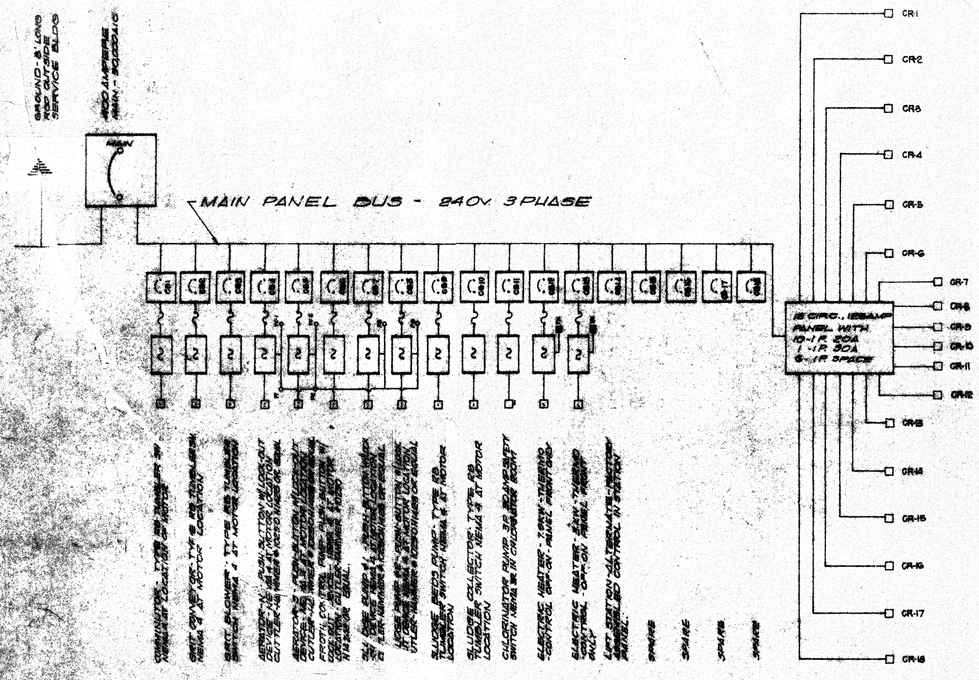
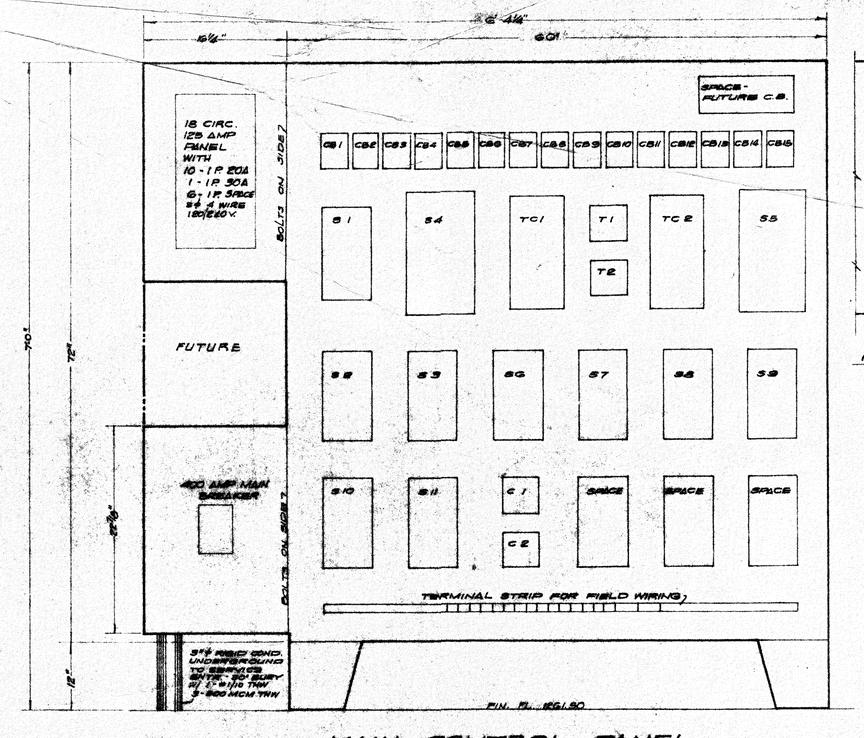
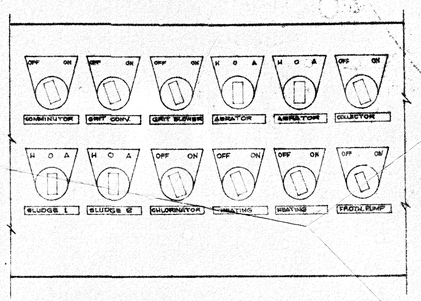




MAIN CONTROL PANEL



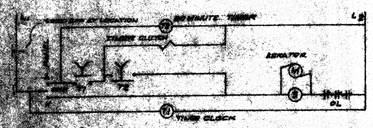
MAIN CONTROL PANEL DOOR EXTERIOR

NOTE: MOUNT STOP-START CONTROL AT NORMAL OPERATING HEIGHT

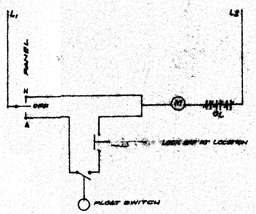
CUTLER HAMMER # 10250T 1929-2 MG8 OR APPROVED EQUAL.

CUTLER HAMMER # 10250T311-1M42 OR APPROVED EQUAL.

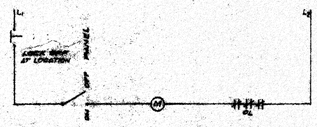
TYP. STOP-START IN PANEL DOOR FRONT



TYPICAL FOR AERATORS & VARIABLE SLUDGE RETURN



TYPICAL FOR SLUDGE PUMP OPERATION



TYPICAL FOR OFF-ON OPERATING UNITS

MAIN CONTROL PANEL SCHEDULE

NO.	FUNCTION	BREAKER NO.	AMP	FUSE	FUSE NO.	REMARKS
CB-1	COMMINUTOR	THQC 2020 WL	15	2-1	10T	H1029 A 1.19-4.63 AMPS
CB-2	GRIT CONVEYOR	DO	15	2-2	10T	H1029 B 3.05-3.36 AMPS
CB-3	GRIT BLOWER	DO	15	2-3	10T	H1029 C 3.05-3.36 AMPS
CB-4	AERATOR - N	THQC 2020 WL	70	2-4	40T	H1044 E 24.4-25.4 AMPS
CB-5	AERATOR - S	DO	70	2-5	40T	H1044 E 24.4-25.4 AMPS
CB-6	FROTH PUMP	THQC 2020 WL	20	2-6	15T	H1042 17.6-19.8 AMPS
CB-7	SLUDGE PUMP 1	THQC 1020 WL	20	2-7	10T	H1035 7.24-8.91 AMPS
CB-8	SLUDGE PUMP 2	DO	20	2-8	10T	H1035 7.24-8.91 AMPS
CB-9	SLUDGE RECIRC PUMP	DO	20	2-9	10T	H1035 7.24-8.91 AMPS
CB-10	SLUDGE COLLECTOR	THQC 2015 WL	15	2-10	10T	H1029 2.09-2.28 AMPS
CB-11	CHLORINATOR	THQC 2015 WL	15	2-11	10T	H1029 2.09-2.28 AMPS
CB-12	75 KW HEATER	THQC 2050 WL	50	2-1		H-1423	3W 1PH.W. CONTR. 220V. RES. CONT.
CB-13	5 KW. HEATER	THQC 2020 WL	15	2-2		H-1403	DO
CB-14	LIFT STATION	THQC 2020 WL	20				NAV. FEEDER TO STA. CONTR. PANEL
CB-15	SPARE						

TIMERS AND TIME CLOCKS

TC-1	TIME CLOCK	TYPE TC	#10250H129	FOR INTERMITTENT AERATOR CONTR. N1 15-30 MIN/CYC.
TC-2	TIME CLOCK	TYPE TC	#10250H129	FOR INTERMITTENT AERATOR CONTR. S 15-30 MIN. CYC.
T-1	TIMER	TYPE 3M	#10395 H93-GO	FOR WATING SLUDGE RETURN PUMP OPERATION
T-2	TIMER	TYPE 3M	#10395 H93-GO	FOR WATING AERATION TIME FROM 10% - 90% OF 15-30 MIN. CYC.

* NOTE: "OVERLOAD HEATERS RANGE" TABLE, VOID - SEE TABLE 1 BELOW.

CONNECTED LOAD SCHEDULE

SOURCE	KVA
TREATMENT AUXILIARIES	6
EXTENDED AERATION	31
LIGHTING	8
RECEPTACLES	6
HEATING & VENTILATION	12
LIFT STATION - ALTERNATE	10
FUTURE	10
TOTAL	86 KVA

EXHAUST FAN SCHEDULE

NO	LOCATION	HP	S.P.	C.F.M.	VOLTS/PH	REMARKS
F-1	LABORATORY	1/4	0.25"	150	115/1PH	VOLTSA TYPE W. DOUBLE INL W/GRILL OR EQ.
E-F	CHLORINATOR RM.	1/8	0.50"	1500	115/1PH	CHLTSA - MOD. 12 DIA. W/GRILL OR EQ.

ELECTRIC HEATER SCHEDULE

NO	LOCATION	SIZE	BTU	VOLTS/PH	REMARKS
1-H	SERVICE BLDG.	7.5	25,000	240/1PH	ELECTROMODE CN 75 OR APPROV. EQ.
2-H	CHLORINATOR RM.	5 KW	10,000	240/1PH	ELECTROMODE AN 30 OR APPROV. EQ.

125 AMP PANEL SCHEDULE NO/208 V.

CIRC. NO.	TRIP AMP	POLE	SERVICE
CR-1	30	1	HOT WATER HEATER
CR-2	20	1	EXTERIOR FLOODLIGHTS & RECEP.
CR-3	20	1	EXTERIOR FLOODLIGHTS & RECEP.
CR-4	20	1	LABORATORY RECEPTACLES
CR-5	20	1	LABORATORY RECEPTACLES
CR-6	20	1	CHLORINE RM. EX. FAN & LIGHTS
CR-7	20	1	LABORATORY EX. FAN
CR-8	20	1	SERVICE BUILDING LIGHTS
CR-9	20	1	FLOW METER RECORDER
CR-10	20	1	TRANSMITTER - RECEPT.
CR-11	20	1	TIMERS & TIME CLOCKS
CR-12	20	1	SERVICE BUILDING RECEPT.
CR-13			SPARE SPACES

TABLE 1

CHART	H.P.	STARTER - CAT. NUM.*	HEATER COIL NO.	STARTER AMP RANGE
P-1	1/2	A10BN10B	H1023	4.19 - 4.63
P-2	1	A16BN10B	H1023	3.05 - 3.36
P-3	1	A16BN10B	H1023	3.05 - 3.36
P-4	10	A110DN10B	H1044	24.4 - 25.4
P-5	10	A110DN10B	H1044	24.4 - 25.4
P-6	7½	A110DN10B	H1042	17.6 - 19.8
P-7	5	A110BN10B	H1035	7.77 - 8.93
P-8	5	A110BN10B	H1035	7.77 - 8.93
P-9	5	A110BN10B	H1035	7.77 - 8.93
P-10	1/2	A10BN10B	H1021	1.71 - 1.90
P-11	1	A10BN10B	H1023	3.05 - 3.36
CH-1	-	8910H1408-E	H1403	—
CH-2	-	8910H1408-E	H1403	—

* CUTLER - HAMMER NUMBER

PREPARED BY
J. A. GUSTIN & ASSOCIATES
CONSULTING ENGINEERS
MARTINSVILLE, VIRGINIA

DATE	REVISIONS
	4.
	3.
	2.
	1.

FERRUM WATER AND SEWERAGE AUTHORITY

WASTE TREATMENT PLANT FACILITY

SCALE: NOTED | DRAWN BY: J.A.G.

ELECTRICAL CONTROL

DATE: 11-15-69 | APPROVED BY: J.A.G.