

FILE

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10-2920-RR-FED

WHEELING & LAKE ERIE RAILWAY COMPANY

Dan Reinsel
Signal & Communication Supervisor

100 East First Street
Brewster, OH 44613

Tel. 330-767-7202

dreinsel@wlerwy.com

Fax: 330-767-3213

Dear PUCO Docketing Division:

The materials included with this cover letter as submitted to your office as per the instructions within the Stipulation for the installation of the identified crossing warning device installation.

Thank you,

Dan Reinsel

Dan Reinsel

(4 Projects)

PUCO

2011 APR -4 PM 3:58

RECEIVED-DOCKETING DIV

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16-2920-RR-FED

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28 March 2011

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

Re: Estimate for Railroad Crossing Warning System at Spell Road DOT 472-673P

Dear Mr. Forte,

I am providing this estimate for the crossing package and installation at Spell Road. 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 preformed under our continuing construction agreement with CTC LLC.

CTC Managed Services & Package Installation	\$31,526.07
RSS Supplied Package	\$77,375.15
Fill Materials	\$2,500.00
Fill Material Transport	\$900.00
Two Gate Foundations (note 1)	\$1,377.00
Site Preparation (foundations, bores)	\$19,000.00
Electric Service	\$3,500.00
Cutout relay (note 2)	\$1,245.00
<u>Insulated Joints + Installation + Cutover</u>	<u>\$27,803.61</u>
Estimated Total	\$165,226.83

Please contact me if additional details are required.

Respectfully,



Dan Reinsel

Notes

- 1: Direct purchase from Fabricated Metals, 60' galvanized gate foundation, \$459 ea.
2. Cutout relay missed on original material list, includes support bracket and wiring.

c: PUCO, Jill Henry
PUCO, George Martin

Wheeling & Lake Erie Railway Co.
Franklin Township, Ohio - Spell Rd DOT# 472 673P
Project Estimate - CT10168

ENGINEERING					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SIGNAL DESIGNER	40	HR	31.25		\$1,250.00
SIGNAL CHECKER, LEVEL 1	4	HR	36.06		\$144.24
SIGNAL CHECKER, LEVEL 2/FIELD ENGINEER		HR	36.06		\$0.00
SUBTOTAL					\$1,394.24
G&A BURDEN FOR LABOR					\$2,551.46
FIXED FEE					\$394.57
ENGINEERING TOTAL					\$4,340.27

PROJECT MANAGEMENT					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SENIOR SIGNAL ENGINEER	12	HR	\$72.11		\$865.32
PROJECT MANAGER	24	HR	\$31.25		\$750.00
CONSTRUCTION MANAGER	24	HR	\$36.06		\$865.44
ACCOUNTING, LEVEL1	16	HR	\$39.81		\$636.96
ADMINISTRATIVE	4	HR	\$25.48		\$101.92
SUBTOTAL					\$3,219.64
G&A BURDEN FOR LABOR					\$5,891.94
FIXED FEE					\$911.16
PROJECT MANAGEMENT TOTAL					\$10,022.74

CONSTRUCTION LABOR					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SIGNAL FOREMAN	60	HR	\$28.50		\$1,710.00
SIGNALMAN	60	HR	\$19.50		\$1,170.00
SIGNAL HELPER	60	HR	\$19.00		\$1,140.00
SUBTOTAL					\$4,020.00
G&A BURDEN FOR LABOR					\$7,356.60
FIXED FEE					\$1,137.66
CONSTRUCTION LABOR TOTAL					\$12,514.26

CONSTRUCTION LABOR EXPENSES					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
EMPLOYEE MEALS (PER DIEM)	19	EA	\$30.00		\$570.00
EMPLOYEE TRAVEL & LODGING	16	EA	\$60.00		\$960.00
SUBTOTAL					\$1,530.00
CONSTRUCTION LABOR EXPENSES TOTAL					\$1,530.00

Wheeling & Lake Erie Railway Co.
Franklin Township, Ohio - Spell Rd DOT# 472 673P
Project Estimate - CT10168

CONSTRUCTION EQUIPMENT					
Description	Qty	UOM	Unit Price		Amount
TRUCK, PU, 1 TON CREW CAB	60	HR	\$11.78		\$706.80
TRUCK, BOOM, ART, TELESCOPING	20	HR	\$55.95		\$1,119.00
TRAILER, UTILITY, 4 TIRE, 12,000lbs SC410	60	HR	\$7.55		\$453.00
RENTAL EQUIPMENT (FORK LIFT/BACKHOE/SKYTRAK)	1	WK	\$690.00		\$690.00
EQUIPMENT DELIVERY/PICKUP	1	LS	\$150.00		\$150.00
SUBTOTAL					\$3,118.80
CONSTRUCTION EQUIPMENT TOTAL					\$3,118.80

MATERIAL					
Description	Qty	UOM	Unit Price		Amount
HOUSE MATERIAL (SEE ATTACHED DETAIL)	1	LS			\$33,948.05
FIELD MATERIAL(SEE ATTACHED DETAIL)	1	LS			\$31,927.10
HOUSE AND SIGNAL WIRING	1	LS			\$7,500.00
FILL DIRT	10	TN	\$7.50		\$75.00
CONCRETE		YD	\$500.00		\$0.00
COVER ROCK	10	TN	\$26.50		\$265.00
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			\$4,000.00
SUBTOTAL					\$77,715.15
MATERIAL TOTAL					\$77,715.15

TOTAL PROJECT ESTIMATE	\$109,241.22
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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	\$8,500.00	\$8,500.00
ASSY TSA-1A W/TTA3 ARRESTORS	4	EA	250787-000	\$134.00	\$536.00
EPC TD-4 TRACK DRIVER	1	EA	800-081033-100	\$712.00	\$712.00
RECTIFIER 5/5 CRAGG 5LA-N1	1	EA	5LA-N1	\$348.00	\$348.00
CHARGER 40A 12V CRAGG 40ETC12V	2	EA	017061-203	\$673.27	\$1,346.53
RECTIFIER POWER CORD 14/4 SJE BLK	70	FT		\$1.00	\$70.00
BATTERY GNB 150AH	1	EA		\$500.00	\$500.00
BATTERY NICAD 250 AH SPL-250	19	EA		\$290.00	\$5,510.00
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	\$52.88
SCKT RLY 8-PIN OCT SCREW PNLMT	4	EA	132246-001	\$4.48	\$17.91
POWER OFF LIGHT KIT	1	EA		\$116.40	\$116.40
NUT INSULATED HARMON	20	EA	013986-000	\$2.97	\$59.40
SSCCIII PLUS 40 AMP 15" BASE	1	EA	91190-0101	\$5,628.00	\$5,628.00
PANEL LTG SURGE SSCC 91170-01	1	EA	201756-015	\$808.75	\$808.75
MICRO DATA ANALYZER II WLE PK	1	EA	072113-100	\$3,450.00	\$3,450.00
MDA CURRENT SENSOR	2	EA		\$220.00	\$440.00
BATTERY GROUND DETECTOR	1	EA	NAS	\$1,260.00	\$1,260.00
RELAY 4 OHM 6FB NEUTRAL	3	EA	ST1 400010	\$870.00	\$2,610.00
RELAY PLUGBOARD B1 W/10-14 CRIMP TERMINALS	3	EA		\$203.00	\$609.00
WIRE 16AWG/19 TC EPR/PVC BLU	300	FT	012092-002	\$0.22	\$66.00
WIRE 10AWG/19 TC EPR/PVC BLU	350	FT	012092-000	\$0.62	\$215.60
WIRE 8AWG/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 10 OHM	2	EA		\$30.00	\$60.00
RES ADJ WW 15W 5.69 OHM PNLMT	5	EA	002238-101	\$26.09	\$130.46
CONN PLUG L6-15 250V 15A 2P3W	3	EA	132286-001	\$11.53	\$34.58
ASSY 2WAY TERM BLK W/AAR HARD	6	EA	202810-000	\$15.82	\$94.91
ASSEMBLY, 4 POST TERMINALBLOCK	4	EA	203032-000	\$43.48	\$173.93
ASSY TERM STRIP DBL POST 12	2	EA	250094-300	\$19.77	\$39.53
GROUND POST P5-162	4	EA	113047-000	\$25.94	\$103.75
WRENCH AAR TERMINAL	1	EA	095058-001	\$15.28	\$15.28
LABEL, DANGER 240 V, 1.75 X 2.	1	EA	SQS109	\$3.86	\$3.86
NOTIFICATION SIGN HSE	1	EA	HSE SIGN	\$312.55	\$312.55

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
DECAL, DOT STRIP	2	EA		\$16.00	\$32.00
ASSY WLE STANDARD FLASHER/GATE W/O ARM, GATE ARM LIGHTS, GATE KEEPER	2	ASSY	CTC	\$12,000.00	\$24,000.00
TAPE MARKER BURIED RR CABLE	1	EA	029989-000	\$21.43	\$21.43
CABLE UG 7 COND #6 AWG SOLID	300	FT	1077-02	\$6.29	\$1,887.60
CABLE UG 7 COND #14 AWG SOLID	300	FT	1023-02	\$2.22	\$668.60
WIRE UG TRK #6 AWG DUPLEX	400	FT	1094-02	\$1.46	\$585.20
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	4	EA	D&W SB7100090	\$42.10	\$168.40
BOND JOINT 5/16" X 7" TAB ERICO #SB-	200	EA	2161-01	\$5.41	\$1,082.40
WIRE #6 SOFT BARE COPPER	30	FT	1436-01	\$0.40	\$11.88
CARTRIDGE SB25 POWDER W/ATTACHMETAL FOR	200	EA	1026-39	\$1.55	\$310.20
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" TINNEDSBSBTINSUL	100	FT	4133-01	\$1.21	\$121.00
TRACK RECTIFIER, RING-10	2	EA	800-004080-000	\$119.00	\$238.00
PLATE SHUNT 24"X26"X1/4" GALV.	2	EA	6193-01	\$67.06	\$134.11
SCREW LAG 3/4" X 6" BLACK GRIMLET PO	8	EA	2000-01	\$0.81	\$6.51
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 M# 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
SLEEVE NICO 3/16"-#6 AWG REDUC#2363-J	20	EA	1145-01	\$0.89	\$17.82
CLIP TRACK WIRE RETAINER - ERICO #SBA	12	EA	1118-01	\$1.97	\$23.63
COMPOUND DUCT SEAL 5 LB PLUG PERMAGUM #	5	PK	1179-01	\$10.68	\$53.41
LOCK MASTER	4	EA	MLCK	\$28.41	\$113.65
EMERGENCY SIGN SIGNAL	1	EA	SIG SIGN	\$113.65	\$113.65
FIELD TAG KIT	1	EA	FLDTGKT	\$170.48	\$170.48

WHEELING & LAKE ERIE RAILWAY COMPANY**Estimate for installation of 8 insulated joints and crossing cutover****Materials, Labor, and Purchased Services**

DOT #	472-673P
Mile Post	Q-29.5
Subdivision	Cleveland
City / Township	Kent Area
Road Name	Spell Rd.

Materials (see page 2):	17,085.60
Labor (see page 3):	4,551.43
Equipment (see page 4):	2,830.00
Purchased Services (see page 4):	0.00
Accounting (2% of Labor):	91.03
Contingencies (15% of Material & Labor):	<u>3,245.55</u>
TOTAL	\$27,803.61

TRACK MATERIALS:

<u>Track Material Description</u>	<u>No. of Units</u>	<u>Price Per Unit</u>	<u>Total Amount</u>
Insulated Bonded Rail Section, 110RE	8.00	\$1,825.00	14,600.00
Rail cutting wheel 16"	16.00	\$38.00	608.00
115# Weld Kit	16.00	115.00	1,840.00
<u>Cutting Wheels</u>	<u>2.00</u>	<u>18.80</u>	<u>37.60</u>
TOTAL			\$17,085.60

LABOR:

<u>Description</u>	<u>No. of Men</u>	<u>No. of Days</u>	<u>No. of Hours</u>	<u>Hourly Rate</u>	<u>Total Amount</u>
Track Supervisor	0.0	0.0	0.00	\$33.50	0.00
Track Foreman	1.0	2.0	16.00	\$15.38	246.08
B&B Foreman	0.0	0.0	0.00	\$15.38	0.00
B&B Mechanic/Journeyman	0.0	0.0	0.00	\$14.44	0.00
Welder	1.0	6.0	48.00	\$14.44	693.12
Welder Helper	1.0	6.0	48.00	\$14.08	675.84
Backhoe Operator Class A	0.0	0.0	0.00	\$14.44	0.00
Tamper Operator Class A	0.0	0.0	0.00	\$14.44	0.00
Regulator Operator Class A	0.0	0.0	0.00	\$14.44	0.00
Prentice Truck Operator, Class A	0.0	0.0	0.00	\$14.44	0.00
Prentice Truck, Assist. Operator Clas:	0.0	0.0	0.00	\$14.44	0.00
Ohio Crane Operator Class A	1.0	0.5	5.00	\$14.44	72.20
Ohio Crane Assist. Operator Class A	1.0	0.5	5.00	\$14.44	72.20
Track Laborer	2.0	2.0	32.00	\$12.00	384.00
Signal Supervisor	0.0	0.0	0.00	\$33.50	0.00
Signal Foreman	0.0	0.0	0.00	\$19.32	0.00
System Signal Technician	1.0	3.0	24.00	\$18.20	436.80
S&C Technician	0.0	0.0	0.00	\$16.75	0.00
Laborer, S&C Dept.	0.0	0.0	0.00	\$10.85	0.00
SUB TOTAL OF LABOR					2,580.24
Additives & Benefits on Labor	74.12%				1,912.47
Per Diem, Signal Rate 1		0.0		\$30.64	0.00
Per Diem, Signal Rate 2		0.0		\$22.98	0.00
Per Diem, Signal Rate 3		0.0		\$15.35	0.00
Per Diem, Signal Meal Allowance		0.0		\$10.22	0.00
Per Diem Track		1.0		\$58.72	58.72
Flagger (up to 8 hours)		0.0		\$500.00	0.00
Flagger (over 8 hours)		0.0		\$650.00	0.00
Flagger (weekend)		0.0		\$800.00	0.00
<u>TOTAL LABOR:</u>					\$4,551.43

EQUIPMENT:

<u>Description</u>	<u>No. of Days</u>	<u>Price Per 10 Hr Day</u>	<u>Total Amount</u>
Section Hyrail Boom Truck \$35 hr	2.00	\$350.00	700.00
B&B Hyrail Boom Truck \$35 hr	0.00	\$350.00	0.00
Welder Truck \$23 hr	6.00	\$230.00	1,380.00
Hyrail Dump Truck \$20 hr	0.00	\$200.00	0.00
Backhoe \$22 hr	0.00	\$220.00	0.00
Ohio Crane, locomotive \$40	0.50	\$400.00	200.00
Tamper \$105 hr	0.00	\$1,050.00	0.00
Prentice Truck \$35 hr	0.00	\$350.00	0.00
Regulator \$35 hr	0.00	\$350.00	0.00
Rail Drill \$5 hr	2.00	\$50.00	100.00
Rail Saw \$5 hr	6.00	\$50.00	300.00
Air Compressor \$5 hr	0.00	\$50.00	0.00
Lowboy Trailer \$13 hr	0.00	\$130.00	0.00
Sig. Bucket Truck \$26.80 hr	0.00	\$268.00	0.00
Sig. Maintainers Truck 3/4 ton (Hi-Rail) \$7.30 hr	0.00	\$73.00	0.00
Sig. Maintainers Truck (Pickup) \$5 hr	3.00	\$50.00	150.00
Supervisor Pickup \$5 hr	0.00	\$50.00	0.00
Hi rail pickup crew cab \$11.80 hr	0.00	\$118.00	0.00
TOTAL EQUIPMENT			\$2,830.00

PURCHASED SERVICES:

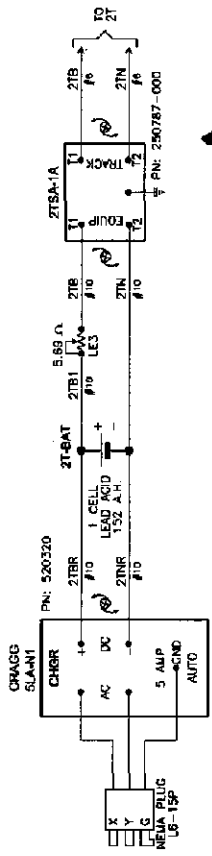
<u>Description (American Demolition Apr. 2009)</u>	<u>No. of Hours</u>	<u>Price Per Hour</u>	<u>Total Amount</u>
Haul & Dispose of Debris	0.00	\$65.00	0.00
Haul Dump Truck (in or out no disposal)	0.00	\$55.00	0.00
Haul Quad Truck	0.00	\$75.00	0.00
Hyrail Dump Truck	0.00	\$100.00	0.00
Loader w/Operator	0.00	\$85.00	0.00
Mobilization/Trailer Time	0.00	\$75.00	0.00
TOTAL PURCHASED SERVICES			\$0.00

FOR REVIEW

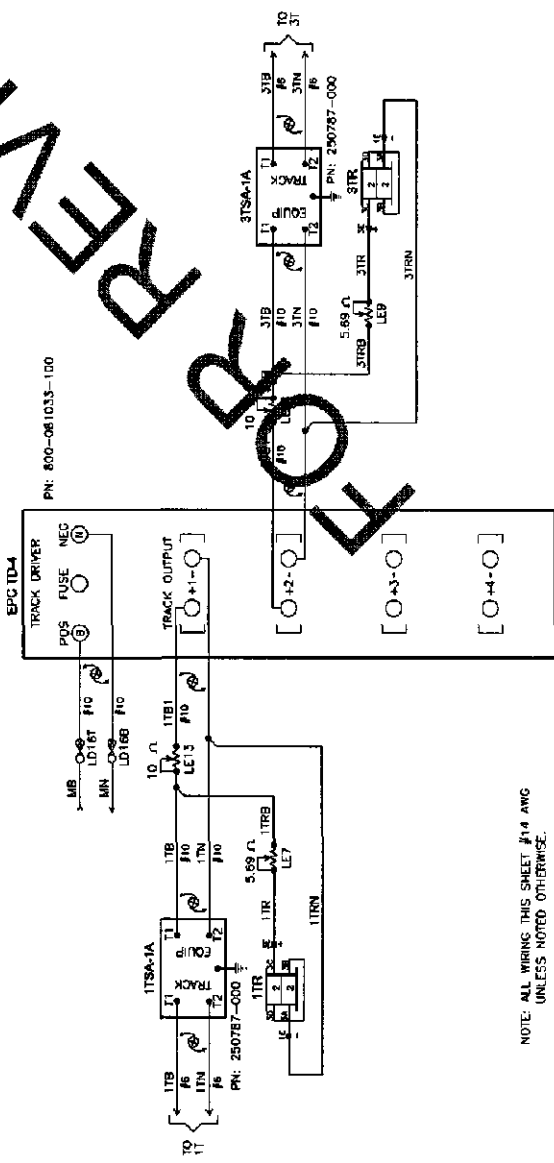
CONSTRUCTION NOTES

- 1) MARKED FIBER OPTIC CABLES RUN ON EAST AND WEST SIDE OF TRACK WITHIN WLE RIGHT OF WAY.
- 2) ALL TRACK IS 100RE JOINTED RAIL AND WILL REQUIRE RAIL HEAD BONDS
- 3) PROPOSED SITE ADDRESS IS 359 SPELL RD
- 4) LAT: 41.1899368 LONG: -81.3803782
- 5) NEW METER SERVICE REQUIRED. SERVICE PROVIDER IS FIRST ENERGY ELECTRIC
- 6) ENSURE BRUSH ALONG ROADWAY DOES NOT OBSTRUCT VIEW OF FLASHING LIGHT SIGNALS.

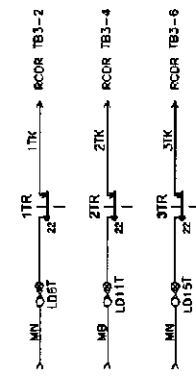
W&LE		<i>Wheeling & Lake Erie Railway</i>	
LOCATION		SPELL ROAD KENT, OH	
ORDER DATE	12/1/2010	SITE LAYOUT NOTES	
TENDER	CYC	SUB	CLIENT AND C1101BBS
ITEM FIELD	CYC	PRIM	SOILS N.T.S.
DRAWING		DOT NO.	4-22-03-RSS
			RENT



WHEELER



NOTE: ALL WIRING THIS SHEET #14 AWG
UNLESS NOTED OTHERWISE.



Wheeling & Lake Erie
Railway

LOCATION

SPELL ROAD
KENT, OH

DATE

12/1/2010

REVISION

NO. 1

REVISION	DATE	BY	CHECKED
1	12/1/2010	W&LE	W&LE
2	12/1/2010	W&LE	W&LE
3	12/1/2010	W&LE	W&LE
4	12/1/2010	W&LE	W&LE
5	12/1/2010	W&LE	W&LE
6	12/1/2010	W&LE	W&LE
7	12/1/2010	W&LE	W&LE
8	12/1/2010	W&LE	W&LE
9	12/1/2010	W&LE	W&LE
10	12/1/2010	W&LE	W&LE

PROJ. NO.

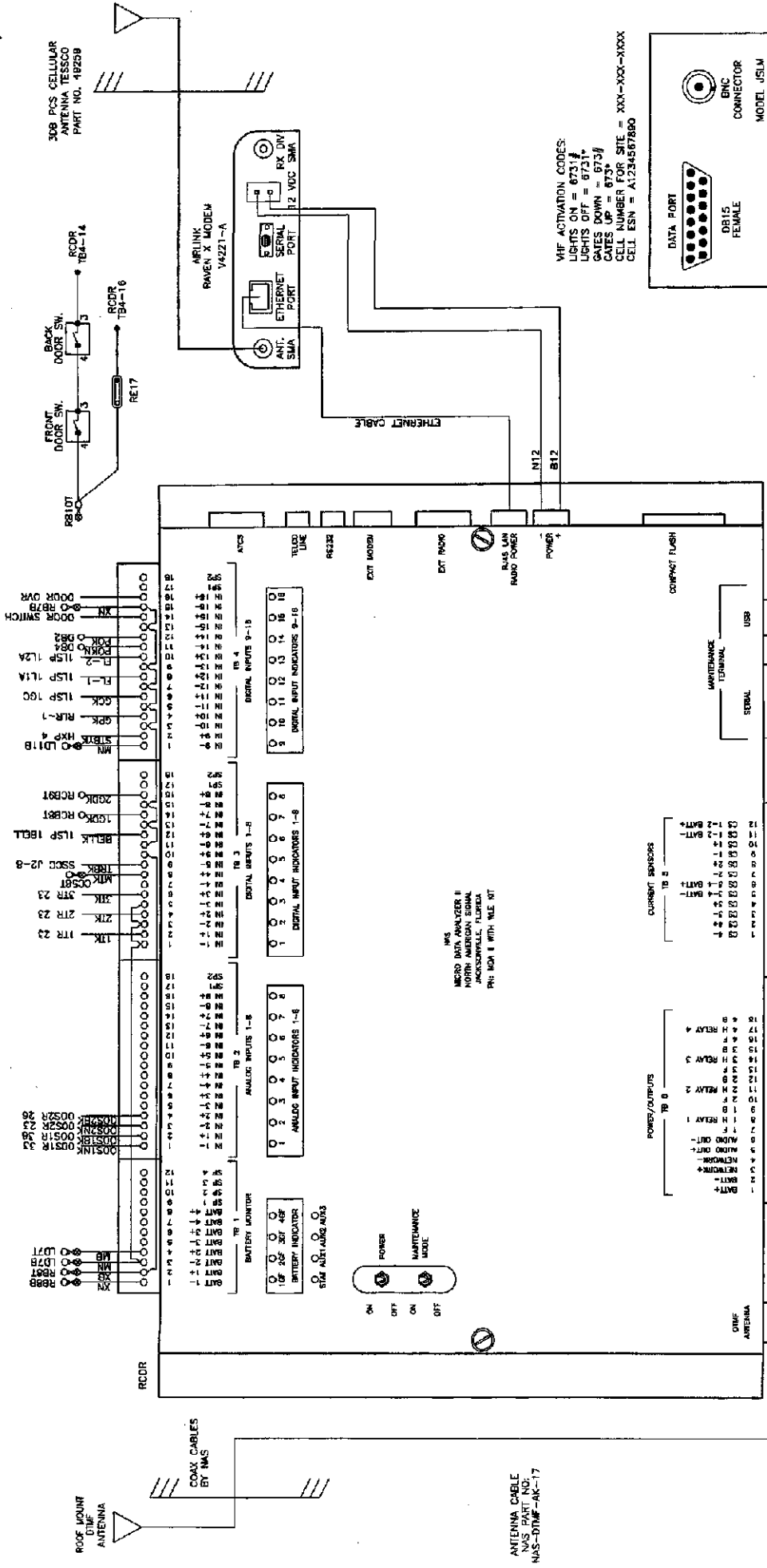
1000000000

DATE

12/1/2010

BY

W&LE



VHF ACTIVATION CODES:
 LIGHTS ON = 8731#
 LIGHTS OFF = 8731#
 GATES DOWN = 8733#
 GATES UP = 8733#
 CELL NUMBER FOR SITE = XXX-XXX-XXXX
 CELL ESN = A1234567890

308 PCS CELLULAR
 ANTENNA TESSCO
 PART NO. 49259

W&LE

W&LE
 WHEELING & LANSING
 RAILWAY

LOCATION
 SPELL ROAD
 KENT, OH

RECEIVED DATE 12/1/2010
 REC'D BY
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RECEIVED DATE 12/1/2010
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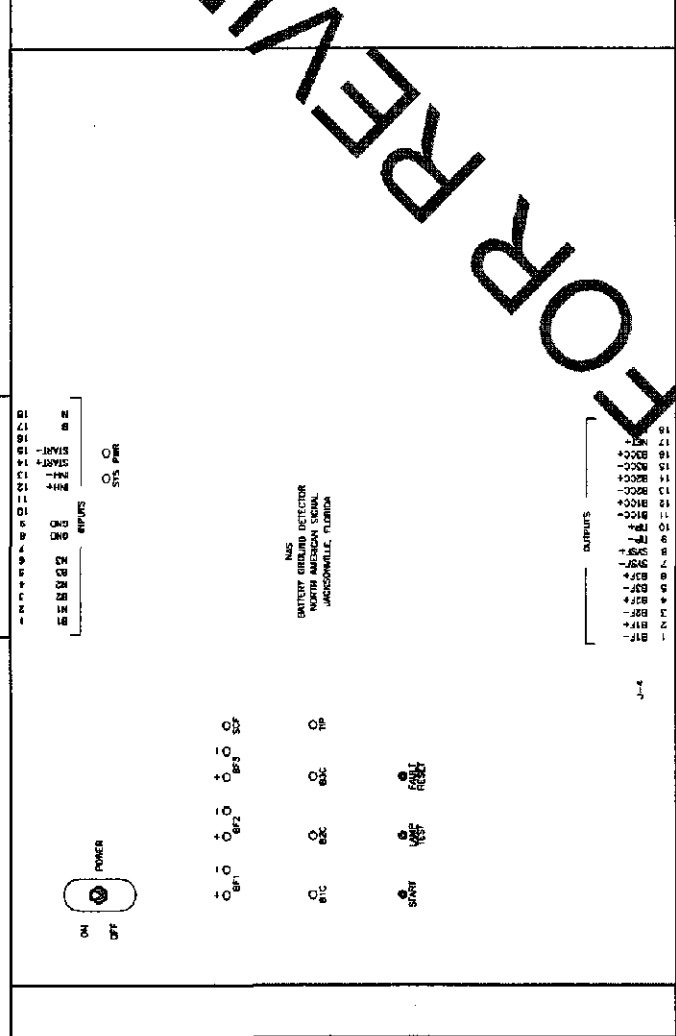
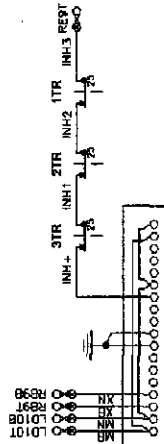
RECEIVED DATE 12/1/2010
 REC'D BY
 REC'D BY
 REC'D BY

RECEIVED DATE 12/1/2010
 REC'D BY
 REC'D BY
 REC'D BY

NOTE: RLR-REMOTE LAMP RELAY
 ROR-REMOTE OPERATION RELAY
 NOTE: ALL WIRING THIS SHEET #14 AWG
 UNLESS NOTED OTHERWISE.
 #22 AWG WIRE FOR ALL ROR JUMPERS.

ANTENNA CABLE
 NAS PART NO.
 NAS-DTME-AK-17

REVISION
 OFF OF WIRING JARVIS
 3-10-2011



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

NOTE: ALL USING THIS SHEET #14 AWG
UNLESS NOTED OTHERWISE.

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(2 MA)

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(12 HOURS)

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
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POSITION	1	2	3	4	5	6	7	8
CLOSED								
OPEN								

(12 HOURS)

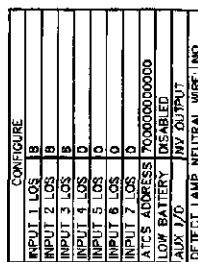
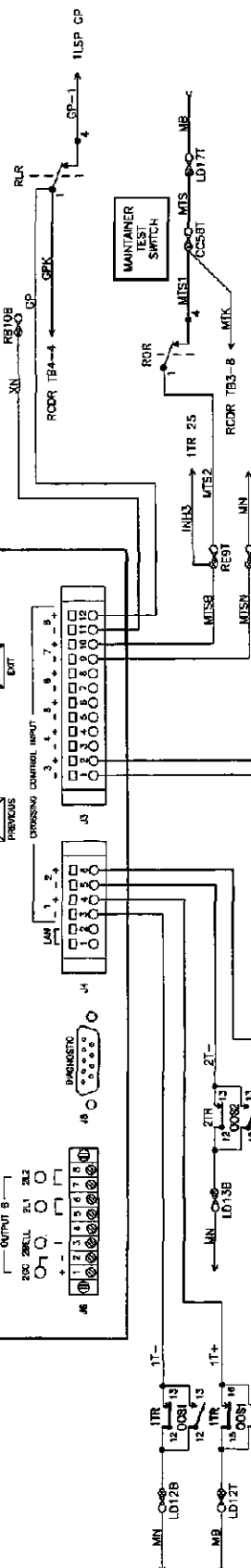
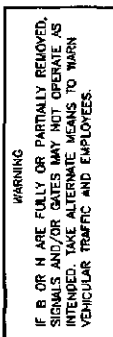
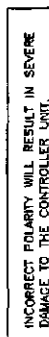
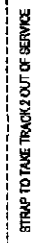
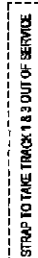
SW1 CURRENT 1/10 MA

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CLOSED								
OPEN								

(2 MA)

SW1 CURRENT 1/10 MA

POSITION	1	2	3	4	5	6	7	8
CLOSED								

MCF=2TRKDSTK MCF CRC=A9776265

PROGRAM	
FLASHER RATE:	50 FPS
GATE DELAY 1 TIMER:	4 SEC
GATE DELAY 2 TIMER:	4 SEC
BELL-ON GATE RISING	ON
PRO 265/17 MODE	NORMAL
MIN ACTIVATION TIMER:	0 SEC
ENABLE SWITCH L546	DISABLED
PRO TEST SWITCH	ACTIVATE
PRO 5TRC RELEASE	15 MIN.
PRO: ENABLED COMPUTS: A+B	A
TIME:	
DATE	
DAYLIGHT SAVINGS	DISABLED
PASSWORD	DISABLED
SET TO DEFAULT	N/A

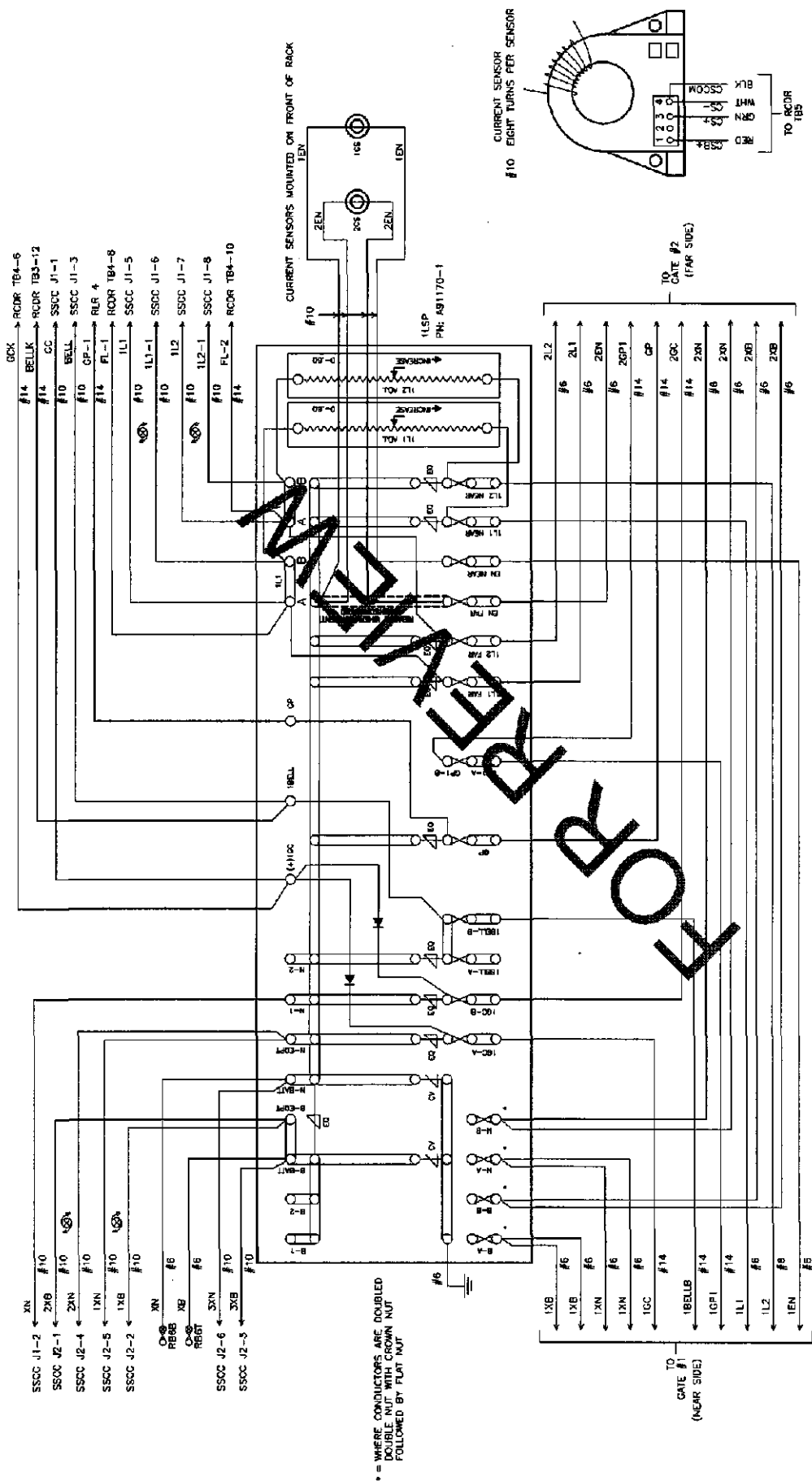
NOTE: ALL WIRING THIS SHEET #14 AWG
UNLESS NOTED OTHERWISE.

REVISION BLOCK	☒ NEW OUT OF SERVICE 5-100-011
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**Wheeling & Lake Erie
Railway**

1784

ORIGINAL DATE	12/1/2010	FILE	SSCC PLUS
0230408	CTC	806	CLEVELAND
000700004	CTC	WAP	Q026.50
Q02658	CTC	DOT NO.	472 673P
			SHEET
		CTC NO.	CT10171
		BOLE	N.T.S.
			1/6 OF 18



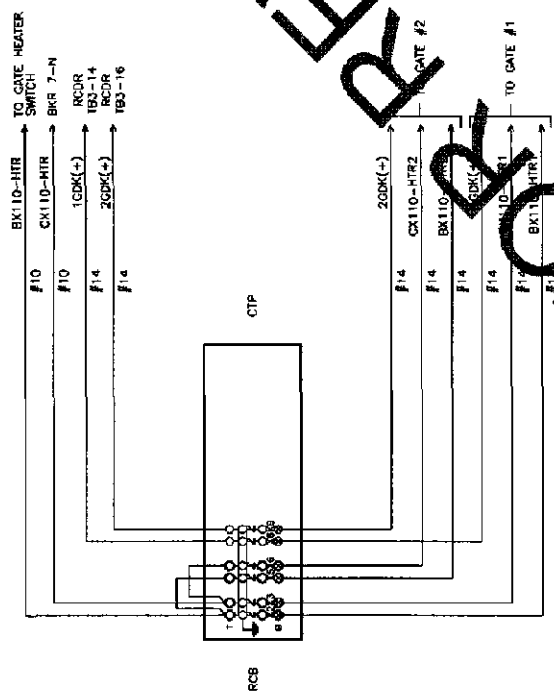
NOTE: ALL WIRING THIS SHEET #14 AWG
UNLESS NOTED OTHERWISE.

Whooling & Lalo Eto Railway

SPELL ROAD
KENT, OH

Source: Federal Reserve Bank of New York, N

ORIGINAL DATE	12/1/2010	MILE	113P	CTC NO.	CT10160
DESIGNER	CTC	9.35	CLEVELAND	SCALE	N.T.S.
CONTRACTOR	CTC	774P	0029.50	SCALE	N.T.S.
CHECKER	CTC	DOT NO.	472 673P	SCALE	07 or 18



FOR REVIEW

Woodward & Lothrop Railway	
LOCATION: SPELL ROAD, KENT, OH	
PROJECT NO. 12/1/2010	DATE: 12/1/2010
DESIGNED BY: CFC	CHECKED BY: CFC
DRAWN BY: CFC	CHECKED BY: CFC
PROJECT NO. 472 073P	SHEET NO. 08 OF 18

CONTACT	CLOSED	FUNCTION
6	45°-90°	POWER DOWN
7	0°-80°	POWER UP
8	85°-90°	FLASHING LIGHT
9	5°-90°	BELL
10	0°-5°	HORIZONTAL SHAUB
11	0°-5°	GATE DOWN INDICATION

TO MAST MOUNTED FLASHERS
(SHEET 10 FOR DETAILS)

[illegible]

MODEL S-40 GATE WIRING DIAGRAM
S-40 PN: 074000-WD0172
INCLUDES: ZINC PLATED HARDWARE PKG., MAINT. PAIN-
T, 115V HEATER AND GATE AS-
SEMBLY, 115V HEATER & SWITCH, GD CONTACT, FUSE BLOCK

100% Pure 100%

WESPEL ROAD
KENT, OH

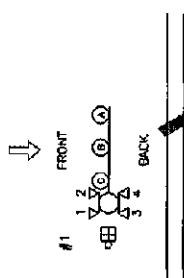
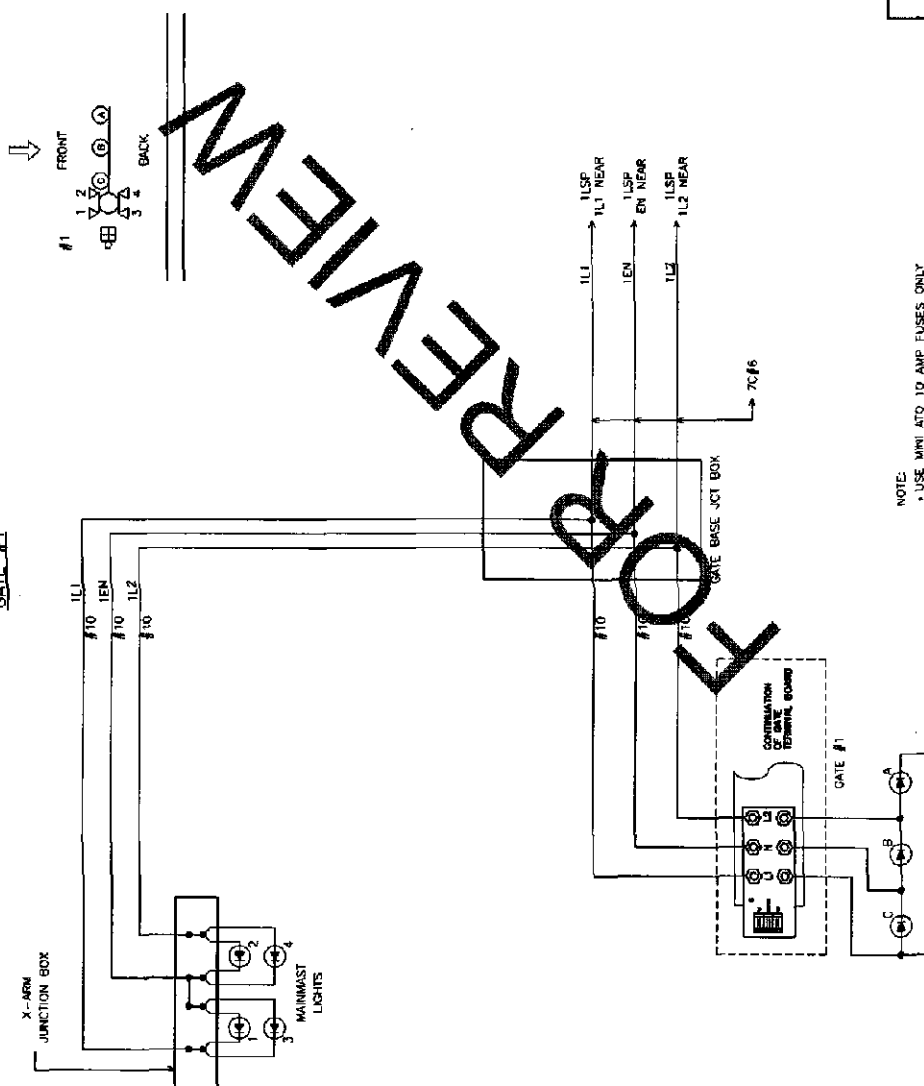
W87E

Quanti? From typical: N

INITIAL DATE	FILE	GATE #1 MECHANISM (NEAR SIDE)
08/29/86	189	CLEVELAND CQ 101
09/07/86	189P	0028.50 N.T.S.
09/08/86	001 WJ	0472 67.50
09/08/86	001 WJ	0472 67.50

INDEX

GATE #1



W&LE

Whodling & Lane Eto
Estimay

Location

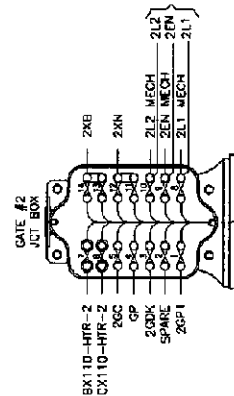
SPELL ROAD
KENT, OH

DATE	12/1/2010	WE	GATE #1	LOCATE	(NEAR 300E)
PROJECT	1000000	NO	CLEVELAND	PORT	NO
DESIGNER	1000000	NO	CLEVELAND	PORT	NO
CHECKER	1000000	NO	CLEVELAND	PORT	NO
DATE	12/1/2010	WE	GATE #1	LOCATE	(NEAR 300E)
PROJECT	1000000	NO	CLEVELAND	PORT	NO
DESIGNER	1000000	NO	CLEVELAND	PORT	NO
CHECKER	1000000	NO	CLEVELAND	PORT	NO

PRINTED
BLOCK

CONTRACT	CLOSED	FUNCTION
6	45°-90°	POWER DOWN
7	0°-68°	POWER UP
8	55°-90°	FLASHING LIGHT
9	5°-90°	BELL (NOT USED)
10	0°-5°	HORIZONTAL SLAB
11	0°-5°	GATE DOWN INDICATION

TO MAST MOUNTED FLASHERS
(SHEET 12 FOR DETAILS)
2L2 2EN 2L1

[illegible]

NOTE 1: REFER TO SHEET 12 FOR FUSE
BLOCK & GATE ARM LIGHT WIRING.

MODEL S-40 GATE WIRING DIAGRAM

S-40 PN: 074000-WC0172
INCLUDES: ZINC PLATED HARDWARE PKG., MANT. PANEL
& SWITCH, 115V HEATER AND GATE ARM
FUSE BLOCK

Leasing & Finance

3784

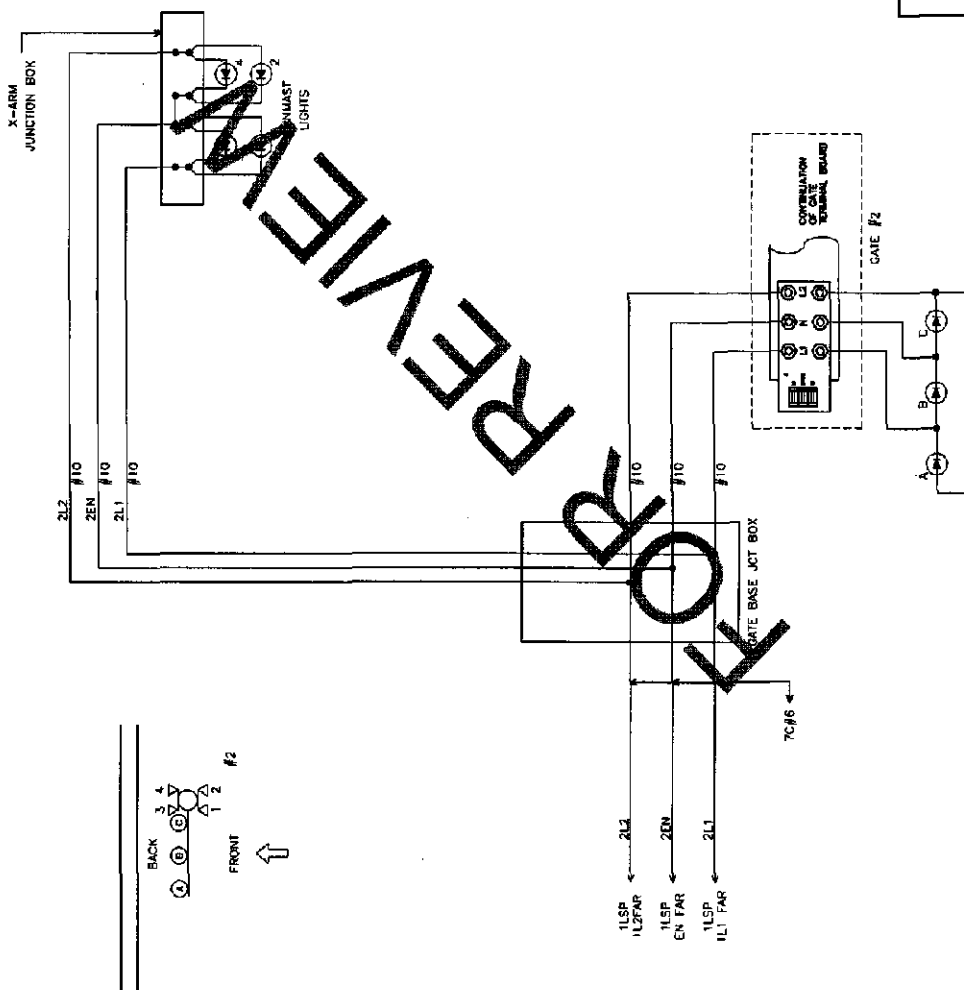
SPELL ROAD
KENT OH

PERSONNEL	DATE	12/1/2010	MIS	DATE	P2 MECHANICAL (FAR SIDE)
RESERVED	CIC	8:00	CLEVELAND	10:00 AM	C110168
PROTHMAN	CIC	8:00	Q0729.50	10:00	M.T.S.
RESERVED	CIC	10:00 AM	472	8:23 PM	11 or 18

SEVENTH FROM TOP: M.

NOBILIT

GATE #2



NOTE:
* USE MIN. 10 AMP FUSES ONLY

Wheeling & Lake Erie
Railway

W&LE

LOCATION
SPELL ROAD
KENT, OH

ISSUED DATE	12/1/2010	FILE	GATE #2 LIGHTS (FAR SIDE)
DESIGNED BY	CTC	CHK'D BY	CTC
DRAWN BY	CTC	CHK'D BY	CTC
REVIEWED BY	CTC	CHK'D BY	CTC
APPROVED BY	CTC	CHK'D BY	CTC
DATE	12/1/2010	BY	CTC
REVISION		BY	CTC
DESCRIPTION		BY	CTC
DATE	12/1/2010	BY	CTC
REVISION		BY	CTC
DESCRIPTION		BY	CTC

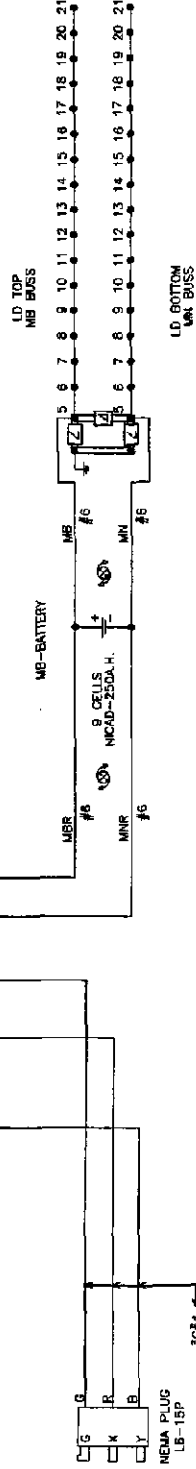
PERSON
BLOCK

BATTERY BUSS DETAILS

21	0052R-22
20	LB19
19	0051R-32
18	LB15
17	SPARE
16	EPC TD-4-
15	SPARE
14	3TR 12
13	2TR 12
12	1TR 12
11	RCOR TBA-1
10	BGD INPUT 2
9	RUR 7
8	RCOR TBS-2
7	RCOR TBI-3
6	SSCC JS-8
5	MN BATT-

LD
MN BUSS
(BOTTOM)

LD
MB BUSS
(TOP)

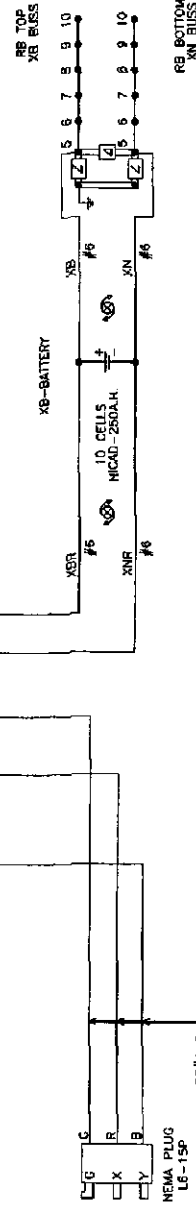


BATTERY BUSS DETAILS

10	SSCC JS-11
9	BGD INPUT 4
8	RCOR TBI-1
7	RCOR TBA-15
6	1LSP N-BATT
5	XN BATT-

RB
XN BUSS
(BOTTOM)

RB
XB BUSS
(TOP)



W&LE
Wheeling & Lake Erie
Railway

SPILL ROAD
KENT, OH

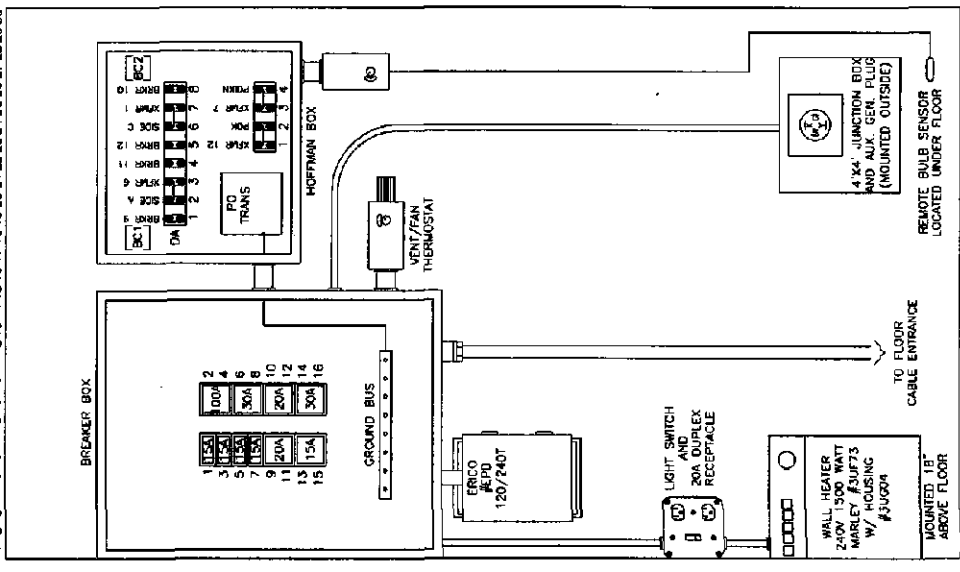
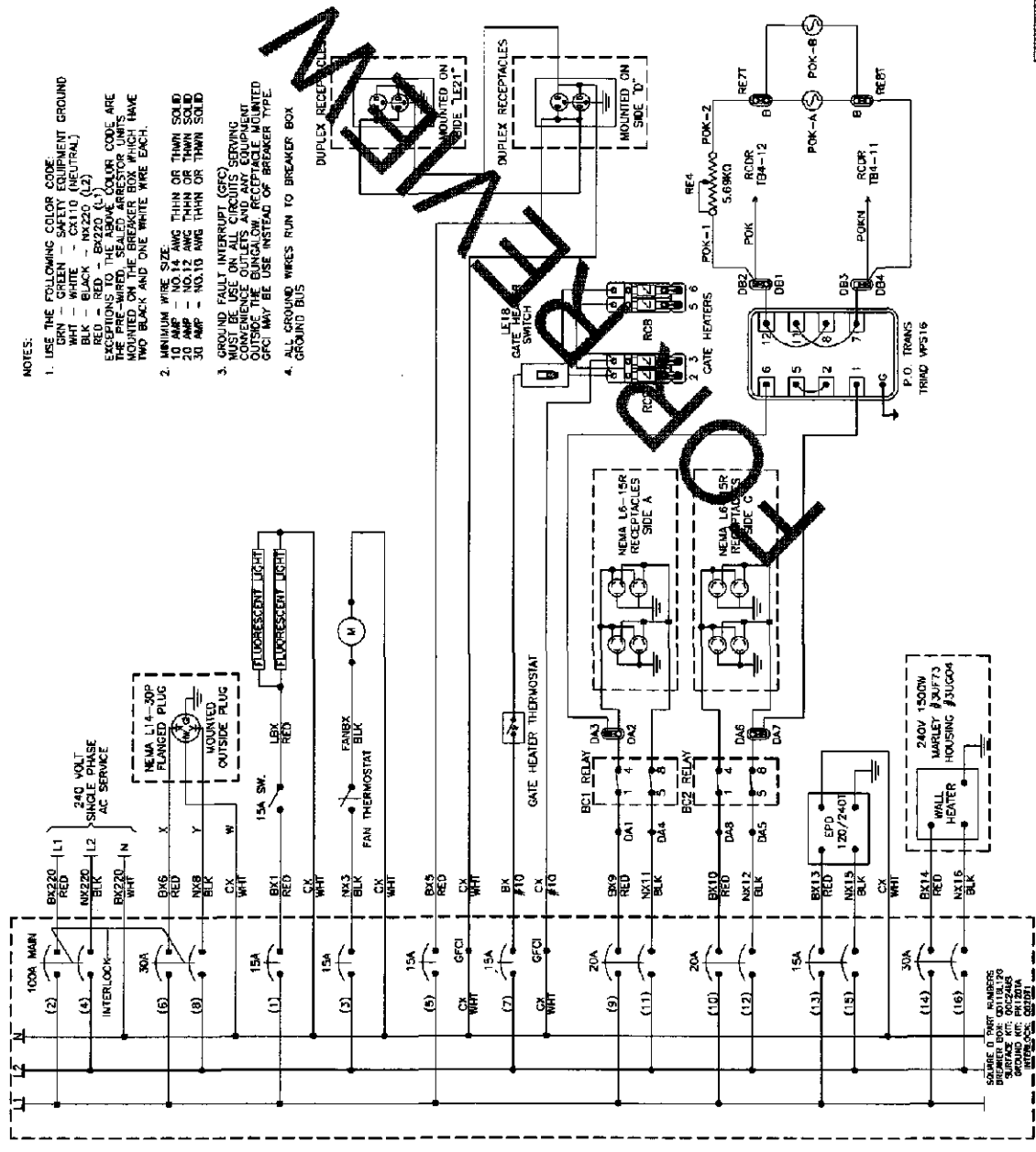
DATE	12/7/2010	FILE	BATTERY CHARGER
REVISION	CTC	BY	CLEVELAND
APPROVED	CTC	DATE	02/25/00
PROJECT	CTC	REV	1
PROJECT	CTC	REV	1
PROJECT	CTC	REV	1

CHARGE FROM TYPICAL Y

REVISION
005 CONNECTIONS
3-20-2011

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

- NOTES:
1. USE THE FOLLOWING COLOR CODE:
GRN - GREEN - SAFETY EQUIPMENT GROUND
WHT - WHITE - GXT10 (NEUTRAL)
BLK - BLACK - WXT20 (L2)
RED - RED - WXT20 (L1)
EXCEPTIONS TO THE ABOVE COLOR CODE ARE THE PRE-WIRED, SEALED ARRESTOR UNITS MOUNTED ON THE BREAKER BOX WHICH HAVE TWO BLACK AND ONE WHITE WIRE EACH.
 2. MINIMUM WIRE SIZE:
10 AMP - NO. 14 AWG THIN OR THIN SOLID
15 AMP - NO. 12 AWG THIN OR THIN SOLID
20 AMP - NO. 10 AWG THIN OR THIN SOLID
30 AMP - NO. 8 AWG THIN OR THIN SOLID
 3. GROUND FAULT INTERRUPT (GFCI) MUST BE USED ON ALL CIRCUITS SERVING OUTSIDE THE BUILDING. GFCI MAY BE USED INSTEAD OF BREAKER TYPE.
 4. ALL GROUND WIRES RUN TO BREAKER BOX GROUND BUS.



W&L

Wholesale & Labor Etc
Railway

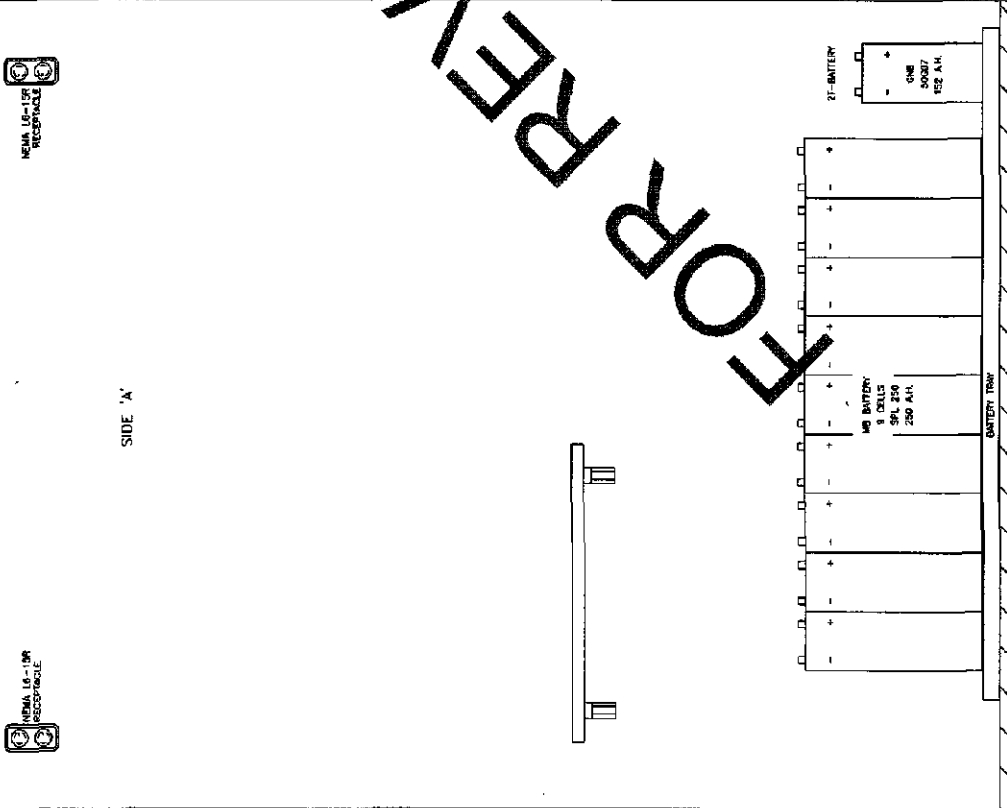
LOCATION: SPELL ROAD
KENT, OH

ORDER DATE	12/1/2010	DATE	12/1/2010
ORDER NO.	0000000000	QUANTITY	1
QUANTITY	1	UNIT PRICE	0.00
TOTAL	0.00	TAX	0.00
TOTAL DUE	0.00	PAY TO THE ORDER OF	W&L
DATE	12/1/2010	DATE	12/1/2010

DATE	12/1/2010	DATE	12/1/2010
ORDER NO.	0000000000	QUANTITY	1
QUANTITY	1	UNIT PRICE	0.00
TOTAL	0.00	TAX	0.00
TOTAL DUE	0.00	PAY TO THE ORDER OF	W&L
DATE	12/1/2010	DATE	12/1/2010

FOR REVIEW

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



W&L		Whoolley & Lato Eto Railway	
LOCATION		SPELL ROAD KENT, OH	
DESIGN DATE	12/1/2010	FILE	SOC 'A'
DESIGNER	CTC	SW	CLASSELAND
PROJECT	CTC	WSP	002350
DATE	12/08/08	WSP	472 6730
SCALE	1"=2'	DATE	17 of 18

