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 AUTH. NAME AUTHOR AFFILIATION
 WHITE, L. D. Rochester Gas & Electric Corp.
 RECIP. NAME RECIPIENT AFFILIATION
 ZIEMANN, D. L. Operating Reactors Branch 2

SUBJECT: Responds to Item III-1, NRC question re design & const for systematic evaluation program seismic review. Response deals w/details of block walls throughout plant. Two oversized drawings encl.

See [unclear]

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by: C. Hofmayer, SHAAKER

MAY 22 1979

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JUN 14 1979



ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649



LEON D. WHITE, JR.
VICE PRESIDENT

TELEPHONE
AREA CODE 716 546-2700

June 6, 1979

Director of Nuclear Reactor Regulation
Attention: Mr. Dennis L. Ziemann, Chief
Operating Reactors Branch No. 2
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Systematic Evaluation Program Seismic Review
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Ziemann:

This letter supplements our earlier letters in responding to questions raised by the NRC Seismic Review Team on the design and construction of Ginna Station. Item III-1 identified in our letter of May 22, 1979 dealt with a request for information on details of the block walls throughout the plant. The attachment to this letter and the enclosed drawings respond to that request.

Very truly yours,

L.D. White, Jr.
L.D. White, Jr.

Attachment

7906120406

A001
5/1
seismic drawings to:
FILES
I & E
J SHEA (5)

Response for NRC Question III-1

Reinforced concrete block walls are used in the Control Building and for the freight elevator shaft inside the Containment Building. Details of the reinforcement in the block walls are presented on drawings D-105-011 and D-105-012. Reinforcement details for the elevator shaft are the same as those presented for the Battery Room walls in the Control Building. All other block walls throughout the plant have reinforcement provided in the horizontal layers as follows:

1. Horizontal bed reinforcement is Dur-O-Wal standard truss design or Hohmann & Barnard, Inc. Trus-Mesh, of width two inches less than the nominal thickness of the wall. Bed reinforcing is laid in alternate courses, splice lapped six inches, cut and bent at corners. Over openings reinforcement is laid in the first and second bed joint and extends 24 inches on either side.
2. At junctions of partitions and walls, ties $1\frac{1}{2}$ " x $\frac{1}{4}$ " x 8" flats with two inch right angle bends at either end are inserted at 24 inch centers.
3. At steel columns, wall anchors 2" x $\frac{1}{4}$ " flats with two inch right angle bends at either end are provided at 24 inch centers. Ties are extended approximately to the center of the block wall.

Concrete masonry blocks are hollow units, conforming to ASTM C90-66T, Grade G-II and mortar conforming to ASTM C270-64T, Type N.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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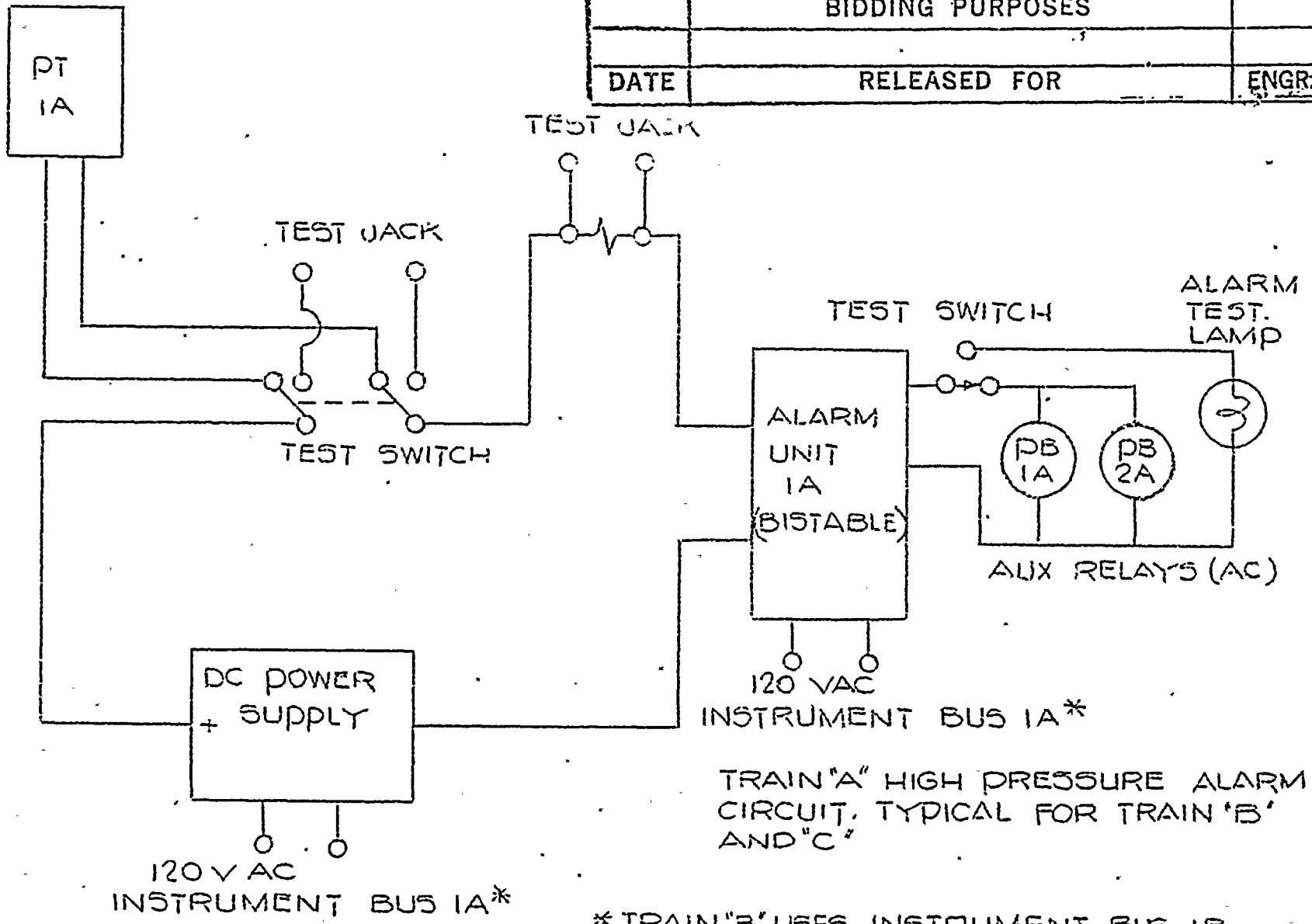
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			Rev 3-17-77	CHECKED BY			
			Rev 3-17-77	RESP. ENG.			
				ENG. MANGR.			
				SCALE			
				NO.			

PRESSURE TRANSMITTER



TRAIN "A" HIGH PRESSURE ALARM
CIRCUIT, TYPICAL FOR TRAIN "B"
AND "C"

* TRAIN "B" USES INSTRUMENT BUS IB
TRAIN "C" USES INSTRUMENT BUS IC

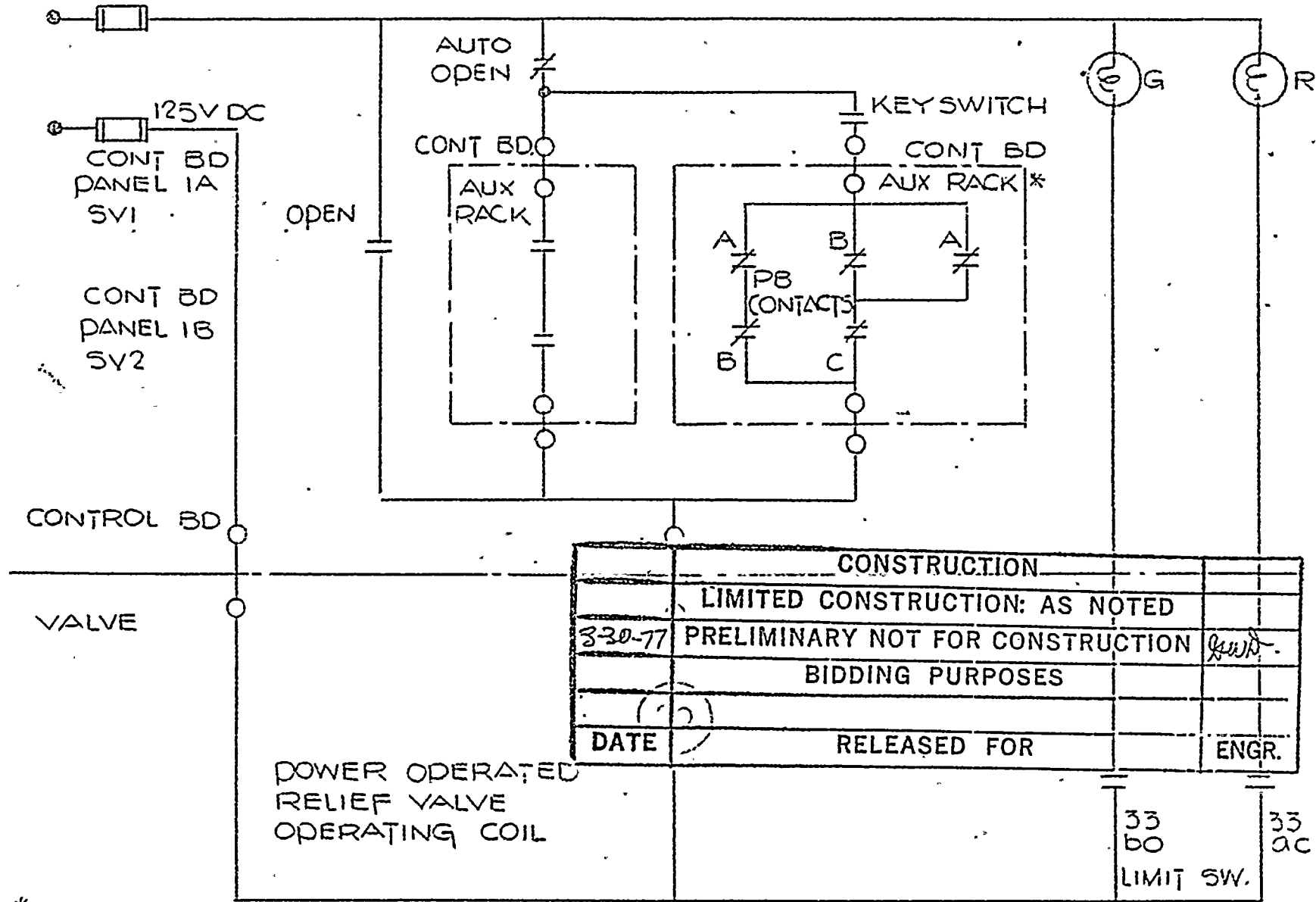
7906120406
FIG-1

PRELIMINARY

EWR 11060

1005209
2015540e

TYPICAL POWER OPERATED RELIEF VALVE CIRCUIT
TYPICAL FOR SOLENOID VALVES SV1 AND SV2



* RELAY ACTS AS ISOLATOR TO MAINTAIN CHANNEL SEPARATION INTERNALLY. WIRING TO RELAY COILS MUST BE SEPARATED IN ACCORDANCE WITH IEEE 384

FIG-2

EWR.#1660

PRELIMINARY!
7906120406

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M.H.S. 19 1133

Idoe150409

1.

PRIMARY COOLANT
 ECCS FROM SIS
 RCS PRESSURE PROTECTION
 RHR TO RCS
 FLOW PRESSURE, LEVEL, TEMPERATURE INDICATORS/CONTROLLER
 CHARGING AND LETDOWN (CVCS) TO RCS

REFERENCE DRAWING

- CVCS - CHEMICAL VOLUME CONTROL SYSTEM SHEET #1 DWG. 69A1616
- CVCS - CHEMICAL VOLUME CONTROL SYSTEM SHEET #2 DWG. 69A1616
- CVCS - CHEMICAL VOLUME CONTROL SYSTEM SHEET #3 DWG. 540F960
- ACS - AUXILIARY COOLANT SYSTEM DWG. 69A1637
- WDS - WASTE DISPOSAL SYSTEM SHEET #1 DWG. 69A1876
- WDS - WASTE DISPOSAL SYSTEM SHEET #2 DWG. 69A1877
- SIS - SAFETY INJECTION SYSTEM DWG. 69A1140
- SS - SAMPLING SYSTEM DWG. 540F961

REFERENCES:

- 1) PROCESS FLOW DIAGRAM DWG. 540F949
- 2) DEFINITION OF SYMBOLS
E SPEC. 67176 REV. 2 AND
E SPEC. 6675164 REV. 0
- 3) INSTALLATION OF INSTRUMENTATION
PROC. SPEC. CAP. 254367 REV. 1
- 4) MATERIAL SPEC. PIPE AND FITTINGS
E SPEC. 4569066 REV. 2 AND
E SPEC. 4676988 REV. 0

LEGEND:

- IMB - INSIDE MISSILE BARRIER AND/OR SECONDARY SHIELDING
- OMB - OUTSIDE MISSILE BARRIER AND/OR SECONDARY SHIELDING
- GA - GAS ANALYZER (WDS)

VH - VENT HEADER (WDS)

- DT - DRAIN TANK
- FC - FAIL CLOSED
- F.O. - FAIL OPEN
- V - LOCAL VENT
- T - CONTAINMENT ISOLATION SIGNAL
- OR - RELIEF REQUIRED
- LO - LOCKED OPEN
- D - LOCAL DRAIN

NOTES:

- 1) 2" INSIDE DIAMETER
- 2) 3" INSIDE DIAMETER

3) 27.5 INSIDE DIAMETER

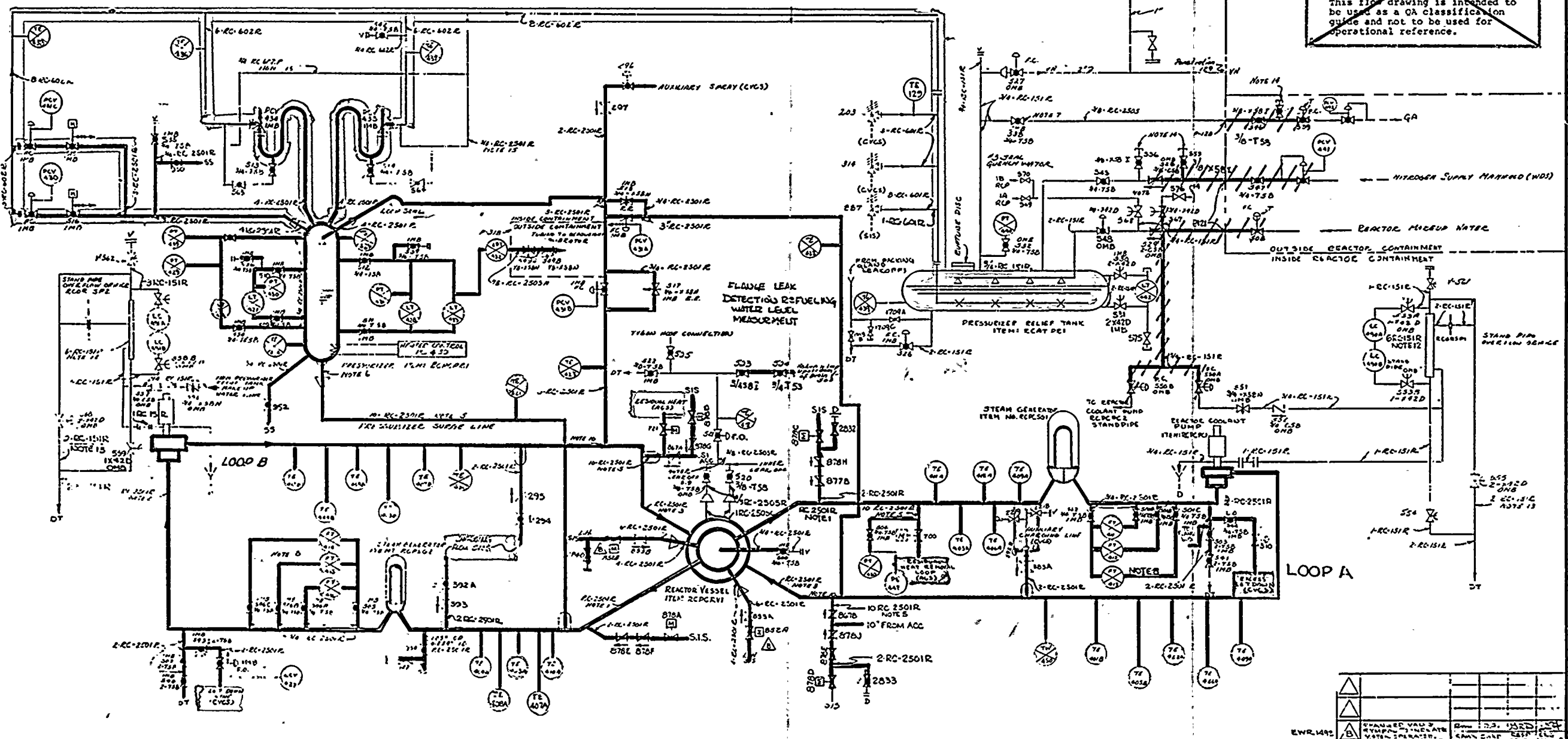
- 4) ALL GLOBE VALVE INSTALLED WITH FLOW UNDER THE SEAT EXCEPT NO. 548
- 5) SCHEDULE 140 PIPE
- 6) 14" SCHEDULE 140 NOZZLE
- 7) 3/4" PIPE X 3/8" TUBE INSERT
- 8) ELBOW FLOW METER
- 9) ALL ITEM NUMBERS INCLUDE PREFIX RB
- 10) SPRAY LINE SCOOP
- 11) FIRST VALVE IN PIPING CONNECTED TO REACTOR COOLANT PIPING IS LOCATED ABOVE REACTOR VESSEL NOZZLE CENTER LINE EXCEPT NO. 501, 502, 503, 505, 506, 507, 543, 544 AND 760
- 12) AND PIPE IS 6 IN. SCHEDULE 10S PIPE BOTH ENDS CAPPED

13) PIPE SHOULD BE SLOPED DOWN HILL THROUGHOUT THE RUN TO DRAIN TANK

- 14) ISOLATION VALVE TEST CONNECTION CONSISTS OF VALVE AND 1/2" SWIRLOCK SWIRL LOCK 2" X 2500 PSI TUBING BETWEEN VALVE UNION SHUT OFF VALVE FOR 3/4" SHUT OFF VALVES ADD 3/4" TO 3/8" SW REDUCER.
- 15) LINE SHOULD BE SELF DRAINING

USNRC QUALITY GROUP A IS RED
 USNRC QUALITY GROUP B IS BLUE
 USNRC QUALITY GROUP C IS GREEN
 QA INSTRUMENTATION IS YELLOW

NOTE:
 This flow drawing is intended to be used as a QA classification guide and not to be used for operational reference.

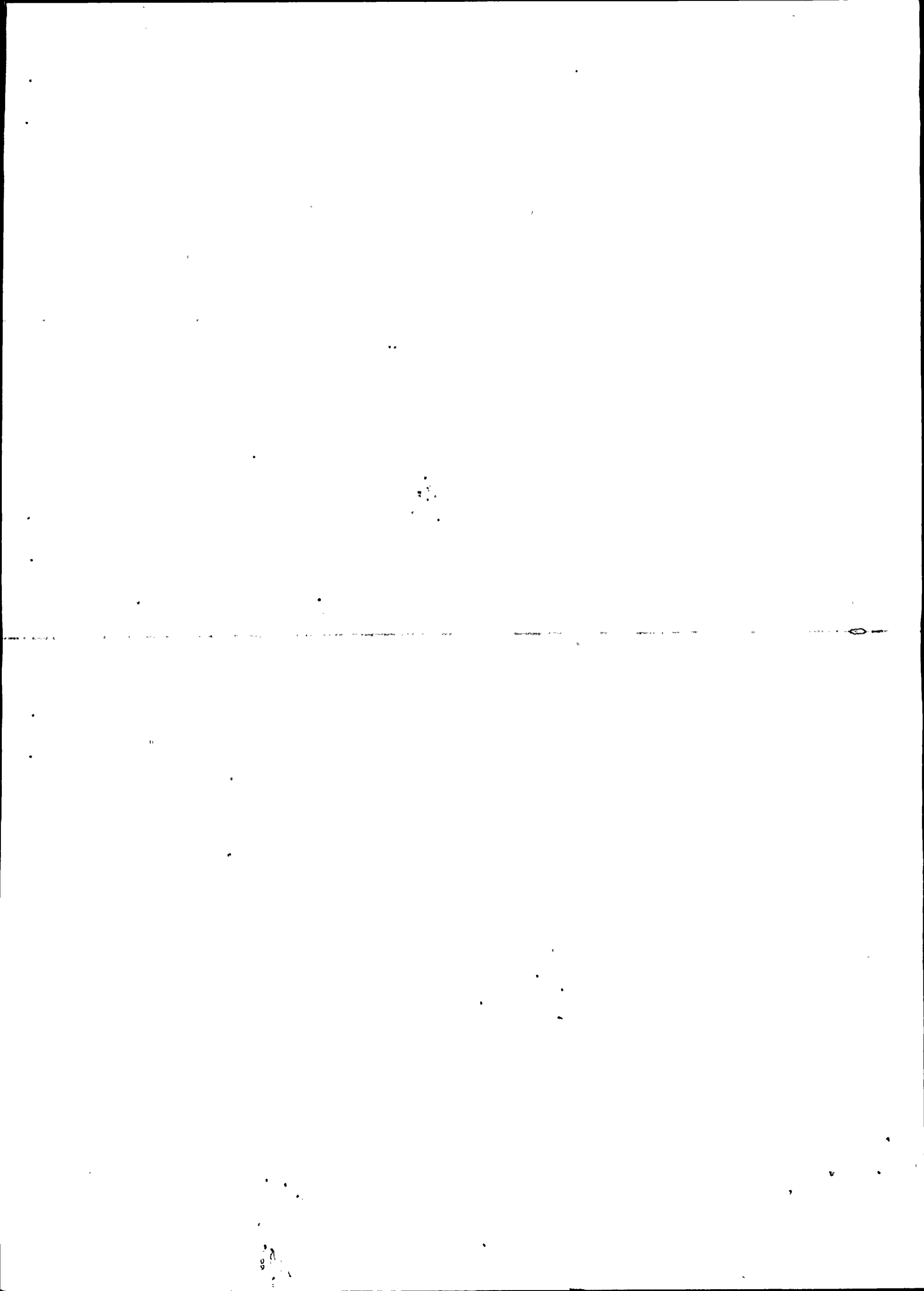


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③	REVISED

REFERENCE DRAWINGS	
NO.	TITLE

ROCKETER GAS & ELECTRIC CORP.	ROBERT EMMETT GRINA NUCLEAR POWER STATION
UNIT NO. 1	REACTOR COOLANT SYSTEM
ENGINEERING	ENGINEERING FLOW DIAGRAM
SCALE	JOB NO. NO. 32-913-414B

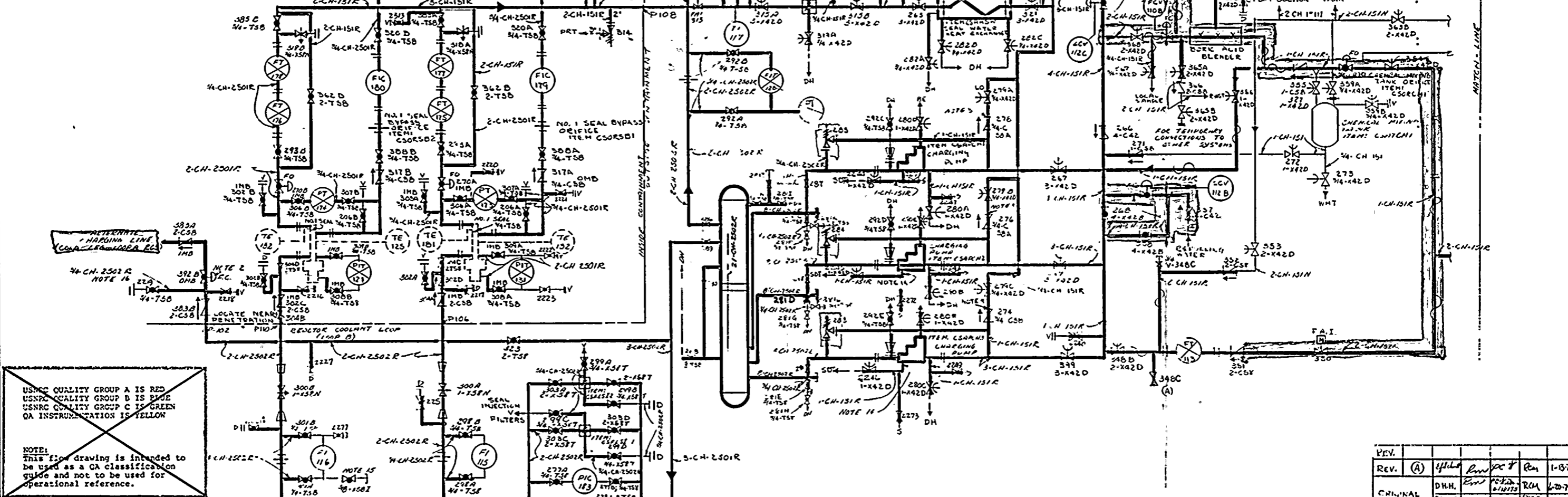
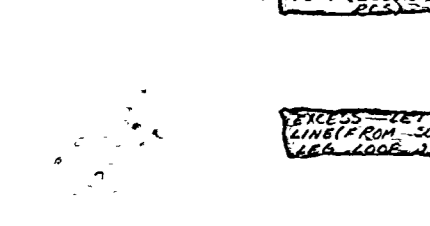


Handwritten notes in the top right corner, including the number '10' and some illegible scribbles.

A faint horizontal line or separator across the middle of the page.

Handwritten notes in the bottom right corner, including the number '2' and some illegible scribbles.

- RCS CHARGING AND LETDOWN TO CVCS
- NORMAL CHARGING AND LETDOWN (CVCS)
- ALTERNATE CHARGING AND LETDOWN (CVCS)
- NORMAL MAKE UP WATER
- EMERGENCY MAKE UP TO RCS THROUGH CVCS
- PRESSURE / FLOW CONTROLLERS - RELIEFS
- LEVEL / FLOW CONTROLLERS
- COMPONENT COOLING / LIQUID PROCESSING



USING QUALITY GROUP A IS RED
 USING QUALITY GROUP B IS BLUE
 USING QUALITY GROUP C IS GREEN
 QA INSTRUMENTATION IS YELLOW

NOTE:
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ROCHESTER GAS & ELECTRIC CORP.
 ROCHESTER, NEW YORK

ROBERT ENNETT GINNA NUCLEAR POWER STATION
 UNIT NO. CHEMICAL & VOLUME CONTROL SYSTEM
 S&G FLOW DIAG

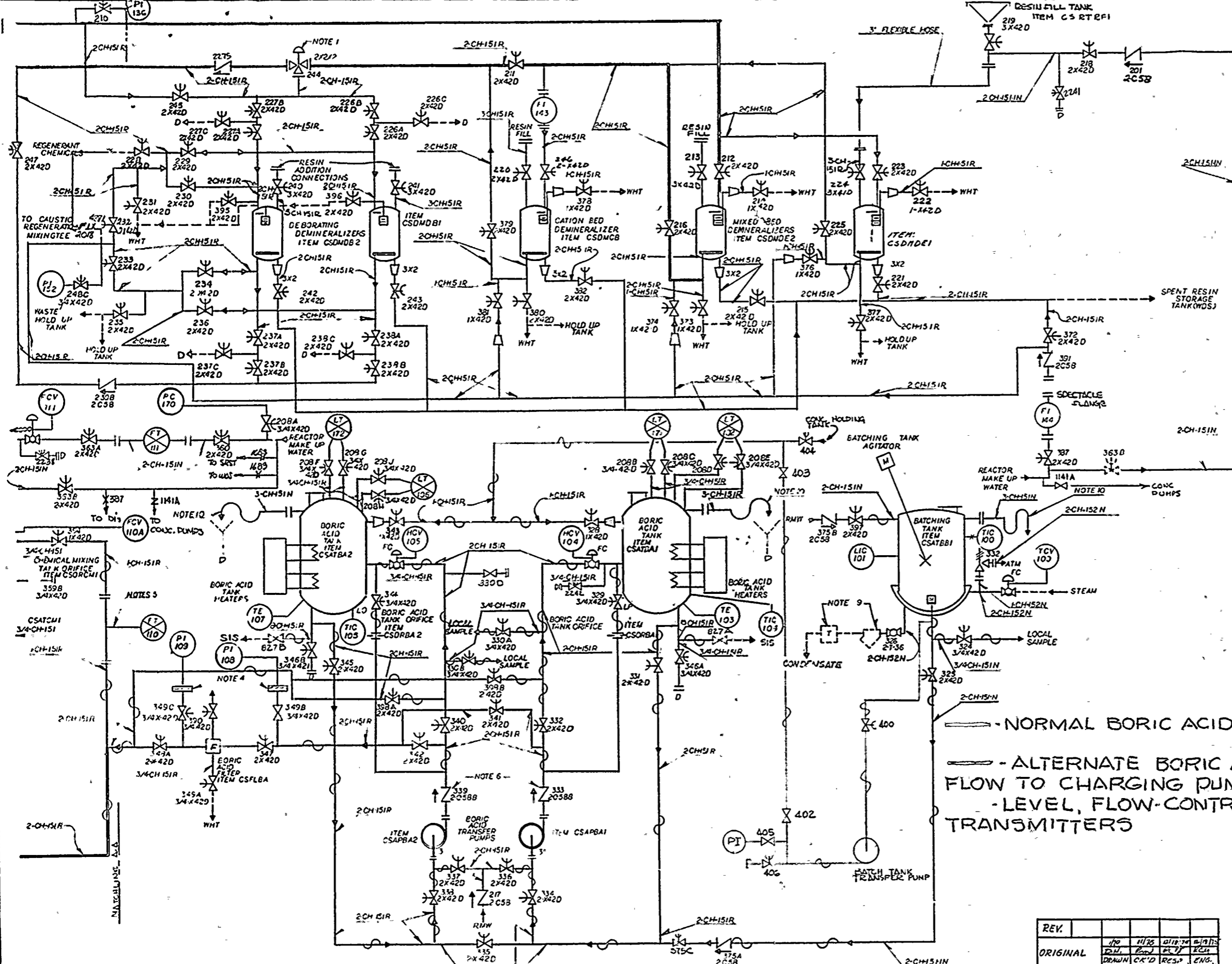
SCALE: 1/4" = 1'-0"

JOB NO. NO. 33013-433-A

— — —

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1891



- REFERENCE:**
- 1) PROCESS FLOW DIAGRAM @ DWG. 84J883
 - 2) DEFINITION OF SYMBOLS
 - ⊗ E. SPEC. 4675176 REV. 2 AND
 - ⊙ E. SPEC. 4678164 REV. 0
 - 3) INSTALLATION OF INSTRUMENTATION
 - Ⓢ PROC. SECC. CAD-294367 REV. 1
 - 4) MATERIAL SPEC. PIPE AND FITTINGS
 - Ⓢ E. SPEC. 4562366 REV. 2 AND
 - Ⓢ E. SPEC. 4676358 REV. 0

- REFERENCE DRAWINGS:**
- CVCS - CHEMICAL & VOLUME CONTROL SYSTEM SH. #1
 - Ⓢ DWG. 684J616-R.G.E. DWG. 33013-426
 - CVCS - CHEMICAL & VOLUME CONTROL SYSTEM SH. #2
 - Ⓢ DWG. 684J324-R.G.E. DWG. 33013-427
 - CVCS - CHEMICAL & VOLUME CONTROL SYSTEM SH. #3
 - Ⓢ DWG. 540F820-R.G.E. D. 16 33013-418(25MIS)
 - RCS - REACTOR COOLANT SYSTEM @ DWG. 540F958
 - AOS - AUXILIARY COOLANT SYSTEM @ DWG. 684J637
 - SIS - SAFETY INJECTION SYSTEM @ DWG. 684J740
 - WDS - WASTE DISPOSAL SYSTEM SHEET #1
 - Ⓢ DWG. 684J876
 - WDS - WASTE DISPOSAL SYSTEM SHEET #2
 - Ⓢ DWG. 684J677-R.G.E. DWG. 33013-426
 - SS - SAMPLING SYSTEM @ DWG. 540F861
 - R.G.E. DWG. 33013-

- LEGEND:**
- RWS - REFUELING WATER STORAGE
 - RMV - REACTOR MAKE UP WATER
 - VH - VENT HEADER (WDS)
 - DH - DRAIN HEADER (WDS)
 - D - LOCAL DRAIN
 - DT - REACTOR COOLANT DRAIN TANK
 - BE - BUILDING EXHAUST
 - GA - GAS ANALYZER (WDS)
 - FAI - FAIL AS IS
 - LC - FAIL CLOSED
 - LO - LOCKED OPEN
 - ATM - ATMOSPHERE
 - PRT - PRESSURIZED RELIEF TANK
 - T - CONTAINMENT ISOLATION SIGNAL
 - IMB - INSIDE MISSILE BARRIER
 - OMB - OUTSIDE MISSILE BARRIER
 - FO - FAIL OPEN
 - V - LOCAL VENT
 - WHT - WASTE HOLDING TANK
 - SDT - SEAL DRAIN TANK

- NOTES:**
- 1) VALVES FAILS WITH FLOW TO VOLUME CONTROL TANK.
 - 2) SPECIAL VALVE - FUNCTIONS AS BOTH ISOLATION & RELIEF VALVE.
 - 3) SPECIAL SPRING LOADED CHECK VALVE.
 - 4) DIAPHRAGM SEAL.
 - 5) ELECTROMAGNETIC-LOCATE METER IN VERTICAL PIPE RUN.
 - 6) .06" DIA. HOLE IN CLAPPER OR CUP.
 - 7) ADDITIONAL VENTS AND DRAINS MAY BE REQUIRED BY THE PIPING LAYOUT.
 - 8) GLOBE VALVES ARE NORMALLY INSTALLED WITH FLOW UNDER SEAT EXCEPT ARE NUMBERS 256, 257, 258, 259, 260, 261.
 - 9) STEAM TRAP AND STRAINER SUPPLIED BY A.E.
 - 10) LOOP SEAL TO EXTEND ONE FOOT BELOW & ONE FOOT ABOVE OVERFLOW NOZZLE.
 - 11) 3/4" NORMAL PIPE O.D. 3/8" TUBING INSERT
 - 12) ALL ITEM NUMBERS INCLUDE THE PREFIX RQ.
 - 13) VALVE ACTUATED BY GAS ANALYZER I & C CHANNEL AC-1067.
 - 14) DRAIN FROM STUFFING BOX LEAKOFF ISOLATION VALVE TEST CONNECTION, CONSISTS OF SHUT OFF VALVE SWAGelok SW UNION AND PLUG, AND 3/8" 2500PSI TUBING BETWEEN VALVE AND UNION MATERIAL OF UNION AND TUBING SAME AS SHUT OFF VALVE. FOR 3/4" SHUT OFF VALVE ADD 3/4" TO 3/8" SW. REDUCER.
 - 15) EXISTING VENT OR DRAIN TO BE USED AS IS. ISOLATION VALVE TEST CONNECTION EXISTING SHUT OFF VALVE LISTED ON DWG. 8-326-027

— NORMAL BORIC ACID FLOW
 — ALTERNATE BORIC ACID FLOW TO CHARGING PUMPS
 — LEVEL, FLOW-CONTROLLERS TRANSMITTERS

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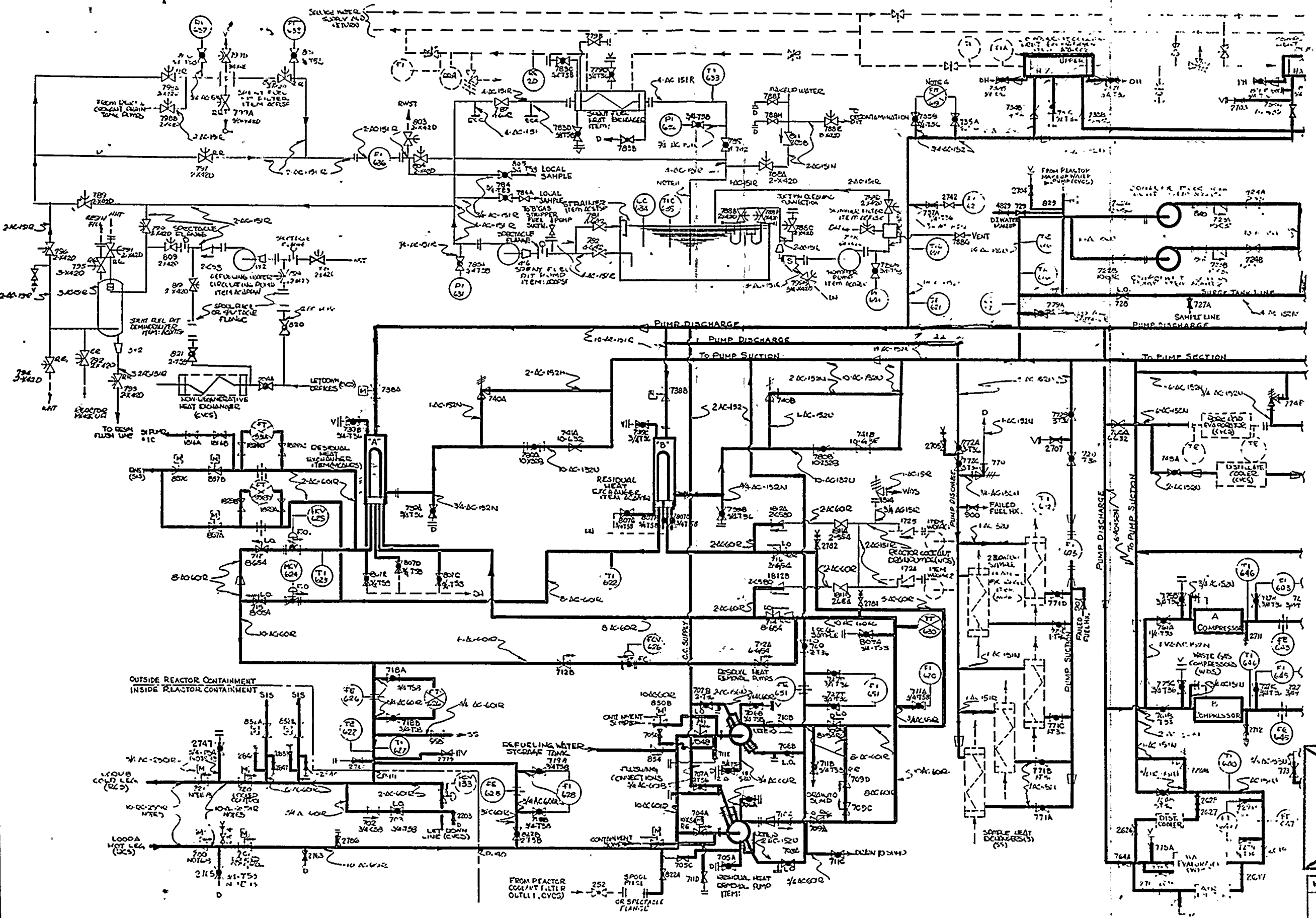
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ENGINEERING DEPT	NO. 33013-426-0
SCALE	JOB NO.
DATE	3

11/12

- RCS INLET/
 OUTLET TO RHR'S
 - RHR NOR-
 MAL FLOW
 COMPONENT
 COOLING
 - FLOW/TEMP
 CONTROLLERS



USNR QUALITY GROUP A IS RED
 USNR QUALITY GROUP B IS BLUE
 USNR QUALITY GROUP C IS GREEN
 QA INSTRUMENTATION IS YELLOW

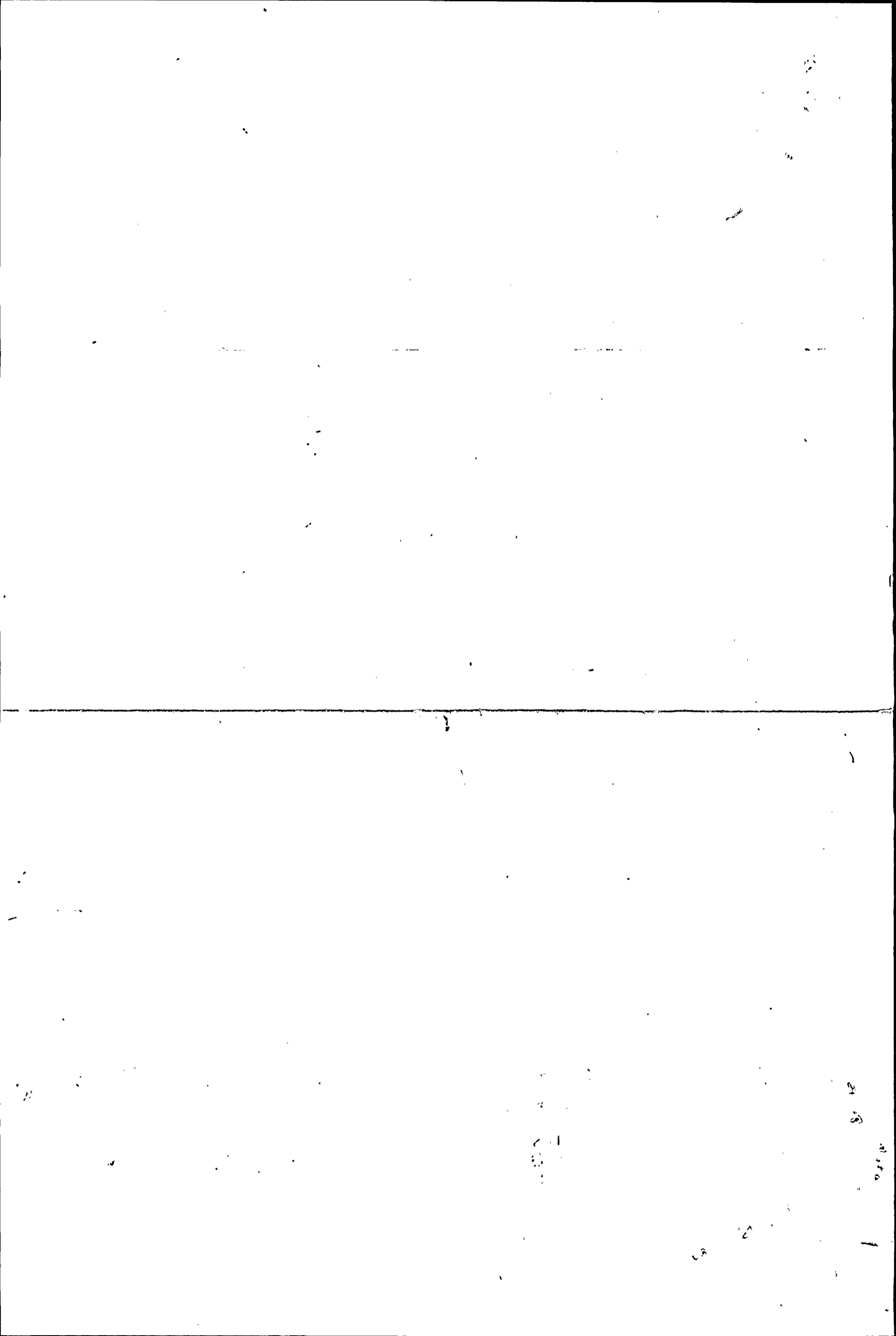
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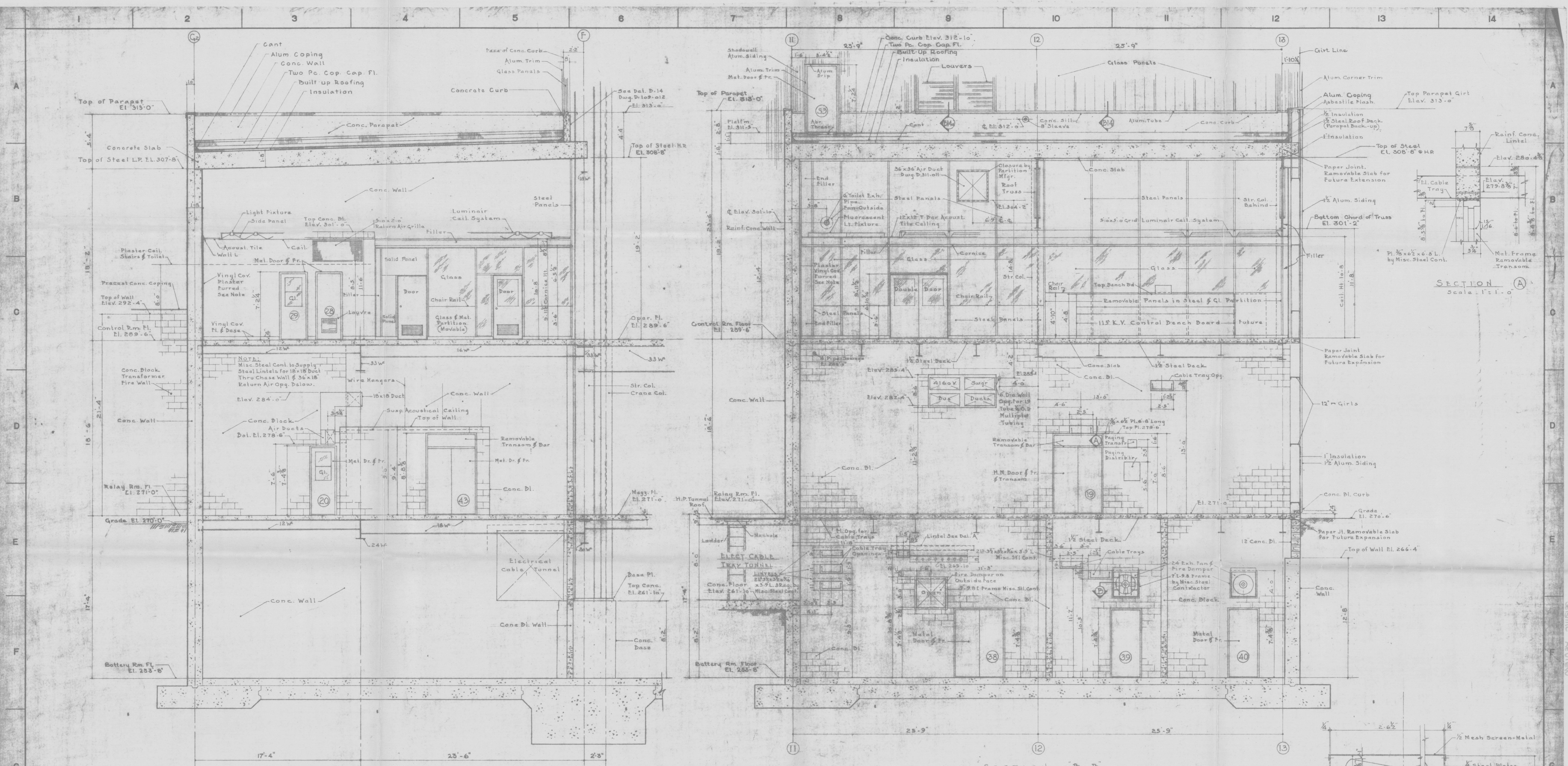
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2				RG 33013-435-0			

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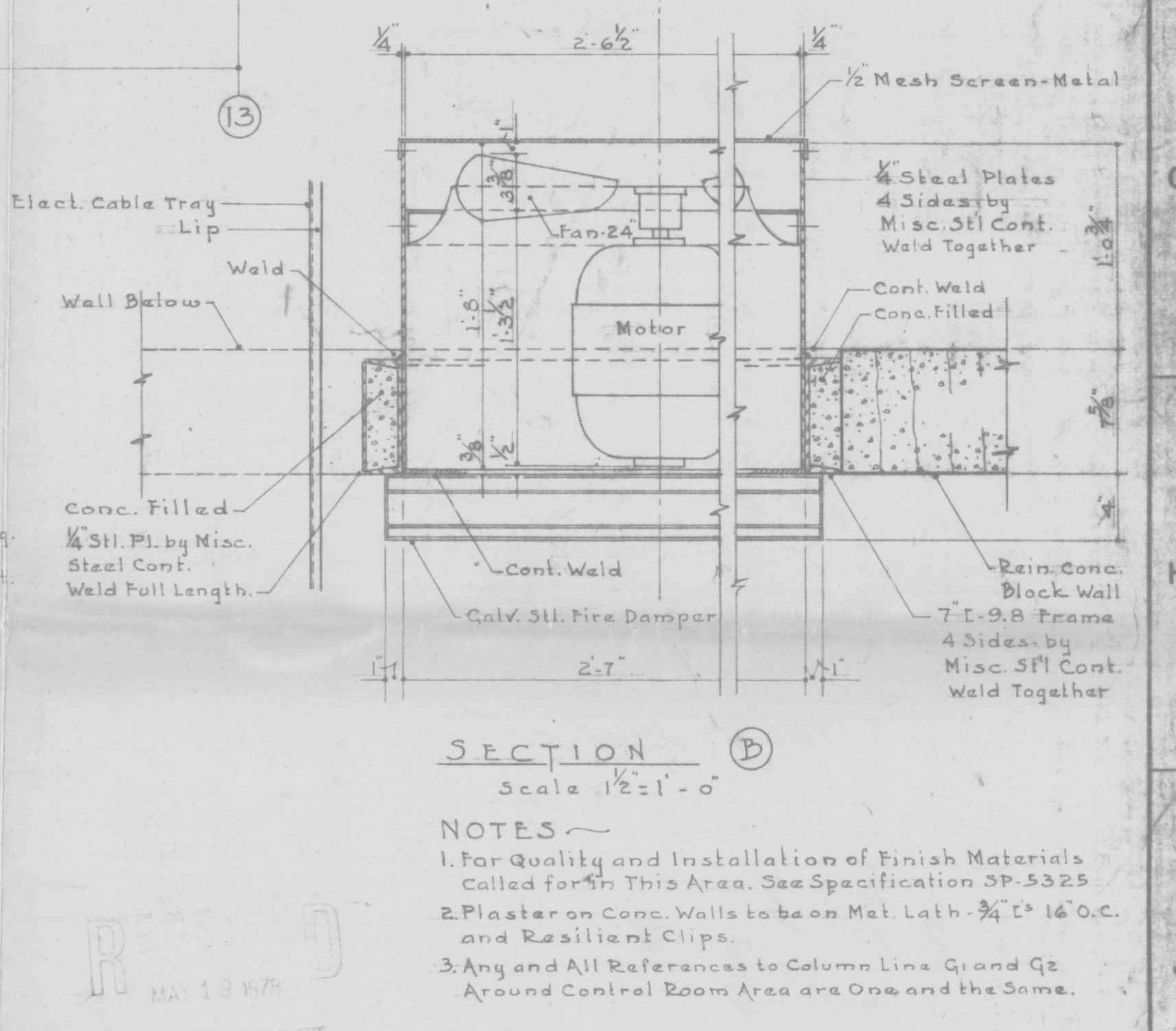
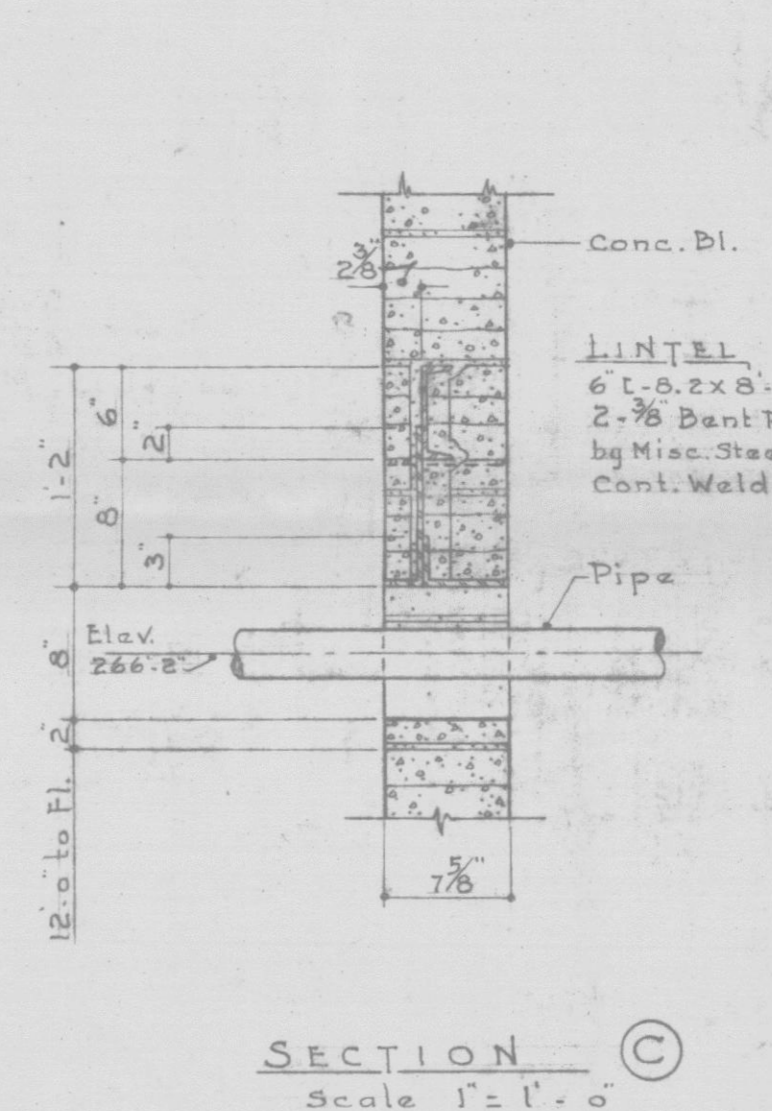
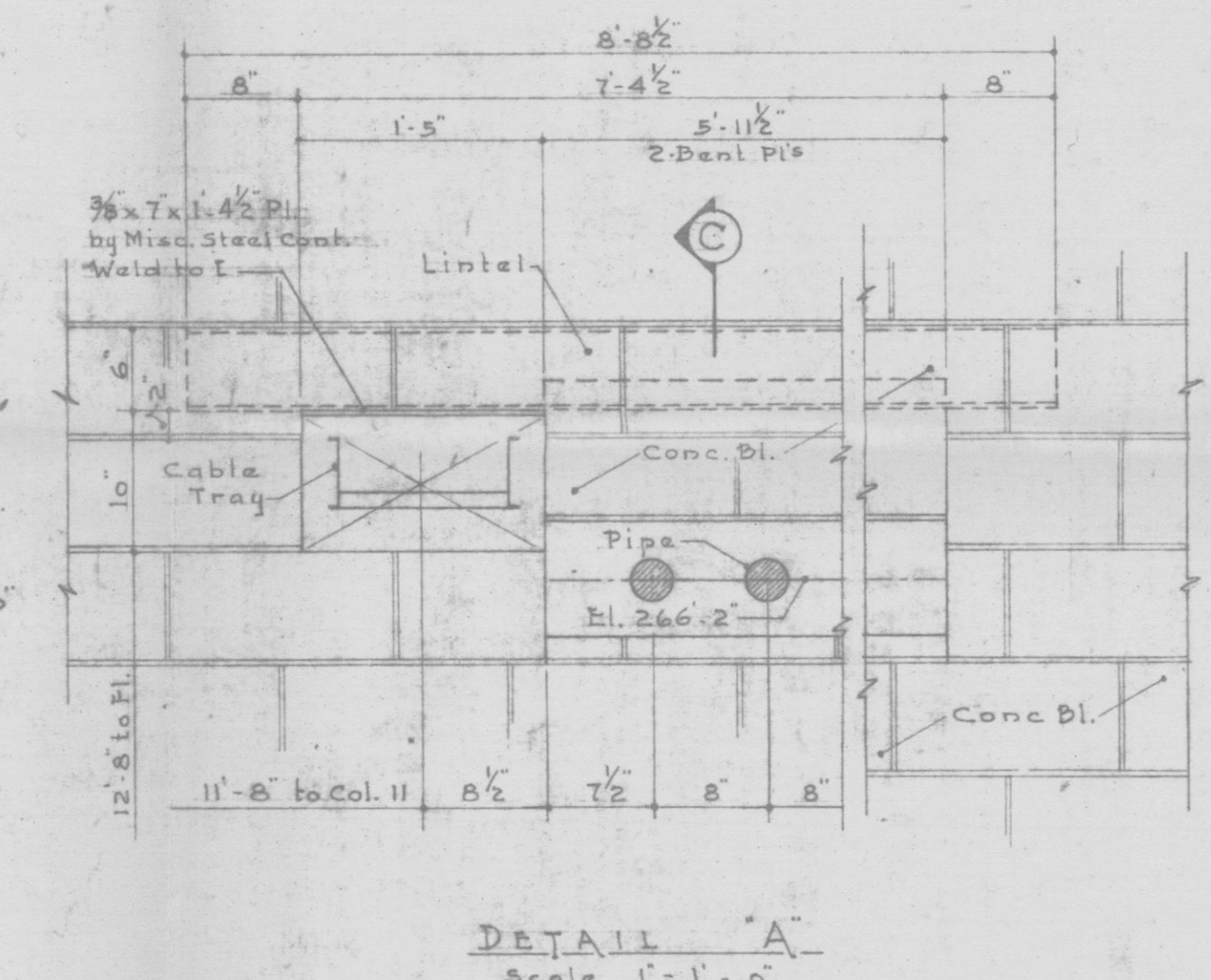
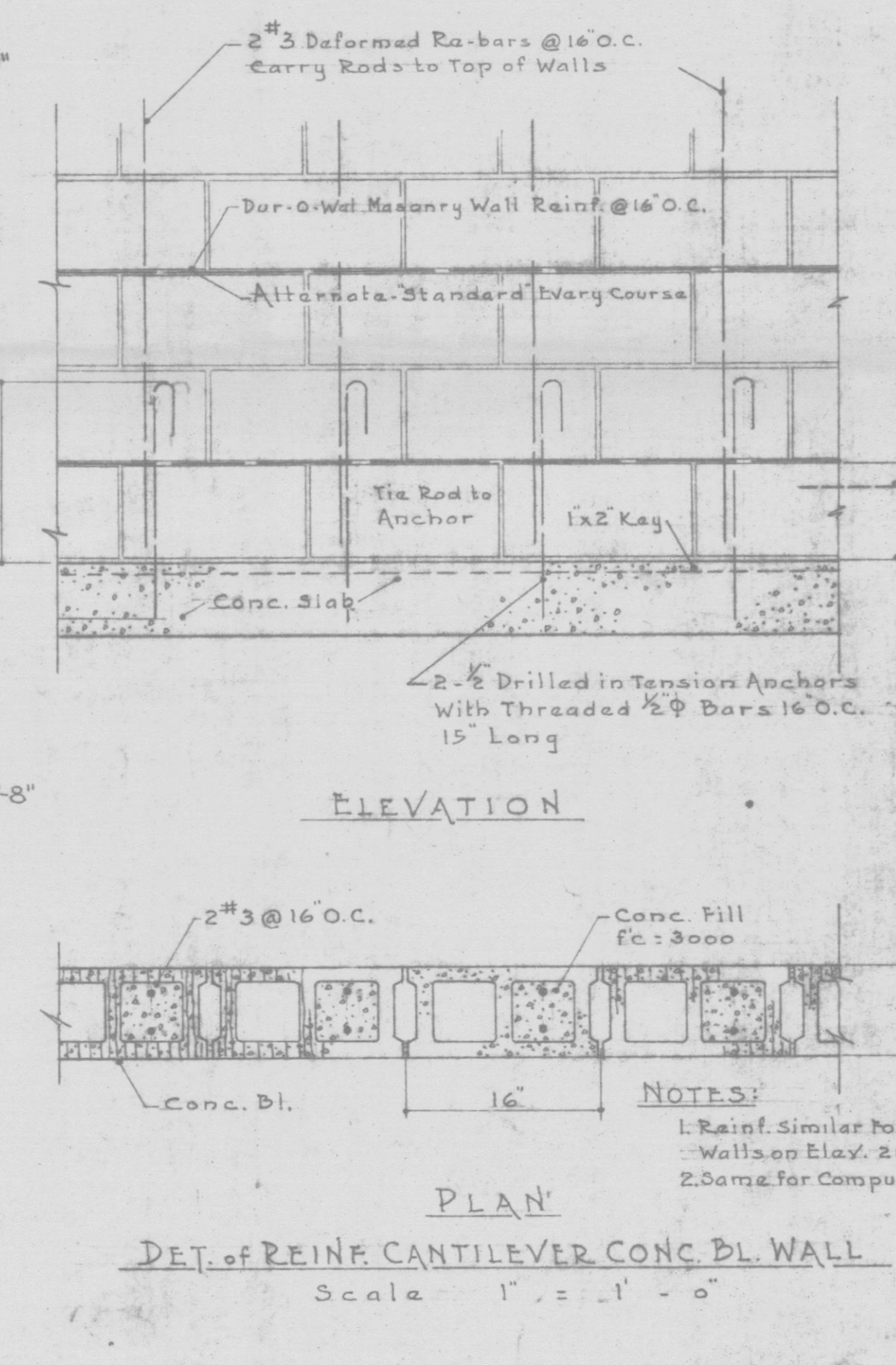
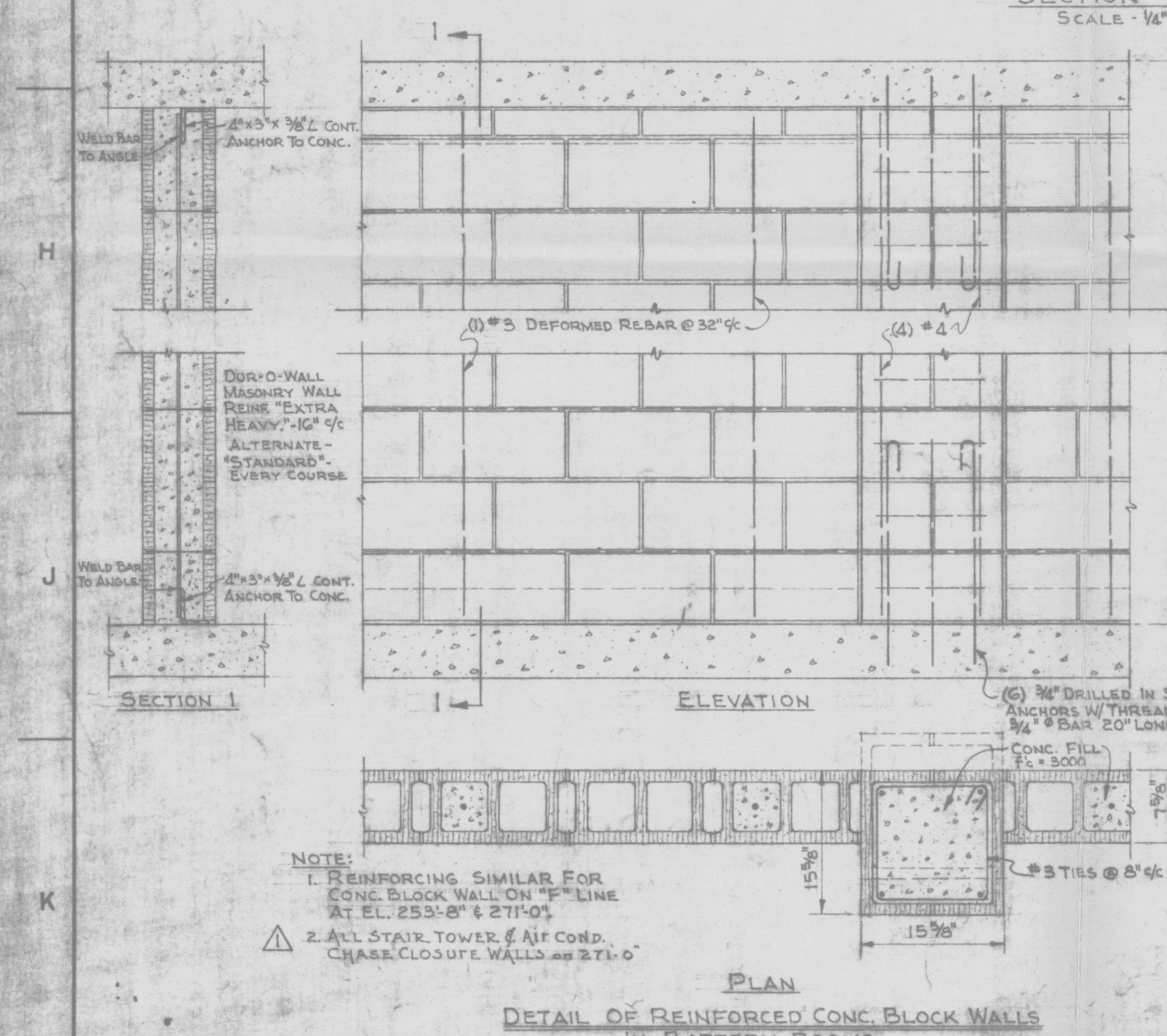




SECTION A-A
Scale 1/4" = 1'-0"

SECTION B-B
Scale 1/4" = 1'-0"

SECTION C
Scale 1/2" = 1'-0"



NOTES:
1. For Quality and Installation of Finish Materials Called for in This Area, See Specification SP-532.
2. Pipes on Conc. Walls to be on Met. Lath 3/4" 16 O.C. and Resilient Clips.
3. Any and All References to Column Line, Grid G, Around Control Room Area are One and the Same.

NOTES:
1. REINFORCING SIMILAR FOR CONC. BLOCK WALL ON "F" LINE AT EL. 253'-8" & 271'-0".
2. ALL STAIR TOWER & AIR COND. CHASE CLOSURE WALLS @ 271'-0".

NOTES:
1. Reinf. Similar for Conc. Bl. Walls on Elev. 269'-6".
2. Same for Computer Rm. Walls.

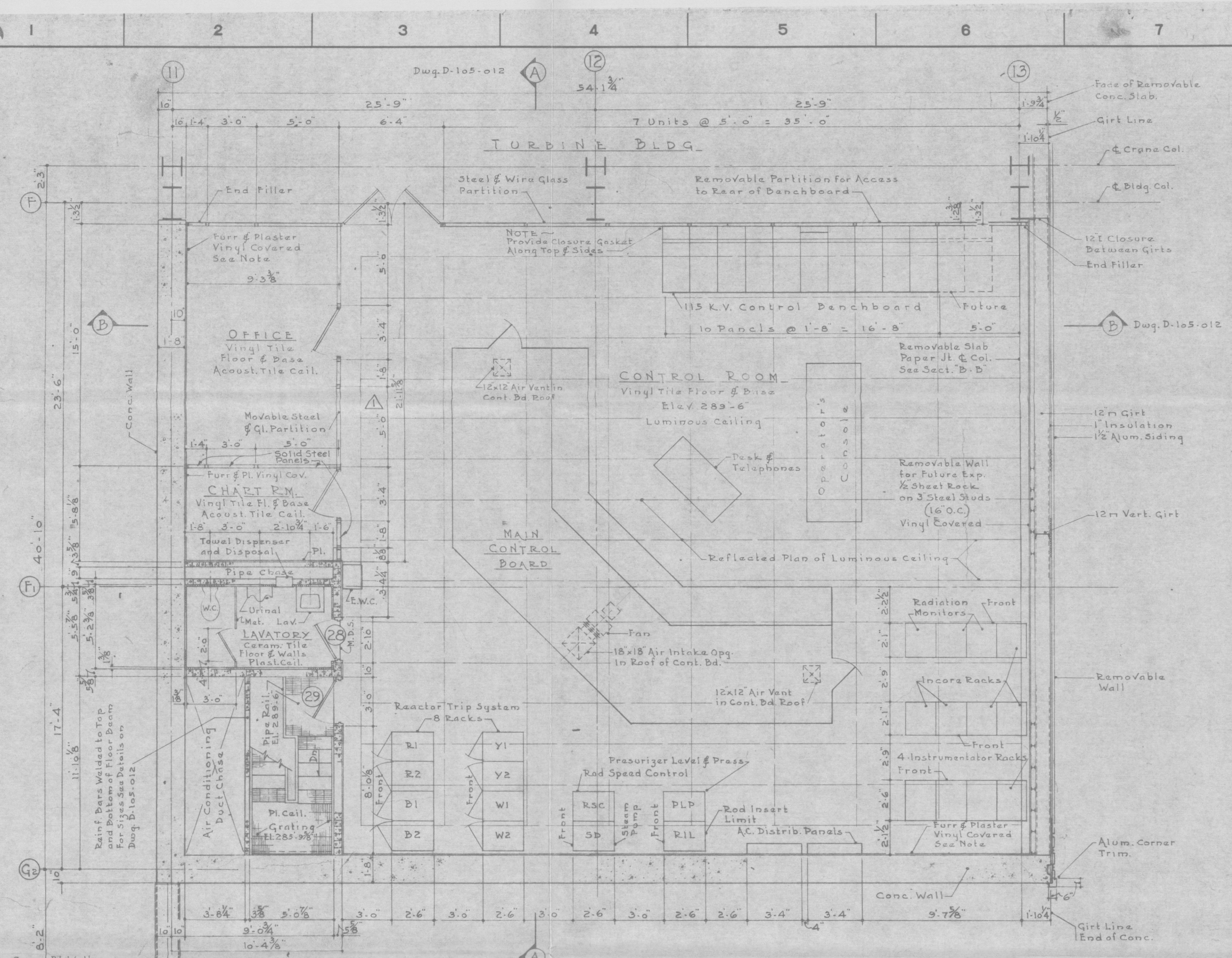
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ROCHESTER GAS & ELECTRIC CORPORATION ROCHESTER, NEW YORK			
ROBERT EMMETT GINNA NUCLEAR POWER STATION UNIT NO. 1			
ARCHITECTURAL CONTROL ROOM			
SECTIONS & DETAILS			
DATE	DESCRIPTION	REV.	BY
6-4-79	REV. MOVABLE PARTITIONS	2	R.G.L.
6-4-79	ADDED NOTE #2, A. PIER	1	R.G.L.
6-4-79	RELEASED FOR CONSTRUCTION	0	R.G.L.
6-4-79	RELEASED FOR SETTING OF	0	R.G.L.
6-4-79	REIN. CONC. WALLS - BATTERY RM.	0	R.G.L.
DATE	DESCRIPTION	REV.	BY
6-4-79	ENGINEER APPROVALS	1	R.G.L.
6-4-79	ARCHITECT APPROVALS	1	R.G.L.
6-4-79	WARD	1	R.G.L.
6-4-79	SCALE	1/4" = 1'-0"	R.G.L.

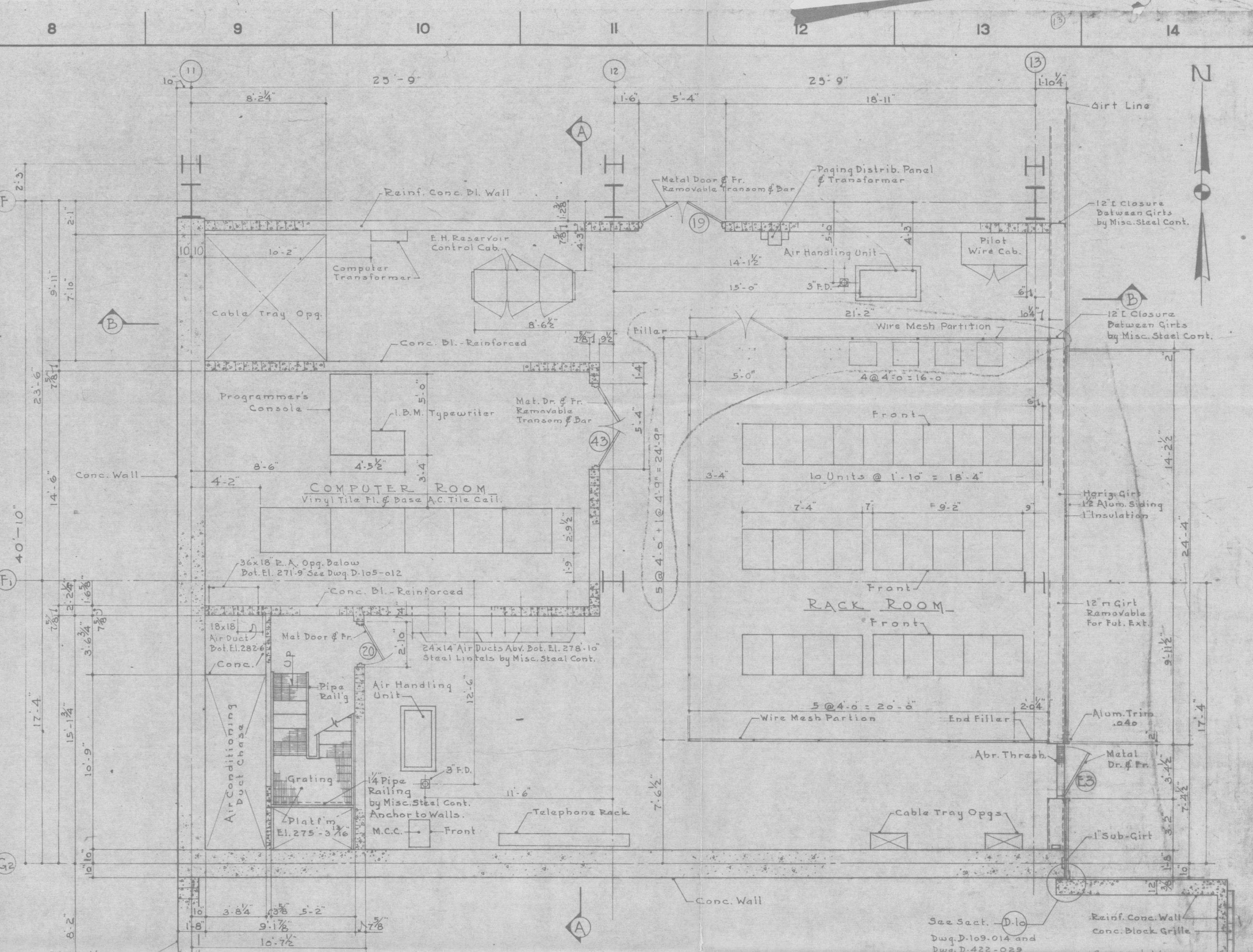
DETAIL OF REINFORCED CONC. BLOCK WALLS IN BATTERY ROOMS
Scale 1/2" = 1'-0"

DET. OF REIN. CANTILEVER CONC. BL. WALL
Scale 1" = 1'-0"

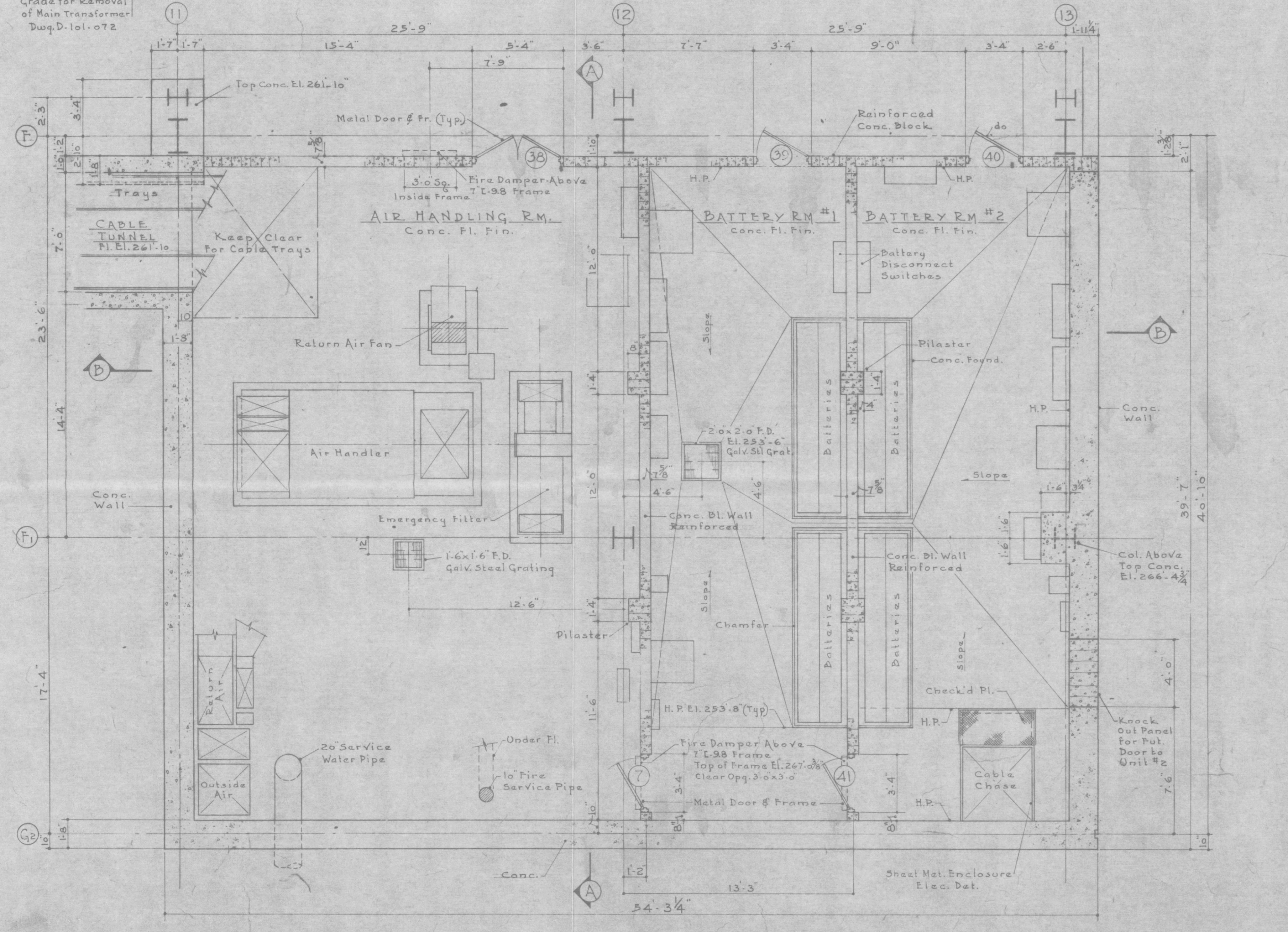
7906120406 E



PLAN OF CONTROL ROOM
FLOOR EL. 289'-6"



PLAN OF RELAY ROOM
FLOOR EL. 271'-0"



PLAN OF BATTERY ROOM
FLOOR EL. 253'-6"

NOTES

1. For Quality and Installation of Finish Materials Called for in this Area See Specification SP-3325
2. Plaster on Conc. Walls to be of Met. Lath 3/4" x 16" C. and Resilient Clips.
3. All Dimensions and All References to Column Line G1 and G2 Around Control Room Area are One and the Same.

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CONSTRUCTION	
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ARCHITECTURAL CONTROL ROOM PLANS			
DRYING	REVISIONS	DATE	BY
3	1	6-17-57	J.H.D.
2	1	6-17-57	J.H.D.
1	1	6-17-57	J.H.D.
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RETURN TO REACTION DOCKET
FILES

6-24-57
6-6-57
7-10-57
7-10-57

RETURN TO REACTION DOCKET
FILES

RE SYSTEMATIC DRAWING
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