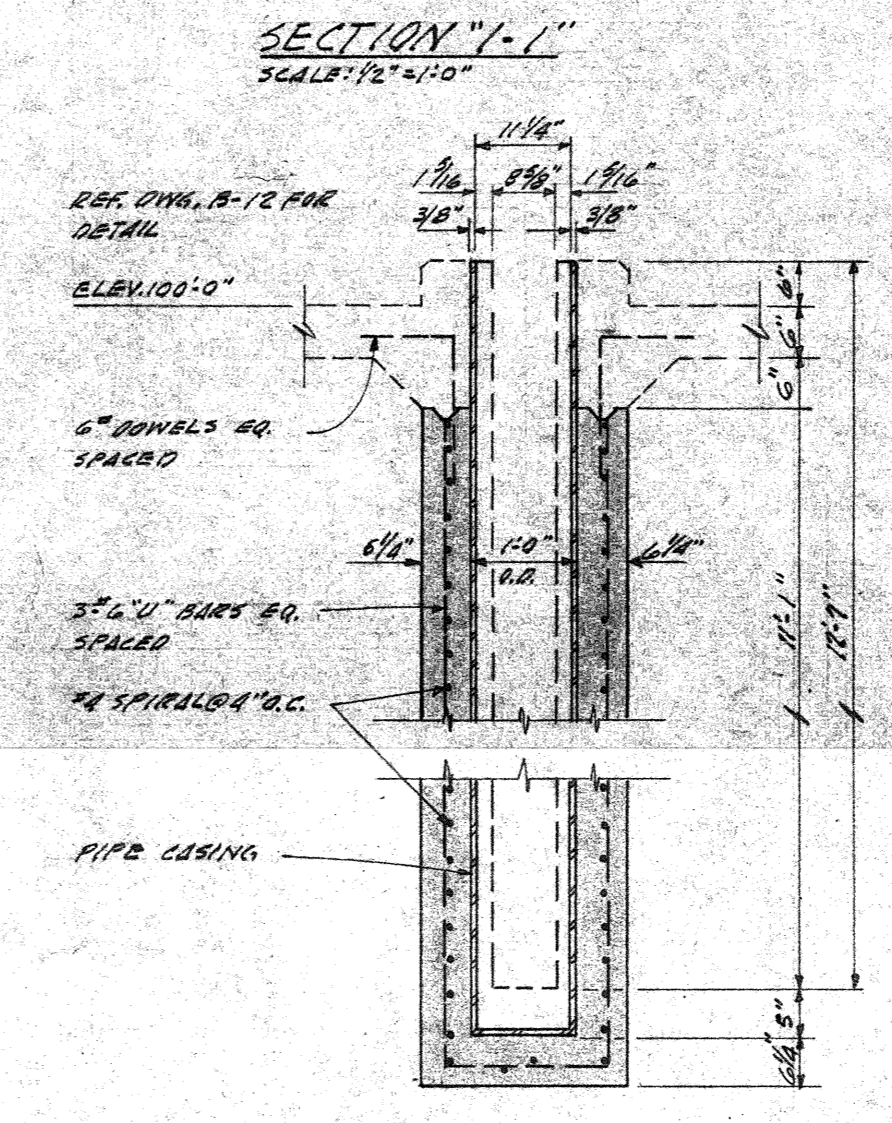
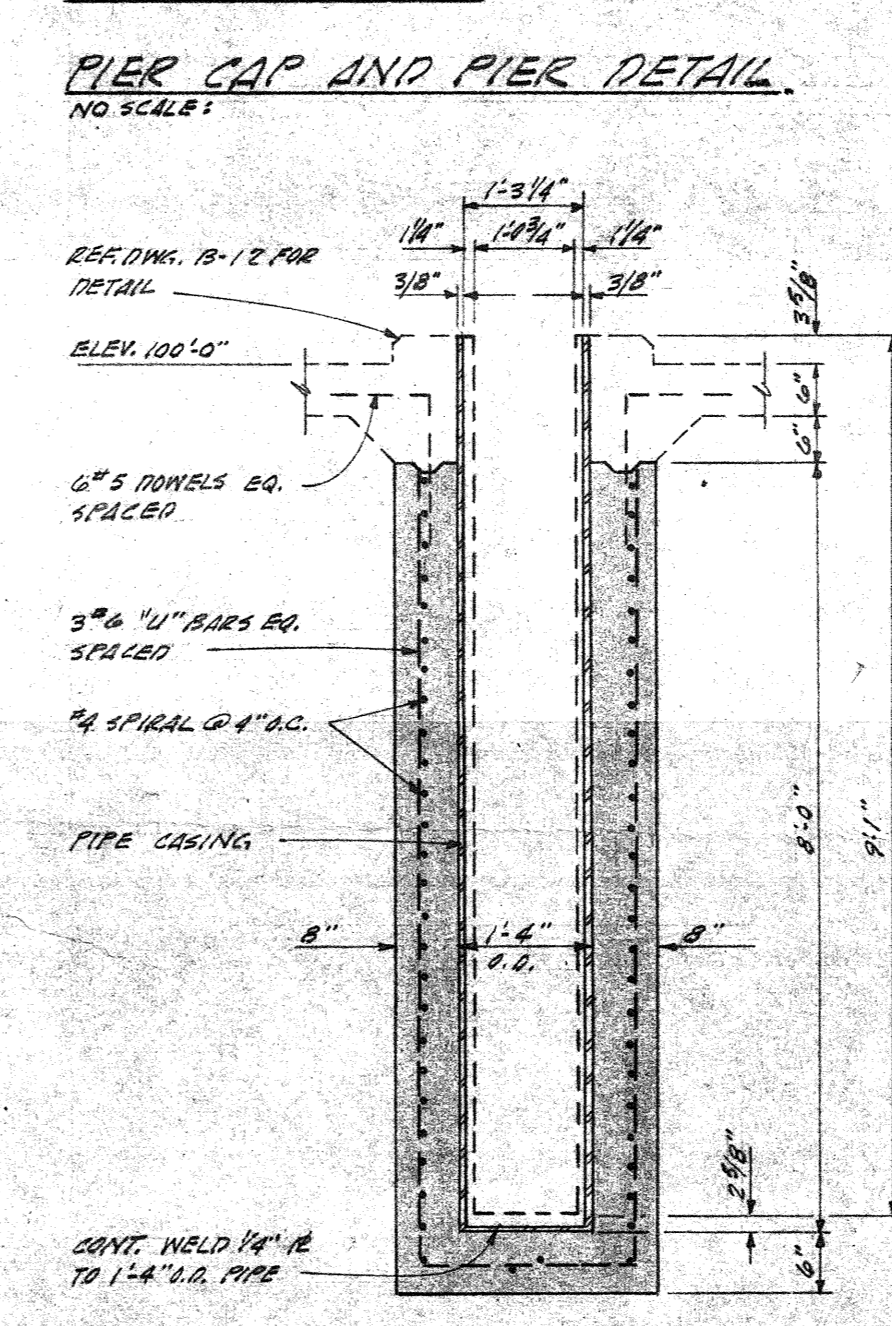
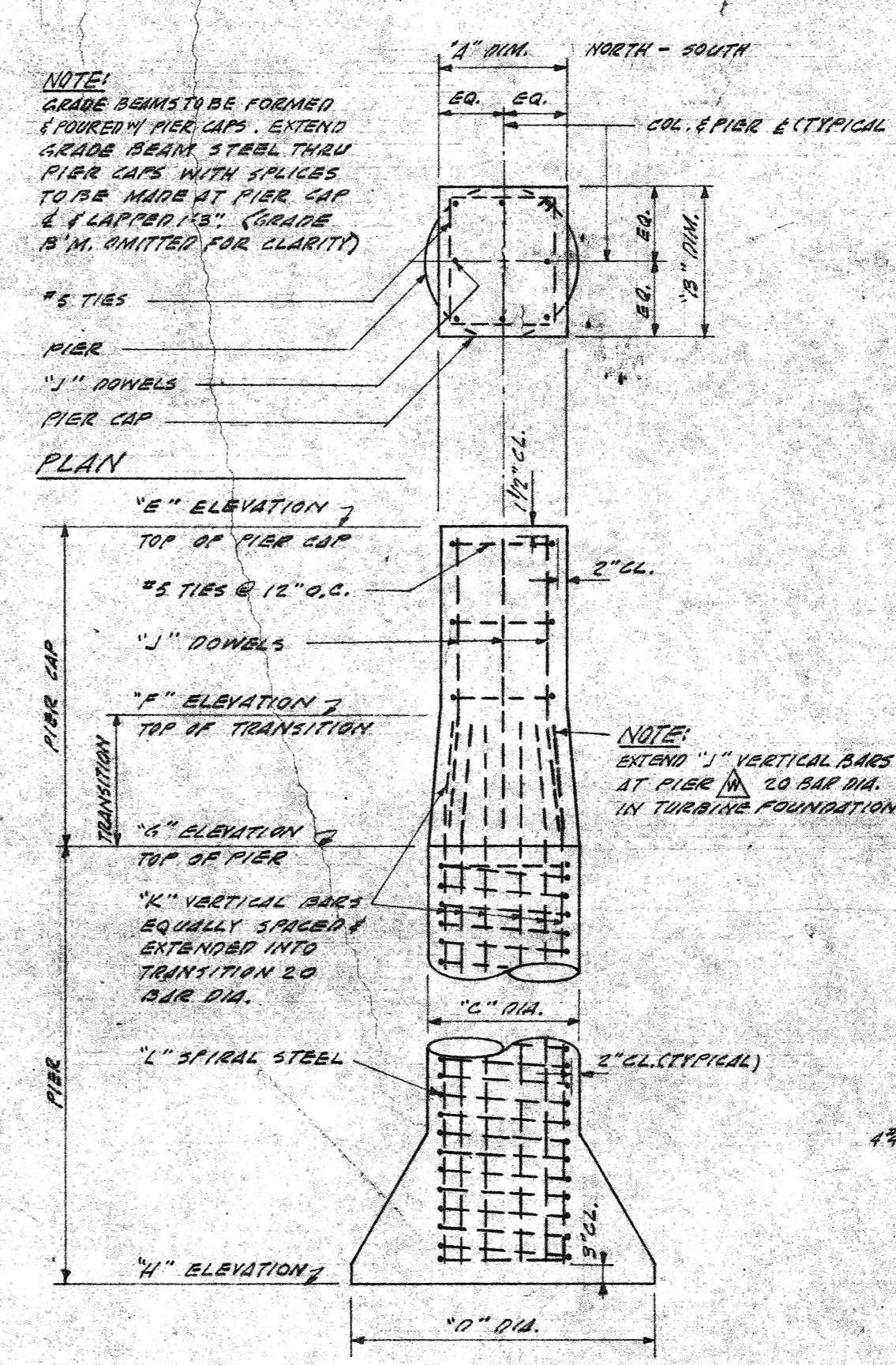


MAIN BUILDING FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

NOTE:
REF. SECTIONS 10-12 & 13-15 DIM. 10-12
REF. 10-12 & 13-15 DIM. 10-12



SECTION 1-1
SCALE: 1/2" = 1'-0"

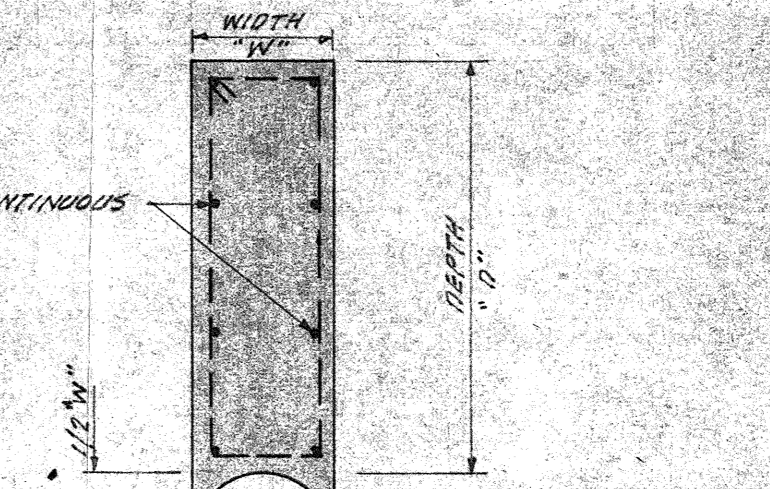


SECTION 2-2
SCALE: 1/2" = 1'-0"

PIER CAP AND PIER SCHEDULE

MARK	1	2	3	4	5	6	7	8	9	10	11	12
1	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
2	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
3	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
4	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
5	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
6	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
7	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
8	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
9	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
10	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
11	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
12	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"

NOTE:
EACH PIER SHALL BE FORMED, BELTED AND POURED IN THE SAME BATCH OPERATION.
NO DISCONTINUITY FOR GRADE BEAMS, PILES, PILES, HAT, ETC. SHALL BE LEFT STANDING OPEN AT BEARING DEPTH FOR MORE THAN TWO MOSES.



GRADE BEAM DETAIL
NO SCALE

GRADE BEAM SCHEDULE

MARK	1	2	3	4	5	6	7	8	9	10	11	12
1	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
2	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
3	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
4	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
5	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
6	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
7	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
8	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
9	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
10	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
11	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
12	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"

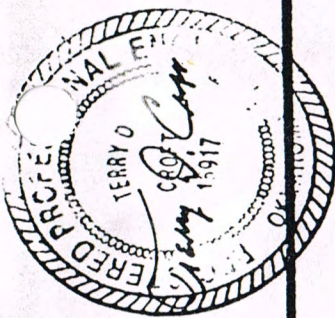
REVISIONS

NO.	DATE	DESCRIPTION
1	7-22-65	REV. CORRECTED
2	7-22-65	REV. CORRECTED
3	7-22-65	REV. CORRECTED
4	7-22-65	REV. CORRECTED
5	7-22-65	REV. CORRECTED
6	7-22-65	REV. CORRECTED
7	7-22-65	REV. CORRECTED
8	7-22-65	REV. CORRECTED
9	7-22-65	REV. CORRECTED
10	7-22-65	REV. CORRECTED
11	7-22-65	REV. CORRECTED
12	7-22-65	REV. CORRECTED

MAIN BUILDING PIERS
BEAMS & DETAILS
STEAM UNIT NO. 1

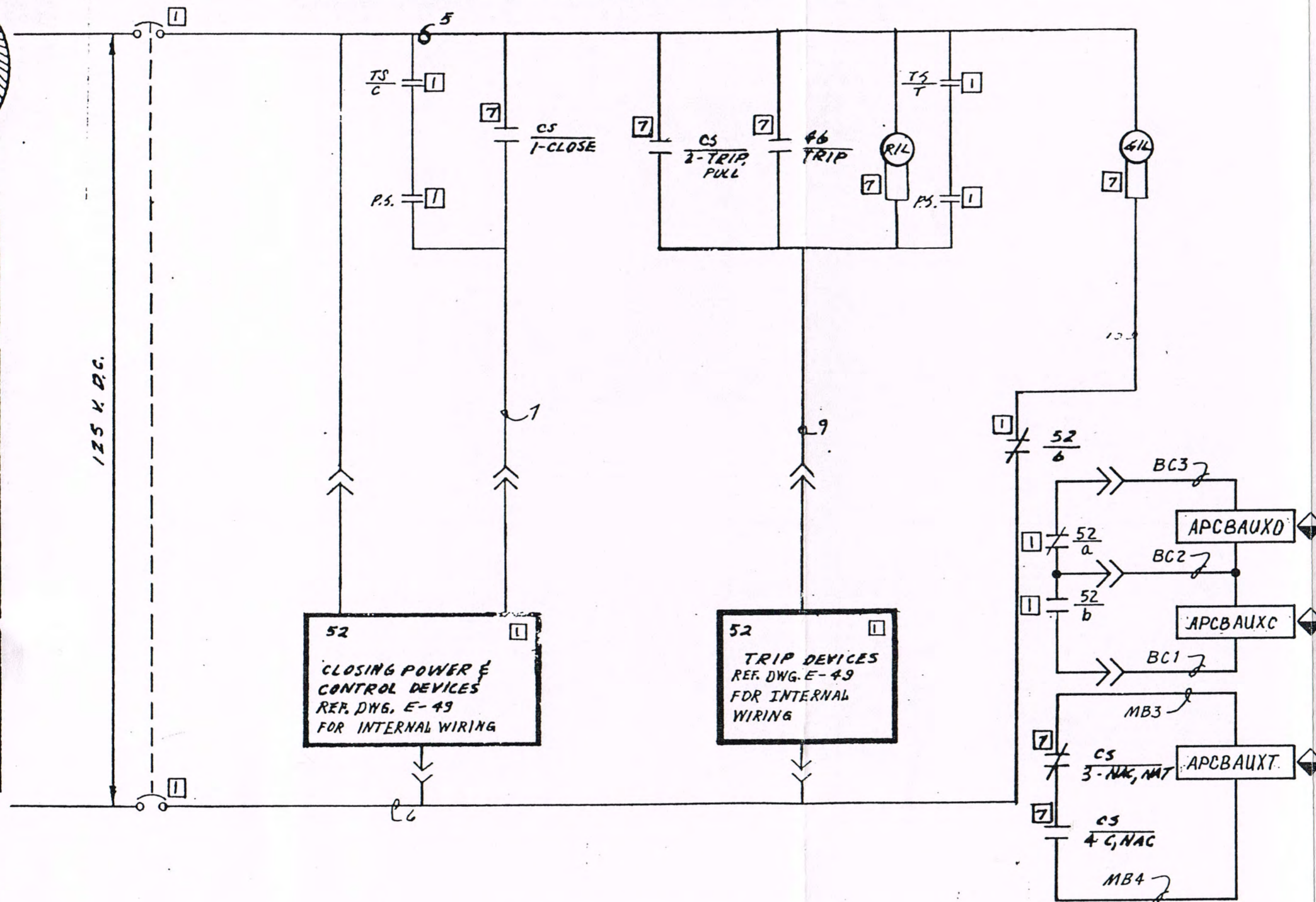
CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT & GEE
CONSULTING ENGINEERS
P.O. BOX 100
OKLAHOMA CITY, OKLAHOMA 73101



THIS DRAWING IS AN INSTRUMENT OF SERVICE IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

AUXILIARY BUS MAIN CIRCUIT BREAKER



DEVICE SCHEDULE

CS	CONTROL SWITCH FOR AUXILIARY BUS MAIN A.C.B.
52	BREAKER MECHANISM
52/b	A.C.B. AUXILIARY CONTACTS
4	PHASE BALANCE CURRENT RELAY
RIL	RED INDICATING LIGHT
61L	GREEN INDICATING LIGHT
b	CONTACT NORMALLY CLOSED
TS	TEST SWITCH
PS	POSITION SWITCH

SYMBOL SCHEDULE

7	DEVICE LOCATED ON BTG BOARD
1	DEVICE LOCATED IN 480 VOLT SWITCH GEAR
◆	DEVICE LOCATED ON 1COA-CAB-1

#1STG

REF DWG: E-95
E-96
1APC-K1001

AUX. BUS MAIN CIRCUIT BREAKER
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

DRAWN A.P. CHECKED A.F.C.

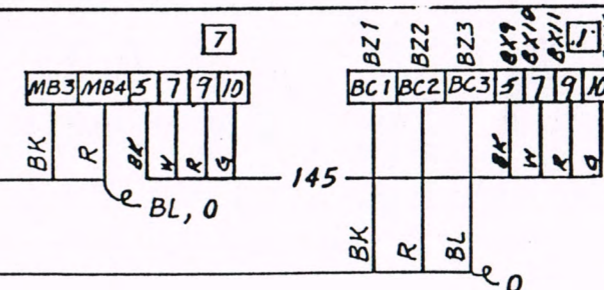
APPROVED L.S.G. E-II

DATE 3-1-65 REVISION 6

REVISIONS	ADD INTERNAL WIRING REF. ADD. TERM. NOS.
1. 3-15-65 DEL. WIRE NO. 8, REV. WIRING DIA. DEL. DEV. 17, ADD. 1. CHG. FUSE TO C.B. ADD EXT. NOS.	3. 10-25-66 AS BUILT 4. 1-23-95 B+V 18078 5. 2-10-95 OPEN 6. 03-01-96 CONF. TO CONST. RECORDS
2. 4-23-66 REV. TEST SW. ARR. G.M.T.	

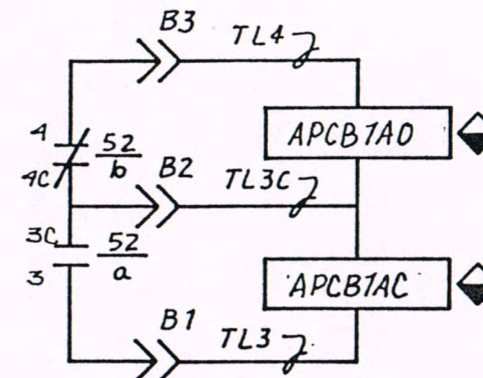
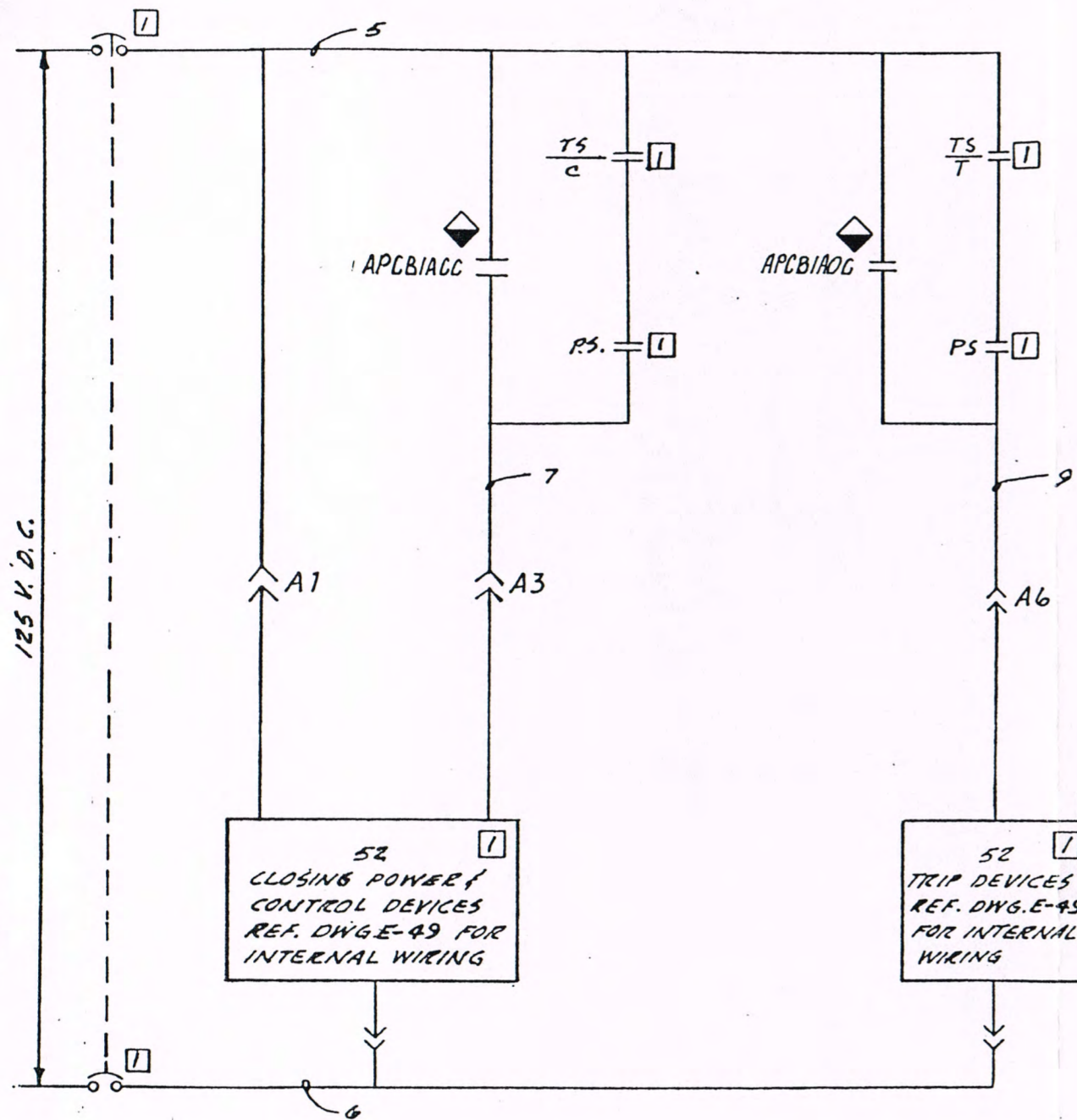
NOTES

TO 1COA-CAB-1
1APCK2001 02
SEE 1COA-K2617
TO 1COA-CAB-1
1APCK2001 01
SEE 1COA-K2617



B & V 18078-1APC-K2001

MOTOR CONTROL CENTER 1-A SUPPLY BREAKER



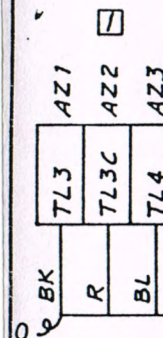
DEVICE SCHEDULE

CS	CONTROL SWITCH FOR M.C.C. 1A
52	SUPPLY BREAKER
52	BREAKER IN 480 V. SWITCHGEAR
a or b	AUX. CONTACTS
a	a CONTACT, NORMALLY OPEN
b	b CONTACT, NORMALLY CLOSED
RIL	RED INDICATING LIGHT
GIL	GREEN INDICATING LIGHT
TS	TEST SWITCH
PS	POSITION SWITCH

REF DWG: E-95
E-97
1APC-K1002

SYMBOL SCHEDULE

1	DEVICE LOCATED IN 480 V. SWITCHGEAR
7	DEVICE LOCATED ON B.T.G. BOARD
◆	DEVICE LOCATED ON 1COA-CAB-1



#1STG

SEE 1COA-K2711A
TO 1COA-CAB-1
1APCK2002 02

MOTOR CONTROL CENTER
1-A SUPPLY BREAKER
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

DRAWN K.C. CHECKED A.F.C.

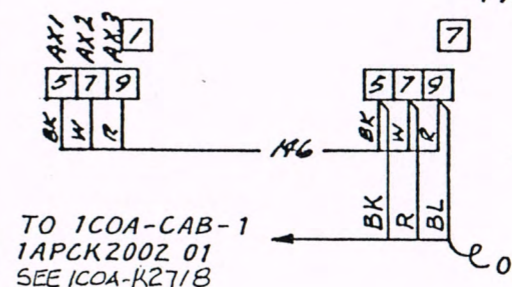
APPROVED L.S.G. E-12

DATE 3-1-65 REVISION 6

REVISIONS	NOTES
1. 10-12-65 ADD 1A IN DRY SCH. CHG. FUSE TO CB. ADD CMT. NOS.	3. 10-25-66 AS BUILT
2. 8-22-66 REV. TEST SW. ARRANG. ADD INTERNAL WIRING REF. E TERM. NOS.	4. 1-23-95 B+V18078 5. 2-10-95 OPEN
	6. 03-01-96 CONFS WITH CONST RECORDS- NIC

NOTES

THIS DRAWING IS AN INSTRUMENT OF SERVICE IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

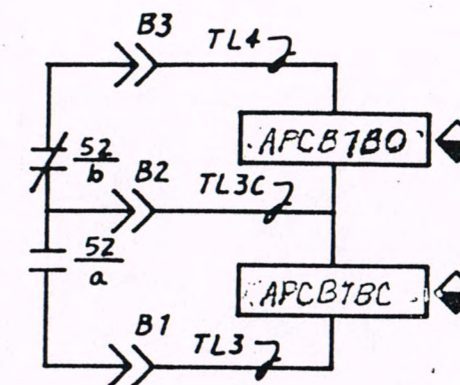
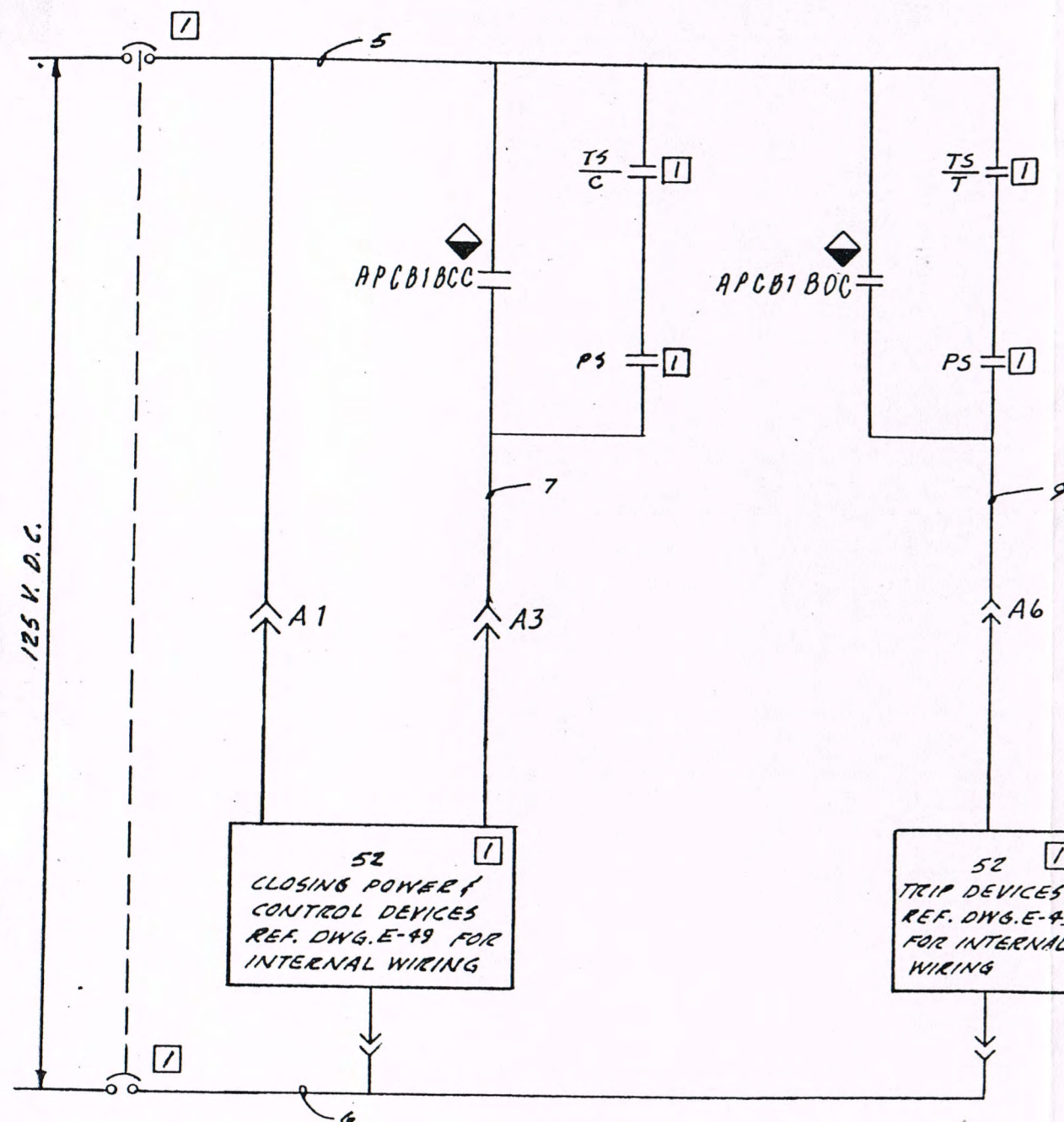


TO 1COA-CAB-1
1APCK2002 01
SEE 1COA-K2718

IF ANY REVISIONS OF THIS DOCUMENT ARE MADE, THEY SHALL BE MADE BY THE ENGINEER OR HIS REPRESENTATIVE. THE ENGINEER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE ORIGINAL DRAWING OR REVISIONS. SIGNED: Terry D. Tippet, P.E. DATE: 10-12-65 REG. NO. 16917

B & V 18078-1APC-K2002

MOTOR CONTROL CENTER 1-B SUPPLY BREAKER



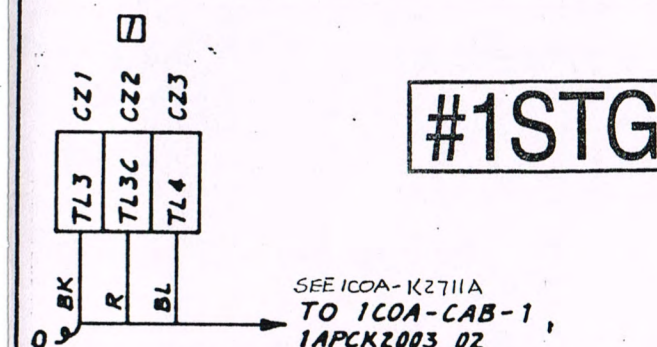
DEVICE SCHEDULE

52	CONTROL SWITCH FOR M.C.C. 1B SUPPLY BREAKER
52	BREAKER IN 480 V. SWITCHGEAR
52	AUX. CONTACTS
a or b	a CONTACT, NORMALLY OPEN
a	b CONTACT, NORMALLY CLOSED
RIL	RED INDICATING LIGHT
GIL	GREEN INDICATING LIGHT
PS	POSITION SWITCH
TS	TEST SWITCH

REF DWG: E-95
E-98
1APC-K1003

SYMBOL SCHEDULE

1	DEVICE LOCATED IN 480 V. SWITCHGEAR
7	DEVICE LOCATED ON B.T.G. BOARD
◆	LOCATED ON 1COA-CAB-1



MOTOR CONTROL CENTER
1-B SUPPLY BREAKER
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

DRAWN K.C. CHECKED A.F.C.

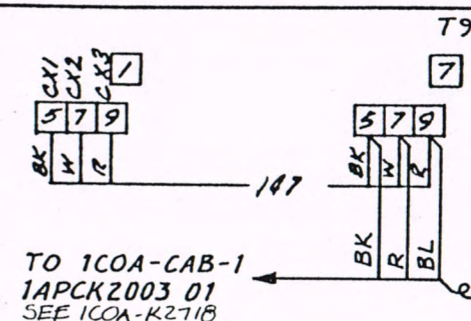
APPROVED L.S.G. E-13

DATE 3-1-65 REVISION 6

REVISIONS	3.10-25-66 AS BUILT
1.10-12-65 ADD 1B TO DR. SCH. CHG. FROM TO 1B ADD NOS.	4.1-23-95 B+V 1807B 5.2-10-95 OPEN
2.4-22-66 REV. TEST SW. ARRANG. ADD INTERNAL WIRING REF. E TERM. NOS.	6.03-01-96 CONF5 WITH CONST RECORDS-NIC

NOTES

THIS DRAWING IS AN INSTRUMENT OF SERVICE IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.



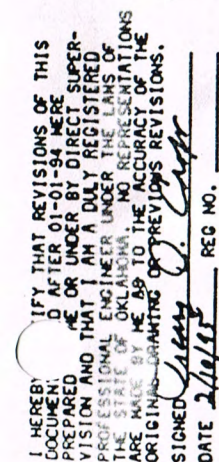
TO 1COA-CAB-1
1APCK2003 01
SEE 1COA-K271B

B & V 18078-1APC-K2003

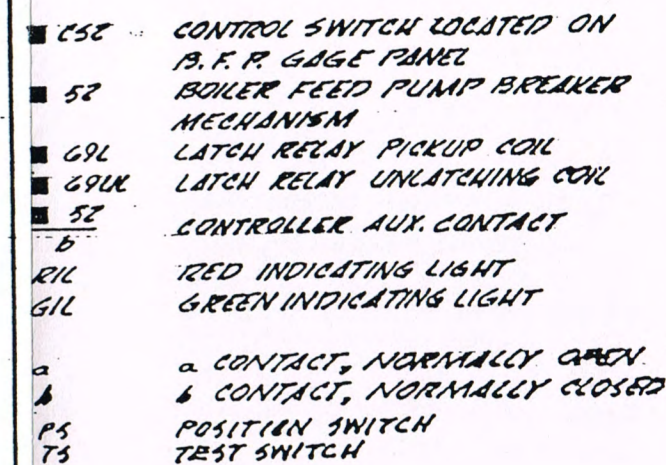
I HEREBY CERTIFY THAT REVISIONS OF THIS DRAWING, DATED AFTER OCTOBER 1965, WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REVISIONS OF THE ORIGINAL DRAWING OR PREVIOUS REVISIONS.



SIGNED *Terry D. Goff* DATE 12/1/65 REG. NO. 16917




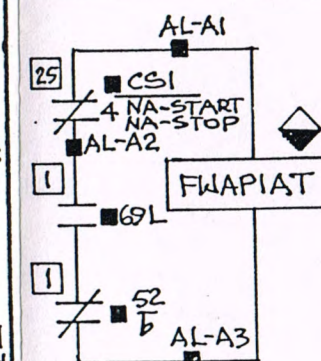
DEVICE SCHEDULE



REF DWG: 1FWA-K1001
TIPPETT & GEE E-97, B4V 18078-1444-E0097

SYMBOL SCHEDULE

- | | |
|---|--|
| 1 | DEVICE LOCATED IN 480V SWITCHGEAR |
| 7 | DEVICE LOCATED ON B.T.G. BOARD |
| 25 | DEVICE LOCATED ON BOILER FEED
PUMP GAGE PANEL |
|  | LOCATED ON 1COA-CAB-1 |



#1STG

BOILER FEED PUMP. 1A
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

DRAWN	L.A.P.	CHECKED	A.F.C.
-------	--------	---------	--------

APPROVED	L.S.G.	F-14
----------	--------	------

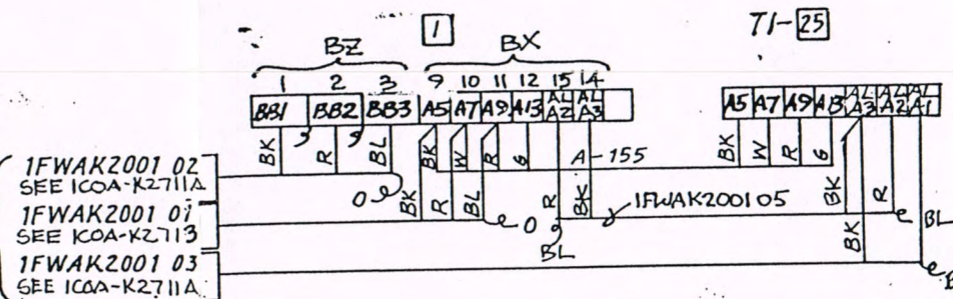
DATE	3-1-65	REVISION 5
------	--------	------------

REVISIONS	WIRING REQ
1. 5-15-63	9. 10-25-66
REV WIRING DIA.	AS BUILT
CORR SCHED.	4. 2-10-95
ADD CMT NO.	BY V18078
CHG FUSE TO	5. 03-01-96
CA	CONF TO
2. 4-22-66	CONST
REV. TEST SW.	RECORDS
ARRGMT, ADD	
INTERNAL	

NOTES

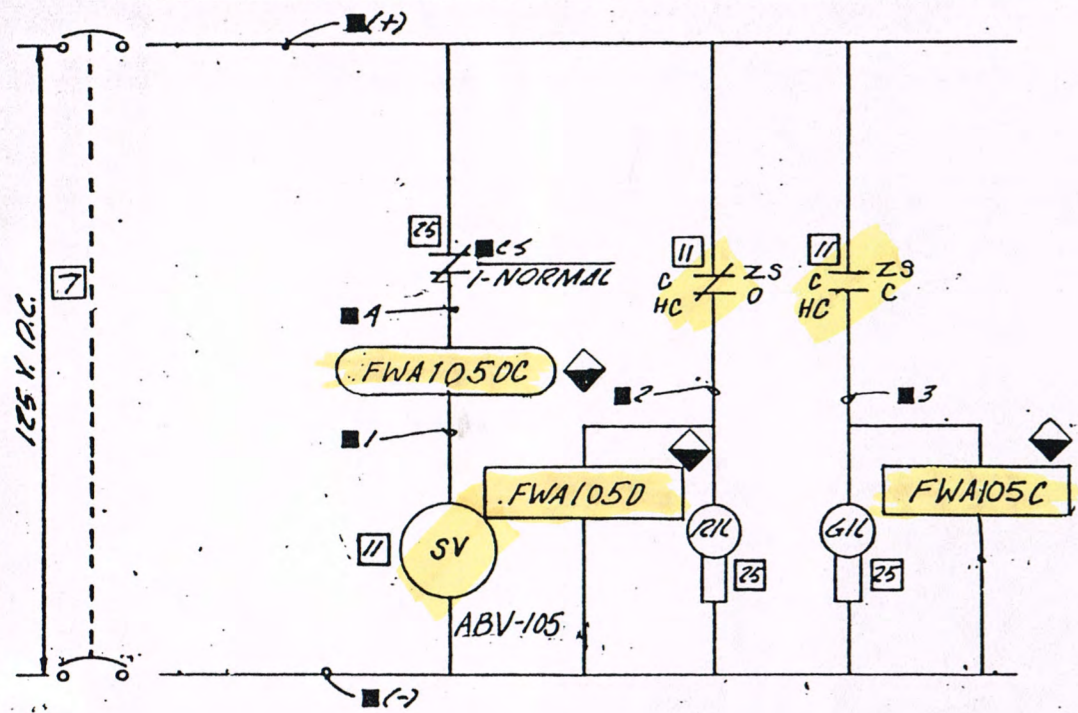
1. CONTRACTOR TO FIELD LOCATE SIGNAL CONDITIONER IN BTG BOARD.
2. DO NOT OPEN CIRCUIT SECONDARY OF CT IF CT'S PRIMARY IS ENERGIZED. DAMAGE OR PERSONAL INJURY MAY OCCUR

TO 1COA-CAB-1

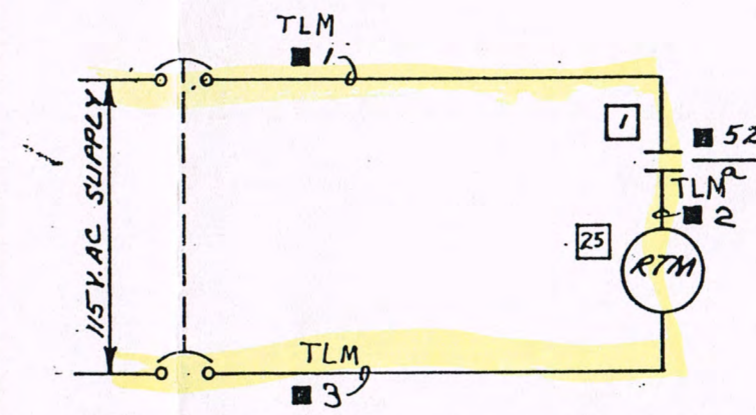
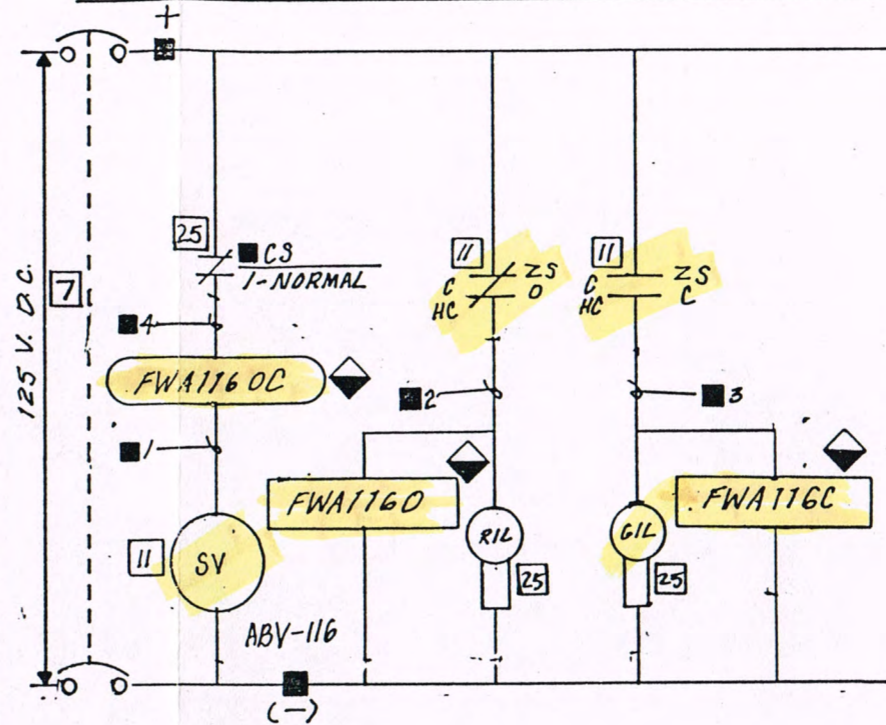


B & V 18078-1FWA-K2001

BOILER FEED PUMP RECIRC. VALVE 1A.



BOILER FEED PUMP RECIRC. VALVE 1B



BOILER FEED PUMP RUN TIME METER 1A & 1B

DEVICE SCHEDULE

- CS CONTROL SWITCH FOR RECIRC. VALVES
- ZS LIMIT SWITCH CONTACT CLOSING ON VALVE OPEN
- ZS LIMIT SWITCH CONTACT CLOSING ON VALVE CLOSED
- VALVE SHOWN IN OPEN POSITION
- ABV-105 PUMP 1A MIN FLOW RECIRCULATION CONTROL WITH SOLENOID VALVE
- ABV-116 PUMP 1B MIN FLOW RECIRCULATION CONTROL WITH SOLENOID VALVE
- RIL RED INDICATING LIGHT
- GIL GREEN INDICATING LIGHT
- RTM RUNNING TIME METER

REF DWG: 1FWA-K1003 E-83, E-84
1FWA-K1004

SYMBOL SCHEDULE

- 7 DEVICE LOCATED ON P.T.G. BOARD
- 11 DEVICE LOCATED ON HEATER FLOOR
- 25 DEVICE LOCATED ON BOILER FEED PUMP GAGE PANEL
- 1 DEVICE LOCATED IN 480 V. SW'GEAR
- ① SEE 1COA-K2711A

#1STG

BOILER FEED PUMP
RECIRC. VALVES ABV-105 & ABV-116
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

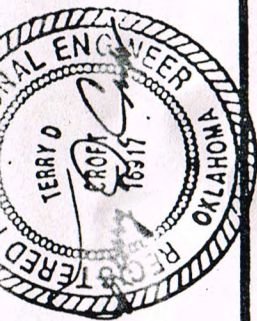
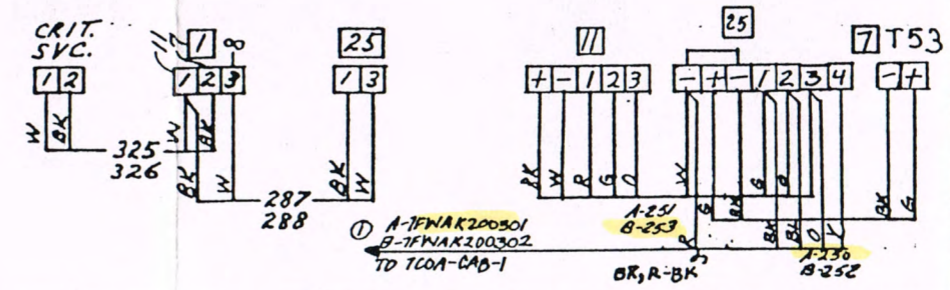
TIPPETT AND GEE CONSULTING ENGINEERS			
ABILENE,		DALLAS, TEXAS	
DRAWN	L.A.P.	CHECKED	A.F.C.
APPROVED	L.S.G.	E-15	
DATE	3-1-65	REVISION 6	

THIS DRAWING IS AN INSTRUMENT OF SERVICE IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

REVISIONS	METER & WIRING
1. 5-15-63	ADD NOS 1 & 2
2. 7-22-66	REV WIRING DIA. 1/2" = 3/8"
3. 10-25-66	DELETE CHRG. VALVES ADD
4. 2-3-95	OPEN
5. 2-10-95	CONF'D
6. 03-01-96	CONST. RECORDS

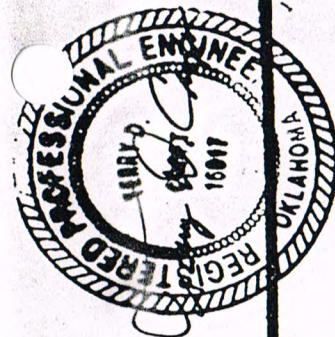
NOTES
1. USE "A" OR "B" IN THESE DESIGNATIONS ACCORDING TO VALVE NO.

B.F. PUMP RUN TIME METER



PREPARED BY TERRY O. TERRY
UNDER DIRECT SUPERVISION OF TERRY O. TERRY
A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REPRESENTATIONS ARE MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAWING OR PREVIOUS REVISIONS.
SIGNED: TERRY O. TERRY
DATE: 3/1/65
REG. NO. 16917

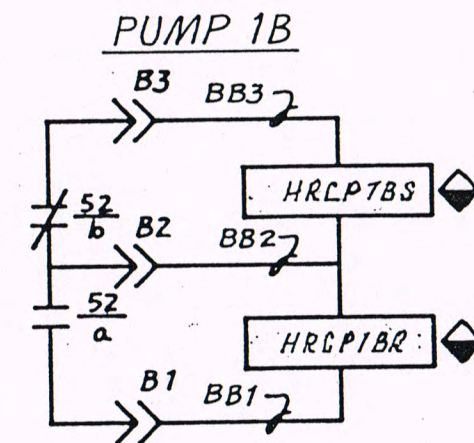
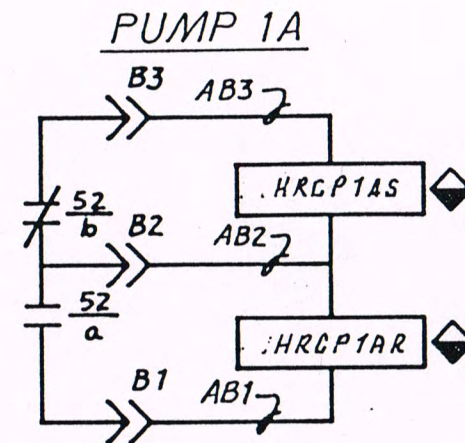
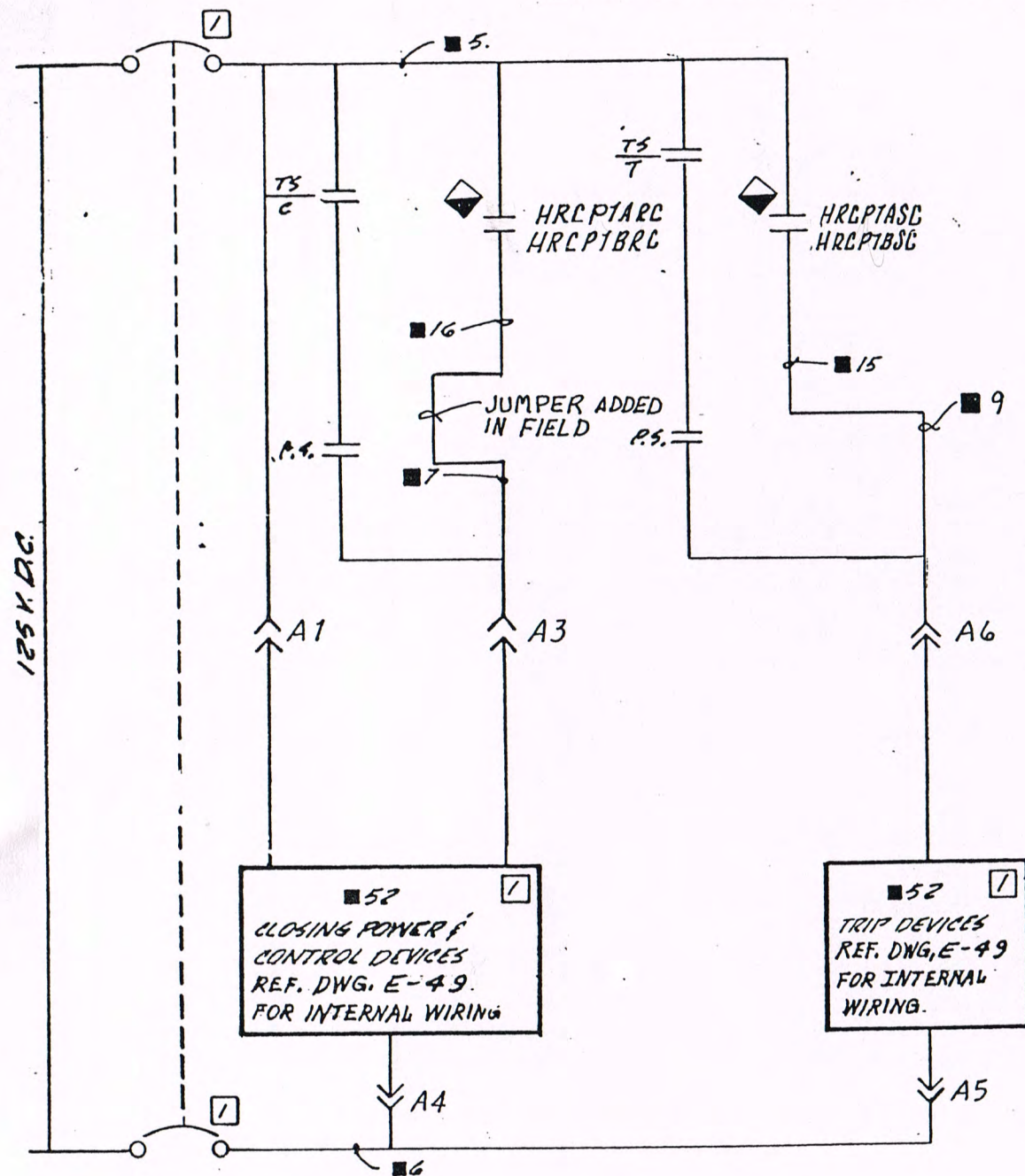
B & V 18078-IFWA-K2003



THIS DRAWING IS AN INSTRUMENT OF SERVICE. IT IS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT DATE 01-01-94 WERE PREPARED BY TIPPETT & GEE, INC. UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REPRESENTATIONS ARE MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAWING OR PREVIOUS REVISIONS.
SIGNED *[Signature]*
DATE 2/2/95 REG. NO. 10917

CIRCULATING WATER PUMPS 1A & 1B



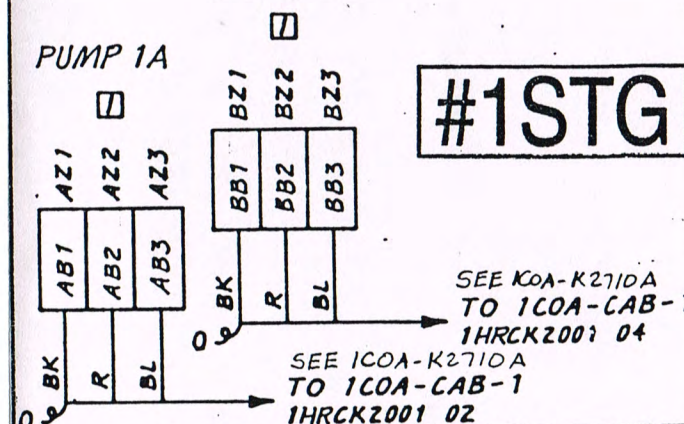
DEVICE SCHEDULE

- CS CIRCULATING WATER PUMP CONTROL SWITCH
- 33-5 CIRC. WATER VALVE LIMIT SWITCH CLOSES WHEN VALVE REACHES FULLY CLOSED POSITION
- 33-6 CIRC. WATER VALVE LIMIT SWITCH CLOSES WHEN VALVE REACHES FULLY CLOSED POSITION
- 52 CIRC. WATER PUMP 1 BREAKER MECHANISM
- RIL RED INDICATING LIGHT
- GL GREEN INDICATING LIGHT
- b b CONTACT, NORMALLY CLOSED
- a a CONTACT, NORMALLY OPEN
- TS TEST SWITCH
- PS POSITION SWITCH

REF DWG: E-95
1HRC-K1001

SYMBOL SCHEDULE

- 7 DEVICE LOCATED ON 480 V. SWITCHGEAR
- 7 DEVICE LOCATED IN B.T.G. BOARD
- 33-5, 33-6 DEVICE LOCATED IN CIRC. WATER PUMP AREA
- 52 LOCATED ON 7COA-CAB-1 PUMP 1B



CIRCULATING WATER PUMPS 1A & 1B CONTROL SCHEMATIC STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

DRAWN L.A.P. CHECKED A.F.C.

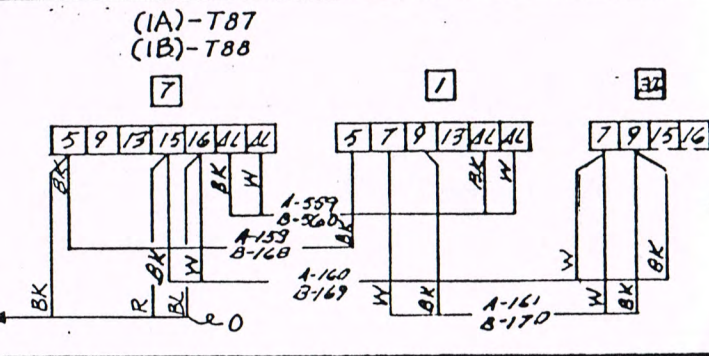
APPROVED C.S.G. E-18

DATE 3-1-65 REVISION 7

REVISIONS	3.4-22-66	6.2-10-95
1. 4-2-65 REV. 52 DESCRIPTION ADD CMT NO. DEL. BKR. WRM REF	REV. TEST SW. ARRGNT. REV. CKT. NO'S. & WIRE COLORS. ADD INTERNAL WIRING REF. CHG. CS-5 TO CS-4.	OPEN 7.03-01-96 CONF TO CONST RECORDS
2. 10-26-65 CHG. FUSES TO CB.	4. 10-25-66 AS BUILT 5. 12-3-95 BY V.18070	

- NOTES
- USE "A" OR "B" IN THESE DESIGNATIONS ACCORDING TO PUMP NO.
 - LOCATED ON 1COA-CAB-1
 - CONTRACTOR TO FIELD LOCATE SIGNAL CONDITIONERS IN BT&G BOARD.
- ① SEE 1COA-K2718

TO 1COA-CAB-1
(A) 1HRC2001 01
(B) 1HRC2001 03

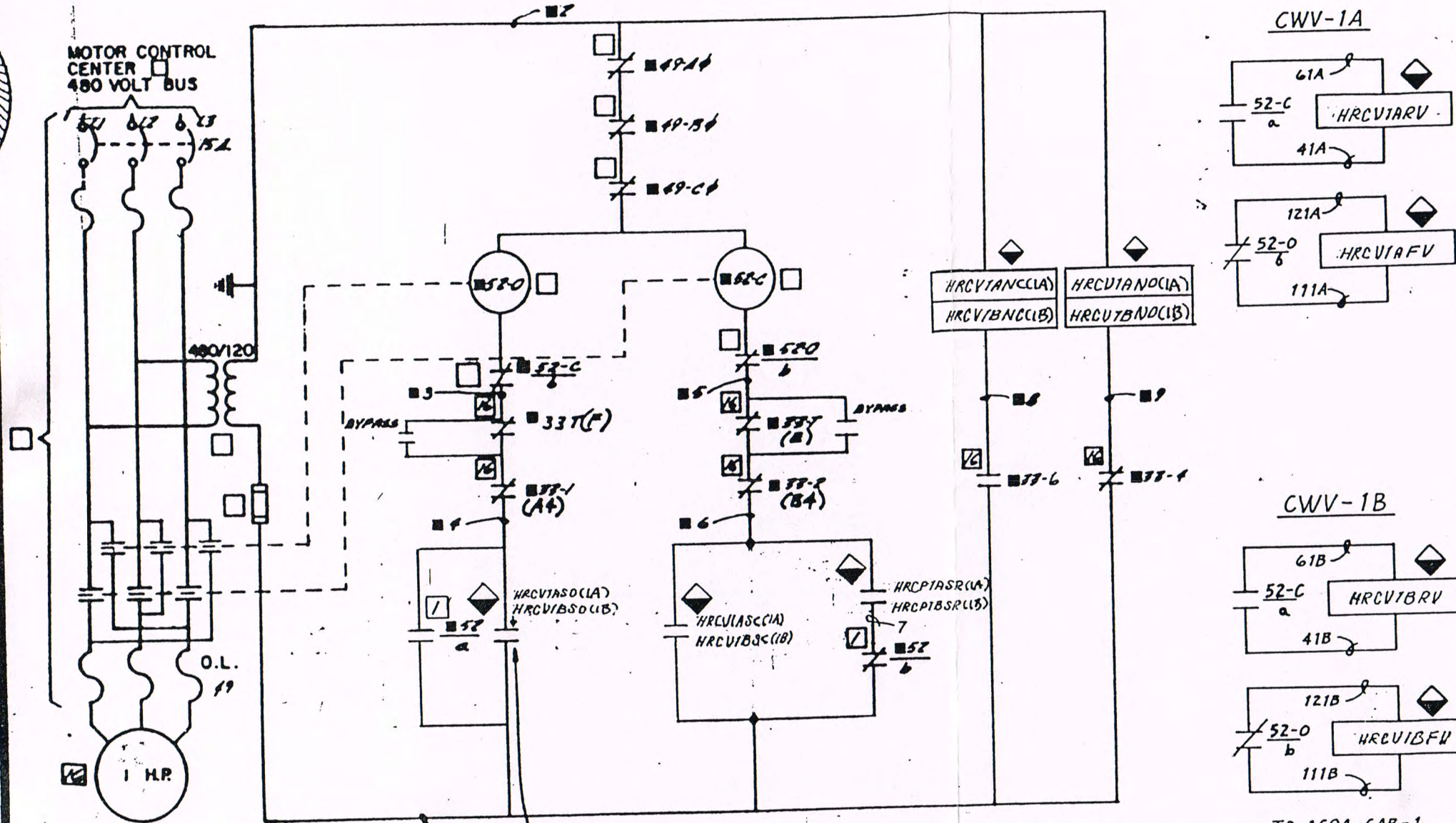


B & V 18078-1HRC-K2001

THIS DRAWING IS AN INSTRUMENT OF SERVICE IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT MADE AFTER 01-01-94 WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF AN ENGINEER REGISTERED IN THE STATE OF OKLAHOMA. NO REPRESENTATIONS ARE MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAWING OR ANY REVISIONS.
SIGNED: [Signature] DATE: 2/3/95 REG. NO. 14912

CIRCULATING WATER VALVE 1A & 1B

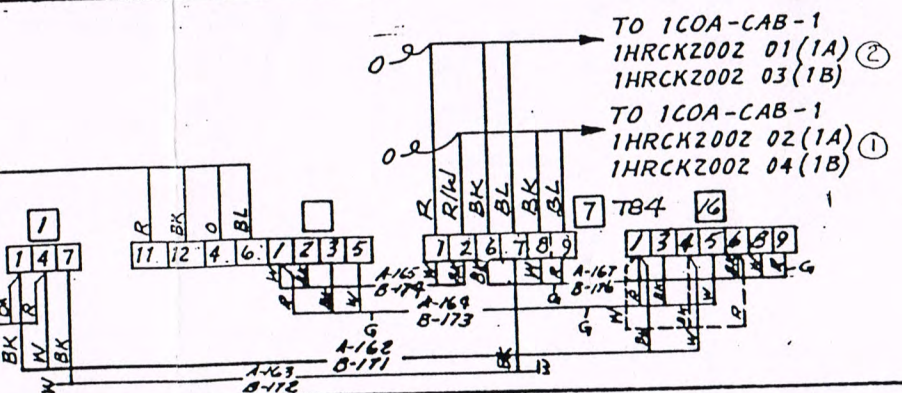


CIRC. WATER VALVE MOTOR

THIS CONTACT SHALL NOT BE MADE UP IN TEST POSITION OF CIRC. WATER PUMP BREAKER

- ① SEE 1COA-K2711
- ②③ SEE 1COA-K2710
- ④ SEE 1COA-K2710A

- ③ TO 1COA-CAB-1 1HRCK2002 07(1A) 1HRCK2002 08(1B)
- ④ TO 1COA-CAB-1 1HRCK2002 05(1A) 1HRCK2002 06(1B)



DEVICE SCHEDULE

- CS CONTROL SWITCH FOR CIRC. WATER PUMP
- PB PUSH BUTTON STATION FOR VALVE 1
- 33-1 LIMIT SWITCH, OPENS WHEN VALVE REACHES FULLY OPEN POSITION
- 33-2 LIMIT SWITCH, OPENS WHEN VALVE REACHES FULLY CLOSED POSITION
- 33-3 LIMIT SWITCH, OPENS WHEN VALVE REACHES FULLY CLOSED POSITION
- 33-4 LIMIT SWITCH, OPENS WHEN VALVE REACHES FULLY OPEN POSITION
- 33-T EXCESSIVE TORQUE CUT OUT. LIMIT SWITCH
- 49 OVERLOAD HEATERS & RELAY CONTACT FOR CONTROLLER
- 52 CIRCULATING WATER PUMP CONTROLLER "a" OR "b" CONTACTS
- 52-O COIL & CONTACTS FOR CIRC. WATER VALVE "OPEN" CONTACTOR
- 52-C COIL & CONTACTS FOR CIRC. WATER VALVE CLOSE CONTACTOR
- R/L RED INDICATING LIGHT
- G/L GREEN INDICATING LIGHT
- a "a" CONTACT, NORMALLY OPEN
- b "b" CONTACT, NORMALLY CLOSED.

SYMBOL SCHEDULE

- ◆ DEVICE LOCATED ON 1COA-CAB-1
- 1 DEVICE LOCATED IN 480V SWITCHGEAR
- 2 DEVICE LOCATED IN M.C.C. PA
- 7 DEVICE LOCATED ON B.T.G. BOARD
- 14 DEVICE LOCATED IN COILING TOWER AREA
- 3 DEVICE LOCATED IN M.C.C. 1B

NOTES CONT'D:

- 3. ON VALVE CLOSURE 33-6 (REFER E-18) MUST CLOSE & SHUT OFF PUMP BEFORE 33-2 OPENS, OTHERWISE VALVE WILL CYCLE INDEFINITELY.
- 4. USE A OR B ACCORDING TO VALVE NO.
- 5. USE 2 OR 3. VALVE 1A BKIR. LOCATED IN M.C.C. 1A(2). VALVE 1B BKIR. LOCATED IN M.C.C. 1B(3).

CIRC. WATER VALVES 1A & 1B
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

DRAWN	L.A.P.	CHECKED	A.F.C.
APPROVED	L.S.G.	E-19	
DATE	3-1-65	REVISION 7	

REF. DWG.: E-83, E-98
E-99, E-101
1HRC-K1003

REVISIONS	DATE
1. 10-15-65 ADD CKT. NOS.	2-3-95
2. 10-26-65 REV. WIR. DIA.	6.2-10-95
3. 4-22-66 REV. CKT. NOS.	7.03-01-96
4. 10-25-66 ADD TORQUE SW. ADD CS-6 REV. WIRE COLORS	CONF TO CONST RECORDS

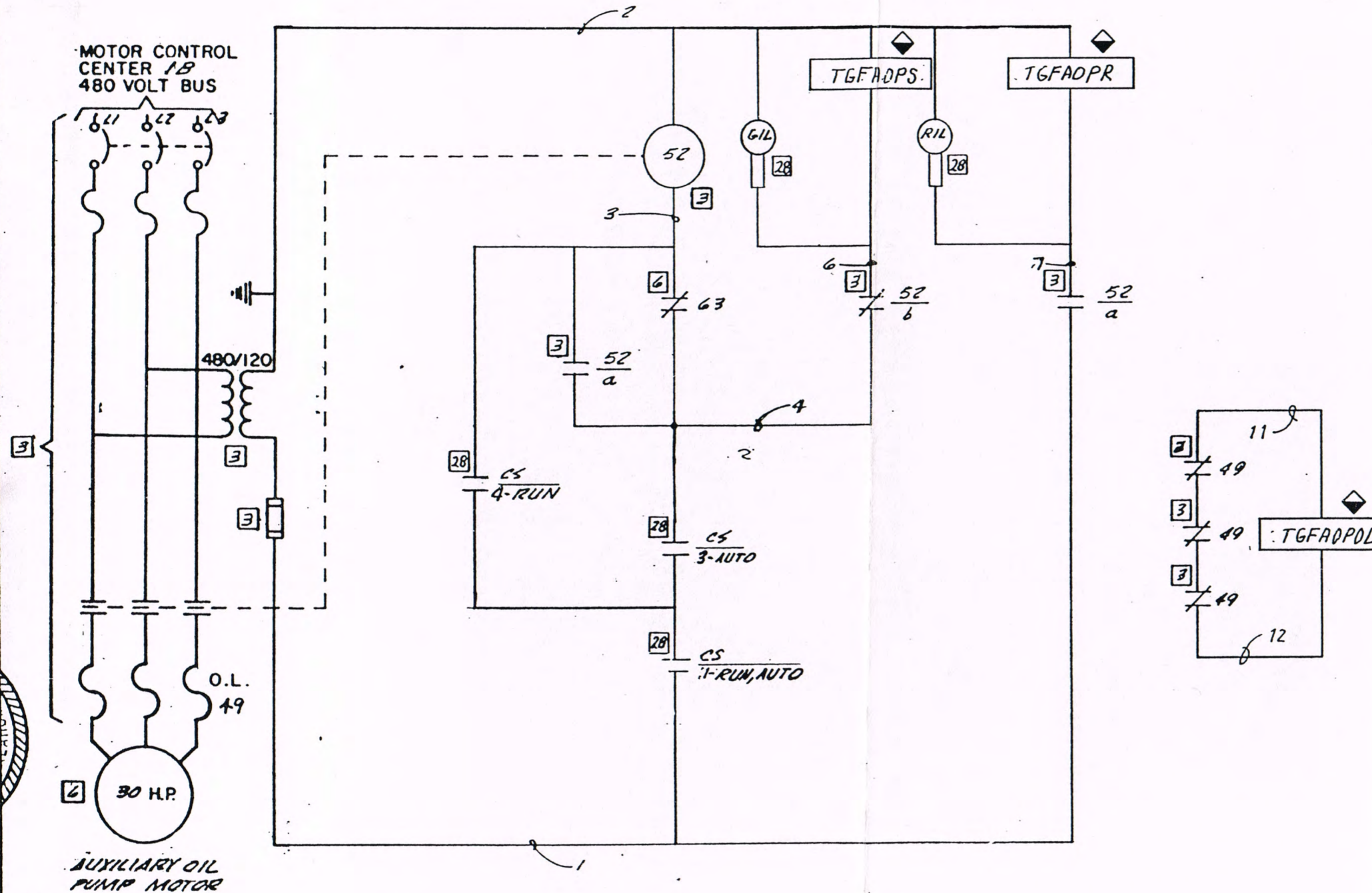
NOTES:

- 1. VALVE OPENS. THE VALVE OPENS AUTOMATICALLY WHEN THE CIRC WATER PUMP IS STARTED. IT CAN BE OPENED FROM THE DCIS.
- 2. VALVE CLOSING. THE VALVE CLOSING AUTOMATICALLY WHEN THE CIRC WATER PUMP STOP COMMAND IS ISSUED FROM THE DCIS. IT ALSO CLOSING AUTOMATICALLY, IF NOT ALREADY CLOSED, WHEN THE CIRC WATER PUMP START COMMAND IS ISSUED FROM THE DCIS AND THE PUMP IS NOT RUNNING. IT CAN BE CLOSED ANYTIME FROM THE DCIS. HOWEVER, IF CLOSED ALL THE WAY FROM THE DCIS WHEN THE PUMP IS RUNNING THE PUMP WILL STOP. AND THE VALVE WILL REMAIN CLOSED. IF CLOSED PARTWAY FROM THE DCIS WHEN THE PUMP IS RUNNING, THE VALVE WILL REOPEN WHEN THE CLOSE COMMAND IS STOPPED.

#1STG

18078-1HRC-K2002

AUXILIARY OIL PUMP



DEVICE SCHEDULE

CS	CONTROL SWITCH FOR AUX. OIL PUMP
49	OVERLOAD HEATERS & RELAY CONTACTS
52	AUX. CONTACTS FOR CONTACTOR
20R6	PRESS. SWITCH, AUX. OIL PUMP START
52	CONTACTOR COIL & MAIN CONTACTS FOR AUX. OIL PUMP
RIL	RED INDICATING LIGHT
GIL	GREEN INDICATING LIGHT
a	a CONTACT, NORMALLY OPEN
b	b CONTACT, NORMALLY CLOSED

REF DWG
E-95, E-101

SYMBOL SCHEDULE

3	DEVICE LOCATED IN M.C.C. 1B
7	DEVICE LOCATED ON RT. G. BOARD
6	DEVICE LOCATED ON TURB. OR TANK
20	DEVICE LOCATED ON TURB. START-UP PANEL
◆	DEVICE LOCATED ON 1COA-CAB-1
①	SEE 1COA-K2614A
②	SEE 1COA-K2616A

#1STG

AUXILIARY OIL PUMP
CONTROL SCHEMATIC
STEAM UNIT NO.1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

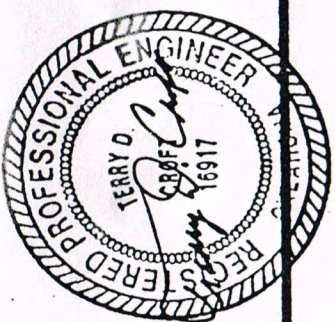
TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

DRAWN L.A.P. CHECKED A.F.C.

APPROVED L.S.G. E-20

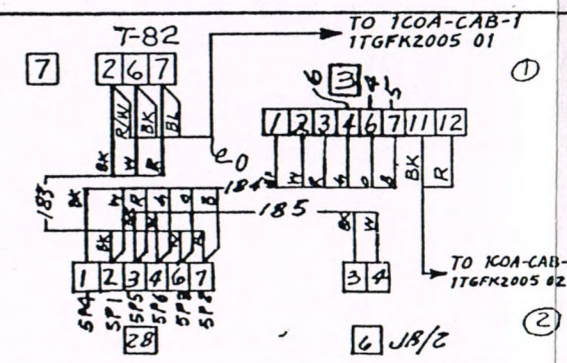
DATE 3-1-65 REVISION 6



REVISIONS	REV. TERM. REV.
1. 3-15-65	WIRE NO. 3.10-25-66
DEL. MTR TERM	AS BUILT
NO. 49.	4. 11-30-94
DEL. WIRE #1	B&V 18078
REV. WIRING DIA.	5. 2-10-95
REV. CS CONT.	OPEN
NO. 49. DEL. RIL	6. 03-01-96
DEL. ADD. RIL	CONFS WITH
NO. 49.	CONST
2. 4-22-66	RECORDS

NOTES

THIS DRAWING IS AN INSTRUMENT OF SERVICE IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.



B & V 18078-1TGF-K2005

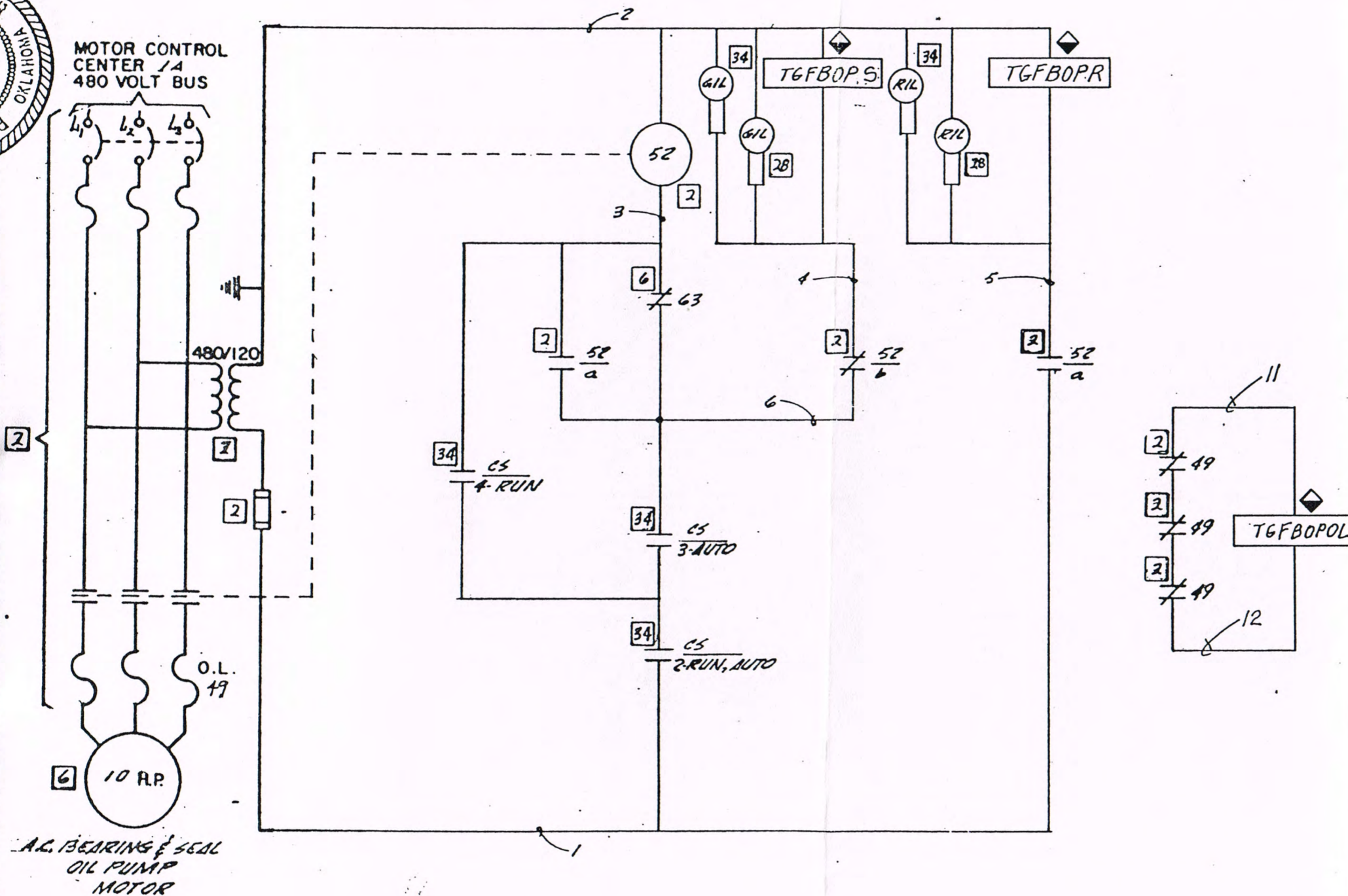


THIS DRAWING IS AN INSTRUMENT OF SERVICE. IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT DATED AFTER 01-01-84 WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REPRESENTATIONS ARE MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAWING OR PREVIOUS REVISIONS.

SIGNED *Terry D. Tippett*
DATE 10/17/97
REG. NO. 16917

A.C. BEARING & SEAL OIL PUMP



DEVICE SCHEDULE

- 52 CONTROL SWITCH FOR A.C. BEARING & SEAL OIL PUMP
- 49 OVERLOAD RELAY & RELAY CONTACTS
- 52 CONTACTOR COIL & MAIN CONTACTS FOR A.C. BEARING & SEAL OIL PUMP
- 52 AUX. CONTACTS FOR CONTACTOR
- 63 PRESS. SWITCH TO START A.C. BEARING & SEAL OIL PUMP. CLOSE 73 PSI, OPEN 90 PSI
- RIL RED INDICATING LIGHT
- 6IL GREEN INDICATING LIGHT
- a CONTACT, NORMALLY OPEN
- b CONTACT, NORMALLY CLOSED

REF DWG: E-95
E-99

SYMBOL SCHEDULE

- 2 DEVICE LOCATED IN M.C.C. 1A
- 6 DEVICE LOCATED ON TURB. OIL TANK
- 7 DEVICE LOCATED IN B.T.G. BOARD
- 28 DEVICE LOCATED ON TURBINE START-UP PANEL
- 34 DEVICE LOCATED ON TURNING GEAR CONTROL PANEL
- ◆ DEVICE LOCATED ON 1COA-CAB-1

- ① SEE 1COA-K2614A
- ② SEE 1COA-K2616A

#1STG

AC BEARING & SEAL OIL PUMP
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

DRAWN C.A.P. CHECKED A.F.C.

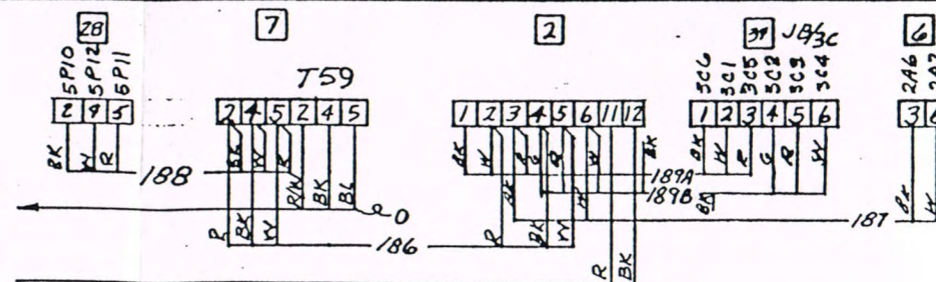
APPROVED C.S.G. E-21

DATE 3-1-65 REVISION

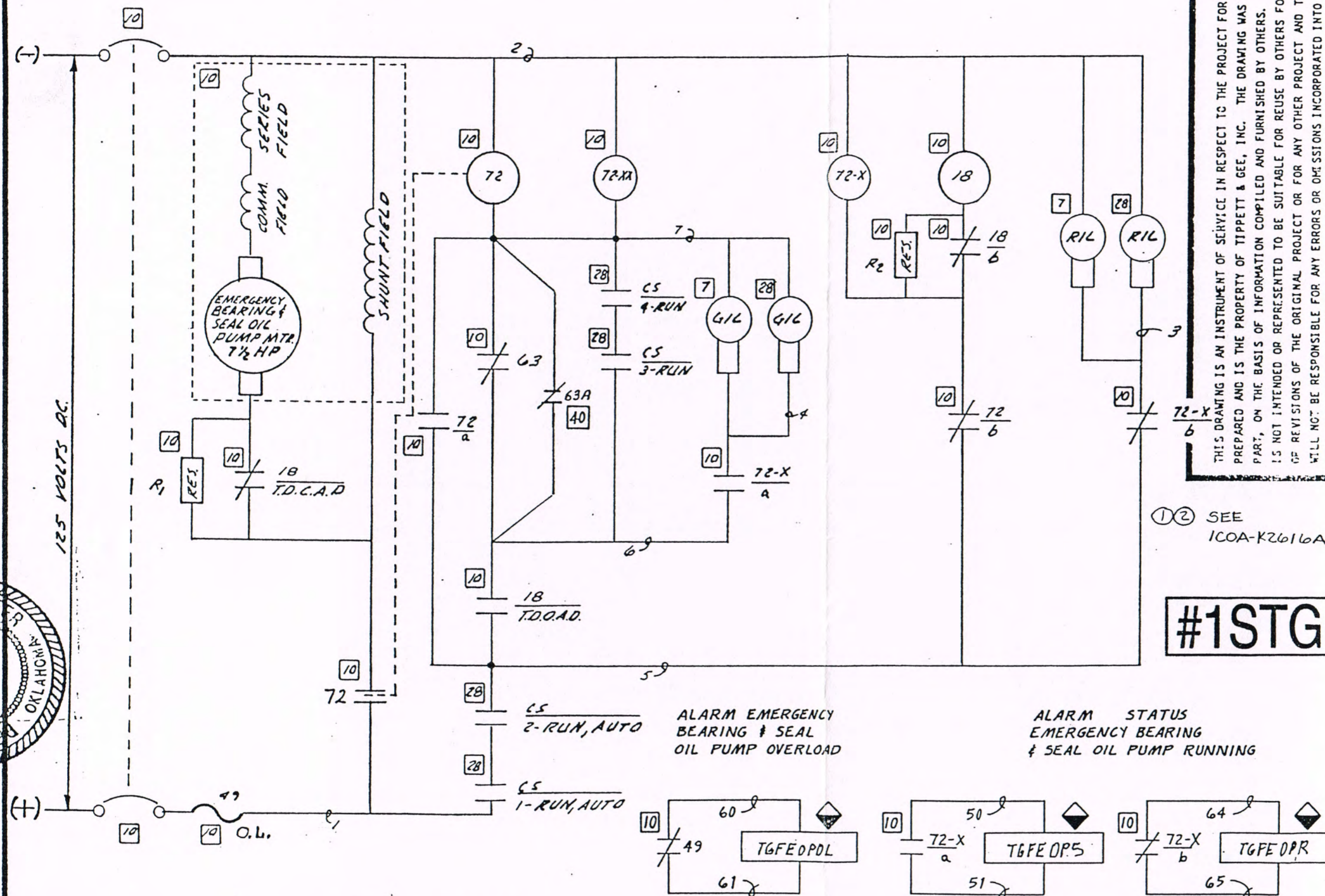
REVISIONS	REV. TERM. # NO'S
1. 5-15-65	3. 10-25-66
DEL MTR PHASE	AS BUILT
ADD 49, 4, 5, 6	4. 11-30-99
REV WIRING DIA	84V1807B
ADD RIL 6IL	
SYM 34, 6	5. 2-10-95
CKT NOS REF	OPEN
CS CONT. & WIR	6. 03-01-96
DGM	CONF TO
2. 4-22-66	CONST
	RECORDS

NOTES

- ① TO 1COA-CAB-1
1TGFK2006 01
- ② TO 1COA-CAB-1
1TGFK2006 02



B & V 18078-1TGF-K2006



THIS DRAWING IS AN INSTRUMENT OF SERVICE IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIVE REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

①② SEE
1COA-K2616A

#1STG

C5 CONTROL SWITCH FOR EMERGENCY
 BEARING & SEAL OIL PUMP
 18 ACCELERATING CONTACTOR
 18 ACCELERATING CONTACTS-TIME
 T.D.C.A.D. DELAY (.75 SEC.) ON CLOSING AFTER
 DENERGIZATION
 18 ACCELERATING CONTACTS-TIME
 T.D.O.A.D. DELAY (.75 SEC.) ON OPENING
 AFTER DENERGIZATION
 49 OVERLOAD HEATERS & CONTACTS
 72 CONTACTOR COIL & MAIN CONTACTS
 FOR EMERGENCY BEARING & SEAL
 OIL PUMP
 63A SEAL OIL DIFF. PRESS. SW.
 72 AUXILIARY CONTACTS FOR
 20F6 MAIN CONTACTOR
 63 EMER. BEARING & SEAL OIL PUMP
 PRESS. SWITCH.
 R1L RED INDICATING LIGHT
 G1L GREEN INDICATING LIGHT
 A A CONTACT, NORMALLY OPEN
 B B CONTACT, NORMALLY CLOSED
 72-X AUX. RELAY & CONTACTS
 72-XX AUX. RELAY & CONTACTS
 R₁ .75Ω STARTING RESISTOR
 R₂ 270Ω SEAL-IN RESISTOR

6 DEVICE LOCATED ON TURBINE OIL TANK

7 DEVICE LOCATED ON B.T.G. BOARD

10 DEVICE LOCATED ON GROUND FLOOR

26 DEVICE LOCATED ON HYDROGEN PANEL

28 DEVICE LOCATED ON TURBINE START-UP PANEL

40 SEAL OIL CONTROL UNIT

LOCATED ON 1COA-CAB-1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

ABILENE,	DALLAS,	TEXAS
----------	---------	-------

APPROVED	LSG	F-22
----------	-----	------

DATE	7-1-65	REVISION 8
------	--------	------------

I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT DATED AFTER 01-01-84 WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF OKLAHOMA. NO REPRESENTATIONS WERE MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAFTING OR PREVIOUS REVISIONS.

W. J. [Signature]
DATE 11/9/7 REC NO.

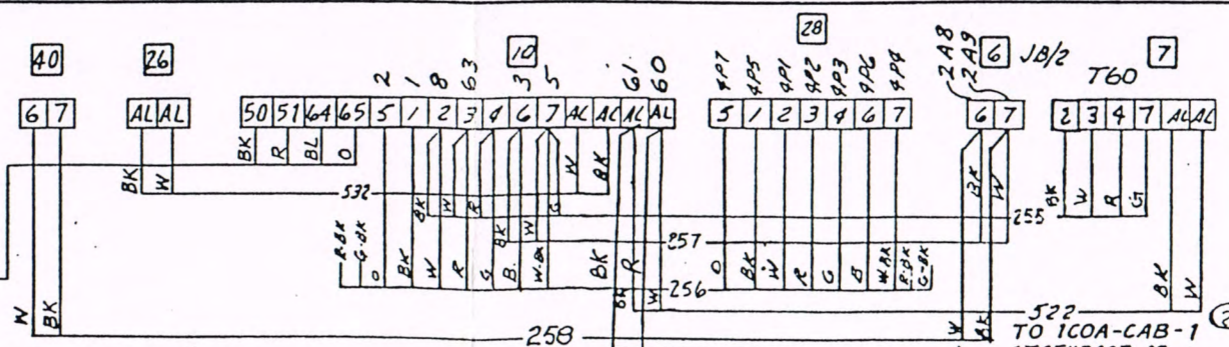
REF DWG : E-83, E-95

REVISIONS	REV. WIR. DIA.	8. 03-01-96
1. 4-2-65	1. 4-22-66	CONF TO
ADD TITLE	REV. TERM	CONST
2. 10-12-65	5. 10-25-66	RECORDS
REDRAW	AS BUILT	
SCHEMATIC	6. 11-30-74	
	B4V1B078	
3. 10-27-65		
LOC. 72, REV	7. 2-10-95	
LS CONF. NO.	OPEN	
ADD WIRE NO'S		

NOTES

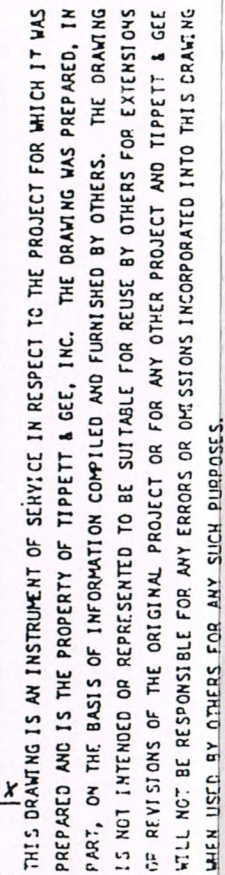
1. ELECTRICAL
CONTR. SHALL
FURNISH &
INSTALL
RELAY 72XX

TO 1COA-CAB-1
1TGFK2007 01



I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT DATED AFTER 01-01-94 DIRECTLY PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REPRESENTATIONS ARE MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAFTING OR PREVIOUS REVISIONS.

SIGNED Walter D. Hoff 11/18/97



①② SEE
1COA-K2616A

#1STG

C5 CONTROL SWITCH FOR EMERGENCY
 BEARING & SEAL OIL PUMP
 18 ACCELERATING CONTACTOR
 18 ACCELERATING CONTACTS-TIME
 T.D.C.A.D. DELAY (.75 SEC.) ON CLOSING AFTER
 DENERGIZATION
 18 ACCELERATING CONTACTS-TIME
 T.D.O.A.D. DELAY (.75 SEC.) ON OPENING
 AFTER DENERGIZATION
 49 OVERLOAD HEATERS & CONTACTS
 72 CONTACTOR COIL & MAIN CONTACTS
 FOR EMERGENCY BEARING & SEAL
 OIL PUMP
 63A SEAL OIL DIFF. PRESS. SW.
 72 AUXILIARY CONTACTS FOR
 20F6 MAIN CONTACTOR
 63 EMER. BEARING & SEAL OIL PUMP
 PRESS. SWITCH.
 R1L RED INDICATING LIGHT
 G1L GREEN INDICATING LIGHT
 A A CONTACT, NORMALLY OPEN
 B B CONTACT, NORMALLY CLOSED
 72-X AUX. RELAY & CONTACTS
 72-XX AUX. RELAY & CONTACTS
 R₁ .75Ω STARTING RESISTOR
 R₂ 270Ω SEAL-IN RESISTOR

6 DEVICE LOCATED ON TURBINE OIL TANK

7 DEVICE LOCATED ON B.T.G. BOARD

10 DEVICE LOCATED ON GROUND FLOOR

26 DEVICE LOCATED ON HYDROGEN PANEL

28 DEVICE LOCATED ON TURBINE START-UP PANEL

40 SEAL OIL CONTROL UNIT

LOCATED ON 1COA-CAB-1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

ABILENE,	DALLAS,	TEXAS
----------	---------	-------

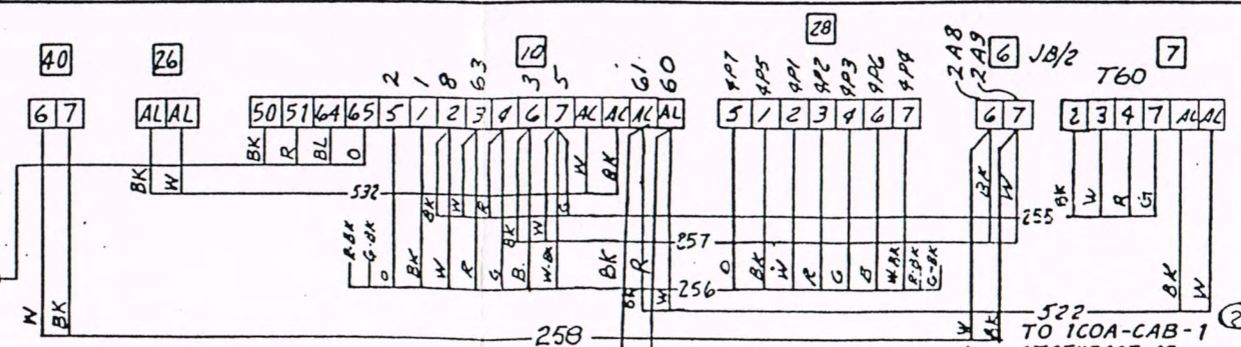
APPROVED	LSG	F-22
----------	-----	------

DATE	7-1-65	REVISION 8
------	--------	------------

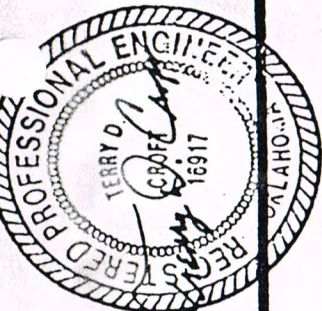
NOTES

1. ELECTRICAL
CONTR. SHALL
FURNISH &
INSTALL
RELAY 72XX

TO 1COA-CAB-1
1TGFK2007 01



B. & V 18078-1 TGF-K2007

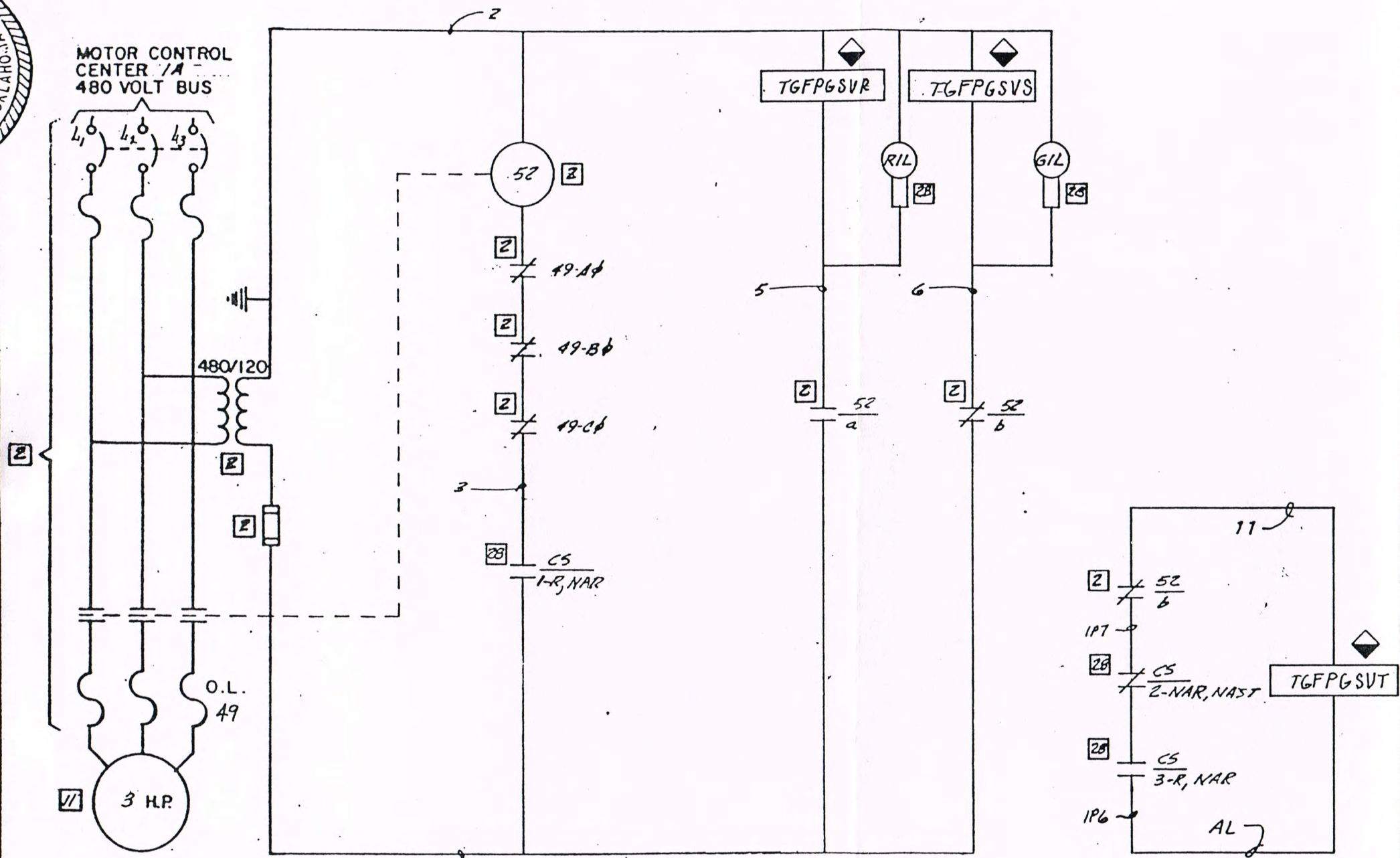


THIS DRAWING IS AN INSTRUMENT OF SERVICE. RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT DATED AFTER 01-31-84 WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REPRESENTATIONS ARE MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAWING OR PREVIOUS REVISIONS.

SIGNED *Terry D. Crofford*
DATE 11-9-92
REG. NO. 16917

GLAND SEAL VACUUM PUMP



GLAND SEAL VACUUM PUMP MOTOR

DEVICE SCHEDULE

- CS CONTROL SWITCH FOR GLAND SEAL VACUUM PUMP
- 49 OVERLOAD HEATERS & RELAY CONTACTS
- 52 CONTACTOR COIL & MAIN CONTACTS FOR GLAND SEAL VACUUM PUMP
- 52/a OR b AUX. CONTACTS FOR CONTACTOR
- RIL RED INDICATING LIGHT
- GIL GREEN INDICATING LIGHT
- a CONTACT, NORMALLY OPEN
- b CONTACT, NORMALLY CLOSED
- 52X AUX. RELAY & CONTACT FOR ALARM

SYMBOL SCHEDULE

- 2 DEVICE LOCATED IN M. C. C. 1A
- 7 DEVICE LOCATED ON I.S.T.G. BOARD
- 11 DEVICE LOCATED ON HEATER FLOOR
- 28 DEVICE LOCATED ON TURBINE START-UP PANEL
- ◆ DEVICE LOCATED ON 1COA-CAB-1
- ① SEE 1COA-K2616A
- ② SEE 1COA-K2614A

#1STG

REF DWGS: E-99, E-83

GLAND SEAL VACUUM PUMP
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

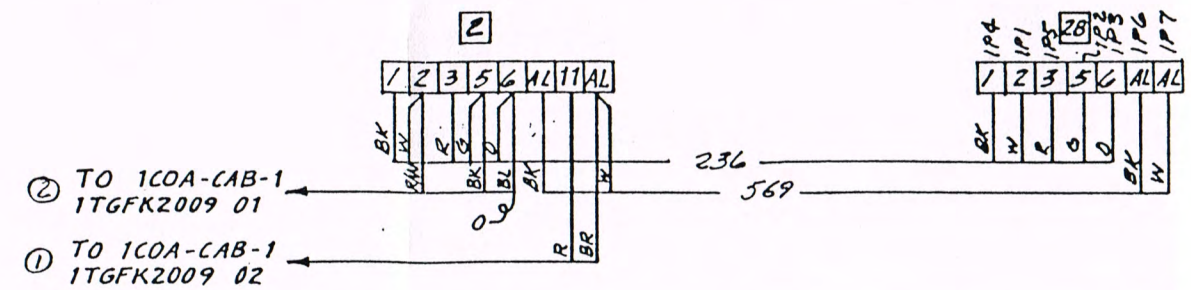
DRAWN L.A.P. CHECKED J.F.C.

APPROVED L.S.G. E-24

DATE 3-1-65 REVISION 6

REVISIONS	ADD. TERM. NOS. & WIRE NOS.
1. 5-15-65. REV WIRING DIA. DEF MTR PHASES { ADD 49 L1, L2, L3 ADD "S" TO CS. CHG NAME OF SYM 28, ADD CONT SYM, CRT NOS. 2. 4-22-66	3. 10-25-66 AS BUILT 4. 11-30-94 B*V 1807B 5. 2-10-95 OPEN 6. 03-01-96 CONF TO CONST RECORDS

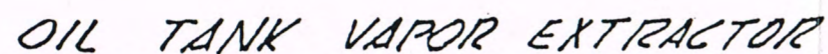
NOTES



B & V 18078-1 TGF-K2009

I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT DATE _____ AFTER 01-01-94 WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REPRESENTATIONS ARE MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAWING OR PREVIOUS REVISIONS.

SIGNED Gregory D. Croft _____
DATE _____ REG NO. 116917



- CS CONTROL SWITCH FOR OIL TANK VAPOR
EXTRACTOR
- 49 OVERLOAD HEATERS & RELAY CONTACTS
FOR CONTACTOR
- 52 CONTACTOR COIL & MAIN CONTACTS
FOR OIL TANK VAPOR EXTRACTOR
- 52
a OR b AUX. CONTACTS FOR CONTACTOR
- R1L RED INDICATING LIGHT
- G1L GREEN INDICATING LIGHT
- a CONTACT, NORMALLY OPEN
- b CONTACT, NORMALLY CLOSED

SYMBOL SCHEDULE

- 3 DEVICE LOCATED IN M.C.C. 1B
7 DEVICE LOCATED ON B.T.G. BOARD
6 DEVICE LOCATED ON TURB. OIL TANK
28 DEVICE LOCATED ON TURBINE START-UP
PANEL
◆ DEVICE LOCATED ON 1COA-CAB-1
- ① SEE 1COA-K2616A
② SEE 1COA-K2710A

#1STG

OIL TANK VAPOR EXTRACTOR
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE,	DALLAS,	TEXAS
----------	---------	-------

DRAWN	<i>C.A.P.</i>	CHECKED	<i>A.F.C.</i>
-------	---------------	---------	---------------

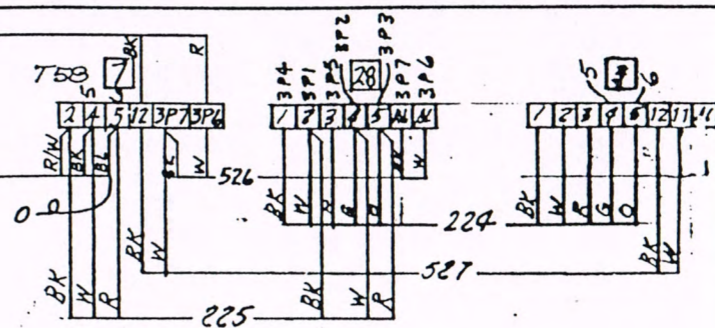
APPROVED	C.S.G.	E-25
----------	--------	------

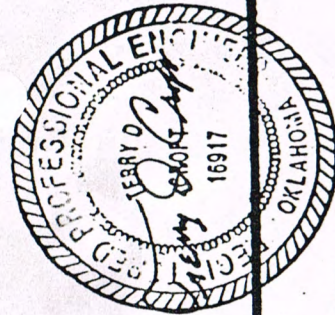
DATE	3-1-65	REVISION	6
------	--------	----------	---

REVISIONS	ADD. TERM. NO.'S
1. 5-15-65	6 WIRE. NO. 3
DEL MTR PHASES	3. 10-25-66
ADD 1941, 1, 2, 3.	AS BUILT
DEL "WAST" FROM	4. 11-30-88
CS. REV WIRING	B. & V 18078
DIA. ADD "RUN"	<i>ONE</i>
TO CS. CHG	5. 2-10-95
NAME OF 28	OPEN
ADD CRT. NOS	6. 03-01-96
2. 4-22-66	CONF TO
	CONST
	RECORDS

NOTES

- ① TO 1COA-CAB-1
1TGFK2010 02
- ② TO 1COA-CAB-1
1TGFK2010 01

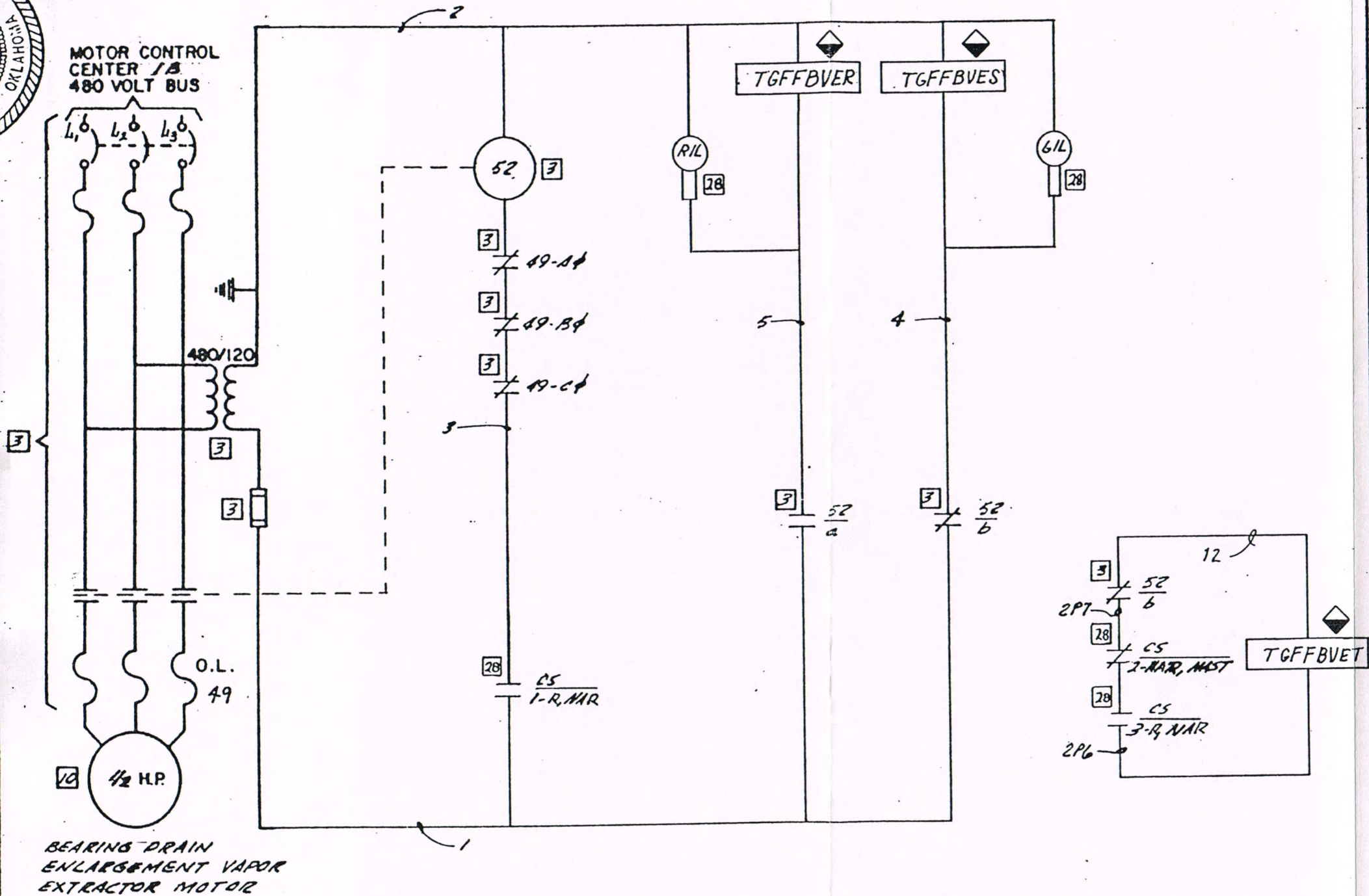




THIS DRAWING IS AN INSTRUMENT OF SERVICE IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION SUPPLIED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT DATED AFTER 01-01-94 WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REPRESENTATION OR STATEMENT OF FACT OR OPINION OF THE ORIGINAL DRAWING OR PREVIOUS REVISIONS. SIGNED *Terry D. Gipe* DATE *11/9/17* REG. NO. *16917*

BEARING DRAIN ENLARGEMENT VAPOR EXTRACTOR



DEVICE SCHEDULE

- CONTROL SWITCH FOR BEARING DRAIN ENLARGEMENT VAPOR EXT.
- OVERLOAD CONTACTS
- CONTACTOR / MAIN CONTACTS
- AUX. CONTACTS ON CONTACTOR
- CONTACT, NORMALLY OPEN
- CONTACT, NORMALLY CLOSED
- RED INDICATING LIGHT
- GREEN INDICATING LIGHT

SYMBOL SCHEDULE

- 3 DEVICE LOCATED IN M.C.C. 10
- 7 DEVICE LOCATED IN B.T.G. BOARD
- 10 DEVICE LOCATED ON GROUND FLOOR
- 28 DEVICE LOCATED ON TURBINE STARTUP PANEL
- ◆ DEVICE LOCATED ON 1COA-CAB-1
- ① SEE 1COA-K2616A
- ② SEE 1COA-K2614A

#1STG

REF DWGS: E-95, E-101, E-83

BEARING DRAIN ENLARGEMENT VAPOR EXTRACTOR CONTROL SCHEMATIC STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

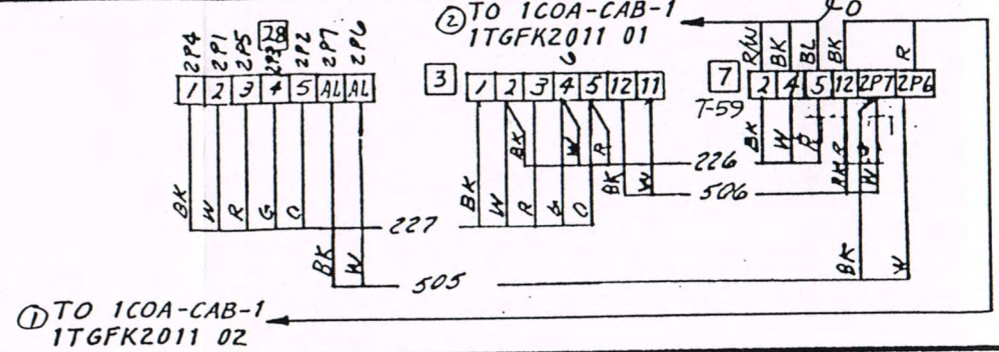
DRAWN A.P. CHECKED A.F.C.

APPROVED L.S.G. E-26

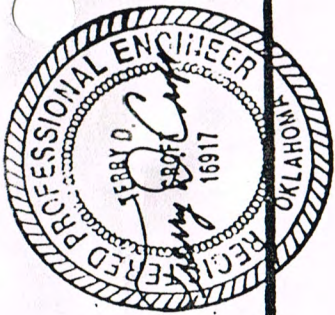
DATE 3-1-65 REVISION 6

REVISIONS	ADD. TERM. NO.
1. 5-15-65	3. 10-25-66
DEL MTR PHASES	AS BUILT
ADD 49 L1, L2, L3	4. 11-30-94
REV WIRING DIA.	B4V16078
CHG NAME OF	5. 2-10-95
20. ADD CRT	OPEN
NDS. ADD 20W	6. 03-01-96
FUM TACS	CONFS WITH
2. 4-22-66	CONST
REV. TERM.	RECORDS-NIC

NOTES



B & V 18078-1TGF-K2011

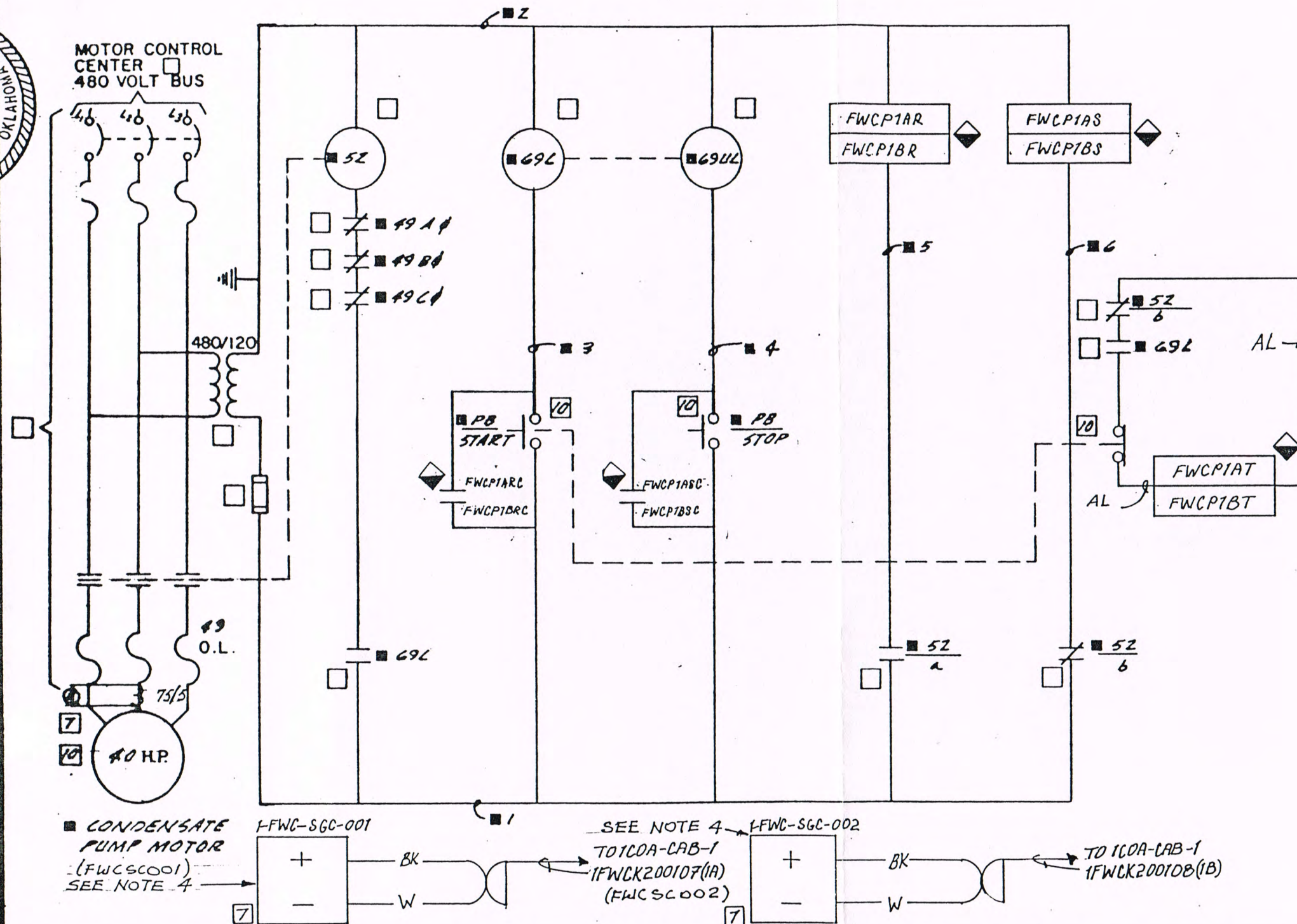


THIS DRAWING IS AN INSTRUMENT OF SERVICE PREPARED BY TIPPETT & GEE CONSULTING ENGINEERS, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT DATE 01-01-84 WERE PREPARED BY TIPPETT & GEE CONSULTING ENGINEERS, INC. UNDER MY DIRECT SUPERVISION AND I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REPRESENTATIONS ARE MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAWING OR PREVIOUS REVISIONS.

SIGNED *Terry D. Tippett*
DATE 11-9-97 REG. NO. 16917

CONDENSATE PUMPS 1A & 1B



DEVICE SCHEDULE

- 52 CONTACTOR COIL & MAIN CONTACTS, CONDENSATE PUMP
- 49 OVERLOAD, HEATER & RELAY CONTACTS
- 52 CONTACTOR AUX. CONTACTS, COND. PUMP
- 65 CONTROL SWITCH LOCATED ON B.T.G. BOARD
- PB PUSHBUTTON STATION LOCATED AT PUMP
- 69L LATCH RELAY PICK-UP COIL
- 69UL LATCH RELAY UNLATCHING COIL
- RIL RED INDICATING LIGHT
- GIL GREEN INDICATING LIGHT
- a CONTACT, NORM. OPEN
- b CONTACT, NORM. CLOSED

SYMBOL SCHEDULE

- ③ DEVICE LOCATED IN M.C.C. 1B
- ⑦ DEVICE LOCATED ON B.T.G. BOARD
- ⑩ DEVICE LOCATED ON GROUND FLOOR
- ② DEVICE LOCATED IN M.C.C. 1A
- ◆ DEVICE LOCATED ON 1COA-CAB-1

- ①②③④ SEE 1COA-K2710
⑤⑥ SEE 1COA-K2711A

#1STG

REF. DWG: E-83, E-95
E-99, E-101
1FWC-K1001, 1FWC-K1002

CONDENSATE PUMPS 1A & 1B
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

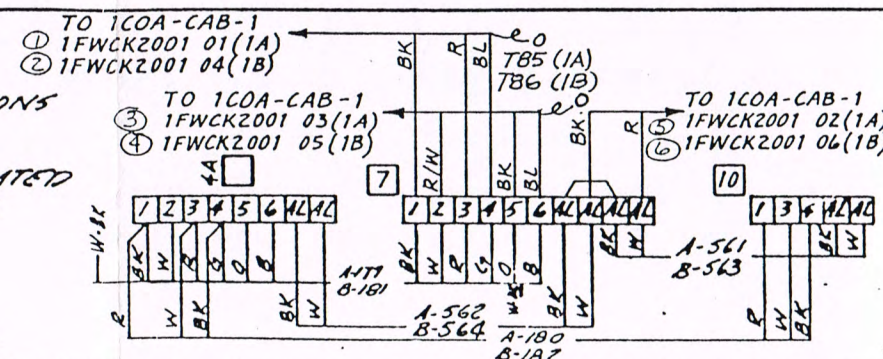
DRAWN *K.C.* CHECKED *A.F.G.*

APPROVED *L.S.G.* E-30

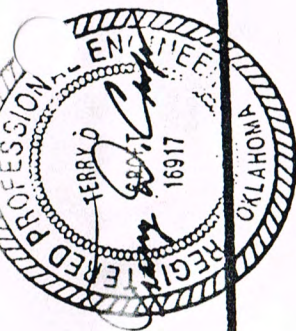
DATE *3-1-65* REVISION *6*

REVISIONS	
1. 8-25-65 AD REMOVE WIRE NO ADD PKT NO ADD WIRE, CKT. NOS. 2. 4-22-66 REV. CKT. NO. REM. LATCH RELAY. CONT. 3. 10-25-66 AS BUILT	4. 11-30-94 B+V 18078 Calle 5. 2-10-95 OPEN 6. 03-01-96 CONFS WITH CONST RECORDS- NIC

- NOTES
- USE A OR B IN THESE DESIGNATIONS ACCORDING TO PUMP NUMBER.
 - USE 2 OR 3. PUMP 1A BKR. LOCATED IN M.C.C. 1A (2). PUMP 1B BKR. LOCATED IN M.C.C. 1B (3).
 - 69L, 69UL FURNISHED & INSTALLED BY E.C.
 - CONTRACTOR TO FIELD LOCATE SIGNAL CONDITIONERS IN BTG BOARD.



B & V 18078-1FWC-K2001



THIS DRAWING IS AN INSTRUMENT OF SERVICE IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT DATED 01-01-94 WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REPRISALS OF THE ORIGINAL DRAWING OR PREVIOUS REVISIONS. SIGNED *Terry D. Tippett* DATE 2/3/99 REG. NO. 16917

CIRC. WATER BOOSTER PUMPS 1A & 1B

DEVICE SCHEDULE

- 52 CONTACTOR COIL & MAIN CONTACTS FOR CIRC. W. BOOSTER PUMP
- 49 OVERLOAD HEATERS & RELAY CONTACTS FOR CIRC. W. BOOST PUMP
- PB PUSHBUTTON STATION IN CIRC. WATER BOOSTER PUMP AREA
- 52X AUX. RELAY FOR ALARM
- 52 CONTACTOR AUX. CONTACTS
 - a or b a CONTACT, NORM OPEN
 - b CONTACT, NORM CLOSED
- RIL RED INDICATING LIGHT
- GIL GREEN INDICATING LIGHT

REF. DWG: (1A) (1B)
G-83, E-95 E-83, E-101
E-99

SYMBOL SCHEDULE

- 3 DEVICE LOCATED IN M.C.C. 1B
- 7 DEVICE LOCATED IN B.T.G. BOARD
- 10 DEVICE LOCATED ON GROUND FLOOR
- 2 DEVICE LOCATED IN M.C.C. 1A
- ◆ DEVICE LOCATED ON 1COA-CAB-1

#1STG

REF DWGS : E-99, E-101

CIRC. WATER BOOSTER PUMPS 1A&1B
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

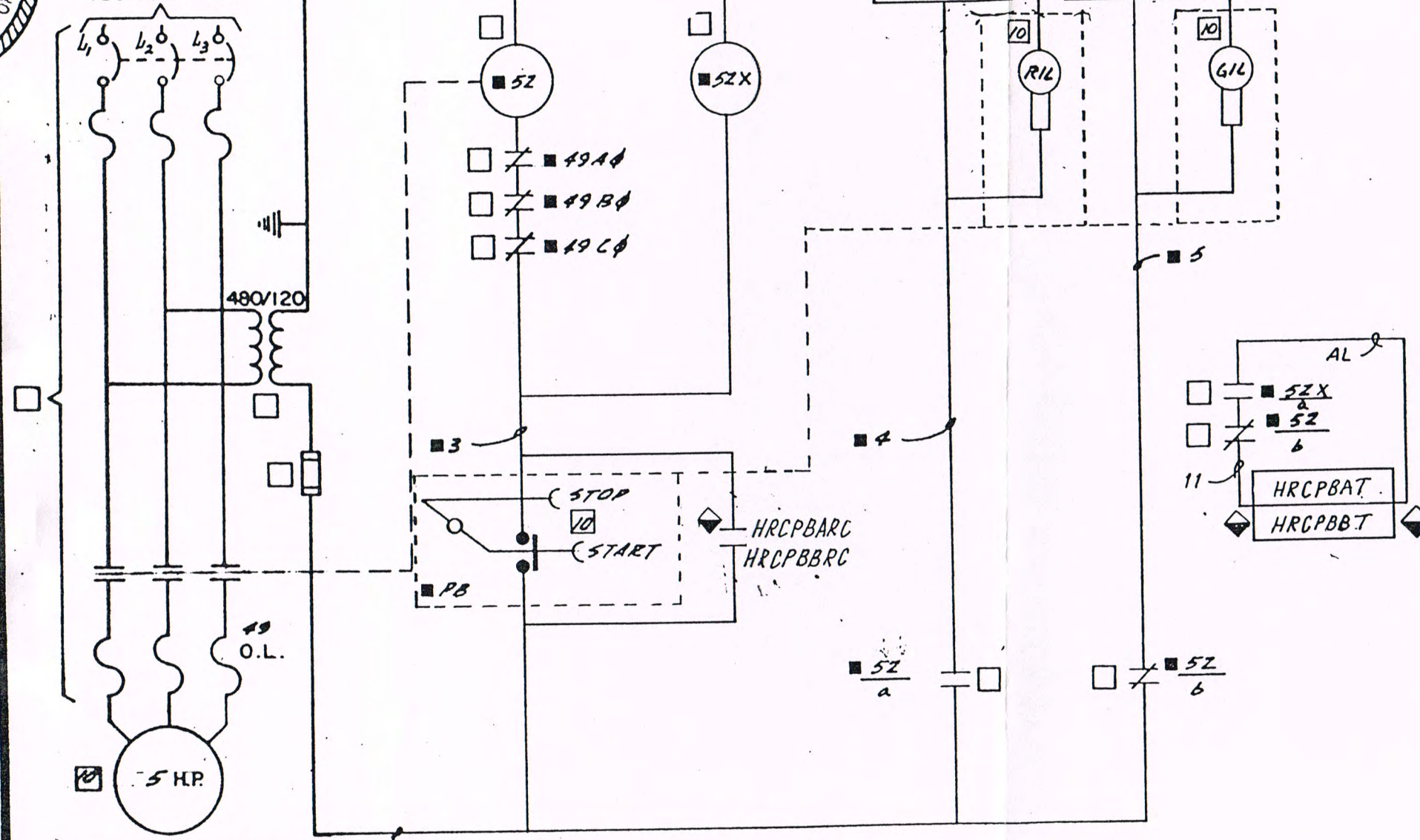
ABILENE, DALLAS, TEXAS

DRAWN K.C. CHECKED A.F.C.

APPROVED L.S.G. E-37

DATE 3-1-65 REVISION 6

MOTOR CONTROL
CENTER
480 VOLT BUS

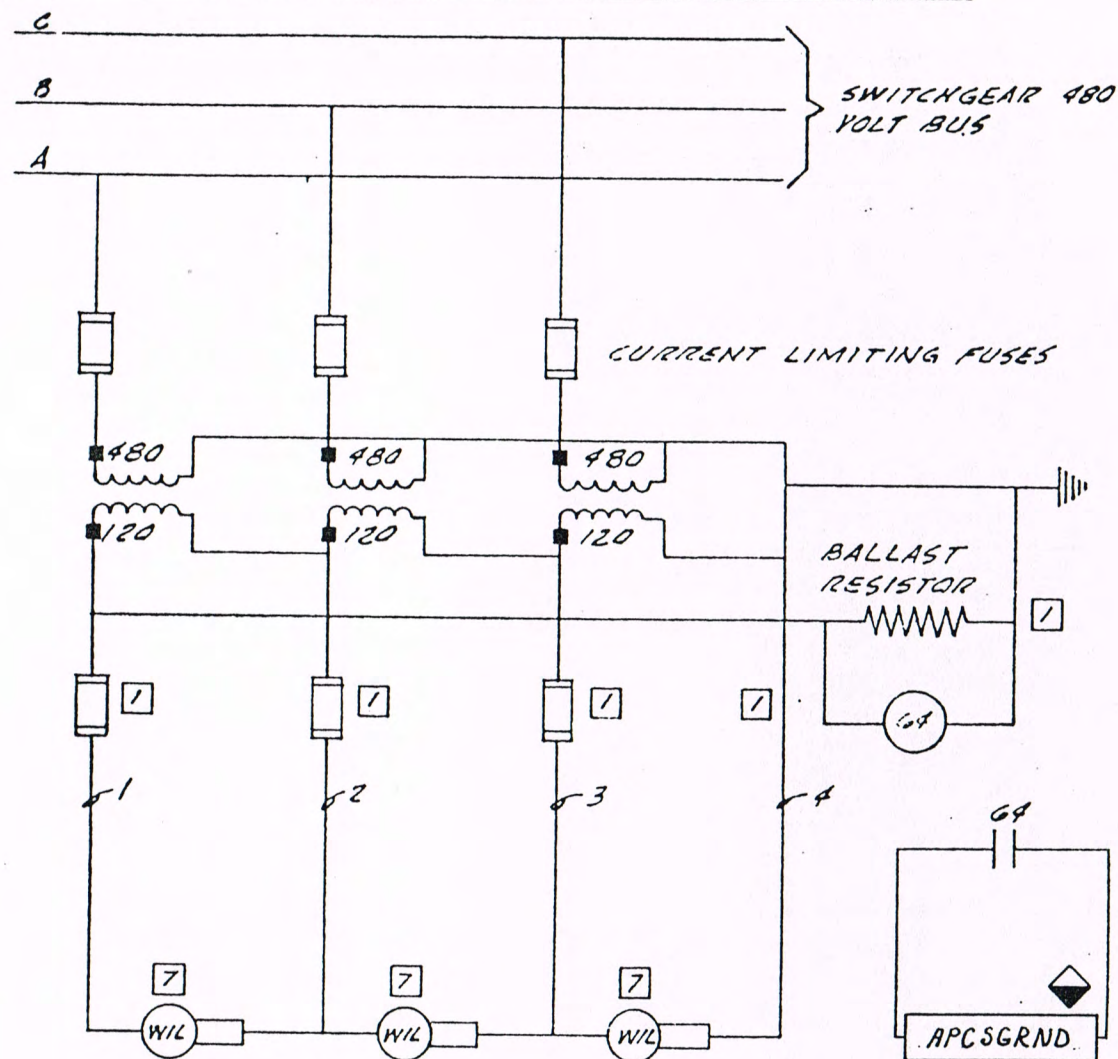


CIRC. WATER BOOSTER
PUMP MOTOR

REVISIONS

- | NO. | DATE | DESCRIPTION |
|-----|---------|---|
| 1. | 5-15-65 | ADD 4, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, |

480 VOLT SYSTEM GROUND INDICATION



DEVICE SCHEDULE

GA GROUND PROTECTIVE RELAY
WIL WHITE INDICATING LIGHT

REF DWG: 1APC-K1005
E-95, E-96

SYMBOL SCHEDULE

- 1 DEVICE LOCATED IN 480 V. SW'GR.
- 7 DEVICE LOCATED ON B.T.G. BOARD
- ◆ DEVICE LOCATED ON 1COA-CAB-1
- ① SEE 1COA-K2617

#1STG

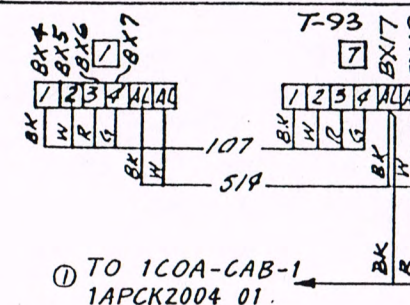
480 V. SYSTEM GROUND INDICATION
SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

DRAWN	K.C.	CHECKED	V.C.S.
APPROVED	L.S.G.	E-38	
DATE	4-2-65	REVISION 5	



NOTES

THIS DRAWING IS AN INSTRUMENT OF SERVICE IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

REVISIONS	5.03-01-96
1. 4-22-66 ADD 480 V. PHASING TERM. NO'S.	CONFS. WITH CONST RECORDS-NIC
2. 10-25-66 AS BUILT	
3. 1-23-75 B+V 18070	
4. 2-10-95 OPEN	

I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT, WHEN MADE, HAVE BEEN MADE UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REPRESENTATIONS ARE MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAWING OR PREVIOUS REVISIONS.

SIGNED *Terry D. Tippet*
DATE *10/2/95* REG NO. *16917*



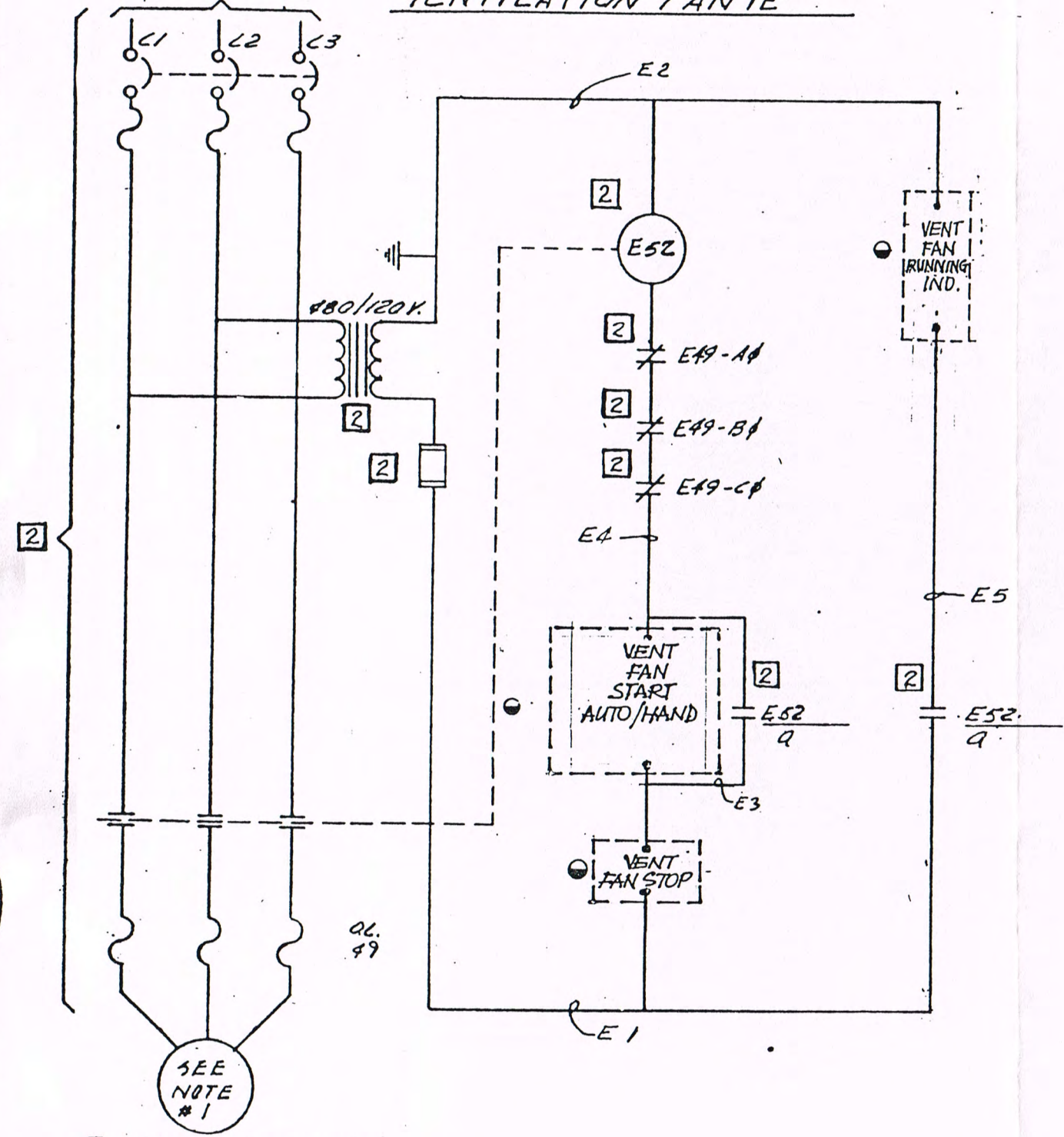
B & V 18078-1APC-K2004



PREPARED BY OR UNDER THE DIRECT SUPERVISION AND UNDER THE SEAL OF THE PROFESSION OF ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA, NO REPRESENTATION IS MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAWING OR ANY REVISIONS.
SIGNED *Terry O. Croft*
DATE *2/2/65* REG NO. *16912*

M.C.C.
480 V. BUS

VENTILATION FAN IE



E VENTILATION FAN MOTOR

THIS DRAWING IS AN INSTRUMENT OF SERVICE IN RESPECT TO THE PROJECT FOR WHICH IT WAS PREPARED AND IS THE PROPERTY OF TIPPETT & GEE, INC. THE DRAWING WAS PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY OTHERS. THE DRAWING IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OTHERS FOR EXTENSIONS OR REVISIONS OF THE ORIGINAL PROJECT OR FOR ANY OTHER PROJECT AND TIPPETT & GEE WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS INCORPORATED INTO THIS DRAWING WHEN USED BY OTHERS FOR ANY SUCH PURPOSES.

DEVICE SCHEDULE

E52	CONTACTOR COIL & MAIN CONTACTS FOR VENTILATION FAN
E52	CONTACTOR AUX. CONTACTS.
2 of 6	
E49	OVERLOAD HEATERS & RELAY CONTACTS FOR VENTILATION FAN
C5	SELECTOR SWITCH FOR AUTO, OFF & HAND POSITIONS
R/L	RED INDICATING LIGHT
G/L	GREEN INDICATING LIGHT
b	"b" CONTACT, NORMALLY CLOSED
42	NO CONTACT FOR AIR HANDLING UNIT 101

REF DWGS: ISCA-K2001
E-83
E-99
E-100

SYMBOL SCHEDULE

- 2 DEVICE LOCATED IN M.C.C. 1A IAPC-MCC-1A
- 2 DEVICE LOCATED ON IAPC-MCC-1C COMPT 5-MN, AIR HANDLING UNIT 101
- 2 DEVICE LOCATED ON TEMPERATURE CONTROL PANEL ISCA-TCPL-101 HVAC CONTRACTOR TO PROVIDE CIRCUITS AND INTERNAL WIRING.

#1STG

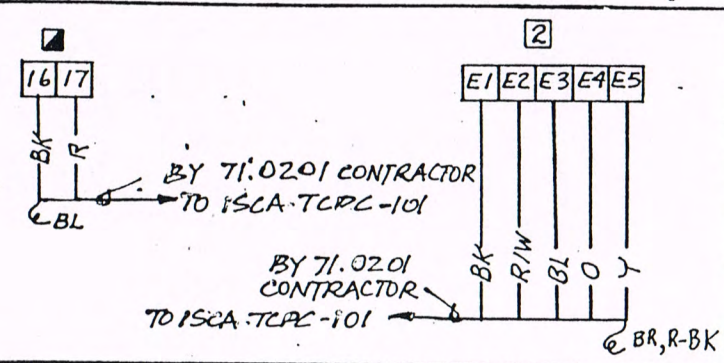
VENTILATION FAN
CONTROL SCHEMATIC
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS			
ABILENE,		DALLAS, TEXAS	
DRAWN.	J.D.S.	CHECKED	A.F.C.
APPROVED	C.S.G.	E-39	
DATE	3-1-65	REVISION	5

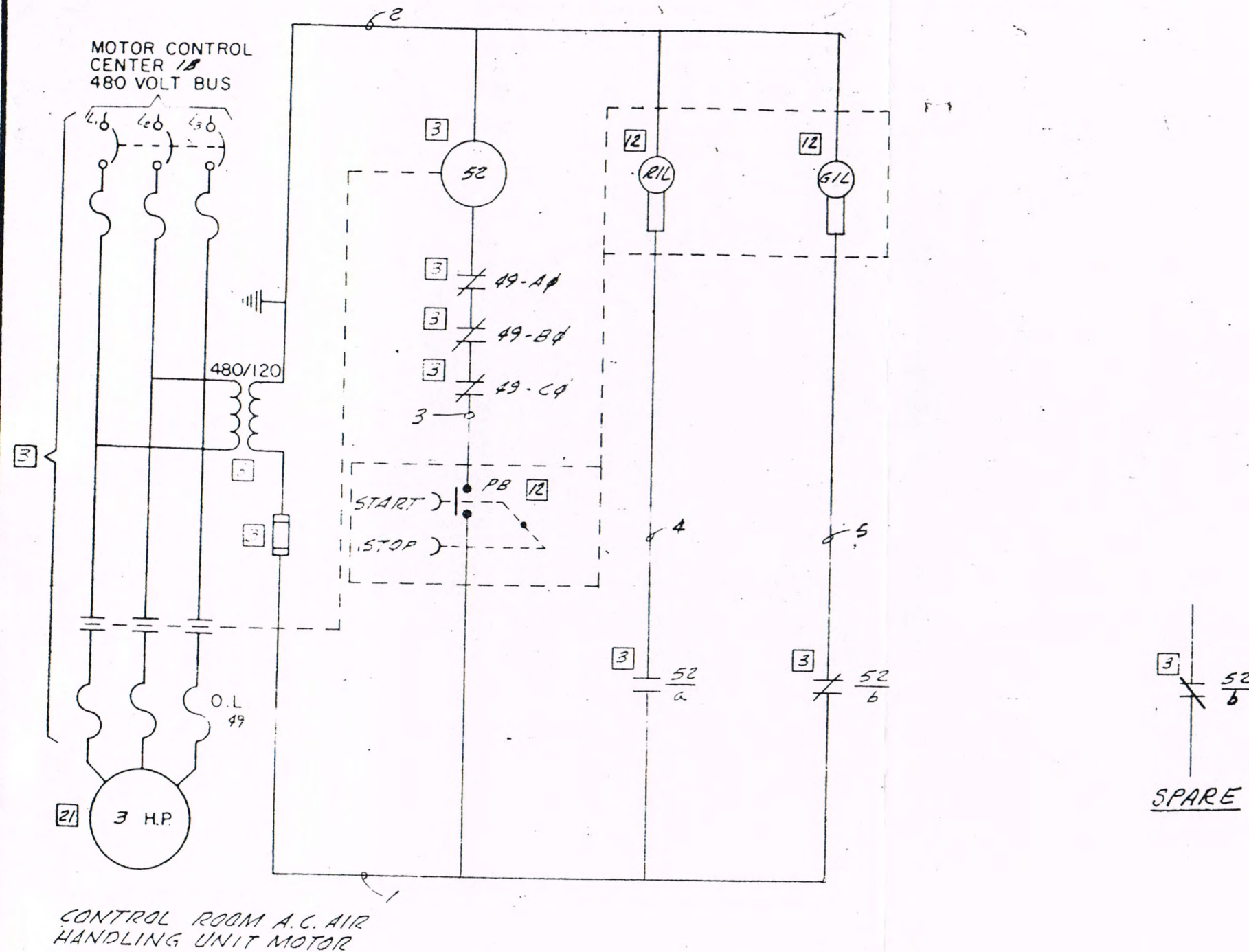
REVISIONS	
1. 8-10-65	4. 12-3-85
AP. ADD 49 Q.	B&V 18078
REV. WIG. DIG.	5. 03-01-96
ADD. NOTE, SYN	CONFS WITH
3. 4. CXT NOS.	CONST
2. 4-22-66	RECORDS-
REV. W/IRB	NIC
NO. 5 FOR VENT.	
FAN.	
3. 10-25-66	
AS BUILT	

NOTES
1. FAN IE IS 2 H.P.



B & V 18078- ISCA-K2001

CONTROL ROOM A.C. AIR HANDLING UNIT



DEVICE SCHEDULE

- 52 CONTACTOR COIL & MAIN CONTACTS FOR CONTROL ROOM A.C. AIR HANDLING UNIT
- 52/a, 52/b CONTACTOR AUX. CONTACTS
- 49 OVERLOAD HEATERS & RELAY CONTACTS FOR CONTROL ROOM A.C. AIR HANDLING UNIT
- PB PUSH BUTTON FOR CONTROL ROOM A.C. AIR HANDLING UNIT
- a "a" CONTACT, NORMALLY OPEN
- b "b" CONTACT, NORMALLY CLOSED
- RIL RED INDICATING LIGHT
- GIL GREEN INDICATING LIGHT

SYMBOL SCHEDULE

- 3 DEVICE LOCATED IN M.C.C. 18
- 12 DEVICE LOCATED ON OPERATING FL.

CONTROL ROOM A.C. AIR HANDLING UNIT
CONTROL SCHEMATIC
STEAM UNIT NO.1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

DRAWN K.C. CHECKED A.F.C.

APPROVED L.S.G. E-41

DATE 3-1-65 REVISION 4

REVISIONS

1. 8-25-65 APP
ADD 1, 12, 13, 14, 15
ADD 49 OL
DEL VENT. SYST
& SYM 21. ADD
LOC. 52X & CKT.
NOS.
2. 10-26-65
DEL 52X.
3. 4-22-66

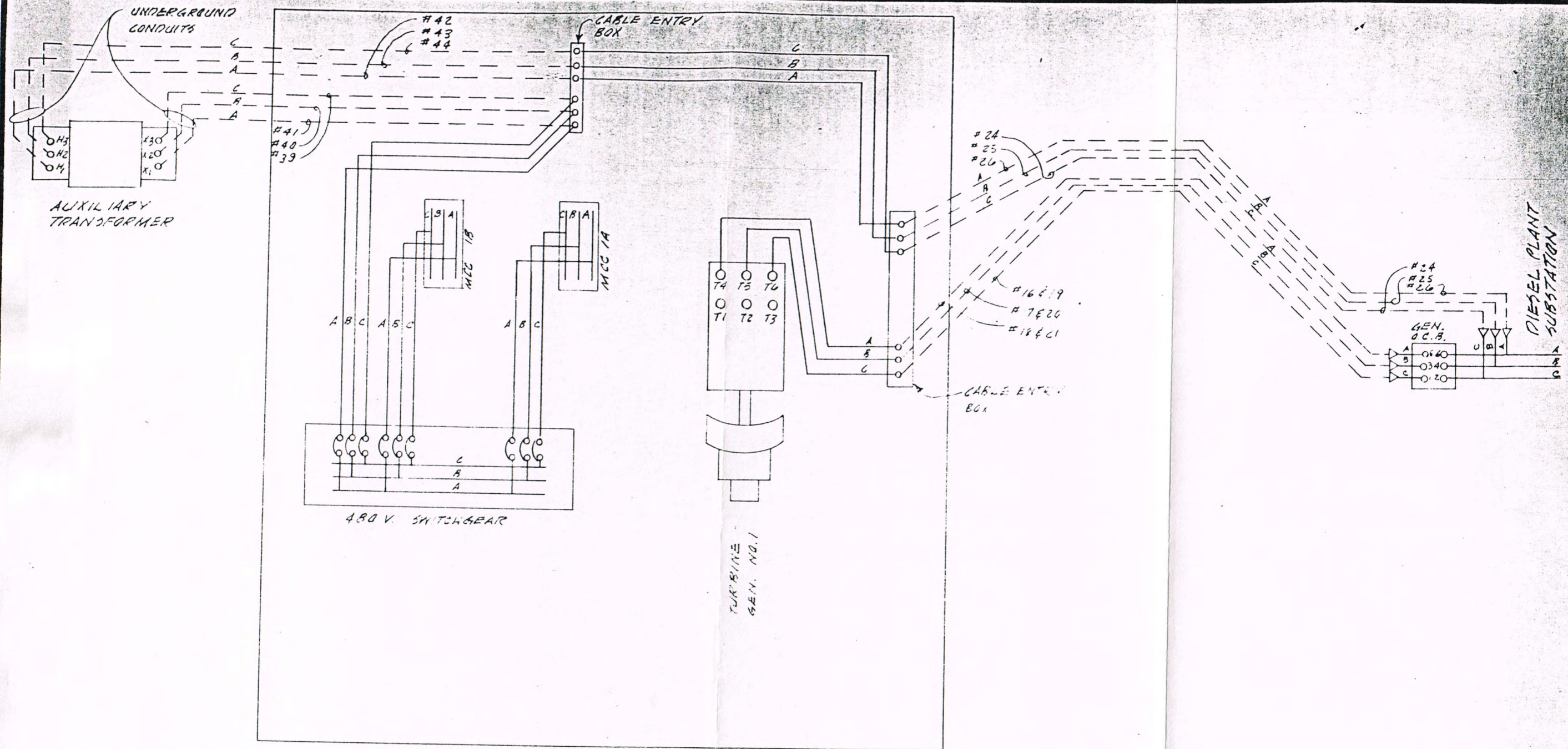
REV. WIRE
NO. 3, CHG. SPARE
CONTACT TO
"b"
4. 10-25-66
AS BUILT

NOTES

3	1	2	3	5	4
BK	X	R	G	O	

266

12	1	2	3	5	4
BK	X	R	G	O	



PHYSICAL PHASING DIAGRAM
STEAM UNIT NO. 1

CITY OF PONCA CITY
PONCA CITY, OKLAHOMA

TIPPETT AND GEE CONSULTING ENGINEERS

ABILENE, DALLAS, TEXAS

DRAWN GRW CHECKED JCS

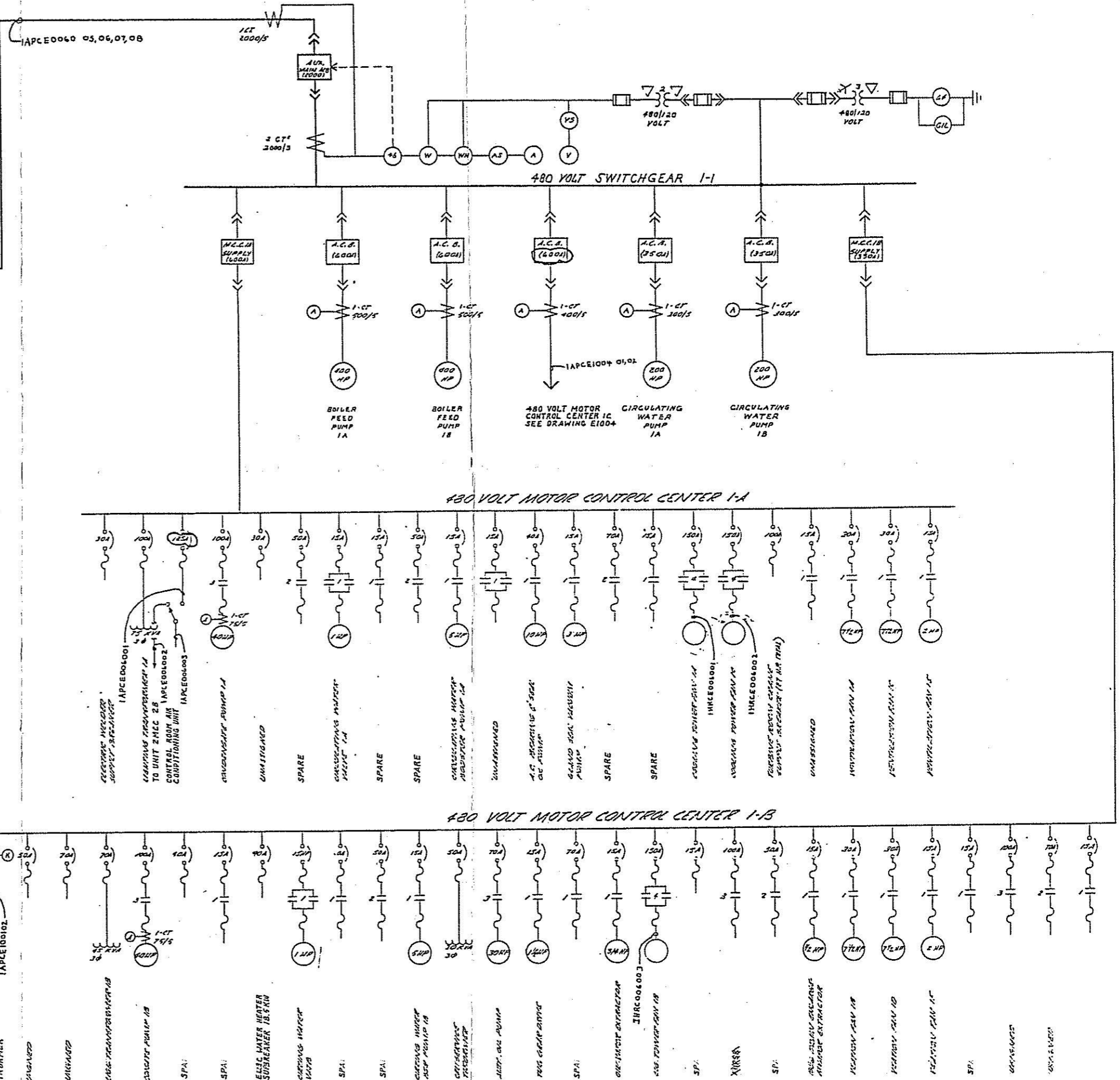
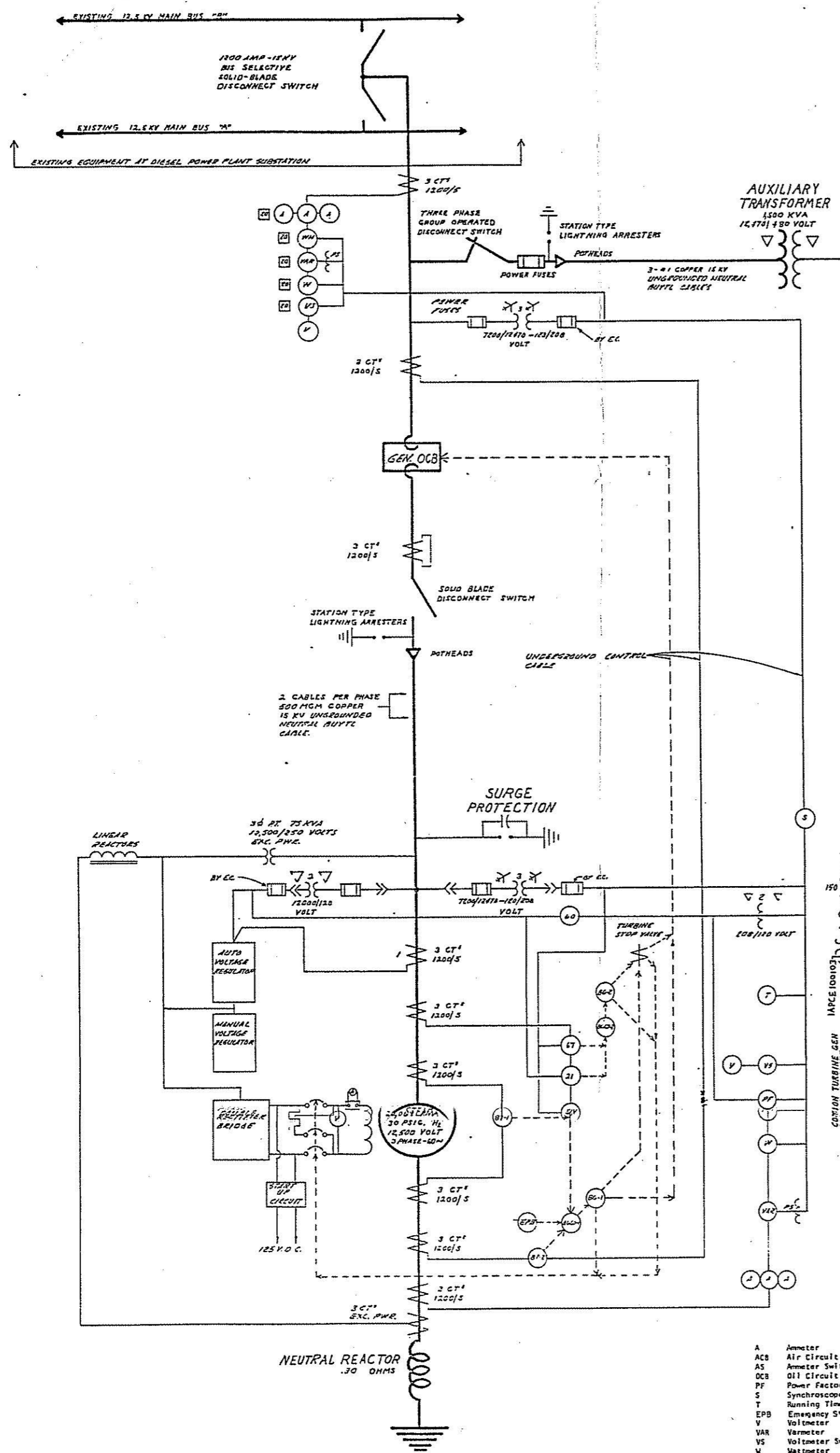
APPROVED LSG E-50

DATE 4-22-66 REVISION /

REVISIONS

1. 10-25-66
AS BUILT

NOTES



- LEGEND**
- A Ammeter
 - ACS Air Circuit Breaker
 - AS Ammeter Switch
 - OCB Oil Circuit Breaker
 - PF Power Factor Meter
 - S Synchroscope
 - T Running Time Meter
 - EPB Emergency Stop Pushbutton
 - V Voltmeter
 - VAR Varometer
 - VS Voltmeter Switch
 - W Watmeter
 - WH Watthour Meter
 - FDR Field Discharge Resistor
 - PS Phase Shifting Transformer

- 21 Loss of Field Relay
- 46 Current Balance Relay
- 51V Voltage Controlled Overcurrent Relay
- 64 Ground Protective Relay
- 67 Reverse Power Relay
- 86 Lockout Relay
- 86CO Lockout Relay Cutoff Switch
- 87 Current Differential Relay
- 91 Ground Indicating Lights
- 60 Voltage Balance Relay



I HEREBY CERTIFY THAT REVISIONS OF THIS DOCUMENT DATED AFTER 01-01-58 WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF OKLAHOMA. NO REPRESENTATION IS MADE BY ME AS TO THE ACCURACY OF THE ORIGINAL DRAWING OR PREVIOUS REVISIONS.

DATE 2-19-74 REG. NO. 14281

REVISION	DATE	BY	CHKD
1	11-1-65	J.E.S.	J.E.S.
2	11-1-65	J.E.S.	J.E.S.
3	07-17-74	J.E.S.	J.E.S.
4	05-01-76	J.E.S.	J.E.S.

B & V 18078-1U00-E0060

SINGLE LINE DIAGRAM

STEAM UNIT NO. 1

CITY OF PONCA CITY

PONCA CITY, OKLAHOMA

SCALE NONE

DATE 10-15-65

CHECKED J.E.S.

APPROVED J.E.S.

JOB NO. 108 NO. 109 NO. 108 NO. 109 NO.

TIPPETT & GEE

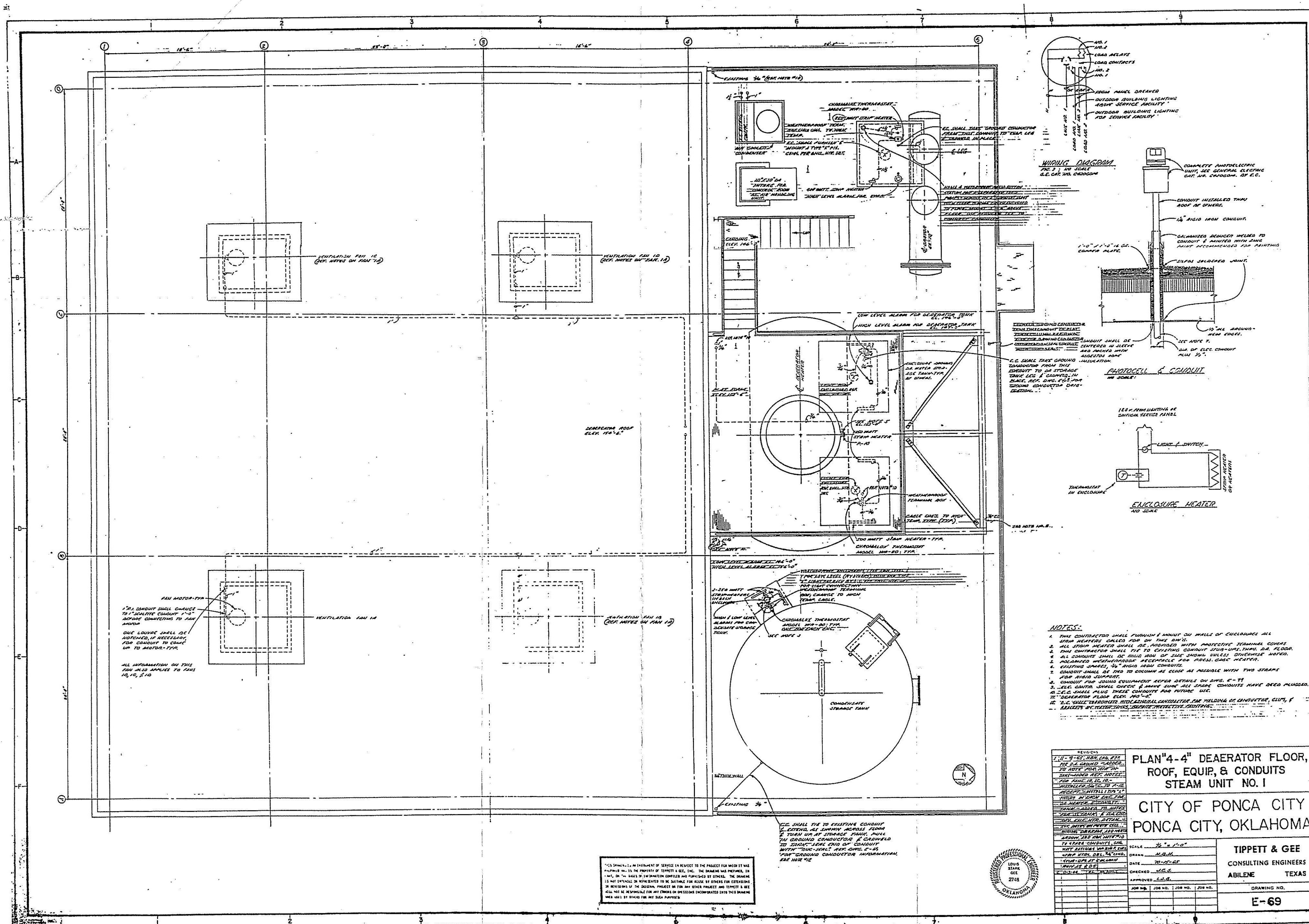
CONSULTING ENGINEERS

ABILENE DALLAS

DRAWING NO.

E-60

#1STG



- NOTES:
1. THE CONTRACTOR SHALL FURNISH & INSTALL ON WALLS OF ENCLOSURE ALL STEAM HEATERS CALLED FOR ON THIS DRAWING.
 2. ALL STEAM HEATERS SHALL BE PROVIDED WITH PROTECTIVE THERMAL COVERS.
 3. THE CONTRACTOR SHALL FURNISH & INSTALL CONDUITS TO ALL EQUIPMENT ON THIS FLOOR.
 4. ALL CONDUITS SHALL BE RIGID IRON OF SIZE SHOWN UNLESS OTHERWISE NOTED.
 5. POLYMERIZED WEATHERPROOF RESISTANCE FOR PRESS. CASE HEATERS.
 6. EXISTING CONDUITS, 3/4" RIGID IRON CONDUITS.
 7. CONDUITS SHALL BE TWO TO COLUMN AS CLOSE AS POSSIBLE WITH TWO STRAPS FOR RIGID SUPPORT.
 8. CONDUITS FOR VARIOUS EQUIPMENT REFER DETAILS ON DWG. E-11.
 9. ALL CONDUITS SHALL BE OPEN & HAVE SOME ALL SHARP CONDUITS HAVE BEEN PLUGGED.
 10. ALL CONDUITS SHALL BE PLUGGED WITH CONDUIT FOR FUTURE USE.
 11. DEAERATOR FLOOR ELEV. 110'-0".
 12. ALL STEAM HEATERS SHALL BE PROVIDED WITH PROTECTIVE THERMAL COVERS.

REVISIONS		PLAN 4-4" DEAERATOR FLOOR, ROOF, EQUIP. & CONDUITS STEAM UNIT NO. 1	
1	1/10-9-67	1	1/10-9-67
2	1/10-9-67	2	1/10-9-67
3	1/10-9-67	3	1/10-9-67
4	1/10-9-67	4	1/10-9-67
5	1/10-9-67	5	1/10-9-67
6	1/10-9-67	6	1/10-9-67
7	1/10-9-67	7	1/10-9-67
8	1/10-9-67	8	1/10-9-67
9	1/10-9-67	9	1/10-9-67
10	1/10-9-67	10	1/10-9-67
11	1/10-9-67	11	1/10-9-67
12	1/10-9-67	12	1/10-9-67
13	1/10-9-67	13	1/10-9-67
14	1/10-9-67	14	1/10-9-67
15	1/10-9-67	15	1/10-9-67
16	1/10-9-67	16	1/10-9-67
17	1/10-9-67	17	1/10-9-67
18	1/10-9-67	18	1/10-9-67
19	1/10-9-67	19	1/10-9-67
20	1/10-9-67	20	1/10-9-67
21	1/10-9-67	21	1/10-9-67
22	1/10-9-67	22	1/10-9-67
23	1/10-9-67	23	1/10-9-67
24	1/10-9-67	24	1/10-9-67
25	1/10-9-67	25	1/10-9-67
26	1/10-9-67	26	1/10-9-67
27	1/10-9-67	27	1/10-9-67
28	1/10-9-67	28	1/10-9-67
29	1/10-9-67	29	1/10-9-67
30	1/10-9-67	30	1/10-9-67
31	1/10-9-67	31	1/10-9-67
32	1/10-9-67	32	1/10-9-67
33	1/10-9-67	33	1/10-9-67
34	1/10-9-67	34	1/10-9-67
35	1/10-9-67	35	1/10-9-67
36	1/10-9-67	36	1/10-9-67
37	1/10-9-67	37	1/10-9-67
38	1/10-9-67	38	1/10-9-67
39	1/10-9-67	39	1/10-9-67
40	1/10-9-67	40	1/10-9-67
41	1/10-9-67	41	1/10-9-67
42	1/10-9-67	42	1/10-9-67
43	1/10-9-67	43	1/10-9-67
44	1/10-9-67	44	1/10-9-67
45	1/10-9-67	45	1/10-9-67
46	1/10-9-67	46	1/10-9-67
47	1/10-9-67	47	1/10-9-67
48	1/10-9-67	48	1/10-9-67
49	1/10-9-67	49	1/10-9-67
50	1/10-9-67	50	1/10-9-67
51	1/10-9-67	51	1/10-9-67
52	1/10-9-67	52	1/10-9-67
53	1/10-9-67	53	1/10-9-67
54	1/10-9-67	54	1/10-9-67
55	1/10-9-67	55	1/10-9-67
56	1/10-9-67	56	1/10-9-67
57	1/10-9-67	57	1/10-9-67
58	1/10-9-67	58	1/10-9-67
59	1/10-9-67	59	1/10-9-67
60	1/10-9-67	60	1/10-9-67
61	1/10-9-67	61	1/10-9-67
62	1/10-9-67	62	1/10-9-67
63	1/10-9-67	63	1/10-9-67
64	1/10-9-67	64	1/10-9-67
65	1/10-9-67	65	1/10-9-67
66	1/10-9-67	66	1/10-9-67
67	1/10-9-67	67	1/10-9-67
68	1/10-9-67	68	1/10-9-67
69	1/10-9-67	69	1/10-9-67
70	1/10-9-67	70	1/10-9-67
71	1/10-9-67	71	1/10-9-67
72	1/10-9-67	72	1/10-9-67
73	1/10-9-67	73	1/10-9-67
74	1/10-9-67	74	1/10-9-67
75	1/10-9-67	75	1/10-9-67
76	1/10-9-67	76	1/10-9-67
77	1/10-9-67	77	1/10-9-67
78	1/10-9-67	78	1/10-9-67
79	1/10-9-67	79	1/10-9-67
80	1/10-9-67	80	1/10-9-67
81	1/10-9-67	81	1/10-9-67
82	1/10-9-67	82	1/10-9-67
83	1/10-9-67	83	1/10-9-67
84	1/10-9-67	84	1/10-9-67
85	1/10-9-67	85	1/10-9-67
86	1/10-9-67	86	1/10-9-67
87	1/10-9-67	87	1/10-9-67
88	1/10-9-67	88	1/10-9-67
89	1/10-9-67	89	1/10-9-67
90	1/10-9-67	90	1/10-9-67
91	1/10-9-67	91	1/10-9-67
92	1/10-9-67	92	1/10-9-67
93	1/10-9-67	93	1/10-9-67
94	1/10-9-67	94	1/10-9-67
95	1/10-9-67	95	1/10-9-67
96	1/10-9-67	96	1/10-9-67
97	1/10-9-67	97	1/10-9-67
98	1/10-9-67	98	1/10-9-67
99	1/10-9-67	99	1/10-9-67
100	1/10-9-67	100	1/10-9-67