

CROSSING DISABLE PROCEDURE

City: Malden, IL
Street: **CO. RD. 2750E**
Line Segment: 0001
Mile Post: 96.08
Plan Revision Date: 04/14/10

Note: If the date stamp in the lower left corner of any sheet in the plan set is dated after the Plan Revision Date above, then these procedures are VOID.

Warning: An understanding of crossing signal circuits is required before any work is performed. If you are unsure of any of these procedures, consult your supervisor.

To disable crossing, comply with Signal Instruction 7.2, 7.2A, 7.2B, and 7.2C as appropriate and perform the following:

Disable one approach on either track (from Signal Instruction 7.2):

- a. Shunt affected approach outside of the island and as close to track work as practicable.
CAUTION: Shunt will adversely affect the opposite approach and may cause short warning time for CO. RD. 2050N and FAS RTE 250. Authority or protection must be provided.
- b. Crossing should recover in approximately 20 seconds.
- c. Verify crossing island circuit is effective.
- d. Test unaffected track and approaches to make sure crossing warning system operates properly.

Disable both approaches on either track but not the island (from Signal Instruction 7.2):

- a. Shunt both approaches outside island and as close to track work as practicable in both directions.
CAUTION: Shunt(s) may cause short warning time for CO. RD. 2050N and FAS RTE 250. Authority or protection must be provided.
- b. Crossing should recover after approximately 20 seconds.
- c. Verify crossing island circuit is effective.
- d. Test unaffected track and approaches to make sure crossing warning system operates properly.

Disable Track 1 including island (from Signal Instruction 7.2):

- a. Place jumper on Track 1 OOS Terminals AA30 - AA33.
- b. Test unaffected track and approaches to make sure crossing warning system operates properly.

Disable Track 2 including island (from Signal Instruction 7.2):

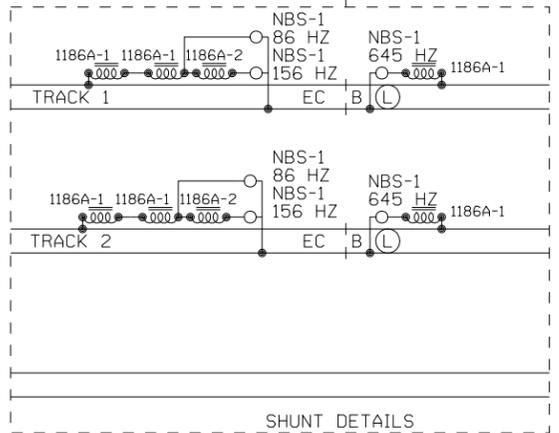
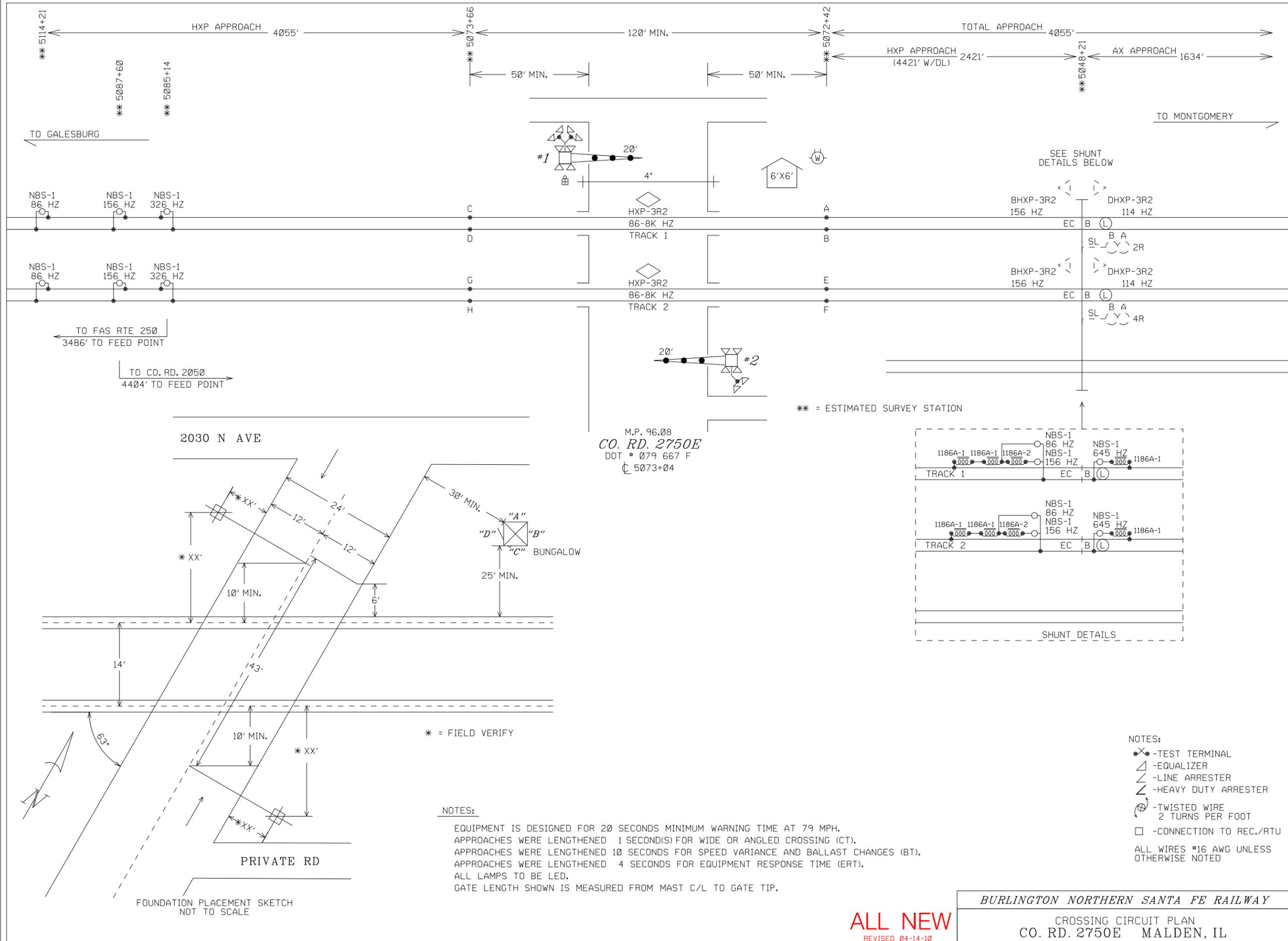
- a. Place jumper on Track 2 OOS Terminals AA20 - AA23.
- b. Test unaffected track and approaches to make sure crossing warning system operates properly.

Disable entire crossing if both islands are affected (from Signal Instruction 7.2):

- a. Place jumper on Track 1 OOS Terminals AA30 - AA33.
- b. Place jumper on Track 2 OOS Terminals AA20 - AA23.

NOTE: You have now energized the XR relay. Crossing signals are inoperative.

Warning: When restoring system, verify that all shunts and test jumpers have been removed and accounted for, and crossing signals are completely tested for proper operation before normal train operation is authorized.



M.P. 96.08
CO. RD. 2750E
 DOT # 079 667 F
 C 5073+04

** = ESTIMATED SURVEY STATION

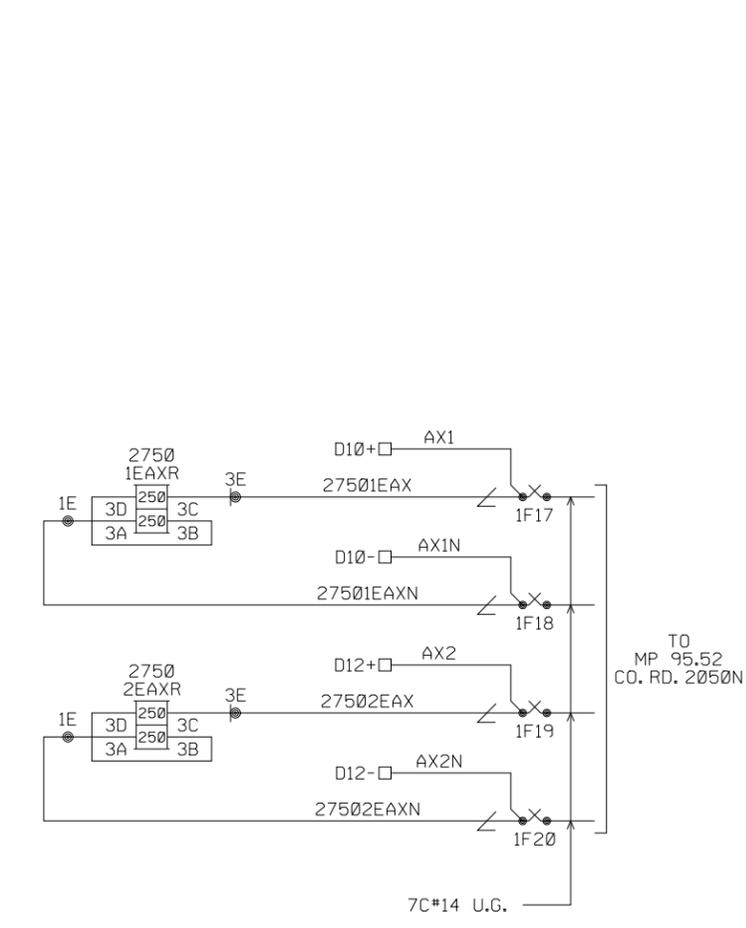
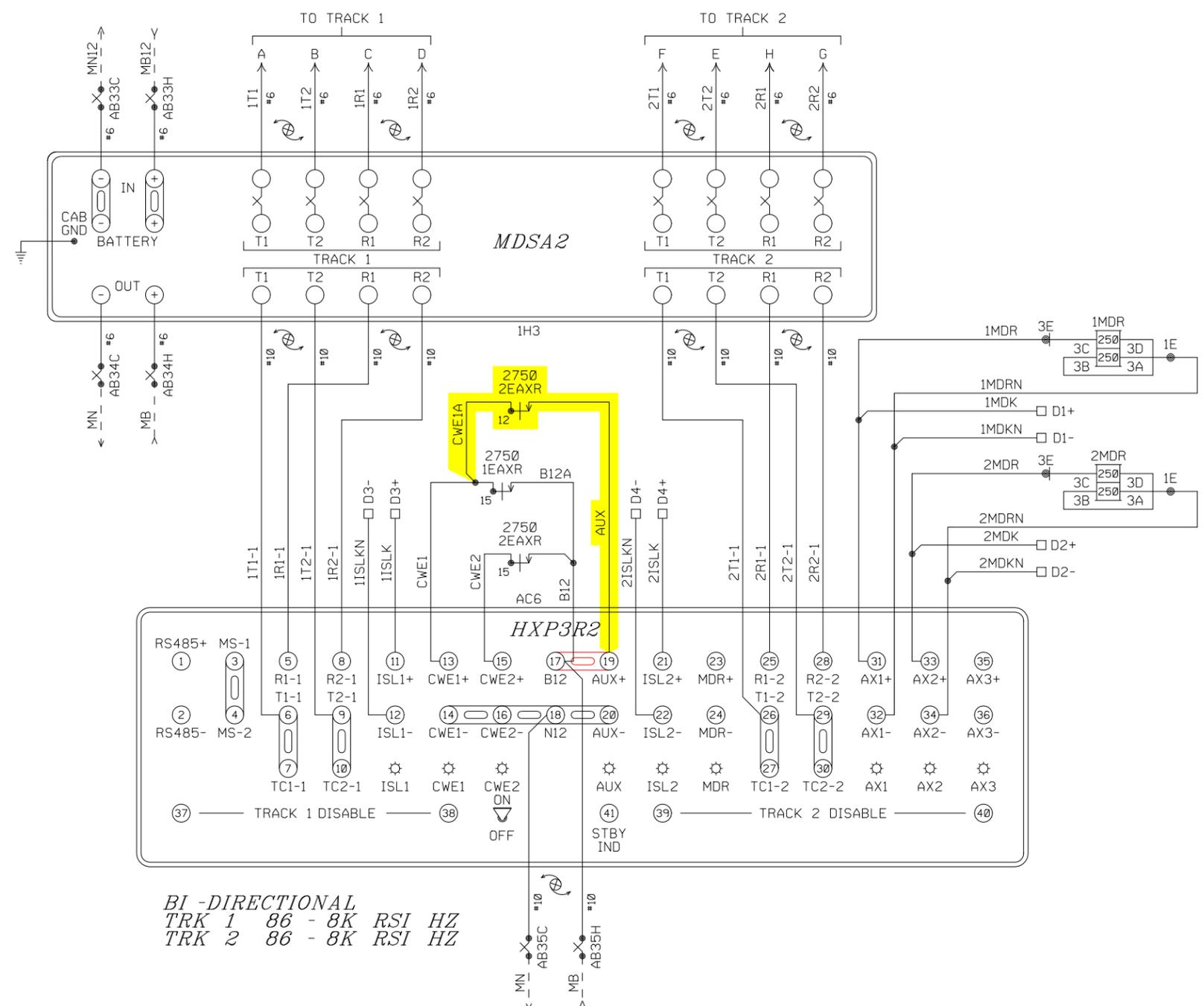
* = FIELD VERIFY

NOTES:
 EQUIPMENT IS DESIGNED FOR 20 SECONDS MINIMUM WARNING TIME AT 79 MPH.
 APPROACHES WERE LENGTHENED 1 SECOND(S) FOR WIDE OR ANGLED CROSSING (CT).
 APPROACHES WERE LENGTHENED 10 SECONDS FOR SPEED VARIANCE AND BALLAST CHANGES (BT).
 APPROACHES WERE LENGTHENED 4 SECONDS FOR EQUIPMENT RESPONSE TIME (ERT).
 ALL LAMPS TO BE LED.
 GATE LENGTH SHOWN IS MEASURED FROM MAST C/L TO GATE TIP.

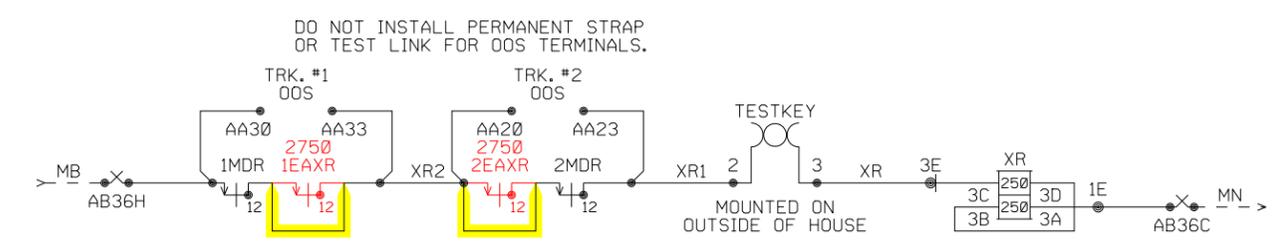
- NOTES:**
- - TEST TERMINAL
 - △ - EQUALIZER
 - ∟ - LINE ARRESTER
 - ∟ - HEAVY DUTY ARRESTER
 - ⊗ - TWISTED WIRE
2 TURNS PER FOOT
 - - CONNECTION TO REC./RTU
- ALL WIRES #16 AWG UNLESS OTHERWISE NOTED

ALL NEW
 REVISED 04-14-10
 DESIGNED 03-31-10
 NEW_XING_A1.MP_96.08
 TCS/BES SEQ.# 34157

BURLINGTON NORTHERN SANTA FE RAILWAY		
CROSSING CIRCUIT PLAN CO. RD. 2750E MALDEN, IL		
LS 0001	MP 96.08	SH 01 OF 12



BI-DIRECTIONAL
 TRK 1 86 - 8K RSI HZ
 TRK 2 86 - 8K RSI HZ



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 DESIGNED 03-31-10
 NEW XING A1 MP 96.08
 TCS/BES SEQ. 34157

BURLINGTON NORTHERN SANTA FE RAILWAY		
HXP-3R2 TRACK CIRCUITS		
CO. RD. 2750E MALDEN, IL		
LS 0001	MP 96.08	SH 02 OF 12

PROGRAM INFORMATION

PROGRAM VERSION 42.0 OR LATER

*=FIELD ADJUSTMENT TO BE MADE ACCORDING TO THE HXP-3 INSTRUCTION MANUAL 100052-001 ADO & SUPPLEMENTS.

HXP-3R2 ADJUST SELECT ADJUSTMENTS

NO.	ADJUSTMENT NAME	TRACK 1	TRACK 2
1	APPROACH LENGTH	4055'	4055'
2	WARNING TIME	99 SEC.	99 SEC.
3	LIA	*	*
4	TC	*	*
5	MD RESTART	*	*

NOTE:

BEFORE PROGRAMMING ANY PARAMETERS/OPTIONS FOR THE HXP GO TO 'OPTION 49' AND RESET ALL LOCAL PARAMETERS TO FACTORY DEFAULT VALUES. SEE HXP-3 MANUAL 100052-001 ADO PAGE 4-14.

OPTION ADJUSTMENTS

NO.	ABBREVIATION	TRACK 1	TRACK 2
1	TK-ENA	"UP"	"UP"
2	TK FO	86 HZ	86 HZ
3	CW/MD	"C"	"C"
4	UNI-BI	"b" (BI)	"b" (BI)
5	NBS-C	* RX * FEET	* RX * FEET
6	CWEWT	DL (80 SEC.)	DL (80 SEC.)
7	LOS	DL (16 SEC.)	DL (16 SEC.)
8	IJ-LOS	DL (5 SEC.)	DL (5 SEC.)
9	BC	*	*
10	P-COMP	*	*
11	AX1	SEE AX ADJ.	SEE AX ADJ.
12	AX2	SEE AX ADJ.	SEE AX ADJ.
13	AX3	SEE AX ADJ.	SEE AX ADJ.
17	MDR-AX/OF-TK	0'	0'
	CJ-LOS	DL (0)	DL (0)
	PJ-DET	DL (15 SEC.)	DL (15 SEC.)
	PJ-RX	DL (15)	DL (15)
18	MD-TMR	DL (10 MIN.)	DL (10 MIN.)
19	MIN-WT	DL (0)	DL (0)
20	FS-RX	DL (0)	DL (0)
	FS-TM	DL (10 MIN.)	DL (10 MIN.)
21	POS-RX	DL (0)	DL (0)
	POS-TM	DL (0)	DL (0)
22	AR-RX	DL (0)	DL (0)
	AR-TM	DL (10 MIN.)	DL (10 MIN.)
47	ATO-RX	UP	UP
48	PF-ENA	"dn"	"dn"

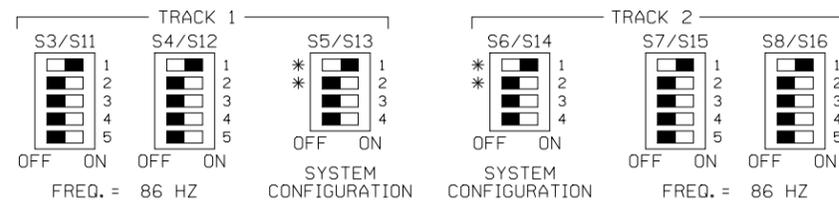
AX ADJUSTMENTS

NO.	ABBREVIATION	AX 1	AX 2	AX 3
1	TK-ASN	1	2	1-2
2	OF-TK1	0'	NA	NA
3	OF-TK2	NA	0'	NA
4	WT	31 SEC.	31 SEC.	99 SEC
5	MD-RST	(0)	(0)	(0)
6	CW/MD	"C"	"C"	"C"
7	CJ-LOS	DL (0)	DL (0)	DL (0)
8	PJ-DET	DL (15 SEC.)	DL (15 SEC.)	DL (15 SEC.)
9	PJ-RX	DL (15)	DL (15)	DL (15)
10	POS-ST	"dn"	"dn"	"dn"

SWITCH INFORMATION

SWITCH	TRACK 1	TRACK 2
MASTER/SLAVE	MASTER	SLAVE
RSI FAULT JUMPER	0	0
RSI-LOS JUMPER	1	1
TLM W1 JUMPER	PINS 1-2	
TLM W2 JUMPER	PINS 1-2	
TLM W3 JUMPER	PINS 1-2	
MINUTE TIMEOUT	5 MIN	
CW/MD	CW	
STANDBY/AUTO/NORMAL	AUTO	

NOTES: DL= DEFAULT LEVEL
NA= NON APPLICABLE



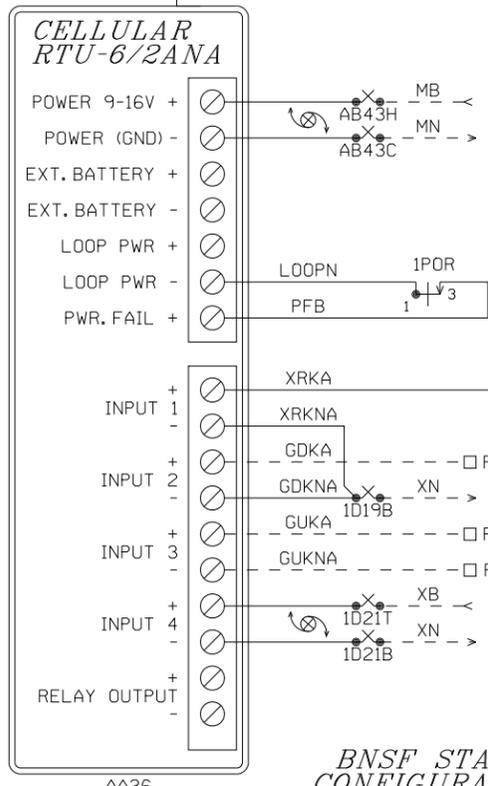
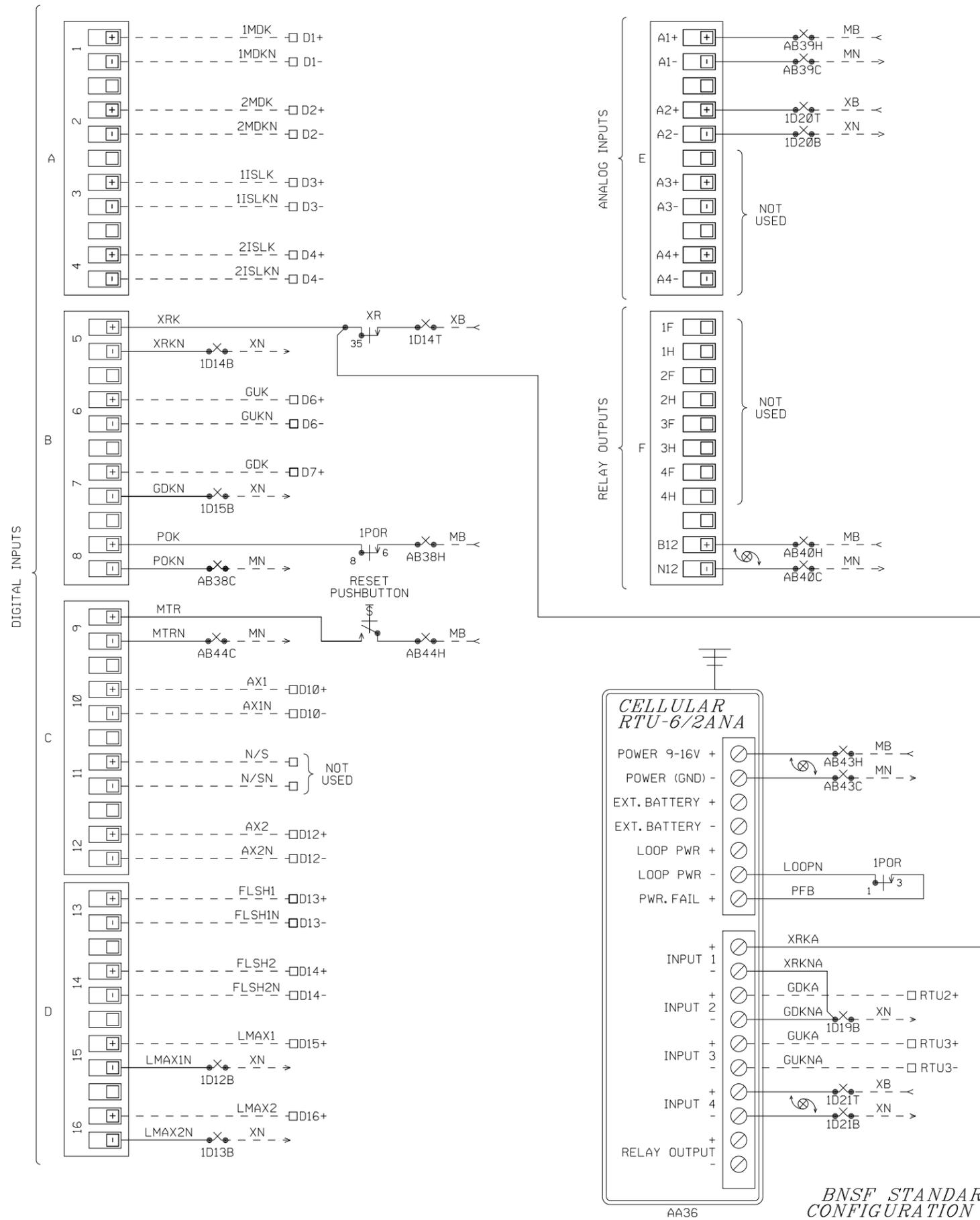
NOTES: FOR S5/S13 AND S6/S14

- *1.) ACTUATOR 1 SELECTS NORMAL APPROACH WHEN SET TO ON POSITION.
- *2.) WITH ACTUATOR 1 IN OFF POSITION ACTUATOR 2 SELECTS SHORT APPROACH WHEN OFF AND SELECTS VERY SHORT WHEN ON.
- 3.) ACTUATOR 3 OFF SELECTS HXP OPERATION.
- 4.) ACTUATOR 4 OFF = NORMAL MUX TABLE
ACTUATOR 4 ON = ALTERNATE MUX TABLE

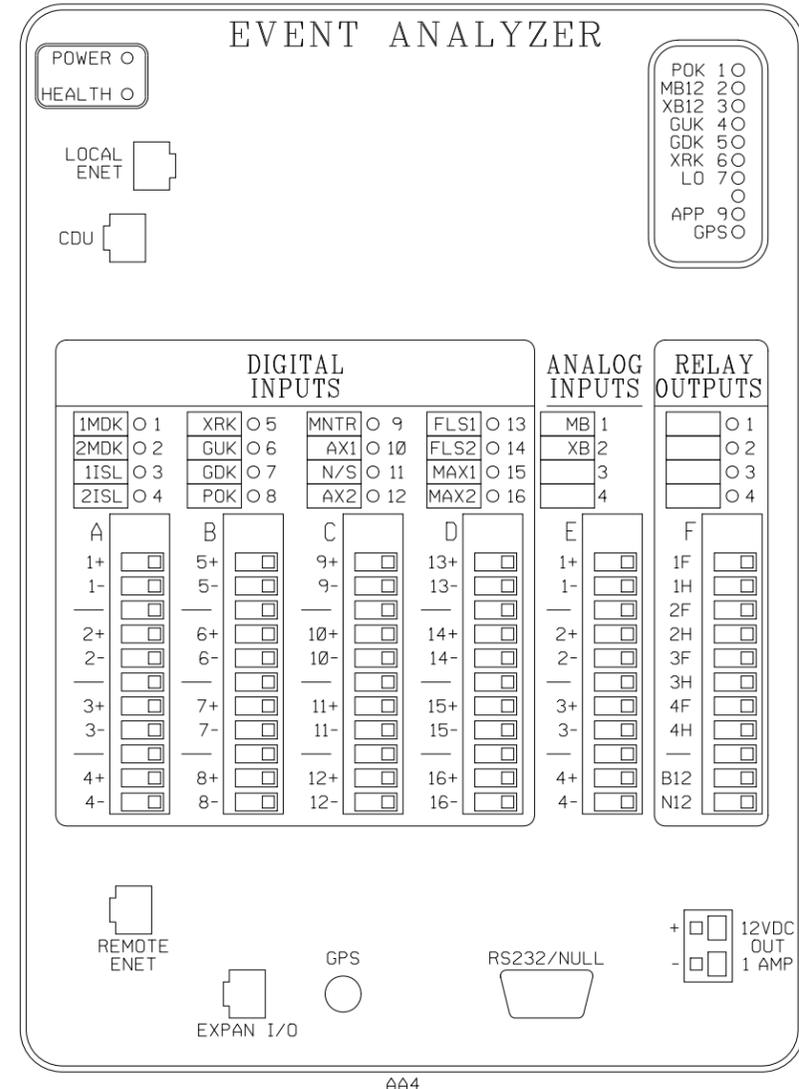
ALL NEW

BURLINGTON NORTHERN SANTA FE RAILWAY		
HXP-3R2 PROGRAM INFORMATION CO. RD. 2750E MALDEN, IL		
LS 0001	MP 96.08	SH 03 OF 12

DESIGNED 03-31-10
NEW XING A1 MP 96.08
TCS/BES SEQ. 34157



BNSF STANDARD CONFIGURATION 32



BNSF 1.0 APPLICATION CONFIGURATION INFORMATION DIGITAL INPUTS

INPUT NO.	INPUT DESCRIPTIVE NAME	ID
1	MOTION DETECTOR #1	1MDK
2	MOTION DETECTOR #2	2MDK
3	ISLAND #1	1ISLK
4	ISLAND #2	2ISLK
5	CROSSING RELAY	XRK
6	GATES UP	GUK
7	GATES DOWN	GDK
8	AC POWER	POK
9	MAINTAINER SWITCH	MTR
10	AUX INPUT 1	AX1
11	NORMAL/STANDBY	N/S
12	AUX INPUT 2	AX2
13	FLASHING LIGHTS 1	FLSH1
14	FLASHING LIGHTS 2	FLSH2
15	LOD MAX INPUT 1	LMAX1
16	LOD MAX INPUT 2	LMAX2

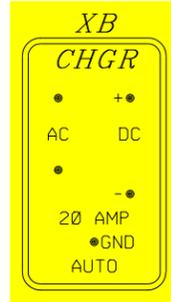
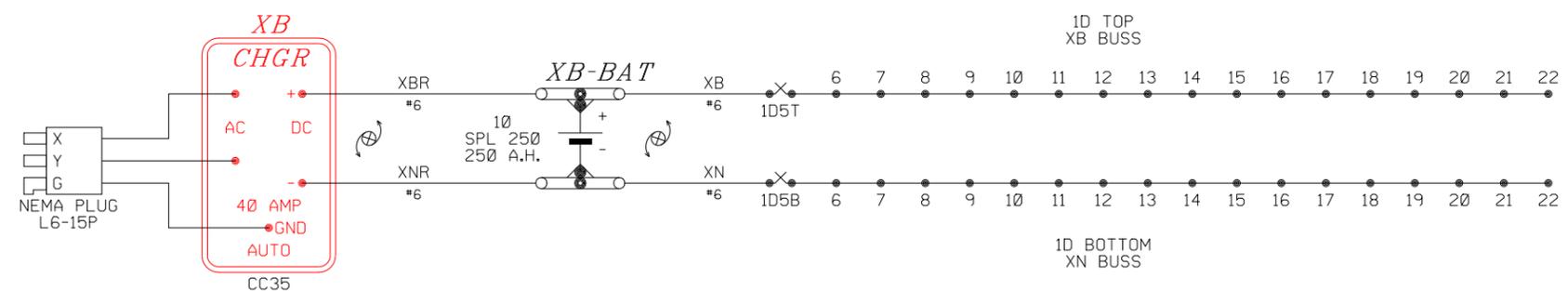
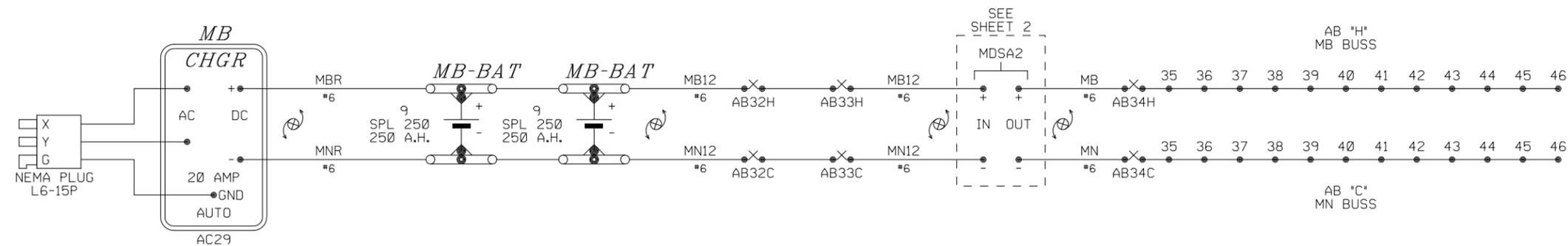
BURLINGTON NORTHERN SANTA FE RAILWAY

RECORDER CIRCUITS
CO. RD. 2750E MALDEN, IL

ALL NEW

DESIGNED 03-31-10
NEW XING A1 MP 96.08
TCS/BES SEQ. 34157

LS 0001 MP 96.08 SH 04 OF 12

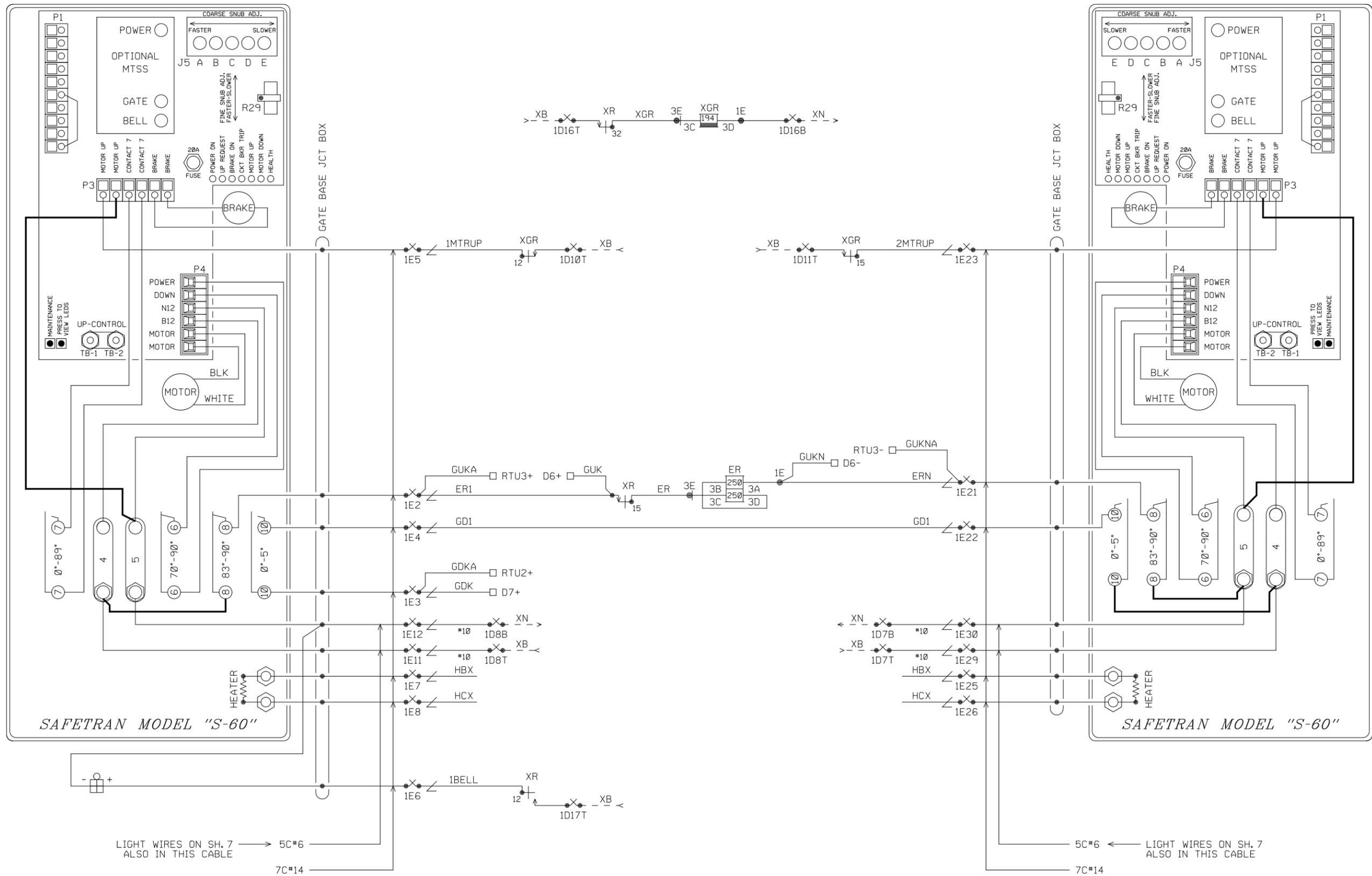


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 NEW XING A1 MP 96.08
 TCS/BES SEQ. 34157

BURLINGTON NORTHERN SANTA FE RAILWAY		
BATTERY CIRCUITS CO. RD. 2750E MALDEN, IL		
LS 0001	MP 96.08	SH 05 OF 12

GATE 1

GATE 2

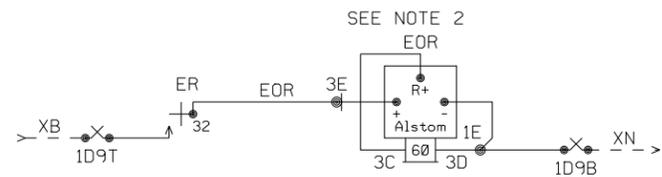


- NOTES:
1. ADD JUMPERS IN GATE SHOWN IN BOLD.
 2. MAXIMUM WIRE SIZE FOR TERMINAL 5 TO MOTOR UP CONTROL (-) IS #12 AWG.

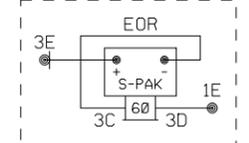
ALL NEW

BURLINGTON NORTHERN SANTA FE RAILWAY		
GATE CIRCUIT PLAN		
CO. RD. 2750E MALDEN, IL		
LS 0001	MP 96.08	SH 06 OF 12

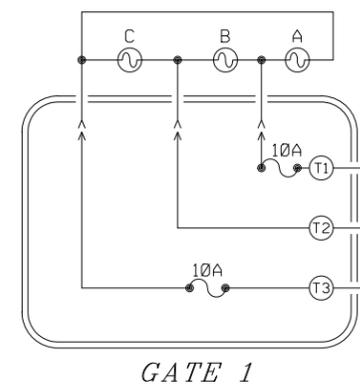
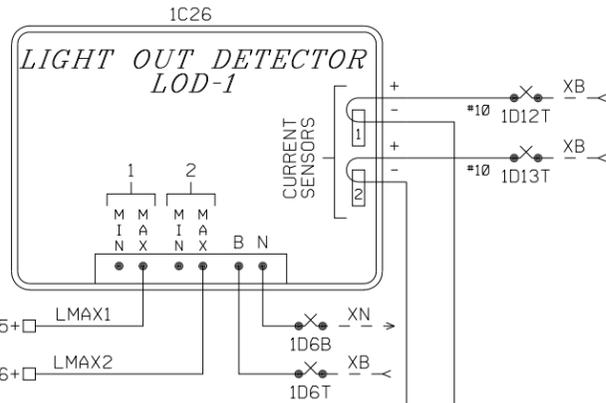
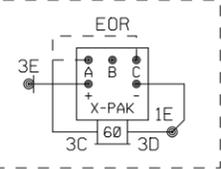
DESIGNED 03-31-10
 NEW XING A1 MP 96.08
 TCS/BES SEQ.# 34157



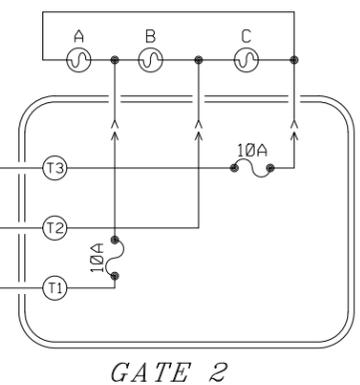
SAFETRAN S-PAK WIRING SCHEMATIC



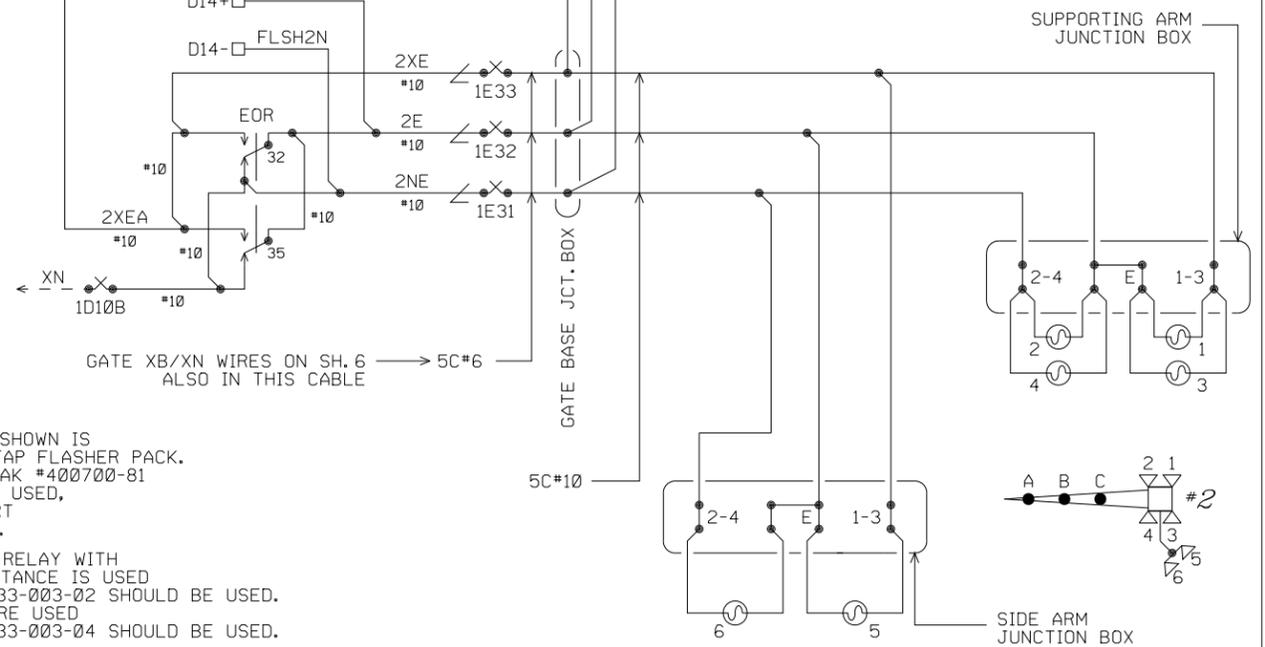
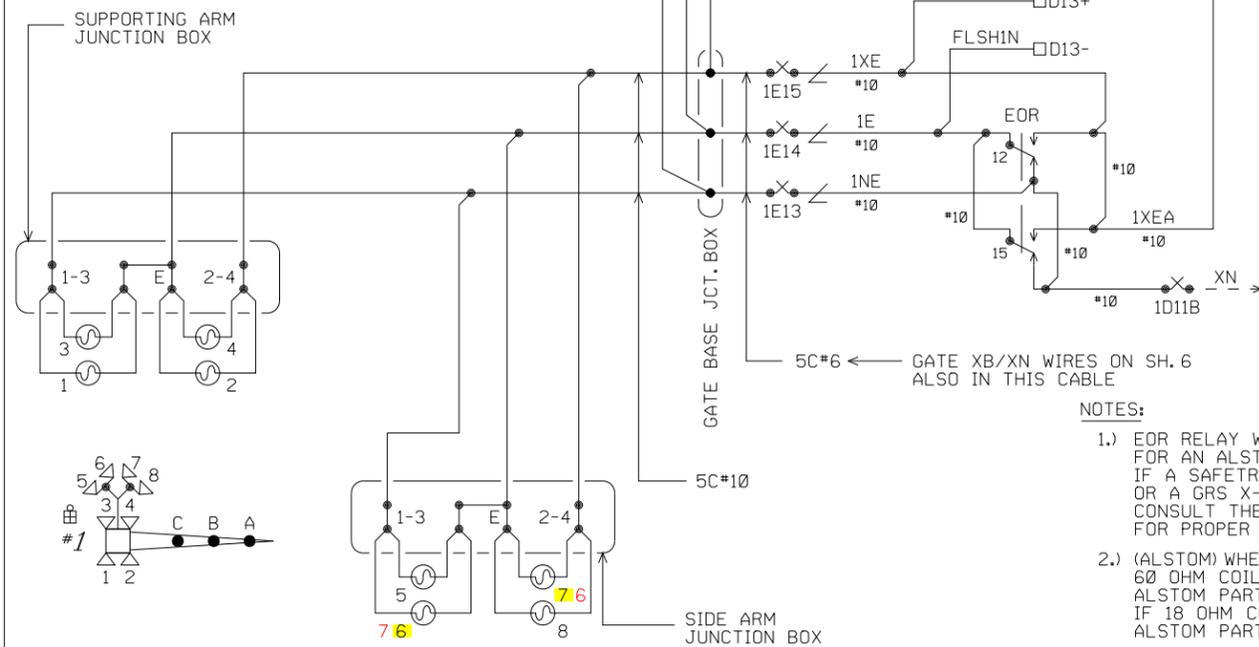
GRS X-PAK WIRING SCHEMATIC



GATE 1



GATE 2



NOTES:

- 1.) EOR RELAY WIRING SHOWN IS FOR AN ALSTOM 1-TAP FLASHER PACK. IF A SAFETRAN S-PAK #400700-81 OR A GRS X-PAK IS USED, CONSULT THE INSERT FOR PROPER WIRING.
- 2.) (ALSTOM) WHEN EOR RELAY WITH 60 OHM COIL RESISTANCE IS USED ALSTOM PART #30733-003-02 SHOULD BE USED. IF 18 OHM COILS ARE USED ALSTOM PART #30733-003-04 SHOULD BE USED.
- 3.) (X-PAK) WHEN EOR RELAY WITH 60 OHM COIL RESISTANCE IS USED CONNECT JUMPER FROM 3C TO 'A'. IF 18 OHM COILS ARE USED CONNECT JUMPER FROM 3C TO 'C'.
- 4.) (S-PAK) DO NOT USE S-PAK WITH 18 OHM COILS

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TCS/BES SEQ. 34157

BURLINGTON NORTHERN SANTA FE RAILWAY

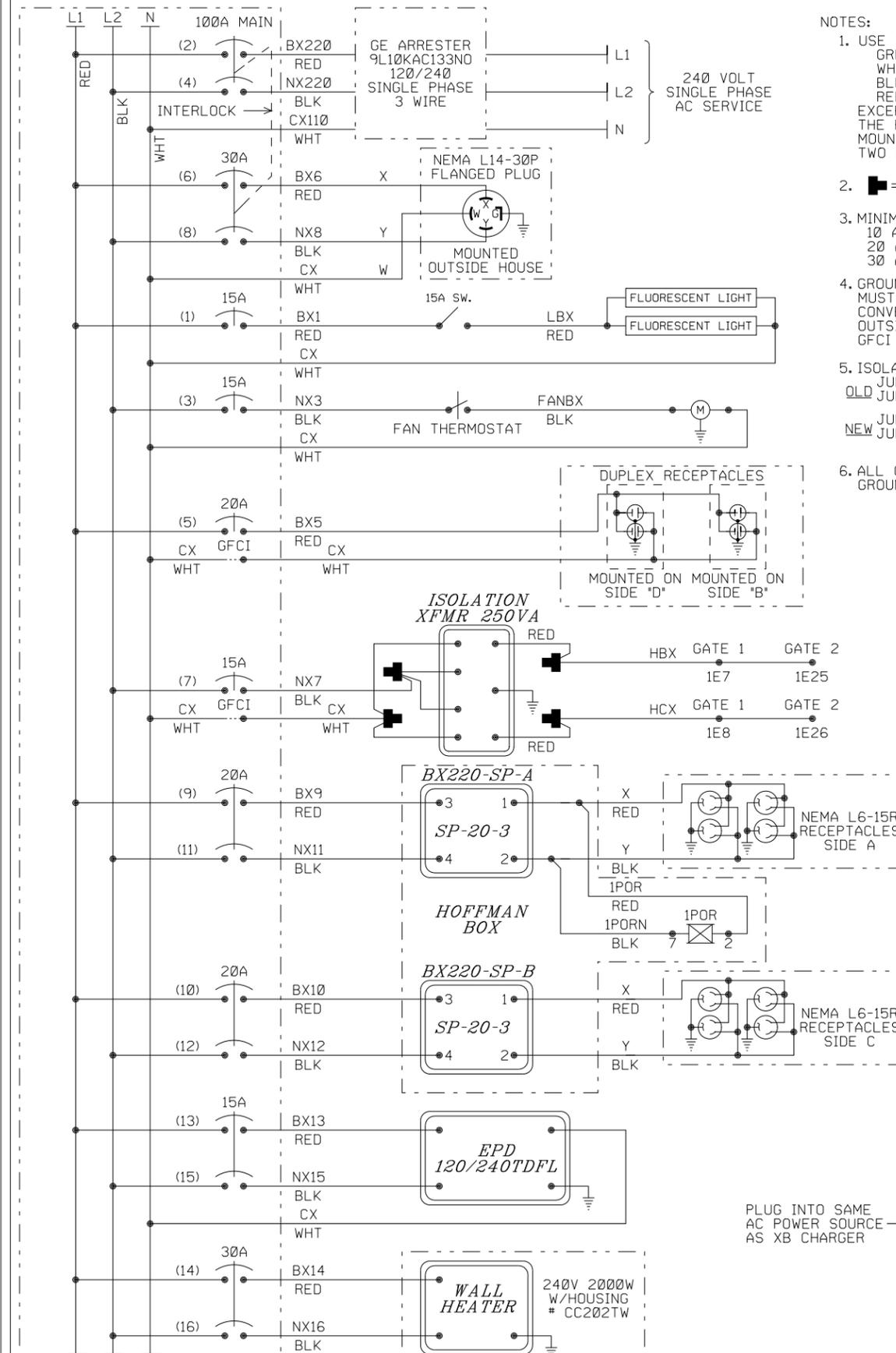
FLASHER CIRCUIT PLAN
CO. RD. 2750E MALDEN, IL

LS 0001

MP 96.08

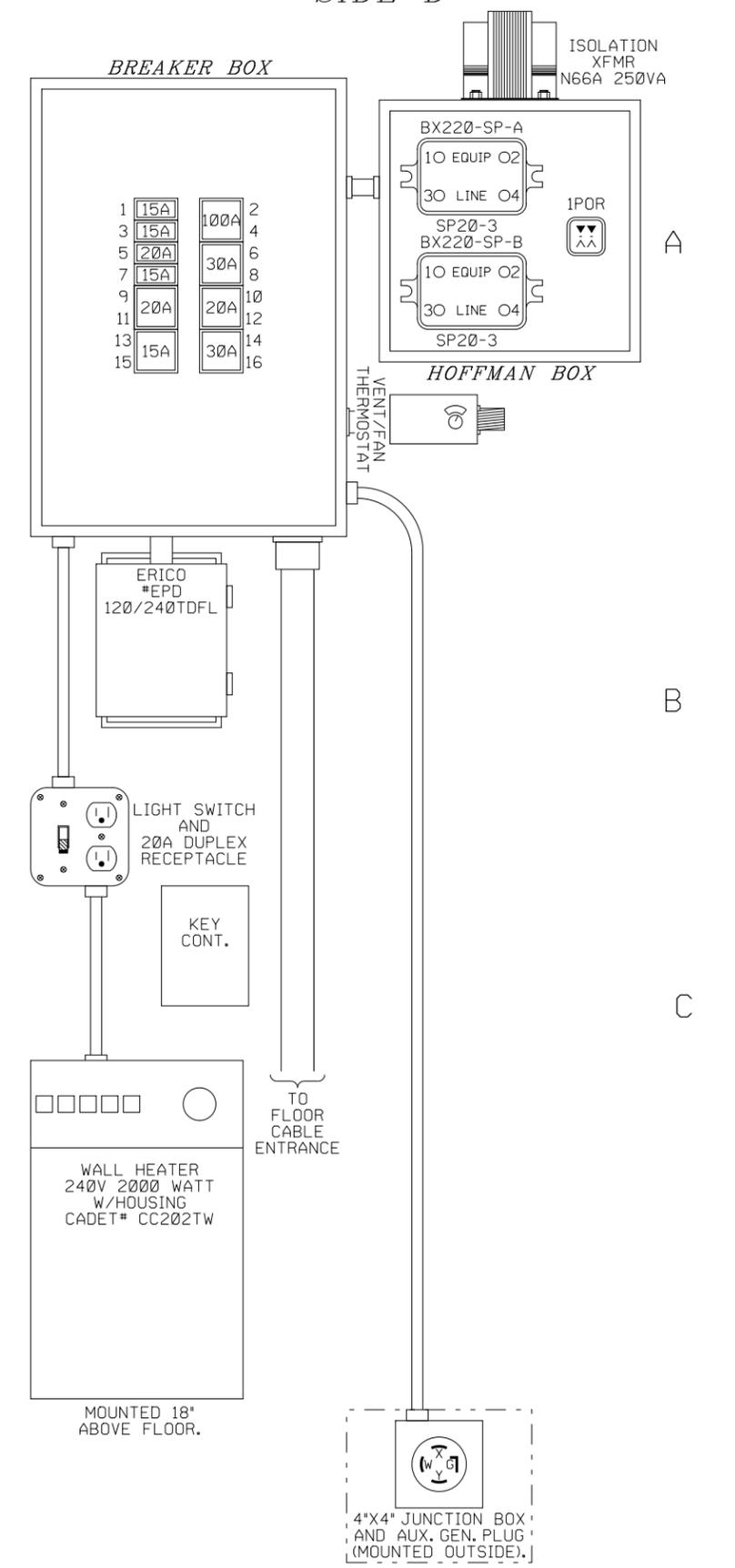
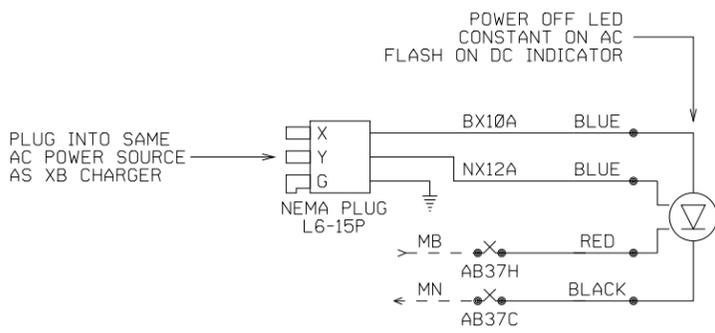
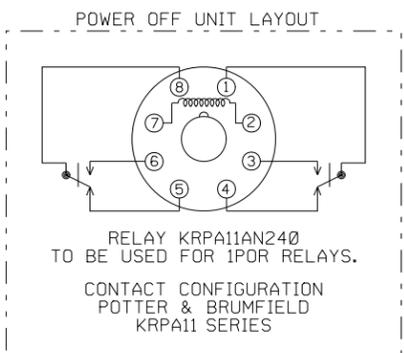
SH 07 OF 12

SIDE D



NOTES:

- USE THE FOLLOWING COLOR CODE:
 GRN - GREEN - SAFETY EQUIPMENT GROUND
 WHT - WHITE - CX110 (NEUTRAL)
 BLK - BLACK - NX220 (L2)
 RED - RED - BX220 (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.
- = WIRE NUT
- MINIMUM WIRE SIZE
 10 AMP - NO.14 AWG THHN OR THWN SOLID
 20 AMP - NO.12 AWG THHN OR THWN SOLID
 30 AMP - NO.10 AWG THHN OR THWN SOLID
- GROUND FAULT INTERRUPT (GFCI) MUST BE USED ON ALL CIRCUITS SERVING CONVENIENCE OUTLETS AND ANY EQUIPMENT OUTSIDE THE BUNGALOW. RECEPTACLE MOUNTED GFCI MAY BE USED INSTEAD OF BREAKER TYPE.
- ISOLATION TRANSFORMER IF INSTALLED.
 JUMPER WIRES BLK/YEL TO BLK/GRN WITH CX (WHT)
 OLD JUMPER WIRES BLK TO BLK/RED WITH NX7 (BLK)
 NEW JUMPER WIRES YEL TO BRN WITH CX (WHT)
 NEW JUMPER WIRES BLK TO BLU WITH NX7 (BLK)
- ALL GROUND WIRES RUN TO BREAKER BOX GROUND BUSS



SQUARE D PART NUMBERS
 BREAKER BOX: Q0116L125G
 SURFACE KIT: Q0C24US
 GROUND KIT: PK12GTA
 INTERLOCK: Q02DT1

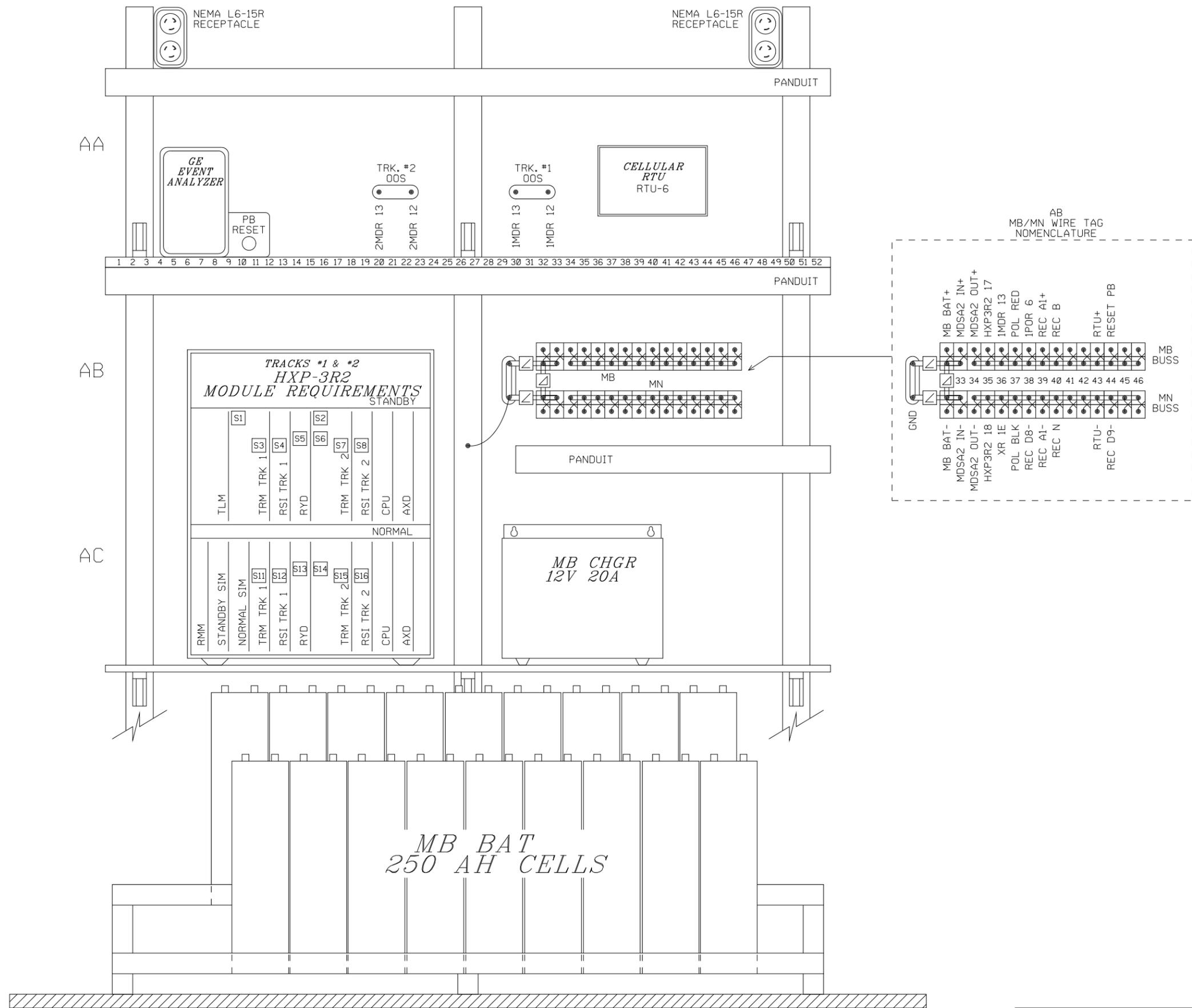
BURLINGTON NORTHERN SANTA FE RAILWAY

POWER DISTRIBUTION
 CO. RD. 2750E MALDEN, IL

ALL NEW

DESIGNED 03-31-10
 NEW XING A1 MP 96.08
 TCS/BES SEQ.# 34157

LS 0001 MP 96.08 SH 08 OF 12

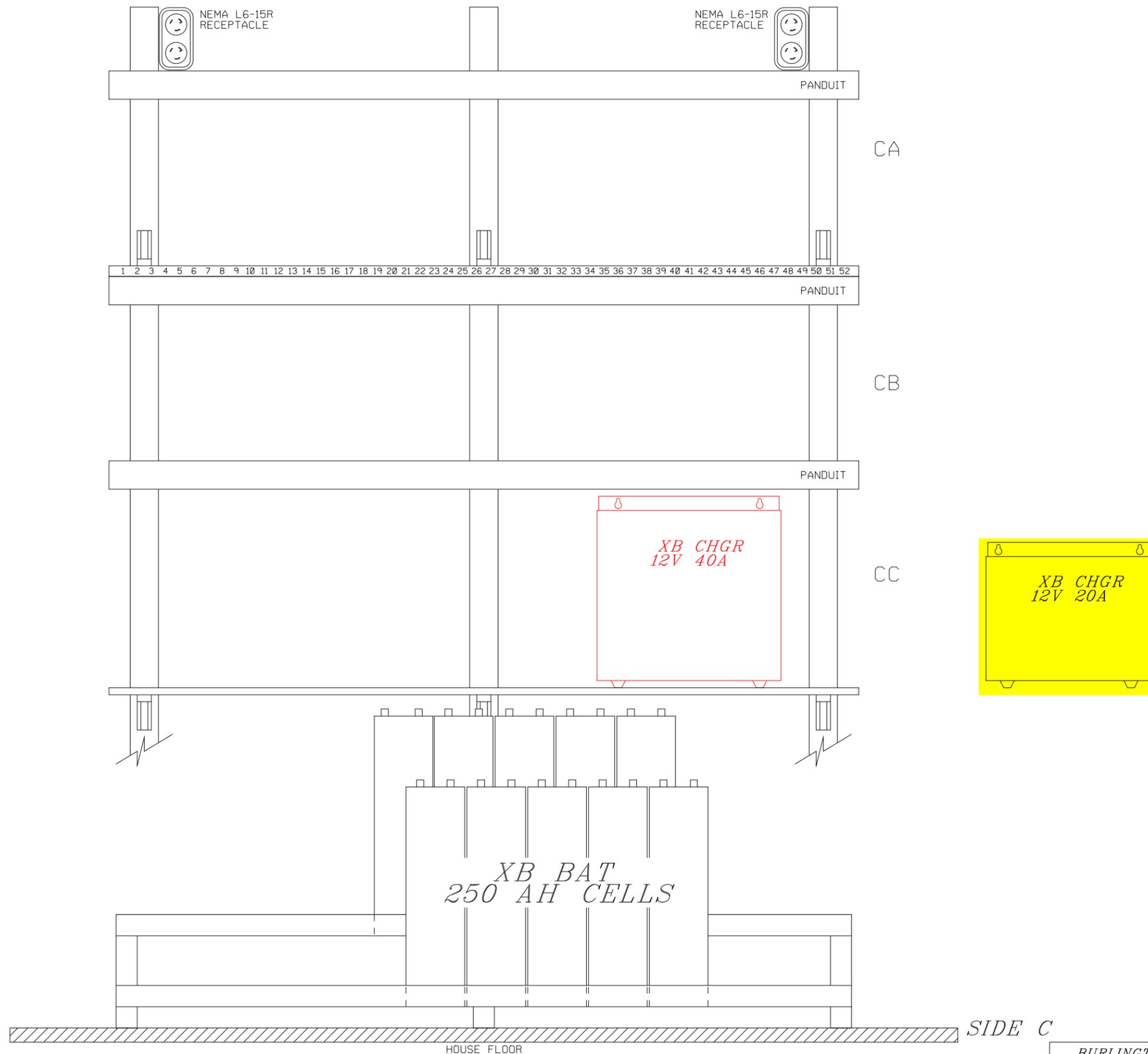


HOUSE FLOOR
SIDE A

ALL NEW

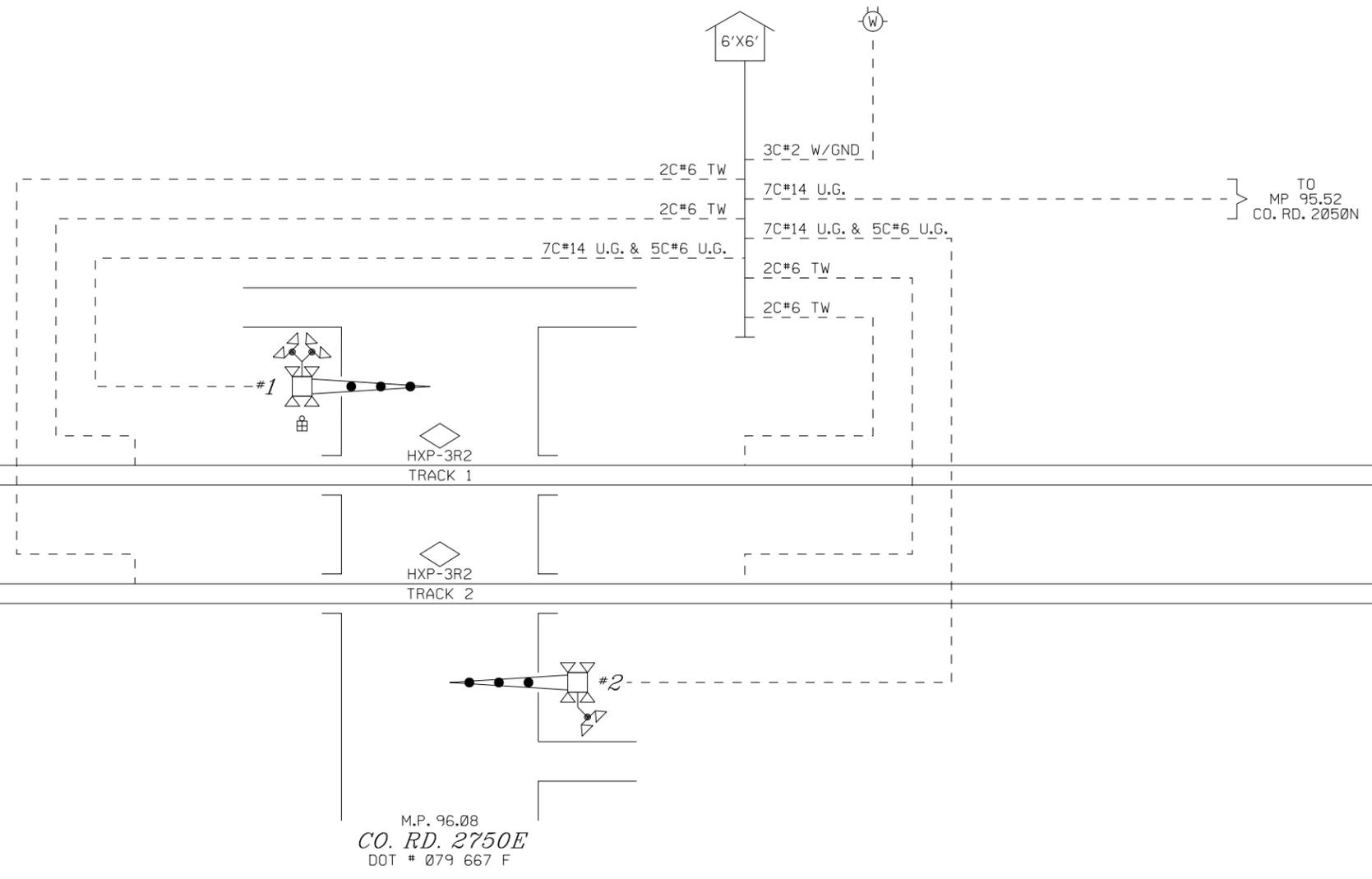
DESIGNED 03-31-10
NEW XING A MP 96.08
TCS/BES SEQ. 34157

BURLINGTON NORTHERN SANTA FE RAILWAY		
SIDE "A" SHELF LAYOUT CO. RD. 2750E MALDEN, IL		
LS 0001	MP 96.08	SH 10 OF 12



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 NEW_XING_A1_MP_96.08
 TCS/BES SEQ.# 34157

BURLINGTON NORTHERN SANTA FE RAILWAY		
SIDE "C" SHELF LAYOUT CO. RD. 2750E MALDEN, IL		
LS 0001	MP 96.08	SH 11 OF 12



ALL NEW

BURLINGTON NORTHERN SANTA FE RAILWAY		
CABLE LAYOUT		
CO. RD. 2750E MALDEN, IL		
LS 0001	MP 96.08	SH 12 OF 12

DESIGNED 03-31-10
 NEW XING AT MP 96.08
 TCS/BES SEQ.# 34157

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Petition for permission to make a major change in crossing protection, or to install new protection under 92 Illinois Administrative Code 1535.400 (d)

Date: April 16, 2010

To the Illinois Commerce Commission:

The petitioner **BNSF Railway** shows

- (1) That it is a railroad company operating a line of railroad in the State of Illinois.
- (2) That petitioner proposes and hereby makes application for authority to make a major change in crossing protection, or to install new protection, under 92 Illinois Administrative Code 1535.400 (d) adopted by this Commission.
- (3) That the location of the crossing, the nature of protection now established and proposed to be established, and other pertinent facts in connection therewith, are set forth in the statement attached to and forming part of this petition.
- (4) That petitioner's reasons and purpose, with reference to its said proposal are

Install Constant Warning and Flashers and Gates in accordance with ICC agreement #T09-0116

- (5) That the facts set forth in this petition and in the statement and plans or plats attached thereto, are, all of them, true and correct to the best of petitioner's knowledge and belief.

WHEREFORE, the petitioner prays that the Commission will, if deemed desirable by the Commission, set the aforesaid matter for hearing, and that the Commission enter an order or adopt a resolution consenting to and granting authority for the making of the said proposed changes in or additions to crossing protection.

BNSF Railway

By _____
Daniel Dunn
General Construction Supervisor
309-345-6271

(Attorney for Petitioner)

(Use Enter key for up to four additional lines.)

(Attorney's Address)

Statement, attached to and part of an application for permission to make a major change in crossing protection or to install new protection, under 92 Ill. Adm. Code 1535.400(d).

1. Name of Railroad Company **BNSF Railway**
2. Crossing Number **079667F**
3. Village or City **Near Malden**
4. Name of Street or Highway **2750E**
5. Public Agency Maintaining Highway **(D.O.T., County, Township, City)**
6. Protection now established: (Give full description. Indicate the hours of any manual protection.)
Crossbucks
7. Protection desired: (Give details)
Install Constant Warning and Flashers and Gates
8. Number of main tracks **2** Other tracks _____
9. Number of passenger train movements: 6 a.m. to 6 p.m. **6** 6 p.m. to 6 a.m. **2**
10. Number of freight train movements: 6 a.m. to 6 p.m. **9** 6 p.m. to 6 a.m. **12**
11. Approximate number of switch movements: 6 a.m. to 6 p.m. _____ 6 p.m. to 6 a.m. _____
12. Maximum speed of trains at crossing on each track in each direction
Track 1 N/E Bound **79** mph S/W Bound **79** mph
Track 2 N/E Bound **79** mph S/W Bound **79** mph
Track 3 N/E Bound _____ mph S/W Bound _____ mph
13. Passenger platforms served by tracks within the limits of track circuits, if any **0**
14. Where automatic signals or gates are proposed, approximately number of train or engine movements daily which would cause false indications or operation _____

15. Nature and approximate amount of street or highway traffic over crossing

125AADT

16. In addition to the information listed hereinbefore in Form 3, attach a track plan or plat of the proposed crossing. This plan should show:

- (a) Width and surface of highway.
- (b) Highway intersections (including private driveways to be so indicated) and location of established highway signs or signals within 100 feet of crossing.
- (c) Location of tracks, switches and other railroad facilities such as block signals, etc. within limits of track circuits, present and/or proposed.
- (d) Where automatic protection is proposed, show proposed location of signals (sidelights, cantilevers, etc., if any).
- (e) Show the length of each operation track section within the control limits of the crossing protection and its function.

ADDITIONAL INFORMATION

VERIFICATION

I, (Daniel Dunn, first being duly sworn upon oath depose and say that I am General Construction Supervisor of BNSF Railway, an Deleware corporation; that I have read the above and foregoing petition by me subscribed and know the contents thereof; that said contents are true in substance and in fact, except as to those matters stated upon information and belief, and as to those, I believe same to be true.

Daniel Dunn
General Construction Supervisor