



Norfolk Southern Corporation
650 West Peachtree St, NW
Atlanta, GA 30308

April 1, 2022
State PUC
No.: A-2020-3021103

To Whom It May Concern:

Please reference the state's project for modification of grade crossing warning devices at the locations referenced below.

Project #: 19.5972
Road: S. Hoover Ave.
City: New Holland
State: PA
DOT: 517757P MilePost: HZ 28.89

Sincerely,

Kurt J. Young

Kurt J. Young

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A-2020-3021103

REVISIONS

1	12-15-20	TAH	RSD	BES
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NEW PLAN DRAWN ACCOUNT CROSSING UPGRADE AT S. HOOVER AVE.

PROJECT: #19.5972

IN SERVICE: - -

PER:

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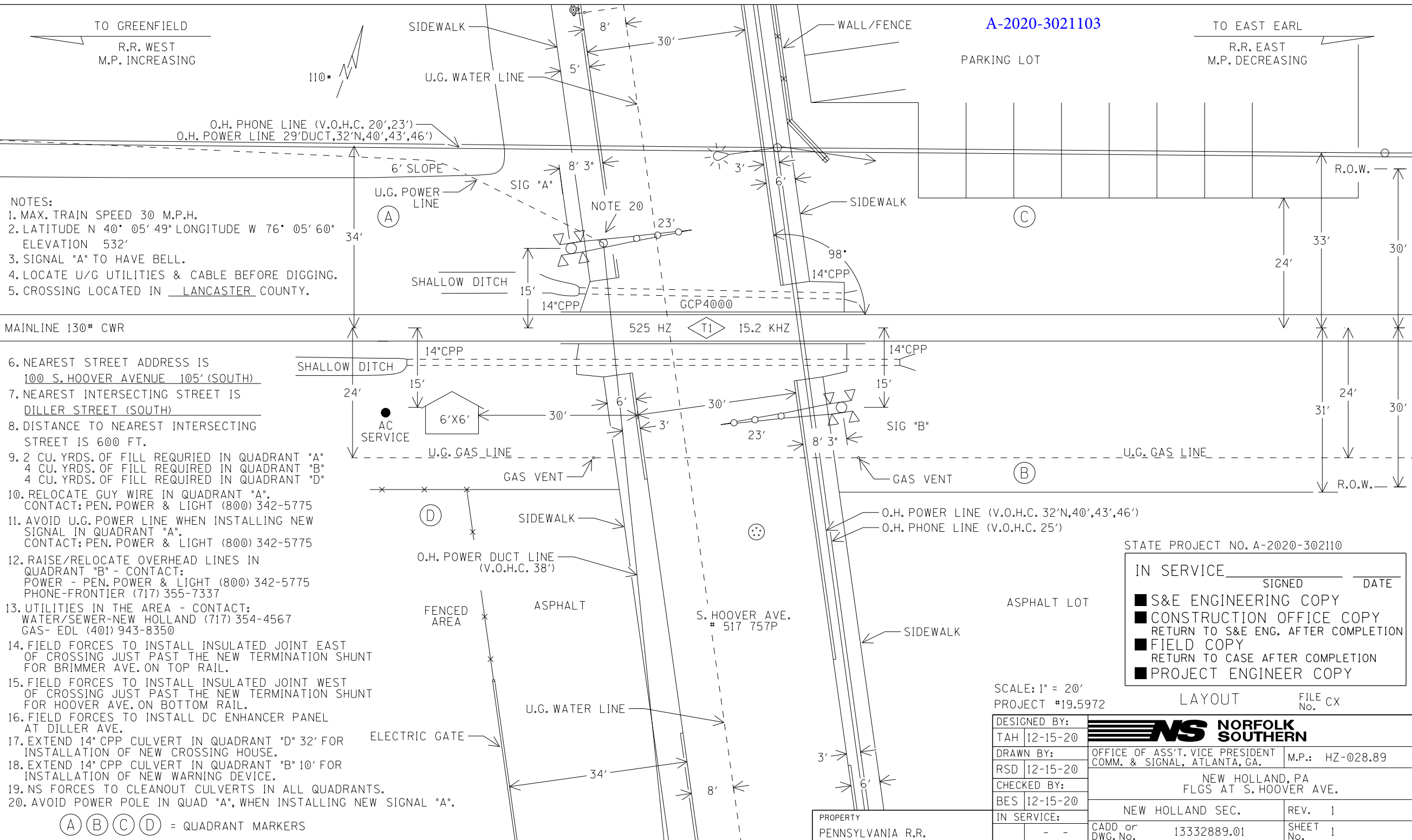
DESIGNED BY:			
TAH 12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.:	HZ-028.89
DRAWN BY:	NEW HOLLAND, PA		
RSD 12-15-20	FLGS AT S. HOOVER AVE.		
CHECKED BY:	NEW HOLLAND SEC.		
BES 12-15-20	REV. 1		SHEET INDEX 1
IN SERVICE:	CADD or DWG. No.	13332889.NX1	

PROPERTY
PENNSYLVANIA R.R.

A-2020-3021103

TO GREENFIELD
R.R. WEST
M.P. INCREASING

TO EAST EARL
R.R. EAST
M.P. DECREASING



- NOTES:
1. MAX. TRAIN SPEED 30 M.P.H.
 2. LATITUDE N 40° 05' 49" LONGITUDE W 76° 05' 60" ELEVATION 532'
 3. SIGNAL "A" TO HAVE BELL.
 4. LOCATE U/G UTILITIES & CABLE BEFORE DIGGING.
 5. CROSSING LOCATED IN LANCASTER COUNTY.

- MAINLINE 130# CWR
6. NEAREST STREET ADDRESS IS 100 S. HOOVER AVENUE 105' (SOUTH)
 7. NEAREST INTERSECTING STREET IS DILLER STREET (SOUTH)
 8. DISTANCE TO NEAREST INTERSECTING STREET IS 600 FT.
 9. 2 CU. YRDS. OF FILL REQUIRED IN QUADRANT "A"
4 CU. YRDS. OF FILL REQUIRED IN QUADRANT "B"
4 CU. YRDS. OF FILL REQUIRED IN QUADRANT "D"
 10. RELOCATE GUY WIRE IN QUADRANT "A".
CONTACT: PEN. POWER & LIGHT (800) 342-5775
 11. AVOID U.G. POWER LINE WHEN INSTALLING NEW SIGNAL IN QUADRANT "A".
CONTACT: PEN. POWER & LIGHT (800) 342-5775
 12. RAISE/RELOCATE OVERHEAD LINES IN QUADRANT "B" - CONTACT:
POWER - PEN. POWER & LIGHT (800) 342-5775
PHONE-FRONTIER (717) 355-7337
 13. UTILITIES IN THE AREA - CONTACT:
WATER/SEWER-NEW HOLLAND (717) 354-4567
GAS- EDL (401) 943-8350
 14. FIELD FORCES TO INSTALL INSULATED JOINT EAST OF CROSSING JUST PAST THE NEW TERMINATION SHUNT FOR BRIMMER AVE. ON TOP RAIL.
 15. FIELD FORCES TO INSTALL INSULATED JOINT WEST OF CROSSING JUST PAST THE NEW TERMINATION SHUNT FOR HOOVER AVE. ON BOTTOM RAIL.
 16. FIELD FORCES TO INSTALL DC ENHANCER PANEL AT DILLER AVE.
 17. EXTEND 14" CPP CULVERT IN QUADRANT "D" 32' FOR INSTALLATION OF NEW CROSSING HOUSE.
 18. EXTEND 14" CPP CULVERT IN QUADRANT "B" 10' FOR INSTALLATION OF NEW WARNING DEVICE.
 19. NS FORCES TO CLEANOUT CULVERTS IN ALL QUADRANTS.
 20. AVOID POWER POLE IN QUAD "A", WHEN INSTALLING NEW SIGNAL "A".

(A) (B) (C) (D) = QUADRANT MARKERS

STATE PROJECT NO. A-2020-302110

IN SERVICE _____	SIGNED _____	DATE _____
<ul style="list-style-type: none"> ■ S&E ENGINEERING COPY ■ CONSTRUCTION OFFICE COPY ■ FIELD COPY ■ PROJECT ENGINEER COPY 		

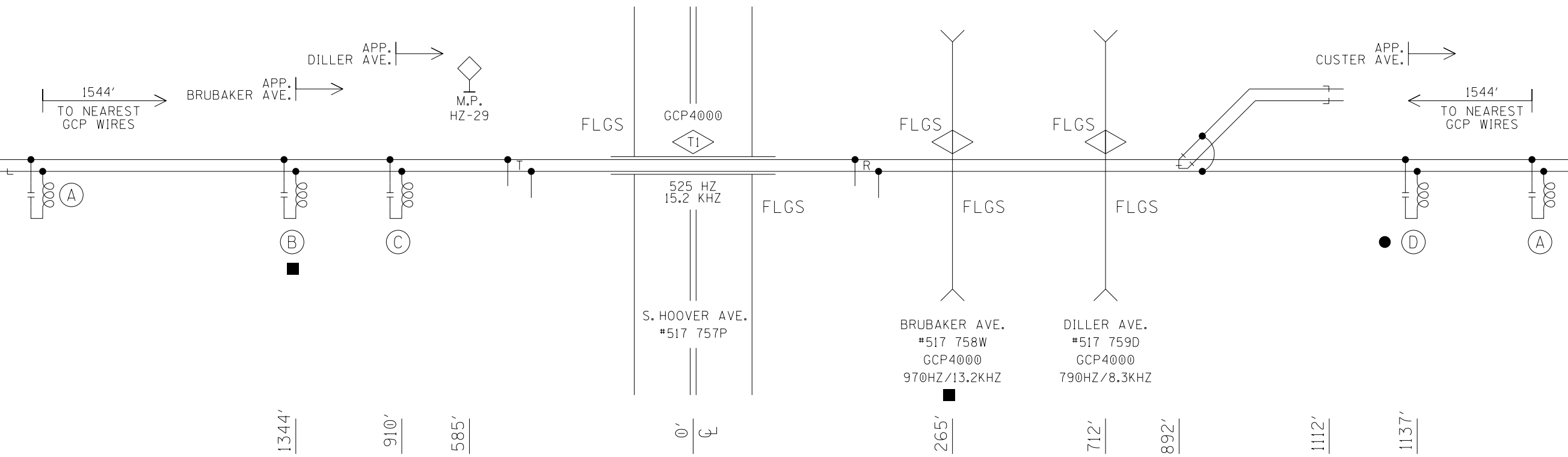
SCALE: 1" = 20'
PROJECT #19.5972

DESIGNED BY:	TAH 12-15-20	
DRAWN BY:	RSD 12-15-20	
CHECKED BY:	BES 12-15-20	
IN SERVICE:	- -	
PROPERTY PENNSYLVANIA R.R.		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: HZ-028.89 NEW HOLLAND, PA FLGS AT S. HOOVER AVE. NEW HOLLAND SEC. REV. 1 CADD or DWG. No. 13332889.01 SHEET No. 1

LAYOUT FILE CX No.

TO GREENFIELD
R.R. WEST
M.P. INCREASING

TO EAST EARL
R.R. EAST
M.P. DECREASING



■ - WORK WITH PROJECT# 19.5973
● - WORK WITH PROJECT# 19.5214

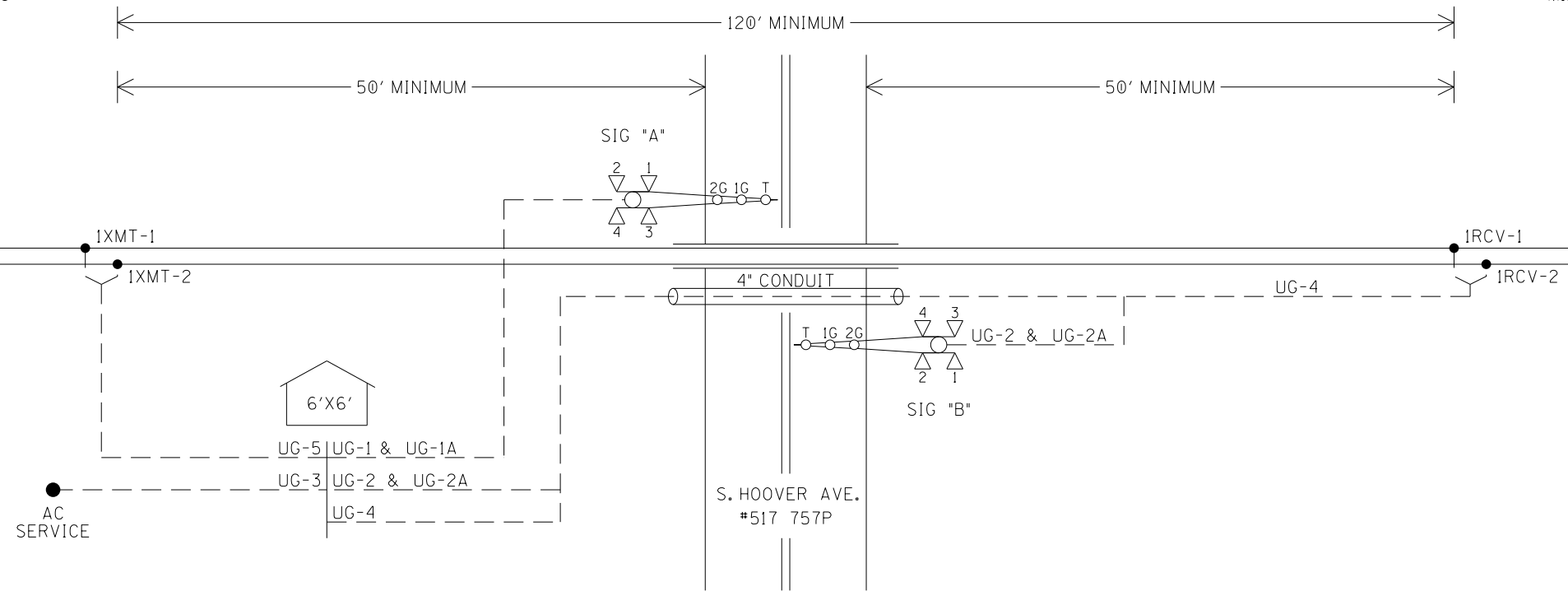
- A - MF-NBS FSS-1F 250849-005 (525HZ)
- B - MF-NBS FSS-1F 250849-005 (970HZ)
- C - NBS-62775-790HZ
- D - MF-NBS FSS-1E 250849-004 (430HZ)

PROFILE

DESIGNED BY:			
TAH	12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HZ-028.89
DRAWN BY:		NEW HOLLAND, PA FLGS AT S. HOOVER AVE.	
RSD	12-15-20		
CHECKED BY:		NEW HOLLAND SEC.	REV. 1
BES	12-15-20	CADD or DWG. No. 13332889.02	SHEET 2
IN SERVICE:	- -		
PROPERTY	PENNSYLVANIA R.R.		

TO GREENFIELD
R.R. WEST
M.P. INCREASING

TO EAST EARL
R.R. EAST
M.P. DECREASING



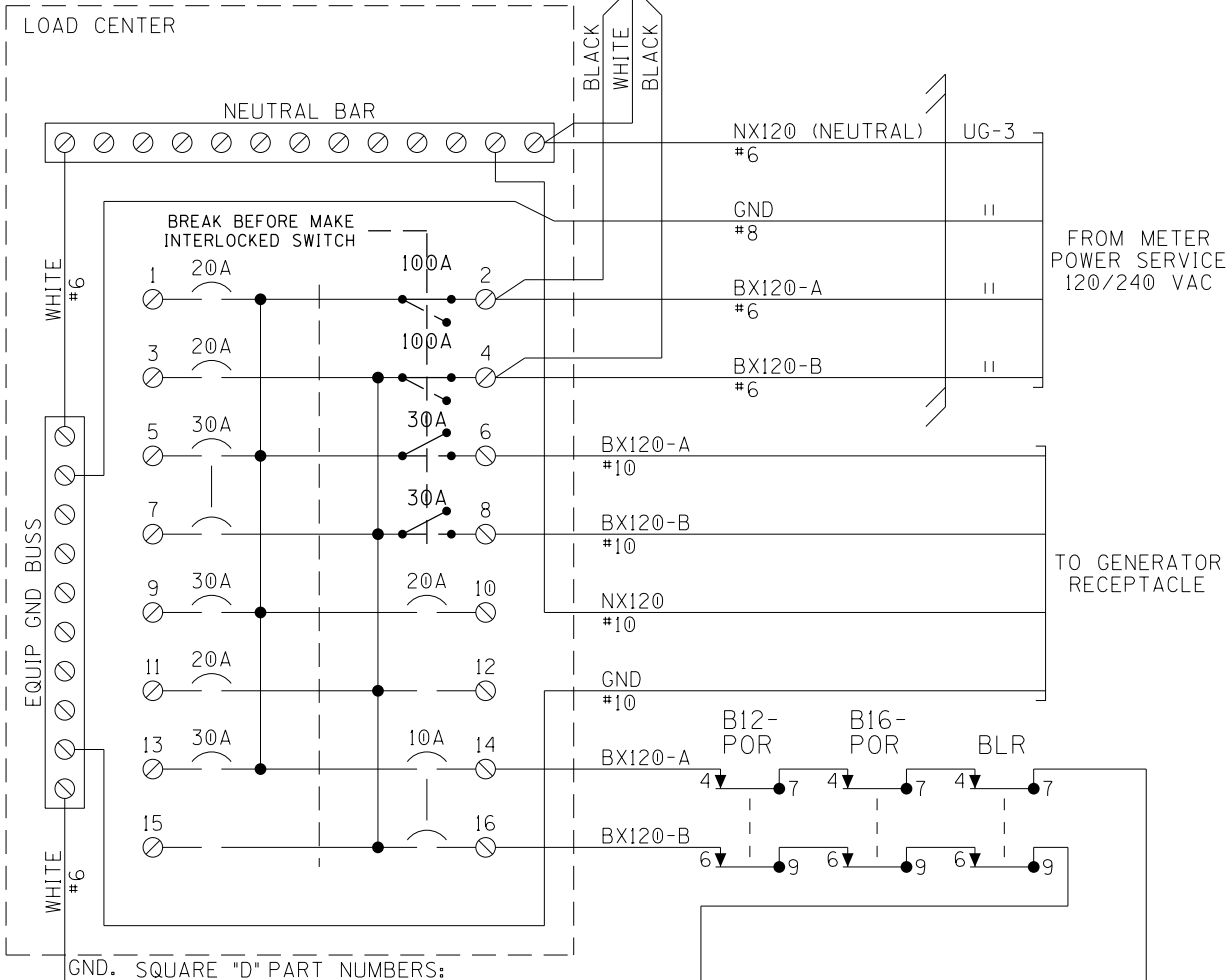
UG-1-5CUG #6 AEC AEZ AEB B16-A N16-A	UG-1A-12CUG #14 AXG NAXG AXX IAXX AGD XGP1 AGBX120 AGNX120 SPARE SPARE SPARE SPARE	UG-2A-12CUG #14 BXG NBXG BXX IBXX BGD XGP1 XGP BCBX120 BGNX120 SPARE SPARE SPARE	UG-3-3CUG #6 W/#8 GND BX120-A BX120-B NX120 GND	UG-4-TW. PR. #6 1RCV-1 1RCV-2 UG-5-TW. PR. #6 1XMT-1 1XMT-2
UG-2-5CUG #6 BEC BEZ BEB B16-B N16-B				

CABLE PLAN

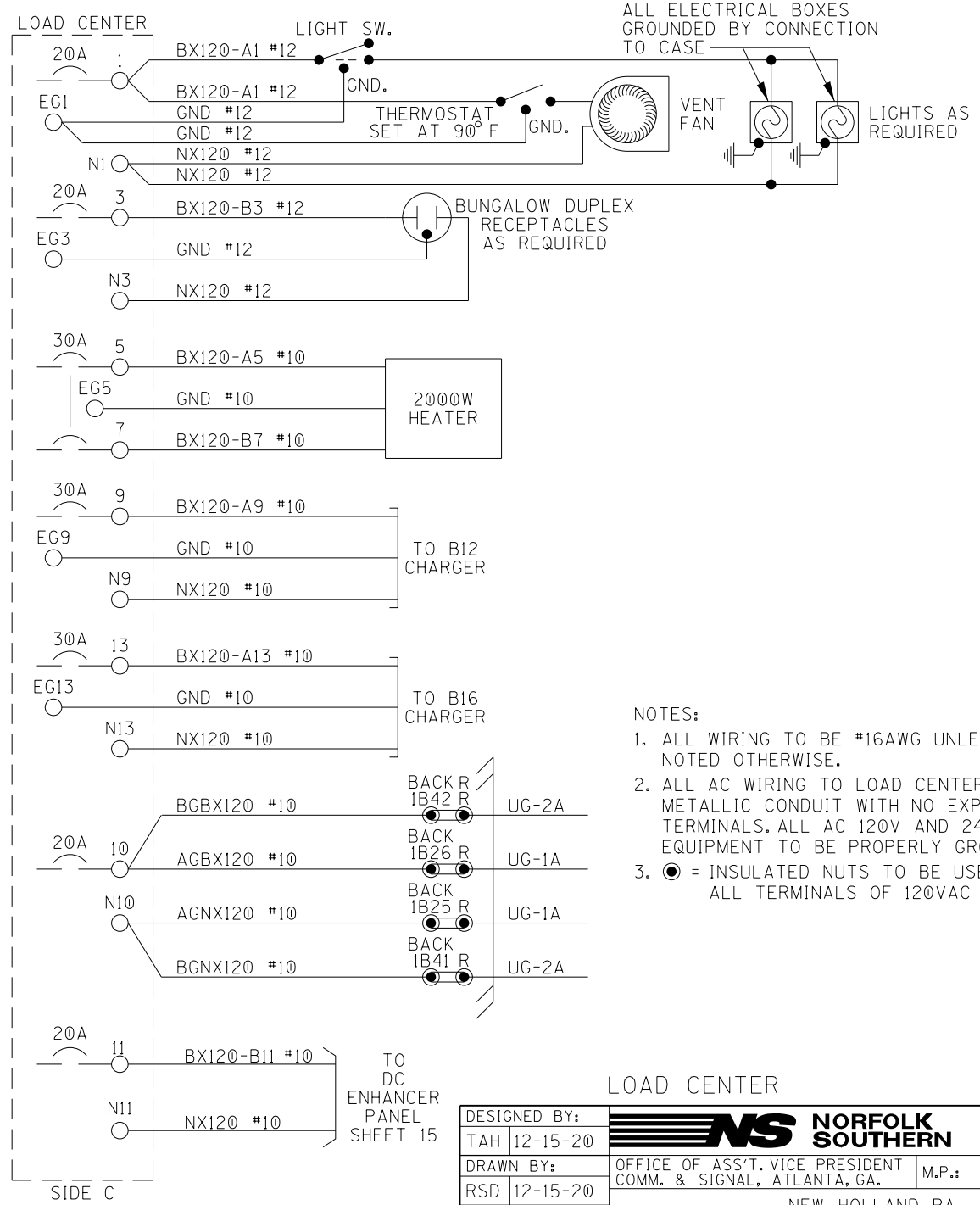
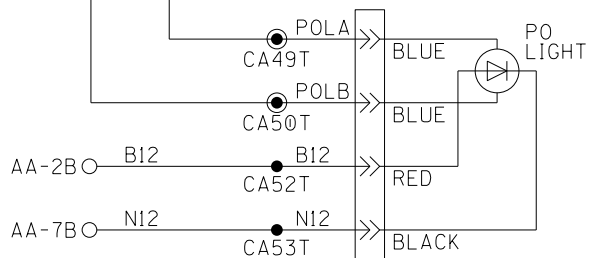
DESIGNED BY:			
TAH	12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HZ-028.89
DRAWN BY:	RSD	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.	
CHECKED BY:	BES	NEW HOLLAND SEC.	REV. 1
IN SERVICE:	- -	CADD or DWG. No. 13332889.03	SHEET 3 No.

PROPERTY
PENNSYLVANIA R.R.

LEA
SP50-240SP

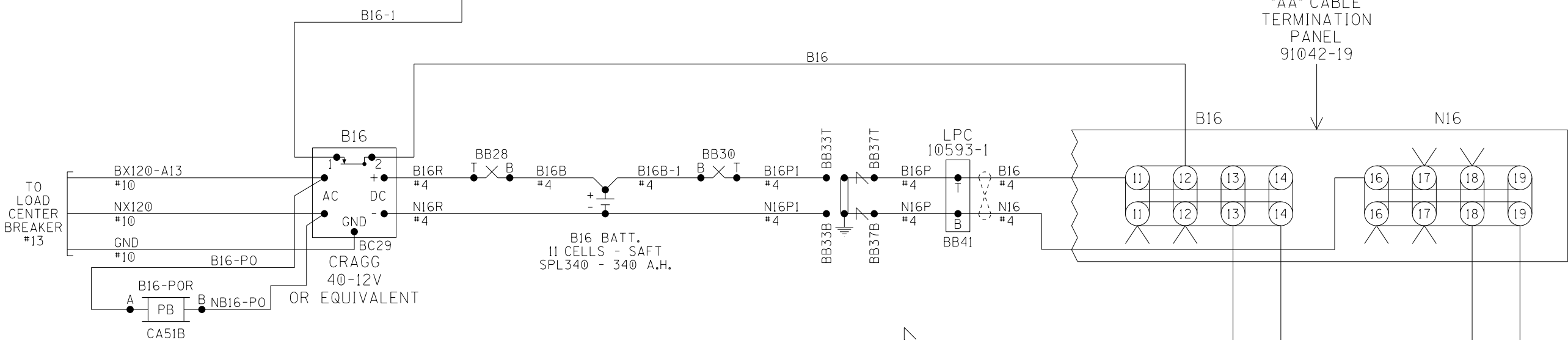
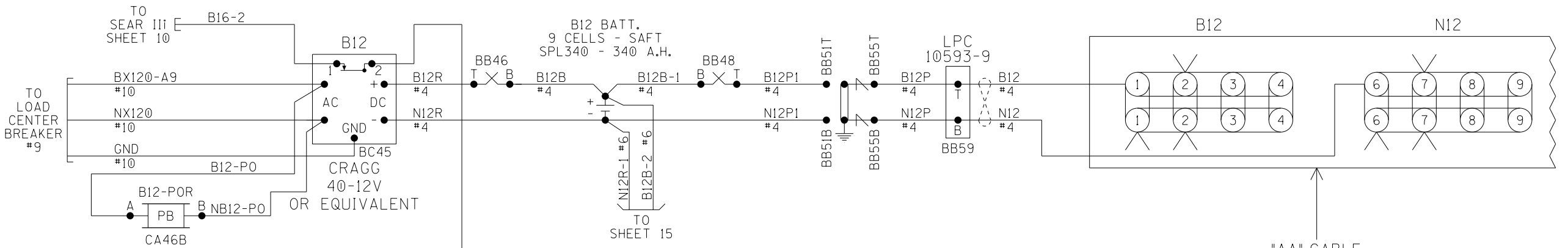


- SQUARE "D" PART NUMBERS:
- LOAD CENTER — Q0132L125G
 - 10A 2P CIR BKR — Q0210
 - 15A 2P CIR BKR — Q0215
 - 20A 1P CIR BKR — Q0120
 - 30A 1P CIR BKR — Q0130
 - 30A 2P CIR BKR — Q0230
 - 60A 2P CIR BKR — Q0260
 - 100A 2P CIR BKR — Q02100
 - MECH INTERLOCK — PK4DTIM4LA
 - GENERATOR RECEPTACLE: MALE CONNECTOR — NEMA L1430-FI

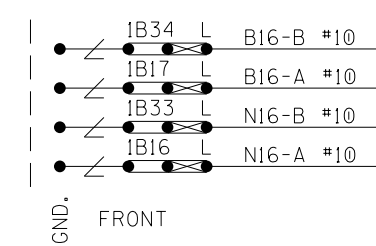
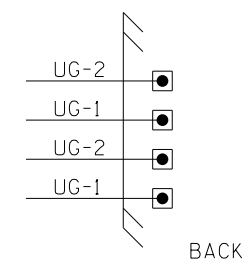
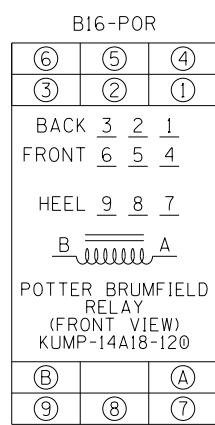
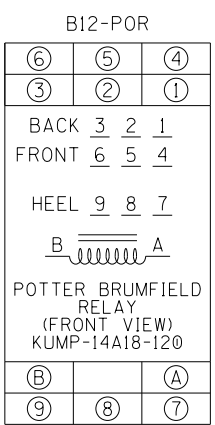


- NOTES:
1. ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.
 2. ALL AC WIRING TO LOAD CENTER TO BE IN METALLIC CONDUIT WITH NO EXPOSED TERMINALS. ALL AC 120V AND 240V EQUIPMENT TO BE PROPERLY GROUNDED.
 3. ● = INSULATED NUTS TO BE USED ON ALL TERMINALS OF 120VAC AND ABOVE.

DESIGNED BY:	TAH 12-15-20		NS NORFOLK SOUTHERN
DRAWN BY:	RSD 12-15-20		
CHECKED BY:	BES 12-15-20	M.P.: HZ-028.89	
IN SERVICE:	- -	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.	
PROPERTY	PENNSYLVANIA R.R.	NEW HOLLAND SEC.	REV. 1
		CADD or DWG. No. 13332889.04	SHEET 4 No.



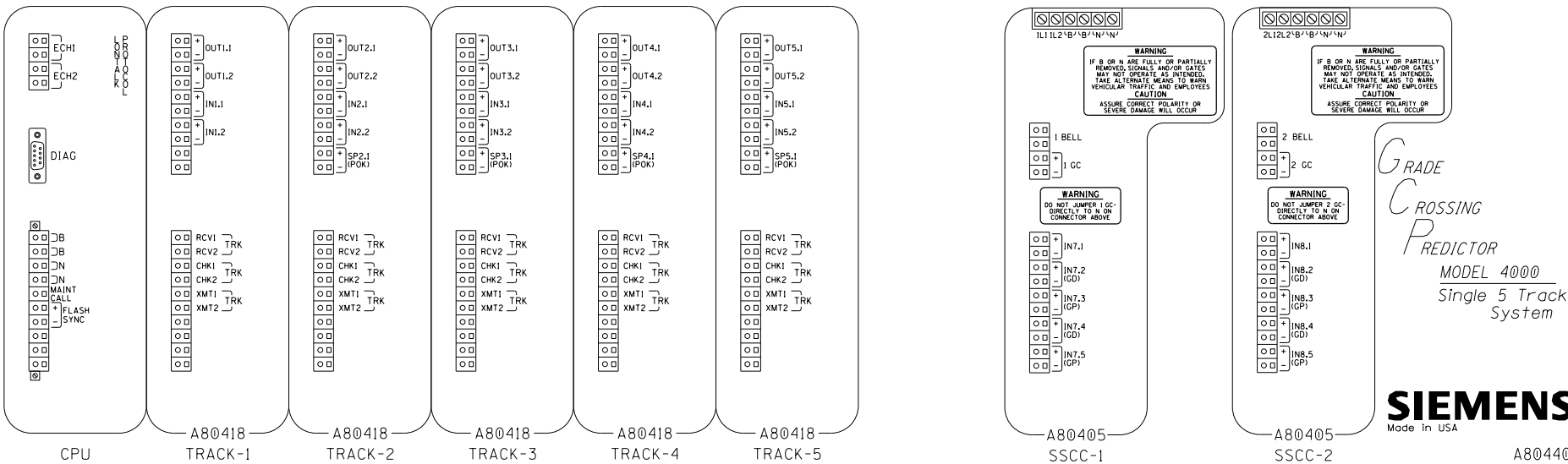
"AA" CABLE
TERMINATION
PANEL
91042-19



- NOTES:
- ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.
 - = TWIST

CHARGERS & BATTERIES

DESIGNED BY:	TAH 12-15-20	
DRAWN BY:	RSD 12-15-20	
CHECKED BY:	BES 12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: HZ-028.89
IN SERVICE:	- -	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.
PROPERTY	PENNSYLVANIA R.R.	NEW HOLLAND SEC.
		REV. 1
		CADD or DWG. No. 13332889.05
		SHEET No. 5

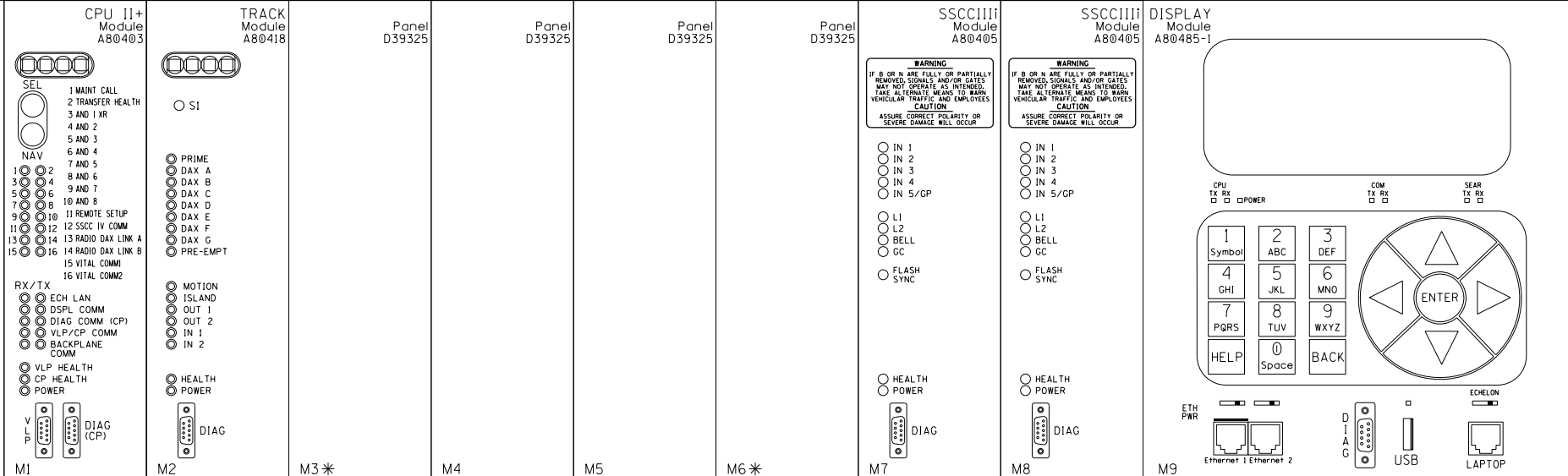


WARNING
REMOVAL OF THE SSCCIII MODULE WILL CAUSE THE GATE(S) TO DROP WITHOUT GATE DELAY AND FLASHING LIGHTS WILL NOT ACTIVATE.

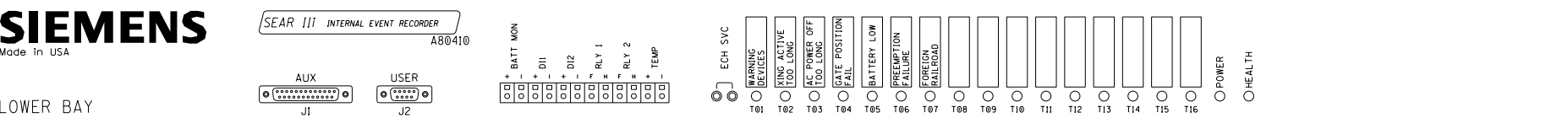
CAUTION
ENSURE CORRECT POLARITY OF B AND N FOR SSCCIII MODULE OR SEVERE DAMAGE WILL OCCUR.
REFER TO DETAILED INSTRUCTIONS ON THE SSCCIII BEFORE APPLYING POWER TO THE POWER CONNECTOR(S).

GRADE CROSSING PREDICTOR
MODEL 4000
Single 5 Track System

SIEMENS
Made in USA



* = MAY USE RIO IN 2nd AND/OR 5th TRACK SLOTS (M3 & M6)



GCP4000 CHASSIS & MODULE LAYOUT

DESIGNED BY:	TAH 12-15-20		NS NORFOLK SOUTHERN
DRAWN BY:	RSD 12-15-20		
CHECKED BY:	BES 12-15-20		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: HZ-028.89
IN SERVICE:	-		NEW HOLLAND, PA FLGS AT S. HOOVER AVE.
PROPERTY	PENNSYLVANIA R.R.		NEW HOLLAND SEC. REV. 1
			CADD or DWG. No. 13332889.06 SHEET No. 6

Program Report

Location and SIN

DOT Number: 517757P
Milepost Number: HZ-28.89
Site Name: S HOOVER AVE

SIN: 755048809216

MCF and Template Selection

MCF Name: GCP-T6X-02-1.mcf
MCF Revision: 021
MCFCRC: 6076E435

Template = 1A:6 Trk Bi

Check Numbers

Office Check No. (DT 4.6.0): 24D647F2
Office Check Number: 24D647F2
Config. Check Number: 76EB1934
(Based on MCF Revision 021)

Comments

Program

BASIC: module configuration
Track 1 Slot = Track
Track 2/RIO 1 Slot = Not Used
Track 3 Slot = Not Used
Track 4 Slot = Not Used
Track 5/RIO 2 Slot = Not Used
Track 6/RIO 3 Slot = Not Used
SSCC-1 Slot = SSCC3i
SSCC-2 Slot = SSCC3i
SEAR Used = Yes

BASIC: MS/GCP operation
Track 1: MS/GCP Operation = Yes

BASIC: island operation
Track 1: Island Used = Internal

BASIC: preemption
Preempt Logic = No

BASIC: radio Dax links
Radio DAX link A Used = No
Radio DAX link B Used = No

BASIC: Vital Comms links
Vital Comms link 1 Used = No
Vital Comms link 2 Used = No

PREDICTORS: track 1
Track 1: Prime Used = Yes
Track 1: Dax A Used = No
Track 1: Dax B Used = No
Track 1: Dax C Used = No
Track 1: Dax D Used = No
Track 1: Dax E Used = No
Track 1: Dax F Used = No
Track 1: Dax G Used = No

GCP: track 1
Track 1: GCP Freq Category = Standard
Track 1: GCP Frequency = 525 Hz
Track 1: Approach Distance = 1544 ft
Track 1: Uni/Bi/Sim-Bidirnl = Bidirnl
Track 1: GCP Transmit Level = Medium
Track 1: Island Connection = Isl1
Track 1: Island Distance = 148 ft
Track 1: Computed Distance = 9999 ft
Track 1: Linearization Steps = 100

GCP: track 1 enhanced det
Track 1: Inbound PS Sensitivity = Off
Track 1: Speed Limiting Used = Yes
Track 1: Outbound False Act Lvl = Normal
Track 1: Outbound PS Timer = 20 sec
Track 1: Trailing Switch Logic = On
Track 1: Post Joint Detn Time = 15 sec
Track 1: Adv Appr Predn = No
Track 1: Cancel Pickup Delay = This Isl

GCP: track 1 prime
Track 1: Prime Warning Time = 30 sec
Track 1: Prime Offset Distance = 0 ft
Track 1: Switch MS EZ Level = 10
Track 1: Prime MS/GCP Mode = Pred
Track 1: Prime Pickup Delay = 15 sec
Track 1: Prime UAX = Not Used

GCP: track 1 pos start
Track 1: Positive Start = Off
Track 1: Sudden Shnt Det Used = No
Track 1: Low EZ Detection Used = No

GCP: track 1 MS Control
Track 1: MS/GCP Ctrl IP Used = No
Track 1: MS Sensitivity Level = 0
Track 1: Compensation Level = 1300
Track 1: Warn Time-Ballast Comp = High
Track 1: Low EX Adjustment = 39
Track 1: Bidirn Dax Passthru = No
Track 1: False Act on Train Stop = No
Track 1: EX Limiting Used = Yes
Track 1: EZ Correction Used = Yes

ISLAND: track 1
Track 1: Isl Frequency = 15.2 kHz
Track 1: Pickup Delay (2s +) = 0 sec
Track 1: Isl Enable IP Used = No

AND: track Anding
AND 1 XR Used = Yes
AND 2 Used = No
AND 3 Used = No
AND 4 Used = No
AND 5 Used = No
AND 6 Used = No
AND 7 Used = No
AND 8 Used = No

AND: AND 1 XR
AND 1 XR Track 1 = Prime
AND 1 Enable Used = Yes
And 1 Enable Pickup = 5 sec
AND 1 Enable Drop = 0 sec
AND 1 Wrap Used = No

ADVANCED: MS restart
MS/GCP Restart Used = No

ADVANCED: out of service
OOS Control = Display+OOS IPs
OOS Timeout = Yes
OOS Timeout = 1 hrs

ADVANCED: out of service 2
T1 OOS Control = OOS Input 1

ADVANCED: track wrap circuits
Wrap LOS Timer = 5 sec
Track 1 Wrap Used = No

ADVANCED: trk 1 overrides
Track 1: All Predictors Override Used = No

ADVANCED: OR logic
OR 1 Used = No
OR 2 Used = No
OR 3 Used = No
OR 4 Used = No

ADVANCED: internal I/O 1
Pass Thrus = No
Int.1 Sets = Not Used
Int.1 Set by = Not Used
Int.2 Sets = Not Used
Int.2 Set by = Not Used
Int.3 Sets = Not Used
Int.3 Set by = Not Used
Int.4 Sets = Not Used
Int.4 Set by = Not Used

ADVANCED: internal I/O 2
Int.5 Sets = Not Used
Int.5 Set by = Not Used
Int.6 Sets = Not Used
Int.6 Set by = Not Used
Int.7 Sets = Not Used
Int.7 Set by = Not Used
Int.8 Sets = Not Used
Int.8 Set by = Not Used

ADVANCED: internal I/O 3
Int.9 Sets = Not Used
Int.9 Set by = Not Used
Int.10 Sets = Not Used
Int.10 Set by = Not Used
Int.11 Sets = Not Used
Int.11 Set by = Not Used
Int.12 Sets = Not Used
Int.12 Set by = Not Used

ADVANCED: internal I/O 4
Int.13 Sets = Not Used
Int.13 Set by = Not Used
Int.14 Sets = Not Used
Int.14 Set by = Not Used
Int.15 Sets = Not Used
Int.15 Set by = Not Used
Int.16 Sets = Not Used
Int.16 Set by = Not Used

GCP4000 PROGRAMMING

Table with design and drawing information including fields for DESIGNED BY, DRAWN BY, CHECKED BY, IN SERVICE, and drawing number 13332889.07.

PROPERTY
PENNSYLVANIA R.R.

ADVANCED: site options
 Daylight Savings = Off
 Units = Standard
 Maint CallRpt IP Used = No
 Emergency Activate IP = No
 EZ/EX Logging = Change
 EZ/EX Point Change = 3

SSCC
 Gates Used = Yes
 SSCC1+2 GPs Coupled = Yes
 Min Activation = 0 sec
 Rmt Activation Cancel = 2 min
 BellOn Gate Rising = No
 Mute BellOn Gate Down = No
 SSCCIV Controller Used = No

SSCC: 1
 SSCC-1 Activation = AND 1 XR
 SSCC-1 Gate Delay = 6 sec
 SSCC-1 Number of GPs = 1
 SSCC-1 Number of GDs = 2
 SSCC 1 : Flash Rate = 40
 SSCC 1 : Low Battery Detection = No
 SSCC 1 : Flash Sync = master
 SSCC 1 : Invert Gate Output = No
 SSCC 1 : Lamp NeutralTest = Off
 Aux-1 Xng CtrlUsed = No

SSCC: 2
 SSCC-2 Activation = AND 1 XR
 SSCC-2 Gate Delay = 6 sec
 SSCC-2 Number of GPs = 0
 SSCC-2 Number of GDs = 0
 SSCC 2 : Flash Rate = 40
 SSCC 2 : Low Battery Detection = No
 SSCC 2 : Flash Sync = slave
 SSCC 2 : Invert Gate Output = No
 SSCC 2 : Lamp NeutralTest = Off
 Aux-2 Xng CtrlUsed = No

OUTPUT: assignment page 1
 OUT 1.1 = Not Used
 OUT 1.2 = Not Used

INPUT: assignment page 1
 IN 1.1 = AND 1 XR Enable
 IN 1.2 = Not Used

IO: assignment SSCC
 OUT GC 1 = Gate Output 1
 OUT GC 2 = Gate Output 2
 IN 7.1 = Not Used
 IN 7.2 = GD 1.2
 IN 7.3 = AND 1 XR Enable
 IN 7.4 = GD 1.1
 IN 7.5 = GP 1.1
 IN 8.1 = Out Of Service IP 1
 IN 8.2 = Not Used
 IN 8.3 = Not Used
 IN 8.4 = Not Used
 IN 8.5 = Not Used

SEAR
 SEAR Subnode = 3
 DI 1 = Not Used
 DI 2 = Not Used
 Rly 1 = General1
 Rly 2 = Not Used

SEAR: inputs
 SP 2.1 = POK 1
 SP 3.1 = Not Used
 SP 4.1 = Not Used
 SP 5.1 = Not Used
 SP 6.1 = Not Used

SEAR: slot 1-4 inputs
 IN 1.2 = Not Used
 IN 2.1 = Not Used
 IN 2.2 = Not Used
 IN 3.1 = Not Used
 IN 3.2 = Not Used
 IN 4.1 = Not Used
 IN 4.2 = Not Used

SEAR: inputs slot 5
 IN 5.1 = Not Used
 IN 5.2 = Not Used

SEAR: inputs slot 6
 IN 6.1 = Not Used
 IN 6.2 = Not Used


SEAR: slot 7-8 inputs
 IN 7.1 = Not Used
 IN 8.2 = Not Used
 IN 8.3 = Not Used
 IN 8.4 = Not Used
 IN 8.5 = Not Used

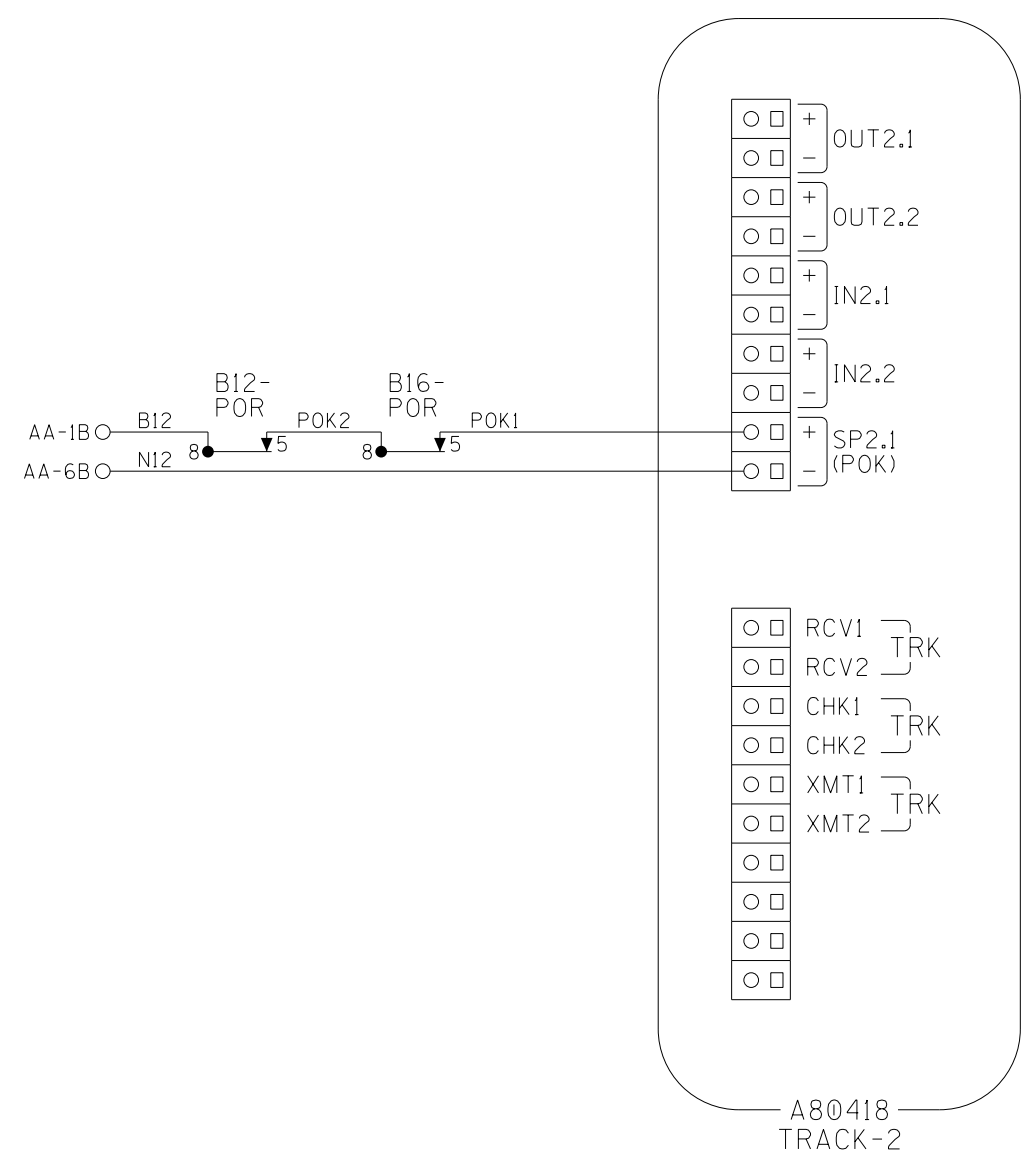
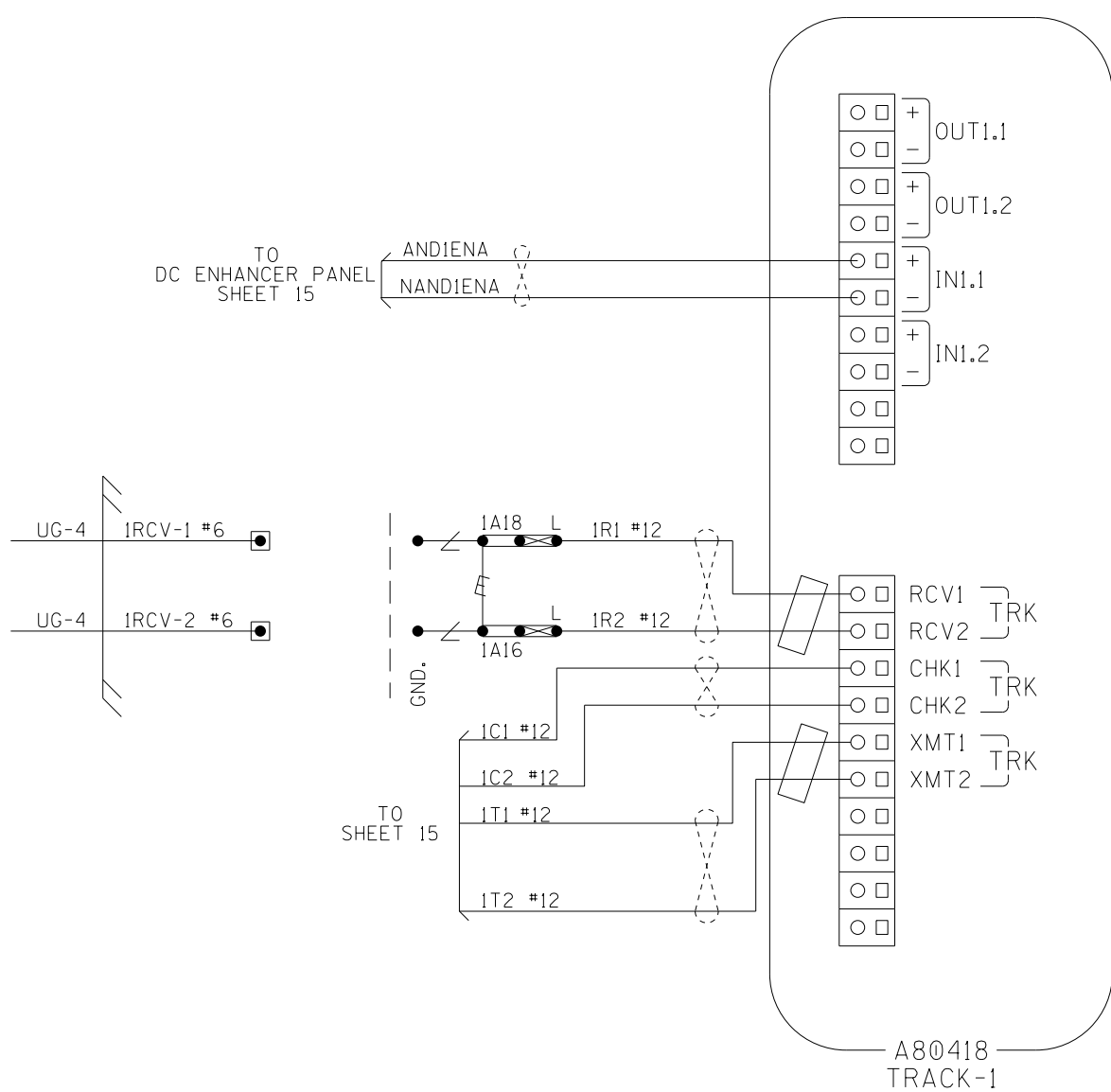
SITE: programming
 Radio Subnode = 1
 Field Password = Off
 Low Battery Enabled = Off

Configuration Package File

 Filename: 13332889.pac


GCP4000 PROGRAMMING

DESIGNED BY:			
TAH	12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HZ-028.89
DRAWN BY:	RSD 12-15-20	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.	
CHECKED BY:	BES 12-15-20		
IN SERVICE:	- -	NEW HOLLAND SEC.	REV. 1
PROPERTY	PENNSYLVANIA R.R.	CADD or DWG. No. 13332889.08	SHEET 8 No.




NOTES:

1. ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.

2.  = TWIST

3.  = FERRITE BEAD

CONNECTORS FOR TRACK MODULES

DESIGNED BY:	TAH	12-15-20	
DRAWN BY:	RSD	12-15-20	
CHECKED BY:	BES	12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: HZ-028.89
IN SERVICE:	-	-	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.
PROPERTY	PENNSYLVANIA R.R.		NEW HOLLAND SEC. REV. 1
			CADD or DWG. No. 13332889.09 SHEET 9 No.

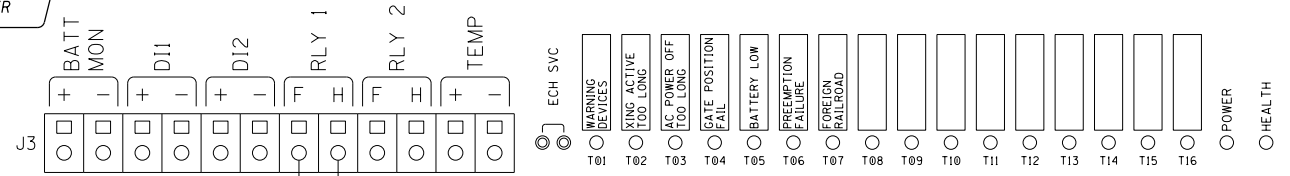
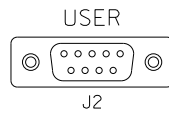
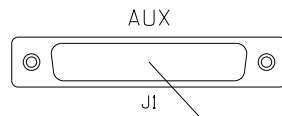
SIEMENS

Made in USA

SEAR III INTERNAL EVENT RECORDER

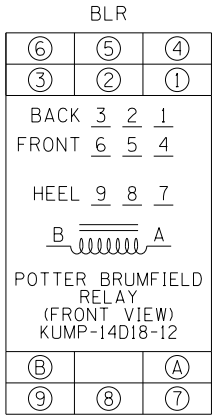
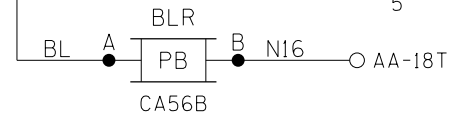
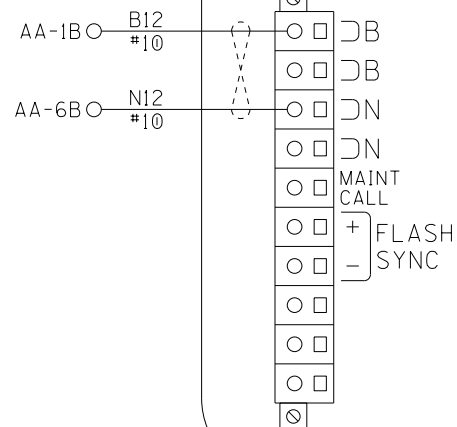
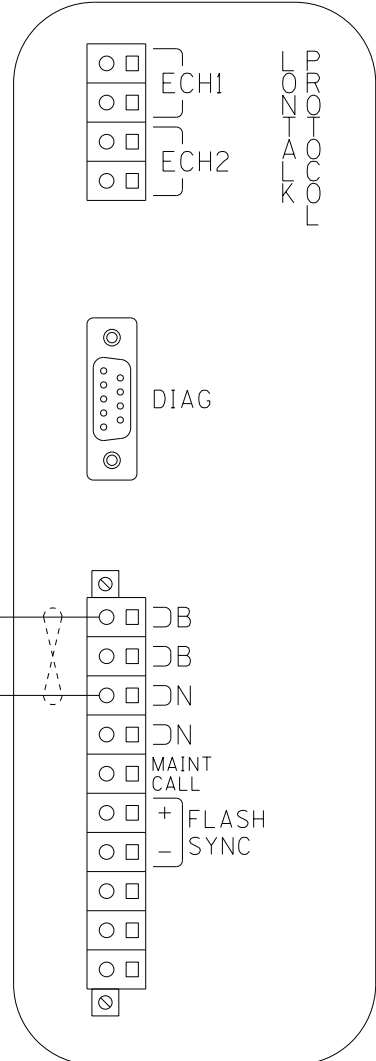
A80410

LOWER BAY



TO RADIO SHEET 12

TO SHEET 5



- NOTES:
- ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.
 - = TWIST

CPU MODULE & SEAR III HOOK-UP

DESIGNED BY:	TAH	12-15-20	
DRAWN BY:	RSD	12-15-20	
CHECKED BY:	BES	12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: HZ-028.89
IN SERVICE:	-	-	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.
PROPERTY	PENNSYLVANIA R.R.		NEW HOLLAND SEC. REV. 1
			CADD or DWG. No. 13332889.10 SHEET No. 10

SITE SET UP PROCEDURE	
FUNCTION	LED DISPLAY
SITE NAME	S. HOOVER AVE.
MILEPOST	HZ-028.89
DOT NUMBER	517-757P
TESTER TYPE	CROSSING
AUTO DST ADJUST	NO
TIMEZONE	OTHER
GMT OFFSET	-00:00
DATE FORMAT	MM-DD-YYYY
TEMP. FORMAT	FAHRENHEIT
INDICATE HOLDOFF (SEC)	0
INDICATE REFRESH (SEC)	60
GEO CTL REFRESH (SEC)	0
SITE ADDRESS (ATCS)	7.550.XXX.XXX.03.01
SITE TYPE	NO COMMUNICATION
# OFFICE ADDRESS (ATCS)	2.550.00.0000
# PRIMARY HOP ADDR	7.550.488.092.03.01
# BACKUP HOP ADDR 1	7.RRR.LLL.GGG.XX.XX
# BACKUP HOP ADDR 2	7.RRR.LLL.GGG.XX.XX
# POLL ID	1
# MODE	GEN/ATCS
# WAMS XID	DISABLED
# OFFICE COMM DEVICE	MCM (ECHELON)
# RADIO ATCS ADDR	7.RRR.LLL.GGG.01.01
# PHONE #	(OFFICE NUMBER)
# INIT STRING	
# FIELD COMM DEVICE	NONE
★ USER PORT BAUD	57600
★ USER PORT DATA BITS	8
★ USER PORT PARITY	NONE
★ USER PORT STOP BITS	1
★ USER PORT FLOW CONTROL	NONE
★ AUX PORT BAUD	9600
★ AUX PORT DATA BITS	8
★ AUX PORT PARITY	NONE
★ AUX PORT STOP BITS	1
★ AUX PORT FLOW CONTROL	NONE

CONTROL SYSTEM CONFIGURATION MENU QUESTIONS	
THE QUESTION	SELECT FROM MENU OPTION
RESET NAMES AND MODULES?	YES
RAILROAD NUMBER?	550
CROSSING CONFIGURATION?	NORMAL
AND1 USED AS XR?	YES
AND2 USED AS XR?	NO
AND3 USED AS XR?	NO
AND4 USED AS XR?	NO
AND5 USED AS XR?	NO
AND6 USED AS XR?	NO
AND7 USED AS XR?	NO
AND8 USED AS XR?	NO
* XR CONTROLLED BY FOREIGN RR?	(AND1, AND2, AND3, AND4 AND5, AND6, AND7, AND8)
ENTRANCE GATES?	2
85% VOLTAGE RELAY OUT?	YES
BATTERY BANKS?	2
BATT MON USED?	YES
PREEMPTION?	NO
INTERNAL CROSSING CONTROLLERS?	2
EXTERNAL CROSSING CONTROLLERS?	0
VHF COMMUNICATOR?	NO
DTMF ACTIVATION?	NO
ILOD MODULES?	0
USE CELL MODEM NON-CRITICAL FEATURE?	NO


PROGRAM MENU QUESTIONS	PROGRAM
EDIT DIGITAL INPUTS	NO
EDIT BATTERIES	NO
EDIT RELAYS	NO
EDIT INDICATOR LEDS	NO
EDIT TEST LEDS	NO
GCP4K ATCS SUBNODE	16

TO CONFIGURE SEARIII PRESS SITE SETUP KEY.
USE ARROW KEYS TO MAKE SELECTION,
PRESS ENTER AFTER SELECTION HAS BEEN MADE.

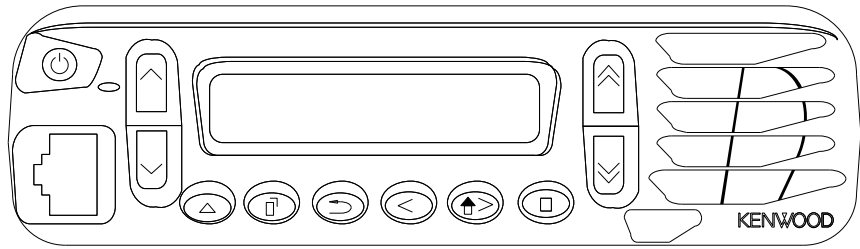
NOTES:

- # = NOT DISPLAYED IF SITE TYPE = NO COMMUNICATION
- ★ = USE DEFAULT SETTINGS
- * = ONLY DISPLAYED IF CROSSING CONFIGURATION = SPLIT GATE

SEAR III PROGRAMMING

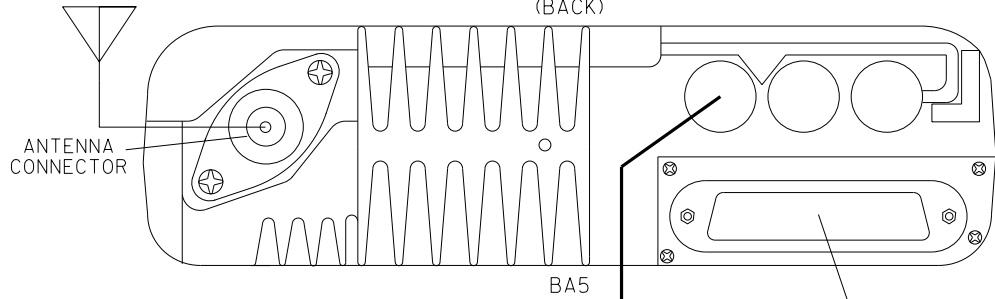
DESIGNED BY:	TAH 12-15-20		
DRAWN BY:	RSD 12-15-20		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.
CHECKED BY:	BES 12-15-20	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.	
IN SERVICE:	- -	NEW HOLLAND SEC.	REV. 1
PROPERTY PENNSYLVANIA R.R.		CADD or DWG. No. 13332889.11	SHEET No. 11

(FRONT)



KENWOOD RADIO NX-700H
OR EQUIVALENT

(BACK)



ANTENNA
CONNECTOR

BA5

DB25M - DB25M
STRAIGHT THROUGH CABLE } TO
SEAR III SHEET 10

CABLE - KENWOOD
P/N E30-7520-15

AA-2B ○ B12
AA-7B ○ N12
B12
N12



BB5

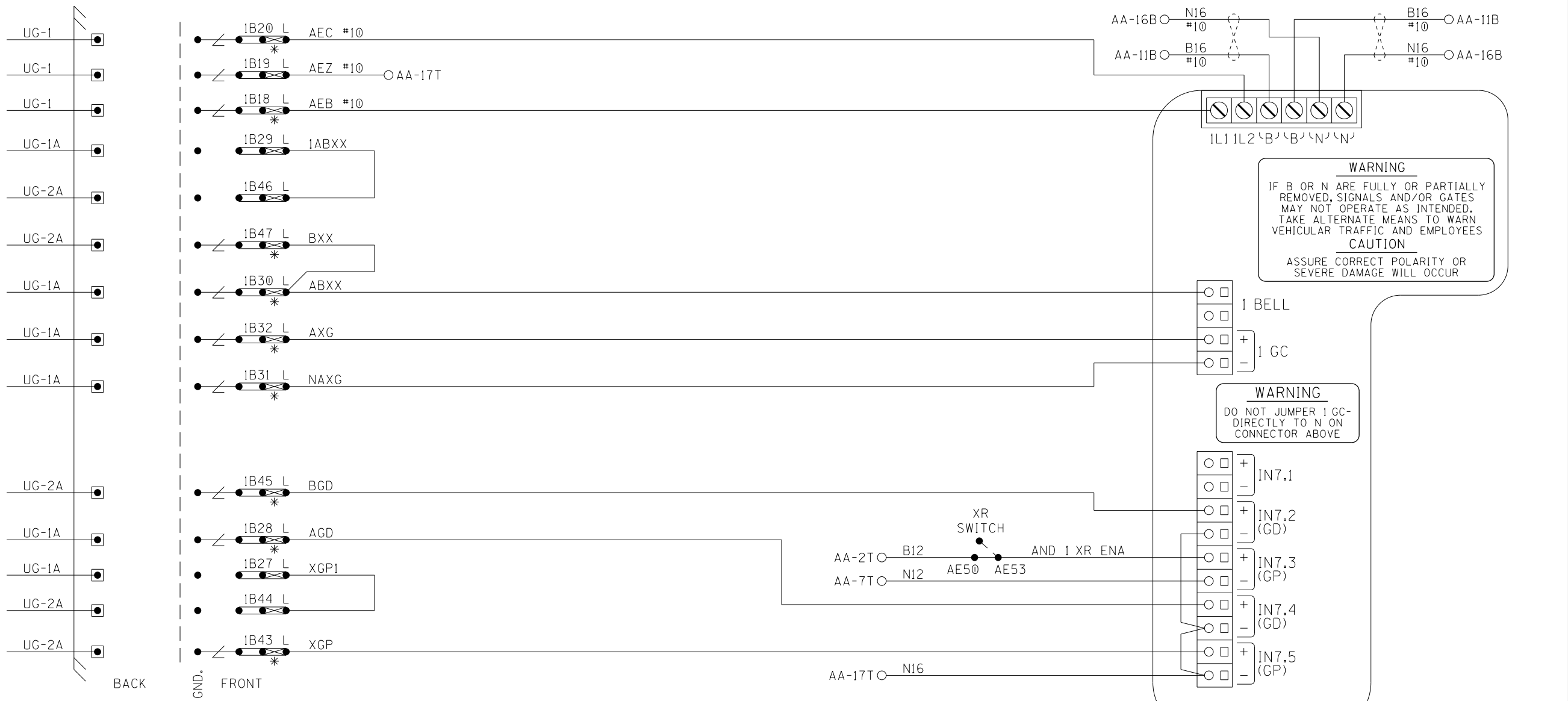
NOTE:

- 1. ALL WIRING TO BE #10AWG UNLESS NOTED OTHERWISE.

PROPERTY
PENNSYLVANIA R.R.

BACKHAUL EQUIPMENT

DESIGNED BY:	TAH 12-15-20		
DRAWN BY:	RSD 12-15-20		
CHECKED BY:	BES 12-15-20		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: HZ-028.89
IN SERVICE:	-		NEW HOLLAND, PA FLGS AT S. HOOVER AVE.
			NEW HOLLAND SEC. REV. 1
			CADD or DWG. No. 13332889.12 SHEET No. 12



- NOTES:
1. ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.
 2. * = TEST LINKS MUST BE OPENED TEMPORARILY FOR COLD START OF NEW OR REPLACEMENT SSCC MODULE AND CAN ONLY BE CLOSED IN SEQUENCE WITH MFR. INSTRUCTION: APPENDIX C OF GCP 4000 REFERENCE MANUAL.

3. = TWIST

SSCC#1 MODULE HOOK-UP

DESIGNED BY:			
TAH 12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.		M.P.: HZ-028.89
DRAWN BY:	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.		
RSD 12-15-20	NEW HOLLAND SEC.		
CHECKED BY:	- -		REV. 1
BES 12-15-20	CADD or DWG. No. 13332889.13		SHEET No. 13
IN SERVICE:	PENNSYLVANIA R.R.		

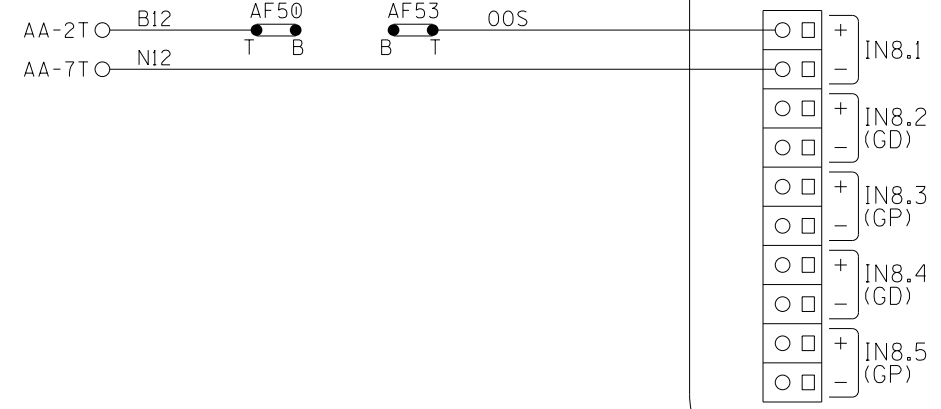


WARNING
 IF B OR N ARE FULLY OR PARTIALLY REMOVED, SIGNALS AND/OR GATES MAY NOT OPERATE AS INTENDED. TAKE ALTERNATE MEANS TO WARN VEHICULAR TRAFFIC AND EMPLOYEES
CAUTION
 ASSURE CORRECT POLARITY OR SEVERE DAMAGE WILL OCCUR

2 BELL
 2 GC

WARNING
 DO NOT JUMPER 2 GC-DIRECTLY TO N ON CONNECTOR ABOVE

OUT OF SERVICE



A80405
 SSSC-2

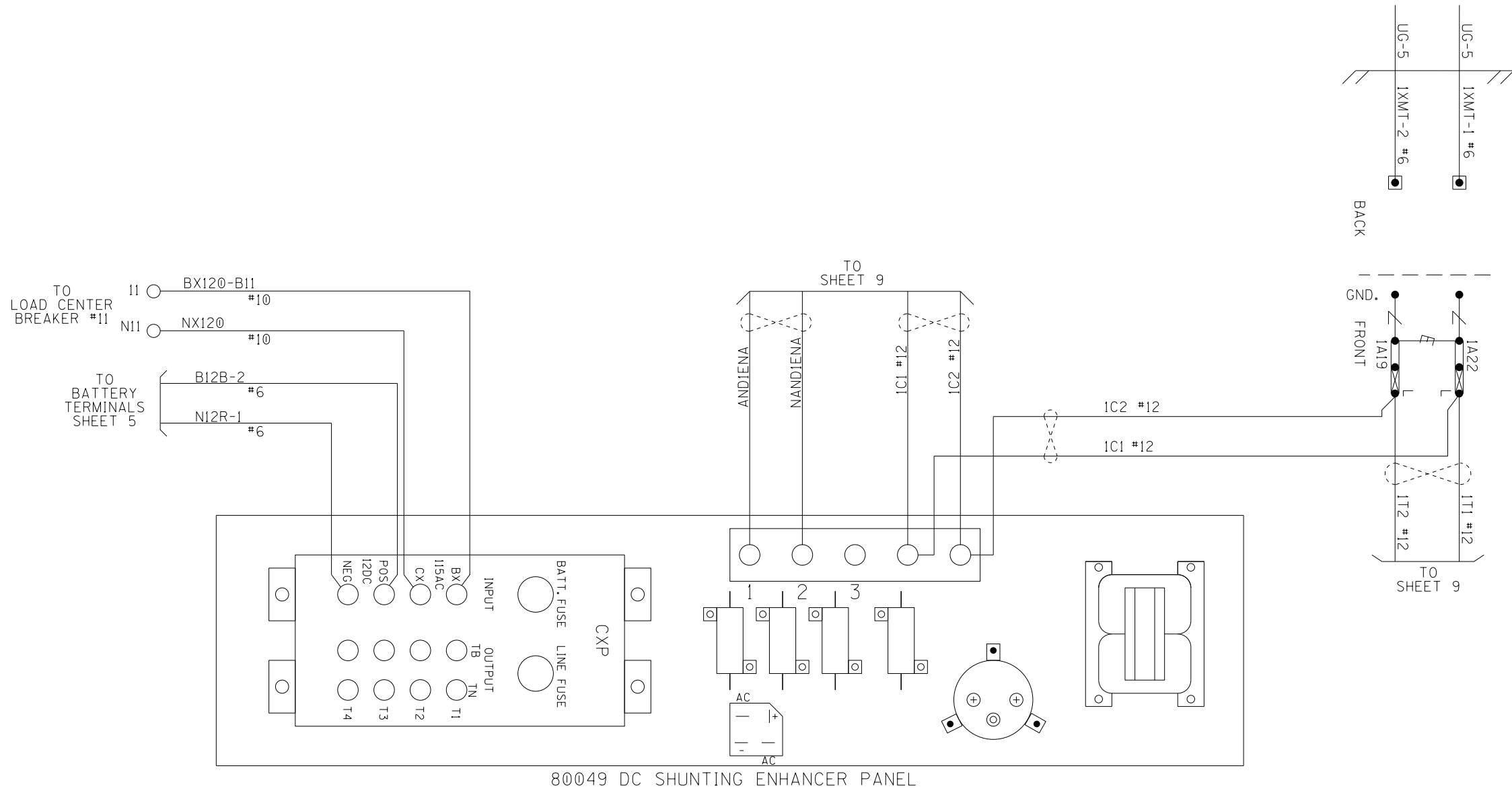
SSCC#2 MODULE HOOK-UP

- NOTES:
1. ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.
 2. * = TEST LINKS MUST BE OPENED TEMPORARILY FOR COLD START OF NEW OR REPLACEMENT SSSC MODULE AND CAN ONLY BE CLOSED IN SEQUENCE WITH MFR. INSTRUCTION: APPENDIX C OF GCP 4000 REFERENCE MANUAL.

3. = TWIST

PROPERTY
 PENNSYLVANIA R.R.

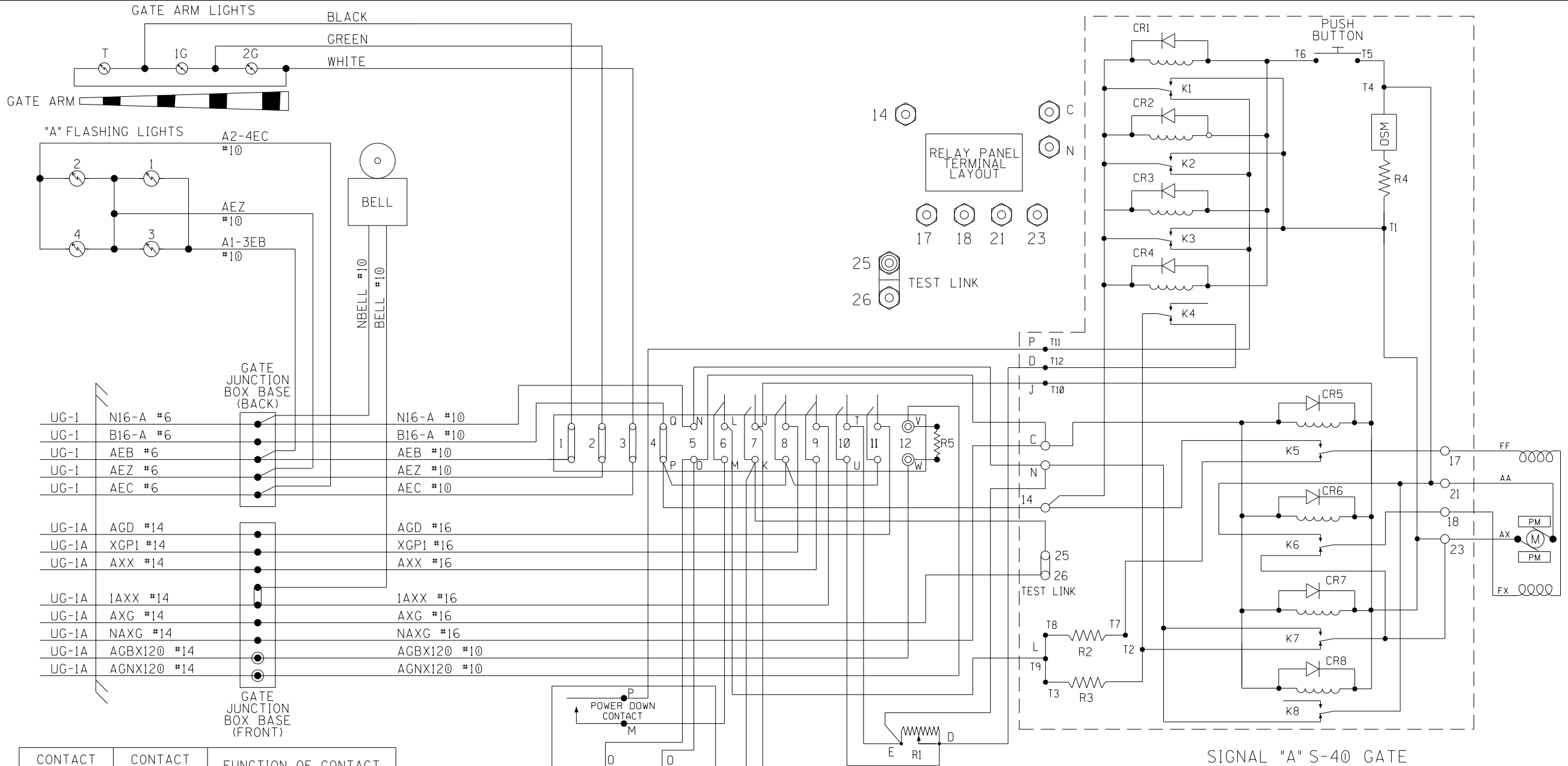
DESIGNED BY:			
TAH 12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.:	HZ-028.89
DRAWN BY:	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.		
RSD 12-15-20			
CHECKED BY:	NEW HOLLAND SEC.		
BES 12-15-20	REV. 1		SHEET 14
IN SERVICE:	CADD or DWG. No.	13332889.14	No.



80049 DC SHUNTING ENHANCER PANEL

DC SHUNTING ENHANCER PANEL HOOK-UP

DESIGNED BY:	TAH	12-15-20	NS NORFOLK SOUTHERN
DRAWN BY:	RSD	12-15-20	
CHECKED BY:	BES	12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: HZ-028.89
IN SERVICE:	-	-	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.
PROPERTY	PENNSYLVANIA R.R.		NEW HOLLAND SEC. REV. 1
			CADD or DWG. No. 13332889.15 SHEET No. 15



UG-1	N16-A #6	N16-A #10
UG-1	B16-A #6	B16-A #10
UG-1	AEB #6	AEB #10
UG-1	AEZ #6	AEZ #10
UG-1	AEC #6	AEC #10
UG-1A	AGD #14	AGD #16
UG-1A	XGP1 #14	XGP1 #16
UG-1A	AXX #14	AXX #16
UG-1A	1AXX #14	1AXX #16
UG-1A	AXG #14	AXG #16
UG-1A	NAXG #14	NAXG #16
UG-1A	AGBX120 #14	AGBX120 #10
UG-1A	AGNX120 #14	AGNX120 #10

CONTACT SPACE	CONTACT CLOSED AT	FUNCTION OF CONTACT
(6) L-M	45° - 90°	POWER DOWN CONTROL
(7) J-K	0° - 89°	POWER UP CONTROL
(8)	83° - 90°	FLASHING LGT. CONTROL
(9)	5° - 90°	BELL CONTROL
(10) T-U	0° - 5°	HORIZONTAL SNUB
(11)	0° - 5°	GATE DOWN INDICATION

R1 - DOWN SNUB RESISTOR, ADJ.
 R2 - POWER DOWN RATE RESISTOR
 R3 - POWER DOWN LIMIT RESISTOR
 R4 - OSM SNUB RESISTOR
 R5 - DEFROSTER
 K1-8 - GATE & MAINT. RELAYS
 OSM - OVERSPEED MODULE

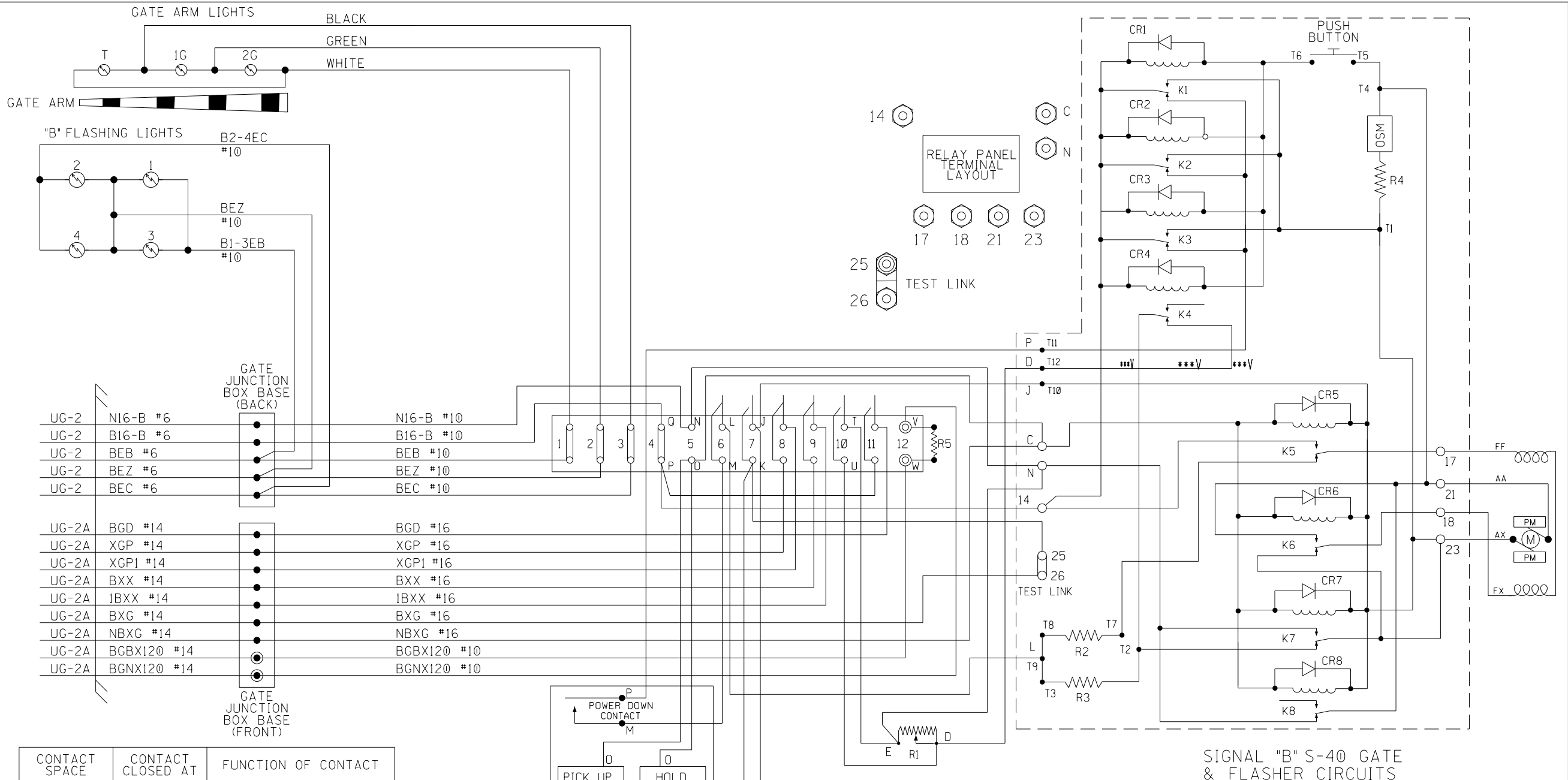
DESIGNED BY:	TAH 12-15-20	
DRAWN BY:	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	
CHECKED BY:	BES 12-15-20	M.P.: HZ-028.89
IN SERVICE:	NEW HOLLAND SEC.	
	CADD or DWG. No. 13332889.16	REV. 1
		SHEET No. 16

PROPERTY PENNSYLVANIA R.R.

SIGNAL "A" S-40 GATE & FLASHER CIRCUITS

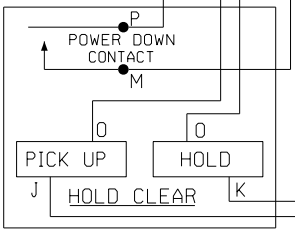


NEW HOLLAND, PA
 FLGS AT S. HOOVER AVE.
 NEW HOLLAND SEC. REV. 1
 CADD or DWG. No. 13332889.16 SHEET No. 16



UG-2	N16-B #6	N16-B #10
UG-2	B16-B #6	B16-B #10
UG-2	BEB #6	BEB #10
UG-2	BEZ #6	BEZ #10
UG-2	BEC #6	BEC #10
UG-2A	BGD #14	BGD #16
UG-2A	XGP #14	XGP #16
UG-2A	XGP1 #14	XGP1 #16
UG-2A	BXX #14	BXX #16
UG-2A	1BXX #14	1BXX #16
UG-2A	BXG #14	BXG #16
UG-2A	NBXG #14	NBXG #16
UG-2A	BGBX120 #14	BGBX120 #10
UG-2A	BGNX120 #14	BGNX120 #10

CONTACT SPACE	CONTACT CLOSED AT	FUNCTION OF CONTACT
(6) L-M	45° - 90°	POWER DOWN CONTROL
(7) J-K	0° - 89°	POWER UP CONTROL
(8)	83° - 90°	FLASHING LGT. CONTROL
(9)	5° - 90°	BELL CONTROL
(10) T-U	0° - 5°	HORIZONTAL SNUB
(11)	0° - 5°	GATE DOWN INDICATION

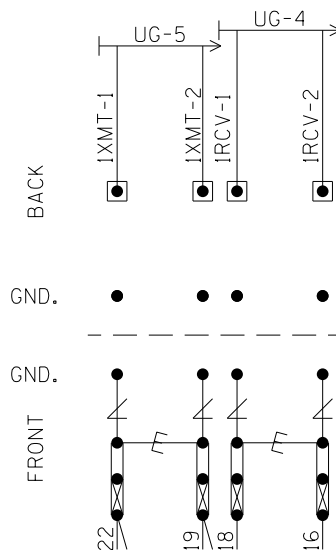


- R1 - DOWN SNUB RESISTOR, ADJ.
- R2 - POWER DOWN RATE RESISTOR
- R3 - POWER DOWN LIMIT RESISTOR
- R4 - OSM SNUB RESISTOR
- R5 - DEFROSTER
- K1-8 - GATE & MAINT. RELAYS
- OSM - OVERSPEED MODULE




DESIGNED BY:	TAH 12-15-20	
DRAWN BY:	RSD 12-15-20	
CHECKED BY:	BES 12-15-20	
IN SERVICE:	-	
NORFOLK SOUTHERN		
OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.		
NEW HOLLAND, PA FLGS AT S. HOOVER AVE.		
NEW HOLLAND SEC.		REV. 1
CADD or DWG. No.	13332889.17	SHEET No. 17

PROPERTY
PENNSYLVANIA R.R.


"1A"



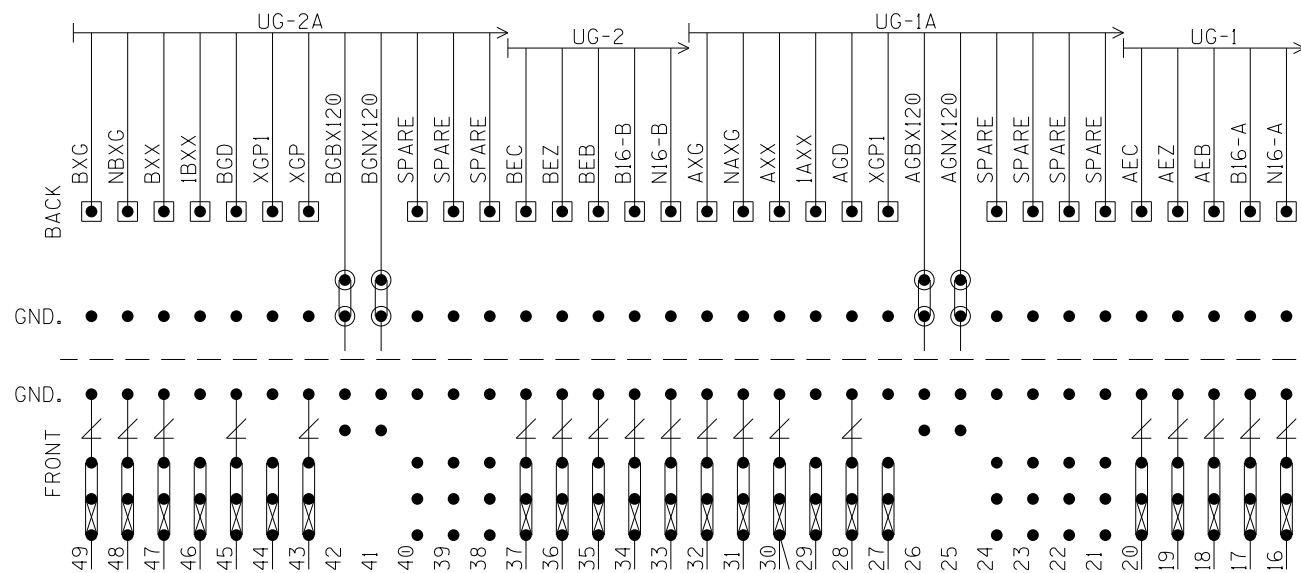
NOTES:

1.  = HEAVY DUTY EQUALIZER (022700-1X)
2.  = ERICO LIGHTNING ARRESTER (EPD2050F)
3. GND. ● = THROUGH GROUND POST ON EACH TERMINAL BLOCK TO FARADAY SHIELD
4.  = TEST LINK
5. INSTALL TEST LINKS ON ALL TRACK WIRES AND ON ALL LOW VOLTAGE UNDERGROUND CABLE TERMINATIONS.

BACKBOARD 1A

DESIGNED BY:			
TAH	12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HZ-028.89
DRAWN BY:		NEW HOLLAND, PA FLGS AT S. HOOVER AVE.	
RSD	12-15-20		
CHECKED BY:		NEW HOLLAND SEC.	
BES	12-15-20	REV.	1
IN SERVICE:		CADD or DWG. No.	SHEET No.
PROPERTY PENNSYLVANIA R.R.		- -	13332889.18 18

"1B"



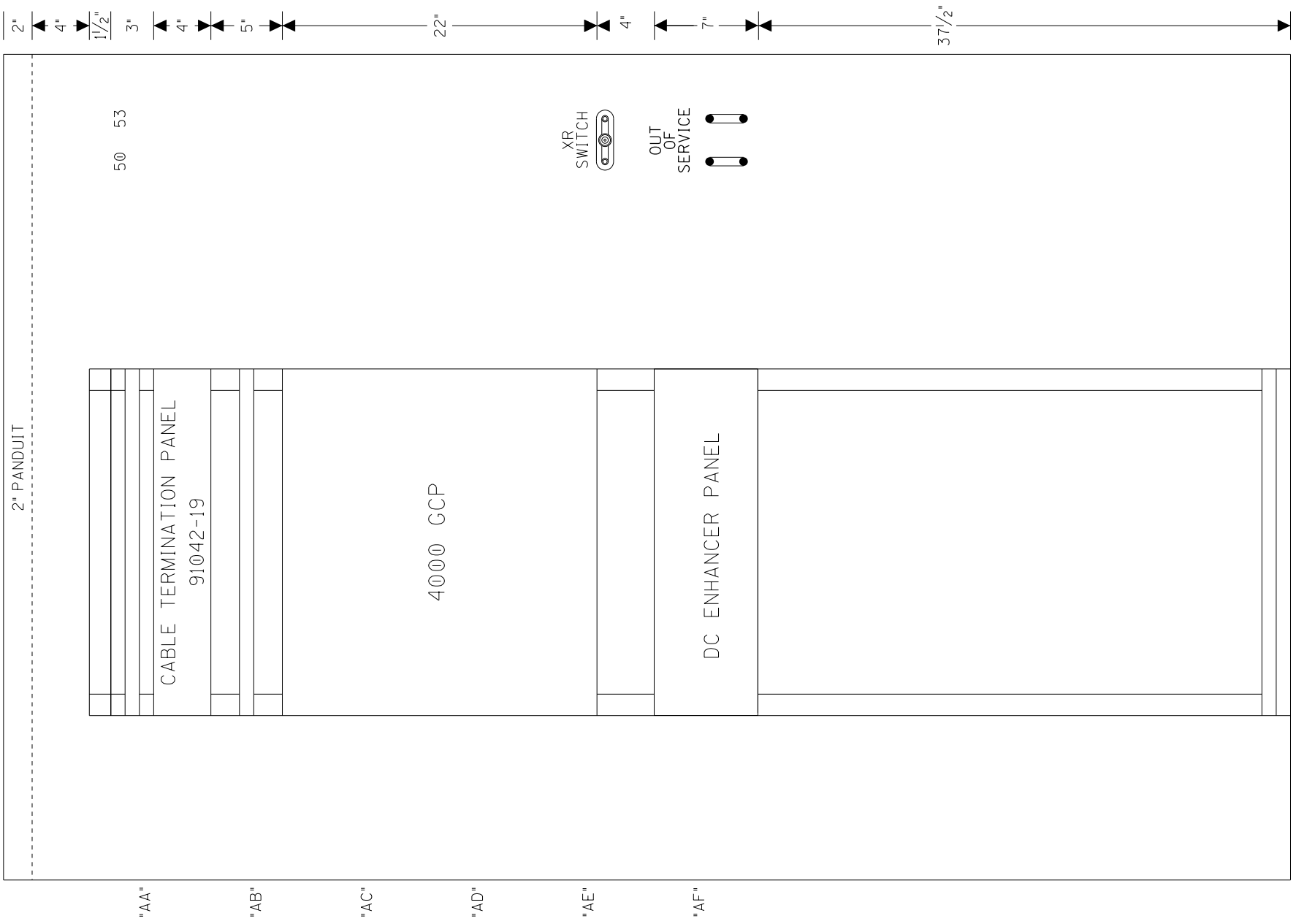
BACKBOARD 1B

NOTES:

1. GND. ● = THROUGH GROUND POST ON EACH TERMINAL BLOCK TO FARADAY SHIELD
2. ◎ = INSULATED NUTS TO BE USED ON ALL 120VAC AND ABOVE TERMINALS

PROPERTY
PENNSYLVANIA R.R.

DESIGNED BY:	TAH	12-15-20	
DRAWN BY:	RSD	12-15-20	
CHECKED BY:	BES	12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.
IN SERVICE:	-	-	M.P.: HZ-028.89 NEW HOLLAND, PA FLGS AT S. HOOVER AVE.
			NEW HOLLAND SEC.
			REV. 1 SHEET 19 No.



24 1/4"
EQUIPMENT RACK #1
FRONT

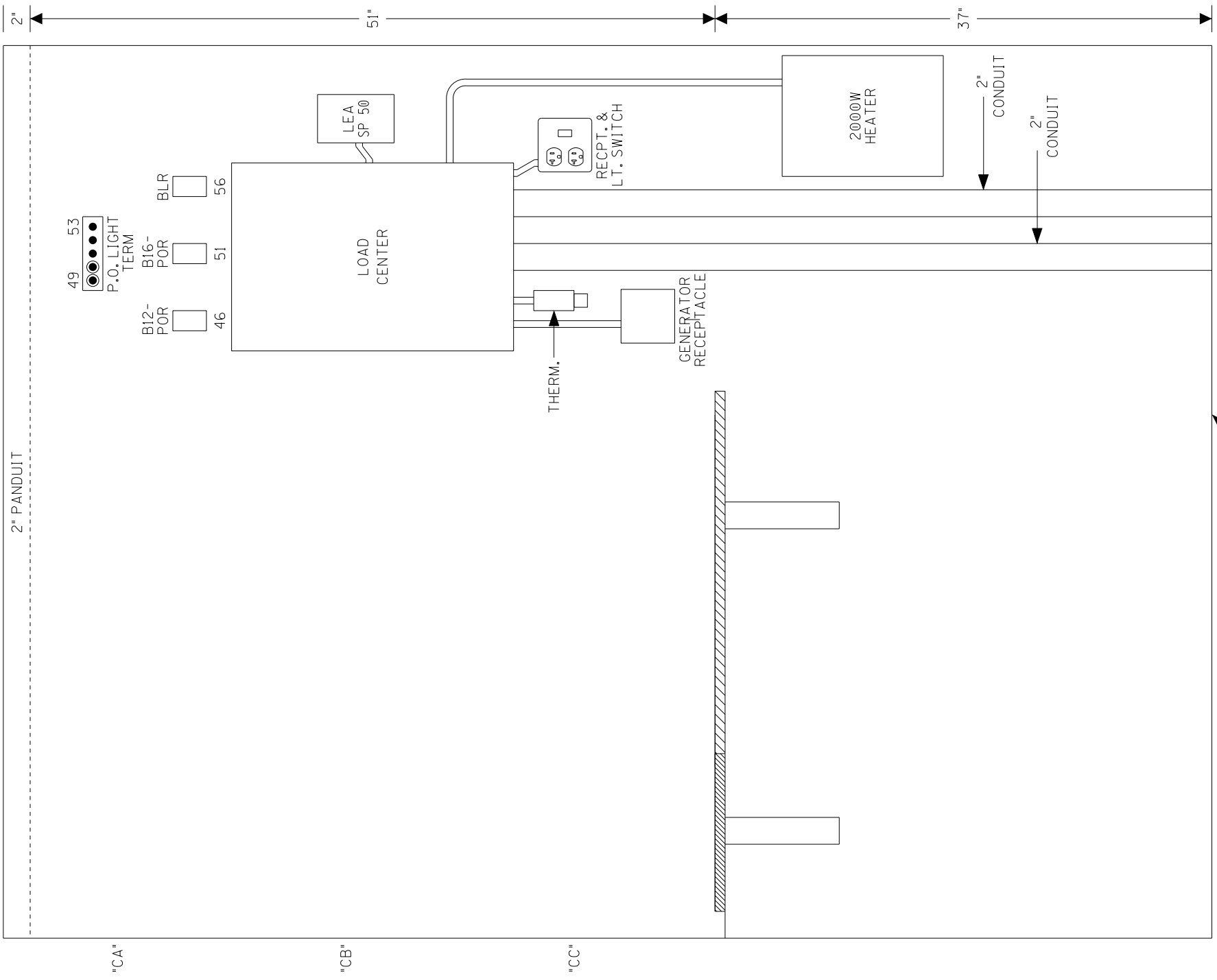


SIDE A LAYOUT & RACK PLACEMENT

"AA" "AB" "AC" "AD" "AE" "AF"

PROPERTY
PENNSYLVANIA R.R.

DESIGNED BY:	TAH	12-15-20	NS NORFOLK SOUTHERN
DRAWN BY:	RSD	12-15-20	
CHECKED BY:	BES	12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: HZ-028.89
IN SERVICE:	-	-	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.
			NEW HOLLAND SEC. REV. 1
			CADD or DWG. No. 13332889.20 SHEET No. 20



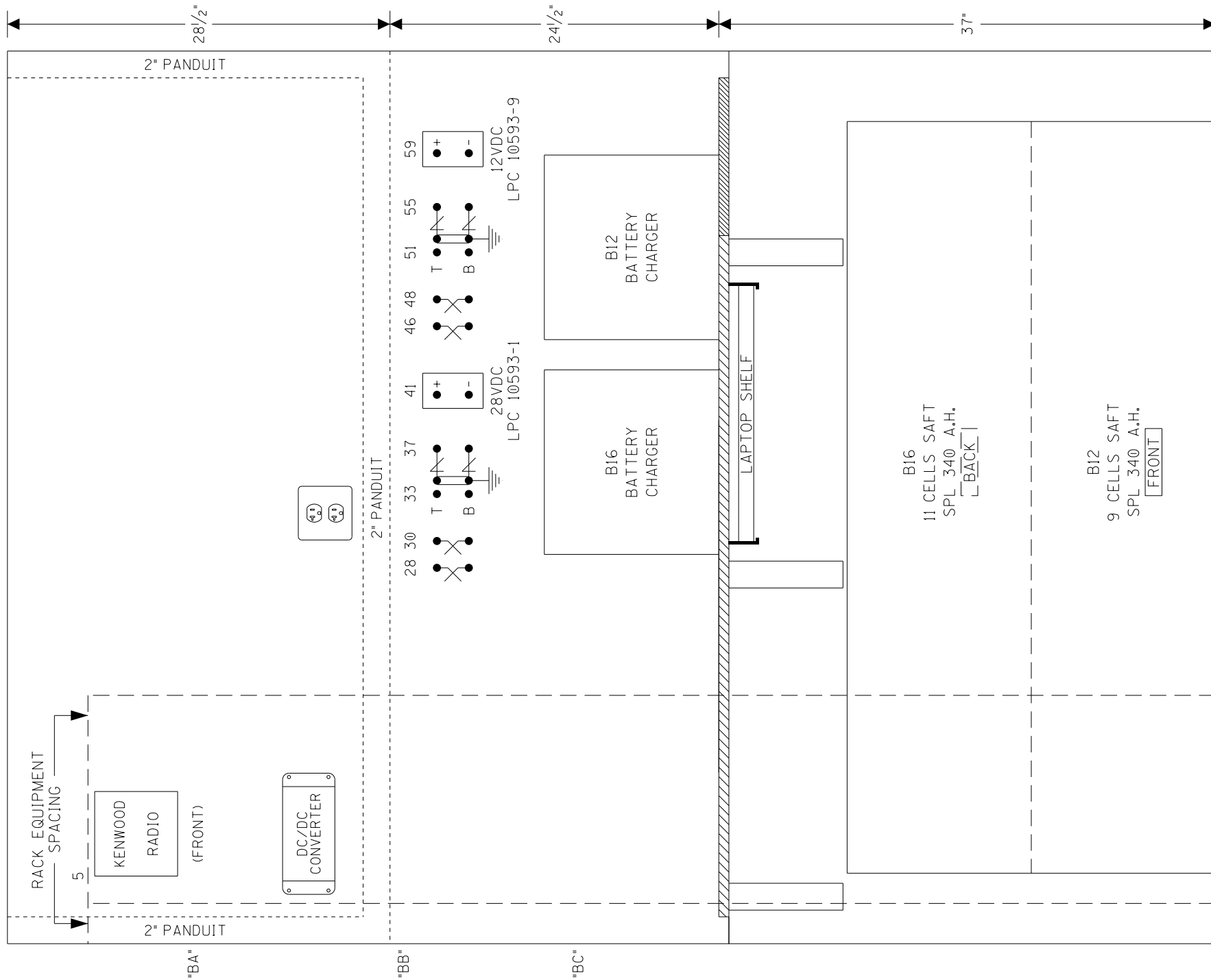
FLOOR →



SIDE C LAYOUT

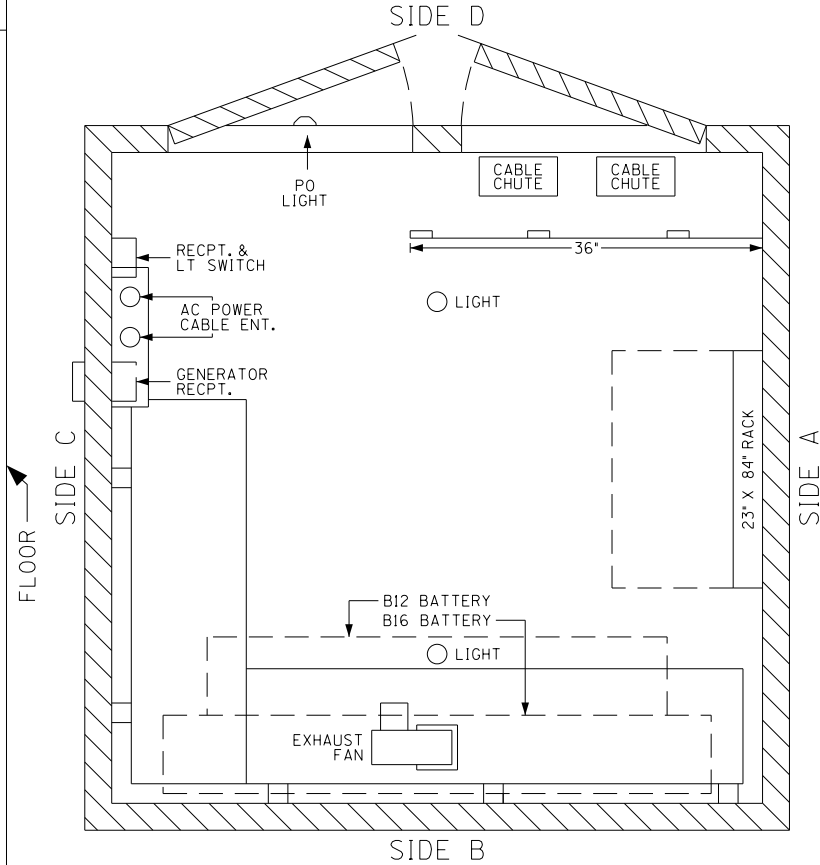
DESIGNED BY:		
TAH 12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HZ-028.89
DRAWN BY:	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.	
RSD 12-15-20		
CHECKED BY:	NEW HOLLAND SEC.	REV. 1
BES 12-15-20	CADD or DWG. No. 13332889.21	SHEET 21 No.

PROPERTY
PENNSYLVANIA R.R.



***TOP VIEW**

6'X6' HOUSE
(INSULATED)
* = 1/2" SCALE



SIDE B LAYOUT & TOP VIEW

DESIGNED BY:		
TAH 12-15-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: HZ-028.89
DRAWN BY:	NEW HOLLAND, PA FLGS AT S. HOOVER AVE.	
RSD 12-15-20		
CHECKED BY:	NEW HOLLAND SEC.	REV. 1
BES 12-15-20	CADD or DWG. No. 13332889.22	SHEET 22 No.
IN SERVICE:	- -	

PROPERTY
PENNSYLVANIA R.R.