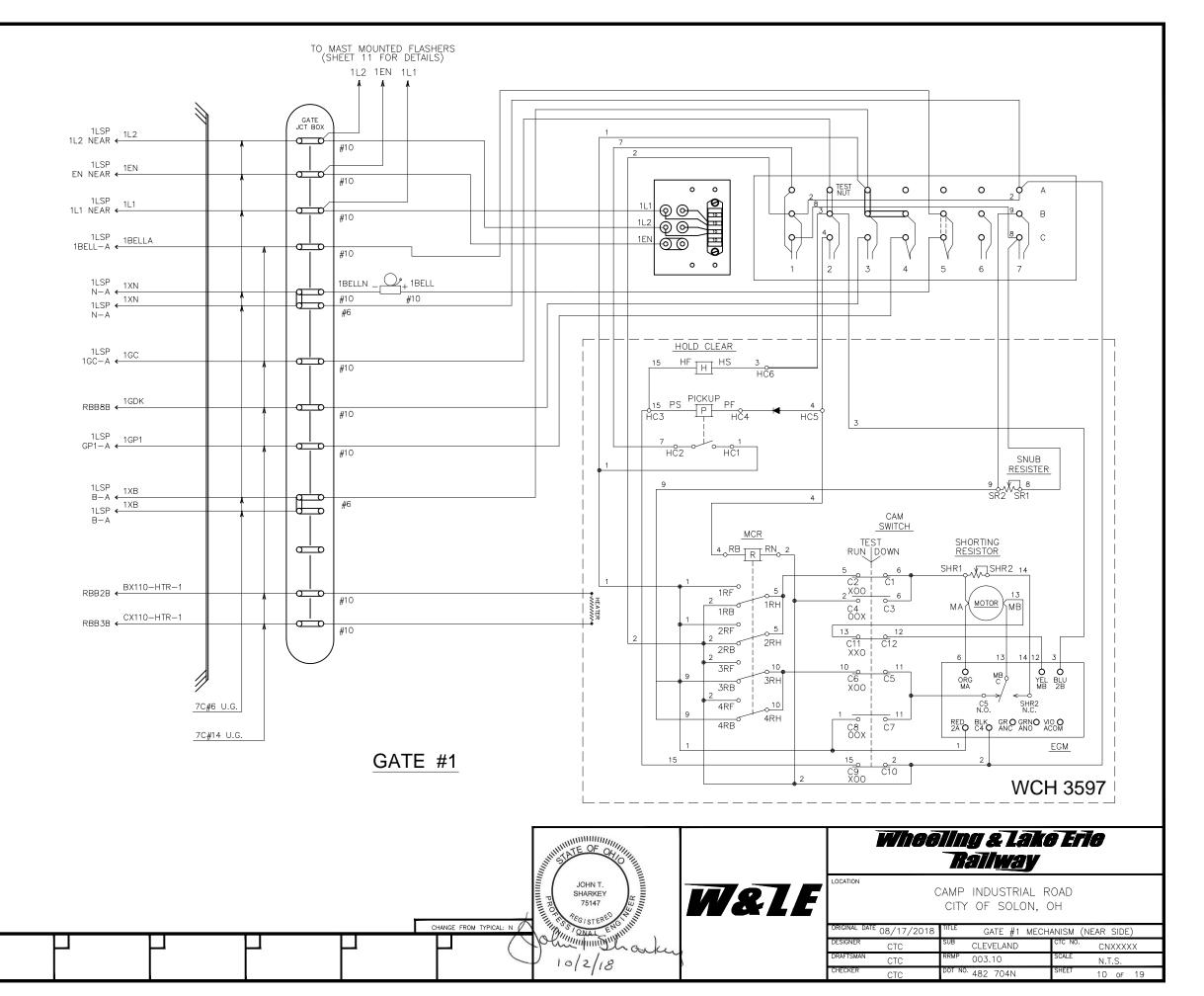






ORIGINAL DATE 08/17/2018	TITLE CABLE TERMINA	TION TERMINALS
DESIGNER CTC	SUB CLEVELAND	CNXXXXX
DRAFTSMAN CTC	<sup>RRMP</sup> 003.10	SCALE N.T.S.
CHECKER CTC	<sup>DOT NO.</sup> 482 704N	SHEET 09 OF 19

CONTACT	CLOSED	FUNCTION	TENSION
1B	75-90 DEG.	POWER DOWN	18-28 OZ.
1F	0-70 DEG.	SNUB DOWN	18-28 OZ.
2	0-86 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.

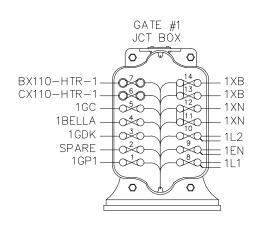


NOTES:

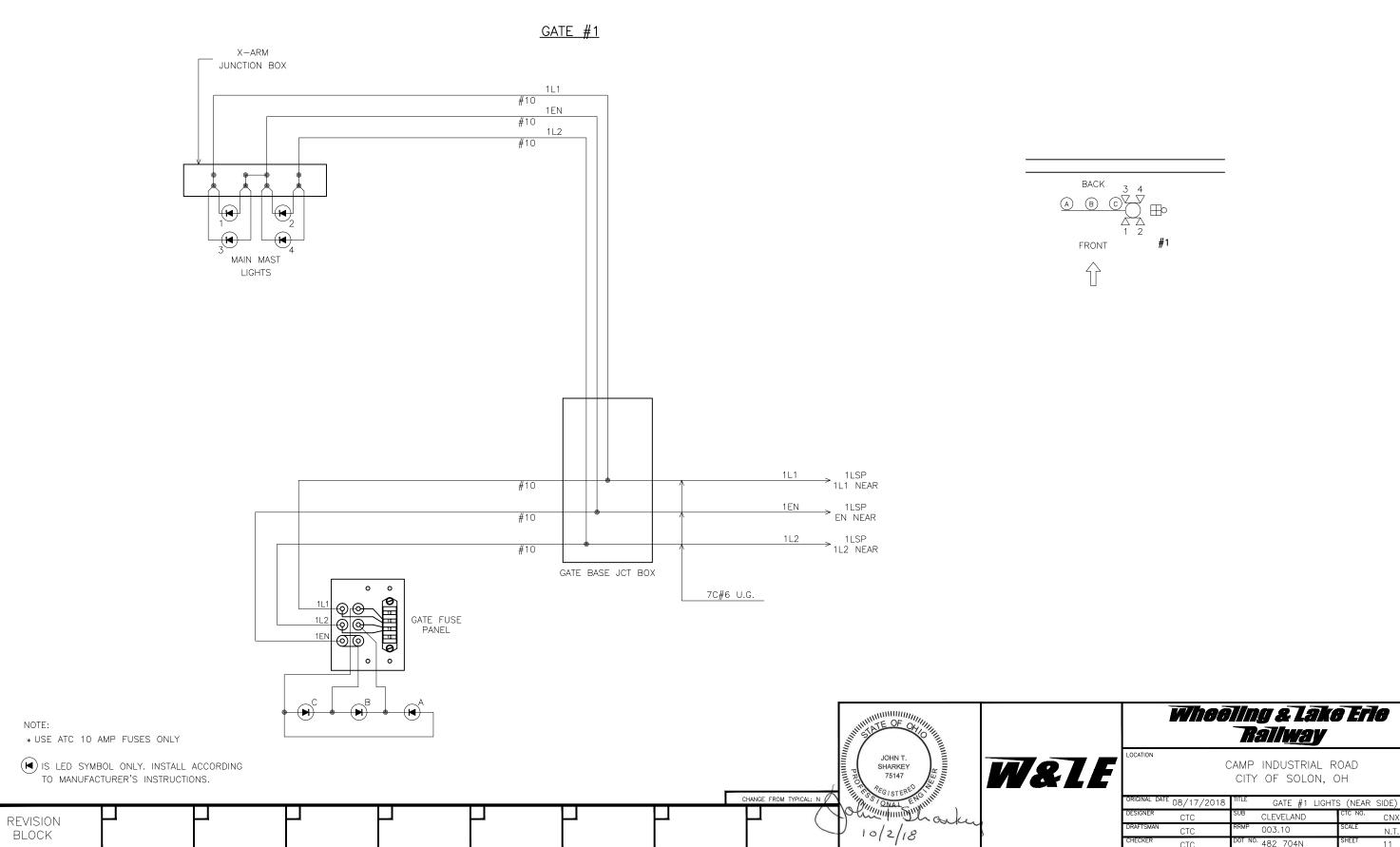
- \* BELL TO BE ELECTRONIC.
- → = INTERNAL GATE WIRES THAT SHARE ELECTRICAL CONNECTIONS WITH OTHER WIRES THAT ARE ASSIGNED THE SAME NUMBER.

REFER TO SHEET 11 FOR GATE ARM LIGHT WIRING

ADD STRAP FROM: 3A TO 3B AND 3B TO 4B

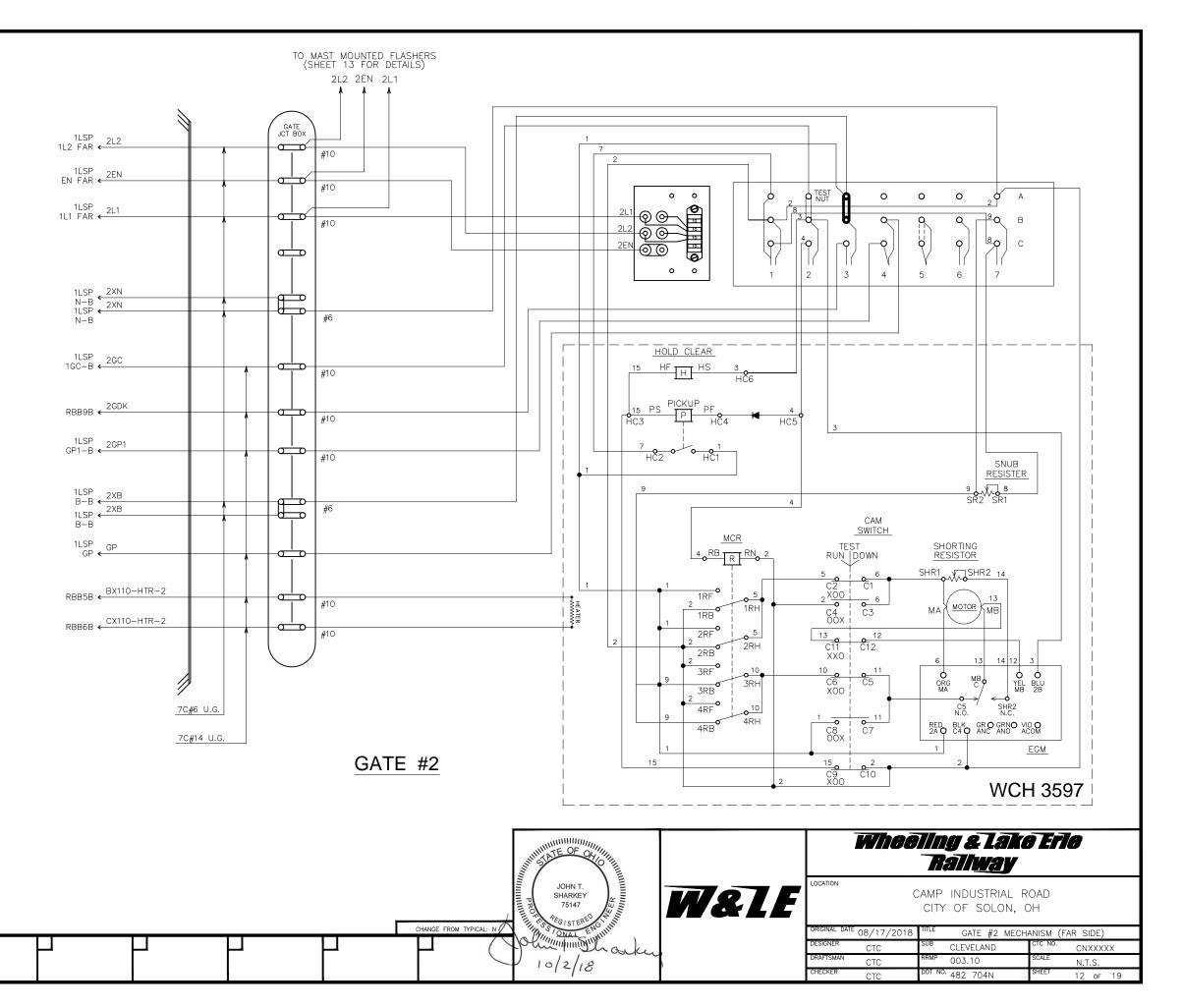






ORIGINAL DATE 08/17/2018	GATE #1 LIGHT	S (NEAR SIDE)
DESIGNER CTC	SUB CLEVELAND	CTC NO. CNXXXXX
DRAFTSMAN CTC	<sup>RRMP</sup> 003.10	SCALE N.T.S.
CHECKER CTC	<sup>DOT NO.</sup> 482 704N	SHEET 11 OF 19

CONTACT	CLOSED	FUNCTION	TENSION
1 B	75-90 DEG.	POWER DOWN	18-28 OZ.
1F	0-70 DEG.	SNUB DOWN	18-28 OZ.
2	0-86 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.

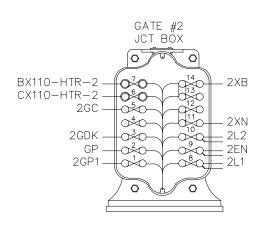


NOTES:

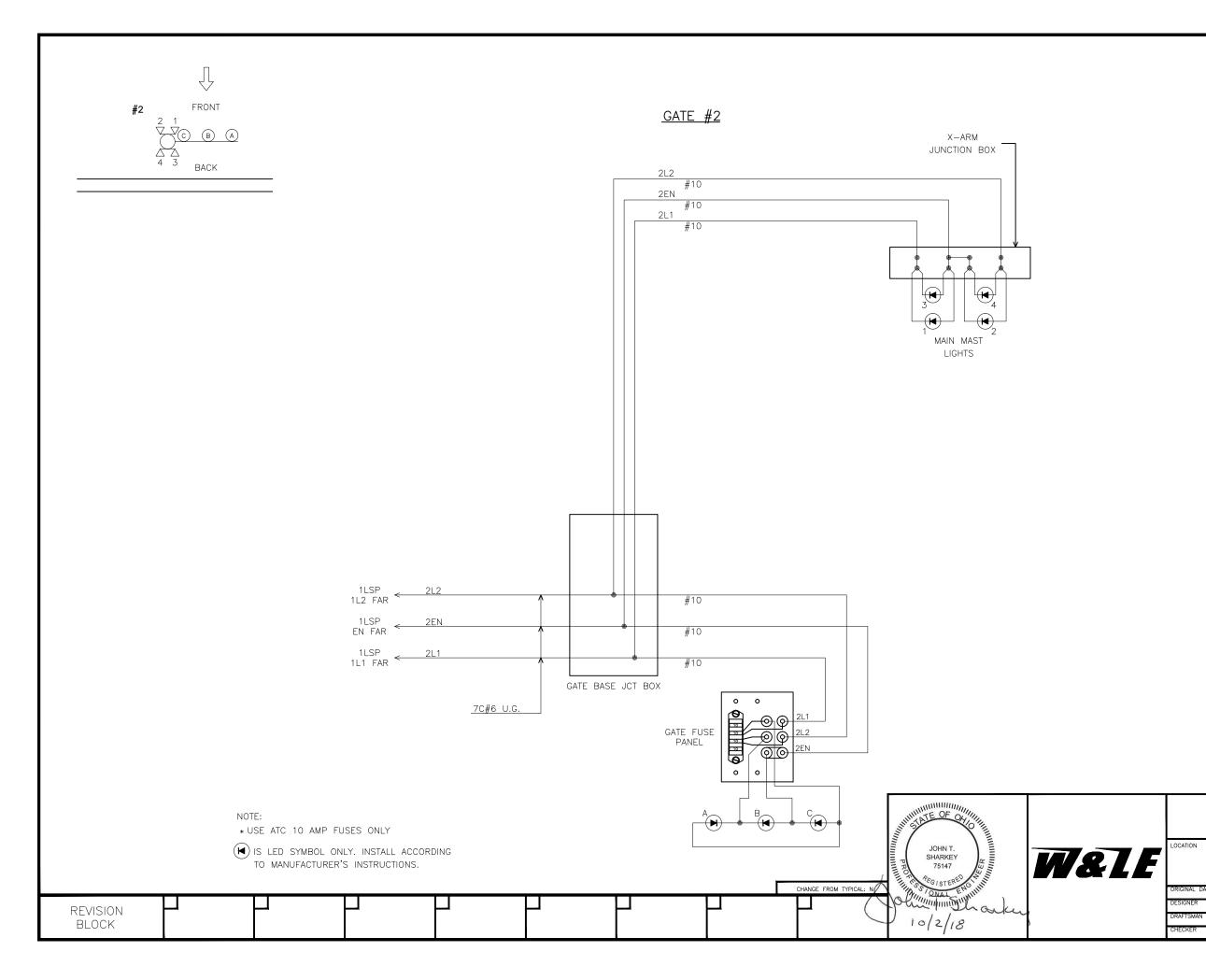
- \* BELL TO BE ELECTRONIC.
- → = INTERNAL GATE WIRES THAT SHARE ELECTRICAL CONNECTIONS WITH OTHER WIRES THAT ARE ASSIGNED THE SAME NUMBER.

REFER TO SHEET 13 FOR GATE ARM LIGHT WIRING

ADD BOLD STRAPS AND JUMPERS AS SHOWN

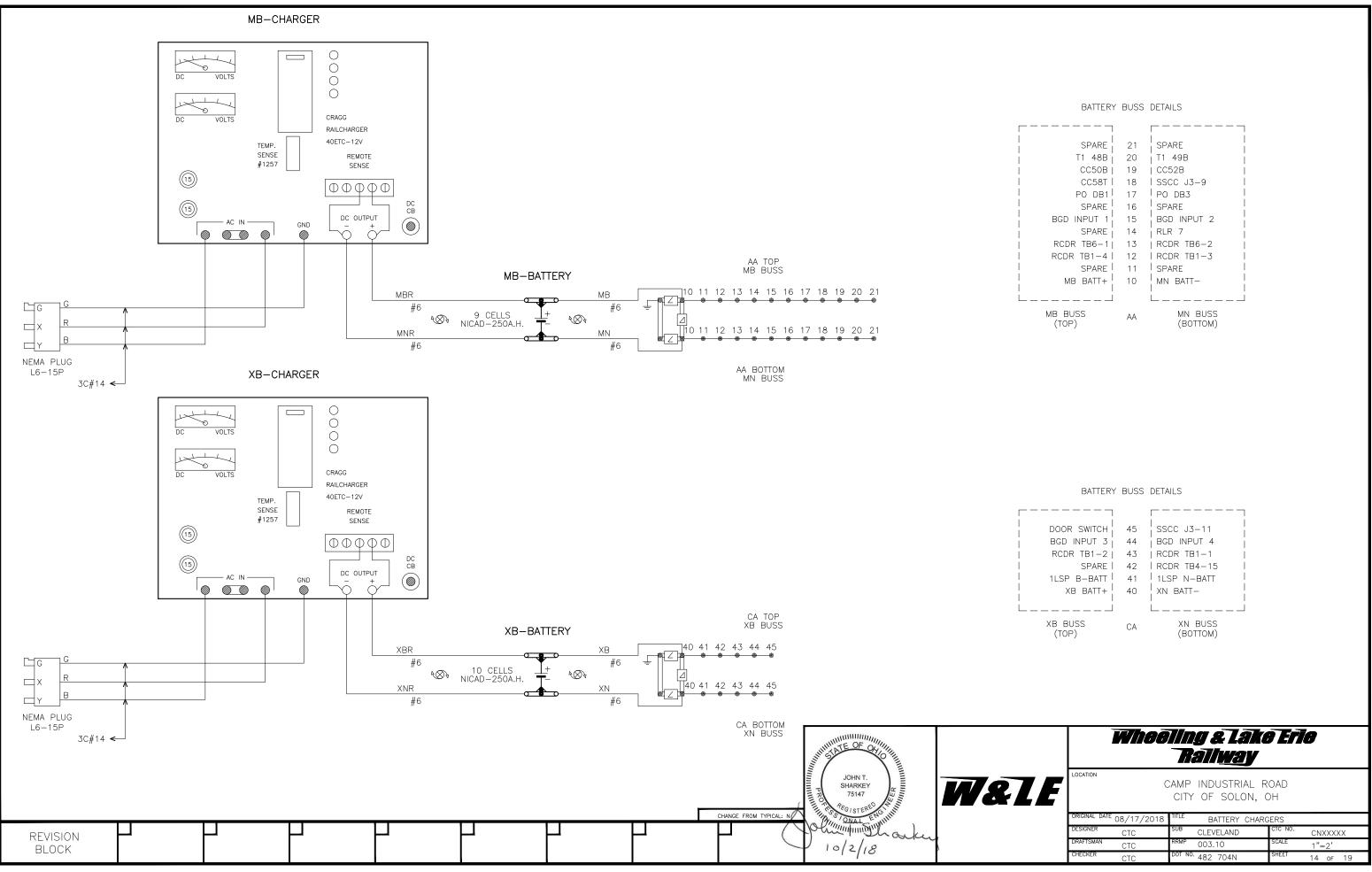






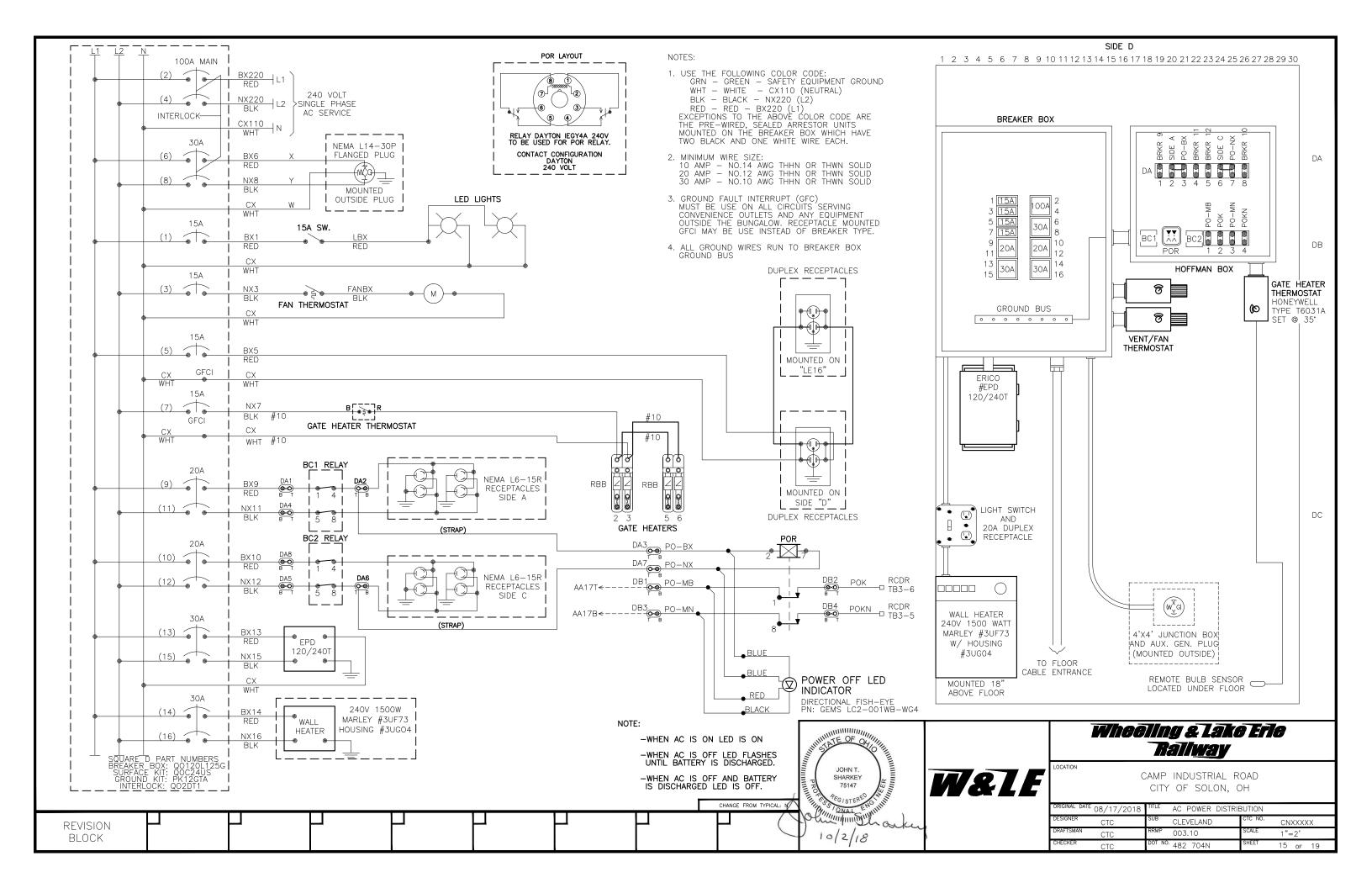


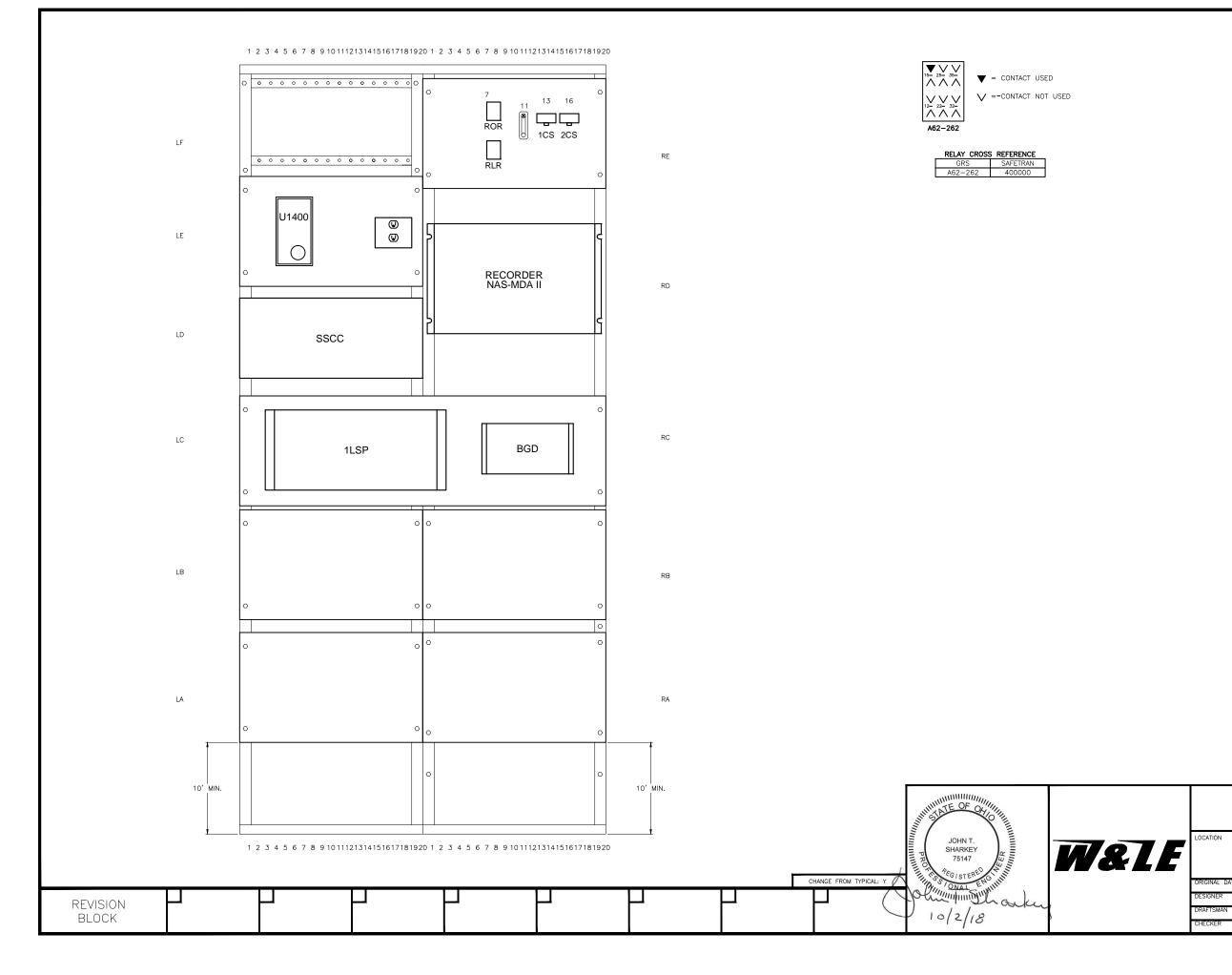
ORIGINAL DATE 08/17/2018	TITLE	GATE #2 LIGHTS	s (far sid	)E)
DESIGNER CTC	SUB	CLEVELAND	CTC NO.	CNXXXXX
DRAFTSMAN CTC	RRMP	003.10	SCALE	N.T.S.
CHECKER	DOT NO.	482 704N	SHEET	13 of 19



SPARE	21	SPARE
T1 48B	20	T1 49B
CC50B	19	CC52B
CC58T	18	SSCC J3-9
PO DB1	17	PO DB3
SPARE	16	SPARE
BGD INPUT 1	15	BGD INPUT 2
SPARE	14	RLR 7
RCDR TB6-1	13	RCDR TB6-2
RCDR TB1-4	12	RCDR TB1-3
SPARE	11	SPARE
MB BATT+	10	MN BATT-
، لــــــــــــــــــــــــــــــــــــ		
MB BUSS (TOP)	AA	MN BUSS (BOTTOM)

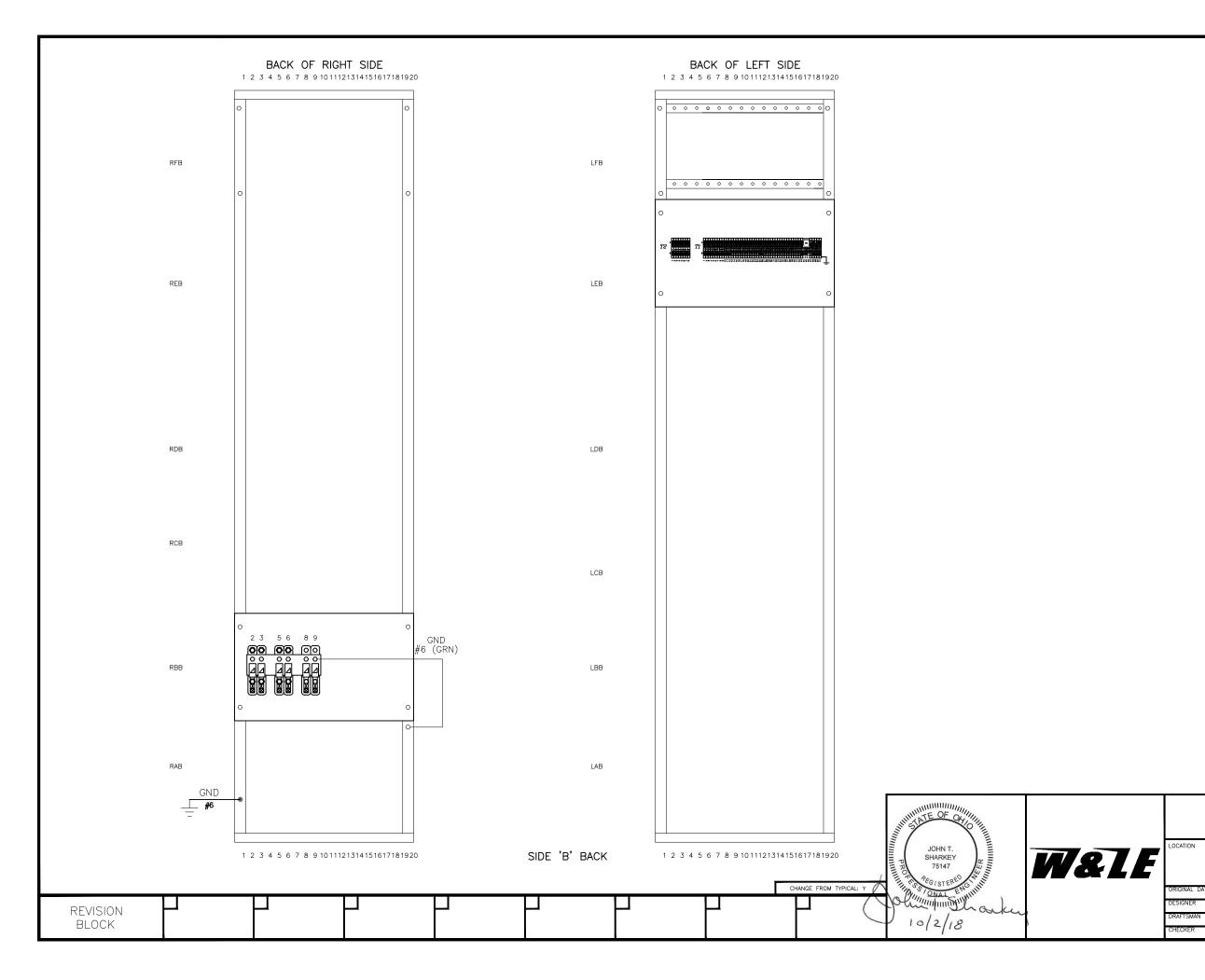
7		
DOOR SWITCH	45	SSCC J3-11
BGD INPUT 3	44	BGD INPUT 4
RCDR TB1-2	43	RCDR TB1-1
SPARE	42	RCDR TB4-15
1LSP B-BATT	41	1LSP N-BATT
XB BATT+	40	XN BATT-
XB BUSS (TOP)	СА	XN BUSS (BOTTOM)
		(BOTTOM)







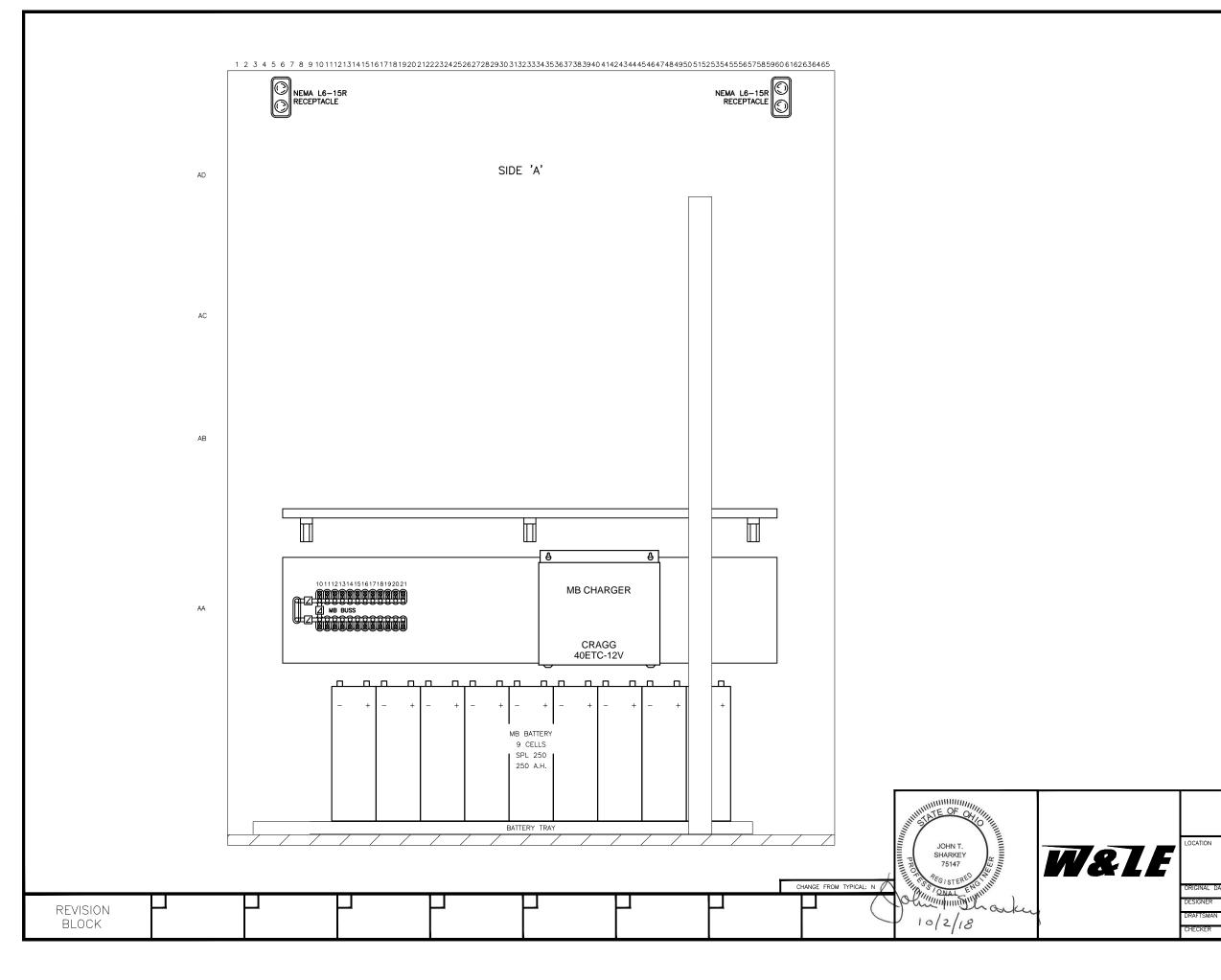
ORIGINAL DATE 08/17/2018	TITLE	RACK FRONT VIEW		
DESIGNER CTC	SUB	CLEVELAND	CTC NO.	CNXXXXX
DRAFTSMAN CTC	RRMP	003.10	SCALE	1"=2'
CHECKER CTC	DOT NO.	482 704N	SHEET	16 of 19





CITY OF SOLON, OH

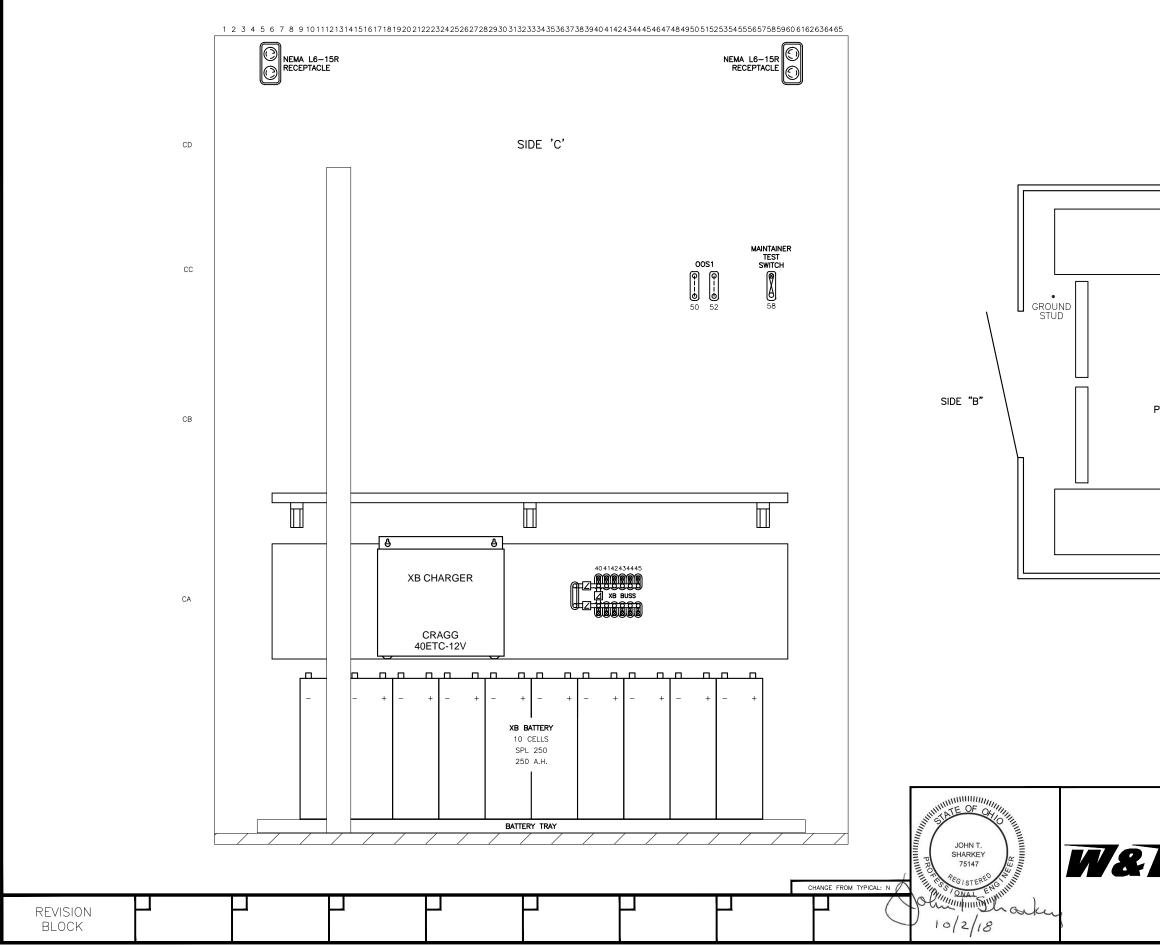
ORIGINAL DATE	08/17/2018	TITLE	RACK BACK VIEW		
DESIGNER	CTC	SUB	CLEVELAND	CTC NO.	CNXXXXX
DRAFTSMAN	CTC	RRMP	003.10	SCALE	1"=2'
CHECKER	CTC	DOT NO.	482 704N	SHEET	17 OF 19





CITY OF SOLON, OH

ORIGINAL DATE 08/17/2018	TITLE	SIDE "A"		
DESIGNER CTC	SUB	CLEVELAND	CTC NO.	CNXXXXX
DRAFTSMAN CTC	RRMP	003.10	SCALE	1"=2'
CHECKER	DOT NO.	482 704N	SHEET	18 of 19



6' X 6' ALUMINUM BUNGALOW PTMW PN:91000564 1 SIDE "A" THIS SIDE TO F	D–1				SIDE "D"	
	<b>V 1</b> 08/17/2011	CAMP CITY	<b>DATA</b> INDUSTRIA OF SOLO SIDE "C"	L ROAD	710	

NOTE:

THIS SIDE TO TRACKS SIDE "C" P.O.I. MOUNTED ON SIDE OF HOUSE PARALLEL TO TRACK

Laborer 108 hrs @ \$18 per hr	\$1944.00
Operator 108 hrs @ 25 per hr	2700.00
Project manager 108 hrs @ 50 per h	r 5400.00
Accounting 1 hr @ 30 per hr	30.00
sub total	10074.00
total including 1.6 G&A	\$16118.40
Bobcat E 32 40 hrs @ 32.00	\$1280.00
Bobcat E 55 90 hrs @ 42.41	3816.90
Dump truck 40 hrs @ 42.20	1688.00
Directional drill 12 hrs @ 62.90	754.80
Digger truck 4 hrs @ 58.24	232.96
Equip truck 108 hrs @ 22.52	2432.16
Tamper 10 hrs @ 4.75	47.50
Traffic cones 108 hrs @ .13	14.04
Traffic signs 108 hrs @ .23	24.84
Hydra tamp 40 hrs @ 18.00	720.00
total equipment	\$11011.20
material total	\$2371.10
job sub total	\$29500.70
profit add 10%	\$2950.07
Curb installation	\$2500.00
Road cut for loop	\$500.00
Total Estimate	\$35450.77



February 22, 2018

Mr. Tim Andrews Wheeling & Lake Erie 100 East First St. Brewster Oh, 44613

RE: Cuyahoga County, Camp Industrial Rd, DOT# 482704N, PID# 107138

Dear Mr. Andrews:

A diagnostic review was held at the above grade crossing on October 18 2017. The crossing has been recommended for the installation of flashing lights and roadway gates.

Wheeling & Lake Erie (WE) is authorized to proceed with the site plans and cost estimates (PE) or bid package 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 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 James Tucker. James can be reached at (614) 398-6897, or james.tucker@dot.ohio.gov, if you have any questions.

Sincerely,

Project Manager

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

Attachment: 1 (diagnostic review form)





Commissioners

M. Beth Trombold Thomas W. Johnson Lawrence K. Friedeman Daniel R. Conway

January 26, 2018

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

> Re: Cuyahoga County, Camp Industrial Road, DOT#482-704N, hereinafter referred to as the "Project"

Dear Mr. Andrews:

The Public Utilities Commission of Ohio (PUCO) has identified and the Ohio Rail Development Commission (ORDC) surveyed, on October 18, 2017, the above mentioned grade crossing for warning device upgrades. The location has been approved for flashing lights and roadway gates.

The Project shall comply with Agreement No. 0001-A, dated September 17, 1990, entered into by the State of Ohio and Wheeling & Lake Erie Railroad (WE). Furthermore, the RAILROAD shall comply with all applicable state and federal laws governing grade crossing safety programs.

Preliminary engineering and construction costs shall be borne one hundred percent (100%) by ORDC. Reimbursable costs will be limited by ORDC based upon approved estimates and bid tabulations, if applicable. These limits will be quantified by the ORDC in its construction authorization to the RAILROAD and may be amended by the ORDC based upon revised estimates and bid tabulations. Additional costs must be approved in writing by the ORDC prior to being incurred. Emergency verbal authorizations by ORDC may be permitted but must be confirmed in writing within ten (10) business days of the verbal approval.

The RAILROAD shall complete plans and estimates for the Project within ninety (90) days after the RAILROAD is notified of authorization to proceed unless otherwise agreed by ORDC/PUCO and the RAILROAD.

The RAILROAD shall not commence construction prior to PUCO's Order or ORDC's construction authorization. The RAILROAD shall provide written notification of the construction start date to PUCO and ORDC no later than five (5) business days prior to such date.

(614) 466-3016 www.PUCO.ohio.gov LA Camp Industrial Road DOT#482-704N Cuyahoga County

Please indicate your acceptance of the terms and conditions of this Letter of Agreement by signing and returning one (1) copy to Ms. Jill Henry, Rail Specialist, Rail Division, Public Utilities Commission of Ohio, 180 E. Broad Street, Columbus, Ohio 43215-3793.

Sincerely,

- mulan albouck

Milan Orbovich Director of Transportation Public Utilities Commission of Ohio

Matthew Dietrich Executive Director Ohio Rail Development Commission

Date 1-30-18

Wheeling & Lake Erie Railroad

Ву \_\_\_\_\_

Title \_\_\_\_\_

Date

LA Camp Industrial Road DOT#482-704N Cuyahoga County

Please indicate your acceptance of the terms and conditions of this Letter of Agreement by signing and returning one (1) copy to Ms. Jill Henry, Rail Specialist, Rail Division, Public Utilities Commission of Ohio, 180 E. Broad Street, Columbus, Ohio 43215-3793.

Sincerely,

- mulad albourne

Milan Orbovich Director of Transportation Public Utilities Commission of Ohio

Wheeling & Lake Erie Railroad By T&J. Title SAC Supervisor

Date 2-1-18

Matthew Dietrich Executive Director Ohio Rail Development Commission

Date\_\_\_\_\_

# OHIO RAIL DEVELOPMENT COMMISSION

# Diagnostic Review Team Survey

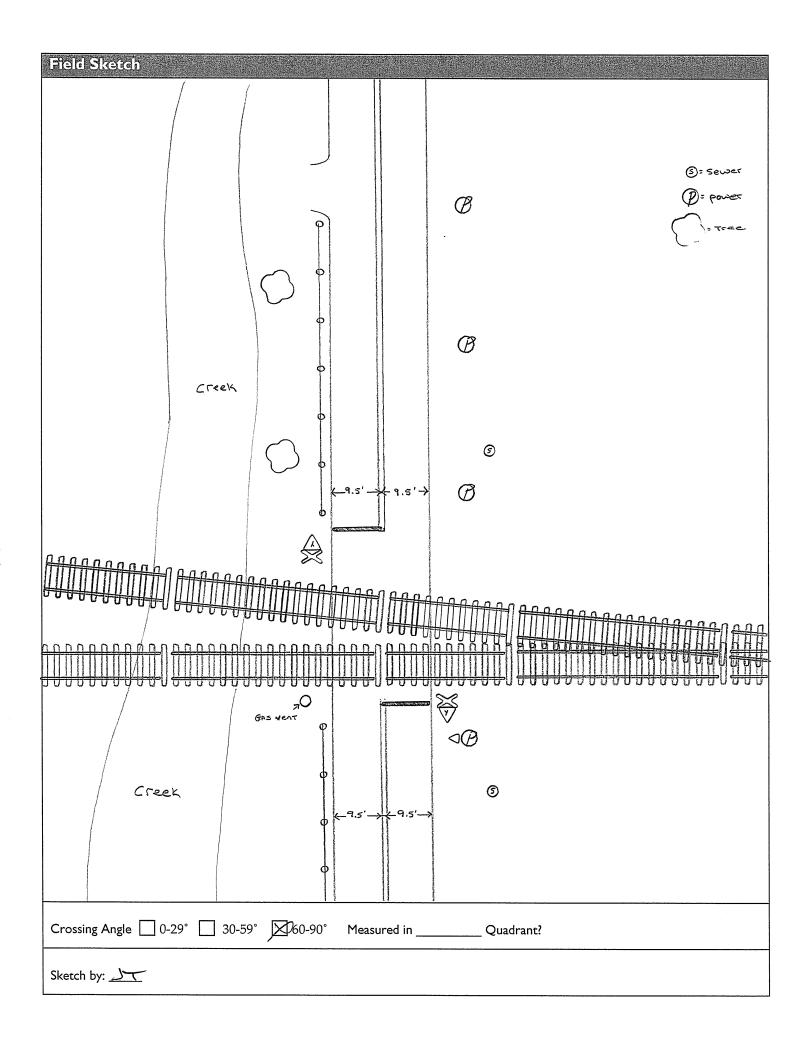
Reason for Survey: (e.g. formula, accident, constituent, etc.)	mula Pick		Date: 10	/18/2017	
Location Data					
Street or Road Name: Camp Industrial R	load				
Route/Road Number (i.e. Twp., Co., SR or US)			US DOT No.:	482704N	
County: CUY Township:		City: (In or Near)	City of Soloi	n	
Railroad Name: Wheeling & Lake Erie	Railroad Division:			Branch/Line Name:	Solon Br
Nearest RR Timetable Station: Solon			RR Milepost	3.10	
On-Site Review Team					
(Include: Name – Organization – Phone Number	– Email)		· · · ·		
1. James Tucker ORDC	614-398-6897	James. tuch	er @ du-	t. OHIO. 9	
2. RANDY John PUCO	330-495-3F10	RANDY. Johr	No. Judic. DH	10. STATP U	
3. Tim Andrews WLE	330-417-5541	tandrewse	wlenny	. com	
2. <u>RANDY John Puco</u> 3. <u>Tim Andrews WLE</u> 4. John Busch Solon	440-349-6748	- JRI	scher	alun ol	
5					
6					
7					
7					
8					
9					
Existing Traffic Control Devices					
Type of Warning Devices	Installed	1?		Quantity/Co	omments
Advance Warning Signs (condition?)	X Yes	ΠNο	2	<u></u>	
'Stop' Signs	T Yes	No No			
'Stop Ahead' Signs	and a second		1		
Pavement Markings (condition?)	Yes				
	Yes	No No	2		***
Crossbucks	🔀 Yes	No	2		
	Yes Yes	⊠ No □ No □ No	2		
Number of Tracks Signs	X Yes X Yes X Yes	X No No No No			
Number of Tracks Signs Inventory Tags	ing Yes Ing Yes Ing Yes Ing Yes Ing Yes	X No No No No No No	2		
Number of Tracks Signs Inventory Tags Interconnected Highway Traffic Signal	Yes Yes Yes Yes Yes Yes	No			
Number of Tracks Signs Inventory Tags Interconnected Highway Traffic Signal Mast-Mounted Flashing Lights	Yes Yes Yes Yes Yes Yes Yes	X No No No No No X No K No	2		Length:
Number of Tracks Signs Inventory Tags Interconnected Highway Traffic Signal Mast-Mounted Flashing Lights Cantilever Flashing Lights	Yes Yes Yes Yes Yes Yes Yes Yes	X       No         No       No         No       No         No       No         Xo       No			Length:
Number of Tracks Signs Inventory Tags Interconnected Highway Traffic Signal Mast-Mounted Flashing Lights	Yes	No	Z Number:		
Number of Tracks Signs Inventory Tags Interconnected Highway Traffic Signal Mast-Mounted Flashing Lights Cantilever Flashing Lights Side Lights	Yes	X0         No         No         No         No         No         X0         X0	Z Number: Number:		Length: Length:
Number of Tracks Signs Inventory Tags Interconnected Highway Traffic Signal Mast-Mounted Flashing Lights Cantilever Flashing Lights Side Lights Automatic Gates	Yes	X       No         No       No         No       No         No       X         No       X         X       No	Z Number:		
Number of Tracks SignsInventory TagsInterconnected Highway Traffic SignalMast-Mounted Flashing LightsCantilever Flashing LightsSide LightsAutomatic GatesBellsSidewalk Gate Arms	Yes       Yes	No	Z Number: Number:		
Number of Tracks Signs         Inventory Tags         Interconnected Highway Traffic Signal         Mast-Mounted Flashing Lights         Cantilever Flashing Lights         Side Lights         Automatic Gates         Bells	Yes	No	Z Number: Number:		
Number of Tracks Signs Inventory Tags Interconnected Highway Traffic Signal Mast-Mounted Flashing Lights Cantilever Flashing Lights Side Lights Automatic Gates Bells Sidewalk Gate Arms 'No Turn' Signs	Yes       Yes	No	Z Number: Number:		

Safety Data (Obtain crash repo	rts, if possible, prior to review)		
	Initial Information (from database) Re		
Number & dates of crashes   in previous 5 years	I (11/28/2016) & (1/95)		
Hazard Ranking 36			
Railroad Data		1	
Railroad Characteristics	Initial Information (from database)	Revised	
Total trains per day	<b>4</b> ∕ √	if per Day	
< I per day			
Day thru trains			
Night thru trains			
Daytime switching movements	4	4 Switches	
Nighttime switching movements			
Total number of tracks	2		
Number of main tracks	0		
Number of other tracks	2		
Maximum train speed	10		
Typical train speed Amtrak	10		
If non-gated crossing, is clearing sight distant	ce adequate in all quadrants? (See Table 1)	X Yes No	
If multiple tracks, can two trains occupy cro	ossing at the same time? 🗌 Yes 🛛 🕅 No		
Can one train block the motorists' view of a	another train at crossing? 🔲 Yes (Explain be	elow) 🖌 No	
Can one or more tracks be eliminated throu	ugh the crossing? 🔲 Yes 🛛 🕅 No		
Are there other track(s) crossing this same	roadway within 100 ft of this crossing?	Yes XNo	
If yes, Crossing DOT #(if different) If yes, distance (take mea	surement between track centerlines at close	/ st point along roadway)	
Roadway Data			
Local Highway Authority:	City of Solon		
Roadway Characteristics	Initial Information (from database)	Revised	
Average daily traffic	327 (2014)		
Highway paved	X Yes 🗌 No	Yes No	
Roadway Surface: 🕅 Blacktop 🔲 Gravel	Concrete Other		
Roadway width: <u>20</u> ft.			
Number of highway lanes	2		
Urban or Rural	Urban		
Vehicle Speed: <u>35</u> MPH			
School Bus Operation: 🔊 No 🗌 Yes Amount			
Hazardous Materials Trucks: No X Yes <u>.06</u> Amount			
Shoulders: No X Yes			
Is the shoulder surfaced? K No Yes			
Is there existing guardrail along roadway in crossing vicinity? 🗌 No 🛛 🕅 Yes			
is there existing guardrair along roadway in (			

Quadrant Curb and Gutter:	Quadrant Curb and Gutter:	
Functional (Curb height = 4" or more)	☐ Functional (Curb height = 4" or more)	
□ Non-functional (Curb height = Less than 4")	□ Non-functional (Curb height = Less than 4")	
A None	🔀 None	
Pedestrians: 🕅 No 🗌 Yes		
Is sidewalk present? 🛛 No 🗌 Yes		
Is there a nearby intersection that could cause queuing over the c If yes, Distance	rossing? 🔀 No 🗌 Yes	
Is this intersection signalized? 💢 No 🛛 🗌 Yes		
Are the signals currently interconnected with the existing cross	ing 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, near location in the foreseeable future? MNO Yes If yes,	by new or upgraded traffic signal, sidewalk) planned at or near this	
	Timeline/completion -	
Is it the consensus of the Diagnostic Review Team that this is a po Explain reasons:	otential closure project: 🔀 No 🗌 Yes	
Type of Development		
Open Space Institutional Location of nearby		
	Sobn city schools	
Residential		
Utility Information		
Is commercial power available? 🗌 No 🛛 🏹 Yes		
Utility Provider (Company Name) <u>Flowmatics</u> Co. Phone Number		
Nearest Available Power Source Crossing		
What other utilities are present? 🔀 Gas 🔲 Cable (add locations to sketch) 🗍 Petroleum 📈 Water 🗌 Other	Telephone 🔲 Fiber Optic Cable	
Is(are) there potential utility conflict(s) [] Yes [] No A Comments:	Unknown	

Potential Red Flags / Project Challenges
Traffic Signal Preemption (include traffic signal intersection name and LHA with jurisdiction over traffic signal, if known):
NIA
Crossing Consolidation or Closure:
NIA
Real Estate or ROW:
NIA
Culverts / Drainage / Ballast Conditions:
Drainage issues
Culverts possible issue
BAILAST Floods
Roadway and/or Sidewalks:
NA
Circuitry (e.g. reaches out to other crossings, specific needs, etc.):
2 switches to the east.
Environmental:
creek on the west side. Unknown name
Other:

Diagnostic Team Recommendations	
	Quadrants Needed
Install/upgrade active devices	
Automatic Flashing Lights (AFLS)	
$\square AFLS / Cants$	
AFLS / Gates	Amended by consultation and
AFLS / Gates / Cants	
Bells / number	team. Cattere Stout ORDC
Upgrade circuitry / type	See attached
Sidelights	see analied
Guardrail Needed	
Bungalow placement & offset from rail & highway	
Other (define)	· · · ·
Comments:	
Comments.	
\	
Install/upgrade traffic signal preemption	
No improvements needed	See Below
X Other (define)	
Acknowledgement of Recommendations (each entity represented	at the diagnostic must have at least one signature
acknowledgement):	
J. The Zala	,
1. AT Alla	
/ / //-	
Field Dimensions	
	THE ORDC, WIE and the POCO felt this crossing
4 Show North	
Sidewalk / Direction	would be a good candidate for an upgrade. The
	LHA thought the existing devices were adequate.
Parkway — '	
	John Busch (solon) telt he needed to present
	this issue to the City Safety group before
Roadway 9.5	100 10000 to the COTT MATCH JIOUP DETOIC
	a decision could be made on their and to
Roadway	upgrade. I told John that I would mark
↓	no improvements needed @ this time and
Parkway	If the City would want to revisit this
↓ · · · · · · · · · · · · · · · · · · ·	
Sidewalk	they could contact the ORDC @ a hater
	date.
++	
1 <del>1</del>	



#### 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 <u>non-gated crossings</u> 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.

	Γ
Surface type	Condition
	Condition
•	⊠ Good
	□ Fair
□ Asphalt	D Poor
Composite	Comments:
Concrete panel	
Full-depth timber	
Full-depth rubber	
□ Other	
Is the surface good and sufficient?	
Is the surface good and sufficient? Vehicle type (cars, trucks, etc.):	(Yes) / No
Surface conditions:	ces
Can vehicles cross at posted speed? $\underline{\gamma}$	55
$\frac{\gamma c}{\gamma c}$	
Local observations/driver behaviors:	
Relevant crash history: $\mathcal{N}/\mathcal{A}$	
Do existing surface conditions have negative effects of	on the current or proposed warning devices?
Explain: <u>NO</u>	
Comment	
Comments:	

County: <u>Cuy</u> Route: <u>Camp Industrial</u> Rod. DOT#: <u>482704N</u>

Form completed by: J. Harris Date: 10-18-17

### Stout, Catherine

From:	Tim Andrews <tandrews@wlerwy.com></tandrews@wlerwy.com>
Sent:	Friday, December 01, 2017 3:44 PM
То:	Stout, Catherine; Tucker, Jim; Johr, Randy
Cc:	Henry, Jill
Subject:	RE: Letter 11-21-2017.pdf

I would recommend Lights/Gates at this location. There is quite a bit of drainage that will need to be assessed to help keep the circuits up. I would also think about using an Island only operation for this crossing as the track is not in the greatest of condition to push a circuit very far. I apologize for the delayed response. Please let me know if you have any questions.

Thanks,

**Tim Andrews** | Signal & Communications Supervisor Wheeling & Lake Erie Railway 100 East First Street, Brewster, Ohio 44613 330-767-7255 office | 330-417-5541 cell | <u>www.wlerwy.com</u>

From: Catherine.Stout@dot.ohio.gov [mailto:Catherine.Stout@dot.ohio.gov]
Sent: Wednesday, November 22, 2017 8:40 AM
To: Tim Andrews <tandrews@wlerwy.com>; James.Tucker@dot.ohio.gov; Randy.Johr@puco.ohio.gov
Cc: jill.henry@puco.ohio.gov
Subject: RE: Letter 11-21-2017.pdf

Gentlemen,

I am going to set up a project while I am waiting to see if there is a response from the city. The diagnostic review form did not state what type of project. Is your recommendation flashing lights and roadway gates, or something else? I will make your response part of the diagnostic record.

Thank you,

Cathy Stout Manager, Safety Programs, ORDC MS 3140, 1980 W. Broad Street Columbus, OH 43223 614-644-0313

From: Stout, Catherine
Sent: Wednesday, November 22, 2017 8:21 AM
To: 'jbusch@solonohio.org' <<u>ibusch@solonohio.org</u>>
Cc: Henry, Jill <<u>jill.henry@puco.ohio.gov</u>>; Tim Andrews (<u>tandrews@wlerwy.com</u>) <<u>tandrews@wlerwy.com</u>>; Tucker, Jim <<u>James.Tucker@dot.ohio.gov</u>>;
Subject: Letter 11-21-2017.pdf

#### John,

Thank you for taking the time to talk with Matt Dietrich about this crossing. Attached is a letter from Matt. Please feel free to speak with Matt again, with me, or with Jim Tucker (614-398-6897) if you have any concerns.

Have a safe and happy Thanksgiving,

Cathy Stout Manager, Safety Programs, ORDC MS 3140, 1980 W. Broad Street Columbus, OH 43223 614-644-0313

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## **Stout, Catherine**

From: Sent: To: Cc: Subject: Tucker, Jim Wednesday, December 06, 2017 11:08 AM Tim Andrews; Stout, Catherine; Johr, Randy Henry, Jill RE: Letter 11-21-2017.pdf

Cathy,

I concur with Tim's recommendations.

Jim

From: Tim Andrews [mailto:tandrews@wlerwy.com]
Sent: Friday, December 01, 2017 3:44 PM
To: Stout, Catherine <Catherine.Stout@dot.ohio.gov>; Tucker, Jim <James.Tucker@dot.ohio.gov>; Johr, Randy
<Randy.Johr@puco.ohio.gov>
Cc: Henry, Jill <jill.henry@puco.ohio.gov>
Subject: RE: Letter 11-21-2017.pdf

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Tim Andrews | Signal & Communications Supervisor Wheeling & Lake Erie Railway 100 East First Street, Brewster, Ohio 44613 330-767-7255 office | 330-417-5541 cell | <u>www.wlerwy.com</u>

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Sent: Wednesday, November 22, 2017 8:40 AM
To: Tim Andrews <<u>tandrews@wlerwy.com</u>>; James.Tucker@dot.ohio.gov; <u>Randy.Johr@puco.ohio.gov</u>
Cc: <u>jill.henry@puco.ohio.gov</u>
Subject: RE: Letter 11-21-2017.pdf

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Thank you,

Cathy Stout Manager, Safety Programs, ORDC

## Stout, Catherine

From: Sent: To: Subject: Johr, Randy Wednesday, December 06, 2017 11:48 AM Stout, Catherine RE: Letter 11-21-2017.pdf

Catherine,

Hello, I am getting back to you on the recent diagnostic review I am in agreement with party's present at meeting.

Thanks Randy,

From: Stout, Catherine
Sent: Wednesday, November 22, 2017 8:40 AM
To: Tim Andrews (tandrews@wlerwy.com) <tandrews@wlerwy.com>; Tucker, Jim <James.Tucker@dot.ohio.gov>; Johr,
Randy <Randy.Johr@puco.ohio.gov>
Cc: Henry, Jill <jill.henry@puco.ohio.gov>
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Sent: Wednesday, November 22, 2017 8:21 AM
To: 'jbusch@solonohio.org' <<u>ibusch@solonohio.org</u>>
Cc: Henry, Jill <<u>iill.henry@puco.ohio.gov</u>>; Tim Andrews (<u>tandrews@wlerwy.com</u>) <<u>tandrews@wlerwy.com</u>>; Tucker, Jim
<<u>James.Tucker@dot.ohio.gov</u>>
Subject: Letter 11-21-2017.pdf

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Have a safe and happy Thanksgiving,

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

3/18/2019 12:12:30 PM

in

Case No(s). 19-0650-RR-FED

Summary: Application In the Matter of a Request for the Installation of Active Warning Devices at the Wheeling & Lake Erie Railroad Grade Crossing, DOT# 482-704N, at Camp Industrial Road in Cuyahoga County, Ohio. electronically filed by Mrs. Jill A Henry on behalf of PUCO/ Rail Division