# RENOVATIONS TO OLD SCIENCE BUILDING RIFLE RANGE ADDITION TO ARMORY BUILDING

ARKANSAS STATE UNIVERSITY JONESBORO ARKANSAS

## STUCK FRIER LANE & SCOTT INC ARCHITECTS

WOOTEN SMITH & WEISS STRUCTURAL ENGINEER MEMPHIS TENNESSEE

WILLIAM B. THOMPSON CONSULTING ENGINEER MEMPHIS TENNESSEE

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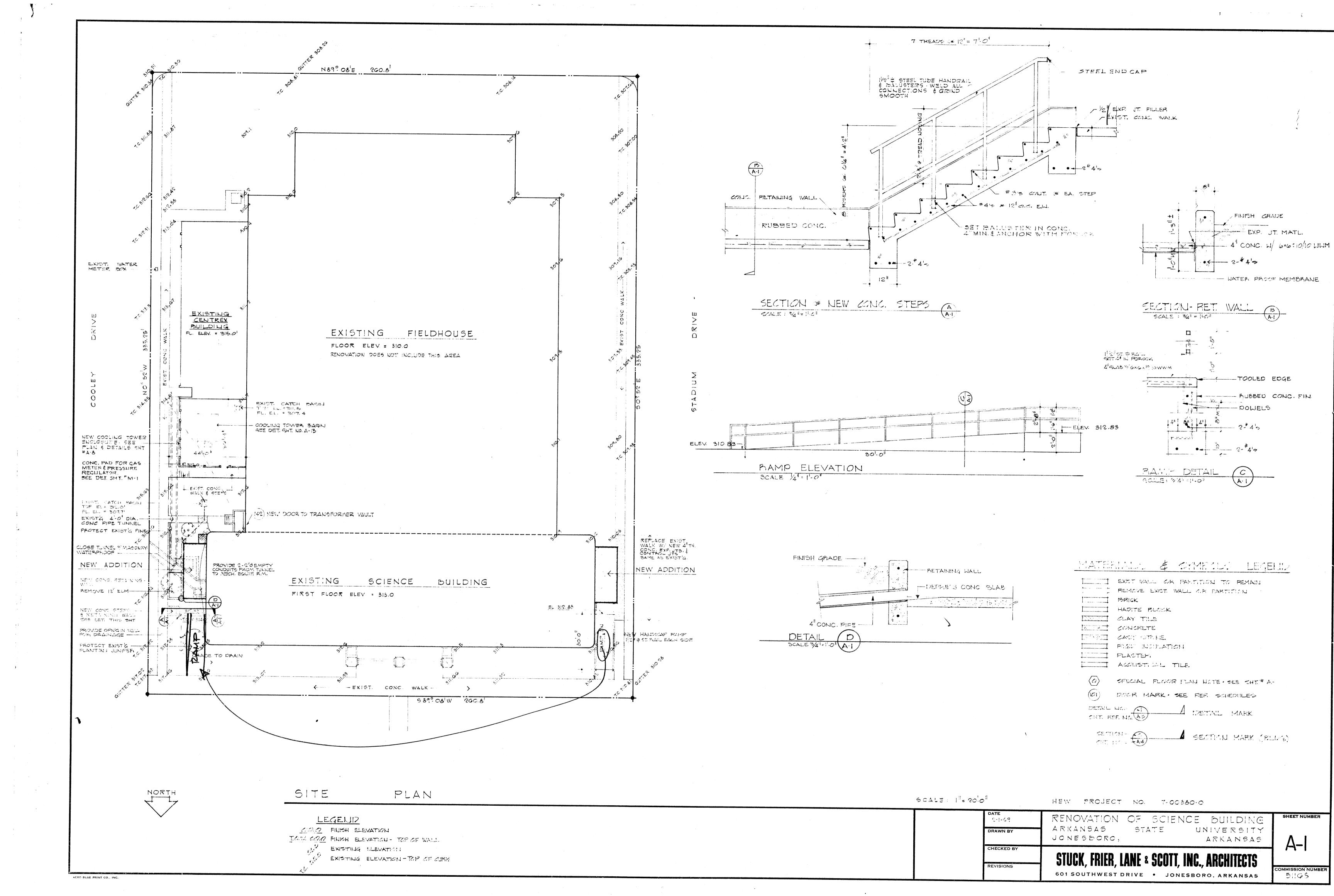
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PROJECT NUMBER

HEW-7-00380-0

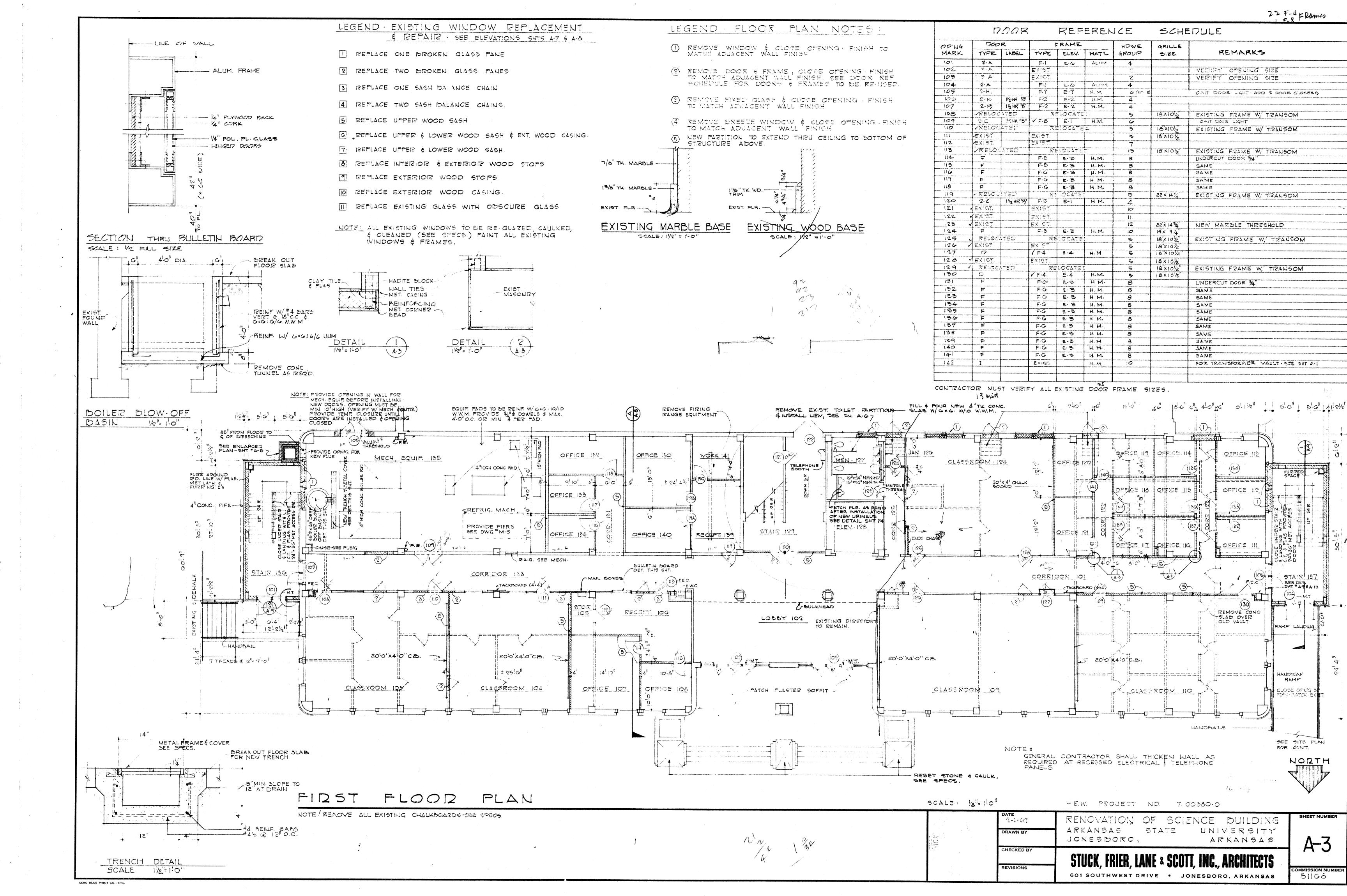
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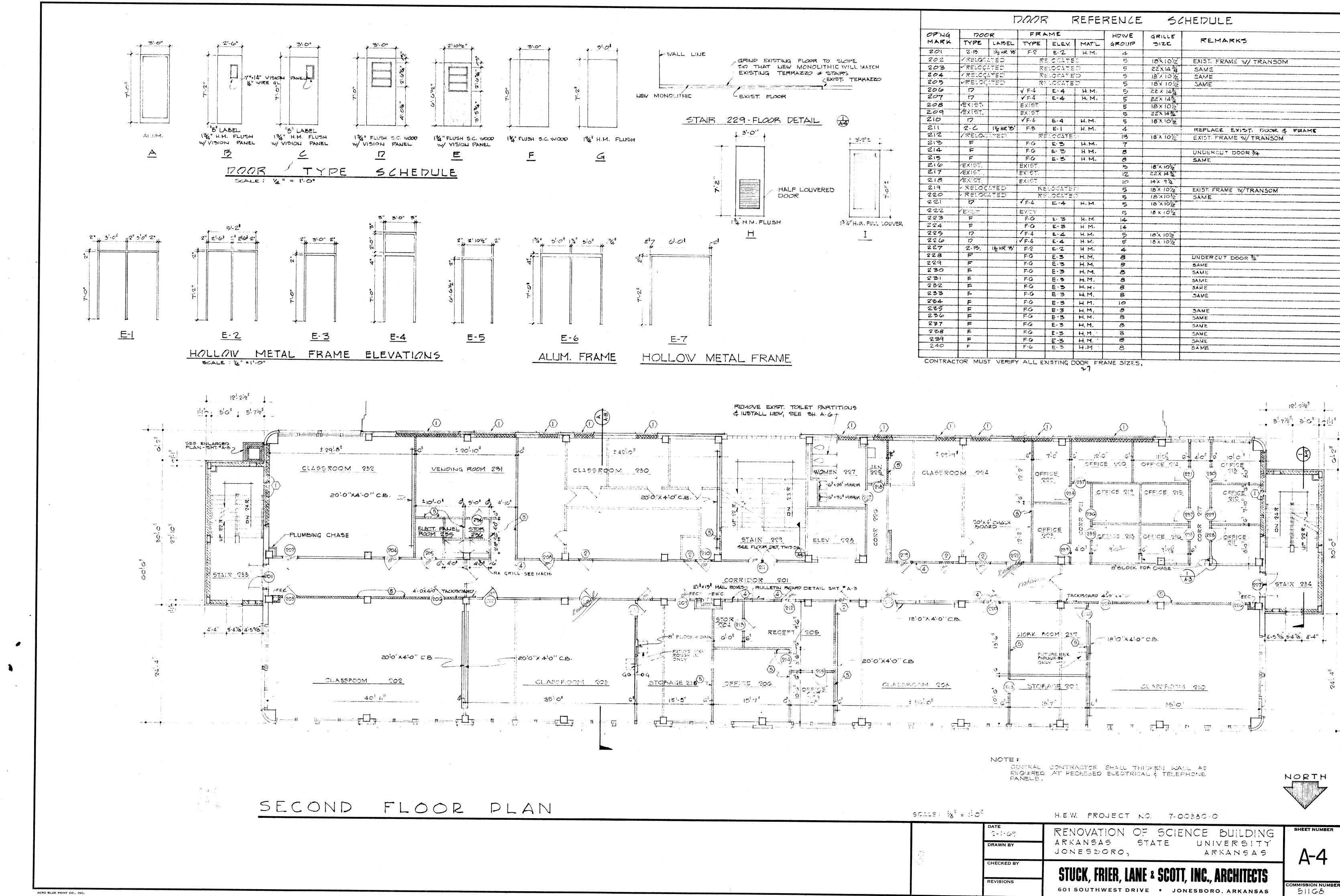
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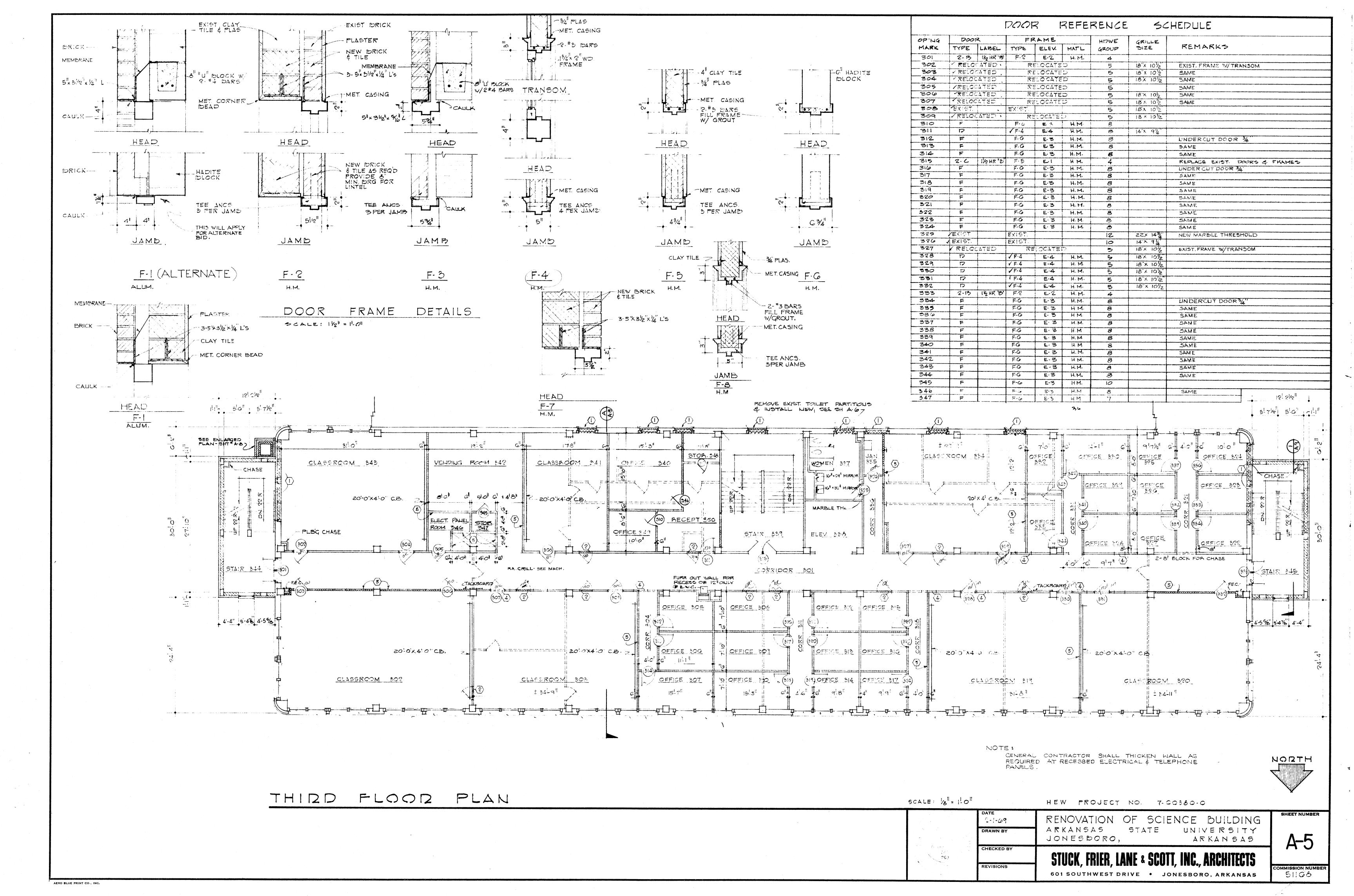


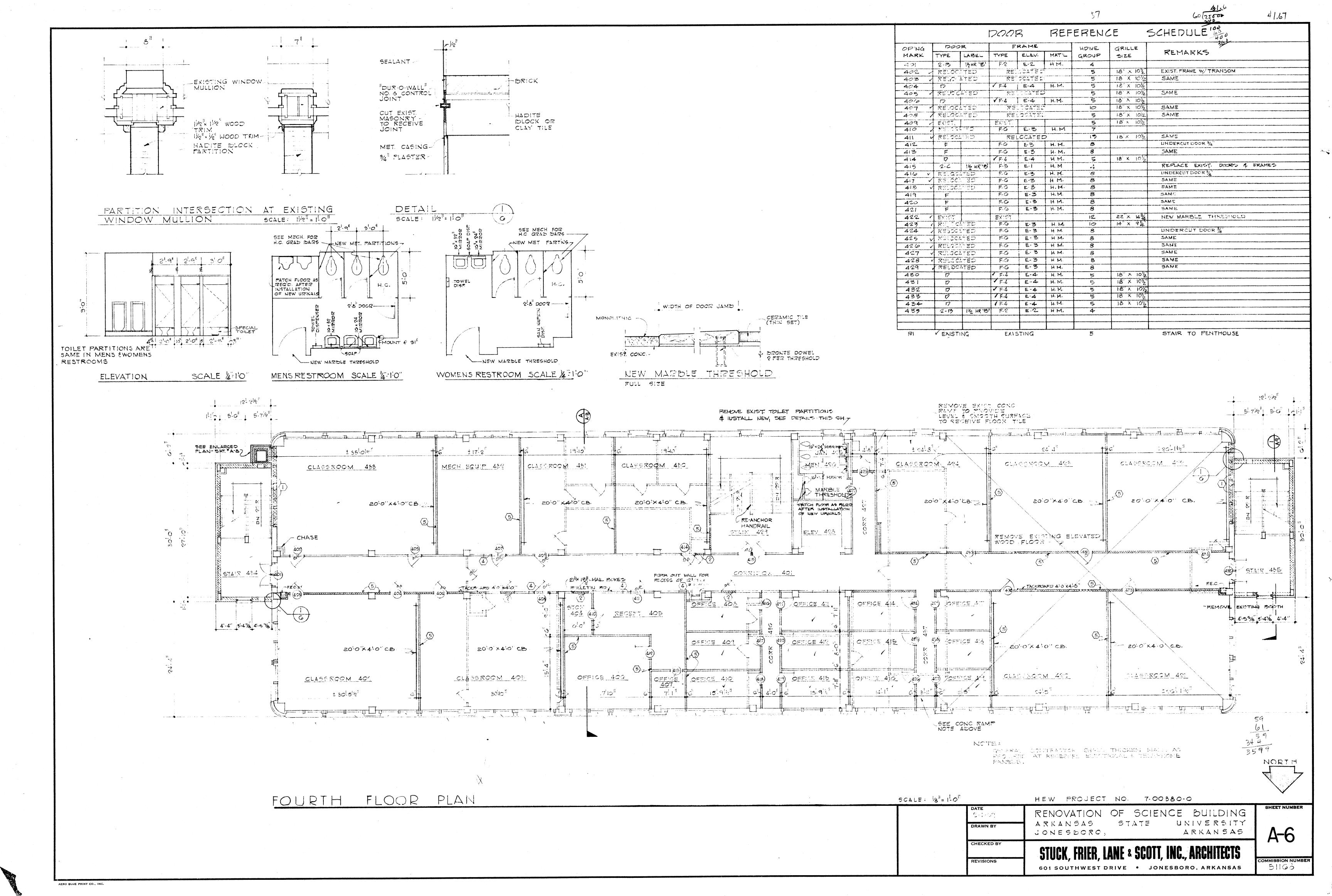
ROOM NUMBER FLOOR BASE WAINSCOT	\\\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	IISH	SCHEDULE				
Value   Val	WALLS  CEILING  REMARKS  A  A  A  A  A  A  A  A  A  A  A  A  A	CLG. HT.	ROOM NUMBER		NEW PLASTER ON NEW PLASTER OF NORTH WALL OF NEW PLASTER OF	E SOUTH FEAST WALLS  EN SOUTH WALL  EN WALL OF 323 F.N. F.W. WALL OF 32  EN SOUTH WALL  IN NORTH WALL  IN NORTH WALL  IN SOUTH WALL	10-8" 10-8" 8-0" 8-0" 9-0" 9-7" 9-7" 9-7" 9-7
2:3	NEW PLASTER ON WEST WALL (REMOVE WOOD  NEW PLASTER ON SOUTH WEST WALLS (RM.W  NEW PLASTER ON SOUTH WALL (REMOVE WOOD  NEW PLASTER ON NORTH WALL (REMOVE WOOD  NEW PLASTER ON SOUTH WALL	D BASE ) 8:0"  (D.BASE ) 10 8"  (D.BASE ) 10 8"  (D.BASE ) 10 8"  (D.BASE ) 8:0"  (D.BASE ) 10 8"  (D.BA	412 413 414 415 416 417 418 419 419 419 419 419 419 419 419 419 419		PATCH PLASTER OF NEW PROJECT NEW	N NORTH WALL  N NORTH WALL  N NORTH SOUTH WALLS & VEST NORTH SOUTH WALLS  N NORTH SOUTH WALLS  N NORTH SOUTH WALLS  N NORTH SWEST WALLS  N NORTH SWEST WALLS  SOUTH WALL & NORTH WALL  N EAST WALL  SO CIENCE BUILDING  TE UNIVERSITY	8-0" 10 8 8-0" 10 8 8-0" 10 8 8-0" 10 8 8-0" 10 8 10 8 10 8 10 8 10 8 10 8 10 8 10 8
AERO BLUE PRINT CO., INC.				CHECKED BY	STUCK, FRIER, LANE & S	COTT, INC., ARCHITECTS	A-2  COMMISSION NUMBER  5168

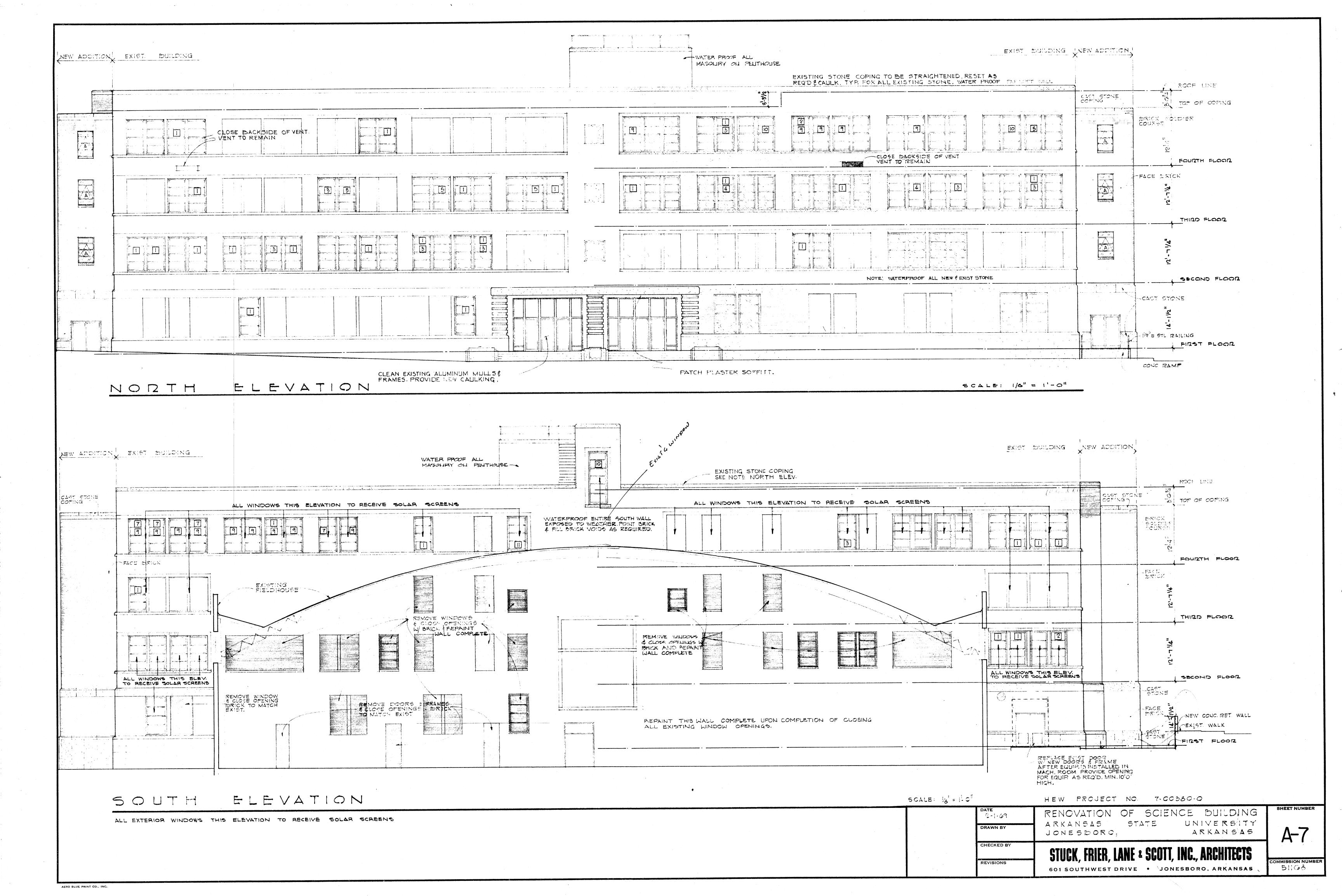
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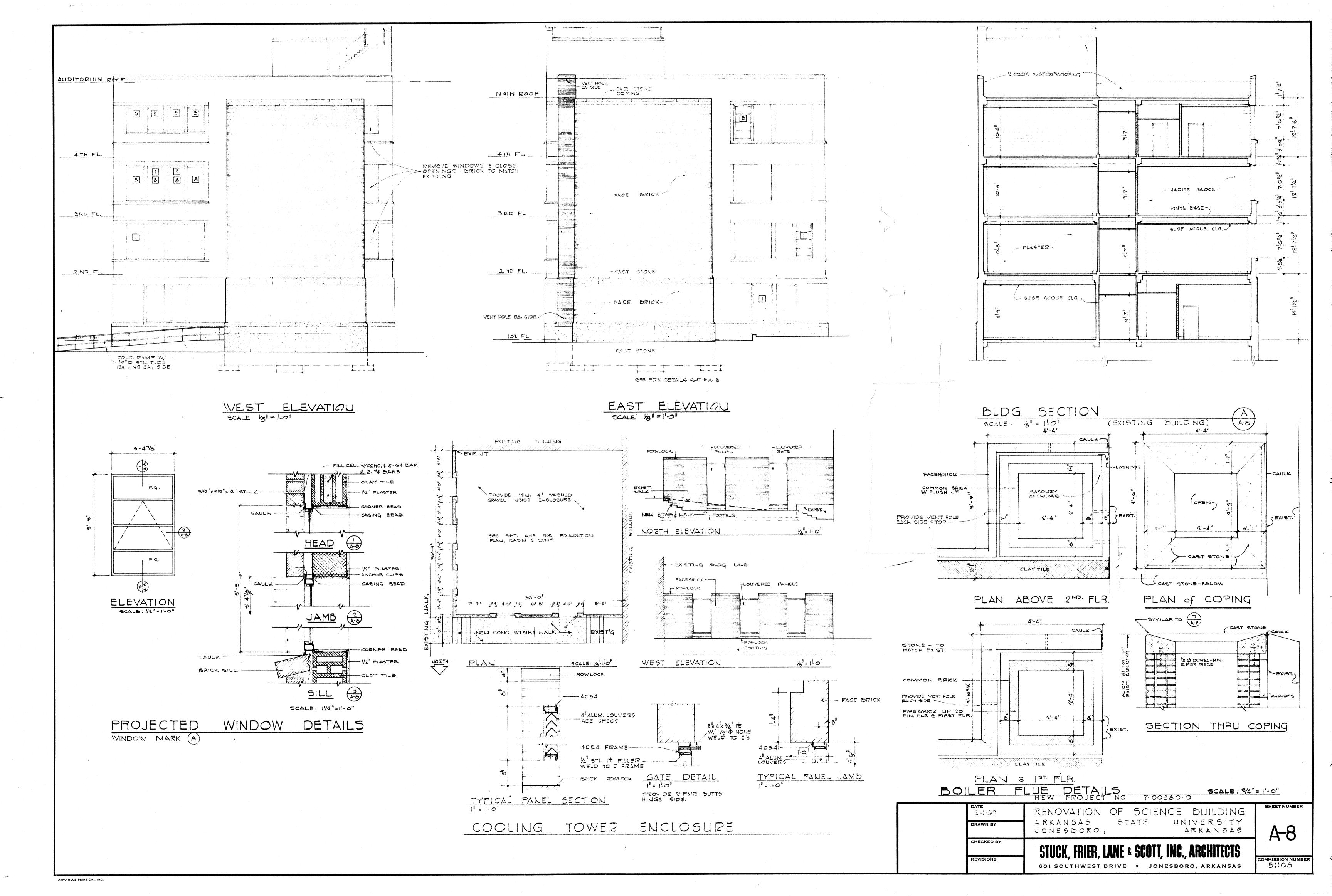


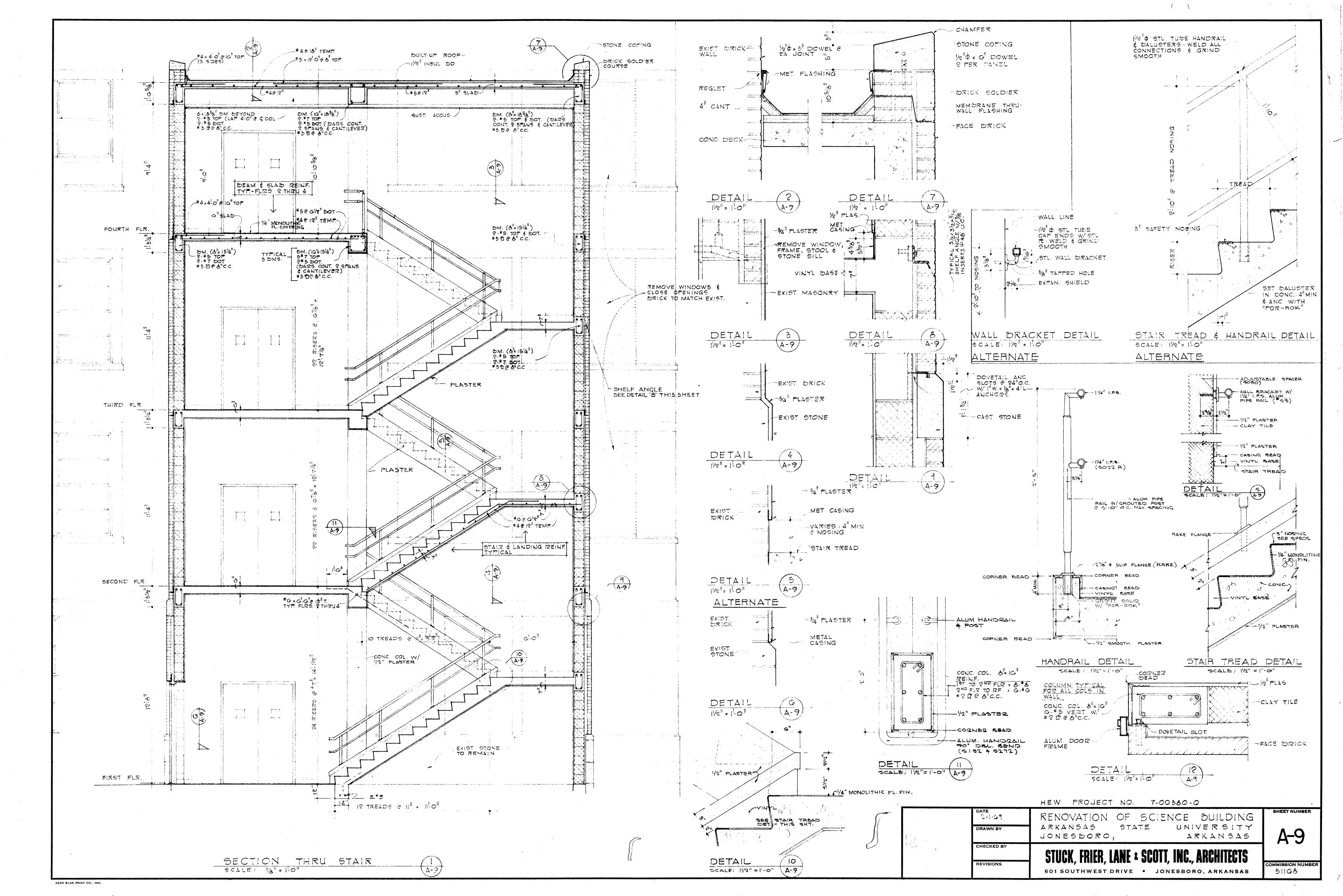


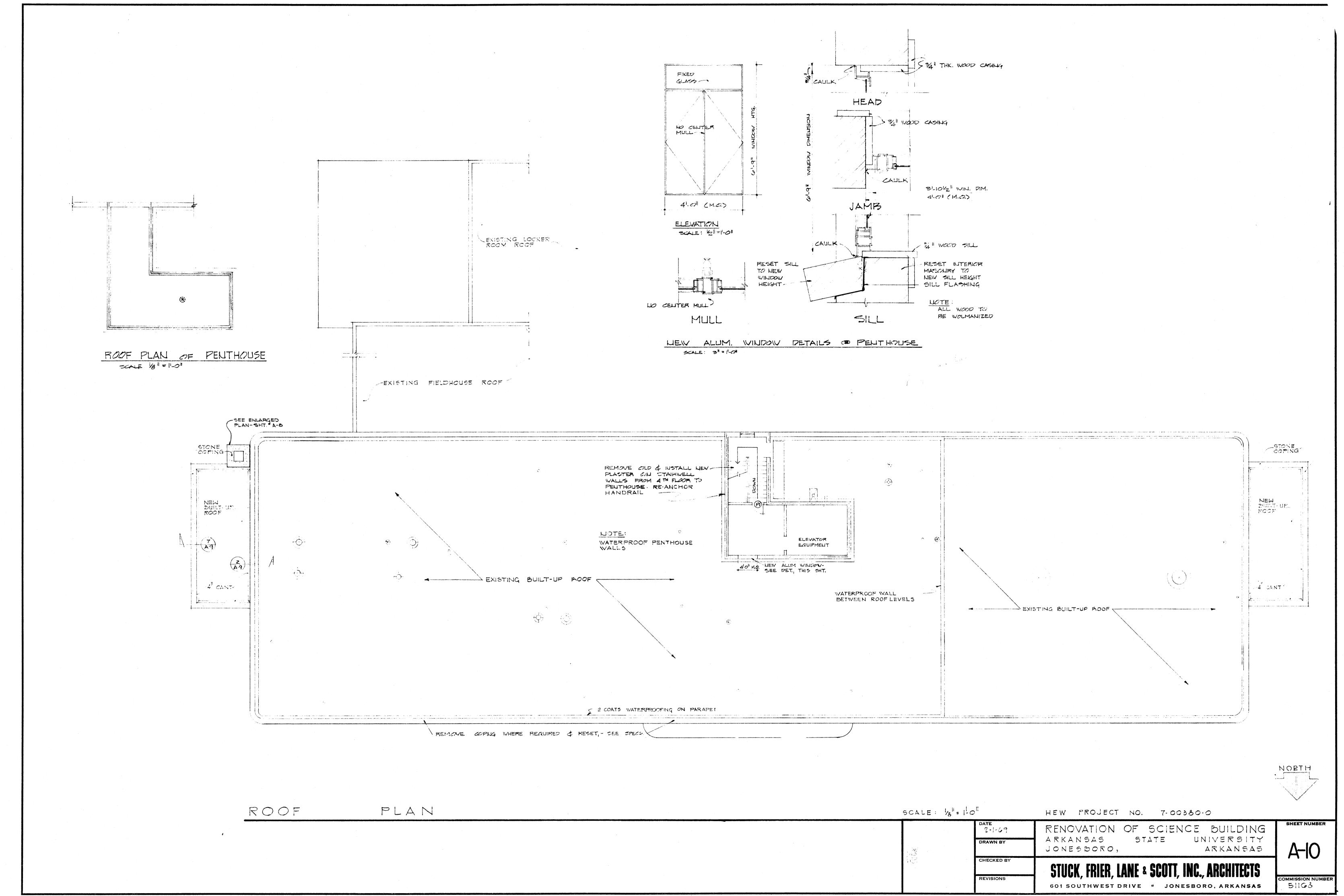




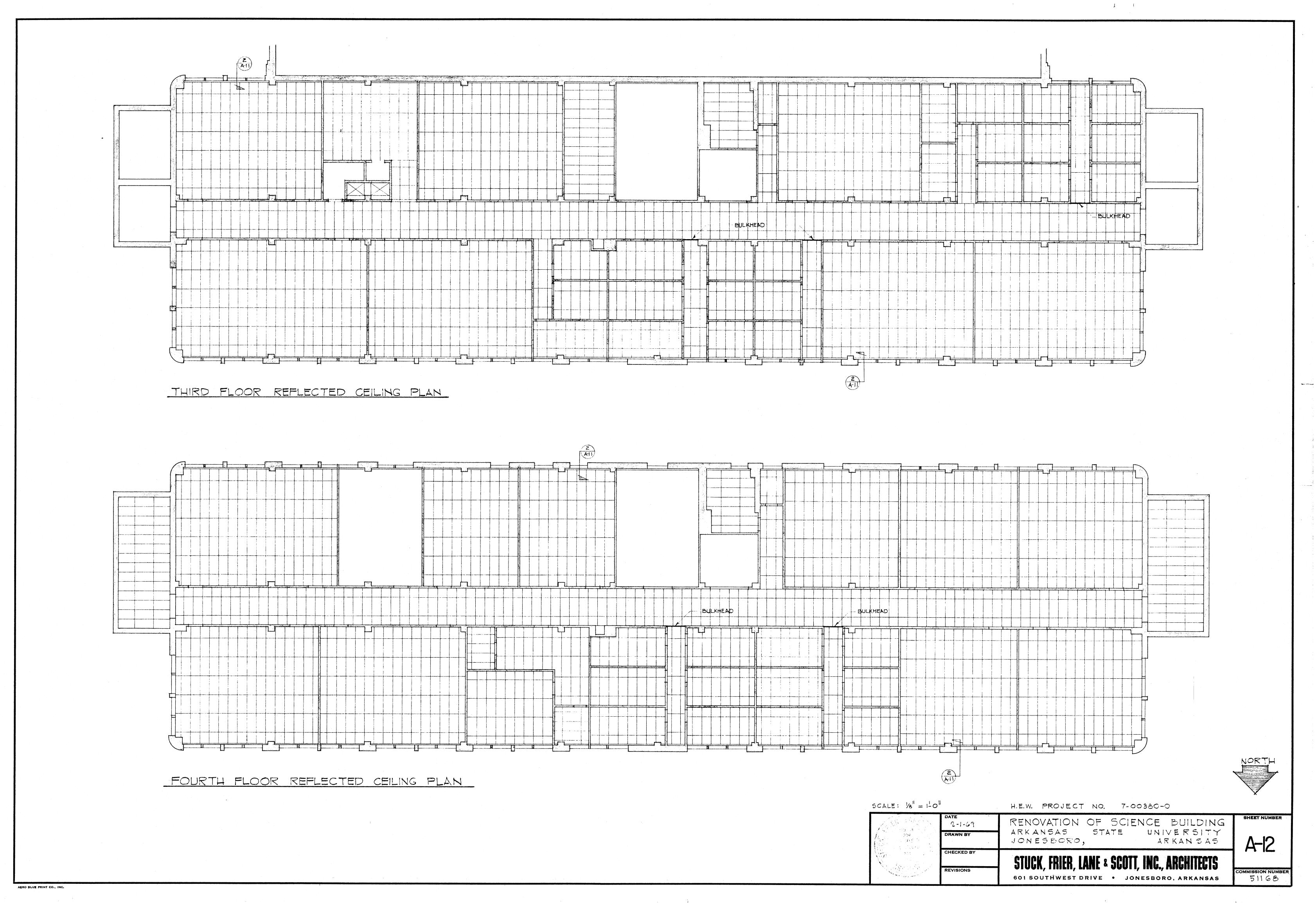


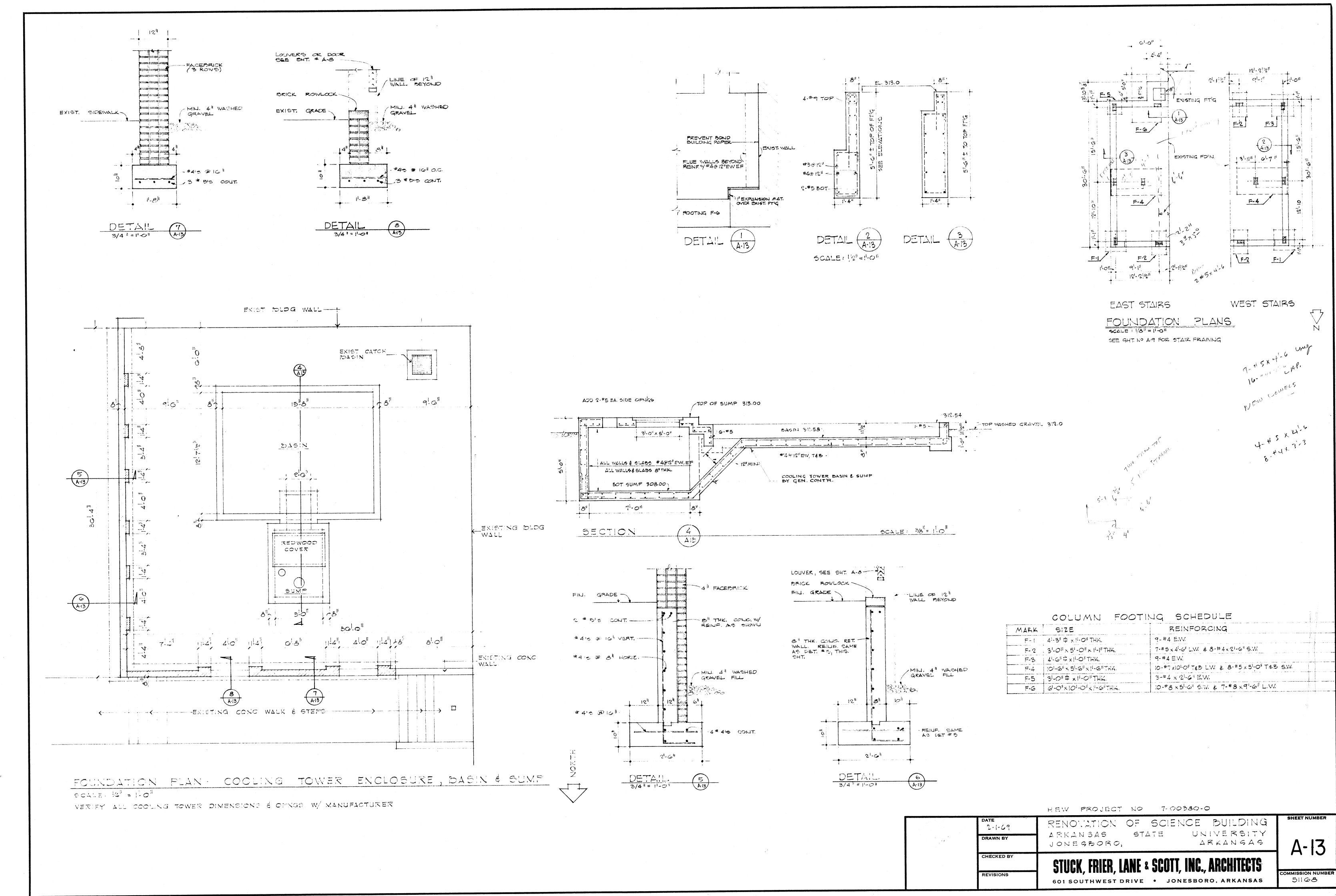


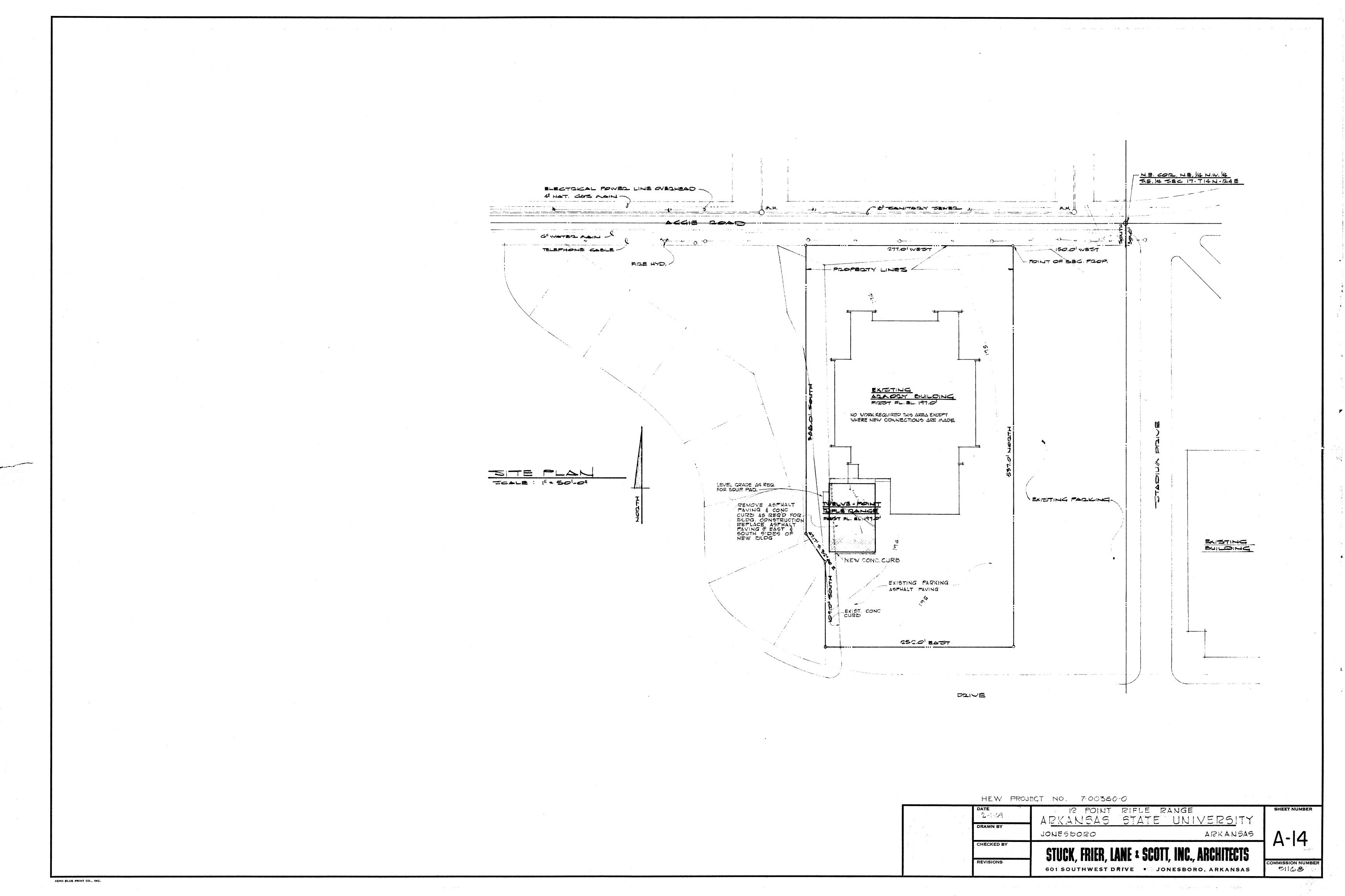


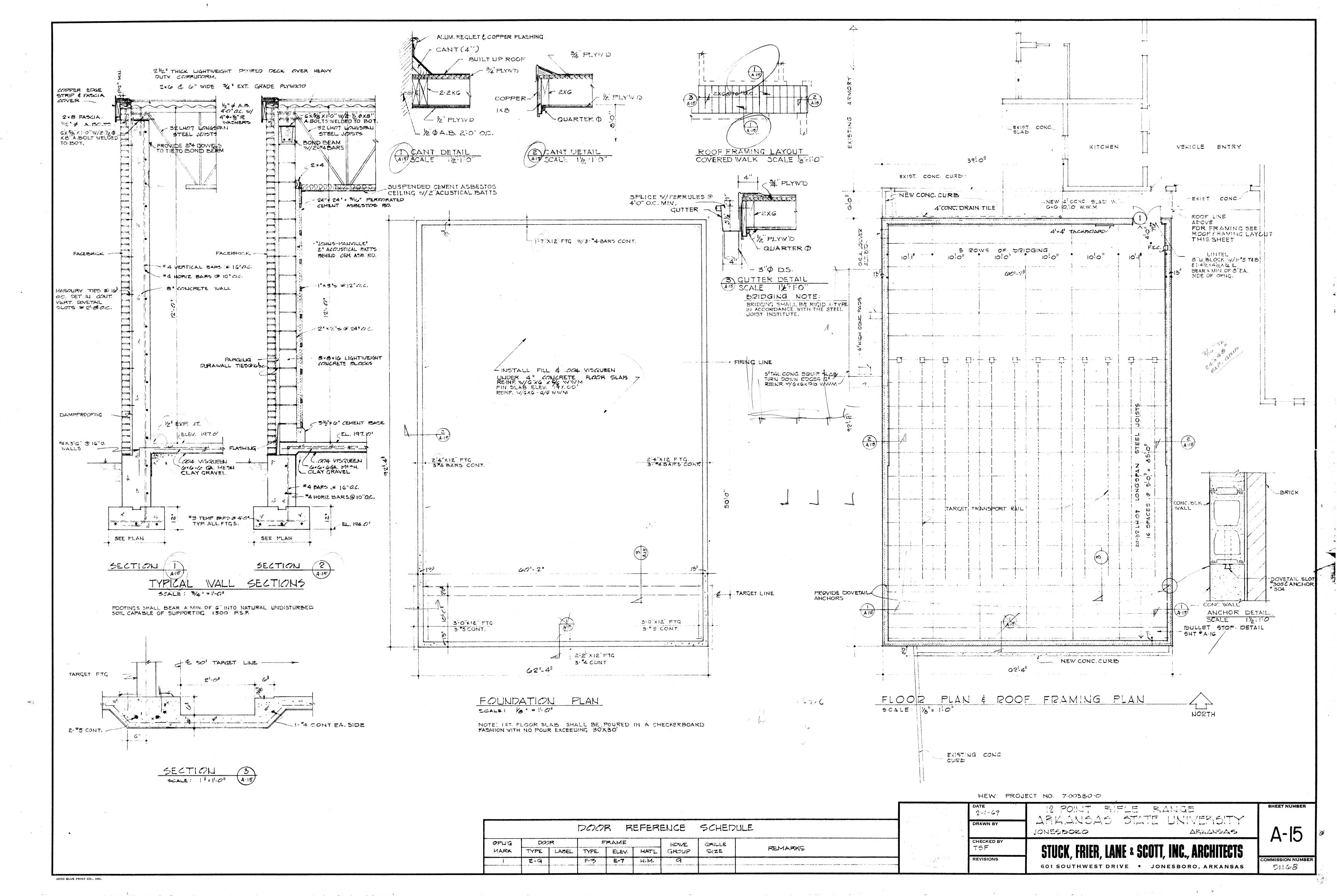


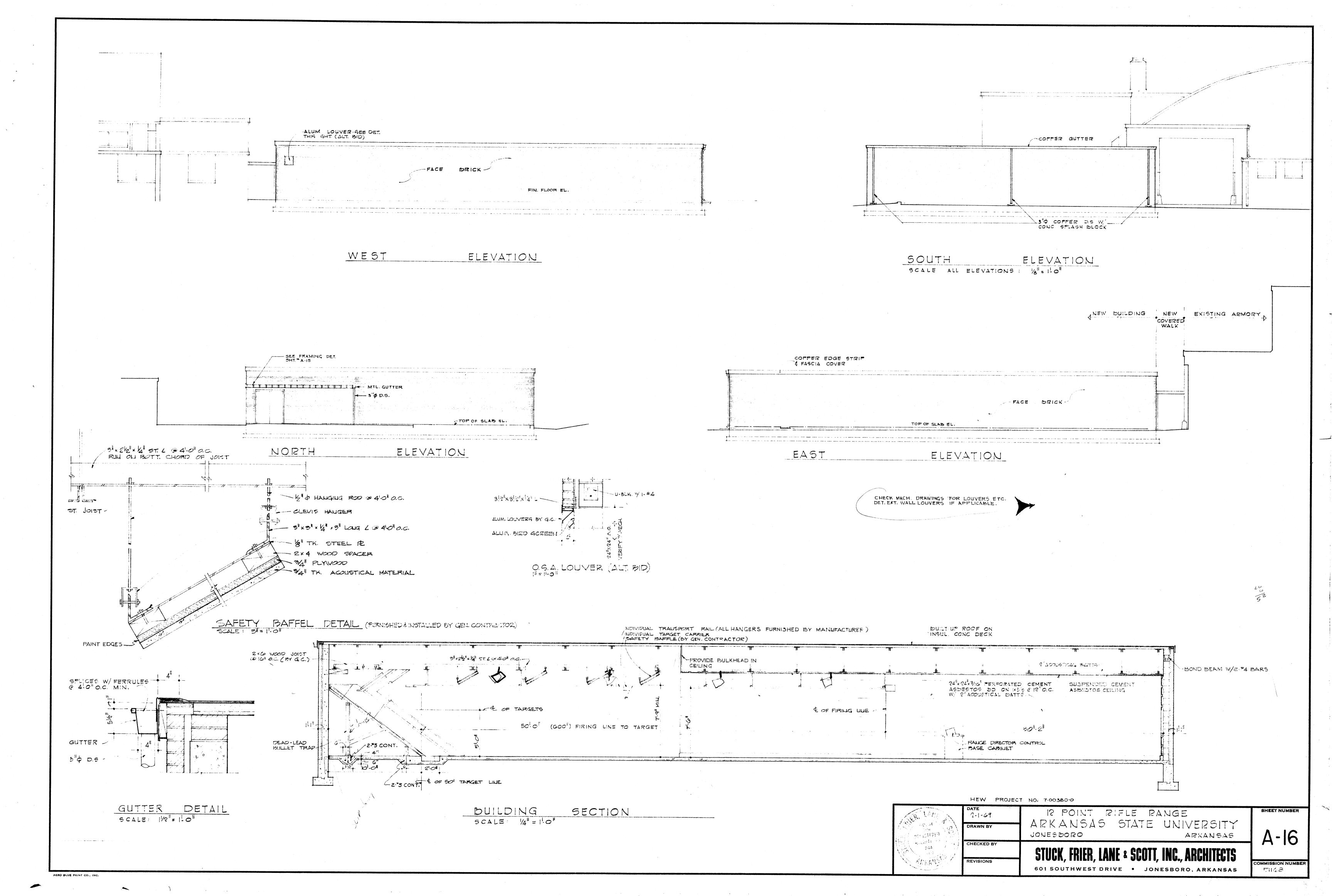


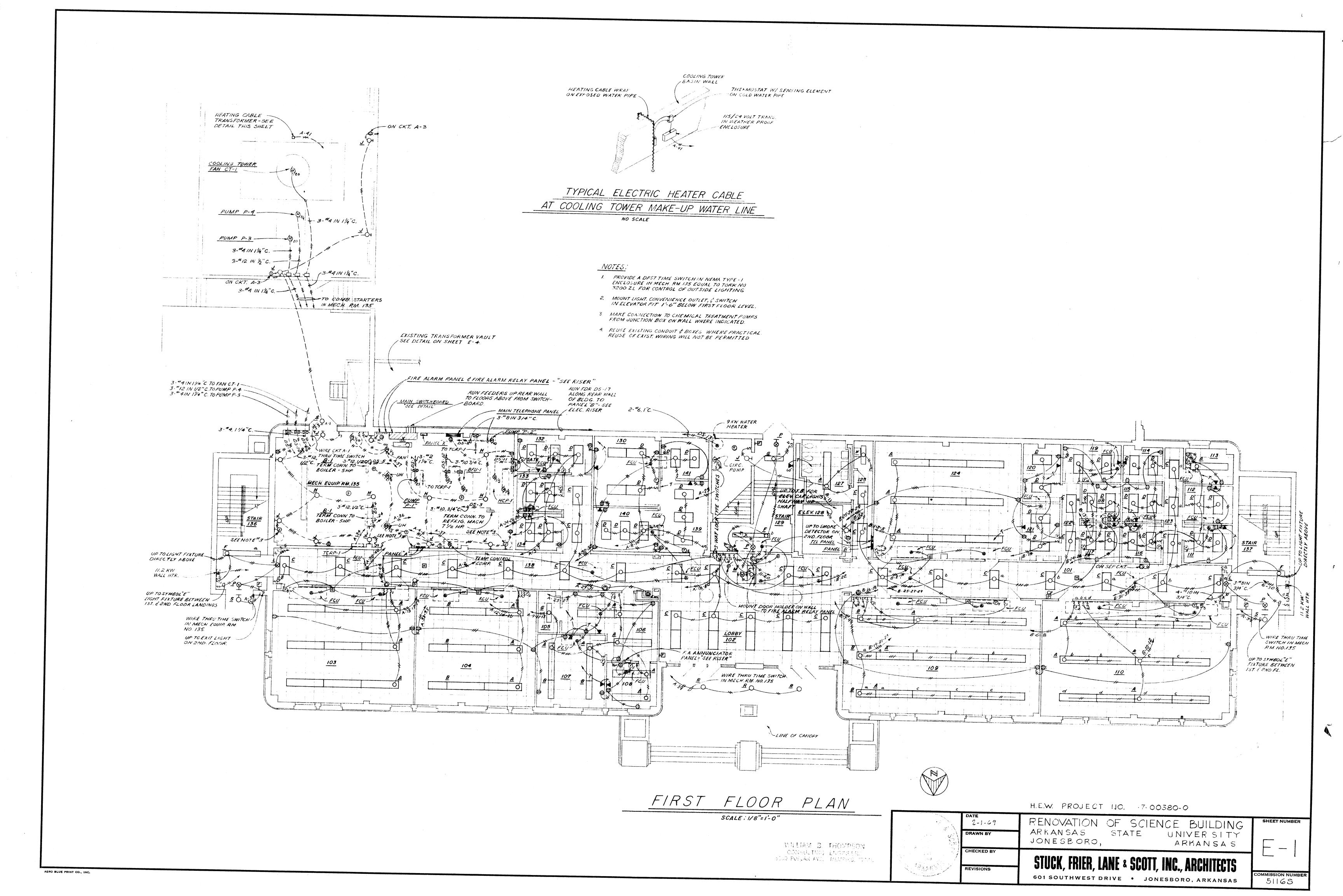


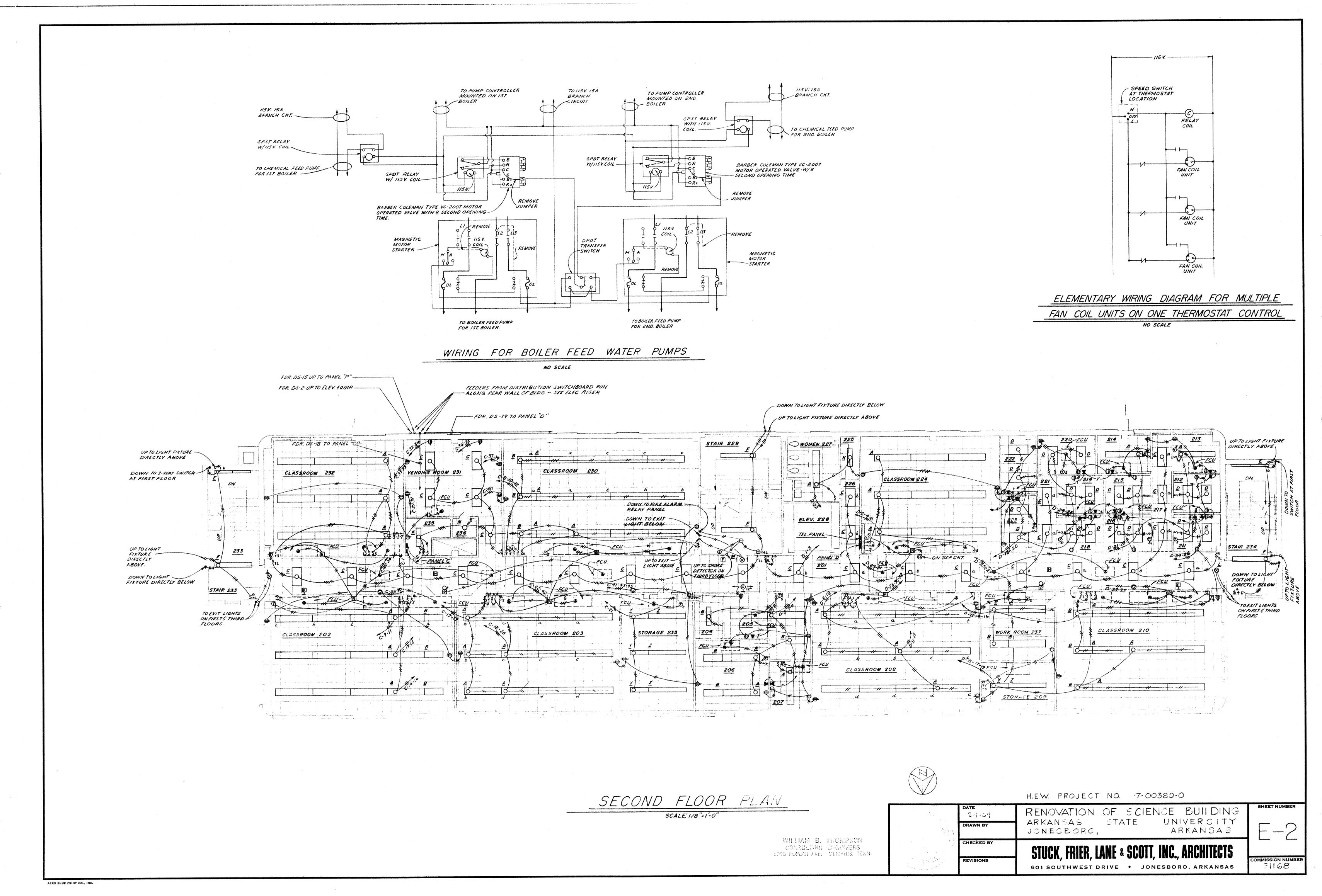


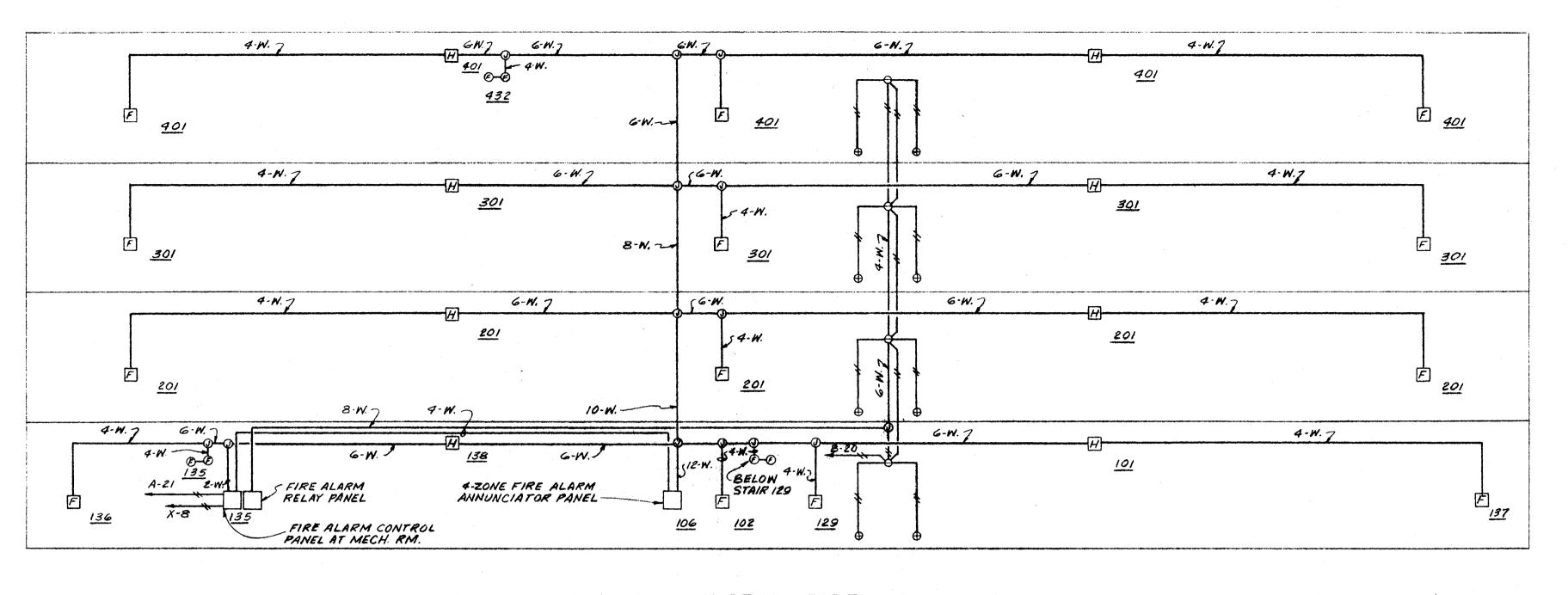




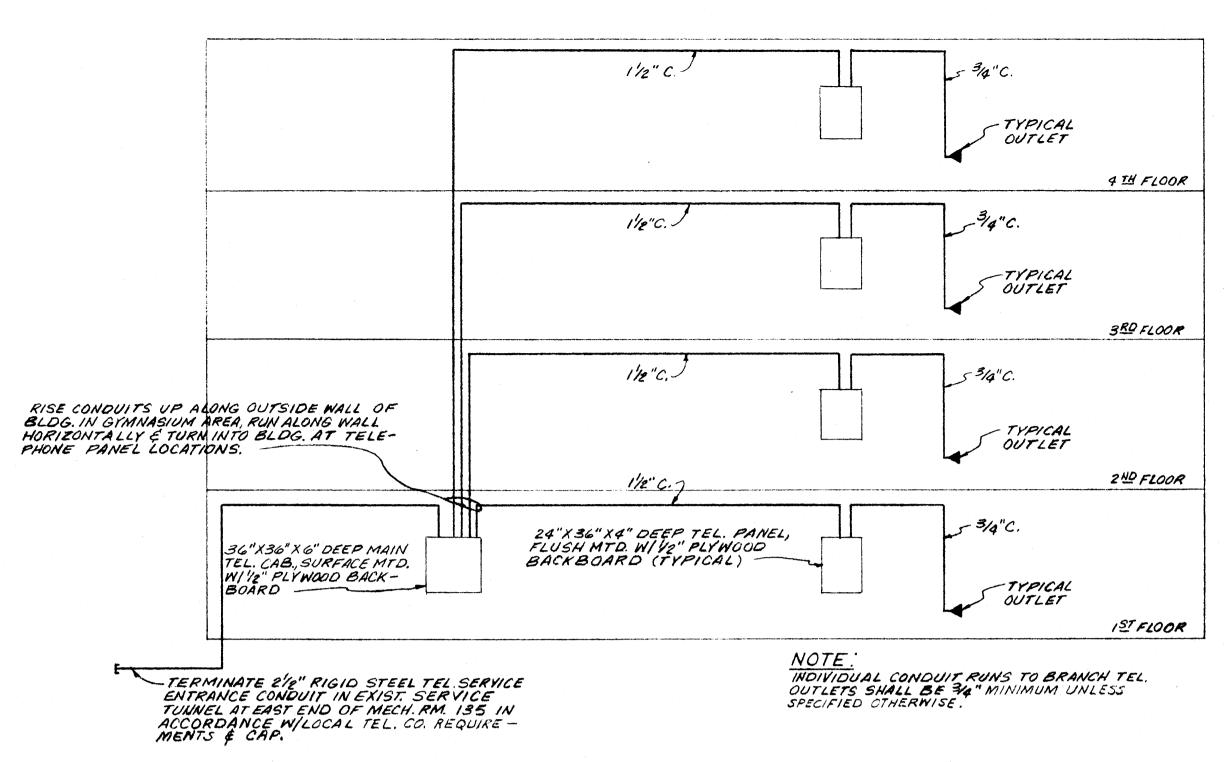




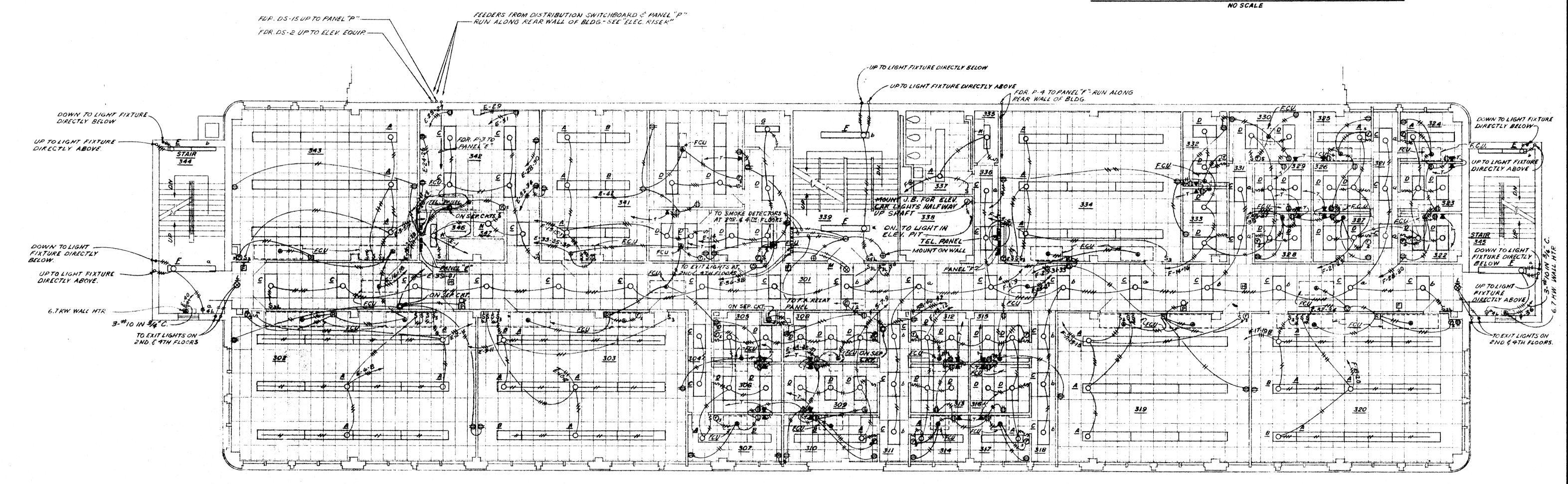




## FIRE ALARM SYSTEM RISER DIAGRAM



TELEPHONE SYSTEM RISER DIAGRAM



THIRD FLOOR PLAN

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



REVISIONS

H.E.W. PROJECT NO. 7-00380-0

PATE
2.1-69

RENOVATION OF SCIENCE BUILDING
ARKANSAS STATE UNIVERSITY
JONESBORO, ARKANSAS

CHECKED BY

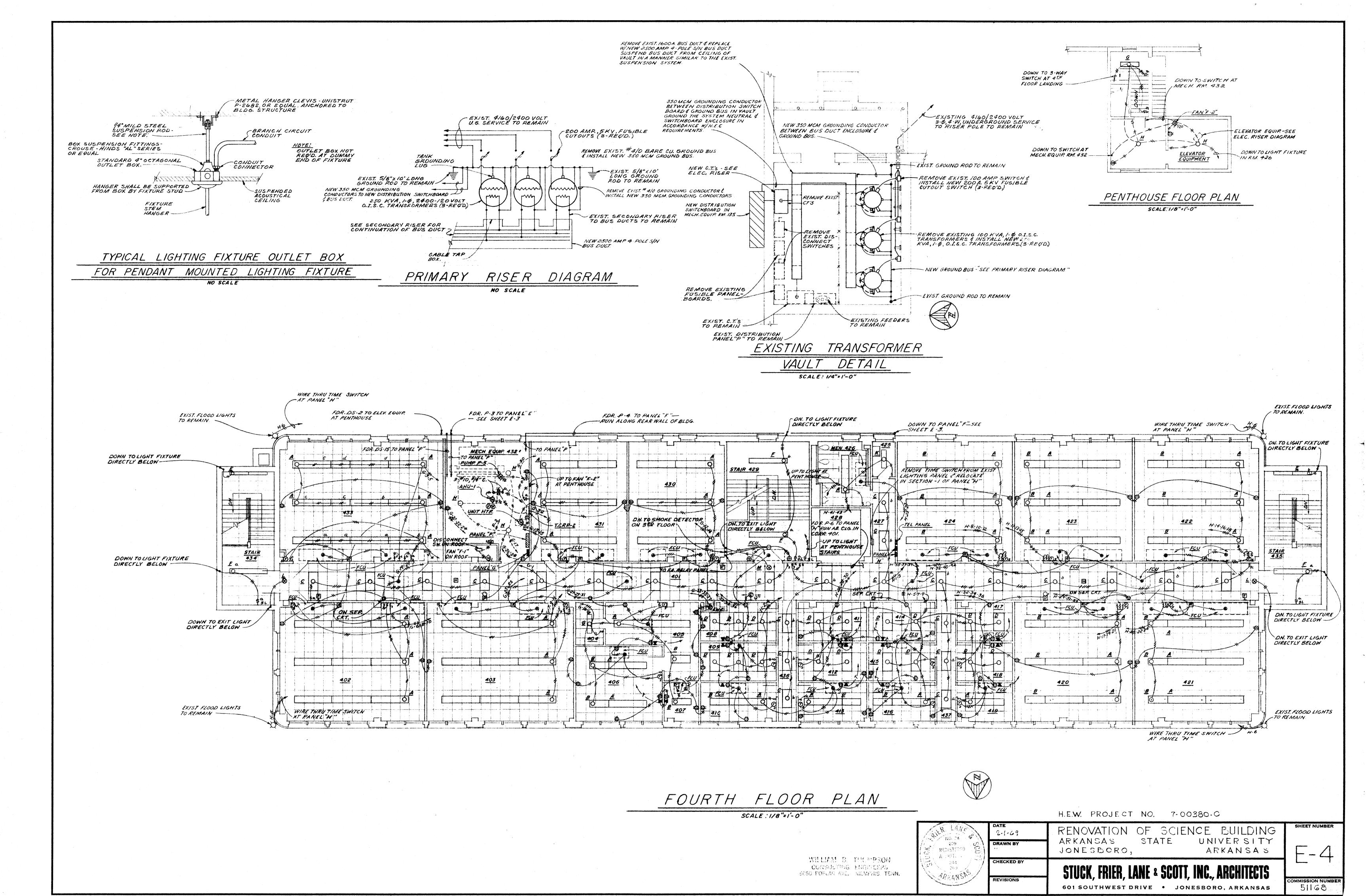
WILLIAM B. THOMPSON

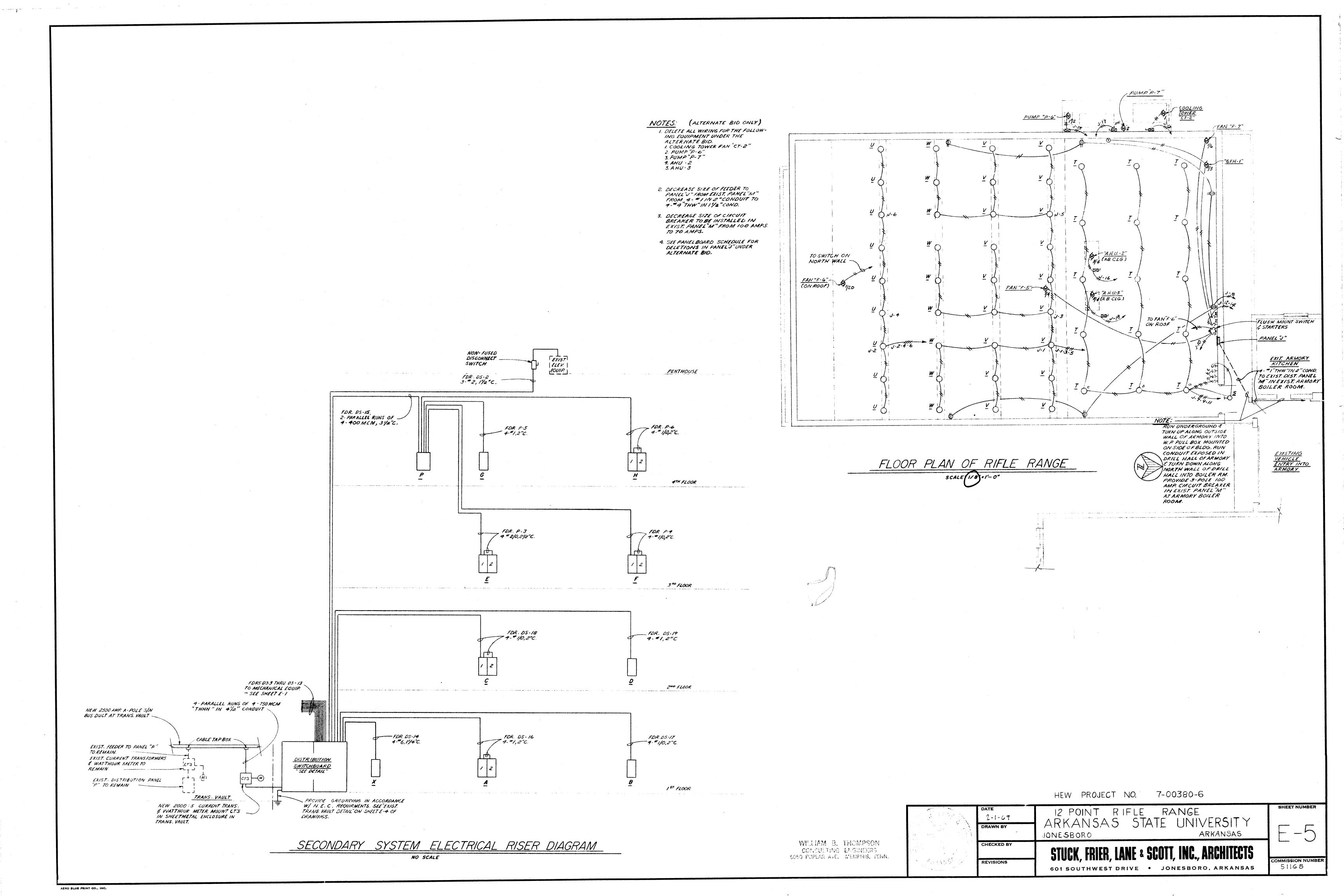
CONSULTING ENGINEERS

DOLD POPLAR AVE. MEMPHIS, TENN.

STUCK, FRIER, LANE & SCOTT, INC., ARCHITECTS
601 SOUTHWEST DRIVE . JONESBORO, ARKANSAS

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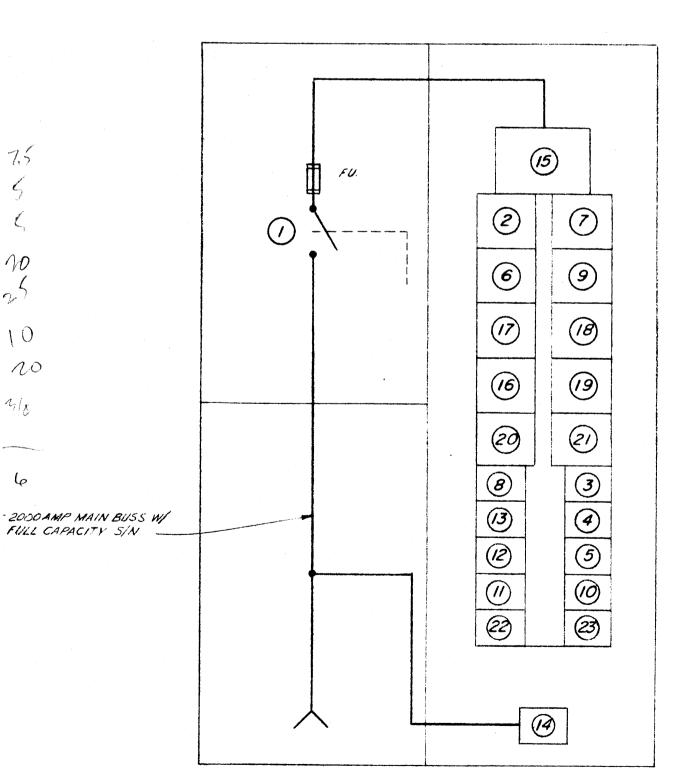
04464					2.2.2		MAII	vs -	MAIN BK	R.		BRAN	ICH C	CIRCUITS		SYMPO	DESCRIPTION	,
PANEL	LOCATION	TYPE	MOUNTING	SYSTEM	VOLTAGE	AMPS	WIRE	LAGGATION	FRAME TRI	P POLES	ACTIVE	SPARE	TRIPS	CIRCUIT NO.	REMARKS		8'-0" LOUVERED FLUORESCENT	7
4	MECH. RM.	LIGHTING	-			225	2-#1	TOP	MAIN LUE	S /	20		15 A. 20 A.	1,2,4,5,7-22 3,6	SECTION-1	$\frac{A}{B}$	4'-0" LOUVERED	-
<u>A</u>	/35	(DOUBLE PANEL)	SURFACE	3.p,4.W	120/208	225	*1			- ',	20	7	15 A. 20 A. 20 A.	39 23-38,40-42,44 43,45-50	SECTION-2	<u>B</u> <u>C</u>	FLUORESCENT FLUORESENT TROFFER	79
<u>B</u>	CORR. 125	LIGHTING	FLUSH	-00-		225	*1/0			_ /	20		15A. 20 A. 40 A.	1-15,17,19,21,23,32 16,18,20,22,24-29,33,35 30		0	-00-	**
- The harmon of the state of th	mendinasida radian dia Mandalah dan Sida da Radaya, dalam salah da Radaya, dalam salah salah da Radaya, dalam s						-4.			1	21	6	20A.	34,36-40			FLUORESENT BRACKET	1
<u>C</u>	ELEC. PANEL ROOM 235	LIGHTING (DOUBLE	SURFACE			225	2-4/0			7	3	2	20A. 20A.	22,24,26	SECTION-I	E	8'-0" SURFACE	+
North and the Control of Spatial Association and the		PANEL)				225	#1/0				/7	7	20A. 20A.	28-43,45 27,44,46-50	SECTION- 2		FLUORESCENT	Ì
<u>D</u>	CORR. 226	LIGHTING	FLUSH	00-	00-	225	#1				13	6	15A. 20A. 20A.	1-23 2 <b>4</b> -36 37-42		<u>G</u>	INCANO. STAND	2.
_	ELEC. PANEL	LIGHTING	04/05/05			225	2-#2/0			- 7	16		15A. 20A.	1-15,17 14,18-30	SECTION-1		PROTECTED	-
<u>E</u>	ROOM 346	(DOUBLE PANEL)	SURFACE			225	#2/0	-00-		- 3	14	7	20A. 30A. 20A.	31-39,41-43,45,47 40 44,46,48-51	SECTION-2		INCAN. BRACKET FLUORESCENT	-
						225	2.4/0	00-			22	2	15A. 20A.	1-21,23 22,24	SECTION - I	<u>K</u>	STRIP CEILING MOUNT	+
F	CORR, 336		FLUSH	— DO —		225	#1/0	DO		- 7	15	9	20 A. 30 A. 20 A.	36	SECTION-2	1 -	SINGLE FACE EXIT CEILING MOUNT	
<u>6</u>	MECH RM.	LIGHTING	SURFACE	00	00-	225	#1		20-		18		15A. 20A.	1-18 19-37		M	DOUBLE FACE EXIT INCANDESCENT	
	inestannu enternante noptilitativathe athebre que comprese persona que la comprese de la comprese del la comprese de la comprese del la comprese de la comprese del la comprese de la comp			ara nama ndara mayon makama mayonaka anaga	province of the any that it will be either the for	225	2.#1/0	00-			23		20A. 15A.	38-42 1-6,7-24	SECTION-I	<u> </u>	CYLINDER BACK MOUNT	1
<u>H</u>	CORR. 427	LIGHTING (DOUBLE PANEL)	FLUSH				#1/0				18		20A. 15A. 20A.	23 21 25-40,42,43		$\frac{P}{P}$	EXIT	1
				mentalista angalakan ana kanaka mana salah salah pangan pangan pangan dan dan dan							4	7	20A.	1,3,5,7,9,//	SECTION-2	R	INCANDESCENT CYLINDER	-
<u>J</u>	FIRING RANGE	LIGHTING		00	DO	100	#1	BOTTOM		- 3	7		20A. 15A. 20A.	2,4,6,8,10,12,74 13:15,16,18		<u>s</u>	INCANDESCENT CYLINDER BRACKET	
	finis salasanin salas ranta - malajunda salasanjunakan ya asalas			Agrication programming age, was a monthly or \$7.3 and	and desired the desired was supplied by a supplied by the supp					1	6	6	20A.	1,3,5,7,9,11		<u></u>	INCANDESCENT SQUARE	
<u>J</u>	MECH. RM.	00				100	#4			1	7	3	20A. 20A.	2,4,6,8,10,12,14 13,15,16	"ALTERNATE BID ONLY"	U	INCANDESCENT FLOODLIGHT	
X	135	DO	SURFACE			100	#6	TOP		- 1 /	9	,	15A. 15A.	1-9	CONNECT TO LINE SIDE DE MAIN BREAKER	V	INCANDESCENT REFLECTOR	T
<u>P</u>	MECH. RM. 432	DISTRIBUTION			-00-						SE	E DETAIL				w	-00-	+

NOTE: PROVIDE COMMON TRIM FOR BOTH SECTIONS OF PANEL"H"

IARK	DESCRIPTION	POLES	FDR.	TRIP AMPS	INTERRUPTING RATING SYM	REMARKS
	MAIN SWITCH	3			20p,000A	2000 A. BOLTED PRESSURE SWITCH W/ 2000 A. CURRENT LIMITING FUSES.
2	FOR. TO ELEVATOR	3	05-2	150A.	65,000A.	W/INTERCHANGABLE TRIPS
3	REFRIG. MACH.	3	D5- <b>3</b>	50A	65,000 A	
4	BOILER B-I	3	D5·4	40A.	65,000 A.	
5	BOILER B-2	3	DS- <b>5</b>	40A.	65,000A	
6	COOLING TWR. FAN	3	05-6	125A.	65,000A	W/INTERCHANGABLE TRIPS
7	PUMP P-1	3	05.7	150A.	65,000 A	
8	PUMP P-2	3	05-8	70A.	65,000A.	
9	PUMP P-3	3	05.9	125A.	65,000 A	W/INTERCHANGABLE TRIPS
10	PUMP P-4	3	05.10	15A.	65,000A	
<b>/</b> /	HCP-I	3	05-11	20A.	65,000A.	
12	BFU-I	3	DS-12	30A	65,000 A.	
13	WATER HEATER	2	DS-13	50 A.	65,000 A.	X.C.
14)	PANEL "X"	3	05-14	50A.	65,000 A.	CONNECT TO LINE SIDE OF MAIN BREAKER
5	PANEL "P"	3	D5-15	700 A	65,000 A	
16	PANEL "A"	. 3	D5-16	125 A.	65,000A	
	PANEL "B"	3	DS17	150A.	65,000A.	
18	PANEL"C"	3	D5:18	150A	65,000 A.	
19	PANEL "D"	3	05-19	125A	65,000A.	
20	SPACE	3		225 A	65,000A	
21)	SPACE	3		150 A	65,000A	
22)	SPARE	3		50A	65,000 A	

NOTE:	— — — — — — — — — — — — — — — — — — —
BOLTED FRESSURE MAIN SWITCH SHALL BE EQUAL TO THOSE MANUFACTURE COMPANY AND THE PRINGLE ELEC. MANUFACTURING COMPANY. CURREL FUSES SHALL BE EQUAL TO THOSE MANUFACTURED BY BUSSMAN DIV OF EDISON CO. FIRE CHASE SHAWMUT CO.	UT / MAITIALE

AERO BLUE PRINT SO., INC.



(120/208Y,3. Ø,4. WIRE S/N) (BRACED FOR CIRCUIT STRESSES UP TO 50,000A.SYM)

DISTRIBUTION SWITCHBOARD NO SCALE

4-F40C <b>W</b>	- 00	- 20 -	
A			
	800 AMP. MAIN 400 MCM DOU	•	
	Y	Y	Υ
3.	P 175A.TR	3-P 1:	SOA.TR.
22	,000 A. SYM. INT.	22,000 A. SYN	1. INT.
	CKT#P-3	CKT.# P-	#
3-A	125 A. TR.	3-P 150	OA.TR.
22,	OOO A. SYM. INT.	1	1
3-P	CHT#P.5	CKT* P-	
	50 A. TR. DOO A. SYM. INT.	3-P 10 18,000A. SYM	OOATR.
	CKT. # P-1	SPACE	. //٧/.
3-P	15 A.TR.	3.P	15A.TR.
18,0	DOOA. SYM. INT.	18,000 A. SYM	
	CKT#P-2	SPARE	
	BOO AMP. SOLID N	FUTBAL W/	
} <	DO MANY, SOLID IN	SUITAL WI	

PANEL "P" NO SCALE

WILLIAM 5. THOMPSON CONSULTING ENGINEERS 5050 POPLAR AVE. MEMPHIS, TENN.

LIGHTING FIXTURE SCHEDULE

4-F40CW

2-F40CW

4-F40CW

2-F40CW

4-F40CW

2-F40CW

150W.

2-25W. TIO

-00-

150W.

4-25 W. T6/2

OR 2-25 W. TIO

150 W

FLOOD

-DO-

150 W.

PS-40 500W.

100 W

100W

2-F40 CW

R- 40

2-F40CW WHITE

4-25W. TG/2 SATIN

KEYSTONE H.E. WILLIAMS 8-F40CW

- 00-

BENJAMIN

-00-

SOLAR

GUTH

-00-

BENJAMIN

PYLE - NATIONAL

BENJAMIN

- DO -

BENJAMIN

HUB

PRESCOLITE

-00-

PERFECLITE

APPLETON

- 00 -

-00-

H.E. WILLIAMS

-- DO -

MANUFACTURERS OR EQUAL

GUTH

-00-

SMITHCRAFT

-00-

MILLER

APPLETON

SECHRIST

MEPHILBEN

- DO -

HALO

MARCO

-DO-

HALO

-00-

- DO -

MILLER

KEYSTONE

- 00 -

\*XW-SR-DL MEPHILBEN

WESTINGHOUSE CROUSE - HINDS

INDUSTRIAL

FLUORESCENT #FL-1024-4

4'-0" LOUVERED LITHONIA FLUORESCENT #CL-240-M-45

FLUORESCENT #8TCL-240-M-45

8'-0" LOUYERED LITHONIA

#8TCL-440-M-45

SECHRIST FRZGK-240-RD-ACR

FLUORESENT GUTH BRACKET "GEG281/BB CURTIS-ELECTRO

SECHRIST #R2GK-440-RD-ACR

PERFECLITE # 81- G

GUTH #M 6505

#3-10

#3-20

PRESCOLITE

1015 HF-1

AH - 14NH

MILLER AE - 33/0

AE -3340

4'-0" LOUVERED LITHONIA FLUORESCENT # CL-440-M-45

FLUORESCENT # 96 48 A

4'- 0" SURFACE | LPI FLUORESENT #9624 A

INCANO. STAND. ABOLITE

CEILING MOUNT MARCO SINGLE FACE \*XC-SR-DL

CEILING MOUNT MARCO DOUBLE FACE "XC - SR - DL

INCANDESCENT PRESCOLITE
CYLINDER # CF-28

INCANDESCENT MEPHILBEN

BACK MOUNT | MARCO

H.E.W. PROJECT NO. 7-00380-0 RENOVATION OF SCIENCE 2.1.69 ARKANSAS STATE DRAWN BY LONESBORD, ARKAN CHECKED BY

LEGEND

DESCRIPTION

DUPLEX CONVENIENCE OUTLET INDICATING

MOTOR CONNECTION INDICATING HORSEPOWER

SPECIAL-PURPOSE CONNECTION OR PROVISION FOR

COMBINATION STARTER WICIRCUIT BREAKER TYPE DISCONNECT

BRANCH CIRCUIT WIRING IN CONDUIT RUN IN WALLS OR ABOVE

BRANCH CIRCUIT WIRING IN CONDUIT CONCERLED IN OR UNDER

HOMERUN TO LIGHTING OR DISTRIBUTION PANEL A INDICATING

EMPTY CONDUIT FOR TELEPHONE WIRING 3/4" MINIMUM

BRANCH CIRCUIT WIRING RUN EXPOSED INDICATING NO.

THERMOSTAT W/ SPEED SELECTOR SUB BASE

OUTLET FOR ELECTRIC WATER COOLER.

CONNECTION TO EQUIPMENT

AUTOMATIC FIRE DETECTOR

FLUORESCENT LIGHTING FIXTURE

WALL TYPE TELEPHONE OUTLET

DISCONNECT SWITCH

DISTRIBUTION PANEL

MAGNETIC MOTOR STARTER

SINGLE POLE TOGGLE SWITCH

SWITCH INDICATING LIGHTS CONTROLLED

CEILING INDICATING NUMBER OF WIRES

FLOOR, INDICATING NO. OF WIRES

CIRCUIT NUMBERS AND NO. OF WIRES

FIRE ALARM BREAKGLASS STATION

ELECTRO - MAGNETIC DOOR HOLDERS

WIRING IN CONQUIT TURNED DOWN

SPLIT . WIRED DUPLEX CONVENIENCE OUTLET

DOUBLE FACE CLOCK INDICATING DIAL SIZE

SPST TOGGLE SWITCH WIPILOT LIGHT.

TEMPERATURE CONTROLL RELAY PANEL

WIRING IN CONDUIT TURNED UP

RELAY FOR CONTROL OF MULTIPLE FAN COIL UNITS - BY HTG, & AIR CONDITIONING CONTRACTOR

SPECIAL PURPOSE GROUNDING TYPE J-WIRE, 20 AMP. OUTLET

KEY OPERATED LOCK TYPE SWITCH

THREE WAY TOGGLE SWITCH

MANUAL MOTOR STARTER

WEATHERPROOF

UNIT HEATER

FAN COIL UNIT

OF WIRES

TELEPHONE FANEL

FIRE ALAKM HORN

4 - WAY SWITCH

EMPTY CONDUIT

SMOKE DETECTOR

EQUAL TO HUBBELL # 5361

PROGRAM BELL

LIGHTING PANEL BOARD

AIR HANDLING UNIT

SPECIAL FURPOSE OUTLET

MOUNTING HEIGHT

THERMOSTAT

OUTLET FOR INCANDESCENT LIGHTTING FIXTURE SYMBOL "A"

CEILING MOUNTED EXIT LIGHT WI DIRECTIONAL ARROW

OUTLET FOR BRACKET MOUNTED INCANDESCENT LIGHTING FIXTURE

REMARKS

SEE MOUNTING DETAIL

-00-

-

-

PROVIDE ARROWS AS INDICATED ON THE DRAWINGS

-00-

PROVIDE ARROWS

-

SEE MOUNTING DETAIL

PROVIDE RIGID

CONDUIT STEM

AS INDICATED ON THE DRAWINGS

SYMBOL

7777778

AHU

H

-----

TCRP

MOUNTING

PENDANT

MOUNT 8'-6" AB. FLOOR

-00-

RECESS IN CEILING

- DO -

MOUNT ON WALL 8-6" AB.

-00-

PENDANT MOUNT

FLOOR MOUNT ON

CEILING

FLOOR

T'-C" AB. FLOOR

MOUNT ON

-00-

-00-

- DO-

-00-

-00-

MOUNT ON WALL 8-6" AB. FL.

RECESS IN

CEILING

BOTT. OF

BAR JOIST

SURFACE

BOTT, OF BAR JOIST

PENDANT

AB. FLOOR

MOUNT 8'-6"

CHAIN HANG

8'-0"AB. FLOOR

CEILING

BAKED WHITE

ENAMEL

- 00-

-DO-

- 00 -

- DO -

- 00 -

- DO -

ENAMEL

BAKED

ENAMEL

ALUMINUM

-00-

-DO -

-00-

-00-

-00-

STANDARD

-00-

-00-

PORCELAIN

ENAMEL

WHITE

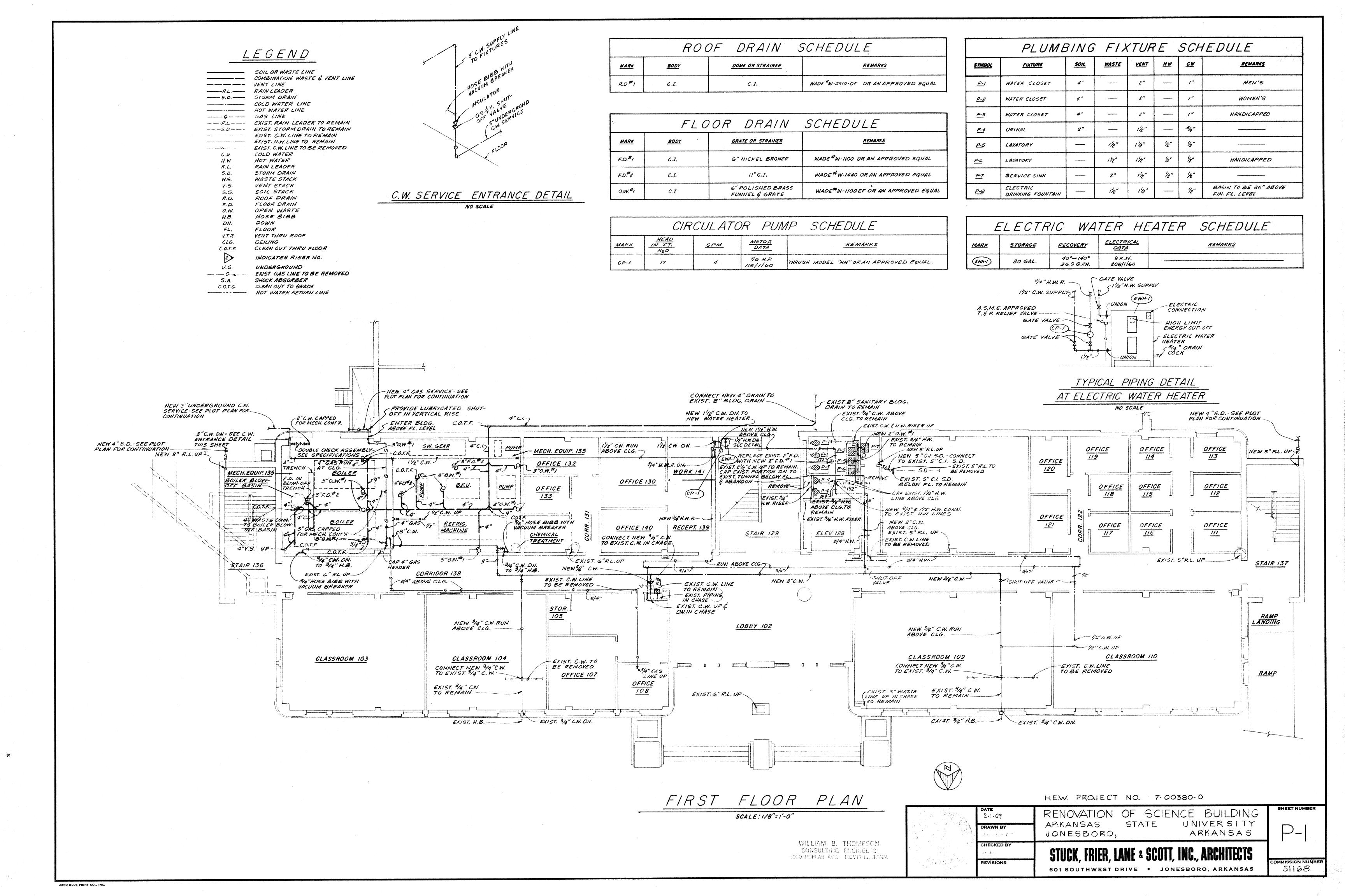
ENAMEL

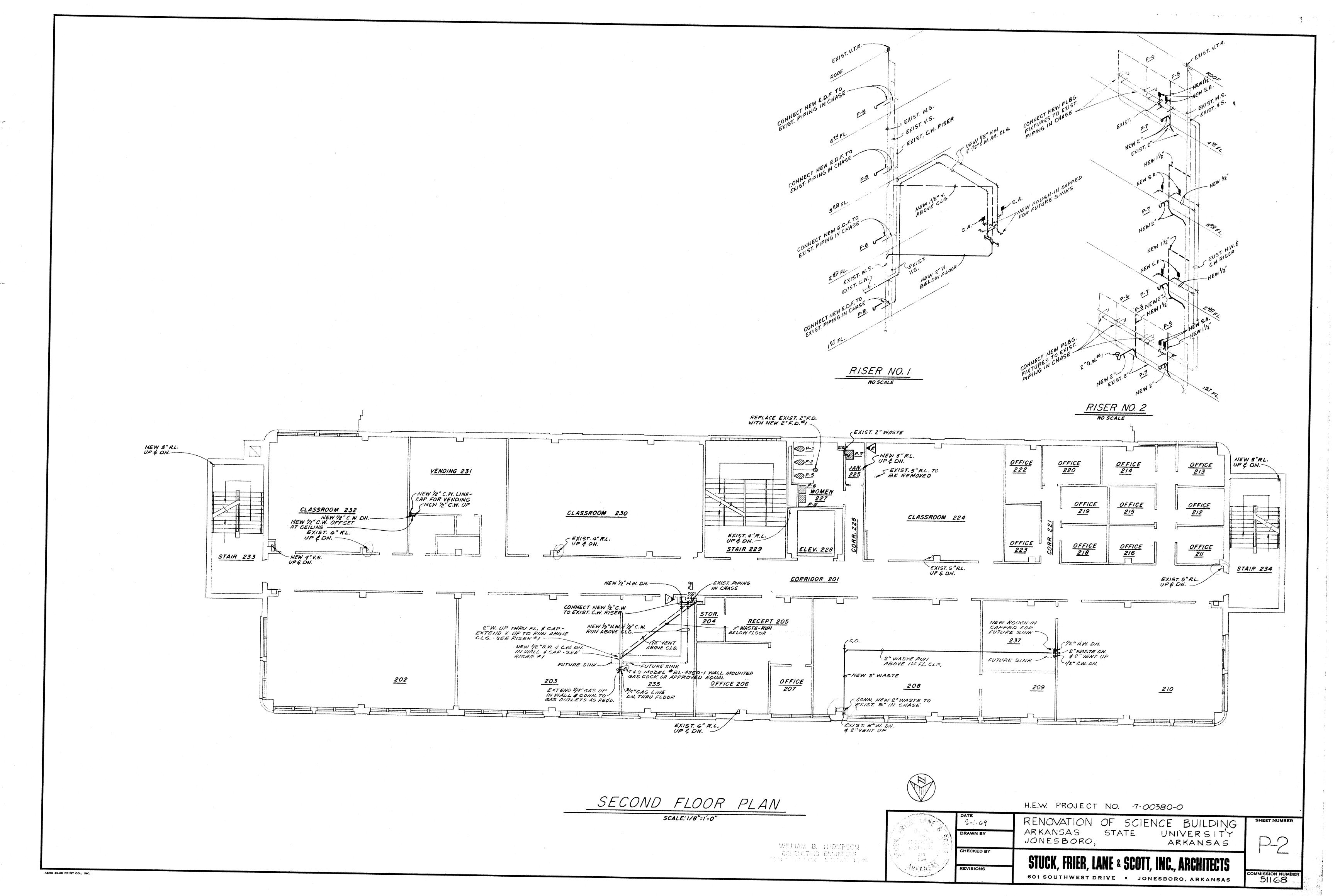
ALUMINUM

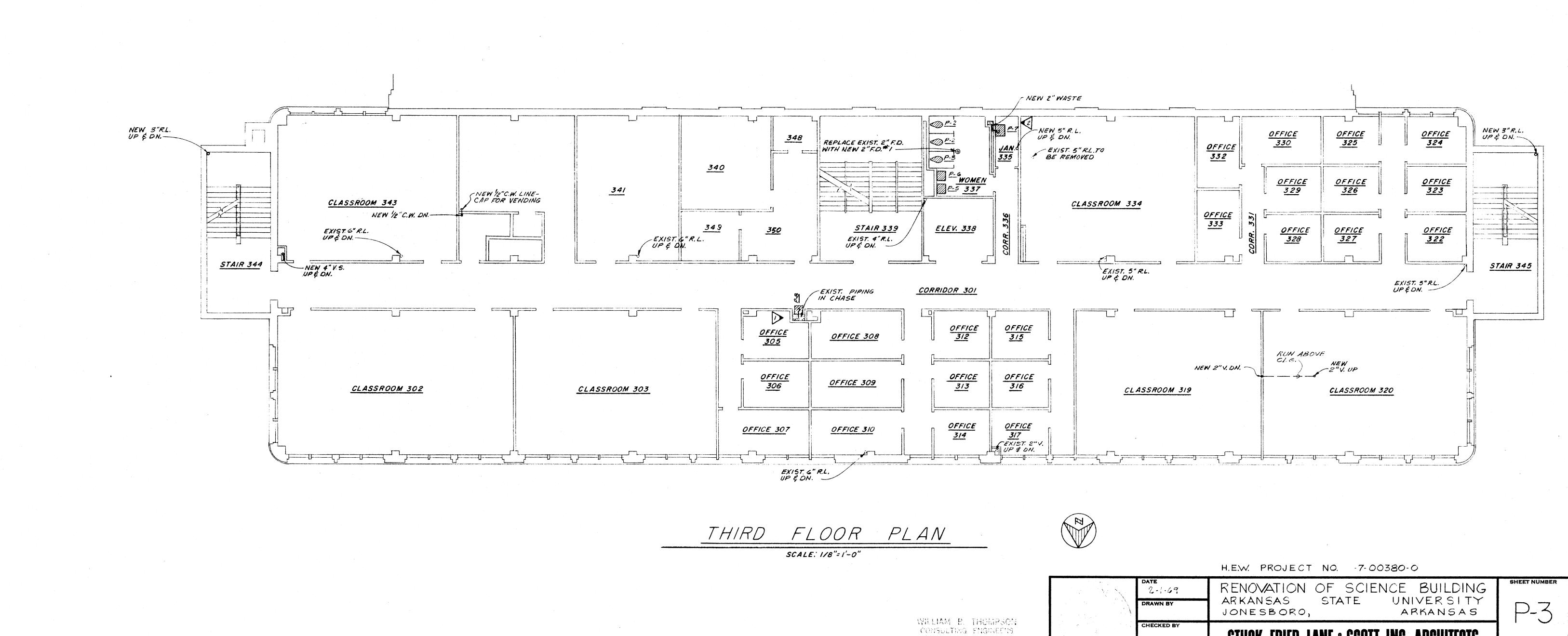
PORCELAIN 8'-6" AB.

STUCK, FRIER, LANE & SCOTT, INC., ARCHITECTS REVISIONS

MMISSION NUMBER 601 SOUTHWEST DRIVE • JONESBORO, ARKANSAS





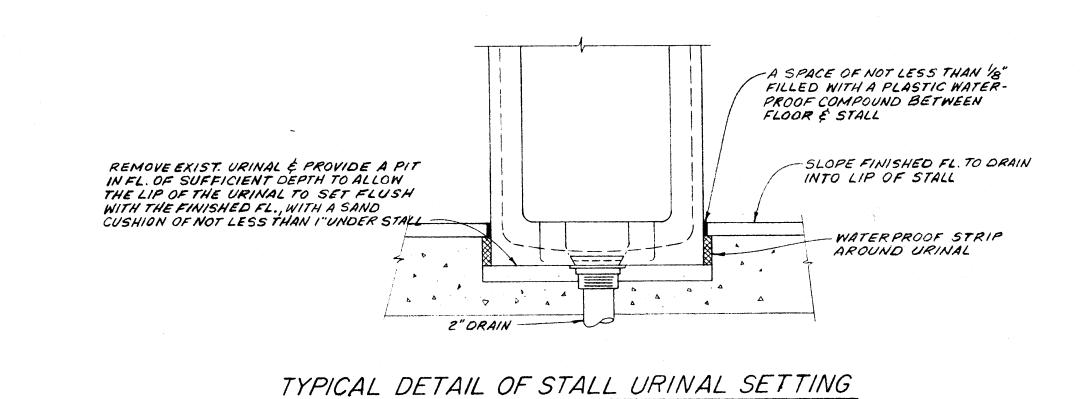


REVISIONS

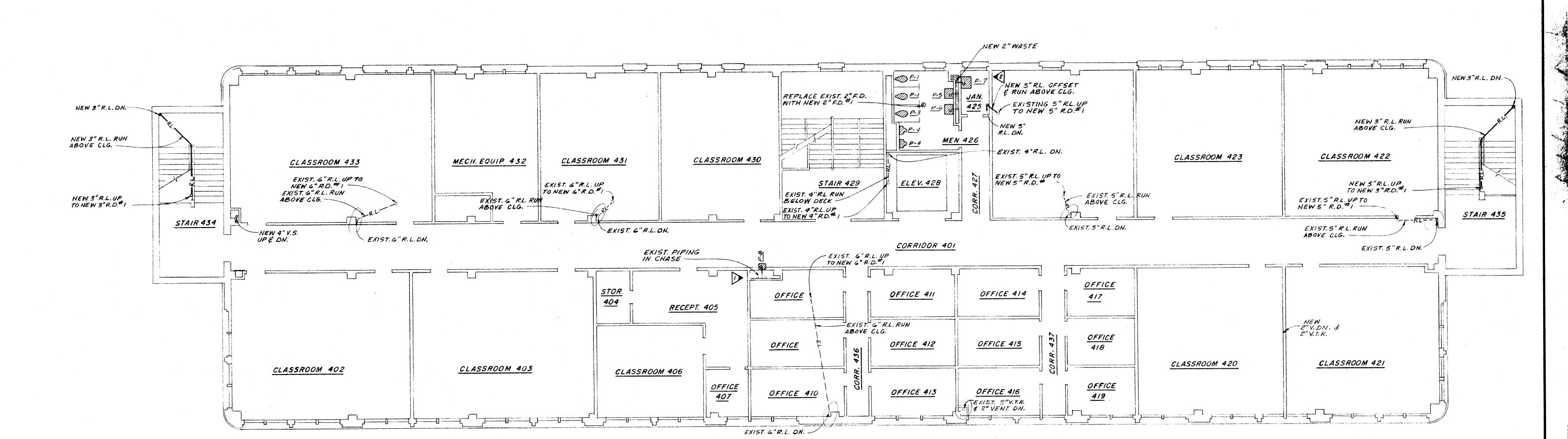
WILLIAM B. THOMPSON
CONSULTING FINGINEERS
AND FOR ADDITIONAL DESIGNATIONS.

601 SOUTHWEST DRIVE . JONESBORO, ARKANSAS

COMMISSION NUMBER 51168



NO SCALE



FOURTH FLOOR PLAN

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

H.E.W. PROJECT NO. 7-00380-0

SHEET NUMBER

MMISSION NUMBER
51168

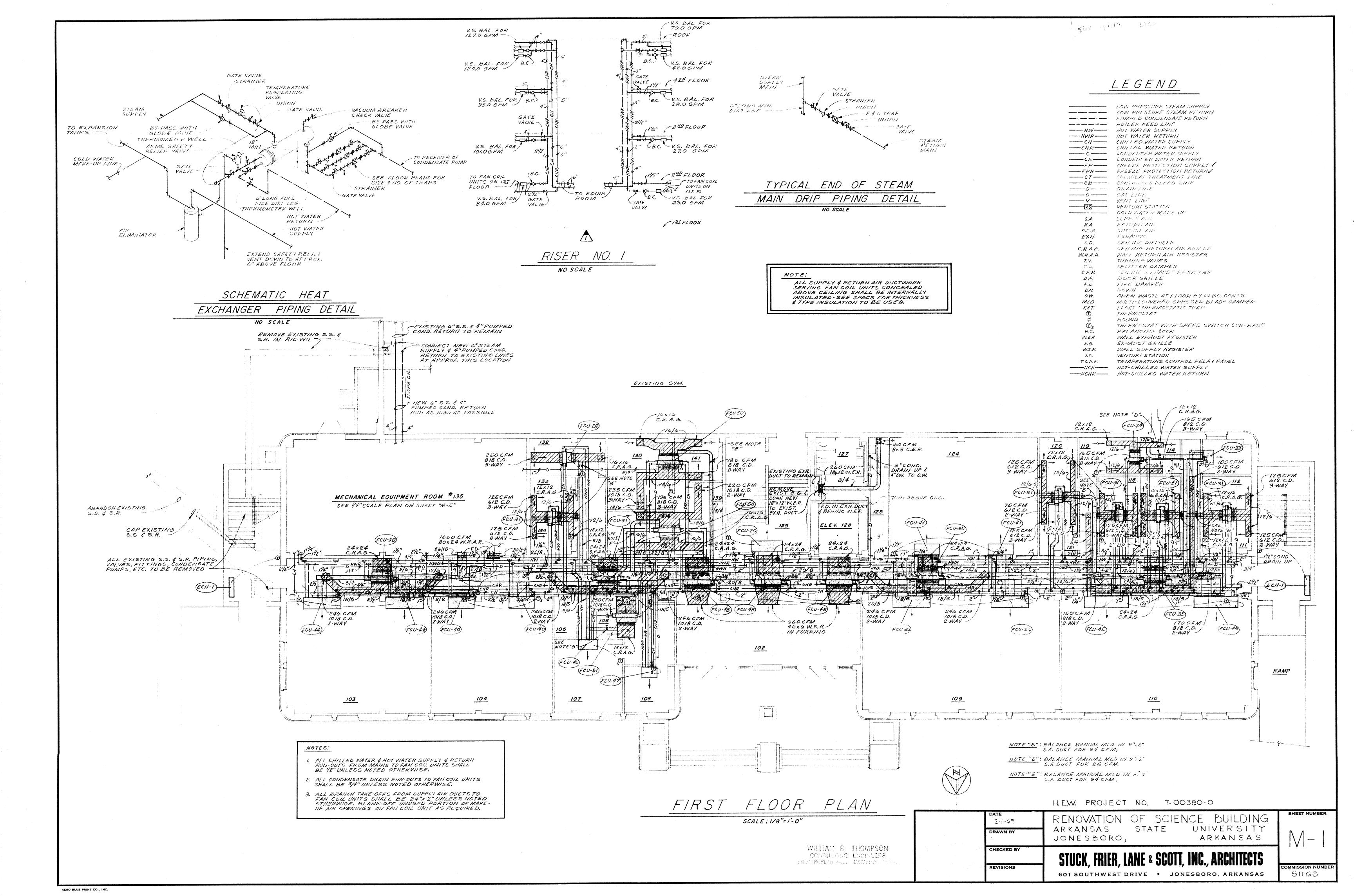
OF SCIENCE BUILDING RENOVATION 2-1-69 UNIVERSITY STATE ARKANSAS DRAWN BY JONESBORO, ARKANSAS CHECKED BY

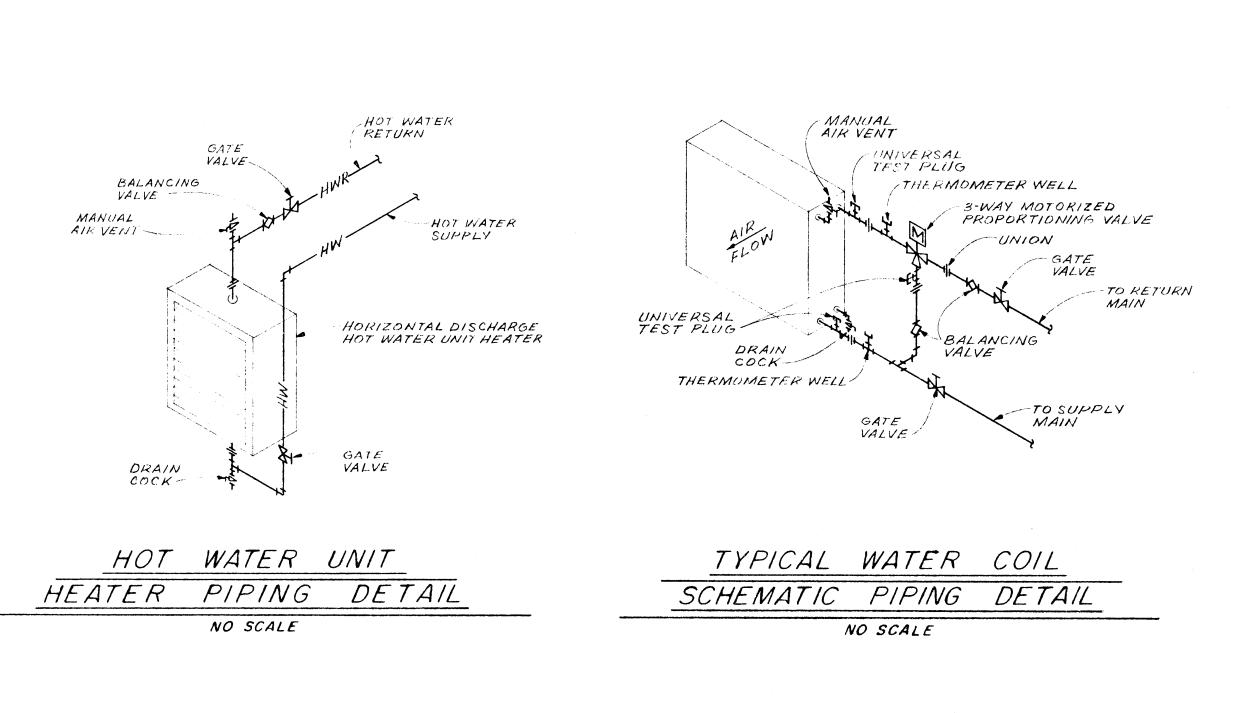
REVISIONS 601 SOUTHWEST DRIVE . JONESBORO, ARKANSAS

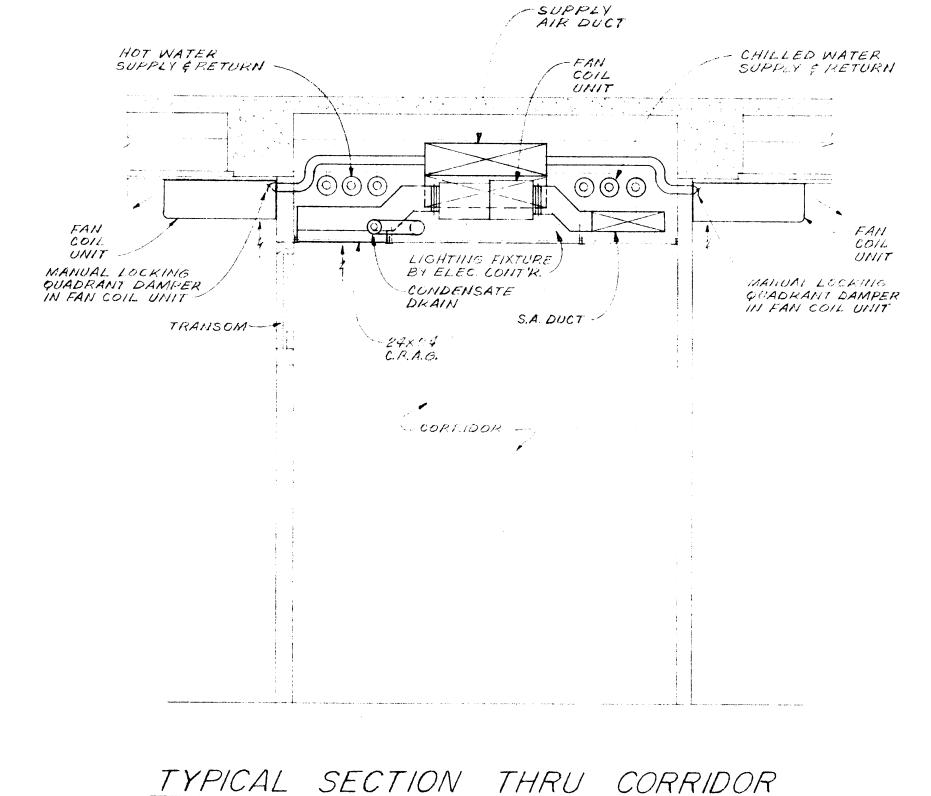
WILLIAM B. THOMPSON CONSULTING ENGINEERS
5050 POPLAR AVE. MEMPHIS TENN.

AERO BLUE PRINT CO., INC.

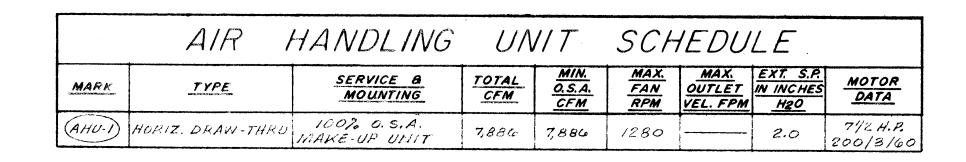
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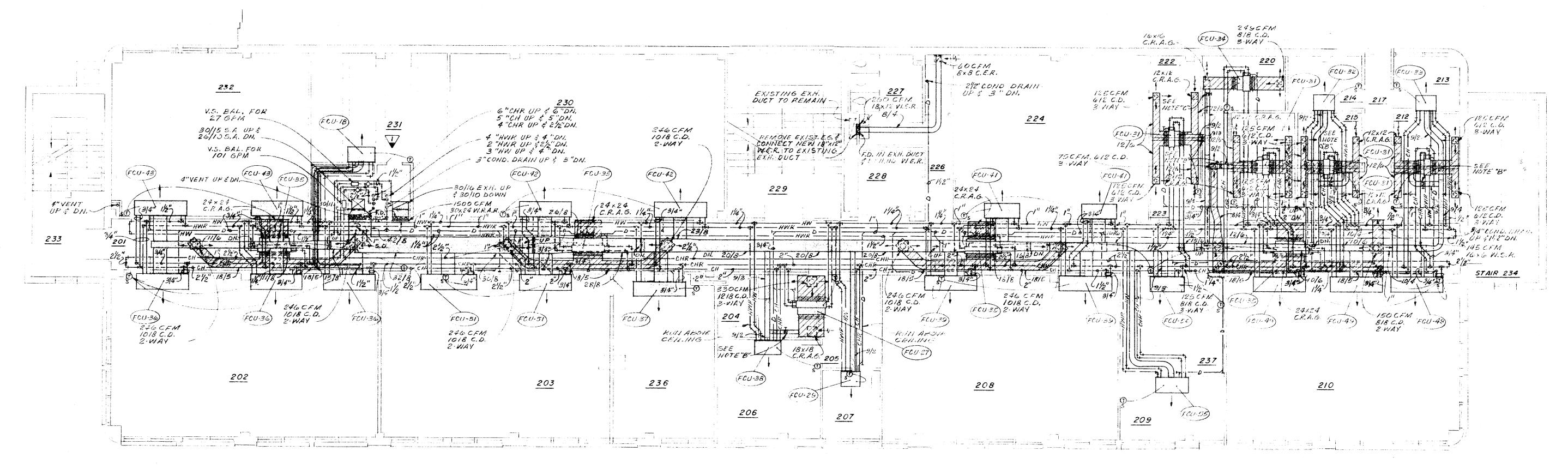
SCALE: 1/2"=1'-0"



		COOL	ING	COIL	. 5	CHE	DUL	E		
MARK	CFM	MAX. COIL	400	TOTAL	ENT. A	IR TEMP.	LVG. All	R TEMP.	CHILLED	WATER
- Anna Construent Constitution	CF-M	FACE VEL.	ADP	TONS	DB	WB	<u>D8</u>	WB	ENT. TEMP.	GPM
(AHU-I)	7,886	550	53.5	52.8	95.0"	78.0°	560°	55.3°	42.0°	127.0°

		HEA7	TING	COIL	SCH	EDUL	E	
MARK	CFM	MAX. COIL FACE VEL.	OUTPUT CAPACITY BTU/HR.	ENT. AIR TEMP.	LVG. AIR TEMP.	<u>GPM</u>	ENT. WATER TEMP.	REMARKS
PHC-I)	7,886	550	448,000	0.0°	55.0°	46.8	200°	
RHC-I)	7,886	700	187,000	50.0°	72.0°	18.7	200°	

E	LECTRIC CAE		UNIT	HEAT	TER S	CHEDL	ILE
MARK	DESCRIPTION	MAX. KW. INPUT	BTU OUTPUT	<u>CFM</u> <u>STD,</u> <u>70° F.</u>	FAN SPEED RPM	ELECTRICAL SERVICE	FAN H.P.
(ECH-1)	FLOOR MOUNTED VERTICAL DISCHARGE	11.2	38,200	900	750	208/3/60	18 H.P.
ECH-2		6.7	22,700	340	900	208/3/60	1/20 H.P.



NOTES:

AERO BLUE PRINT O., INC.

I. ALL CHILLED WATER & HOTWATER SUPPLY & RETURN RUN-OUTS FROM MAINS TO FAN COIL UNITS SHALL BE 42" UNLESS NOTED OTHERWISE.

2. ALL CONDENSATE DRAIN RUN-OUTS TO FAN COIL UNITS SHALL BE 3/4" UNLESS NOTED OTHERWISE.

3, ALL BRANCH TAKE-OFFS FROM SUPPLY AIR DUCTS TO FAN COIL UNITS SHALL BE 24"X2" UNLESS NOTED, OTHERWISE, BLANK-OFFUNDSED PORTION OF MAKE-UP AIR OPENING ON FAN COIL UNIT AS REQUIRED. SECOND FLOOR PLAN

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



**达别的第**人

NOTE "C": BALANCE MANUAL MLD IN 9"x2"
S.A. DUCT FOR 34 CFM.

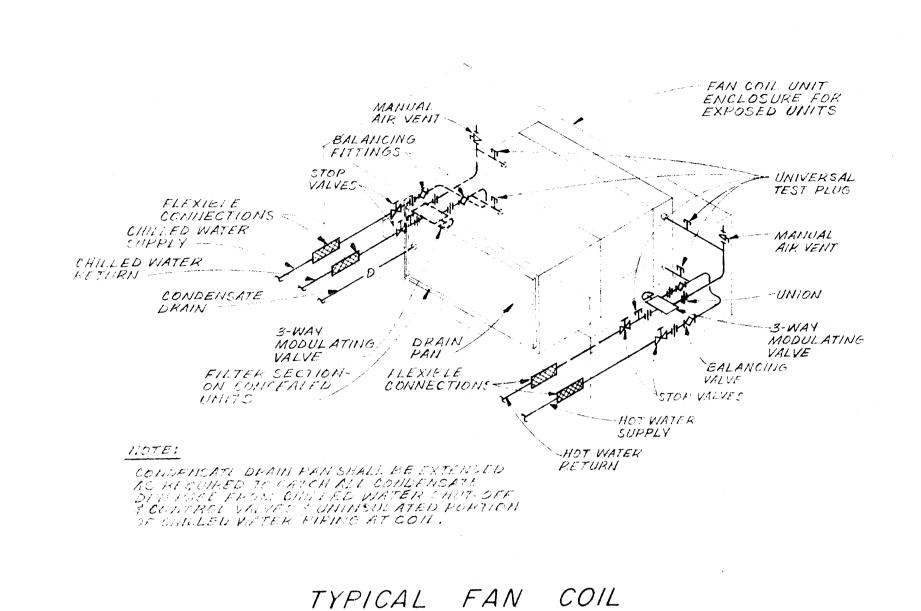
NOTE "C": BALANCE MANUAL MLD IN 9"x2"
S.A. DUCT FOR 17 CFM

H.E.W. PROJECT NO. 7-00380-0

; :: 1	CHECKED BY	ATHAW PRIPE I	AND COOTS	IIIA ABAIUTTATA
	DRAWN BY	ARKANSAS JONESBORO,		UNIVERSITY
1, 1, 100, 5	2-1-69	RENOVATION	OF SCIEN	ICE BUILDING
		71: E. W. 11(00E01		500

STUCK, FRIER, LANE & SCOTT, INC., ARCHITECTS
601 SOUTHWEST DRIVE . JONESBORO, ARKANSAS

DMMISSION NUMBER 5日6号



PIPING

NO SCALE

		A	BS ORF	TION	l R	EFRI	GER	ATIC	ON MA	ACHINE	SCH	EDULE		
MARK	TYPE	<u>CAP.</u> TONS	STEAM RATE #/HR/TON MAX.	OPER. STEAM PRESS. PSIG	ENT. CHILLED WATER TEMP.	LVG CHILLED WATER TEMP.	CHILLED WATER GPM	CHILLED WATER P.D. FT. H20	ENT. CONDENSER WATER TEMP.	LVG. CONDENSER WATER TEMP.	WATER	CONDENSER WATER P.D. FT. H2O	MOTOR DATA	COOLER É CONDENSER FOULING FACTOR
RM-I)	STEAM ABSORP.	185	20	8	50.5°	42.0°	526.0	20	85.0°	99.5°	780.0	20	7.5	.0005

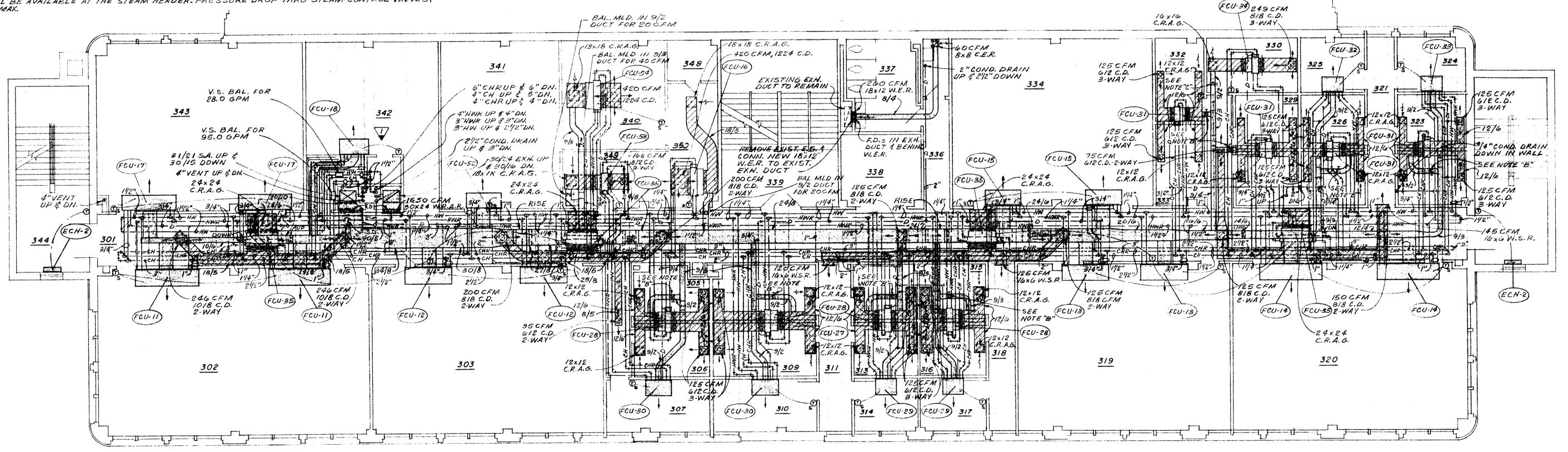
REFRIGERATION MACHINE SHALL BE SIZED BASED UPON 8-PSIG STEAM AVAILABLE AT THE CONCENTRATOR FLANGE CONNECTION. 12-PSIG MAX. STEAM PRESSURE WILL BE AVAILABLE AT THE STEAM HEADER. PRESSURE DROP THRU STEAM CONTROL VALVES, ETC, SHALL NOT EXCEED 4-PSIG MAX.

DETAIL

	FA	1N	CO	ΪL	UNIT	<b>.</b>	SCI	HE	DUL E	-		
		· ·	I		OOLING C	OIL DA	ATA		HEATING	COIL	DATA	
MARK	TYPE	CFM	INCHES	10176	COOLING	ENT.	AIR	6PM	HEATING CAP.	ENT.	GPM	MAKE-UP
	,		HgO	BTU/HR.	BTWHR.	DB	WB		BTUZHR	AIR		AIR CFM
FCU-1	EXPOSED CAB.	1260	0"	32,100	25,200	75.0°	63.0°	6.42	21,700	70.0°	2.1	112
FCU-2		1050	1	21,100	19,000	1	1	4.2	15200		1.6	112
FCU-3		840		18,200	16,000			3.64	13,000		1.3	75
FCU-4		1260		28,300	26,200			5.65	20,900		2.1	75
FCU-5		1050		23,250	21,200			4.65	14,500		1.5	75
FCU-6		840		17.000	14,300			3.4	9,200		.9	94
FCU-7		840		15,200	13,050			3.1	8,600		.9	75
FCU-8		630		14,400	12,200			2.9	7,630		.8	75
FCU-9		1260		32,100	25,200		and the	6.42	18,700		1.9	1/2
FCU-10		420		9,222	8,797		7	.92	6,000		.6	0
FCU-II		1260		32,100	26,000			6.12	20,800		2.1	131
FCU-12		1050		20,800	17,700			4.2	12,200		1.22	112
FCU-13		840		19,000	15,900			3.8	10.900		1.1	112
FCU-14		1260		32,100	26,000			6.4	18,900		1.9	112
FCU-15		840	V	16,100	13,000			3,3	3,000		.3	112
FCU-16	CONCEALED	420	.15"	8,437	8,013			1.7	1,400		.14	20
FCU-17	EXPOSED CAB	1050	0"	22,700	19600			4.6	10,700		1.1	112
FCU-18		630		12,733	11,776			2.6	6,900		.7	50
FCU-19		840		14,200	14,000			2.8	6,000		.6	0
FCU-20		525		9,461	9,320			1.9	18,767		1.9	0
FCU-21		210		6,400	3,700			1.3	7,000		0.7	15
FCU-22		420		8,000	7.600			1.6	10,774		1.1	20
FCU23	<b>\</b>	840	*	14,800	14,500			3.0	15,400		1.6	25
FCU-24	CONCEALED	330	J5"	6,863	6439			1.4	3500		.4	25
FCU-25		- 330	.15"	6,500	5,800	+	•	1.3	3500	¥	.4	32

				C	OOLING C	OIL DA	1TA		HEATING	COIL	DATA	
MAGK	TVOC	CEM	EXT. S.R	TOTAL	SENSIBLE				HEATING	ENT.		TEMPERAL
MARK	TYPE	CFM	H <sub>2</sub> O	BTU/HR.	BTW/HR.	DB	WB	<u>GPM</u>	<u>CAP.</u> BTU/HR	ENT. AIR	<u>GPM</u>	MAKE UP AIR CEM
FCU 26	CONCEALED	664	15"	11500	11,000	75.0	63.0°	2.3	7,000	70.0	.7	O
FCU-27	DO	330	15"	5.800	5,200			1.2	2,000		.2	34
FCU28		250	15"	4,400	4000			.9	2,000		.2	34
FCU-29	EXPOSED CAR	315	0"	6,500	6,200			1.1	9,600		1.0	17
FCU-30		315	0"	6,000	5.800			1.2	14,500		1.5	17
FCU-31	CONCEALED	250	.15"	5,200	1,800			1.1	3,000		.3	34
FCU-32	EXPOSED CAB	3/5	0"	5,500	5,000			1.1	6,000		.6	17
FCU-33	DO	315	0"	7,000	6200			1.4	7,500		.75	17
FCU-34	CONCEALED	249	15"	5,500	4900			1.1	4500		.50	17
FCU35	DO	495	.15"	10,000	9.400			2.0	4,000		40	0
FCU-36	EXPOSED CAB.	1260	0"	26200	22,900			5.3	16,000		1.6	132
FCU:37		1050		20,600	17,300			4.1	10,800		1.1	125
FCU-38	and the region of a respect of a few or a bonderground as a desirable size of the research and the second of the research as a de-	420		7,000	6,600			1.4	10,200		1.1	25
FCU-39		1050		21,000	18.100			4.2	13,000		1.2	94
FCU40		840		16,000	13,500			3.2	10,500		1.1	7.5
FCU-41		630		15.200	12.600			3.1	2,500		.3	94
FCU42	and an extension of the second continues of the second second second second second second second second second	1050		25,000	20600			5.0	5,000		.5	130
FC11.43	The second secon	1050		24,000	21,000			4.8	9,500		95	94
FCU-44		1260	annual annual athat completes the state of t	25,000	21.800			5.0	18,00C		1.8	112
FCU-45		1260		32.000	25,200			6.4	21,100		2.1	132
FCU-46		420		8,000	7,700			1.6	8,200		.9	25
FCU-47		3/5	٧	6,300	6.000			1.3	10,000		1.0	20
FCU-48	CONCEALED	660	.15"	12,900	11,300			2.6	12,100		1.2	0
FCU.49	EXPOSED CAB.	1050	0"	21,000	18,100			4.2	13,000		1.2	75
FCU-50	CONCEALED	415	,15"	8,600	7,400			1.8	2,500		0.3	94
FOU-51	EXPOSED CAB.	1050	0"	23,600	19,700			4.7	13,750		1.4	112
FCU-52		840	0"	19,800	15,600			4.0	4,000		.4	130
FCU-53	CONCEALED	166	./5"	4,000	3,000			1.8	3,000		,3	20
FCU-54		420	./5"	10,000	8,300			2.0	4,000		.4	40
FCU-55	EXPOSED CAB	420	0"	3,1000	8,900		1	1.9	10,000		1.0	30
FCU-5%	00	315	C"	7,000	5800	1	7	1.5	2,000	7	.2	45

NOTE: COOLING CAPACITIES BASED ON 42°ENT. \$ 52° LEAVING WATER & MAX. P.D. OF 10 FT. H20 THKU COIL. HEATING CAPACITIES BASED ON 200° ENT. \$ 180° LVG. WATER & MAX. P.D. OF SFT. HEO THRU COIL.



NOTES:

1. ALL CHILLED WATER & HOT WATER SUPPLY & RETURN
RUII-OUTS FROM MAINS TO FAN COIL UNITS SHALL
BE 1/2" UNLESS NOTED OTHERWISE.

2. ALL CONDENSATE DRAIN RUN-OUTS TO FAN COIL UNITS SHALL BE 3/4" UNLESS NOTED OTHERWISE.

3. ALL BRANCH TAKE-OFFS FROM SUPPLY AIR DUCTS TO FAN COIL UNITS SHALL BE 24"x2" UNLESS NOTED OTHERWISE. BLANK-OFF UNUSED PORTION OF MAKE-UP AIR OPENING ON FAN COIL UNITS AS REQUIRED.

FLOOR

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



REVISIONS

NOTE "B": BALANCE MANUAL MLD IN 9"x2" S.A. DUCT FOR 34 CFM. NOTE "C" : BALANCE MANUAL MLD IN 9" 2" S.A. DUCT FOR IT CFM.

H.E.W. PROJECT NO. 7-00380-0

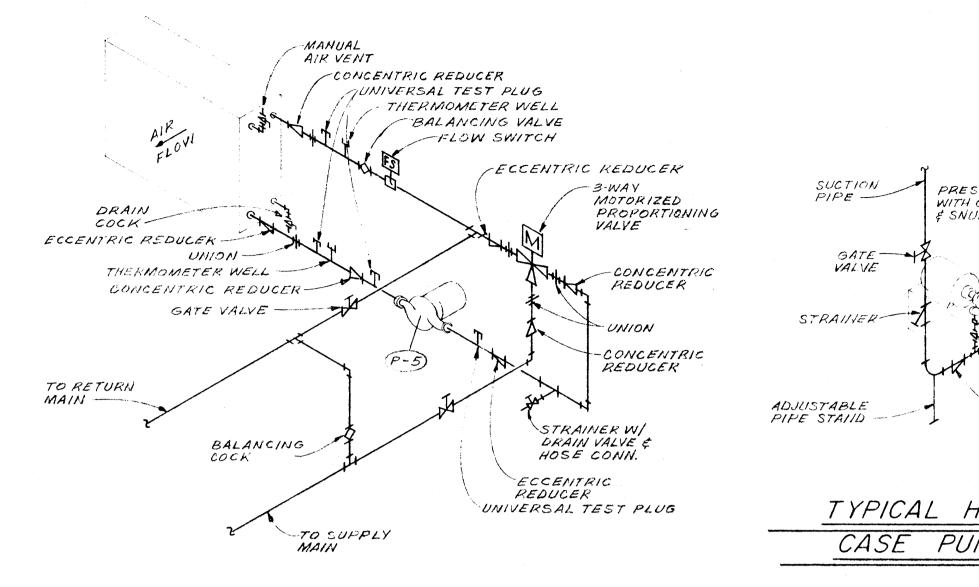
601 SOUTHWEST DRIVE . JONESBORO, ARKANSAS

RENOVATION OF SCIENCE BUILDING 2-1-69 UNIVERSITY STATE ARKANSAS JONESBORO, ARKANSAS CHECKED BY

SHEET NUMBER OMMISSION NUMBER

51168

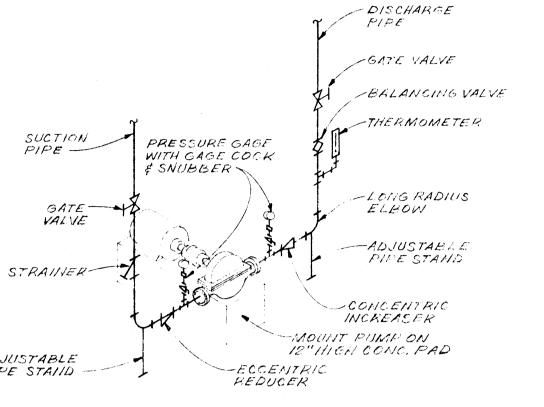
WILLIAM B. THONESU'. CORSINERS CARRENT TO POPLAR AVE. DEVIALS, TERM.



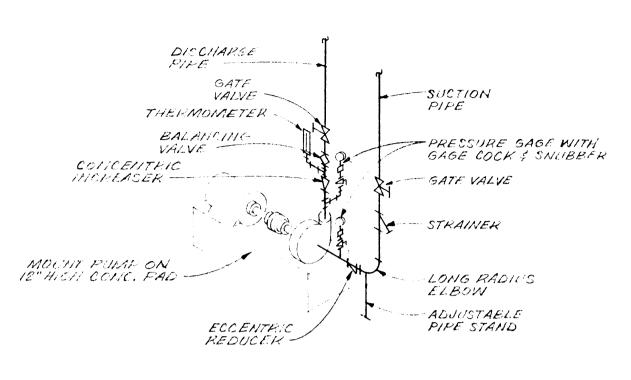
SCHEMATIC PREHEAT COIL PIPING DETAIL

NO SCALE

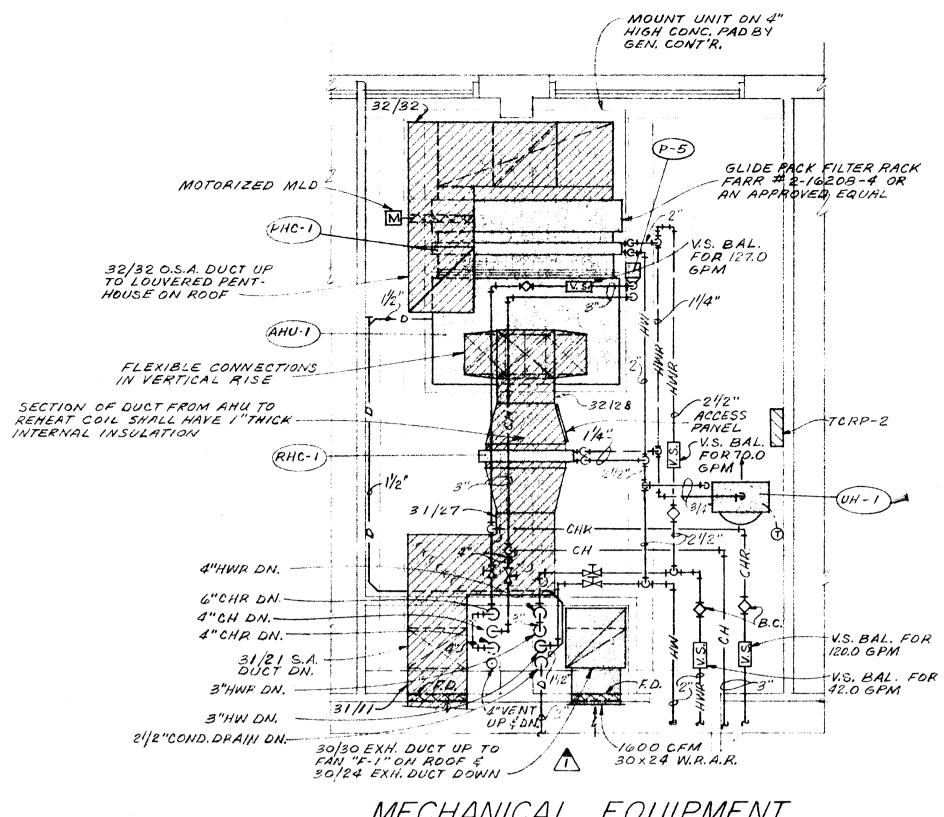
AERO BLUE PRINT CO., INC.







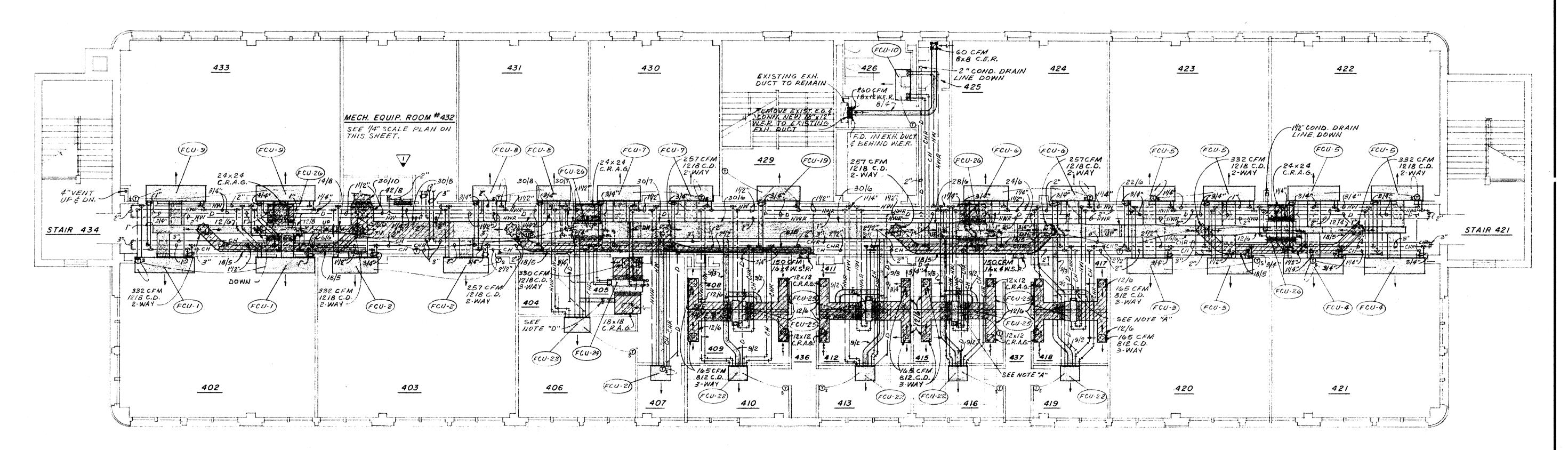
TYPICAL END SUCTION
PUMP PIPING DETAIL
NO SCALE



MECHANICAL EQUIPMENT

ROOM #432 FLOOR PLAN

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



#### NOTE S:

- 1. ALL CHILLED WATER & HOT WATER SUPPLY & RETURN RUN-OUTS FROM MAINS TO FAN COIL UNITS SHALL BE '/2" UNLESS NOTED OTHERWISE.
- 2. ALL CONDENSATE DRAIN RUN-OUTS TO FAN COIL UNITS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
- 3. ALL BRANCH TAKE OFFS FROM SUPPLY AIR DUCTS
  TO FAN COIL UNITS SHALL BE 24"X2"UNLESS NOTED
  OTHERWISE, BLANK-OFF UNUSED PORTION OF MAKEUP AIR OPENING ON FAN COIL UNIT AS REQUIRED

FOURTH FLOOR PLAN

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

THE STATE OF THE S

REVISIONS

NOTE "A": BALANCE MANUAL MLD IN 9"x2"
5.A. DUCT FOR 32 CFIA.

NOTE "D": BALANCE MANUAL MLD IN 9"x2"
5.A. DUCT FOR 25 CFM.

H.E.W. PROJECT NO. 7-00380-0

WHILE AND BY THOUSENDON.

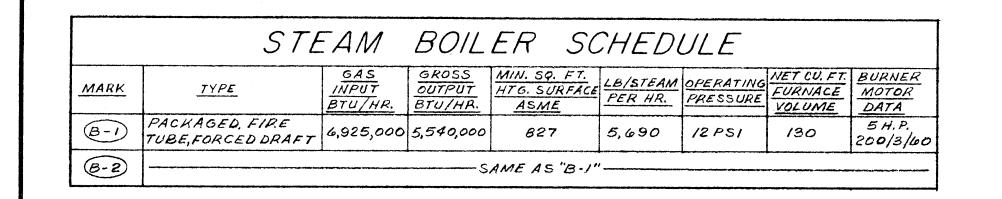
CONTUCTIONS ON WHICH STORMS OF STORMS OF

RENOVATION OF SCIENCE BUILDING
ARKANSAS STATE UNIVERSITY
JONESBORO, ARKANSAS

NRCHITECTS \_\_\_\_

JIUUN, [NIEN, LANE & JUUII, INU., ANUIIIEUIJ 601 SOUTHWEST DRIVE • JONESBORO, ARKANSAS

OMMISSION NUMBER 51168



	BOILER	FEED UN	VIT SCH	HEDULE	
MARK	TYPE	GROSS STQRAGE CAPACITY	GPM/PUMP	DISCHARGE PRESSURE PSI	MOTOR
(BFU-1)	DUPLEX	500 GAL.	68.0	35.0	2-3 H.P. 200/3/60

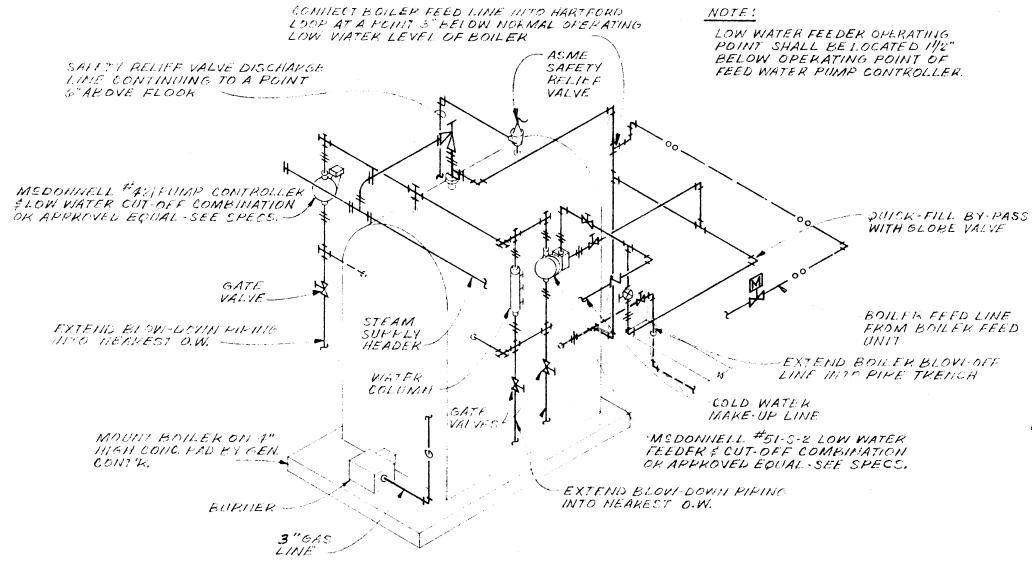
HIGI	H TEMP.	CONDENSA	TE PUMP	P SCHEDE	ULE
MARK	TYPE	NET RECEIVER CAPACITY	GPM / PUMP	DISCHARGE PRESSURE PSI	MOTOR DATA
HCP-I)	DUPLEX	30 GAL.	21.0	35.0	2-11/2 H.P. 200/3/40

HEAT EXCHANGER SCHEDULE										
MARK	CAPACITY BTU/HR.	GPM	ENT. WATER TEMP.	LVG. WATER TEMP.	MAX. WATER VEL. FT, /SEC.	MAX. WATER P.D. IN FT. H2O	MIN. SQ. FT. HEATING SURFACE	STEAM OPERATING PRESSURE		
(HX-1)	2,070,000	207.0	180.0°	200.0	4	5	120	5-PS1G		
HX-2	300,000	30.0	35.0°	55.0°	4	5	42	5-PSIG		

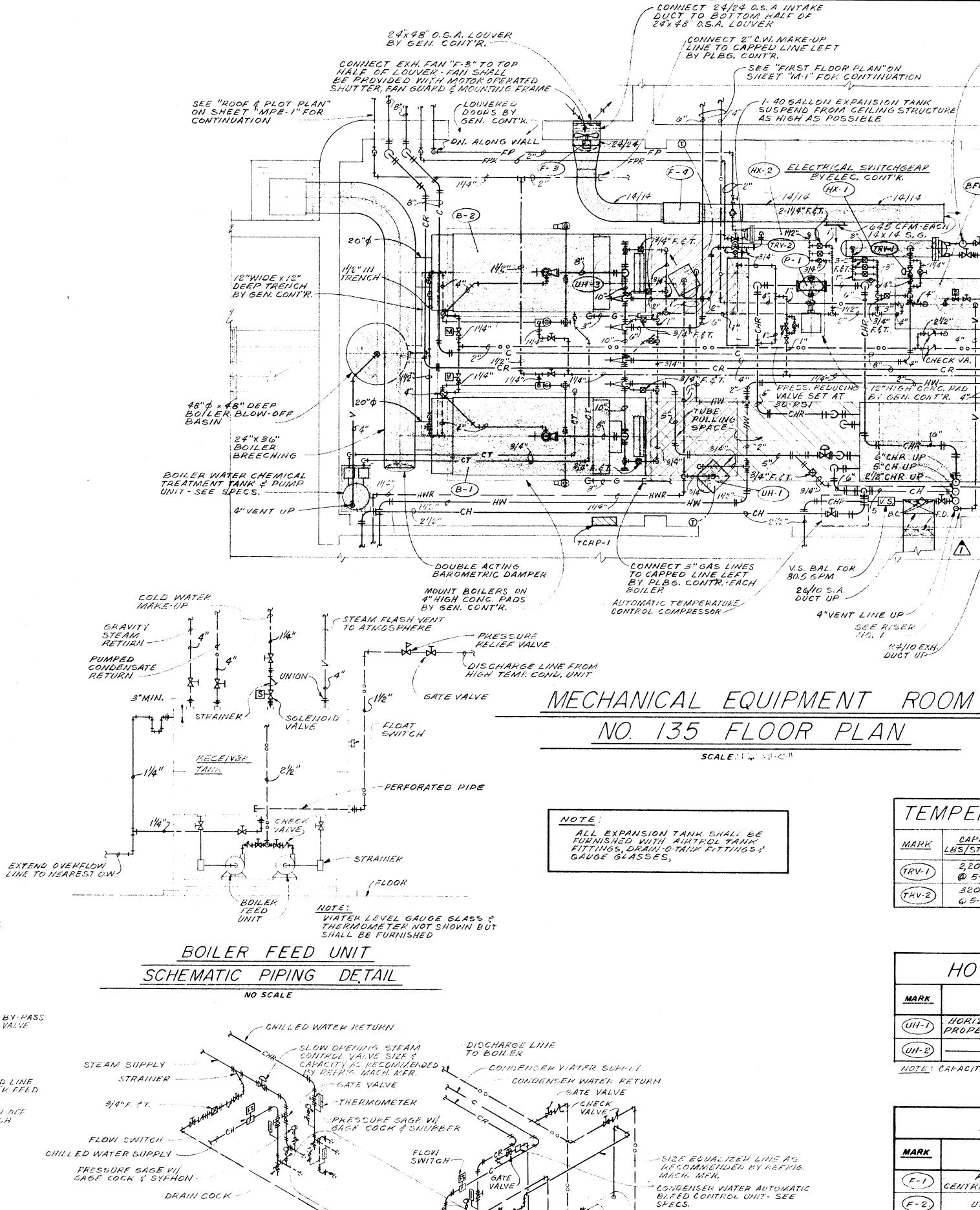
#### NOTE: SIZE HEAT EXCHANGER USING .0005 FOULING FACTOR

PUMP SCHEDULE										
MARK	TYPE	6PM	HEAD IN	MO H.R	TOR DAT	TYPE	SERVICE			
(P-1)	HORIZ. SPLIT CASE	525.0	110.0'	25 H.P. 200/3/60	1750	DRIP	CHILLED WATER			
P-2	END SUCTION	205.0	85.0	10 H.P. 200/3/60	1750		HOT WATER			
(P-3)	VERTICAL TURBINE	780.0	85.0'	20 H.P. 200/3/60	1750		CONDENSER WATER			
(P. 4)	SUBMERSIBLE	30.0	30.0	3/4 H.P. 200/3/60	1750		FREEZE PROTECTION			
P-5	IN-LINE CIRCULATOR	47.0	27.0'	1/2 H.P. 115/1/60	1750	-00-	HOT WATER "PHC-1"			

	COOL	TOWER		SCHEDULE					
MARK	TYPE	WATER CAP. GPM	ENT. WATER TEMP.	LVG. WATER TEMP.	ENT. AIR TEMP. WB	MAX. HEAD IN FT. H2O	FAN RPM	DATA DIA.	MOTOR DATA
(CT-1)	DOUBLE FLOW VERTICAL DISCHARGE	780.0	99.5°	85.0°	78.0°	/3'	426	96"	20 H.P. 200/3/60



TYPICAL STEAM BOILER DETAIL SCHEMATIC PIPING NO SCALE



	HOT	WAT	ER U	NIT	HEAT	ER	SCHE	DULE
MARK	TYP	'E	CAPACITY BTU/HR.	MAX. CFM	MOTOR DATA	6PM	MAX. WATER P.D. FT. H <sub>2</sub> O	REMARKS
(UH-1)	HORIZ. DI PROPELLE	RTYPE	.50,000	1,200	1/12 H.P. 115/1/60	5.0	5.0	

1,400

TEMPERATURE REGULATOR VALVE SCHEDULE

45°- 75°

DROP THRU VALVE (PSIG)

NOTE: CAPACITIES BASED ON 65° ENT. AIR \$ 200 ENT. WATER.

70,000

WATER SAFETY RELIEF VALVE

3,100,000 BTU/HR DISCHARGE CAPACITY - 30 PSI RELIEF

B. & G. "IAF- 4" IN-LINE

AIRTROL FITTING MOUNT ON 4" HIGH CONC. PAD.

D.VI.

-MOUNT PUMP ON 12" HIGH CONC. PAD

BY GEN. CONT'R.

HIGH AS ROSSIBLE

DON. TO WOUNT BOILER FEED UNIT DN. TO WOUNT BON. CONC. PAD BY

- MOUNT CONDENSATE PUMP

ON 4" HIGH CONC. PAD BY GEN.

-2-80 GALLON EXPANSION TANKS SUSPEND FROM CEILING AS

PRESSURE RELIEF VALVE SET

MOUNT REFRIE. MACH. ON 5:0"

RM-1 LONGX 2'-6" WIDE X 12" HIGH CONC.

TO RELIEVE AT 30-PSI

-CONDENSER WATER AUTOMATIC

BLEED CONTROL UNIT - SEE

TYPE, SIZE & NUMBER OF

TRAPS AS RECOMMENDED

BY REFRIG. MACHINE MANUFACTURER

- CONDENSER WATER CHEMICAL

TREATMENT TANK & PUMP

UNIT-SEE SPECS.

- 4"CONDENSATE DRAIN - OFFSET 30/10 EXH. DUCT DOWN TO O.W. & 3" UP TO KUN DOWN ALONG WALL

TO O.W. LEFT BY PLBG.

PRESSURE RELIEF VALVE 45-PSI

-- PRESSURE REDUCING VALVE SETAT 30-PSI

SET DISCHARGE PRESSURE

SERVICE

"HX-2"

190°+210° HEAT EXCHANGER "HX-1

SET PRESSURE.

4"HWR UP

2" HWK UP 14"HW UP 3

V.S. BAL. FOR

38.5 GPM

1600 CFM

INITIAL STEAM

LBS STEAM HR. PRESSURE (PSIG)

CAPACITY

2,200 #/HR

@ 5.PSIG

@ 5.PSIG

320 #/HR

-30×24 W.R.A.R.

-14/14

24/10 EXH. DUCT UP

MARK

(TRV-1

(THV-2)

DUPLEX HIGH TEMPERATURE

CONDENSATE RETURN UNIT

EXTERIO BLEED LINE

DOWN TO O.W.

-TYPE, SIZE & NUMBER OF TRAPS AS RECOMMENDED

BY REFRIG. MACH. MFR.

	VENTILATING FAN SCHEDULE										
MARK	TYPE	CFM	S.R. IN INCHES H20	MAX. FAN RPM	MAX. FAN TIP SPEED	FAN DRIVE	MOTOR DATA				
(F-1)	ROOF MOUNTED CENTRIFUGAL EXHAUST FAN	6,250	3/8"	650	5200	BELT	1 H.P. 200/3/60				
(F-2)	UTILITY SET	1,280	1/4"	850		DIRECT	1/20 H.P. 115/1/40				
F . 3	WALL MOUNTED EXHAUST FAN	1,290	0.1"	860		DIRECT	1/20 H.P. 115/1/60				
F- 4	DUCT MOUNTED INTAKE FAN	1,290	0.4"	/725	5,024	BELT	1/3 H.P. 115/1/60				

HEW PROJECT NO. 7-00380-0

RENOVATION SCIENCE BUILDING UNIVERSITY ARKANSAS STATE DRAWN BY JONE SBORO, ARKANSAS CHECKED BY

OMMISSION NUMBE

51168

STUCK, FRIER, LANE & SCOTT, INC., ARCHITECTS 601 SOUTHWEST DRIVE . JONESBORO, ARKANSAS

SCHEMATIC REFRIGERATION MACHINE PIPING DETAIL NO SCALE

STRAINER.

CHEMICAL TREATMENT

SUPPLY LINE

MOUNT REFRIG. MACH. ON

12"HIGH x 30" WIDE X 5-0" LONG CONC. PIERE BY GEN. CONT'R.

