

SOUTH

NORTH

START 880'  
30 SECS. @ 10 MPH  
(INCLUDES 30 SEC. FOR PRE-EMPTION)

START 880'  
30 SECS. @ 10 MPH  
(INCLUDES 30 SEC. FOR PRE-EMPTION)

ROUTE 26  
(E. COLLEGE AVENUE)

**CERTIFIED CORRECT PLANS**  
*Andrew B. [Signature]*  
 Professional Engineer  
 Approved by Bureau of Technical Utility Services  
**PA PUBLIC UTILITY COMMISSION**  
 ATTEST *Rosemary [Signature]*  
 Secretary

RAILROAD RIGHT OF WAY

RAILROAD RIGHT OF WAY

START 220'  
25 SECS. @ 5 MPH

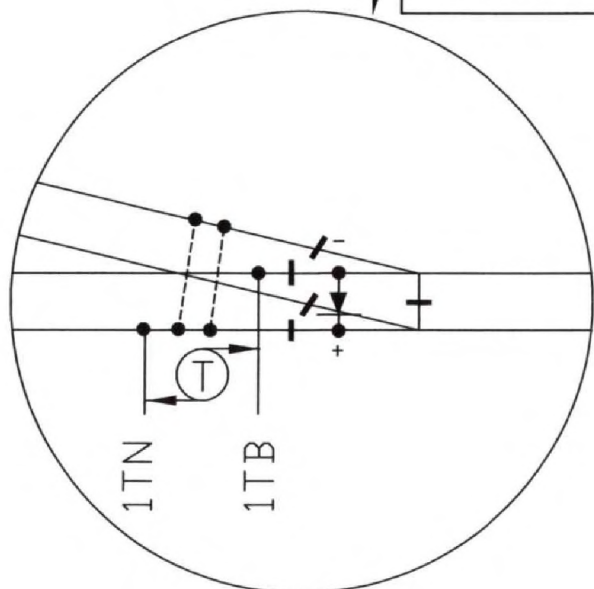
SIG. #2  
W/NO LEFT TURN SIGN

SIG. #3  
W/NO RIGHT TURN SIGN

TRACK RECTIFIER  
EPC RING 10  
(TYP.)  
INSULATED JOINTS  
(TYP.)

**DO NOT DISTURB SOIL!**  
**SOIL CONTAMINATED!**  
**DO NOT DISTURB SOIL!**

POWER SERVICE  
6' X 6' HOUSE



FENCE

6' SIDEWALK

STRUBLE ROAD

CURB

**NOTES:**

1. MATERIAL & INSTALLATION TO BE IN ACCORDANCE WITH MUTCD, STATE AND RAILROAD STANDARDS.
2. ALL DIMENSIONS ARE APPROXIMATE AND MAY VARY DUE TO ACTUAL FIELD CONDITIONS.
3. FLASHLIGHT SIGNALS TO BE LIGHT EMITTING DIODE (LED) ASSEMBLIES.
4. (T) DENOTES TWIST PAIR.

**CABLE RUN TABULATION**

HOUSE TO SIGNAL #1	- 5/C #6 UG CABLE
	- 7/C #14 UG CABLE
HOUSE TO SIGNAL #2	- 5/C #6 UG CABLE
	- 7/C #14 UG CABLE
HOUSE TO SIGNAL #3	- 7/C #6 UG CABLE
HOUSE TO AC SERVICE	- 3/C #9 UG CABLE
HOUSE TO 1TB & 1TN	- 2/C #6 TWISTED PAIR
HOUSE TO 2TB & 2TN	- 2/C #6 TWISTED PAIR
HOUSE TO 3TB & 3TN	- 2/C #6 TWISTED PAIR
HOUSE TO TRAFFIC SIGNAL	- 7/C #14 UG CABLE

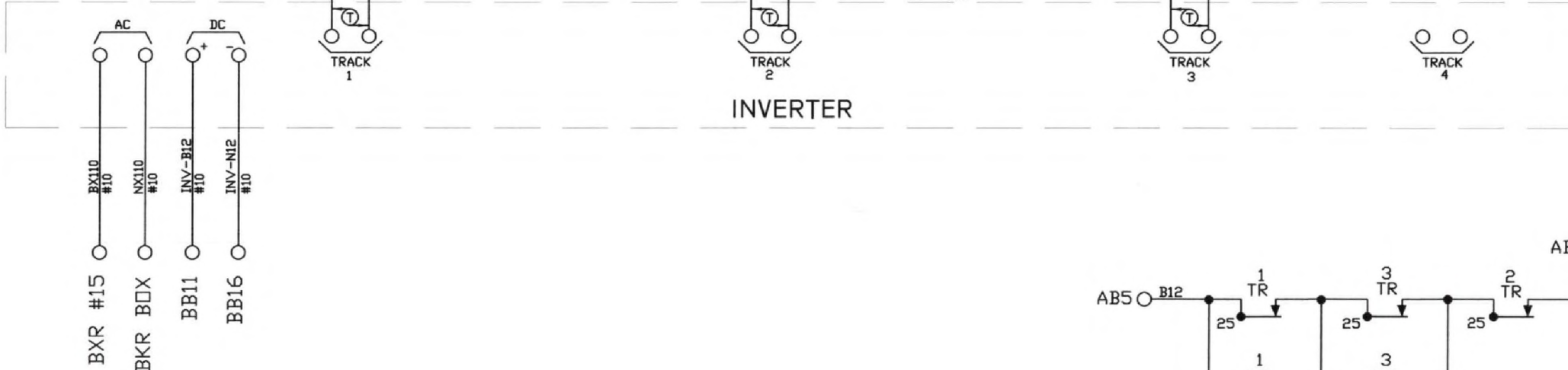
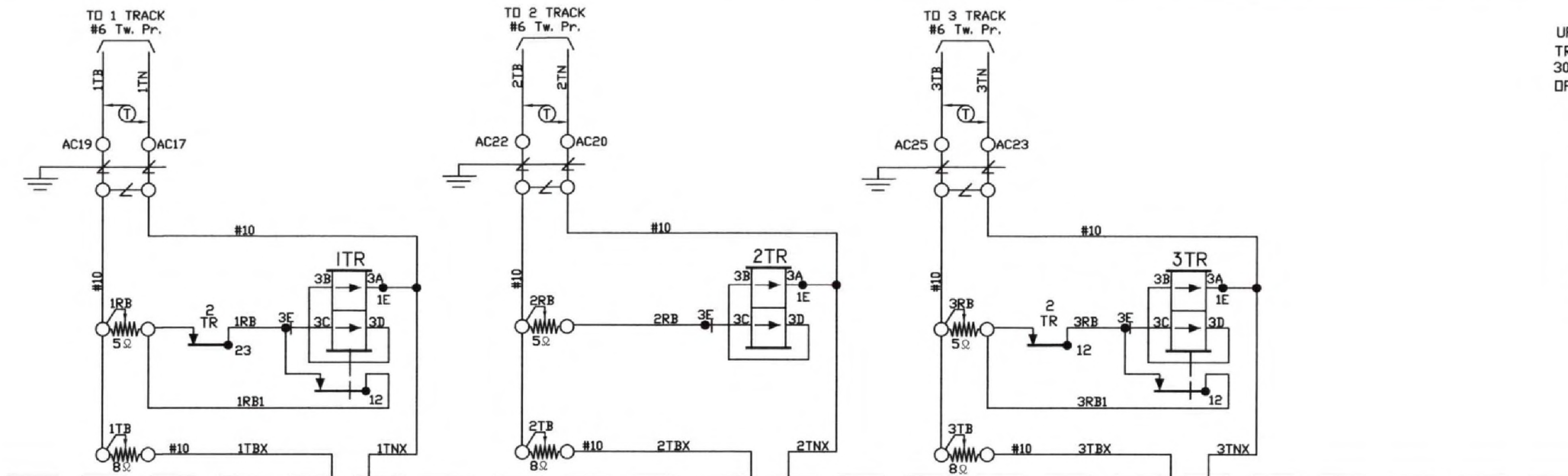
AS WIRED

AS INSTALLED

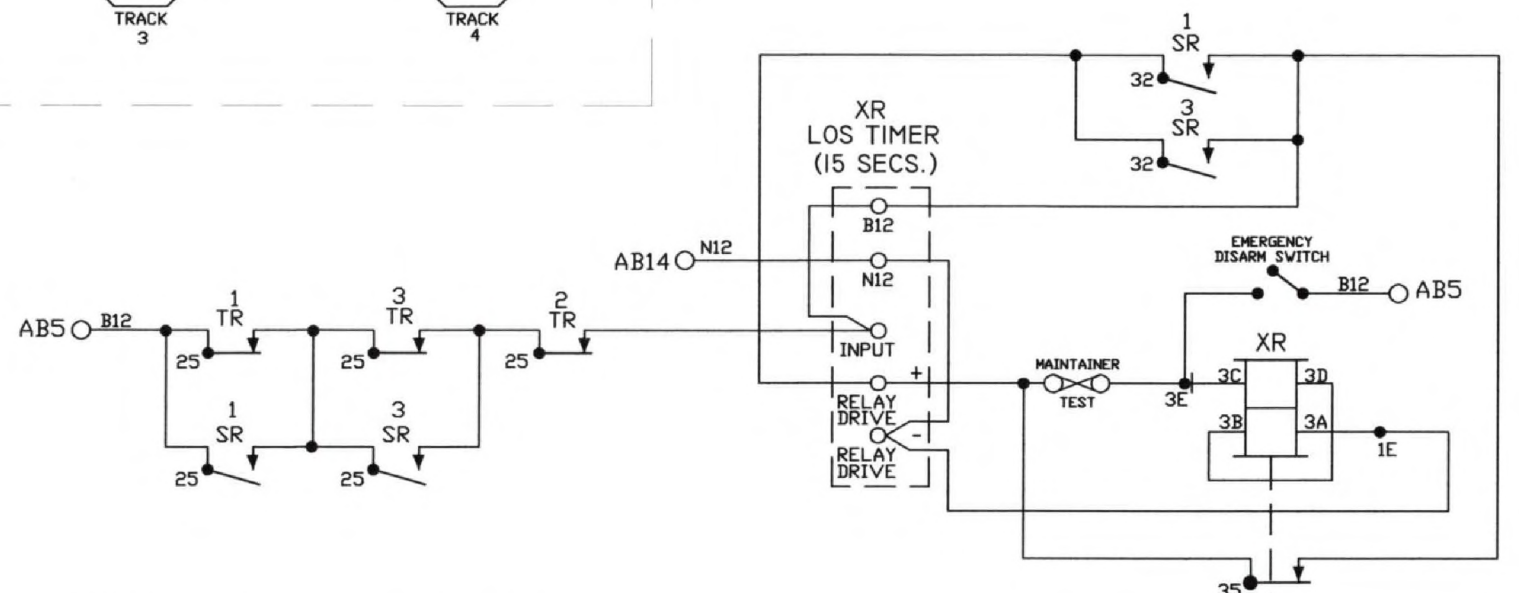
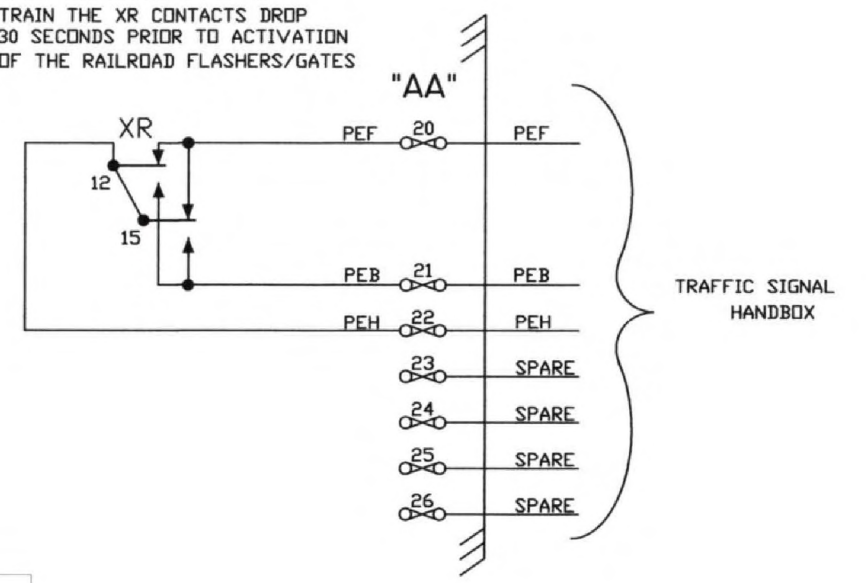
**DIAMONDBACK SIGNAL**

(410) 795-9601  
5965 EXCHANGE DRIVE  
SUITE 'D'  
SYKESVILLE, MD  
21784

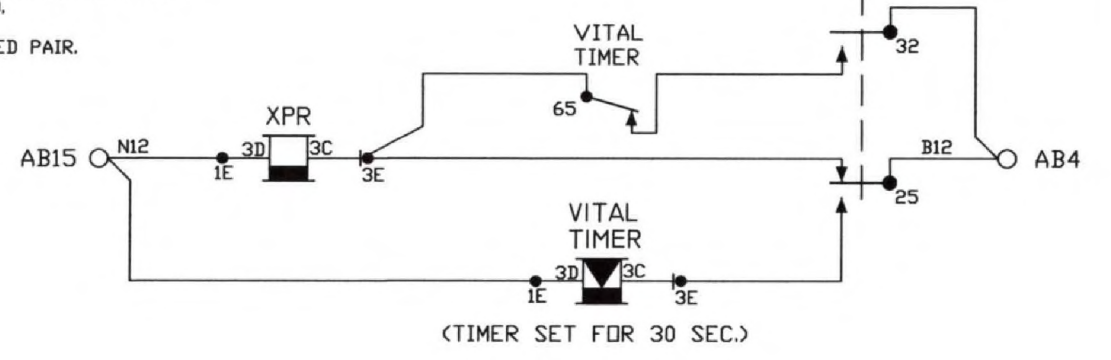
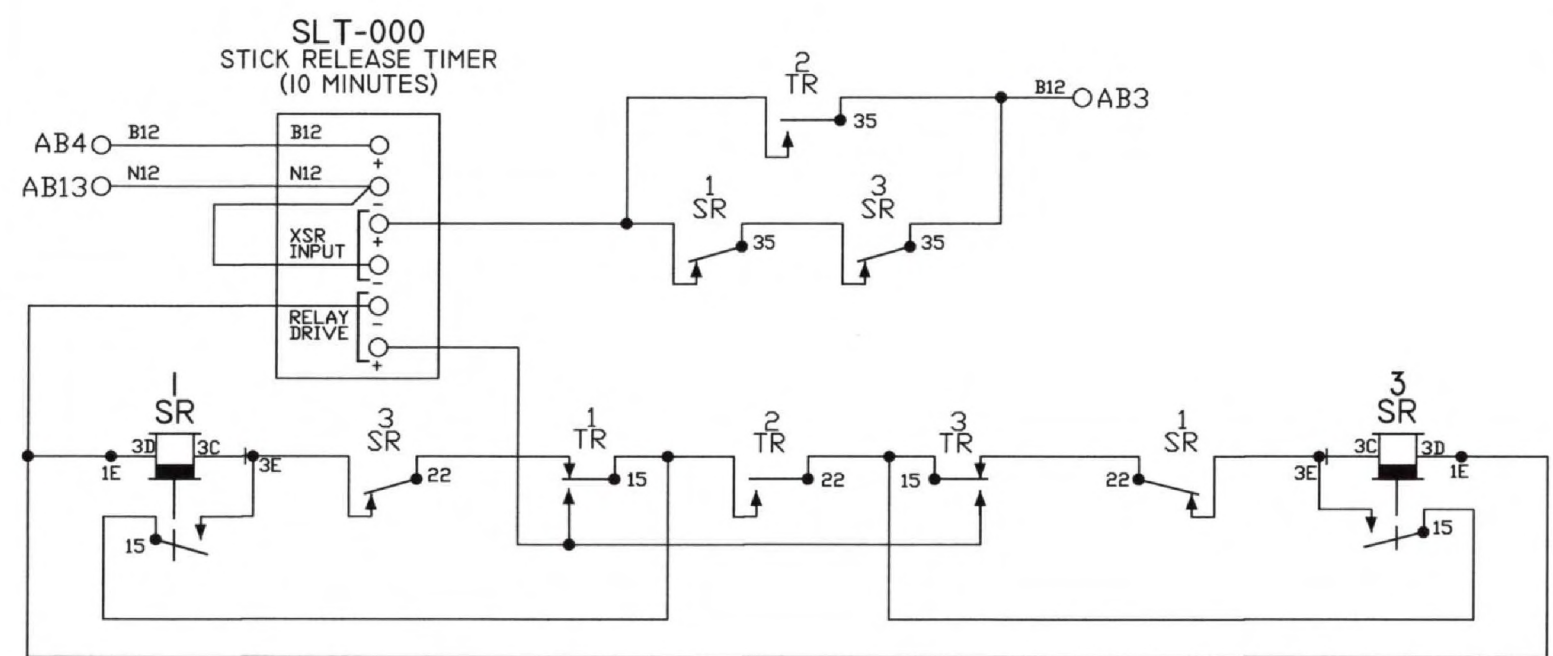
NITTANY & BALD EAGLE RAILROAD RAILROAD CROSSING WARNING DEVICES	
SCALE: NONE	DRAWN BY: KDL
DATE: 07/22/2020	REVISED:
STRUBLE ROAD DOT #506 378J - M.P. 0041.52 LEMONT, CENTRE COUNTY, PA	
TRACK & CABLE PLAN	DRAWING NUMBER 0041.52



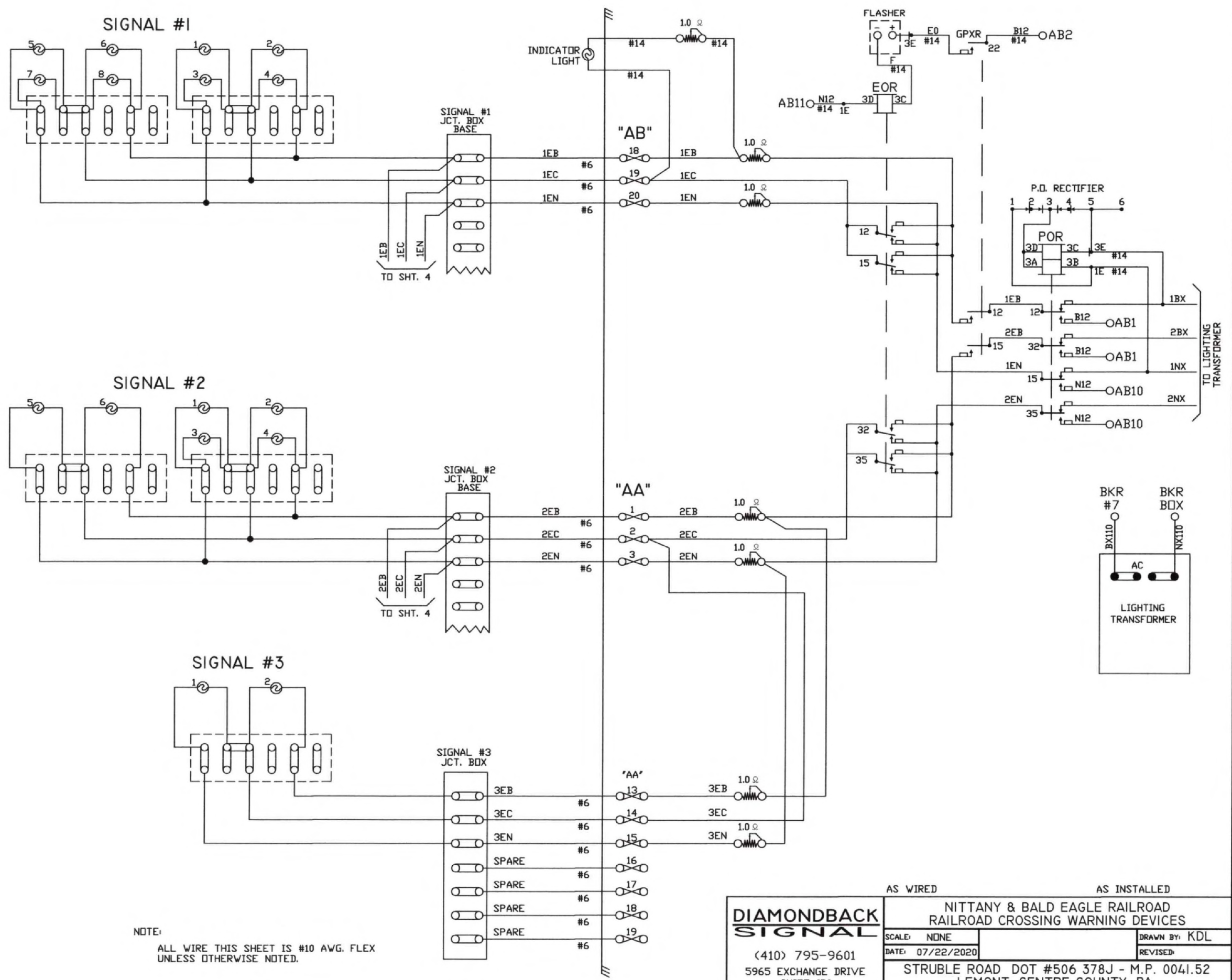
UPON THE APPROACH OF A TRAIN THE XR CONTACTS DROP 30 SECONDS PRIOR TO ACTIVATION OF THE RAILROAD FLASHERS/GATES



- NOTES:
1. ALL WIRE ON THIS SHEET IS #14 AWG FLEX UNLESS OTHERWISE NOTED.
  2. (T) DENOTES TWISTED PAIR.

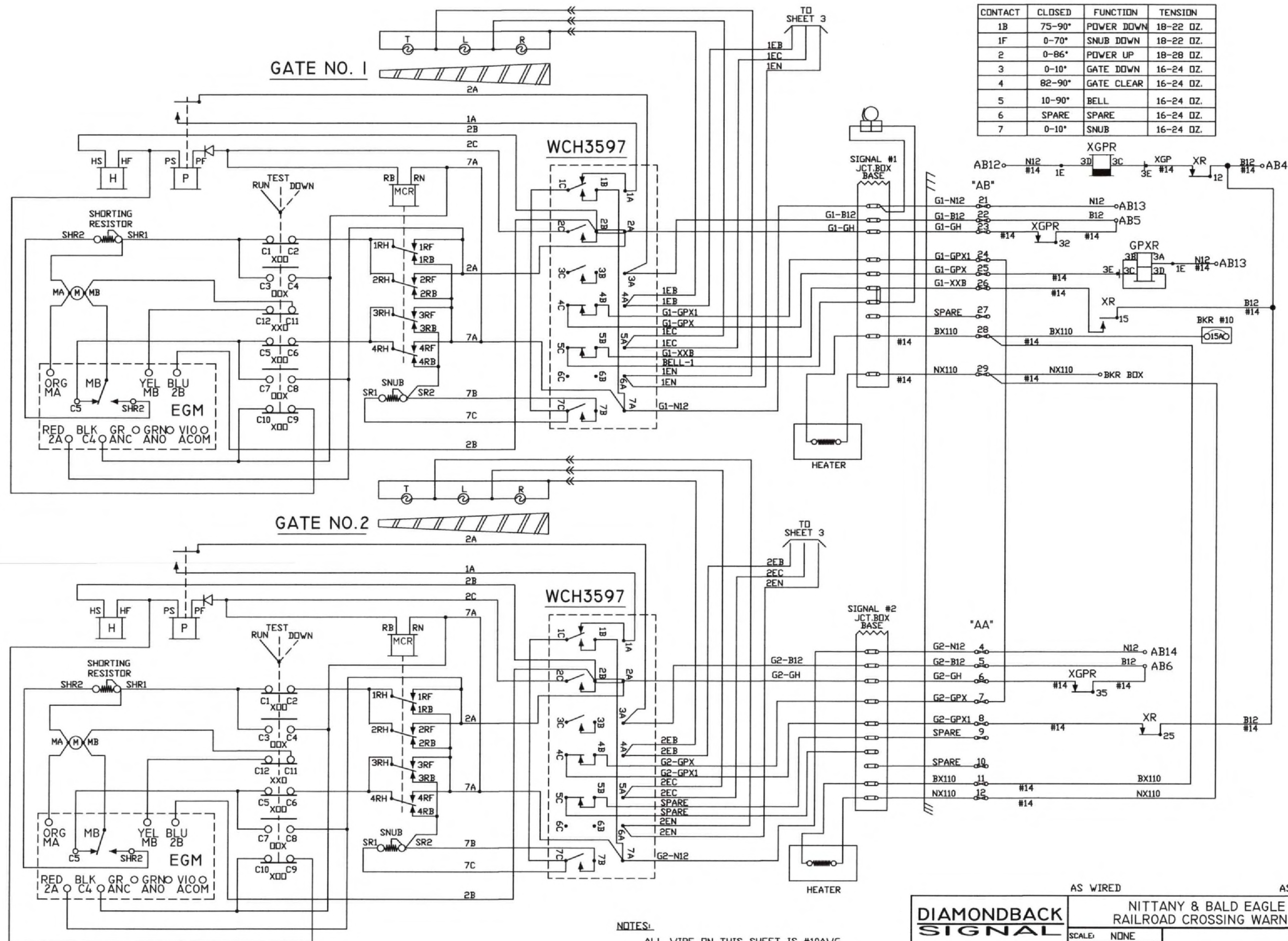


<b>DIAMONDBACK SIGNAL</b> (410) 795-9601 5965 EXCHANGE DRIVE SUITE "D" SYKESVILLE, MD 21784	AS WIRED	AS INSTALLED	
	NITTANY & BALD EAGLE RAILROAD RAILROAD CROSSING WARNING DEVICES		
	SCALE: NONE DATE: 07/22/2020	DRAWN BY: KDL REVISED:	
	STRUBLE ROAD DOT #506 378J - M.P. 0041.52 LEMONT, CENTRE COUNTY, PA		DRAWING NUMBER 0041.52
SHEET 2 OF 6			



NOTE:  
ALL WIRE THIS SHEET IS #10 AWG. FLEX  
UNLESS OTHERWISE NOTED.

<b>DIAMONDBACK SIGNAL</b> (410) 795-9601 5965 EXCHANGE DRIVE SUITE "D" SYKESVILLE, MD 21784	AS WIRED	AS INSTALLED	
	NITTANY & BALD EAGLE RAILROAD RAILROAD CROSSING WARNING DEVICES		
	SCALE: NONE	DATE: 07/22/2020	DRAWN BY: KDL
	STRUBLE ROAD DOT #506 378J - M.P. 0041.52 LEMONT, CENTRE COUNTY, PA		REVISED:
CIRCUIT PLAN "B"		DRAWING NUMBER 0041.52	



CONTACT	CLOSED	FUNCTION	TENSION
1B	75-90°	POWER DOWN	18-22 OZ.
1F	0-70°	SNUB DOWN	18-22 OZ.
2	0-86°	POWER UP	18-28 OZ.
3	0-10°	GATE DOWN	16-24 OZ.
4	82-90°	GATE CLEAR	16-24 OZ.
5	10-90°	BELL	16-24 OZ.
6	SPARE	SPARE	16-24 OZ.
7	0-10°	SNUB	16-24 OZ.

GATE NO. 1

GATE NO. 2

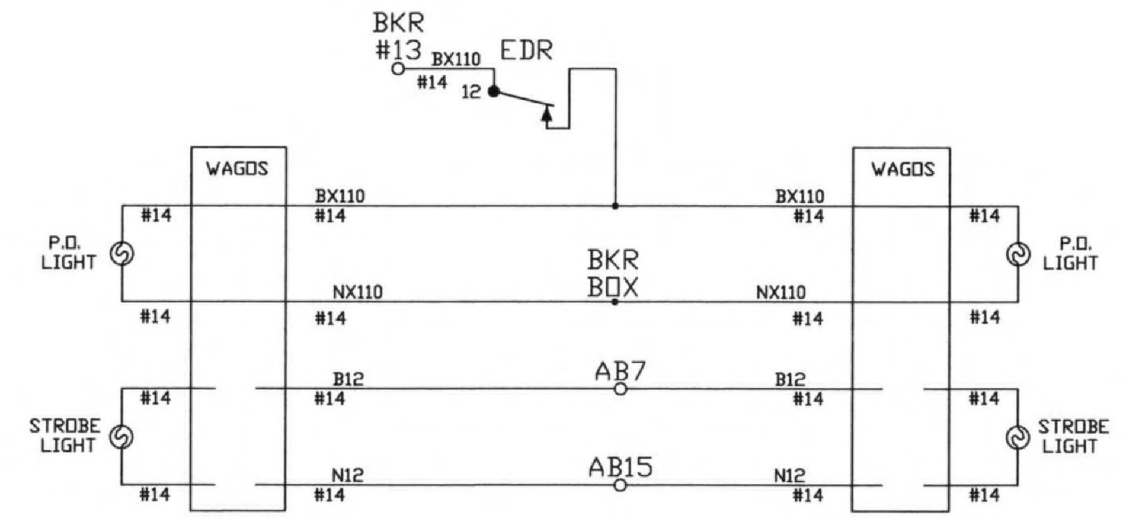
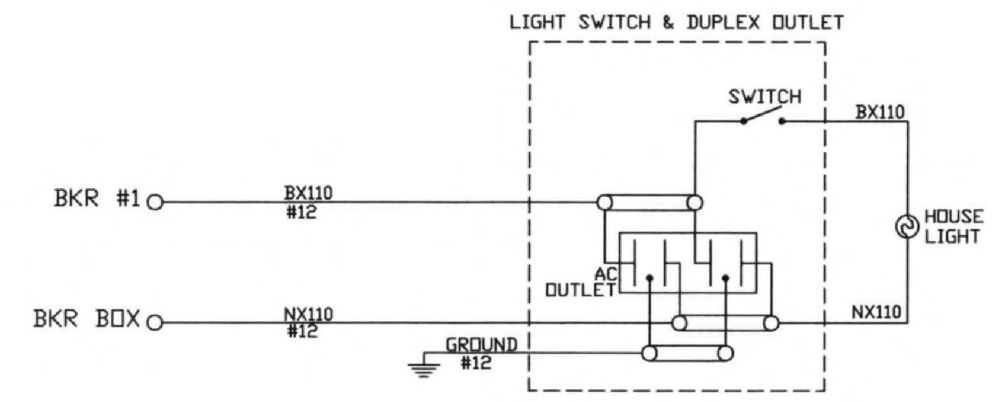
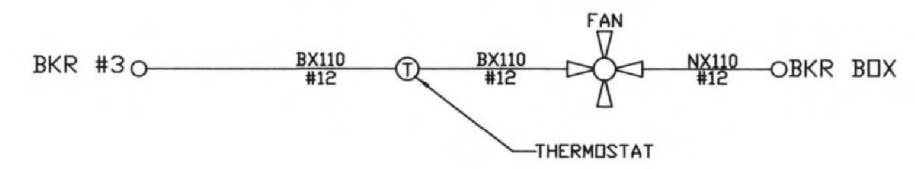
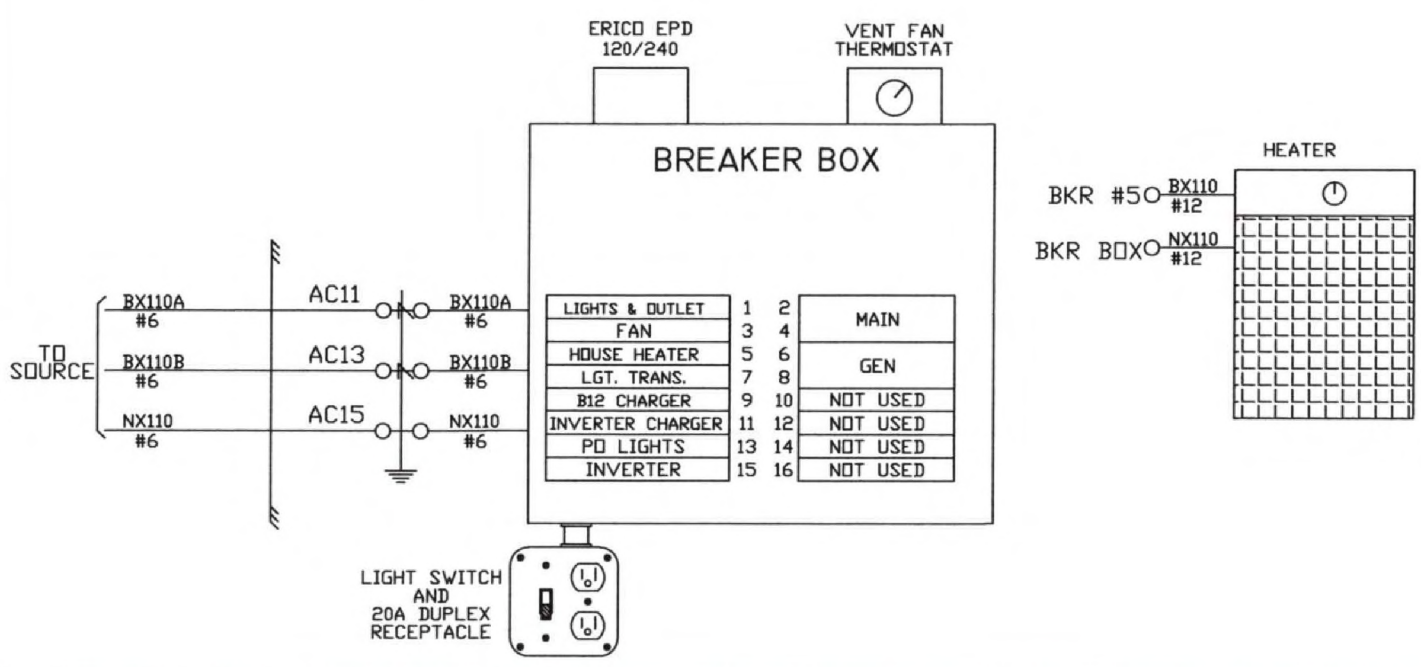
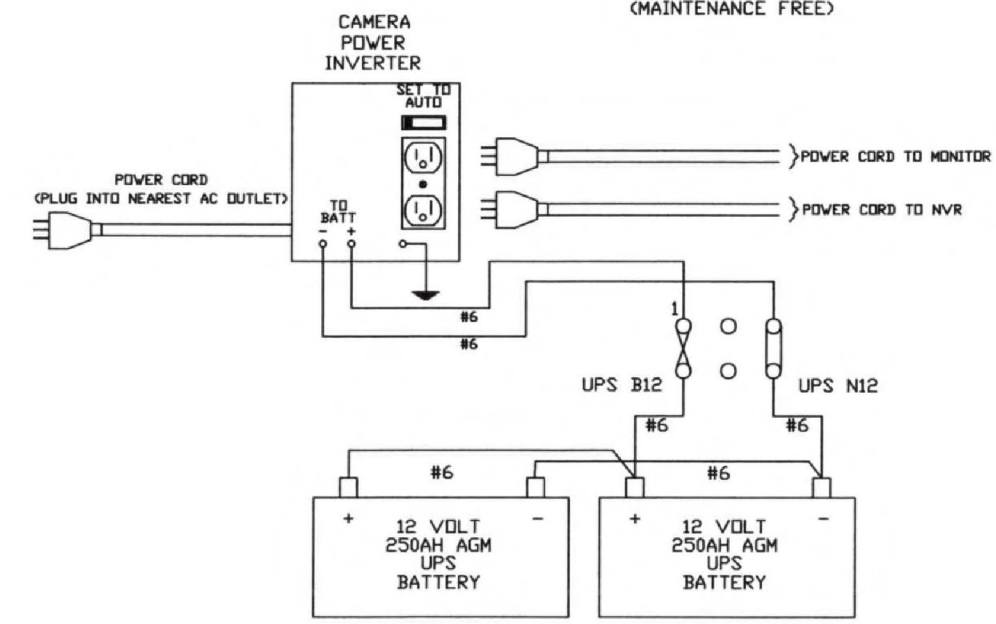
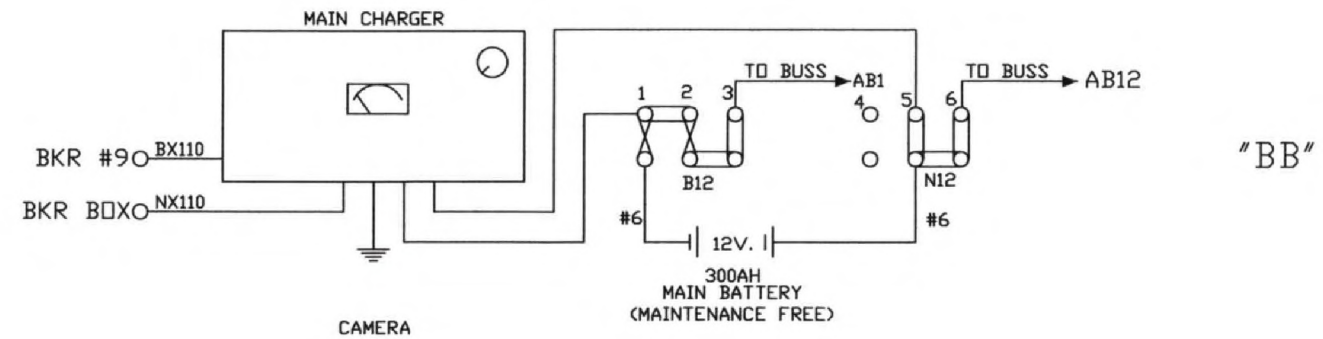
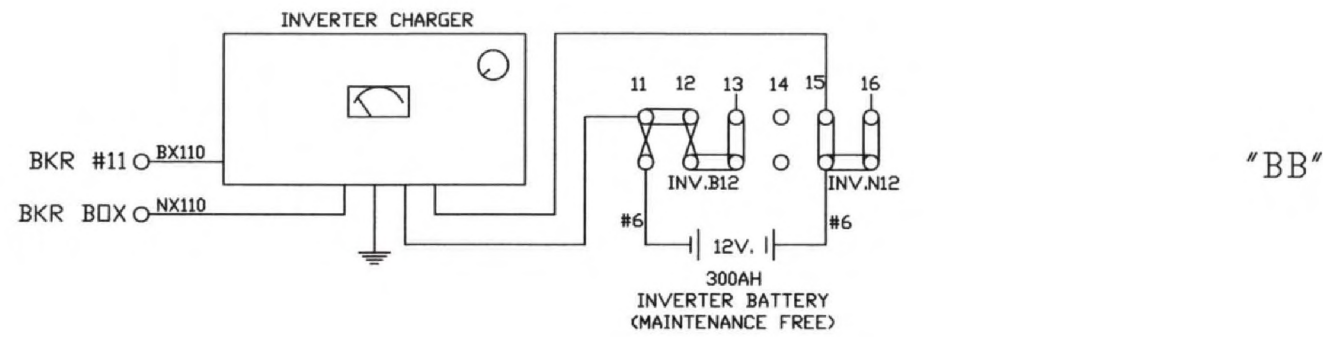
WCH3597

WCH3597

NOTES:  
ALL WIRE ON THIS SHEET IS #10AWG  
UNLESS OTHERWISE NOTED.

**DIAMONDBACK SIGNAL**  
(410) 795-9601  
5965 EXCHANGE DRIVE  
SUITE "D"  
SYKESVILLE, MD  
21784

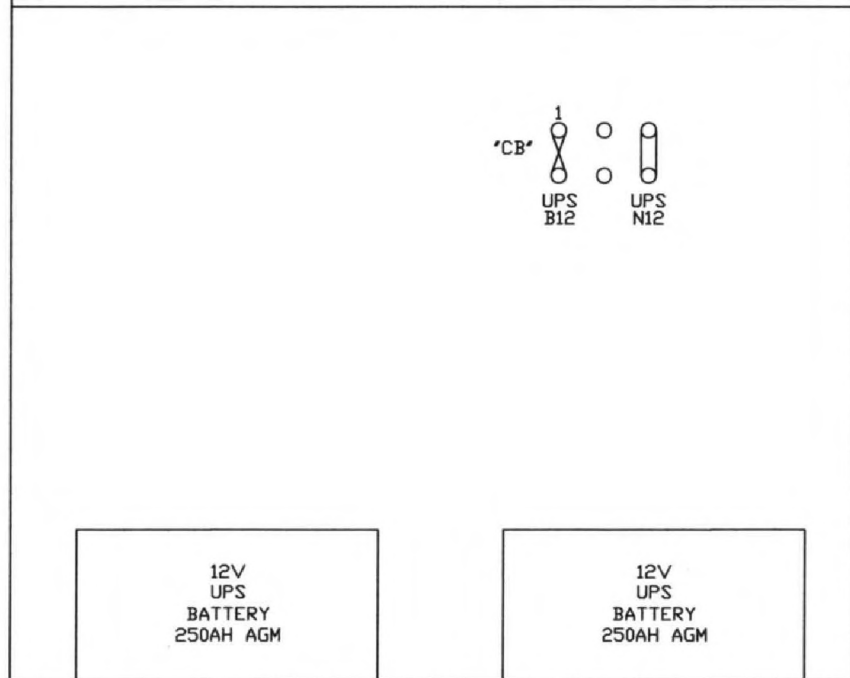
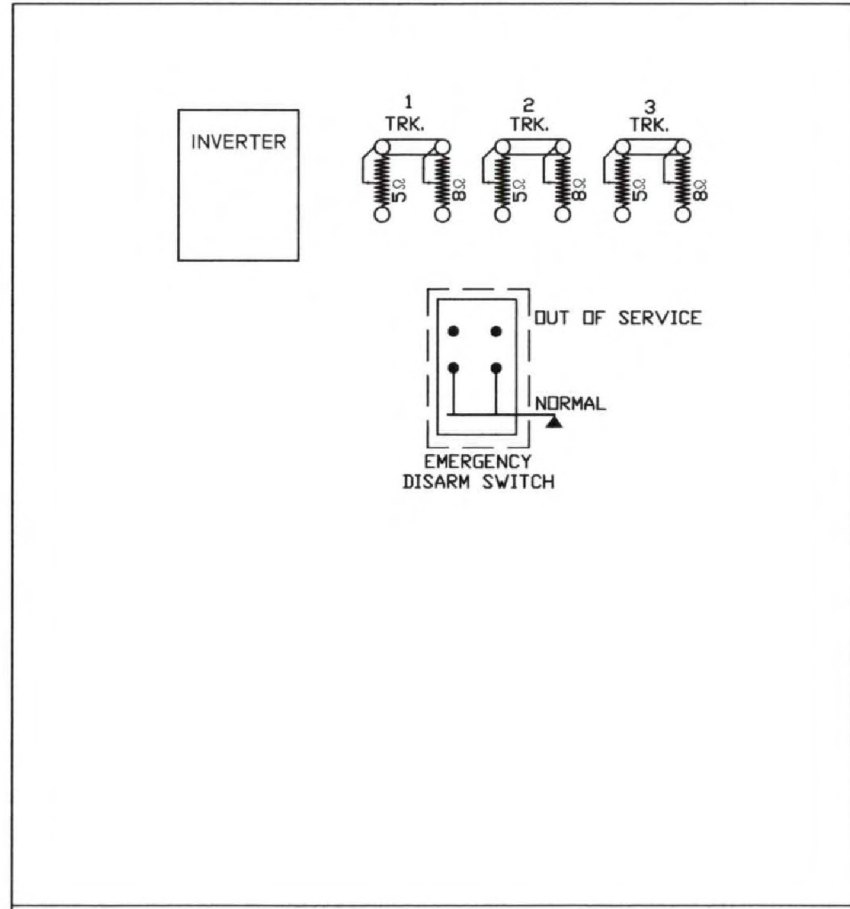
AS WIRED		AS INSTALLED	
NITTANY & BALD EAGLE RAILROAD RAILROAD CROSSING WARNING DEVICES		SCALE: NONE	DRAWN BY: KDL
STRUBLE ROAD DOT #506 378J - M.P. 0041.52 LEMONT, CENTRE COUNTY, PA		DATE: 07/22/2020	REVISED:
CIRCUIT PLAN "C"		DRAWING NUMBER	0041.52



NOTE:  
ALL WIRE THIS SHEET IS #10 AWG FLEX  
UNLESS OTHERWISE NOTED.

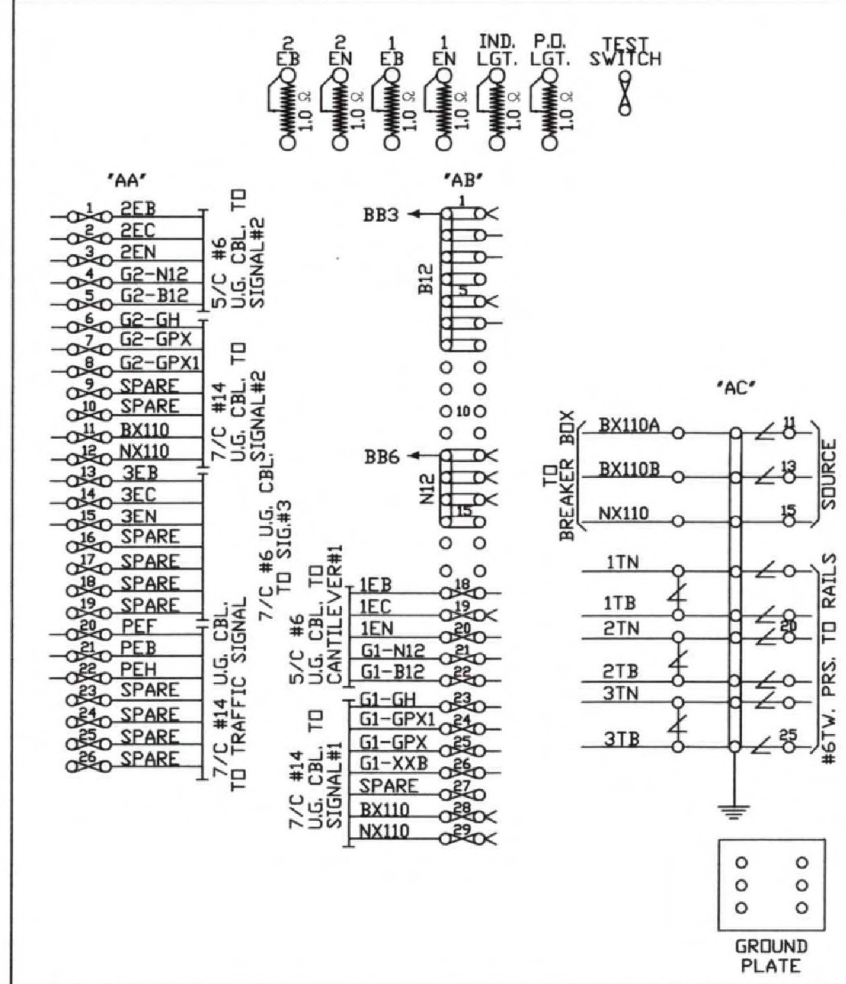
<b>DIAMONDBACK SIGNAL</b> (410) 795-9601 5965 EXCHANGE DRIVE SUITE 'D' SYKESVILLE, MD 21784	AS WIRED	AS INSTALLED	
	NITTANY & BALD EAGLE RAILROAD RAILROAD CROSSING WARNING DEVICES		
	SCALE: NONE	DRAWN BY: KDL	
	DATE: 07/22/2020	REVISED:	
STRUBLE ROAD DOT #506 378J - M.P. 0041.52 LEMONT, CENTRE COUNTY, PA			
CIRCUIT PLAN "C"		DRAWING NUMBER 0041.52	

SIDE "B"

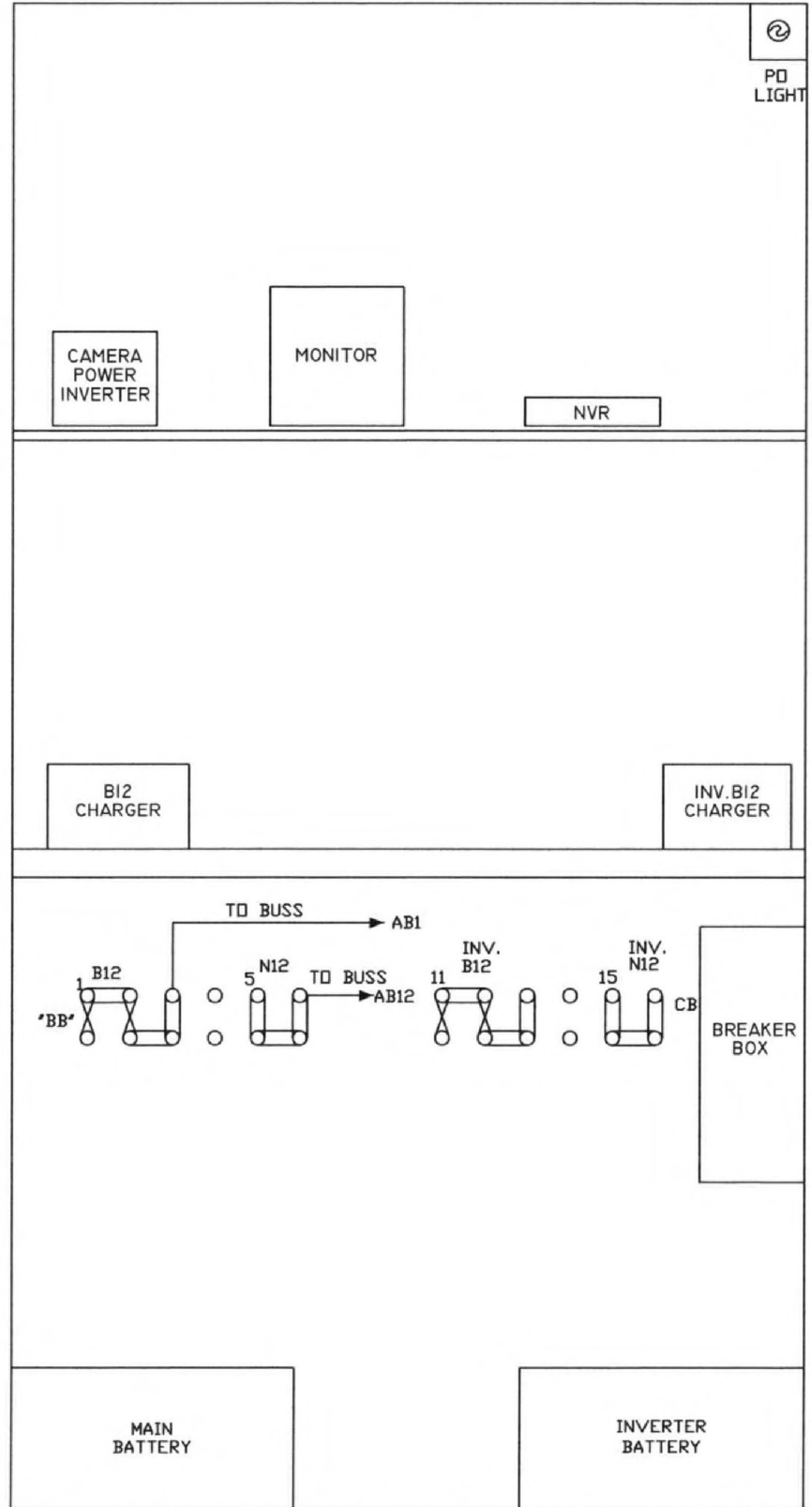


SIDE "A"

PD LIGHT						
LIGHT TRANS.	POR	EOR	GPXR	XR	XGPR	EDR
	12 FB	12 FB	12 B	12 F	12	12 B
	15 FB	15 FB	15 B	15	15	15
	22	32 FB	22 B	22	32 F	22
	25	35 FB	23	25 F	35 F	25 F
		25	32		32 B	
		32	35 B		35	
		35				
	A62-406	A62-671	A62-310	A62-262	A62-360	A62-262
	400800	400700-X	400020	400000	400200	400000
SR	TR	TR	TR	SR	(30 SEC.) VITAL TIMER	
12	12 F	12 F	12 F	12	42	
15 F	15 FB	15	15 FB	15 F	43	
22 B	22	22 B	22	22 B	46	
23	23	23 F	23	23	53	
25 F	25 F	25 F	25 F	25 F	56	
32	32	32	32	32	62	
35 B	35	35 B	35	35 B	65 B	
	A62-357	A62-120	A62-120	A62-357		A62-627
	400211	400510	400510	400211		451000-X



SIDE "C"



<b>DIAMONDBACK SIGNAL</b> (410) 795-9601 5965 EXCHANGE DRIVE SUITE 'D' SYKESVILLE, MD 21784	AS WIRED	AS INSTALLED	
	NITTANY & BALD EAGLE RAILROAD RAILROAD CROSSING WARNING DEVICES		
	SCALE: NONE DATE: 07/22/2020	DRAWN BY: KDL REVISED:	
	STRUBLE ROAD DOT #506 378J - M.P. 0041.52 LEMONT, CENTRE COUNTY, PA		DRAWING NUMBER 0041.52



PLOTTED: 4/23/2024

FILE NAME: U:\Diamondback\_Signal\6895-College\_Twp\_RR\_Xing-SIG.dgn

MOVEMENT PHASING AND SEQUENCE

Main phasing table with columns for PHASE 1+5, PHASE 1+6, PHASE 2+5, PHASE 2+6, PHASE 4+8, PREEMPT 1+6, PREEMPT 2+5, PREEMPT 4, PREEMPT 8, RR CLEARANCE, RR HOLD 2+6, and EMERGENCY FLASHING. Includes signal timing and status indicators.

\* UPON PEDESTRIAN ACTUATION ONLY. OTHERWISE, DON'T WALK AT ALL TIMES.
\*\* DURATION OF RAILROAD PREEMPTION

NOTE:
MAXIMUM I SETTINGS ON THE CONTROLLER ARE THE TIMES SPECIFIED IN CYCLE II. MAXIMUM II SETTINGS ON THE CONTROLLER ARE THE HIGHEST TIMES SPECIFIED IN CYCLE I, II, OR III.

COORDINATION PLAN

Table with columns: PLAN NO., TIME, PLAN, DAY OF WEEK (SMTWTFSS), CYCLE, OFFSET, REMARK. Lists coordination details for different times of day.

OFFSETS REFERENCED TO START OF PHASE 2+6 YELLOW.

INTERCONNECTED NOTE

CONTROLLER COORDINATED WITH ADJACENT CONTROLLERS THROUGH THE USE OF THE BASED COORDINATION TO PROVIDE PROGRESSIVE MOVEMENT OF TRAFFIC:
- PERMIT #21-89 - SR 0150 & NITTANY COMMONS DWY
- PERMIT #21-36 - SR 0026 & SR 3011

DISTRICT: 2-0, COUNTY: CENTRE, ROUTE: 0026, SECTION: ---, SHEET: 2 OF 4

REVISION NUMBER, REVISIONS, DATE, BY table with one revision entry.

PHASING NOTES:

- 1 REMAINS G WHEN FOLLOWED BY 2+6
2 REMAINS -G- WHEN FOLLOWED BY 1+6
3 REMAINS -G- WHEN FOLLOWED BY 2+5
4 REMAINS -FY- WHEN FOLLOWED BY 2+6
5 TIMING WILL BE AS SHOWN IN PHASE 2+6. IT MAY TIME OUT IN THIS PHASE OR BE COMPLETED IN PHASE 2+6
6 PHASE 2+6 MUST BE FOLLOWED BY 4+8
7 EQUIP -FY- WITH 2 SECOND DELAY

EMERGENCY VEHICLE PREEMPTION NOTES:

EMERGENCY VEHICLE PREEMPTION MAY OCCUR DURING ANY INTERVAL OF THE NORMAL CONTROLLER OPERATION. DEPENDING ON THE DIRECTION OF TRAVEL OF THE EMERGENCY VEHICLE, ONE OF THE FOLLOWING SHALL BE DISPLAYED: EMERGENCY PREEMPTION PHASE 1+6, 2+5, 4 OR 8. THE SYSTEM SHALL PROVIDE SERVICE ON FIRST-COME FIRST SERVE BASIS. ONCE THE FIRST PRIORITY VEHICLE CALLS THE SYSTEM, IT SHALL PREVENT OTHER PREEMPTIVE VEHICLES FROM ENTERING CALLS UNTIL THE FIRST EMERGENCY VEHICLE RELEASES CONTROL AND CLEARS THE INTERSECTION.

UPON ACTIVATION BY AN EMERGENCY VEHICLE:

- 1. IF THE CONTROLLER OPERATION IS IN INTERVAL 1 OF A NON-PREEMPTIVE VEHICLE PHASE THE CONTROLLER SHALL TERMINATE THE INTERVAL IMMEDIATELY AND PROCEED NORMALLY THROUGH THE YELLOW AND ALL RED INTERVALS BEFORE PROCEEDING TO THE APPROPRIATE EMERGENCY VEHICLE PREEMPTION PHASE.
2. IF THE CONTROLLER OPERATION IS IN INTERVAL 1 OF THE PREEMPTION PHASE THE CONTROLLER SHALL REMAIN IN THAT INTERVAL.
3. ANY WALK INDICATION SHALL TERMINATE IMMEDIATELY AND PROCEED NORMALLY THROUGH THE FLASHING DON'T WALK, YELLOW AND ALL RED INTERVAL BEFORE PROCEEDING TO THE APPROPRIATE EMERGENCY VEHICLE PREEMPTION.
4. ANY FLASHING DON'T WALK INDICATION SHALL TIMEOUT NORMALLY, FOLLOWED BY THE YELLOW AND ALL RED INTERVAL BEFORE PROCEEDING TO THE APPROPRIATE EMERGENCY VEHICLE PREEMPTION PHASE.
5. IF THE CONTROLLER OPERATION IS IN THE YELLOW OR ALL RED INTERVAL OF ANY VEHICLE PHASE, THE CONTROLLER SHALL TIME OUT THOSE INTERVALS NORMALLY AND PROCEED TO THE APPROPRIATE EMERGENCY VEHICLE PREEMPTION PHASE.
6. UPON TERMINATION OF THE PREEMPTION PHASE THE CONTROLLER SHALL PROCEED NORMALLY THROUGH THE YELLOW AND ALL RED INTERVALS TO NORMAL TIME OF DAY AND "PHASE NEXT" OPERATION.
7. IF PREEMPTION OCCURS DURING CONFLICT/TIME CLOCK FLASH THE TRAFFIC SIGNAL SHALL CONTINUE FLASHING.
8. WHEN A CALL IS RECEIVED THE FAIL SAFE INDICATION SHALL BE ACTIVATED AND FOLLOWED BY THE SELECTIVE CLEARANCE INTERVALS. THE FAIL SAFE INDICATION SHALL CONSIST OF A SOLID WHITE LIGHT.

RAILROAD PREEMPTION NOTES:

THE TRAFFIC SIGNAL CONTROLLER IS TO BE INTERCONNECTED WITH THE RAILROAD CROSSING DEVICES. UPON ACTIVATION OF TRAIN PREEMPTION, THE TRAFFIC SIGNAL CONTROLLER IS TO PROVIDE THE RR CLEAR AND RR HOLD PHASES AS SHOWN.

THE SIGNALS, WHEN ACTIVATED BY A TRAIN, SHALL TRUNCATE ALL GREEN INDICATIONS TO A VALUE OF 5 SECONDS, FOLLOWED BY SELECTIVE CLEARANCES DEPENDING UPON THE IN WHICH THE PREEMPTION OCCURS, FOLLOWED BY THE RR CLEAR INTERVAL 1.

THE SIGNALS, WHEN ACTIVATED BY A TRAIN, SHALL TIME OUT ALL YELLOW AND RED INDICATIONS, FOLLOWED BY THE RR CLEAR INTERVAL 1.

SIGN "L" TO ILLUMINATE IMMEDIATELY UPON ACTIVATION OF RR CLEAR INTERVAL 1 AND SHOW DARK UPON DEACTIVATION OF RAILROAD LIGHTS.

IF THE SIGNALS HAVE BEEN ACTUATED BY PEDESTRIAN PUSH BUTTONS, AND THE SIGNAL IS PRE-EMPTED BY A TRAIN, THE MAN INTERVAL SHALL TERMINATE IMMEDIATELY, FOLLOWED BY THE "FLASHING HAND" INDICATION, FOLLOWED BY THE APPROPRIATE SELECTIVE CLEARANCE BEFORE GOING INTO TRAIN PRE-EMPTION. THE "FLASHING HAND" TIME FOR ALL PHASES IS TO BE TRUNCATED TO A VALUE OF 18 SECONDS AND BE ENTIRELY CONTAINED WITHIN THE VEHICULAR GREEN INTERVAL ONLY.

UPON COMPLETION OF RR PHASE 2+6, IN RETURNING TO NORMAL OPERATION, PHASE 2+6 INTERVAL 1

IF THE SIGNALS, WHEN ACTIVATED BY TRAIN PREEMPTION ARE FLASHING, ALL SIGNALS SHALL REMAIN FLASHING AND SIGN "L" SHALL BE ILLUMINATED.

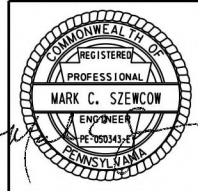
RAILROAD PRE-EMPTION TIMING SEQUENCE

Table with timing values: RIGHT OF WAY TRANSFER TIME: 26 SEC, QUEUE CLEARANCE TIME: 24 SEC, DESIRED MINIMUM SEPARATION TIME: 0 SEC, MAXIMUM PRE-EMPTION TIME: 50 SEC, RAILROAD LIGHTS FLASH AFTER: 20 SEC, GATES START DESCENDING: 30 SEC, GATES DOWN: 35 SEC, FASTEST TRAIN CROSSES AFTER: 50 SEC

COUNTY: CENTRE
MUNICIPALITY: COLLEGE TOWNSHIP
INTERSECTION: SR 0026 (EAST COLLEGE AVE) / T-363 (GERALD ST) & T-380 (STRUBLE RD)

APPROVED BY: Amy J. Kerner, P.E. 05-06-2024
MUNICIPAL OFFICIAL DATE

RECOMMENDED: [Signature] 5/8/2024
DISTRICT TRAFFIC ENGINEER DATE

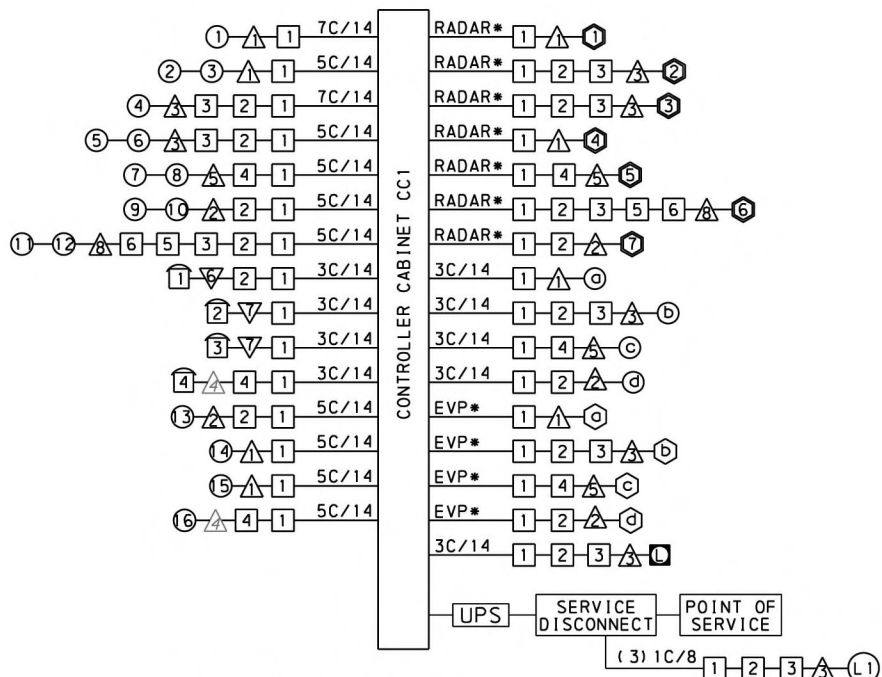


TRAFFIC SIGNAL PLAN

SCALE 0 25 50 FEET

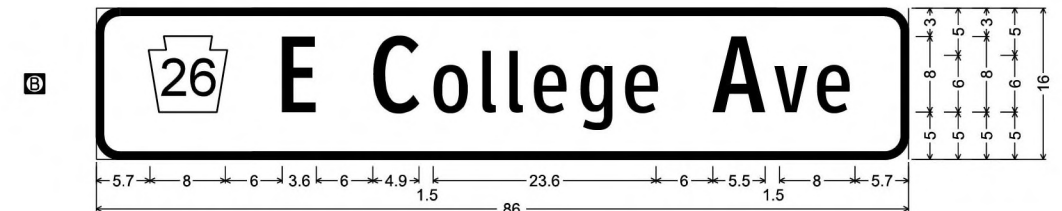
DESIGNED BY: ENB DRAWN BY: JMS CHECKED BY: MCS

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
2-0	CENTRE	0026	---	3 OF 4
COLLEGE TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	



\* AS PER MANUFACTURER'S SPECIFICATIONS  
WIRING DIAGRAM

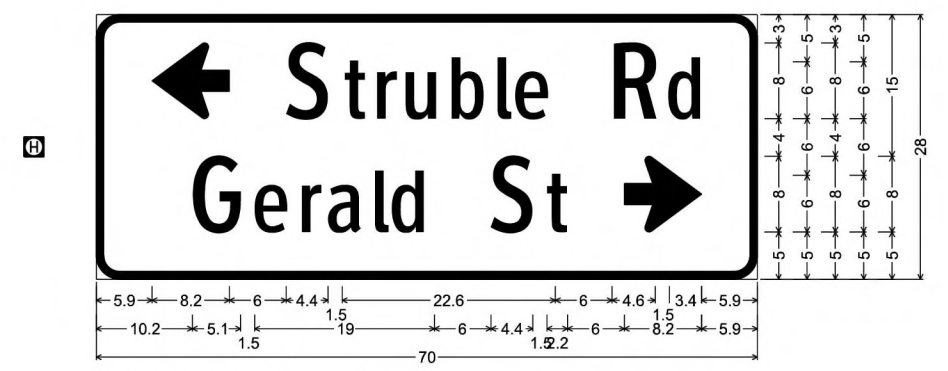
- LEGEND**
- ④ - SIGNAL HEAD
  - ④ - JUNCTION BOX
  - ④ - RADAR DETECTOR
  - △ - TRAFFIC SIGNAL SUPPORT
  - ▽ - PEDESTRIAN PUSH BUTTON SUPPORT
  - ⊙ - PREEMPTION CONFIRMATION LIGHT
  - ⊙ - EMERGENCY PREEMPTION DETECTOR (OPTICAL TOMAR)
  - ④ - PEDESTRIAN PUSH BUTTON
  - L1 - LUMINAIRE
  - - LED BLANK OUT SIGN
- 5C/14- CABLE (NO. OF CONDUCTORS/SIZE AWG)



2.5" Radius, 0.8" Border, White on Green;  
"E", ClearviewHwy-2-W; "C", ClearviewHwy-2-W; "ollege", ClearviewHwy-2-W;  
"A", ClearviewHwy-2-W; "ve", ClearviewHwy-2-W;

Table of widths and spaces

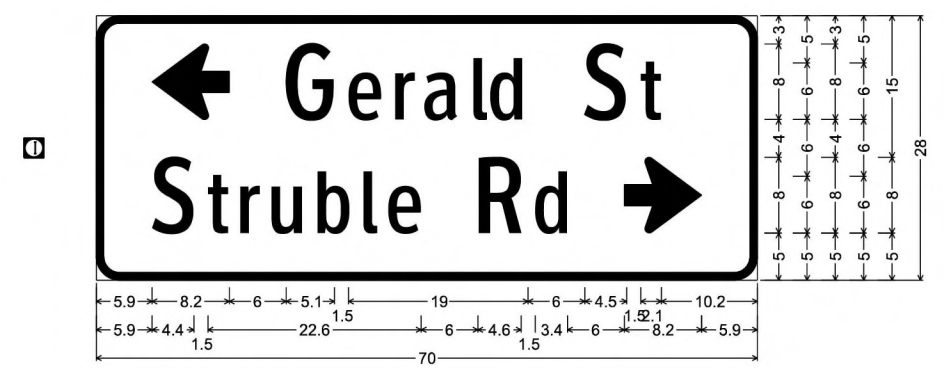
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-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



2.5" Radius, 0.8" Border, White on Green;  
Standard Arrow Custom 8.2" X 8.0" 180°; "S", ClearviewHwy-2-W;  
"truble", ClearviewHwy-2-W; "R", ClearviewHwy-2-W; "d", ClearviewHwy-2-W;  
"erald", ClearviewHwy-2-W; "erald", ClearviewHwy-2-W; "S", ClearviewHwy-2-W;  
"t", ClearviewHwy-2-W; Standard Arrow Custom 8.2" X 8.0" 0°;

Table of widths and spaces

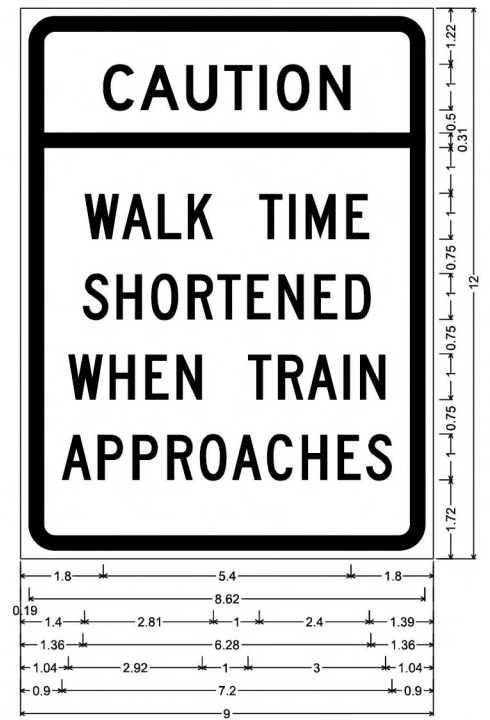
5.9	8.2	6.0	4.4	1.5	2.2	1.3	2.1	1.2	3.2	1.7	3.4	1.4	1.5	1.1	3.5	6.0	4.6	1.5	3.4	5.9				
10.2	5.1	1.5	3.5	1.4	2.1	1.0	3.5	1.5	1.5	1.1	3.4	6.0	4.4	1.5	2.2	6.0	8.2	5.9						



2.5" Radius, 0.8" Border, White on Green;  
Standard Arrow Custom 8.2" X 8.0" 180°; "G", ClearviewHwy-2-W;  
"erald", ClearviewHwy-2-W; "S", ClearviewHwy-2-W; "t", ClearviewHwy-2-W;  
"S", ClearviewHwy-2-W; "truble", ClearviewHwy-2-W; "R", ClearviewHwy-2-W;  
"d", ClearviewHwy-2-W; Standard Arrow Custom 8.2" X 8.0" 0°;

Table of widths and spaces

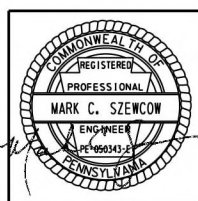
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5.9	4.4	1.5	2.2	1.3	2.1	1.2	3.2	1.7	3.4	1.4	1.5	1.1	3.5	6.0	4.6	1.5	3.4	6.0	8.2	5.9					



0.75" Radius, 0.31" Border, 0.19" Indent  
"CAUTION", D 2K; BLACK ON YELLOW;  
"WALK TIME", C 2K; "SHORTENED", C 2K; BLACK ON WHITE;  
"WHEN TRAIN", C 2K; BLACK ON WHITE;  
"APPROACHES", C 2K; BLACK ON WHITE;

Table of distances between letter and object lefts

1.80	0.81	1.00	0.83	0.77	0.38	0.93	0.68	1.80																
0.19	8.62	0.19																						
1.40	0.82	0.78	0.65	1.58	0.65	0.36	0.88	0.51	1.39															
1.36	0.73	0.76	0.79	0.65	0.65	0.68	0.78	0.68	0.56	1.36														
1.04	0.90	0.78	0.68	1.56	0.65	0.65	0.78	0.36	0.56	1.04														
0.90	0.78	0.76	0.76	0.71	0.70	0.76	0.76	0.78	0.63	0.56	0.90													



COUNTY: CENTRE  
MUNICIPALITY: COLLEGE TOWNSHIP  
INTERSECTION: SR 0026 (EAST COLLEGE AVE) / T-363 (GERALD ST) & T-380 (STRUBLE RD)

APPROVED BY:  
*Amy J. Kerner, P.E.* 05-06-2024  
MUNICIPAL OFFICIAL DATE

RECOMMENDED:  
*Mark C. Szencow* 5/8/2024  
DISTRICT TRAFFIC ENGINEER DATE

