KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT
GROUND INTEGRATED SCHEMATIC

SHEET NO.	REV STATUS	FUNCTION CODE	TITLE
1	-	V-1	TITLE & INDEX
2	-	E-1	GENERAL NOTES
3	-	E-2	BLOCK DIAGRAM
4	-	E-3	CABLE INTERCONNECT DIAGRAM
5	-	E-4	PLC A RIO DIAGRAM
6	-	E-5	PLC B RIO DIAGRAM
7	-	E-6	ENCLOSURE 1 POWER SUPPLY A DISTRIBUTION
8	-	E-7	ENCLOSURE 1 POWER SUPPLY B DISTRIBUTION
9	-	E-8	ENCLOSURE 1 POWER DIAGRAM
10	-	E-9	ENCLOSURE 1 PLC I/O STATUS
11	-	E-10	ENCLOSURE 2 POWER SUPPLY A DISTRIBUTION
12	-	E-11	ENCLOUSRE 2 POWER SUPPLY B DISTRIBUTION
13	-	E-12	ENCLOSURE 2 POWER DIAGRAM
14	-	E-13	ENCLOSURE 2 PLC I/O STATUS
15	-	E-14	TOWER E PLATFORM LAS-AUX, A AND B CMDS 1
16	-	E-15	TOWER E PLATFORM LAS-AUX, A AND B CMDS 2
17	-	E-16	TOWER E PLATFORM LAS-AUX, A AND B INPUTS 1
18	-	E-17	TOWER E PLATFORM LAS-AUX, A AND B INPUTS 2
19	-	E-18	TOWER E PLATFORM LAS-AUX, A AND B INPUTS 3
20	-	E-19	TOWER E PLATFORM LAS-AUX, A AND B INPUTS 4
21	-	E-20	TOWER E PLATFORM LAS-AUX, A AND B INPUTS 5
22	-	E-21	TOWER E PLATFORM LAS-AUX, A AND B INPUTS 6
23	-	E-22	TOWER E PLATFORM LAS-AUX, A AND B INPUTS 7
24	-	E-23	TOWER E PLATFORM LEVEL C AND E CMDS 1
25	-	E-24	TOWER E PLATFORM LEVEL C AND E CMDS 2
26	-	E-25	TOWER E PLATFORM LEVEL C AND E INPUTS 1
27	-	E-26	TOWER E PLATFORM LEVEL C AND E INPUTS 2
28	-	E-27	TOWER E PLATFORM LEVEL C AND E INPUTS 3
29	-	E-28	TOWER E PLATFORM LEVEL C AND E INPUTS 4
30	-	E-29	TOWER E PLATFORM LEVEL C AND E INPUTS 5
31	-	E-30	TOWER E PLATFORM LEVEL C AND E INPUTS 6
32	-	E-31	TOWER E PLATFORM LEVEL C AND E INPUTS 7
33	-	E-32	TOWER E PLATFORM LEVEL F1, G AND H CMDS 1

SHEET NO.	REV STATUS	FUNCTION CODE	TITLE
34	-	E-33	TOWER E PLATFORM F1, G AND H CMDS 2
35	-	E-34	TOWER E PLATFORM F1, G AND H INPUTS 1
36	-	E-35	TOWER E PLATFORM F1, G AND H INPUTS 2
37	-	E-36	TOWER E PLATFORM F1, G AND H INPUTS 3
38	-	E-37	TOWER E PLATFORM F1, G AND H INPUTS 4
39	-	E-38	TOWER E PLATFORM F1, G AND H INPUTS 5
40	-	E-39	TOWER E PLATFORM F1, G AND H INPUTS 6
41	-	E-40	TOWER E PLATFORM F1, G AND H INPUTS 7
42	-	E-41	TOWER E PLATFORM I, J AND K CMDS 1
43	-	E-42	TOWER E PLATFORM I, J AND K CMDS 2
44	-	E-43	TOWER E PLATFORM I, J AND K INPUTS 1
45	-	E-44	TOWER E PLATFORM I, J AND K INPUTS 2
46	-	E-45	TOWER E PLATFORM I, J AND K INPUTS 3
47	-	E-46	TOWER E PLATFORM I, J AND K INPUTS 4
48	-	E-47	TOWER E PLATFORM I, J AND K INPUTS 5
49	-	E-48	TOWER E PLATFORM I, J AND K INPUTS 6
50	-	E-49	TOWER E PLATFORM I, J AND K INPUTS 7
51	-	E-50	TOWER E CAMERA OUTPUTS 1
52	-	E-51	TOWER E CAMERA OUTPUTS 2
53	-	E-52	TOWER E CAMERA OUTPUTS 3
54	-	E-53	TOWER E PULL STATIONS 1
55	-	E-54	TOWER E PULL STATIONS 2
56	-	E-55	TOWER E PULL STATIONS 3
57	-	E-56	TOWER E HEALTH STATUS 1
58	-	E-57	TOWER F PLATFORM LAS-AUX, A AND B CMDS 1
59	-	E-58	TOWER F PLATFORM LAS-AUX, A AND B CMDS 2
60	-	E-59	TOWER F PLATFORM LAS-AUX, A AND B INPUTS 1
61	-	E-60	TOWER F PLATFORM LAS-AUX, A AND B INPUTS 2
62	-	E-61	TOWER F PLATFORM LAS-AUX, A AND B INPUTS 3
63	-	E-62	TOWER F PLATFORM LAS-AUX, A AND B INPUTS 4
64	-	E-63	TOWER F PLATFORM LAS-AUX, A AND B INPUTS 5
65	-	E-64	TOWER F PLATFORM LAS-AUX, A AND B INPUTS 6
66	-	E-65	TOWER F PLATFORM LAS-AUX, A AND B INPUTS 7

SHEET NO.	REV STATUS	FUNCTION CODE	TITLE
67	-	E-66	TOWER F PLATFORM LEVEL C AND E CMDS 1
68	-	E-67	TOWER F PLATFORM LEVEL C AND E CMDS 2
69	-	E-68	TOWER F PLATFORM LEVEL C AND E INPUTS 1
70	-	E-69	TOWER F PLATFORM LEVEL C AND E INPUTS 2
71	-	E-70	TOWER F PLATFORM LEVEL C AND E INPUTS 3
72	-	E-71	TOWER F PLATFORM LEVEL C AND E INPUTS 4
73	-	E-72	TOWER F PLATFORM LEVEL C AND E INPUTS 5
74	-	E-73	TOWER F PLATFORM LEVEL C AND E INPUTS 6
75	-	E-74	TOWER F PLATFORM LEVEL C AND E INPUTS 7
76	-	E-75	TOWER F PLATFORM F1, G AND H CMDS 1
77	-	E-76	TOWER F PLATFORM F1, G AND H CMDS 2
78	-	E-77	TOWER F PLATFORM F1, G AND H INPUTS 1
79	-	E-78	TOWER F PLATFORM F1, G AND H INPUTS 2
80	-	E-79	TOWER F PLATFORM F1, G AND H INPUTS 3
81	-	E-80	TOWER F PLATFORM F1, G AND H INPUTS 4
82	-	E-81	TOWER F PLATFORM F1, G AND H INPUTS 5
83	-	E-82	TOWER F PLATFORM F1, G AND H INPUTS 6
84	-	E-83	TOWER F PLATFORM F1, G AND H INPUTS 7
85	-	E-84	TOWER F PLATFORM I, J AND K CMDS 1
86	-	E-85	TOWER F PLATFORM I, J AND K CMDS 2
87	-	E-86	TOWER F PLATFORM I, J AND K INPUTS 1
88	-	E-87	TOWER F PLATFORM I, J AND K INPUTS 2
89	-	E-88	TOWER F PLATFORM I, J AND K INPUTS 3
90	-	E-89	TOWER F PLATFORM I, J AND K INPUTS 4
91	-	E-90	TOWER F PLATFORM I, J AND K INPUTS 5
92	-	E-91	TOWER F PLATFORM I, J AND K INPUTS 6
93	-	E-92	TOWER F PLATFORM I, J AND K INPUTS 7
94	-	E-93	TOWER F PULL STATIONS 1
95	-	E-94	TOWER F PULL STATIONS 2
96	-	E-95	TOWER F PULL STATIONS 3
97	-	E-96	TOWER F HEALTH STATUS 1
98	-	E-97	TOWER F CAMERA OUTPUTS 1
99	-	E-98	TOWER F CAMERA OUTPUTS 2

SHEET NO.	REV STATUS	FUNCTION CODE	TITLE
100	-	E-99	TOWER F CAMERA OUTPUTS 3
101	-	E-100	ENCLOSURE 1, PLC A ADDENDED ITEMS
102	-	E-101	ENCLOSURE 1, PLC A ADDENDED ITEMS
103	-	E-102	ENCLOSURE 1, PLC A ADDENDED ITEMS
104	-	E-103	ENCLOSURE 1, PLC A ADDENDED ITEMS
105	-	E-104	ENCLOSURE 1, PLC B ADDENDED ITEMS
106	-	E-105	ENCLOSURE 1, PLC B ADDENDED ITEMS
107	-	E-106	ENCLOSURE 2, PLC A ADDENDED ITEMS
108	-	E-107	ENCLOSURE 2, PLC A ADDENDED ITEMS
109	-	E-108	ENCLOSURE 2, PLC A ADDENDED ITEMS
110	-	E-109	ENCLOSURE 2, PLC A ADDENDED ITEMS
111	-	E-110	ENCLOSURE 2, PLC B ADDENDED ITEMS
112	-	E-111	ENCLOSURE 2, PLC B ADDENDED ITEMS

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SIGNATURES		DATE
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APPROVED		10/18/10
TITLE	TA-B3B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)

TITLE & INDEX

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 1 OF 112	

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FILENAME: 734E1100001s001

V-1

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GENERAL ELECTRICAL NOTES:

1. ALL WIRING SHALL BE SIZED FOR THE AMPERAGE OF THE CIRCUIT. ALL 120 V A.C. MAIN POWER WIRE CLASSES SHALL BE TYPE THHN AND ALL HOOKUP WIRE SHALL BE MTW. ALL HOOKUP WIRE SHALL BE STRANDED COPPER UNLESS STATED OTHERWISE. GENERAL INSULATION COLORS ARE SHOWN BELOW AND SHALL BE USED UNLESS STATED OTHERWISE.

   - 120 VAC LINE POWER: BLACK
   - 120 VAC NEUTRAL: WHITE
   - 120 VAC GROUND: GREEN

   - POSITIVE D.C. SUPPLY: RED
   - NEGATIVE(RETURN)D.C.: BLACK

   - CABINET / EARTH GROUND: BARE/GREEN

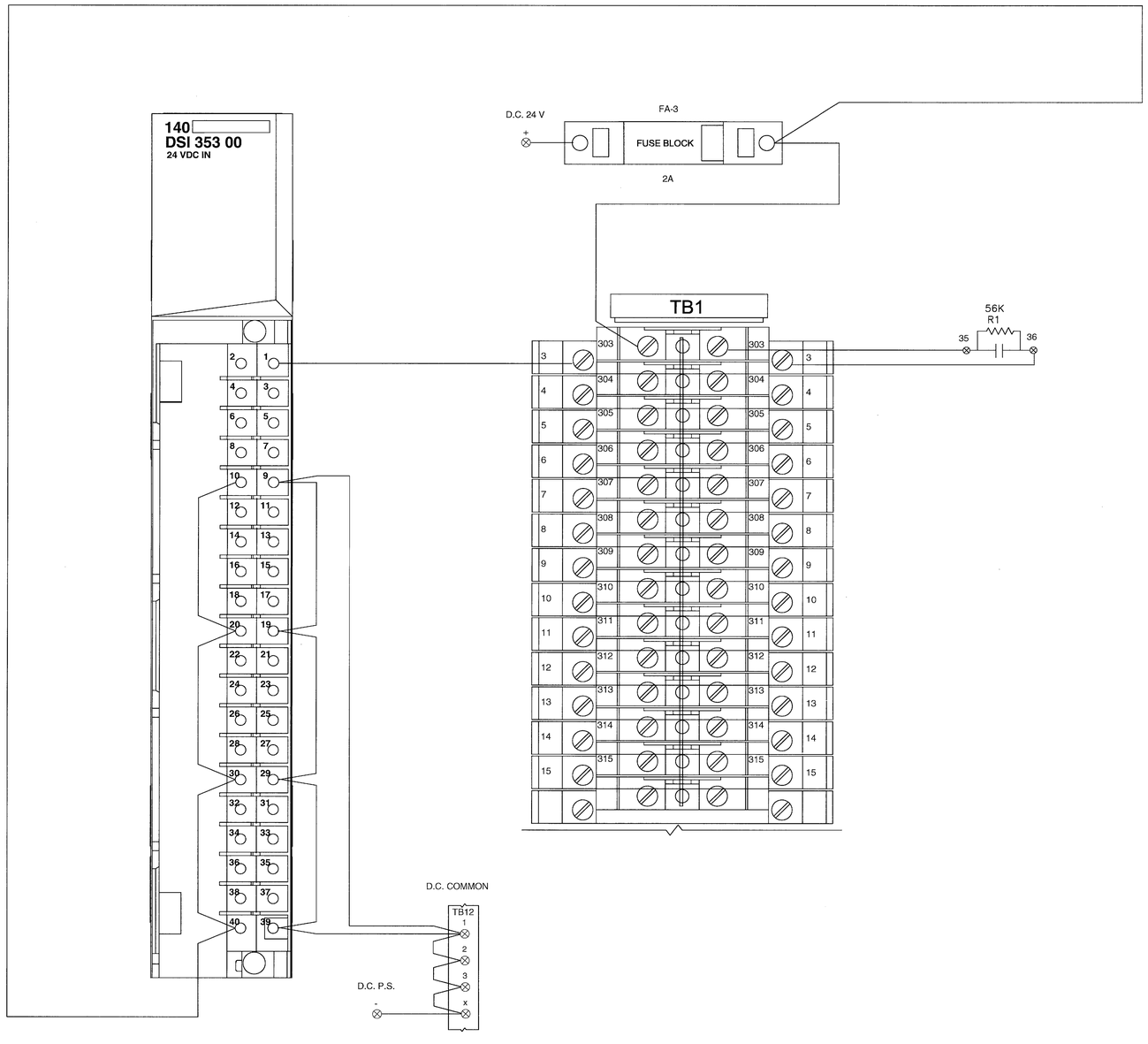
2. REFER TO, UNDERSTAND AND FOLLOW MANUFACTURER PRODUCT MANUALS, SPECIFICATIONS AND INSTRUCTIONS DURING THE WORK.

3. THIS DESIGN INCORPORATES METHODS TO REDUCE ELECTRO-MAGNETIC INTERFERENCE AND TO PREVENT ELECTRICAL SHOCK WHILE OPERATIONAL. WORK SHALL BE PERFORMED IN A MANNER THAT SUPPORTS THIS INTENT.

4. MONITORED DISCRETE INPUT SIGNALS ARE GENERICALLY WIRED AS SHOWN IN THE DETAIL. THE DSI 353 00 MODULE HAS COMMON RETURN BUS FOR EACH GROUP OF INPUTS. THIS DESIGN JUMPERS ALL RETURNS ON THE CARD AND CONNECTS TO THE POWER SUPPLY COMMON.

   THE + 24 VOLT D.C. SUPPLY IS CONNECTED TO A FUSE BLOCK GENERALLY DEDICATED FOR EACH I/O MODULE. A BUS BAR IS CONNECTED DOWN THE CENTER OF THE TERMINAL BLOCKS FOR EACH I/O CARD GROUP.

5. REFER TO 410E1500001 FOR THE MECHANICAL ASSEMBLY DRAWING.



MONITORED DISCRETE INPUT CARD DETAIL (EXAMPLE)

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E-1

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)

GENERAL NOTES

SIZE	DWG. NO.	REV
F	734E1100001	-

PROJ. NO. NONE SHEET 2 OF

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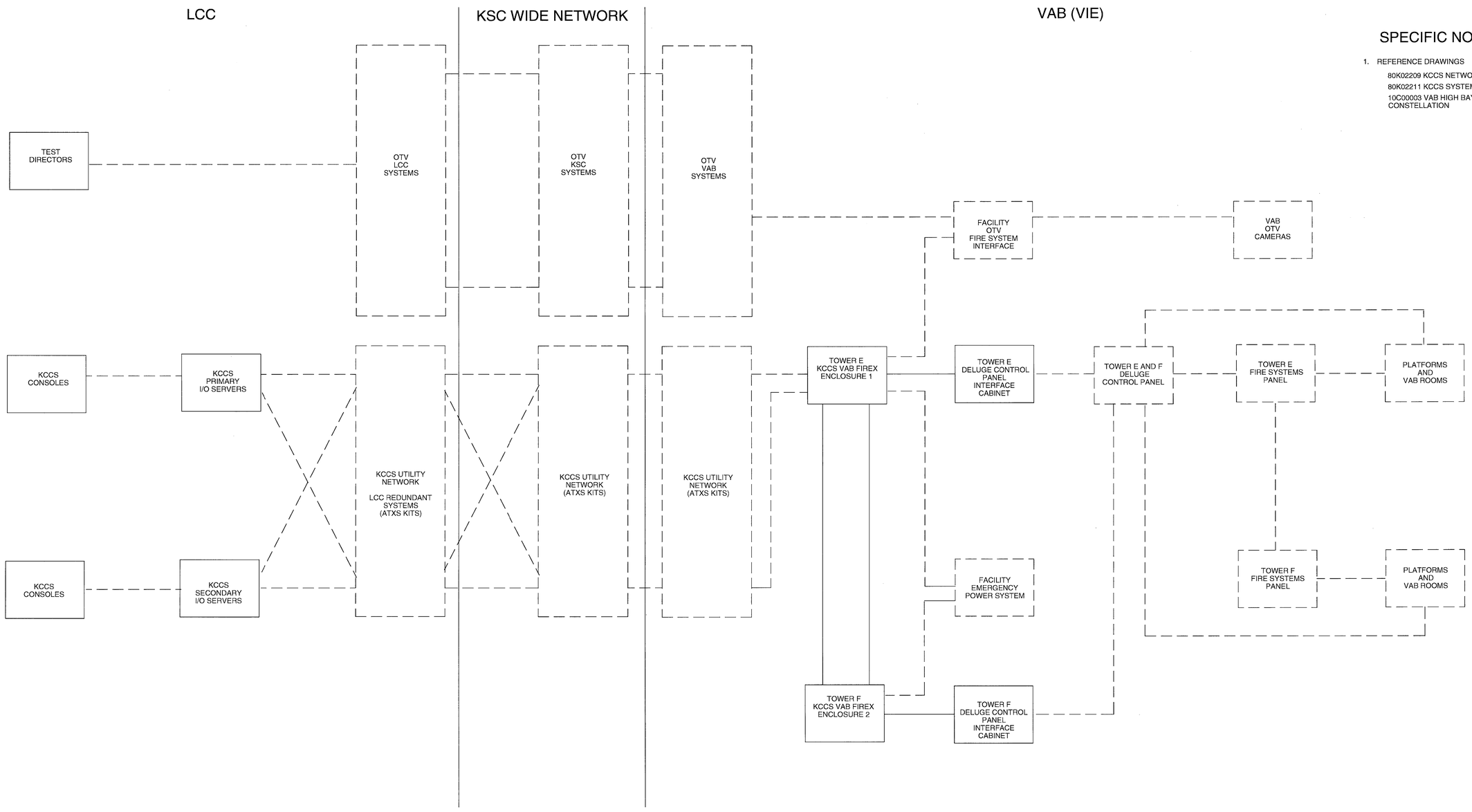

SPECIFIC NOTE:

1. REFERENCE DRAWINGS
   - 80K02209 KCCS NETWORK DIAGRAM
   - 80K02211 KCCS SYSTEM ARCHITECTURE
   - 10C00003 VAB HIGH BAY 3 PLATFORMS FOR CONSTELLATION

LEGEND:

————	SOLID LINE ON BOX DEFINES A SYSTEM COMPONENT.
— — — —	DASHED LINE ON BOX DEFINES A SUPPORT SYSTEM COMPONENT.
————	SOLID LINE ON CONNECTION DEFINES A SYSTEM COMPONENT.
— — — —	DASHED LINE ON CONNECTION DEFINES A SUPPORT SYSTEM COMPONENT.
KCCS	KENNEDY COMPLEX CONTROL SYSTEM.
KITS	KENNEDY INTEGRATED TRANSMISSION SYSTEM.
OTV	OPERATIONAL TELEVISION.

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FILENAME: 734E1100001s003

E-2

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

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TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
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KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)

BLOCK DIAGRAM

SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 3 OF

KSC FORM 1-11 (REV. 3/76)
(CIG 12/92)

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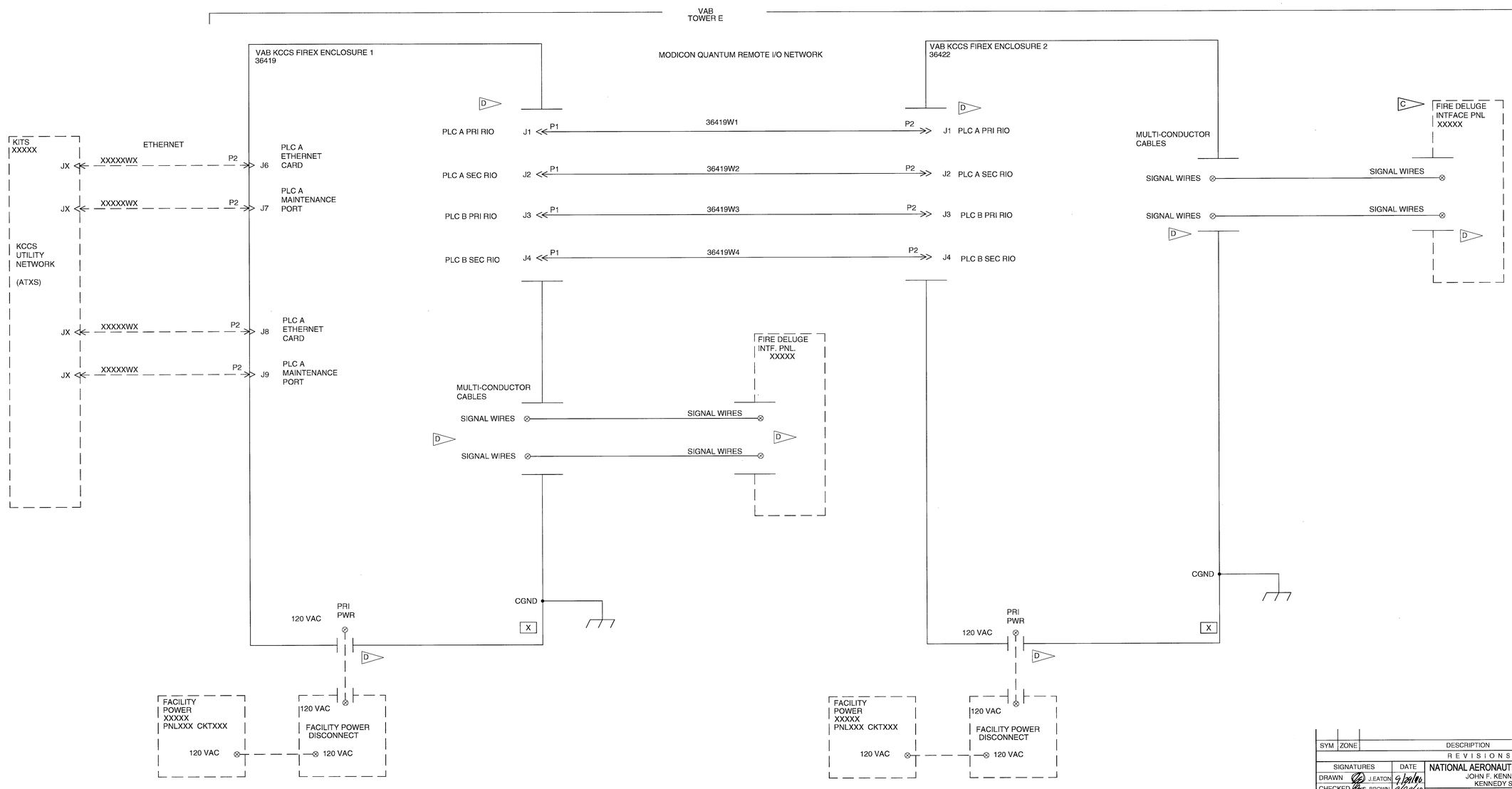
SPECIFIC NOTES:

A. DASHED LINES INDICATE COMPONENTS THAT ARE JOINTLY OR ENTIRELY MAINTAINED BY OTHER SYSTEMS.

B. FOR DETAILS ON KCCS NETWORK REFER TO KCCS DRAWING 80K02209.

C. FOR ADDITIONAL DETAILS REFER TO VAB HIGH BAY 3 PLATFORMS FOR CONSTELLATION 10C00003.

D. CABLES AND WIRES ROUTED IN CONDUIT.



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REVISIONS

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DRAWN	J.EATON	9/29/10
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)

CABLE INTERCONNECT DIAGRAM

SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 4 OF

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FILENAME: 734E1100001s004

E-3

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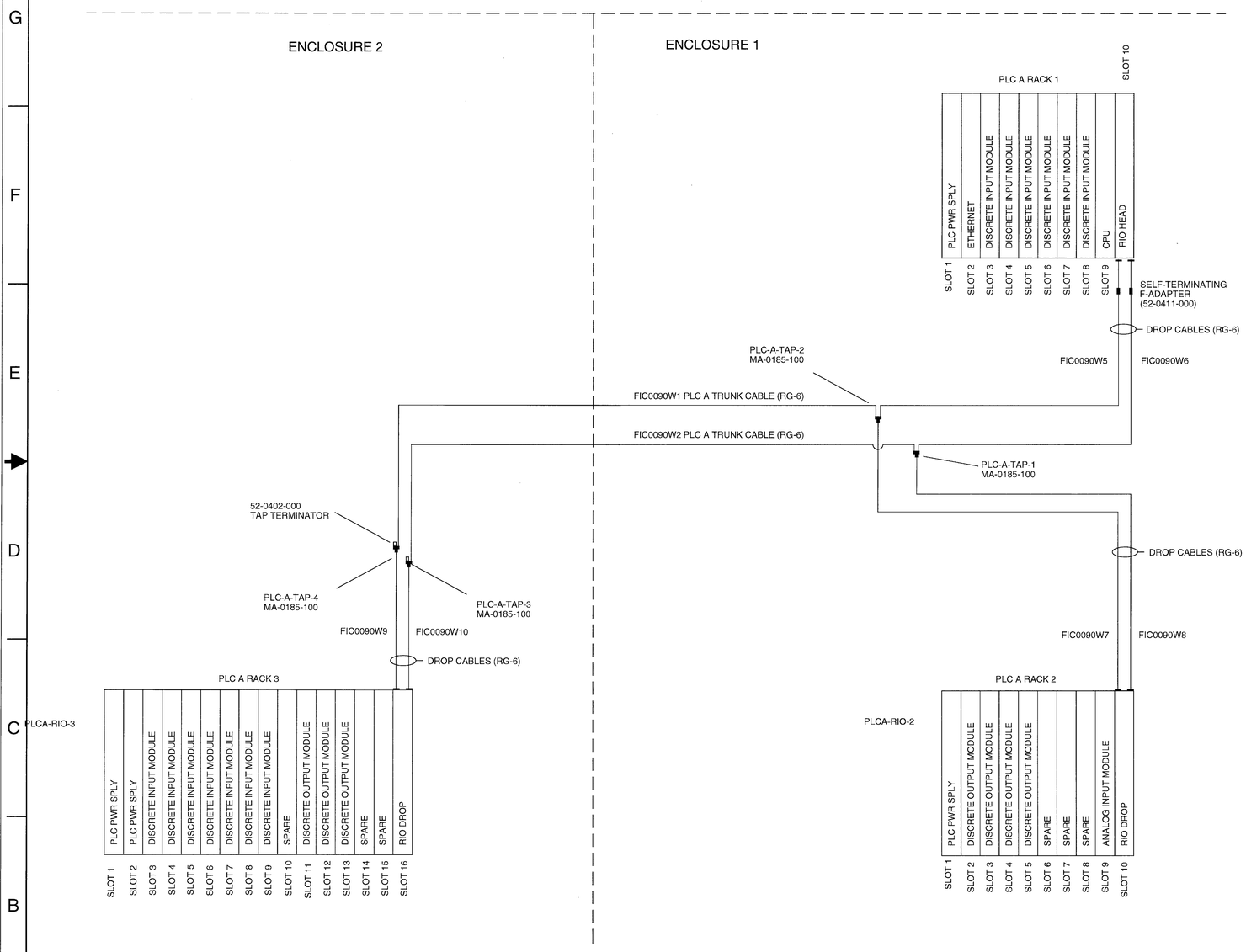

PLC A RIO CONFIGURATION/CABLE INTERCONNECT DIAGRAM

SPECIFIC NOTES:

A. ALL NODES CONNECTED TO THE CABLE SYSTEM MUST BE GROUNDED. UNDER NO CIRCUMSTANCES SHOULD UNGROUNDED EQUIPMENT BE CONNECTED TO THE CABLE SYSTEM.

B. THE MINIMUM LENGTH PERMITTED FOR A DROP CABLE IS 8.5 FT, A SHORTER DROP CABLE CAN CREATE TAP REFLECTIONS THAT CAUSE DATA ERRORS. COIL ANY EXCESS CABLE REQUIRED IN CABINET.

CABLE SCHEDULE

CABLE	PART NO.	P1 END	P2 END
FIC0090W1	RG-6	PLC-A-TAP-2-IN	PLC-A-TAP-4-OUT
FIC0090W2	RG-6	PLC-A-TAP-1-IN	PLC-A-TAP-3-OUT
FIC0090W5	RG-6	PLC-A-RACK1-RIO HEAD-A	PLC-A-TAP-2-OUT
FIC0090W6	RG-6	PLC-A-RACK1-RIO HEAD-B	PLC-A-TAP-1-OUT
FIC0090W7	RG-6	PLC-A-TAP-2-DROP	PLC-A-RIO-2-A
FIC0090W8	RG-6	PLC-A-TAP-1-DROP	PLC-A-RIO-2-B
FIC0090W9	RG-6	PLC-A-TAP-4-DROP	PLC-A-RIO-3-A
FIC0090W10	RG-6	PLC-A-TAP-3-DROP	PLC-A-RIO-3-B

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

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ENGINEER	J.EATON	9/28/10
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TIME TA-83B

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)

PLC A RIO DIAGRAM

SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 5 OF

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E-4

KSC FORM 1-11 (REV. 3/98)
(CG 13/92)

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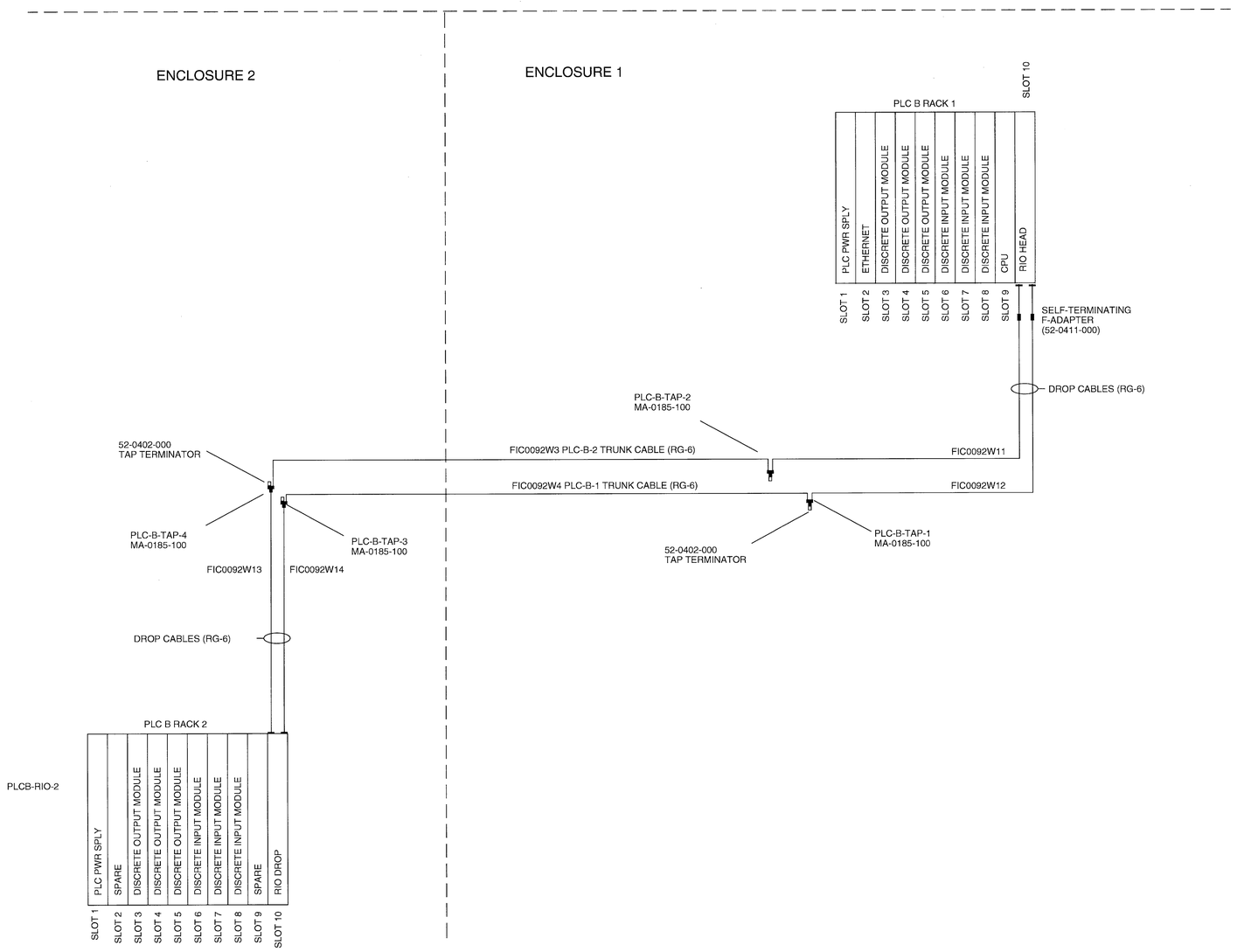

SPECIFIC NOTES

A. ALL NODES CONNECTED TO THE CABLE SYSTEM MUST BE GROUNDED. UNDER NO CIRCUMSTANCES SHOULD UNGROUNDED EQUIPMENT BE CONNECTED TO THE CABLE SYSTEM.

B. THE MINIMUM LENGTH PERMITTED FOR A DROP CABLE IS 8.5 FT. A SHORTER DROP CABLE CAN CREATE TAP REFLECTIONS THAT CAUSE DATA ERRORS. COIL ANY EXCESS CABLE REQUIRED IN CABINET.

CABLE SCHEDULE

CABLE	PART NO.	P1 END	P2 END
FIC0092W3	RG-6	PLC-B-TAP-2-IN	PLC-B-TAP-4-OUT
FIC0092W4	RG-6	PLC-B-TAP-1-IN	PLC-B-TAP-3-OUT
FIC0092W11	RG-6	PLC-B-RACK1-RIO HEAD-A	PLC-B-TAP-2-OUT
FIC0092W12	RG-6	PLC-B-RACK1-RIO HEAD-B	PLC-B-TAP-1-OUT
FIC0092W13	RG-6	PLC-B-TAP-4-DROP	PLC-B-RIO-2-A
FIC0092W14	RG-6	PLC-B-TAP-3-DROP	PLC-B-RIO-2-B

PLC B RIO CONFIGURATION/CABLE INTERCONNECT DIAGRAM

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

TITLE TA-830

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)

PLC B RIO DIAGRAM

SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 6 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s006

E-5

KSC FORM 1-11 (REV. 3/76)
(CG 12/92)

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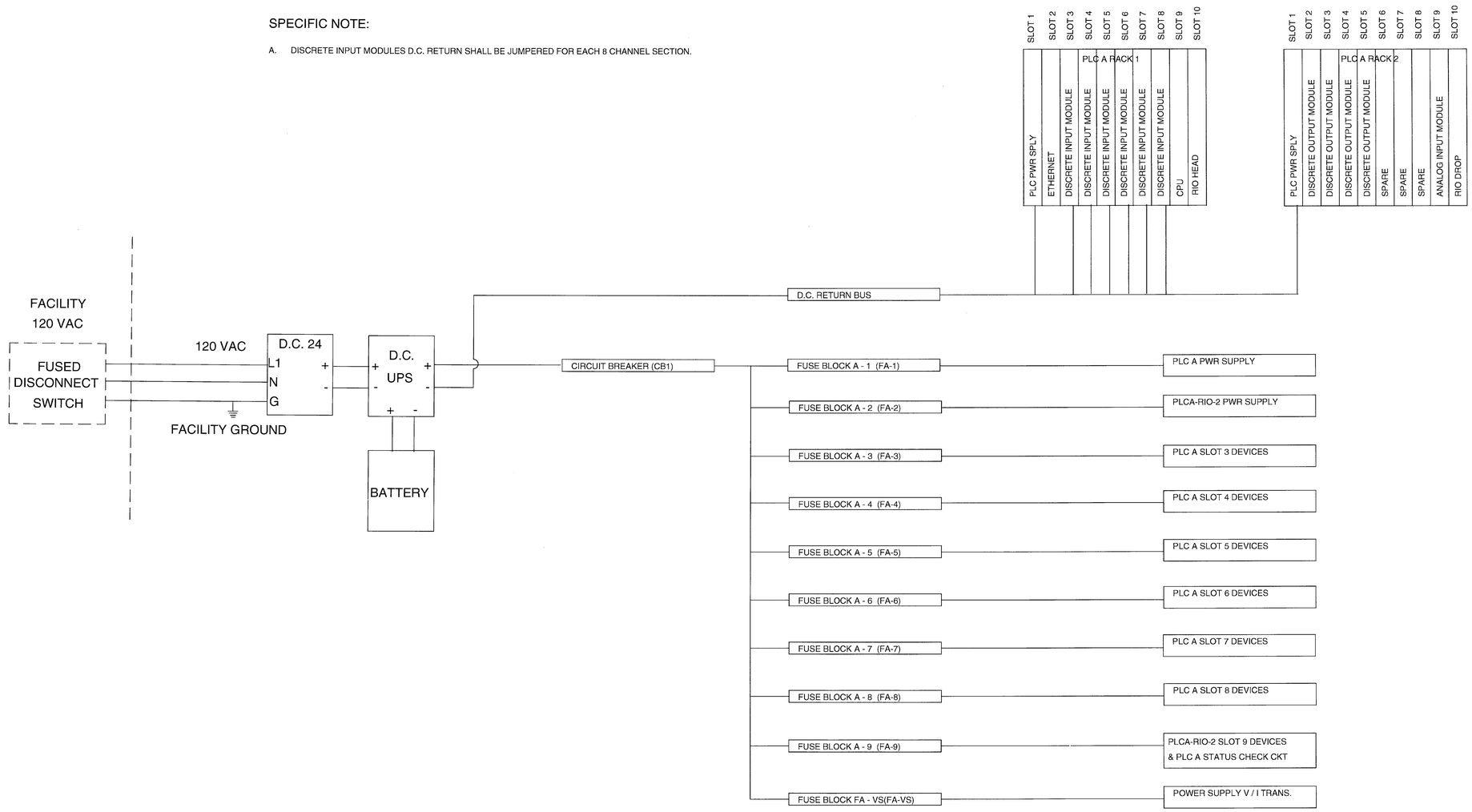
SPECIFIC NOTE:

A. DISCRETE INPUT MODULES D.C. RETURN SHALL BE JUMPERED FOR EACH 8 CHANNEL SECTION.



ENCLOSURE 1 24 VOLT D.C. POWER SUPPLY A DISTRIBUTION

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s007

E-6

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/5/10
APPROVED		DATE 10/5/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 1
POWER SUPPLY A DISTRIBUTION

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TA-838 | PROJ. NO. NONE | SHEET 7 OF

KSC FORM 1-11 (REV. 3/76) (CIS 12/92)

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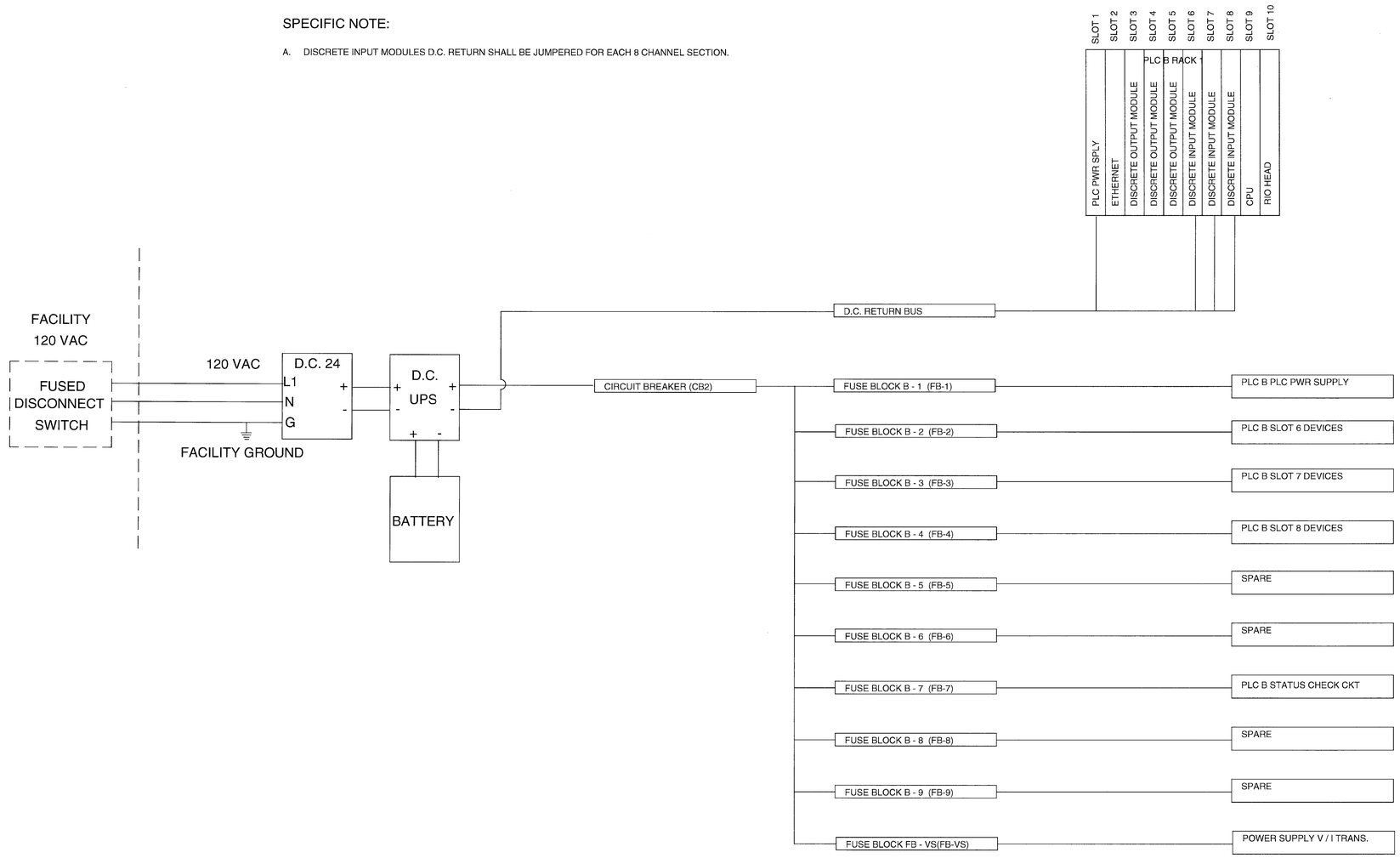
SPECIFIC NOTE:

A. DISCRETE INPUT MODULES D.C. RETURN SHALL BE JUMPERED FOR EACH 8 CHANNEL SECTION.



ENCLOSURE 1 24 VOLT D.C. POWER SUPPLY B DISTRIBUTION

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s008

E-7

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-B3B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 1
POWER SUPPLY B DISTRIBUTION

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 8 OF

KSC FORM 1-11 (REV. 3/76)
(O/G 12/82)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

SPECIFIC NOTES:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

B. THE TERMINAL BLOCKS (TB) HAVE TWO PASS THRU CONNECTIONS ON EACH BLOCK. THE TOP CONNECTION SHALL BE BUSSED TOGETHER PER FUSED SECTION. THE FIRST CONNECTION IS SHOWN CONNECTED TO THE FUSE.

C. THE D.C. RETURN BUS IS REPRESENTED ON EACH SHEET AS REPEATED TB10 OR TB12. EACH I/O MODULE SHALL HAVE THE CARD RETURNS JUMPERED AND A SINGLE WIRE CONNECTED TO THE RETURN BUS.

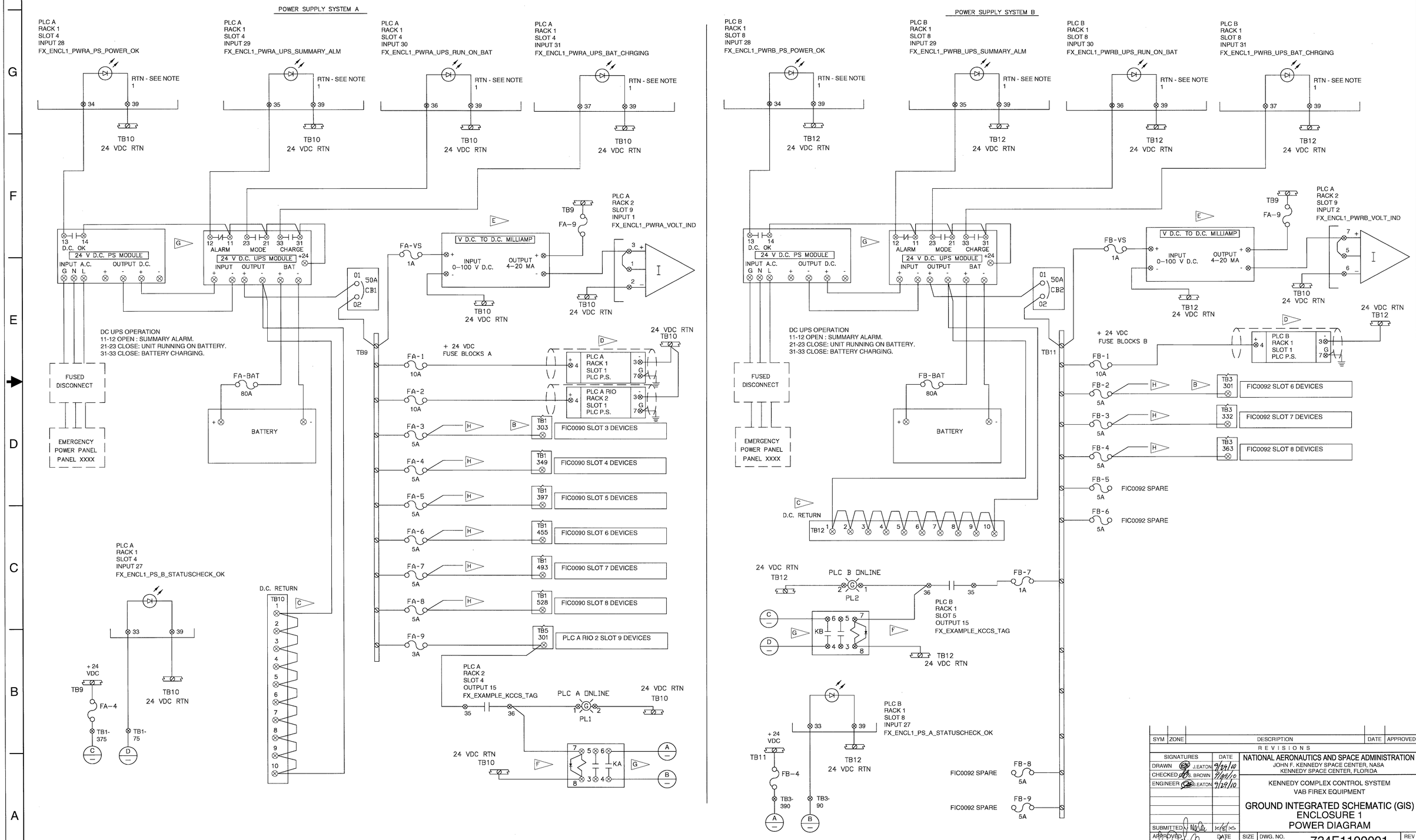
D. THE D.C. POWER WIRES SHALL BE SHIELDED BETWEEN THE SOURCE AND THE PLC POWER SUPPLY. A FERRITE COLLAR SHALL BE INSTALLED OVER THE CONDUCTORS.

E. THE D.C. VOLTAGE SUPPLY IS MEASURED USING AN ISOLATED TRANSMITTER. BOTH A AND B POWER SUPPLIES ARE MEASURED BY PLC A.

F. AN ISOLATED RELAY IS USED TO PROVIDE A CROSS CHECK BETWEEN PLC A AND PLC B. IT IS CONTROLLED BY THE GENERAL STATUS ONLINE OUTPUT FROM EACH PLC TO ALERT THE OTHER PLC OF TROUBLE.

G. INSTALL R1, 56 K OHM RESISTOR ACROSS MONITORED POWER STATUS CONTACTS.

H. 24 VDC POWER ROUTED TO PIN 40 OF EACH INPUT CARD, SEE SHEET 2.



SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS) ENCLOSURE 1 POWER DIAGRAM

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-R3B | PROJ. NO. NONE | SHEET 9 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s009

E-8

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

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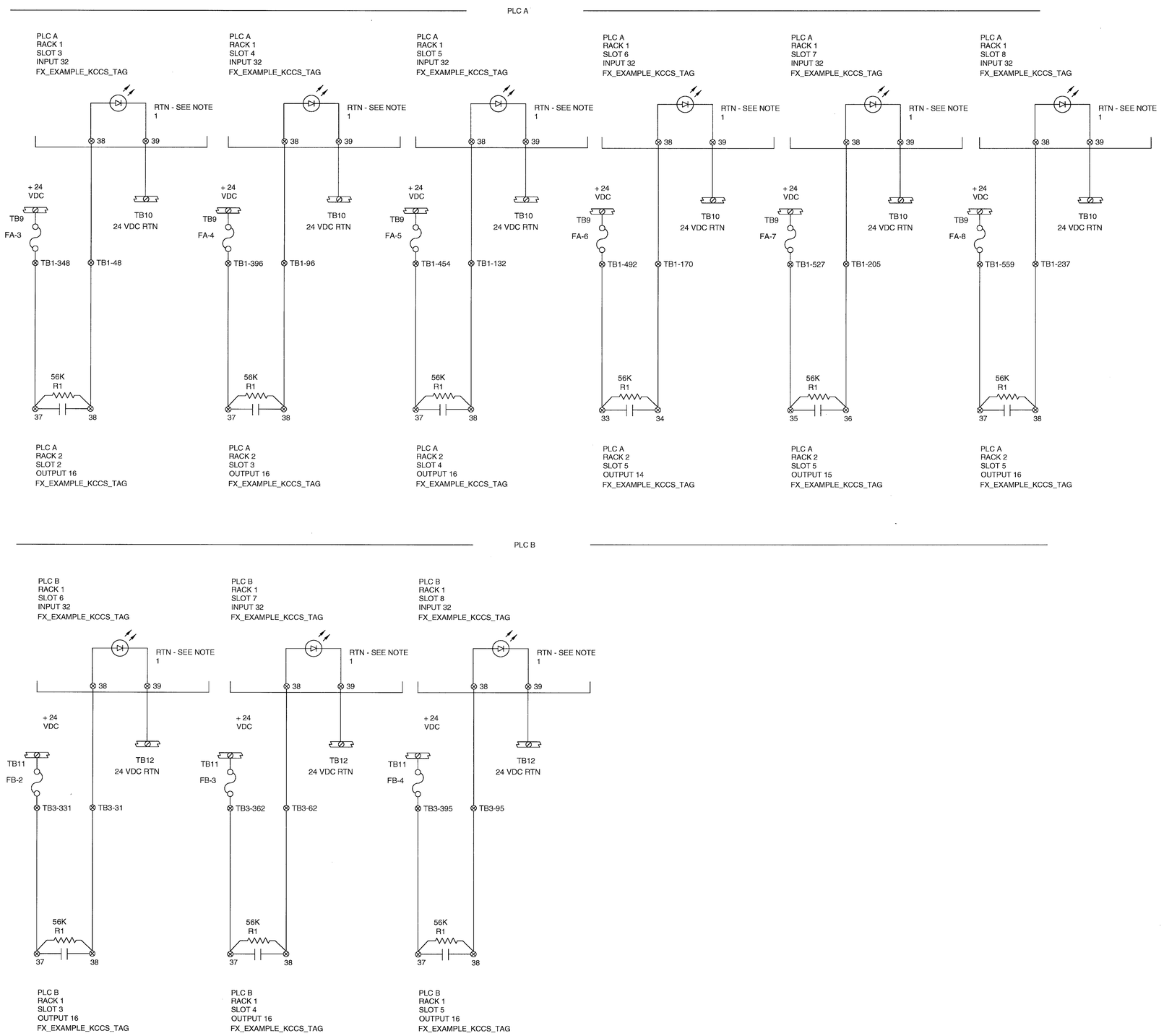


SPECIFIC NOTES:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

B. EACH PLC INPUT AND OUTPUT CARD SHALL HAVE AT LEAST ONE POINT DEDICATED FOR CARD HEALTH CHECKING. OUTPUT CARDS WILL PROVIDE A CLOSE CONTACT SIGNAL TO THE INPUT CARDS AS DETERMINED BY PROGRAMMING. THIS METHOD TESTS GENERAL FUNCTIONING OF THE CARDS AS WELL AS FUSE CONDITION.

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s010

E-9

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	G. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED	TA838	DATE
TITLE		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)

ENCLOSURE 1 PLC I/O STATUS

SIZE F | DWG. NO. 734E1100001 | REV -

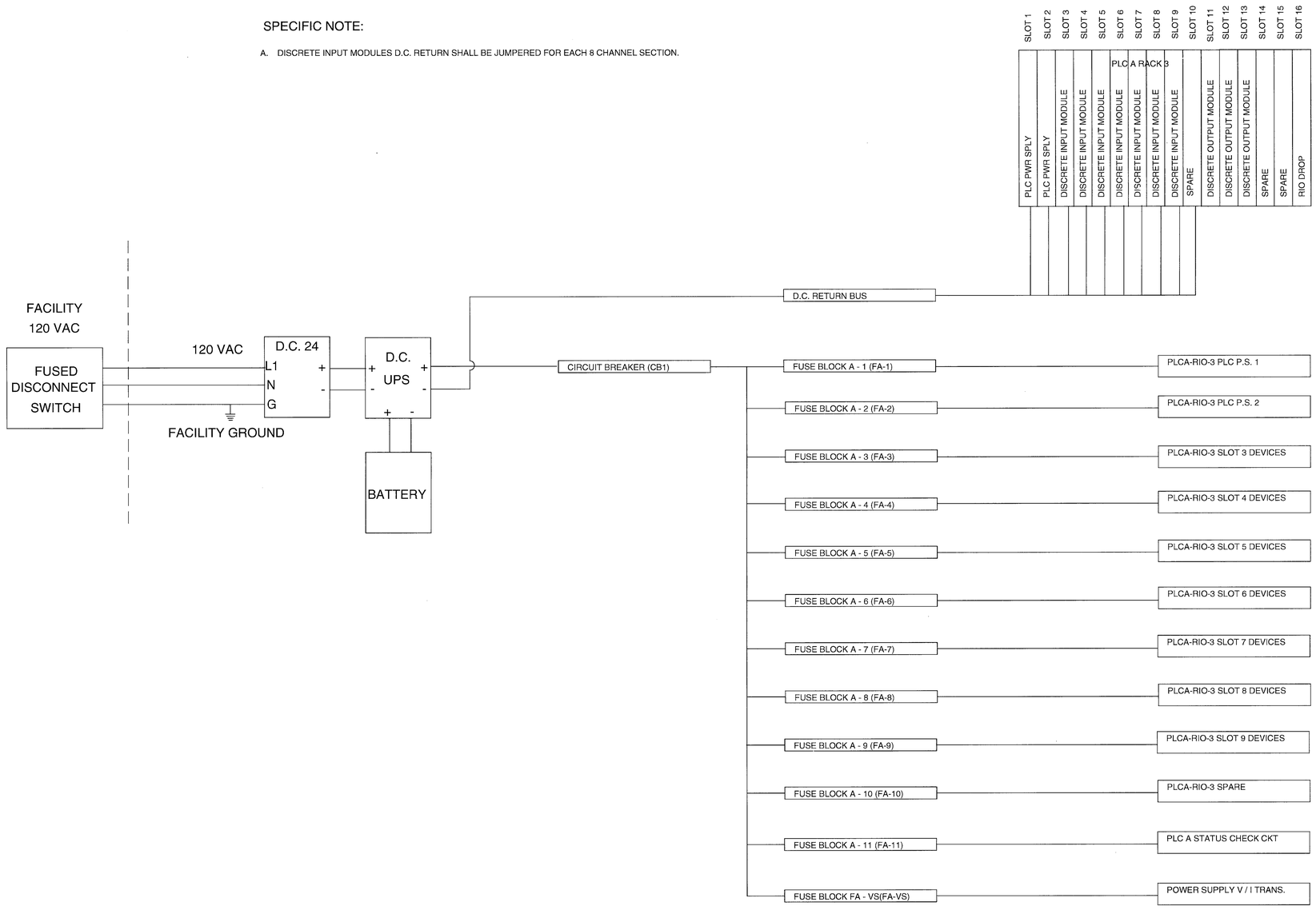
PROJ. NO. NONE | SHEET 10 OF

KSC FORM 1-11 (REV. 3/76)
(O/G 12/82)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

SPECIFIC NOTE:

A. DISCRETE INPUT MODULES D.C. RETURN SHALL BE JUMPERED FOR EACH 8 CHANNEL SECTION.



ENCLOSURE 2 24 VOLT DC POWER SUPPLY A DISTRIBUTION

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s011

E-10

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	5/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 2
POWER SUPPLY A DISTRIBUTION

SIZE F | DWG. NO. 734E1100001 | REV -

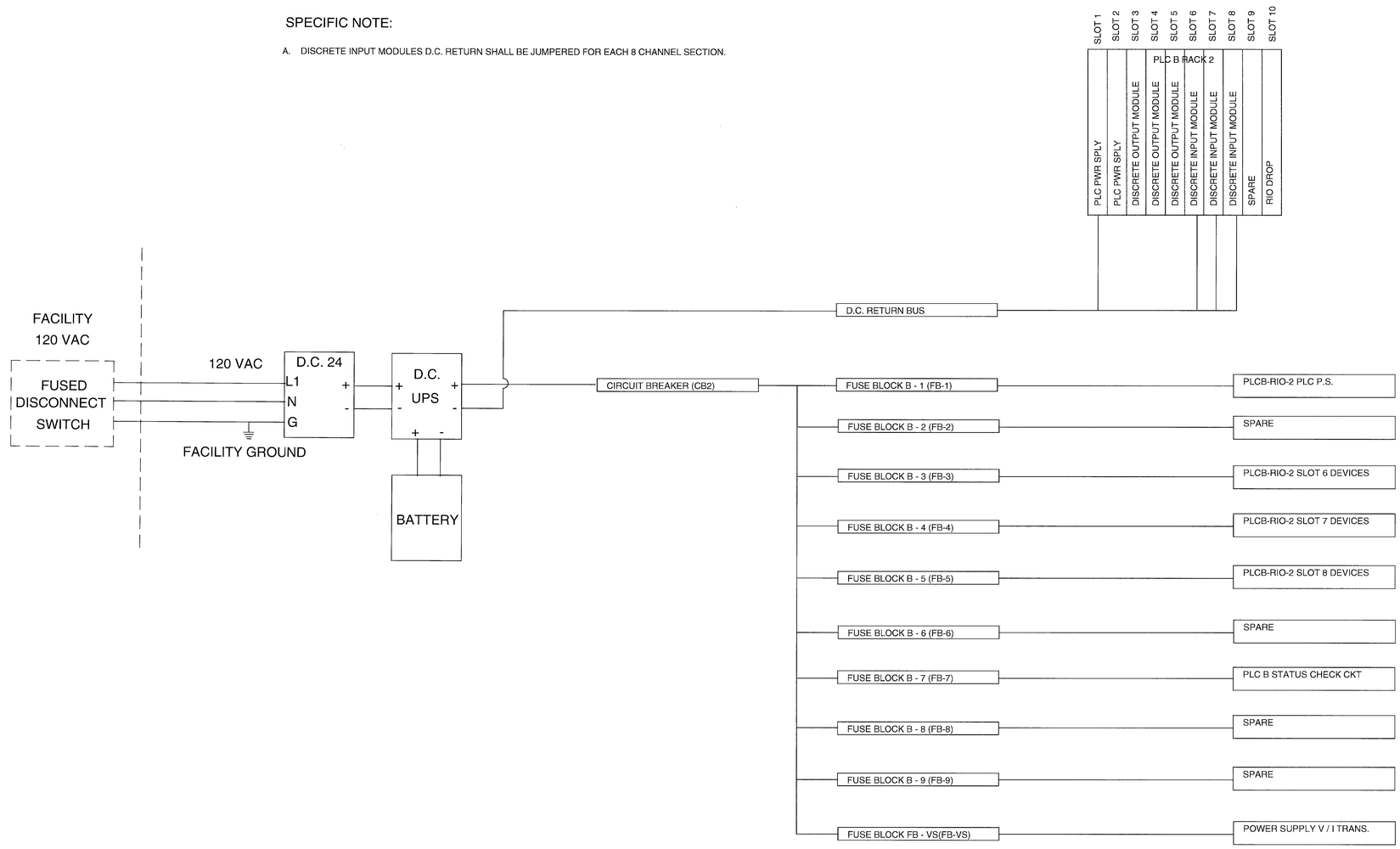
PROJ. NO. NONE | SHEET 11 OF

KSC FORM 1-11 (REV. 3/78)
(CIG 12/92)

NOTICE : WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

SPECIFIC NOTE:

A. DISCRETE INPUT MODULES D.C. RETURN SHALL BE JUMPERED FOR EACH 8 CHANNEL SECTION.



ENCLOSURE 2 24 VOLT D.C. POWER SUPPLY B DISTRIBUTION

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s012

E-11

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	IA-836	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 2
POWER SUPPLY B DISTRIBUTION

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 12 OF

KSC FORM 1-11 (REV. 3/78)
(O/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

SPECIFIC NOTES:

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B. THE TERMINAL BLOCKS (TB) HAVE TWO PASS THRU CONNECTIONS ON EACH BLOCK. THE TOP CONNECTION SHALL BE BUSSED TOGETHER PER FUSED SECTION. THE FIRST CONNECTION IS SHOWN CONNECTED TO THE FUSE.

C. THE D.C. RETURN BUS IS REPRESENTED ON EACH SHEET AS REPEATED TB10 OR TB12. EACH I/O MODULE SHALL HAVE THE CARD RETURNS JUMPERED AND A SINGLE WIRE CONNECTED TO THE RETURN BUS.

D. THE D.C. POWER WIRES SHALL BE SHIELDED BETWEEN THE SOURCE AND THE PLC POWER SUPPLY. A FERRITE COLLAR SHALL BE INSTALLED OVER THE CONDUCTORS.

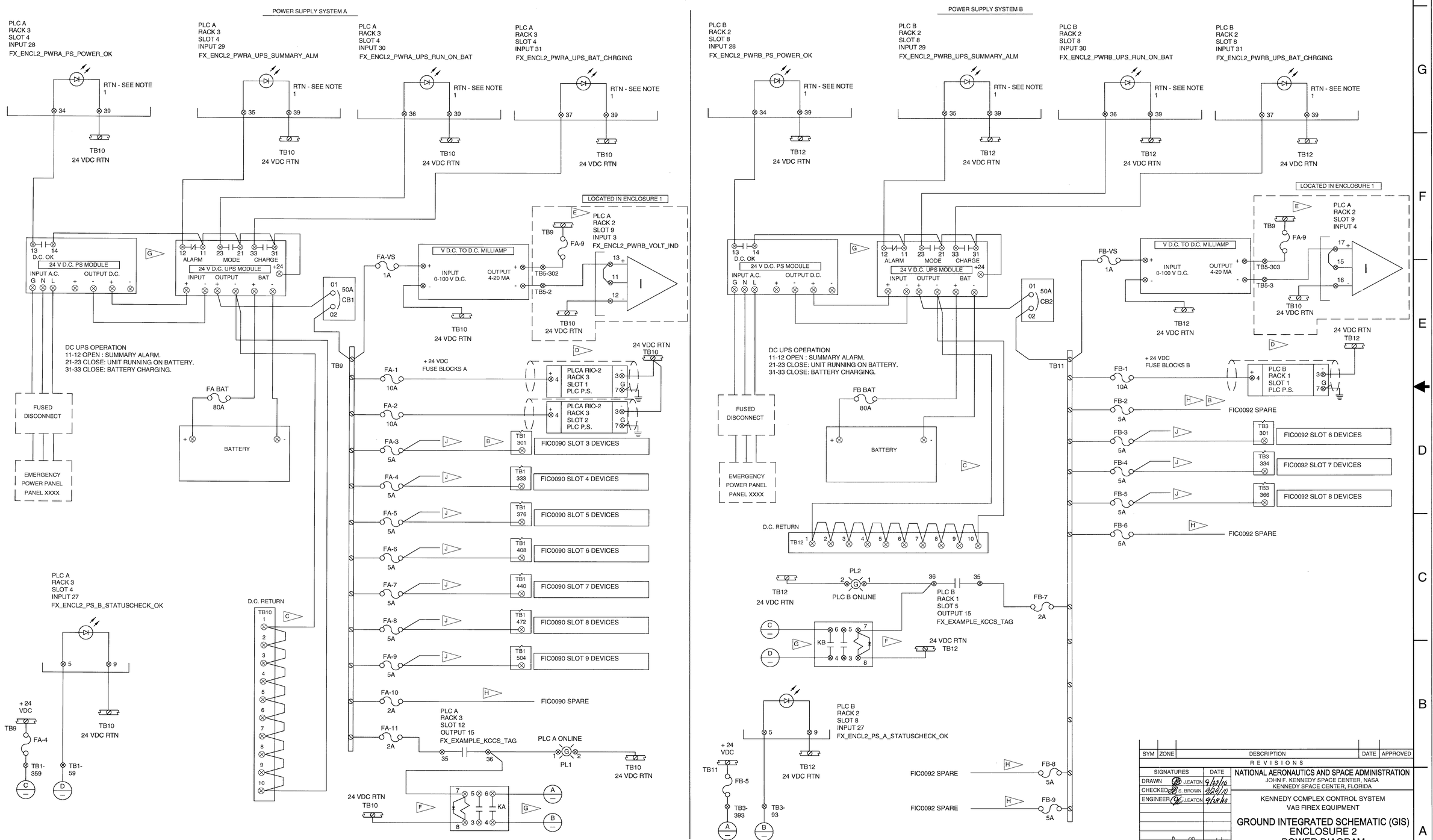
E. THE D.C. VOLTAGE SUPPLY IS MEASURED USING AN ISOLATED TRANSMITTER. BOTH A AND B POWER SUPPLIES ARE MEASURED BY PLC A.

F. A ISOLATED RELAY IS USED TO PROVIDE A CROSS CHECK BETWEEN PLC A AND PLC B. IT IS CONTROLLED BY THE GENERAL STATUS ONLINE OUTPUT FROM EACH PLC TO ALERT THE OTHER PLC OF TROUBLE.

G. INSTALL R1, 56 K OHM RESISTOR ACROSS MONITORED POWER STATUS CONTACTS.

H. WIRE IS LEFT UNTERMINATED ON LOAD SIDE AND IS LAYING IN WIRE CONDUIT FOR FUTURE USE.

J. 24 VDC POWER ROUTED TO PIN 40 OF EACH INPUT CARD, SEE SHEET 2.



SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/22/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/6/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS) ENCLOSURE 2 POWER DIAGRAM

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-B3B | PROJ. NO. NONE | SHEET 13 OF

E-12

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s013

ASC FORM 1-11 (REV. 3/76)
(CIS 12/92)

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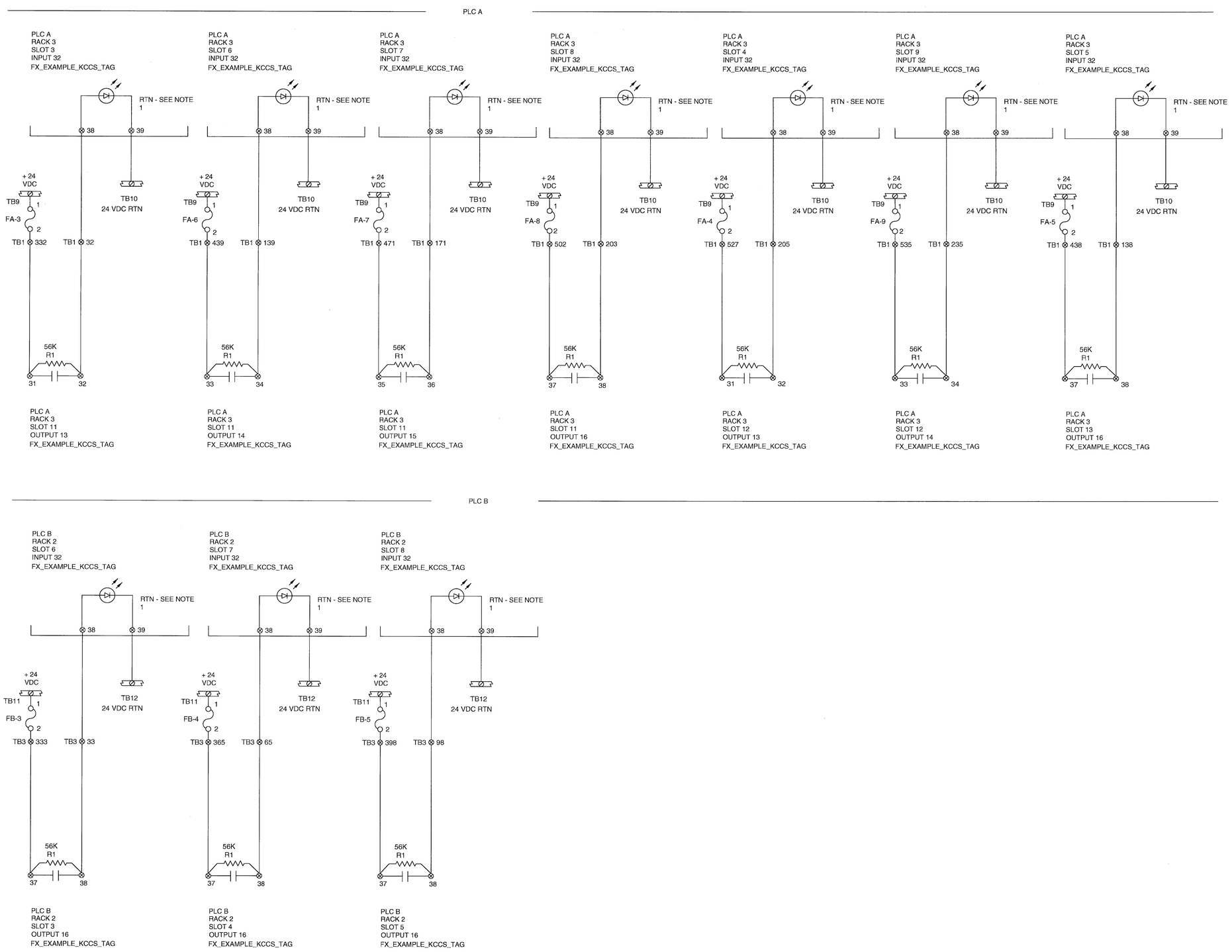


SPECIFIC NOTES:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

B. EACH PLC INPUT AND OUTPUT CARD SHALL HAVE AT LEAST ONE POINT DEDICATED FOR CARD HEALTH CHECKING. OUTPUT CARDS WILL PROVIDE A CLOSE CONTACT SIGNAL TO THE INPUT CARDS AS DETERMINED BY PROGRAMMING. THIS METHOD TESTS GENERAL FUNCTIONING OF THE CARDS AS WELL AS FUSE CONDITION.

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	7/28/10
CHECKED	S. BROWN	7/29/10
ENGINEER	J.EATON	7/29/10
SUBMITTED		10/6/10
APPROVED		DATE 10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)

ENCLOSURE 2 PLC I/O STATUS

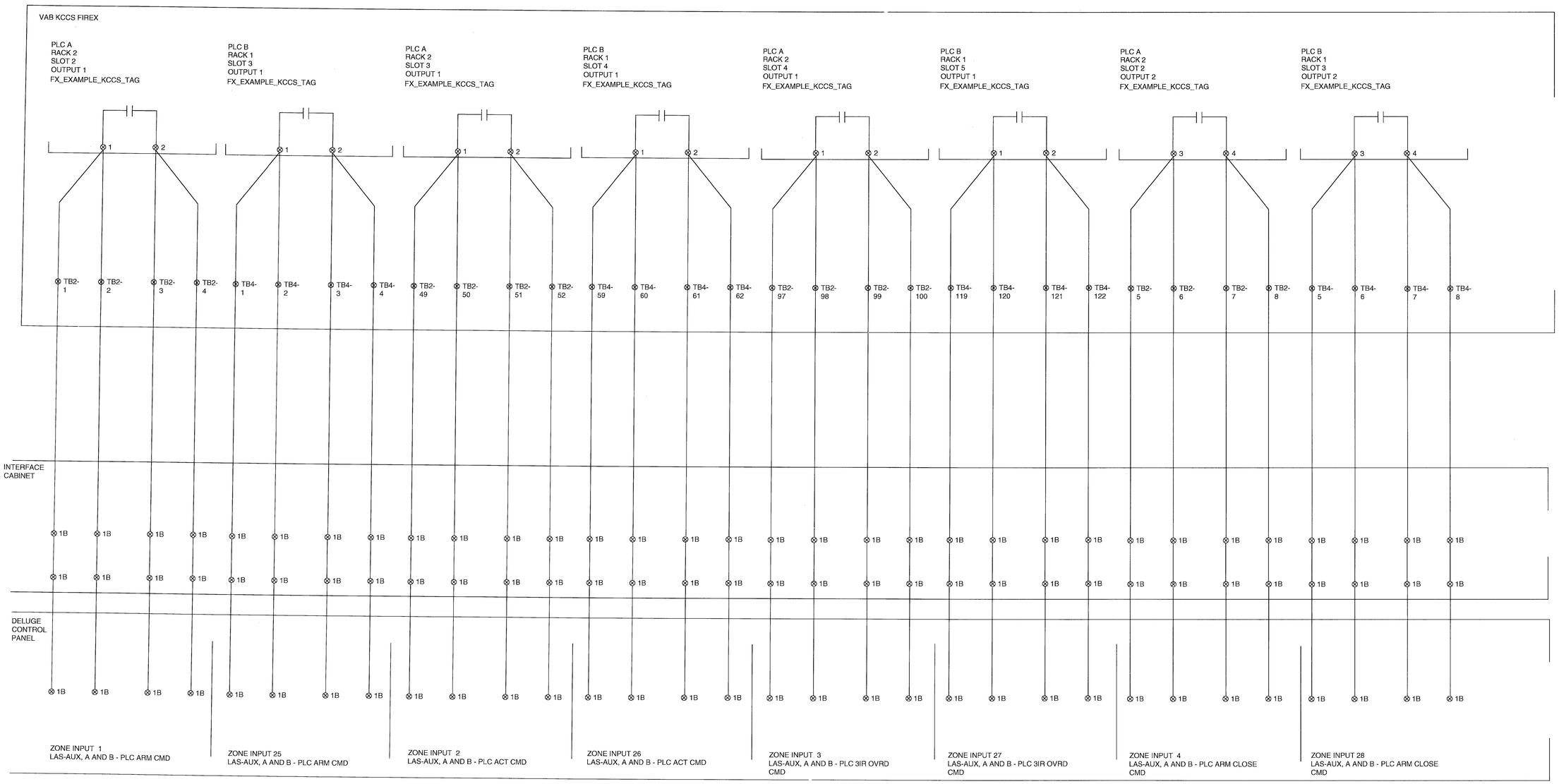
SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TA-83B | PROJ. NO. NONE | SHEET 14 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s014

E-13

KSC FORM 1-11 (REV. 3/79)
(CG 19/92)



SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LAS-AUX, A AND B CMD 1

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 15 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s015

E-14

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

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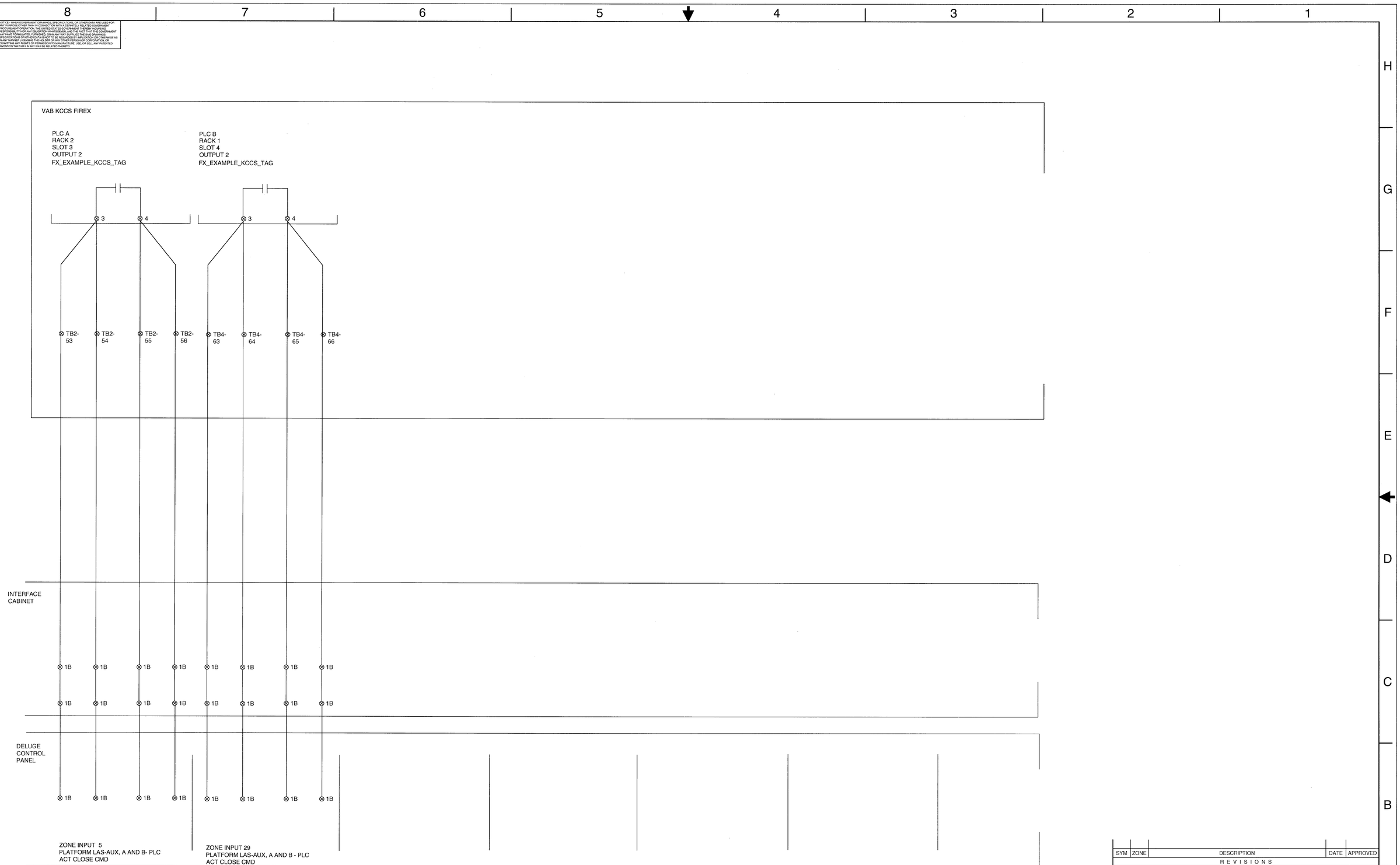

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LAS-AUX, A AND B CMDS 2

SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 16 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s016

E-15

TITLE TA-B3B

KSC FORM 1-11 (REV. 3/76)
(DIG 12/92)

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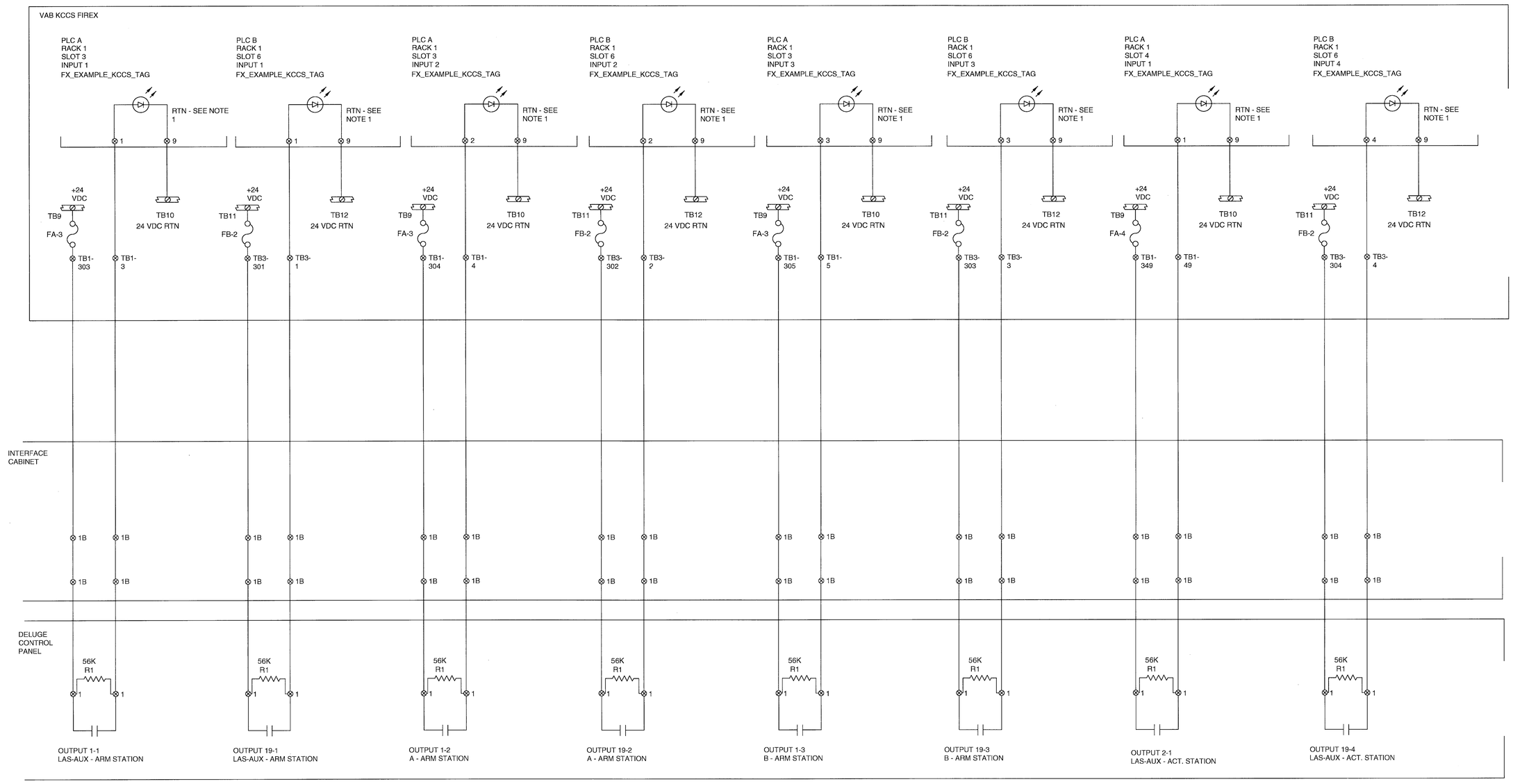

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s017

E-16

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/23/10
CHECKED	S. BROWN	10/01/10
ENGINEER	J.EATON	9/23/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LAS-AUX, A AND B INPUTS 1

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-63B | PROJ. NO. NONE | SHEET 17 OF

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

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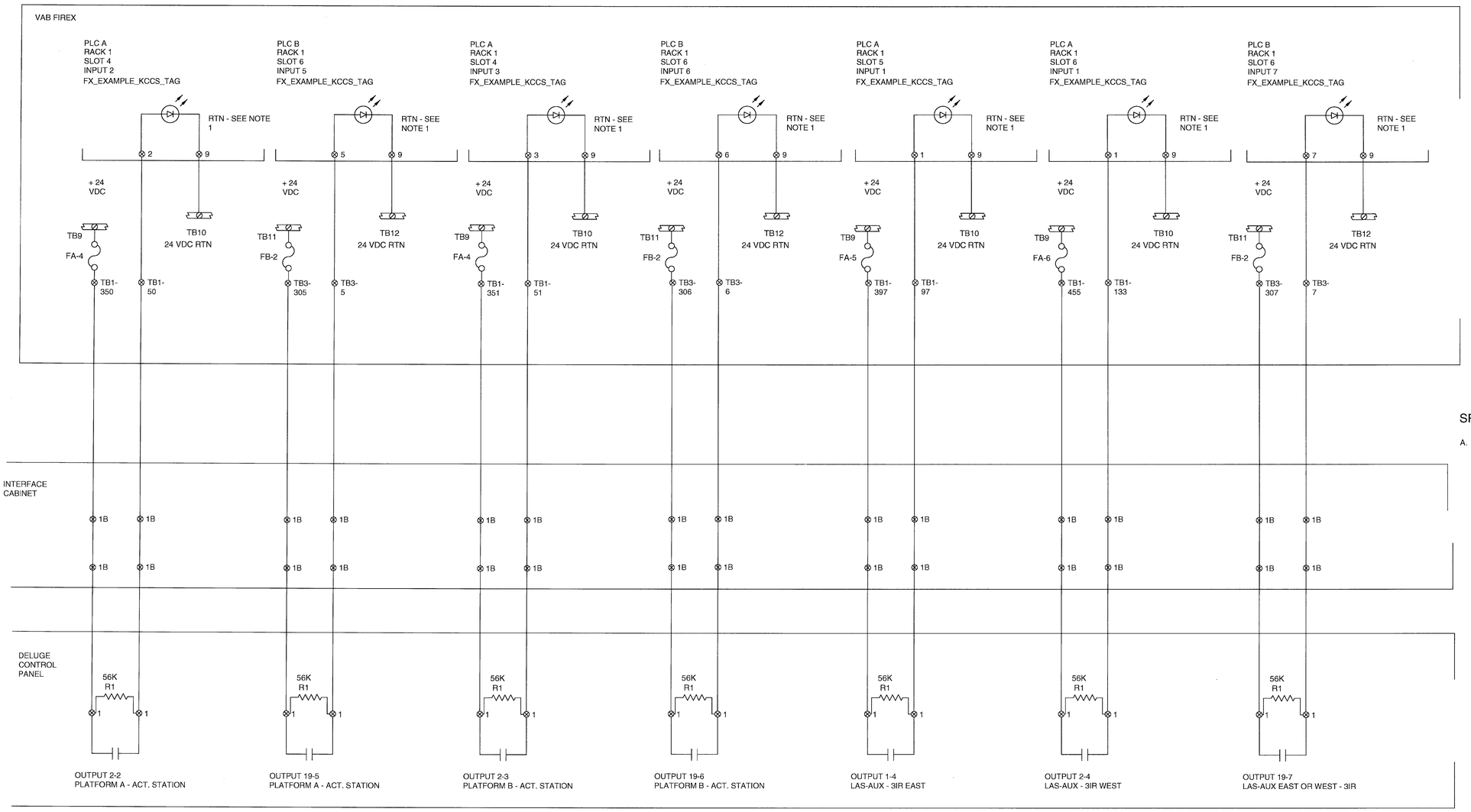


SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s018

E-17

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/29/10
CHECKED	B. BROWN	7/29/10
ENGINEER	J.EATON	7/28/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10
TITLE	TA-23B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

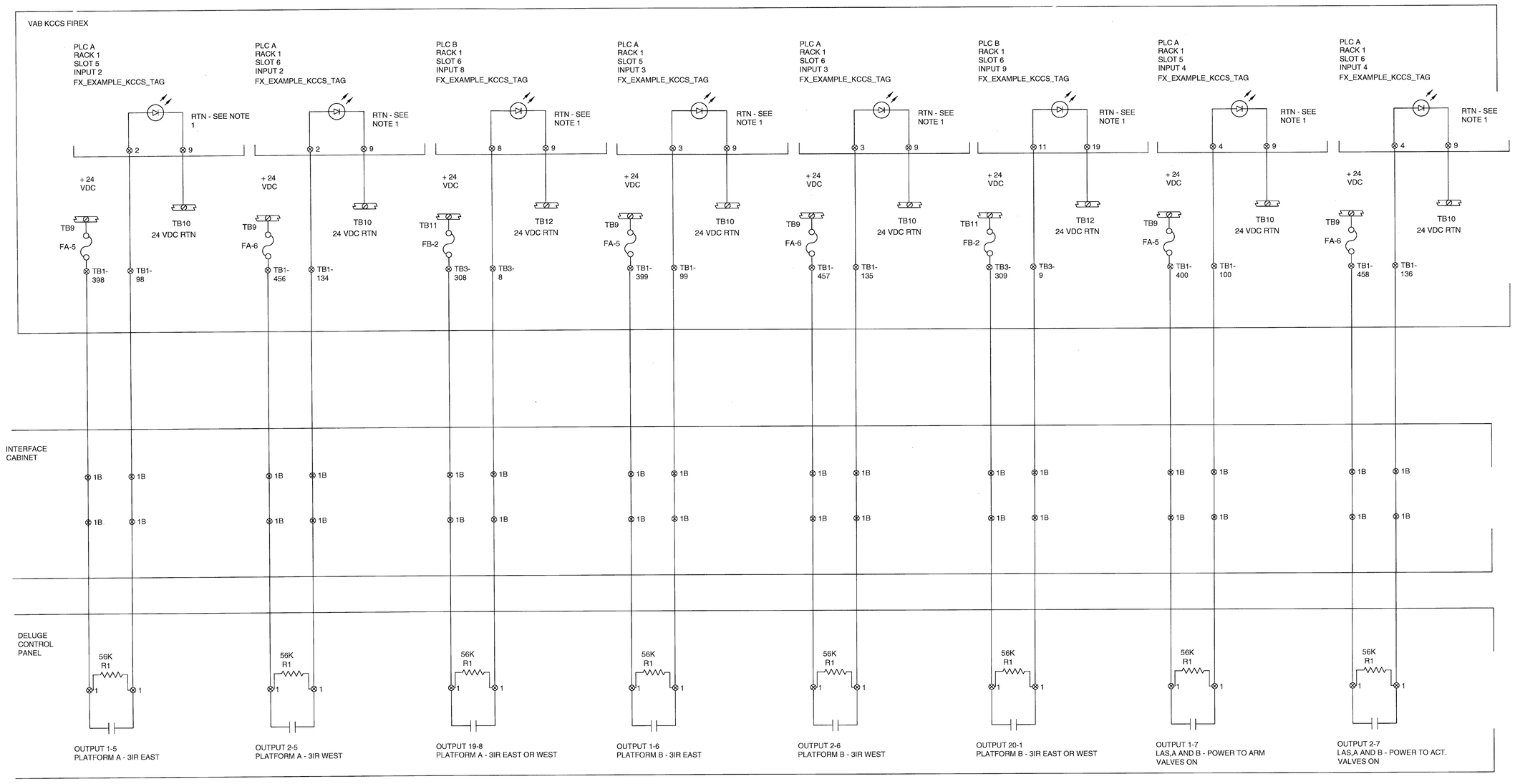
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LAS-AUX, A AND B INPUTS 2

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 18 OF

KSC FORM 1-11 (REV. 3/76)
(CIG 10/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s019

E-18

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	10/27/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

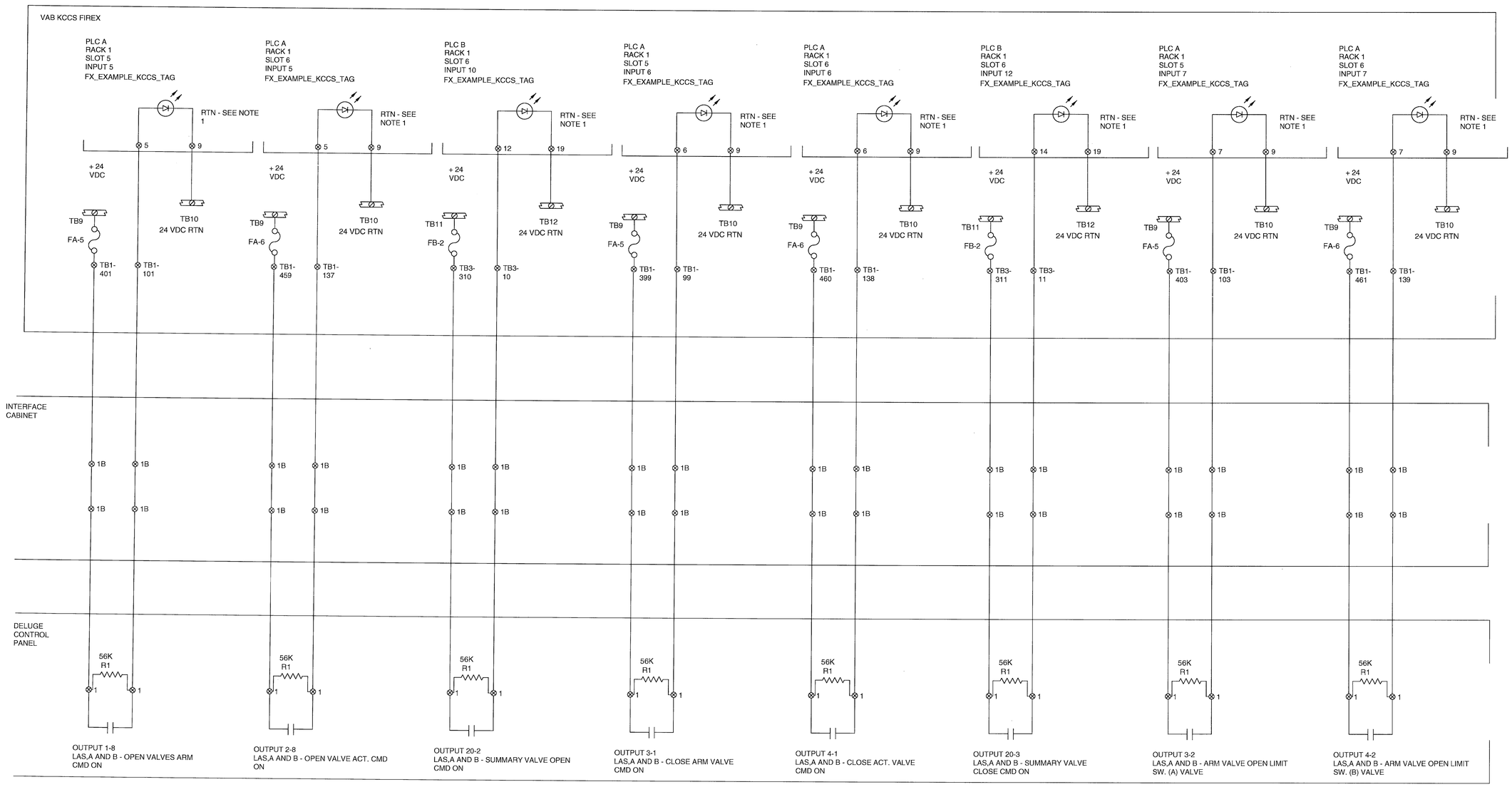
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LAS-AUX, A AND B INPUTS 3

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-833 | PROJ. NO. NONE | SHEET 19 OF

KSC FORM 1-11 (REV. 3/76) (CIS 12/92)



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s020

E-19

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

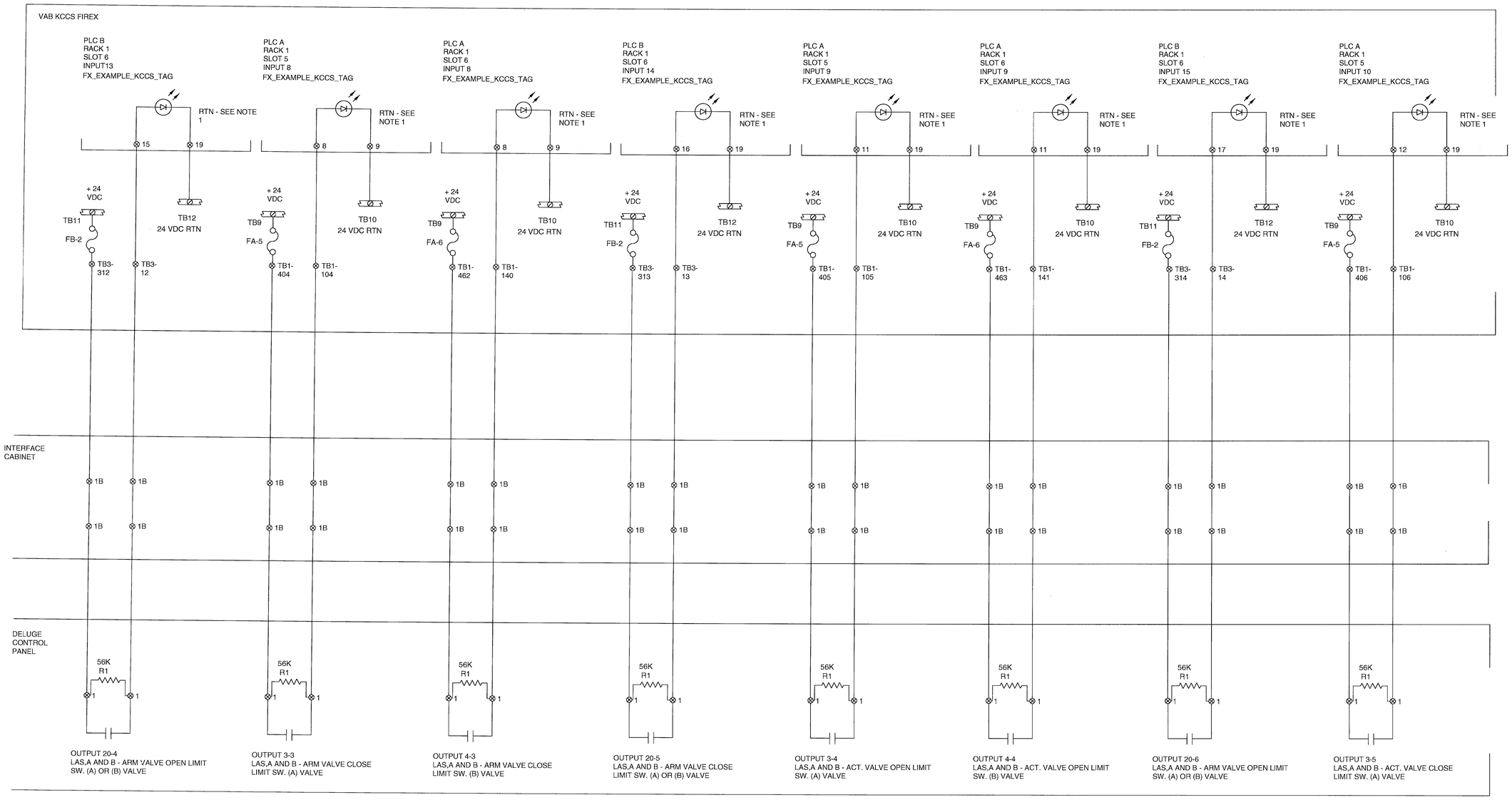
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LAS-AUX, A AND B INPUTS 4

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 20 OF

KSC FORM 1-11 (REV. 3/76) (C/G 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s021

E-20

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/24/10
CHECKED	G. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

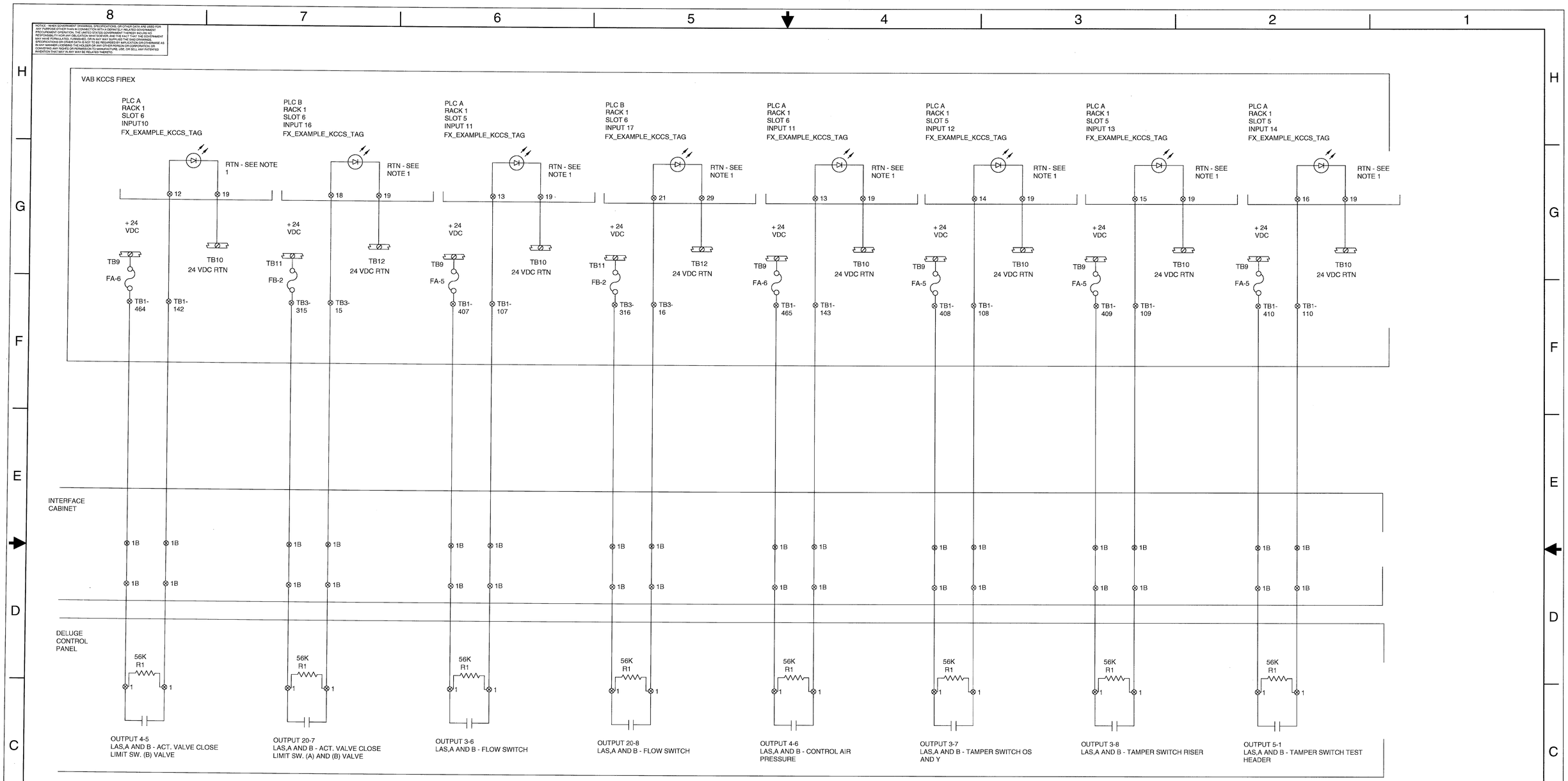
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LAS-AUX, A AND B INPUTS 5

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-93B | PROJ. NO. NONE | SHEET 21 OF

KSC FORM 1-11 (REV. 3/78)
(CFG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s022

E-21

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	11/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE		

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS) TOWER E PLATFORM LAS-AUX, A AND B INPUTS 6

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 22 OF	

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

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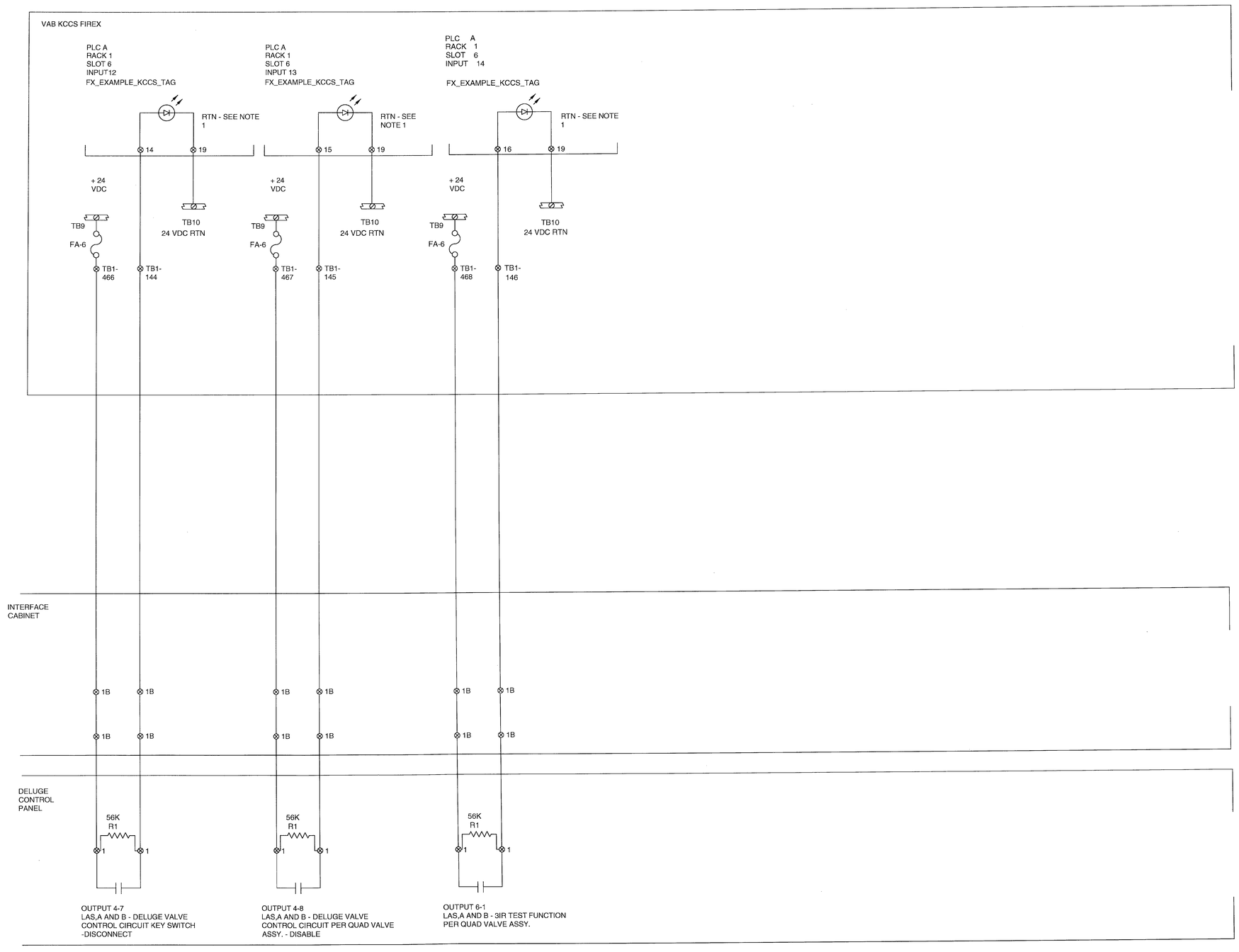

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s023

E-22

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/24/10
CHECKED	S. BROWN	7/29/10
ENGINEER	J.EATON	7/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-B3B	

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KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LAS-AUX, A AND B INPUTS 7

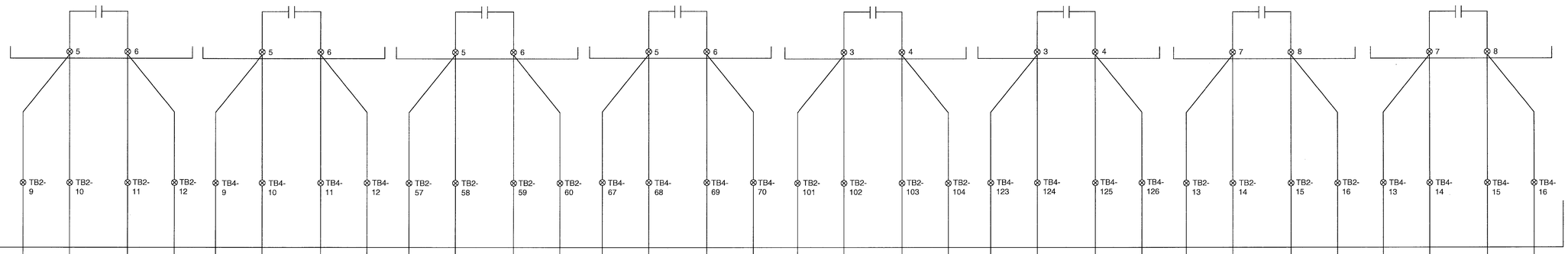
SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 23 OF

KSC FORM 1-11 (REV. 3/76)
(CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE U.S. GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

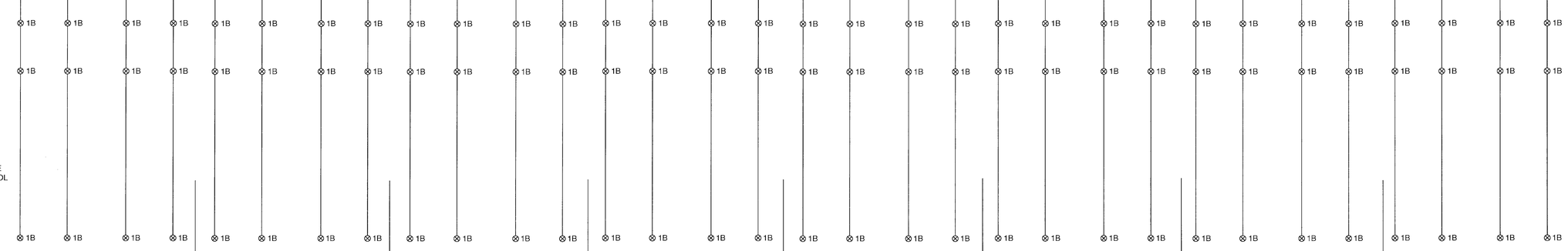
VAB KCCS FIREX

PLC	RACK	SLOT	OUTPUT	TAG
PLC A	2	2	3	FX_EXAMPLE_KCCS_TAG
PLC B	1	3	3	FX_EXAMPLE_KCCS_TAG
PLC A	2	3	3	FX_EXAMPLE_KCCS_TAG
PLC B	1	4	3	FX_EXAMPLE_KCCS_TAG
PLC A	2	4	2	FX_EXAMPLE_KCCS_TAG
PLC B	1	5	2	FX_EXAMPLE_KCCS_TAG
PLC A	2	2	4	FX_EXAMPLE_KCCS_TAG
PLC B	1	3	4	FX_EXAMPLE_KCCS_TAG



INTERFACE CABINET

DELUGE CONTROL PANEL



Zone Input	Description
ZONE INPUT 6	LEVEL C AND E - PLC ARM CMD
ZONE INPUT 30	LEVEL C AND E - PLC ARM CMD
ZONE INPUT 7	LEVEL C AND E - PLC ACT CMD
ZONE INPUT 31	LEVEL C AND E - PLC ACT CMD
ZONE INPUT 8	LEVEL C AND E - PLC 3IR OVERRIDE CMD
ZONE INPUT 32	LEVEL C AND E - PLC 3IR OVERRIDE CMD
ZONE INPUT 9	LEVEL C AND E - PLC ARM CLOSE CMD
ZONE INPUT 33	LEVEL C AND E - PLC ARM CLOSE CMD

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s024

E-23

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/28/10
CHECKED	G. BROWN	7/28/10
ENGINEER	J.EATON	7/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LEVEL C AND E CMDS 1

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE VA-83B | PROJ. NO. NONE | SHEET 24 OF

KSC FORM 1-11 (REV. 3/76)
(CIG 12/92)

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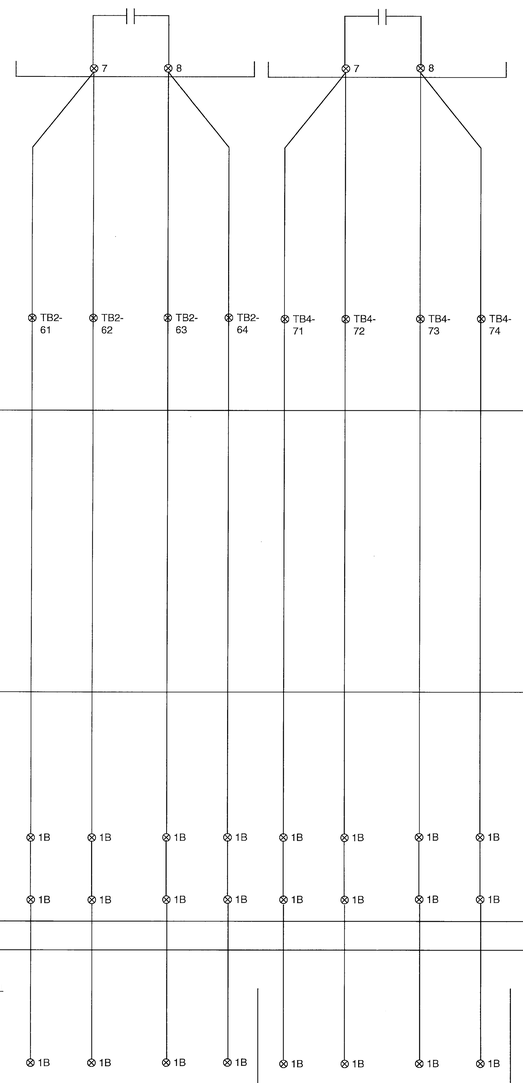
VAB KCCS FIREX

PLC A
RACK 2
SLOT 3
OUTPUT 4
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 1
SLOT 4
OUTPUT 4
FX_EXAMPLE_KCCS_TAG



ZONE INPUT 10
LEVEL C AND E - PLC ACT CLOSE CMD

ZONE INPUT 34
LEVEL C AND E - PLC ACT CLOSE CMD

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LEVEL C AND E CMDS 2

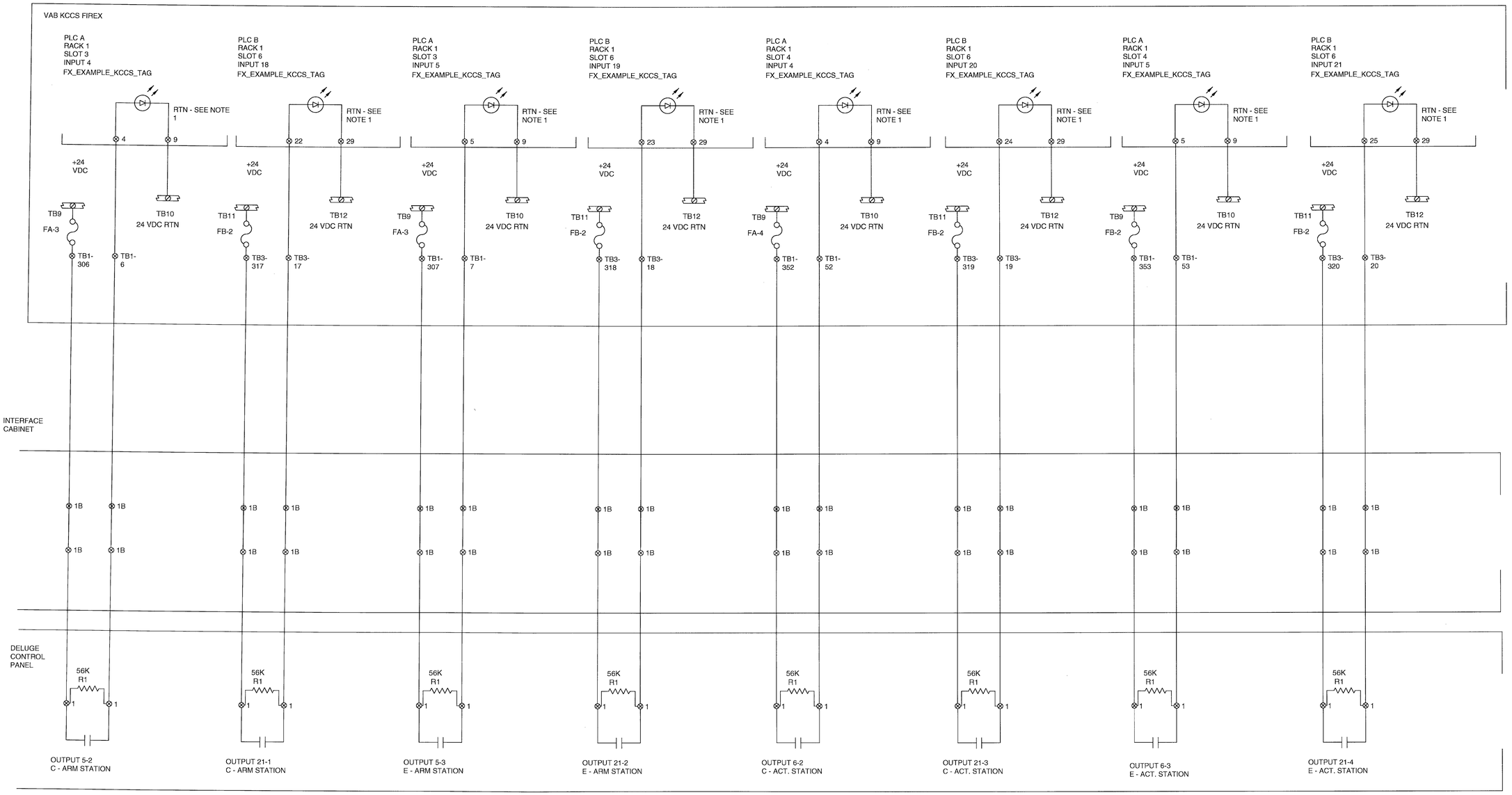
SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TA-83B | PROJ. NO. NONE | SHEET 25 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s025

E-24

KSC FORM 1-11 (REV. 3/76)
(CIG 12/92)



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s026

E-25

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-93B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

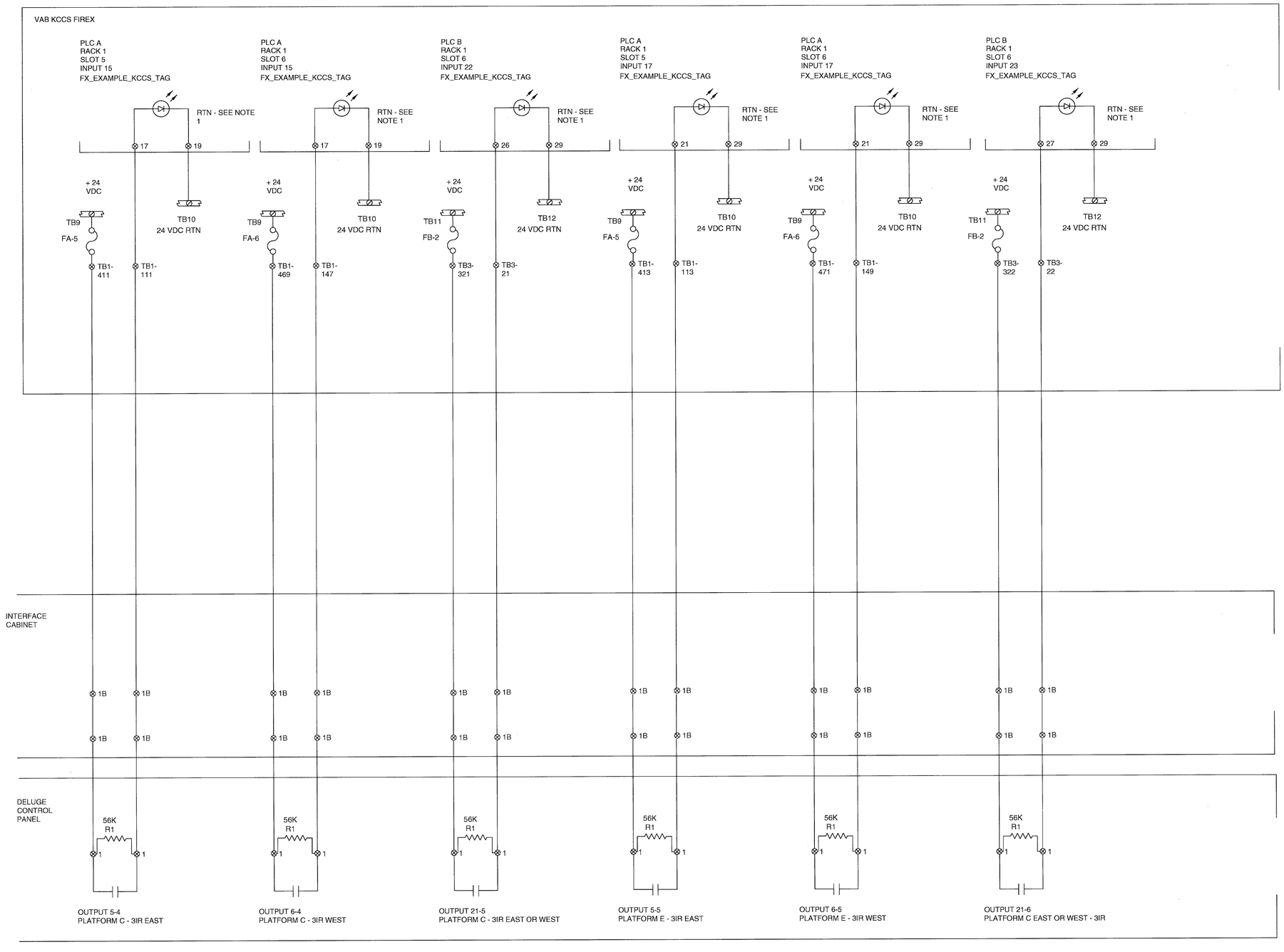
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LEVEL C AND E INPUTS 1

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 26 OF

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE U.S. GOVERNMENT THEREBY DISCLAIMS ANY RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	H.S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/5/10
APPROVED		DATE 10/5/10
TITLE TA-83B		

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS) TOWER E PLATFORM LEVEL C AND E INPUTS 2

SIZE F | DWG. NO. 734E1100001 | REV -

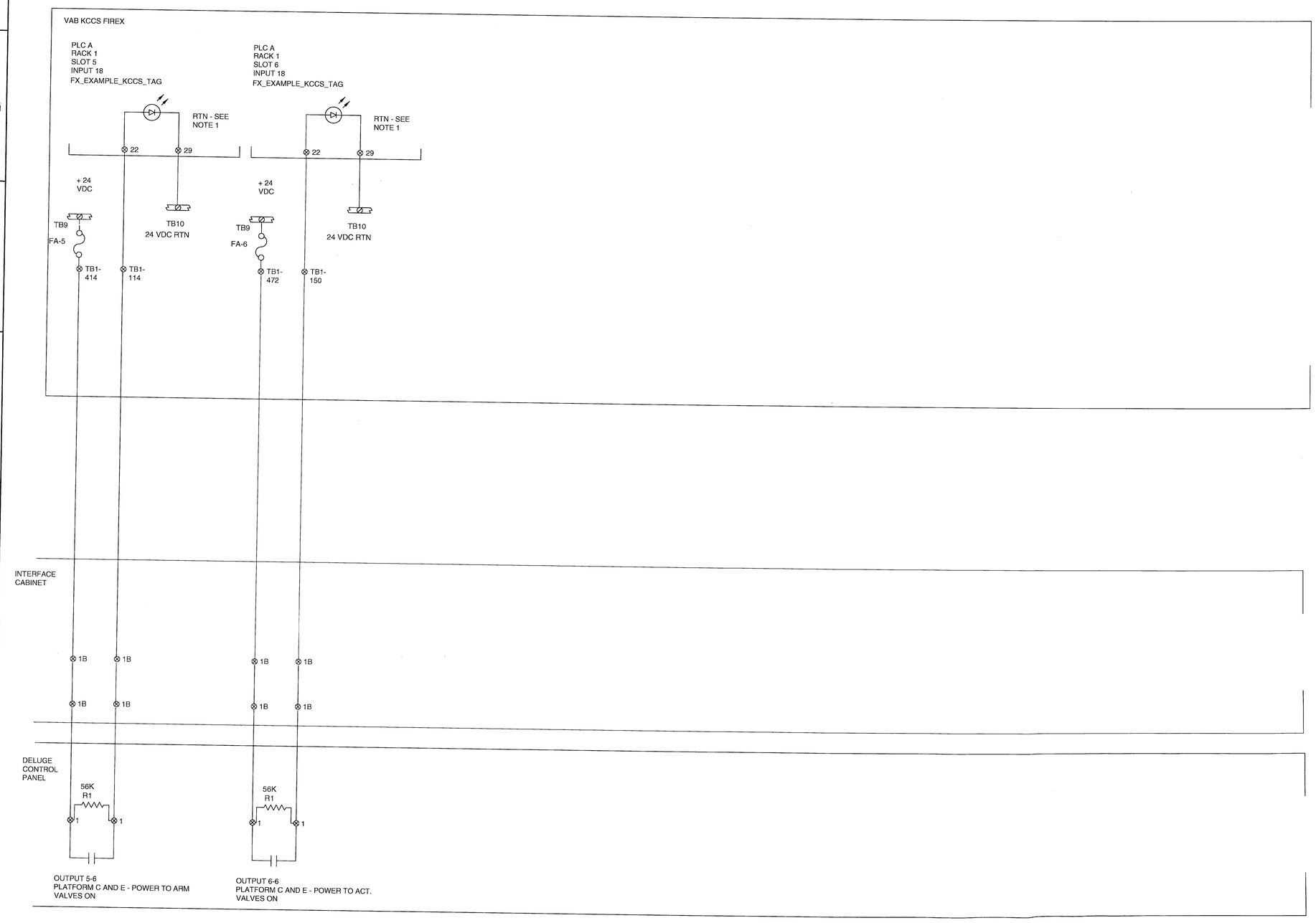
PROJ. NO. NONE | SHEET 27 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s027

E-26

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s028

E-27

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/25/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/25/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA 103B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LEVEL C AND E INPUTS 3

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 28 OF	

KSC FORM 1-11 (REV. 3/76)
(CIG 13/60)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A RACK 1 SLOT 5 INPUT 19 FX_EXAMPLE_KCCS_TAG	PLC A RACK 1 SLOT 6 INPUT 19 FX_EXAMPLE_KCCS_TAG	PLC B RACK 1 SLOT 6 INPUT 24 FX_EXAMPLE_KCCS_TAG	PLC A RACK 1 SLOT 5 INPUT 20 FX_EXAMPLE_KCCS_TAG	PLC A RACK 1 SLOT 6 INPUT 20 FX_EXAMPLE_KCCS_TAG	PLC B RACK 1 SLOT 6 INPUT 25 FX_EXAMPLE_KCCS_TAG	PLC A RACK 1 SLOT 5 INPUT 21 FX_EXAMPLE_KCCS_TAG	PLC A RACK 1 SLOT 6 INPUT 21 FX_EXAMPLE_KCCS_TAG
RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1
23 / 29	23 / 29	28 / 29	24 / 29	24 / 29	31 / 39	25 / 29	25 / 29
+ 24 VDC	+ 24 VDC	+ 24 VDC	+ 24 VDC	+ 24 VDC	+ 24 VDC	+ 24 VDC	+ 24 VDC
TB9 FA-5	TB9 FA-6	TB11 FB-2	TB9 FA-5	TB9 FA-6	TB11 FB-2	TB9 FA-5	TB9 FA-6
TB10 24 VDC RTN	TB10 24 VDC RTN	TB12 24 VDC RTN	TB10 24 VDC RTN	TB10 24 VDC RTN	TB12 24 VDC RTN	TB10 24 VDC RTN	TB10 24 VDC RTN
TB1-415 / TB1-115	TB1-473 / TB1-151	TB3-323 / TB3-23	TB1-416 / TB1-116	TB1-474 / TB1-152	TB3-324 / TB3-24	TB1-417 / TB1-117	TB1-475 / TB1-153

INTERFACE CABINET

1B / 1B — 1B / 1B — 1B / 1B — 1B / 1B — 1B / 1B — 1B / 1B — 1B / 1B — 1B / 1B

DELUGE CONTROL PANEL

56K R1 (1 / 1)

OUTPUT 5-7 PLATFORM C AND E - OPEN VALVES ARM CMD ON	OUTPUT 6-7 PLATFORM C AND E - OPEN VALVE ACT. CMD ON	OUTPUT 21-7 PLATFORM C AND E - SUMMARY VALVE OPEN CMD ON	OUTPUT 5-8 PLATFORM C AND E - CLOSE ARM VALVE CMD ON	OUTPUT 6-8 PLATFORM C AND E - CLOSE ACT. VALVE CMD ON	OUTPUT 21-8 PLATFORM C AND E - SUMMARY VALVE CLOSE CMD ON	OUTPUT 7-1 PLATFORM C AND E - ARM VALVE OPEN LIMIT SW. (A) VALVE	OUTPUT 8-1 PLATFORM C AND E - ARM VALVE OPEN LIMIT SW. (B) VALVE

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s029

E-28

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/23/10
CHECKED	S. BROWN	9/24/10
ENGINEER	J.EATON	9/23/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

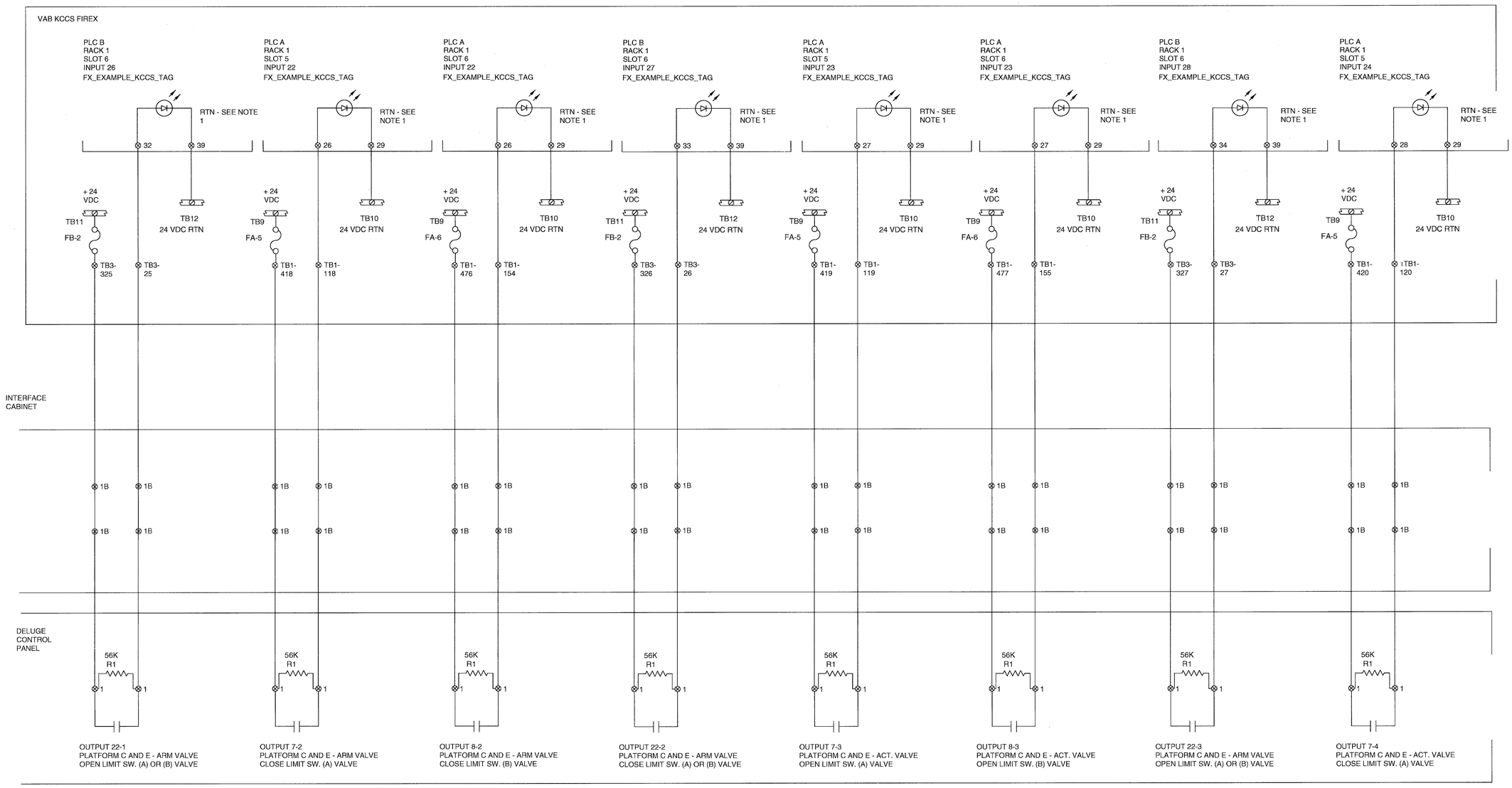
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LEVEL C AND E INPUTS 4

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 29 OF

KSC FORM 1-11 (REV. 3/76) (C/G 10/92)



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s030

E-29

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LEVEL C AND E INPUTS 5

SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 30 OF

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

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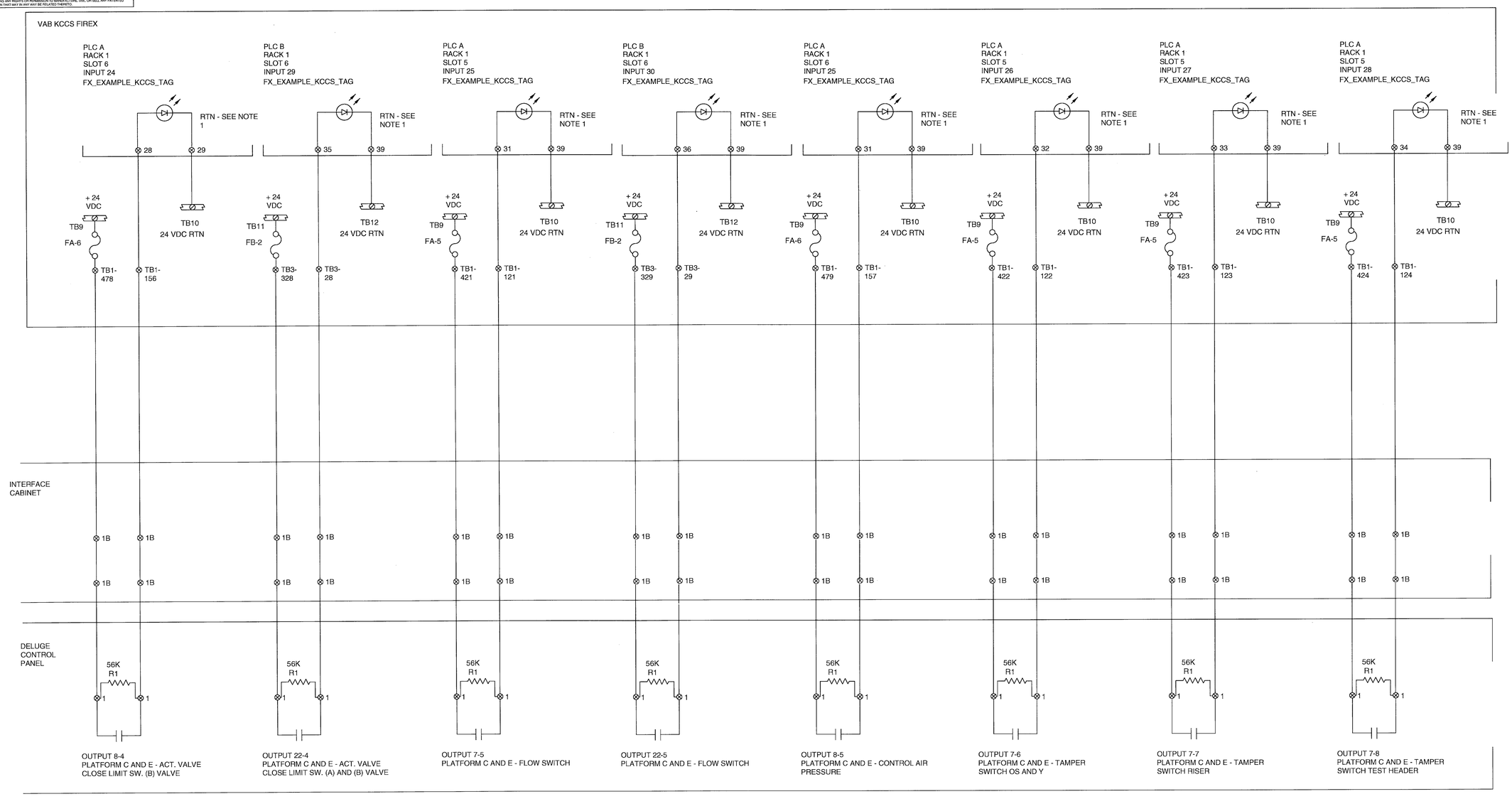


SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s031

E-30

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/28/10
CHECKED	S. BROWN	7/29/10
ENGINEER	J.EATON	7/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

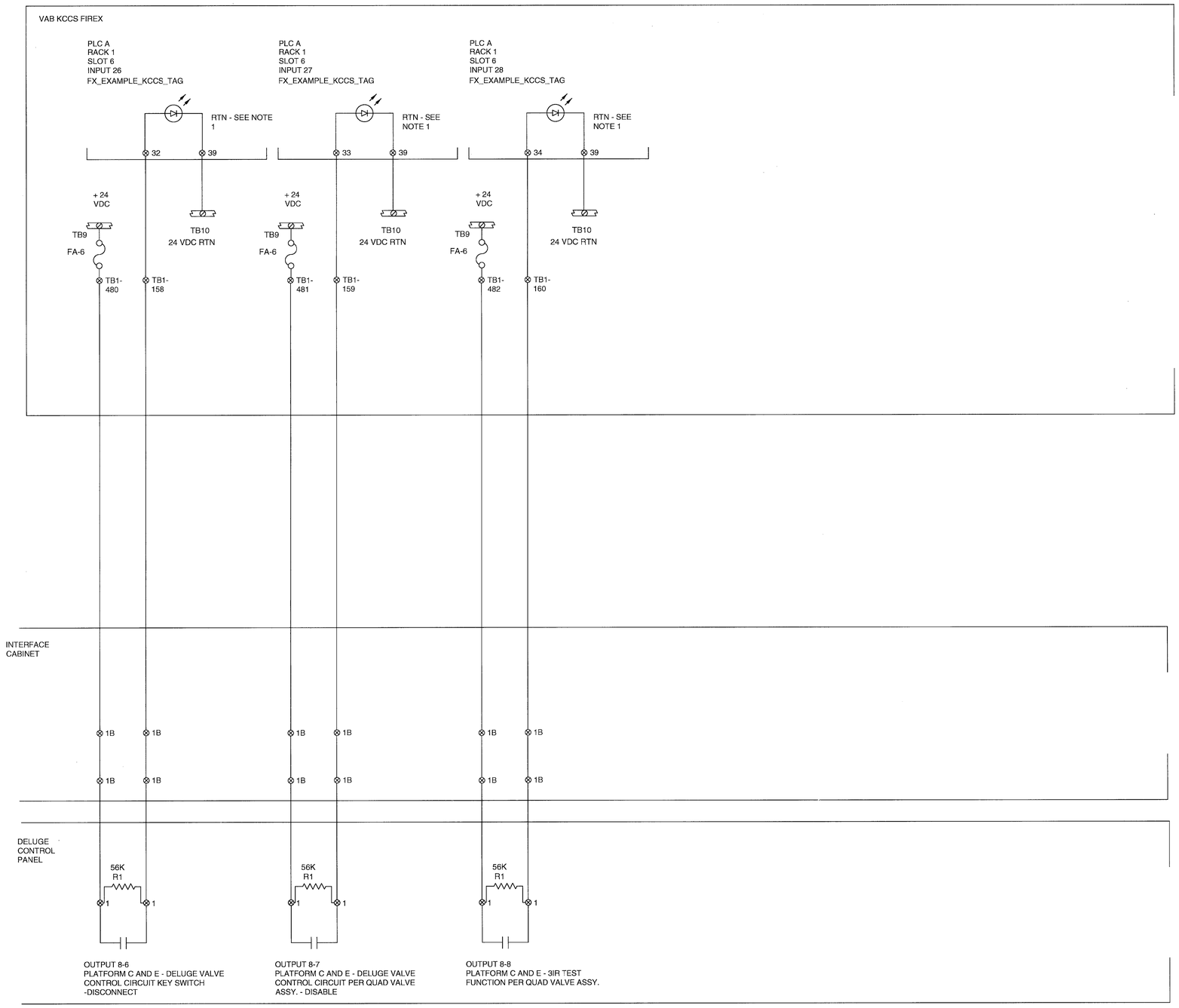
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LEVEL C AND E INPUTS 6

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 31 OF

KSC FORM 1-11 (REV. 3/76) (O/G 13/80)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OF PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s032

E-31

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/23/10
CHECKED	S. BROWN	7/23/10
ENGINEER	J.EATON	7/23/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-833	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
LEVEL C AND E INPUTS 7

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 32 OF

KSC FORM 1-11 (REV. 3/76)
(CIG 10/93)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC	RACK	SLOT	OUTPUT	TAG	Relay terminals	Field terminals	Interface cabinet terminals	Deluge control panel terminals	Zone input
A	2	2	5	FX_EXAMPLE_KCCS_TAG	11, 12	TB2-17, TB2-18, TB2-19, TB2-20	1B, 1B, 1B, 1B	1B, 1B, 1B, 1B	ZONE INPUT 11 PLATFORM F1, G AND H - PLC ARM CMD
B	1	3	5	FX_EXAMPLE_KCCS_TAG	11, 12	TB4-17, TB4-18, TB4-19, TB4-20	1B, 1B, 1B, 1B	1B, 1B, 1B, 1B	ZONE INPUT 35 PLATFORM F1, G AND H - PLC ARM CMD
A	2	3	5	FX_EXAMPLE_KCCS_TAG	11, 12	TB2-65, TB2-66, TB2-67, TB2-68	1B, 1B, 1B, 1B	1B, 1B, 1B, 1B	ZONE INPUT 12 PLATFORM F1, G AND H - PLC ACT CMD
B	1	4	5	FX_EXAMPLE_KCCS_TAG	11, 12	TB4-75, TB4-76, TB4-77, TB4-78	1B, 1B, 1B, 1B	1B, 1B, 1B, 1B	ZONE INPUT 36 PLATFORM F1, G AND H - PLC ACT CMD
A	2	4	3	FX_EXAMPLE_KCCS_TAG	5, 6	TB2-105, TB2-106, TB2-107, TB2-108	1B, 1B, 1B, 1B	1B, 1B, 1B, 1B	ZONE INPUT 13 PLATFORM F1, G AND H - PLC 3IR OVRD CMD
B	1	5	3	FX_EXAMPLE_KCCS_TAG	5, 6	TB4-127, TB4-128, TB4-129, TB4-130	1B, 1B, 1B, 1B	1B, 1B, 1B, 1B	ZONE INPUT 37 PLATFORM F1, G AND H - PLC 3IR OVRD CMD
A	2	2	6	FX_EXAMPLE_KCCS_TAG	13, 14	TB2-21, TB2-22, TB2-23, TB2-24	1B, 1B, 1B, 1B	1B, 1B, 1B, 1B	ZONE INPUT 14 PLATFORM F1, G AND H - PLC ARM CLOSE CMD
B	1	3	6	FX_EXAMPLE_KCCS_TAG	13, 14	TB4-21, TB4-22, TB4-23, TB4-24	1B, 1B, 1B, 1B	1B, 1B, 1B, 1B	ZONE INPUT 38 PLATFORM F1, G AND H - PLC ARM CLOSE CMD

INTERFACE CABINET

DELUGE CONTROL PANEL

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s033

E-32

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/24/10
CHECKED	S. BROWN	9/24/10
ENGINEER	J.EATON	9/24/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-838	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
F1, G AND H CMDS 1

SIZE: F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 33 OF

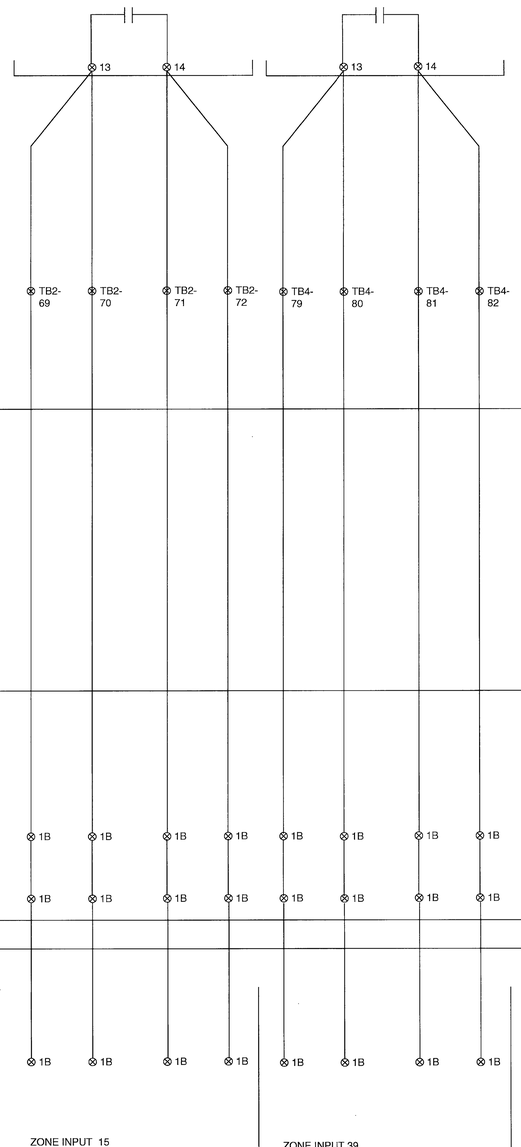
KSC FORM 1-11 (REV. 3/78)
(CIS 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A
RACK 2
SLOT 3
OUTPUT 6
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 1
SLOT 4
OUTPUT 6
FX_EXAMPLE_KCCS_TAG



THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s034

E-33

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	7/28/10
CHECKED	S. BROWN	7/28/10
ENGINEER	J.EATON	7/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE		

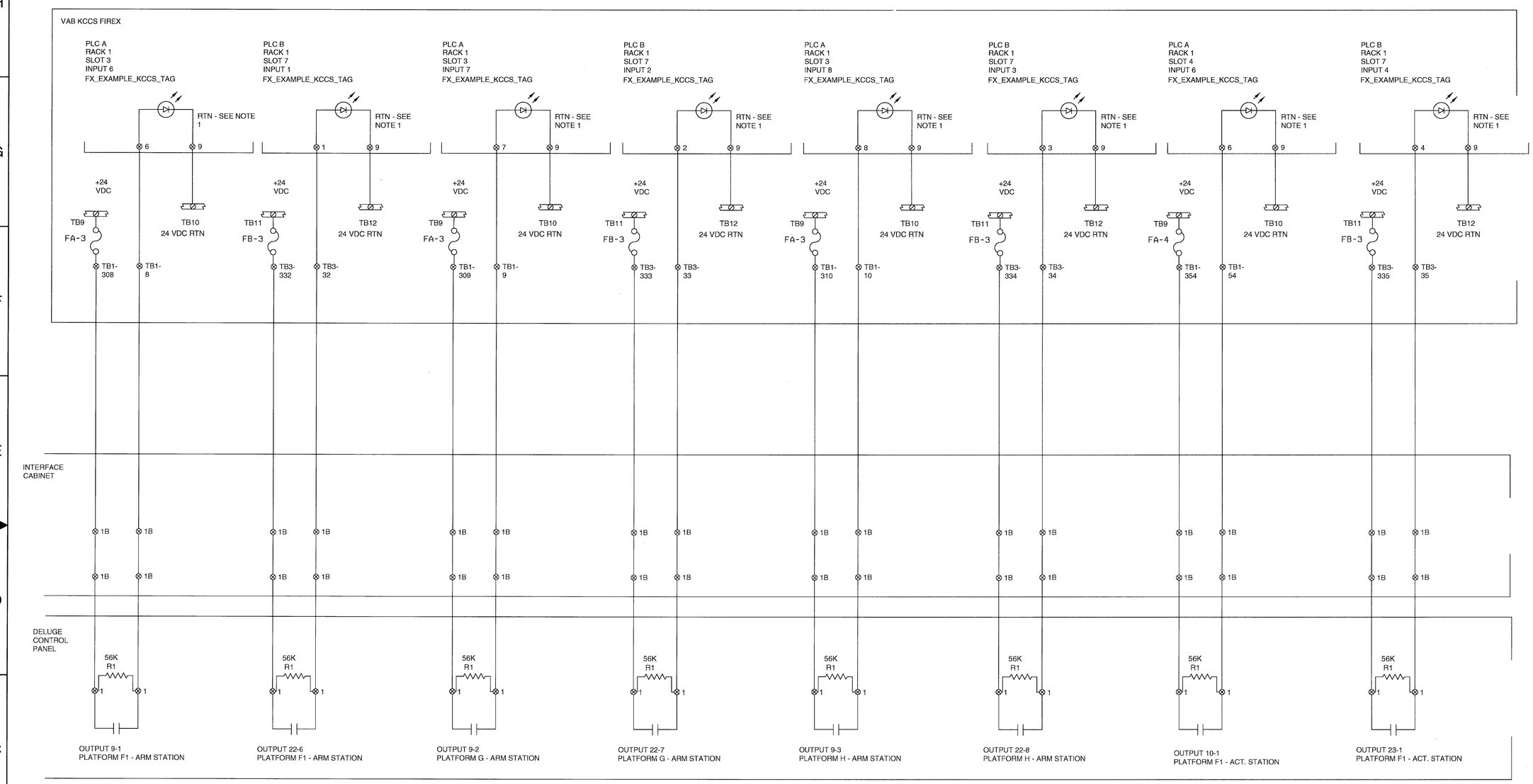
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
F1, G AND H CMDS 2

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 34 OF	

KSC FORM 1-11 (REV. 3/78)
(CFG 13/50)



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s035

E-34

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
F1, G AND H INPUTS 1

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 35 OF

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

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VAB KCCS FIREX

	PLC A	PLC B	PLC A	PLC B	PLC A	PLC A	PLC A	PLC B
	RACK 1	RACK 1	RACK 1	RACK 1	RACK 1	RACK 1	RACK 1	RACK 1
	SLOT 4	SLOT 7	SLOT 4	SLOT 7	SLOT 7	SLOT 7	SLOT 8	SLOT 7
	INPUT 7	INPUT 5	INPUT 8	INPUT 6	INPUT 1	INPUT 1	INPUT 1	INPUT 7
	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG
	RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1	RTN - SEE NOTE 1
	7 / 9	5 / 9	8 / 9	6 / 9	1 / 9	1 / 9	7 / 9	
	+ 24 VDC	+ 24 VDC	+ 24 VDC	+ 24 VDC	+ 24 VDC	+ 24 VDC	+ 24 VDC	
	TB9 FA-4	TB11 FB-3	TB9 FA-4	TB11 FB-3	TB9 FA-7	TB9 FA-8	TB11 FB-3	
	TB10 24 VDC RTN	TB12 24 VDC RTN	TB10 24 VDC RTN	TB12 24 VDC RTN	TB10 24 VDC RTN	TB10 24 VDC RTN	TB12 24 VDC RTN	
	TB1-355	TB3-336	TB1-356	TB3-337	TB1-493	TB1-528	TB1-338	
	TB1-55	TB3-36	TB1-56	TB3-37	TB1-171	TB1-206	TB1-38	

INTERFACE CABINET

1B / 1B

DELUGE CONTROL PANEL

56K R1 (1 / 1)

OUTPUT 10-2 PLATFORM G - ACT. STATION	OUTPUT 23-2 PLATFORM G - ACT. STATION	OUTPUT 10-3 PLATFORM H - ACT. STATION	OUTPUT 23-3 PLATFORM H - ACT. STATION	OUTPUT 9-4 PLATFORM F1 - 3IR EAST	OUTPUT 10-4 PLATFORM F1 - 3IR WEST	OUTPUT 23-4 PLATFORM F1 EAST OR WEST - 3IR

NOTES:
1. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s036

E-35

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
F1, G AND H INPUTS 2

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-038 | PROJ. NO. NONE | SHEET 36 OF

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC	RACK	SLOT	INPUT	TAG	RTN	+24 VDC	TB9	FA	TB10	TB1	TB1
PLC A	1	7	2	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	2	9	FA-7	TB10 24 VDC RTN	TB1-494	TB1-172
PLC A	1	8	2	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	2	9	FA-8	TB10 24 VDC RTN	TB1-529	TB1-207
PLC B	1	7	8	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	8	9	FB-3	TB12 24 VDC RTN	TB3-339	TB3-39
PLC A	1	7	3	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	3	9	FA-7	TB10 24 VDC RTN	TB1-495	TB1-173
PLC A	1	8	3	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	3	9	FA-8	TB10 24 VDC RTN	TB1-530	TB1-208
PLC B	1	7	9	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	11	19	FB-3	TB12 24 VDC RTN	TB3-340	TB3-40
PLC A	1	7	4	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	4	9	FA-7	TB10 24 VDC RTN	TB1-496	TB1-174
PLC A	1	8	4	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	4	9	FA-8	TB10 24 VDC RTN	TB1-531	TB1-209

INTERFACE CABINET

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

DELUGE CONTROL PANEL

56K R1 1 1

OUTPUT 9-5	PLATFORM G - 3IR EAST
OUTPUT 10-5	PLATFORM G - 3IR WEST
OUTPUT 23-5	PLATFORM G - 3IR EAST OR WEST
OUTPUT 9-6	PLATFORM H - 3IR EAST
OUTPUT 10-6	PLATFORM H - 3IR WEST
OUTPUT 23-6	PLATFORM H - 3IR EAST OR WEST
OUTPUT 9-7	PLATFORM F1, G AND H - POWER TO ARM VALVES ON
OUTPUT 10-7	PLATFORM F1, G AND H - POWER TO ACT. VALVES ON

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s037

E-36

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-93B	

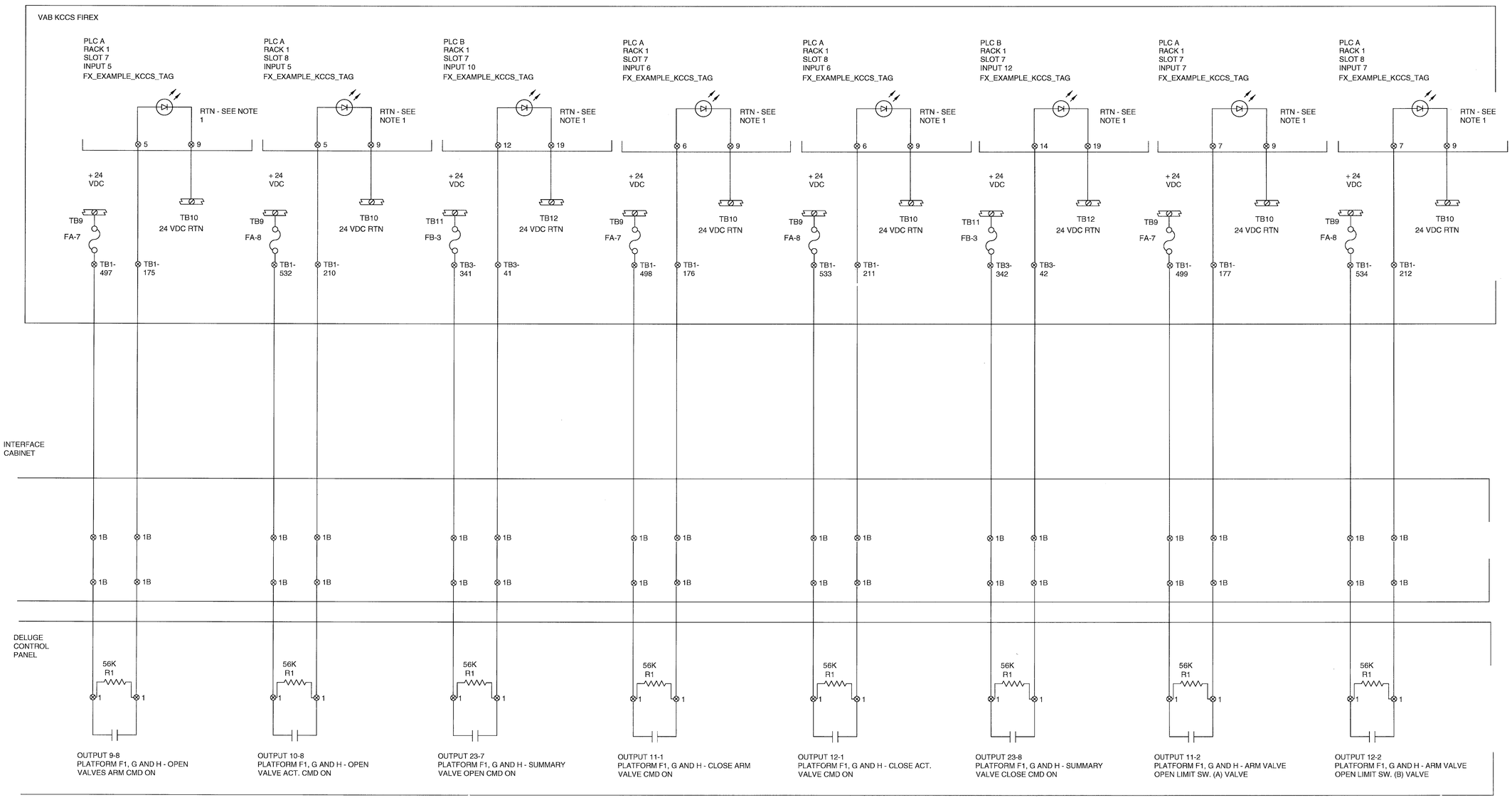
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
F1, G AND H INPUTS 3

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 37 OF

KSC FORM 1-11 (REV. 3/76) (CIG 10/92)



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s038

E-37

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-B3B	

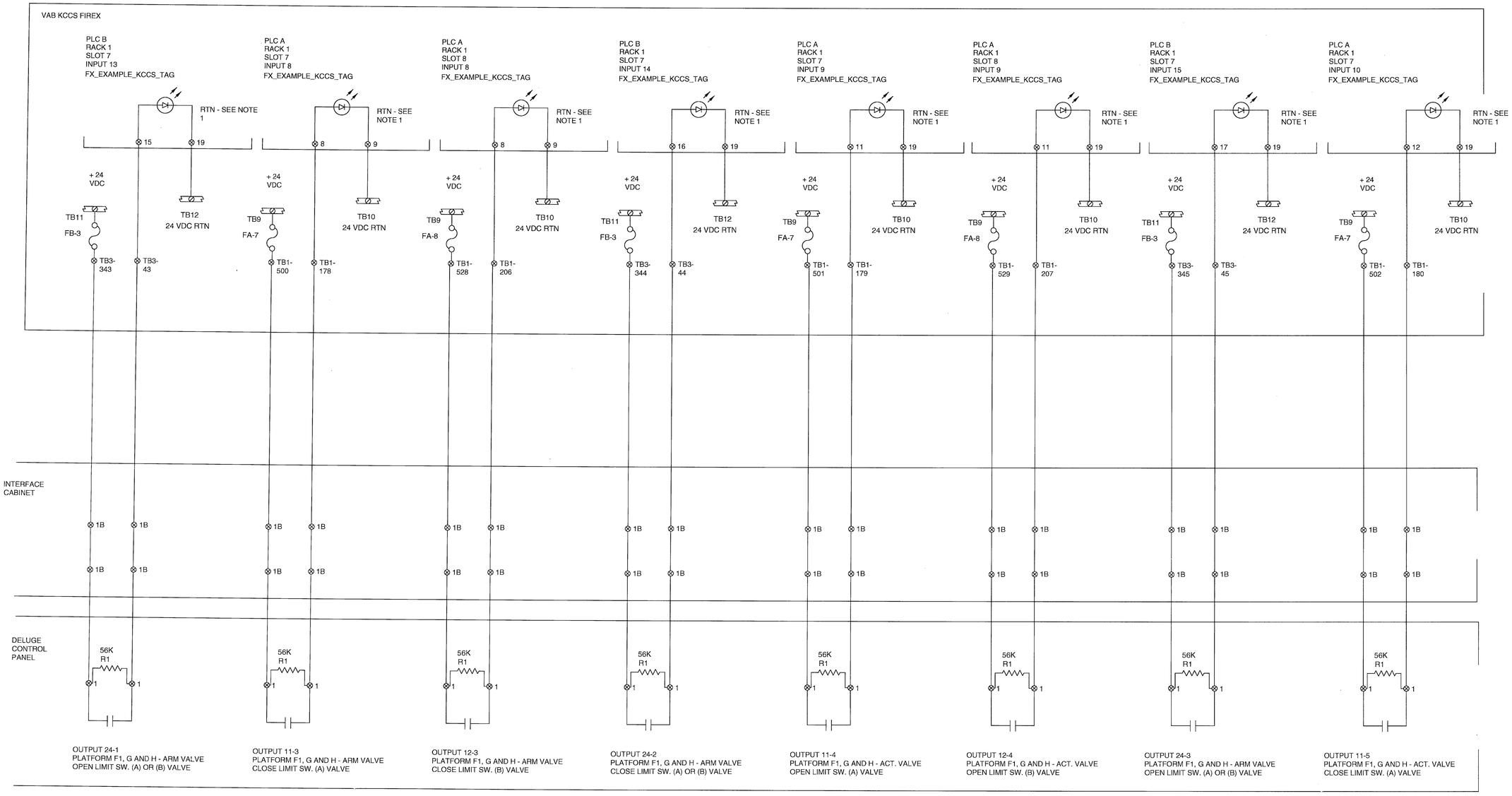
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
F1, G AND H INPUTS 4

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 38 OF

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s039

E-38

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-B3B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
F1, G AND H INPUTS 5

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 39 OF

KSC FORM 1-11 (REV. 3/76) (C/G 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONFERRING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A
RACK 1
SLOT 8
INPUT10
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

12 19

+ 24 VDC

TB9
FA-8

TB10
24 VDC RTN

TB1-537 TB1-215

PLC B
RACK 1
SLOT 7
INPUT 16
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

18 19

+ 24 VDC

TB11
FB-3

TB12
24 VDC RTN

TB3-346 TB3-46

PLC A
RACK 1
SLOT 7
INPUT 11
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

13 19

+ 24 VDC

TB9
FA-7

TB10
24 VDC RTN

TB1-503 TB1-181

PLC B
RACK 1
SLOT 7
INPUT 17
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

21 29

+ 24 VDC

TB11
FB-3

TB12
24 VDC RTN

TB3-347 TB3-47

PLC A
RACK 1
SLOT 8
INPUT 11
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

13 19

+ 24 VDC

TB9
FA-8

TB10
24 VDC RTN

TB1-538 TB1-215

PLC A
RACK 1
SLOT 7
INPUT 12
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

14 19

+ 24 VDC

TB9
FA-7

TB10
24 VDC RTN

TB1-504 TB1-182

PLC A
RACK 1
SLOT 7
INPUT 13
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

15 19

+ 24 VDC

TB9
FA-7

TB10
24 VDC RTN

TB1-505 TB1-183

PLC A
RACK 1
SLOT 7
INPUT 14
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

16 19

+ 24 VDC

TB9
FA-7

TB10
24 VDC RTN

TB1-506 TB1-184

INTERFACE CABINET

1B 1B 1B 1B

DELUGE CONTROL PANEL

56K
R1

1 1

OUTPUT 12-5
PLATFORM F1, G AND H - ACT. VALVE
CLOSE LIMIT SW. (B) VALVE

OUTPUT 24-4
PLATFORM F1, G AND H - ACT. VALVE
CLOSE LIMIT SW. (A) AND (B) VALVE

OUTPUT 11-6
PLATFORM F1, G AND H - FLOW
SWITCH

OUTPUT 24-5
PLATFORM F1, G AND H - FLOW
SWITCH

OUTPUT 12-6
PLATFORM F1, G AND H - CONTROL
AIR PRESSURE

OUTPUT 11-7
PLATFORM F1, G AND H - TAMPER
SWITCH OS AND Y

OUTPUT 11-8
PLATFORM F1, G AND H - TAMPER
SWITCH RISER

OUTPUT 13-1
PLATFORM F1, G AND H - TAMPER
SWITCH TEST HEADER

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	7/28/10
CHECKED	S. BROWN	7/29/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TP-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
F1, G AND H INPUTS 6

SIZE F | DWG. NO. 734E1100001 | REV -

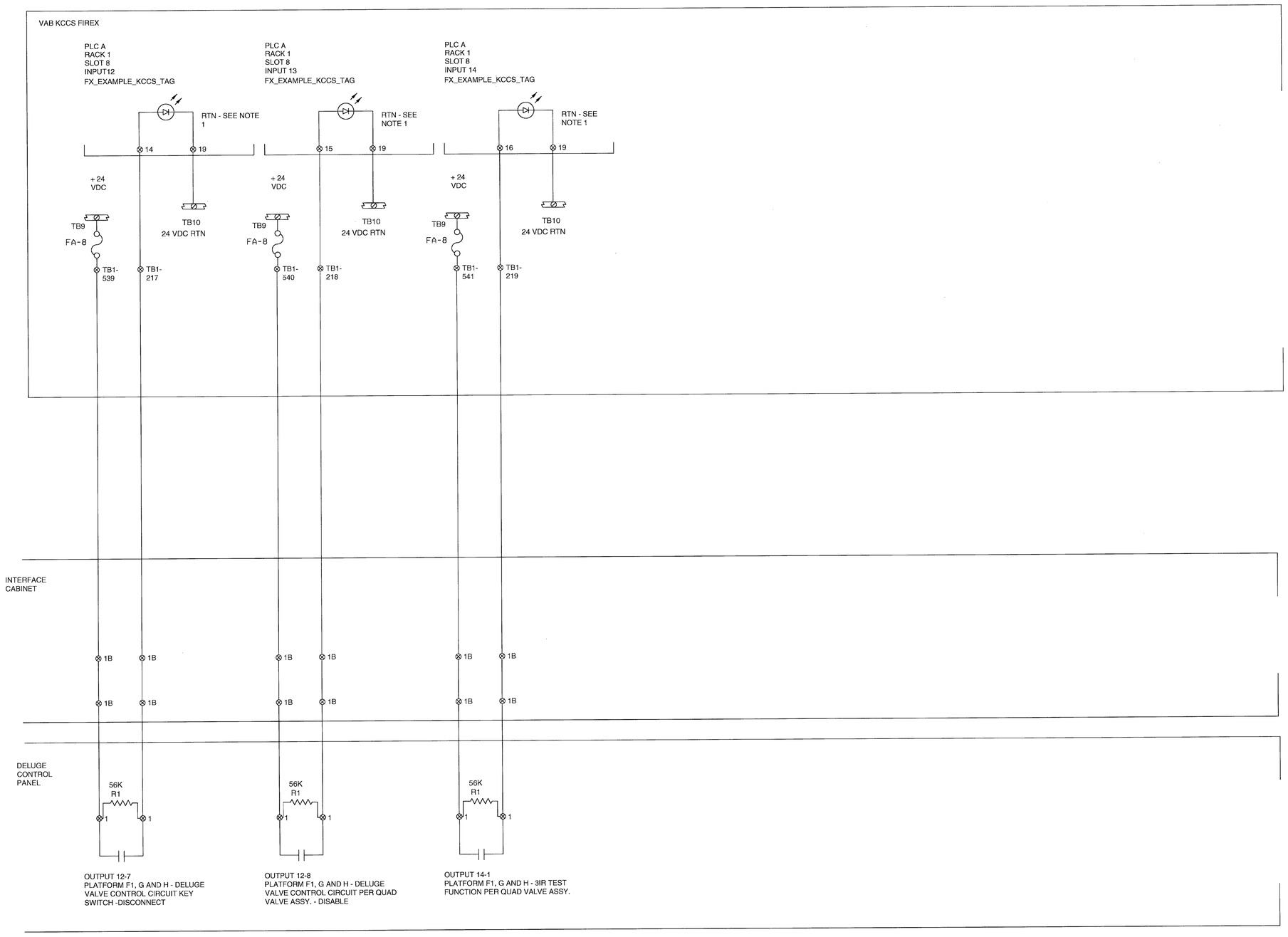
PROJ. NO. NONE | SHEET 40 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s040

E-39

KSC FORM 1-11 (REV. 3/78)
(CIG 10/93)

NOTICE: WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES THEREBY ANY RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s041

E-40

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/6/10
APPROVED		10/6/10

TITLE FA-R3B

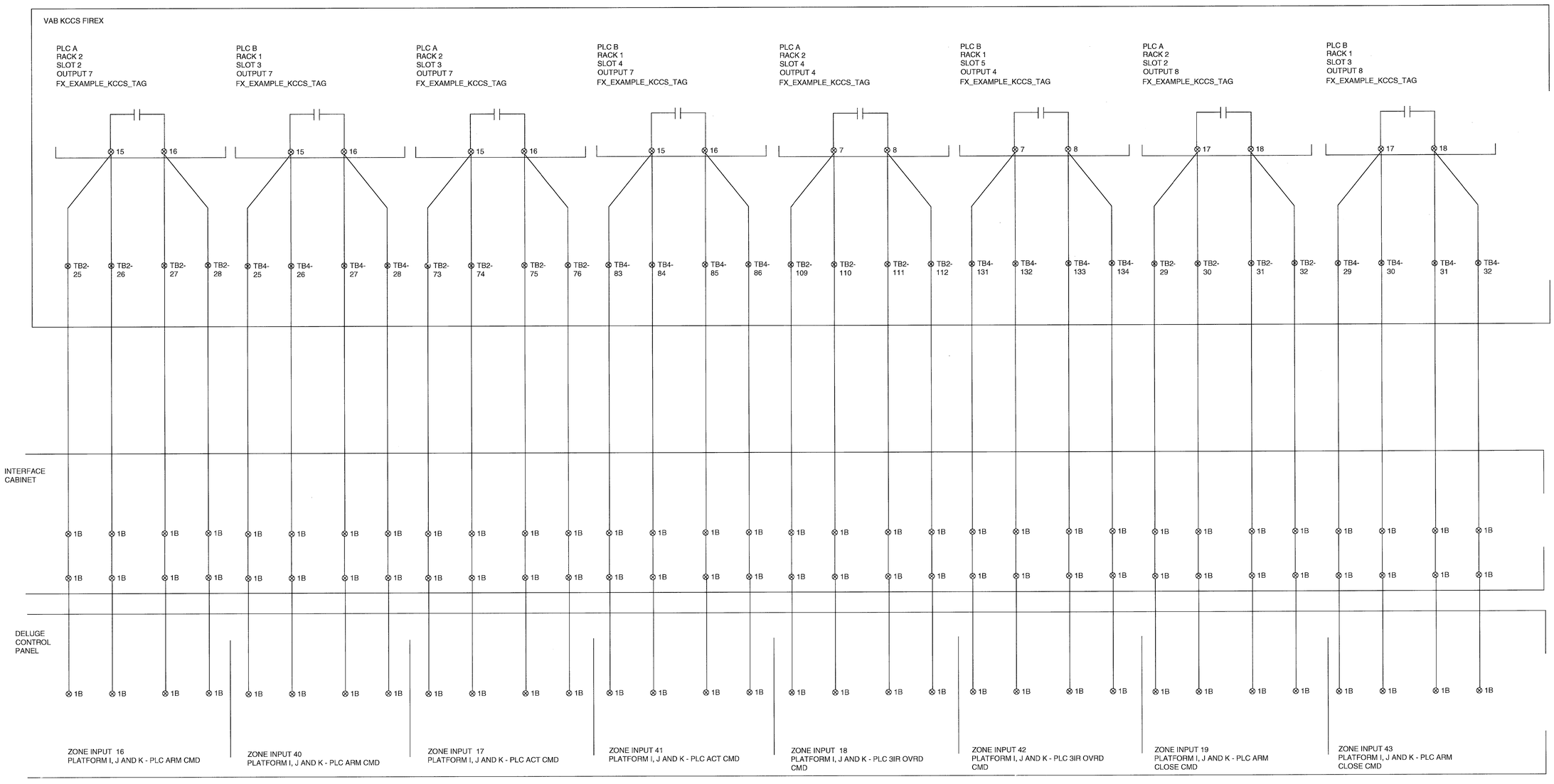
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
F1, G AND H INPUTS 7

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 41 OF

KSC FORM 1-11 (REV. 07/6) (CFD 12/92)



SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/5/10
APPROVED		10/5/10
TITLE	TA-B3B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
I, J AND K CMDS 1

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 42 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s042

E-41

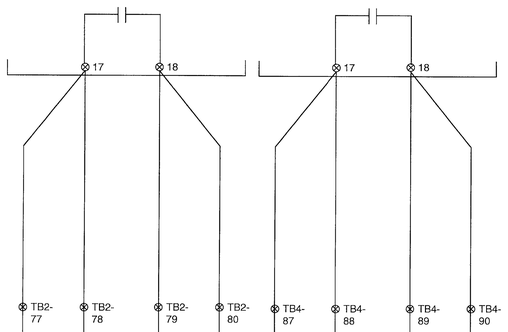
KSC FORM 1-11 (REV. 3/78) (C/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THEREBY.

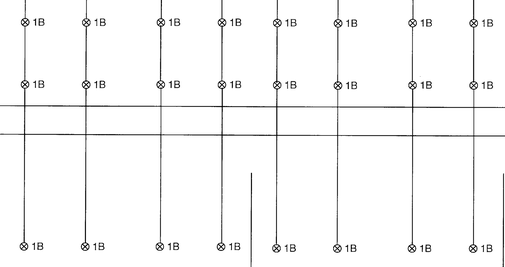
VAB KCCS FIREX

PLC A
RACK 2
SLOT 3
OUTPUT 8
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 1
SLOT 4
OUTPUT 8
FX_EXAMPLE_KCCS_TAG



INTERFACE CABINET



DELUGE CONTROL PANEL

ZONE INPUT 20
PLATFORM PLATFORM I, J AND K- PLC ACT CLOSE CMD

ZONE INPUT 44
PLATFORM PLATFORM I, J AND K - PLC ACT CLOSE CMD

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s043

E-42

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/25/10
CHECKED	S. BROWN	9/27/10
ENGINEER	J.EATON	9/27/10
SUBMITTED		10/8/10
APPROVED		10/8/10

TITLE TAC B3B

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

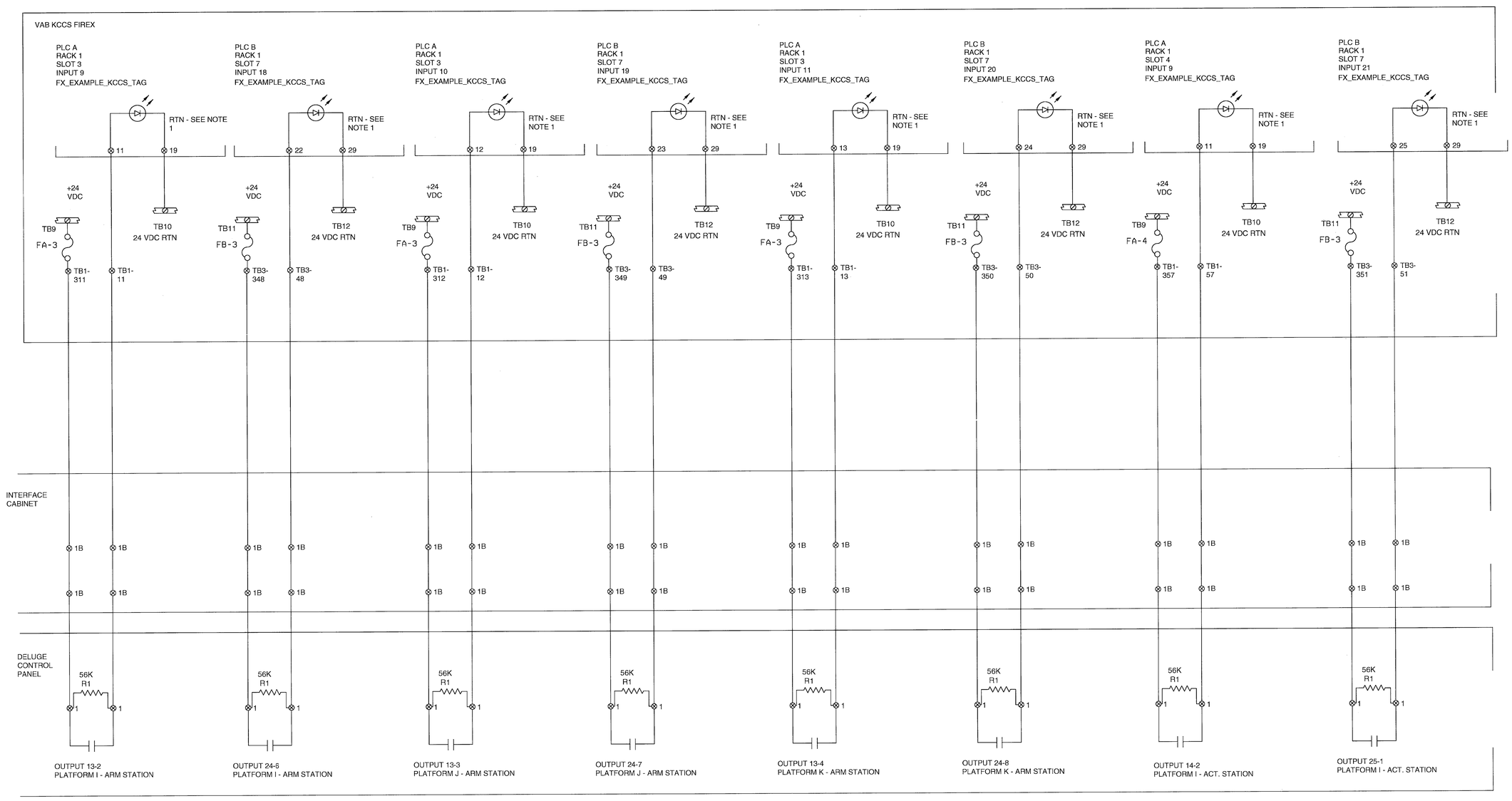
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
I, J AND K CMDS 2

SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 43 OF

KSC FORM 1-11 (REV. 3/70) (O/S 12/92)

NOTICE: WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s044

E-43

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	5/28/10
CHECKED	S. BROWN	5/28/10
ENGINEER	J.EATON	5/28/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10

TITLE TA-83B

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

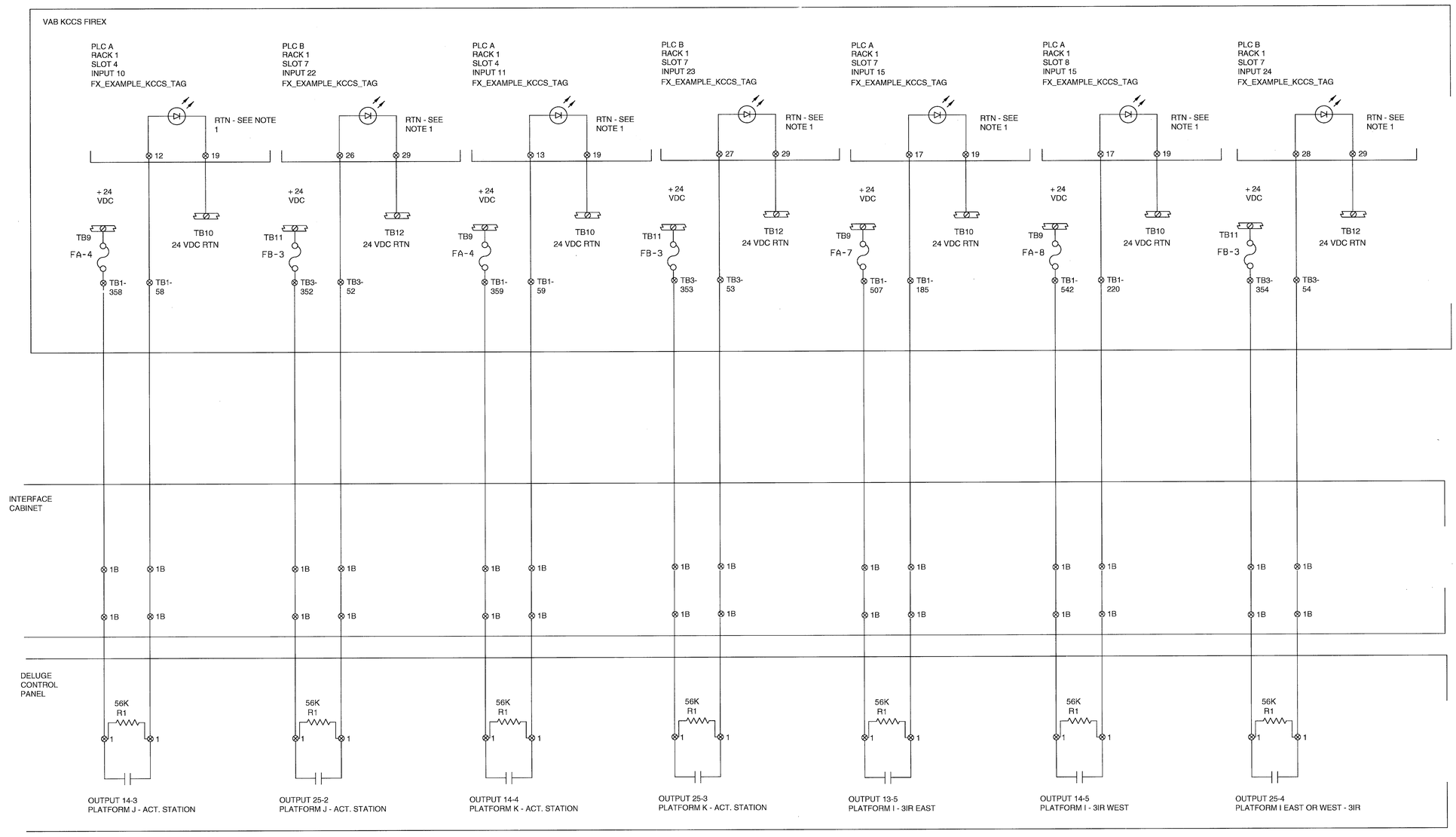
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS) TOWER E PLATFORM I, J AND K INPUTS 1

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 44 OF	

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE U.S. GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s045

E-44

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/29/10
CHECKED	S. BROWN	7/29/10
ENGINEER	J.EATON	7/29/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10
TITLE	TA-B3B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

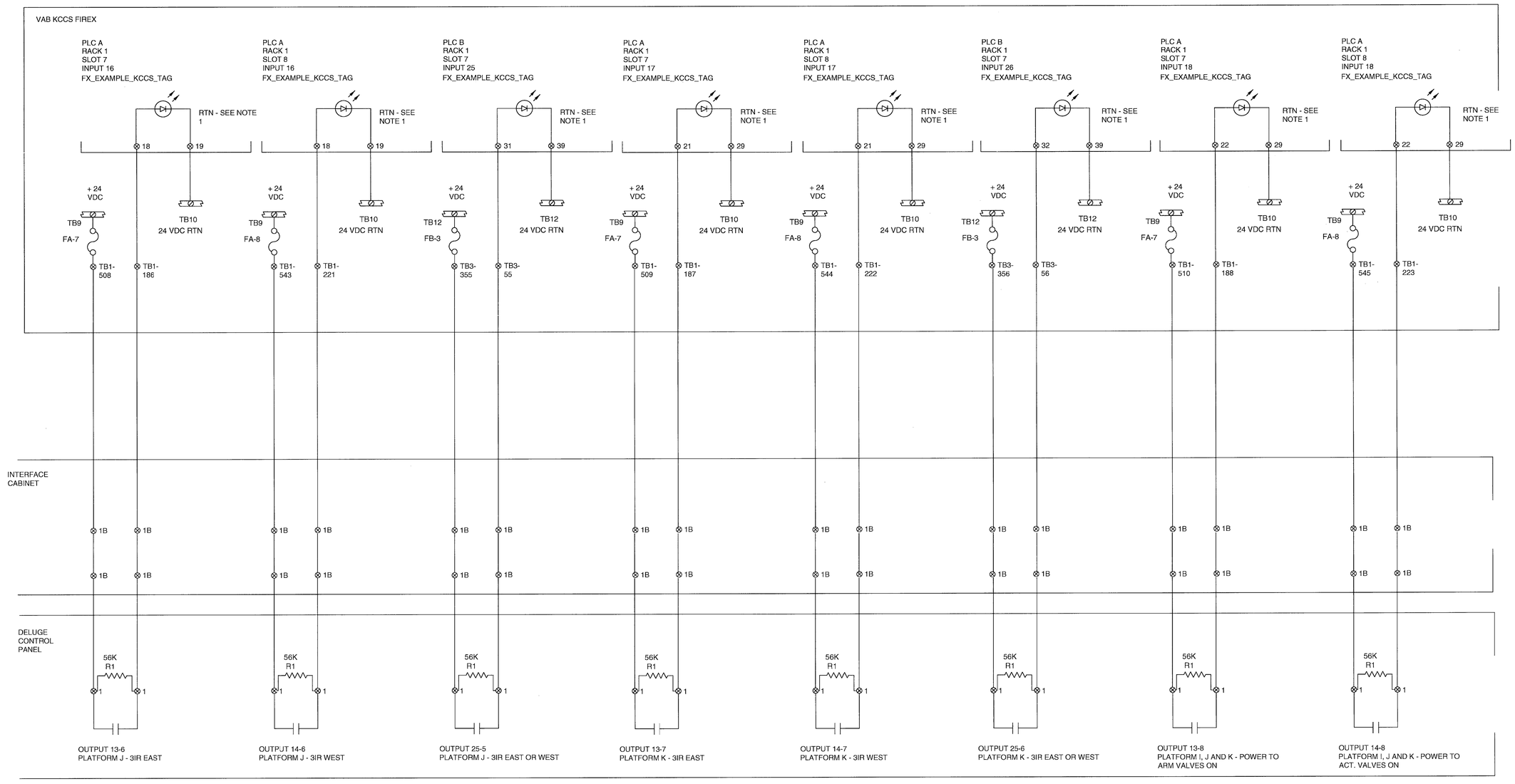
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
I, J AND K INPUTS 2

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 45 OF

KSC FORM 1-11 (REV. 3/78) (CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A, EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s046

E-45

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-830	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

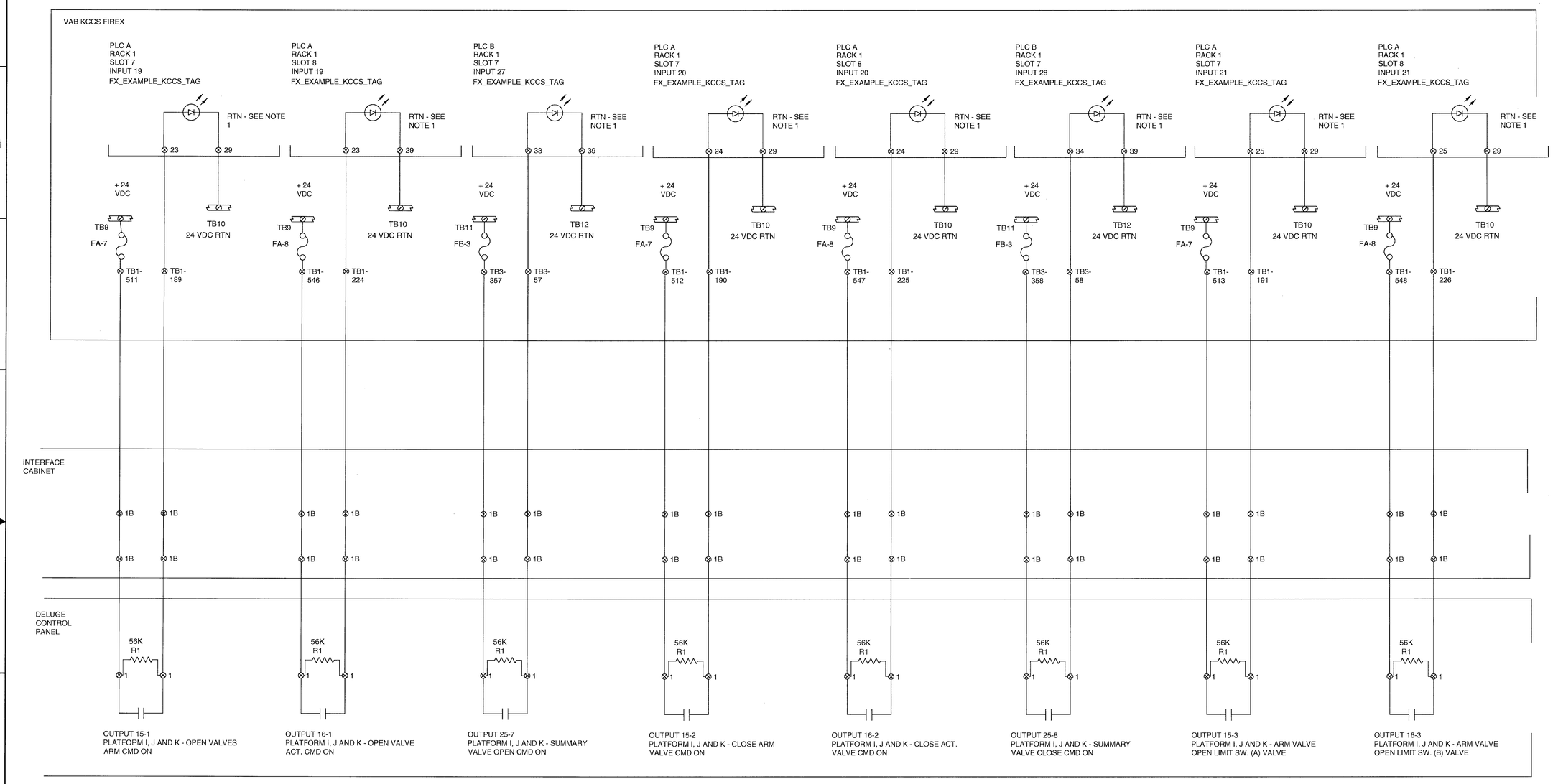
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
I, J AND K INPUTS 3

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 46 OF	

KSC FORM 1-11 (REV. 3/78) (CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s047

E-46

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/14
CHECKED	G. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/16
APPROVED		10/8/16

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

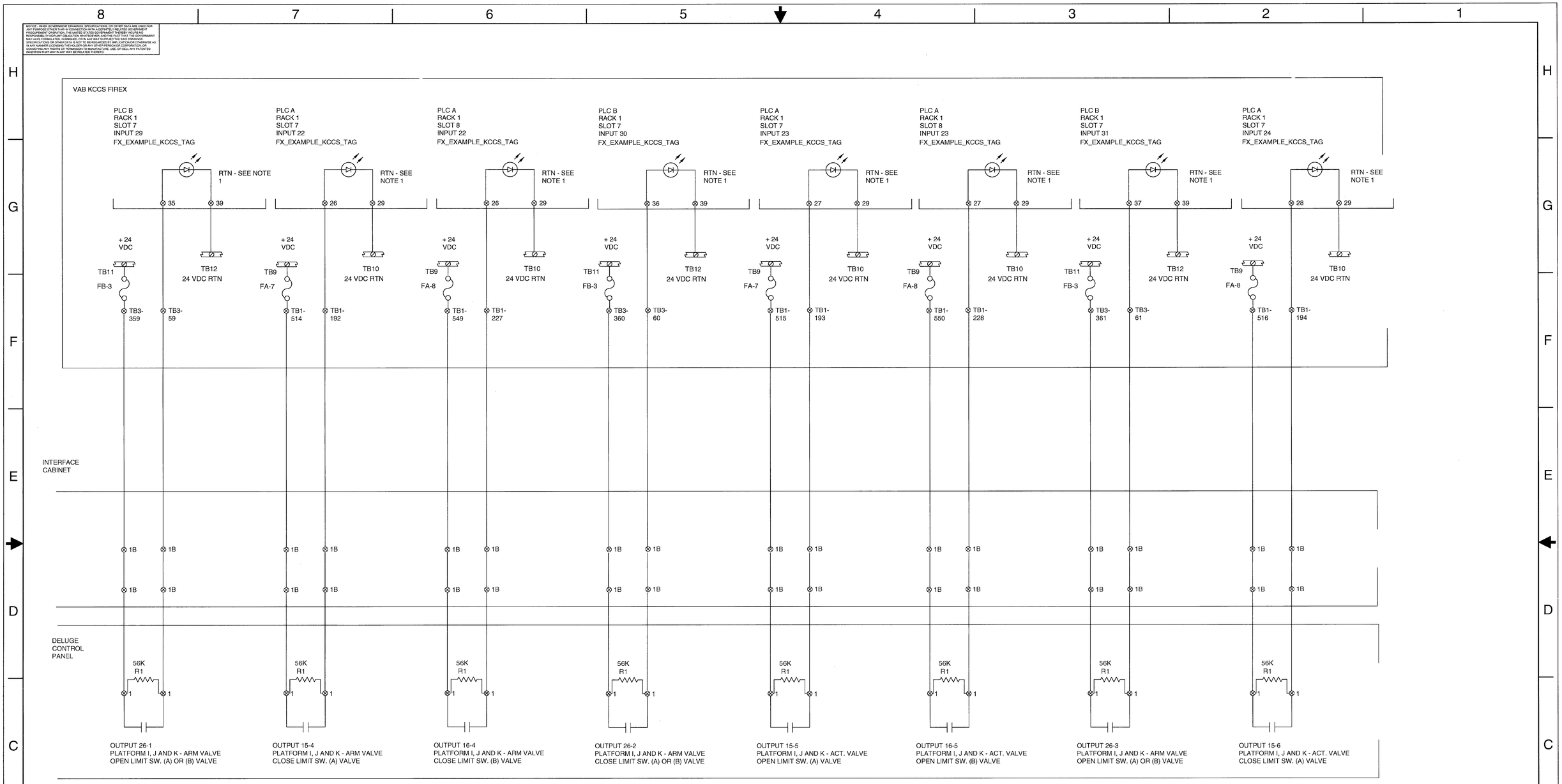
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
I, J AND K INPUTS 4

SIZE	DWG. NO.	REV
F	734E1100001	-
TITLE TA-83B	PROJ. NO. NONE	SHEET 47 OF

KSC FORM 1-11 (REV. 3/78) (CD 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s048

E-47

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83C	

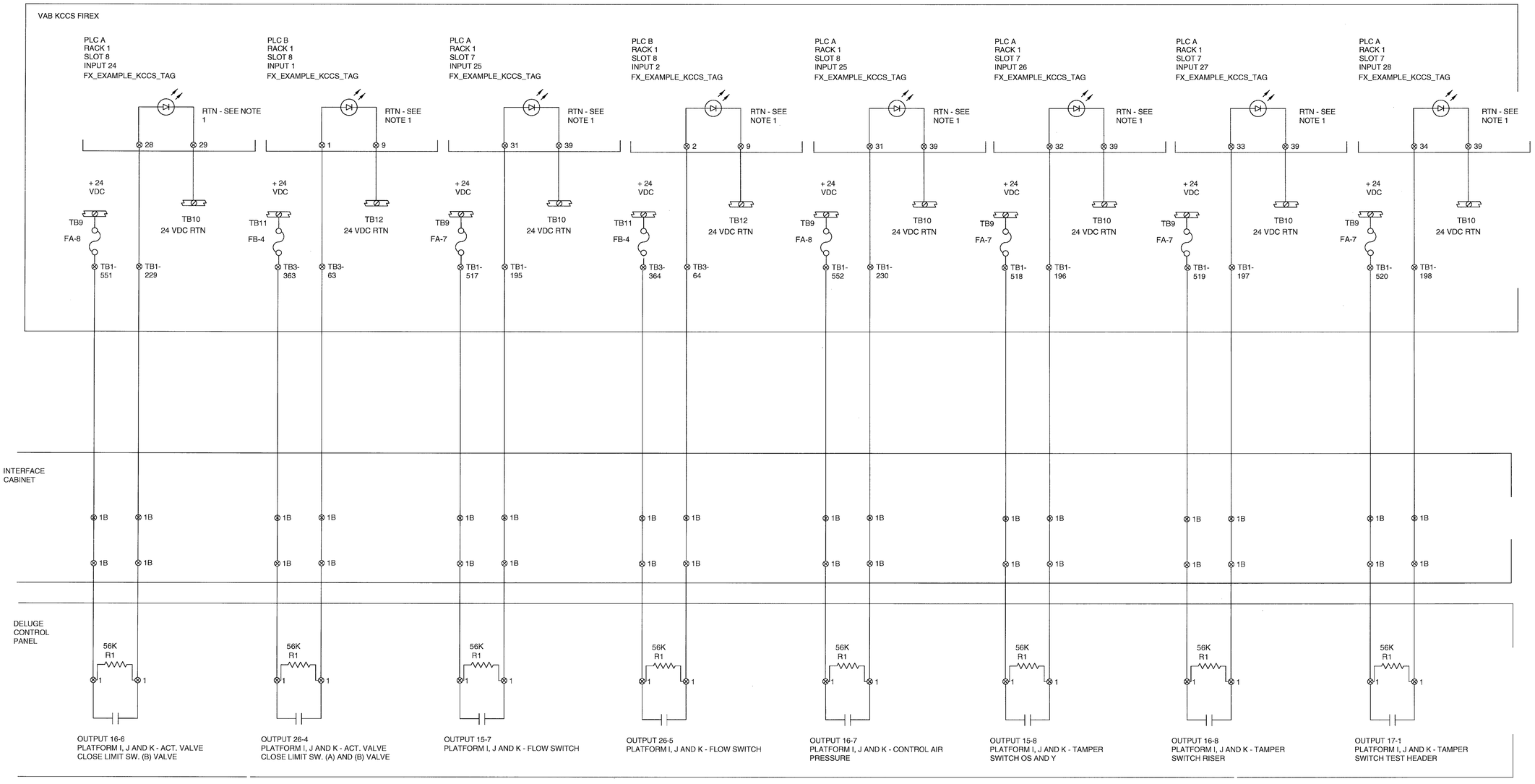
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
I, J AND K INPUTS 5

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 48 OF

KSC FORM 1-11 (REV. 3/78) (O/G 12/92)



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s049

E-48

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-B3B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

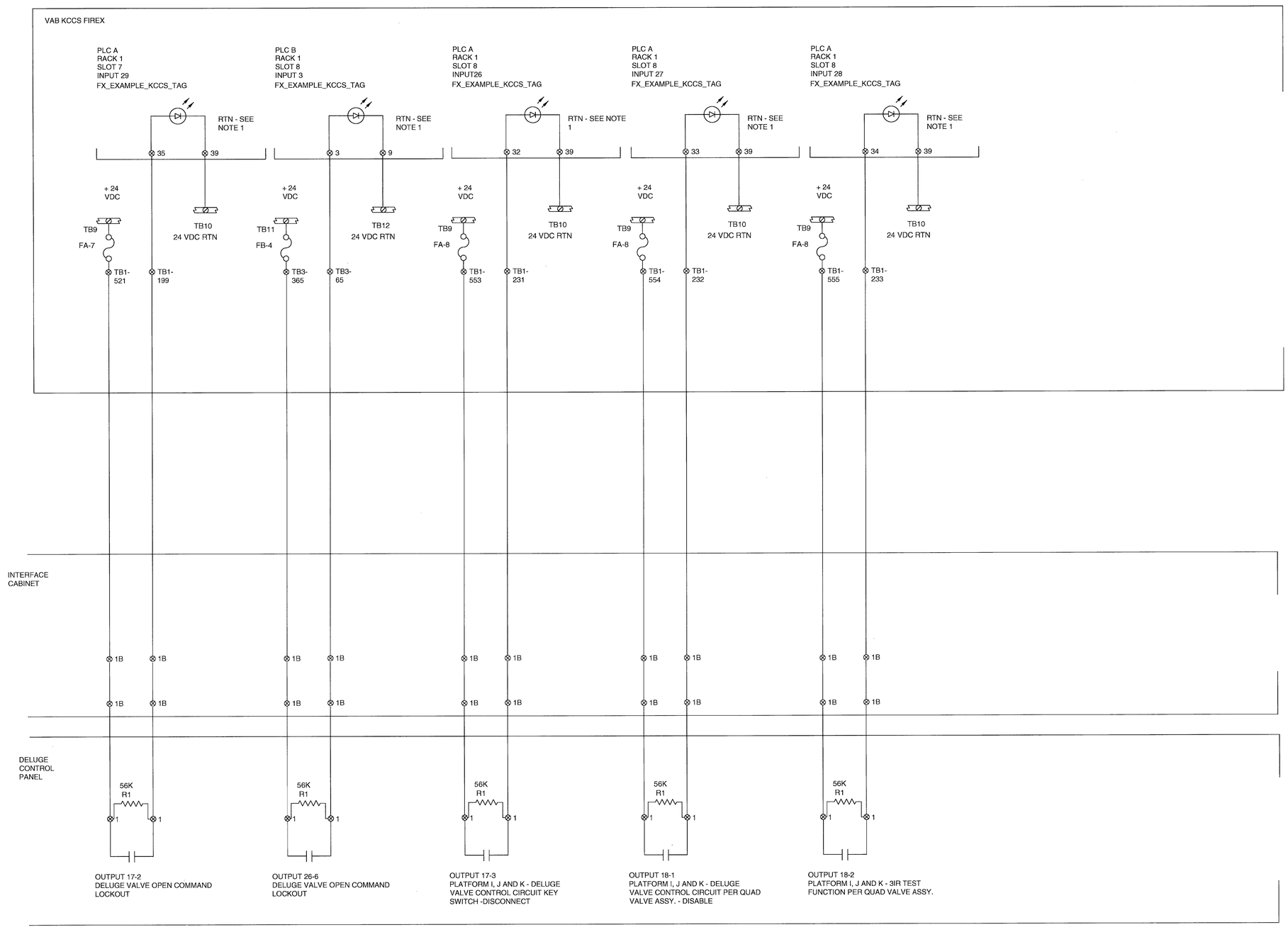
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
I, J AND K INPUTS 6

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 49 OF

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURRING NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s050

E-49

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/6/10
APPROVED		DATE 10/8/10
TITLE	TR-83G	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

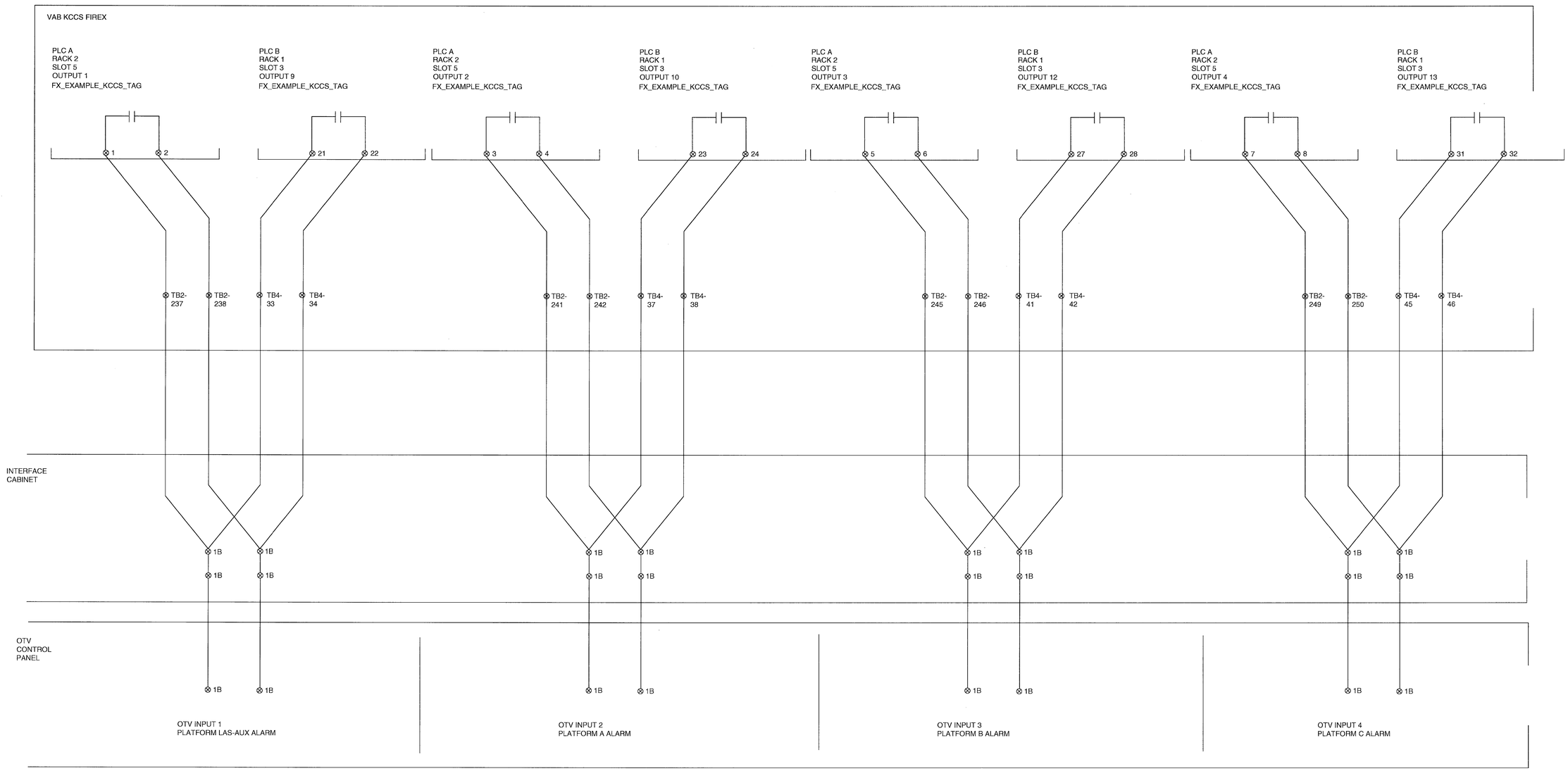
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E PLATFORM
I, J AND K INPUTS 7

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 50 OF

KSC FORM 1-11 (REV. 3/76) (C/O 12/92)

NOTICE: WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s051

E-50

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	11/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		12/9/10
APPROVED		12/9/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

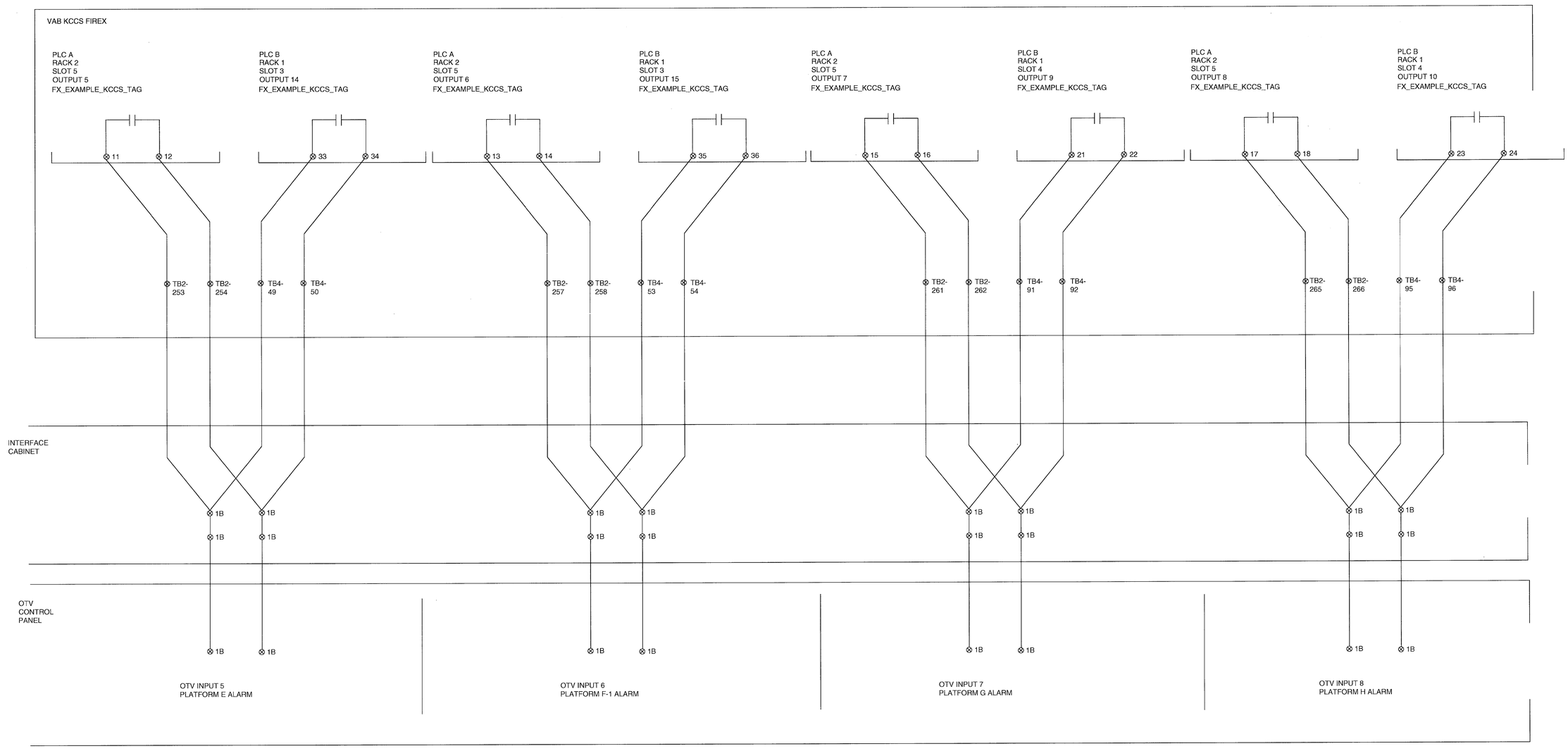
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E
CAMERA OUTPUTS 1

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TA-83B | PROJ. NO. NONE | SHEET 51 OF

KSC FORM 1-11 (REV. 3/16)
(CG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s052

E-51

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/28/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	7/28/10
SUBMITTED		10/8/16
APPROVED		10/8/16

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

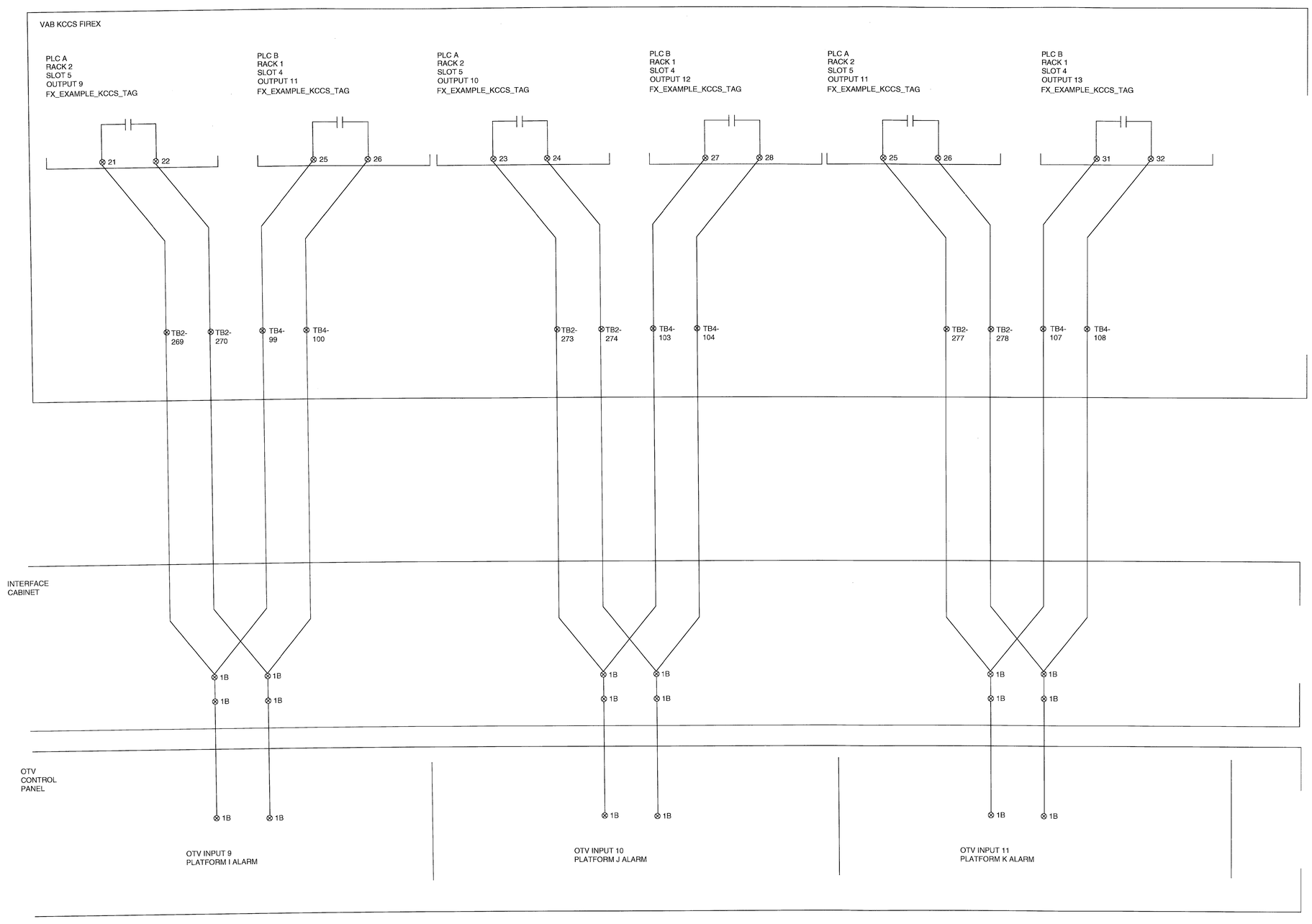
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E
CAMERA OUTPUTS 2

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TA-83B | PROJ. NO. NONE | SHEET 52 OF

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

NOTICE: WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/27/10
CHECKED	S. BROWN	9/27/10
ENGINEER	J.EATON	9/27/10
SUBMITTED		10/6/10
APPROVED		10/6/10
TITLE	IA-838	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E
CAMERA OUTPUTS 3

SIZE F | DWG. NO. 734E1100001 | REV -

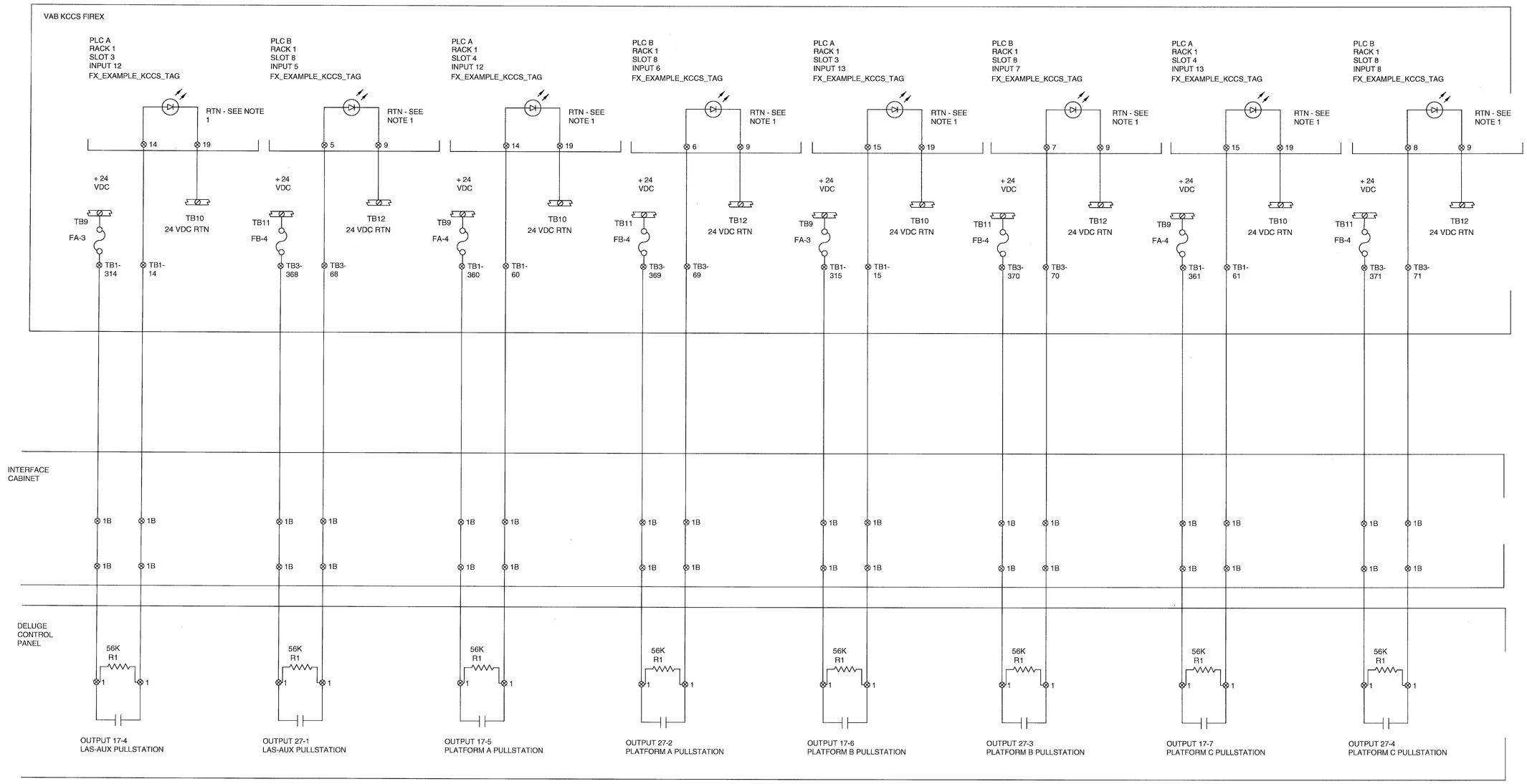
PROJ. NO. NONE | SHEET 53 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s053

E-52

KSC FORM 1-11 (REV. 3/76)
(CIS 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s054

E-53

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	J.S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E
PULL STATIONS 1

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE IA-B3B | PROJ. NO. NONE | SHEET 54 OF

KSC FORM 1-11 (REV. 3/76) (CFG 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC	RACK	SLOT	INPUT	TAG	Terminal	Wire	Fuse	Terminal	Wire
PLC A	1	3	14	FX_EXAMPLE_KCCS_TAG	16	TB1-316	TB9 FA-3	TB1-16	TB10 24 VDC RTN
PLC B	1	8	9	FX_EXAMPLE_KCCS_TAG	11	TB3-372	TB11 FB-4	TB3-72	TB12 24 VDC RTN
PLC A	1	4	14	FX_EXAMPLE_KCCS_TAG	16	TB1-362	TB9 FA-4	TB1-62	TB10 24 VDC RTN
PLC B	1	8	10	FX_EXAMPLE_KCCS_TAG	12	TB3-373	TB11 FB-4	TB3-73	TB12 24 VDC RTN
PLC A	1	3	15	FX_EXAMPLE_KCCS_TAG	17	TB1-317	TB9 FA-3	TB1-17	TB10 24 VDC RTN
PLC B	1	8	11	FX_EXAMPLE_KCCS_TAG	13	TB3-374	TB11 FB-4	TB3-74	TB12 24 VDC RTN
PLC A	1	4	15	FX_EXAMPLE_KCCS_TAG	17	TB1-363	TB9 FA-4	TB1-63	TB10 24 VDC RTN
PLC B	1	8	12	FX_EXAMPLE_KCCS_TAG	14	TB3-375	TB11 FB-4	TB3-75	TB12 24 VDC RTN

RTN - SEE NOTE 1 (19)

+ 24 VDC

INTERFACE CABINET

1B

DELUGE CONTROL PANEL

56K R1

Output	Location
OUTPUT 17-8	PLATFORM E PULLSTATION
OUTPUT 27-5	PLATFORM E PULLSTATION
OUTPUT 18-6	PLATFORM F-1 PULLSTATION
OUTPUT 27-6	PLATFORM F-1 PULLSTATION
OUTPUT 18-7	PLATFORM G PULLSTATION
OUTPUT 27-7	PLATFORM G PULLSTATION
OUTPUT 18-8	PLATFORM H PULLSTATION
OUTPUT 27-8	PLATFORM H PULLSTATION

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s055

E-54

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/6/10
APPROVED		10/8/10
TITLE	TA-B3B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E
PULL STATIONS 2

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 55 OF

KSC FORM 1-11 (REV. 3/76) (CIS 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A
RACK 1
SLOT 3
INPUT 16
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 1
SLOT 8
INPUT 13
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 1
SLOT 4
INPUT 16
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 1
SLOT 8
INPUT 14
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 1
SLOT 3
INPUT 17
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 1
SLOT 8
INPUT 15
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

18 19 | 15 19 | 18 19 | 16 19 | 21 29 | 17 19

+ 24 VDC

TB9 FA-3 | TB11 FB-4 | TB9 FA-4 | TB11 FB-4 | TB9 FA-3 | TB11 FB-4

TB10 24 VDC RTN | TB12 24 VDC RTN | TB10 24 VDC RTN | TB12 24 VDC RTN | TB10 24 VDC RTN | TB12 24 VDC RTN

TB1-318 TB1-18 | TB3-376 TB3-76 | TB1-364 TB1-64 | TB3-377 TB3-77 | TB1-319 TB1-19 | TB3-378 TB3-78

INTERFACE CABINET

1B 1B

DELUGE CONTROL PANEL

56K R1

1 1

OUTPUT 28-4
PLATFORM I PULLSTATION

OUTPUT 28-1
PLATFORM I PULLSTATION

OUTPUT 28-5
PLATFORM J PULLSTATION

OUTPUT 28-2
PLATFORM J PULLSTATION

OUTPUT 28-6
PLATFORM K PULLSTATION

OUTPUT 28-3
PLATFORM K PULLSTATION

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s056

E-55

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/24/10
CHECKED	S. BROWN	9/24/10
ENGINEER	J.EATON	9/24/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

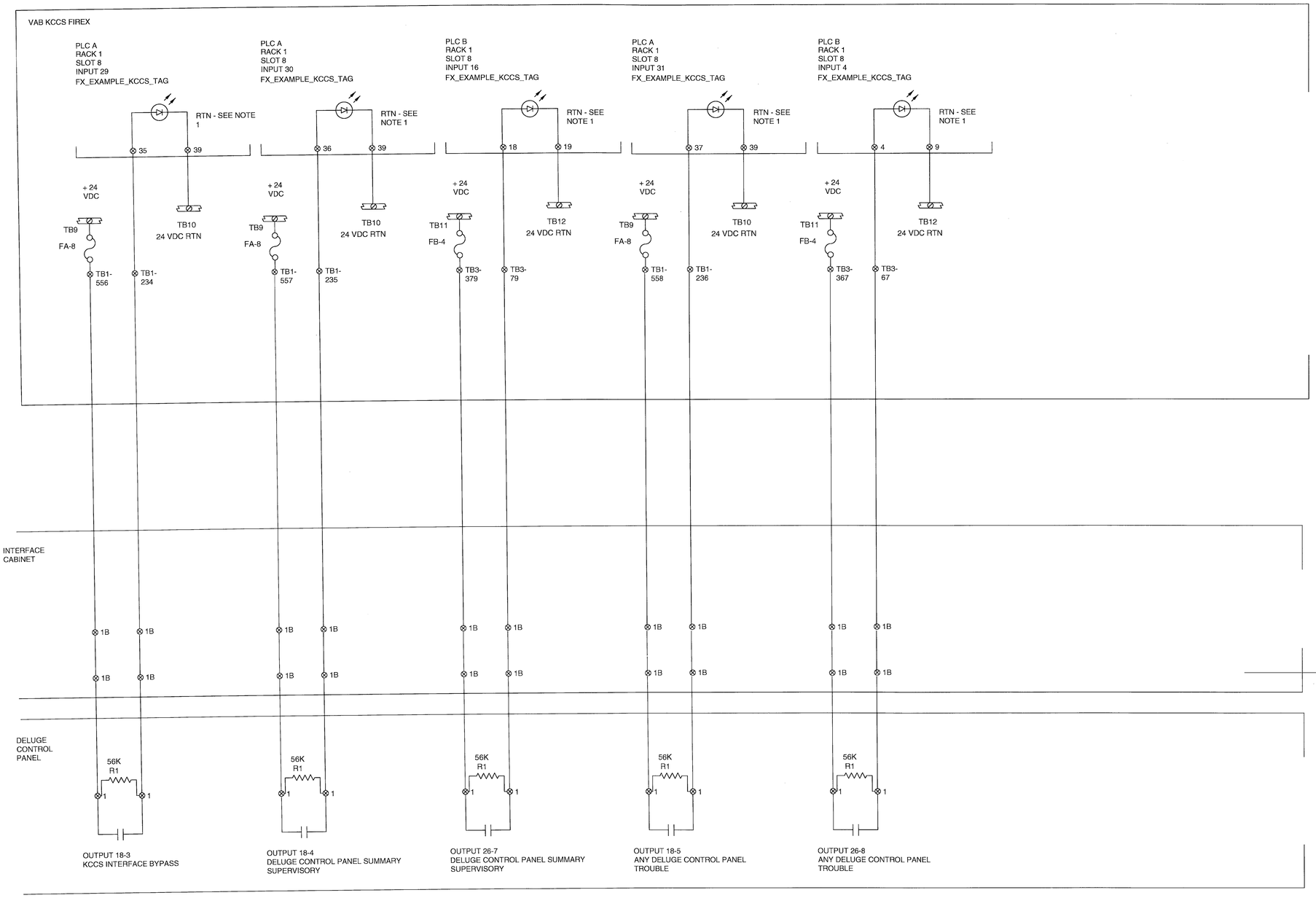
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E
PULL STATIONS 3

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TA-83B | PROJ. NO. NONE | SHEET 56 OF

KSC FORM 1-11 (REV. 3/78)
(CIG 10/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s057

E-56

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/24/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER E
HEALTH STATUS 1

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 57 OF

KSC FORM 1-11 (REV. 3/78) (OG 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A	PLC B	PLC A	PLC B	PLC A	PLC B	PLC A	PLC B
RACK 3	RACK 2	RACK 3	RACK 2	RACK 3	RACK 2	RACK 3	RACK 2
SLOT 11	SLOT 3	SLOT 12	SLOT 4	SLOT 13	SLOT 5	SLOT 11	SLOT 3
OUTPUT 1	OUTPUT 1	OUTPUT 1	OUTPUT 1	OUTPUT 1	OUTPUT 1	OUTPUT 2	OUTPUT 2
FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG
1 2	1 2	1 2	1 2	1 2	1 2	3 4	3 4
TB2-1 TB2-2 TB2-3 TB2-4	TB4-1 TB4-2 TB4-3 TB4-4	TB2-49 TB2-50 TB2-51 TB2-52	TB4-63 TB4-64 TB4-65 TB4-66	TB2-97 TB2-98 TB2-99 TB2-100	TB4-123 TB4-124 TB4-125 TB4-126	TB2-5 TB2-6 TB2-7 TB2-8	TB4-5 TB4-6 TB4-7 TB4-8

INTERFACE CABINET

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

DELUGE CONTROL PANEL

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

ZONE INPUT 1	ZONE INPUT 25	ZONE INPUT 2	ZONE INPUT 26	ZONE INPUT 3	ZONE INPUT 27	ZONE INPUT 4	ZONE INPUT 28
LAS-AUX, A AND B - PLC ARM CMD	LAS-AUX, A AND B - PLC ARM CMD	LAS-AUX, A AND B - PLC ACT CMD	LAS-AUX, A AND B - PLC ACT CMD	LAS-AUX, A AND B - PLC 3IR OVRD CMD	LAS-AUX, A AND B - PLC 3IR OVRD CMD	LAS-AUX, A AND B - PLC ARM CLOSE CMD	LAS-AUX, A AND B - PLC ARM CLOSE CMD

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s058

E-57

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

TITLE TA-B3B

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LAS-AUX, A AND B CMDS 1

SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 58 OF

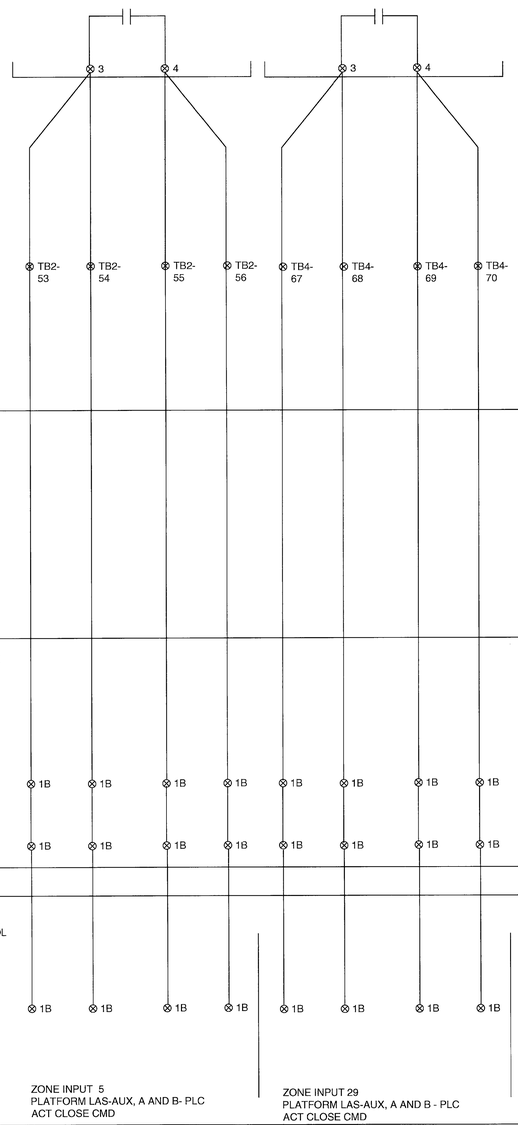
KSC FORM 1-11 (REV. 3/78)
(CIS 10/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY FOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A
RACK 3
SLOT 12
OUTPUT 2
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 4
OUTPUT 2
FX_EXAMPLE_KCCS_TAG



SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/25/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/25/10
SUBMITTED		10/4/10
APPROVED		DATE 10/8/10
TITLE		

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LAS-AUX, A AND B CMDS 2

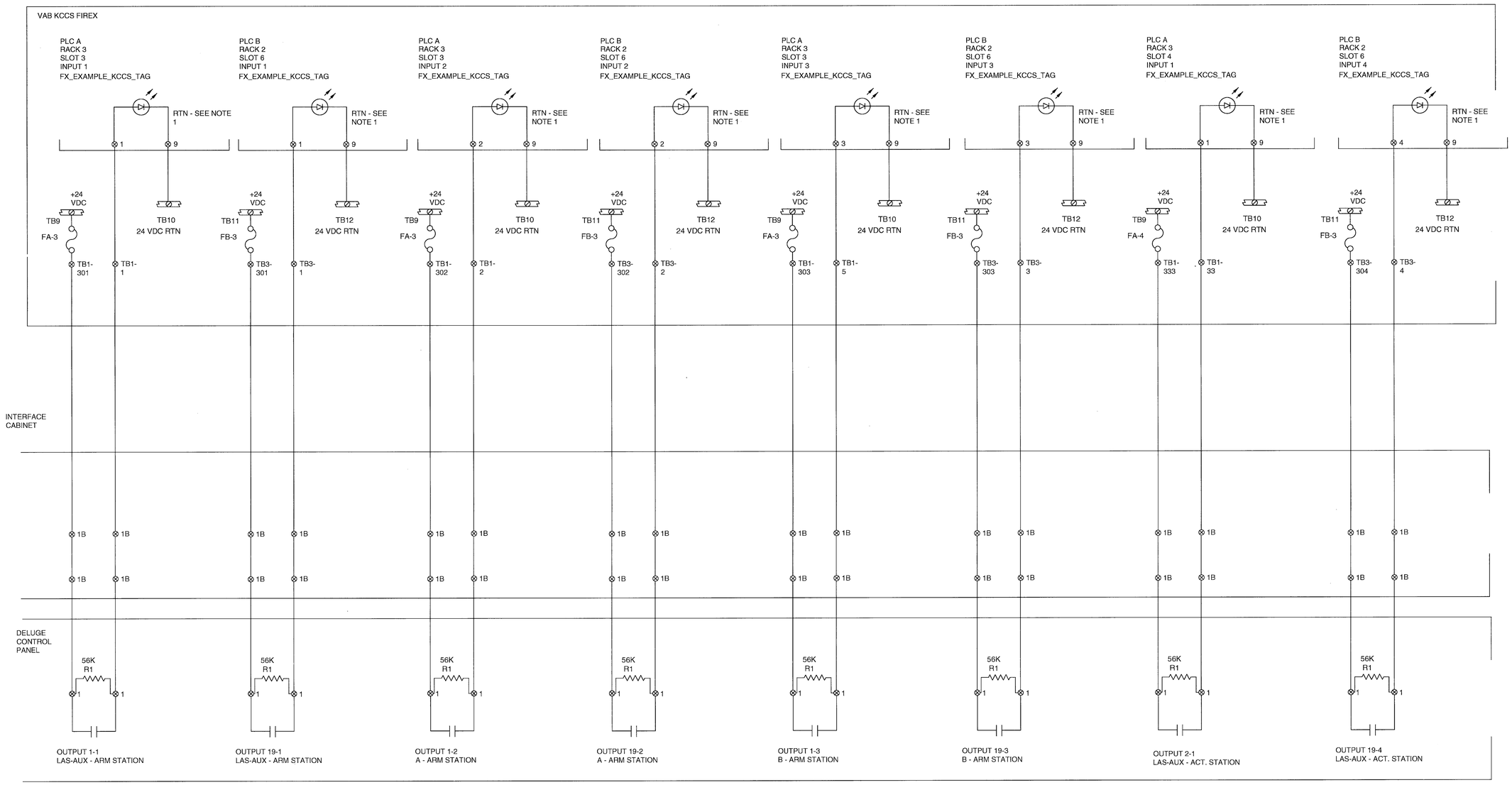
SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 59 OF	

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s059

E-58

KSC FORM 1-11 (REV. 3/76)
(D/G 13/80)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s060

E-59

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/24/10
CHECKED	S. BROWN	11/29/10
ENGINEER	J.EATON	9/24/10
SUBMITTED		12/8/10
APPROVED		12/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

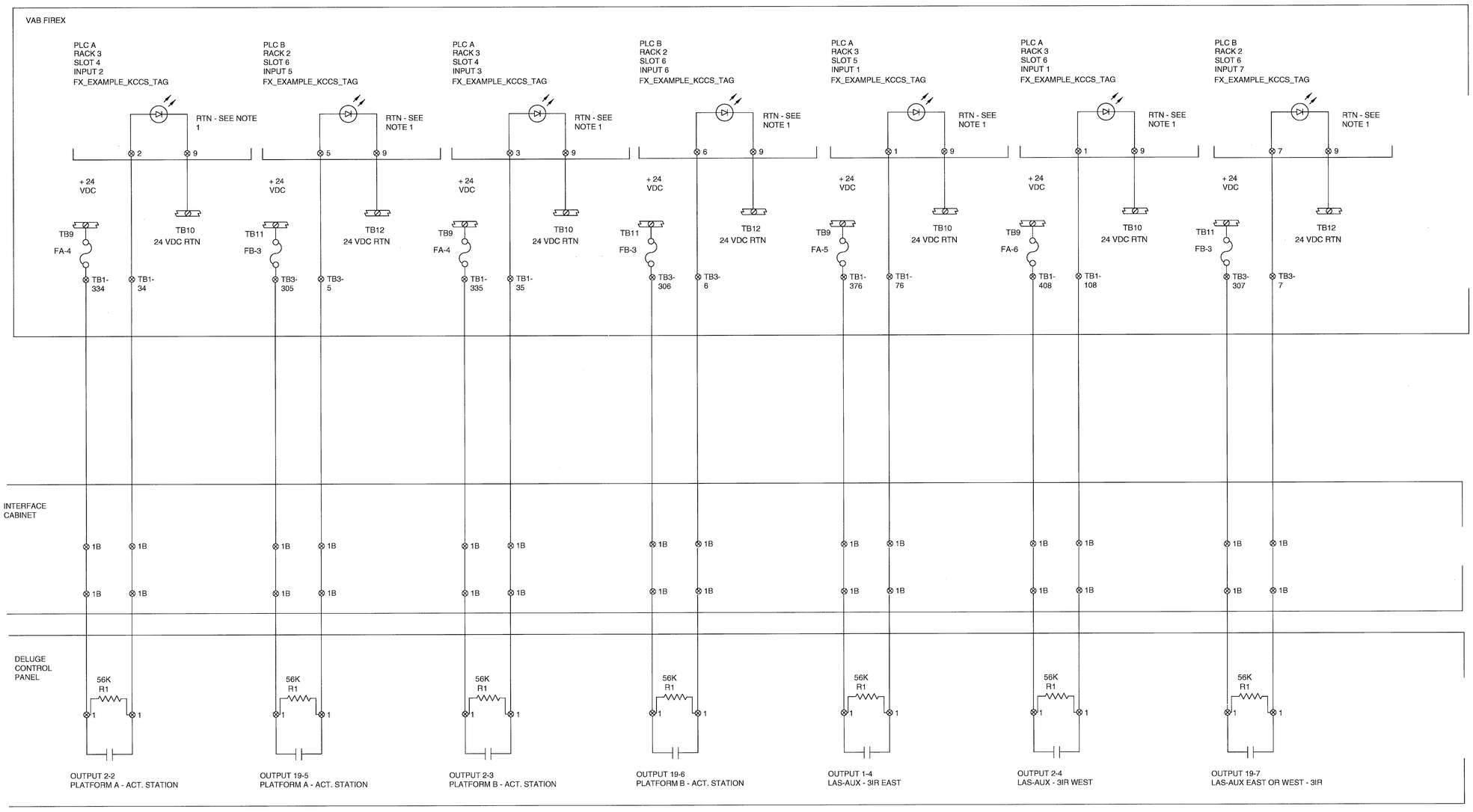
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LAS-AUX, A AND B INPUTS 1

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TA-B3B | PROJ. NO. NONE | SHEET 60 OF

KSC FORM 1-11 (REV. 3/78)
(CYG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s061

E-60

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/28/12
CHECKED	S. BROWN	9/28/12
ENGINEER	J.EATON	7/18/12
SUBMITTED		10/8/12
APPROVED		10/8/12
TITLE		

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

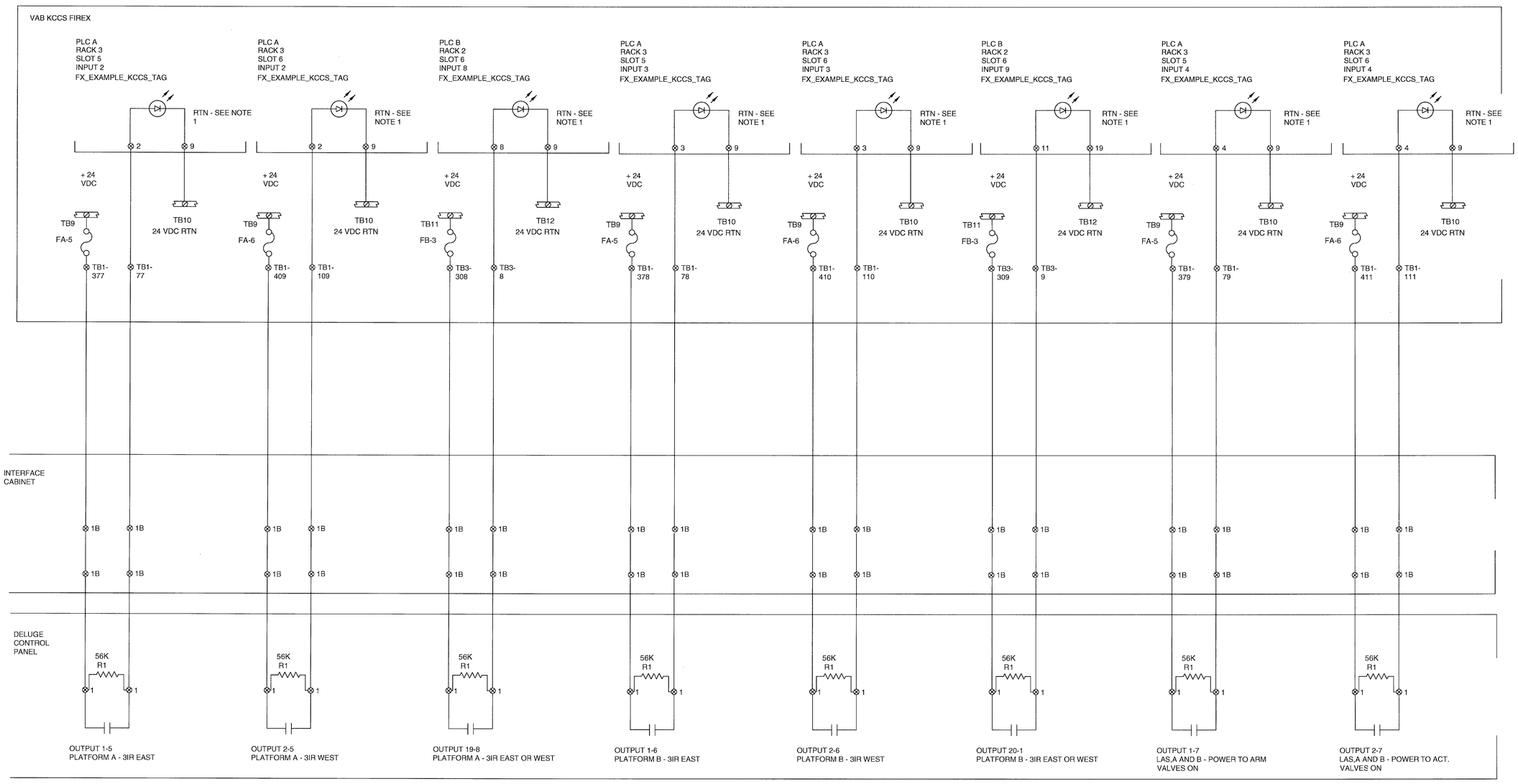
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LAS-AUX, A AND B INPUTS 2

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 61 OF	

KSC FORM 1-11 (REV. 3/76)
(CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURRES NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTES:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s062

E-61

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/23/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

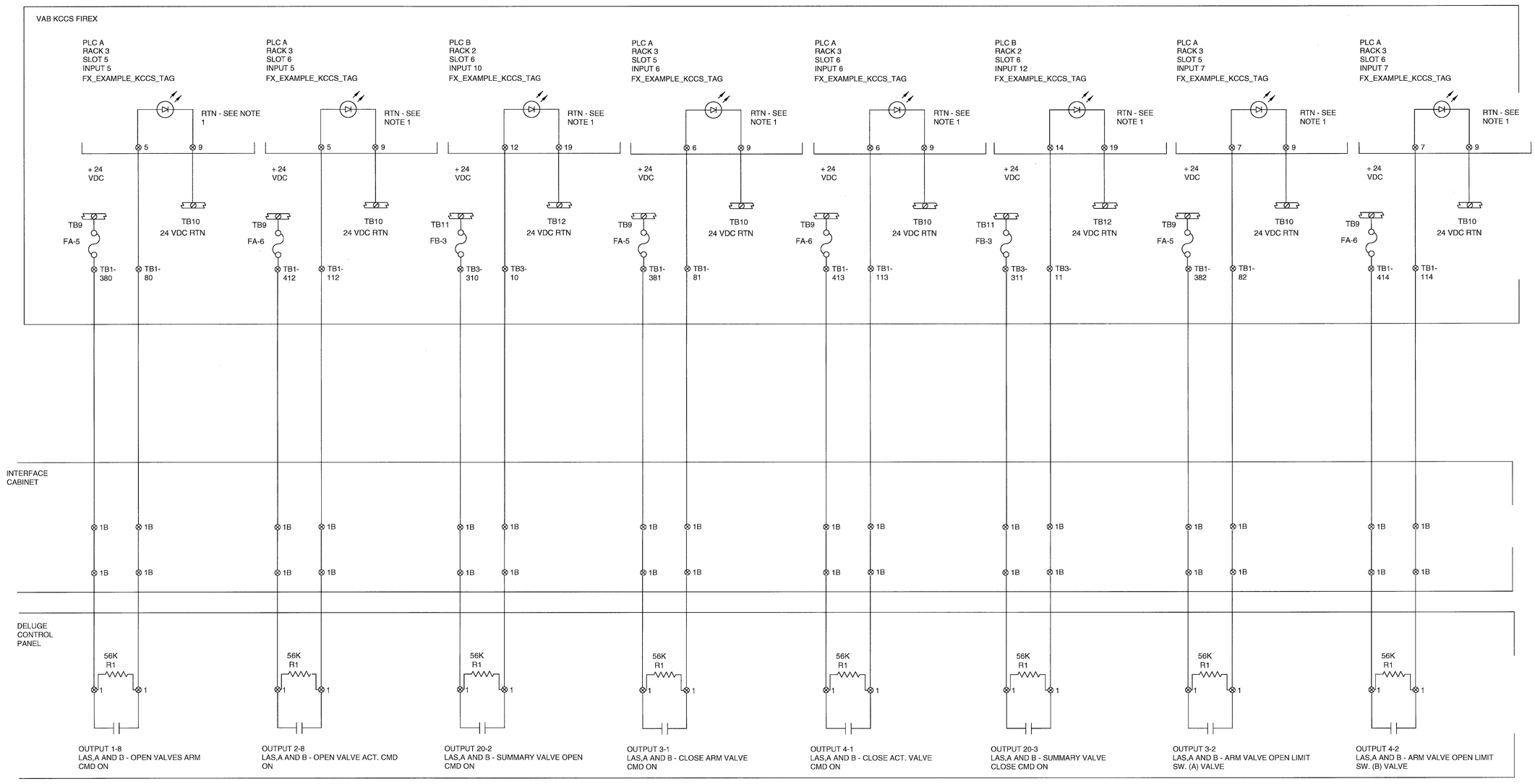
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LAS-AUX, A AND B INPUTS 3

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-830 | PROJ. NO. NONE | SHEET 62 OF

KSC FORM 1-11 (REV. 3/78) (CFS 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHERDATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTES:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s063

E-62

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	A-SCB	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

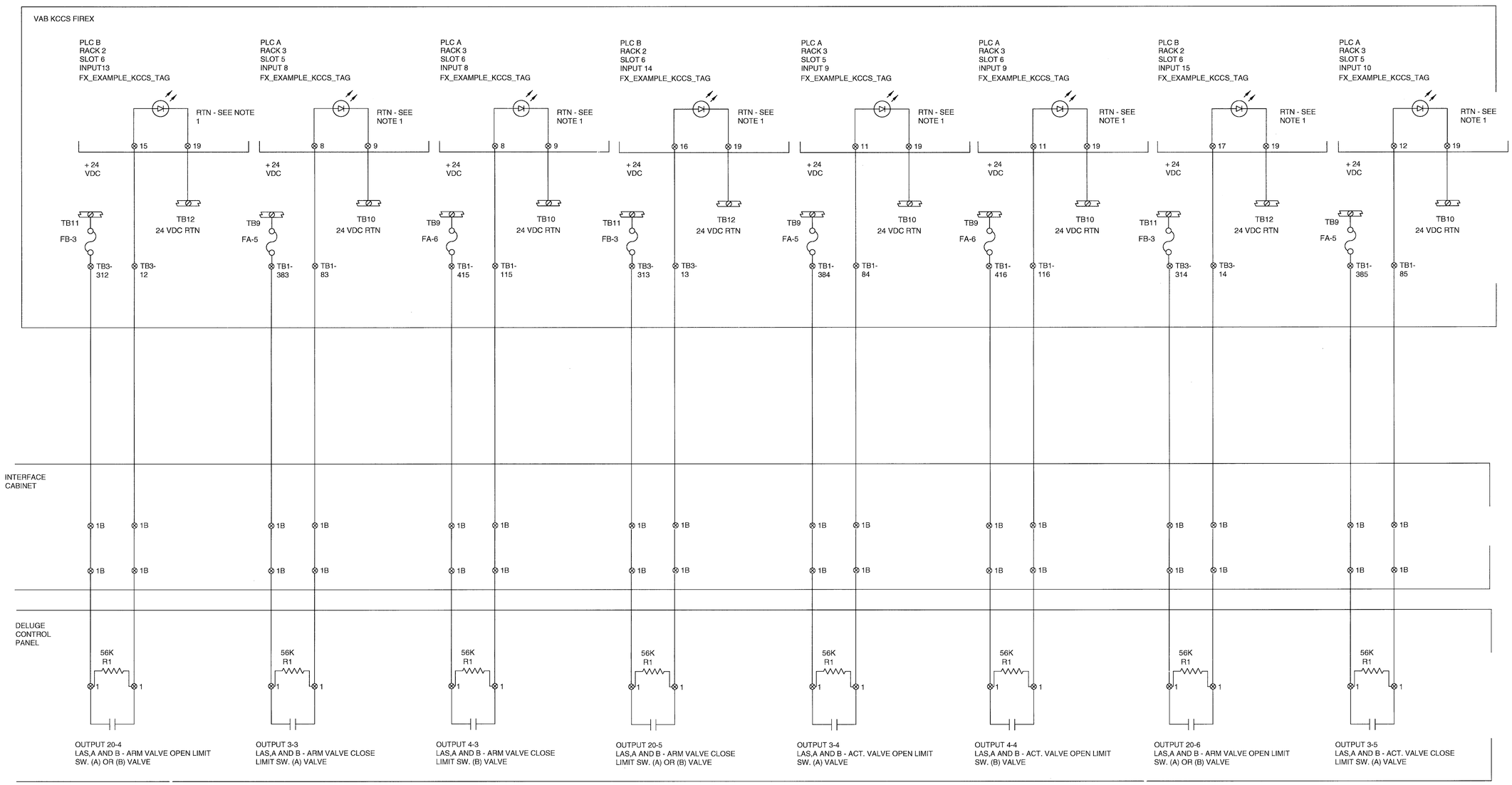
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS) TOWER F PLATFORM LAS-AUX, A AND B INPUTS 4

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 63 OF

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s064

E-63

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	5/27/10
CHECKED	S. BROWN	7/29/10
ENGINEER	J.EATON	7/27/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10
TITLE	TA-835	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

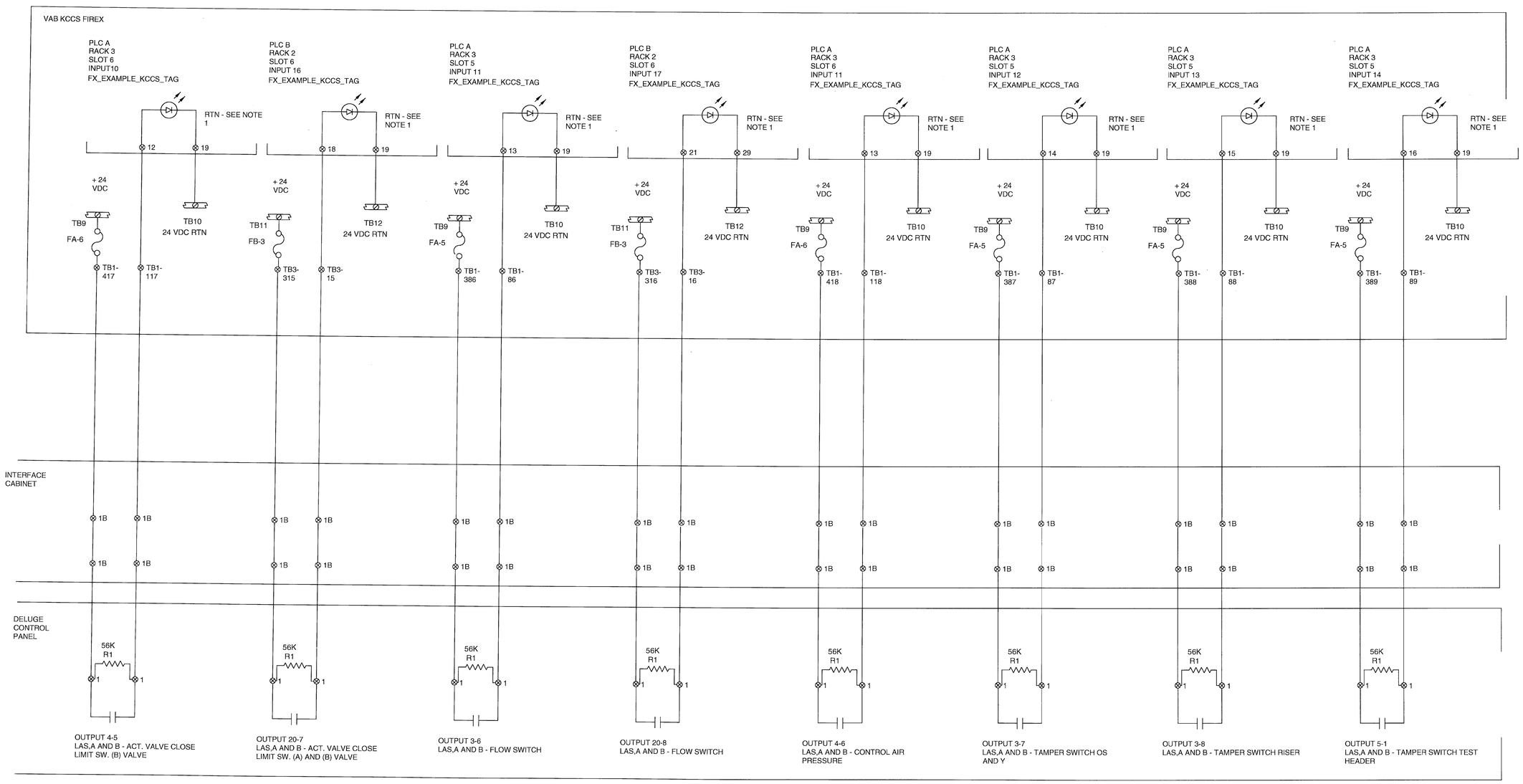
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LAS-AUX, A AND B INPUTS 5

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 64 OF

KSC FORM 1-11 (REV. 3/76) (CIG 10/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s065

E-64

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/6/10
APPROVED		10/6/10
TITLE	TA-03B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

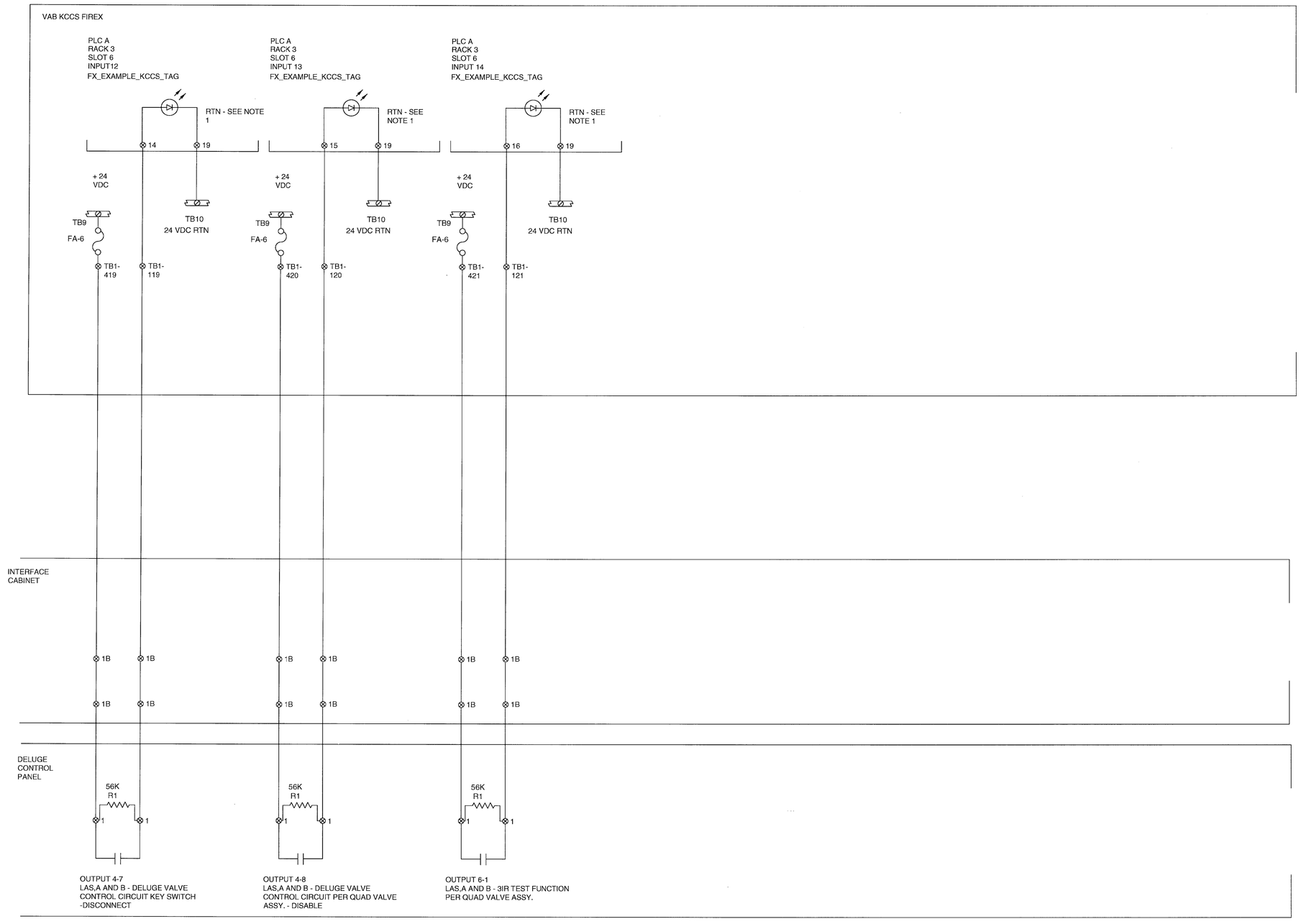
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LAS-AUX, A AND B INPUTS 6

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 65 OF

KSC FORM 1-11 (REV. 9/78)
(O/G 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s066

E-65

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/28/10
CHECKED	S. BROWN	7/29/10
ENGINEER	J.EATON	7/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LAS-AUX, A AND B INPUTS 7

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TA-83B | PROJ. NO. NONE | SHEET 66 OF

KSC FORM 1-11 (REV. 3/78) (O/S 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A RACK 3 SLOT 11 OUTPUT 3 FX_EXAMPLE_KCCS_TAG	PLC B RACK 2 SLOT 3 OUTPUT 3 FX_EXAMPLE_KCCS_TAG	PLC A RACK 3 SLOT 12 OUTPUT 3 FX_EXAMPLE_KCCS_TAG	PLC B RACK 2 SLOT 4 OUTPUT 3 FX_EXAMPLE_KCCS_TAG	PLC A RACK 3 SLOT 13 OUTPUT 2 FX_EXAMPLE_KCCS_TAG	PLC B RACK 2 SLOT 5 OUTPUT 2 FX_EXAMPLE_KCCS_TAG	PLC A RACK 3 SLOT 11 OUTPUT 4 FX_EXAMPLE_KCCS_TAG	PLC B RACK 2 SLOT 3 OUTPUT 4 FX_EXAMPLE_KCCS_TAG
5 6	5 6	5 6	5 6	3 4	3 4	7 8	7 8
TB2-9 TB2-10 TB2-11 TB2-12	TB4-9 TB4-10 TB4-11 TB4-12	TB2-57 TB2-58 TB2-59 TB2-60	TB4-71 TB4-72 TB4-73 TB4-74	TB2-101 TB2-102 TB2-103 TB2-104	TB4-127 TB4-128 TB4-129 TB4-130	TB2-13 TB2-14 TB2-15 TB2-16	TB4-13 TB4-14 TB4-15 TB4-16

INTERFACE CABINET

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

DELUGE CONTROL PANEL

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

ZONE INPUT 6 LEVEL C AND E - PLC ARM CMD	ZONE INPUT 30 LEVEL C AND E - PLC ARM CMD	ZONE INPUT 7 LEVEL C AND E - PLC ACT CMD	ZONE INPUT 31 LEVEL C AND E - PLC ACT CMD	ZONE INPUT 8 LEVEL C AND E - PLC 3IR OVERRIDE CMD	ZONE INPUT 32 LEVEL C AND E - PLC 3IR OVERRIDE CMD	ZONE INPUT 9 LEVEL C AND E - PLC ARM CLOSE CMD	ZONE INPUT 33 LEVEL C AND E - PLC ARM CLOSE CMD

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	5/09/10
CHECKED	S. BROWN	7/29/10
ENGINEER	J.EATON	7/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LEVEL C AND E CMDS 1

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE 74-836 | PROJ. NO. NONE | SHEET 67 OF

E-66

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s067

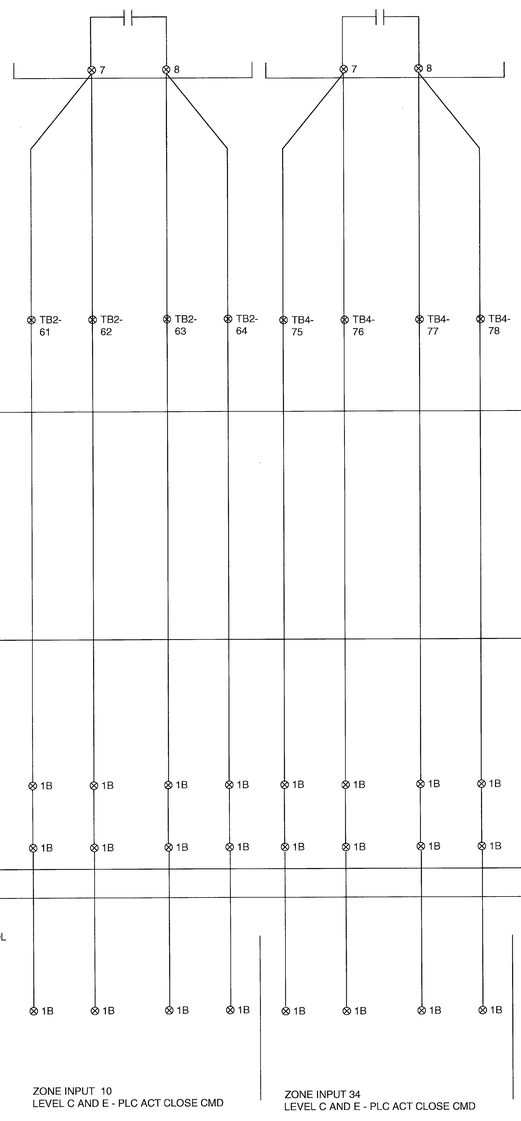
KSC FORM 1-11 (REV. 3/76)
(C/G 19/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY FOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER, LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A
RACK 3
SLOT 12
OUTPUT 4
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 4
OUTPUT 4
FX_EXAMPLE_KCCS_TAG



SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

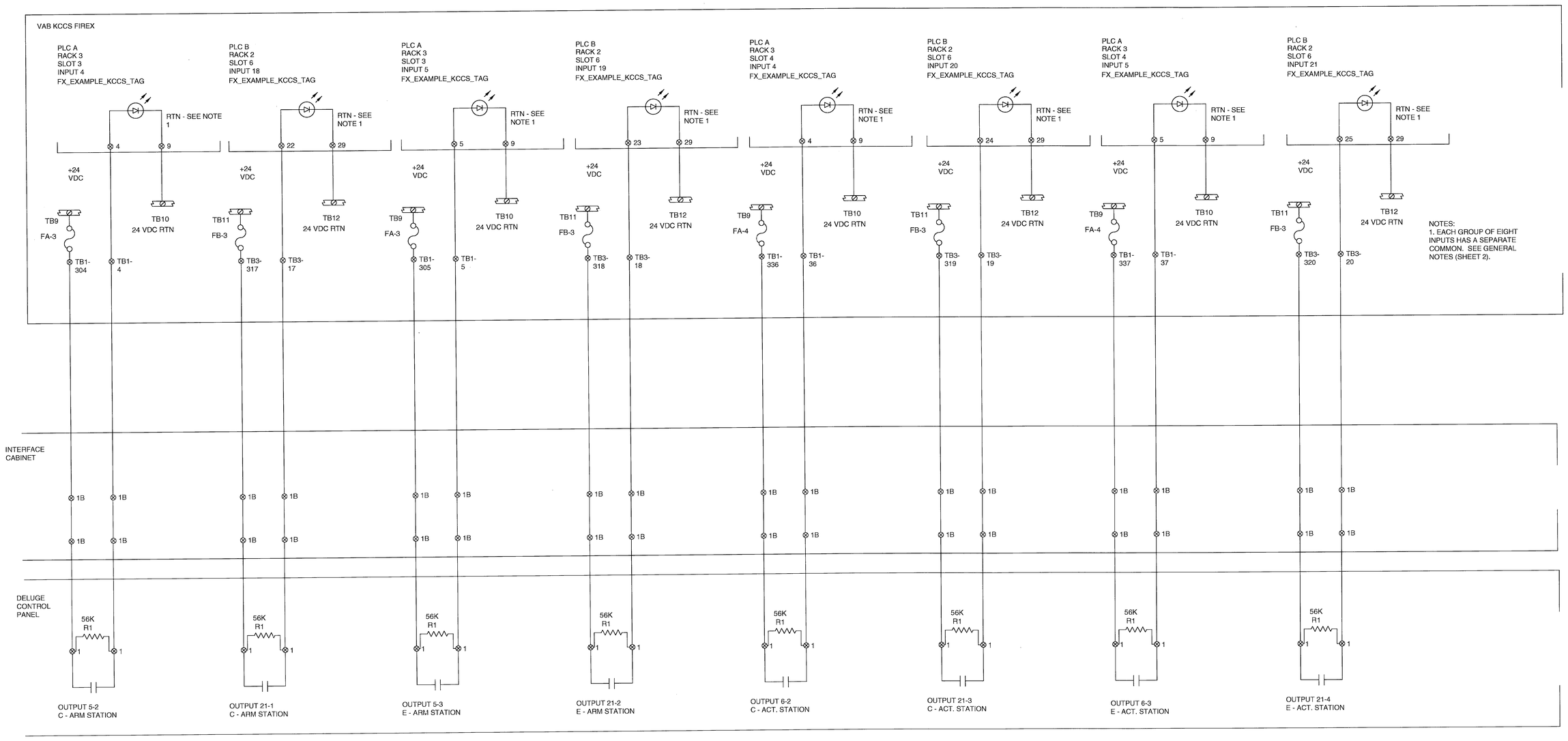
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LEVEL C AND E CMDS 2

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 68 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s068

E-67

KSC FORM 1-11 (REV. 3/76)
(CIG 12/92)



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s069

E-68

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

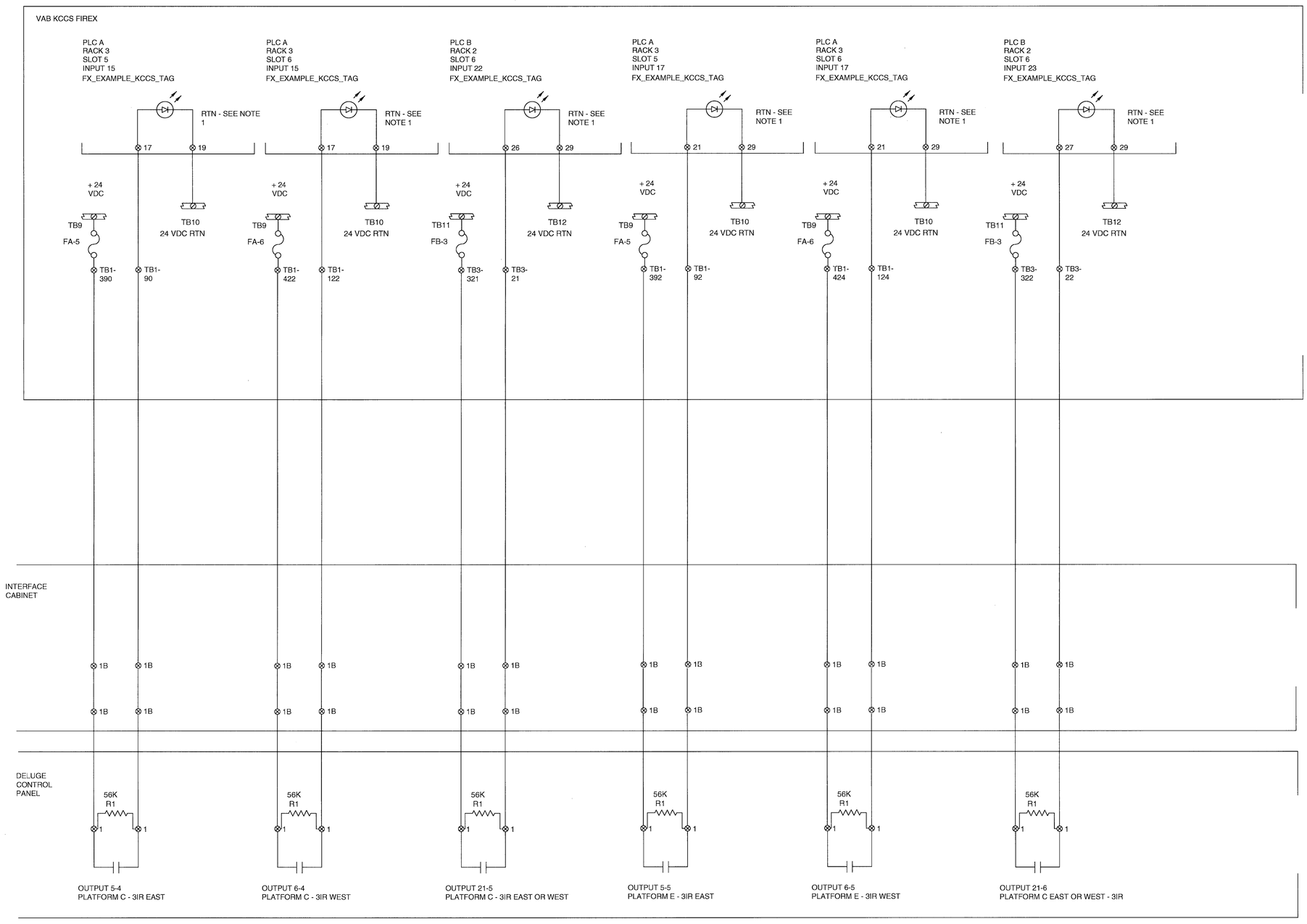
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LEVEL C AND E INPUTS 1

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 69 OF

KSC FORM 1-11 (REV. 3/78) (CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s070

E-69

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/28/10
CHECKED	J. BROWN	7/28/10
ENGINEER	J.EATON	7/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

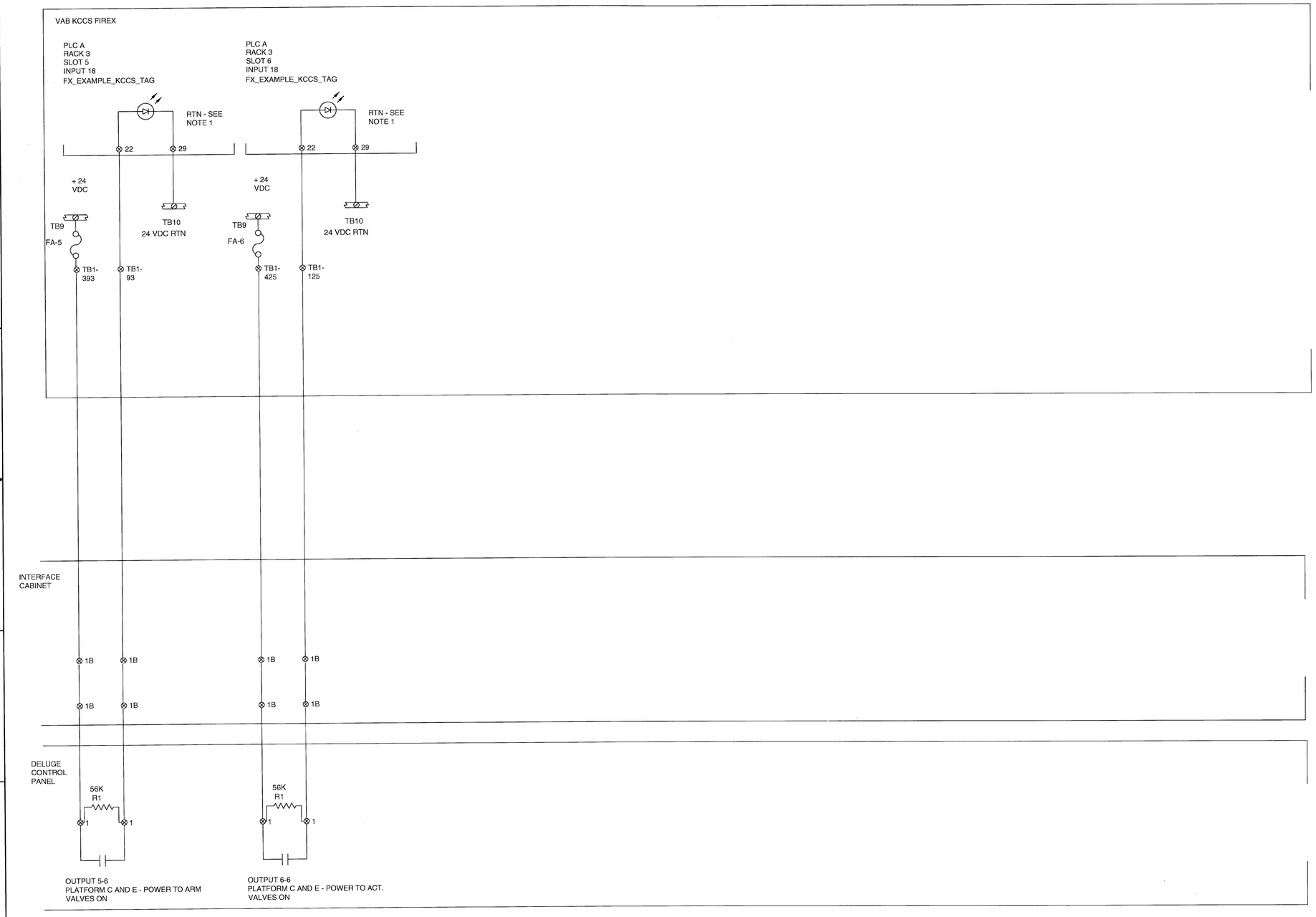
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LEVEL C AND E INPUTS 2

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TA-B3B | PROJ. NO. NONE | SHEET 70 OF

KSC FORM 1-11 (REV. 3/76) (CIS 12/92)

NOTICE: WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/6/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LEVEL C AND E INPUTS 3

SIZE F | DWG. NO. 734E1100001 | REV -

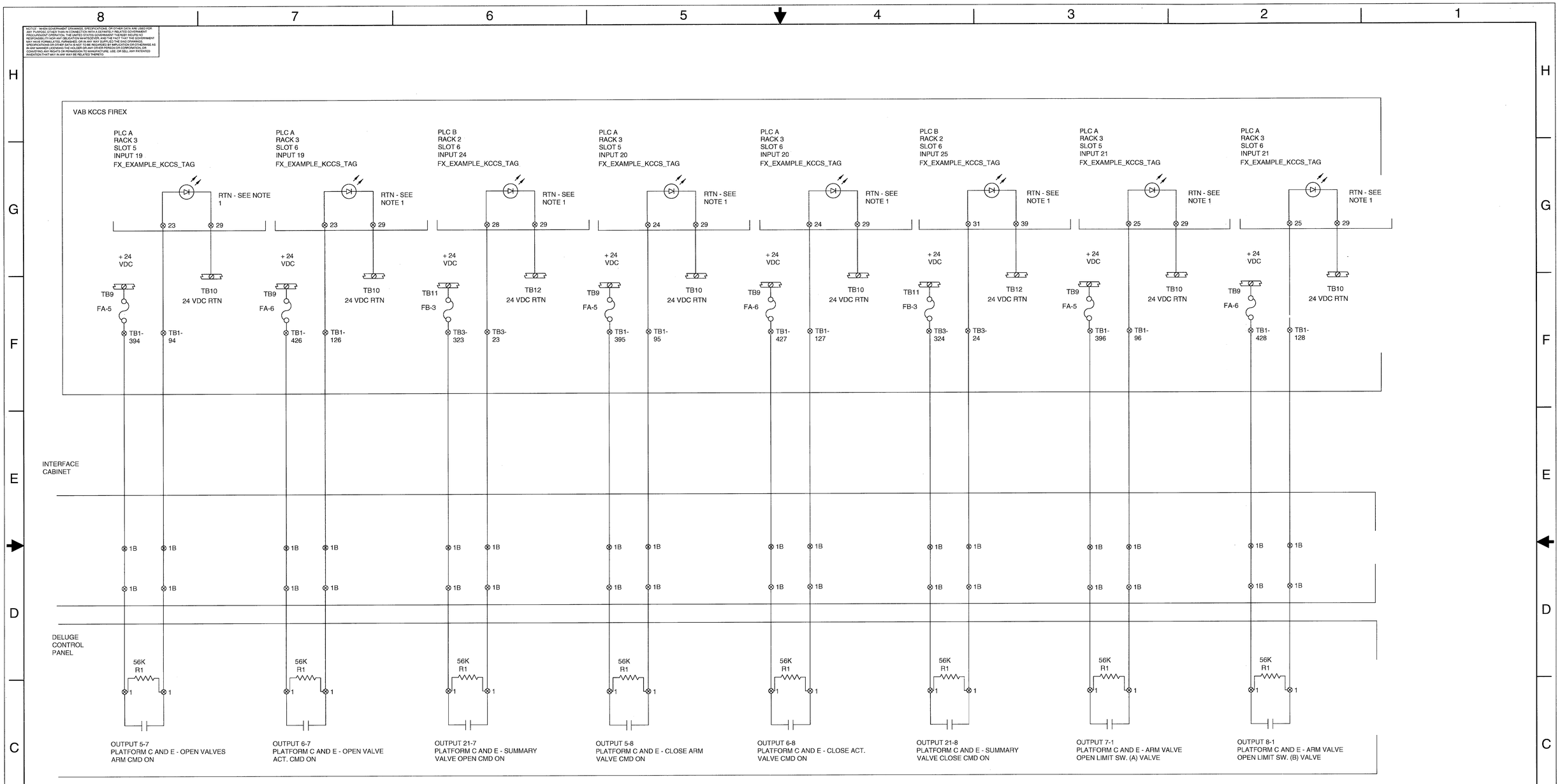
TITLE TP-B3B | PROJ. NO. NONE | SHEET 71 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s071

E-70

KSC FORM 1-11 (REV. 3/76)
(CIG 12/82)

NOTICE: WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s072

E-71

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	8/28/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

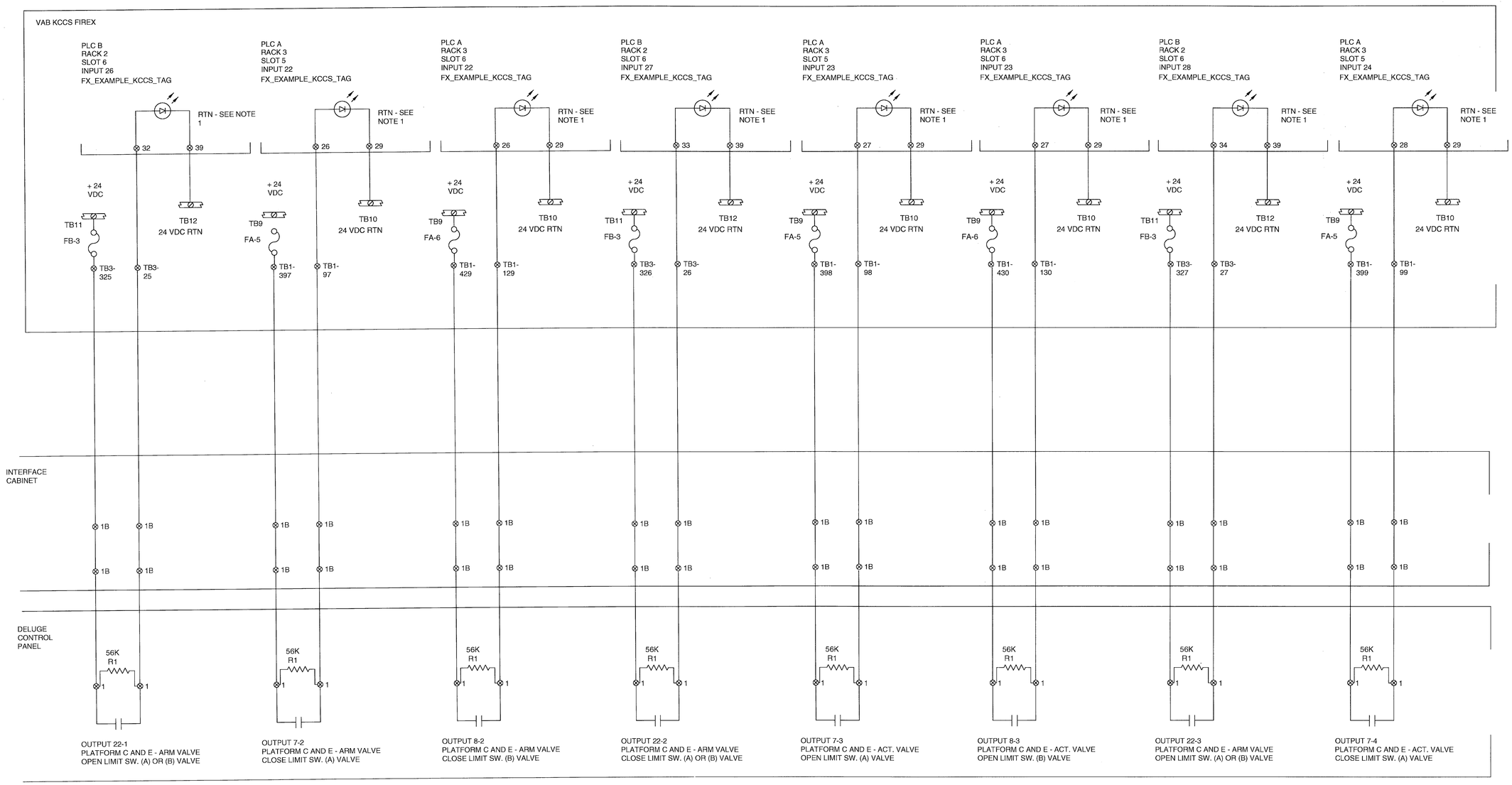
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LEVEL C AND E INPUTS 4

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 72 OF

KSC FORM 1-11 (REV. 3/76) (C/O 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY WAY LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s073

E-72

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LEVEL C AND E INPUTS 5

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-B3B | PROJ. NO. NONE | SHEET 73 OF

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC	RACK	SLOT	INPUT	TAG	TB	TERM	FA	TB1	TB1
A	3	6	24	FX_EXAMPLE_KCCS_TAG	TB9	28	FA-6	TB1-431	TB1-131
B	2	6	29	FX_EXAMPLE_KCCS_TAG	TB11	35	FB-3	TB3-328	TB3-28
A	3	5	25	FX_EXAMPLE_KCCS_TAG	TB9	31	FA-5	TB1-400	TB1-100
B	2	6	30	FX_EXAMPLE_KCCS_TAG	TB11	36	FB-3	TB3-329	TB3-29
A	3	6	25	FX_EXAMPLE_KCCS_TAG	TB9	31	FA-6	TB1-432	TB1-132
A	3	5	26	FX_EXAMPLE_KCCS_TAG	TB9	32	FA-5	TB1-401	TB1-101
A	3	5	27	FX_EXAMPLE_KCCS_TAG	TB9	33	FA-5	TB1-402	TB1-102
A	3	5	28	FX_EXAMPLE_KCCS_TAG	TB9	34	FA-5	TB1-403	TB1-103

RTN - SEE NOTE 1

+ 24 VDC

TB10 24 VDC RTN / TB12 24 VDC RTN

INTERFACE CABINET

1B

DELUGE CONTROL PANEL

56K R1

OUTPUT 8-4	PLATFORM C AND E - ACT. VALVE CLOSE LIMIT SW. (B) VALVE
OUTPUT 22-4	PLATFORM C AND E - ACT. VALVE CLOSE LIMIT SW. (A) AND (B) VALVE
OUTPUT 7-5	PLATFORM C AND E - FLOW SWITCH
OUTPUT 22-5	PLATFORM C AND E - FLOW SWITCH
OUTPUT 8-5	PLATFORM C AND E - CONTROL AIR PRESSURE
OUTPUT 7-6	PLATFORM C AND E - TAMPER SWITCH OS AND Y
OUTPUT 7-7	PLATFORM C AND E - TAMPER SWITCH RISER
OUTPUT 7-8	PLATFORM C AND E - TAMPER SWITCH TEST HEADER

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s074

E-73

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/30/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

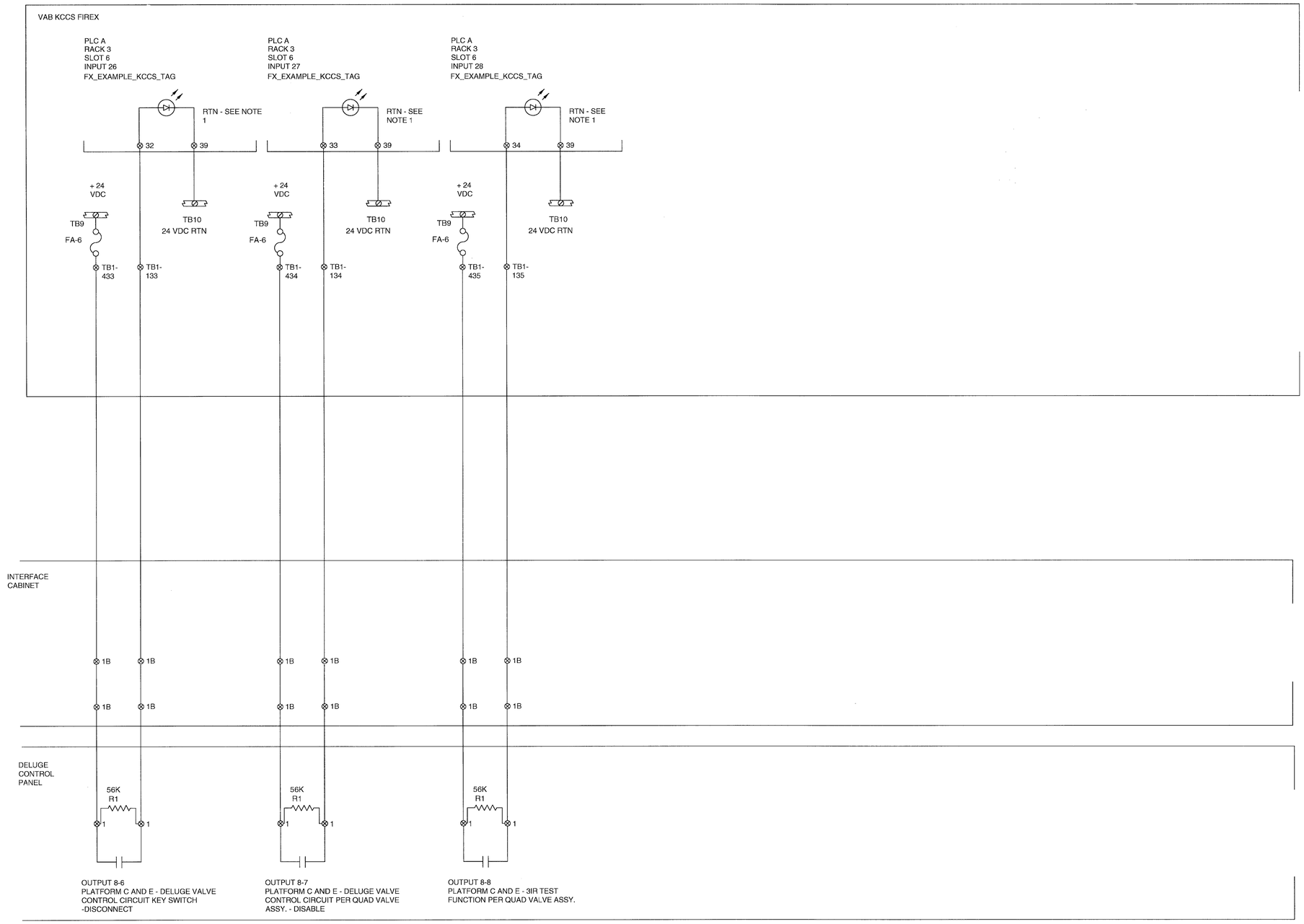
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LEVEL C AND E INPUTS 6

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TA-63B | PROJ. NO. NONE | SHEET 74 OF

KSC FORM 1-11 (REV. 3/78) (D/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITE Y RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s075

E-74

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/28/10
CHECKED	S. BROWN	9/09/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
LEVEL C AND E INPUTS 7

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-838 | PROJ. NO. NONE | SHEET 75 OF

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

NOTICE : WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A	PLC B	PLC A	PLC B	PLC A	PLC B	PLC A	PLC B
RACK 3	RACK 2	RACK 3	RACK 2	RACK 3	RACK 2	RACK 3	RACK 2
SLOT 11	SLOT 3	SLOT 12	SLOT 4	SLOT 13	SLOT 5	SLOT 11	SLOT 3
OUTPUT 5	OUTPUT 5	OUTPUT 5	OUTPUT 5	OUTPUT 3	OUTPUT 3	OUTPUT 6	OUTPUT 6
FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG
11 12	11 12	11 12	11 12	5 6	5 6	13 14	13 14
TB2-17 TB2-18 TB2-19 TB2-20	TB4-17 TB4-18 TB4-19 TB4-20	TB2-65 TB2-66 TB2-67 TB2-68	TB4-79 TB4-80 TB4-81 TB4-82	TB2-105 TB2-106 TB2-107 TB2-108	TB4-131 TB4-132 TB4-133 TB4-134	TB2-21 TB2-22 TB2-23 TB2-24	TB4-21 TB4-22 TB4-23 TB4-24

INTERFACE CABINET

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

DELUGE CONTROL PANEL

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

ZONE INPUT 11	ZONE INPUT 35	ZONE INPUT 12	ZONE INPUT 36	ZONE INPUT 13	ZONE INPUT 37	ZONE INPUT 14	ZONE INPUT 38
PLATFORM F1, G AND H - PLC ARM CMD	PLATFORM F1, G AND H - PLC ARM CMD	PLATFORM F1, G AND H - PLC ACT CMD	PLATFORM F1, G AND H - PLC ACT CMD	PLATFORM F1, G AND H - PLC 3IR OVRD CMD	PLATFORM F1, G AND H - PLC 3IR OVRD CMD	PLATFORM F1, G AND H - PLC ARM CLOSE CMD	PLATFORM F1, G AND H - PLC ARM CLOSE CMD

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/23/10
CHECKED	S. BROWN	9/23/10
ENGINEER	J.EATON	9/23/10
SUBMITTED		10/5/10
APPROVED		DATE 10/5/10
TITLE	IA-03B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
F1, G AND H CMDS 1

SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 76 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s076

E-75

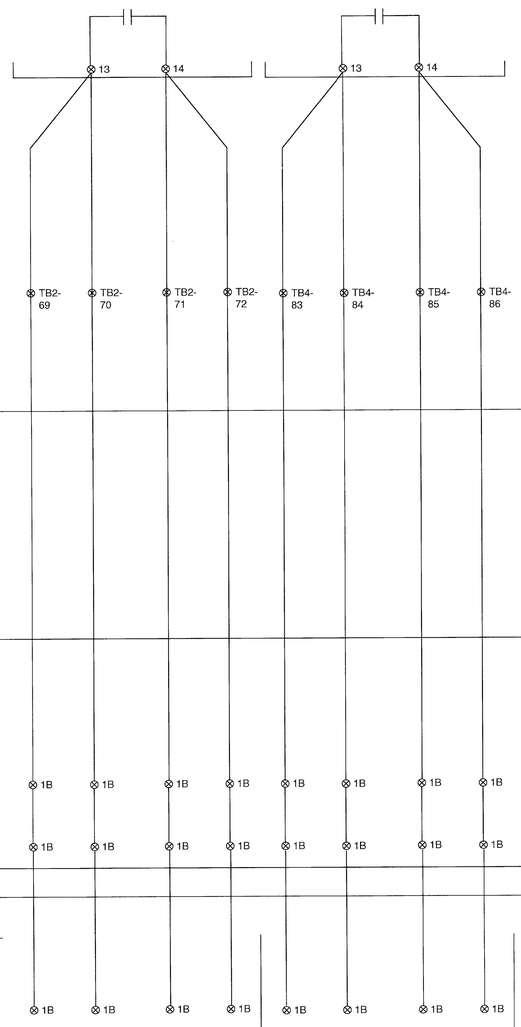
KSC FORM 1-1-1 (REV. 3/76)
(CFG 13/50)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A
RACK 3
SLOT 12
OUTPUT 6
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 4
OUTPUT 6
FX_EXAMPLE_KCCS_TAG



SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J. EATON	7/29/10
CHECKED	S. BROWN	8/30/10
ENGINEER	J. EATON	9/26/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10
TITLE TA-03B		

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

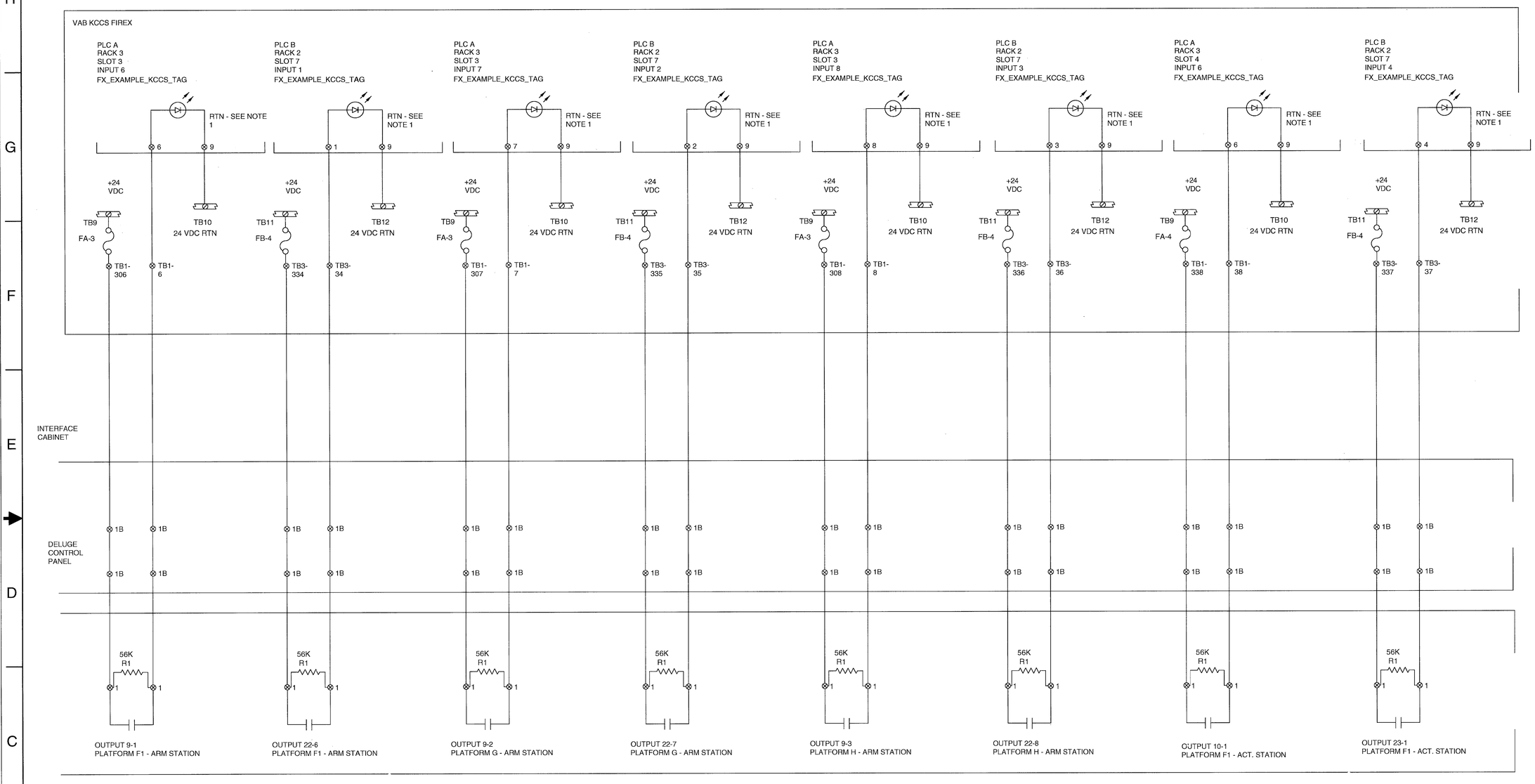
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
F1, G AND H CMDS 2

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 77 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s077

E-76

KSC FORM 1-11 (REV. 3/76)
(CIS 13/92)



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s078

E-77

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

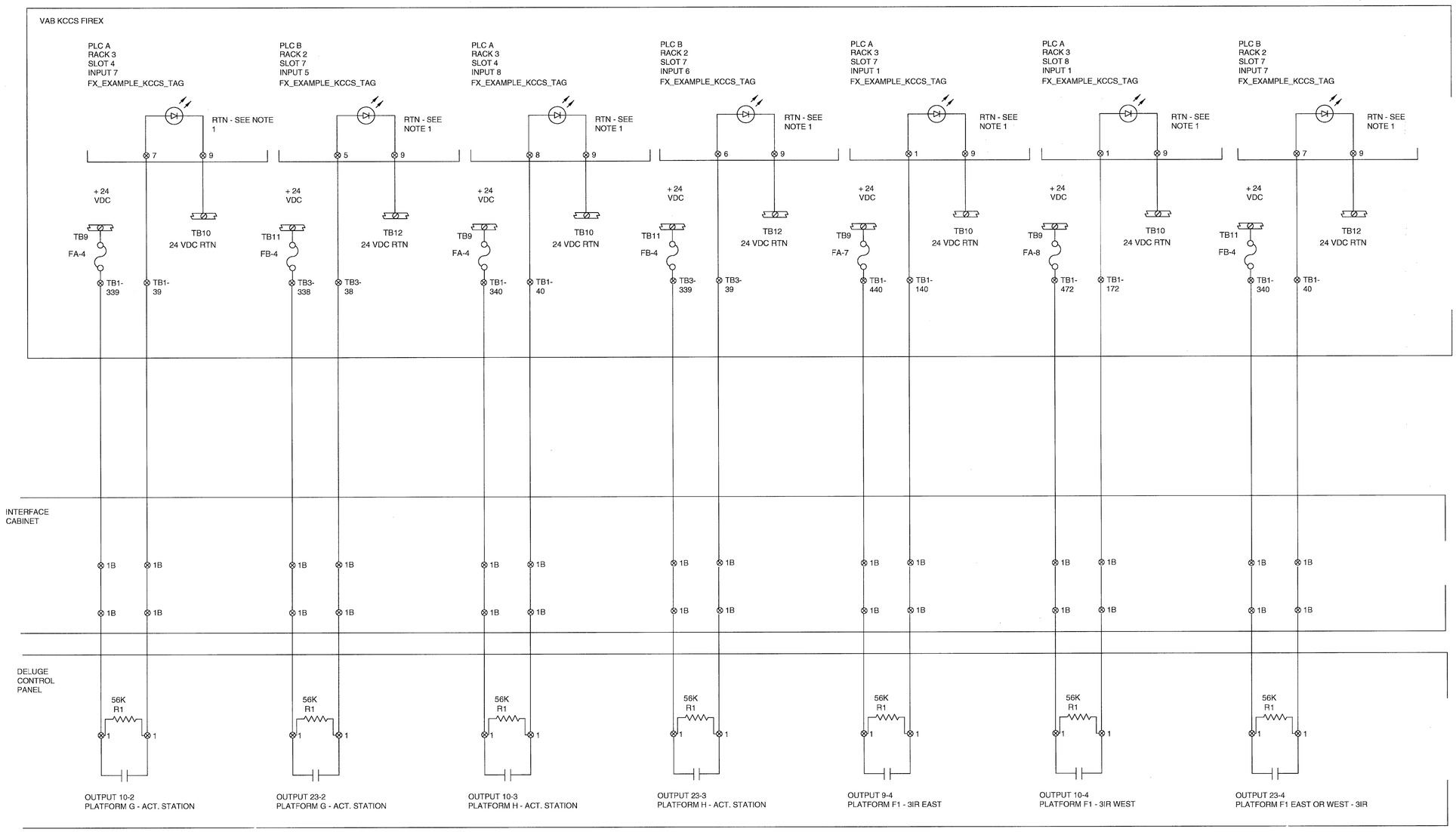
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
F1, G AND H INPUTS 1

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 78 OF

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s079

E-78

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

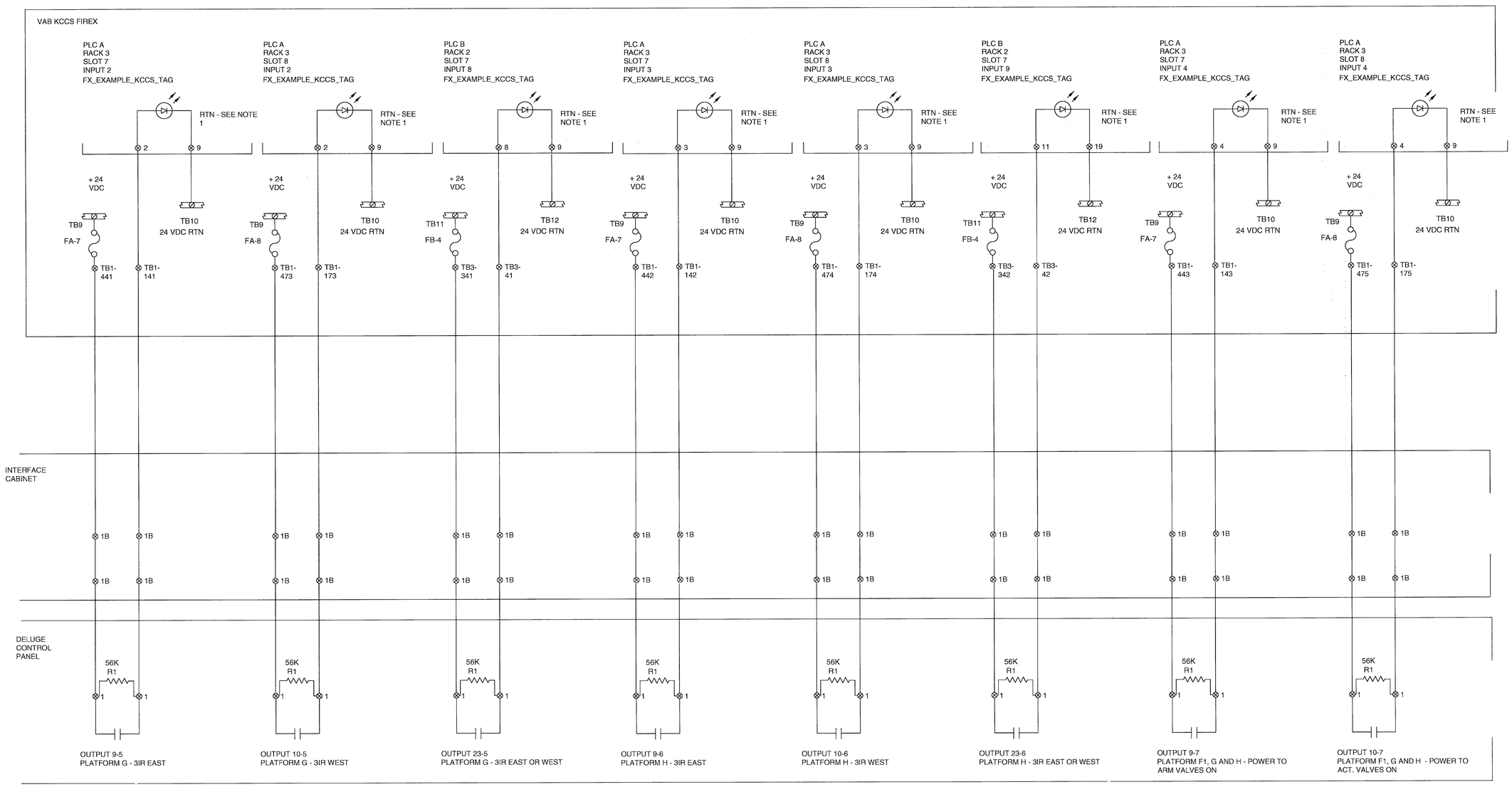
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
F1, G AND H INPUTS 2

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 79 OF

KSC FORM 1-11 (REV. 378) (CFD 12/92)

NOTICE : WHICH GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHTS OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s080

E-79

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/6/10
APPROVED		10/6/10
TITLE	TA-63B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
F1, G AND H INPUTS 3

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 80 OF	

KSC FORM 1-11 (REV. 3/76)
(CFG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC	RACK	SLOT	INPUT	TAG	RTN	+ 24 VDC	TB	FA	TB1-	TB1-
PLC A	3	7	5	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	+ 24 VDC	TB9	FA-7	TB1-444	TB1-144
PLC A	3	8	5	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	+ 24 VDC	TB9	FA-8	TB1-476	TB1-176
PLC B	2	7	10	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	+ 24 VDC	TB11	FB-4	TB3-343	TB3-43
PLC A	3	7	6	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	+ 24 VDC	TB9	FA-7	TB1-445	TB1-145
PLC A	3	8	6	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	+ 24 VDC	TB9	FA-8	TB1-477	TB1-177
PLC B	2	7	12	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	+ 24 VDC	TB11	FB-4	TB3-344	TB3-44
PLC A	3	7	7	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	+ 24 VDC	TB9	FA-7	TB1-446	TB1-146
PLC A	3	8	7	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	+ 24 VDC	TB9	FA-8	TB1-478	TB1-178

Contacts	TB	Terminal
5, 9	TB10	24 VDC RTN
5, 9	TB10	24 VDC RTN
12, 19	TB12	24 VDC RTN
6, 9	TB10	24 VDC RTN
6, 9	TB10	24 VDC RTN
14, 19	TB12	24 VDC RTN
7, 9	TB10	24 VDC RTN
7, 9	TB10	24 VDC RTN

INTERFACE CABINET

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

DELUGE CONTROL PANEL

56K R1 (1 1)

Output	Description
OUTPUT 9-8	PLATFORM F1, G AND H - OPEN VALVES ARM CMD ON
OUTPUT 10-8	PLATFORM F1, G AND H - OPEN VALVE ACT. CMD ON
OUTPUT 23-7	PLATFORM F1, G AND H - SUMMARY VALVE OPEN CMD ON
OUTPUT 11-1	PLATFORM F1, G AND H - CLOSE ARM VALVE CMD ON
OUTPUT 12-1	PLATFORM F1, G AND H - CLOSE ACT. VALVE CMD ON
OUTPUT 23-8	PLATFORM F1, G AND H - SUMMARY VALVE CLOSE CMD ON
OUTPUT 11-2	PLATFORM F1, G AND H - ARM VALVE OPEN LIMIT SW. (A) VALVE
OUTPUT 12-2	PLATFORM F1, G AND H - ARM VALVE OPEN LIMIT SW. (B) VALVE

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s081

E-80

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10

TITLE FA-838

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

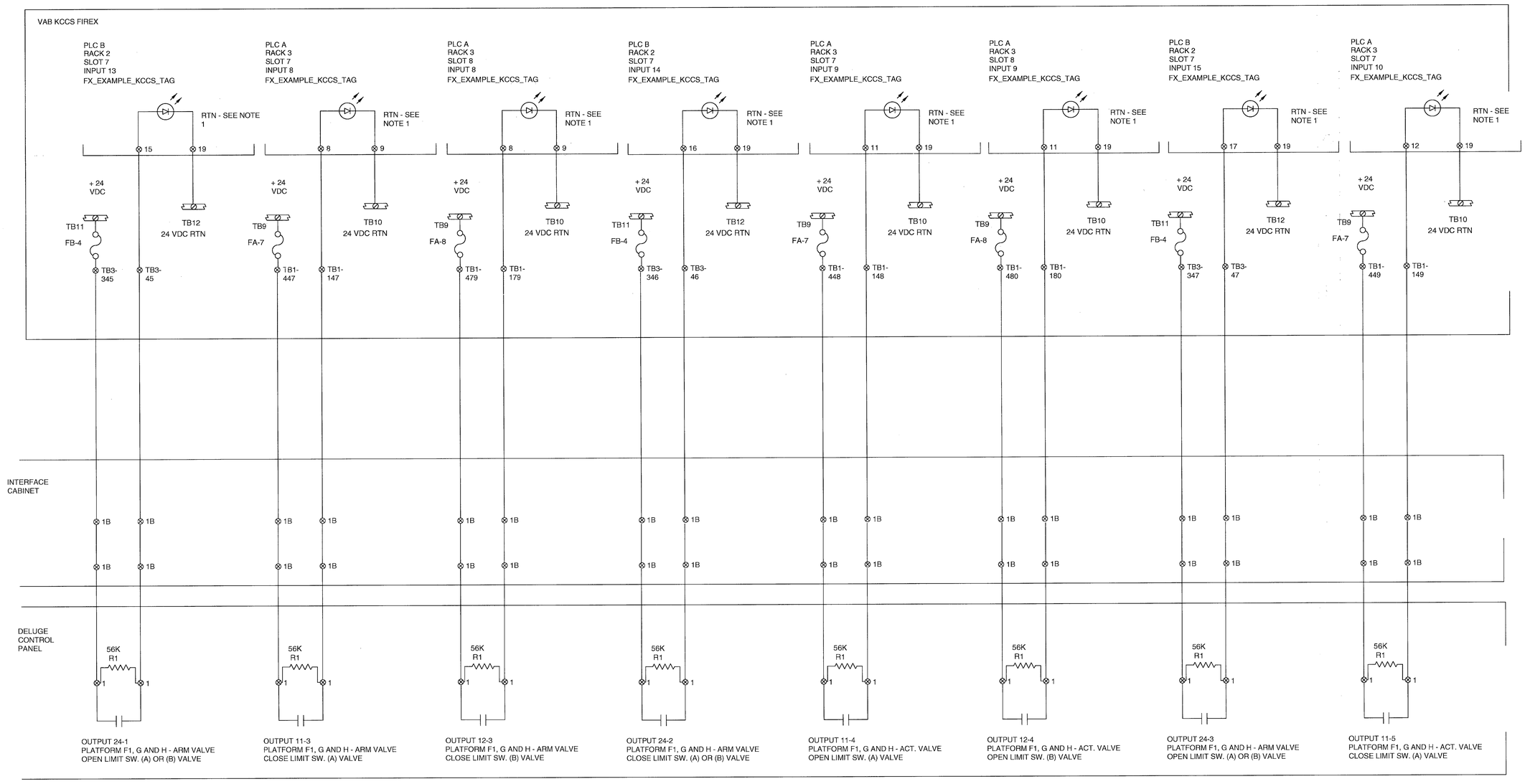
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
F1, G AND H INPUTS 4

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 81 OF

KSC FORM 1-11 (REV. 3/78) (CIS 18/90)

NOTICE : WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY PLAY ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s082

E-81

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	11/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE		

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

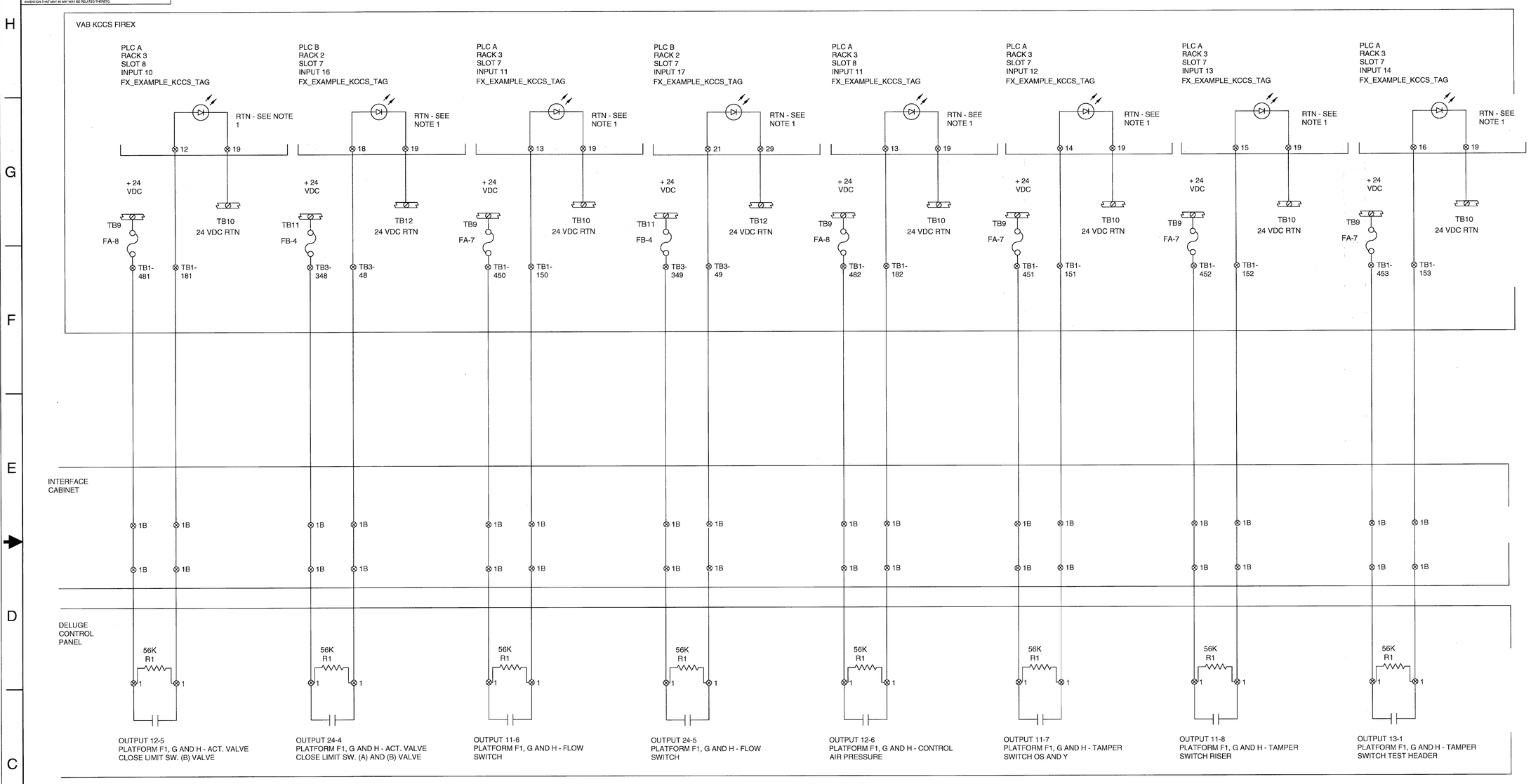
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
F1, G AND H INPUTS 5

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 82 OF

KSC FORM 1-1-1 (REV. 3/76)
(CFG 12/90)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s083

E-82

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

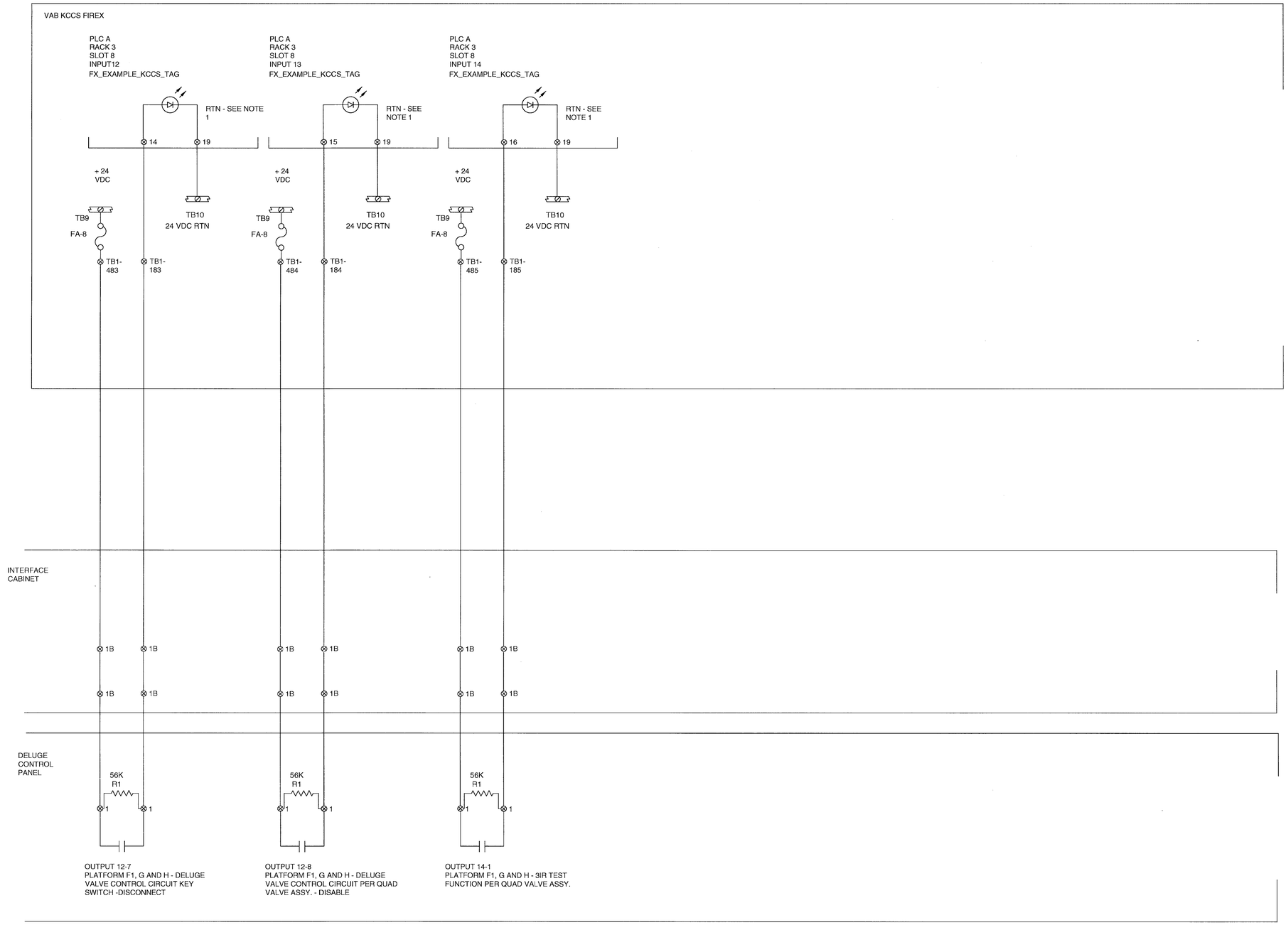
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
F1, G AND H INPUTS 6

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 83 OF

KSC FORM 1-11 (REV. 9/76) (CIG 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURRES NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s084

E-83

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/23/10
CHECKED	S. BROWN	7/23/10
ENGINEER	J.EATON	7/23/10
SUBMITTED		10/5/10
APPROVED		10/5/10
TITLE	TA-03B	

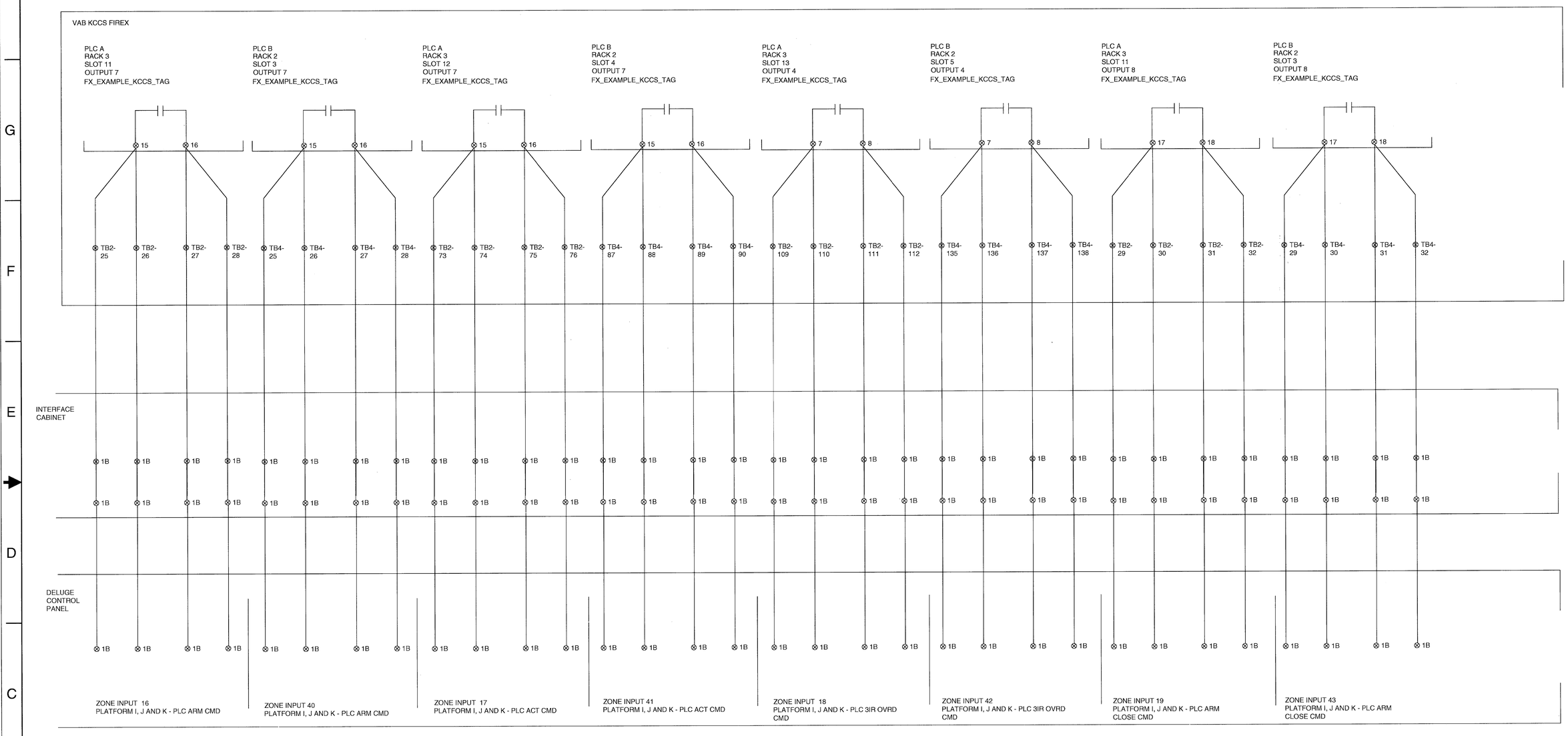
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
F1, G AND H INPUTS 7

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 84 OF	

KSC FORM 1-11 (REV. 3/76)
(CIG 12/92)



SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J. EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J. EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
I, J AND K CMDS 1

SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 85 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s085

E-84

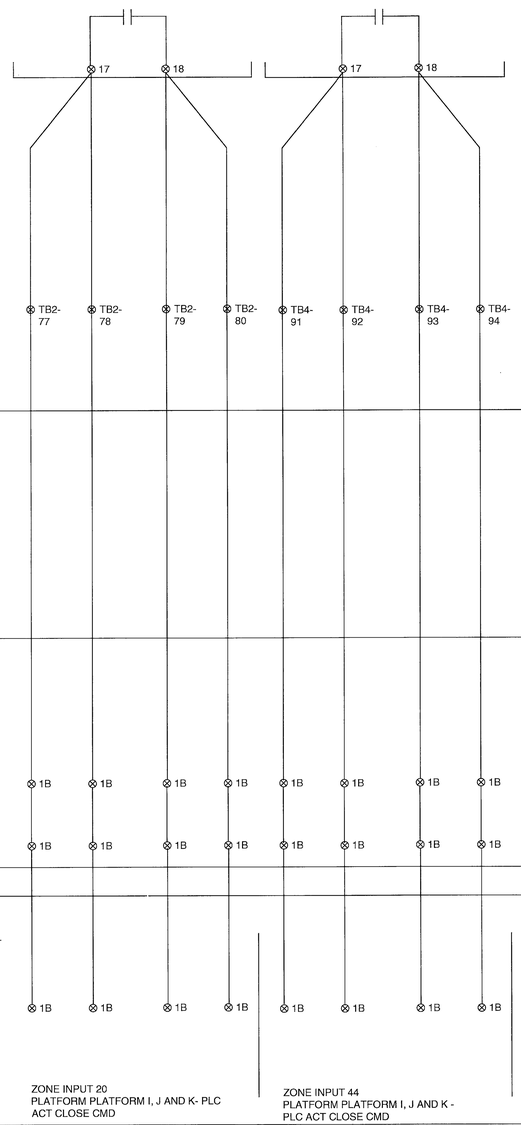
KSC FORM 1-11 (REV. 3/76)
(CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA MAY HAVE BEEN FURNISHED THE SAME, OR ANY SPECIFICATIONS, DRAWINGS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A
RACK 3
SLOT 12
OUTPUT 8
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 4
OUTPUT 8
FX_EXAMPLE_KCCS_TAG



SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE		

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
I, J AND K CMDS 2

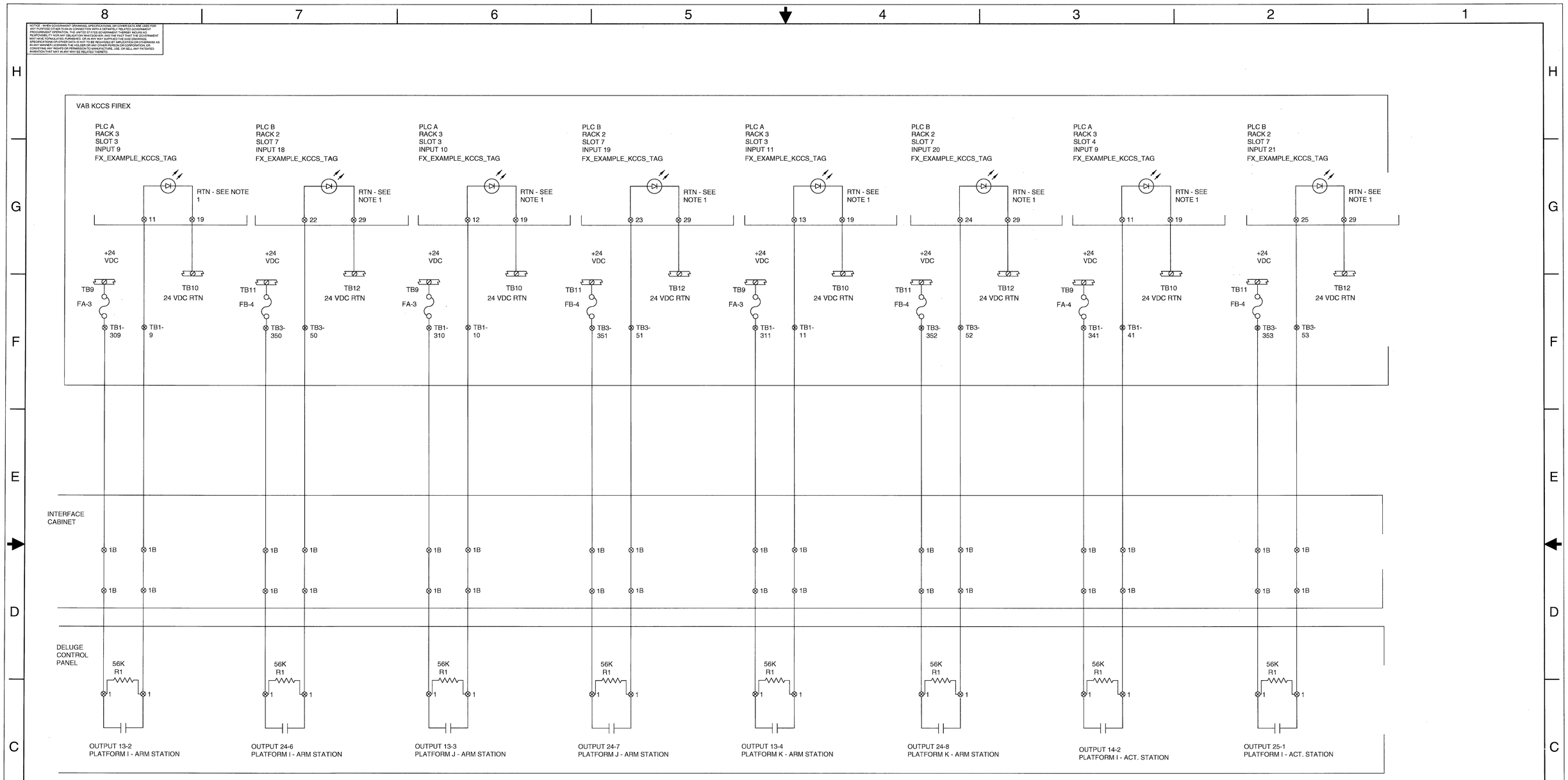
SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 86 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s086

E-85

KSC FORM 1-11 (REV. 3/76)
(CFG 12/92)



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s087

E-86

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/25/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/25/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	7A-63B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

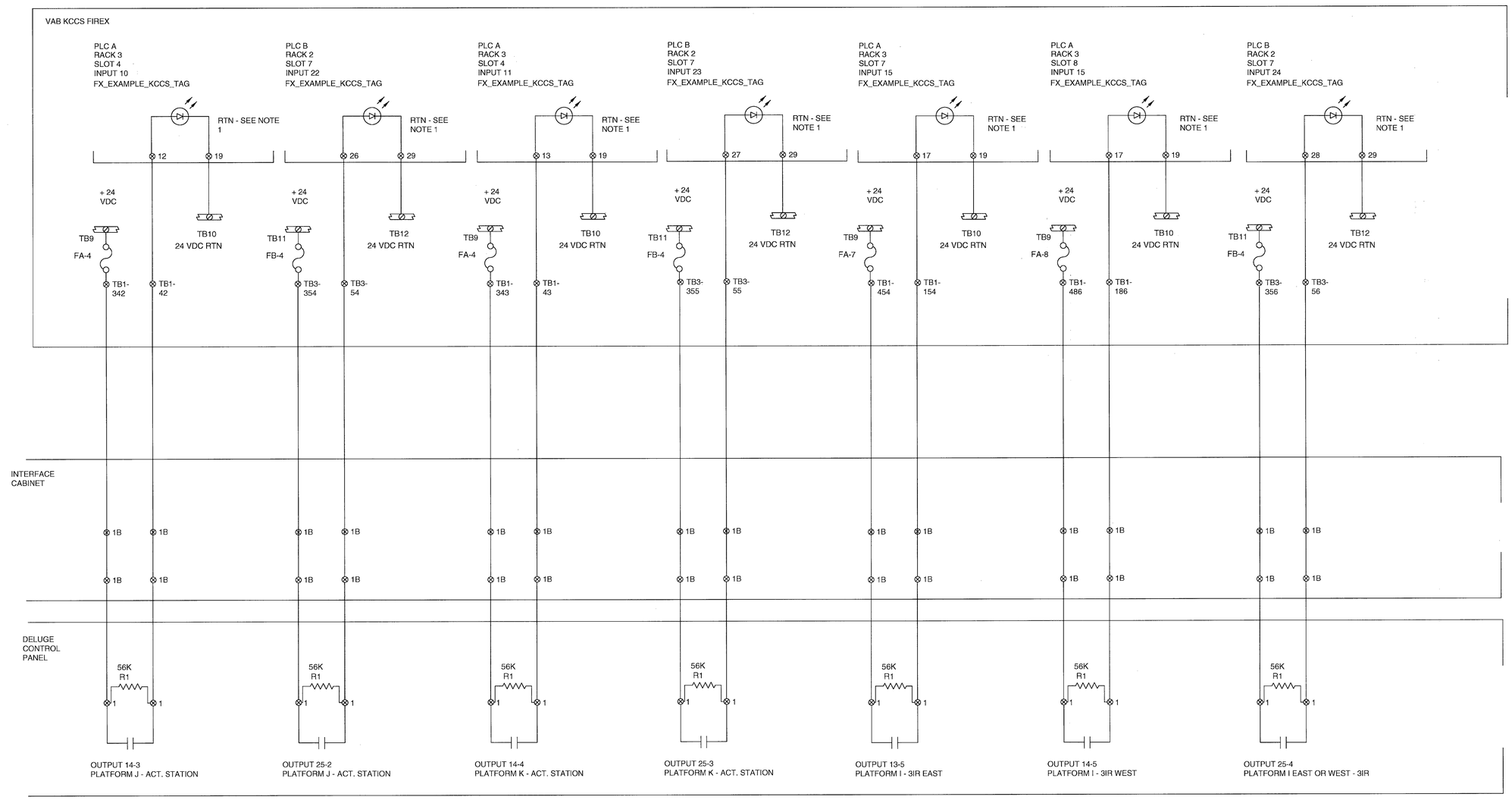
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
I, J AND K INPUTS 1

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 87 OF

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

NOTICE: WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s088

E-87

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	10/27/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

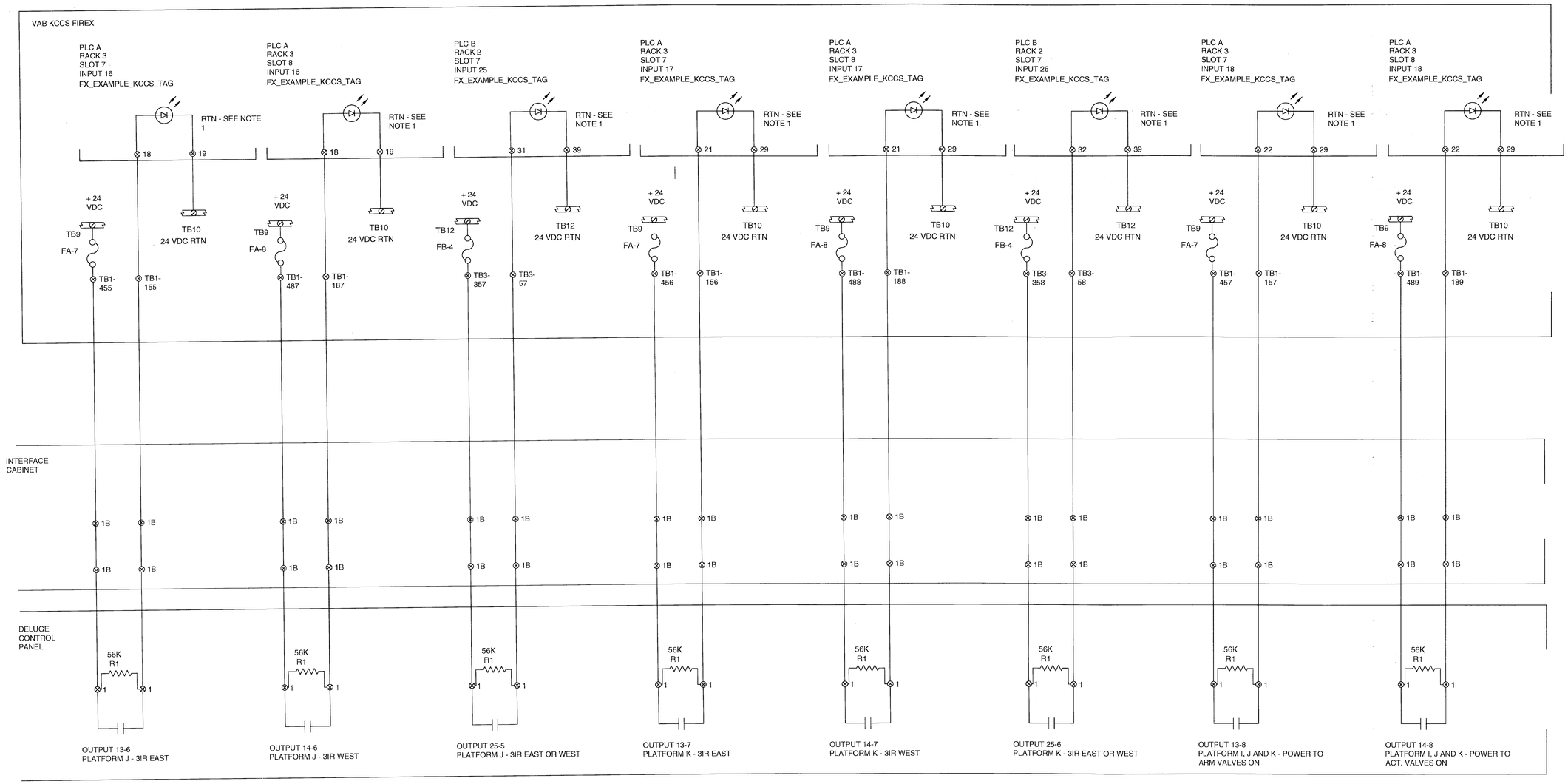
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
I, J AND K INPUTS 2

TITLE IA-83B

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 88 OF	

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT LOSES NO RIGHT OR RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s089

E-88

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/20/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/5/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
I, J AND K INPUTS 3

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TA-83B | PROJ. NO. NONE | SHEET 89 OF

KSC FORM 1-11 (REV. 3/78) (C/G 12/92)

NOTICE: WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT GOVERNMENT MAY HAVE FURNISHED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A
RACK 3
SLOT 7
INPUT 19
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 8
INPUT 19
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 7
INPUT 27
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 7
INPUT 20
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 8
INPUT 20
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 7
INPUT 28
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 7
INPUT 21
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 8
INPUT 21
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

23 29 | 23 29 | 33 39 | 24 29 | 24 29 | 34 39 | 25 29 | 25 29

+ 24 VDC

TB9 FA-7 TB1-458 TB1-158 | TB9 FA-8 TB1-490 TB1-190 | TB11 FB-4 TB3-359 TB3-59 | TB9 FA-7 TB1-459 TB1-159 | TB9 FA-8 TB1-491 TB1-191 | TB11 FB-4 TB3-360 TB3-60 | TB9 FA-7 TB1-460 TB1-160 | TB9 FA-8 TB1-492 TB1-192

TB10 24 VDC RTN | TB12 24 VDC RTN

INTERFACE CABINET

1B

DELUGE CONTROL PANEL

56K R1

1

OUTPUT 15-1
PLATFORM I, J AND K - OPEN VALVES ARM CMD ON

OUTPUT 16-1
PLATFORM I, J AND K - OPEN VALVE ACT. CMD ON

OUTPUT 25-7
PLATFORM I, J AND K - SUMMARY VALVE OPEN CMD ON

OUTPUT 15-2
PLATFORM I, J AND K - CLOSE ARM VALVE CMD ON

OUTPUT 16-2
PLATFORM I, J AND K - CLOSE ACT. VALVE CMD ON

OUTPUT 25-8
PLATFORM I, J AND K - SUMMARY VALVE CLOSE CMD ON

OUTPUT 15-3
PLATFORM I, J AND K - ARM VALVE OPEN LIMIT SW. (A) VALVE

OUTPUT 16-3
PLATFORM I, J AND K - ARM VALVE OPEN LIMIT SW. (B) VALVE

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s090

E-89

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/24/10
CHECKED	S. BROWN	9/24/10
ENGINEER	J.EATON	9/24/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-038	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

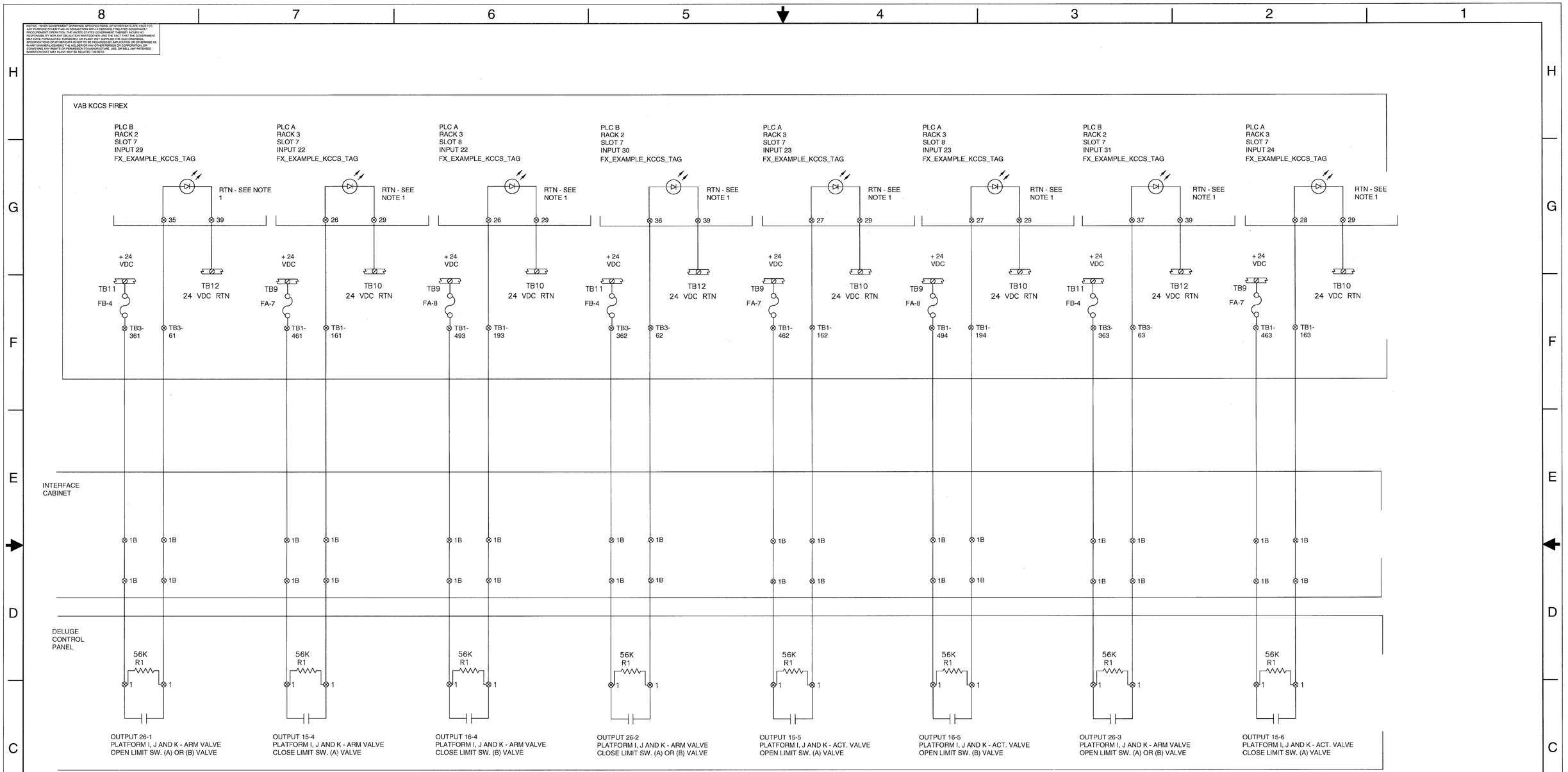
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
I, J AND K INPUTS 4

SIZE F | DWG. NO. 734E1100001 | REV -

PROJ. NO. NONE | SHEET 90 OF

KSC FORM 1-11 (REV. 3/78) (CFD 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FURNISHED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s091

E-90

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

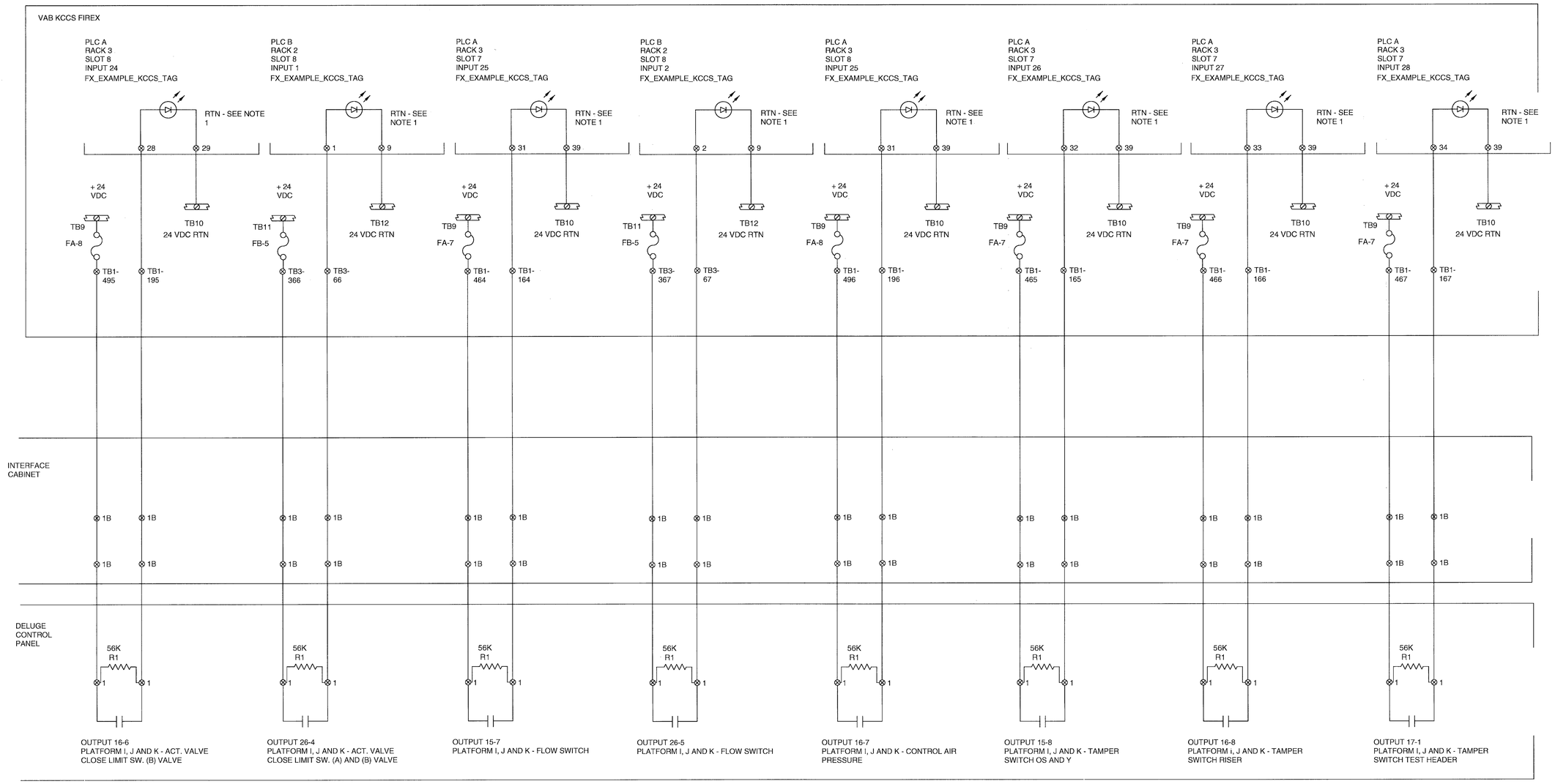
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
I, J AND K INPUTS 5

SIZE F | DWG. NO. 734E1100001 | REV

TITLE TA-63B | PROJ. NO. NONE | SHEET 91 OF

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

NOTICE: WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s092

E-91

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/21/10
CHECKED	S. BROWN	9/27/10
ENGINEER	J.EATON	9/27/10
SUBMITTED		10/8/10
APPROVED		10/8/10

TITLE TA-83B

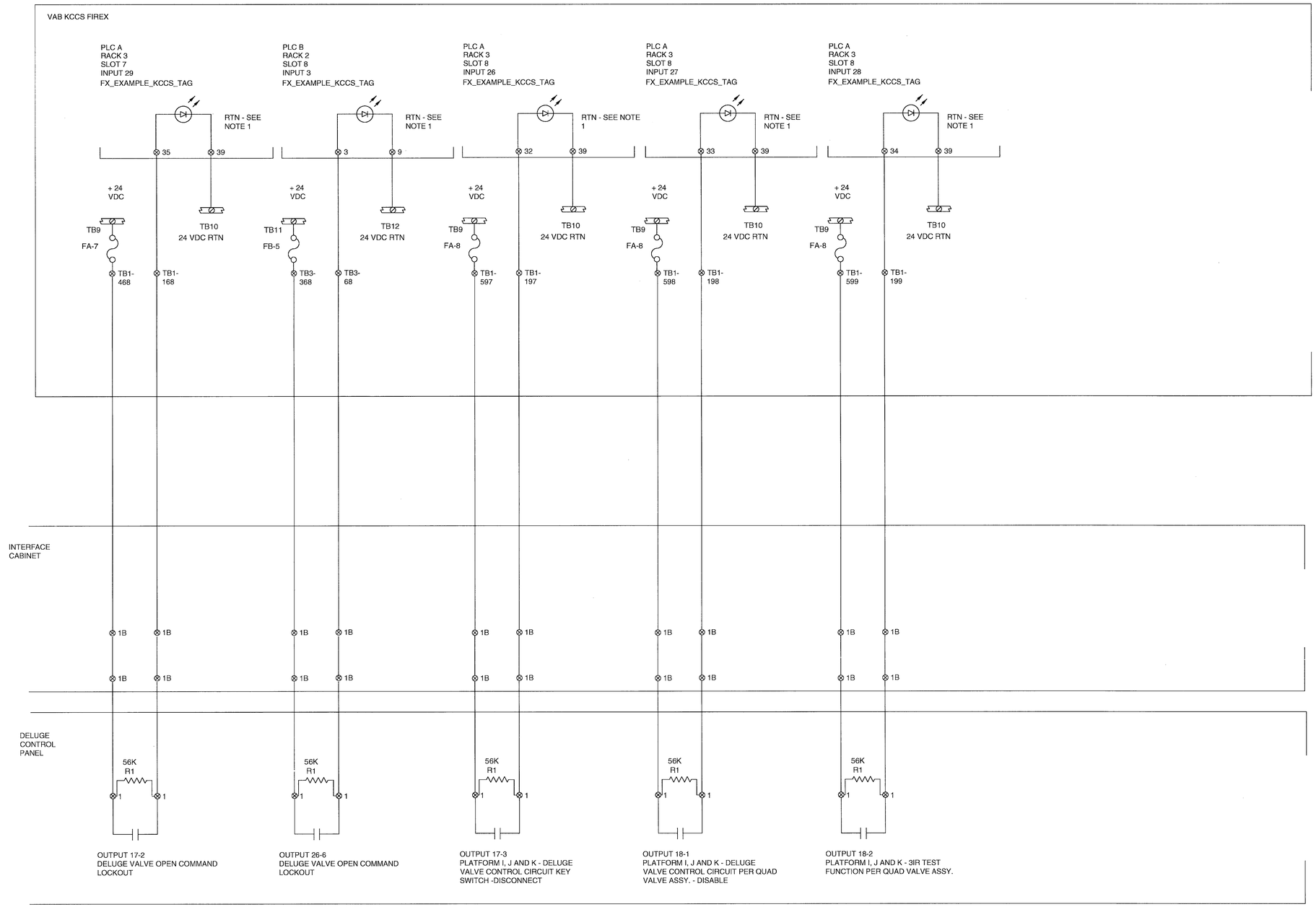
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
I, J AND K INPUTS 6

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 92 OF

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	J.E. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10
TITLE	TA-B3B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F PLATFORM
I, J AND K INPUTS 7

SIZE F | DWG. NO. 734E1100001 | REV -

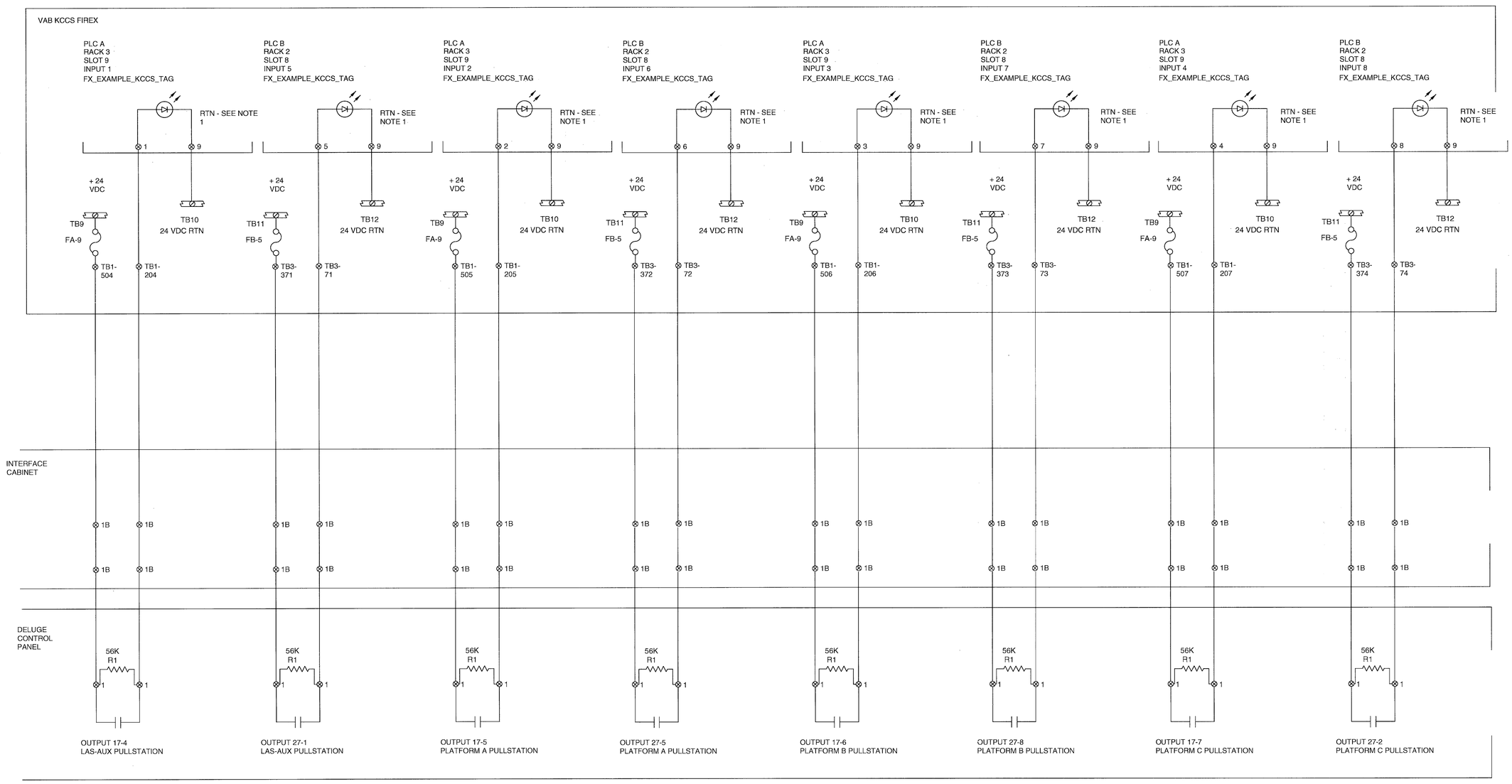
PROJ. NO. NONE | SHEET 93 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s093

E-92

KSC FORM 1-11 (REV. 3/78)
(CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s094

E-93

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

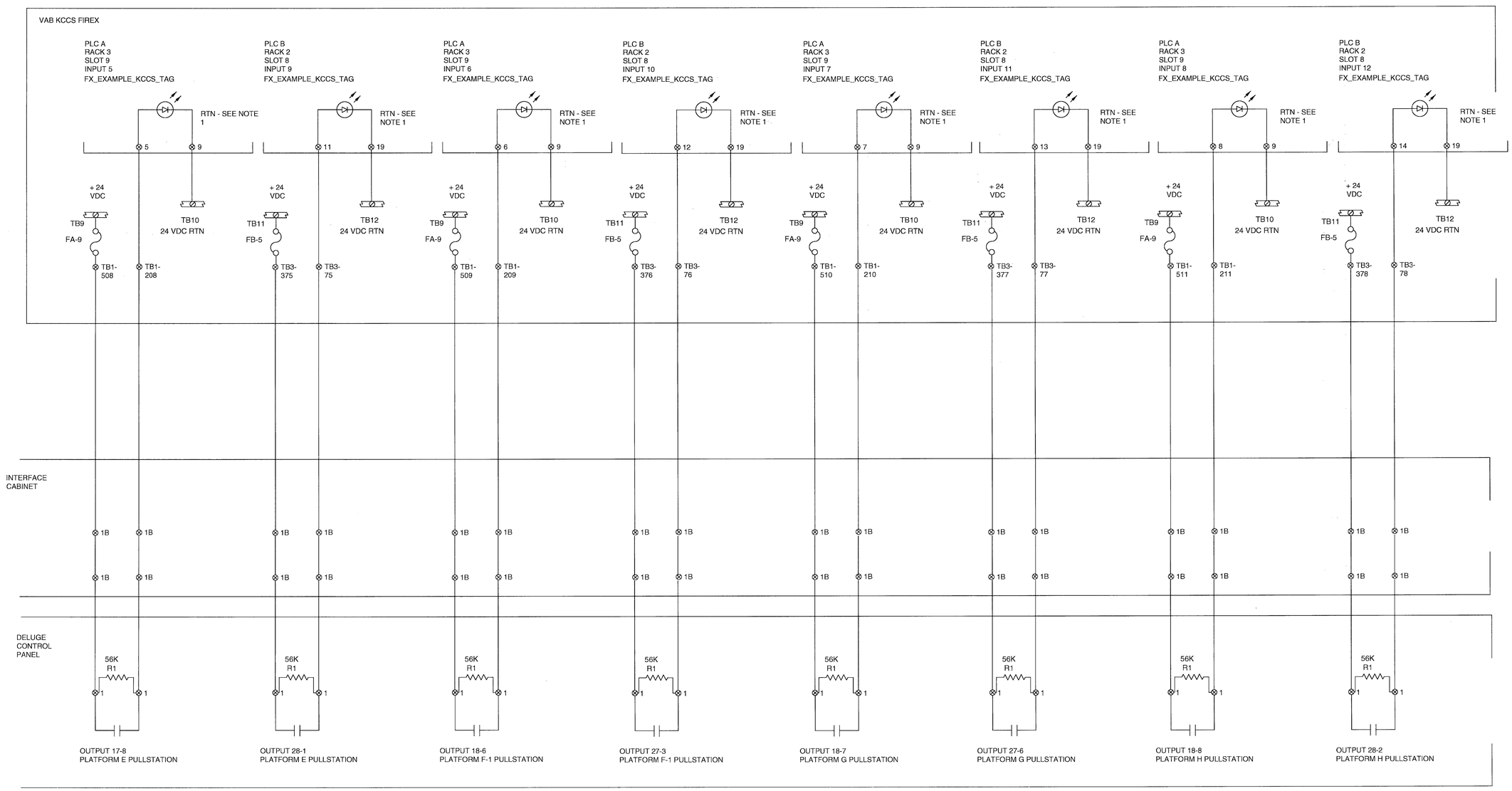
GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F
PULL STATIONS 1

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TR-838 | PROJ. NO. NONE | SHEET 94 OF

KSC FORM 1-11 (REV. 3/76) (O/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THEREIN.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s095

E-94

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

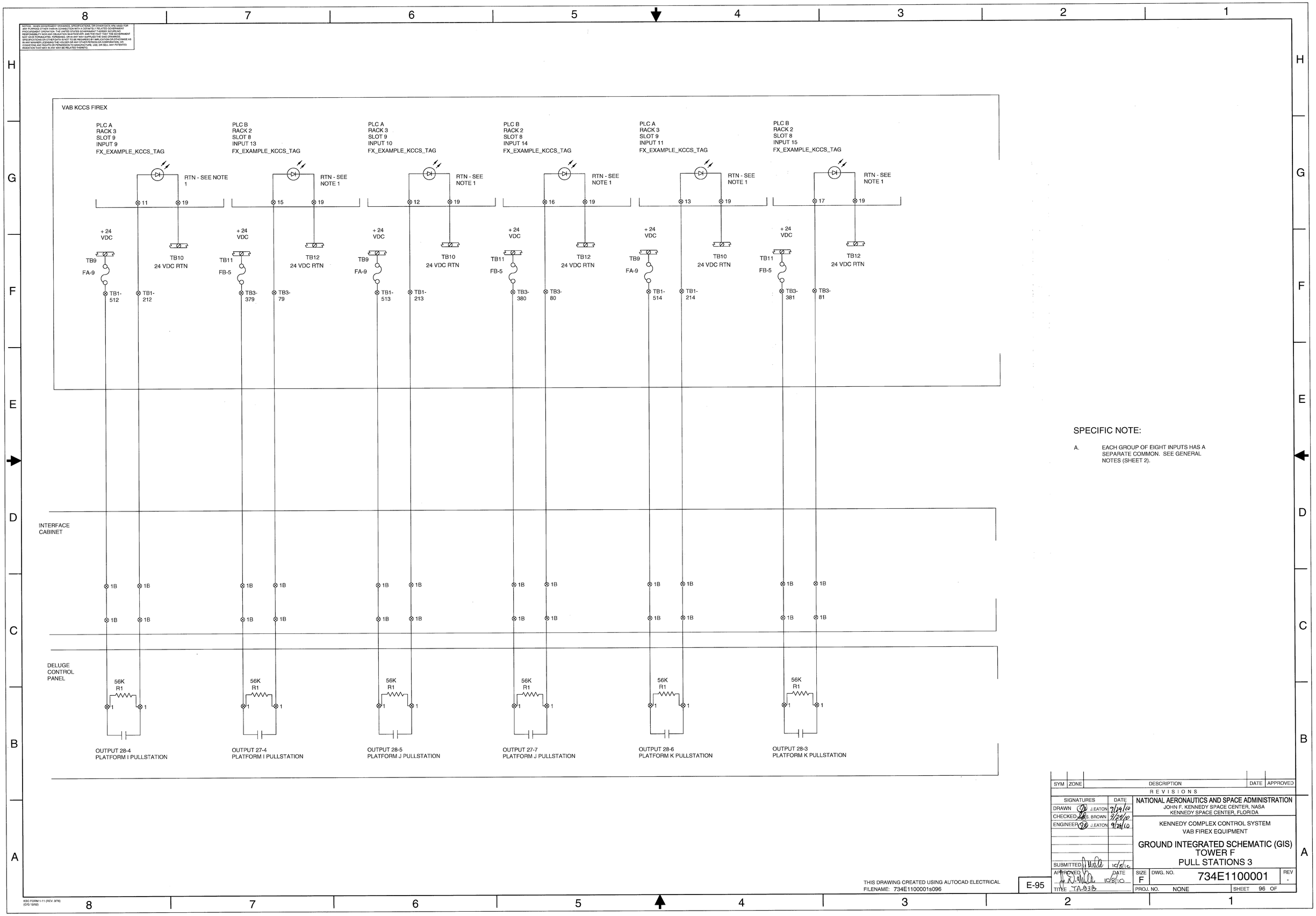
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F
PULL STATIONS 2

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 95 OF

KSC FORM 1-11 (REV. 3/76) (CID 12092)

NOTICE: "WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURRS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO."



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/5/10
APPROVED		10/6/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS) TOWER F PULL STATIONS 3

SIZE: F | DWG. NO. 734E1100001 | REV -
TITLE: TA-03B | PROJ. NO. NONE | SHEET 96 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E11000001s096

E-95

KSC FORM I-11 (REV. 3/76) (CIG 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

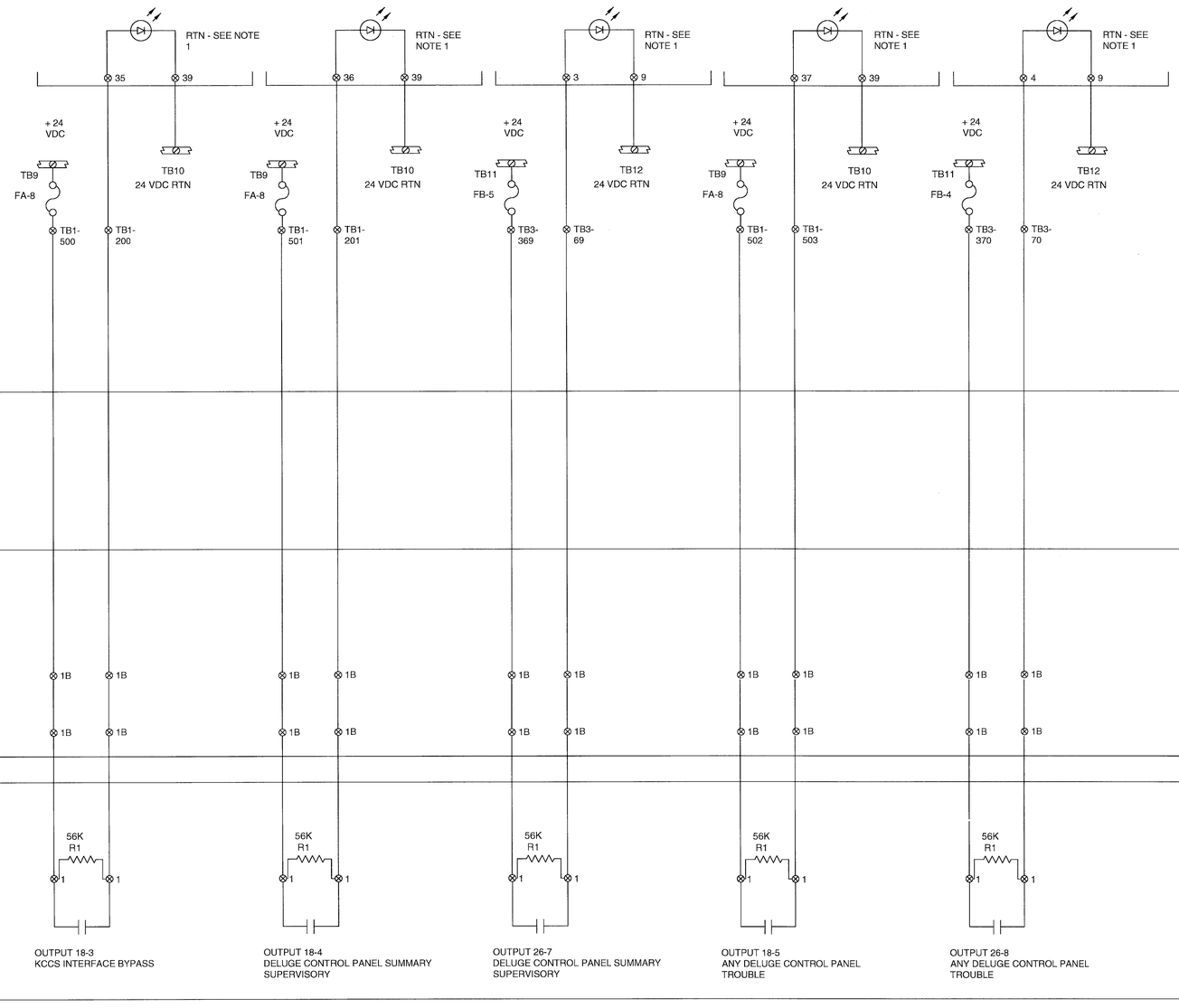
PLC A
RACK 3
SLOT 8
INPUT 29
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 8
INPUT 30
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 8
INPUT 3
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 8
INPUT 31
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 8
INPUT 4
FX_EXAMPLE_KCCS_TAG



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	7/28/10
CHECKED	BROWN	7/29/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-836	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F
HEALTH STATUS 1

SIZE F | DWG. NO. 734E1100001 | REV
PROJ. NO. NONE | SHEET 97 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s097

E-96

KSC FORM 1-11 (REV. 3/76)
(CIG 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A	PLC B	PLC A	PLC B	PLC A	PLC B	PLC A	PLC B
RACK 3	RACK 2	RACK 3	RACK 2	RACK 3	RACK 2	RACK 3	RACK 2
SLOT 13	SLOT 3	SLOT 13	SLOT 3	SLOT 13	SLOT 3	SLOT 13	SLOT 3
OUTPUT 5	OUTPUT 8	OUTPUT 6	OUTPUT 9	OUTPUT 7	OUTPUT 10	OUTPUT 8	OUTPUT 12
FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG
11 12	17 18	13 14	21 22	15 16	23 24	17 18	27 28
TB2-113 TB2-114	TB4-33 TB4-34	TB2-117 TB2-118	TB4-37 TB4-38	TB2-121 TB2-122	TB4-41 TB4-42	TB2-125 TB2-126	TB4-45 TB4-46

INTERFACE CABINET

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

OTV CONTROL PANEL

1B 1B 1B 1B 1B 1B 1B 1B

OTV I/F INPUT 1	OTV I/F INPUT 2	OTV I/F INPUT 3	OTV I/F INPUT 4
F TOWER	F TOWER	F TOWER	F TOWER
PLATFORM LAS-AUX ALARM	PLATFORM A ALARM	PLATFORM B ALARM	PLATFORM C ALARM

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s098

E-97

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10
TITLE	TA-03B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

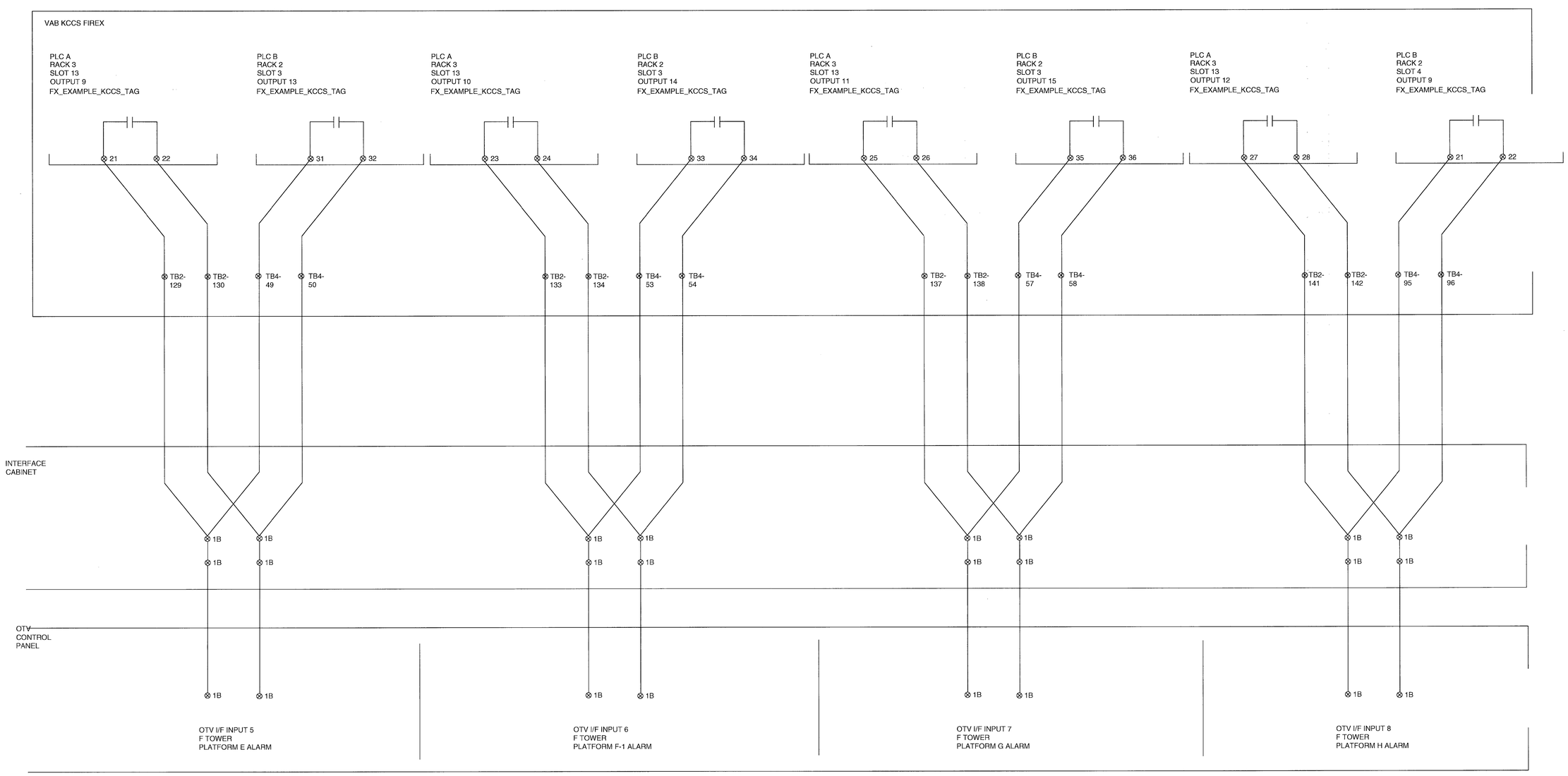
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F
CAMERA OUTPUTS 1

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 98 OF	

KSC FORM 1-11 (REV. 3/76)
(CIG 13/90)

NOTICE: WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FURNISHED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s099

E-98

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/23/10
CHECKED	S. BROWN	9/27/10
ENGINEER	J.EATON	9/23/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	IA-838	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F
CAMERA OUTPUTS 2

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 99 OF

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A
RACK 3
SLOT 13
OUTPUT 13
FX_EXAMPLE_KCCS_TAG

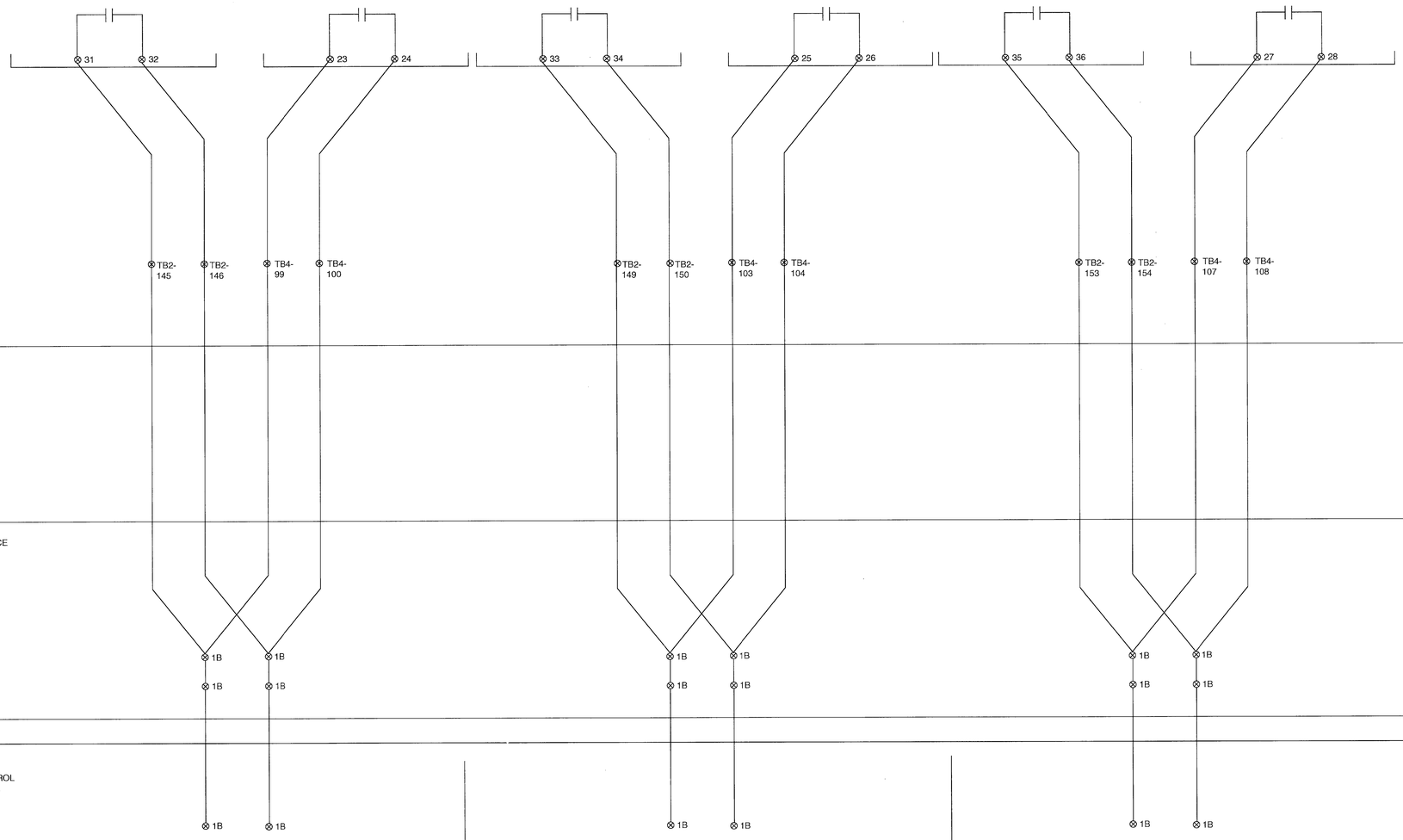
PLC B
RACK 2
SLOT 4
OUTPUT 10
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 13
OUTPUT 14
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 4
OUTPUT 11
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 13
OUTPUT 15
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 4
OUTPUT 12
FX_EXAMPLE_KCCS_TAG



SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/23/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
TOWER F
CAMERA OUTPUTS 3

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE | PROJ. NO. NONE | SHEET 100 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s100

E-99

KSC FORM 1-11 (REV. 3/76)
(CIS 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A
RACK 1
SLOT 3
INPUT 18
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 1
SLOT 3
INPUT 19
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 1
SLOT 3
INPUT 20
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 1
SLOT 3
INPUT 21
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 1
SLOT 3
INPUT 22
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 1
SLOT 3
INPUT 23
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

22 23 24 25 26 27 29

+ 24 VDC

TB9
FA-3

TB10
24 VDC RTN

TB1-320 TB1-20 TB1-321 TB1-21 TB1-322 TB1-22 TB1-323 TB1-23 TB1-324 TB1-24 TB1-325 TB1-25

INTERFACE CABINET

1B

DELUGE CONTROL PANEL

56K
R1

1

OUTPUT 29-1 (225)
NAC POWER TO QUAD ARM VALVES ON

OUTPUT 29-2 (226)
OPEN QUAD ARM VALVE COMMANDS ON

OUTPUT 29-3 (227)
CLOSE QUAD ARM VALVE COMMANDS ON

OUTPUT 29-4 (228)
ARM VALVE OPEN LIMIT SWITCH (A) VALVE

OUTPUT 29-5 (229)
ARM VALVE CLOSED LIMIT SWITCH (A) VALVE

OUTPUT 29-6 (230)
ACTIVATE VALVE OPEN LIMIT SWITCH (A) VALVE

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s101

E-100

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/6/10
APPROVED		DATE 10/6/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

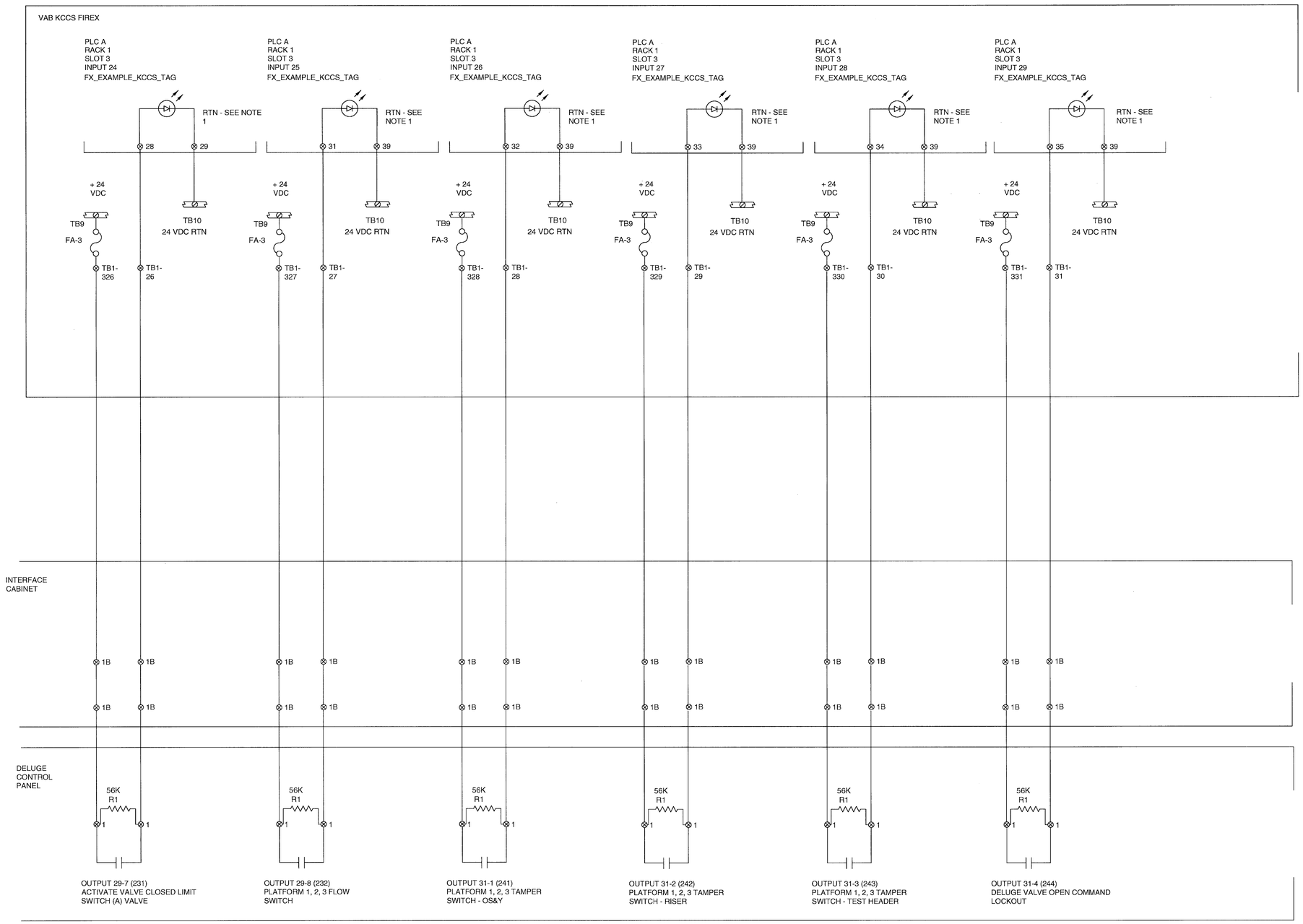
GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 1 PLC A
ADDENDED ITEMS

SIZE F | DWG. NO. 734E1100001 | REV -

TITLE TABB | PROJ. NO. NONE | SHEET 101 OF

KSC FORM 1-11 (REV. 3/76)
(CIG 12/90)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s102

E-101

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/24/10
CHECKED	S. BROWN	9/24/10
ENGINEER	J.EATON	9/24/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

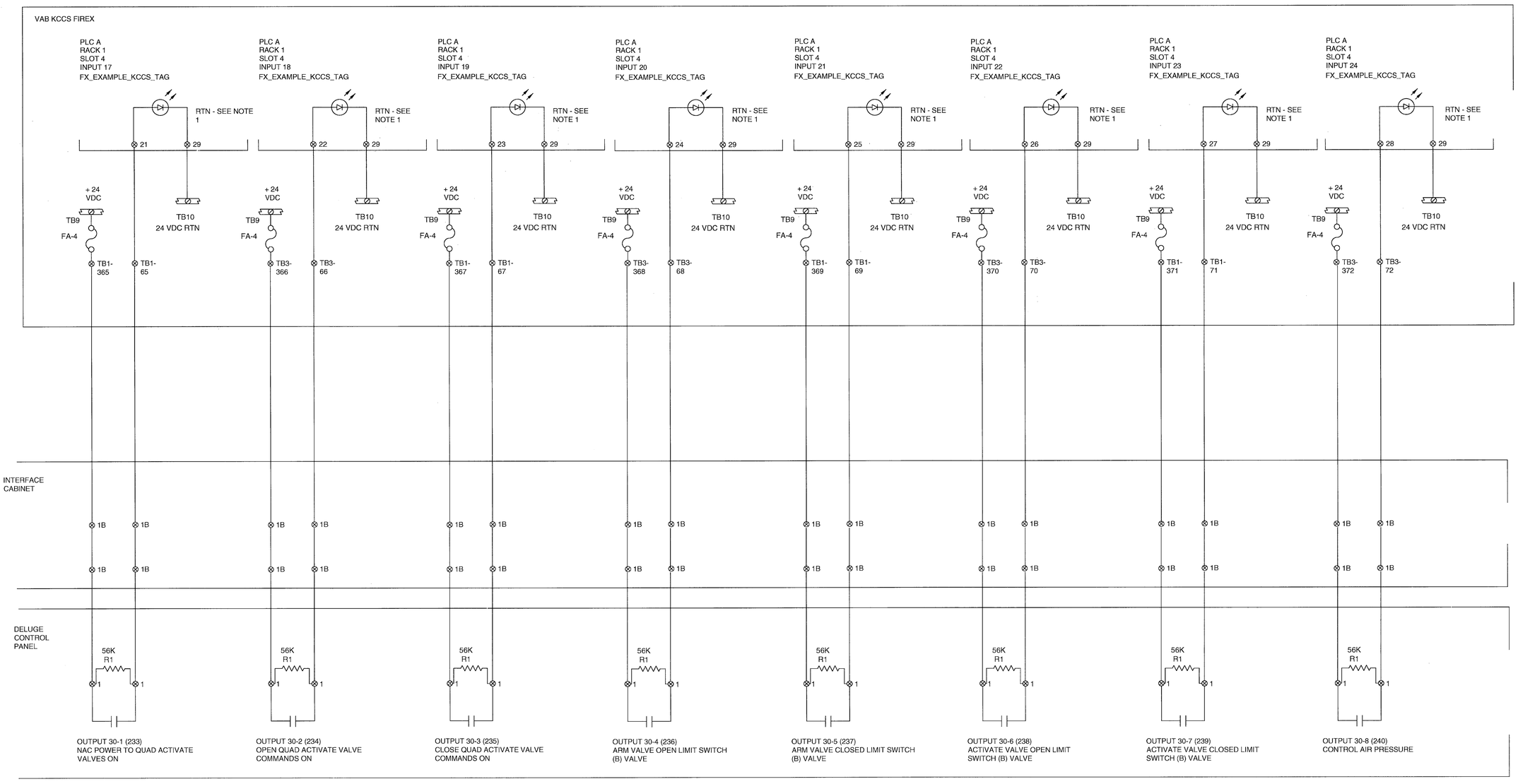
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 1 PLC A
ADDENDED ITEMS

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-B3B | PROJ. NO. NONE | SHEET 102 OF

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/5/10
APPROVED		10/5/10
TITLE	YA-93B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 1 PLC A
ADDENDED ITEMS

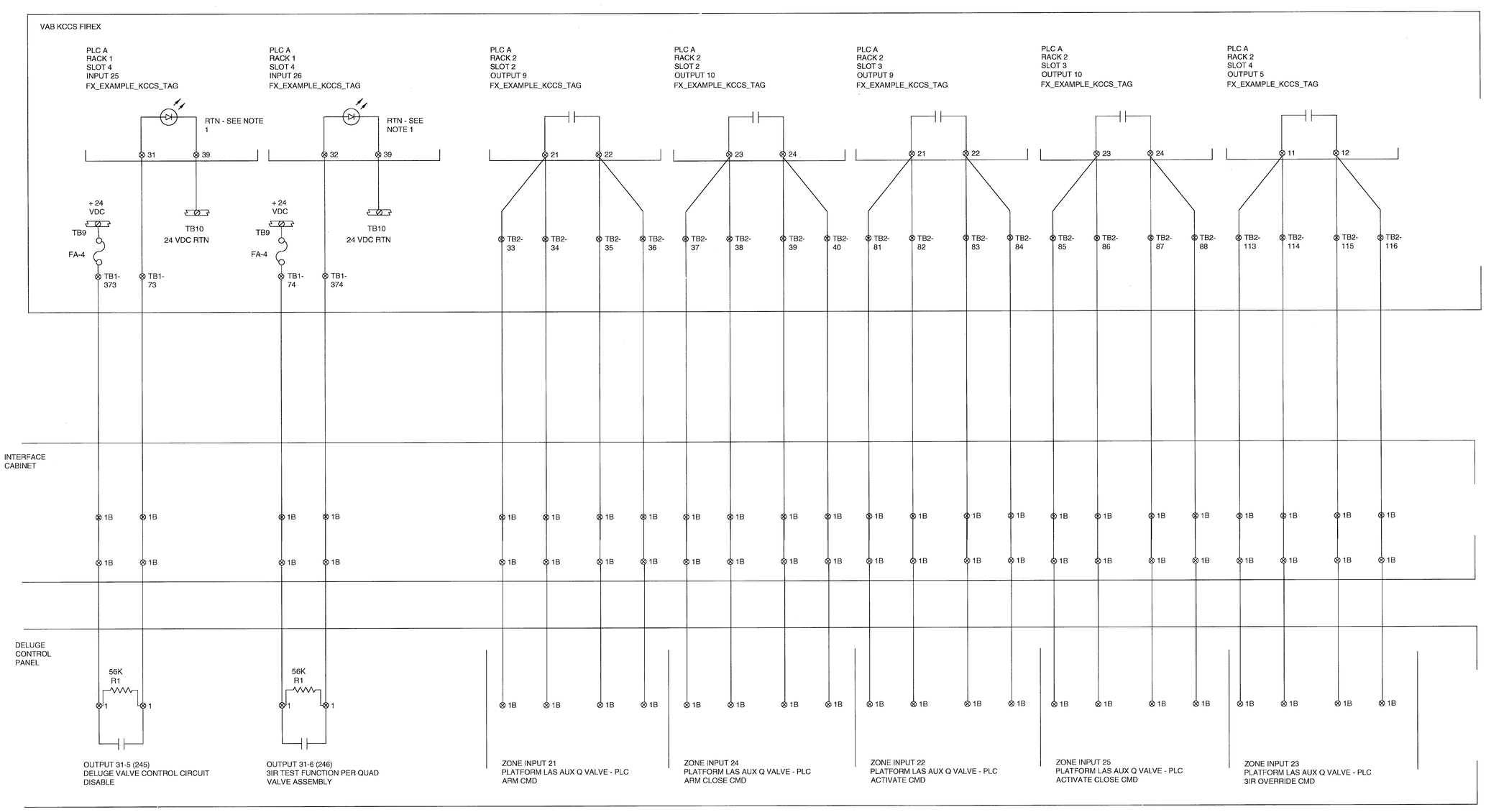
SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 103 OF

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s103

E-102

KSC FORM 1-11 (REV. 3/79) (CFG 12092)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s104

E-103

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TC-838	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 1 PLC A
ADDENDED ITEMS

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 104 OF

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC B	PLC B	PLC B	PLC B	PLC B
RACK 1	RACK 1	RACK 1	RACK 1	RACK 1
SLOT 4	SLOT 4	SLOT 5	SLOT 5	SLOT 5
OUTPUT 14	OUTPUT 15	OUTPUT 5	OUTPUT 6	OUTPUT 7
FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG

33 34 35 36 11 12 13 14 15 16

TB4-111 TB4-112 TB4-113 TB4-114 TB4-115 TB4-116 TB4-117 TB4-118 TB4-135 TB4-136 TB4-137 TB4-138 TB4-139 TB4-140 TB4-141 TB4-142 TB4-143 TB4-144 TB4-145 TB4-146

INTERFACE CABINET

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

DELUGE CONTROL PANEL

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

ZONE INPUT 45	ZONE INPUT 48	ZONE INPUT 46	ZONE INPUT 47	ZONE INPUT 49
PLC ARM CMD	PLC ARM CLOSE CMD	PLC ACTIVATE CMD	PLC 3IR OVERRIDE CMD	PLC ACTIVATE CLOSE CMD

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s105

E-104

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

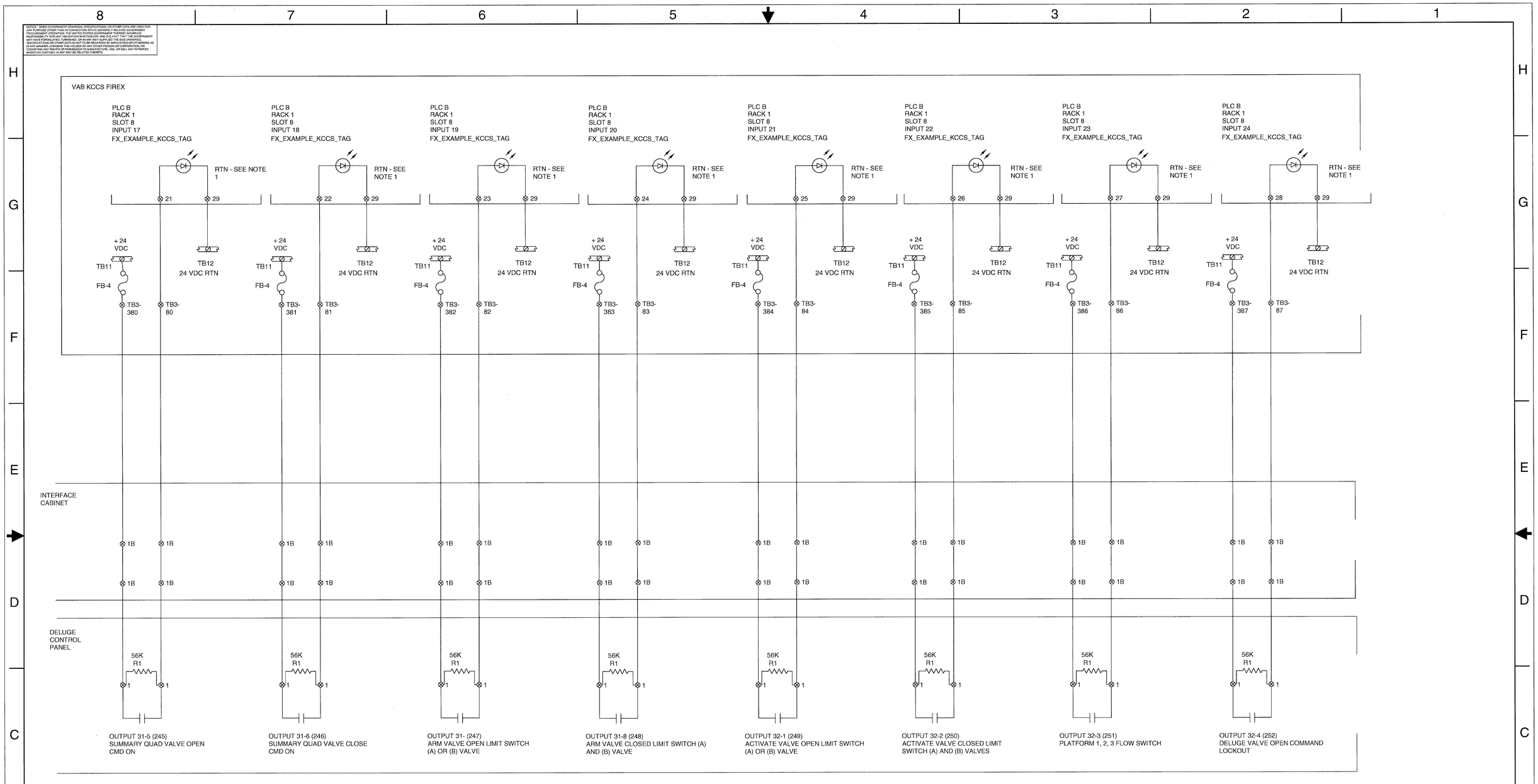
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 1 PLC B
ADDENDED ITEMS

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-B33 | PROJ. NO. NONE | SHEET 105 OF

KSC FORM 1-11 (REV. 3/76)
(DIG 13/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY, NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s106

E-105

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-B3B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 1 PLC B
ADDENDED ITEMS

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 106 OF

KSC FORM 1-11 (REV. 3/76) (CIG 12/92)

NOTICE: WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT GOVERNMENT MAY HAVE FURNISHED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A RACK 3 SLOT 3 INPUT	FX_EXAMPLE_KCCS_TAG	RTN - SEE NOTE 1	+ 24 VDC	TB9	FA-3	TB1-	TB10 24 VDC RTN	TB1-
12	14	19				312		12
13	15	19				313		13
14	16	19				314		14
15	17	19				315		15
16	18	19				316		16
17	21	29				317		17
18	22	29				318		18
19	23	29				319		19

INTERFACE CABINET

1B

DELUGE CONTROL PANEL

56K R1

OUTPUT 29-1 (225)	NAC TO QUAD ARM VALVES ON
OUTPUT 29-2 (226)	OPEN QUAD ARM VALVES COMMAND ON
OUTPUT 29-3 (227)	CLOSE QUAD ARM VALVES COMMAND ON
OUTPUT 29-4 (228)	ARM VALVE OPEN LIMIT SWITCH (A) VALVE
OUTPUT 29-5 (229)	ARM VALVE CLOSED LIMIT SWITCH (A) VALVE
OUTPUT 29-6 (230)	ACTIVATE VALVE OPEN LIMIT SWITCH (A) VALVE
OUTPUT 29-7 (231)	ACTIVATE VALVE CLOSED LIMIT SWITCH (A) VALVE
OUTPUT 29-8 (232)	PLATFORM 1, 2, 3 FLOW SWITCH

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s107

E-106

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

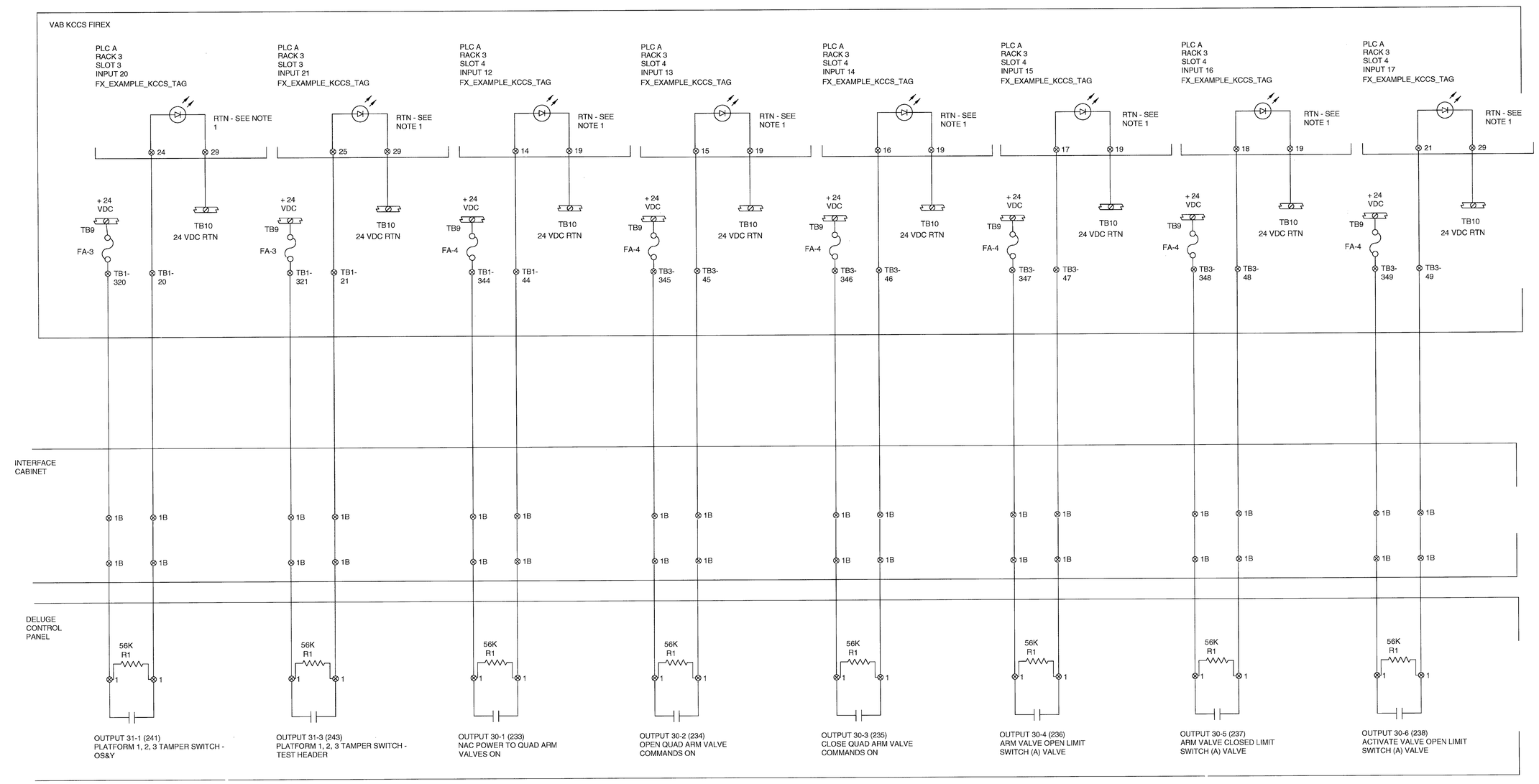
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 2 PLC A
ADDENDED ITEMS

SIZE F | DWG. NO. 734E1100001 | REV -
TITLE TA-83B | PROJ. NO. NONE | SHEET 107 OF

KSC FORM 1-11 (REV. 3/76) (C/G 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s108

E-107

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/28/10
CHECKED	S. BROWN	9/28/10
ENGINEER	J.EATON	9/28/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-B3B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

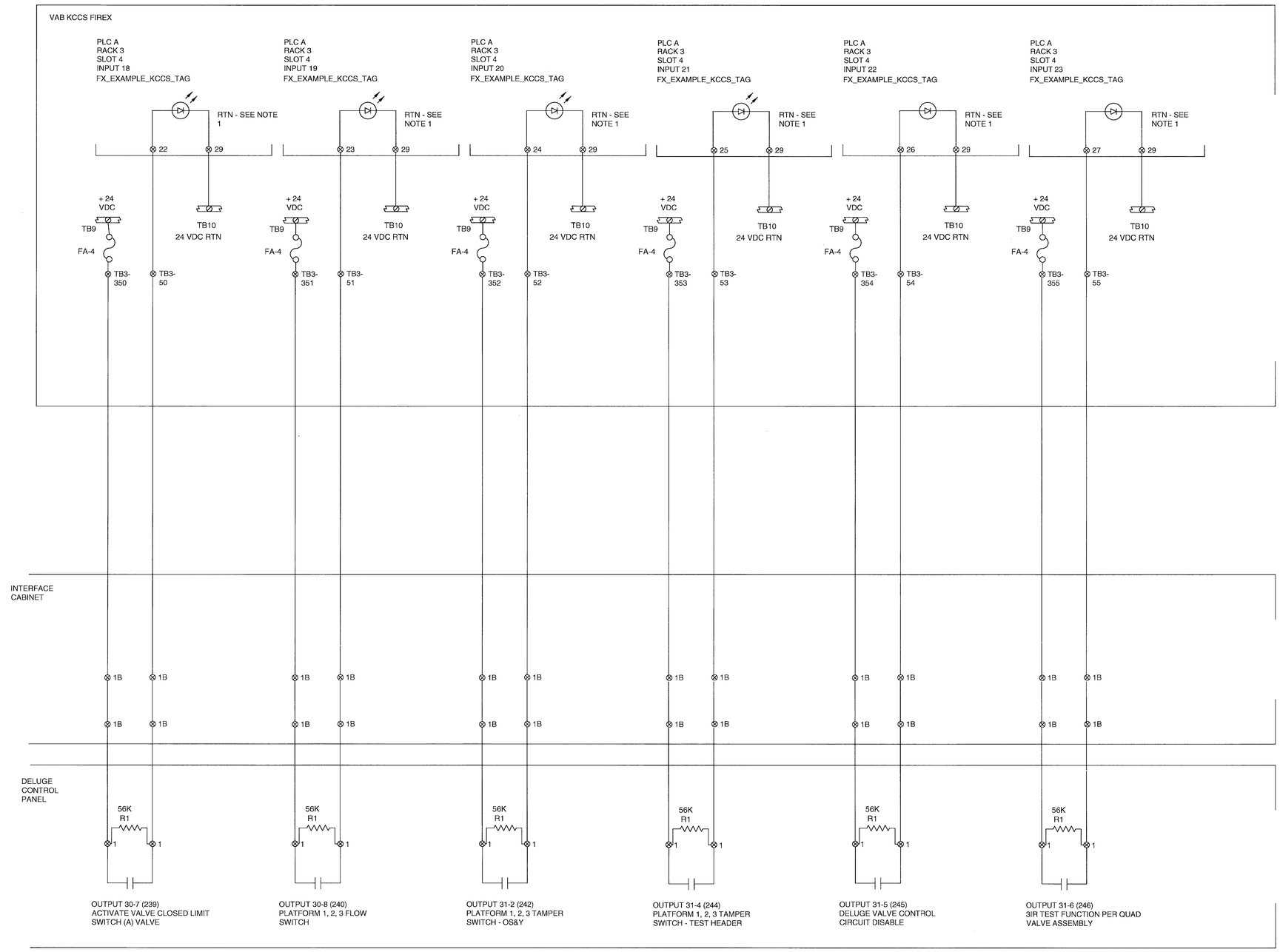
KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 2 PLC A
ADDENDED ITEMS

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 108 OF

KSC FORM 1-11 (REV. 3/78) (CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.



SPECIFIC NOTE:

EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s109

E-108

SYM	ZONE	DESCRIPTION	DATE	APPROVED

REVISIONS

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-83B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 2 PLC A
ADDENDED ITEMS

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 109 OF

KSC FORM 1-11 (REV. 3/78)
(CIG 12/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC A
RACK 3
SLOT 11
INPUT 9
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 11
INPUT 10
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 11
INPUT 11
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 12
INPUT 9
FX_EXAMPLE_KCCS_TAG

PLC A
RACK 3
SLOT 12
INPUT 10
FX_EXAMPLE_KCCS_TAG

21 22 23 24 25 26 21 22 23 24

TB2-33 TB2-34 TB2-35 TB2-36 TB2-37 TB2-38 TB2-39 TB2-40 TB2-41 TB2-42 TB2-43 TB2-44 TB2-81 TB2-82 TB2-83 TB2-84 TB2-85 TB2-86 TB2-87 TB2-88

INTERFACE CABINET

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

DELUGE CONTROL PANEL

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

ZONE INPUT 21
PLC ARM CMD

ZONE INPUT 23
PLC 3IR OVERRIDE COMMAND

ZONE INPUT 24
PLC ARM CLOSE COMMAND

ZONE INPUT 22
PLC ACTIVATE COMMAND

ZONE INPUT 25
PLC ACTIVATE CLOSE COMMAND

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s110

E-109

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	9/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	IA-838	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 2 PLC A
ADDENDED ITEMS

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 110 OF	

KSC FORM 1-11 (REV. 3/76)
(CRD 10/92)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAME MAY NOT BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC B	PLC B	PLC B	PLC B	PLC B	PLC B
RACK 2	RACK 2	RACK 2	RACK 2	RACK 2	RACK 2
SLOT 4	SLOT 4	SLOT 4	SLOT 5	SLOT 5	SLOT 5
OUTPUT 13	OUTPUT 14	OUTPUT 15	OUTPUT 5	OUTPUT 6	OUTPUT 7
FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG	FX_EXAMPLE_KCCS_TAG

31 32 33 34 35 36 11 12 13 14 15 16

TB4-111 TB4-112 TB4-113 TB4-114 TB4-115 TB4-116 TB4-117 TB4-118 TB4-119 TB4-120 TB4-121 TB4-122 TB4-139 TB4-140 TB4-141 TB4-142 TB2-143 TB2-144 TB2-145 TB2-146 TB4-147 TB4-148 TB4-149 TB4-150

INTERFACE CABINET

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

DELUGE CONTROL PANEL

1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B 1B

ZONE INPUT 45
PLC ARM CMD

ZONE INPUT 47
PLC 3IR OVERRIDE COMMAND

ZONE INPUT 49
PLC ACTIVATE CLOSE COMMAND

ZONE INPUT 46
PLC ACTIVATE COMMAND

ZONE INPUT 48
PLC ARM CLOSE COMMAND

OTV I/F INPUT 1
F TOWER
PLATFORM LAS-AUX ALARM

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s111

E-110

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/15/10
CHECKED	B. BROWN	9/20/10
ENGINEER	J.EATON	9/15/10
SUBMITTED		10/8/10
APPROVED		DATE 10/8/10
TITLE	TA-B3B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 2 PLC B
ADDENDED ITEMS

SIZE F | DWG. NO. 734E1100001 | REV -
PROJ. NO. NONE | SHEET 111 OF

KSC FORM 1-11 (REV. 3/76)
(CIS 13/02)

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY INCURS NO RESPONSIBILITY NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

VAB KCCS FIREX

PLC B
RACK 2
SLOT 8
INPUT 16
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 8
INPUT 17
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 8
INPUT 18
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 8
INPUT 19
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 8
INPUT 20
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 8
INPUT 21
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 8
INPUT 22
FX_EXAMPLE_KCCS_TAG

PLC B
RACK 2
SLOT 8
INPUT 23
FX_EXAMPLE_KCCS_TAG

RTN - SEE NOTE 1

18 19 21 29 22 29 23 29 24 29 25 29 26 29 27 29

+ 24 VDC
TB11
FB-5
TB12
24 VDC RTN

TB3-382 TB3-82 TB3-383 TB3-83 TB3-384 TB3-84 TB3-385 TB3-85 TB3-386 TB3-86 TB3-387 TB3-87 TB3-388 TB3-88 TB3-389 TB3-89

INTERFACE CABINET

1B

DELUGE CONTROL PANEL

56K
R1
1

OUTPUT 31-5 (245)
SUMMARY QUAD VALVE OPEN CMD ON

OUTPUT 31-6 (246)
SUMMARY QUAD VALVE CLOSE CMD ON

OUTPUT 31-7 (247)
ARM VALVE OPEN LIMIT SWITCH (A) OR (B) VALVE

OUTPUT 31-8 (248)
ARM VALVE CLOSED LIMIT SWITCH (A) AND (B) VALVE

OUTPUT 32-1 (249)
ACTIVATE VALVE OPEN LIMIT SWITCH (A) OR (B) VALVE

OUTPUT 32-2 (250)
ACTIVATE VALVE CLOSED LIMIT SWITCH (A) AND (B) VALVES

OUTPUT 32-3 (251)
PLATFORM 1, 2, 3 FLOW SWITCH

OUTPUT 32-4 (252)
DELUGE VALVE OPEN COMMAND LOCKOUT

SPECIFIC NOTE:

A. EACH GROUP OF EIGHT INPUTS HAS A SEPARATE COMMON. SEE GENERAL NOTES (SHEET 2).

THIS DRAWING CREATED USING AUTOCAD ELECTRICAL
FILENAME: 734E1100001s112

E-111

SYM	ZONE	DESCRIPTION	DATE	APPROVED
		REVISIONS		

SIGNATURES		DATE
DRAWN	J.EATON	9/29/10
CHECKED	S. BROWN	11/29/10
ENGINEER	J.EATON	9/29/10
SUBMITTED		10/8/10
APPROVED		10/8/10
TITLE	TA-63B	

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, NASA
KENNEDY SPACE CENTER, FLORIDA

KENNEDY COMPLEX CONTROL SYSTEM
VAB FIREX EQUIPMENT

GROUND INTEGRATED SCHEMATIC (GIS)
ENCLOSURE 2 PLC B
ADDENDED ITEMS

SIZE	DWG. NO.	REV
F	734E1100001	-
PROJ. NO. NONE	SHEET 112 OF 112	

KSC FORM 1-11 (REV. 3/76)
(CIG 12/92)