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[illegible]

U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT 4735 EAST MARGINAL WAY SOUTH SEATTLE, WASHINGTON 98134	ISSUE DATE: 29 MARCH 2022
	DESIGNED BY: B. SOUTHERLIN
	CHECKED BY: B. SOUTHERLIN
	CONTRACT NO.: W9132D-22R-0002
	FILE NUMBER: E-31-20-70
	SUBMITTED BY: MICHAEL S. BROUWER
	SIZE: ANSI D

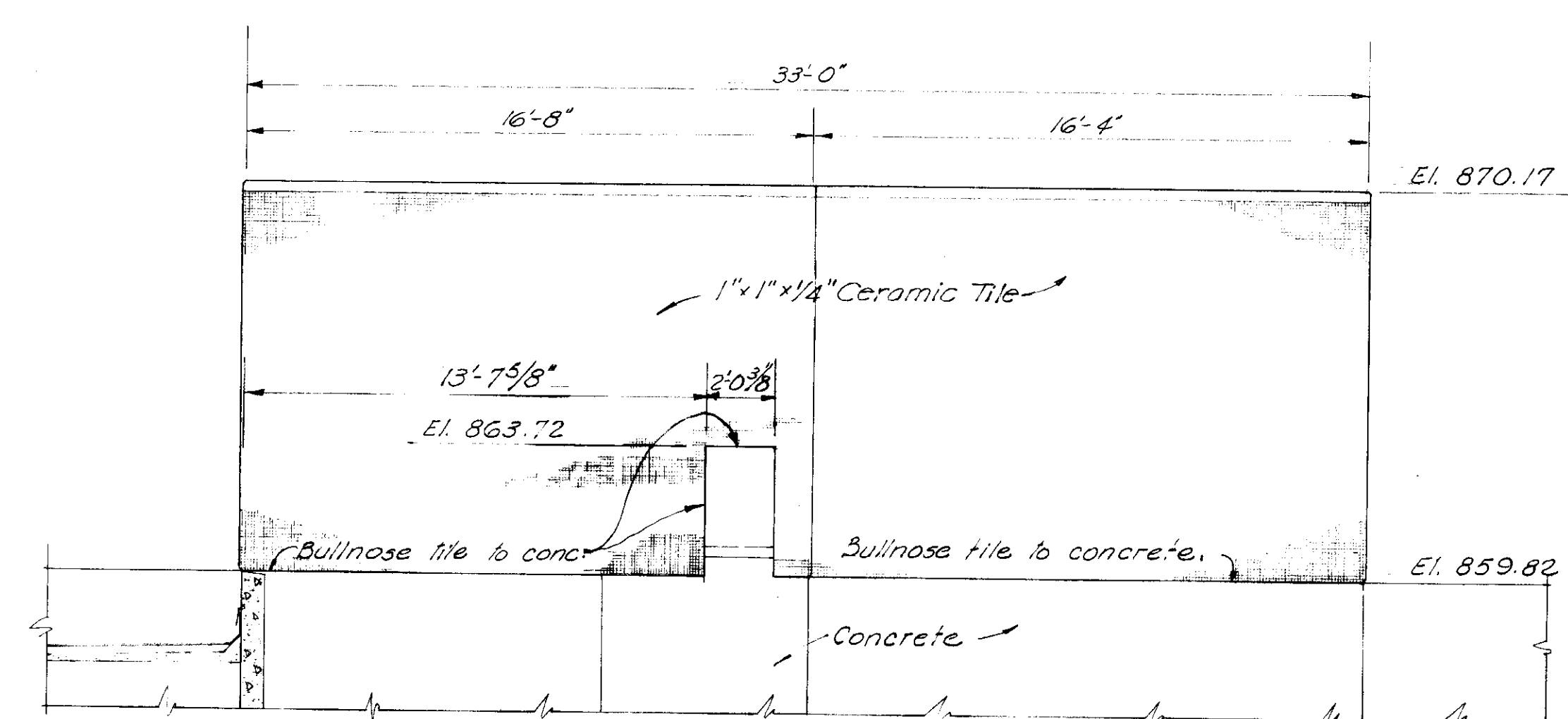
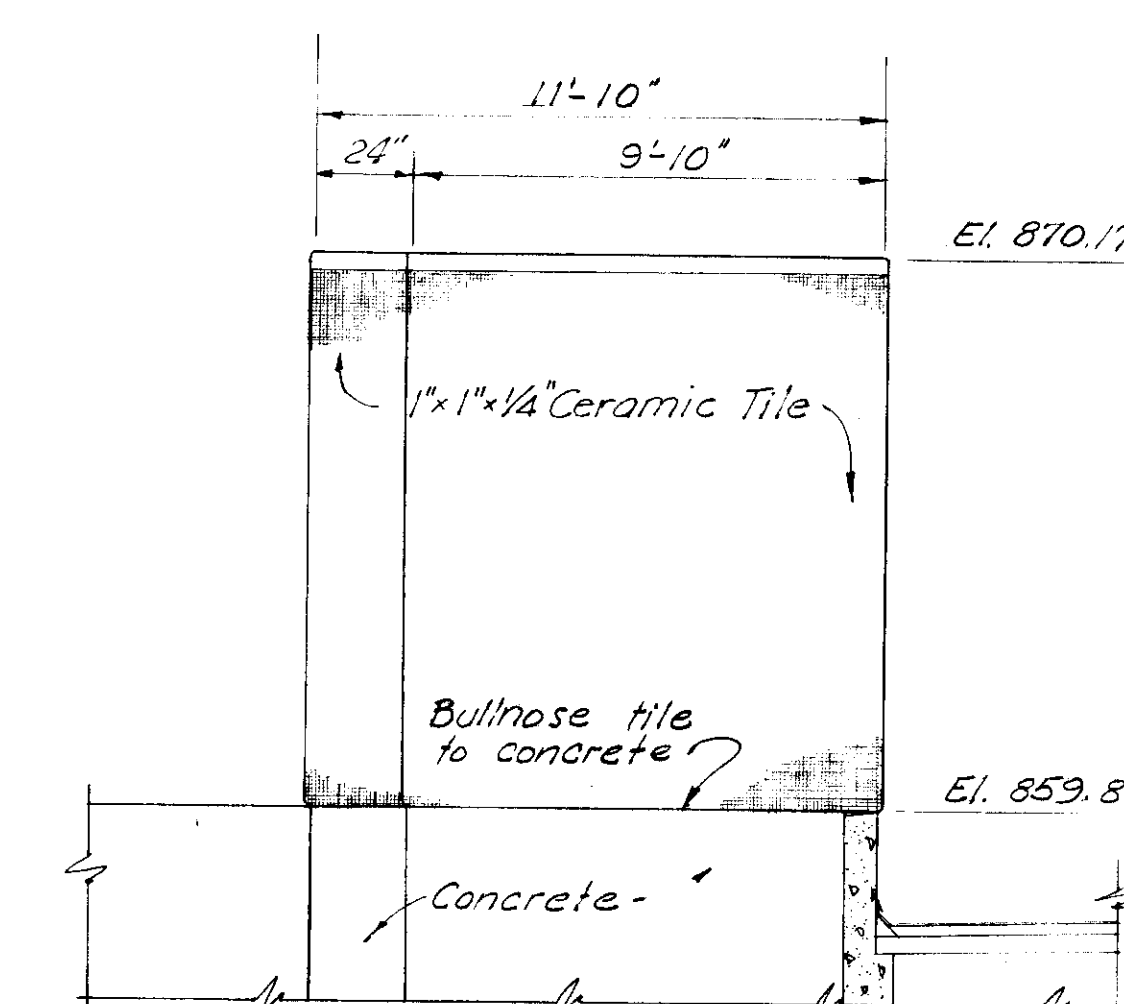
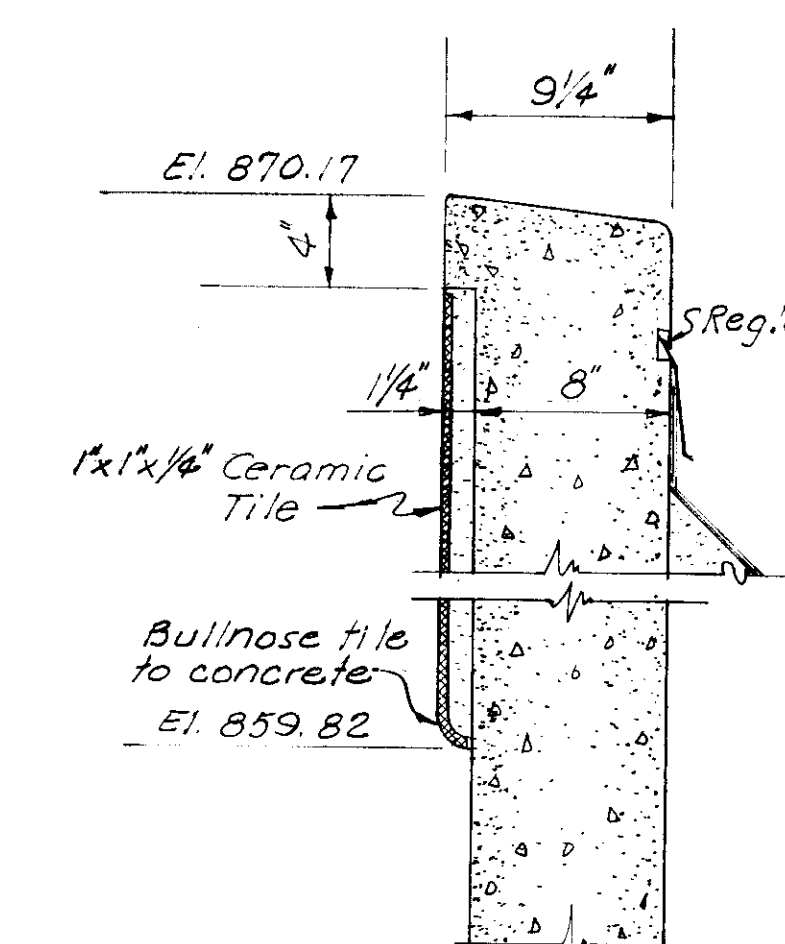
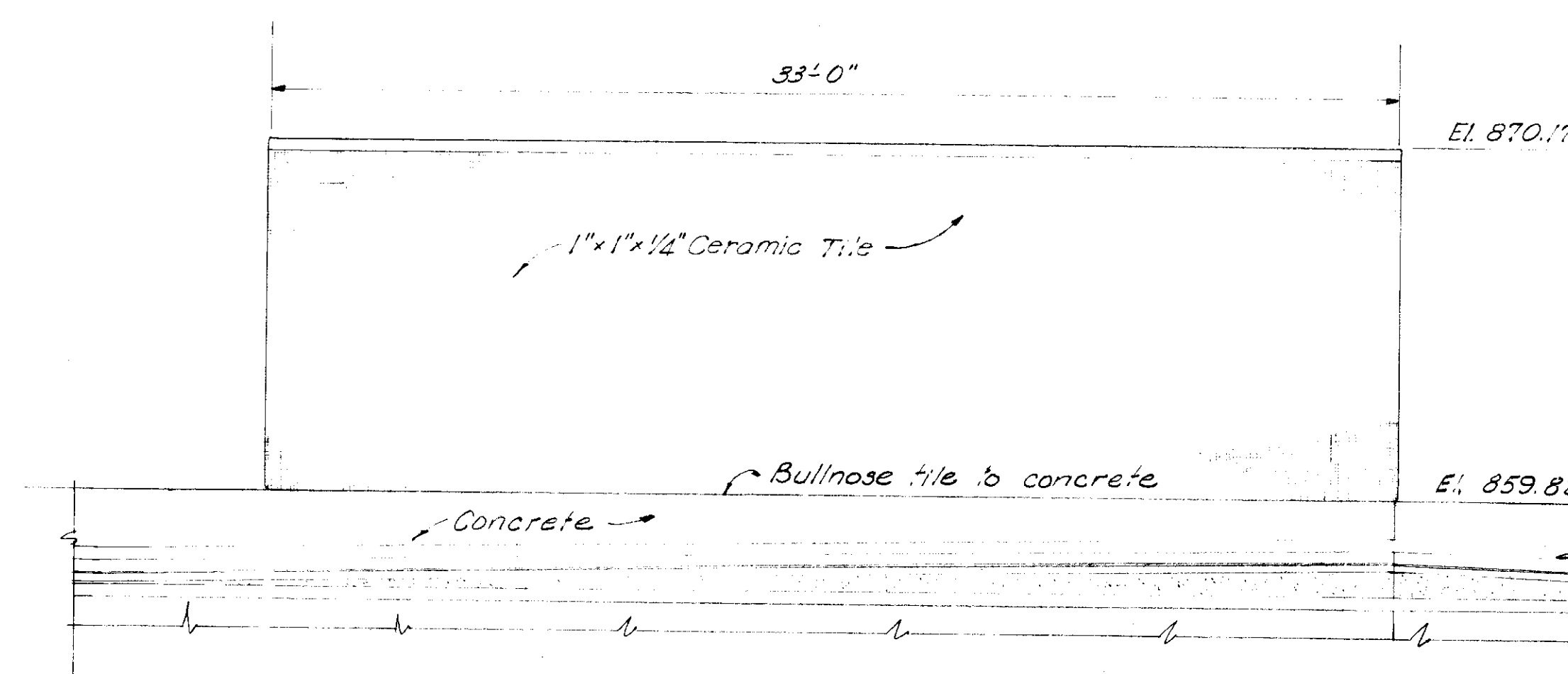
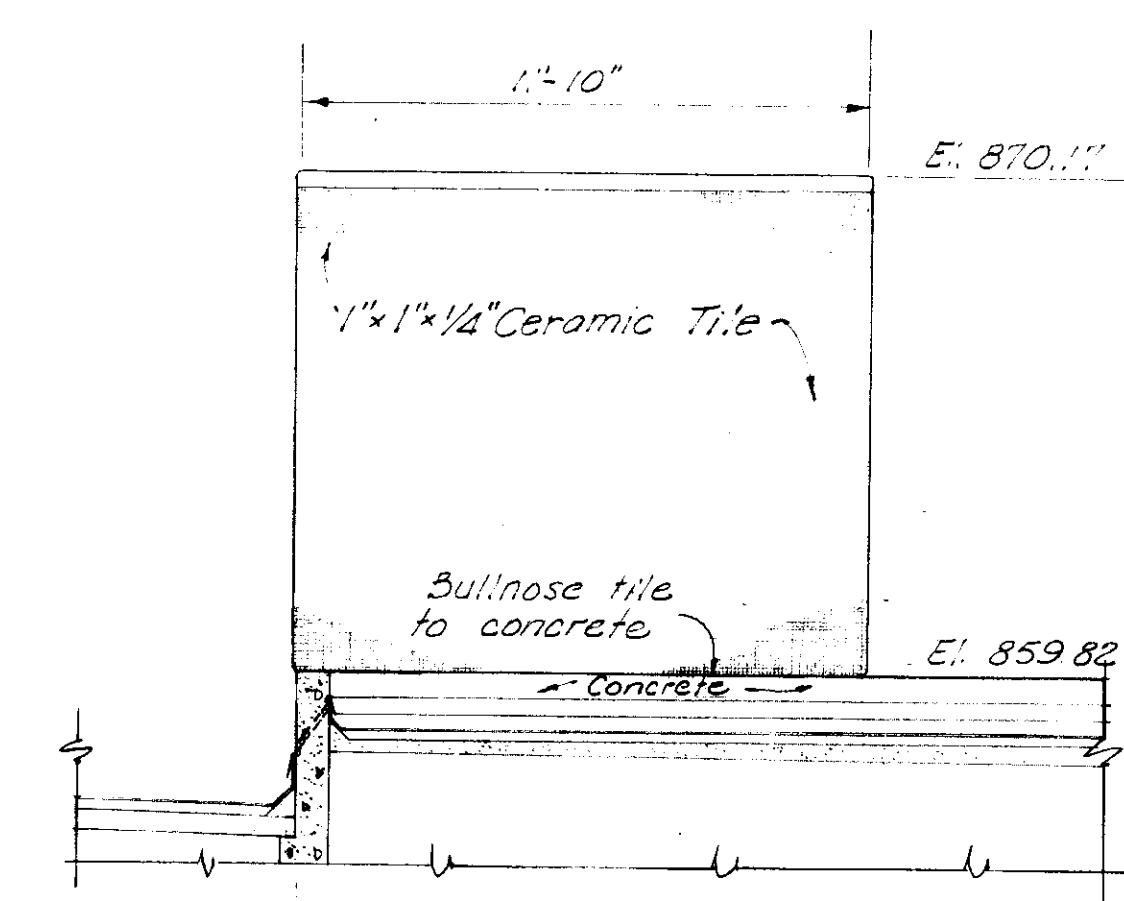
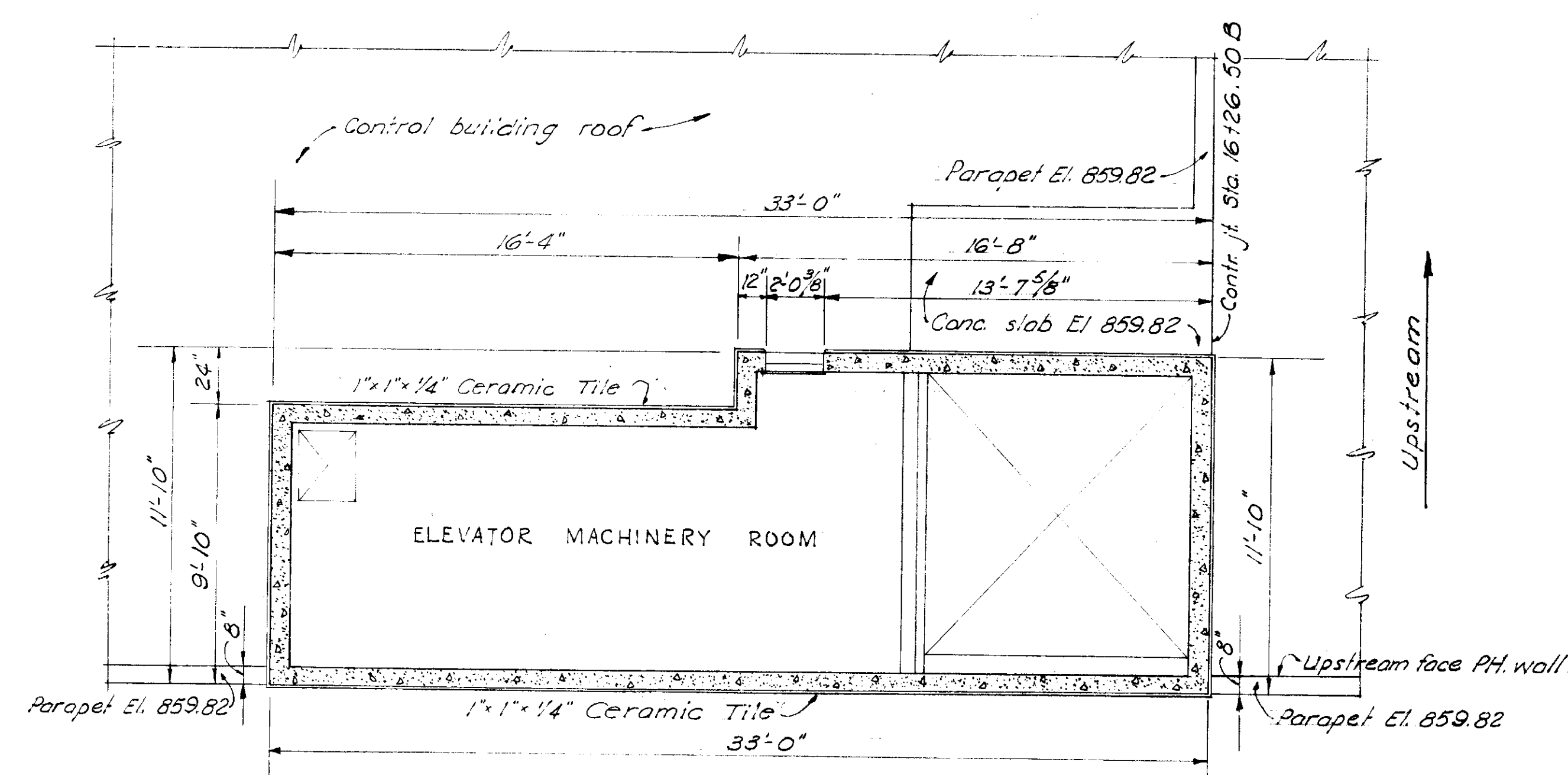
FY22 P2-488170 & P2-488173 CJDEL  
CHIEF JOSEPH DAM POWERHOUSE  
PASSENGER & FREIGHT ELEVATORS REPLACEMENT  
CHIEF JOSEPH DAM, BRIDGEPORT, WASHINGTON

SHEET ID  
PASSENGER  
ELEVATOR  
REF

Plot Date: \$DATES \$TIMES File Path: \$\$\$DGN\$\$\$\$\$

SHEET ID	TITLE
REFERENCE DRAWINGS VOLUME 2 - PASSENGER ELEVATOR	
REF 1	COVER SHEET AND DRAWING INDEX
REF 2	ELEVATOR PENTHOUSE TILE DETAILS
REF 3	POWERHOUSE PASSENGER ELEVATOR
REF 4	UCL CONTROLLERS
REF 5	STATION SERVICE
REF 6	UCL CONTROLLERS
REF 7	UCL CONTROLLERS
REF 8	UCL CONTROLLERS
REF 9	TITLE SHEET
REF 10	SYMBOLS NOTES AND ABBREVIATIONS
REF 11	POWERHOUSE ELEVATOR DEMOLITION FLOOR PLAN AND ELEVATORS
REF 12	MACHINERY ROOM DETAILS
REF 13	POWERHOUSE ELEVATOR MECHANICAL PLANS AND SECTIONS
REF 14	POWERHOUSE ELECTRICAL PLAN ELEVATOR POWER, LIGHTING AND SIGNAL
REF 15	POWERHOUSE ELECTRICAL PLAN ELEVATOR SIGNAL
REF 16	POWERHOUSE ELECTRICAL PLAN ONE LINE DIAGRAM
REF 17	POWERHOUSE PASSENGER ELEVATOR
REF 18	ELEVATOR PENTHOUSE TILE DETAILS
REF 19	PLANS EL 763 - 785
REF 20	PLAN EL 810
REF 21	PLAN EL 841
REF 22	CONTROL HOUSE ROOF EMBEDDED METAL EL 858
REF 23	PLAN EL 798
REF 24	PLANS MAIN UNIT BAYS NO 11 & 12 STA SERVICE & ASSEMBLY BAYS
REF 25	PLAN EL 827.5
REF 26	TRANSVERSE SECTION AT ASSEMBLY BAY
REF 27	POWERHOUSE PASSENGER ELEVATOR
REF 28	ONE LINE DIAGRAM

## REFERENCE DRAWING 1

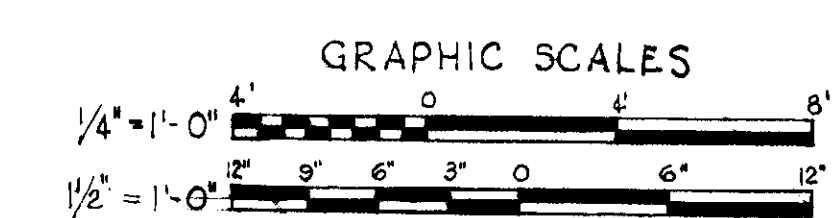
UPSTREAM ELEVATION  
Scale: 1/4" = 1'-0"EAST ELEVATION  
Scale: 1/4" = 1'-0"TYPICAL WALL  
SECTION  
Scale: 1/2" = 1'-0"DOWNSTREAM ELEVATION  
Scale: 1/4" = 1'-0"WEST ELEVATION  
Scale: 1/4" = 1'-0"PLAN EL. 860.36  
Scale: 1/4" = 1'-0"

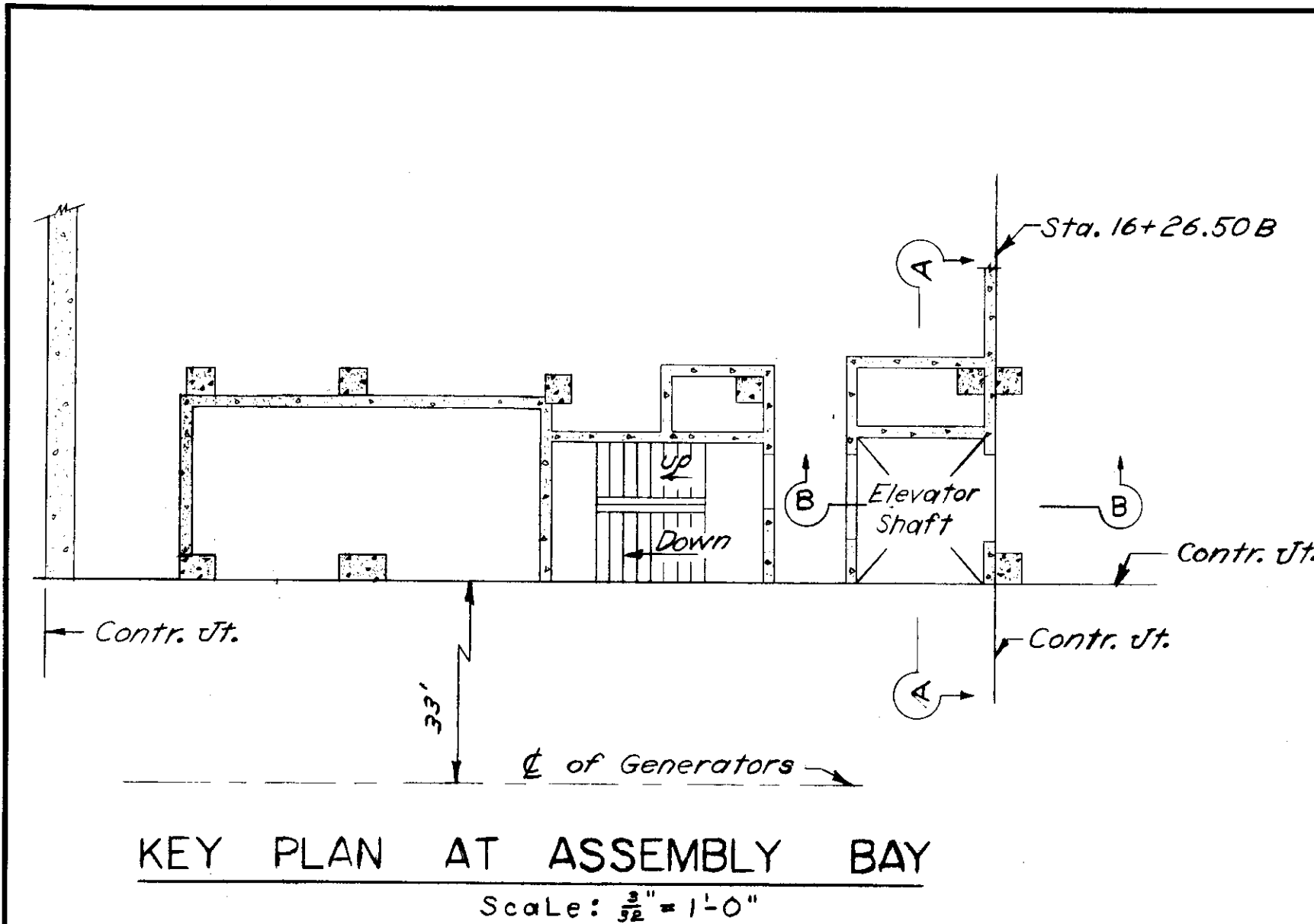
FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING  
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:  
1563-08-26

FOR "AS-BUILT" CONDITION  
DETAILS - SEE LIFT  
SKETCHES

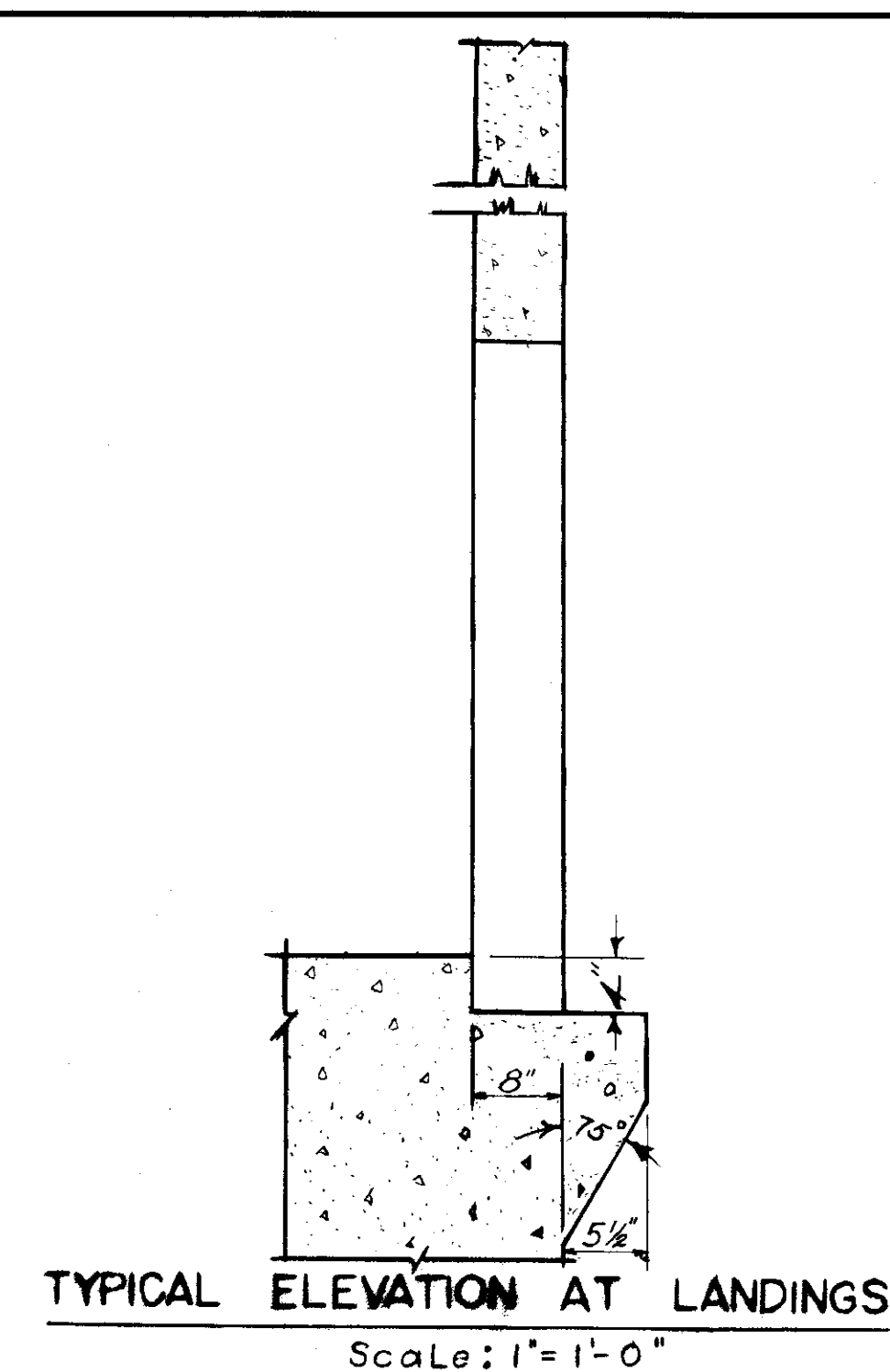
2	3-3-54	Revised tile notes	
1	8-3-53	Revised access door location	
REVISION	DATE	DESCRIPTION	BY
CORPS OF ENGINEERS, U. S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON			
DESIGNED BY M.J.A.	COLUMBIA RIVER, WASHINGTON		
DRAWN BY M.J.A.	CHIEF JOSEPH DAM POWERHOUSE		
CHECKED BY L.R.B.	ARCHITECTURAL		
PREPARED BY E.H. Green	ELEVATOR PENTHOUSE		
HEAD, STRUCTURAL SECTION	TILE DETAILS		
REVIEWED BY E.H. Green	DATE 15 May 53		
CHIEF, SAFETY BRANCH	APPROVED BY E.H. Green		
SUBMITTED BY E.H. Green	SCALE AS SHOWN		
CHIEF, HYDRO-ELECTRIC DESIGN BRANCH	SPEC. NO.		
RECOMMENDED BY E.H. Green	CJP-2-2-0/13		
CHIEF, ENGINEERING DIVISION	SHEET		

## REFERENCE DRAWING 2

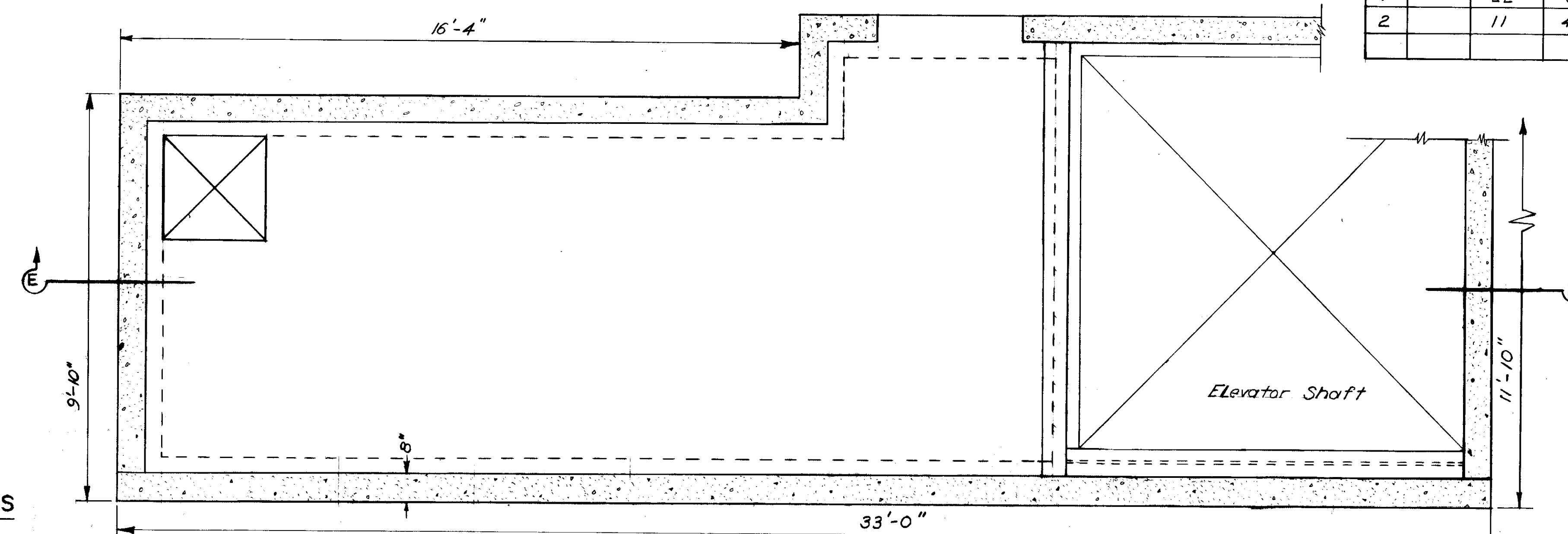




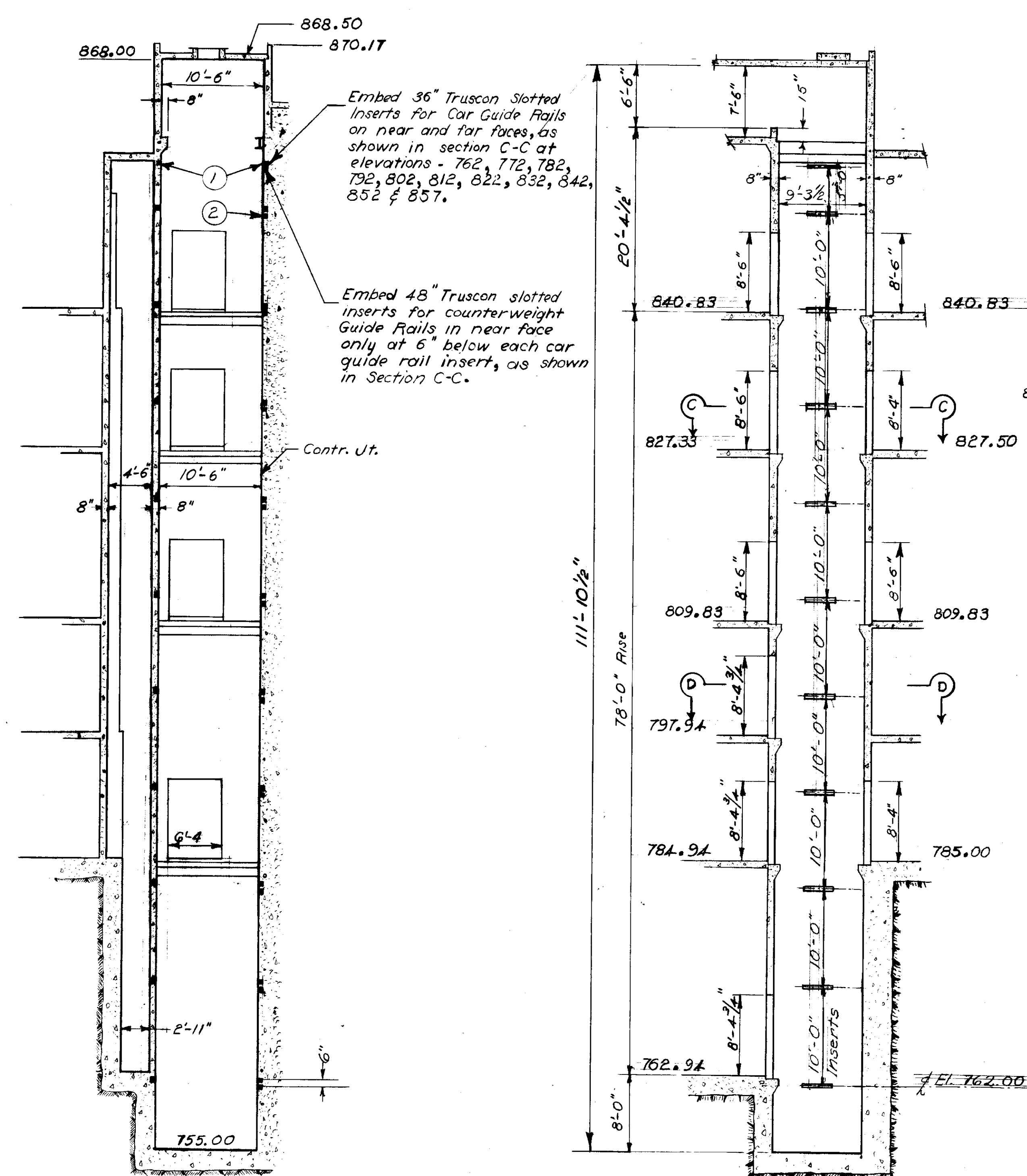
KEY PLAN AT ASSEMBLY BAY  
Scale:  $\frac{3}{16}'' = 1'-0''$



TYPICAL ELEVATION AT LANDINGS  
Scale: 1" = 1'-0"

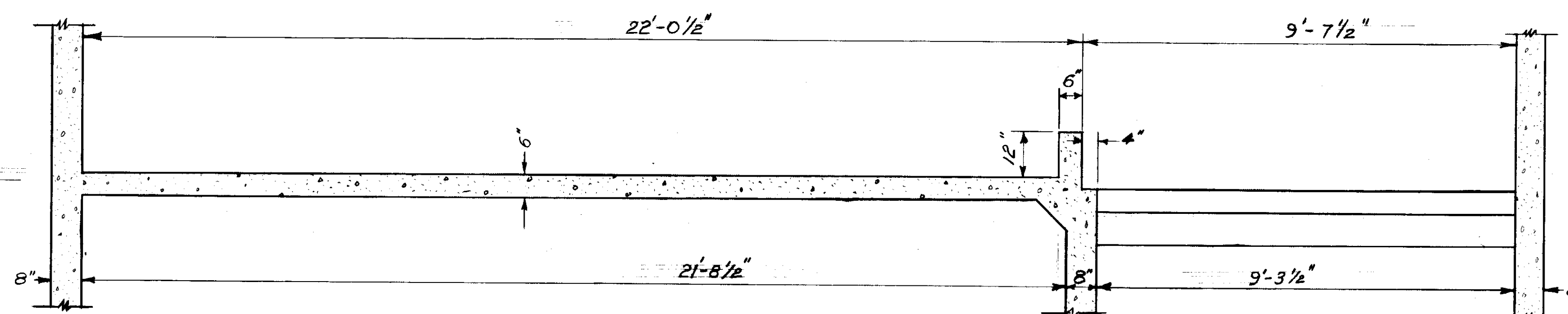


**MACHINERY FLOOR**  
Scale:  $\frac{1}{8}" = 1'-0"$

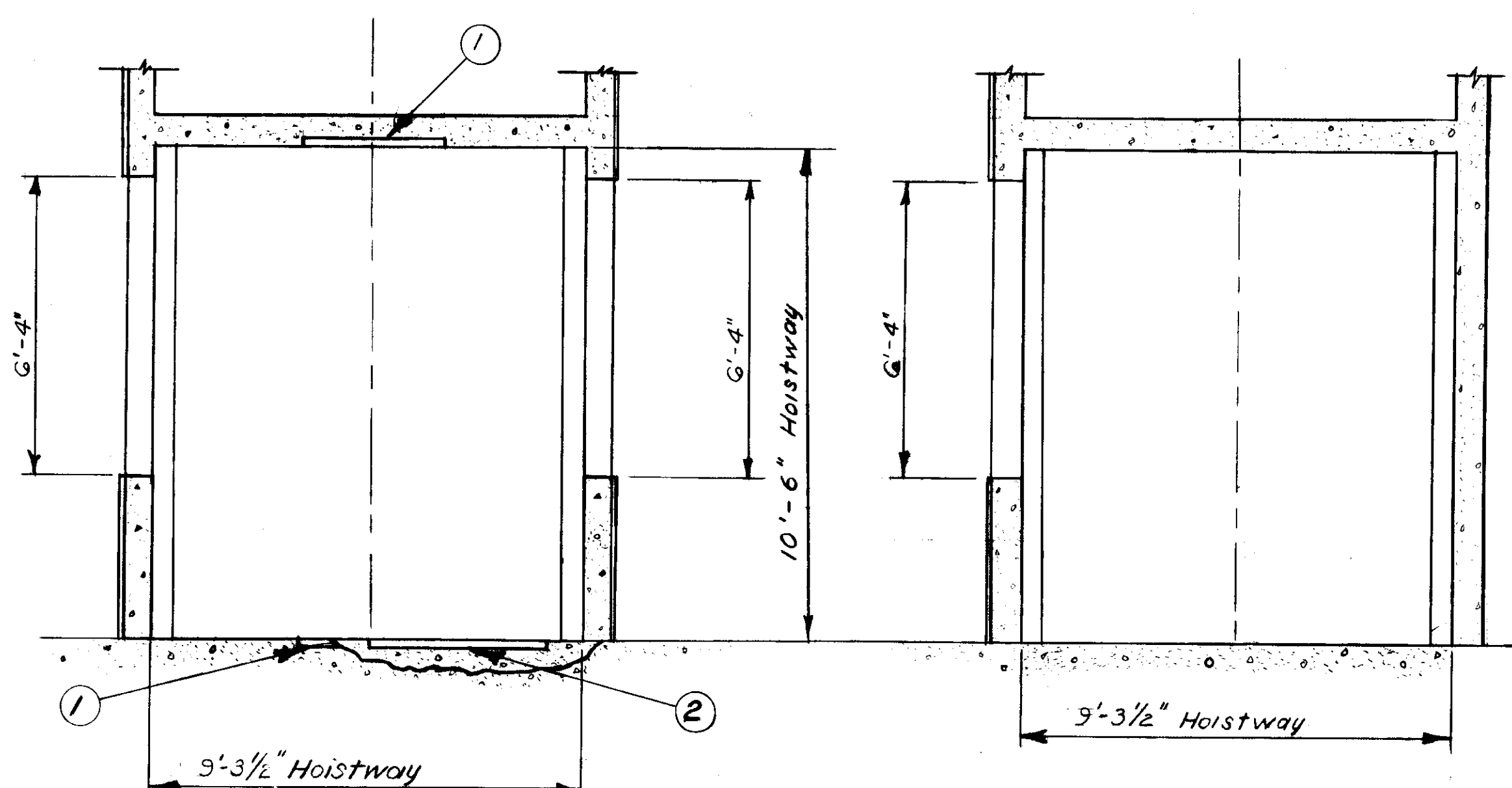


SECTION: A-A  
Scale:  $\frac{1}{8}'' = 1'-0''$

SECTION: B-B  
Scale:  $\frac{1}{8}'' = 1' - 0''$



SECTION E - E  
Scale:  $\frac{1}{2}'' = 1'-0''$



SECTION: C-C  
Scale:  $\frac{3}{8}'' = 1'-0''$

SECTION: D-D  
Scale  $\frac{3}{8}'' = 1'-0''$

Figure 1 shows five horizontal bars representing different time intervals. Each bar is divided into segments by vertical lines. Above each bar, the time interval is given in minutes and seconds, and below each bar, the corresponding numerical values are listed. The bars are labeled 1 through 5 from top to bottom.

Bar Label	Time Interval	Values
1	$\frac{3}{32} = 1'-0"$	8, 16, 24, 32
2	$\frac{1}{8} = 1'-0"$	4, 8, 12, 16, 20, 24
3	$\frac{3}{8} = 1'-0"$	1, 2, 4, 6, 8
4	$\frac{1}{2} = 1'-0"$	0
5	$1 = 1'-0"$	0

### REFERENCE DRAWING 3

LIST OF MATERIAL				
Part No.	Mat'l.	Quantity	Name of Part	Remarks
1		22	36" Truscon Slotted Inserts.	
2		11	48" Truscon Slotted Inserts.	

NOTES

Hatchway to be clear and plumb  $\pm 2"$ .

FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING  
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:  
1563-AB-3, AB-8, AB-10, CS-2, CS-3, CS-8, CS-16,  
CS-21, CS-24

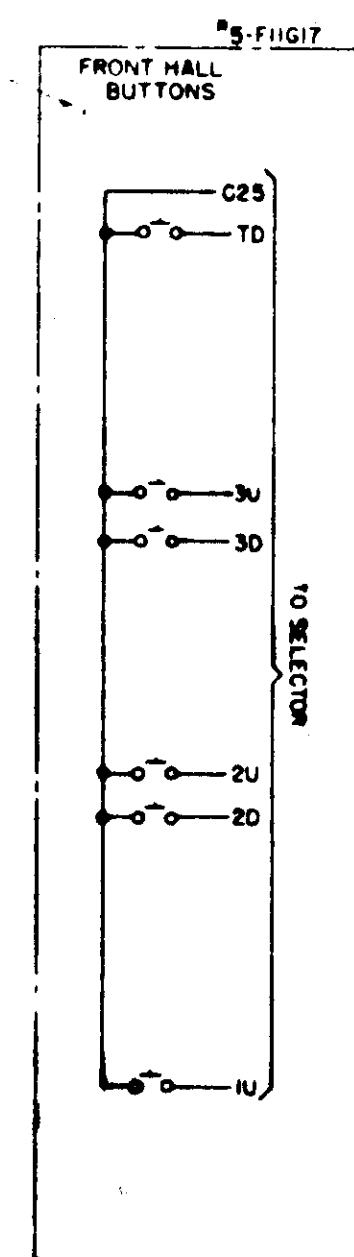
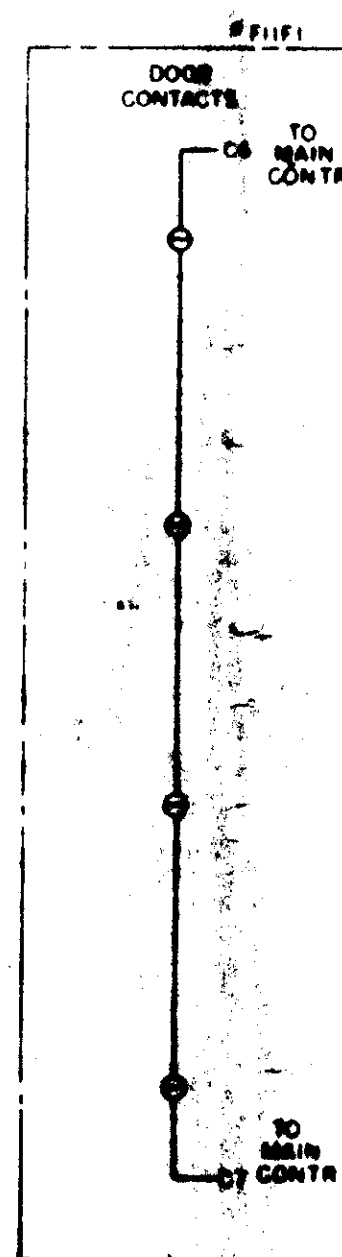
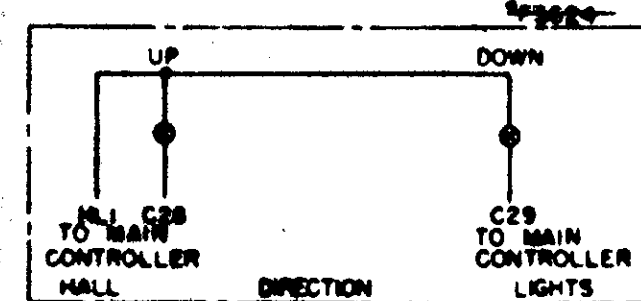
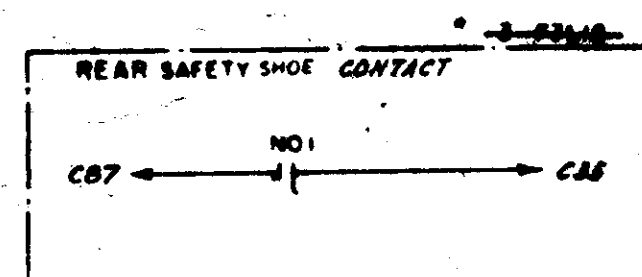
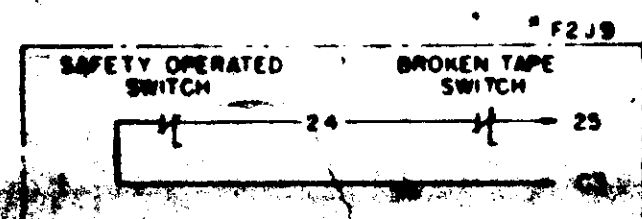
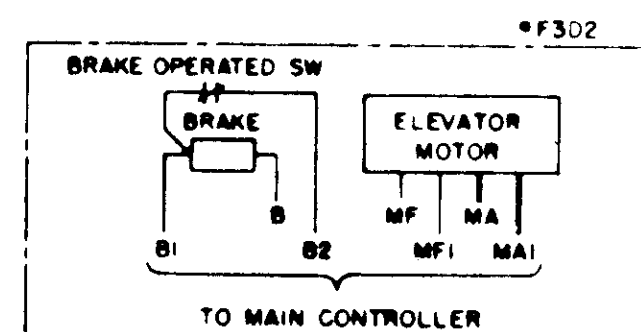
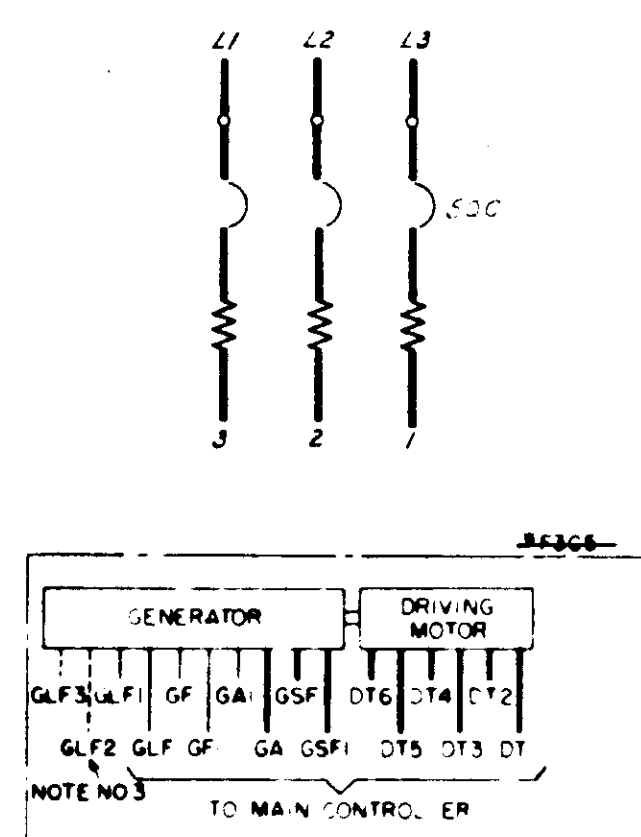
AS CONSTRUCTED  
HYDRO ELECTRIC DESIGN BRANCH, NPD

DATE JUL 25 1960 BY O. E. Swan

2 6-25-60		Made As Constructed		RE
1 2-20-53		General Revisions Per NPS.		RE
REVISION	DATE	DESCRIPTION		BY
<p align="center"><b>CORPS OF ENGINEERS, U.S. ARMY</b>  <b>NORTH PACIFIC DIVISION, PORTLAND, OREGON</b></p>				
DESIGNED BY <u>L.L.B.</u>		<p align="center">COLUMBIA RIVER, WASHINGTON  <b>CHIEF JOSEPH DAM</b>  <b>POWERHOUSE-MECHANICAL</b></p>		
DRAWN BY <u>V.B.L.</u>				
CHECKED BY <u>C.D.F.</u>				
PREPARED:				
<u>J. L. Sogomon</u> HEAD, RESEARCH SECTION		<p align="center"><b>POWERHOUSE PASSENGER ELEVATOR</b></p>		
REVIEWED <u>John W. Dalton</u> CHIEF, CIVIL ENGINEERING BRANCH		APPROVED: <u>E.C. Stohmer</u> DATE <u>3-1-61</u> COLONEL, U.S. DIVISION ENGINEER		
SUBMITTED: <u>Robert M. Smith</u> CHIEF, HYDRO-ELECTRIC DESIGN BRANCH		SCALE <u>AS SHOWN</u> SPEC. NO. _____		
RECOMMENDED: <u>F. A. Brown</u>		<p align="center"><b>CJP-2-3-5/2 AS-BL</b></p>		



## MACHINE ROOM WIRING



NOTE NO 4				*2-Frame	
MACHINE ROOM INTERCONNECTIONS					
MAIN CONTROLLER			TO SELECTOR		
HL1		C7	C15		C16
C17	C50	C25			
	C31	C32	C33		C34
C35	C36	C37	C38		C39
C40	C41	C45	C46		C47
G48		C60	C61		C70
		C88	C17		C14
C80	C62		C66		
C74					

-2- FINE

GENERAL INFORMATION

A. \* THESE NUMBERS FOR USE OF ENGINEERING DEPARTMENT ONLY

C. ADDITIONAL DOOR AND GATE CONTACTS ARE TO BE CONNECTED IN SERIES WITH THOSE SHOWN

D. ALL WIRES MARKED TWO → CONNECT TO CAR JUNCTION BOX

E. TERMINAL "H1" MUST BE CONNECTED TOGETHER ON ALL PIECES OF APPARATUS

NOTES

NOTE NO 1:

IF CAR PREFERENCE OVER BASEMENT CAR IS DESIRED, CONNECT C39 TO C59

IF NOT DESIRED OMIT C39 TO C59

NOTE NO 2: THE FOLLOWING WIRES TO BE HEAVIER THAN NO 16 WIRE B, B1, B2, GLF, GLF1, GF, GF1, MF, MF1, B, H1

NOTE NO 3: ————— 82GA MG SET  
1/5 USED TO CONNECT GLF1 TO GLF2 B  
GLF TO GLF3

NOTE NO 4: ————— SELECTOR B CONTROLLER ARE COMBINED AT THE FACTORY. ALL INTERCONNECTIONS WILL BE MADE BY THE FACTORY WIREMAN

NOTE NO 5: WHEN HOWE LANDING IS DESIRED B. AUTOMATIC OPENING OF PRINCIPAL DOOR IS REQUIRED. CONNECT C61 TO 'C' CONTACT CORRESPONDING TO LANDING SELECTED AS HOWE LANDING

CAR TRAVELING CABLE WIRES			
TO MAIN CONTR	COLOR	TO MAIN CONTR	COLOR
M/L		C85	
C1		C87	
C7		C88	
C3		C73	
C4		RDMSF	
C5		RDMSF	
C6		RDMA	
C8		RDMAI	
C9		DMSF	
C10		DMAI	
C11		DMSF	
C12		DMA	
C14			
C15			
C18			
C86			
C20			
C21			
C22			
C23		70	
C24		SELECTOR	
C28			
C29		F2	
C30			
C35		7C	
		1C	
		2C	
		3C (EFC)	
C50		RTC	
C51		R2C	
C52		R4C	
C53		R5C	
C54			
C55			
C56			
C49			
C63			
C65			
C64			
C67			
C71			
C75			
C76			
C77			
C78			
C79			
C81			
C82			
C83			
C84			

THE NUMBER OF TERMINAL STUDS REQUIRED IN THE CAR JUNCTION BOX EQUALS THE NUMBER OF CAR TRAVELING CABLE WIRES PLUS 8 (FOR CA LIGHTS, ALARM BELL, AND CAR INTERCONNECTION STUDS 25, 27, 28, 29, 30)

## REFERENCE DRAWING 4

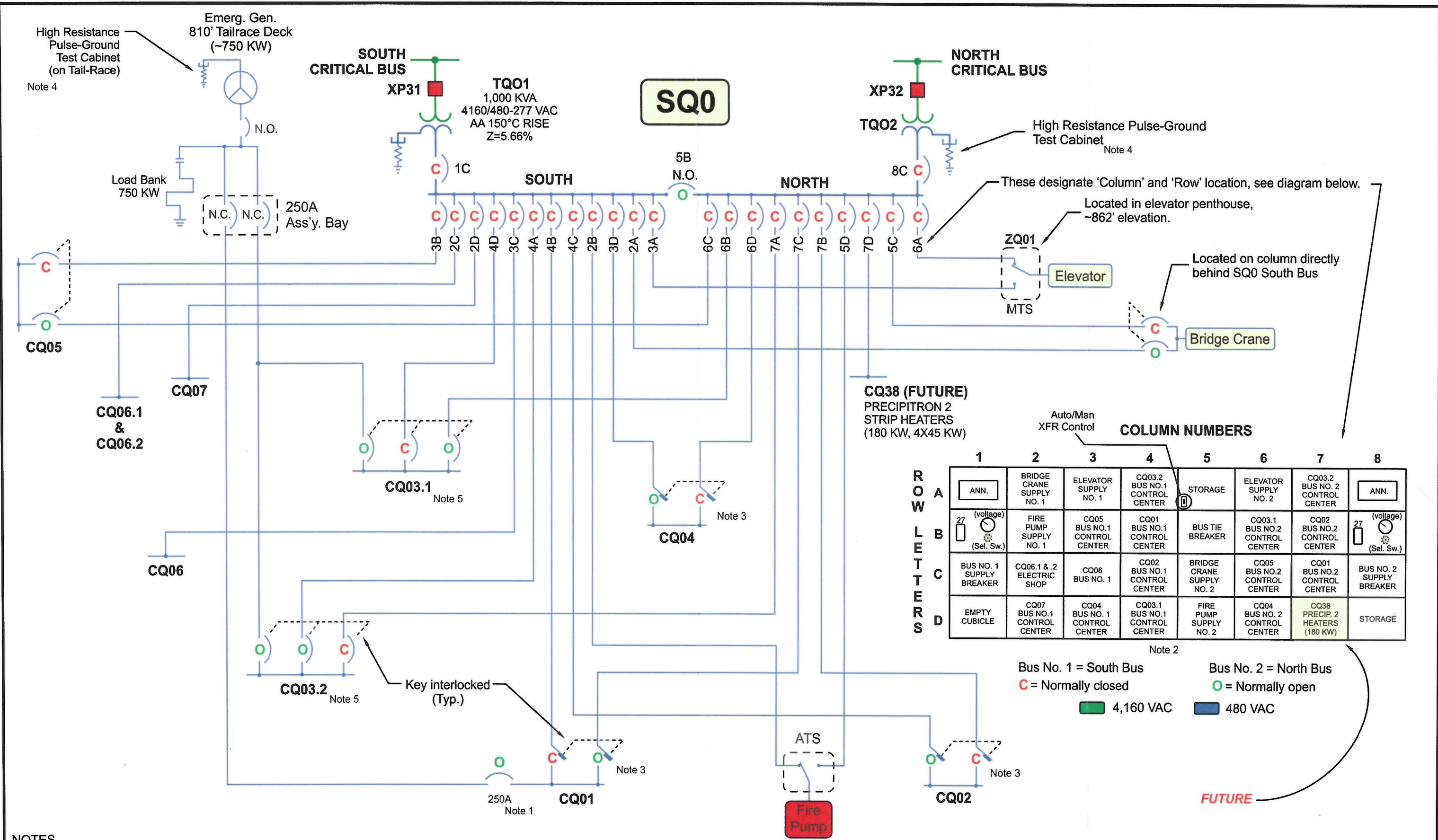
[illegible]

DIAGRAM FOR  
-21- UCL CONTROLLERS  
SIMPLEX-UNV COLLECTIVE CONTROL- 3 PHASE- 3 WIRE  
WITH RECTIFIER- WITH ATTENDANT  
WITH 2 TYPE D.C. 10" OPT. REVERSES- FRONT & REAR FULL SELECTIVE  
OTIS ELEVATOR COMPANY- NEW YORK

FIRST USED FOR 234905

DATA	DATE	NO. 29-116884-9
START A.V.W.	8-12-54	SEPT. 11, 1954
FIN. VG/LG.A.B.	8-18-54	
CHK HW/A.V.W.	8-25-54	
APP.		
AUTH.		

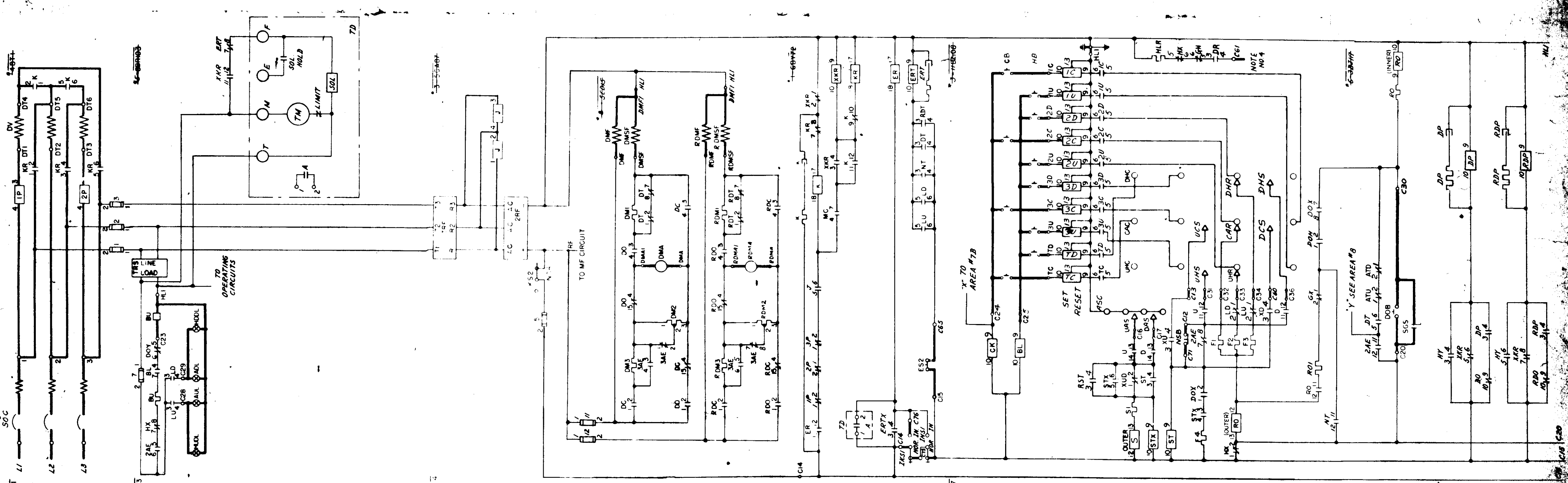
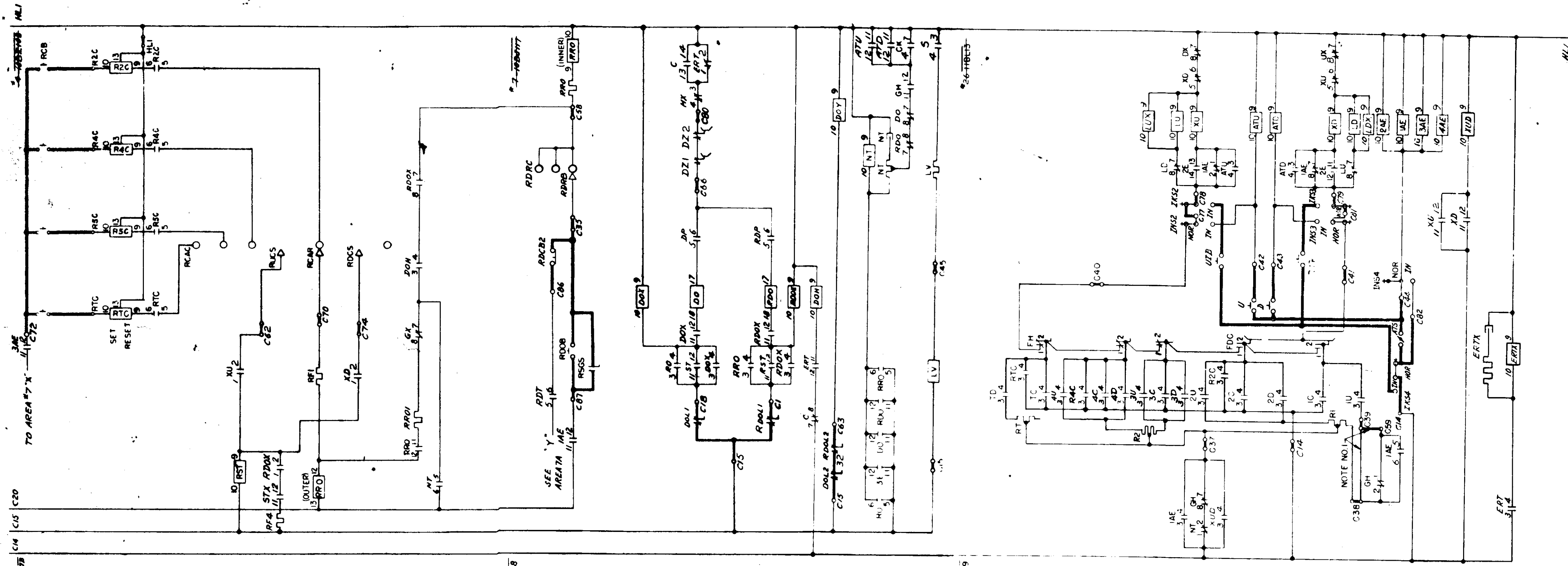




- NOTES**
- CAUTION!** This breaker is not key interlocked, isolate SQ0 South and North supplies and CQ01 loads before closing.
  - Tripping values indicated on SQ0 breakers' labels may not be actual relay setting values.
  - These are 'Non-Automatic Circuit Interrupters', essentially load-break disconnects, not breakers.
  - Instructions for use are posted inside each resistor control cabinet.
  - Breaker trip values are set at maximum.

REFERENCE DRAWING 5

**STATION SERVICE:  
SQ0 AND ASSOCIATED CQ PANELS**



# REFERENCE DRAWING 6

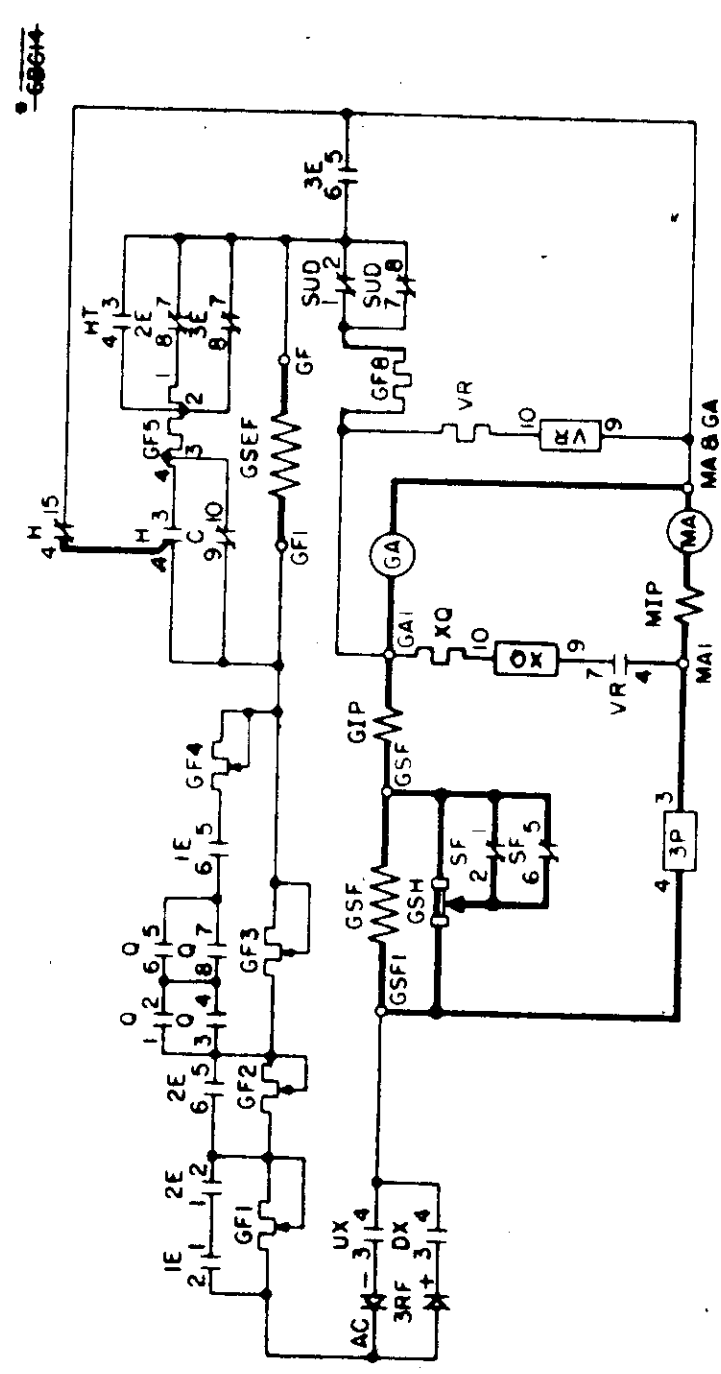
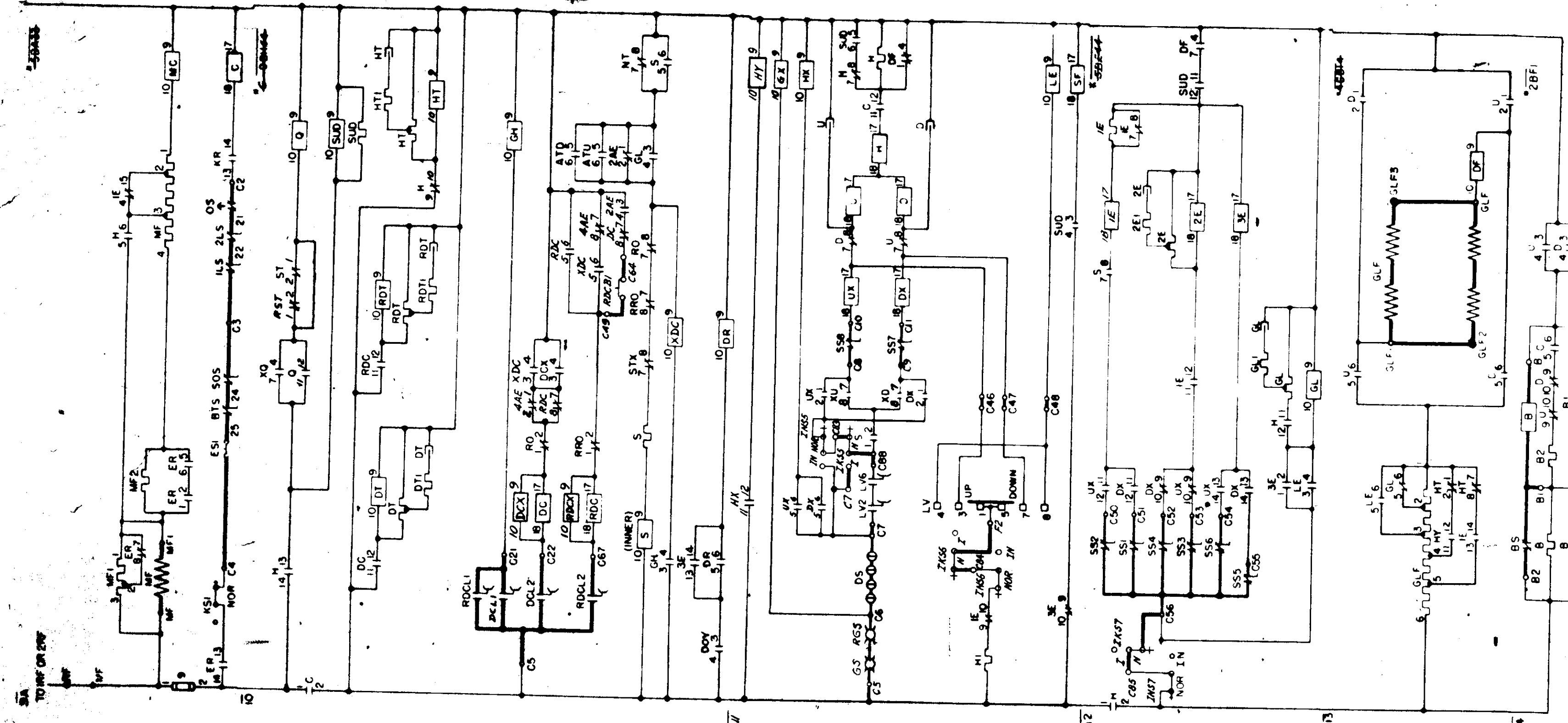
FOR FACTORY USE ONLY - AREAS CHANGED FROM DIAGRAM USED AS BASE	
STANDARD DIAGRAM	AREAS CHANGED:
NEW DIAGRAM	AREAS ADDED:
	AREAS REMOVED:
SPECIAL DIAGRAM	AREAS CHANGED:
	AREAS ADDED:
	AREAS REMOVED:

DATE	RECORD CHANGES	AUTH	DATE	REVISIONS	AUTH

DIAGRAM FOR  
 21. UCL CONTROLLERS  
 IMP. EX. U.M.V. COLLECTIVE CONTROL - 3 PHASE - 3 WIRE  
 WITH RECTIFIER - WITH ATTENDANT  
 WITH 2 D.C. "0" OPERATORS - FRONT & REAR FULL SELECTIVE  
 OTIS ELEVATOR COMPANY - NEW YORK

DATA	DATE	NO
START A.Y.W.	8-12-54	SEPT. 11, 1956
FIN. V.G./F.D. - A.B.	8-19-54	
CHK'W/A.Y.W.	8-25-54	
APP		
AUTH		



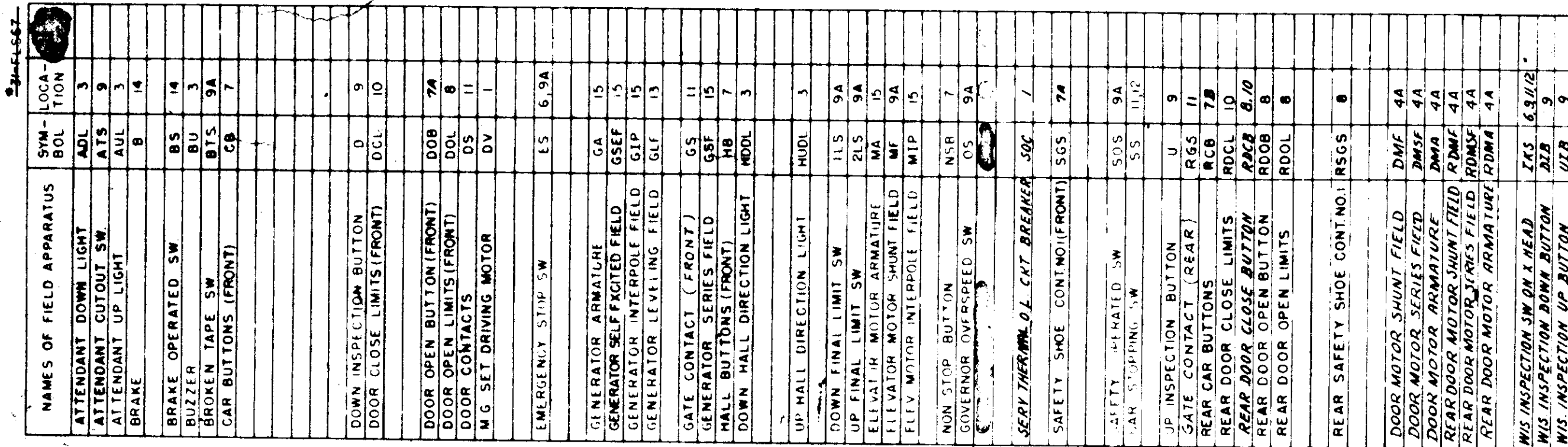


REFERENCE DRAWING 7

DATE	RECORD CHANGES	AUTH	DATE	REVISIONS	AUTH

DIAGRAM FOR -21- UCL CONTROLLERS SIMPLIFIED U.M.V. COLLECTIVE CONTROL - 3 PHASE - 3 WIRE WITH RECTIFIER WITH ATTEND WITH 2 TYPE DC OPERATORS - FRONT & REAR FULL SELECTIVE OTIS ELEVATOR COMPANY - NEW YORK		DATA START A.K.W. FIN V.G./A.B. CHK H.V./A.K.W. APP AUTH	DATE 8-12-54 8-18-54 8-25-54	NO. 201-CIS6834A SEPT. 11, 1954 136 3 SHEETS SHEET NO. 2
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\*NG2

GENERAL INFORMATION

A - THESE NUMBERS FOR USE OF ENGINEERING DEPARTMENT ONLY

B - SYMBOL SHOWN THIS SIDE OF THE PLATE IN TABLES INDICATES THAT CONTACT IS FURNISHED ON SWITCH. THE NUMBER SHOWN IN SYMBOL INDICATES THE NUMBER OF CONTACTS. THE NUMBER SHOWN IN THE LEFT HAND CORNER OF EACH AREA INDICATES THE NUMBER OF CONTACTS WHICH ARE PLACED IN THE CENTER OF THE DIAGRAM TO THE OUTSIDE

C - ALL VARIABLE ITEMS ARE SHOWN DOTTED

D - THE CDD NUMBER OR SYMBOL INDICATES THE FOLLOWING FROM THE FRONT OF CONTROLLER

(1) THE STATIONARY PART OF A MAIN CONTACT OR THE PART NEAREST THE CONTROLLER PANEL OF AN AUXILIARY CONTACT ON A MAGNET SWITCH

(2) THE TOP PART OF A FUSE IF IT IS MOUNTED VERTICALLY

(3) THE LEFT HAND SIDE OF A MAGNET COIL OR FUSE, IF THE FUSE IS MOUNTED HORIZONTALLY

E - CONNECT ADDITIONAL DOOR GATE CONTACTS IN SERIES WITH THOSE SHOWN

F - CONNECT TERMINAL "H/L" TOGETHER ON ALL PIECES OF APPARATUS

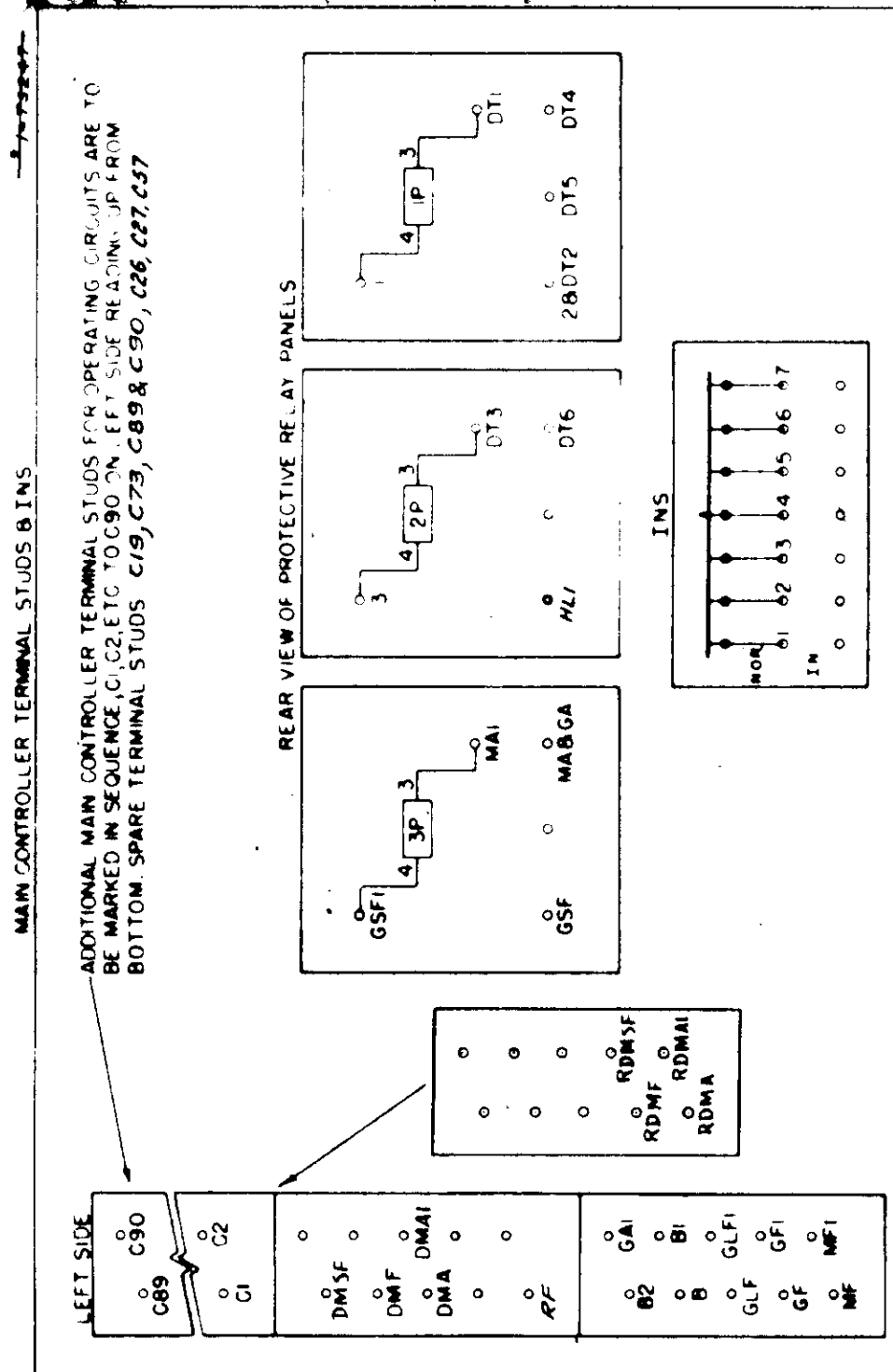
NOTE NO. 1—

NOTES

IF CAR PREFERENCE OVER BASEMENT CALLS IS DESIRED, CONNECT C39 TO C59  
AND OMIT CONNECTION BETWEEN C38 & C39.

NOTE NO. 3— WHEN SELECTOR AND CONTROLLER ARE COMBINED AT THE FACTORY ALL INTERCONNECTIONS WILL  
BE MADE BY THE FACTORY WIREMAN

NOTE NO. 4 — WHEN HOME LANDING IS DESIRED & AUTOMATIC OPENING OF PRINCIPAL DOOR IS REQUIRED, CONNECT C61 TO  
C40 CONTACT CORRESPONDING TO LANDING SELECTED AS HOME LANDING.



Powerhouse  
2384

FIRST USED FOR 234905  
201 - C1SG834A  
3 SHEETS  
SHEET NO. 3  
SEPT. 11, 1956 A.I.C.  
CHECK'D BY HW./A.V.W. 8-25-54

# POWERHOUSE AND INTAKE ELEVATOR MODERNIZATION

## CHIEF JOSEPH DAM, WASHINGTON

### SHEET INDEX

SHEET	PLATE	DESCRIPTION
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#### GENERAL

1	G0.1	TITLE SHEET
2	G0.2	SYMBOLS, NOTES AND ABBREVIATIONS

#### ARCHITECTURAL

3	A1.1	POWERHOUSE ELEVATOR DEMOLITION, FLOOR PLAN, AND ELEVATIONS
4	A2.1	INTAKE ELEVATOR DEMOLITION, FLOOR PLAN AND ELEVATIONS
5	A3.1	MACHINERY ROOM DETAILS

#### MECHANICAL

6	M1.1	POWERHOUSE ELEVATOR MECHANICAL PLANS AND SECTIONS
7	M2.1	INTAKE ELEVATOR MECHANICAL PLANS AND SECTIONS

#### ELECTRICAL

8	E1.1	POWERHOUSE ELECTRICAL PLAN - ELEVATOR POWER, LIGHTING AND SIGNAL
9	E1.2	POWERHOUSE ELECTRICAL PLAN - ELEVATOR POWER AND SIGNAL
10	E1.3	POWERHOUSE ELECTRICAL PLAN - ONE-LINE DIAGRAM CQ04
11	E2.1	INTAKE ELECTRICAL PLAN - MECHANICAL ROOM PLAN AND LIGHTING
12	E2.2	INTAKE ELECTRICAL PLAN - ELEVATOR SIGNAL
13	E2.3	INTAKE ELECTRICAL PLAN - SCHEDULES

#### POWERHOUSE ELEVATOR REFERENCE DRAWINGS

R1	POWERHOUSE PASSENGER ELEVATOR (SECTION)
R2	ELEVATOR PENTHOUSE TILE DETAILS
R3	PLANS EL. 763 AND EL. 785
R4	PLAN EL. 810
R5	PLAN EL. 841
R6	CONTROL HOUSE ROOF EMBEDDED METAL , EL. 858.00
R7	PLAN EL 798
R8	EMBEDDED PIPING CONNECTING GALLERY PLANS, SECTIONS AND DETAILS
R9	EMBEDDED PIPING PLANS-MAIN UNIT BAYS NO.11 AND 12 STA. SERVICE AND ASSEMBLY BAYS(EL. 767)
R10	PLAN EL 827.5
R11	EMBEDDED PIPING TRANSVERSE SECTION AT ASSEMBLY BAY
R12	POWERHOUSE PASSENGER ELEVATOR (SECTION)
R13	HVAC RENOVATION PHASE 2 ONE-LINE DIAGRAM CQ04

#### INTAKE ELEVATOR REFERENCE DRAWINGS

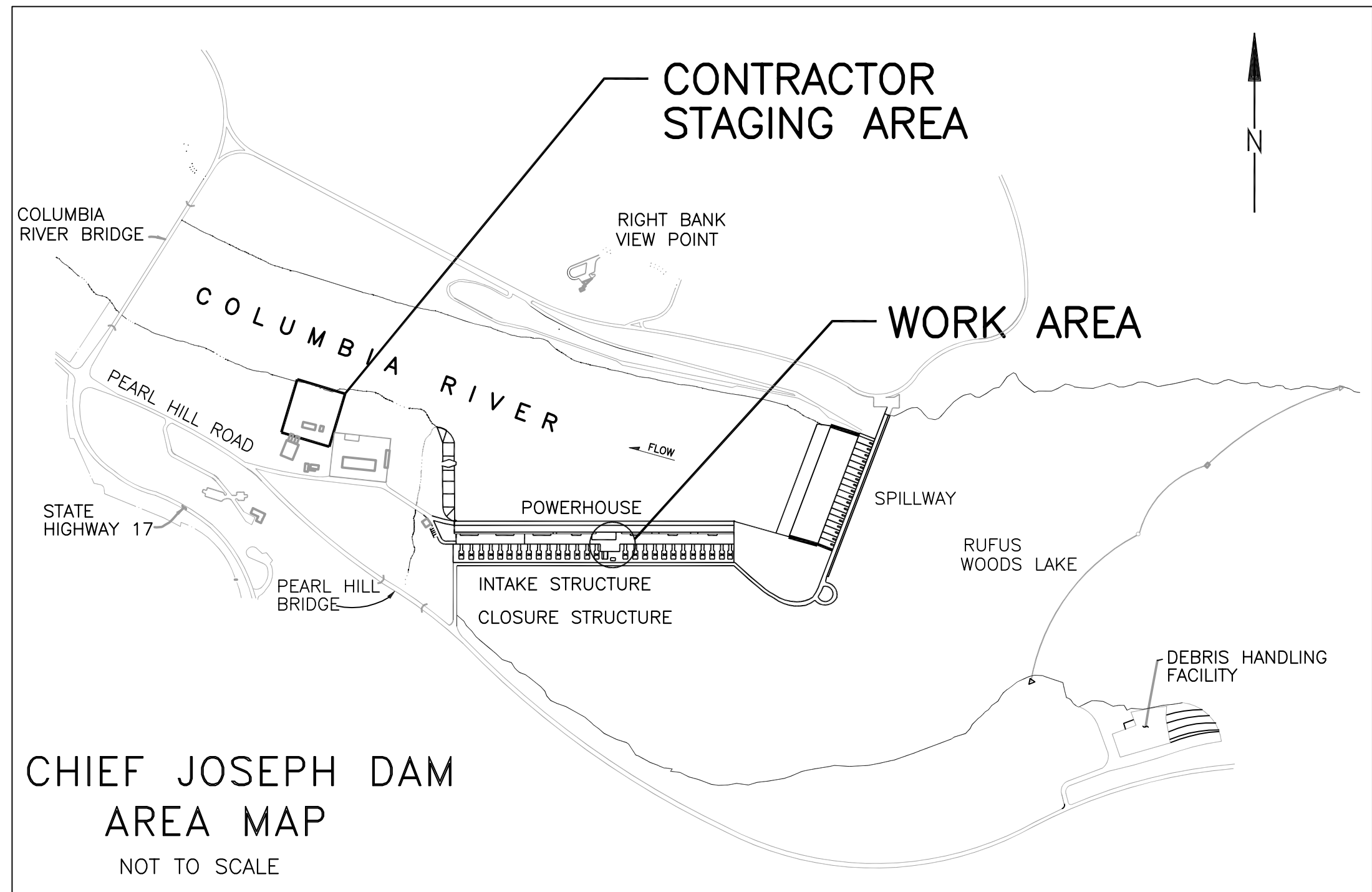
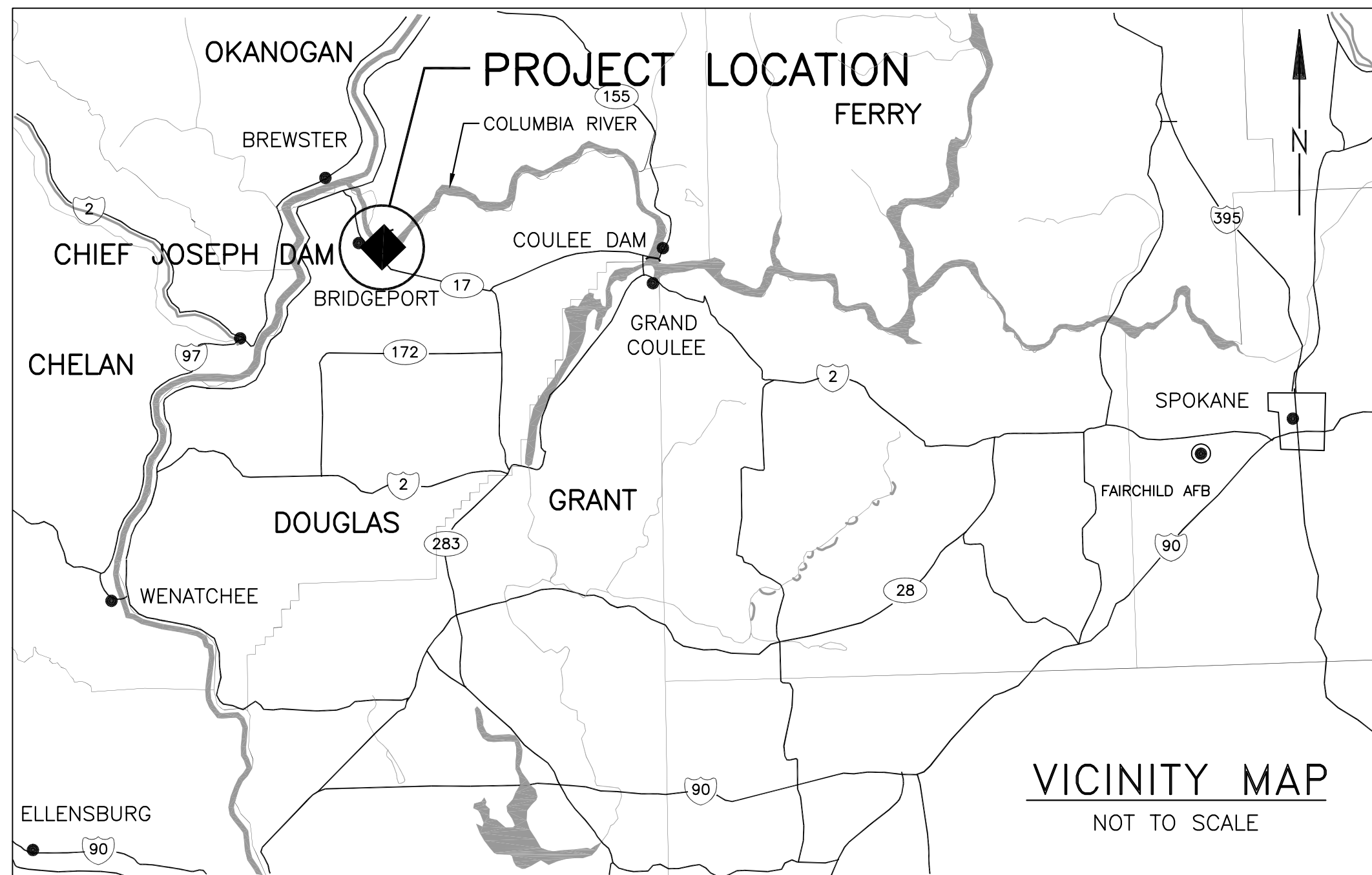
R14	INTAKE STRUCTURE PASSENGER ELEVATOR (SECTION)
R15	EXPOSED RACEWAYS MONOLITHS S1, S2, I3 (PLANS EL 948 & EL 910)
R16	ONE-LINE DIAGRAM, INTAKE STRUCTURE (SQ-1)
R17	INTAKE STRUCTURE PASSENGER ELEVATOR (SECTION)
R18	MONO S-1, STAIR & ELEVATOR TOWER (NEW TOWER)
R19	MONO S-1, STAIR & ELEVATOR TOWER, SHEET 2

### CONSULTING ENGINEERS:

HNTB CORPORATION  
BELLEVUE, WASHINGTON

### ELEVATOR CONSULTANT:

LERCH-BATES NORTH AMERICA, INC.  
SNOHOMISH, WASHINGTON



IF SHEET MEASURES LESS THAN 28" x 40" IT IS  
A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

PREPARED: JOSEPH W. RENN, P.E. PRINCIPAL OF FIRM	<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS	U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON
SUBMITTED: WILLIAM B. GARROTT PROJECT MANAGER	POWERHOUSE AND INTAKE ELEVATOR MODERNIZATION TITLE SHEET	
REVIEWED: DEAN M. SCHMIDT CHIEF, TECH. ENG. & REVIEW SECTION		
RECOMMENDED: MARK A. OHLSTROM, P.E. CHIEF, DESIGN BRANCH		
APPROVED: RICK L. MOSHIER, P.E. CHIEF, ENG. & CONST. DIVISION		
SIZE: F	INVTATION NO. CJP-1.38-0-0/0	DATE: 02JUL02
SSGN, JWR	CHK: JWR	PLATE: G0.1
SHEET 1		OF 13

REFERENCE DRAWING 9



ABBREVIATIONS:

A	AMMETER, AMPERE, AUTOMATIC
ACT	ACOUSTIC CEILING TILE
AFF	ABOVE FINISHED FLOOR
AFFF	AQUEOUS FILM-FOAMING FOAM
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
AMB	AMBIENT
AMP	AMPERE
APPROX.	APPROXIMATE
AWG	AMERICAN WIRE GUAGE
BKR	BREAKER
BLD,BLDG	BUILDING
C	CONDUIT
CD	CEILING DIFFUSER, CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CKT	CIRCUIT
CL	CENTERLINE
CLG.	CEILING
CLR.	CLEAR
CONC.	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTROL
CTR.	CENTER
CU	COPPER
DEG	DEGREE
DIA	DIAMETER
DWG	DRAWING
E	EAST
EA.	EACH
EAT	ENTERING AIR TEMPERATURE
EGC	EQUIPMENT GROUNDING CONDUCTOR
EL.	ELEVATION
ELECT, ELEC	ELECTRICAL
ELEV	ELEVATION, ELEVATOR
EOL	END OF LINE DEVICE
EQ.	EQUAL
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
EXIST, (E)	EXISTING
EXT.	EXTERIOR
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FDB	FAHRENHEIT DEGREES, DRY BULB
FDR	FEEDER
FIN.	FINISH
FLA	FULL LOAD AMPERES
FLEX	FLEXIBLE
FLR	FLOOR
FLUOR	FLUORESCENT
FR	FIRE RATED
FT	FEET, FOOT
FVNR	FULL VOLTAGE NON - REVERSING
FWB	FAHRENHEIT DEGREES, WET BULB
GA	GAGE
GFI	GROUND FAULT CIRCUIT INTERRUPTER
G, GND	GROUND
GRS	GALVANIZED RIGID STEEL
GWB	GYPSTUM BOARD
HGT.	HEIGHT
HORIZ.	HORIZONTAL
HP	HORSEPOWER
HR.	HOUR
HTR	HEATER
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
IE	INVERT ELEVATION
IN.	INCHES
INT.	INTERIOR
JB	JUNCTION BOX
JT.	JOINT
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT - AMPERE
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LTG	LIGHTING
M	MOTOR
MAINT	MAINTENANCE
MAX	MAXIMUM
MBH	THOUSAND BRITISH THERMAL UNITS
MCA	MAXIMUM CURRENT AMPS
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MIN	MINIMUM
MLO	MAIN LUGS ONLY
(N)	NEW
N	NEUTRAL, NORTH
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

N.I.C.	NOT IN CONTRACT
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO or #	NUMBER
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
O.C.	ON CENTER
OPNG.	OPENING
OPP.	OPPOSITE
P	POLE, PUMP
PD	PRESSURE DROP
PH, ø	PHASE
PNL	PANEL
POC	POINT OF CONNECTION
PR	PAIR
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	PAINT
RA	RETURN AIR
RAD	RADIUS
RAHU	ROOF TOP AIR HANDLING UNIT
RECEPT	RECEPTACLE
RG	RETURN GRILLE
RM	ROOM
R.O.	ROUGH OPENING
S	SOUTH
SCH	SCHEDULE
SCI	SHORT CIRCUIT CURRENT
SEER	SEASONAL ENERGY EFFICIENCY RATIO
S.F.	SQUARE FEET
SIM.	SIMILAR
SPEC	SPECIFICATION
ST	SHUNT TRIP
SW	SWITCH
SWBD	SWITCH BOARD
SYM	SYMMETRICAL
TEL.	TELEPHONE
TYP	TYPICAL
TX	TRANSFORMER
U.B.C.	UNIFORM BUILDING CODE
UNO	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
V	VOLT
VA	VOLT - AMPERE
WC	WATER COLUMN
W	WEST
W/	WITH
WP	WEATHERPROOF

GENERAL BUILDING NOTES:

- THE WORK UNDER THIS CONTRACT IS SPECIFIC TO THE UPGRADE OF THE EXISTING ELEVATOR AND ELEVATOR EQUIPMENT AS INDICATED. THE WORK DOES NOT INCLUDE CODE UPGRADES TO EXISTING ELEVATOR SHAFT, STAIR, AND STRUCTURE.
- CONTRACTOR AND SUBCONTRACTORS SHALL REFER TO ALL DRAWINGS AND SPECIFICATIONS FOR FULL EXTENT OF WORK.

LINE LEGEND

————	NEW WORK
————	EXISTING
	EXISTING DEMO
-----	NEW WORK BEHIND

DRAWING SYMBOL LEGEND

	DRAWING NUMBER	DRAWING NAME	DRAWING TITLE
SCALE: 1/8"=1'-0"			
	DRAWING NUMBER	DRAWING NAME	REFERENCED DRAWING TITLE
SCALE: 1/8"=1'-0"			
	SECTION NUMBER	AS NEEDED	SECTIONS
	DETAIL NUMBER	SHEET ON WHICH DETAIL IS SHOWN	DETAIL SECTION
	DETAIL NUMBER	AS NEEDED	ENLARGED DETAIL
	ELEVATION NUMBER	SHEET ON WHICH DETAIL IS SHOWN	ELEVATION
	SHEET ON WHICH DRAWING IS SHOWN	SHEET(S) FROM WHICH DRAWING IS REFERENCED	VERTICAL ELEVATION
	ROOM NAME	ROOM NUMBER	ROOM IDENTIFICATION
	WALL TYPE		
	ROOM NUMBER	DOOR NUMBER	DOOR NUMBER
ELECTRICAL PLAN SYMBOLS			
	DUPLEX RECEPTACLE, + 12" A.F.F., UNO.		
GFI = GROUND FAULT CIRCUIT INTERRUPTER WP = WEATHER PROOF			
	SINGLE POLE SWITCH, WALL MOUNTED, +42"		
α = SWITCH CONTROLS "α" DESIGNATED FIXTURES M = MANUAL MOTOR STARTER WP = WEATHER PROOF 3 = THREE WAY			
	JUNCTION BOX.		
	LARGE JUNCTION BOX.		
	EQUIPMENT CONNECTION.		
	208/120V PANELBOARD		
	TRANSFORMER		
	UNFUSED DISCONNECT, 30A, UNO.		
WP = WEATHER PROOF			
	MOTOR, VOLTAGE AND H.P. AS NOTED		
	EQUIPMENT GROUNDING CONNECTION.		
	GROUNDING CONDUCTOR.		
	IN BUILDINGS CIRCUITS SHALL HAVE 2#12 WIRES PLUS 1#12GND IN 3/4" CONDUIT, UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL BE GRS.		
	CONDUIT EXPOSED, ALL CONDUIT SHALL BE GRS.		
	CONDUIT: CAPPED, TURNING DOWN, TURNING UP, STUBBED UP, 6" AFF.		
	FLEXIBLE CONDUIT.		
	1x4 2-32W T8 TURRET INDUSTRIAL FLUORESCENT		
	1x4 TURRET INDUSTRIAL FLUORESCENT W/ EMERGENCY BATTERY		
	2x2 2-U31W T8 TROFFER		

ELECTRICAL PLAN SYMBOLS — CON'T.

	2x2 RECESSED FLUORESCENT		INCANDESCENT FIXTURE		DUCT DETECTOR W/ AUX CONTACTS
	SMOKE DETECTOR		FACP		
	EXISTING EQUIPMENT		END OF LINE DEVICE		

ELECTRICAL ONE-LINE SYMBOLS

	TRANSFORMER
	MOLDED CASE CIRCUIT BREAKER (AMPS) 3 POLE UNO.
	EXISTING EQUIPMENT

ELECTRICAL IDENTIFIERS

	NEUTRAL CONDUCTORS
	HOT CONDUCTORS
	GROUND CONDUCTOR
	HOMERUN CONDUIT. #12 WIRE UNO
	HOMERUN CALLOUT INDICATING CIRCUIT NUMBERS
	LIGHT FIXTURE DESIGNATION, TYPE F1

MECHANICAL SYMBOLS

	DRAIN PIPE
	RISER DOWN (ELBOW)
	RISER UP (ELBOW)
	UNION
	SPACE TEMPERATURE SENSOR
	TRANSITION (RECTANGULAR TO ROUND)
	DUCT SIZE, FIRST FIGURE IS SIDE SHOWN FIGURES INDICATE NET INSIDE DIMENSION
	MANUAL VOLUME DAMPER
	MOTORIZED DAMPER
	RETURN GRILLE SIDEWALL
	SUPPLY REGISTER SIDEWALL

MECHANICAL SYMBOLS — CON'T.

	TURNING VANES IN ELBOW
	FLEXIBLE CONNECTION
	RECTANGULAR DUCTWORK
	ROUND DUCTWORK
	RISE OR DROP IN DUCTWORK (SUPPLY)
	RISE OR DROP IN DUCTWORK (RETURN)
	RISE OR DROP IN DUCTWORK (EXHAUST)
	MECHANICAL EQUIPMENT IDENTIFIER
	GRILLE AND DIFFUSER IDENTIFICATION TAG
CFM OR X FOR NOT MEASURED NECK SIZE (IN) OR S = SAME AS FACE SIZE OR TF = TO FIT "I" BAR FACE SIZE (IN) OR (12 X 24) = EQUIPMENT NUMBER CD = CEILING DIFFUSER RG = RETURN GRILLE SG = SIDEWALL GRILLE	

CLIMATIC ZONE SCHEDULE — DESIGN CONDITION

ROOM DESIGNATION	WINTER INDOOR DESIGN TEMPERATURE & SET POINT °F	SUMMER INDOOR DESIGN TEMPERATURE °F	COOLING CONTROL SET POINT	HUMIDIFICATION SET POINT	DEHUMIDIFICATION SET POINT	NOISE CRITERIA NC
ELEVATOR MECH	65	78	75	NONE	NONE	NONE

\*NOTE: SURFACES WILL BE 7' TO 8' WARMER

CLIMATIC ZONE SCHEDULE — DESIGN CONDITION FROM HISTORICAL DATA

WINTER DESIGN TEMP HEATING DB 97.5%	SUMMER DESIGN TEMP. COOLING DB/MWB 2.5%		ELEVATION	
8° F	DRY BULB	WET BULB	POWERHOUSE INTAKE	900 FT.
	99° F	66° F APPROX.		1000 FT.

GENERAL HVAC NOTES:

- CONTRACTOR TO COORDINATE EXACT SIZE & LOCATION OF DUCT PENETRATIONS WITH PARTITIONS AND OTHER INTERFERENCES. LOCATIONS OF PENETRATIONS WILL REQUIRE FIELD VERIFICATION.
- SUPPORT & FABRICATE DUCT PER LATEST SMACNA GUIDELINES. DUCT LAYOUT SHOWN IS DIAGRAMMATIC AND CONTRACTOR TO COORDINATE INTERFERENCE WITH OTHER BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO LIGHTING, STRUCTURE, AND FIRE PROTECTION SYSTEMS.
- CONTRACTOR SHALL REFER TO ELECTRICAL DRAWINGS FOR HAZARDOUS LOCATIONS AND WIRING REQUIREMENTS.

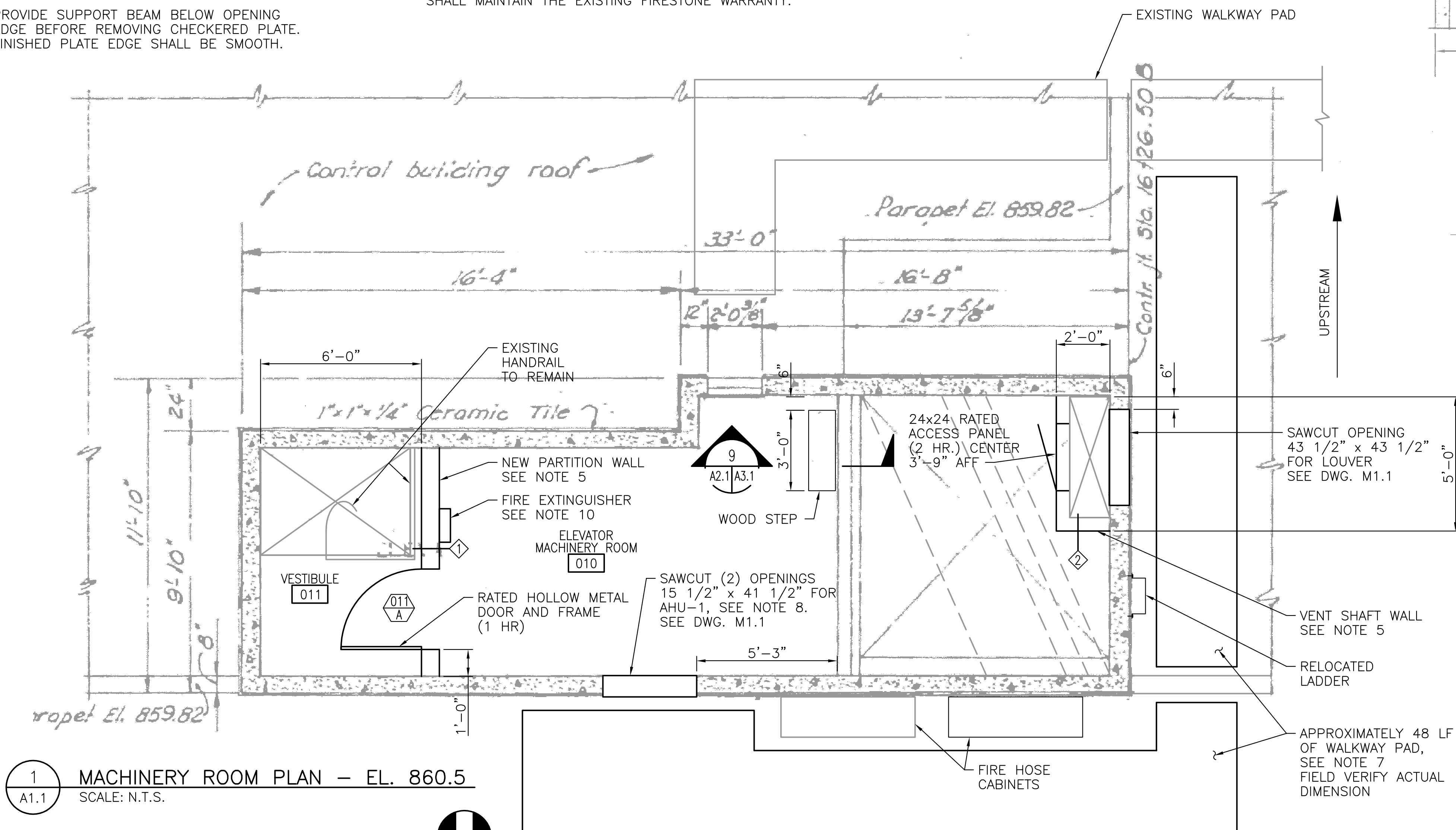
IF SHEET MEASURES LESS THAN 28" x 40" IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON	
POWERHOUSE AND INTAKE ELEVATOR MODERNIZATION SYMBOLS, NOTES AND ABBREVIATIONS			
CHIEF JOSEPH DAM		WASHINGTON	
SIZE F	INVITATION NO. CJP-1.38-0-0/1	FILE NO. 02JUL02	PLATE G0.2
DSGN: JWR	CHK: JWR	SHEET 2	OF 13

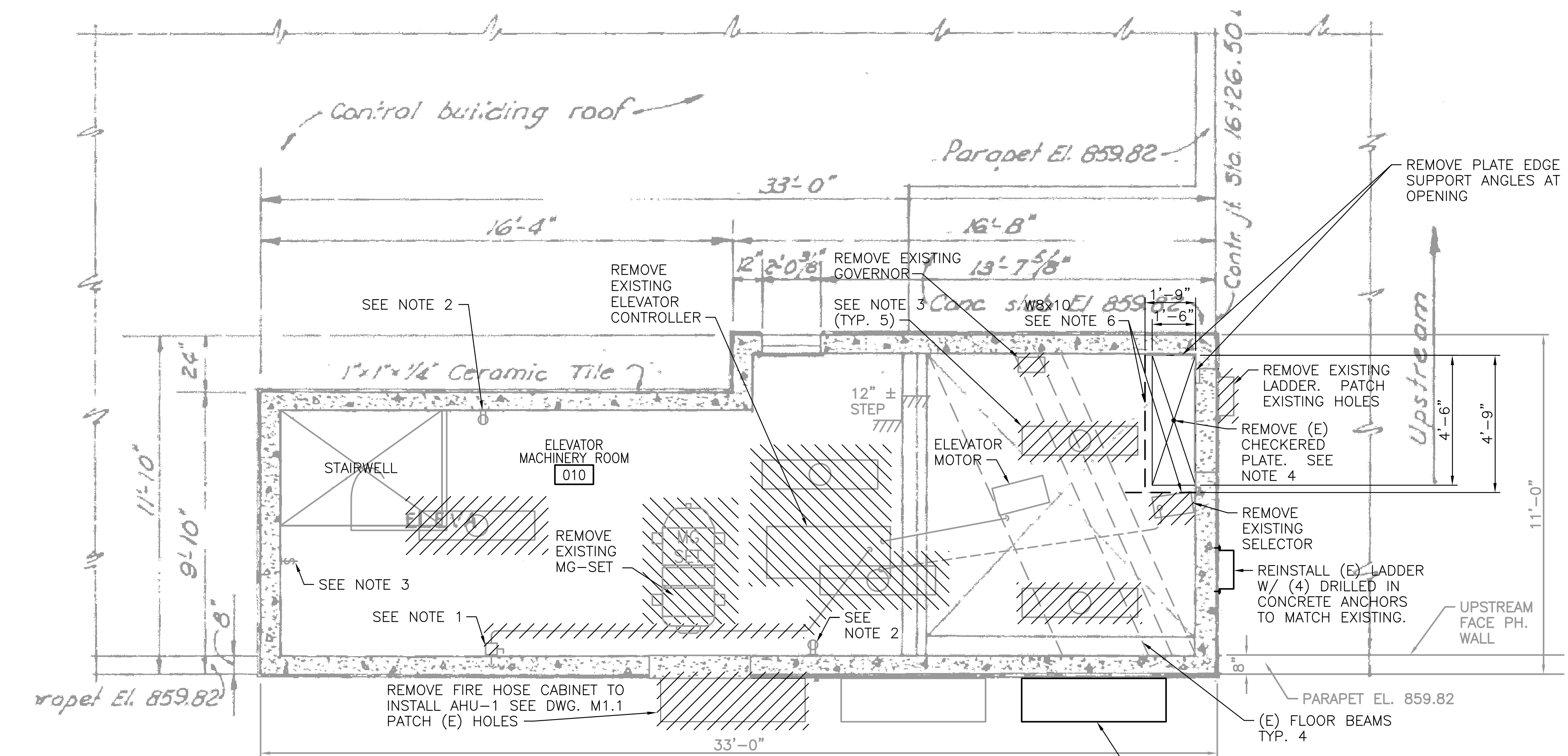


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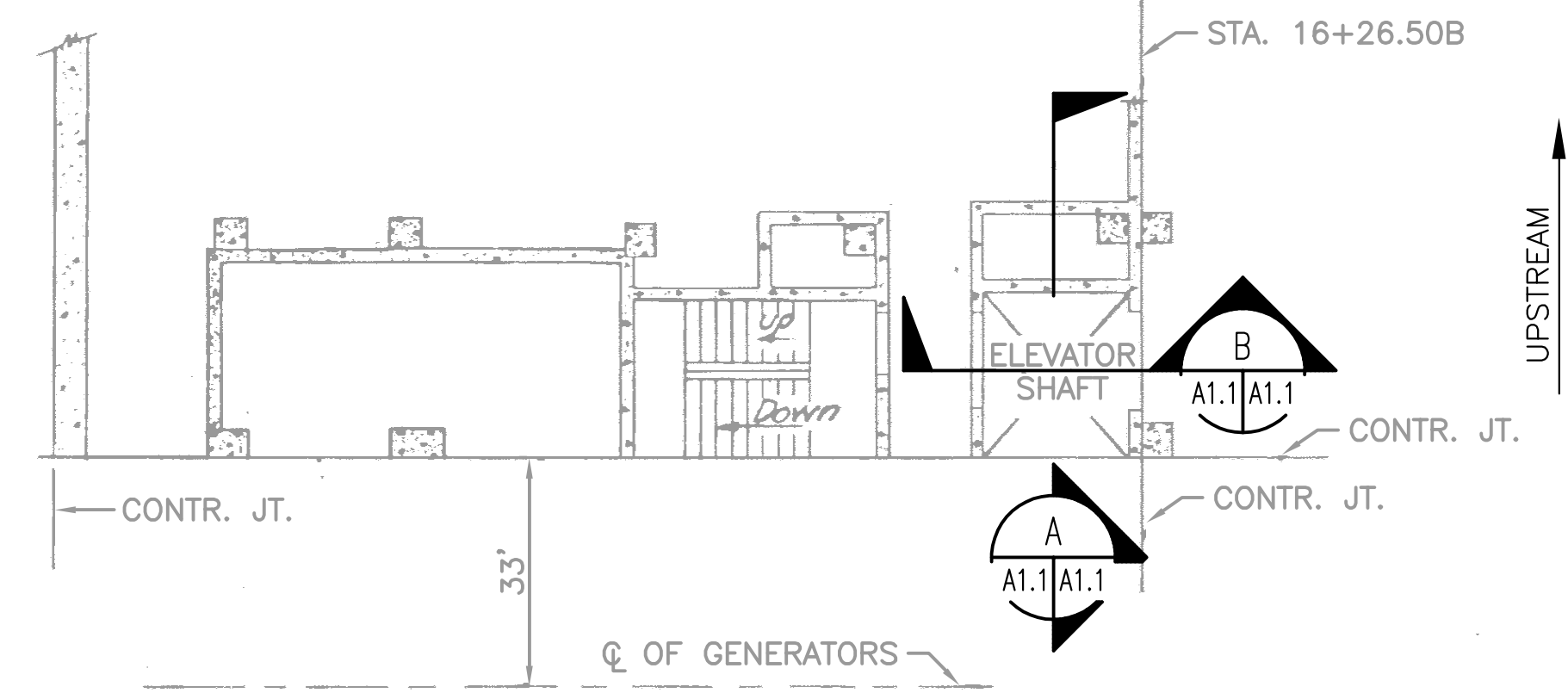
1. REMOVE EXISTING DISCONNECT AND CONDUCTORS FROM DISCONNECT TO ELEVATOR CONTROLLER.
2. REMOVE RECEPTACLE, SPLICE CONDUCTORS TO MAINTAIN CONTINUITY TO DOWNSTREAM DEVICES, INSTALL BLANK COVER PLATE.
3. REMOVE LIGHT FIXTURES, SWITCH AND ASSOCIATED CONDUIT AND CONDUCTORS. SPLICE CONDUCTORS AS NECESSARY TO MAINTAIN CONTINUITY TO ANY DEVICES REMAINING IN SERVICE. INSTALL BLANK COVERS ON ALL FLUSH DEVICE BOXES.
4. PROVIDE SUPPORT BEAM BELOW OPENING EDGE BEFORE REMOVING CHECKERED PLATE. FINISHED PLATE EDGE SHALL BE SMOOTH.
5. FOR PARTITION CONSTRUCTION, SEE SHEET A3.1, DETAIL 2.
6. FOR BEAM CONNECTIONS SEE SHEET A3.1, DETAIL 4.
7. ALL ROOFING PRODUCTS SHALL BE IN ACCORDANCE WITH FIRESTONE BUILDING - PRODUCTS, ULTRAPLY THERMOPLASTIC POLY-OLEFIN ROOF MEMBRANE. ANY MODIFICATION TO ROOFING SYSTEM SHALL BE PERFORMED BY A FIRESTONE CERTIFIED CONTRACTOR. ALL WORK ON ROOF SHALL MAINTAIN THE EXISTING FIRESTONE WARRANTY.
8. COORDINATE OPENING LOCATION AND SIZE WITH EQUIPMENT MANUFACTURER.
9. WHEN WORKING WITH EXISTING STEEL, TREAT ALL PAINT COATINGS AS IF THEY ARE RED LEAD PRIMER.
10. PROFILE MULTI PURPOSE DRY CHEMICAL TYPE FIRE EXTINGUISHER, UL RATED 3A:40B:C, 6 POUND NOMINAL CAPACITY. PROVIDE BRACKET AND SIGN FOR SURFACE MOUNT.



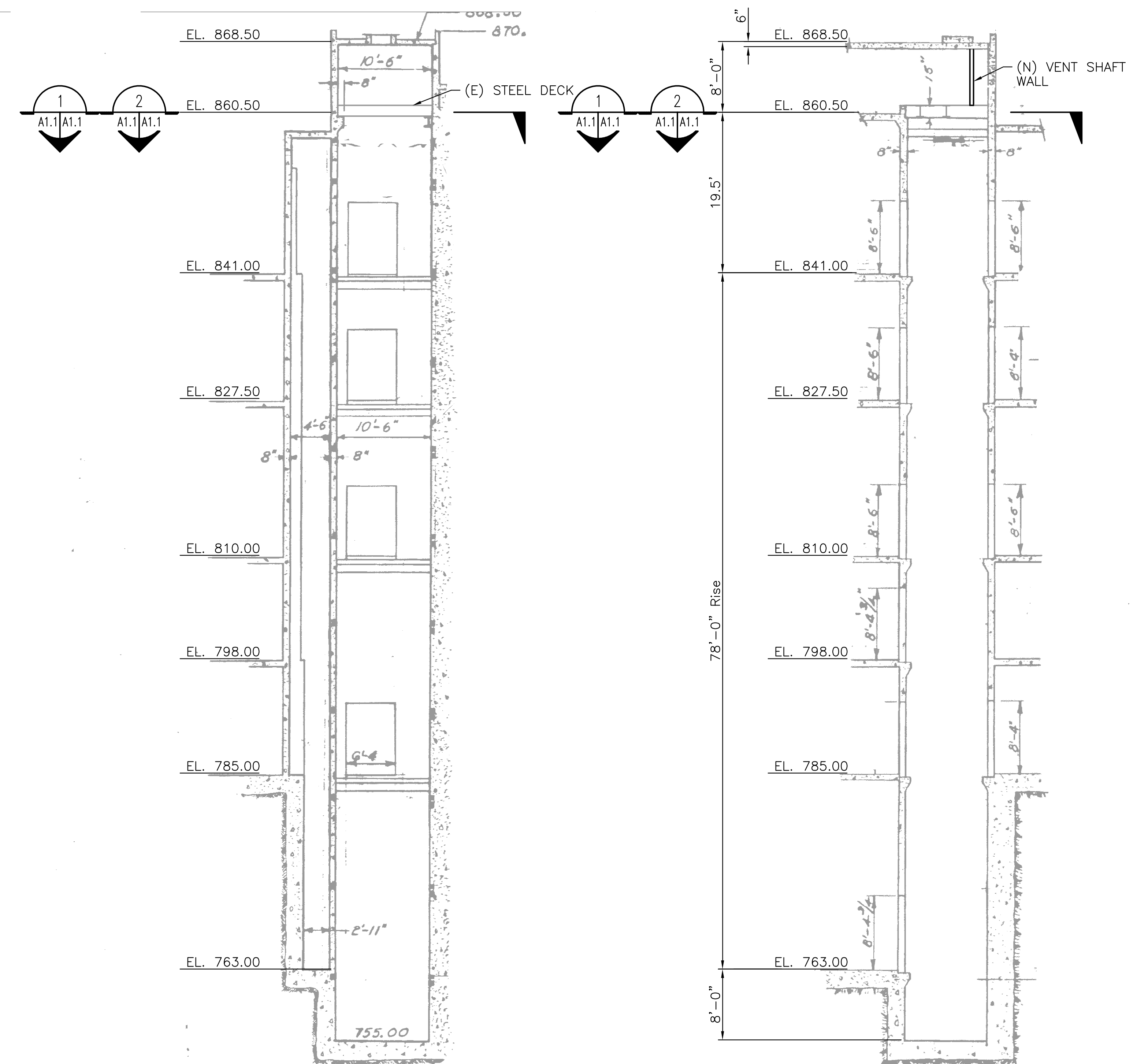
1 MACHINERY ROOM PLAN - EL. 860.5  
SCALE: N.T.S.



2 MACHINERY ROOM DEMOLITION PLAN - EL. 860.5  
SCALE: N.T.S.



KEY PLAN AT EL. 785.00  
SCALE: N.T.S.



A ELEVATOR SECTION  
SCALE: N.T.S.

B ELEVATOR SECTION  
SCALE: N.T.S.

IF SHEET MEASURES LESS THAN 28" x 40" IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON	
POWERHOUSE AND INTAKE ELEVATOR MODERNIZATION POWERHOUSE ELEVATOR DEMOLITION, FLOOR PLAN AND ELEVATIONS			
CHIEF JOSEPH DAM		WASHINGTON	
SIZE F	INVITATION NO. CJP-1.38-6-1A11/1	DATE 02JUL02	PLATE A1.1
DSGN JWR	CHK BAD	SHEET 3	OF 13

REFERENCE DRAWING 11

DIVISION 7  
7.2 BATT INSULATION  
7.9 METAL FLASHING

DIVISION 8  
8.1 STEEL DOOR  
8.2 STEEL FRAME

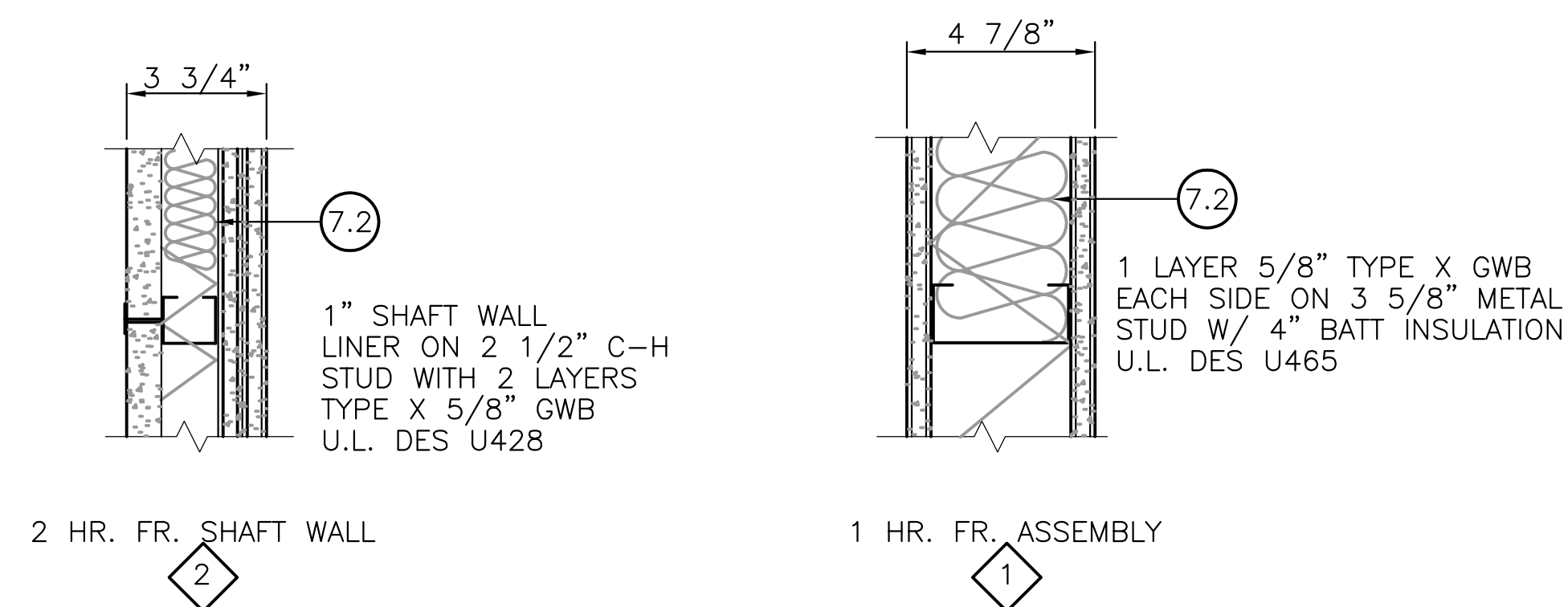
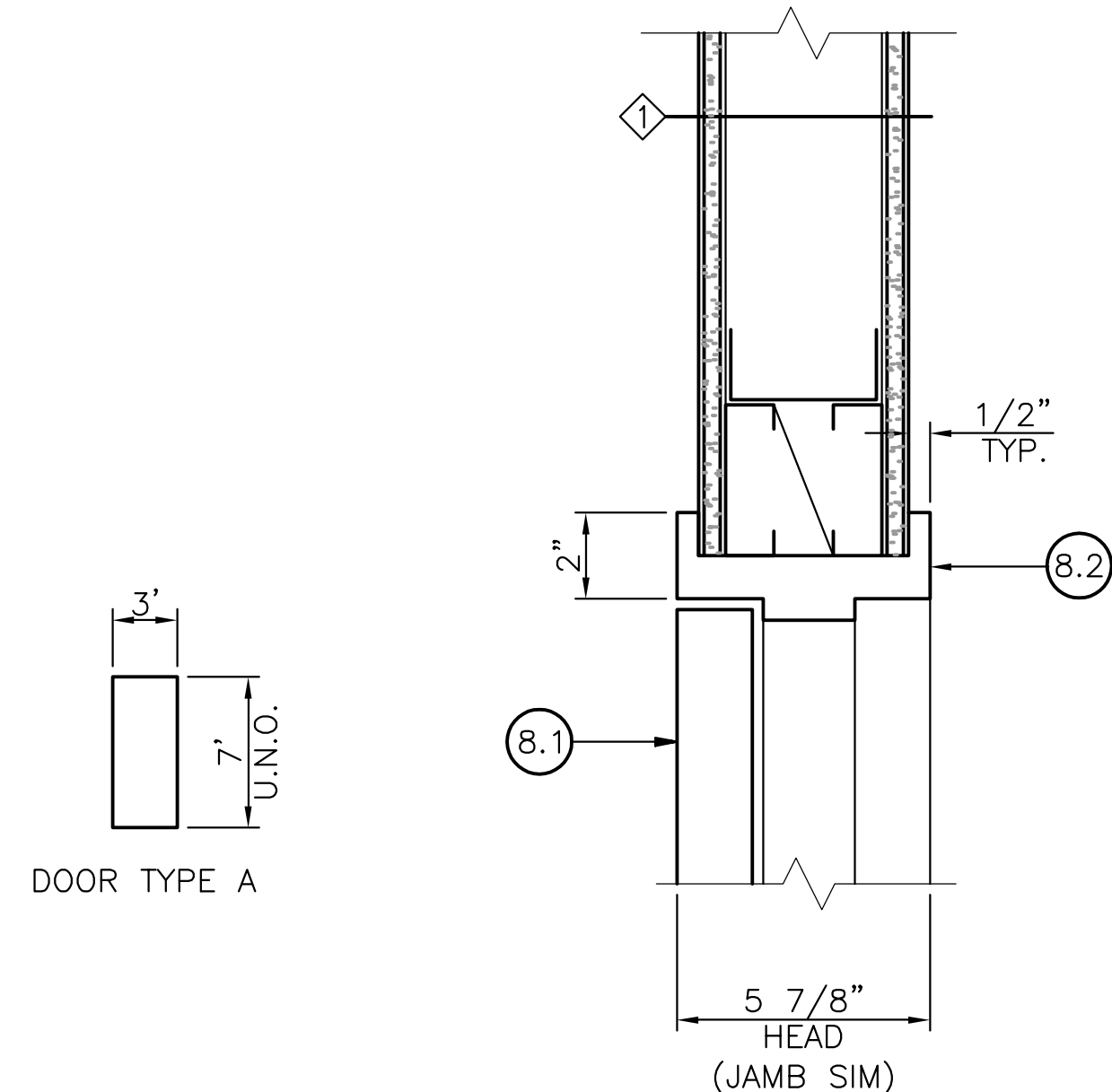
REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

[illegible]

1. PROVIDE RUBBER WALL BASE (RB) AT NEW PARTITION WALL ONLY.
2. ALL CONCRETE SURFACES ARE EXISTING.

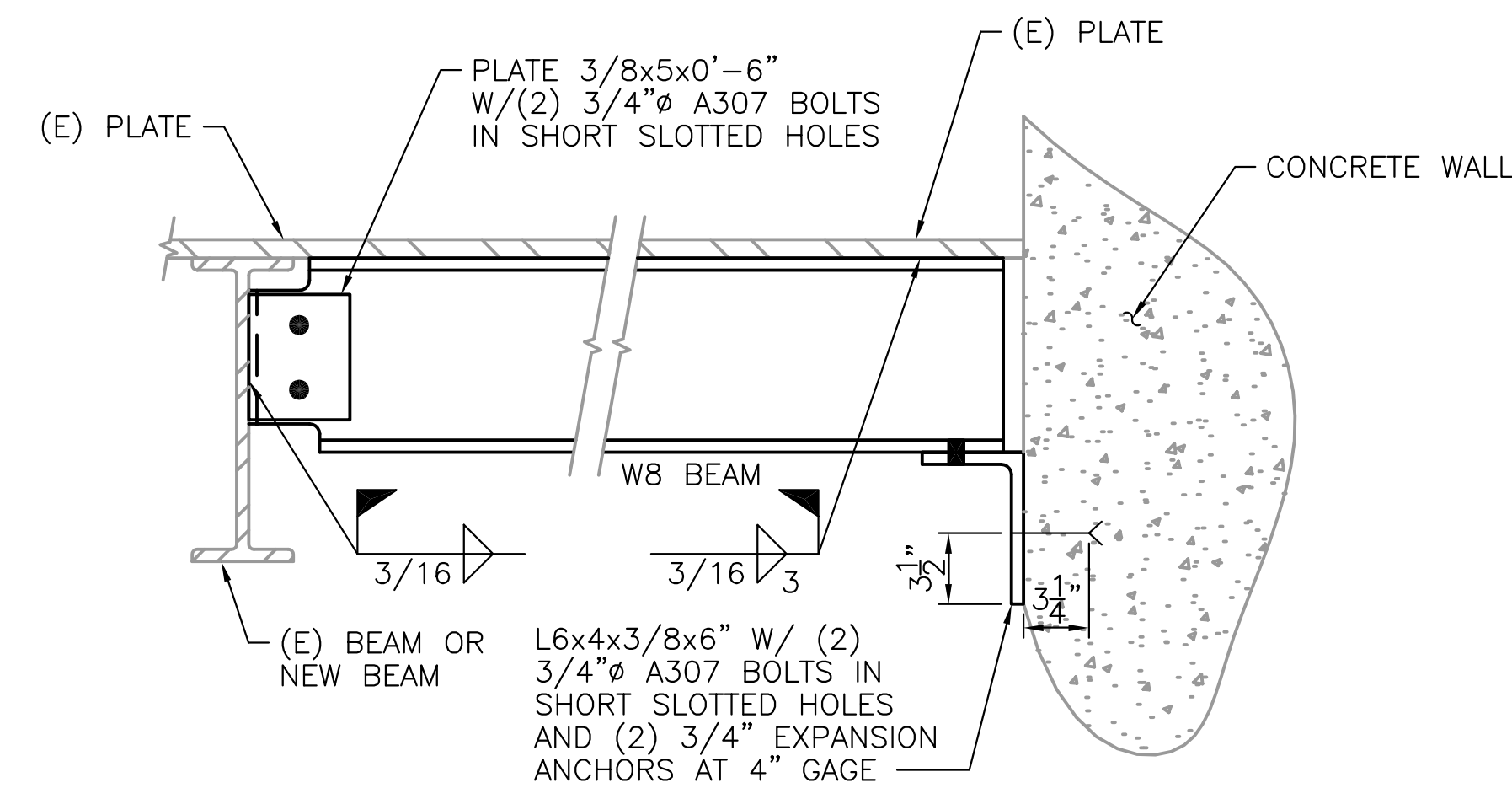
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PAINT P-1	COLOR TO MATCH EXISTING
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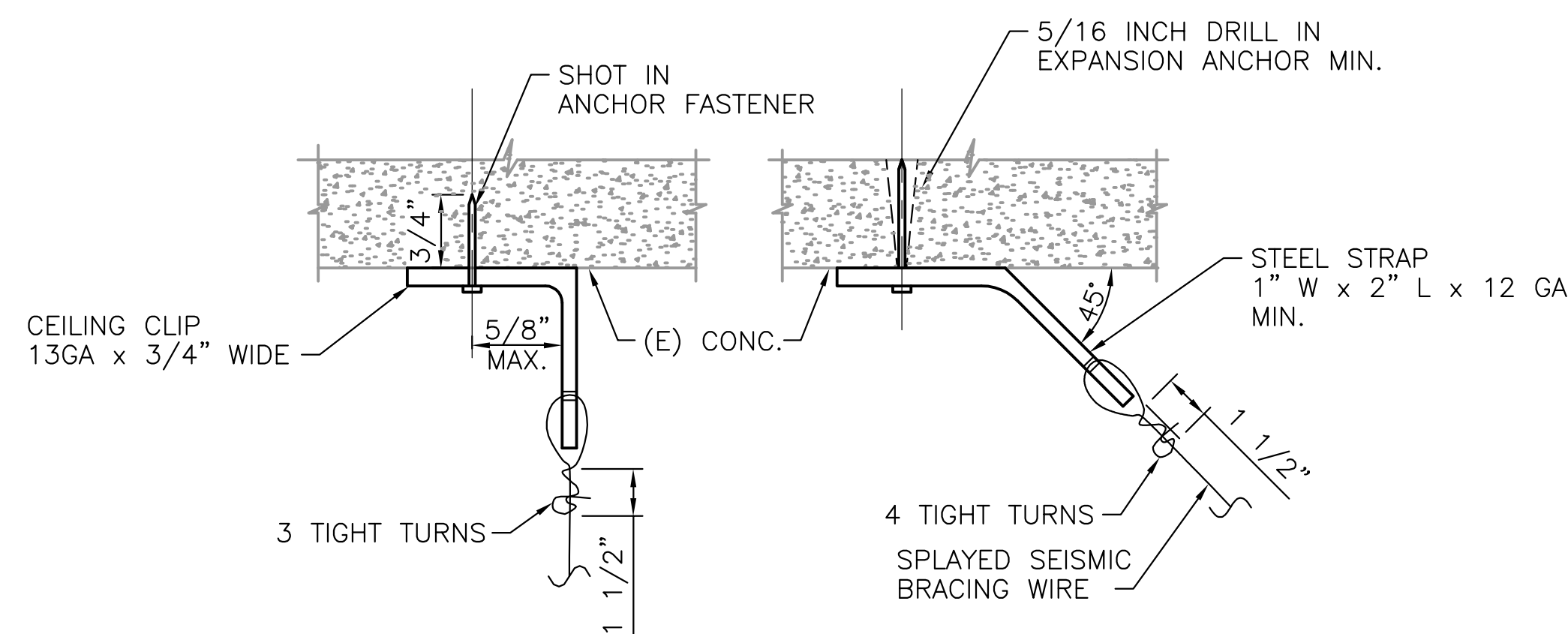


NOTE: ALL FIRE RATED GWB TO BE TYPE "X"  
AND ALL STUD SPACING NOT TO EXCEED 16" O.C.

2 PARTITION WALL TYPES  
A1.1, A2.1 | A3.1 SCALE: N.T.S.

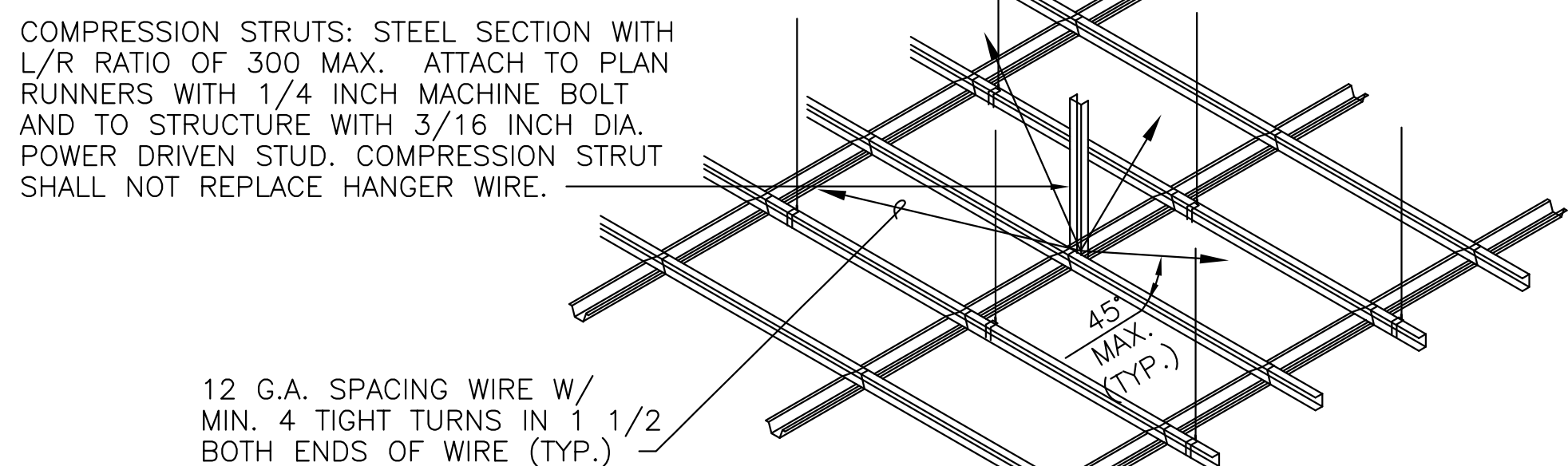


4 BEAM CONNECTIONS  
A1.1 | A3.1 SCALE: N.T.S.

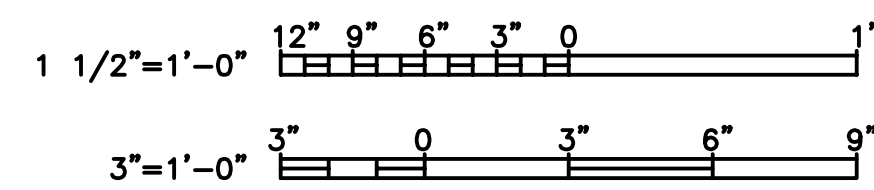


3  
A3.1 | A3.1

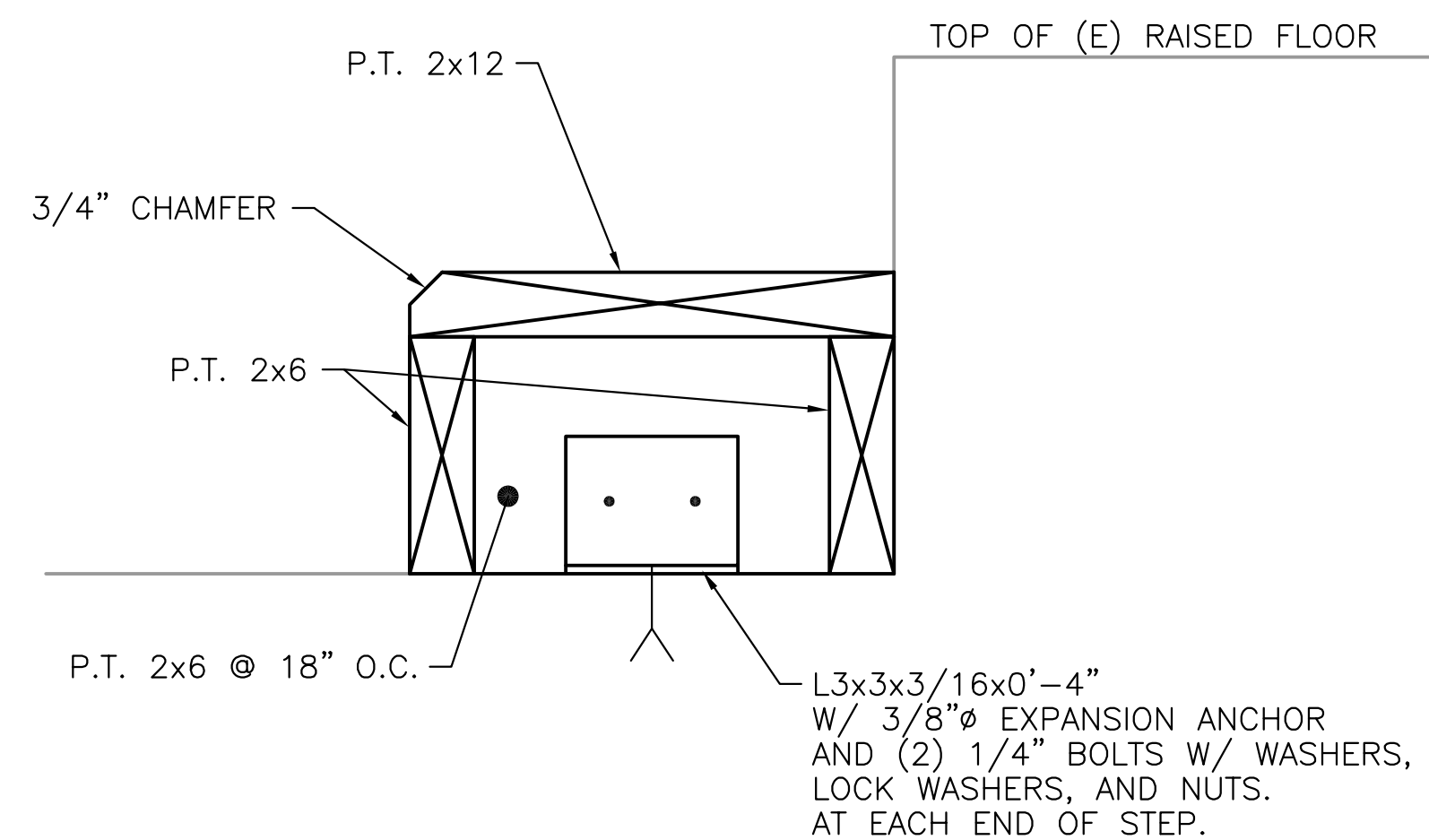
CEILING SUPPORT DETAILS @ CONCRETE DECK  
SCALE: N.T.S.



8 SUSPENDED CEILING FRAMING  
A2.1, A3.1 | A3.1 SCALE: N.T.S.

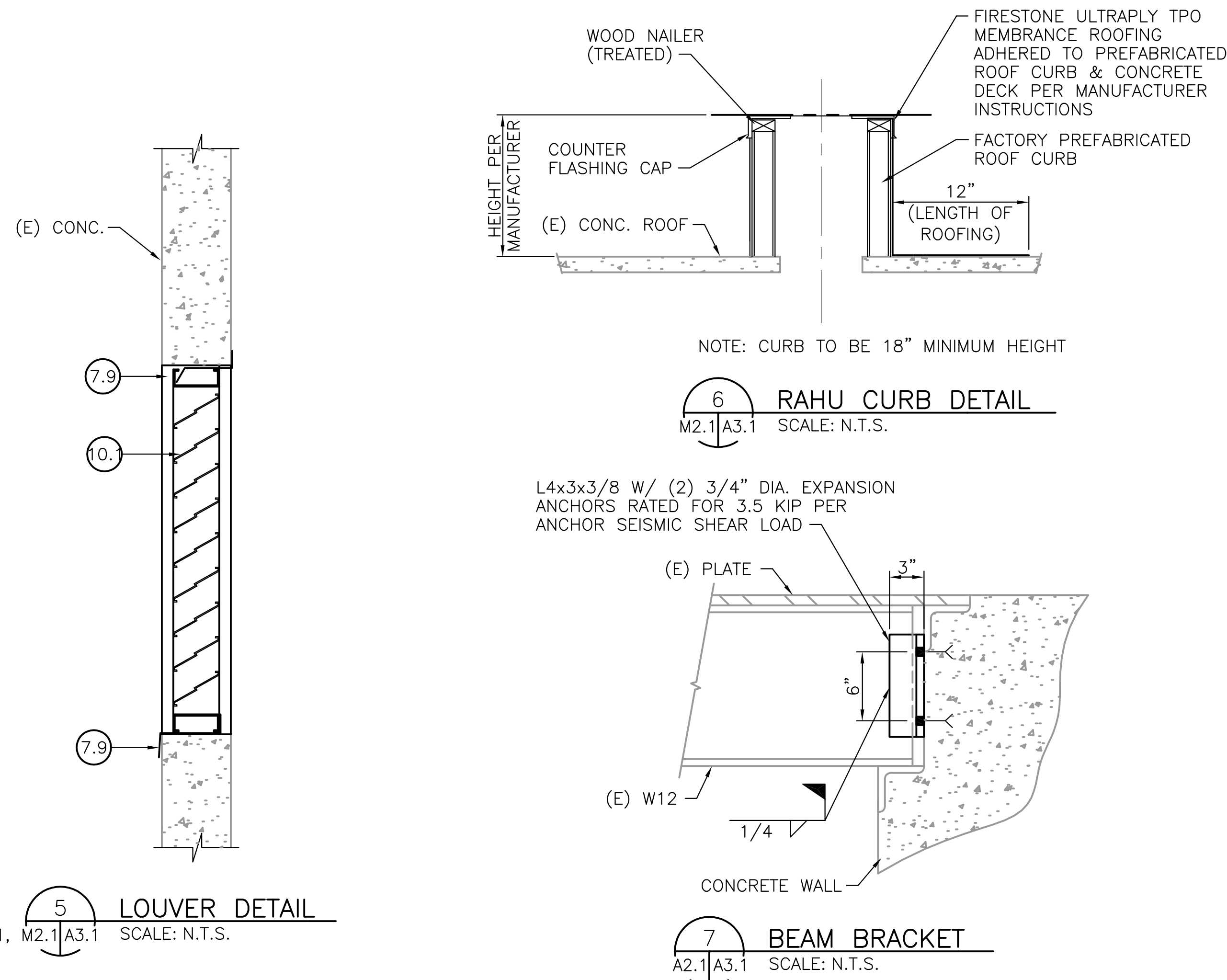


9 STEP DETAIL  
A1.1 | A3.1 SCALE: 1 1/2" = 1'-0"




ALL WOOD MEMBERS SHALL BE PRESSURE TREATED (P.T.) AND FASTENED W/ WOOD SCREWS.

9 STEP DETAIL  
A1.1 | A3.1 SCALE: 1 1/2" = 1'-0"



## REFERENCE DRAWING 12

IF SHEET MEASURES LESS THAN 28' x 40' IT IS  
A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

 ARCHITECTS ENGINEERS PLANNERS		U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS SEATTLE, WASHINGTON	
POWERHOUSE AND INTAKE ELEVATOR MODERNIZATION <b>MACHINERY ROOM</b> <b>DETAILS</b>			
CHIEF JOSEPH DAM		WASHINGTON	
SIZE	INVITATION NO.	FILE NO.	DATE: PLATE
D		C/P. 1-38-3-11/1	02JUL02 A3.1
DSGN.	JWR	CHK. BAD	SHEET 5 OF 13

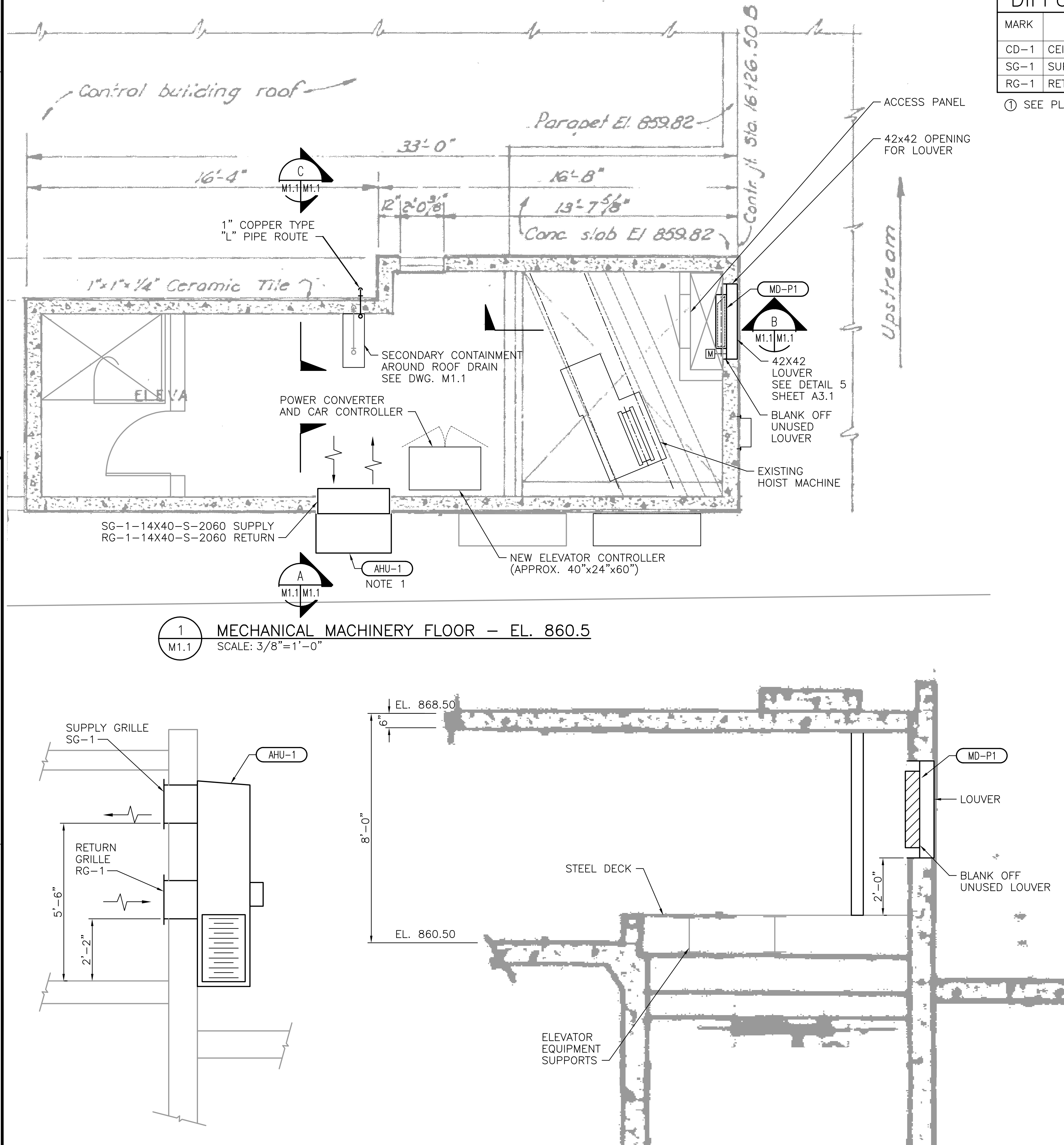
AIR CONDITIONER UNIT SCHEDULE																								
MARK	AREA SERVED	CONDENSER AMB °F	EVAPORATOR CFM	CFM	FAN RPM	EXT SP INCH WG	SUPPLY FAN HP	OSA CFM	DRIVE TYPE	FAN TYPE	FILTER TYPE	COOLING COIL DATA				HEATING DATA		ELECTRICAL DATA					UNIT WEIGHT W/CURB (LBS)	REMARKS
												EAT AIR		MIN CAP	MBH	ELECTRIC (KW)		V	PH	HZ	FLA	STARTER DISCON.		
												°F DB	°F WB			SENS	TOTAL							
AHU-1	POWERHOUSE ELEV. EQUIP. RM.	99	2060	1900	—	0.0	.50	50	DIRECT	DRAW THROUGH	DISPOS.	95	62.5	42.1	47.4	208	10	208	3	60	29.0	INCLUDED	451	INTEGRAL HAIL GUARD ECONOMIZER

ROOF TOP AIR CONDITIONER UNIT SCHEDULE																															
MARK	AREA SERVED	CONDENSER AMB °F	EVAPORATOR CFM/BYPASS	CFM	EVAPORATOR								COOLING COIL DATA				COMPRESSOR		COMPRESSOR		ELECTRICAL DATA								SEER	UNIT WEIGHT W/CURB (LBS)	REMARKS
					FAN RPM	EXT SP INCH WG	SUPPLY FAN BHP	OSA CFM	DRIVE TYPE	FAN TYPE	FILTER TYPE	EAT AIR		MIN CAP	MBH	# OF COMP.	OUTPUT	KV	STAGE	V	PH	HZ	MCA	FLA	STARTER DISCON.						
												°F DB	°F WB													SENS	TOTAL				
RAHU—1	INTAKE ELEV. RM.	99	875/0.16	780	1260	.5	.25	50	BELT	DRAW THROUGH	DISP.	95	62	23.3	24.9	1	97	50	1	208	3	60	15.5	—	INCLUDED	10	258	INTEGRAL HAIL GUARD, AND ROOF CURB, ECONOMIZER			

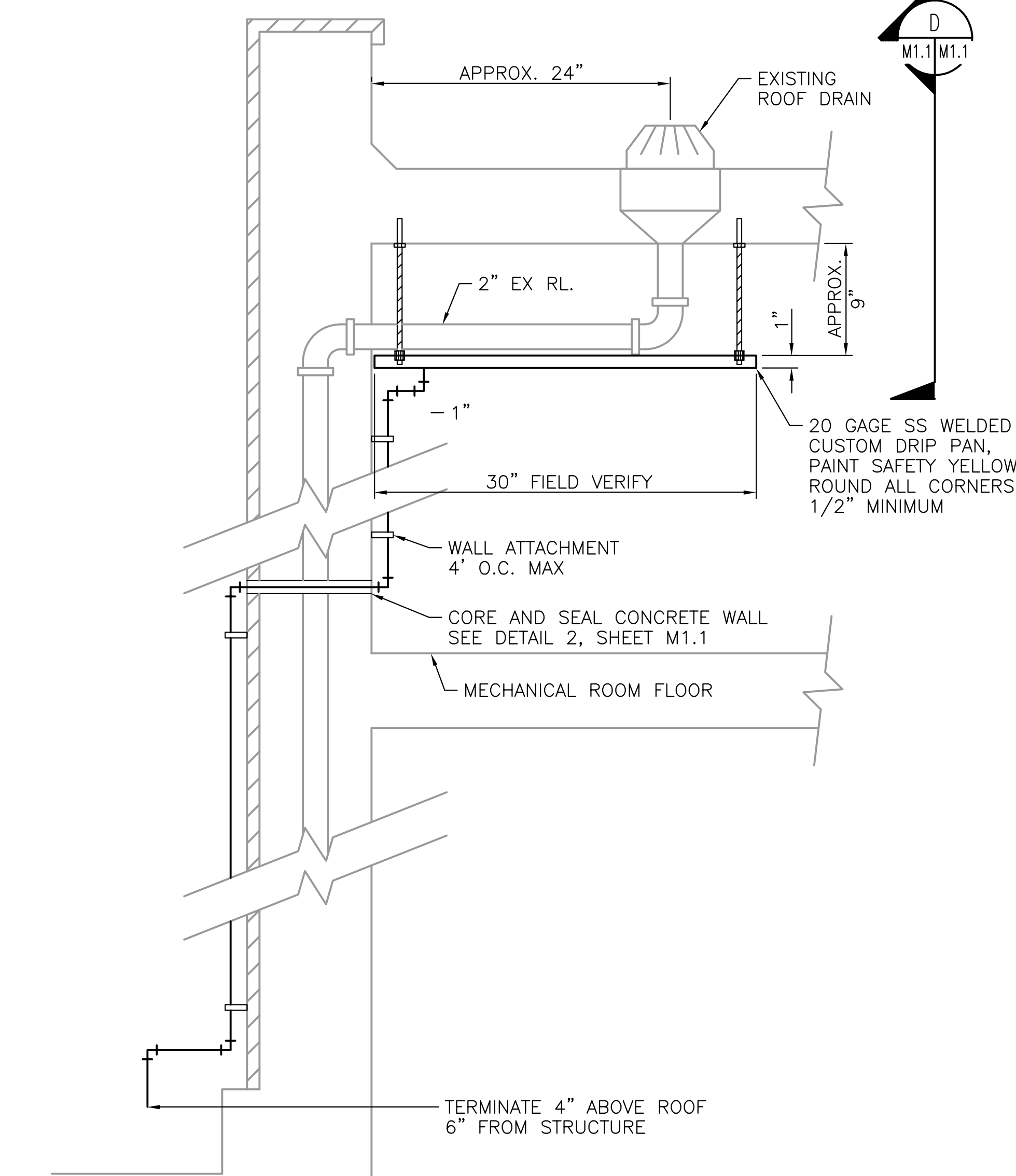
DIFFUSER, REGISTER & GRILLE SCHEDULE		
MARK	TYPE	REMARKS
CD-1	CEILING DIFFUSER	MODULAR, 4 WAY
SG-1	SUPPLY GRILLE	DOUBLE DEFLECTION
RG-1	RETURN GRILLE	SINGLE DEFLECTION

① SEE PLANS FOR FACE SIZES.

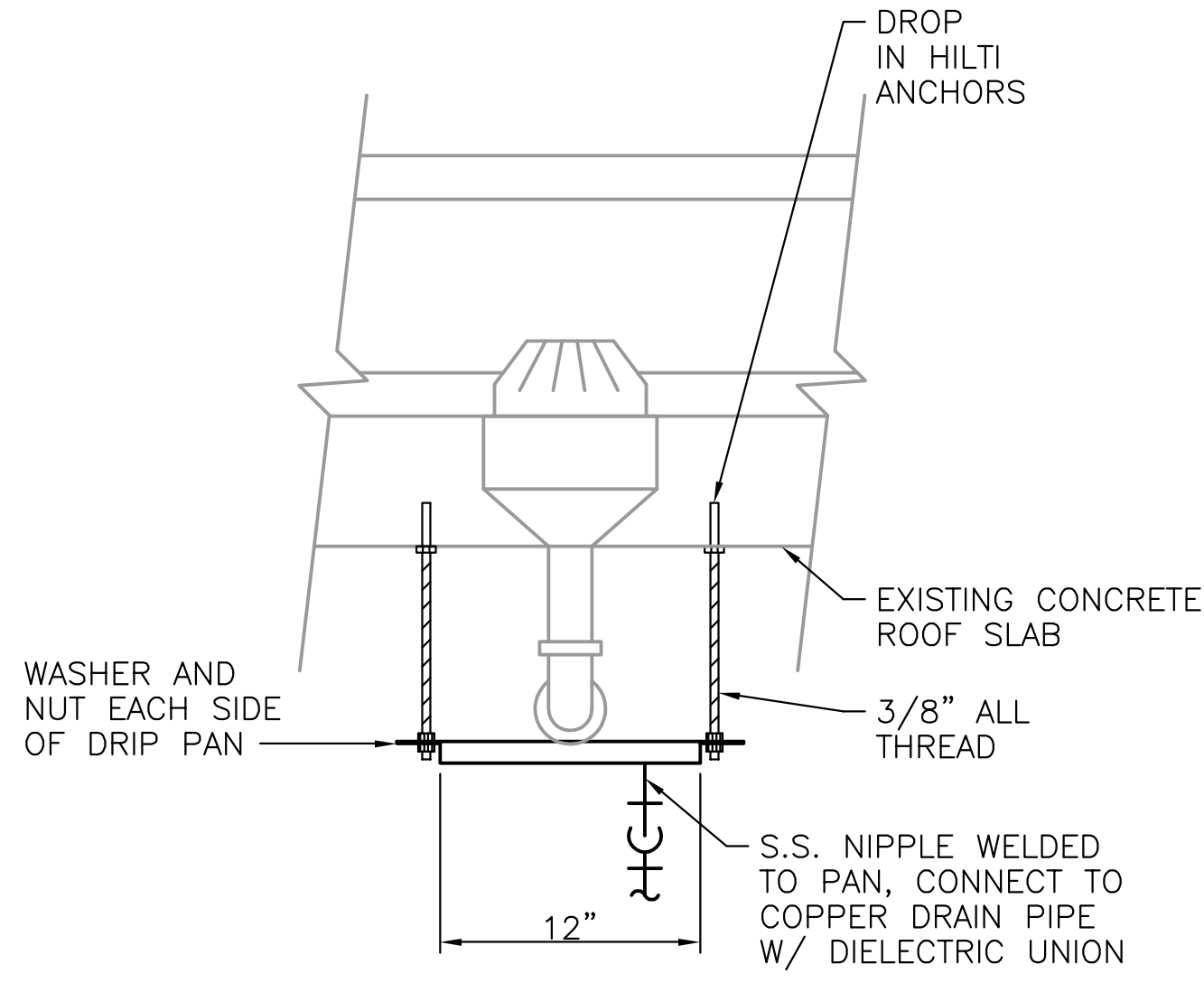
MOTORIZED DAMPER SCHEDULE							
MARK	SERVICE	SIZE WxH or DIA. (IN)	LOCATION	ACTUATOR SQ FT	DAMPER TYPE	VOLTS	REMARKS
MD-P1	POWERHOUSE	36 X 36	LEVEL 860	9	AIRFOIL	24	COORDINATE DIMENSION WITH DUCTWORK
MD-11	INTAKE	36 X 36	LEVEL 970	9	AIRFOIL	24	COORDINATE DIMENSION WITH DUCTWORK



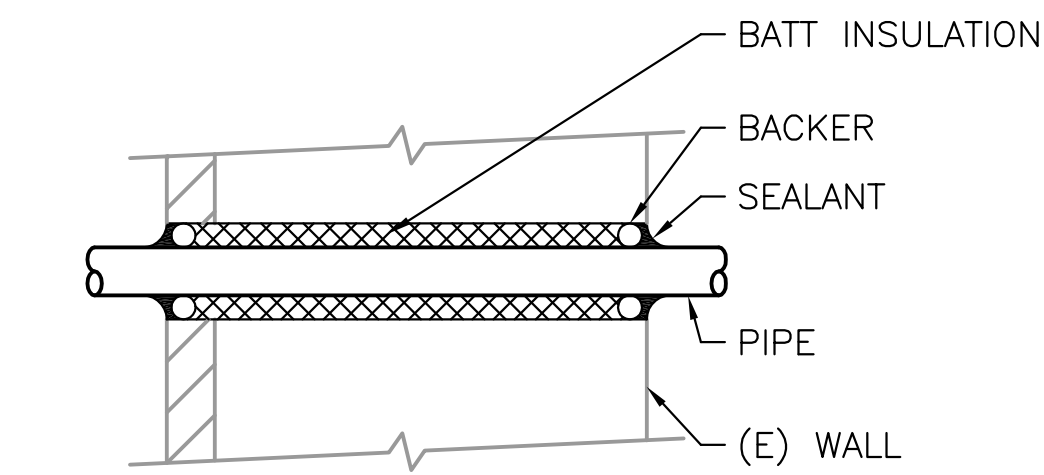
1 MECHANICAL MACHINERY FLOOR - EL. 860.5  
SCALE: 3/8"=1'-0"



C MECHANICAL SECTION: SECONDARY CONTAINMENT  
M1.1/M1.1 SCALE: 1 1/2" = 1'-0"



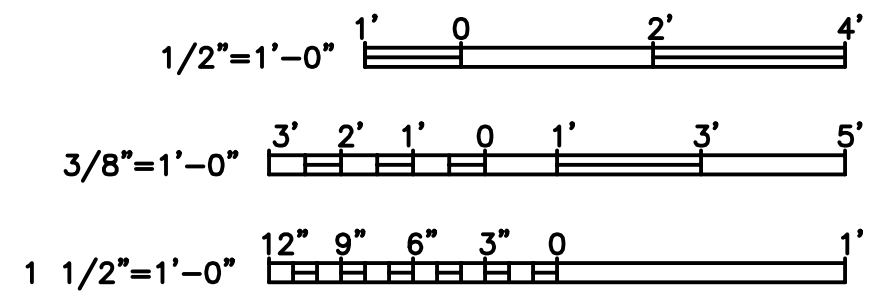
D MECHANICAL SECTION: SECONDARY CONTAINMENT  
M1.1/M1.1 SCALE: 1 1/2" = 1'-0"



2 PENETRATION DETAIL  
M1.1/M1.1 SCALE: NTS

SHEET NOTES:

- PROTECT EXISTING POWERHOUSE ROOFING AND PARAPETS DURING INSTALLATION OF EQUIPMENT.



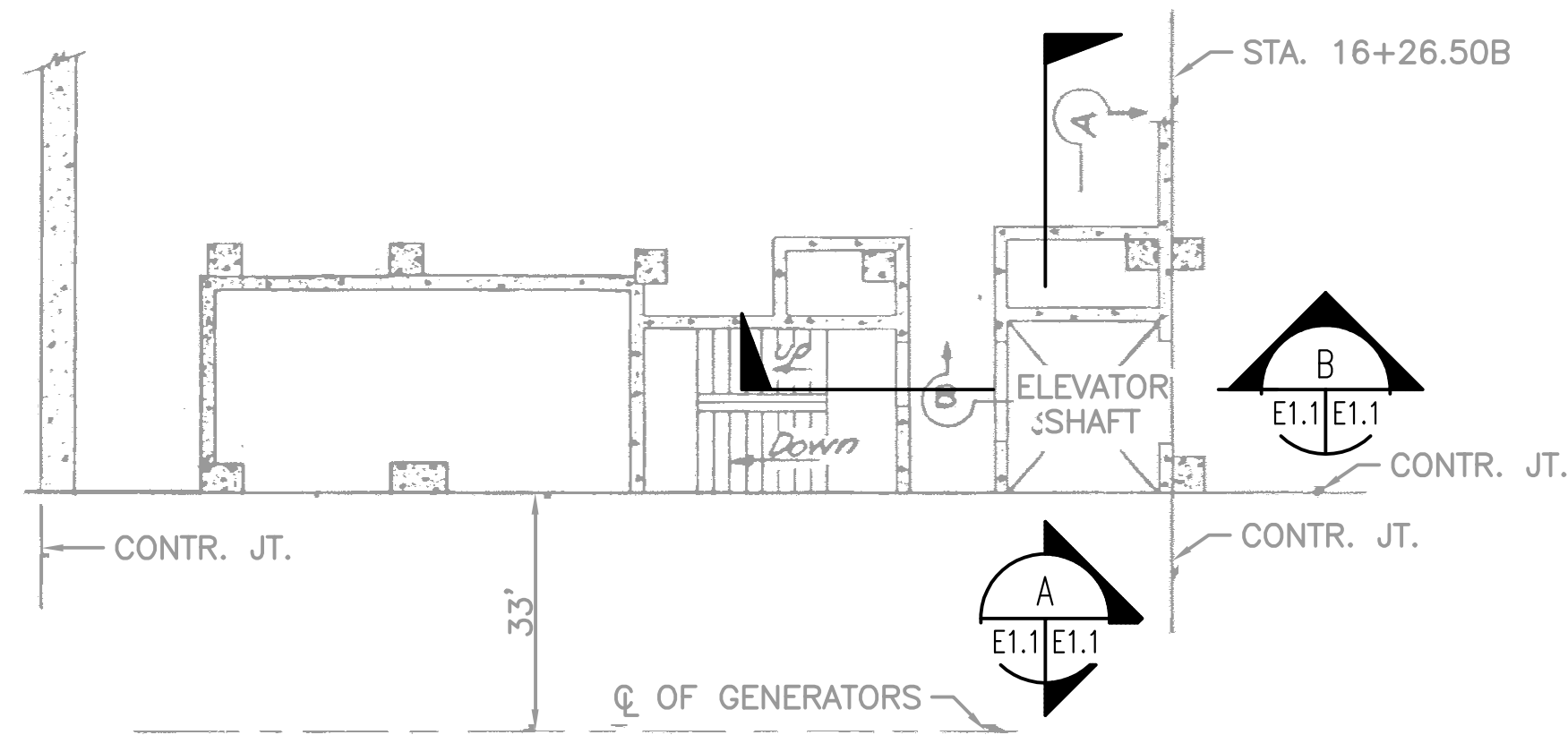
## REFERENCE DRAWING 13

IF SHEET MEASURES LESS THAN 28" x 40" IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

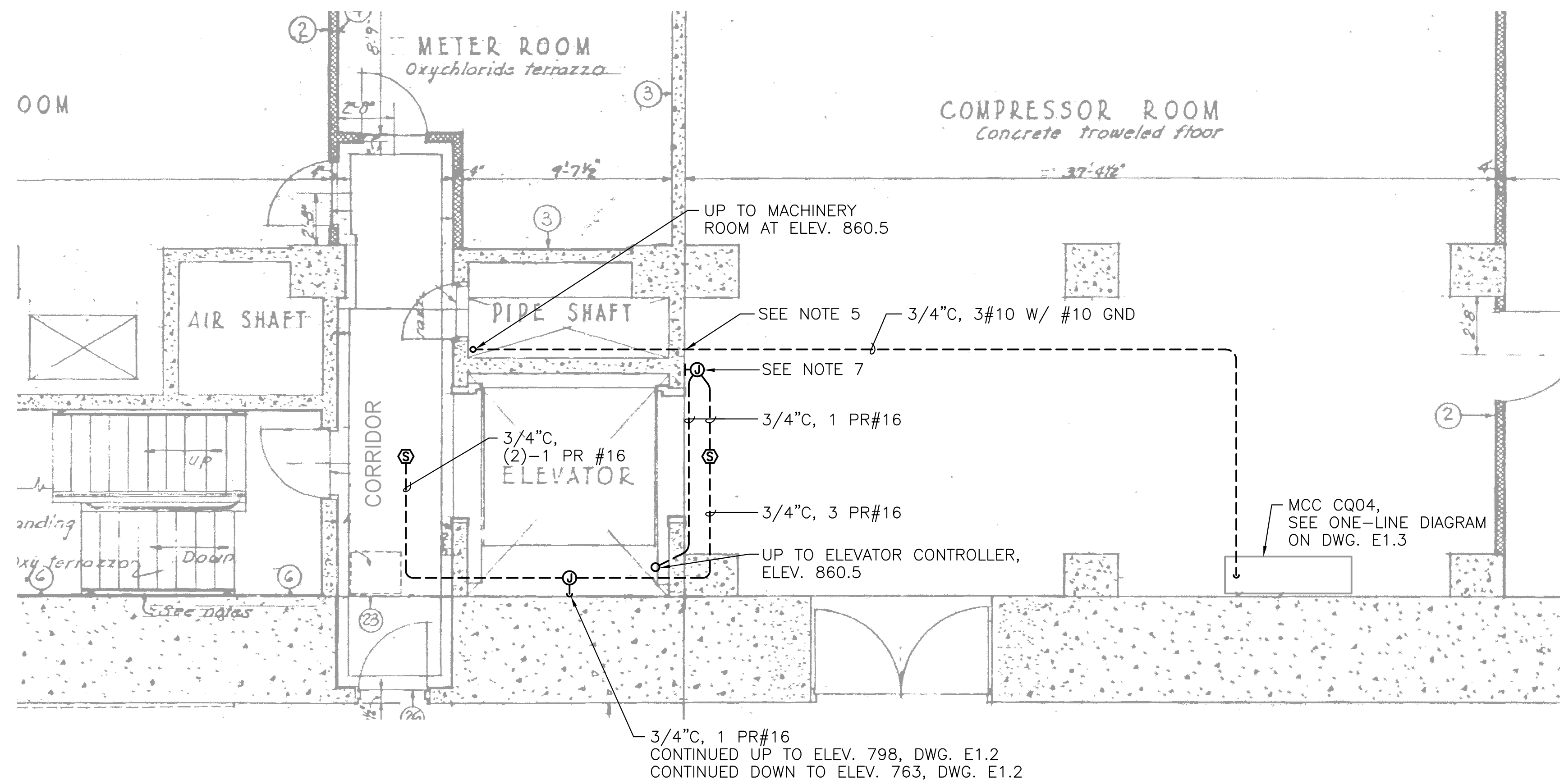
HNTB ARCHITECTS ENGINEERS PLANNERS			U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON		
POWERHOUSE AND INTAKE ELEVATOR MODERNIZATION POWERHOUSE ELEVATOR MECHANICAL PLANS AND SECTIONS			WASHINGTON		
CHIEF JOSEPH DAM	FILE NO.	DATE	PLATE		
F	INVITATION NO.	CJP-1.38-3-11/2	02JUL02	M1.1	
DSGN: APS	CHK: SEC	SHEET 6	OF 13		



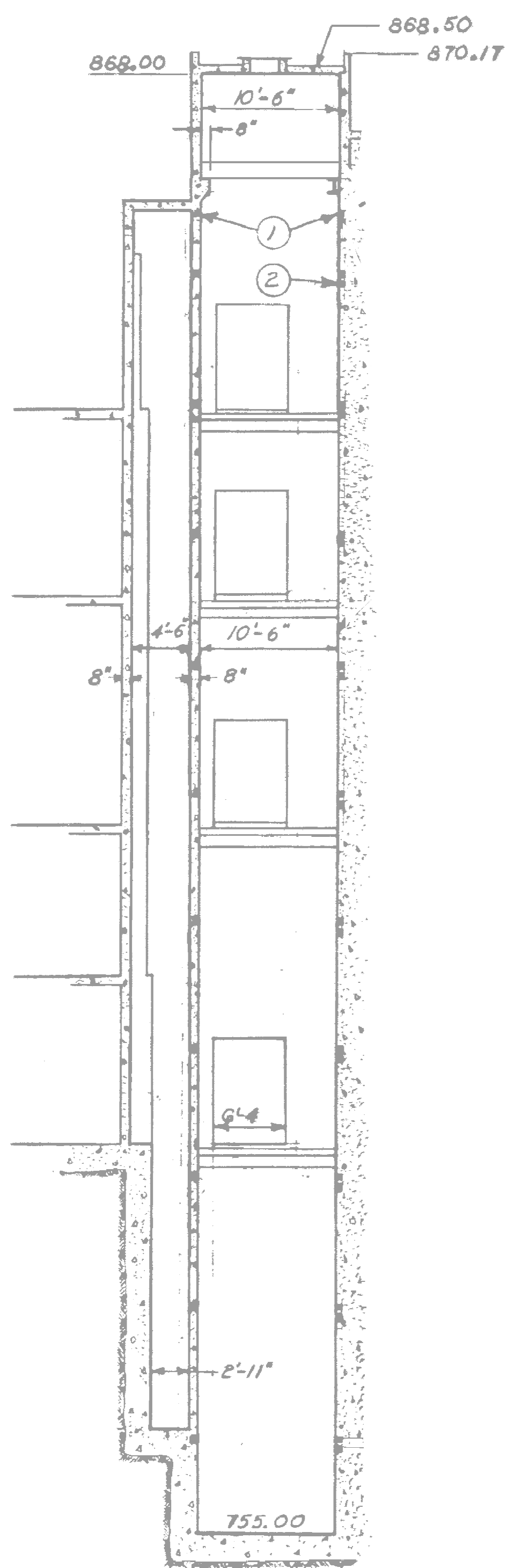
		REVISIONS			
SYMBOL	ZONE	DESCRIPTION	DATE	BY	



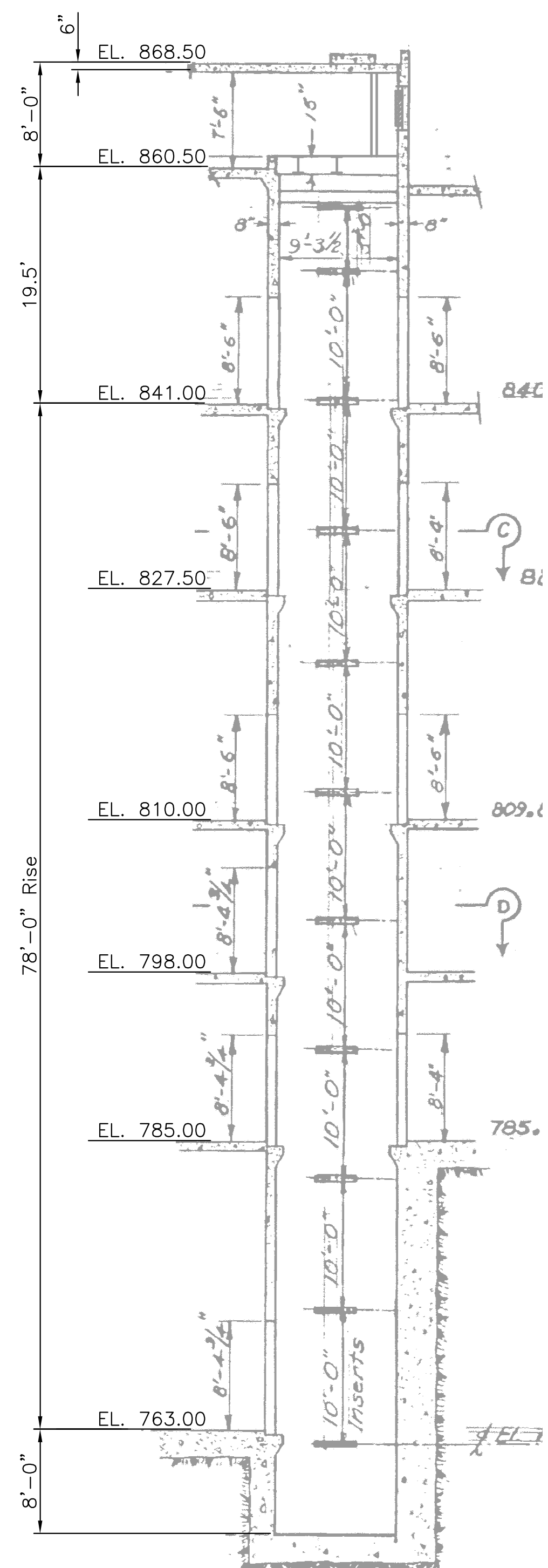
KEY PLAN AT EL. 785.00  
SCALE: N.T.S.



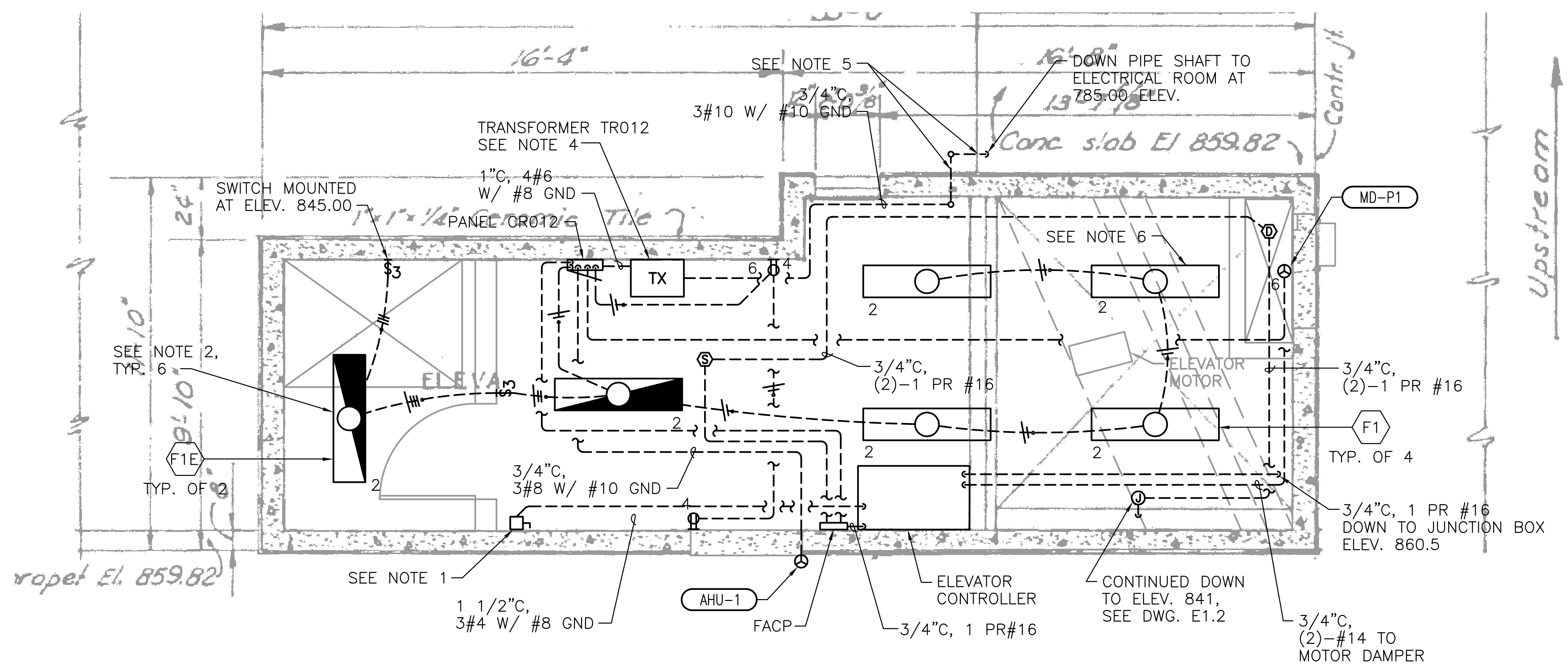
1 CONTROL BUILDING PLAN EL. 785.00  
SCALE: 1/4\"/>



A SECTION  
E1.1|E1.1 SCALE: N.T.S.



B SECTION: B-B  
E1.1|E1.1 SCALE: N.T.S.




2 MACHINERY ROOM PLAN - EL. 860.5  
SCALE: 3/8\"/>

SHEET NOTES:

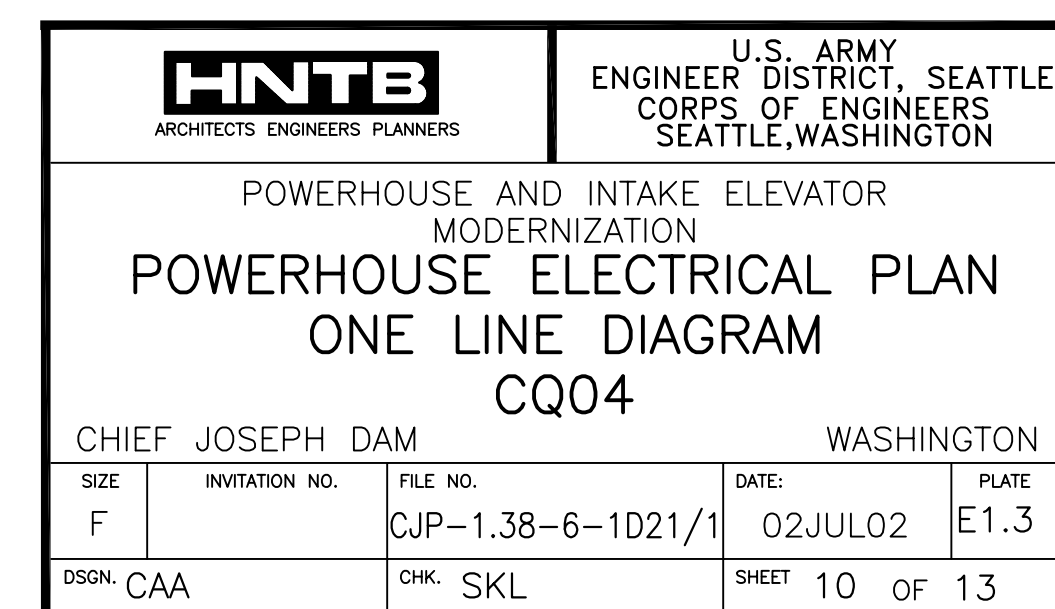
1. PROVIDE NEW DISCONNECT AND CONNECT USING EXISTING LINE SIDE CONDUCTORS.
2. FIXTURE SHALL BE SURFACE MOUNTED.
3. FOR ELECTRICAL DEMOLITION, SEE SHEET A1.1, PLAN 2.
4. PROVIDE GROUND CONNECTION FROM TRANSFORMER TO EXISTING GROUNDING-ELECTRODE SYSTEM. NEW GROUNDING CONDUCTOR MAY NEED TO BE RUN TO ELECTRICAL ROOM AT ELEV. 785.00.
5. CONDUIT PENETRATES EXISTING CONCRETE WALLS. CORE DRILL OPENINGS TO ALLOW FOR CONDUIT ROUTING.
6. LOCATE LIGHT FIXTURE TO AVOID INTERFERENCE WITH EXISTING ROOF PENETRATION.
7. JUNCTION BOX FOR ANNUNCIATOR ALARM TERMINATE WIRES ON TERMINAL BLOCKS. CJD STAFF WILL TIE ALARM INTO ANNUNCIATOR SYSTEM.

IF SHEET MEASURES LESS THAN 28" x 40" IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

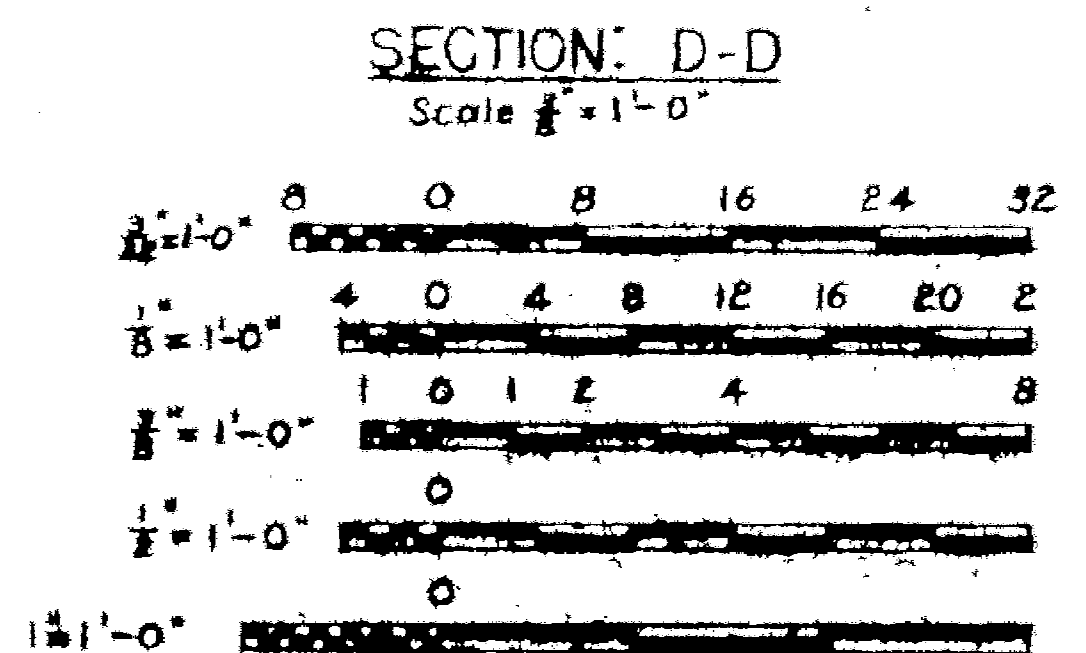
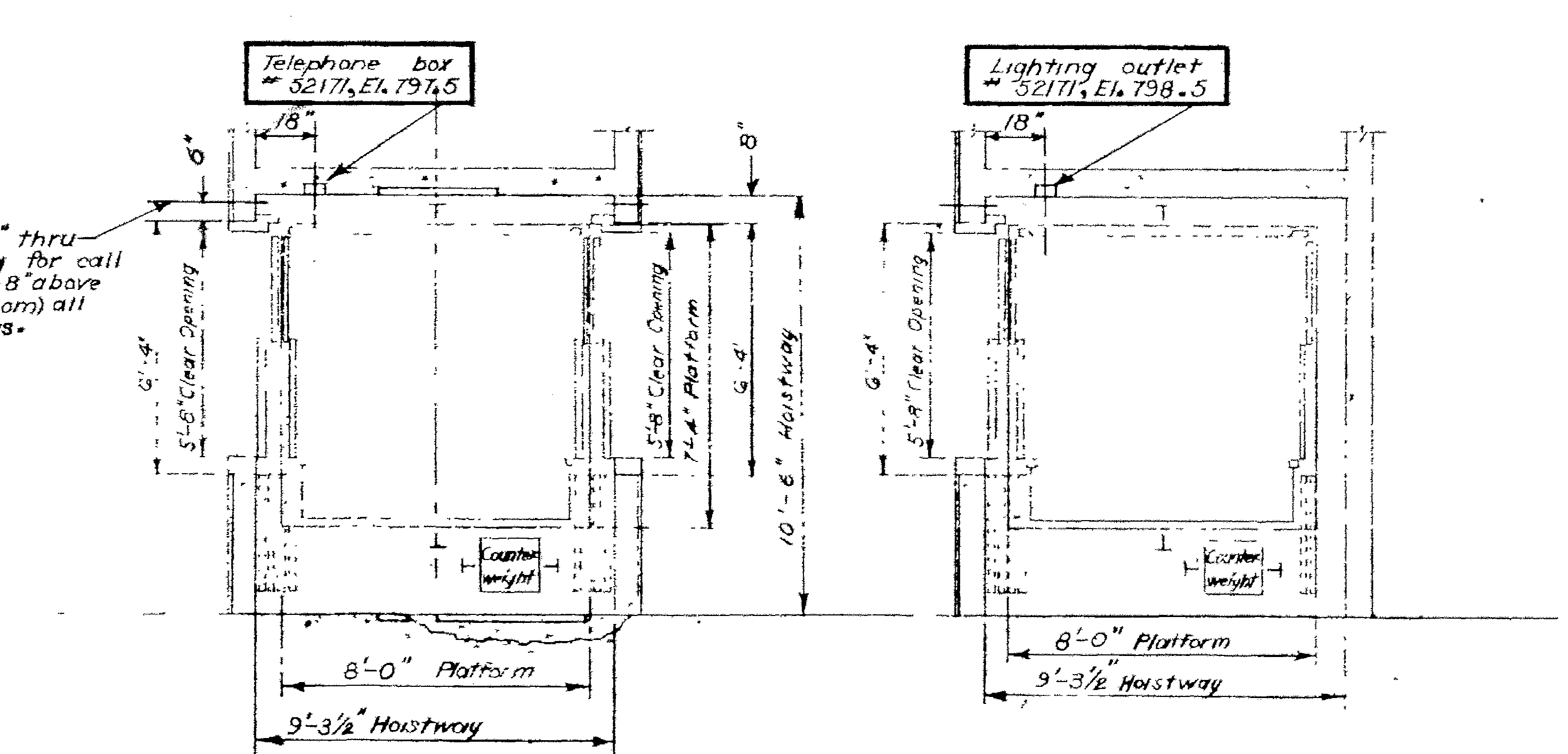
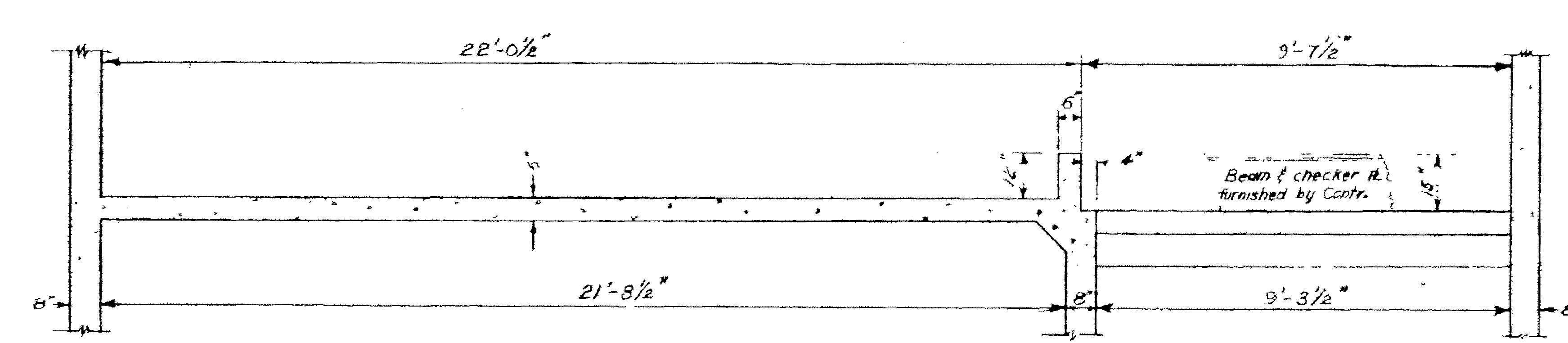
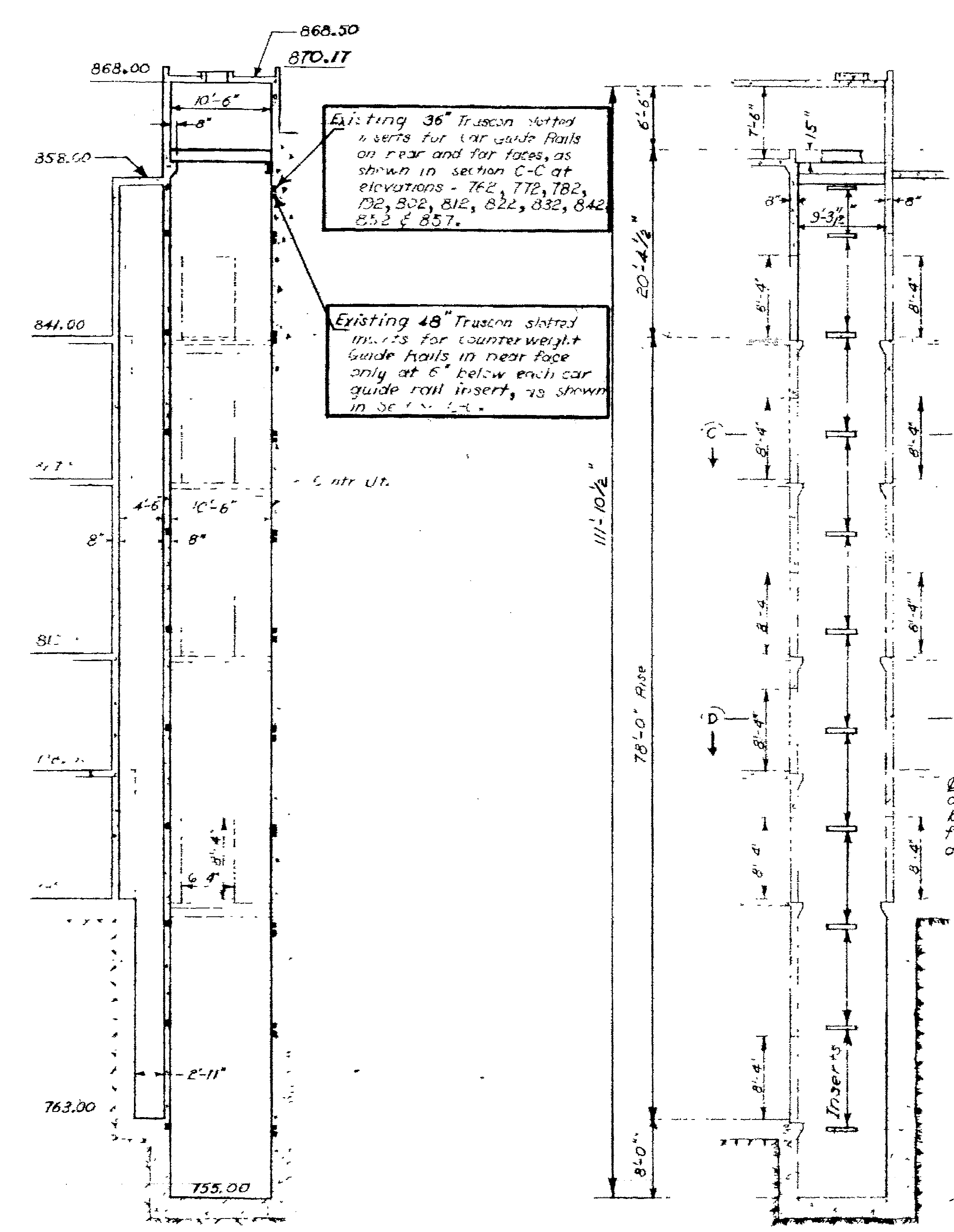
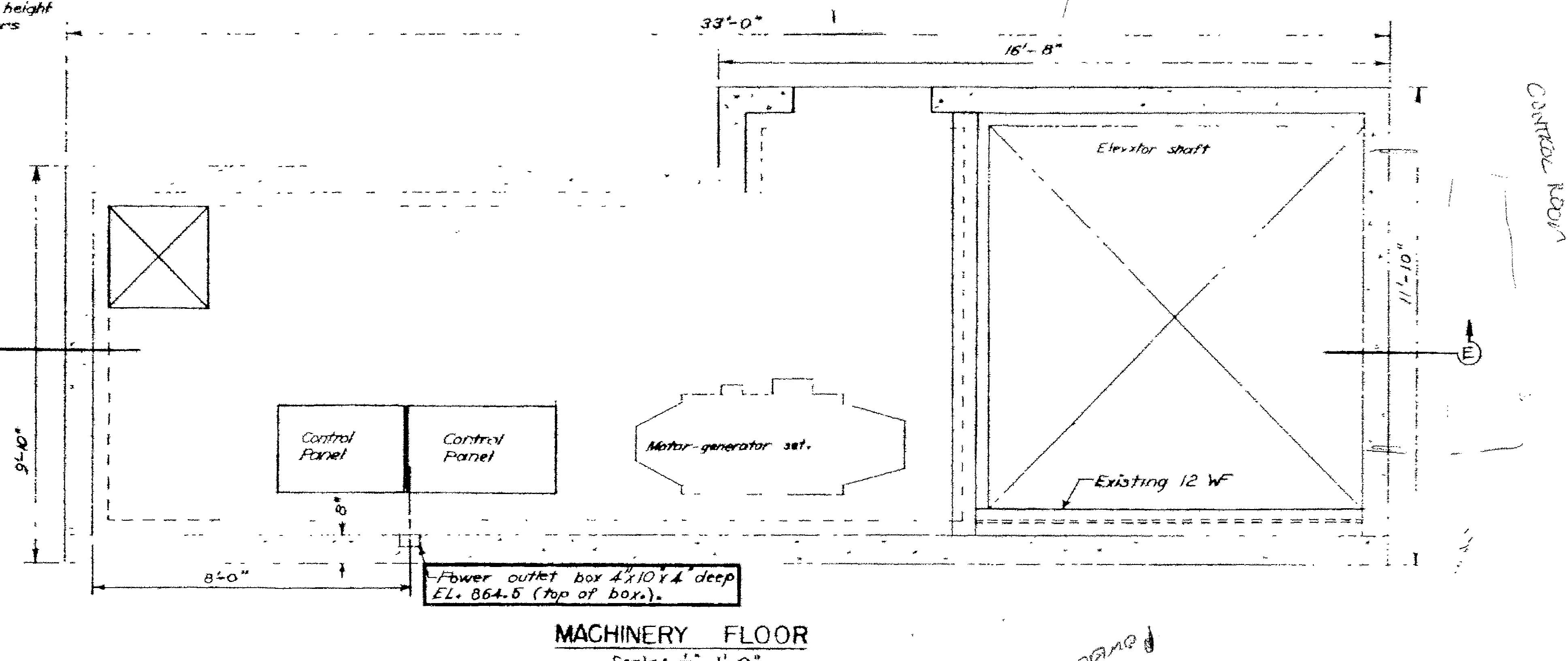
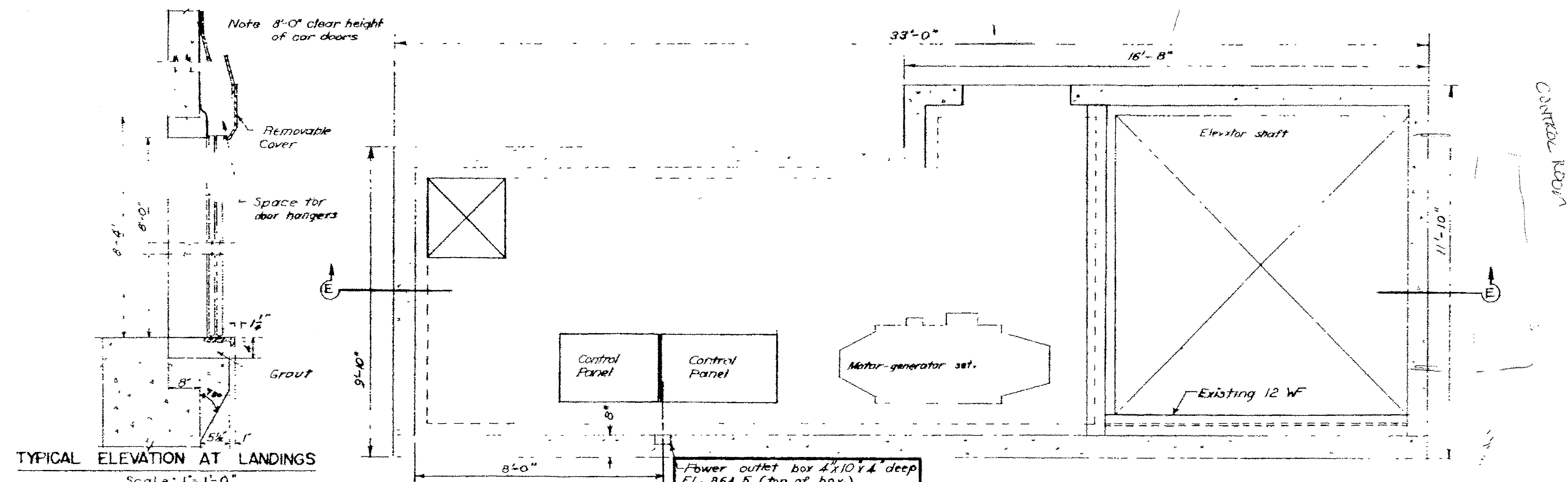
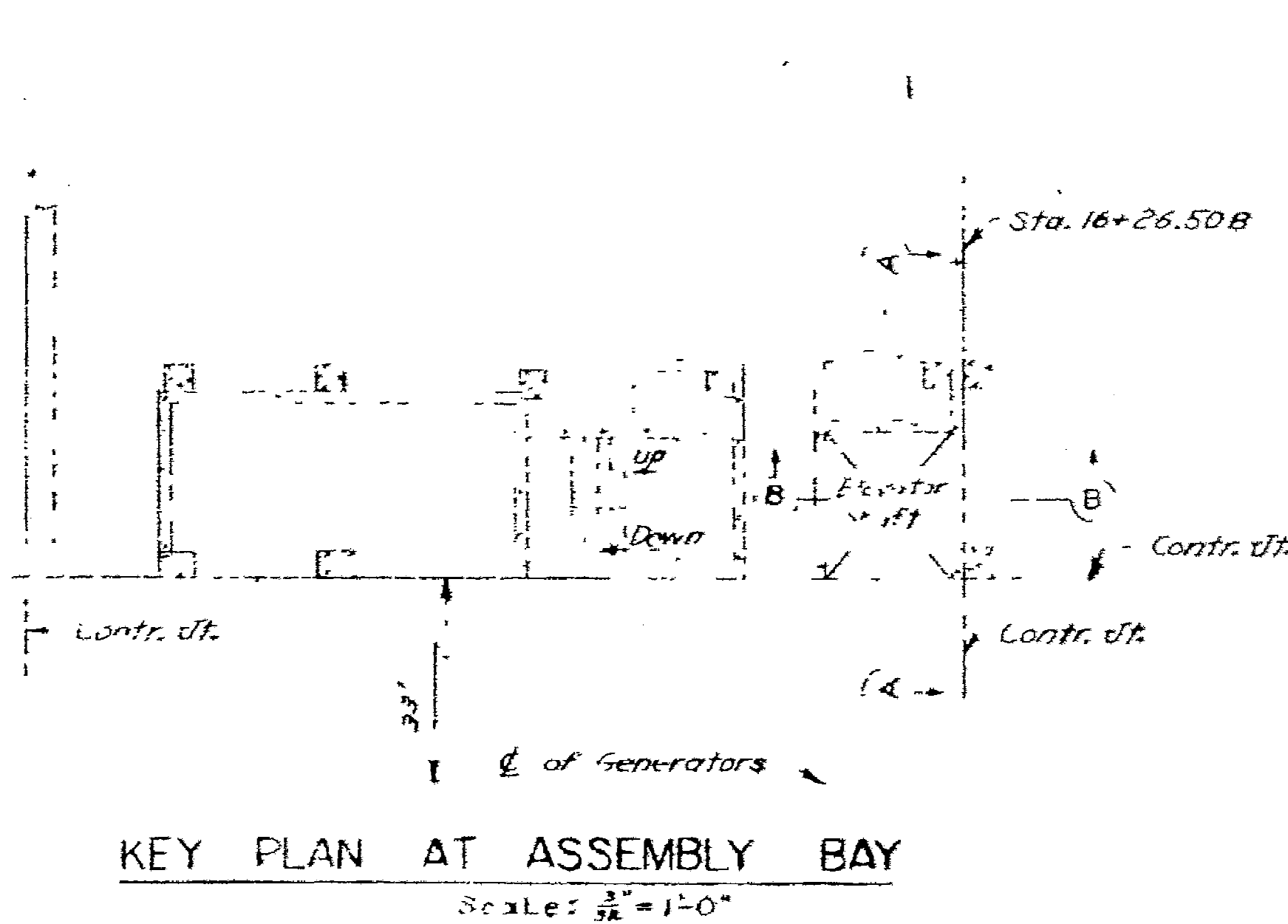
 ARCHITECTS ENGINEERS PLANNERS		U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON	
POWERHOUSE AND INTAKE ELEVATOR MODERNIZATION POWERHOUSE ELECTRICAL PLAN ELEVATOR POWER, LIGHTING AND SIGNAL			
CHIEF JOSEPH DAM		WASHINGTON	
SIZE	INVITATION NO.	FILE NO.	DATE
F		CJP-1.38-6-208/1	02JUL02
DSGN	CAA	CHK SKL	SHEET 8 OF 13

REFERENCE DRAWING 14



A





**NOTES**

Hatchway will be clear and plumb 1 P.  
Inserts for guide rail supports have been installed as noted.  
Anchor bolts and bearing plates for machinery support beams to be furnished by contractor.  
Items shown in boxes are existing.

Rated capacity 5000 LBS.  
Rated speed 200 ft. per min.  
Travel 78 ft.

Reference Drawing No. R1

REVISION	DATE	DESCRIPTION	BY

CORPS OF ENGINEERS, U. S. ARMY  
NORTH PACIFIC DIVISION, PORTLAND, OREGON

DESIGNED BY: J.L.B.  
DRAWN BY: W.B.L.  
CHECKED BY: C.D.E.

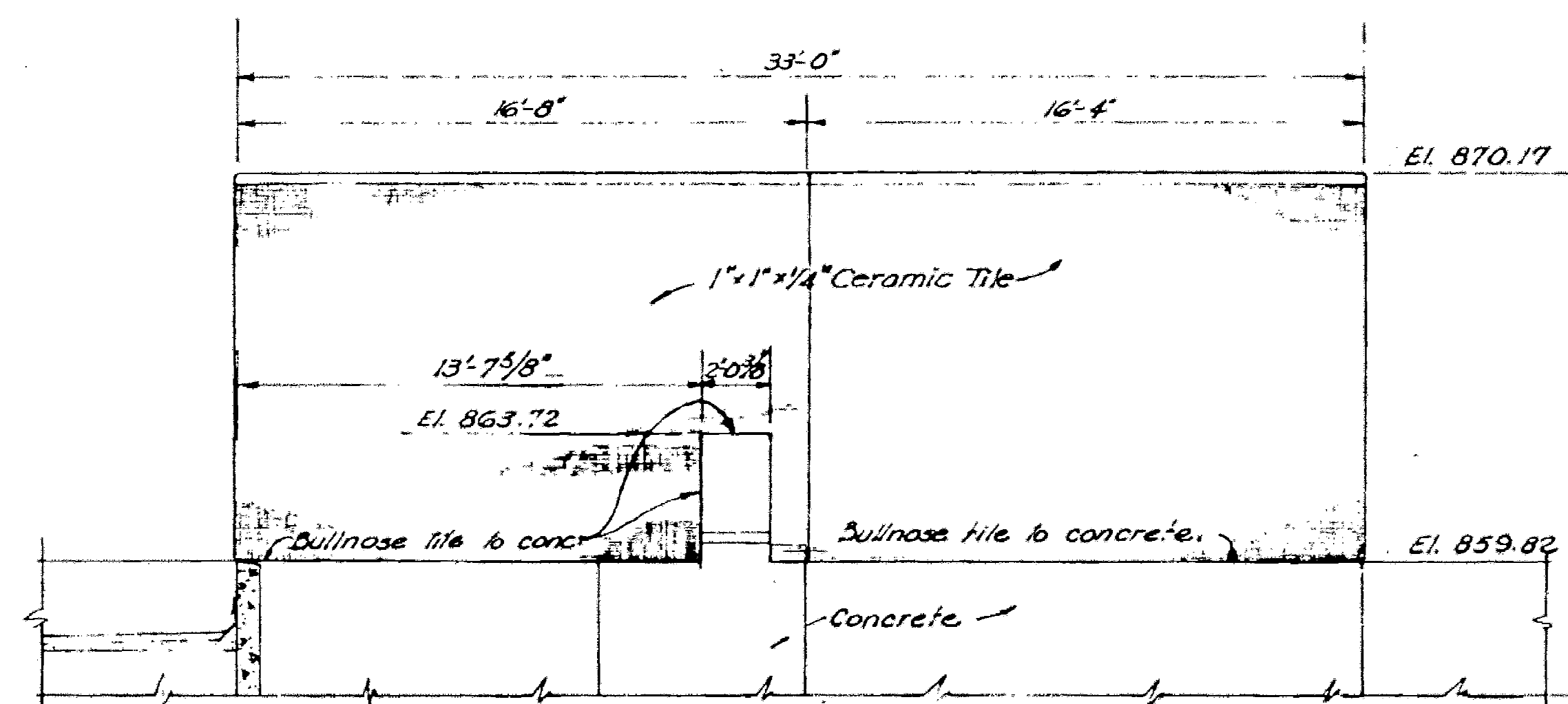
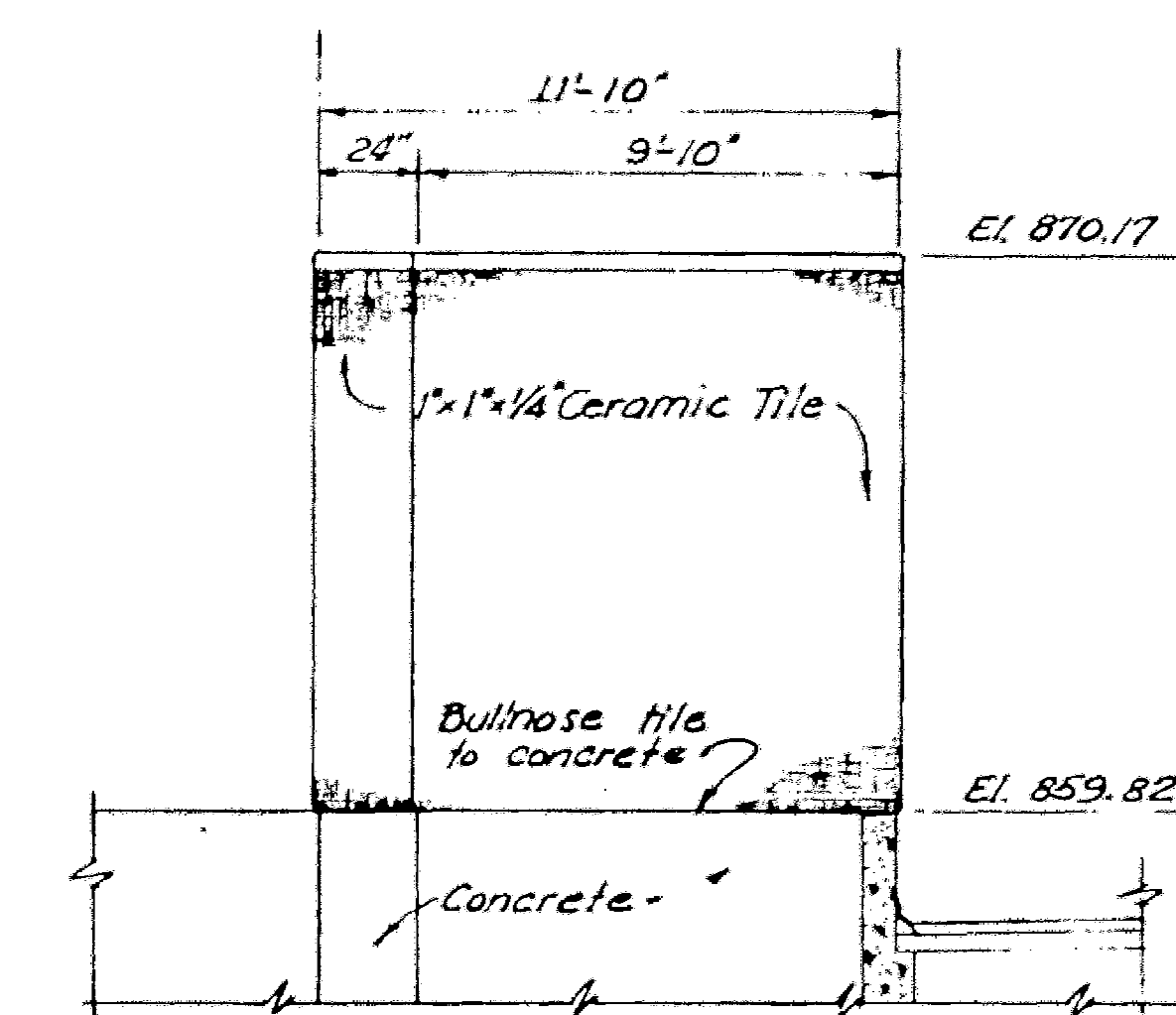
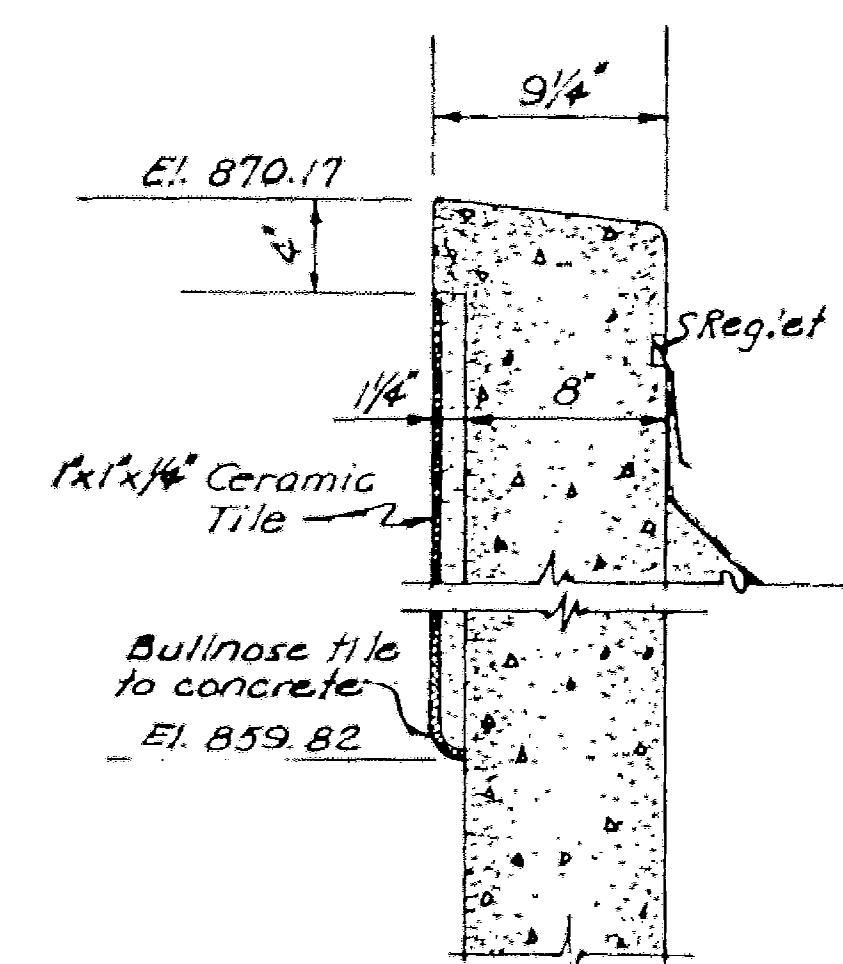
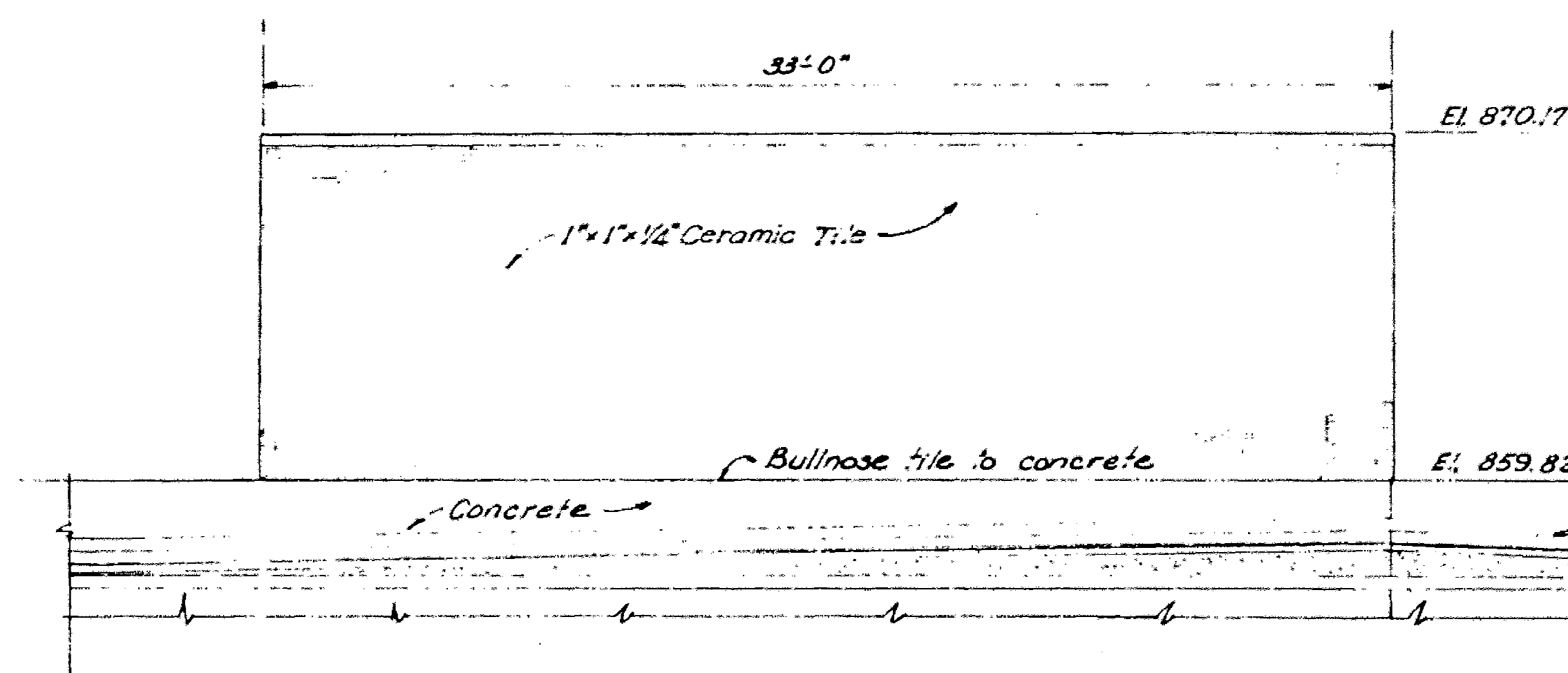
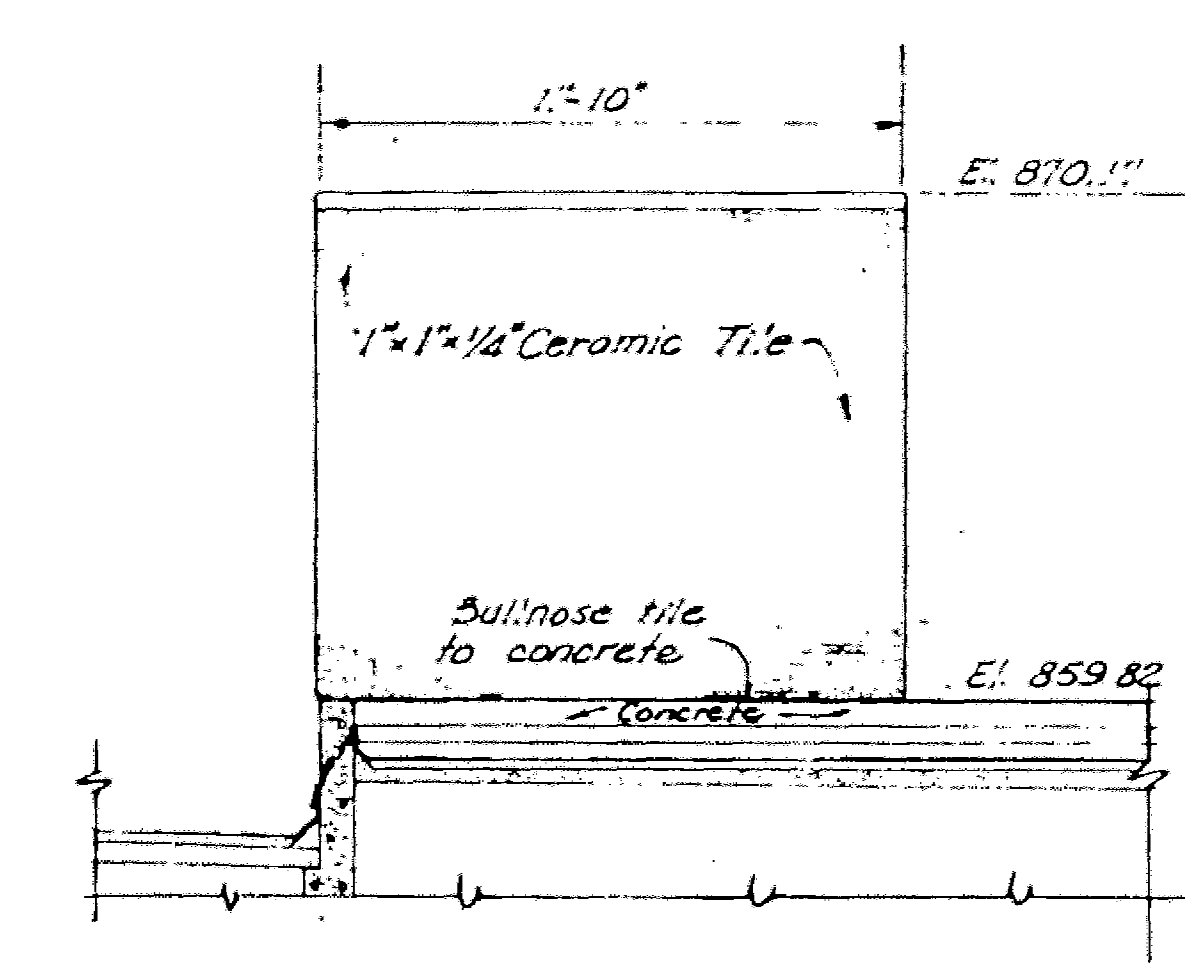
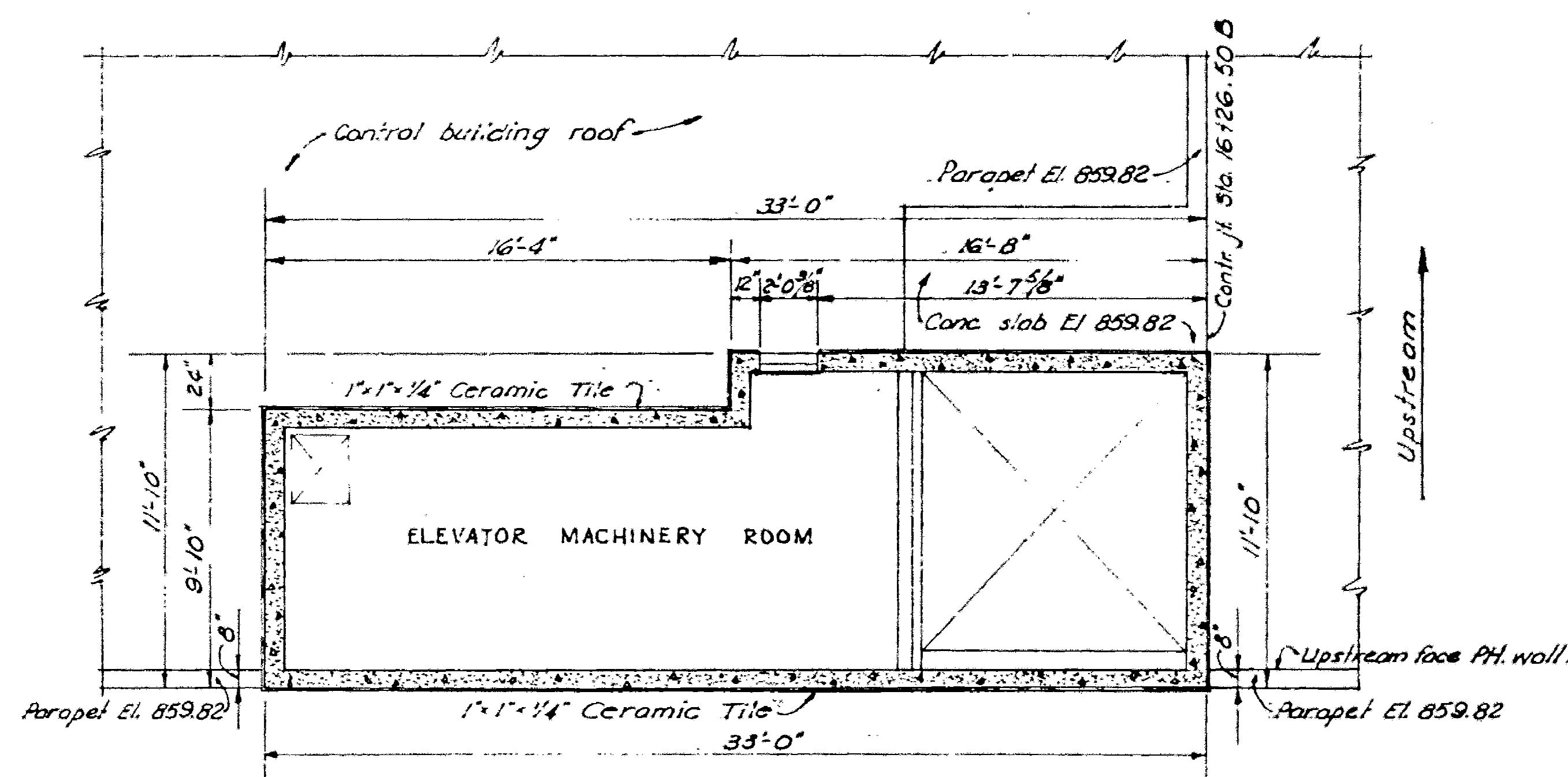
PREPARED BY: J.T. Sweeney  
FIELD ENGINEER - SECTION

REVIEWED BY: J.T. Sweeney  
CHIEF OF SECTION

SUBMITTED BY: J.T. Sweeney  
RECOMMENDED BY: J.T. Sweeney  
CHIEF, ENGINEERING SECTION

APPROVED BY: J.T. Sweeney  
CHIEF OF SECTION

SCALE: AS SHOWN  
SPEC. NO.: CJP-2.1-3-11/2

UPSTREAM ELEVATION  
Scale: 1/4" = 1'-0"EAST ELEVATION  
Scale: 1/4" = 1'-0"TYPICAL WALL SECTION  
Scale: 1/2" = 1'-0"DOWNSTREAM ELEVATION  
Scale: 1/4" = 1'-0"WEST ELEVATION  
Scale: 1/4" = 1'-0"PLAN EL. 860.36  
Scale: 1/4" = 1'-0"

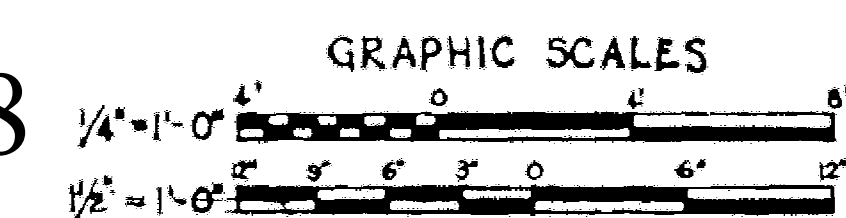
FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING  
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:  
1363-CS-26

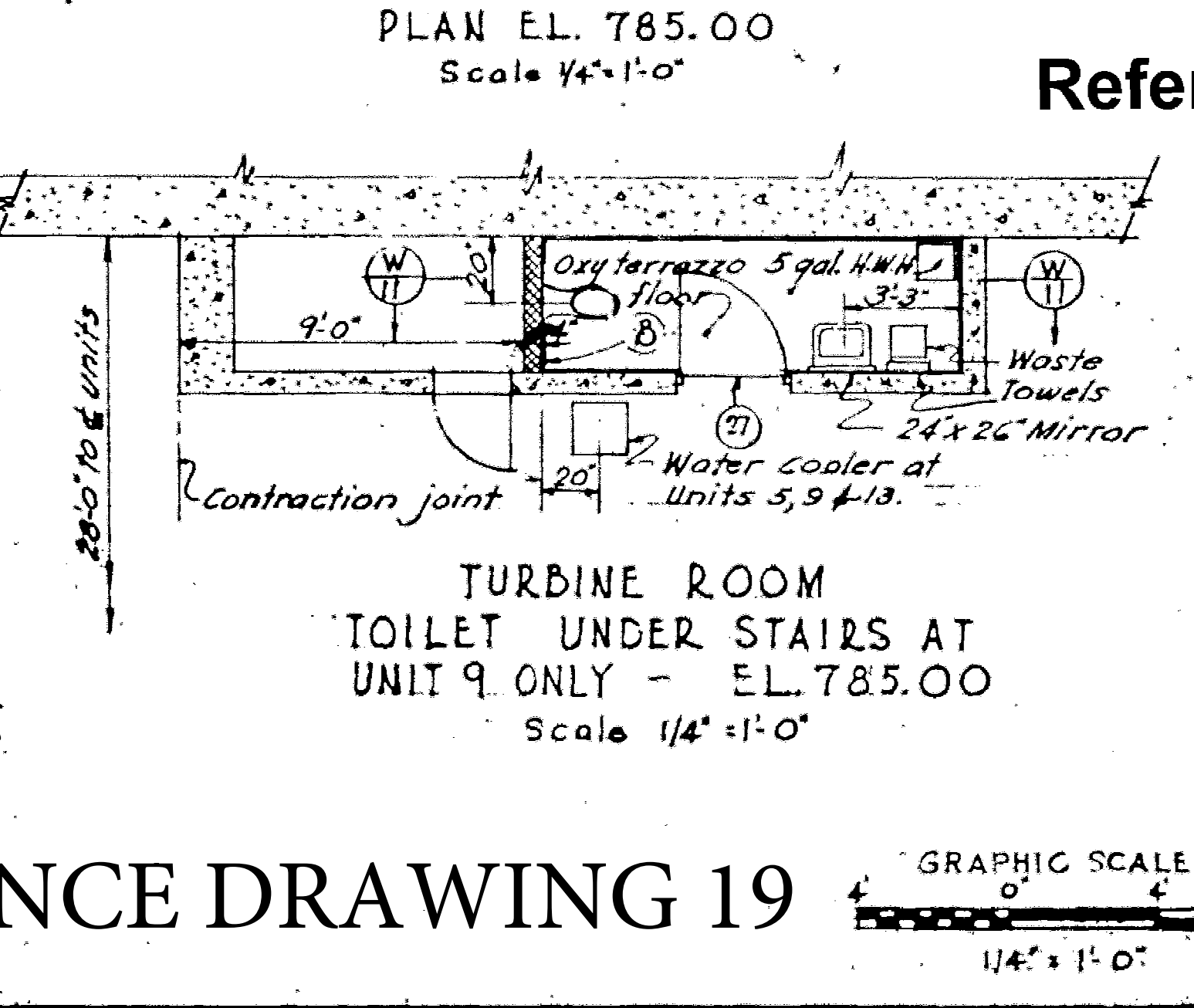
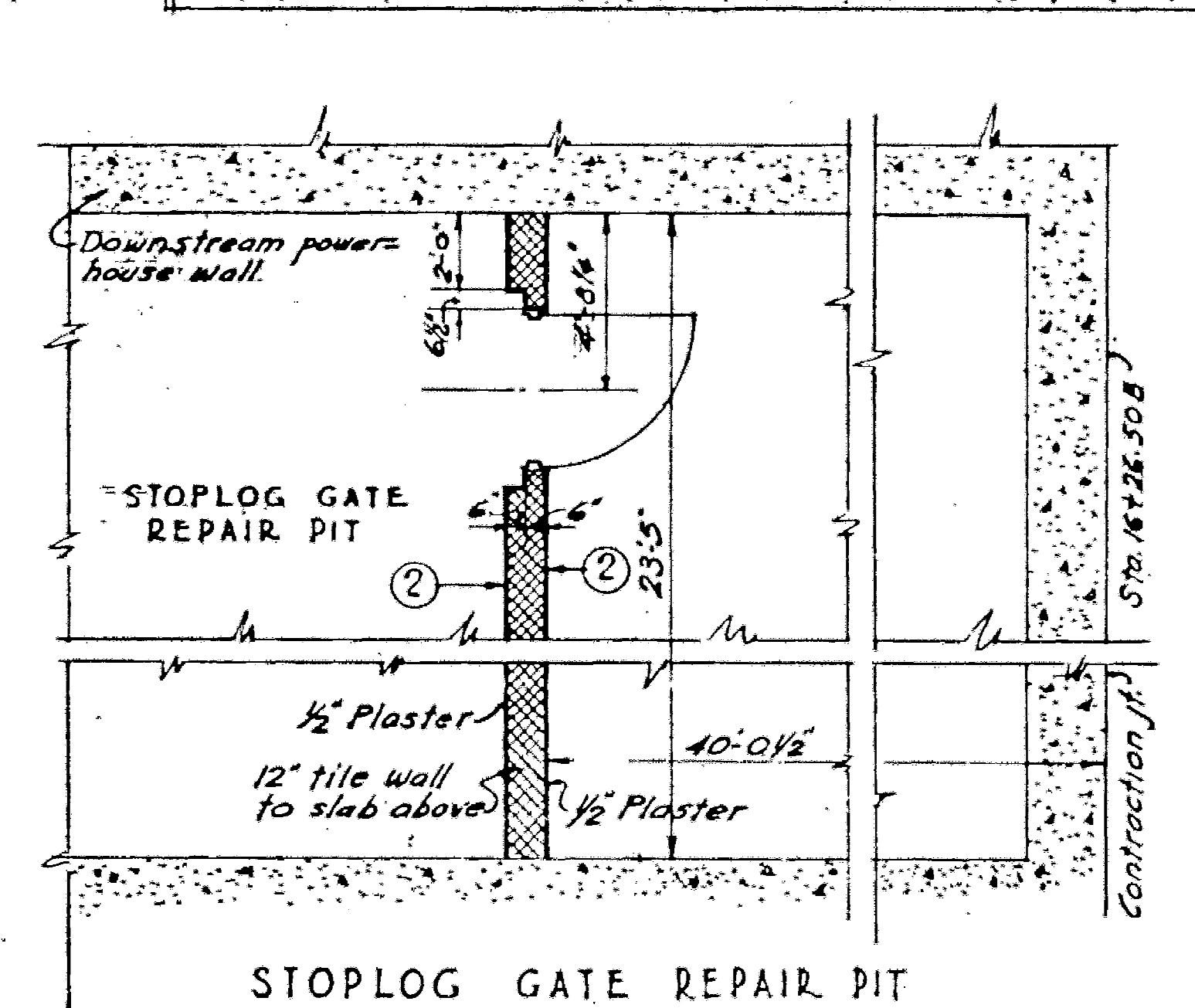
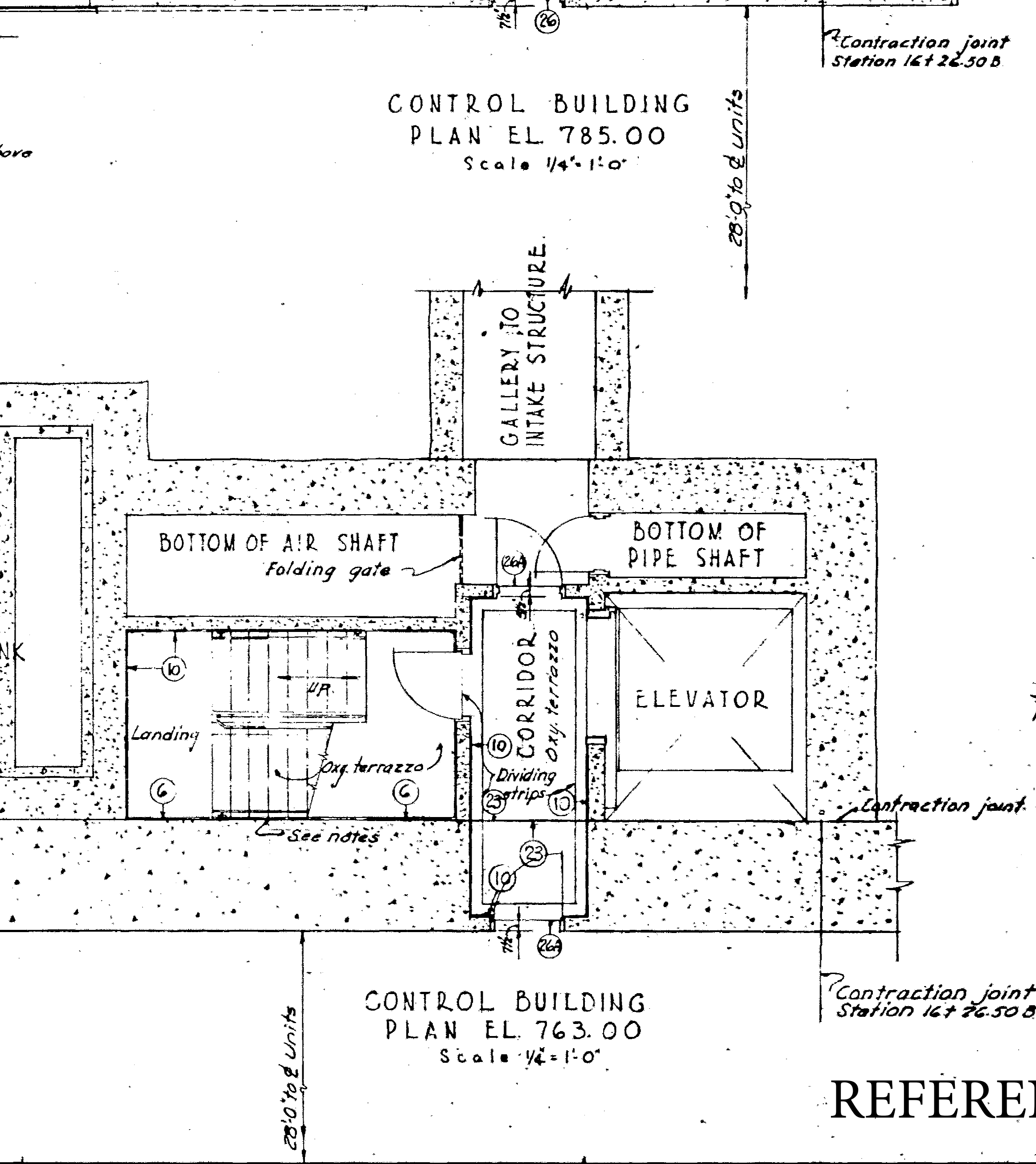
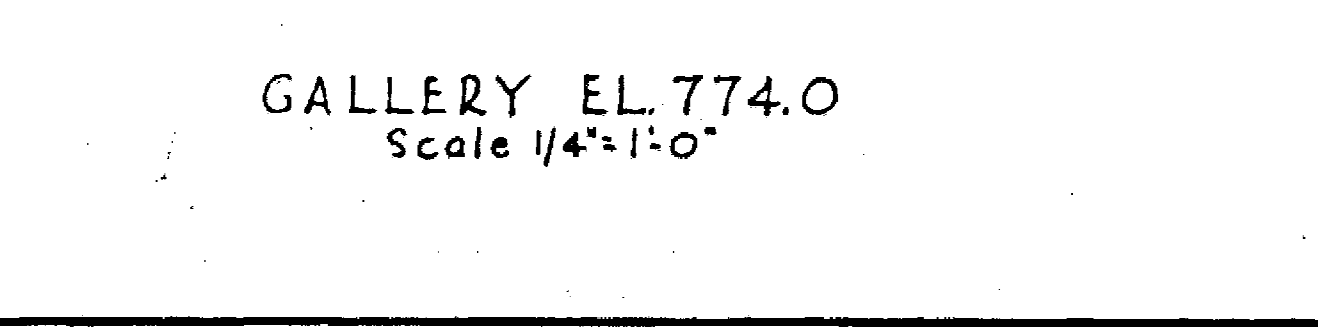
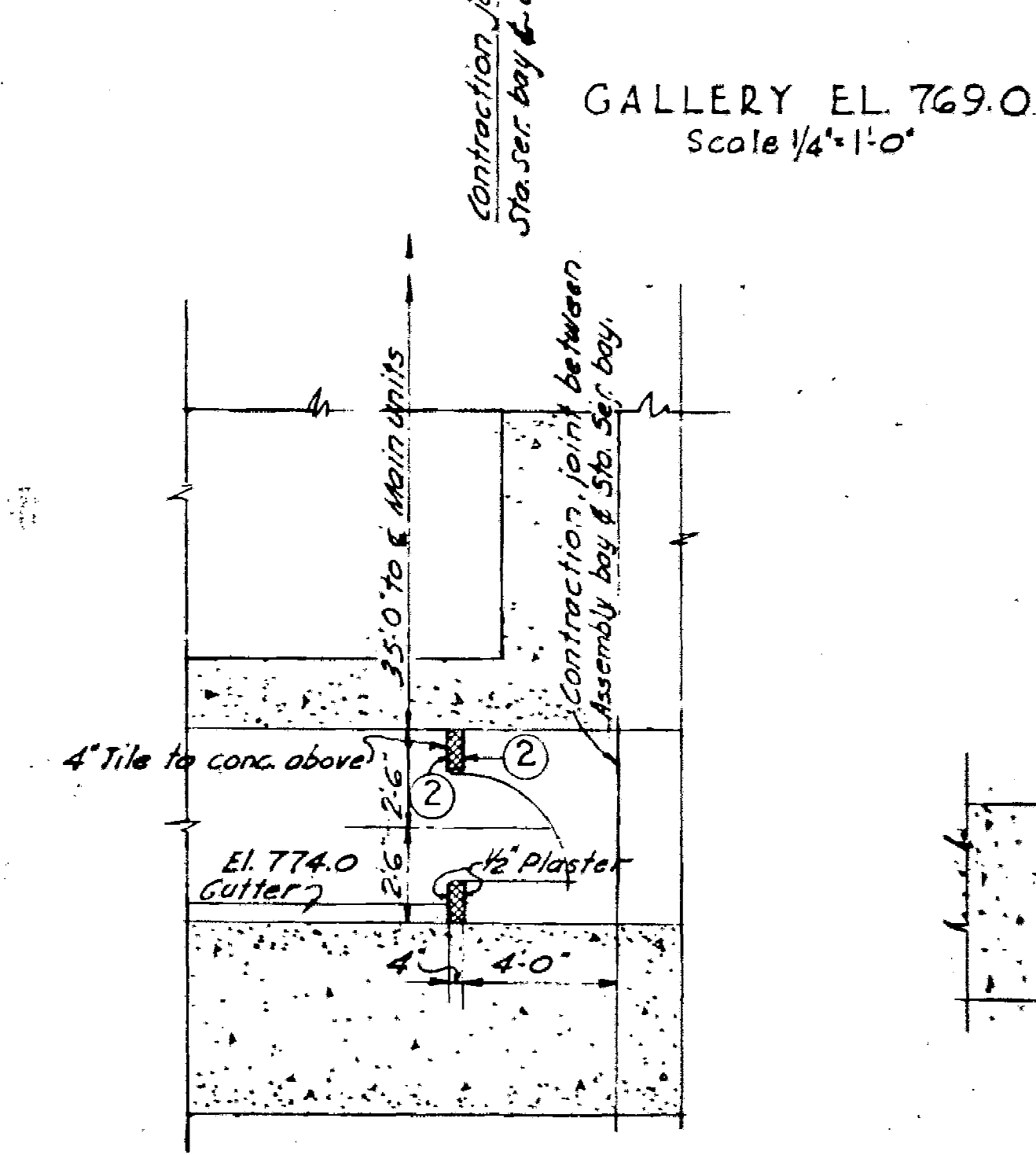
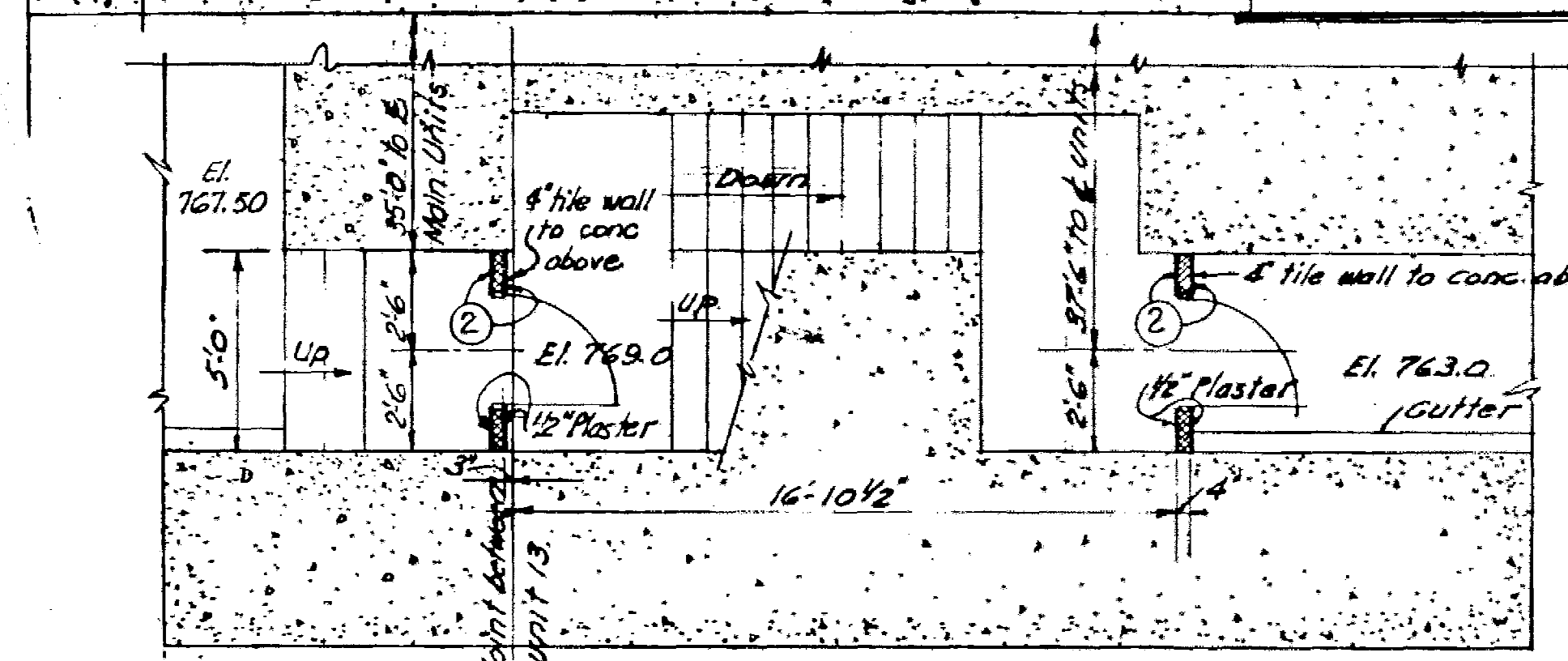
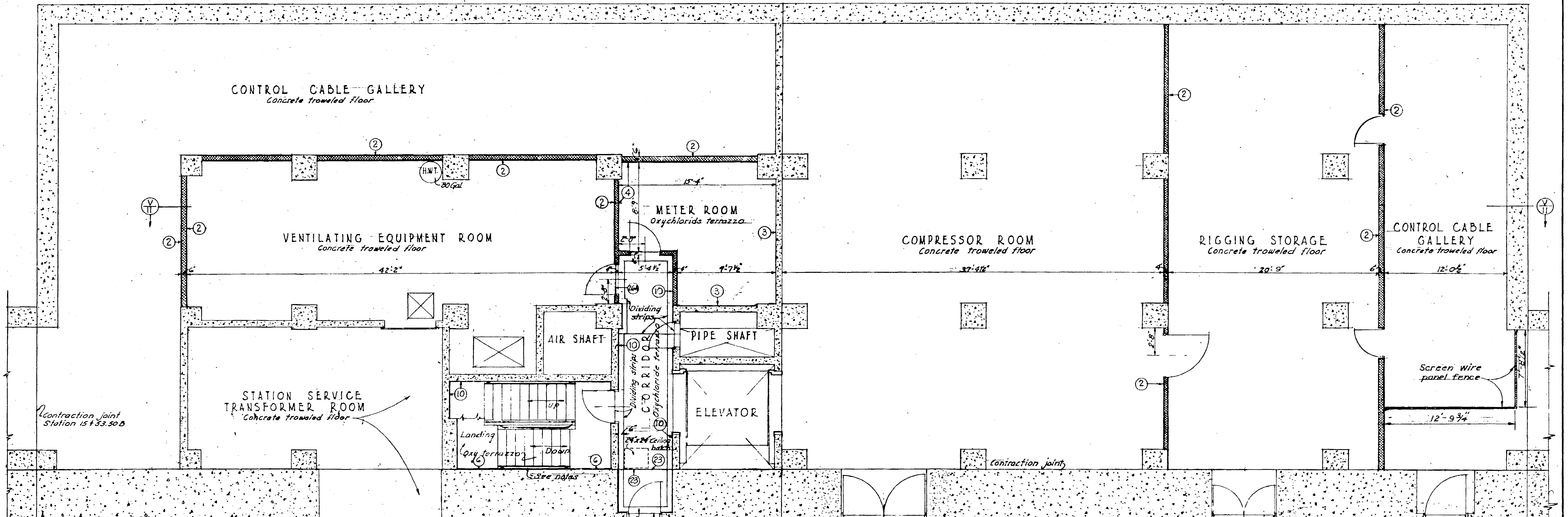
## Reference Drawing No. R2

FOR 13 COLUMBIA RIVER  
DETAILS - SEE LIST  
SKETCHES

2	3-3-54	Revised tile notes	684
1	3-3-53	Revised access door location	681
REVISION	DATE	DESCRIPTION	BY
CORPS OF ENGINEERS, U.S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON			
DESIGNED BY M.J.A.		COLUMBIA RIVER, WASHINGTON	
DRAWN BY M.J.A.		CHIEF JOSEPH DAM POWERHOUSE	
CHECKED BY J.R.B.		ARCHITECTURAL	
PREPARED BY C. J. Hoffman		ELEVATOR PENTHOUSE	
REVIEWED BY C. J. Hoffman		TILE DETAILS	
SUBMITTED BY C. J. Hoffman		DATE 13 May 53	
RECOMMENDED BY C. J. Hoffman		SCALE AS SHOWN SPEC. NO.	
CHIEF ENGINEERING DIVISION		CJP-2-2-0 / 13	
SHEET		24	

## REFERENCE DRAWING 18





**NOTES**

Any change in floor color or material in adjoining areas is to occur under the door when in a closed position.

Circled figures refer to base details shown on dwg CJP-2-2-0/16

For base detail of stairs adjacent to contraction joint see dwg CJP-2-2-0/17

**REFERENCE DRAWINGS**

INTERIOR SECTIONS - SHEET 3 CJP-2-2-0/11

BASE & WAINSCOT DETAILS CJP-2-2-0/16

MISCELLANEOUS DETAILS SHEET 1 CJP-2-2-0/17

FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING COLUMBIA RIVER CONSTRUCTION'S LIFT SKETCHES: 1563-AB-6, AB-8, CE-8, PH-48, PH-65, PH-81

**Reference Drawing No. R3**

**REF. 83**

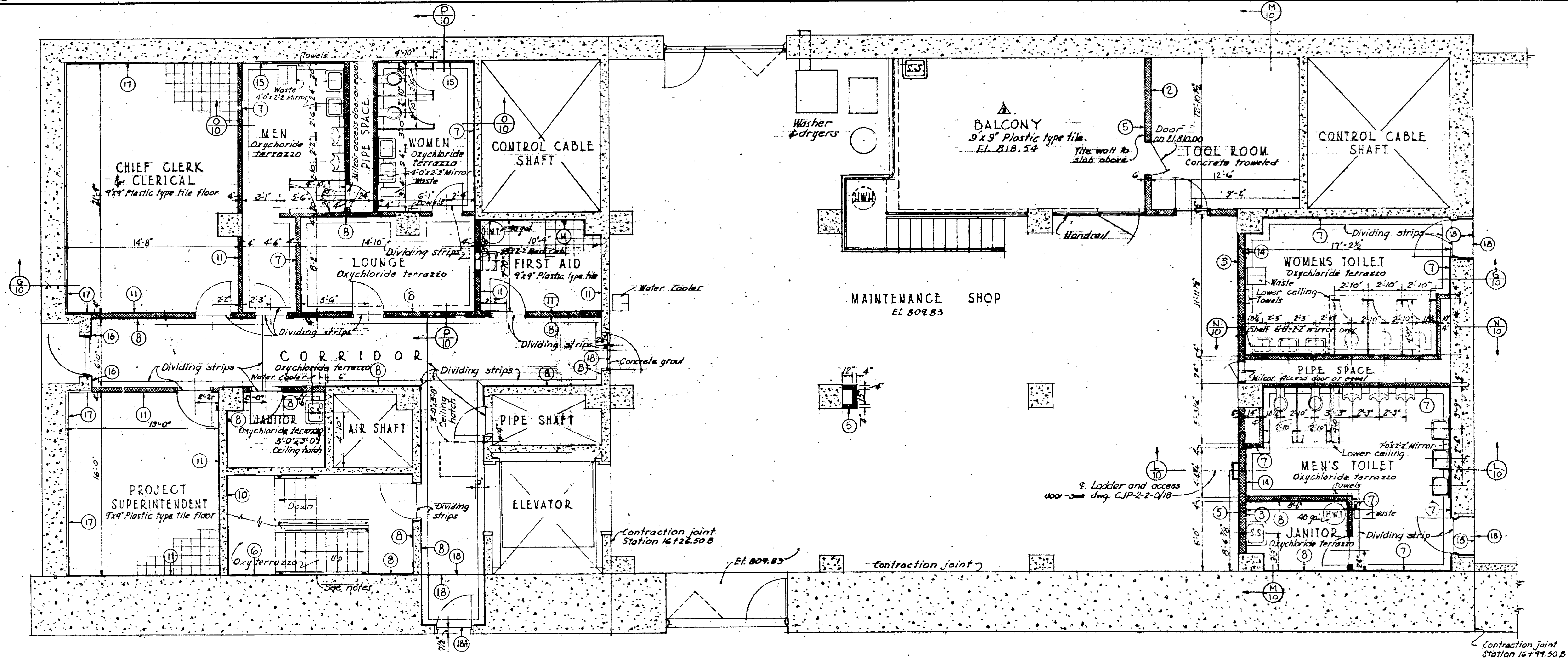
**FOR AS CONSTRUCTED DETAILS - SEE LIFT SKETCHES**

REVISION	DATE	DESCRIPTION	BY
1	11-5-53	Indicated threshold detail for Turbine Room Toilet EL 785.00	W.H.
2	7-25-53	Revised door in Gallery EL 769.0 & Turbine Room toilet	W.H.
3	8-20-53	Revised base details, dimensions and added gallery plans	W.H.

CORPS OF ENGINEERS, U.S. ARMY	
NORTH PACIFIC DIVISION, PORTLAND, OREGON	
COLUMBIA RIVER, WASHINGTON	
CHIEF JOSEPH DAM	
POWERHOUSE	
ARCHITECTURAL	
PLANS EL. 763 & EL. 785	
DESIGNED BY H.G.T.A.H.	APPROVED
DRAWN BY A.J.E.	DATE 1/28/54
CHECKED BY P.E.S.	SCALE NO. 1/4" = 1'-0"
PROJECT NO. 1563-AB-6	SHEET NO. 1398
CJP-2-2-0/16	





CONTROL BLDG - PLAN EL. 810.00  
Scale 1/4" = 1'-0"

## NOTES

Toilet stall dimensions are from face of tile wainscot.  
All other dimensions are from rough masonry surfaces.  
Any change in floor color or material in adjoining areas is to occur under the door when in a closed position.  
Terrazzo floor colors from "The National Terrazzo & Mosaic Association Inc." catalogue, copyrighted 1951.  
Circled figures refer to base details shown on dwg. CJP-2-2-0/16.  
Oxychloride terrazzo on stairs.  
For detail of stairs adjacent to contraction joint see dwg. CJP-2-2-0/17.

## REFERENCE DRAWINGS

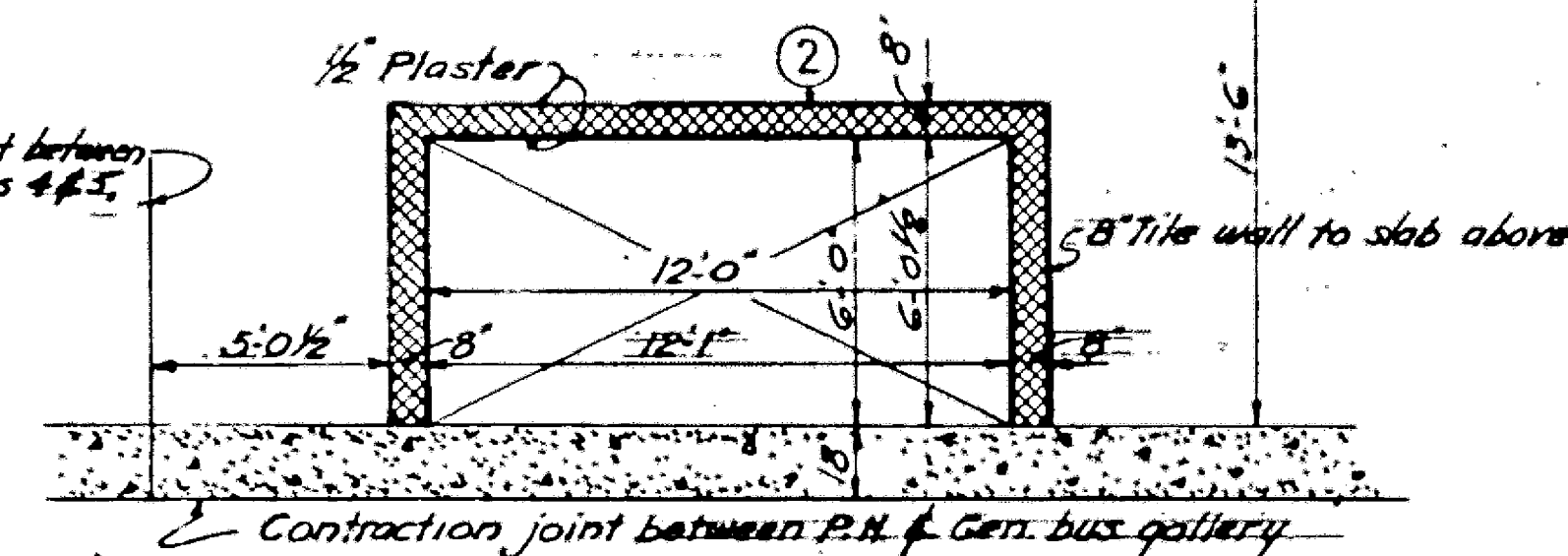
INTERIOR SECTIONS - SHEET 2 CJP-2-2-0/10  
BASE & WAINSCOT DETAILS CJP-2-2-0/16  
MISCELLANEOUS DETAILS SHEET 1 CJP-2-2-0/17

## Reference Drawing No. R4

REF. 85

FOR AS CONSTRUCTED  
DETAILS - SEE L.I.T  
SKETCHES

Contraction joint between  
Service deck units 16+5,  
8+9, 16+17



EL. 810.00  
Scale 1/4" = 1'-0"

FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING  
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:  
1563-C8-14, C8-15, C8-16, C8-17, C8-19, C8-20

GRAPHIC SCALE

1/4" = 1'-0"

REFERENCE DRAWING 20

REVISION	DATE	DESCRIPTION	BY
1	8-13-53	Added structural steel balcony to maintenance shop	R.M.
2	8-13-53	Revised dimensions, access door and floor finish	C.A.
3	8-13-53	Revised ceiling, base details, 6" tile wall and toilet compartments	L.L.

DESIGNED BY H.G.A.L.E.	COLUMBIA RIVER, WASHINGTON
DRAWN BY A.E.	CHIEF JOSEPH DAM
CHECKED BY R.E.S.	POWERHOUSE
PREPARED BY	ARCHITECTURAL
REVIEWED BY	PLAN EL. 810
SUBMITTED BY	
APPROVED BY	

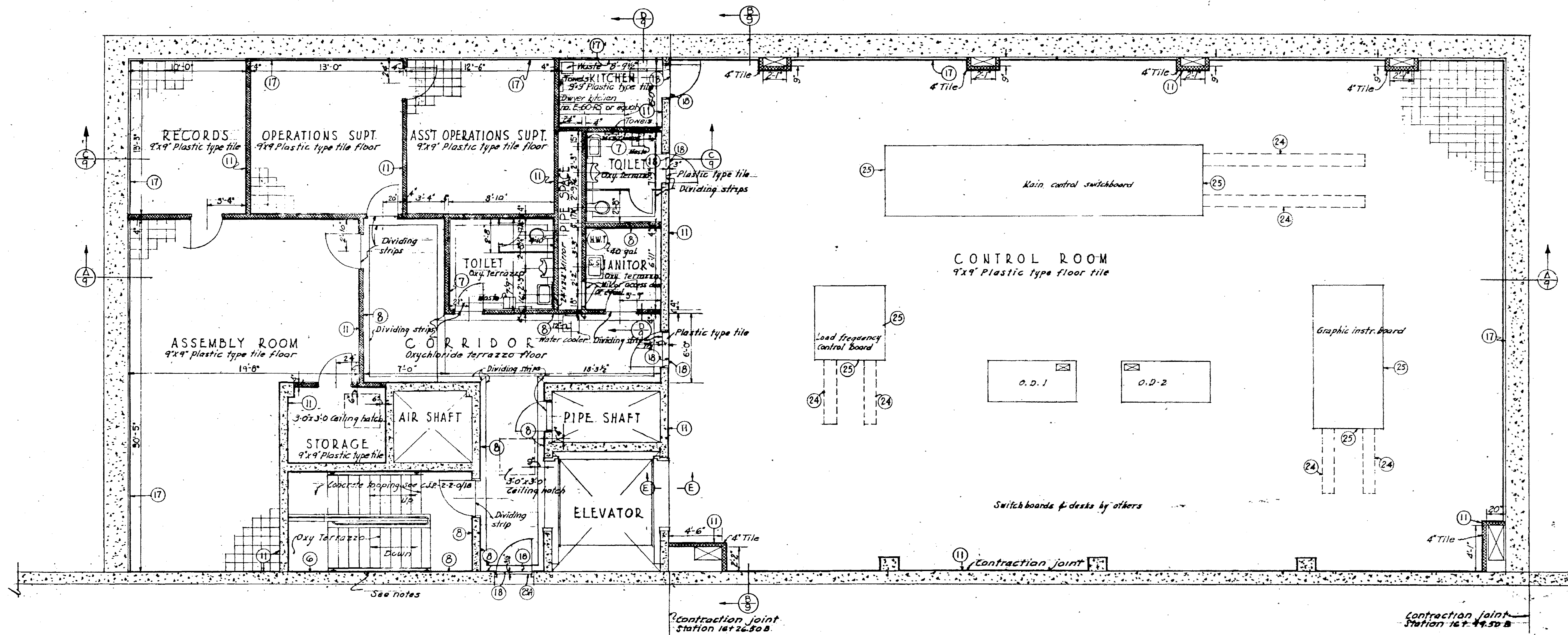
DATE 1 Oct. 52	SCALE AS SHOWN	SPEC. NO.
CJP-2-2-0/6		

541101

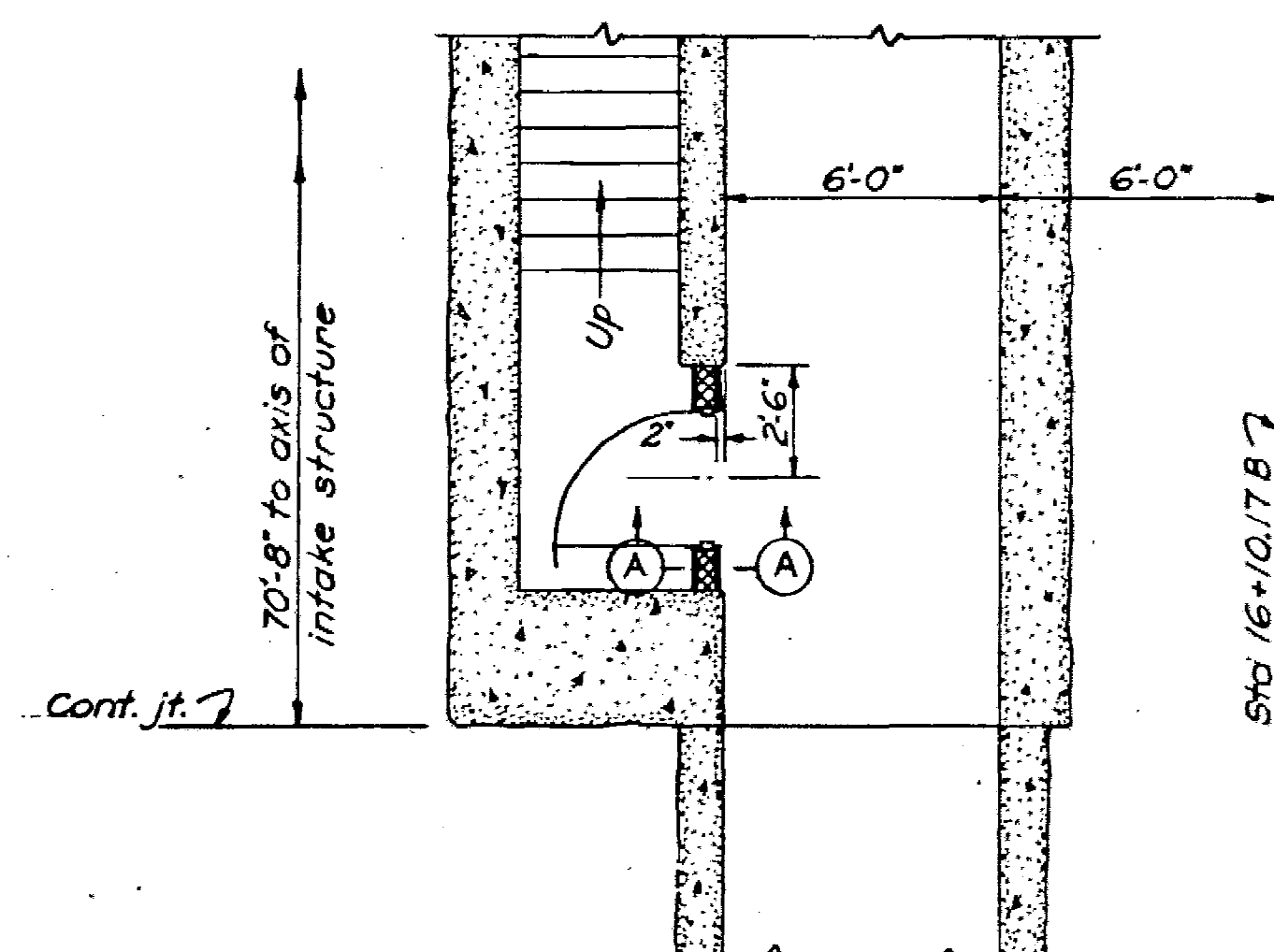
2 2 2

1398

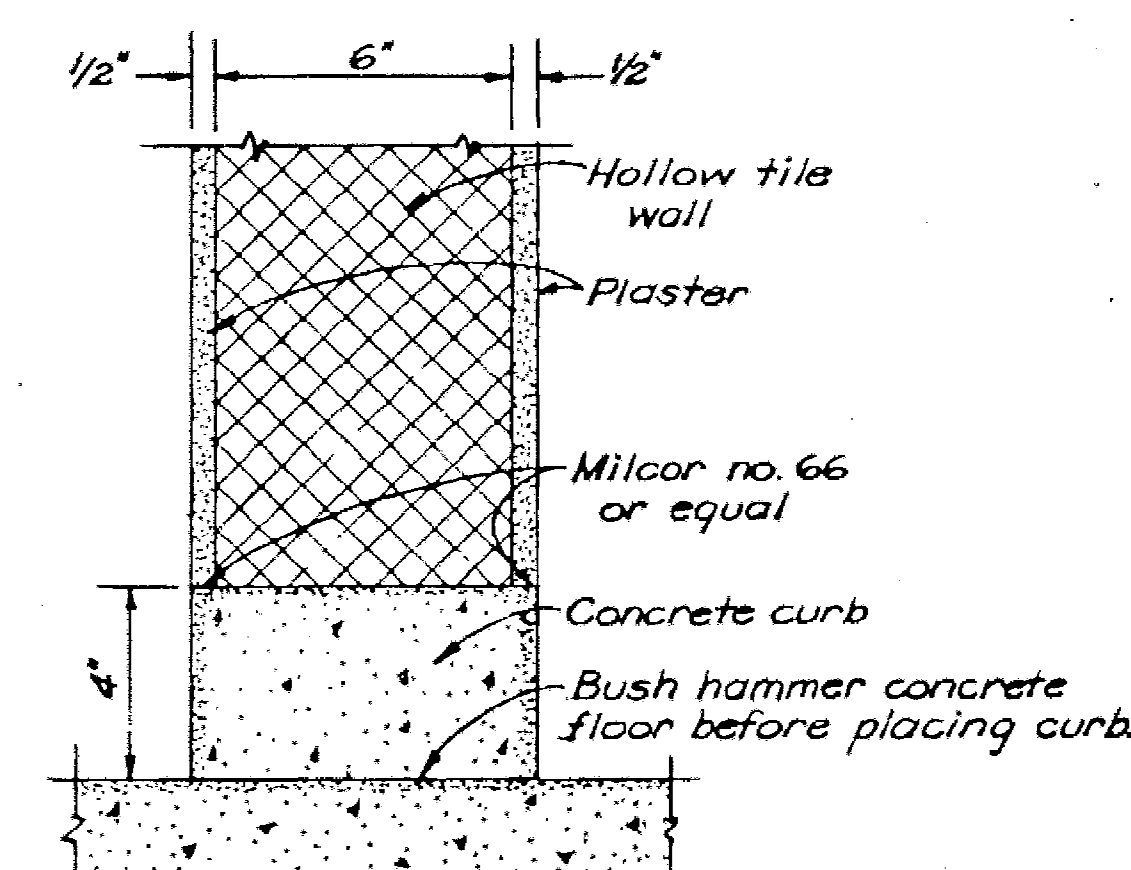




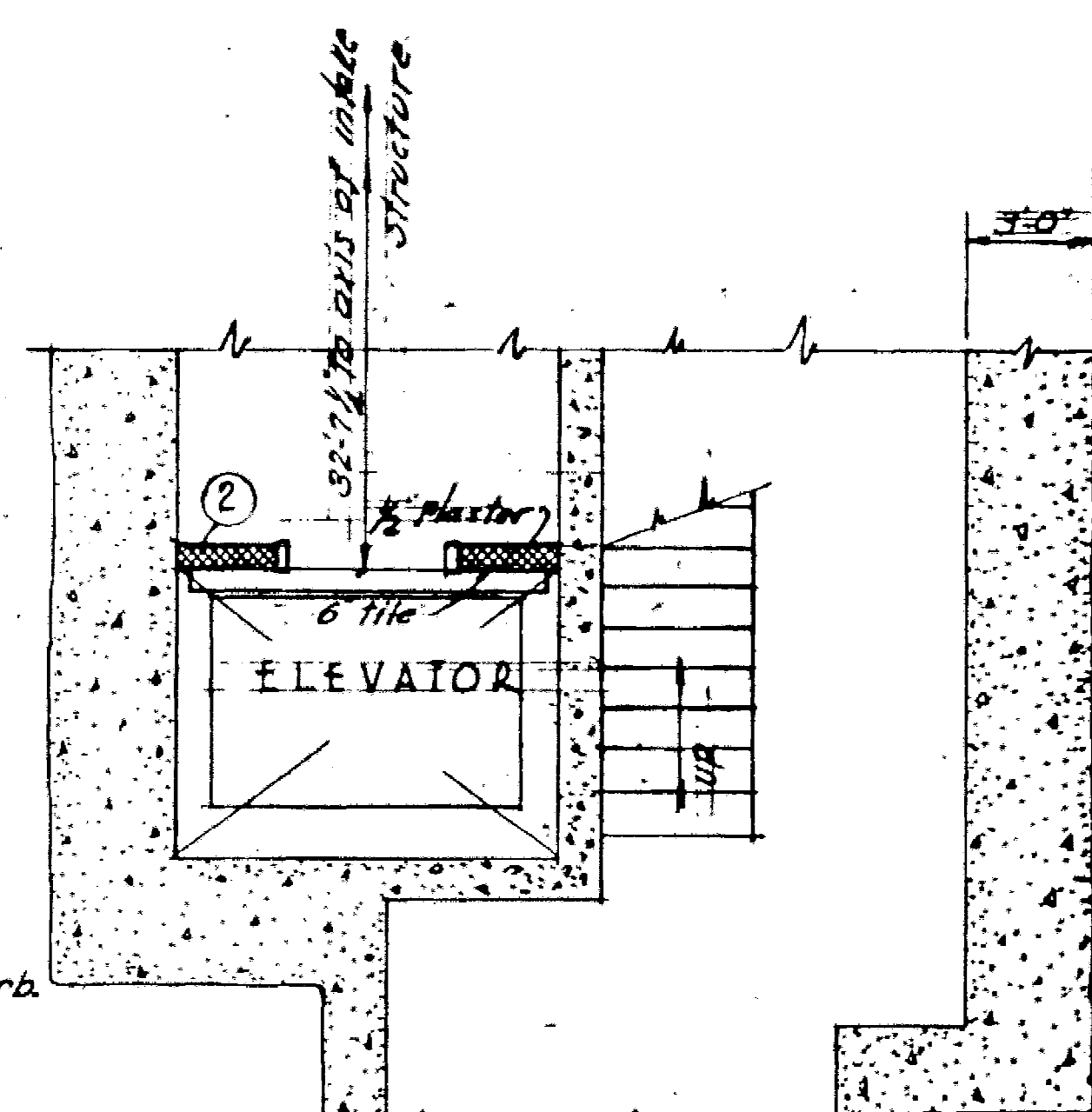
CONTROL BUILDING  
PLAN EL 841.00  
Scale 1/4" = 1'-0"



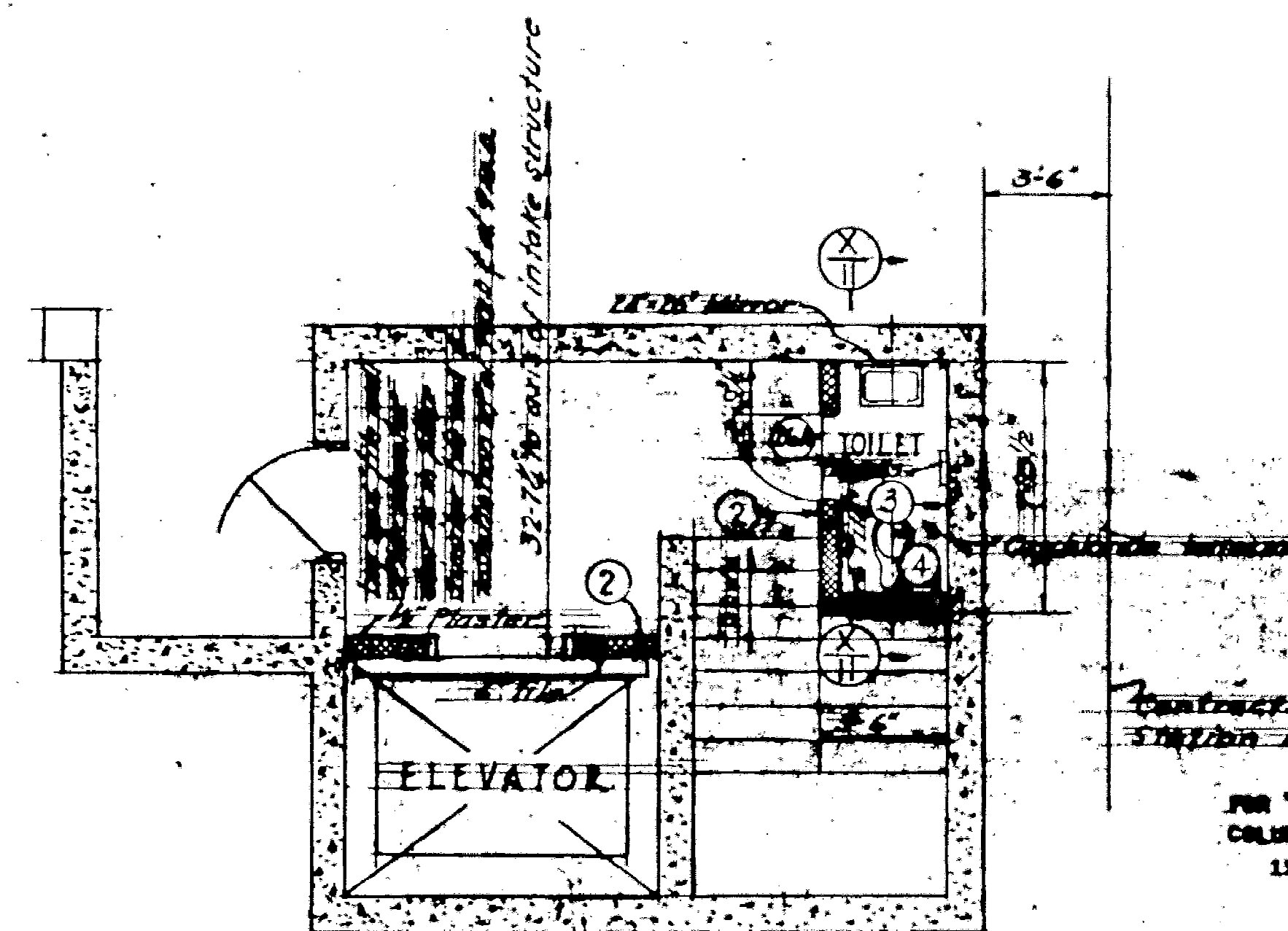
PLAN EL 801.00 INTAKE STRUCTURE  
Scale 1/4" = 1'-0"



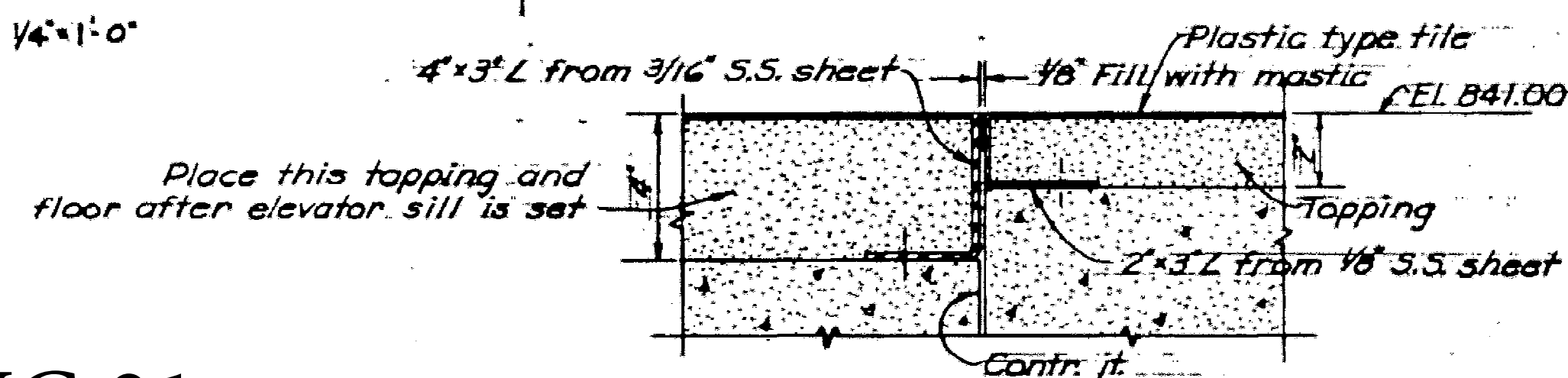
SECTION A-A  
Scale 3" = 1'-0"



PLAN EL 810.00 INTAKE STRUCTURE  
Scale 1/4" = 1'-0"



PLAN EL 960.00 INTAKE STRUCTURE  
Scale 1/4" = 1'-0"



SECTION E-E  
Scale 3" = 1'-0"

NOTES  
Toilet stall dimensions are from face of tile wallcoat.  
All other dimensions are from rough masonry surfaces.  
Any change in floor slab or material in adjoining areas is to occur under the door when in a closed position.  
Equipment in control room to be installed after switchboard foundations are placed. 9x9 plastic type tile to be installed after control room equipment is placed.  
Circle figures refer to details shown on sheet E.L.R. 2-2-0/16 for detail of stairs adjacent to contraction joint.  
See sheet E.L.R. 2-2-0/16.

## Reference Drawing No. R5

### REFERENCE DRAWINGS

INTERIOR SECTION SHEET 1	C.U.P. 2-2-0/9
BASE & MAINSHEET DETAILS	C.U.P. 2-2-0/15
MISCELLANEOUS DETAILS SHEET 1	C.U.P. 2-2-0/17
MISCELLANEOUS DETAILS SHEET 2	C.U.P. 2-2-0/18

FOR "AS-BUILT" CONDITIONS, SEE THE FOLLOWING  
COLUMBIA RIVER CONSTRUCTION'S LIFT SKETCHES:  
1363-88-04, C8-24, C8-25, 81-1, 81-9

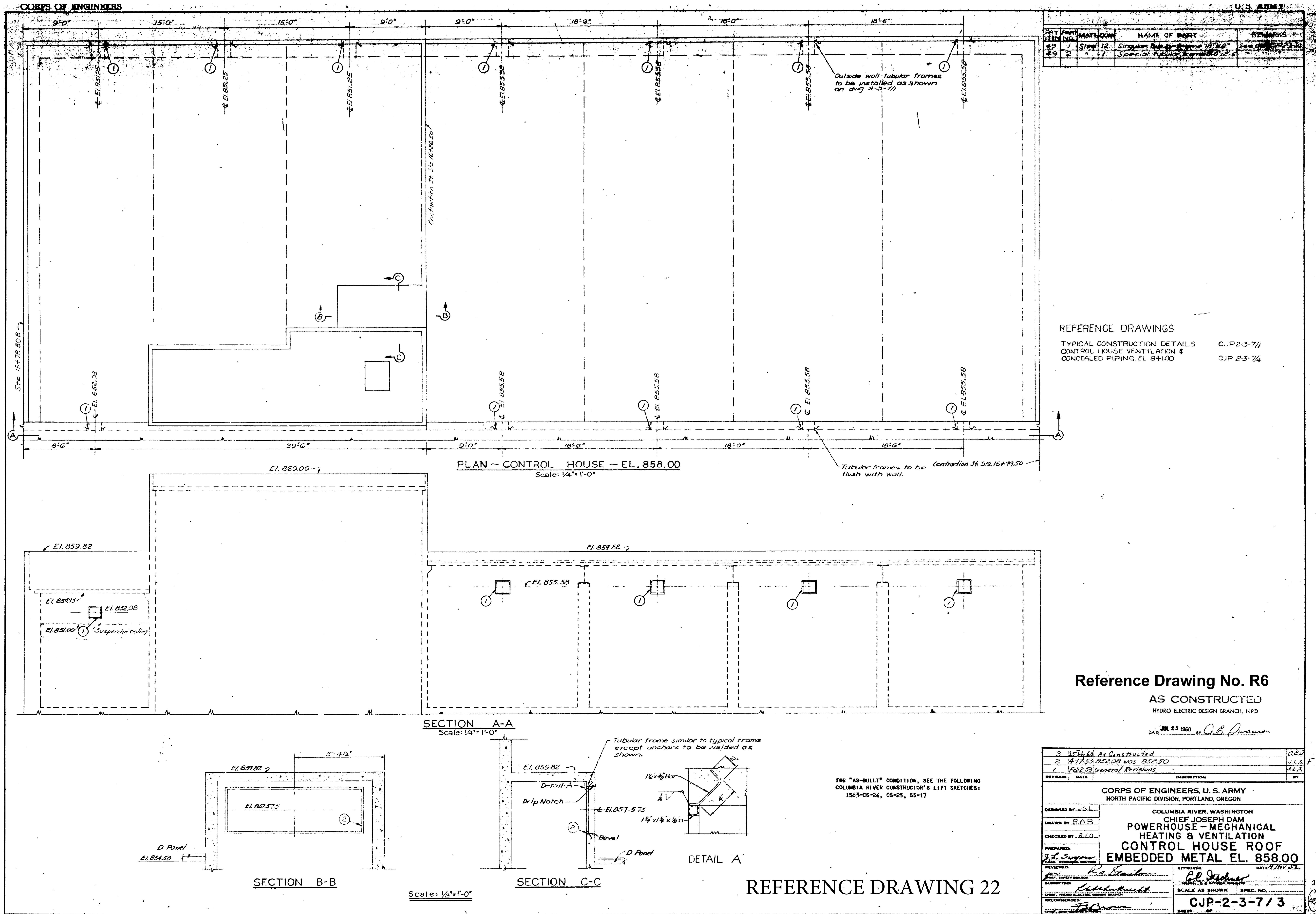
FOR AS CONSTRUCTED  
DETAILS - SEE LIFT  
SKETCHES

REF. 87

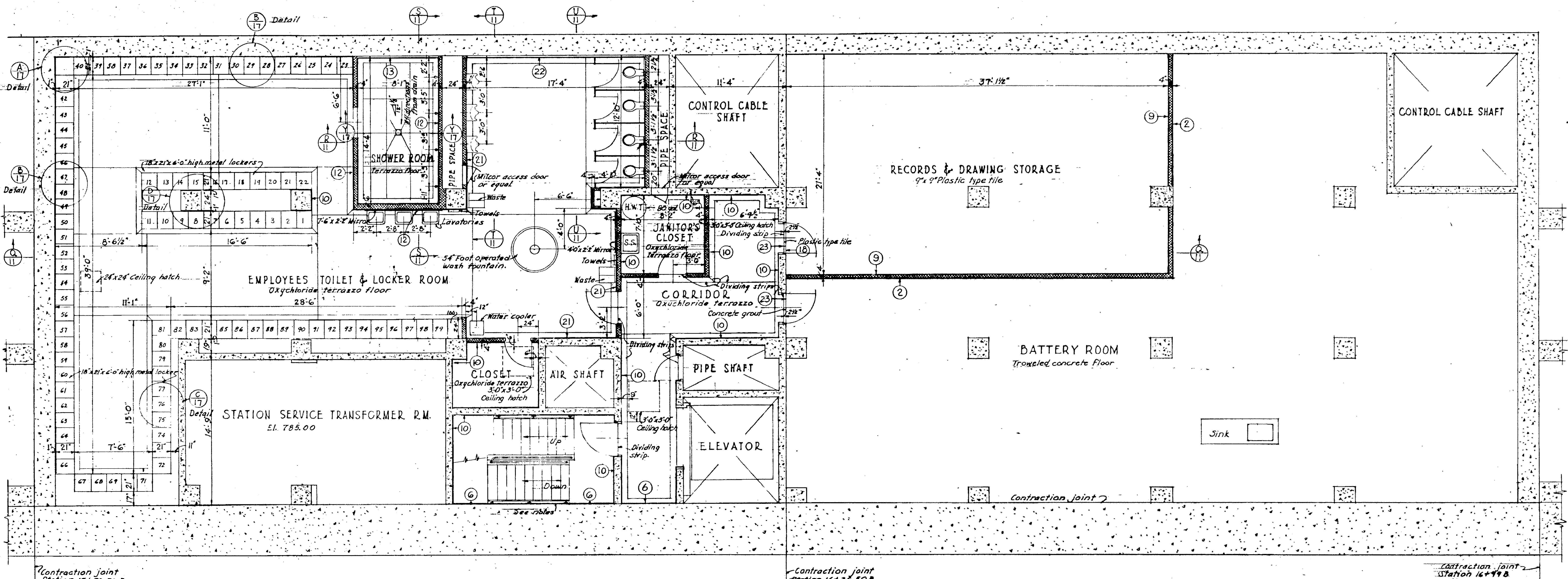
5	6-15-54	Added Section E-E	21
4	1-29-54	Added plan at EL 801.00 and Section A-A	20
3	9-25-53	Added tile walls in control room	19
2	9-9-53	Revised dimensions	18
1	5-10-53	Revised ceiling hatch, base details, dimensions and toilet comp.	17

CORPS OF ENGINEERS, U.S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON	
COLUMBIA RIVER, WASHINGTON CHIEF JOSEPH DAM POWERHOUSE ARCHITECTURAL PLAN EL 841	
DESIGNED BY: H. J. L. L.	SCALE AS SHOWN
DRAWN BY: A. M. E.	
CHECKED BY: D. M. A.	
APPROVED BY: [Signature]	
DATE: [Blank]	BY: [Blank]

## REFERENCE DRAWING 21







CONTROL BUILDING  
PLAN EL. 798.00  
Scale 1/4"=1'-0"

NOTES

- Toilet stall dimensions are from face of tile wainscot.
- All other dimensions are from rough masonry surfaces.
- Any change in floor color or material in adjoining areas is to occur under the door when in a closed position.
- Circled figures refer to base details shown on dwg. CJP-2-2-0/16.
- Oxychloride terrazzo on all stairs.
- For base detail at stairs adjacent to contraction joint see dwg. CJP-2-2-0/17.

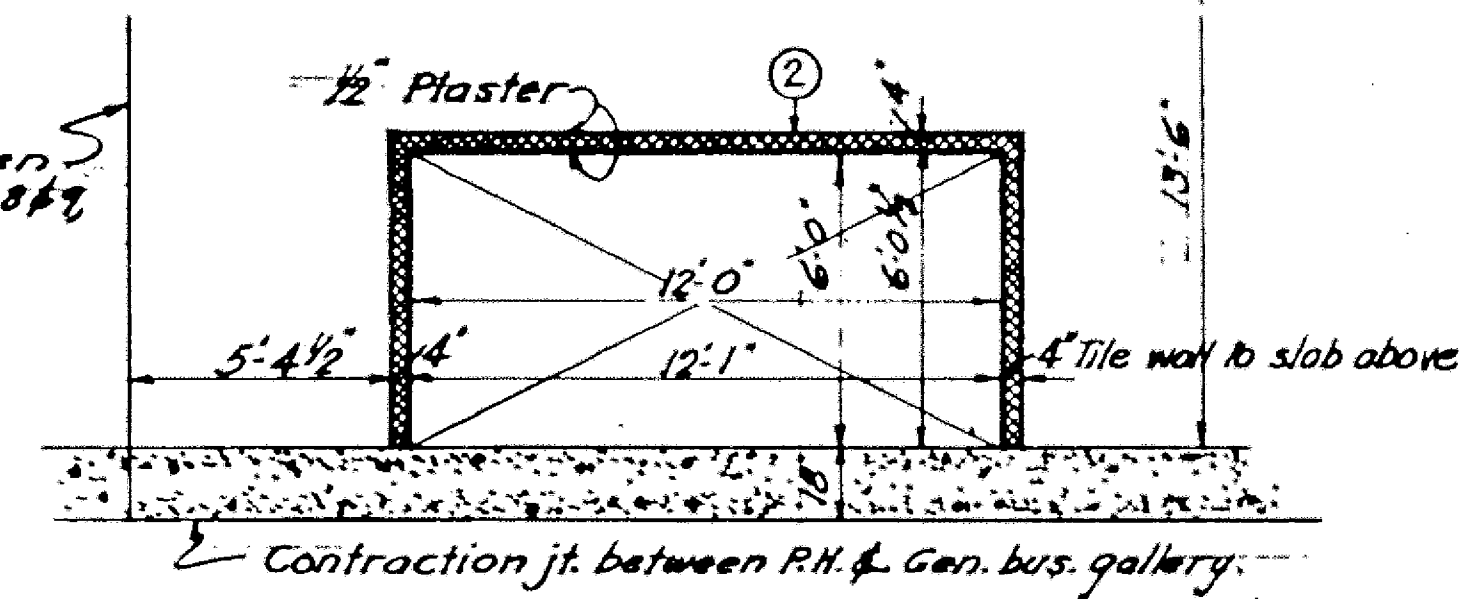
REFERENCE DRAWINGS

- INTERIOR SECTIONS - SHEET 3 - CJP-2-2-0/11
- BASE & WAINSCOT DETAILS - CJP-2-2-0/16
- MISCELLANEOUS DETAILS SHEET 1 - CJP-2-2-0/17

Reference Drawing No. R7

FOR AS CONSTRUCTED  
DETAILS - SEE LIFT  
SKETCHES

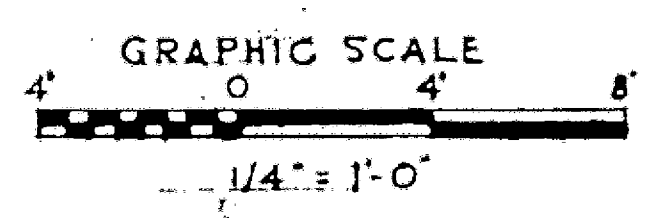
REF. 84



EL. 798.00  
Scale 1/4"=1'-0"

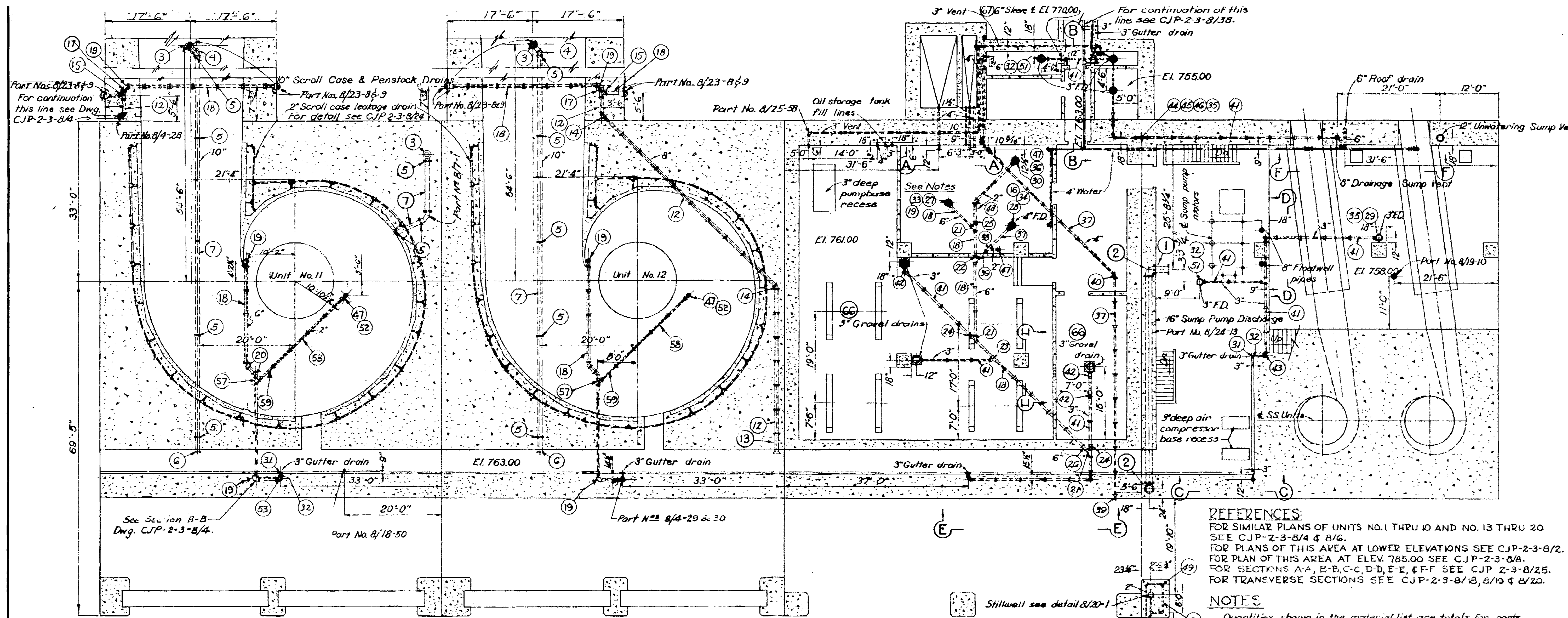
FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING  
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:  
1563-CS-9, CS-10, CS-12, CS-14

REFERENCE DRAWING 23

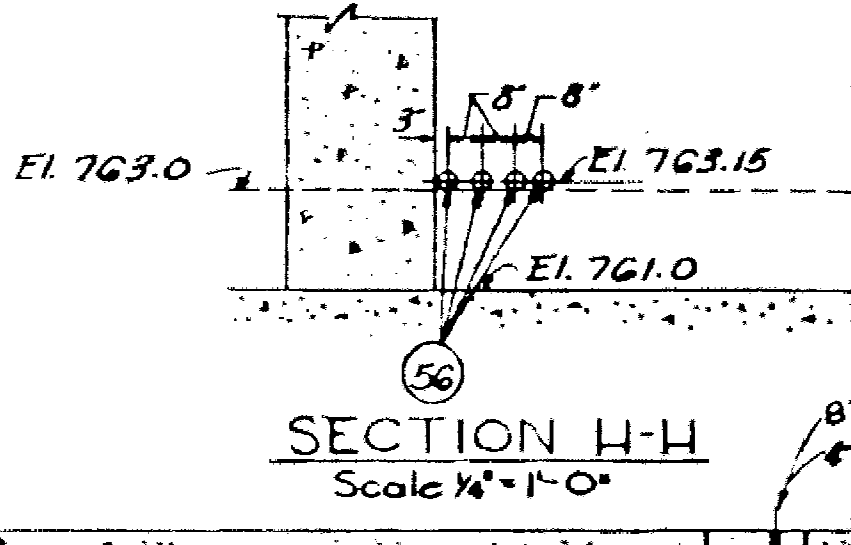
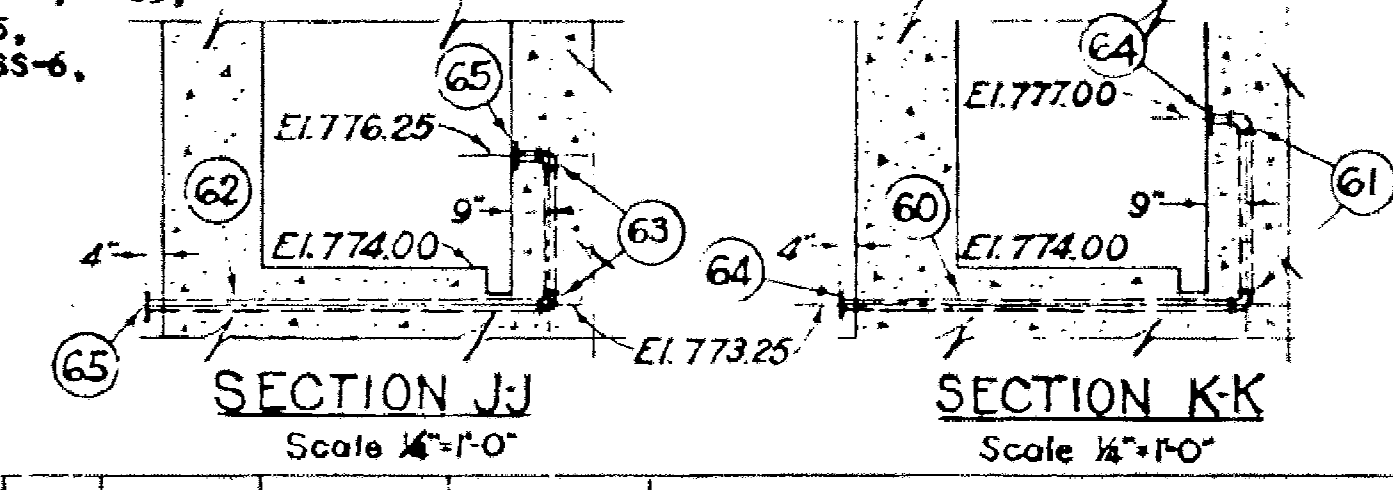


REVISION	DATE	DESCRIPTION	BY
1	2-20-53	Revised ceiling hatches, base details, Records & Drawing Storage, and tile walls.	C.B.P.
<p>CORPS OF ENGINEERS, U.S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON</p> <p>COLUMBIA RIVER, WASHINGTON CHIEF JOSEPH DAM POWERHOUSE ARCHITECTURAL PLAN EL. 798</p>			
DESIGNED BY	E. J. L. L.		
DRAWN BY	A. J. E.		
CHECKED BY	M. J. A.		
PREPARED BY	C. B. P.		
REVIEWED BY	E. J. L. L.		
SUBMITTED	E. J. L. L.		
RECOMMENDED	E. J. L. L.		
DATE	1 OCT 52		
SCALE AS SHOWN	SPEC. NO.		
SHEET: CJP-2-2-0/5			



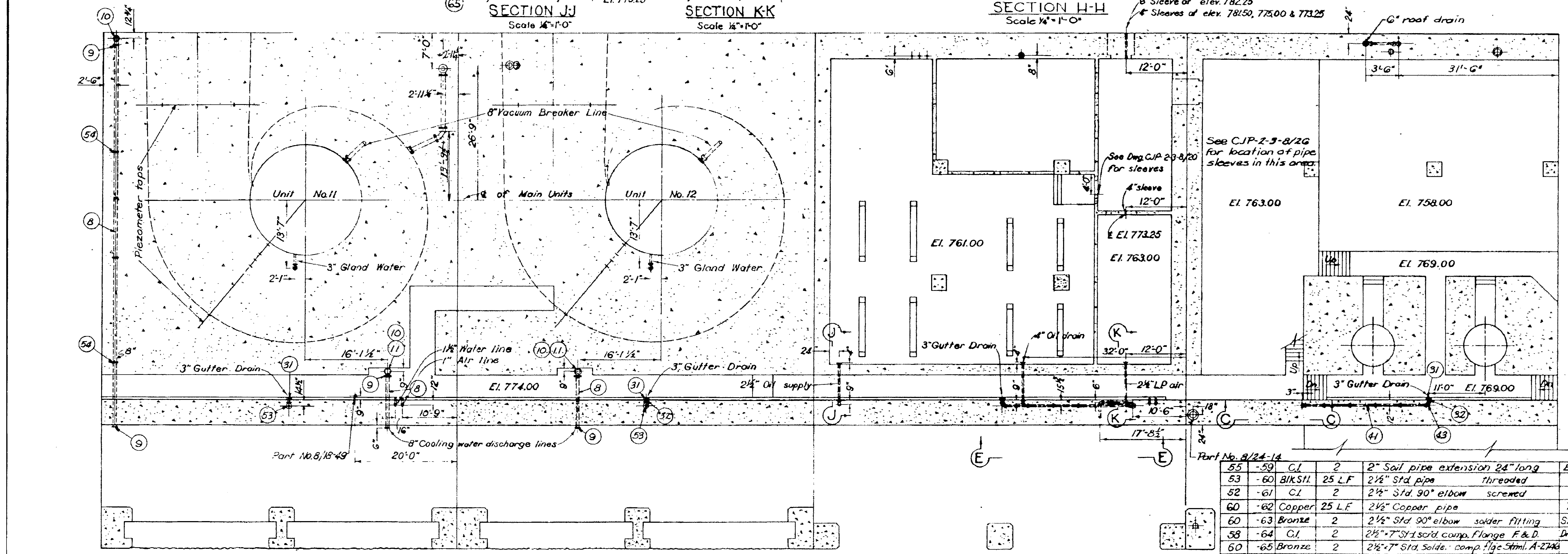


PLAN EL. 767.00  
Scale 3/32"=1'-0"



**REFERENCES:**  
 FOR SIMILAR PLANS OF UNITS NO. 1 THRU 10 AND NO. 13 THRU 20 SEE CJP-2-3-8/4 & 8/6.  
 FOR PLANS OF THIS AREA AT LOWER ELEVATIONS SEE CJP-2-3-8/2.  
 FOR PLAN OF THIS AREA AT ELEV. 785.00 SEE CJP-2-3-8/8.  
 FOR SECTIONS A-A, B-B, C-C, D-D, E-E, F-F SEE CJP-2-3-8/25.  
 FOR TRANSVERSE SECTIONS SEE CJP-2-3-8/18, 8/19 & 8/20.

**NOTES:**  
 Quantities shown in the material list are totals for parts shown on this sheet.  
 During erection and embedding piping shall be securely held in position, and precaution shall be taken to keep interior of pipe free from concrete or debris.  
 All exposed pipe threads and flange faces shall be adequately protected.  
 Piping to be located to suit water purification system see CJP-2-3-8/2.  
 AS constructed corrections made from lift sketches 1563-PH-77, 77-50



PLAN EL. 777.00  
Scale 3/32"=1'-0"

AS CONSTRUCTED  
 HYDRO ELECTRIC DESIGN BRANCH, NPD

55	-59	C.I.	2	2" Soil pipe extension 24" long	Ex. hvy. B & S
53	-60	BLK SH.	25 LF	2 1/2" Std. pipe	Threaded
52	-61	C.I.	2	2 1/2" Std. 90° elbow	screwed
60	-62	Copper	25 LF	2 1/2" Copper pipe	Type K soft
60	-63	Bronze	2	2 1/2" Std. 90° elbow	solder fitting
58	-64	C.I.	2	2 1/2" 7" Std. comp. Flange	F & D
60	-65	Bronze	2	2 1/2" 7" Std. comp. Flange	Streamline A1731 or eq.
61	-66	C.I.	3	3" Floor drain with galv. wire basket	Drill & tap one for flange hole
53	-67	BLK SH.	1	6" Std. pipe sleeve	8" long
55	-68	C.I.	2	6" 2" 45° single Y branch S.P.F.	Ex. hvy. B & S

Reference Drawing No. R9  
 3/32"=1'-0"  
 1/4"=1'-0"

BID ITEM	PART NO.	MAT'L	QUANTITY	NAME OF PART	REMARKS
54	8/51	C.I.	1	16" Std. 90° flanged pipe spool	F & D
58	-2	C.I.	2	16" Std. 90° elbow	flanged
"	-3	C.I.	3	10" 90° Std. flgd. long rad. elbow	F & D
"	-4	C.I.	2	10" 45° Std. flgd. elbow	F & D
"	-5	C.I.	20	10" 16" Std. scr'd. comp. flange	F & D
54	-6	C.I.	2	10" 3" 0" Lg. Std. flgd. pipe spool	F & D
52	-7	Galv. SH.	190 Lin. Ft.	10" Std. pipe	Threaded 21' 0" lghs
"	-8	Galv. SH.	100 Lin. Ft.	8" Std. pipe	Threaded 21' 0" lghs
58	-9	C.I.	6	8" 13 1/2" Std. scr'd. comp. flange	F & D
"	-10	C.I.	3	8" 90° Std. flanged elbow	F & D
54	-11	C.I.	2	8" 18" Lg. Std. flgd. pipe spool	F & D
55	-12	C.I.	17	8" Soil pipe	5' 0" lengths Ex. hvy. B & S
"	-13	C.I.	1	8" Std. flanged bell	30" long
"	-14	C.I.	2	8" 1/2" Bend	Soil pipe fitting E.H.
"	-15	C.I.	2	8" 6" Single Y branch S.P.F.	Ex. hvy. B & S
"	-16	C.I.	1	4" Short sweep S.P.F.	Ex. hvy. B & S
"	-17	C.I.	2	8" 6" Reducer S.P.F.	Ex. hvy. B & S
"	-18	C.I.	40	6" Soil pipe	5' 0" lengths E.H.
"	-19	C.I.	7	6" Short sweep S.P.F.	Ex. hvy. B & S
"	-20	C.I.	4	6" 6" Bend S.P.F.	Ex. hvy. B & S
"	-21	C.I.	3	6" Single Y branch S.P.F.	Ex. hvy. B & S
"	-22	C.I.	1	6" 4" Single Y branch S.P.F.	Ex. hvy. B & S
"	-23	C.I.	1	6" 3" Single Y branch S.P.F.	Ex. hvy. B & S
"	-24	C.I.	2	6" 3" Reducer S.P.F.	Ex. hvy. B & S
"	-25	C.I.	1	6" 2" Reducer S.P.F.	Ex. hvy. B & S
"	-26	C.I.	2	6" Soil pipe extension	5' 0" long
61	-27	C.I.	1	6" Floor drain I.P.S.	thd'd bottom outlet
"	-28	C.I.	1	4" Floor drain I.P.S.	thd'd bottom outlet
"	-29	C.I.	1	3" Floor drain I.P.S.	thd'd side outlet
"	-30	C.I.	1	2" Floor drain I.P.S.	thd'd bottom outlet
"	-31	C.I.	6	3" Gutter drain	bottom thd'd outlet
55	-32	C.I.	8	3" 90° Soil pipe adapter	Turn 2-500 or eq.
"	-33	C.I.	1	6" Soil pipe adapter	Turn 2-1040 or eq.
"	-34	C.I.	1	4" Soil pipe adapter	Turn 2-1040 or eq.
"	-35	C.I.	2	3" Soil pipe adapter	Turn 2-1040 or eq.
"	-36	C.I.	1	2" Soil pipe adapter	Turn 2-1040 or eq.
"	-37	C.I.	17	4" Soil pipe	5' 0" lengths Ex. hvy. B & S
"	-38	C.I.	1	4" 2" Single Y Branch S.P.F.	Ex. hvy. B & S
"	-39	C.I.	2	4" Soil pipe extension	30" long Ex. hvy. B & S
"	-40	C.I.	1	4" 1/2" Bend S.P.F.	Ex. hvy. B & S
"	-41	C.I.	31	3" Soil pipe	5' 0" lengths Ex. hvy. B & S
"	-42	C.I.	3	3" 1/2" Bend S.P.F.	Ex. hvy. B & S
"	-43	C.I.	2	3" 1/4" Bend S.P.F.	Ex. hvy. B & S
"	-44	C.I.	1	3" Expansion joint	Male I.P.S.
"	-45	C.I.	1	3" Soil pipe bell connector	Female
"	-46	C.I.	1	3" Std. scr'd. drainage coupling	
"	-47	C.I.	4	2" Short sweep S.P.F.	Ex. hvy. B & S
"	-48	C.I.	1	2" 1/2" Bend S.P.F.	Ex. hvy. B & S
52	-49	C.I.	8	2" 90° Std. solid L.T. drainage elbow	
"	-50	Galv. SH.	40 Lin. Ft.	2" Std. pipe	Threaded
61	-51	C.I.	2	3" Floor drain bottom thd'd outlet	Turn 2-500 or eq.
55	-52	C.I.	2	2" Tapped ferrule, soil pipe fitting	Tapped 1/2" I.P.S.
"	-53	C.I.	4	4" 3" Single Y branch S.P.F.	Ex. hvy. B & S
58	-54	C.I.	3	8" Std. scr'd. flange union	
55	-55	C.I.	10	2" Soil pipe	5' 0" lengths Ex. hvy. B & S
		Rubber	4	16" 20" 1/4" thick ring gasket	
		Rubber	14	10" 12" 1/4" thick ring gasket	
		Rubber	5	8" 11" 1/4" thick ring gasket	
		BLK SH.	24	1" 4" 1/2" hex. hd. nut flange bolt	
		BLK SH.	24	3/4" 2" 1/2" hex. hd. cap screw	For part No. 3.
		BLK SH.	144	1/4" 3" 1/2" hex. hd. nut flange bolt	
		BLK SH.	32	3/4" 2" 1/2" hex. hd. nut flange bolt	
		Hemp	50 lbs.	For caulking B & S joints	
		Lead	1515 lbs.	For caulking B & S joints	
53	-56	BLK SH.	4	3" Std. pipe sleeve	8" long

7	25 Jul 52	AS constructed	
6	28 Jul 52	Added scroll case leakage drain	
5	6 Mar 53	Relocated oil storage vent & general revisions	
4	31 Dec 52	Added pipe sleeves	
3	12 Dec 52	Penstock french drains removed & shorten drain line	
2	10 Oct 52	General revisions	
1	26 Sep 52	General revisions	

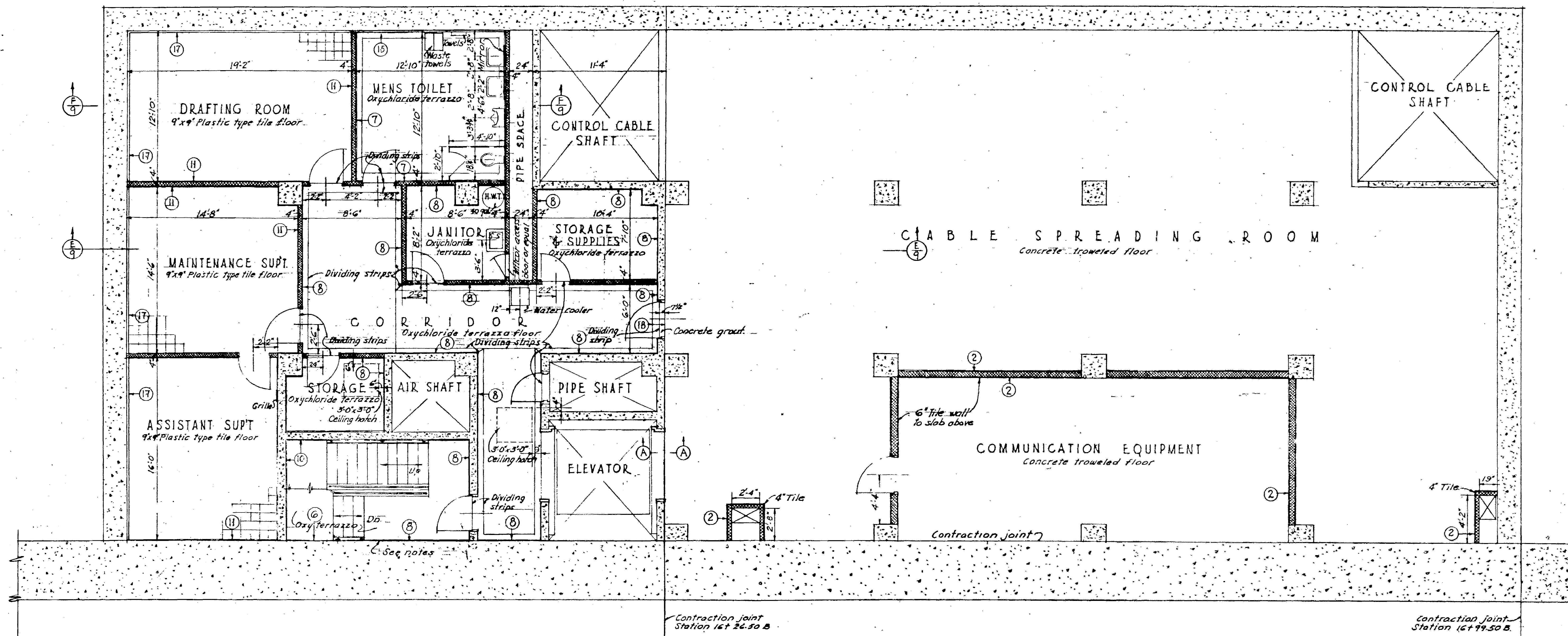
REVISION	DATE	DESCRIPTION	BY
7	25 Jul 52	AS constructed	
6	28 Jul 52	Added scroll case leakage drain	
5	6 Mar 53	Relocated oil storage vent & general revisions	
4	31 Dec 52	Added pipe sleeves	
3	12 Dec 52	Penstock french drains removed & shorten drain line	
2	10 Oct 52	General revisions	
1	26 Sep 52	General revisions	

CORPS OF ENGINEERS, U.S. ARMY  
 NORTH PACIFIC DIVISION, PORTLAND, OREGON

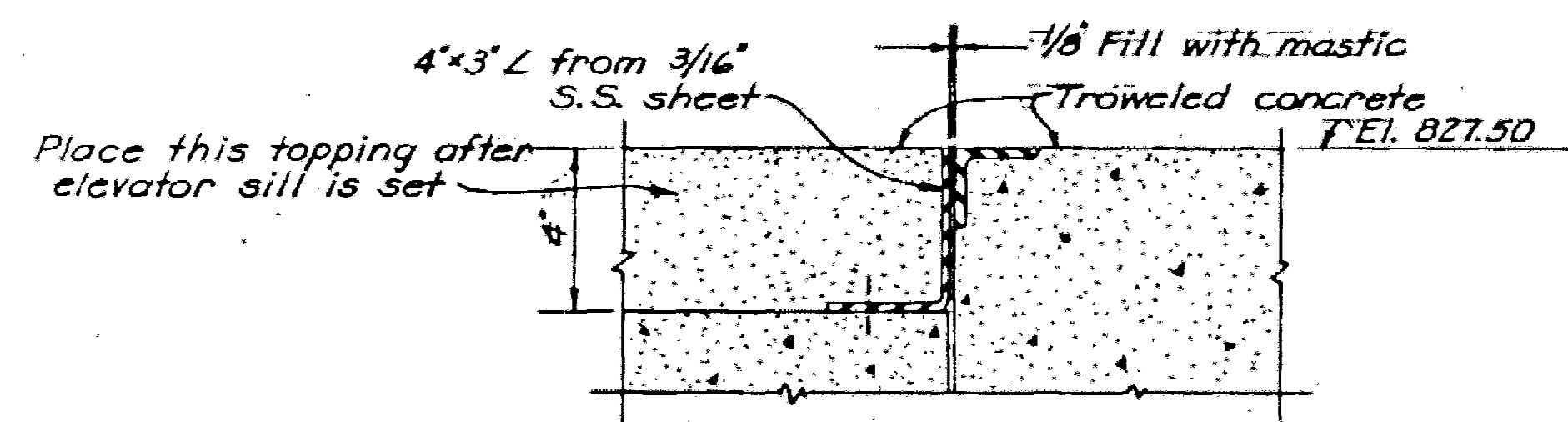
DESIGNED BY G.D.R.  
 DRAWN BY L.M.L.  
 CHECKED BY R.K.W.  
 PREPARED BY  
 REVIEWED BY  
 SUBMITTED BY  
 RECOMMENDED BY

COLUMBIA RIVER, WASHINGTON  
 CHIEF JOSEPH DAM  
 POWERHOUSE - MECHANICAL  
 EMBEDDED PIPING  
 PLANS-MAIN UNIT BAYS NO. 11 & 12  
 STA. SERVICE & ASSEMBLY BAYS

APPROVED: *E.C. Johnson*  
 SCALE AS SHOWN  
 SPEC. NO.  
 CJP-2-3-8/5



CONTROL BUILDING  
PLAN EL 827.50  
Scale 1/4"=1'-0"



SECTION A-A  
Scale 3"=1'-0"

#### NOTES.

- Toilet stall dimensions are from face of tile wainscot.
- All other dimensions are from rough masonry surfaces.
- Any change in floor color or material in adjoining areas is to occur under the door when in a closed position.
- Uttled figures refer to base details shown on.
- Dwg. C.J.P. 2-2-0/16.
- For detail of stairs adjacent to contraction joint see dwg. C.J.P. 2-2-0/17.

#### REFERENCE DRAWINGS.

- INTERIOR SECTIONS-SHEET 1-----CJP-2-2-0/9
- BASE & WAINSCOT DETAILS-----CJP-2-2-0/16
- MISCELLANEOUS DETAILS SHEET 1-----C.J.P. 2-2-0/17

#### Reference Drawing No. R10

FOR AS CONSTRUCTED  
DETAILS - SEE LIFT  
SKETCHES

REF. 86

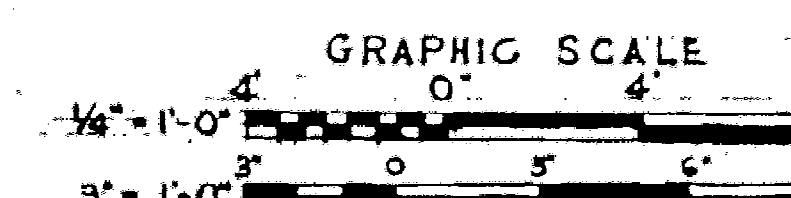
FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING  
COLUMBIA RIVER CONSTRUCTION'S LIFT SKETCHES:  
1563-CS-19, CS-20, CS-21, CS-22

REVISION	DATE	DESCRIPTION	BY
4	10-15-54	Added Section A-A	209
3	3-5-54	Revised dimensions to tile walls in Cable Spreading Rm.	209
2	9-25-53	Added tile walls in Cable Spreading Room.	209
1	1-10-53	Revised ceiling heights, base details, elevator door, file cabinet and toilet comp.	209

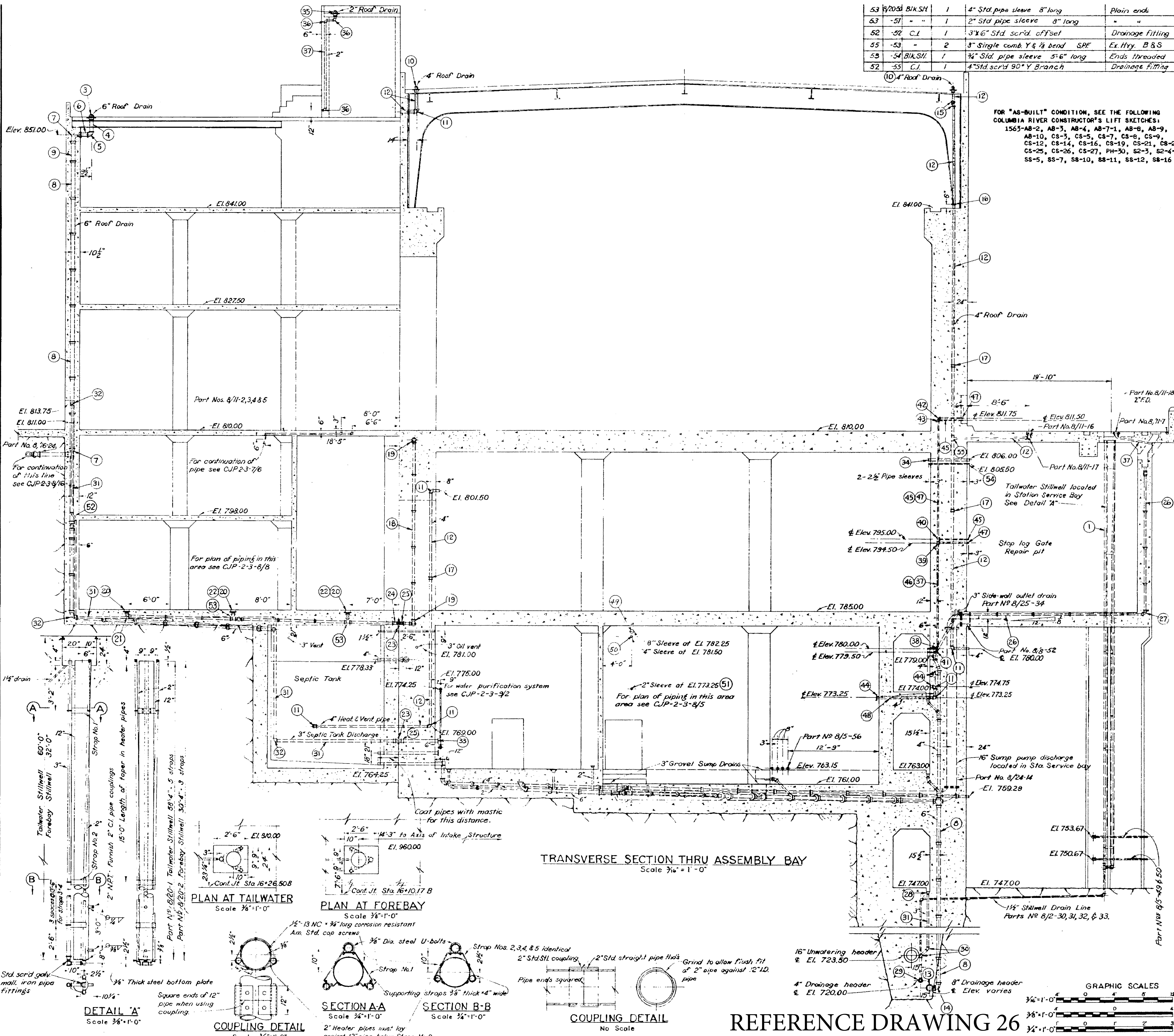
CORPS OF ENGINEERS, U.S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON	
DESIGNED BY H.G.A.M.	COLUMBIA RIVER, WASHINGTON
DRAWN BY A.M.E.	CHIEF JOSEPH DAM
CHECKED BY D.E.S.	POWERHOUSE
PREPARED BY	ARCHITECTURAL
APPROVED BY	PLAN EL. 827.5
REVIEWED BY	DATE 1.06.52
SUBMITTED BY	SCALE AS SHOWN SPEC. NO.
RECOMMENDED BY	SHEET CJP-2-2-0/7
CHIEF ARCHITECT	

#### REFERENCE DRAWING 25



Contract 1398





53	8/20/51	B/K.S.H.	1	4" Std pipe sleeve	8" long	Plain ends
53	-51	"	1	2" Std pipe sleeve	8" long	"
52	-52	C.I.	1	3"x6" Std. scrd. offset		Drainage Fitting
55	-53	"	2	3" Single comb Y & 1/2 bend	S.P.F.	Ex. Hvy. B & S
58	-54	B/K.S.H.	1	1/4" Std. pipe sleeve	5'-6" long	Ends threaded
52	-55	C.I.	1	4" Std. scrd 90° Y Branch		Drainage Fitting

FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:  
1563-AB-2, AB-3, AB-4, AB-7-1, AB-8, AB-9, AB-10, CS-3, CS-5, CS-7, CS-8, CS-9, CS-12, CS-14, CS-16, CS-19, CS-21, CS-22, CS-25, CS-26, CS-27, PH-30, S2-3, S2-4-1, SS-5, SS-7, SS-10, SS-11, SS-12, SS-16

BID ITEM	PART NO.	MAT'L	QUANTITY	NAME OF PART	REMARKS
52	820-1	For 3" Std.	1	12"x58"-4" long stillwell	See Detail
52	2	"	1	12"x30"-4" "	"
62	3	C.I.	1	6" Roof drain, bottom third outlet	Turn Fig. 2-101 or equal
52	4	Galk. Sh.	1	6" Std. pipe, threaded 24" long	Random lengths
52	5	C.I.	1	6"-90° Std. scrd L.T. drainage elbow	"
55	6	"	1	6" Pipe adapter, soil spigot	Turn Fig. 2-1040 or equal
"	7	"	2	6" Short sweep, soil pipe fitting	Ex. Hvy. B. & S.
"	8	"	17	6" Soil pipe, 5'-0" lengths	"
"	9	"	1	6" " extension, 3'-0" long	"
62	10	"	2	4" Roof drain, bottom third outlet	Turn Fig. 2-101 or equal
52	11	"	7	4"-90° Std. scrd L.T. drainage elbow	"
52	12	Galk. Sh.	45 Lin. Ft.	4" Std. pipe, threaded	Random lengths
55	13	C.I.	1	8"x6" Single sanitary T branch, S.P.F.	Ex. Hvy. B. & S.
55	14	"	1	6"-1/4 bend, soil pipe fitting	"
52	15	"	2	4"-22 1/2" Std. scrd drainage elbow	"
58	16	"	1	4" " flange union	Gasket type
52	17	"	3	4" " drainage coupling	"
55	18	"	5	4" Soil pipe 5'-0" lengths	Ex. Hvy. B. & S.
55	19	"	2	4" Short sweep, soil pipe fitting	"
61	20	"	3	3" Floor drain, bottom third outlet	Turn Fig. 2-500 or equal
55	21	"	1	3"-90° pipe adapter soil spigot	Turn Fig. 2-1042 or equal
55	22	"	2	3" " "	Turn Fig. 2-1040 or equal
52	23	"	2	3" Expansion joint - male I.P.S.	Turn Fig. 2-197 or equal
55	24	"	1	3" Female soil pipe bell connector	Fleming or equal
52	25	"	3	3" Std. scrd drainage coupling	"
55	26	"	9	3" Soil pipe 5'-0" lengths	Ex. Hvy. B. & S.
55	27	"	1	3" Short sweep, soil pipe fitting	"
61	28	"	1	3" Gutter drain, bottom third outlet	Fleming Series Garages
52	29	"	1	4"x4"x3" Std. scrd 30° Y branch tee	Drainage fitting
"	30	"	2	3"-45° " " L.T. elbow	"
"	31	Galk. Sh.	150 Lin. Ft.	3" Std. Pipe, threaded	Random lengths
"	32	C.I.	4	3"-90° Std. scrd L.T. drainage elbow	"
58	33	"	1	3"x7 1/2" " companion flange	F. & D.
52	34	Galk. Sh.	2	2 1/2"x5'-6" long std. pipe sleeve	Ends threaded
62	35	C.I.	1	2" Roof drain, bottom third outlet	Turn Fig. 2-101 or equal
52	36	"	3	2"-90° Std. scrd L.T. drainage elbow	"
"	37	Galk. Sh.	35 Lin. Ft.	2" Std. pipe - threaded	Random lengths
"	38	C.I.	1	2"-90° Std. scrd elbow	"
"	39	"	1	2"x1 1/2"x1 1/2" Std. scrd. red. tee	"
"	40	Mall. I.	1	1 1/4"x1"x1" Std. scrd. red. tee	"
"	41	"	1	1 1/4" 90° Std. scrd. elbow	"
"	42	C.I.	1	1 1/2" 90° Std. scrd. elbow	"
"	43	Mall. I.	1	1"-90° Std. scrd. elbow	"
58	44	C.I.	2	4"x9" Std. scrd. comp. flange	Drill & Tap one for fig. 101
52	45	Galk. Sh.	25 Lin. Ft.	1" Std. pipe, threaded	"
"	46	"	20 Lin. Ft.	1 1/4" Std. pipe, threaded	"
"	47	"	25 Lin. Ft.	1 1/2" Std. pipe, threaded	"
53	48	B/K. Sh.	10 Lin. Ft.	4" Std. pipe, threaded	"
53	49	"	1	8" Std. pipe sleeve 8" long	Plain ends
"	Lead	"	540 lbs.	For caulking B. & S. joints	"
"	Hemp	"	10 "	"	"

REFERENCES:  
FOR TRANSVERSE SECTIONS THRU MAIN UNIT & STATION SERVICE BAYS SEE CJP-2-3-8/18 & 19.  
FOR LONGITUDINAL SECTIONS SEE CJP-2-3-8/22 & 23.  
FOR ADDITIONAL EMBEDDED PIPING IN POWERHOUSE SEE CJP-2-3-8/1 THRU 8/17.

NOTES:  
Quantities in material list are totals for parts shown on this sheet.  
During erection and embedding, piping shall be held securely in position and precaution shall be taken to keep interior of pipe free from concrete and debris.  
All exposed pipe threads and flange faces shall be adequately protected.  
All drainage lines shall slope 1/4 inch per foot unless otherwise specified.

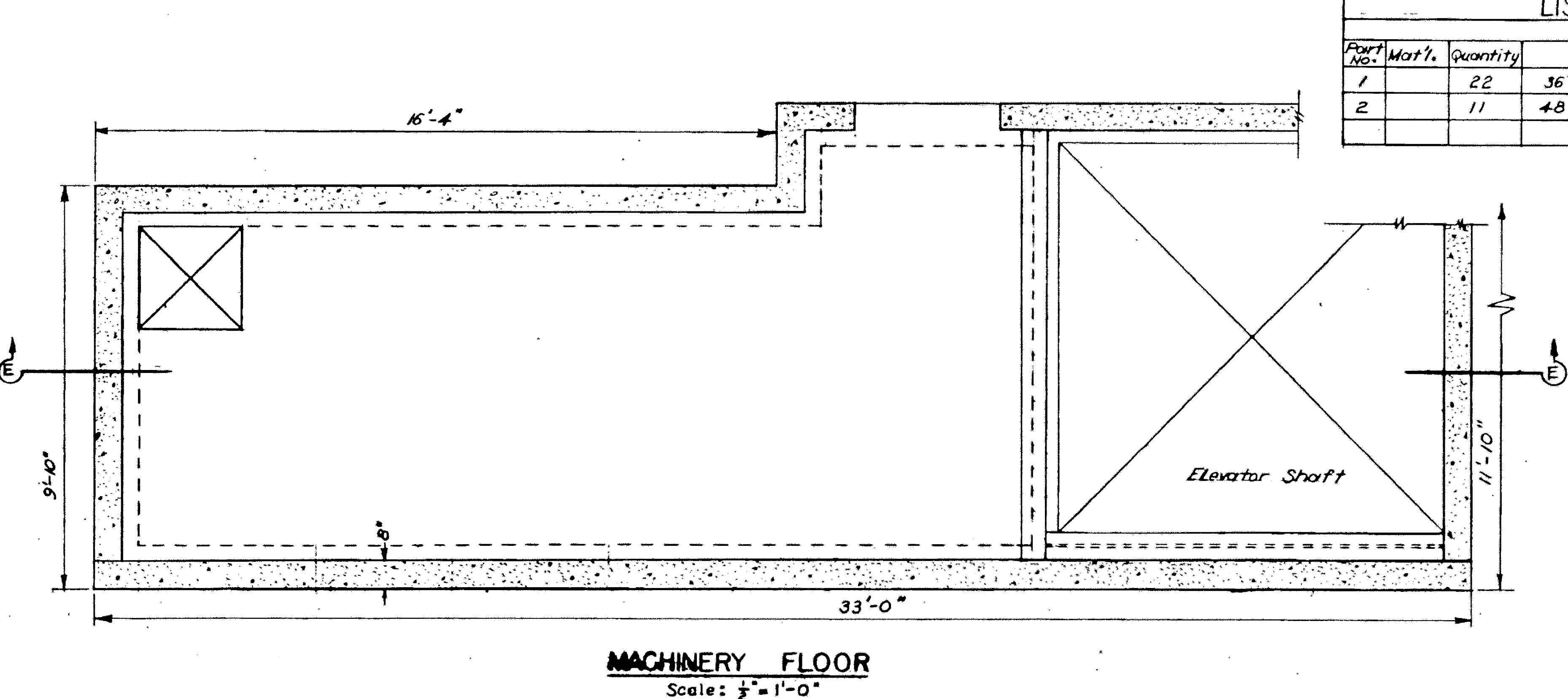
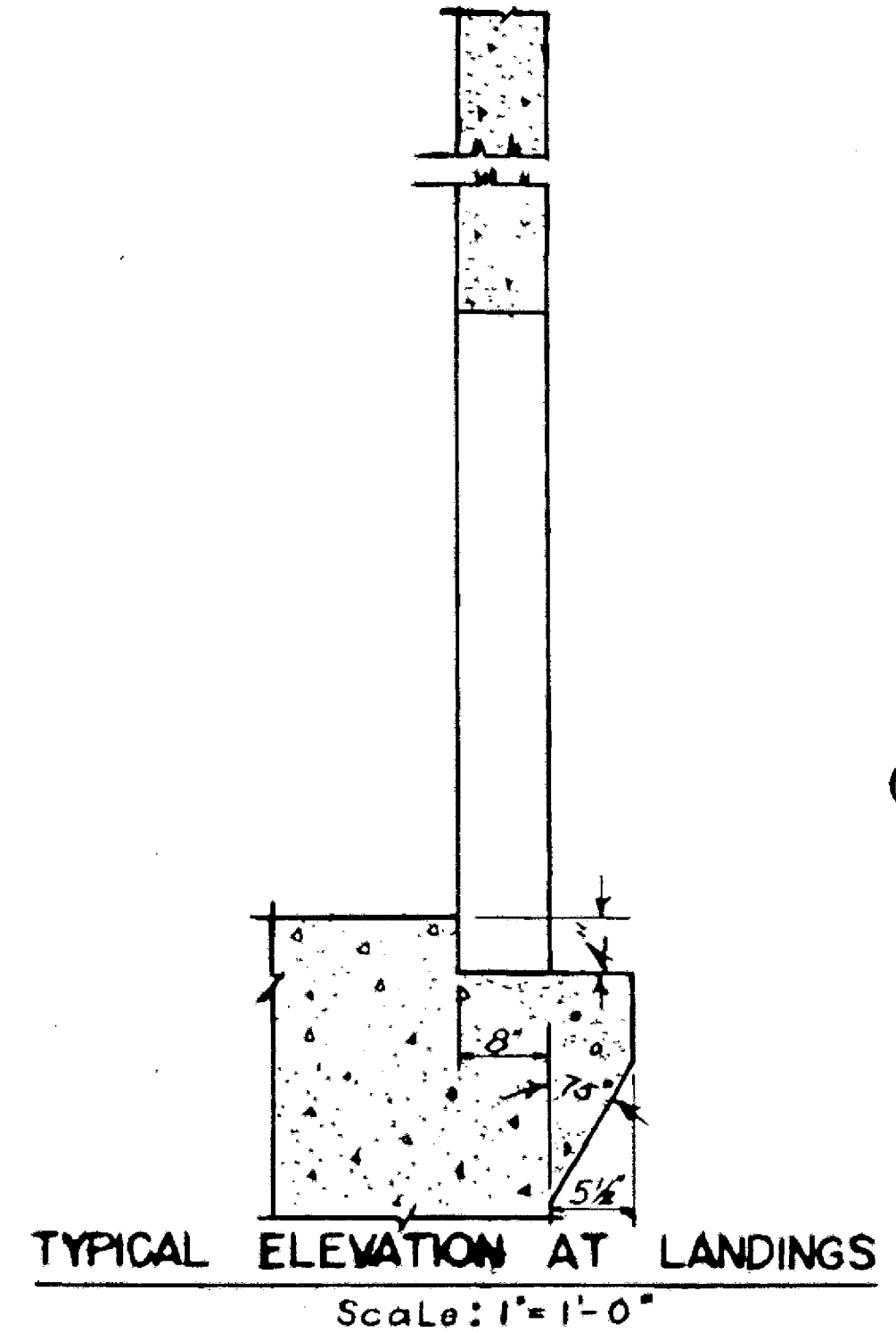
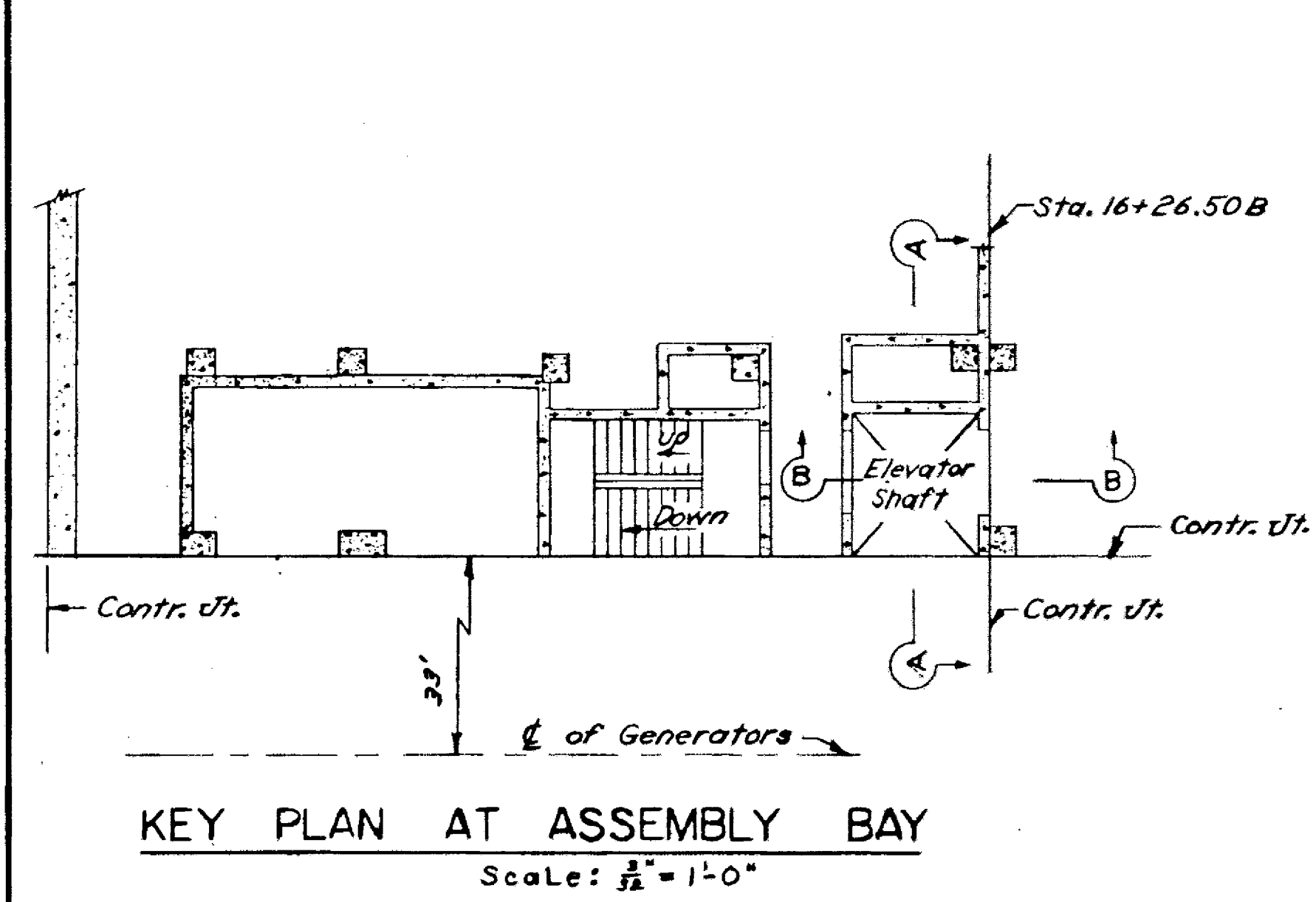
**AS CONSTRUCTED Reference**  
HYDRO ELECTRIC DESIGN BRANCH, NPD  
**Drawing No. R11**

4	25-1-60	Added AS constructed	Adl
3	9-Mar-53	Added and relocated drain lines	J.L.S.
2	31-Dec-52	Added pipe sleeve. Relocated sump pump discharge	J.L.S.
1	12-Dec-52	Added domestic water line & offset septic tank discharge line	J.L.S.

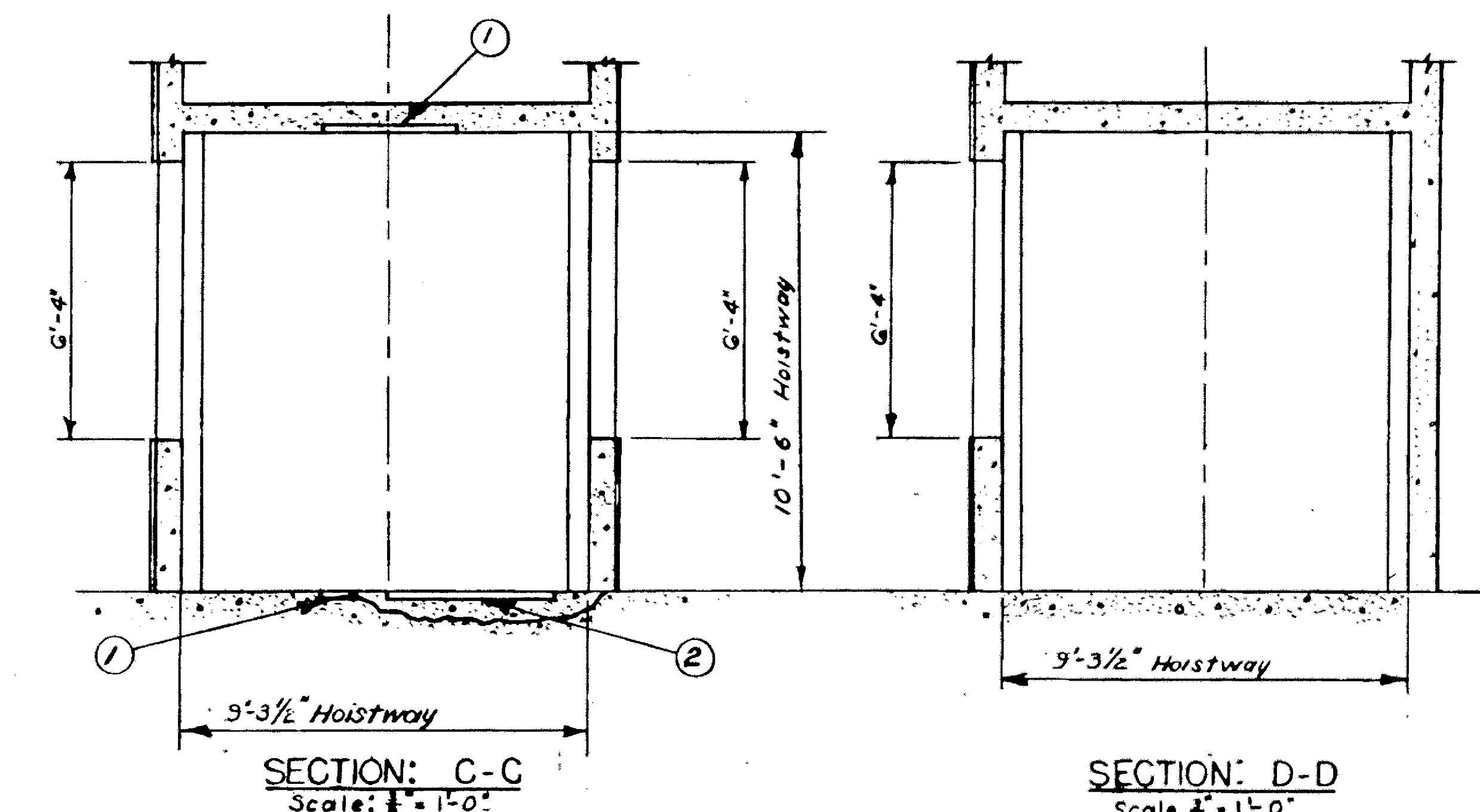
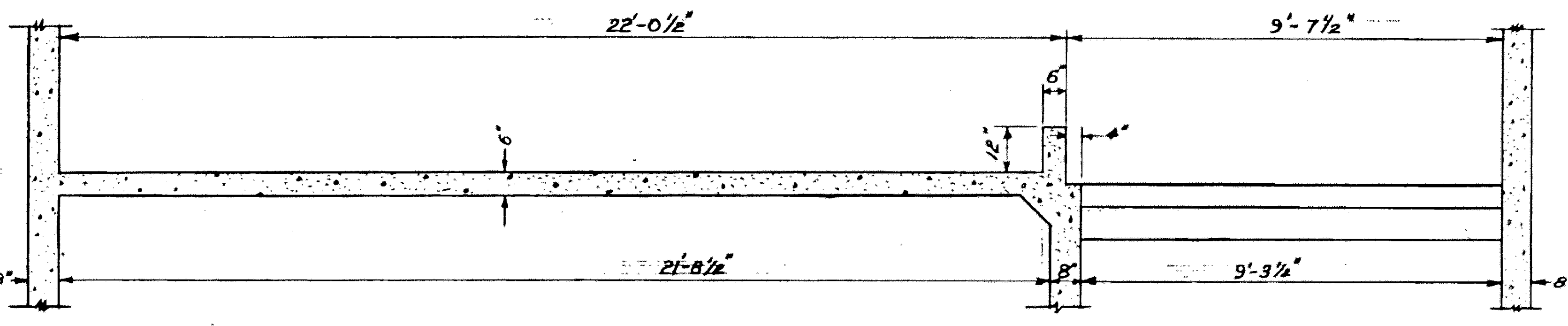
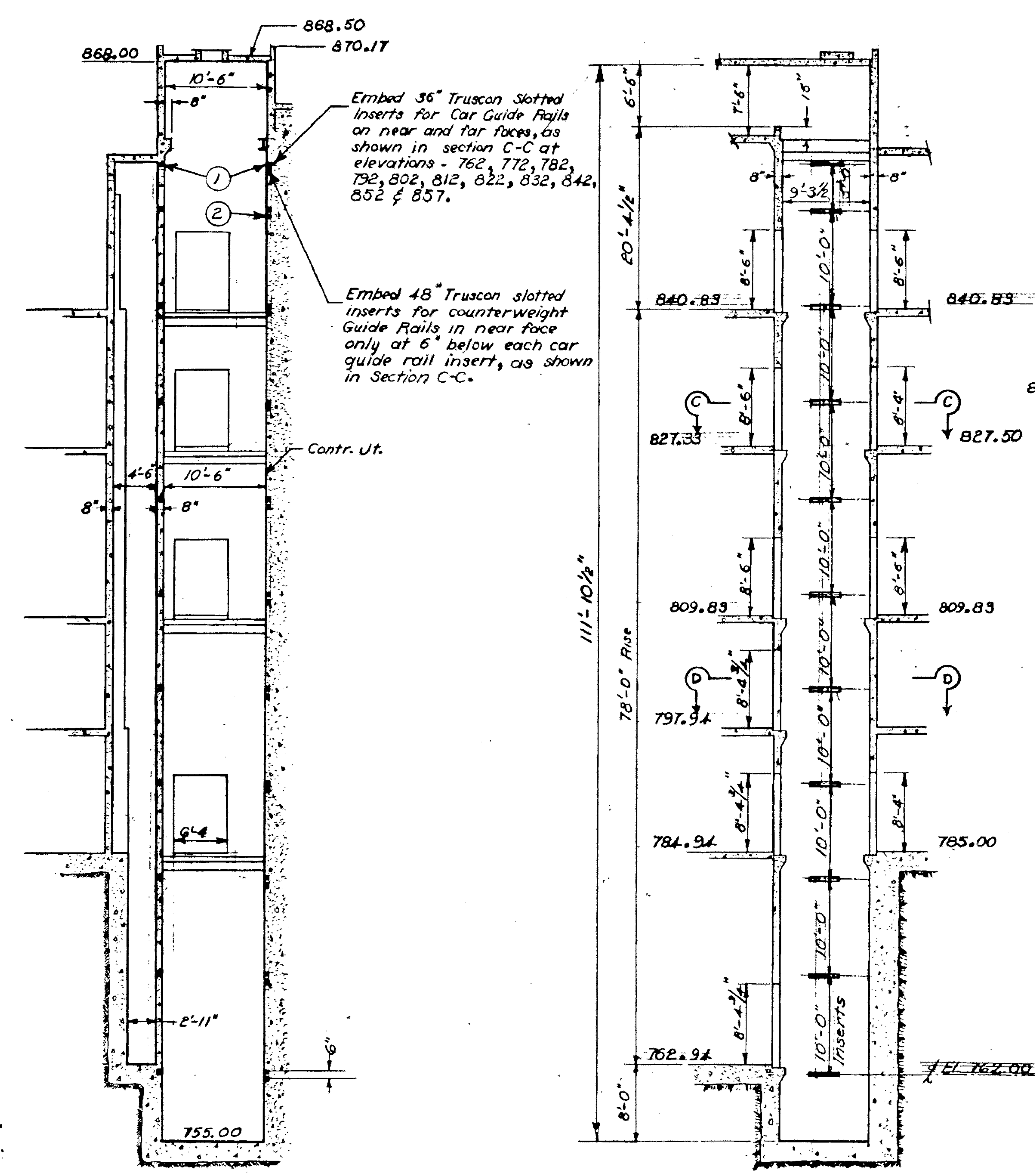
CORPS OF ENGINEERS, U.S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON	
DESIGNED BY G.D.R.	COLUMBIA RIVER, WASHINGTON
DRAWN BY L.W.L.	CHIEF JOSEPH DAM
CHECKED BY P.K.H.	POWERHOUSE - MECHANICAL
PREPARED BY J.T. Sumner	EMBEDDED PIPING
RECOMMENDED BY J.T. Sumner	<b>TRANSVERSE SECTION AT ASSEMBLY BAY</b>
APPROVED BY C.E. Stachner	DATE: OCT. 22, 1952
SUBMITTED BY J.T. Sumner	SCALE AS SHOWN SPEC. NO.
RECOMMENDED BY J.T. Sumner	<b>CJP-2-3-8 / 20</b>
CHIEF, ENGINEERING DIVISION	SHEET OF

# REFERENCE DRAWING 26





LIST OF MATERIAL				
Part No.	Mat'l.	Quantity	Name of Part	Remarks
1		22	36" Truscon Slotted Inserts.	
2		11	48" Truscon Slotted Inserts.	



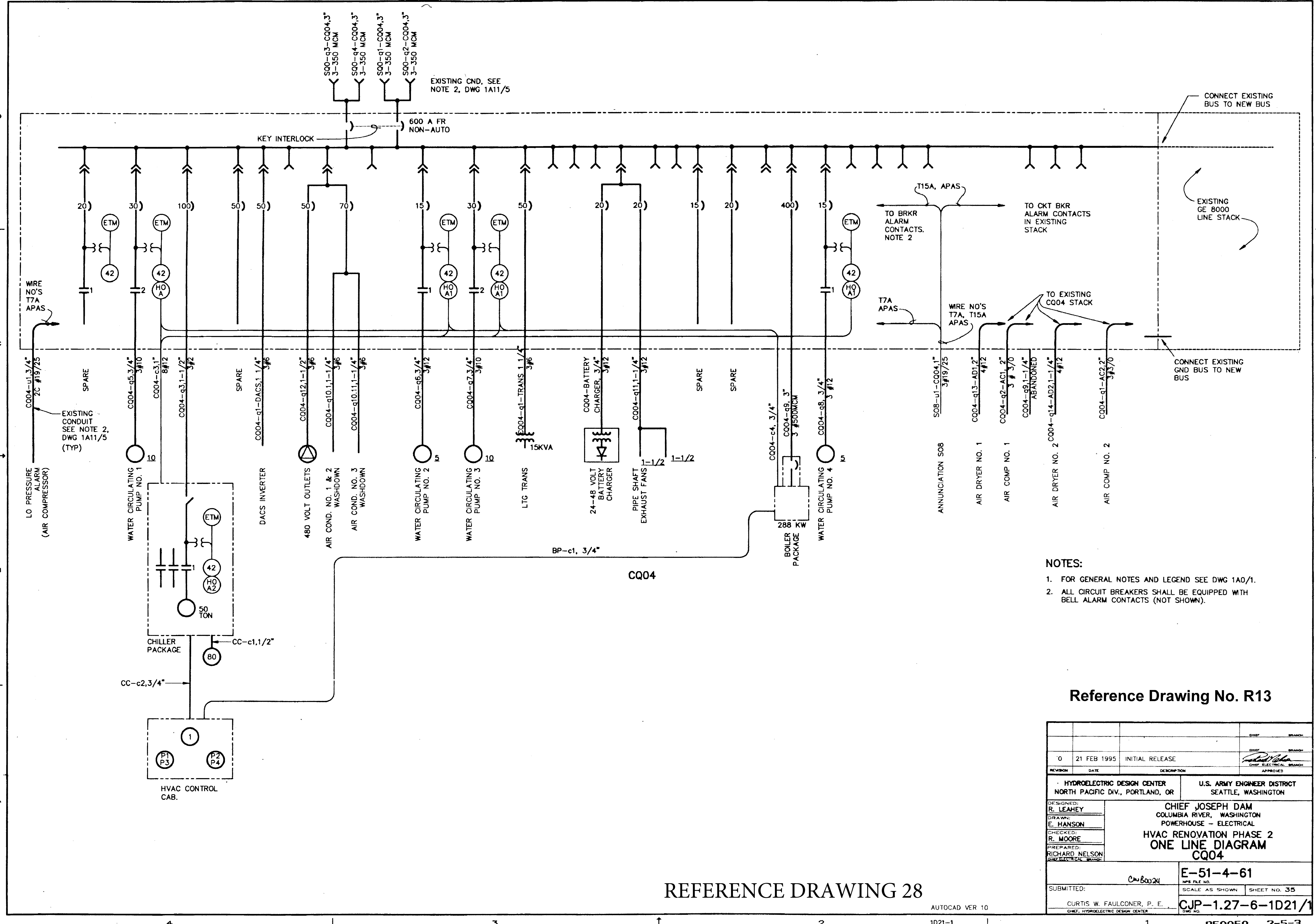
NOTES  
Hatchway to be clear and plumb  $\pm 2"$ .

FOR "AS-BUILT" CONDITION, SEE THE FOLLOWING  
COLUMBIA RIVER CONSTRUCTOR'S LIFT SKETCHES:  
1563-AB-3, AB-8, AB-10, CS-2, CS-3, CS-8, CS-16,  
CS-21, CS-24

Reference Drawing No. R12  
AS CONSTRUCTED  
HYDRO ELECTRIC DESIGN BRANCH, NPD

DESIGNED BY: J.L.B.	DATE: 2/25/60	BY: J.L.B.
DRAWN BY: W.B.L.	DATE: 2/25/60	BY: W.B.L.
CHECKED BY: G.D.E.	DATE: 2/25/60	BY: G.D.E.
PREPARED BY: J.L.B.	DATE: 2/25/60	BY: J.L.B.
REVIEWED BY: J.L.B.	DATE: 2/25/60	BY: J.L.B.
SUBMITTED BY: J.L.B.	DATE: 2/25/60	BY: J.L.B.
RECOMMENDED BY: J.L.B.	DATE: 2/25/60	BY: J.L.B.
CORPS OF ENGINEERS, U. S. ARMY NORTH PACIFIC DIVISION, PORTLAND, OREGON		
COLUMBIA RIVER, WASHINGTON CHIEF JOSEPH DAM POWERHOUSE-MECHANICAL		
POWERHOUSE PASSENGER ELEVATOR		
APPROVED BY: J.L.B.	DATE: 2/25/60	BY: J.L.B.
SCALE: AS SHOWN	SPEC. NO.:	CJP-2-3-5/2 AS-BLT

REFERENCE DRAWING 27



REFERENCE DRAWING 28

Reference Drawing No. R13

			CHIEF	BRANCH
			CHIEF	BRANCH
0	21 FEB 1995	INITIAL RELEASE	<i>Richard Nelson</i>	CHIEF ELECTRICAL BRANCH
REVISION	DATE	DESCRIPTION	APPROVED	
HYDROELECTRIC DESIGN CENTER		U.S. ARMY ENGINEER DISTRICT		
NORTH PACIFIC DIV., PORTLAND, OR		SEATTLE, WASHINGTON		
DESIGNED: R. LEAHEY		CHIEF JOSEPH DAM COLUMBIA RIVER, WASHINGTON POWERHOUSE - ELECTRICAL HVAC RENOVATION PHASE 2 ONE LINE DIAGRAM CQ04		
DRAWN: E. HANSON				
CHECKED: R. MOORE				
PREPARED: RICHARD NELSON CHIEF ELECTRICAL BRANCH				
SUBMITTED:		E-51-4-61		
CURTIS W. FAULCONER, P. E.		NPS FILE NO.		
CHIEF, HYDROELECTRIC DESIGN CENTER		SCALE AS SHOWN	SHEET NO. 35	
		CJP-1.27-6-1021/1		
		DWG NO.		