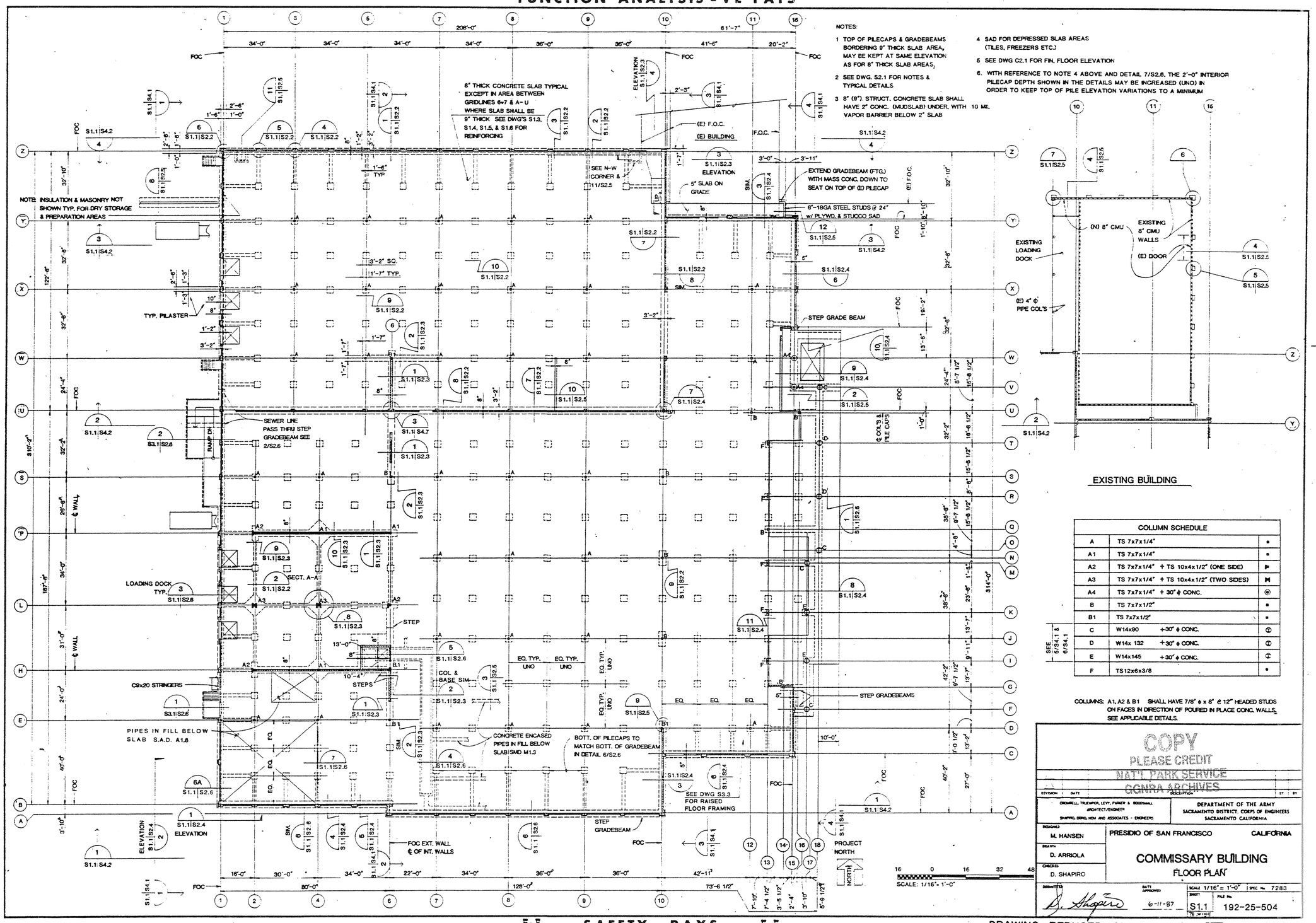

NOTES:

1. TOP OF PILECAPS & GRADEBEAMS BORDERING 9" THICK SLAB AREA, MAY BE KEPT AT SAME ELEVATION AS FOR 8" THICK SLAB AREAS.
2. SEE DWG. S2.1 FOR NOTES & TYPICAL DETAILS
3. 8" (9") STRUCT. CONCRETE SLAB SHALL HAVE 2" CONC. (MUDSLAB) UNDER, WITH 10 MIL VAPOR BARRIER BELOW 2" SLAB
4. SAD FOR DEPRESSED SLAB AREAS (TILES, FREEZERS ETC.)
5. SEE DWG C2.1 FOR FIN. FLOOR ELEVATION
6. WITH REFERENCE TO NOTE 4 ABOVE AND DETAIL 7/S2.6, THE 2'-0" INTERIOR PILECAP DEPTH SHOWN IN THE DETAILS MAY BE INCREASED (UNO) IN ORDER TO KEEP TOP OF PILE ELEVATION VARIATIONS TO A MINIMUM

	COLUMN SCHEDULE		
	A	TS 7x7x1/4"	▪
	A1	TS 7x7x1/4"	▪
	A2	TS 7x7x1/4" + TS 10x4x1/2" (ONE SIDE)	▪
	A3	TS 7x7x1/4" + TS 10x4x1/2" (TWO SIDES)	▪
	A4	TS 7x7x1/4" + 30" ϕ CONC.	⊙
	B	TS 7x7x1/2"	▪
	B1	TS 7x7x1/2"	▪
	C	W14x90 + 30" ϕ CONC.	⊕
	D	W14x 132 + 30" ϕ CONC.	⊕
SEE 5/S4.1 & 6/S4.1	E	W14x145 + 30" ϕ CONC.	⊕
	F	TS12x6x3/8	▪

COLUMNS: A1, A2 & B1 SHALL HAVE 7/8" ϕ x 8" @ 12" HEADED STUDS ON FACES IN DIRECTION OF POURED IN PLACE CONC. WALLS. SEE APPLICABLE DETAILS.

COPY
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NAT'L PARK SERVICE
GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & BOODSHALL ARCHITECT/ENGINEER
SHAPIRO, DERO, HOW AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87

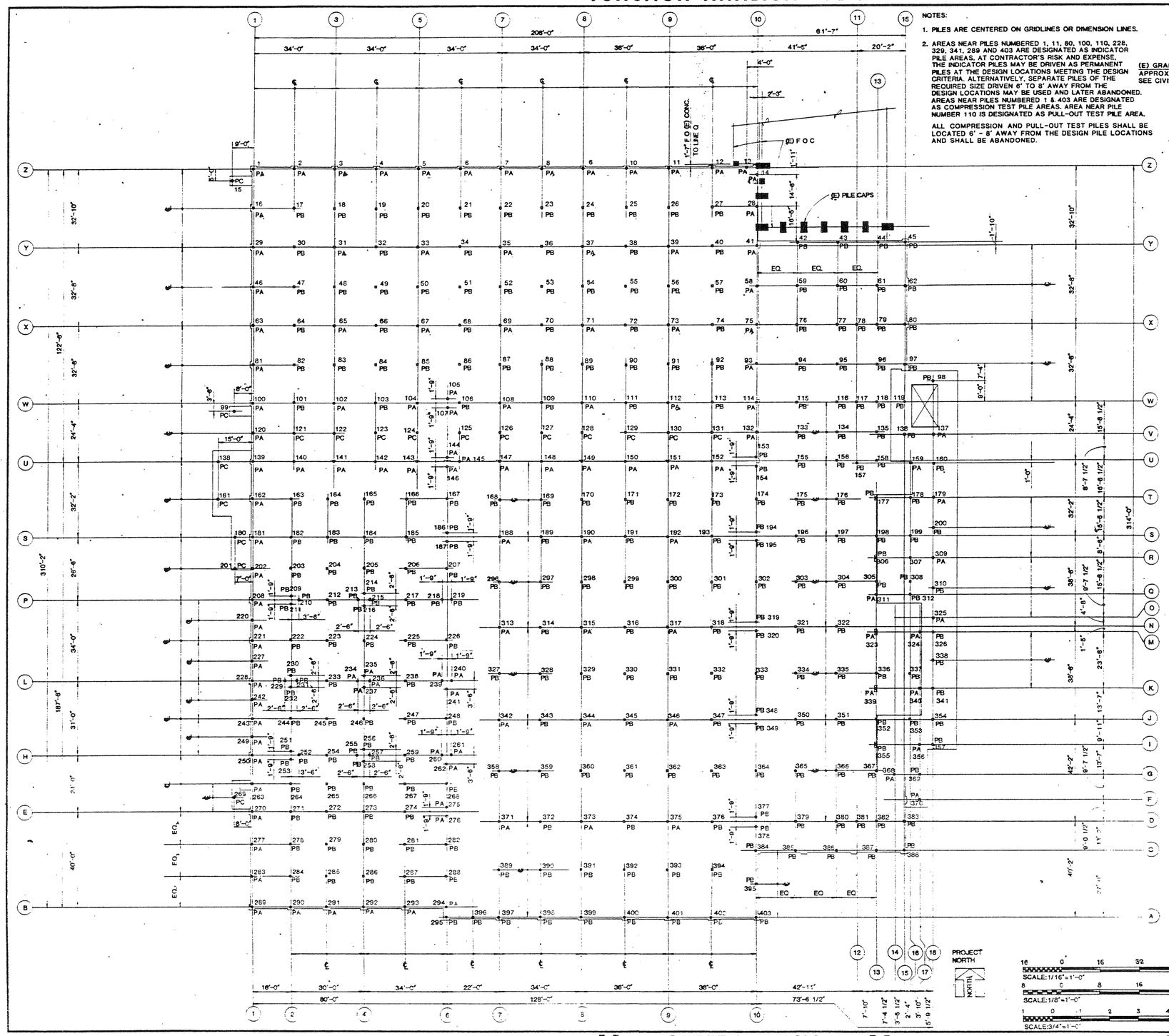
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING
FLOOR PLAN

SCALE: 1/16" = 1'-0" | SPEC. No. 7283
SHEET: S1.1 | FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

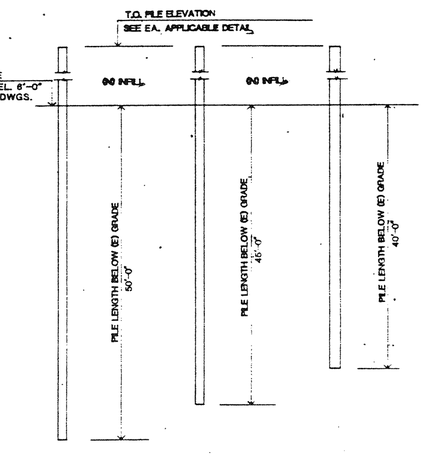
FUNCTION ANALYSIS - VE PAYS



NOTES:

1. PILES ARE CENTERED ON GRIDLINES OR DIMENSION LINES.
2. AREAS NEAR PILES NUMBERED 1, 11, 80, 100, 110, 228, 329, 341, 289 AND 403 ARE DESIGNATED AS INDICATOR PILE AREAS. AT CONTRACTOR'S RISK AND EXPENSE, THE INDICATOR PILES MAY BE DRIVEN AS PERMANENT PILES AT THE DESIGN LOCATIONS MEETING THE DESIGN CRITERIA. ALTERNATIVELY, SEPARATE PILES OF THE REQUIRED SIZE DRIVEN 6' TO 8' AWAY FROM THE DESIGN LOCATIONS MAY BE USED AND LATER ABANDONED. AREAS NEAR PILES NUMBERED 1 & 403 ARE DESIGNATED AS COMPRESSION TEST PILE AREAS. AREA NEAR PILE NUMBER 110 IS DESIGNATED AS PULL-OUT TEST PILE AREA.

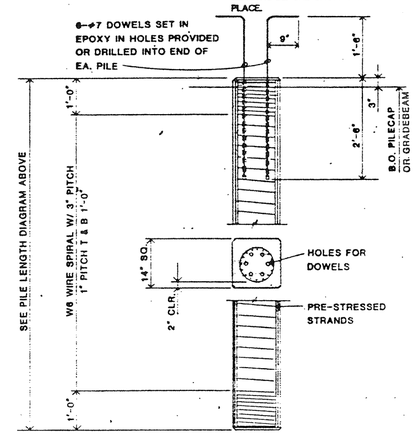
ALL COMPRESSION AND PULL-OUT TEST PILES SHALL BE LOCATED 6' - 8' AWAY FROM THE DESIGN PILE LOCATIONS AND SHALL BE ABANDONED.



1 / S1.2 | S1.2 — 14" SQ. PRECAST PRESTRESSED CONCRETE PILES

1/8" = 1'-0"

NOTE: THE ABOVE INDICATED PILE LENGTHS ARE FOR BIDDING PURPOSE ONLY. TEST PILES SHALL BE DRIVEN AS CALLED FOR IN THE SPECIFICATION TO DETERMINE THE REQUIRED LENGTHS BEFORE CASTING TAKES PLACE.



2 / S1.2 | S1.2 — TYP. PRECAST PRESTRESSED PILE

3/4" = 1'-0"

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REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, THOMPSON, LEVY, FARMER & ASSOC. ARCHITECT/ENGINEER
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DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO

PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING
PILE LOCATION PLAN

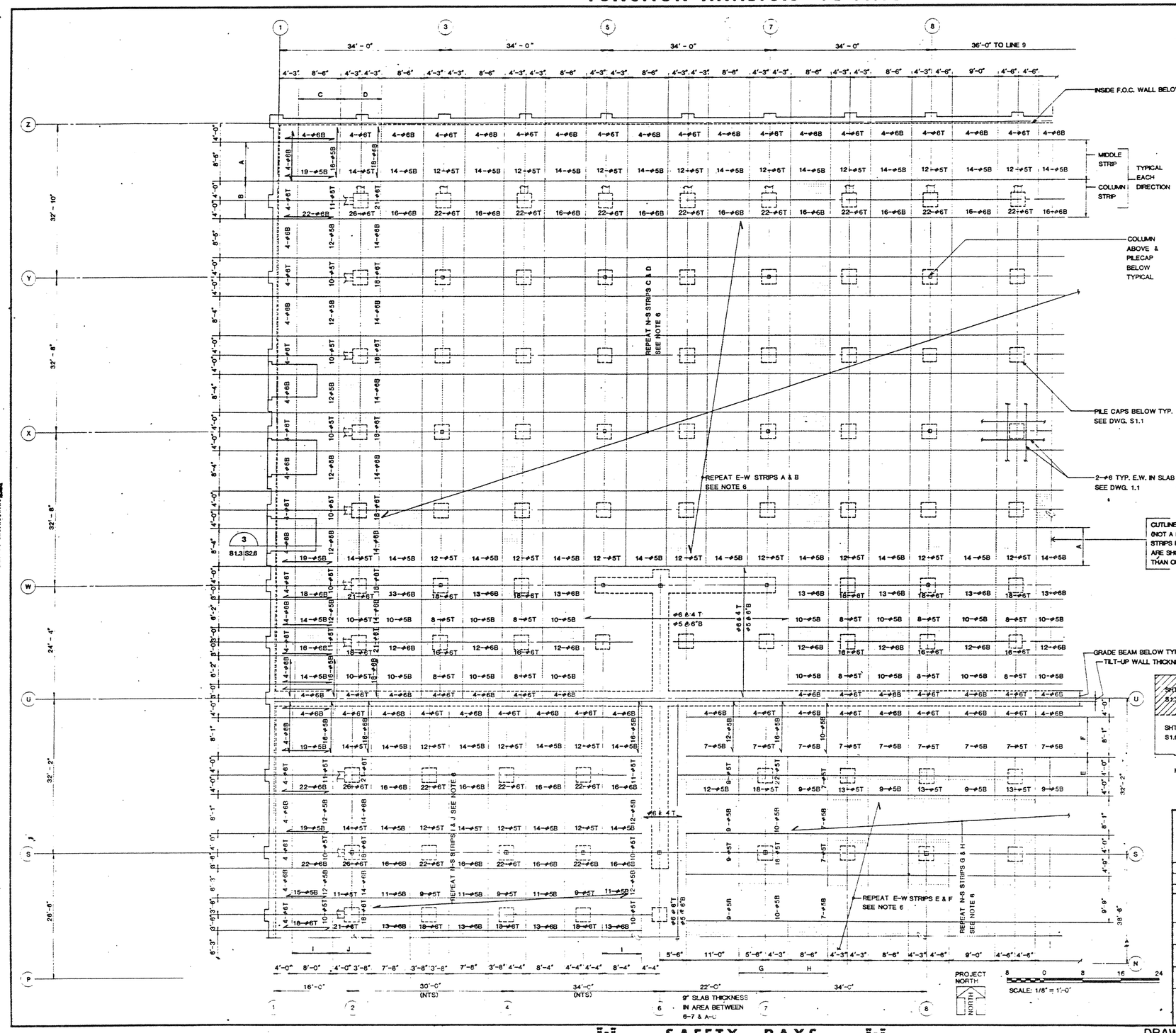
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: 1/16" = 1'-0"
SPEC. No. 7283
SHEET: S1.2
FILE No. 192-25-504

SCALE: 1/16" = 1'-0" (16 0 16 32 48)
SCALE: 1/8" = 1'-0" (8 0 8 16 24)
SCALE: 3/4" = 1'-0" (1 0 1 2 3 4)

SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE

FUNCTION ANALYSIS - VE PAYS



NOTES:

1. DIRECTION OF WRITING INDICATES REBAR DIRECTION. FOR EXAMPLE
   - 24-#6T OR 18-#5B — REBAR DIRECTION E.-W.
   - 22-#6T OR 16-#5B — REBAR DIRECTION N.-S.
2. 24-#6T
   - T = TOP
   - B = BOTTOM
   - REBAR SIZE
   - TOTAL NUMBER OF REBARS IN STRIP (EQUALLY SPACED)
3. REFER TO DWG. S1.1 FOR DETAILS & TO DWG. S1.4 FOR TYPICAL SLAB SECTIONS
4. PLACING ORDER OF REBARS
   - A. BOTTOM N.-S. BARS FIRST
   - B. BOTTOM E.-W. BARS SECOND
   - C. TOP N.-S. BARS THIRD
   - D. TOP E.-W. BARS FOURTH
5. 8" SLAB THICKNESS TYPICAL EXCEPT IN AREA BETWEEN 6-7, & A-U WHERE SLAB SHALL BE 9" THICK
6. REPEAT IN EACH COLUMN - AND MIDDLE STRIP RESPECTIVELY, THE SIZE AND NUMBER OF REBARS NOTED IN THE PREVIOUS COLUMN OR MIDDLE STRIP.
7. SEE DWG. S1.5 FOR CONSTRUCTION JOINT LAY-OUT.

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REVISION	DATE	DESCRIPTION	BY	BY

CROSWELL, TRUEMPER, LEVY, PARKER & ROCCHIANI
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SACRAMENTO, CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87

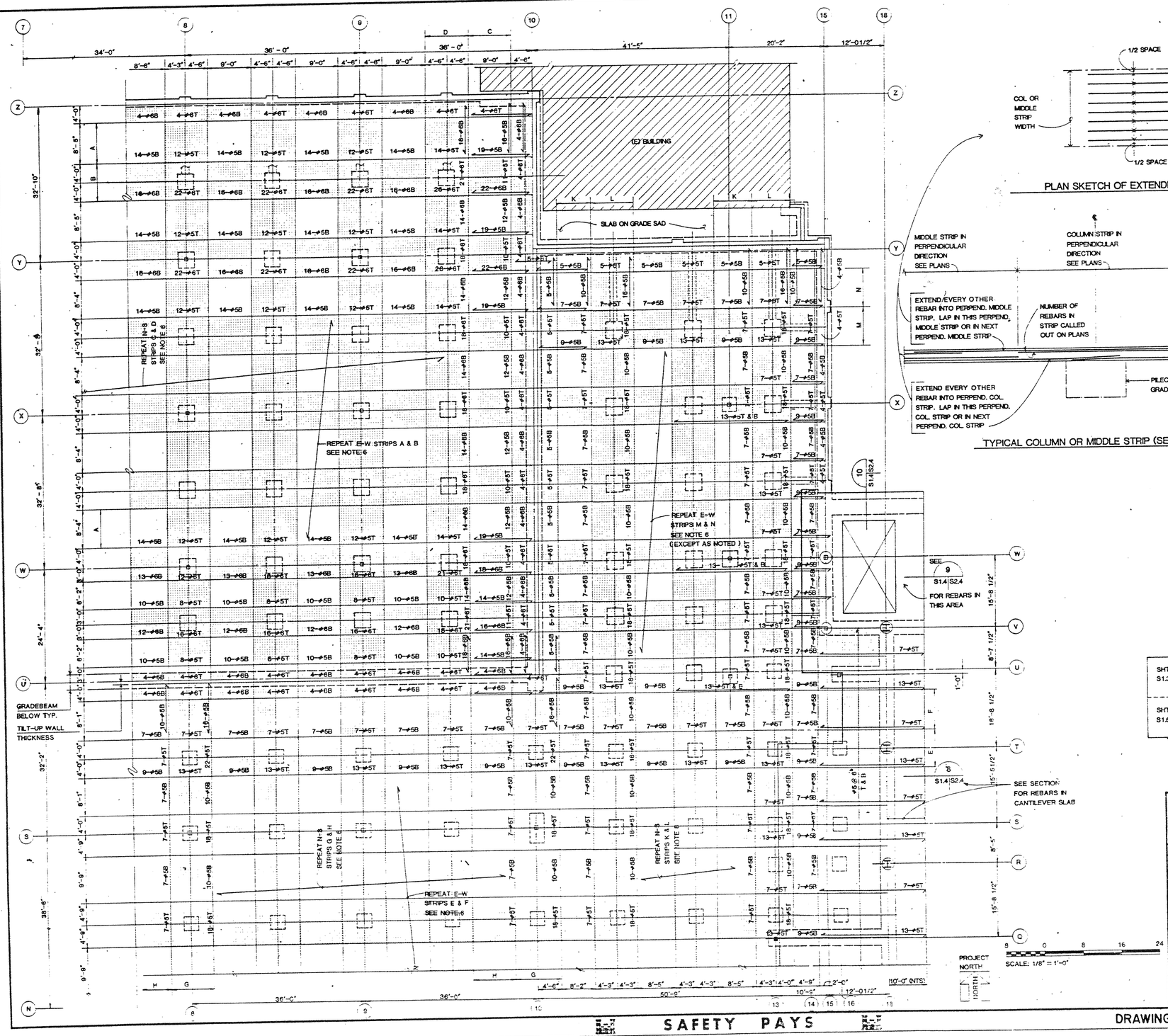
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

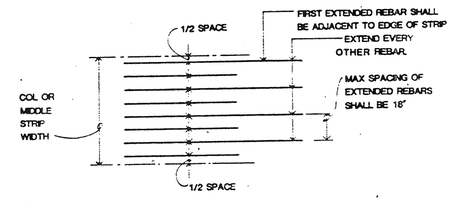
COMMISSARY BUILDING
REINFORCING STRUCT. SLAB AT GRADE

SCALE: 1/8" = 1'-0" | SPEC. No. 7283
SHEET: S1.3 (17 OF 0) | FILE No. 192-25-504

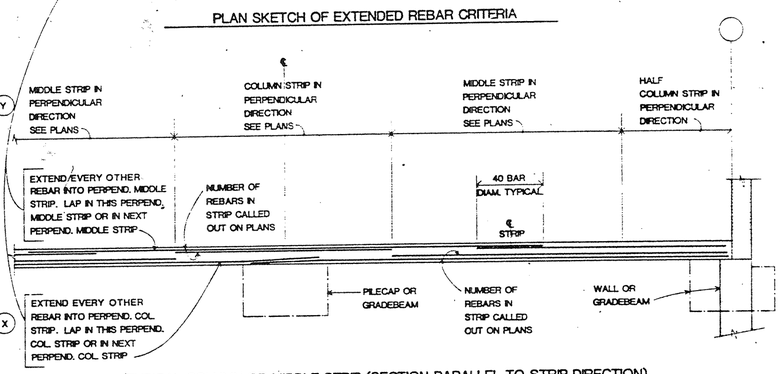
SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE

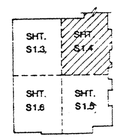




PLAN SKETCH OF EXTENDED REBAR CRITERIA



TYPICAL COLUMN OR MIDDLE STRIP (SECTION PARALLEL TO STRIP DIRECTION)
1/2" = 1'-0"



KEY PLAN

NOTES:

1. SEE DWG. S1.3 FOR NOTES REGARDING REINFORCING STRUCT. SLAB AT GRADE

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REVISION	DATE	DESCRIPTION	BY

CHERMELL, TRUEMPER, LEVY, PARKER & WOODWARD ARCHITECT-ENGINEER
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CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87

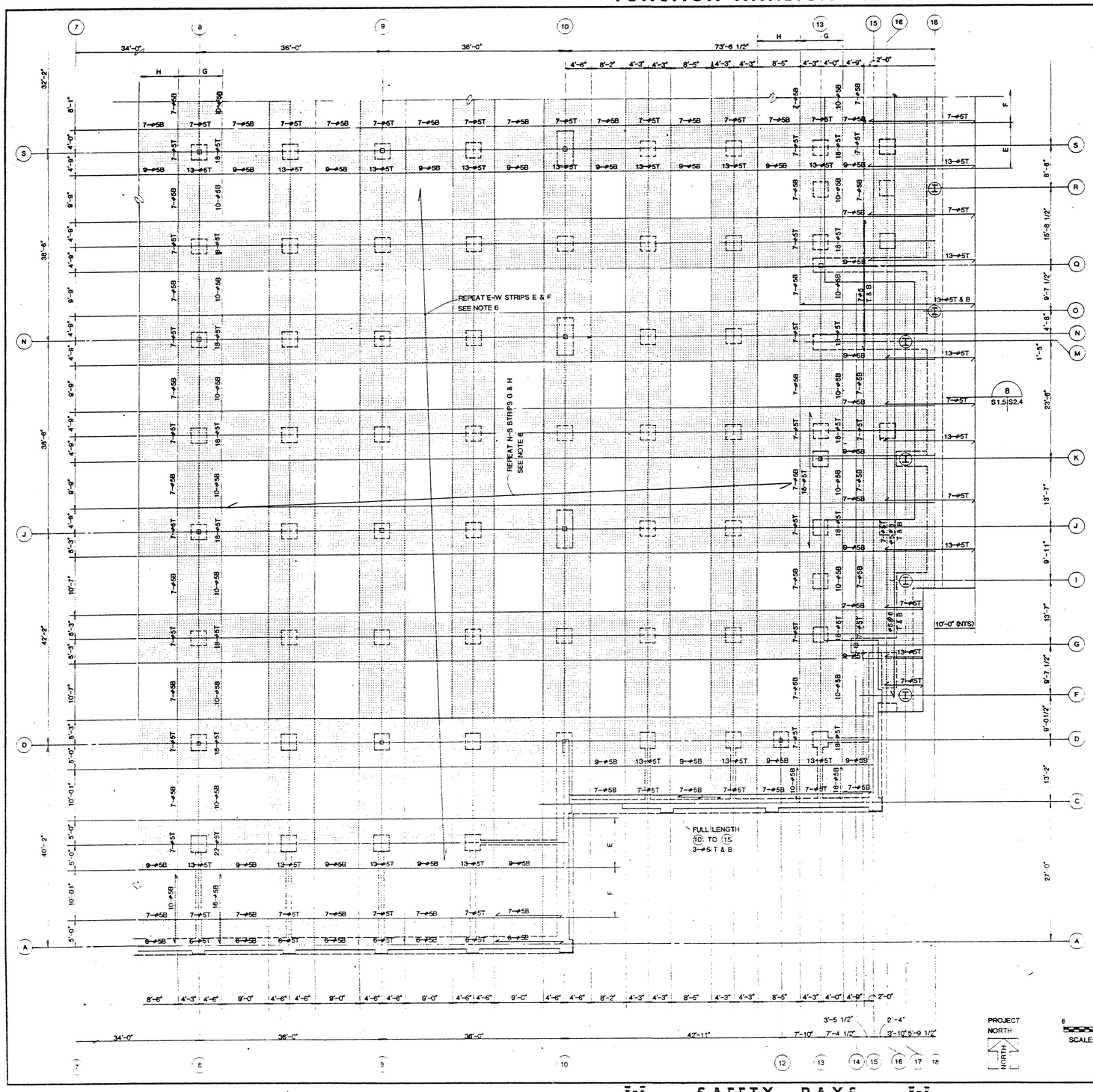
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

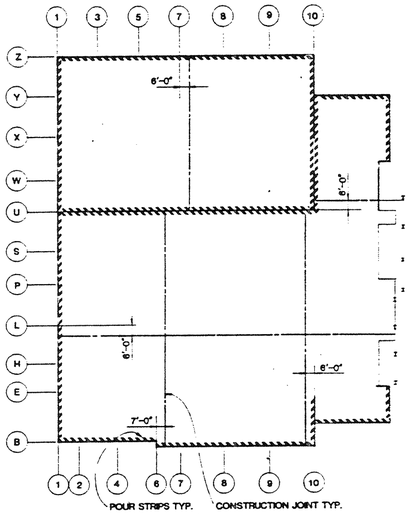
COMMISSARY BUILDING
REINFORCING STRUCT. SLAB AT GRADE

SCALE: 1/8" = 1'-0" | SPEC. No. 7283
SHEET: S1.4 | FILE No. 192-25-504

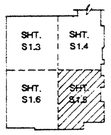
DRAWING REDUCED ONE HALF SIZE

FUNCTION ANALYSIS - VE PAYS





CONSTRUCTION JOINTS



KEY PLAN

NOTES:

1. SEE DWG. S1.3 FOR NOTES REGARDING REINFORCING STRUCT. SLAB AT GRADE.

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REVISION	DATE	DESCRIPTION	BY	CK

CROWELL, TRUEMPER, LEVY, PARKER & RODOSHAW, ARCHITECT/ENGINEER
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DEPARTMENT OF THE ARMY
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DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO

PRESIDIO OF SAN FRANCISCO — CALIFORNIA

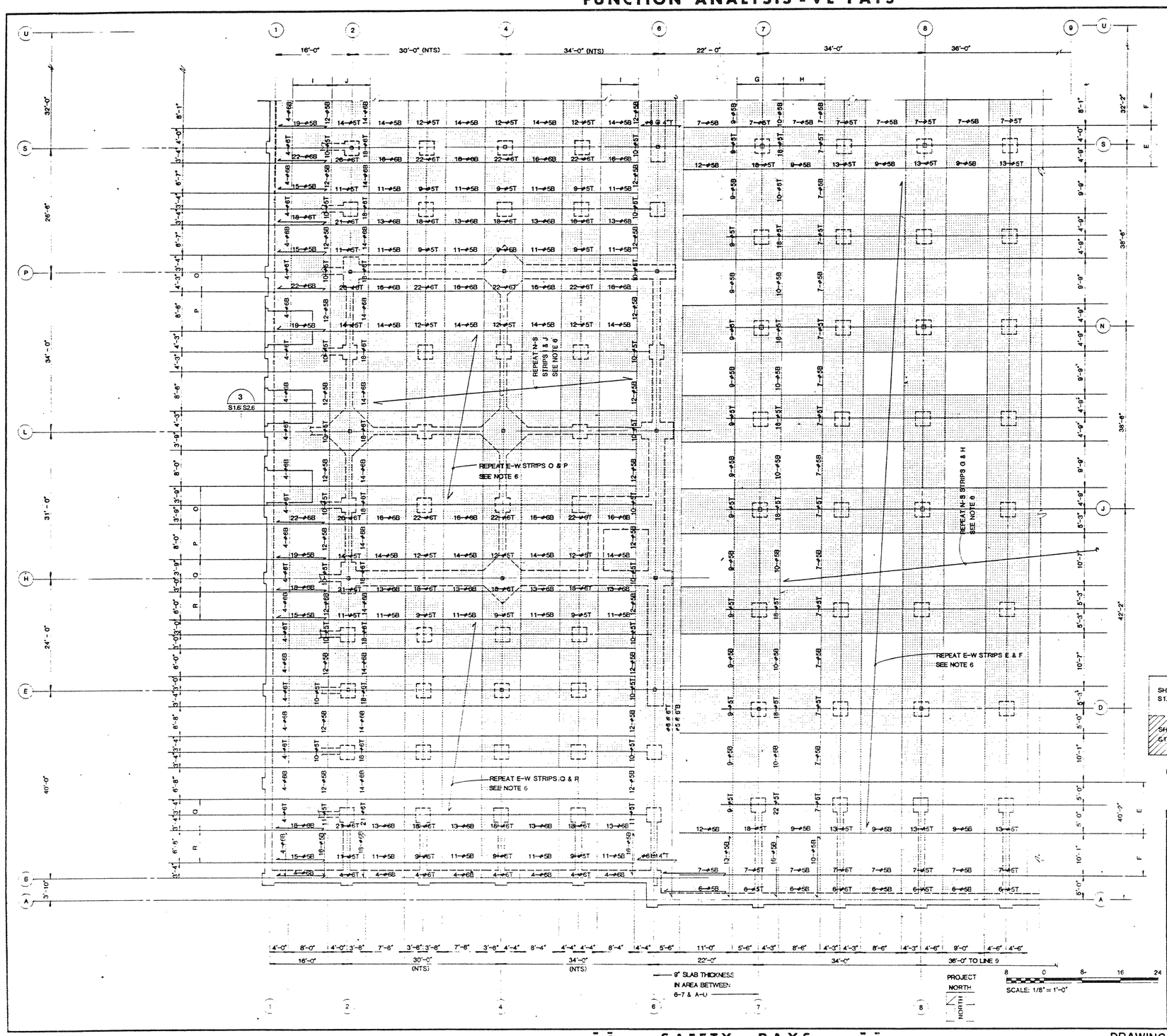
COMMISSARY BUILDING
REINFORCING STRUCT. SLAB AT GRADE

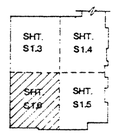
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: 1/8" = 1'-0" | SPEC No. 7293
SHEET: S1.5 (24 of 195) | FILE No. 192-25-504

SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE

FUNCTION ANALYSIS - VE PAYS





KEY PLAN

NOTES:
1. SEE DWG. S1.3 FOR NOTES REGARDING REINFORCING STRUCT SLAB AT GRADE

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NATL PARK SERVICE
GOLDEN GATE NRA

REVISION	DATE		

CROSWELL, TRUEMPER, LEVY, PARKER & SCOGGSWALL ARCHITECT/ENGINEER
SHAPIRO, BRIND, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO

PRESIDIO OF SAN FRANCISCO — CALIFORNIA

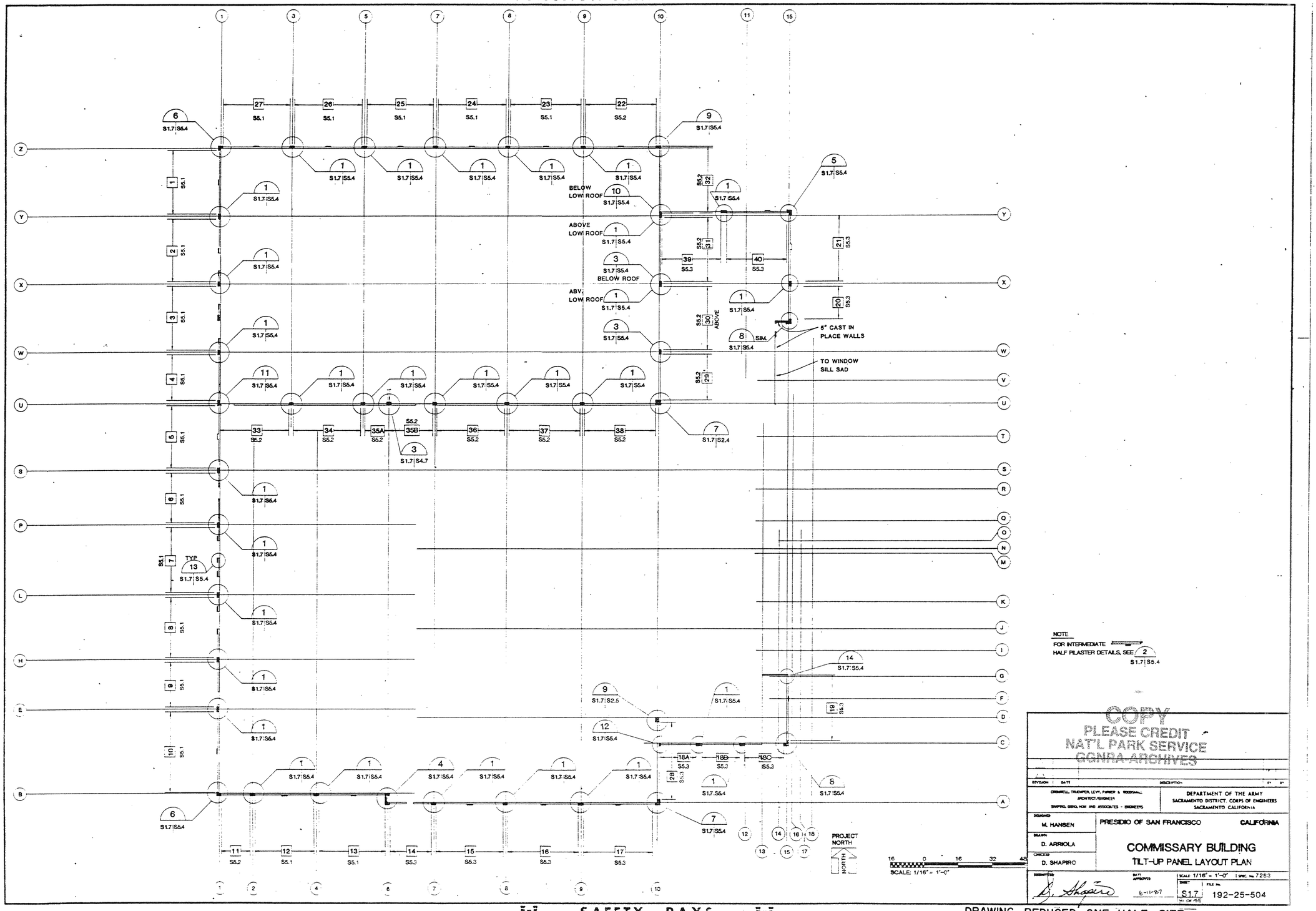
COMMISSARY BUILDING
REINFORCING STRUCT. SLAB AT GRADE

SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: 1/8" = 1'-0" | SPEC. No. 7289
SHEET: S1.6 (SC-W-56) | FILE No. 192-25-504

SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE

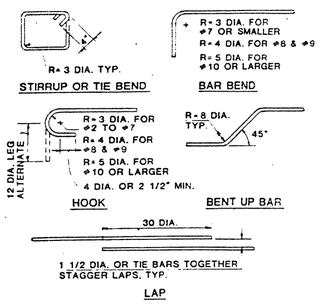
FUNCTION ANALYSIS - VE PAYS



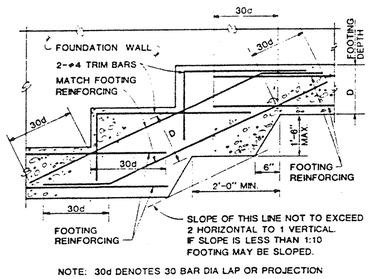
SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE

FUNCTION ANALYSIS - VE PAYS

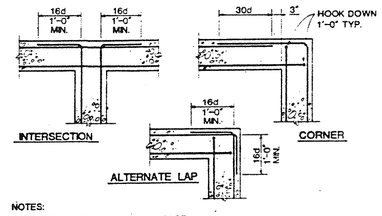


1 TYPICAL BAR BENDING DETAILS
S2.1



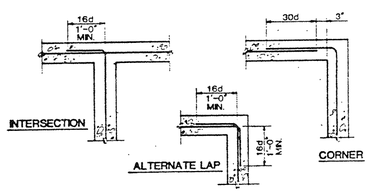
NOTE: 30d DENOTES 30 BAR DIA LAP OR PROJECTION

2 STEPPED WALL FOOTING
S2.1



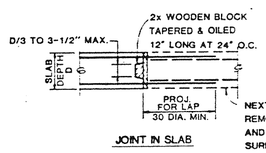
NOTES:
1. PLACE REINFORCING IN EACH FACE.
2. PLACE HORIZONTAL BARS OUTSIDE VERTICAL BARS UNLESS OTHERWISE INDICATED ON DRAWINGS.
3. 16d DENOTES 16 BAR DIA.

3 CONCRETE WALLS AND FOUNDATIONS
S2.1 DOUBLE CURTAIN REINFORCING



NOTES:
1. PLACE VERTICAL REINFORCING IN CENTER.
2. 16d DENOTES 16 BAR DIA.

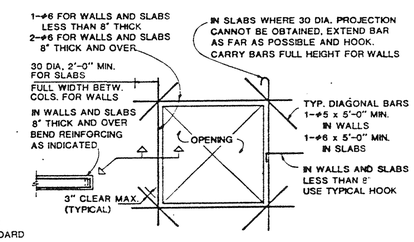
4 CONCRETE WALLS AND FOUNDATIONS
S2.1 SINGLE CURTAIN REINFORCING



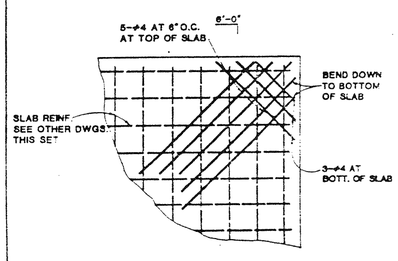
JOINT IN SLAB

NEXT SLAB POUR REMOVE FORM BOARD AND BLOCKS, CLEAN SURFACE AND APPLY BONDING AGENT BEFORE NEXT POUR.

5 CONSTRUCTION JOINT IN SLAB
S2.1



6 CONCRETE WALLS AND SLABS
S2.1 REINFORCING AROUND OPENINGS



7 STRUCTURAL SLAB
S2.1 CORNER REINFORCEMENT

CONCRETE WALL REINFORCING SCHEDULE

TYPICAL UNLESS NOTED OTHERWISE.
SEE DWG. S5.1 FOR TILT-UP PANEL REINF. SCHEDULE.

WALL THICKN.	VERTICAL REINF.	HORIZONTAL REINF.	REMARKS
5"	#4 @ 12" CTR	#4 @ 12" CTR	
8"	#4 @ 10" EF	#4 @ 12" EF	
10"	#4 @ 10" EF	#4 @ 12" EF	
12"	#5 @ 12" EF	#5 @ 12" EF	

8
S2.1

STRUCTURAL DATA

1. SOIL & FOUNDATION:

THE GROUND SURFACE IS COVERED WITH 2 TO 6 INCHES OF ASPHALTIC CONCRETE WITH GENERALLY 1 TO 2 INCHES OF STABILIZED AGGREGATE BASE COURSE. BELOW THE PAVEMENT SECTION IS A SANDY GRAVEL OR GRAVELLY SAND FILL WHICH INCLUDES BRICK AND CONCRETE FRAGMENTS. THIS FILL EXTENDS TO A DEPTH OF 4 TO 9 FEET. THEN ORGANIC SILT, PEAT, SAND, SILTY SAND, SANDY SILT, CLAYEY SAND AND SANDY CLAY LAYERS ARE SCATTERED RANDOMLY TO A DEPTH OF 20 TO 30 FEET. THEN A DENSE TO VERY DENSE STRATUM OF SILTY SAND EXISTS TO A DEPTH OF 40 TO 75 FEET WITH VARIOUS MIXTURES OF SAND WITH SILT AND CLAY BELOW THIS STRATUM.

THE PILES DEPEND ON FRICTION TO DEVELOP THEIR CAPACITY.

2. MATERIALS:

PRE-CAST PRE-STRESSED PILES	14" SQUARE 6000 PSI CONCRETE
ALL STRUCTURAL CONCRETE (PILE CAPS, GRADEBEAMS, SLABS AND WALLS:	CLASS AA (4000 PSI)
MUDSLAB	CLASS C (2000 PSI)
CONCRETE MASONRY UNIT CONSTRUCTION	f'_m =1350 PSI
REINFORCING STEEL FOR CONCRETE	ASTM A615
MAIN BARS	GRADE 60
TIES & STIRRUPS	GRADE 40
REINFORCING STEEL FOR CONCRETE MASONRY UNIT CONSTRUCTION	ASTM A615 GRADE 40
STRUCTURAL STEEL	
SHAPES AND PLATES	ASTM A36
STRUCTURAL TUBING	ASTM A500 GRADE B
STRUCTURAL PIPE	ASTM A501 or ASTM A53 GRADE B

3. DESIGN LIVE LOADS:

PER TM5-809-1

ROOF		20 PSF
FLOORS:	SALES	100 PSF
	PREPARATION	250 PSF
	DRY STORAGE	250 PSF
	MECH. MEZZANINE	250 PSF
	STAIRS & CATWALKS	100 PSF
	CEILINGS	10 PSF (ACCESSIBLE)
	MEAT TRACK	300 #/FT
	RAILINGS	50 #/FT (LATERAL)

PREPARATION & DRY STORAGE 8000 #WHEELLOAD

4. DESIGN WIND LOAD:

PER ANSI A58.1 - 1982
K_z = 0.98 I = 1.07 V = 80 MPH

RESULTING DESIGN PRESSURE = 19 PSF

5. DESIGN SEISMIC LOAD

PER TM 5-809-10
Z = 1.0 I = 1.25 K=1.33
C = 0.12 (max) S = 1.5
CS = 0.14 (max)
RESULTING BASE SHEAR V = 0.233W

6. FUTURE HORIZONTAL OR VERTICAL LOADS

THE BUILDING HAS NOT BEEN DESIGNED FOR ANY FUTURE HORIZONTAL OR VERTICAL LOADS.

7. CONSTRUCTION SEQUENCING

THE CRANE(S) THAT WILL BE USED FOR LIFTING THE TILT-UP WALL PANELS WILL NOT BE ALLOWED ON THE REINFORCED STRUCTURAL SLAB AT GRADE.

SEQUENCING OF CONSTRUCTION MAY BE REQUIRED TO PERMIT ERECTION OF WALL PANELS WITHOUT VIOLATING THE ABOVE REQUIREMENT.

8. TESTING OF REBAR DOWELS AND ALL THREADS SET IN EPOXY

A: 2% OF REBAR DOWELS IN TOP OF PILES SHALL BE LOAD TESTED.
TEST LOAD 12000# SHALL BE HELD FOR 5 MINUTES.
B: 10% OF HORIZONTALLY SET A307 ALL THREADS IN EPOXY SHALL BE LOAD TESTED.
TEST LOAD 2100# SHALL BE HELD FOR 5 MINUTES.
C: TESTING NOT REQUIRED FOR VERTICALLY SET A307 ALL THREADS IN EPOXY.

9. HOOKED ANCHOR BOLTS MAY BE USED IN LIEU OF ALL THREADS SHOWN FOR COLUMN BASEPLATES.
HOOKED ANCHOR BOLTS SHALL BE A307 WITH SAME DIAMETER & EMBEDMENT AS THE ALL THREADS.

LEGEND

AB	ANCHORBOLT	T&B	TOP AND BOTTOM
∠	ANGLE	TO	TOP OF
AFF	ABOVE FIN FLOOR	TOS	TOP OF STEEL
BO	BOTTOM OF	TYP	TYPICAL
BM	BEAM	UNO	UNLESS NOTED OTHERWISE
CMU	CONCRETE MASONRY UNIT	VERT	VERTICAL
CONT	CONTINUOUS	W/O	WITHOUT
CJ	CONSTRUCTION JOINT OR CONTRAL JOINT	Ø	DIAMETER
COL	COLUMN		
℄	CENTERLINE		
DWG	DRAWING		
DIM	DIMENSION		
(E)	EXISTING		
EW	EACH WAY		
EF	EACH FACE		
EA	EACH		
EL	ELEVATION		
FIN	FINISHED		
FS	FAR SIDE		
FDN	FOUNDATION		
FOC	FACE OF CONCRETE		
FOM	FACE OF MASONRY		
FOS	FACE OF STUD		
GA	GAUGE		
GALV	GALVANIZED		
HORIZ	HORIZONTAL		
JST	JOIST		
MAX	MAXIMUM		
MIN	MINIMUM		
MISC	MISCELLANEOUS		
NTS	NOT TO SCALE		
(N)	NEW		
NS	NEAR SIDE		
OPPH	OPPOSITE HAND		
PL	PLATE		
PLWD	PLYWOOD		
PSF	POUNDS PER SQUARE FOOT		
SCHED	SCHEDULE		
SIM	SIMILAR		
SYM	SYMMETRICAL		
SQ	SQUARE		
SAD	SEE ARCHITECTURAL DRAWINGS		
SMD	SEE MECHANICAL DRAWINGS		

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CROSWELL, TRUEMPER, LEVY, PARKER & WOODWARD, ARCHITECT/ENGINEER
SHAPIRO, DRING, HOM AND ASSOCIATES - ENGINEERS
DEPARTMENT OF THE ARMY SACRAMENTO DISTRICT, CORPS OF ENGINEERS SACRAMENTO, CALIFORNIA

M. HANSEN | PRESIDIO OF SAN FRANCISCO | CALIFORNIA
D. ARRIOLA
D. SHAPIRO

COMMISSARY BUILDING
NOTES & TYPICAL DETAILS

7280

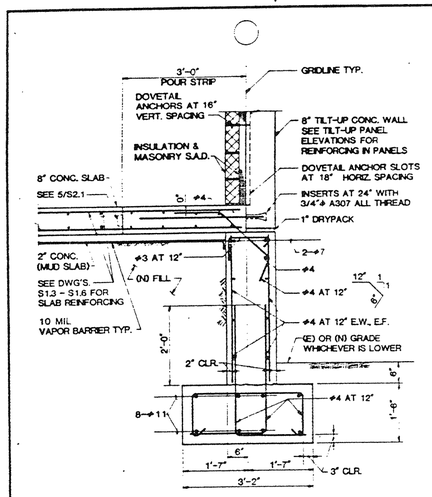
6-11-87

S2.1 | 192-25-504

SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE

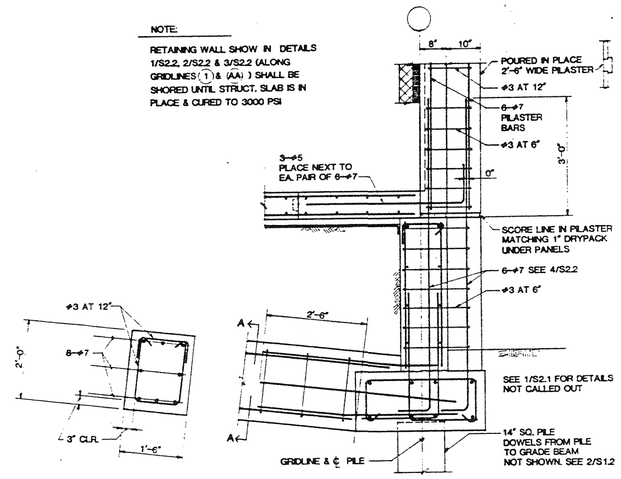
FUNCTION ANALYSIS - VE PAYS



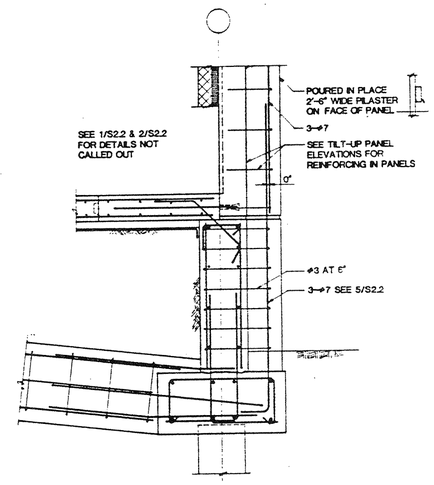
1 S1.1|S2.2 S5.1 S5.2 S5.3 — 3/4" = 1'-0"

NOTE:

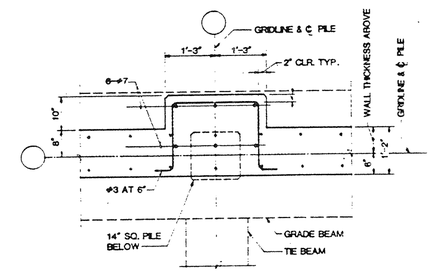
RETAINING WALL SHOW IN DETAILS 1/S2.2, 2/S2.2 & 3/S2.2 (ALONG GRIDLINES (1) & (AA)) SHALL BE SHORED UNTIL STRUCT. SLAB IS IN PLACE & CURED TO 3000 PSI



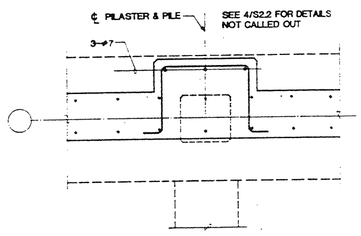
2 S1.1|S2.2 — 3/4" = 1'-0"



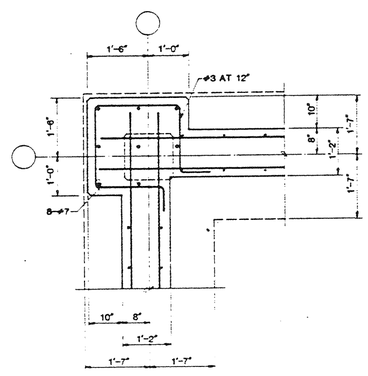
3 S1.1|S2.2 — 3/4" = 1'-0"



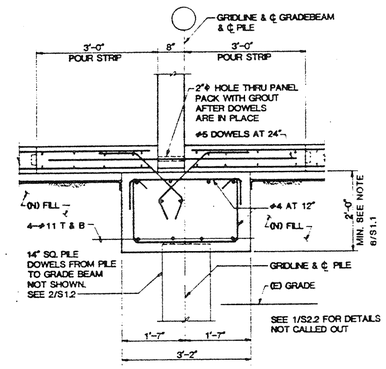
4 PLAN SECTION BELOW SLAB LEVEL — S1.1|S2.2 — 3/4" = 1'-0"



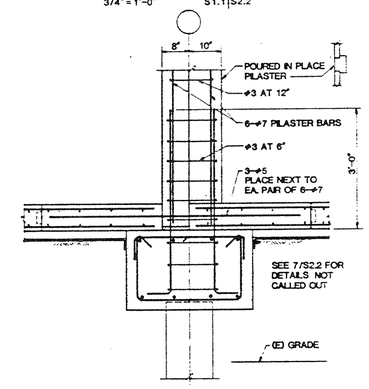
5 PLAN SECTION BELOW SLAB LEVEL — S1.1|S2.2 — 3/4" = 1'-0"



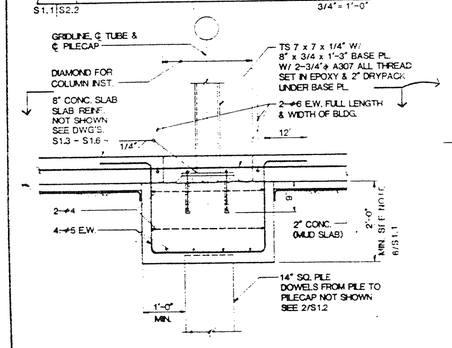
6 PLAN SECTION BELOW SLAB LEVEL — S1.1|S2.2 — 3/4" = 1'-0"



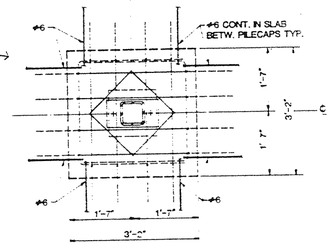
7 S1.1|S2.2 S5.2 S5.3 — 3/4" = 1'-0"



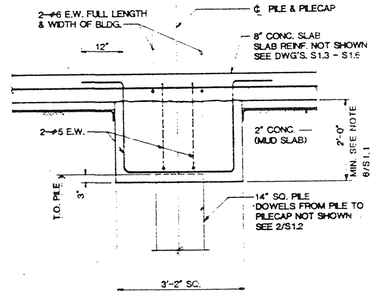
8 S1.1|S2.2 — 3/4" = 1'-0"



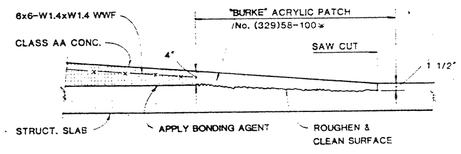
9 S1.1|S2.2 — 3/4" = 1'-0"



PLAN VIEW A-A



10 S1.1|S2.2 — 3/4" = 1'-0"



CAST CLASS AA CONC. & LET CURE FOR 14 DAYS BEFORE CASTING THE ACRYLIC PATCH

* OR EQUAL PROPERTIES PRODUCT FROM OTHER COMPANY

11 S2.3|S2.2 — 3/4" = 1'-0"

NOTE: 1. TOP OF SLAB ELEVATION MAY VARY. REFER TO NOTE 4/S1.1

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REVISION	DATE	DESCRIPTION	BY	BY

CROWRILL, TRUEMPER, LEVY, PANZER & ROSENBAUM, ARCHITECT/ENGINEER
SHAPIRO, DENICOLA, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87

PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISARY BUILDING
FOUNDATION DETAILS

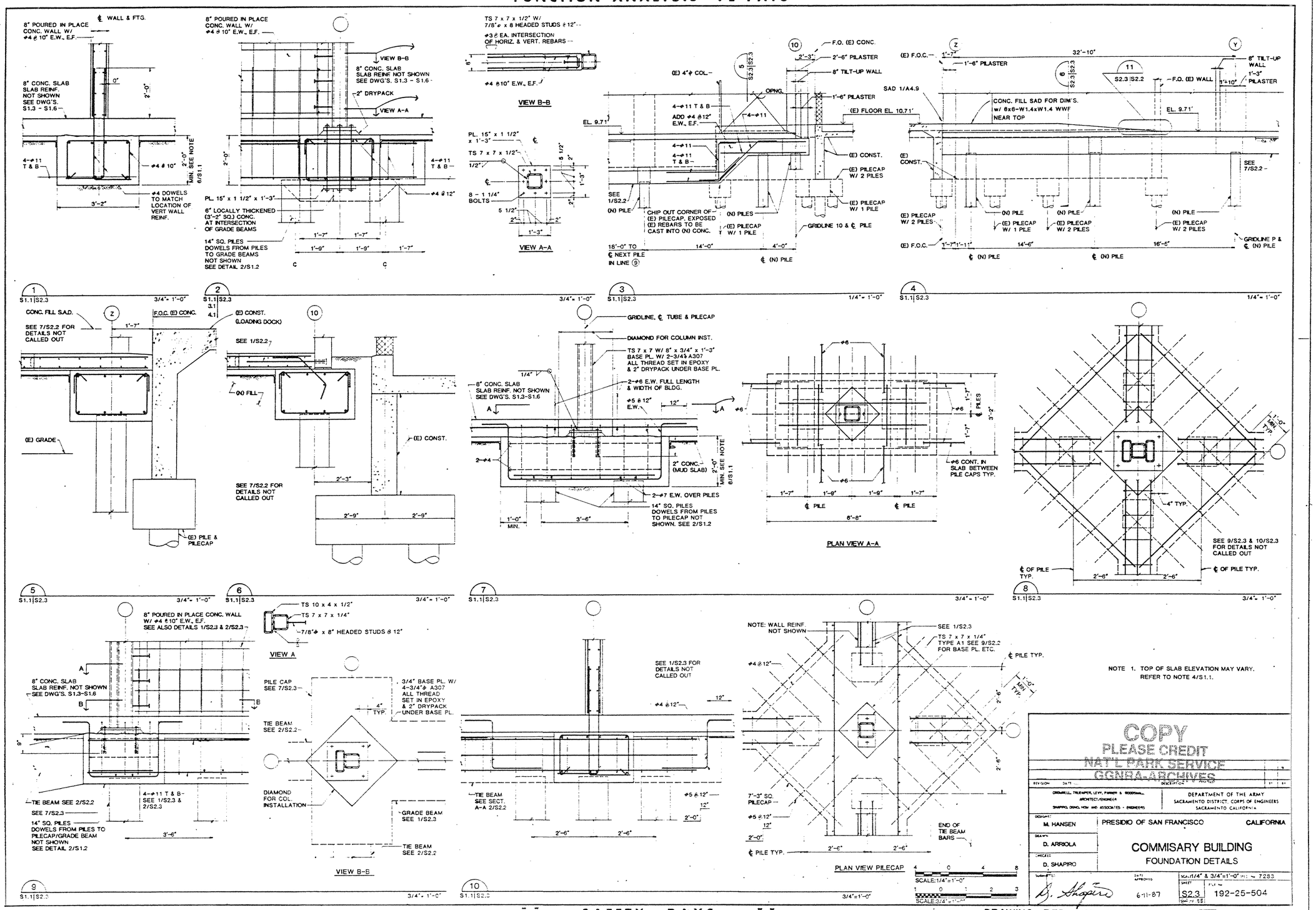
SCALE 3/4"=1'-0" | VIC. No. 7283
SHEET S2.2 | FILE No. 192-25-504
B.S.34.55

SCALE:3/4"=1'-0"

SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE

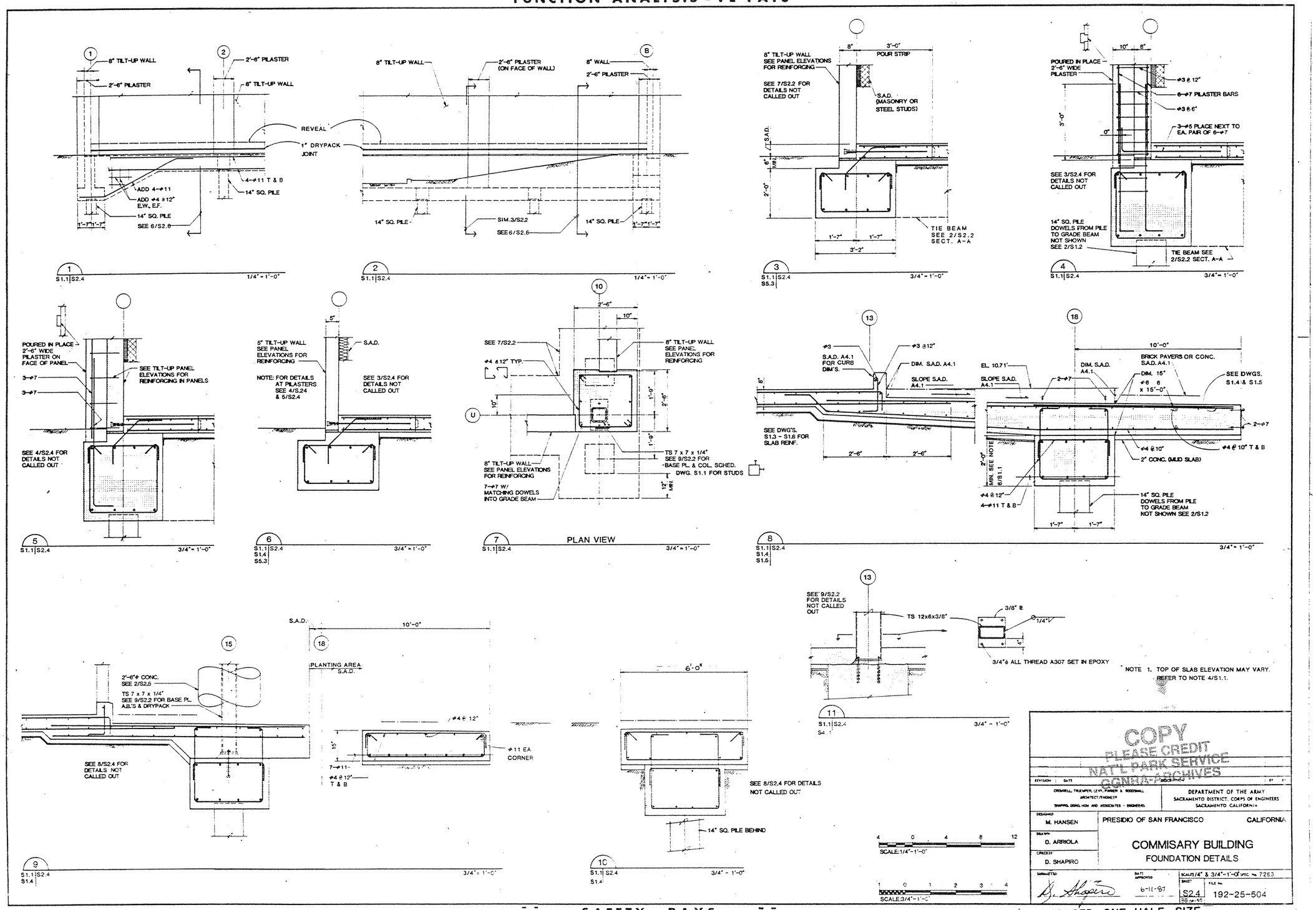
FUNCTION ANALYSIS - VE PAYS



SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE

FUNCTION ANALYSIS - VE PAYS



NOTE 1. TOP OF SLAB ELEVATION MAY VARY. REFER TO NOTE 4/S1.1.

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REVISION	DATE	DESCRIPTION	BY

CROSWELL, TRUEMPER, LEVY, FARNER & ROSENHALL
ARCHITECT/ENGINEER
SHAPIRO, DERNO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-97

PRESIDIO OF SAN FRANCISCO — CALIFORNIA

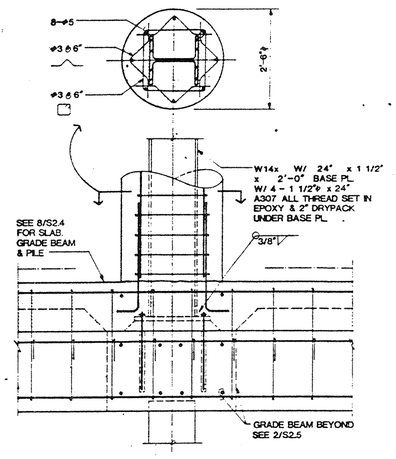
COMMISARY BUILDING
FOUNDATION DETAILS

SCALE: 1/4" & 3/4"-1'-0" SPEC. No. 7253
SHEET: S2.4 (25 OF 55)
FILE No. 192-25-504

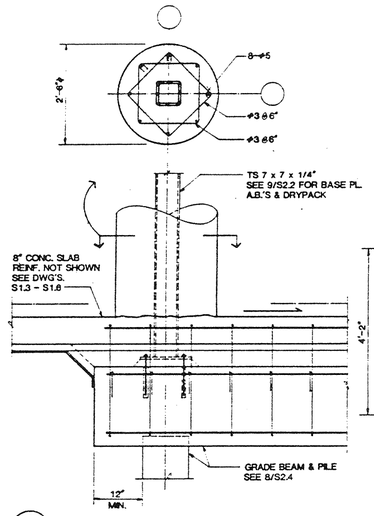
SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE

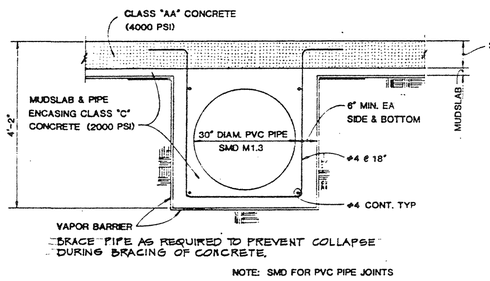
FUNCTION ANALYSIS - VE PAYS



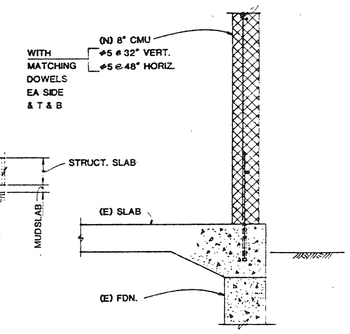
1
S1.1 | S2.5
4.1
3/4" = 1'-0"



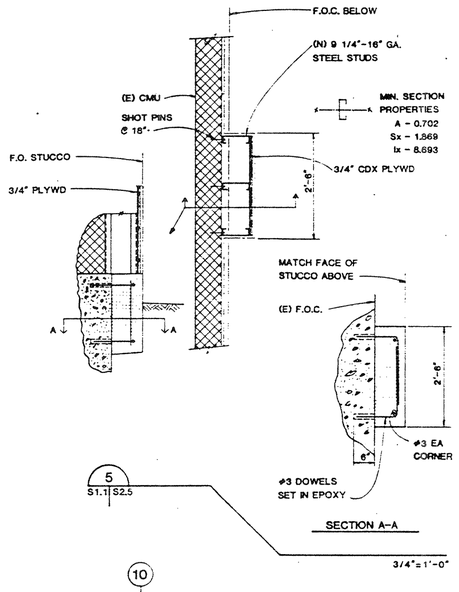
2
S1.1 | S2.5
3/4" = 1'-0"



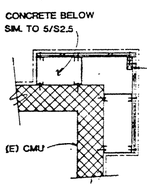
3
S1.1 | S2.5
3/4" = 1'-0"



4
S1.1 | S2.5
3/4" = 1'-0"

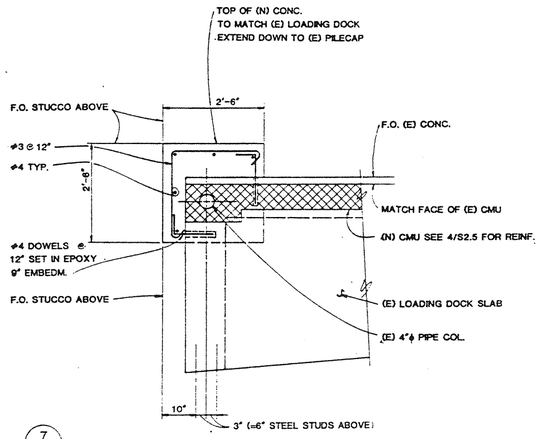


5
S1.1 | S2.5
3/4" = 1'-0"

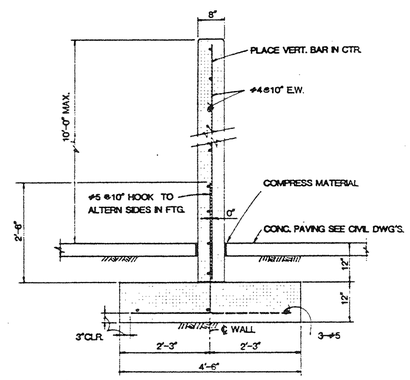


SEE 5/S2.5 FOR DETAILS NOT CALLED OUT

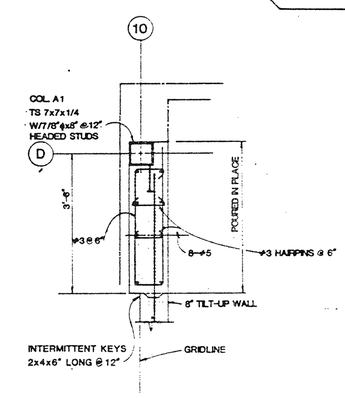
6
S1.1 | S2.5
3/4" = 1'-0"



7
S1.1 | S2.5
3/4" = 1'-0"

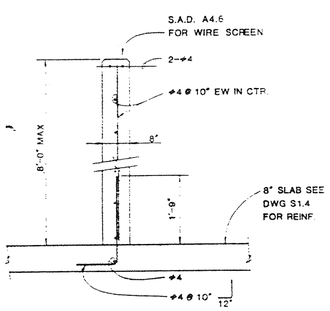


8
SCREEN WALL
S1.1 | S2.5
A2.1
3/4" = 1'-0"

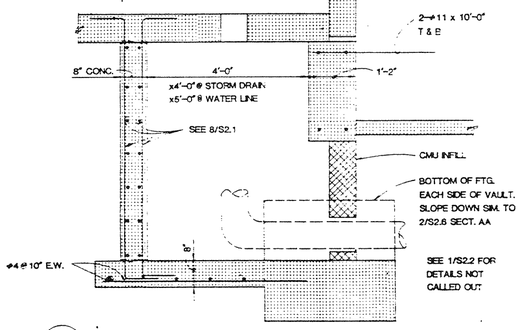


9
PLAN
S1.1 | S2.5
S1.7
S4.1
S5.3
3/4" = 1'-0"

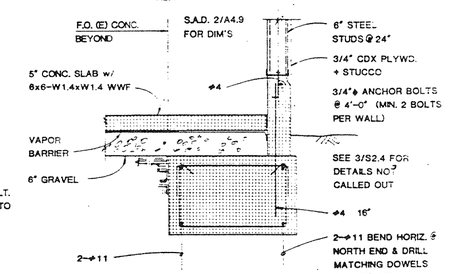
NOTE 1. TOP OF SLAB ELEVATION MAY VARY. REFER TO NOTE 4/S1.1.



10
S1.1 | S2.5
3/4" = 1'-0"



11
S1.1 | S2.5
3/4" = 1'-0"



12
S1.1 | S2.5
3/4" = 1'-0"

1 0 1 2 3 4
SCALE 3/4" = 1'-0"

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GGNRA-ARCHIVES

REVISION	DATE	DESCRIPTION	BY

CROMWELL, TRUEMPER, LEVY, PARKER & BOODSHALL, ARCHITECT/ENGINEER
SHAPIRO, GERG, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87

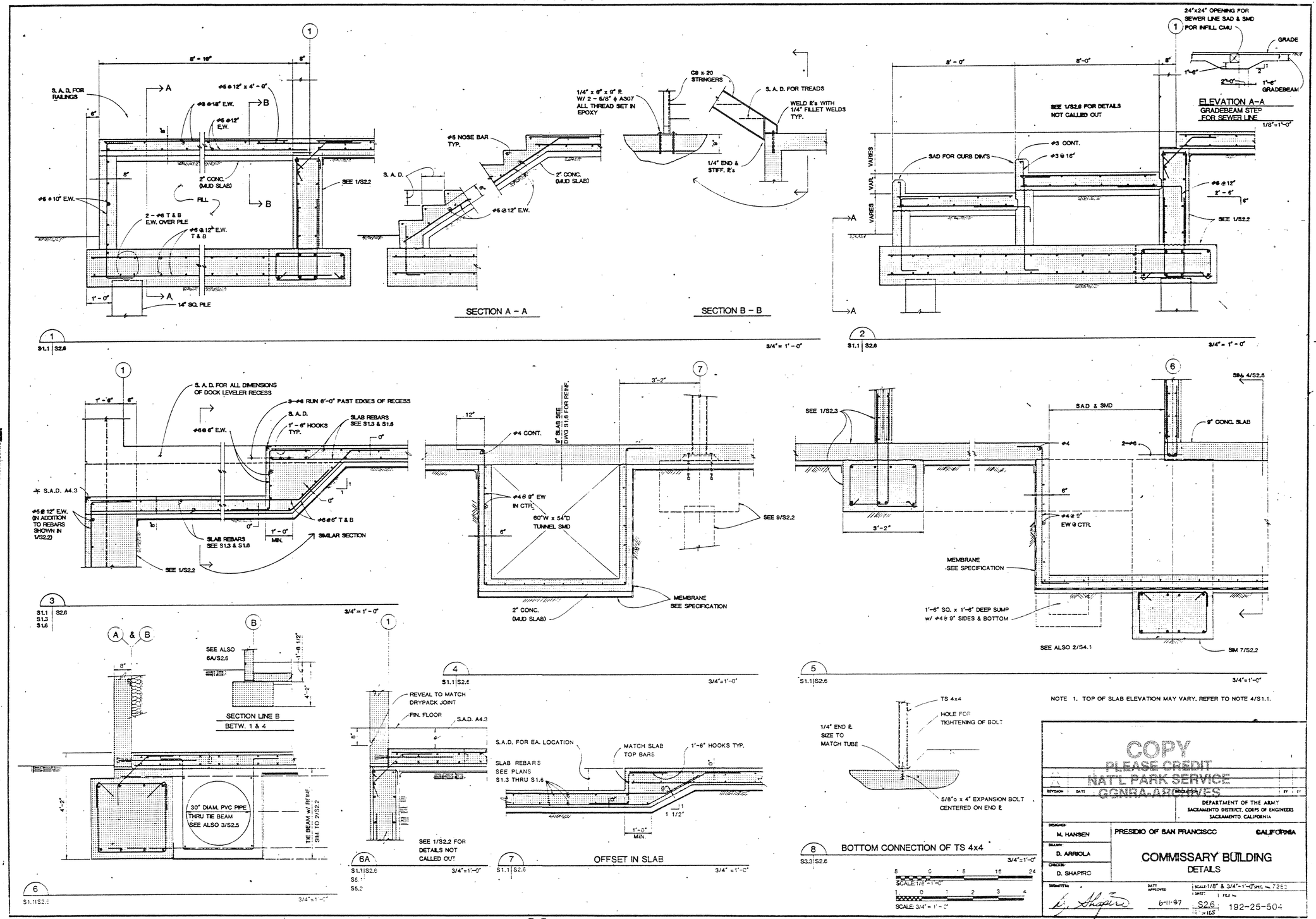
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISARY BUILDING
FOUNDATION DETAILS

SCALE 3/4" = 1'-0" | SPEC No. 7283
SHEET S2.5 | FILE No. 192-25-504

SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE



NOTE 1. TOP OF SLAB ELEVATION MAY VARY. REFER TO NOTE 4/S1.1.

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GGNRA-ARCHIVES

REVISION	DATE	DESCRIPTION	BY	CK

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-97

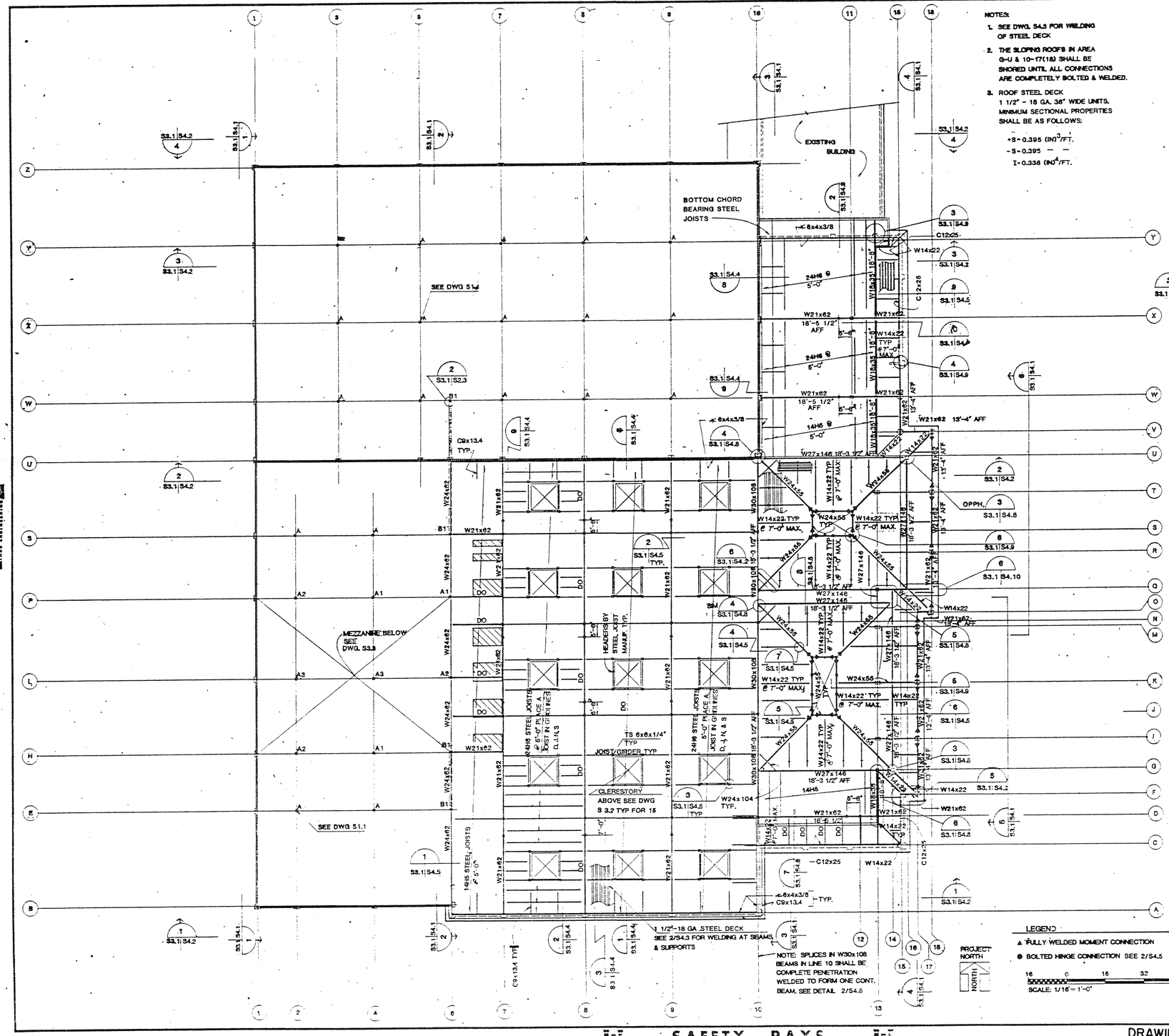
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING
DETAILS

SCALE: 1/8" & 3/4" = 1'-0" (SPEC. No. 7252)
SHEET: S2.6
FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

FUNCTION ANALYSIS - VE PAYS

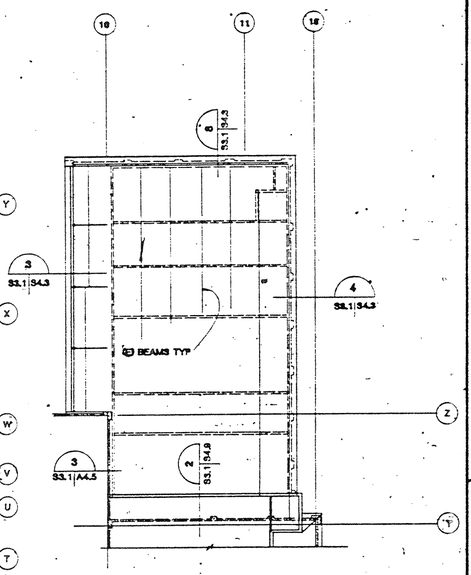


NOTES:

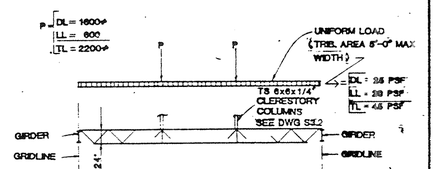
1. SEE DWG. S4.3 FOR WELDING OF STEEL DECK
2. THE SLOPING ROOFS IN AREA G-U & 10-17(18) SHALL BE SHORED UNTIL ALL CONNECTIONS ARE COMPLETELY BOLTED & WELDED.
3. ROOF STEEL DECK 1 1/2" - 18 GA. 36" WIDE UNITS. MINIMUM SECTIONAL PROPERTIES SHALL BE AS FOLLOWS:

   +S = 0.395 $(IN)^3$/FT.
   -S = 0.395 — —
   I = 0.338 $(IN)^4$/FT.

4. AT SLOPING ROOFS WHERE STEEL DECK IS CUT AT VARIOUS 60B ANGLES AND AT BEAM ENDS (BEAM CUT SHORT TO ACCOMMODATE CONNECTION DETAIL), PROVIDE SUPPORT FOR STEEL DECK AS REQ'D. BY ANGLES WELDED TO THE BEAMS.
5. SEE ROOF PLAN A5.1 FOR ROOF SLOPE DIMENSIONS.



ROOF PLAN EXISTING BUILDING



1 LOADING DIAGRAM FOR JOIST GIRDERS
S3.1|S3.1 AT CLERESTORIES OVER SALES AREA TYP. FOR 30 GIRDERS

LEGEND

▲ FULLY WELDED MOMENT CONNECTION
● BOLTED HINGE CONNECTION SEE 2/S4.5

16 0 16 32 48
SCALE: 1/16" = 1'-0"

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NATL PARK SERVICE
IGGNRA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	JT

CROMWELL, TREMPER, LEVY, PARKER & WOODWARD, ARCHITECT/ENGINEER
SHAPIRO, DIRO, HOH AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO

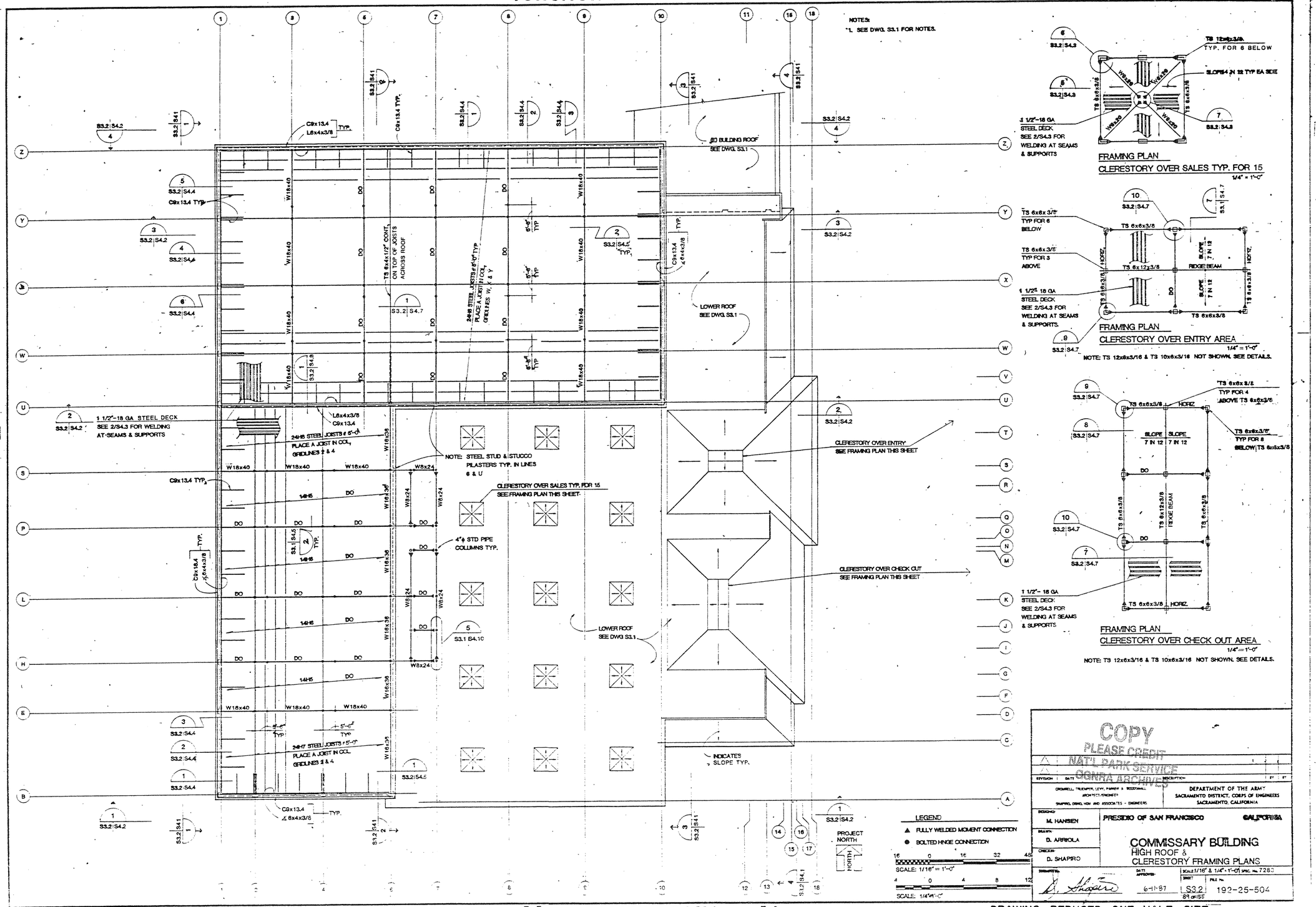
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING
LOW ROOF FRAMING PLAN

SIGNATURE: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: 1/16" = 1'-0"
SPEC. No. 7283
SHEET: S3.1
FILE No. 192-25-504
88-W-159

SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE


NOTES:
1. SEE DWG. S3.1 FOR NOTES.
FRAMING PLAN
CLERESTORY OVER SALES TYP. FOR 15
1/4" = 1'-0"
FRAMING PLAN
CLERESTORY OVER ENTRY AREA
1/4" = 1'-0"
NOTE: TS 12x6x3/16 & TS 10x6x3/16 NOT SHOWN. SEE DETAILS.
FRAMING PLAN
CLERESTORY OVER CHECK OUT AREA
1/4" = 1'-0"
NOTE: TS 12x6x3/16 & TS 10x6x3/16 NOT SHOWN. SEE DETAILS.
@ BUILDING ROOF
SEE DWG. S3.1
LOWER ROOF
SEE DWG. S3.1
CLERESTORY OVER ENTRY
SEE FRAMING PLAN THIS SHEET
CLERESTORY OVER CHECK OUT
SEE FRAMING PLAN THIS SHEET
CLERESTORY OVER SALES TYP. FOR 15
SEE FRAMING PLAN THIS SHEET
NOTE: STEEL STUD & STUCCO PILASTERS TYP. IN LINES 6 & U
1 1/2"-18 GA STEEL DECK
SEE 2/S4.3 FOR WELDING AT SEAMS & SUPPORTS
24H5 STEEL JOISTS @ 6'-0"
PLACE A JOIST IN COL. GRIDLINES 2 & 4
24H7 STEEL JOISTS @ 5'-0"
PLACE A JOIST IN COL. GRIDLINES W, Y & Y
TS 6x4x1/2" CONT. ON TOP OF JOISTS ACROSS ROOF
4"ϕ STD PIPE COLUMNS TYP.
INDICATES SLOPE TYP.
PROJECT NORTH
LEGEND
FULLY WELDED MOMENT CONNECTION
BOLTED HINGE CONNECTION
SCALE: 1/16" = 1'-0"
SCALE: 1/4" = 1'-0"
COPY
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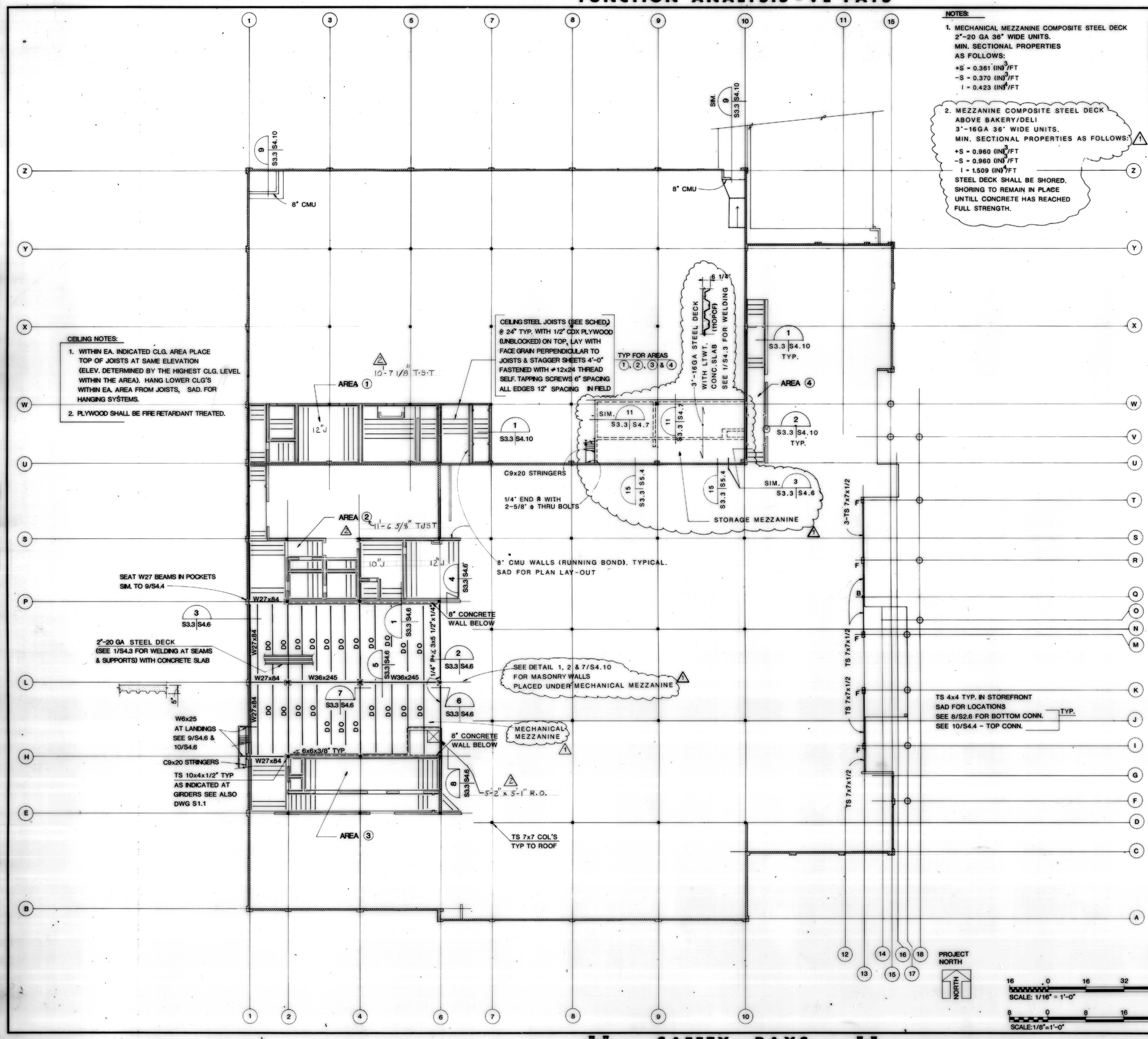
NAT'L PARK SERVICE
OSHPO ARCHIVES
DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA
M. HANSEN
D. ARRIOLA
D. SHAPIRO
PRESIDIO OF SAN FRANCISCO
CALIFORNIA
COMMISSARY BUILDING
HIGH ROOF &
CLERESTORY FRAMING PLANS
6-11-87
S3.2
192-25-504



NOTES:

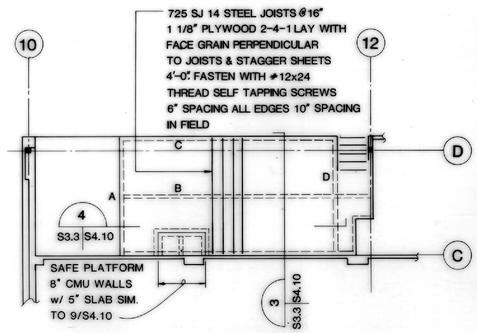
1. MECHANICAL MEZZANINE COMPOSITE STEEL DECK 2"-20 GA 36" WIDE UNITS. MIN. SECTIONAL PROPERTIES AS FOLLOWS:
   +S = 0.361 $(IN)^3$/FT
   −S = 0.370 $(IN)^3$/FT
   I = 0.423 $(IN)^4$/FT
2. MEZZANINE COMPOSITE STEEL DECK ABOVE BAKERY/DELI 3"-16GA 36" WIDE UNITS. MIN. SECTIONAL PROPERTIES AS FOLLOWS:
   +S = 0.960 $(IN)^3$/FT
   −S = 0.960 $(IN)^3$/FT
   I = 1.509 $(IN)^4$/FT
   STEEL DECK SHALL BE SHORED. SHORING TO REMAIN IN PLACE UNTILL CONCRETE HAS REACHED FULL STRENGTH.

CEILING STEEL JOIST SCHEDULE

SPAN (FT.)	USG SIZE REF. [	A	I_x	S_x	r_x	REMARKS
22-24	115 SJ 14	1.040	18.518	3.215	4.018	JOIST ARE REFERRED TO UNITED STATES GYPSUM. JOIST WITH SAME OR BETTER SECTIONAL PROPERTIES FROM OTHER MANUFACTURER MAY BE USED.
20-22	925 SJ 14	0.872	10.731	2.307	3.306	
18-20	925 SJ 16	0.702	8.693	1.869	3.316	
16-18	80 SJ 16	0.628	6.061	1.506	2.911	
14-16	725 SJ 16	0.583	4.754	1.304	2.664	
14 & LESS	60 SJ 16	0.508	2.991	0.991	2.243	

CEILING NOTES:

1. WITHIN EA. INDICATED CLG. AREA PLACE TOP OF JOISTS AT SAME ELEVATION (ELEV. DETERMINED BY THE HIGHEST CLG. LEVEL WITHIN THE AREA). HANG LOWER CLG'S WITHIN EA. AREA FROM JOISTS, SAD. FOR HANGING SYSTEMS.
2. PLYWOOD SHALL BE FIRE RETARDANT TREATED.



RAISED FLOOR FRAMING, ROOMS 2 & 3

1/8"=1'-0"

NOTES:

1. 725 SJ 14 JOISTS ARE REFFERED TO UNITED STATES GYPSUM CATALOG.
   A=0.720 I_x =5.829 S_x =1.593 r_x =2.651
   JOISTS WITH SAME OR BETTER SECTIONAL PROPERTIES FROM OTHER MANUFACTURER MAY BE USED.
2. PLYWOOD SHALL BE FIRE RETARDANT TREATED.

AS-BUILT

REVISION	DATE	DESCRIPTION	BY	BY
2	11DEC90	REVISED AS-BUILT	RLF	MH
1	4/19/88	DELI/BAKERY SALES		MH

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87

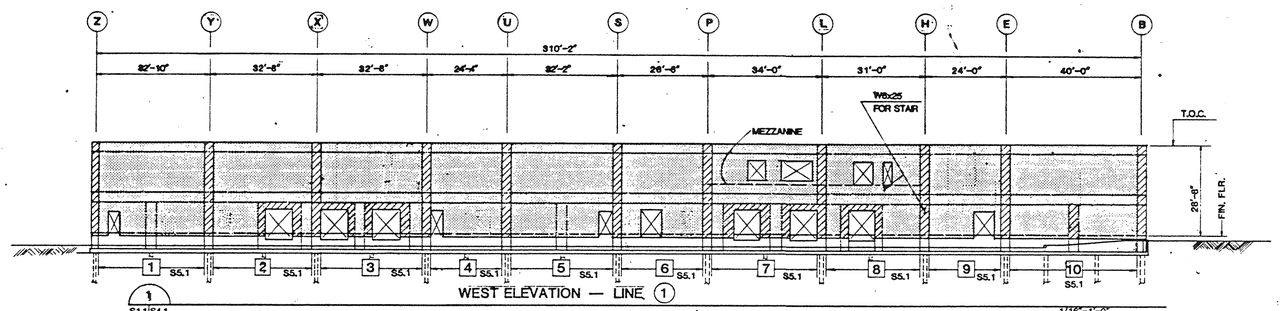
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING

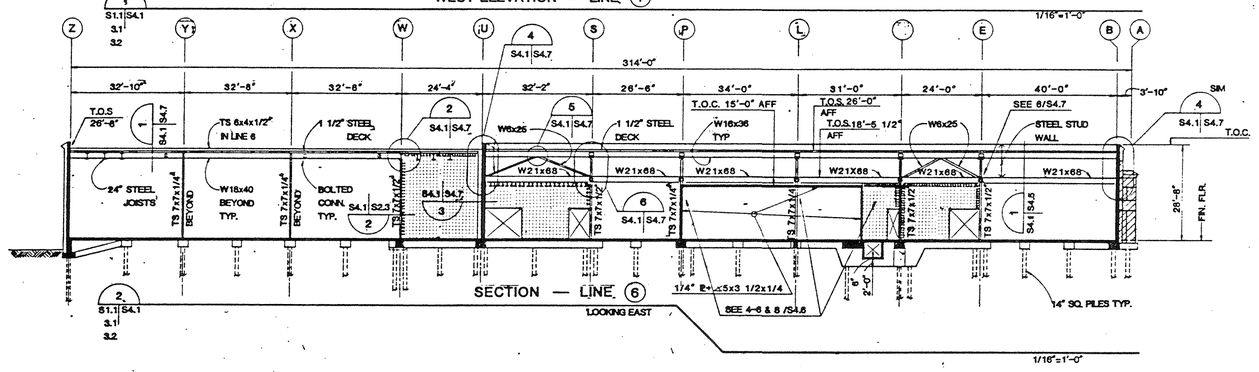
MEZZANINE, CEILING & RAISED FLOOR FRAMING PLANS

SCALE: 1/16" = 1'-0" | SPEC. No. 7283
SHEET: S3.3 | FILE No. 192-25-504

FUNCTION ANALYSIS - VE PAYS

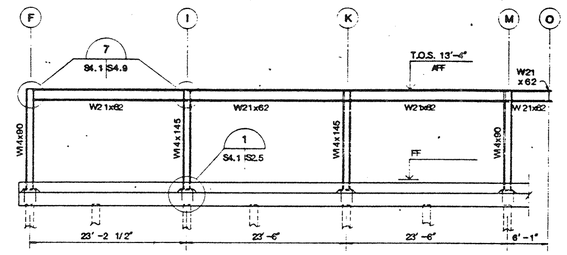


WEST ELEVATION — LINE (1)



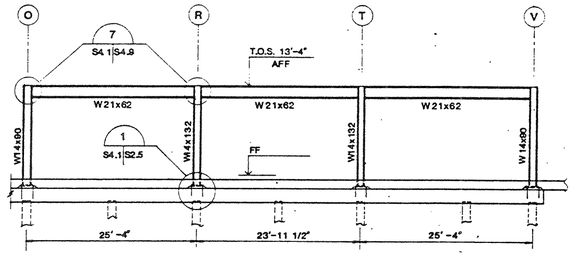
SECTION — LINE (6)

LOOKING EAST



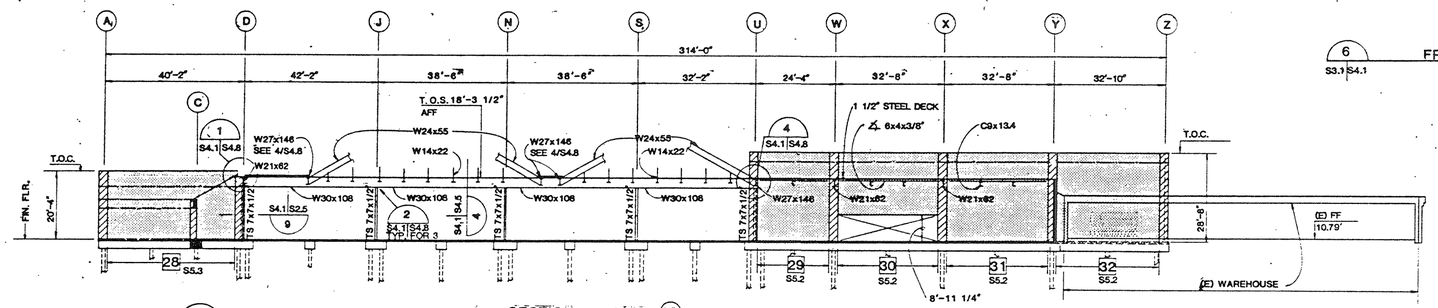
FRAME IN LINE 17

1/8" = 1' -0"



FRAME IN LINE 18

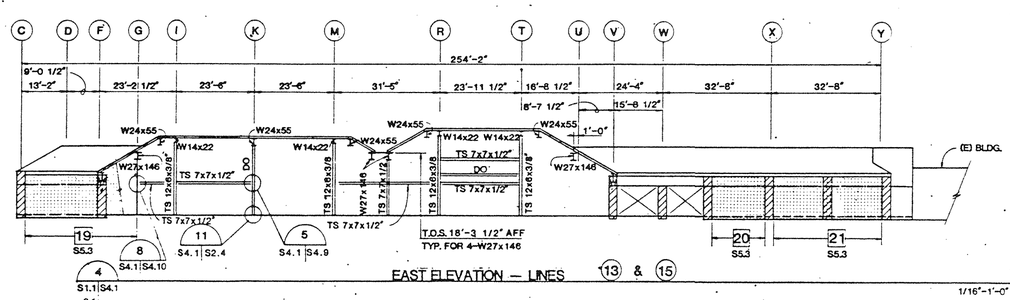
1/8" = 1' -0"



SECTION — LINE (10)

LOOKING WEST

1/16"=1'-0"



EAST ELEVATION — LINES (13) & (15)

1/16"-1'-0"

SCALE: 1/16" = 1'-0"

SCALE: 1/8" = 1' -0"

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NAT'L PARK SERVICE
GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	
△				
△				

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
WALL & FRAME ELEVATION

SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: 1/16" & 1/8" = 1' -0" SPEC. No. 7283
SHEET: S4.1 FILE No. 192-25-504

SAFETY PAYS

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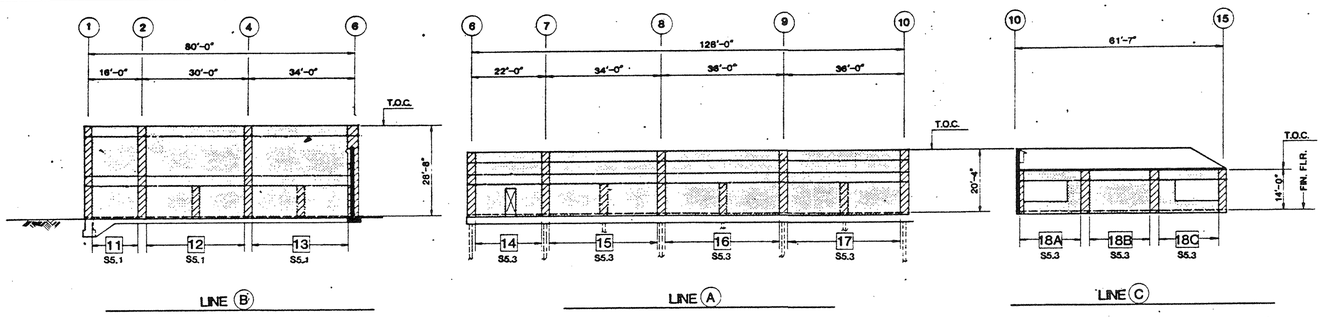
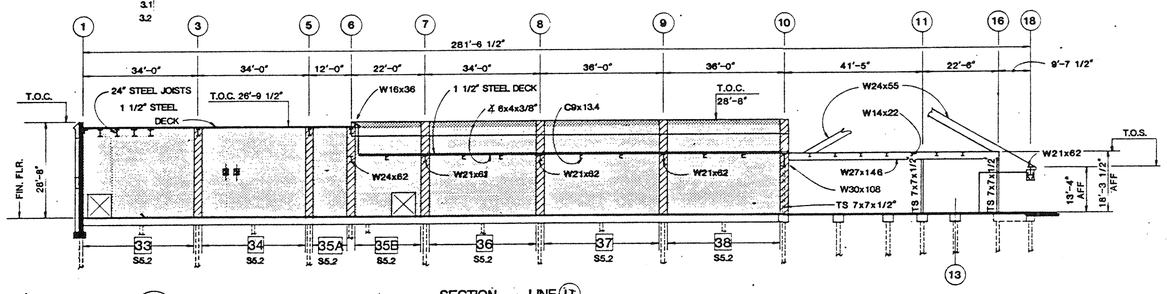
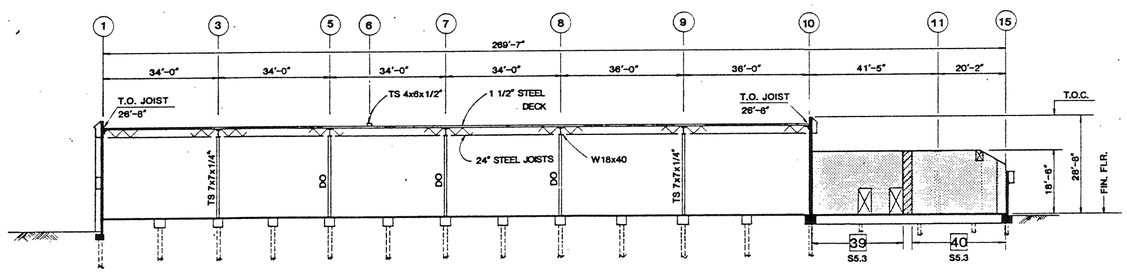
FUNCTION ANALYSIS - VE PAYS



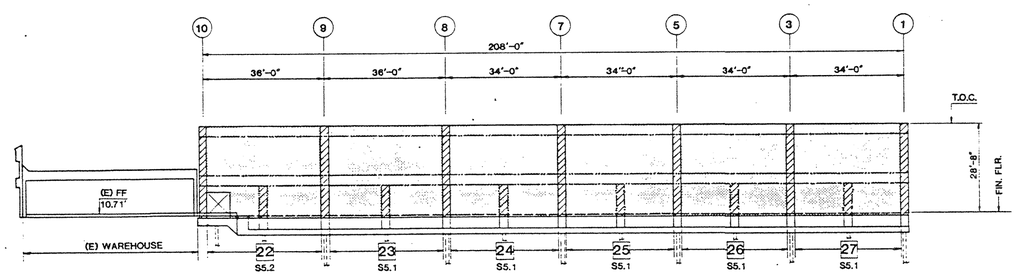
1 S1.1|S4.2 3.1 3.2 — SOUTH ELEVATION — 1/16"=1'-0"



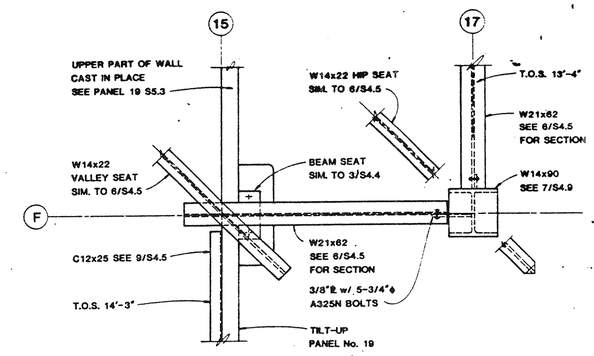
2 S1.1|S4.2 3.1 3.2 — SECTION — LINE (U) — LOOKING NORTH — 1/16"=1'-0"



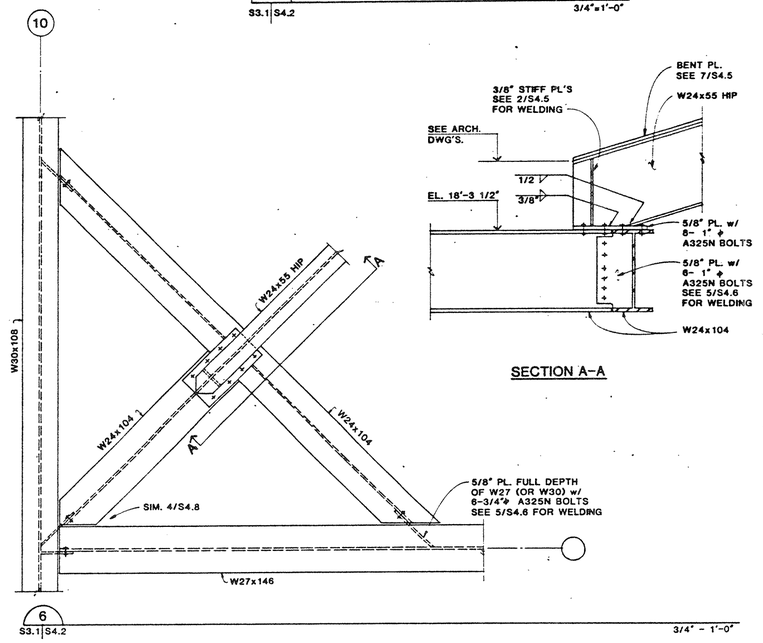
3 S1.1|S4.2 3.1 3.2 — SECTION — LINE (Y) — LOOKING NORTH — 1/16"=1'-0"



4 S1.1|S4.2 3.1 3.2 — NORTH ELEVATION — LINE (Z) — 1/16"=1'-0"



5 S3.1|S4.2 — 3/4"=1'-0"



6 S3.1|S4.2 — 3/4" - 1'-0"

16 0 16 32 48
SCALE: 1/16" = 1'-0"
1 0 1 2 3 4
SCALE: 3/4"-1'-0"

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NAT'L PARK SERVICE
GOMBA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & BOODSHALL
ARCHITECT/ENGINEER
SHAPIRO, DERO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO

PRESIDIO OF SAN FRANCISCO · CALIFORNIA

COMMISSARY BUILDING
WALL ELEVATIONS

SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: 1/16" = 1'-0" SPEC. No. 7283
SHEET S4.2 of 5 FILE No. 192-25-504

SAFETY PAYS

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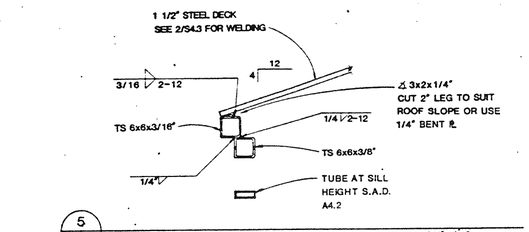
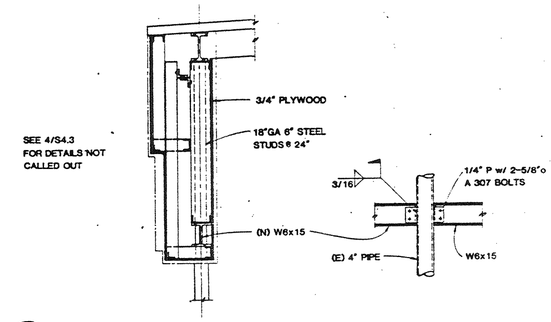
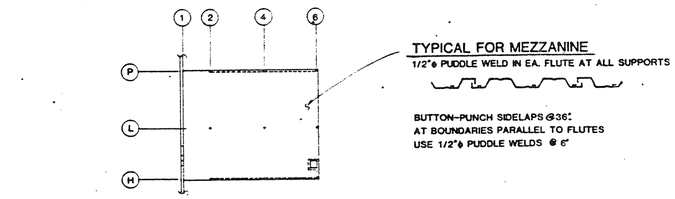
FUNCTION ANALYSIS - VE PAYS



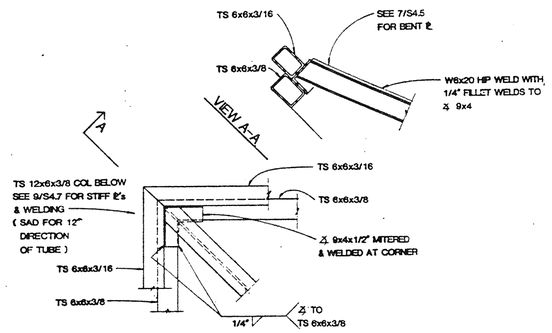
5 S3.2 | S4.3 — 3/4"=1'-0"



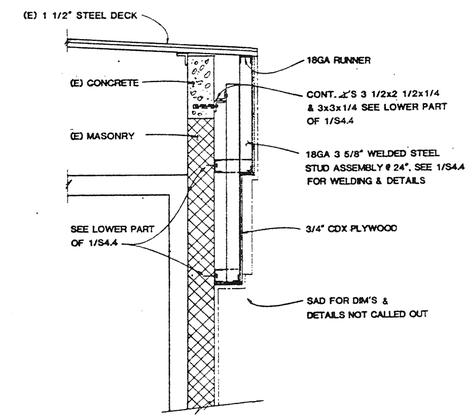
3 S3.1 | S4.3 — 3/4"=1'-0"



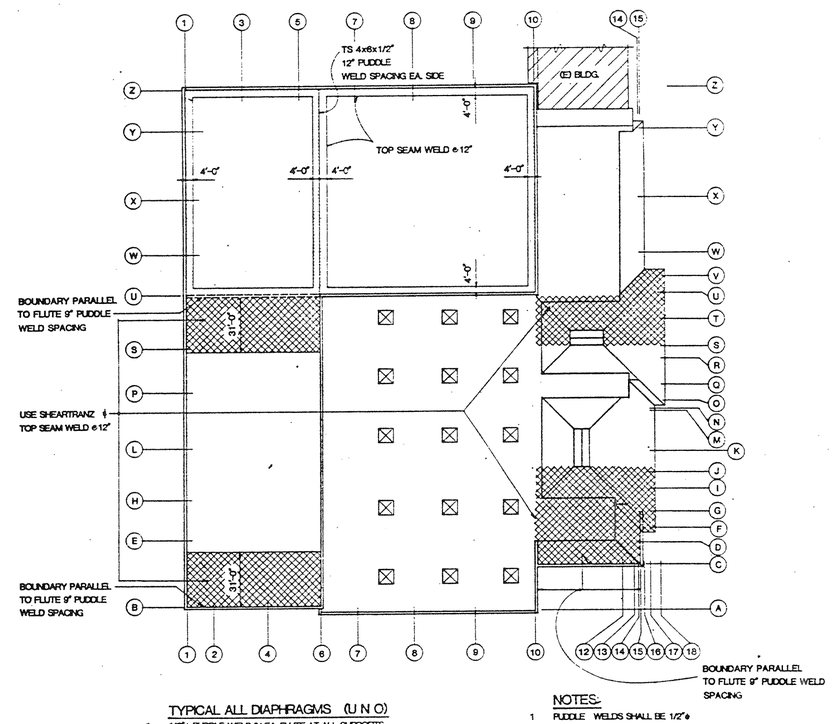
1 MEZZ. PLAN: WELDING OF STEELDECK
S3.3 | S4.3 — 1/32" 1'-0"



6 S3.2 | S4.3 — 3/4"=1'-0"



4 S3.1 | S4.3 — 3/4"=1'-0"



TYPICAL ALL DIAPHRAGMS (U N O)

1 1/2"ϕ PUDDLE WELD IN EA. FLUTE AT ALL SUPPORTS

2 AT BOUNDARIES PARALLEL TO FLUTES
USE 12" PUDDLE WELD SPACING

3 TOP SEAM WELD @ 24"

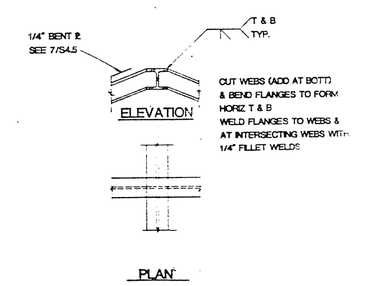
NOTES:

1 PUDDLE WELDS SHALL BE 1/2"ϕ

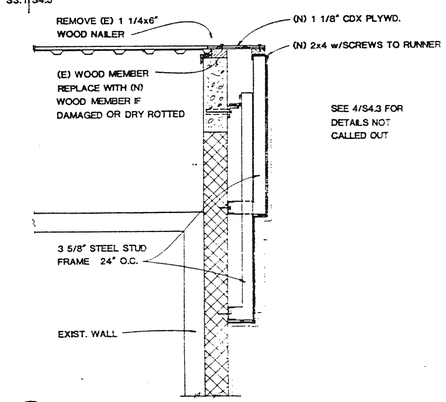
2 TOP SEAM WELDS SHALL BE 1 1/2" LONG

3 SHEARTRANZ IS REFERRED TO VERCO MANUFACTURING CO. CATALOG FOR REFERENCE ONLY. EQUAL DEVICE WITH SAME EFFECT FROM OTHER MANUFACTURER MAY BE USED

2 ROOF PLAN: WELDING OF STEELDECK
S3.1 | S4.3 S3.2 — 1/32" 1'-0"



7 S3.2 | S4.3 — 3/4"=1'-0"



8 S3.1 | S4.2 — 3/4"=1'-0"

PROJECT NORTH

SCALE 3/4" = 1'-0" (0, 1, 2, 3, 4)

SCALE 1/32" = 1'-0" (0, 24, 48, 72, 96)

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NATL PARK SERVICE
GGNHA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUMPER, LEVY, PARKER & BOOCHAKIAN, ARCHITECT/ENGINEER
SHAPIRO, DRING, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO

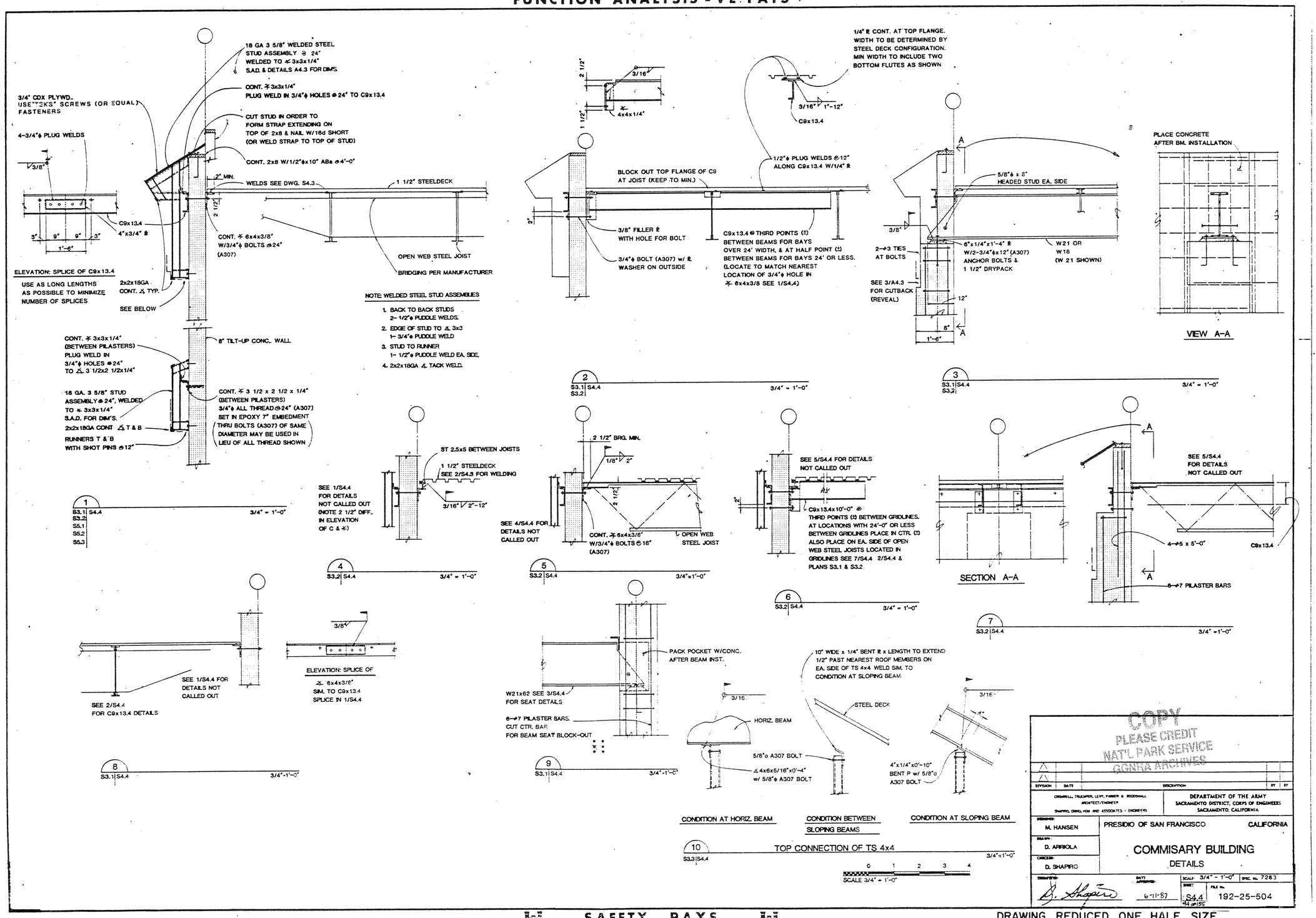
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISARY BUILDING
STEEL DECK WELDING & DETAILS

SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: 1/32"&3/4"=1'-0" SPEC. No. 7283
SHEET: S4.3 (43 of 155)
FILE No. 192-25-504

SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE



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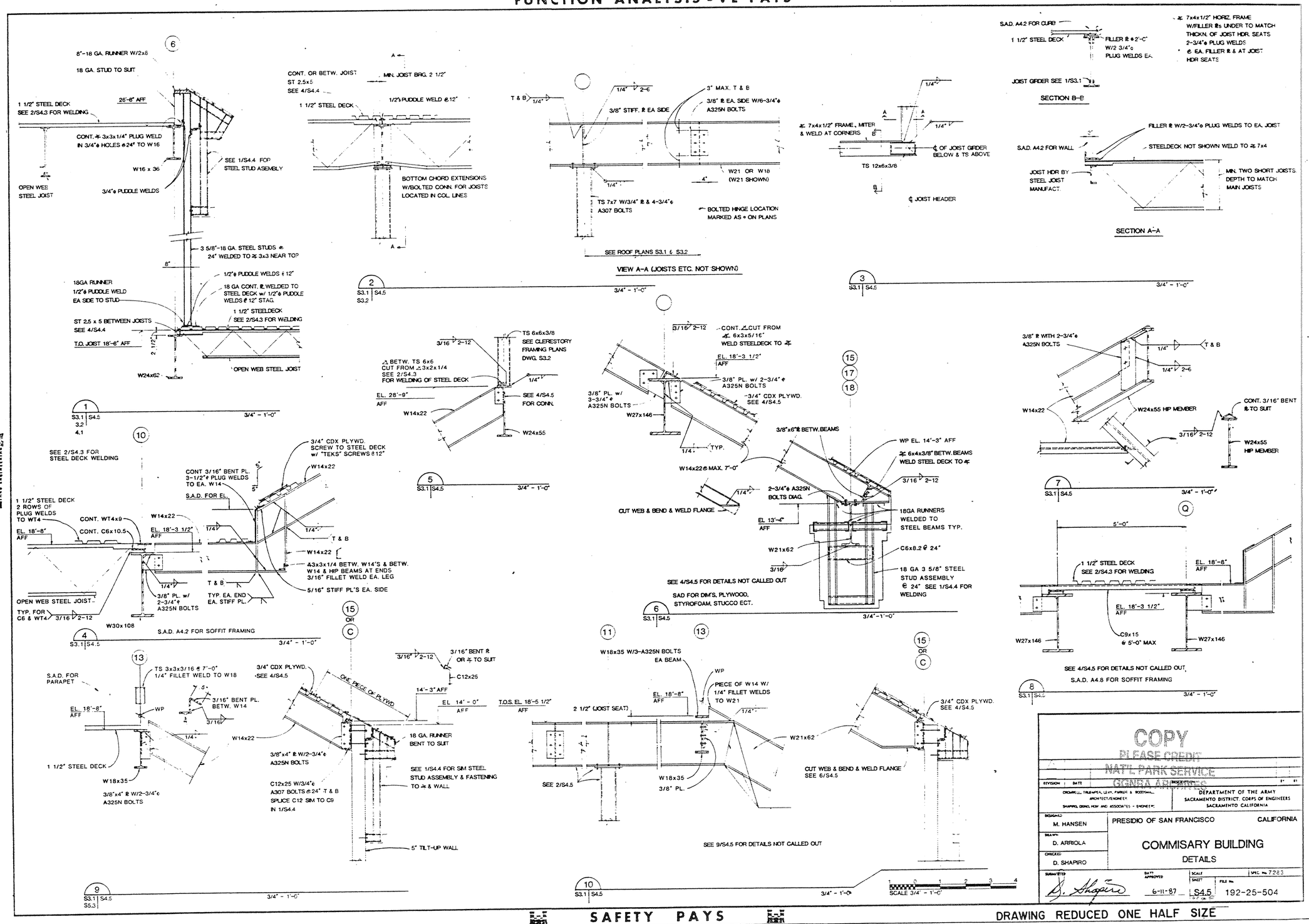

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GENERAL ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY

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SHAPIRO, DERO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO CALIFORNIA

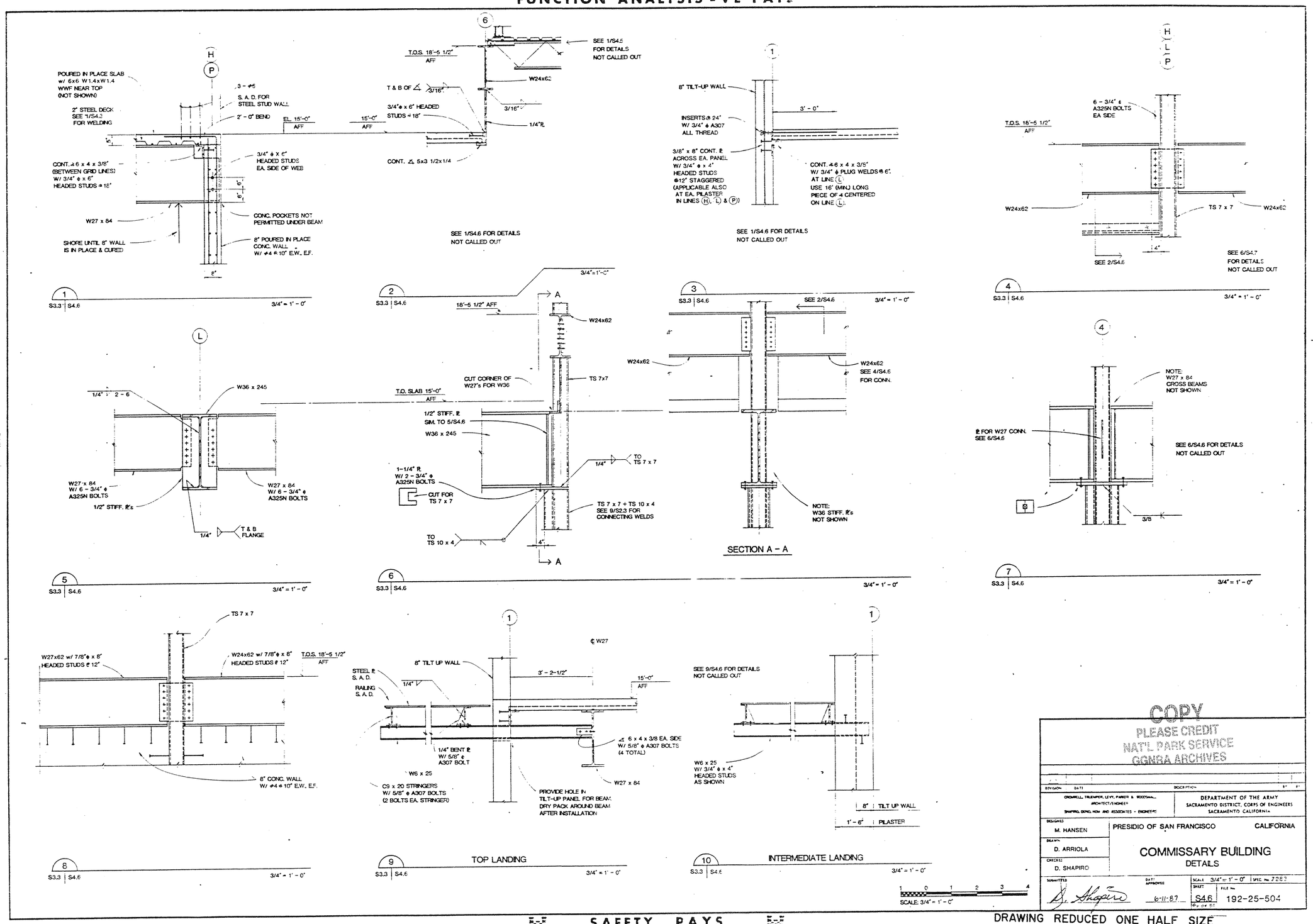
DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO

PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISARY BUILDING
DETAILS

SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: SHEET S4.5
SPEC. No. 7283
FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE



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REVISION	DATE	DESCRIPTION

CROMWELL TRUEMPER, LEVY, PARKER & SOODSMA, ARCHITECT/ENGINEER
SHAPIRO, GENG, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87

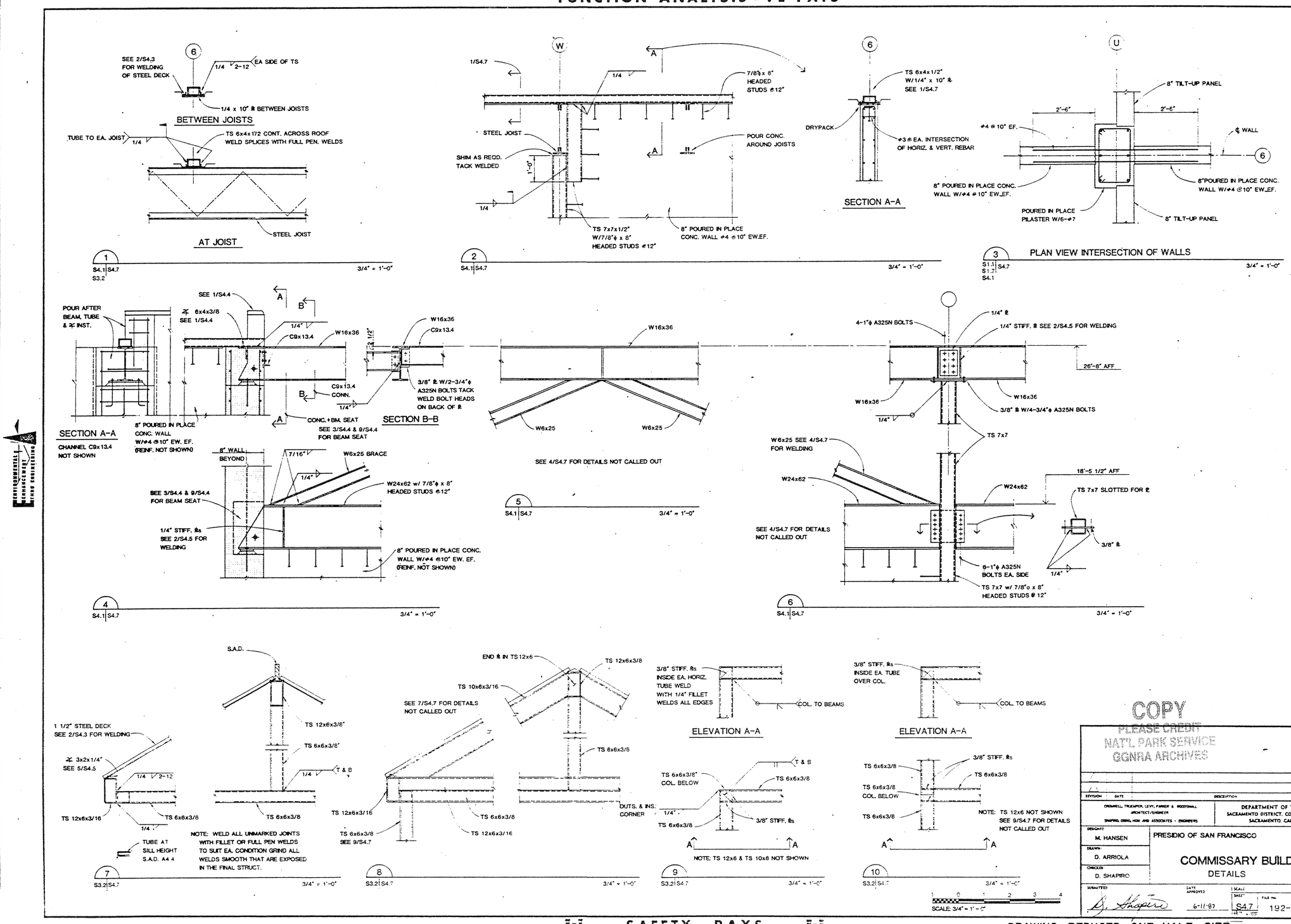
PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
DETAILS

SCALE 3/4" = 1' - 0" | SPEC No. 7282
SHEET S4.6 | FILE No. 192-25-504

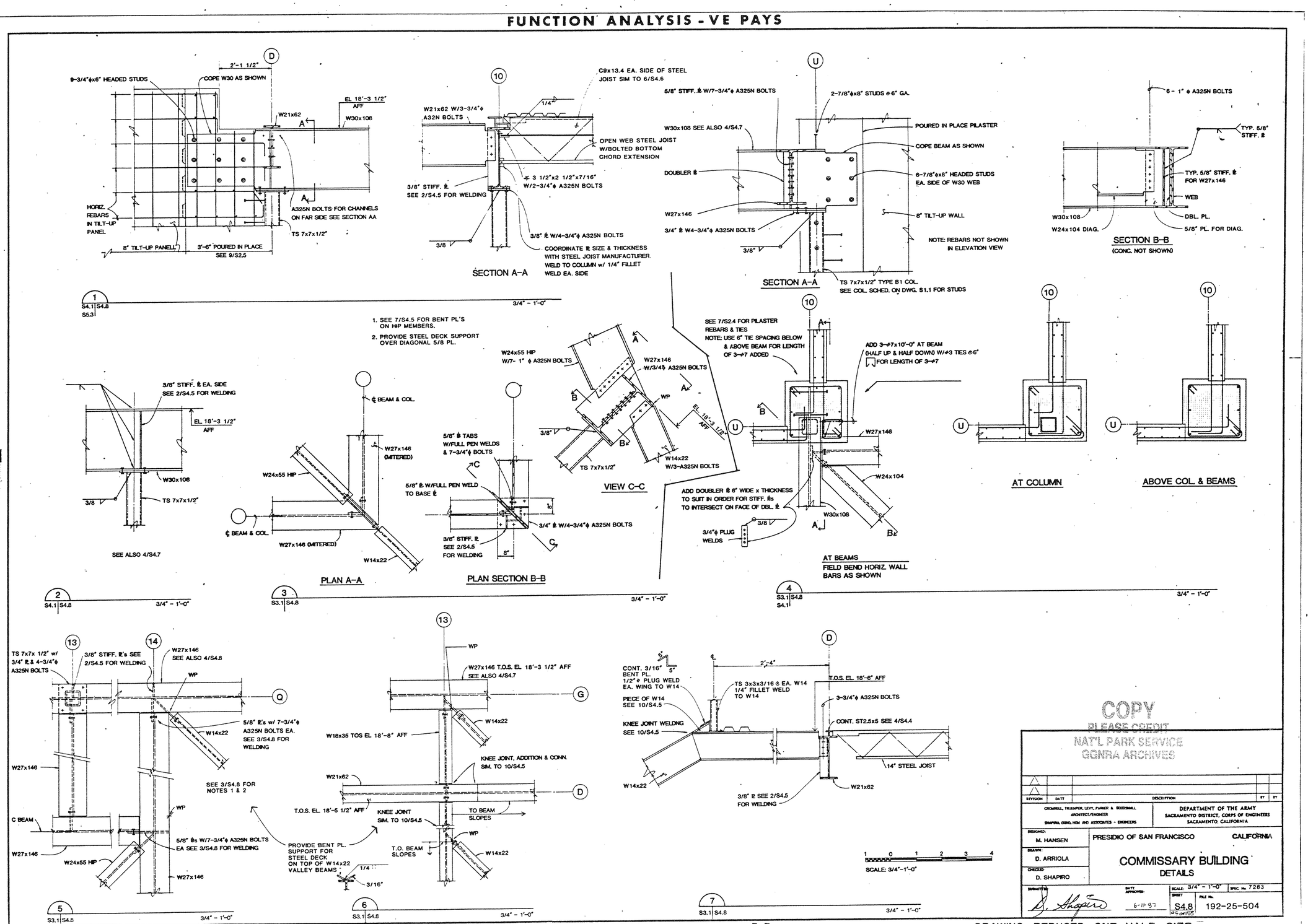
DRAWING REDUCED ONE HALF SIZE

FUNCTION ANALYSIS - VE PAYS



SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE



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GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, DERO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

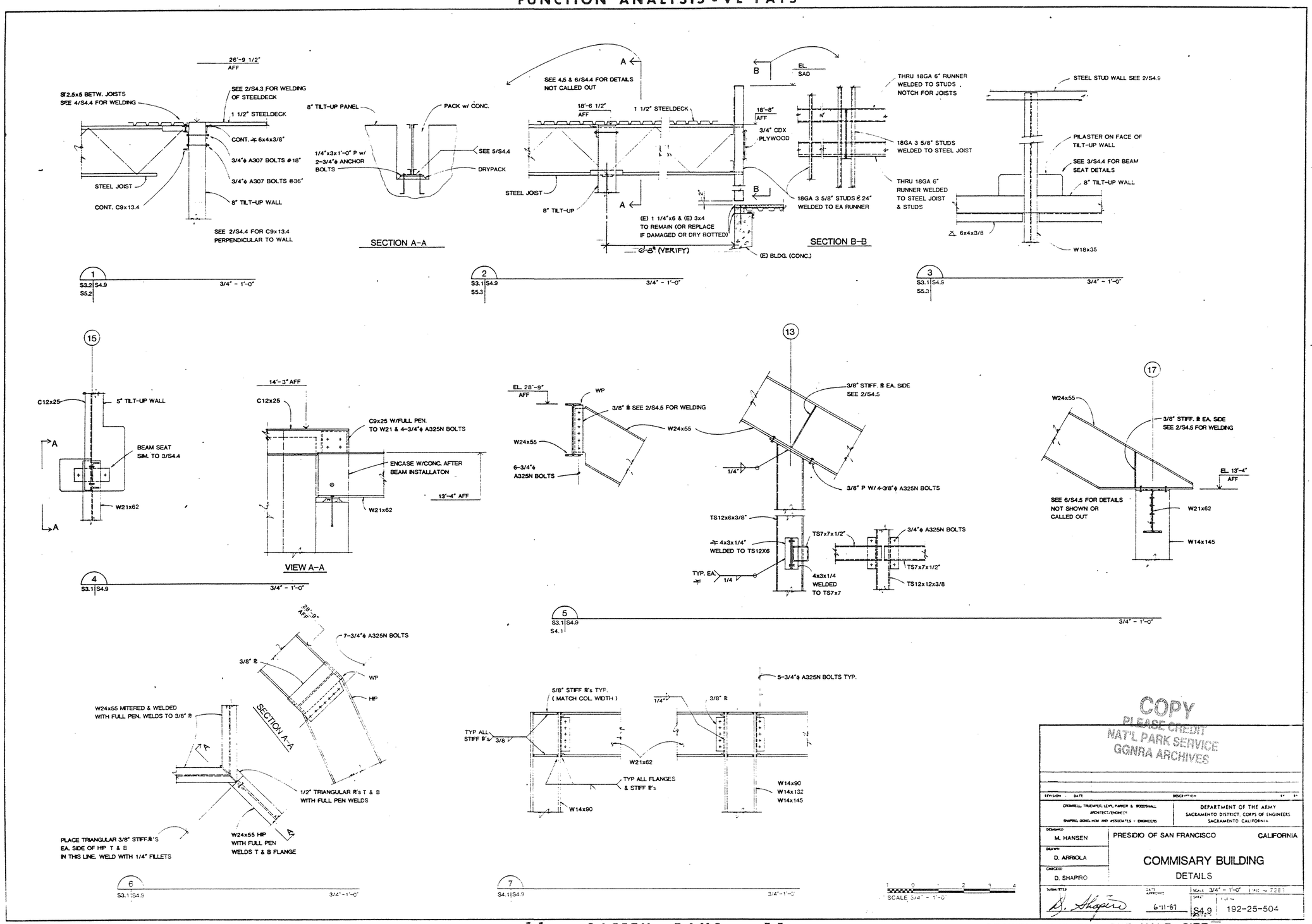
DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO

PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING
DETAILS

SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: 3/4" - 1'-0"
SPEC. No. 7283
SHEET: S4.8 OF 15
FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE



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REVISION	DATE	DESCRIPTION	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OSHIRO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO

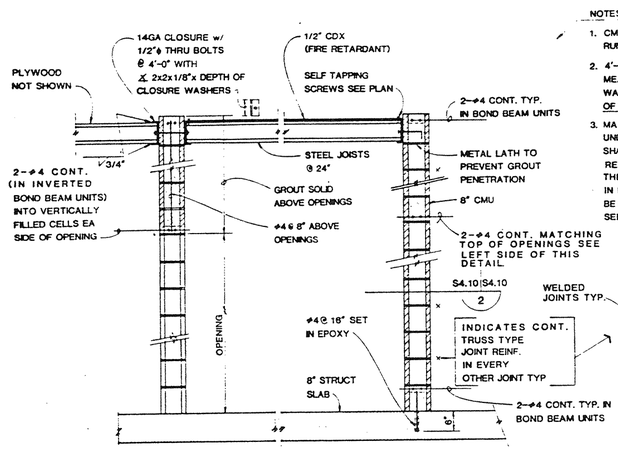
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISARY BUILDING

DETAILS

SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: 3/4" = 1'-0"
SHEET: S4.9
FILE NO: 192-25-504

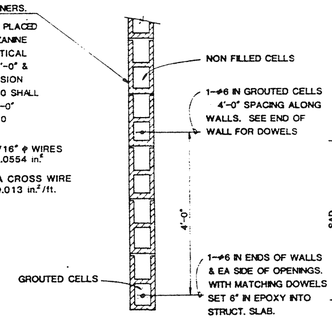
DRAWING REDUCED ONE HALF SIZE



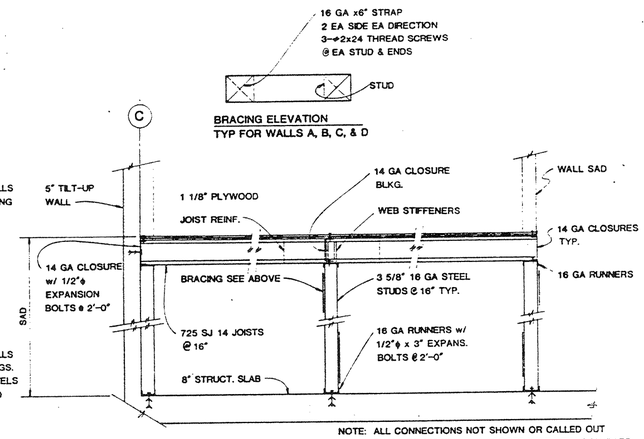
1 S3.3|S4.10 3/4"=1'-0"

NOTES

1. CMU SHALL BE LAID USING RUNNING BOND.
2. 4'-0" SPACING MAY BE MEASURED FROM END OF WALL, FROM INTERSECTIONS OF WALLS & CORNERS.
3. MASONRY WALLS PLACED UNDER THE MEZZANINE SHALL HAVE VERTICAL REINFORCING @ 2'-0" & THE 4'-0" DIMENSION IN DETAIL 2/S4.10 SHALL BE HALVED TO 2'-0" SEE ALSO 7/S4.10

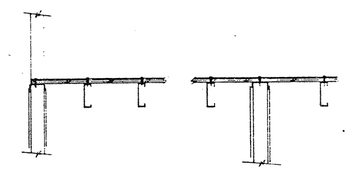


2 S4.10|S4.10 PLAN VIEW 3/4"=1'-0"



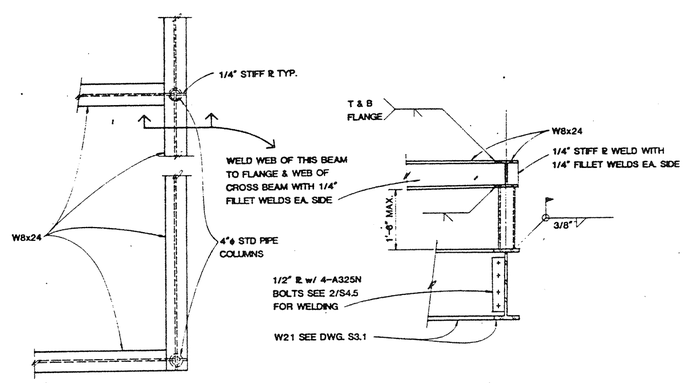
NOTE: ALL CONNECTIONS NOT SHOWN OR CALLED OUT SHALL BE SCREWED IN ACCORDANCE WITH STANDARD PRACTICE FOR LIGHTWEIGHT STRUCT. FRAMING.

3 S3.3|S4.10 3/4"=1'-0"

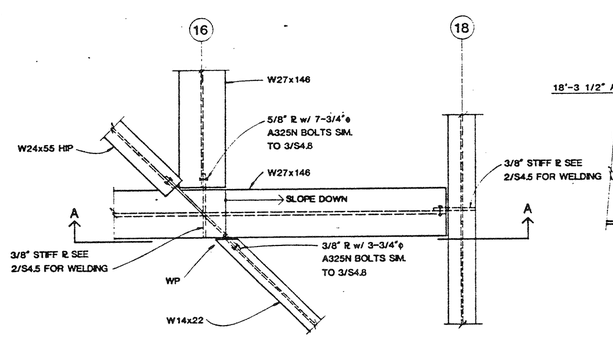


SEE 3/S4.10 FOR DETAILS NOT CALLED OUT

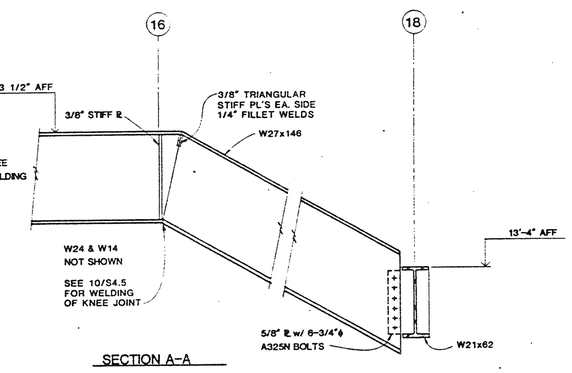
4 S3.3|S4.10 3/4"=1'-0"



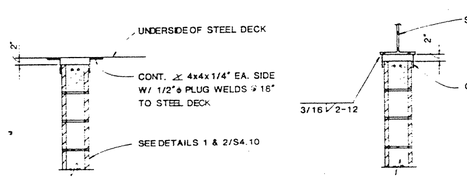
5 S4.10 CONDENSER SUPPORTS 3/4"=1'-0"



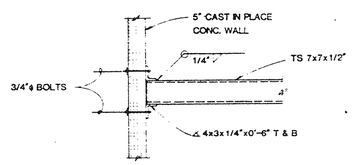
6 S3.1|S4.10 PLAN VIEW 3/4"=1'-0"



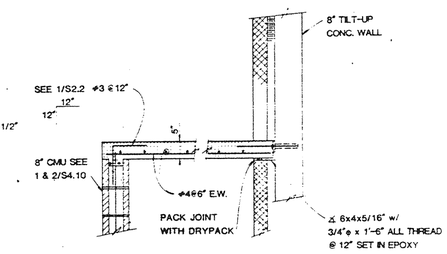
SECTION A-A



7 S3.3|S4.10 AT STEEL DECK AT STEEL BEAM 3/4"=1'-0"



8 S4.1|S4.10 3/4"=1'-0"



9 S3.3|S4.10 3/4"=1'-0"

COPY
PLEASE CREDIT
NAT'L PARK SERVICE
GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	CK

CROMWELL, TREMPER, LEVY, PARKER & BOODSHALL, ARCHITECT/ENGINEER
SHAPIRO, DERO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

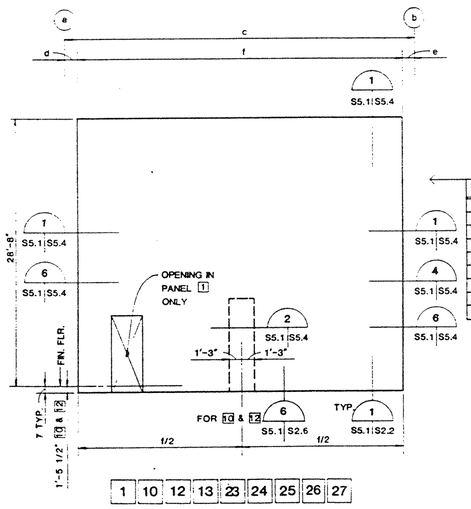
DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
DETAILS

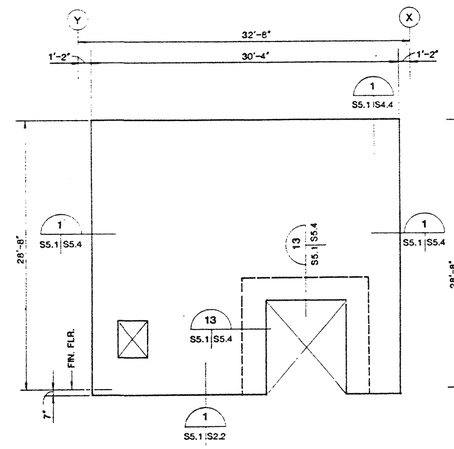
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: 1/2"=1'-0"
SHEET: S4.10
FILE No. 192-25-504
SPEC. No. 7283

DRAWING REDUCED ONE HALF SIZE



	a	b	c	d	e	f
1	Z	Y	32'-10"	0'-11"	1'-2"	30'-9"
10	E	B	40'-0"	1'-2"	0'-11"	37'-11"
12	2	4	30'-0"	1'-2"	1'-2"	27'-8"
13	4	6	34'-0"	1'-2"	0'-11"	31'-8"
23	9	8	36'-0"	1'-2"	1'-2"	33'-8"
24	8	7	34'-0"	1'-2"	1'-2"	31'-8"
25	7	5	34'-0"	1'-2"	1'-2"	31'-8"
26	5	3	34'-0"	1'-2"	1'-2"	31'-8"
27	3	1	34'-0"	1'-2"	0'-11"	31'-11"

1 | 10 | 12 | 13 | 23 | 24 | 25 | 26 | 27



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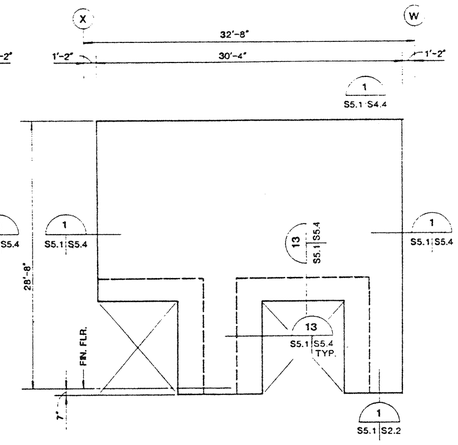

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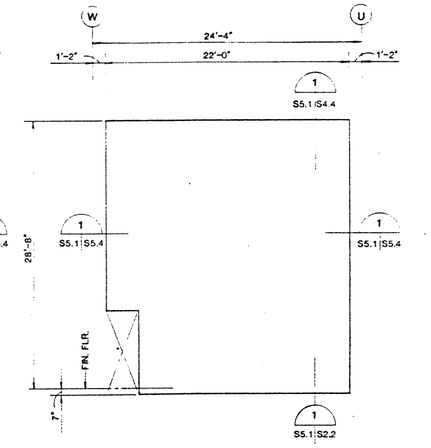


4

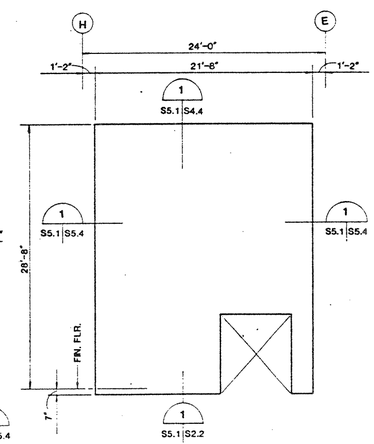
NOTES: 1. SEE ARCH. & MECH. DWG'S FOR OPENING SIZES & LOCATIONS

2. ALL PANELS 8" THICK

3. SAD FOR RUSTICATION JOINTS

PANEL REINFORCING SCHEDULE

PANEL THICKN.	PANEL HEIGHT	VERTICAL REINF.	HORIZONTAL REINF.	REMARKS
8"	28'-8"	#5 @ 12" EF	#4 @ 12" EF	SEE DETAIL 6/S2.1 FOR SPECIAL REINF. AROUND OPENINGS
8"	20'-4"	#4 @ 10" EF	#4 @ 12" EF	
5"	14'-4"	#4 @ 12" CTR	#4 @ 12" CTR	



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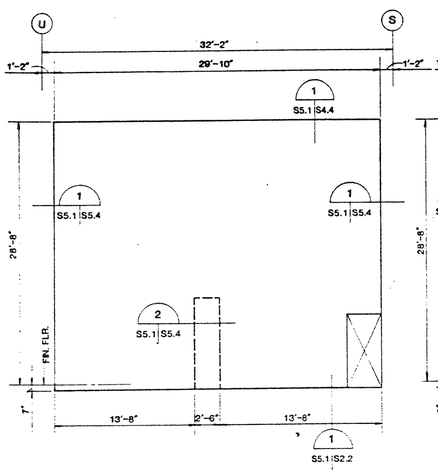

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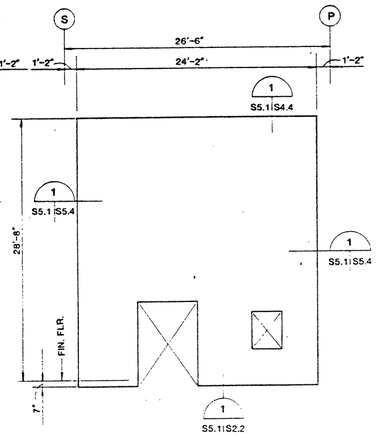

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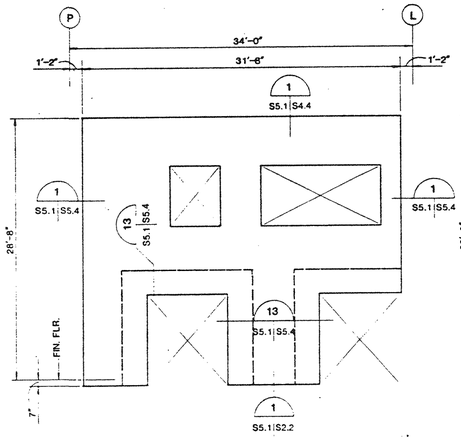

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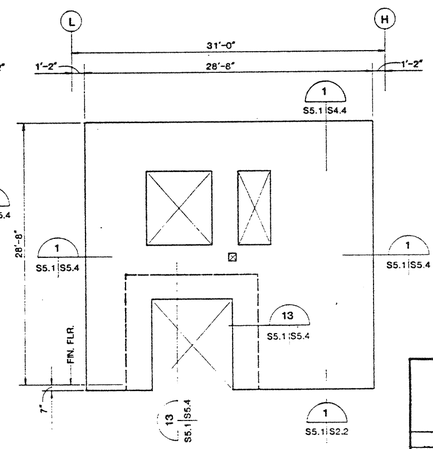


8

4 0 4 8 12 16

SCALE: 3/16"=1'-0"

COPY
PLEASE CREDIT
NAT'L PARK SERVICE
GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, DONO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87

PRESIDIO OF SAN FRANCISCO CALIFORNIA

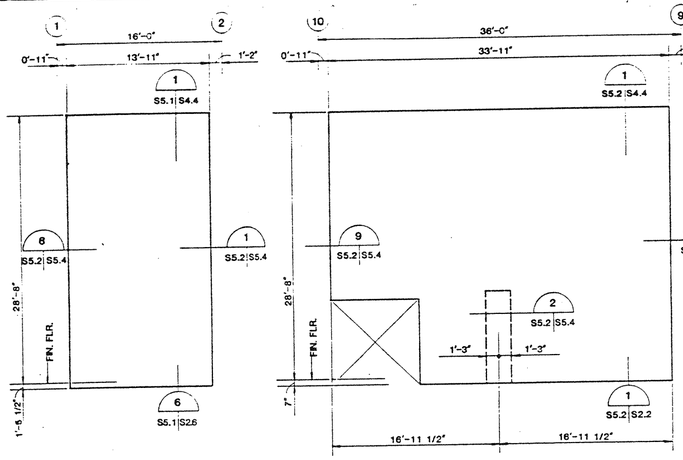
COMMISSARY BUILDING

TILT-UP PANEL ELEVATIONS

SCALE: 3/16"=1'-0" | J.O. - 7283
SHEET: S5.1 OF 57 | FILE No. 192-25-504

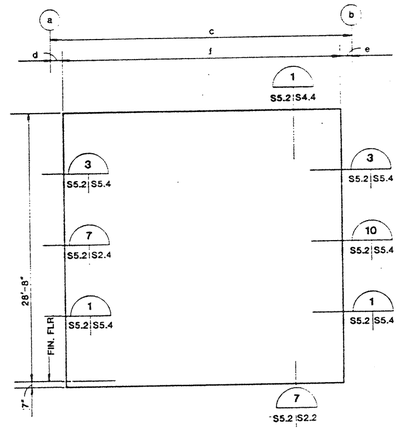
DRAWING REDUCED ONE HALF SIZE

FUNCTION ANALYSIS - VE PAYS



11

22

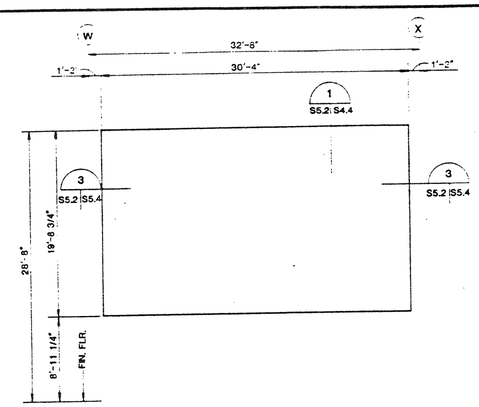


29 31 36 37 38

	a	b	c	d	e	f
29	U	W	24'-4"	1'-6"	1'-2"	21'-5"
31	X	Y	32'-8"	1'-2"	1'-2"	30'-4"
36	7	8	34'-0"	1'-2"	1'-2"	31'-8"
37	8	9	36'-0"	1'-2"	1'-2"	33'-8"
38	9	10	36'-0"	1'-2"	0'-11"	33'-11"

NOTES:

1. SEE ARCH. & MECH. DWG'S FOR OPENING SIZES & LOCATIONS
2. ALL PANELS 8" THICK
3. SEE DWG. S5.1 FOR PANEL REINFORCING SCHEDULE
4. SAD FOR RUSTICATION JOINTS



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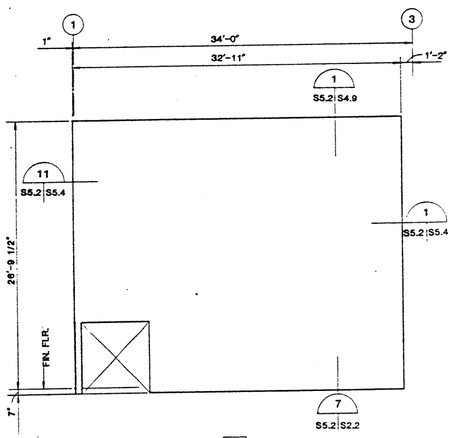

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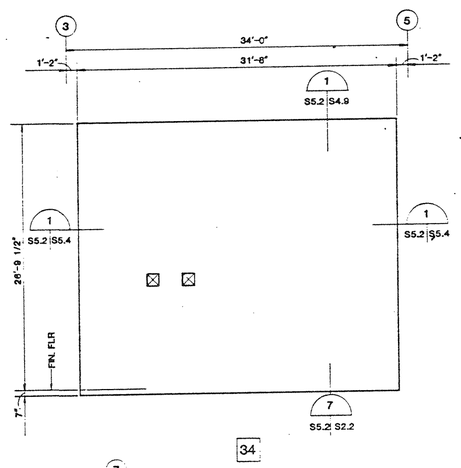

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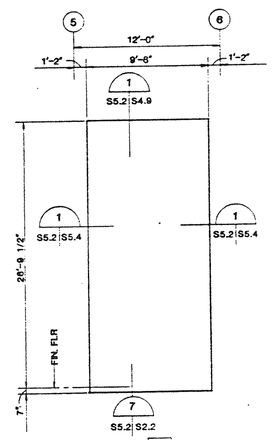

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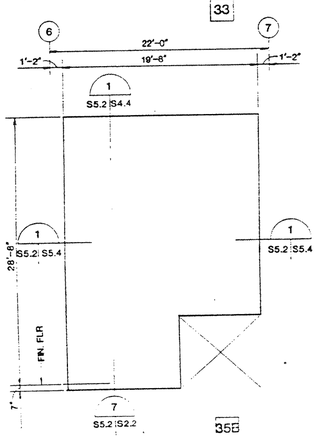

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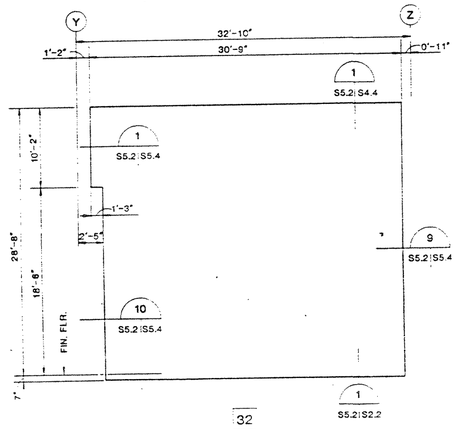

32

4 0 4 8 12 16

SCALE: 3/16"=1'-0"

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NATL PARK SERVICE
GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	APP

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, GRIEG, HOH AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT CORPS OF ENGINEERS
SACRAMENTO CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87

PRESIDIO OF SAN FRANCISCO — CALIFORNIA

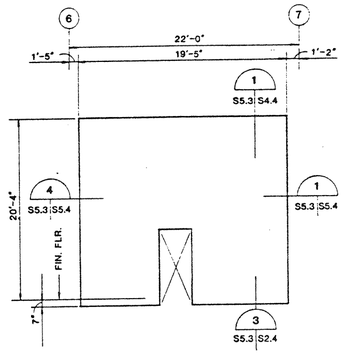
COMMISSARY BUILDING
TILT-UP PANEL ELEVATIONS

SCALE: 3/16"=1'-0" | SPEC No. 7285
SHEET: S5.2 | FILE No. 192-25-504

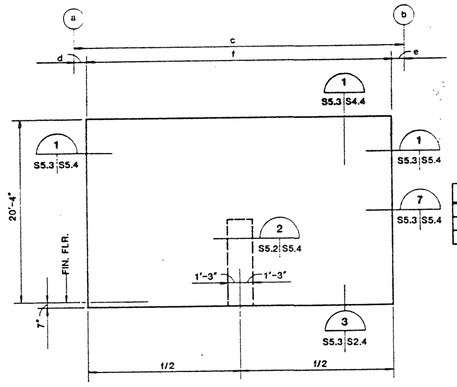
SAFETY PAYS

DRAWING REDUCED ONE HALF SIZE

FUNCTION ANALYSIS - VE PAYS

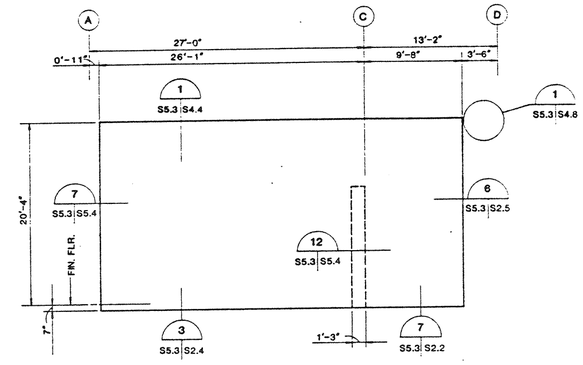


14 8" THICK PANEL

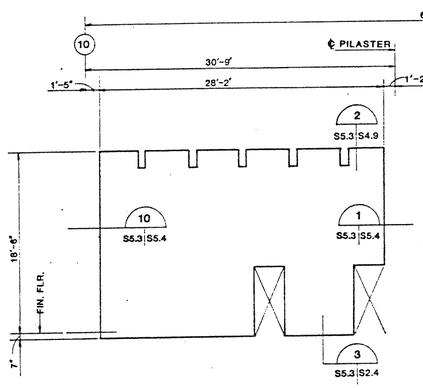


MK	a	b	c	d	e	f
15	7	8	34'-0"	1'-2"	1'-2"	31'-8"
16	8	9	36'-0"	1'-2"	1'-2"	33'-8"
17	9	10	36'-0"	1'-2"	0'-11"	33'-11"

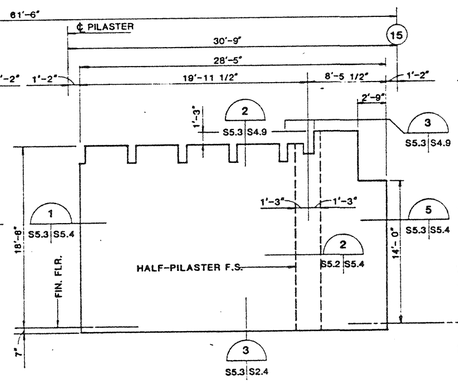
15 16 17 8" THICK PANELS



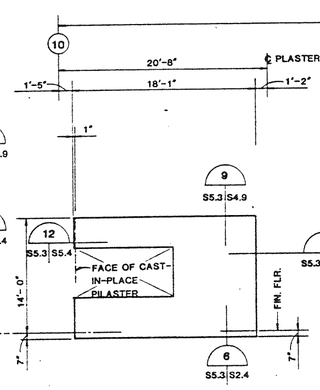
28 8" THICK PANEL



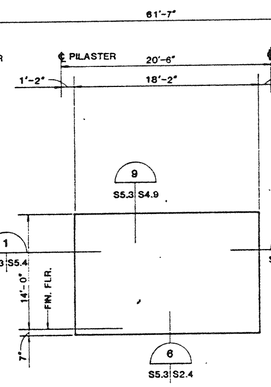
39 8" THICK PANEL



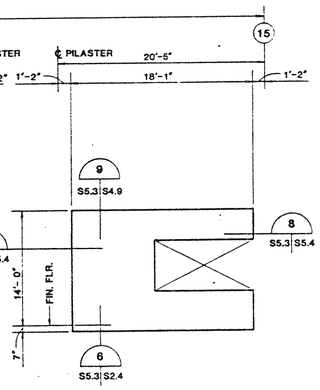
40 8" THICK PANEL



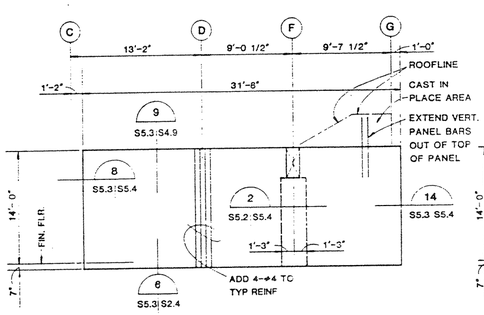
18A 5" THICK PANEL



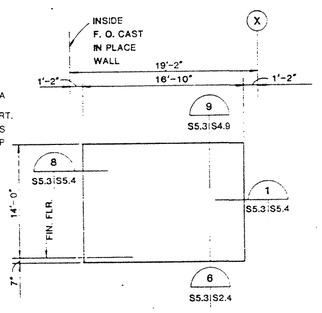
18B 5" THICK PANEL



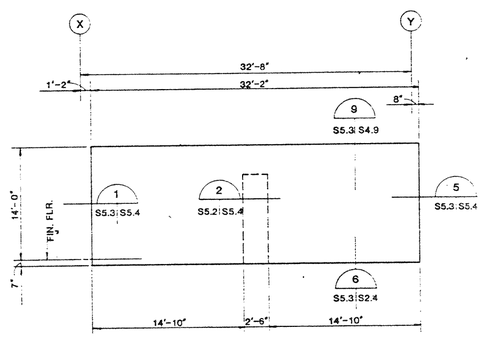
18C 5" THICK PANEL



19 5" THICK PANEL



20 5" THICK PANEL



21 5" THICK PANEL

4 0 4 8 12 16
SCALE: 3/16"=1'-0"

NOTES:

1. SEE ARCH. & MECH DWG'S FOR OPENING SIZES & LOCATIONS
2. PANEL THICKNESSES AS NOTED AT EACH PANEL
3. SEE DWG S5.1 FOR PANEL REINFORCING SCHEDULE
4. SAD FOR RUSTIFICATION JOINTS

COPY
PLEASE CREDIT
NATL PARK SERVICE
GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION

CROMWELL, TREAPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, DENG, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT CORPS OF ENGINEERS
SACRAMENTO CALIFORNIA

DESIGNED: M. HANSEN
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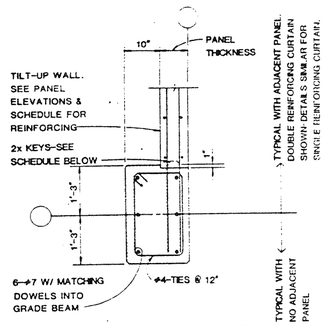
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING
TILT-UP PANEL ELEVATIONS

SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87
SCALE: 3/16"=1'-0"
SPEC No. 7283
SHEET: S5.3
FILE No. 192-25-504

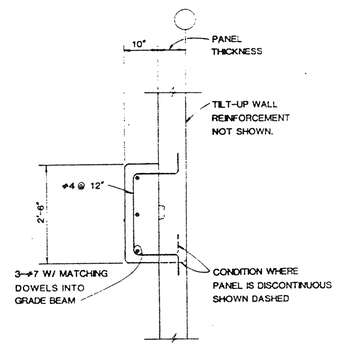
DRAWING REDUCED ONE HALF SIZE

SAFETY PAYS

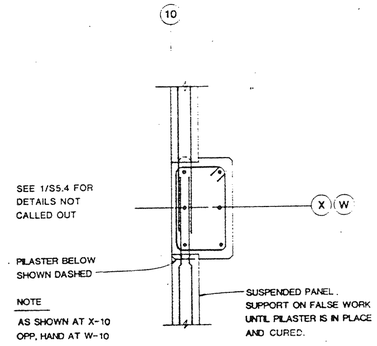


KEY SCHEDULE	
PANEL THICKNESS	KEYS ①
8"	2x4x6" LG. @ 12"
5"	2x2x6" LG. @ 12"
① 2x4 AND 2x2 ARE NOMINAL SIZES.	

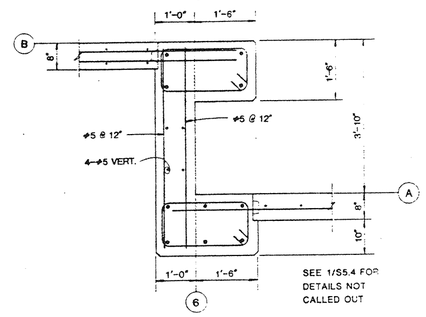
1 TYPICAL FULL PILASTER
S1.7 | S5.4
S5.1 | S5.2 | S5.3
3/4"=1'-0"



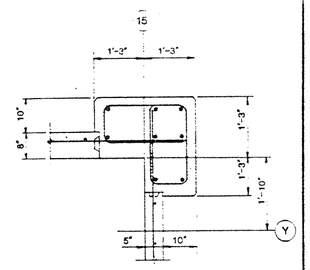
2 TYPICAL HALF PILASTER
S1.7 | S5.4
S5.1 | S5.3
3/4"=1'-0"



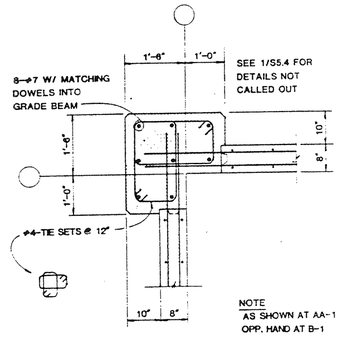
3 SPECIAL PILASTER DETAIL
S1.7 | S5.4
S5.2
3/4"=1'-0"



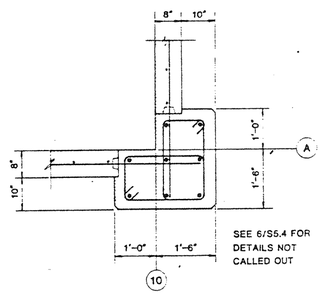
4 SPECIAL CORNER DETAIL
S1.7 | S5.4
S5.1
3/4"=1'-0"



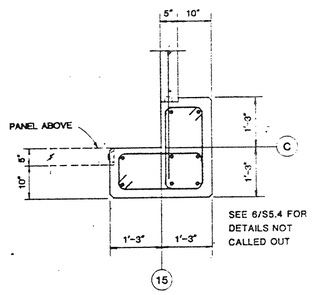
5 SPECIAL CORNER DETAIL
S1.7 | S5.4
S5.3
3/4"=1'-0"



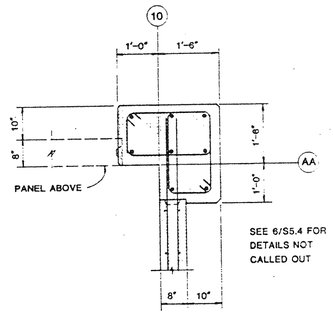
6 CORNER PILASTER
S1.7 | S5.4
S5.1 | S5.2
3/4"=1'-0"



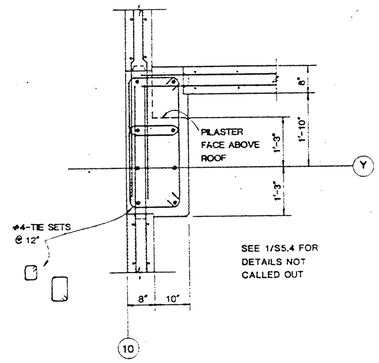
7 CORNER PILASTER
S1.7 | S5.4
S5.3
3/4"=1'-0"



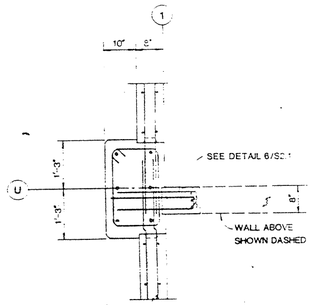
8 CORNER PILASTER
S1.7 | S5.4
S5.3
3/4"=1'-0"



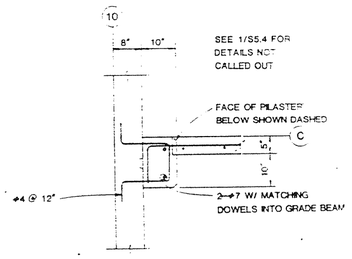
9 CORNER PILASTER
S1.7 | S5.4
S5.2
3/4"=1'-0"



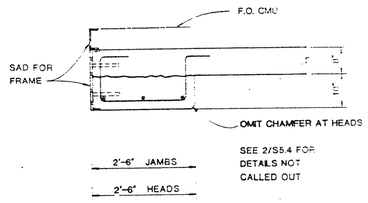
10 WALL INTERSECTION DETAIL
S1.7 | S5.4
S5.2
S5.3
3/4"=1'-0"



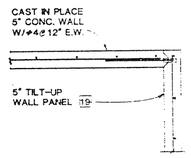
11 WALL INTERSECTION DETAIL
S1.7 | S5.4
S5.1
3/4"=1'-0"



12 INTERSECTION DETAIL
S1.7 | S5.4
S5.3
3/4"=1'-0"



13 LOADING DOCK DOORS
S1.7 | S5.4
S5.1
3/4"=1'-0"



14
S1.7 | S5.4
S5.3
3/4"=1'-0"

1 0 1 2 3 4
SCALE: 3/4"=1'-0"

COPY
PLEASE CREDIT
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GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION

CROSWELL, TRUEMPER, LEVY, FAIRFIELD & WOODWARD ARCHITECT/ENGINEER
SHAPIRO, OSING, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: M. HANSEN
DRAWN: D. ARRIOLA
CHECKED: D. SHAPIRO
SUBMITTED: D. Shapiro
DATE APPROVED: 6-11-87

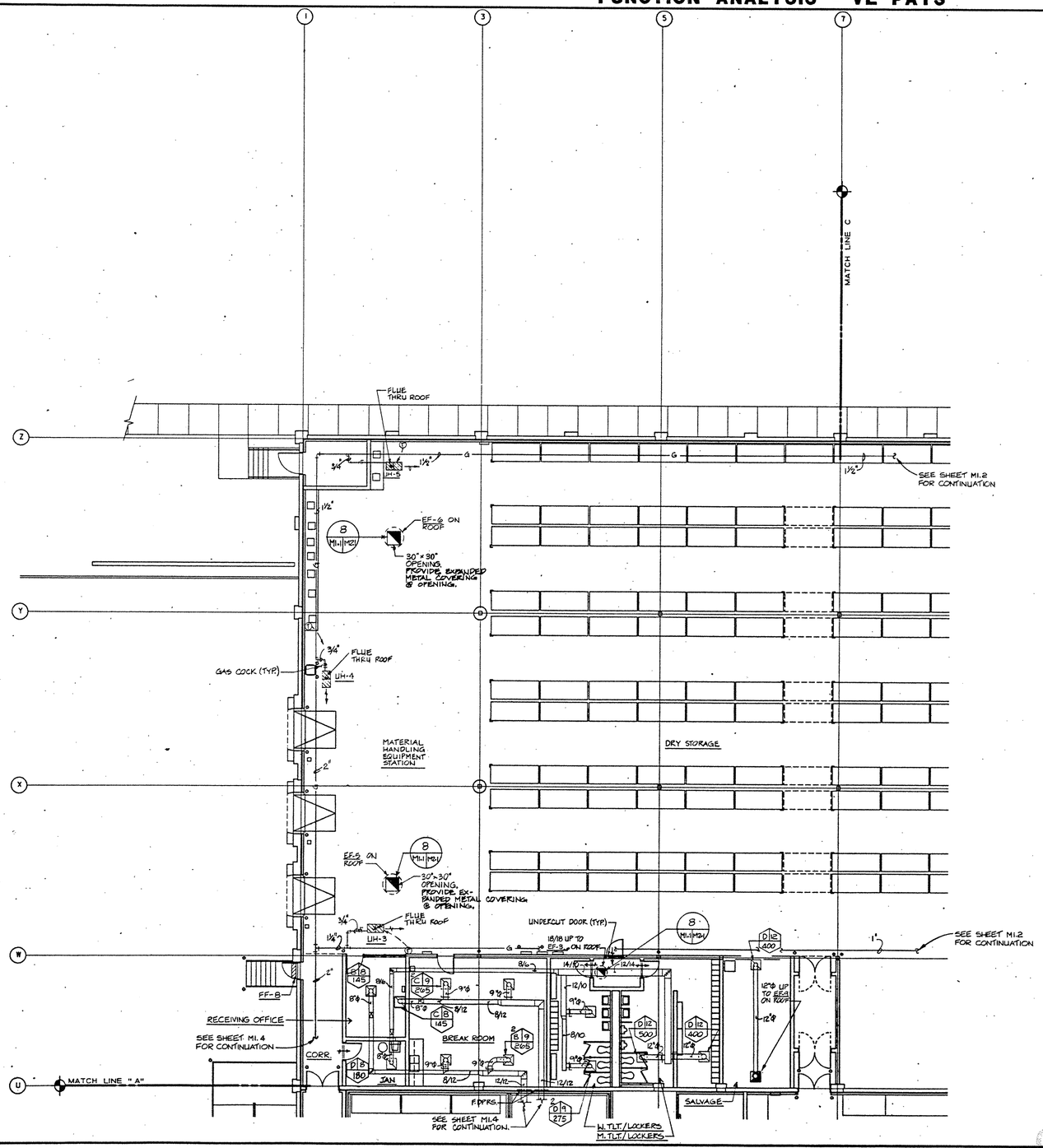
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING
TILT-UP WALL DETAILS

SCALE: 3/4"=1'-0" | SPEC. No. 7230
SHEET: S5.4 | FILE No. 192-25-504

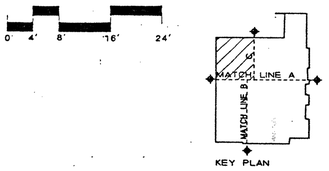
DRAWING REDUCED ONE HALF SIZE

FUNCTION ANALYSIS - VE PAYS



1 M1.1 M1.1 DRY STORAGE - HVAC
1/8"=1'-0

PROJECT NORTH



DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL ARCHITECT/ENGINEER
SHAPIRO, DONO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: R. BALTON
DRAWN: R. BALTON
CHECKED: C. WETZLER

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
DRY STORAGE - HVAC

SUBMITTED: C. Wetzler
DATE APPROVED: 6-11-73
SCALE: 1/8" = 1'-0" SPEC No. 7283
SHEET M1.1 105 of 155
FILE No. 192-25-504

SAFETY PAYS

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PLEASE RETURN TO
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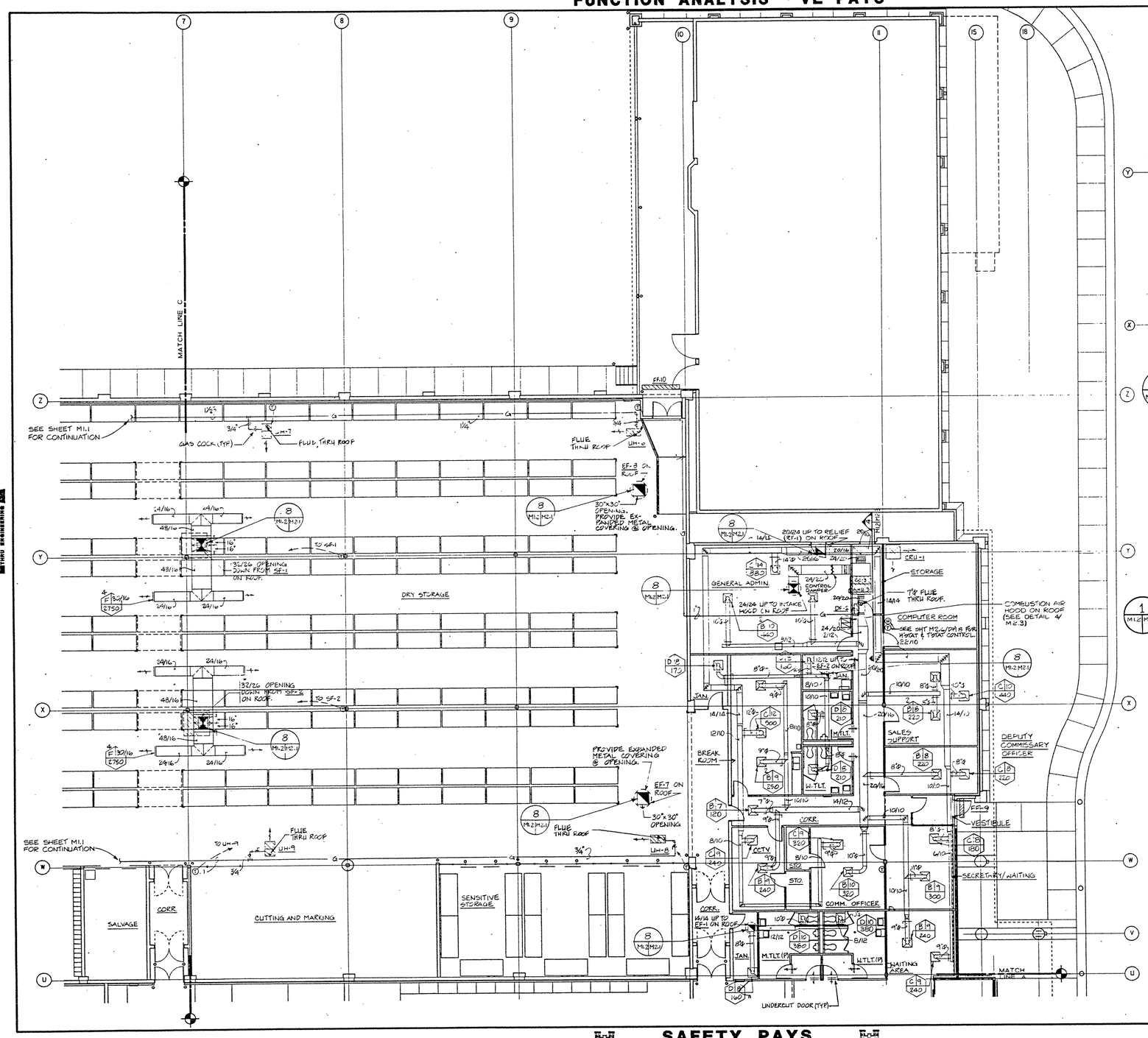
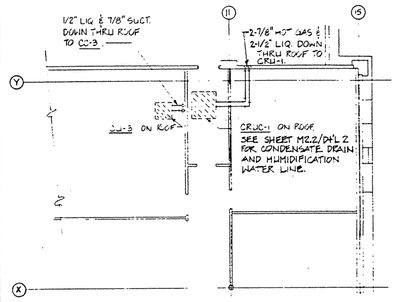
SPRINGFIELD, VA. 22161

51748

yes 1991 RT. Col 73





2 / M1.2 | M1.2 — CU-3 & CRUC-1 ON ROOF
1/8" = 1'-0

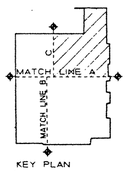
NOTES:

1. SEE SHEET A6.8/DWL 13 FOR THE USE OF 1 PAG REQUIRED ON ALL REFRIGERANT SUCTION PIPING
2. SEE SHEET A6.18/DWL 14 FOR THE USE OF PAG REQUIRED ON ALL REFRIGERANT LIQUID PIPING.

1 / M1.2 | M1.2 — DRY STORAGE/ADMINISTRATION - HVAC
1/8" = 1'-0"

PROJECT NORTH

0 4' 8' 16' 24'



KEY PLAN

ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROWNE, FRIEDMER, LEVY, PARKER & WOOSSMAN, ARCHITECT ENGINEER
SHAPIRO, DENG, HOW AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

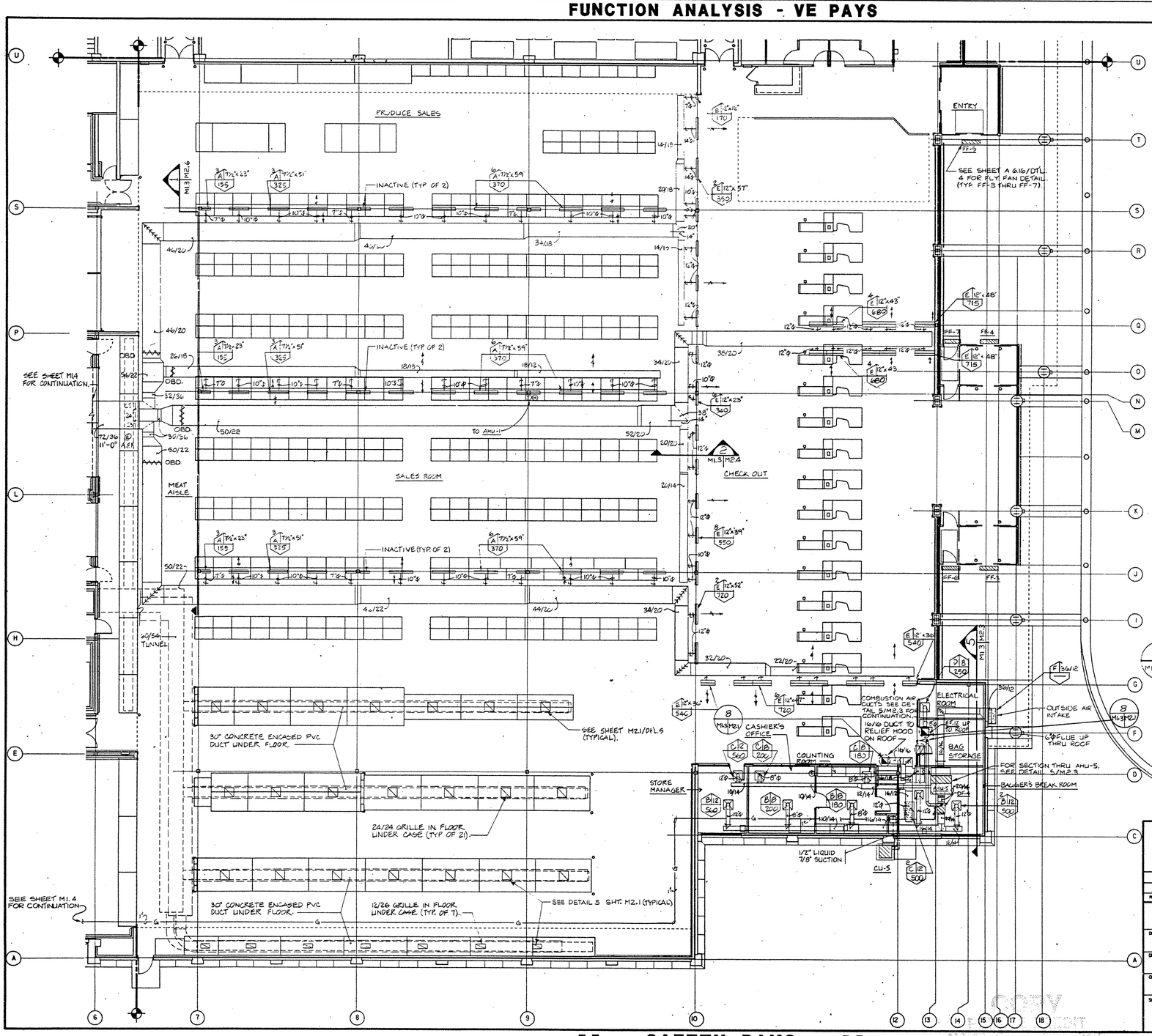
DESIGNED: R. BALTON
DRAWN: R. BALTON
CHECKED: C. WETZLER

PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING
DRY STORAGE/ADMINISTRATION - HVAC

SUBMITTED | DATE APPROVED | SCALE: 1/8" = 1'-0" | SPEC No. 7283
SHEET M1.2 (1 OF 1 SHEET) | FILE No. 192-25-504

FUNCTION ANALYSIS - VE PAYS

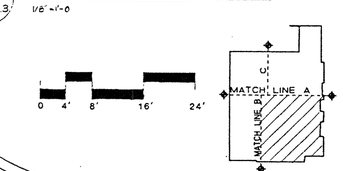


NOTES:

1. SEE SHEET A6.18/DT'L. 13 FOR THE USE OF IPAG REQUIRED ON ALL REFRIGERANT SUCTION PIPING.
2. SEE SHEET A6.18/DT'L. 14 FOR THE USE OF PAG REQUIRED ON ALL REFRIGERANT LIQUID PIPING.
3. PROVIDE 8" GALVANIZED DUCT TO EF-12.
4. PROVIDE FLEXIBLE DUCT FOR THE SUPPLY AIR TO ALL LINEAR SLOT DIFFUSERS.

PROJECT NORTH

1 M1.3 M1.3 SALES/CHECKOUT - HVAC
1/8" = 1'-0



DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: R. BALTON
DRAWN: R. BALTON
CHECKED: C. HETZLER
SUBMITTED: E. Levy
DATE APPROVED:

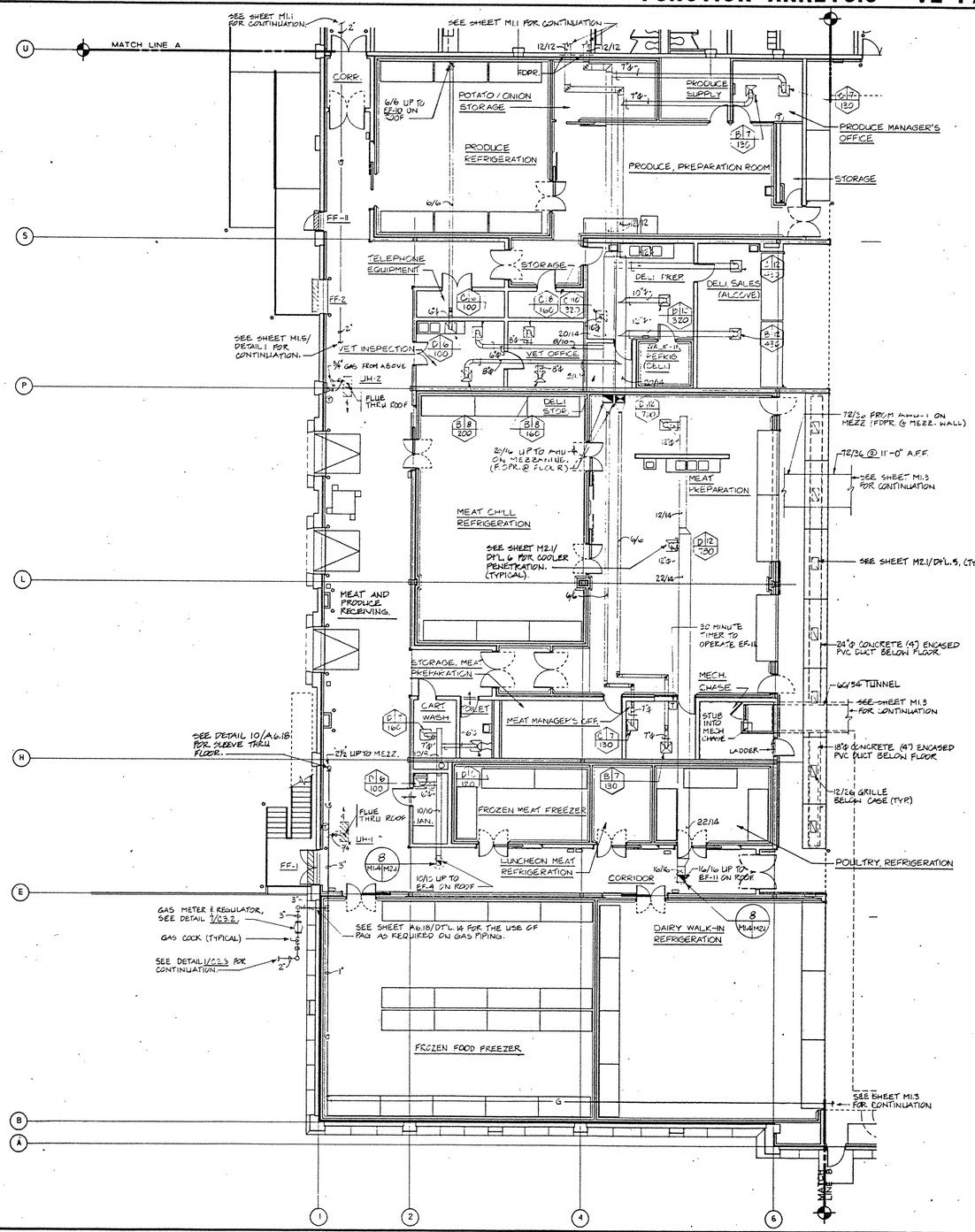
PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
SALES/CHECKOUT - HVAC

SCALE: 1/8" = 1'-0" SPEC No. 7283
SHEET M1.3 67 of 155
FILE No. 192-25-504

SAFETY PAYS

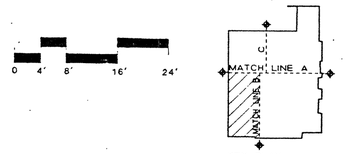
FUNCTION ANALYSIS - VE PAYS



REFRIGERATED STORAGE - HVAC

1 / M1.4 M1.4 — 1/4"=1'-0

PROJECT NORTH



KEY PLAN

DRAWING REDUCED ONE HALF SIZE

ENVIRONMENTAL RESOURCES / THING ENGINEERING

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROMWELL, TRUEMPER, LEVY, PARKER & WOOSSMALL ARCHITECT/ENGINEER
SHAPIRO, CHONG, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: R. BALTON
DRAWN: R. BALTON
CHECKED: C. WETZLER

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

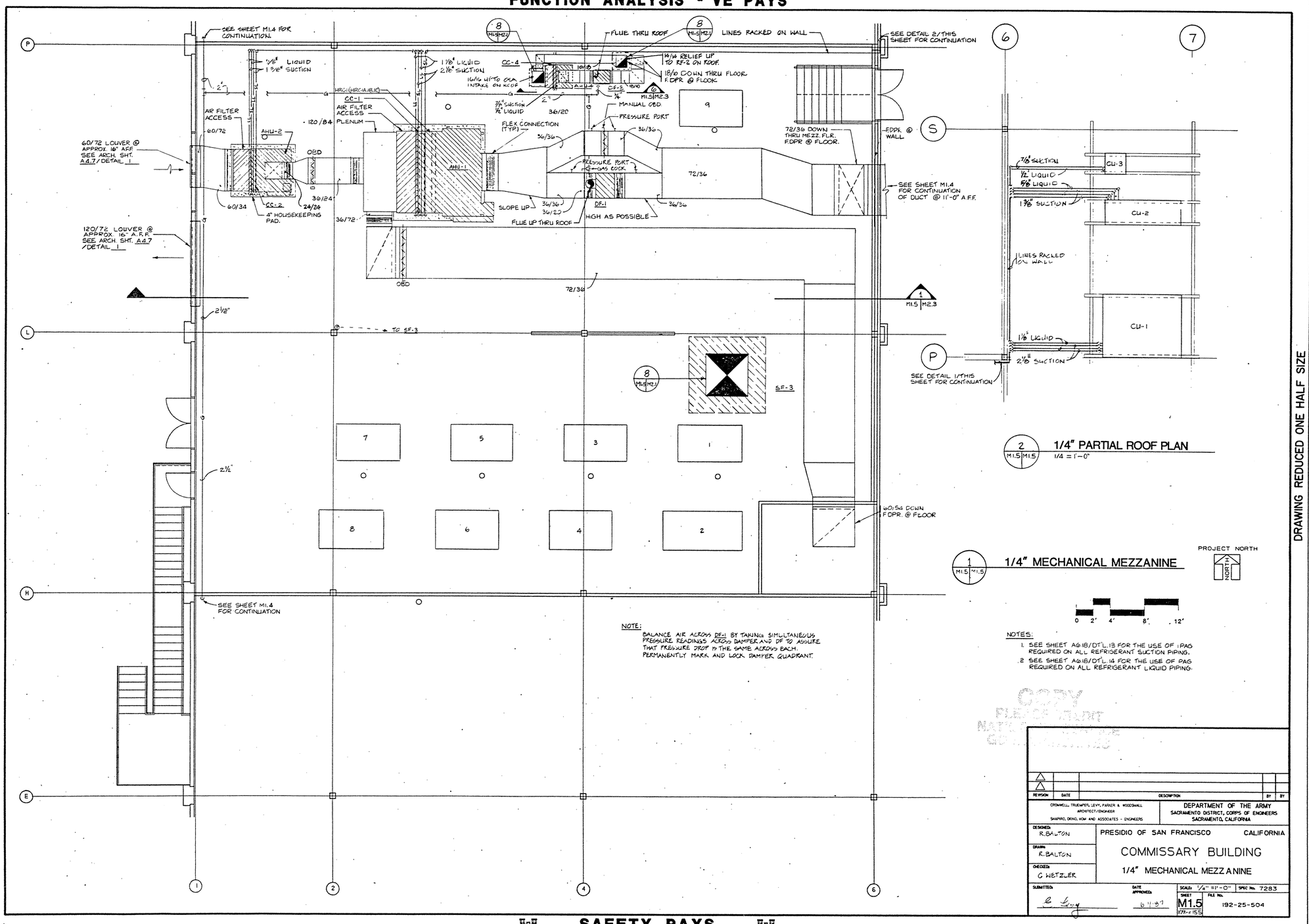
REFRIGERATED STORAGE - HVAC

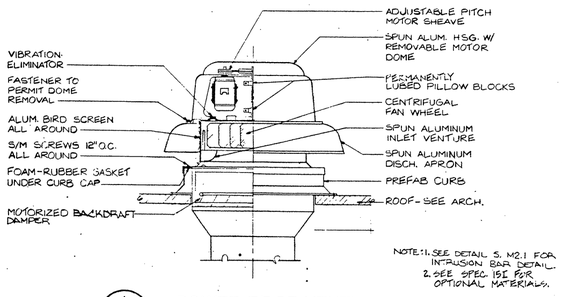
SUBMITTED: DATE APPROVED:

SCALE: 1/8" = 1'-0" | SPEC No. 7283
SHEET M1.4 | FILE No. 192-25-504

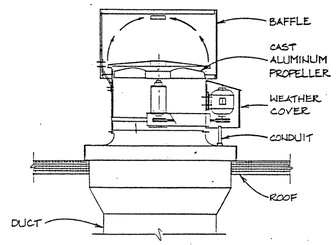
COPY

SAFETY PAYS

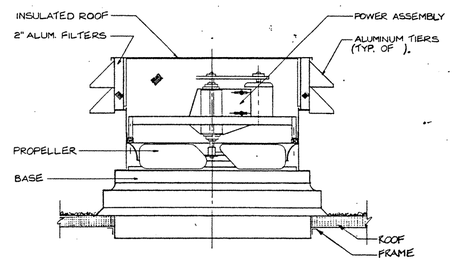

SEE SHEET M1.4 FOR CONTINUATION.
1/8" LIQUID
1 3/8" SUCTION
1 1/8" LIQUID
2 1/8" SUCTION
CC-4
FLUE THRU ROOF
LINES RACKED ON WALL
SEE DETAIL 2/THIS SHEET FOR CONTINUATION
16/16 RELIEF UP TO RF-2 ON ROOF.
18/0 DOWN THRU FLOOR FDPR @ FLOOR
16/16 UP TO CKA INTAKE ON ROOF
DF-2
7/8" SUCTION
1/2" LIQUID
36/20
MANUAL OBD
PRESSURE PORT
HRG1(HRG1HUB1K)
CC-1
AIR FILTER ACCESS
120/84
PLENUM
FLEX CONNECTION (TYP)
36/36
72/36 DOWN THRU MEZZ. FLR. FDPR @ FLOOR.
FDPR @ WALL
60/72 LOUVER @ APPROX. 16" A.F.F. SEE ARCH. SHT. A4.7 / DETAIL 1
AIR FILTER ACCESS
60/72
AHU-2
OBD
AHU-1
PRESSURE PORT
GAS COCK
72/36
SEE SHEET M1.4 FOR CONTINUATION OF DUCT @ 11'-0" A.F.F.
60/34
CC-2
4" HOUSEKEEPING PAD.
36/24
24/24
36/72
SLOPE UP
36/36
36/20
DF-1
HIGH AS POSSIBLE
FLUE UP THRU ROOF
120/72 LOUVER @ APPROX. 16" A.F.F. SEE ARCH. SHT. A4.7 / DETAIL 1
OBD
72/36
TO SF-3
SF-3
7 1/8" SUCTION
1/2" LIQUID
5/8" LIQUID
1 3/8" SUCTION
CU-3
CU-2
LINES RACKED ON WALL
CU-1
1 1/8" LIQUID
2 1/8" SUCTION
SEE DETAIL 1/THIS SHEET FOR CONTINUATION
60/54 DOWN FDPR. @ FLOOR
SEE SHEET M1.4 FOR CONTINUATION
2 1/2"
2 1/2"
7
5
3
1
8
6
4
2
9
NOTE:
BALANCE AIR ACROSS DF-1 BY TAKING SIMULTANEOUS PRESSURE READINGS ACROSS DAMPER AND DF TO ASSURE THAT PRESSURE DROP IS THE SAME ACROSS EACH. PERMANENTLY MARK AND LOCK DAMPER QUADRANT.
2 M1.5 M1.5 1/4" PARTIAL ROOF PLAN 1/4 = 1'-0"
1 M1.5 M1.5 1/4" MECHANICAL MEZZANINE
PROJECT NORTH
NORTH
0 2' 4' 8' 12'
NOTES:
1. SEE SHEET AG18/DT'L. 13 FOR THE USE OF IPAG REQUIRED ON ALL REFRIGERANT SUCTION PIPING.
2. SEE SHEET AG18/DT'L. 14 FOR THE USE OF PAG REQUIRED ON ALL REFRIGERANT LIQUID PIPING.
ENVIRONMENTAL ENHANCEMENT STUDY ENGINEERING
DRAWING REDUCED ONE HALF SIZE
REVISION DATE DESCRIPTION BY BY
CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL ARCHITECT/ENGINEER
SHAPIRO, ORINO, HOM AND ASSOCIATES - ENGINEERS
DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA
DESIGNED: R. BALTON
DRAWN: R. BALTON
CHECKED: C WETZLER
PRESIDIO OF SAN FRANCISCO CALIFORNIA
COMMISSARY BUILDING
1/4" MECHANICAL MEZZANINE
SUBMITTED:
DATE APPROVED: 6 11 87
SCALE: 1/4" = 1'-0"
SPEC No. 7283
SHEET M1.5
FILE No. 192-25-504



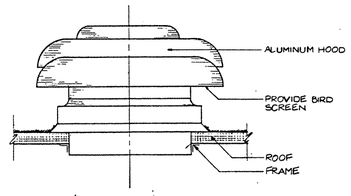
1 M2.1 | M2.1 POWER ROOF VENTILATOR/EXHAUST FAN
NO SCALE



2 M2.1 | M2.1 UP-BLAST FAN
NO SCALE

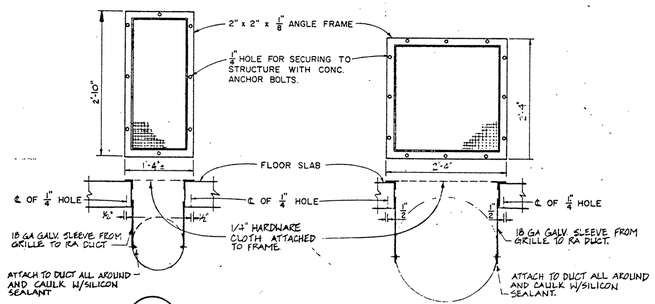


3 M2.1 | M2.1 SUPPLY AIR FAN
NO SCALE

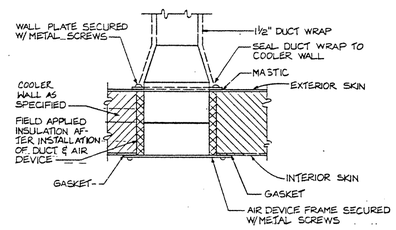


NOTE.
1. PRESSURE DROP THRU HOOD AT .05" MAX.

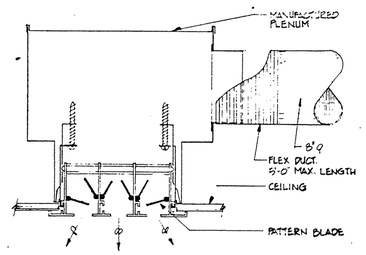
4 M2.1 | M2.1 GRAVITY RELIEF / INTAKE HOOD
NTS.



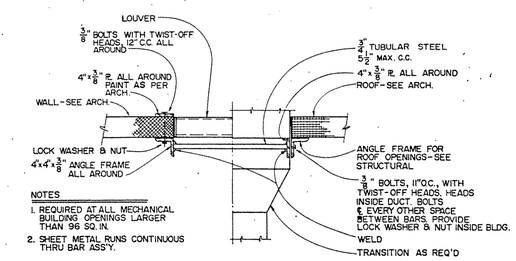
5 M1.3 | M2.1 M1.4 R. A. GRILLES UNDER COOLERS
NOT TO SCALE



6 M1.4 | M2.1 COOLER CLG. DUCT PENETRATION
NO SCALE



7 M1.3 | M2.1 S.A. SLOT ASSEMBLY
NO SCALE



NOTES
1. REQUIRED AT ALL MECHANICAL BUILDING OPENINGS LARGER THAN 96 SQ. IN.
2. SHEET METAL RUNS CONTINUOUS THRU BAR ASS'Y.

8 M1.1 | M2.1 M1.2 M1.3 M1.4 M1.5 INTRUSION BARS
NO SCALE

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NATIONAL PARK SERVICE
OF DISCREPANCIES

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROMWILL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOW AND ASSOCIATES-ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: L. BAUTEN
DRAWN: L. SMITH
CHECKED: C. METZLER

PRESIDIO OF SAN FRANCISCO CALIFORNIA

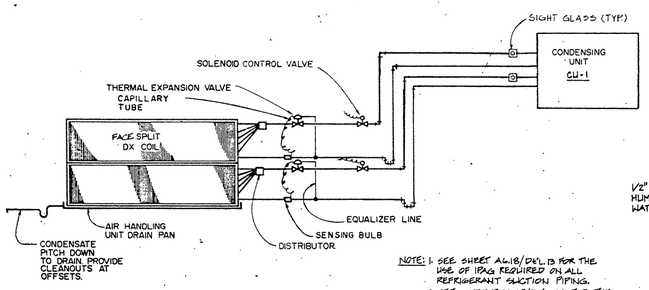
COMMISSARY BUILDING
DETAILS - HVAC

SUBMITTED: DATE APPROVED

SCALE AS NOTED | SPEC. No. 7283
SHEET M2.1 | 110 of 155
FILE No. 92-25-504

DRAWING REDUCED ONE HALF SIZE

FUNCTION ANALYSIS - VE PAYS

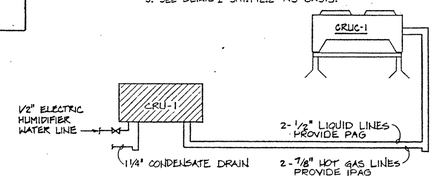


NOTE: 1. SEE SHEET AG.18/DEL.13 FOR THE USE OF IPAG REQUIRED ON ALL REFRIGERANT SUCTION PIPING.
2. SEE SHEET AG.18/DEL.14 FOR THE USE OF PAG REQUIRED ON ALL REFRIGERANT LIQUID PIPING.
3. SEE DETAIL 1 SHT. M2.2 AS BASIS.

1 — CC - 1 COOLING COIL PIPING

M1.5 | M2.2 | M3.1

NO SCALE

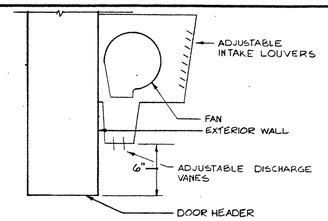


NOTE: 1. SEE SHEET AG.18/DEL.13 FOR THE USE OF IPAG REQUIRED ON ALL REFRIGERANT SUCTION PIPING.
2. SEE SHEET AG.18/DEL.14 FOR THE USE OF PAG REQUIRED ON ALL REFRIGERANT LIQUID PIPING.
3. PIPING FOR CC-2 THRU CC-5 SHALL BE SIMILAR TO DETAIL #1 EXCEPT, THERE WILL BE ONE LIQUID LINE & ONE SUCTION LINE TO CONDENSING UNITS WITH ONE SOLENOID VALVE & ONE THERMAL EXPANSION VALVE.

2 — CRU-1 REFRIGERANT LINE RISER

M1.2 | M2.2 | M3.1

NO SCALE

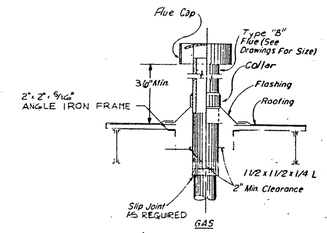


NOTE:
SEE ARCH. FOR OTHER FANS.

3 — TYPICAL FLY FAN MOUNTING

M2.2 | M2.2

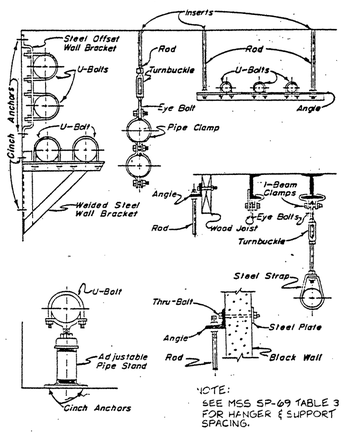
NO SCALE



4 — GAS STACK DETAIL

M2.2 | M2.2

NO SCALE

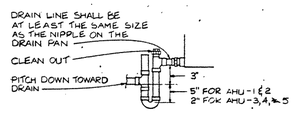


NOTE:
SEE MSS SP-69 TABLE 3 FOR HANGER & SUPPORT SPACING.

5 — TYPICAL PIPE SUPPORT

M2.2 | M2.2

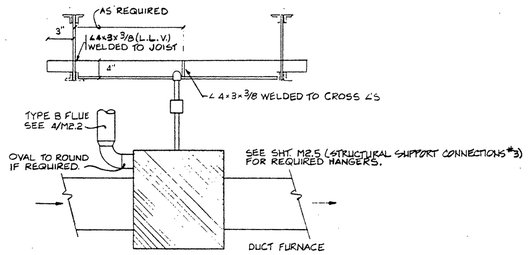
NO SCALE



6 — HUMIDITY DRAIN DETAIL FOR AHU'S

M2.2 | M2.2

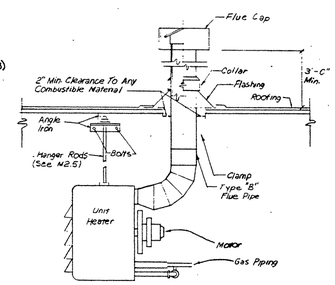
NO SCALE



7 — DUCT FURNACE DETAIL

M2.2 | M2.2

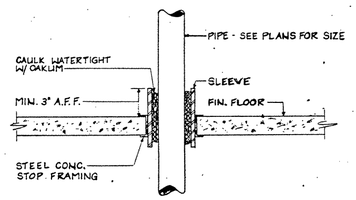
NO SCALE



8 — GAS UNIT HEATER DETAIL

M2.2 | M2.2

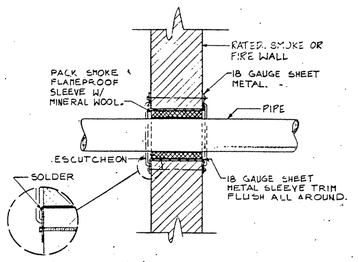
NO SCALE



9 — FLOOR PENETRATION

M2.2 | M2.2

NO SCALE



10 — PIPE PENETRATION AT FIRE WALL

M2.2 | M2.2

NO SCALE

DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY

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DESIGNED: R. BALTON
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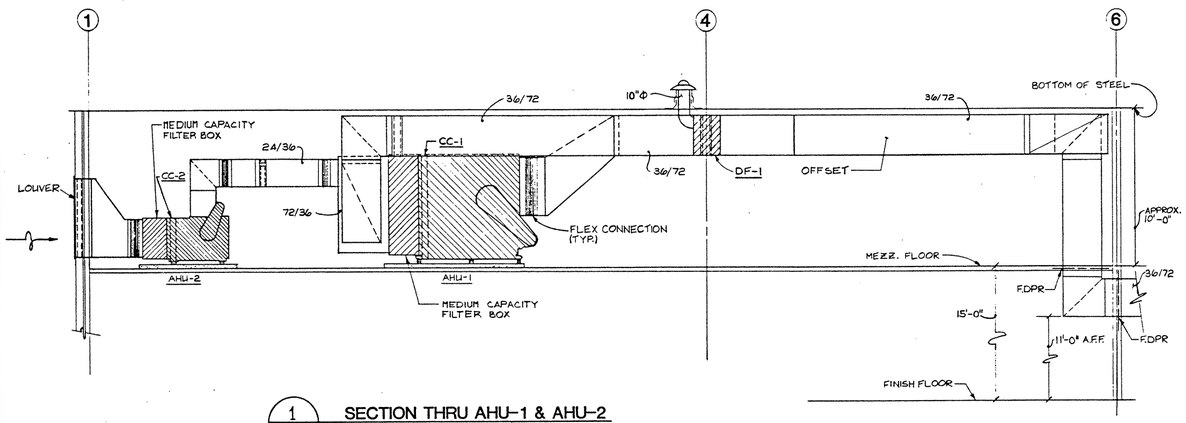
CHECKED: C. WETZLER

PRESIDIO OF SAN FRANCISCO CALIFORNIA

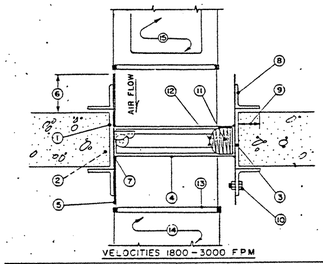
COMMISSARY BUILDING

DETAILS - HVAC

SUBMITTED:
DATE APPROVED: 6-1-
SCALE AS NOTED
SHEET M2.2 111 OF 155
SPEC. No. 7283
FILE No. 192-25-504



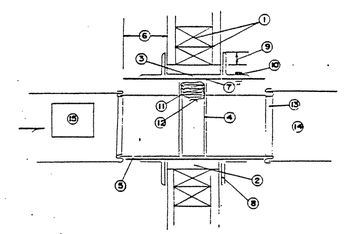
1 M1.5 M2.3 M5.1 **SECTION THRU AHU-1 & AHU-2**
1/4"=1'-0"



VELOCITIES 1800 - 3000 FPM

1	MASONRY OPENING AS SHOWN, FOR NON-MASONRY FLOORS, OPENING PREPARED WITH DOUBLE JOIST AND HEADERS	8	RETAINING ANGLES MINIMUM 1 1/2" x 1 1/2" x 12 GA. FOR DUCTS 0-48", 2 x 2 x 1/8 FOR DUCT 48"— ALL SIDES.
2	INTERIOR OF OPENING LINED WITH U.L. LISTED MATERIAL HAVING SAME FIRE RESISTIVE RATING AS FLOOR.	9	REGARDLESS OF DUCT SIZE, MIN. OVERLAP OF PREPARED OPENING FRAMEWORK BY RETAINING ANGLES SHALL BE 1 INCH.
3	CLEARANCE FOR THERMAL EXPANSION. 1/8 INCH PER FOOT OF DUCT DIMENSION, MAX. 1/2 INCH., HALF FOR EACH SIDE.	10	RETAINING ANGLES ATTACHED TO SLEEVES WITH 1/4 INCH BOLTS OR 1/2 INCH WELDS 6 INCHES O.C. BEGIN 2 INCHES FROM CORNERS.
4	FIRE DAMPER - U.L. OR SMACNA LABEL. FOR HORIZONTAL INSTALLATION.	11	FIRE DAMPER BLADES
		12	U.L. FUSIBLE LINK
5	STEEL SLEEVE, MINIMUM 14 GAGE	13	BREAKAWAY CONNECTION, SLIP TYPE. ONE #10 S.M. SCREW OR DRIVE SLIPS MAY BE USED FOR SECURING SIDES.
6	SLEEVE TO EXTEND A MINIMUM OF 3 INCHES BEYOND FLOOR LINE.		
7	BOLT OR WELD DAMPER TO SLEEVE. MINIMUM 1/4 INCH BOLTS OR 1/2 INCH WELDS 12 INCHES O.C. BEGIN 2 INCHES FROM CORNERS.	14	DUCT
		15	ACCESS DOOR

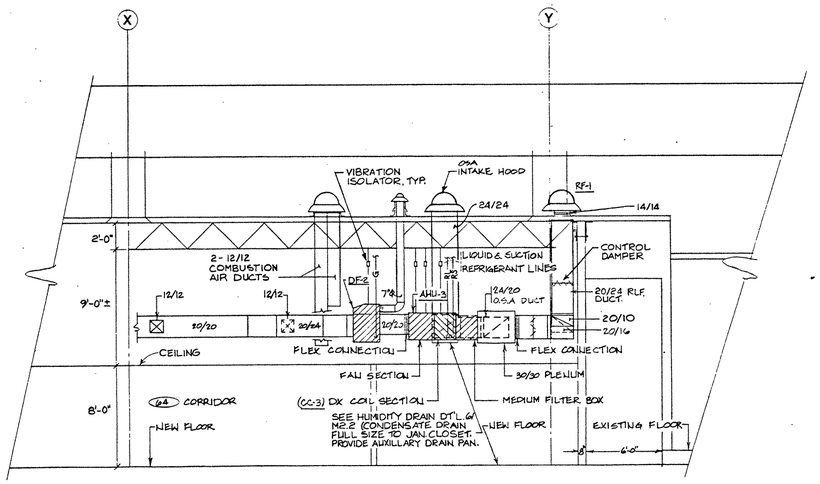
2 M1.5 M2.3 **FIRE DAMPER AT FLOOR**
NO SCALE



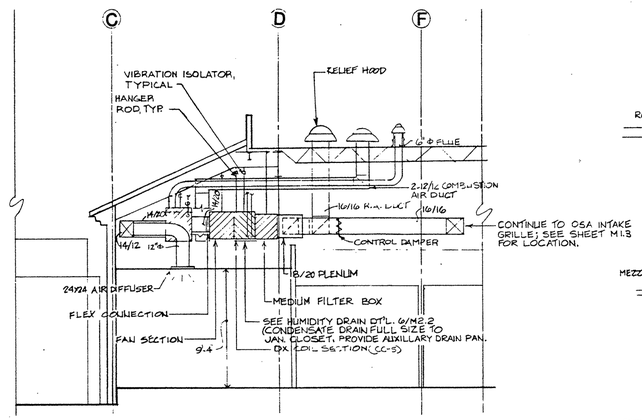
VELOCITIES 1800 - 3000 FPM

1	FOR NON-MASONARY WALLS, OPENING PREPARED WITH DOUBLE STUD FRAMING	8	RETAINING ANGLES MIN. 1-1/2 x 1-1/2 x 12 GAGE FOR DUCTS 0-48 INCHES, 2 x 2 x 1/8 FOR DUCT 48 INCHES—— ALL SIDES
2	INTERIOR OF OPENING LINED WITH U.L. LISTED MATERIAL HAVING SAME FIRE RESISTIVE RATING AS WALLS	9	REGARDLESS OF DUCT SIZE, MIN OVERLAP OF PREPARED OPENING FRAMEWORK BY RETAINING ANGLES SHALL BE 1 INCH
3	CLEARANCE FOR THERMAL EXPANSION. 1/8 INCH PER FOOT OF DUCT DIMENSION, MAX. 1/2 INCH. ALL AT TOP, HALF FOR EACH SIDE	10	RETAINING ANGLES ATTACHED TO SLEEVES WITH 1/4 INCH BOLTS OR 1/2 INCH WELDS 6 INCHES O.C. BEGIN 2 INCHES FROM CORNERS
4	FIRE DAMPER - UL OR SMACNA LABEL	11	FIRE DAMPER BLADES
		12	U.L. FUSIBLE LINK
5	STEEL SLEEVE, MIN. 14 GAGE	13	BREAKAWAY CONNECTION, SLIP TYPE. ONE NO. 10 SM SCREW OR DRIVE SLIPS MAY BE USED FOR SECURING VERTICAL SIDES
6	SLEEVE TO EXTEND A MIN OF 3 INCHES BEYOND		
7	BOLT OR WELD DAMPER TO SLEEVE MIN. 1/4 INCH BOLTS OR 1/2 INCH WELDS 12 INCHES O.C. BEGIN 2 INCHES FROM CORNERS	14	DUCT
		15	ACCESS DOOR

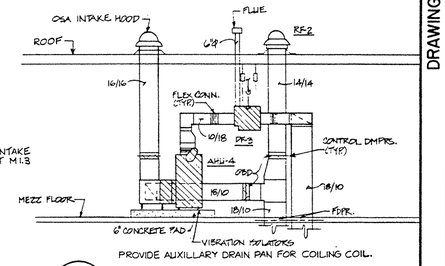
3 M1.5 M2.3 **FIRE DAMPER AT WALL**
NO SCALE



4 M1.2 M2.3 M3.1 **SECTION THRU AHU-3 AND CORRIDOR**
1/4" = 1'-0"



5 M1.3 M2.3 M3.1 **SECTION THRU AHU-5**
1/4" = 1'-0"



PROVIDE AUXILLARY DRAIN PAN FOR COILING COIL.

6 M1.5 M2.3 **SECTION AT AHU-4**
1/4"=1'-0"

GENERAL NOTES (TYPICAL FOR DETAILS 4 THRU 6):
1. ROOF OPENING FOR COMBUSTION AIR HOOD SHALL ACCOMODATE FULL SIZE COMBUSTION AIR DUCTS.
2. SIZE ALL INTAKE AND RELIEF HOOD FOR A 0.05" PRESSURE DROP AT MAXIMUM RATED FLOW.

1/4"=1'-0" 0 2' 4' 8' 12'

COPY

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROMWELL, TRUEMPER, LEVY, PARKER, & WOODSMALL
ARCHITECT / ENGINEER
SHAPIRO, OKINO, HOM, AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
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SACRAMENTO, CALIFORNIA

DESIGNED: R. BALTON
DRAWN: R. BALTON
CHECKED: C. WETZLER
SUBMITTED:
DATE APPROVED:

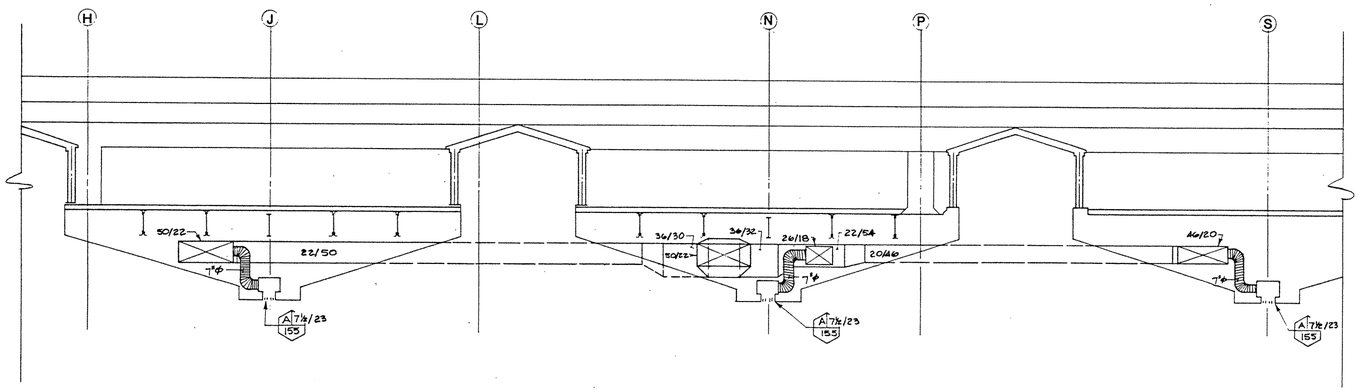
PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

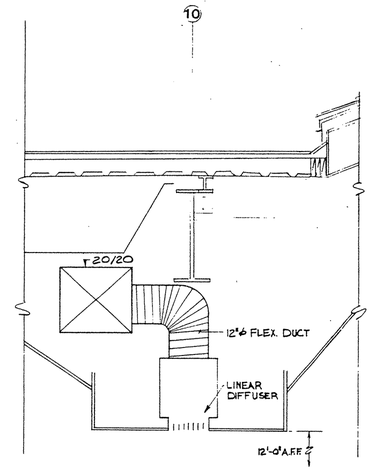
SECTIONS & DETAILS - HVAC

SCALE: AS NOTED SPEC. No. 7283
SHEET M2.3 112 of 155
FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE



1 M1.3 M2.4 SECTION AT 7 - MEAT AISLE
1/4" = 1'-0"



2 M1.3 M2.4 SECTION AT SALES/CHECKOUT
3/4" = 1'-0"

H.V.A.C. LEGEND

ABBREVIATIONS

ABOVE FINISHED FLOOR	AFF	LEAVING AIR TEMPERATURE	LAT
ACCESS DOOR	AD	LEAVING WATER TEMPERATURE	LWT
AIR COMPRESSOR	AC		
AIR COOLED CONDENSER & NUMBER	ACC-1	MANUAL DAMPER	MD
AIR FILTER	AF	MOTOR HORSEPOWER	MHP
AIR HANDLING UNIT & NUMBER	AHU-1		
AIR PRESSURE DROP	APD	NORMALLY CLOSED	NC
ALUMINUM	AL	NORMALLY OPEN	NO
AUTOMATIC DAMPER	ADPR	OPPOSED BLADE DAMPER	OBD
		OUTSIDE AIR	OSA
BACKDRAFT DAMPER	BDD		
BRAKE HORSEPOWER	BHP	PLATE	PL
BRITISH THERMAL UNITS	BTU	PLUMBING	PLBG
		POUNDS PER SQUARE INCH	PSI
CEILING DIFFUSER	CD	PRESSURE REDUCING VALVE	PRV
CIRCUIT	CKT		
CIRCULATING PUMP	CP	REGISTER	REG
CLEANOUT	CO	REFRIGERANT LIQUID	RL
CLEANOUT TO GRADE	COTG	REFRIGERANT SUCTION	RS
COMPUTER ROOM UNIT & NUMBER	CRU-1	REFRIGERANT HOT GAS	RHG
CONDENSING UNIT & NUMBER	CU-1	RELATIVE HUMIDITY	RH
COOLING COIL & NUMBER	CC-1	RELIEF FAN	RF
CUBIC FEET PER MINUTE	CFM	RETURN AIR	RA
		REVOLUTIONS PER MINUTE	RPM
DIRECT EXPANSION COIL	DX COIL	ROOF DRAIN	RD
DOOR GRILLE	DG		
DOWN	DN	SHEET METAL	SM
DRY BULB	DB	SPLITTER DAMPER	SD
DUCT FURNACE & NUMBER	DF-1	STATIC PRESSURE	SP
		SUPPLY AIR	SA
ELECTRICAL DEFROST	DEFROST E	SUPPLY FAN & NUMBER	SF-1
ENTERING AIR TEMPERATURE	EAT	SATURATED SUCTION TEMP.	SST
EXTERNAL STATIC PRESSURE	ESP	TEMPERATURE	TEMP.
ENTERING WATER TEMPERATURE	EWT	TEMPERATURE & PRESSURE	T&P
EXHAUST	EXH.	TOTAL STATIC PRESSURE	TSP
EXHAUST FAN & NUMBER	EF-1	TYPICAL	TYP.
FEET PER MINUTE	FPM	UNIT COOLER & NUMBER	UC-1
FLOOR DRAIN	FD	UNIT HEATER & NUMBER	UH-1
FAN	F		
FIRE DAMPER	FDPR	VENT THROUGH ROOF	VTR
FREEZE PROOF WALL HYDRANT	FPWH	VITRIFIED CLAY	VC
FLY FAN & NUMBER	FF-1		
FINS PER FOOT	FPF	WATER HEATER & NUMBER	WH-1
GALLONS PER MINUTE	GPM	WATER PRESSURE DROP	WPD
GALLONS PER HOUR	GPH	WATER TEMPERATURE DROP	WTD
		WET BULB	WB
HEAT RECOVERY COIL	HRC	BARE PIPE ABOVE GRADE	PAG
HORSEPOWER	HP	INSUL. PIPE ABOVE GRADE	IPAG
HOSE BIB	HB		
HOT WATER	HW		
HOT WATER TANK & NUMBER	HWT-1		

PIPING

- D — DRAIN
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- RHG — REFRIGERANT HOT GAS
- G — GAS

PIPE FITTINGS

- ELBOW - 90°
- ELBOW - TURNED UP
- ELBOW - TURNED DOWN
- TEE
- TEE DOWN
- TEE UP
- UNION (SCREWED)
- UNION (FLANGED)
- STRAINER (WYE TYPE)

VALVES, GAUGES, INSTRUMENTS, MISCELLANEOUS

- ANGLE GATE
- ANGLE RELIEF
- BACK PRESSURE
- BALANCING VALVE
- BALL VALVE/BUTTERFLY VALVE
- DIAPHRAGM
- DIRECT READING THERMOMETER BARE BULB TYPE
- ELECTRIC CONTROLLED
- FLEXIBLE CONNECTOR
- FLOW SWITCH
- GAS COCK
- GAS METER
- GATE VALVE
- GLOBE VALVE
- HUMIDISTAT
- LIFT CHECK VALVE
- ORIFICE
- PIPE ANCHOR
- PIPE GUIDE
- PHASE
- PRESSURE GAUGE
- PRESSURE SWITCH
- SIGHT GLASS
- SOLENOID CONTROL VALVE
- SWING CHECK VALVE
- TEST PLUG
- THERMOCOUPLE
- THERMOMETER
- THERMOSTAT
- GAS VALVE

HEATING, VENTILATION & AIR CONDITIONING

- CENTRIFUGAL ROOF EXHAUST FAN
- SUPPLY FAN
- RELIEF FAN
- INTAKE HOOD
- UNIT HEATER WITH FLUE THROUGH ROOF
- FLY FAN
- CEILING SUPPLY DIFFUSER
- CEILING RETURN GRILLE
- CEILING EXHAUST GRILLE
- LINEAR SLOT DIFFUSER (WITH FLEXIBLE DUCT)
- UNDERCUT DOORS
- BULL HEAD TEE WITH TURNING VANES
- TAKEOFF WITH MANUAL DAMPER
- OPPOSED BLADE DAMPER
- AIR DEVICE SYMBOL (NECK SIZE, MARK, NDR, CFM)
- SUPPLY AIR DUCT DOWN
- SUPPLY AIR DUCT UP
- RETURN/EXHAUST AIR DUCT DOWN
- RETURN/EXHAUST AIR DUCT UP
- RECTANGULAR DUCT (20/12: 1ST FIGURE WIDTH, 2ND FIGURE DEPTH)
- ROUND DUCT (10"ø)
- FLEXIBLE CONNECTIONS
- INCLINED DROP IN RESPECT TO AIR FLOW
- INCLINED RISE IN RESPECT TO AIR FLOW
- OUTSIDE AIR INTAKE LOUVER
- VOLUME CONTROL DAMPER (MANUAL)
- TRANSITION RECTANGULAR TO ROUND DUCT
- TRANSITION ROUND TO RECTANGULAR DUCT
- FIRE DAMPER
- 90° ELBOW WITH TURNING VANES
- SPLITTER TEE

1/4" = 1'-0" 0 2' 4' 8' 12'

3/4" = 1'-0" 0 6" 1' 2' 4'

DRAWING REDUCED ONE HALF SIZE

COPY
PLEASE CREDIT
NATIONAL ENERGY SERVICE
CORPORATION LIMITED

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

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SACRAMENTO, CALIFORNIA

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CHECKED: C. WETZLER
SUBMITTER: C /
DATE APPROVED:

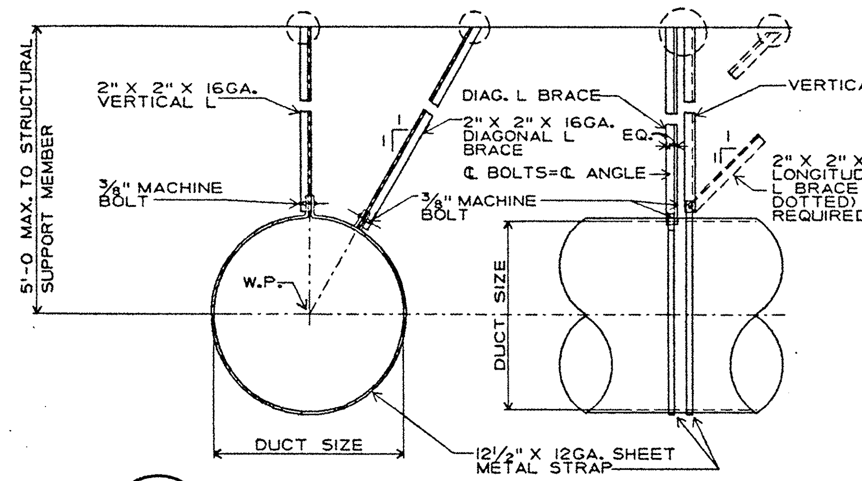
PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
SECTIONS & LEGEND - HVAC

SCALE: AS NOTED | SPEC. No. 7283
SHEET M2.4 1/3=1/155 | FILE No. 192-25-504

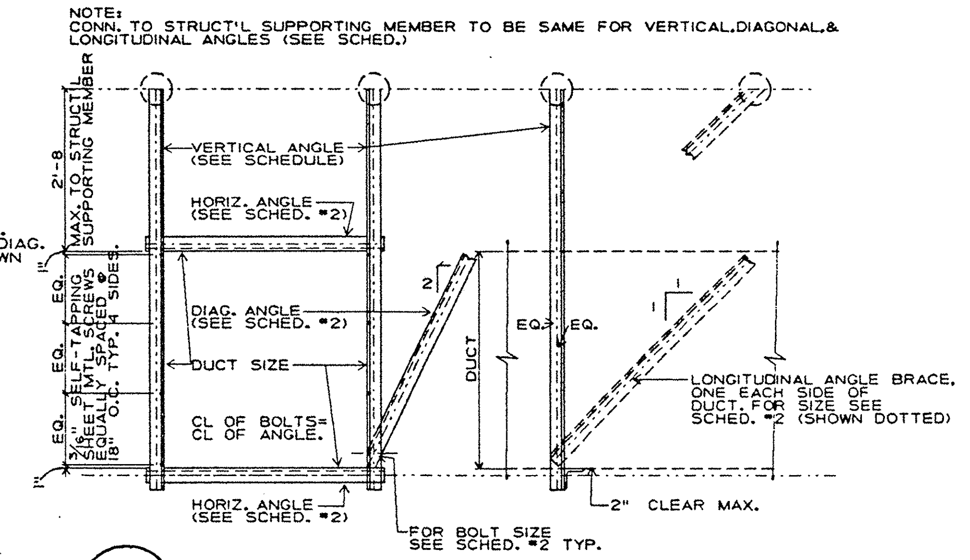
PRESIDIO Commissary 84-028
Series 1 Legend - HVAC
517 517
ENVIRONMENTAL ENHANCEMENTS NEW ENGINEERING
GPO 786-533

FUNCTION ANALYSIS - VE PAYS



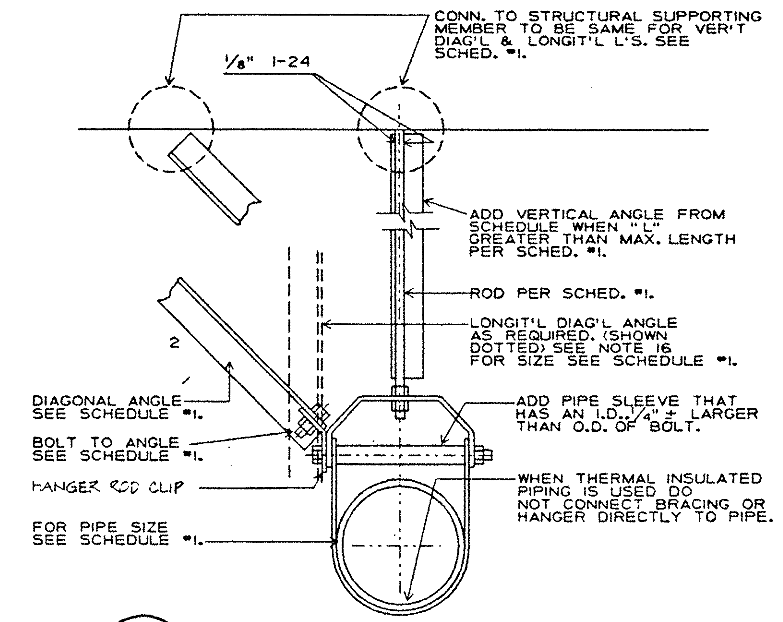
1 M2.5|M2.5 TYPICAL ROUND DUCT BRACING

NOTE: FOR SPACING OF BRACING REFER TO TYPICAL NOTE 9



2 M2.5|M2.5 TYPICAL RECTANGULAR DUCT SIDE BRACING

NOTE:
1. FOR BRACE SPACING REFER TO TYPICAL NOTE 9.
2. WHEN A COMBINATION OF DUCTS ARE USED IN IN LIEU OF ONE DUCT, AT LEAST 2 SIDES OF EACH DUCT MUST BE CONNECTED OF VERT.OR HORIZ. ANGLES. (ADD HORIZ. ANGLES IF REQUIRED)



3 M2.5|M2.5 TYPICAL PIPE BRACING

GENERAL NOTES

GENERAL

1. NO BRACING IS REQUIRED IF THE TOP OF THE DUCT OR PIPE IS SUSPENDED 12 INCHES OR LESS FROM THE SUPPORTING STRUCTURAL MEMBER.
2. WALLS, INCLUDING DRYWALL PARTITIONS, MAY REPLACE REQUIRED TRANSVERSE OR VERTICAL BRACING FOR DUCTWORK OR PIPING.
3. ATTACHMENT TO STRUCTURAL MEMBERS SHALL USE DEVICES INCLUDED IN FEDERAL SPECIFICATION MSS-SP-58-75 OR BE BOLTED/WELDED AS APPROVED BY THE RESIDENT ENGINEER. BRACES SHALL BE CONNECTED TO THE HANGERS/SUPPORTS FOR DUCTS, PIPING AND SUSPENDED EQUIPMENT.
4. SEE THE SPECIFICATIONS FOR REQUIRED STRENGTH OF BRACING.
5. LATERAL SEISMIC FORCE SHALL BE CONSIDERED TO ACT CONCURRENTLY WITH THE DEAD LOAD. THE SLENDERNESS RATIO (l/r) OF BRACES SHALL NOT EXCEED 200, WHERE (l) IS THE LENGTH OF THE BRACE AND (R) IS THE LEAST RADIUS OF GYRATION, BOTH IN INCHES.
6. SWAY BRACING METHODS SHOWN IN NFPA 13 (SPRINKLER PIPING) MAY BE USED IN LIEU OF DETAILS SHOWN ON THE DRAWINGS FOR PIPING AND DUCT WORK.

DUCT WORK

7. DETAILS SHOWN PROVIDE A LATERAL BRACING SYSTEM. A TYPICAL VERTICAL SUPPORT SYSTEM MUST ALSO BE USED. HOWEVER, WHERE BRACING OCCURS, THE VERTICAL ANGLE SHOWN MAY REPLACE A TYPICAL VERTICAL SUPPORT. THIS INCLUDES A TRAPEZE VERTICAL SUPPORTING SYSTEM.
8. BRACE ALL RECTANGULAR DUCTS 6 SQ.FT. OF AREA AND LARGER. BRACE ALL ROUND DUCTS 28" IN DIAMETER AND LARGER.
9. TRANSVERSE BRACING TO OCCUR 30'-0" O.C. MAX. (EXCEPT FOR RECTANGULAR DUCTS 61" AND LARGER (IN EITHER DIRECTION) MAY BE BRACED AT 32'-0" O.C.). TRANVERSE BRACING SHALL BE INSTALLED AT EACH DUCT TURN AT EACH END OF A DUCT RUN.

   LONGITUDINAL BRACING SHALL OCCUR AT 60'-0" O.C. MAX. TRANVERSE BRACING FOR ONE DUCT SECTION MAY ALSO ACT AS LONGITUDINAL BRACING FOR A DUCT SECTION CONNECTED PERPENDICULAR TO IT, IF THE BRACING IS INSTALLED WITHIN FOUR FEET OF THE INTERSECTION OF BOTH DUCTS AND THE BRACING IS SIZED FOR THE LARGER DUCT.
10. NO BRACING IS REQUIRED IF THE TOP OF DUCT IS SUSPENDED 12" OR LESS FROM THE SUPPORTING STRUCTURAL MEMBER AND ATTACHED TO THE TOP OF THE DUCT.
11. A GROUP OF DUCTS MAY BE COMBINED IN A LARGER SIZE FRAME USING THE OVERALL DIMENSIONS WITH MAX. WT. FOR SELECTION OF THE MEMBERS FROM THE SCHEDULE SHEET 2.
12. WALLS (INCLUDING GYPSUM BOARD NONBEARING PARTITIONS) WHICH HAVE DUCTS RUNNING THROUGH THEM MAY REPLACE A TYPICAL TRANSVERSE BRACE.
13. WHERE IT IS PRACTICAL TO DO SO, DUCTS (& PIPES) NOT BRACED, SHALL BE INSTALLED WITH A 6" MINIMUM CLEARANCE TO VERTICAL CEILING HANGER WIRES.

PIPING

14. BRACE ALL PIPES 2-1/2" I.D. AND LARGER.
15. TRANSVERSE BRACINGS AT 40'-0" O.C. MAXIMUM.
16. LONGITUDINAL BRACINGS AT 80'-0" O.C. MAXIMUM.
17. VERTICAL PIPE RISERS: PROVIDE LATRAL GUIDES AT THE TOP AND BOTTOM OF THE RISER, AND AT INTERMEDIATE POINTS NOT TO EXCEED 30'-0" O.C.
18. FOR OIL PIPING TRANSVERSE BRACING SHALL BE AT 20'-0" O.C. MAXIMUM AND LONGITUDINAL BRACING AT 40'-0" O.C. MAXIMUM.
19. IN MECHANICAL EQUIPMENT ROOMS, BRACING OF PIPE INCLUDED IN SCHEDULE SHALL BE EXTENDED TO INCLUDE 1-1/4" DIA., 1-1/2" DIA. AND 2" DIA.

EQUIPMENT

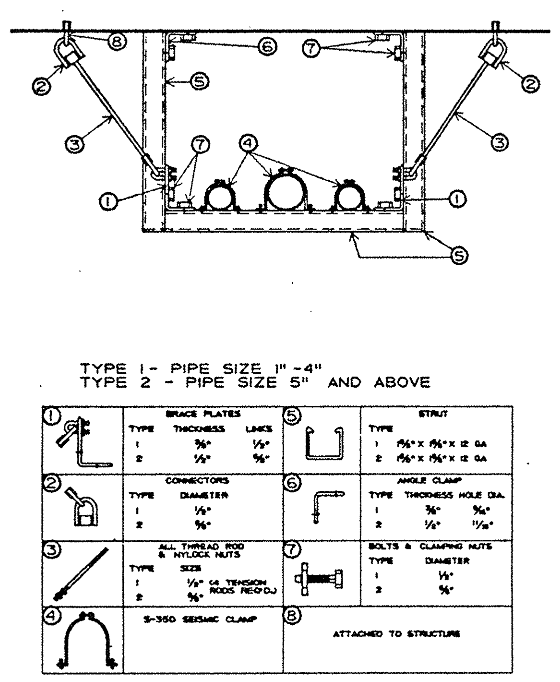
20. REFER TO SPECIFICATIONS, DIVISION 15.

FLOOR OR ROOF-MOUNTED EQUIPMENT WITHOUT VIBRATION ISOLATION

21. ALL FLOOR-MOUNTED EQUIPMENT MUST BE SECURED TO FOUNDATION OR AN ADEQUATE STRUCTURAL SUPPORT WITH ANCHOR BOLTS TO WITHSTAND 0.5 g (0.2 g)LATERAL AND VERTICAL LOADS. SEE DETAIL *5/M2.

SUSPENDED EQUIPMENT

22. SUSPENDED EQUIPMENT HUNG WITH VIBRATION ISOLATION SHALL HAVE HANGER RODS, BRACING MEMBERS, EQUIPMENT BRACKETS AND VIBRATION ISOLATION HANGERS DESIGNED TO WITHSTND 0.4 g LATERAL AND VERTICAL LOADS.
23. SUSPENDED EQUIPMENT HUNG WITH VIBRATION ISOLATION SHALL HAVE HANGER RODS, BRACING MEMBERS, EQUIPMENT BRACKETS AND VIBRATION ISOLATION HANGERS DESIGNED TO WITHSTAND 0.2 g LATERAL AND VERTICAL LOADS.



TYPE 1- PIPE SIZE 1"-4"
TYPE 2 - PIPE SIZE 5" AND ABOVE

4 M2.5|M2.5 TRAPEZE MTD. PIPE

PIPE BRACE SCHEDULE #1

PIPE SIZE (IN.)			BOLTS TO [L] **	VERTICAL ANGLE	DIAGONAL ANGLE	LONGITUDINAL ANGLE	TOP CONN. OF DIAG ELONGL L'S *	ROD SIZE	MAX LNGTH (ROD)
2 1/2	CLEVIS	TYPE	3/8"	2X2X16 GA	2X2X16 GA	2 1/2X2 1/2X16 GA	TYPE I	1/2"	25"
3	DO	DO	3/8"	2X2X16 GA	2X2X16 GA	2 1/2X2 1/2X16 GA	TYPE II	1/2"	25"
3 1/2	DO	DO	3/8"	2X2X16 GA	2X2X16 GA	2 1/2X2 1/2X16 GA	TYPE II	1/2"	25"
4	DO	DO	3/8"	2X2X16 GA	2X2X16 GA	2 1/2X2 1/2X16 GA	TYPE II	5/8"	31"
5	DO	DO	1/2"	2X2X16 GA	2X2X16 GA	2 1/2X2 1/2X16 GA	TYPE II	5/8"	31"
6	DO	DO	1/2"	2 1/2X2 1/2X16 GA	2 1/2X2 1/2X16 GA	2 1/2X2 1/2X16 GA	TYPE IV	3/4"	37"
8	DO	DO	5/8"	2 1/2X2 1/2X12 GA	2 1/2X2 1/2X12 GA	2 1/2X2 1/2X12 GA	TYPE V	7/8"	43"
10	DO	DO	3/2"	2 1/2X2 1/2X12 GA	3X3X12 GA	3X3X12 GA	TYPE VI	7/8"	43"

NOTES:
[L] DENOTES ANGLE
* SEE SCHED. FOR TYP. CONN. TO STRUCTURAL SUPPORTING MEMBERS (*3)
** PLACE STANDARD CUT WASHERS BETWEEN SHEET METAL L'S & NUT; ROUND BOLTS

RECTANGULAR DUCT BRACING #2

SIDE BRACING

DUCT SIZE (SQ)	VERTICAL ANGLE	DIAGONAL ANGLE	HORIZONTAL ANGLE	LONGITUDINAL ANGLE	BOLT SIZE (RND)	CONC. TO STRUCT SUPPORT MEMBER*	WT./ LIN. FOOT
30"	2 1/2X2 1/2X16 GA	2 1/2X2 1/2X16 GA	2X2X16 GA	30X30X16 GA	1/4"	TYPE II	13
42"	4X4X16 GA	2 1/2X2 1/2X16 GA	2 1/2X2 1/2X16 GA	DO	3/8"	TYPE II	20
54"	4X4X12 GA	2 1/2X2 1/2X16 GA	2 1/2X2 1/2X16 GA	DO	3/8"	TYPE II	27
60"	4X4X12 GA	3X3X16 GA	3X3X16 GA	DO	3/8"	TYPE II	36
84"	4X4X1/4	4X4X14 GA	4X4X14 GA	DO	3/8"	TYPE III	53
96"	5X3X1/4	4X4X12 GA	4X4X12 GA	DO	1/2"	TYPE III	80

CENTER BRACING

DUCT SIZE (SQ)	VERTICAL ANGLE	DIAGONAL ANGLE	HORIZONTAL ANGLE	LONGITUDINAL ANGLE	BOLT SIZE (RND)	CONC. TO STRUCT SUPPORT MEMBER*	WT./ LIN. FOOT
30"	2X2X16 GA	2X2X16 GA	2X2X16 GA	----	1/4"	TYPE I	13
42"	2 1/2X2 1/2X16 GA	2 1/2X2 1/2X16 GA	2 1/2X2 1/2X16 GA	----	1/4"	TYPE I	20
54"	2 1/2X2 1/2X16 GA	2 1/2X2 1/2X14 GA	2 1/2X2 1/2X16 GA	----	3/8"	TYPE II	27
60"	3X3X16 GA	3X3X14 GA	3X3X16 GA	----	3/8"	TYPE II	36
84"	4X4X14 GA	4X4X14 GA	4X4X14 GA	----	3/8"	TYPE III	53
96"	6X6X12 GA	4X4X12 GA	4X4X12 GA	----	1/2"	TYPE IV	80

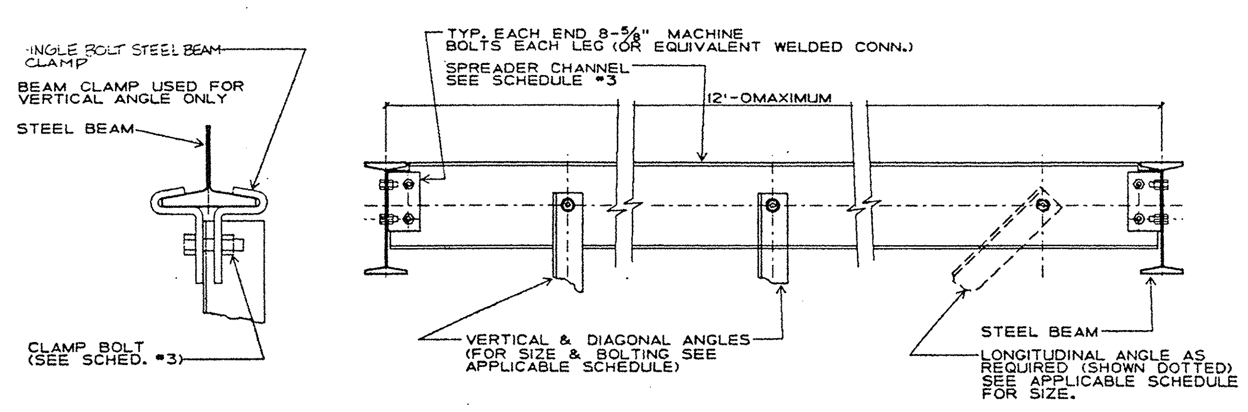
NOTES:
1. MAX. WEIGHTS OF DUCT OR COMBINATIONS OF DUCTS PER LINEAR FOOT.
2. THE DUCTS MAX. DIMENSION SHALL GOVERN WHAT BRACING IS REQUIRED. EXAMPLE: A 36"X60" DUCT SHALL BE BRACED AS A 60" SQ DUCT.
3. ALL HOLES IN 1/16" OVERSIZE MAX.
4. PLACE STANDARD CUT WASHERS BETWEEN SHEET METAL ANGLES & NUT.
* SEE SCHEDULE *3 FOR TYPICAL CONNECTION TO STRUCTURAL SUPPORTING MEMBERS.

MIN. EDGE DISTANCE FOR BOLTS:
1/4" RND --- 1"
3/8" RND --- 1"
1/2" RND --- 1"
5/8" RND --- 1 1/8"
3/4" RND --- 1 1/4"
7/8" RND --- 1 1/2"

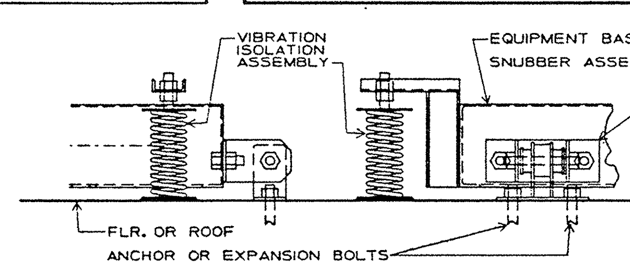
STRUCTURAL SUPPORT CONNECTION #3

TYPE	MAX LOAD CAP LBS	PHILLIPS REDHEAD ANCHORS TO CONC		CONC CAST IN PLACE INSERT	BOLT OF ST'L BM CLAMP	SPREADER SIZE	BOLT IN WOOD	SPAN-CRETE ROD	ANGLE TO SUPPORTING STRUCTURAL MEMBER	ROD SIZE FOR PIPES
		LT WT	HARD ROCK							
I	500	3/8"	3/8"	5/8"	3/8"	C4X5.4	1/2"	3/8"	3X2X4X0-3" LLH	1/2"
II	1000	1/2"	3/8"	1/2"	3/8"	C5X6.7	3/4"	3/8"	3 1/2X2 1/2X3/16X0-3" LLH	1/2"
III	1500	5/8"	1/2"	1/2"	1/2"	C6X8.5		1/2"	3 1/2X2 1/2X7/16X0-4" LLH	5/8"
IV	2000	3/4"	1/2"	5/8"	1/2"	C8X11.5		1/2"	5X5X1/2X0-4" LLH	3/4"
V	3000	2 5/8"	2 1/2"	2 1/2"	5/8"	C9X13.4			2-3 1/2X2 1/2X7/16X4" LLH	7/8*
VI	4000	2 3/4"	2 5/8"	2 5/8"	5/8"	C10X15.3			2-5X3X1/2X0-4" LLH	7/8**

NOTES:
1. FOR SLABS LESS THAN 5" THICK ONLY, THIN SLAB INSERTS MAY BE USED.
2. *FOR USE W/CONC. CAST-IN PLACE INSERTS OR PHILLIPS REDHEAD IN HARD ROCK ONLY.
3. ** FOR USE W/CONC. CAST-IN PLACE INSERTS ONLY.



5 M2.5|M2.5 CONNECTIONS TO STEEL



NOTES:
1. SNUBBERS SHALL BE DESIGNED TO WITHSTAND 0.4G LATERAL AND VERTICAL LOADS.
2. INSTALL 4 ALL-DIRECTIONAL SNUBBERS THAT ARE DOUBLE ACTING AND LOCATED AS CLOSE TO THE VIBRATION AS POSSIBLE.
3. SNUBBERS SHALL CONSIST OF INTERLOCKING STEEL MEMBERS RESTRAINED BY 3/4" MIN. REMOVEABLE NEOPRENE COMPOUNDED TO BRIDGE BEARING SPECIFICATIONS.
4. SNUBBERS SHALL BE MANUFACTURED WITH AN AIR GAP BETWEEN STEEL AND NEOPRENE OF NOT LESS THAN 1/8" NOR MORE THAN 1/2".

6 M2.5|M2.5 EQUIPMENT RESTRAINED BY SNUBBERS

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: C. WETZLER
DRAWN: R. BALTON
CHECKED: W. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

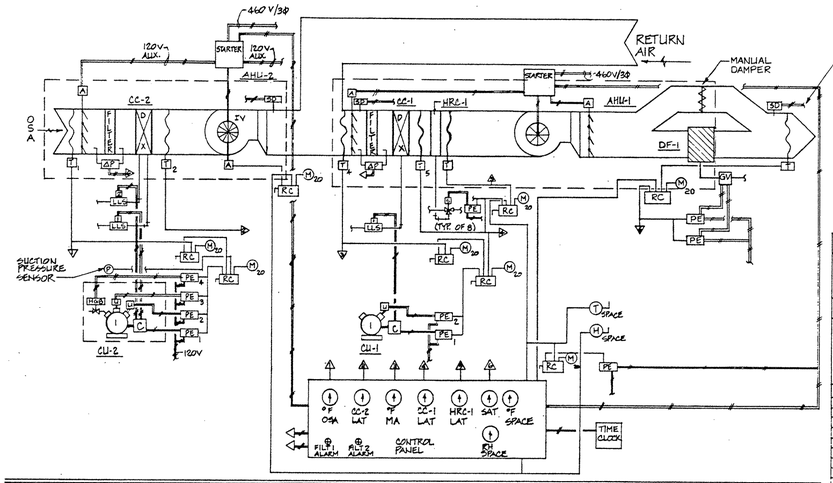
SEISMIC DETAILS - HVAC

SUBMITTED:
DATE APPROVED:
SCALE:
SPEC No. 7283
SHEET M2.5
FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

SAFETY PAYS

FUNCTION ANALYSIS - VE PAYS



LEGEND

- T TEMP SENSOR
- Ⓣ THERMOSTAT
- PE PNEUMATIC-ELECTRIC SWITCH
- RC RECEIVER - CONTROLLER
- ΔP DIFF. PRESSURE SWITCH
- A ACTUATOR
- M MAIN AIR
- S SOLENOID
- △ CONTINUATION
- ELECTRIC CIRCUIT
- H HUMIDISTAT
- LLS LIQUID LINE SOLENOID
- IV INLET VANES
- GV GAS VALVE
- SD SMOKE DETECTOR
- M ELECTRIC DAMPER MOTOR
- MGB HOT GAS BYPASS
- Ⓟ PRESSURE SENSOR

EMCS CONNECTION POINTS

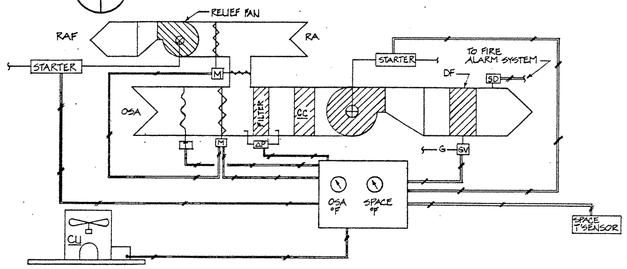
PROVIDE ALL NECESSARY HARDWARE AND WIRING TO CONNECT THE FOLLOWING SENSOR POINTS TO THE BASE EMCS SYSTEM.

D = DIGITAL A = ANALOG BLANK = NONE

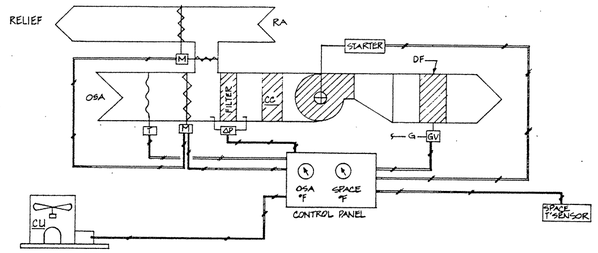
EQUIPMENT	STATUS	START/STOP	ENT TEMP	LVG TEMP	SPACE TEMP	SPACE RH		STATUS	START/STOP	ENT TEMP	LVG TEMP	SPACE TEMP	SPACE TEMP
AHU-1	D			A	A		CRU-1	D				A	A
AHU-2	D						CRUC-1	D					
AHU-3	D	D		A			DF-1	D		A	A		
AHU-4	D	D		A			DF-2	D			A		
AHU-5	D	D		A			DF-3	D			A		
CU-1	D						DF-4	D			A		
CU-2	D						SALES/CH.OUT RETURN						
CU-3	D	D					OUTSIDE AIR (AHU-2)			A			
CU-4	D	D											
CU-5	D	D											
CC-1			A	A			SF-1	D	D				
CC-2				A			SF-2	D	D				
CC-3				A			SF-3	D					
CC-4				A			EF-5	D	D				
CC-5				A			EF-6	D	D				
HRC-1				A			EF-7	D	D				
							EF-8	D	D				

GENERAL NOTE:
SEE ELECTRICAL FOR SMOKE ALARM CONTINUATION.

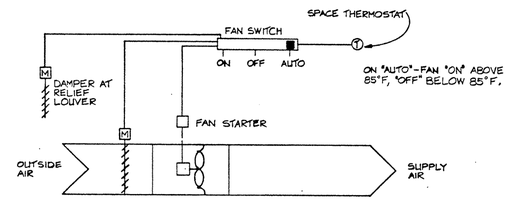
1 — SALES / CHECKOUT
M1.5 | M2.6
NO SCALE



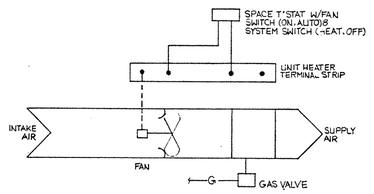
3 — AHU - 3 AND AHU - 4
M1.2 | M2.6 | M1.5
NO SCALE

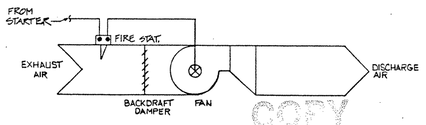


2 — AHU - 5
M1.3 | M2.6
NO SCALE



5 — MEZZANINE VENT. SYSTEM - (SF-3)
M1.5 | M2.6
NO SCALE

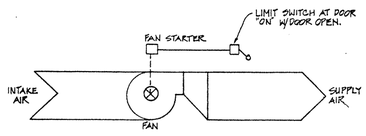




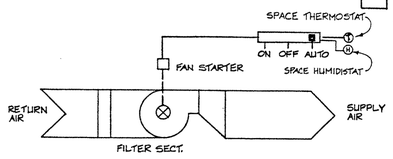
COPY
PLEASE CREDIT
NATIVE PLANT SOCIETY

4 — UNIT HEATER (GAS) - TYPICAL
M1.1 | M2.6 | M1.2 | M1.4
NO SCALE

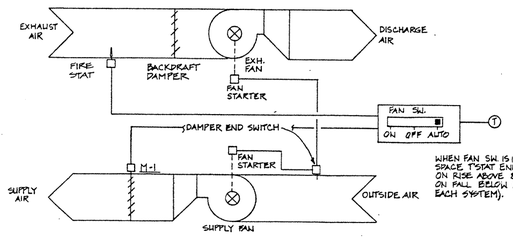
6 — EXHAUST FAN - TYPICAL
M2.6 | M2.6
NO SCALE



7 — FLY FAN
M1.3 | M2.6 | M1.4
NO SCALE



8 — CRU - 1
M1.2 | M2.6
NO SCALE



WHEN FAN SW. IS IN "AUTO" POSITION SPACE T'STAT ENERGIZES FAN'S ON RISE ABOVE 85°F, DE-ENERGIZES ON FALL BELOW 80°F. (TYPICAL OF EACH SYSTEM).

9 — DRY STORAGE VENTILATION
M1.1 | M2.6 | M1.2
NO SCALE

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER, & WOODSMALL
ARCHITECT / ENGINEER
SHAPIRO, OKINO, HOM, AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: C. WETZLER
DRAWN: R. BALTON
CHECKED: C. WETZLER

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

CONTROLS - HVAC

SUBMITTED:
DATE APPROVED:
SCALE:
SHEET M2.6 115of155
SPEC. No. 7283
FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

SAFETY PAYS

FUNCTION ANALYSIS - VE PAYS

AIR CONDITIONING DESIGN DATA

DESIGN AREA	SUMMER OUTSIDE DB	SUMMER OUTSIDE WB	SUMMER INSIDE DB	SUMMER INSIDE % HUMIDITY	WINTER OUTSIDE DB	WINTER INSIDE WB
SALES / CHECKOUT	74	63	75	45	38	68
OFFICE / ADMINISTRATIVE	71	62	78	50	40	68
COMPUTER ROOM	71	62	78	50	40	68
WAREHOUSE	VENTILATION ONLY				40	55

AIR DEVICE

KEY: NO. IF MORE THAN ONE — 4; MARK — A; NECK SIZE — 8; CFM — 250

MARK	TYPE	DESCRIPTION	SP	NC	REMARKS
A	SUPPLY DIFFUSER	4 SLOT LINEAR	.035	14	CONCEALED MOUNTING OF FLANGE FRAME
B	SUPPLY DIFFUSER	24×24 LOUVER, LAY-IN	.08	25	
C	RETURN GRILLE	24×24 LOUVER, LAY-IN	.03	20	
D	EXHAUST GRILLE	24×24 LOUVER, LAY-IN	.03	28	
E	SUPPLY DIFFUSER	6 SLOT LINEAR	.054	30	CONCEALED MOUNTING OF FLANGE FRAME
F	SUPPLY GRILLE	LOUVER, SIZE PER PLAN	.085	28	

FLY FANS

MARK	LOCATION	MAX CFM	MAX VELOCITY	NOZZLE LENGTH	DBA	HP	VOLTS/Ø	REMARKS
FF-1,2	RECEIVING	2 @ 2550	2 @ 3400	2 @ 36"	70	1/2	120/1	UNHEATED
FF-3,4,5	ENTRY	2550	2550	1@ 48"	70	1/2	120/1	UNHEATED
FF-6-9,11	ENTRY	2550	3400	1@ 36"	70	1/2	120/1	UNHEATED
FF-10	ENTRY	4000	3200	1@ 60"	70	1/2	120/1	UNHEATED

SUPPLY AIR FAN

MARK	SERVES	TYPE	CFM	SP	RPM	HP	SONES	VOLTS/Ø	DRIVES	REMARKS
SF-1	DRY STOR.	CENT.	11,000	1/4	2226	7.5	—	460/3	BELT	W/CURB & BDD,
SF-2	DRY STOR.	CENT.	11,000	1/4	2226	7.5	—	460/3	BELT	W/CURB & BDD,
SF-3	MEZZANINE	AXIAL	29,000	1/8	450	5.0	24.0	460/3	BELT	W/CURB, PROVIDE TWO-SPEED THERMOSTATICALLY CONTROLLED MOTOR

EXHAUST FANS

MARK	SERVES	TYPE	CFM	TSP	MAX. RPM	HP	VOLTS/Ø	SONES	DRIVE	REMARKS
EF-1	TOILETS	CENTRIFUGAL	920	1/4	1825	1/6	120/1	12.9	BELT	①
EF-2	TOILETS	CENTRIFUGAL	750	1/4	1615	1/6	120/1	10.6	BELT	①
EF-3	TOILETS/ LOCKERS	CENTRIFUGAL	1630	1/4	1295	1/4	120/1	12.2	BELT	①
EF-4	CART WASH	CENTRIFUGAL	380	1/8	955	1/6	120/1	4.2	BELT	①
EF-5	DRY STOR.	UP-BLAST	5500	1/8	1230	3/4	460/3	—	BELT	①, STEEL CONSTRUCTION ④
EF-6	DRY STOR.	UP-BLAST	5500	1/8	1230	3/4	460/3	—	BELT	①, STEEL CONSTRUCTION ④
EF-7	DRY STOR.	UP-BLAST	5500	1/8	1230	3/4	460/3	—	BELT	①, STEEL CONSTRUCTION ④
EF-8	DRY STOR.	UP-BLAST	5500	1/8	1230	3/4	460/3	—	BELT	①, STEEL CONSTRUCTION. ④
EF-9	SALVAGE	CENTRIFUGAL	400	1/8	955	1/6	120/1	4.2	BELT	①
EF-10	VET INSP.	CENTRIFUGAL	110	1/8	1050	73W	120/1	3.1	DIRECT	①
EF-11	MEAT PREP.	CENTRIFUGAL	1480	1/4	1505	1/4	120/1	12.6	BELT	①, ③
RF-1	AHU-3	CENTRIFUGAL	2680	1/4	1060	1/2	120/1	12.7	BELT	②
RF-2	AHU-4	CENTRIFUGAL	2030	1/4	1082	1/4	120/1	11.0	BELT	②
EF-12	ELECT. RM	CENTRIFUGAL	250	5/8	1550	148W	120/1	7.5	DIRECT	①

① W/CURB, BDD, DISCONNECT, INSECT SCREEN.
② W/CURB, DISCONNECT, & INSECT SCREEN.
③ PROVIDE 30 MINUTE TIMER TO BE LOCATED IN MEAT MANAGER'S OFFICE, #17.
④ THE CHOICE FOR CONSTRUCTION MATERIAL IS AVAILABLE FOR ALL FANS, EXCEPT FOR EF-5 THRU EF-8

REFRIGERATION AIR COOLED CONDENSER UNIT

MARK	MIN. CFM	ENT AIR TEM °F	COND TEMP °F	REFRIG. TYPE	DRIVE	MAX. BHP FAN	VOLTAGE	RPM	MIN. CAPACITY (BTUH), GROSS HEAT REJECTION	REMARKS
CRUC-1	1600	85		22	—	1.0	460/3	1150	50,000	SERVES CRU-1

COMPUTER UNIT (A/C)

MARK	SERVES	FAN DATA CFM	FAN DATA H.P.	FAN DATA E.S.P.	COOLING CAPACITY TOTAL COOLING	COOLING CAPACITY SENS. COOLING	ENTERING AIR DB	ENTERING AIR WB	ENT. WATER TEMP.	GPM	P.D.	HEATING CAP. BTUH	HEATING CAP. K.W.	HUMIDIFICATION CAP. LBS/HR	HUMIDIFICATION K.W.	VOLTS/Ø	UNIT F.L.A.	REMARKS
CRU-1	COMPUTER ROOM	1600	3/4"	0.3	40,000 BTUH	33,000 BTUH	75	61	N/A	N/A	N/A	32,625	9.0	11.0	4.8	460/3	1.8	ALL CAPACITIES ARE MINIMUM AND CAN BE MET BY TWO OTHER MFGRS.

AIR HANDLING UNIT SCHEDULE

MARK	SERVES	LOCATION	FAN DATA CFM	* ESP	TSP	TYPE	MAX/ BHP/MHP	VOLTS/Ø	COILS COOLING	COILS HEATING	COILS PREHEAT	AIR FILTER	REMARKS
AHU-1	SALES/CHECKOUT	MEZZANINE	33,000	3.50	3.63	AF	25.5/30.0	460/3	CC-1	—	—	—	
AHU-2	AHU-1	MEZZANINE	6,600	1.0	2.17	FC	3.5/5.0	460/3	CC-2	—	—	—	W/INLET VANES
AHU-3	ADMIN.	CEILING	3,260	1.5	1.98	FC	1.7/2.0	460/3	CC-3	—	—	—	
AHU-4	MANAGEMENT	MEZZANINE	2,030	1.5	1.60	FC	0.9/1.0	460/3	CC-4	—	—	—	
AHU-5	MANAGEMENT	CEILING	1,940	1.5	1.69	FC	0.8/1.0	460/3	CC-5	—	—	—	

* INCLUDES ALL LOSSES EXCEPT COILS.

DX COOLING COIL DATA

MARK	SERVES	CFM	MAX FACE VELOCITY	CAP. MBH. SENS	CAP. MBH. TOTAL	ENT. AIR DB	ENT. AIR WB	LV. AIR DB	LV. AIR WB	REFRIG. TYPE	REFRIG. SST	COIL CKT	COIL ROWS	COIL FPF	MAX APD (INCH. OF WATER)	REMARKS
CC-1	AHU-1	33,000	524	154.0	156.5	61.9	54.6	57.6	52.8	—	46.5°	—	2	—	0.13	COPPER TUBES ALUMINUN FINS
CC-2	AHU-2	6,600	391	229.9	369.0	74.0	63.0	41.9	41.8	—	38.0°	—	8	—	1.17	COPPER TUBES & FINS
CC-3	AHU-3	3,260	580	47.4	56.9	71.0	62.0	57.6	56.1	—	46.0°	—	4	—	0.48	COPPER TUBES & FINS
CC-4	AHU-4	2,030	361	22.9	30.8	71.0	62.0	60.6	56.9	—	42.0°	—	2	—	0.10	COPPER TUBES & FINS
CC-5	AHU-5	1,940	345	28.8	34.5	71.0	62.0	57.3	56.0	—	48.0°	—	4	—	0.19	COPPER TUBES & FINS

DX CONDENSING UNIT

MARK	SERVES	LOCATION	MBH	AMB. TEMP.	COND. FANS TOTAL HP	* UNIT MAX KW	UNIT MAX FLA	* EER/ SEER	UNIT VOLTS/Ø	SST(°F)	REMARKS
CU-1	CC-1	ROOF	156.5	74	—	12.08 TOT	25.8	9.85/NA	460/3	44.5°	ALL COPPER CONDENSER COILS, 2 INDEPENDENT CIRCUITS 100-50-0
CU-2	CC-2	ROOF	369.0	74	—	32.50 TOT	52.8	10.5/NA	460/3	36.0°	ALL COPPER CONDENSER COILS, UNLOADING-100-67-33-0
CU-3	CC-3	ROOF	56.9	74	—	5.98 TOT	9.1	8.4/NA	460/3	44.0°	HERESITE COAT CONDENSER COIL
CU-4	CC-4	ROOF	30.8	74	—	3.57 TOT	15.1	NA/9.0	208/1	40.0°	HERESITE COAT CONDENSER COIL
CU-5	CC-5	GROUND	34.5	74	—	3.57 TOT	15.1	NA/9.0	208/1	46.0°	HERESITE COAT CONDENSER COIL

* @ ARI CONDITIONS (MINIMUM).

GAS DUCT HEATER*

MARK	SERVES	MBH INPUT	MIN. MBH OUTPUT	CFM THRU DUCT FURNACE	EAT LAT	MAX. PD.	FUEL	LOCATION	REMARKS
DF-1	SALES/ CHECKOUT	300.0	231.0	5000	51.0/93.6	0.26	NAT. GAS	MEZZANINE	321 S.S. H.E. & DRAIN PAN, TIME DELAY, ELECTRIC IGNITION
DF-2	ADMIN.	150.0	115.5	3260	65.0/97.7	0.39	NAT. GAS	CEILING	321 S.S. H.E. & DRAIN PAN, TIME DELAY, ELECTRIC IGNITION
DF-3	MGMT.	100.0	77.0	2030	65.0/100.0	0.34	NAT. GAS	MEZZANINE	321 S.S. H.E. & DRAIN PAN, TIME DELAY, ELECTRIC IGNITION
DF-4	MGMT.	100.0	77.0	1940	65.0/101.6	0.32	NAT. GAS	CEILING	321 S.S H.E. & DRAIN PAN, TIME DELAY, ELECTRIC IGNITION

* SIZE FLUE ACCORDING TO MANUFACTURER'S SPECIFICATIONS (DATA).

GAS UNIT HEATER

MARK	SERVES	EAT/LAT	MBH INPUT	MIN. MBH OUTPUT	CFM	* THROW	HP	VOLTS/Ø	FUEL	REMARKS **
UH-1	CORRIDOR	65/116	75	60.8	1100	35	1/30	120/1	NAT. GAS	409 S.S. HT. EXCHANGER, MOUNT 22' A.F.F., ELECTRIC IGNITION
UH-2	CORRIDOR	65/116	75	60.8	1100	35	1/30	120/1	NAT. GAS	409 S.S. HT. EXCHANGER, MOUNT 22' A.F.F., ELECTRIC IGNITION
UH-3	STORAGE	65/116	75	60.8	1100	35	1/30	120/1	NAT. GAS	409 S.S. HT. EXCHANGER, MOUNT 22' A.F.F., ELECTRIC IGNITION
UH-4	STORAGE	65/116	75	60.8	1100	35	1/30	120/1	NAT. GAS	409 S.S. HT. EXCHANGER, MOUNT 22' A.F.F., ELECTRIC IGNITION
UH-5	STORAGE	65/116	75	60.8	1100	35	1/30	120/1	NAT. GAS	409 S.S. HT. EXCHANGER, MOUNT 22' A.F.F., ELECTRIC IGNITION
UH-6	STORAGE	65/116	75	60.8	1100	35	1/30	120/1	NAT. GAS	409 S.S. HT. EXCHANGER, MOUNT 22' A.F.F., ELECTRIC IGNITION
UH-7	STORAGE	65/116	75	60.8	1100	35	1/30	120/1	NAT. GAS	409 S.S. HT. EXCHANGER, MOUNT 22' A.F.F., ELECTRIC IGNITION
UH-8	STORAGE	65/116	75	60.8	1100	35	1/30	120/1	NAT. GAS	409 S.S. HT. EXCHANGER, MOUNT 22' A.F.F., ELECTRIC IGNITION
UH-9	STORAGE	65/116	75	60.8	1100	35	1/30	120/1	NAT. GAS	409 S.S. HT. EXCHANGER, MOUNT 22' A.F.F., ELECTRIC IGNITION

* AT 10' MOUNTING HEIGHT.
** SIZE FLUE ACCORDING TO MANUFACTURER'S SPECIFICATIONS (DATA).

REVISION	DATE	DESCRIPTION	BY	BY

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: C. WETZLER
DRAWN: R. BALTON
CHECKED: C. WETZLER

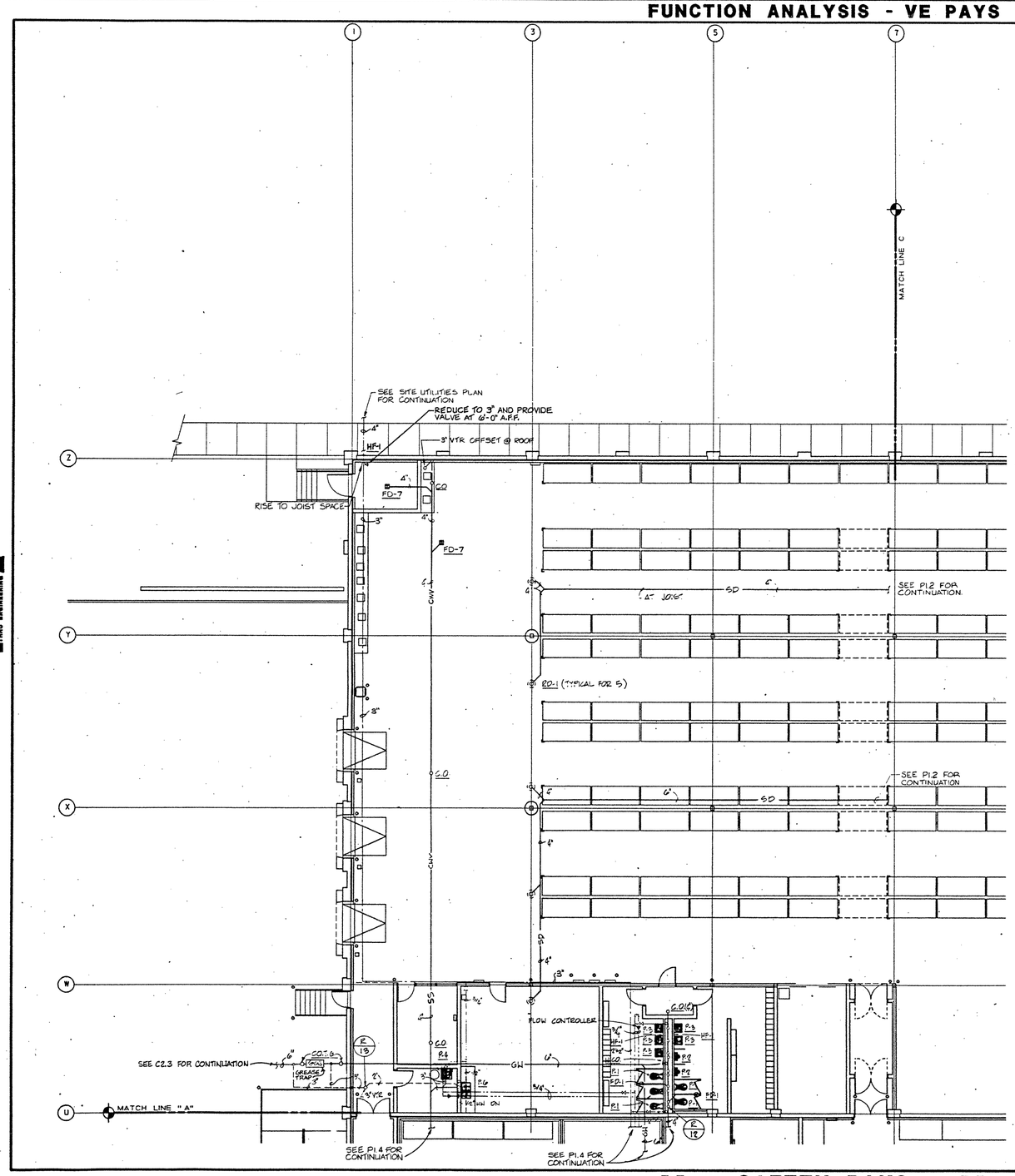
PRESIDIO OF SAN FRANCISCO — CALIFORNIA
COMMISSARY BUILDING
SCHEDULES - HVAC

SUBMITTED: | DATE APPROVED: | SCALE: NONE | SPEC No. 7283
SHEET M3.1 (116 OF 155) | FILE No. 192-25-504

ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

DRAWING REDUCED ONE HALF SIZE

SAFETY PAYS

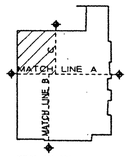


LEGEND	
MARK	DESCRIPTIONS
—SS—	SANITARY SEWER
—CWV—	COMBINATION WASTE & VENT
—GW—	GREASE WASTE
—SD—	STORM DRAIN
— — —	DOMESTIC COLD WATER
— — —	DOMESTIC HOT WATER
— — —	DOMESTIC H. W. RECIRCULATION
HF-	HOSE FAUCET
WF-	WALL FAUCET
RD-	ROOF DRAIN
FD-	FLOOR DRAIN
CO	CLEANOUT
COTG	CLEANOUT TO GRADE
VTR	VENT TO ROOF

1 P1.1 PLUMBING PLAN – DRY STORAGE
1/8"=1'-0"

PROJECT NORTH

0 4' 8' 16' 24'



DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: E. GREENING
DRAWN: E. GREENING
CHECKED: W. WOODSMALL
SUBMITTED:
DATE APPROVED:

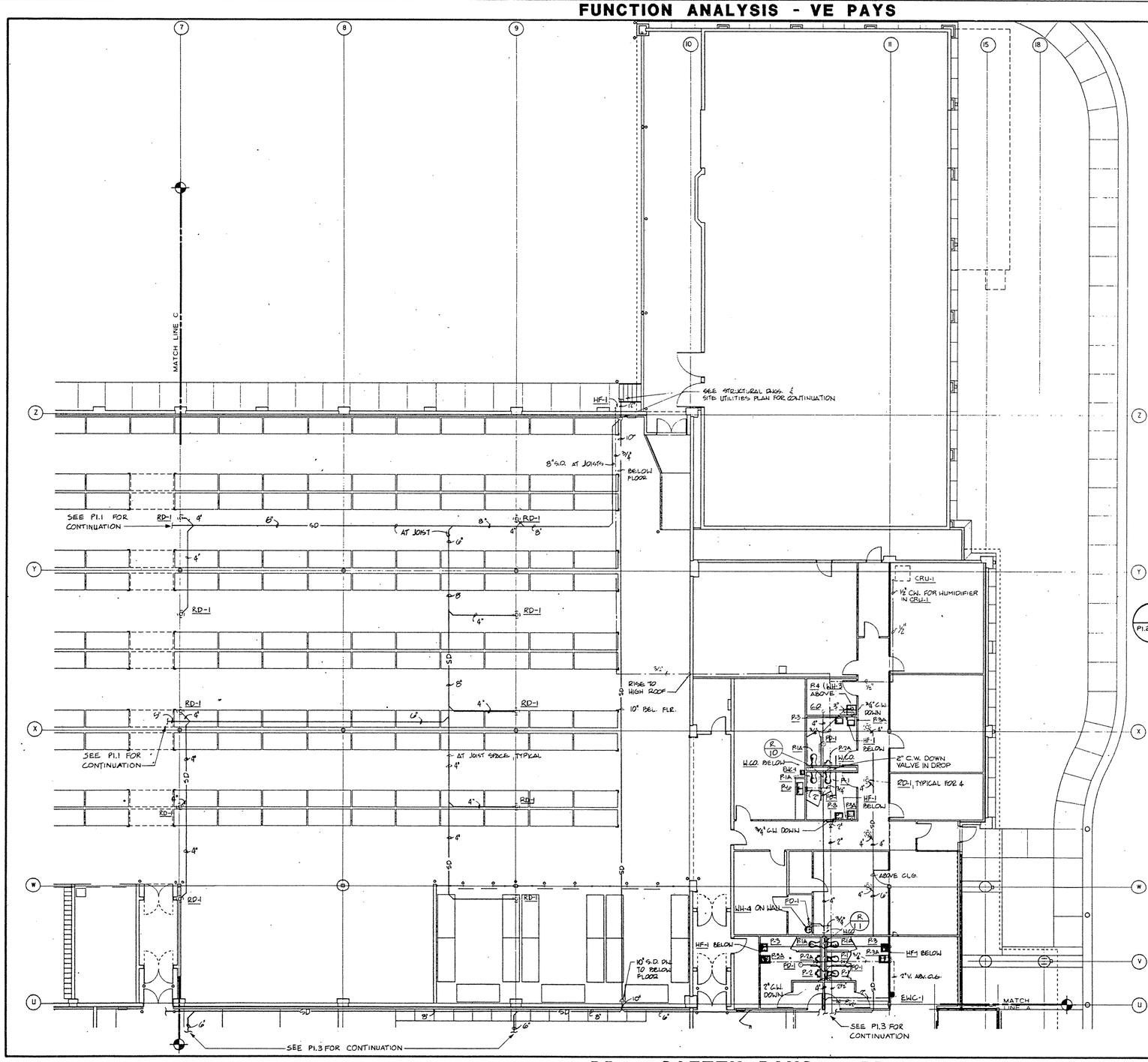
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING

PLUMBING PLAN-DRY STORAGE

SCALE: 1/8"=1'-0" | SPEC No. 7283
SHEET: P1.1 (17 of 155) | FILE No. 192-25-504

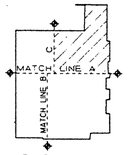
FUNCTION ANALYSIS - VE PAYS



1 P1.2 P1.2 PLUMBING PLAN - DRY STORAGE/ADMIN
1/8" = 1'-0"

PROJECT NORTH

0 4' 8' 16' 24'



KEY PLAN

ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY

DROMALLI, TRUEMPER, LEU, PARKER & WOODSMALL ARCHITECT - ENGINEER
SHAPIRO, DENC, HOW AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

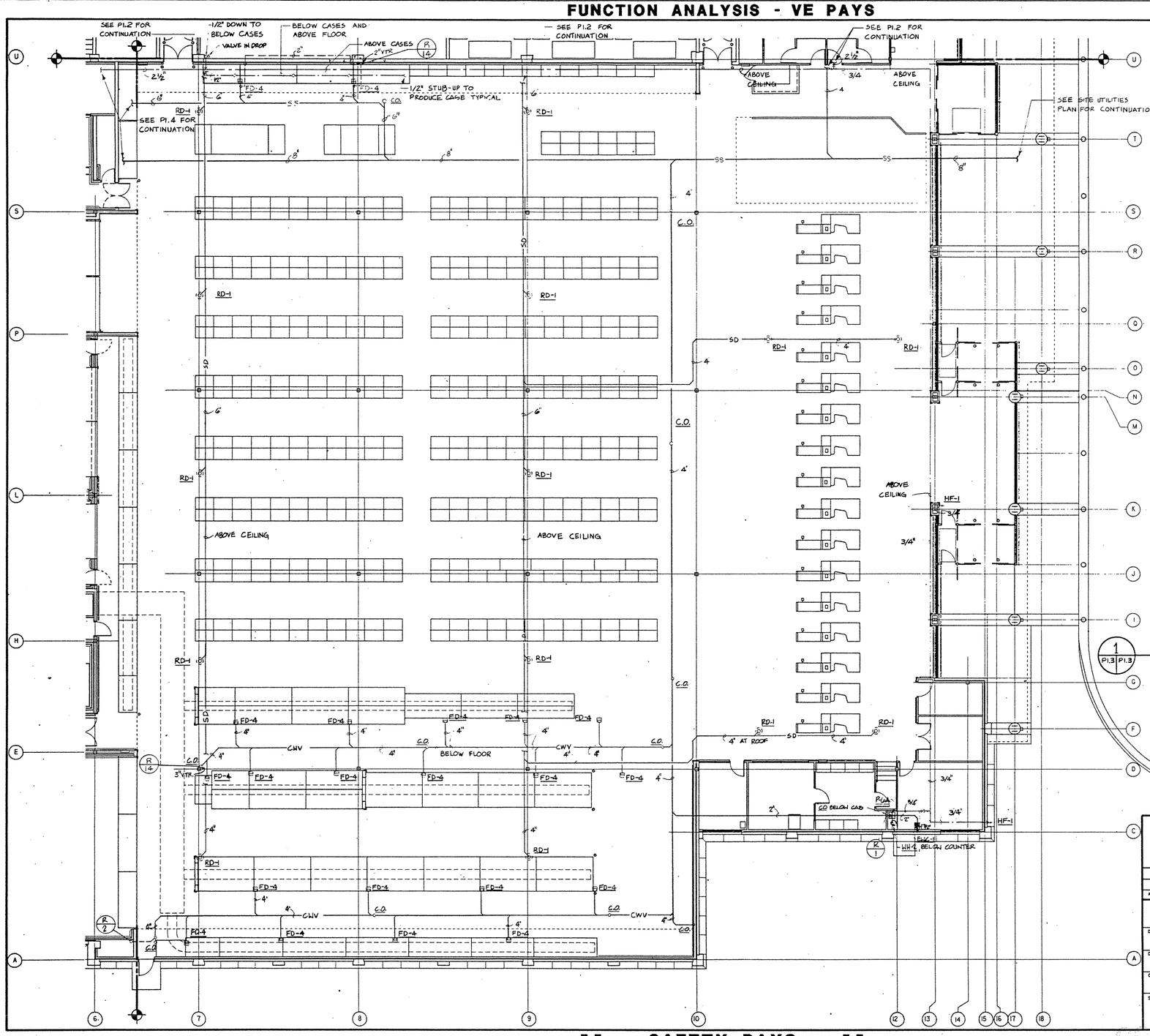
DESIGNED: E. GREENING
DRAWN: E. GREENING
CHECKED: W. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
PLUMBING PLAN - DRY STORAGE/ADMIN

SUBMITTED: DATE APPROVED:
SCALE: 1/8" = 1'-0" SPEC No. 7283
SHEET P1.2 (12 of 155) FILE No. 192-25-504

SAFETY PAYS



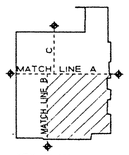
PROJECT NORTH

NORTH

1 P1.3 | P1.3 PLUMBING PLAN-SALES/CHECKOUT

1/8" = 1'-0"

0 4' 8' 16' 24'



KEY PLAN

DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY

CROWNE, PREMPER, LEVY, PARKER & WOODSMALL ARCHITECT ENGINEER
SHAPIRO, DAVIS, HOW AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: E. GREENING
DRAWN: E. GREENING
CHECKED: W. WOODSMALL
SUBMITTED:
DATE APPROVED:

PRESIDIO OF SAN FRANCISCO CALIFORNIA

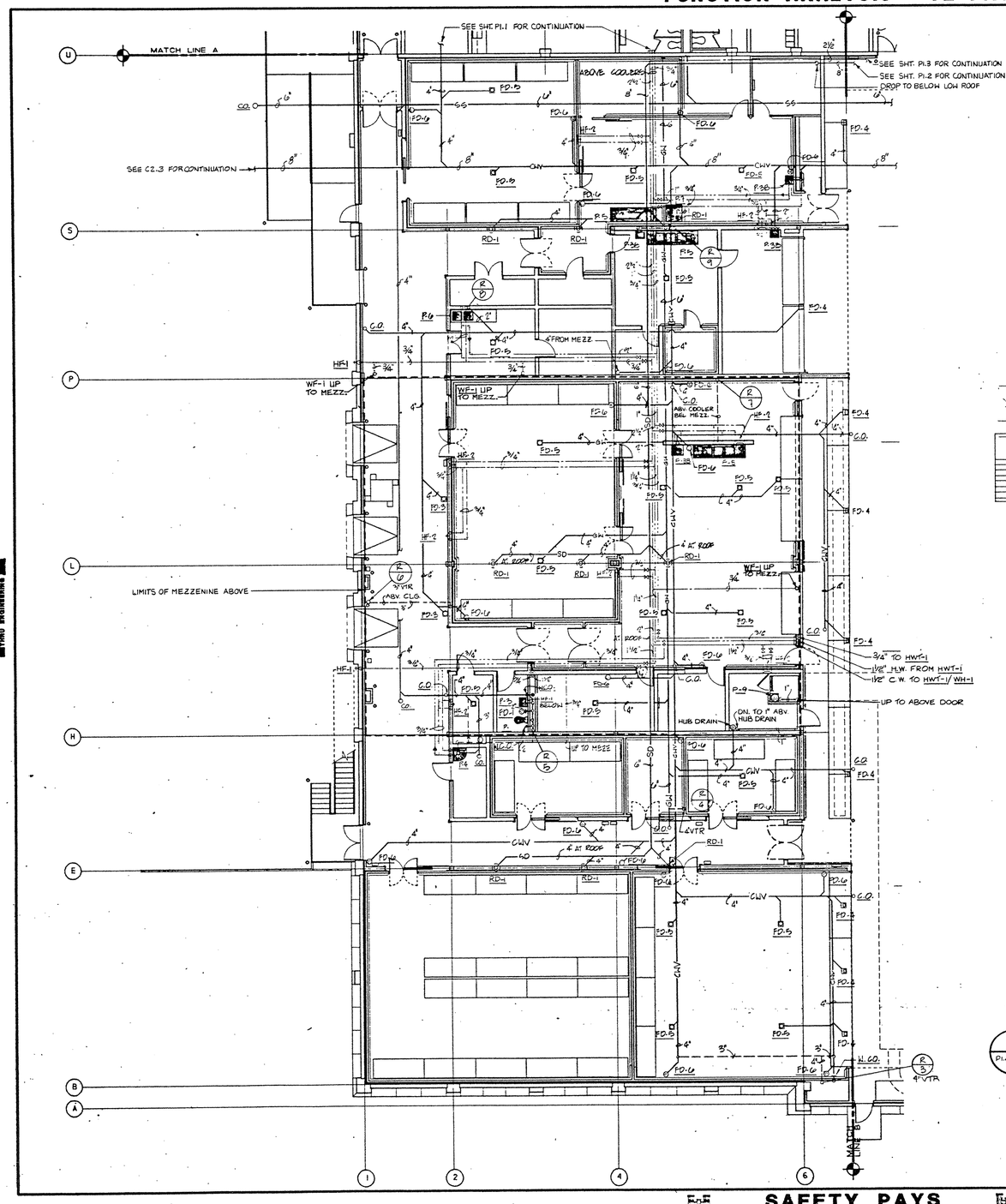
COMMISSARY BUILDING

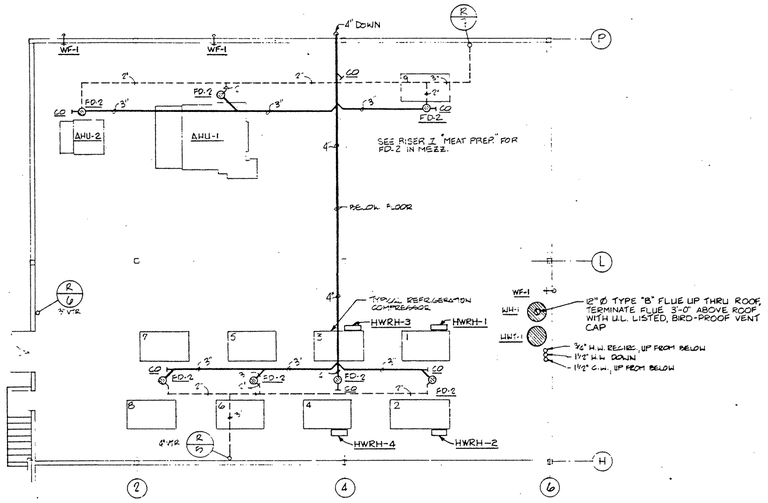
PLUMBING PLAN-SALES/CHECKOUT

SCALE: 1/8" = 1'-0" | SPEC No. 7283

SHEET P1.3 (119 of 155) | FILE No. 192-25-504

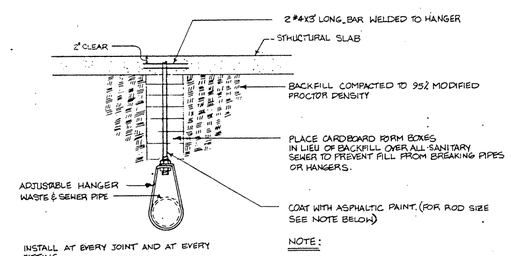
FUNCTION ANALYSIS - VE PAYS





2 P1.4 | P1.4 PLUMBING PLAN–MEZZANINE

1/8"=1'-0"

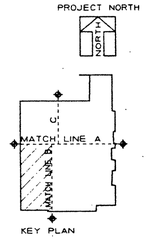


NOTE:

PIPE SIZE	ROD SIZE
4"	5/8"
6"	3/4"
8"	7/8"

3 P1.4 | P1.4 SANITARY SEWER PIPE SUPPORT BELOW SLAB

NO SCALE



1 P1.4 | P1.4 PLUMBING PLAN–PERISHABLE STORAGE

1/8"=1'-0"

0 4' 8' 16' 24'

COPY

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROWNE, TRUEMPER, LEE, PARADE & WOODSMALL ARCHITECT-ENGINEER
SHAPIRO, DUNG, HON AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: E. GREENING
DRAWN: E. GREENING
CHECKED: W. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

PLUMBING PLAN–PERISHABLE STORAGE

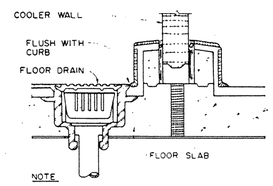
SUBMITTED: DATE APPROVED:

SCALE: 1/8" = 1'-0" | SPEC No. 7283
SHEET P1.4 120 OF 155 | FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

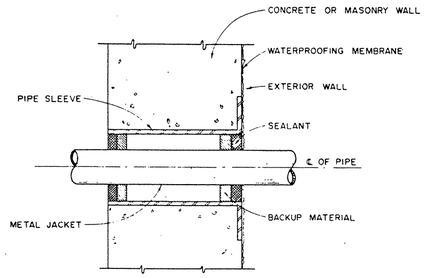
ENVIRONMENTAL ARCHITECTURE ENGINEERING PLANNING

SAFETY PAYS

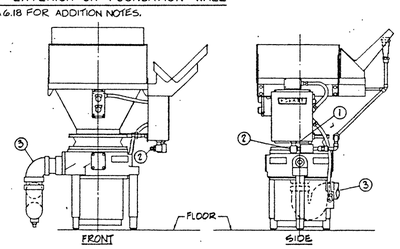


NOTE
1. FOR LOCATION, SEE PLANS
2. SEE ARCH DWGS FOR FLOOR/WALL DETAILS

1 P2.1 | P2.1 CONDENSATE FLOOR DRAIN AT COOLER WALL
NO SCALE

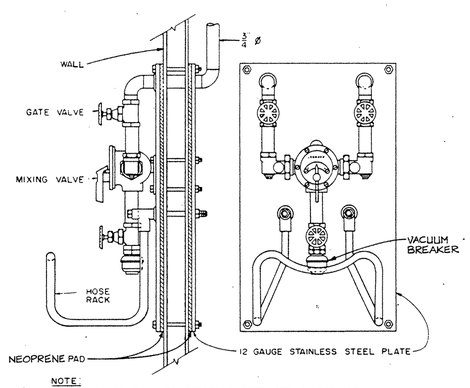


2 P2.1 | P2.1 PIPE SLEEVE THRU EXTERIOR OR FOUNDATION WALL
NO SCALE
SEE DT'L. 14/A6.18 FOR ADDITION NOTES.



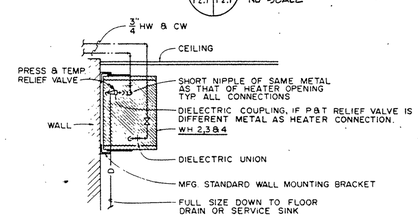
① ELECTRICAL CONNECTION - 3/4"
② WATER CONNECTION - 3/4" STD. FEMALE PIPE THREAD
③ DRAIN 1½" TRAP - 3" (LENGTH OF NIPPLE TO TRAP MUST NOT EXCEED 6")

4 P2.1 | P2.1 PRODUCE WASTE DISPOSER (P-7)
NO SCALE

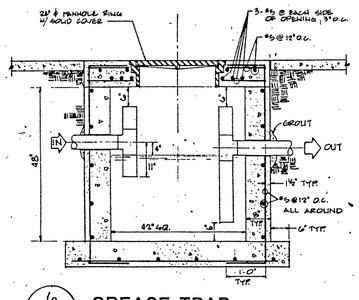


NOTE:
1. PROVIDE 20'-0" OF REINFORCED RUBBER STEAM HOSE AND INSULATED ADJUSTABLE NOZZLE (STRAIGHT STREAM OR SPRAY) FOR 3/4 THREAD HOSE END

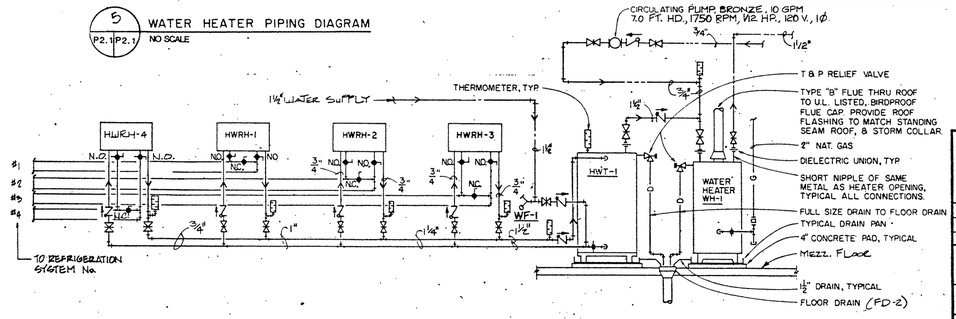
3 P2.1 | P2.1 HOSE BIBB AND RACK DETAIL (HF-2)
NO SCALE



5 P2.1 | P2.1 WATER HEATER PIPING DIAGRAM
NO SCALE



6 P2.1 | P2.1 GREASE TRAP
NO SCALE



7 P2.1 | P2.1 HEAT RECLAIM WATER HEATER
NO SCALE

PLUMBING FIXTURE SCHEDULE LEGEND

ITEM	FIXTURE	WASTE	COLD	HOT	*** VENT
P-1	WATER CLOSET, WALL MOUNTED	4"	1"	—	2"
P-1A	WATER CLOSET, HANDICAPPED, WALL MTD.	4"	1"	—	2"
P-2	URINAL, WALL MOUNTED	2"	3/4"	—	1½"
P-2A	URINAL, HANDICAPPED	3"	1"	—	1½"
P-3	LAVATORY, WALL MOUNTED	2"	1/2"	1/2"	1½"
P-3A	LAVATORY, HANDICAPPED, WALL MOUNTED	2"	1/2"	1/2"	1½"
P-3B	LAVATORY, FOOT OPERATED	2"	1/2"	1/2"	1½"
P-4	SERVICE SINK, FLOOR MOUNTED	3"	3/4"	3/4"	1½"
P-5	SINK, 3 COMP, TWO DRAIN BOARDS	3"	3/4"	3/4"	1½"
P-6	SINK, 2 COMP, COUNTER MOUNTED, 3/4 HP DISPOSER	2"	1/2"	1/2"	1½"
P-7	DISPOSER, 5 HP, FREE STANDING	3"	3/4"	—	2"
	NOT USED				
** P-9	SUMP PUMP	1"	—	—	—
* P-8 (EWC)	ELEC WATER COOLER, HANDICAPPED ACCESSABLE	2"	1/2"	—	1½"
HF-1	HOSE FAUCET	—	3/4"	—	—
HF-2	HOSE FAUCET, WITH HOSE RACK	—	3/4"	—	—
WF-1	WALL FAUCET,	—	3/4"	—	—
RD-1	ROOF DRAIN & DECK DRAIN	4"	—	—	—
FD-1	TOILET FLOOR DRAIN	2"	—	—	1½"
FD-2	MECH & BOILER ROOM FLOOR DRAIN	2", 3"	—	—	1½"
FD-3	RECEIVING FLOOR DRAIN	3"	—	—	1½"
FD-4	CASE FLOOR DRAIN	3"	—	—	1½"
FD-5	GREASE & DAIRY FLOOR DRAIN	4"	—	—	2"
FD-6	CONDENSATE FLOOR DRAIN	3"	—	—	1½"
FD-7	ACID RESISTANT FLOOR DRAIN	3"	—	—	1½"
P-6A	SINK, 1 COMP, COUNTER MOUNTED	2"	1/2"	1/2"	1½"

* 7 GPH DRINKING WATER DELIVERED AT 50°F WITH 80°F INLET WATER AND 90°F ROOM TEMPERATURE. 1/5 HP, 115 V/1ϕ, WALL MOUNTED

** CAST IRON MOTOR HOUSING AND PUMP CASING, MERCURY LEVEL SWITCH SEALED IN POLYPROPYLENE FLOAT, 1/3 H.P. 36 GPM @ 10 FT. HD., 120 V, 1ϕ. PROVIDE CHECK VALVE AT DISCHARGE OUTLET OF PUMP.

*** UNLESS SHOWN OTHERWISE ON RISER DIAGRAM.

WATER HAMMER ARRESTOR

MARK	RISER LOCATION	FIXTURE UNITS	P.D.I. SIZE	REMARKS
A-1	5, 7, 8, 9, 10, 11	1 - 11	A	BELLOWS TYPE
A-2	5, 10	12 - 32	B	BELLOWS TYPE
A-3	11, 12	33 - 60	C	BELLOWS TYPE

NOTE:
1. FOR WATER HAMMER LOCATION, SEE DRWG. P2.2

WATER HEATER SCHEDULE

MARK	STG. CAP	RECOVERY	FUEL	INPUT	OP. TEMP	LOCATION	SERVES	QNTY	REMARKS
WH-1	250 GAL	840 GPH 100°F RISE	NAT GAS	1,000,000 BTUH	140°F	MECH MEZZ	DOM HOT WATER	1	ASME CONSTR., 14" ϕ FLUE
HWT-1	100 GAL	—	—	—	140°F	MECH MEZZ	DOM HOT WATER	1	ASME CONSTR.
WH-2	10 GAL	—	ELEC	2000 WATTS	110°F	BRK. RM. 4	DOM HOT WATER	1	
WH-3	20 GAL.	—	ELEC	2000 WATTS	140°F	JAN 42	DOM HOT WATER	1	
WH-4	20 GAL.	—	ELEC	2000 WATTS	140°F	STG. 67	DOM HOT WATER	1	

COPY
PLANS & SPECIFICATIONS
NOT FOR SERVICE
CONSTRUCTION

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROMELL, TREMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, DERING, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
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SACRAMENTO, CALIFORNIA

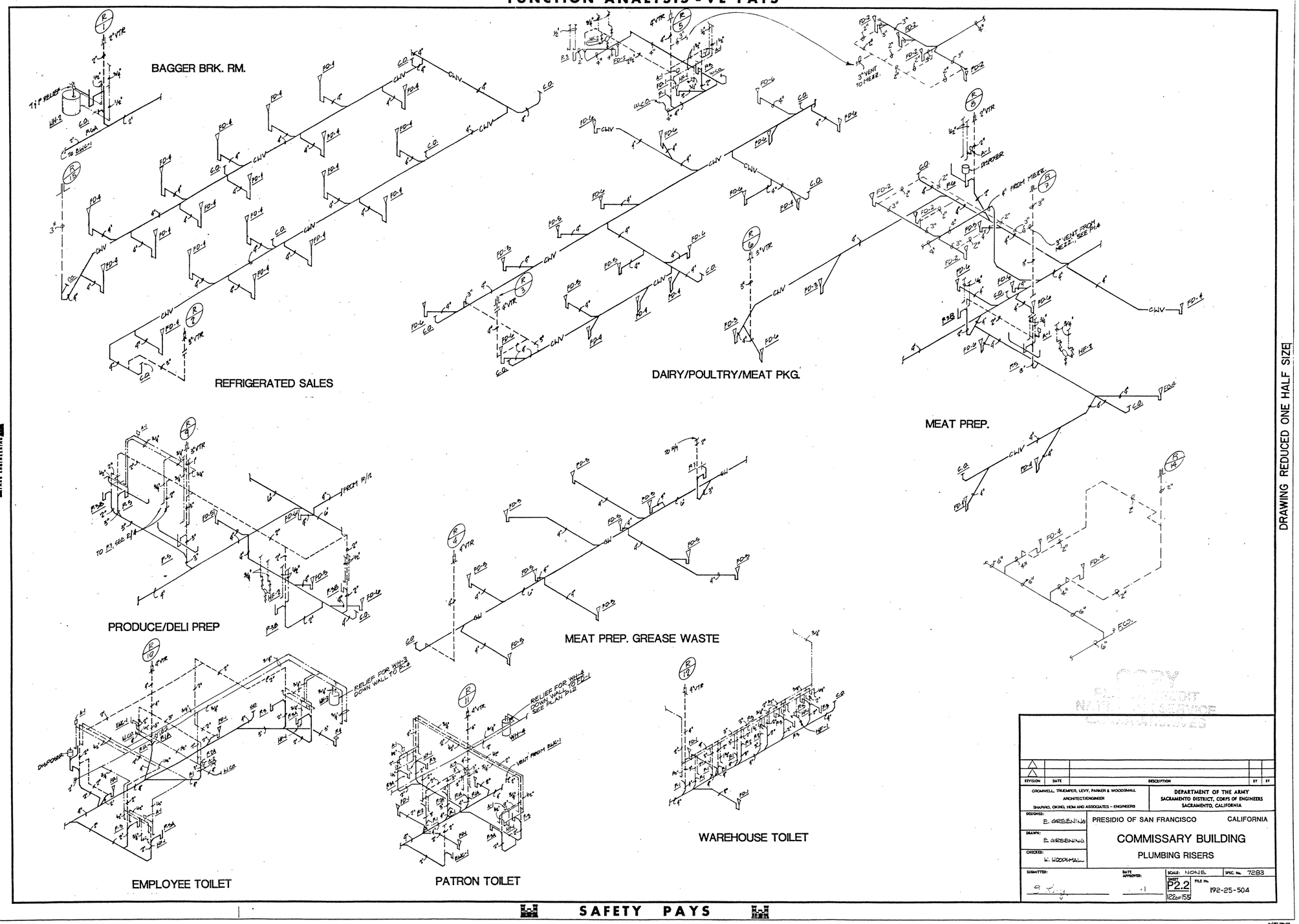
DESIGNED: E. GREENING
DRAWN: E. GREENING
CHECKED: W. WOODSMALL
SUBMITTED:
DATE APPROVED:

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
DETAILS - PLUMBING

SCALE: NONE
SHEET P2.1 121 of 155
SPEC. No. 7283
FILE No. 92-25-504

DRAWING REDUCED ONE HALF SIZE



REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
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DATE APPROVED:

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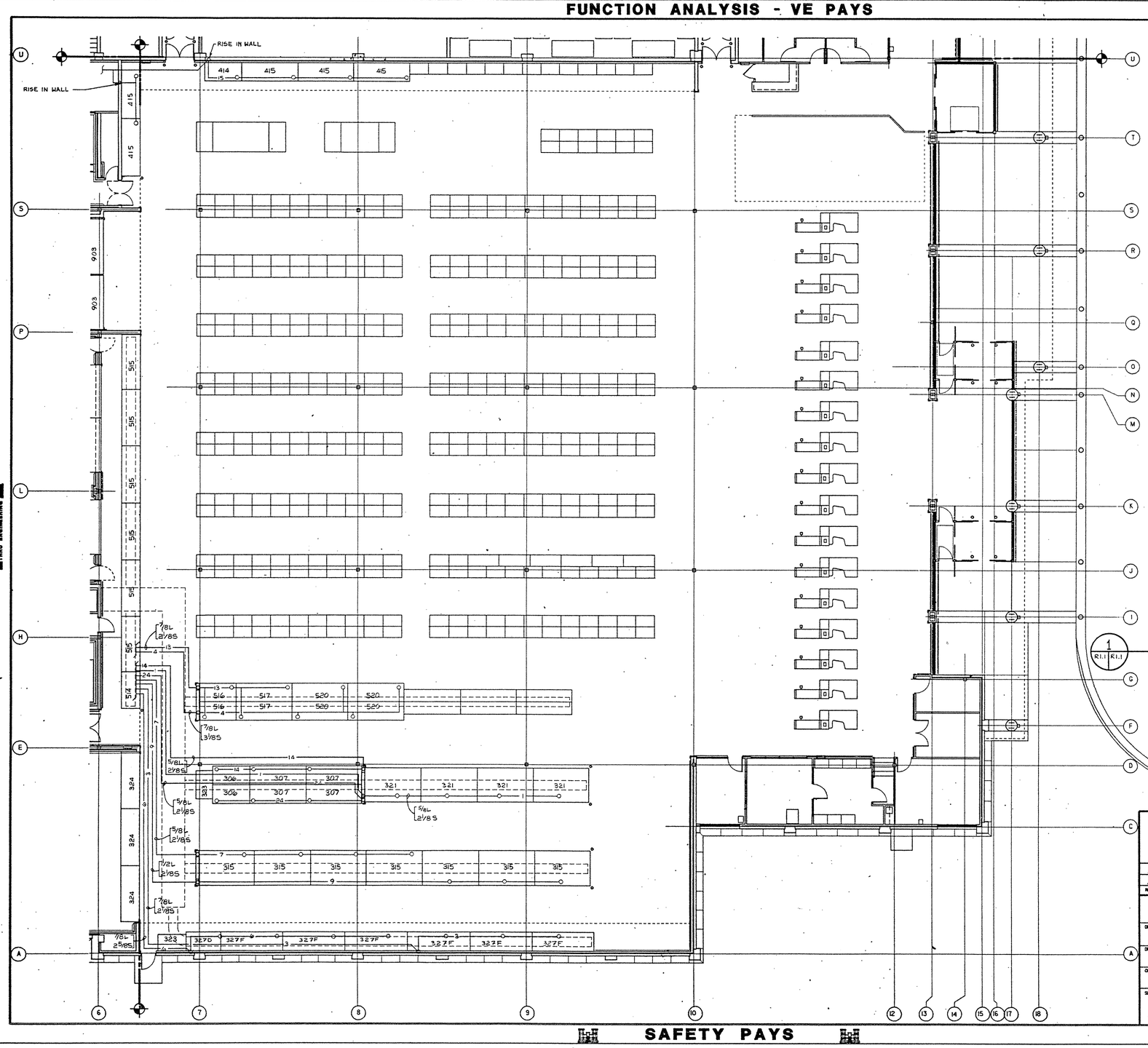
COMMISSARY BUILDING

PLUMBING RISERS

SCALE: NONE SPEC. No. 7283
SHEET P2.2 (22 of 155) FILE No. 192-25-504

FUNCTION ANALYSIS - VE PAYS



PROJECT NORTH

NORTH

DRAWING REDUCED ONE HALF SIZE

1 R1.1 R1.1

SALES/CHECKOUT – REFRIGERATION

1/8" = 1'-0"

0 4' 8' 16' 24'

MATCH LINE A

MATCH LINE B

KEY PLAN

ENVIRONMENTAL ENGINEERING

Presidio Commissary
Sales/Checkout - Refrigeration

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL TRUEMPER, LEVY, PARKER & WOODSMALL
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CHECKED: W. WOODSMALL
SUBMITTED:
DATE APPROVED:

PRESIDIO OF SAN FRANCISCO CALIFORNIA

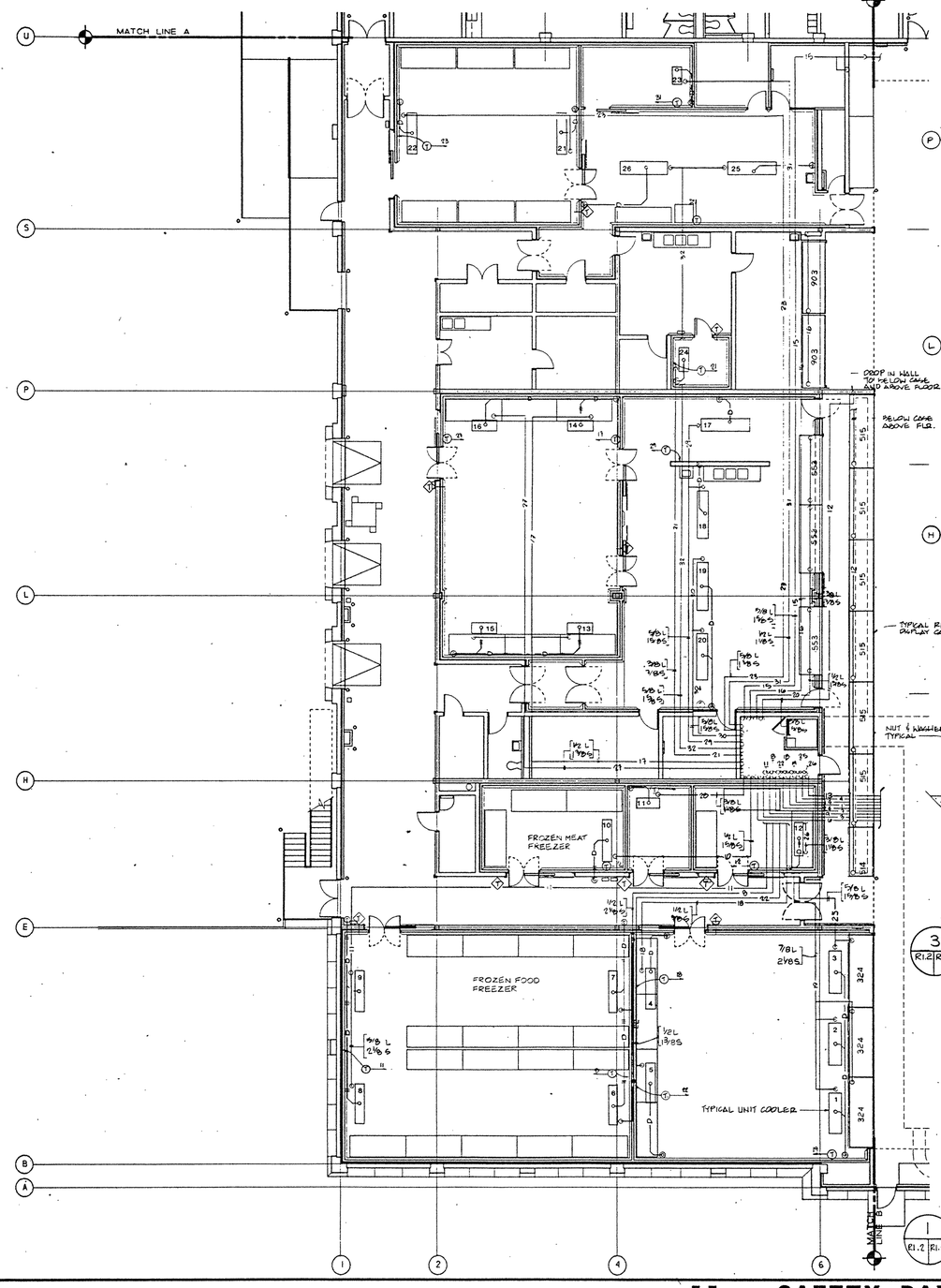
COMMISSARY BUILDING

SALES/CHECKOUT - REFRIGERATION

SCALE: 1/8" = 1'-0" SPEC No. 7283
SHEET R1.1 23 of 155
FILE No. 192-25-504

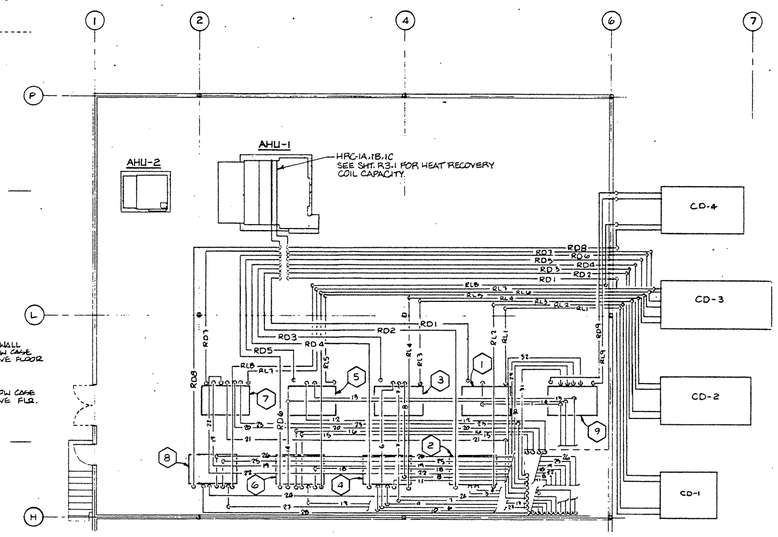
SAFETY PAYS

FUNCTION ANALYSIS - VE PAYS



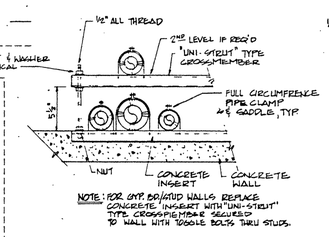
1 R1.2 | R1.2 REFRIGERATED STORAGE - REFRIGERATION

1/8" = 1'-0"



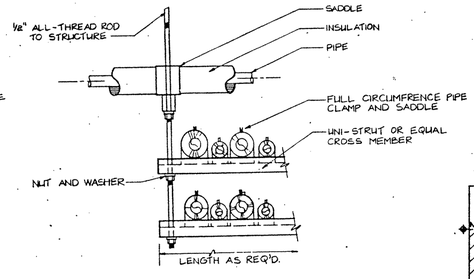
2 R1.2 | R1.2 MECHANICAL MEZZANINE - REFRIGERATION

1/8" = 1'-0"



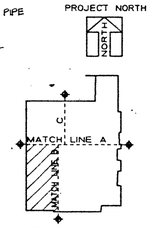
3 R1.2 | R1.2 WALL MOUNTED PIPING

NO SCALE



4 R1.2 | R1.2 REFRIGERATION PIPING TRAPEZE

NO SCALE



LEGEND

- 18 — UNIT COOLER & MARK NO.
- 5/15 — REFRIGERATED DISPLAY CASE & MARK NO.
- T 50 — THERMOSTAT & CT. CONTROLLED
- T — THERMOMETER & ROOM PROBE
- 1 — COMPRESSOR SYSTEM NO.

0 4' 8' 16' 24'

REVISION	DATE	DESCRIPTION	BY	BY

CROWNE, TRUEMPER, LEVY, PARKER & WOODSMALL ARCHITECT-ENGINEER
SHAPIRO, DONOVAN AND ASSOCIATES - ENGINEERS

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PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING
REFRIGERATED STORAGE & MECHANICAL MEZZ. - REFRIGERATION

SUBMITTED: DATE APPROVED:

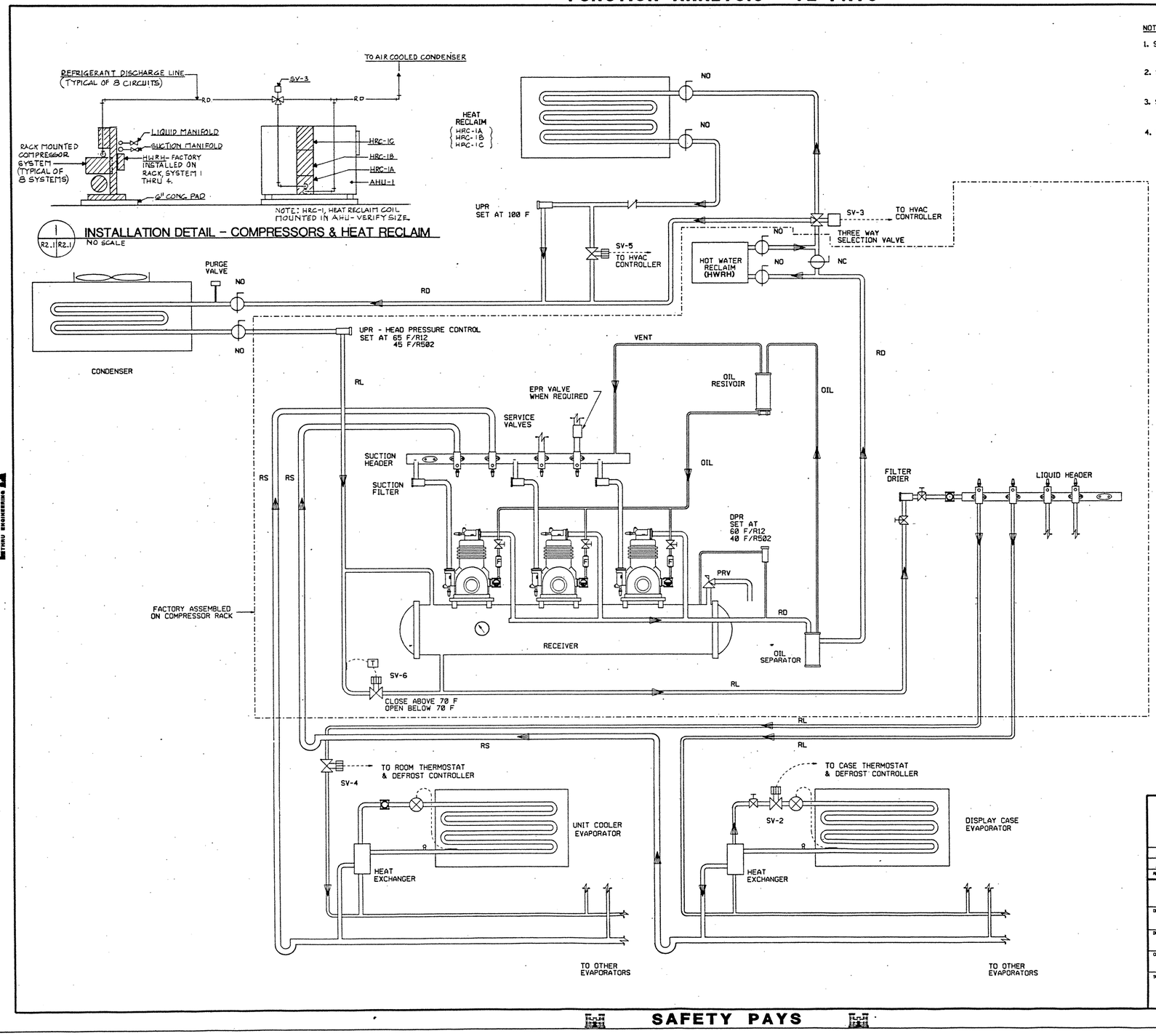
SCALE: 1/8" = 1'-0" | SPEC No. 7283
SHEET R1.2 (24 of 55) | FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

Presidio Commissary
Refrigerated Storage - Refrigeration

SAFETY PAYS

FUNCTION ANALYSIS - VE PAYS



NOTES:

1. SV-3 VALVE ON ALL SYSTEMS SHALL BE CONTROLLED BY THE 1ST STAGE OF HEATING.
2. SV-5 VALVES ON MEDIUM TEMP SYSTEM SHALL BE CONTROLLED BY THE 2ND STAGE OF HEATING.
3. SV-5 VALVES ON LOW TEMP SYSTEM SHALL BE CONTROLLED BY THE 3RD STAGE OF HEATING.
4. PROVIDE BLIND FLANGE FOR CONNECTION OF SERVICE VALVE ON LIQUID & SUCTION HEADERS.

	PACKLESS HAND VALVE
	SOLENOID VALVE (SV)
	UP OR DOWN STREAM PRESSURE REGULATOR (UPR-DPR)
	CHECK VALVE
	BALL VALVE
	THERMOSTAT EXPANSION VALVE
	SIGHT GLASS & MOISTURE INDICATOR
RL	REFRIGERANT LIQUID
RD	REFRIGERANT DISCHARGE
RS	REFRIGERANT SUCTION
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
R	SCHRAEDER TYPE VALVE
EPR	EVAPORATOR PRESSURE REGULATOR
T	THERMOSTAT
	OIL LEVEL CONTROL
F	OIL FILTER

DRAWING REDUCED ONE HALF SIZE

ENVIRONMENTAL ENHANCEMENT ETHOS ENGINEERING

REVISION	DATE	DESCRIPTION	BY	BY
△				
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CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL ARCHITECT/ENGINEER
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DATE APPROVED:

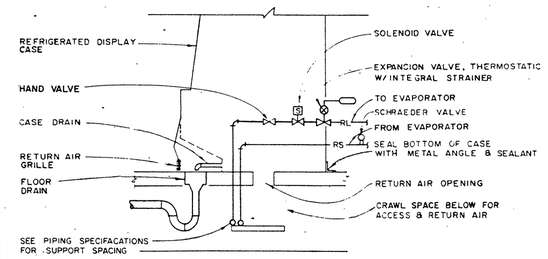
PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

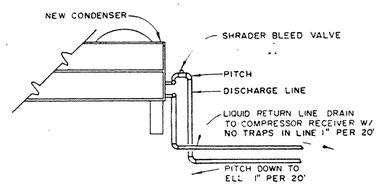
REFRIGERATION SCHEMATIC

SCALE: NO SCALE | SPEC No. 7283
SHEET R2.1 25 OF 155
FILE No. 92-25-504

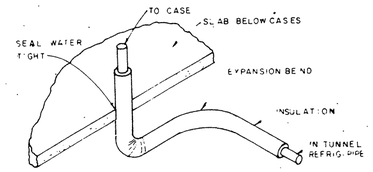
SAFETY PAYS



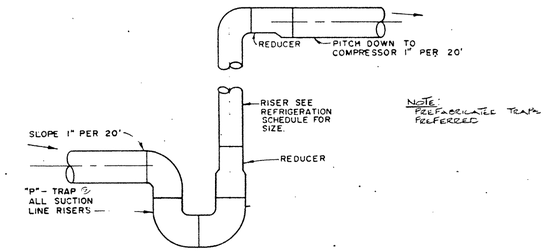
1 R2.1 | R2.1 CASE PIPING SCHEMATIC
NO SCALE



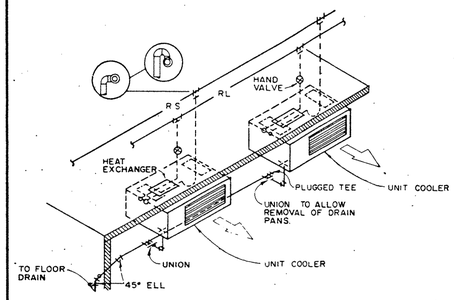
2 R2.1 | R2.1 CONDENSER PIPING
NO SCALE



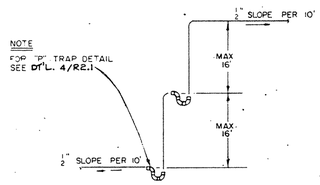
3 R2.1 | R2.1 FLOOR PENETRATION ABOVE CRAWL SPACE
NO SCALE



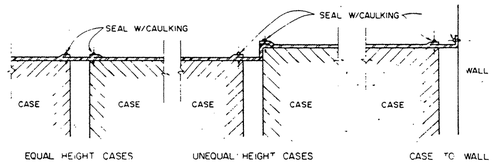
4 R2.1 | R2.1 "P" TRAP AT SUCTION LINE
NO SCALE



5 R2.1 | R2.1 UNIT COOLER MOUNTING DIAGRAM
NO SCALE



6 R2.1 | R2.1 SUCTION LINE RISER
NO SCALE



7 R2.1 | R2.1 CASE SEALING
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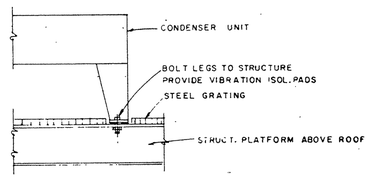
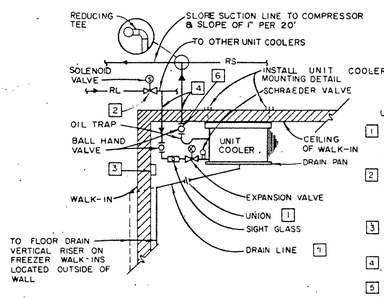


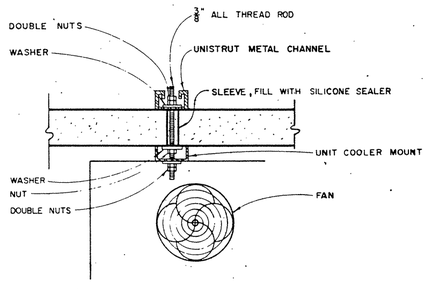
8 R2.1 | R2.1 CONDENSER MOUNTING (FOR CD-1 THRU CD-4)
NO SCALE



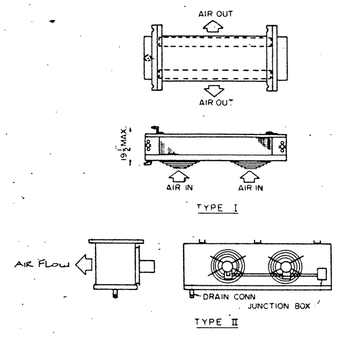
UNIT COOLER PIPING NOTES

1. DRAINS TO BE PIPED TO ALLOW REMOVAL OF DRAIN PANS SLOPE ¼" PER FOOT FREEZER DRAIN LINES TO RECEIVE HEAT TAPE INSIDE ROOM HEAT TRACE AT 4 WATTS/FOOT OF PIPE AND INSULATE OVER HEAT TAPE. (SEE SPECS.)
2. ONE (1) SOLENOID VALVE & ONE (1) THERMOSTAT PER REFRIGERANT CIRCUIT UNLESS OTHERWISE SHOWN MOUNT SOLENOID AT ROOM OR CASE IN MAIN LIQUID LINE SERVING EACH CIRCUIT (SEE SPECIFICATIONS)
3. UNIT MOUNTED OR WALL MOUNTED THERMOSTAT WITH SENSING BULB SENSING BULB TO BE IN RETURN AIR TO UNIT COOLER
4. DRILL HOLE IN WALK-IN PANEL. SEAL FITTINGS AND INSULATE.
5. FOR UNITS LOCATED IN ROOMS WITHOUT PREFAB PANEL ROOF, SUPPORT UNITS FROM STRUCTURE AND SWAY BRACE.
6. ON TYPE II UNIT COOLERS MOUNT TEMPERATURE PROBE FOR REFRIGERATION MONITORING & CONTROL SYSTEM 24" BELOW FINISHED CEILING. ON TYPE I UNIT COOLERS MOUNT TEMP PROBE ON CEILING AT LOCATION SHOWN ON PLANS.

9 R2.1 | R2.1 UNIT COOLER PIPING
NO SCALE



10 R2.1 | R2.1 UNIT COOLER MOUNTING
NO SCALE



11 R2.1 | R2.1 UNIT COOLER AIR FLOW TYPE
NO SCALE

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL ARCHITECT/ENGINEER
SHAPIRO, DONALHOW AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
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DRAWN: E. GREENING
CHECKED: W. WOODSMALL
SUBMITTED:
DATE APPROVED:

PRESIDIO OF SAN FRANCISCO CALIFORNIA

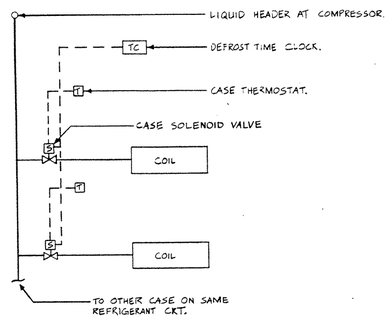
COMMISSARY BUILDING

PRODUCT REFRIGERATION - DETAILS

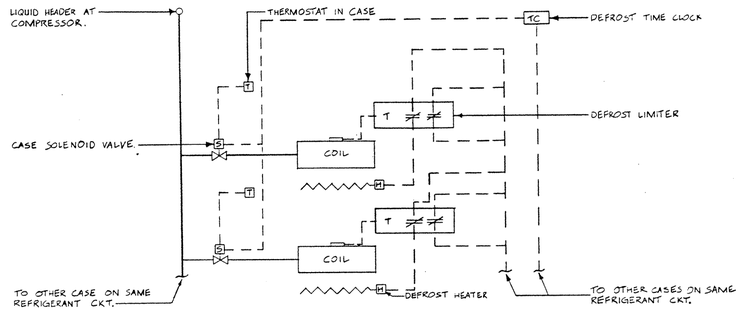
SCALE: NONE | SPEC. No. 7283
SHEET R2.2 12 of 156 | FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

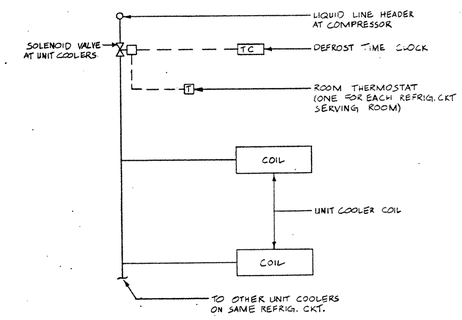
FUNCTION ANALYSIS - VE PAYS



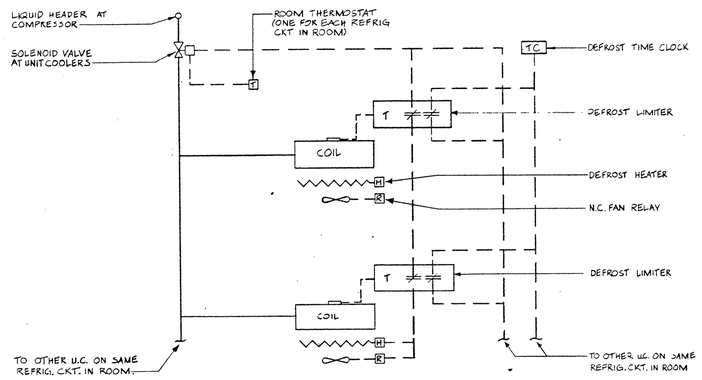
1 R2.3 R2.5 CONTROL DIAG. FOR PRODUCE, MILK, MEAT, & DAIRY CASES (SEQUENCE OF OPERATION NO.1)
NO SCALE



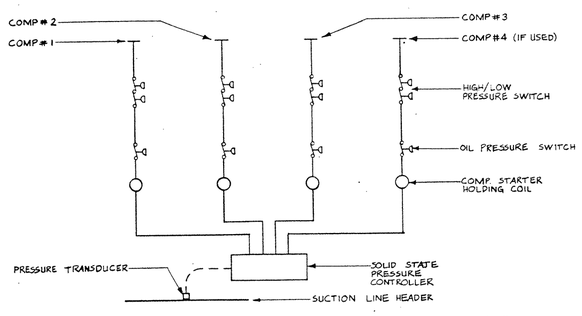
2 R2.3 R2.5 CONTROL DIAG. FOR FROZEN FOOD, ICE CREAM & FROZEN MEAT CASES (SEQUENCE OF OPERATION NO.2)
NO SCALE



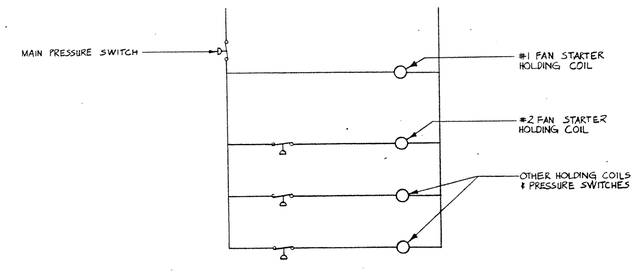
3 R2.3 R2.3 CONTROL DIAG. FOR UNIT COOLERS IN MEAT PROCESSING, PRODUCE PROCESSING, PRODUCE STOR. DAIRY STOR. & POTATO & ONION STOR. (SEQUENCE OF OPERATION NO.3)
NO SCALE



4 R2.3 R2.3 CONTROL DIAG. FOR BAKERY, LUNCH MEAT, POULTRY, FROZEN MEATS, MEAT CHILL, DELI & FROZEN FOOD BOXES (SEQUENCE OF OPERATION NO.4)
NO SCALE



5 R2.3 R2.3 CONTROL DIAG. FOR REFRIGERATION COMPRESSOR UNITS (SEQUENCE OF OPERATION NO.5)
NO SCALE



6 R2.3 R2.3 CONTROL DIAGS. FOR AIR COOLED CONDENSERS (SEQUENCE OF OPERATION NO.6)
NO SCALE

SEQUENCE OF OPERATION

1. PRODUCE, MILK, MEAT AND DAIRY CASES (ITEMS 306, 307, 517 324, 414, 415, 514, 515, 516, 517, 903 & 553): TEMPERATURE SHALL BE CONTROLLED BY THERMOSTATS MOUNTED IN EACH CASE TO CONTROL CASE-MOUNTED, LIQUID-LINE SOLENOID VALVE. DEFROST SHALL BE CONTROLLED BY A TIME CLOCK WHICH CONTROLS CASE-MOUNTED, LIQUID-LINE SOLENOID VALVE.

2. FROZEN FOOD, ICE CREAM AND FROZEN MEATS (ITEMS 315, 321, 520): TEMPERATURE SHALL BE CONTROLLED BY THERMOSTATS MOUNTED IN EACH CASE TO CONTROL CASE-MOUNTED, LIQUID-LINE SOLENOID VALVE. DEFROST SHALL BE INITIATED BY A TIME CLOCK WHICH CONTROLS THE CASE-MOUNTED, LIQUID-LINE SOLENOID VALVE AND THE CASE-MOUNTED ELECTRIC DEFROST HEATERS. DEFROST SHALL BE TERMINATED BY CASE DISCHARGE-AIR OR COIL TEMPERATURE. WHEN ALL DISCHARGE-AIR OR COIL TEMPERATURE THERMOSTATS ON A REFRIGERATION CIRCUIT ARE SATISFIED, THE DEFROST IS TERMINATED AND REFRIGERATION TURNED ON.

3. MEAT PROCESSING, PRODUCE PROCESSING, PRODUCE STORAGE, POTATO AND ONION STORAGE: TEMPERATURE SHALL BE CONTROLLED BY THERMOSTATS (ONE FOR EACH REFRIGERANT CIRCUIT THAT SERVES THE ROOM) AND LIQUID-LINE SOLENOID VALVE AT EACH UNIT COOLER. DEFROST SHALL BE CONTROLLED BY A TIME CLOCK WHICH CONTROLS A LIQUID-LINE SOLENOID VALVE AT THE UNIT COOLERS.

4. BAKERY REFRIGERATOR, LUNCH MEAT REFRIGERATOR, DAIRY STORAGE, POULTRY REFRIGERATOR, FROZEN MEATS, MEAT CHILL REFRIGERATOR, DELI REFRIGERATOR, AND FROZEN FOODS STORAGE: TEMPERATURE SHALL BE CONTROLLED BY THERMOSTATS (ONE FOR EACH REFRIGERANT CIRCUIT SERVING THE ROOM) AND LIQUID-LINE SOLENOID VALVE AT EACH UNIT COOLER. DEFROST SHALL BE INITIATED BY A TIME CLOCK WHICH CONTROLS THE LIQUID-LINE SOLENOID AT THE UNIT COOLER AND THE DEFROST HEATERS AT THE UNIT COOLERS. DEFROST SHALL BE TERMINATED BY COIL TEMPERATURE AT EACH RESPECTIVE COIL. REFRIGERANT SHALL BE TURNED ON WHEN ALL COILS ARE DEFROSTED. DURING DEFROST THE UNIT COOLER FANS SHALL BE OFF.

5. REFRIGERATION COMPRESSOR UNITS: COMPRESSOR UNITS SHALL BE CONTROLLED BY A SOLID STATE PRESSURE CONTROLLER (SSPC). EACH COMPRESSOR IN THE UNIT SHALL HAVE A CONVENTIONAL LOW/HIGH PRESSURE CONTROL AND OIL PRESSURE SWITCH WIRED IN SERIES WITH THE SSPC. THE SSPC OPERATION SHALL BE PROGRAMMED FOR SHIFT LOGIC AS FOLLOWS:

THREE COMPRESSOR SHIFT LOGIC:

	CAPACITY STEPS						
	0	1	2	3	4	5	6
COMPRESSOR #1	OFF	(RUN)	OFF	OFF	(RUN)	OFF	(RUN)
COMPRESSOR #2	OFF	OFF	(RUN)	OFF	OFF	(RUN)	(RUN)
COMPRESSOR #3	OFF	OFF	OFF	(RUN)	(RUN)	(RUN)	(RUN)

FOUR COMPRESSOR SHIFT LOGIC:

	CAPACITY STEPS									
	0	1	2	3	4	5	6	7	8	9	10
COMPRESSOR #1	OFF	(RUN)	OFF	OFF	OFF	(RUN)	OFF	OFF	(RUN)	OFF	(RUN)
COMPRESSOR #2	OFF	OFF	(RUN)	OFF	OFF	OFF	(RUN)	OFF	OFF	(RUN)	(RUN)
COMPRESSOR #3	OFF	OFF	OFF	(RUN)	OFF	OFF	OFF	(RUN)	(RUN)	(RUN)	(RUN)
COMPRESSOR #4	OFF	OFF	OFF	OFF	(RUN)	(RUN)	(RUN)	(RUN)	(RUN)	(RUN)	(RUN)

6. AIR-COOLED CONDENSERS: WHERE CONDENSER SERVES MORE THAN ONE REFRIGERATION CIRCUIT, THE FANS LOCATED PRINCIPALLY OVER A CIRCUIT WILL BE CONTROLLED BY THAT CIRCUIT. A PRESSURE SWITCH SENSING PRESSURE IN THE CONDENSER WILL START THE FIRST FAN AND ENERGIZE THE CONTROLS FOR THE REMAINDER FANS. ON FURTHER INCREASE IN PRESSURE THE NEXT FAN WILL START, ETC. UNTIL ALL FANS ARE RUNNING. ON DROP IN PRESSURE THE REVERSE OCCURS.

COPY FROM SOURCE NATIONAL ARCHIVES

DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, FRIEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, DENG, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: E. GREENING
DRAWN: E. GREENING
CHECKED: N. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

PRODUCT REFRIGERATION- CONTROLS

SUBMITTED: DATE APPROVED:

SCALE NONE | SPEC No. 7283

SHEET R2.3 127 of 155 | FILE No. 192-25-504

FUNCTION ANALYSIS - VE PAYS

REFRIGERATION EQUIPMENT AND PIPING SCHEDULE

SYSTEM NO.	CKT. NO.	REFRIG TYPE	COOLING EQUIPMENT SERVED: EQUIP. NO.	COOLING EQUIPMENT SERVED: DESCRIPTION	LOAD - BTUH: EACH CKT.	LOAD - BTUH: SYSTEM	SST F	REFRIGERANT LINE SIZE: LIQUID LINE	REFRIGERANT LINE SIZE: SUCTION LINE	REFRIGERANT LINE SIZE: SUCTION RISER	DEFROST TYPE**	ELECT. DEFROST VOLT/PH/AMPS	FAN VOLT/PH/AMPS	LIGHTS @ 115V-1Ø	EPR VALVE		HIGH SIDE PIPING: COMPRESSOR DISC	HIGH SIDE PIPING: LIQUID RETURN	CONDENSER UNIT NO.	REMARKS
1	1	R502	321	ICE CREAM 48'	36000		-35	5/8	2 1/8	2 1/8	E	208/1/27.6/46.2 *	115/1/2.0/3.0 *							
	2	NOT USED																		
						36000											7/8	5/8	CD-1	
2	3	R502	327F	FROZ FD UPR 36'	23400		-25	1/2	2 1/8	1 5/8	E	208/3/19.2	115/1/4.0	3.1						DOOR HEATERS 115V/1PH/9.6A
	4		520	FROZ MT UPR 48'	70800		-25	7/8	3 1/8	2 5/8	E	208/3/23	115/1/5.8	3.7						
	5	NOT USED																		
						94200											1 1/8	1 1/8	CD-1	
3	6	R502	327D,F	FROZN FD UPR 44'	28600		-25	5/8	2 1/8	1 5/8	E	208/3/13/19.2 *	115/1/2.4/4.0 *	2.1/3.1						DOOR HEATERS 115V/1PH/6.3A/9.6A
	7		315	FROZ FD TUB 48'	30000		-25	5/8	2 1/8	1 5/8	E	208/20.6	115/1/3.0							
	8		UC-6,7	1/2 FROZ FD RM	39200		-25	1/2	2 1/8	2 1/8	E	208/1/15.2	208/1/3.6							
						97800											1 1/8	1 1/8	CD-2	
4	9	R502	315	FROZ FD TUB 36'	22500		-25	1/2	2 1/8	1 5/8	E	208/1/20.6	115/1/3.0							
	10		UC-10	FROZ MT ROOM	20300		-25	1/2	1 5/8	1 5/8	E	208/1/20.6	115/1/3.0							
	11		UC 8,9	1/2 FROZ FD RM	39200		-25	5/8	2 1/8	2 1/8	E	208/1/15.2	208/1/3.6							
						82000											1 1/8	7/8	CD-2	
5	12	R12	514,515	FRSH MT TUB 80'	38000		15	5/8	1 1/8	1 5/8	E	208/1/6.9/10.3 *	115/1/1.0/1.5 *	0.8/1.3						
	13		516,517	DELI UPR 40'	60600		15	7/8	2 1/8	2 1/8	AD		115/1/1.4/2.1 *	2.1/3.1						
						98600											1 3/8	7/8	CD-3	
6	14	R12	306,307	DAIRY UPR 32'	42100		20	5/8	2 1/8	1 5/8	OC		115/1/1.4/2.1 *	2.1/3.1						
	15		414,415	PROD UPR 68'	54000		20	5/8	1 1/8	1 5/8	OC		115/1/1.0/1.5 *	0.8/1.3						
	16		903	DELI CASE 24'	8400		20	3/8	7/8	5/8	OC		115/1/1.0	2.1						
	17		UC 13,14	1/2 MT CH RM	29200		20	1/2	1 3/8	1 3/8	E	208/1/8.2	208/1/1.8							
	18		UC 4	1/2 DAIRY RM	24800		20	1/2	1 3/8	1 1/8	OC		208/1/3.6							
						158500											1 3/8	1 1/8	CD-3	
7	19	R12	324,UC 1,2	DAIRY R ROLL-IN 24*	66000		20	7/8	2 1/8	2 1/8	OC		115/1/5.6	2.6						
	20		553	PASS THRU 36'	26000		20	1/2	1 3/8	1 1/8	OC		115/1/4.3 (2)							
	21		UC 24	DELI RM	6600		20	3/8	7/8	7/8	E	208/1/8.2	208/1/1.8							
	22		UC 5	1/2 DAIRY RM	24800		20	1/2	1 3/8	1 1/8	OC		208/1/3.6							
	23		UC 21,22	PROD RM	35600		25	5/8	1 3/8	1 3/8	OC		115/1/6.4		YES					
						159000											1 3/8	1 1/8	CD-3	
8	24	R12	306,307	DAIRY UPR 32'	42100		20	5/8	2 1/8	1 5/8	OC		115/1/1.4/2.1 *	2.1/3.1						
	25		324,UC 3	DAIRY R ROLL-IN 12'	33000		20	5/8	1 1/8	1 5/8	OC		115/1/5.6	2.6						
	26		UC 12	POULTRY RM	13800		20	3/8	5/8	1 1/8	E	208/1/12.0	208/1/2.7							
	27		UC 15,16	1/2 MT CH RM	29200		20	1/2	1 3/8	1 3/8	E	208/1/8.2	208/1/1.8							
	28		UC 11	LUNCH MT RM	9900		20	3/8	5/8	7/8	E	208/1/8.2	208/1/1.8				1 3/8	1 1/8	CD-4	
						128000														
9	29	R12	UC 17,19	1/2 MT PREP RM	56400		35	5/8	1 5/8	1 3/8	NR		115/1/6.4							
	30		UC 18,20	1/2 MT PREP RM	56400		35	5/8	1 5/8	1 3/8	NR		115/1/6.4							
	31		UC 23	POTATO & ONION RM	13300		35	1/2	5/8	7/8	NR		115/1/3.2							
	32		UC 25,26	PROD PREP RM	51200		35	5/8	1 5/8	1 3/8	NR		115/1/6.4							
						177300											1 3/8	1 1/8	CD-4	

* 3RD NUMBER IS THE AMPS. FOR SHORT CASES, & 4TH NUMBER IS THE AMPS. FOR LONG CASES

** DEFROST TYPE E (ELECTRIC), AD (AIR DEFROST), OC (OFF CYCLE), NR (NOT REQUIRED)

UNIT COOLER SCHEDULE

MARK NO.	CFM	MIN. CAP. BTUH	ROOM TEMP F	REFRIG. TYPE	SST	FAN VOLTS	FAN AMPS	CKT. NO.	LOCATION	SYSTEM	TYPE*
1-3	1125	15000	+35	R-12	+20	208	2.7	19,25	DAIRY REAR ROLL IN	7,8	II
4,5	2200	27600	+35	R-12	+20	208	3.6	18,22	DAIRY REFR	6,7	I
6-9	2300	21600	-10	R-502	-25	208	3.6	8,11	FROZ FD RM	2,4	I
10	2300	21600	-10	R-502	-25	208	3.6	10	FROZ MEAT RM	4	I
11	1200	10350	+35	R-12	+20	208	1.8	28	LUNCH MEAT RM	8	I
12	1800	15525	+35	R-12	+20	208	2.7	26	POULTRY RM	8	I
13-16	1800	15525	+35	R-12	+20	208	2.7	17,27	MEAT CHILL	6,8	I
17-20	1540	39000	+50	R-12	+35	115	6.4	29,30	MEAT PREP	9	II
21,22	2100	20000	+35	R-12	+25	115	6.4	23	PROD REFR	7	I
23	1050	15450	+50	R-12	+35	115	3.2	31	POTATO & ONION	9	I
24	1200	10350	+35	R-12	+20	208	1.8	21	DELI REFR	7	I
25,26	1540	29250	+50	R-12	+35	115	6.4	32	PROD PREP RM	9	II

* SEE SHT. R2.2 DETAIL 11 FOR TYPE 1 & TYPE 2 UNIT COOLERS

REFRIGERATION COMPRESSOR SYSTEM SCHEDULE

SYSTEM NUMBER	CIRCUITS SERVED	REQ'D CAPACITY BTUH *	SST F	CONDENSING TEMP F	NOMINAL HEAT REJECTION BTUH	COMPRESSOR (S) QUANTITY - HP	VOLTS/PHASE/ CYCLES	REFRIG. TYPE	HEAT RECLAIM: HRC MARK NO.	HEAT RECLAIM: CAPACITY BTUH	HEAT RECLAIM: HWRH MARK NO.	HEAT RECLAIM: CAPACITY BTUH	REMARKS
1	1	53200	-37	94	31200	3-5	480/3/60	R-502	1A	30600	1	15300	
2	3,4,5	121900	-27	94	193600	1-15, 1-7.5, 1-5	480/3/60	R-502	1A	75100	2	37500	
3	6-8	121900	-27	94	193600	1-15, 1-7.5, 1-5	480/3/60	R-502	1A	77500	3	38700	
4	9-11	106200	-27	94	168300	1-10, 1-7.5, 1-5	480/3/60	R-502	1B	64800	4	32400	
5	12,13	124100	13	99	169900	1-7.5, 2-5	480/3/60	R-12	1B	67400			
6	14-18	205800	18	99	275200	1-15, 1-7.5, 1-5	480/3/60	R-12	1B	105900			
7	19-23	205800	18	99	275200	1-15, 1-7.5, 1-5	480/3/60	R-12	1C	106700			
8	24-28	171800	18	99	230900	1-10, 1-7.5, 1-5	480/3/60	R-12	1C	86200			
9	29- 32	254400	33	99	297100	1-10, 1-7.5, 1-5	480/3/60	R-12					
					SEE NOTE 1								

1. FOR CAPACITY STEPS OF COMPRESSORS, SEE SHT. R2.3

HEAT RECOVERY COIL SCHEDULE

MARK NO.	LOCATION	CFM	CAPACITY BTUH	FPM MAX. VEL	P H20	REFRIG. TYPE	NO. CKTS	SIZE	REMARKS
HRC-1A	AHU-1	11786	21600	524	.23	R502	3	30x108	2ROW 8FPI
HRC-1B	AHU-1	11786	209700	524	.23	R12/R502	3	30x108	2ROW 8FPI
HRC-1C	AHU-1	11786	192900	524	.23	R12	2	24x108	2ROW 8FPI
HWRH-1	SYSTEM 1		15300			R502			
HWRH-2	SYSTEM 2		37500			R502			
HWRH-3	SYSTEM 3		38700			R502			
HWRH-4	SYSTEM 4		32400			R502			

1. HEAT RECOVERY COILS SHALL BE SIZED AND LOCATED IN AIR HANDLING UNIT.

REFRIGERATION AIR COOLED CONDENSER UNIT SCHEDULE

MARK NO.	NOM. CFM	MIN. CAPACITY GROSS HEAT REJECTION BTUH	ENT. AIR TEMP F	CONDENSING TEMP F	SYSTEMS SERVED			VOLTS/ PHASE	DRIVE	REMARKS
CD-1	29800	232400	84	94	1,2			460/3	DIRECT	
CD-2	45000	312800	84	94	3,4			460/3	DIRECT	
CD-3	60000	624900	84	94	5,6,7			460/3	DIRECT	
CD-4	45900	437100	84	94	8,9			460/3	DIRECT	

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: W. WOODSMALL
DRAWN: R. BALTON
CHECKED: W. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

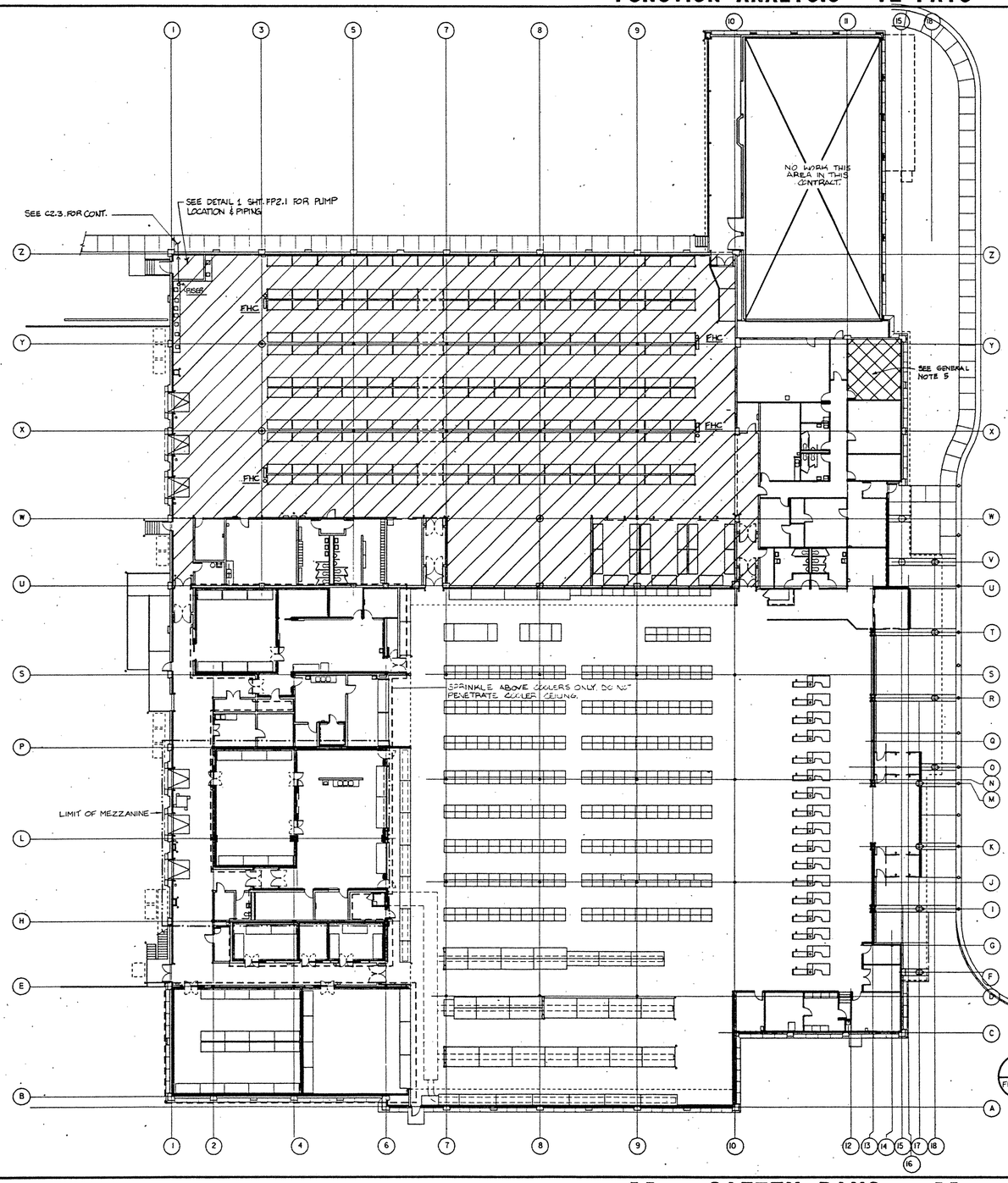
REFRIGERATION SCHEDULES

SUBMITTED:
DATE APPROVED:
SCALE: NO SCALE
SPEC No. 7283
SHEET R3.1 28 OF 55
FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

FUNCTION ANALYSIS - VE PAYS



WAREHOUSE FIRE PROTECTION REQUIREMENTS

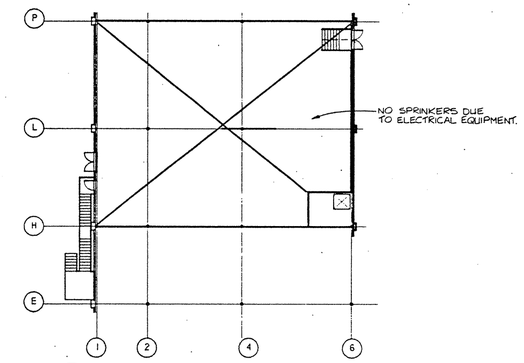
OCCUPANCY CLASSIFICATION ORDINARY
SPRINKLER SYSTEM DESIGN
RACK STORAGE - CLASS IV 20 FT. HIGH
CEILING SPRINKLER DENSITY 0.495 GPM/SQ. FT. FOR 2000 SQ. FT.
HOSE STREAMS 150 GPM

SALES/ADMIN FIRE PROTECTION REQUIREMENTS

OCCUPANCY CLASSIFICATION ORDINARY
SPRINKLER SYSTEM DESIGN
MERCANTILE ORDINARY HAZARD, GROUP 2
CEILING SPRINKLER DENSITY 0.20 GPM/SQ. FT. FOR 3000 SQ. FT.
HOSE STREAMS 500 GPM

GENERAL NOTES

1. ENTIRE WET PIPE SPRINKLER SYSTEM TO BE INSTALLED AS PER NFPA 13, 231C, AND LOCAL CODES AND ORDINANCES.
2. ALL SPRINKLERS TO BE 1/2" STANDARD ORIFICE.
3. SPRINKLERS IN FINISHED AREAS TO BE BRIGHT CHROME PLATED WITH CHROME ESCUTCHEONS.
4. SPRINKLERS IN UNFINISHED AREAS TO BE NATURAL BRONZE.
5. HALON 1301 CONTAINER MOUNTED ABOVE CEILING AS PER FIRE PROTECTION MANUFACTURERS RECOMMENDATION.



2 FP1.1 — MEZZANINE
1/16" = 1'-0"

KEY

- INDICATES SALES/ADMIN AREAS
- INDICATES WAREHOUSE
- INDICATES NO SPRINKLER
- INDICATES NO SPRINKLER, HALON 1301 ONLY

PROJECT NORTH

1 FP1.1 — FIRE PROTECTION PLAN
1/16" = 1'-0"

0 8' 16' 32' 48'

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROMWELL, TRUEMPER, LEY, PARKER & WOODSMALL
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DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: E GREENING
DRAWN: E GREENING
CHECKED: W WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

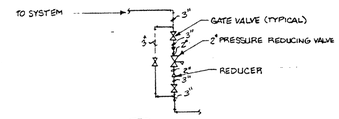
FIRE PROTECTION PLAN

SUBMITTED: E. Greening
DATE APPROVED:
SCALE: 1/16" = 1'-0"
SPEC No. 7283
SHEET FP1.1 (129 of 155)
FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

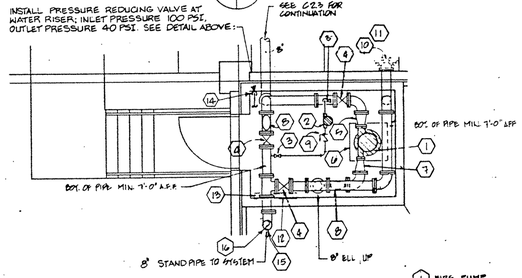
ENVIRONMENTAL ENGINEERING

SAFETY PAYS



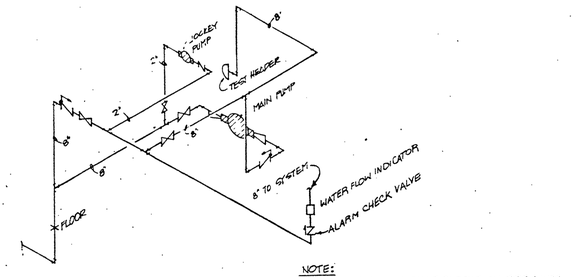
8 FP2.1 FP2.1 PRESSURE REDUCING VALVE
NO SCALE

INSTALL PRESSURE REDUCING VALVE AT WATER RISER; INLET PRESSURE 100 PSI, OUTLET PRESSURE 40 PSI. SEE DETAIL ABOVE.



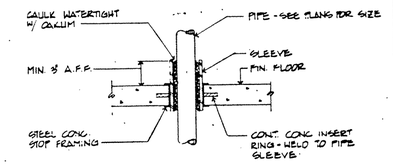
1 FP2.1 FP2.1 FIRE PUMP RM. PLAN
1/4" = 1'-0"

1. FIRE PUMP
2. JOCKEY PUMP
3. 1½" OS&Y GATE VALVE
4. 8" OS&Y GATE VALVE
5. ECCENTRIC REDUCER
6. 6" CONC. PAD
7. CONCENTRIC INCREASER
8. 8" CHECK VALVE
9. 1½" CHECK VALVE
10. PUMP TEST HEADER
11. 6 - 2½" HOSE GATE VALVES
12. FIRE PUMP CONTROLLER
13. JOCKEY PUMP CONTROLLER
14. DOMESTIC WATER BLDR.
15. ALARM CHECK VALVE
16. WATER FLOW INDICATOR

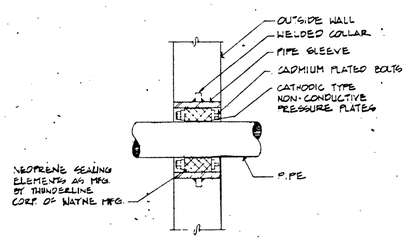


NOTE:
INSTALL THRUST BLOCKS ON FIRE LINES PER 4 FP2.1 C3-2.

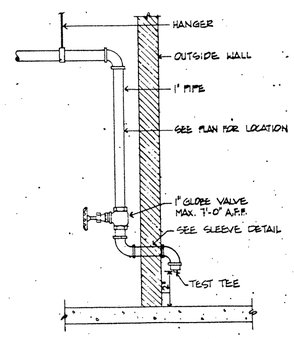
2 FP2.1 FP2.1 FIRE PUMP SCHEMATIC
NO SCALE



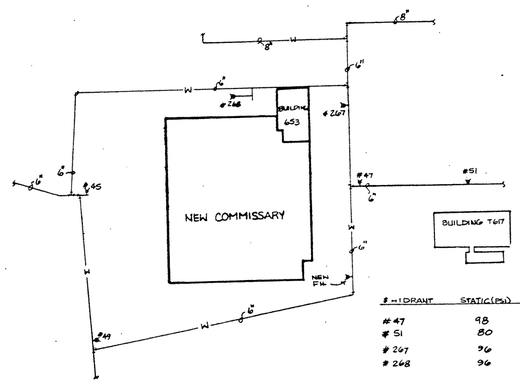
4 FP2.1 FP2.1 FLOOR PENETRATION
NO SCALE



5 FP2.1 FP2.1 PIPE SLEEVE
NO SCALE



6 FP2.1 FP2.1 INSPECTOR TEST & DRAIN
NO SCALE



# = HYDRANT	STATIC (PSI)	FLOW (PSI)	GPM
# 47	98	32	1055
# 51	80	28	987
# 247	96	32	1055
# 248	96	32	1055

7 FP2.1 FP2.1 FP. SITE PLAN AND FLOW DATA
NO SCALE

GENERAL NOTES

1. PROVIDE A COMPLETE, **PIPE SCHEDULE, WET PIPE SPRINKLER SYSTEM** AS PER NFPA 13, 231c AND SPECIFICATIONS. **CONTRACTOR MAY SUBMIT HYDRAULICALLY CALCULATED SYSTEM , AS PER SPECS..**
2. THE WAREHOUSE AREA SHALL COMPLY WITH NFPA 231c AND CRITERIA AS LISTED BELOW:
   - A. CLASS IV COMMODITY STORAGE.
   - B. 0.495 GPM/SQ. FT. OVER THE MOST REMOTE 2,000 SQ. FT.
   - C. 286°F SPRINKLERS AT CEILING.
   - D. PROVIDE ONE (1) SIDEWALL SPRINKLER AT 12'-0" A.F.F. POINTED TOWARD COLUMN AT EACH COLUMN IN WAREHOUSE.
   - E. HOSE REELS AS SHOWN ON DRAWING FP1.1.
   - F. ALLOW 150 GPM FOR INSIDE HOSE STREAM
3. ALL OTHER AREAS SHALL COMPLY WITH ORDINARY HAZARD, GROUP II; 0.2 GPM PER SQ. FT. OVER THE MOST REMOTE 3,000 SQ. FT.
4. PROVIDE A 60 HP VERTICAL, ELECTRIC, SPLIT CASE FIRE PUMP RATED FOR 1,150 GPM AT 75 PSI WITH ALL ACCESSORIES AS REQUIRED BY NFPA 20. PUMP SHALL BE **U.L. RATED.**
5. PROVIDE A 3 HP, IN-LINE, ELECTRIC PERIPHERAL TURBINE JOCKEY PUMP RATED FOR 15 GPM AT 85 PSI WITH ALL ACCESSORIES AS REQUIRED BY NFPA 20. PUMP SHALL BE **U.L. RATED.**
6. PROVIDE A COMBINED MANUAL/AUTOMATIC ACROSS-THE-LINE FIRE PUMP CONTROLLER **WITH :**
   - A. MAGNETIC TRIP-TYPE CIRCUIT BREAKER.
   - B. HEAVY DUTY, U. L. LISTED NONAUTOMATIC CIRCUIT BREAKER.
   - C. INCOMING POWER PILOT LIGHT.
   - D. MANUAL START AND STOP PUSHBUTTONS.
   - E. HEAVY DUTY INDUSTRIAL-TYPE CONTROL RELAYS.
   - F. MOTOR CONTACTOR.
   - G. EMERGENCY START LEVER WITH LATCH.
   - H. WIRING DIAGRAMS PERMANENTLY MOUNTED ON DOOR.
   - I. CALIBRATED, INDEPENDENTLY ADJUSTABLE HIGH AND LOW SETPOINT PRESSURE SWITCH.
   - J. TERMINAL BAR FOR FIELD WIRING OF REMOTE ALARMS, ETC.
   - K. HEAVY GAUGE REINFORCED STEEL CABINET ON 12" HIGH STEEL LEGS.
7. PROVIDE AN ACROSS-THE-LINE, AUTOMATIC, JOCKEY PUMP CONTROLLER **WITH:**
   - A. NEMA I CABINET.
   - B. STANDARD MERCOID BOURDON TUBE TYPE PRESSURE SWITCH WITH INDEPENDENT HIGH AND LOW SETPOINTS.
   - C. FUSIBLE DISCONNECT SWITCH WITH EXTERNALLY OPERABLE HANDLE.
   - D. THREE POSITION "HAND-OFF-AUTO" SWITCH.
   - E. MANUAL START PUSHBUTTON.
   - F. ALL COMPONENTS U. L. LISTED HEAVY DUTY INDUSTRIAL GRADE.
8. PROVIDE A REMOTE ALARM PANEL **WITH:**
   - A. POWER ON LIGHT (ALARM PANEL POWER).
   - B. PUMP RUNNING LIGHT.
   - C. PUMP POWER FAILURE LIGHT.
   - D. LOW SECTION PRESSURE LIGHT AND ALARM.
   - E. LAMP AND CIRCUITRY PRESS TO TEST SWITCHES.
   - F. ALARM SILENCE.
   - G. TAMPER SWITCH **
9. HOSE REEL ASSEMBLY **WITH:** 1-1/2" <??> LINED REEL HOSE, 1-1/2" SATIN BRASS PIN LUG COUPLING, 1-1/2" SATIN BRASS FOG NOZZLE, RED ENAMEL, SWINGING HOSE REEL WITH WALL BRACKETS, A 1-1/2" ROUGH BRASS 300 LB. U/L MALE X FEMALE STRAIGHT GLOBE VALVE WITH ADJUSTABLE PRESSURE RESTRICTOR SHALL BE FURNISHED IN LIEU OF STANDARD ANGLE VALVE. PROVIDE A RED VINYL SLIP-OVER COVER LETTERED "FIRE HOSE."
10. SPRINKLERS TO BE AS FOLLOWS:
    - A. AREAS WITH FINISHED CEILINGS (I.E., SALES, CHECKOUT, WEE SERV, OFFICES, ETC.) TO BE QUARTZOID CEILING WITH CEILING FLANGE TO MATCH CEILING FINISH COLOR.
    - B. UNFINISHED AREAS TO BE **NATURAL BRONZE FOR PENDANT AND UPRIGHT 1/2"x1/2" NPT.**
    - C. **WAREHOUSE** TO BE **NATURAL BRONZE LARGE ORIFICE,** UPRIGHT **17/32"x3/4" NPT.**
    - D. SIDEWALL AT COLUMNS TO BE **NATURAL BRONZE PENDANT, 17/32"x3/4" NPT.**
11. FIRE PUMP TEST CONNECTIONS TO BE **POLISHED BRASS ON EXPOSED PARTS, WITH FOUR (4) 3" x 2-1/2" HOSE GATE VALVES WITH LOOSE BONNETS, CAPS AND CHAINS. PROVIDE CAST BRASS PLATE LETTERED "PUMP TEST CONNECTION".**
12. THESE DRAWINGS ARE DIAGRAMMATIC AND DO NOT INCLUDE ALL ACCESSORIES REQUIRED (I.E., GAUGES, FITTINGS, ETC.). PUMPS, CONTROLLERS AND ALARMS TO BE INSTALLED IN ACCORDANCE WITH NFPA 20 AND SPECIFICATIONS.
13. **CONTRACTOR TO VERIFY PRESSURE AND FLOW AT SITE PRIOR TO BID.**

** PROVIDE INTERFACE FOR ALARM SIGNAL TRANSMISSION VIA TELE. LINE TO MILITARY POLICE STATION BUILDING No. 36

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: E. GREENING
DRAWN: E. GREENING
CHECKED: W. WOODSMALL
SUBMITTED: E. Levy
DATE APPROVED:

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
FIRE PROTECTION DETAILS

SCALE: NONE | SPEC No. 7283
SHEET FP2.1 30 of 150 | FILE No. 82-25-504

DRAWING REDUCED ONE HALF SIZE

ELECTRICAL PLAN- SYMBOLS

SYMBOLS	DESCRIPTION
	DUPLEX CONVENIENCE RECEPTACLE (20A, 125V, 1 Φ, 2P, 3 WIRE GROUNDING TYPE, +10" OR AS INDICATED)
	SINGLE RECEPTACLE NEMA L14-20R (20A, 250V, 1 Φ 3P, 4 WIRE, ISOLATED GROUND TYPE, +10" OR AS INDICATED)
	FLOOR OUTLET(20A, 125V, 1 Φ, 2P, 3 WIRE GROUNDING TYPE)
	SINGLE RECEPTACLE; 20A, 250V, POLARIZED GROUNDING TYPE.
	SINGLE RECEPTACLE; 30A, 250V, POLARIZED GROUNDING TYPE.
	CLOCK OUTLET; WALL MOUNT +7'-6"
	JUNCTION BOX; WALL MOUNT AS INDICATED
WP	INDICATES DEVICE AND/OR FITTING SHALL BE OF WEATHER-PROOF CONSTRUCTION
GFI	INDICATES RECEPTACLE TO BE "GROUND FAULT INTERRUPTER" TYPE
	DOOR BELL WITH TRANSFORMER
	CHIME WITH TRANSFORMER
	DOOR BUZZER WITH TRANSFORMER
MD	MOTION DETECTOR
CD	CAPACITIVE DETECTOR
CE	CCTV CAMERA LOCATION (CEILING MOUNTED)
	BUS DUCT, PLUG-IN TYPE, RATINGS AS INDICATED. DEVICES SHOWN NEXT TO BUS SHALL BE PLUG-IN TYPE.
	UNDER-FLOOR DUCT AND JUNCTION BOX TRIPLE SYSTEM. NOTE: SINGLE & DOUBLE SYSTEMS INDICATED BY ONE OR TWO LINES, RESPECTIVELY.
	MULTI-OUTLET ASSEMBLY, 15A, 125V, 1 Φ, 3 WIRE WITH SINGLE 15A, 125V GROUNDING TYPE RECEPTACLES SPACED ON CENTERS AS INDICATED AND MOUNTED +3'-8" AS NOTED.
	MAGNETIC MOTOR STARTER
	COMBINATION MAGNETIC MOTOR STARTER WITH MOLDED CASE CIRCUIT BREAKER.
	MAGNETIC CONTACTOR
	COMBINATION MAGNETIC CONTACTOR WITH MOLDED CASE CIRCUIT BREAKER.
+3'-10"	HEIGHT ABOVE FINISH FLOOR OR GRADE OF CENTER LINE UNLESS OTHER POINT IS NOTED
S	SWITCH, SINGLE POLE, 20A; LOWER CASE LETTER INDICATES OUTLETS CONTROLLED, +4' - 0"
S_2	SWITCH, DOUBLE POLE, 20A, +4' - 0"
S_3	SWITCH, 3 WAY, 20A, +4' - 0"
S_4	SWITCH, 4 WAY, 20A, +4' - 0"
S_k	SWITCH, KEY OPERATED, SINGLE POLE, 20A, +4' - 0"
S_p	SWITCH, WITH PILOT LIGHT, SINGLE POLE, 20A, +4' - 0"
S_m	MANUAL MOTOR STARTING SWITCH WITH THERMAL OVERLOAD ELEMENT AND PROVISIONS FOR LOCKING OPEN, +5'-10"
S_D	SWITCH, DIMMING
S_x	SWITCH, MULLION
	H.I.D. FIXTURE W/ INTEGRAL QUARTZ RESTRIKE LAMP
	TELEPHONE TERMINAL CABINET, TC
	PANELBOARD, FLUSH MOUNTED
	PANELBOARD, SURFACE MOUNTED
	INCANDESCENT LIGHT FIXTURE, CEILING MOUNTED. LETTER INDICATES CONTROLLING SWITCH.
	INCANDESCENT LIGHT FIXTURE, WALL MOUNTED.
	FLUORESCENT NIGHT LIGHT FIXTURE, CEILING MOUNTED.
	FLUORESCENT LIGHT FIXTURE, CEILING MOUNTED, WITH EMERGENCY SELF-CONTAINED BATTERY SYSTEM.
	FLUORESCENT NIGHT LIGHT FIXTURE, CEILING MOUNTED, WITH EMERGENCY SELF-CONTAINED BATTERY SYSTEM.
	INCANDESCENT EMERGENCY LIGHT FIXTURE, CEILING MOUNTED.
	EMERGENCY LIGHTING UNIT, SELF-CHARGING BATTERY TYPE WITH 25 WATT, 6 VOLT LAMPS. ARROW(S) INDICATES DIRECTION AND NUMBER OF LAMPS. COE DRAWING NO. 40-06-04, SHEET 54, TYPE 603.
	EXIT SIGN FIXTURE, WALL MOUNTED.
	EXIT SIGN FIXTURE, CEILING MOUNTED. DIRECTIONAL ARROW SHOWN. SHADED AREA INDICATES FACE.
	FLOODLIGHT FIXTURE. ARROW INDICATES DIRECTION OF BEAM.
A / 160 / +8'-0"	LIGHT FIXTURE IDENTIFICATION SYMBOL. LETTER INDICATES TYPE OF FIXTURE. (SEE FIXTURE SCHEDULE) NUMERALS IN LOWER HALF OF HEXAGON INDICATE FIXTURE WATTAGE (INCLUDING BALLAST WHEN APPLICABLE). SUBSCRIPT INDICATES MOUNTING HEIGHT TO BOTTOM OF FIXTURE. OMISSION OF SUBSCRIPT INDICATES CEILING MOUNTED. SUPERSCRIPT INDICATES QUANTITY OF FIXTURES.

SYMBOLS	DESCRIPTION
	SAFETY SWITCH, CURRENT RATING NOTED, +4'-0" TO HANDLE.
F30A	FUSIBLE SAFETY SWITCH, CURRENT RATING NOTED, +4'-0" TO HANDLE.
	SELECTOR SWITCH, SUBSCRIPT DENOTES NUMBER OF POSITIONS. HAND-OFF-AUTO UNLESS OTHERWISE NOTED, +4'-0".
	PUSH-BUTTON STATION WITH PILOT LIGHT, +4'-0".
NL	NIGHT LIGHT LIGHTING CIRCUIT, SWITCHED AT PANEL CIRCUIT BREAKER
	CONDUIT RUN TO SWITCH
	CONDUIT RUN, EXPOSED
	CONDUIT RUN, CONCEALED
	CROSS LINES DENOTE NUMBER OF CONDUCTORS IN CONDUIT. CONDUIT SIZE MINIMUM PER N.E.C.
3/4"-3#8	CONDUCTORS LARGER THAN #10
	CONDUIT HOMERUN TO PANELBOARD, LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBERS.
	CONDUIT SEALING FITTING
	CAST CONDUIT FITTING, LETTER INDICATES TYPE
	CONDUIT BEND; TOWARD VIEWER
	CONDUIT BEND; AWAY FROM VIEWER
	CONDUIT RUN; CHANGE IN ELEVATION, LEFT SIDE HIGHER
	CONDUIT CAPPED
	CONDUIT EXPANSION FITTING
	FLEXIBLE CONDUIT
	GROUND CONDUCTOR, UNLESS OTHERWISE NOTED
	GROUND CONDUCTOR WITH TAP
	DAY DOOR ALARM, AUDIBLE & VISUAL, SURFACE WALL MT'D
	MAGNETIC ALARM SWITCH
KS	KEY-OPERATED ACCESS ALARM OVERRIDE SWITCH
	DURESS ALARM OUTLET
F	FIRE ALARM STATION; AUX.
	FIRE ALARM STATION; MASTER AND ANNUNCIATOR
	FIRE ALARM BELL AND VISUAL INDICATOR
A	FIRE ALARM CENTRAL STATION
	FIRE ALARM HORN
HT	FIRE ALARM HEAT DETECTOR
S	FIRE ALARM SMOKE DETECTOR
S_D	FIRE ALARM SMOKE DETECTOR, DUCT MOUNTED
P	FIRE ALARM PRESSURE ALARM SWITCH IN SPRINKLER RISER
FS	FIRE ALARM FLOW SWITCH IN SPRINKLER RISER
T	FIRE ALARM O.S. & Y. VALVE TAMPER SWITCH
	INTERCOMMUNICATION OUTLET, TELEPHONE TYPE HANDSET,+10".
	INTERCOMMUNICATION OUTLET, WALLMOUNT, TELEPHONE TYPE HANDSET, MOUNTING HEIGHT AS SHOWN ON PLANS.
	TELEPHONE OUTLET +10"
	LOUDSPEAKER OUTLET, CEILING MOUNTED, SUBSCRIPT "V" DENOTES VOLUME CONTROL
	LOUDSPEAKER OUTLET WITH PROJECTOR.
	TELEPHONE FLOOR OUTLET
T	TRANSFORMER,DRY TYPE,INDOOR.
G	GENERATOR
	MOTOR
	CABLE TERMINAL; LINE APEX INDICATES CABLE
	MOLDED CASE CIRCUIT BREAKER, 3 POLE
F30A FRS	FUSE; CURRENT RATING AND TYPE NOTED
	PRIMARY FUSE CUTOUT, AIR BREAKER, 3 POLE
60A	LOAD INTERRUPTER SWITCH OR DISCONNECT SWITCH, 3 POLE, CURRENT RATING NOTED.
	TRANSFORMER, DESCRIPTION AS NOTED
	POTENTIAL TRANSFORMER, WITH FUSE
	CURRENT TRANSFORMER
	THREE PHASE DELTA, UNGROUNDED, TRANSFORMER CONNECTION
	THREE PHASE WYE CONNECTED, GROUNDED NEUTRAL TRANSFORMER
A	AMMETER
V	VOLTMETER
WH	WATTHOUR METER
GFI	SWITCH WITH GROUND FAULT INTERRUPTER

A	AMPERES
AHU	AIR HANDLING UNIT
CP	CIRCULATING PUMP
CU	CONDENSING UNIT
DH	DISTRIBUTION BOARD 480/277 VOLTS
DL	DISTRIBUTION BOARD 208/120 VOLTS
EF	EXHAUST FAN
F	FUSE
'H'	0-42 CIRCUITS, 480/277 VOLTS PANEL
Kwhm	KILOWATT-HOUR METER
'L'	0-42 CIRCUITS, 208/120 VOLTS PANEL
'MCC'	MOTOR CONTROL CENTER
SF	SUPPLY FAN
TB	TELEPHONE EQUIPMENT BOARD
TC	TELEPHONE CABINET
T/A	TRANSFORMER, NUMERAL DESIGNATES NUMBER, ALPHA DESIGNATES AREA
V	VOLTS

NOTE: ALL SYMBOLS MAY NOT APPLY

LIGHTING FIXTURE SCHEDULE

FIXTURE IDENTI-FICATION	O.C.E. DWG. NO. 40-06-04 TYPE	SHEET NO.	LAMP TYPE	LAMP NO.	LAMP WATTS	FIXTURE VOLTAGE	NOTES
A	206C	19	F40LW/RS	4	34	277	① 2 6 4
B	206A	19	F40LW/RS	2	34	277	1 2 6
C	233	32	F96T12/HO/RS	2	50	277	3 5
C1	232	32	F48T12/HO/RS	2	30	277	5
D	231A2	31	F96T12/LW	2	60	277	6
D1	230A2	31	F40LW/RS	2	34	277	2 12
E	303B	36	MVR250/ C/U	1	250	277	1 7 8 20
F	303B	36	MVR400/ C/VBU	1	400	277	1 7 8 20
G	220A	26	F40LW/RS	1	34	277	12
H	301B1	34	LU400	1	400	277	7 10 11
I	108B	3	A21/150A 135WM/CL	1	135	130	13
J	-	-	150R/FL/TF	1	150	120	15
K	503B	46	LU150	1	150	277	19
L	226A	29	F40SP41/WWP	2	40	277	9 21
M	305C	37	LU100	1	100	277	9
N	301B(3)	34	LU250	1	250	277	7 10 11 22
O	603	54	25PAR 36WFL	2	25	277	17
P	604	55	20T6-1/2F 6S6/3	2 2	20 6	277	18
R	124A	15	100A21/99	1	100	130	13
S	107A	3	200A/99	1	200	130	23
T	601	52	PAR	SEE PLANS	15	32V DC	14
W	—	—	PAR	SEE PLANS	12	12V DC	16.

NOTES:

① REGRESSED ALUMINUM DOOR, MATTE BLACK.

2 WHERE INDICATED ON PLANS, FURNISH TYPE 200 EMERGENCY BATTERY AND LAMP SUPPLY UNIT FOR FLUORESCENT FIXTURES.COE DRAWING 40-06-04 SHEET 17.

3 SEE DET. 8 / E1.1 E3.3 FOR MOUNTING.

4 INSIDE LAMPS SWITCHED SEPERATE FROM OUTSIDE LAMPS.

5 -20°F BALLAST.

6 ENERGY SAVING BALLAST.

7 WHERE INDICATED ON PLANS, FURNISH TYPE 300 EMERGENCY 250 WATT QUARTZ STANDBY LIGHT SYSTEM FOR H.I.D. FIXTURES.COE DRAWING 40-06-04 SHEET 33.

8 SEE DET. 2 / E1.1 E3.3 FOR MOUNTING.

9 FURNISH FIXTURE FLANGE.

10 FURNISH 24" SAFETY CHAIN CONNECTING BALLAST HOUSING TO REFLECTOR.

11 SEE DET. 1 / E1.1 E3.3 FOR MOUNTING.

12 FURNISH WIRE GUARD.

13 MOUNT BOTTOM OF GLOBE 12" ABOVE DOOR HEAD.

14 SEE DETAIL 2 / E1.1 E2.9

15 DOCK LIGHT - SEE DET. 7 / E1.1 E3.4

16 SEE DETAIL 10 / E1.1 E3.4

17 SEE PLANS FOR MOUNTING HEIGHT.

18 SEE PLANS FOR FACE AND ARROW ORIENTATION.

19 SEE DETAIL 6 / E1.1 E3.4 FOR MOUNTING (14'-0 ABOVE FLOOR).

20 FIXTURE SHALL HAVE VERTICAL SIDES AND SLOPE CEILING ADAPTOR.

21 TWO LAMPS PER 4 FOOT FIXTURE.

22 WITH REFLECTOR DESIGNED FOR LIGHTING WAREHOUSE AISLES.

23 SEE DET. 8 / E1.1 E3.3 FOR MOUNTING.

ROOM SCHEDULE

ROOM NO — ROOM NAME

1. STORE MANAGER
2. CASHIER'S OFFICE
3. COUNTING ROOM
4. BAGGER'S BREAK ROOM
5. BAG STORAGE
6. MEN'S TOILET (PATRON)
7. WOMEN'S TOILET (PATRON)
8. WAITING AREA
9. DAIRY WALK-IN REFRIGERATOR
10. FROZEN FOOD FREEZER
11. FROZEN MEAT FREEZER
12. LUNCHEON MEAT REFRIGERATOR
13. POULTRY, REFRIGERATOR
14. CART WASH
15. TOILET
16. STORAGE, MEAT PREPARATION
17. MEAT MANAGER'S OFFICE
18. MEAT CHILL REFRIGERATOR
19. MEAT PREPARATION
20. VET INSPECTION
21. VET OFFICE
22. DELI STORAGE
23. WALK-IN REFRIGERATOR (DELI)
24. DELI. PREPARATION
25. DELI. SALES (ALCOVE)
26. PRODUCE REFRIGERATION
27. PRODUCE, PREPARATION ROOM
28. POTATO/ONION STORAGE
29. PRODUCE SUPPLY
30. PRODUCE MANAGER'S OFFICE
31. RECEIVING OFFICE
32. BREAK ROOM
33. MEAT AISLE
34. WOMEN'S TOILETS AND LOCKER ROOM
35. MEN'S TOILETS AND LOCKER ROOM
36. PRODDUCE SALES
37. SALVAGE
38. CUTTING AND MARKING
39. CHECK OUT
40. CART STORAGE
41. I.D.AREA
42. JANITOR'S (A,B,C,D,E)
43. ELECTRICAL ROOM
44. SENSITIVE STORAGE
45. DEPUTY COMMISSARY OFFICER
46. COMMISSARY OFFICER
47. SECRETARY/WAITING
48. TOILET WOMEN'S
49. TOILET MEN'S
50. SALES SUPPORT ROOM
51. COMPUTER ROOM
52. CCTV ROOM
53. STORAGE
54. GENERAL ADMINISTRATION
55. BREAK ROOM
56. SALES ROOM
57. DRY STORAGE
58. MECHANICAL CHASE
59. MATERIAL HANDLING EQUIPMENT STATION
60. MEAT AND PRODUCE RECEIVING
61. EXIT
62. ENTRY
63. EXIT
64. CORRIDOR (A,B,C,D,E,F)
65. MECH. MEZZ.
66. STORAGE
67. STORAGE
68. VESTIBULE (A,B)
69. VESTIBULE
70. STORAGE
71. TELEPHONE EQUIPMENT
72. PIPE CHASE
73. STORAGE
74. PUMP ROOM
75. STORAGE

DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY

CROWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
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CHECKED: B. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
ELECTRICAL SYMBOLS &
LIGHTING FIXTURE SCHEDULES

SUBMITTED:
DATE APPROVED:
SCALE: NONE
SPEC. No. 7283
SHEET E1.1 131 OF 155
FILE No. 192-25-564

GPO 790-228

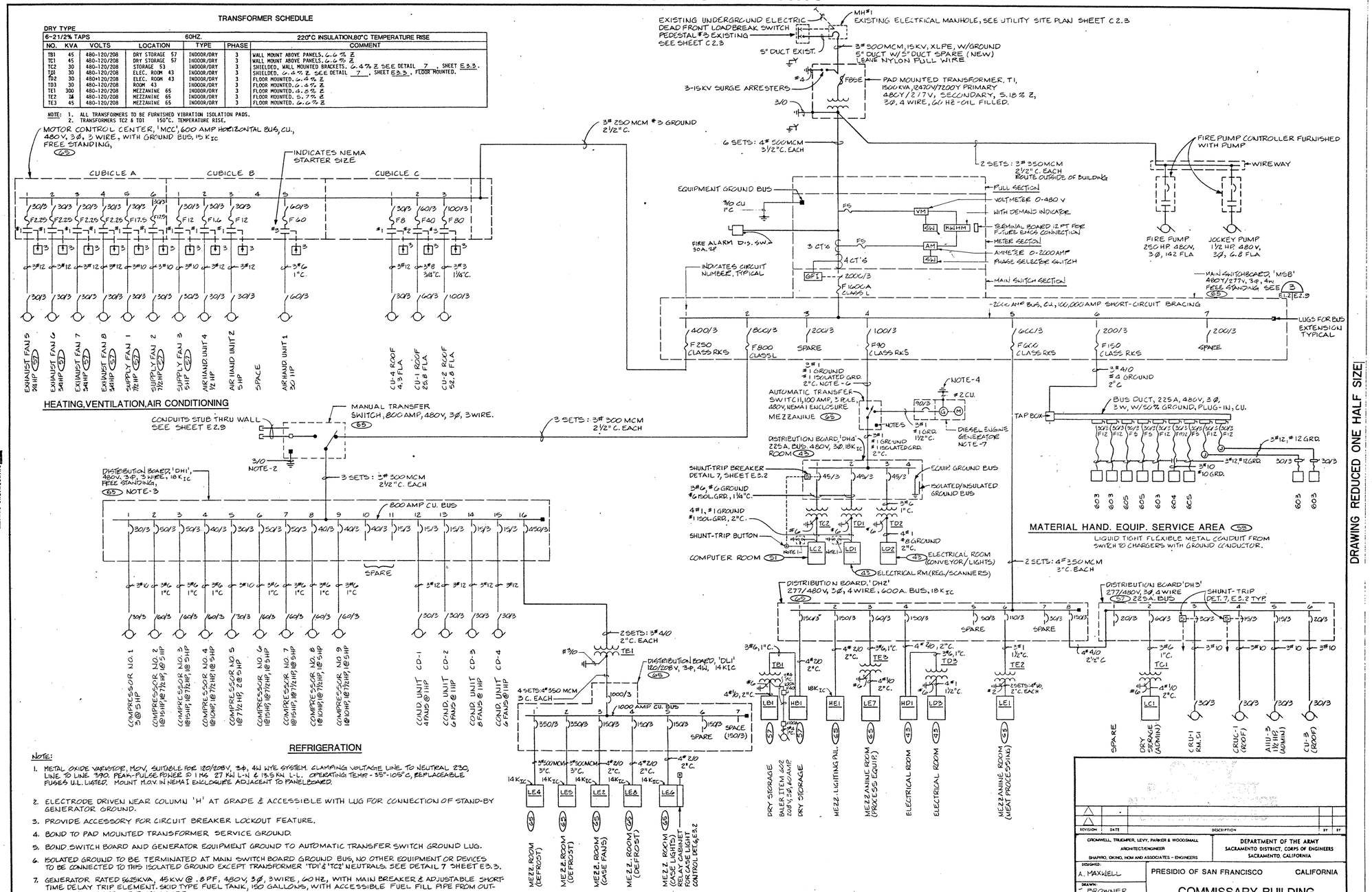
FUNCTION ANALYSIS - VE PAYS

TRANSFORMER SCHEDULE

DRY TYPE

6-2 1/2% TAPS			60HZ.			220°C INSULATION,80°C TEMPERATURE RISE
NO.	KVA	VOLTS	LOCATION	TYPE	PHASE	COMMENT
TB1	45	480-120/208	DRY STORAGE 57	INDOOR/DRY	3	WALL MOUNT ABOVE PANELS. 6.6 % Z
TC1	45	480-120/208	DRY STORAGE 57	INDOOR/DRY	3	WALL MOUNT ABOVE PANELS. 6.6 % Z
TC2	30	480-120/208	STORAGE 53	INDOOR/DRY	3	SHIELDED. WALL MOUNTED BRACKETS. 6.4 % Z SEE DETAIL 7 , SHEET E3.3.
TD1	30	480-120/208	ELEC. ROOM 43	INDOOR/DRY	3	SHIELDED. 6.4 % Z. SEE DETAIL 7 , SHEET E3.3 . FLOOR MOUNTED.
TD2	30	480+120/208	ELEC. ROOM 43	INDOOR/DRY	3	FLOOR MOUNTED. 6.4 % Z
TD3	30	480-120/208	ROOM 43	INDOOR/DRY	3	FLOOR MOUNTED. 6.4 % Z
TE1	300	480-120/208	MEZZANINE 65	INDOOR/DRY	3	FLOOR MOUNTED. 4.8 % Z
TE2	36	480-120/208	MEZZANINE 65	INDOOR/DRY	3	FLOOR MOUNTED. 5.7 % Z
TE3	45	480-120/208	MEZZANINE 65	INDOOR/DRY	3	FLOOR MOUNTED. 6.6 % Z

NOTE: 1. ALL TRANSFORMERS TO BE FURNISHED VIBRATION ISOLATION PADS.
2. TRANSFORMERS TC2 & TD1 150°C. TEMPERATURE RISE.



NOTE:

1. METAL OXIDE VARISTOR, MOV, SUITABLE FOR 120/208V, 3Ø, 4W WYE SYSTEM. CLAMPING VOLTAGE LINE TO NEUTRAL 230, LINE TO LINE 390. PEAK-PULSE POWER @ 1 MS 27 KW L-N & 13.5 KW L-L. OPERATING TEMP - 55°-105°C, REPLACEABLE FUSES U.L. LISTED. MOUNT M.O.V. IN NEMA 1 ENCLOSURE ADJACENT TO PANELBOARD.
2. ELECTRODE DRIVEN NEAR COLUMN 'H' AT GRADE & ACCESSIBLE WITH LUG FOR CONNECTION OF STAND-BY GENERATOR GROUND.
3. PROVIDE ACCESSORY FOR CIRCUIT BREAKER LOCKOUT FEATURE.
4. BOND TO PAD MOUNTED TRANSFORMER SERVICE GROUND.
5. BOND SWITCH BOARD AND GENERATOR EQUIPMENT GROUND TO AUTOMATIC TRANSFER SWITCH GROUND LUG.
6. ISOLATED GROUND TO BE TERMINATED AT MAIN SWITCH BOARD GROUND BUS, NO OTHER EQUIPMENT OR DEVICES TO BE CONNECTED TO THIS ISOLATED GROUND EXCEPT TRANSFORMER 'TD1' & 'TC2' NEUTRALS. SEE DETAIL 7 SHEET E3.3.
7. GENERATOR RATED 56.25KVA, 45 KW @ .8 PF, 480V, 3Ø, 3 WIRE, 60 HZ, WITH MAIN BREAKER & ADJUSTABLE SHORT-TIME DELAY TRIP ELEMENT. SKID TYPE FUEL TANK, 150 GALLONS, WITH ACCESSIBLE FUEL FILL PIPE FROM OUTSIDE WEATHERPROOF ENCLOSURE.
8. K_{IC} = SHORT-CIRCUIT INTERRUPT CAPACITY, IN 1000. UNLESS INDICATED OTHERWISE PANEL SHALL HAVE 10 K_{IC} RATING.

1 / E1.2 E1.2 **SINGLE LINE DIAGRAM**
NOT TO SCALE

REVISION	DATE	DESCRIPTION	BY	BY

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CHECKED: B. WOODSMALL
SUBMITTED:
DATE APPROVED

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
SINGLE LINE DIAGRAM

SCALE: NONE | SPEC No. 7053
SHEET E1.2 | FILE No. 92-23-504
12 OF 19

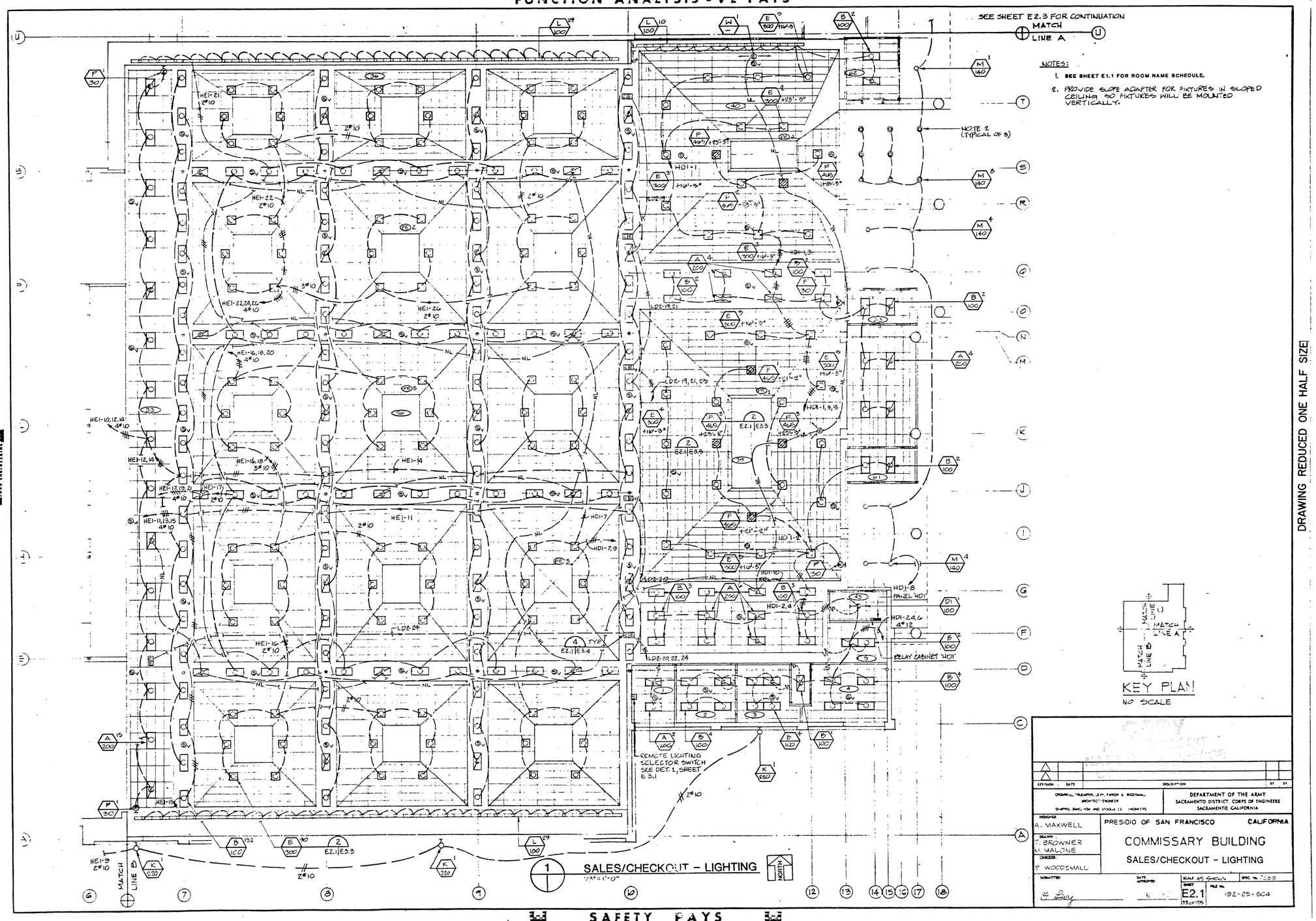
DRAWING REDUCED ONE HALF SIZE

ENVIRONMENTAL MANAGEMENT FIRM ENGINEERING

B
401 J01

SAFETY PAYS

FUNCTION ANALYSIS - VE PAYS



DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY

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SUBMITTED:
DATE APPROVED:

PRESIDIO OF SAN FRANCISCO — CALIFORNIA

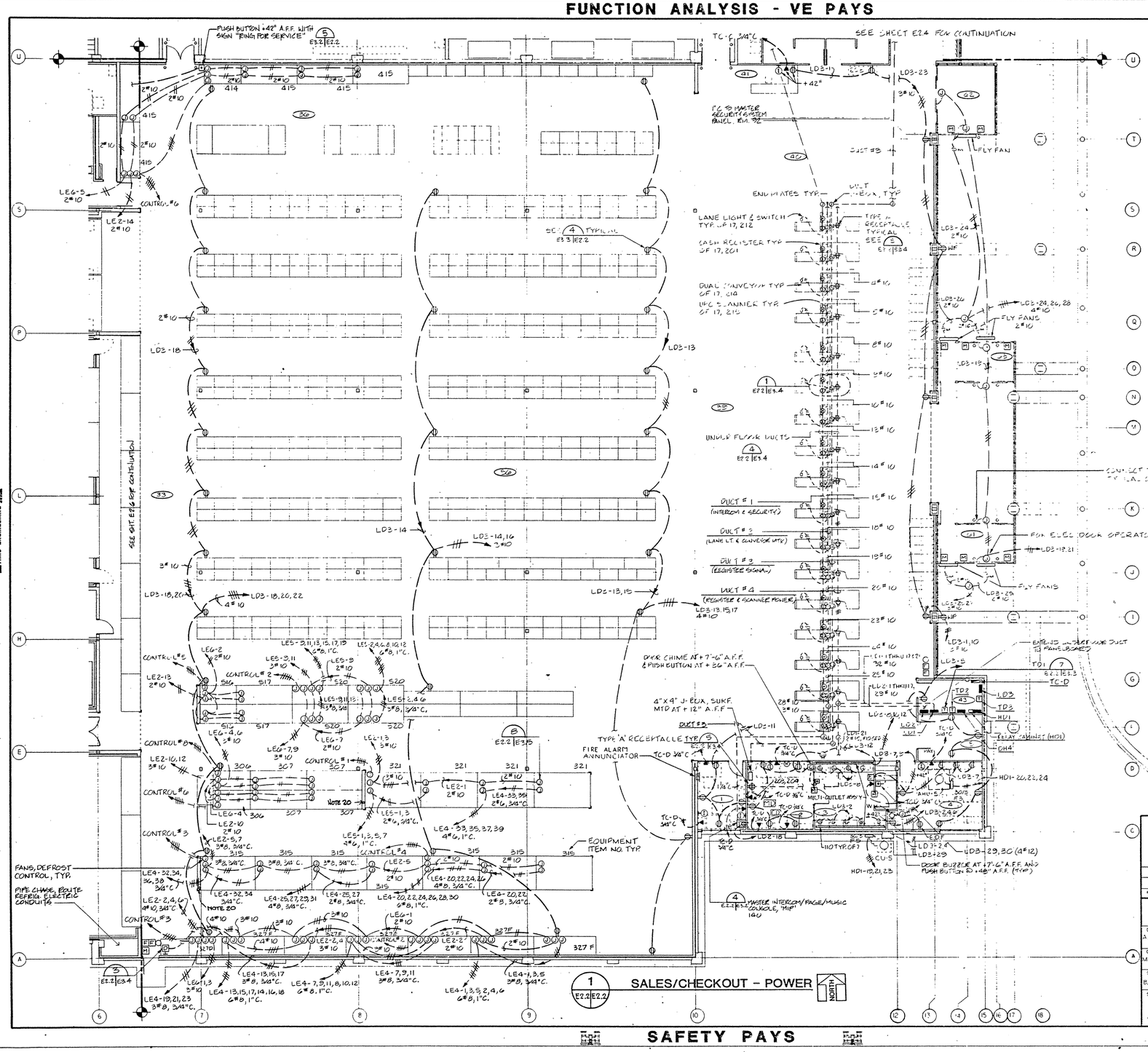
COMMISSARY BUILDING

SALES/CHECKOUT - LIGHTING

SCALE: AS SHOWN | SPEC. No. 7555
SHEET: E2.1 (33 of 155) | FILE No. 192-25-504

SAFETY PAYS

FUNCTION ANALYSIS - VE PAYS



GENERAL POWER NOTES: (ALL SHEETS)

1. PROVIDE BELLS, BUZZER, AND PUSHBUTTONS, AS INDICATED. PROVIDE TRANSFORMER (120-8V) ABOVE CEILING OF A.D.P. ROOM, MANAGER'S OFFICE AND IN LOADING AISLE. EXTERIOR PUSHBUTTONS + 5'-0" A.F.F. MOUNT BELLS ON WALL AT CEILING. FUSE TRANSFORMER PRIMARY AT 1/2 AMP. CONNECT TRANSFORMER TO BELLS AND PUSHBUTTONS USING LOW VOLTAGE APPROVED BELL WIRE (#18 AWG).
2. VERIFY EXACT LOCATION OF CHECKOUT STANDS WITH CONTRACTING OFFICER PRIOR TO ROUGH-IN.
3. PROVIDE A SEPARATE GROUND CONDUCTOR (GREEN) TO EACH RECEPTACLE IN THE CHECKOUT STANDS FROM PANEL "LD2" GROUND BUS, AND PROVIDE A SEPARATE CIRCUIT FROM PANEL "LD1" TO EACH CHECKOUT STAND FOR CASH REGISTER POWER.
4. PROVIDE A JUNCTION BOX AT EACH CHECKOUT ON THE DUCT FOR POWER AND PROVIDE CONNECTIONS TO THE CONVEYOR MOTORS AND INTERNAL RECEPTACLES.
5. PROVIDE A MOTION DETECTOR IN THE SAFE ROOM AND CONNECT TO SECURITY ALARM SYSTEM.
6. THE CONTRACTOR SHALL PROVIDE AND INSTALL A PULL WIRE FOR CASH REGISTER COMMUNICATIONS AND CONTROL CABLE FROM THE CASH REGISTER STUB-UPS.
7. ALL CONDUIT FOR INTRUSION ALARM SYSTEM TO BE GALVANIZED RIGID STEEL.
8. ALL CONDUIT IN COOLERS AND FREEZERS TO BE GALVANIZED RIGID STEEL.
9. CONTRACTOR TO PROVIDE CIRCUITS AND MAKE FINAL CONNECTIONS TO REFRIGERATED CASES AND EQUIPMENT. VERIFY EXACT LOCATION OF CIRCUIT CONNECTION AND POWER REQUIREMENTS PRIOR TO ROUGH-IN.
10. ALL ELECTRICAL DEVICES, CONNECTIONS AND EQUIPMENT IN COOLERS, FREEZERS AND EXTERIOR SHALL BE VAPOR-PROOF.
11. ALL 20 A, 120 V RECEPTACLES IN WALK-IN COOLER AREAS SHALL BE G.F.I.
12. CONDUCTOR COUNT IS SHOWN FOR HOMERUN ONLY.
13. CONDUCTORS FLAGGED ON HOMERUN WILL BE EXTENDED TO MOST DISTANT OUTLET UNLESS OTHERWISE INDICATED.
14. ALL CONDUITS ENTERING OR LEAVING JUNCTION BOX SHALL BE IDENTIFIED WITH COLOR CODE TAPE AS FOLLOWS: (1) FIRE ALARM - RED TAPE; (2) ELECTRIC - BLUE TAPE; (3) LOW VOLTAGE - YELLOW TAPE; (4) INTERCOM PAGING - BROWN TAPE. SEE DETAIL 3, DRAWING E3.2.
15. ALL DEFROST CIRCUITS SHALL RUN THRU CONTACTORS FURNISHED WITH COMMISSARY EQUIP.
16. ALL CONTROL CIRCUITS SHALL RUN TO REFRIGERATION COMPRESSOR RACKS.
17. ALL FLUORESCENT LIGHT FIXTURES WITH SELF-CONTAINED EMERGENT BATTERY UNITS SHALL HAVE UNSWITCHED PHASE & NEUTRAL CONNECTED AT ALL TIMES.
18. HOMERUN CIRCUITS ARE SHOWN ONLY. CONTRACTOR SHALL ASSURE HIMSELF OF ADDITIONAL WIRING SUCH AS UNSWITCHED EMERGENT LIGHTING CIRCUITS, EXIT LIGHTS, RUNNERS FOR MULTI-WAY CONTROL OF LIGHTING FIXTURES & DUAL SWITCHING OF 4 LAMP FLUORESCENT FIXTURES.
19. EQUIPMENT GROUND CONDUCTOR SIZED IN ACCORDANCE WITH N.E.C. TABLE 250-95 SHALL BE INSTALLED WITH ALL CIRCUITS.

DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

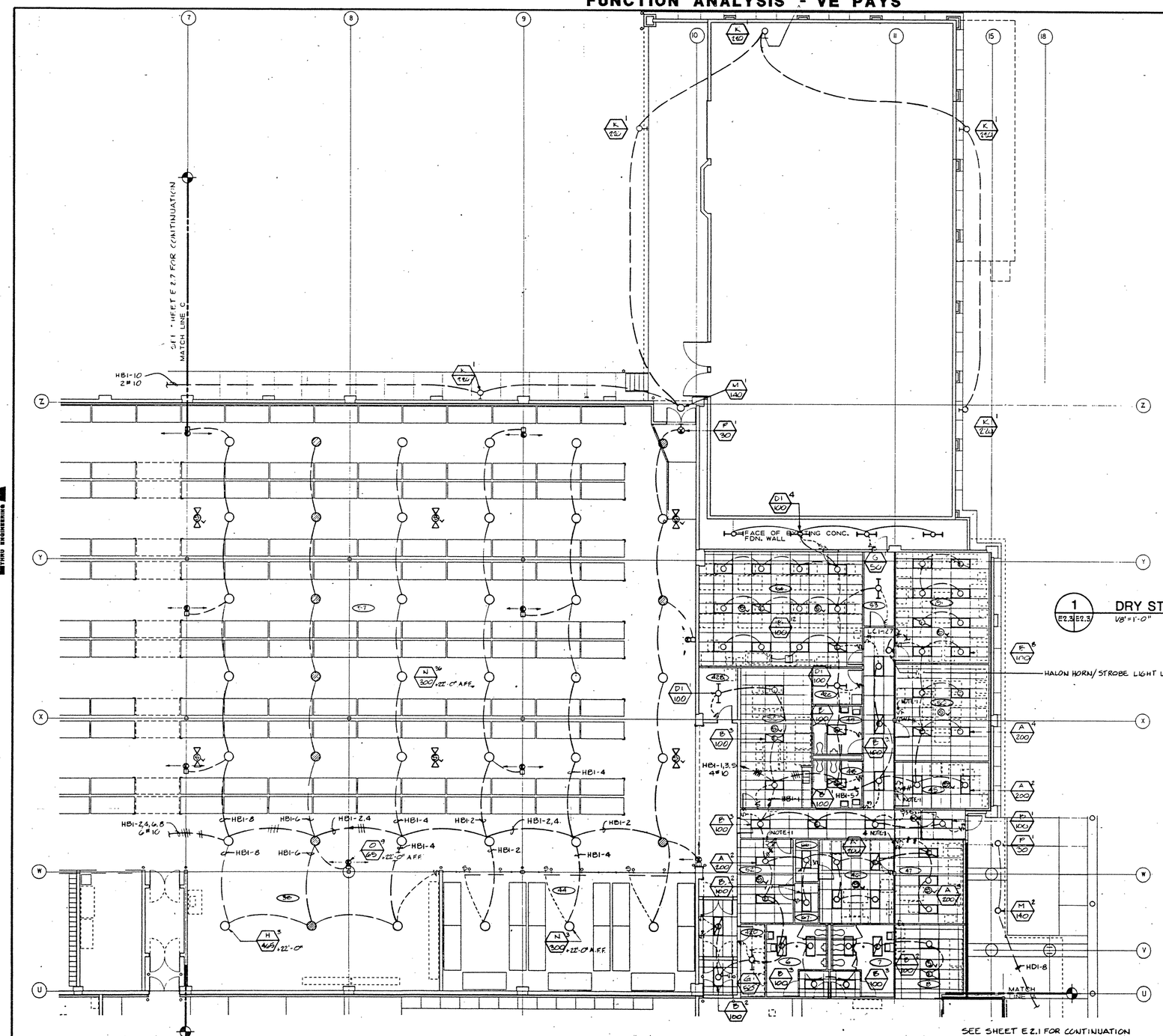
DESIGNED A. MAXWELL
DRAWN M. MALONE
CHECKED B. WOODSMALL
SUBMITTED
DATE APPROVED

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
SALES/CHECKOUT - POWER

SCALE: 1/8" = 1'-0" | SPEC No. 7285
SHEET E2.2 (134 of 195) | FILE NO. 182-25-504

SAFETY PAYS

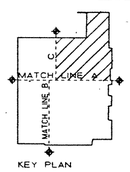


NOTE:

1. INSIDE LAMPS SWITCHED SEPERATELY FROM OUTSIDE LAMPS.

1 E2.3|E2.3 DRY STORAGE/ADMINISTRATION - LIGHTING
1/8"=1'-0"

PROJECT NORTH



KEY PLAN

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GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY
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CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
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SHAVIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: M. MALLINE
CHECKED: E. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

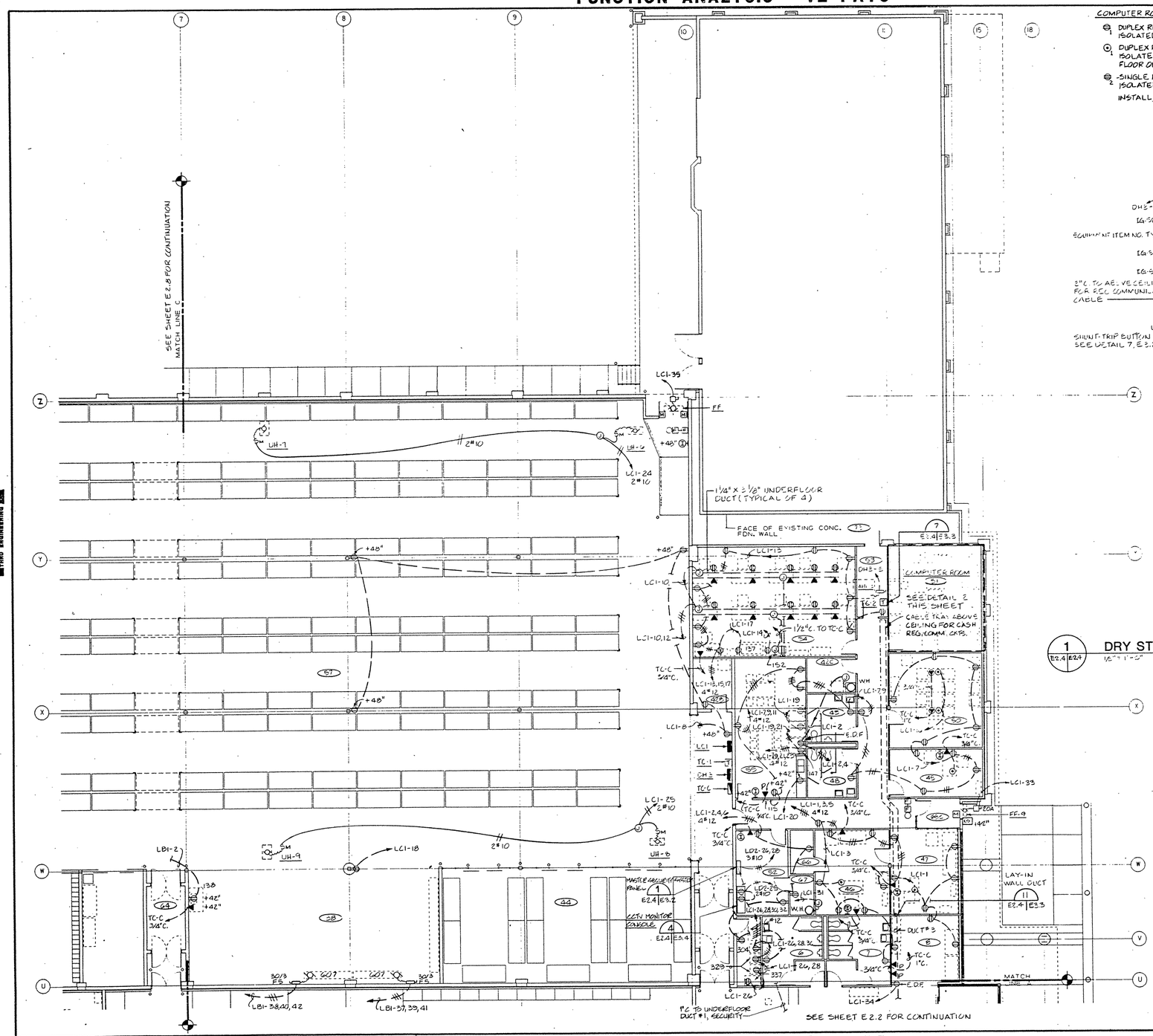
COMMISSARY BUILDING
DRY STORAGE/ADMINISTRATION - LIGHTING

SUBMITTED: [illegible]
DATE APPROVED: 6-1-81
SCALE: 1/8"=1'-0" | SPEC No. 7583
SHEET: E2.3 | FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

OCT 10, 1985

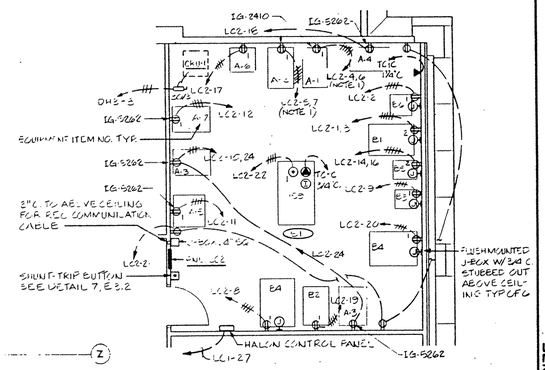
FUNCTION ANALYSIS - VE PAYS



COMPUTER ROOM LEGEND

1. DUPLEX RECEPTACLE 20 AMP, 125 VAC, 3 WIRE, GROUNDING, ORANGE, ISOLATED GROUND, NEMA 5-20R.
2. DUPLEX RECEPTACLE, 20 AMP, 125 VAC, 3 WIRE, GROUNDING, ORANGE ISOLATED GROUND MOUNTED IN CAST FLUSH TYPE, ADJUSTABLE. FLOOR OUTLET BOX, NEMA 5-20R.
3. SINGLE RECEPTACLE 20 AMP, 125/250 V, 4 WIRE, GROUNDING, ORANGE, ISOLATED GROUND. NEMA L14-20R.

INSTALL GREEN EQUIPMENT GROUND WITH ISOLATED GROUND CIRCUITS.



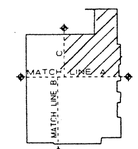
2 E2.4 | E2.4 COMPUTER ROOM (51)
1/4" = 1'-0"

NOTE:

1. RECEPTACLES A-1 & A-2 SHALL HAVE THE INTERNAL 1 POLE 20 AMP, 120 V CIRCUIT BREAKERS TO BE FED AS FOLLOWS: PHASE GROUND, NEUTRAL, L2 AND L3, AND ISOLATED GROUND.

1 E2.4 | E2.4 DRY STORAGE/ADMINISTRATION - POWER
1/8" = 1'-0"

PROJECT NORTH



KEY PLAN

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GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY
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CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A MAXWELL
DRAWN: F BROWNE, M MAI, J LE
CHECKED: E WOODSMALL
SUBMITTED:
DATE APPROVED:

PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING

DRY STORAGE/ADMINISTRATION - POWER

SCALE: 1/8" = 1'-0" | SPEC No. 7283
SHEET: E2.4 | FILE No.: 122-25-564

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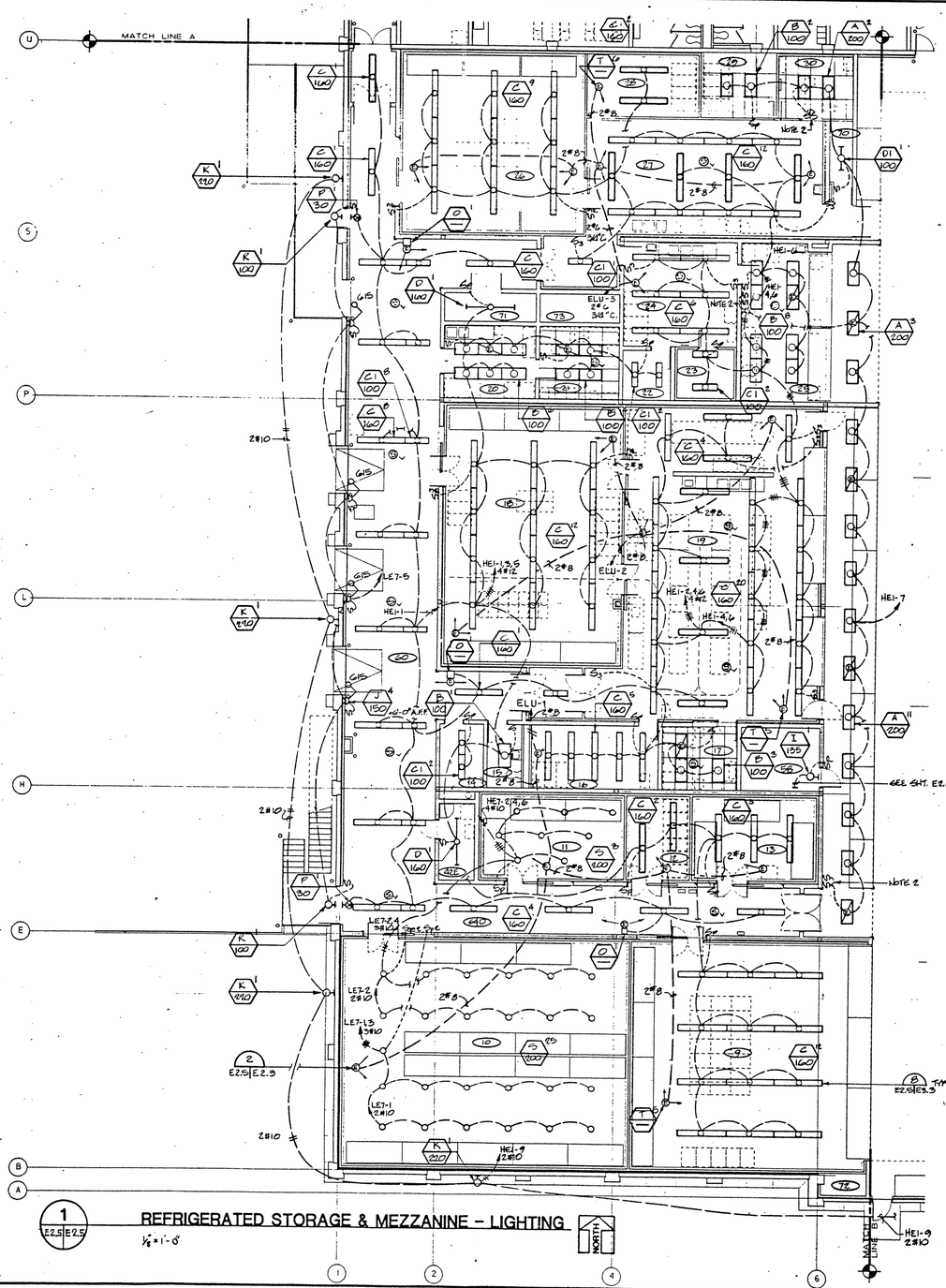
ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

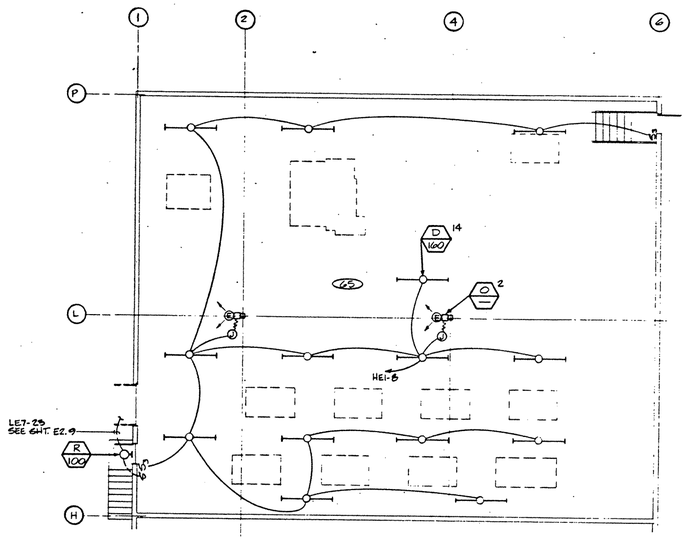
OCT 10, 1985

SAFETY PAYS

FUNCTION ANALYSIS - VE PAYS



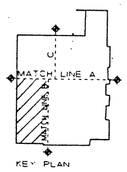
1 E2.5|E2.5 REFRIGERATED STORAGE & MEZZANINE - LIGHTING
1/8"=1'-0"



2 E2.5|E2.5 MEZZANINE - LIGHTING
1/4"=1'-0"

NOTE:
1. SEE DETAILS 6 & 8 SHT. E3.3 FOR CONDUIT PENETRATION OF REFRIGERATED BOXES.
2. INSIDE LAMPS SWITCHED SEPERATELY FROM OUTSIDE LAMPS.

PROJECT NORTH



KEY PLAN

DRAWING REDUCED ONE HALF SIZE

COPY
PLEASE CREDIT
MATT BROW CHRONICLE

REVISION	DATE	DESCRIPTION	BY	BY
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GROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

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DRAWN: T. BROWNER
CHECKED: B. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

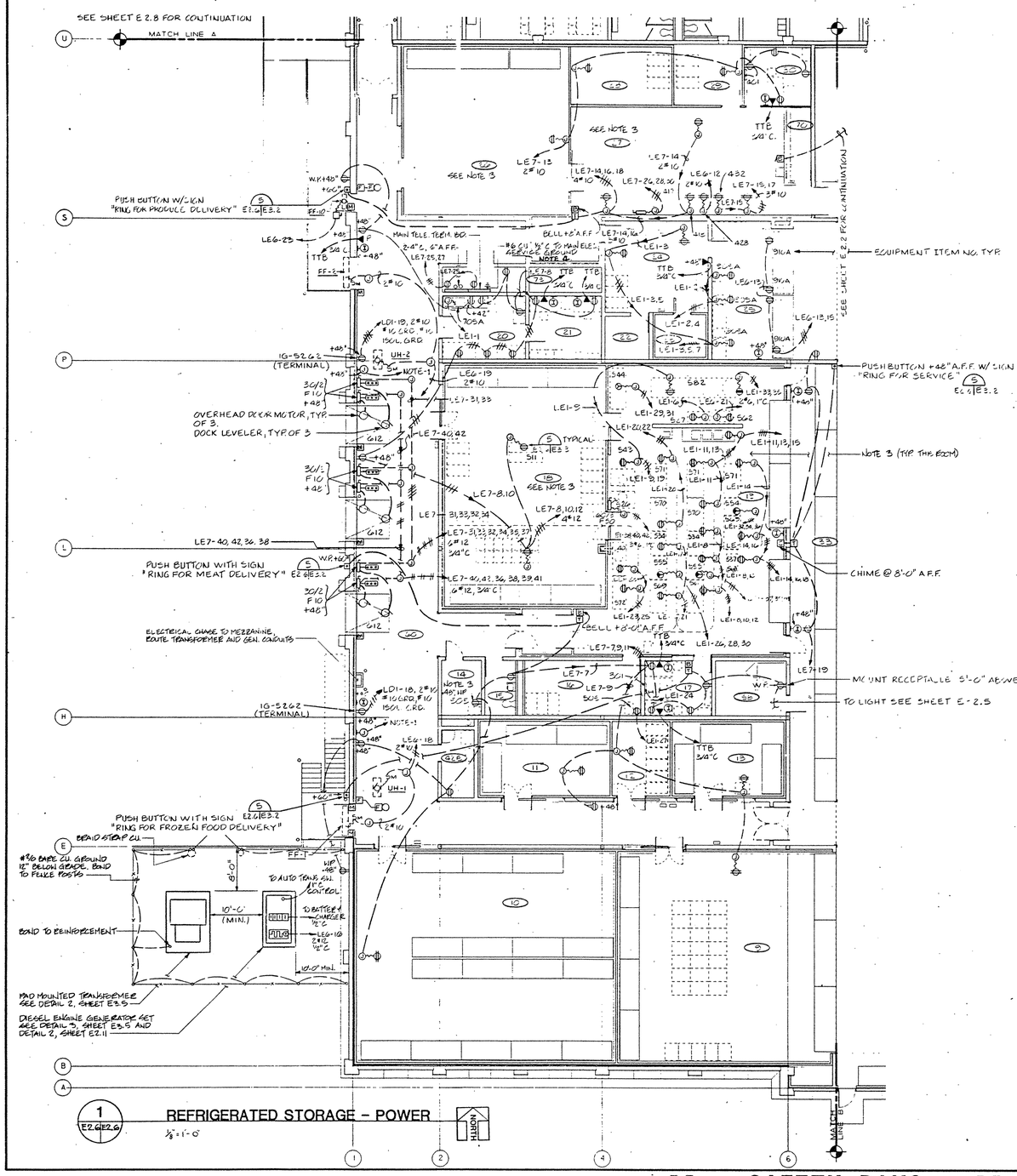
COMMISSARY BUILDING
REFRIGERATED STORAGE & MEZZANINE - LIGHTING

SUBMITTED:
DATE APPROVED:
SCALE: 1/8"=1'-0"
SPEC No. 7283
SHEET: E2.5 57 of 159
FILE No.: 192-25-504

415 415
416 416
417 417
418 418

10 OCT 1985

SAFETY PAYS



1 E2.6 E2.6

REFRIGERATED STORAGE - POWER

1/8" = 1'-0"

LEGEND - POWER DROPS

- 20 AMP, 2 POLE, 3 WIRE GROUND, 125 V, WITH CAP, LOCKING RECEPTACLE AND PLUG, WEATHERPROOF, NEMA L5-20
- 20 AMP, 2 POLE, 3 WIRE GROUND, 250 V, WITH CAP, LOCKING RECEPTACLE AND PLUG, WEATHERPROOF, NEMA L6-20
- 30 AMP, 2 POLE, 3 WIRE, GROUND, 250 V, WITH CAP, LOCKING RECEPTACLE AND PLUG, WEATHERPROOF, NEMA L6-30
- 50 AMP, 3 POLE, 3 WIRE, GROUND, 250 V, WITH CAP, LOCKING RECEPTACLE AND PLUG, WEATHERPROOF, NEMA L15-50
- 20 AMP, 3 POLE, 3 Ø, 4 WIRE, GROUND, 250 V, WITH CAP, LOCKING RECEPTACLE AND PLUG, WEATHERPROOF, NEMA L14-20.

NOTE: SEE DETAIL 5, SHEET E 3.3 TYP. FOR POWER DROPS.

NOTES:

1. ROUTE 3/4" EMPTY CONDUIT TO 4"X4" JUNCTION BOX IN CASHIER'S OFFICE ROOM (2) LEAVE PULL WIRE. FLUSH MOUNT J-BOX AT +48", FURNISH STAINLESS STEEL PLATE WITH 3/8" DIA. BUSHED OPENING.
2. FOR REFRIGERATION SEE SHEET E 2.11.
3. ALL RECEPTACLES IN ROOMS 14, 16, 19, 26 & 27 SHALL BE FURNISHED AS GROUND FAULT INTERRUPTED.
4. LEAVE 16 FOOT OF COILED WIRE.

PROJECT NORTH

RE: PLAN

DRAWING REDUCED ONE HALF SIZE

COPY

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: F. BROWNER, M. MASSNI
CHECKED: E. WOLF MALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
REFRIGERATED STORAGE - POWER

SUBMITTED: E. Levy
DATE APPROVED: 6-11-87
SCALE: 1/8" = 1'-0"
SHEET: E2.6
FILE No.: 192-25-504
SPEC No. 7283

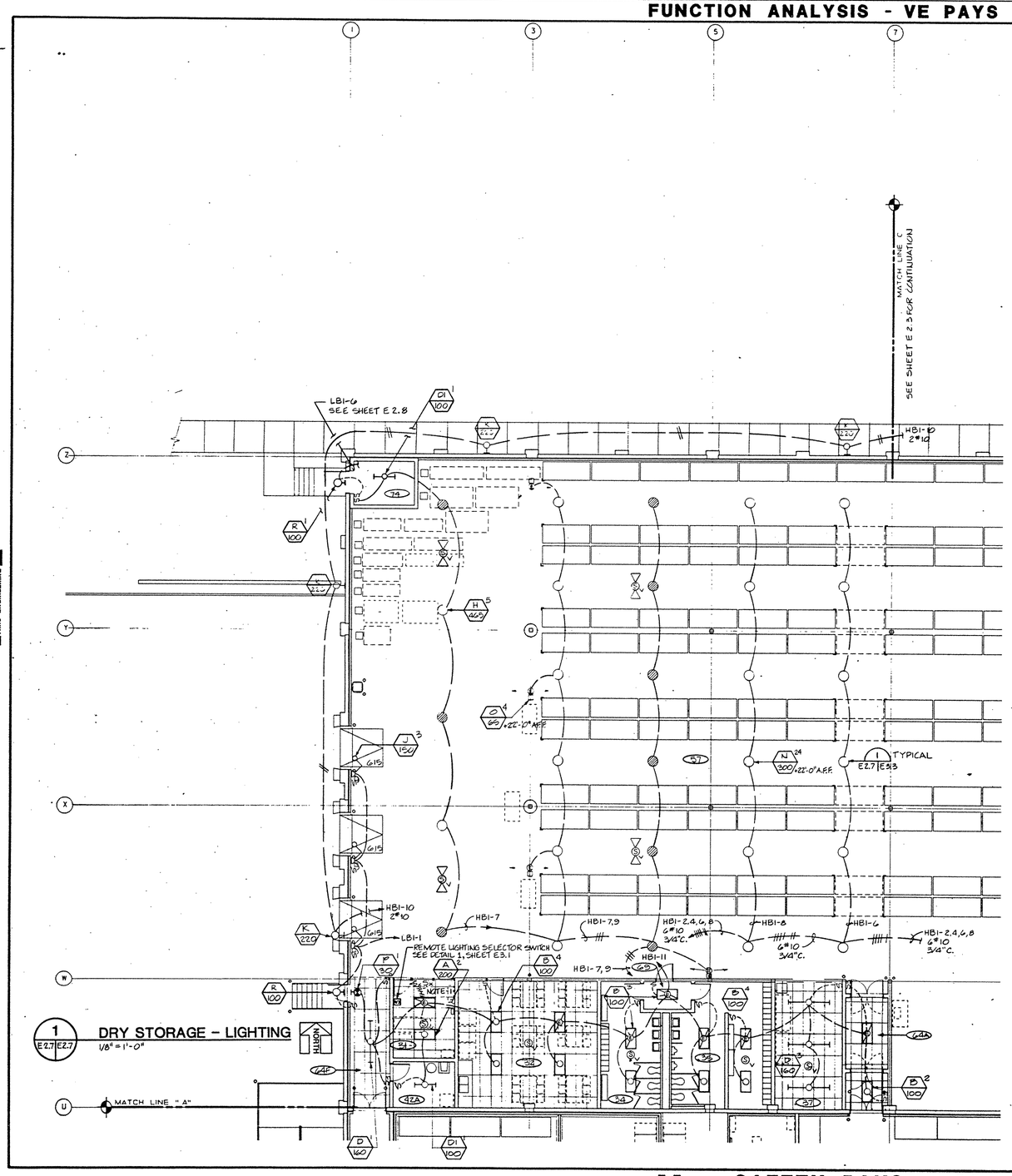
415 415
419 419

10 OCT 1985

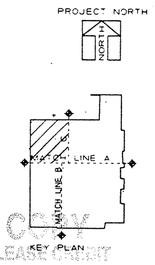
FUNCTION ANALYSIS - VE PAYS

NOTE:

1. INSIDE LAMPS SWITCHED SEPERATLY FROM OUTSIDE LAMPS.



1 E2.7 E2.7 DRY STORAGE - LIGHTING
1/8" = 1'-0"



KEY PLAN

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REVISION	DATE	DESCRIPTION	BY	BY
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GROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: M. MALONE
CHECKED: B. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
DRY STORAGE - LIGHTING

SUBMITTED: B. Levy
DATE APPROVED:
SCALE: 1/8" = 1'-0"
SHEET: E2.7
137 of 155
SPEC No. 7283
FILE No. 192-25-504

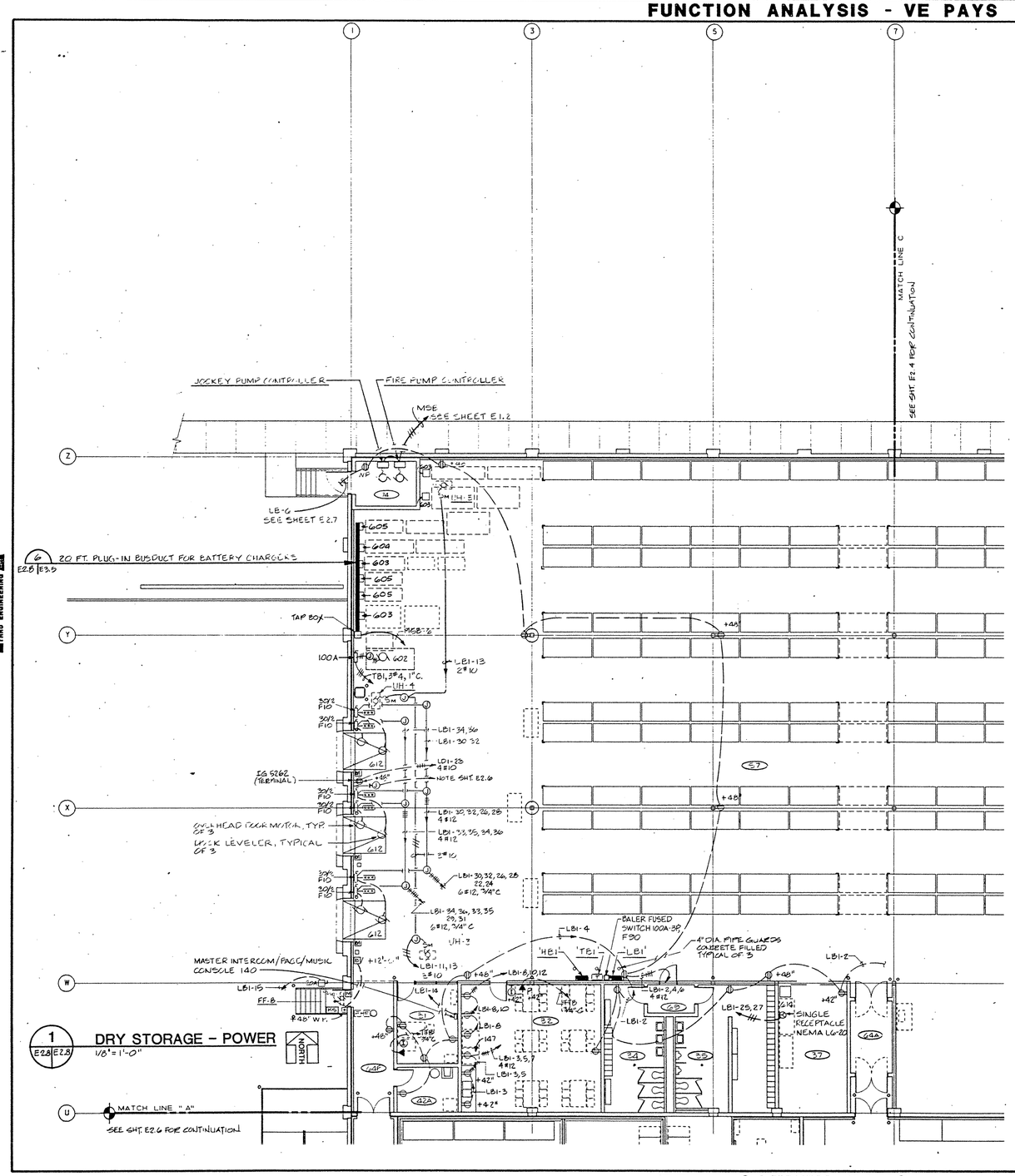
DRAWING REDUCED ONE HALF SIZE

SAFETY PAYS

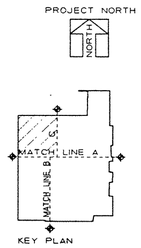
421 422 423 424
422 423 424

10/31/85

121



1 E2.8 E2.8 DRY STORAGE - POWER
1/8" = 1'-0"



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REVISION	DATE	DESCRIPTION	BY	BY

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED A. MAXWELL
DRAWN M. MALLINE
CHECKED B. WOODSMALL
SUBMITTED
DATE APPROVED

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

DRY STORAGE - POWER

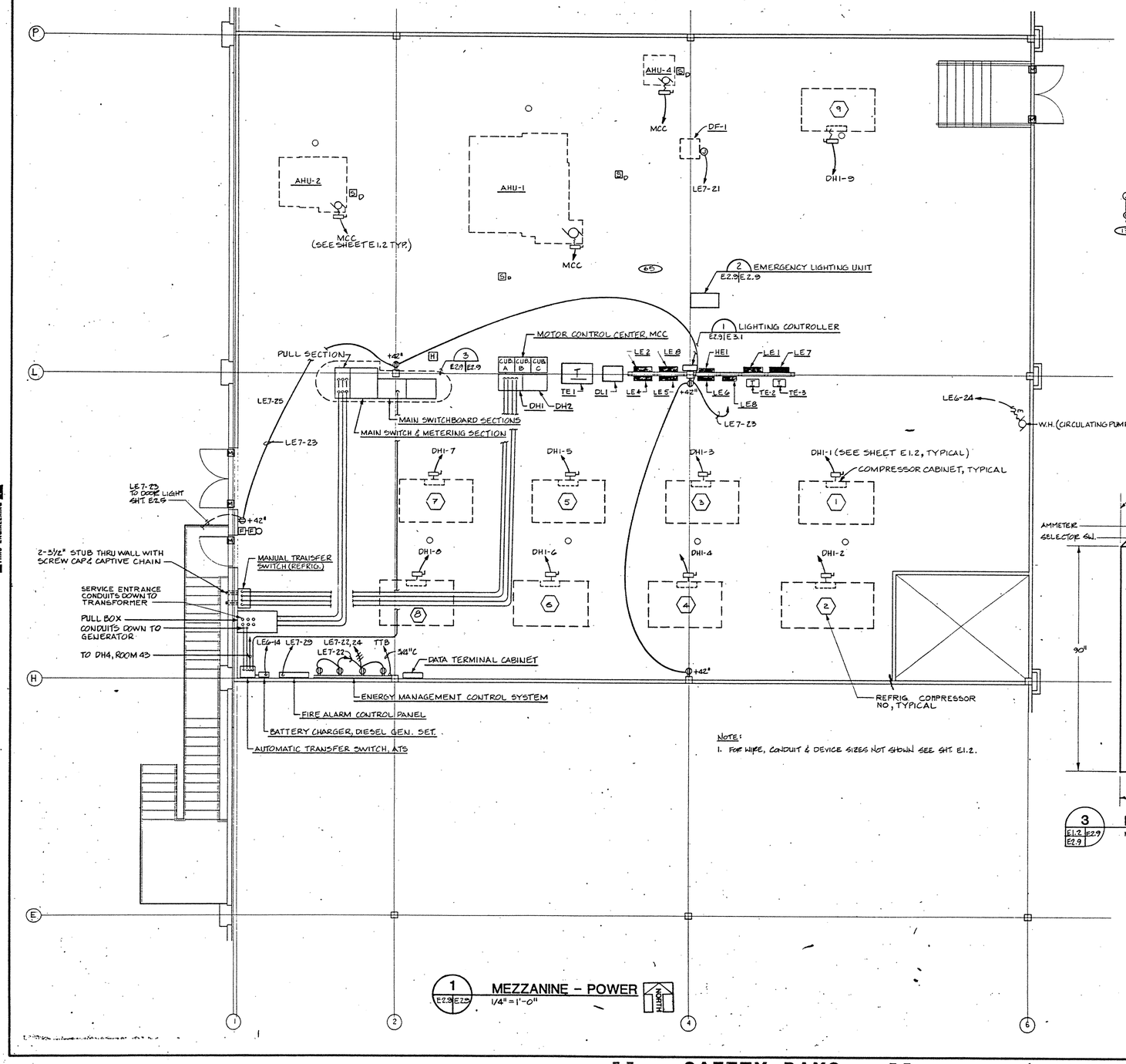
SCALE: 1/8" = 1'-0" SPEC NO. 72-83
SHEET E2.8 OF 166
FILE NO. 192-25-504

DRAWING REDUCED ONE HALF SIZE

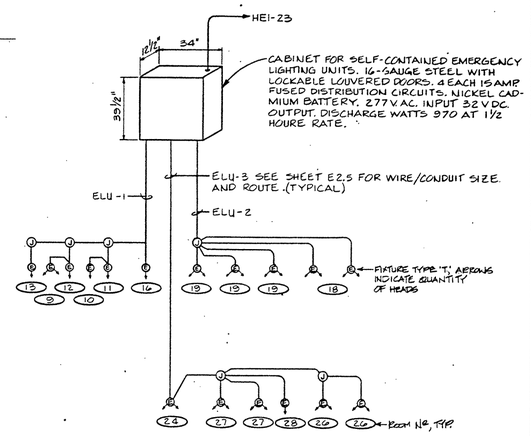
10/31/85

A21

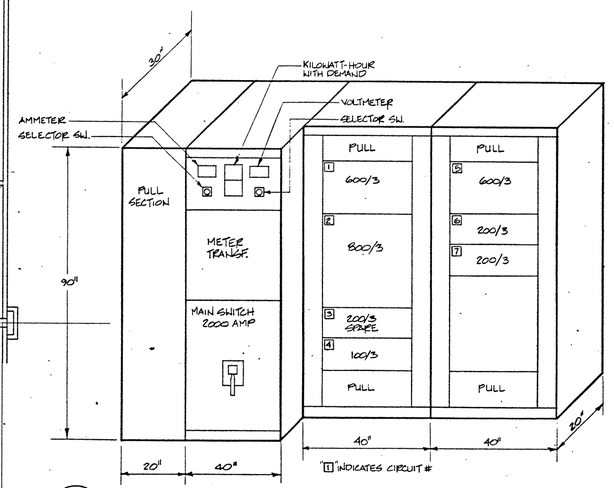
FUNCTION ANALYSIS - VE PAYS



1 E2.9 E2.9 MEZZANINE - POWER
1/4" = 1'-0"



2 E1.1 E2.9 E2.5 EMERGENCY LIGHTING - COOLERS/FREEZERS
NOT TO SCALE



3 E1.2 E2.9 E2.9 MAIN SWITCHBOARD
NOT TO SCALE

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPINO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: T. BROWNER, M. MALONE
CHECKED: B. WOODSMALL
SUBMITTED:
DATE APPROVED:

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

MEZZANINE - POWER

SCALE: 1/4" = 1'-0" | SPEC No. 7263
SHEET E2.9 | FILE No. 192-25-504

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ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

SAFETY PAYS

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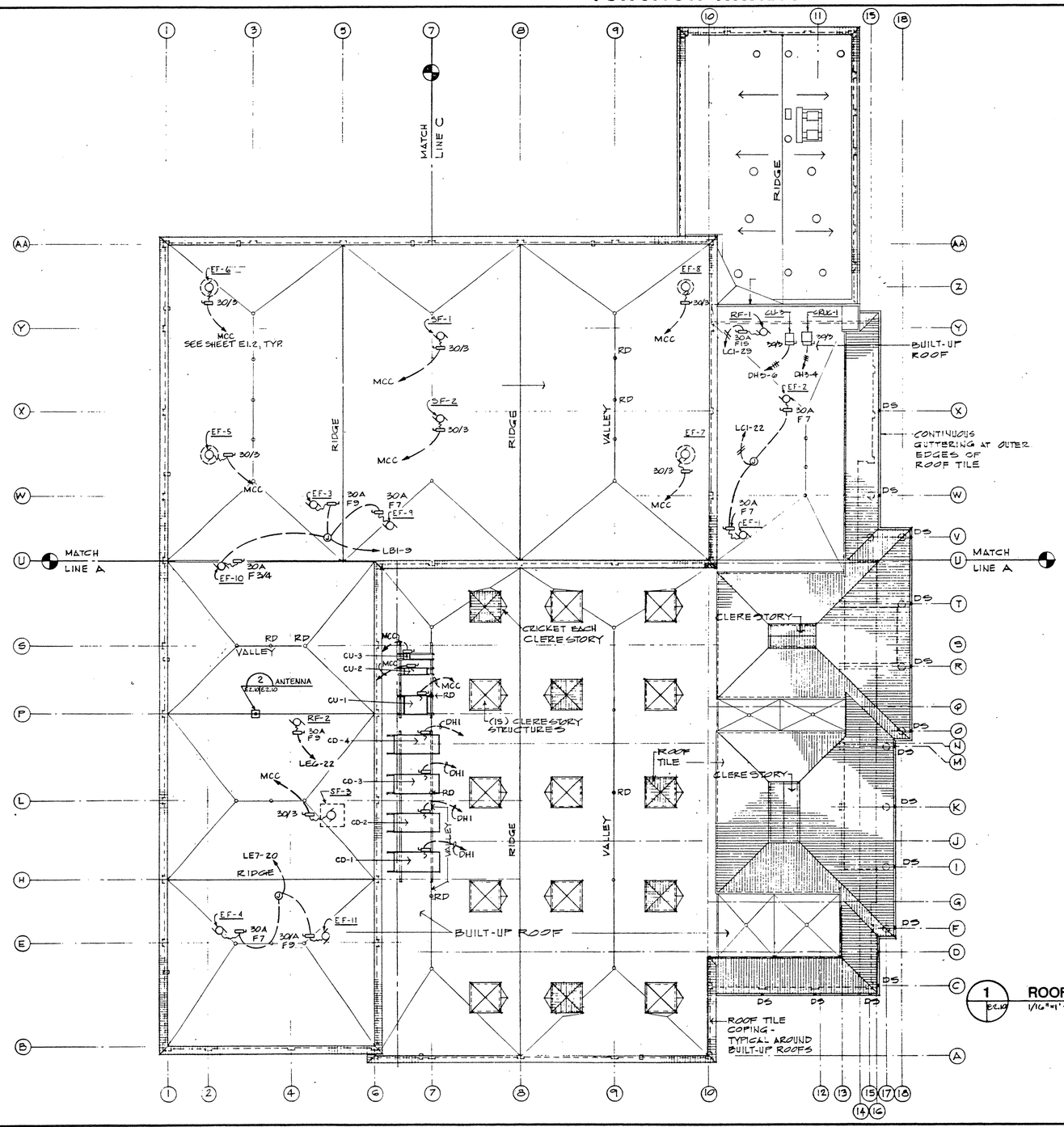
GOLDEN GATE

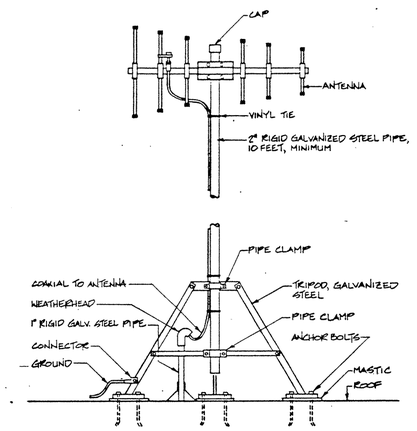


1 E2.10 **ROOF PLAN - POWER**
1/16"=1'-0"

NORTH

NOTE:

1. ALL DISCONNECT SWITCHES ON ROOF SHALL BE NEMA TYPE 3R.
2. SEE SINGLE LINE DIAGRAM FOR CONDUIT, WIRE & SWITCH SIZES NOT SHOWN.



2 E2.10/E2.10 **ANTENNA - FIRE ALARM TRANSMITTER**
NOT TO SCALE

DRAWING REDUCED ONE HALF SIZE

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, DONG, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: M. MALONE
CHECKED: B. WOODSMALL
SUBMITTED:
DATE APPROVED:

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

ROOF PLAN - POWER

SCALE: AS SHOWN
SPEC. No. 7283
SHEET E2.10 142 OF 155
FILE No. 192-25-504

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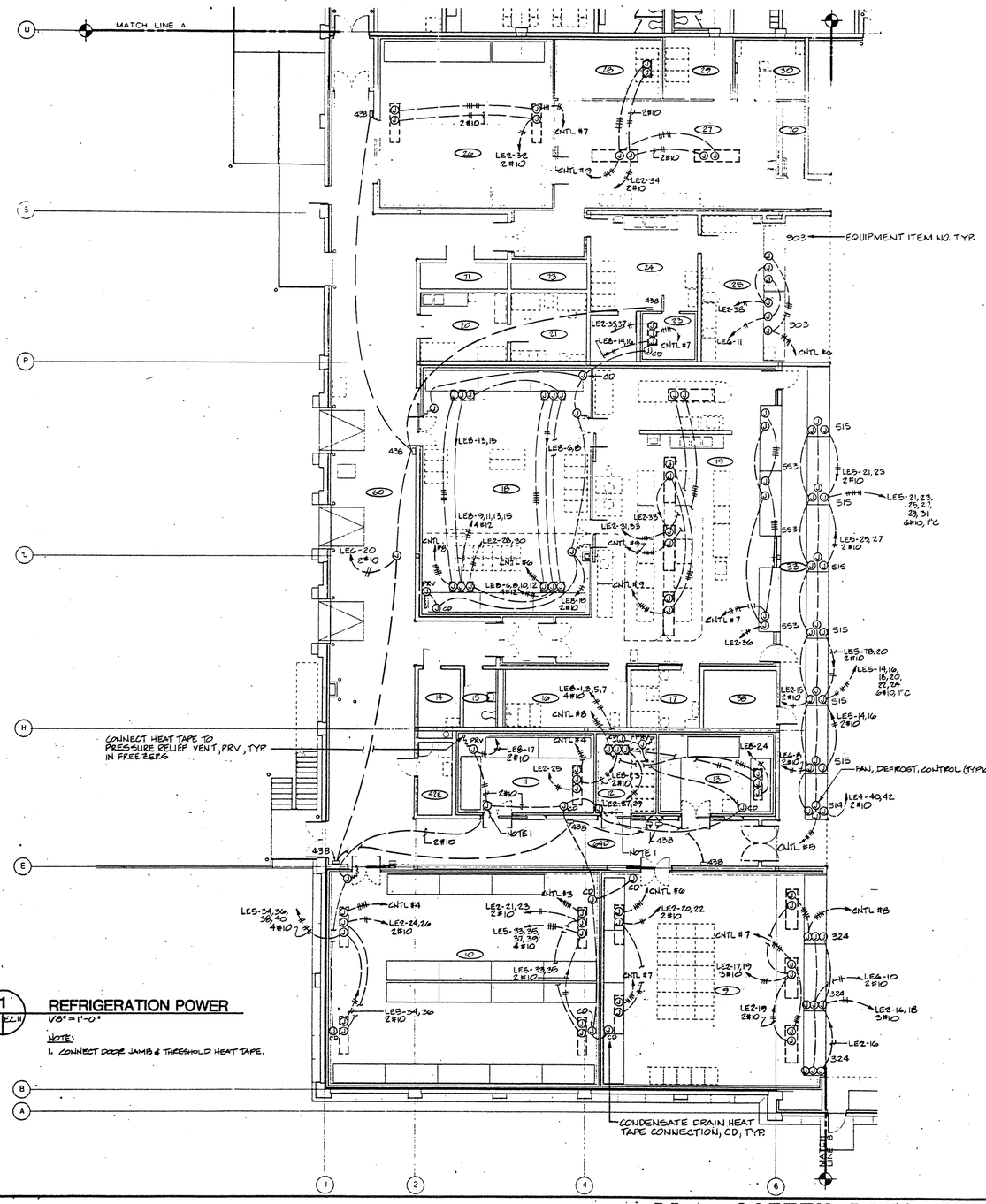
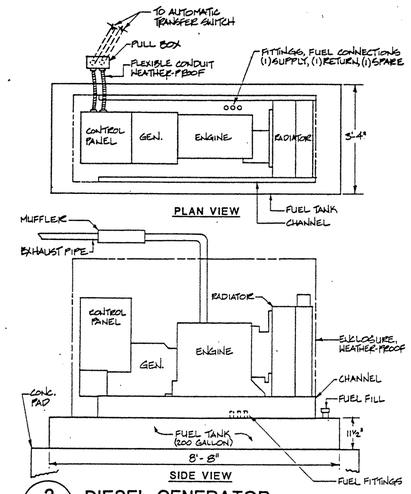
FUNCTION ANALYSIS - VE PAYS

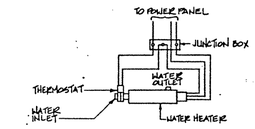


1 E2.11 | E2.11 **REFRIGERATION POWER**
1/8" = 1'-0"

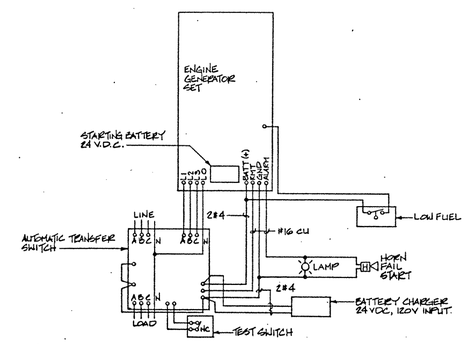
NOTE:
1. CONNECT DOOR JAMB & THRESHOLD HEAT TAPE.



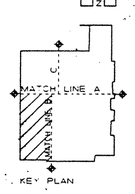
2 E2.11 | E2.11 **DIESEL GENERATOR**
NOT TO SCALE



3 E2.11 | E2.11 **WATER JACKET HEATER**
NOT TO SCALE



4 E2.11 | E2.11 **FIELD WIRING**
NOT TO SCALE



REVISION	DATE	DESCRIPTION	BY	BY
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CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES – ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: M. MALONE
CHECKED: B. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

REFRIGERATION POWER

SUBMITTED:
DATE APPROVED: 6-1-87
SCALE: 1/8" = 1'-0"
SPEC No. 7283
SHEET E2.11
FILE No. 192-25-504
43 of 155

DRAWING REDUCED ONE HALF SIZE

PRESIDIO
R.E.F. 10-1-87
10 OCT 1985

SAFETY PAYS

COPY
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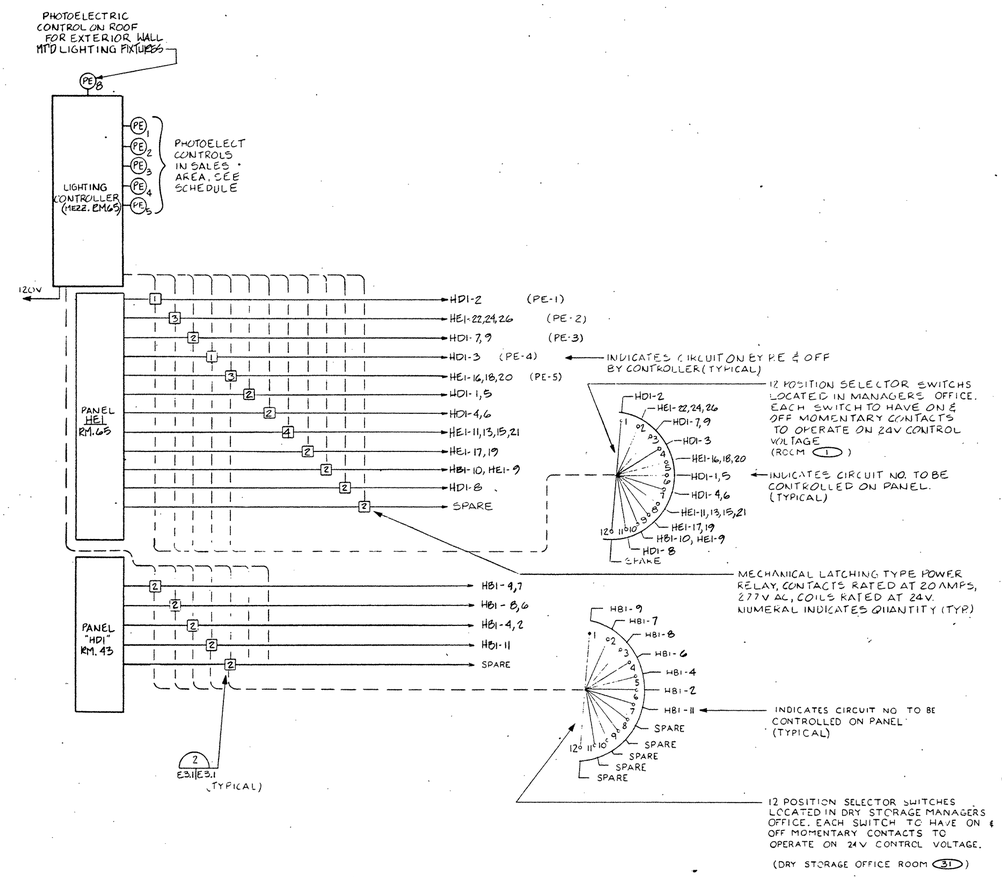
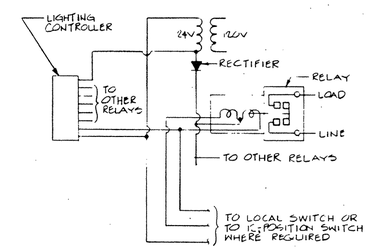
NAT'L PARK SERVICE
CONDA ARCHIVES





2 TYPICAL POWER RELAY CONNECTION

E3.1 E3.1

NOT TO SCALE

1 LIGHTING CONTROL SINGLE LINE

E2.9 E3.1

N.T.S.

PHOTO CONTROLS SCHEDULE

INSTALL PHOTO ELECTRIC CONTROLS WHERE SHOWN IN SALES AREA P.E. CONTROLS SHIELD P.E. SENSORS FROM INTERIOR LIGHT. ADJUST P.E. CELLS TO TURN (OFF) LIGHTS WHEN AVERAGE LIGHTING LEVELS OF DAYLIGHTING ONLY IN THE AISLE AT THE POINT INDICATED IS AS FOLLOWS:

P.E.-1-100 F.C. OR ABOVE AT TEST POINT
P.E.-2-80 F.C. OR ABOVE AT TEST POINT
P.E.-3-80 F.C. OR ABOVE AT TEST POINT
P.E.-4-100 F.C. " " " " "
P.E.-5-50 F.C. " " " " "

INSTALL TIMING RELAYS WITH "ON-DELAY" AND "OFF-DELAY" TIME ADJUSTMENT TO 1 TO 10 MIN. FOR "ON-DELAY" AND "OFF-DELAY". SET DELAYS AT 5 MIN. LOCATE RELAYS IN LIGHTING CONTROL CABINET. CONNECT BETWEEN P.E. AND LIGHTING CONTROLLER. TEST POINTS ARE 2'-6" ABOVE FLOOR.

REVISION	DATE	DESCRIPTION	BY	BY

GROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: M. MALONE
CHECKED: B. WOODSMALL
SUBMITTED: E. Gray
DATE APPROVED: 6-11-7

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

ELECTRICAL DETAILS

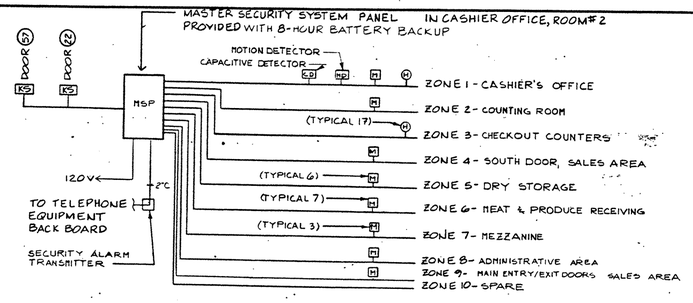
SCALE: AS SHOWN | SPEC. No. 7283
SHEET: E3.1 | FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

B
421 429

COPY
PLEASE CONTACT
NAT'L PARK SERVICE
CONTACT PHOTOS

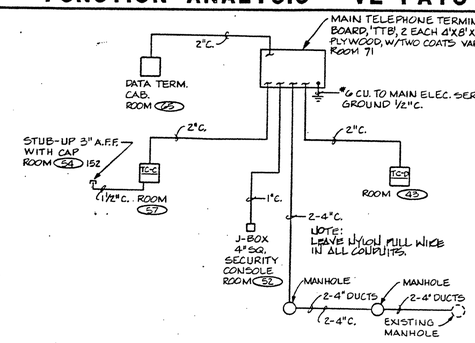
FUNCTION ANALYSIS - VE PAYS



1 SECURITY SYSTEM SINGLE LINE

E2.2 | E3.2

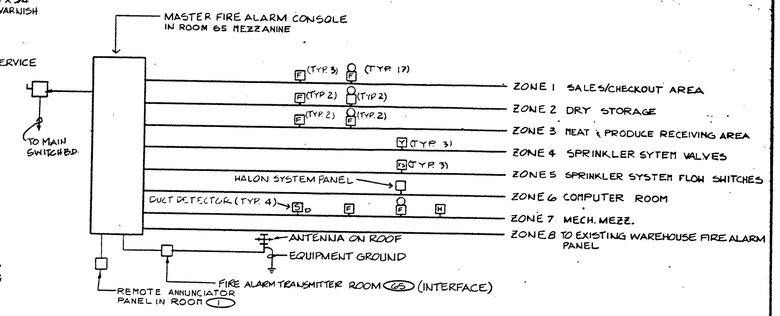
NOT TO SCALE



2 TELEPHONE SYSTEM RISER DIAGRAM

E2.2 | E3.2 | E2.4 | E2.9

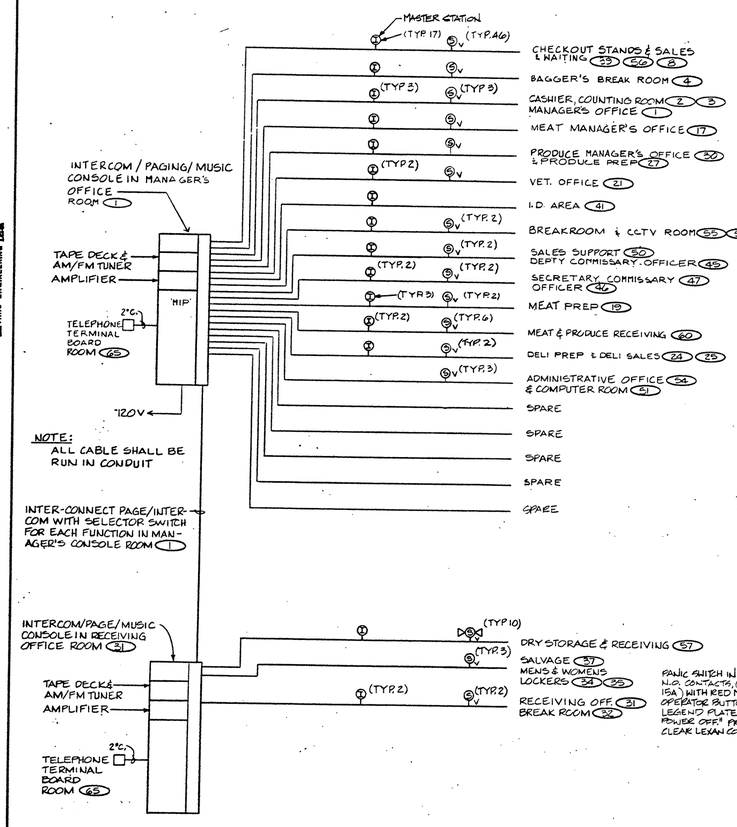
NOT TO SCALE



3 FIRE ALARM SYSTEM RISER

E2.2 | E3.2 | E2.9

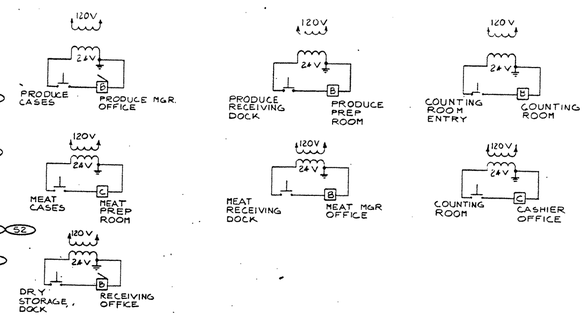
NOT TO SCALE



4 INTERCOM/PAGE/MUSIC RISER

E2.2 | E3.2 | E2.4 | E2.6 | E2.8 | E3.4

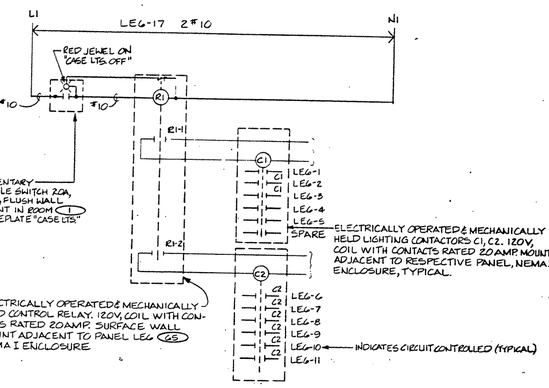
NOT TO SCALE



5 SERVICE SIGNAL SCHEMATIC

E2.2 | E3.2 | E2.6

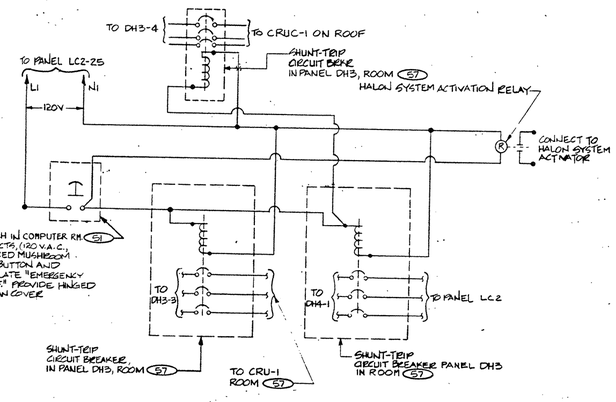
NO SCALE



6 CASE LIGHT CONTROL

E2.9 | E3.2

NOT TO SCALE



7 ROOM 51 "EMERGENCY POWER OFF" CONTROL

E2.4 | E3.2 | E2.10

NOT TO SCALE

1. SHUNT TRIP CIRCUIT BREAKERS TO REQUIRE MANUAL RESET.

COPY

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: T. BROWNER, M. MALONE
CHECKED: B. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING

ELECTRICAL DETAILS

SUBMITTED: S. Day
DATE APPROVED: 6-11-87
SCALE: AS SHOWN
SPEC No. 7285
SHEET E3.2 145 OF 155
FILE No. 192-25-304

DRAWING REDUCED ONE HALF SIZE

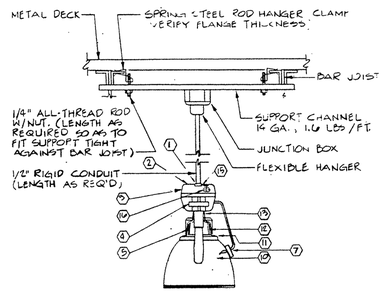
ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

SAFETY PAYS

B 120430

430

FUNCTION ANALYSIS - VE PAYS

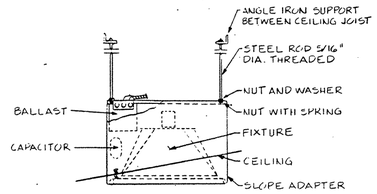


① 3/4" PIPE THREAD
② REMOVABLE TOP INSERT
③ SPLICE COMPARTMENT ACCESS PLATE
④ BALLAST
⑤ REFLECTOR SUPPORT LEGS
⑥ HINGE
⑦ QUARTZ RESTRIKE WHERE INDICATED
⑧ NOT USED
⑨ NOT USED
⑩ ALUMINUM REFLECTOR
⑪ GASKETING
⑫ HEAT-RESISTANT GLASS TOP
⑬ GASKETING
⑭ NOT USED
⑮ SET SCREW
⑯ POWER DISCONNECT

1 FIXTURE TYPE MOUNTING

E2.7 | E3.3

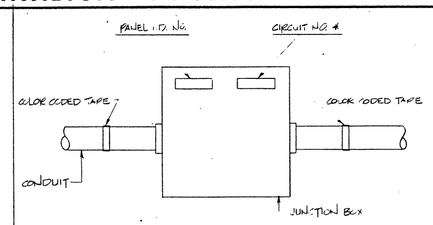
NOT TO SCALE



2 CEILING SLOPE ADAPTER FIXTURE TYPE

E1.1 | E3.3 | E2.1

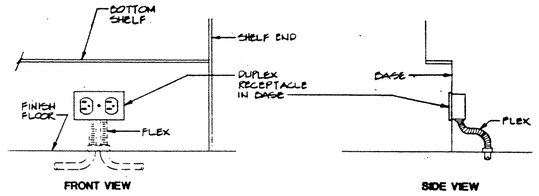
NOT TO SCALE



3 CIRCUIT IDENTIFICATION@BOXES

E3.3 | E3.3 N.T.S.

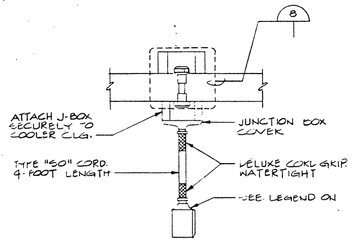
* FOR FIRE ALARM ZONE NUMBER



4 ISLAND SHELF RECEPTACLE INSTALLATION

E2.2 | E3.3

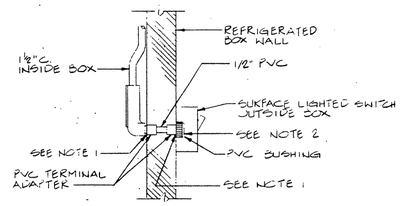
NOT TO SCALE



5 PROCESS EQUIP. DROP

E2.6 | E3.3

NOT TO SCALE



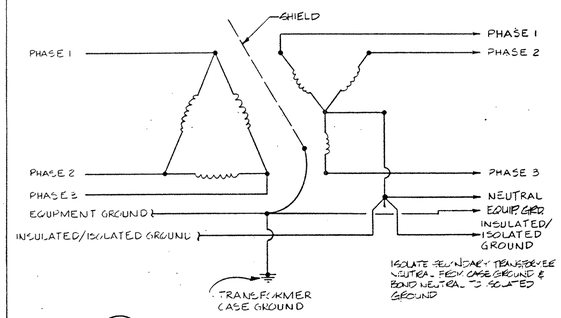
NOTES:

1. SEAL BETWEEN PVC ADAPTER & COOLER WALL WITH SILICON SEALANT AT INSIDE & OUTSIDE OF COOLER WALL TO FORM AN AIRTIGHT SEAL.
2. AFTER FIXTURE & WIRES ARE INSTALLED, APPLY SUFFICIENT AMOUNT OF SILICON SEALANT INSIDE CONDUIT & AROUND WIRES TO FORM AN AIRTIGHT SEAL.

6 REFRIGERATED BOX CONDUIT WALL PENETRATIONS

E2.5 | E3.3

NOT TO SCALE

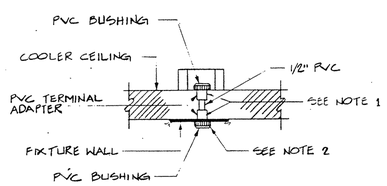


7 TRANSFORMER TC2 & TD1 CONNECTION

E1.2 | E3.3 | E2.2 | E2.4

NOT TO SCALE

B
431 431



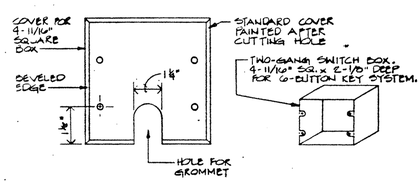
NOTES:

1. SEAL BETWEEN PVC ADAPTER & COOLER WALL WITH SILICON SEALANT AT INSIDE & OUTSIDE OF COOLER WALL TO FORM AN AIRTIGHT SEAL.
2. AFTER FIXTURE & WIRES ARE INSTALLED, APPLY SUFFICIENT AMOUNT OF SILICON SEALANT INSIDE CONDUIT & AROUND WIRES TO FORM AN AIRTIGHT SEAL.
3. INSTALL A GASKET BETWEEN FIXTURE & CONDUIT TO INSURE A WATERTIGHT SEAL.

8 REFRIGERATED BOX CONDUIT CEILING PENETRATION

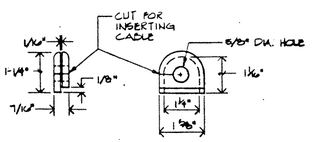
E1.1 | E3.3 | E2.5

NOT TO SCALE



TELEPHONE OUTLET COVER PLATE

TELEPHONE OUTLET BOX

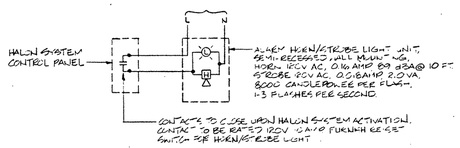


CABLE GROMMET

9 TELEPHONE OUTLET

E3.3 | E3.3

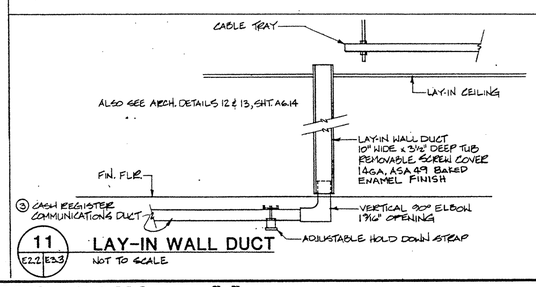
NOT TO SCALE



10 HALON ALARM

E2.3 | E3.3 N.T.S

1. VERIFY WITH CONTRACTING OFFICER FOR MOUNTING & EXACT LOCATION PRIOR TO ROUGH-IN.



11 LAY-IN WALL DUCT

E2.2 | E3.3

NOT TO SCALE

DRAWING REDUCED ONE HALF SIZE

COPY
PLEASE CREDIT
NATL PARK SERVICE
PACIFIC WEST REGION ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

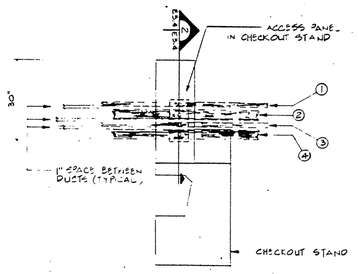
DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: T. BROWNER, M. MALONE
CHECKED: B. WOODSMALL
SUBMITTED:
DATE APPROVED:

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
ELECTRICAL DETAILS

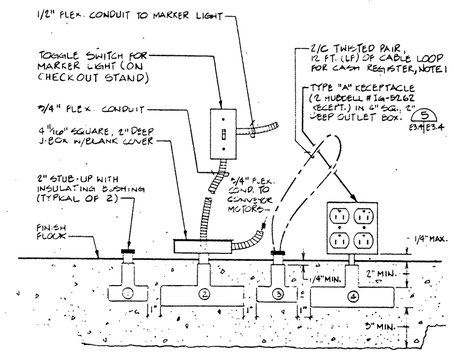
SCALE: AS SHOWN | SPEC. No. 7283
SHEET E3.3 (46 of 155) | FILE No. 192-25-504



MARK	DESCRIPTION
1	1 1/4" x 3 1/8" DUCT FOR INTERCOM & SECURITY SYSTEMS,
2	1 1/2" x 6 1/2" DUCT FOR CHECKOUT STAND POWER,
3	1 1/4" x 3 1/8" DUCT FOR CASH REGISTER COMMUNICATIONS,
4	1 1/2" x 6 1/2" DUCT FOR CASH REGISTER POWER,

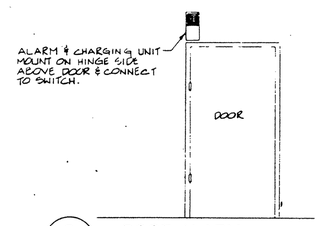
NOTE: 1. #2 & #4 DUCT W/ 1 3/4" x 2" DIA. INSERTS INSTALLED 1/4" BELOW FINISHED FLOOR.

1 (E2.2 | E3.4) CHECKOUT STAND DUCT
3/8" = 1'-0"

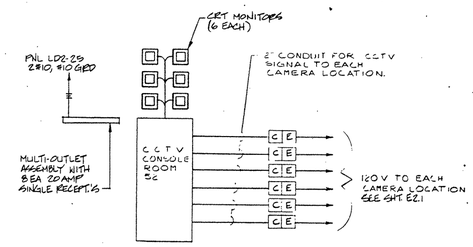


NOTE: 1. FURNISHED & INSTALLED BY CASH REGISTER SUPPLIER. FURNISH & INSTALL PULL WIRE TO EACH CHECKOUT STAND.

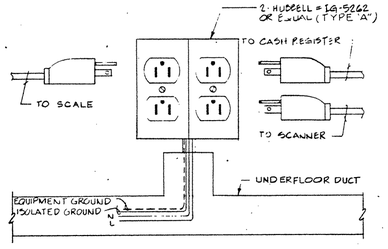
2 (E2.2 | E3.4) SECTION at CHECKOUT STAND UNDER-FLOOR DUCT
3/4" = 1'-0"

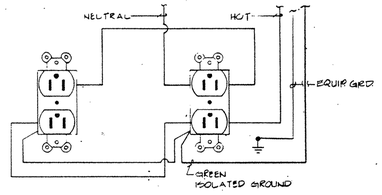


3 (E2.2 | E3.4) DOOR ALARM
N.T.S.

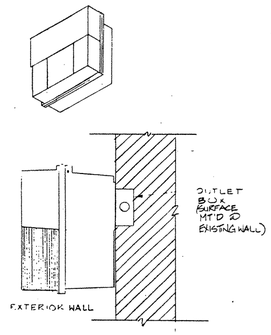


4 (E2.1 | E3.4) C.C.T.V. SCHEMATIC
NOT TO SCALE



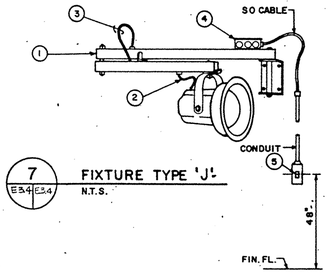


5 (E2.2 | E3.4 | E3.4) TYPE "A" RECEPTACLE DETAILS
NOT TO SCALE

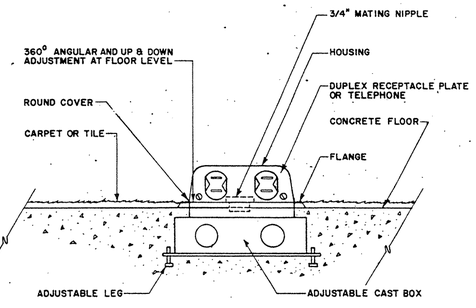


6 (E1.1 | E2.1 | E2.3 | E2.5 | E3.4) FIXTURE TYPE "K"
NOT TO SCALE

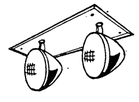
1. TRIPLE DUAL SWIVEL ARM - 90° REACH.
2. CORD GUARD.
3. 3 CONDUCTOR #18 GROUNDED CORD.
4. ARM MOUNTED CONNECTOR BOX.
5. NYLON TOGGLE SWITCH.



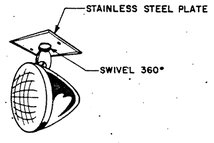
7 (E3.4 | E3.4) FIXTURE TYPE 'J'
N.T.S.



8 (E3.4 | E3.4) FLOOR OUTLET BOX
N.T.S.

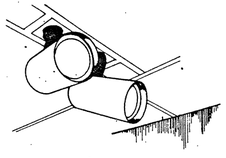


DOUBLE HEAD MOUNTING



SINGLE HEAD MOUNTING

9 (E3.4 | E3.4) FIXTURE TYPE 'T'
N.T.S.



10 (E3.4 | E3.4) FIXTURE TYPE 'W'
N.T.S.

12 VOLTS, PAR 18 LAMP, HALOGEN, 12 WATTS, 42° HORIZONTAL CUT OFF 11° VERT. BEAM SPREAD, SELF-CONTAINED UNIT, TEST SWITCH & READY LIGHT, 277V INPUT

DRAWING REDUCED ONE HALF SIZE

COPY
PLEASE CREDIT
NAVFAC PWC SERVICE
CORPS ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

GROSWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
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DEPARTMENT OF THE ARMY
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SUBMITTED:
DATE APPROVED:

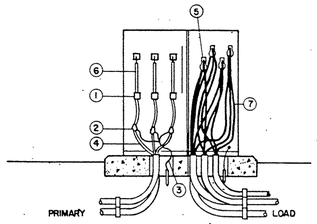
PRESIDIO OF SAN FRANCISCO — CALIFORNIA

COMMISSARY BUILDING
ELECTRICAL DETAILS

SCALE: AS SHOWN | SPEC No. 7283
SHEET E3.4 (147 OF 155) | FILE No. 192-25-504

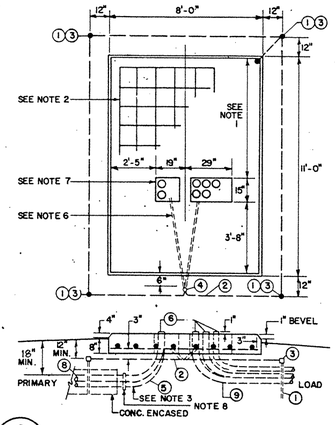
B 432432

FUNCTION ANALYSIS - VE PAYS



ITEM	DESCRIPTION
1	LUG, 2-HOLE COMPRESSION
2	STRESS CONE
3	CONNECTOR, COMPRESSION
4	CABLE, 500MCM, 15KV, XLP COPPER
5	LUG, 2-HOLE COMPRESSION
6	FUSE, BSE, STANDARD SPEED (3 SPARES)
7	CABLE, 500MCM, COPPER

1 PAD MOUNTED TRANSFORMER
E3.5 | E3.5
N.T.S.

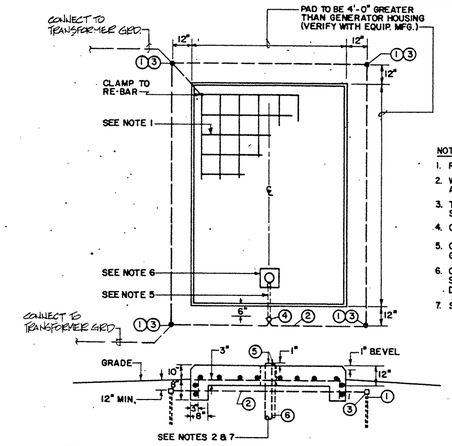


ITEM	DESCRIPTION	QUANTITY
1	ROD, GROUND, 3/4" x 10'-0"	4
2	CONDUCTOR, COPPER #3/0 BARE	AS REQ'D
3	CLAMP GROUND ROD	5
4	CONNECTOR, COMPRESSION #3/0 COPPER	1
5	ELBOW 90° GALVANIZED	2
6	CONDUIT BUSHING W/GROUND LUG	7
7	NOT USED	
8	CONDUIT, CONC. ENCASED PVC 5"	SEE PLANS
9	CONDUIT, RGSC 3½"	SEE PLANS

NOTES:

1. WHERE POSSIBLE DO NOT PLACE CONDUIT UNDER THIS SECTION OF FOUNDATION.
2. REINFORCING-#4 BARS 12" O.C. BOTH WAYS.
3. WHEN INSTALLING CONDUIT DISTURB GROUND IN FOUNDATION AREA AS LITTLE AS POSSIBLE.
4. TOP OF FOUNDATION TO BE SMOOTH AND LEVEL. FINAL GRADE SHALL SLOPE AWAY FROM PAD.
5. CONCRETE SHALL BE 3500 PSI AT 28 DAYS.
6. CONTRACTOR TO FURNISH 1" CONDUIT UNDER PAD FOR GROUND WIRE.
7. OPENING SHALL BE PROVIDED FOR CONDUIT AS SHOWN. CONDUIT SHALL NOT BE CONCRETED IN. CONTRACTOR SHALL VERIFY DIMENSIONS OF OPENINGS.
8. ADAPTER, CONDUIT TO PVC.
9. CONDUIT, GALVANIZED RIGID STEEL.

2 TRANSFORMER PAD
E2.3 | E3.5
N.T.S.

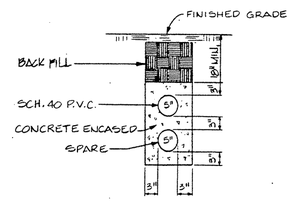


ITEM	DESCRIPTION	QUANTITY
1	ROD, GROUND, 3/4" x 10'-0"	4
2	CONDUCTOR, COPPER #2 BARE	AS REQ'D
3	CLAMP GROUND ROD	4
4	CONNECTOR, COMPRESSION #2 COPPER	2
5	CONDUIT BUSHING	2
6	CONDUIT, 1½" RGS	SEE PLANS

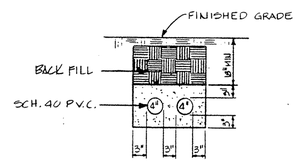
NOTES:

1. REINFORCING #4 BARS 12" C-TO-C BOTH WAYS.
2. WHEN INSTALLING CONDUIT DISTURB GROUND IN FOUNDATION AREA AS LITTLE AS POSSIBLE.
3. TOP OF FOUNDATION TO BE SMOOTH & LEVEL. FINAL GRADE SHALL SLOPE AWAY FROM PAD.
4. CONCRETE SHALL BE 3500 PSI AT 28 DAYS.
5. CONTRACTOR TO FURNISH 1" CONDUIT UNDER PAD FOR GROUND WIRE.
6. OPENING SHALL BE PROVIDED FOR CONDUIT AS SHOWN. CONDUIT SHALL NOT BE CONCRETED IN. CONTRACTOR SHALL VERIFY DIMENSIONS OF OPENINGS AND REQUIRED LOCATIONS.
7. STUB OUT 2'-0" BEYOND PAD.

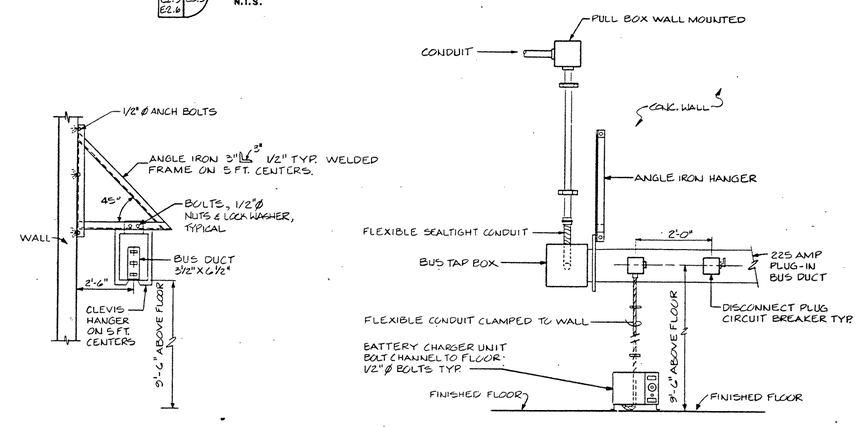
3 GENERATOR PAD
C2.3 | E3.5
C2.6
N.T.S.



4 PRIMARY ELECTRICAL - DUCT
C2.3 | E3.5
C2.6
NOT TO SCALE



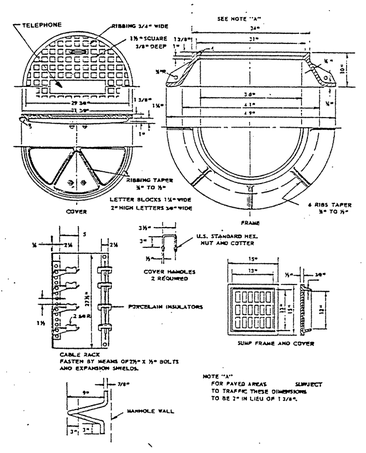
5 TELEPHONE - DUCT
C2.3 | E3.5
NOT TO SCALE

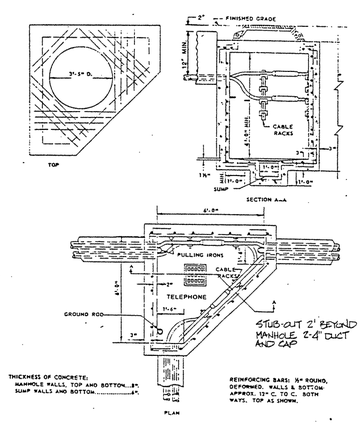


6 CHARGERS @ BUS DUCT
E3.5 | E3.5
NOT TO SCALE

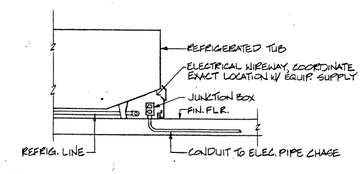
NOTES:

1. FURNISH AND INSTALL DIRECT CURRENT CABLES 20 FT. LENGHT MIN. CO-ORDINATE CONNECTORS AND CABLE SIZE WITH ACTUAL EQUIPMENT SUPPLIED.





7 TELEPHONE MANHOLE
C2.3 | E3.5
C2.5
NOT TO SCALE



8 REFRIGERATION TUB
E2.2 | E3.5
NOT TO SCALE

COPY
PLEASE CREDIT
NAVY FACILITIES
CLEARANCE

REVISION	DATE	DESCRIPTION	BY	BY

GROMWELL, TRIEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: F. BROWNER, M. MALONE
CHECKED: E. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
ELECTRICAL DETAILS

SUBMITTED:
DATE APPROVED:
SCALE: AS SHOWN
SPEC No. 7283
SHEET E3.5 48 OF 155
FILE No. 192-23-304

DRAWING REDUCED ONE HALF SIZE

ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

B 433 433

PRESIDIO 98.0'S

SAFETY PAYS

PANEL HB1 TYPE ____ LOCATION Room 57 MOUNT Surface
MAIN Lugs BUS 225 VOLTS 480/277 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	POLE	A.T.	TYPE	WIRE SIZE	LTS	REC	MISC	REMARKS	L-1	L-2	L-3
1	1	20		12	27			Rm.8,7,6,64B,52,66,67,46,47,64C	3,420		
2	1	20		10	14			Room 57	4,200		
3	1	20		12	24			Rm. 55, 42B, 42C, 48, 49, 53 & 54		2,400	
4	1	20		10	14			Room 57		4,200	
5	1	20		12	17			Rm. 45, 50, 51, 64C			2,200
6	1	20		10	13			Rm. 57			3,900
7	1	20		12	5			Room 57	2,325		
8	1	20		10	13			Room 51	3,900		
9	1	20		12	12			Room 51		3,600	
10	1	20		10	7			Ext. Wall North		1,980	
11	1	20		12	20			Rm.64F,31,32,34,35,37,42A,64,69			2,430
12								SPACE			
13											
14											
15											
16								SPACE			
17											
18											
19											
20	3	60		6			1	Transformer TB1, Room 57	10,042		
21											
22										9,926	
23											
24											9,654
25											
26											
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											
								PHASE TOTAL	23.887	22.106	18.184
								TOTAL CONNECTED 64.177 VA.			

PANEL LB1 TYPE ____ LOCATION Room 57 MOUNT Surface
MAIN 150 AMP M.B. BUS 225 A. VOLTS 208/120 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	POLE	A.T.	TYPE	WIRE SIZE	LTS	REC	MISC	REMARKS	L-1	L-2	L-3
1	1	20		12	4			Dock Lights, Ext. Door Lt.	550		
2	1	20		12		6		Recept. - Rm. 38, 34, 35, 57, 32	1,200		
3	1	20		12		1		Recept. Room 32		1,500	
4	1	20		12		6		Recept. Rm. 31,32,42A, 64F, 57		1,200	
5	1	20		12		1		Recept. Rm. 32			1,500
6	1	20		12		5		Recept. - Rm. 57, 59			1,000
7	1	25		10		1		Recept. 147, Rm. 32	1,656		
8	1	20		12		1		Recept. Rm. 32 Vending Machine	1,500		
9	1	20		12			3	E.F.-3, 9 & 10		1,350	
10	1	20		12		1		Recept. Rm. 32 - Vending Machine		1,500	
11	1	20		10			2	U.H.-3 & 4 Rm. 59			1,392
12	1	20		12		1		Recept. Rm. 32 Vending Machine			1,500
13	1	20		10			1	U.H.-5 Rm. 59	696		
14	1	20		12			1	Intercom/Page/Music 140 Rm. 31	1,500		
15	1	20		12			1	FLY FAN 8			1920
16								SPACE			
17											
18											
19								SPACE			
20											
21											
22	2	20		12			1	Dock Leveler - Rm. 59		718	
23								SPACE			
24											718
25	2	15		12			1	Froz. Food Cap. 614 Rm. 37	832		
26	2	20		12			1	Dock Leveler - Rm. 59	718		
27										832	
28										718	
29	2	20		12			1	O. H. Door - Rm. 59			718
30	2	20		12			1	Dock Leveler - Rm. 59			718
31									718		
32									718		
33	2	20		12			1	O.H. Door - Rm. 59		718	
34	2	20		12			1	O.H. Door - Rm. 59		718	
35											718
36											718
37	3	15		12			1	Item 607	336		
38	3	15		12			1	Item 607	336		
39										336	
40										336	
41											336
42											336
								PHASE TOTAL	10,760	9,926	11,574
								TOTAL CONNECTED 32,260 VA.			

PANEL LC1 TYPE ____ LOCATION Rm. 57 MOUNT Surface
MAIN 150 AMP M.B. BUS 225 VOLTS 208/120 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	POLE	A.T.	TYPE	WIRE SIZE	LTS	REC	MISC	REMARKS	L-1	L-2	L-3
1	1	20		12		6		Recept. - Rm. 8 & 47	1,200		
2	1	20		12			1	WATER HEATER ROOM 42C	2,000		
3	1	20		12		6		Recept. Rm. 7 & 46		1,200	
4	1	20		12			1	E.D.F. ROOM 55		750	
5	1	20		12		6		Recept. Rm. 46, 47, 64C			1,200
6	1	20		12		6		Recept. Rm. 6, 42D, 66, 67, 52			1,200
7	1	20		12		6		Recept. 50	1,200		
8	1	20		12		5		Recept. 42B, 57	1,000		
9	1	20		12		6		Recept. 45, 48		1,200	
10	1	20		12		5		Recept. 54		1,000	
11	1	20		12		6		Recept. 49, 55			1,200
12	1	20		12		5		Recept. 54			1,000
13	1	20		12		5		Recept. 54, 53	1,000		
14	1	20		12		1		Recept. 54	1,500		
15	1	20		12		5		Recept. 54		1,000	
16	1	20		12		2		Recept. Rm. 50		400	
17	1	20		12		1		Recept. 54, Item 137			1,500
18	1	20		12		1		Recept. Rm. 38			500
19	1	20		12		1		Recept. Rm. 55 Vending Machine	1,500		
20	1	20		12		1		Recept. Rm. 55 Microwave	1,500		
21	1	20		12		1		Recept. Rm. 55 Vending Machine		1,500	
22	1	15		12			2	E.F.-1, & 2 Roof		1,056	
23	1	20		12		1		Recept. Rm. 55 Vending Machine			1,500
24	1	20		10			2	UH-6 & 7 Rm. 57			1,392
25	1	20		10			2	UH-8 & 9 Rm. 57	1,392		
26	1	20		12			1	Scrub Machine 337 Rm. 42D	1,500		
27	1	20		12			1	Major Control Pnl. Rm. 51		200	
28	1	20		12			1	Polisher 329 Rm. 42D		1,500	
29	1	20		12			1	RF-1 Roof			1,176
30	1	20		12			1	Polisher 329 Rm. 42D			1,500
31	1	20		12			1	WATER HEATER ROOM 67	2,000		
32	1	20		12			1	Vacuum Clean 304 Rm. 42D	1,500		
33	1	20		12			1	FLY FAN 9		1,920	
34	1	20		12			1	E.D.F. ROOM 8		750	
35	1	20		12			1	FLY FAN			1920
36								SPARE			
37											
38											
39											
40											
41											
42											
								PHASE TOTAL	17,292	12,476	14,088
								TOTAL CONNECTED 43,855 VA.			

PANEL LC2 TYPE ____ LOCATION Room 51 MOUNT Flush
MAIN 125 A. Shunt-Trip BUS 225 VOLTS 208/120 PHASE 3
4 WIRE S/N w/Grd. Bar FEEDER CONDUIT - CABLE -

CIR NO	POLE	A.T.	TYPE	WIRE SIZE	LTS	REC	MISC	REMARKS	L-1	L-2	L-3
1	2	20		12			1	Central Processing Unit B-1	1,250		
2	1	20		12		1		Modem B-6	1,000		
3										1,250	
4	2	20		12			1	Primary Processor A-1		1,250	
5	2	20		12			1	Secondary Processor A-2			1,250
6											1,250
7									1,250		
8	1	20		12		1		Printer (LPM) B-4	960		
9	1	20		12		1		Disk Unit B-3		1,920	
10	1	20		12		1		C.R.T. & Keyboard A-3		180	
11	1	20		12		1		Printer (LPM) A-5			960
12	1	20		12		1		Cash Reg. Term. A-7			480
13	1	20		12		1		Bass Telzon Recharge Unit A-6	400		
14	2	20		12			1	Mac. Tape Drive B-5	1,800		
15	1	20		12		1		Bass Telzon Recharge Unit A-6		400	
16										1,800	
17	1	20		12		1		Bass Telzon Recharge Unit A-6			400
18	1	20		12			1	Disc. Drive A-4			1,200
19	1	20		12		1		C.R.T. & Keyboard B-2	180		
20	1	20		12		1		Printer (LPM) B-4	960		
21	1	20		12		3		Recept.		600	
22	1	20		12		1		Recept.		200	
23	1	20						SPARE			
24	1	20		12		1		C.R.T. & KEYBOARD A-3			180
25	1	20		10			1	Shunt-Trip Pnl. LC2	250		
26								SPARE			
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											
								PHASE TOTAL	8,050	7,600	5,720
								TOTAL CONNECTED 21,370 VA.			

PANEL HD1 TYPE ____ LOCATION Room 43 MOUNT Surface
MAIN Lugs BUS 225 VOLTS 480/277 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	POLE	A.T.	TYPE	WIRE SIZE	LTS	REC	MISC	REMARKS	L-1	L-2	L-3
1	1	20		12	19			Lts. - Rm. 40	3,300		
2	1	20		12	7			Lts. - Rm. 39	3,255		
3	1	20		12	8			Lts. - Rm. 40		3,060	
4	1	20		12	14			Lts. - Rm. 39		3,330	
5	1	20		12	19			Lts. - Rm. 39			3,430
6	1	20		12	26			Lts. - Rm. 39, 1, 2, 3, 4, 5, 43			3,100
7	1	20		12	12			Lts. - Rm. 56	3,600		
8	1	20		12	19			Lts. - Exterior Store Front	2,660		
9	1	20		12	6			Lts. - Rm. 56		1,800	
10	1	20		10	15			NITE LTS - SALES & CHECKOUT		2130	
11	1	20						SPARE			
12	1	20									
13	1	20									
14								SPACE			
15											
16											
17											
18											
19	3	15		12			1	CU-5 Ground	1047		
20	3	15		12			1	AHU-5 Rm. 4	775		
21										1047	
22										775	
23											1047
24											775
25											
26	3	45		6			1	Transformer TD3, 30 KVA, Rm. 43	7,800		
27											
28										8,400	
29											
30											7,800
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											
								PHASE TOTAL	22,437	20542	16,152
								TOTAL CONNECTED 59,131 VA.			

PANEL LD1 TYPE ____ LOCATION Room 43 MOUNT Surface
MAIN 125 A. Brkr. BUS 225 VOLTS 208/120 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	POLE	A.T.	TYPE	WIRE SIZE	LTS	REC	MISC	REMARKS	L-1	L-2	L-3
1	1	20		10			2	Reg. #1 - Register & Scanner	960		
2								Reg. #2	960		
3								Reg. #3		960	
4								Reg. #4		960	
5								Reg. #5			960
6								Reg. #6			960
7								Reg. #7	960		
8								Reg. #8	960		
9								Reg. #9		960	
10								Reg. #10		960	
11								Reg. #11			960
12								Reg. #12			960
13								Reg. #13	960		
14								Reg. #14	960		
15								Reg. #15		960	
16								Reg. #16		960	
17								Reg. #17			960
18	1	20		10			1	Terminal - Room-60			480
19	1	20		10			1	Terminal - Room #60	480		
20	1	20		10			1	TERMINAL-RM.-59	180		
21	1	20		10			1	TERMINAL-RM.-2		960	
22	1	20						SPARE			
23	1	20		10				TERMINAL-RM.-59			480
24								SPARE			
25											
26											
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											
								PHASE TOTAL	6,420	6,720	5,760
								TOTAL CONNECTED 18,900 VA.			

PANEL LD2 TYPE ____ LOCATION Room 43 MOUNT Surface
MAIN 100 AMP M.B. BUS 225 VOLTS 208/120 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	POLE	A.T.	TYPE	WIRE SIZE	LTS	REC	MISC	REMARKS	L-1	L-2	L-3
1	1	20		10			2	Reg. #1 - Conveyor & Lane Light	1,500		
2								Reg. #2	1,500		
3								Reg. #3		1,500	
4								Reg. #4		1,500	
5								Reg. #5			1,500
6								Reg. #6			1,500
7								Reg. #7	1,500		
8								Reg. #8	1,500		
9								Reg. #9		1,500	
10								Reg. #10		1,500	
11								Reg. #11			1,500
12								Reg. #12			1,500
13								Reg. #13	1,500		
14								Reg. #14	1,500		
15								Reg. #15		1,500	
16								Reg. #16		1,500	
17								Reg. #17			1,500
18	1	20		12			1	Room #1 - Intercom/Page/Music			1,200
19	1	15		12			1	SECURITY CAMERA-SALES	200		
20	1	15		12			1		200		
21	1	15		12			1			200	
22	1	15		12			1			200	
23	1	15		12			1				200
24	1	15		12			1				200
25	1	20		10			1	CCTV CONSOLE RM 52	1500		
26	2	20		10			1	MASTER SEC. SYS. PNL. RM 52	1500		
27	1	20						SPARE			
28										1500	
29	1	20						SPARE			
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											
								PHASE TOTAL	12400	10900	9100
								TOTAL CONNECTED 32,400 VA.			

PANEL LD3 TYPE ____ LOCATION Rm. 43 MOUNT Surface
MAIN 100 AMP M.B. BUS 225 VOLTS 208/120 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	POLE	A.T.	TYPE	WIRE SIZE	LTS	REC	MISC	REMARKS	L-1	L-2	L-3
1	1	20		10		5		Rm. 41, 62, 63	1,000		
2	1	20		12		4		Rm. 3	800		
3	1	20		12		5		Rm. 39, 61		1,000	
4	1	20		12		5		Rm. 3		1,000	
5	1	20		12		6		Rm. 4, 5, 43			1,200
6	1	20		12		1		Rm. 4			1,500
7	1	20		12		2		Rm. 4	1,500		
8	1	20		12		4		Rm. 3	800		
9	1	20		12		2		Rm. 4		1,500	
10	1	20		12		4		Rm. 3		800	
11	1	20		12		4		Rm. 1			800
12	1	20		12		6		Rm. 2			1,200
13	1	20		12		4		Rm. 56	800		
14	1	20		12		3		Rm. 56	600		
15	1	20		12		4		Rm. 56		800	
16	1	20		12		4		Rm. 56		800	
17	1	20		12		4		Rm. 56			800
18	1	20		10		4		Rm. 56			800
19	1	20		12			3	Door Operators - Rm. 62, 63	1,500		
20	1	20		10		4		Rm. 56	800		
21	1	20		12			3	Door Operators - Rm. 61, 63		1,500	
22	1	20		10		5		Rm. 56		1,000	
23	1	20		10			1	Showcase 208, Rm. 41			1,500
24	1	20		10			1	FLY FAN RM. 62			1560
25	1	20		10			1	FLY FAN RM. 61	1560		
26	1	20		10			1	FLY FAN RM. 63	1560		
27	1	20		10			1	FLY FAN RM. 61		1560	
28	1	20		10			1	FLY FAN RM. 63		1560	
29	1	20		12			1	E.D.F. ROOM 4			750
30	1	20		12			1	WATER HEATER ROOM 4			2,000
31	1	20						SPARE			
32	1	20						SPARE			
33								SPACE			
34											
35											
36											
37											
38											
39											
40											
41											
42											
								PHASE TOTAL	10920	11,520	12,110
								TOTAL CONNECTED 34,550 VA.			

ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

B 484 436

PRESIDIO 81-078

DRAWING REDUCED ONE HALF SIZE

COPY
PLEASE CREDIT
NAT'L PARK SERVICE
GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: M. MALONE
CHECKED: B. WOODSMALL

PRESIDIO OF SAN FRANCISCO CALIFORNIA
COMMISSARY BUILDING
PANEL SCHEDULES

SUBMITTED: [signature]
DATE APPROVED: [illegible]
SCALE: NONE
SPEC. No. 7283
SHEET E4.1 149 OF 155
FILE No. 192-25-504

FUNCTION ANALYSIS - VE PAYS

PANEL HE1 TYPE ___ LOCATION Mezz. Rm. 65 MOUNT Surface
MAIN Lugs BUS 225 VOLTS 480/277 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	CIR BRKR POLE	A.T.	TYPE	WIRE SIZE	OUTLET LTS	REC	MISC	REMARKS	VOLT-AMPERES L-1	L-2	L-3
1	1	20		12	24			Lts. - Corr. 60, 600, 60E	3,360		
2	1	20		12	21			Lts. - Rm. 16, 17, 19	3,180		
3	1	20		12	24			Lts. - Rm. 18, 20, 21, 22		3,120	
4	1	20		12	27			Lts. - Rm. 19, 23, 24, 25		3,840	
5	1	20		12	22			Lts. - Rm. 9, 12, 13, 14, 15, 42E			3,120
6	1	20		12	24			Lts. - Rm. 26, 27, 28			3,510
7	1	20		12	19			Lts. - Rm. 19 Aisle,25 Aisle,29,30,70	3,450		
8	1	20		12	14			Lts. - Room 65	2,240		
9	1	20		10	7			Lts. - Exterior So./West		1,540	
10	1	20		10	15			Lts. - 56		3,060	
11	1	20		10	22			Lts. - 56			2,200
12	1	20		10	22			Lts. - 56			2,200
13	1	20		10	22			Lts. - 56	2,200		
14	1	20		10	22			Lts. - 56	2,200		
15	1	20		10	29			Lts. - 56		2,900	
16	1	20		10	12			Lts. - 56		3,600	
17	1	20		10	24			Lts. - 56			2,400
18	1	20		10	12			Lts. - 56			3,600
19	1	20		10	24			Lts. - 56	2,400		
20	1	20		10	12			Lts. - 56	3,600		
21	1	20		10	29			Lts. - 56		2,900	
22	1	20		10	12			Lts. - 56		3,600	
23	1	20						SPARE			
24	1	20		10	12			Lts. - 56			3,600
25	1	20						SPARE			
26	1	20		10	12			Lts. - 56	3,600		
27	1	20						SPARE			
28	1	20						SPARE			
29	1	20						SPACE			
30								SPACE			
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											
								PHASE TOTAL	26,230	24,560	20,630
								TOTAL CONNECTED 71,420 VA.			

PANEL LE1 TYPE ___ LOCATION Mezz. Rm. 65 MOUNT Surface
MAIN 250AMP M.B. BUS 400 VOLTS 208/120 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	CIR BRKR POLE	A.T.	TYPE	WIRE SIZE	OUTLET LTS	REC	MISC	REMARKS	VOLT-AMPERES L-1	L-2	L-3
1	1	20		12			1	705A Garbage Disposal Rm. 20	750		
2	1	20		12			1	905A Meat Slice Rm. 25	864		
3	1	20		12			1	Recept. Rm. 24		1,500	
4	1	20		12			1	905A Meat Slice Rm. 25		864	
5	1	20		12			1	Recept. Rm. 24			1,500
6	1	20		12			1	Recept. 527 Rm. 19			928
7	1	20		12			1	Recept. Rm. 25	1,500		
8	1	20		12			1	Recept. 534 Rm. 25	1,176		
9	1	20		12			1	Recept. 582 Rm. 19		1,500	
10	1	20		12			1	Recept. 555 Rm. 19		1,500	
11	1	20		12			1	Recept. 570 Rm. 19			1,500
12	1	20		12			1	Recept. 555 Rm. 19			1,500
13	1	20		12			1	Recept. 571 Rm. 19	1,500		
14	1	20		12			1	Recept. 571 Rm. 19	1,500		
15	1	20		12			1	Recept. 566 Rm. 19		1,500	
16	1	20		12			1	Recept. 569 Rm. 19		1,500	
17	1	20		12			1	Recept. 534 Rm. 19			1,176
18	1	20		12			1	Recept. 537 Rm. 19			1,500
19	1	20		12			1	Recept. 543 Rm. 19	1,500		
20	1	20		12			1	Recept. 570 Rm. 19	1,500		
21	1	20		12			1	Recept. 569 Rm. 19		1,500	
22	1	20		12			1	Recept. 571 Rm. 19		1,500	
23	1	15		12			1	Recept. 540 Rm. 19			864
24	1	15		12			1	301 Refrig. Alarm Rm. 17			500
25	1	20		12			1	Recept. 572 Rm. 19			
26	3	20		12			1	555 Rm. 19	1,500		
27	1	20		12			1	505 Rm. 16	1,000		
28										500	
29	2	20		12			1	544 Rm. 19		1,000	
30											1,600
31											1,000
32	3	20		12			1	555 Rm. 19	1,500		
33	2	50		6			1	582 Rm. 19	930		
34										4,160	
35										930	
36											4,160
37	3	20		12			1	555 Rm. 19	1,000		930
38	3	60		6			1	526 Rm. 19	3,696		
39										1,000	
40										3,696	
41											1,000
42											3,696
								PHASE TOTAL	20,016	22,650	21,854
								TOTAL CONNECTED 64,520 VA.			

PANEL LE2 TYPE ___ LOCATION Mezz. Rm. 65 MOUNT Surface
MAIN Lugs BUS - 225 VOLTS 208/120 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	CIR BRKR POLE	A.T.	TYPE	WIRE SIZE	OUTLET LTS	REC	MISC	REMARKS	VOLT-AMPERES L-1	L-2	L-3
1	1	20		10			2	321 Fans	1,200		
2	1	20		10			2	327F Fans	960		
3	1	20		10			2	321 Fans		1,200	
4	1	20		10			2	327F Fans		960	
5	1	20		10			3	315 Fans			1,080
6	1	20		10			2	327F Fans			960
7	1	20		10			4	315 Fans	1,440		
8	1	20		10			3	327D & F Fans	1,248		
9	1	20		10			2	520 Fans		1,392	
10	1	20		10			3	306, 307 Fans		672	
11	1	20		10			2	520 Fans			1,392
12	1	20		10			3	306, 307 Fans			672
13	1	20		10			4	516, 517 Fans	840		
14	1	20		10			6	414, 415 Fans	1,380		
15	1	20		10			7	514, 515 Fans		1,260	
16	1	15		10			1	324 Fans		672	
17	1	20		10			2	UC-2 & 3 Fans			1,344
18	1	20		10			2	324 Fans			1,344
19	1	15		10			1	UC-1 Fans	672		
20	2	15		10			2	UC-4 & 5 Fans	750		
21	2	15		10			2	UC-6 & 7 Fans		432	
22										750	
23											432
24	2	15		10			2	UC-8 & 9 Fans			750
25	1	15		12			1	UC-10 Fans	360		
26									750		
27	2	15		12			2	UC-11, 12 Fans		468	
28	2	15		12			4	UC-13, 14, 15, 16 Fans		750	
29											468
30											750
31	1	20		12			2	UC-17, 19 Fans	1,536		
32	1	20		10			3	UC-21, 22 Fans	1,536		
33	1	20		12			2	UC-18, 20 Fans		1,536	
34	1	20		10			3	UC-23, 25, 26 Fans		1,920	
35	2	15		12			1	UC-24			190
36	1	20		12			3	553 Fans			1,548
37									190		
38	1	15		12			2	903 Fans	240		
39	1	20						SPARE			
40	1	20									
41	1	20									
42	1	20									
								PHASE TOTAL	13,102	12,012	10,930
								TOTAL CONNECTED 36,044 VA.			

PANEL LE4 TYPE ___ LOCATION Mezz. Rm. 65 MOUNT Surface
MAIN Lugs BUS 400 VOLTS 208 PHASE 3
3 WIRE ___ FEEDER CONDUIT ___ CABLE ___

CIR NO	CIR BRKR POLE	A.T.	TYPE	WIRE SIZE	OUTLET LTS	REC	MISC	REMARKS	VOLT-AMPERES L-1	L-2	L-3
1	3	25		8			1	327F Defrost 12 ft.	2,304		
2	3	25		8			1	327F Defrost 12 ft.	2,304		
3										2,304	
4										2,304	
5											2,304
6											2,304
7	3	25		8			1	327F Defrost 12 ft.	2,304		
8	3	25		8			1	327F Defrost 12 ft.	2,304		
9										2,304	
10										2,304	
11											2,304
12											2,304
13	3	25		8			1	327F Defrost 12 ft.	2,304		
14	3	25		8			1	327F Defrost 12 ft.	2,304		
15										2,304	
16										2,304	
17											2,304
18											2,304
19	3	20		8			1	327D Defrost 8 ft.	1,560		
20	2	30		8			1	315 Defrost 12 ft.	2,142		
21										1,560	
22										2,142	
23											1,560
24	2	30		8			1	315 Defrost 12 ft.			2,142
25	2	30		8			1	315 Defrost 12 ft.	2,142		
26									2,142		
27										2,142	
28	2	30		8			1	315 Defrost 12 ft.		2,142	
29	2	30		8			1	315 Defrost 12 ft.			2,142
30											2,142
31									2,142		
32	2	20		8			1	315 Defrost 12 ft.	2,142		
33	2	60		6			1	321 Defrost 12 ft.		4,285	
34										2,142	
35											4,285
36	2	20		8			1	315 Defrost 12 ft.			2,142
37	2	60		6			1	321 Defrost 12 ft.	4,285		
38									2,142		
39										4,285	
40	2	15		10			1	514 Defrost 8 ft.		718	
41								SPACE			
42											718
								PHASE TOTAL	32,521	33,240	28,955
								TOTAL CONNECTED 94,716 VA.			

PANEL LE5 TYPE ___ LOCATION Mezz. Rm. 65 MOUNT Surface
MAIN Lugs BUS 400 VOLTS 208 PHASE 3
3 WIRE ___ FEEDER CONDUIT - CABLE -

CIR NO	CIR BRKR POLE	A.T.	TYPE	WIRE SIZE	OUTLET LTS	REC	MISC	REMARKS	VOLT-AMPERES L-1	L-2	L-3
1	2	60		6			1	321 Defrost 12 ft.	4,285		
2	3	30		8			1	520 Defrost 12 ft.	2,760		
3										4,285	
4										2,760	
5	2	60		6			1	321 Defrost 12 ft.			4,285
6											2,760
7									4,285		
8	3	30		8			1	520 Defrost 12 ft.	2,760		
9	3	30		8			1	520 Defrost 12 ft.		2,760	
10										2,760	
11											2,760
12											2,760
13									2,760		
14	2	20		10			1	515 Defrost 12 ft.	1,072		
15	3	30		8			1	520 Defrost 12 ft.		2,760	
16										1,072	
17											2,760
18	2	20		10			1	515 Defrost 12 ft.			1,072
19									2,760		
20									1,072		
21	2	20		10			1	515 Defrost		1,072	
22	2	20		10			1	515 Defrost 12 ft.		1,072	
23											1,072
24											1,072
25	2	20		10			1	515 Defrost 12 ft.	1,072		
26	2	20		10							
27										1,072	
28											
29	2	20		10			1	515 Defrost 12 ft.			1,072
30	2	20		10							
31									1,072		
32											
33	2	20		10			1	UC-6 Defrost		1,581	
34	2	20		10			1	UC-8 Defrost		1,581	
35											1,581
36											1,581
37	2	20		10			1	UC-7 Defrost	1,581		
38	2	20		10			1	UC-9 Defrost	1,581		
39										1,581	
40										1,581	
41								SPACE			
42											
								PHASE TOTAL	27060	25937	22775
								TOTAL CONNECTED 75,772 VA.			

PANEL LE6 TYPE ___ LOCATION Mezz. Rm. 65 MOUNT Surface
MAIN Lugs BUS 225 VOLTS 208/120 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	CIR BRKR POLE	A.T.	TYPE	WIRE SIZE	OUTLET LTS	REC	MISC	REMARKS	VOLT-AMPERES L-1	L-2	L-3
1	1	20		10			3	327F Lights	1,116		
2	1	20		10			4	516, 517 Lights	1,248		
3	1	20		10			4	327D, 327F Lights		1,368	
4	1	20		10			3	306, 307 Lights		996	
5	1	20		10			6	414, 415 Lights			876
6	1	20		10			3	306, 307 Lights			996
7	1	20		10			2	520 Lights	888		
8	1	20		10			7	514, 515 Lights	1,092		
9	1	20		10			2	520 Lights		888	
10	1	15		10			3	324 Lights		936	
11	1	15		12			2	903 Lights			504
12	1	20		10		1		Recpt. 428 Rm. 27			1,500
13	1	20		12		2		Recept. 910A Rm. 25	1,500		
14	1	20		12			1	Battery Char. Diesel Gen. Rm. 65	750		
15	1	20		12		2		Recept. 910A Rm. 25		1,500	
16	1	20		10			1	Water Jacket Heater - Diesel Gen.		1,500	
17	1	20		10			1	Case Light Control			200
18	1	20		10			2	FF-1 & UH-1 Rm. 50			1,872
19	1	20		10			2	FF-2 & UH-2 Rm. 50	1,872		
20	1	15		10			5	Thermo. Rec. 438 Rm. 9,10,11,12,13	500		
21	1	20		12			1	Scale System 562 Rm. 19		1,500	
22	1	15		12			1	RF-2 Roof		696	
23	1	20		12			1	FLY FAN 10			1920
24	1	20		12			1	CIRC. PUMP ROOM 65			528
25	1	20						SPARE			
26	1	20						SPARE			
27								SPACE			
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											
								PHASE TOTAL	8966	9384	8396
								TOTAL CONNECTED 26,746 VA.			

PANEL LE7 TYPE ___ LOCATION Mezz. Rm. 65 MOUNT Surface
MAIN 150AMP M.B. BUS 225 VOLTS 120/208 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	CIR BRKR POLE	A.T.	TYPE	WIRE SIZE	OUTLET LTS	REC	MISC	REMARKS	VOLT-AMPERES L-1	L-2	L-3
1	1	20		10	6			Lts. - Rm. 10	1,200		
2	1	20		10	6			Lts. - Rm. 10	1,200		
3	1	20		10	7			Lts. - Rm. 10		1,400	
4	1	20		10	6			Lts. - Rm. 10		1,200	
5	1	20		12	6			Lts. - Rm. 50 Dock Lts.			800
6	1	20		10	8			Lts. Rm. 11			1,600
7	1	20		12		5		Recepts.-Rm. 10, 42E, 50, 15	1,000		
8	1	20		12		6		Recepts.-Rm. 20, 21, 50	1,200		
9	1	20		12		5		Recepts.-Rm. 9, 11, 12, 13, 64D		1,000	
10	1	20		12		5		Recepts.-Rm. 20, 21, 50		1,000	
11	1	20		12	1	5		Recepts.-Rm. 17, 58			1,000
12	1	20		12		2		Recepts.-Rm. 18			1,000
13	1	20		10		7		Recepts.-Rm. 26, 28, 29, 30	1,400		
14	1	20		10		1		Recepts. Rm. 27	1,500		
15	1	20		10		1		Recepts. - Rm. 27, 432		1,650	
16	1	20		10		1		Recepts. - Rm. 27		1,500	
17	1	20		10		1		Recepts. - Rm. 27			1,500
18	1	20		10		1		Recepts. - Rm. 27			1,500
19	1	20		12		3	1	Recepts. - Rm. 33	700		
20	1	20		12			2	EF-1 & 11 Roof	1,224		
21	1	15		12			1	Duct Furnace DF-1 Rm. 65		500	
22	1	20		12		2		Energy Mgmt. Rm. 65		1,500	
23	1	20		12		4		Recepts. - Rm. 65			800
24	1	20		12		2		Energy Mgmt. Rm. 65			1,500
25	1	20		12		1		Tel. Term. Bd.	1,000		
26	3	20		12			1	417 Waste Disp. Rm. 27	1,320		
27	1	20		12		1		Tele. Term. Bd. Rm. 65		1,000	
28										1,320	
29	1	20									1,500
30											1,320
31	2	20		12			1	Dock Leveler Rm. 50	718		
32	2	20		12			1	Dock Leveler Rm. 50	718		
33										718	
34										718	
35	2	20		12			1	Dock Leveler Rm. 50			718
36	2	20		12			1	O.H. Door Rm. 50			718
37									718		
38									718		
39	2	20		12			1	O.H. Door Rm. 50		718	
40	2	20		12			1	O.H. Door Rm. 50		718	
41											718
42											718
								PHASE TOTAL	14.616	14.942	15.392
								TOTAL CONNECTED 44.950 VA.			

PANEL LE8 TYPE ___ LOCATION Mezz. 65 MOUNT Surface
MAIN Lugs BUS 225 VOLTS 120/208 PHASE 3
4 WIRE S/N FEEDER CONDUIT - CABLE -

CIR NO	CIR BRKR POLE	A.T.	TYPE	WIRE SIZE	OUTLET LTS	REC	MISC	REMARKS	VOLT-AMPERES L-1	L-2	L-3
1	2	30		10			1	UC-10 Defrost	2,142		
2	2	20		12			1	UC-12 Defrost	1,248		
3										2,142	
4										1,248	
5	2	15		10			1	UC-11 Defrost			853
6	2	15		12			1	UC-13 Defrost			853
7									853		
8									853		
9	2	15		12			1	UC-15 Defrost		853	
10	2	15		12			1	UC-14 Defrost		853	
11											853
12											853
13	2	15		12			1	UC-16 Defrost	853		
14	2	15		12			1	UC-24 Defrost	853		
15										853	
16										853	
17	1	20		10			1	Heat Tape/Cond. Drain 9,10,11,12,13			1,500
18	1	20		10			1	Heat Tape/Cond. Drain 18			1,000
19	1	20						SPARE			
20	1	20									
21	1	20									
22	1	20									
23								SPACE			
24											
25											
26											
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											
								PHASE TOTAL	6.802	6.802	5.912
								TOTAL CONNECTED 19.516 VA.			

ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

DRAWING REDUCED ONE HALF SIZE

COPY
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GGNRA ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY

CROMWELL, TRUEMPER, LEVY, PARKER & WOODSMALL
ARCHITECT/ENGINEER
SHAPIRO, OKINO, HOM AND ASSOCIATES - ENGINEERS

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: A. MAXWELL
DRAWN: M. MALONE
CHECKED: B. WOODSMALL

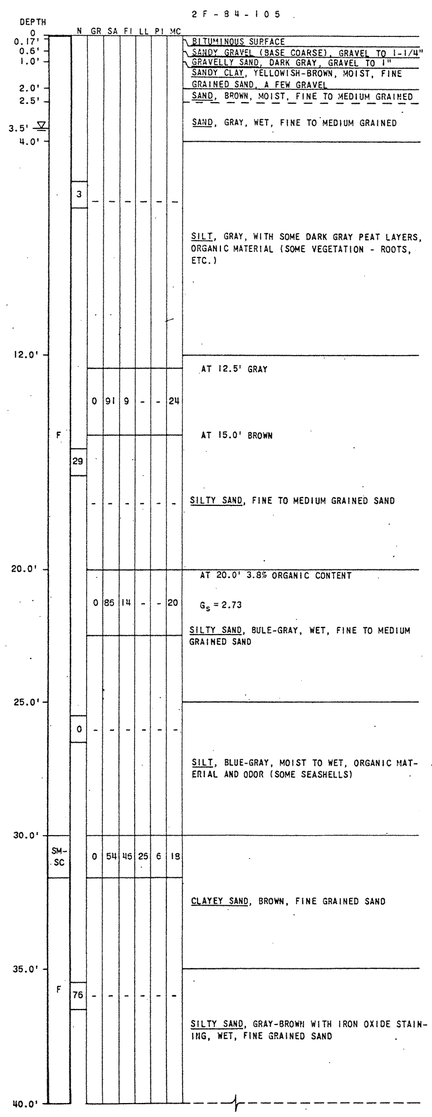
PRESIDIO OF SAN FRANCISCO CALIFORNIA
COMMISSARY BUILDING
PANEL SCHEDULES

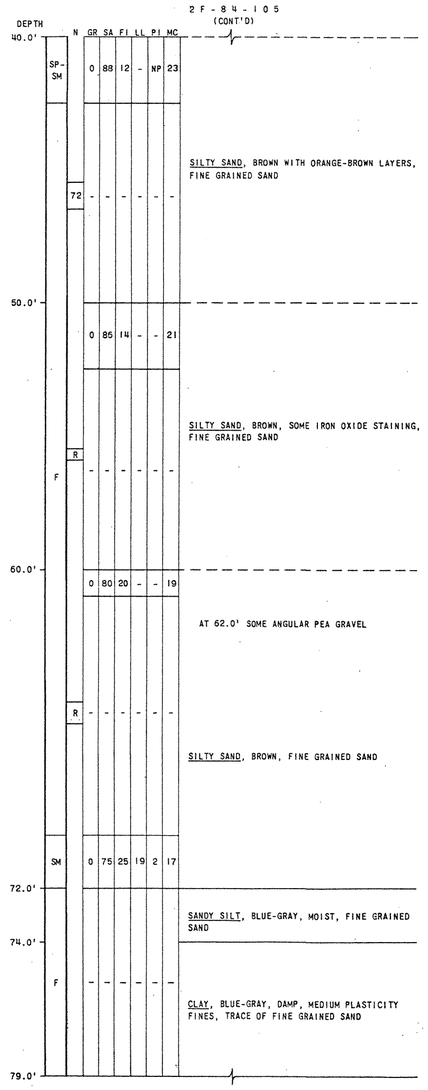
SUBMITTED: ___
DATE APPROVED: 6-11-87
SCALE: NONE
SPEC. No. 7283
SHEET E4.2
150 OF 155
FILE No. 192-25-504

SAFETY PAYS

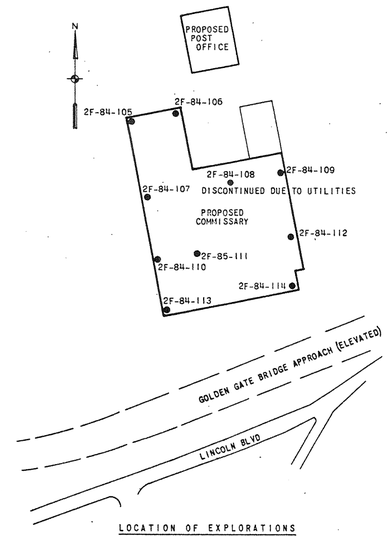
PRESIDIO

FUNCTIONAL ANALYSIS - VE PAYS



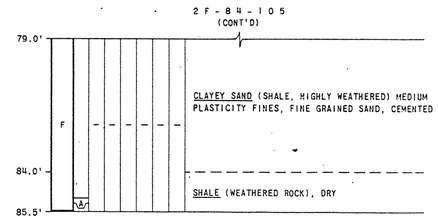


VERTICAL SCALE: 1" = 2'



LOCATION OF EXPLORATIONS

SCALE: 1" =100'



NOTES: (CONT'D)

7. REFUSAL OF THE STANDARD PENETROMETER IS DEFINED AS ONE OF THE FOLLOWING:
   A. 25 BLOWS FOR 1" OR LESS ADVANCEMENT OF SAMPLER; OR
   B. 50 BLOWS FOR 1" TO 6" ADVANCEMENT OF SAMPLER.
8. ATTEMPT WITH THE STANDARD PENETROMETER IS DEFINED AS REFUSAL WITHIN THE FIRST 6"; SEATING PENETRATION.
9. WHERE BLOW COUNT EQUALS '0' (IN 'N' COLUMN) PENETROMETER ADVANCED UNDER ITS OWN WEIGHT.

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS 50% OR MORE RETAINED ON THE NO. 200 SIEVE.	GRAVELS MORE THAN HALF OF COARSE FRACTION RETAINED ON THE NO 4 SIEVE.	CLEAN GRAVELS	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.
			GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.
		GRAVELS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND MIXTURES.
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES.
	SANDS MORE THAN HALF OF COARSE FRACTION PASSING THE NO 4 SIEVE.	CLEAN SANDS	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES.
			SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES.
		SANDS WITH FINES	SM	SILTY SANDS, SAND-SILT MIXTURES.
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES.
FINE GRAINED SOILS MORE THAN 50% PASSING THE NO. 200 SIEVE.	SILTS AND CLAYS	LIQUID LIMIT BELOW 50%	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY FINE SANDS OR SILTS. PLASTICITY BELOW "A" LINE.
			CL	INORGANIC CLAYS, GRAVELLY CLAYS, SANDY CLAYS, LEAN CLAYS. PLASTICITY ABOVE "A" LINE.
			OL	ORGANIC SILTS AND ORGANIC CLAYS. PLASTICITY BELOW "A" LINE.
		LIQUID LIMIT 50% AND ABOVE	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS. PLASTICITY BELOW "A" LINE.
			CH	INORGANIC FAT CLAYS. PLASTICITY ABOVE "A" LINE.
			OH	ORGANIC CLAYS OR ORGANIC SILTS. PLASTICITY BELOW "A" LINE.
HIGHLY ORGANIC SOILS			Pt	PEAT, ORGANIC CONTENT GREATER THAN 60%.

STANDARD PENETROMETER DESCRIPTIVE DATA

COHESIONLESS		COHESIVE	
BLOWS*	RELATIVE DENSITY	BLOWS*	CONSISTENCY
0-4	VERY LOOSE	0-1	VERY SOFT
5-10	LOOSE	2-4	SOFT
11-20	FIRM	5-8	FIRM
21-30	VERY FIRM	9-15	STIFF
31-50	DENSE	16-30	VERY STIFF
51+	VERY DENSE	31+	HARD

*BLOWS PER 1.0 FT. OF PENETRATION OF A 2-INCH O.D. AND 1 3/8-INCH I.D. SAMPLER DRIVEN BY A 140-LB. HAMMER, 30-INCH FREEFALL.

LEGEND:

●2F-84-114	LOCATION OF EXPLORATION.
GR	GRAVELS, PERCENT BY WEIGHT PASSING 3-INCH SIEVE AND RETAINED ON THE NO. 4 SIEVE.
SA	SANDS, PERCENT BY WEIGHT PASSING THE NO. 4 SIEVE AND RETAINED ON THE NO. 200 SIEVE.
FI	FINES, PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
LL	LIQUID LIMIT.
PI	PLASTICITY INDEX (LIQUID LIMIT MINUS PLASTIC LIMIT).
MC	FIELD MOISTURE CONTENT IN PERCENT OF DRY WEIGHT.
F	VISUAL FIELD CLASSIFICATION.
*	LABORATORY VISUAL CLASSIFICATION.
N	NUMBER OF BLOWS OF STANDARD PENETROMETER.
R	REFUSAL WITH STANDARD PENETROMETER.
A	ATTEMPT WITH STANDARD PENETROMETER.
▽	WATER LEVEL

NOTES:

1. CLASSIFICATIONS ARE IN ACCORDANCE WITH THE UNIFIED SOILS CLASSIFICATION SYSTEM (ASTM D-2487).
2. ALL SIEVE SIZES ON THE CHART ARE U.S. STANDARD.
3. THE TERMS "SILT" AND "CLAY" ARE USED RESPECTIVELY TO DISTINGUISH MATERIALS EXHIBITING LOWER PLASTICITY FROM THOSE WITH HIGHER PLASTICITY. THE MINUS NO 200 SIEVE MATERIAL IS CLASSIFIED AS SILT IF THE LIQUID LIMIT AND PLASTICITY INDEX PLOT BELOW THE "A" LINE ON THE PLASTICITY CHART (ASTM D-2487) AND IS CLASSIFIED AS CLAY IF THE LIQUID LIMIT AND PLASTICITY INDEX PLOT ABOVE THE "A" LINE ON THE CHART.
4. BORDERLINE CLASSIFICATION: SOILS POSSESSING CHARACTERISTICS OF TWO GROUPS ARE DESIGNATED BY COMBINATIONS OF GROUP SYMBOLS (FOR EXAMPLE, GW-GC, A WELL-GRADED GRAVEL-SAND MIXTURE WITH A CLAY BINDER).
5. BORINGS WERE DRILLED 17 THROUGH 28 JUNE 1984 TO REFUSAL IN WEATHERED BEDROCK (EXCEPT FOR BORINGS 2F-84-112 & 114) WITH A FAILING 750 DRILL RIG UTILIZING A 5-1/2" DRAG BIT TO ADVANCE THE HOLE. BORINGS 2F-84-107, 111, AND 117 USED A TRICONE BIT WITH HYDRAULIC PRESSURE TO ADVANCE THE HOLE IN THE WEATHERED BEDROCK. BORING 2F-84-108 ENCOUNTERED A BURIED ELECTRICAL POWER LINE AT 4 FEET DEPTH WHICH CAUSED A PARTIAL POWER OUTAGE ON THE BASE. AN ATTEMPT WAS MADE TO RELOCATE 2F-84-108 NEARBY, BUT FACILITIES PERSONNEL WOULD NOT GIVE PERMISSION. STANDARD PENETROMETER DATA WAS COLLECTED IN ALL BORINGS. UNDISTURBED SAMPLES WERE COLLECTED IN BORINGS 2F-84-105, 107 AND 113. A COLLAR PIPE WAS REQUIRED IN EACH BORING.
6. GROUNDWATER WAS ENCOUNTERED DURING DRILLING AS INDICATED ON THE LOGS. BORING 2F-84-114 ENCOUNTERED AN ARTESIAN WATER CONDITION, WATER FLOWED AT A RATE OF ABOUT 7 GALLONS/HOUR.

GRAPHIC SCALES

1" = 2' 0 1' 2' 4' 6' 8' 10'

1" = 100' 0 50' 100' 200' 300' 400' 500'

1" = 100' 100' 50' 0 100' 200'

COPY
PLEASE CREDIT
MATH PARK SERVICE
CORPS ARCHIVES

REVISION	DATE	DESCRIPTION	BY	BY

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: R.L.T.
DRAWN: A.E.B., R.M.E.
CHECKED: PL

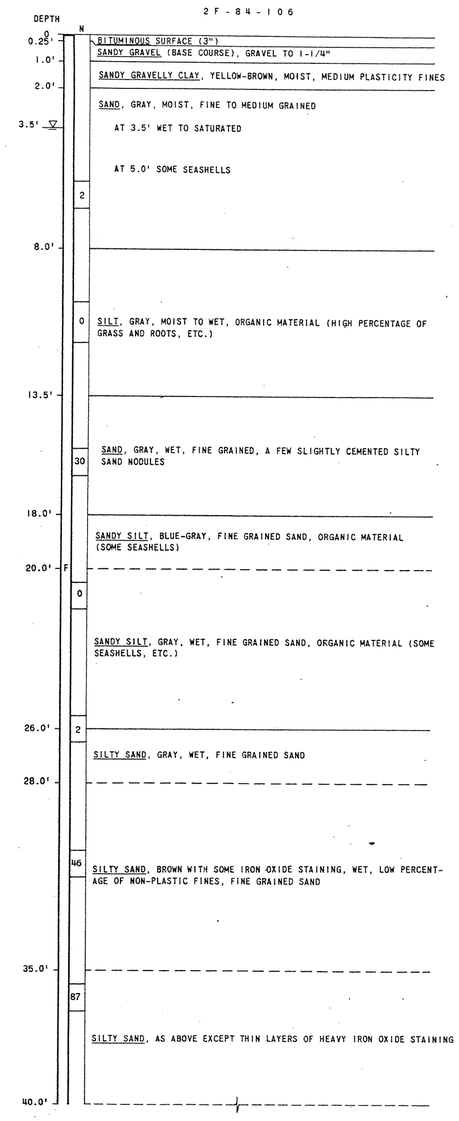
PRESIDIO OF SAN FRANCISCO CALIFORNIA

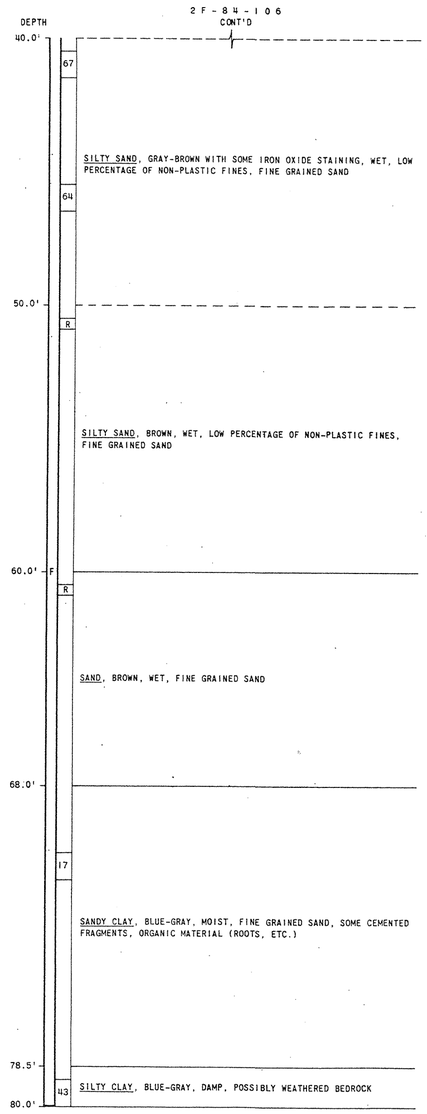
COMMISSARY BUILDING
BORING LOG

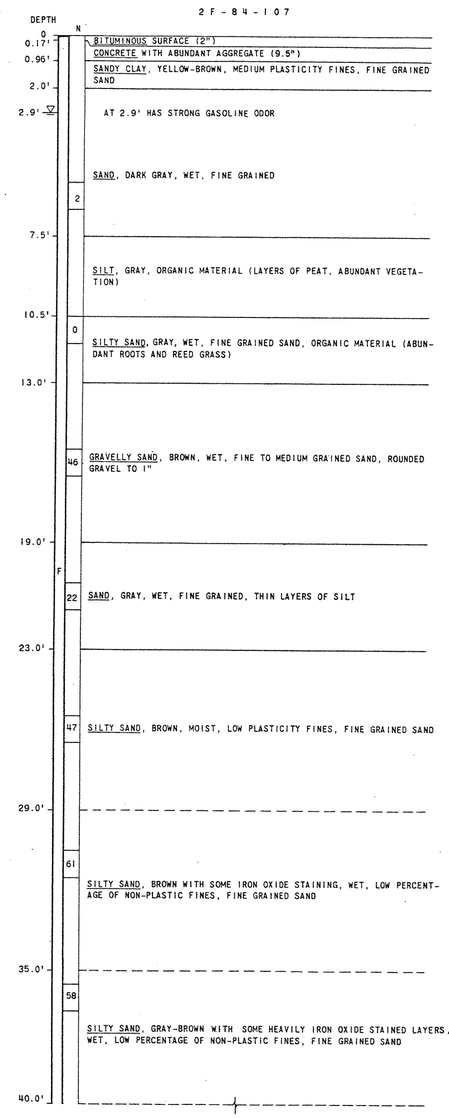
SUBMITTED: CHIEF SOILS DESIGN SECTION
DATE APPROVED: 6-11-85
SCALE: 1" = 100'
SPEC. No. 7233
SHEET B1.1 (1 OF 155)
FILE No. 192-25-504

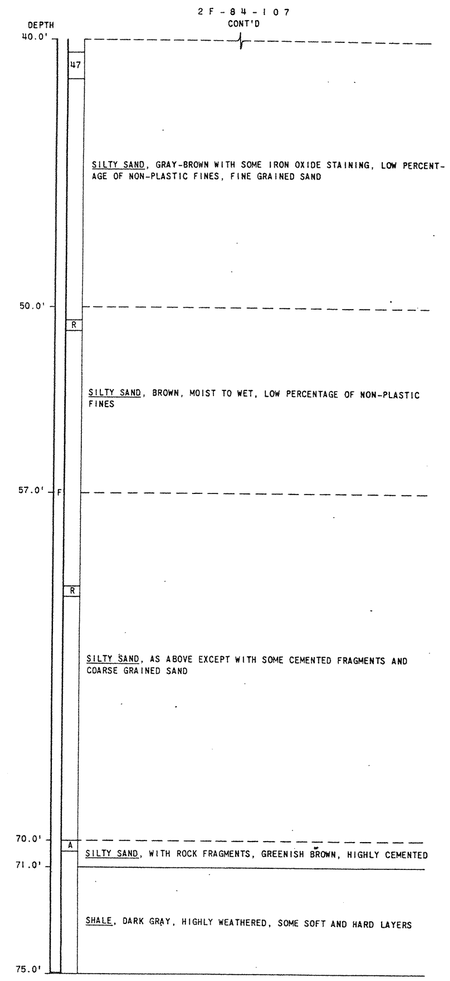
DRAWING REDUCED ONE HALF SIZE

ENVIRONMENTAL ENHANCEMENT THROUGH ENGINEERING









GRAPHIC SCALE

1" = 2' 0 1' 2' 4' 6' 8' 10'

VERTICAL SCALE: 1" = 2'

NOTES:

1. FOR LEGEND, NOTES, AND LOCATION OF EXPLORATIONS, SEE SHEET NO. B1.1 .
2. FOR OTHER LOGS OF BORINGS, SEE SHEET NO'S. B13, B14 & B15

COPY
PLEASE CREDIT
NAVFAC POLICY REPORTING
CONTACT NAVFAC

REVISION	DATE	DESCRIPTION	BY	BY
△				
△				

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: R.L.T.
DRAWN: R.L.T., V.L.M.
CHECKED: PL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
BORING LOG

SUBMITTED: Chief, Soils Design Section
DATE APPROVED: 6-11-87
SCALE: 1"=2'
SPEC. No. 7283
SHEET B1.2 15 OF 155
FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE

P GPO 692

7F-84-109

DEPTH	N	GR	SA	FI	LL	PI	MC	
0								BITUMINOUS SURFACE
0.25'								SANDY GRAVEL (BASE COURSE) GRAVEL TO 1"
0.8'								SANDY GRAVEL, ONE COBBLE 8", CONCRETE AND BRICK FRAGMENTS (FILL)
4.0'								
	F	-	-	-	-	-	-	SAND, GRAY, WET, FINE TO MEDIUM GRAINED
6.2'	4							
								SILT, DARK GRAY, MOIST, ORGANIC MATERIAL (SOME VEGETATION, ROOTS, ETC.)
10.0'								
	SC	0	58	42	28	11	37	
								CLAYEY SAND, GRAY AND DARK GRAY, MOIST, ORGANIC MATERIAL STRONG ODOR (LAYERS OF PEAT)
15.5'								
	F	-	-	-	-	-	-	
	7							
								SILTY SAND, GRAY, WET, LOW PERCENTAGE OF NON-PLASTIC FINES, FINE TO MEDIUM GRAINED SAND
19.0'								
								SILT, GRAY, MOIST, ORGANIC MATERIAL (TRACES OF VEGETATION)
20.0'								AT 19.0' SILT, ORGANIC MATERIAL (TOP OF TUBE)
	SP-SM	0	92	8	-	NP	21	
								SILTY SAND, GRAY, FINE TO MEDIUM GRAINED SAND
24.0'								
								SILTY SAND, GRAY, WET, SCATTERED GRAVEL TO 3/4", ORGANIC MATERIAL
25.5'								
	F	-	-	-	-	-	-	
	34							
								SILTY SAND, BROWN, WET, LOW PERCENTAGE OF NON-PLASTIC FINES, FINE GRAINED SAND
30.0'								
	SM	0	67	33	-	NP	15	
								SILTY SAND, BROWN WITH ORANGE-BROWN NODULES AND LAYERS WITH IRON OXIDE STAINING, FINE GRAINED SAND
	F	-	-	-	-	-	-	
	80							
40.0'								
	SM	0	80	20	23	2	-	G_s = 2.78
								SILTY SAND, BROWN, FINE GRAINED SAND, SOME SLIGHTLY CEMENTED NODULES
	F	-	-	-	-	-	-	
50.0'								

7F-84-109 (CONT'D)

DEPTH	N	GR	SA	FI	LL	PI	MC	
50.0'								
		0	81	19	-	-	19	
	98							
								SILTY SAND, BROWN, LOW PLASTICITY FINES, FINE GRAINED SAND
60.0'	F							
								FROM 60.0' TO 62.5' LOST ALL OF TUBE SAMPLE EXCEPT 0.5'
		-	-	-	-	-	-	
								SILTY SAND, BROWN, WET, FINE GRAINED SAND
68.0'								
	SM	0	71	29	-	NP	20	
								SILTY SAND, BLUE-GRAY, FINE GRAINED SAND
73.0'								
								SANDY CLAY, BLUE-GRAY, MOIST, MEDIUM PLASTICITY FINES, FINE GRAINED SAND
75.5'								
	F	-	-	-	-	-	-	
	53							
								SILTY SAND, BLUE-GRAY, MOIST, FINE GRAINED SAND
78.0'								
								CLAYEY SAND, GREENISH GRAY, MOIST, MEDIUM PLASTICITY FINES, FINE GRAINED SAND
80.0'								
								AT 80.0' CLAYEY SAND (TOP OF TUBE)
	CH	0	1	99	58	39	38	
								CLAY, BLUE-GRAY
	15							
		-	-	-	-	-	-	
								CLAY, AS ABOVE EXCEPT DAMP, MEDIUM PLASTICITY FINES
90.0'								
	F	40	46	14	-	-	18	
								SILTY GRAVELLY SAND, DARK GRAY, GRAVEL TO 1-1/2"
95.0'								
		-	-	-	-	-	-	
								SHALE, HIGHLY WEATHERED
100.0'								
100.8'								SANDSTONE, HIGHLY WEATHERED

2F-84-110

DEPTH	N	
0		BITUMINOUS OVERLAY
0.4'		BITUMINOUS SURFACE
0.5'		SANDY GRAVEL (BASE COURSE)
1.0'		CLAYEY GRAVELLY SAND, DARK GRAY, DAMP, FINE TO COARSE GRAINED SAND, ANGULAR GRAVEL TO 1", (FILL)
2.0'		SANDY CLAY, YELLOW-BROWN, MOIST, MEDIUM PLASTICITY FINES, FINE GRAINED SAND, SCATTERED GRAVEL TO 1-1/4"
3.0'		SAND, BROWN, WET, FINE GRAINED
3.5' ▽		SAND, GRAY, WET, FINE GRAINED
4.0'		
	3	ORGANIC MATERIAL (PEAT), DARK GRAY FIBEROUS, STRONG ODOR
7.5'		
		SILTY SAND, GRAY-BROWN, WET, FINE GRAINED SAND, SOME ORGANIC MATERIAL (ROOTS, ETC.)
	23	
12.0'		
		SAND, BROWN, WET, FINE GRAINED
	50	
	F	
19.0'		
		SAND, BROWN, SATURATED, THIN LAYER OF CLAYEY SAND
		FROM 20' TO 22.0' THIN LAYERS OF SILTY SAND, GRAY
	19	
22.0'		
		CLAYEY GRAVELLY SAND, BROWN, WET, FINE GRAINED SAND, ANGULAR GRAVEL TO 2"
24.0'		
	38	
		SILTY SAND, BROWN WITH GRAY-BROWN LAYERS AND SOME IRON OXIDE STAINING, WET, LOW PERCENTAGE OF NON-PLASTIC FINES, FINE GRAINED SAND
	55	
35.0'		

2F-84-110 (CONT'D)

DEPTH	N	
35.0'		
	75	
		SILTY SAND, GRAY-BROWN WITH THIN LAYERS OF HEAVILY IRON OXIDE STAINED MATERIAL, WET, LOW PERCENTAGE NON-PLASTIC FINES, FINE GRAINED SAND
40.0'		
	71	
		SILTY SAND, GRAY-BROWN WITH IRON OXIDE STAINING, WET, FINE GRAINED SAND
50.0'	F	
	45	
		SILTY SAND, GRAY-BROWN, WET, LOW PLASTICITY FINES, FINE GRAINED SAND
58.0'		
		GRAVELLY CLAYEY SAND, BROWN, MOIST, FINE GRAINED SAND, ANGULAR GRAVEL TO 3"
60.0'		
	R	
		GRAVELLY SANDY CLAY (SHALE, HIGHLY WEATHERED), GREENISH GRAY, DAMP, MEDIUM PLASTICITY FINES, FINE GRAINED SAND, ANGULAR GRAVEL TO 1"
68.0'		
		BEDROCK, WEATHERED, LOWER PERCENTAGE OF FINES, INCREASED PERCENTAGE OF FRESH FRAGMENTS
70.1'		

VERTICAL SCALE: 1" = 2'

NOTE:

1. FOR LEGEND, NOTES, AND LOCATION OF EXPLORATIONS, SEE SHEET NO. B1.1
2. FOR OTHER LOGS OF BORINGS, SEE SHEET NO'S. B1.2, B1.4, & B1.5.

GRAPHIC SCALE

1" = 2' 0 1' 2' 4' 6' 8' 10'

COPY
PLEASE CREDIT
HATC PARK SERVICE
DESIGN AWARDS

REVISION	DATE	DESCRIPTION	BY	SF
△				
△				

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

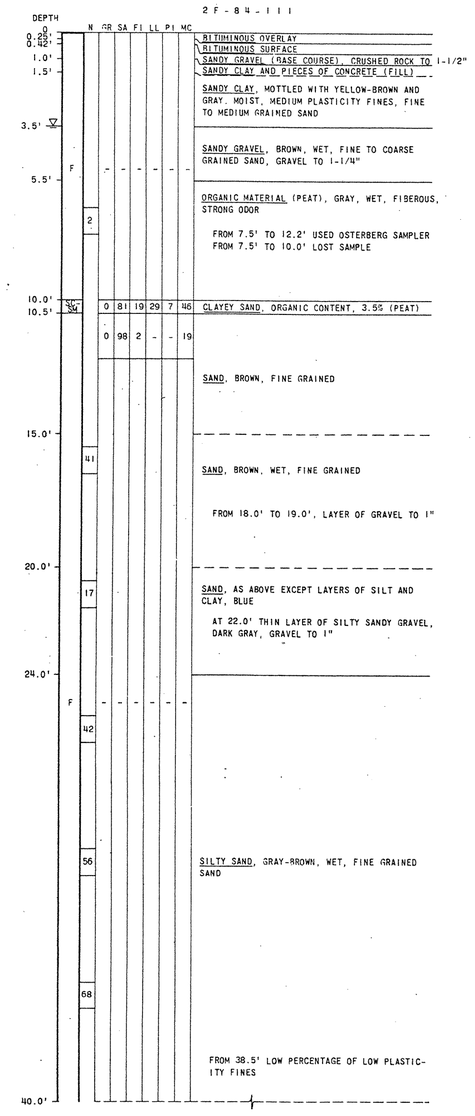
DESIGNED: R.L.T.
DRAWN: A.E.B., R.M.E.
CHECKED: PL

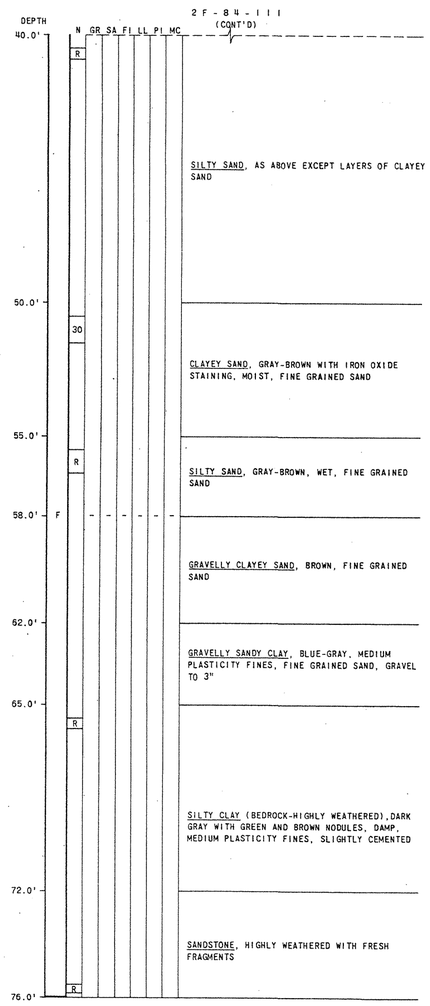
PRESIDIO OF SAN FRANCISCO CALIFORNIA

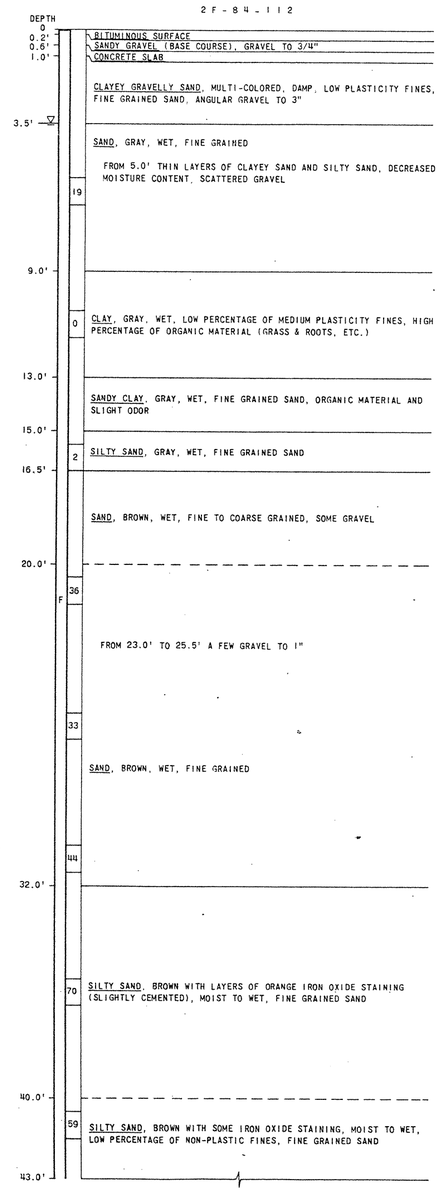
COMMISSARY BUILDING
BORING LOG

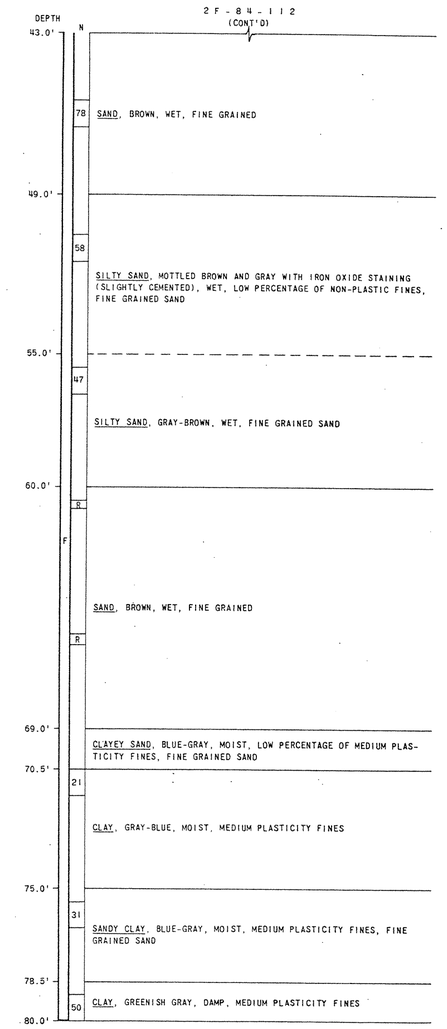
SUBMITTED: CHIEF, SOILS DESIGN SECTION
DATE APPROVED: 6-11-81
SCALE: 1"=2'
SPEC. No. 7283
SHEET B13 OF 25
FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE!









VERTICAL SCALE: 1" = 2'

NOTES:

1. FOR LEGEND, NOTES, AND LOCATION OF EXPLORATIONS, SEE SHEET NO. B1.1
2. FOR OTHER LOGS OF BORINGS, SEE SHEET NO'S. B1.2, B1.3, & B1.5

GRAPHIC SCALE

1" = 2' 0 1' 2' 4' 6' 8' 10'

ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

DRAWING REDUCED ONE HALF SIZE

COPY
PRESERVED
NATIONAL ARCHIVES
SOUTH BRANCH

REVISION	DATE	DESCRIPTION	BY	BY

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: R.L.T.
DRAWN: A.E.B., R.M.E.
CHECKED: PL
SUBMITTED: CHIEF SOILS DESIGN SECTION
DATE APPROVED: 6-11-61

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
BORING LOG

SCALE: 1"=2' SPEC. No. 7283
SHEET B1.4 (54 OF 155) FILE No. 192-25-504

2F-84-113

DEPTH		N	GR	SA	FI	LL	PI	MC	
0									BITUMINOUS OVERLAY
0.12'									BITUMINOUS SURFACE
0.25'									SANDY GRAVEL (BASE COURSE), GRAVEL TO 1-1/4"
1.0'									SANDY GRAVEL, DARK GRAY, DAMP, GRAVEL TO 3", (FILL)
2.6'	F		-	-	-	-	-	-	SANDY CLAY, YELLOW-BROWN, MOIST, MEDIUM PLASTICITY FINES
3.0' ▽									SAND, BROWN, WET, FINE GRAINED
4.5'									SILTY SAND, DARK GRAY, LAYERS OF ORGANIC MATERIAL AND STRONG ORGANIC ODOR (FIBEROUS, PEAT)
	SP-SM		0	93	7	-	NP	28	
7.5'									AT 7.5' SAND, GRAY (BOTTOM OF TUBE)
			-	-	-	-	-	-	
			0	98	2	-	-	25	
	F								SAND, BROWN, WET, FINE GRAINED
		41	-	-	-	-	-	-	
20.0'									
	SM-SC		0	74	26	24	5	16	FROM 21.0' TO 21.5' LAYER OF GRAVEL
									CLAYEY SAND, FINE GRAINED SAND, (BOTTOM OF TUBE)
25.0'									
	F	62	-	-	-	-	-	-	SILTY SAND, GRAY-BROWN, WET, LOW PERCENTAGE OF FINES, FINE GRAINED
30.0'									
	SM		0	86	14	-	NP	20	SILTY SAND, BROWN, FINE GRAINED SAND
									FROM 35.0' SOME IRON OXIDE STAINING
	F	53	-	-	-	-	-	-	
40.0'									

2F-84-113 (CONT'D)

40.0'	SM		0	84	16	-	NP	20	SILTY SAND, AS ABOVE
		66	-	-	-	-	-	-	AT 45.5' SOME IRON OXIDE STAINING
50.0'									
	F		0	80	20	-	-	-	ROCK (IN BOTTOM OF TUBE)
									SHALE, SANDSTONE, AND SERPENTINE
									FROM 57.0' AS ABOVE EXCEPT SOME FRESH STRINGERS
60.0'									

2F-84-114

DEPTH		N	
0			BITUMINOUS SURFACE
0.2'			SANDY GRAVEL (BASE COURSE), SUBROUNDED GRAVEL TO 3/4"
0.6'			SILTY GRAVELLY SAND, REDDISH-BROWN, FINE TO COARSE GRAINED SAND, ANGULAR GRAVEL TO 2", (FILL)
1.5'			GRAVELLY SAND, GRAY, DRY TO DAMP, GRAVEL TO 3/4"
3.0'		5	SAND, GRAY, WET, FINE GRAINED
4.0'			SILTY SAND WITH LAYERS OF SILT, DARK GRAY, MOIST TO WET, FINE GRAINED SAND, ORGANIC MATERIAL AND ODOR
** 5.0' ▽			
5.5'			SAND, GRAY, WET, FINE TO MEDIUM GRAINED
6.0'		6	
			GRAVELLY SILT, DARK GRAY, ORGANIC MATERIAL AND ODOR (PIECES OF WOOD, ETC.)
10.0'			
		0	SILT, GRAY, MOIST TO WET, LOW PLASTICITY FINES, HIGH PERCENTAGE OF ORGANIC MATERIAL (VEGETATION, PEAT)
13.0'			
			SANDY SILT, BLUE-GRAY, WET, FINE GRAINED SAND, SOME GRAVEL
14.0'			
			SILTY SAND, BLUE-GRAY, WET, THIN LAYERS OF SILT (LOW PLASTICITY FINES), SOME GRAVEL
		1	
16.5'			
			CLAYEY SAND, BROWN, WET, LOW PLASTICITY FINES, FINE GRAINED SAND
20.0'	F		
		9	SILTY SAND, BROWN, WET, LOW PERCENTAGE OF FINES, FINE GRAINED SAND, SCATTERED GRAVEL TO 1/4"
23.0'			
		59	SILTY SAND, BROWN, MOIST, FINE GRAINED SAND
30.0'			
		47	
			SILTY SAND, GRAY-BROWN WITH SOME IRON OXIDE STAINING, MOIST, FINE GRAINED SAND
		77	
40.0'			

2F-84-114 (CONT'D)

40.0'		54	SILTY SAND, BROWN WITH SOME IRON OXIDE STAINING, MOIST, LOW PERCENTAGE OF NON-PLASTIC FINES, FINE GRAINED SAND
43.0'		86	SILTY SAND, GRAY, MOIST, LOW PERCENTAGE OF LOW PLASTICITY FINES, FINE GRAINED SAND
44.5'		66	
		75	SILTY SAND, AS ABOVE EXCEPT GRAY-BROWN
		R	
49.5'			
		R	
			SILTY SAND, BROWN WITH SOME IRON OXIDE STAINING, MOIST, FINE GRAINED SAND
		81	
	F		
60.0'			
		R	
			SAND, BROWN, MOIST TO WET, FINE GRAINED
65.0'			
		72	
			SILTY SAND, BROWN WITH SOME IRON OXIDE STAINING, MOIST, LOW PERCENTAGE OF NON-PLASTIC FINES, FINE GRAINED SAND
69.0'			
70.0'			SILTY SAND, GRAY-BLUE, MOIST TO WET, FINE GRAINED SAND
		21	
			SILTY CLAY, GREENISH-BLUE, DAMP, MEDIUM PLASTICITY FINES
75.5'			
		83	
			SILTY SAND, GREENISH-GRAY, DAMP, FINE GRAINED SAND, A FEW ROCK FRAGMENTS, CEMENTED
78.0'			
78.8'		R	CLAY, BLUE-GRAY, APPEARS TO BE WEATHERED BEDROCK

** THE NEXT DAY HOLE WAS MAKING WATER (FLOWING OUT THE TOP OF THE HOLE), AND METERED 7 GAL. OF WATER PER HOUR.

VERTICAL SCALE: 1" = 2'

GRAPHIC SCALE

1" = 2' 0 1' 2' 4' 6' 8' 10'

NOTES:

1. FOR LEGEND, NOTES, AND LOCATION OF EXPLORATIONS, SEE SHEET NO. B1.1 .
2. FOR OTHER LOGS OF BORINGS, SEE SHEET NO'S. B1.2, B1.3, & B1.4.

COPY

REVISION	DATE	DESCRIPTION	BY	BY

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: R.L.T.
DRAWN: A.E.B., R.A.W.
CHECKED: PL

PRESIDIO OF SAN FRANCISCO CALIFORNIA

COMMISSARY BUILDING
BORING LOG

SUBMITTED: CHIEF, SDTES DESIGN SECTION
DATE APPROVED:
SCALE: 1"=2'
SHEET B1.5 156 OF 158
SPEC No. 7283
FILE No. 192-25-504

DRAWING REDUCED ONE HALF SIZE