


AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

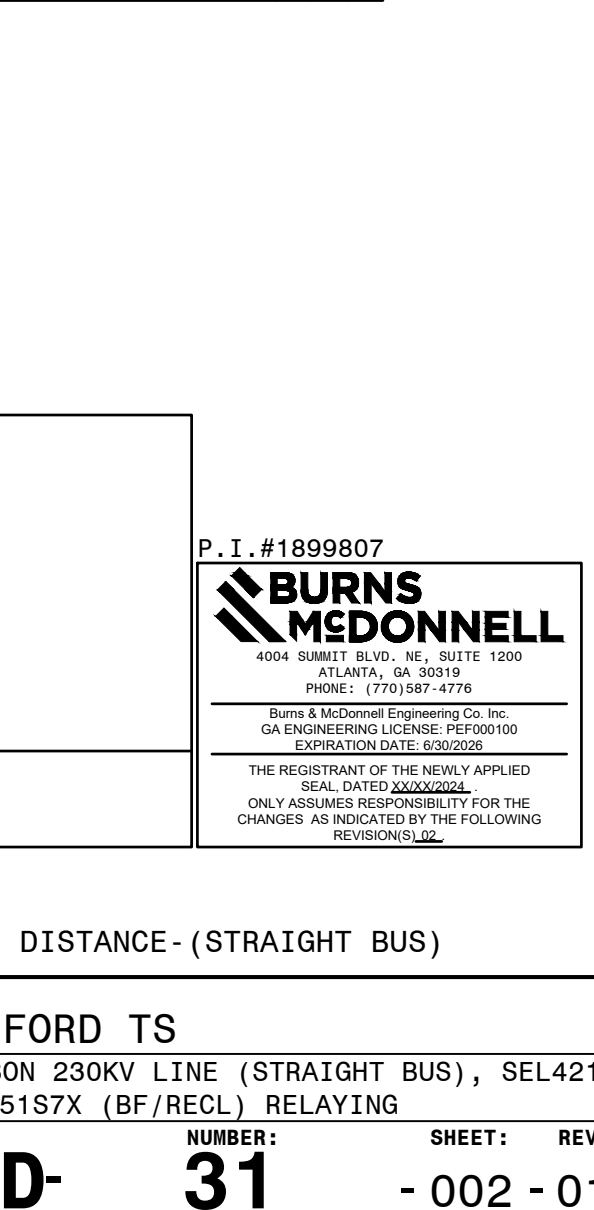
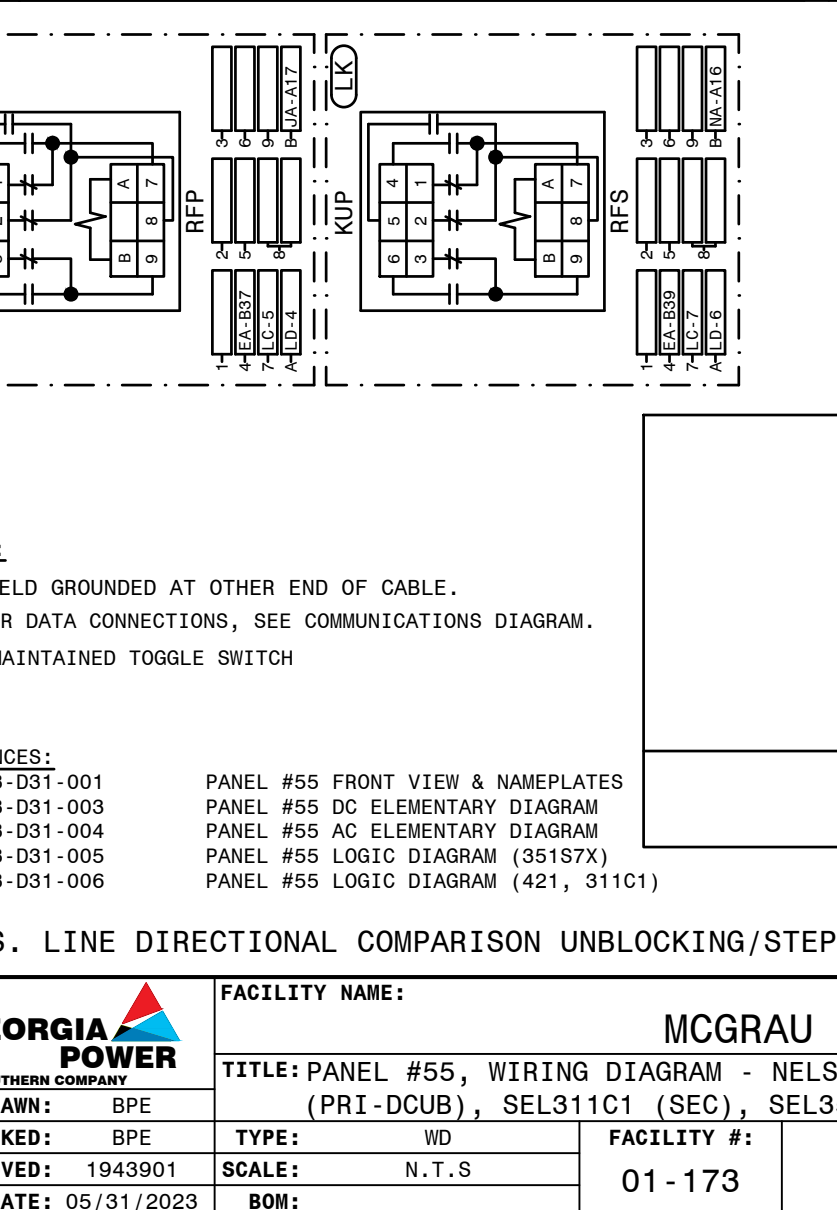
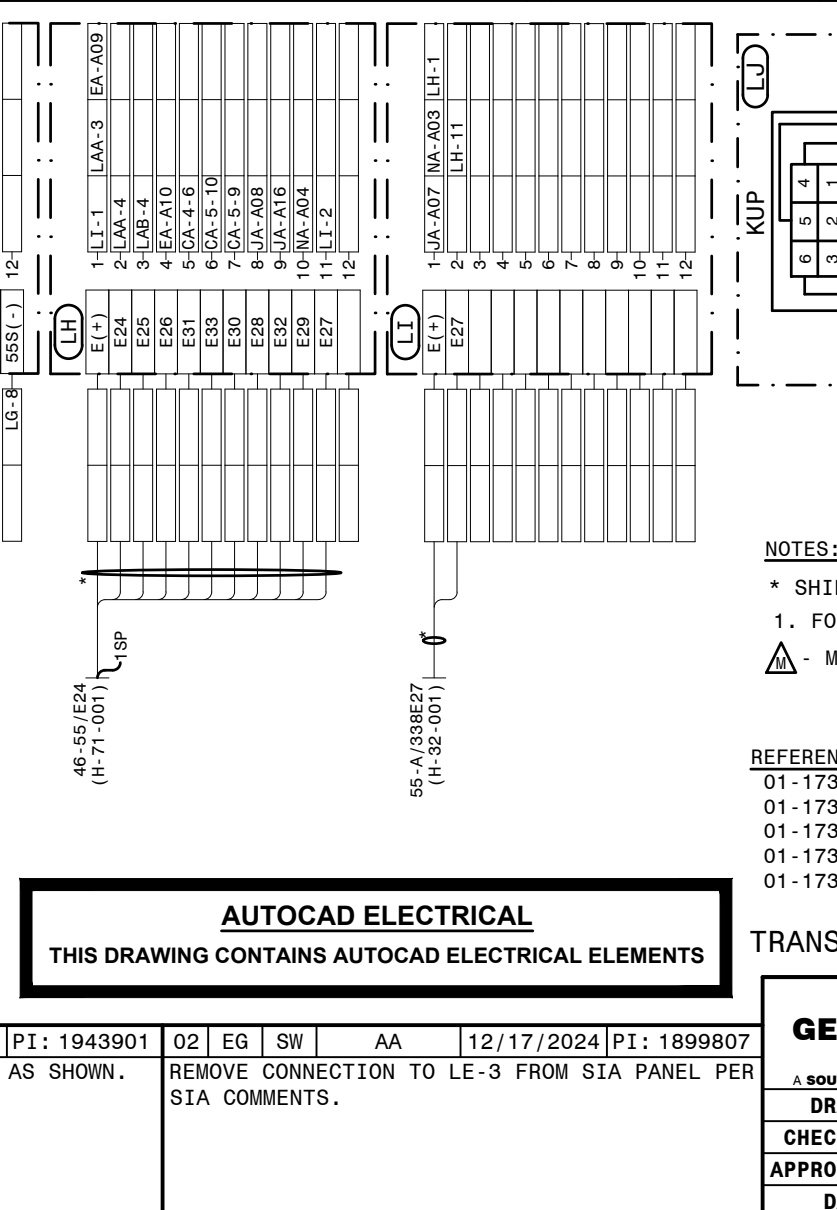
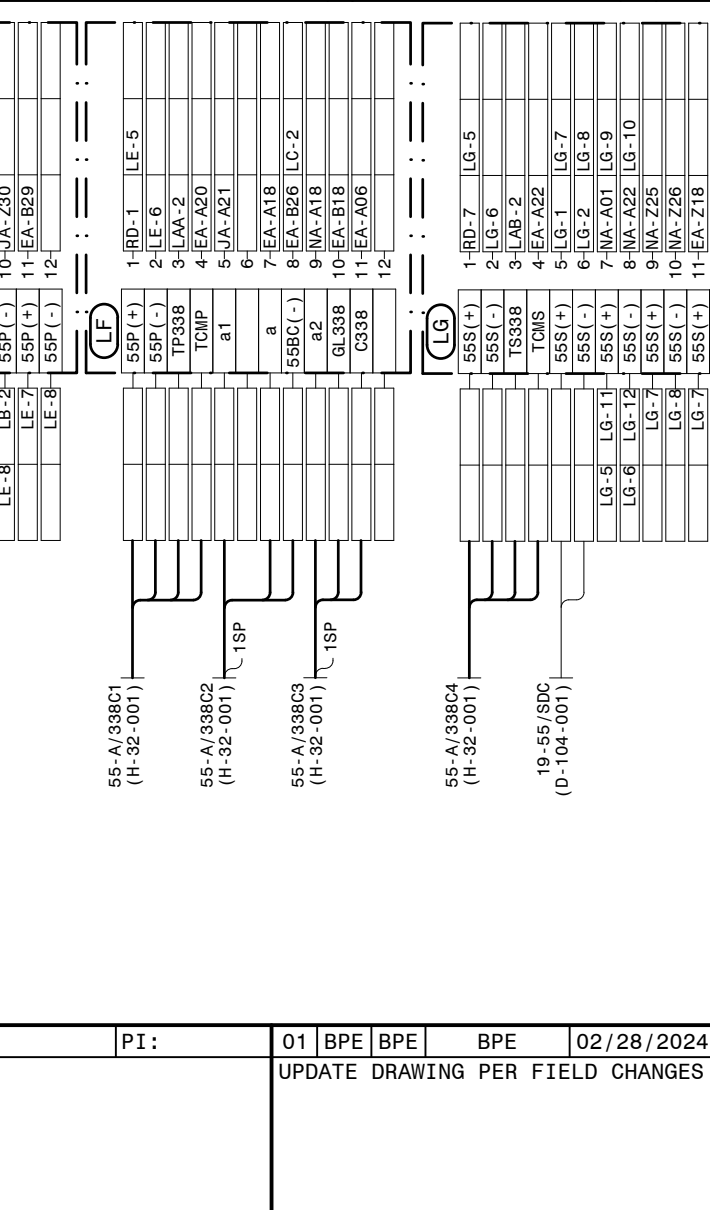
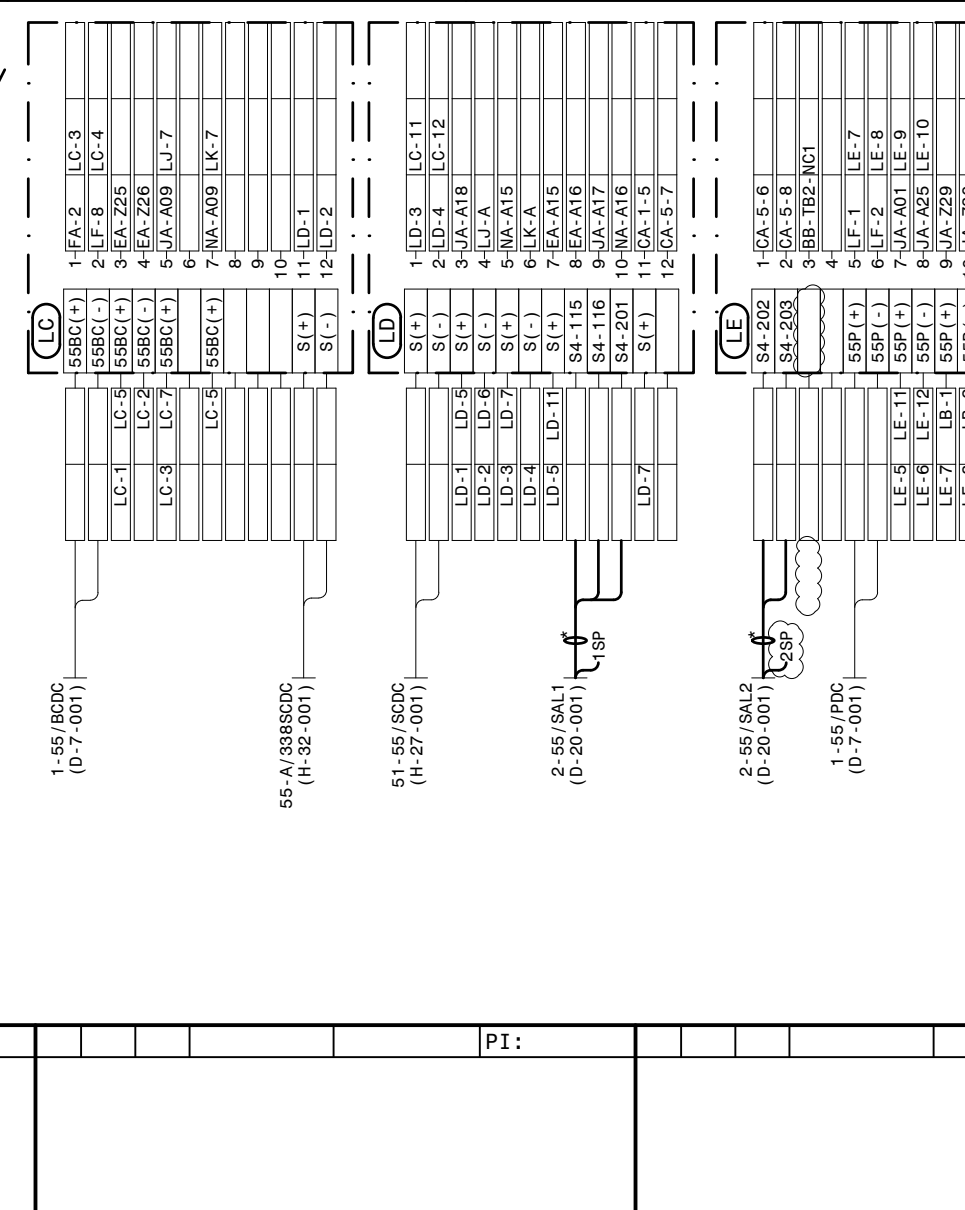
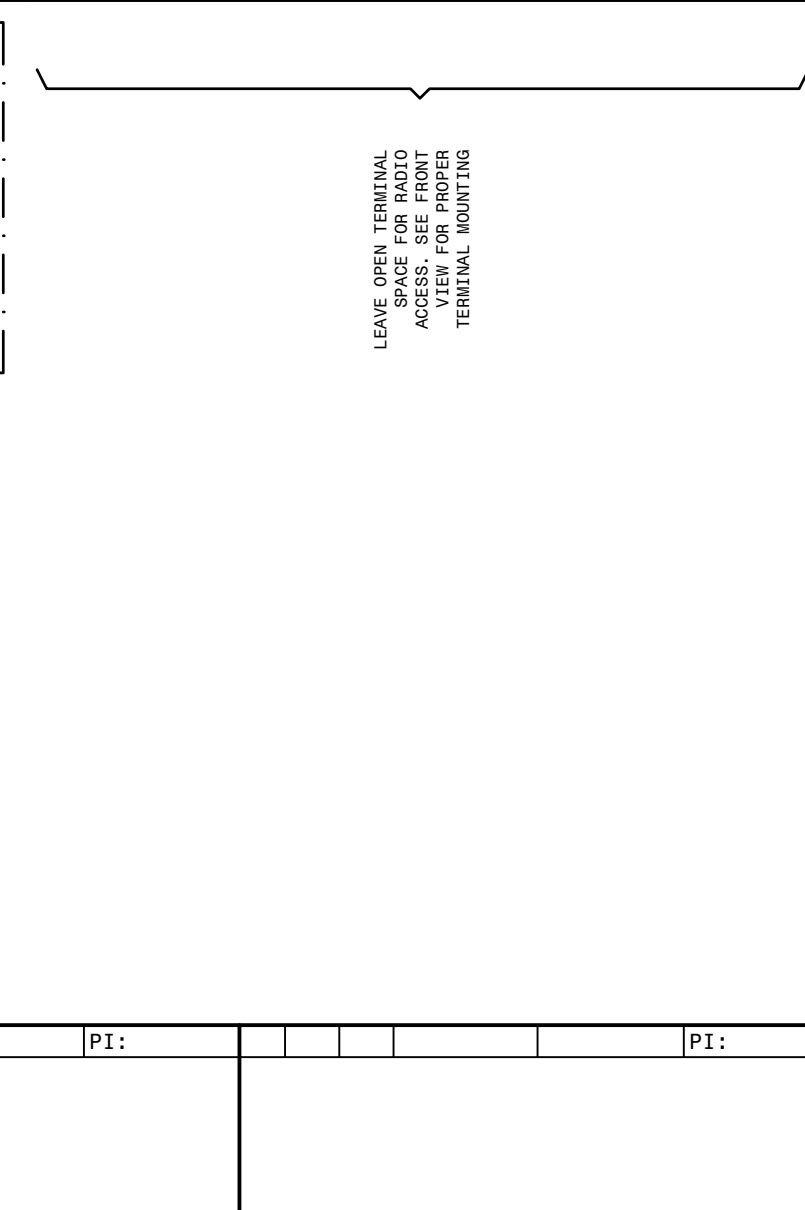
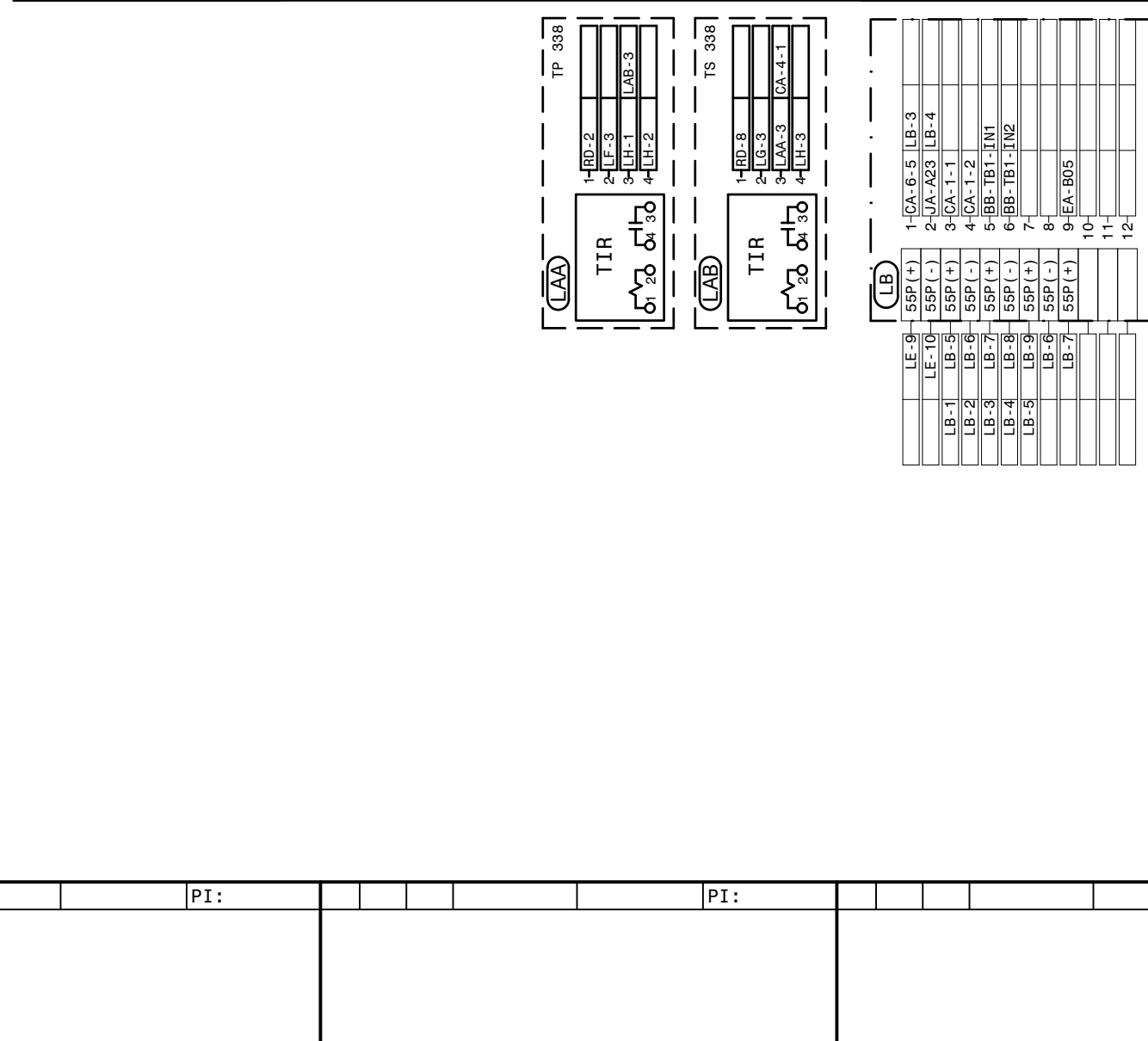
P.I.#1899807

**BURNS
MCDONNELL**
4004 SUMMIT BLVD. NE, SUITE 1200
ATLANTA, GA 30319
PHONE : (770)587-4776

Burns & McDonnell Engineering Co. Inc.
GA ENGINEERING LICENSE: PEF000100
EXPIRATION DATE: 6/30/2026


THE REGISTRANT OF THE NEWLY APPLIED
SEAL DATED XX/XX/2024,
ONLY ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISION(S) 06.

 GEORGIA POWER <small>A SOUTHERN COMPANY</small>		FACILITY NAME:				MC GRAU FORD TS			
		TITLE: MISCELLANEOUS WIRING DIAG.							
DRAWN: JLC				NUMBER:		SHEET:		REV:	
CHECKED: AJW		TYPE: WD		FACILITY #:		9		- 001 - 05	
APPROVED: AJW		SCALE: NO SCALE							
DATE: 06-29-05		BOM:		01-173		D-			
ASC,FAC,S									



NOTES:

- * SHIELD GROUNDED AT OTHER END OF CABLE.
- 1. FOR DATA CONNECTIONS, SEE COMMUNICATIONS DIAGRAM.


 - MAINTAINED TOGGLE SWITCH

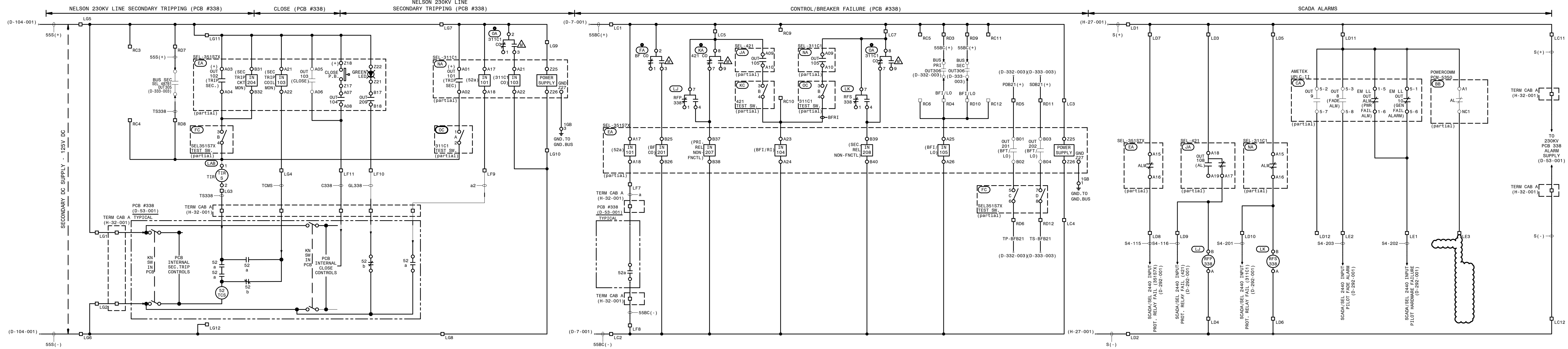
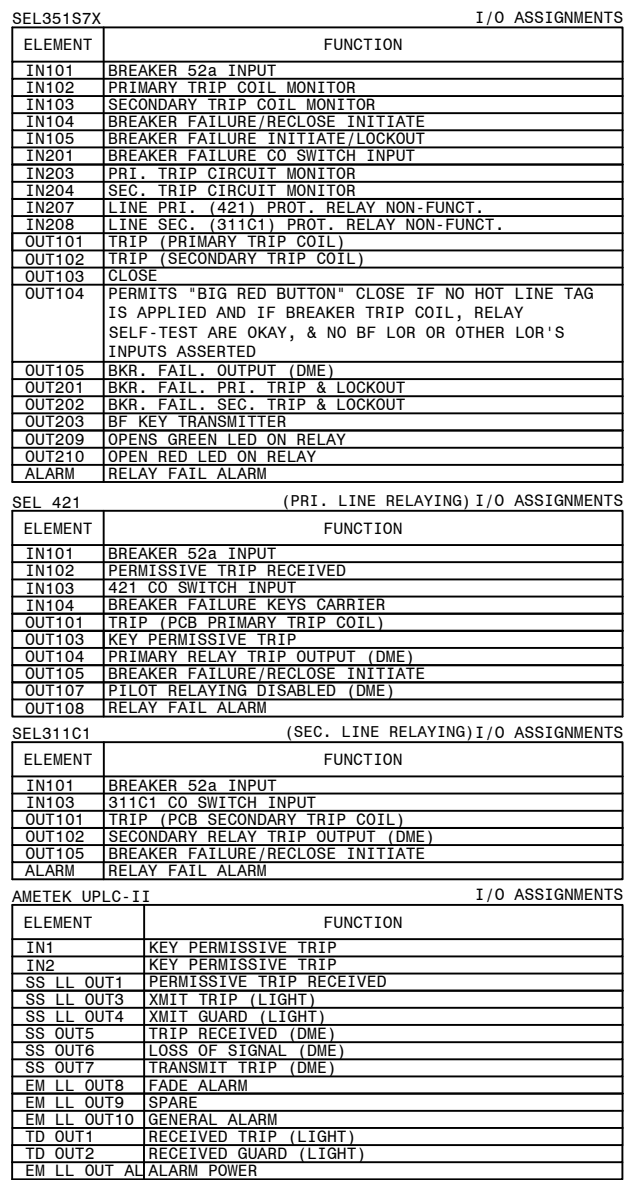
REFERENCES:	
01-173-031-001	PANEL #55 FRONT VIEW & NAMEPLATES
01-173-031-003	PANEL #55 DC ELEMENTARY DIAGRAM
01-173-031-004	PANEL #55 AC ELEMENTARY DIAGRAM
01-173-031-005	PANEL #55 LOGIC DIAGRAM (35157X)
01-173-031-006	PANEL #55 LOGIC DIAGRAM (421, 311C1)





AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

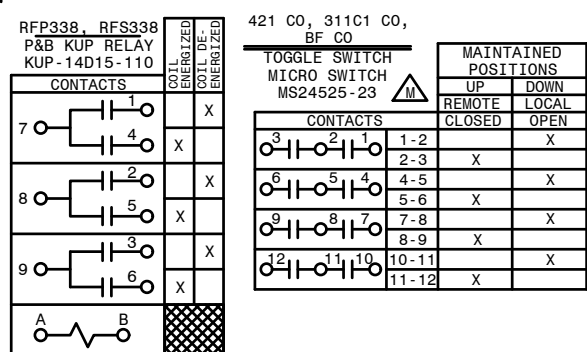
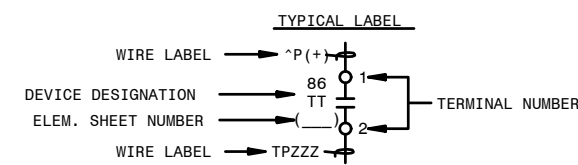
TRANS. LINE DIRECTIONAL COMPARISON UNBLOCKING/STEP DISTANCE- (STRAIGHT BUS)

01	BPE	BPE	BPE	02/28/2024	PI: 1943901	02	EG	SW	AA	12/17/2024	PI: 189980
UPDATE DRAWING PER FIELD CHANGES AS SHOWN.						REMOVE CONNECTION TO LE-3 FROM SIA PANEL PER SIA COMMENTS					

 A SOUTHERN COMPANY	TITLE: PANEL #55, WIRING DIAGRAM - NELSON 230KV LINE (STRAIGHT BUS), SEL42								
	(PRI-DCUB), SEL311C1 (SEC), SEL351S7X (BF/RECL) RELAYING								
	DRAWN: BPE			FACILITY #:		NUMBER:	SHEET:	REV:	
	CHECKED: BPE	SCALE: WD		01-173	D-	31	- 002 - 0		
	APPROVED: 1943901	TITLE: N.T.S.							
	DATE: 05/31/2023	BOM:							
ASC FACs:					ALT DWG NUM: DCUB				




-  - SLIDING LINK TERMINALS
OR PHEONIX PLUG
-  - BARRIER BLOCK TERMINAL
-  - LED INDICATING LIGHT
-  - SWITCH SHOWN IN OFF POS



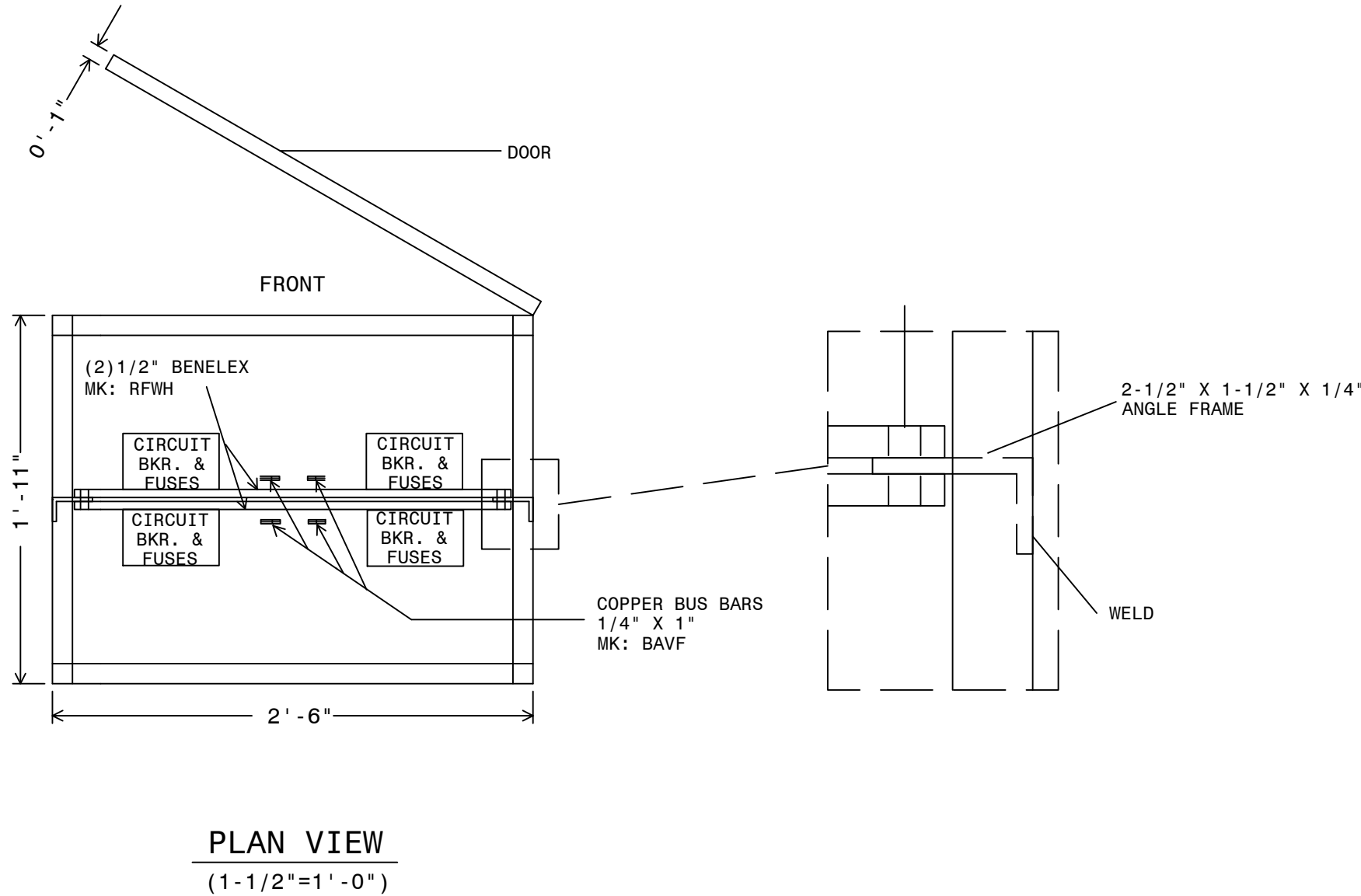
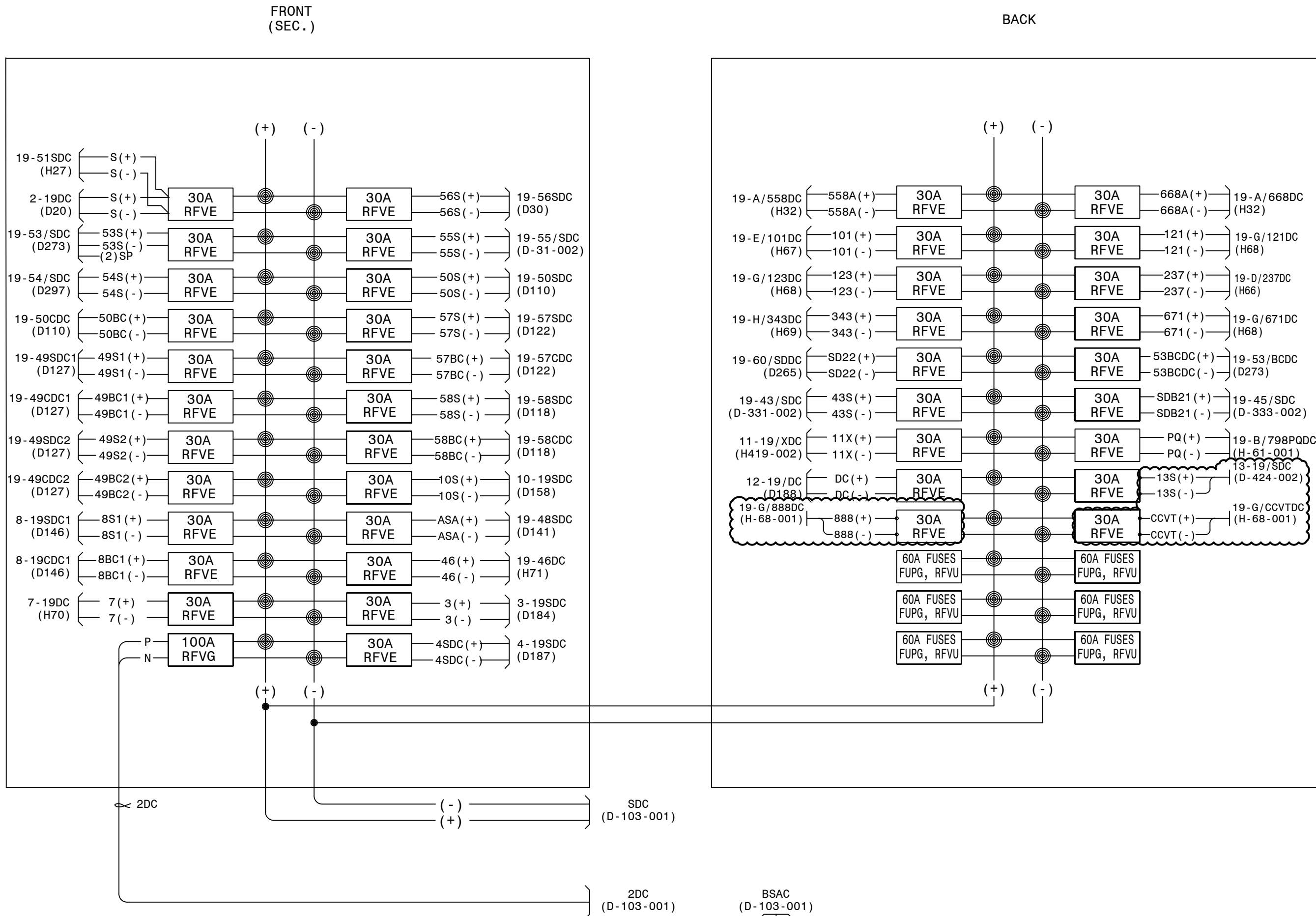
AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

01-173-D-31-001	PANEL #55 FRONT VIEW & NAMEPLATES
01-173-D-31-002	PANEL #55 WIRING DIAGRAM
01-173-D-31-004	PANEL #55 AC ELEMENTARY DIAGRAM
01-173-D-31-005	PANEL #55 LOGIC DIAGRAM (351S7X)
01-173-D-31-006	PANEL #55 LOGIC DIAGRAM (421, 311C1)

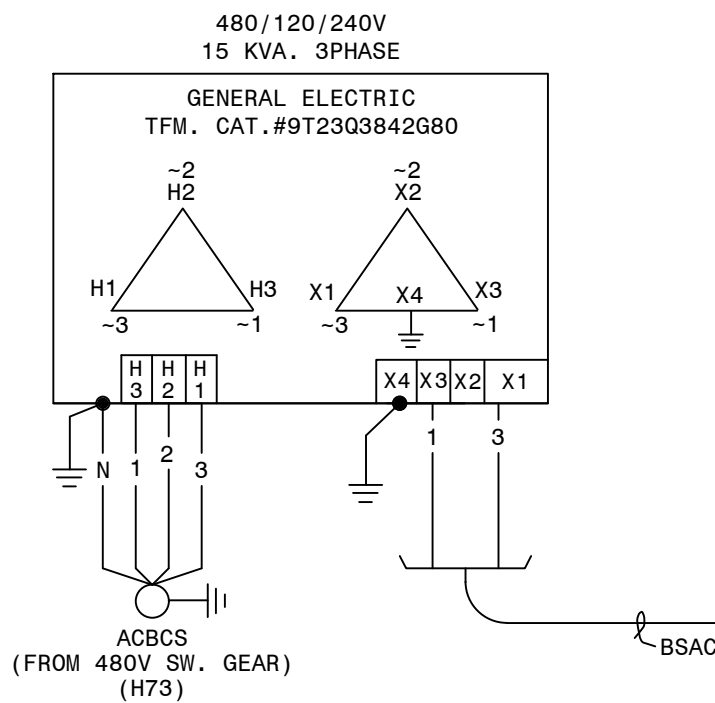
TRANS. LINE DIRECTIONAL COMPARISON UNBLOCKING/STEP DISTANCE-(STRAIGHT BUS)

<div> A SOUTHERN COMPANY</div>	FACILITY NAME:		MCGRAU FORD TS			
	TITLE: PANEL #55, DC ELEMENTARY - NELSON 230KV LINE, SEL421 (PRI DCUB), SEL311C1 (SEC), SEL35187X (BF/RECL) RELAYING					
	CHECKED: BPE	TYPE: 52	FACILITY #:	NUMBER:	SHEET:	REV:
	APPROVED: 1943901	SCALE: N.T.S.	01 - 173	D-31	- 003	- 02
	DATE: 05/31/2023	BOM:	ASC FACS:		ALT DWG NUM: DCUB	

QTY.	CMS UNIT	MATL. MK.	DESCRIPTION	REMARKS	NON STOCK
2	BAVF	BAVF	BAR-CU 1IN X 1IN X 12FT		
41	RFVE-D	RFVE	CIRCUIT BREAKER, AMB COMP, 2P, 30A		
	RFVG	RFVG	CIRCUIT BREAKER, AMB COMP, 2P, 100A		
2	RFWH	RFWH	PANEL-BENELEX 402 28IN X 41IN X 1IN		
1	RGRG-D	RGRG	SWBD REAR DOOR, FOR 30 X 90 X 21IN PAN.	0-31-D1	YES
			SWITCHBOARD ANGLE FRAME 30 X 90 X 21IN	0-31-D1	



WIRING CONNECTION (JUMPER TAPS):		
PRIMARY:	% TAPS	VOLTS
H1-H2-H3	1	502
	2	493
	3	480
	4	467
	5	458
	6	444
	7	431
SECONDARY:		
		CONNECT LOAD TO:
120	X1-X4	
240	X1-X4	
120/240	X1-X3-X4	
	X4 IS A NEUTRAL	



AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

REFERENCES:
01-173-D7-001
01-173-D8-001
01-173-D8-002
01-173-D103-001
01-173-D104-002
01-173-D13

PANEL #1 WIRING DIAGRAM PRIMARY D.C. PANEL
PRIMARY DC SUPPLY AND BATTERY CHARGER ELEMENTARY
PRIMARY DC - MOBILE BATTERY TRAILER CONNECTIONS
SECONDARY DC SUPPLY AND BATTERY CHARGER ELEMENTARY
SECONDARY DC - MOBILE BATTERY TRAILER CONNECTIONS
S.S. & THROWOVER CAB #2 WIRG & CONN. DIAGRAM

CTLSTD:175.DGN (DCP-B-0-WD)


P.I.#1899807

BURNS & MCDONNELL

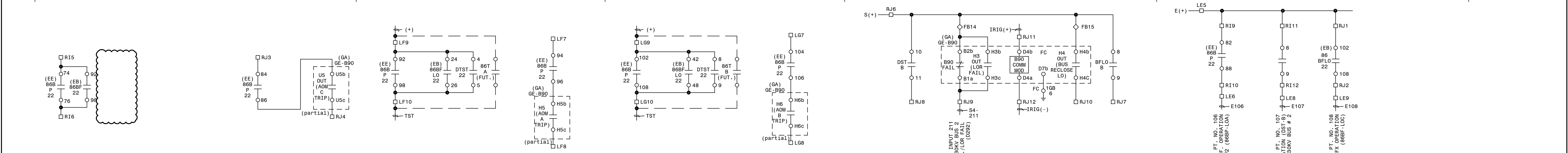
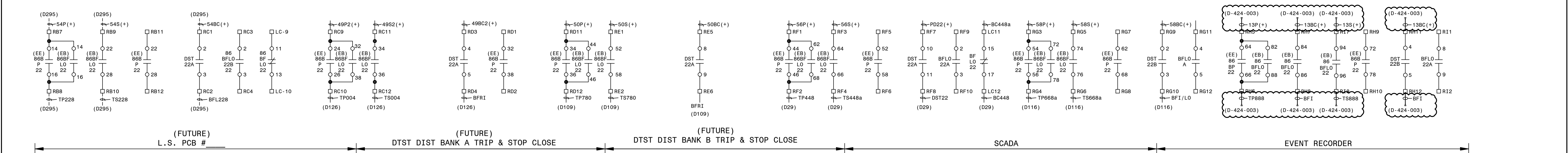
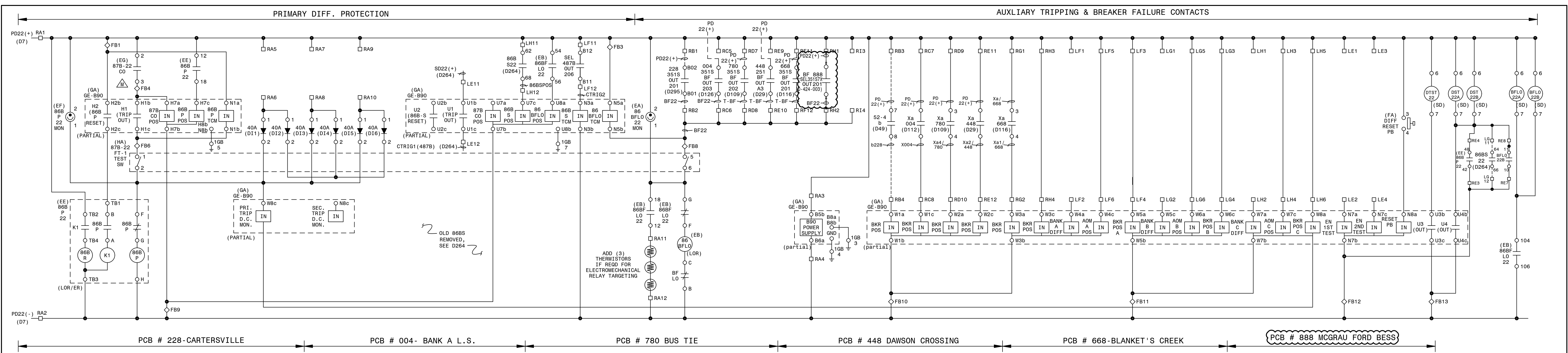
4004 SUMMIT BLVD., NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770) 967-4776

Burns & McDonnell Engineering Co. Inc.
GA ENGINEERING LICENSE: PE000100
EXPIRATION DATE: 6/30/2026

THE REGISTRANT OF THE NEWLY APPLIED
SEAL DATED 3/20/2024
ONLY ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS: JLL

 GEORGIA POWER <small>SOUTHERN COMPANY</small>	FACILITY NAME:					MCGRAU FORD TS			
	TITLE: PANEL #19 WIRING DIAGRAM SECONDARY D.C. PANEL								
	DRAWN:	JLC/CP	TYPE:	WD	FACILITY #:	D-	NUMBER:	104	REV:
	CHECKED:	AJW/TEB	SCALE:	AS SHOWN	01-173				
	APPROVED:		BOM:						
DATE:	11/22/2004	ASC FACS:				ALT DWG NUM:		- 001 - 12	

06 BAK TM	P1: 1402601	07 CSM DML	10/10/2015 P1: 1451605	08 BAS JWH USPP	3/27/2020 P1: 1616363	09 JCM JCM	2/5/2021 P1: 1855101	10 BPE BPE	05/31/2023 P1: 1930501	11 BPE BPE	08/01/2023 P1: 1930501	12 RJH KDB USPP	4/1/2024 P1: 2014906	13 EG SW AA	8/20/2024 P1: 1899807
REMOVE CABLE 19-53SDC. ADD CABLE 19-53/SDC, 19-53/BCDC FOR PANEL #53 REPLACEMENT.		FIELD CHANGES SHOWN FOR RECORD ONLY.		FC#10 (CC): UPDATED STATUS POINT NAMES.		REMOVE CABLE 19-54SDC & ADD CABLE 19-54/SDC, FOR PANEL #54 REPLACEMENT.		UPDATE CIRCUITS FOR NEW PANEL #55 NELSON LINE. ADD CIRCUITS FOR NEW PANELS #43 & #45 AS SHOWN. 19-51SDC, 19-A/558DC, 19-A/668DC CORRECT CABLE NAMES, FOR RECORD ONLY.DWG UPDATED FOR NEW STANDARD DC BATTERY SYSTEM UPGRADE.		INSTALL 30A DC BREAKER FOR SOURCE TO POWER QUALITY METER ON PCB 798 SVS LINE AS SHOWN.		INSTALL THREE 30A DC BREAKER FOR SOURCE TO POWER NEW TRANSFER TRIP PANEL #11, PANEL #12, AND SPARE. ADD CABLES 11-19/XDC AND 12-19/DC.		INSTALL TWO 30A CIRCUIT BREAKERS AND CABLES 13-19/SDC, 19-G/888DC, AND 19-G/COVTD.	



GE B90 INPUTS (BUS DIFFERENTIAL) I/O ASSIGNMENTS

ELEMENT	CONTACT	FUNCTION
IN	H7a/H7b	87B CUTOFF POSITION
IN	H7b/H7c	86B PRIMARY POSITION
IN	N1a/N1b	86B PRIMARY TRIP COIL MONITOR
IN	U7a/U7b	87B CUTOFF POSITION NOT IN SERVICE
IN	U7b/U7c	86B SECONDARY POSITION FROM 487V PANEL
IN	U7b/U8a	86BFL0 POSITION
IN	N3a/N3b	86B SECONDARY TRIP COIL MONITOR
IN	N5a/N5b	86B BREAKER FAILURE LOCKOUT MONITOR
IN	W1a/W1b	BREAKER POSITION
IN	W1b/W1c	BREAKER POSITION
IN	W1b/W2a	BREAKER POSITION
IN	W1b/W2c	BREAKER POSITION
IN	W3a/W3b	BREAKER POSITION
IN	W3b/W3c	BREAKER POSITION
IN	W3b/W4a	BANK A DIFFERENTIAL
IN	W3b/W4c	AOM A POSITION
IN	W5a/W5b	BKR POSITION A
IN	W5b/W5c	BANK B DIFFERENTIAL
IN	W5b/W6a	AOM B POSITION
IN	W5b/W6c	BKR POSITION B
IN	W7a/W7b	BANK C DIFFERENTIAL
IN	W7b/W7c	AOM C POSITION
IN	W7b/W8a	BKR POSITION C
IN	W7b/W8c	PRIMARY TRIP DC MONITOR
IN	N7a/N7b	ENABLE 1ST TEST
IN	N7b/N7c	ENABLE 2ND TEST
IN	N7b/N8a	RESET PUSHBUTTON
IN	N7b/N8c	SECONDARY TRIP DC MONITOR

GE B90 OUTPUTS (BUS DIFFERENTIAL) I/O ASSIGNMENTS

OUT	H1b/H1c	TRIP OUT
OUT	H2b/H2c	86B PRIMARY RESET
OUT	H3b/H3c	LOR FAIL
OUT	H4b/H4c	BUS RECLOSURE L.O.
OUT	H5b/H5c	AOM A TRIP
OUT	H5b/H6c	AOM B TRIP
OUT	U1b/U1c	OSCILLOGRAPHIC CROSS
OUT	U2b/U2c	86B SECONDARY RESET NOT IN SERVICE
OUT	U3b/U3c	DTST OUT
OUT	U4b/U4c	DST OUT
OUT	U5b/U5c	AOM C TRIP
OUT	U6b/U6c	C1s TEST BREAKER NOT IN SERVICE

"86BFL0" LOR RELAY

DECK	CONTACTS	POSITION
1	011-13	X
1	012-18	X
1	015-17	X
1	014-18	X
2	021-23	X
2	022-28	X
2	025-27	X
2	026-24	X
10	0101-103	X
10	0102-108	X
10	0105-102	X
10	0106-104	X
CONT	01-1	X

ELECTROSWITCH #78100

"86BFL0" LOR RELAY

DECK	CONTACTS	POSITION
1	011-13	X
1	012-18	X
1	015-17	X
1	014-18	X
2	021-23	X
2	022-28	X
2	025-27	X
2	026-24	X
10	0101-103	X
10	0102-108	X
10	0105-102	X
10	0106-104	X
CONT	01-1	X

ELECTROSWITCH #78400D

CONTACTS	1-2	2-3	4-5	5-6	7-8	8-9	10-11	11-12
01-1	X	X	X	X	X	X	X	X
02-2	X	X	X	X	X	X	X	X
03-3	X	X	X	X	X	X	X	X
04-4	X	X	X	X	X	X	X	X
05-5	X	X	X	X	X	X	X	X
06-6	X	X	X	X	X	X	X	X
07-7	X	X	X	X	X	X	X	X
08-8	X	X	X	X	X	X	X	X
09-9	X	X	X	X	X	X	X	X
10-10	X	X	X	X	X	X	X	X
11-11	X	X	X	X	X	X	X	X
12-12	X	X	X	X	X	X	X	X

NOTE
1. APPLY S(+) OR S(-) AS REQUIRED.

LEGEND
- SLIDING LINK TERMINALS
- LED INDICATING LIGHT

TYPICAL LABEL

WIRE LABEL → P(+) → 86 TT → 1 → 2 → 3 → 4 → 5 → 6 → 7 → 8 → 9 → 10 → 11 → 12 → 13 → 14 → 15 → 16 → 17 → 18 → 19 → 20 → 21 → 22 → 23 → 24 → 25 → 26 → 27 → 28 → 29 → 30 → 31 → 32 → 33 → 34 → 35 → 36 → 37 → 38 → 39 → 40 → 41 → 42 → 43 → 44 → 45 → 46 → 47 → 48 → 49 → 50 → 51 → 52 → 53 → 54 → 55 → 56 → 57 → 58 → 59 → 60 → 61 → 62 → 63 → 64 → 65 → 66 → 67 → 68 → 69 → 70 → 71 → 72 → 73 → 74 → 75 → 76 → 77 → 78 → 79 → 80 → 81 → 82 → 83 → 84 → 85 → 86 → 87 → 88 → 89 → 90 → 91 → 92 → 93 → 94 → 95 → 96 → 97 → 98 → 99 → 100 → 101 → 102 → 103 → 104 → 105 → 106 → 107 → 108 → 109 → 110 → 111 → 112 → 113 → 114 → 115 → 116 → 117 → 118 → 119 → 120 → 121 → 122 → 123 → 124 → 125 → 126 → 127 → 128 → 129 → 130 → 131 → 132 → 133 → 134 → 135 → 136 → 137 → 138 → 139 → 140 → 141 → 142 → 143 → 144 → 145 → 146 → 147 → 148 → 149 → 150 → 151 → 152 → 153 → 154 → 155 → 156 → 157 → 158 → 159 → 160 → 161 → 162 → 163 → 164 → 165 → 166 → 167 → 168 → 169 → 170 → 171 → 172 → 173 → 174 → 175 → 176 → 177 → 178 → 179 → 180 → 181 → 182 → 183 → 184 → 185 → 186 → 187 → 188 → 189 → 190 → 191 → 192 → 193 → 194 → 195 → 196 → 197 → 198 → 199 → 200 → 201 → 202 → 203 → 204 → 205 → 206 → 207 → 208 → 209 → 210 → 211 → 212 → 213 → 214 → 215 → 216 → 217 → 218 → 219 → 220 → 221 → 222 → 223 → 224 → 225 → 226 → 227 → 228 → 229 → 230 → 231 → 232 → 233 → 234 → 235 → 236 → 237 → 238 → 239 → 240 → 241 → 242 → 243 → 244 → 245 → 246 → 247 → 248 → 249 → 250 → 251 → 252 → 253 → 254 → 255 → 256 → 257 → 258 → 259 → 260 → 261 → 262 → 263 → 264 → 265 → 266 → 267 → 268 → 269 → 270 → 271 → 272 → 273 → 274 → 275 → 276 → 277 → 278 → 279 → 280 → 281 → 282 → 283 → 284 → 285 → 286 → 287 → 288 → 289 → 290 → 291 → 292 → 293 → 294 → 295 → 296 → 297 → 298 → 299 → 300 → 301 → 302 → 303 → 304 → 305 → 306 → 307 → 308 → 309 → 310 → 311 → 312 → 313 → 314 → 315 → 316 → 317 → 318 → 319 → 320 → 321 → 322 → 323 → 324 → 325 → 326 → 327 → 328 → 329 → 330 → 331 → 332 → 333 → 334 → 335 → 336 → 337 → 338 → 339 → 340 → 341 → 342 → 343 → 344 → 345 → 346 → 347 → 348 → 349 → 350 → 351 → 352 → 353 → 354 → 355 → 356 → 357 → 358 → 359 → 360 → 361 → 362 → 363 → 364 → 365 → 366 → 367 → 368 → 369 → 370 → 371 → 372 → 373 → 374 → 375 → 376 → 377 → 378 → 379 → 380 → 381 → 382 → 383 → 384 → 385 → 386 → 387 → 388 → 389 → 390 → 391 → 392 → 393 → 394 → 395 → 396 → 397 → 398 → 399 → 400 → 401 → 402 → 403 → 404 → 405 → 406 → 407 → 408 → 409 → 410 → 411 → 412 → 413 → 414 → 415 → 416 → 417 → 418 → 419 → 420 → 421 → 422 → 423 → 424 → 425 → 426 → 427 → 428 → 429 → 430 → 431 → 432 → 433 → 434 → 435 → 436 → 437 → 438 → 439 → 440 → 441 → 442 → 443 → 444 → 445 → 446 → 447 → 448 → 449 → 450 → 451 → 452 → 453 → 454 → 455 → 456 → 457 → 458 → 459 → 460 → 461 → 462 → 463 → 464 → 465 → 466 → 467 → 468 → 469 → 470 → 471 → 472 → 473 → 474 → 475 → 476 → 477 → 478 → 479 → 480 → 481 → 482 → 483 → 484 → 485 → 486 → 487 → 488 → 489 → 490 → 491 → 492 → 493 → 494 → 495 → 496 → 497 → 498 → 499 → 500 → 501 → 502 → 503 → 504 → 505 → 506 → 507 → 508 → 509 → 510 → 511 → 512 → 513 → 514 → 515 → 516 → 517 → 518 → 519 → 520 → 521 → 522 → 523 → 524 → 525 → 526 → 527 → 528 → 529 → 530 → 531 → 532 → 533 → 534 → 535 → 536 → 537 → 538 → 539 → 540 → 541 → 542 → 543 → 544 → 545 → 546 → 547 → 548 → 549 → 550 → 551 → 552 → 553 → 554 → 555 → 556 → 557 → 558 → 559 → 560 → 561 → 562 → 563 → 564 → 565 → 566 → 567 → 568 → 569 → 570 → 571 → 572 → 573 → 574 → 575 → 576 → 577 → 578 → 579 → 580 → 581 → 582 → 583 → 584 → 585 → 586 → 587 → 588 → 589 → 590 → 591 → 592 → 593 → 594 → 595 → 596 → 597 → 598 → 599 → 600 → 601 → 602 → 603 → 604 → 605 → 606 → 607 → 608 → 609 → 610 → 611 → 612 → 613 → 614 → 615 → 616 → 617 → 618 → 619 → 620 → 621 → 622 → 623 → 624 → 625 → 626 → 627 → 628 → 629 → 630 → 631 → 632 → 633 → 634 → 635 → 636 → 637 → 638 → 639 → 640 → 641 → 642 → 643 → 644 → 645 → 646 → 647 → 648 → 649 → 650 → 651 → 652 → 653 → 654 → 655 → 656 → 657 → 658 → 659 → 660 → 661 → 662 → 663 → 664 → 665 → 666 → 667 → 668 → 669 → 670 → 671 → 672 → 673 → 674 → 675 → 676 → 677 → 678 → 679 → 680 → 681 → 682 → 683 → 684 → 685 → 686 → 687 → 688 → 689 → 690 → 691 → 692 → 693 → 694 → 695 → 696 → 697 → 698 → 699 → 700 → 701 → 702 → 703 → 704 → 705 → 706 → 707 → 708 → 709 → 710 → 711 → 712 → 713 → 714 → 715 → 716 → 717 → 718 → 719 → 720 → 721 → 722 → 723 → 724 → 725 → 726 → 727 → 728 → 729 → 730 → 731 → 732 → 733 → 734 → 735 → 736 → 737 → 738 → 739 → 740 → 741 → 742 → 743 → 744 → 745 → 746 → 747 → 748 → 749 → 750 → 751 → 752 → 753 → 754 → 755 → 756 → 757 → 758 → 759 → 760 → 761 → 762 → 763 → 764 → 765 → 766 → 767 → 768 → 769 → 770 → 771 → 772 → 773 → 774 → 775 → 776 → 777 → 778 → 779 → 780 → 781 → 782 → 783 → 784 → 785 → 786 → 787 → 788 → 789 → 790 → 791 → 792 → 793 → 794 → 795 → 796 → 797 → 798 → 799 → 800 → 801 → 802 → 803 → 804 → 805 → 806 → 807 → 808 → 809 → 810 → 811 → 812 → 813 → 814 → 815 → 816 → 817 → 818 → 819 → 820 → 821 → 822 → 823 → 824 → 825 → 826 → 827 → 828 → 829 → 830 → 831 → 832 → 833 → 834 → 835 → 836 → 837 → 838 → 839 → 840 → 841 → 842 → 843 → 844 → 845 → 846 → 847 → 848 → 849 → 850 → 851 → 852 → 853 → 854 → 855 → 856 → 857 → 858 → 859 → 860 → 861 → 862 → 863 → 864 → 865 → 866 → 867 → 868 → 869 → 870 → 871 → 872 → 873 → 874 → 875 → 876 → 877 → 878 → 879 → 880 → 881 → 882 → 883 → 884 → 885 → 886 → 887 → 888 → 889 → 890 → 891 → 892 → 893 → 894 → 895 → 896 → 897 → 898 → 899 → 900 → 901 → 902 → 903 → 904 → 905 → 906 → 907 → 908 → 909 → 910 → 911 → 912 → 913 → 914 → 915 → 916 → 917 → 918 → 919 → 920 → 921 → 922 → 923 → 924 → 925 → 926 → 927 → 928 → 929 → 930 → 931 → 932 → 933 → 934 → 935 → 936 → 937 → 938 → 939 → 940 → 941 → 942 → 943 → 944 → 945 → 946 → 947 → 948 → 949 → 950 → 951 → 952 → 953 → 954 → 955 → 956 → 957 → 958 → 959 → 960 → 961 → 962 → 963 → 964 → 965 → 966 → 967 → 968 → 969 → 970 → 971 → 972 → 973 → 974 → 975 → 976 → 977 → 978 → 979 → 980 → 981 → 982 → 983 → 984 → 985 → 986 → 987 → 988 → 989 → 990 → 991 → 992 → 993 → 994 → 995 → 996 → 997 → 998 → 999 → 1000 → 1001 → 1002 → 1003 → 1004 → 1005 → 1006 → 1007 → 1008 → 1009 → 1010 → 1011 → 1012 → 1013 → 1014 → 1015 → 1016 → 1017 → 1018 → 1019 → 1020 → 1021 → 1022 → 1023 → 1024 → 1025 → 1026 → 1027 → 1028 → 1029 → 1030 → 1031 → 1032 → 1033 → 1034 → 1035 → 1036 → 1037 → 1038 → 1039 → 1040 → 1041 → 1042 → 1043 → 1044 → 1045 → 1046 → 1047 → 1048 → 1049 → 1050 → 1051 → 1052 → 1053 → 1054 → 1055 → 1056 → 1057 → 1058 → 1059 → 1060 → 1061 → 1062 → 1063 → 1064 → 1065 → 1066 → 1067 → 1068 → 1069 → 1070 → 1071 → 1072 → 1073 → 1074 → 1075 → 1076 → 1077 → 1078 → 1079 → 1080 → 1081 → 1082 → 1083 → 1084 → 1085 → 1086 → 1087 → 1088 → 1089 → 1090 → 1091 → 1092 → 1093 → 1094 → 1095 → 1096 → 1097 → 1098 → 1099 → 1100 → 1101 → 1102 → 1103 → 1104 → 1105 → 1106 → 1107 → 1108 → 1109 → 1110 → 1111 → 1112 → 1113 → 1114 → 1115 → 1116 → 1117 → 1118 → 1119 → 1120 → 1121 → 1122 → 1123 → 1124 → 1125 → 1126 → 1127 → 1128 → 1129 → 1130 → 1131 → 1132 → 1133 → 1134 → 1135 → 1136 → 1137 → 1138 → 1139 → 1140 → 1141 → 1142 → 1143 → 1144 → 1145 → 1146 → 1147 → 1148 → 1149 → 1150 → 1151 → 1152 → 1153 → 1154 → 1155 → 1156 → 1157 → 1158 → 1159 → 1160 → 1161 → 1162 → 1163 → 1164 → 1165 → 1166 → 1167 → 1168 → 1169 → 1170 → 1171 → 1172 → 1173 → 1174 → 1175 → 1176 → 1177 → 1178 → 1179 → 1180 → 1181 → 1182 → 1183 → 1184 → 1185 → 1186 → 1187 → 1188 → 1189 → 1190 → 1191 → 1192 → 1193 → 1194 → 1195 → 1196 → 1197 → 1198 → 1199 → 1200 → 1201 → 1202 → 1203 → 1204 → 1205 → 1206 → 1207 → 1208 → 1209 → 1210 → 1211 → 1212 → 1213 → 1214 → 1215 → 1216 → 1217 → 1218 → 1219 → 1220 → 1221 → 1222 → 1223 → 1224 → 1225 → 1226 → 1227 → 1228 → 1229 → 1230 → 1231 → 1232 → 1233 → 1234 → 1235 → 1236 → 1237 → 1238 → 1239 → 1240 → 1241 → 1242 → 1243 → 1244 → 1245 → 1246 → 1247 → 1248 → 1249 → 1250 → 1251 → 1252 → 1253 → 1254 → 1255 → 1256 → 1257 → 1258 → 1259 → 1260 → 1261 → 1262 → 1263 → 1264 → 1265 → 1266 → 1267 → 1268 → 1269 → 1270 → 1271 → 1272 → 1273 → 1274 → 1275 → 1276 → 1277 → 1278 → 1279 → 1280 → 1281 → 1282 → 1283 → 1284 → 1285 → 1286 → 1287 → 1288 → 1289 → 1290 → 1291 → 1292 → 1293 → 1294 → 1295 → 1296 → 1297 → 1298 → 1299 → 1300 → 1301 → 1302 → 1303 → 1304 → 1305 → 1306 → 1307 → 1308 → 1309 → 1310 → 1311 → 1312 → 1313 → 1314 → 1315 → 1316 → 1317 → 1318 → 1319 → 1320 → 1321 → 1322 → 1323 → 1324 → 1325 → 1326 → 1327 → 1328 → 1329 → 1330 → 1331 → 1332 → 1333 → 1334 → 1335 → 1336 → 1337 → 1338 → 1339 → 1340 → 1341 → 1342 → 1343 → 1344 → 1345 → 1346 → 1347 → 1348 → 1349 → 1350 → 1351 → 1352 → 1353 → 1354 → 1355 → 1356 → 1357 → 1358 → 1359 → 1360 → 1361 → 1362 → 1363 → 1364 → 1365 → 1366 → 1367 → 1368 → 1369 → 1370 → 1371 → 1372 → 1373 → 1374 → 1375 → 1376 → 1377 → 1378 → 1379 → 1380 → 1381 → 1382 → 1383 → 1384 → 1385 → 1386 → 1387 → 1388 → 1389 → 1390 → 1391 → 1392 → 1393 → 1394 → 1395 → 1396 → 1397 → 1398 → 1399 → 1400 → 1401 → 1402 → 1403 → 1404 → 1405 → 1406 → 1407 → 1408 → 1409 → 1410 → 1411 → 1412 → 1413 → 1414 → 1415 → 1416 → 1417 → 1418 → 1419 → 1420 → 1421 → 1422 → 1423 → 1424 → 1425 → 1426 → 1427 → 1428 → 1429 → 1430 → 1431 → 1432 → 1433 → 1434 → 1435 → 1436 → 1437 → 1438 → 1439 → 1440 → 1441 → 1442 → 1443 → 1444 → 1445 → 1446 → 1447 → 1448 → 1449 → 1450 → 1451 → 1452 → 1453 → 1454 → 1455 → 1456 → 1457 → 1458 → 1459 → 1460 → 1461 → 1462 → 1463 → 1464 → 1465 → 1466 → 1467 → 1468 → 1469 → 1470 → 1471 → 1472 → 1473 → 1474 → 1475 → 1476 → 1477 → 1478 → 1479 → 1480 → 1481 → 1482 → 1483 → 1484 → 1485 → 1486 → 1487 → 1488 → 1489 → 1490 → 1491 → 1492 → 1493 → 1494 → 1495 → 1496 → 1497 → 1498 → 1499 → 1500 → 1501 → 1502 → 1503 → 1504 → 1505 → 1506 → 1507 → 1508 → 1509 → 1510 → 1511 → 1512 → 1513 → 1514 → 1515 → 1516 → 1517 → 1518 → 1519 → 1520 → 1521 → 1522 → 1523 → 1524 → 1525 → 1526 → 1527 → 1528 → 1529 → 1530 → 1531 → 1532 → 1533 → 1534 → 1535 → 1536 → 1537 → 1538 → 1539 → 1540 → 1541 → 1542 → 1543 → 1544 → 1545 → 1546 → 1547 → 1548 → 1549 → 1550 → 1551 → 1552 → 1553 → 1554 → 1555 → 1556 → 1557 → 1558 → 1559 → 1560 → 1561 → 1562 → 1563 → 1564 → 1565 → 1566 → 1567 → 1568 → 1569 → 1570 → 1571 → 1572 → 1573 → 1574 → 1575 → 1576 → 1577 → 1578 → 1579 → 1580 → 1581 → 1582 → 1583 → 1584 → 1585 → 1586 → 1587 → 1588 → 1589 → 1590 → 1591 → 1592 → 1593 → 1594 → 1595 → 1596 → 1597 → 1598 → 1599 → 1600 → 1601 → 1602 → 1603 → 1604 → 1605 → 1606 → 1607 → 1608 → 1609 → 1610 → 1611 → 1612 → 1613 → 1614 → 1615 → 1616 → 1617 → 1618 → 1619 → 1620 →



(TRANS. BUS PROTECTION/GE-B90/LOCKOUT/8 CURRENT CKT./STRAIGHT BUS)

P. I. #1899807

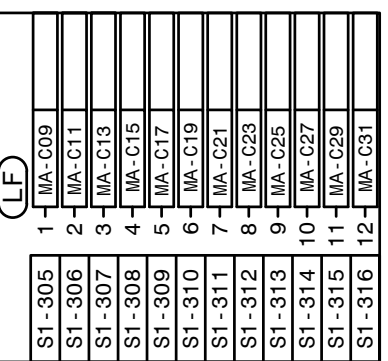
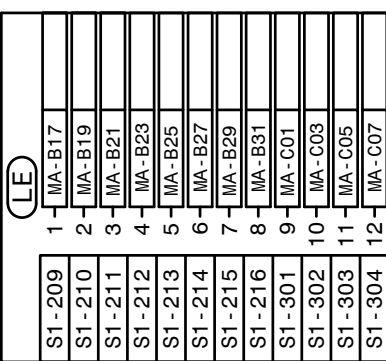
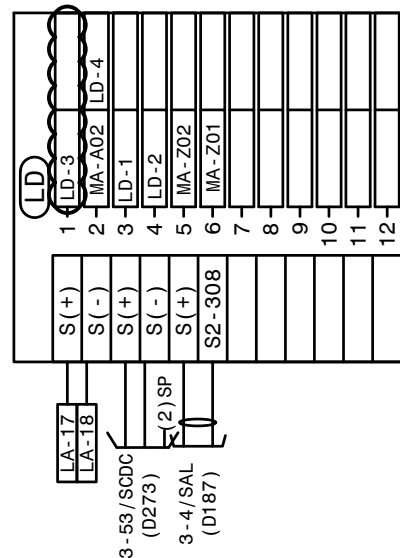
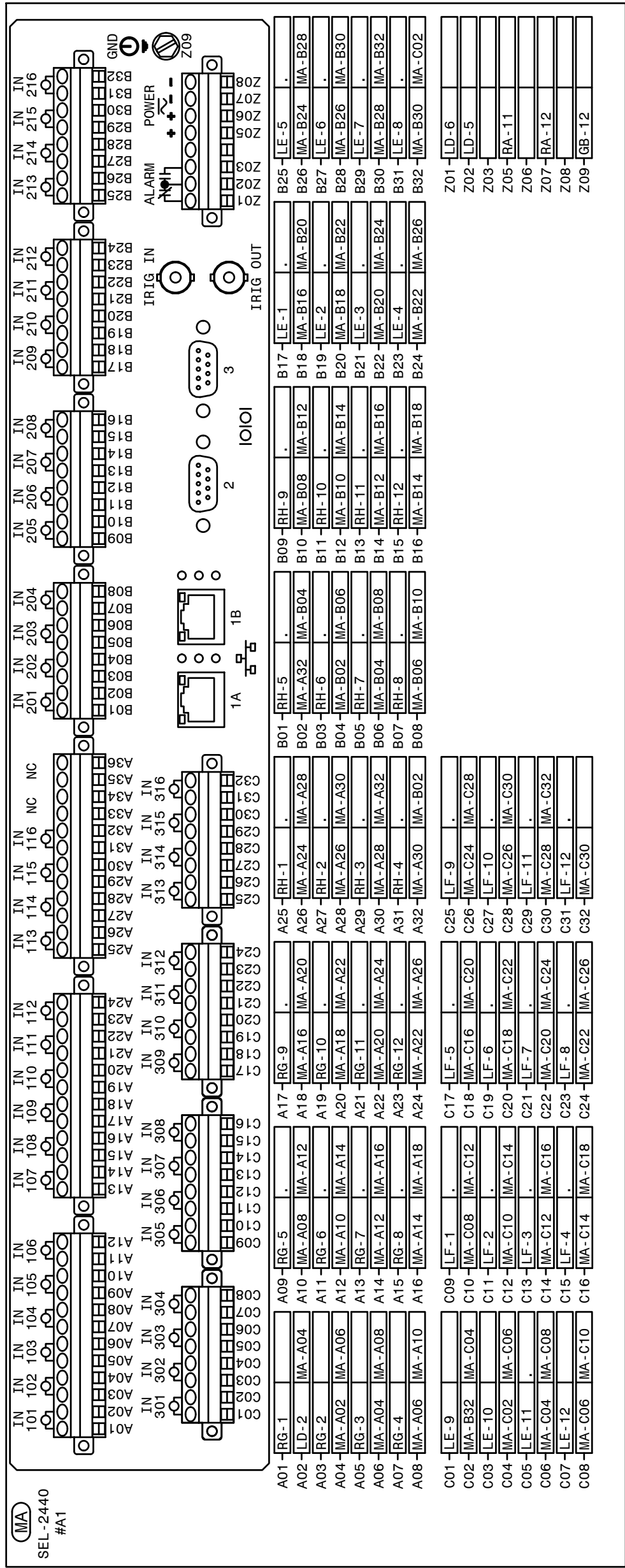
**BURNS
MCDONNELL**

4004 SUMMIT BLVD., NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770)587-4776

Burns & McDonnell Engineering Co. Inc.
GA ENGINEERING LICENSE: PEF000100
EXPIRATION DATE: 6/30/2026

THE REGISTRANT OF THE NEWLY APPLIED
SEAL, DATE: 10/06/2024.

ONLY ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISION(S) 03.




* IF RADIO NOT REQUIRED, LEAVE PORT BLANK

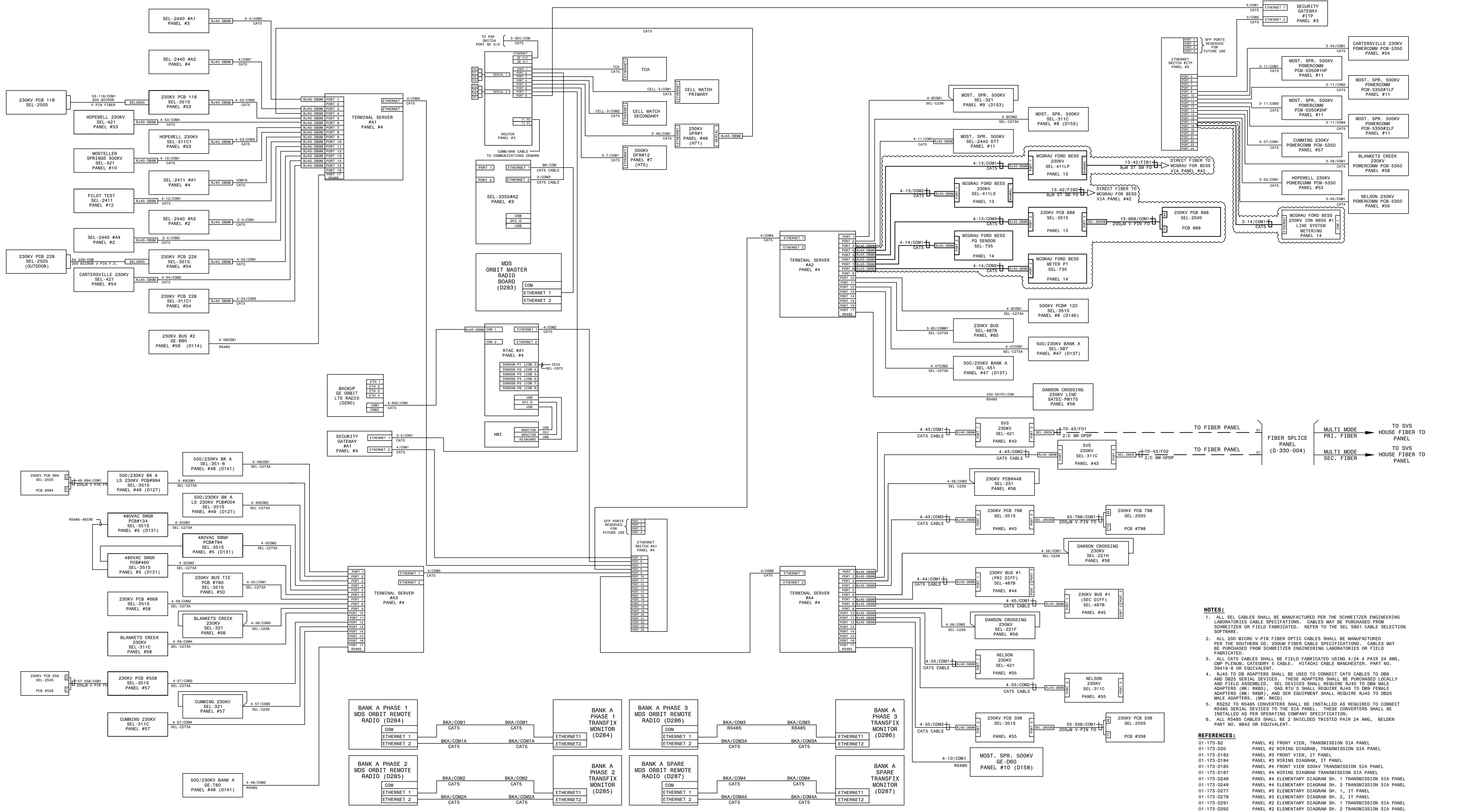
AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

REFERENCES:

01-173-D182
01-173-D186
01-173-D187
01-173-D277
01-173-D278

PANEL #3 FRONT VIEW, IT PANEL
SIA COMMUNICATION CONNECTION DIAGRAM
PANEL #4 WIRING DIAGRAM TRANSMISSION SIA PANEL
PANEL #3 ELEMENTARY DIAGRAM SH. 1, IT PANEL
PANEL #3 ELEMENTARY DIAGRAM SH. 2, IT PANEL

 GEORGIA POWER A SOUTHERN COMPANY	FACILITY NAME:							MCGRAU FORD TS		
	TITLE: PANEL #3 WIRING DIAGRAM, IT PANEL									
	DRAWN:									
	CHECKED:	TYPE:	WD	FACILITY #:	NUMBER:	SHEET:	REV:			
APPROVED:	SCALE:	N.T.S.		01 - 173	D	184		- 001 - 13		
DATE: 5/14/2008	BOM:									
ASC FACIS:					ALT DWG NUM:					



- NOTES:**
1. ALL SEL CABLES SHALL BE MANUFACTURED PER THE SCHWEITZER ENGINEERING LABORATORIES CABLE SPECIFICATIONS. CABLES MAY BE PURCHASED FROM SCHWEITZER OR FIELD FABRICATED. REFER TO THE SEL 5801 CABLE SELECTION SOFTWARE.
 2. ALL 200 MICRO V-PIN FIBER OPTIC CABLES SHALL BE MANUFACTURED PER THE SOUTHERN CO. 200UM FIBER CABLE SPECIFICATIONS. CABLES MAY BE PURCHASED FROM SCHWEITZER ENGINEERING LABORATORIES OR FIELD FABRICATED.
 3. ALL CAT5 CABLES SHALL BE FIELD FABRICATED USING 4/24 4 PAIR 24 AWG, CIMP FLENUM, CATEGORY 5 CABLE. HITACHI CABLE MANCHESTER. PART NO. 39419-B OR EQUIVALENT.
 4. RJ45 TO DB ADAPTERS SHALL BE USED TO CONNECT CAT5 CABLES TO DB9 AND DB25 SERIAL DEVICES. THESE ADAPTERS SHALL BE PURCHASED LOCALLY AND FIELD ASSEMBLED. SEL DEVICES SHALL REQUIRE RJ45 TO DB9 MALE ADAPTERS (MK: RKBS). DB9 RTU'S SHALL REQUIRE RJ45 TO DB9 FEMALE ADAPTERS (MK: RKBR). AND SER EQUIPMENT SHALL REQUIRE RJ45 TO DB25 MALE ADAPTERS (MK: RKD).
 5. RS232 TO RS485 CONVERTERS SHALL BE INSTALLED AS REQUIRED TO CONNECT RS485 SERIAL DEVICES TO THE SIA PANEL. THESE CONVERTERS SHALL BE INSTALLED AS PER OPERATING COMPANY SPECIFICATION.
 6. ALL RS485 CABLES SHALL BE 2 SHIELDED TWISTED PAIR 24 AWG, BELDEN PART NO. 9842 OR EQUIVALENT.
- REFERENCES:**
- | | |
|-------------|--|
| 01-173-02 | PANEL #2 FRONT VIEW, TRANSMISSION SIA PANEL |
| 01-173-020 | PANEL #2 WIRING DIAGRAM, TRANSMISSION SIA PANEL |
| 01-173-0182 | PANEL #3 FRONT VIEW, IT PANEL |
| 01-173-0184 | PANEL #4 FRONT VIEW 500KV TRANSMISSION SIA PANEL |
| 01-173-0185 | PANEL #4 WIRING DIAGRAM TRANSMISSION SIA PANEL |
| 01-173-0187 | PANEL #4 ELEMENTARY DIAGRAM SH. 1 TRANSMISSION SIA PANEL |
| 01-173-0248 | PANEL #4 ELEMENTARY DIAGRAM SH. 2 TRANSMISSION SIA PANEL |
| 01-173-0249 | PANEL #4 ELEMENTARY DIAGRAM SH. 1, IT PANEL |
| 01-173-0277 | PANEL #3 ELEMENTARY DIAGRAM SH. 1, IT PANEL |
| 01-173-0278 | PANEL #3 ELEMENTARY DIAGRAM SH. 2, IT PANEL |
| 01-173-0291 | PANEL #2 ELEMENTARY DIAGRAM SH. 1 TRANSMISSION SIA PANEL |
| 01-173-0292 | PANEL #2 ELEMENTARY DIAGRAM SH. 2 TRANSMISSION SIA PANEL |



AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

GEORGIA POWER <small>A SOUTHERN COMPANY</small>		FACILITY NAME: MCGRAU FORD TS	
TITLE: SIA COMMUNICATION CONNECTION DIAGRAM		FACILITY #: 01-173	
DRAWN: AJW	CHECKED: AJW	TYPE: SIA	NUMBER: 186
APPROVED: AJW	SCALE: N.T.S.	DATE: 7/31/2006	SHEET: 001 - 14
ASC FACS:		ALT DWG NUM:	

08 BAH/JWH USPP 9/21/2021 P1:FC183304	09 BPE/BPE BPE 05/31/2023 P1:1930501	10 BPE/BPE BPE 08/01/2023 P1:1930501	11 BPE/BPE BPE 10/12/2023 P1:1930501	12 BPE/BPE BPE 2/28/2024 P1:1943901	13 RJH/RCL USPP 4/1/2024 P1:2014906	14 TK/DP DP 07/26/2024 P1:	15 EG/SW AA 9/23/2024 P1:1899807
MOVED GE RELAY COMMUNICATIONS FROM ETHERNET TO SERIAL, SHOWN FOR RECORD ONLY.		UPDATE CONNECTIONS FOR NEW PANELS #44 & #45. BUS #1 DIFFERENTIALS AND #55 NELSON LINE. ADD CONNECTIONS FOR NEW PANEL #43 SVS LINE. AS SHOWN. PANEL #4, SWITCH #A2 REMOVED, FOR RECORD ONLY.		UPDATE DRAWING PER FIELD CHANGES AS SHOWN.		REMOVED SEL-3555 COMMUNICATION CONNECTION PER AS-BUILT MARKUPS.	

05|CSM|DWL|USP|12/2/2013|PI: 1451605
REPLACE SEL-3351 WITH A SEL-3354. CONTACT EDUARDO SANTIAGO FOR NEW SEL-3354. RELOCATED TERMINAL BLOCKS FOR RECORD ONLY.

06|CSM|DWL|USP|3/5/2015|PI: 1451605
REMOVE SEL-2032#1, SEL-2032#2, HMT, KEYBOARD/MOUSE, AND SEL-3354. RELOCATE SEL-3610#A1 FROM PANEL #3 AS SHOWN. INSTALL SEL-3610#A2, SEL-3610#A3, SEL-3610#A4, ETHERNET SWITCH #A1, SEL-2440#A2, SEL-3355#A1, AND SEL-3355#A2 AS SHOWN.

07|CSM|DWL|USP|10/4/2015|PI: 1451736
REMOVE GABRIELTCOM ETHERNET SWITCHES. INSTALL SEL-2730#A1, SEL-2730#A2, AND SEL-3390S8 EXPANSION CARDS AS SHOWN. FIELD CHANGES SHOWN FOR RECORD ONLY.

08|CSM|DWL|USP|1/10/2016|PI: 1451736
REMOVE CABLE 4-10/SAL2.

10|RC|JWH|USPOWER|7/11/2019|PI: 1616363
CONVERT SEL-3355#A1 TO SEL-3355#A1 (RTAC). REMOVE RKDD (SEL-3355#A2) AND (1)RGMU. INSTALL (1)RGWT, (1)RGWV AND (1)RLCU. UPDATED DRAWING REFERENCE D184 FOR RECORD ONLY.

11|BAS|JWH|USPP|3/27/2020|PI: 1616363
FC#10 (CC): ADDED CABLE 4-56SC12.

12|RJH|KDB|USPP|4/1/2024|PI: 2014906
ADD CABLES 3-4-11/SDCC AND 4-11/SAL1. REMOVE CABLES 4-11/SC AND 4-11SAL178.

GEORGIA POWER

SOUTHERN COMPANY

CHECKED: AJW
APPROVED: AJW
DATE: 7/31/2006

FACILITY NAME:

MCGRAU FORD TS

TITLE: PANEL #4 WIRING DIAGRAM TRANSMISSION SIA PANEL

FACILITY #:
01-173

TYPE: WD
SCALE: N.T.S.

NUMBER:
187

REV:

001-12

ASCC FACs:

ALT DWG NUM:

THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

REFERENCES:
01-173-D184
01-173-D185
01-173-D186
01-173-D248
01-173-D249
01-173-D249

PANEL #3 WIRING DIAGRAM, IT PANEL
PANEL #4 FRONT VIEW 500kV TRANSMISSION SIA PANEL
SIA COMMUNICATION CONN. DIAGRAM
ELEMENTARY DIAGRAM SH. 1 TRANSMISSION SIA PANEL
ELEMENTARY DIAGRAM SH. 2 TRANSMISSION SIA PANEL

ITEM	QTY	DESCRIPTION
A2	1	PRIMARY CHASSIS 16A, 64E
B2	1	ADD-ON CHASSIS 16A,64E
C2	1	ADD-ON CHASSIS 16A,64E
A4	1	KEYBOARD RACK MOUNT
A6	1	MONITOR
A7	1	ALARM OUTPUT MODULE
A9	1	MODEM- INTERNAL TO A12
A10	0	GPS RECEIVER CLOCK
A11	0	TELCO SWITCH-SUPPLIED BY CUSTOMER
A12	1	COMPUTER
IL	1	INTERIOR LIGHT
CR	2	CONVENIENCE RECEPTACLE
LS	1	LIGHT SWITCH
D2	1	ADD-ON CHASSIS 16A,64E

FOR REFERENCE

NOTES:

- UTILITY SYSTEMS INC. MODEL 2002 DIGITAL FAULT RECORDER GPC P.O. #01965570000 IN 2005.
- ADD-ON CHASSIS D2 WAS A 0 ANALOG, 64 EVENT POINT CHASSIS AND HAS BEEN REPLACED WITH A 16 ANALOG, 64 EVENT POINT CHASSIS BY THE FIELD. SHOWN FOR REFERENCE.
- FOR THE NEW 16A, 64E CHASIS, ONE 20 POLE AND ONE 12 POLE STATES TERMINAL BLOCK HAVE BEEN INSTALLED UNDER CHASSIS D2 BY THE FIELD.

REFERENCES:

- 01-173-D132 DFR #1 CHANNEL AND POINT ASSIGNMENT
01-173-H71 PANEL #46 CONNECTION DIAG.-DFR #2
01-173-D206 PANEL#46, DFR CAB. #2 REAR VIEW

FACILITY NAME: MCGRAU FORD TS

TITLE: DIGITAL FAULT REC. #1 CABINET (230KV) F.V. AND SECTIONS, PANEL #46



DRAWN: JLC

CHECKED: AJW

APPROVED: DATE: 05-30-2005

TYPE: FV

SCALE: N.T.S.

BOH:

FACILITY #:

01-173

NUMBER:

D-

SHEET:

205

REV:

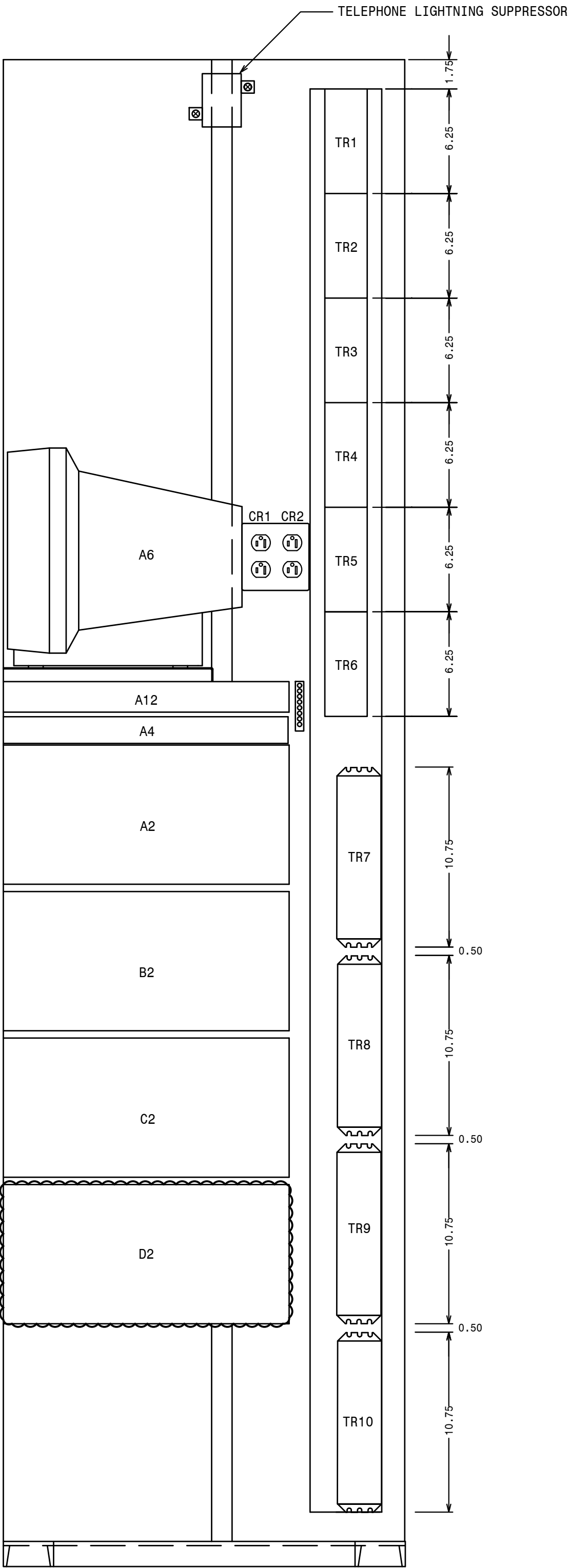
- 001 - 00

ASC FACs:

ALT DWG NUM:

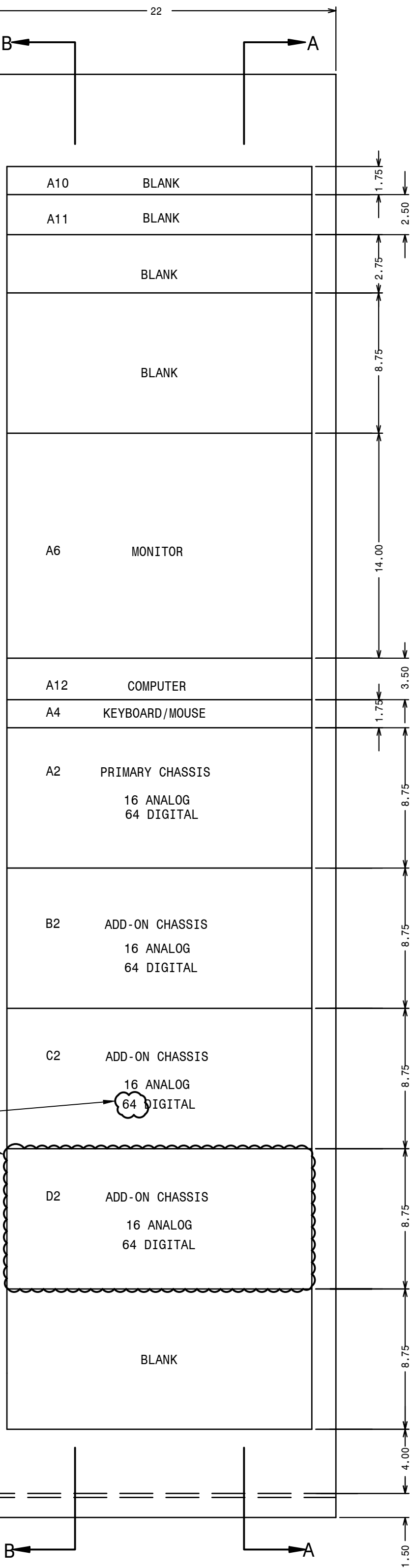
FOR REFERENCE

SECTION BB



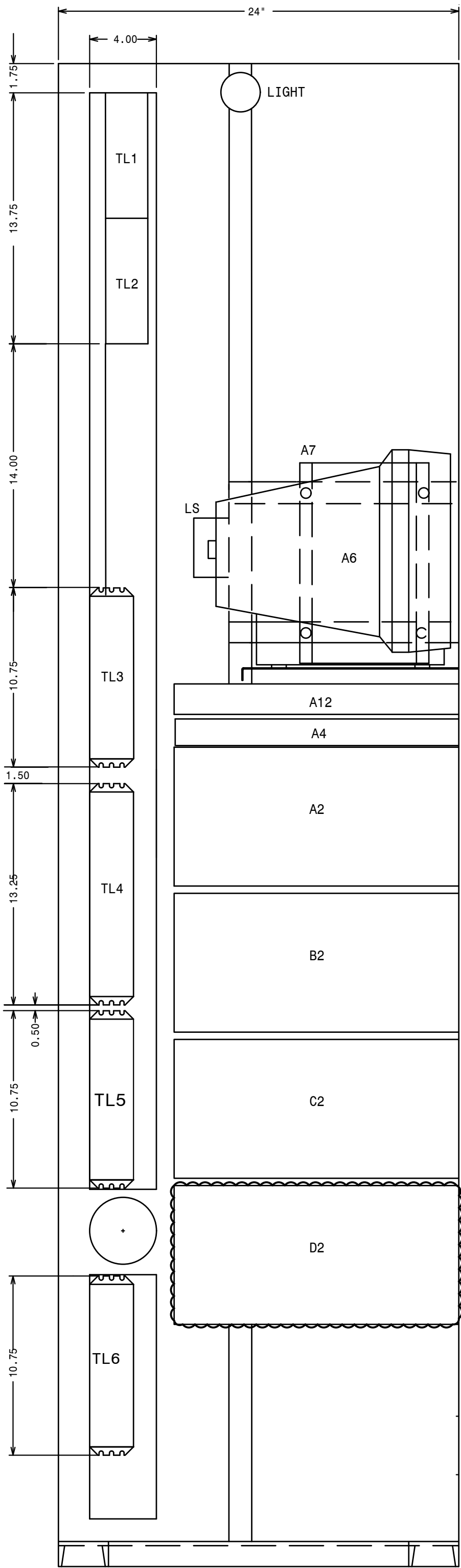
FOR REFERENCE

FRONT VIEW



MK: RHSV

SECTION AA



FOR REFERENCE

P.I.#1899807



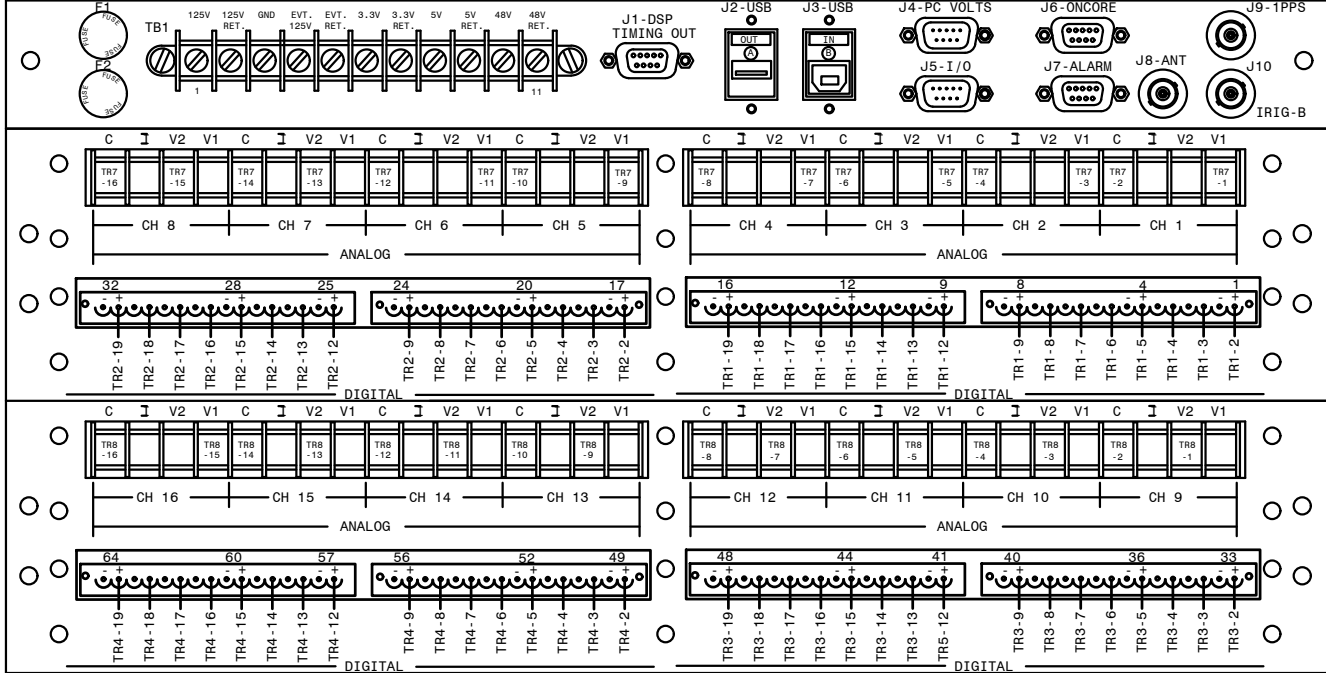
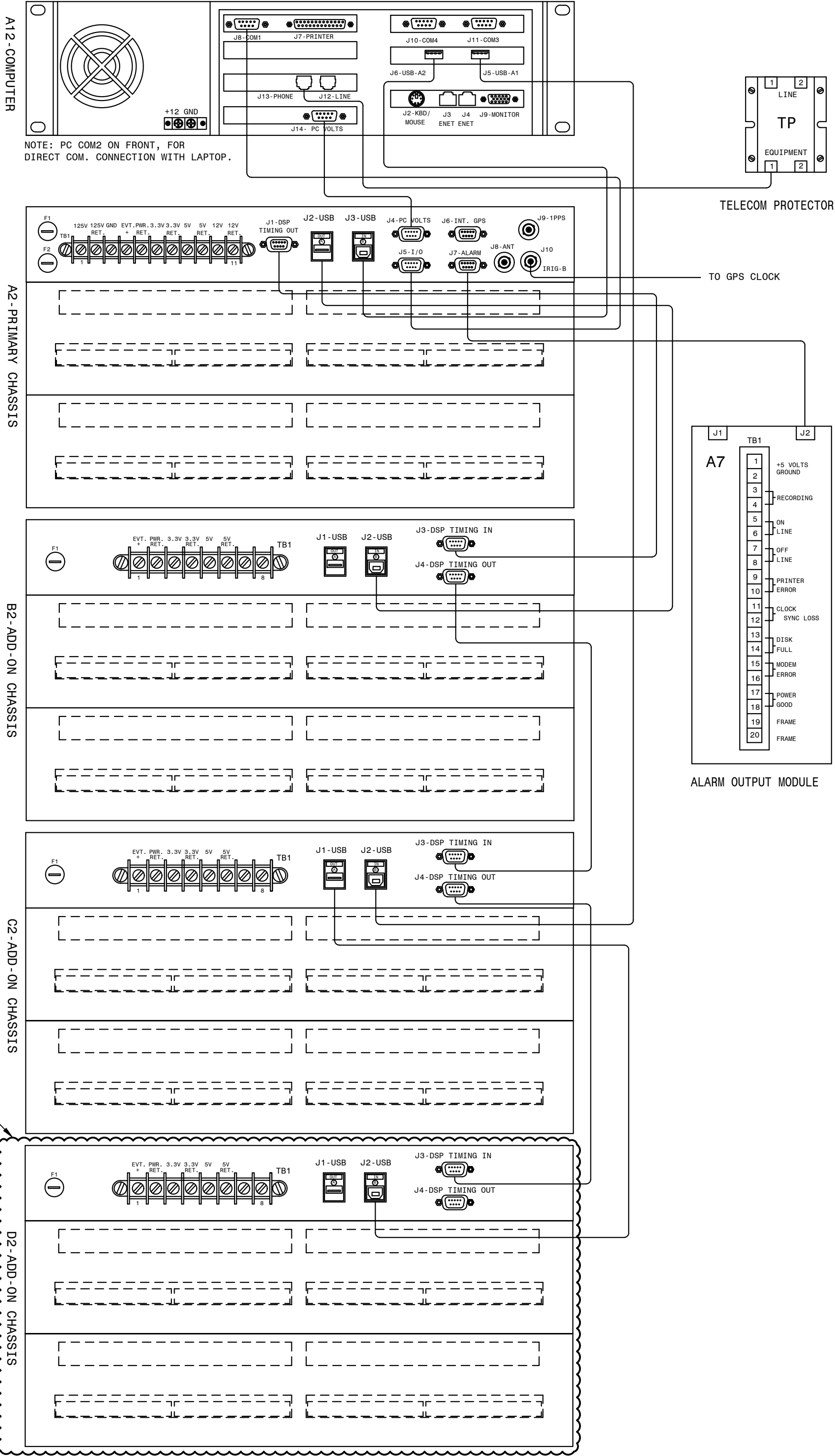
PI: 01 EG SW AA 9/16/2024 PI: 1899807

SEE NOTES 2 AND 3.

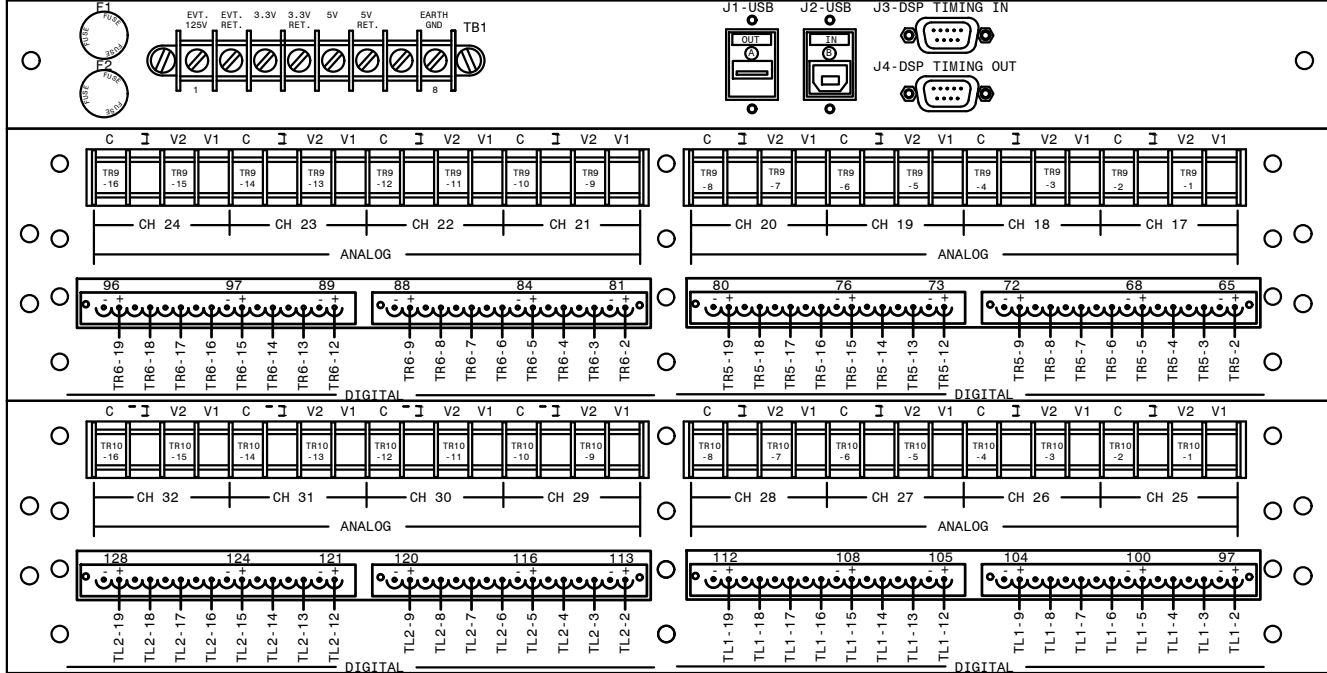
INTERCONNECTING CABLES LIST		
A12-J6 TO A2-J3	A12 COMPUTER USB (A2)	TO PRIMARY CHASSIS USB (B)
A12-J5 TO A2-J2	A12 COMPUTER USB (A1)	TO PRIMARY CHASSIS USB (B)
A12-J14 TO A2-J4	COMPUTER PC VOLTS TO PRIMARY CHASSIS	
A12-J8 TO A2-J5	COMPUTER COM1 TO PRIMARY CHASSIS I/O PORT	
A12-J13 TO A11	PORT 1-8 COMPUTER J13 TO A11 PORT DESIGNATION PER STATION	
A12-J11 TO A2-J6	COMPUTER COM3 TO PRIMARY CHASSIS INT. GPS	
A2-J1 TO B2-J3	A2 CHASSIS DSP TIMING (OUT) TO B2 CHASSIS DSP TIMING (IN)	
A2-J2 TO B2-J2	A2 CHASSIS USB (A) TO B2 CHASSIS USB (B)	
A2-J8 TO A10-IRIG-B	MODULATED IRIG-B CLOCK SOURCE	
A2-J7 TO A7-J2	ALARM OUTPUT MODULE	
B2-J1 TO C2-J2	B2 CHASSIS USB (A) TO C2 CHASSIS USB (B)	
B2-J4 TO C2-J3	B2 CHASSIS DSP TIMING (OUT) TO C2 CHASSIS DSP TIMING (IN)	
C2-J1 TO D2-J2	C2 CHASSIS USB (A) TO D2 CHASSIS USB (B)	
C2-J4 TO D2-J3	C2 CHASSIS DSP TIMING (OUT) TO D2 CHASSIS DSP TIMING (IN)	

ITEM	QTY	DESCRIPTION
A2	1	PRIMARY CHASSIS 16A, 64E
B2	1	ADD-ON CHASSIS 16A, 64E
C2	1	ADD-ON CHASSIS 16A, 64E
D2	1	ADD-ON CHASSIS 16A, 64E
A6	1	MONITOR/KEYBOARD
A7	1	ALARM OUTPUT MODULE
A9	1	MODEM- INTERNAL TO A12
A12	1	COMPUTER
IL	1	INTERIOR LIGHT
CR	2	CONVENIENCE RECEPTACLE
LS	1	LIGHT SWITCH
TP	1	TELECOM PROTECTOR

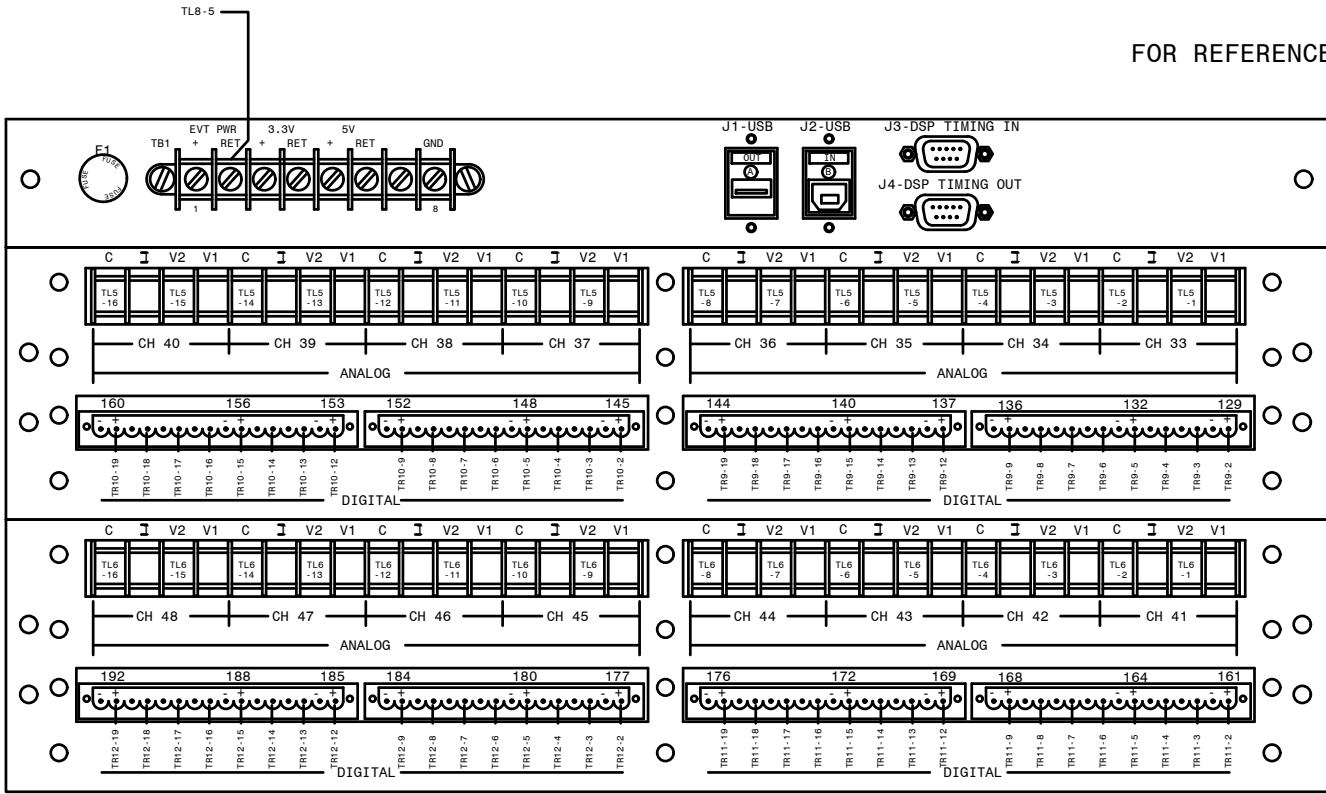
FOR REFERENCE



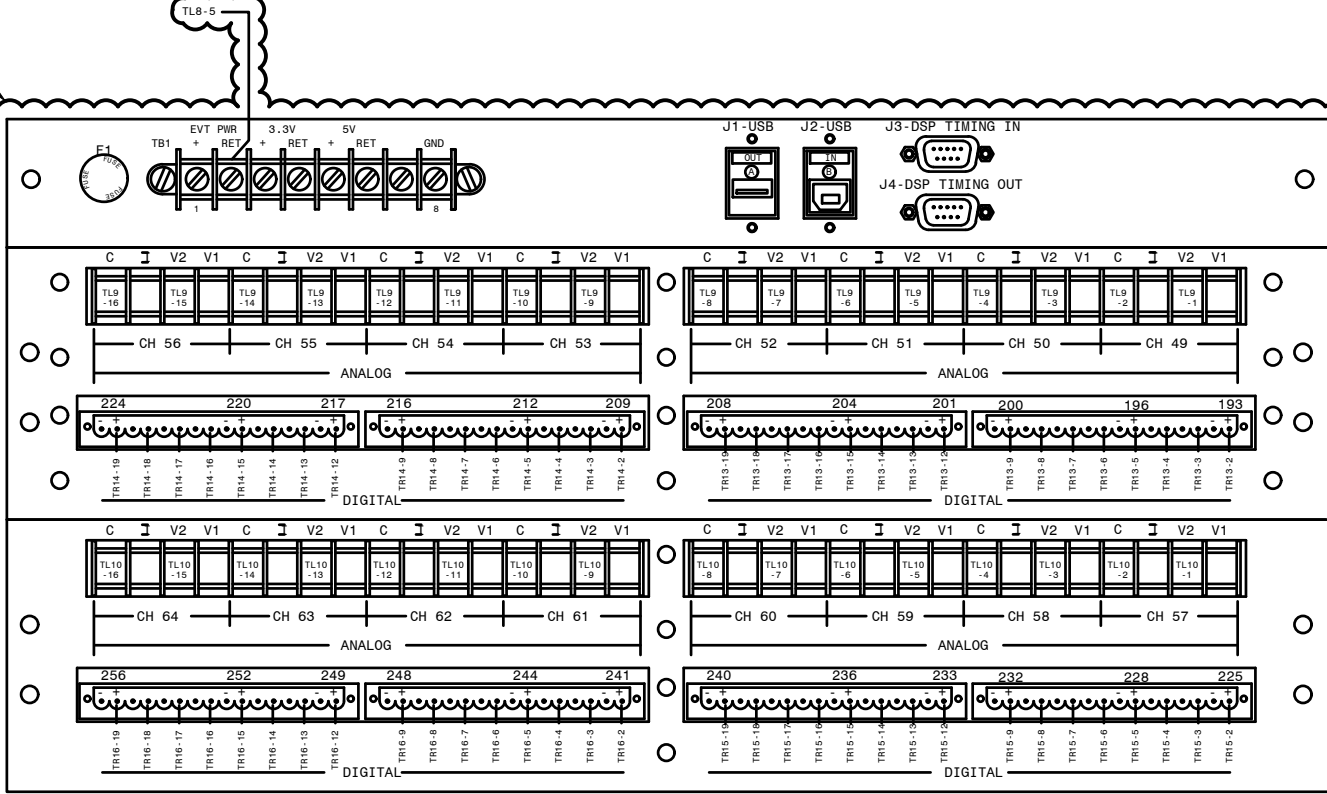
(A2)



(B2)



(C2)



(D2)

- NOTES:
- USE V1 40.01 TO 400V FULL SCALE.
 - USE V2 1V TO 40V FULL SCALE
 - WHEN "V2" INPUT IS USED, JUMPER MUST BE CONNECTED BETWEEN V1 & V2 OF SAME CHANNEL.
 - F1 = MAIN POWER FUSE
 - F2 = EVENT POWER FUSE
 - ALL WIRES 14AWG SIS UNLESS OTHERWISE SPECIFIED.
 - ALL EVENT (DIGITAL) CHANNELS HAVE COMMON RETURN. JUMPERS INSIDE CHASSIS TIE RETURNS TOGETHER.
 - ADD-ON CHASSIS D2 WAS A 0 ANALOG, 64 EVENT POINT CHASSIS AND HAS BEEN REPLACED WITH A 16 ANALOG, 64 EVENT POINT CHASSIS BY THE FIELD. SHOWN FOR REFERENCE. FIELD TO VERIFY THE CONNECTIONS.
- REFERENCES:
- | | |
|-------------|---|
| 01-173-D205 | DFR #1 CABINET F.V. & SECTIONS, PANEL #46 |
| 01-173-D132 | DFR #1 CHANNEL & EVENT ASSIGNMENTS, PANEL #46 |
| 01-173-H71 | DFR #1 CONNECTION DIAGRAM, PANEL #46 |

P.I.#1899807

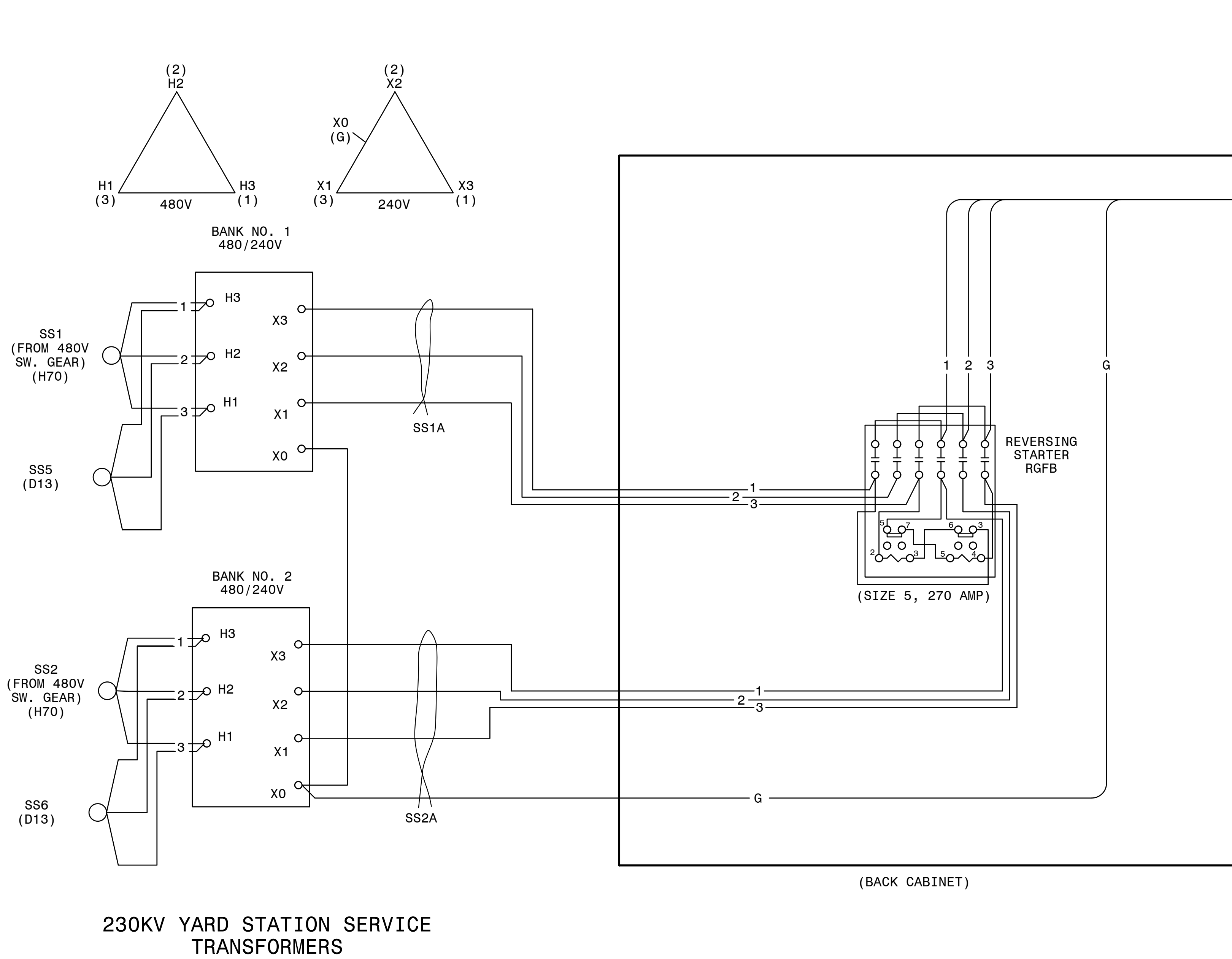
BURNS MEDONNELL

4004 SUMMIT BLVD. NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770) 887-4776

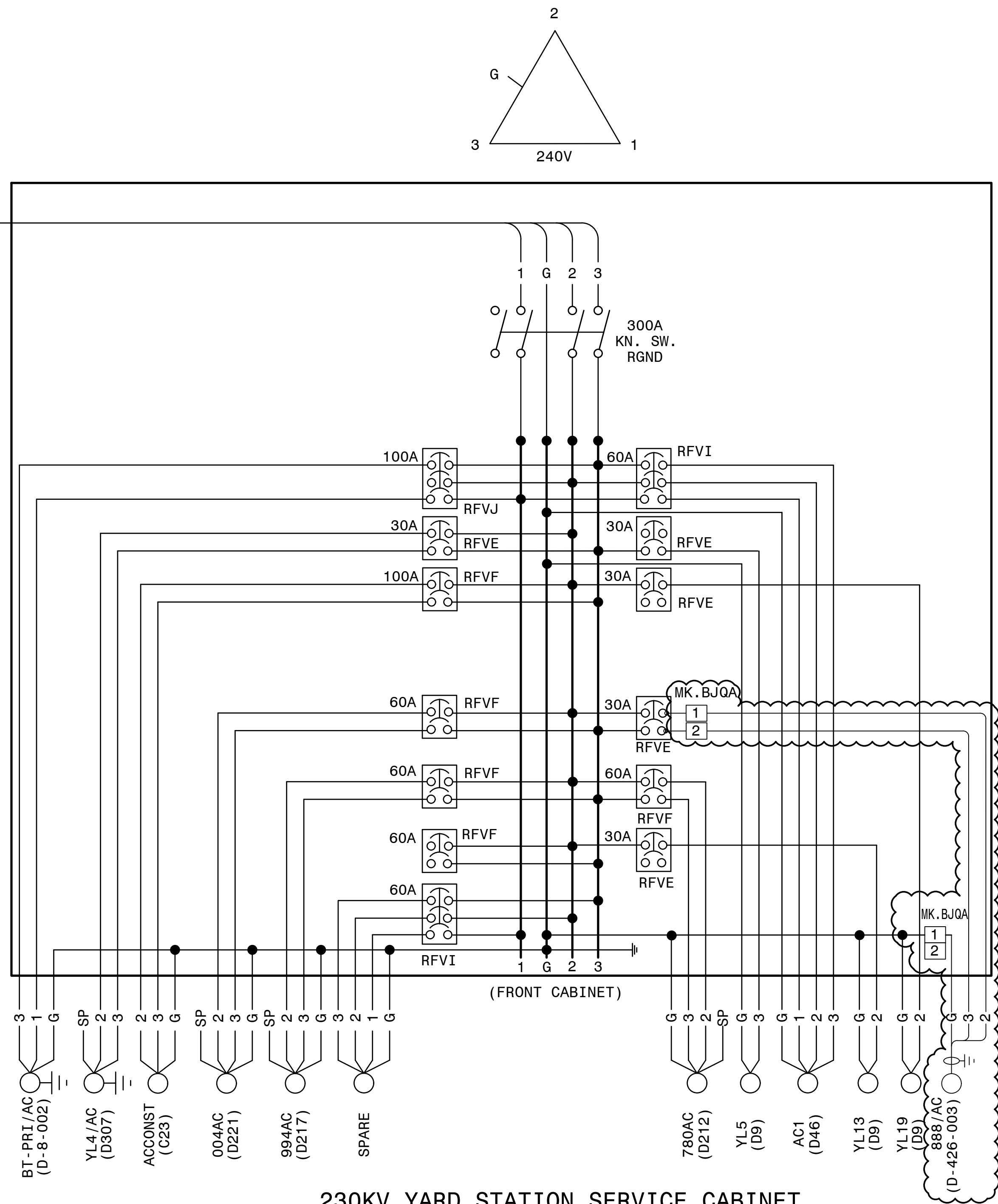
Burns & McDonnell Engineering Co. Inc.
GA ENGINEERING LICENSE #1909109
EXPIRATION DATE: 6/30/2026

THE REGISTRANT OF THE NEWLY APPLIED
SEAL ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS:

GEORGIA SOUTHERN POWER		FACILITY NAME: MCGRAU FORD TS	
TITLE: DIGITAL FAULT RECORDER #1 CABINET REAR VIEW, PANEL #46 (230KV)		NUMBER: 206	
DRAWN: JLC	CHECKED: AJW	FACILITY #: 01-173	SHEET: REV: 001
APPROVED: DATE: 08/25/2005	SCALE: N.T.S.	DATE: 08/25/2005	ASC FACS: ALT DWG NUM:



230KV YARD THROWOVER CABINET



230KV YARD STATION SERVICE CABINET

- NOTES:
- POWER TERMINAL BLOCK MK. BJQA TO BE LOCATED AND INSTALLED BY THE FIELD, AS REQUIRED.
 - CABLES INSTALLED FROM POWER TERMINAL BLOCK MK. BJQA TO BLOCK TERMINAL MK. BJPE TO BE #10.

P.I. #1899807

BURNS MEDONNELL

4004 SUMMIT BLVD. NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770) 887-4778

Burns & McDonnell Engineering Co. Inc.
GA ENGINEERING LICENSE: PE000100
EXPIRATION DATE: 6/30/2026

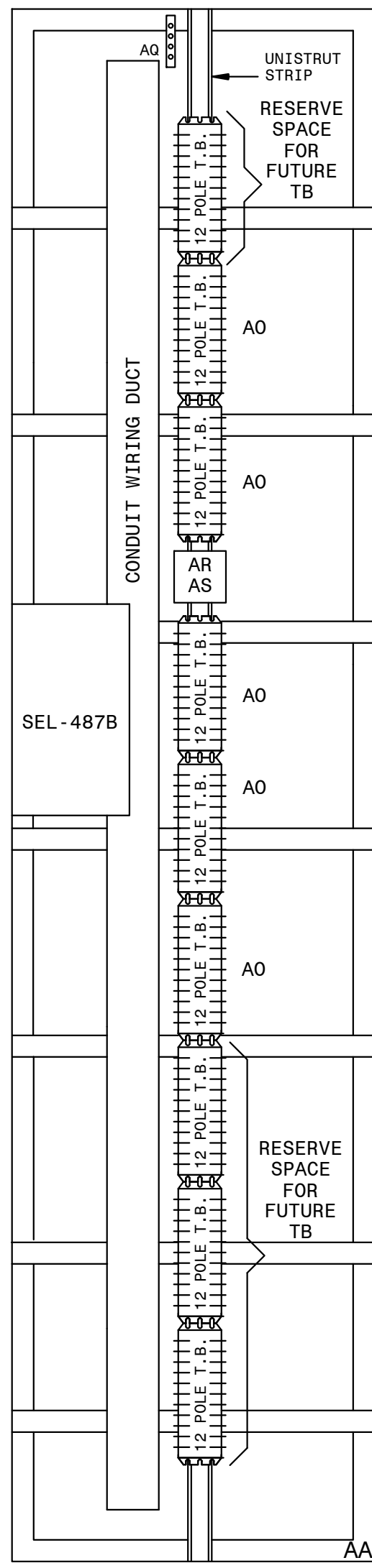
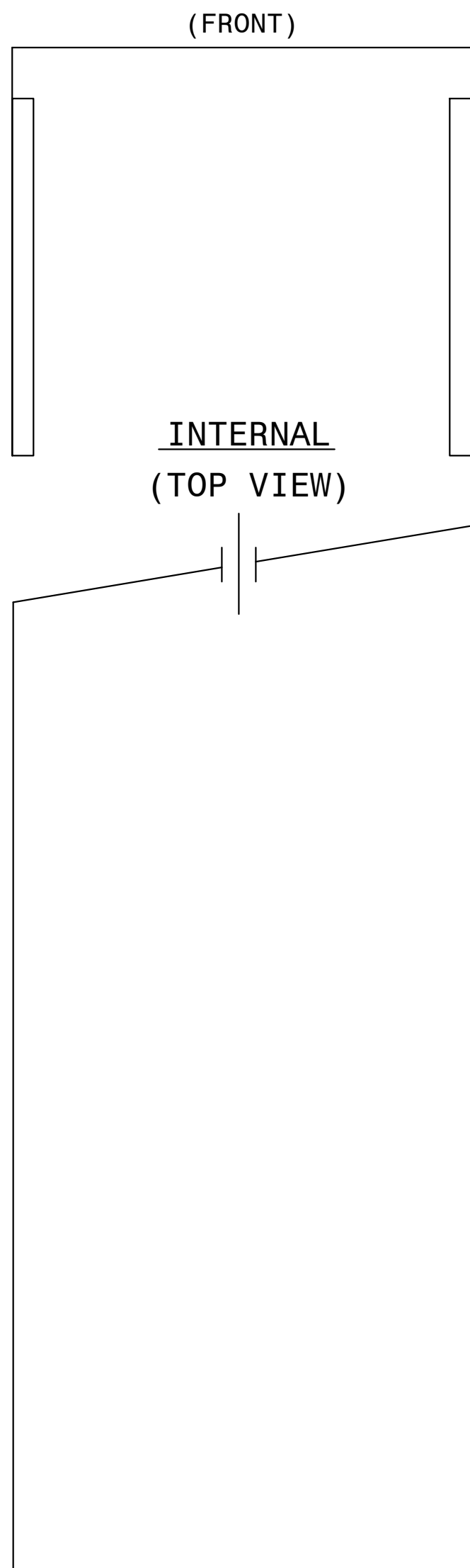
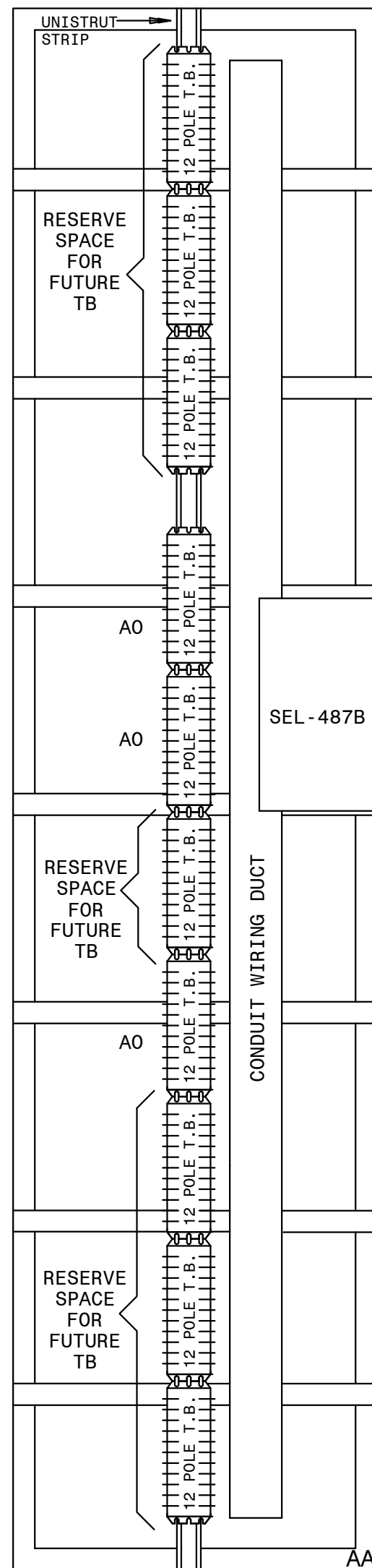
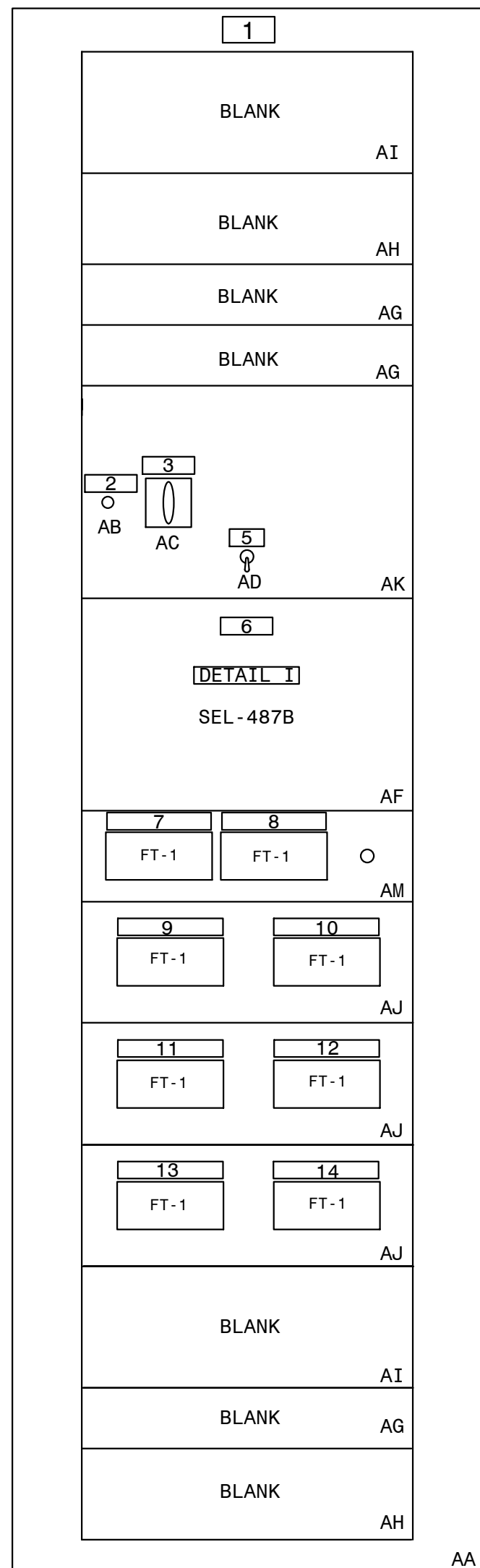
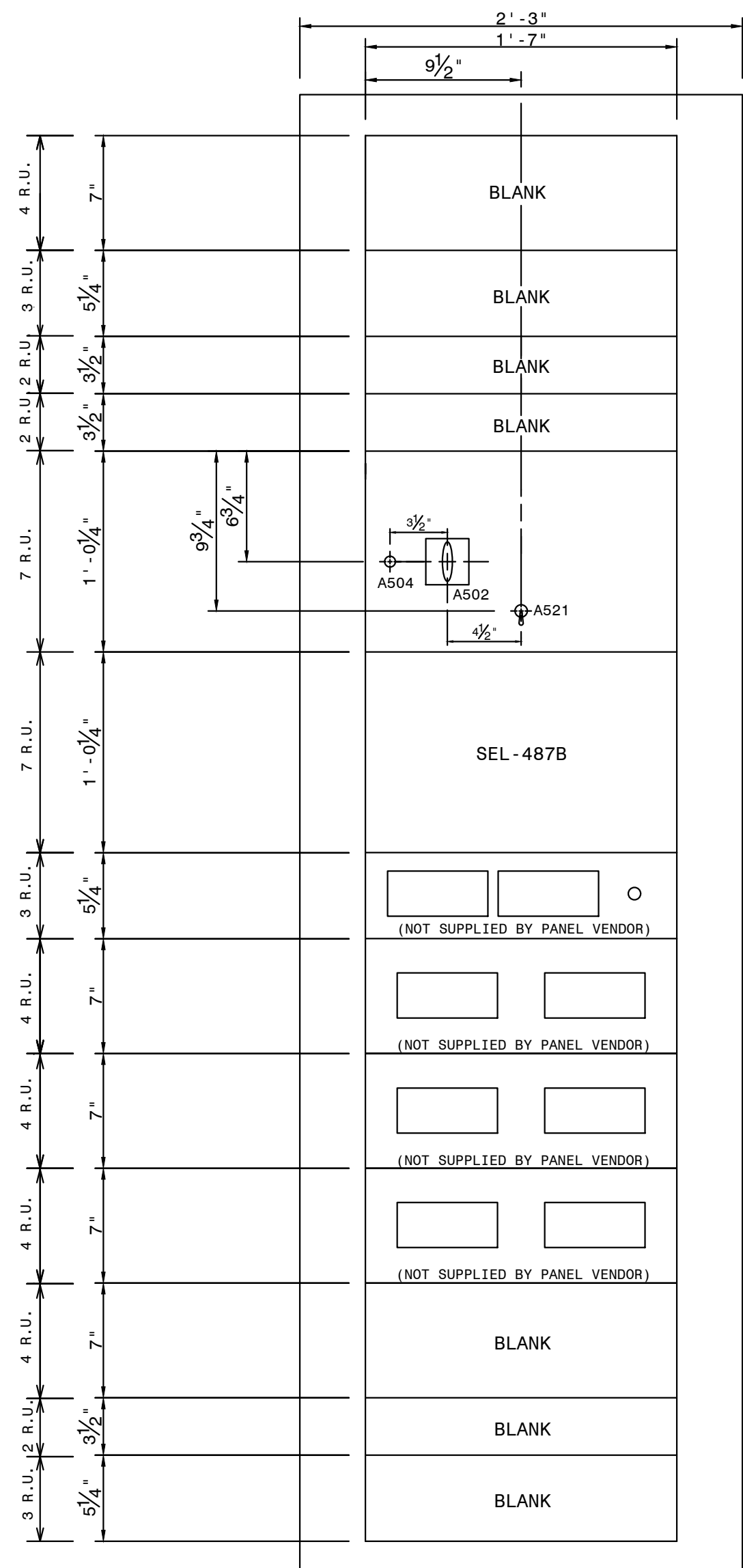
THE REGISTRANT OF THE NEWLY APPLIED
SEAL ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS.

AUTOCAD ELECTRICAL

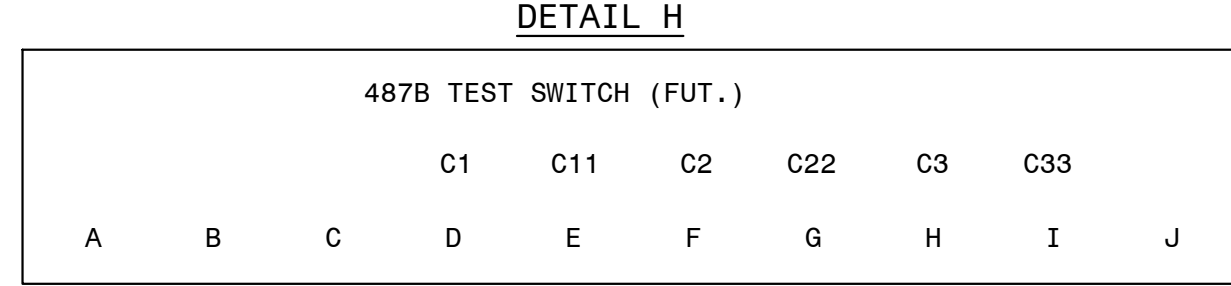
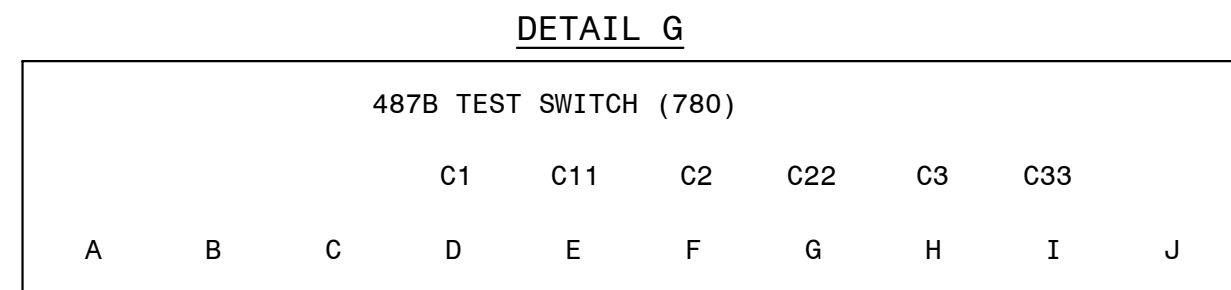
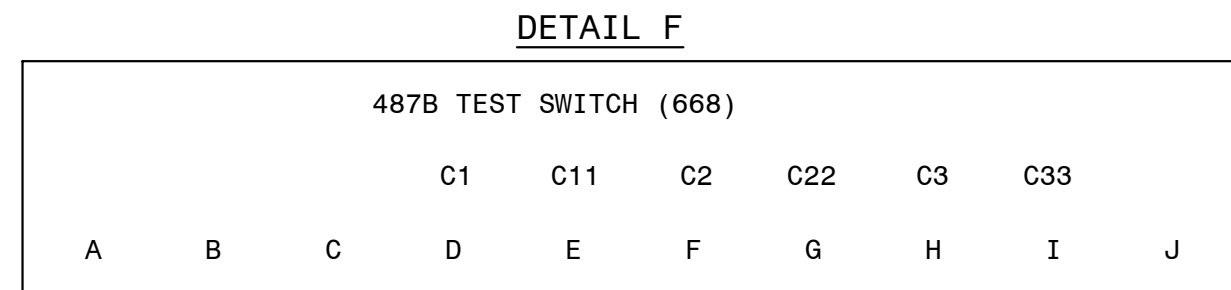
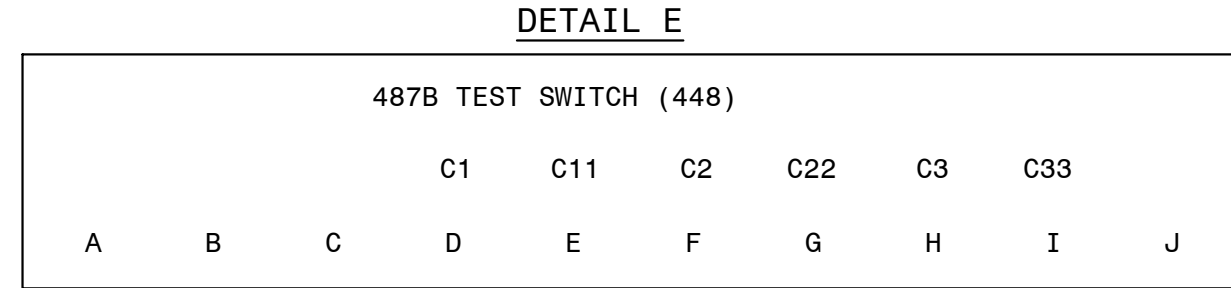
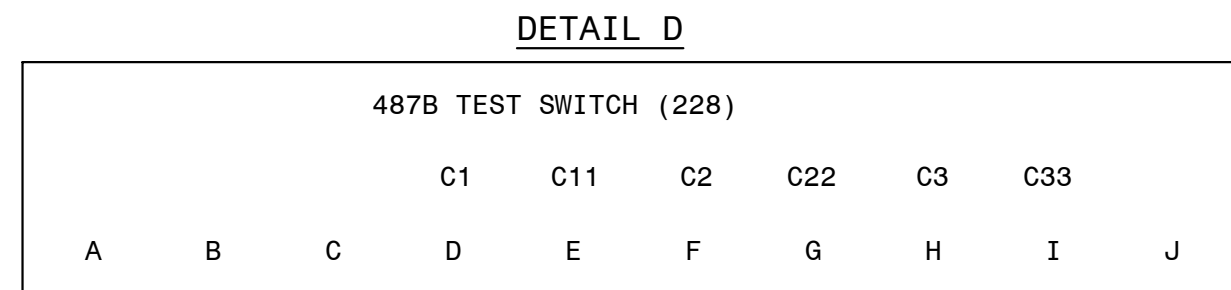
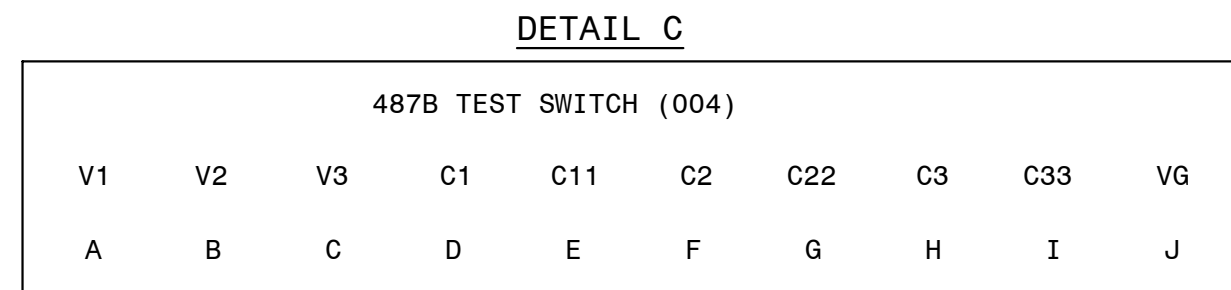
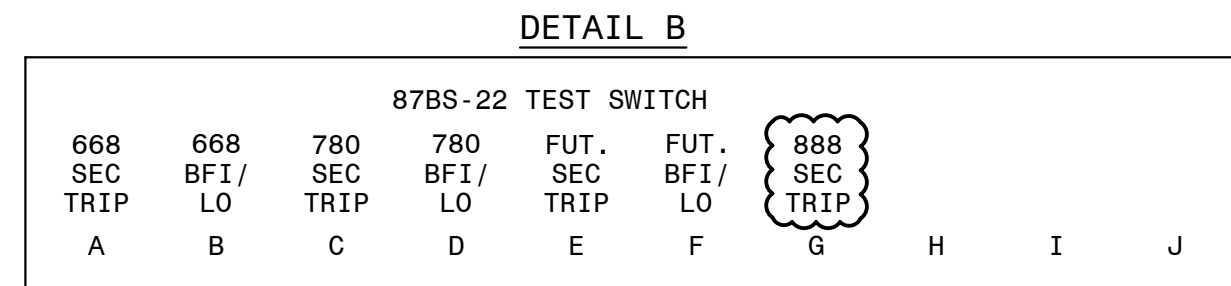
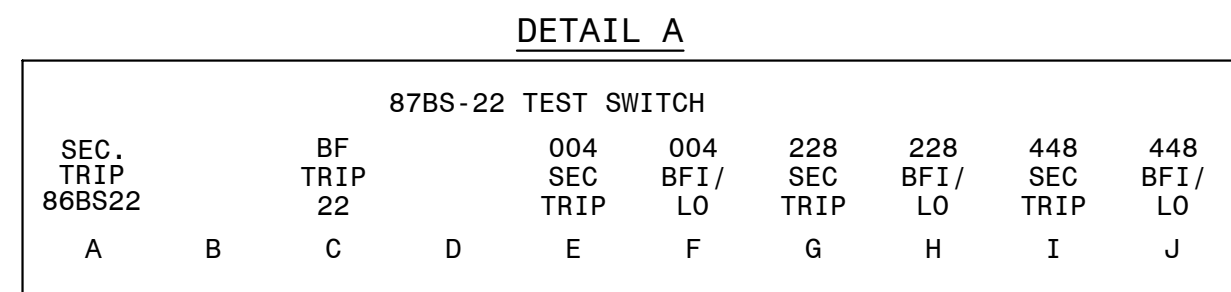
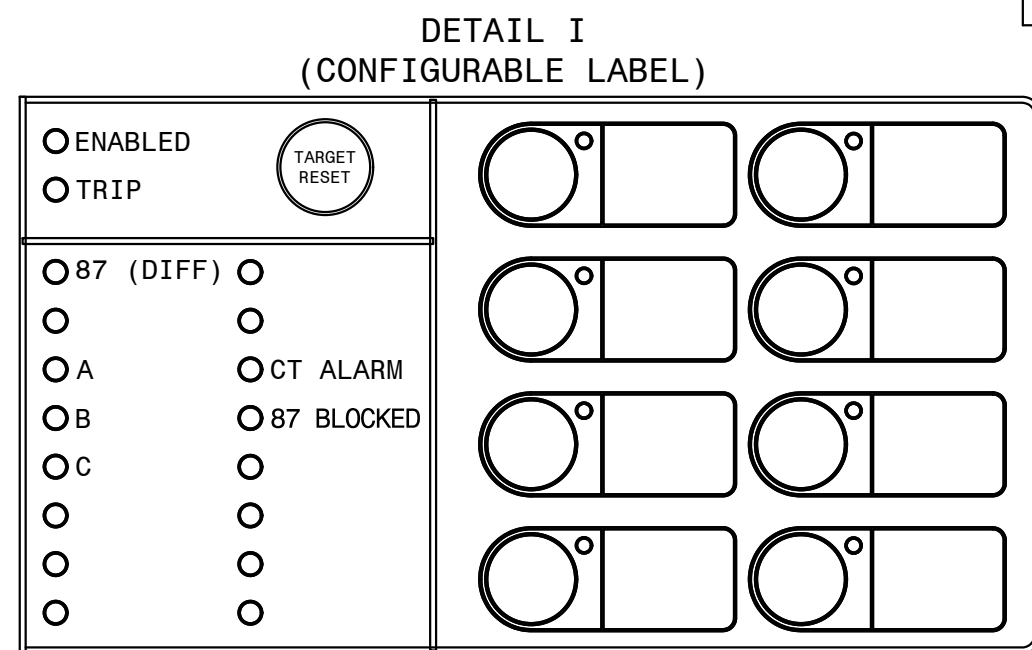
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

GEORGIA POWER		FACILITY NAME:		MCGRAU FORD TS	
DRAWN: JLC		TITLE: 230KV YARD STATION SERVICE & THROWOVER CABINET #1		NUMBER:	
CHECKED: RLJ		TYPE: WD		FACILITY #:	
APPROVED: AJW		SCALE: NTS		01 - 173	
DATE: 07-18-05		BOI:		D- 215	
ASC FACS:		ASC FACS:		NUMBER: 001 - 03	
ASC FACS:		ASC FACS:		REV:	
ASC FACS:		ASC FACS:		REV:	

LABEL DETAILS					
LABEL NO.	FIRST LINE	SECOND LINE	THIRD LINE	FOURTH LINE	FIFTH LINE
1	PANEL NO. 60		DWG. NO. 01-173-D263		
2	TRIP CIRCUIT MONITOR	86BS-22 RELAY			
3	SECONDARY AUX. TRIPPING RELAY	86BS-22	TRIPS-004, 228, 448, 668, 780, 868		
4					
5	87BS-22 CUTOFF SWITCH	230KV BUS NO.2	DIFFERENTIAL		
6	SEL-487B RELAY	230KV BUS NO. 2	DIFFERENTIAL RELAY		
7	SEE DETAIL A				
8	SEE DETAIL B				
9	SEE DETAIL C				
10	SEE DETAIL D				
11	SEE DETAIL E				
12	SEE DETAIL F				
13	SEE DETAIL G				
14	SEE DETAIL H				



QTY.	MK.	SES ITEM	DESCRIPTION	REMARKS
1	AA	RHCL	SWITCHBOARD PANEL, 49 R.U. SPACES 27" X 90" X 21"	DWG. PAN-CONST-D1
		RHCN	SWITCHBOARD ANGLE FRAME 27" X 90" X 21"	DWG. PAN-CONST-D2
1	AB	RGJL	INDICATING LIGHT, NEON, ET-17, COMPLETE	
1	AC	RGGE	REL-AUX 2NO-2NC/DEK 10 DECK, COR/ER, 30-140VDC	EC #7940DD
1	AD	RGJN	SWITCH, TOGGLE, 4-POT	MICROSWITCH #47L1-3
1	AF	RIJC	REL-CURRENT DIFF. TYPE SEL-487B, MICROPROC. BASED	SEL 04B7B045X2XXXXX7
3	AG	RGWU	RACK PANEL, 2 R.U. HIGH, BLANK	DWG. PAN-CONST-D1
2	AH	RGWV	RACK PANEL, 3 R.U. HIGH, BLANK	DWG. PAN-CONST-D1
2	AI	RGWV	RACK PANEL, 4 R.U. HIGH, BLANK	DWG. PAN-CONST-D1
3	AJ	RHUC	TEST BLOCK RACK MOUNT SYSTEM, 2-10P	MEGGER 194R-220G-ST OR ABB S54G014NN014BX00N
1	AK	RGWZ	RACK PANEL, 7 R.U. HIGH, PUNCHED & DRILLED	DWG. PAN-CONST-D1
1	AM	RHUA	SWITCH, REL. TEST ASSY., 2-10 POLE W/HOLE PUNCHED FOR CO SWITCH	MEGGER #A193RG-220L-ST OR ABB #
8	AO	BJPE	BLOCK TERMINAL, 12 POLE, SLIDING LINK	
1	AO	BAVD	GROUND BAR, COPPER	
1	AR	FUPH	FUSE BLOCK-THREE POLE 1-30 AMP, 250 VOLT	
3	AS	RFVM	FUSE CARTRIDGE, SINGLE ELEMENT, 250V, 6 AMP	




NOTES:

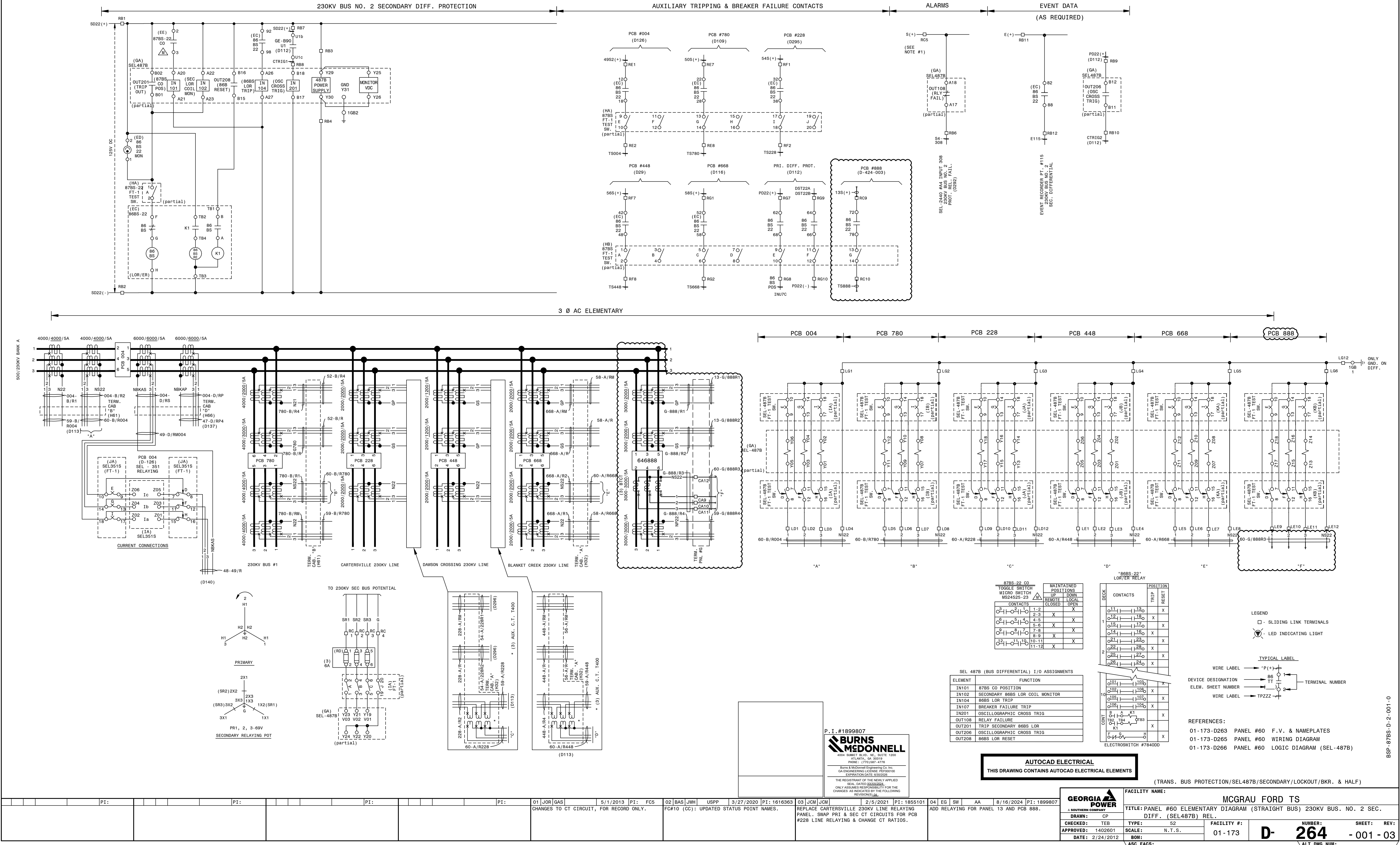
1. CABLE ENTRY IS FROM TOP OF PANEL.

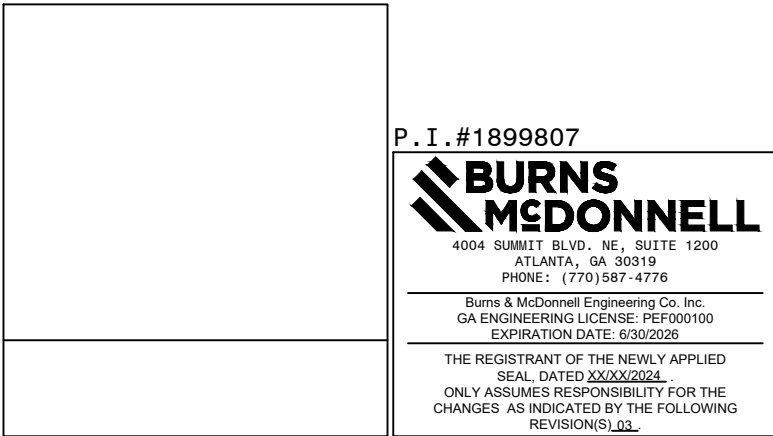
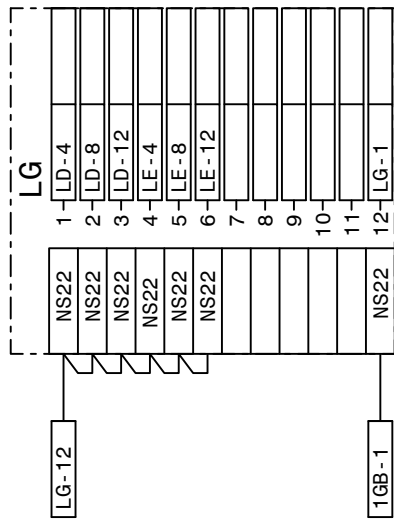
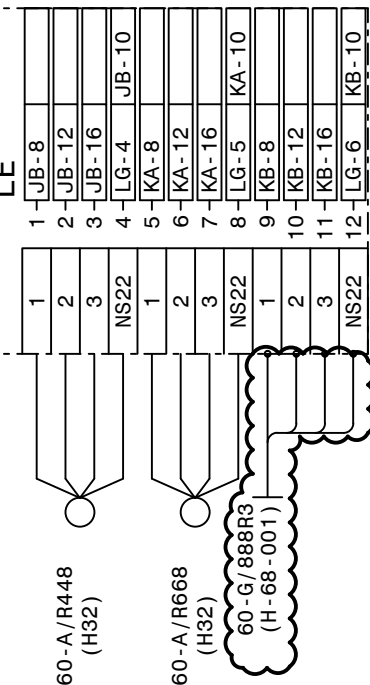
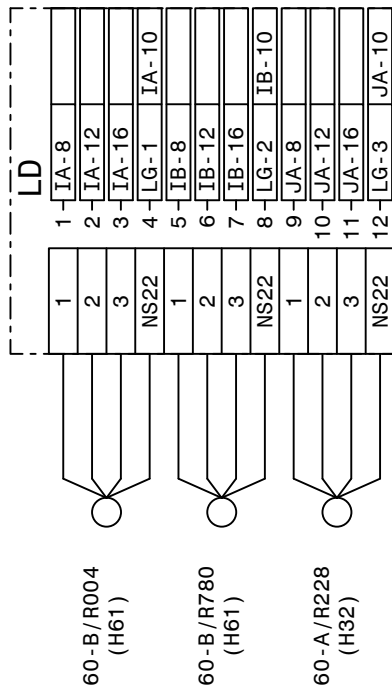
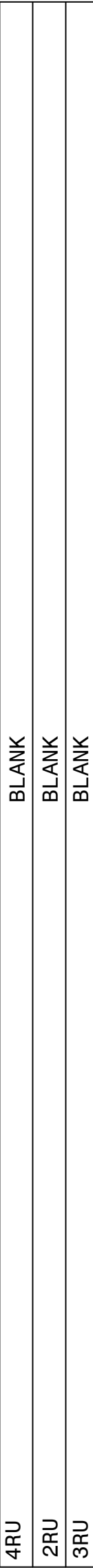
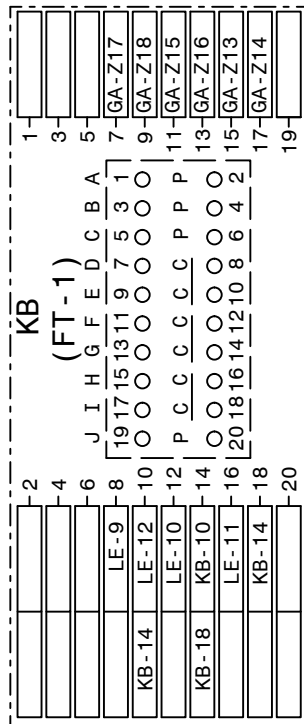
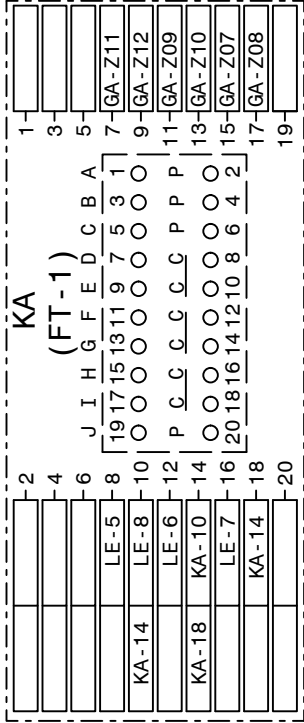
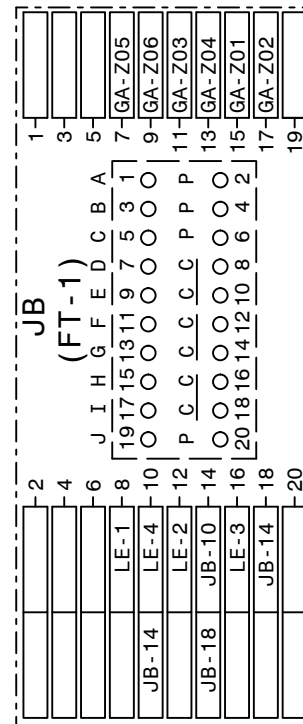
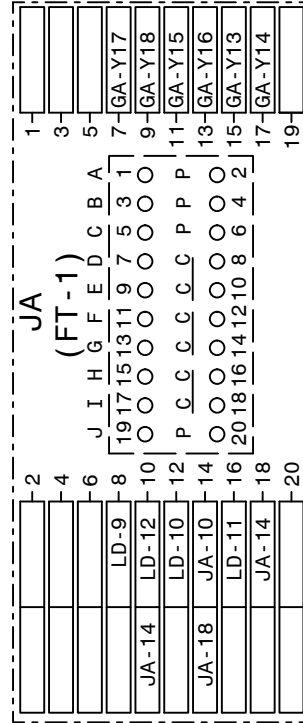
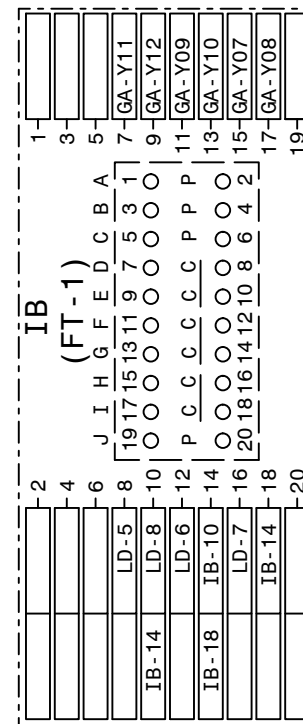
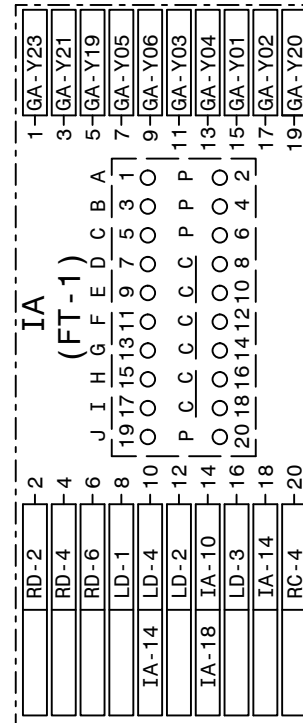
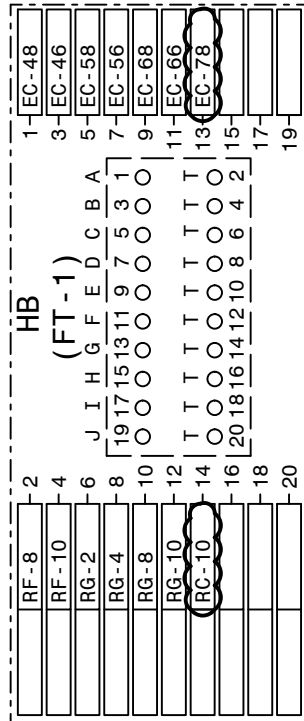
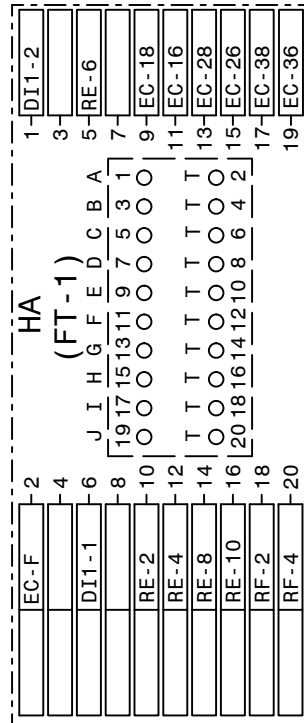
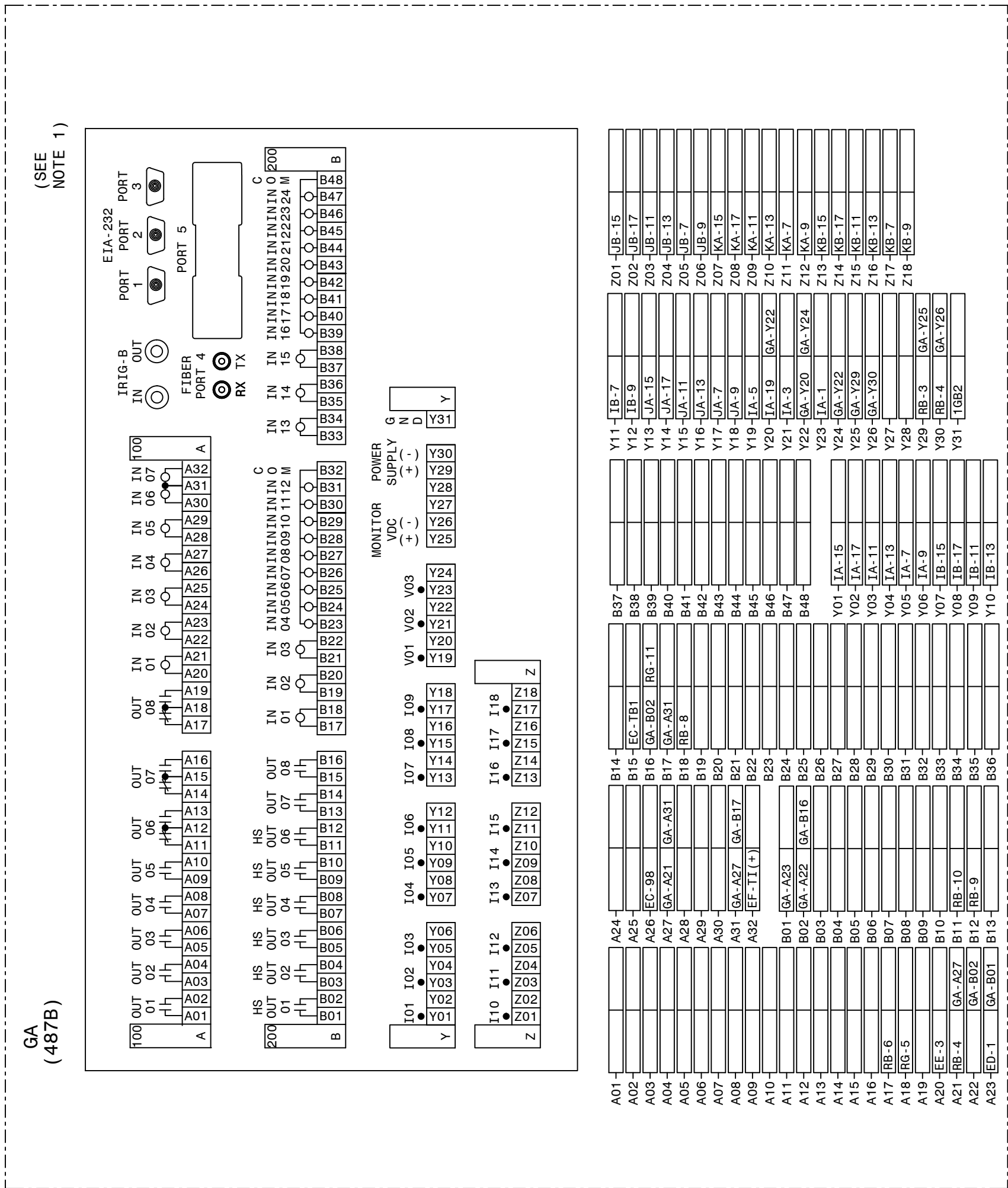
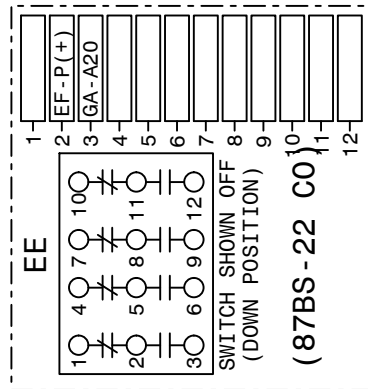
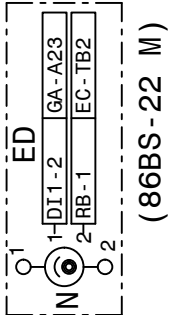
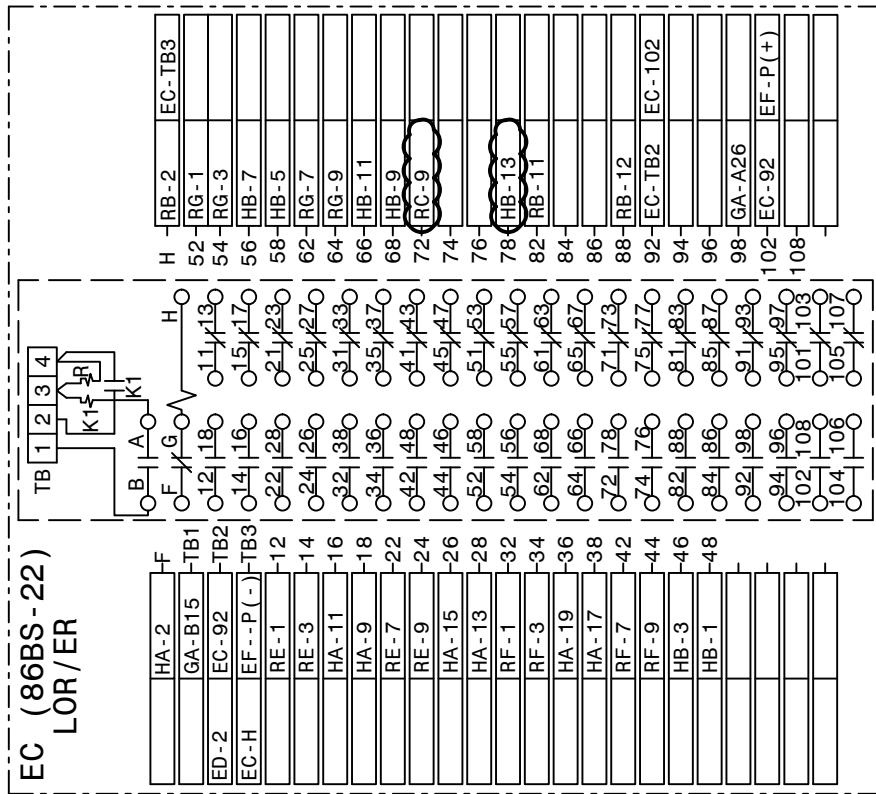
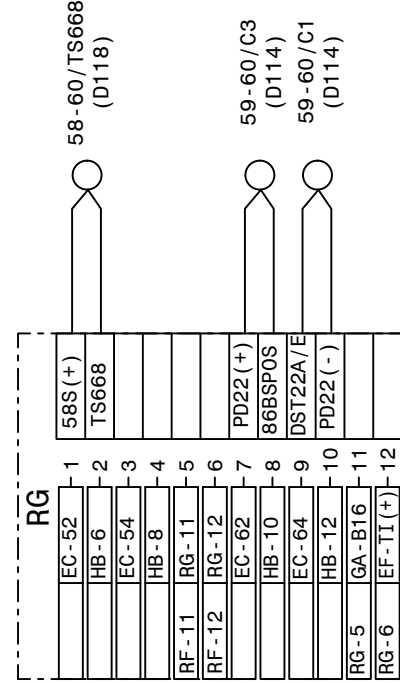
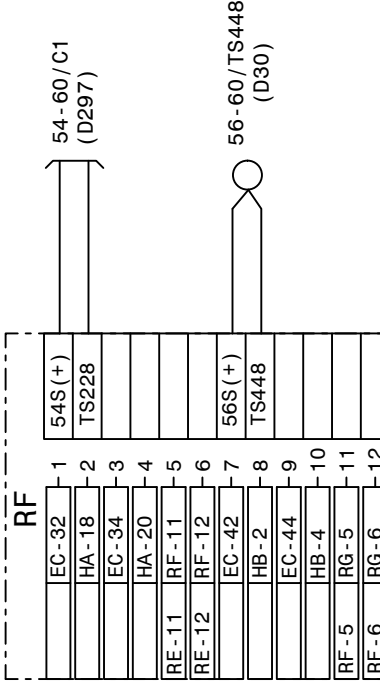
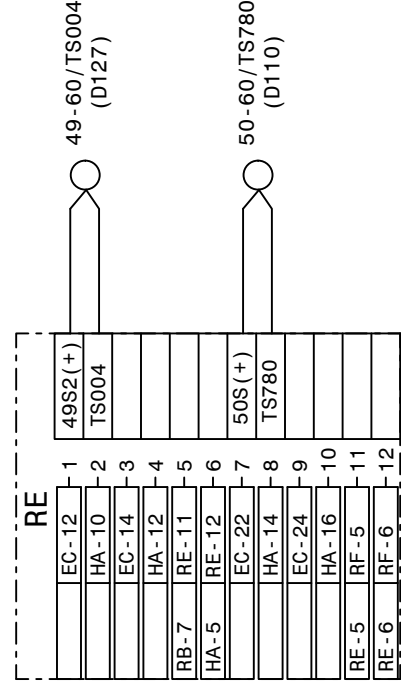
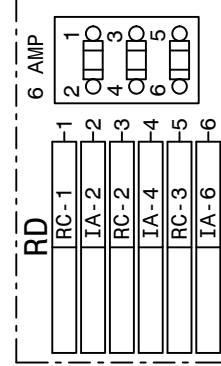
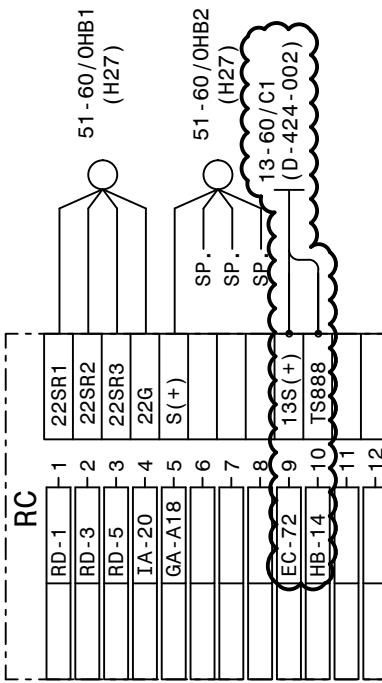
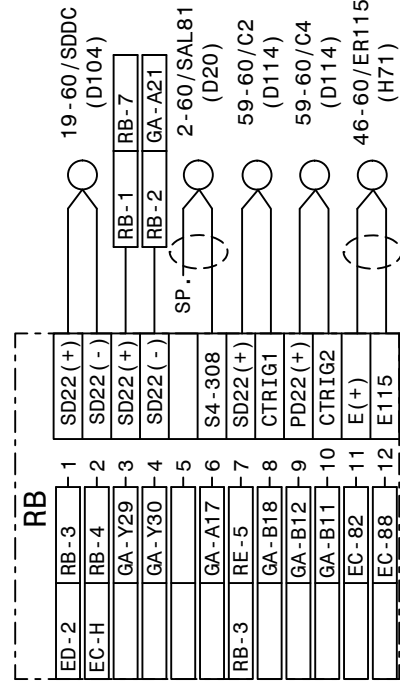
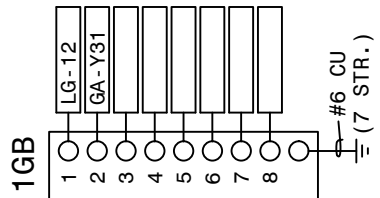
<u>REFERENCES:</u>	
01-173-D264	PANEL #60 ELEMENTARY DIAG.
01-173-D265	PANEL #60 WIRING DIAGRAM
01-173-D266	PANEL #60 LOGIC DIAGRAM (SEL-487B)
PAN-CONST-D1	CONSTRUCTION DETAILS
PAN-CONST-D2	CONSTRUCTION DETAILS


(TRANS. BUS PROTECTION/SEL-487B/SECONDARY/LOCKOUT/STRAIGHT BUS)

 GEORGIA POWER <small>A SOUTHERN COMPANY</small>	FACILITY NAME:				MCGRAU FORD TS			
	TITLE: PANEL #60 FRONT VIEW & NAMEPLATES (6 CURR. CKT.) 230KV BUS NO. 2							
	SEC. DIFF. (SEL487B) REL.							
	CHECKED: TEB	TYPE: FV	FACILITY #:	NUMBER:	SHEET: REV:			
DRAWN: CP	SCALE: 1 1/2" = 1' - 0"	01 - 173	D	263	- 001 - 0			
APPROVED: 1402601	ROM:	ASC FACs:		ALT DWG. NUM:				
DATE: 2/24/2012								

[illegible]





 GEORGIA POWER <small>a SOUTHERN COMPANY</small>	FACILITY NAME:										MCGRAU FORD TS																		
	TITLE: PANEL #60 WIRING DIAGRAM (STRAIGHT BUS) 230KV BUS NO. 2 SEC. DIFF.																												
	(SEL487B) REL.																												
DRAWN: CP					TYPE: WD					FACILITY #:					NUMBER:					SHEET: REV:									
CHECKED: TEB					SCALE: N.T.S.					01-173					D-					265					- 001 - 02				
APPROVED: 1402601					BOM:																								
DATE: 2/24/2012					ASC FACS:										ALT DWG NUM:														

BSP-87BS-D-3-001-0

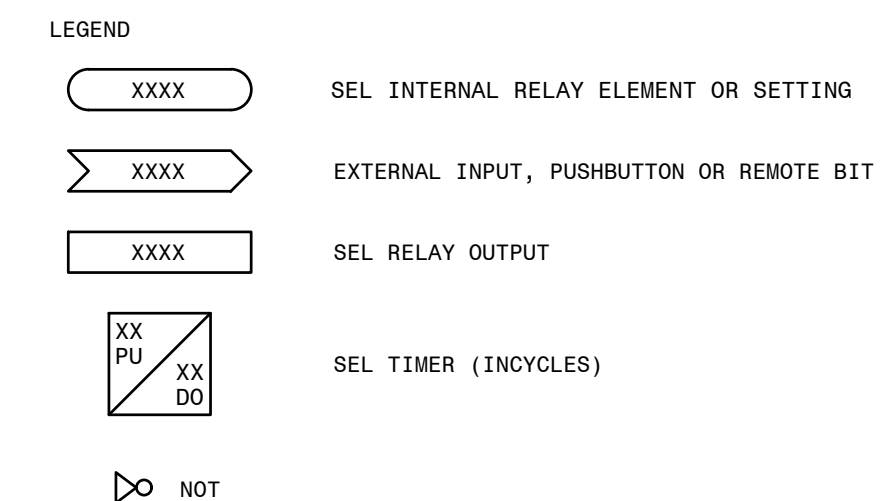
NOTES:
1. FOR SERIAL CONNECTIONS, SEE COMMUNICATION DIAGRAM.

AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

REFERENCES:
01-173-D263 PANEL #60 F.V. & NAMEPLATES
01-173-D264 PANEL #60 ELEMENTARY DIAGRAM
01-173-D266 PANEL #60 LOGIC DIAGRAM

(TRANS. BUS PROTECTION/SEL487B/SECONDARY/LOCKOUT/STRAIGHT BUS)

BSP-87BS-D-3-001-0



REFERENCES:
01-173-D264 PANEL #60 ELEMENTARY DIAGRAM
01-173-D265 PANEL #60 WIRING DIAGRAM

(TRANS. BUS PROTECTION/SEL487B/SECONDARY/LOCKOUT/STRAIGHT BUS)

S(-)
(D291)

CONTINUED
BELOW

S (-)
(FROM

CONTINUED
BELOW

(D277)

S (+)

RD9

Z01

(AB)
SEL
2440
#A4
AL

Z02

RD10

S1-112

(D278)

S (-)
(FROM


AUTOCAD ELECTRICAL
CONTAINS AUTOCAD ELECTRICAL ELEMENTS

P.I.#1899807

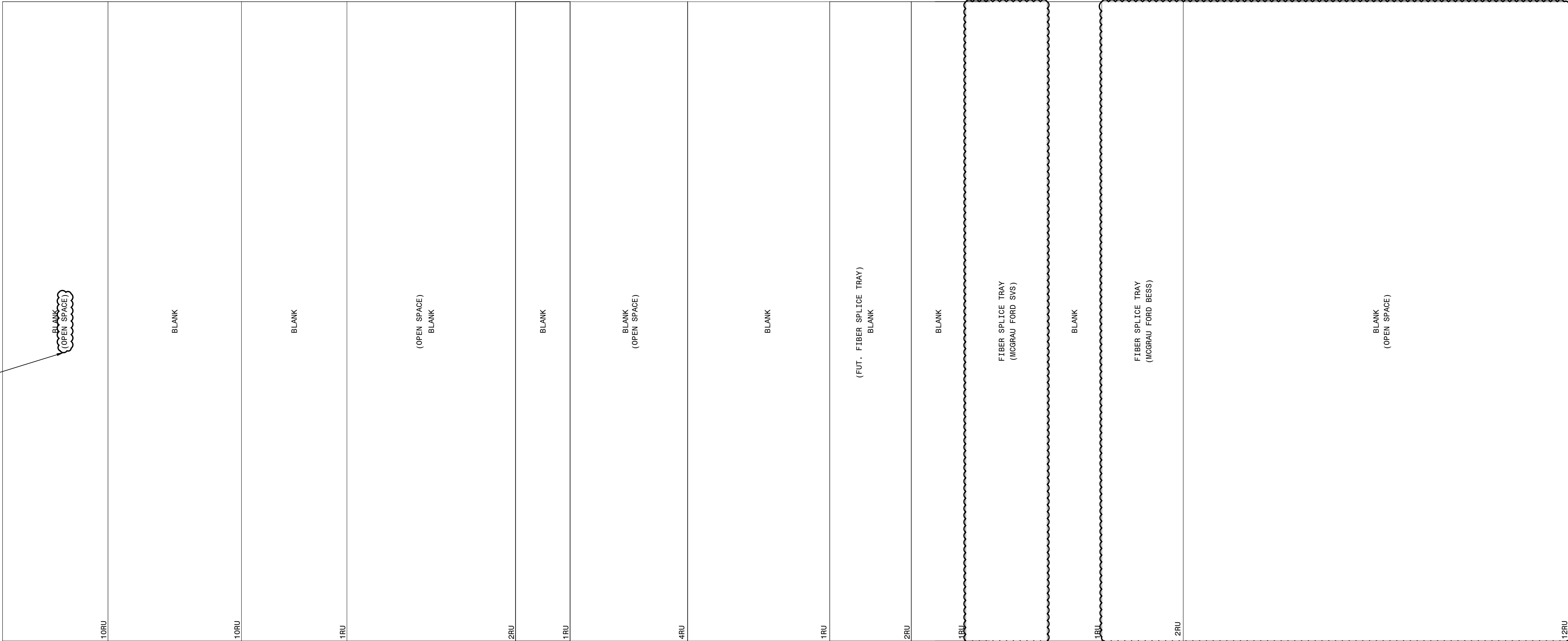


REFERENCES:

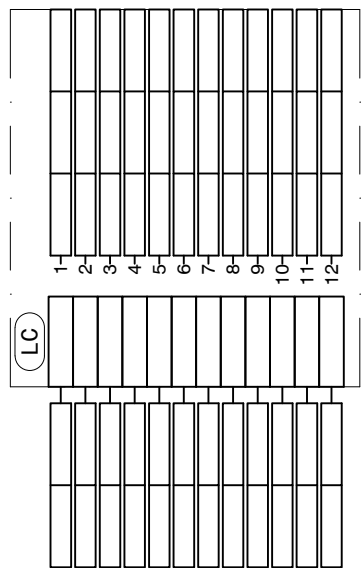
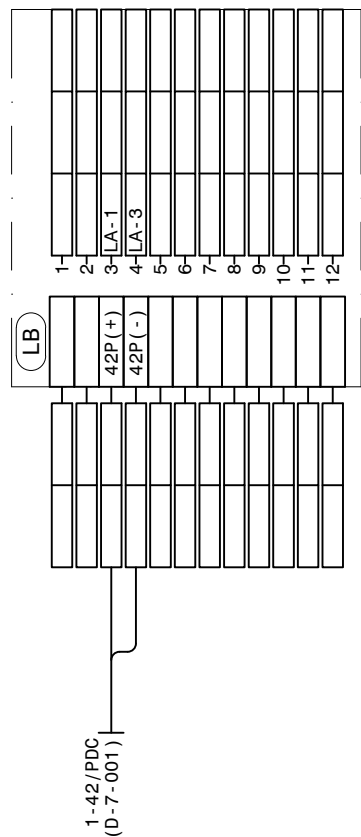
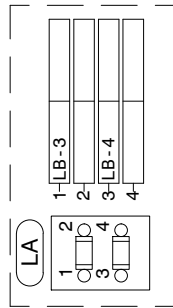
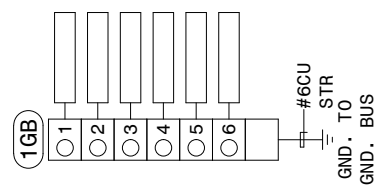
01-173-B2	PANEL #2 FRONT VIEW, TRANSMISSION SIA PANEL
01-173-D20	PANEL #2 WIRING DIAGRAM, TRANSMISSION SIA PANEL
01-173-D186	SIA COMMUNICATION CONNECTION DIAGRAM
01-173-D291	PANEL #2 ELEMENTARY DIAGRAM SH. 1, TRANSMISSION SIA PANEL

 GEORGIA POWER <small>A SOUTHERN COMPANY</small>	FACILITY NAME:		MCGRAU FORD TS	
	TITLE: PANEL #2 ELEMENTARY DIAGRAM SH. 2, TRANSMISSION SIA PANEL			
	DRAWN: BAS	TYPE: SIA	FACILITY #:	NUMBER:
	CHECKED: JWH	SCALE: N.T.S.	01-173	D- 292
	APPROVED: USPP	BOM:		
DATE: 3/23/2020	ASC FACCS:		SHEET: REV: - 001 - 03	
			ALT DWG NUM:	

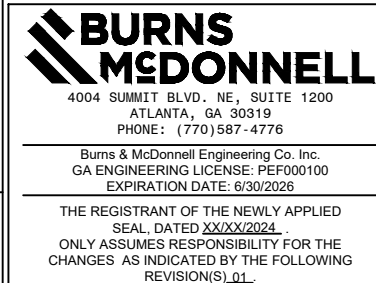
FOR REFERENCE



FOR REFERENCE



P.I.#1899807




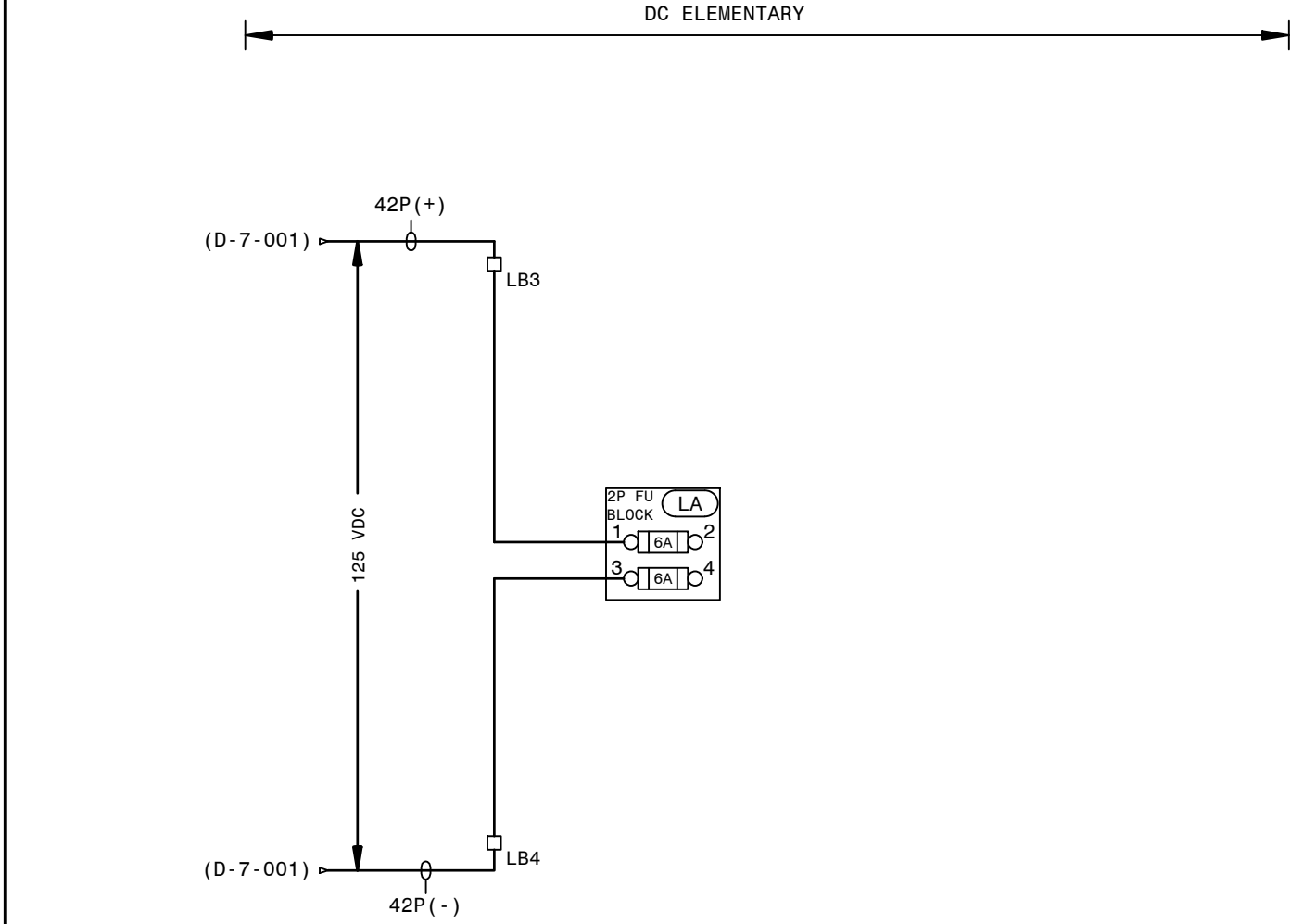
AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

NOTES:
1. FOR SERIAL CONNECTIONS, SEE COMMUNICATION DIAGRAM D-186.

REFERENCES:
01-173-D-330-001 PANEL #42 FRONT VIEW & NAMEPLATES
01-173-D-330-003 PANEL #42 ELEMENTARY
01-173-D-330-004 PANEL #42 FIBER SPLICE CONNECTIONS (SVS)
01-173-D-330-005 PANEL #42 FIBER SPLICE CONNECTIONS (MCGRAU FORD BESS)

SVS (AND MCGRAU FORD BESS) FIBER INTERFACE

 A SOUTHERN COMPANY		FACILITY NAME: MCGR AU FORD TS			
TITLE: PANEL #42, WIRING DIAGRAM - SVS (AND MCGRAU FORD BESS) FIBER INTERFACE					
DRAWN: BPE	TYPE: WD	FACILITY #: 01 - 173	NUMBER: D- 330	SHEET: REV:	
CHECKED: BPE	SCALE: NTS				
APPROVED: 1930501	BOM:				
DATE: 05/31/2023	ASC FACS:			ALT DWG NUM:	



AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

**BURNS
& MCDONNELL**

4004 SUMMIT BLVD., NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770) 587-4776

THE REGISTRANT OF THE NEWLY APPLIED
SEAL DATED 2022/06/01
ONLY ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS/RECALL.

P.I. #1899807

PI: 01 EG SW AA 1/3/2025 PI: 1899807

UPDATE DRAWING REFERENCES.

LEGEND:

- - SLIDING LINK TERMINALS OR PHEONIX PLUG
- ⊗ - LED INDICATING LIGHT
- - SWITCH SHOWN IN OFF POSN

TYPICAL LABEL

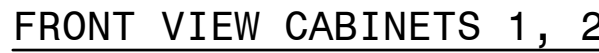
WIRE LABEL → P(+) 1
DEVICE DESIGNATION → 88 TT
ELEM. SHEET NUMBER → 1 2
WIRE LABEL → TPZZZ

REFERENCES:

- 01-173-D-330-001 PANEL #42 FRONT VIEW & NAMEPLATES
- 01-173-D-330-002 PANEL #42 WIRING DIAGRAM
- 01-173-D-330-004 PANEL #42 FIBER SPLICE CONNECTIONS (SVS)
- 01-173-D-330-005 PANEL #42 FIBER SPLICE CONNECTIONS (MCGRAU FORD BESS)

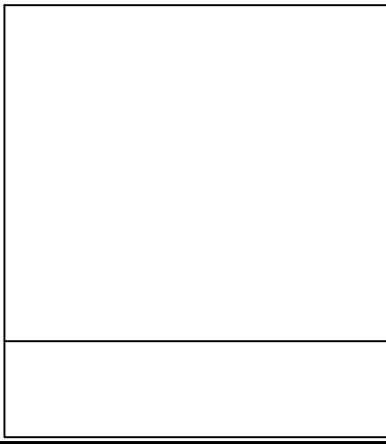
SVS AND MCGRAU FORD BESS FIBER INTERFACE

GEORGIA POWER <small>A SOUTHERN COMPANY</small>	FACILITY NAME: MCGRAU FORD TS		
TITLE: PANEL #42, DC ELEMENTARY DIAGRAM - SVS AND MCGRAU FORD BESS FIBER INTERFACE			
DRAWN: BPE	TYPE: S2	FACILITY #:	NUMBER:
CHECKED: BPE	SCALE: N.T.S.	01 - 173	SHEET: REV:
APPROVED: 1890501	DATE: 05/31/2023	D- 330 - 003 - 00	
ASC FACS: ALT DWG NUM:			

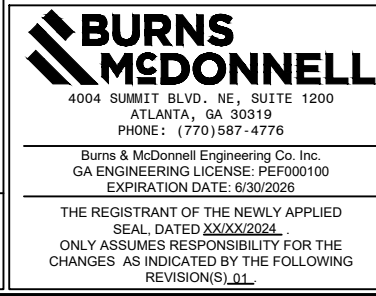


(SEE NOTE 1)								
FIBER NUMBER	FUNCTION (TX OR RX)	SCHEME	CABLE NAME	LOCAL CONNECTION	REMOTE DEVICE	MARK #	COLOR	BUFFER
1	SEL-421-TX	MCGRAU FORD - SVS (PRIMARY)	T0-43/F01	SEL-421 (PRIMARY)	SEL-487E (PRIMARY-SVS)		BLUE	BLUE
2	SEL-421-RX						ORANGE	
3	SEL-421-TX						GREEN	
4	SEL-421-RX						BROWN	
5	SEL-421-TX						GRAY	
6	SEL-421-RX						WHITE	
7	SEL-421-TX						RED	
8	SEL-421-RX						BLACK	
9							YELLOW	
10							PURPLE	
11							PINK	
12							CYAN	
13	SEL-311C-TX	MCGRAU FORD - SVS (SECONDARY)	T0-43/F02	SEL-311C (SECONDARY)	SEL-487E (SECONDARY-SVS)		BLUE	ORANGE
14	SEL-311C-RX						ORANGE	
15	SEL-311C-TX						GREEN	
16	SEL-311C-RX						BROWN	
17	SEL-311C-TX						GRAY	
18	SEL-311C-RX						WHITE	
19	SEL-311C-TX						RED	
20	SEL-311C-RX						BLACK	
21							YELLOW	
22							PURPLE	
23							PINK	
24							CYAN	

* PROVIDED BY IT.



P.I.#1899807




NOTE:

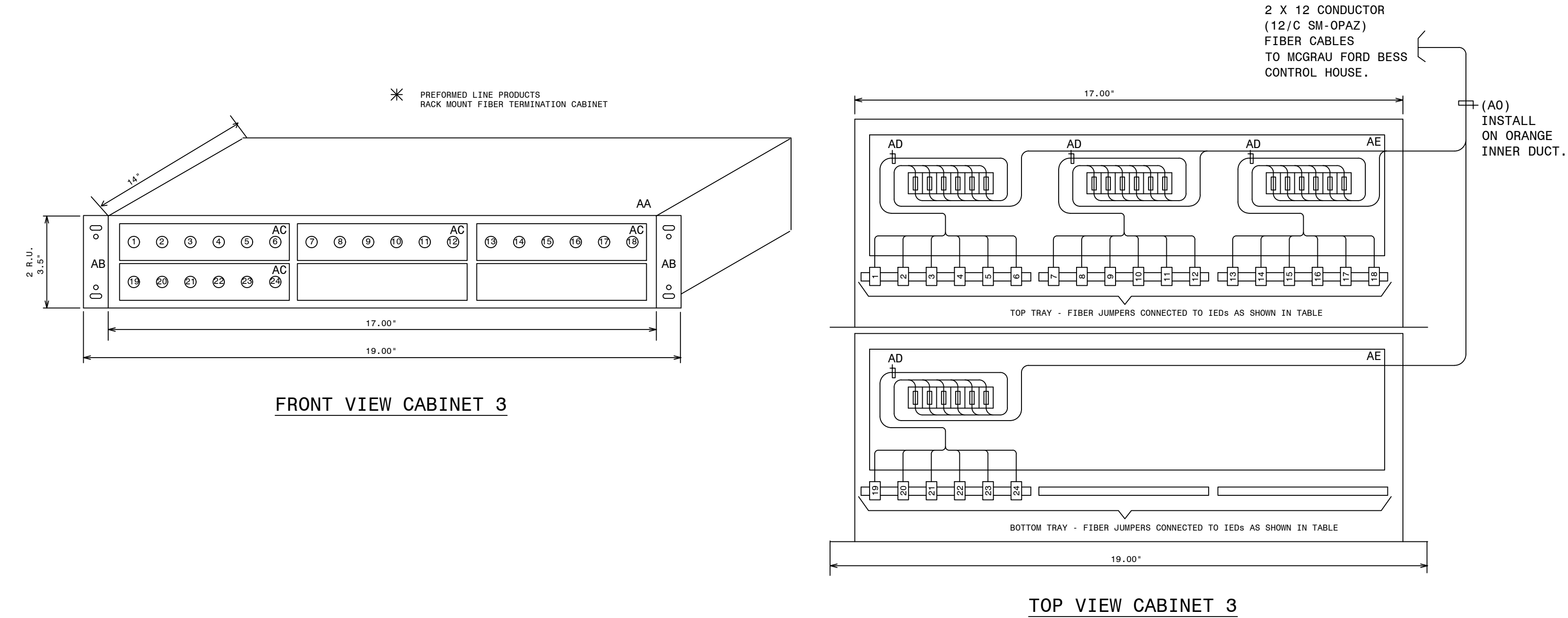
1. FUNCTION MUST BE REVERSED ON REMOTE END. IE - IF A1 IS CONNECTED TO TX ON THIS END IT MUST BE CONNECTED TO RX ON REMOTE END.
2. SEE SIA COMMUNICATION CONNECTION DIAGRAM D-186 FOR ADDITIONAL INFORMATION.
3. FIELD TO VERIFY FINAL FIBER INSTALLATION DETAILS.

REFERENCES:

01-173-D-330-001	PANEL #42 FRONT VIEW & NAMEPLATES
01-173-D-330-002	PANEL #42 WIRING DIAGRAM
01-173-D-330-003	PANEL #42 AC/DC ELEMENTARY
01-173-D-330-005	PANEL #42 FIBER SPLICE CONNECTIONS (MCGRAW FORD BESS)

SVS FIBER INTERFACE

 GEORGIA POWER A SOUTHERN COMPANY	FACILITY NAME:				MCGRAU FORD TS			
	TITLE: PANEL #42, FIBER SPLICE CONNECTIONS - SVS FIBER INTERFACE							
	DRAWN: BPE	TYPE: WD		FACILITY #:		NUMBER:		SHEET: REV:
	CHECKED: BPE	SCALE: N.T.S.		01-173		D-330		- 004 - 00
	APPROVED: 1930501	BOM:						
DATE: 05/31/2023	ASC FACS:							ALT DWG NUM:



(SEE NOTE 1)

TABLE A - FIBER PANEL 2 (FOP-3) FIBER JUMPER CONNECTIONS

FIBER NUMBER	FUNCTION (TX OR RX)	CABLE NAME	REMOTE DEVICE	REMOTE LOCATION	DWG REF	MARK #	COLOR	BUFFER
1	PRI RELAY RX	13-42/FIB1	SEL-411LP MCGRAU FORD BESS 230KV LINE	PANEL 13	D-424-002	OPDP	BLUE	BLUE
2	PRI RELAY TX						ORANGE	
3	SPARE						GREEN	
4	SPARE						BROWN	
5	SPARE						GRAY	
6	SPARE						WHITE	
7	SPARE						RED	ORANGE
8	SPARE						BLACK	
9	SPARE						YELLOW	
10	SPARE						PURPLE	
11	SPARE						PINK	
12	SPARE						CYAN	
13	SEC RELAY RX	13-42/FIB2	SEL-411LS MCGRAU FORD BESS 230KV LINE	PANEL 13	D-424-002	OPDP	BLUE	GREEN
14	SEC RELAY TX						ORANGE	
15	SPARE						GREEN	
16	SPARE						BROWN	
17	SPARE						GRAY	
18	SPARE						WHITE	
19	SPARE						RED	BROWN
20	SPARE						BLACK	
21	SPARE						YELLOW	
22	SPARE						PURPLE	
23	SPARE						PINK	
24	SPARE						CYAN	

✱

QTY	ITEM	MARK #	CMDTY #	DESCRIPTION	REMARKS
1	AA	OPCF	J-19763	PLP RDC6 RACK MOUNT CABINET ALLOWS UP TO 36 FIBER SPLICES AND CONNECTIONS	PLP MODEL # RDC6
1	AB	OPCJ	J-19773	MOUNTING BRACKET ASSEMBLY FOR MOUNTING RDC6 IN 19" RACK MOUNT PANEL	PLP MODEL # BKT2U19A
4	AC	OPCG	J-19767	PLP 6ISMST ST CONNECTOR SIX PACK	ST TO ST TERMINATION FOR 6 FIBERS
4	AD	OPCH	J-19770	FIBER PIGTAIL - MIC CABLE 6 FIBER, 2 METER ST-SM	PROVIDES SM-ST TERM. FOR 6 FIBERS.
1	AE	OPBD	J-19598	FIBER CABLE SPLICE TRAY - MOUNTS INTERNAL TO OPCF	PLP MODEL # 80805514
	AF	OPCP	J-19820	SINGLE MODE SIMPLEX JUMPER ST TO ST (1 METER)	
	AG	OPCQ	J-19821	SINGLE MODE SIMPLEX JUMPER ST TO ST (33 METER)	
	AH	OPCR	J-19803	SINGLE MODE DUPLEX JUMPER ST TO ST (1 METER)	
1	AI	OPCM	J-19804	SINGLE MODE DUPLEX JUMPER ST TO ST (2 METER)	
	AJ	OPDN	J-19805	SINGLE MODE DUPLEX JUMPER ST TO ST (5 METER)	
	AK	OPDA	J-19708	62.5 MICRON MULTIMODE DUPLEX FIBER JUMPER ST TO ST (1 METER)	
	AL	OPDB	J-82075	62.5 MICRON MULTIMODE DUPLEX FIBER JUMPER ST TO ST (2 METER)	
	AM	OPDC	J-81612	62.5 MICRON MULTIMODE DUPLEX FIBER JUMPER ST TO ST (5 METER)	
2	AN	OPDP	J-19864	SINGLE MODE DUPLEX JUMPER ST TO ST (20 METER)	
2	AO	OPAZ	J-19520	OPTICAL CABLE 12 FIBER SINGLE MODE	
	AP	OPBB	J-19549	OPTICAL CABLE 24 FIBER SINGLE MODE	

NOTE:
1. FUNCTION MUST BE REVERSED ON REMOTE END. IE - IF A1 IS CONNECTED TO TX ON THIS END, IT MUST BE CONNECTED TO RX ON REMOTE END.

REFERENCES:
D-330-001 PANEL #42 FRONT VIEW AND NAMEPLATES
D-330-002 PANEL #42 WIRING DIAGRAM
D-330-003 PANEL #42 ELEMENTARY DIAGRAM
D-330-004 PANEL #42 FIBER SPLICE CONNECTIONS (SVS)

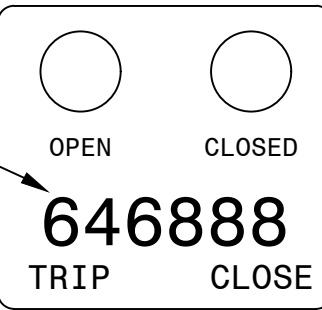


BESS FIBER INTERFACE

GEORGIA POWER A SOUTHERN COMPANY		FACILITY NAME: MCGRAU FORD TS	
DRAWN: EG/BHCD		TITLE: PANEL #42, FIBER SPLICE CONNECTIONS - MCGRAU FORD BESS INTERFACE	
CHECKED: SW/BHCD	TYPE: WD	FACILITY #:	NUMBER:
APPROVED: P1#1899807	SCALE: N.T.S.	01-173	D-330
DATE: 9/23/2024	BOH:	ASC FACS:	ALT DWG NUM:
		SHEET: REV:	
		- 005 -- .A	

NAMEPLATE DETAILS			
NAMEPLATE NO.	FIRST LINE	SECOND LINE	THIRD LINE
1	PANEL NO. 13		DWG.01-173-D424
2	PANEL NO. 13		DWG.01-173-D424
3	351S7X RELAY	646888	CONTROL - BF/RCLS
4	351S7X RELAY	646888	CONTROL - BF/RCLS
5	BF C0	646888	
6	411L PRI RELAY	646888	MCGRAU FORD BESS 230KV LINE
7	411L PRI RELAY	646888	MCGRAU FORD BESS 230KV LINE
8	411L SEC RELAY	646888	MCGRAU FORD BESS 230KV LINE
9	411L SEC RELAY	646888	MCGRAU FORD BESS 230KV LINE

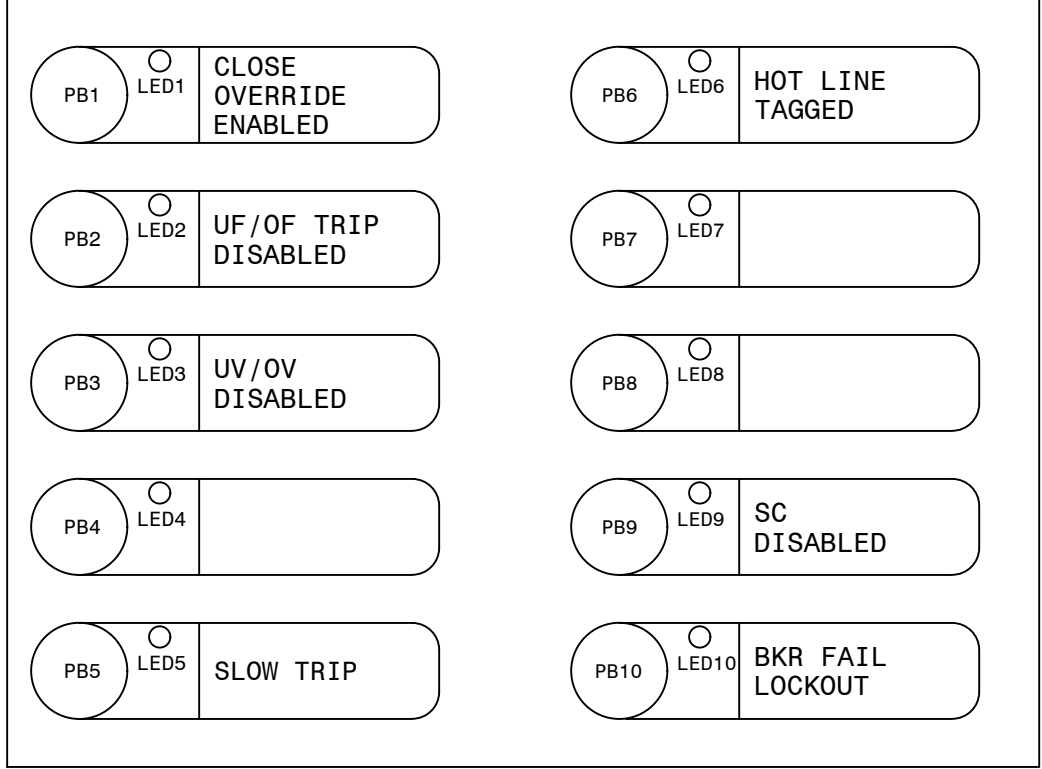
DETAIL A2
(PCB 888 351S7X
CONFIGURABLE LABELS)



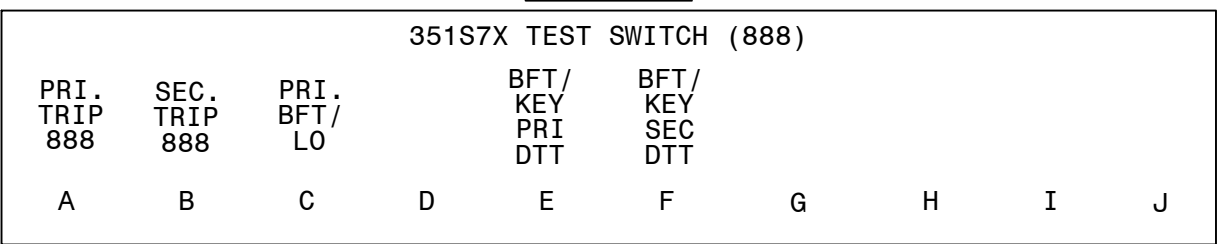
(36PT FONT)

QTY	ITEMS	CATALOG	DESCRIPTION	REMARKS
1	AA	RHCL-I	27IN X 90IN SWITCHBOARD PANEL (FULL RACK) WITH FRAME	DWG-PAN-CONST-D1, DWG-PAN-CONST-D2
6	AB	RGWT-I	RACK PANEL TYPE A 1-RACK UNIT	DWG-PAN-CONST-D1
1	AC	RGWU-I	RACK PANEL TYPE A 2-RACK UNITS	DWG-PAN-CONST-D1
5	AD	RGWV-I	RACK PANEL TYPE B 3-RACK UNITS	DWG-PAN-CONST-D1
1	AE	RLAK	SEL-351S7X	SEL-0351S7XHE4B5421
3	AF	RHUA	2-10 POLE TYPE FT-1 SWITCHES, POS.A:(T T T T T T T T T T),POS. B:(P P P C-C C-C C-P), POS C:(TOGGLE SWITCH CUTOFF)	ABB #S3G036014S01M
1	AG	RHHS-I	SWITCH,TOGGLE,4P,DT,15A,115V.,.25A@125VDC	MICROSWITCH #4TL1-3
2	AH	RTIW	SEL-411L T/M LINE DIFF/STEP DIST WITH OC AND TRAVELING-WAVE FLT DET., 5RU	SEL #0411L1X6X5B8DHXHE424XX
10	AM	BJPE-I	12 POLE SLIDING LINK TERMINAL BLOCK	STATES ELECTRIC MFG: M-25012-T
1	AN	BAVD-I	COPPER NEUTRAL BAR GRD TERM, #4-#14	BURNDY: K12P4CG1
1	AP	FUPF	FUSE BLOCK, PHENOL,2-POLE,1-30A	BUSSMANN: H25030-2SR
3	AQ	FUPH	FUSE BLOCK, PHENOL,3-POLE,1-30A	BUSSMANN: H25030-3S
10	AR	RFYM	FUSE,CARTIDGE,1ELEM,NR,250V,6A	BUSSMANN: KTN-6J8-11G30
2	AU	RFUT-I	REL-AUX, TRIP CURR IND. - TIR, 1.0A OPER., COIL 10A NOM.	ELECTROMAX #6319209
1	AV	RGWV-I	RACK PANEL TYPE B 4-RACK UNITS	DWG-PAN-CONST-D1
4	BF	RHKH-I	TRANSF-CURRENT 5A WINDOW 500MM, DFR/DME	UTILITY SYSTEMS INC: CTR-1001-17714813

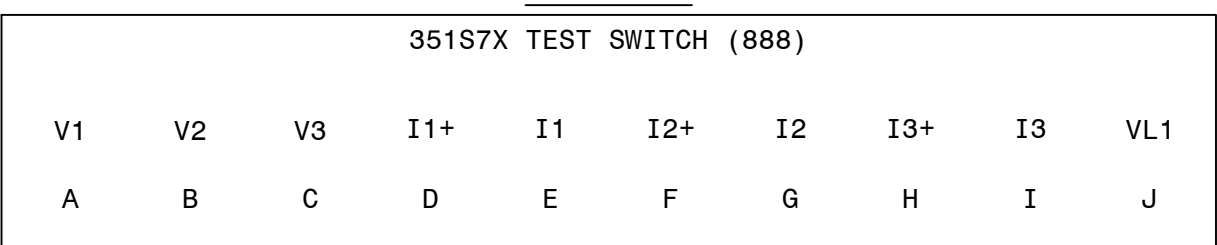
DETAIL A
(351S7X CONFIGURABLE LABELS)



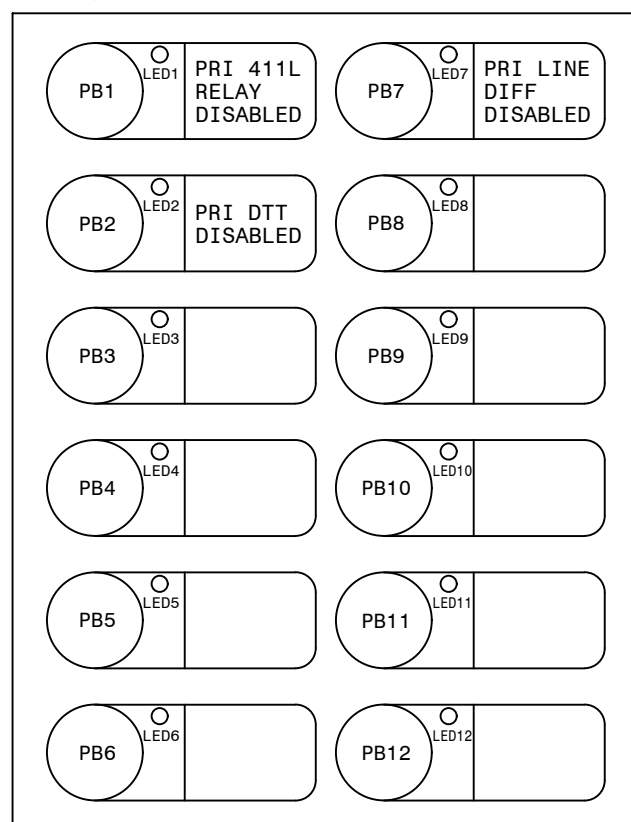
DETAIL B



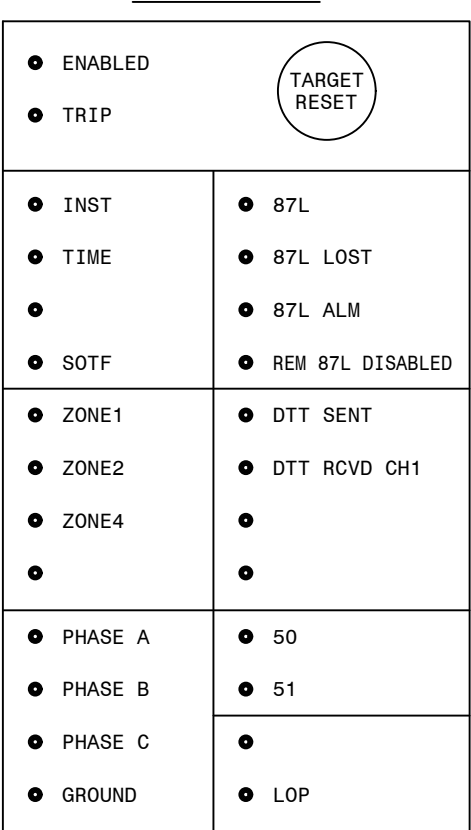
DETAIL C



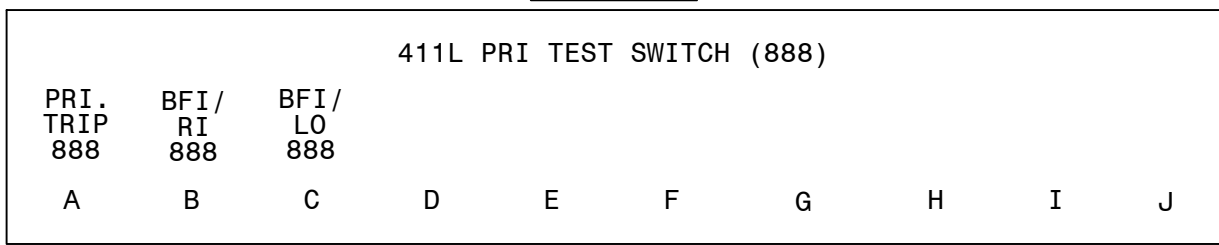
DETAIL D
(411L PRI CONFIGURABLE LABELS)



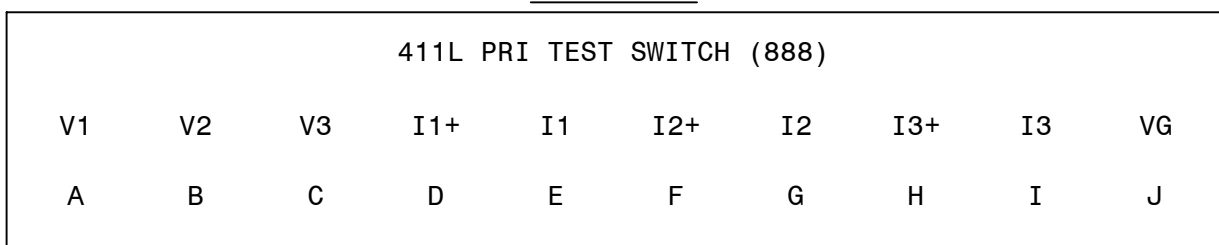
DETAIL D1



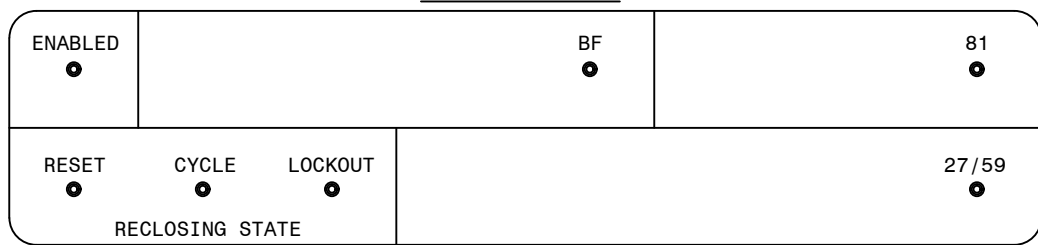
DETAIL E



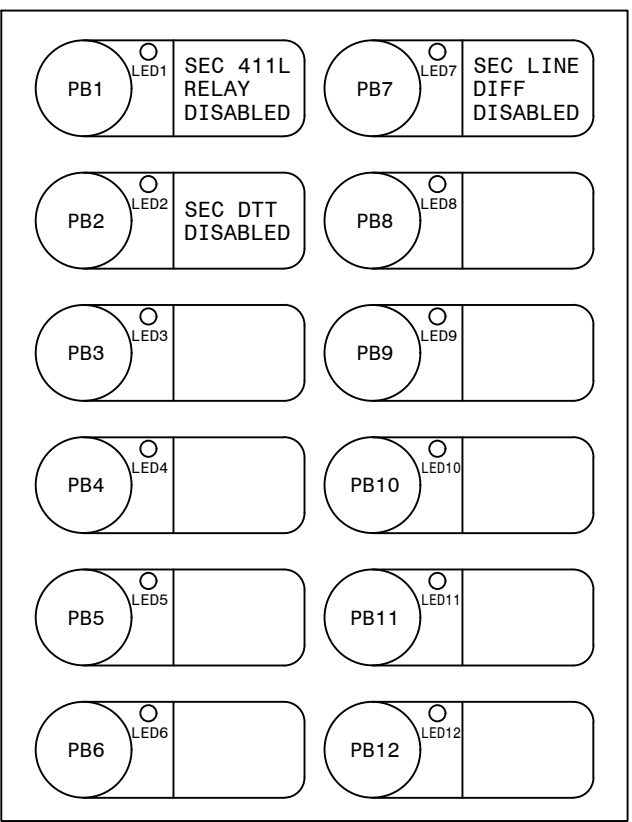
DETAIL F



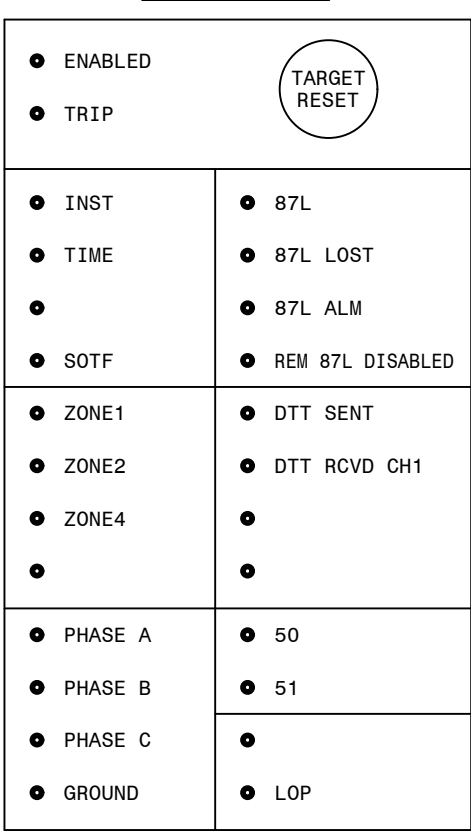
DETAIL A1



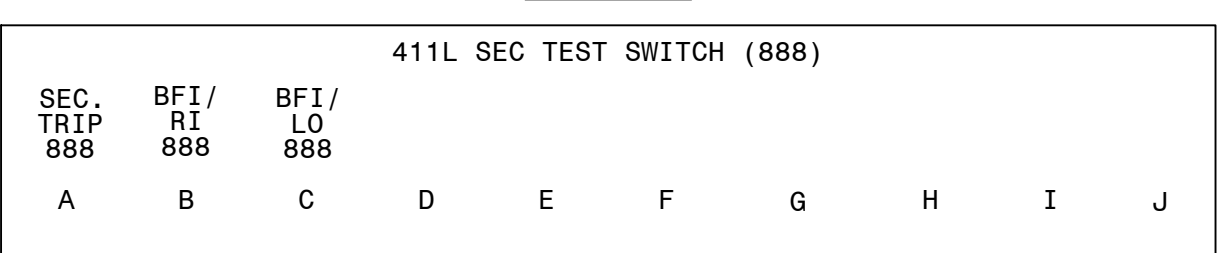
DETAIL G
(411L SEC CONFIGURABLE LABELS)



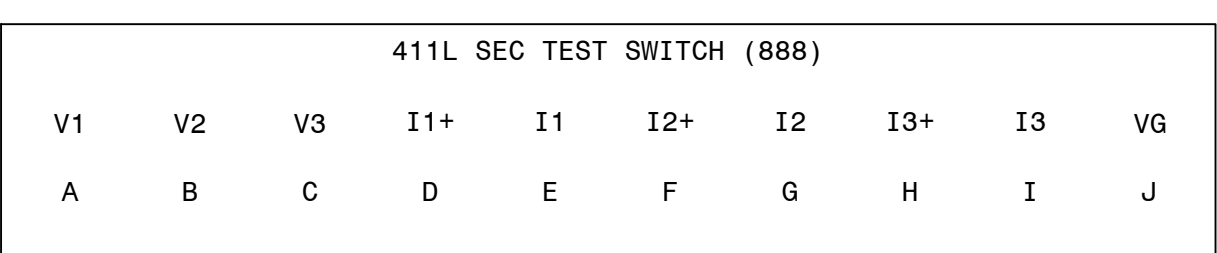
DETAIL G1



DETAIL H



DETAIL I



REFERENCES:

- D-424-002 PANEL 13 WIRING DIAGRAM
- D-424-003 PANEL 13 DC ELEMENTARY DIAGRAM
- D-424-004 PANEL 13 AC ELEMENTARY DIAGRAM
- D-424-005 PANEL 13 LOGIC DIAGRAM (411L PRI)
- D-424-006 PANEL 13 LOGIC DIAGRAM (411L SEC)
- D-424-007 PANEL 13 LOGIC DIAGRAM (351S7X BF/RCLS)

NOTES:

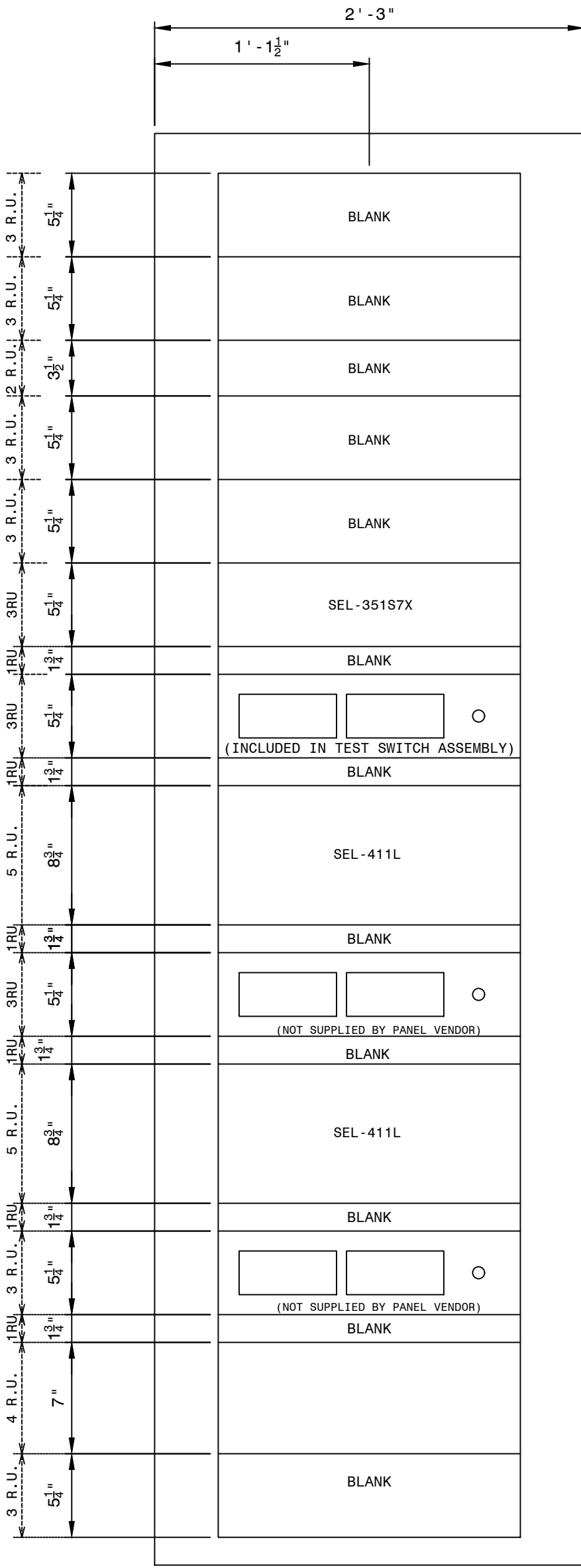
- 1. SLIDING LINKS TO OPEN TOWARD INTERNAL WIRING SIDE.

AUTOCAD ELECTRICAL

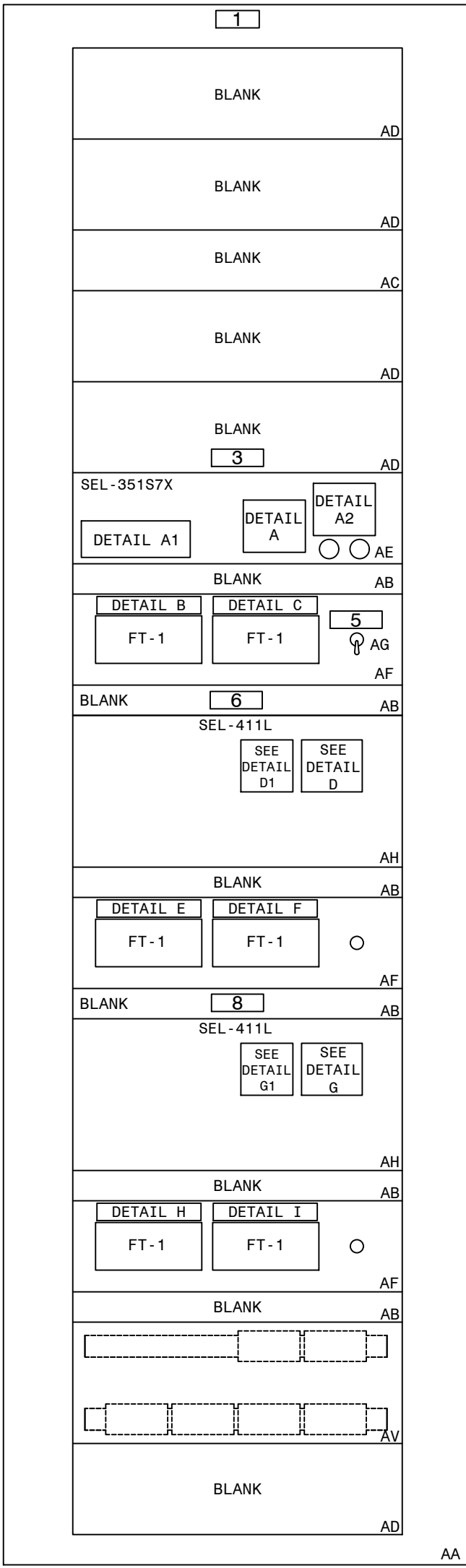
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

PANEL 13, FRONT VIEW, TRANS. LINE 87L/DTT FIBER, STR. BUS

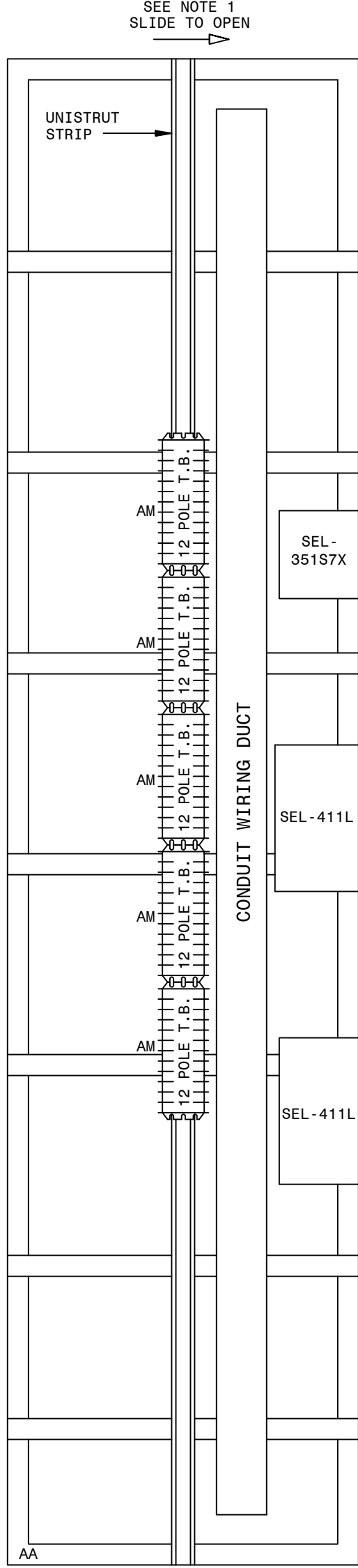
GEORGIA POWER A SOUTHERN COMPANY		FACILITY NAME: MCGRAU FORD TS	
DRAWN: EG/BHCD		TITLE: PANEL NO.13, FRONT VIEW - MC. FORD BESS 230KV LINE SEL411L (PRI-FIB LINE DIFF/DIST.), SEL411L (SEC-FIB LINE DIFF/DIST.), SEL351S (BF/RCLS)	
CHECKED: SW/BHCD		TYPE: FV	
APPROVED: PI#1899007		FACILITY #:	
DATE: 7/31/2024		01-173	
		SHEET: 424	
		REV: -001--.A	
		ASC FACS:	
		ALT DWG NUM:	



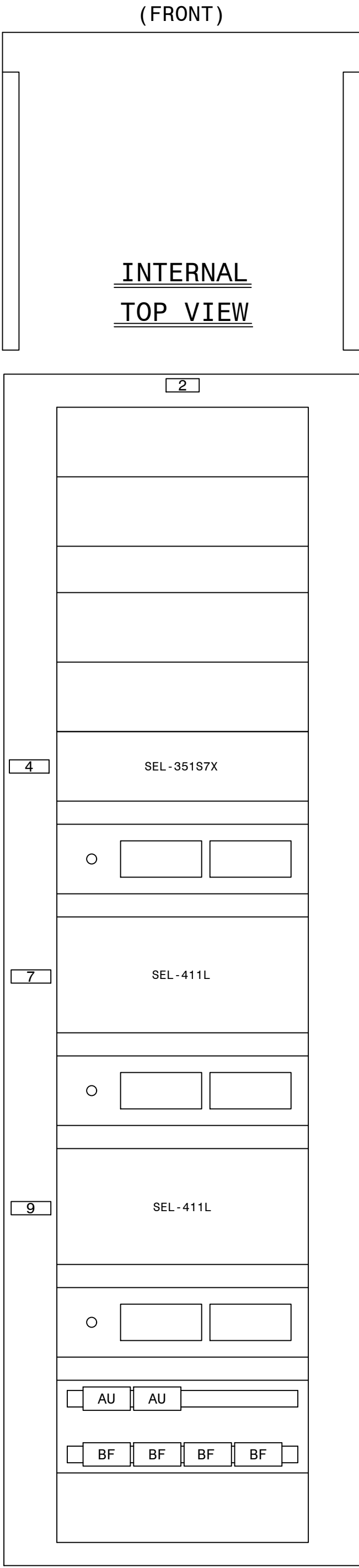
FRONT PANEL
(PUNCH MARKS)



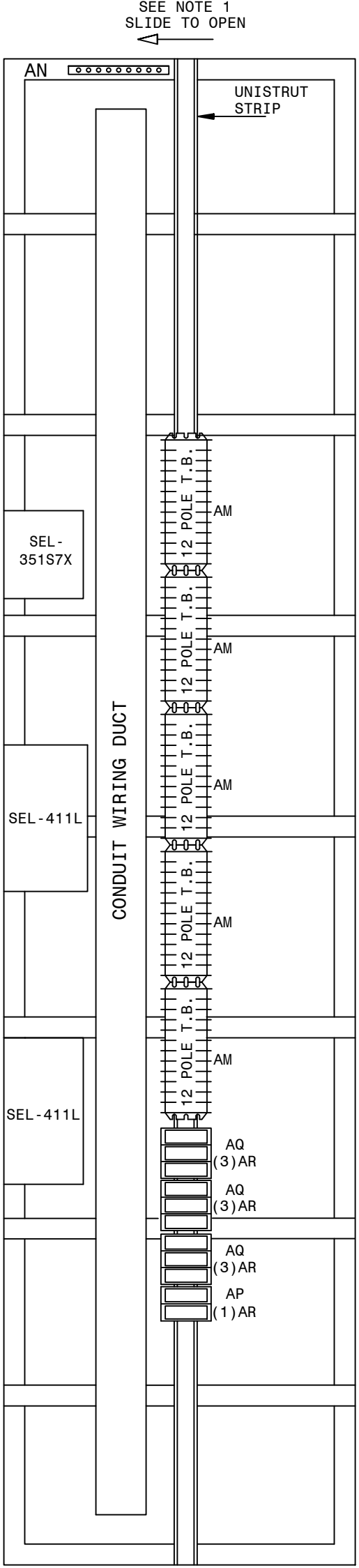
FRONT PANEL
(NAMEPLATES AND
MATERIAL MARKS)



LEFT REAR

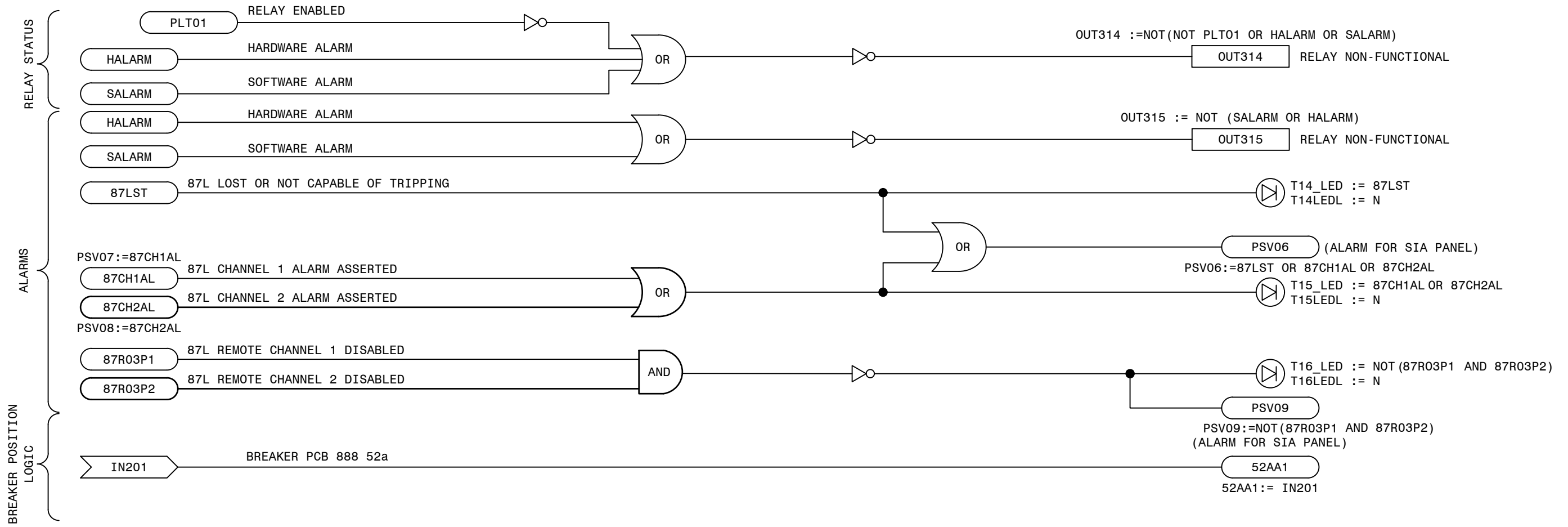
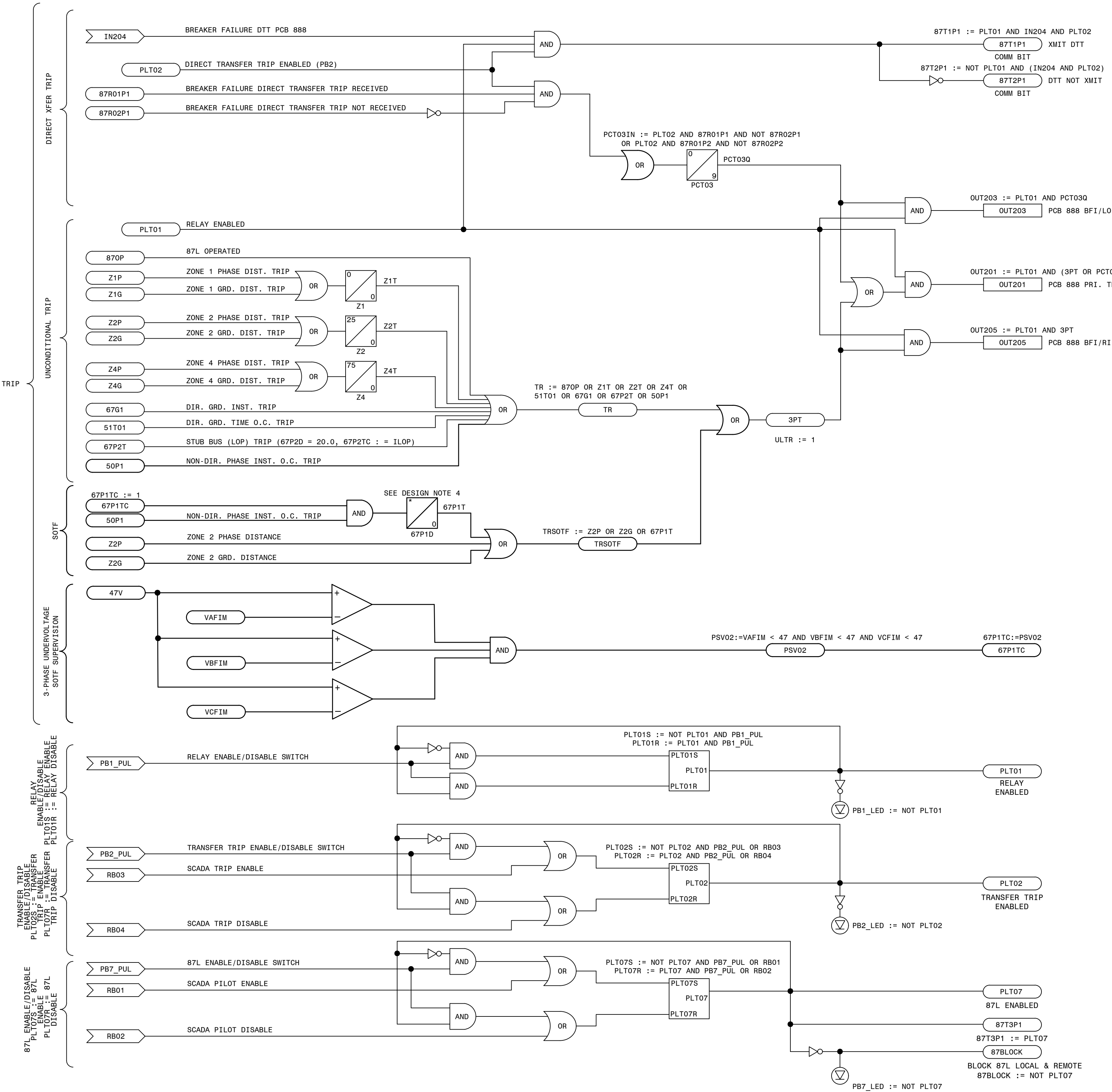


REAR PANEL
(INTERNAL PANEL,
REAR VIEW)



RIGHT REAR

LNP-SELPR-D-32-001-06



- LEGEND:
- xxxx SEL INTERNAL RELAY ELEMENT OR SETTING (IF RECESSED IT WAS DEVELOPED ON THIS SHEET)
 - xxxx EXTERNAL INPUT, PUSHBUTTON OR REMOTE BIT
 - xxxx SEL RELAY OUTPUT
 - xx xx xx SEL TIMER (IN CYCLES)
 - NOT (INVERT INPUT)

- REFERENCES:
- D-424-001 PANEL 13 FRONT VIEW AND NAMEPLATES
 - D-424-002 PANEL 13 WIRING DIAGRAM
 - D-424-003 PANEL 13 DC ELEMENTARY DIAGRAM
 - D-424-004 PANEL 13 AC ELEMENTARY DIAGRAM
 - D-424-006 PANEL 13 LOGIC DIAGRAM (411L SEC)
 - D-424-007 PANEL 13 LOGIC DIAGRAM (351S7X BF/RCLS)

ALIAS NOTES:

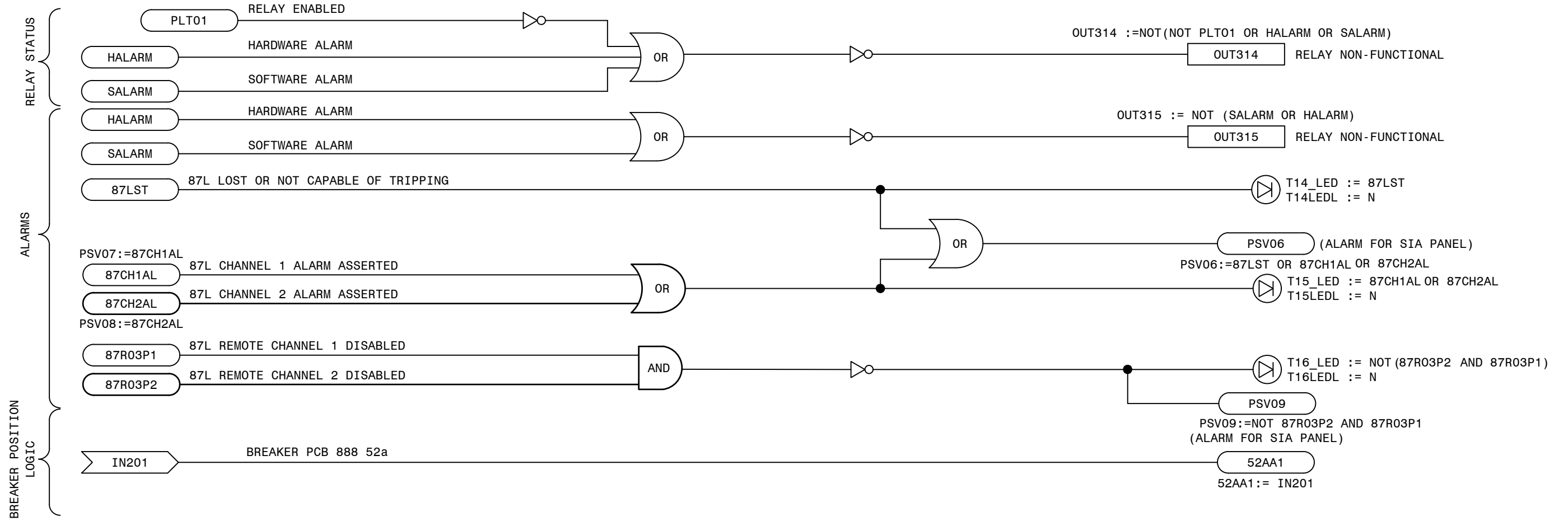
THE FOLLOWING LIST PROVIDES ALTERNATE LOGIC EQUATIONS IF ELEMENT ALIASES ARE NOT USED.

- T2_LED := PCT01Q AND NOT (TLED_1 OR TLED_4)
- T5_LED := (Z1P OR Z1G OR 67G1) AND NOT (TLED_6 OR TLED_7)
- T6_LED := (Z2P OR Z2G) AND NOT (Z1P OR Z1G OR 67G1 OR TLED_5 OR TLED_7)
- T7_LED := (Z3P OR Z3G) AND NOT (Z1P OR Z2P OR Z1G OR Z2G OR 67G1 OR TLED_5 OR TLED_6)
- T21_LED := (67G1 OR 67P1) AND NOT TLED_22
- T22_LED := 51S1T AND NOT (67G1 OR 67P1 OR TLED_21)

PRELIMINARY DESIGN
INFORMATION CONTAINED WITHIN THIS PRELIMINARY
DESIGN PACKAGE IS SUBJECT TO CHANGE.
NOT FOR CONSTRUCTION

TRANS. LINE PRIMARY 87L/DTT FIBER LOGIC - STRAIGHT BUS

GEORGIA POWER SOUTHERN COMPANY		FACILITY NAME: MCGR AU FORD TS	
DRAWN: EG/BMCD		TITLE: PANEL NO.13, LOGIC DIAGRAM - MCGR AU FORD BESS 230KV LINE SEL411L (PRI-FIB. LINE DIFF/DIST.), STRAIGHT BUS	
CHECKED: SW/BMCD		TYPE: 52L	
APPROVED: PI#1899007		SCALE: N.T.S.	
DATE: 7/31/2024		FACILITY #: 01-173	
BOM:		NUMBER: D-424	
ASC FACs:		SHEET: REV: -005 -- .A	
		ALT DWG NUM:	



REFERENCES:

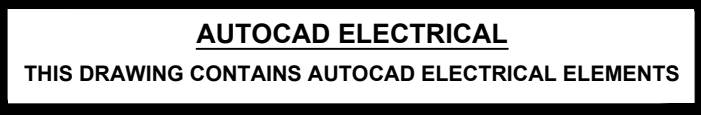
D-424-001	PANEL 13 FRONT VIEW AND NAMEPLATES
D-424-002	PANEL 13 WIRING DIAGRAM
D-424-003	PANEL 13 DC ELEMENTARY DIAGRAM
D-424-004	PANEL 13 AC ELEMENTARY DIAGRAM
D-424-005	PANEL 13 LOGIC DIAGRAM (411L PRI)
D-424-007	PANEL 13 LOGIC DIAGRAM (351S7X BF/RCLS)

```

1. T2_LED := PCT010 AND NOT (TLED_1 OR TLED_4)
2. T5_LED := (Z1P OR Z1G OR 67G1) AND NOT (TLED_6 OR
   TLED_7)
3. T6_LED := (Z2P OR Z2G) AND NOT (Z1P OR Z1G OR 67G1 OR
   TLED_5 OR TLED_7)
4. T7_LED := (Z3P OR Z3G) AND NOT (Z1P OR Z2P OR Z1G OR
   Z2G OR 67G1 OR TLED_5 OR TLED_6)
5. T21_LED := (67G1 OR 67P1) AND NOT TLED_22
6. T22_LED := 51S1T AND NOT (67G1 OR 67P1 OR TLED_21)

```

PRELIMINARY DESIGN
INFORMATION CONTAINED WITHIN THIS PRELIMINARY
DESIGN PACKAGE IS SUBJECT TO CHANGE.
NOT FOR CONSTRUCTION




P. I. #1899807

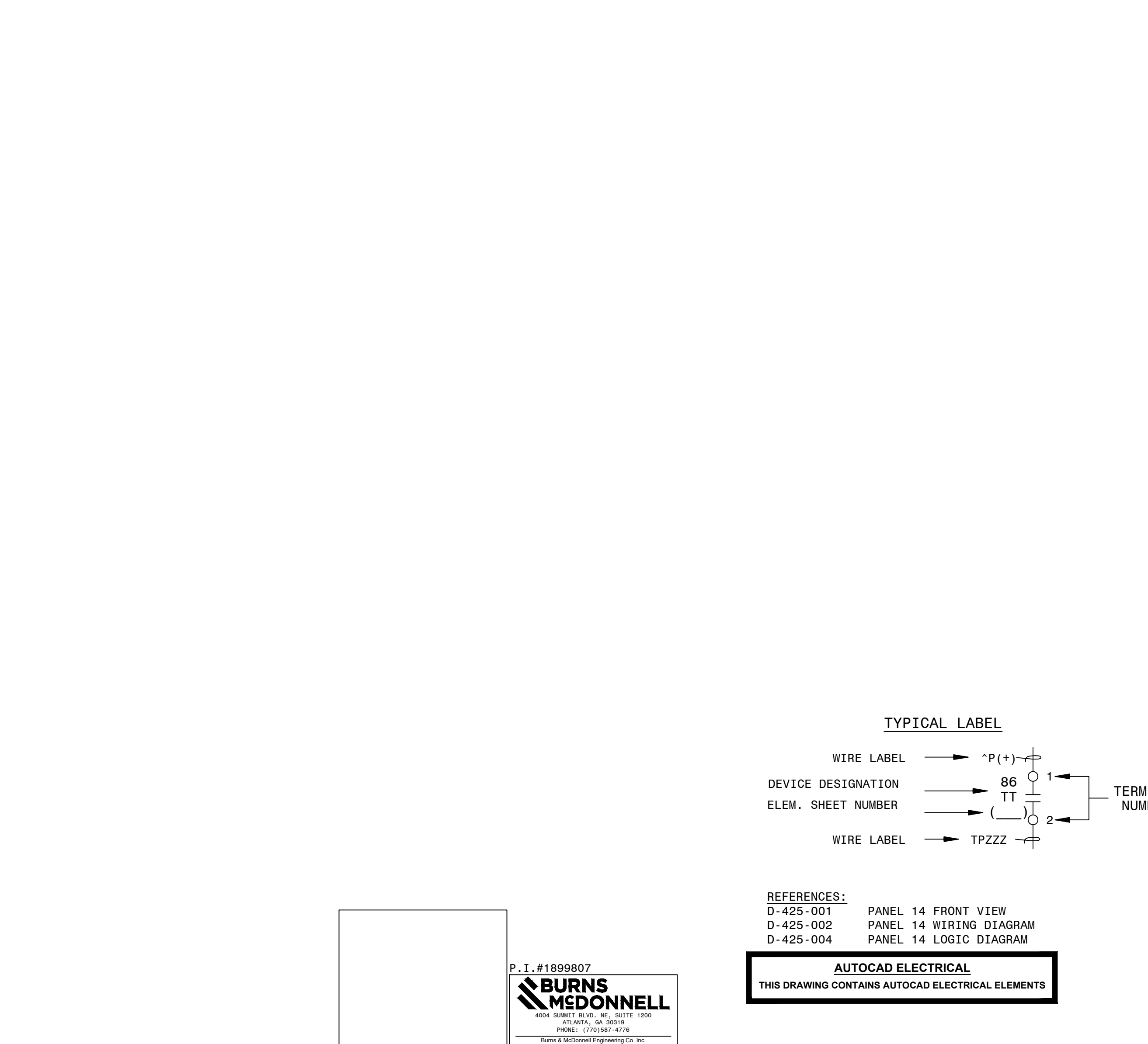
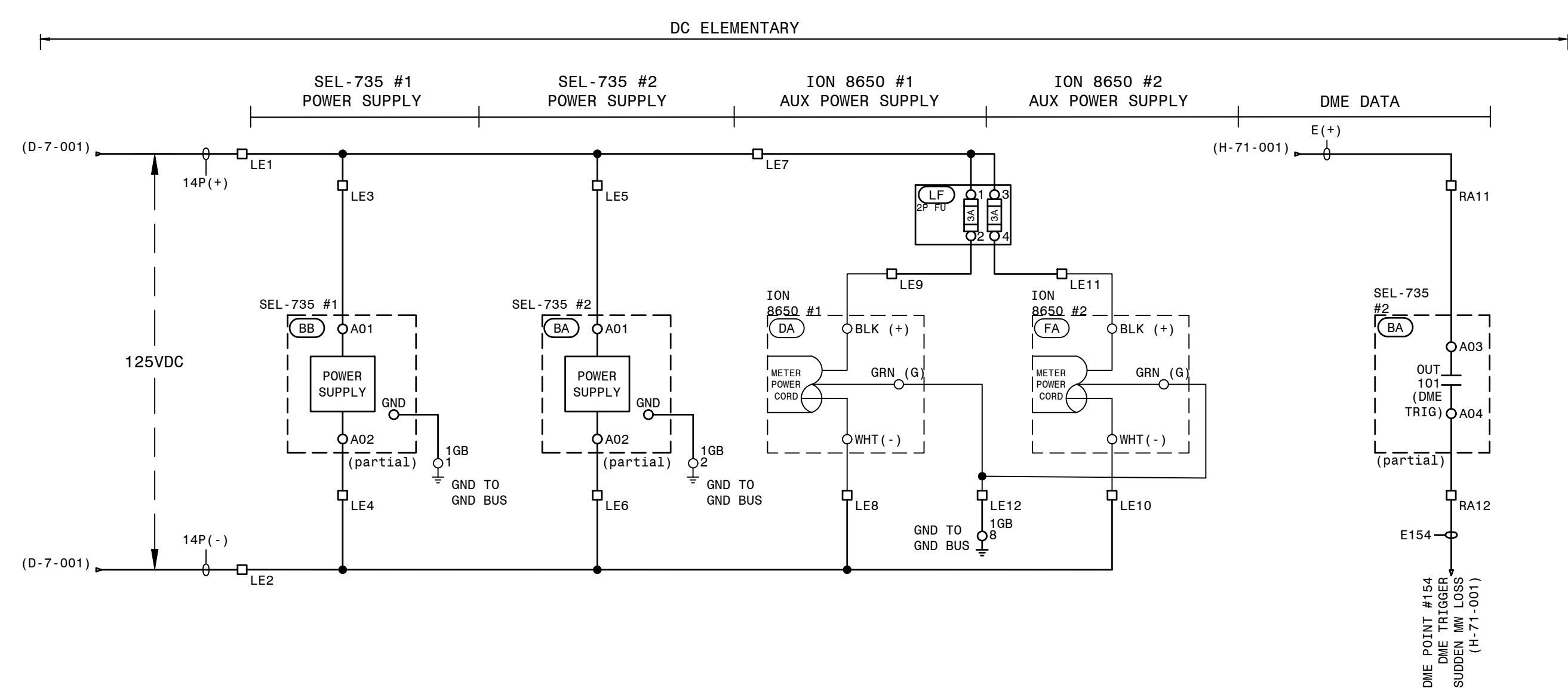
**BURNS
MCDONNELL**

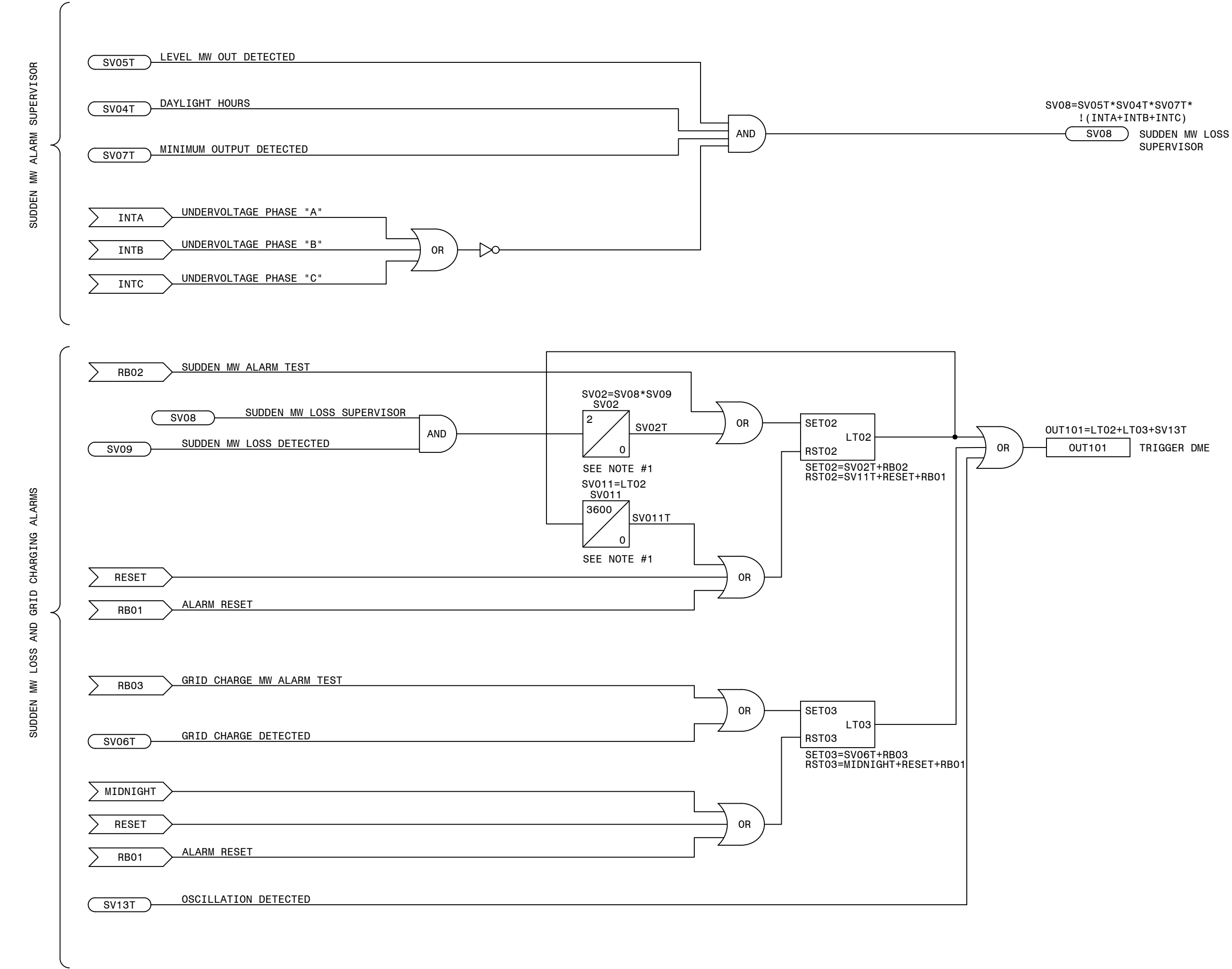
4004 SUMMIT BLVD. NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770)587-4776

Burns & McDonnell Engineering Co. Inc.
GA ENGINEERING LICENSE: PE000100
EXPIRATION DATE: 6/30/2026

THE REGISTRANT OF THE NEWLY APPLIED
SEAL DATED XX/XX/2024,
ONLY ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS/LD.

 <p>GEORGIA POWER A SOUTHERN COMPANY</p>	FACILITY NAME:		MCGRAU FORD TS	
	TITLE: PANEL NO.14, WIRING DIAGRAM - TRANSMISSION REVENUE AND PQ METERING			
	DRAWN: EG/BMCD			
	CHECKED: SW/BMCD	TYPE: VD	FACILITY #:	NUMBER:
	APPROVED: PIH1899807	SCALE: N.T.S.	01-173	D- 425
DATE: 8/14/2024	BOM:			SHEET: REV:
	ASC FACS:		ALT DWG NUM:	- 002 - .A

[illegible]



NOTE:
1. SEL-735P TIMER UNITS ARE SECONDS.


LEGEND:

- SEL INTERNAL RELAY ELEMENT OR SETTING (IF RECESSED IT WAS DEVELOPED ON THIS SHEET)
- EXTERNAL INPUT, PUSHBUTTON OR REMOTE BIT
- SEL RELAY OUTPUT
- SEL TIMER (IN CYCLES)
- NOT (INVERT INPUT)

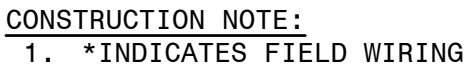
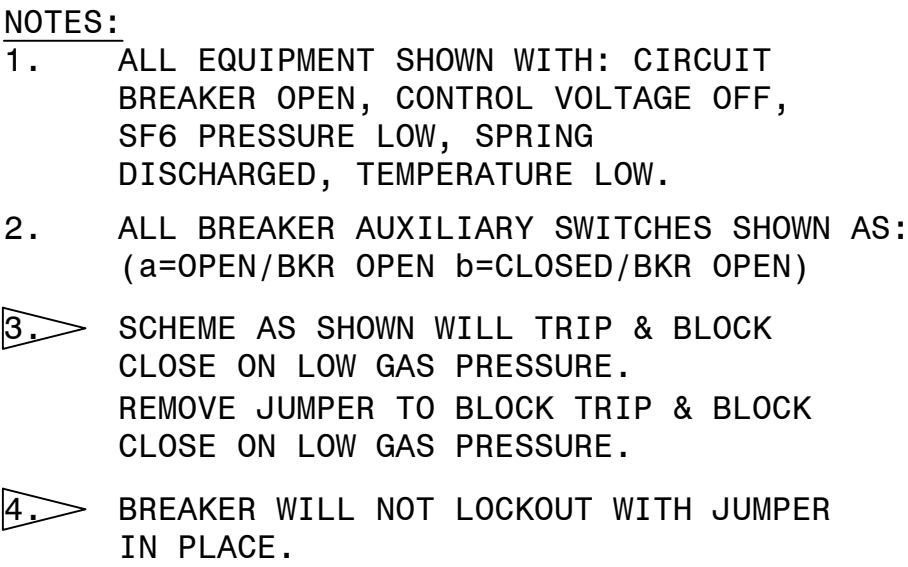
REFERENCES:
D-425-001 PANEL 14 FRONT VIEW
D-425-002 PANEL 14 WIRING DIAGRAM
D-425-003 PANEL 14 AC/DC ELEMENTARY

PRELIMINARY DESIGN
INFORMATION CONTAINED WITHIN THIS PRELIMINARY
DESIGN PACKAGE IS SUBJECT TO CHANGE.
NOT FOR CONSTRUCTION

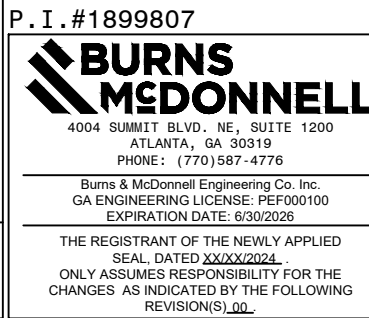
LOGIC DIAGRAM, TRANS. REVENUE & PQ METERING PANEL 14

 A SOUTHERN COMPANY		FACILITY NAME:			
		MCGRAU FORD TS			
TITLE: PANEL NO.14, LOGIC DIAGRAM - TRANSMISSION REVENUE AND POWER QUALITY		METERING			
DRAWN: EG/BHCD	TYPE: S2L	FACILITY #:	D-	NUMBER:	SHEET: REV:
CHECKED: SW/BHCD	SCALE: N.T.S.	01-173		425	- 004 -- .A
APPROVED: PI#1899807	BOH:				
DATE: 8/14/2024	ASC FACIS:		ALT DWG NUM:		


SGEN-POM_D-1-004-00

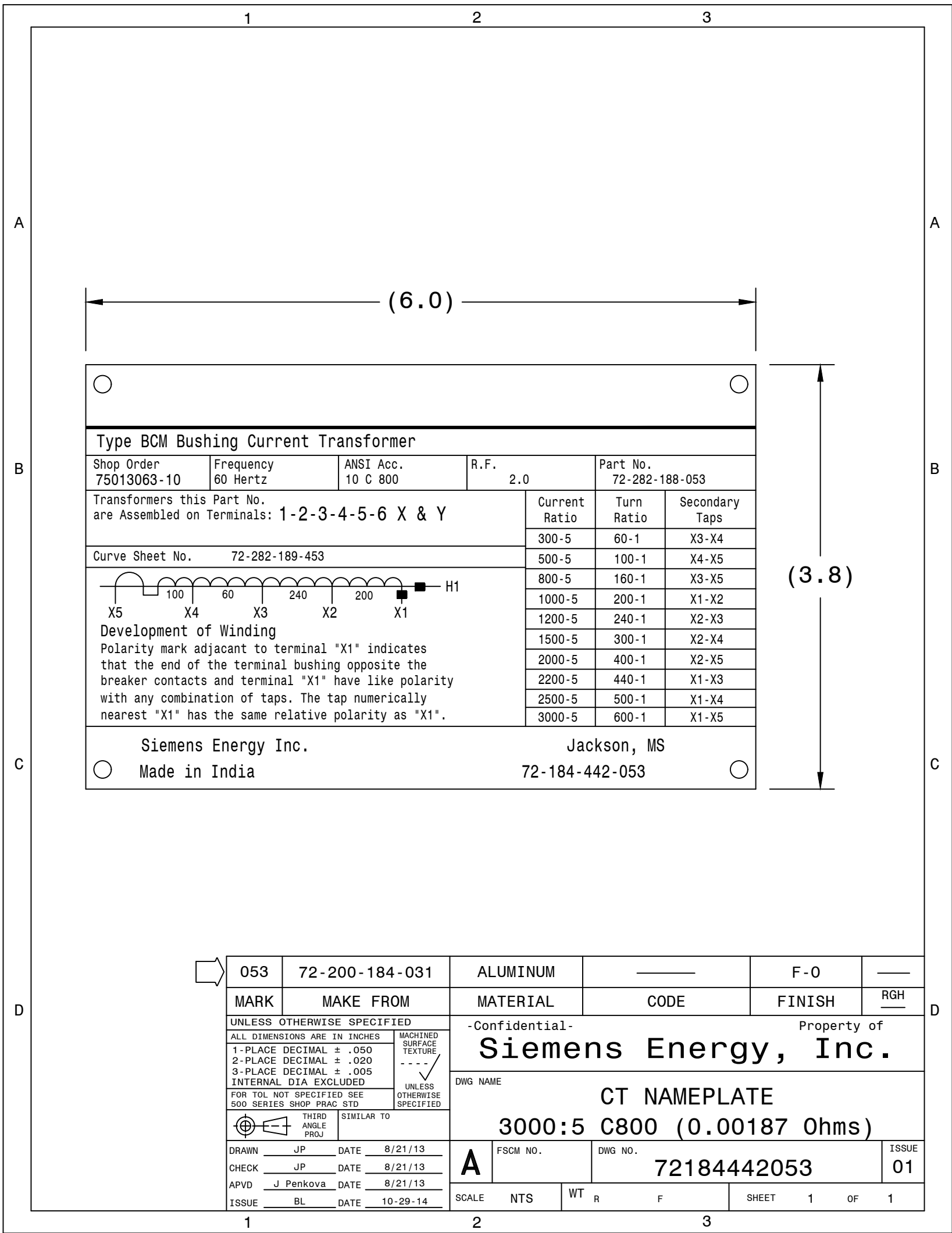
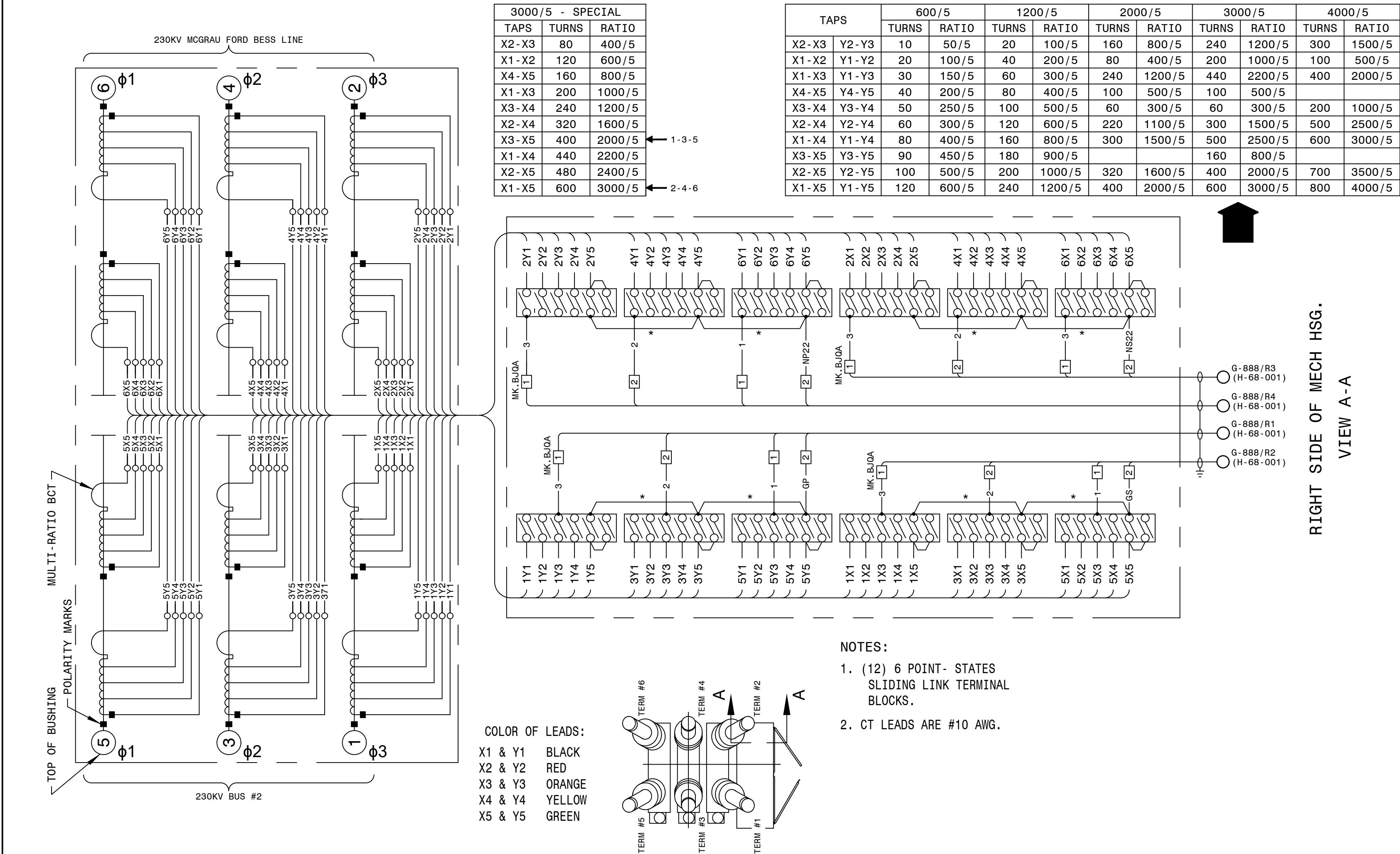


REFERENCES			
D-426-002	230KV PCB 646888	(CO.#B19453)	ELEMENTARY DIAGRAM SH.2
D-426-003	230KV PCB 646888	(CO.#B19453)	WIRING DIAGRAM
D-426-004	230KV PCB 646888	(CO.#B19453)	BCT WIRING DIAGRAM & NAMEPLATE
D-426-005	230KV PCB 646888	(CO.#B19453)	NAMEPLATE & GAS SYSTEM



AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

 <p>GEORGIA POWER SOUTHERN COMPANY</p>	FACILITY NAME:				MCGRAU FORD TS			
	TITLE: 230KV PCB 646888 (CO.#B19453) ELEMENTARY DIAGRAM SH.1							
	DRAWN: EG/BMCD		TYPE: 92		FACILITY #:		NUMBER:	
	CHECKED: SW/BMCD		SCALE: N.T.S.		01-173		426	
	APPROVED: PT#189807		BOM:		DSC		SHEET: REV: - 001 - -	
DATE: 12/17/2024		ASC FACS:		ALT DWG NUM:				



AUTOCAD ELECTRICAL

THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

- CONSTRUCTION NOTES:
- INDICATES FIELD WIRING
 - POWER TERMINAL BLOCK MK. BJQA TO BE LOCATED AND INSTALLED BY THE FIELD, AS REQUIRED.
 - CABLES INSTALLED FROM POWER TERMINAL BLOCK MK. BJQA TO BLOCK TERMINAL MK. BJPE TO BE #10.

REFERENCES

D-426-001 230KV PCB 646888 (CO.#B19453) ELEMENTARY DIAGRAM SH.1

D-426-002 230KV PCB 646888 (CO.#B19453) ELEMENTARY DIAGRAM SH.2

D-426-003 230KV PCB 646888 (CO.#B19453) WIRING DIAGRAM

D-426-005 230KV PCB 646888 (CO.#B19453) NAMEPLATE & GAS SYSTEM

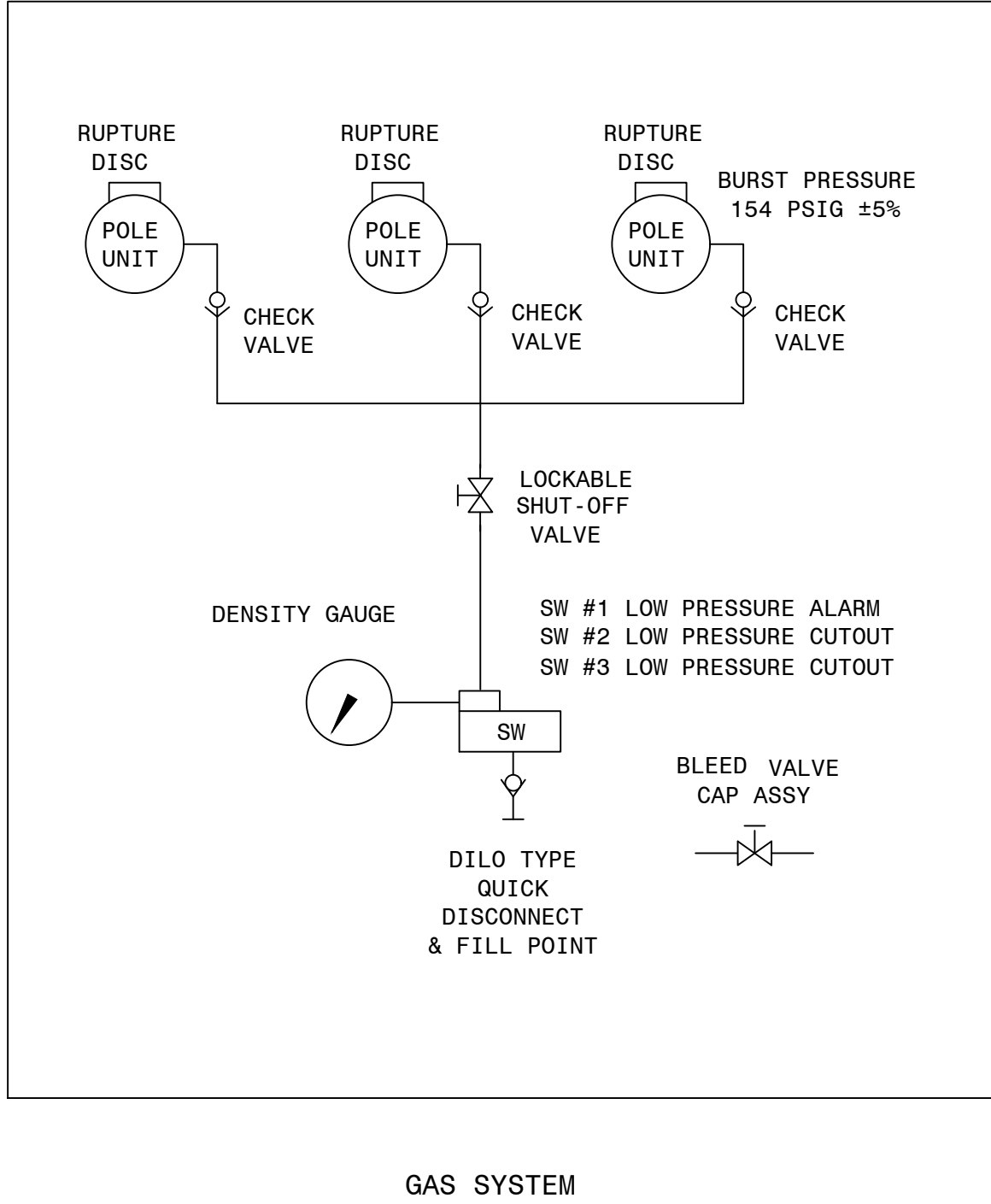
P.I.#1899807



GEORGIA POWER A SOUTHERN COMPANY	FACILITY NAME: MCGRAU FORD TS
DRAWN: EG/BHCD	TITLE: 230KV PCB 646888 (CO.#B19453) BCT WIRING DIAGRAM & NAMEPLATE
CHECKED: SW/BHCD	TYPE: 82
APPROVED: PT#1899807	SCALE: N.T.S.
DATE: 12/17/2024	NUMBER: 01-173
DEV.#: 646888	SHEET: 004 - -
ASC FAC:	ALT DWG NUM:

<div><div></div><div>Sulfur Hexafluoride Circuit Breaker Type SPS2S-245-63 -1</div></div> <div><div></div><div>SIEMENS energy</div><div></div></div> <div><div></div><div></div><div></div></div>		
Rated Max. Volts 245 kV	Rated Voltage Range Factor 1.0 (K)	Rated Interrupting Time 2.0 Cycles
Rated Continuous Current 3000 A	Rated Short Circuit Current 63000 A	Rated Capacitance Current Switching
Frequency 60 Hz	Rated Out of Phase Current 15800 A	Line Charging 200 A Isolated Bank Sw. 1200 A Back -to- Back Sw. 700 A Inrush Peak 20000 A Inrush Freq. 4250 Hz
Wt. of Breaker With Gas 11200 Lbs	Full Wave Impulse Withstand 900 kV	Rated Operating Duty Cycle OCO-15SEC-CO
Weight of SF6 Gas 116 Lbs	PO# GPC11335358 ITEM# 1876166	
Rated Operating Pressure at 68°F/20 °C 87 psig	Short Time Current Duration 3 SEC	Serial - S.O. 75013063-1 THRU 15
Minimum Operating Pressure at 68 F/20 °C 72 psig	Close and Latch 170 kA	Parts List No.
SF6 Alarm Pressure at 68°F/20 °C 75 psig	Rated Chopped Wave @ 2 microS 1160 kV	Instruction Book PB- 3538-01
SF6 Cutout Pressure at 68°F/20 °C 72 psig		Date of Mfr. MONTH/YEAR
% of DC Component 57 %		
Siemens Energy, Inc. Manufactured or Assembled of U.S. and Foreign Components		Jackson, MS 72184717001

001	72200184027	ALUMINUM	---	F-0	---
MARK	MAKE FROM	MATERIAL	CODE	FINISH	RGH
UNLESS OTHERWISE SPECIFIED		-Confidential- Property of			
ALL DIMENSIONS ARE IN INCHES		Siemens Energy, Inc.			
1-PLACE DECIMAL ± .050		DWG NAME			
2-PLACE DECIMAL ± .020		NAMEPLATE			
3-PLACE DECIMAL ± .005		BREAKER, 245kV			
INTERNAL DIA EXCLUDED		A FSCM NO. DWG NO. ISSUE			
FOR TOL NOT SPECIFIED SEE		72184717001			
500 SERIES SHOP PRG# STD		SCALE 1=1 WT R F SHEET 1 OF 1			
UNLESS OTHERWISE SPECIFIED					
TWO ANGLE PROJ. SIMILAR TO					
72184715001					
DRAWN MD DATE 6/3/19					
CHECK MD DATE 6/3/19					
APVD BL DATE 2/5/20					
ISSUE TH DATE 2/7/20					



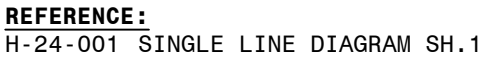
UNLESS OTHERWISE SPECIFIED		-Confidential- Property of			
ALL DIMENSIONS ARE IN INCHES		Siemens Energy, Inc.			
1-PLACE DECIMAL ± .050		DWG NAME			
2-PLACE DECIMAL ± .020		GAS SYSTEM SCHEMATIC			
3-PLACE DECIMAL ± .005		OSDS w/SHUT-OFF			
INTERNAL DIA EXCLUDED		A FSCM NO. DWG NO. ISSUE			
FOR TOL NOT SPECIFIED SEE		72-181-177-442			
500 SERIES SHOP PRG# STD		SCALE NTS WT R F SHEET 1 OF 1			
UNLESS OTHERWISE SPECIFIED					
TWO ANGLE PROJ. SIMILAR TO					
72-181-177-442					
DRAWN TH DATE 2-16-05					
CHECK TH DATE 2-16-05					
APVD JP DATE 2-17-05					
ISSUE M BOYD DATE 10/07/08					

AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

REFERENCES	
D-426-001	230KV PCB 646888 (CO.#B19453) ELEMENTARY DIAGRAM SH.1
D-426-002	230KV PCB 646888 (CO.#B19453) ELEMENTARY DIAGRAM SH.2
D-426-003	230KV PCB 646888 (CO.#B19453) WIRING DIAGRAM
D-426-004	230KV PCB 646888 (CO.#B19453) BCT WIRING DIAGRAM & NAMEPLATE




GEORGIA POWER A SOUTHERN COMPANY		FACILITY NAME: MCGRAU FORD TS	
DRAWN: EG/BMCD		TITLE: 230KV PCB 646888 (CO.#B19453) NAMEPLATE & GAS SYSTEM	
CHECKED: SW/BMCD		TYPE: 82	
APPROVED: PT#1899807		FACILITY #:	
DATE: 12/17/2024		01-173	
DEV.#: 646888		NUMBER: 426	
ASC FACS:		SHEET: 005 - -	
		ALT DWG NUM:	



The logo for Burns & McDonnell, featuring a stylized 'B' and 'M' symbol to the left of the company name. Below the logo, the address is listed: 4004 SUMMIT BLVD. NE, SUITE 1200, ATLANTA, GA 30319. The phone number is (770) 587-4776. A horizontal line separates the contact information from the company name and license details. Below the line, it says 'Burns & McDonnell Engineering Co. Inc.', 'GA ENGINEERING LICENSE: PEF000100', and 'EXPIRATION DATE: 6/30/2026'. Another horizontal line follows. Below that, it states 'THE REGISTRANT OF THE NEWLY APPLIED SEAL, DATED 06/06/2024, ONLY ASSUMES RESPONSIBILITY FOR THE CHANGES AS INDICATED BY THE FOLLOWING REVISION(S): 00'.

THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

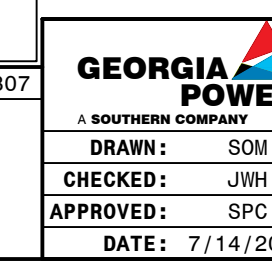
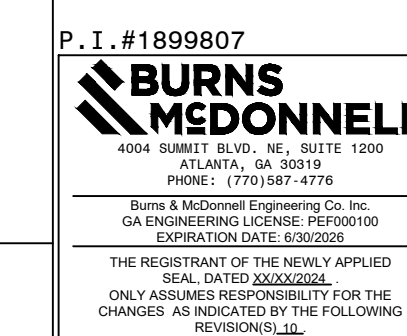
 <p>GEORGIA POWER A SOUTHERN COMPANY</p>	FACILITY NAME:										MCGRAU FORD TS																												
	TITLE: MCGRAU FORD BESS LINE INTERCHANGE REVENUE METERING CT AND PT WIRING																																						
	DIAGRAM																																						
	DRAWN: EG/BMCD					TYPE: WD					FACILITY #:					NUMBER:					SHEET:					REV:													
	CHECKED: SW/BMCD					SCALE: N.T.S					01-173					D-					428										- 001 - 00								
APPROVED: PI#1899082					BOM:															ASC FACCS:										ALT DWG NUM:									
DATE: 12/19/2024																																							



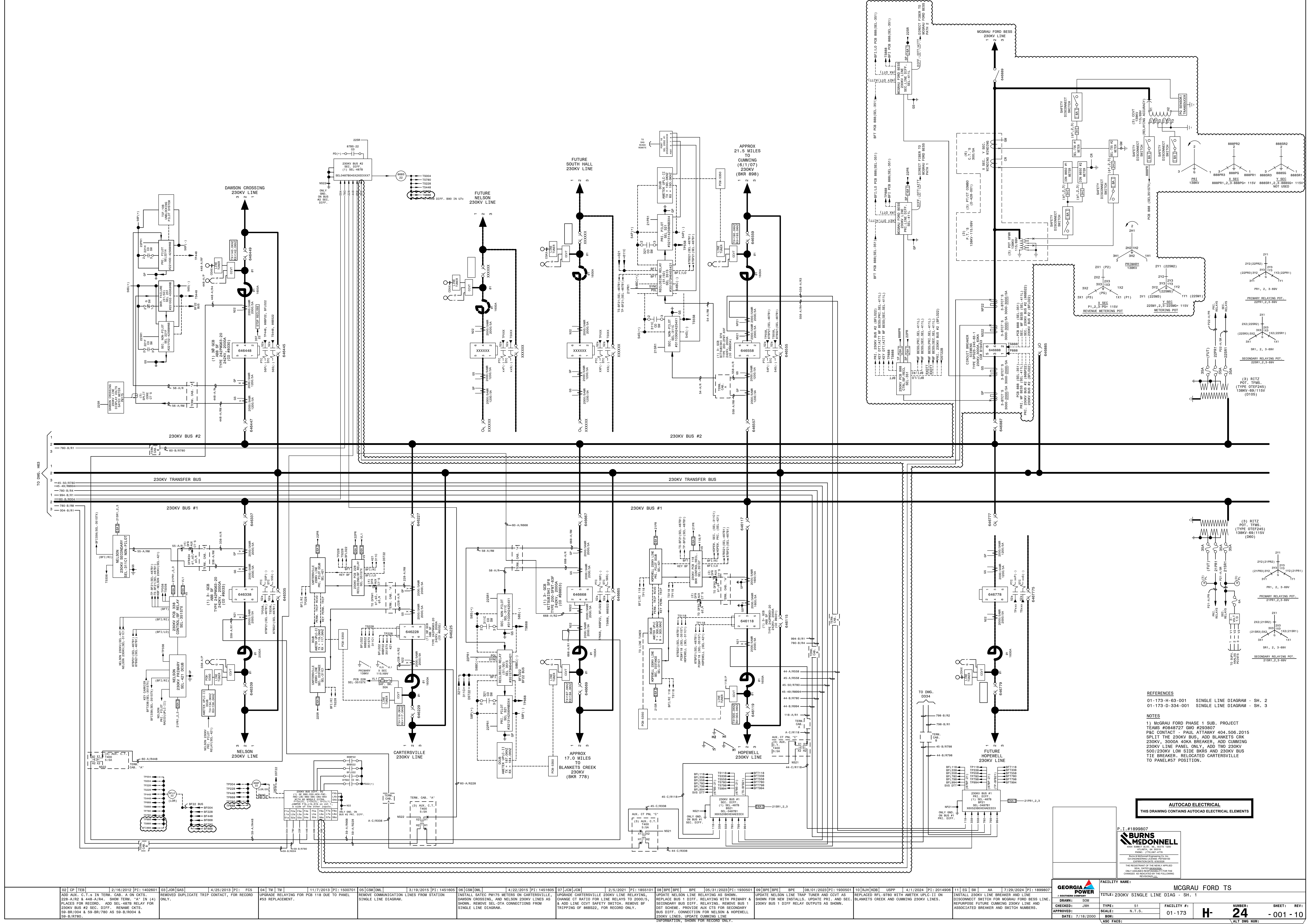
1. FIELD TO LOCATE NEW BATTERY EQUIPMENT.

REFERENCES

01-173-H-24-001	SINGLE LINE DIAGRAM - SH. 1
01-173-H-63-001	SINGLE LINE DIAGRAM - SH. 2
01-173-D-334-001	SINGLE LINE DIAGRAM - SH. 3



FACILITY NAME:		MCGRAU FORD TS			
TITLE: SWITCHBOARD PANEL LAYOUT					
TYPE:	61	FACILITY #:	H-	NUMBER:	SHEET: REV:
SCALE:	3/8"=1'-0"	01-173		17	- 001 - 09
BON:					



REFERENCES
01-173-H-63-001 SINGLE LINE DIAGRAM - SH. 2
01-173-D-334-001 SINGLE LINE DIAGRAM - SH. 3

NOTES
1) MCGRAU FORD PHASE 1 SUB. PROJECT
TEAMS #0849727 GWO #233907
P&C CONTACT - PAUL ATTAWAY 404.506.2015
SPLIT THE 230KV BUS, ADD BLANKETS CRK
230KV, 5000A 40KA BREAKER, ADD CUMMING
230KV LINE PANEL ONLY, ADD TWO 230KV
500/230KV LOW SIDE BKRS AND 230KV BUS
TIE BREAKER, RELOCATED CARPENTERSVILLE
TO PANEL#57 POSITION.

AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

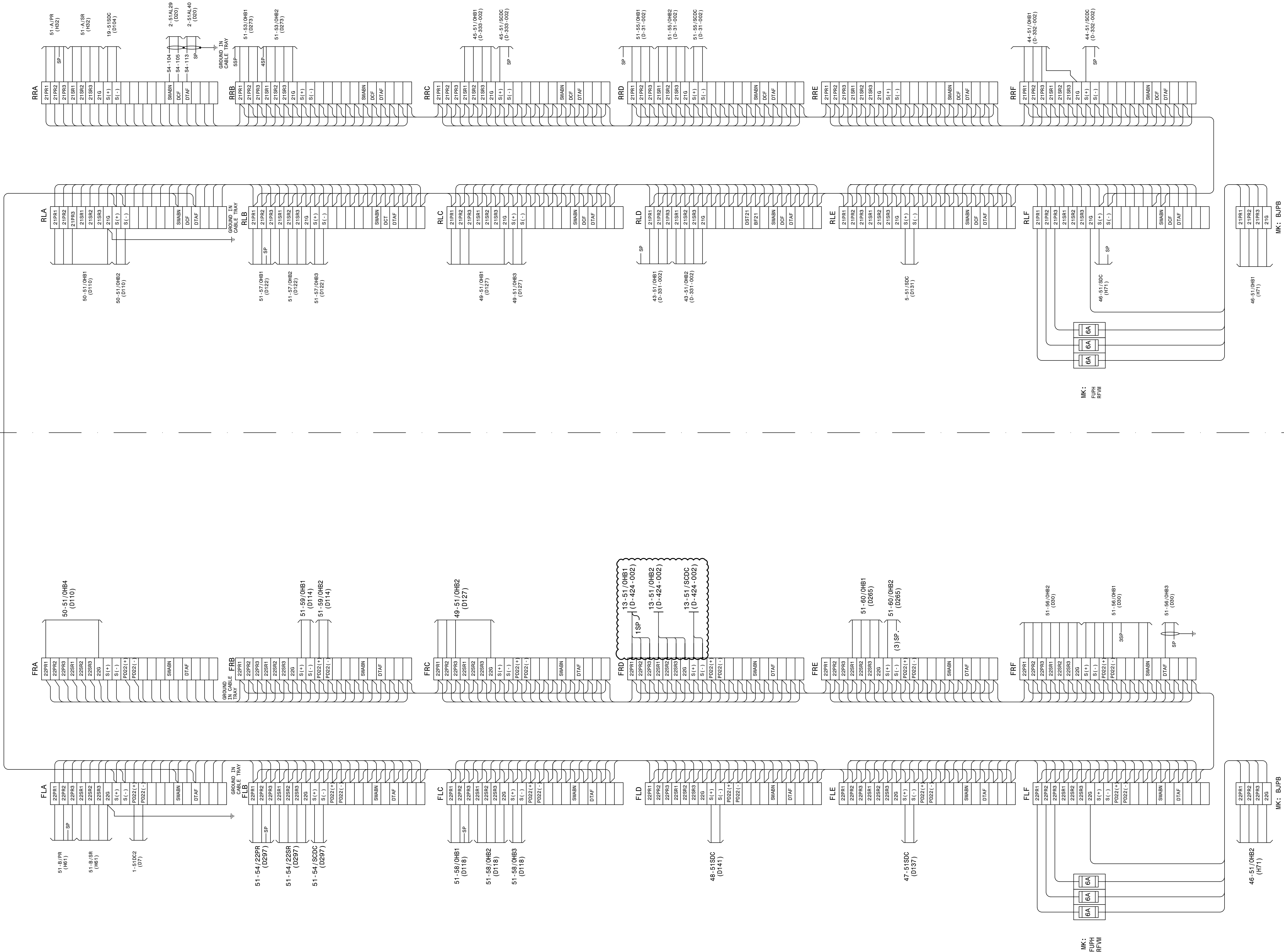
P.1.#1899807
BURNS
MEDONNELL

THE REGISTRY OF THE MEALY APPLIED
REAL, UNITED STATES
ENGINEERING LICENSE, PERIODIC
EXAMINATIONS, AND
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS.

GEORGIA A SOUTHERN COMPANY		FACILITY NAME:		MCGRU FORD TS	
TITLE: 230KV SINGLE LINE DIAG - SH. 1		DRAWN: SWH		CHECKED: JWH	
DATE: 7/18/2000		TYPE: S1		FACILITY #: 01-173	
SCALE: N.T.S.		BOM:		H	
ASB FACS:		NUMBER: 24		SHEET: REV: -001-10	
ACT DWG NUM:		ACT DWG NUM:		ACT DWG NUM:	

REAR SIDE

FRONT SIDE

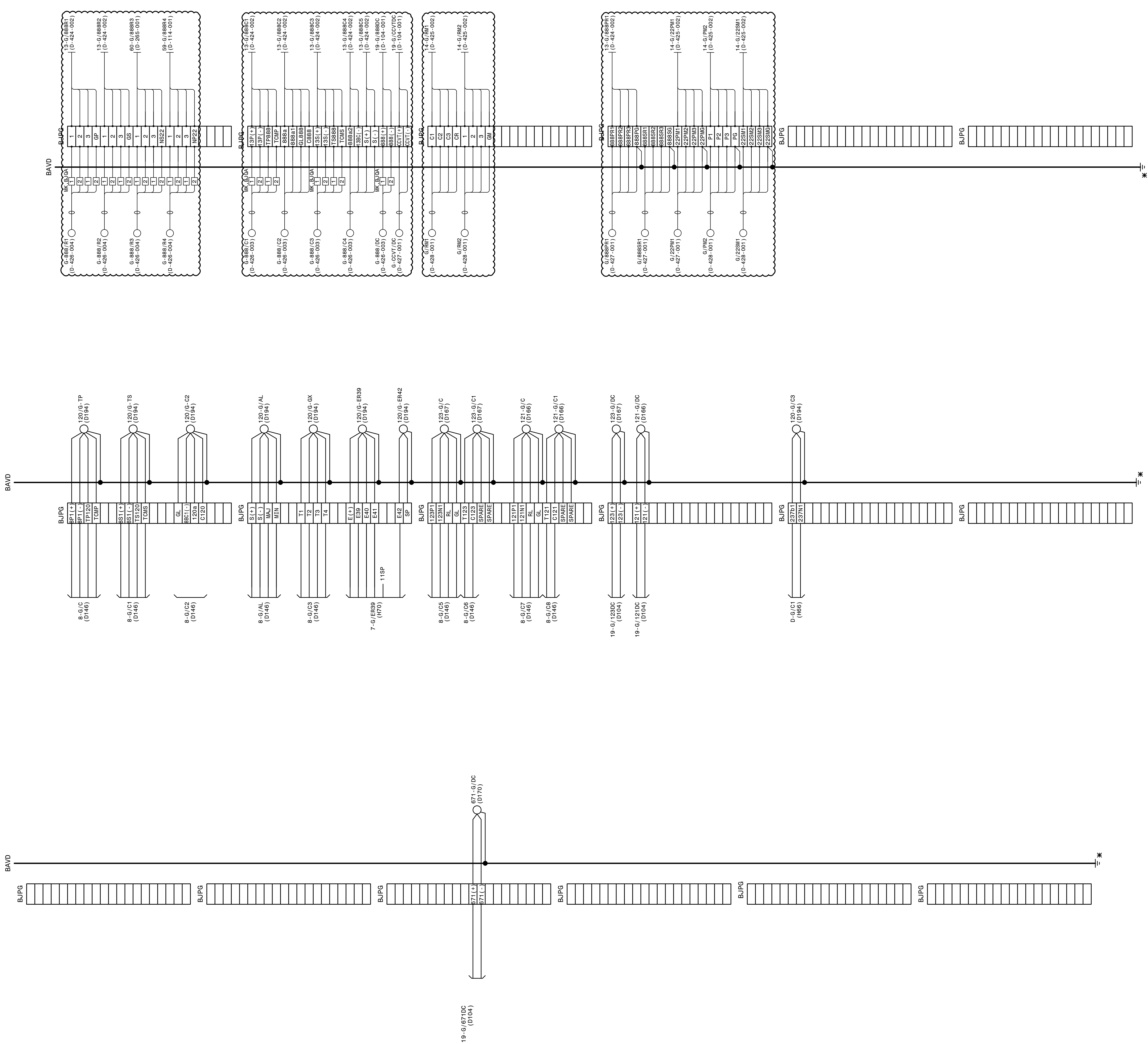


AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

P.I. #1899807
BURNS & MCDONNELL
A SOUTHERN COMPANY
ATLANTA, GA 30333
PHONE: (770) 536-1100
FAX: (770) 536-1101
REG. & MOUNTING EQUIPMENT CO. IS
GA PROFESSIONAL LICENSE: PE000000
EXPIRATION DATE: 03/2008
THE REGISTRATION OF THE SEALY APPLIED
HEREON IS NOT A GUARANTEE
ONLY AS SHOWN IS RESPONSIBLE FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS:
NO. DATE BY

REFERENCES:
01-173-D84 SWBD, PANEL #51 DETAILS-
O.H. BUS DIST. PANEL

FACILITY NAME: MCGRAU FORD TS	
TITLE: SWITCHBOARD PANEL #51 WIRING DIAGRAM OVERHEAD BUS DISTRIBUTION PANEL	
CHECKED: JWH	TYPE: WD
APPROVED: DATE: 5/14/2008	SCALE: N.T.S.
FACILITY #: 01-173	
NUMBER: 27	
SHEET: REV: -001-10	
ASC FAC:	



NOTES:
1. POWER TERMINAL BLOCK MK. B10A TO BE LOCATED AND INSTALLED BY THE FIELD, AS REQUIRED.
2. CABLES INSTALLED FROM POWER TERMINAL BLOCK MK. B10A TO BLOCK TERMINAL MK. B1PE TO BE #10.

REFERENCES:
15-371-H17 CONTROL PANEL LAYOUT
15-371-DB3 SWBD. CONSTRUCTION DETAILS
32" TERMINATION CABINETS A-H

AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

P.I. #1899807
BURNS MEDONNELL
A SOUTHERN COMPANY
BIRMINGHAM, AL 35203
PHONE: (205) 975-4776
FAX: (205) 975-4777
BORN & BRED IN THE SOUTH
THE REGISTRANT OF THE NAVY APPLIED
SEA, LAND & AIR
ONLY ASSESSMENT RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS:
01 [AJW]/AJW 08/28/2006 P1: 1899807
02 [AJW]/PAJ JJJH 09/27/2007 P1: 0848727
03 [EQ]/SW AA 12/16/2024 P1: 1899807

