



A Limited Liability Holding Company
101 RJ Corman Drive • PO Box 788 • Nicholasville, KY 40340-0788
(859) 881-7521 • Fax: (859) 885-7804 • www.rjcorman.com

2/16/2018

Vendors,

You are invited to submit a bid to provide a crossing materials package for the highway grade crossing listed below:

Staeger Rd, Celina, OH, DOT# 477009F, as shown on attached plans (*see ST11740.pdf*)

Enclosed bid package also includes material requirements, as well as bidding guidelines. All bids must be submitted on company letterhead and received by **Monday, March 5th, 2018 5PM EST**. Please submit via email to James.Kelley@RJCorman.com or by mail to PO Box 788, Nicholasville KY 40340, ATTN: Jimmy Kelley.

If you have any questions regarding this bid request, please don't hesitate to contact me.

Vendor to provide material delivery to 401 Enterprise Drive, Nicholasville, KY 40356.

RJ CORMAN WILL PROVIDE WIRING AND INSTALLATION.

Shipping to begin as soon as possible but no later than 90 days ARO.

Sincerely,

Jimmy Kelley
Funded Projects Coordinator
RJ Corman Railroad Group
PO Box 788
Nicholasville, KY 40340
O: 859-881-6637
www.rjcorman.com

Scope:

Vendor will provide material for a 6' x 6' bungalow for the control of flashing light signals with gates and side lights for new installations. Bungalow shall be PTMW, Inc. aluminum and have drop-down style foundations. Bungalow shall be fully insulated and include AC breaker panel (100 AMP, 220VAC, single phase service), main terminal board, 4" PVC pipe cable risers, wire chases, plug-in relay rack, fluorescent lighting, wall shelf for plans and user reference manuals, lightning arresters, ERICO EPD 120/240TDFL surge protection, LED Power Off indicator, Siemens MS-4000 Dual Single Track System, battery chargers and batteries. Vendor will provide all necessary equipment, inside and outside, of bungalow.

General Design Guidelines:

1. Material shall comply with all applicable FRA and state regulations, and follow current AREMA C&S Manual for Recommended Practices.
2. All material provided shall be new.

Material Requirements:

1. Bungalow should be PTMW 6x6 Aluminum – 91000539 C-1
2. Train detection will be provided by Siemens MS-4000 Dual Single Track System
3. Flasher control will be provided by the Siemens 40amp Crossing Controller. Provide associated Lightning/Surge Arrester panel(s). *See plans for details.*
4. On the main terminal board, no equipment or terminals (other than ground buss) will be lower than 12" above floor
5. Relays will be GRS/Alstom Style "B" (if needed)
6. Chargers – NRS ELC 12/20 or 12/40 as applicable
7. Batteries – Sealed, Maintenance Free, Lead Acid Batteries
8. Crossing bell to be Electronic Loud Tone without sensor
9. Emergency Switch Box Assembly – L&W 2 Position – 3A900436
10. Gate mechanisms to use *WCH 3593-E-131*. *Shall include the following as designed per mast:*
 - a. 19' - 32' GATE ARMS W/ LED LIGHTS
 - b. 5" BASE & MAST
 - c. 2-WAY LED FLASHER ASSEMBLIES
 - d. COUNTERWEIGHT KIT
 - e. CROSSBUCK AND ASSOCIATED MOUNTING HARDWARE
 - f. CONVERSION BRACKET
 - g. HIGH WIND BRACKET
 - h. ELECTRONIC BELL (if needed)
 - i. GATE HEATERS (WCH)
11. Foundations to be precast concrete by Dixie Precast.

12. Flashing light signals to be 12" LED heads (Miller Felpax) with aluminum visors and backgrounds.
13. "Railroad Crossing" signs shall be high-intensity reflective material. Mounting hardware included
14. Vendor to provide all field equipment, including signal cable, track wire, shunts, rail bonding material, insulated joints, AC Service, etc.
15. Jointed Rail to be Bonded within approaches please include all associated field materials required.
16. Please include (2) new Allegheny style 136RE insulated glued joint plugs. **(To be installed by RJ Corman).**
17. Include Insulation Rods #1 and #2 (Horizontal).
18. RJ Corman will be responsible for crossing surface replacement.



Performance & Bidding Guidelines:

Bids should be detailed in the following format:

LOCATION: _____

Material Cost \$ _____

Estimated Freight/Shipping Cost \$ _____

Estimated Taxes Cost \$ _____

Total Cost \$ _____

Bungalow & Other Material Shipping Date _____ days ARO

****RJ Corman reserves the right to reject any or all bids****

SH. NO.	CONTENTS	REVISION NO.				
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NX1	INDEX SHEET	/				
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9	LIGHTING/SURGE PANEL HOOK-UP	/				
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11	GATE & FLASHER CIRCUITS SIGNAL "B"	/				
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DESIGNER'S NOTES:
 ALL SHEETS TO START ON REV. 1
 * = ORIGINAL ISSUE DATE
 # = DESIGNED BY INITIALS
 ★ = DRAWN BY INITIALS
 ** = CHECKED BY INITIALS
 ## = DRAWN BY INITIALS (AIS)
 ★★ = CHECKED BY INITIALS (AIS)

REVISIONS				
1	04-20-17	DEW	RJC	RJJ
	*	#	★	**
PLAN REVISED ACCOUNT				
NEW HOUSE INSTALL				
PROJECT: PID 104282				
IN SERVICE: XX-XX-XX				
PER: XXX				
		##	★★	
		XXX	XXX	

ESTIMATING AND MATERIALS
 INDEX SHEET

RJ CORMAN RAILROAD		
DESIGNED BY: DEW	STAEGER RD	DATE: 04/20/17
DIGITIZED BY: RJC	CELINA, OH	FILE: ST11740.NX1
CHECKED BY: RJJ	ST. MARYS SUBDIVISION	SHEET NX1

 = SHEETS AFFECTED

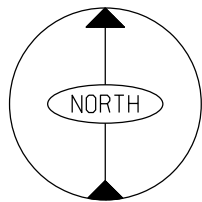
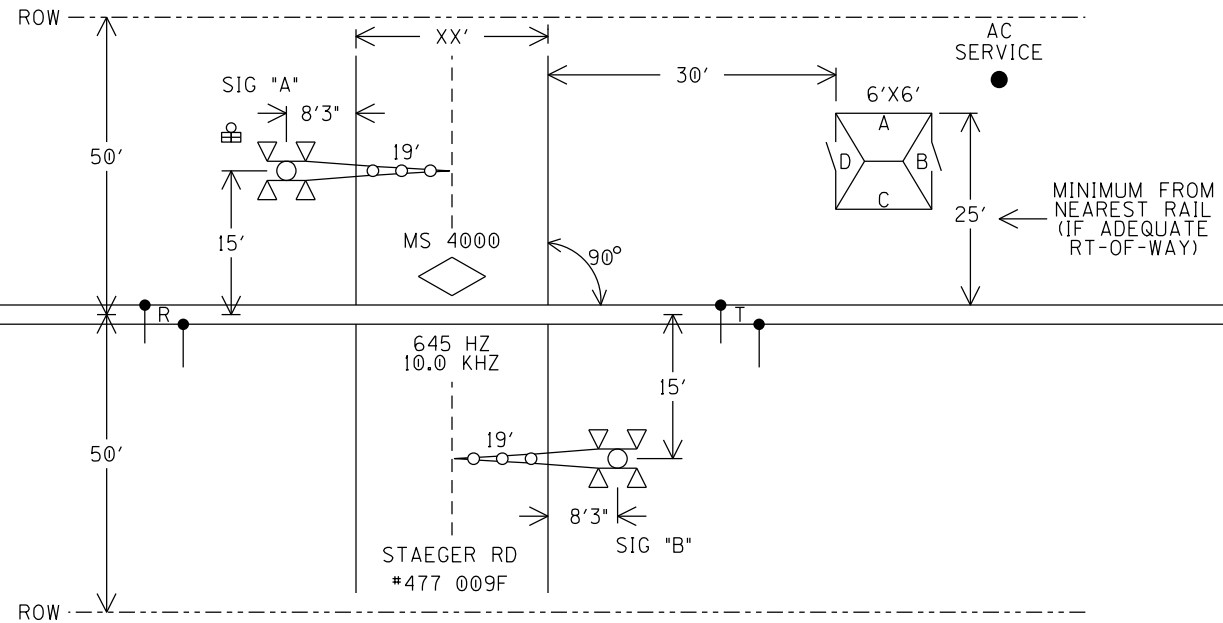
 = AIS COMPLETE



TO MUNCIE EAST YARD
(WEST)
M.P. (INCREASING)

TO SOUTH LIMA YARD
(EAST)
M.P. (DECREASING)

**CONSTRUCTION NOTE:
HOUSE DOOR TO FACE ROAD.**



- CONSTRUCTION NOTE:**
1. CROSSING SURFACE TO BE REPLACED.
 2. APPROACHES REQUIRE BONDING.
 3. SWITCH REQUIRES INSULATION:
 - A) 2 INSULATED JOINTS.
 - B) REPLACE INSULATION #1 & 2 HORIZONTAL RODS.
 4. REMOVE OBSOLETE GUAGE PLATE WEST OF CROSSING.

ESTIMATING AND MATERIALS
TRACK PLAN

RJ CORMAN RAILROAD

NOTES:
1. MAX TRAIN SPEED 25 MPH



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STAEGE RD
CELINA, OH
ST. MARYS SUBDIVISION

DATE: 04/20/17
FILE: ST11740.01
SHEET 01

TO SOUTH LIMA YARD
(EAST)
M.P. (DECREASING)

TO MUNCIE EAST YARD
(WEST)
M.P. (INCREASING)

1287'
TO NEAREST
GCP WIRES

1287'
TO NEAREST
GCP WIRES

(A)

(A)

FLGS

MS 4000

645 HZ
10.0 KHZ

FLGS

STAEGE RD
#477 009F

62'

0' 9"

62'

691'

(A) — HARDWIRE SHUNT

NOTES:
1. MAX TRAIN SPEED 25 MPH
2. SIGNAL "A" TO HAVE BELL

ESTIMATING AND MATERIALS PROFILE

RJ CORMAN RAILROAD

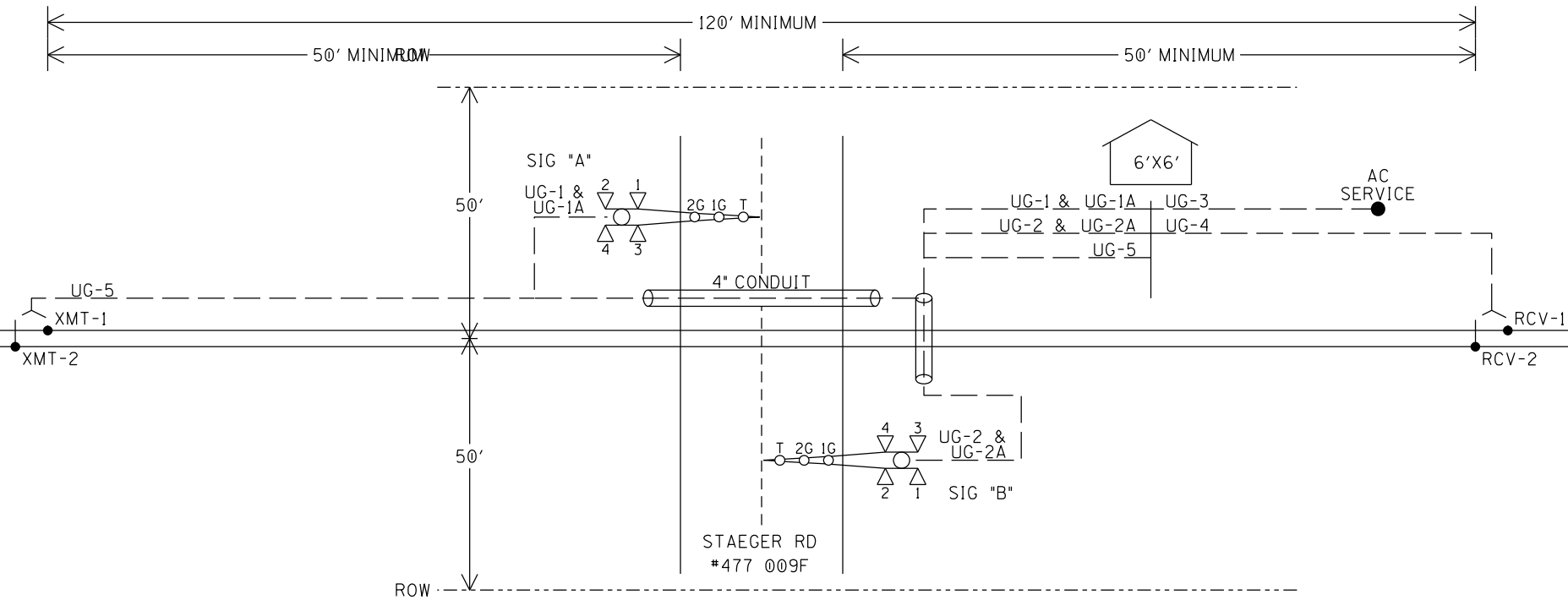


**RJ Corman
Signaling, LLC**
101 RJ CORMAN DRIVE
NICHOLASVILLE, KY 40356

DESIGNED BY: DEW
DIGITIZED BY: RJC
CHECKED BY: RJJ

STAEGE RD
CELINA, OH
ST. MARYS SUBDIVISION

DATE: 04/20/17
FILE: ST11740.02
SHEET 02

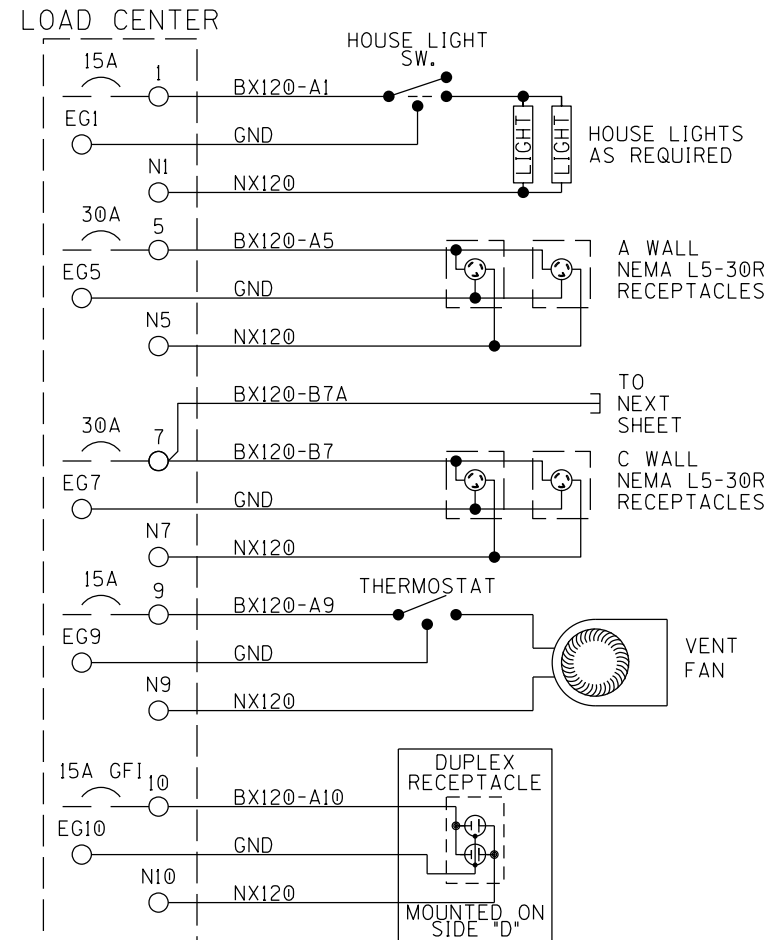
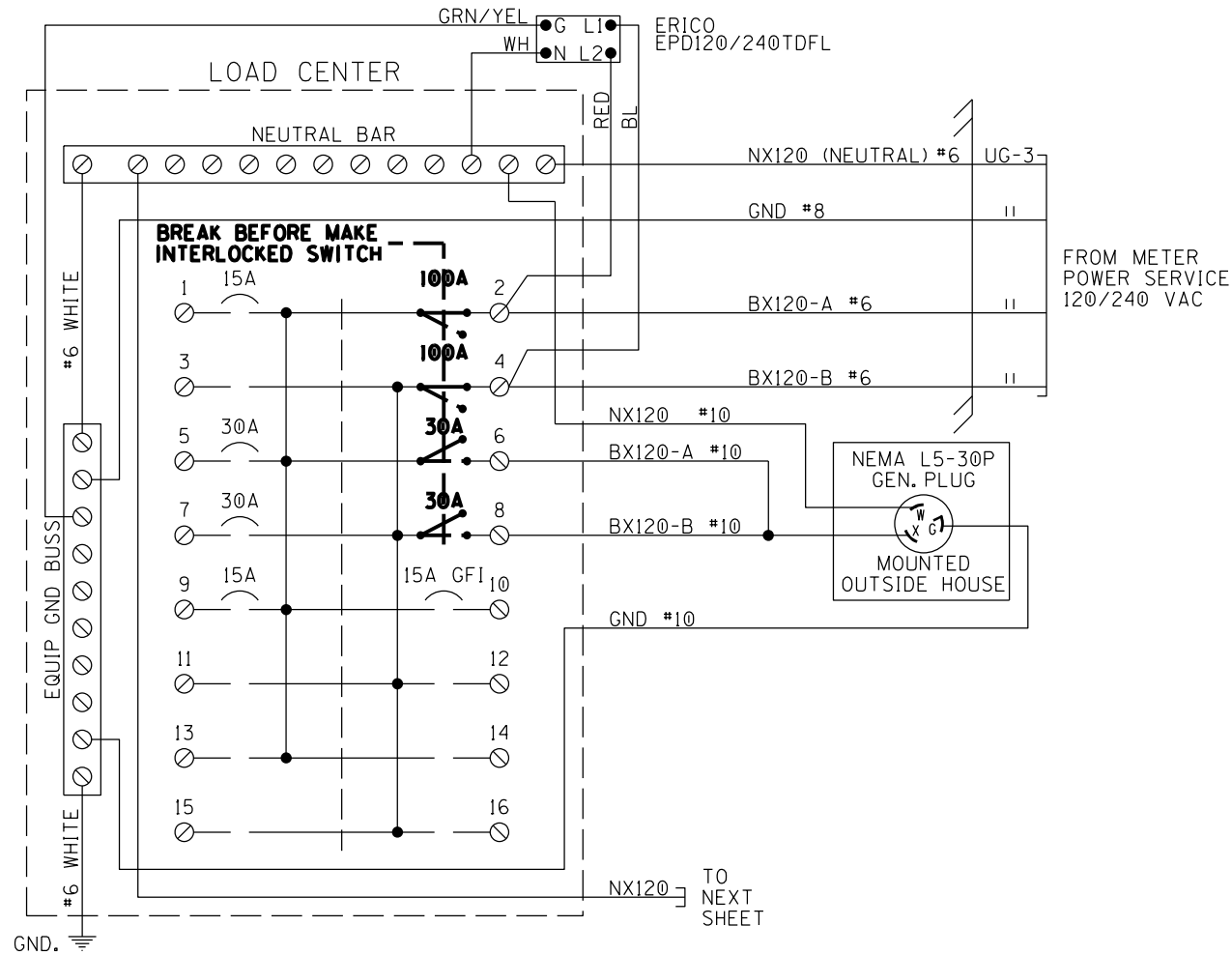


UG-1-5CUG #6 AEC AEZ AEB AB16 AN16	UG-1A-5CUG #14 AGC ABELL GP1 GP2 SPARE 1	UG-3-3CUG #6 W/#8 GND BX120-A BX120-B NX120 GND	UG-4-TW. PR. #6 RCV-1 RCV-2
UG-2-5CUG #6 BEC BEZ BEB BB16 BN16	UG-2A-5CUG #14 BGC SPARE 3 GP3 SPARE 1 SPARE 2		UG-5-TW. PR. #6 XMT-1 XMT-2

ESTIMATING AND MATERIALS
TRACK LAYOUT

RJ CORMAN RAILROAD		
DESIGNED BY: DEW	STAEGER RD CELINA, OH	DATE: 04/20/17
DIGITIZED BY: RJC	ST. MARYS SUBDIVISION	FILE: ST11740.03
CHECKED BY: RJJ		SHEET 03





SQUARE "D" PART NUMBERS:

- LOAD CENTER — Q0116L125G
- 10A 1P CIR BKR — Q0110
- 10A 2P CIR BKR — Q0210
- 15A 1P GFI CIR BKR — Q0115GFI
- 15A 1P CIR BKR — Q0115
- 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 — PK4DTM4LA

NOTE: ALL AC WIRING IS TO BE IN METALLIC CONDUIT WITH NO EXPOSED TERMINALS. ALL AC 120V AND 240V EQUIPMENT IS TO BE PROPERLY GROUNDED.

ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.

ESTIMATING AND MATERIALS

LOAD CENTER WIRING (240V)

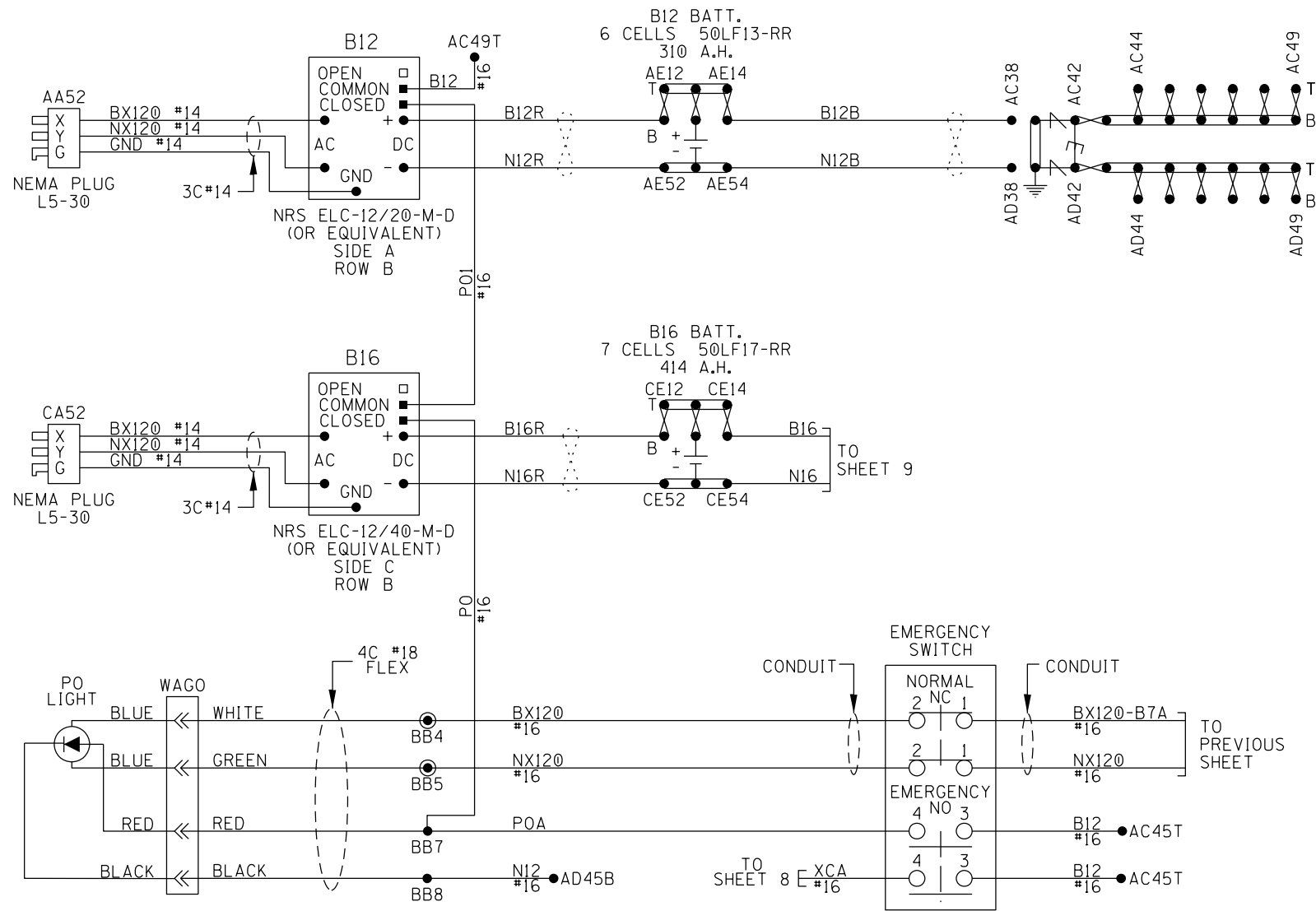
RJ CORMAN RAILROAD



DESIGNED BY: DEW
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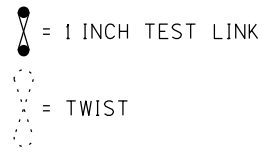
STAEGER RD
CELINA, OH
ST. MARYS SUBDIVISION

DATE: 04/20/17
FILE: ST11740.04A
SHEET 04A



NOTES:

1. ALL WIRING TO BE #6AWG UNLESS NOTED OTHERWISE.
2. DO NOT INSTALL 240VAC CHARGERS.



ESTIMATING AND MATERIALS

DC POWER

RJ CORMAN RAILROAD		
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DIGITIZED BY: RJC	CELINA, OH	FILE: ST11740.05
CHECKED BY: RJJ	ST. MARYS SUBDIVISION	SHEET 05



MAIN PROGRAM MENU

**	PARAMETER	VALUE
1	TEMPLATE	↓ MTF-MS MOTION SENSOR
1A	SET TEMPLATE DEFAULTS	(YES ON INITIAL SETUP)
MS 4000 CONFIGURATION		
2	APPR FREQUENCY	↓ 645 HZ
3	APPR TRANSMIT LEVEL	# ☆ MED
4	UNI/BI/SEM-BIDIRNL	↓ BIDIRNL
5	DIRECTIONALLY WIRED	↓ ☆ NO
6	MS PICKUP DELAY	↓ ☆ 15 SEC
7	UAX USED	↓ NO
7A	* PRIME UAX PICKUP	↓ ☆
8	ISLAND USED	↓ ☆ INTERNAL
8A	* ISL FREQUENCY	↓ 10.0 KHZ
8B	* ISL PICKUP DELAY	↓ (2s+) 3 SECONDS
9	IN 1.1	↓ OUT OF SERVICE IP 1
10	IN 1.2	↓ NOT USED
11	PRIME MS/GCP MODE	↓ PRED
11A	* PRIME WARNING TIME	↓ 30 SEC
ADVANCED		
12	POSITIVE START	↓ ☆ OFF
13	SUDDEN SHUNT DET USED	↓ ☆ NO
14	LOW EZ DET USED	↓ ☆ NO
15	MS SENSITIVITY LEVEL	# ☆ 36
16	COMPENSATION LEVEL	# ☆ 1300
17	LOW EX ADJUSTMENT	# ☆ 39
18	INBOUND PS SENSITIVITY	# ☆ HIGH
19	SPEED LIMITING USED	# ☆ YES
20	OUTBOUND FALSE ACT LVL	# ☆ NORMAL
OTHER		
21	OOS TIMEOUT	# ☆ 1 HRS
22	DAYLIGHT SAVINGS TIME	# ☆ ON
23	EZ/EX LOGGING	# ☆ CHANGE
24	EZ/EX POINT CHANGE	# ☆ 3
25	ATCS SITE ID	↓ ☆ 76201010016

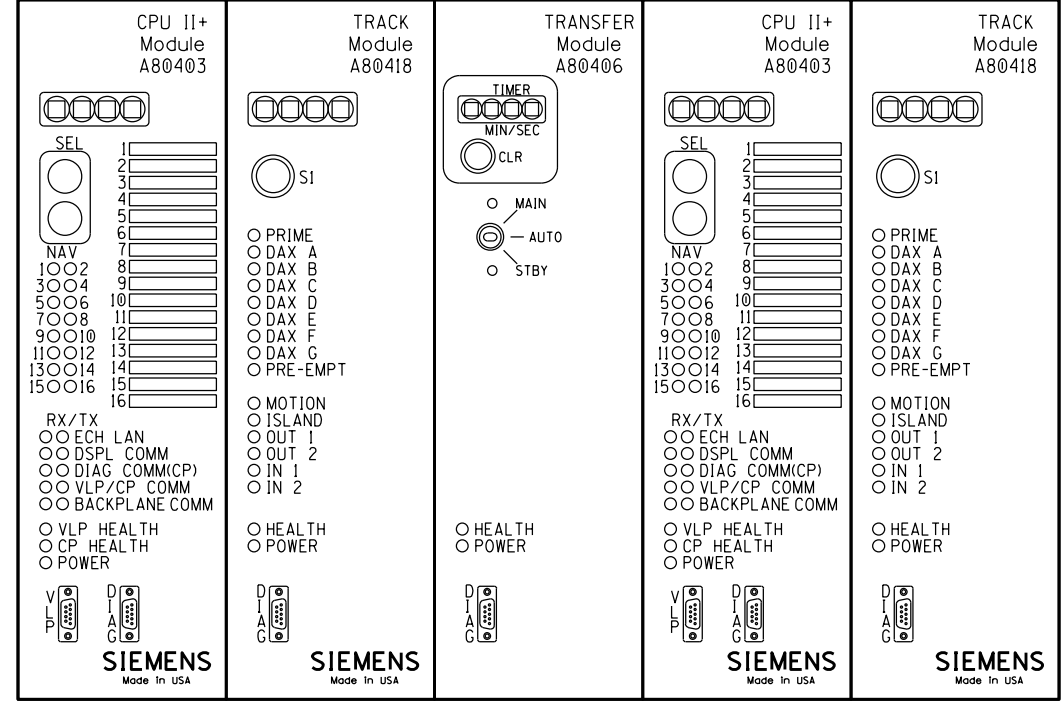
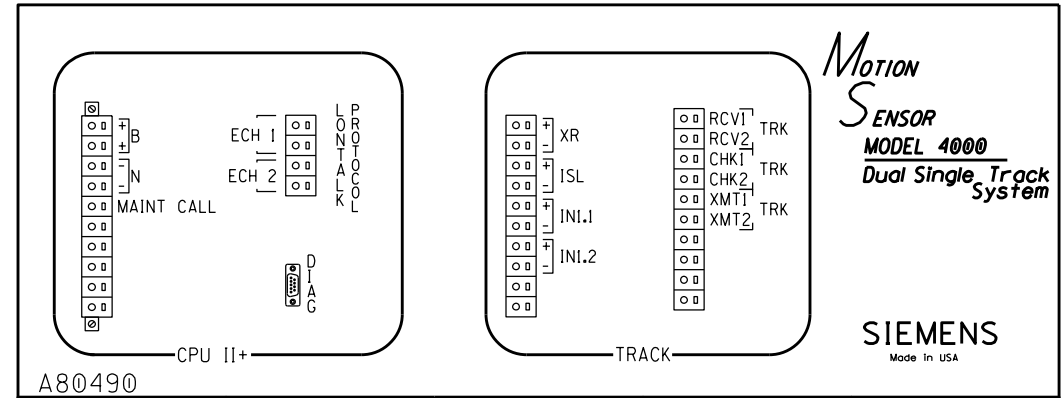
CONTINUE MAIN PROGRAM MENU

**	PARAMETER	VALUE
26	LOCATION	
26A	* DOT NUMBER	# 477 009F
26B	* MILE POST	# 117.40
26C	* SITE NAME	# STAEGE RD

MCF AND OCCN	
MCF NAME	GCP-T6X-02-8.mcf
OCCN	- - - - -

**SHOP TO FILL IN OCCN ON AS WIRED.
 VERIFY MCF IS AS NOTED,
 IF OTHERWISE CONTACT ENGINEERING.**

- NOTES:
- * AVAILABLE WHEN PRIOR PARAMETER SELECTED
 - # SET BY FIELD AS REQUIRED
 - ☆ DEFAULT SETTING
 - ↓ IMPACTS OCCN
 - ** STEP SEQUENCE WHEN USING DIAGNOSTIC TERMINAL (DT) VER. 5.7.3 TO SET PROGRAM PARAMETERS. ALPHA NUMERIC STEPS ARE SUB MENUS OF PREVIOUS STEP.



ESTIMATING AND MATERIALS

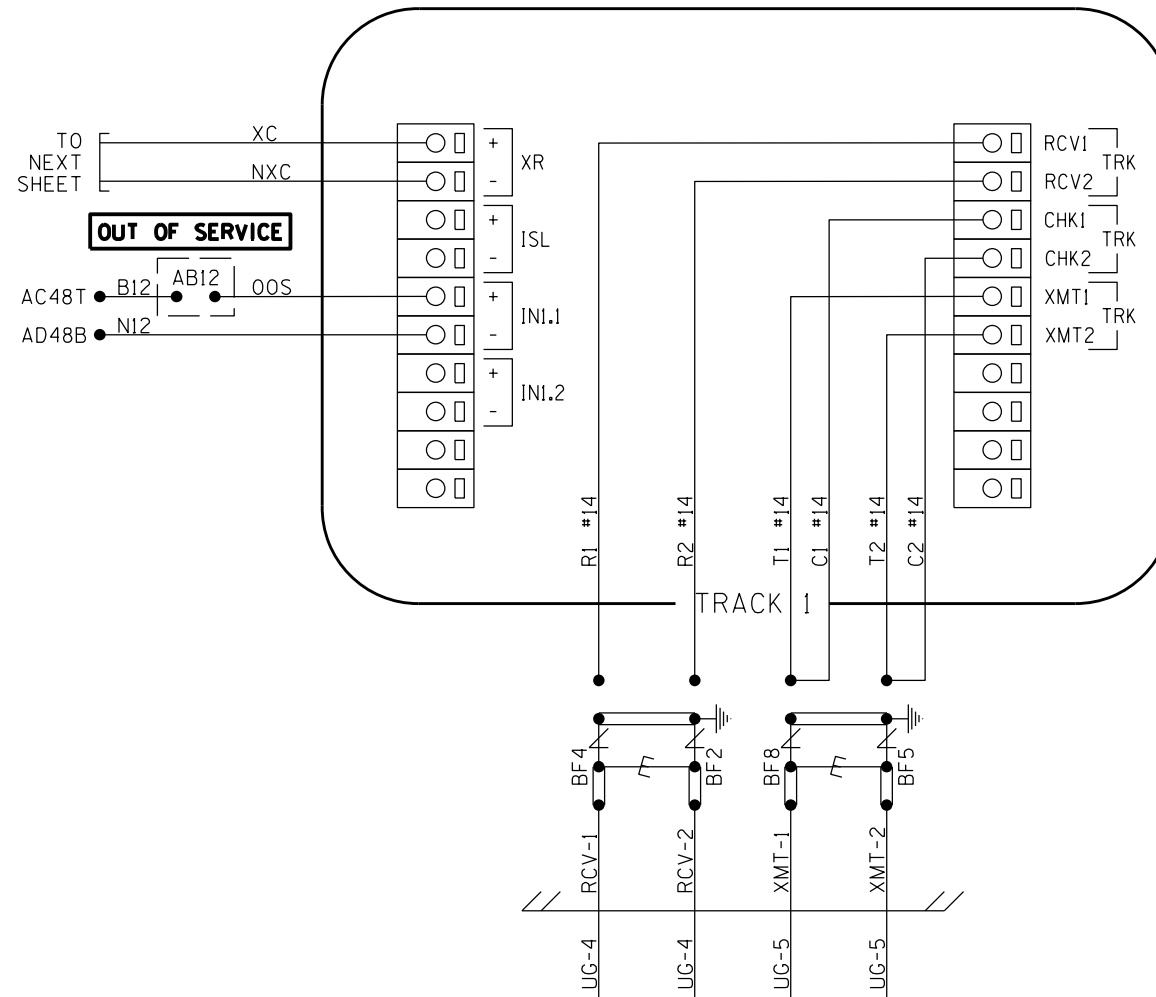
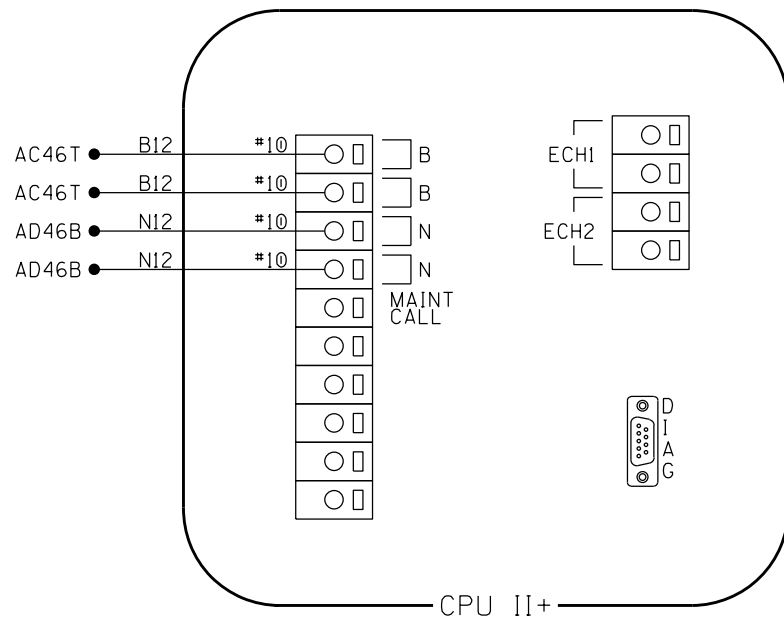
MS 4000 GCP

RJ CORMAN RAILROAD



DESIGNED BY: DEW	STAEGE RD	DATE: 04/20/17
DIGITIZED BY: RJC	CELINA, OH	FILE: ST11740.06
CHECKED BY: RJJ	ST. MARYS SUBDIVISION	SHEET 06

SIDE A
ROW B



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

ESTIMATING AND MATERIALS

CONNECTORS FOR TRACK MODULE

RJ CORMAN RAILROAD



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STAEGER RD
CELINA, OH
ST. MARYS SUBDIVISION

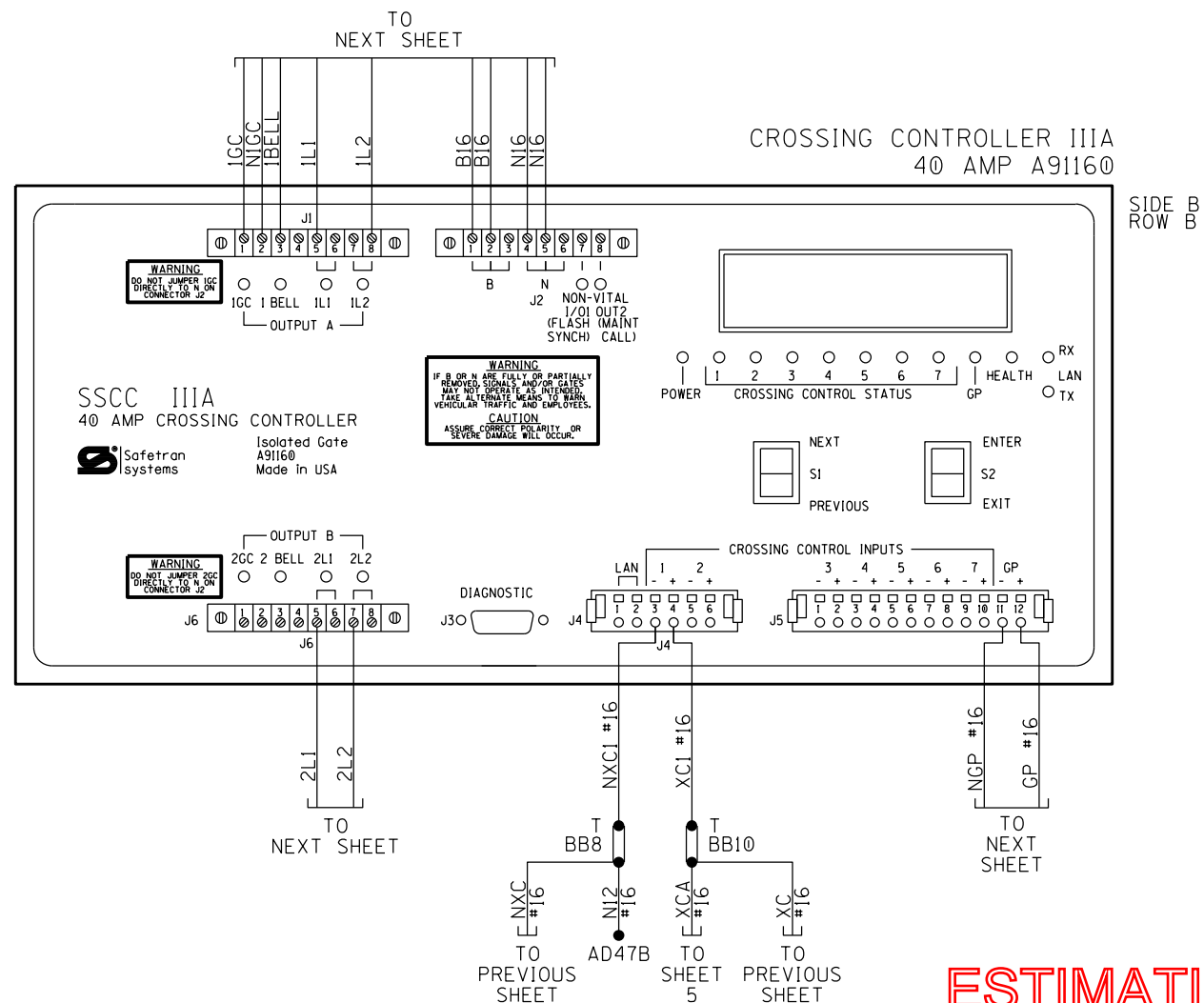
DATE: 04/20/17
FILE: ST11740.07
SHEET 07

PROGRAM	
FLASHER RATE	50
1 GC DELAY	4 SEC.
2 GC DELAY	SEC.
BELL-ON GATE RISING	NO
ENABLE INPUTS	1 THRU 1
ENABLE OUTPUTS	A AND B
LOW BATT	DISABLED
SET TO DEFAULT	SKIP
TIME	
DATE	
DAYLIGHT SAVINGS	ON
PASSWORD	DISABLED

SETUP LAMP VOLTAGE #
SETUP OUTPUT 1L1 XX.X VOLTS
SETUP OUTPUT 1L2 XX.X VOLTS
SETUP OUTPUT 2L1 XX.X VOLTS
SETUP OUTPUT 2L2 XX.X VOLTS

CONSTRUCTION TO MARK VOLTAGE SETTINGS FOR AS BUILT REVISION.

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



ESTIMATING AND MATERIALS
CROSSING CONTROLLER HOOK-UP

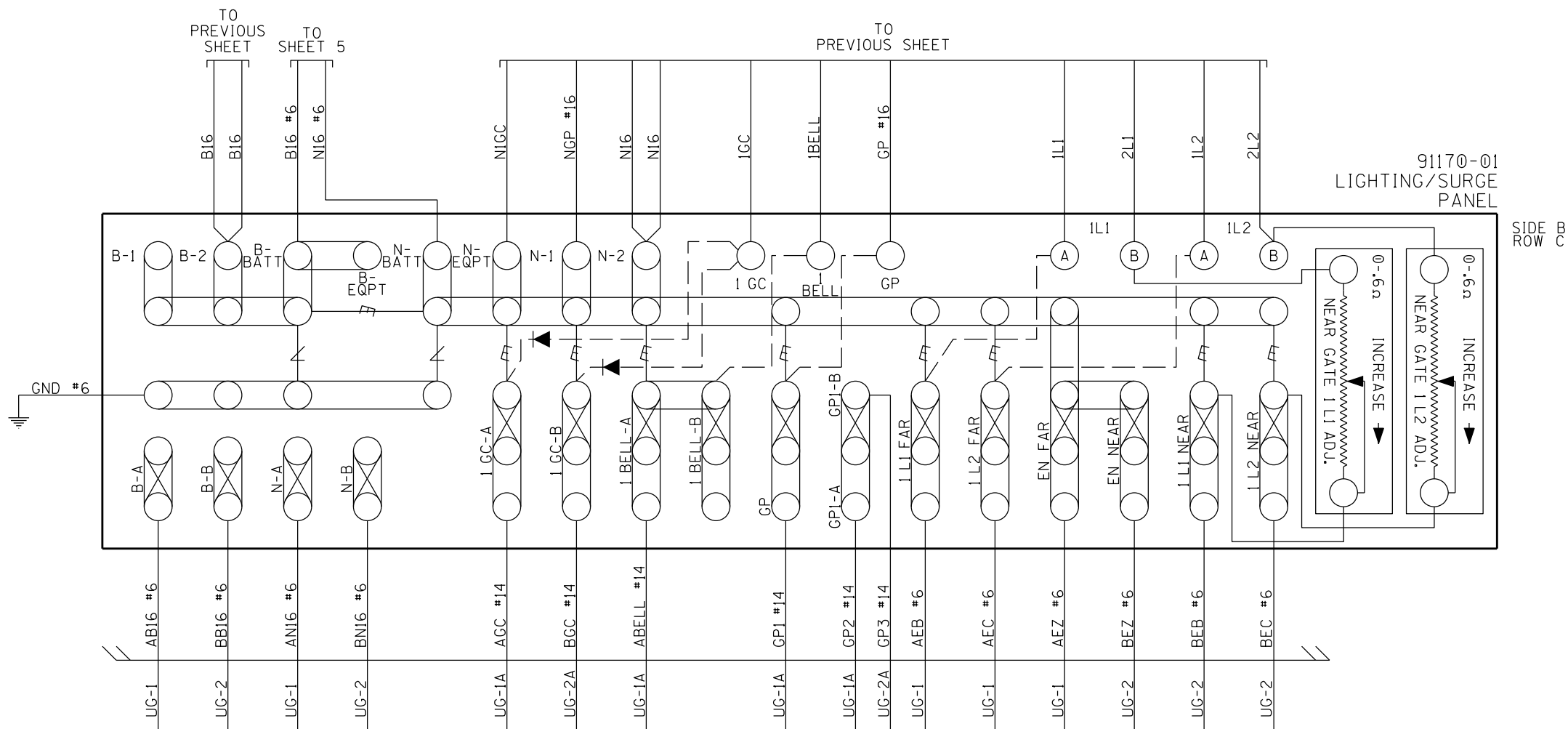
RJ CORMAN RAILROAD



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STAEGER RD
CELINA, OH
ST. MARYS SUBDIVISION

DATE: 04/20/17
FILE: ST11740.08
SHEET 08



ESTIMATING AND MATERIALS
 LIGHTING/SURGE PANEL HOOK-UP

RJ CORMAN RAILROAD

NOTE:

- E— = HEAVY DUTY EQUALIZER 022700-1X
- ∠ = HEAVY DUTY CLEARVIEW ARRESTER 022585-1X
- 1. ALL WIRING TO BE #10AWG UNLESS NOTED OTHERWISE.



DESIGNED BY: DEW
 DIGITIZED BY: RJC
 CHECKED BY: RJJ

STAEGER RD
 CELINA, OH
 ST. MARYS SUBDIVISION

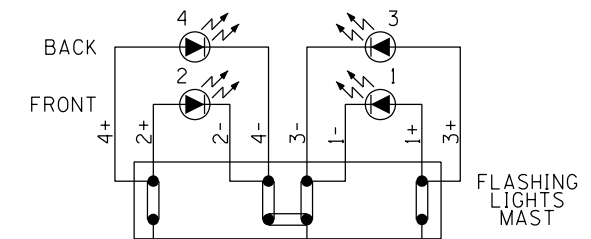
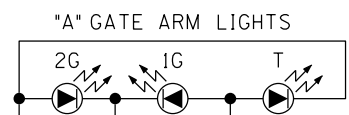
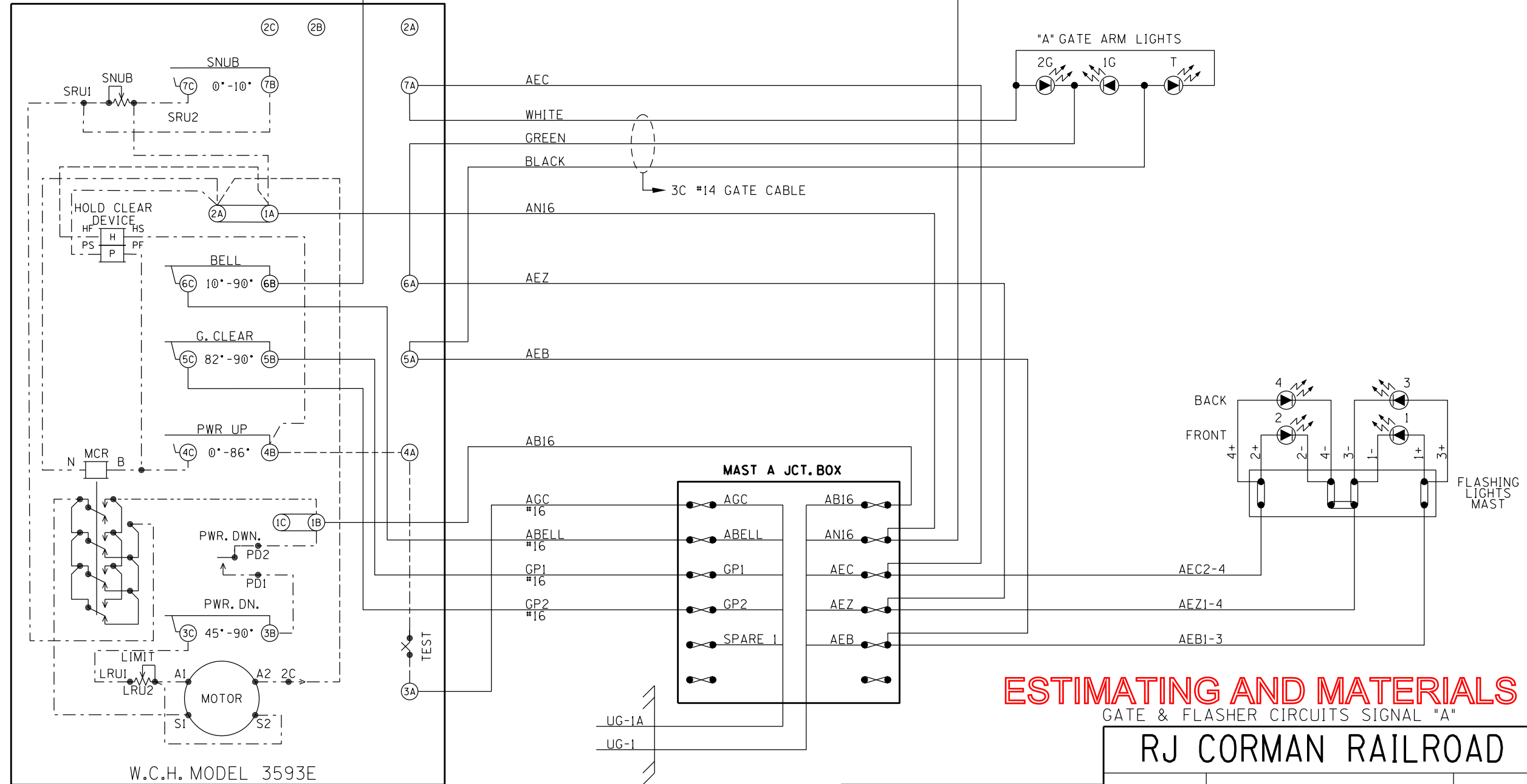
DATE: 04/20/17
 FILE: ST11740.09
 SHEET 09

A BELL

ABELL #16 + - NABELL #16

NOTES:
 1. GATE MECH. SHOWN IN CLEAR POSITION
 2. ALL WIRING TO BE #10AWG UNLESS OTHERWISE NOTED.
 3. [] = INTERNAL GATE WIRING

GATE A



W.C.H. MODEL 3593E

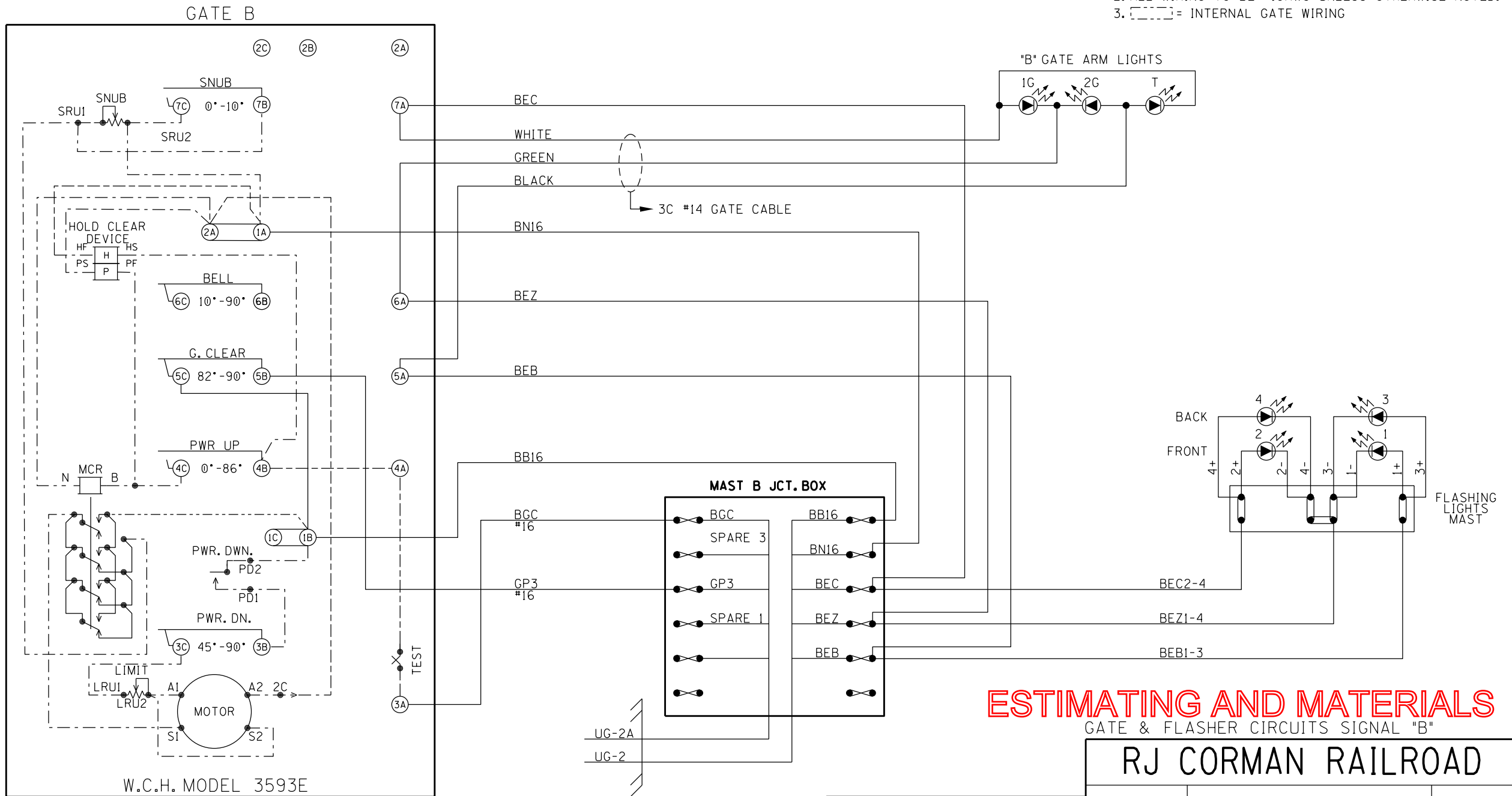
ESTIMATING AND MATERIALS
 GATE & FLASHER CIRCUITS SIGNAL "A"

RJ CORMAN RAILROAD



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DIGITIZED BY: RJC	CELINA, OH	FILE: ST11740.10
CHECKED BY: RJJ	ST. MARYS SUBDIVISION	SHEET 10

- NOTES:
 1. GATE MECH. SHOWN IN CLEAR POSITION
 2. ALL WIRING TO BE #10AWG UNLESS OTHERWISE NOTED.
 3. [---] = INTERNAL GATE WIRING

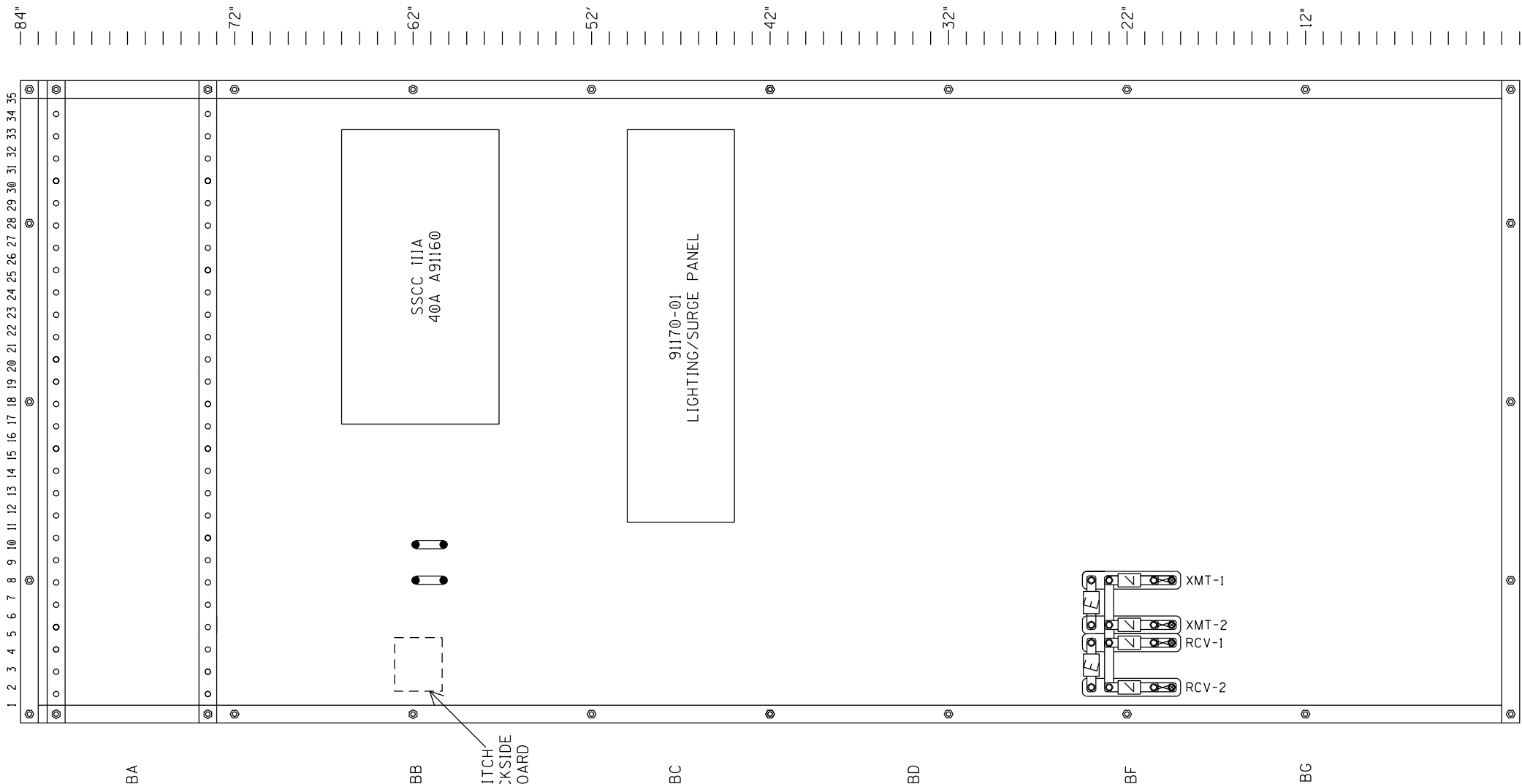


ESTIMATING AND MATERIALS
 GATE & FLASHER CIRCUITS SIGNAL "B"

RJ CORMAN RAILROAD



DESIGNED BY: DEW	STAEGER RD	DATE: 04/20/17
DIGITIZED BY: RJC	CELINA, OH	FILE: ST11740.11
CHECKED BY: RJJ	ST. MARYS SUBDIVISION	SHEET 11



NOTE: INSTALL TEST LINKS ON ALL TRACK WIRES AND ON ALL LOW VOLTAGE UNDERGROUND CABLE TERMINATIONS.

⚡ = Heavy Duty Equalizer (022700-1X)
 Clearview
 ⚡ = Lightning Arrester (022585-1X)

ESTIMATING AND MATERIALS

TERMINAL BOARD

RJ CORMAN RAILROAD

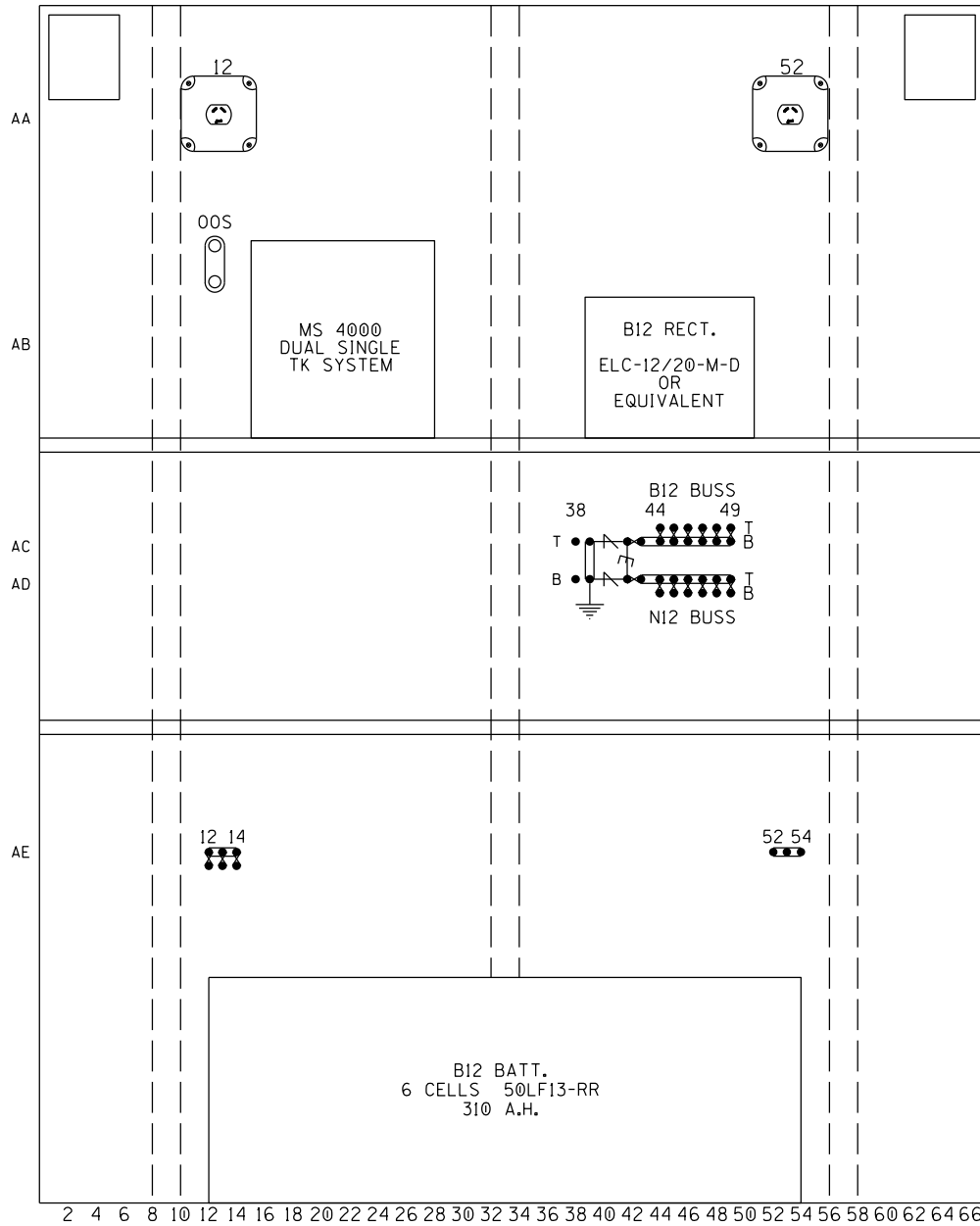


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STAEGER RD
 CELINA, OH
 ST. MARYS SUBDIVISION

DATE: 04/20/17
 FILE: ST11740.12
 SHEET 12

SIDE "A"



NOTE: NEMA RECEPTACLES ARE L5-30.



ESTIMATING AND MATERIALS
6' X 6' HOUSE - SIDE "A"

RJ CORMAN RAILROAD

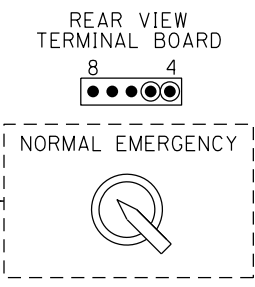
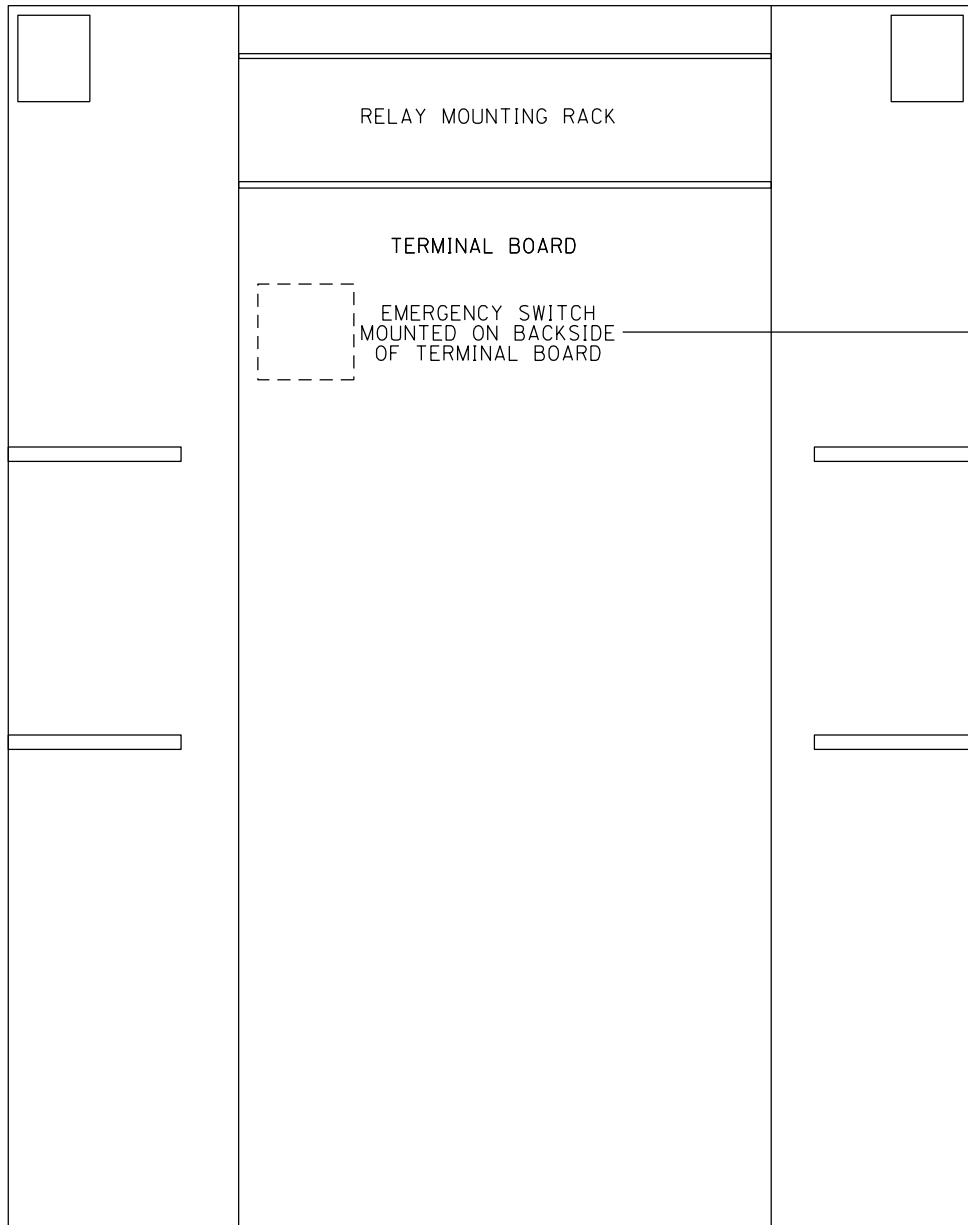


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STAEGER RD
CELINA, OH
ST. MARYS SUBDIVISION

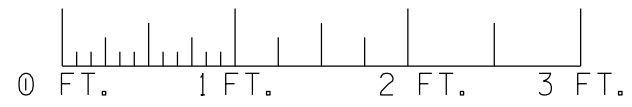
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FILE: ST11740.13
SHEET 13

SIDE "B"



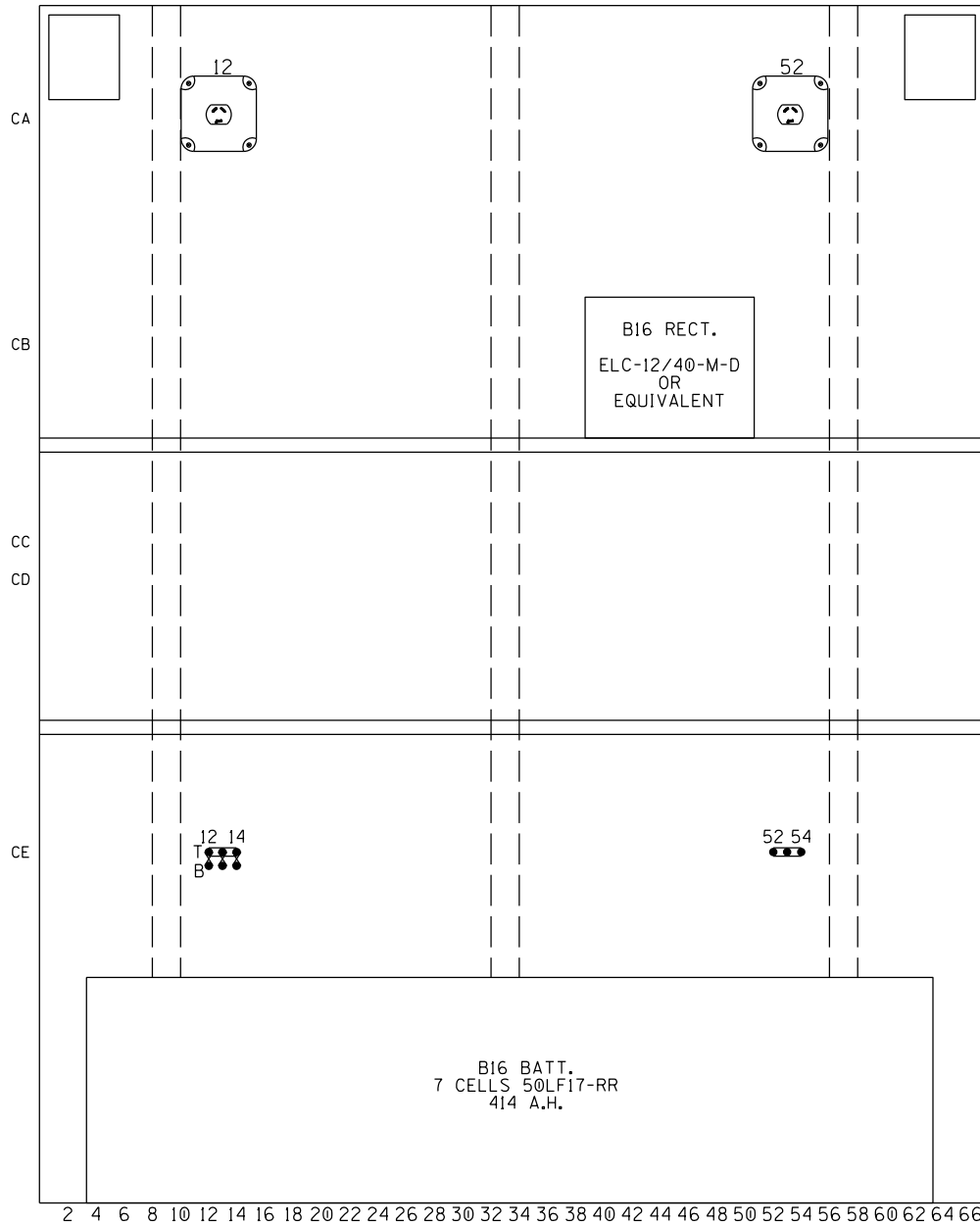
ESTIMATING AND MATERIALS
6' X 6' HOUSE - SIDE "B"

RJ CORMAN RAILROAD



DESIGNED BY: DEW	STAEGER RD	DATE: 04/20/17
DIGITIZED BY: RJC	CELINA, OH	FILE: ST11740.14
CHECKED BY: RJJ	ST. MARYS SUBDIVISION	SHEET 14

SIDE "C"



NOTE: NEMA RECEPTACLES ARE L5-30.



ESTIMATING AND MATERIALS
6' X 6' HOUSE - SIDE "C"

RJ CORMAN RAILROAD

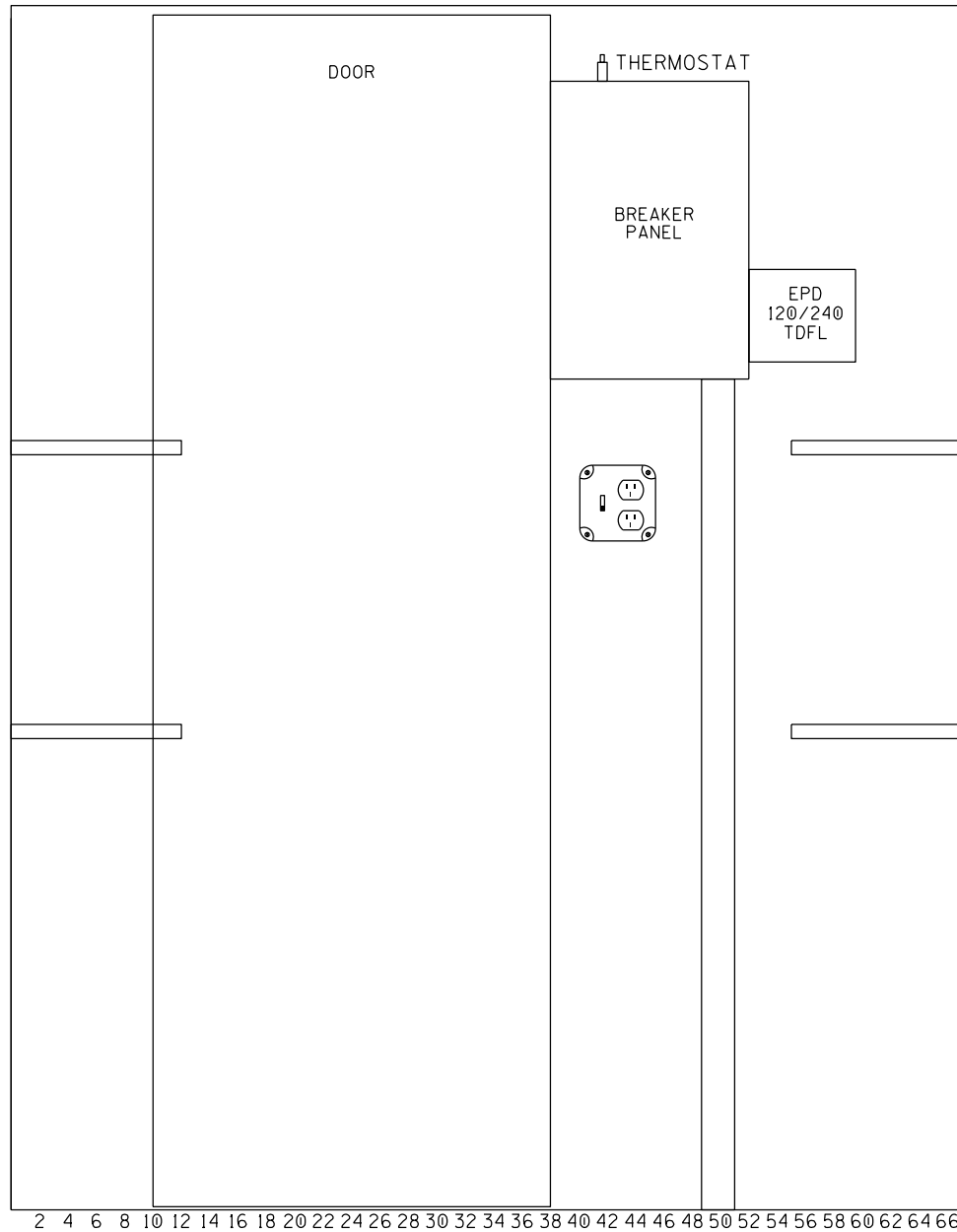


DESIGNED BY: DEW
DIGITIZED BY: RJC
CHECKED BY: RJJ

STAEGER RD
CELINA, OH
ST. MARYS SUBDIVISION

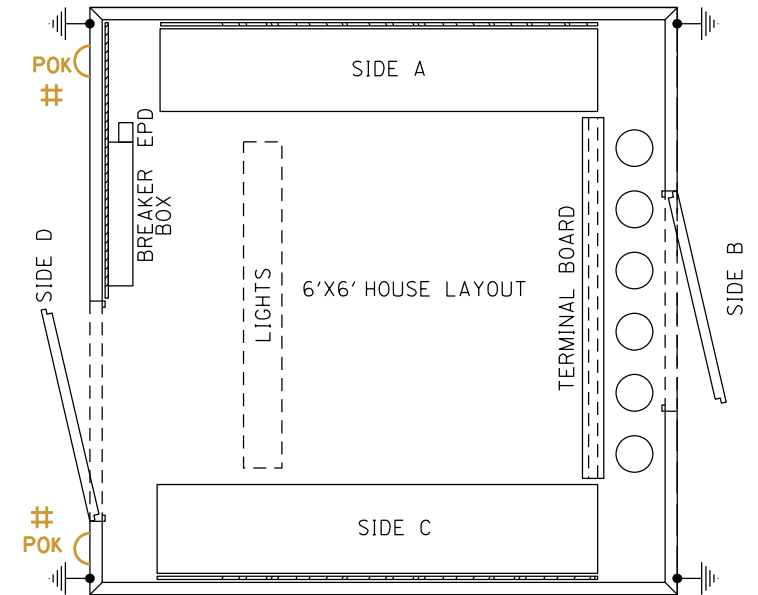
DATE: 04/20/17
FILE: ST11740.15
SHEET 15

SIDE "D"



TOP VIEW*

6'X6' HOUSE
(INSULATED)
NOT TO SCALE



* = SIDE D TO TO FACE TRACKS

= FIELD TO VERIFY PLACEMENT OF POK.
REMOVE LIGHT NOT NEEDED.

ESTIMATING AND MATERIALS

6' X 6' HOUSE - SIDE "D" & TOP VIEW

RJ CORMAN RAILROAD



DESIGNED BY: DEW
DIGITIZED BY: RJC
CHECKED BY: RJJ

STAEGER RD
CELINA, OH
ST. MARYS SUBDIVISION

DATE: 04/20/17
FILE: ST11740.16
SHEET 16