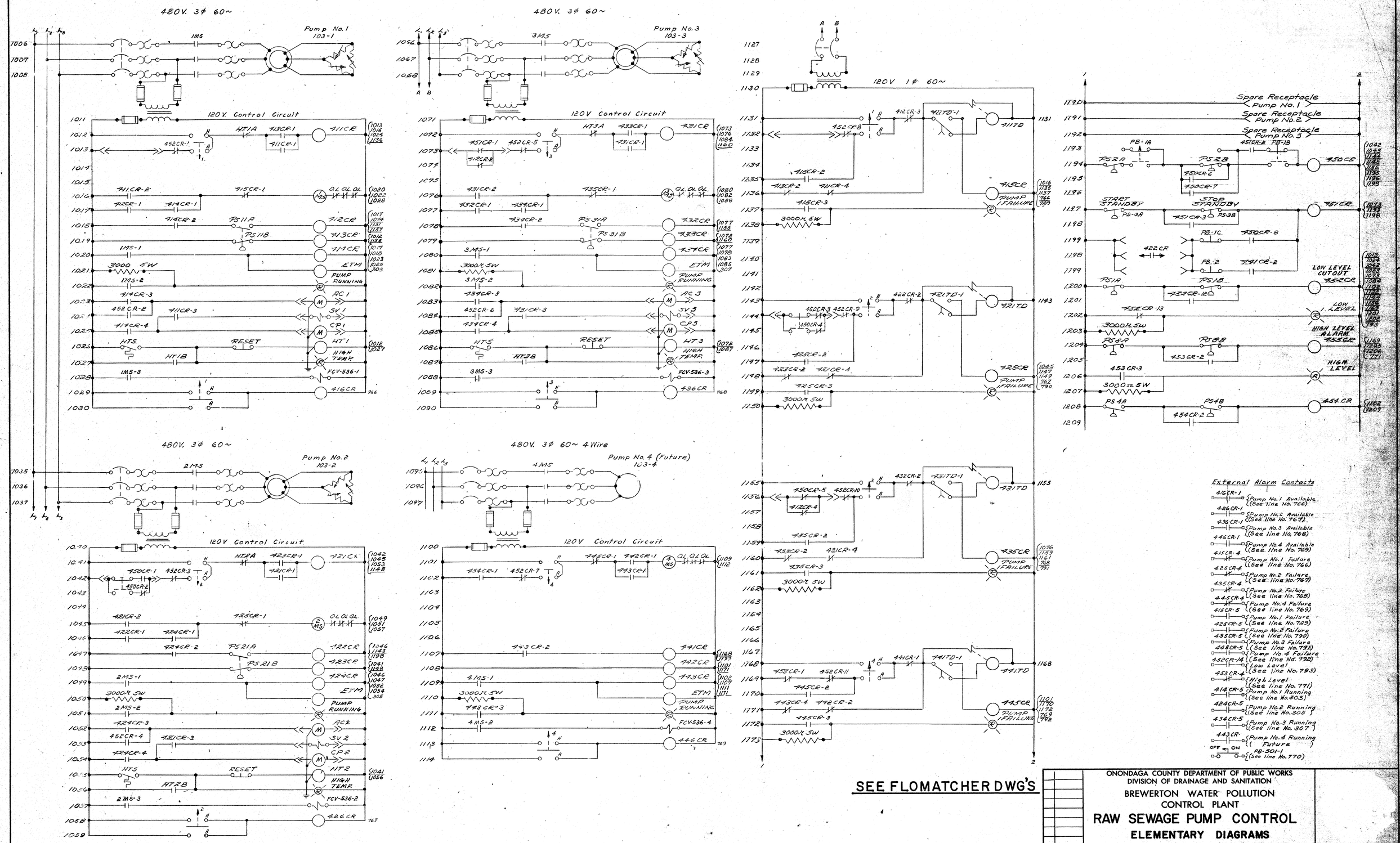


SEE FLOMATCHER DWG'S

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION

BREWERTON WATER POLLUTION CONTROL PLANT

RAW SEWAGE PUMP CONTROL

ELEMENTARY DIAGRAMS

TOWN OF CICERO — ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

REVISIONS

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-68F

64

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: E.W.P.
CHECKED BY: DCM

480V 3Ø 60~ 4Wire

1 MR (Ammeter) — Run — 3 OL's — M 110-1 — TFR-529-1

120V Control Circuit

L.O. Stop — Stop — H — A — 505 CR-3 — 503 CR-1 — 506 CR-1 — 507 CR-1 — TR — OL OL OL

TR — TR — 1S — Run* — 2S — 1S — Run — Run* — L-110-1A — Run — ETM

* Must Overlap

480V 3Ø 60~ 4Wire

2 MR (Ammeter) — Run — 3 OL's — M 110-2 — TFR-529-2

120V Control Circuit

L.O. Stop — Stop — H — A — 505 CR-4 — 523 — 526 — 527 CR-1 — TR — OL OL OL

TR — TR — 1S — Run* — 2S — 2S — 1S — Run — Run* — L-110-2A — Run — ETM

* Must Overlap

480V 3Ø 60~ 4Wire

3 MR (Ammeter) — Run — 3 OL's — M 110-3 — TFR-529-3

120V Control Circuit

L.O. Stop — Stop — H — A — CR-5 — 505 — 543 — 546 — 547 — TR — OL OL OL

TR — TR — 1S — Run* — 2S — 1S — Run — Run* — L-110-3A — Run — ETM

* Must Overlap

480V 3Ø 60~ 4Wire

4 MR (Ammeter) — Run — 3 OL's — M 110-4 — TFR-529-4

Typical 1 line for Reduced Voltage Auto-transformer closed transition Starter

120V Control Circuit

L.O. Stop — Stop — H — A — CR-6 — 505 — 563 — 564 — 567 — TR — OL OL OL

TR — TR — 1S — Run* — 2S — 1S — Run — Run* — L-110-4A — Run — ETM

* Must Overlap

120V. 1Ø 60~ — Start — 1-45CR-1 — 1MR-1 — 503CR — 1MR — 501TR — 509CR — 505CR — L-529-1A — L-529-1B — L-110-1B — 502TDR — 506CR — 502TDR-1 PB-528-1A TS-528-1A — 502CR-2 — 502TDR-2 PB-528-1B TS-528-1B — 507CR — 506CR-3 — L-528-1A — 507CR-3 — L-528-1B — TR — Run — 508CR — 503TDR — 503CR-1 503TDR-1 — SV-525-1 — L-525-1A — L-525-1B — 503CR-2 — SV-503-1

Surge Protection FIA-529-1

Bearing Temp Protection TIA-528-1

Recycle Control System 525-1

120V. 1Ø 60~ — Start — 1-53CR-1 — 1MR-1 — 523CR — 2MR — 521TR — 509CR — 525CR — L-529-2A — L-529-2B — L-110-2B — 522TDR — 526CR — 522TDR-1 PB-528-2A TS-528-2A — 526CR-2 — 527TDR-2 PB-528-2B TS-528-2B — 527CR — 526CR-3 — L-528-2A — 527CR-3 — L-528-2B — TR — Run — 528CR — 523TDR — 523CR-1 523TDR-1 — SV-525-2 — L-525-2A — L-525-2B — 523CR-2 — SV-526-2

Surge Protection FIA-529-2

Bearing Temp Protection TIA-528-2

Recycle Control System 525-2

120V. 1Ø 60~ — Start — 1-62CR-1 — 1MR-1 — 543CR — 3MR — 541TR — 549CR — 545CR — L-529-3A — L-529-3B — L-110-3B — 542TDR — 546CR — 542TDR-1 PB-528-3A TS-528-3A — 546CR-2 — 542TDR-2 PB-528-3B TS-528-3B — 547CR — 546CR-3 — L-528-3A — 547CR-3 — L-528-3B — TR — Run — 548CR — 543TDR — 543CR-1 543TDR-1 — SV-525-3 — L-525-3A — L-525-3B — 543CR-2 — SV-526-3

Surge Protection FIA-529-3

Bearing Temp Protection TIA-528-3

Recycle Control System 525-3

120V. 1Ø 60~ — Start — 1-68CR-1 — 1MR-1 — 563CR — 4MR — 561TR — 569CR — 565CR — L-529-4A — L-529-4B — L-110-4B — 562TDR — 566CR — 562TDR-1 PB-528-4A TS-528-4A — 566CR-2 — 562TDR-2 PB-528-4B TS-528-4B — 567CR — 566CR-3 — L-528-4A — 567CR-3 — L-528-4B — TR — Run — 568CR — 563TDR — 563CR-1 563TDR-1 — SV-525-4 — L-525-4A — L-525-4B — 563CR-2 — SV-526-4

Surge Protection FIA-529-4

Bearing Temp Protection TIA-528-4

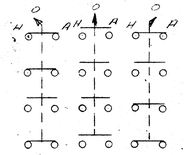
Recycle Control System 525-4

Component Number	Contact Line Numbers
503CR	1278
504CR	1353, 1361
505CR	1272, 1276
506CR	828
507CR	1258, 1285, 1288, 829
508CR	1258, 1287, 1290, 830
509CR	1296
1MR	1272, 1276
501TR	1275, 1276, 1284
502TDR	1284, 1286
503TDR	1296

Component Number	Contact Line Numbers
523CR	1333
2MR	1318, 1361
521TR	1332, 1336
525CR	834
526CR	1314, 1345, 1348, 832
527CR	1315, 1347, 1350, 833
528CR	1356
3MR	1332, 1336
541TR	1333, 1337, 1393
542TDR	1394, 1396
543TDR	1356

Component Number	Contact Line Numbers
542CR	1392
543CR	1376, 1421
545CR	1372, 1396
546CR	834
547CR	1378, 1405, 1408, 835
548CR	1378, 1407, 1410, 836
4MR	1910
541TR	1392, 1396
542TDR	1393, 1395, 1393
562TDR	1409, 1906
563TDR	1416

Component Number	Contact Line Numbers
545CR	1953
546CR	1438, 1481
547CR	1452, 1456
548CR	837
561TR	1439, 1467, 1468, 838
562TDR	1438, 1467, 1470, 839
563TDR	1476
4MR	1956
561TR	1453, 1455, 1453
562TDR	1469, 1466
563TDR	1476



Selector Switch Sequence

SEE ITE DWG'S MCC 11 & LAMSON DWG'S D-4815-B

Notes:

1. The Following Shall Be Furnished By Blower Manufacturer
   a) All Components of FIA 529-1,2,3,4 Except Pushbuttons and Pilot Lights L-529-1B, 2B, 3B, 4B
   b) Current Transformers TIR-529-1,2,3,4
   c) Bearing Temperature Switches TS-528-1A, 1B, 2A, 2B, 3A 3B, & 4A, 4B Only Of TIA-528-1,2,3,4
2. All Components of Systems SV-1,2,3,4 Except Pilot Lights L-525-1B, 2B, 3B, & 4B Shall Be Furnished By Process Instrumentation Supplier
3. Solenoid Valves SV-526-1,2,3, & 4 Shall Be Furnished By Process Instrumentation Supplier
4. All Other Components Shall Be Furnished Under Electrical Contract 1B. and Mounted In Motor Control Center
5. Current Transformers Shall Be Mounted In Motor Control Center

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: EWP
CHECKED BY: DCM

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT

BLOWER CONTROL
ELEMENTARY DIAGRAMS

TOWN OF CICERO — ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

REVISIONS

DATE: FEBRUARY 1975
SCALE: NO SCALE
FILE NO.: 55.32-69F

65

ANNUNCIATOR SCHEDULE

	POINT	NAME PLATE	REMOTE ACTUATOR ITEM NO.	REMOTE ACTUATOR CONTACTS *
IA-548-1A	1-1	103 ALL RAW SEWAGE PUMPS OFF	SEE NOTE 1.	SEE NOTE 1.
	1-2	WET WELL HIGH LEVEL	453 CR	N.C.
	1-3	CHLORINATION SYSTEM MALFUNCTION	715 CR	N. O.
	1-4	BLANK		
	1-5	107-1,-2. NORTH GALLERY RETURN SLUDGE PUMP FAILURE	SC-5/6-1,2	N. C.
	1-6	107-3,-4. SOUTH GALLERY RETURN SLUDGE PUMP FAILURE	SC-5/6-3,4	N.C.
	1-7	LOW INSTRUMENT AIR PRESSURE	PS-545-1	N.O.
	1-8	114-1 INSTRUMENT AIR COMPRESSOR #1 MALFUNCTION	SEE SH.# 90	SEE SH.# 90
	1-9	114-2 INSTRUMENT AIR COMPRESSOR #2 MALFUNCTION	SEE SH.# 90	SEE SH.# 90
	1-10	123-1,2 PLANT AIR FAILURE	SEE SH.# 90	SEE SH.# 90
	1-11	BLANK		
	2-1	103 RAW SEWAGE PUMP FAILURE	SEE NOTE 1.	SEE NOTE 1.
	2-2	WET WELL LOW LEVEL	452 CR	N.O.
	2-3	BLANK		
	2-4	203 EFFLUENT WATER SUPPLY PUMP FAILURE	SEE NOTE 1.	SEE NOTE 1.
	2-5	#1 SLUDGE COLLECTOR OVERLOAD APPROACH	1MR	N.O.
	2-6	#2 SLUDGE COLLECTOR OVERLOAD APPROACH	2MR	N.O.
	2-7	NORMAL POWER SUPPLY FAILURE	DEVICE 52-1 CONTACT b	N.C.
	2-8	ENGINE-GENERATOR NO. 1 MALFUNCTION	GENERATOR CIRCUIT	N.O.
	2-9	BLANK		
	2-10	BLANK		
	2-11	BLANK		

* REFERS TO CONTACT CONDITION DURING NORMAL PLANT OPERATION

NOTE 1. SEE ELEMENTARY DIAGRAM SH. 64-65,90

NOTE 2. SEE ELEMENTARY DIAGRAM SH. 87

1-1	1-2	1-3
2-1	2-2	2-3

TYPICAL ARRANGEMENT OF ANNUNCIATOR POINTS

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: P.I.
CHECKED BY:

ANNUNCIATOR SCHEDULE

	POINT	NAME PLATE	REMOTE ACTUATOR ITEM NO.	REMOTE ACTUATOR CONTACTS *
IA-548-1B	1-1	110-1 AERATION BLOWER NO. 1	SEE NOTE 1	SEE NOTE 1
	1-2	110-2 AERATION BLOWER NO. 2	SEE NOTE 1	SEE NOTE 1
	1-3	110-3 AERATION BLOWER NO. 3	SEE NOTE 1	SEE NOTE 1
	1-4	110-4 AERATION BLOWER NO. 4	SEE NOTE 1	SEE NOTE 1
	1-5	BLANK		
	2-1	112-1 AIR FILTRATION SYSTEM MALFUNCTION	706 CR	N.O.
	2-2	BLANK		
	2-3	BLANK		
	2-4	BLANK		
	2-5	BLANK		
IA-1011-1	1-1	WET WELL HIGH LEVEL	M-11-CR	N.O.
	1-2			
	1-3			
	2-1	NORMAL POWER SUPPLY FAILURE	M-14-CR	N.O.
	2-2	ENGINE GENERATOR MALFUNCTION	M13A-CR	N.O.
	2-3	AUDIO-TONE SIGNAL FAILURE	SEE NOTE 2	SEE NOTE 2
IA-1012-1	1-1	WET WELL HIGH LEVEL	M-21-CR	N.O.
	1-2			
	1-3			
	2-1	NORMAL POWER SUPPLY FAILURE	M-24-CR	N.O.
	2-2	ENGINE GENERATOR MALFUNCTION	M-23A-CR	N.O.
	2-3	AUDIO-TONE SIGNAL FAILURE	SEE NOTE 2	SEE NOTE 2
IA-1013-1	1-1	WET WELL HIGH LEVEL	M-31-CR	N.O.
	1-2			
	1-3			
	2-1	NORMAL POWER SUPPLY FAILURE	M-34-CR	N.O.
	2-2	ENGINE GENERATOR MALFUNCTION	M33A-CR	N.O.
	2-3	AUDIO-TONE SIGNAL FAILURE	SEE NOTE 2	SEE NOTE 2

ANNUNCIATOR SCHEDULE

	POINT	NAME PLATE	REMOTE ACTUATOR ITEM NO.	REMOTE ACTUATOR CONTACTS *
IA-1014-1	1-1	WET WELL HIGH LEVEL	M-41-CR	N.O.
	1-2			
	1-3			
	2-1	NORMAL POWER SUPPLY FAILURE	M-44-CR	N.O.
	2-2	ENGINE GENERATOR MALFUNCTION	M43ACR	N.O.
	2-3	AUDIO-TONE SIGNAL FAILURE	SEE NOTE 2	SEE NOTE 2
IA-1015-1	1-1	HIGH LEVEL	M-51-CR	N.O.
	1-2			
	1-3			
	2-1	NORMAL POWER SUPPLY FAILURE	M-54-CR	N.O.
	2-2	ENGINE GENERATOR MALFUNCTION	M-53-CR	N.O.
	2-3	AUDIO-TONE SIGNAL FAILURE	SEE NOTE 2	SEE NOTE 2
IA-1016-1	1-1	WET WELL HIGH LEVEL	M-61-CR	N.O.
	1-2			
	1-3			
	2-1	NORMAL POWER SUPPLY FAILURE	M-64-CR	N.O.
	2-2	ENGINE GENERATOR MALFUNCTION	M-63-CR	NO.
	2-3	AUDIO-TONE SIGNAL FAILURE		

NAME PLATE SCHEDULE

	NO.	ITEM
PANEL A1	1	SHEPARD POINT PUMPING STATION
	2	MAPLE BAY PUMPING STATION
	3	MUSKRAT BAY PUMPING STATION
	4	HARBOUR VILLAGE PUMPING STATION
	5	1011-1A, -1B ALARM SYSTEM
	6	LONG POINT PUMPING STATION
	8	SOUTH BAY PUMPING STATION
PANEL A2		
	11	CLOCK
PANEL A3	21	PI-545-1 INSTRUMENT AIR PRESSURE
	22	FR-507-1 RAW SEWAGE PLANT FLOW
	23	SYSTEM 503 RAW SEWAGE PUMP RUNNING
	24	SYSTEM 510-1 PROCESS PROGRAM CONTROL PLANT MASTER
	25	SYSTEM 520-1 WASTE SLUDGE FLOW CONTROL
	26	SYSTEM 523-1 AIR FLOW CONTROL AEROBIC DIGESTION TANK
	27	AR-531-1 AI-531-1 D.O. ANALYSIS MIXED LIQUOR TANK
	28	TRAIN NO. 1
	29	FR-506-1 RAW SEWAGE FLOW MIXED LIQUOR TANK
	30	AR-532-1 AI-532-1 D.O. ANALYSIS SLUDGE REAERATION TANK
	31	UNUSED
	32	SYSTEM 515-1 RETURN SLUDGE FLOW CONTROL
	33	SYSTEM 518-1 AIR FLOW CONTROL MIXED LIQUOR TANK
	34	SYSTEM 519-1 AIR FLOW CONTROL SLUDGE REAERATION TANK
	35	SYSTEM 511-1 PROCESS PROGRAM CONTROL TRAIN MASTER
	36	SYSTEM 512-1 PROCESS PROGRAM CONTROL FLOW PERIOD

NAME PLATE SCHEDULE

	NO.	ITEM
PANEL A3	37	SYSTEM 524-1 WASTE SLUDGE AIR LIFT
	38	SYSTEM 520-2 WASTE SLUDGE FLOW CONTROL
	39	SYSTEM 523-2 AIR FLOW CONTROL AEROBIC DIGESTION TANK
	40	AR-531-2 AI-531-2 D.O. ANALYSIS MIXED LIQUOR TANK
	41	TRAIN NO. 2
	42	FR-506-2 RAW SEWAGE FLOW MIXED LIQUOR TANK
	43	AR-532-2 AR-532-2 D.O. ANALYSIS SLUDGE REAERATION TANK
	44	UNUSED
	45	SYSTEM 515-2 RETURN SLUDGE FLOW CONTROL
	46	SYSTEM 518-2 AIR FLOW CONTROL MIXED LIQUOR TANK
	47	SYSTEM 519-2 AIR FLOW CONTROL SLUDGE REAERATION TANK
	48	SYSTEM 511-2 PROCESS PROGRAM CONTROL TRAIN MASTER
	49	SYSTEM 512-2 PROCESS PROGRAM CONTROL FLOW PERIOD
	50	SYSTEM 524-2 WASTE SLUDGE AIR LIFT
PANEL A4	61	548-1A, -1B PLANT ALARM SYSTEM
PANEL A5	71	SYSTEM 526-1 PROCESS AIR FLOW CONTROL
	72	SYSTEM 527-1 AERATION BLOWER NO.1 OPERATION CONTROL
	73	SYSTEM 527-2 AERATION BLOWER NO. 2 OPERATION CONTROL
	74	SYSTEM 527-3 AERATION BLOWER NO.3 OPERATION CONTROL
	75	SYSTEM 527-4 AERATION BLOWER NO. 4 OPERATION CONTROL

SEE F&P DWG'S J1, J2, J3, J4 & J5

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT

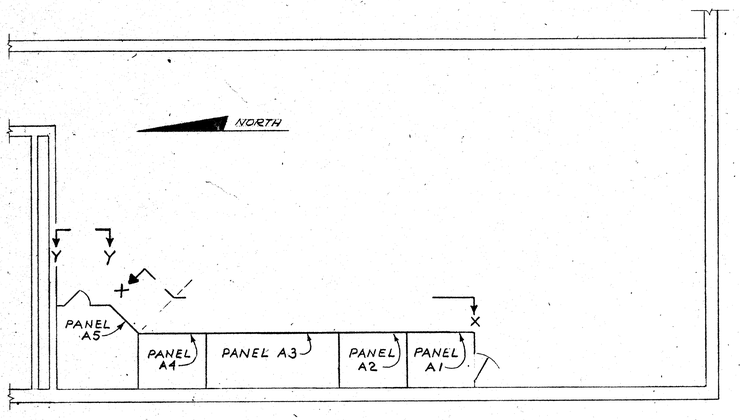
PROCESS INSTRUMENTATION
ALARM & NAMEPLATE SCHEDULES

TOWN OF CICERO — ONONDAGA CO., N.Y.

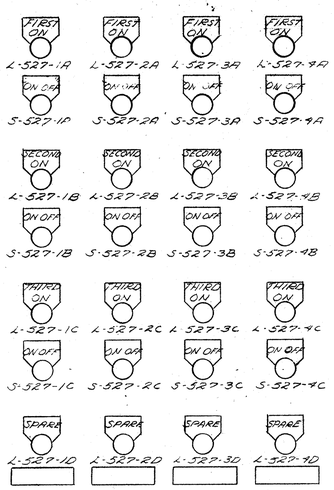
BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-70F

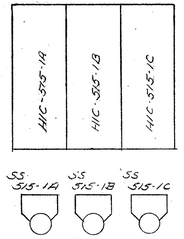
REVISIONS



INSTRUMENT PANEL PLAN
CONTROL ROOM
SCALE 3/16"=1'-0"



DETAIL "Z"
NO SCALE



DETAIL "W"
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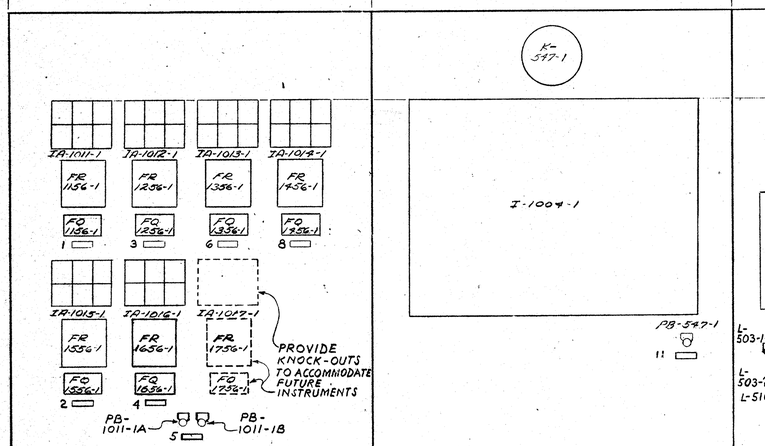
TYP. OF SYSTEMS 515, 518, 519



SECTION X-X
FRONT ELEV. INSTRUMENT PANEL "A"
SCALE 1"=1'-0"

SECTION Y-Y
SCALE 1"=1'-0"

SEE F&P DWGS J1, J2, J3, J4 & J5

NOTE: FOR DESCRIPTION OF INSTRUMENTS SEE INSTRUMENT SCHEDULE, SH. 73, 74, 75 & 76.

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: E.W.R.
CHECKED BY: D.C.M.

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT
PROCESS INSTRUMENTATION
INSTRUMENT PANELS
TOWN OF CICERO — ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: AS SHOWN
FILE NO.: 5532-71F

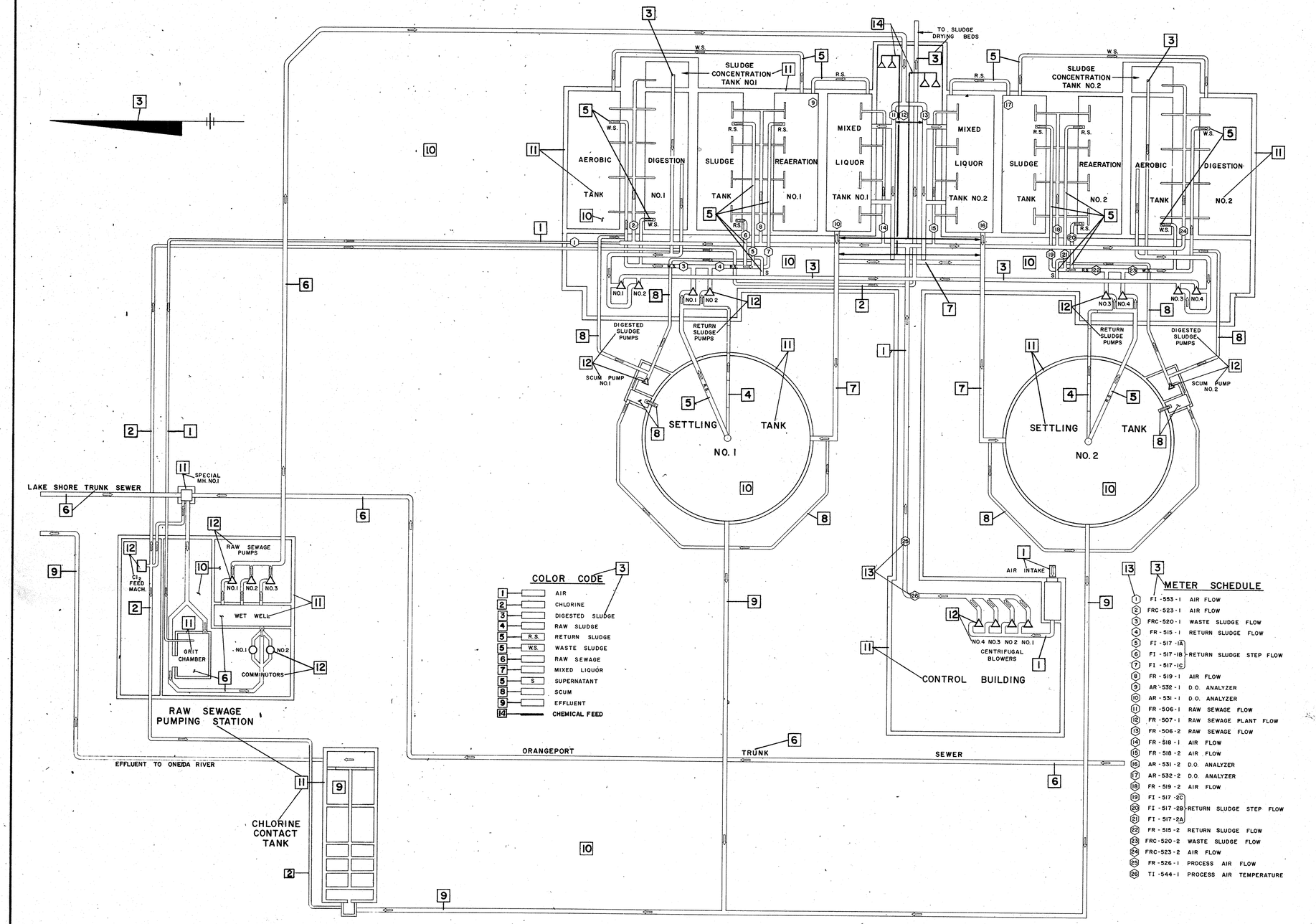
REVISIONS

67

4'-0"

5'-0"

3 BREWERTON WATER POLLUTION CONTROL PLANT



COLOR CODE

1	AIR
2	CHLORINE
3	DIGESTED SLUDGE
4	RAW SLUDGE
5 R.S.	RETURN SLUDGE
5 W.S.	WASTE SLUDGE
6	RAW SEWAGE
7	MIXED LIQUOR
5 S	SUPERNATANT
8	SCUM
9	EFFLUENT
14	CHEMICAL FEED

METER SCHEDULE

1	FI -553-1	AIR FLOW
2	FRC-523-1	AIR FLOW
3	FRC-520-1	WASTE SLUDGE FLOW
4	FR -515-1	RETURN SLUDGE FLOW
5	FI -517-1A	RETURN SLUDGE STEP FLOW
6	FI -517-1B	
7	FI -517-1C	
8	FR -519-1	AIR FLOW
9	AR -532-1	D.O. ANALYZER
10	AR -531-1	D.O. ANALYZER
11	FR -506-1	RAW SEWAGE FLOW
12	FR -507-1	RAW SEWAGE PLANT FLOW
13	FR -506-2	RAW SEWAGE FLOW
14	FR -518-1	AIR FLOW
15	FR -518-2	AIR FLOW
16	AR -531-2	D.O. ANALYZER
17	AR -532-2	D.O. ANALYZER
18	FR -519-2	AIR FLOW
19	FI -517-2C	RETURN SLUDGE STEP FLOW
20	FI -517-2B	
21	FI -517-2A	
22	FR -515-2	RETURN SLUDGE FLOW
23	FRC-520-2	WASTE SLUDGE FLOW
24	FRC-523-2	AIR FLOW
25	FR -526-1	PROCESS AIR FLOW
26	TI -544-1	PROCESS AIR TEMPERATURE

COLORS

1 - Green
2 - Yellow
3 - Black
4 - Black & Lt. Brown (Alt.)
5 - Light Brown
6 - Charcoal
7 - Dk. Brown
8 - Lt. Gray
9 - Blue
10 - White
11 - Lt. Green
12 - Red
13 - All meter identification symbols to be WHITE numerals within RED hexagon

NOTE: All process flow arrows to be white.

14 - Green & Red (Alt)

ITEM I-546-1
GRAPHIC PANEL
No Scale

SEE F&P DWG'S J4

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: F.N.K.
CHECKED BY: [illegible]

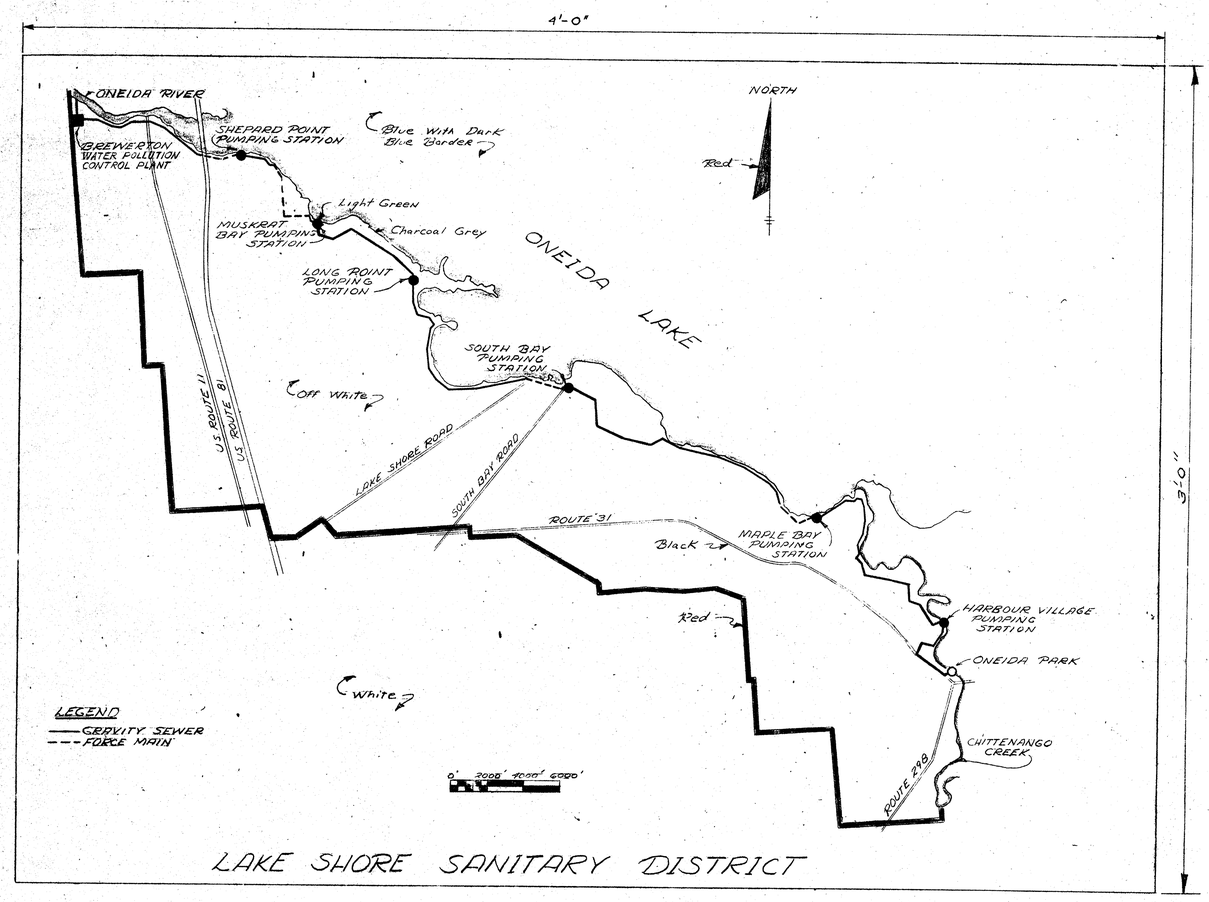
ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT
PROCESS INSTRUMENTATION
GRAPHIC PANEL
TOWN OF CICERO ONONDAGA CO., N.Y.

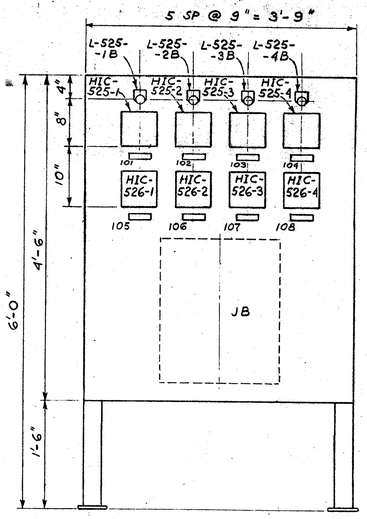
BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-72 F

REVISIONS

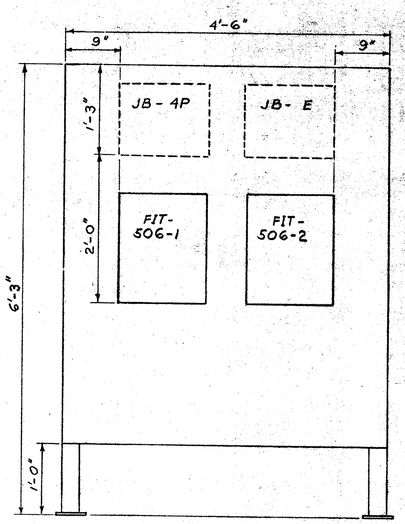
68

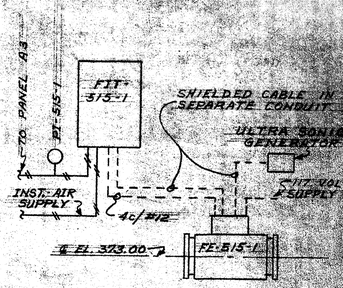




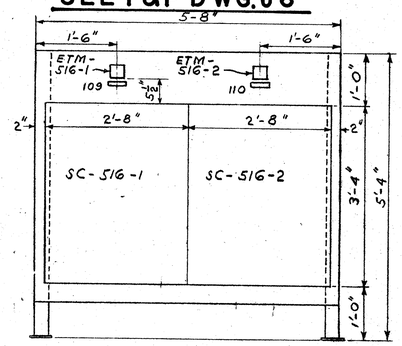
PANEL "B" (SEE NOTE 1.)
SCALE : 1" = 1'-0"

SEE F&P DWG. J6





CONNECTION DIAGRAM FOR FIT-515-1
NO SCALE
TYPICAL FOR FIT-515-2, ACCOMMODATING INSTRUMENTS: FE-515-2



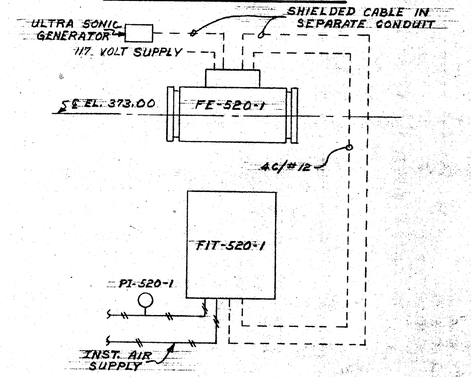
SEE RELIANCE DWG'S

PANEL D1 (SEE NOTE)
SCALE : 3/4" = 1'-0"

TYPICAL FOR PANEL "D2" ACCOMMODATING INSTRUMENTS: SC-516-3, SC-516-4, ETM-516-3 & ETM-516-4 AND NAME PLATES NO. 111 & 112.

PANEL "E" (SEE NOTE 1.)
SCALE : 1" = 1'-0"

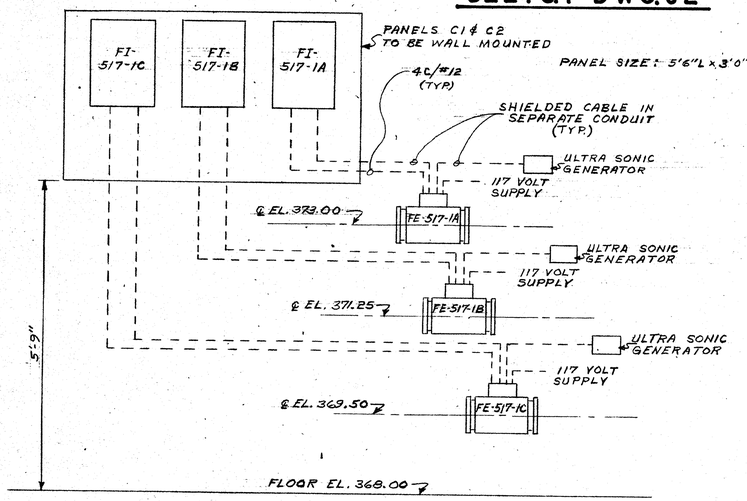
SEE F&P DWG. J9



CONNECTION DIAGRAM FOR FIT-520-1
NO SCALE
TYPICAL FOR FIT-520-2, ACCOMMODATING INSTRUMENT - FE-520-2

I-1004-1 GRAPHIC PANEL
NO SCALE

SEE F&P DWG. J2



CONNECTION DIAGRAM FOR PANEL C1
SCALE : 3/4" = 1'-0"

TYPICAL FOR PANEL C2 ACCOMMODATING INSTRUMENTS: FI-517-2A, FI-517-2B, FI-517-2C FE-517-2A, FE-517-2B, FE-517-2C

SEE F&P DWG'S J7 & J8

NAME PLATE SCHEDULE

	NO.	ITEM		NO.	ITEM		NO.	ITEM
PANEL B	101	SYSTEM 525-1 BLOWER NO. 1 RECYCLE CONTROL	PANEL B	105	SYSTEM 526-1 BLOWER NO. 1 FLOW CONTROL	PANEL D1	109	PUMP NO. 1
	102	SYSTEM 525-2 BLOWER NO. 2 RECYCLE CONTROL		106	SYSTEM 526-2 BLOWER NO. 2 FLOW CONTROL		110	PUMP NO. 2
	103	SYSTEM 525-3 BLOWER NO. 3 RECYCLE CONTROL		107	SYSTEM 526-3 BLOWER NO. 3 FLOW CONTROL	PANEL D2	111	PUMP NO. 3
	104	SYSTEM 525-4 BLOWER NO. 4 RECYCLE CONTROL		108	SYSTEM 526-4 BLOWER NO. 4 FLOW CONTROL		112	PUMP NO. 4

NOTE:
FOR DESCRIPTION OF INSTRUMENTS SEE INSTRUMENT SCHEDULE, SH. 73, 74, 75, 76 & 77.

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: D.I.
CHECKED BY: DCM

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION

GRAPHIC PANEL — MISCELLANEOUS

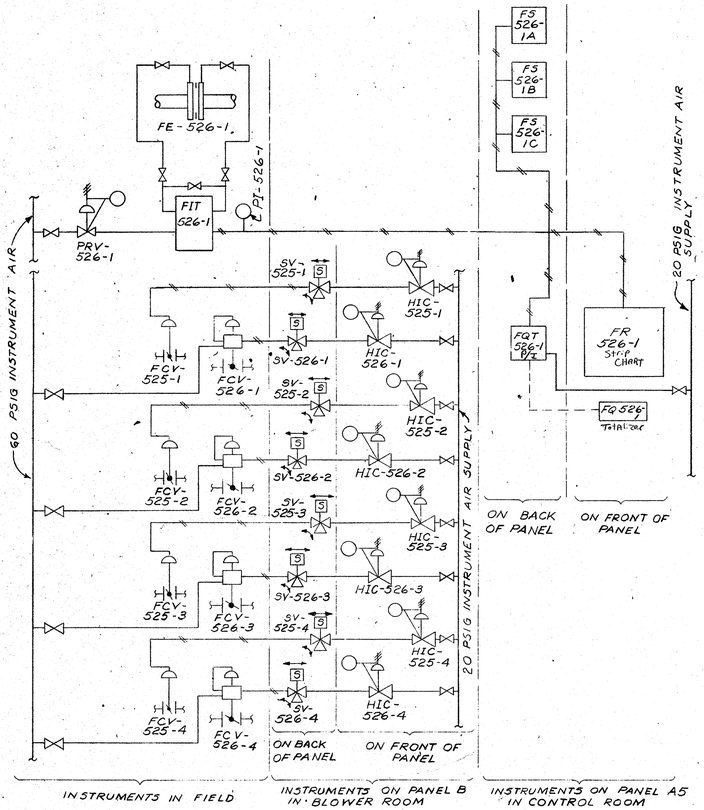
TOWN OF CICERO ONONDAGA CO., N. Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: A.S.
FILE NO. 5532-73 F

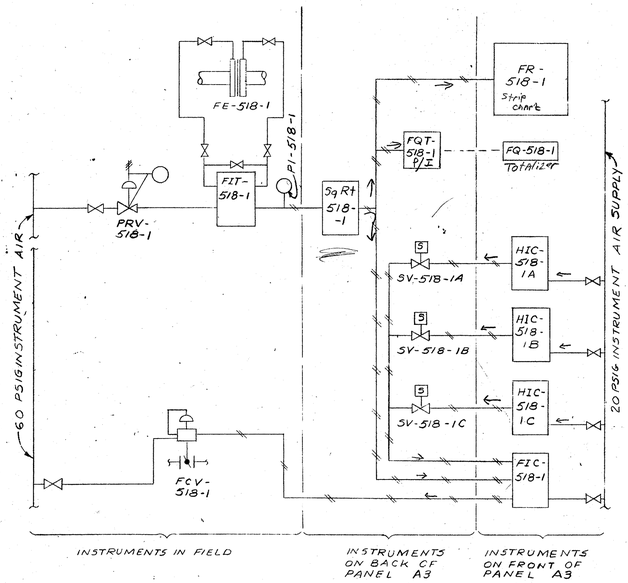
REVISIONS

69



SYSTEMS 525 & 526

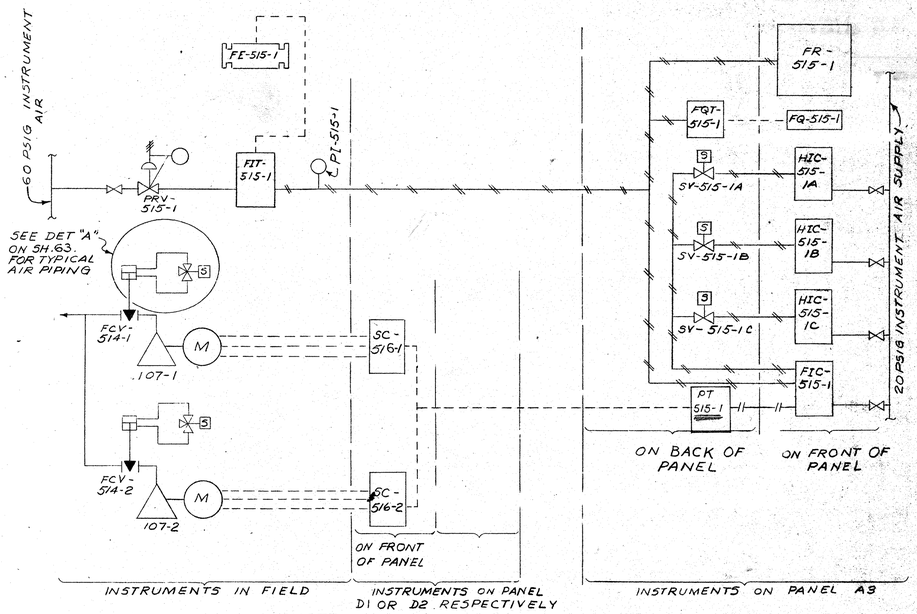
SEE F&P DWG'S J5 & J6



SYSTEM 518-1

TYPICAL FOR 518-2, 519-1 & -2

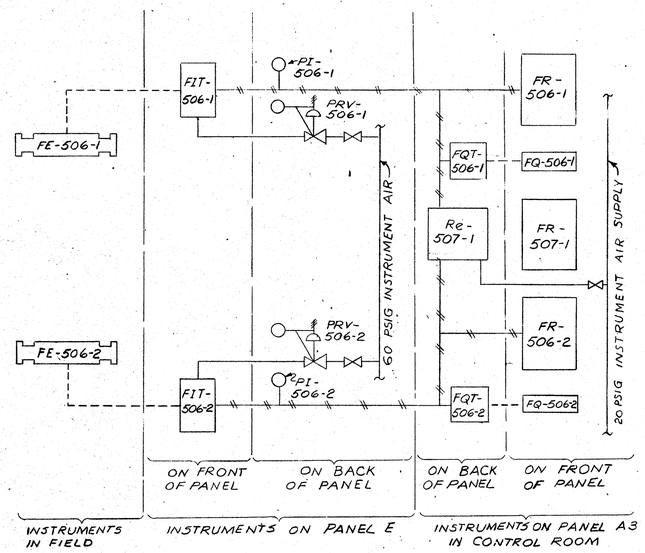
SEE F&P DWG'S J3



SYSTEMS 515-1, 516-1 & 516-2

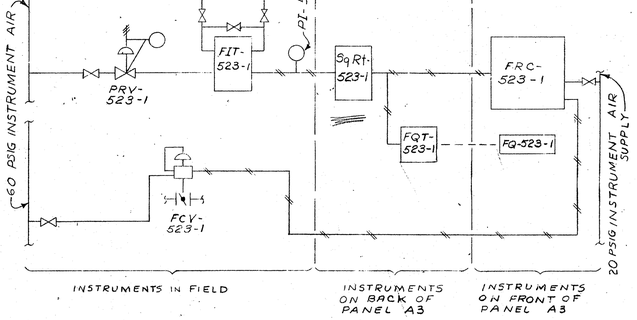
TYPICAL FOR 515-2, 516-3 & 516-4

SEE RELIANCE DWG'S & F&P DWG. J3



SYSTEMS 506 & 507

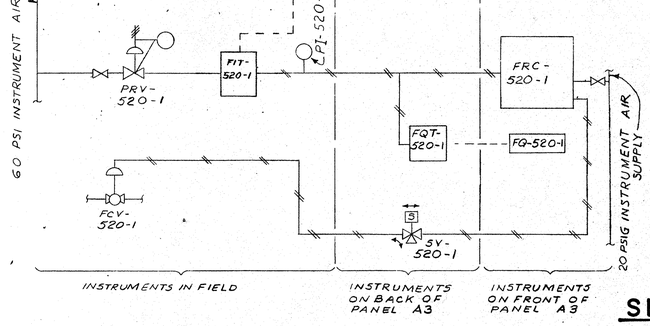
SEE F&P DWG'S J3 & J9



SYSTEM 523-1

TYPICAL FOR 523-2

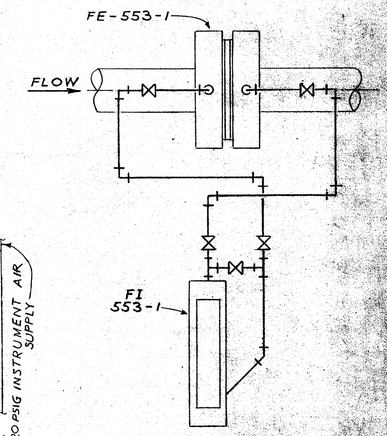
SEE F&P DWG'S J3



SYSTEM 520-1

TYPICAL FOR 520-2

SEE F&P DWG'S J3



SYSTEM 553

SEE F&P DWGS J462 & J463

NOTE:
FOR PROCESS CONNECTIONS FOR FLOW MEASURING UNITS ON SYSTEMS 515 AND 520 SEE SH. 69

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: J.P.S.
CHECKED BY: DCM

REVISIONS

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION

BREWERTON WATER POLLUTION CONTROL PLANT

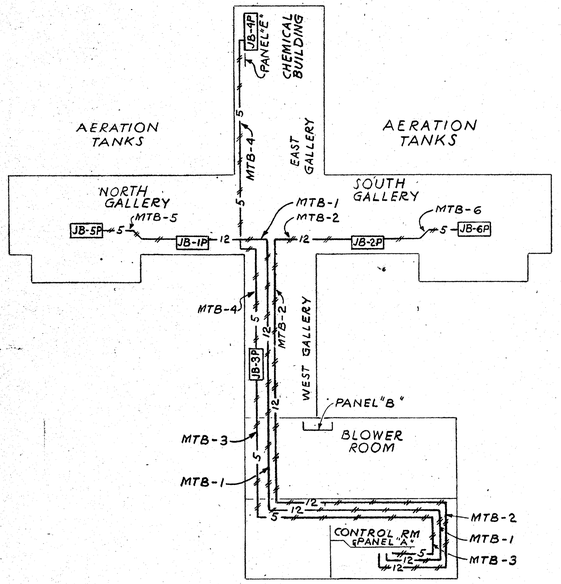
PROCESS INSTRUMENTATION

PNEUMATIC CONTROL SCHEMATICS

TOWN OF CICERO — ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 5532-74F



MULTIPLE TUBE KEY-PLAN
NO SCALE

NOTE: SEE LEGEND ON THIS SHEET

MULTIPLE AND SINGLE TUBE SCHEDULE

RUN NO.	TUBES	FROM	TO	TUBE NO.	SERVICE FROM PANEL	SERVICE FROM FIELD	SERVICE TO PANEL	SERVICE TO FIELD
MTB-1	12-3/8" O.D.	CONTROL ROOM PANEL "A"	JB-1P	1	FRC-520-1			FCV-520-1
				2		FIT-520-1	FRC-520-1 FQT-520-1	
				3		FIT-523-1	FRC-523-1 FQT-523-1	
				4	FRC-523-1			FCV-523-1
				5		FIT-518-1	FR-518-1 FQT-518-1 FIC-518-1	
				6	FIC-518-1			FCV-518-1
				7		FIT-519-1	FR-519-1 FQT-519-1 FIC-519-1	
				8	FIC-519-1			FCV-519-1
				9		FIT-515-1	FR-515-1 FQT-515-1 FIC-515-1	
				10	FIC-515-1		PT-516-1, 2	
				11	SPARE			
				12	SPARE			
MTB-2	12-3/8" O.D.	CONTROL ROOM PANEL "A"	JB-2P	1	FRC-520-2			FCV-520-2
				2		FIT-520-2	FRC-520-2 FQT-520-2	
				3		FIT-523-2	FRC-523-2 FQT-523-2	
				4	FRC-523-2			FCV-523-2
				5		FIT-518-2	FR-518-2 FQT-518-2 FIC-518-2	
				6	FIC-518-2			FCV-518-2
				7		FIT-519-2	FR-519-2 FQT-519-2 FIC-519-2	
				8	FIC-519-2			FCV-519-2
				9		FIT-515-2	FR-515-2 FQT-515-2 FIC-515-2	
				10	FIC-515-2		PT-516-3, 4	
				11	SPARE			
				12	SPARE			

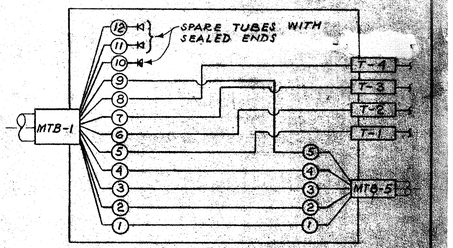
IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: J.D.I.
CHECKED BY: DCM

MULTIPLE AND SINGLE TUBE SCHEDULE (CONTINUED)

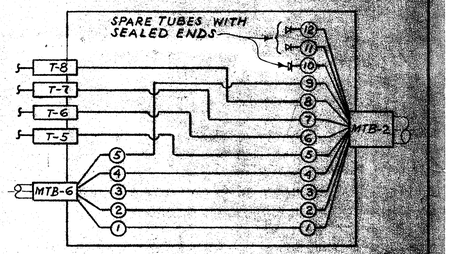
RUN NO.	TUBES	FROM	TO	TUBE NO.	SERVICE FROM PANEL	SERVICE FROM FIELD	SERVICE TO PANEL	SERVICE TO FIELD
MTB-3	5-3/8" O.D.	CONTROL ROOM PANEL "A"	JB-3P	1		FIT-526-1	FR-526-1 FQT-526-1 FS-526-1A FS-526-1B FS-526-1C	
				2		FIT-506-1	FR-506-1 FQT-506-1 Re-507-1	
				3		FIT-506-2	FR-506-2 FQT-506-2 Re-507-1	
				4	SPARE			
				5	SPARE			
MTB-4	5-3/8" O.D.	JB-3P	JB-4P PANEL "E"	1		FIT-506-1	FR-506-1 FQT-506-1 Re-507-1	
				2		FIT-506-2	FR-506-2 FQT-506-2 Re-507-1	
				3	SPARE			
				4	SPARE			
				5	SPARE			
MTB-5	5-3/8" O.D.	JB-1P	JB-5P	1	FRC-520-1			FCV-520-1
				2		FIT-520-1	FRC-520-1 FQT-520-1	
				3		FIT-523-1	FRC-523-1 FQT-523-1	
				4	FRC-523-1			FCV-523-1
				5		FIT-515-1	FR-515-1 FQT-515-1 FIC-515-1	
MTB-6	5-3/8" O.D.	JB-2P	JB-6P	1	FRC-520-2			FCV-520-2
				2		FIT-520-2	FRC-520-2 FQT-520-2	
				3		FIT-523-2	FRC-523-2 FQT-523-2	
				4	FRC-523-2			FCV-523-2
				5		FIT-515-2	FR-515-2 FQT-515-2 FIC-515-2	
T-1	1-3/8" O.D.	JB-1P	FIT-518-1	1		FIT-518-1	FR-518-1 FQT-518-1 FIC-518-1	
T-2	1-3/8" O.D.	JB-1P	FCV-518-1	1	FIC-518-1			FCV-518-1
T-3	1-3/8" O.D.	JB-1P	FIT-519-1	1		FIT-519-1	FR-519-1 FQT-519-1 FIC-519-1	
T-4	1-3/8" O.D.	JB-1P	FCV-519-1	1	FIC-519-1			FCV-519-1
T-5	1-3/8" O.D.	JB-2P	FIT-518-2	1		FIT-518-2	FR-518-2 FQT-518-2 FIC-518-2	
T-6	1-3/8" O.D.	JB-2P	FCV-518-2	1	FIC-518-2			FCV-518-2
T-7	1-3/8" O.D.	JB-2P	FIT-519-2	1		FIT-519-2	FR-519-2 FQT-519-2 FIC-519-2	
T-8	1-3/8" O.D.	JB-2	FCV-519-2	1	FIC-519-2			FCV-519-2
T-9	1-1/4" O.D.	PANEL "B"	FCV-525-1	1	HIC-525-1			FCV-525-1
T-10	1-1/4" O.D.	PANEL "B"	FCV-526-1	1	HC-526-1			FCV-526-1
T-11	1-1/4" O.D.	PANEL "B"	FCV-525-2	1	HIC-525-2			FCV-525-2
T-12	1-1/4" O.D.	PANEL "B"	FCV-526-2	1	HC-526-2			FCV-526-2
T-13	1-1/4" O.D.	PANEL "B"	FCV-525-3	1	HIC-525-3			FCV-525-3
T-14	1-1/4" O.D.	PANEL "B"	FCV-526-3	1	HC-526-3			FCV-526-3

MULTIPLE AND SINGLE TUBE SCHEDULE (CONTINUED)

RUN NO.	TUBES	FROM	TO	TUBE NO.	SERVICE FROM PANEL	SERVICE FROM FIELD	SERVICE TO PANEL	SERVICE TO FIELD
T-15	1-1/4" O.D.	PANEL "B"	FCV-525-4	1	HIC-525-4			FCV-525-4
T-16	1-1/4" O.D.	PANEL "B"	FCV-526-4	1	HC-526-4			FCV-526-4
T-17	1-3/8" O.D.	JB-3P	FIT-526-1	1		FIT-526-1	FR-526-1 FQT-526-1 FS-526-1A FS-526-1B FS-526-1C	
T-18	1-3/8" O.D.	JB-4P PANEL "E"	FIT-506-1	1		FIT-506-1	FR-506-1 FQT-506-1 Re-507-1	
T-19	1-3/8" O.D.	JB-4P PANEL "E"	FIT-506-2	1		FIT-506-2	FR-506-2 FQT-506-2 Re-507-1	
T-20	1-3/8" O.D.	JB-5P	FCV-520-1	1	FRC-520-1			FCV-520-1
T-21	1-3/8" O.D.	JB-5P	FIT-520-1	1		FIT-520-1	FRC-520-1 FQT-520-1	
T-22	1-3/8" O.D.	JB-5P	FIT-523-1	1		FIT-523-1	FRC-523-1 FQT-523-1	
T-23	1-3/8" O.D.	JB-5P	FCV-523-1	1	FRC-523-1			FCV-523-1
T-24	1-3/8" O.D.	JB-5P	FIT-515-1	1		FIT-515-1	FR-515-1 FQT-515-1 FIC-515-1	
T-25	1-3/8" O.D.	JB-6P	FCV-520-2	1	FRC-520-2			FCV-520-2
T-26	1-3/8" O.D.	JB-6P	FIT-520-2	1		FIT-520-2	FRC-520-2 FQT-520-2	
T-27	1-3/8" O.D.	JB-6P	FIT-523-2	1		FIT-523-2	FRC-523-2 FQT-523-2	
T-28	1-3/8" O.D.	JB-6P	FCV-523-2	1	FRC-523-2			FCV-523-2
T-29	1-3/8" O.D.	JB-6P	FIT-515-2	1		FIT-515-2	FR-515-2 FQT-515-2 FIC-515-2	



JB-1P DIAGRAM
NO SCALE



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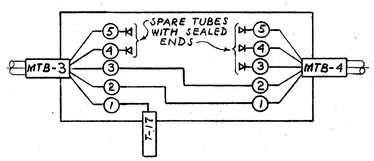

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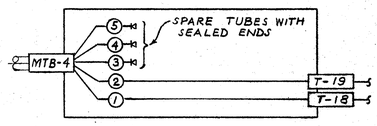

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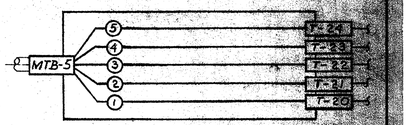

JB-5P DIAGRAM
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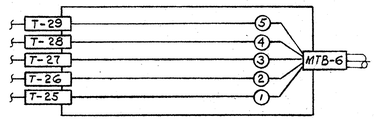


JB-6P DIAGRAM
NO SCALE

LEGEND			
DESCRIPTION	ABBR.	SYMBOL	NOTES
MULTIPLE TUBING	MTB		MTB-1 NUMBER OF TUBES (SAMPLE)
SINGLE TUBING	T		T-5 IDENTIFICATION NUMBER (SAMPLE)
PNEUMATIC JUNCTION BOX	JB-P		JB-1P

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION
CONTROL AIR PIPING

TOWN OF CICERO — ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

REVISIONS

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-75F

71

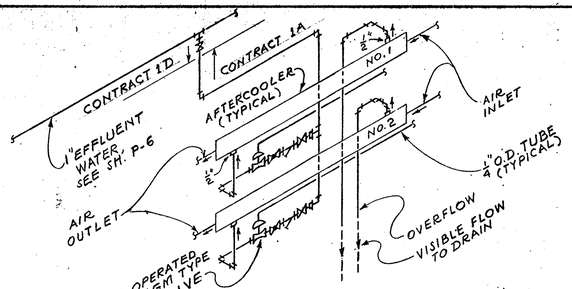
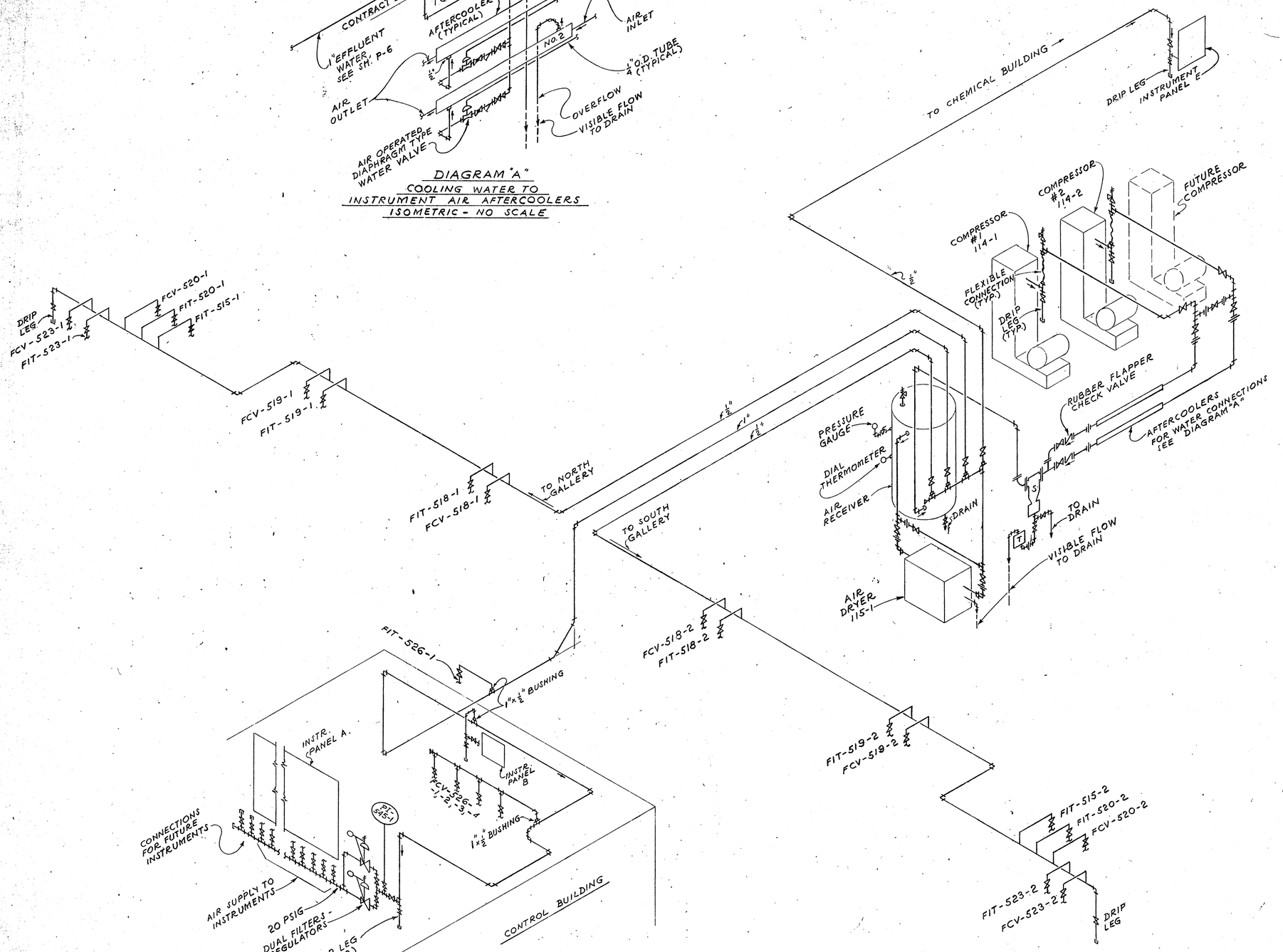


DIAGRAM "A"
COOLING WATER TO INSTRUMENT AIR AFTERCOOLERS
ISOMETRIC - NO SCALE



INSTRUMENT AIR PIPING
ISOMETRIC - NO SCALE

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: B.I.
CHECKED BY: Dony

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT
PROCESS INSTRUMENTATION
INSTRUMENT AIR SUPPLY SYSTEM
TOWN OF CICERO — ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-76F

REVISIONS

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INSTRUMENT SCHEDULE

PANEL A1

SERVICE	ITEM NO.	AUX	QUAN	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
SHEPARD POINT P.S. ALARMS AT BREWERTON WPCP	IA-1011-1		1	6 POINT ANNUNCIATOR		67			
	PB-1011-1A		1	N.C. PUSHBUTTON		67		SILENCE	
	PB-1011-1B		1	N.O. PUSHBUTTON		67		TEST	
	F-1011-1		1	FLASHER		87		MOUNT ON BACK OF PANEL	
		CR-A1	1	2 POLE RELAY		87		1 N.C. & 1 N.O. CONTACT	
MUSKRAT BAY P.S. ALARMS AT BREWERTON WPCP	IA-1012-1		1	6 POINT ANNUNCIATOR		67			
LONG POINT P.S. ALARMS AT BREWERTON WPCP	IA-1013-1		1	6 POINT ANNUNCIATOR		67			
SOUTH BAY P.S. ALARMS AT BREWERTON WPCP	IA-1014-1		1	6 POINT ANNUNCIATOR		67			
MAPLE BAY P.S. ALARMS AT BREWERTON WPCP	IA-1015-1		1	6 POINT ANNUNCIATOR		67			
HARBOUR VILLAGE P.S. ALARMS AT BREWERTON WPCP	IA-1016-1		1	6 POINT ANNUNCIATOR		67			
BREWERTON WPCP	IA-1017-1					67			
RAW SEWAGE FLOW - SHEPARD POINT P.S.	FR-1156-1		1	RECORDING RECEIVER		67		4" STRIP CHART, 0-100 LINEAR	
	FQ-1156-1		1	COUNTER		67		MOUNT ON BACK OF PANEL A1	
	FE-1156-1A		1	FLUME	WET WELL AT SHEPARD POINT P.S.	82			
	FIT-1156-1		1	RECORDING RECEIVER-TRANSMITTER	PANEL P1 AT SHEPARD POINT P.S.	82		12" CIRCULAR CHART 0-5 LINEAR	
	FE-1156-1B	TRANS.							
RAW SEWAGE FLOW - MUSKRAT BAY P.S.	FR-1256-1		1	RECORDING RECEIVER		67		4" STRIP CHART, 0-100 LINEAR	
	FQ-1256-1		1	COUNTER		67		MOUNT ON BACK OF PANEL A1	
	FE-1256-1A		1	FLUME	WET WELL AT MUSKRAT BAY P.S.	82			
	FIT-1256-1		1	RECORDING RECEIVER-TRANSMITTER	PANEL P2 AT MUSKRAT BAY P.S.	82		12" CIRCULAR CHART 0-5 LINEAR	
	FE-1256-1B	TRANS.							
RAW SEWAGE FLOW - LONG POINT P.S.	FR-1356-1		1	RECORDING RECEIVER		67		4" STRIP CHART, 0-100 LINEAR	
	FQ-1356-1		1	COUNTER		67		MOUNT ON BACK OF PANEL A1	
	FE-1356-1A		1	FLUME	WET WELL AT LONG POINT P.S.	82			
	FIT-1356-1		1	RECORDING RECEIVER-TRANSMITTER	PANEL P3 AT LONG POINT P.S.	82		12" CIRCULAR CHART 0-5 LINEAR	
	FE-1356-1B	TRANS.							
RAW SEWAGE FLOW - SOUTH BAY P.S.	FR-1456-1		1	RECORDING RECEIVER		67		4" STRIP CHART, 0-100 LINEAR	
	FQ-1456-1		1	COUNTER		67		MOUNT ON BACK OF PANEL A1	
	FE-1456-1A		1	FLUME	WET WELL AT SOUTH BAY P.S.	82			
	FIT-1456-1		1	RECORDING RECEIVER-TRANSMITTER	PANEL P4 AT SOUTH BAY P.S.	82		12" CIRCULAR CHART 0-5 LINEAR	
	FE-1456-1B	TRANS.							
RAW SEWAGE FLOW - MAPLE BAY P.S.	FR-1556-1		1	RECORDING RECEIVER		67		4" STRIP CHART, 0-100 LINEAR	
	FQ-1556-1		1	COUNTER		67		MOUNT ON BACK OF PANEL A1	
	FE-1556-1A		1	FLUME	WET WELL AT MAPLE BAY P.S.	82			
	FIT-1556-1		1	RECORDING RECEIVER-TRANSMITTER	PANEL P5 AT MAPLE BAY P.S.	82		12" CIRCULAR CHART 0-5 LINEAR	
	FE-1556-1B	TRANS.							
RAW SEWAGE FLOW - HARBOUR VILLAGE P.S.	FR-1656-1		1	RECORDING RECEIVER		67		4" STRIP CHART, 0-100 LINEAR	
	FQ-1656-1		1	COUNTER		67		MOUNT ON BACK OF PANEL A1	
	FE-1656-1A		1	FLUME	WET WELL AT HARBOUR VILLAGE P.S.	82			
	FIT-1656-1		1	RECORDING RECEIVER-TRANSMITTER	PANEL P6 AT HARBOUR VILLAGE P.S.	82		12" CIRCULAR CHART 0-5 LINEAR	
	FE-1656-1B	TRANS.							

PANEL A2

SERVICE	ITEM NO.	AUX	QUAN	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
TIME	K-547-1		1	CLOCK		67			
	PB-547-1		1	N.O. PUSHBUTTON		67		RESET	
REMOTE ALARM TRANSMISSION BREWERTON AND SYRACUSE METRO	SYSTEM 1002		1	SEE SCHEDULE ON SH. 86	BREWERTON WPCP & SYRACUSE METRO SYRACUSE METRO	85			
		12SI-TDR	1	TIME DELAY RELAY		85		INSTANTANEOUSLY OPEN, TIME TO CLOSE	
REMOTE ALARM TRANSMISSION BREWERTON AND PUMPING STATIONS	SYSTEM 1003		1	SEE SCHEDULE ON SH. 83 & 84	BREWERTON WPCP & PUMPING STATIONS	83 & 84			
		1-TDR 2-TDR 3-TDR 4-TDR 5-TDR 6-TDR	6	TIME DELAY RELAYS	PANEL A1	87		INSTANTANEOUSLY OPEN, TIME TO CLOSE. MOUNT ON BACK OF PANEL	
GRAPHIC DISPLAY SYSTEM	1-1004		1	GRAPHIC PANEL, SH. 69		67			
GRAPHIC DISPLAY SYSTEM	1-546-1		1	GRAPHIC PANEL, SH. 68		67			

PANEL A4

SERVICE	ITEM NO.	AUX	QUAN	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
PLANT ALARM SYSTEM	1A-548-1A		1	22 POINT ANNUNCIATOR		67			
	1A-548-1B		1	10 POINT ANNUNCIATOR	PANEL A5	67			
	PB-548-1A		1	N.C. PUSHBUTTON		67		SILENCE	
	PB-548-1B		1	N.O. PUSHBUTTON		67		TEST	
	F-548-1		1	FLASHER		90		MOUNT ON BACK OF PANEL	
	H-548-1		1	HORN		90			
		CR-A4	1	2 POLE RELAY		90		1 N.C. & 1 N.O. CONTACT	
SIGNAL CANCELLATION	PB501-1		1	ON-OFF SWITCH		90			

NOTES

1. NOT FURNISHED UNDER SECTION 49 OF DETAIL SPECS.
2. FURNISHED UNDER OTHER SECTION OF DETAIL SPECS UNDER GENERAL CONTRACT
3. FURNISHED UNDER ELECTRICAL CONTRACT
4. FURNISHED UNDER HEATING AND VENTILATING CONTRACT
5. FURNISHED UNDER PLUMBING CONTRACT

As Shown on: D.A.W.
Designed By: D.A.W.
Drawn By: R.J.M.
Checked By: [illegible]

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT
PROCESS INSTRUMENTATION
PANELS A1, A2, A4
TOWN OF SCIRO ONONDAGA CO. N.Y.

REVISIONS

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE:
File No. 55.32-77F

T-3

INSTRUMENT SCHEDULE

SERVICE	ITEM NO.	AUX.	QUAN	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
RAW SEWAGE PUMP RUNNING	L-503-1,-2,-3		3	PILOT LIGHT		67		"NO.1", "NO.2", "NO.3"; RED; PUSH-TO-TEST	
RAW SEWAGE TO MIXED LIQUOR TANKS FLOW	FR-506-1,-2		2	RECORDING RECEIVER, 1 PEN OF 2 PEN RECORDER		67		4" STRIP CHART 0-100 LINEAR FOR OTHER PEN SEE FR-515-1,-2	
	FQT-506-1,-2		2	PNEUMATIC INTEGRATOR		70		MOUNT ON BACK OF PANEL	
	FQ-506-1,-2		2	COUNTER		67			
	FE-506-1,-2		2	MAGNETIC FLOWMETER 8"	CHEMICAL BUILDING	61	FE-506-1,-2		
	FIT-506-1,-2		2	INDICATING RECEIVER TRANSMITTER	PANEL E				
	PRV-506-1,-2		2	FILTER-REGULATOR	PANEL E	70		20 PSIG MAX., GA 0-30 PSIG.	
	PI-506-1,-2		2	RECEIVER GAUGE	PANEL E	70		3-15 PSIG GA 0-10 LINEAR	
RAW SEWAGE - PLANT FLOW	FR-507-1		1	RECORDING RECEIVER WITH TOTALIZER		67		12" CIRCULAR CHART 0-6 LINEAR	
	Re-507-1		1	PNEUMATIC COMPUTING RELAY		70		ADDING; MOUNT ON BACK OF PANEL	
PROCESS PROGRAM CONTROL PLANT MASTER	TMR-510-1		1	PROGRAM TIME SWITCH		79		24 HRS.; 6 CIRCUITS SPDT MOUNT ON BACK OF PANEL	
	L-510-1		1	PILOT LIGHT		67		AMBER; PUSH-TO-TEST	
	S-510-1		1	2-POSITION SELECTOR SWITCH		79		"ON-OFF"; MOUNT ON BACK OF PANEL	
		201 CR THRU 211 CR	11	4-POLE RELAY		89		2 N.O. & 2 N.C. CONTACTS MOUNT ON BACK OF PANEL	
PROCESS PROGRAM CONTROL TRAIN MASTER	TMR-511-1,-2		2	PROGRAM TIME SWITCH		79		24 HRS.; 6 CIRCUITS SPDT MOUNT ON BACK OF PANEL	
	L-511-1,-2		2	PILOT LIGHT		67		AMBER; PUSH-TO-TEST	
	S-511-1,-2		2	2-POSITION SELECTOR SWITCH		79		"ON-OFF"; MOUNT ON BACK OF PANEL	
	FB-511-1,-2		2	N.O. PUSHBUTTON		79		"START"; MOUNT ON BACK OF PANEL	
		223 CR 243 CR	2	4-POLE RELAY		79		2 N.O. & 2 N.C. CONTACTS MOUNT ON BACK OF PANEL	
PROCESS PROGRAM CONTROL - FLOW PERIOD	L-512-1A,-2A		4	PILOT LIGHT		67		"PLANT MASTER" } RED; PUSH-TO-TEST	
	L-512-1B,-2B					67		"TRAIN MASTER" }	
	SS-512-1,-2		2	3-POSITION SELECTOR SWITCH		67		"PM - OFF - TM"	
		221 CR 222 CR 241 CR 242 CR	4	8-POLE RELAY		79		N.O. CONTACTS MOUNT ON BACK OF PANEL	
FLOW PERIOD "A"	TMR-512-1A,-2A		2	PERCENTAGE PROGRAM TIMER		79		4 HRS. CYCLE; 6 CIRCUITS SPDT MOUNT ON BACK OF PANEL	
		224 CR 225 CR 226 CR 244 CR 245 CR 246 CR	6	4-POLE RELAY		79		2 N.O. & 2 N.C. CONTACTS MOUNT ON BACK OF PANEL	
FLOW PERIOD "B"	TMR-512-1B,-2B		2	PERCENTAGE PROGRAM TIMER		79		4 HRS. CYCLE; 6 CIRCUITS SPDT MOUNT ON BACK OF PANEL	
		227 CR 228 CR 229 CR 247 CR 248 CR 249 CR	6	4-POLE RELAY		79		2 N.O. & 2 N.C. CONTACTS MOUNT ON BACK OF PANEL	
FLOW PERIOD "C"	TMR-512-1C,-2C		2	PERCENTAGE PROGRAM TIMER		79		4 HRS. CYCLE; 6 CIRCUITS SPDT MOUNT ON BACK OF PANEL	
		230 CR 231 CR 232 CR 250 CR 251 CR 252 CR	6	4-POLE RELAY		79		2 N.O. & 2 N.C. CONTACTS MOUNT ON BACK OF PANEL	
RETURN SLUDGE TO REAERATION TANK - FLOW CONTROL	FR-515-1,-2		2	RECORDING RECEIVER, 1 PEN OF 2 PEN RECORDER		67		4" STRIP CHART 0-100 LINEAR FOR OTHER PEN SEE FR-506-1,-2	
	FQT-515-1,-2		2	PNEUMATIC INTEGRATOR		70		MOUNT ON BACK OF PANEL	
	FQ-515-1,-2		2	COUNTER		67			
	FIC-515-1,-2		2	INDICATING RECEIVER CONTROLLER		67		SCALE 0-100 LINEAR; REVERSE ACTION	

~ CONTINUED ~

PANEL A3

INSTRUMENT SCHEDULE

SERVICE	ITEM NO.	AUX.	QUAN	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
RETURN SLUDGE TO REAERATION TANK - FLOW CONTROL				~ CONTINUED ~					
FLOW PERIOD "A"	HIC-515-1A,-2A		2	MANUAL LOADING STATION		67		SCALE 0-100 LINEAR	
	SS-515-1A,-2A		2	3-POSITION SELECTOR SWITCH		67		"HAND-OFF-AUTO"	
	SV-515-1A,-2A		2	2-WAY SOLENOID VALVE		70		ENERGIZE TO OPEN MOUNT ON BACK OF PANEL	
FLOW PERIOD "B"	HIC-515-1B,-2B		2	MANUAL LOADING STATION		67		SCALE 0-100 LINEAR	
	SS-515-1B,-2B		2	3-POSITION SELECTOR SWITCH		67		"HAND-OFF-AUTO"	
	SV-515-1B,-2B		2	2-WAY SOLENOID VALVE		70		ENERGIZE TO OPEN MOUNT ON BACK OF PANEL	
FLOW PERIOD "C"	HIC-515-1C,-2C		2	MANUAL LOADING STATION		67		SCALE 0-100 LINEAR	
	SS-515-1C,-2C		2	3-POSITION SELECTOR SWITCH		67		"HAND-OFF-AUTO"	
	SV-515-1C,-2C		2	2-WAY SOLENOID VALVE		70		ENERGIZE TO OPEN MOUNT ON BACK OF PANEL	
	FE-515-1,-2		2	MAGNETIC FLOWMETER, 4"	AERATION TANK GALLERIES	41	FE-515-1,2		
	FIT-515-1,-2		2	INDICATING RECEIVER - TRANSMITTER					
	PRV-515-1,-2		2	FILTER-REGULATOR	AERATION TANK GALLERIES	70		20 PSIG MAX; GA 0-30 PSIG	
	PI-515-1,-2		2	RECEIVER GAUGE		70		3-15 PSIG; 0-10 LINEAR	
AIR TO MIXED LIQUOR TANK - FLOW CONTROL	FR-518-1,-2		2	RECORDING RECEIVER, 1 PEN OF 2 PEN RECORDER		67		4" STRIP CHART 0-100 LINEAR FOR OTHER PEN SEE FR-518-1,-2	
	FQT-518-1,-2		2	PNEUMATIC INTEGRATOR		70		MOUNT ON BACK OF PANEL	
	FQ-518-1,-2		2	COUNTER		67			
	SqRt-518-1,-2		2	SQUARE ROOT EXTRACTOR		70		MOUNT ON BACK OF PANEL	
	FIC-518-1,-2		2	INDICATING RECEIVER CONTROLLER		67		SCALE 0-100 LINEAR	
FLOW PERIOD "A"	HIC-518-1A,-2A		2	MANUAL LOADING STATION		67		SCALE 0-100 LINEAR	
	SS-518-1A,-2A		2	3-POSITION SELECTOR SWITCH		67		"HAND-OFF-AUTO"	
	SV-518-1A,-2A		2	2-WAY SOLENOID VALVE		70		ENERGIZE TO OPEN MOUNT ON BACK OF PANEL	
FLOW PERIOD "B"	HIC-518-1B,-2B		2	MANUAL LOADING STATION		67		SCALE 0-100 LINEAR	
	SS-518-1B,-2B		2	3-POSITION SELECTOR SWITCH		67		"HAND-OFF-AUTO"	
	SV-518-1B,-2B		2	2-WAY SOLENOID VALVE		70		ENERGIZE TO OPEN MOUNT ON BACK OF PANEL	
FLOW PERIOD "C"	HIC-518-1C,-2C		2	MANUAL LOADING STATION		67		SCALE 0-100 LINEAR	
	SS-518-1C,-2C		2	3-POSITION SELECTOR SWITCH		67		"HAND-OFF-AUTO"	
	SV-518-1C,-2C		2	2-WAY SOLENOID VALVE		70		ENERGIZE TO OPEN MOUNT ON BACK OF PANEL	
	FE-518-1,-2		2	6" ORIFICE PLATE	AERATION TANK GALLERIES	40 41		300 lb FLANGES	
	FIT-518-1,-2		2	INDICATING DIFFERENTIAL PRESSURE TRANSMITTER		40 41		ΔP RANGE 0 TO 10" WATER	
	PRV-518-1,-2		2	FILTER-REGULATOR		70		20 PSIG MAX; GA 0-30 PSIG	
	PI-518-1,-2		2	RECEIVER GAUGE		70		3-15 PSIG; 0-10 LINEAR	
	FCV-518-1,-2		2	6" BUTTERFLY VALVE		40 41			
	PT-515-1,-2		2	PNEUMATIC TO CURRENT CONVERTER		70		INPUT 3-15 PSIG OUTPUT 4-20 MA DC (MOUNT ON BACK OF PANEL)	

FOR CONTINUATION SEE SH. 75

FOR NOTES SEE SH. 73

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.N.
DRAWN BY: P.T.
CHECKED BY: [illegible]

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT
PROCESS INSTRUMENTATION
PANEL A3
TOWN OF CICERO ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1978
SCALE:
FILE NO.: 55.32-78F

REVISIONS

INSTRUMENT SCHEDULE

PANEL A3 (CONTINUED)

SERVICE	ITEM NO.	AUX.	QUAN	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
AIR TO SLUDGE REAERATION TANK - FLOW CONTROL	FR-519-1,-2		2	RECORDING RECEIVER, 1 PEN OF 2 PEN RECORDER		67		4" STRIP CHART, 0-100 LINEAR, FOR OTHER PEN SEE FR-519-1,-2	
	FQT-519-1,-2		2	PNEUMATIC INTEGRATOR		70		MOUNT ON BACK OF PANEL	
	FQ-519-1,-2		2	COUNTER		67			
	SqRt-519-1,-2		2	SQUARE ROOT EXTRACTOR		70		MOUNT ON BACK OF PANEL	
	FIC-519-1,-2		2	INDICATING RECEIVER CONTROLLER		67		SCALE 0-100 LINEAR	
FLOW PERIOD "A"	HIC-519-1A,-2A		2	MANUAL LOADING STATION		67		SCALE 0-100 LINEAR	
	SS-519-1A,-2A		2	3-POSITION SELECTOR SWITCH		67		"HAND-OFF-AUTO"	
	SV-519-1A,-2A		2	2-WAY SOLENOID VALVE		70		ENERGIZE TO OPEN, MOUNT ON BACK OF PANEL	
FLOW PERIOD "B"	HIC-519-1B,-2B		2	MANUAL LOADING STATION		67		SCALE 0-100 LINEAR	
	SS-519-1B,-2B		2	3-POSITION SELECTOR SWITCH		67		"HAND-OFF-AUTO"	
	SV-519-1B,-2B		2	2-WAY SOLENOID VALVE		70		ENERGIZE TO OPEN, MOUNT ON BACK OF PANEL	
FLOW PERIOD "C"	HIC-519-1C,-2C		2	MANUAL LOADING STATION		67		SCALE 0-100 LINEAR	
	SS-519-1C,-2C		2	3-POSITION SELECTOR SWITCH		67		"HAND-OFF-AUTO"	
	SV-519-1C,-2C		2	2-WAY SOLENOID VALVE		70		ENERGIZE TO OPEN, MOUNT ON BACK OF PANEL	
	FE-519-1,-2		2	8" ORIFICE PLATE	AERATION TANK GALLERIES	40,41		300 lb FLANGES	
	FIT-519-1,-2		2	INDICATING DIFFERENTIAL PRESSURE TRANSMITTER		40,41		ΔP RANGE 0 TO 10" WATER	
	PRV-519-1,-2		2	FILTER - REGULATOR		70		20 PSIG. MAX.; GA 0-30 PSIG.	
	PI-519-1,-2		2	RECEIVER GAUGE		70		3-15 PSIG; 0-10 LINEAR	
	FCV-519-1,-2		2	8" BUTTERFLY VALVE		40,41			
WASTE SLUDGE TO AEROBIC DIGESTION TANK - FLOW CONTROL	FRC-520-1,-2		2	RECORDING CONTROLLER, 1 PEN		67		4" STRIP CHART, 0-100 LINEAR	
	FQT-520-1,-2		2	PNEUMATIC INTEGRATOR		70		MOUNT ON BACK OF PANEL	
	FQ-520-1,-2		2	COUNTER		67			
	SS-520-1,-2		2	3-POSITION SELECTOR SWITCH		67		"HAND-OFF-AUTO"	
	SV-520-1,-2		2	3-WAY SOLENOID VALVE		70		MOUNT ON BACK OF PANEL	
	FE-520-1,-2		2	MAGNETIC SLUDGE FLOWMETER, 3"	AERATION TANK GALLERIES	40,41			
	FIT-520-1,-2		2	INDICATING RECEIVER-TRANSMITTER		40,41	FE-520-1,2		
	PRV-520-1,-2		2	FILTER - REGULATOR		70		20 PSIG. MAX; GA 0-30 PSIG.	
	PI-520-1,-2		2	RECEIVER GAUGE		70		3-15 PSIG; 0-10 LINEAR	
	FCV-520-1,-2		2	6" BALL VALVE		40,41			
AIR TO AROBIC DIGESTION TANK - FLOW CONTROL	FRC-523-1,-2		2	RECORDING CONTROLLER, 1 PEN		67		4" STRIP CHART, 0-100 LINEAR	
	FQT-523-1,-2		2	PNEUMATIC INTEGRATOR		70		MOUNT ON BACK OF PANEL	
	FQ-523-1,-2		2	COUNTER		67			
	SqRt-523-1,-2		2	SQUARE ROOT EXTRACTOR		70		MOUNT ON BACK OF PANEL	
	FE-523-1,-2		2	8" ORIFICE PLATE	AERATION TANK GALLERIES	40,41		300 lb FLANGES	
	FIT-523-1,-2		2	INDICATING DIFFERENTIAL PRESSURE TRANSMITTER		40,41		ΔP RANGE 0 TO 10" WATER	
	PRV-523-1,-2		2	FILTER - REGULATOR		70		20 PSIG MAX; GA 0-30 PSIG	
	PI-523-1,-2		2	RECEIVER GAUGE		70		3-15 PSIG; 0-10 LINEAR	
	FCV-523-1,-2		2	8" BUTTERFLY VALVE		40,41			
WASTE SLUDGE AIR LIFT - OPERATION	L-524-1,-2		2	PILOT LIGHT		67		RED; PUSH-TO-TEST	
	SS-524-1,-2		2	3-POSITION SELECTOR SWITCH		67		"HAND-OFF-AUTO"	
	S-524-1,-2		2	2-POSITION SELECTOR SWITCH	AT TANK	79		"ON-OFF"	
	SV-524-1,-2		2	2-WAY SOLENOID VALVE	AT TANK	42,44		ENERGIZE TO OPEN	1, 2
MIXED LIQUOR TANK D.O. ANALYSIS	AR-531-1,-2		2	ELECTRONIC RECORDING RECEIVER		67		4" STRIP CHART, 0-100 LINEAR	
	AI-531-1,-2		2	DISSOLVED OXYGEN ANALYZER		67			
	AE-531-1,-2		2	PROBE WITH CLEANER-AGITATOR	AT TANK	42		PROBE HOLDER FOR EACH PROBE	
	AT-531-1,-2		2	TRANSMITTER	AT TANK	E-3			

INSTRUMENT SCHEDULE

PANEL A3

SERVICE	ITEM NO.	AUX.	QUAN	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
SLUDGE REAERATION TANK D.O. ANALYSIS	AR-532-1,-2		2	ELECTRONIC RECORDING RECEIVER		67		4" STRIP CHART, 0-100 LINEAR	
	AI-532-1,-2		2	DISSOLVED OXYGEN ANALYZER		67			
	AE-532-1,-2		2	PROBE WITH CLEANER-AGITATOR	AT TANK	42		3 PROBE HOLDER FOR EACH PROBE	
	JB-532-1A,-2A		2	REMOTE CALIBRATION JUNCTION BOX	AT TANK	E-3		CONTAINS AT-532-1,-2	
	JB-532-1B,-1C, JB-532-2B,-2C		4	REMOTE JUNCTION BOX	AT TANK	E-3			
INSTRUMENT AIR PRESSURE	PI-545-1		1	PRESSURE GAUGE		67		0-100 PSIG	
	PS-545-1		1	PRESSURE SWITCH	PANEL A4	90		SPST DECREASING PRESSURE CLOSE AT 35 PSIG, MOUNT ON BACK OF PANEL	

FOR NOTES SEE SH. 73

IN CHARGE OF: F.A.L.
ENGINEER BY: D.E.M.
DRAWN BY: ...
CHECKED BY: DCM

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT
PROCESS INSTRUMENTATION
PANEL A3
TOWN OF CICERO ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE:
FILE No. 5532-79F

REVISIONS

INSTRUMENT SCHEDULE

PANEL A5

SERVICE	ITEM NO.	AUX.	QUAN.	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
PROCESS AIR - FLOW CONTROL	FR - 526 - 1		1	RECORDING RECEIVER, 1 PEN		67		4" STRIP CHART 0-100 LINEAR	
	FQT - 526 - 1		1	PNEUMATIC INTEGRATOR		70		MOUNT ON BACK OF PANEL	
	FQ - 526 - 1		1	COUNTER		67			
	S_qRt - 526 - 1		1	SQUARE ROOT EXTRACTOR		70		MOUNT ON BACK OF PANEL	
ONE BLOWER	FS - 526 - 1A		1	PRESSURE SWITCH		70			
		141 CR	1	4 - POLE RELAY		88		N.O. CONTACTS	
TWO BLOWERS	FS - 526 - 1B		1	PRESSURE SWITCH		70			
		142 CR	1	4 - POLE RELAY		88		N.O. CONTACTS	
THREE BLOWERS	FS - 526 - 1C		1	PRESSURE SWITCH		70			
		143 CR	1	4 - POLE RELAY		88		N.O. CONTACTS	
	FE - 526 - 1		1	16" ORIFICE PLATE		46			
	FET - 526 - 1		1	INDICATING DIFFERENTIAL PRESSURE TRANSMITTER	AERATION TANK WEST GALLERY	46		ΔP RANGE : 0 TO 10" WATER	
	PRV - 526 - 1		1	FILTER - REGULATOR		70		20 PSIG. MAX ; GA 0-30 PSIG.	
	PI - 526 - 1		1	RECEIVER GAUGE		70		3-15 PSIG ; 0-10 LINEAR	
BLOWERS	HIC-526-1-2-3-4		4	MANUAL LOADING REGULATOR	PANEL B IN BLOWER ROOM	69		GAUGE RANGE 0-15 PSIG	
	SV-526-1-2-3-4		4	3-WAY SOLENOID VALVE		70		NORMALLY CLOSED, MOUNT ON BACK OF PANEL B	
	FCV-526-1-2-3-4		4	8" BUTTERFLY VALVE	BLOWER ROOM	47			
AERATION BLOWERS - OPERATION CONTROL	X-527-1-2-3-4		4	BLOWER OPERATION CONTROLLER		88		SCHEME OF OPERATION SHOWN BELOW	
	L-527-1A-2A-3A-4A		4	PILOT LIGHT		67		"FIRST ON" WHITE; PUSH-TO-TEST	
	S-527-1A-2A-3A-4A		4	2-POSITION SELECTOR SWITCH		67		"ON-OFF"	
FIRST ON - BLOWER NO.1		144 CR	1	8 - POLE RELAY		88		N.C. CONTACTS	MOUNT ON BACK OF PANEL
FIRST ON - BLOWER NO.2		145 CR	1	4 - POLE RELAY		88		2 N.O. & 2 N.C. CONTACTS	
FIRST ON - BLOWER NO.3		130 CR	1	8 - POLE RELAY		88		N.C. CONTACTS	
FIRST ON - BLOWER NO.4		151 CR	1	4 - POLE RELAY		88		2 N.O. & 2 N.C. CONTACTS	
		161 CR	1	8 - POLE RELAY		88		N.C. CONTACTS	
		160 CR	1	4 - POLE RELAY		88		2 N.O. & 2 N.C. CONTACTS	
		167 CR	1	8 - POLE RELAY		88		N.C. CONTACTS	
		168 CR	1	4 - POLE RELAY		88		2 N.O. & 2 N.C. CONTACT	
	L-527-1B-2B-3B-4B		4	PILOT LIGHT		67		"SECOND ON" WHITE; PUSH-TO-TEST	
	S-527-1B-2B-3B-4B		4	2-POSITION SELECTOR SWITCH		67		"ON-OFF"	
SECOND ON - BLOWER NO.1		146 CR	1	8-POLE RELAY		88		N.C. CONTACTS	
SECOND ON - BLOWER NO.2		147 CR	1	4 - POLE RELAY		88		2 N.O. & 2 N.C. CONTACTS	
SECOND ON - BLOWER NO.3		152 CR	1	8 - POLE RELAY		88		N.C. CONTACTS	MOUNT ON BACK OF PANEL
SECOND ON - BLOWER NO.4		153 CR	1	4 - POLE RELAY		88		2 N.O. & 2 N.C. CONTACTS	
		123 CR	1	8 - POLE RELAY		88		N.C. CONTACTS	
		164 CR	1	4 - POLE RELAY		88		2 N.O. & 2 N.C. CONTACTS	
		169 CR	1	8 - POLE RELAY		88		N.C. CONTACTS	
		170 CR	1	4 - POLE RELAY		88		2 N.O. & 2 N.C. CONTACTS	
	L-527-1C-2C-3C-4C		4	PILOT LIGHT		67		"THIRD ON" WHITE; PUSH-TO-TEST	
	S-527-1C-2C-3C-4C		4	2-POSITION SELECTOR SWITCH		67		"ON-OFF"	
THIRD ON - BLOWER NO.1		148 CR	1	8-POLE RELAY		88		N.C. CONTACTS	
THIRD ON - BLOWER NO.2		149 CR	1	4-POLE RELAY		88		2 N.O. & 2 N.C. CONTACTS	
THIRD ON - BLOWER NO.3		134 CR	1	8-POLE RELAY		88		N.C. CONTACTS	MOUNT ON BACK OF PANEL
THIRD ON - BLOWER NO.4		155 CR	1	4-POLE RELAY		88		2 N.O. & 2 N.C. CONTACTS	
		165 CR	1	8-POLE RELAY		88		N.C. CONTACTS	
		166 CR	1	4-POLE RELAY		88		2 N.O. & 2 N.C. CONTACTS	
		171 CR	1	8-POLE RELAY		88		N.C. CONTACTS	
		172 CR	1	4-POLE RELAY		88		2 N.O. & 2 N.C. CONTACTS	
SPARE	L-527-1D-2D-3D-4D		4	PILOT LIGHT		67		"SPARE" WHITE; PUSH-TO-TEST	
PLANT ALARM SYSTEM	1A-548-1B		1	SEE SCHEDULE FOR PANEL A4, SH. 73		67			

INSTRUMENT SCHEDULE

PANEL "B"

SERVICE	ITEM NO.	AUX.	QUAN.	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
AERATION BLOWER - RECYCLE CONTROL	HIC-525-1-2-3-4		4	MANUAL LOADING REGULATOR		69		GAUGE RANGE 0-15 PSIG	
	L-525-1A-2A-3A-4A		4	PILOT LIGHT	MCC-11	E-16		"ON"; RED; PUSH-TO-TEST	
	L-525-1B-2B-3B-4B		4	PILOT LIGHT		69		"ON"; RED; PUSH-TO-TEST	
	SV-525-1-2-3-4		4	3-WAY SOLENOID VALVE		70		NORMALLY CLOSED, MOUNT ON BACK OF PANEL B	
	FCV-525-1-2-3-4		4	4" BUTTERFLY VALVE	BLOWER ROOM	47			
BLOWER NO.1		508 CR	1	4-POLE RELAY		65		2 N.O. & 2 N.C. CONTACTS	MOUNT ON BACK OF PANEL B
		503 TDR	1	TIME DELAY RELAY		65		1 N.O. & 1 N.C. CONTACT	
BLOWER NO.2		528 CR	1	4-POLE RELAY		65		2 N.O. & 2 N.C. CONTACTS	
		523 TDR	1	TIME DELAY RELAY		65		1 N.O. & 1 N.C. CONTACT	
BLOWER NO.3		548 CR	1	4-POLE RELAY		65		2 N.O. & 2 N.C. CONTACTS	
		543 TDR	1	TIME DELAY RELAY		65		1 N.O. & 1 N.C. CONTACT	
BLOWER NO.4		568 CR	1	4-POLE RELAY		65		2 N.O. & 2 N.C. CONTACTS	
		563 TDR	1	TIME DELAY RELAY		65		1 N.O. & 1 N.C. CONTACT	
PROCESS AIR - FLOW CONTROL	HIC-526-1-2-3-4		4	SEE SCHEDULE FOR PANEL A5 ON THIS SHEET				MOUNT ON BACK OF PANEL	
	SV-526-1-2-3-4		4						

PANEL C1

SERVICE	ITEM NO.	AUX.	QUAN.	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
RETURN SLUDGE TO REAERATION TANK - STEP FLOW	FI-517-1A		1	INDICATING RECEIVER		40	FE-517-1A		
	FI-517-1B-1C		2	INDICATING RECEIVER		40	FE-517-1B,1C		
	FE-517-1A		1	MAGNETIC FLOWMETER, 4"	AERATION TANK NORTH GALLERY	40			
	FE-517-1B,1C		2	MAGNETIC FLOWMETER, 3"		40			

PANEL C2

SERVICE	ITEM NO.	AUX.	QUAN.	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
RETURN SLUDGE TO REAERATION TANK - STEP FLOW	FI-517-2A		1	INDICATING RECEIVER		41	FE-517-2A		
	FI-517-2B,2C		2	INDICATING RECEIVER		41	FE-517-2B,2C		
	FE-517-2A		1	MAGNETIC FLOWMETER, 4"	AERATION TANK SOUTH GALLERY	41			
	FE-517-2B,2C		2	MAGNETIC FLOWMETER, 3"		41			

PANEL E

SERVICE	ITEM NO.	AUX.	QUAN.	DESCRIPTION	REMOTE INSTRUMENT LOCATION	SH.	POWER SUPPLY PANEL	REMARKS	NOTES
RAW SEWAGE TO MIXED LIQUOR TANK - STEP FLOW	FIT-504-1-2		2	SEE SCHEDULE FOR PANEL A3 ON SH. 74					
	PSV-504-1-2		2						
	PI-504-1-2		2						

FOR NOTES SEE SH. 73

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: R.L.
CHECKED BY: RCM

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT
PROCESS INSTRUMENTATION
PANELS A5; B, C1, C2, E
TOWN OF CICERO ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE:
FILE NO: 55.32-80F

REVISIONS

INSTRUMENT SCHEDULE

MISCELLANEOUS SYSTEMS

SERVICE	ITEM NO.	AUX.	QUAN.	DESCRIPTION	REMOTE INSTRUMENT LOCATION	REMOTE INSTRUMENT LOC. NO.	POWER SUPPLY PANEL	REMARKS	NOTES
WET WELL LEVEL CONTROL	LIC-501-1		1	RAW SEWAGE PUMP SEQUENCE CONTROL	RAW SEWAGE PUMPING STATION	63			1, 2
RAW SEWAGE PUMP SPEED CONTROL	SC-502-1,2,3		3	VARIABLE SPEED PUMP CONTROLLER	RAW SEWAGE PUMPING STATION	63			1, 2
RAW SEWAGE PUMP SUCTION PRESSURE	PI-504-1,2,-3		3	COMPOUND GAUGE	RAW SEWAGE PUMPING STATION	28		30"VAC-0-30 PSIG DIAPHRAGM SEAL	
RAW SEWAGE PUMP DISCHARGE PRESSURE	PI-505-1-2-3		3	PRESSURE GAUGE	RAW SEWAGE PUMPING STATION	28		0-60 PSIG. DIAPHRAGM SEAL	
RETURN SLUDGE PUMP DISCHARGE PRESSURE	PI-513-1,2,-3,-4		4	PRESSURE GAUGE	AERATION TANK GALLERIES	40,41		0-60 PSIG. DIAPHRAGM SEAL	
RETURN SLUDGE PUMP DISCHARGE - FLOW CONTROL	FCV-514-1,2,-3,-4 PI-514-1,2,-3,-4		4 4	8" PLUG VALVE PRESSURE GAUGE	AERATION TANK GALLERIES	40,41 63		PNEUMATIC CYLINDER OPERATOR SPRING OPPOSED 0-100 PSIG, PULSATION DAMPENER	1, 2 1
DIGESTED SLUDGE PUMP DISCHARGE PRESSURE	PI-521-1,2,-3,-4		4	PRESSURE GAUGE	AERATION TANK GALLERIES	40,41		0-60 PSIG. DIAPHRAGM SEAL	
DIGESTED SLUDGE PUMP DISCHARGE - FLOW CONTROL	FCV-522-1,2,3,-4 PI-522-1,2,3,-4		4 4	4" PLUG VALVE PRESSURE GAUGE	AERATION TANK GALLERIES	40,41 63		PNEUMATIC CYLINDER OPERATOR DOUBLE ACTING 0-100 PSIG, PULSATION DAMPENER	1, 2 1
AERATION BLOWER BEARING TEMPERATURE	TIA-528-1,2,3,-4 TS-528-1A,2A,3A,4A TS-528-1B,2B,3B,4B		 4 4	 INTAKE BEARING TEMPERATURE SWITCH OUTLET BEARING TEMPERATURE SWITCH	BLOWER ROOM	65 65 65			1, 2 1, 2 1, 2
AERATION BLOWER DISCHARGE PRESSURE	PI-530-1,2,3,-4		4	PRESSURE GAUGE	BLOWER ROOM	48		0-15 PSIG. PULSATION DAMPENER	
SLUDGE COLLECTOR OVERLOAD	XS-533-1A,1B,2A,2B		4	LIMIT SWITCH	SETTLING TANKS	80			1, 2
SCUM PUMP - DISCHARGE PRESSURE	PI-534-1,-2		2	PRESSURE GAUGE		51		0-60 PSIG DIAPHRAGM SEAL	
SEAL WATER TO RAW SEWAGE PUMPS - PRESSURE CONTROL	PI-535-1A,2A,3A PI-535-1B,2B,3B FCV-535-1,-2,-3		3 3 3	PRESSURE GAUGE PRESSURE GAUGE PRESSURE REGULATING VALVE		63 63 63		0-100 PSIG, PULSATION DAMPENER 0-60 PSIG., PULSATION DAMPENER	1, 2
SEAL WATER TO RAW SEWAGE PUMPS - FLOW CONTROL	FCV-536-1,2,3		3	2-WAY SOLENOID VALVE		63		ENERGIZE TO OPEN	1, 2
SEAL WATER TO RETURN SLUDGE PUMPS - PRESSURE CONTROL	PI-537-1A,2A,3A,4A PI-537-1B,2B,3B,4B PCV-537-1,2,3,-4		4 4 4	PRESSURE GAUGE PRESSURE GAUGE PRESSURE REGULATING VALVE		63 63 63		0-100 PSIG., PULSATION DAMPENER 0-60 PSIG., PULSATION DAMPENER	1, 2
SEAL WATER TO RETURN SLUDGE PUMPS - FLOW CONTROL	FCV-538-1,2,3,-4		4	2-WAY SOLENOID VALVE		63		ENERGIZE TO OPEN	1, 2

INSTRUMENT SCHEDULE

MISCELLANEOUS SYSTEMS

SERVICE	ITEM NO.	AUX.	QUAN.	DESCRIPTION	REMOTE INSTRUMENT LOCATION	REMOTE INSTRUMENT LOC. NO.	POWER SUPPLY PANEL	REMARKS	NOTES
AIR PURIFICATION EQUIPMENT FILTER-PRESSURE DIFFERENTIAL	PdI-539-1		1		BLOWER ROOM	47			1, 2
AIR PURIFICATION EQUIPMENT AGGLOMERATOR - PRESS. DIFF.	PdI-540-1		1		BLOWER ROOM	47			1, 2
PROCESS AIR TO BLOWERS - PRESSURE	PI-541-1		1	COMPOUND GAUGE	BLOWER ROOM	47		30"VAC-0-15 PSIG PULSATION DAMPENER	
PROCESS AIR TO BLOWERS - TEMPERATURE	TI-542-1		1	BI-METAL THERMOMETER	BLOWER ROOM	48		GA. -20°F TO 110°F	
PROCESS AIR FROM BLOWERS PRESSURE	PI-543-1		1	PRESSURE GAUGE	BLOWER ROOM	48		0-15 PSIG, PULSATION DAMPENER	
PROCESS AIR FROM BLOWERS TEMPERATURE	TI-544-1		1	BI-METAL THERMOMETER	BLOWER ROOM	48		GA. 30°F TO 150°F	
AIR TO AEROBIC DIGESTION TANK - PRESSURE	PI-551-1,-2		2	PRESSURE GAUGE	AERATION TANK GALLERIES	40,41		0-15 PSIG, PULSATION DAMPENER	
AIR TO AIR LIFT PUMPS - PRESSURE	PI-552-1,-2		2	PRESSURE GAUGE	AERATION TANK GALLERIES	40,41		0-15 PSIG, PULSATION DAMPENER	
AIR TO GRIT CHAMBER - FLOW	FE-553-1 FI-553-1		1 1	2" ORIFICE PLATE MANOMETER FLOWMETER	AERATION TANK NORTH GALLERY	40 40		300 lb FLANGES ΔP RANGE 0-10" WATER	
AIR TO GRIT CHAMBER - PRESSURE CONTROL	PI-554-1		1	PRESSURE GAUGE	RAW SEWAGE PUMPING STATION	29		0-15 PSIG, PULSATION DAMPENER	
RETURN SLUDGE PUMP SUCTION - PRESSURE	PI-558-1,2,-3,-4		4	COMPOUND GAUGE	AERATION TANK GALLERIES	37,38		30"VAC-0-30 PSIG DIAPHRAGM SEAL	
DIGESTED SLUDGE PUMP SUCTION - PRESSURE	PI-559-1,-2,-3,-4		4	COMPOUND GAUGE	AERATION TANK GALLERIES	37,38		30"VAC-0-30 PSIG DIAPHRAGM SEAL	
WATER SUPPLY TO CHLORINATION EJECTORS-PRESSURE	PI-560-1,-2		2	PRESSURE GAUGE	RAW SEWAGE PS. CHLORINATION ROOM	62		0-100 PSIG PULSATION DAMPENER	
ALARMS AT METROPOLITAN SYRACUSE TREATMENT PLANT	IA-1001	1251-TDR		SEE SCHEDULE ON SH. 86 TIME DELAY RELAY	SYRACUSE METRO SYRACUSE METRO	85 85		INSTANTANEOUSLY OPEN, TIME TO CLOSE	
WATER SUPPLY TO CHLORINATION EJECTORS - PRESSURE	PI-560-1,-2		2	PRESSURE GAUGE	RAW SEWAGE PUMPING STATION CHLORINATION RM	62		0-100 PSIG PULSATION DAMPENER	

FOR NOTES SEE SH. 73

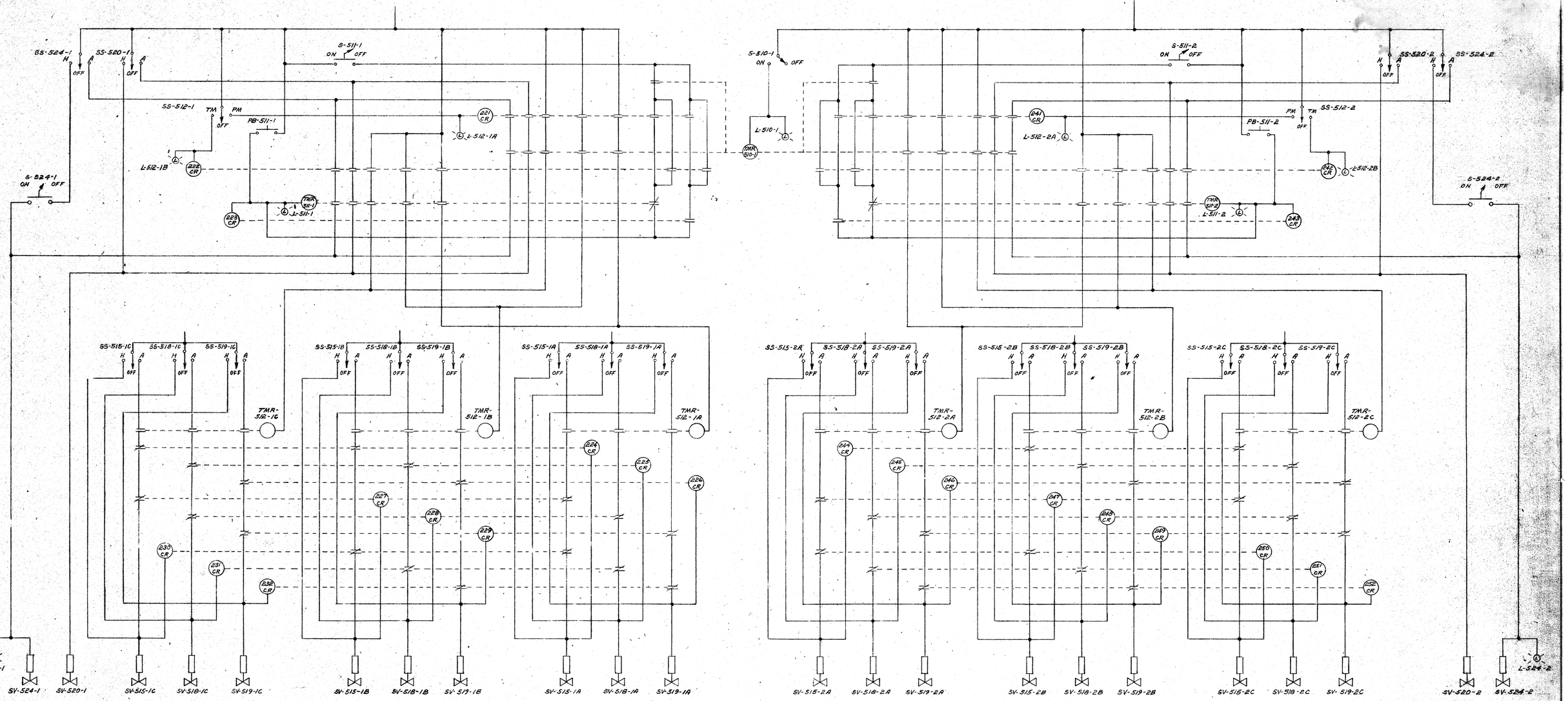
IN CHARGE OF F.A.L.
CHECKED BY: D.C.P.
DRAWN BY: RDW

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT
PROCESS INSTRUMENTATION
MISCELLANEOUS SYSTEMS
TOWN OF CICERO ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
SOUTH SYRACUSE, NEW YORK

DATE: FEBRUARY, 1975
SCALE:
FILE NO.: SS 32-82F

REVISIONS



IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: J.P.S.
CHECKED BY: FAL

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION

BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION

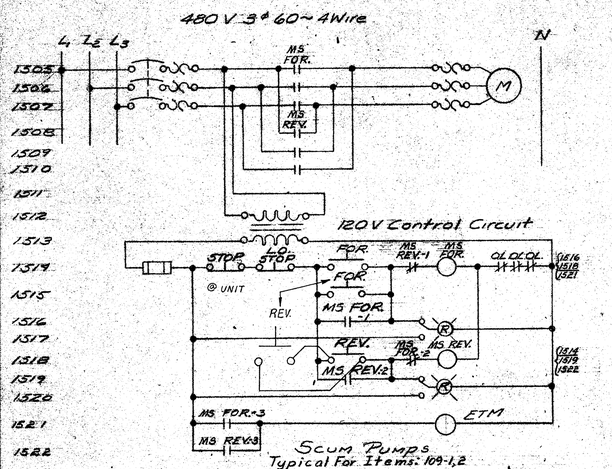
ELECTRICAL INTERLOCK SEQUENCE

TOWN OF CICERO ONONDAGA CO., N.Y.

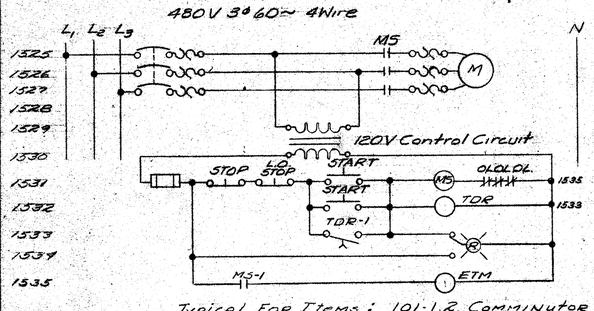
BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 5532-83F

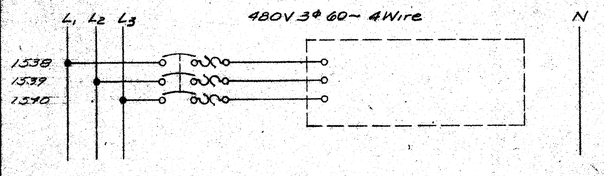
REVISIONS



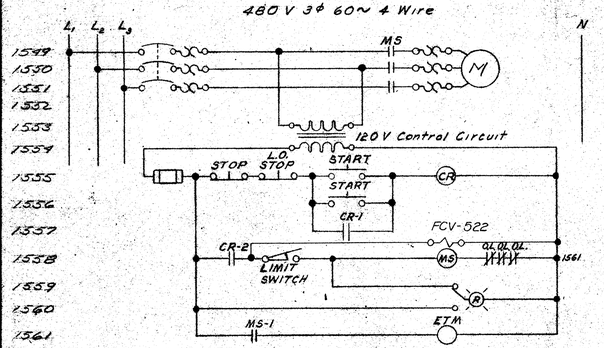
Scum Pumps
Typical For Items: 109-1,2



Typical For Items: 101-1,2 Comminutor & 105-1 Effluent Sample Pump

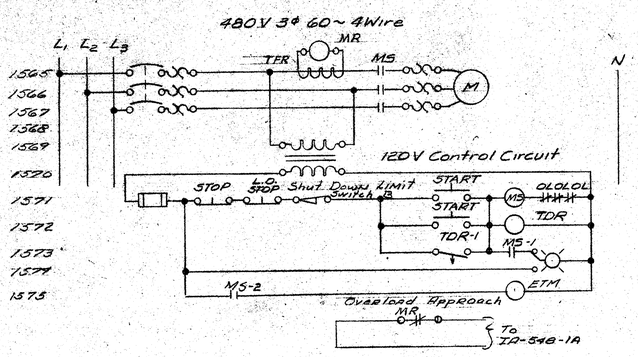


Typical For Items: 102-1, 122-1



Digested Sludge Pumps
Typical For Items: 108-1, 2, 3, 4

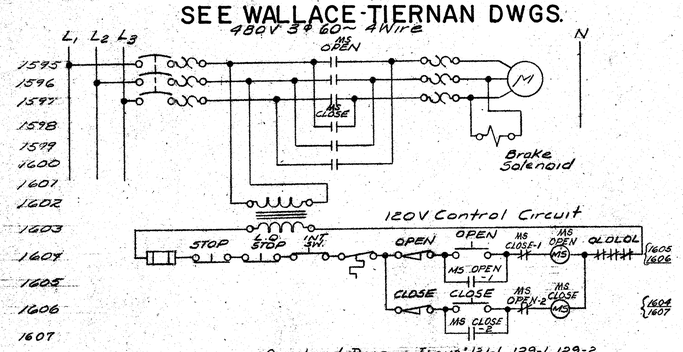
Item No.	CR		LIMIT SWITCH
	Component No.	Contact Line Nos.	
108-1	621 CR	1557, 1558, 715	LS-522-1
108-2	622 CR	1557, 1558, 717	LS-522-2
108-3	623 CR	1557, 1558, 719	LS-522-3
108-4	624 CR	1557, 1558, 721	LS-522-4



Sludge Collector Drives
Typical For Items: 104-1, 2

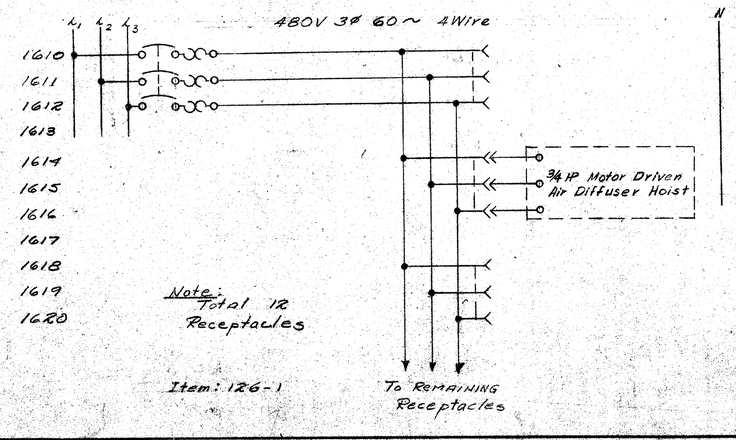
Item	Limit Switch	Ammeter Relay	Current Transformer
	B	MR	TFR
104-1	XS-533-1B	1MR	TFR-533-1
104-2	XS-533-2B	2MR	TFR-533-2

FOR CHEMICAL FEED EQUIPMENT
SEE WALLACE-TIERNAN DWGS.



Overhead Door Items: 121-1, 129-1, 129-2

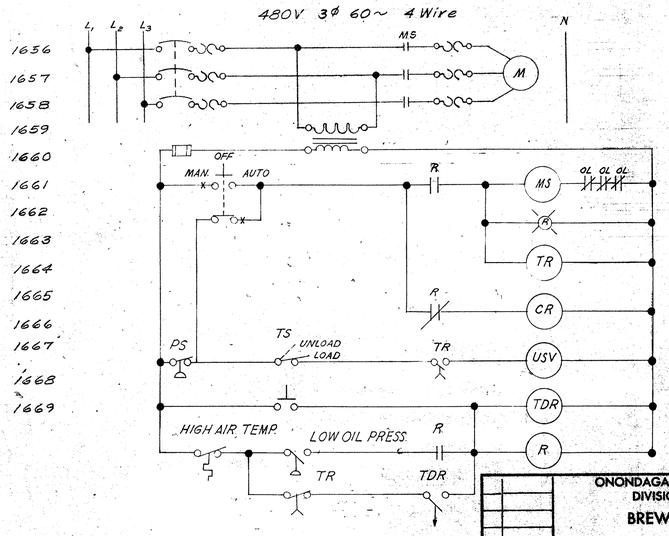
Note: Current and temperature sensing devices are integral with motor



Note: Total 12 Receptacles

Item: 126-1

FOR RETURN SLUDGE PUMP SPEED CONTROL
SEE RELIANCE DWGS.



IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: BCR, JPS, EWP
CHECKED BY: DCM

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION

BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION

ELEMENTARY DIAGRAMS

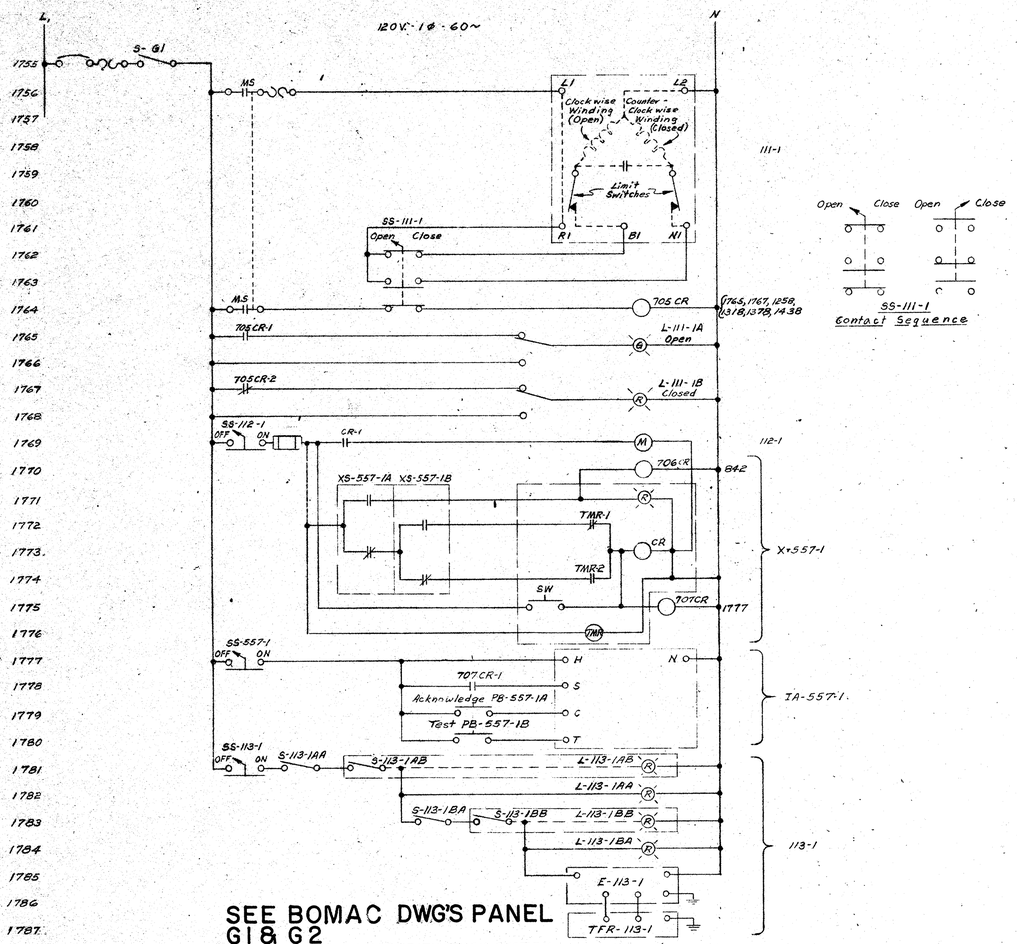
TOWN OF CICERO ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-84F

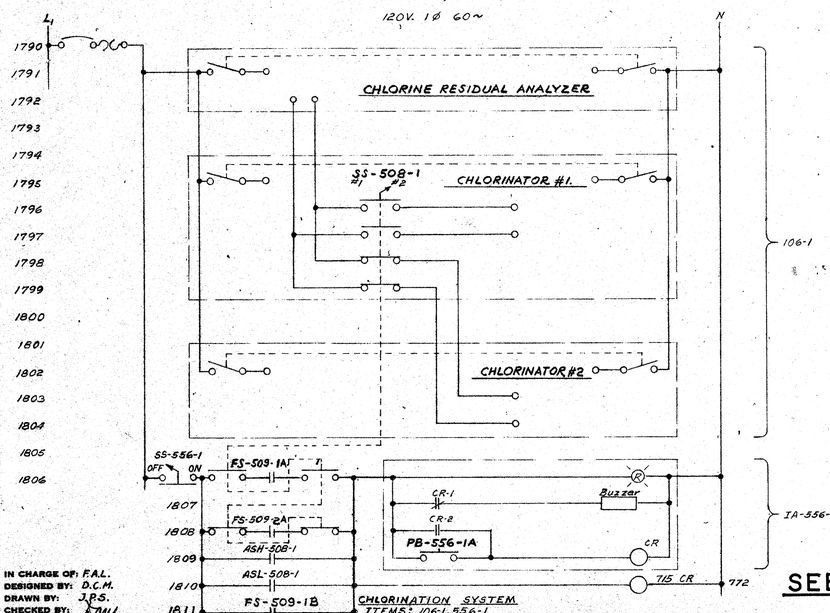
REVISIONS

80



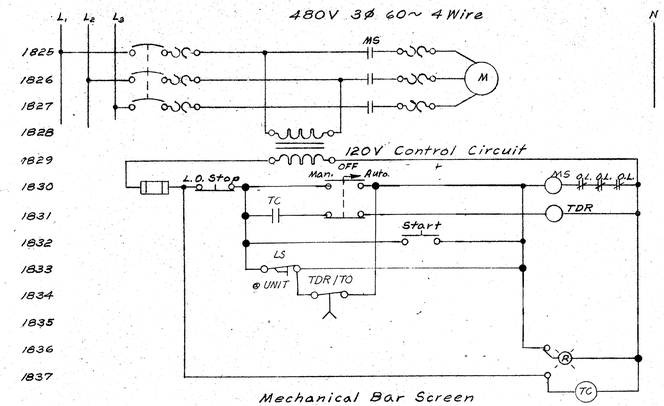
SEE BOMAC DWG'S PANEL G1 & G2

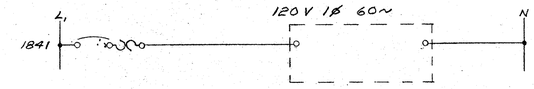
AIR PURIFICATION SYSTEM
ITEMS: 111-1, 112-1, 113-1, 557-1

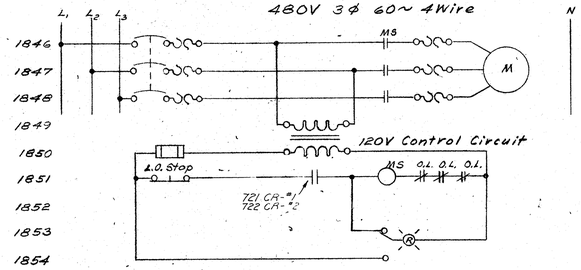


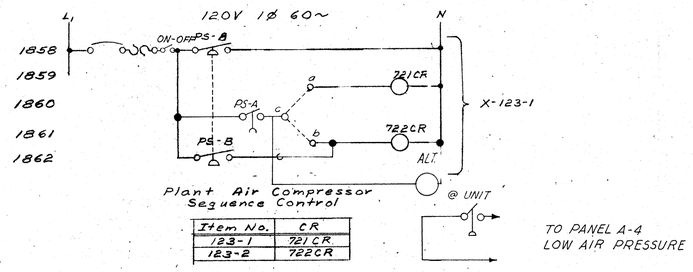
CHLORINATION SYSTEM
ITEMS: 106-1, 556-1

SEE F&P DWG'S J10









Item No.	CR
123-1	721 CR
123-2	722 CR

TO PANEL A-4
LOW AIR PRESSURE

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: J.R.S.
CHECKED BY: [illegible]

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION

ELEMENTARY DIAGRAMS

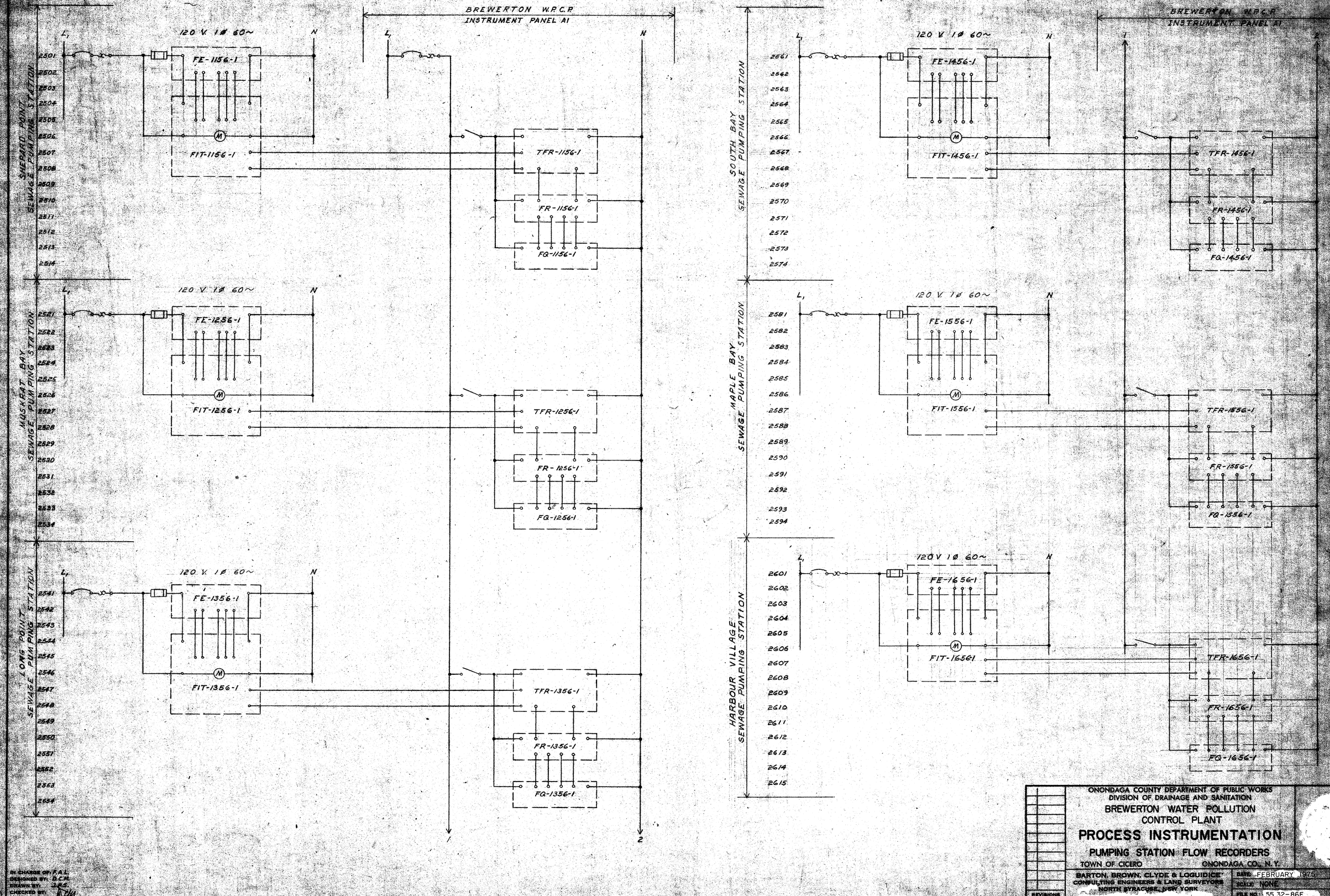
TOWN OF CICERO ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-85F

81

REVISIONS



IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.H.
DRAWN BY: J.R.S.
CHECKED BY: A.C.H.

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION

BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION

PUMPING STATION FLOW RECORDERS

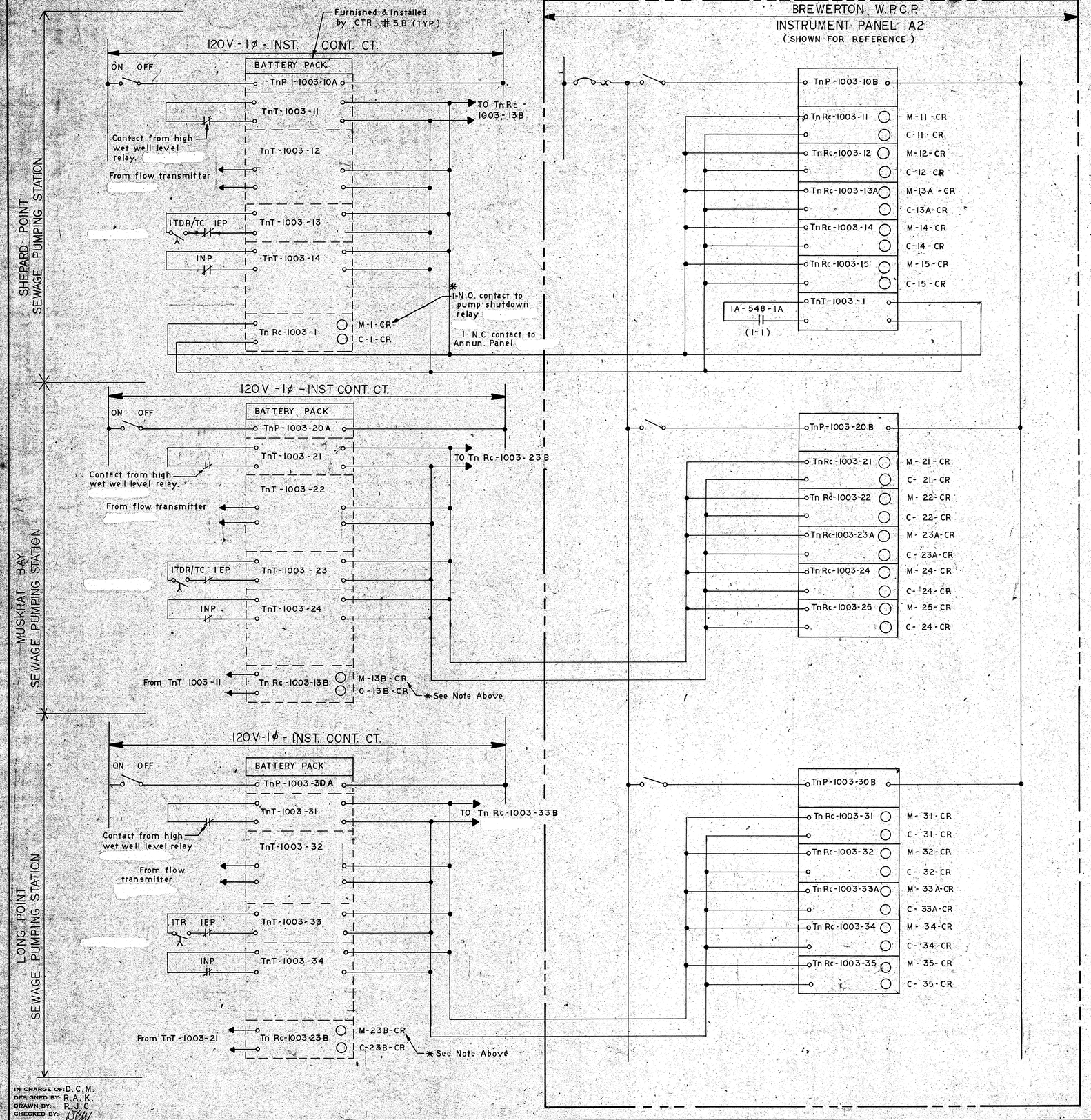
TOWN OF CICERO — ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

REVISIONS

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-86F

82



AUDIO TONE SIGNAL SCHEDULE SYSTEM-1003

	SERVICE	ITEM NO.	DESCRIPTION	PANEL BACK LOCATION: PUMPING STATION	PANEL BACK LOCATION: BREWERTON W.P.C.P.	REMARKS	NOTES
SHEPARD POINT PUMPING STATION		TnP-1003-10A	POWER SUPPLY	P-1			1
		TnP-1003-10B			A-2		2
	WET WELL HIGH LEVEL	TnT-1003-11	TRANSMITTER	P-1			1
		TnPc-1003-11	RECEIVER		A-2		2
	SEWAGE FLOW	TnT-1003-12	TRANSMITTER	P-1			1
		TnRc-1003-12	RECEIVER		A-2		2
	GENERATOR MALFUNCTION	TnT-1003-13	TRANSMITTER	P-1			1
		TnRc-1003-13A	RECEIVER		A-2		2
	NORMAL POWER SUPPLY FAILURE	TnT-1003-14	TRANSMITTER	P-1			1
		TnRc-1003-14	RECEIVER		A-2		2
	ALL SEWAGE PUMPS OFF AT BREWERTON	TnRc-1003-1	RECEIVER	P-1			1
		TnT-1003-1	TRANSMITTER		A-2		2
MUSKRAT BAY PUMPING STATION		TnP-1003-20A	POWER SUPPLY	P-2			1
		TnT-1003-20B			A-2		2
	WET WELL HIGH LEVEL	TnT-1003-21	TRANSMITTER	P-2			1
		TnRc-1003-21	RECEIVER		A-2		2
	SEWAGE FLOW	TnT-1003-22	TRANSMITTER	P-2			1
		TnRc-1003-22	RECEIVER		A-2		2
	GENERATOR MALFUNCTION	TnT-1003-23	TRANSMITTER	P-2			1
		TnRc-1003-23A	RECEIVER		A-2		2
	NORMAL POWER SUPPLY FAILURE	TnT-1003-24	TRANSMITTER	P-2			1
		TnRc-1003-24	RECEIVER		A-2		2
	ALL SEWAGE PUMPS OFF AT SHEPARD PT.	TnRc-1003-13B	RECEIVER	P-2			1
LONG POINT PUMPING STATION		TnP-1003-30A	POWER SUPPLY	P-3			1
		TnP-1003-30B			A-2		2
	WET WELL HIGH LEVEL	TnT-1003-31	TRANSMITTER	P-3			1
		TnRc-1003-31	RECEIVER		A-2		2
	SEWAGE FLOW	TnT-1003-32	TRANSMITTER	P-3			1
		TnRc-1003-32	RECEIVER		A-2		2
	GENERATOR MALFUNCTION	TnT-1003-33	TRANSMITTER	P-3			1
		TnRc-1003-33A	RECEIVER		A-2		2
	NORMAL POWER SUPPLY FAILURE	TnT-1003-34	TRANSMITTER	P-3			1
		TnRc-1003-34	RECEIVER		A-2		2
	ALL SEWAGE PUMPS OFF AT MUSKRAT BAY	TnRc-1003-23B	RECEIVER	P-3			1

NOTES:
1. SUPPLIED BY CTR #1A AND INSTALLED BY CTR #5B.
2. SUPPLIED BY AND INSTALLED BY CTR. #1A

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUB-DIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

IN CHARGE OF: D.C.M.
DESIGNED BY: R.A.K
DRAWN BY: R.J.C
CHECKED BY: DCM

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION

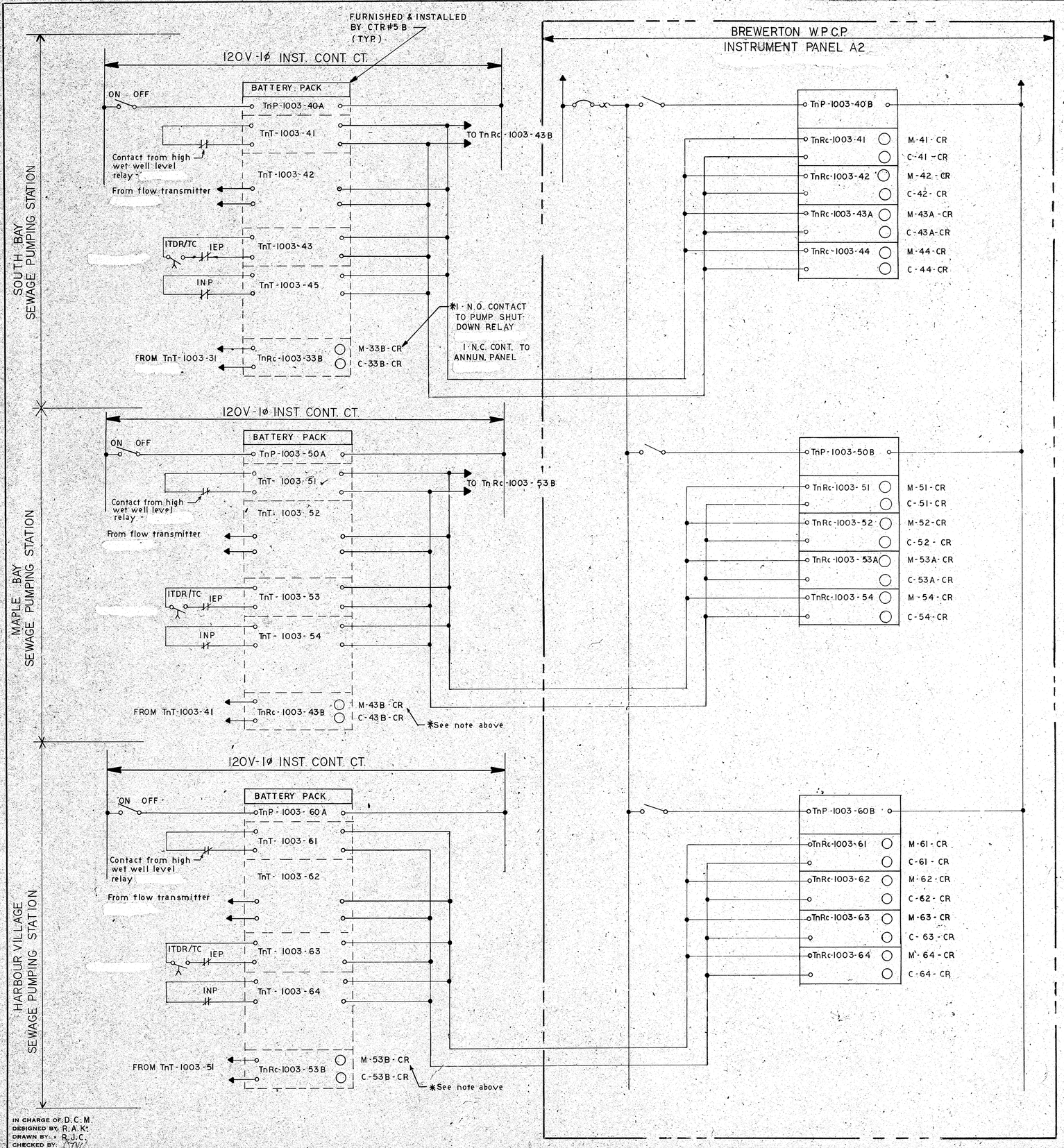
ALARM SYSTEM TRANSMISSION TO BREWERTON
TOWN OF CICERO ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-87F

REVISIONS

83



AUDIO/TONE SIGNAL SCHEDULE - SYSTEM -1003

	SERVICE	ITEM NO.	DESCRIPTION	PANEL BACK LOCATION: PUMPING STATION	PANEL BACK LOCATION: BREWERTON W.P.C.P.	REMARKS	NOTES
SOUTH BAY PUMPING STATION		TnP-1003-40A	POWER SUPPLY	P-4			1
		TnP-1003-40B	" "		A-2		2
	WET WELL HIGH LEVEL	TnT-1003-41	TRANSMITTER	P-4			1
		TnRc-1003-41	RECEIVER		A-2		2
	SEWAGE FLOW	TnT-1003-42	TRANSMITTER	P-4			1
		TnRc-1003-42	RECEIVER		A-2		2
	GENERATOR MALFUNCTION	TnT-1003-43	TRANSMITTER	P-4			1
		TnRc-1003-43A	RECEIVER		A-2		2
	NORMAL POWER SUPPLY FAILURE	TnT-1003-44	TRANSMITTER	P-4			1
		TnRc-1003-44	RECEIVER		A-2		2
	ALL SEWAGE PUMPS OFF AT LONG POINT	TnRc-1003-33B	RECEIVER	P-4			1
MAPLE BAY PUMPING STATION		TnP-1003-50A	POWER SUPPLY	P-5			1
		TnP-1003-50A			A-2		2
	WET WELL HIGH LEVEL	TnT-1003-51	TRANSMITTER	P-5			1
		TnRc-1003-51	RECEIVER		A-2		2
	SEWAGE FLOW	TnT-1003-52	TRANSMITTER	P-5			1
		TnRc-1003-52	RECEIVER		A-2		2
	GENERATOR MALFUNCTION	TnT-1003-53	TRANSMITTER	P-5			1
		TnRc-1003-53A	RECEIVER		A-2		2
	NORMAL POWER SUPPLY FAILURE	TnT-1003-54	TRANSMITTER	P-5			1
		TnRc-1003-54	RECEIVER		A-2		2
	ALL SEWAGE PUMPS OFF AT SOUTH BAY	TnRc-1003-43B	RECEIVER	P-5			1
HARBOUR VILLAGE PUMPING STATION		TnP-1003-60A	POWER SUPPLY	P-6			1
		TnP-1003-60B	" "		A-2		2
	WET WELL HIGH LEVEL	TnT-1003-61	TRANSMITTER	P-6			1
		TnRc-1003-61	RECEIVER		A-2		2
	SEWAGE FLOW	TnT-1003-62	TRANSMITTER	P-6			1
		TnRc-1003-62	RECEIVER		A-2		2
	GENERATOR MALFUNCTION	TnT-1003-63	TRANSMITTER	P-6			1
		TnRc-1003-63	RECEIVER		A-2		2
	NORMAL POWER SUPPLY FAILURE	TnT-1003-64	TRANSMITTER	P-6			1
		TnRc-1003-64			A-2		2
	ALL SEWAGE PUMPS OFF AT MAPLE BAY	TnRc-1003-53B	RECEIVER	P-6			1

NOTES:

1.) SUPPLIED BY CTR#1A AND INSTALLED BY CTR.#5B.

2.) SUPPLIED AND INSTALLED BY CTR.#1A.

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IN CHARGE OF: D.C.M.
DESIGNED BY: R.A.K.
DRAWN BY: R.J.C.
CHECKED BY:

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION

ALARM SYSTEM TRANSMISSION TO BREWERTON
TOWN OF CICERO ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

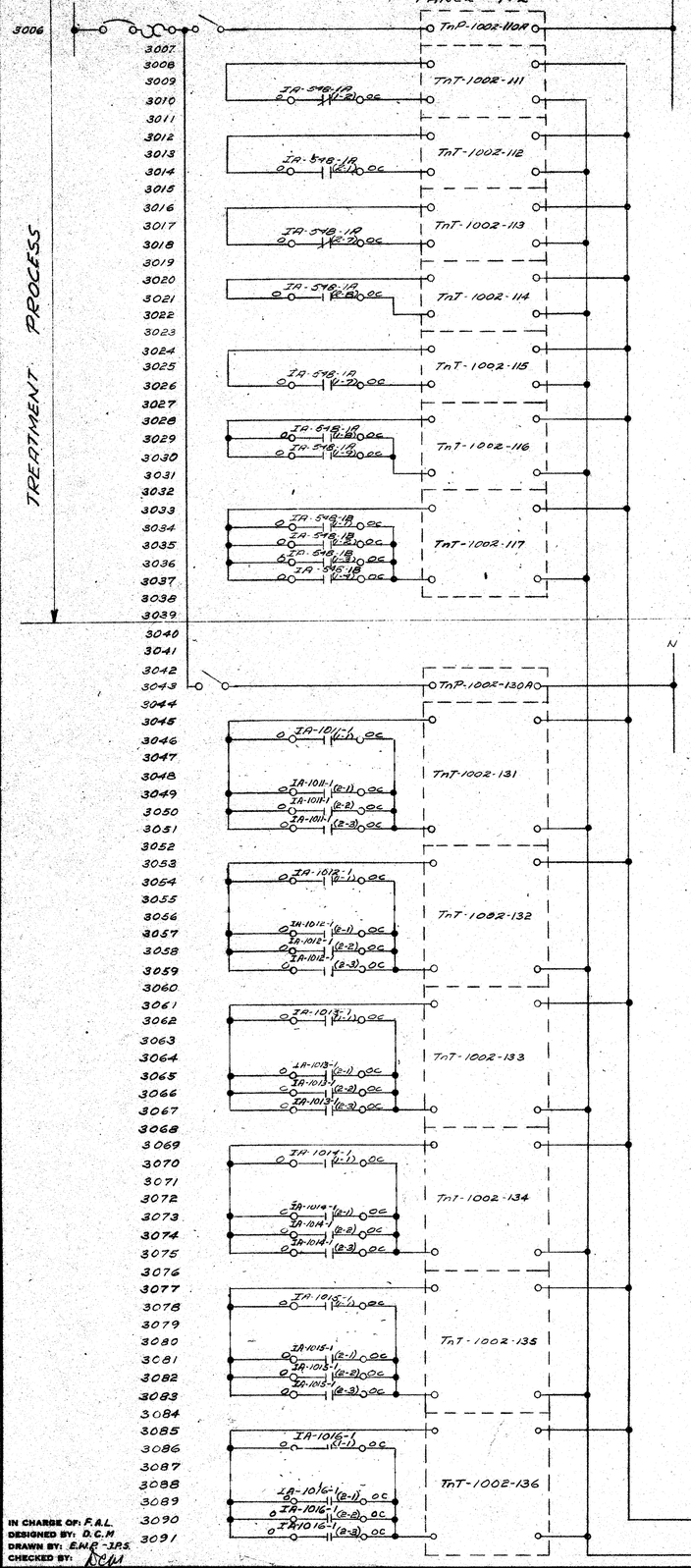
DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-88F

REVISIONS

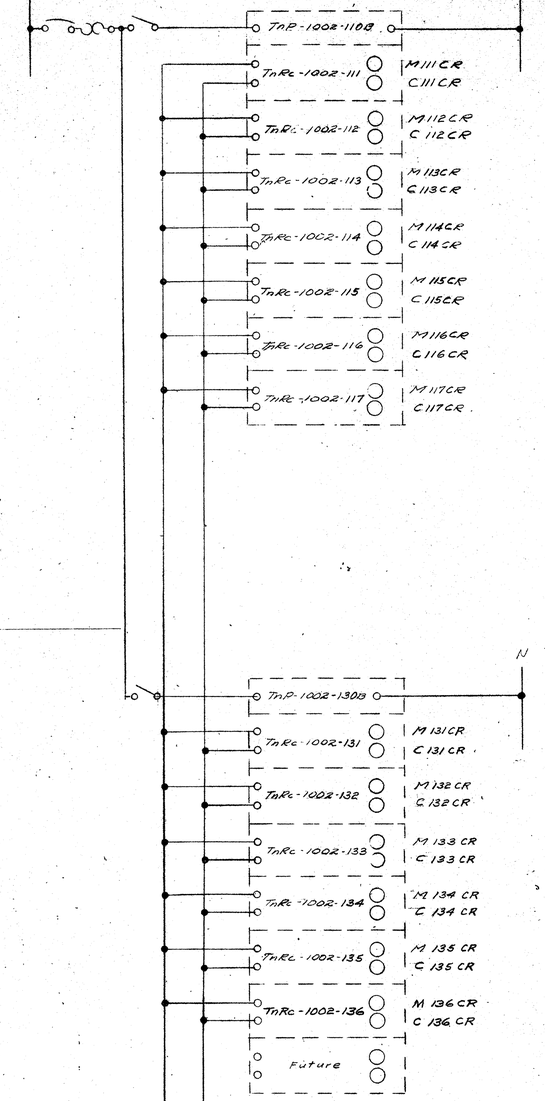
84

BREWERTON PLANT

120V 1Ø 60~ PANEL - P-2

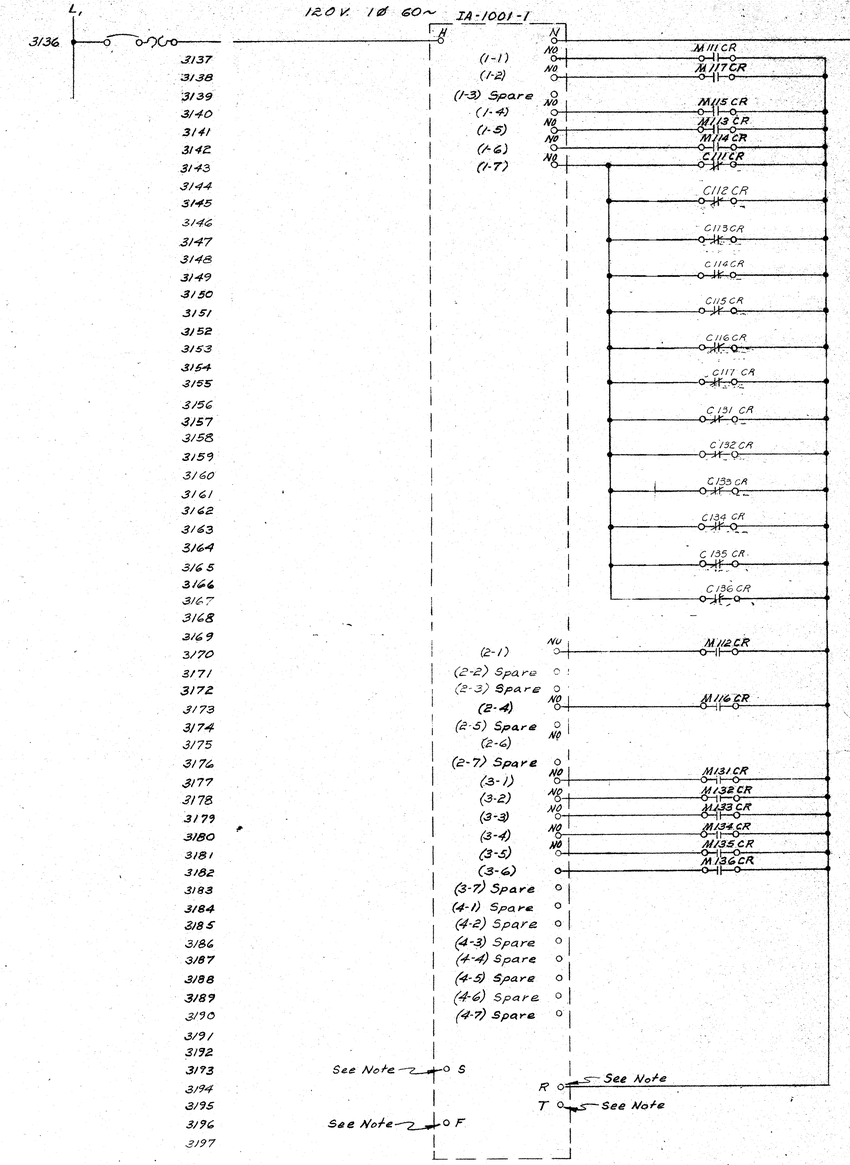


120V 1Ø 60~ PANEL MP-1



METROPOLITAN PLANT

120V. 1Ø 60~ IA-1001-1



Note:
Wire terminals S,F,R&T in parallel with corresponding existing terminals in existing Annunicator installed in September, 1970.

SEE F&P DWG'S J65

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION

BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION

ALARM TRANSMISSION BREWERTON TO METRO

TOWN OF CICERO — ONONDAGA CO., N. Y.

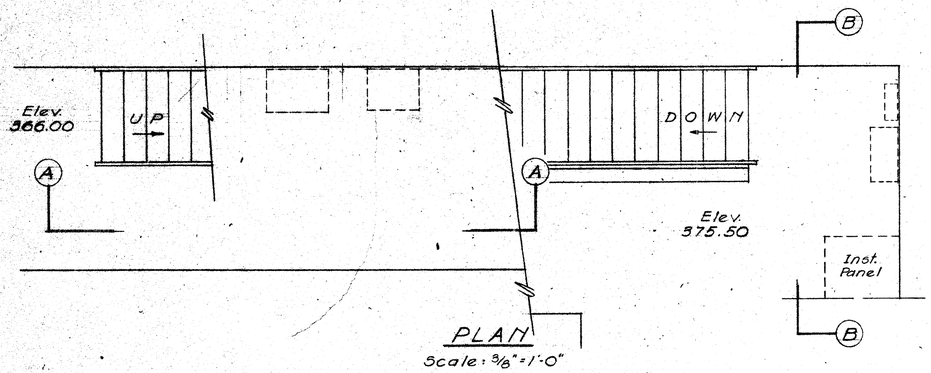
REVISIONS

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

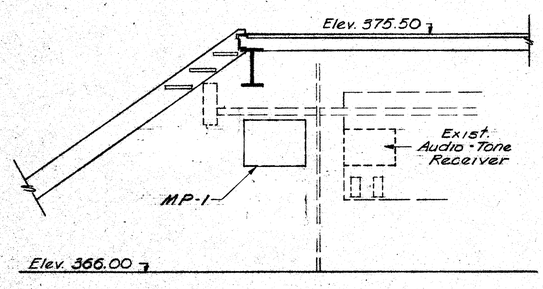
DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-89F

85

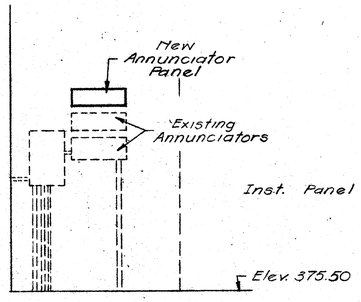
IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M
DRAWN BY: E.N.R - J.P.S.
CHECKED BY: DCM



PLAN
Scale: 3/8"=1'-0"

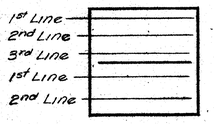


ELEVATION "A"
Scale: 3/8"=1'-0"



ELEVATION "B"
Scale: 3/8"=1'-0"

1-1	1-2	1-3	1-4	1-5	1-6	1-7
2-1	2-2	2-3	2-4	2-5	2-6	2-7
3-1	3-2	3-3	3-4	3-5	3-6	3-7
4-1	4-2	4-3	4-4	4-5	4-6	4-7



TYPICAL
NAMEPLATE DETAIL

NOTE:
Locate at Metropolitan Syracuse Treatment Plant.

*Refers to contact condition during normal plant operation.

SCHEDULE FOR ANNUNCIATOR IA-1001-1

POINT	1st Line	2nd Line	3rd Line	REMOTE ACTUATOR ITEM NO.	REMOTE ACTUATOR CONTS*
1-1	BREWERTON WPCP	WET WELL	HIGH LEVEL	TnRc1002-111	NO
1-2	BREWERTON WPCP	AERATION BLOWER	FAILURE	TnRc1002-117	NO
1-3					
1-4	BREWERTON WPCP	LOW INST	AIR PRESSURE	TnRc1002-115	NO
1-5	BREWERTON WPCP	NORMAL POWER	FAILURE	TnRc1002-113	NO
1-6	BREWERTON WPCP	ENG-GEN	FAILURE	TnRc1002-114	NO
1-7	BREWERTON WPCP	AUDIO TONE	FAILURE	See Sh. No. 85	NO
2-1	BREWERTON WPCP	RAW SEWAGE PUMP	FAILURE	TnRc1002-112	NO
2-2					
2-3					
2-4	BREWERTON WPCP	INST AIR COMP	FAILURE	TnRc1002-116	NO
2-5					
2-6	BREWERTON WPCP	ALL GENERATORS	FAIL		NO
2-7					
3-1	SHEPARD POINT	PUMP STATION		TrRc1002-131	NO
3-2	MUSKRAT BAY	PUMP STATION		TrRc1002-132	NO
3-3	LONG POINT	PUMP STATION		TrRc1002-133	NO
3-4	SOUTH BAY	PUMP STATION		TrRc1002-134	NO
3-5	MAPLE BAY	PUMP STATION		TrRc1002-135	NO
3-6	HARBOUR VILLAGE	PUMP STATION		TrRc1002-136	NO
3-7					
4-1					
4-2					
4-3					
4-4					
4-5					
4-6					
4-7					

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: F.M.K.
CHECKED BY: DCM

INSTRUMENT SCHEDULE - SYSTEM 1002

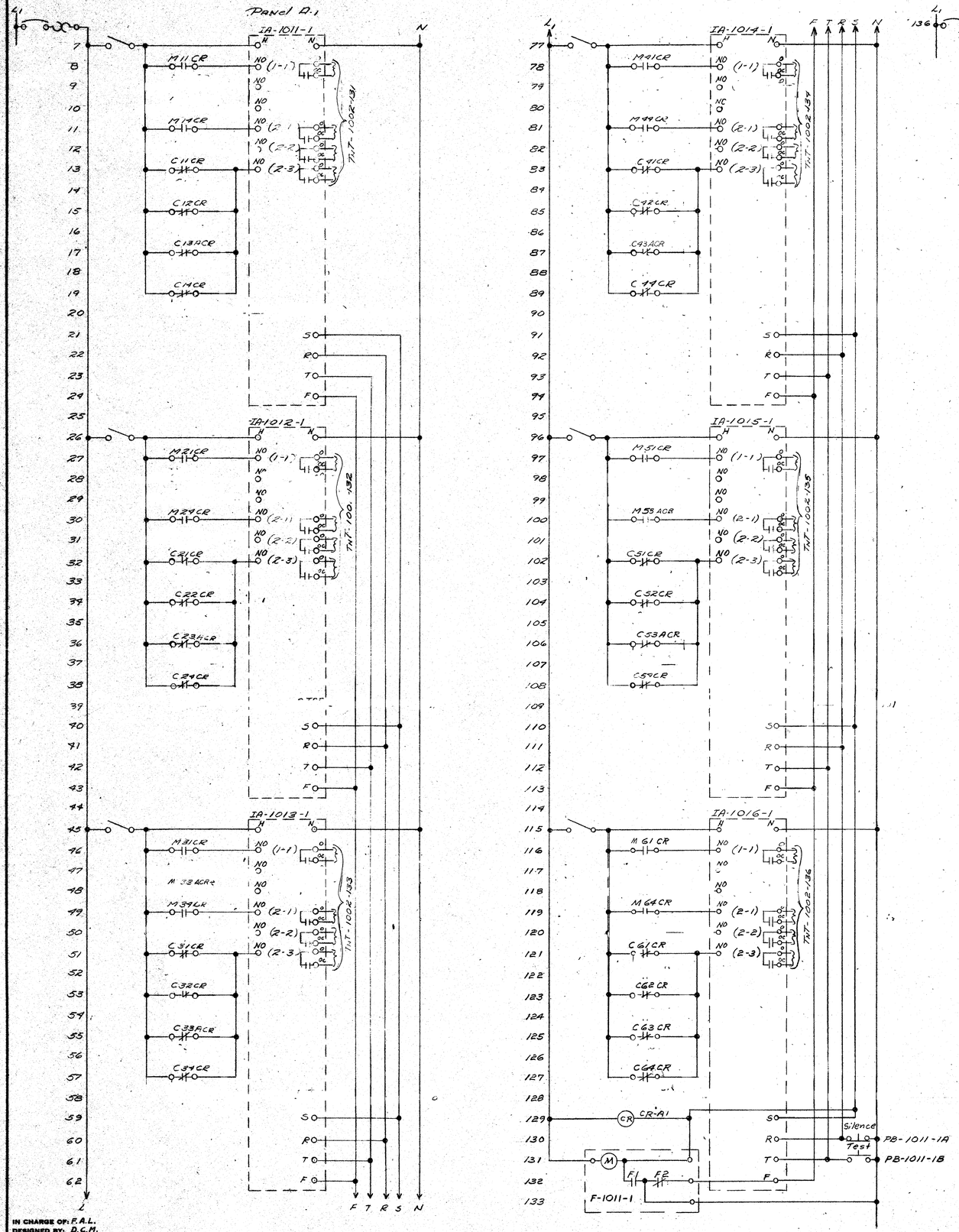
	SERVICE	ITEM NO.	DESCRIPTION	LOCATION: BREWERTON WPCP PANEL	LOCATION: METRO PANEL	REMARKS	NOTES
BREWERTON WPCP		TnP-1002-110A	Power Supply	A-2			
		TnP-1002-110B	Power Supply		MP-1		
	WET WELL HIGH LEVEL	TnT-1002-111	Transmitter	A-2			
		TnRc-1002-111	Receiver		MP-1		
	RAW SEWAGE PUMP FAILURE	TnT-1002-112	Transmitter	A-2			
		TnRc-1002-112	Receiver		MP-1		
	NORMAL POWER SUPPLY FAILURE	TnT-1002-113	Transmitter	A-2			
		TnRc-1002-113	Receiver		MP-1		
	ENGINE-GENERATOR FAILURE	TnT-1002-114	Transmitter	A-2			
		TnRc-1002-114	Receiver		MP-1		
	LOW INSTRUMENT AIR PRESSURE	TnT-1002-115	Transmitter	A-2			
		TnRc-1002-115	Receiver		MP-1		
	INSTRUMENT AIR COMPRESSOR FAILURE	TnT-1002-116	Transmitter	A-2			
		TnRc-1002-116	Receiver		MP-1		
	AERATION BLOWER FAILURE	TnT-1002-117	Transmitter	A-2			
		TnRc-1002-117	Receiver		MP-1		
PUMPING STATIONS		TnP-1002-130A	Power Supply	A-2			
		TnP-1002-130B	Power Supply		MP-1		
	SHEPARD POINT PUMPING STATION FAILURE	TnT-1002-131	Transmitter	A-2			
		TnRc-1002-131	Receiver		MP-1		
	MUSKRAT BAY PUMPING STATION FAILURE	TnT-1002-132	Transmitter	A-2			
		TnRc-1002-132	Receiver		MP-1		
	LONG POINT PUMPING STATION FAILURE	TnT-1002-133	Transmitter	A-2			
		TnRc-1002-133	Receiver		MP-1		
	SOUTH BAY PUMPING STATION FAILURE	TnT-1002-134	Transmitter	A-2			
		TnRc-1002-134	Receiver		MP-1		
	MAPLE BAY PUMPING STATION FAILURE	TnT-1002-135	Transmitter	A-2			
		TnRc-1002-135	Receiver		MP-1		
	HARBOUR VILLAGE PUMPING STATION FAILURE	TnT-1002-136	Transmitter	A-2			
		TnRc-1002-136	Receiver		MP-1		

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT
PROCESS INSTRUMENTATION
ALARM SYSTEM - METRO
TOWN OF CICERO ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-90F

REVISIONS



IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: S.W.P.
CHECKED BY: F.A.L.

SEE F&P DWG'S J1 & J2

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION

PANELS A1, A2

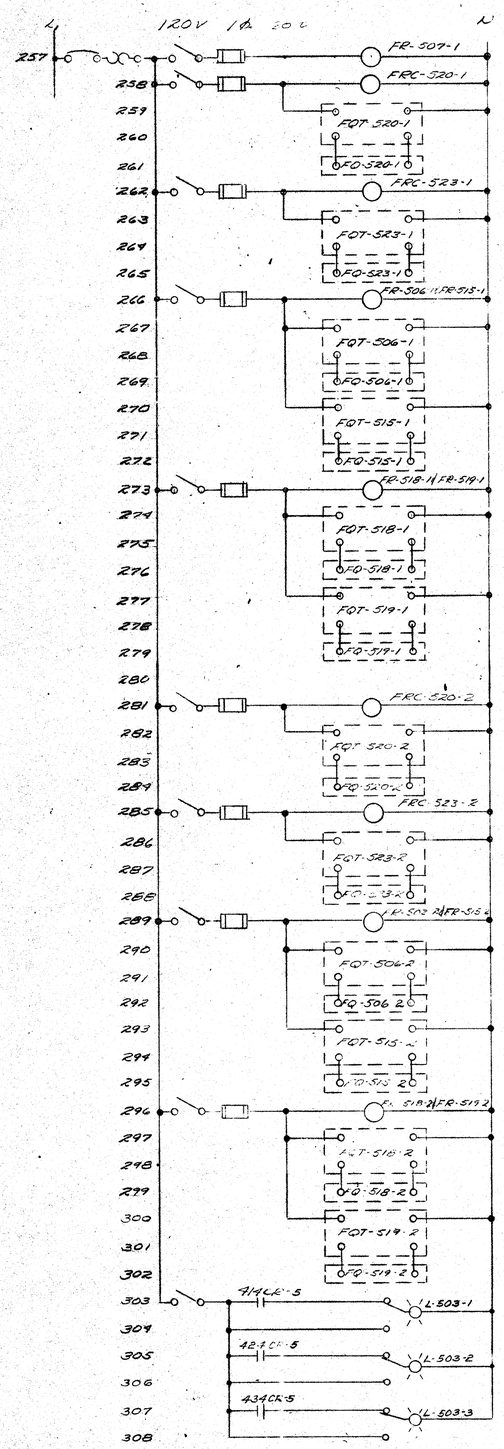
TOWN OF CICERO — ONONDAGA CO., N.Y.

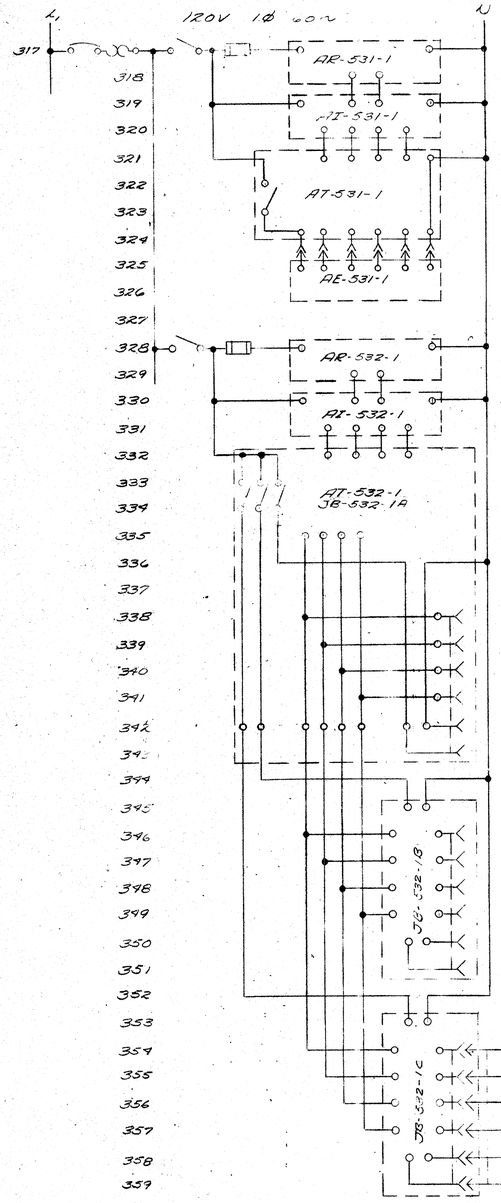
BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-91F

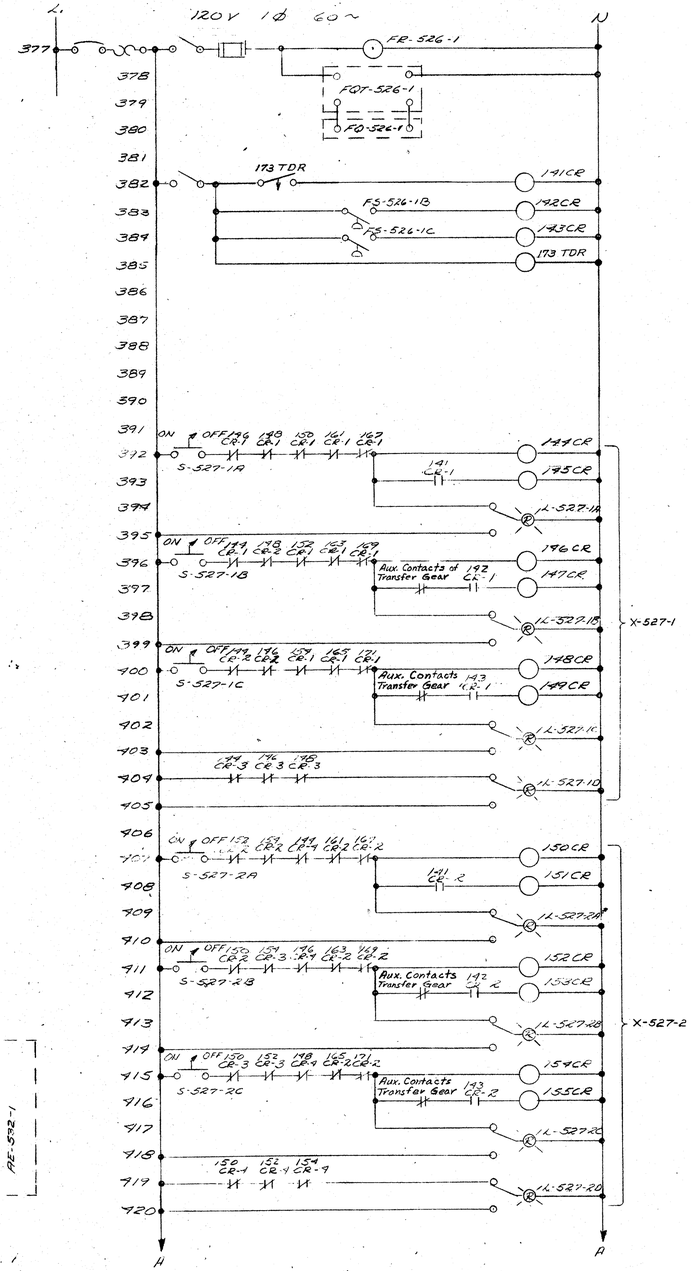
REVISIONS

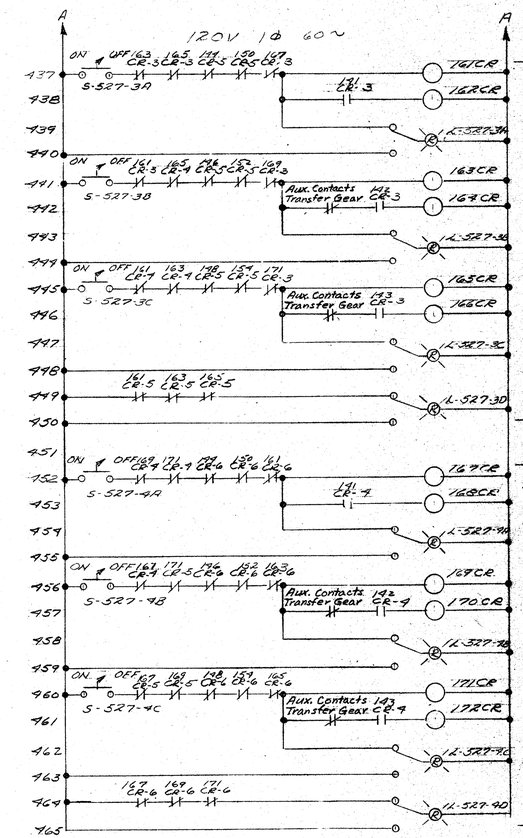
87





Note:
Above Diagram Shown For Train No. 1 Typical For Train No.2 Using Following Instruments:
AR-531-2, AI-531-2, AT-531-2, AE-531-2
AR-532-2, AI-532-2, AT-532-2, (JB-532-2A), JB-532-2B, JB-532-2C, AE-532-2





Component Number	Contact Line Numbers
141CR	393, 408, 438, 453
142CR	397, 412, 442, 457
143CR	401, 416, 446, 461
144CR	396, 400, 407, 707, 432, 435
145CR	1270
146CR	392, 400, 407, 711, 741, 756
147CR	271
148CR	392, 396, 407, 415, 445, 460
149CR	1272
150CR	392, 711, 715, 717, 737, 752
151CR	390
152CR	396, 407, 715, 719, 741, 756
153CR	391
154CR	400, 407, 711, 719, 745, 760
155CR	332

Component Number	Contact Line Number
161CR	392, 407, 741, 745, 749, 752
162CR	390
163CR	396, 711, 737, 745, 749, 756
164CR	391
165CR	400, 715, 737, 747, 749, 760
166CR	392
167CR	392, 707, 737, 756, 760, 764
168CR	950
169CR	396, 711, 741, 752, 760, 764
170CR	951
171CR	400, 715, 745, 752, 756, 764
172CR	952
173TDR	382

SEE F&P DWG'S J38&J5

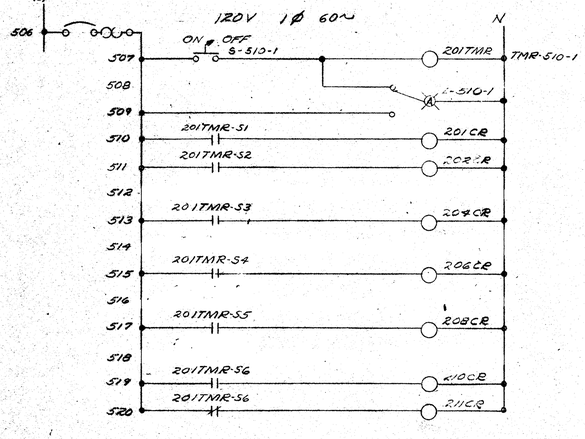
ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT
PROCESS INSTRUMENTATION
PANELS A3, A5
TOWN OF CICERO — ONONDAGA CO., N.Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

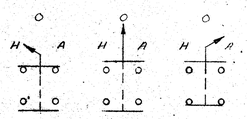
DATE: FEBRUARY 1975
SCALE: NO SCALE
FILE NO.: 55.32-92F

REVISIONS

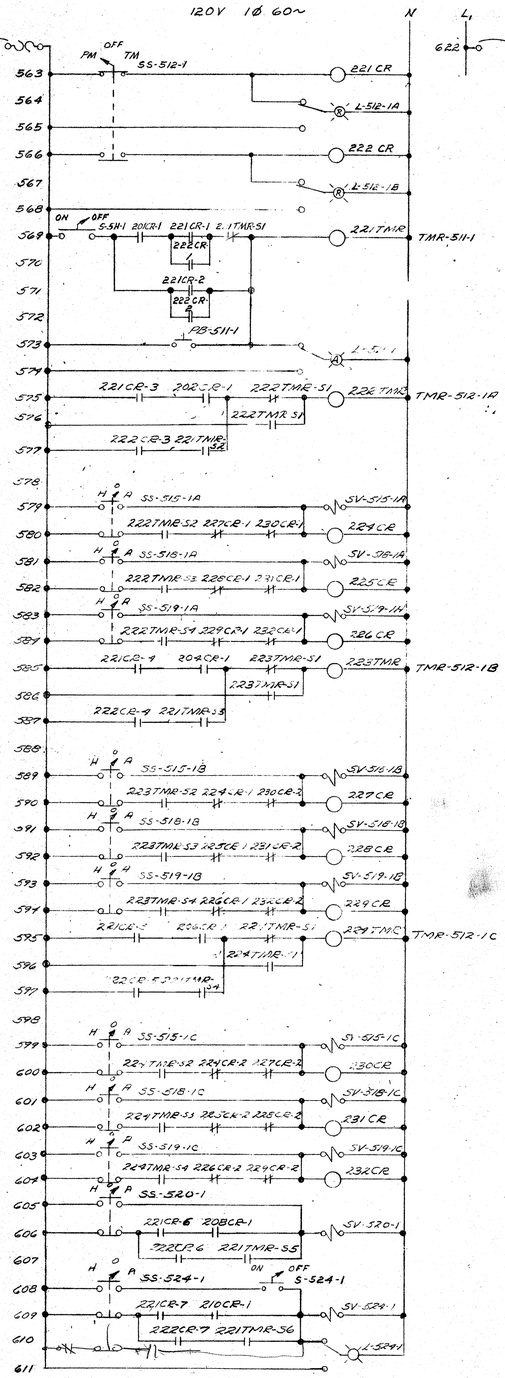
IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: E.W.P.
CHECKED BY:

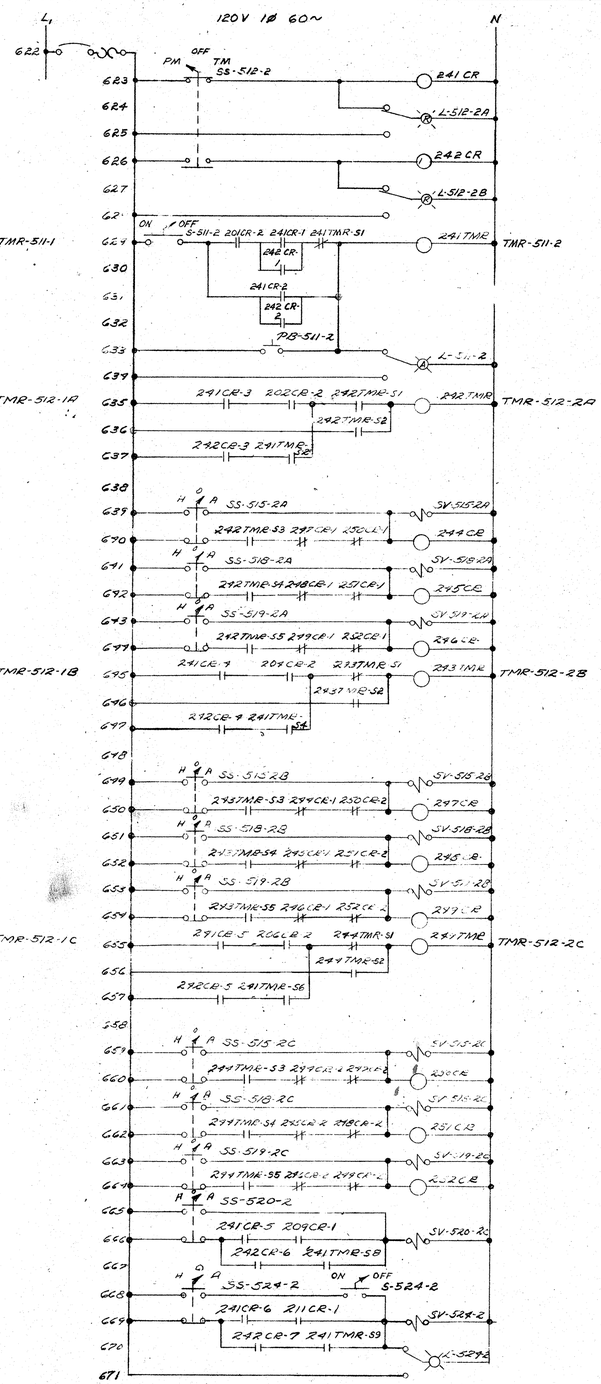


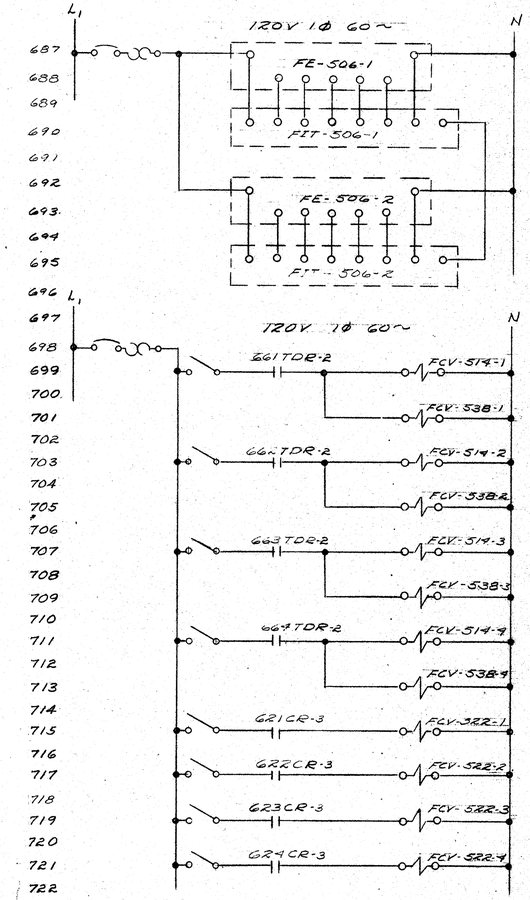
COMPONENT NUMBER	CONTACT LINE NUMBERS
201CR	569 629
202CR	575 635
203CR	576 636
204CR	583 645
205CR	566 626
206CR	585 655
207CR	590 650
208CR	666
X209CR	676
X210CR	609
211CR	669
221CR	569, 571, 575, 585, 595, 606, 609
222CR	570, 572, 577, 587, 591, 607, 610
223CR	571
224CR	590 600
225CR	582 602
226CR	584 609
227CR	580 600
228CR	582 606
229CR	584 607
230CR	588 590
231CR	592 596
232CR	594 599
241CR	629 631 635 645 666 669
242CR	630 632 637 647 667 670
243CR	631
244CR	650 666
245CR	652 668
246CR	654 669
247CR	650 660
248CR	646 667
249CR	644 664
250CR	670 650
251CR	672 652
252CR	674 654
201TMR	510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520
221TMR	569 577 578 589 596 597 598 607 610
222TMR	570 576 580 588 598
223TMR	582 586 590 592 594
224TMR	570, 579, 600 602 604
241TMR	629 637 638 647 648 657 658 667 670
242TMR	630 636 640 642 644
243TMR	642 646 650 652 654
244TMR	650 656 660 662 664



Contact Sequence
3-Position Selector Switch







SEE F&P DWG'S J3 &J9

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION

BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION

PANELS A3, E

TOWN OF CICERO ONONDAGA CO., N. Y.

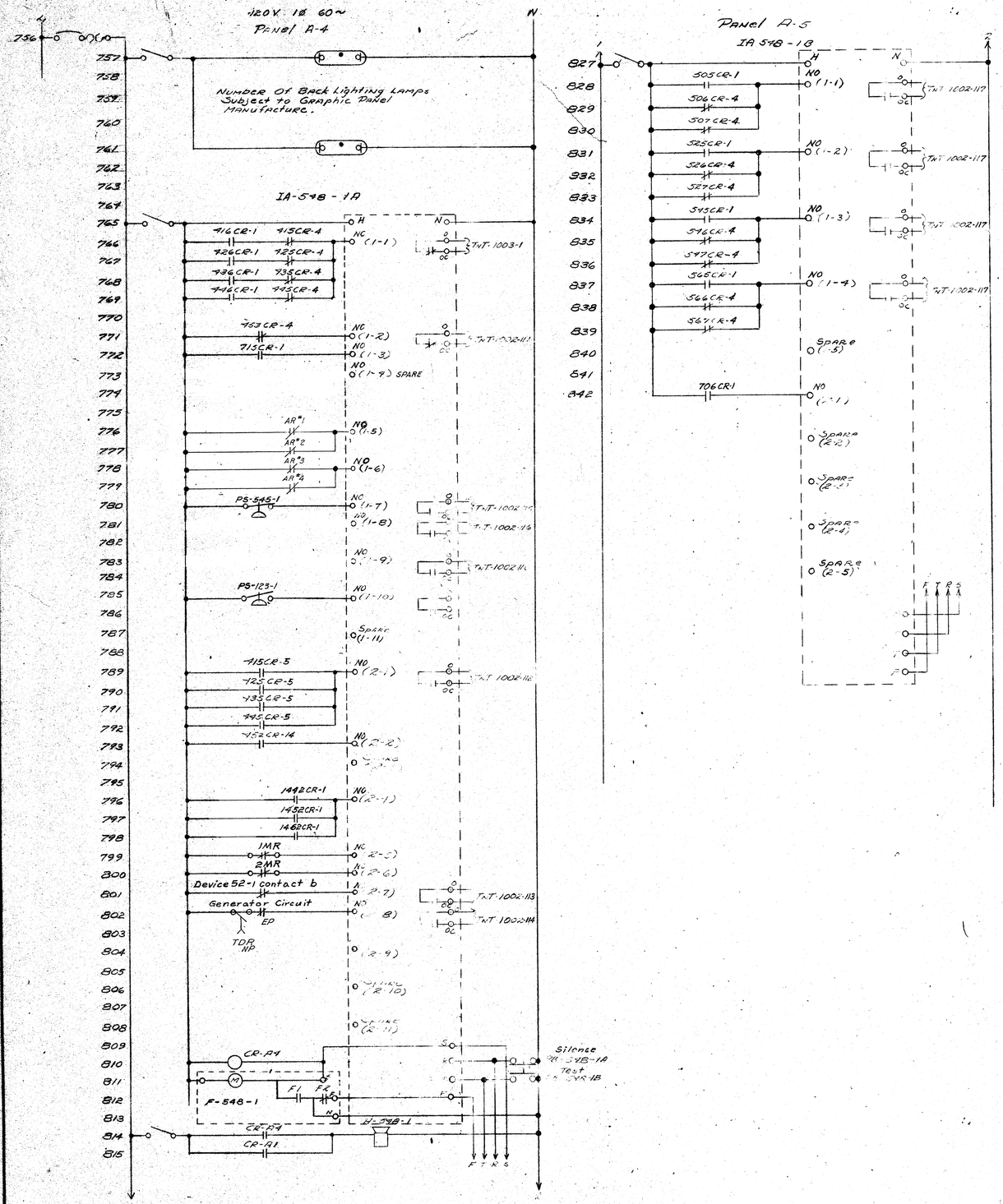
BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-93F

89

REVISIONS

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: E.W.P.
CHECKED BY:



Notes:
1. On-Off switches and relay contacts are mounted in Units SC-516-1,2,3,4.

SEE F&P DWG'S J4 & J5

ONONDAGA COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF DRAINAGE AND SANITATION
BREWERTON WATER POLLUTION CONTROL PLANT

PROCESS INSTRUMENTATION

PANELS A4, A5

TOWN OF CICERO — ONONDAGA CO., N. Y.

BARTON, BROWN, CLYDE & LOGUIDICE
CONSULTING ENGINEERS & LAND SURVEYORS
NORTH SYRACUSE, NEW YORK

DATE: FEBRUARY 1975
SCALE: NONE
FILE NO.: 55.32-94F

REVISIONS

90

IN CHARGE OF: F.A.L.
DESIGNED BY: D.C.M.
DRAWN BY: EWP
CHECKED BY: DCM