



**Norfolk Southern Corporation**  
**1200 Peachtree Street, NE**  
**Box 123**  
**Atlanta, GA 30309**

RECEIVED  
2015 OCT 19 AM 10:54  
PA.P.U.C.  
SECRETARY'S BUREAU

Date: October 14, 2015  
DOCKET # A-2015-2475046

Commonwealth of Pennsylvania  
Pennsylvania Public Utility Commission  
ATTN: Rosemary Chiavetta  
400 North St., 2nd Floor  
Harrisburg, PA 17120

Dear Ms. Chiavetta:

Attached for your review, is one copy of the engineering for this proposed crossing modification / installation. Should you have any questions concerning this project, please contact STEPHEN KLINGER at 404-529-1234.

Sincerely,

A handwritten signature in black ink, appearing to be 'S. Klinger', with a long horizontal line extending to the right.

Stephen J. Klinger

RECEIVED  
 2015 OCT 19 AM 10:54  
 PA.P.U.C.  
 SECRETARY'S BUREAU

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20	HOUSE (RIGHT SIDE)
21	HOUSE (REAR & TOP VIEW)

NEW SHEET  
 \*19,5531  
 JLM/XRL  
 09-10-15  
 RED = IN  
 CHECKED BY PEH  
 09-30-15

IN SERVICE \_\_\_\_\_ SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

S&E ENGINEERING COPY  
 CONSTRUCTION OFFICE COPY  
 RETURN TO S&E ENG. AFTER COMPLETION  
 FIELD COPY  
 RETURN TO CASE AFTER COMPLETION  
 PROJECT ENGINEER COPY

PROJECT \*19,5531 INDEX SHEET FILE No. Cx0123473

DESIGNED BY: JLM   09-10-15	
DRAWN BY: XRL   09-10-15	
CHECKED BY: PEH   09-30-15	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P. HP-86.32
IN SERVICE: - -	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.
	HARRISBURG LINE FILE No. R-
	CADD or DWG. No. 03180862.NX1 SHEET No. 1 of 1

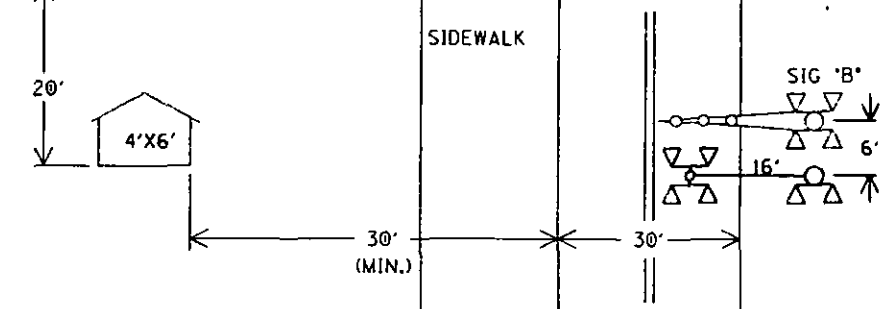
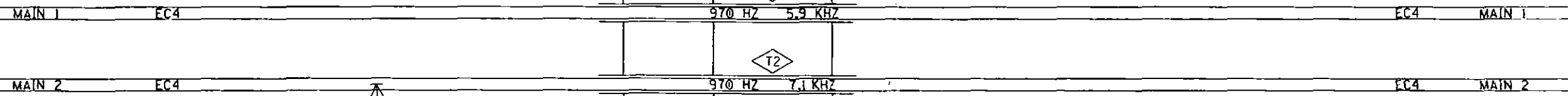
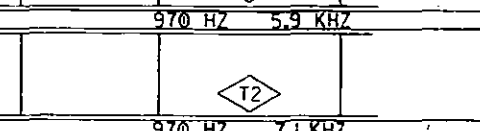
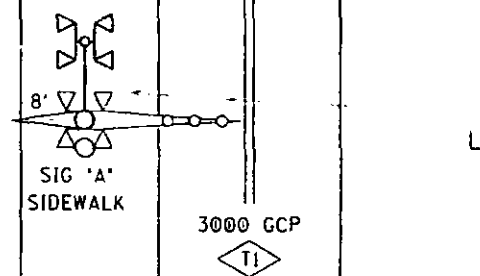
REVISION	INITIALS																			

PROPERTY  
 PENNSYLVANIA R.R.

TO HARRISBURG, PA  
WEST  
INCREASING

TO READING, PA  
EAST  
DECREASING

UPGRADE ALL EXISTING  
LENSES TO 12" LED LENSES



NOTES:

1. MAX. TRAIN SPEED 60 M.P.H.
2. LATITUDE N 40° 20' 37" LONGITUDE W 76° 25' 11" ELEVATION 776'
3. SIGNAL 'B' TO HAVE BELL.
4. LOCATE U/G UTILITIES & CABLE BEFORE DIGGING.
5. CROSSING LOCATED IN LEBANON COUNTY.
6. NEAREST STREET ADDRESS IS 308 5TH ST
7. NEAREST INTERSECTING STREET IS SCOLL LANE
8. DISTANCE TO NEAREST INTERSECTING STREET IS 22 FT.
9. FIELD FORCES TO UPGRADE ALL SIGNAL LIGHTS TO LED LIGHTS.
10. INSTALL NEW MAST FOR SIGNAL 'A' WITH SIDE LIGHTS.
11. FIELD FORCES TO REMOVE FRONT LIGHTS ON EXISTING SIGNAL 'B'.
12. FIELD FORCES TO INSTALL 16' CANT. 'B'.

#19,5531  
JLM/XRL  
09-10-15  
RED = IN  
YELLOW = OUT  
CHECKED BY PEH  
09-30-15

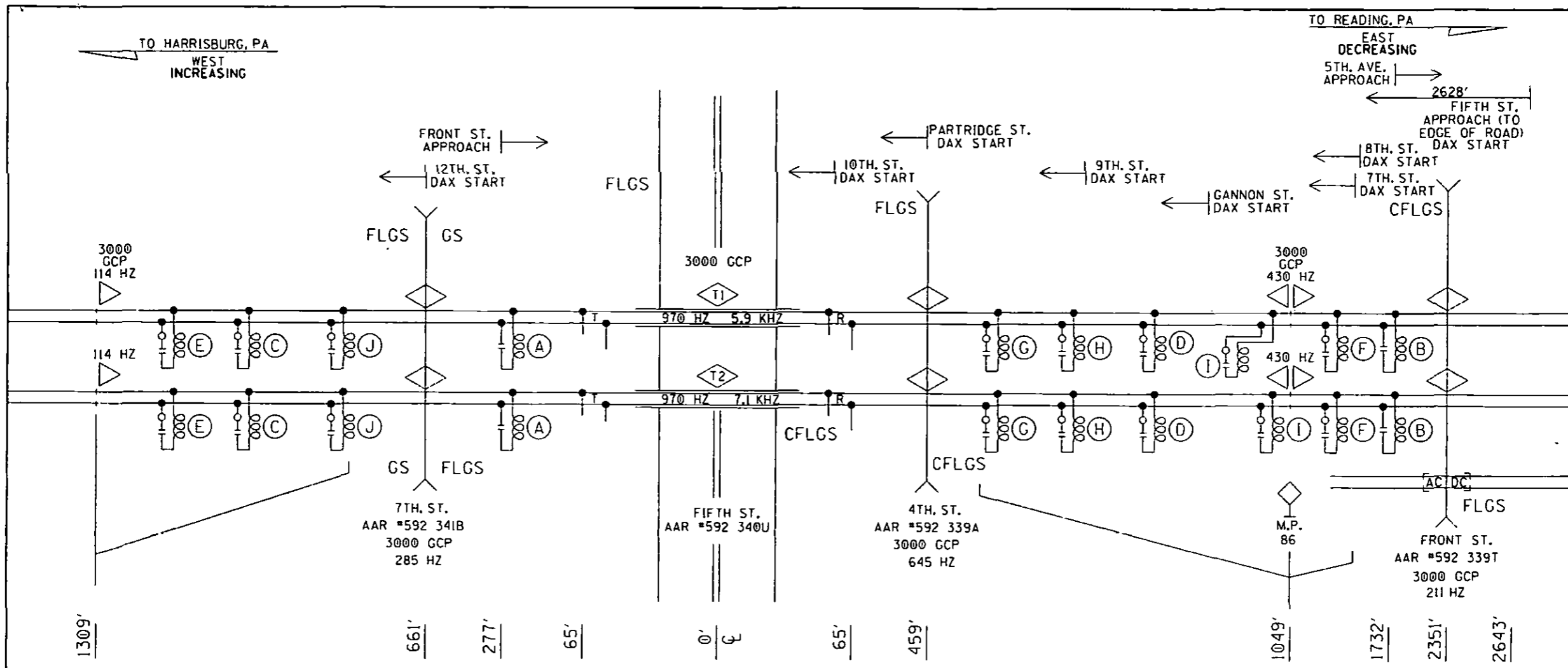
LAYOUT

DESIGNED BY: MRB   09-30-99	<b>NS NORFOLK SOUTHERN</b>	
DRAWN BY: SSC   09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
CHECKED BY: SJR   09-30-99	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE: TCM   06-10-02	HARRISBURG LINE	FILE No. R-0851
	CADD or DWG. No. 03180862.01	SHEET No. 1 of 21 19

CONRAIL NOT TO SCALE

PROPERTY  
PENNSYLVANIA R.R.


REVISION  
INITIALS



- (A) - NBS 62775-3497 (430HZ) (G) - NBS 62775-1543 (285HZ) W/INDUCTOR 8V617-200 FT  
 (B) - NBS 62775-8621 (86HZ) (H) - NBS 62775-3497 (970HZ) W/INDUCTOR 8V617-400 FT  
 (C) - NBS 62775-3497 (970HZ) W/INDUCTOR 8V617-200 FT (I) - NBS 62775-8621 (114HZ) W/INDUCTOR 8V617-200 FT  
 (D) - NBS 62775-3497 (645HZ) W/INDUCTOR 8V617-1400 FT (J) - NBS 62775-3497 (645HZ) W/INDUCTOR 8V617-200 FT  
 (E) - NBS 62775-1543 (285HZ) W/INDUCTOR 8V617-1200 FT  
 (F) - NBS 62775-1543 (211HZ) W/INDUCTOR 8V617-1400 FT

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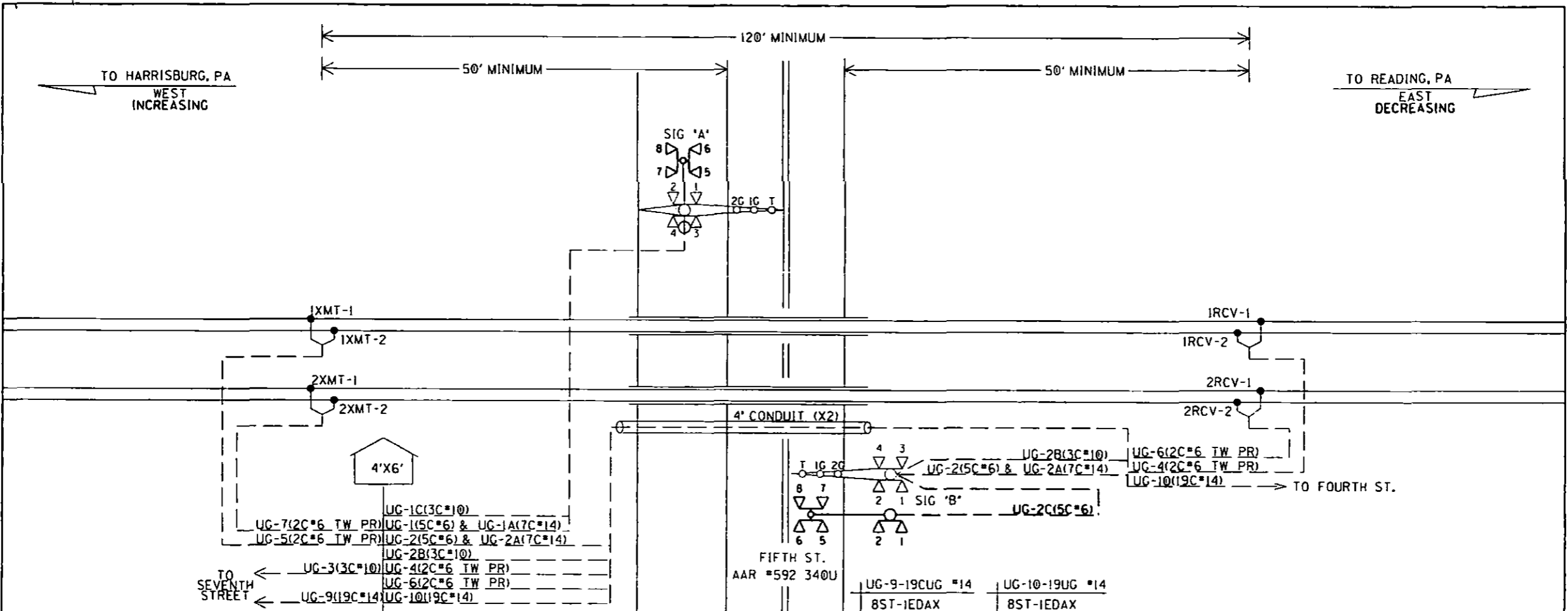
PROFILE

DESIGNED BY: MRB   09-30-99	 OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
DRAWN BY: SSC   09-30-99		HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.
CHECKED BY: SJR   09-30-99	HARRISBURG LINE	FILE NO.: R-0851
IN SERVICE: TCM   06-10-02	CADD or DWG. No. 03180862.02	SHEET No. 2 of 21 19

REVISION	INITIALS													

CONRAIL  
 PROPERTY  
 PENNSYLVANIA R.R.





UG-1-5CUG #6	
AEZ	AEB
AEC	B16-A
N16-A	

UG-1C 3C*10	
AGHBX120	AGHNX120
SPARE	

UG-2A-7CUG #14	
XGP1	XGP
BXX	IBXX
BXC	SPARE
SPARE	

UG-2C-5CUG #6	
BEC	BEZ
BEB	SPARE
SPARE	

UG-3-3CUG #10	
BX120-A	BX120-B
NX120	

UG-6-TW.PR. #6	
2RCV-1	2RCV-2

UG-1A-7CUG #14	
XGP2	AXG
AXX	SPARE
IAXX	SPARE
SPARE	
SPARE	

UG-2-5CUG #6	
BEZ	BEB
BEC	N16-B
B16-B	

UG-2B-3CUG #10	
BGBX120	BGHNX120
SPARE	

UG-4-TW.PR. #6	
1RCV-1	1RCV-2

UG-7-TW.PR. #6	
2XMT-1	2XMT-2

UG-5-TW.PR. #6	
1XMT-1	1XMT-2

UG-9-19CUG #14	
8ST-1EDAX	N8ST-1EDAX
8ST-2EDAX	N8ST-2EDAX
7ST-1EDAX	N7ST-1EDAX
7ST-2EDAX	N7ST-2EDAX
5ST-1WDAX	N5ST-1WDAX
5ST-2WDAX	N5ST-2WDAX
4ST-1WDAX	N4ST-1WDAX
4ST-2WDAX	N4ST-2WDAX
SPARE	
SPARE	
SPARE	

UG-10-19UG #14	
8ST-1EDAX	N8ST-1EDAX
8ST-2EDAX	N8ST-2EDAX
7ST-1EDAX	N7ST-1EDAX
7ST-2EDAX	N7ST-2EDAX
5ST-1EDAX	N5ST-1EDAX
5ST-2EDAX	N5ST-2EDAX
4ST-1WDAX	N4ST-1WDAX
4ST-2WDAX	N4ST-2WDAX
SPARE	
SPARE	
SPARE	

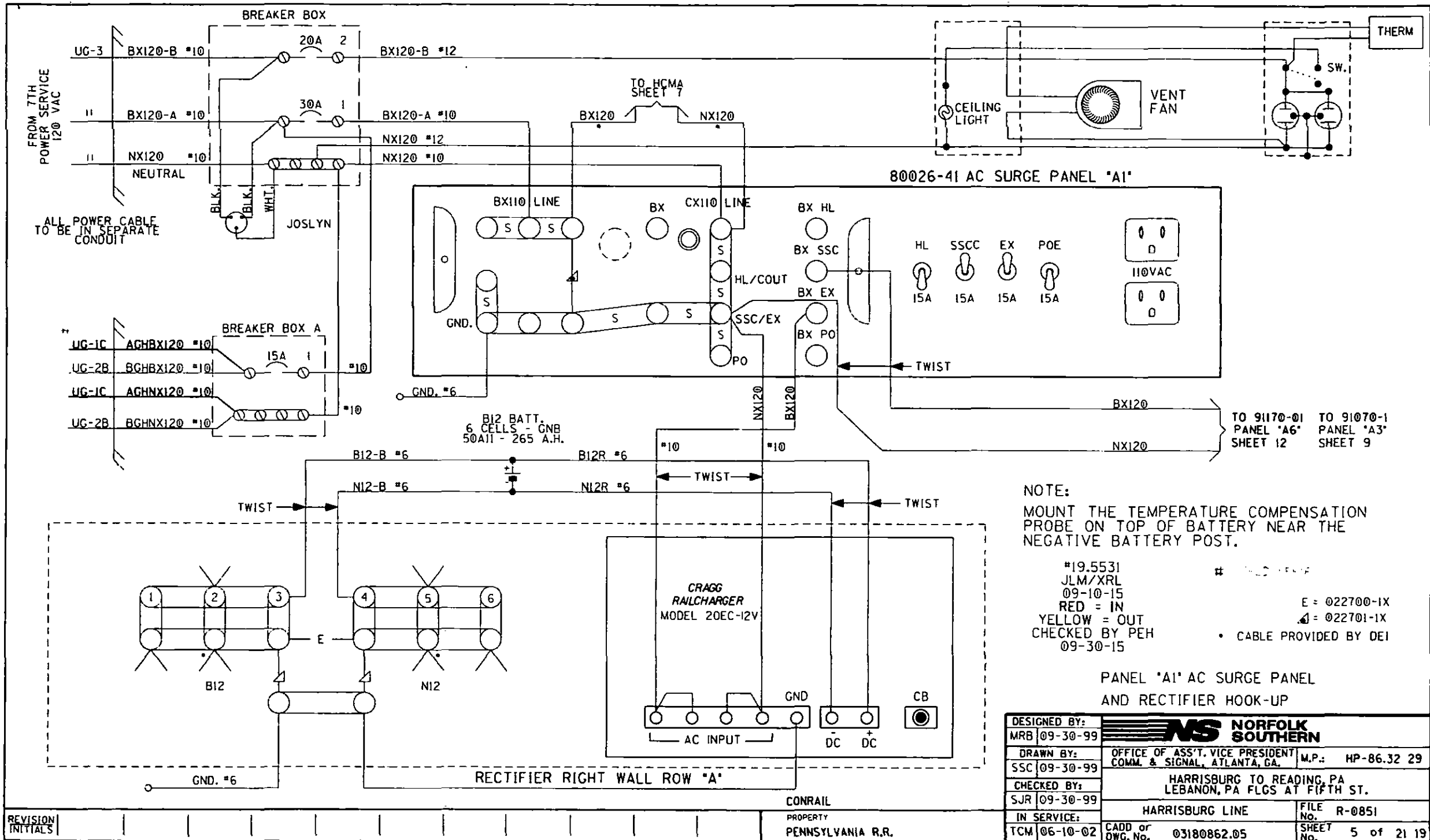
#19.5531  
JLM/XRL  
09-10-15  
RED = IN  
YELLOW = OUT  
CHECKED BY PEH  
09-30-15

CABLE

DESIGNED BY:	NS NORFOLK SOUTHERN	
MRB 09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
DRAWN BY:	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
SSC 09-30-99	HARRISBURG LINE	
CHECKED BY:	FILE No. R-0851	
SJR 09-30-99	CADD or Dwg. No. 03180862.04	
IN SERVICE:	SHEET No. 4 of 21 19	
TCM 06-10-02		

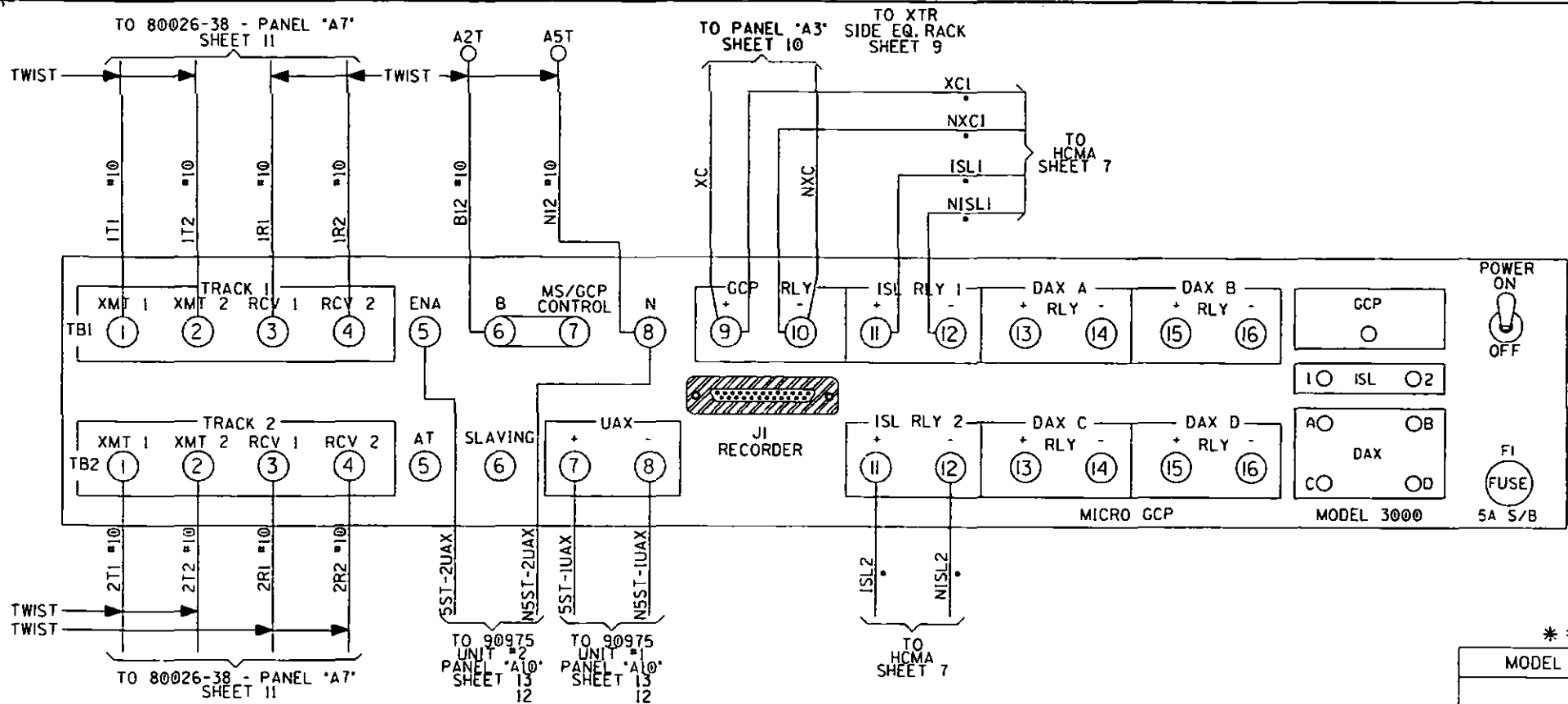
REVISION	INITIALS
M-1811	02-24-11
JJA/EAL	04-30-11

PROPERTY PENNSYLVANIA R.R.



REVISION INITIALS

DESIGNED BY:	MRB 09-30-99	
DRAWN BY:	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: HP-86.32 29	
CHECKED BY:	SJR 09-30-99	
IN SERVICE:	TCM 06-10-02	
HARRISBURG LINE		FILE No. R-0851
CADD or DWG. No. 03180862.05		SHEET No. 5 of 21 19



3000 GCP 'A2'  
 TI/T2  
 MF = 970 HZ.  
 T1 IF = 5.9KHZ  
 T2 IF = 7.1KHZ

\* = 1ST SLOT AT LEFT END OF BAY

MODEL 3000 GCP MODULE ASSEMBLIES										
UPPER BAY										
MODULES POSITION	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
MODULE NUMBERS	* 8021-f(1)	8021-f(2)	8002 T/R 1	8002 T/R 2	8003 RLY DRY	8021480044PROCS	8005 LOGG	8006 (1) DAX	8006 (2) DAX	80020 +80017
MODULES USED	x	x	x	x	x	x				x

3000 PROGRAMMING	
* OF TKS/TRANSCIEVERS	2
BASIC FREQUENCY	970Hz
T1 UNI/BIDIRECTIONAL	BI
T2 UNI/BIDIRECTIONAL	BI
T1 POWER-MAX/MED	MAX
T2 POWER-MAX/MED	MAX
T1 PRED/MS	PRED
T2 PRED/MS	PRED
T1 WARNING TIME	30Sec
T2 WARNING TIME	30Sec
T1 APPROACH DIST	1309F+
T2 APPROACH DIST	1309F+
UAX PU DLY (0=OFF)	25Sec
ENA/UAX PU DLY(0=OFF)	25Sec
T1 ISL DIST	129F+
T2 ISL DIST	129F+
* OF DAX'S	0 Ea

EXPANDED PROGRAMMING	
DAX A = T1/T2?	TRACK=
DAX A DIST	F+
DAX A WARN TIME	Sec
DAX B = T1/T2?	TRACK=
DAX B DIST	F+
DAX B WARN TIME	Sec
DAX C = T1/T2?	TRACK=
DAX C DIST	F+
DAX C WARN TIME	Sec
DAX D = T1/T2?	TRACK=
DAX D DIST	F+
DAX D WARN TIME	Sec
MASTER?/SLAVE?	MASTER
PASSWORD NO/YES	NO
RECORDER NO/YES	NO

EXPANDED PROGRAMMING	
T1-SW TO MS AT 10 % OF EZ	
T2-SW TO MS AT 10 % OF EZ	
T1-DELAY MS TO GCP	0 Sec
T2-DELAY MS TO GCP	0 Sec
T1 PRIME PRE. OFFSET	F+
T2 PRIME PRE. OFFSET	F+
PRIME PU TIME DELAY	15 Sec
DAX A PU DELAY	Sec
DAX B PU DELAY	Sec
DAX C PU DELAY	Sec
DAX D PU DELAY	Sec
ENHANCED DETECT MODE	OFF
BACK-TO-BACK	OFF
STATION STOP TIMER	10 Sec
T1* OF TRK. WIRES 4/6	4
T2* OF TRK. WIRES 4/6	4
LOW EX ADJUSTMENT	0

NOTE:  
 SEE IPI INSTRUCTION AND  
 INSTALLATION MANUAL FOR  
 80211 ISLAND CALIBRATION  
 PROCEDURE.

\*19.5531  
 JLM/XRL  
 09-10-15  
 RED = IN  
 YELLOW = OUT  
 CHECKED BY PEH  
 09-30-15

\* = CABLE PROVIDED BY DEI

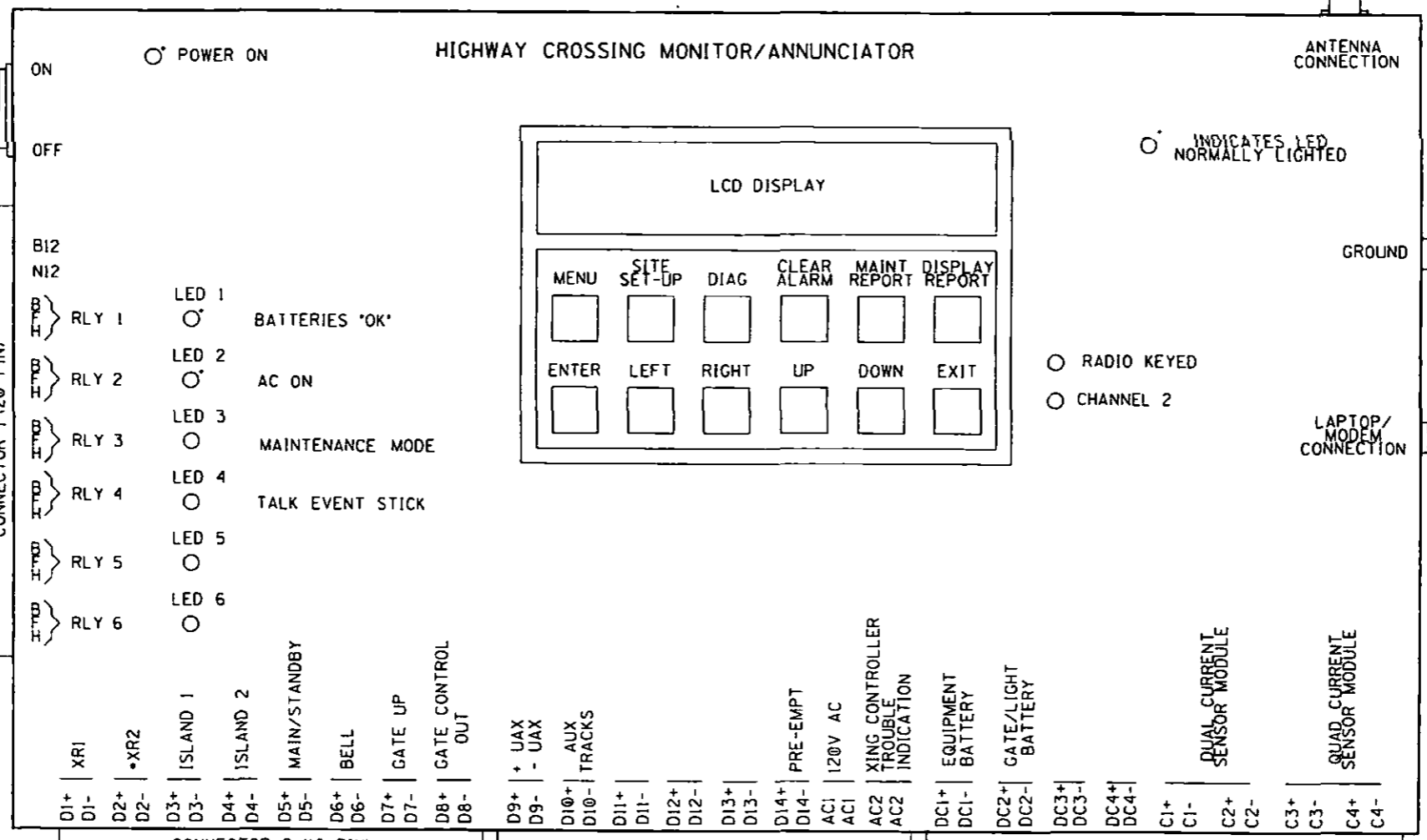
PANEL 'A2' 3000 GCP HOOK-UP

DESIGNED BY:	NS NORFOLK SOUTHERN	
MRB 09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
DRAWN BY:	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
SSC 09-30-99	HARRISBURG LINE	
CHECKED BY:	FILE No. R-0851	
SJR 09-30-99	CADD or DWG. No. 03180862.06	
IN SERVICE:	SHEET No. 6 of 21 19	
TCM 06-10-02		

REVISION  
 INITIALS

PROPERTY  
 PENNSYLVANIA R.R.



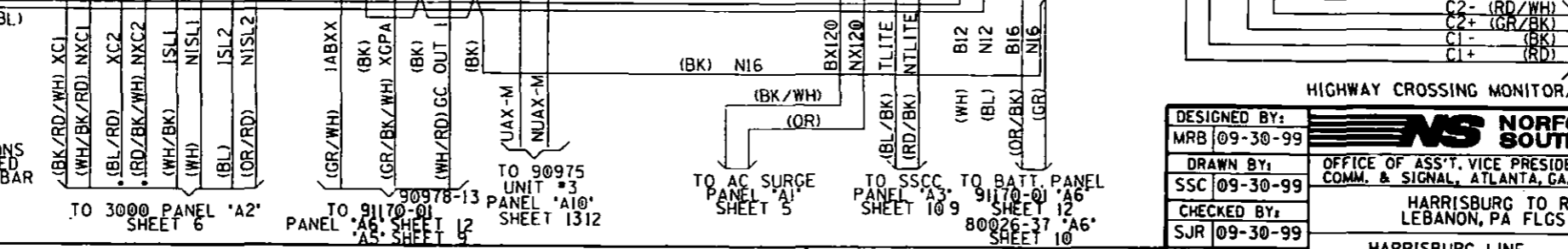
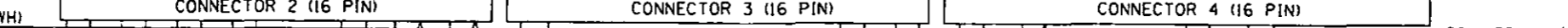


\*19.5531  
JLM/XRL  
09-10-15  
RED = IN  
YELLOW = OUT  
CHECKED BY PEH  
09-30-15

(BK/RD) B12  
(BL/WH) N12

25 CONDUCTOR 18 AWG CABLE PROVIDED BY DEI

A2B ○ A5B



\*NOTE: ANY UNUSED CONNECTIONS ARE TO BE LEFT UNTERMINATED AND WIRE TIED TO THE ANGLE BAR AT THE TOP OF THE RACK

HIGHWAY CROSSING MONITOR/ANNUNCIATOR

DESIGNED BY:	<b>NS NORFOLK SOUTHERN</b>	
MRB 09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
DRAWN BY:	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
SSC 09-30-99	HARRISBURG LINE	FILE NO. R-0851
CHECKED BY:	CADD or DWG. No. 03180862.07	
SJR 09-30-99	IN SERVICE:	SHEET 7 of 21 19
TCM 06-10-02	PROPERTY PENNSYLVANIA R.R. CONRAIL	

REVISION INITIALS

SITE SET UP PROCEDURE	
FUNCTION	LED DISPLAY
DATE	- -
TIME	:
DAYLIGHT SAVINGS TIME	YES
SITE NAME	FIFTH STREET
DOT NUMBER	592 340U
MILEPOST	86.29
HOP ALARMS ?	NO HOP ALARMS
* OF TRACKS	3


CONTROL SYSTEM CONFIGURATION MENU QUESTIONS	
THE QUESTION	SELECT FROM MENU OPTION
GATES INSTALLED?	GATES INSTALLED
AC/DC POWERED LAMPS?	DC POWERED LAMPS
CROSSING CONTROLLER?	CROSSING CONTROLLER
MAIN/STANDBY GCP?	NO MAIN/STANDBY
* OF CURRENT SENSOR LOOPS USED?	0 C1. C2 USED
* OF BATTERY BANKS MONITORED?	2 BATTERY BANKS
IS THERE A UAX INPUT (IS INPUT D9 WIRED)?	UAX INSTALLED
ARE ALARMS BROADCAST ON RADIO?	DO NOT TALK ALARMS
ARE AUXILIARY TRACKS MONITORED (IS INPUT D10 WIRED)?	NO AUXILIARY TRACKS
IS THIS UNIT A FRA TESTER?	NO FRA TESTER
LAMP CONFIGURATION	NORMAL LAMP OPERATION
IS BELL DETECTOR INSTALLED?	NO BELL INSTALLED
IS PRE-EMPT CIRCUIT USED?	NO PRE-EMPT INSTALLED
DOUBLE TRACK ONLY. HOW MANY XR INPUTS?	1 XR AND 2 ISLAND

VERIFY NUMBER OF BULBS	
CURR 1: LAMP SET UP	BULBS 8
CURR 2: LAMP SET UP	BULBS 8
CURR 3: LAMP SET UP	BULBS
CURR 4: LAMP SET UP	BULBS
SIMPLE OR COMPLEX LAMP CALIBRATION	SIMPLE

VERIFY THE BATTERY SUPPLY VOLTAGES	
BATTERY VOLTAGE AT INPUT DC1	VOLT 1: .
BATTERY VOLTAGE AT INPUT DC2	VOLT 2: .
BATTERY VOLTAGE AT INPUT DC3	VOLT 3: .
BATTERY VOLTAGE AT INPUT DC4	VOLT 4: .

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09-30-15

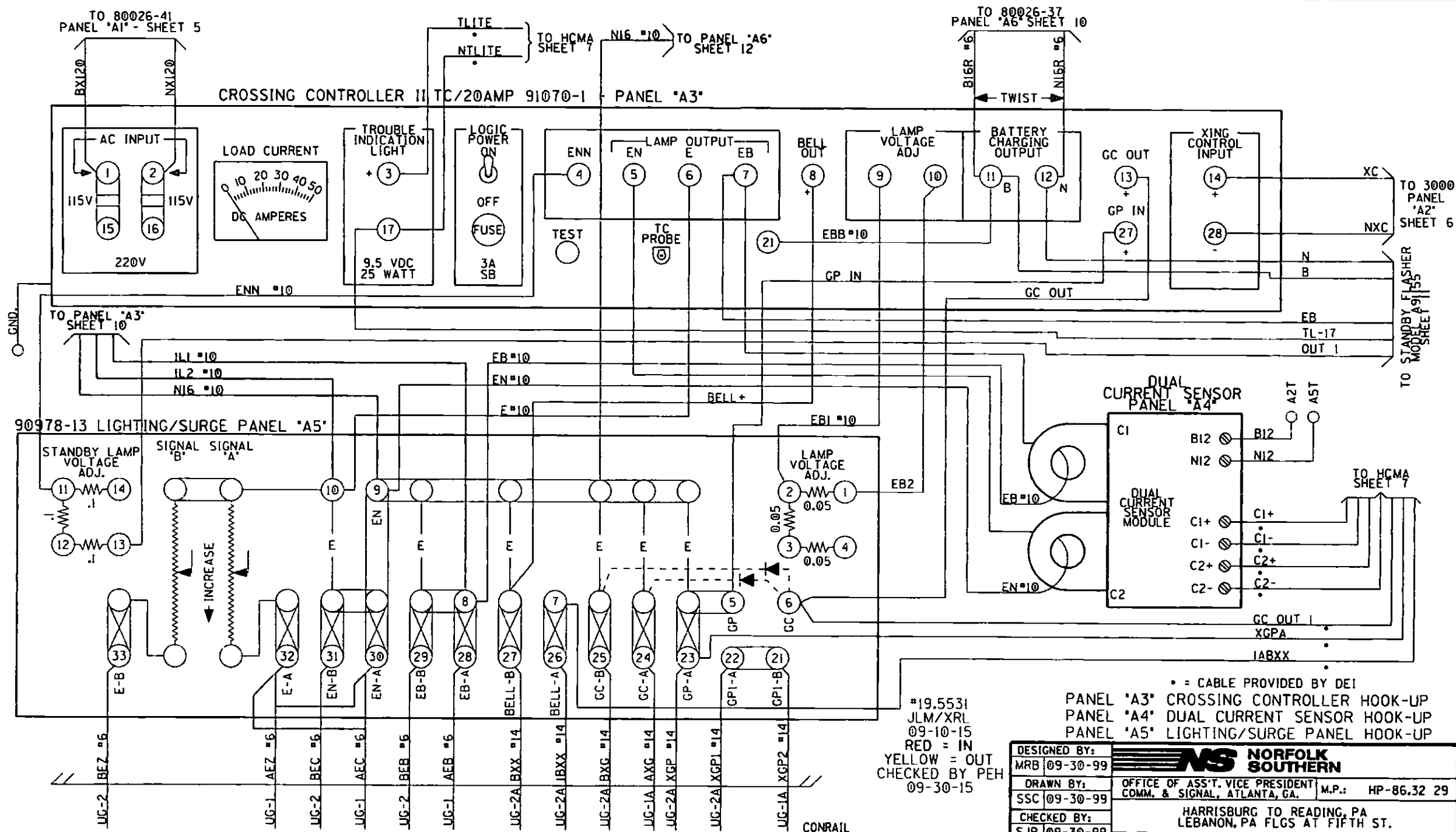
HCMA SET UP CHART

DESIGNED BY:		
MRB 09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
DRAWN BY:	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
SSC 09-30-99	HARRISBURG LINE	
CHECKED BY:	FILE No.	R-0851
SJR 09-30-99	CADD or DWG. No.	03180862.08
IN SERVICE:	SHEET No.	8 of 21 19
TCM 06-10-02		

CONRAIL

PROPERTY  
PENNSYLVANIA R.R.

REVISION  
INITIALS



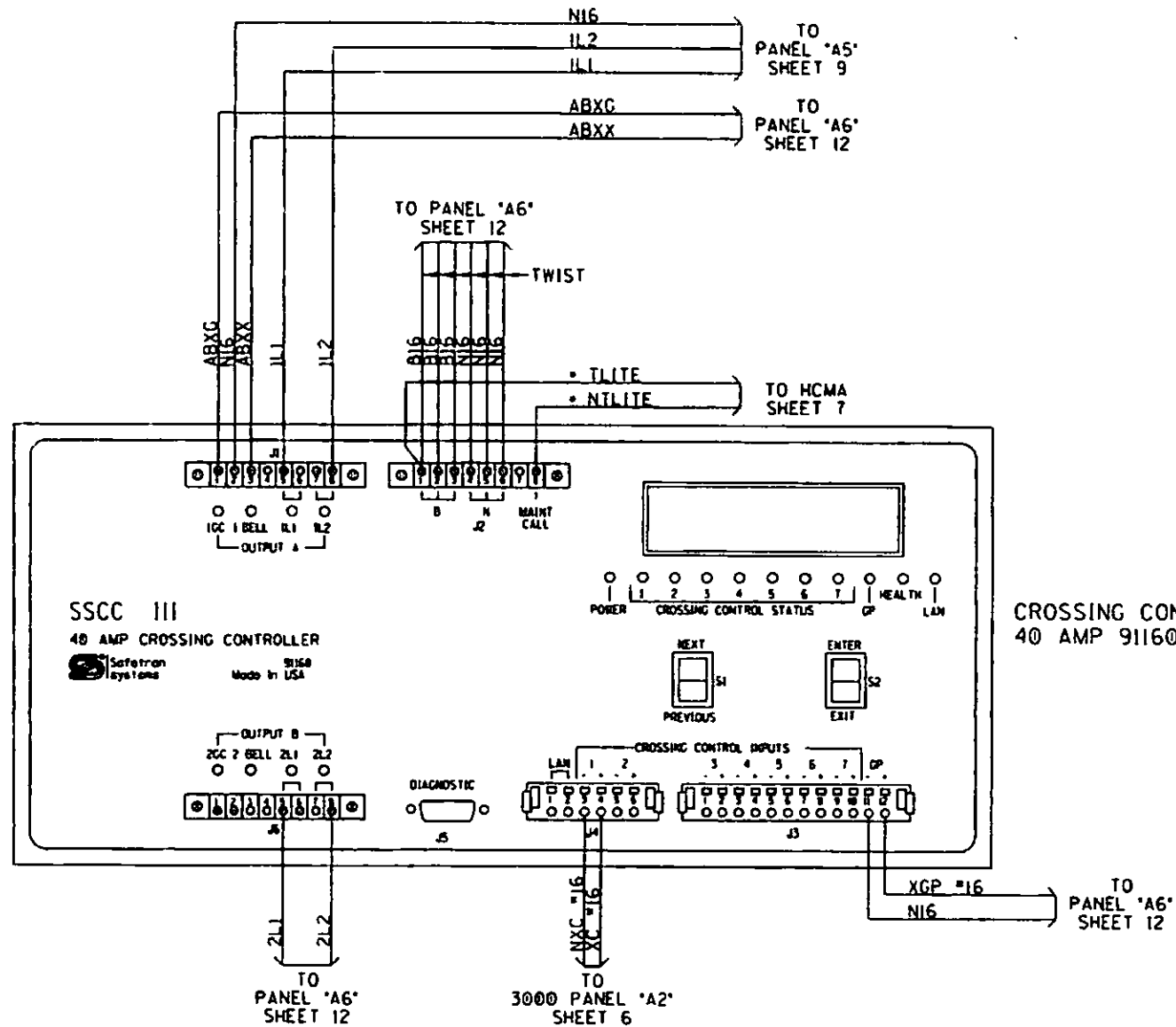
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JLM/XRL  
09-10-15  
RED = IN  
YELLOW = OUT  
CHECKED BY PEH  
09-30-15

• = CABLE PROVIDED BY DEI  
PANEL 'A3' CROSSING CONTROLLER HOOK-UP  
PANEL 'A4' DUAL CURRENT SENSOR HOOK-UP  
PANEL 'A5' LIGHTING/SURGE PANEL HOOK-UP

DESIGNED BY: MRB   09-30-99	<b>NORFOLK SOUTHERN</b>	
DRAWN BY: SSC   09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
CHECKED BY: SJR   09-30-99	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE:	HARRISBURG LINE	FILE No. R-0851
TCM   06-10-02	CADD or DWG. No. 03180862.09	SHEET No. 9 of 21 19

REVISION	M-1811	M-1895
INITIALS	02-24-11 JJA/EAJ 04-30-11	07-15-11 JMA/JJA

PROPERTY  
PENNSYLVANIA R.R.



CROSSING CONTROLLER III/  
40 AMP 91160 PANEL 'A3'

SETUP LAMP VOLTAGE	
SETUP OUTPUT I11	XX.X VOLTS
SETUP OUTPUT I12	XX.X VOLTS
SETUP OUTPUT 2L1	XX.X VOLTS
SETUP OUTPUT 2L2	XX.X VOLTS

PROGRAM	
FLASHER RATE	40
1 GC DELAY	6 SEC.
2 GC DELAY	SEC.
BELL-ON GATE RISING	NO
ENABLE INPUTS	I THRU I
ENABLE OUTPUTS	A AND B
LOW BATT	DISABLED
SET TO DEFAULT	SKIP
TIME	
DATE	
DAYLIGHT SAVINGS	ON
PASSWORD	DISABLED

NEW SHEET  
#19.5531  
JLM/XRL  
09-10-15  
RED = IN  
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09-30-15

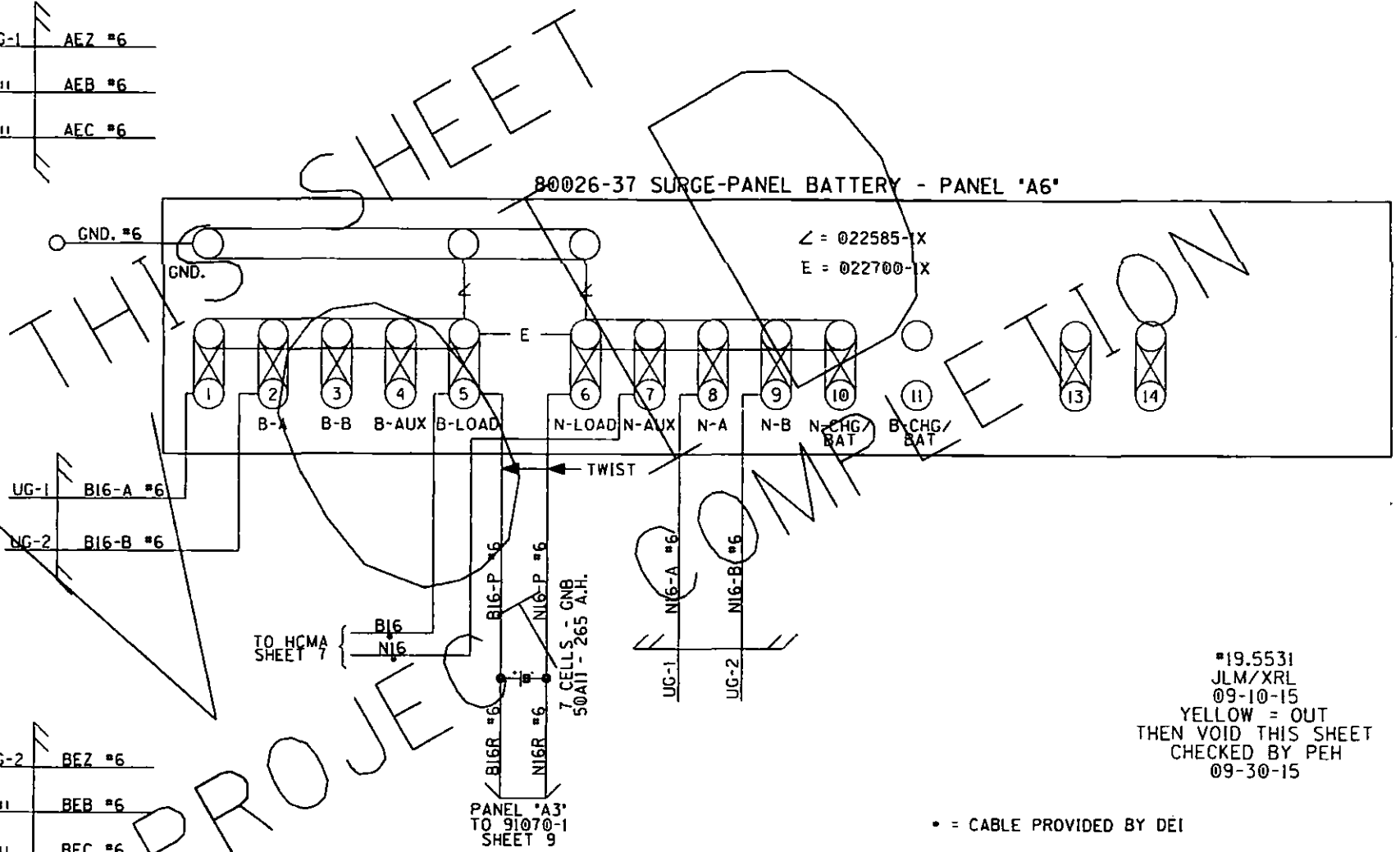
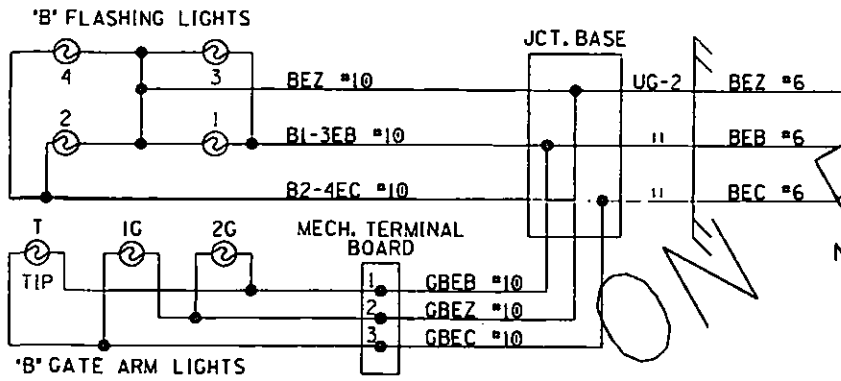
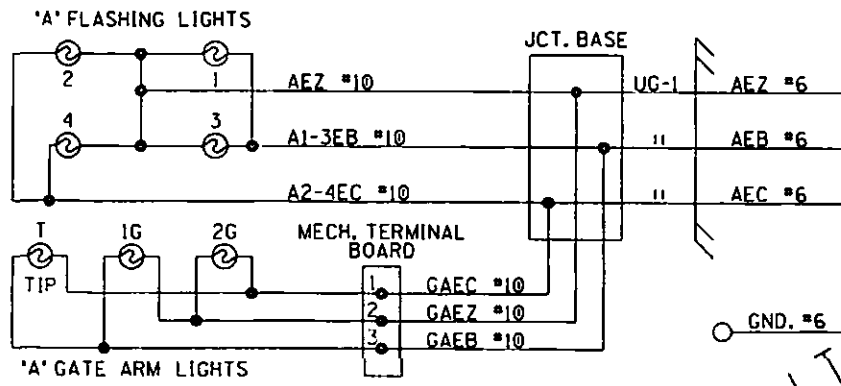
- NOTES:  
ALL WIRING TO BE #10AWG  
UNLESS NOTED OTHERWISE.  
• = CABLE PROVIDED WITH MONITOR

PANEL 'A3' CROSSING CONTROLLER HOOK-UP

DESIGNED BY: JLM 09-10-15	<b>NS NORFOLK SOUTHERN</b>	
DRAWN BY: XRL 09-10-15	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32
CHECKED BY: PEH 09-30-15	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE:	HARRISBURG LINE	FILE No. R-0851
	CADD or DWG. No. 03180862.10	SHEET No. 10 of 21

REVISION  
INITIALS

PROPERTY  
PENNSYLVANIA R.R.



NOTE:  
MOUNT THE TEMPERATURE COMPENSATION PROBE ON TOP OF BATTERY NEAR THE NEGATIVE BATTERY POST.  
FLGS EXISTING. VERIFY FIELD TAGGING & CHANGE IF NECESSARY.

#19.5531  
JLM/XRL  
09-10-15  
YELLOW = OUT  
THEN VOID THIS SHEET  
CHECKED BY PEH  
09-30-15

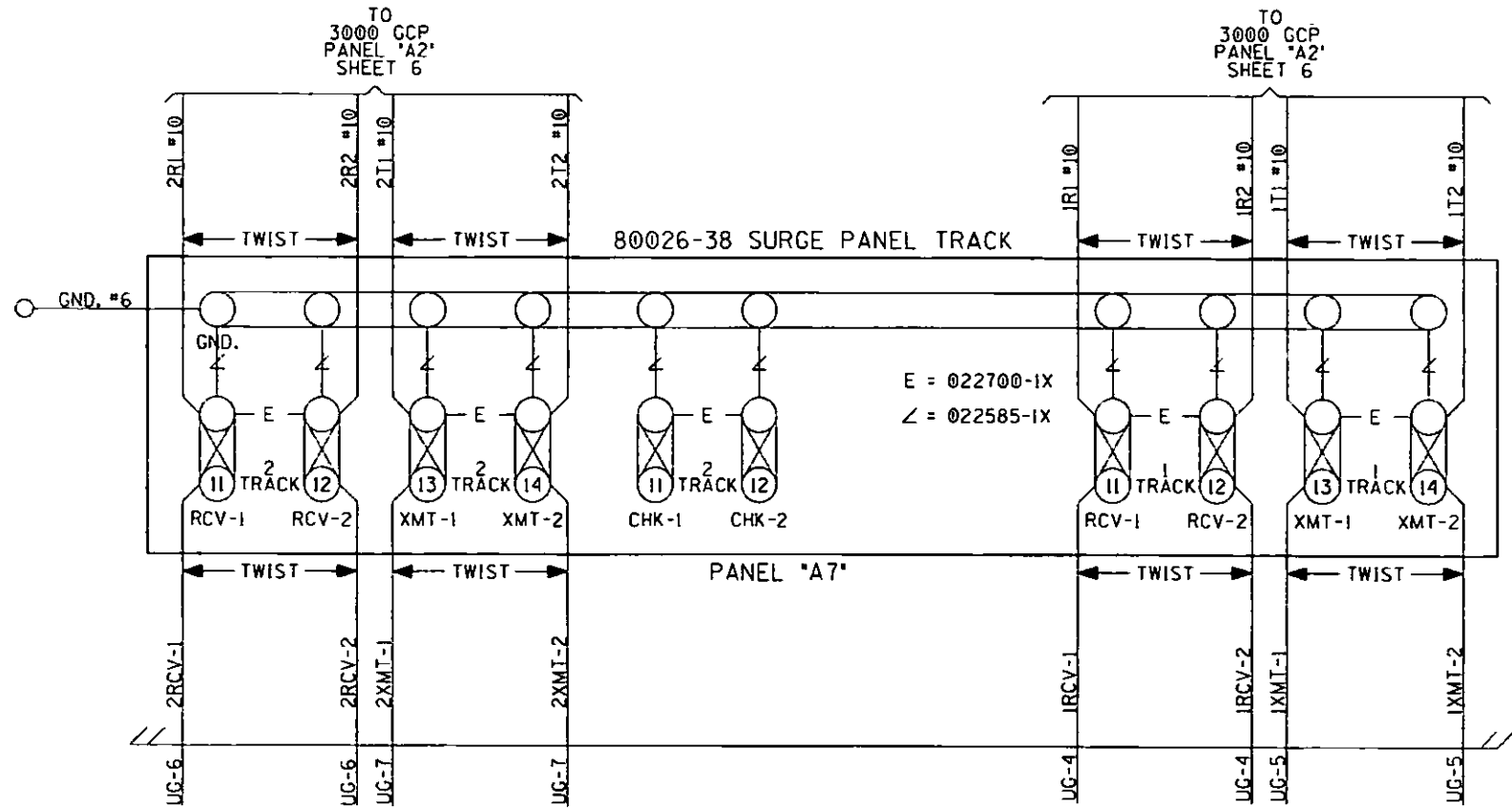
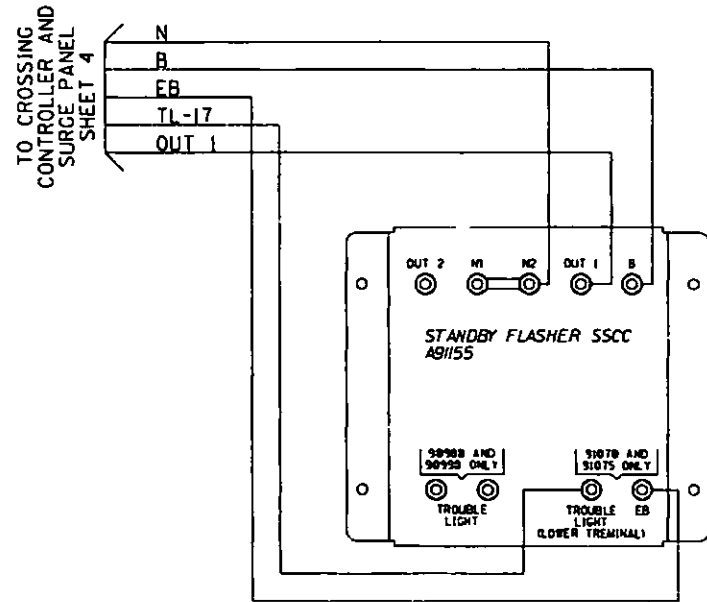
\* = CABLE PROVIDED BY DEI

PANEL 'A6' BATTERY SURGE PANEL HOOK-UP  
FLASHER & GATE LIGHTS

DESIGNED BY: MRB 09-30-99	<b>NS NORFOLK SOUTHERN</b>	
DRAWN BY: SSC 09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32
CHECKED BY: SJR 09-30-99	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE: TCM 06-10-02	HARRISBURG LINE	FILE No. R-0851
	CADD or DWG. No. 03180862.10X	SHEET No. 10 of 19

REVISION INITIALS	M-1811 02-24-11 JA/EA1 04-30-11
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PROPERTY  
CONRAIL



\*19.5531  
 JLM/XRL  
 09-10-15  
 RED = IN  
 YELLOW = OUT  
 CHECKED BY PEH  
 09-30-15

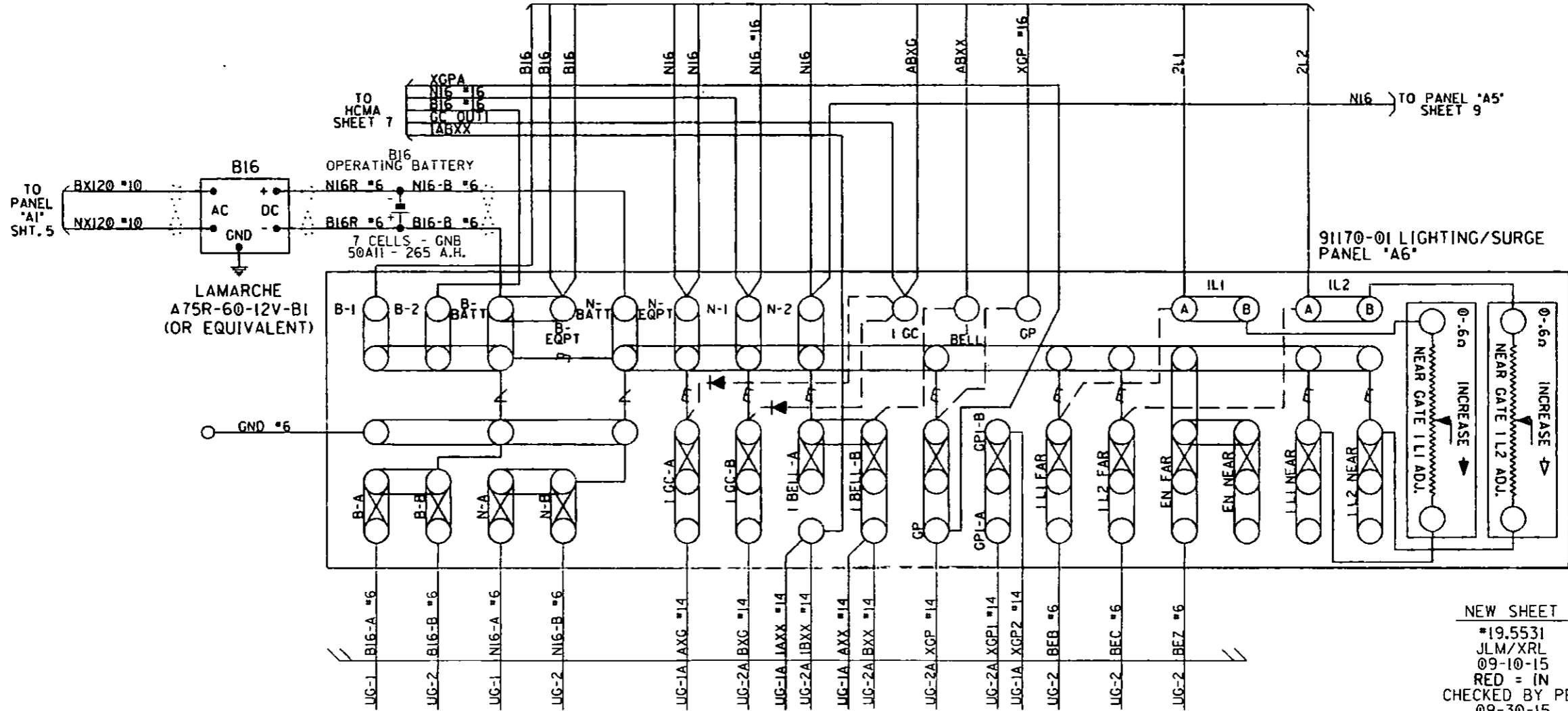
PANEL 'A11' TD-4 PANEL HOOK-UP  
 PANEL 'A7' TRACK SURGE PANEL HOOK-UP

DESIGNED BY: MRB   09-30-99	<b>NS NORFOLK SOUTHERN</b>	
DRAWN BY: SSC   09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
CHECKED BY: SJR   09-30-99	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE: TCM   06-10-02	HARRISBURG LINE	FILE No. R-0851
	CADD or DWG. No. 03180862.11	SHEET No. 11 of 21 19

REVISION M-1894  
 INITIALS 7-15-11  
 JMA / JJA

CONRAIL  
 PROPERTY  
 PENNSYLVANIA R.R.

TO  
PANEL "A3"  
SHEET 10



91170-01 LIGHTING/SURGE  
PANEL "A6"

NEW SHEET  
#19.5531  
JLM/XRL  
09-10-15  
RED = IN  
CHECKED BY PEH  
09-30-15

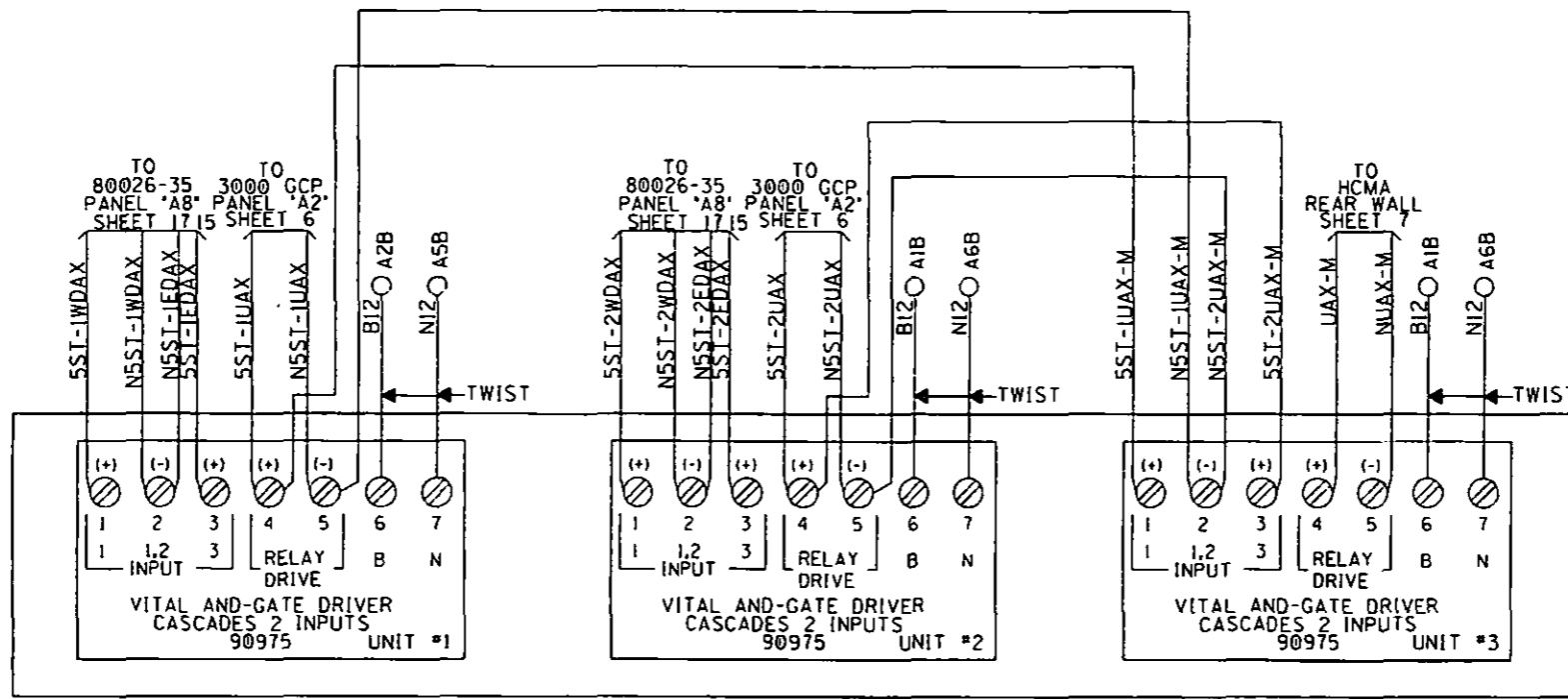
• CABLE PROVIDED WITH SEAR II  
⊔ = HEAVY DUTY EQUALIZER 022700-1X  
⊔ = HEAVY DUTY CLEARVIEW ARRESTER 022585-1X  
⋯ = TWIST

NOTE:  
ALL WIRING TO BE #10AWG  
UNLESS NOTED OTHERWISE.

PANEL "A6" LIGHTING/SURGE PANEL HOOK-UP

DESIGNED BY: JLM 09-10-15		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32
DRAWN BY: XRL 09-10-15			
CHECKED BY: PEH 09-30-15	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.		
IN SERVICE:	HARRISBURG LINE	FILE No.	R-0851
	CADD or DWG. No. 03180862.12	SHEET No.	12 of 21

REVISION INITIALS								PROPERTY	
								PENNSYLVANIA R.R.	



91044-3 VITAL AND-GATE DRIVER PANEL "A10"

#19.5531  
 JLM/XRL  
 09-10-15  
 RED = IN  
 YELLOW = OUT  
 CHECKED BY PEH  
 09-30-15

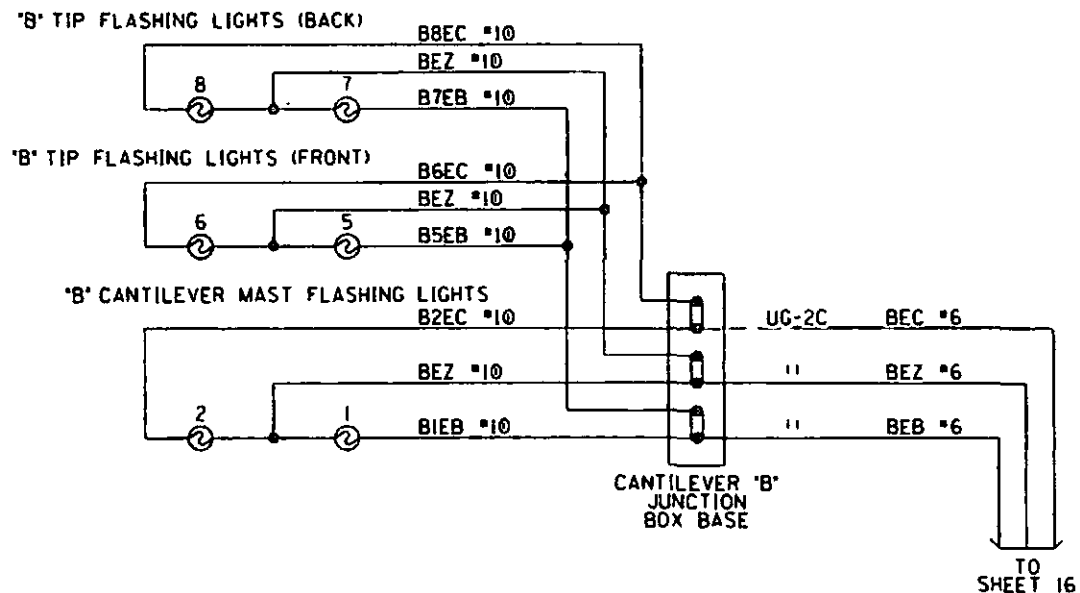
PANEL "A10" VITAL AND-GATES HOOK-UP

DESIGNED BY: MRB 09-30-99	<b>NS NORFOLK SOUTHERN</b>	
DRAWN BY: SSC 09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
CHECKED BY: SJR 09-30-99	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE: TCM 06-10-02	HARRISBURG LINE	FILE No. R-0851
	CADD or DWG. No. 03180862.13 12	SHEET No. 12 13 of 21 19

REVISION INITIALS


CONRAIL  
 PROPERTY  
 PENNSYLVANIA R.R.





NEW SHEET  
 #19,5531  
 JLM/XRL  
 09-10-15  
 RED = IN  
 CHECKED BY PEH  
 09-30-15

CANTILEVER FLASHER LIGHTS

DESIGNED BY: JLM 09-10-15	 <b>NORFOLK SOUTHERN</b>	
DRAWN BY: XRL 09-10-15	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32
CHECKED BY: PEH 09-30-15	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE:	HARRISBURG LINE	FILE No. R-0851
- -	CADD or DWG. No. 03180862.14	SHEET No. 14 of 21

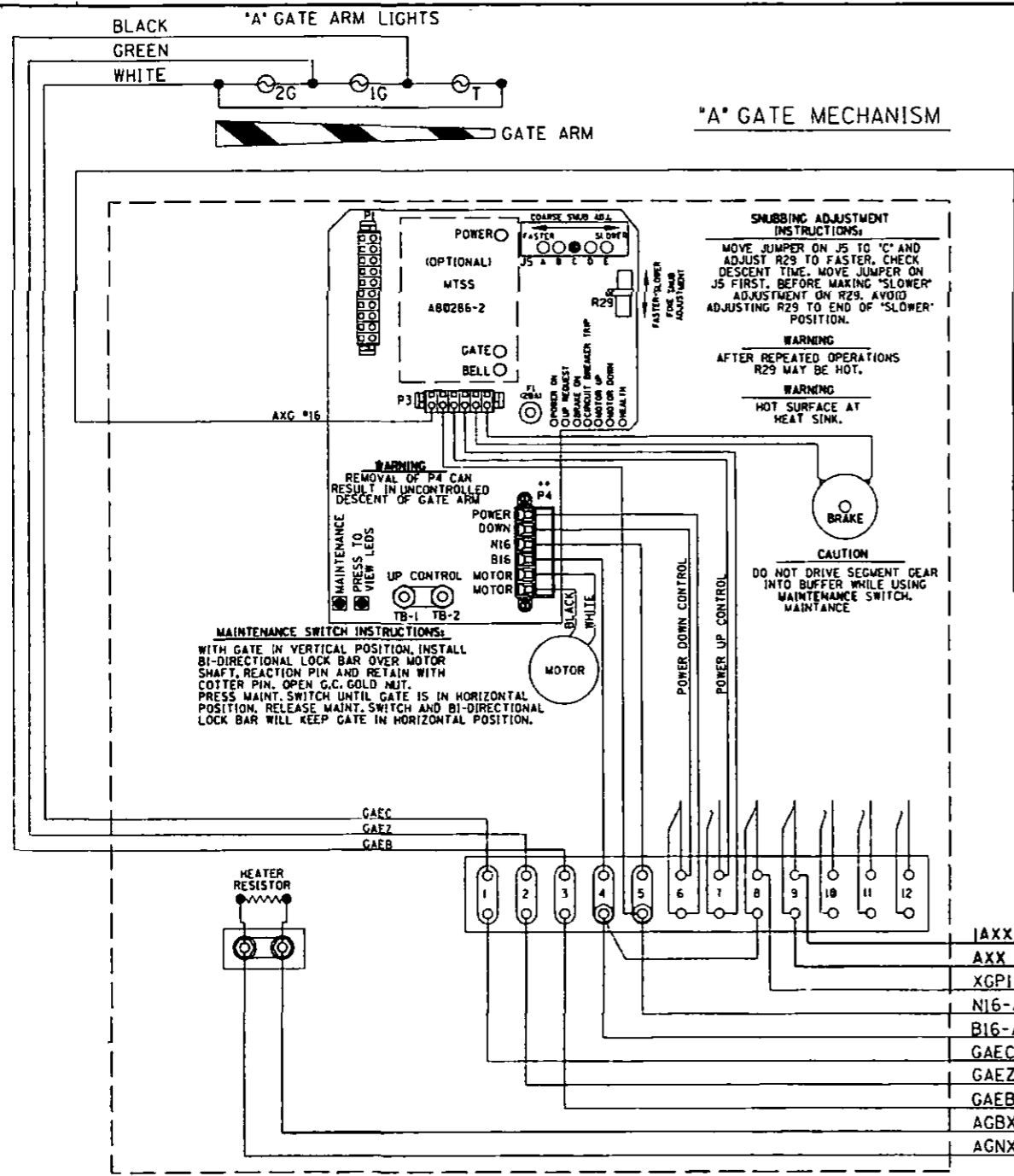
REVISION  
INITIALS

PROPERTY  
PENNSYLVANIA R.R.

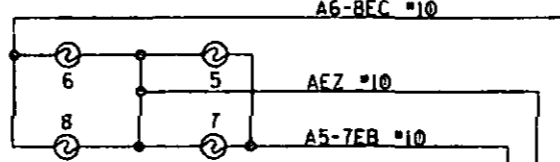
SAFETRAN MODEL 'S60' GATE

CONTACT SPACE	CONTACT CLOSED AT	FUNCTION OF CONTACT
6	70° - 90°	POWER DOWN CONTROL
7	0° - 89°	POWER UP CONTROL
8	83° - 90°	FLASHING LGT. CONTROL
9	5° - 90°	BELL CONTROL
10		SPARE
11		SPARE
12		SPARE

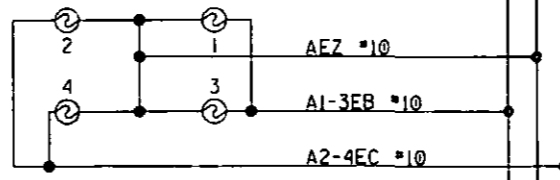
'A' GATE MECHANISM



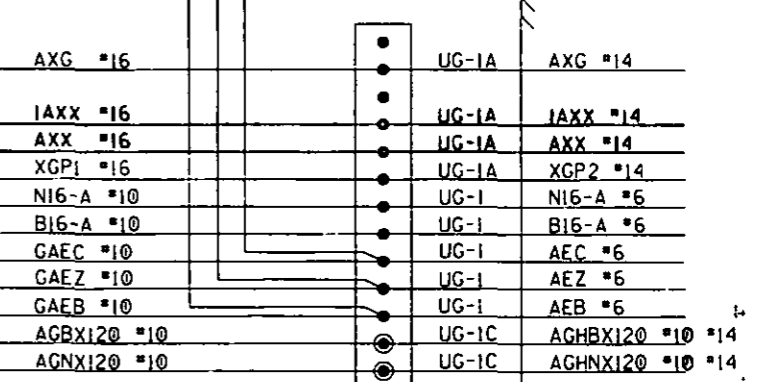
'A' FLASHING SIDELIGHTS



'A' FLASHING LIGHTS



UPGRADE ALL EXISTING LENSES TO 12" LFD LENSES



#19.5531  
 JLM/XRL  
 09-10-15  
 RED = IN  
 YELLOW = OUT  
 CHECKED BY PEH  
 09-30-15

'A' FLASHER AND GATE LIGHTS MODEL 'S60' GATE MECHANISM

DESIGNED BY: JJA 02-24-11	<b>NS NORFOLK SOUTHERN</b>	
DRAWN BY: EAT 04-30-11	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
CHECKED BY:	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE:	HARRISBURG LINE	FILE No. R-0851
	CADD or DWG. No. 03180862.15 13	SHEET No. 13 15 of 21 19

NORFOLK SOUTHERN RAILWAY CO.

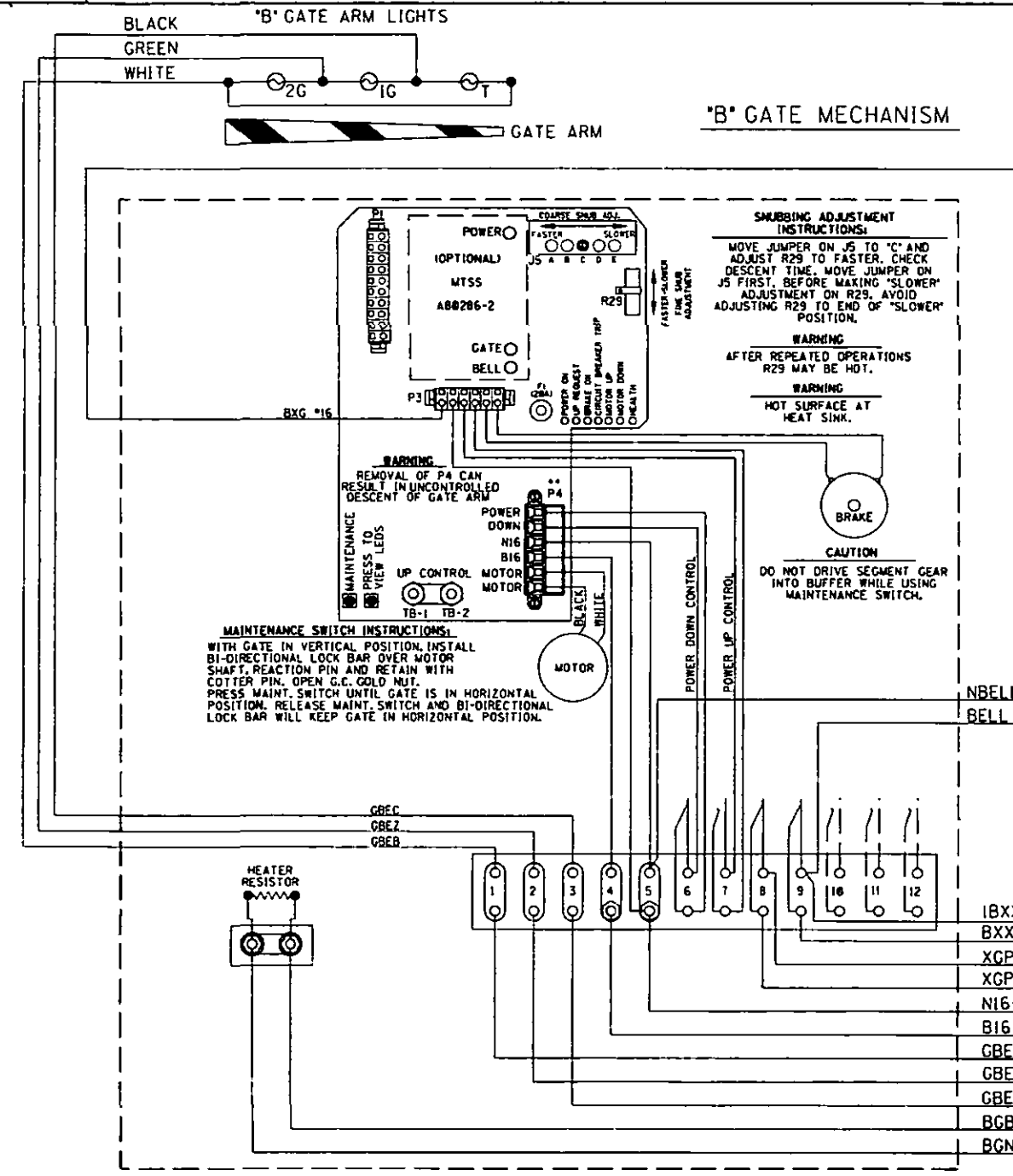
PROPERTY PENNSYLVANIA R.R.

REVISION	M-1811
INITIALS	02-24-11 JJAEAT 04-30-11

SAFETRAN MODEL 'S60' GATE

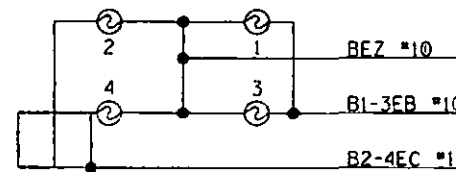
CONTACT SPACE	CONTACT CLOSED AT	FUNCTION OF CONTACT
6	70° - 90°	POWER DOWN CONTROL
7	0° - 89°	POWER UP CONTROL
8	83° - 90°	FLASHING LGT. CONTROL
9	5° - 90°	BELL CONTROL
10		SPARE
11		SPARE
12		SPARE

'B' GATE MECHANISM



UPGRADE ALL EXISTING LENSES TO '2 LED LENSES

'B' FLASHING LIGHTS



TO SHEET 14

#19.5531  
JLM/XRL  
09-10-15  
RED = IN  
YELLOW = OUT  
CHECKED BY PEH  
09-30-15

GATE 'B'  
JUNCTION  
BOX BASE

# = DRAWING ERROR

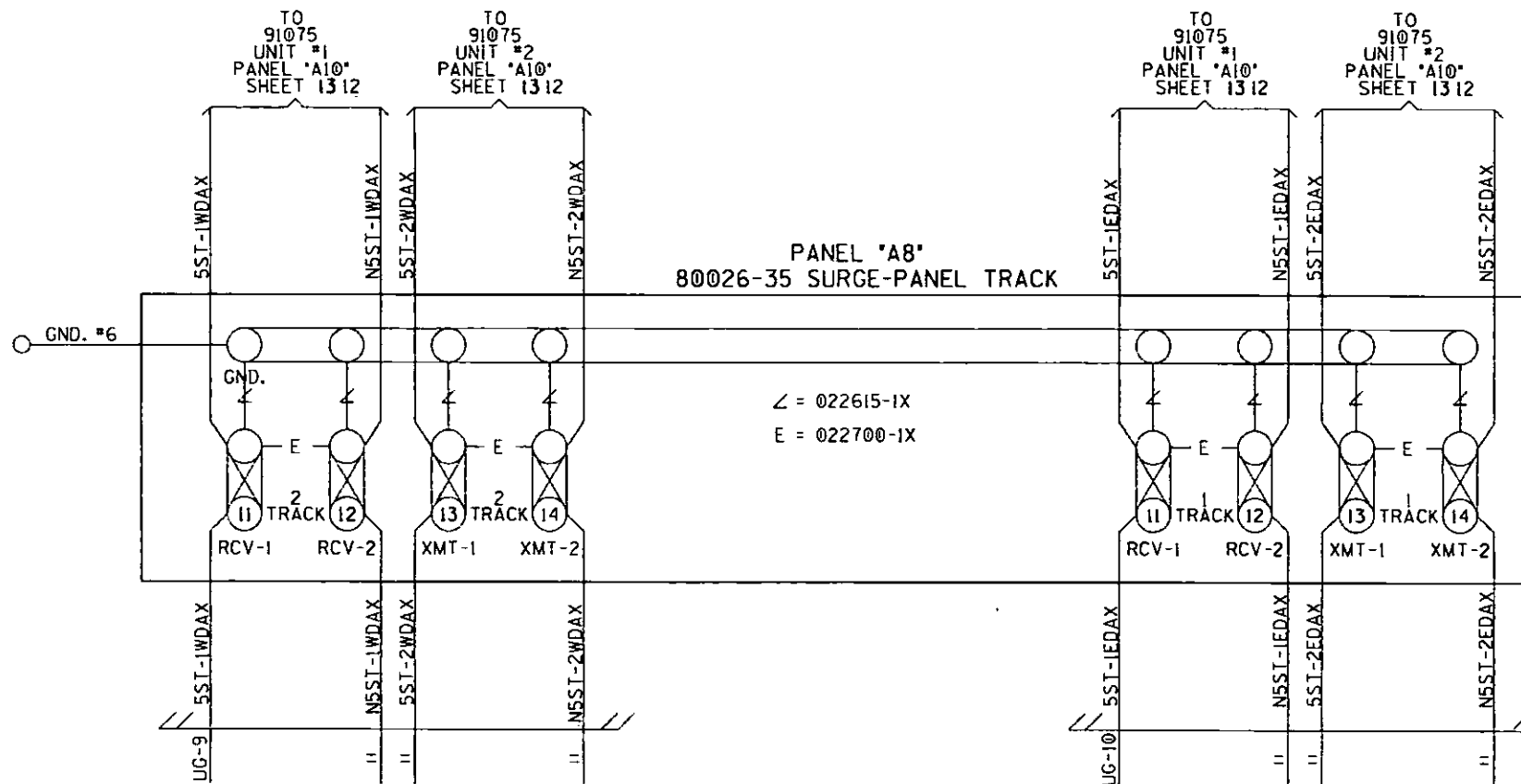
'B' FLASHER AND GATE LIGHTS  
MODEL 'S60' GATE MECHANISM

DESIGNED BY: JJA 02-24-11	<b>NS NORFOLK SOUTHERN</b>	
DRAWN BY: EAI 04-30-11	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
CHECKED BY:	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE:	HARRISBURG LINE	FILE No. R-0851
	CADD or DWG. No. 03180862.16 14	SHEET No. 14 16 of 21 19

NORFOLK SOUTHERN RAILWAY CO.

PROPERTY  
PENNSYLVANIA R.R.

REVISION INITIALS  
M-1811  
02-24-11  
JJA  
04-30-11



#19.5531  
 JLM/XRL  
 09-10-15  
 RED = IN  
 YELLOW = OUT  
 CHECKED BY PEH  
 09-30-15

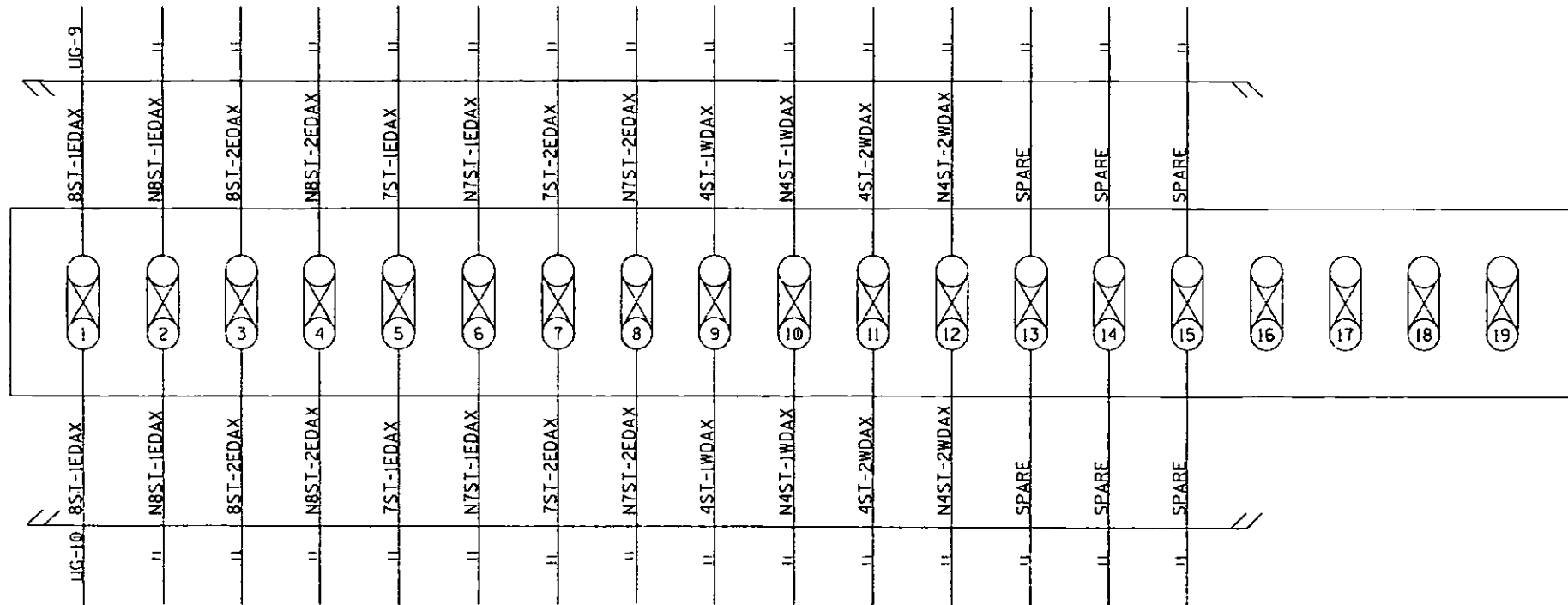
PANEL 'A8' TRACK SURGE PANEL HOOK-UP

DESIGNED BY:	MRB 09-30-99	
DRAWN BY:	SSC 09-30-99	
CHECKED BY:	SJR 09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P. HP-86.32 29
IN SERVICE:	TCM 06-10-02	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.
		HARRISBURG LINE
		CADD or DWG. No. 03180862.17 15
		FILE No. R-0851
		SHEET No. 15 17 of 21 19

CONRAIL

PROPERTY  
 PENNSYLVANIA R.R.


REVISION  
 INITIALS



CABLE TERMINATION  
 PANEL 91042-19  
 PANEL "A9"

\*19.5531  
 JLM/XRL  
 09-10-15  
 RED = IN  
 YELLOW = OUT  
 CHECKED BY PEH  
 09-30-15

PANEL "A9" CABLE TERMINATION PANEL HOOK-UP

DESIGNED BY: MRB   09-30-99	 <b>NORFOLK SOUTHERN</b>	
DRAWN BY: SSC   09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
CHECKED BY: SJR   09-30-99	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE: TCM   06-10-02	HARRISBURG LINE	FILE No. R-0851
	CADD or DWG. No. 03180862.18 16	SHEET No. 16 18 of 21 19

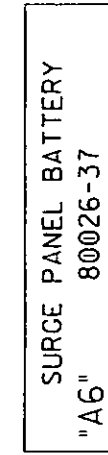
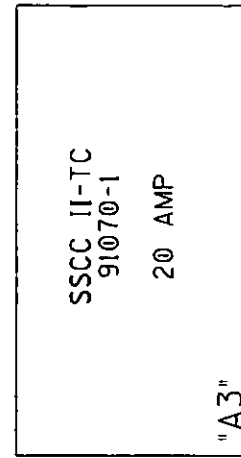
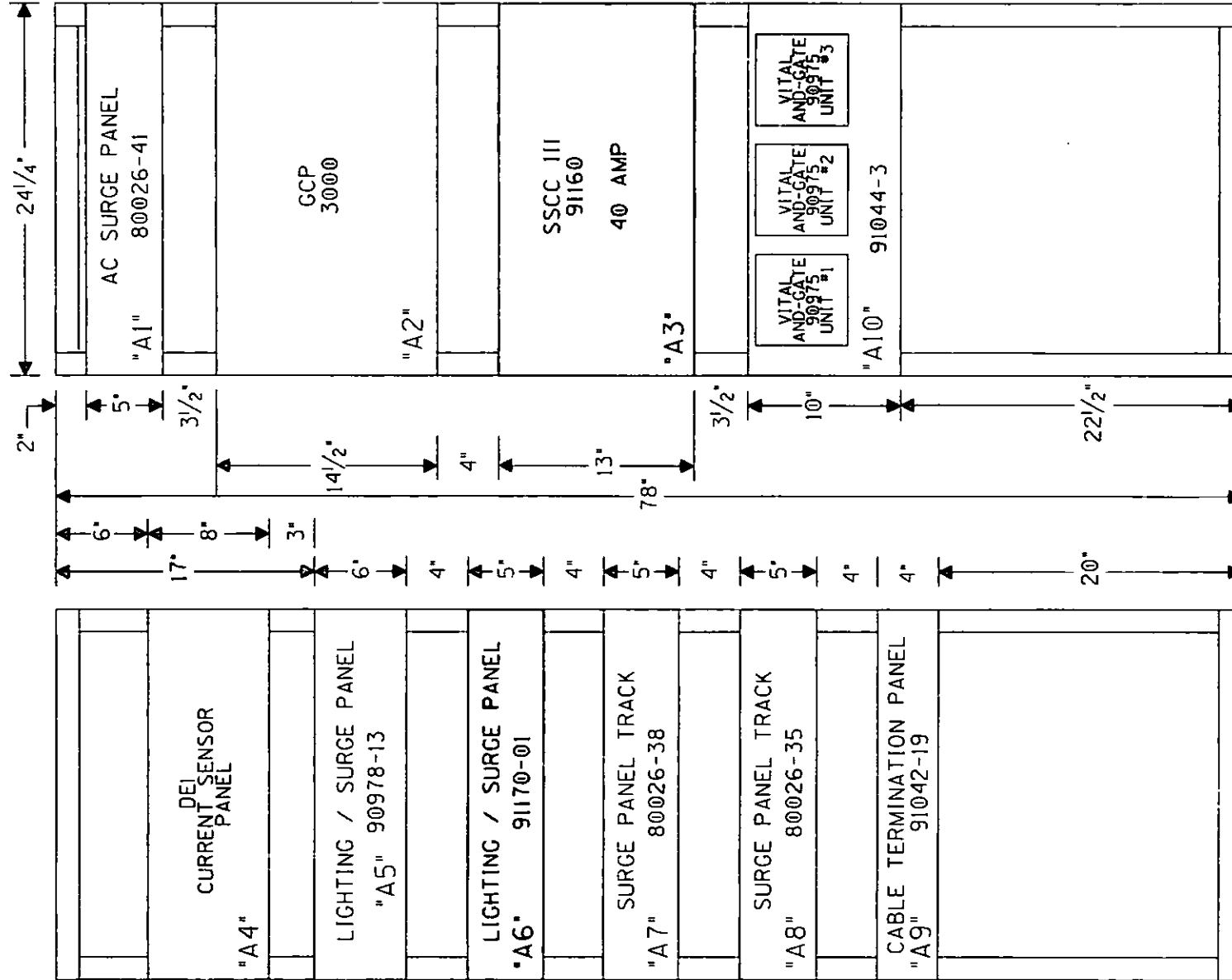
CONRAIL

PROPERTY  
 PENNSYLVANIA R.R.

REVISION  
 INITIALS

EQUIPMENT RACK  
BACK

EQUIPMENT RACK  
FRONT



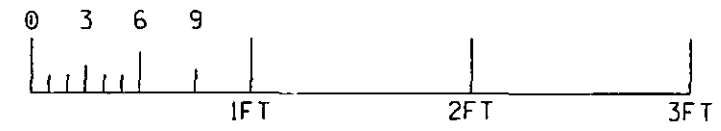
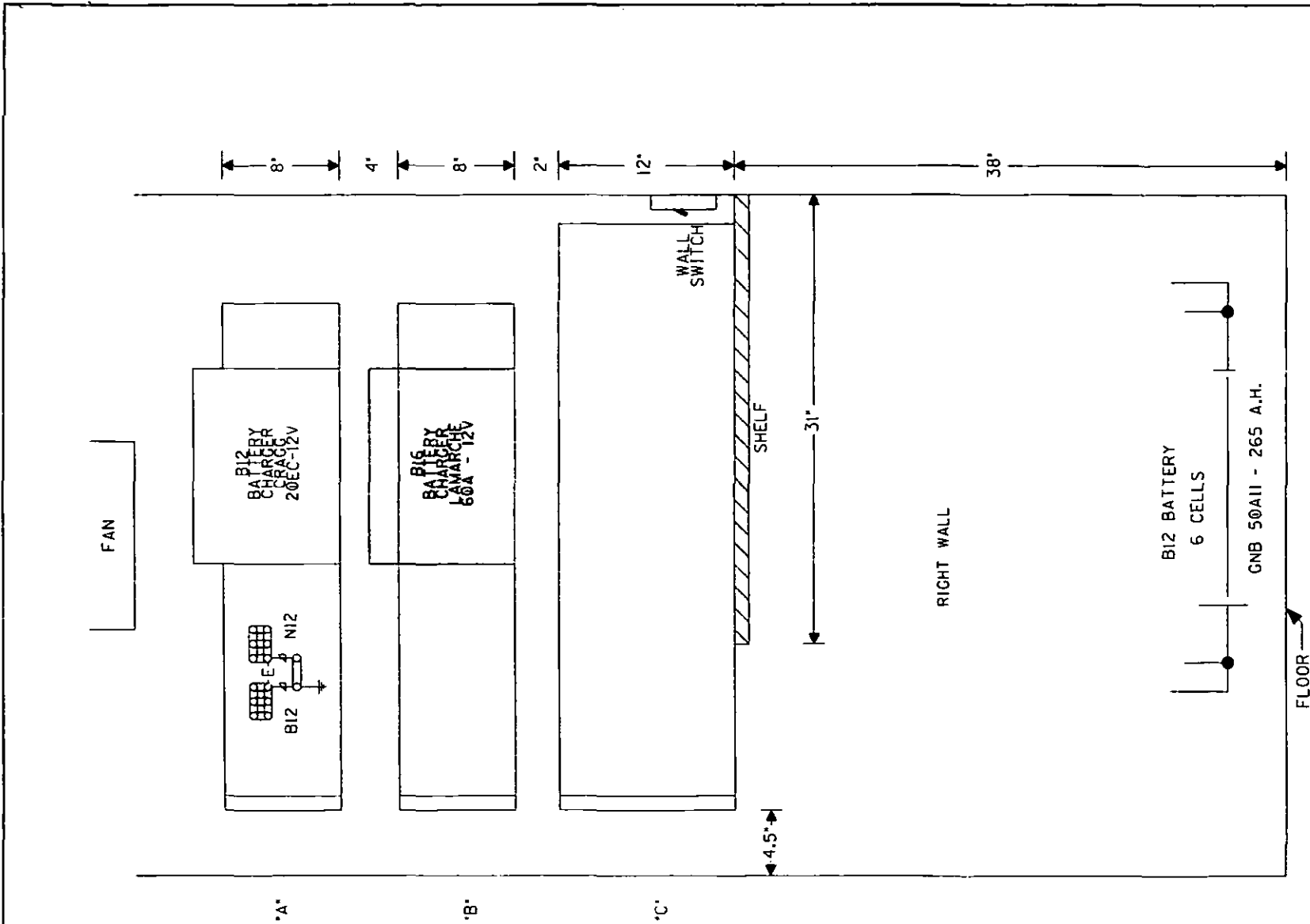
\*19.5531  
JLM/XRL  
09-10-15  
RED = IN  
YELLOW = OUT  
CHECKED BY PEH  
09-30-15

RACK PLACEMENT

DESIGNED BY: MRB 09-30-99		
DRAWN BY: SSC 09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
CHECKED BY: SJR 09-30-99	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE: TCM 06-10-02	HARRISBURG LINE	FILE No. R-0851
	CADD or DWG. No. 03180862.19 17	SHEET No. 17 19 of 21 19

REVISION	M-1811
INITIALS	02-24-11
	JJA/ZEAI
	04-30-11

CONRAIL  
PROPERTY  
PENNSYLVANIA R.R.



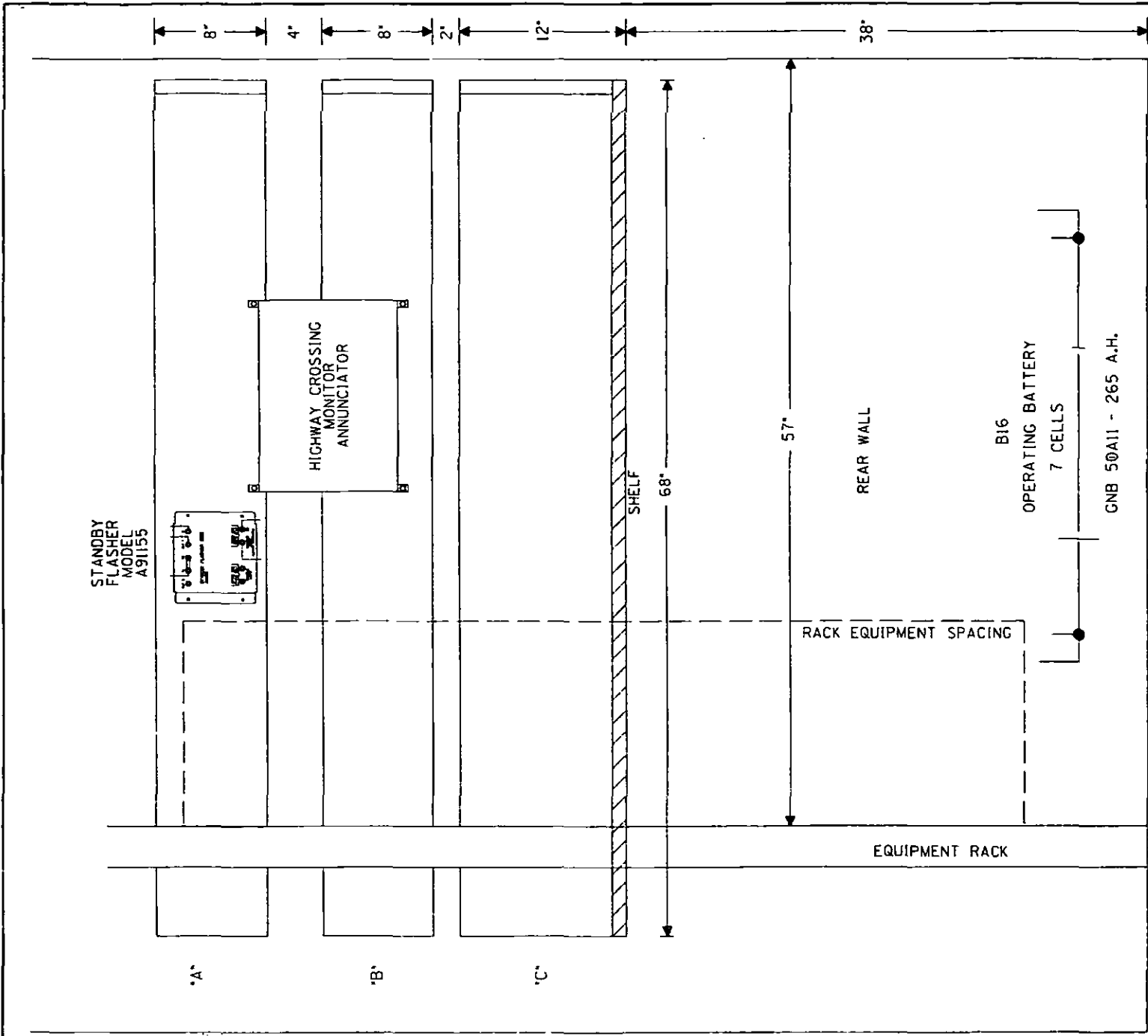
\*19.5531  
 JLM/XRL  
 09-10-15  
 RED = IN  
 YELLOW = OUT  
 CHECKED BY PEH  
 09-30-15

CASE  
 4' X 6' HOUSE (RIGHT SIDE)

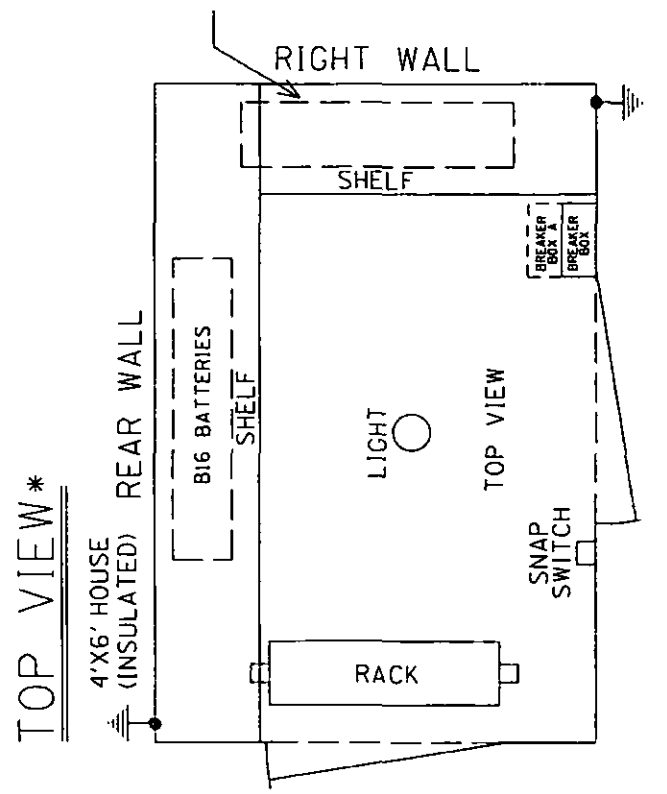
DESIGNED BY: MRB 09-30-99		
DRAWN BY: SSC 09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
CHECKED BY: SJR 09-30-99	HARRISBURG TO READING, PA LEBANON, PA FLGS AT FIFTH ST.	
IN SERVICE: TCM 06-10-02	HARRISBURG LINE	FILE No. R-0851
	CADD or DWG. No. 03180862.2018	SHEET No. 18 20 of 21 19

REVISION																			
INITIALS																			

CONRAIL  
 PROPERTY  
 PENNSYLVANIA R.R.



DOTTED LINES INDICATE  
B12 BATTERIES BELOW SHELF



\*19.5531  
JLM/XRL  
09-10-15  
RED = IN  
YELLOW = OUT  
CHECKED BY PEH  
09-30-15

4' X 6' HOUSE (REAR & TOP VIEW)

DESIGNED BY: MRB 09-30-99	<b>NS NORFOLK SOUTHERN</b>	
DRAWN BY: SSC 09-30-99	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HP-86.32 29
CHECKED BY: SJR 09-30-99	HARRISBURG TO READING, PA LEBANON, PA FLCS AT FIFTH ST.	
IN SERVICE: TCM 06-10-02	HARRISBURG LINE	FILE No. R-0851
	CADD or DWG. No. 03180862.21 19	SHEET No. 19 21 of 21 19

REVISION	M-1894
INITIALS	7-15-11 JMA/JJA

PROPERTY  
PENNSYLVANIA R.R. CONRAIL



## CERTIFICATE OF SERVICE

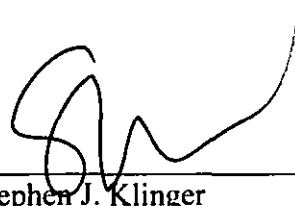
In The Matter Of PUC Order # A-2015-2475046

I hereby certify that I have this day served a true copy of the foregoing document upon the participants, listed below, in accordance with the requirements of § 1.54 (*relating to service by participant*).

*(See Attached List of names and addresses of participants served.)*

*(Participants should include the Pennsylvania Department of Transportation, the Railroad Company, the county and municipality where the crossing is located, and any fixed utility companies with facilities at the crossing.)*

Dated this 13 day of October, 2015.



---

Stephen J. Klinger  
Administrator, Grade Crossing Program

RECEIVED  
2015 OCT 19 AM 10:54  
PA.P.U.C.  
SECRETARY'S BUREAU

A-2015-2475046 - v.

DAVID J DEAN  
UGI UTILITIES INC  
1301 AIP DRIVE  
MIDDLETOWN PA 17057

ROBIN L GETZ PUBLIC WORKS DIRECTOR  
CITY OF LEBANON  
400 SOUTH 8TH STREET  
LEBANON PA 17042

(UNDELIVERABLE)STEPHEN J KLINGER ADMINISTRATOR  
NORFOLK SOUTHERN RAILWAY COMPANY  
1200 PEACHTREE ST NE  
PO BOX 123  
ATLANTA GA 30309

LEBANON COUNTY COMMISSIONERS  
BOARD OF COMMISSIONERS  
ROOM 207 MUNICIPAL BUILDING  
400 SOUTH EIGHTH STREET  
LEBANON PA 17042

MICHAEL S GILLESPIE PE ASST DIST EXC  
ENGINEERING DISTRICT 8-0  
2140 HERR STREET  
HARRISBURG PA 17103-1699

JONATHAN R BEERS  
CITY OF LEBANON  
400 SOUTH 8TH STREET  
LEBANON PA 17042

WILLIAM J CRESSLER CHIEF COUNSEL ESQUIRE  
PENNDOT  
OFFICE OF CHIEF COUNSEL  
PO BOX 8212  
HARRISBURG PA 17105-8212

RECEIVED  
2015 OCT 19 AM 10:54  
PA.P.U.C.  
SECRETARY'S BUREAU

TIMOTHY J BENTLEY III  
NORFOLK SOUTHERN RAILWAY COMPANY  
THREE COMMERCIAL PLACE  
NORFOLK VA 23510-9241

LEON NAILOR  
QWEST COMMUNICATION CORPORATION  
1765 WEST TRINDLE ROAD  
CARLISLE PA 17013

DAN HENRY  
MET ED  
800 CABIN HILL DR  
GREENSBURG PA 15601

MARK CHAPPELL PE CHIEF  
PENNDOT  
BUREAU OF DESIGN ROW & UTILITY DIVISION  
PO BOX 3362  
HARRISBURG PA 17105-3362

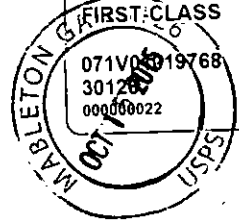
MICHAEL S GILLESPIE PE ASSIST DISTRICT EXECUTIVE  
PENNDOT ENGINEERING DISTRICT 8-0  
ATTN: AMED LASLOUDJI  
2140 HERR STREET  
HARRISBURG PA 17103-1699


GINA M D'ALFONSO ESQUIRE  
PENNDOT  
OFFICE OF CHIEF COUNSEL  
PO BOX 8212  
HARRISBURG PA 17105-8212  
7177873128

JONATHAN BEERS PUBLIC WORKS DIRECTOR  
LEBANON CITY OF WATER AUTHORITY  
2311 RIDGEVIEW ROAD  
LEBANON PA 17042

\$2.96<sup>0</sup>  
US POSTAGE  
FIRST CLASS

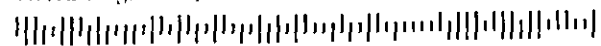
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 **NORFOLK SOUTHERN**

Norfolk Southern Corporation  
Communications and Signal Dept.  
99 Spring St., S.W.  
Atlanta, Georgia 30303

Commonwealth of Pennsylvania  
Pennsylvania Public Utility Commission  
Attn: Rosemary Chiavetta  
400 North St., 2nd Floor  
Harrisburg, PA 17120



**Return Requested**