

**CONCRETE JOIST SCHEDULE**

MARK	SIZE	STRAIGHT	BENT	TOP	REMARKS
J1	6x12x2 1/2	1-#6	1-#7	2x2x9'-0"	CENTER TO CENTER OF BEAMS
J2	6x12x2 1/2	1-#7	1-#7	2x2x9'-0"	IN WALL AT WEST END
J3	12x12x2 1/2	2-#6	2-#7	2x2x9'-0"	IN WALL AT WEST END

**CONCRETE BEAM SCHEDULE**

MARK	SIZE	NO.	LENGTH	TOP	BOT	POSITION OF REINFORCING	REMARKS
B1	16 28	3	27'-0"	#8	#8	C	18 #3 @ 12" O.C.
B2	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B3	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B4	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B5	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B6	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B7	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B8	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B9	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B10	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B11	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B12	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B13	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B14	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B15	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B16	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B17	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B18	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B19	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B20	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B21	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B22	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B23	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B24	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B25	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B26	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B27	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B28	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B29	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B30	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B31	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B32	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B33	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B34	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B35	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B36	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B37	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B38	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B39	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B40	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B41	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B42	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B43	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B44	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B45	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B46	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B47	16 28	5	20'-0"	#8	#8	C	18 #3 @ 12" O.C.
B1	12 13	3	9'-9"	#5	#5	C	6 #3 @ 12" O.C.
B2	20 14	4	13'-6"	#6	#6	C	10 #3 @ 12" O.C.
B3	20 14	4	13'-6"	#6	#6	C	10 #3 @ 12" O.C.
B4	20 14	4	13'-6"	#6	#6	C	10 #3 @ 12" O.C.
B5	10 14	2	13'-6"	#5	#5	C	6 #3 @ 12" O.C.
MB1	16 14	4	9'-6"	#5	#5	C	6 #3 @ 12" O.C.
MB2	16 14	4	9'-6"	#5	#5	C	6 #3 @ 12" O.C.
MB3	16 14	4	9'-6"	#5	#5	C	6 #3 @ 12" O.C.
MB4	16 14	4	9'-6"	#5	#5	C	6 #3 @ 12" O.C.
MB5	16 14	4	9'-6"	#5	#5	C	6 #3 @ 12" O.C.
MB6	16 14	4	9'-6"	#5	#5	C	6 #3 @ 12" O.C.
B49	12 24	2	17'-0"	#5	#5	C	6 #3 @ 12" O.C.
B50	12 24	2	17'-0"	#5	#5	C	6 #3 @ 12" O.C.

**STUDENT UNION FOR ST. CLOUD STATE COLLEGE**

STATE COLLEGE BOARD  
STATE OF MINNESOTA  
ST. PAUL, MINNESOTA

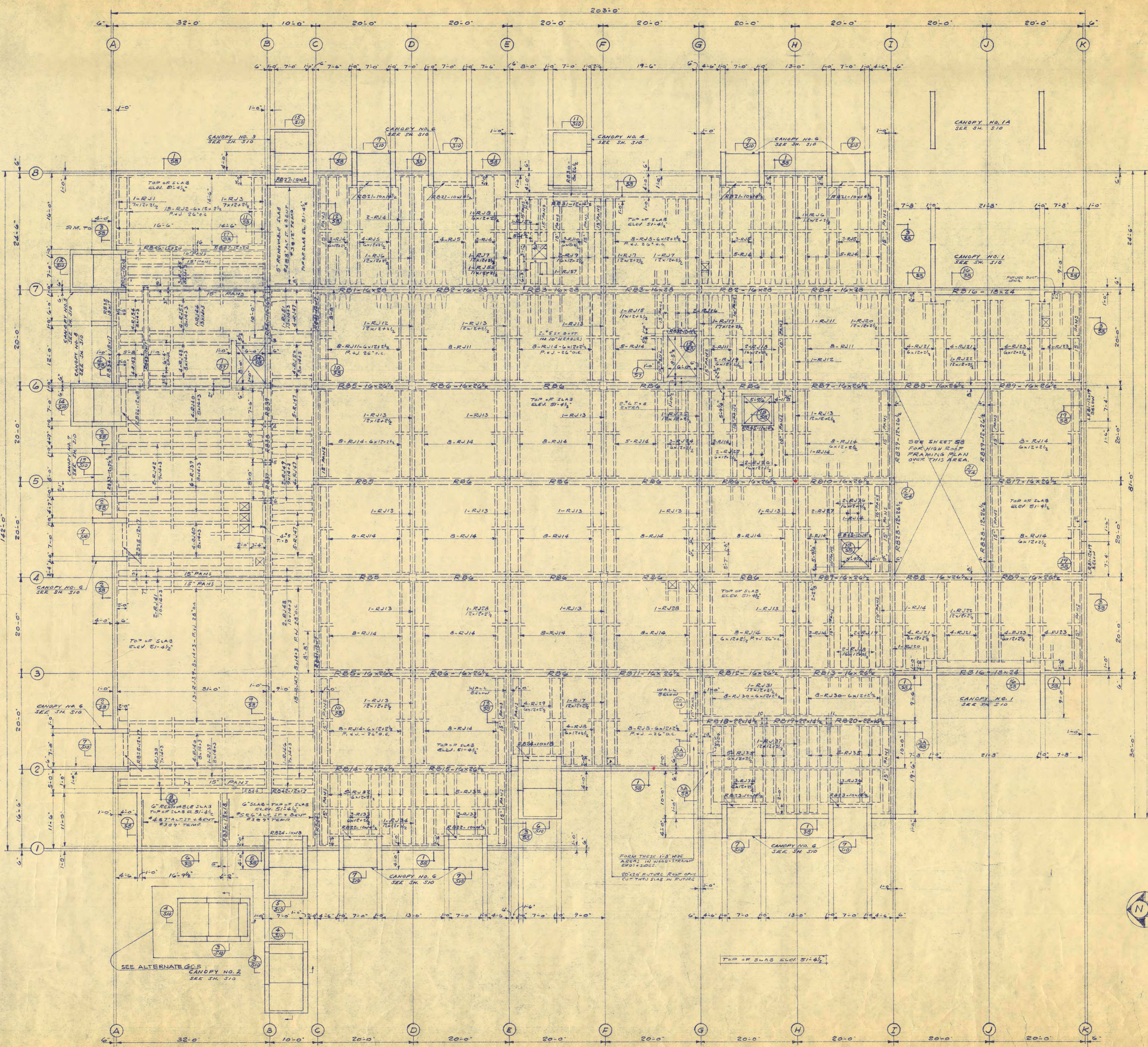
**TRAYNOR AND HERMANSON ARCHITECTS**  
STRUCTURAL ENGINEERS - JOHNSTON & SAHLMAN, MINNEAPOLIS  
CONSULTING ENGINEERS - ORR, SHELEN, MAYERSON ASSOCIATED INC., MINNEAPOLIS

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ DRAWN J.M.S.  
APPROVED BY \_\_\_\_\_ CHECKED J.W.S.

**FIRST FLOOR BEAM SCHEDULE AND SECTIONS**

SHEET NO. **56**  
OF 13  
PROJECT NO. **E-2**

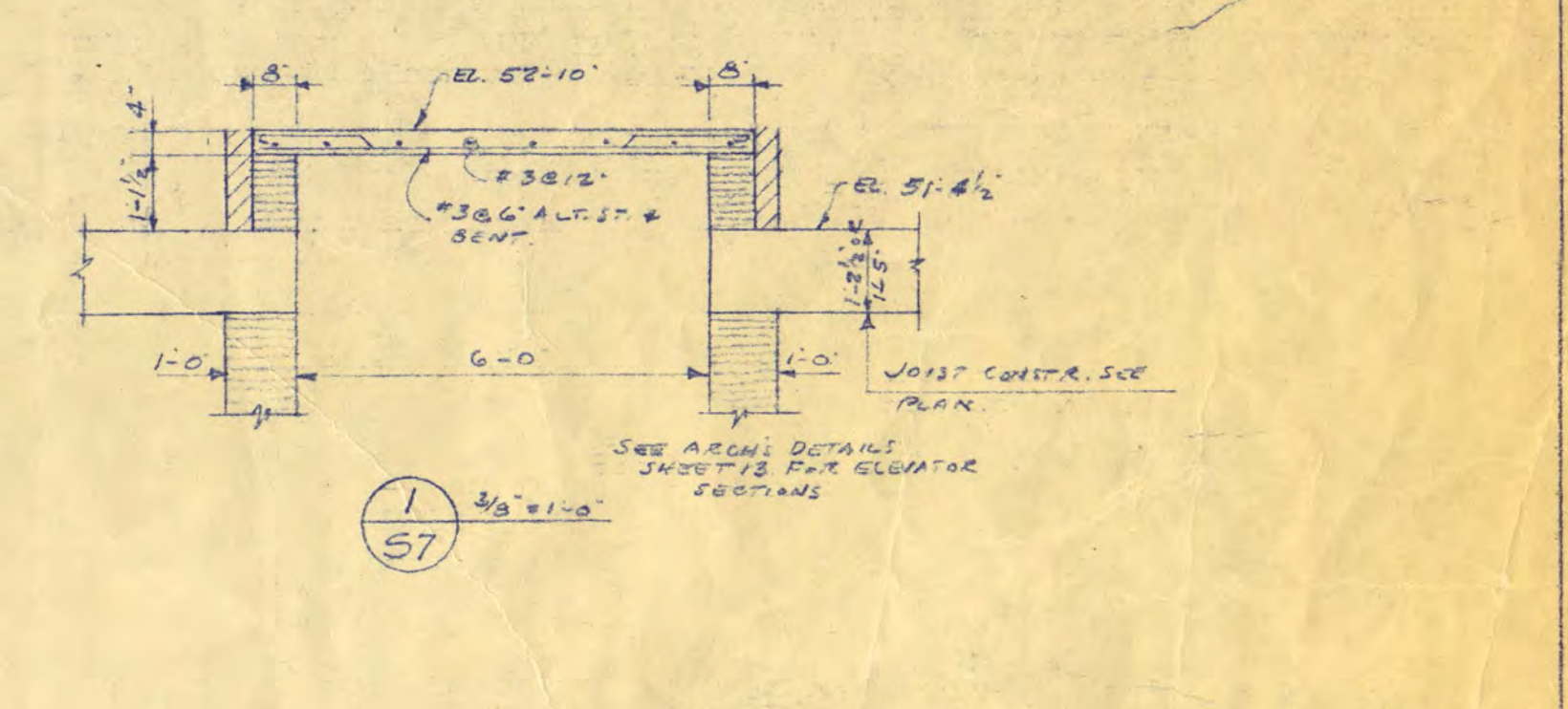




### CONCRETE JOIST SCHEDULE

MARK	BY	STRAIGHT	BENT	TOP	REMARKS
RJ1	7x12x2 1/2	1-#6	1-#6	1-#6	4-#4 BENT BARS EA. END.
RJ2	6x12x2 1/2	1-#6	1-#6	2-#4x7-0	4-#4 BENT BARS EA. END.
RJ3	7x12x2 1/2	1-#6	1-#6	1-#6	4-#4 BENT BARS EA. END.
RJ4	6x12x2 1/2	1-#7	1-#8	2-#4x7-0	CENTER TOP BARS ON 1/2 SPAN. 4-#4 BENT BARS EA. END.
RJ5	6x12x2 1/2	1-#7	1-#7	2-#4x7-0	CENTER TOP BARS ON 1/2 SPAN. 4-#4 BENT BARS EA. END.
RJ6	12x12x2 1/2	2-#7	2-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ7	12x12x2 1/2	2-#6	2-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ8	6x12x2 1/2	1-#6	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ9	12x12x2 1/2	3-#6	3-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ10	6x12x2 1/2	1-#6	1-#6	2-#4x10-0	CENTER TOP BARS ON 1/2 SPAN. 4-#4 BENT BARS EA. END.
RJ11	6x12x2 1/2	1-#6	1-#7	2-#4x10-0	CENTER TOP BARS ON 1/2 SPAN. 4-#4 BENT BARS EA. END.
RJ12	12x12x2 1/2	2-#6	2-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ13	12x12x2 1/2	2-#6	2-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ14	6x12x2 1/2	1-#6	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ15	11x12x2 1/2	3-#6	---	1-#7x10-0	4-#4 BENT BARS EA. END.
RJ16	6x12x2 1/2	2-#6	---	1-#7x10-0	4-#4 BENT BARS EA. END.
RJ17	17x12x2 1/2	4-#6	---	2-#7x10-0	4-#4 BENT BARS EA. END.
RJ18	12x12x2 1/2	3-#6	3-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ19	6x12x2 1/2	1-#6	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ20	12x12x2 1/2	2-#7	2-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ21	6x12x2 1/2	1-#7	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ22	12x12x2 1/2	2-#7	2-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ23	6x12x2 1/2	1-#6	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ24	6x12x2 1/2	1-#6	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ25	12x12x2 1/2	2-#6	2-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ26	12x12x2 1/2	3-#7	3-#7	5-#4x10-0	4-#4 BENT BARS EA. END.
RJ27	6x12x2 1/2	2-#6	---	1-#7x10-0	4-#4 BENT BARS EA. END.
RJ28	12x12x2 1/2	2-#6	2-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ29	6x12x2 1/2	1-#6	1-#6	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ30	6x12x2 1/2	2-#6	---	1-#7x10-0	4-#4 BENT BARS EA. END.
RJ31	12x12x2 1/2	3-#6	---	2-#7x10-0	4-#4 BENT BARS EA. END.
RJ32	6x12x2 1/2	1-#5	1-#6	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ33	6x12x2 1/2	1-#5	1-#6	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ34	12x12x2 1/2	2-#5	2-#6	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ35	6x12x2 1/2	1-#6	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ36	6x12x2 1/2	1-#6	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ37	12x12x2 1/2	2-#6	2-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ38	7x14x3	1-#7	1-#8	---	4-#4 BENT BARS EA. END.
RJ39	8x14x3	1-#7	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ40	8x14x3	1-#7	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ41	10x14x3	1-#7	1-#10	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ42	9x14x3	1-#7	1-#10	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ43	8x14x3	1-#7	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ44	13x14x3	2-#8	2-#9	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ45	8x14x3	1-#7	1-#7	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ46	7x14x3	2-#5	---	1-#7x10-0	4-#4 BENT BARS EA. END.
RJ47	8x14x3	2-#7	---	1-#7x10-0	4-#4 BENT BARS EA. END.
RJ48	10x14x3	3-#7	---	1-#7x10-0	4-#4 BENT BARS EA. END.
RJ49	9x14x3	3-#7	---	1-#7x10-0	4-#4 BENT BARS EA. END.
RJ50	8x14x3	2-#6	---	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ51	13x14x3	4-#7	---	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ52	8x14x3	1-#8	1-#9	2-#4x10-0	4-#4 BENT BARS EA. END.
RJ53	8x14x3	2-#6	---	1-#7x10-0	4-#4 BENT BARS EA. END.
RJ54	8x14x3	2-#6	---	1-#7x10-0	4-#4 BENT BARS EA. END.
RJ55	11x12x2 1/2	2-#7	2-#7	4-#4x10-0	4-#4 BENT BARS EA. END.
RJ56	6x12x2 1/2	2-#5	---	1-#7x10-0	4-#4 BENT BARS EA. END.
RJ57	6x12x2 1/2	2-#5	---	1-#7x10-0	4-#4 BENT BARS EA. END.
HRJ1	6x12x2 1/2	1-#6	1-#6	2-#4x10-0	4-#4 BENT BARS EA. END.

**NOTE:**  
 ALL 12" DEEP BARS TO BE STRAIGHT BARS EXCEPT AT EACH END OF GRID (GRID 4 & 8) WHICH HAVE WALLS AT TAPERED ENDS.  
 ALL 14" DEEP BARS TO HAVE "W" & TAPERED ENDS AT GRID 3.  
 ALL BRIDGING JOISTS FOR 12" R.I.V. CONSTR. TO BE 6" WIDE WITH 1.5" STG.  
 ALL BRIDGING JOISTS FOR 12" R.I.V. CONSTR. TO BE 8" WIDE WITH 1.6" STG.  
 L.A. 3" ALL BRIDGING JOISTS TO BE 3" AS SHOWN.  
 PROVIDE 3" DEEP TENDON WALL SLABS OF CONCRETE CONSTRUCTION.  
 CANOPY JOISTS RJ33 THRU RJ44 & RJ46 3/8" AT E OF SPAN.



## STUDENT UNION FOR ST. CLOUD STATE COLLEGE

STATE COLLEGE BOARD  
STATE OF MINNESOTA  
ST. PAUL, MINNESOTA

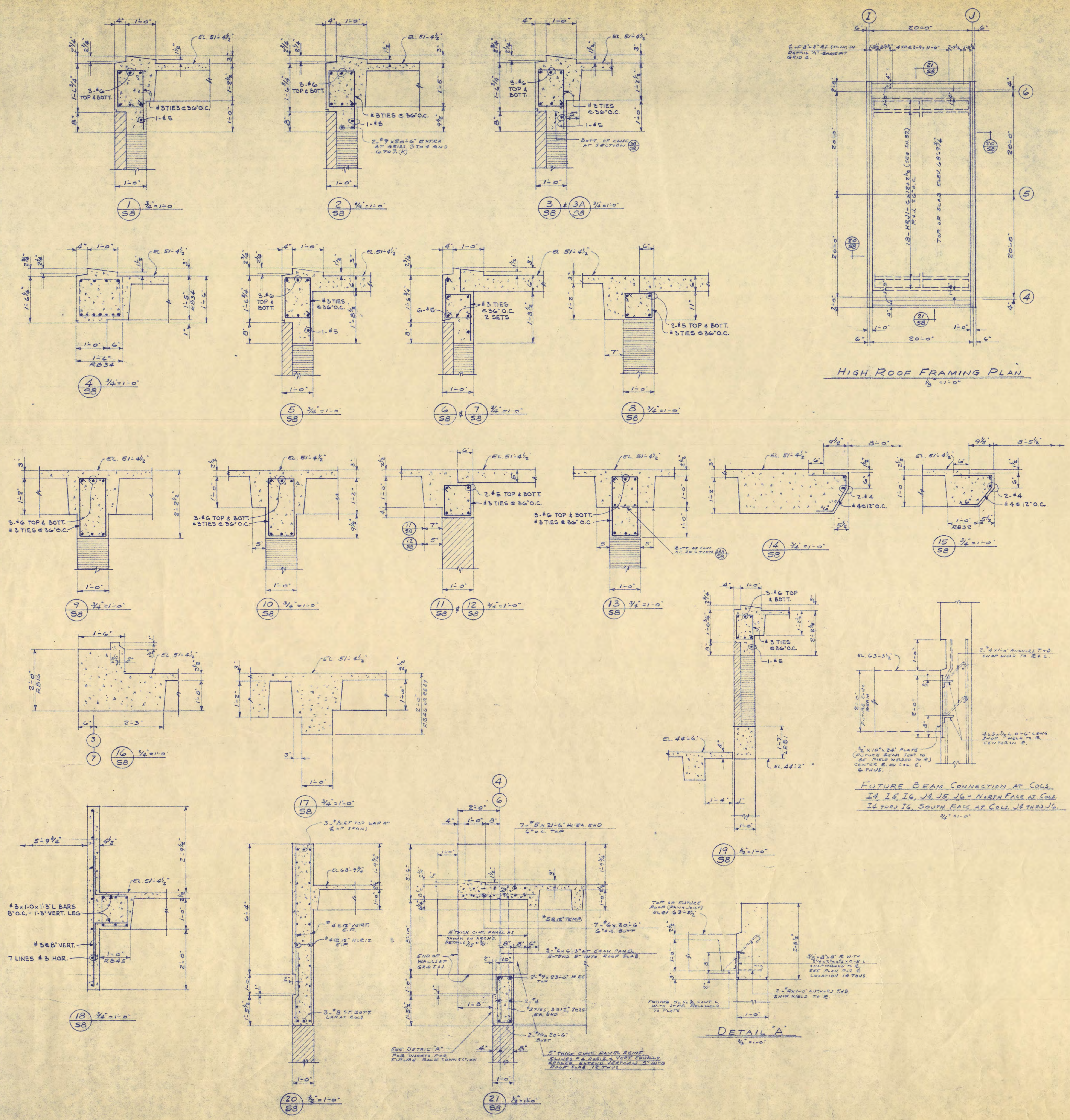
**TRAYNOR AND HERMANSON ARCHITECTS**  
ST. CLOUD, MINNESOTA  
STRUCTURAL ENGINEERS - JOHNSTON & SAHLMAN MINNEAPOLIS  
CONSULTING ENGINEERS - ORR, SHELEN, MAYORON ASSOCIATED INC. MINNEAPOLIS

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_ DRAWN: J.W.S.  
 APPROVED BY: \_\_\_\_\_ CHECKED: J.W.S.

ROOF FRAMING PLAN

SHEET NO.  
**57**  
OF 13  
PROJECT NO.  
**E-2**





CONCRETE BEAM SCHEDULE											
MARK	SIZE	REINFORCING		POSITION OF REINFORCING		STIRRUPS		REMARKS			
		NO.	SIZE	TOP	BOTT.	NO.	SIZE	SPACING	EA. END		
RB1	16 28	5	#8	20-3	✓	✓	18	#3	14	306, 203, 202, 204	CENTER TWO BARS IN E. SPAN.
RB2	16 28	5	#8	20-3	✓	✓	18	#3	14	4 RB1	4 RB2
RB3	16 28	5	#8	20-3	✓	✓	16	#3	14	206, 203, 202, 204	4 RB2
RB4	16 28	5	#8	20-3	✓	✓	18	#3	14	4 RB1	4 RB2
RB5	16 26 1/2	5	#8	20-3	✓	✓	13	#3	14	4 RB1	4 RB2
RB6	16 26 1/2	5	#8	20-3	✓	✓	13	#3	14	4 RB1	4 RB2
RB7	16 26 1/2	5	#8	20-3	✓	✓	13	#3	14	4 RB1	4 RB2
RB8	16 26 1/2	5	#8	20-3	✓	✓	13	#3	14	4 RB1	4 RB2
RB9	16 26 1/2	5	#8	20-3	✓	✓	13	#3	14	4 RB1	4 RB2
RB10	16 26 1/2	5	#8	20-3	✓	✓	13	#3	14	4 RB1	4 RB2
RB11	16 26 1/2	5	#8	20-3	✓	✓	13	#3	14	4 RB1	4 RB2
RB12	16 26 1/2	5	#8	20-3	✓	✓	12	#3	14	302, 203, 204	4 RB2
RB13	16 26 1/2	5	#8	20-3	✓	✓	12	#3	14	4 RB2	4 RB2
RB14	16 26 1/2	5	#8	20-3	✓	✓	16	#3	14	4 RB3	4 RB2
RB15	16 26 1/2	5	#8	20-3	✓	✓	16	#3	14	4 RB3	4 RB2
RB16	18 24	6	#8	23-6	✓	✓	12	#3	14	308, 302, 204	UPTURNED BEAM FOR 10'-0" BEARING EA. END
RB17	16 26 1/2	5	#8	20-3	✓	✓	18	#3	14	4 RB1	4 RB2
RB18	22 14 1/2	6	#8	18-6	✓	✓	12	#3	14	406, 202	4 RB2
RB19	22 14 1/2	6	#8	18-6	✓	✓	12	#3	14	4 RB1, 8	4 RB2
RB20	22 14 1/2	6	#8	18-6	✓	✓	12	#3	14	4 RB1, 8	4 RB2
RB21	10 14 1/2	3	#8	8-6	✓	✓	10	#3	14	204, 306	4 RB2
RB22	10 14 1/2	3	#8	8-6	✓	✓	6	#3	14	306	4 RB2
RB23	10 14 1/2	3	#8	8-6	✓	✓	6	#3	14	306	4 RB2
RB24	10 18	3	#8	8-6	✓	✓	6	#3	14	306	4 RB2
RB25	12 17	4	#8	10-0	✓	✓	10	#3	14	306, 202	4 RB2
RB26	12 18	4	#8	10-0	✓	✓	10	#3	14	306, 202	4 RB2
RB27	10 18	3	#8	8-6	✓	✓	6	#3	14	306	4 RB2
RB28	12 26 1/2	5	#8	20-3	✓	✓	12	#3	14	302, 304	4 RB2
RB29	12 26 1/2	5	#8	20-3	✓	✓	12	#3	14	4 RB2, 8	4 RB2
RB30	8 26 1/2	3	#8	8-6	✓	✓	4	#3	14	202	4 RB2
RB31	12 14 1/2	3	#8	8-6	✓	✓	6	#3	14	202	4 RB2
RB32	12 14 1/2	3	#8	8-6	✓	✓	4	#3	14	202	HEADER BEAM AT ELEVATOR
RB33	12 26 1/2	5	#8	20-3	✓	✓	12	#3	14	306, 308	10'-0" CLEAR SPAN, 10" BEARING EA. END.
RB34	18 17	4	#8	12-6	✓	✓	12	#3	14	306, 302	TOP BAR EXTENDS ACROSS RB34 & RB35
RB35	18 17	4	#8	12-6	✓	✓	4	#3	14	202	10'-0" BEARING EA. END.
RB36	12 18	3	#8	8-6	✓	✓	8	#3	14	202, 202	10'-0" BEARING EA. END.
RB37	18 17	4	#8	12-6	✓	✓	14	#3	14	404, 306	4 RB2
RB38	18 17	4	#8	12-6	✓	✓	14	#3	14	4 RB3, 7	4 RB2
RB39	18 17	4	#8	12-6	✓	✓	14	#3	14	4 RB3, 7	4 RB2
RB40	12 26 1/2	5	#8	20-3	✓	✓	14	#3	14	304, 406	4 RB2
RB41	12 17	3	#8	8-6	✓	✓	6	#3	14	306	10'-0" BEARING EA. END.
RB42	12 17	3	#8	8-6	✓	✓	6	#3	14	306	10'-0" BEARING EA. END.
RB43	12 17	3	#8	8-6	✓	✓	6	#3	14	306	10'-0" BEARING EA. END. 6'-4" CLEAR SPAN.
RB44	12 17	3	#8	8-6	✓	✓	6	#3	14	306	10'-0" BEARING EA. END. 6'-4" CLEAR SPAN. PLUS WELDED LAP WITH BAR WELDED TO PLATE.
RB45	12 14 1/2	3	#8	8-6	✓	✓	4	#3	14	202	HEADER AT ELEVATOR.
RB46	12 24	4	#8	12-6	✓	✓	10	#3	14	308, 202, 204	5' BEARING IN WALL.
RB47	12 24	4	#8	12-6	✓	✓	8	#3	14	203, 202, 204	4
LRB1	12 19	4	#8	10-0	✓	✓	6	#3	14	302	10'-0" BEARING ON MASONRY.

**STUDENT UNION**  
 FOR ST. CLOUD STATE COLLEGE

STATE COLLEGE BOARD  
 STATE OF MINNESOTA  
 ST. PAUL MINNESOTA

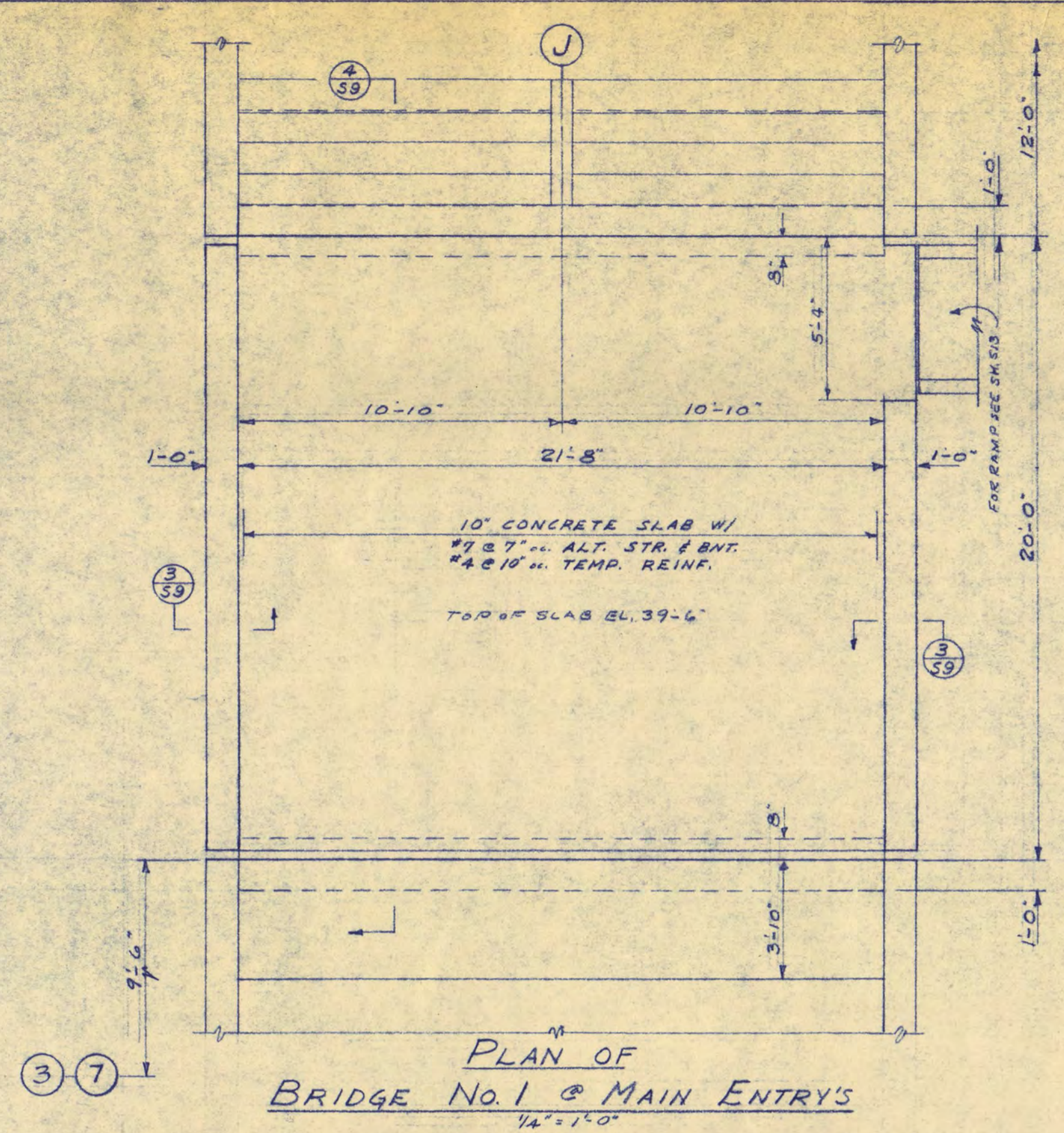
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APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DRAWN J.W.S.  
 APPROVED BY \_\_\_\_\_ CHECKED J.W.S.

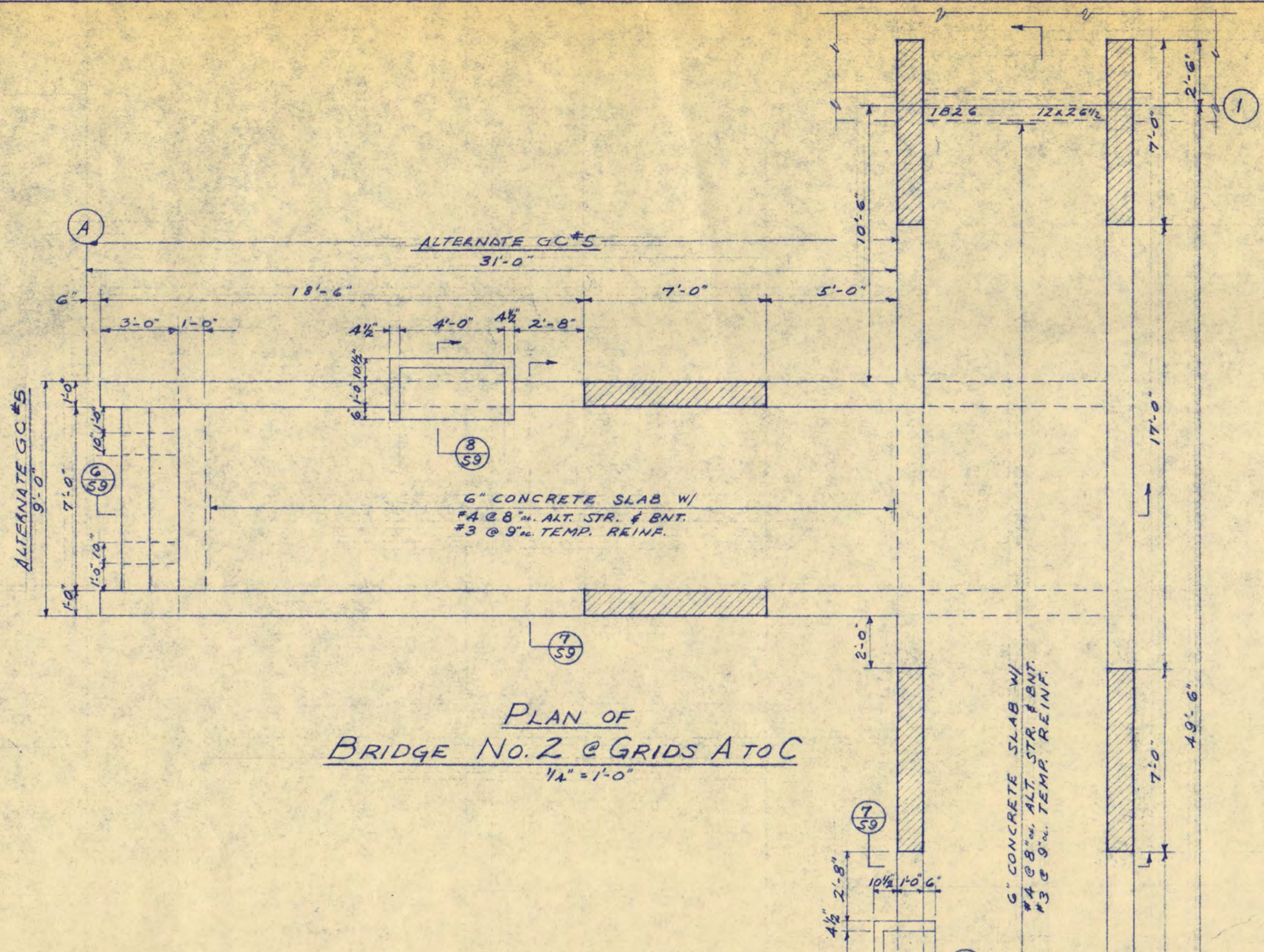
**ROOF BEAM SCHEDULE AND SECTIONS**

SHEET NO. **58**  
 OF 72  
 PROJECT NO. **E-2**

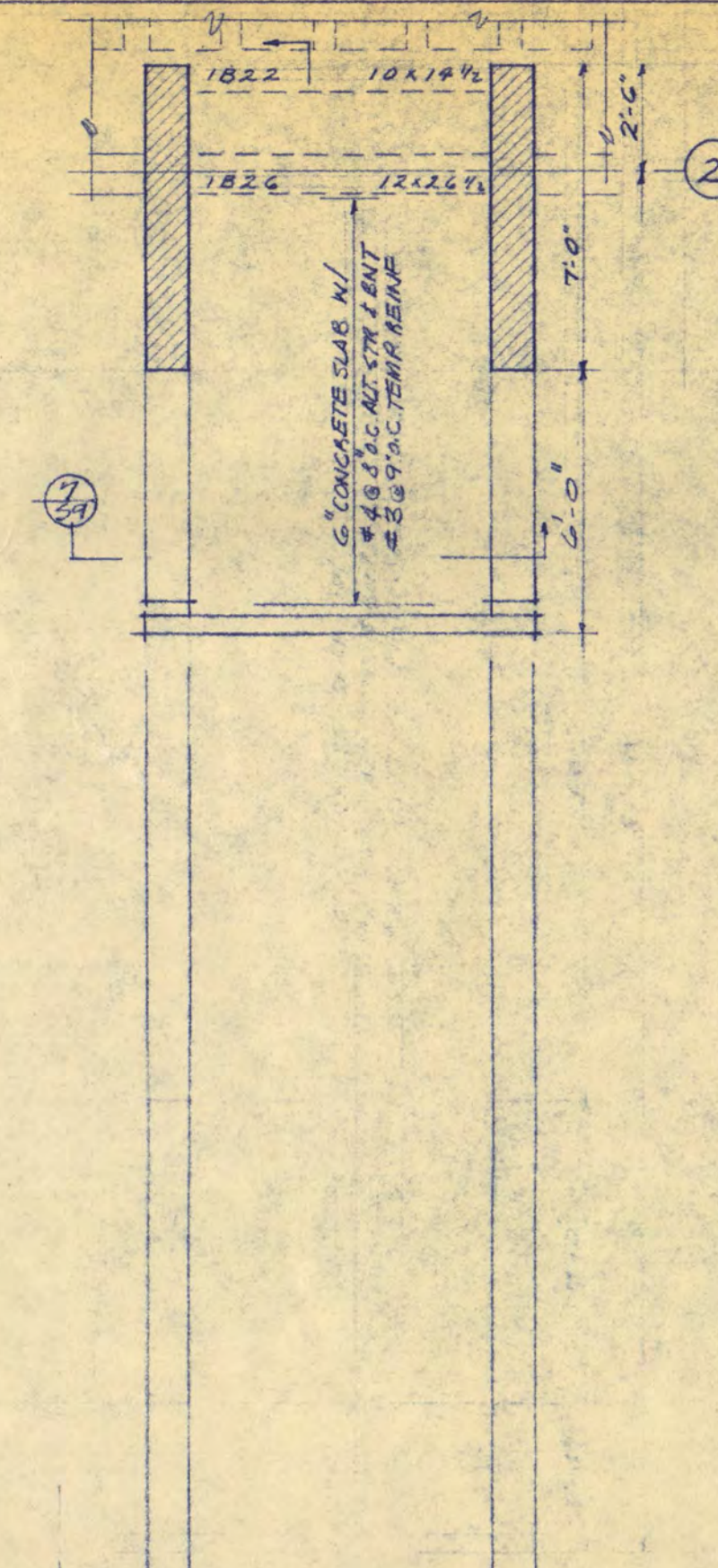




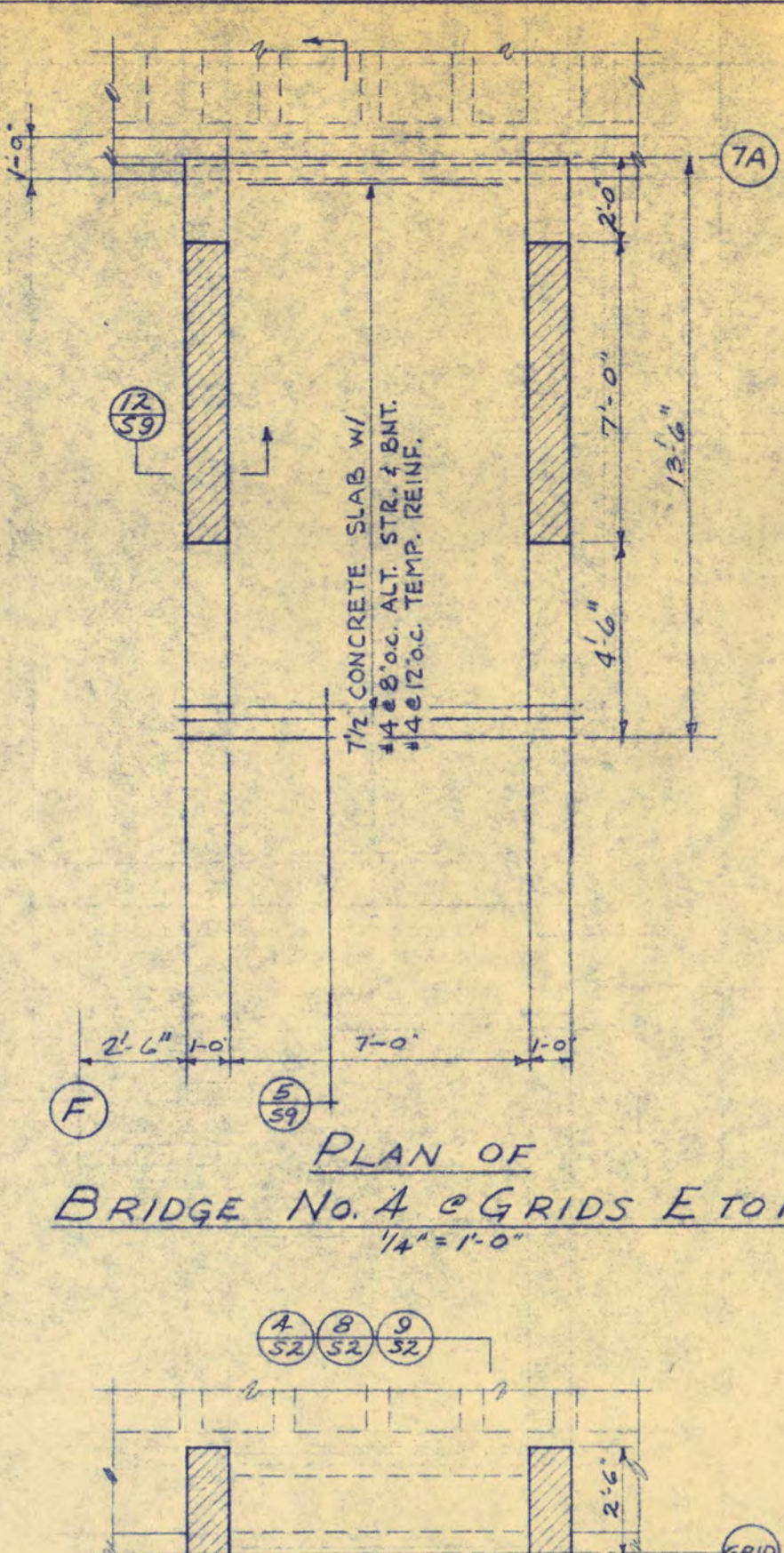
PLAN OF BRIDGE No. 1 & MAIN ENTRIES  
1/4" = 1'-0"



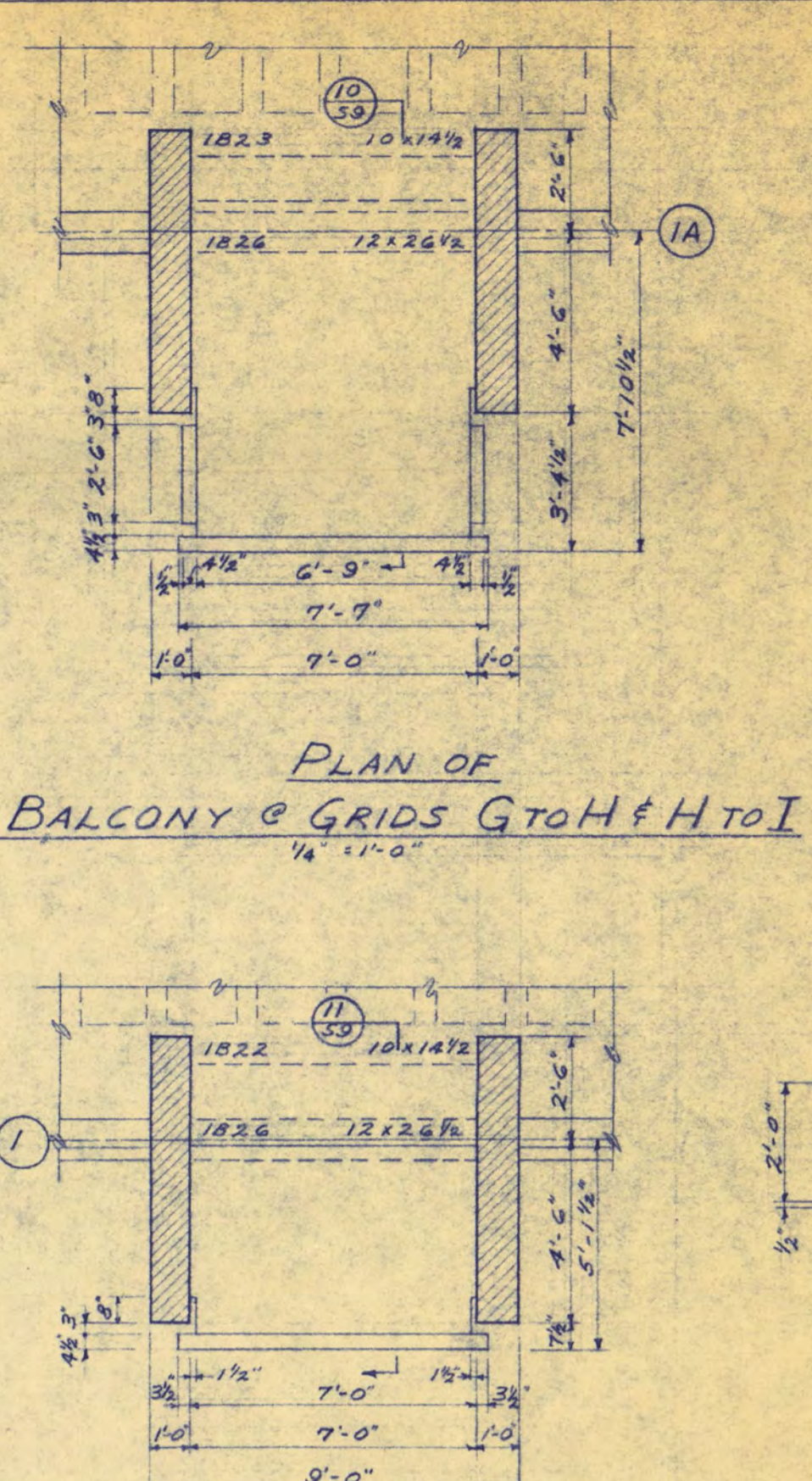
PLAN OF BRIDGE No. 2 @ GRIDS A TO C  
1/4" = 1'-0"



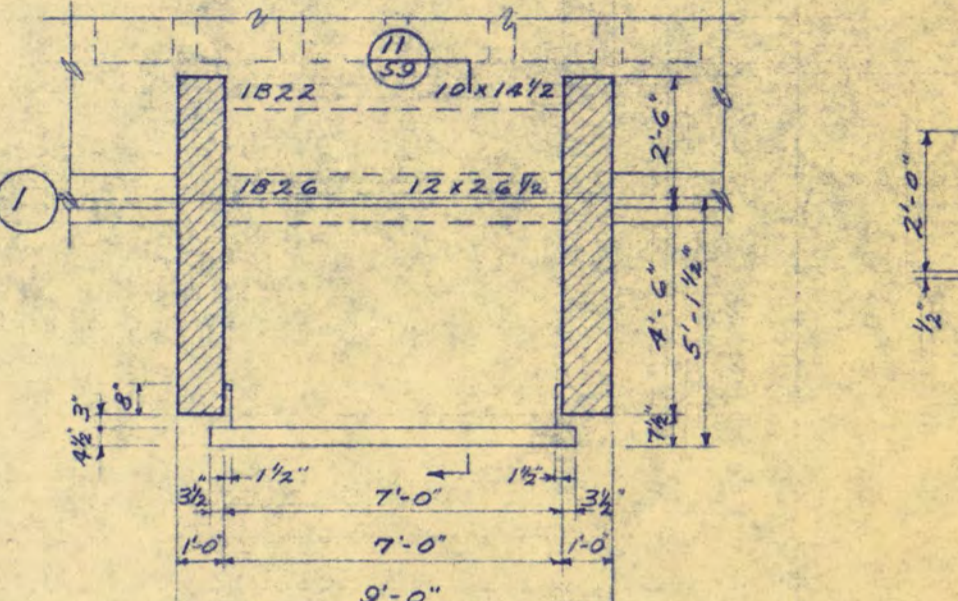
PLAN OF BRIDGE No. 3 @ GRIDS E TO F  
1/4" = 1'-0"



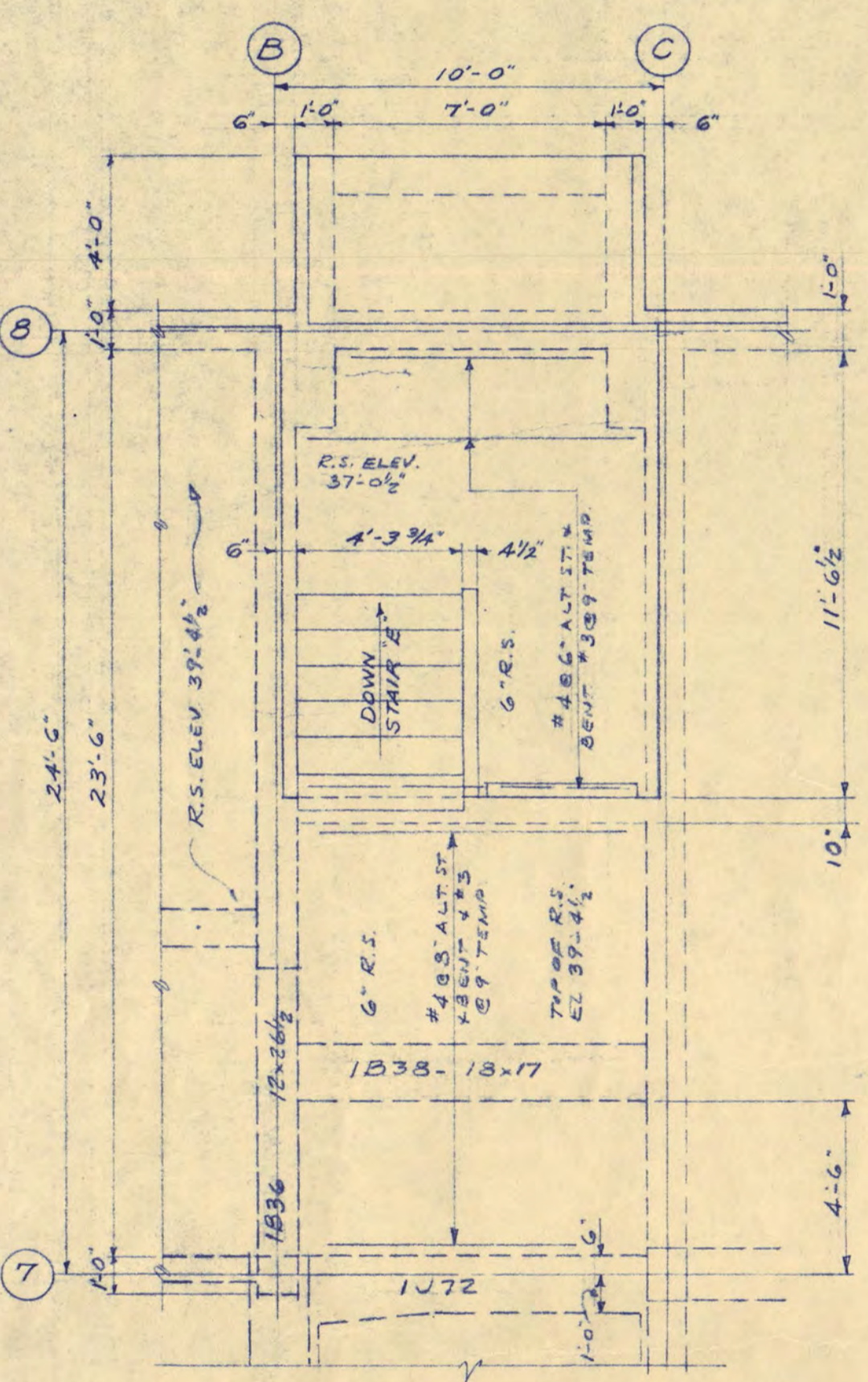
PLAN OF BRIDGE No. 4 @ GRIDS E TO F  
1/4" = 1'-0"



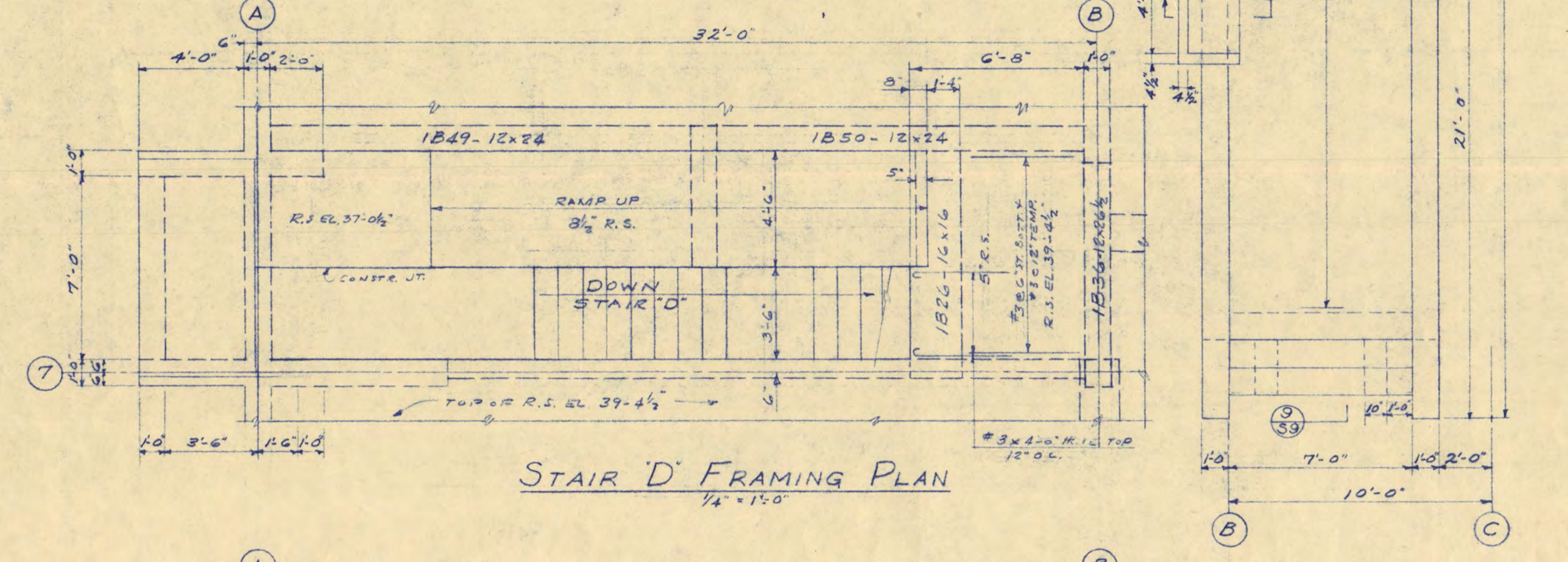
PLAN OF BALCONY @ GRIDS G TO H & H TO I  
1/4" = 1'-0"



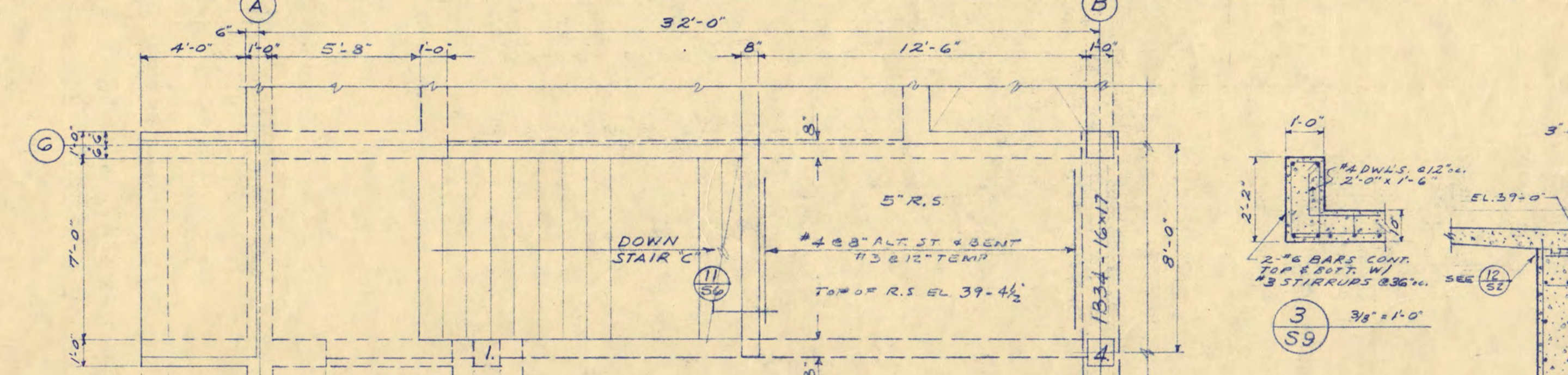
PLAN OF BALCONY @ GRIDS C TO D & D TO E  
1/4" = 1'-0"



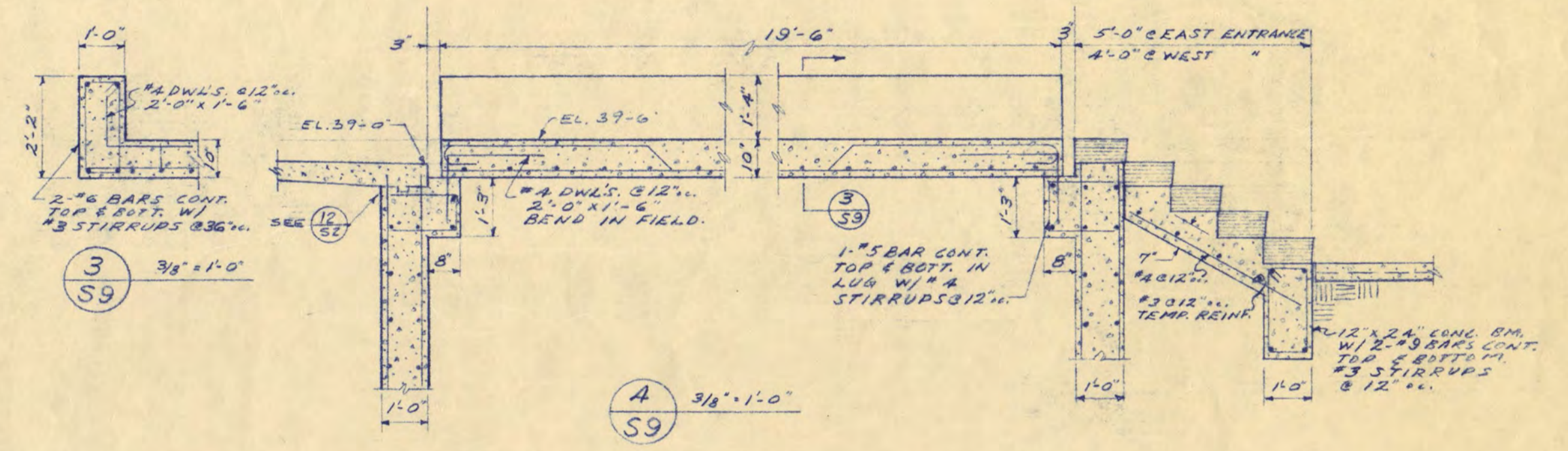
STAIR E FRAMING PLAN  
1/4" = 1'-0"



STAIR D FRAMING PLAN  
1/4" = 1'-0"

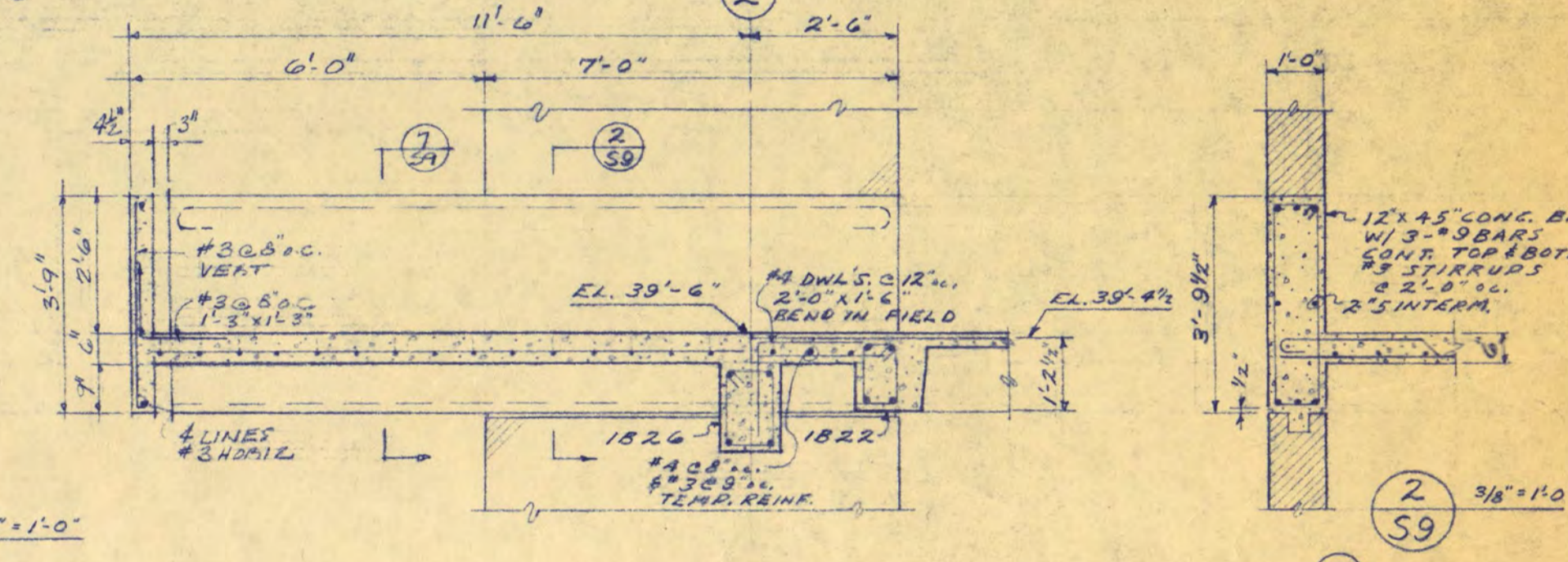


STAIR C FRAMING PLAN  
1/4" = 1'-0"



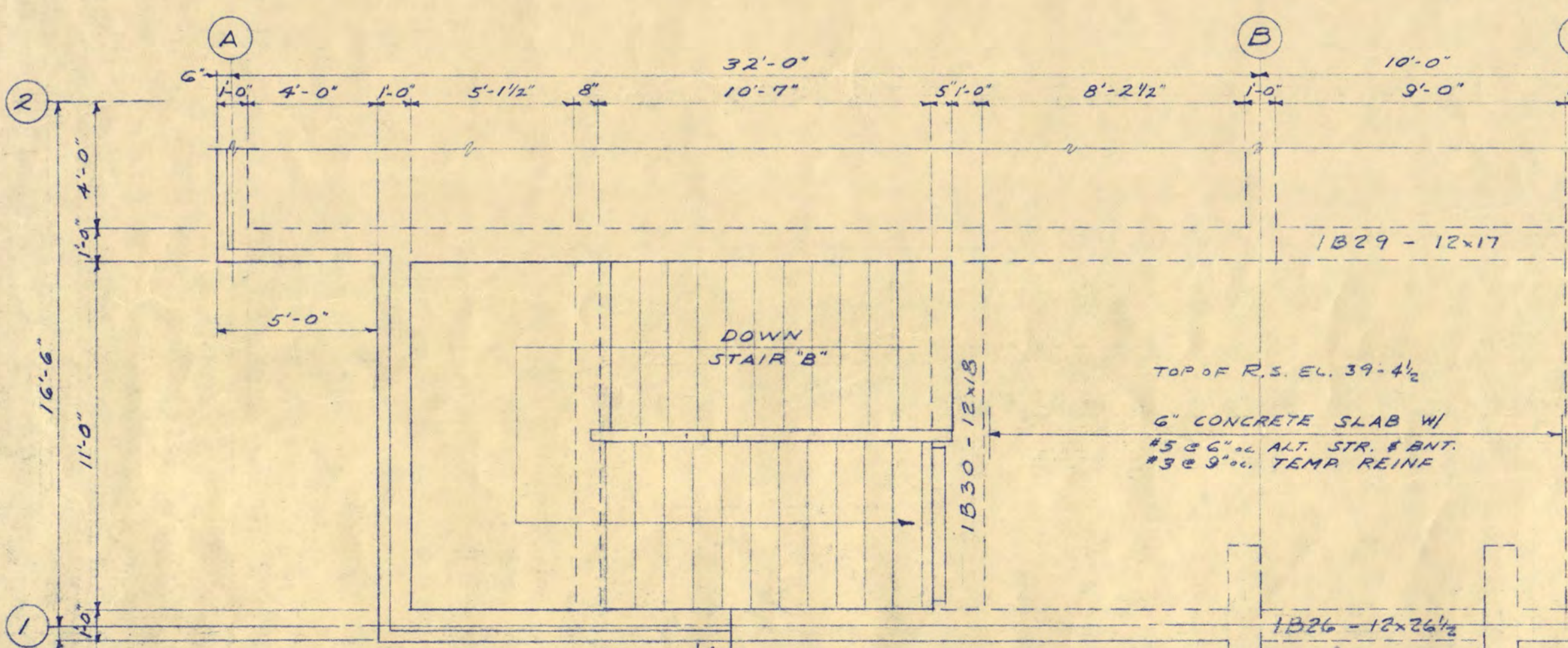
3 3/8" x 1'-0"

1 3/8" x 1'-0"

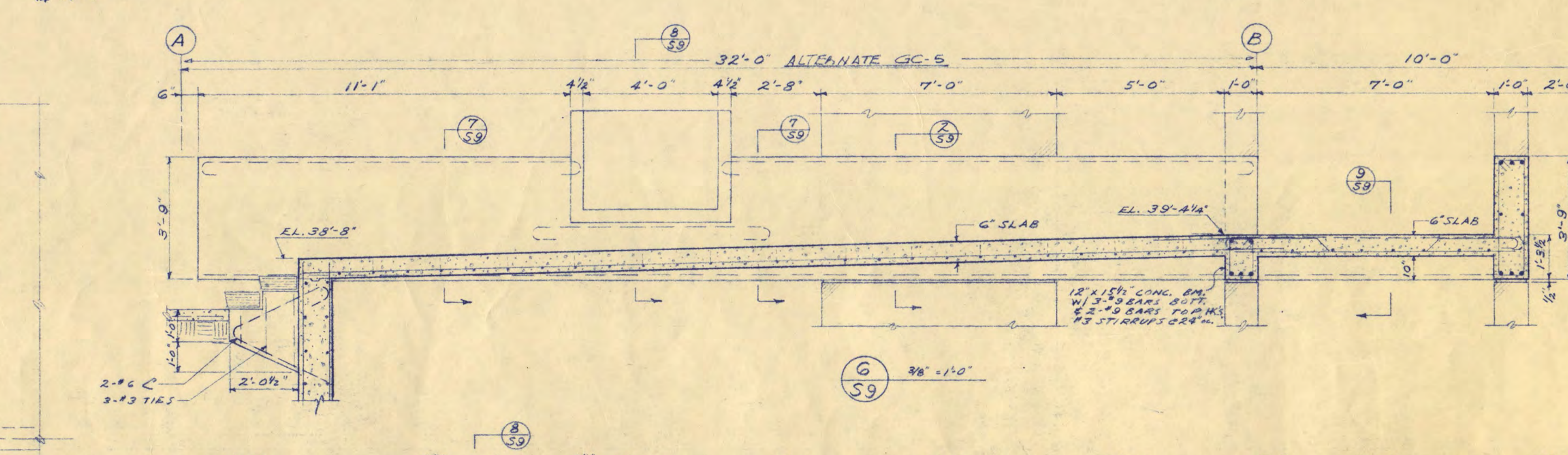


1 3/8" x 1'-0"

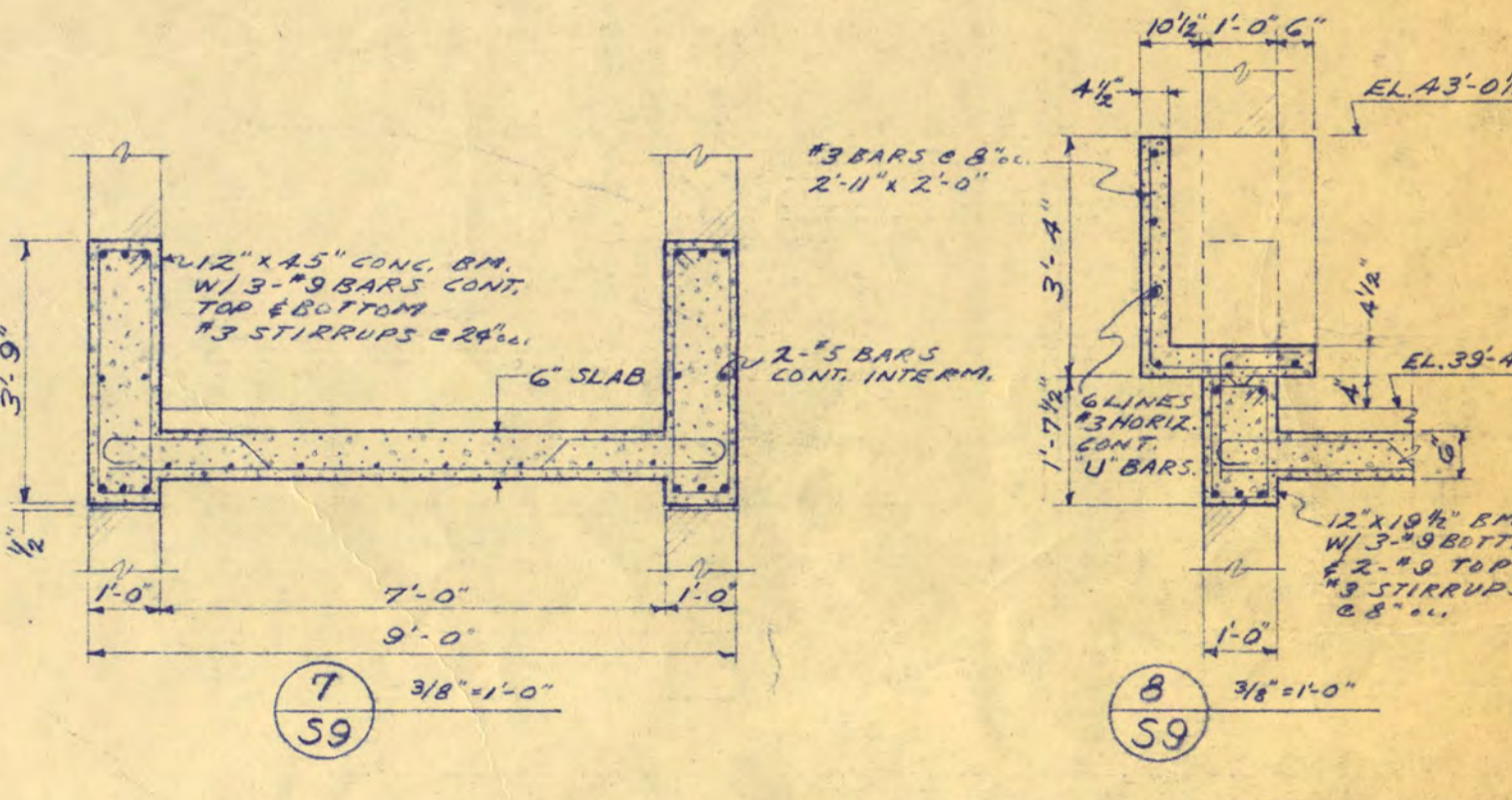
2 3/8" x 1'-0"



STAIR B FRAMING PLAN  
1/4" = 1'-0"



6 3/8" x 1'-0"



7 3/8" x 1'-0"

8 3/8" x 1'-0"

**STUDENT UNION FOR ST. CLOUD STATE COLLEGE**

STATE COLLEGE BOARD  
STATE OF MINNESOTA  
ST. PAUL MINNESOTA

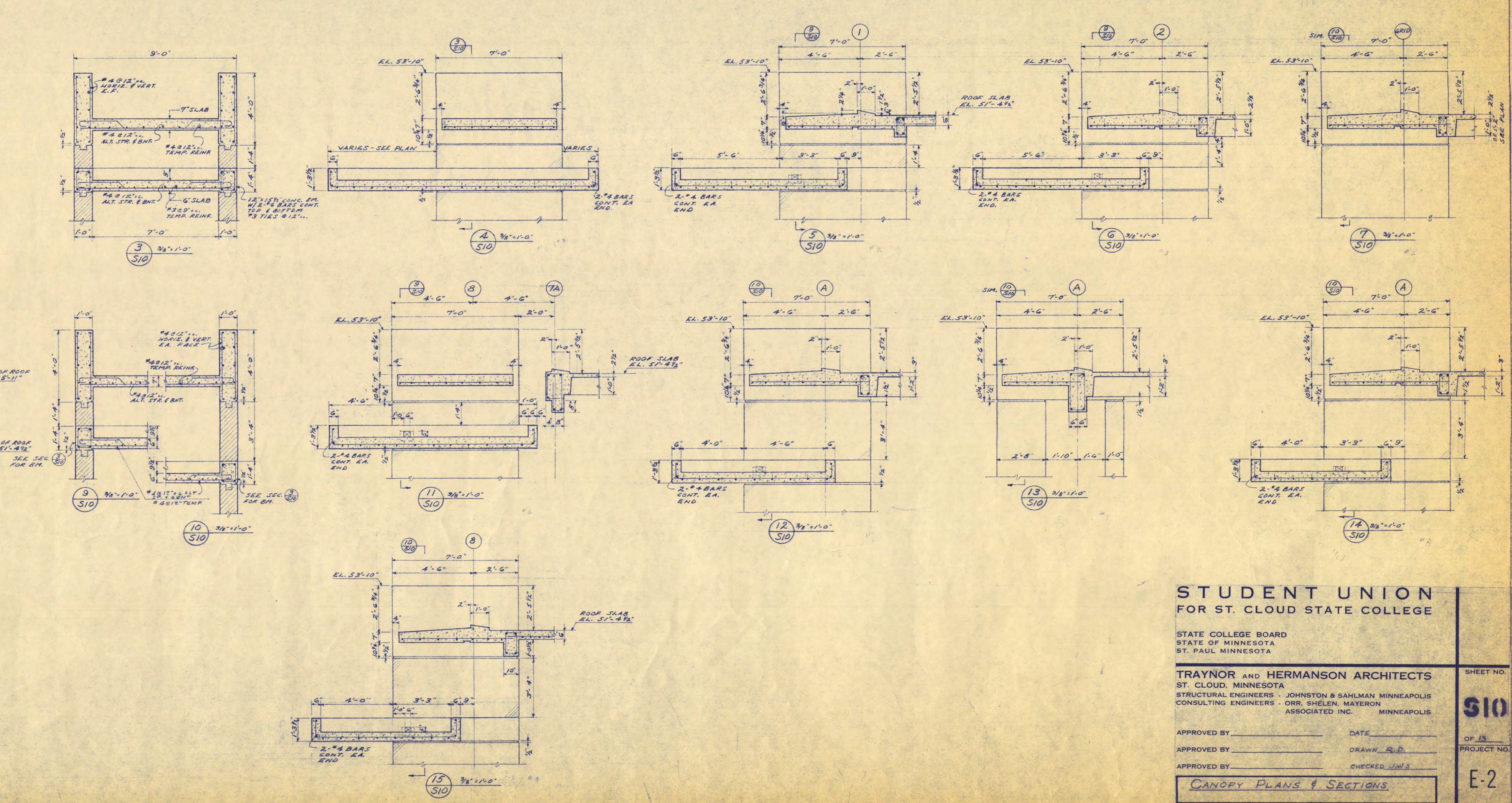
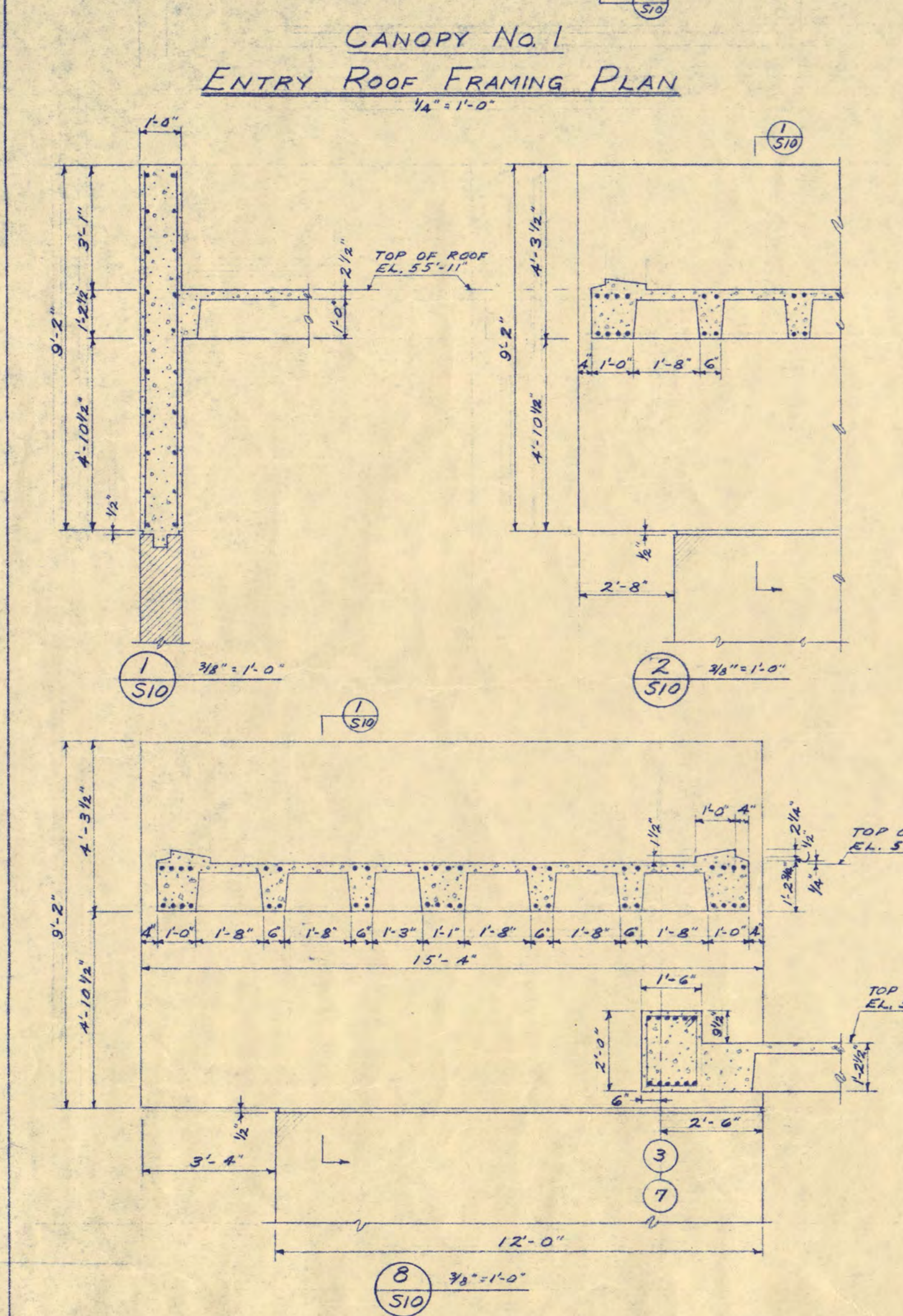
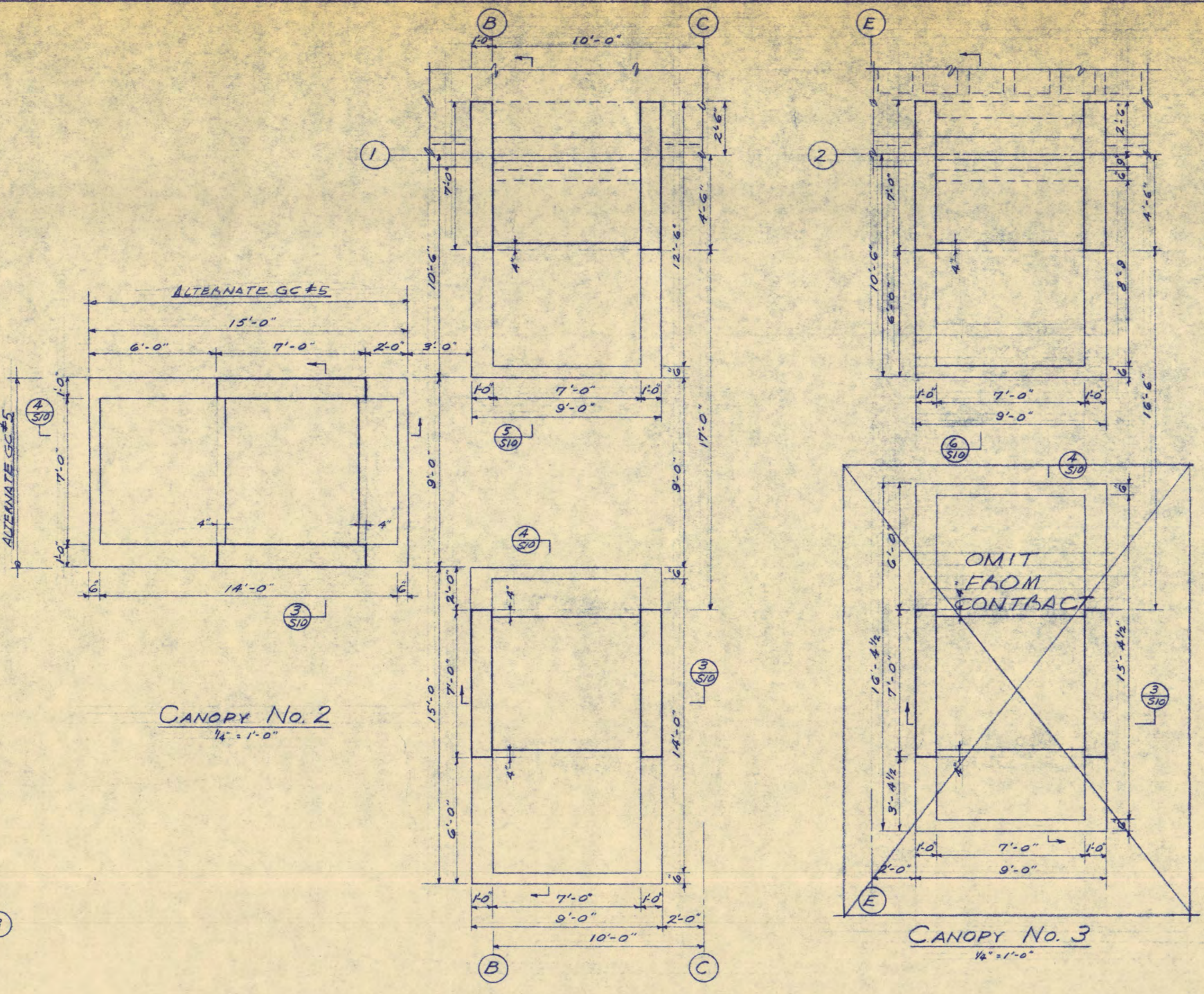
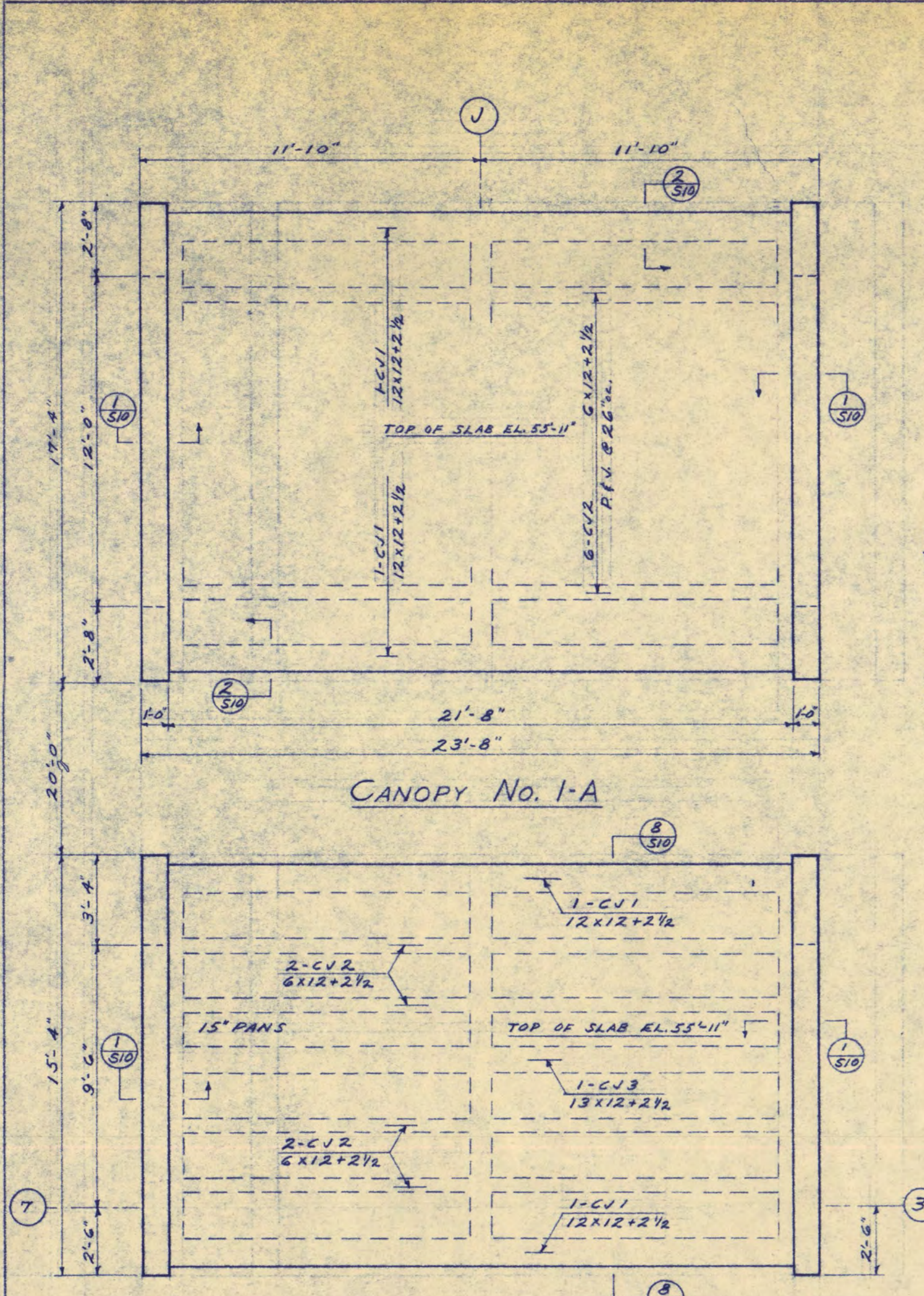
**TRAYNOR and HERMANSON ARCHITECTS**  
ST. CLOUD, MINNESOTA  
STRUCTURAL ENGINEERS - JOHNSTON & SAHLMAN MINNEAPOLIS  
CONSULTING ENGINEERS - ORR, SHELEN, MAYERON ASSOCIATED INC. MINNEAPOLIS

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ DRAWN R.D.  
APPROVED BY \_\_\_\_\_ CHECKED J.M.S.

**BRIDGE & ENTRANCE PLANS & DETS.**

SHEET NO. **59** OF 13  
PROJECT NO. **E-2**





CONCRETE JOIST SCHEDULE					
MARK	SIZE	STRAIGHT	BENT	TOP	REMARKS
CJ 1	12x12x24	2.06	2.07	4.96x11-0	CLEAR TOP BARS 1/2" E IN PLAN & 2.20" BARS ON END
CJ 2	6x12x24	1.06	1.07	2.06x11-0	
CJ 3	13x12x24	2.06	2.07	4.96x11-0	

**STUDENT UNION FOR ST. CLOUD STATE COLLEGE**

STATE COLLEGE BOARD  
STATE OF MINNESOTA  
ST. PAUL MINNESOTA

**TRAYNOR AND HERMANSON ARCHITECTS**  
ST. CLOUD, MINNESOTA  
STRUCTURAL ENGINEERS - JOHNSTON & SAHLMAN MINNEAPOLIS  
CONSULTING ENGINEERS - ORR, SHELEN, MAYERSON ASSOCIATED INC. MINNEAPOLIS

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ DRAWN R.D.  
APPROVED BY \_\_\_\_\_ CHECKED J.M.S.

**CANOPY PLANS & SECTIONS**

SHEET NO. **510**  
OF 13  
PROJECT NO. **E-2**