

# CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION CURRENT STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS.

## IN CO-OPERATION WITH MICHIGAN DEPARTMENT OF TRANSPORTATION

AND

## FEDERAL HIGHWAY ADMINISTRATION

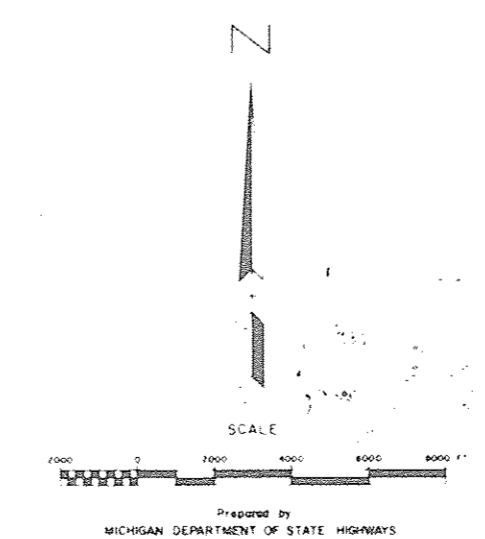
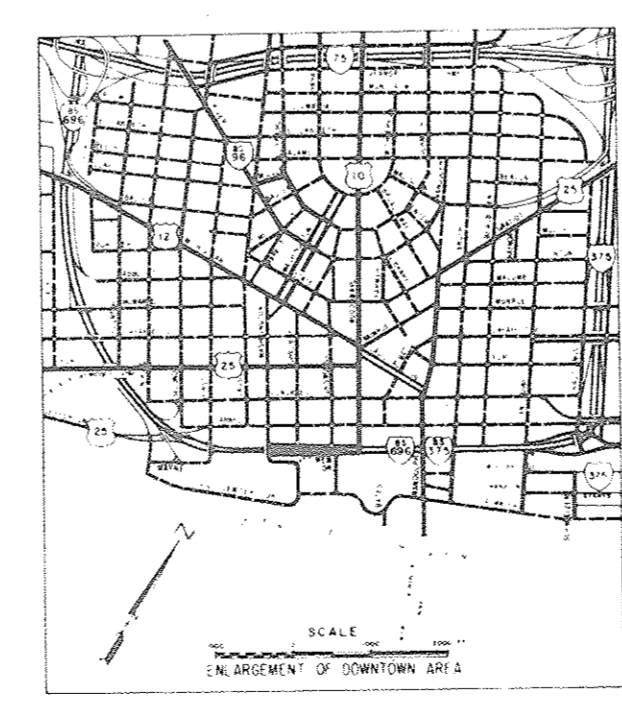
### FEDERAL AID URBAN PROJECT NO. MICHIGAN M 2000 (112)

### CONTROL SECTION MU 82400 JOB NO. 1503IA

### P08 OF 82111 & P01 OF 82-22-62

B.P.R. DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	MICH				
STREET	CITY	COUNTY	TWP.	SHEET NO.	TOTAL SHEETS

INDEX OF SHEETS		
1	TITLE	
2-33	ARCHITECTURAL	
34-42	CIVIL	
43-59	STRUCTURAL	
60-64	MECHANICAL	
65-71	ELECTRICAL	
72-75	WATER	
76-79	SCANDI	
80-88	SIGNING	
89-94	TRAFFIC	
95-96	QUANTITIES	
STANDARD PLANS		
I-9B	II-29B	II-28F
II-41D	II-49E	III-60E
IV-84B	V-98B	V-100A
V-112D	VI-124C	VI-125E



Loaned to BET. L. Crandall.  
 12-3-86  
 Return to SVA Street &

ITEM NO. 567

CONTRACT FOR **PEDESTRIAN BRIDGE & MISC. WORK**

LOCAL AUTHORITY APPROVAL  
CITY OF DETROIT  
CITY ENGINEERING DIVISION  
DEPARTMENT OF PUBLIC WORKS

APPROVED BY \_\_\_\_\_ ASSISTANT CITY ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED BY *[Signature]* CITY ENGINEER \_\_\_\_\_ DATE *1/25/87*

PREPARED UNDER SUPERVISION OF \_\_\_\_\_

REGISTERED PROFESSIONAL ENGINEER \_\_\_\_\_ REGISTRATION NO. \_\_\_\_\_

CITY OF DETROIT  
ORGANIZATION

DETROIT, MICHIGAN  
ADDRESS

FILE NO. 1503IA	STATE PROJECT	FEDERAL PROJECT	SHEET NO. 1	TOTAL SHEETS 1
-----------------	---------------	-----------------	-------------	----------------

9055-625 original

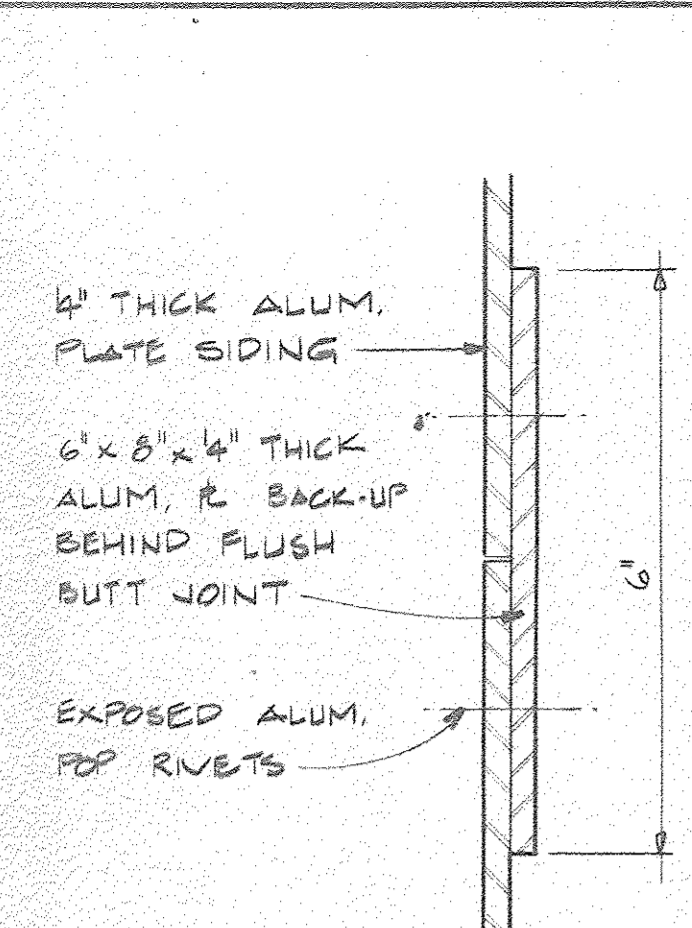




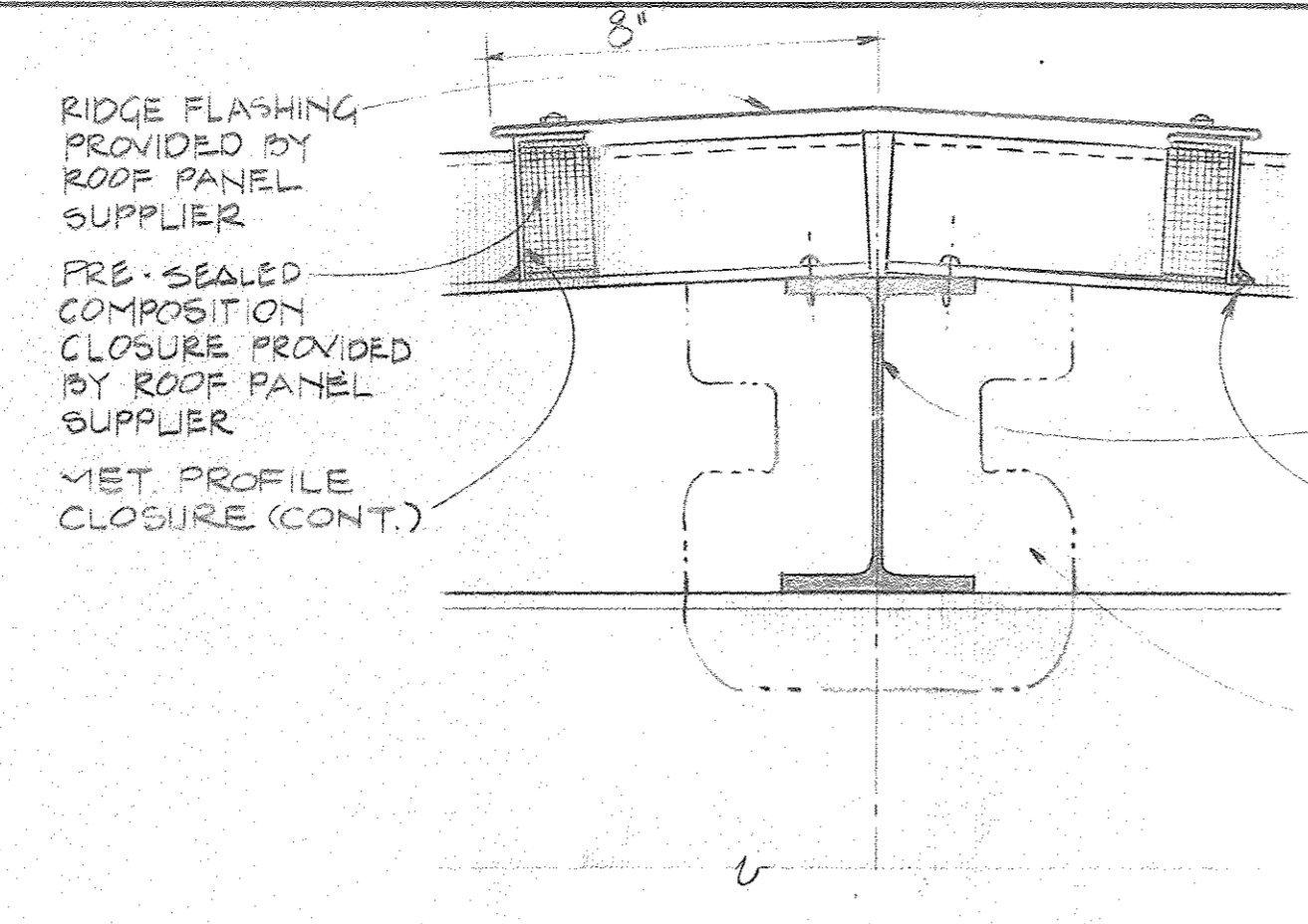




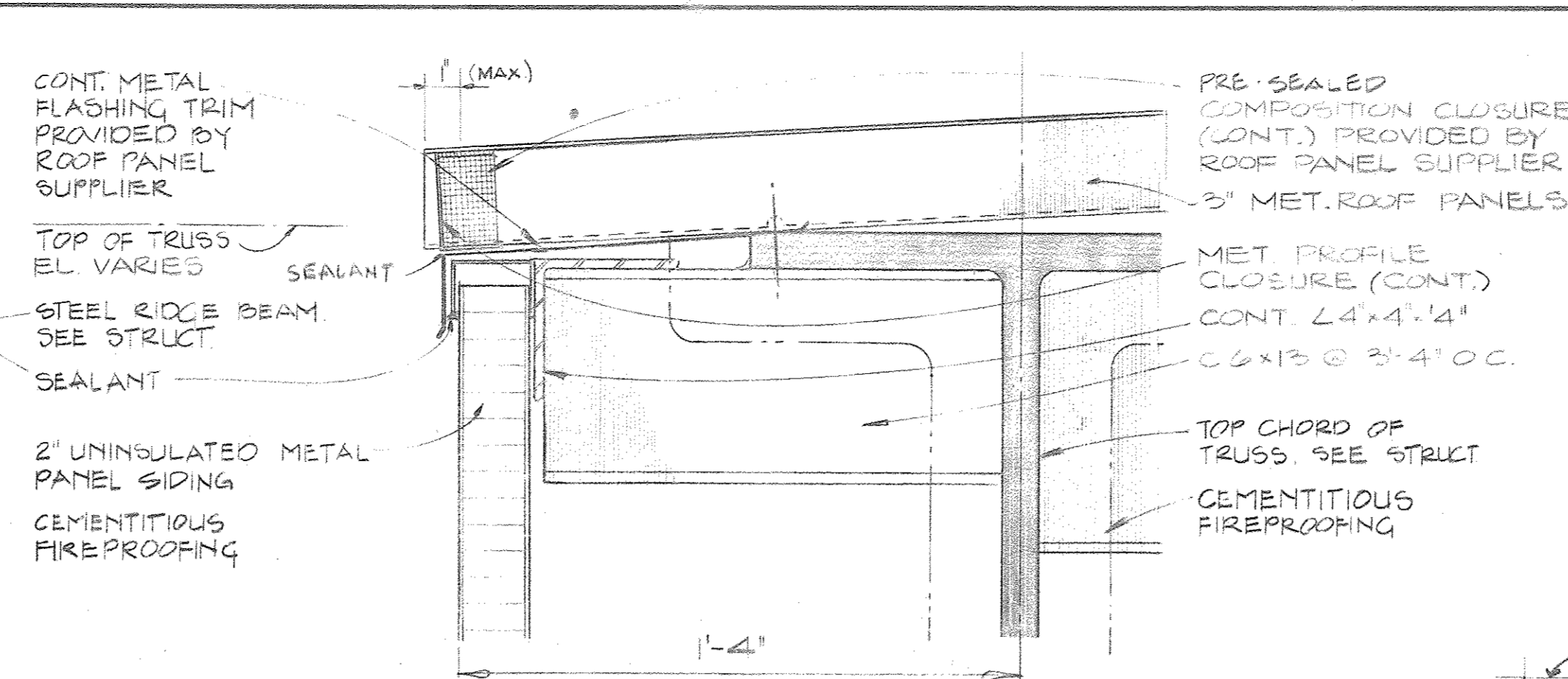




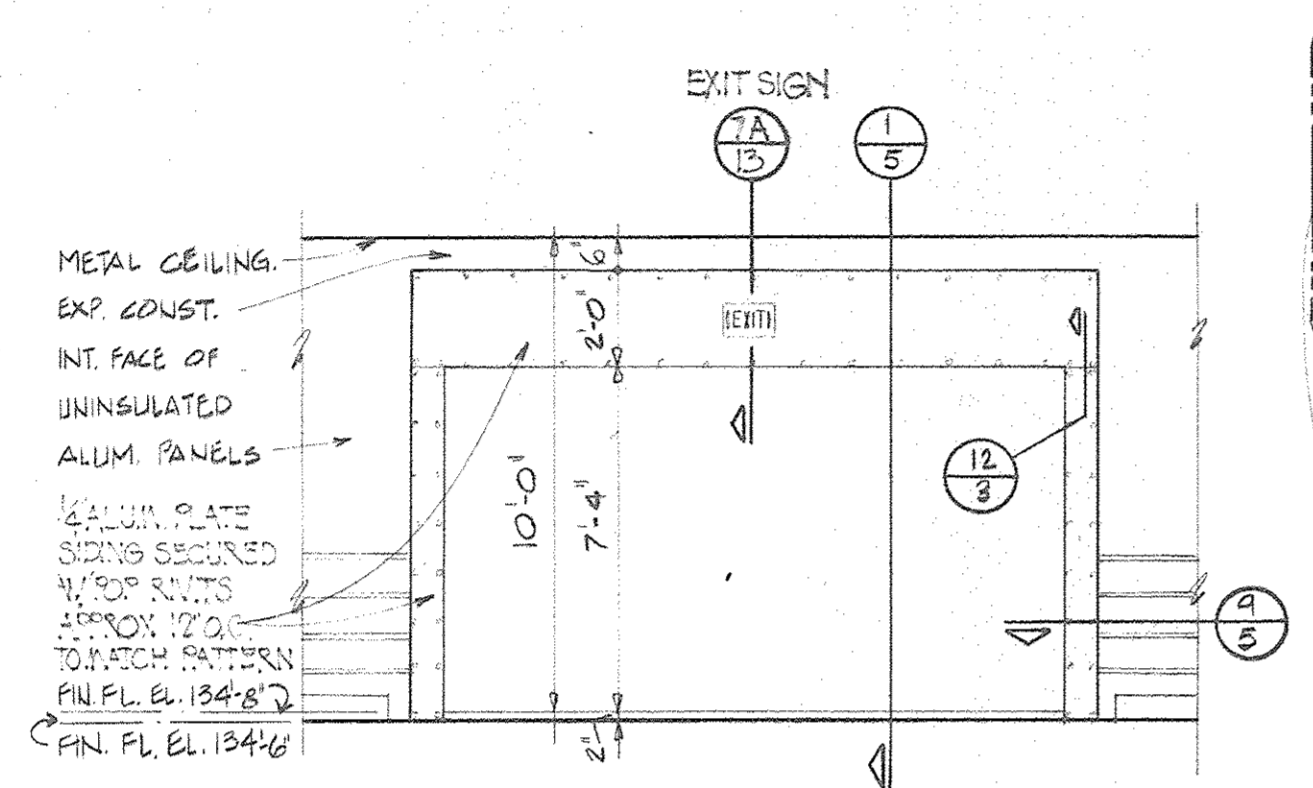
12 SECTION  
3 HALF FULL SIZE



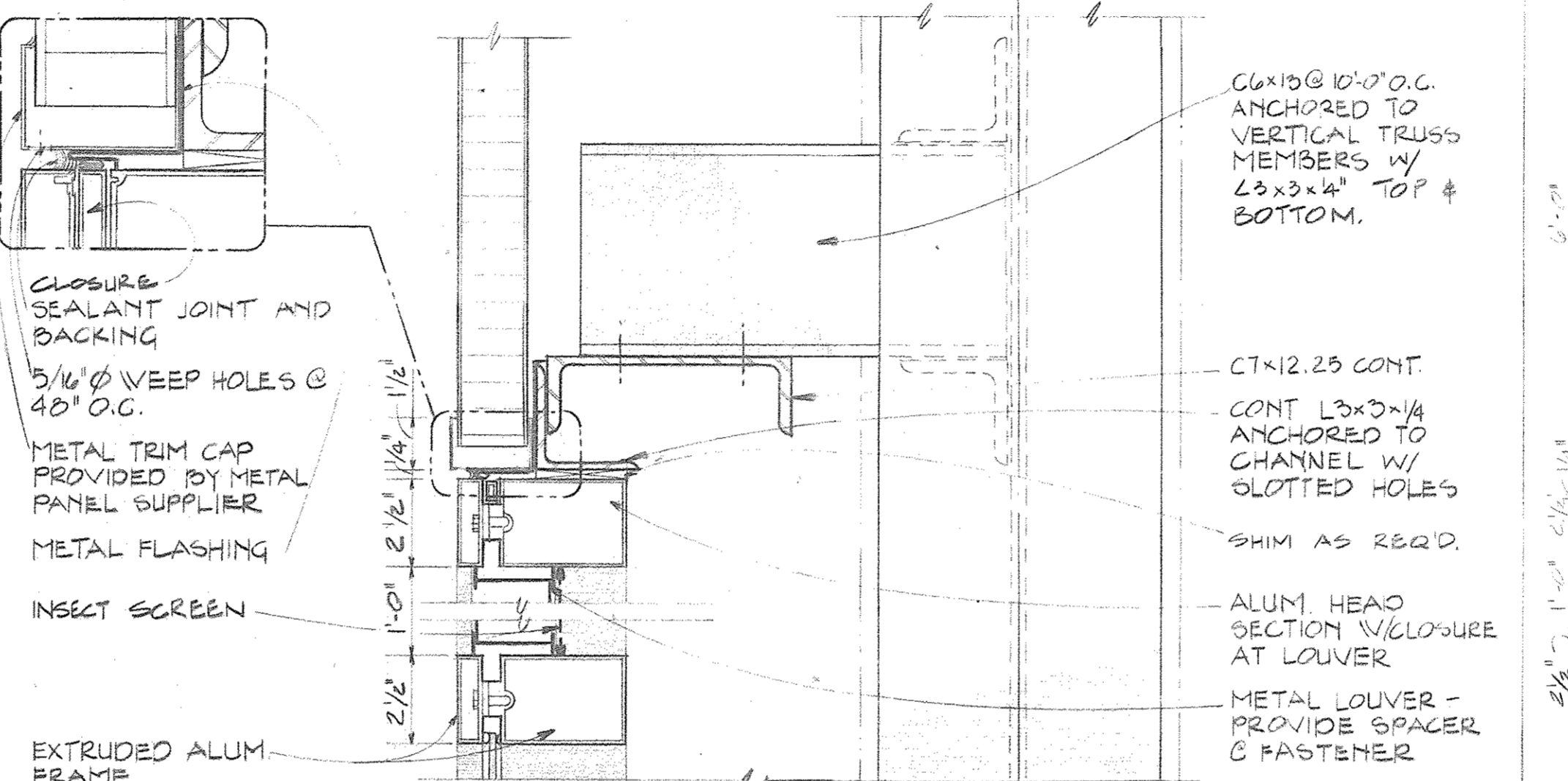
10 SECTION  
3 3" = 1'-0"



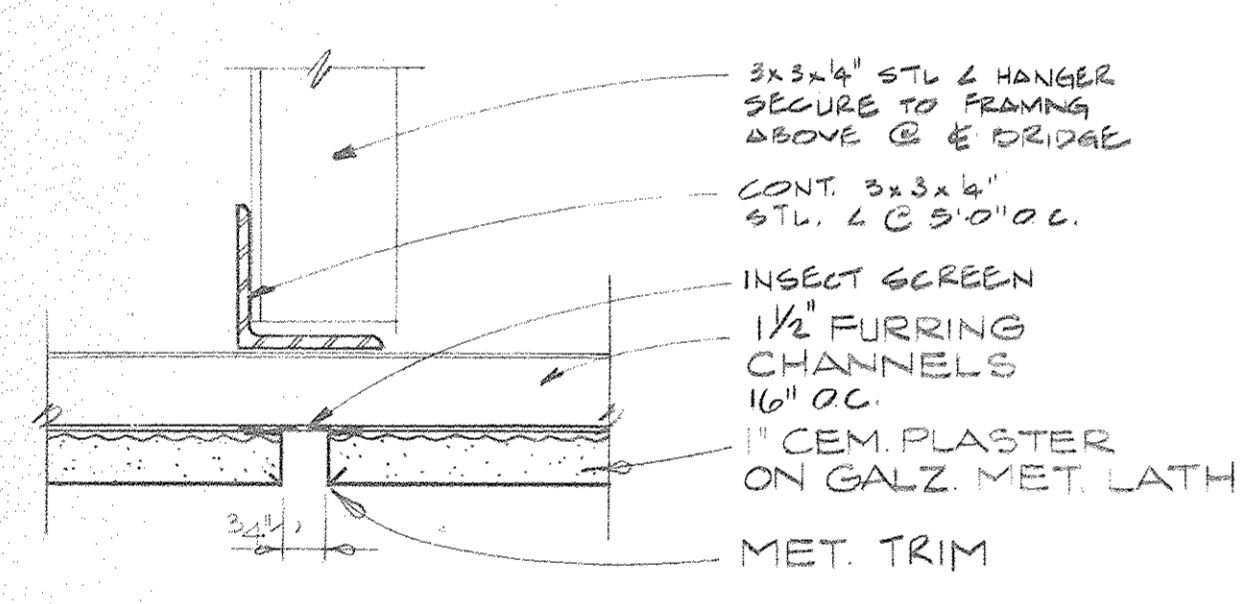
5 SECTION  
3 3" = 1'-0"



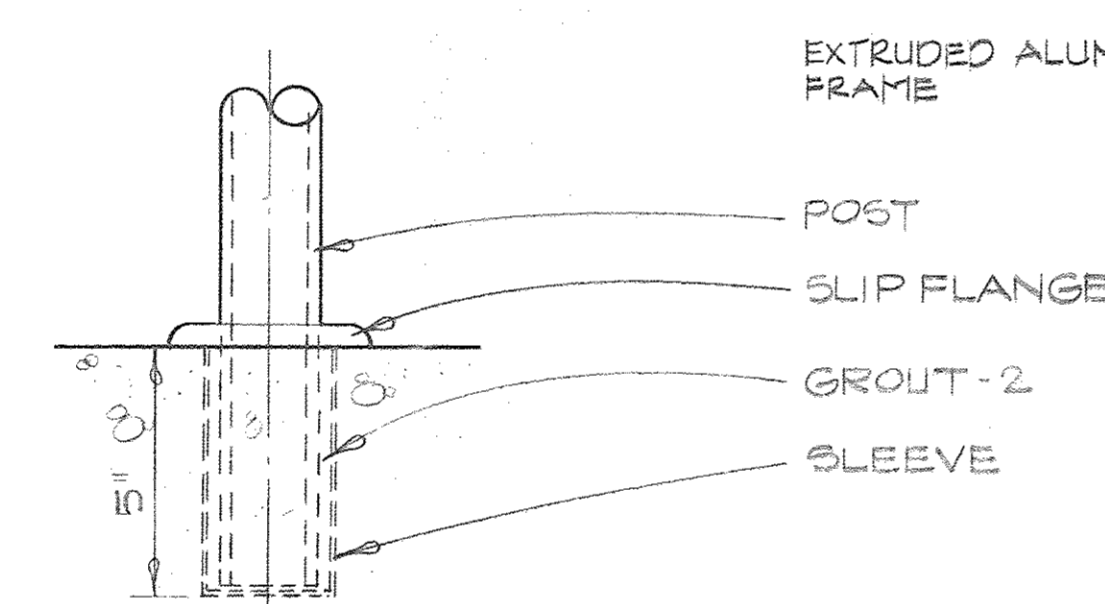
9 ELEVATION @ BRIDGE CONNECTION  
2.5 4" = 1'-0"



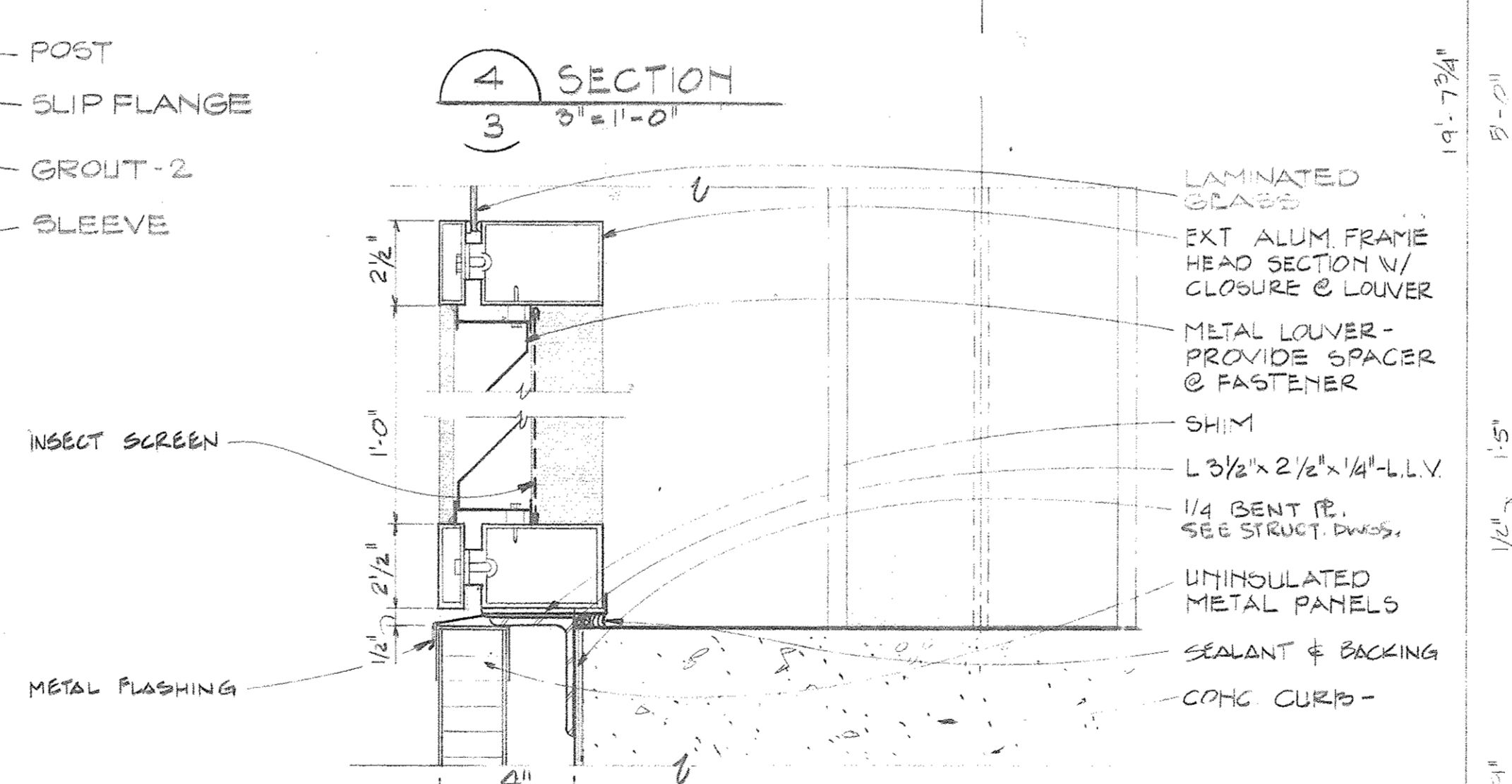
4 SECTION  
3 3" = 1'-0"



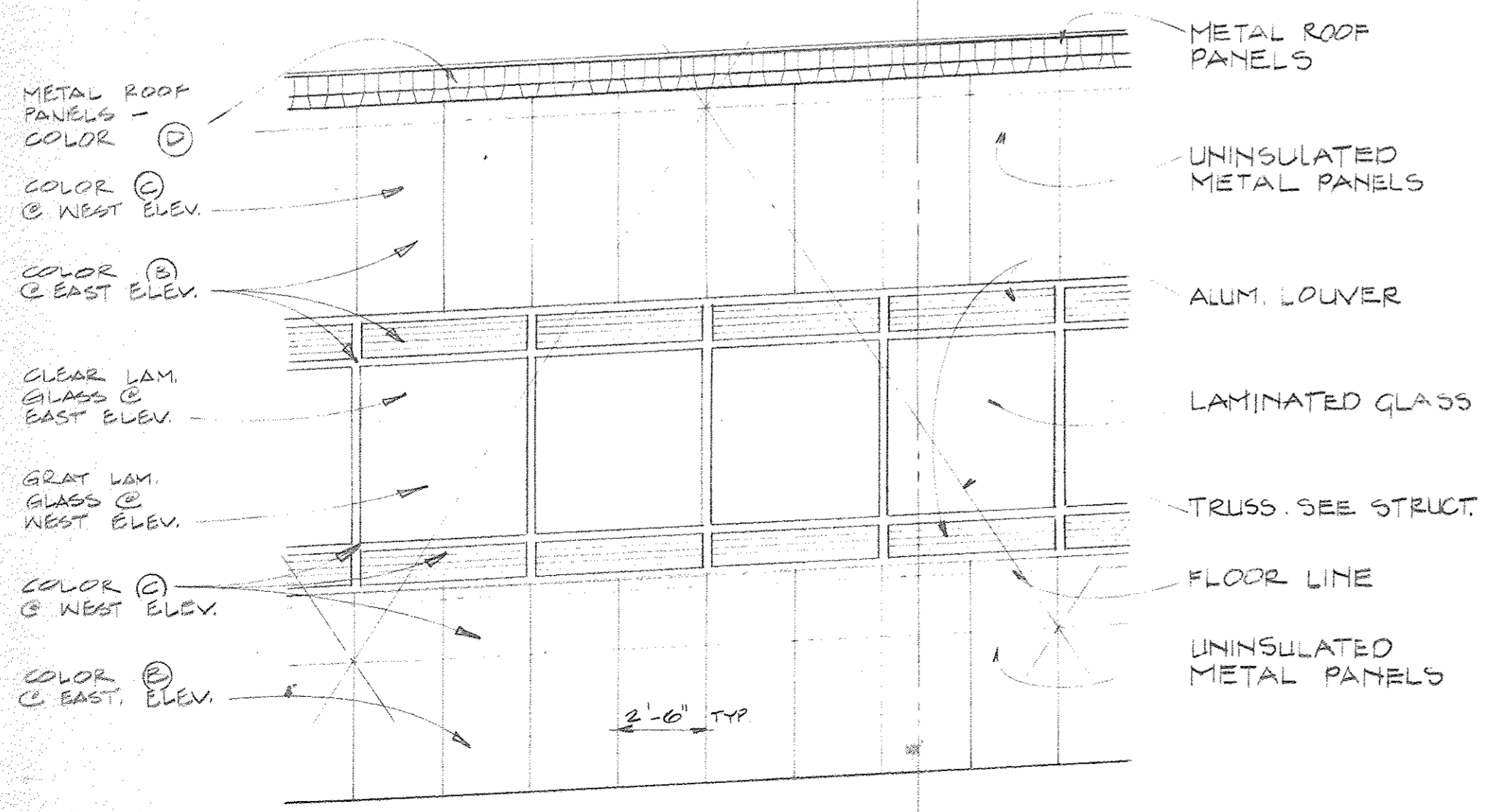
8 CONTROL JOINT IN CEMENT PLASTER SOFFIT  
2 3" = 1'-0"



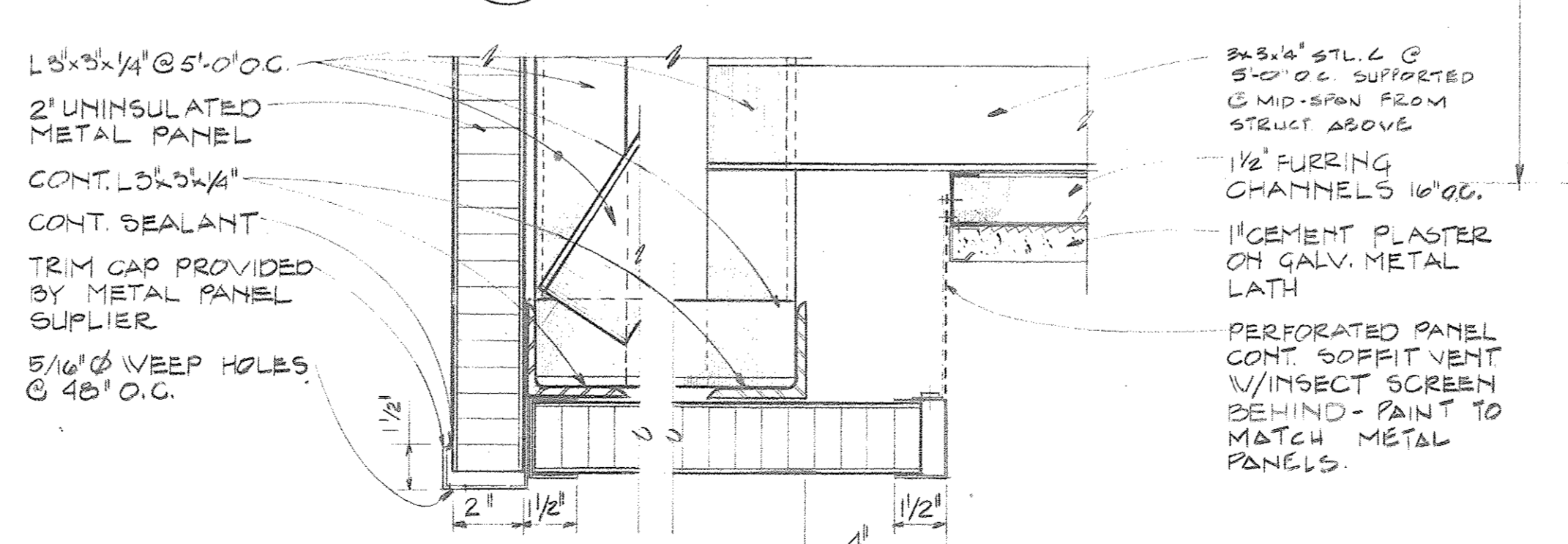
7 HANDRAIL POST SLEEVE  
3 3" = 1'-0"



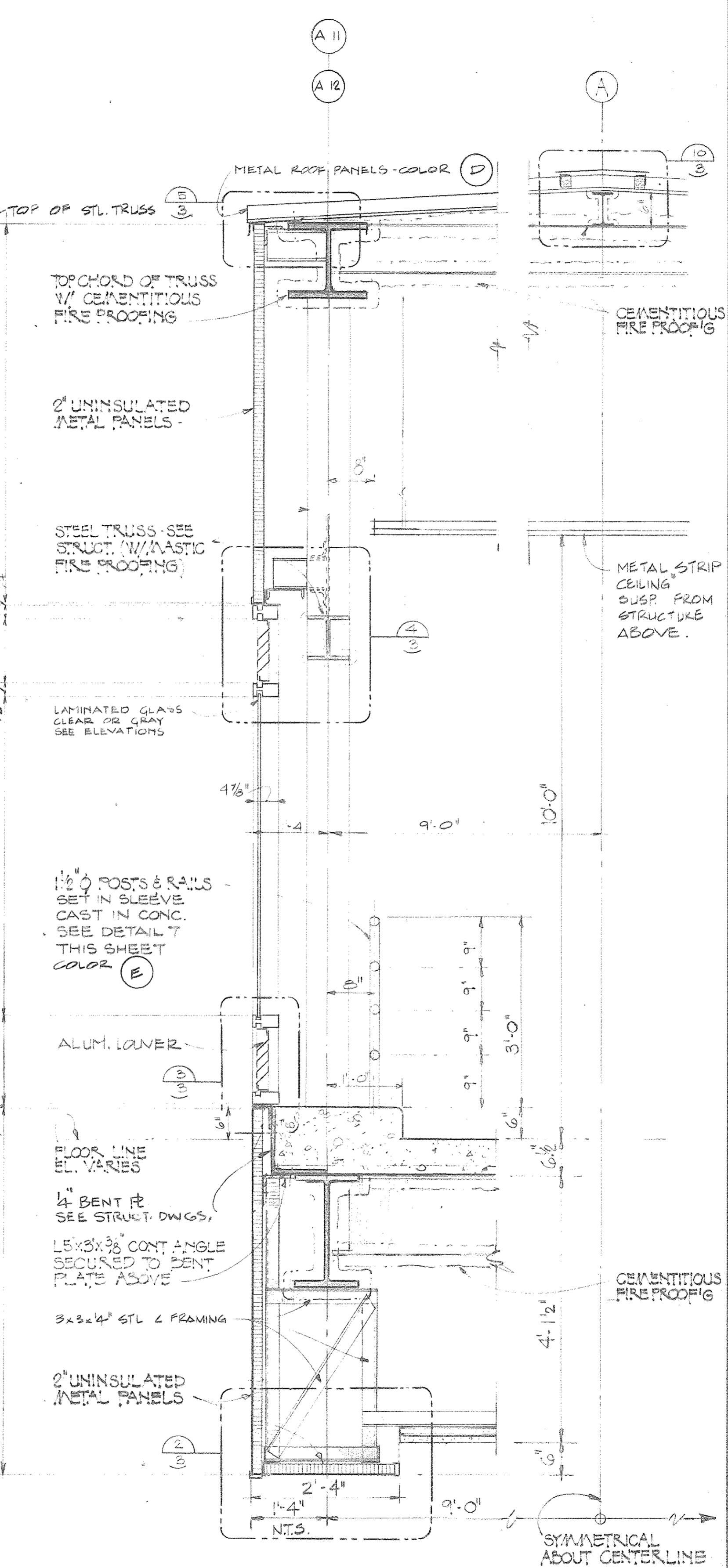
3 SECTION  
3 3" = 1'-0"



6 PARTIAL ELEVATION - NORTH-SOUTH BRIDGE  
2 1/4" = 1'-0" (EAST ELEV. SHOWN - WEST ELEV. SIM. OPP. HAND)



2 SECTION  
3 3" = 1'-0"



1 SECTION THROUGH NORTH-SOUTH BRIDGE  
2,3 3/8" = 1'-0"

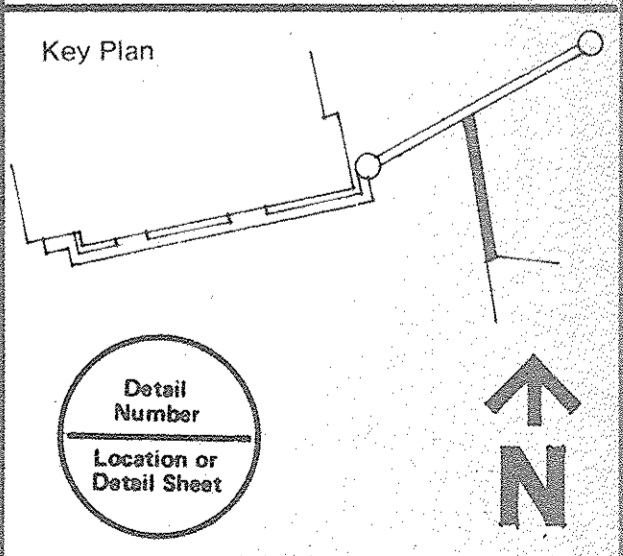
GENERAL NOTE: ALL APPLIED FIREPROOFING, MASTIC AND CEMENTITIOUS, APPLIED TO STRUCTURAL STEEL IS TO BE AS REQUIRED FOR A 2 HOUR FIRE-RESISTIVE RATING.

Joe Louis Sports Arena  
Pedestrian Walkway  
For City Engineering Division

SH&G  
Smith, Hinchman & Grylls Associates, Inc.  
Architects Engineers Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

OWNER	5-30-80
Issued For	Date
1-12-80	D.S. 3
Date	Drawn By
Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administration Div. Approval	
Division Approval	

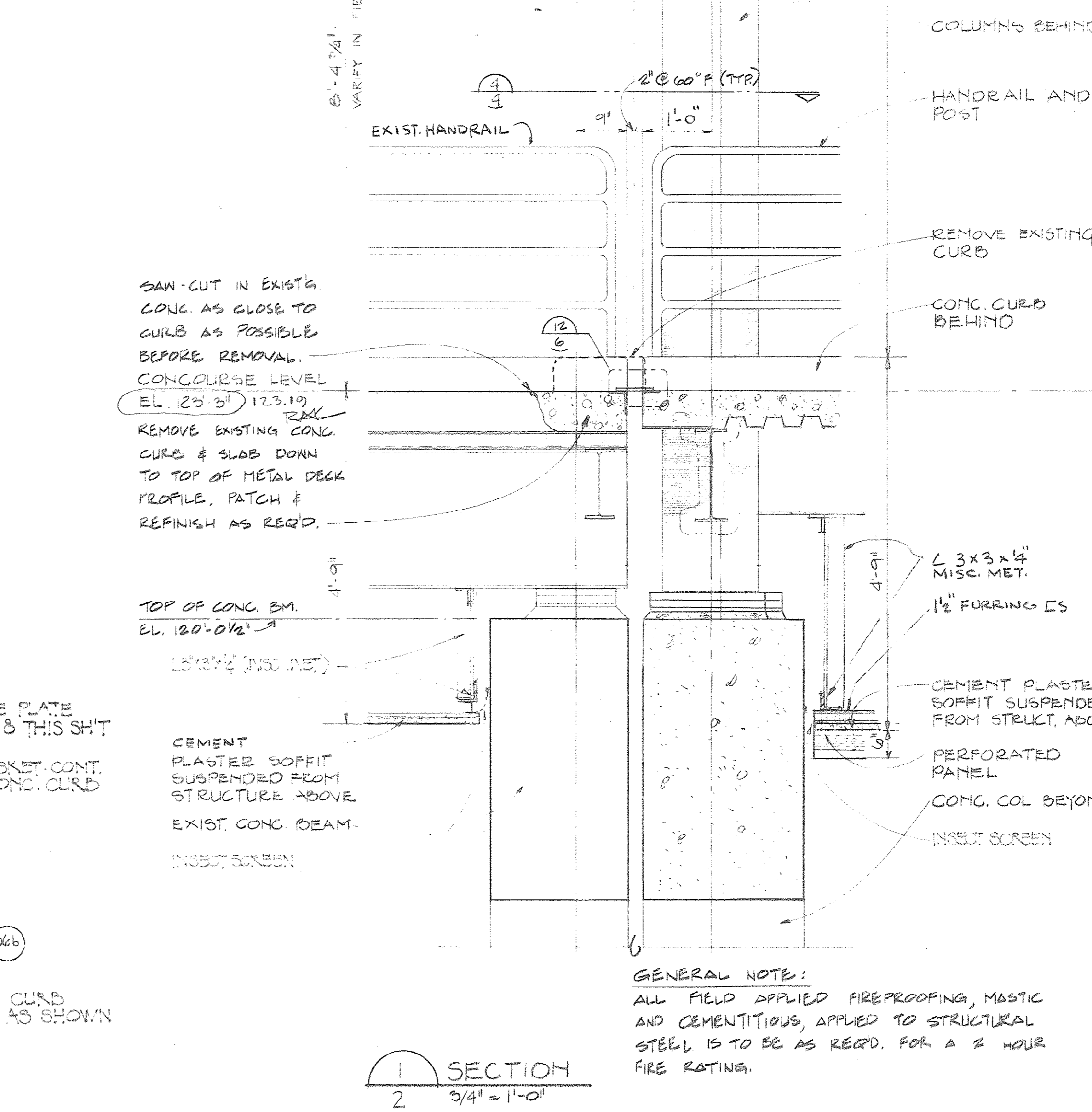
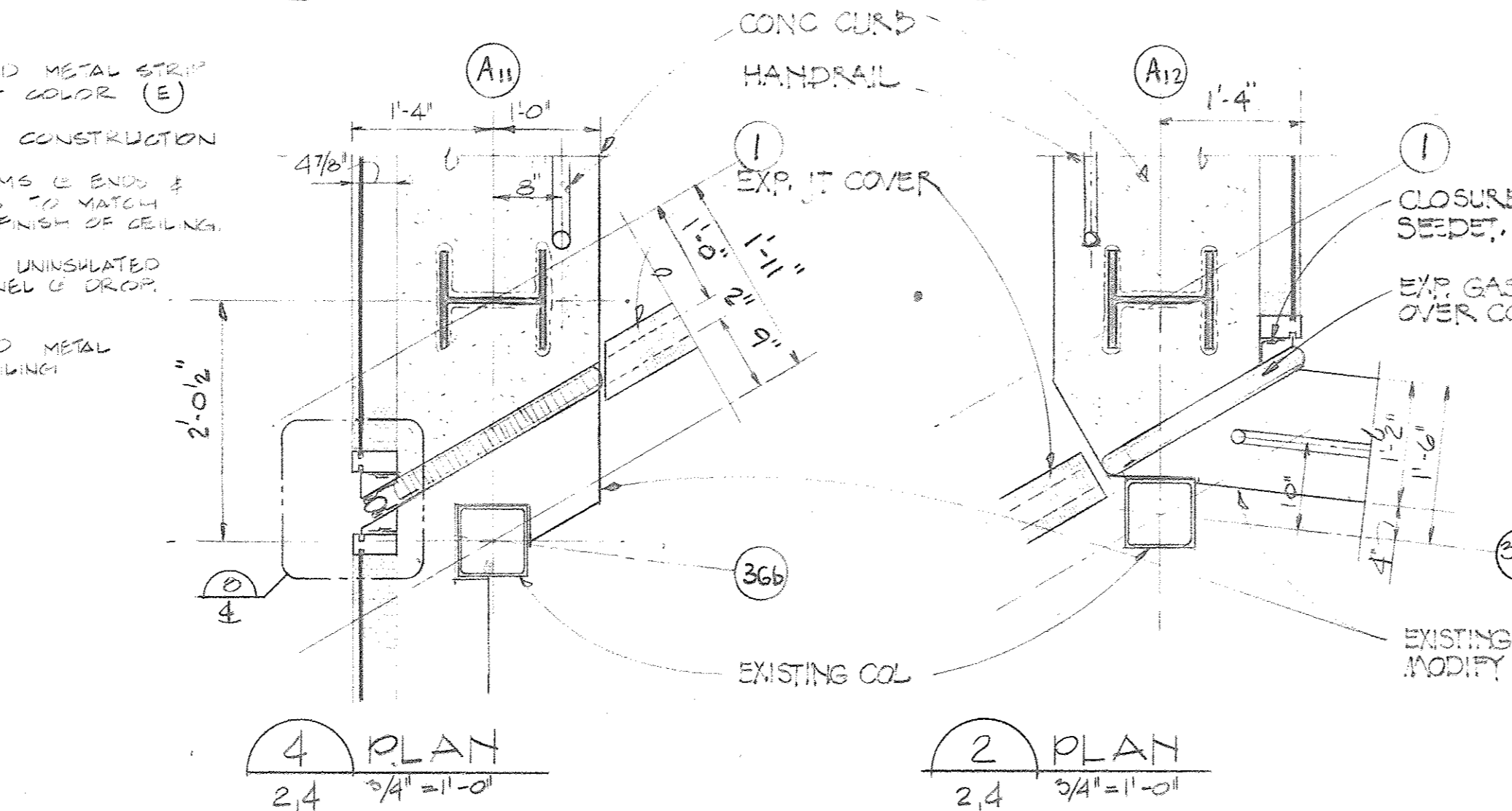
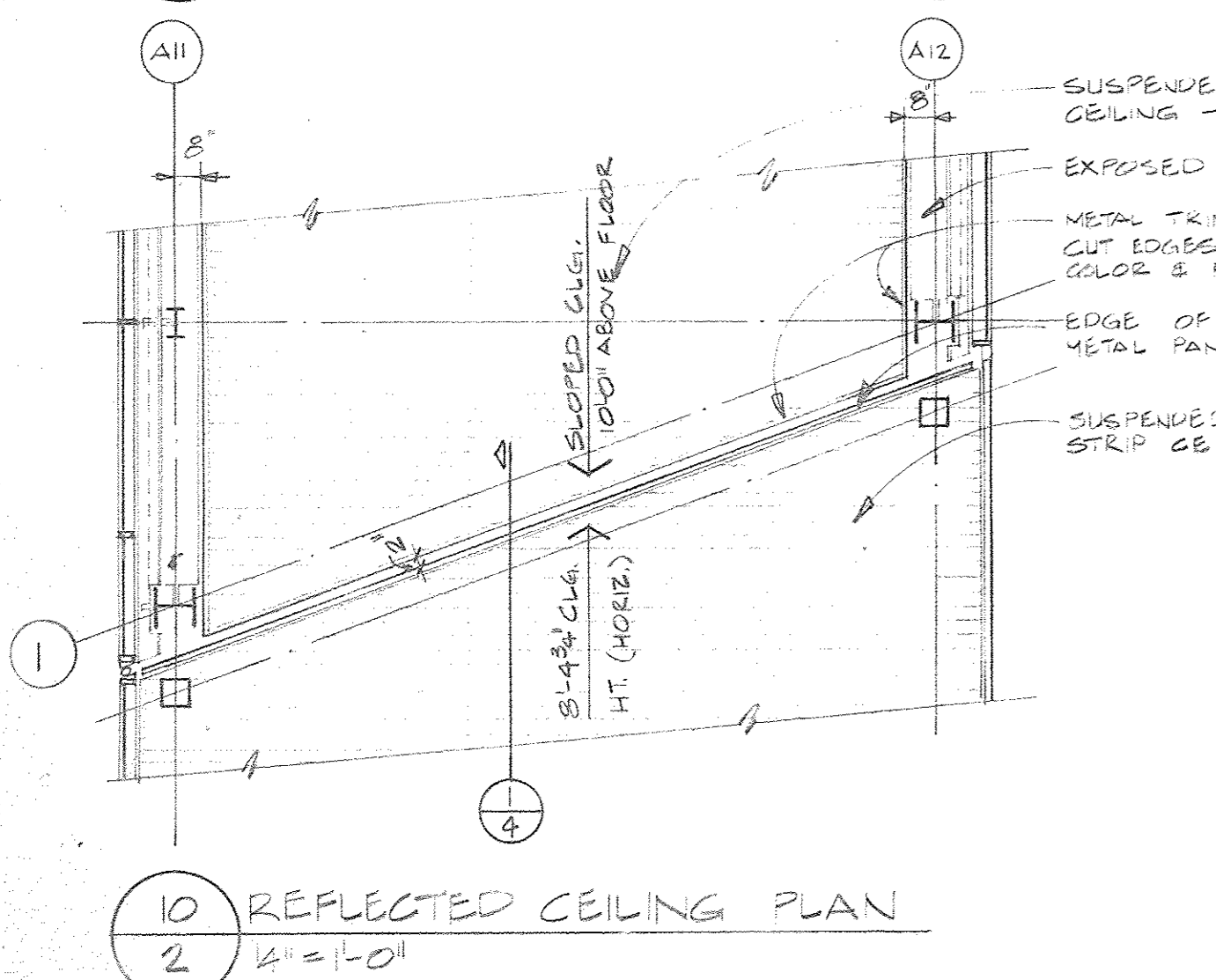
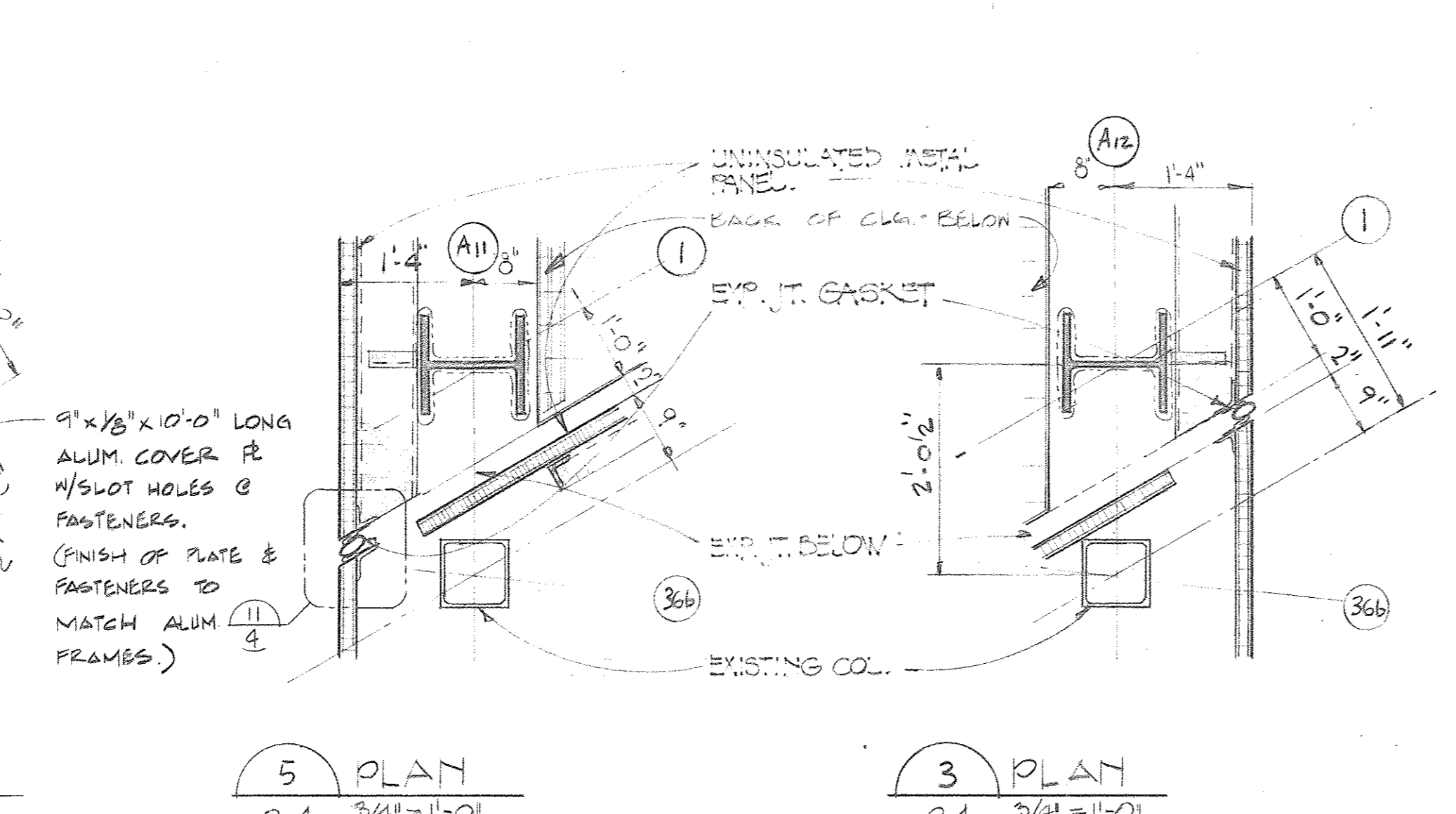
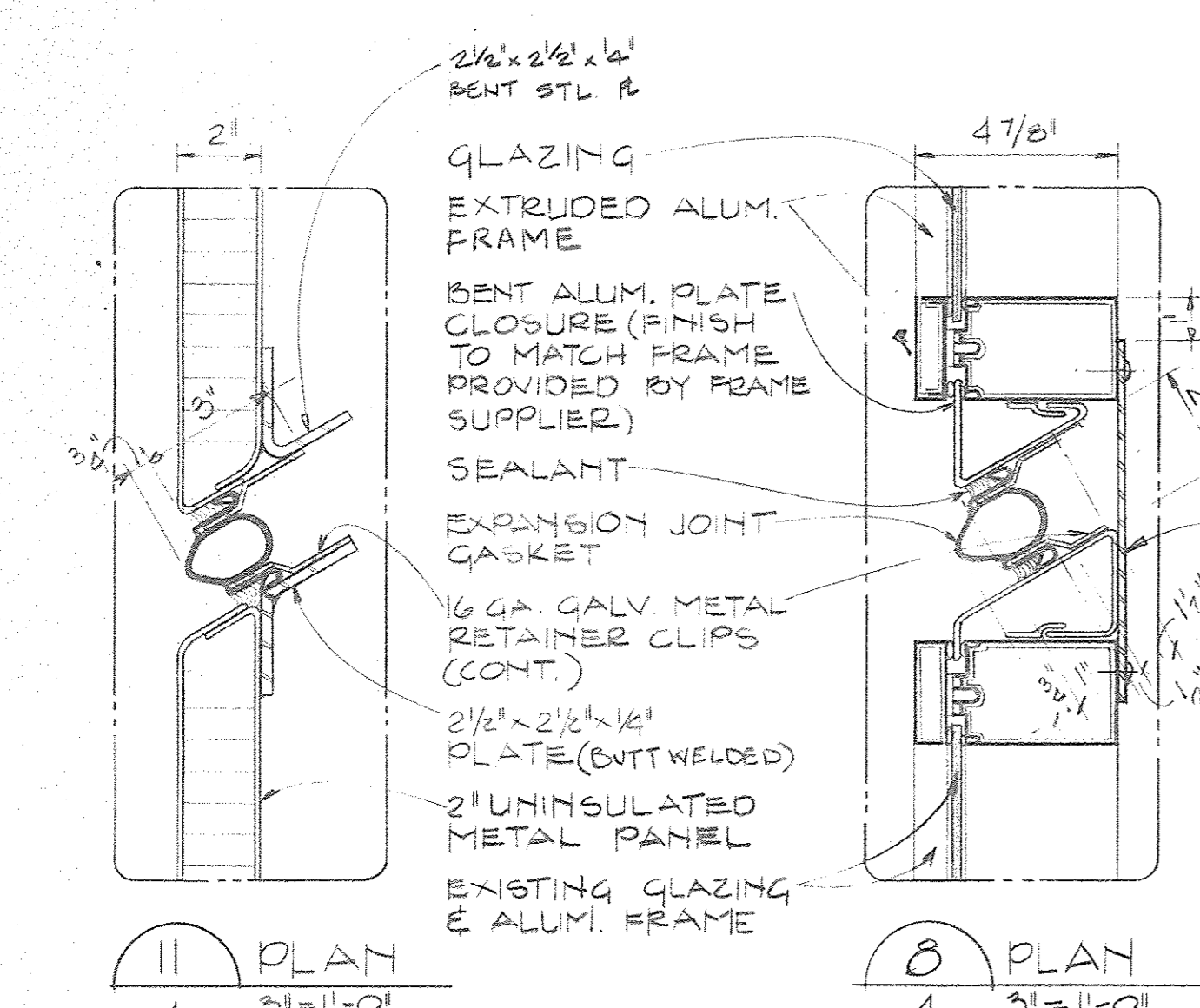
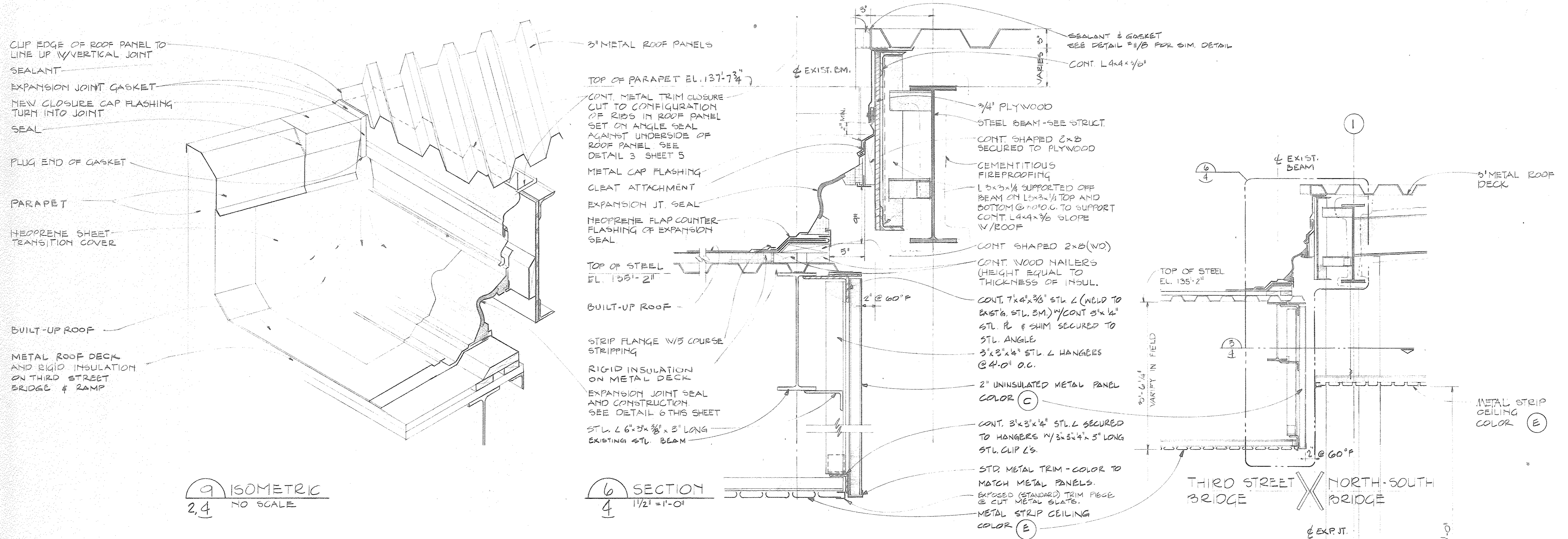
Key Plan



Drawing Title  
DETAILS  
NORTH-SOUTH BRIDGE

15031A  
Project No.  
A-3  
Drawing No.  
AS NOTED  
Scale  
4 of 26





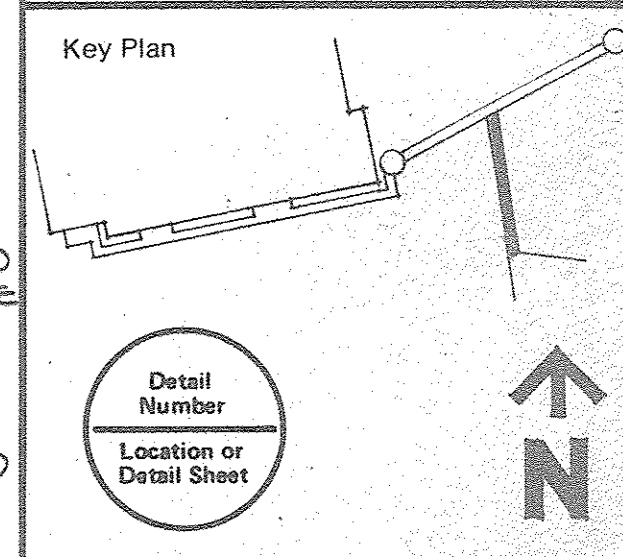
Joe Louis Sports Arena  
Pedestrian Walkway  
For City Engineering Division

**SH&G**  
Smith, Hinchman & Grylls Associates, Inc.  
Architects Engineers Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

OWNER	5-20-80
Issued For	Date
118-80	T.D. D.S.
Date	Drawn By
Div. Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	

Key Plan

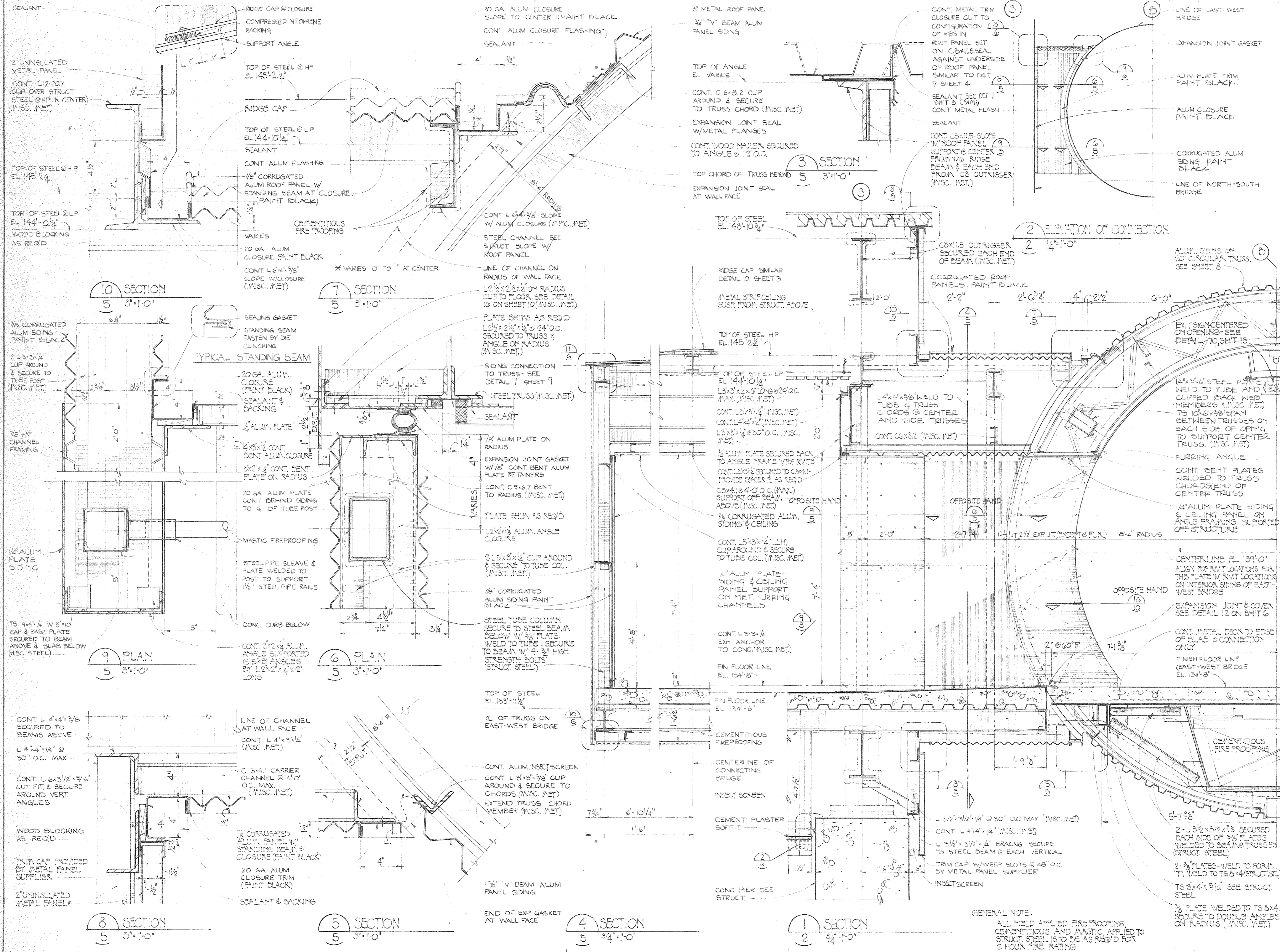
Detail Number  
Location or Detail Sheet



Drawing Title  
**DETAILS NORTH-SOUTH BRIDGE**

15031A  
Project No.  
A-4  
Drawing No.  
AS NOTED  
Scale  
5 of 96





**Joe Louis Sports Arena**  
**Pedestrian Walkway**  
 For City Engineering Division

**SH&G**  
 Smith, Hinchman & Grylls  
 Associates, Inc.  
 Architects Engineers  
 Planners

455 West Fort Street  
 Detroit, Michigan 48226  
 (313)964-3000  
**SH&G Job. No. 11732C**

OWNER	5-30-80
Issued For	Date
1-18-80	E
Date	Drawn By
<i>J. Smith</i>	
Div. Architect/Engineer	
<i>D. Williams</i>	
Correlation Check	
<i>Smith</i>	
Project Manager	
<i>Smith</i>	
Construction Administrative Div. Approval	
<i>Smith</i>	
Division Approval	

Key Plan

Detail Number  
 Location of Detail Sheet

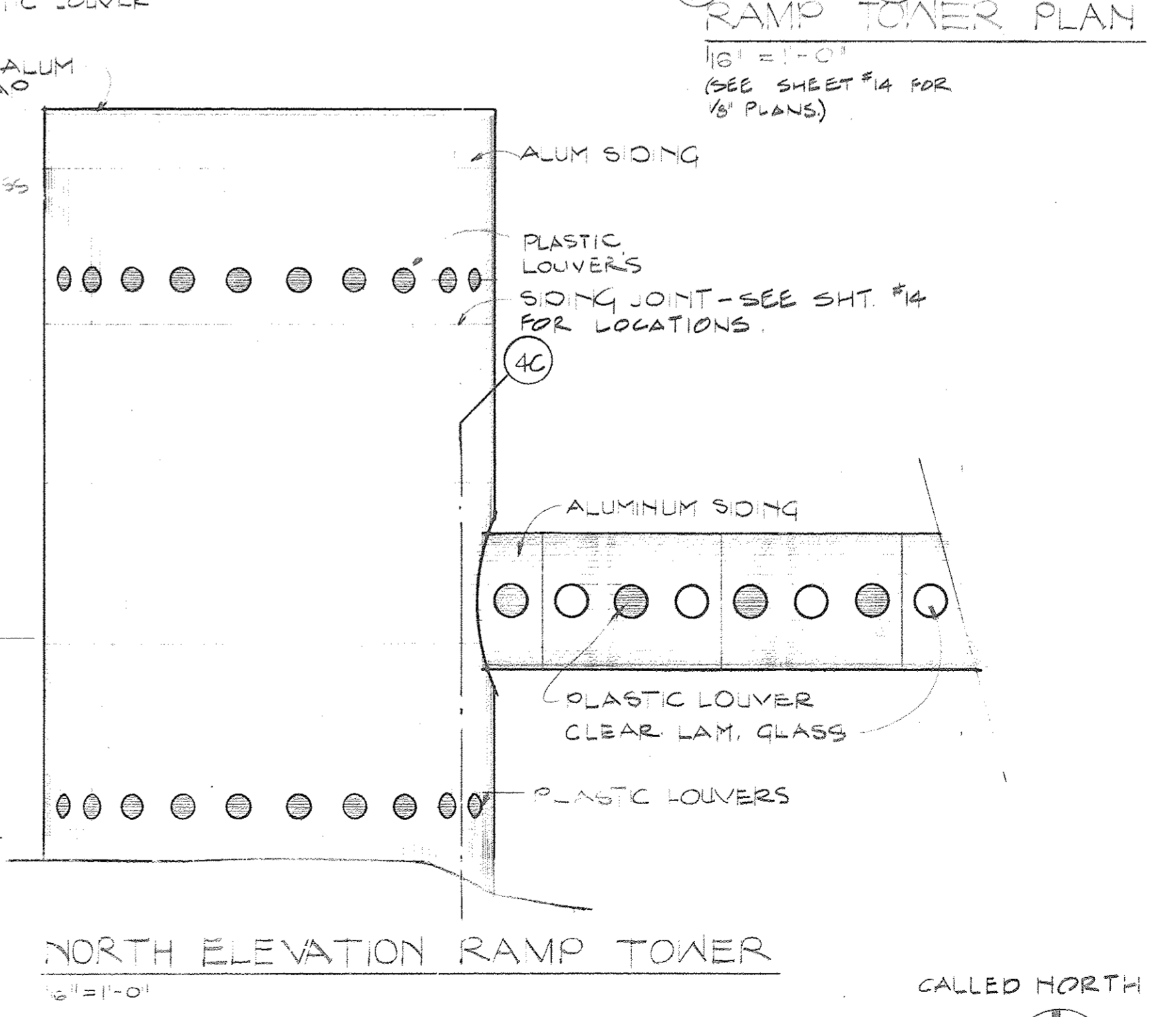
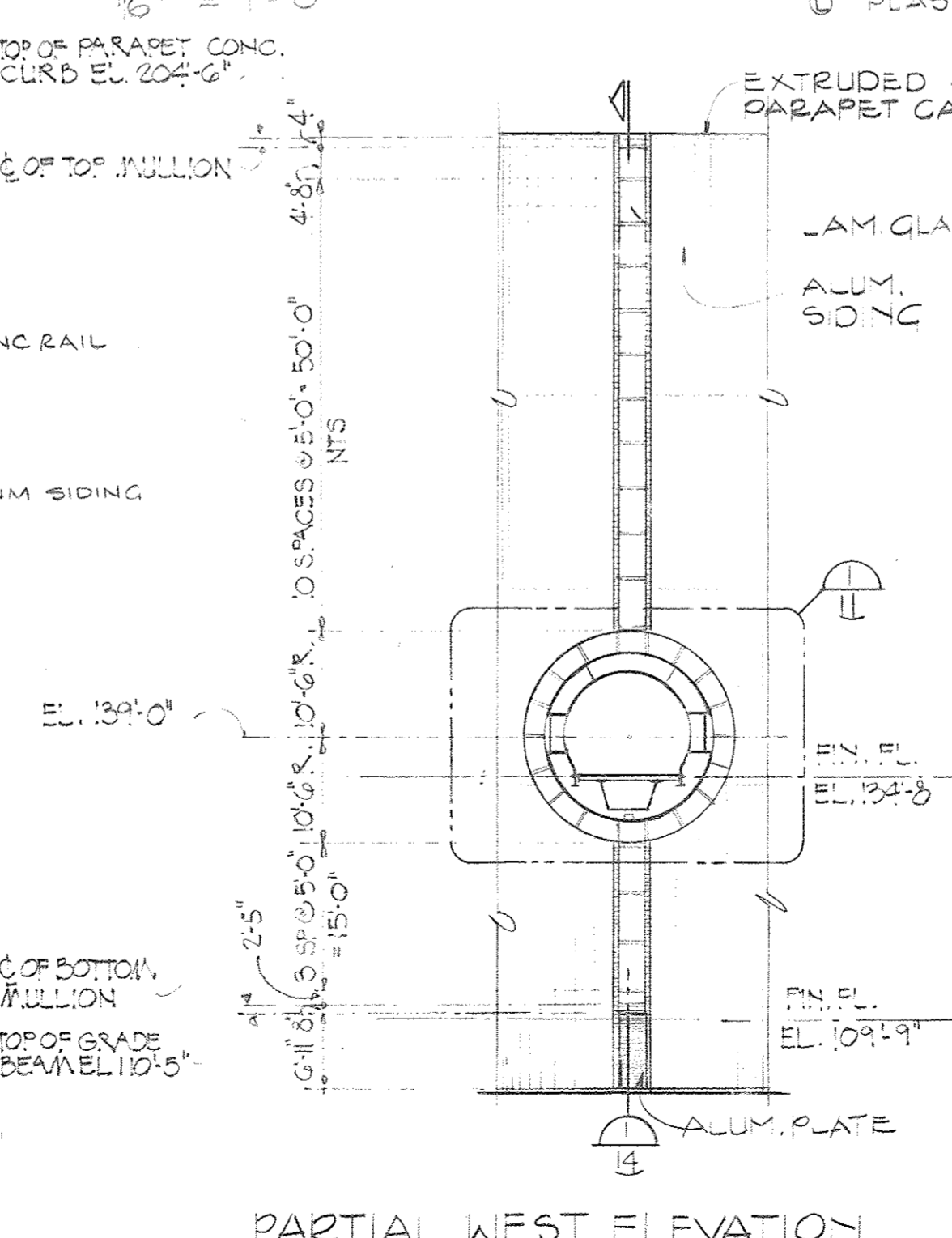
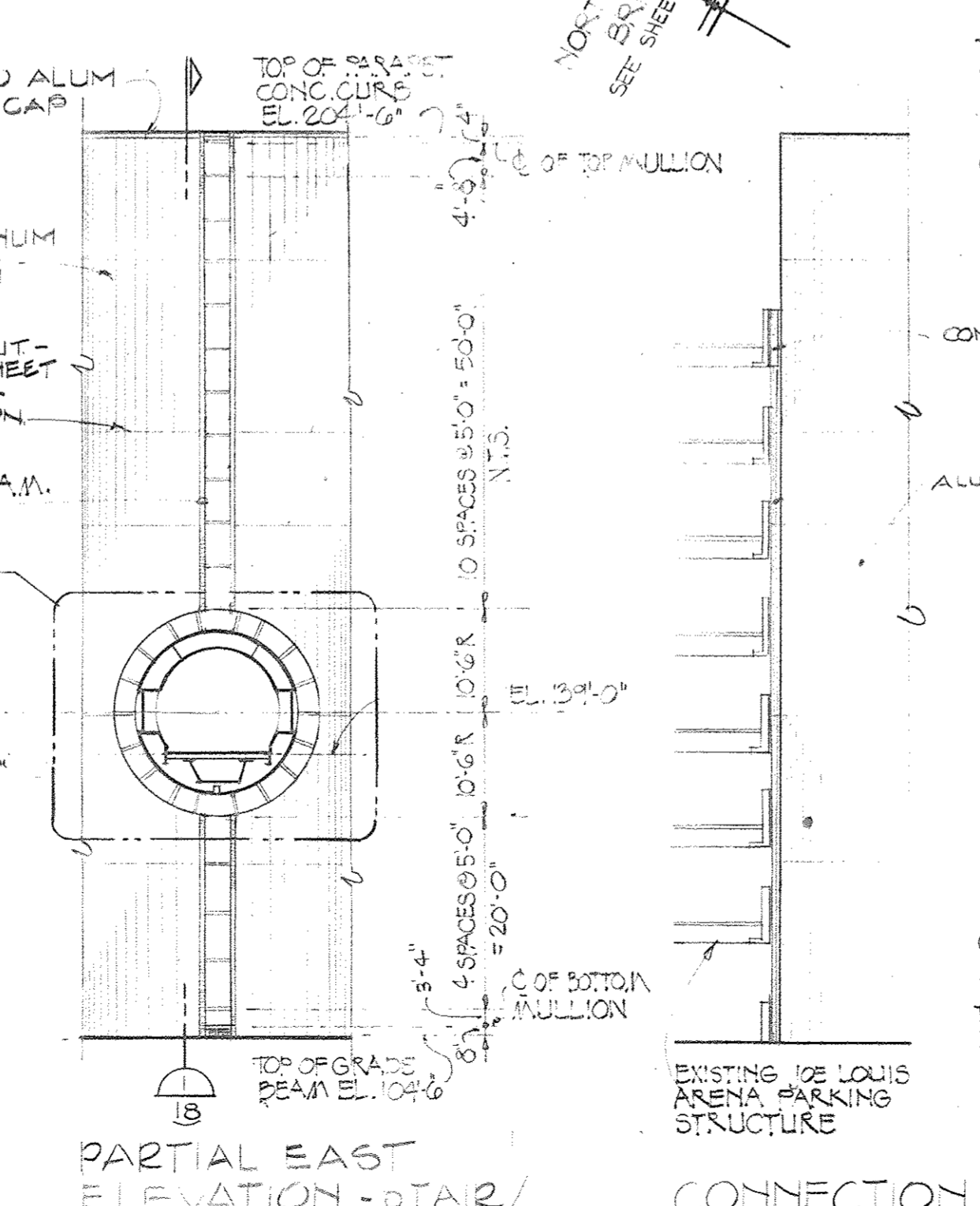
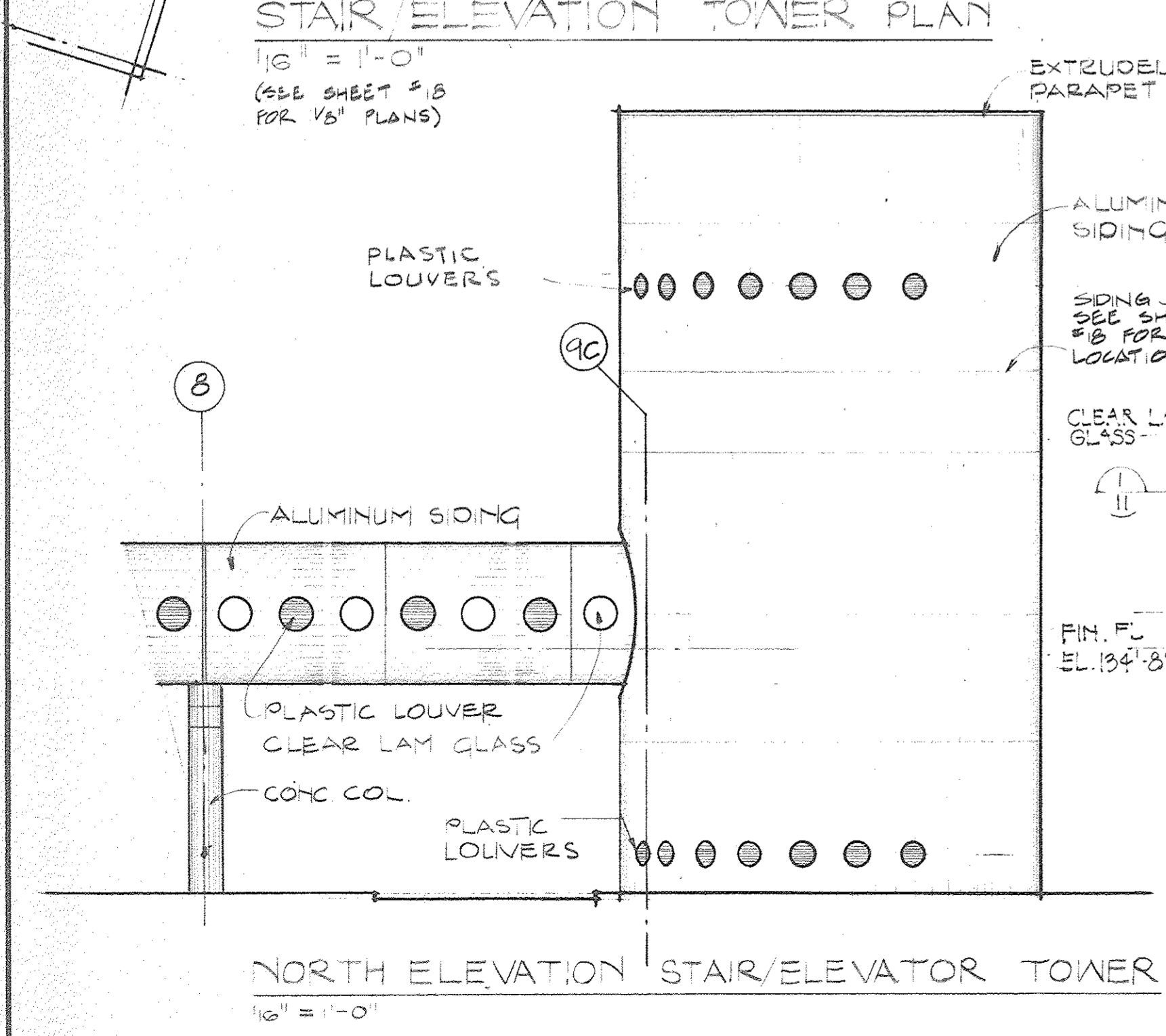
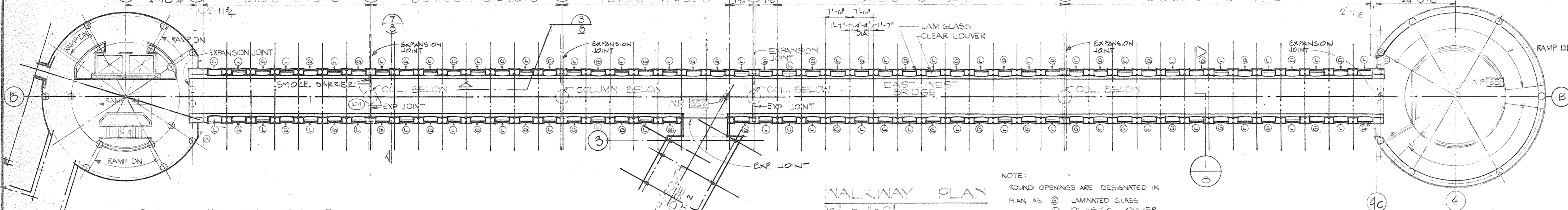
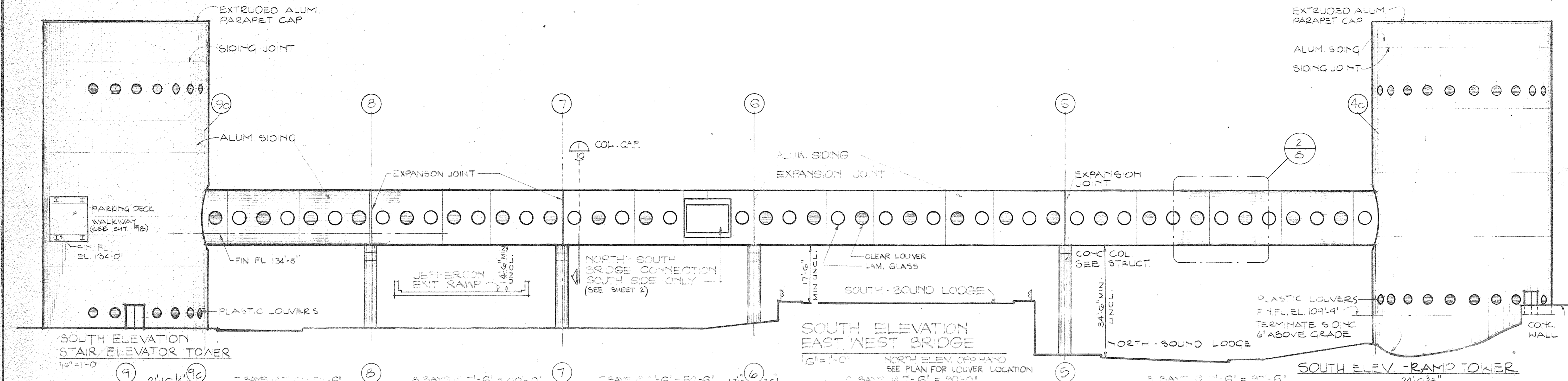
Drawing Title  
**DETAILS**  
**CONNECTION**  
**NORTH-SOUTH BRIDGE**  
**TO EAST-WEST BRIDGE**  
**15031A**  
 Project No.  
**A-5**  
 Drawing No.  
**AS NOTED**  
 Scale  
 6/20/80

GENERAL NOTE:  
 ALL FIELD APPLIED FIRE PROOFING,  
 CEMENTITIOUS AND MASTIC, APPLIED TO  
 STRUCT. STEEL IS TO BE AS REQ'D FOR  
 2 HOUR FIRE RATING



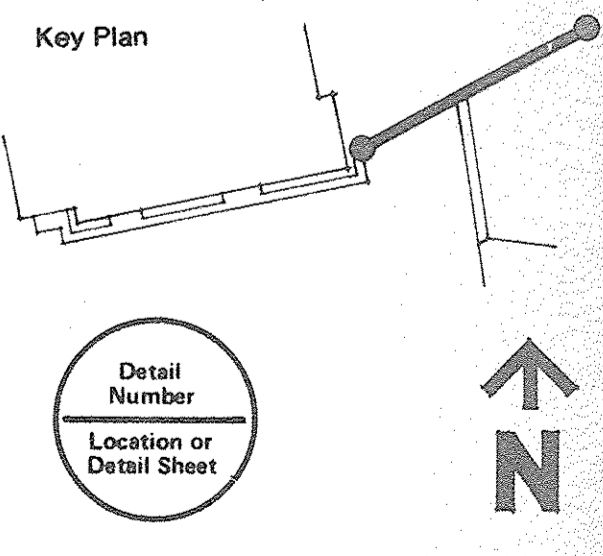






OWNER	DATE
ISSUED FOR	DATE
1-18-80	CM
DATE	DRAWN BY
	Div. Architect/Engineer
	Correlation Check
	Project Manager
	Construction Administrative Div. Approval
	Division Approval

1-18-80 CM  
Date Drawn By  
Div. Architect/Engineer  
Correlation Check  
Project Manager  
Construction Administrative Div. Approval  
Division Approval



Drawing Title  
**PLAN AND ELEVATIONS  
EAST-WEST BRIDGE  
ELEVATIONS  
STAIR ELEVATOR TOWER  
AND RAMP TOWER  
15031A**  
Project No.  
**A-7**  
Drawing No.  
1/16\"/>

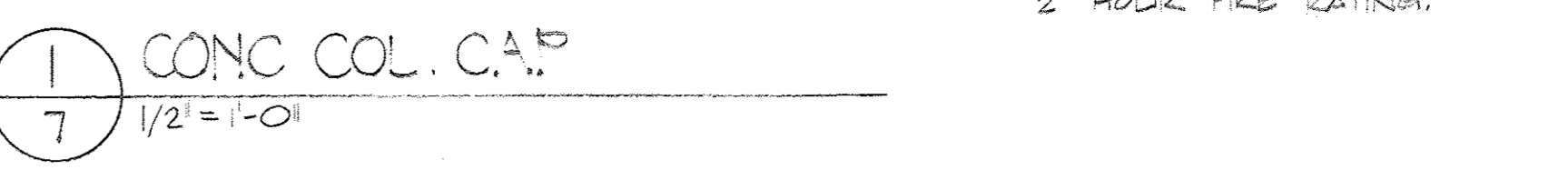
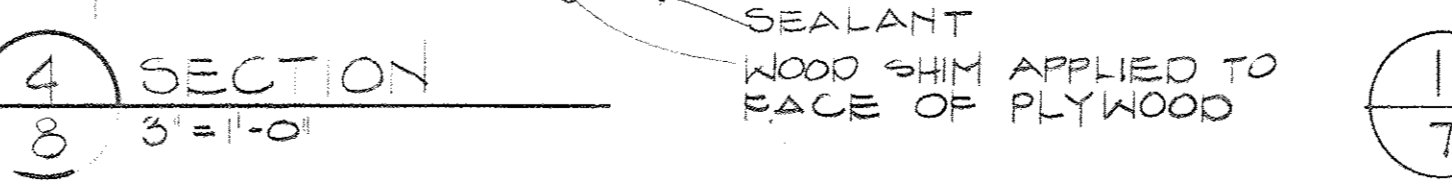
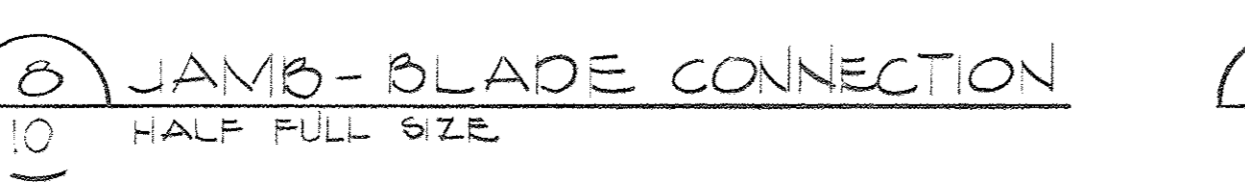
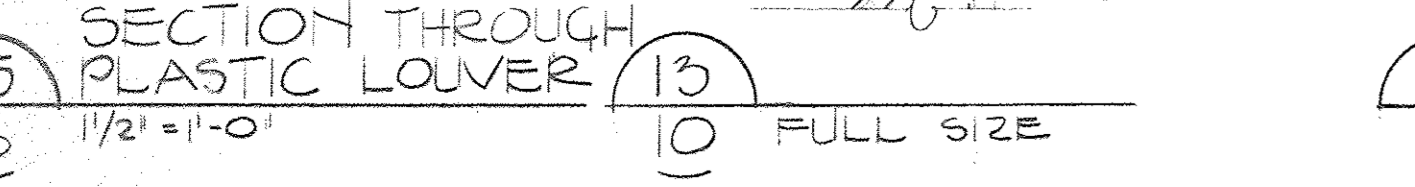
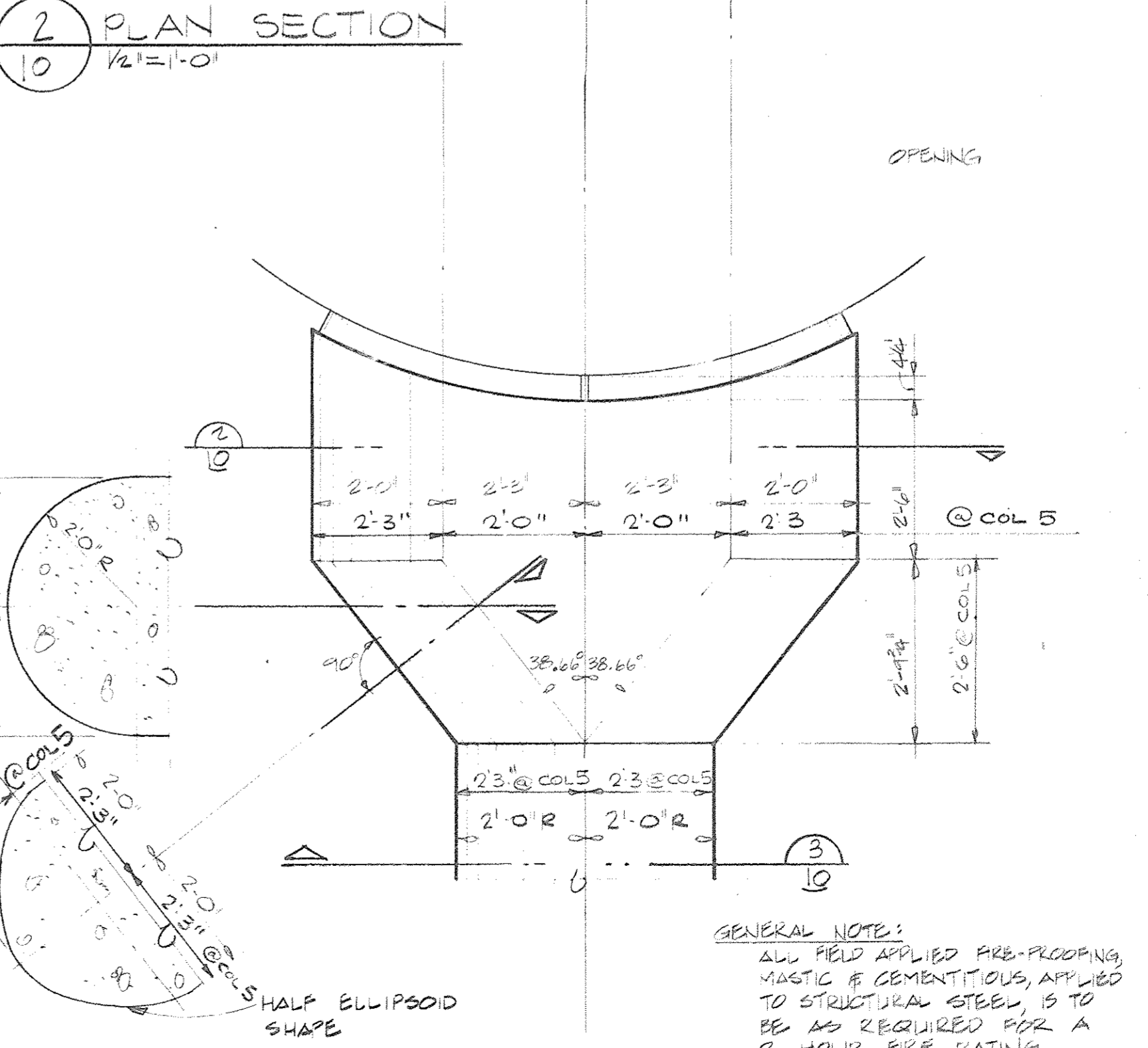
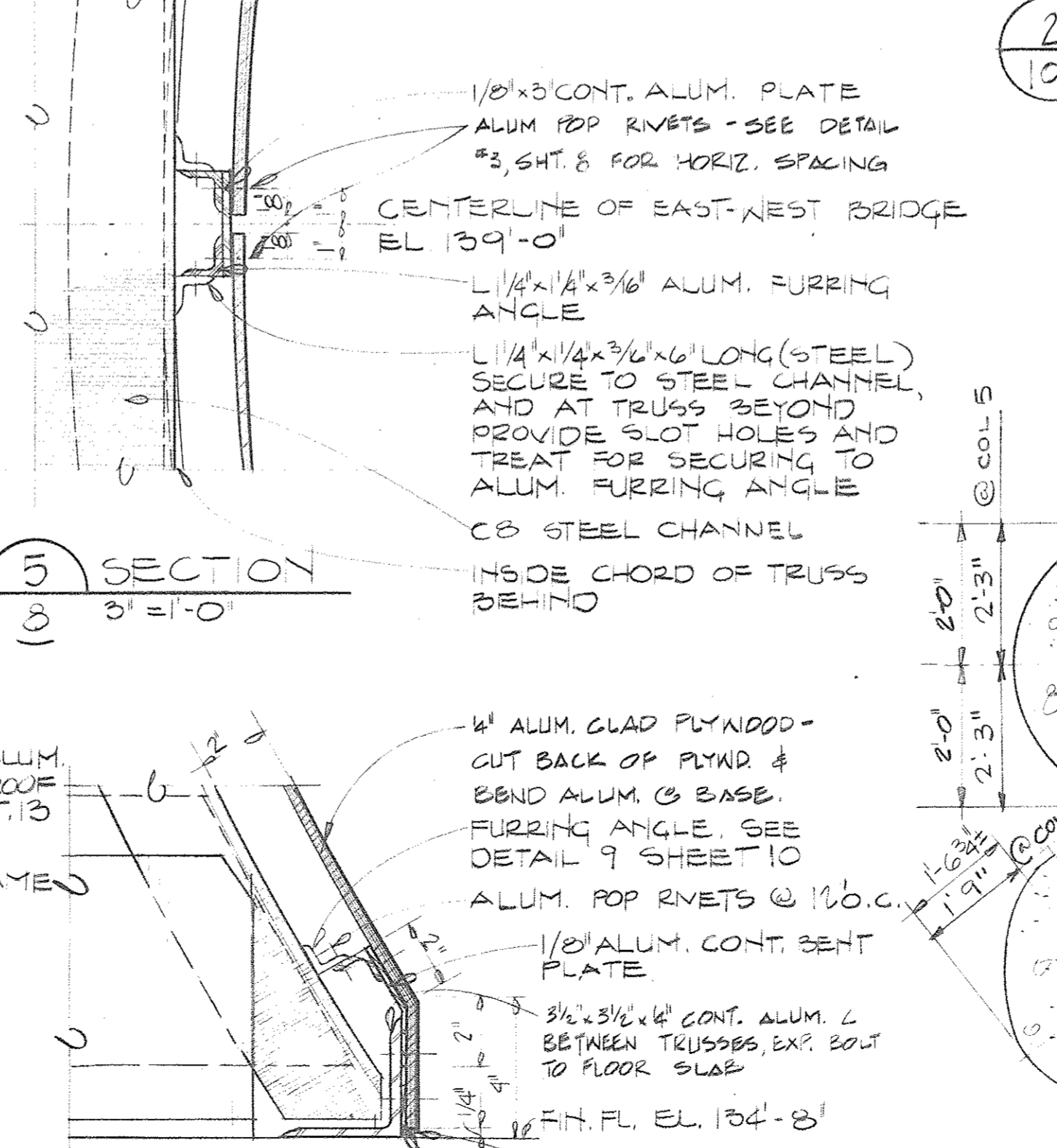
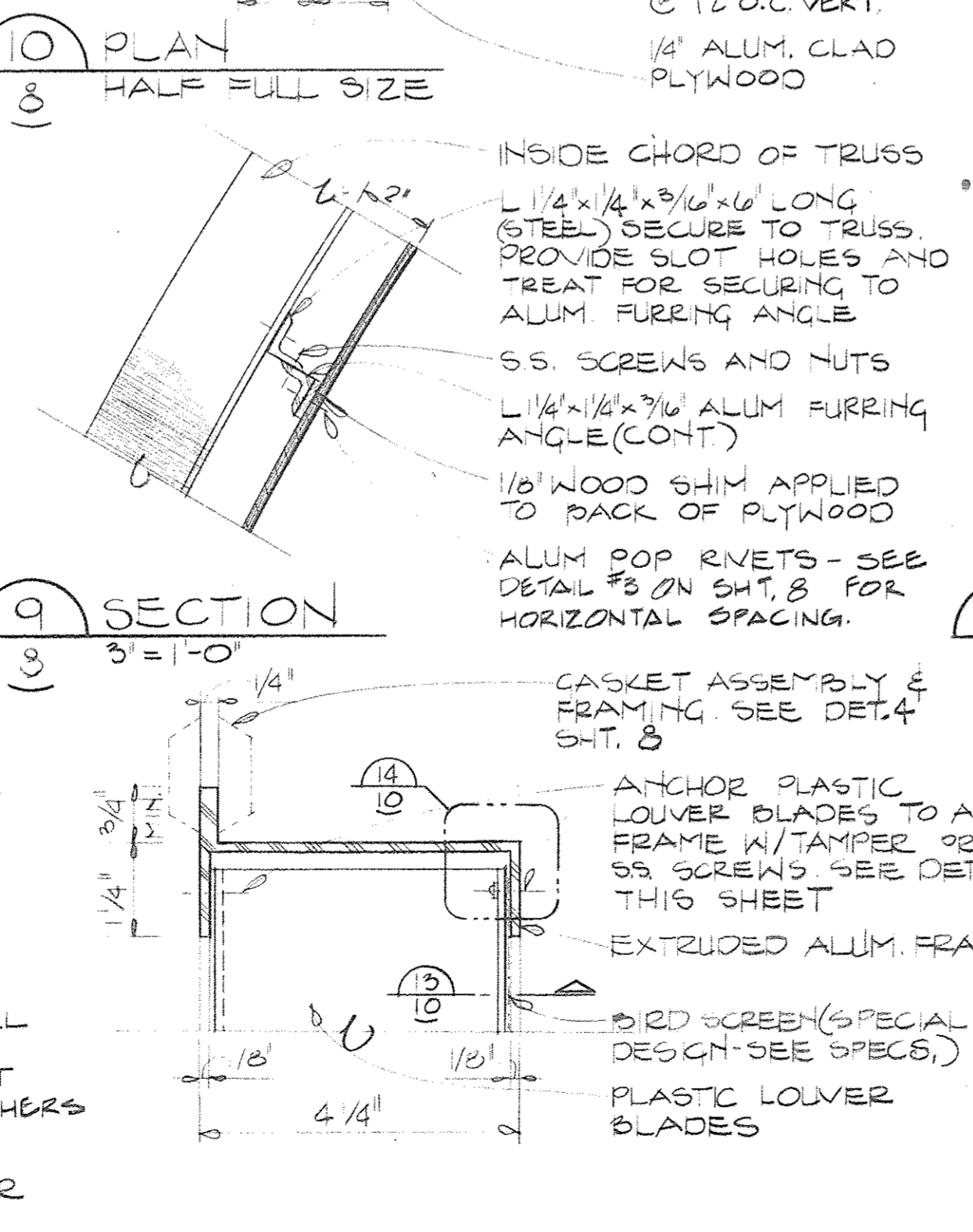
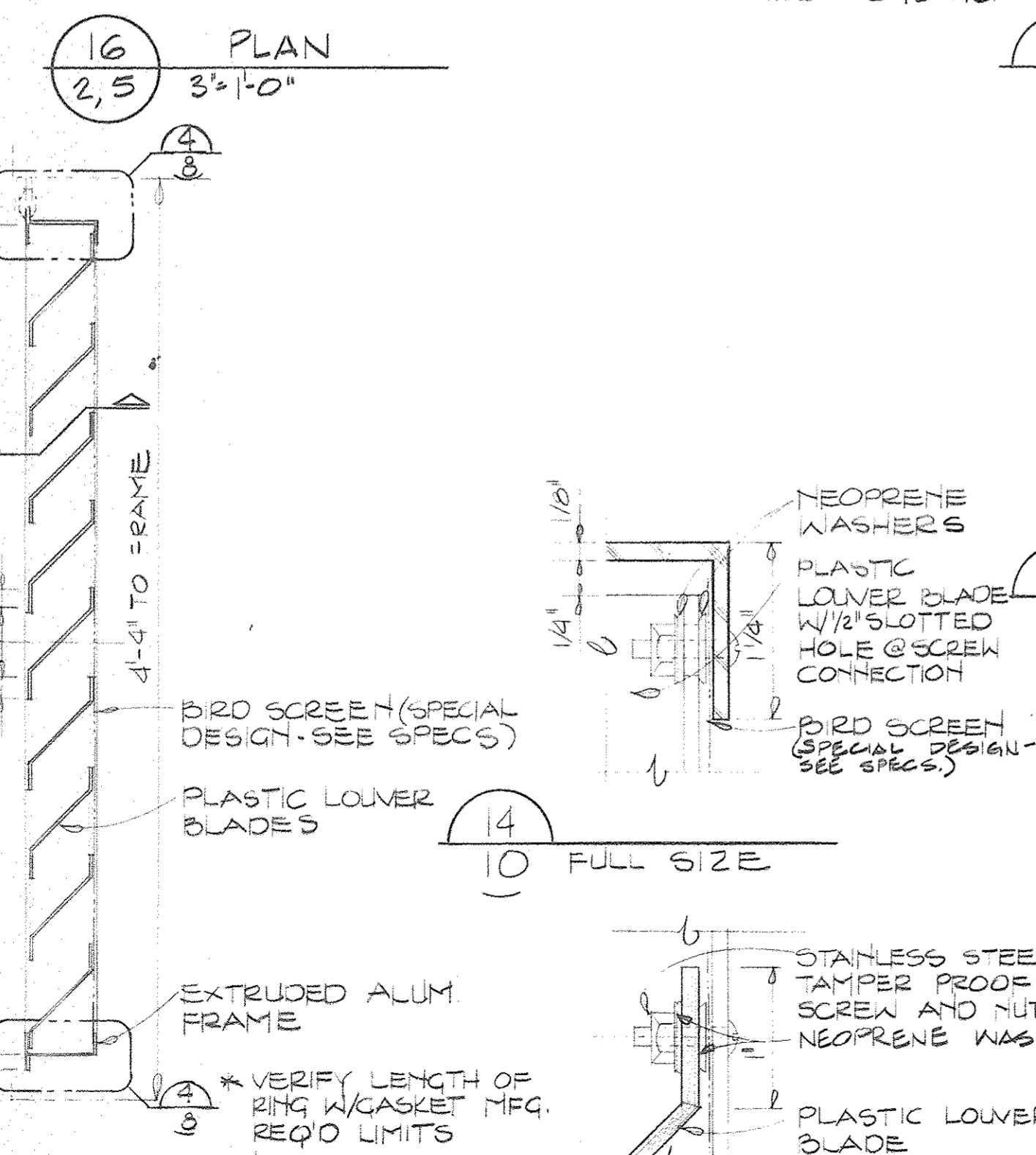
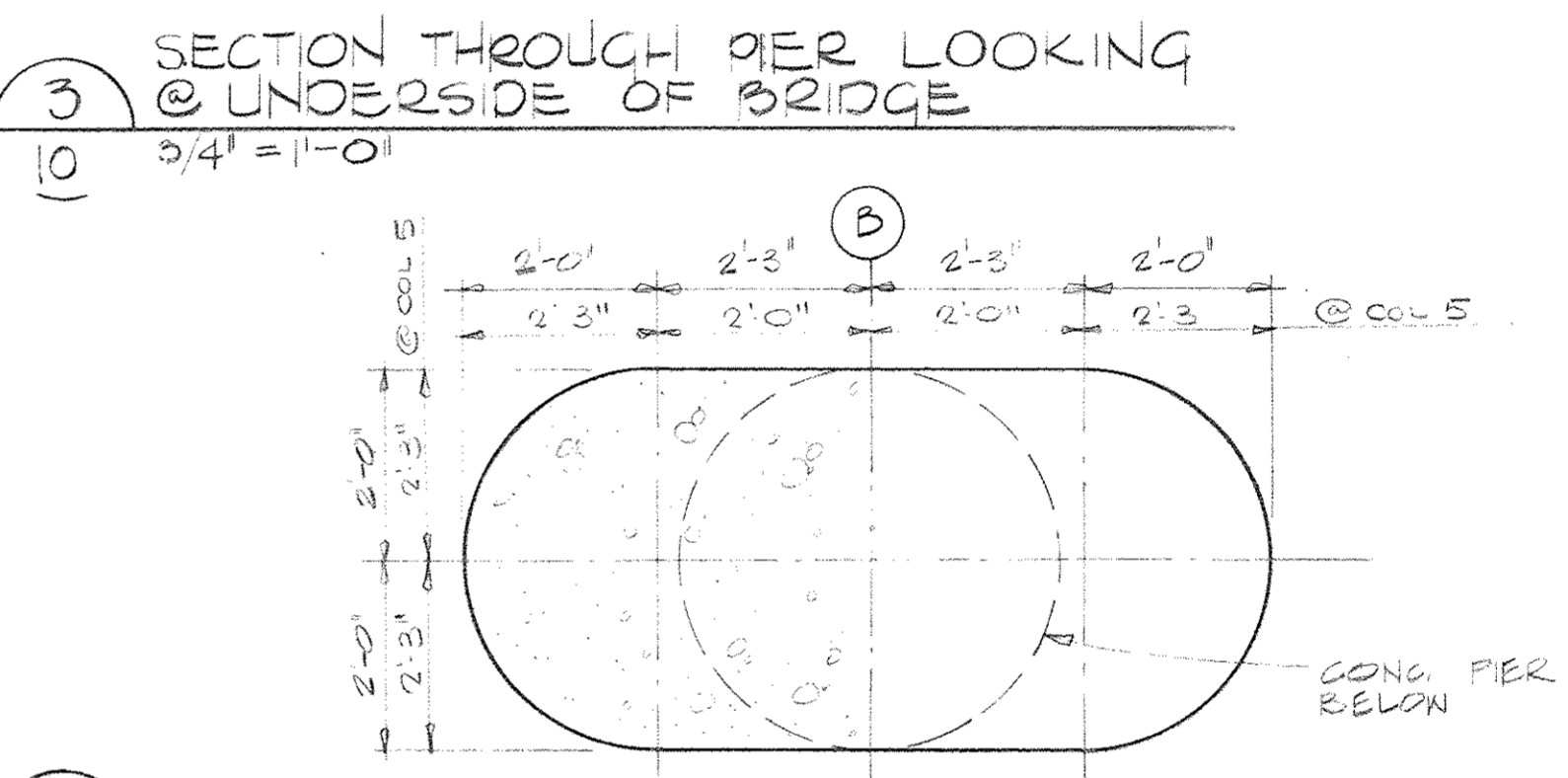
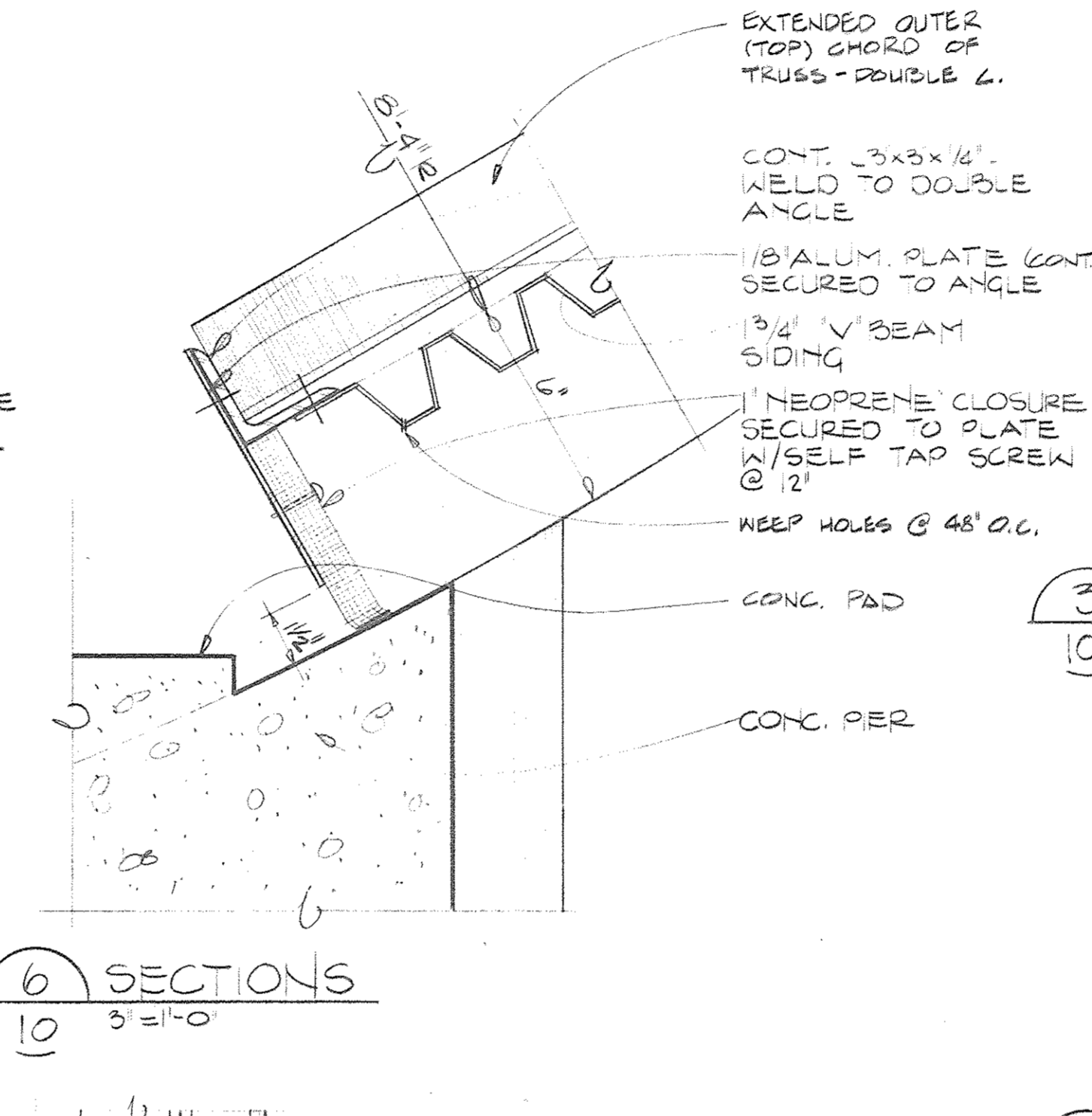
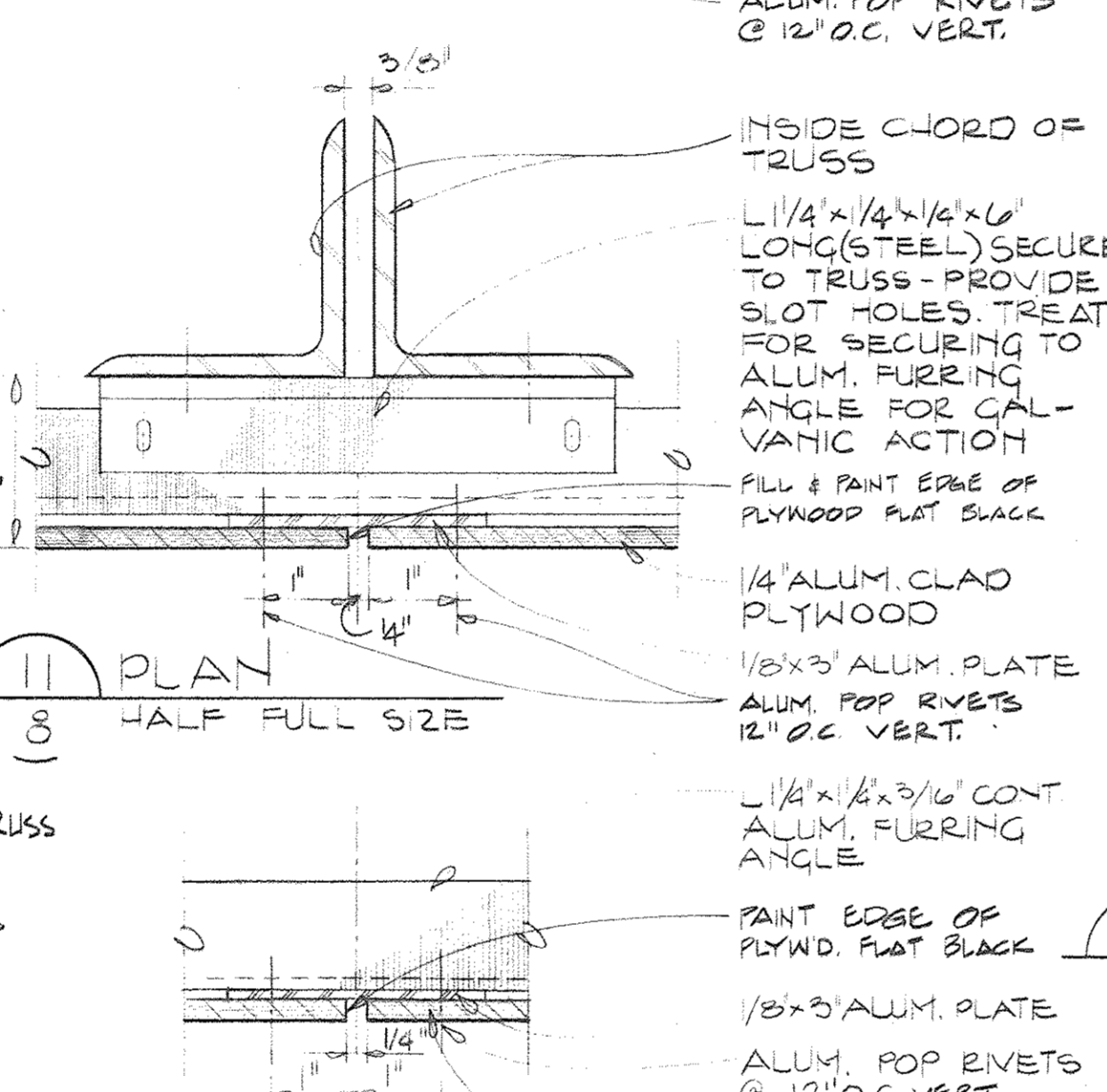
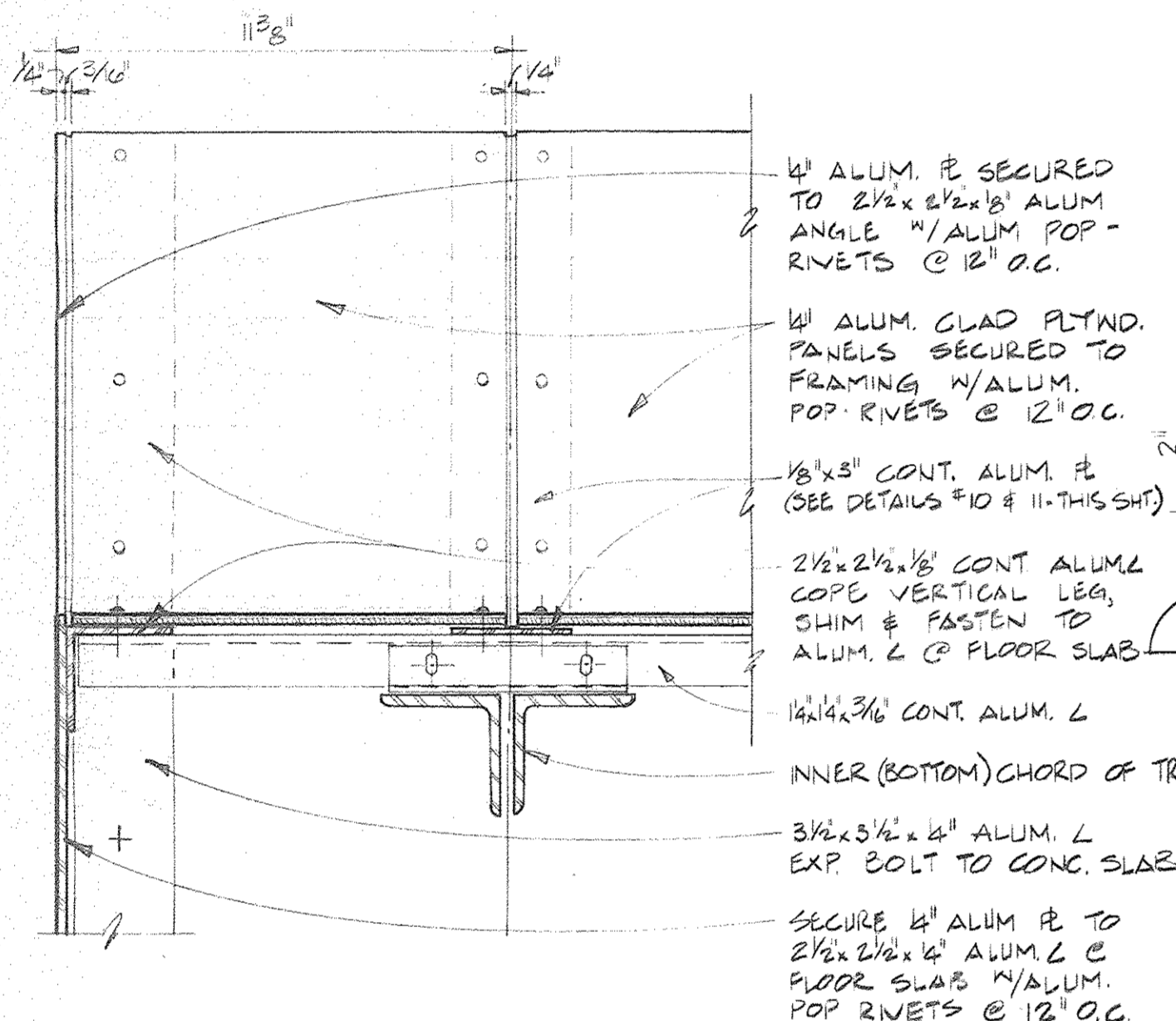
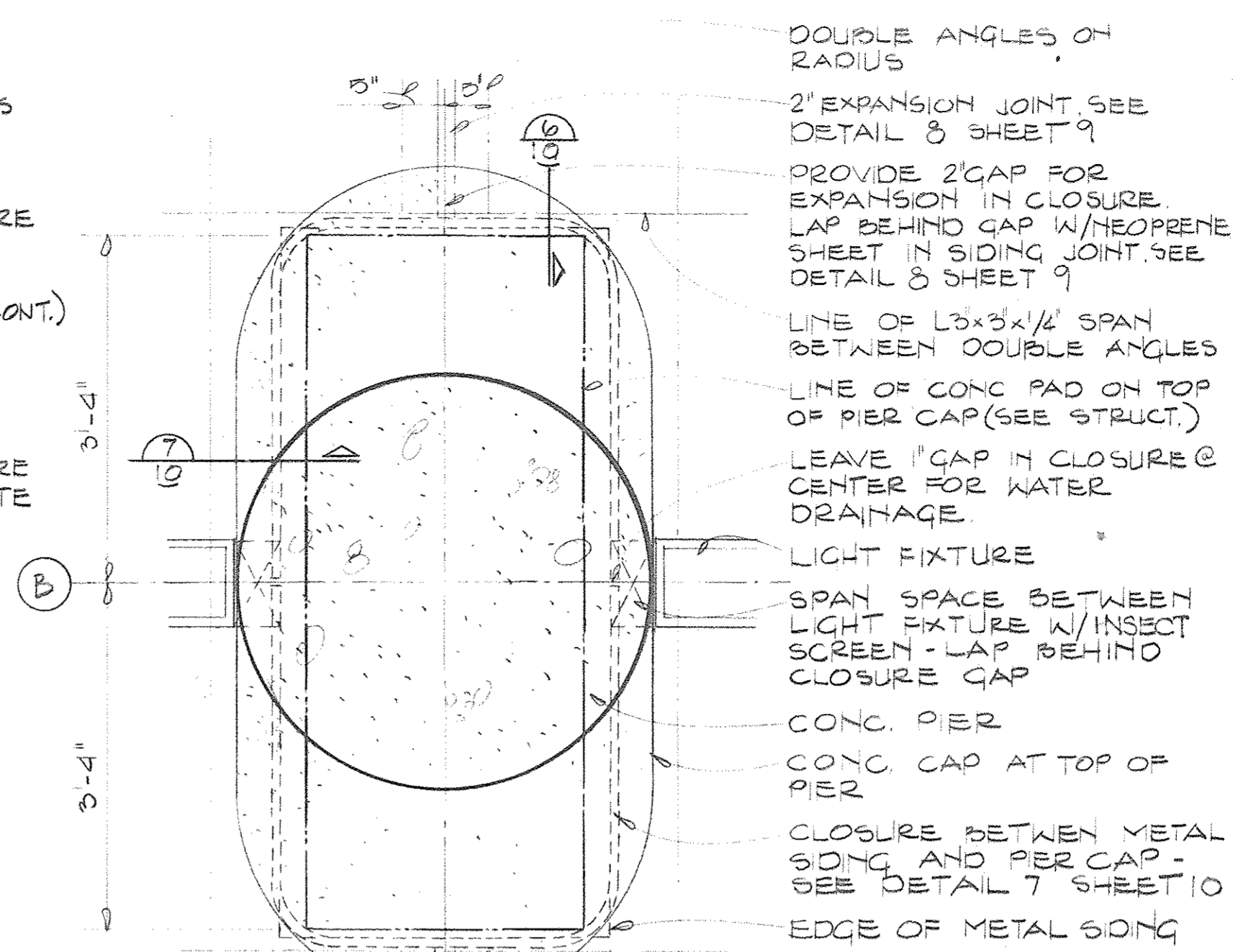
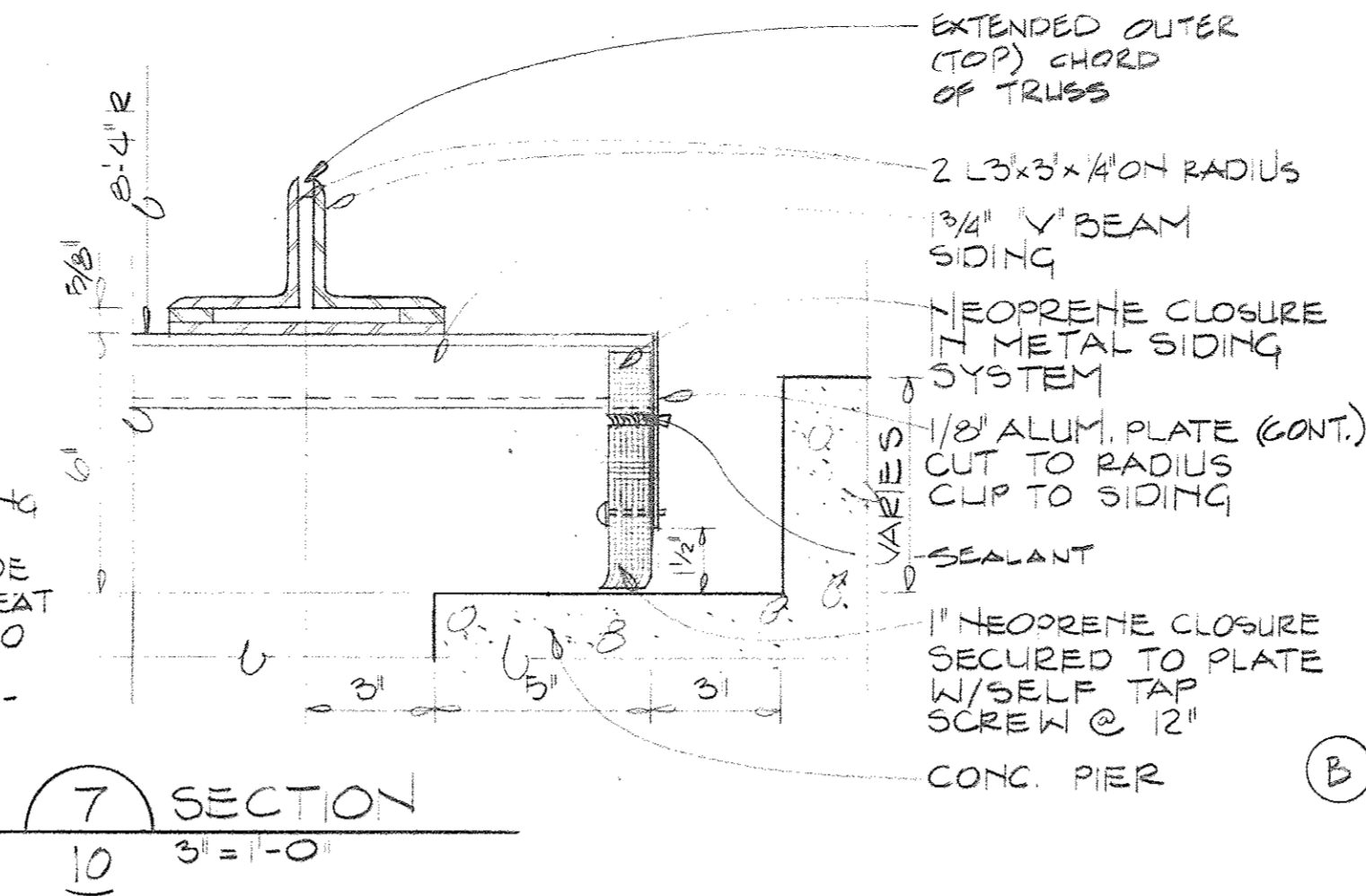
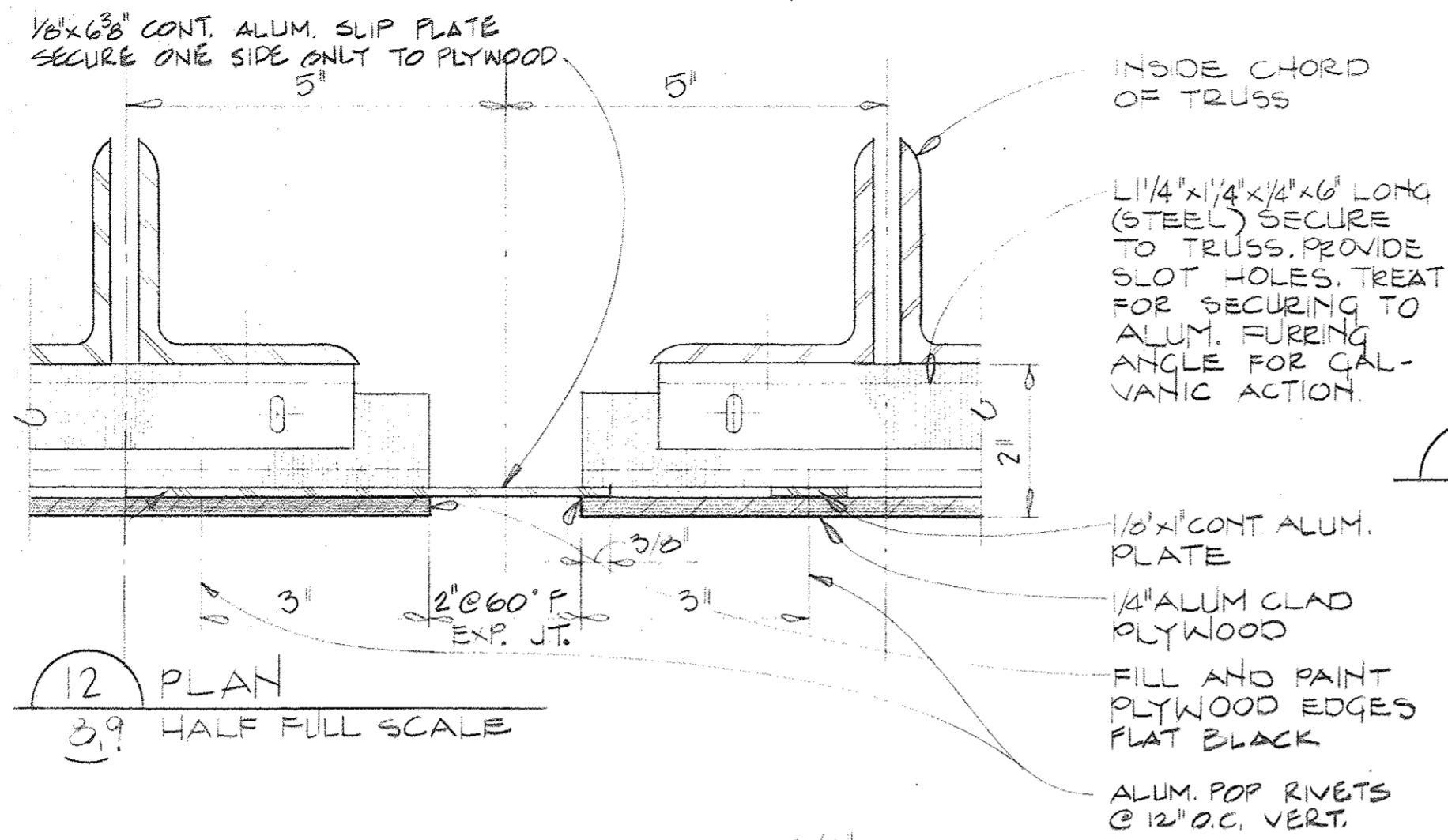












**SH&G**  
Smith, Hinchman & Grylls  
Associates, Inc.  
Architects Engineers  
Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

OWNER	5-30-80
Issued For	Date
1-18-80	11-05
Date	Drawn By
11/17/80	W. Smith
Div. Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	

Key Plan

Detail Number  
Location or Detail Sheet

15031A  
Project No.  
A-10  
Drawing No.  
AS NOTED  
Scale

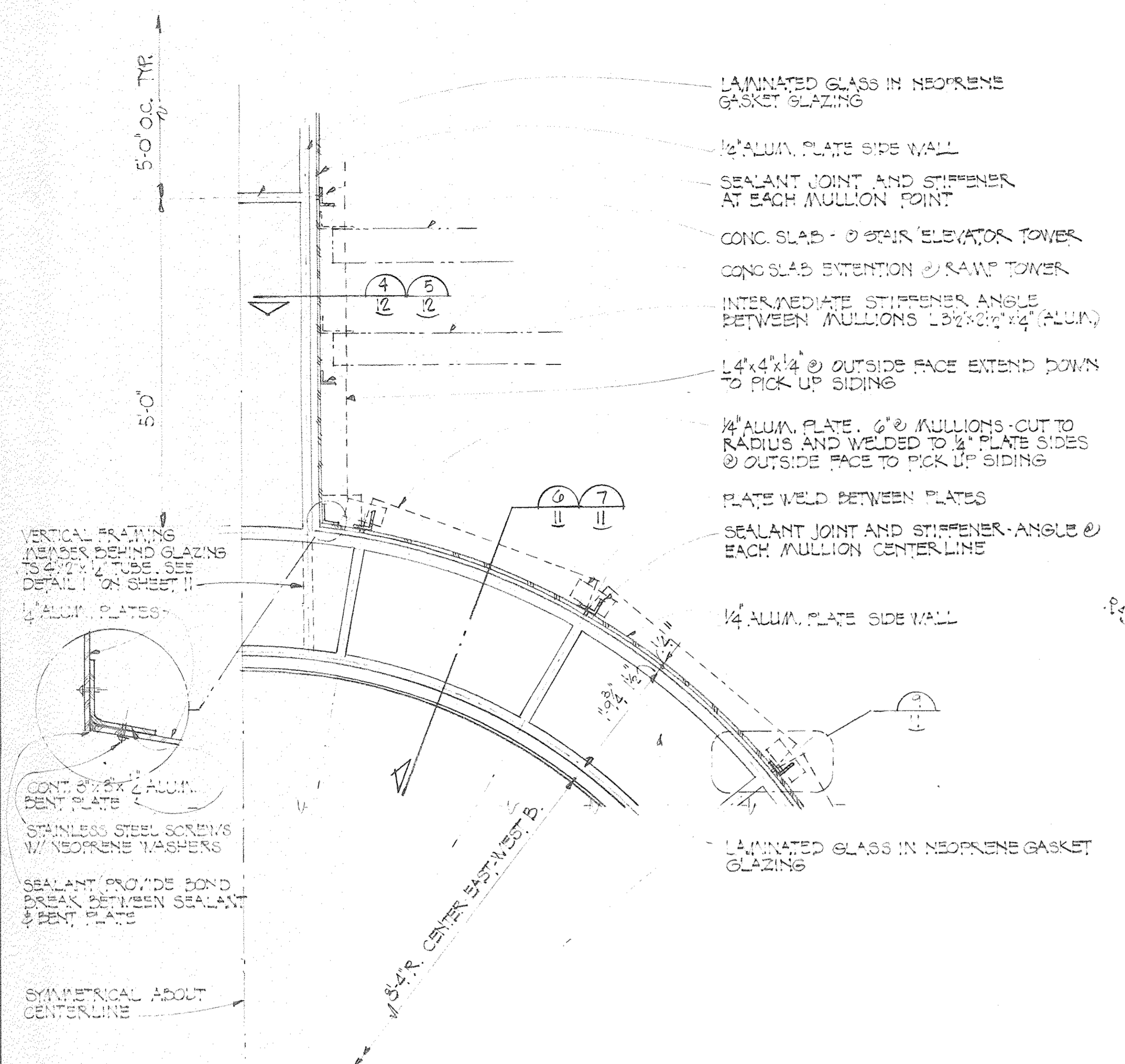
Drawing Title  
DETAILS  
EAST-WEST BRIDGE

11 of 16

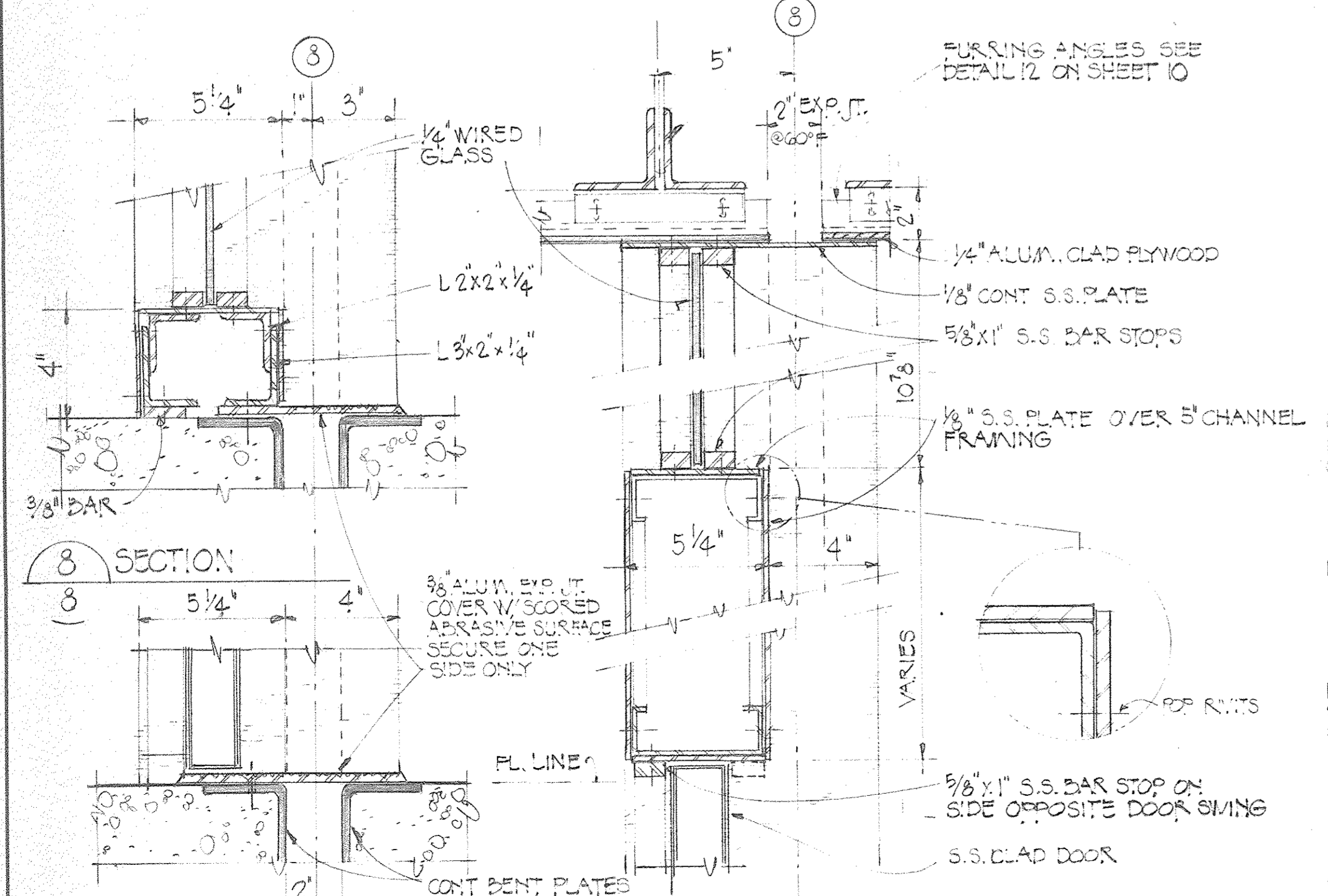






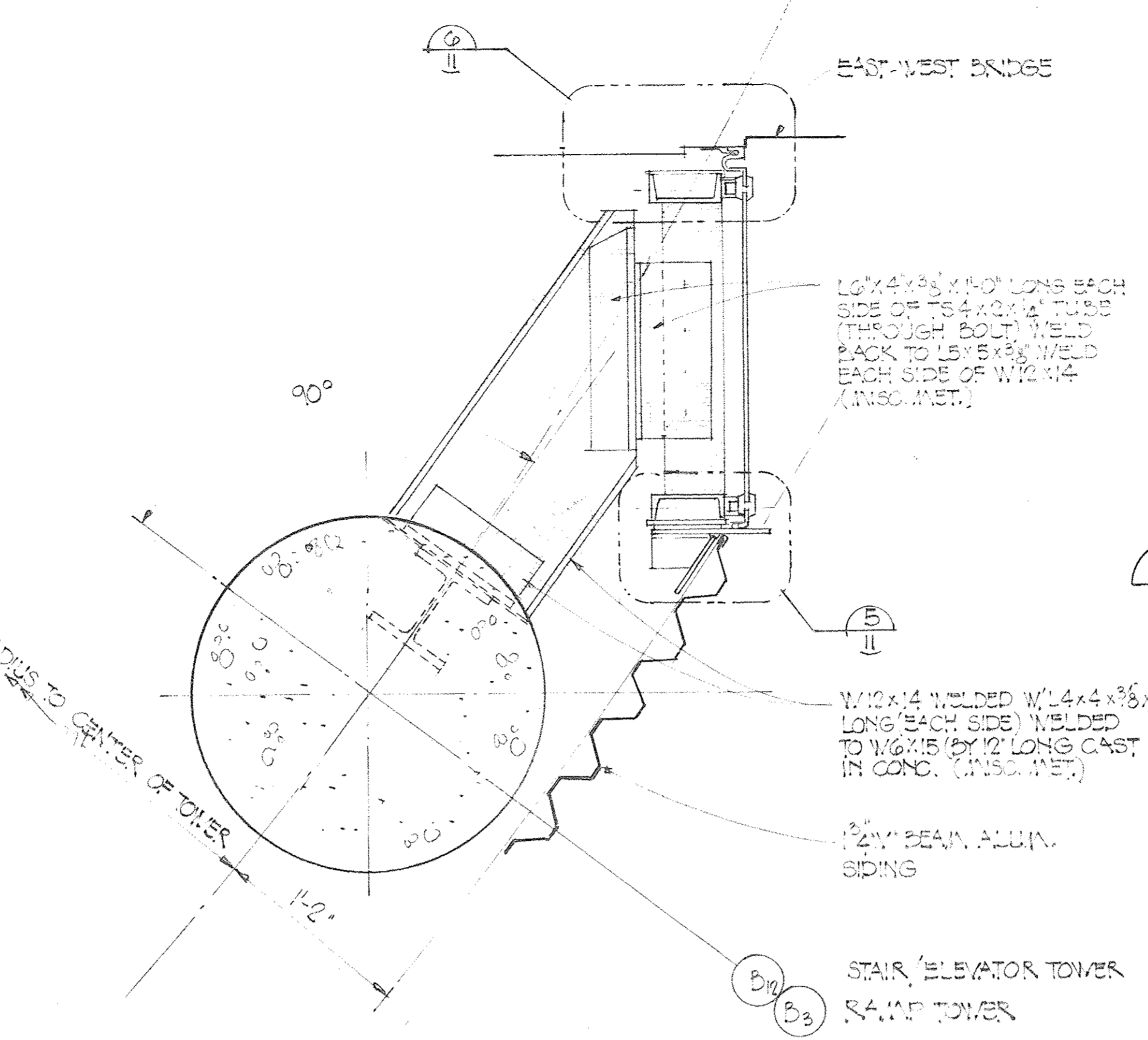


7 SECTION THRU 1/2" PLATE SIDING  
11 2'-4" x 1'-0"

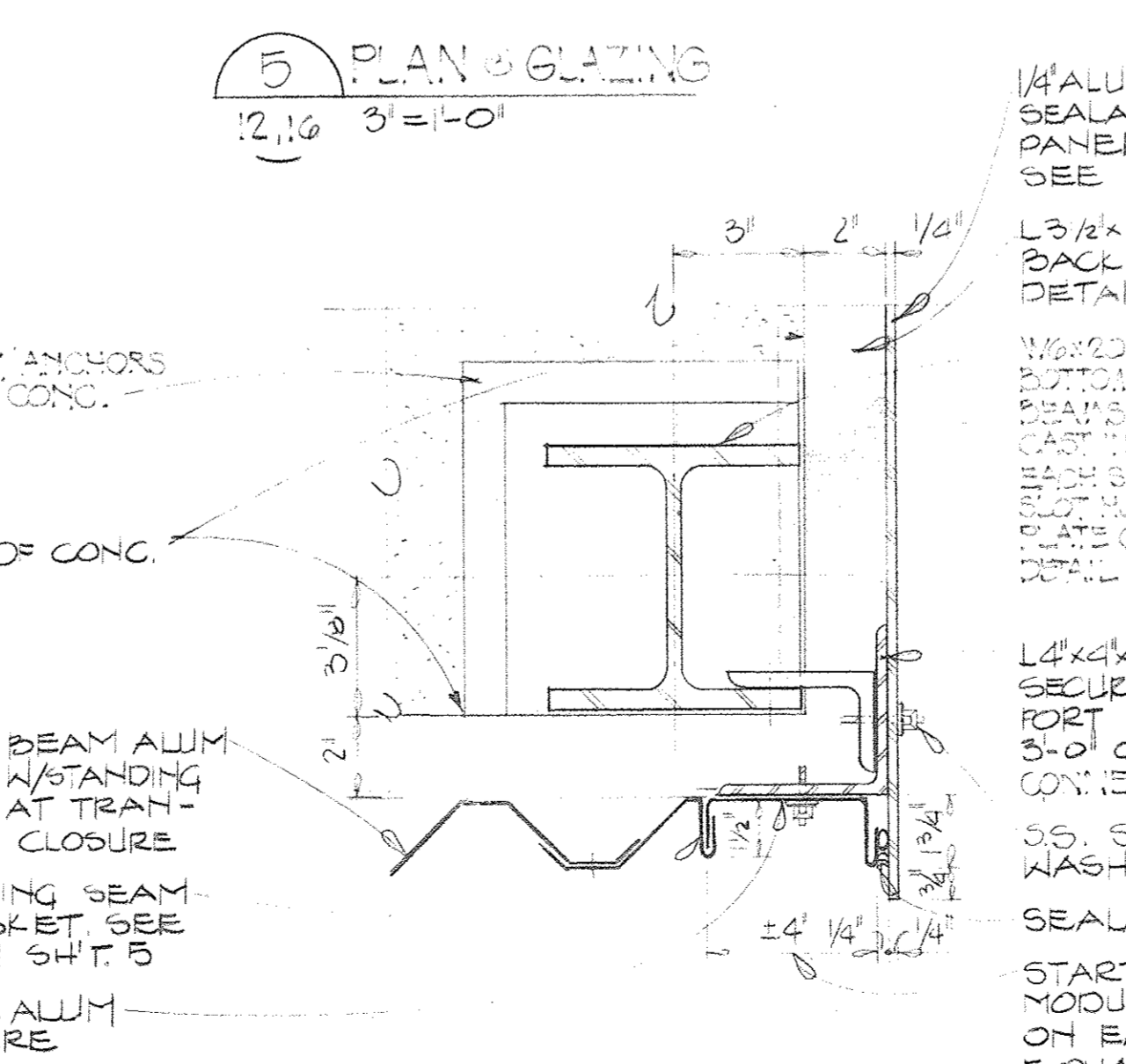
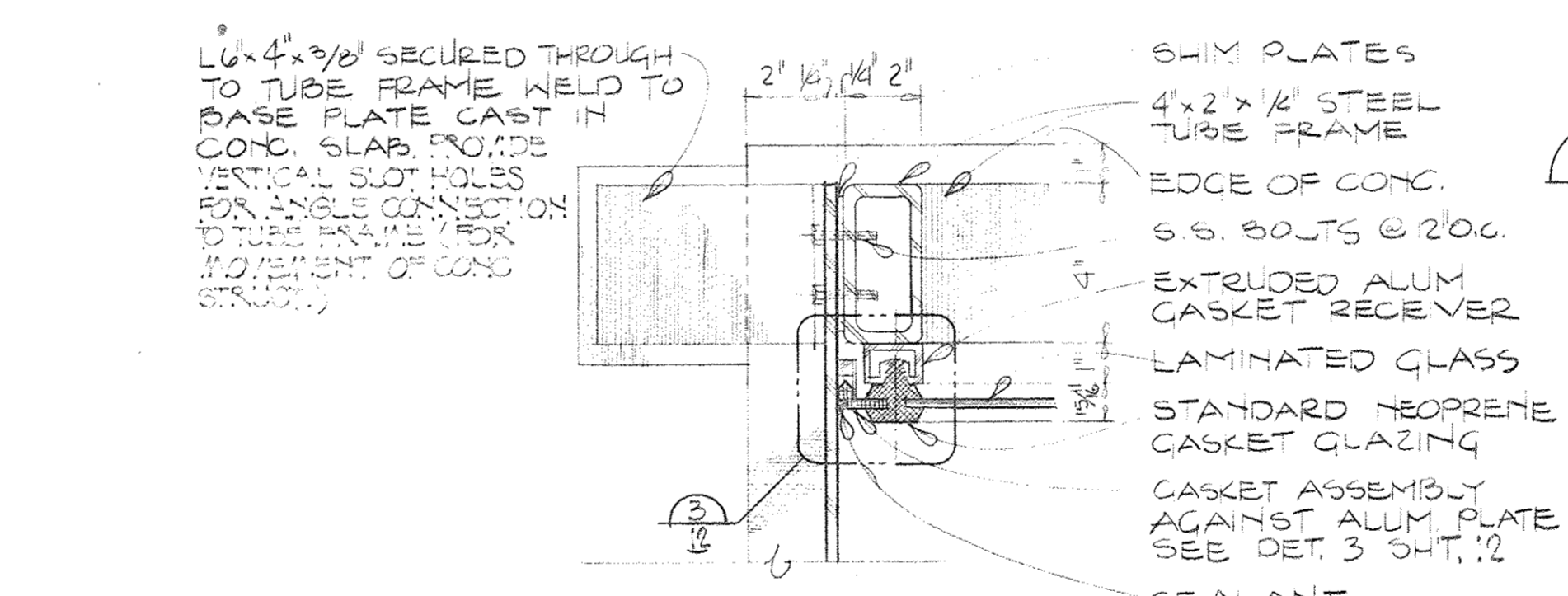


8 SECTION  
8 3'-11" x 1'-0"

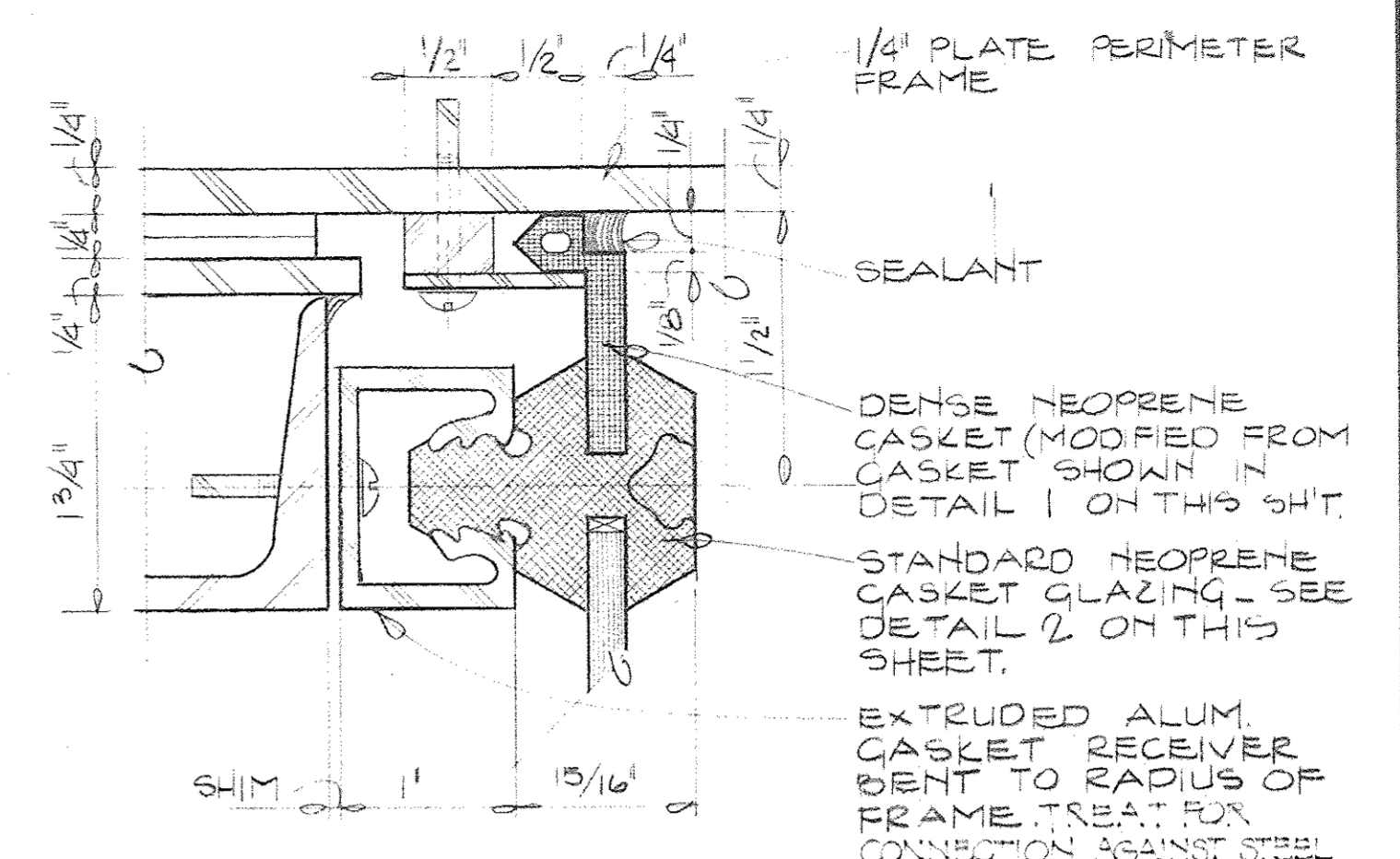
10 HEAD & JAMB  
8 3'-11" x 1'-0"



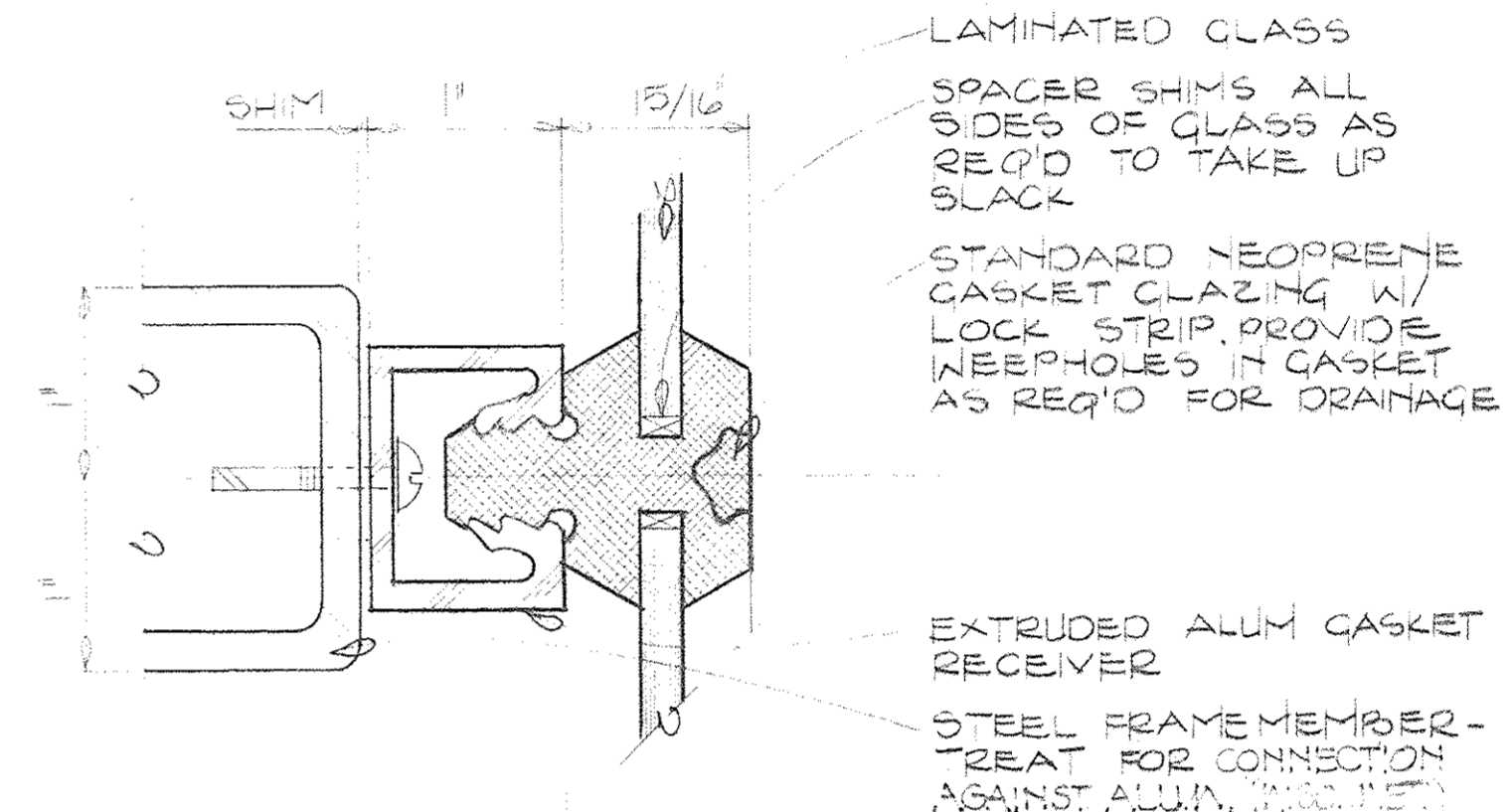
6 PLAN SECTION @ 0° & 180° OF CIRCLE  
11



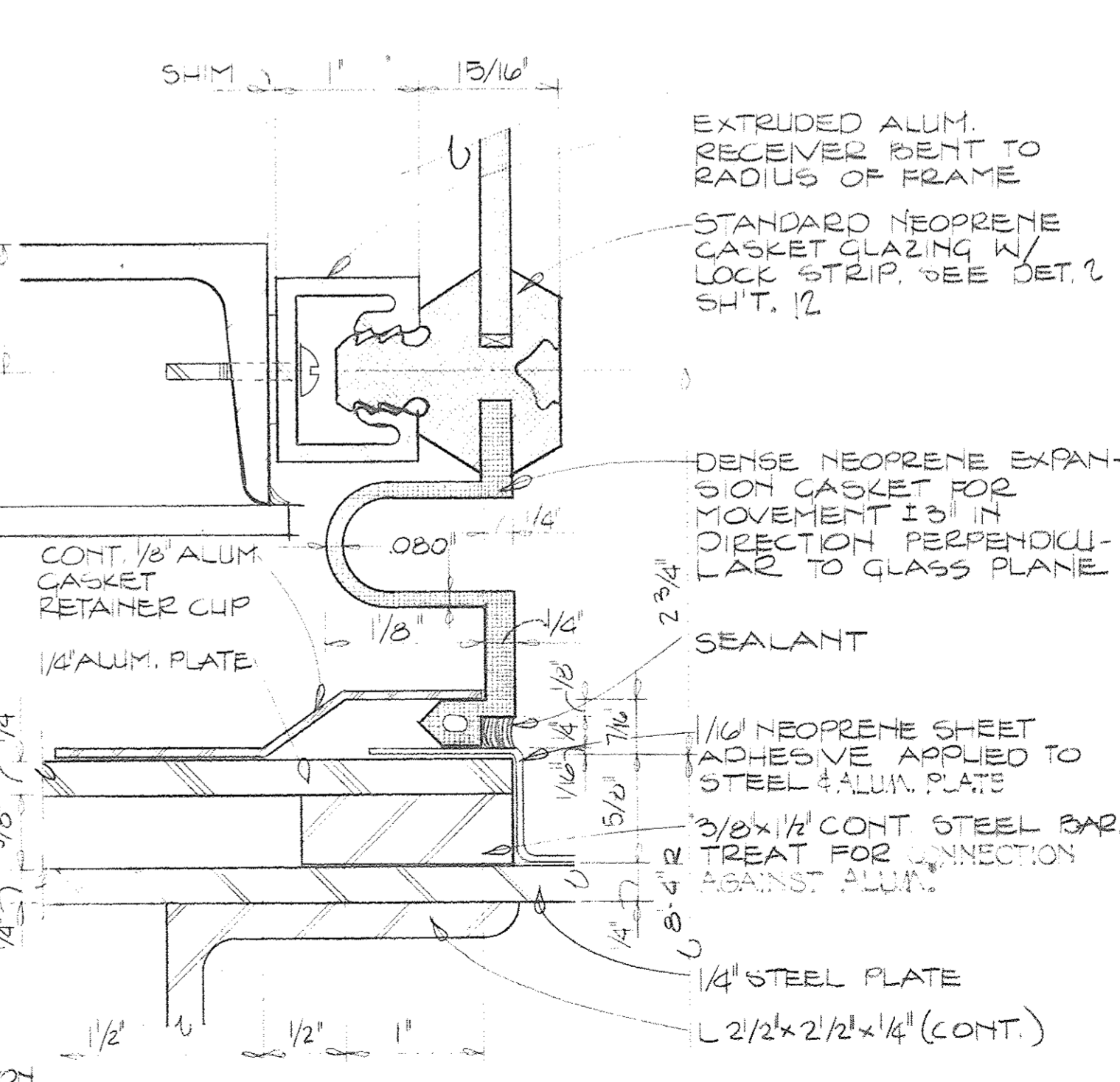
4 PLAN IN FRONT OF GLAZING  
12, 16 3'-11" x 1'-0"



3 FULL SCALE  
11, 12



2 FULL SCALE  
11



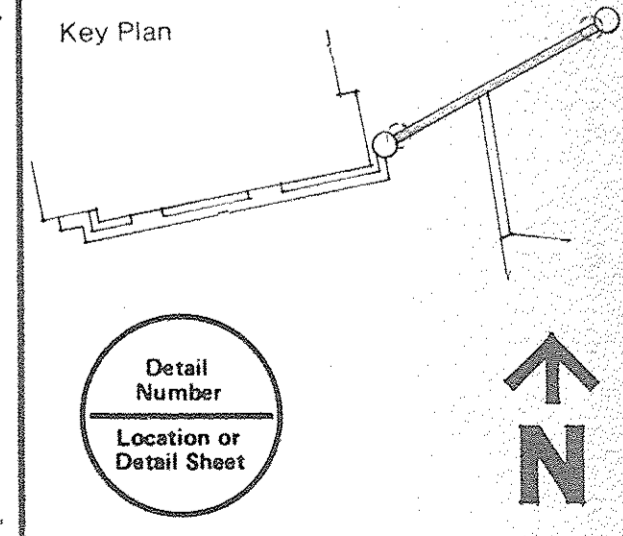
1 FULL SCALE  
11

Joe Louis Sports Arena  
Pedestrian Walkway  
For City Engineering Division

SH&G  
Smith, Hinchman & Grylls Associates, Inc.  
Architects Engineers Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

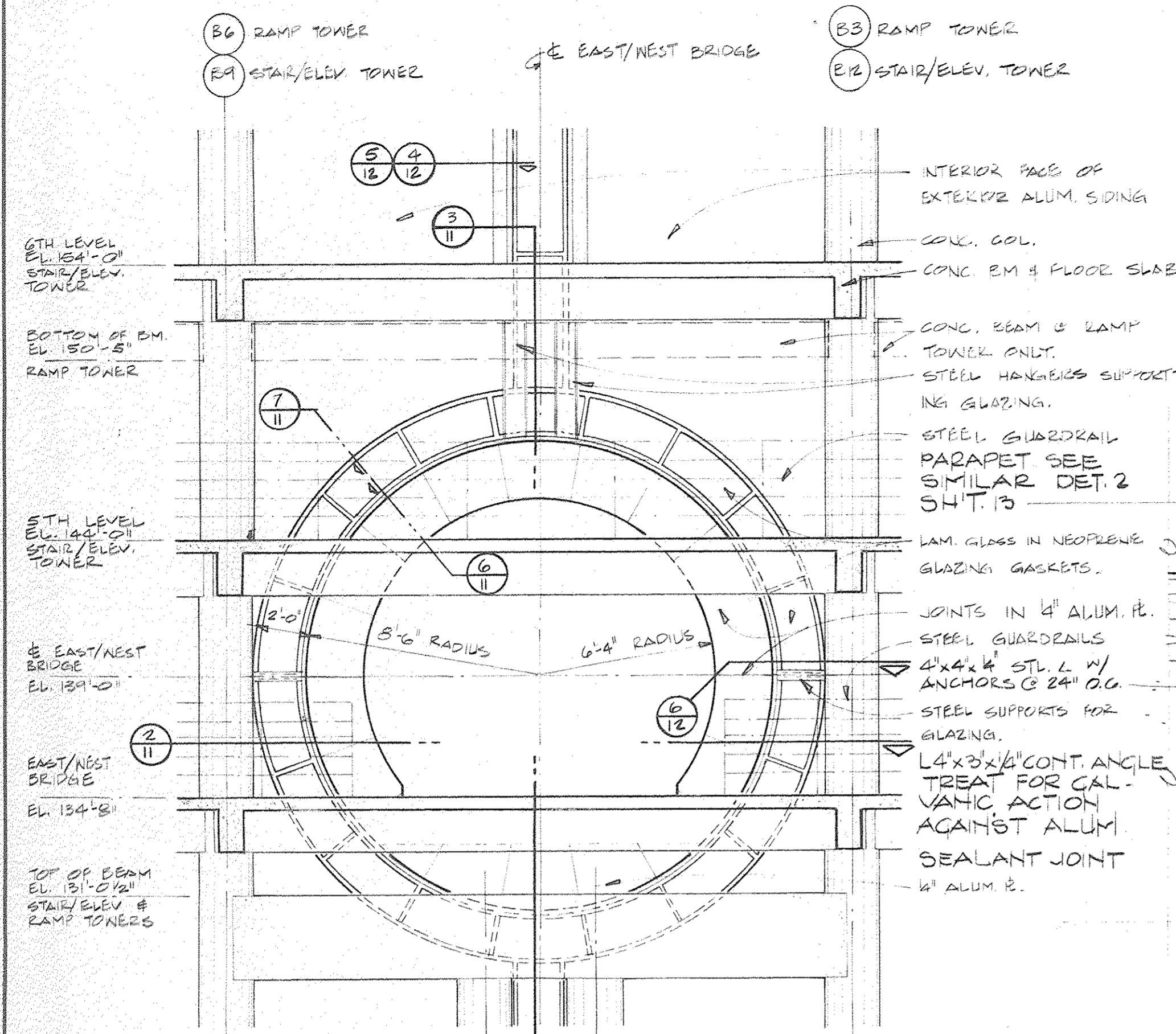
OWNER	5-30-80
Issued For	Date
Date	1-16-80
Drawn By	J. Smith
By Architect/Engineer	J. Smith
Correspondence Check	J. Smith
Project Manager	J. Smith
Construction Administrative Div. Approval	J. Smith
Division Approval	J. Smith

1-16-80  
Date  
J. Smith  
By Architect/Engineer  
Correspondence Check  
Project Manager  
Construction Administrative Div. Approval  
Division Approval

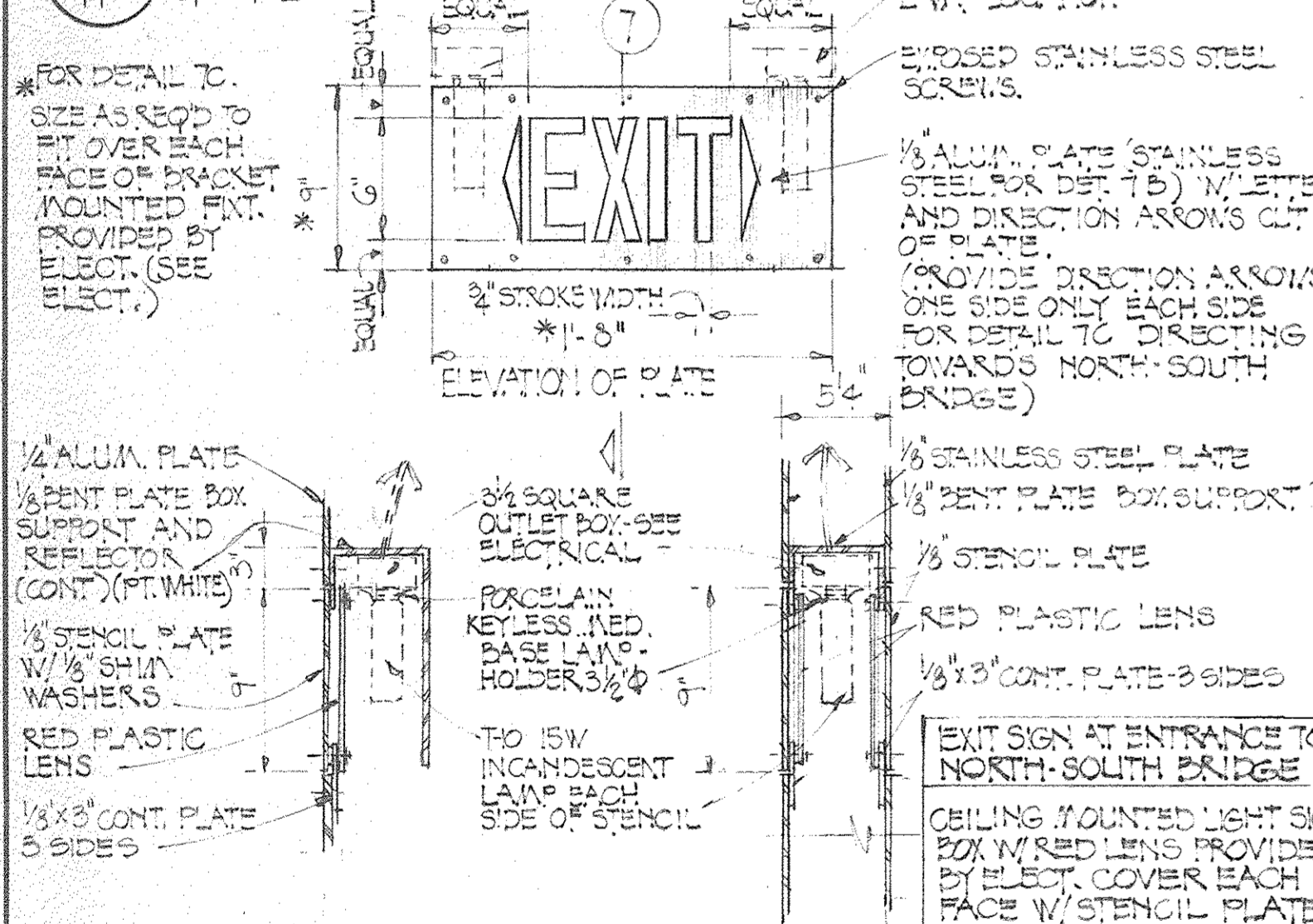


Detail Number  
Location or Detail Sheet  
Drawing Title  
DETAILS  
EAST-WEST BRIDGE CONNECTION  
15031A  
Project No.  
A-12  
Drawing No.  
AS NOTED  
Scale  
13 of 26

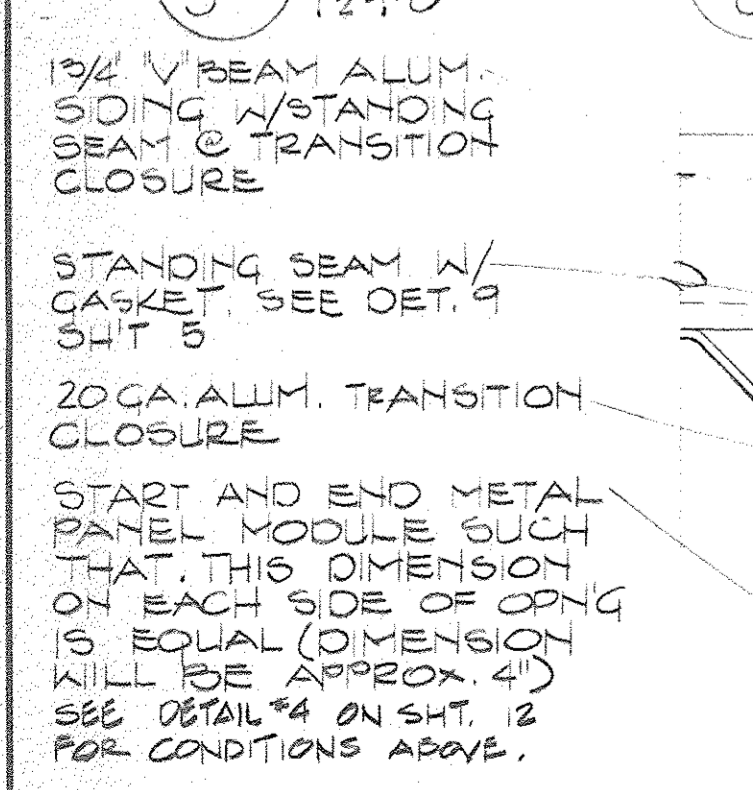




6 SECTION / ELEVATION  
11 4'-1'-0"

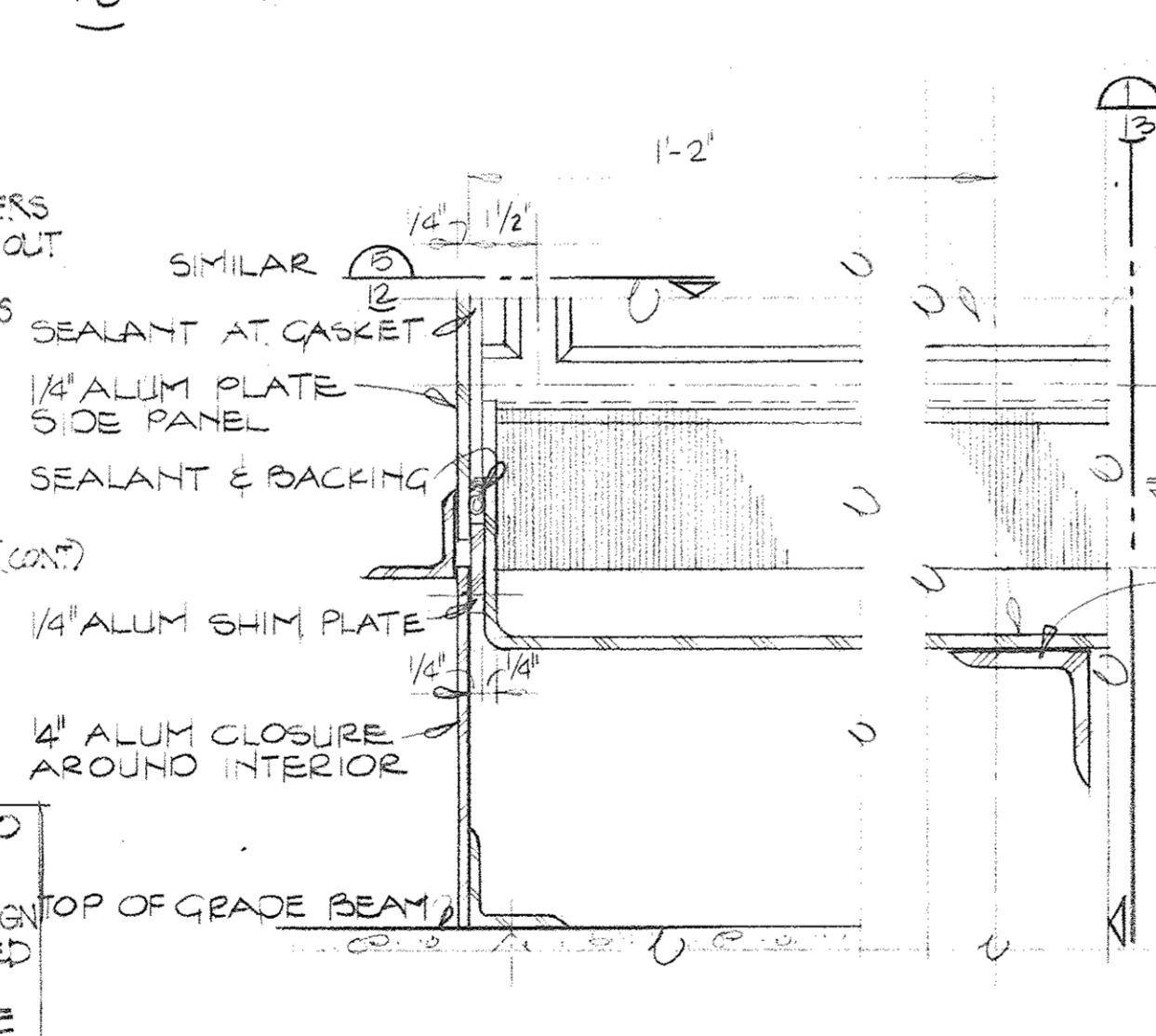


7A SECTION  
3 1'-2'-0"

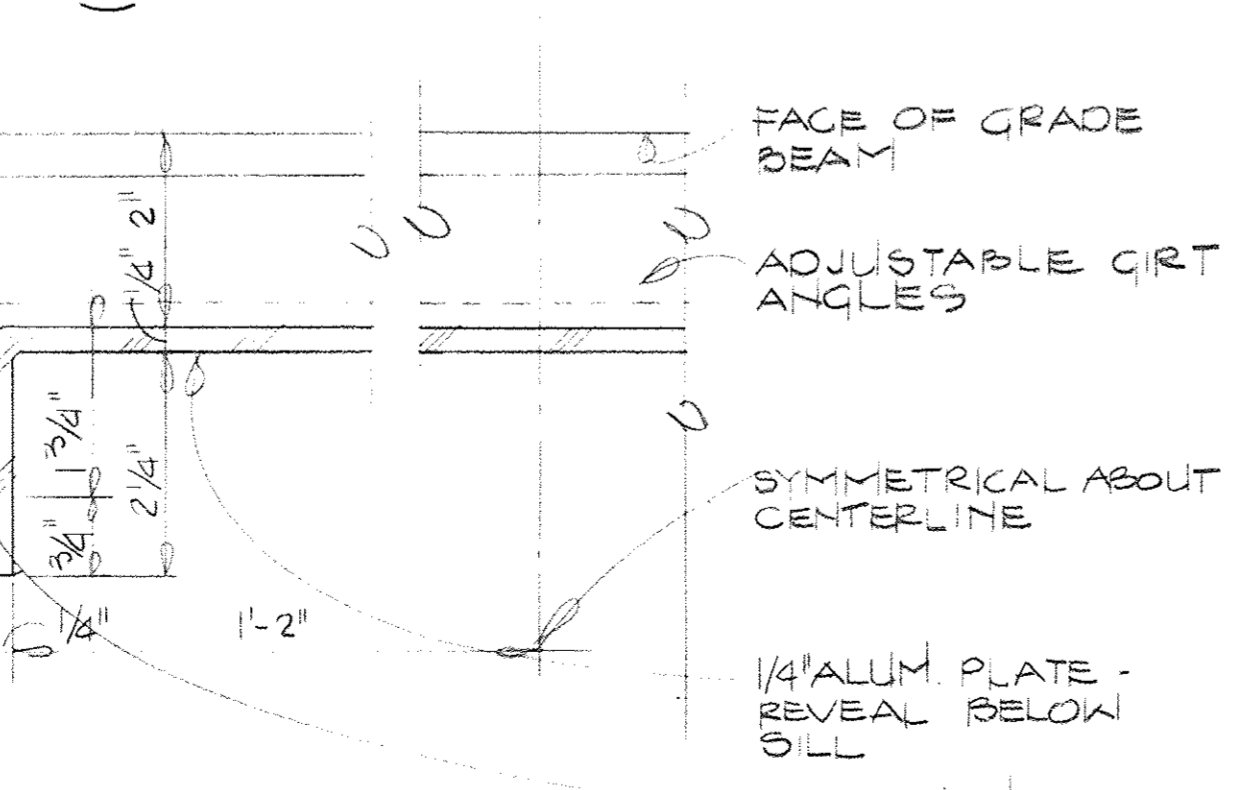


3 SECTION  
16 HALF FULL SIZE

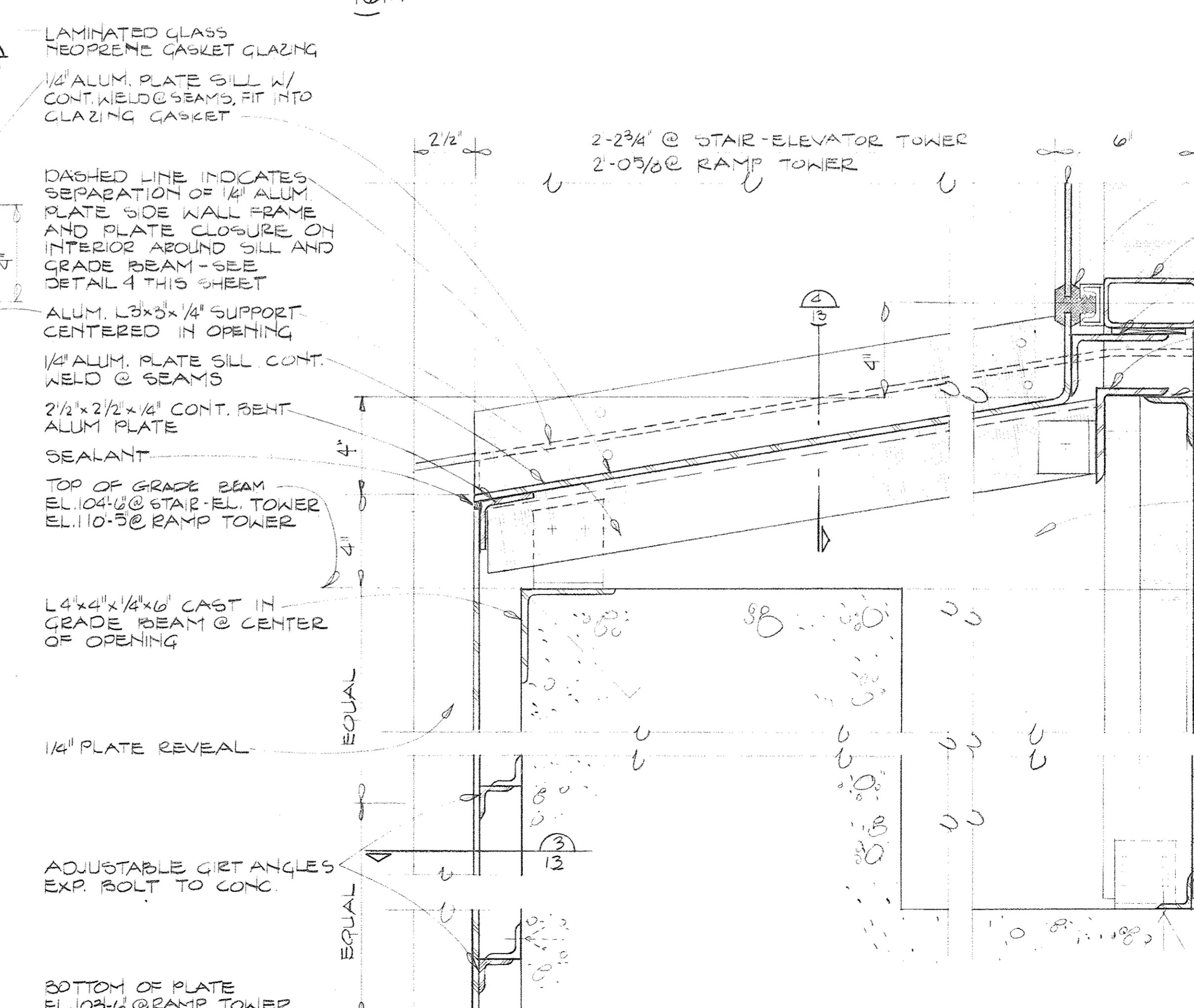
5 SECTION  
13 3'-1'-0"



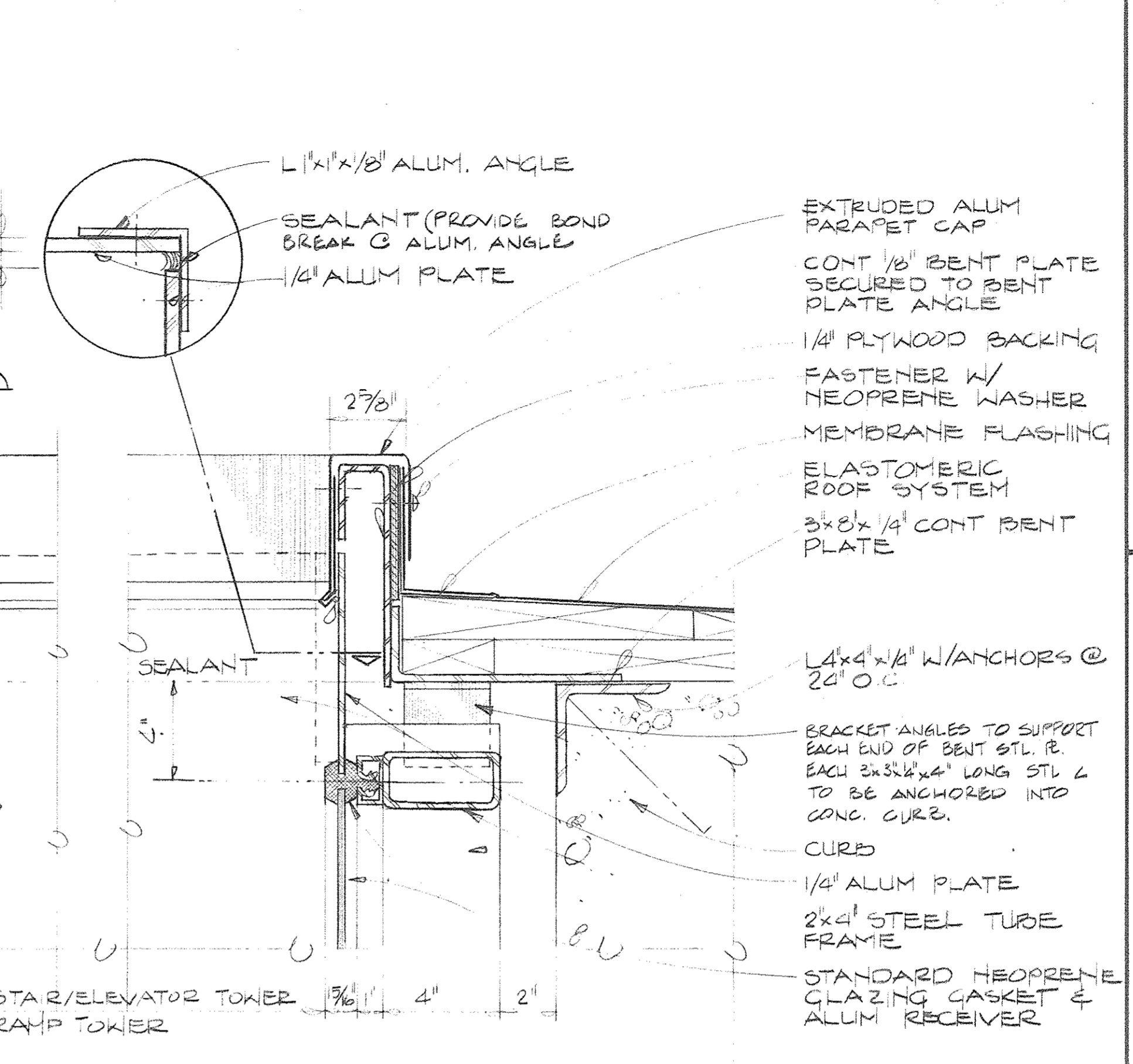
4 SECTION  
13, 16 3'-1'-0"



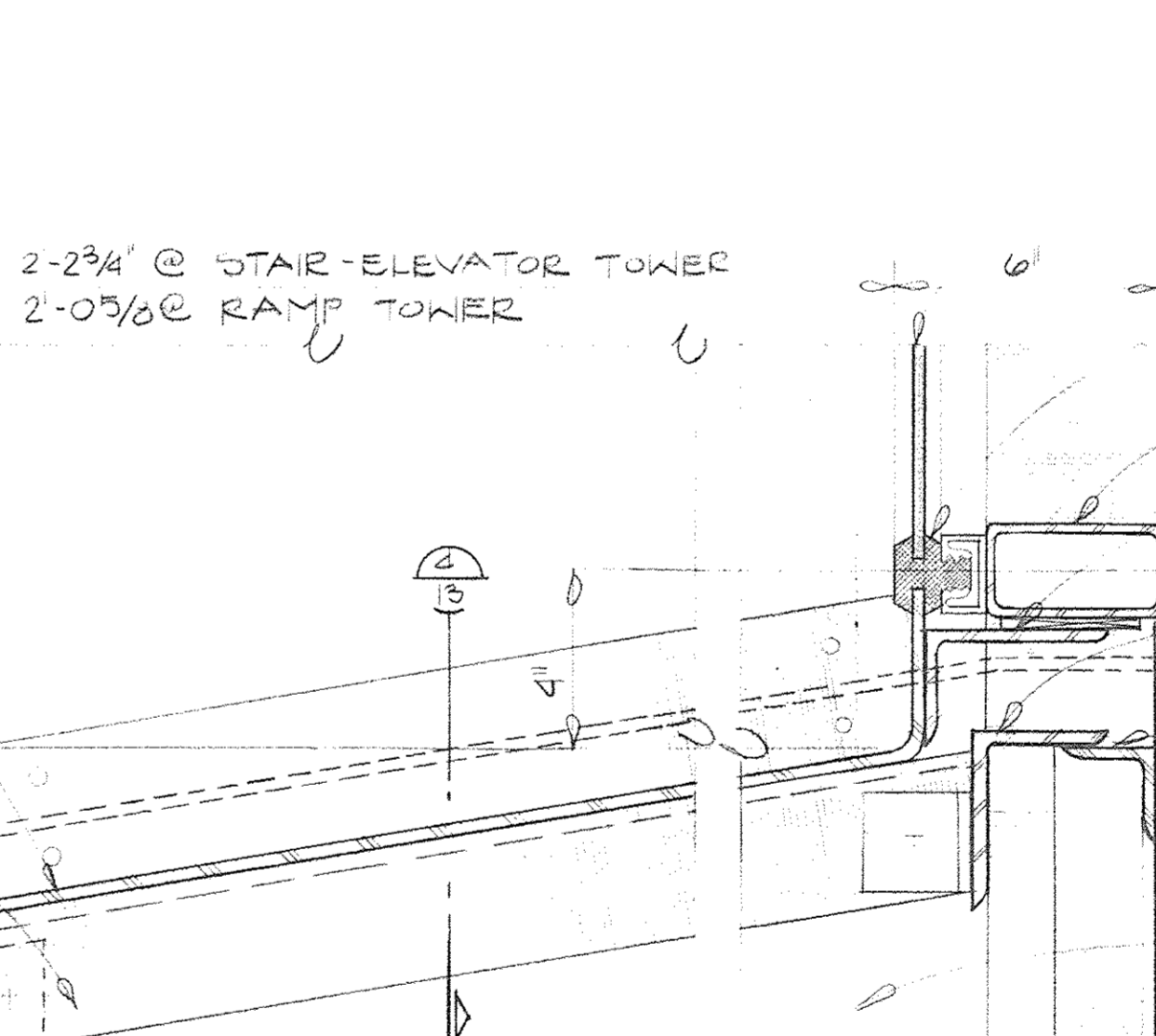
2 SECTION  
16, 14 3'-1'-0"



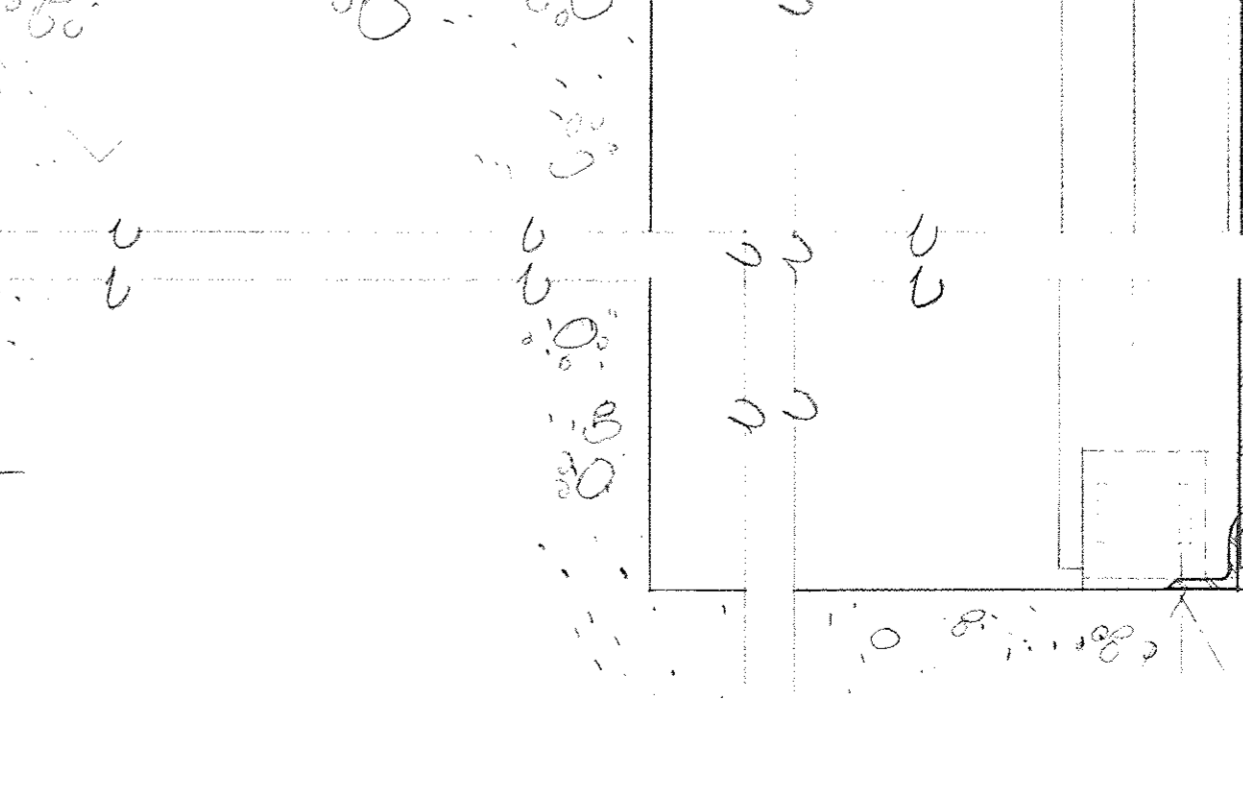
1 SECTION  
16 3'-1'-0"



2 SECTION  
16, 14 3'-1'-0"



4 SECTION  
13, 16 3'-1'-0"



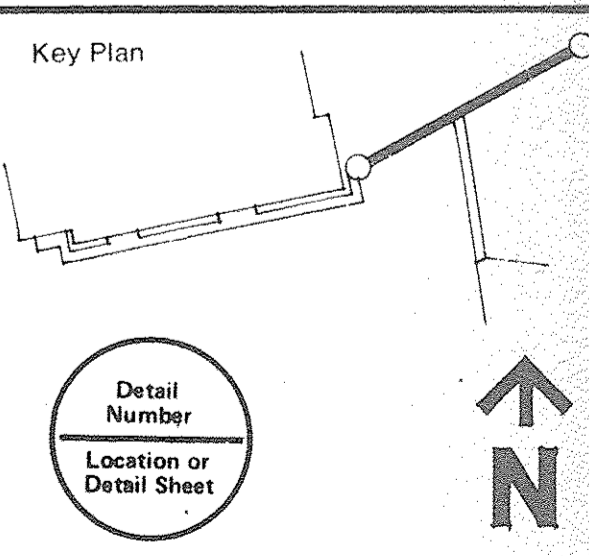
1 SECTION  
16 3'-1'-0"

**Joe Louis Sports Arena**  
Pedestrian Walkway  
For City Engineering Division

**SH&G**  
Smith, Hinchman & Grylls Associates, Inc.  
Architects Engineers Planners

455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

OWNER	5-30-80
Issued For	Date
1-18-80	D.S.
Date	Drawn By
J. V. Smith	
Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	



Drawing Title  
**DETAILS EAST-WEST BRIDGE**

Project No.  
**15031A**

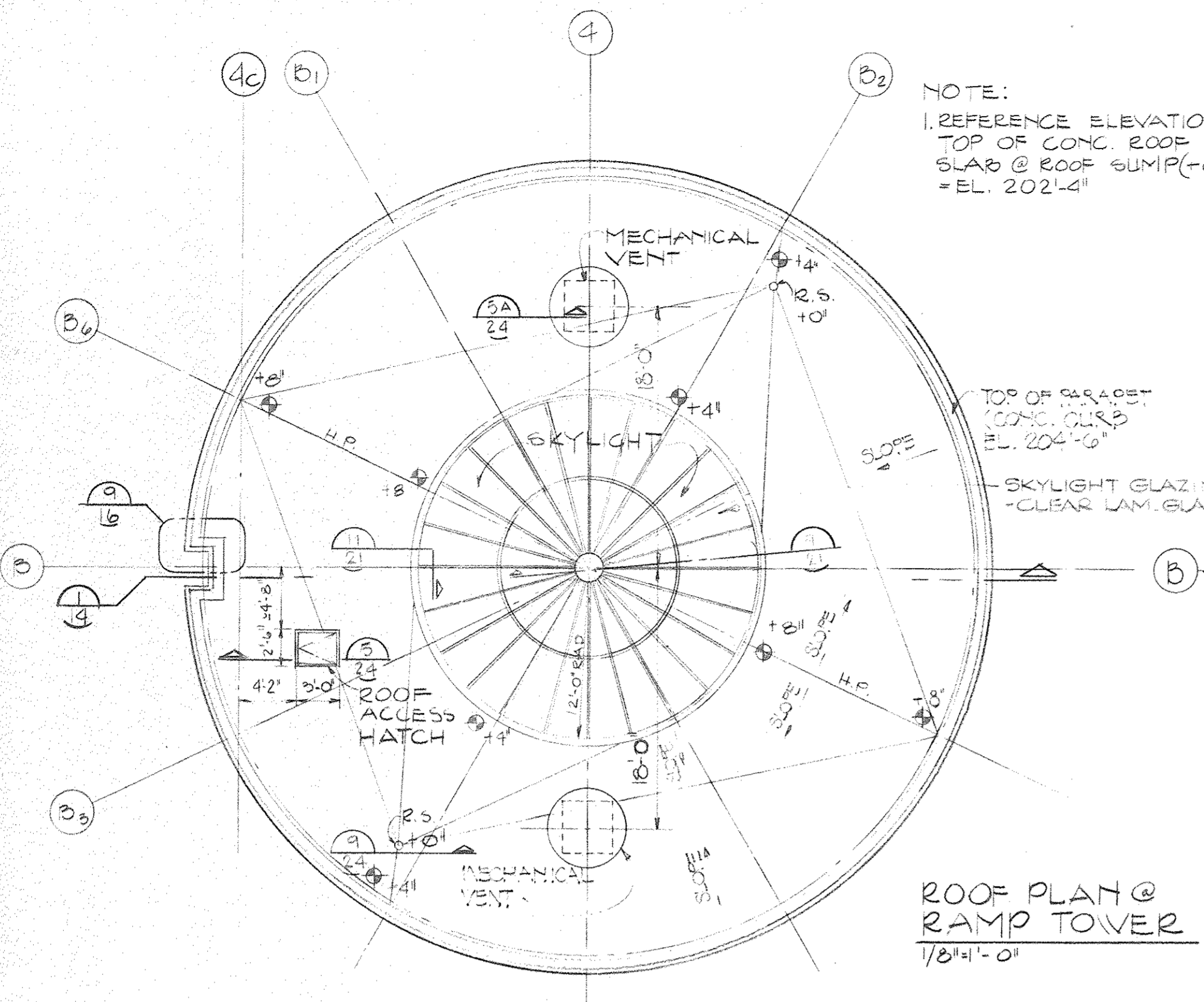
Drawing No.  
**A-13**

AS NOTED

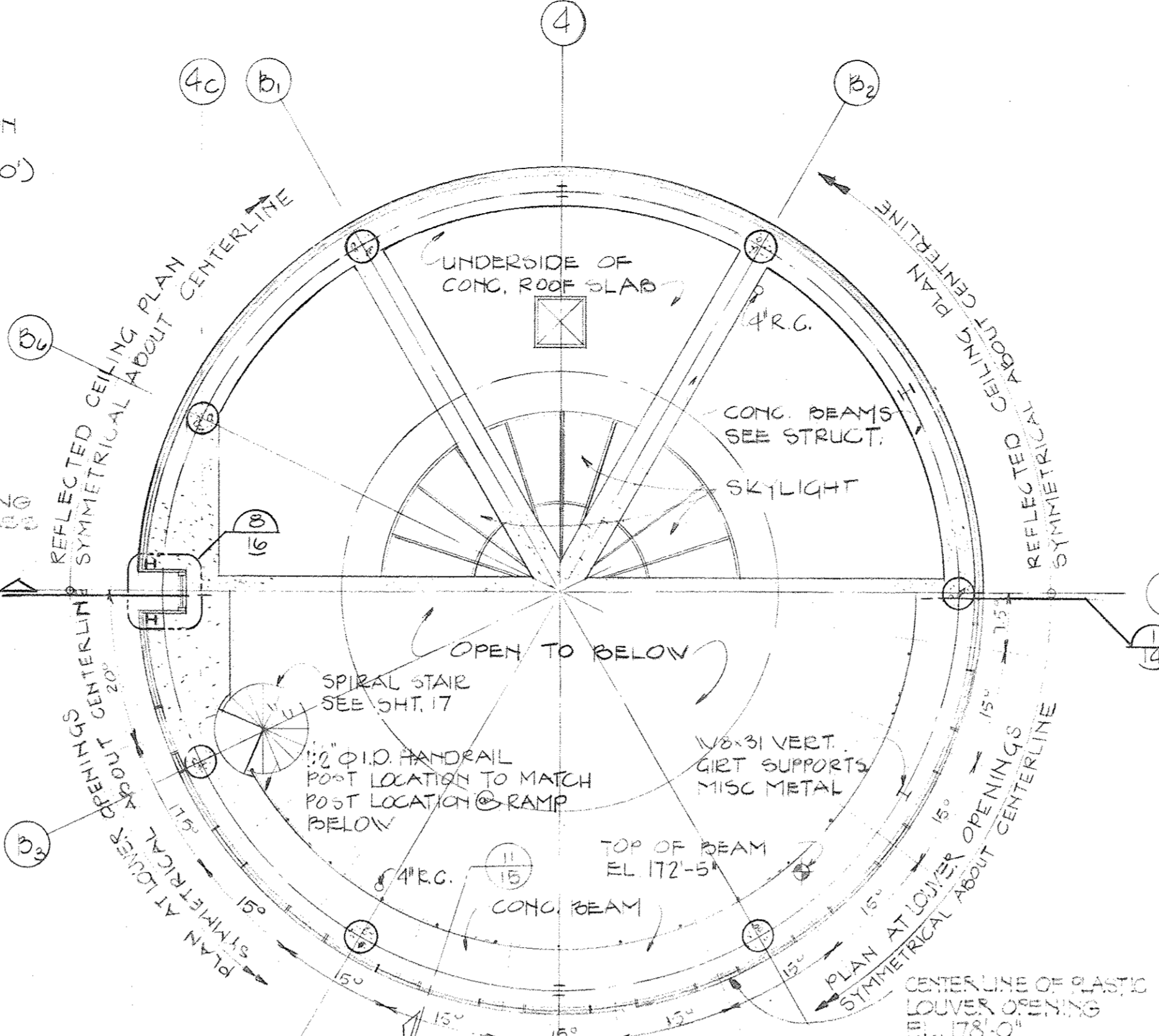
Scale

14 of 26

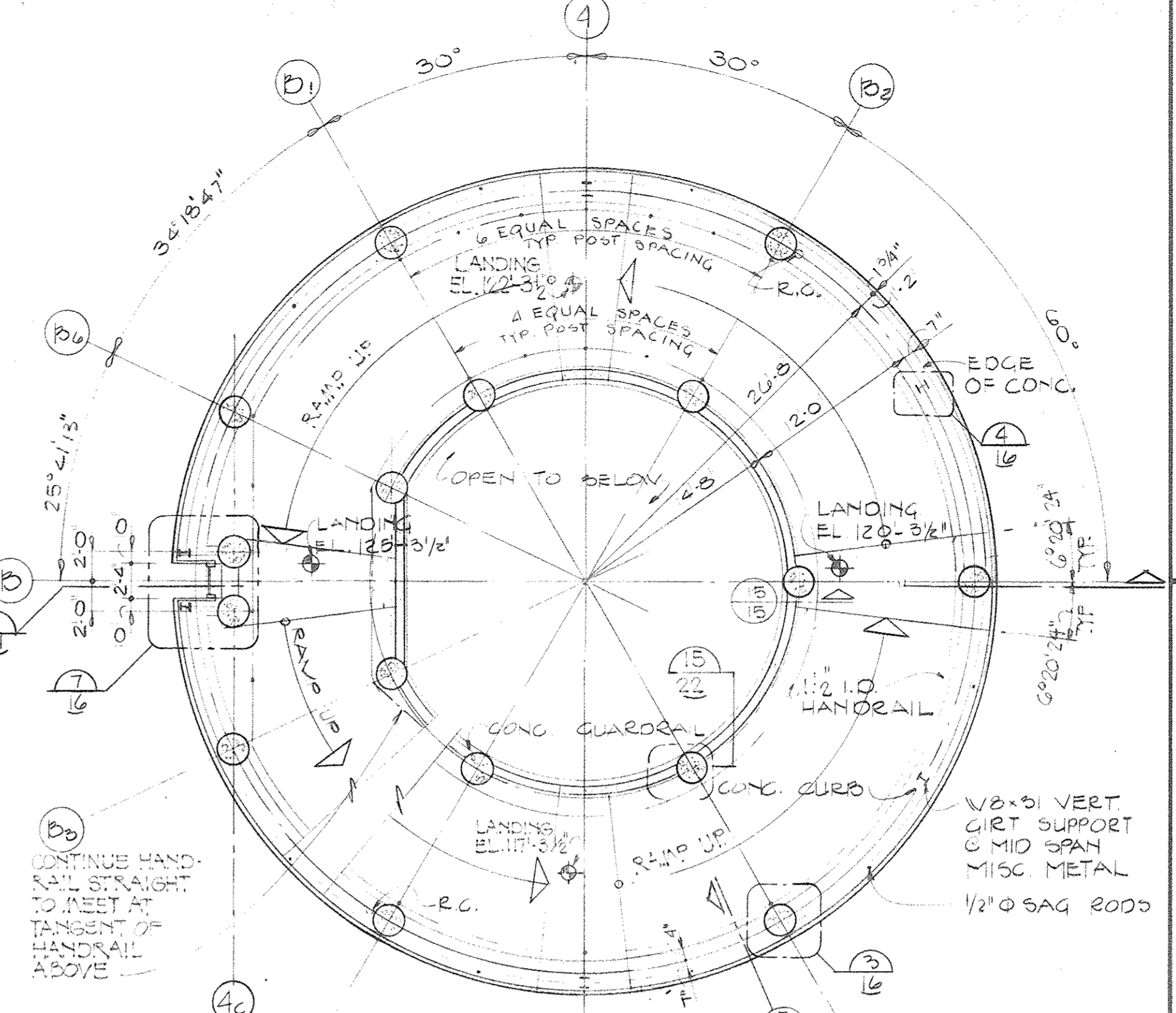




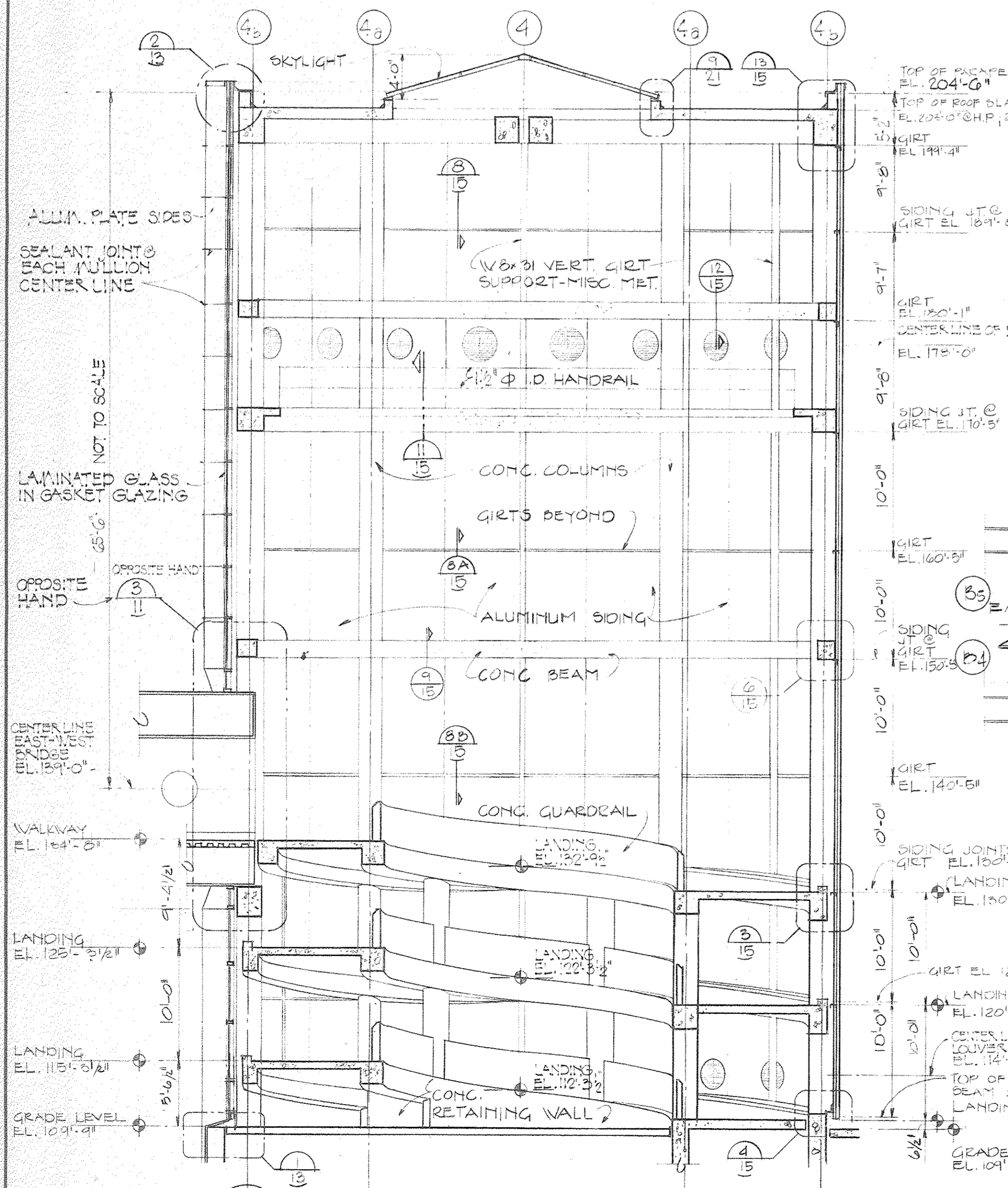
ROOF PLAN @  
RAMP TOWER  
1/8"=1'-0"



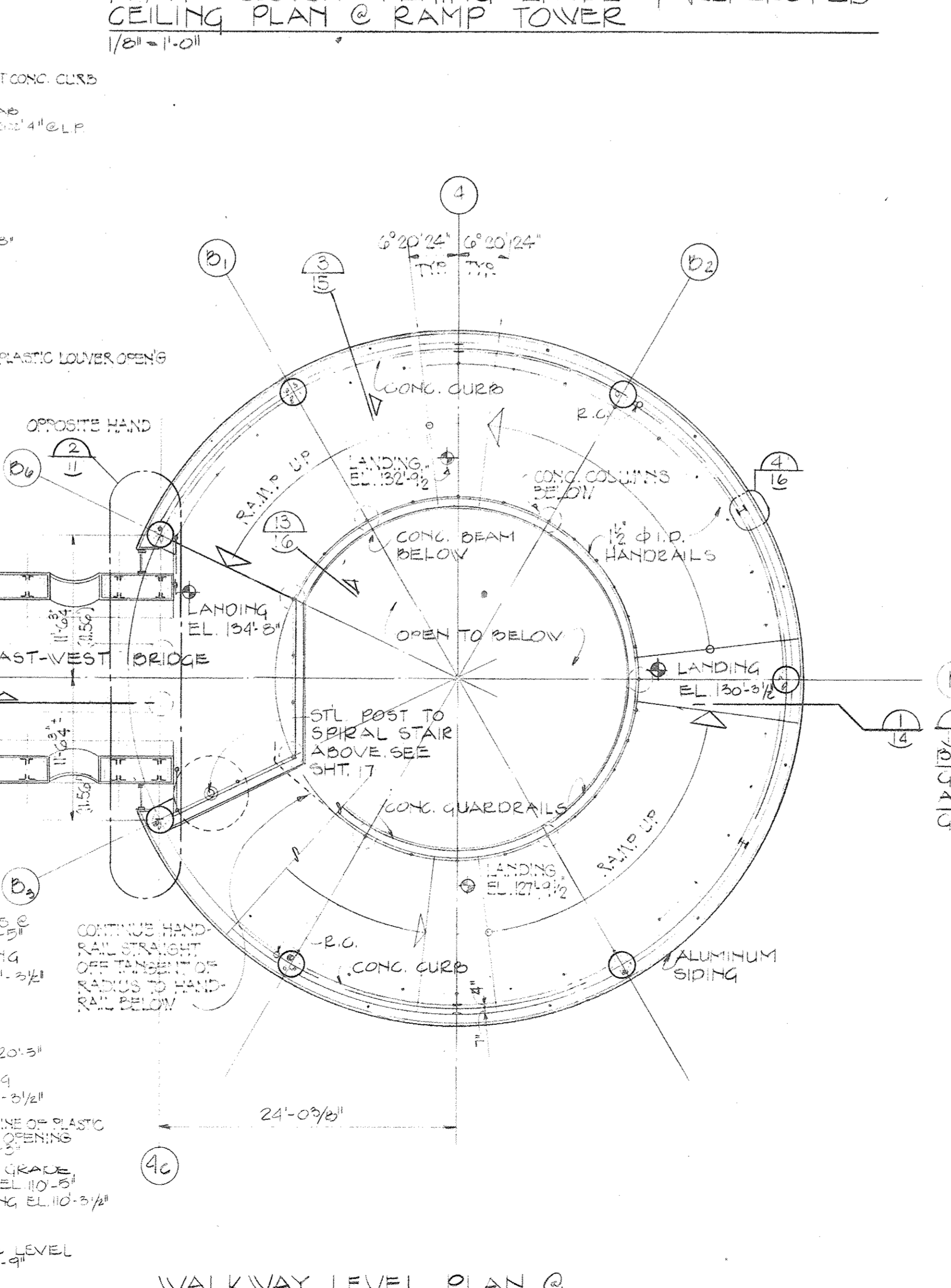
PLAN @ LOUVER OPENING LEVEL & REFLECTED  
CEILING PLAN @ RAMP TOWER  
1/8"=1'-0"



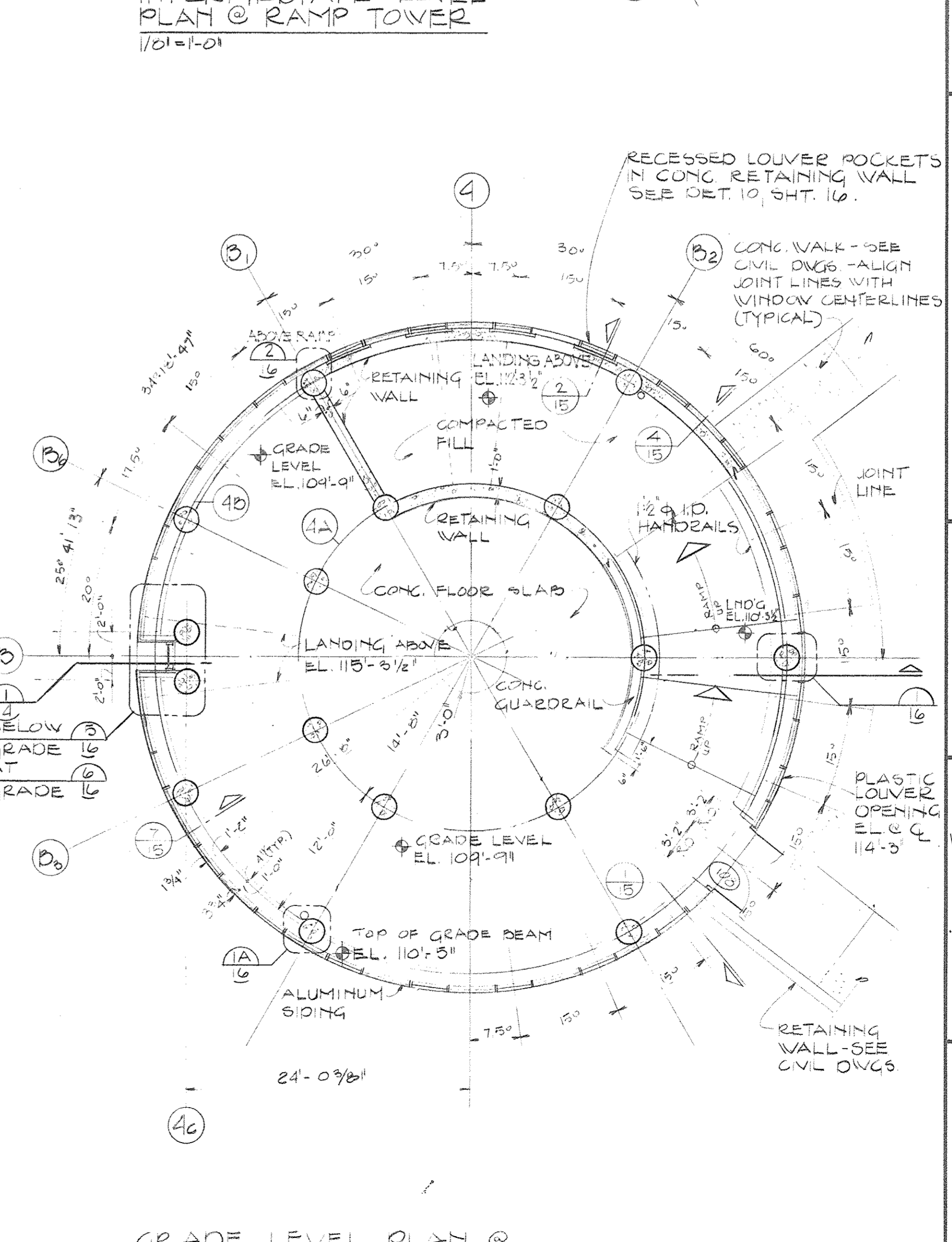
INTERMEDIATE LEVEL  
PLAN @ RAMP TOWER  
1/8"=1'-0"



SECTION THROUGH RAMP TOWER  
1/8"=1'-0"



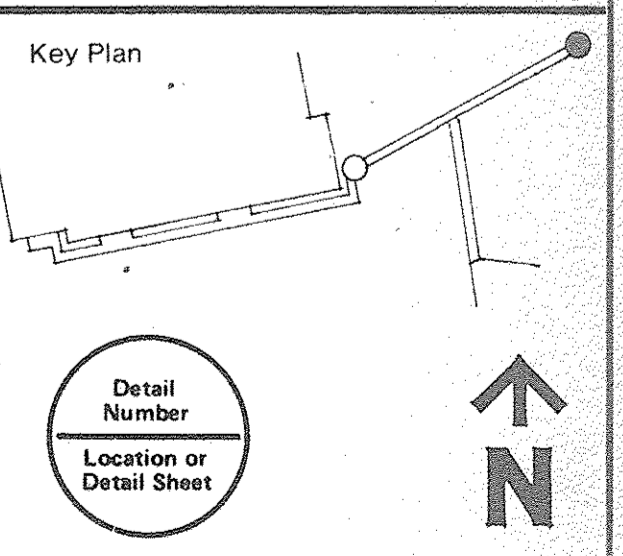
WALKWAY LEVEL PLAN @  
RAMP TOWER  
1/8"=1'-0"



GRADE LEVEL PLAN @  
RAMP TOWER  
1/8"=1'-0"

OWNER	5-30-80
Issued For	Date
1-18-80	A.I. M.D.
Date	Drawn By
Architect/Engineer	Correlation Check
Project Manager	Construction Administrative Div. Approval
Division Approval	

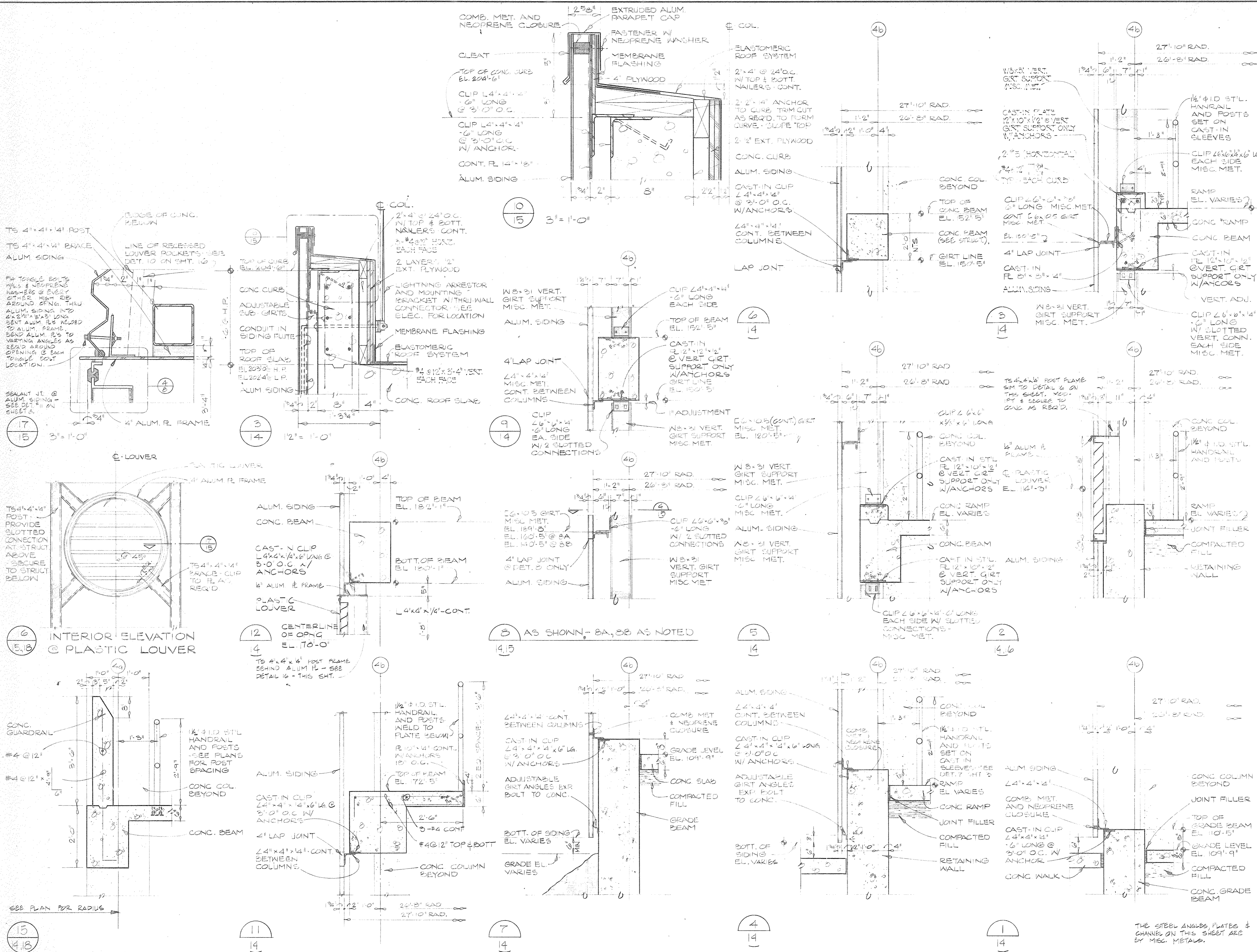
Key Plan	
Detail Number	
Location or Detail Sheet	



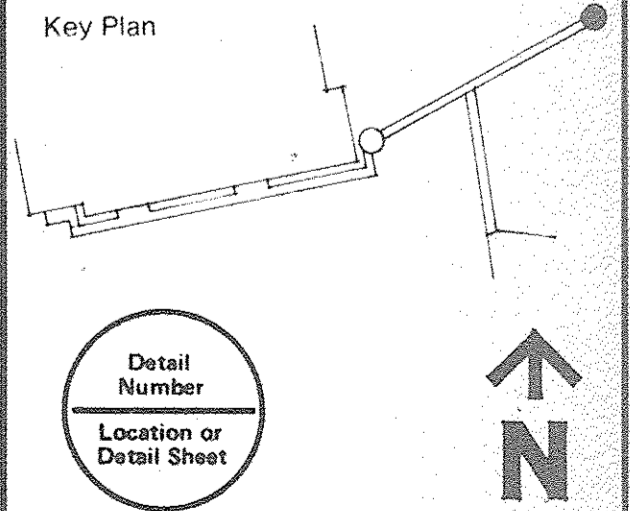
Drawing Title  
**PLANS AND SECTION  
RAMP TOWER**

15031A  
Project No.  
A-14  
Drawing No.  
1/8"=1'-0"  
Scale  
15 OF 96





OWNER	5-30-80
Issued For	Date
1-18-80	A.I.M.O.
Date	Drawn By
7/1/78	
Div. Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	



Drawing Title  
**DETAILS  
RAMP TOWER**

Project No.  
**15031A**

Drawing No.  
**A-15**

Scale  
3/4"=1'-0" U.O.N.

Scale  
1/6" OF 26

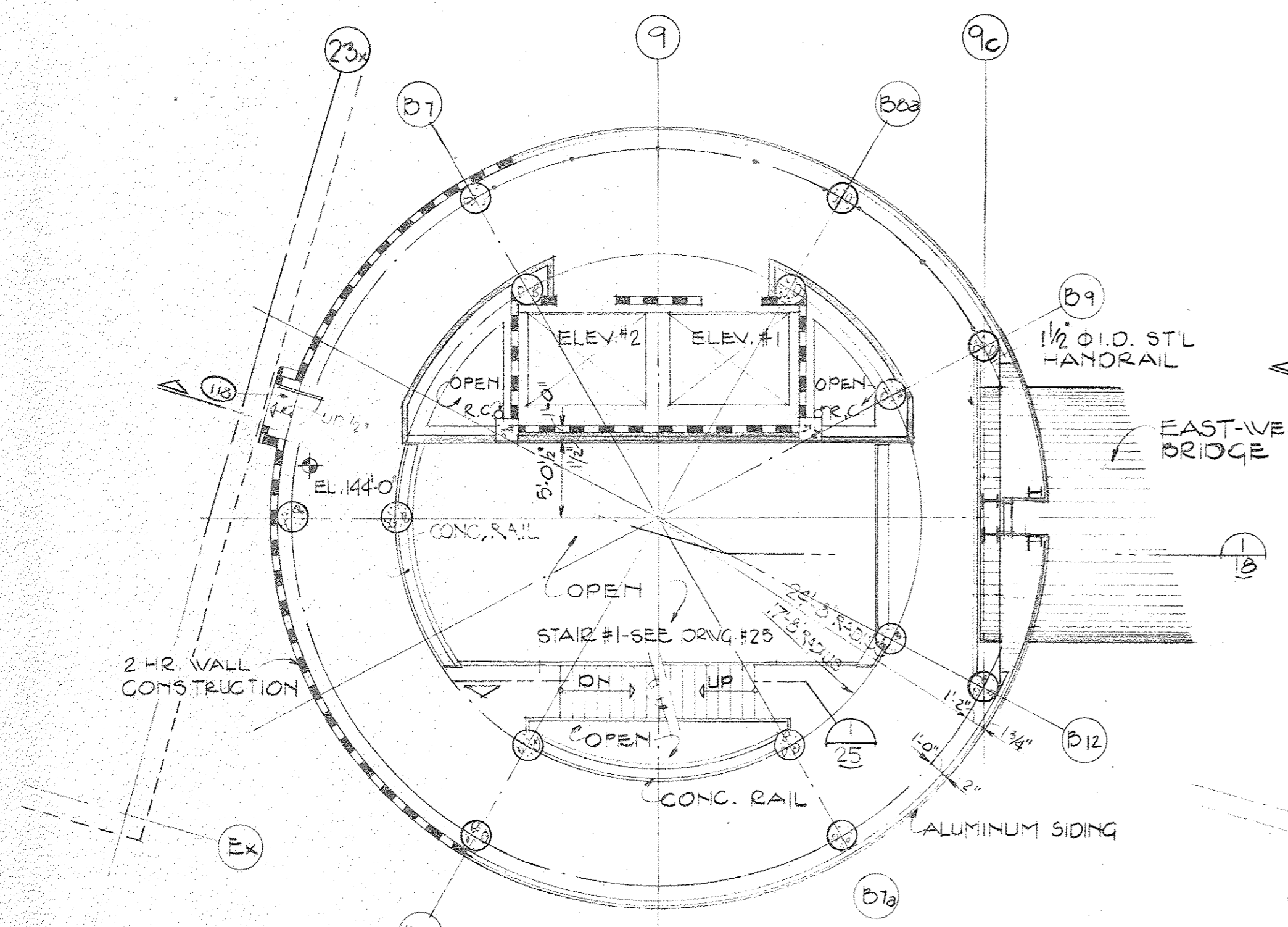




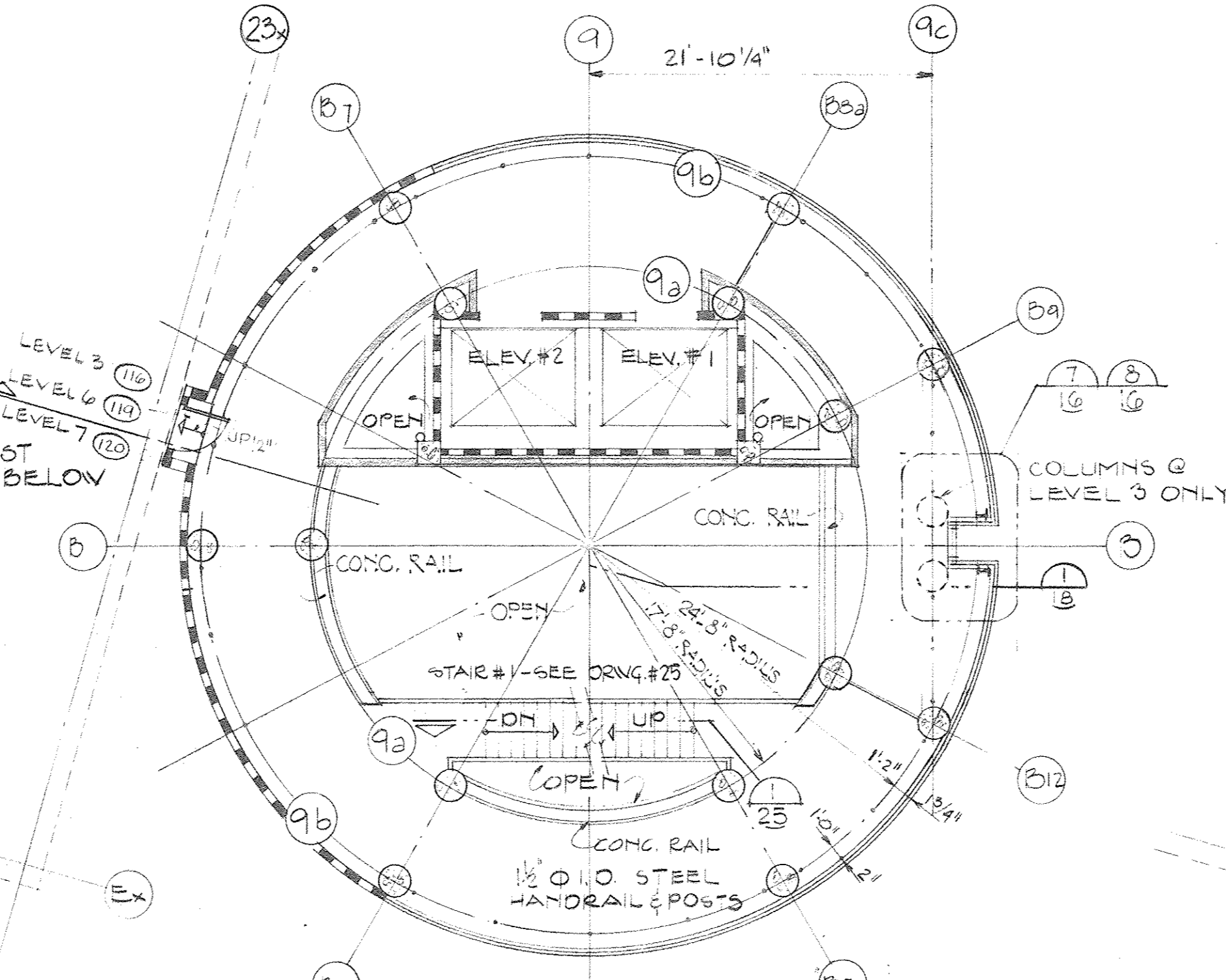




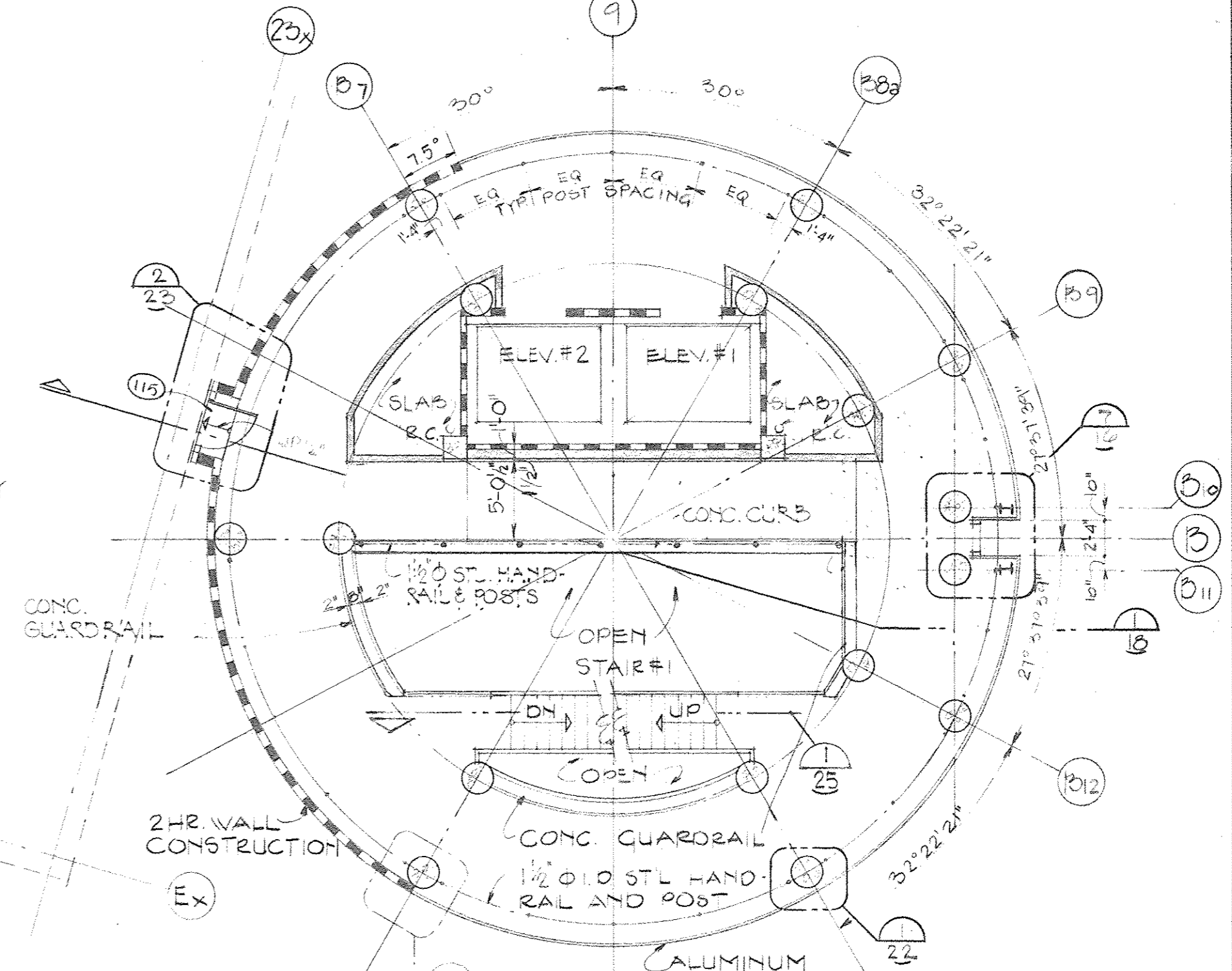




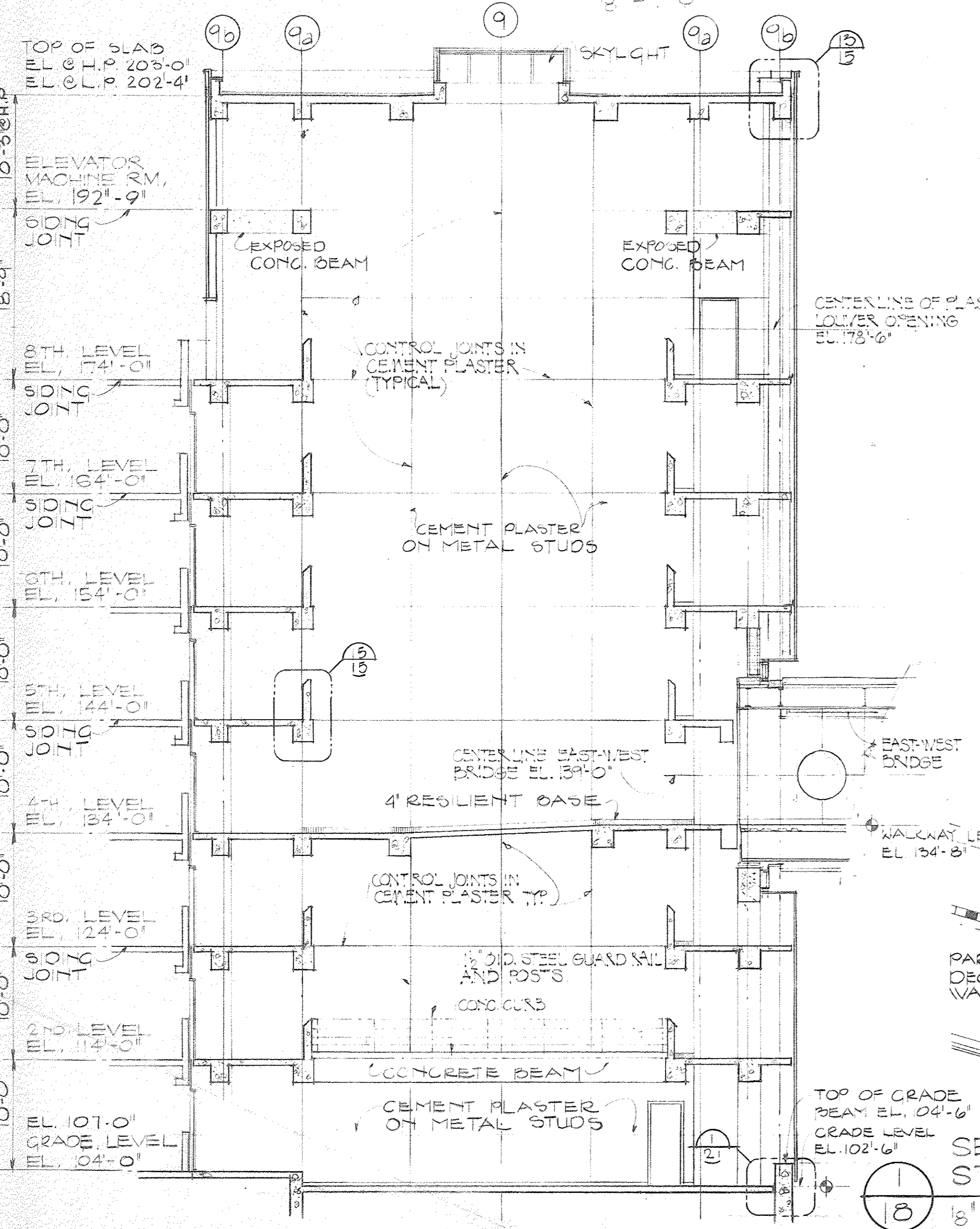
FIFTH LEVEL PLAN @  
STAIR/ELEVATOR TOWER  
1/8" = 1'-0"



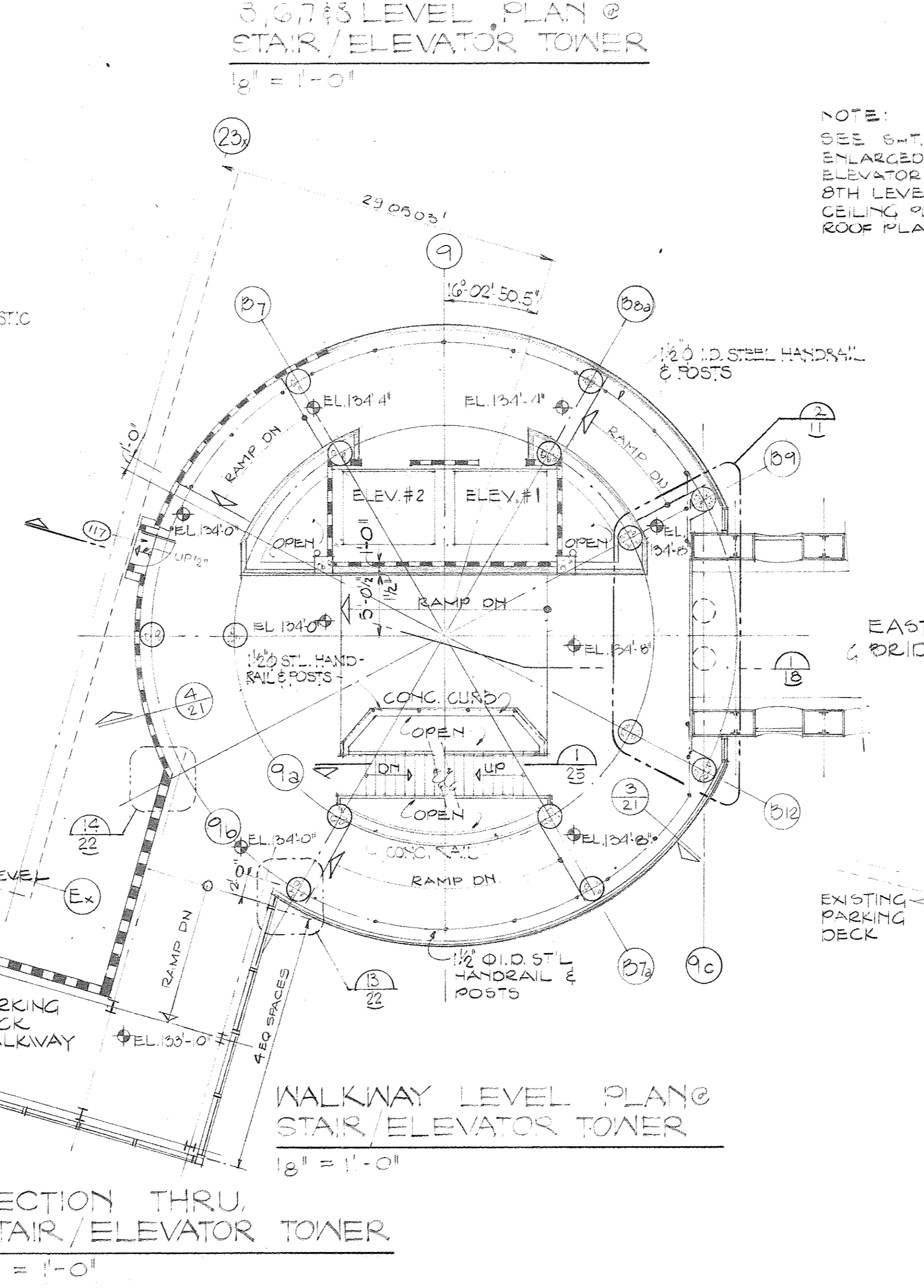
3, 6, 7, 8 LEVEL PLAN @  
STAIR/ELEVATOR TOWER  
1/8" = 1'-0"



SECOND LEVEL PLAN @  
STAIR/ELEVATOR TOWER  
1/8" = 1'-0"

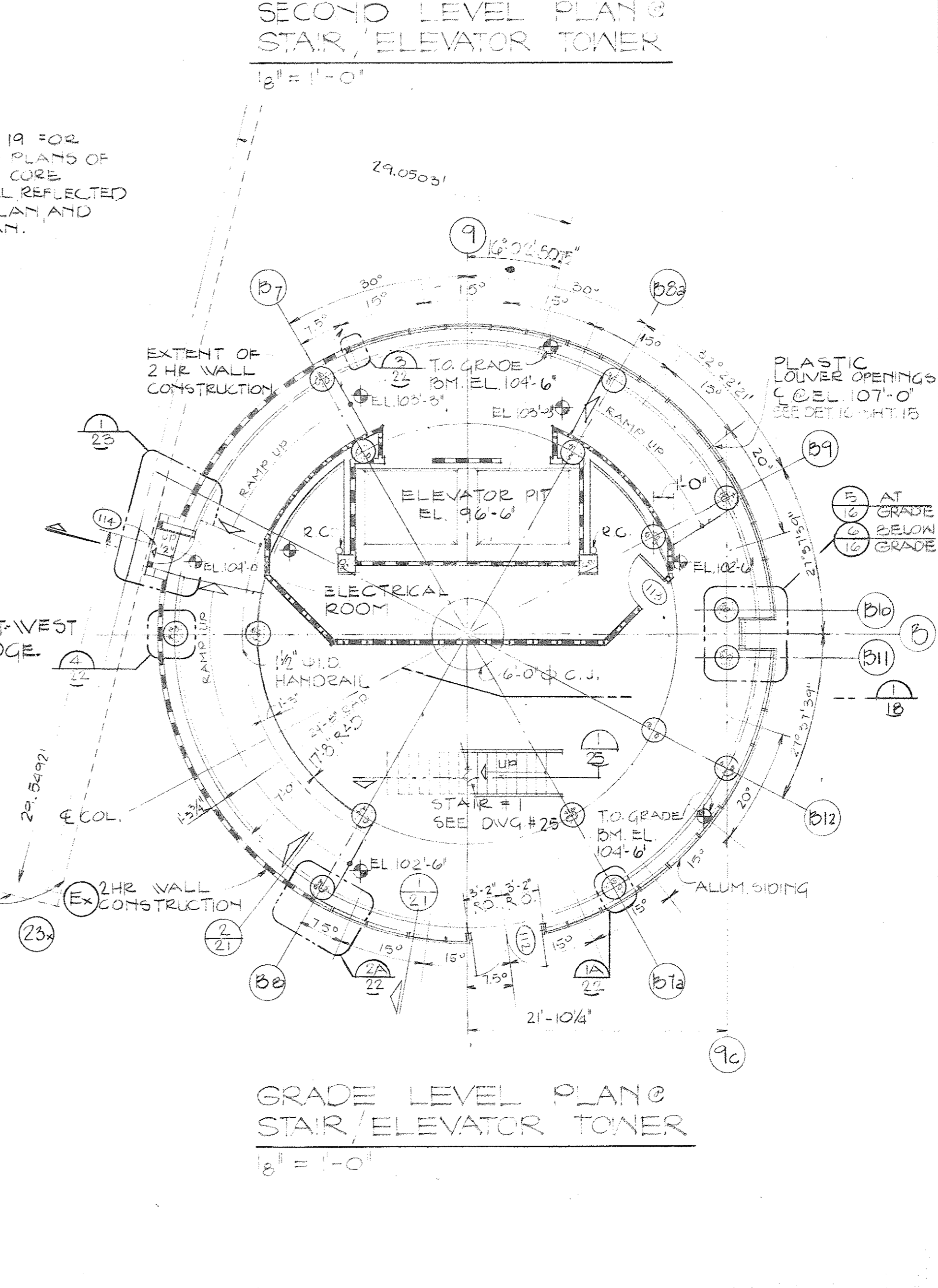


SECTION THRU  
STAIR/ELEVATOR TOWER  
1/8" = 1'-0"



WALKWAY LEVEL PLAN @  
STAIR/ELEVATOR TOWER  
1/8" = 1'-0"

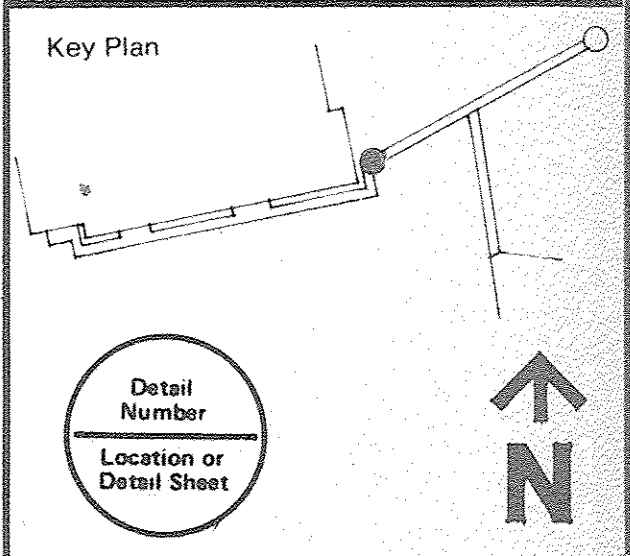
NOTE:  
SEE SET 19 FOR  
ENLARGED PLANS OF  
ELEVATOR CORE  
8TH LEVEL REFLECTED  
CEILING PLAN AND  
ROOF PLAN.



GRADE LEVEL PLAN @  
STAIR/ELEVATOR TOWER  
1/8" = 1'-0"

OWNER	5-30-80
Issued For	Date
1-18-80	A.I.
Date	Drawn By
7. Smith	Architect/Engineer
Project Manager	Construction Administrative Div. Approval
Division Approval	

15	AT GRADE
16	2 FEET BELOW GRADE
17	4 FEET BELOW GRADE



Drawing Title  
**PLANS AND SECTIONS  
STAIR-ELEVATOR  
TOWER**

15031A  
Project No.  
**A-18**  
Drawing No.  
AS NOTED  
Scale  
10 of 26

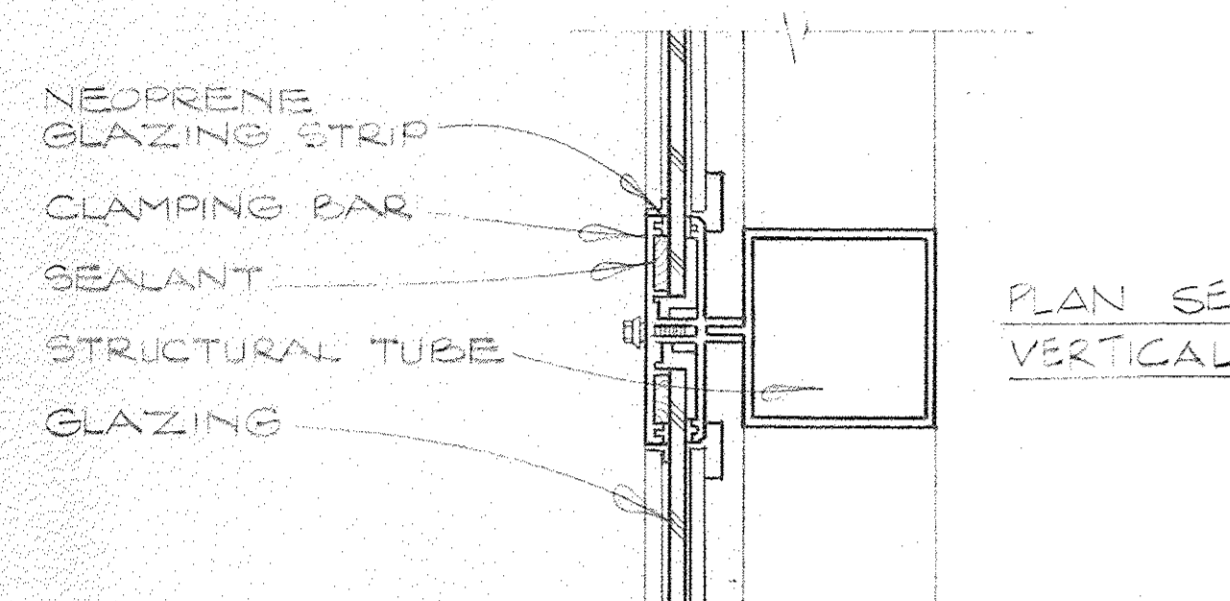
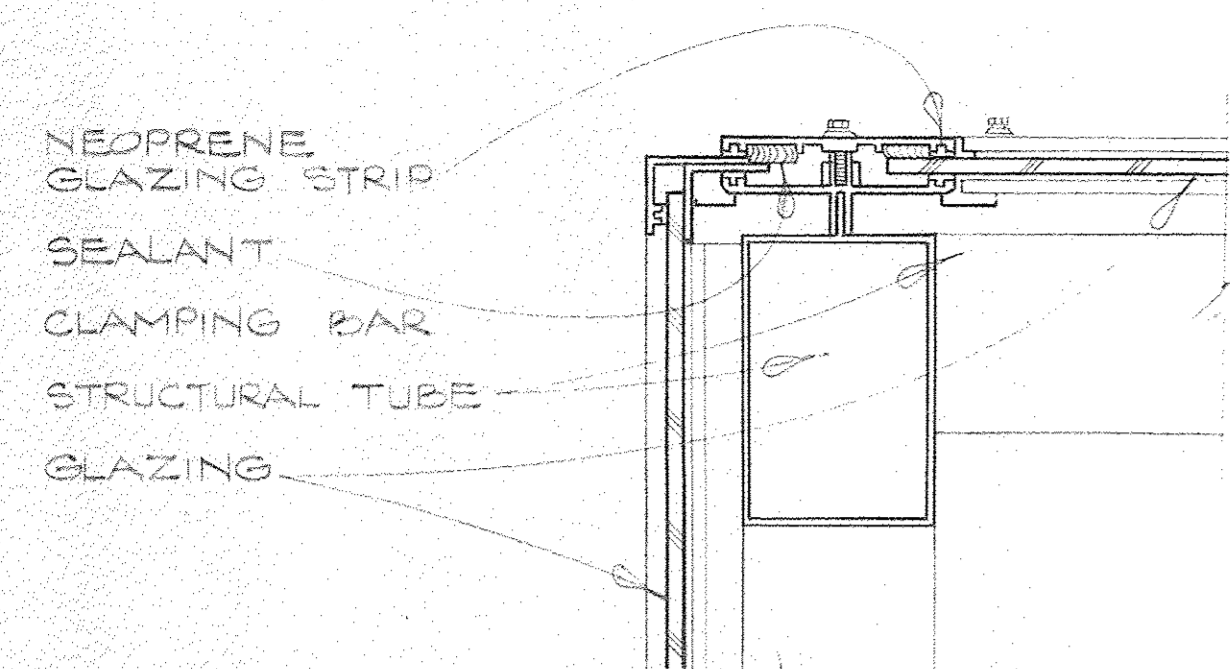




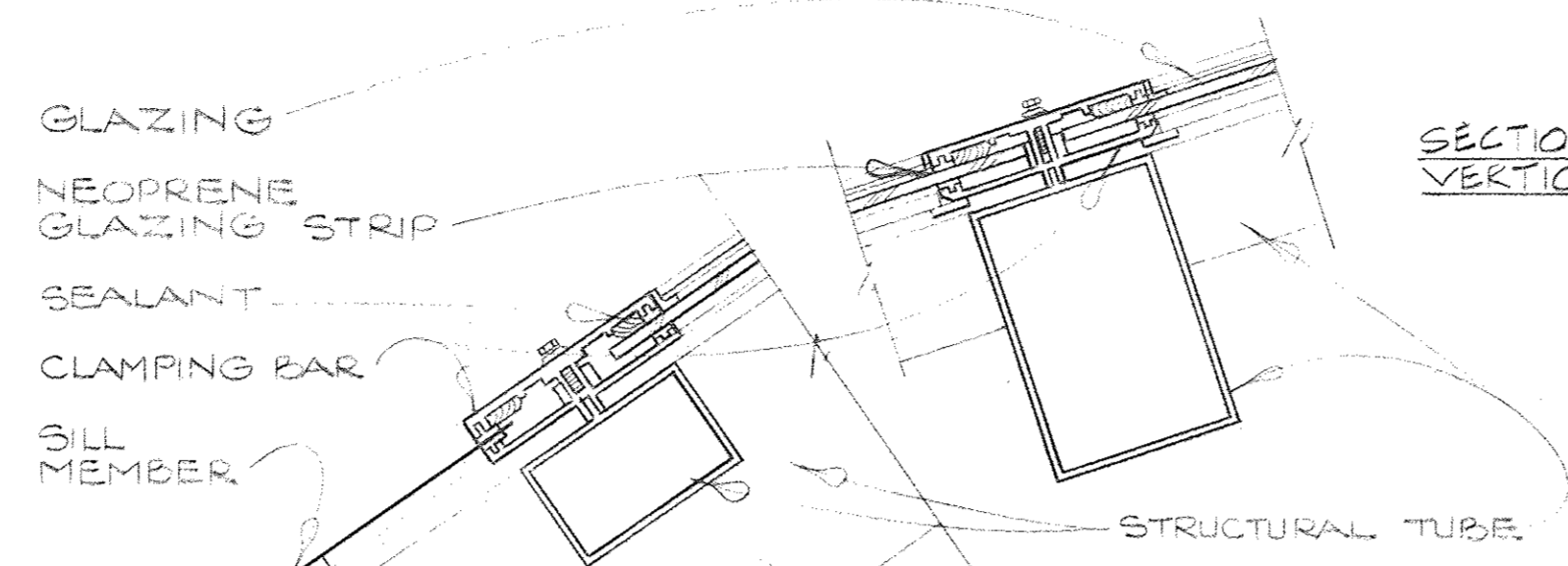
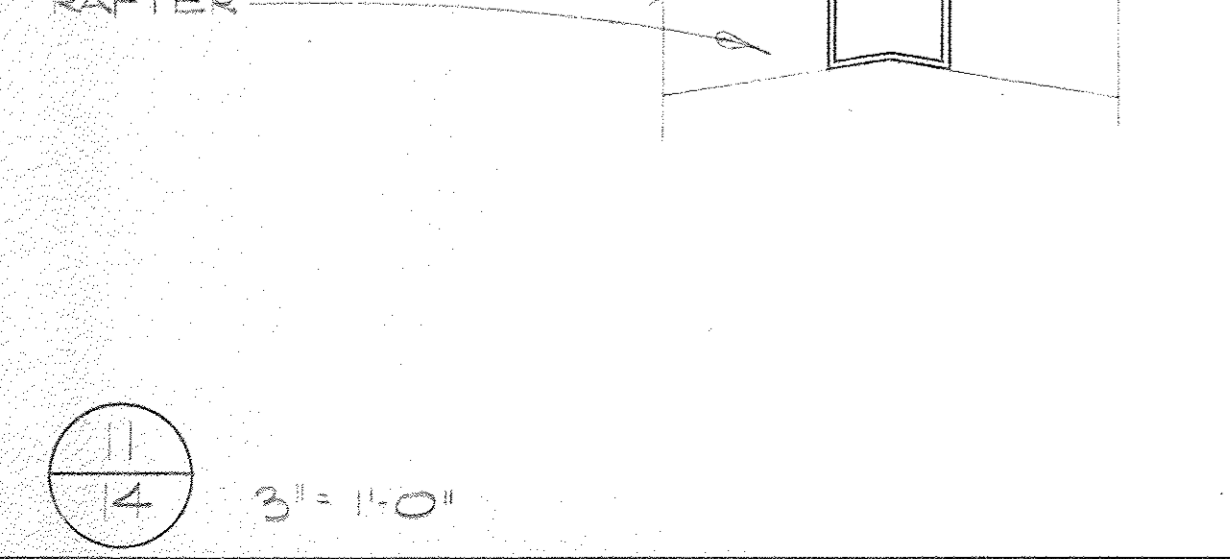
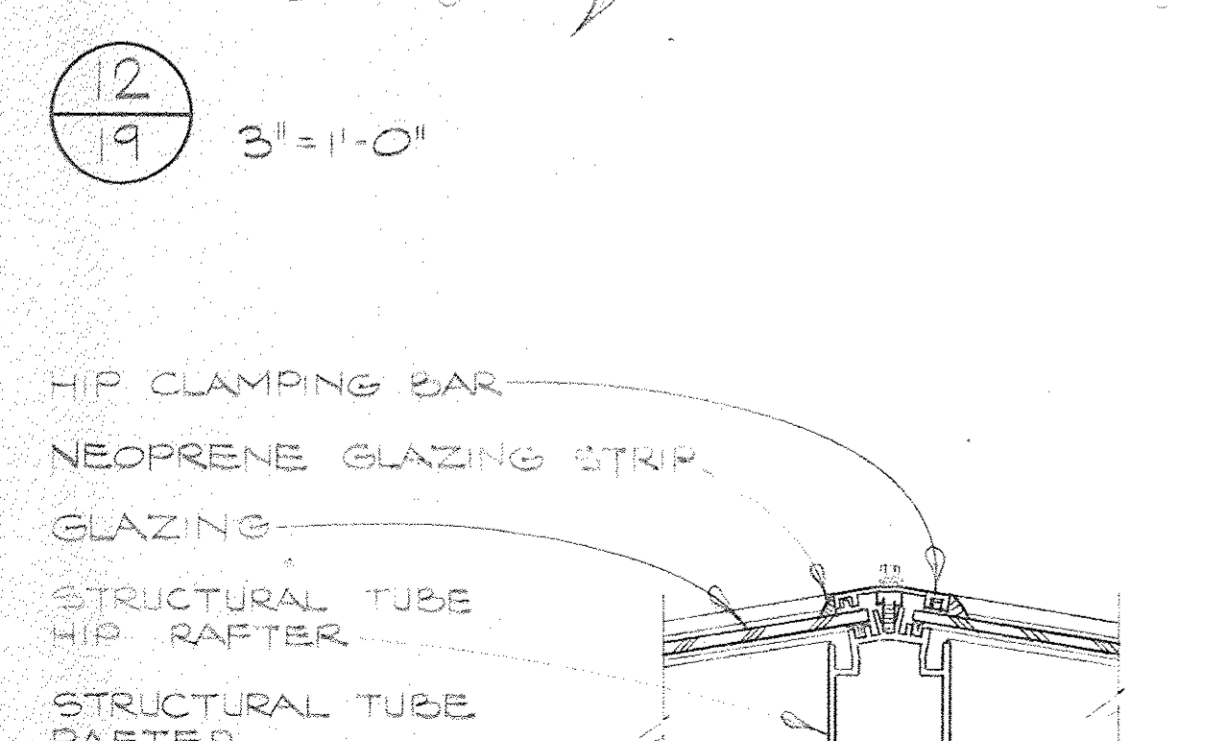
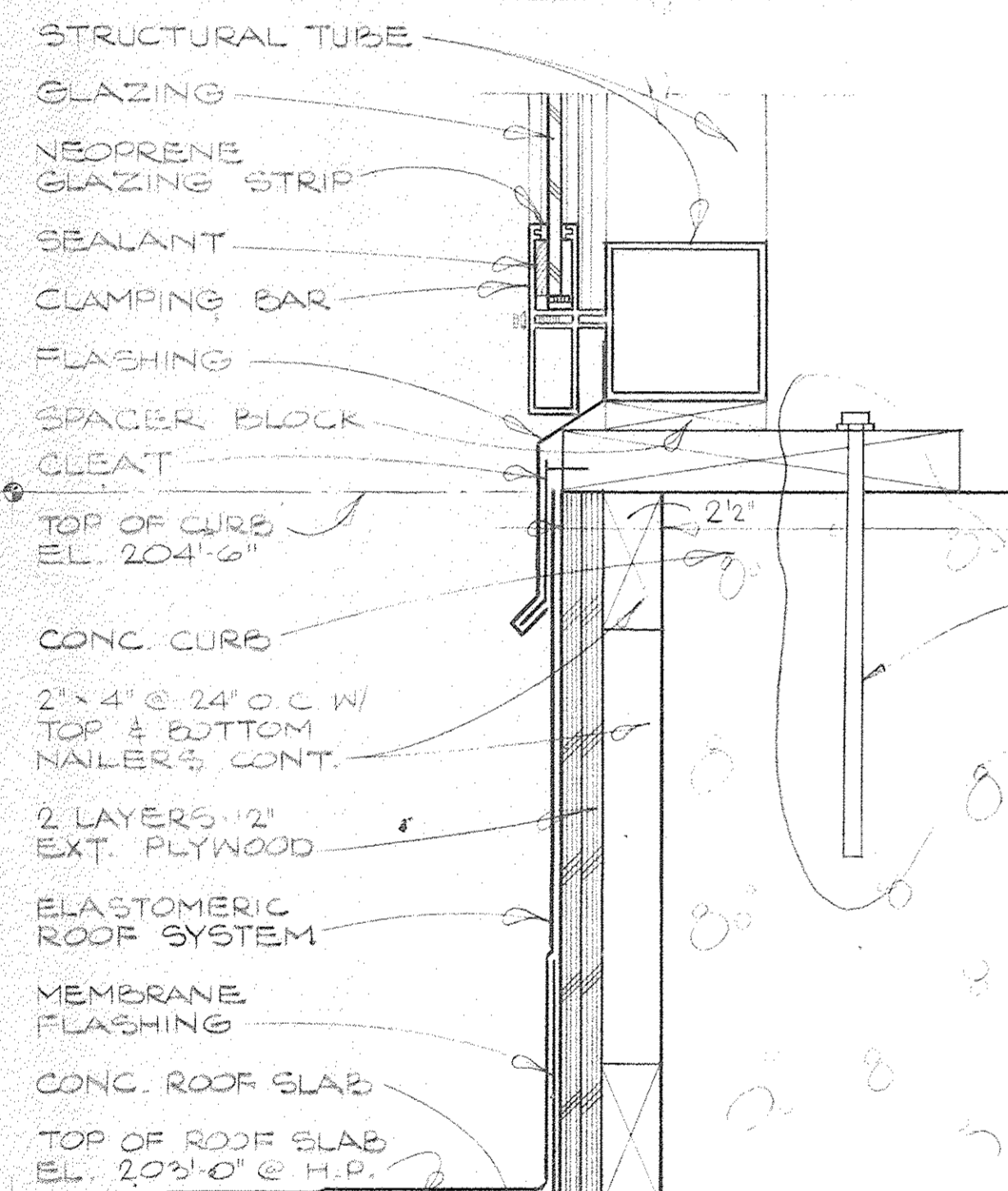








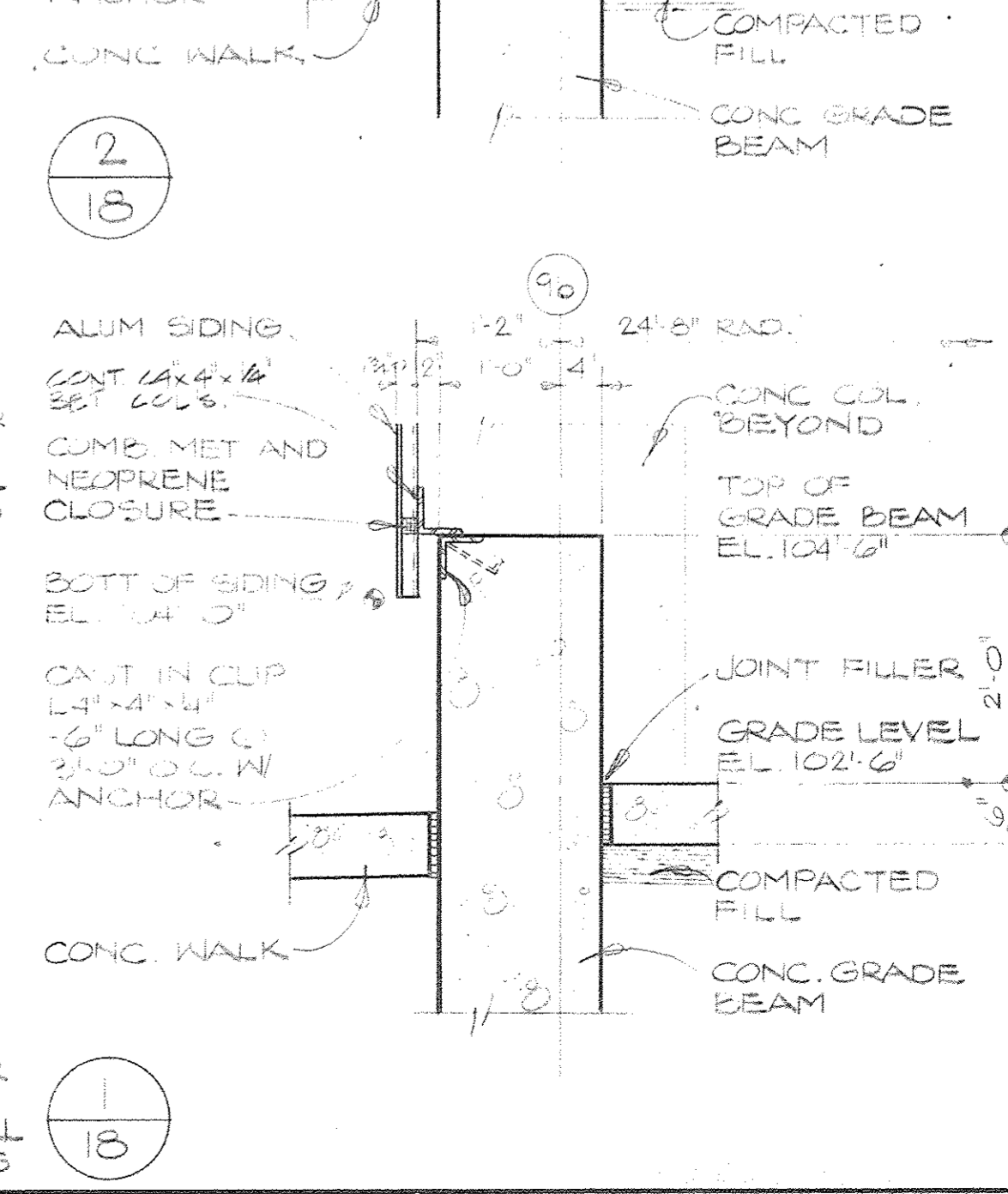
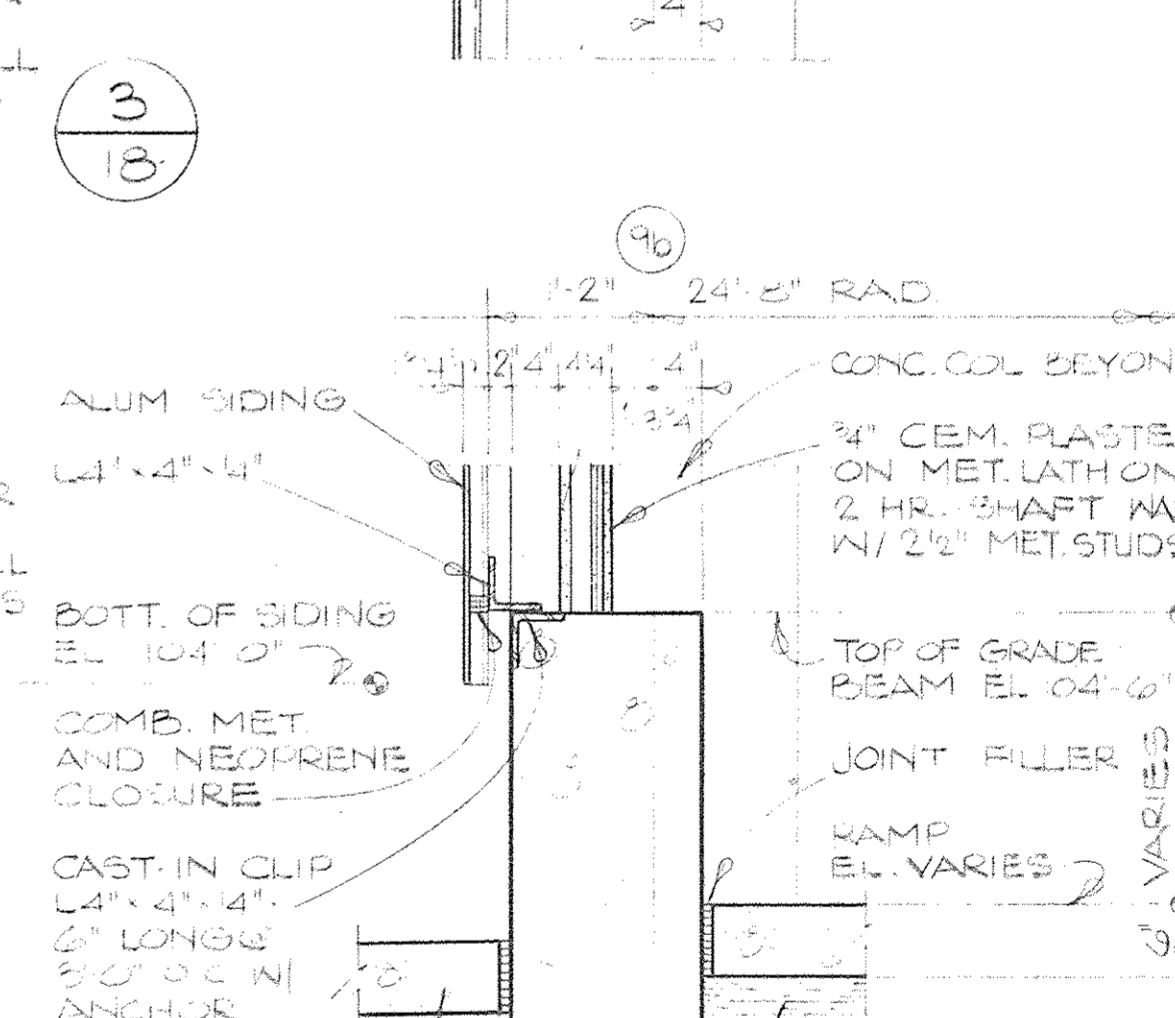
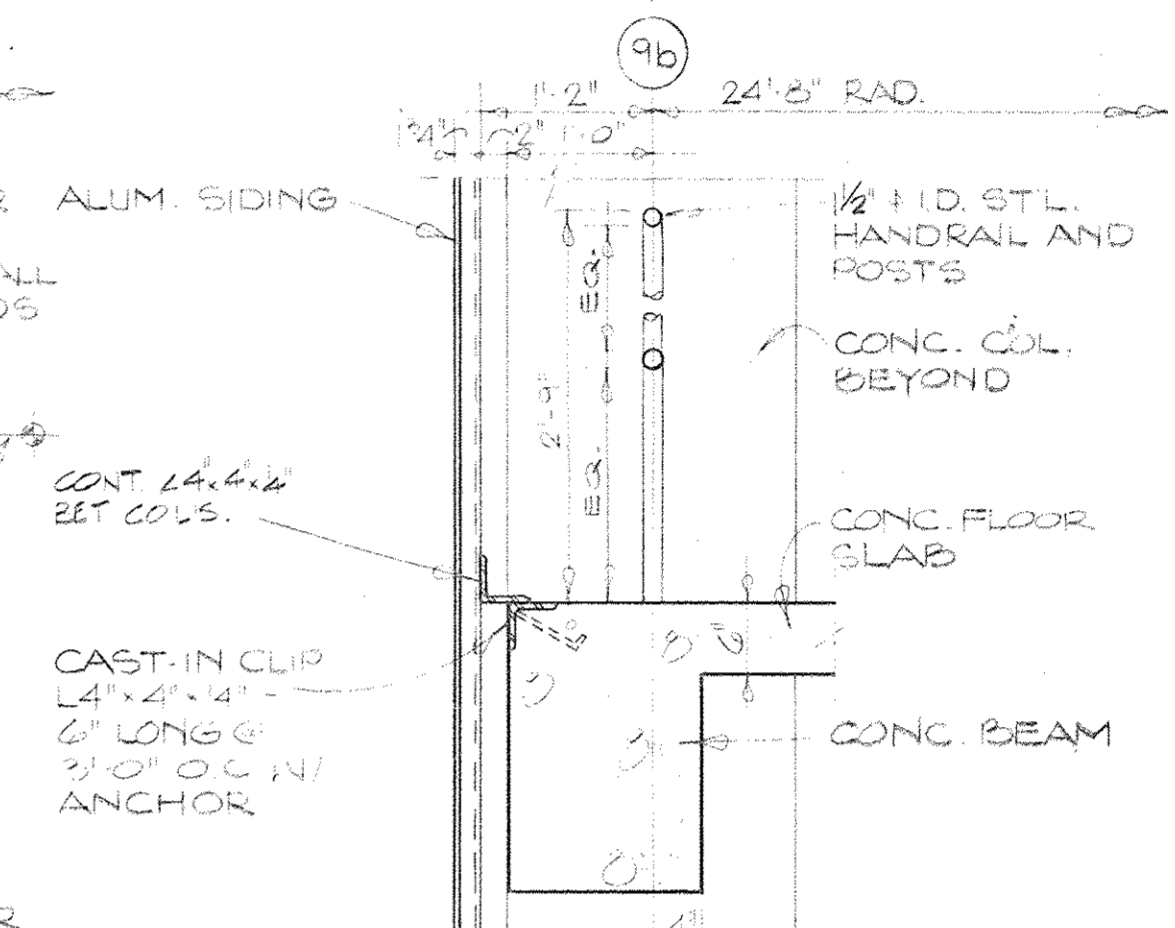
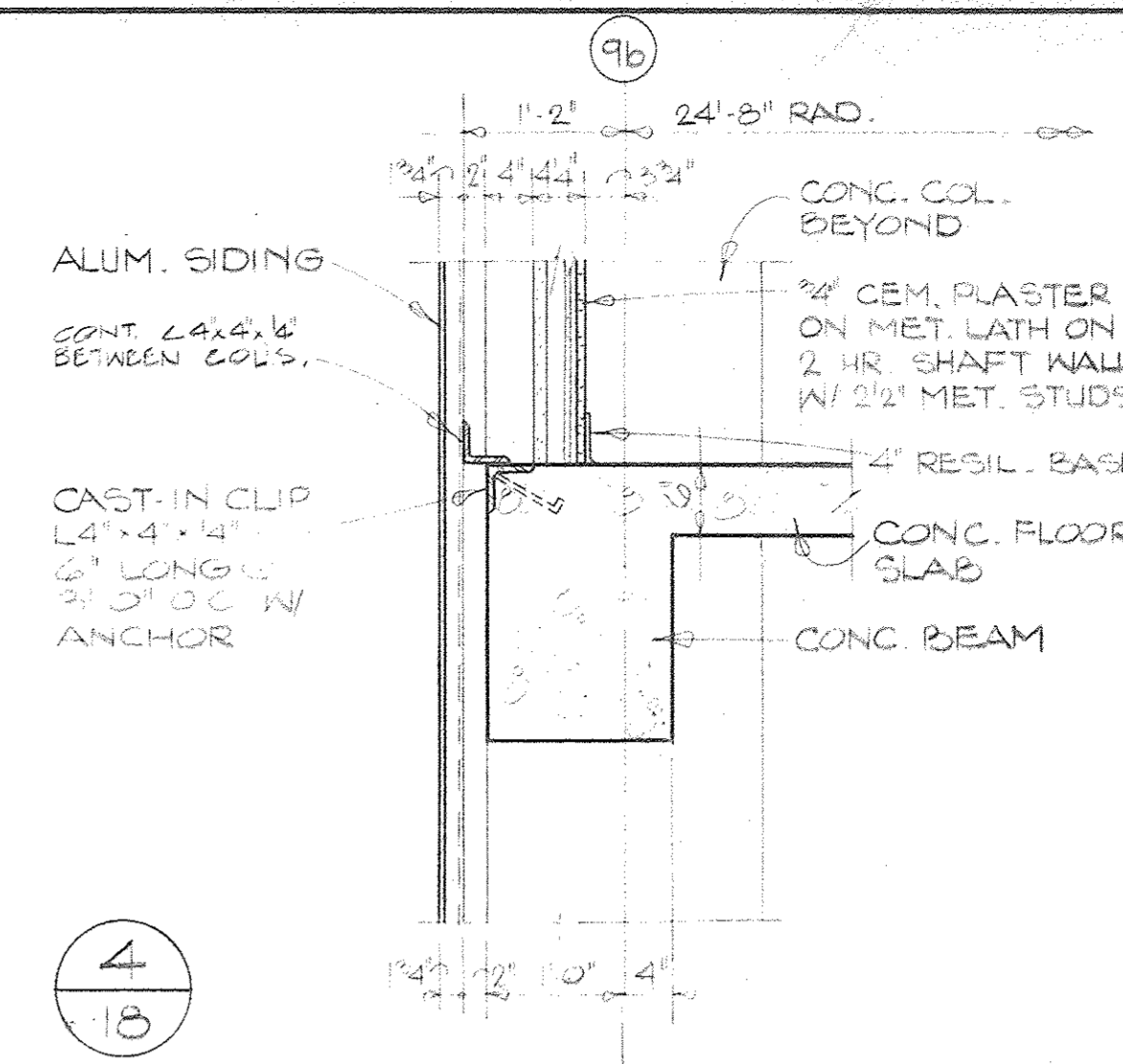
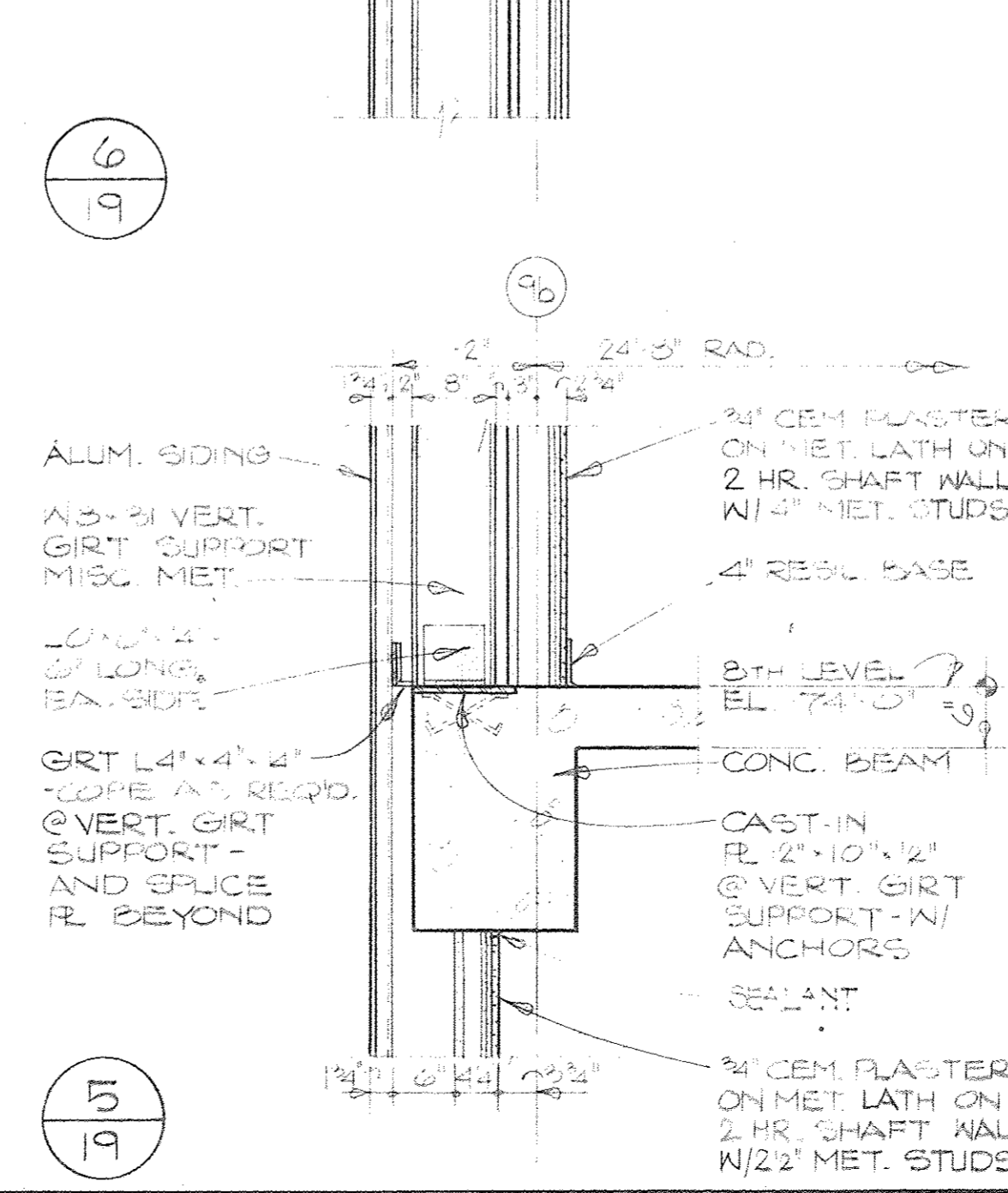
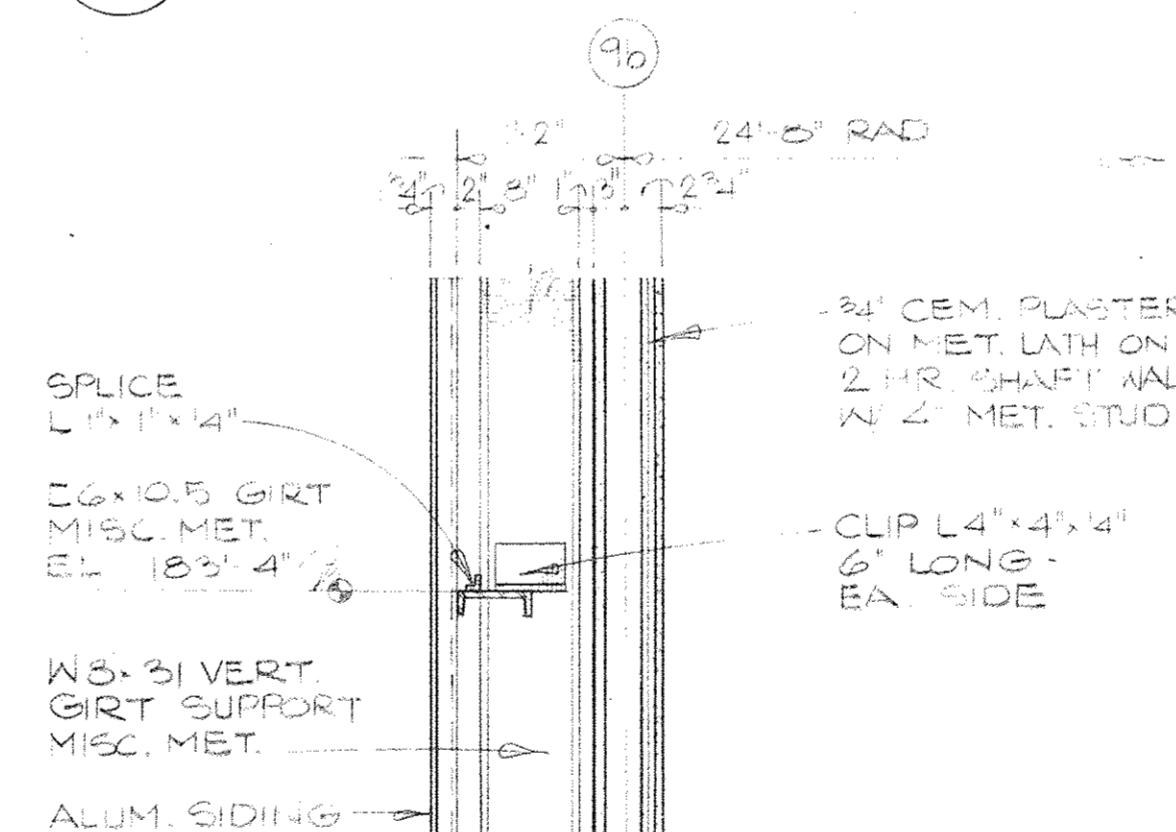
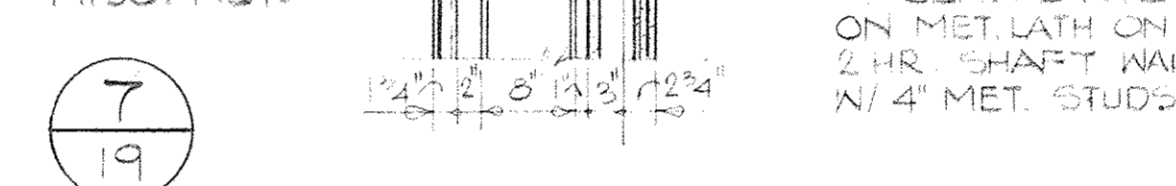
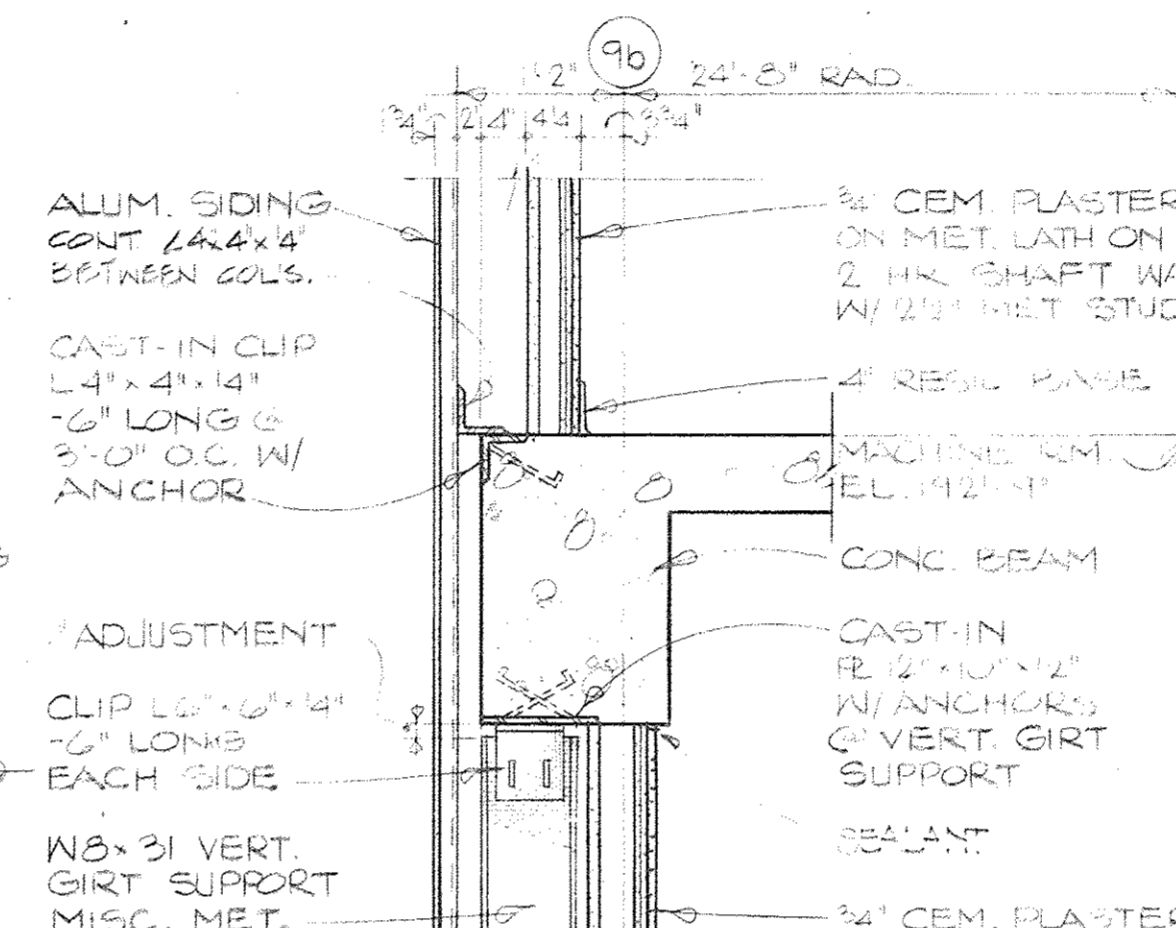
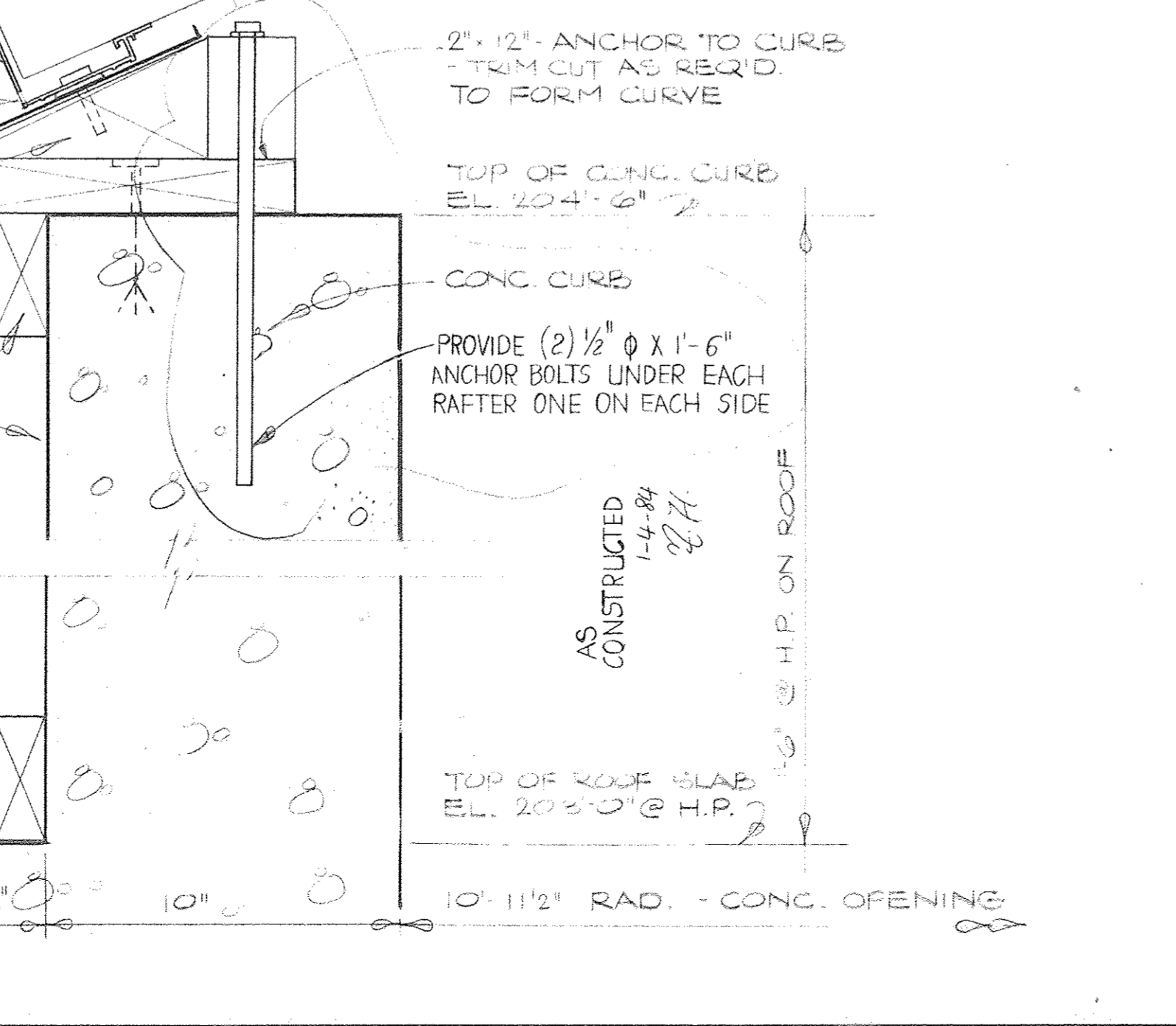
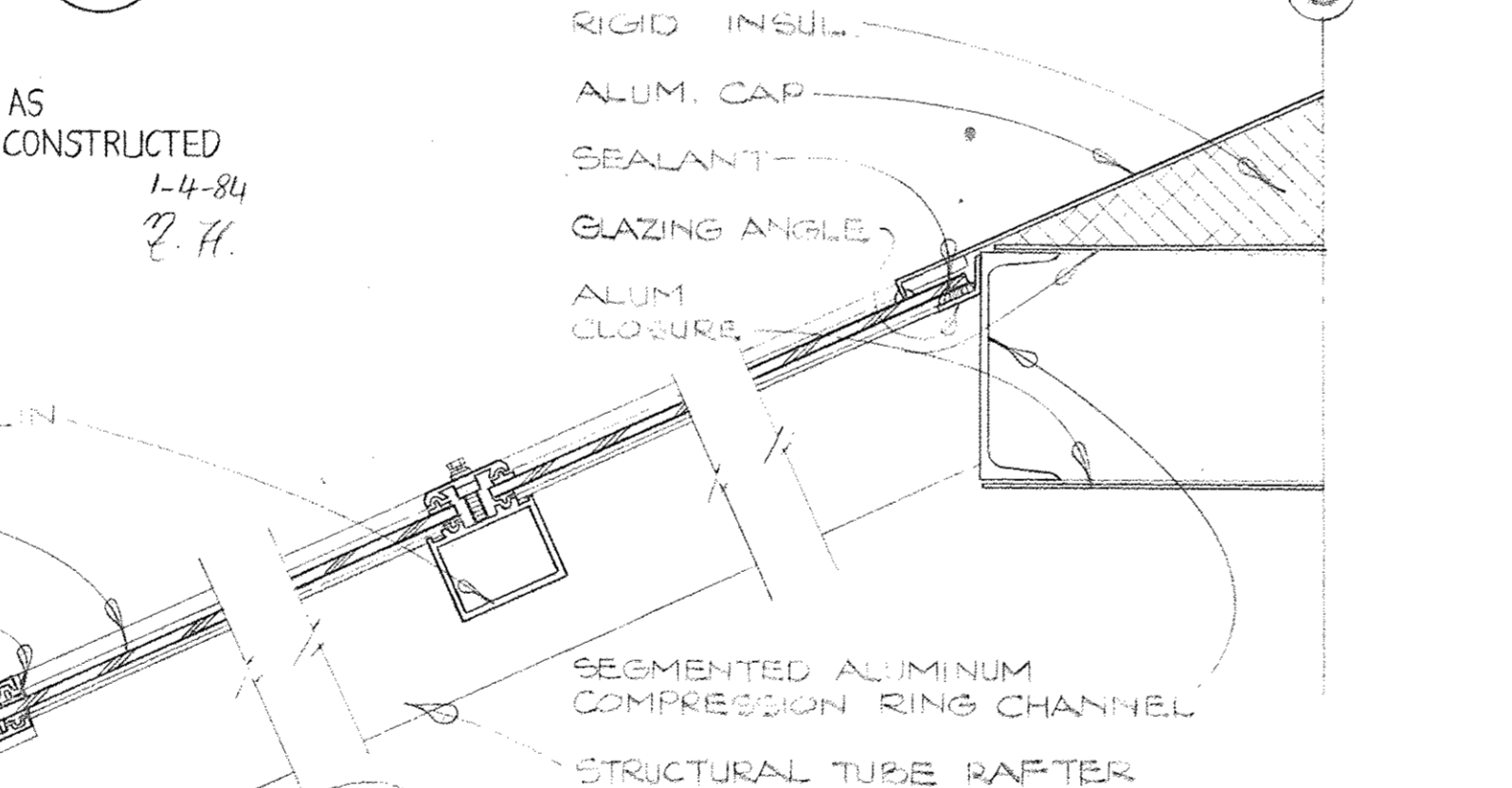
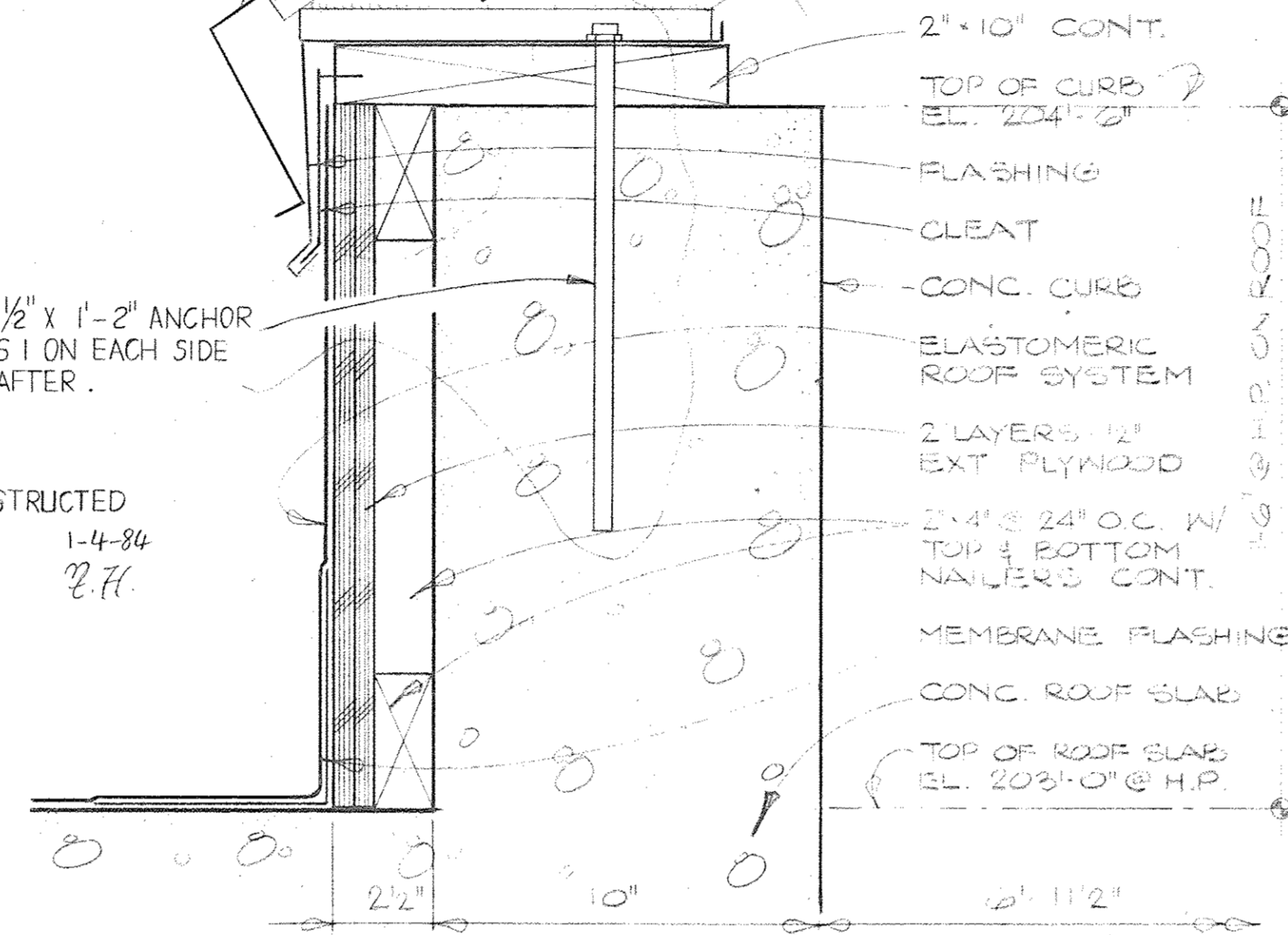
PLAN SECTION @  
VERTICAL MEMBER



SECTION @  
VERTICAL MEMBER

(2) 1/2" x 1'-2" ANCHOR BOLTS 1 ON EACH SIDE OF RAFTER.

AS CONSTRUCTED  
1-4-84  
Z.H.



Joe Louis Sports Arena  
Pedestrian Walkway  
For City Engineering Division

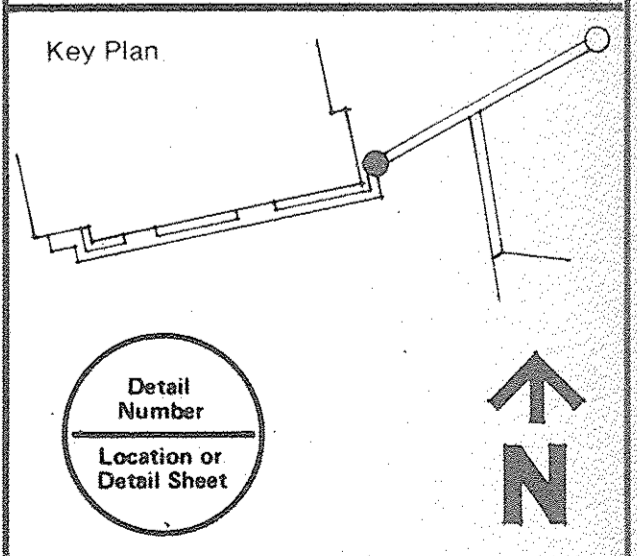
**SH&G**  
Smith, Hinchman & Grylls Associates, Inc.  
Architects Engineers Planners

455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000

SH&G Job. No. 11732C

OWNER	3-30-80
Issued For	Date
1-18-80	M.D.
Date	Drawn By
J. W. T. C.	
Div. Architect/Engineer	
Correlation Check	
Project Manager	
Construction/Administrative Div. Approval	
Division Approval	

1-18-80	M.D.
Date	Drawn By
J. W. T. C.	
Div. Architect/Engineer	
Correlation Check	
Project Manager	
Construction/Administrative Div. Approval	
Division Approval	



Key Plan

Detail Number  
Location or Detail Sheet

Drawing Title  
**DETAILS STAIR-ELEVATOR TOWER AND SKYLIGHT**

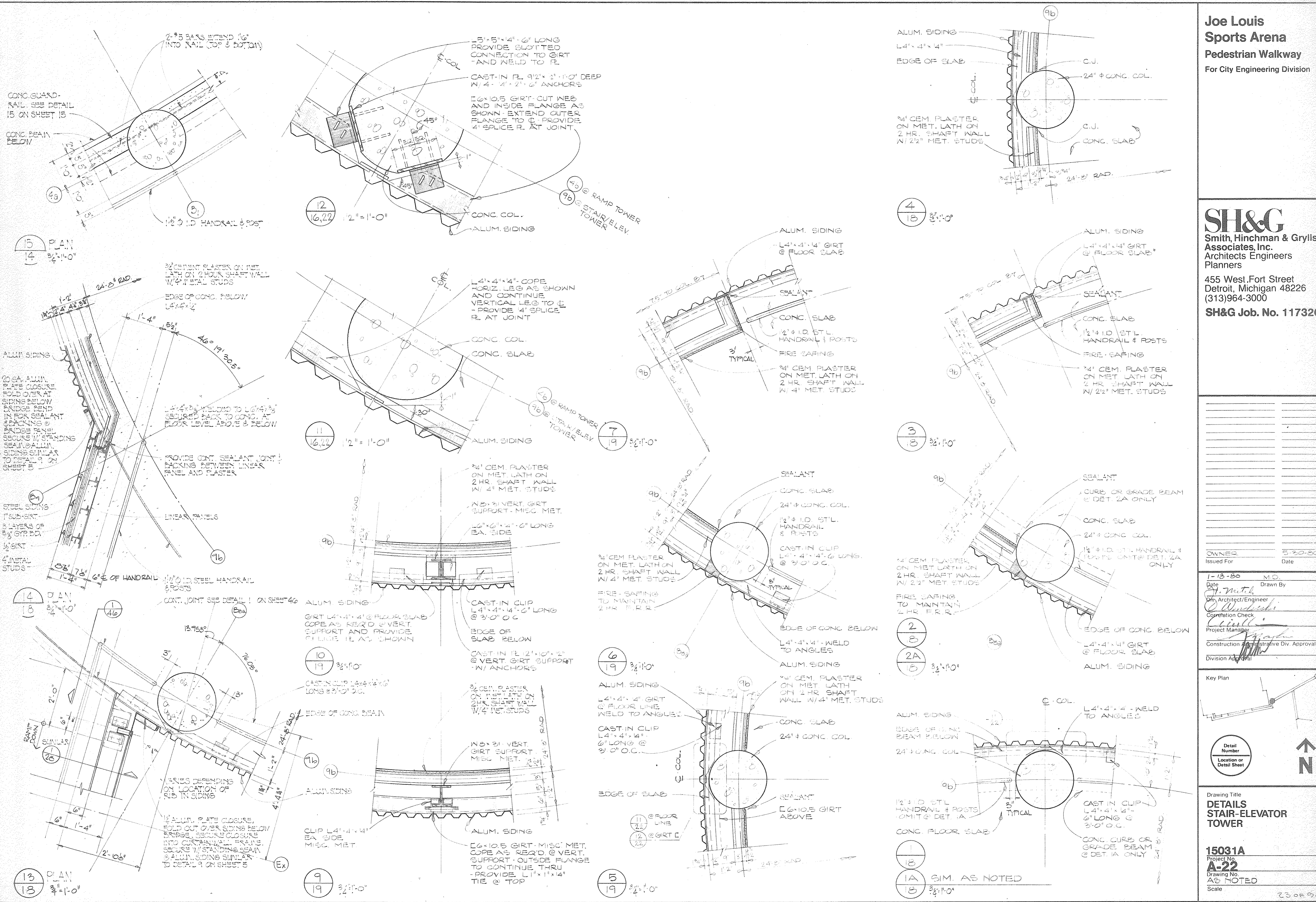
Project No.  
**15031A**

Drawing No.  
**A-21**

Scale  
1/4" = 1'-0" U.O.N.

Scale 22 OF 26





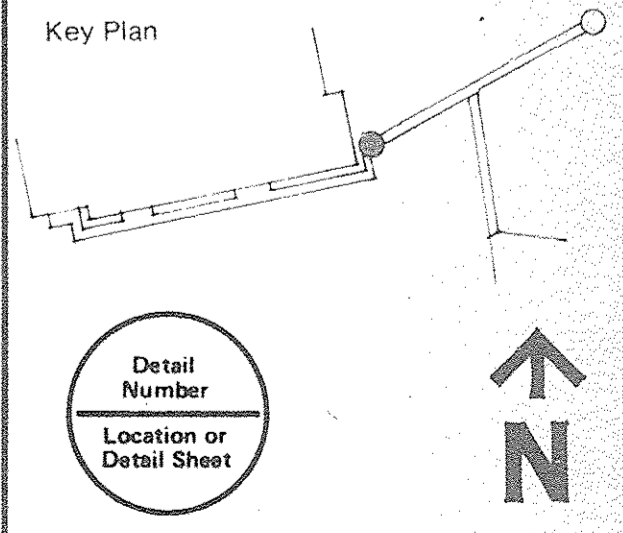
**Joe Louis Sports Arena**  
**Pedestrian Walkway**  
 For City Engineering Division

**SH&G**  
 Smith, Hinchman & Grylls  
 Associates, Inc.  
 Architects Engineers  
 Planners

455 West Fort Street  
 Detroit, Michigan 48226  
 (313)964-3000  
**SH&G Job. No. 11732C**

OWNER	5-30-80
Issued For	Date
1-18-80	M.D.
Date	Drawn By
4. M. M. M.	
Dr. Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	

Key Plan



Drawing Title  
**DETAILS**  
**STAIR-ELEVATOR**  
**TOWER**

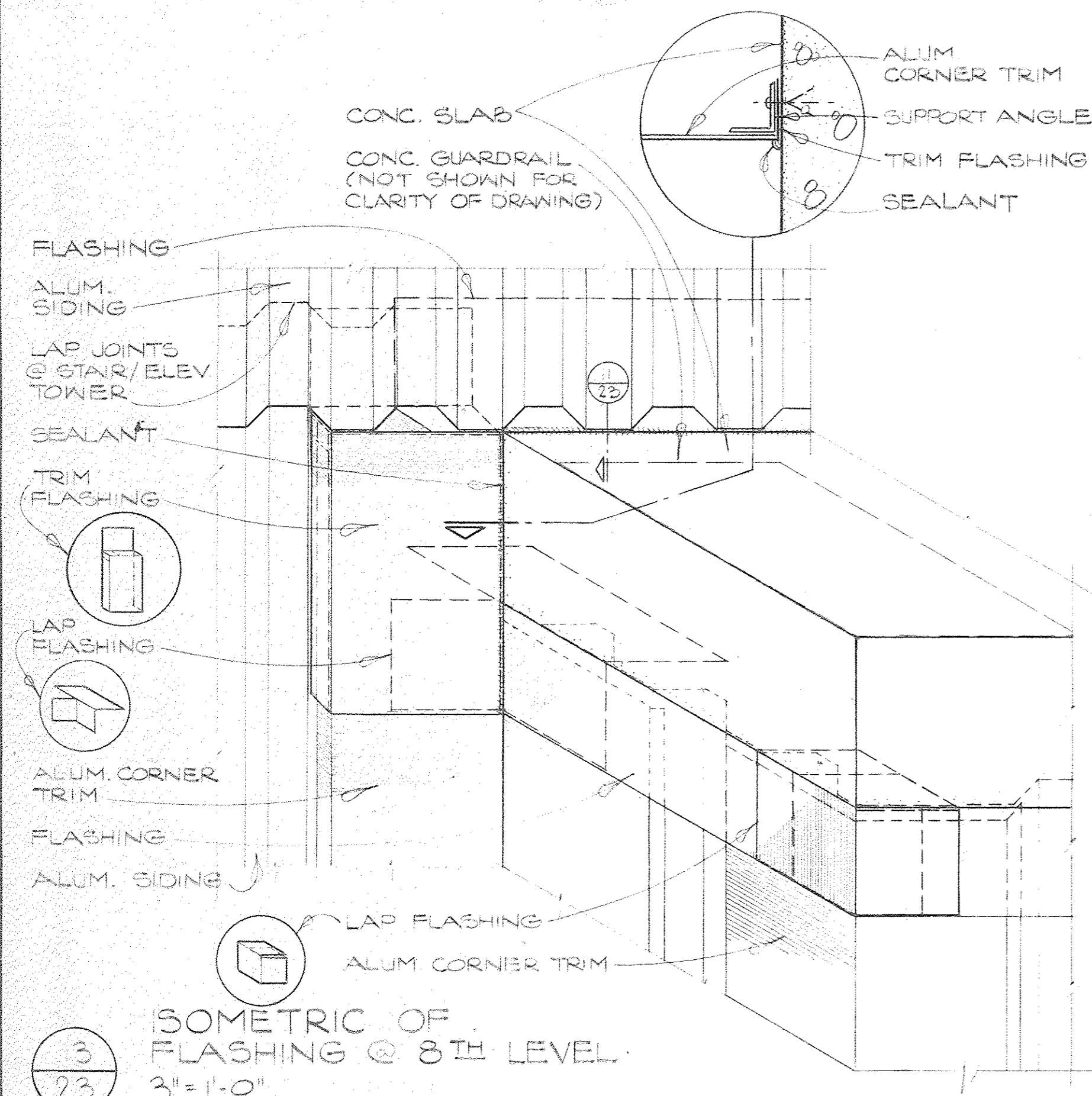
Project No.  
**15031A**

Drawing No.  
**A-22**

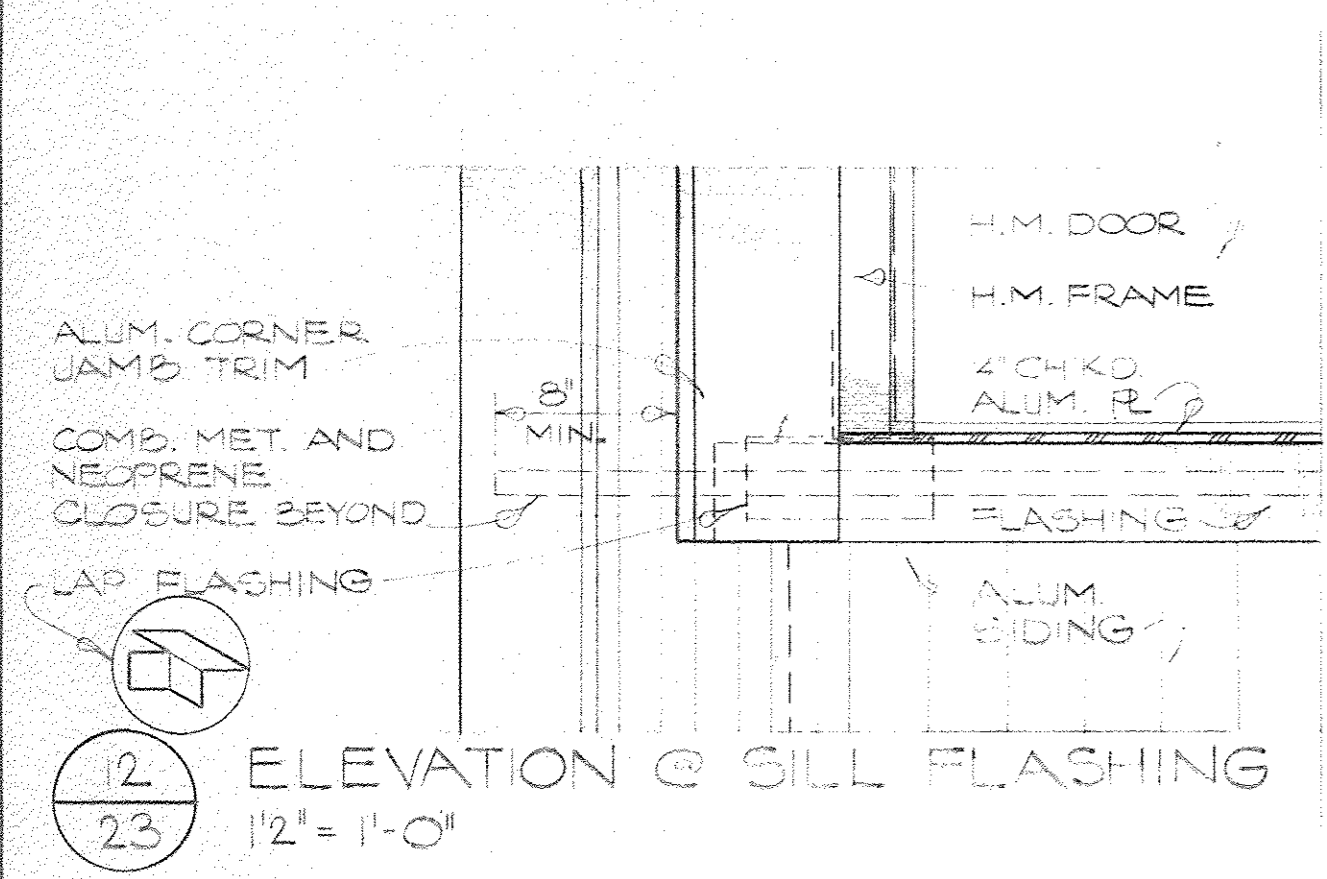
AS NOTED

Scale  
 23 OR 26

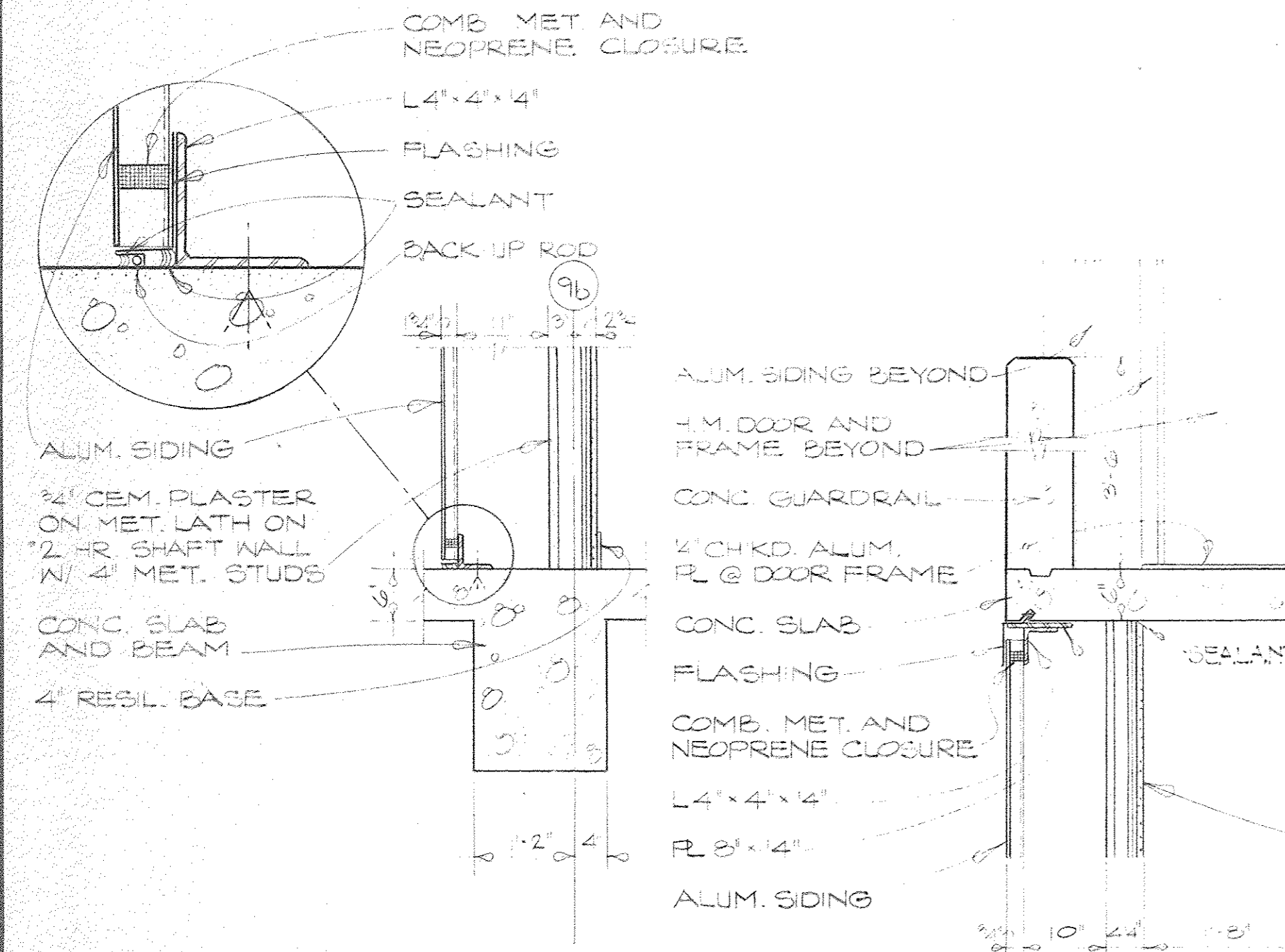




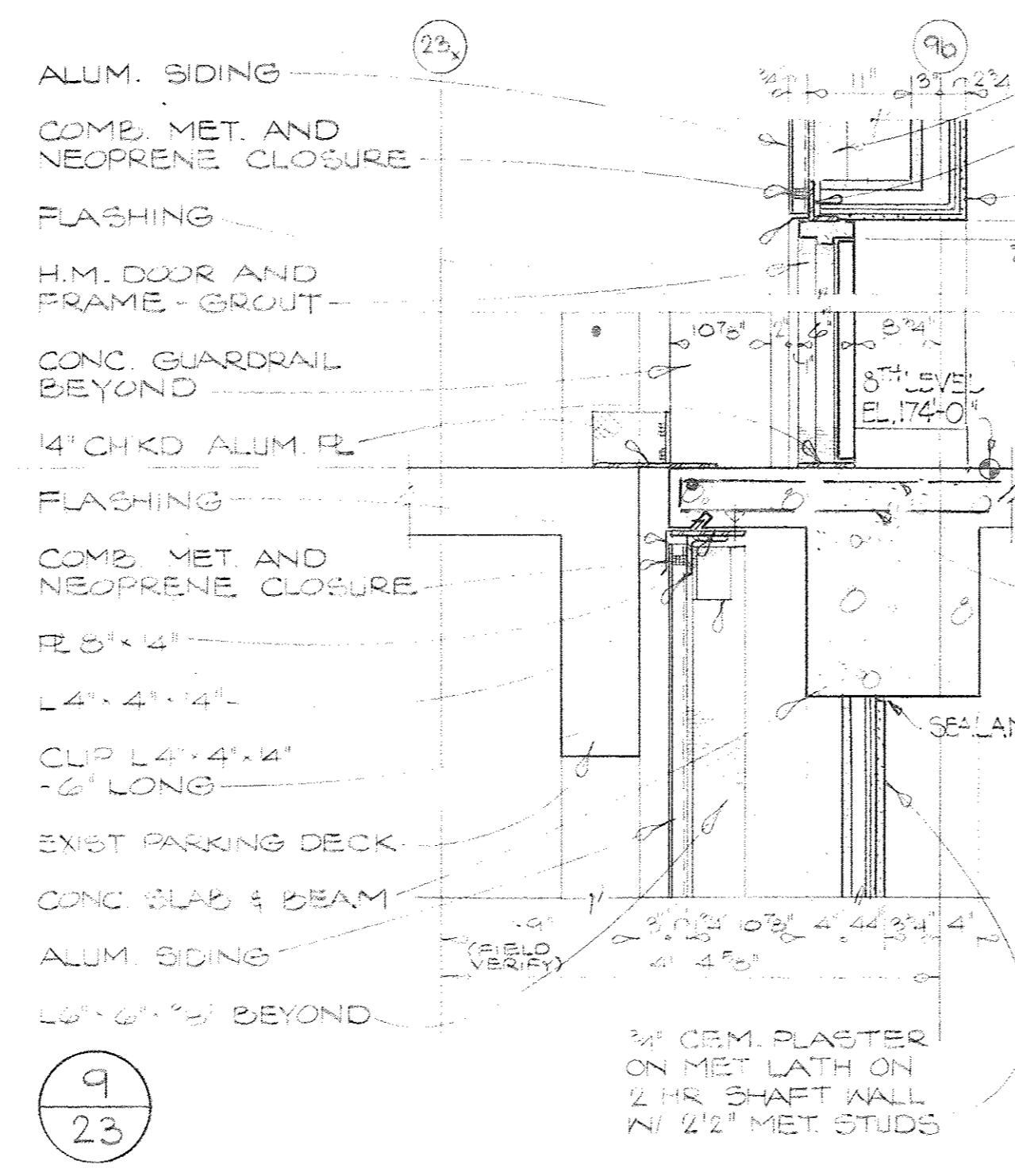
3  
23  
ISOMETRIC OF FLASHING @ 8TH LEVEL  
3/4" = 1'-0"



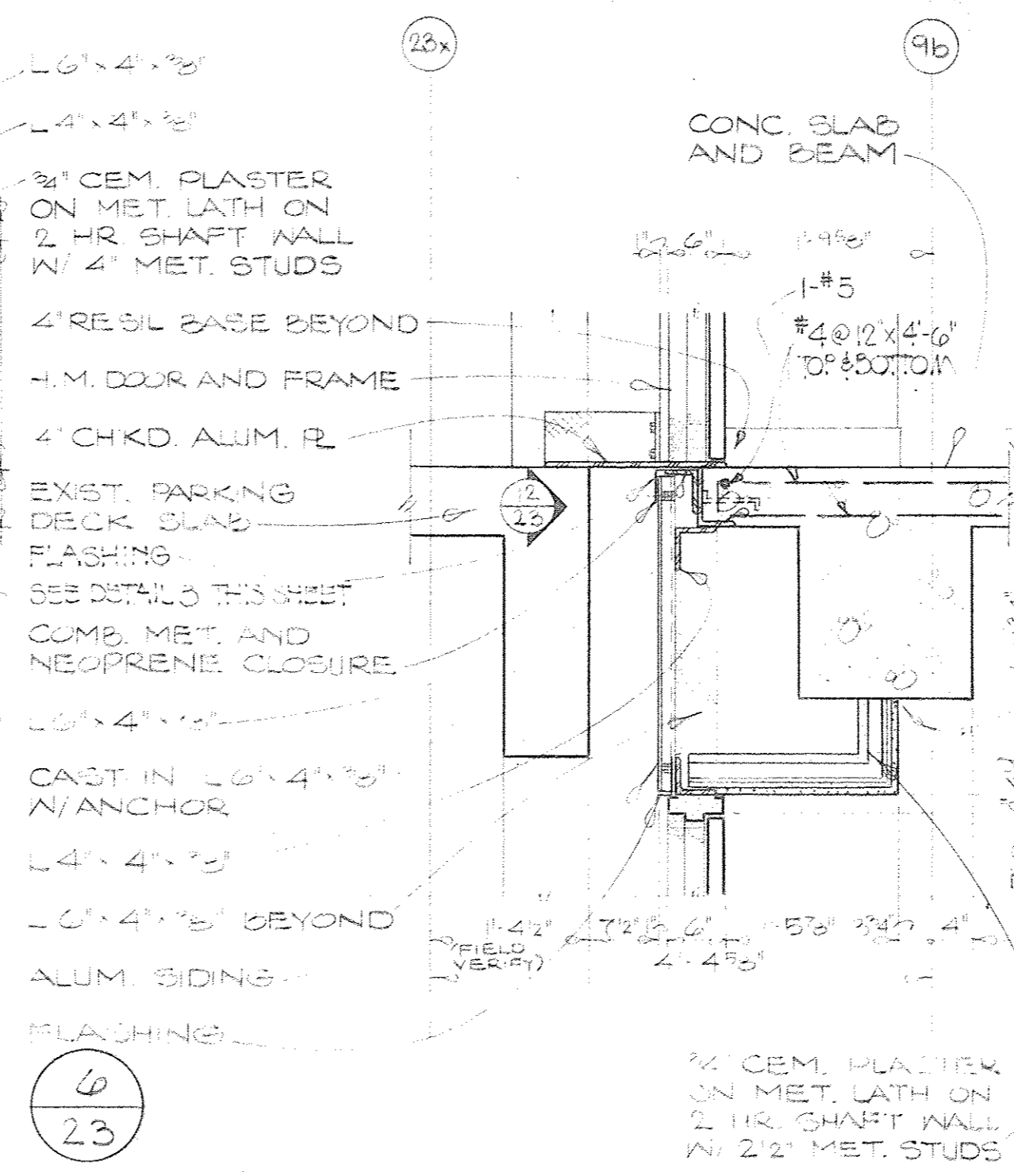
12  
23  
ELEVATION @ SILL FLASHING  
1/2" = 1'-0"



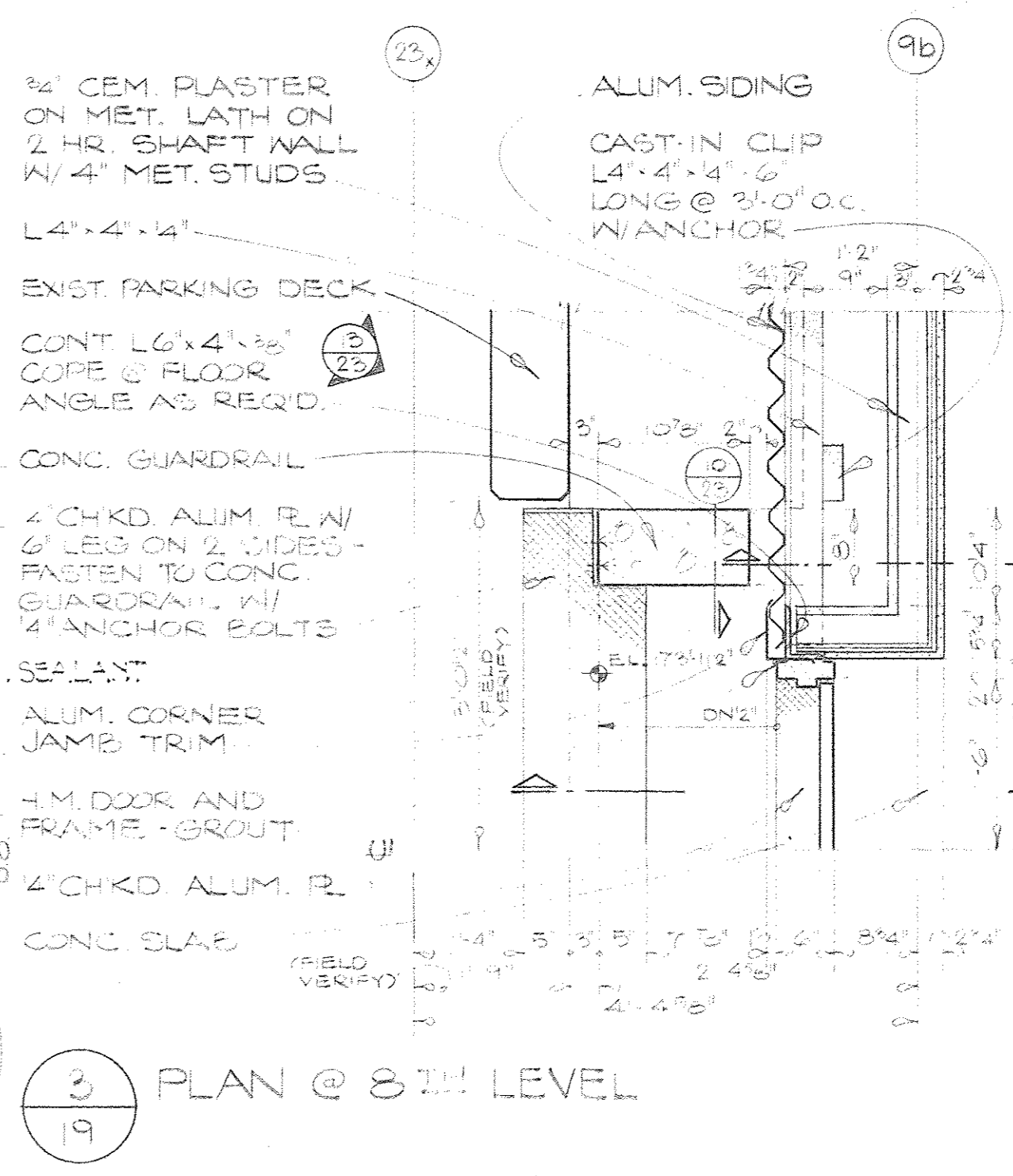
11  
23  
10  
23



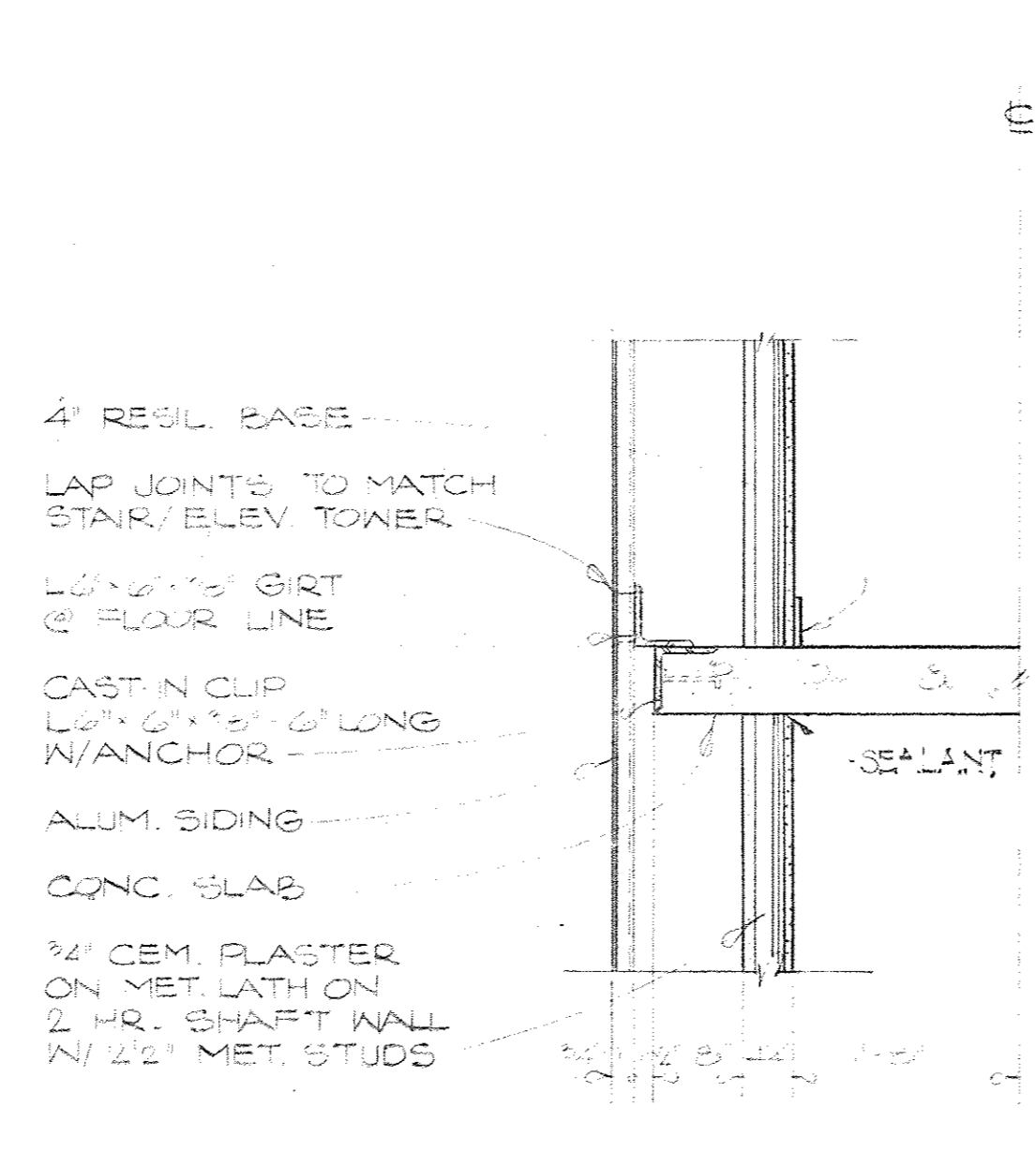
9  
23



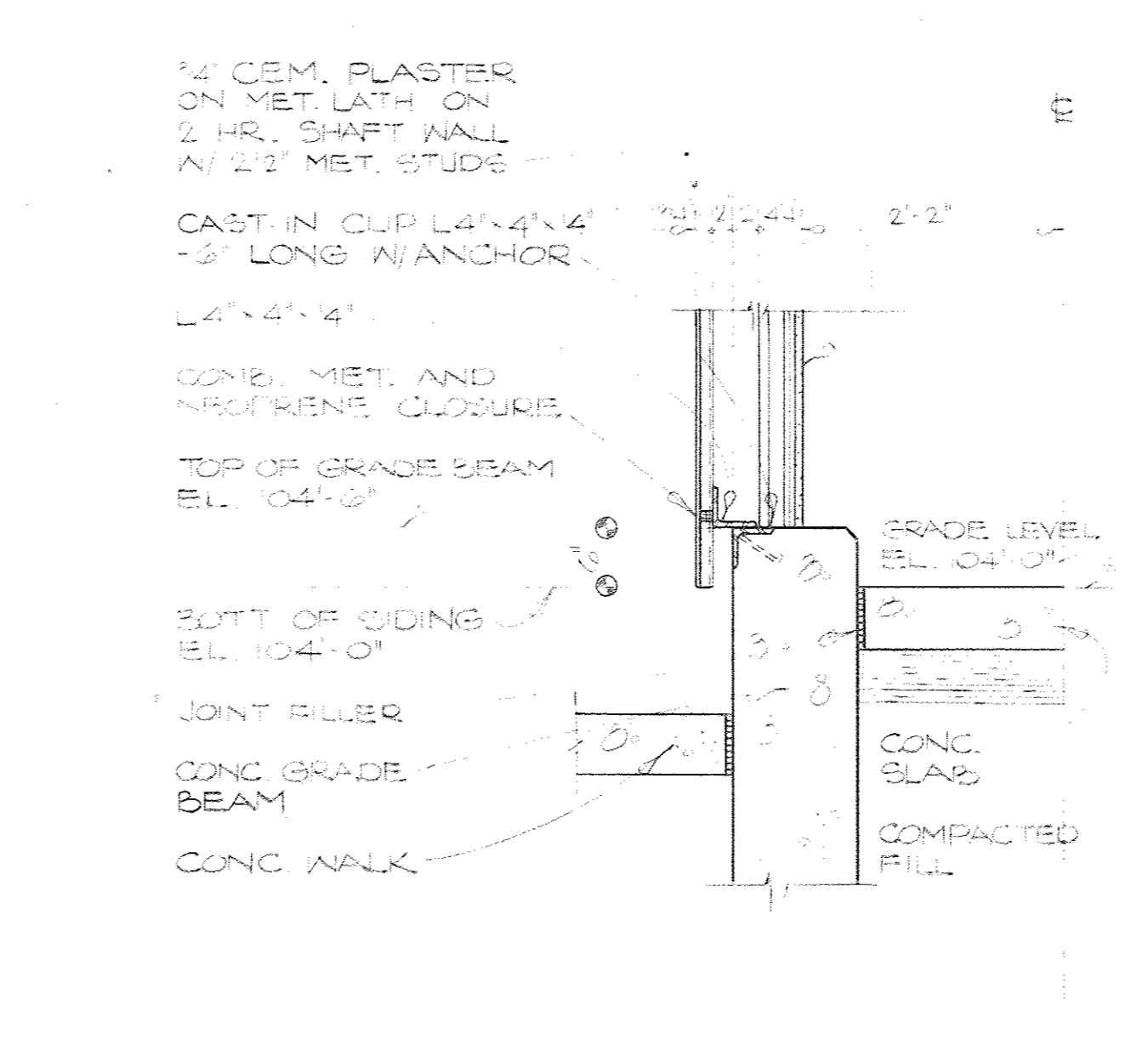
6  
23



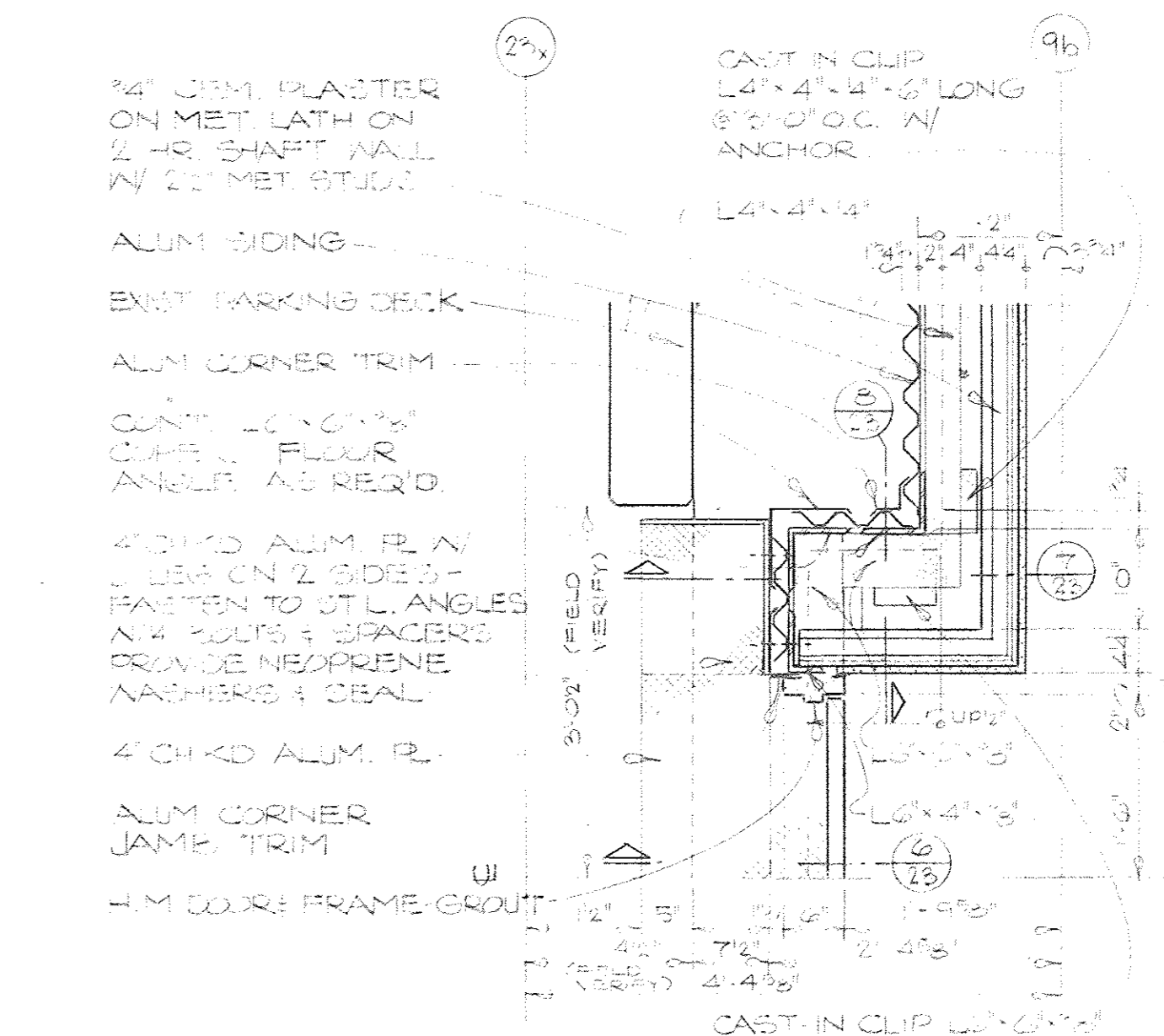
3  
19  
PLAN @ 8TH LEVEL



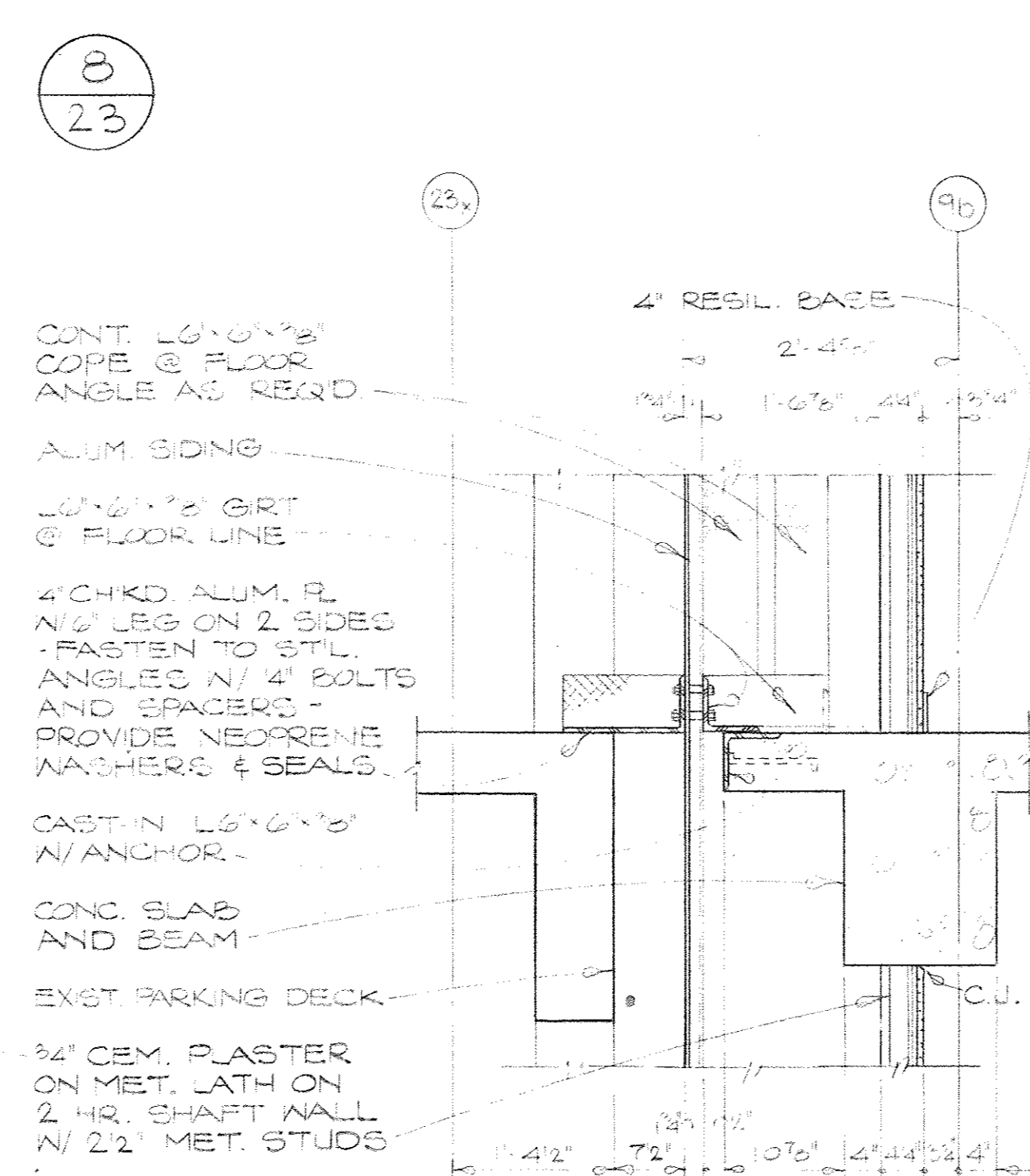
8  
23



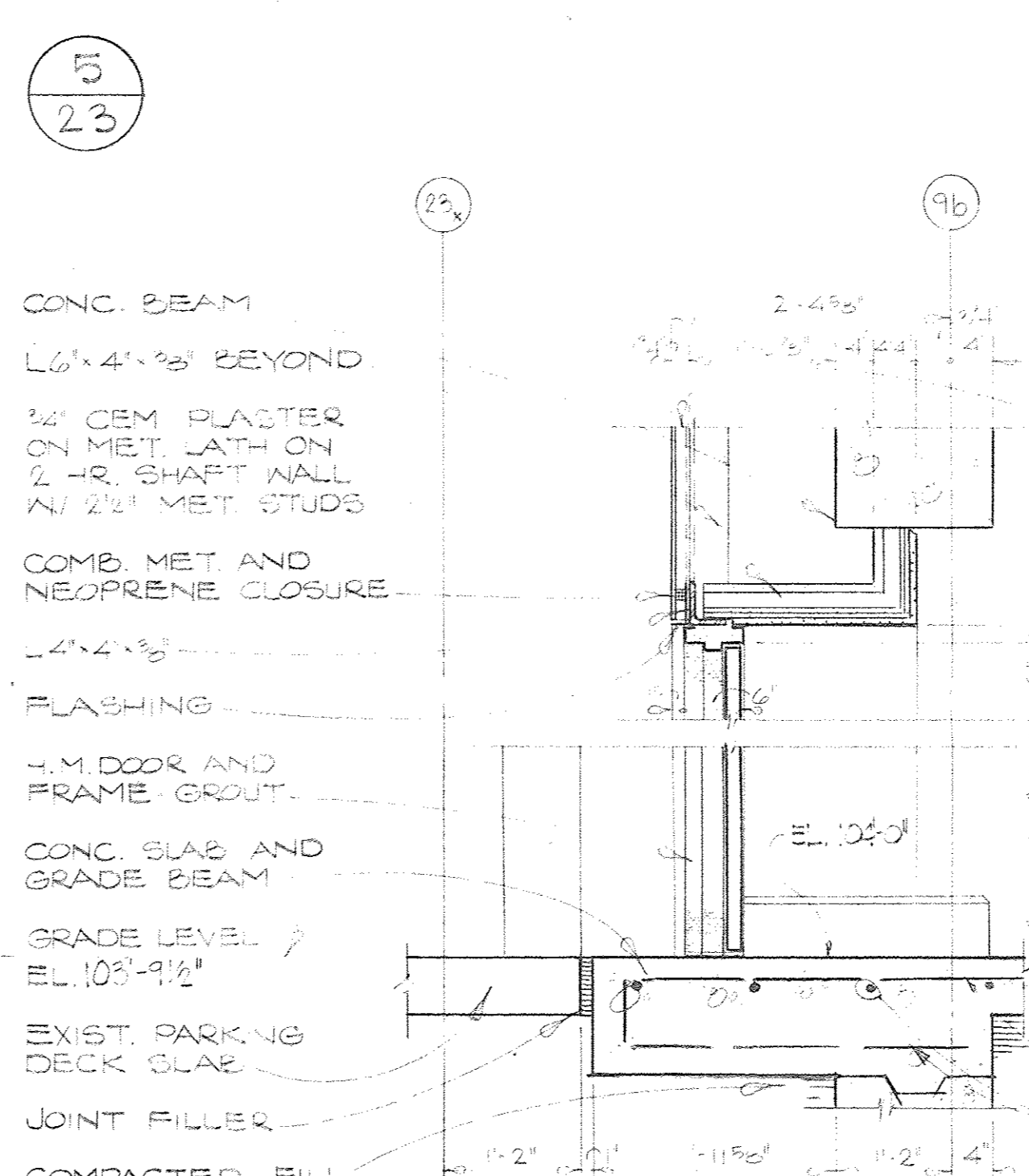
5  
23



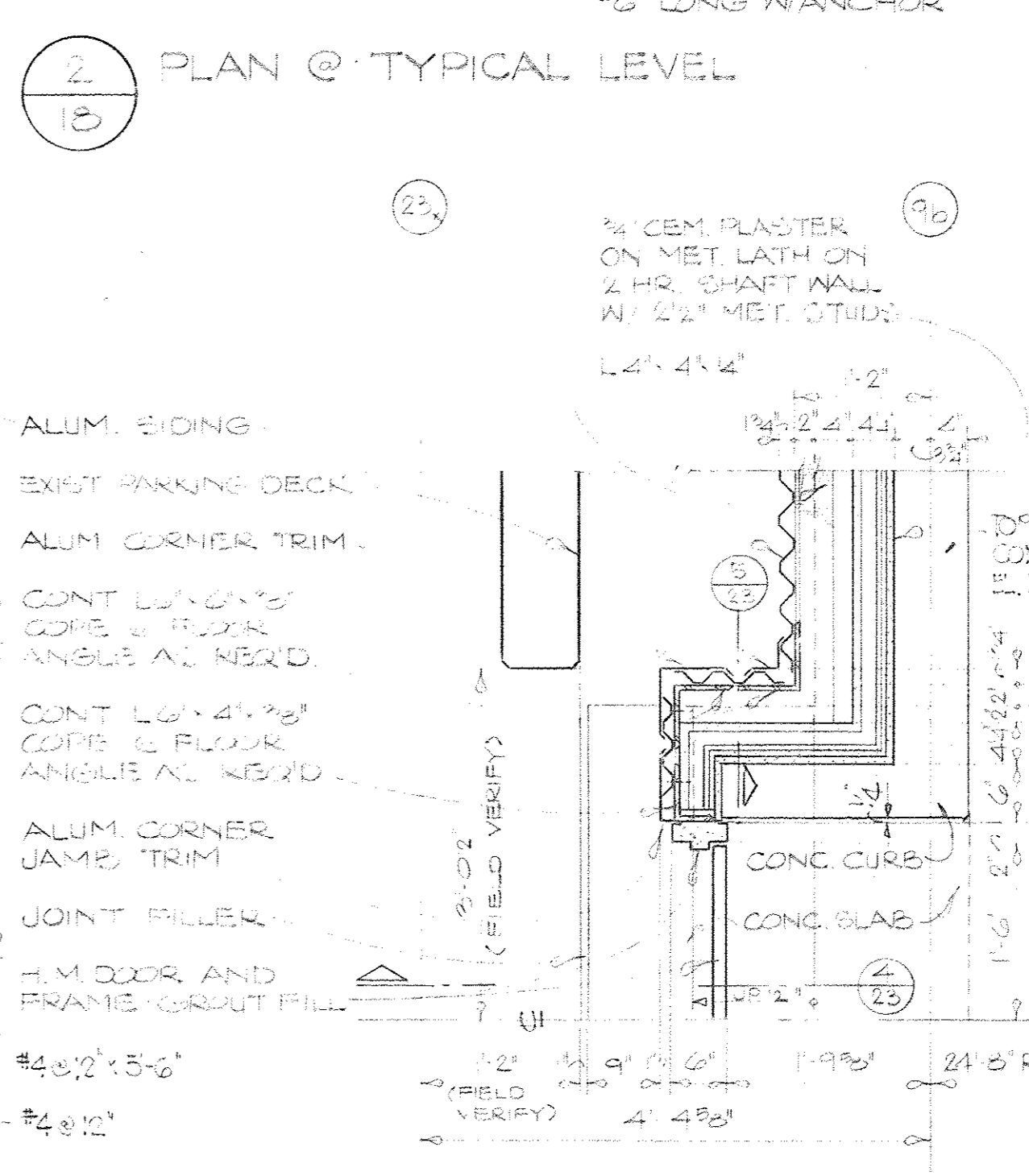
2  
18  
PLAN @ TYPICAL LEVEL



7  
23



4  
23



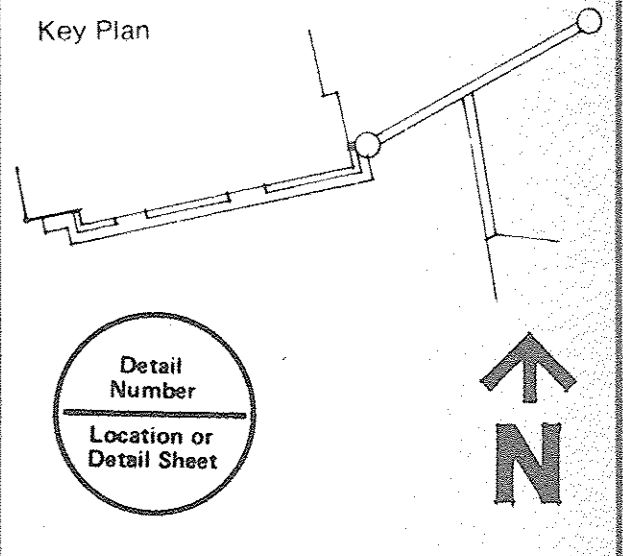
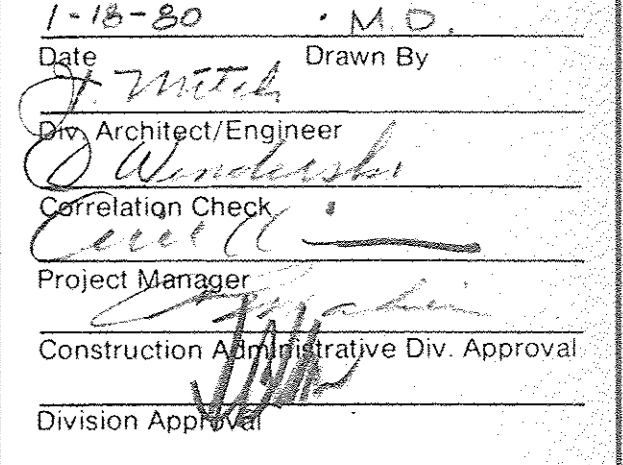
1  
8  
PLAN @ GRADE LEVEL

Joe Louis Sports Arena  
Pedestrian Walkway  
For City Engineering Division

SH&G  
Smith, Hinchman & Grylls Associates, Inc.  
Architects Engineers Planners

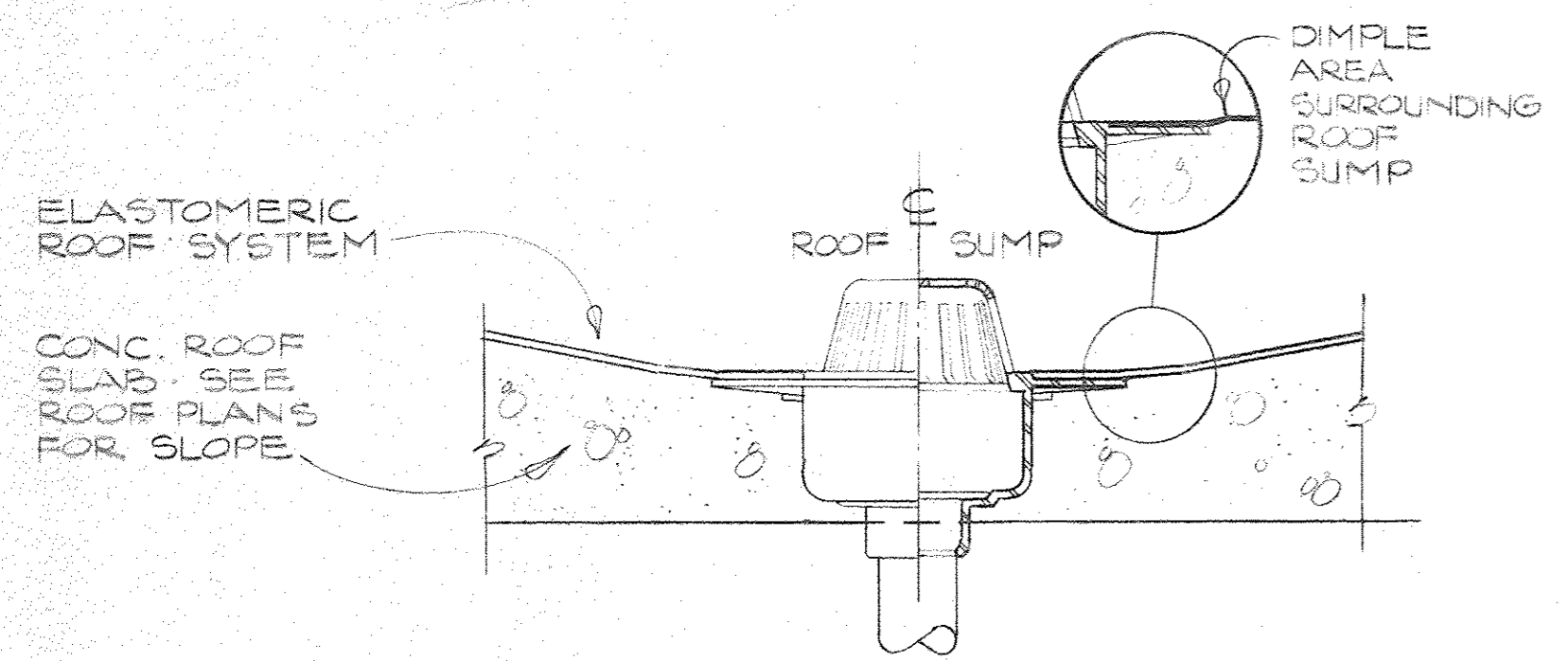
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

OWNER	City of Detroit
ISSUED FOR	5-30-80
DATE	
1-18-80	M.D.
Date	Drawn By
7/1/80	J. M. ...
Dir. Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	

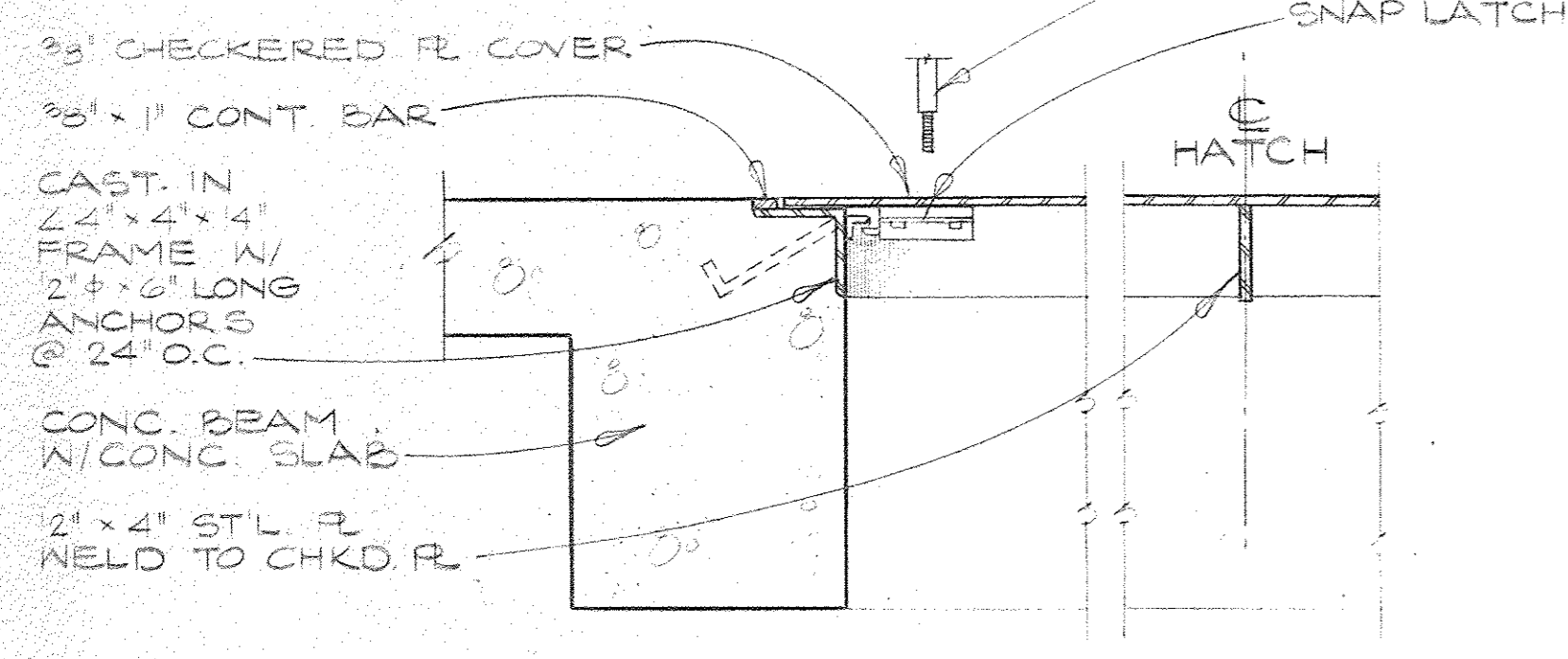


Drawing Title  
DETAILS CONNECTION STAIR-ELEVATOR TOWER TO PARKING DECK  
Project No.  
15031A  
Drawing No.  
A-23  
3/4" = 1'-0" U.O.N.  
Scale  
24 OF 36

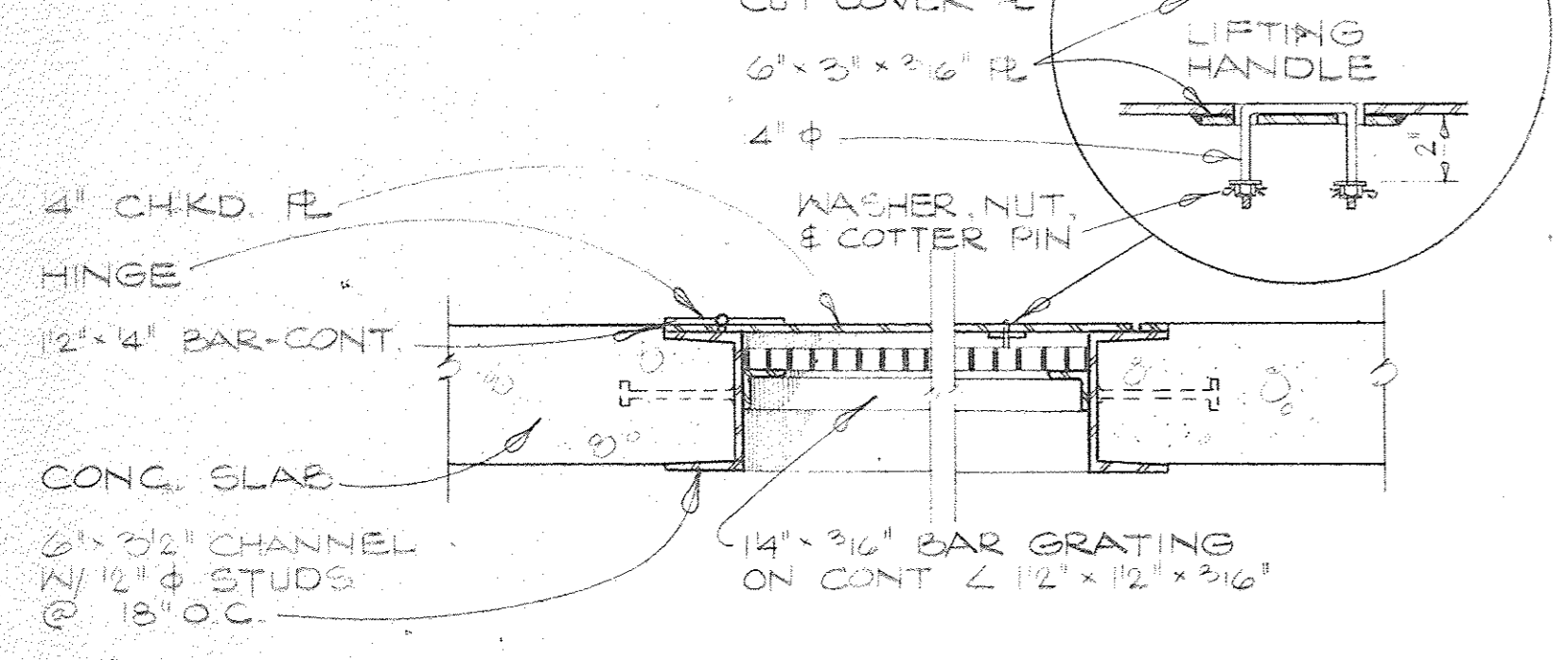




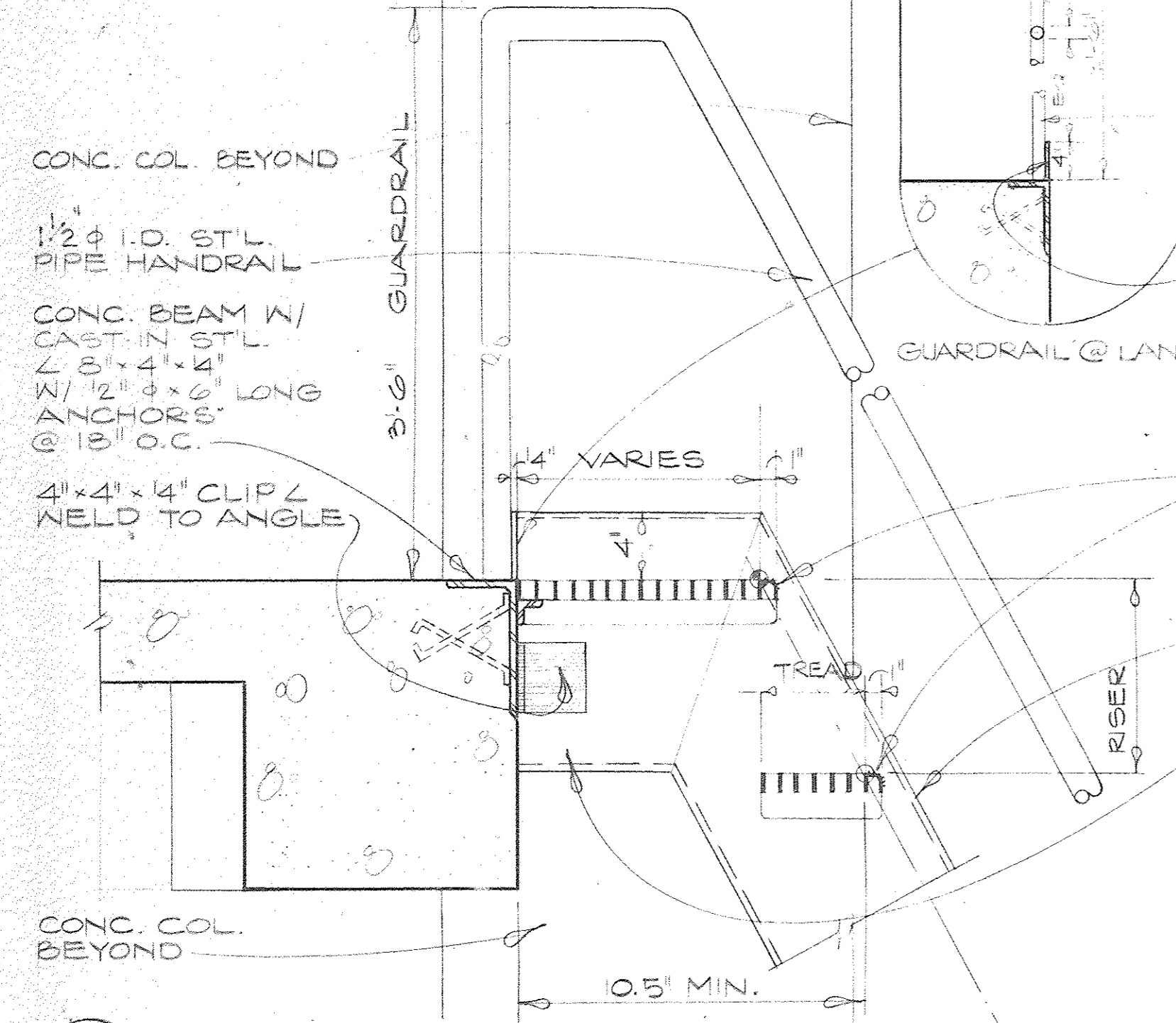
**9 ROOF SUMP**  
 19 1/2" = 1'-0"



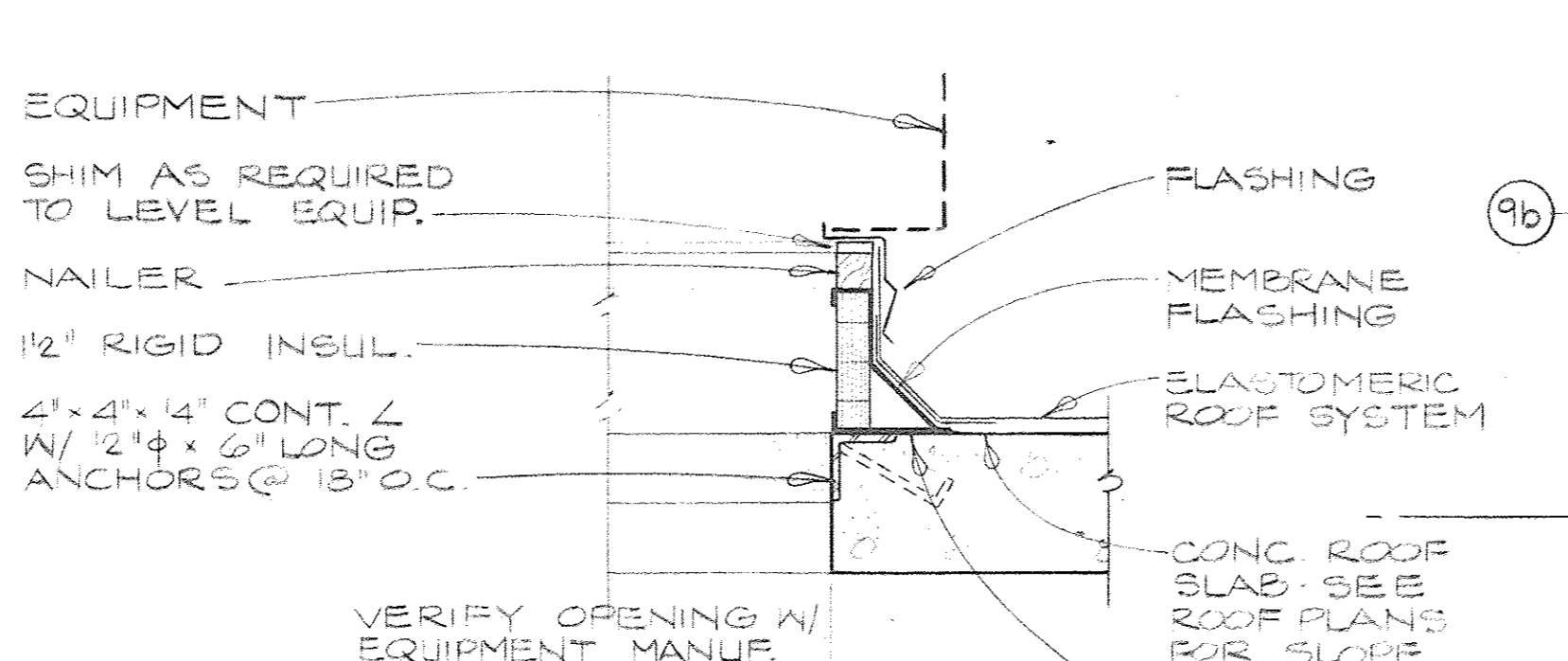
**7 FLOOR HATCH**  
 9 1/2" = 1'-0"



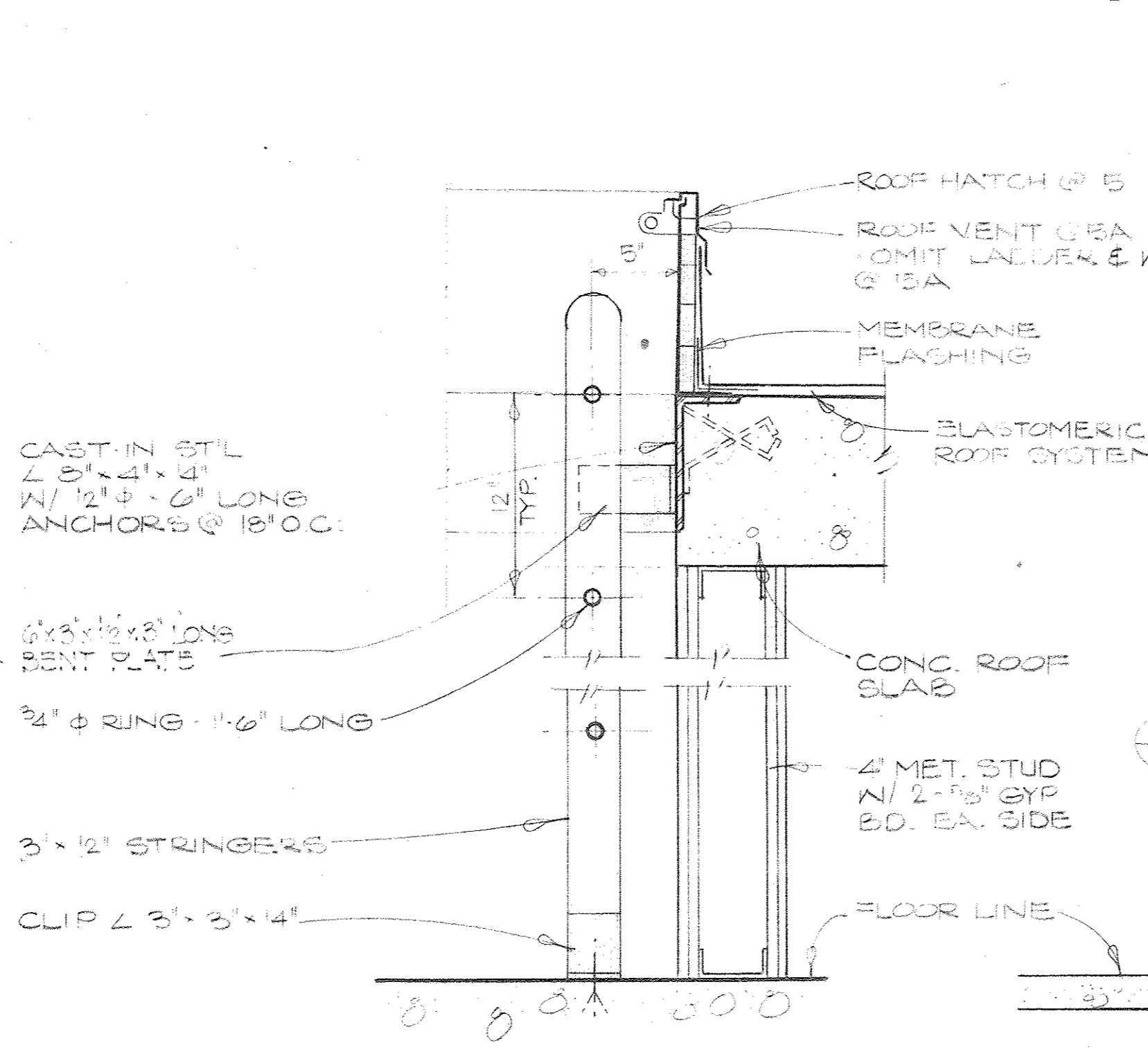
**6 SMOKE RELIEF HATCH**  
 19 1/2" = 1'-0"



**3**  
 24 1/2" = 1'-0"

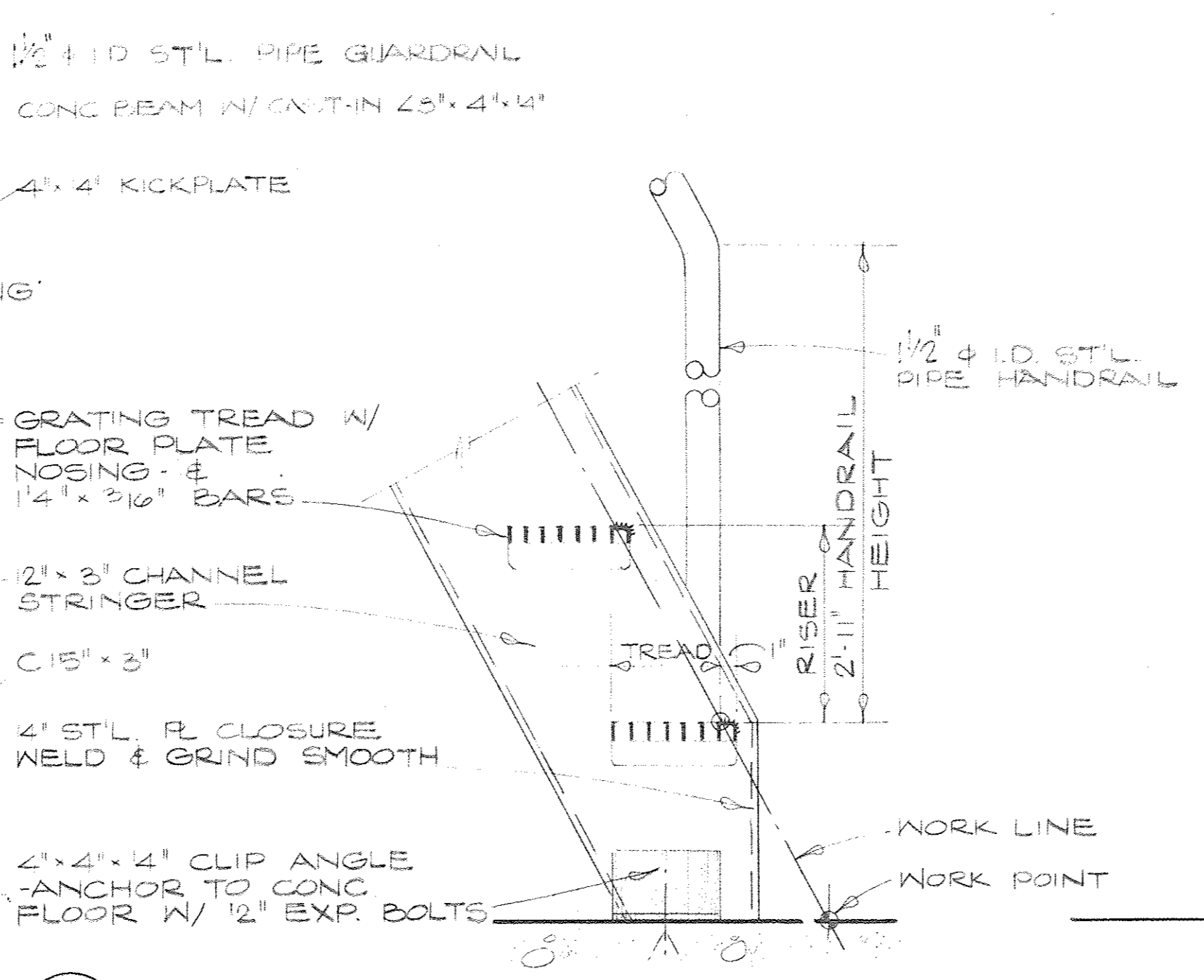


**8 EQUIPMENT CURB**  
 19 1/2" = 1'-0"

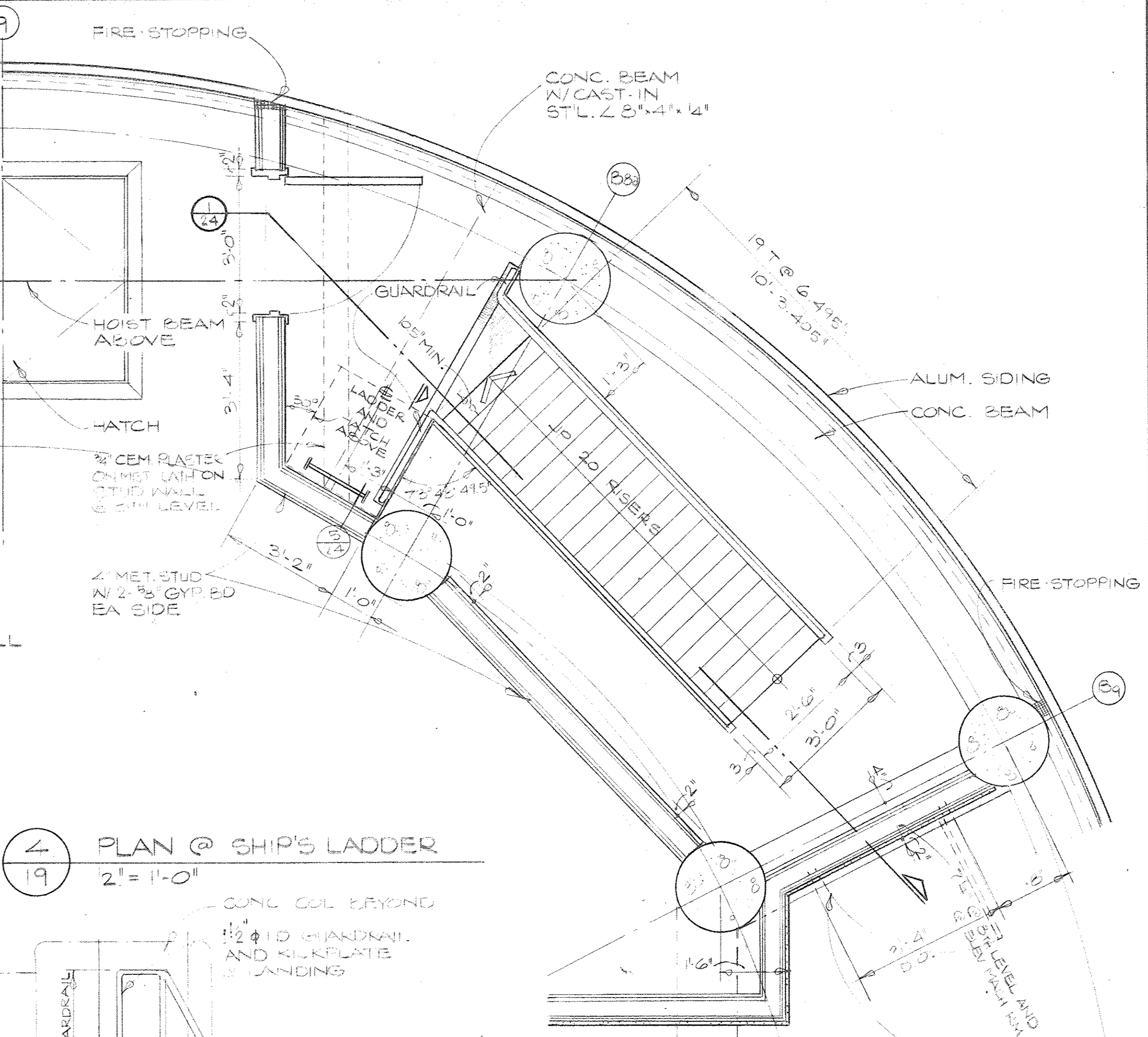


**5 ACCESS LADDER AND ROOF HATCH**  
 19, 24 1/2" = 1'-0"

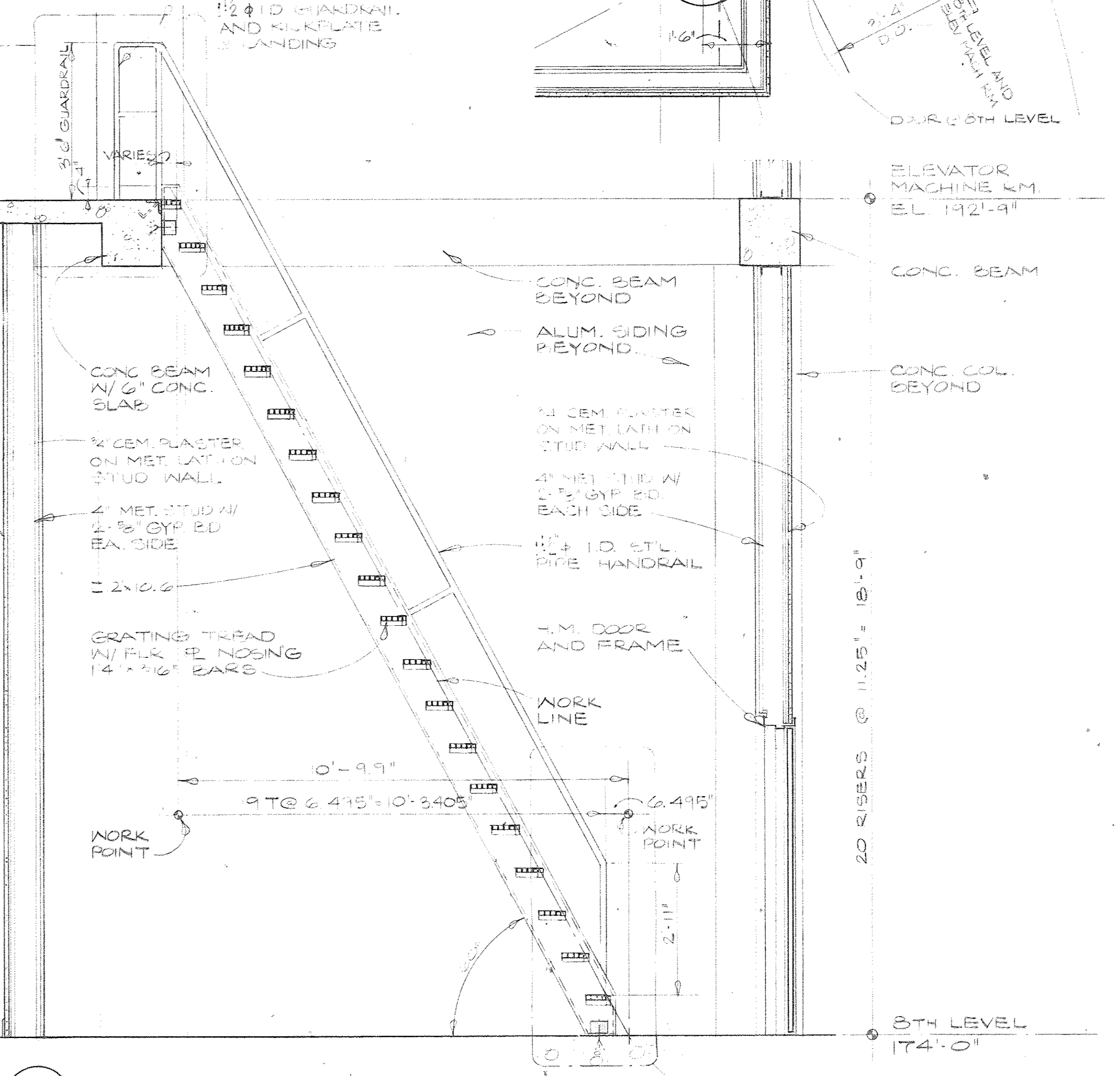
**5A AS NOTED (ROOF VENT)**  
 19, 24 1/2" = 1'-0"



**2**  
 24 1/2" = 1'-0"



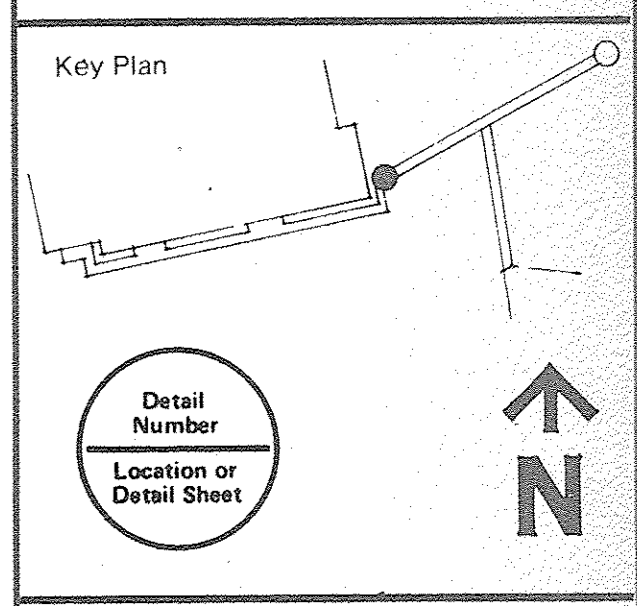
**4 PLAN @ SHIP'S LADDER**  
 19 2" = 1'-0"



**1 SECTION @ SHIP'S LADDER**  
 24 1/2" = 1'-0"

OWNER	5-30-80
Issued For	Date
1-15-80	M.D.
Date	Drawn By
By	Architect/Engineer
Checked	Correction Check
Project Manager	Administrative Div. Approval
Division Approval	

Key Plan	
Detail Number	
Location or Detail Sheet	



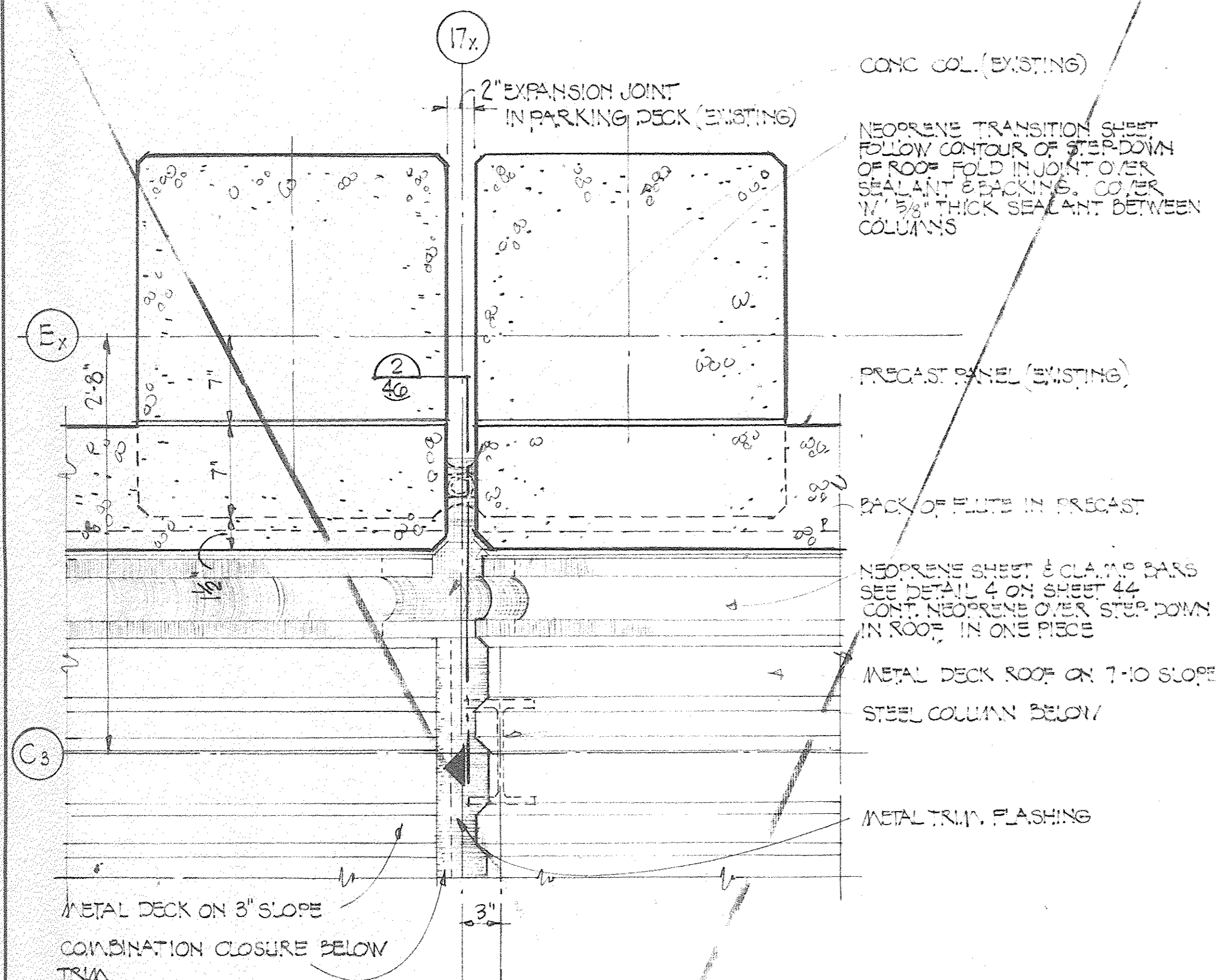
Drawing Title  
**DETAILS RAMP AND STAIR-ELEVATOR TOWERS**  
 Project No.  
**15031A**  
 Drawing No.  
**A-24**  
 AS NOTED  
 Scale  
 25 OF 76



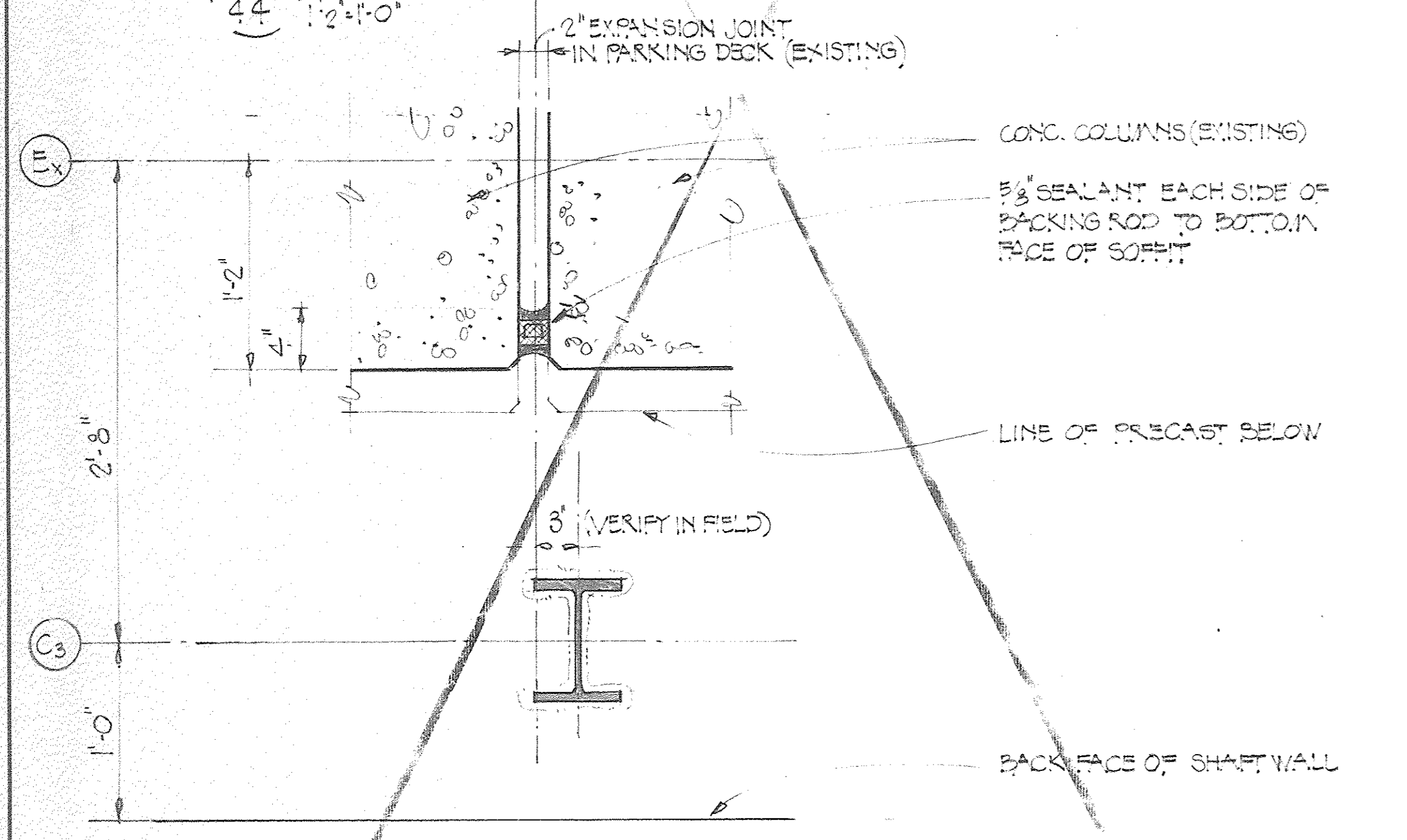




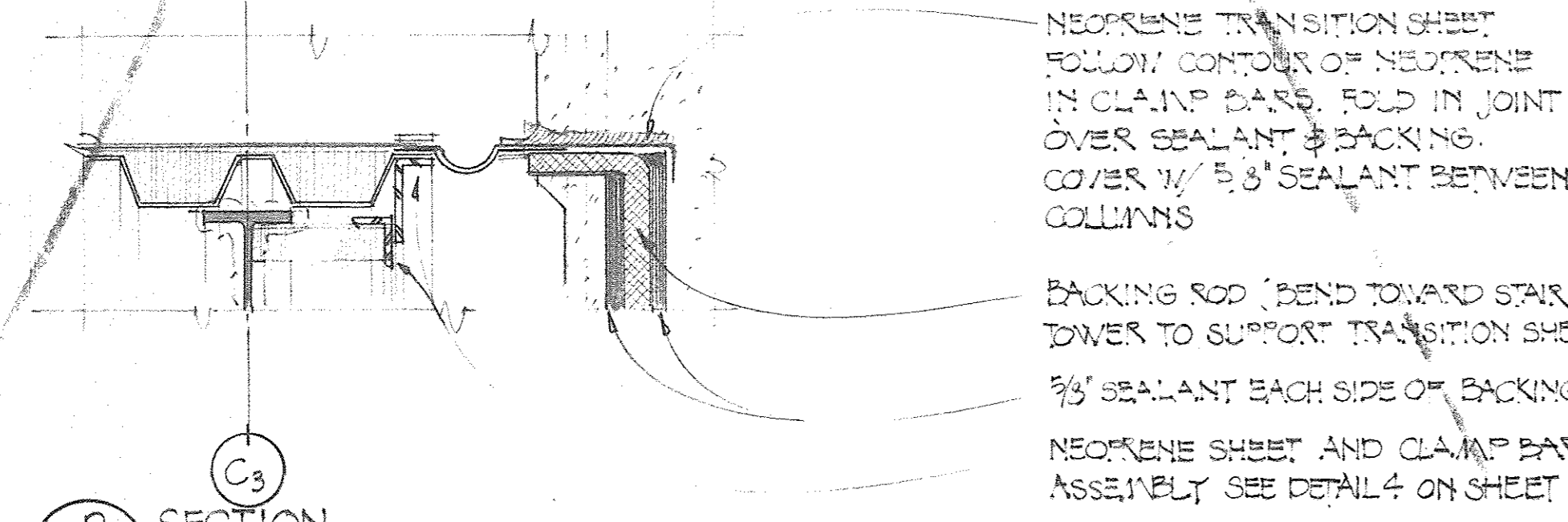
**SH&G**  
Smith, Hinchman & Grylls  
Associates, Inc.  
Architects Engineers  
Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C



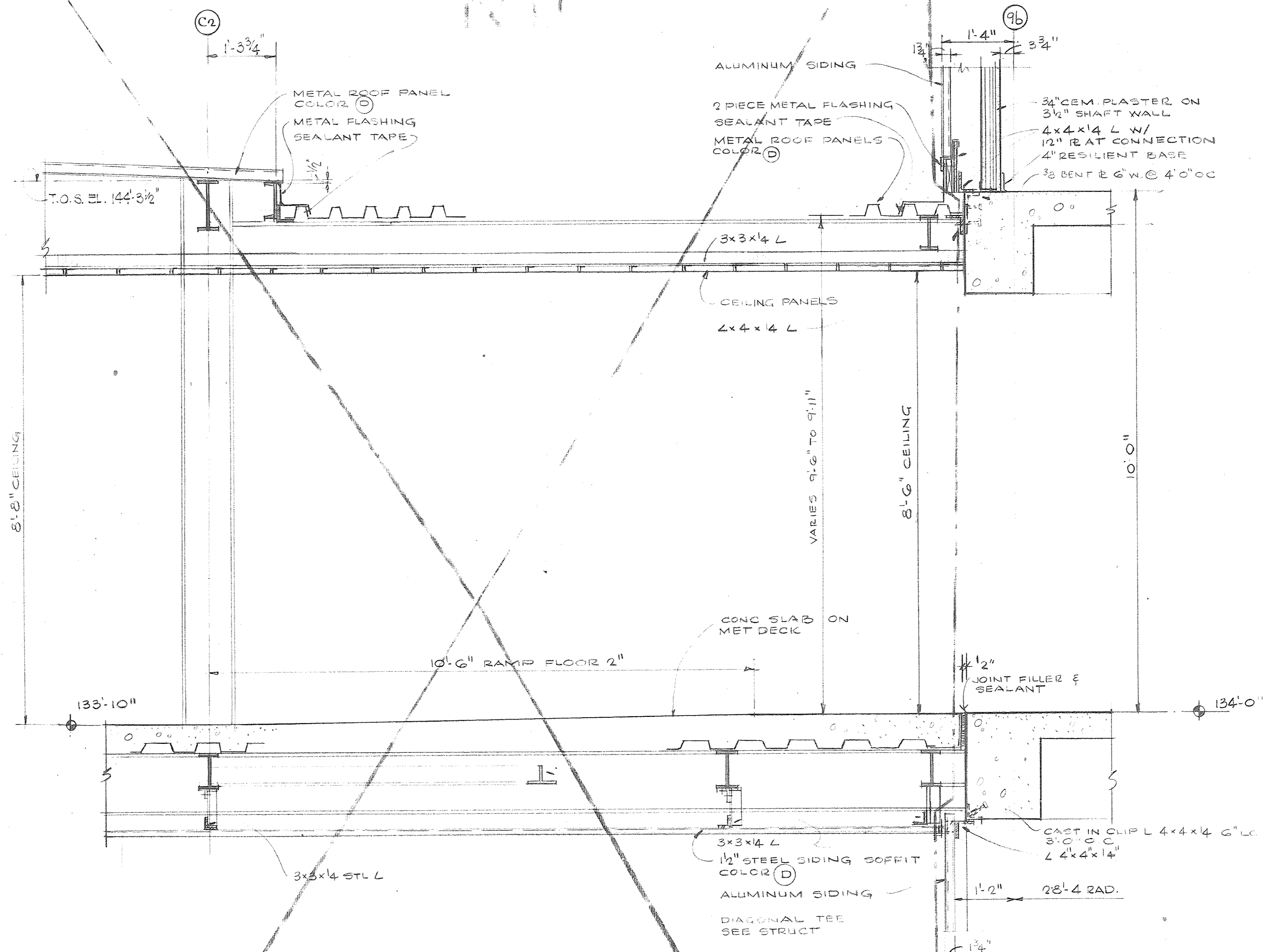
4 PLAN  
44 1/2" x 1'-0"



3 PLAN  
32, 44 1/2" x 1'-0"



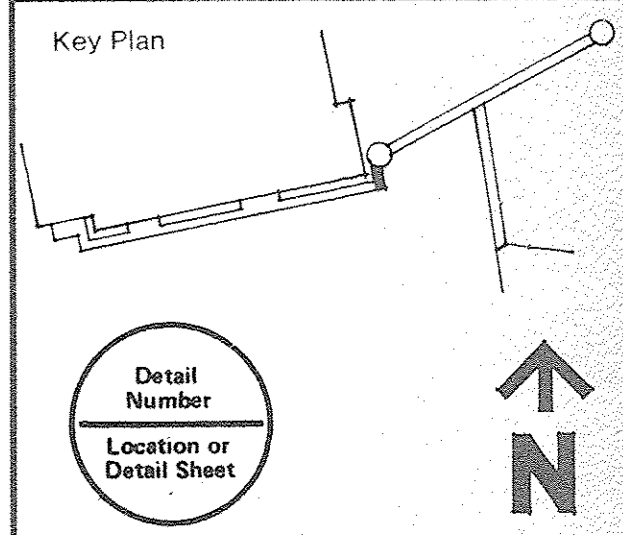
2 SECTION  
46 1/2" x 1'-0"



1 SECTION  
27 3/4" x 1'-0"

N.I.C.

OWNER	5-20-80
Issued For	Date
1-18-80	DAW
Date	Drawn By
Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	



Detail Number  
Location or Detail Sheet

Drawing Title  
**DETAILS PARKING DECK WALKWAY CONNECTION AT STAIR-ELEVATOR TOWER 15031A**  
Project No.  
**A-46**  
Drawing No.  
34" x 1'-0"  
Scale  
27 of 96



DOOR NUMBER	DOOR TYPE	WIDTH (INCHES)	HEIGHT	U/L LABEL	HARDWARE SET	DETAIL NUMBER	REMARKS
-------------	-----------	----------------	--------	-----------	--------------	---------------	---------

**NORTH-SOUTH BRIDGE**

**EAST-WEST BRIDGE**

104	84	7'-4"			PAIR, DOUBLE EGRESS	SEE ELEV & DET. SHT. 8A
-----	----	-------	--	--	---------------------	-------------------------

**RAMP TOWER**

108	A	72	7'-0"		2	1	PAIR
-----	---	----	-------	--	---	---	------

**STAIR/ELEVATOR TOWER**

112	A	72	7'-0"		2	1	PAIR
113	B	36	7'-0"	B	3	6	
114	C	36	7'-0"	B	4		SEE SHT. 23 DET. 1, 4
115	C	36	7'-0"	B	4		SEE SHT. 23 DET. 2, 6
116	C	36	7'-0"	B	4		SEE SHT. 23 DET. 2, 6
117	C	36	7'-0"	B	4		SEE SHT. 23 DET. 2, 6
118	C	36	7'-0"	B	4		SEE SHT. 23 DET. 2, 6
119	C	36	7'-0"	B	4		SEE SHT. 23 DET. 2, 6
120	C	36	7'-0"	B	4		SEE SHT. 23 DET. 2, 6
121	C	36	7'-0"	B	4		SEE SHT. 23 DET. 3, 9
122	B	36	7'-0"	C	3	4	
123	B	36	7'-0"	B	3	5	

**PARKING DECK WALKWAY**

126	D	96	8'-6"		5		PAIR, DOUBLE EGRESS SEE DET. 1, 2 SHT. 29
127	D	96	8'-6"	C	5		PAIR, DOUBLE EGRESS SEE DET. 1, 2 SHT. 29
128	D	96	8'-6"	C	5		PAIR, DOUBLE EGRESS SEE DET. 1, 2 SHT. 29

**STAIR 2**

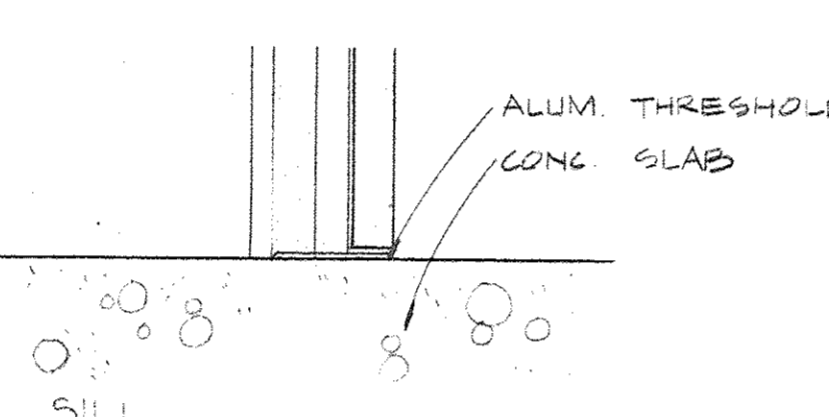
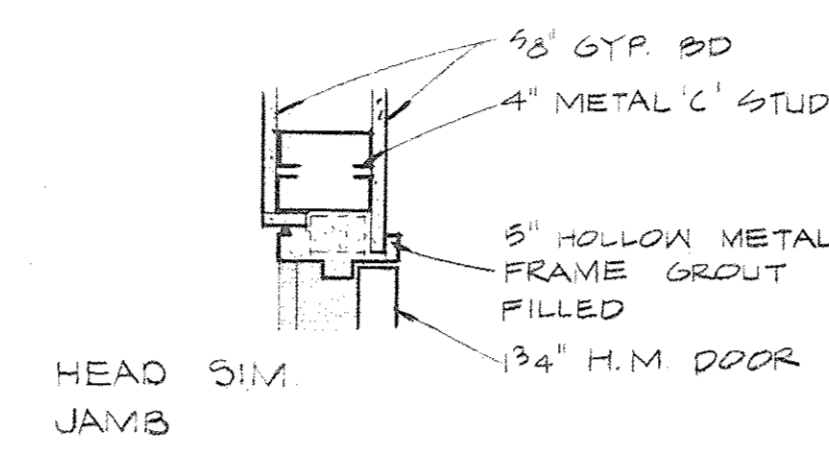
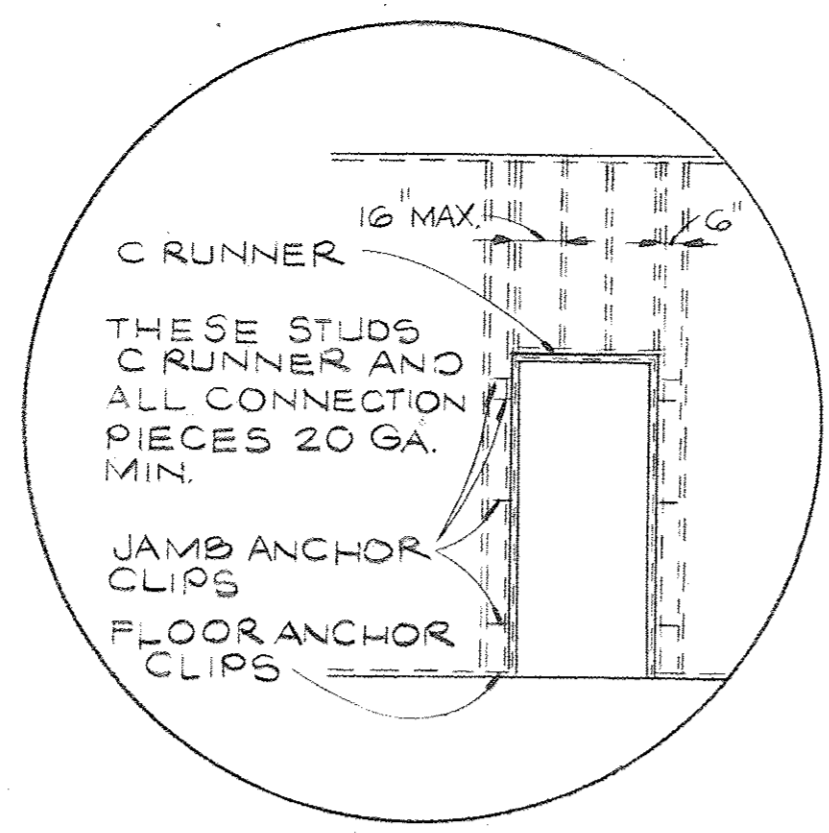
132	E	44	7'-0"		6	2	
133	C	36	7'-0"	B	7		SEE DET. 1, SHT. 45; DET. 1 SHT. 44
134	C	36	7'-0"	B	7		SEE DET. 1, SHT. 45; DET. 1 SHT. 44
135	C	36	7'-0"	B	7		SEE DET. 1, SHT. 45; DET. 1 SHT. 44
136	C	36	7'-0"	B	7		SEE DET. 1, SHT. 45; DET. 1 SHT. 44
137	C	36	7'-0"	B	7		SEE DET. 1, SHT. 45; DET. 1 SHT. 44
138	C	36	7'-0"	B	7		SEE DET. 1, SHT. 45; DET. 1 SHT. 44
139	C	36	7'-0"	B	7		SEE DET. 1, SHT. 45; DET. 1 SHT. 44
140	C	36	7'-0"	B	7		SEE DET. 1, SHT. 45; DET. 1 SHT. 44
141	C	36	7'-0"	B	7		SEE DET. 2, 3 SHT. 45

**STAIR 3**

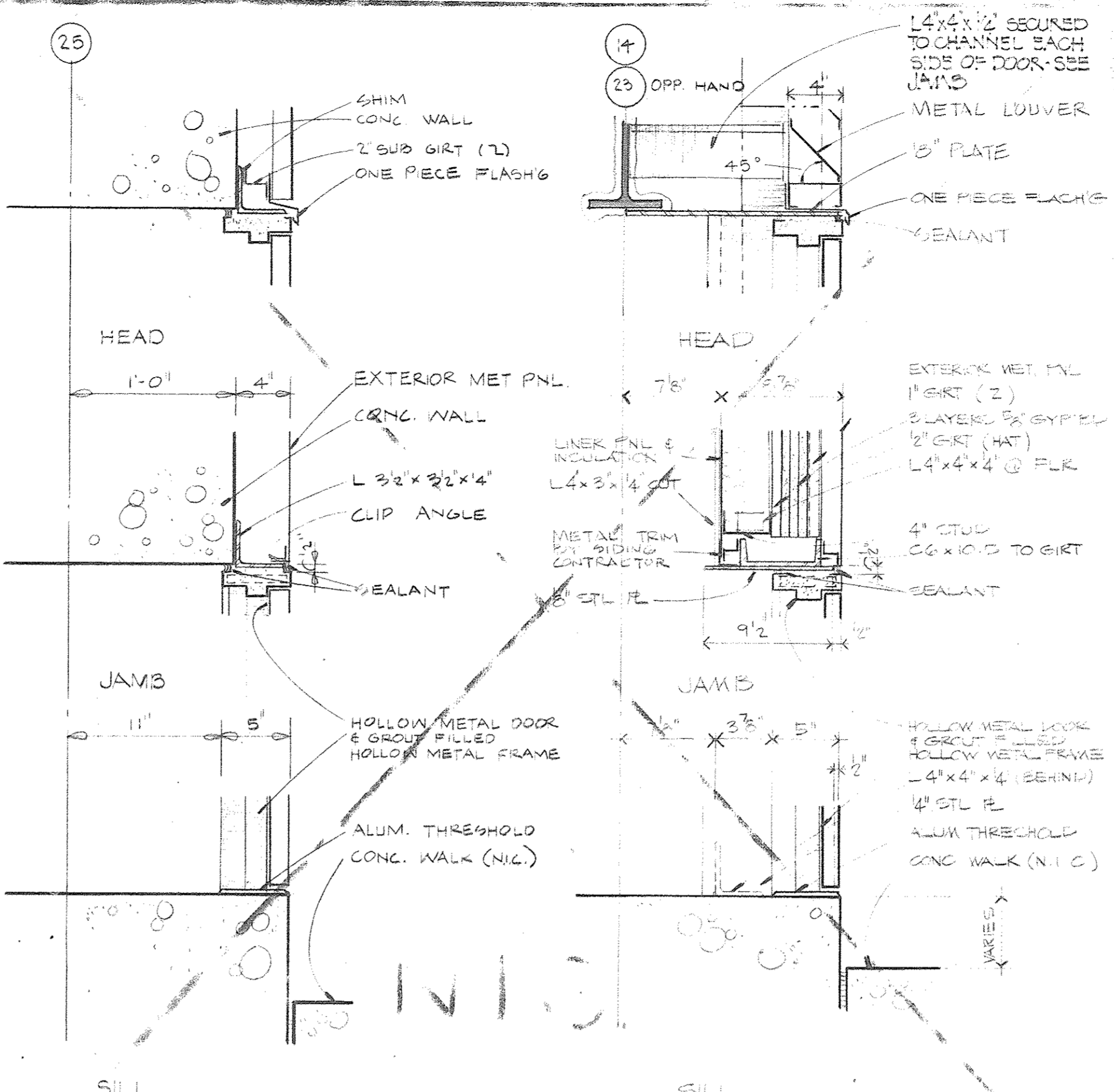
144	E	44	7'-0"		6	2	
145	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
146	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
147	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
148	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
149	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
150	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
151	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
152	C	36	7'-0"	B	7		SEE DET. 2, 3 SHT. 45

**STAIR 4**

155	E	44	7'-0"		6	3	
156	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
157	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
158	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
159	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
160	C	36	6'-8"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
161	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
162	C	36	7'-0"	B	7		SEE DET. 1 SHT. 45; DET. 1 SHT. 44
163	C	36	7'-0"	B	7		SEE DET. 2, 3 SHT. 45



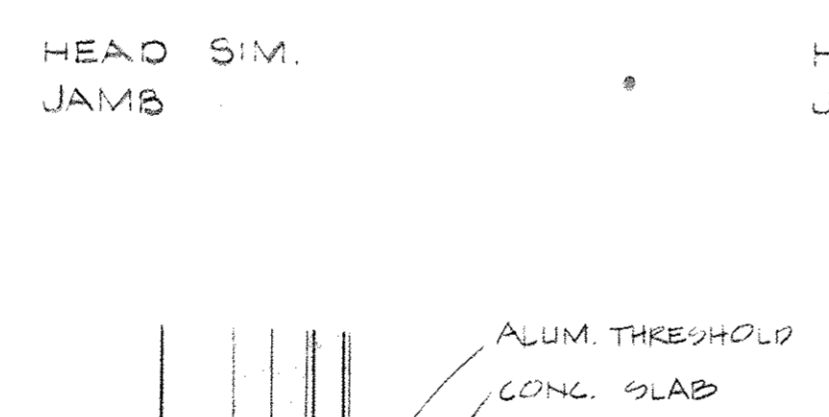
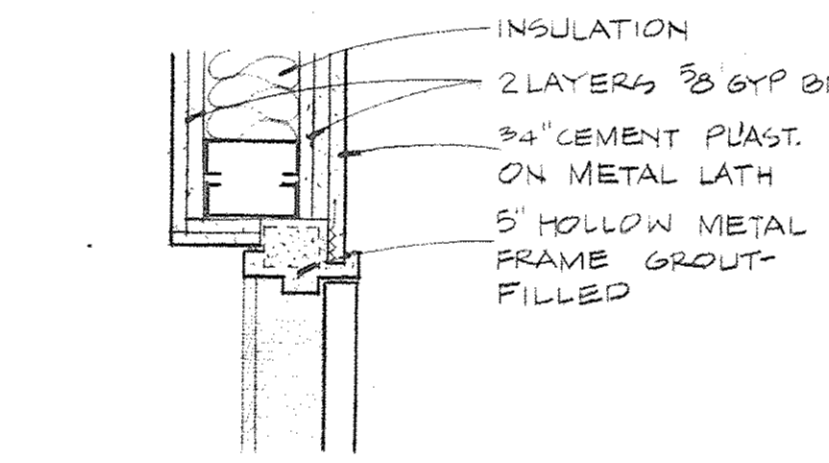
47 DOOR TYPE "B" DOOR NO. 122



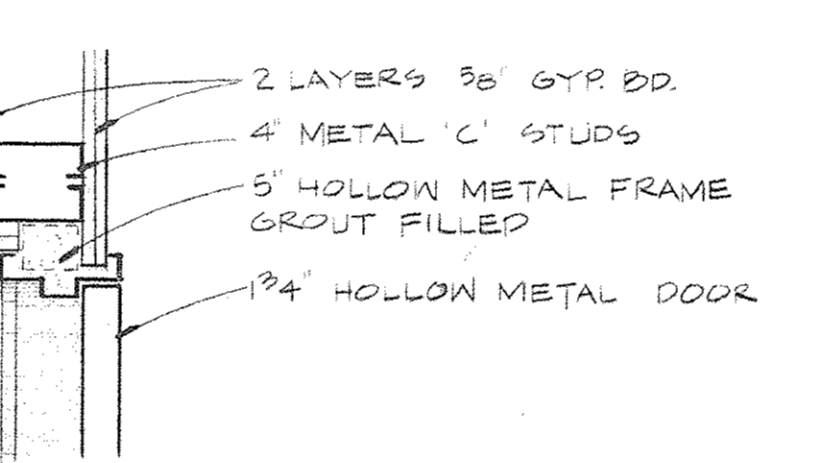
47 DOOR TYPE "E" STAIR 4

47 DOOR TYPE "E" STAIR 2 & 3

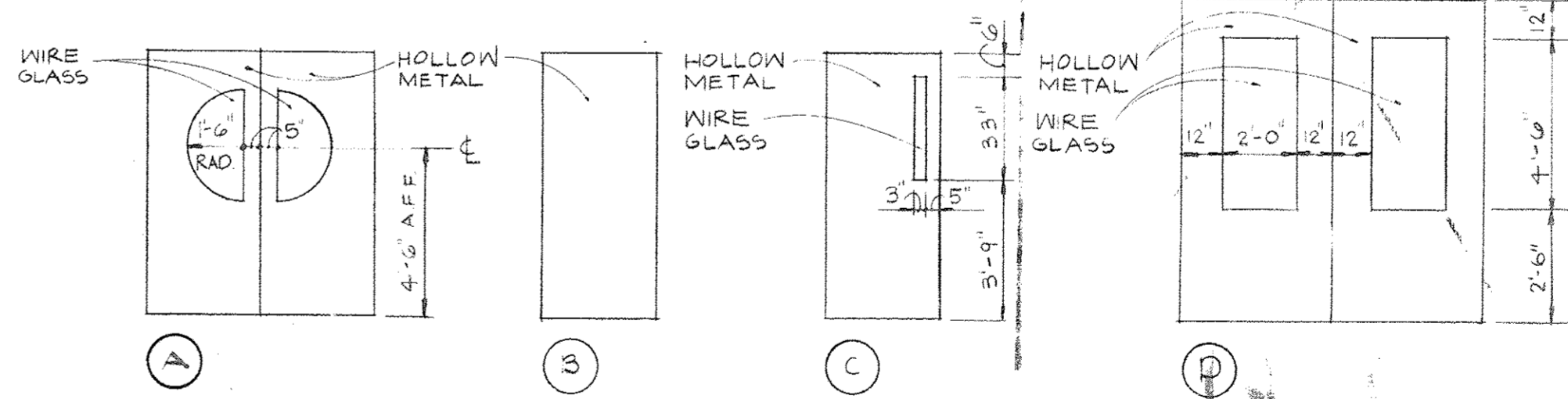
47 DOOR TYPE "A" RAMP TOWER & STAIR TOWER



47 DOOR TYPE "B" DOOR NO. 113



47 DOOR TYPE "B" DOOR NO. 123



DOOR TYPES SCALE 1/4" = 1'-0"

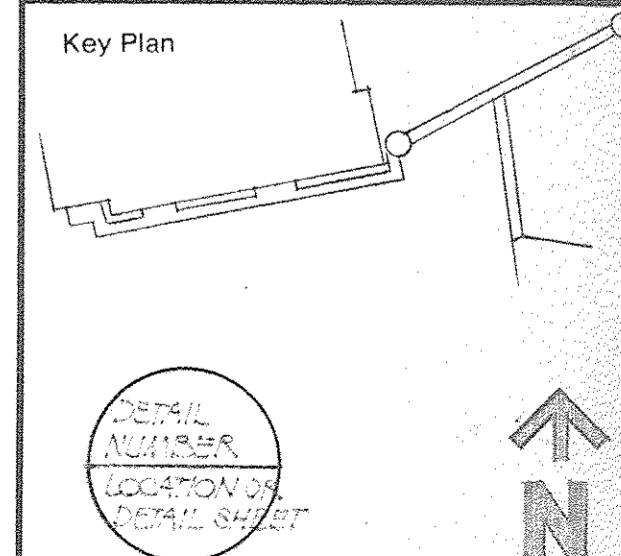
- GENERAL NOTES**
- FOR PERTINENT HEAD AND JAMB DETAIL SIZE REFER TO ADJOINING DETAIL REFERENCE AND CORRESPONDING DETAIL SHEET NO.
  - ALL DOORS SHALL BE 1 3/4" THICK AND 7'-0" HIGH UNLESS OTHERWISE INDICATED.
  - ALL HOLLOW METAL FRAMES SHALL BE FULLY GROUTED.
  - ALL HOLLOW METAL FRAMES SHALL BE FIELD FINISH PAINTED UNLESS OTHERWISE INDICATED.
  - ALL DOOR JAMB ANCHORS SHALL BE VERIFIED WITH PLAN CONDITION AND SPECIFICATION.
  - WIREGLASS 1/4" THICK SHALL BE PROVIDED FOR GLAZED OPENINGS FOR "B" AND "C" LABEL DOORS, ALL WALKWAY LEVEL DOORS AND BORROWED LIGHTS.
  - ABRASIVE COATED KNOBS SHALL BE PROVIDED FOR ALL DOORS IN STAIR TOWERS TO ELEC./MECH. ROOMS AND STAIR PENTHOUSES.

**Joe Louis Sports Arena Pedestrian Walkway**  
For City Engineering Division

**SH&G**  
Smith, Hinchman & Grylls Associates, Inc.  
Architects Engineers Planners

455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

OWNER: *Joe Louis Sports Arena*  
Issued For: *5-30-80* Date  
Date: *1-18-80* Drawn By: *KR*  
Div. Architect/Engineer: *J. Mitchell*  
Correlation Check: *J. Mitchell*  
Project Manager: *J. Mitchell*  
Construction Administrative Div. Approval: *J. Mitchell*  
Division Approval: *J. Mitchell*

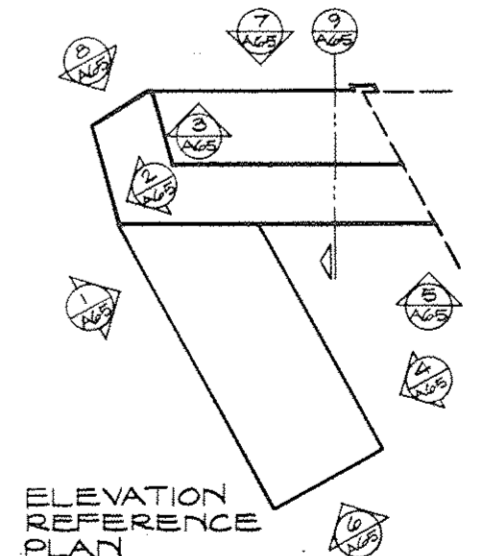
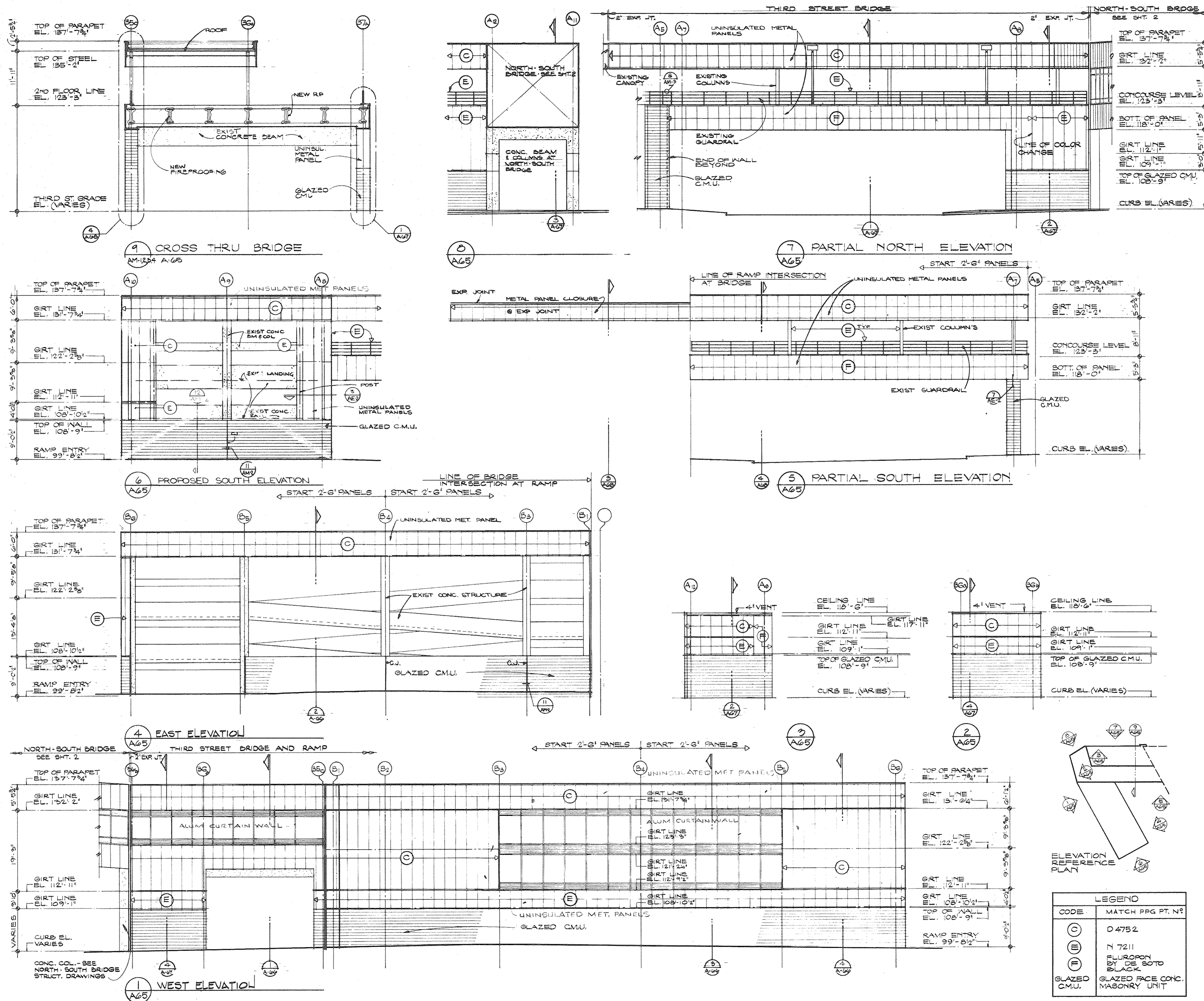


Drawing Title: **DOOR SCHEDULE AND DETAILS**  
15031A  
Project No. **A-47**  
Drawing No. 1/2" = 1'-0" EXCEPT AS NOTED  
Scale: 28 OF 36



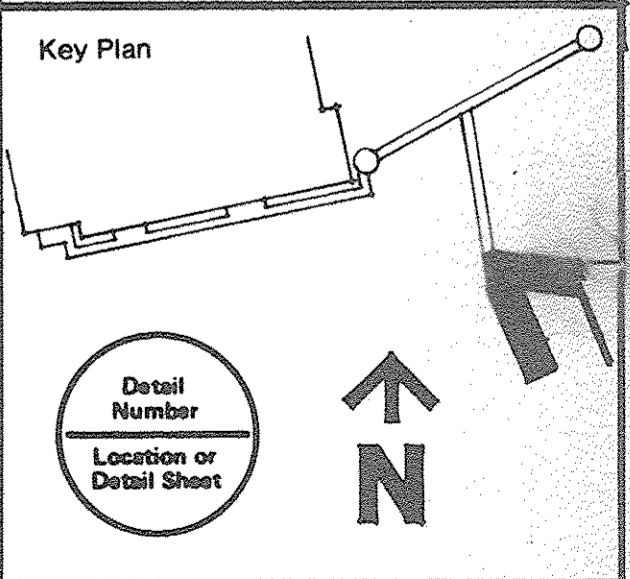
**SH&G**  
Smith, Hinchman & Grylls  
Associates, Inc.  
Architects Engineers  
Planners

455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C



LEGEND	
CODE	MATCH PRG PT. N°
(C)	0 475 2
(E)	N 7211
(F)	FLUOROPOLYMER BY THE SOTO BLACK
GLAZED C.M.U.	GLAZED FACE CONC. MASONRY UNIT

OWNER	5-20-90
Issued For	Date
0-279	C.M.C.
Date	Drawn By
Dr. Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	

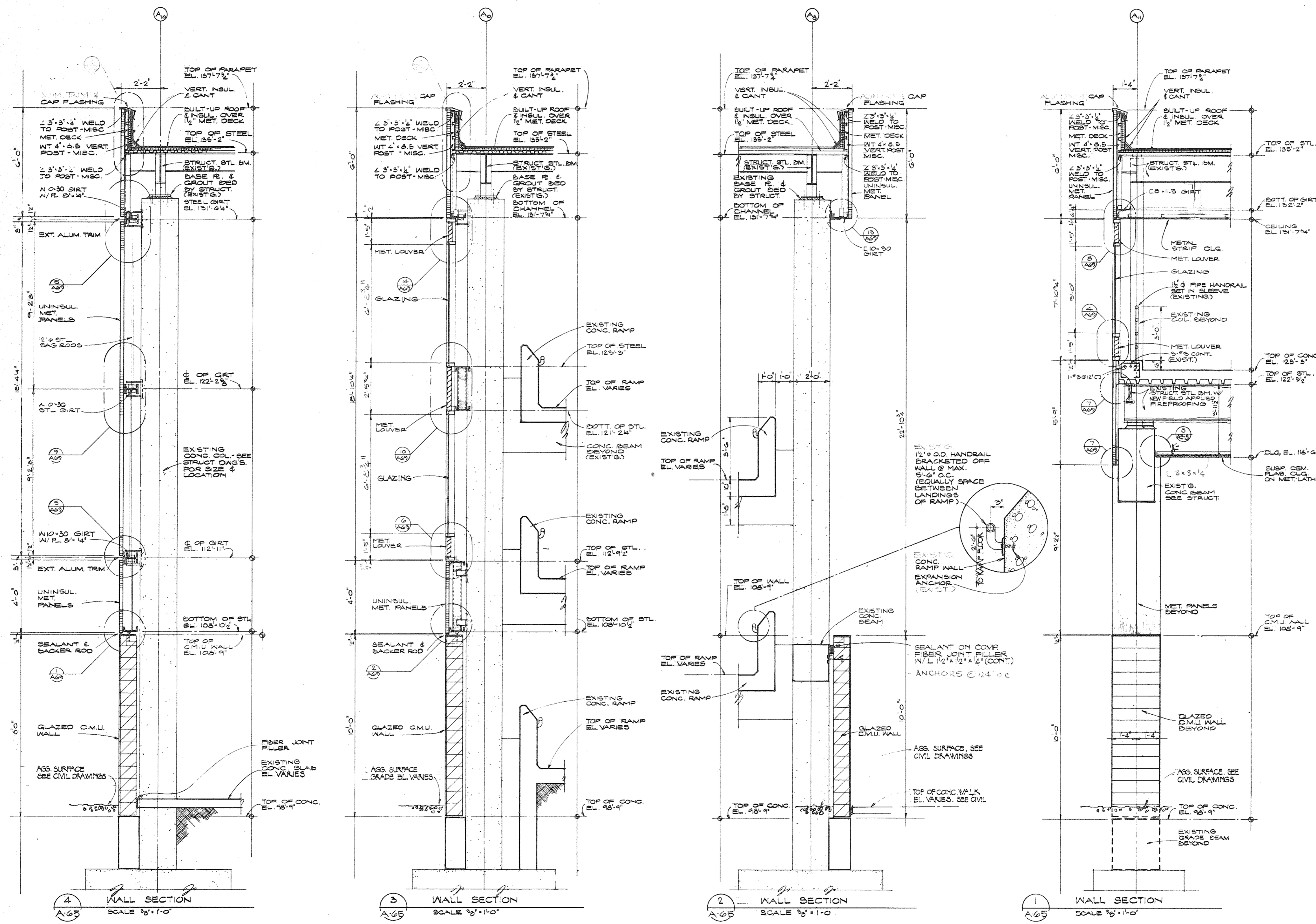


Drawing Title  
**ARENA BRIDGE AND RAMP ELEVATIONS**

15031A  
Project No.  
**A-65**  
Drawing No.  
1" = 12'-0"  
Scale  
29 OF 96



GENERAL NOTE:  
 MAINTAIN 1/4" ALLOWANCE FROM TRUE CENTERLINE OF COLUMN TO OUTSIDE FACE OF ALL STEEL.



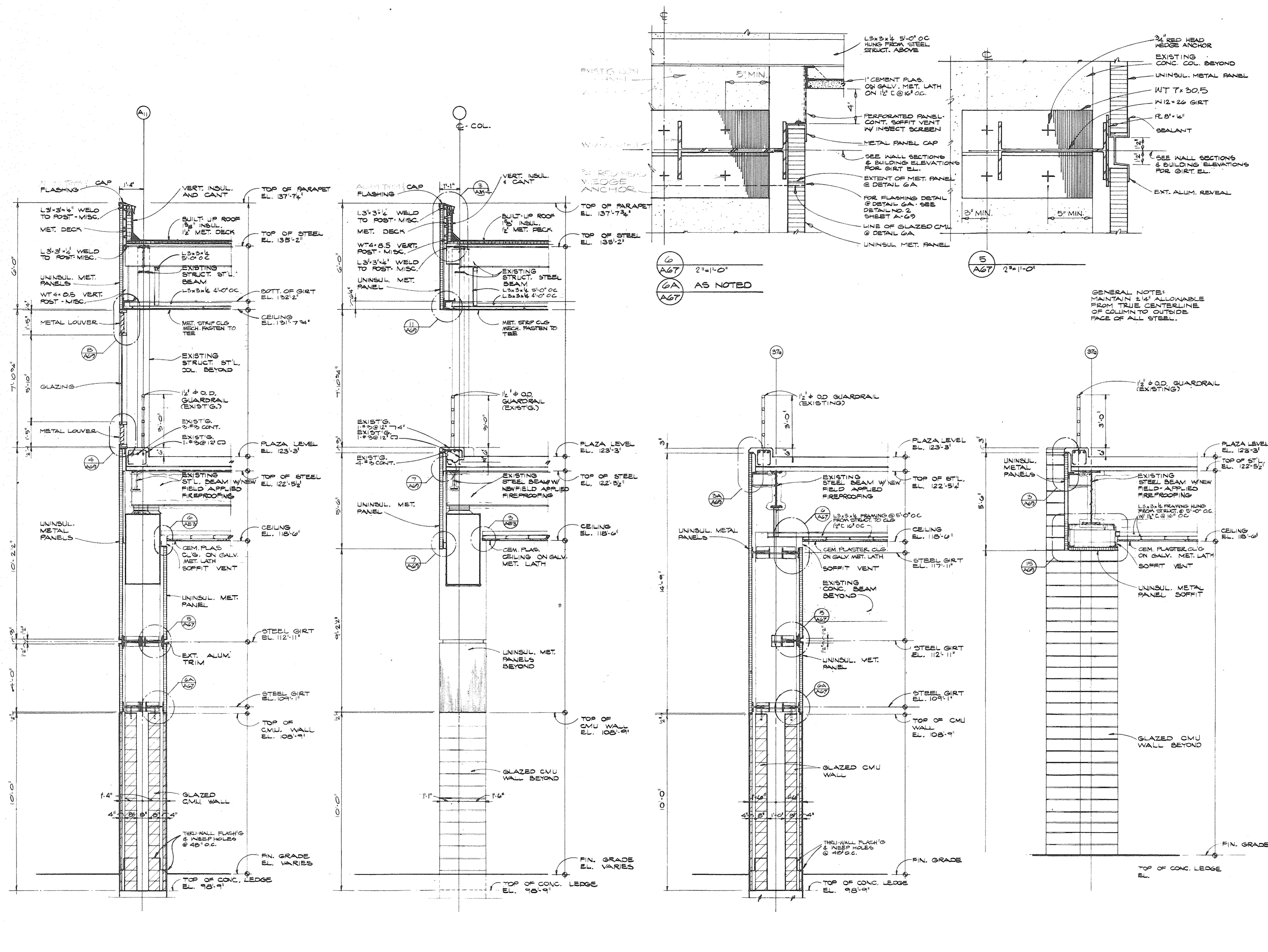
**SH&G**  
**Smith, Hinchman & Grylls**  
**Associates, Inc.**  
 Architects Engineers  
 Planners  
 455 West Fort Street  
 Detroit, Michigan 48226  
 (313)964-3000  
 SH&G Job. No. 11732C

OWNER	3080
Issued For	Date
Date	10-2-78
Drawn By	M.D.A.
Div. Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	

Key Plan  
 Detail Number  
 Location of Detail Sheet  
 Drawing Title  
**ARENA BRIDGE AND RAMP WALL SECTIONS**

Project No.  
**A-66**  
 Drawing No.  
**AS NOTED**  
 Scale  
**30 OF 96**





4 WALL SECTION  
A-65 SCALE 3/8"=1'-0"

3 WALL SECTION  
A-65 SCALE 3/8"=1'-0"

2 WALL SECTION  
A-65 SCALE 3/8"=1'-0"

1 WALL SECTION  
A-65 SCALE 3/8"=1'-0"

GENERAL NOTE:  
MAINTAIN 1/4" ALLOWABLE  
FROM TRUE CENTERLINE  
OF COLUMN TO OUTSIDE  
FACE OF ALL STEEL.

OWNER	5-30-80
Issued For	Date
Date	5-30-80
Drawn By	M.O.A.I.
Architect/Engineer	J. Mitchell
Correlation Check	W. W. W.
Project Manager	W. W. W.
Construction Administrative Div./Approval	W. W. W.
Division Approval	W. W. W.

Key Plan

Detail Number  
Location of Detail Sheet

↑ N

Drawing Title  
ARENA BRIDGE  
AND RAMP  
WALL SECTIONS

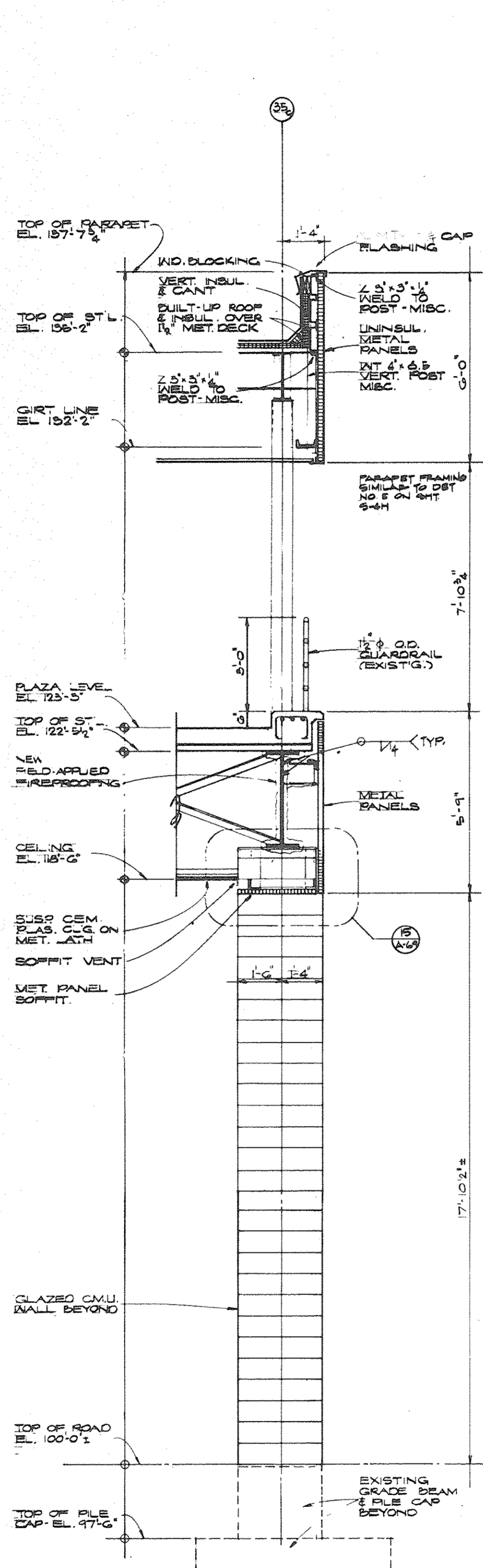
Project No.  
15031A

Drawing No.  
A-67

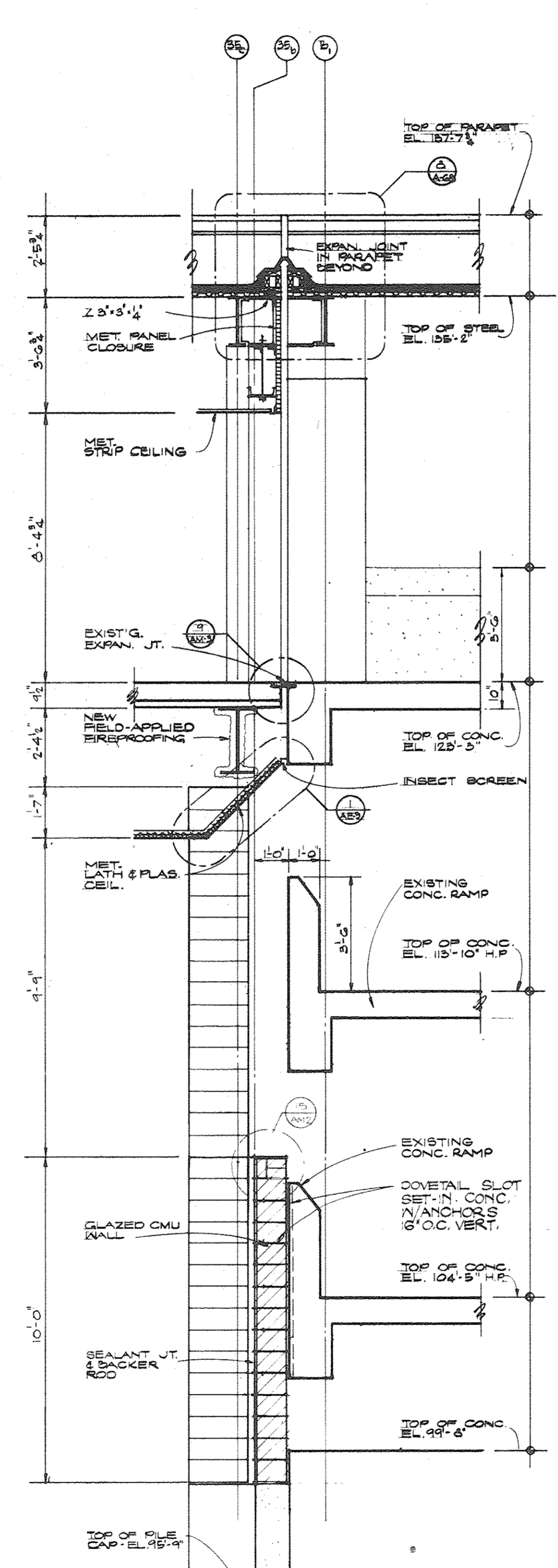
Scale  
AS NOTED

31 of 96

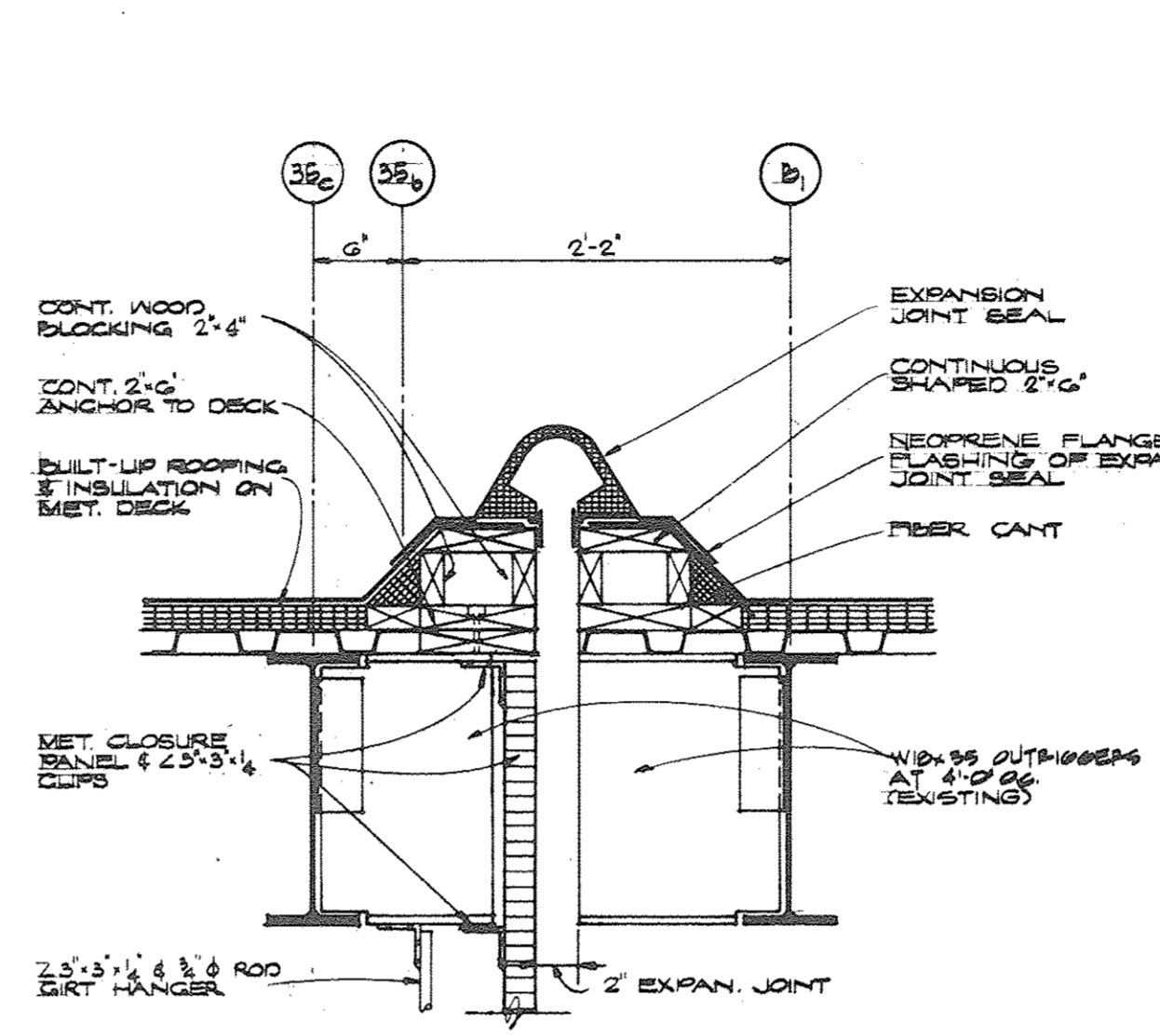




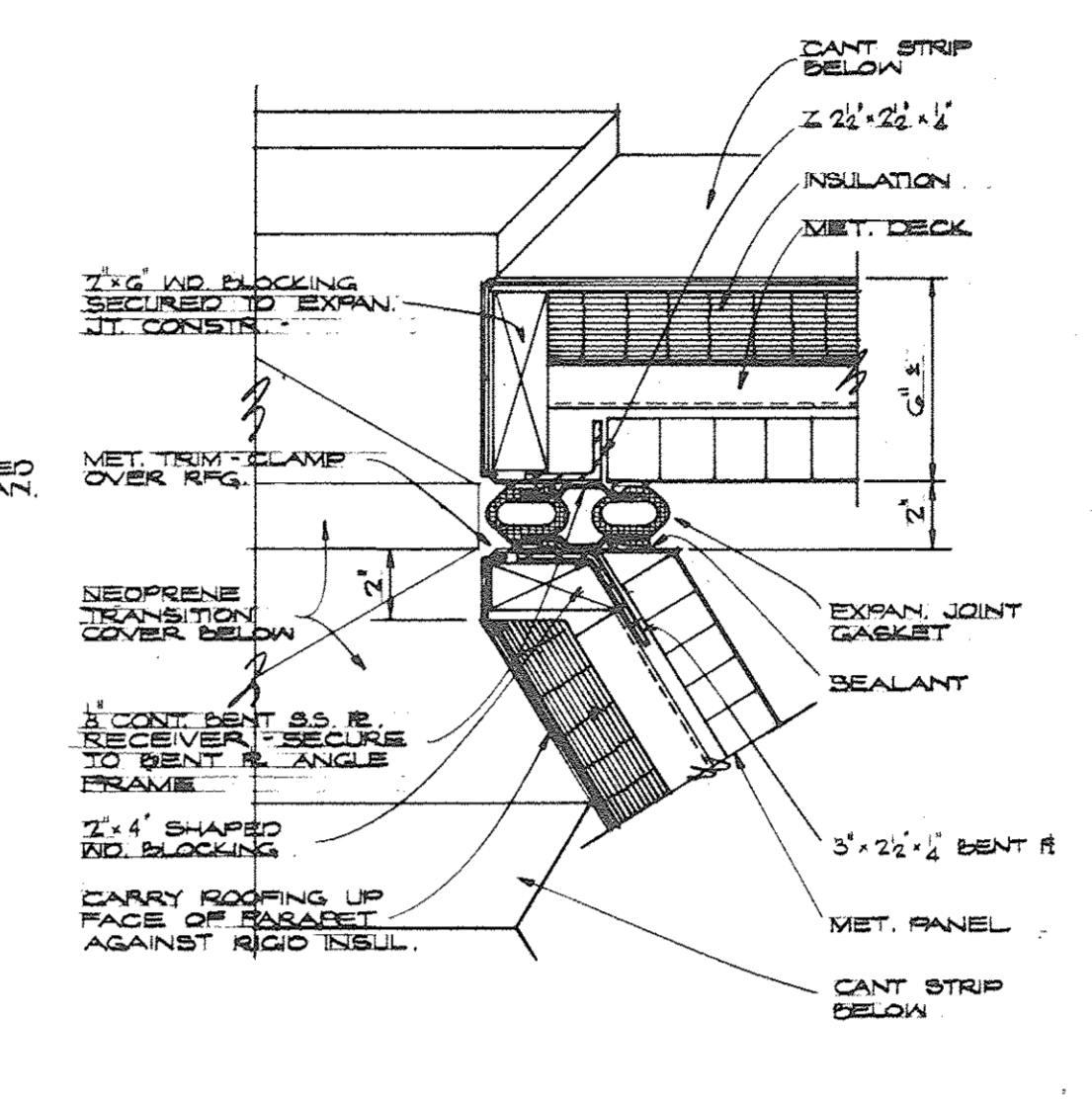
4 WALL SECTION  
SCALE 1/2"=1'-0"



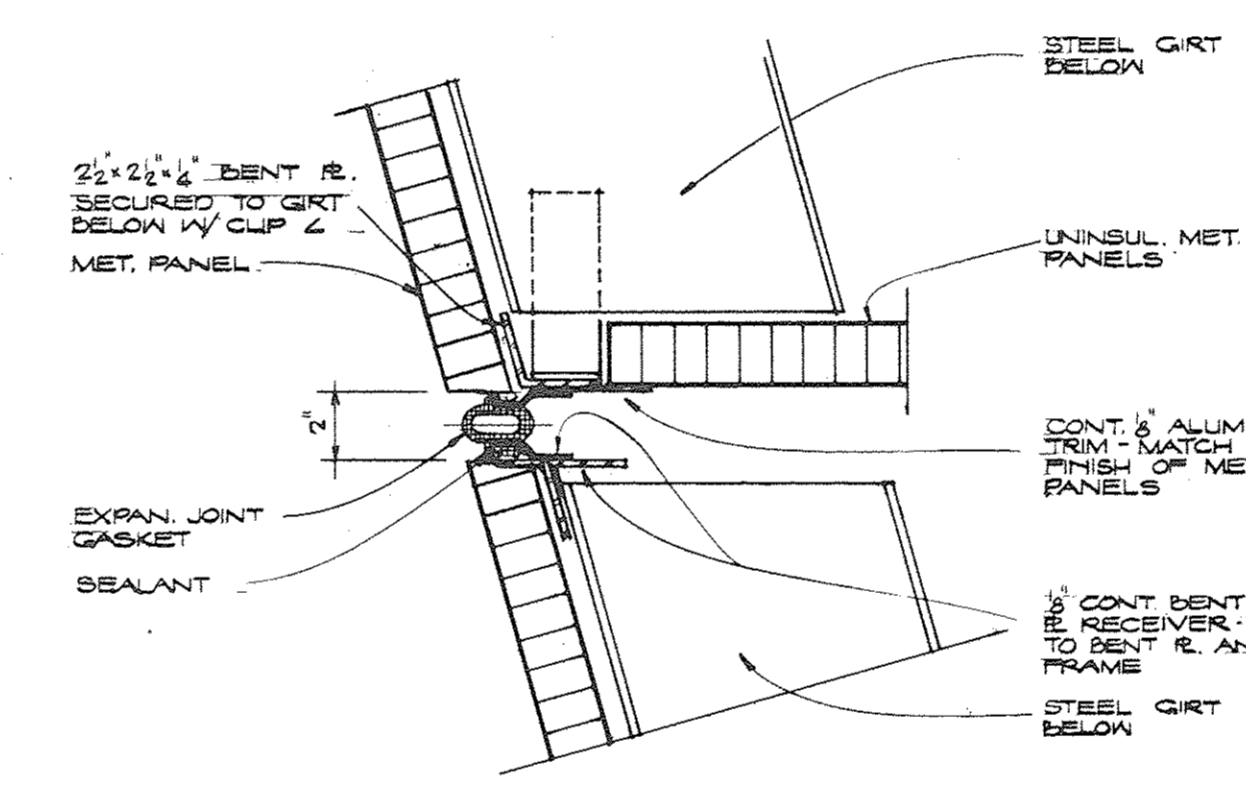
3 WALL SECTION  
SCALE 1/2"=1'-0"



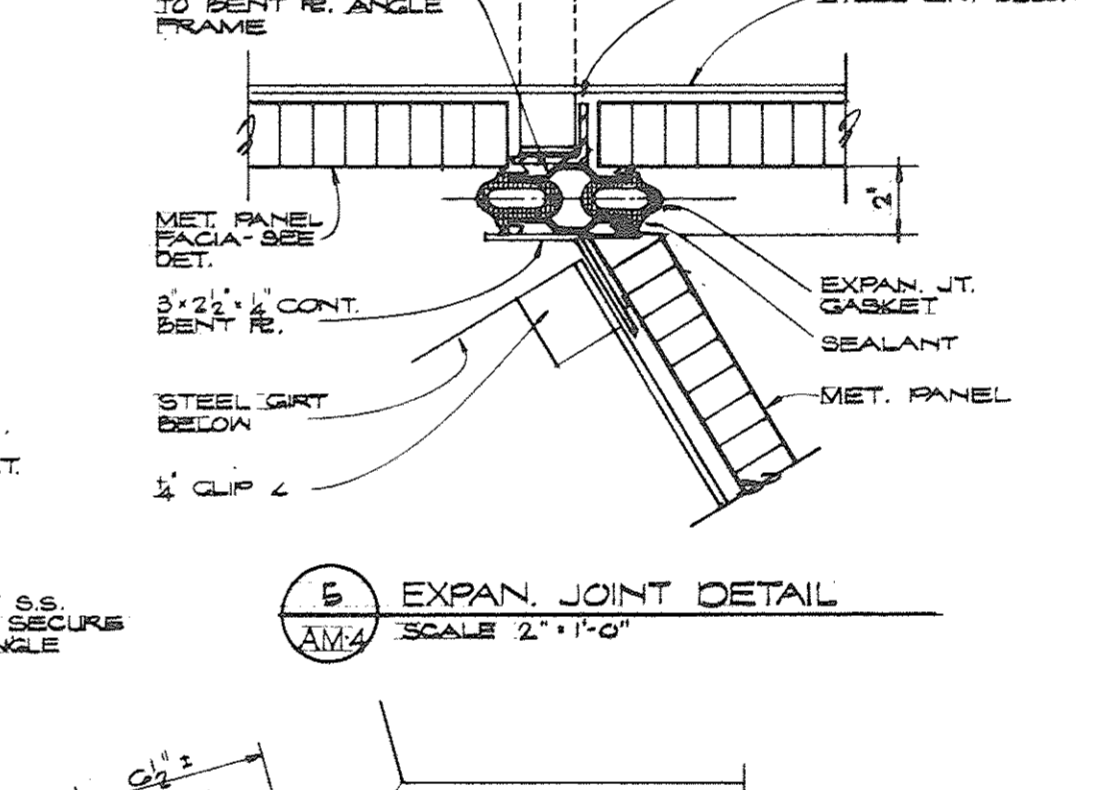
6 EXPAN. JOINT DETAIL  
SCALE 1"=1'-0"



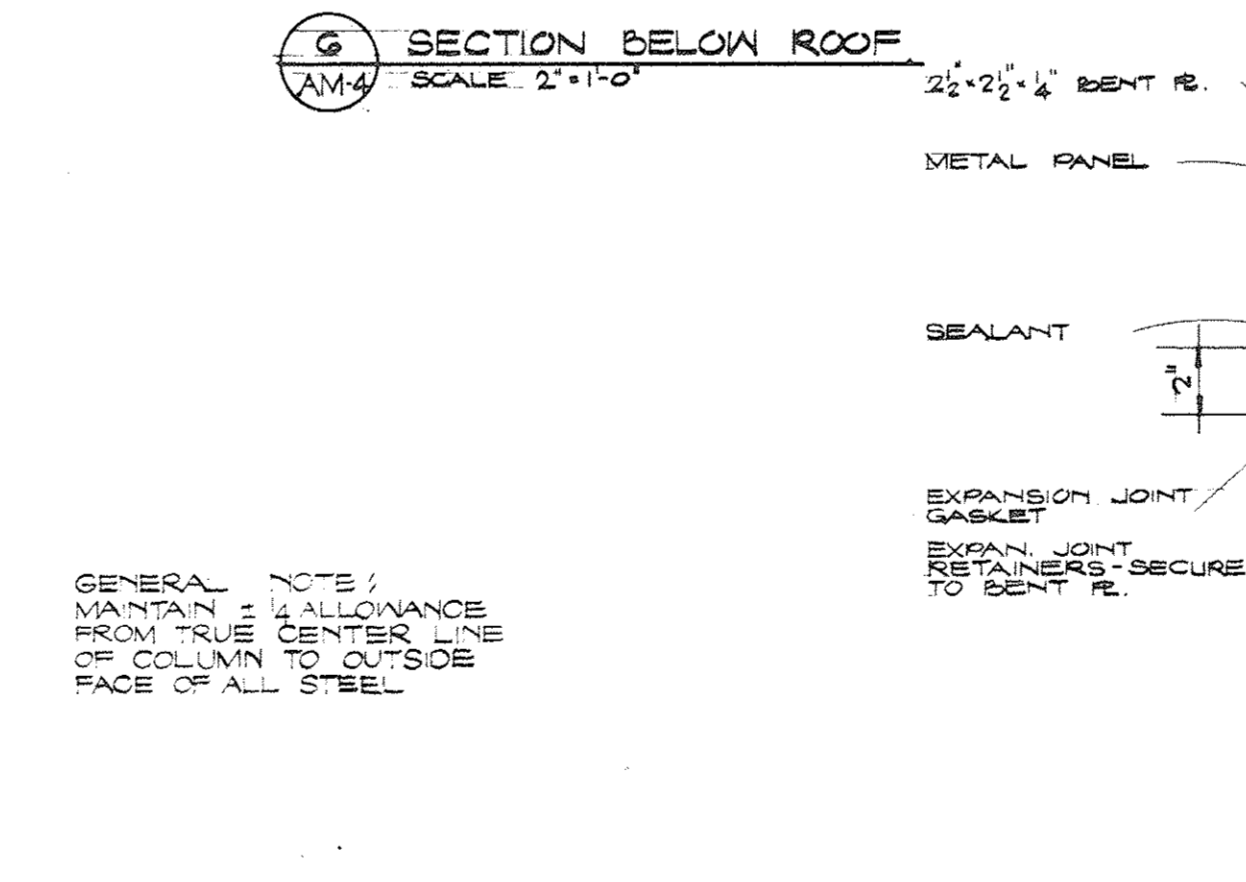
7 SECTION THRU PARAPET  
SCALE 2"=1'-0"



5 EXPAN. JOINT DETAIL  
SCALE 2"=1'-0"



6 EXPAN. JOINT DETAIL  
SCALE 2"=1'-0"



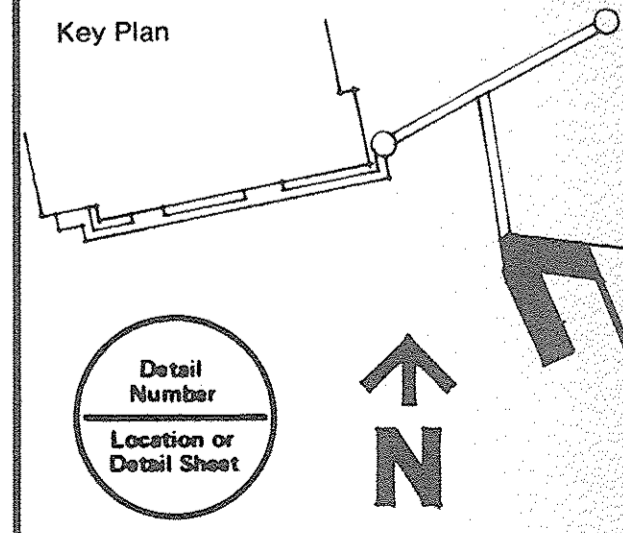
1 SECTION THRU PARAPET  
SCALE 2"=1'-0"

GENERAL NOTES:  
1. MAINTAIN 1/4" ALLOWANCE FROM TRUE CENTER LINE OF COLUMN TO OUTSIDE FACE OF ALL STEEL

**SH&G**  
Smith, Hinchman & Grylls  
Associates, Inc.  
Architects Engineers  
Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

OWNER	5-20-80
Issued For	Date
10-2-79	J.W.
Date	Drawn By
J. Smith	Div. Architect/Engineer
Correlating Check	
Project Manager	
Construction Administrative Div./Approval	
Division Approval	

Key Plan



Drawing Title  
ARENA BRIDGE  
AND RAMP -  
WALL SECTIONS  
AND MISC. DETAILS  
15031A  
Project No.  
A-68  
Drawing No.  
AS NOTED  
Scale  
32 of 96



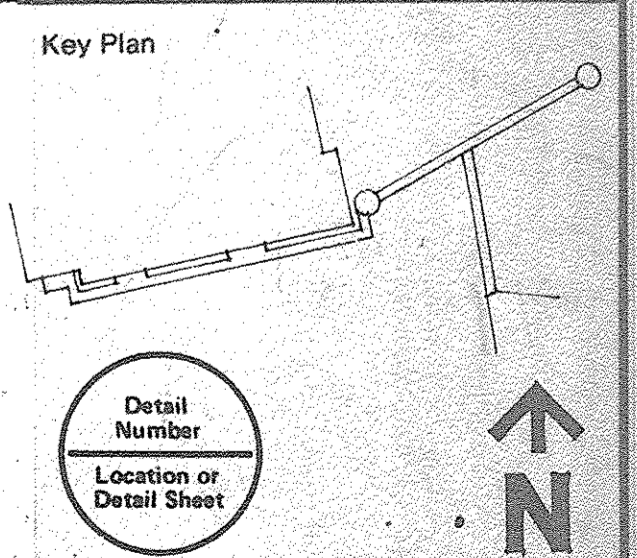




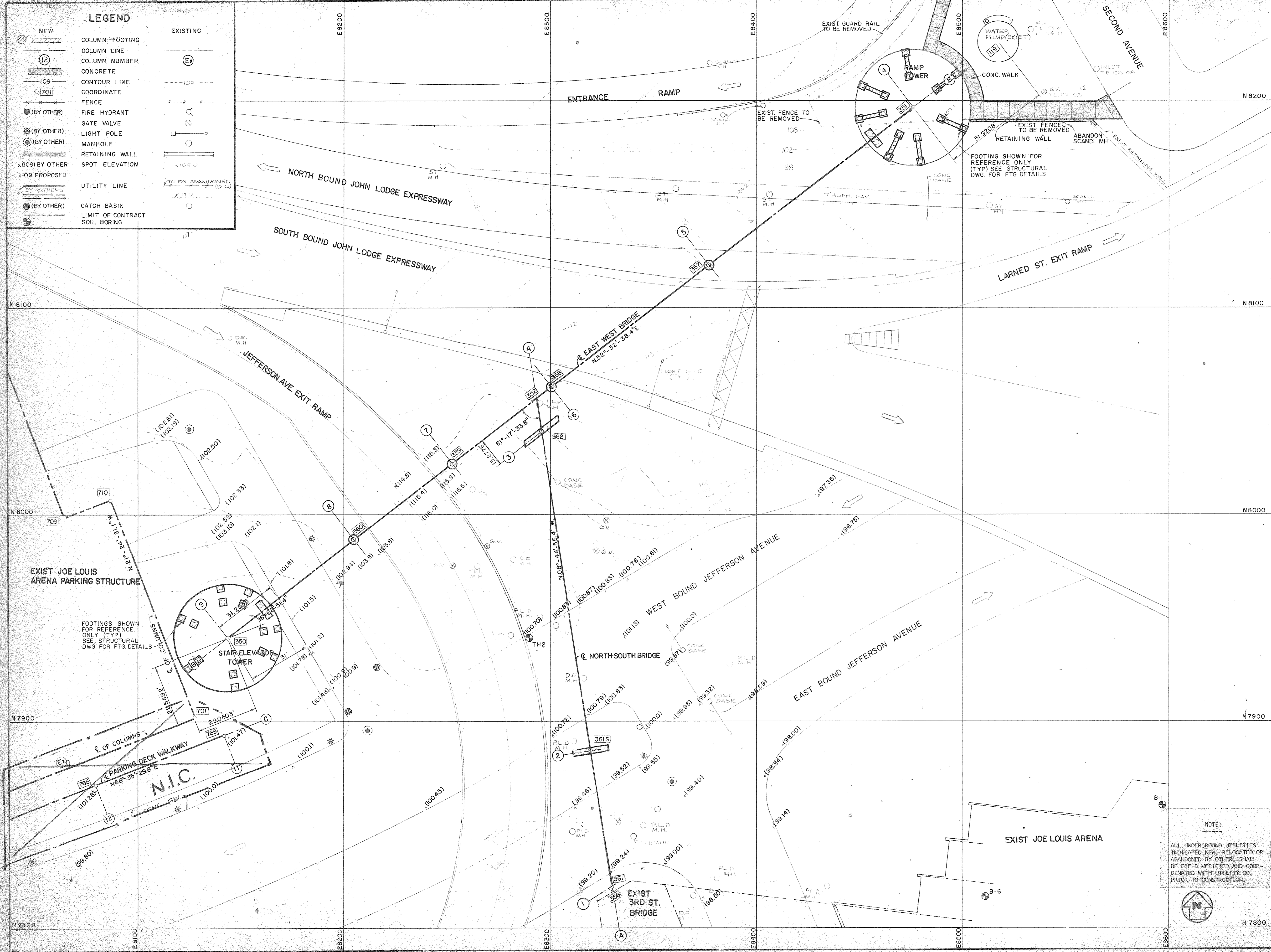
**Joe Louis Sports Arena  
Pedestrian Walkway**  
For City Engineering Division

**SH&G**  
Smith, Hinchman & Grylls  
Associates, Inc.  
Architects Engineers  
Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
**SH&G Job. No. 117320**

OWNER	5-20-80
Issued For	Date
1-18-80	C.W.
Date	Drawn By
Div. Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	



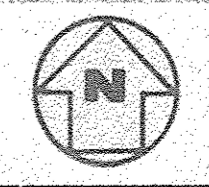
Drawing Title  
**SITE PLAN I**  
Project No.  
**15031A**  
Drawing No.  
**C-1**  
Scale  
34 of 96



**LEGEND**

NEW	EXISTING

**NOTE:**  
ALL UNDERGROUND UTILITIES INDICATED NEW, RELOCATED OR ABANDONED BY OTHER, SHALL BE FIELD VERIFIED AND COORDINATED WITH UTILITY CO. PRIOR TO CONSTRUCTION.



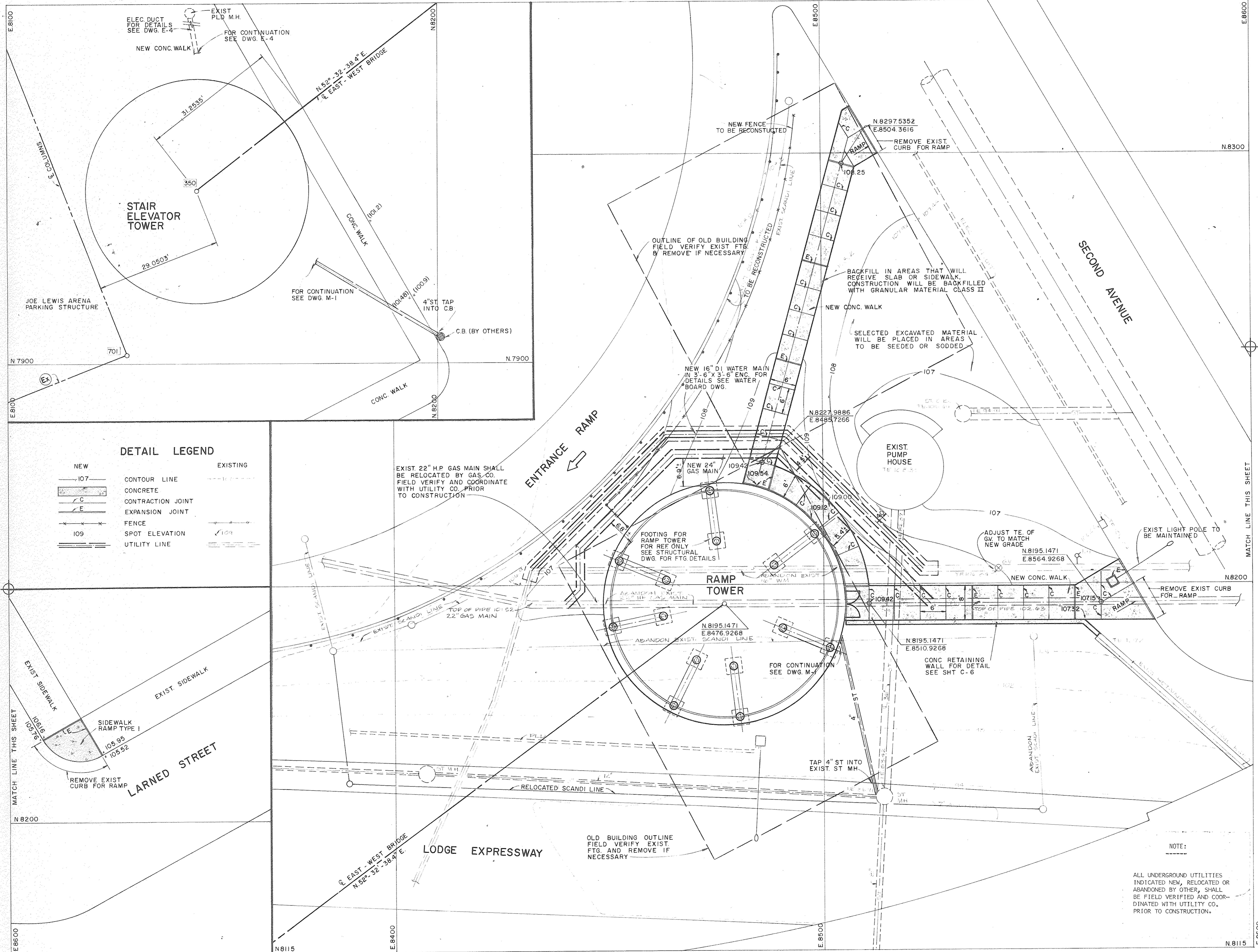










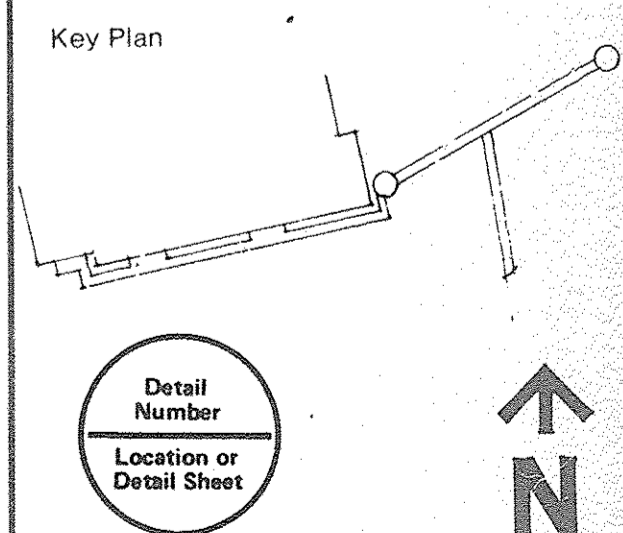


**Joe Louis Sports Arena**  
**Pedestrian Walkway**  
 For City Engineering Division

**SH&G**  
 Smith, Hinchman & Grylls  
 Associates, Inc.  
 Architects Engineers  
 Planners  
 455 West Fort Street  
 Detroit, Michigan 48226  
 (313)964-3000  
**SH&G Job. No. 11732C**

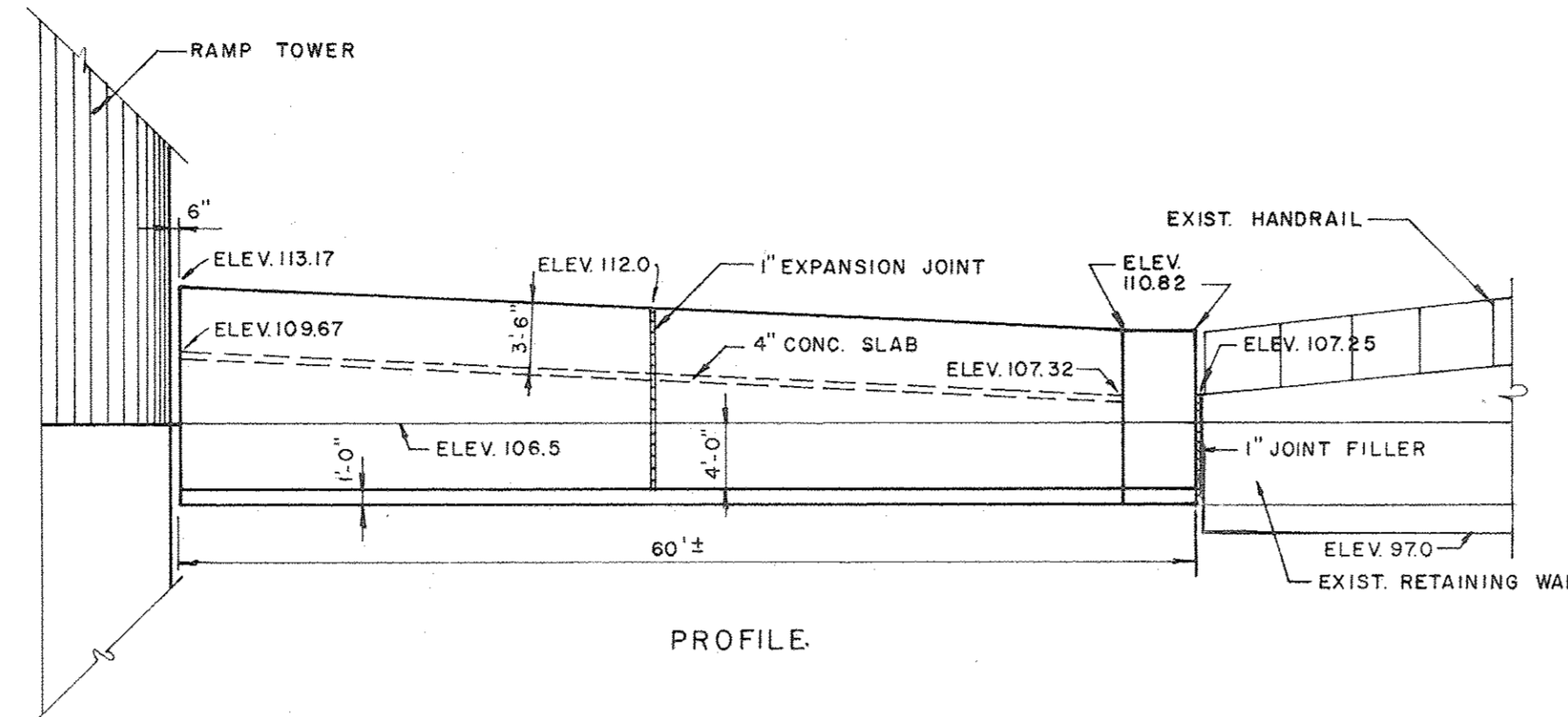
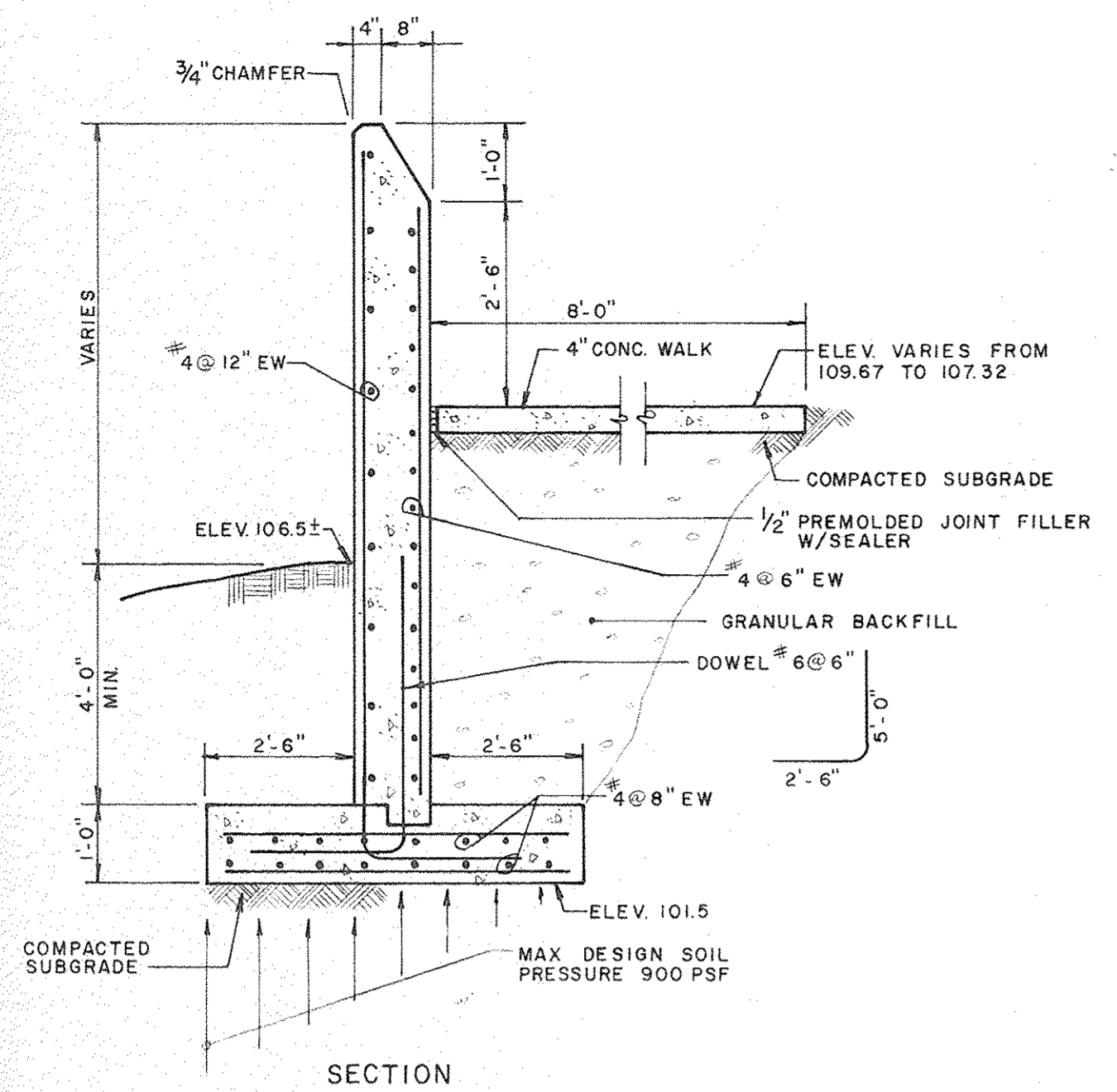
OWNER	1-18-80	CW
Issued For		Date
Div. Architect/Engineer		Drawn By
Correlation Check		
Project Manager		
Construction Administration Div. Approval		
Division Approval		

1-18-80 CW  
 Date Drawn By  
 Div. Architect/Engineer  
 Correlation Check  
 Project Manager  
 Construction Administration Div. Approval  
 Division Approval

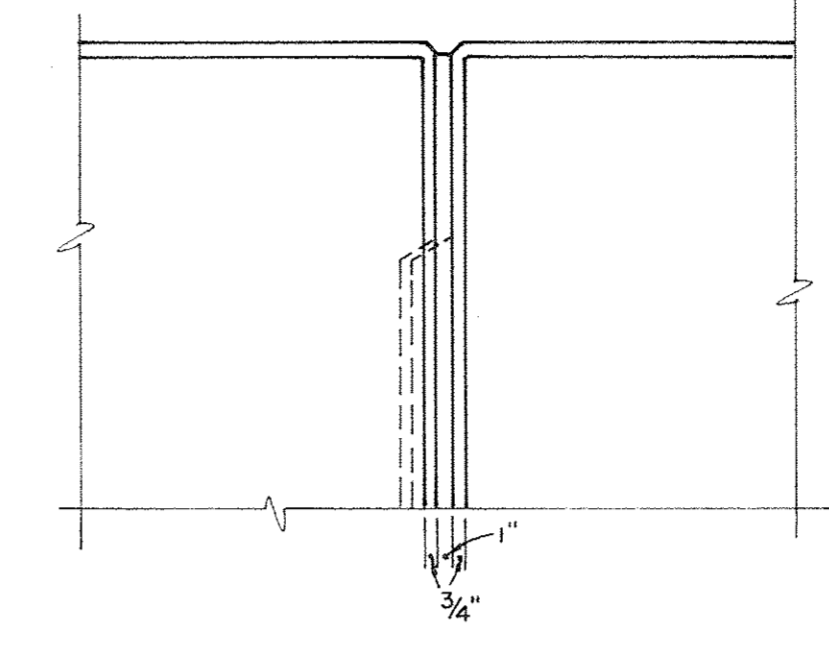
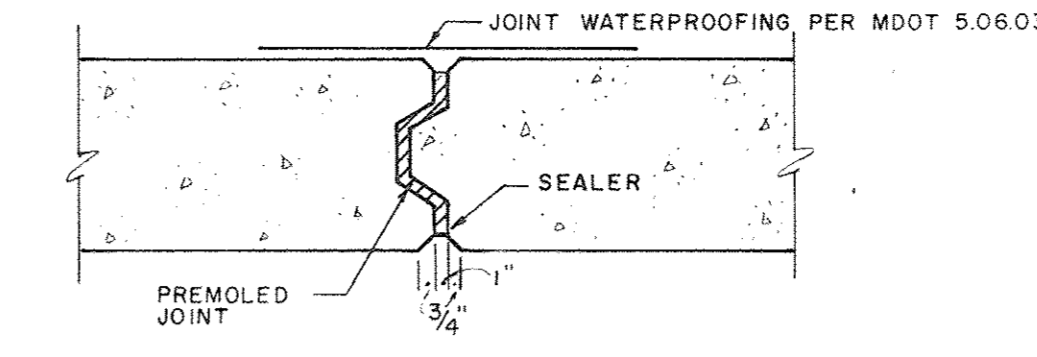


Drawing Title  
**DETAIL SITE PLAN**  
 Project No.  
**15031A**  
 Drawing No.  
**C-5**  
 Scale  
**1" = 10'**  
 37 of 96





RETAINING WALL



**Joe Louis Sports Arena Pedestrian Walkway**  
For City Engineering Division

**SH&G**  
Smith, Hinchman & Grylls Associates, Inc.  
Architects Engineers Planners

455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
**SH&G Job. No. 11732C**

LOG OF SUBSURFACE PROFILE		SOIL SAMPLE DATA				
CLASSIFICATIONS BY: Halpert, Neyer & Tiseo		SAMPLE NUMBER	ELEV. (FEET)	NATURAL MOISTURE CONTENT (PERCENT)	DRY DENSITY (PCF)	PENETRATION* (PSF)
GROUND SURFACE ELEVATION: 99.8						
CRUSHED LIMESTONE						
FILL: Medium Brown SILTY CLAY with Some Sand and Gravel and Pieces of Brick.						
	5-1	94.8	-	-	-	2-5-8
	5-2	89.8	-	-	-	2-3-4
Medium Gray SILTY CLAY.						
	LS-1	84.8	35.5	83.2	112.1	172-172-1
Compact Brown and Gray GRAVEL with Some Sand.						
	5-3	79.8	-	-	-	19-38-34
	LS-2	74.8	-	-	-	1-1-1
	LS-3	69.8	-	-	-	2-3-4
Medium to Soft Gray SILTY CLAY, Little Sand, Rouge Streaks.						
	LS-4	64.8	19.5	111.1	3.4-8.8	
	LS-5	59.8	-	-	-	2-2-3
	LS-6	54.8	-	-	-	2-2-4
	LS-7	49.8	-	-	-	2-3-5
	LS-8	44.8	-	-	-	5-5-6
Medium to Soft Gray SILTY CLAY with Pebbles.						
	LS-9	39.8	19.7	111.4	5.0-9.1	
	LS-10	34.8	-	-	-	5-5-8
	LS-11	29.8	-	-	-	7-10-12
Medium Compact Gray SAND with Some Clay and Gravel.						
	LS-12	24.8	-	-	-	7-11-25
	LS-13	19.8	-	-	-	1-6-9
Medium to Soft Gray SILTY CLAY with Trace of Sand.						
	LS-14	14.8	-	-	-	4-5-6
	LS-15	9.8	-	-	-	4-4-10
	5-3	4.8	-	-	-	
	LS-16	0.2	10.5	130.5	112.1	

TOTAL DEPTH: 116.0'  
BORING STARTED: 12/17/76  
BORING COMPLETED: 12/10/76  
INSPECTOR: D. Vensei  
DRILLER: B. Singleton  
CONTRACTOR: Able Drilling, Inc.  
\*WATER LEVEL IN HOLE AT INDICATED NUMBER OF HOURS AFTER COMPLETION OF BORING WITH \_\_\_\_\_ FEET OF CASING IN PLACE.  
\*PENETRATION RESISTANCE: \_\_\_\_\_  
NUMBER OF BLOWS REQUIRED TO DRIVE 2.0 INCH O.D. SOIL SAMPLER 12 INCHES, USING 150 POUND WEIGHT WITH 30 INCH FREE FALL: \_\_\_\_\_

HALPERT, NEYER & TISEO  
CONSULTING SITE AND GEOTECHNICAL ENGINEERS  
LOG OF TEST BORING NUMBER 1  
PROPOSED ICE ARENA  
JEFFERSON AND THIRD AVENUES  
DETROIT, MICHIGAN  
APPROVED BY: [Signature] DATE: 12/16/76  
PROJECT NO. 87501 FIGURE NO. 1  
Sheet 1 of 2

LOG OF SUBSURFACE PROFILE		SOIL SAMPLE DATA				
CLASSIFICATIONS BY: Halpert, Neyer & Tiseo		SAMPLE NUMBER	ELEV. (FEET)	NATURAL MOISTURE CONTENT (PERCENT)	DRY DENSITY (PCF)	PENETRATION* (PSF)
GROUND SURFACE ELEVATION: 99.8						
Very Hard Gray CLAYEY SILT with Some Sand and Pebbles (Hardpan).						
	LS-7	5.2	-	-	-	220/12"
Hard Gray LIMESTONE.						
	8-1	-10.2	-	-	-	4' recovery on 4" run.
	8-2	-16.2	-	-	-	2.8' recovery on 6" run.

TOTAL DEPTH: 116.0'  
BORING STARTED: 12/17/76  
BORING COMPLETED: 12/10/76  
INSPECTOR: D. Vensei  
DRILLER: B. Singleton  
CONTRACTOR: Able Drilling, Inc.  
\*WATER LEVEL IN HOLE AT INDICATED NUMBER OF HOURS AFTER COMPLETION OF BORING WITH \_\_\_\_\_ FEET OF CASING IN PLACE.  
\*PENETRATION RESISTANCE: \_\_\_\_\_  
NUMBER OF BLOWS REQUIRED TO DRIVE 2.0 INCH O.D. SOIL SAMPLER 12 INCHES, USING 150 POUND WEIGHT WITH 30 INCH FREE FALL: \_\_\_\_\_

HALPERT, NEYER & TISEO  
CONSULTING SITE AND GEOTECHNICAL ENGINEERS  
LOG OF TEST BORING NUMBER 2  
PROPOSED ICE ARENA  
JEFFERSON AND THIRD AVENUES  
DETROIT, MICHIGAN  
APPROVED BY: [Signature] DATE: 12/16/76  
PROJECT NO. 87501 FIGURE NO. 2  
Sheet 2 of 2

LOG OF SUBSURFACE PROFILE		SOIL SAMPLE DATA				
CLASSIFICATIONS BY: Halpert, Neyer & Tiseo		SAMPLE NUMBER	ELEV. (FEET)	NATURAL MOISTURE CONTENT (PERCENT)	DRY DENSITY (PCF)	PENETRATION* (PSF)
GROUND SURFACE ELEVATION: 99.4						
CRUSHED LIMESTONE						
FILL: Medium Gray SILTY CLAY with Gravel, Brick, Chert, etc.						
Very STIFF MOTTLED BROWN and Gray SILTY CLAY with Some Fine Sand and Pebbles.						
	LS-1	94.4	-	-	-	6-7-8
	LS-2	89.4	-	-	-	4-5-6
Stiff Gray SILTY CLAY with Little Fine Sand and Pebbles.						
	LS-3	84.4	-	-	-	8-11-18
	LS-4	79.4	-	-	-	6-4-5
Soft to Medium Gray SILTY CLAY.						
	LS-5	74.4	-	-	-	2-1-3
	ST-1	48.9	-	-	-	20-20-2
	LS-6	69.4	-	-	-	7-3-3
	LS-7	49.4	-	-	-	2-3-4
	ST-2	38.9	-	-	-	FINISHED
	LS-8	29.4	-	-	-	4-4-7
	LS-9	19.4	24.7	99.8	6.7-10	
	LS-10	9.4	9.4	134.1	5-6-9	

TOTAL DEPTH: 106.4'  
BORING STARTED: 12/17/76  
BORING COMPLETED: 12/21/76  
INSPECTOR: D. Vensei  
DRILLER: B. Singleton  
CONTRACTOR: Able Drilling, Inc.  
\*WATER LEVEL IN HOLE AT INDICATED NUMBER OF HOURS AFTER COMPLETION OF BORING WITH \_\_\_\_\_ FEET OF CASING IN PLACE.  
\*PENETRATION RESISTANCE: \_\_\_\_\_  
NUMBER OF BLOWS REQUIRED TO DRIVE 2.0 INCH O.D. SOIL SAMPLER 12 INCHES, USING 150 POUND WEIGHT WITH 30 INCH FREE FALL: \_\_\_\_\_

HALPERT, NEYER & TISEO  
CONSULTING SITE AND GEOTECHNICAL ENGINEERS  
LOG OF TEST BORING NUMBER 3  
PROPOSED ICE ARENA  
JEFFERSON AND THIRD AVENUES  
DETROIT, MICHIGAN  
APPROVED BY: [Signature] DATE: 12/23/76  
PROJECT NO. 87501 FIGURE NO. 3  
Sheet 1 of 2

LOG OF SUBSURFACE PROFILE		SOIL SAMPLE DATA				
CLASSIFICATIONS BY: Halpert, Neyer & Tiseo		SAMPLE NUMBER	ELEV. (FEET)	NATURAL MOISTURE CONTENT (PERCENT)	DRY DENSITY (PCF)	PENETRATION* (PSF)
GROUND SURFACE ELEVATION: 99.4						
Very Hard Gray CLAYEY SILT with Sand and Pebbles (Hardpan).						
	LS-11	4.9	25.1	101.2	112.6	
	5-	1.3	-	-	-	100/1"
	LS-12	-4.6	-	-	-	125/6"

TOTAL DEPTH: 106.4'  
BORING STARTED: 12/17/76  
BORING COMPLETED: 12/21/76  
INSPECTOR: D. Vensei  
DRILLER: B. Singleton  
CONTRACTOR: Able Drilling, Inc.  
\*WATER LEVEL IN HOLE AT INDICATED NUMBER OF HOURS AFTER COMPLETION OF BORING WITH \_\_\_\_\_ FEET OF CASING IN PLACE.  
\*PENETRATION RESISTANCE: \_\_\_\_\_  
NUMBER OF BLOWS REQUIRED TO DRIVE 2.0 INCH O.D. SOIL SAMPLER 12 INCHES, USING 150 POUND WEIGHT WITH 30 INCH FREE FALL: \_\_\_\_\_

HALPERT, NEYER & TISEO  
CONSULTING SITE AND GEOTECHNICAL ENGINEERS  
LOG OF TEST BORING NUMBER 4  
PROPOSED ICE ARENA  
JEFFERSON AND THIRD AVENUES  
DETROIT, MICHIGAN  
APPROVED BY: [Signature] DATE: 12/23/76  
PROJECT NO. 87501 FIGURE NO. 4  
Sheet 2 of 2

OWNER: [Signature]  
Issued For: [Signature]  
Date: 12-20-76  
Date: [Signature] Drawn By: [Signature]  
Div. Architect/Engineer: [Signature]  
Correlation Check: [Signature]  
Project Manager: [Signature]  
Construction Administrative Div. Approval: [Signature]  
Division Approval: [Signature]

Key Plan

Drawing Title  
**DETAILS**  
15031A  
Project No.  
**C-6**  
Drawing No.  
NOTED  
Scale  
38 of 96



Project Ramp to Joe Louis Parking Garage Job No 75174  
 Location Detroit, Michigan Permit No \_\_\_\_\_

**LOG OF BORING**

Depth In Feet	Sample Type	Penetration ASTM D 1586	SOIL DESCRIPTION	Laboratory Data			
				N.P.M.	N.D.	S.S.	Classif. Data
2	3-2-2		FILL SAND-slightly compact dirty with stones, misc. rubble, occ. trace of clay				
4.0	5-9-8		CLAY-very stiff gray with occ. brown mottling, occ. pebbles, occ. sand seams sandy-silty				
7-10-11							
9.0	5-5-5		CLAY-stiff gray-brown sandy with occ. sand seams, occ. gray clay seams, occ. pebbles				
13.5	3-4-5		CLAY-firm gray, silty slightly sandy occ. pebbles				
	3-4-4						
	3-3-5						
28.0	3-3-5		CLAY-firm gray very silty sandy occ. pebbles occ. sand seams				
	3-3-4						
	S.T. 1						

Project Ramp to Joe Louis Parking Garage Job No 75174  
 Location Detroit, Michigan Permit No \_\_\_\_\_

**LOG OF BORING**

Depth In Feet	Sample Type	Penetration ASTM D 1586	SOIL DESCRIPTION	Laboratory Data			
				N.P.M.	N.D.	S.S.	Classif. Data
0.1			ASPHALT GRANITE BLOCKS CONCRETE				
1.0							
1.5			FILL SAND-compact brown med traces of clay, gravel, rubble				
3.0	5-5-5		CLAY-very stiff brn. silty-sandy occ. pebbles occ. gray mottling				
	6-7-10						
	6-9-11						
	6-9-12						
12.0	3-4-5		CLAY-stiff gray silty sandy occ. pebble				
18.0	2-3-3		CLAY-firm gray very silty slightly sandy, pebbles				
	2-3-2						
	2-3-2						
	3-2-4						
	S.T. #1						

Project Ramp to Joe Louis Parking Garage Job No 75174  
 Location Detroit, Michigan Permit No \_\_\_\_\_

**LOG OF BORING**

Depth In Feet	Sample Type	Penetration ASTM D 1586	SOIL DESCRIPTION	Laboratory Data			
				N.P.M.	N.D.	S.S.	Classif. Data
	S.T. 1		CLAY-firm gray very silty sandy occ. pebbles occ. sand seams				
	2-2-2						
	2-3-3						
	3-4-4						
57.0	S.T. 2		CLAY-firm to stiff gray very silty slightly sandy occ. pebbles				
	4-4-6						
	3-5-6						
	4-5-6						
	4-6-7						

Project Ramp to Joe Louis Parking Garage Job No 75174  
 Location Detroit, Michigan Permit No \_\_\_\_\_

**LOG OF BORING**

Depth In Feet	Sample Type	Penetration ASTM D 1586	SOIL DESCRIPTION	Laboratory Data			
				N.P.M.	N.D.	S.S.	Classif. Data
	S.T. #1		CLAY-firm gray very silty slightly sandy occ. pebbles				
	2-2-2						
	2-3-4						
52.0	3-4-4		CLAY-stiff gray very silty sandy occ. pebbles				
	S.T. #2						
	3-3-5						
	4-6-6						
	4-5-7						
77.0	5-11-13		CLAY-very stiff gray very sandy sand seams, pebbles				

Project Ramp to Joe Louis Parking Garage Job No 75174  
 Location Detroit, Michigan Permit No \_\_\_\_\_

**LOG OF BORING**

Depth In Feet	Sample Type	Penetration ASTM D 1586	SOIL DESCRIPTION	Laboratory Data			
				N.P.M.	N.D.	S.S.	Classif. Data
	4-6-7		CLAY-firm to stiff gray very silty slightly sandy occ. pebbles				
	5-6-7						
	4-4-5						
95.5	4-9-15		SAND-extremely compact gray medium				
197.5	65-113		CLAY-extremely stiff gray sandy slightly silty occ. pebbles, stones				
	25-34-48						
111.0	32-100/2"		Limestone End of boring				

Project Ramp to Joe Louis Parking Garage Job No 75174  
 Location Detroit, Michigan Permit No \_\_\_\_\_

**LOG OF BORING**

Depth In Feet	Sample Type	Penetration ASTM D 1586	SOIL DESCRIPTION	Laboratory Data			
				N.P.M.	N.D.	S.S.	Classif. Data
	5-11-13		CLAY-very stiff gray very sandy occ. sand seams pebbles				
53.0	4-5-6						
	3-5-5		CLAY-stiff gray very silty slightly sandy occ. pebbles				
93.5	29-44-59		SAND-extremely compact gray med. with gravel layers stones				
199.5	100/5"		CLAY-extremely stiff gray very silty occ. silt seams, occ. pebbles				
	26-34-43						
109.0			LIMESTONE				
110.0			End of boring				

Project Ramp to Joe Louis Parking Garage Job No 75174  
 Location Detroit, Michigan Permit No \_\_\_\_\_

**Joe Louis Sports Arena Pedestrian Walkway**  
 For City Engineering Division

**SH&G**  
 Smith, Hinchman & Grylls Associates, Inc.  
 Architects Engineers Planners  
 455 West Fort Street  
 Detroit, Michigan 48226  
 (313)964-3000  
**SH&G Job No. 11732C**

OWNER \_\_\_\_\_  
 Issued For \_\_\_\_\_  
 Date 5-20-80

Date 5-16-80 Drawn By \_\_\_\_\_  
 Div. Architect/Engineer \_\_\_\_\_  
 Correlation Check \_\_\_\_\_  
 Project Manager \_\_\_\_\_  
 Construction Administrative Div. Approval \_\_\_\_\_  
 Division Approval \_\_\_\_\_

Key Plan

Drawing Title

**DETAILS**

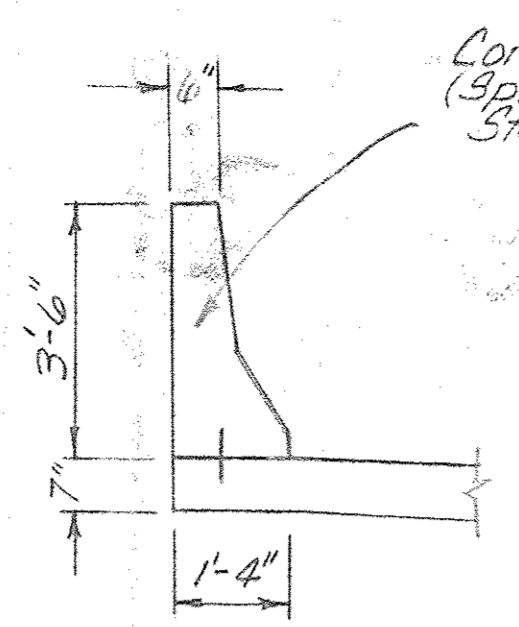
**15031A**  
 Project No \_\_\_\_\_  
**C-7**  
 Drawing No \_\_\_\_\_

Scale 3/8" = 1'-0"

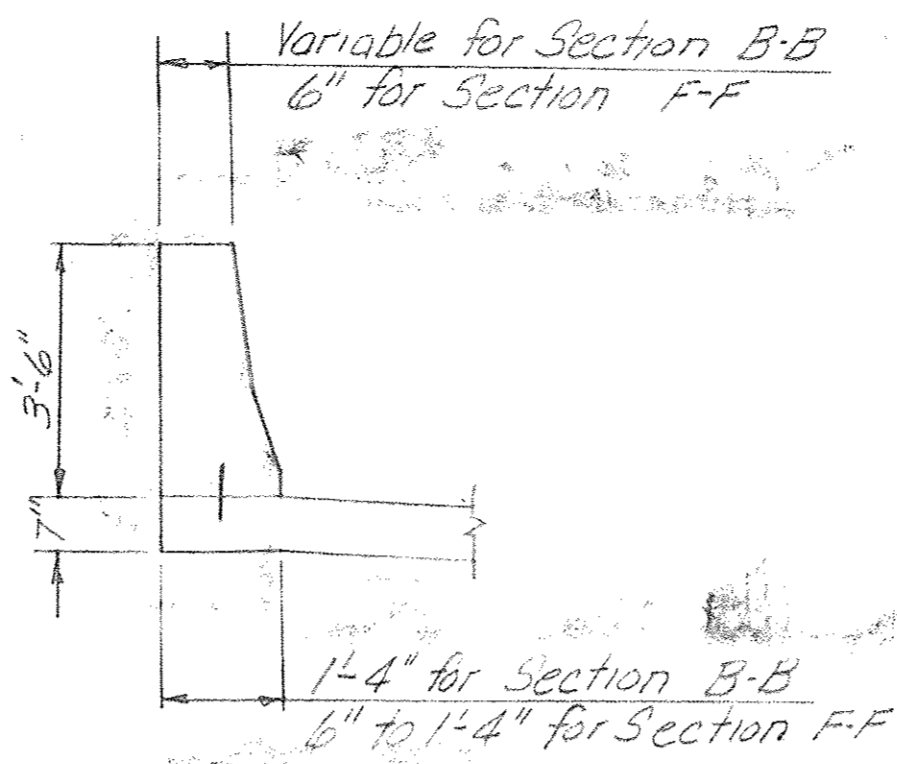




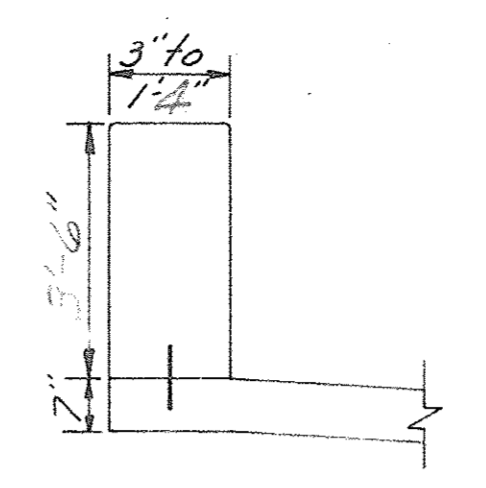




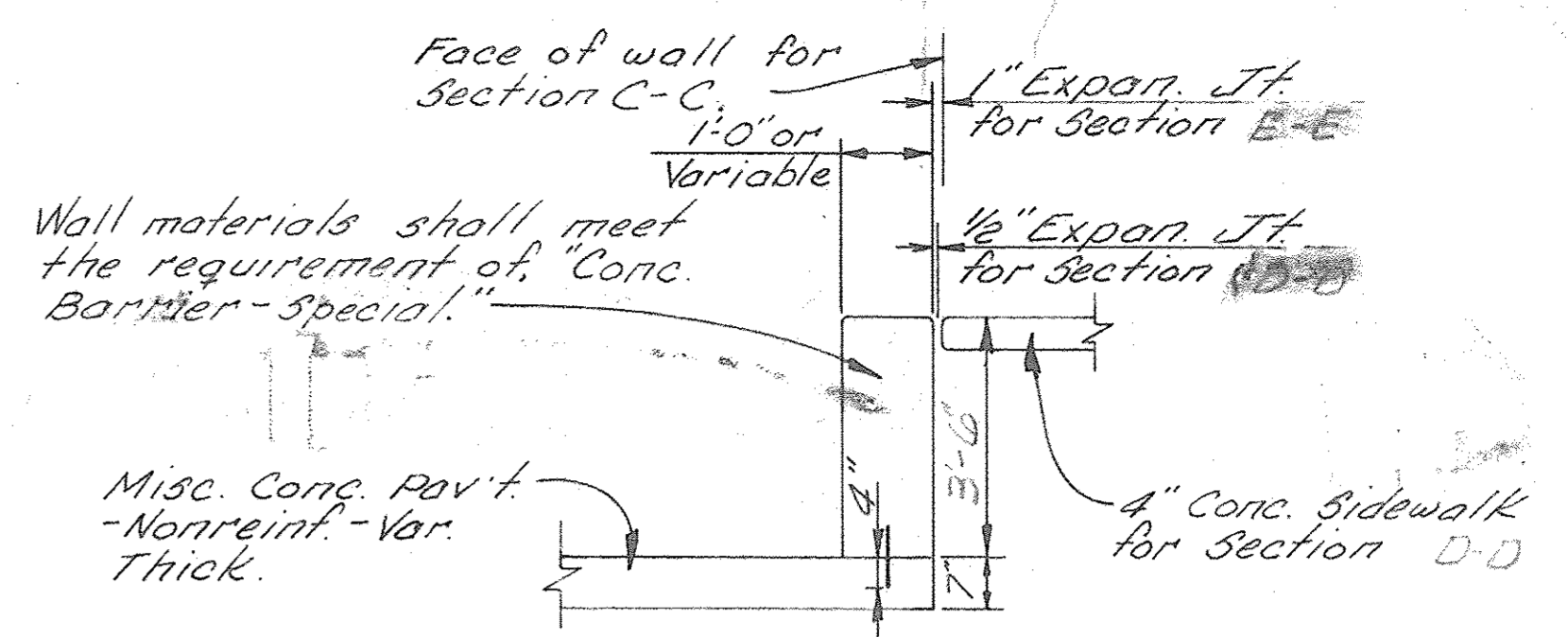
SECTION A-A



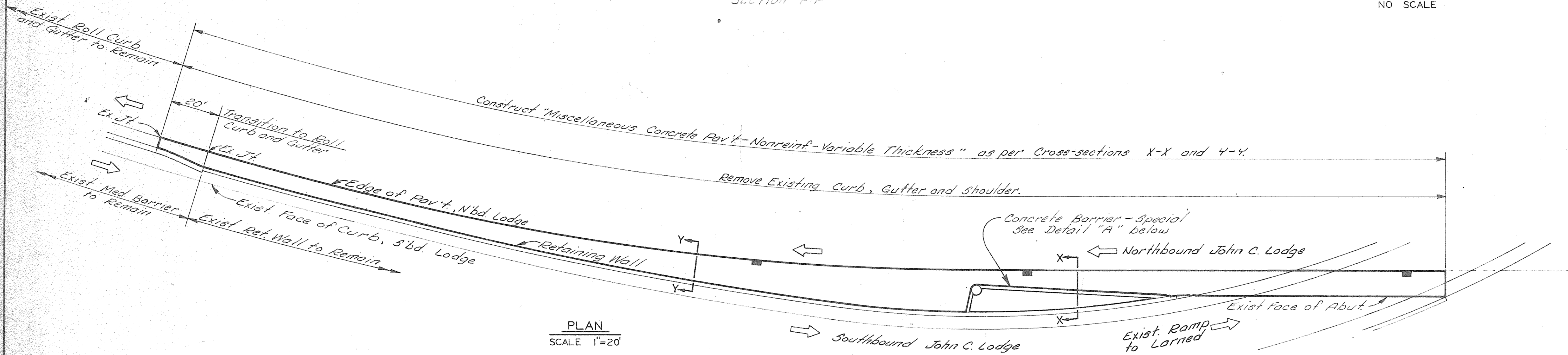
SECTION B-B AND SECTION F-F



SECTION C-C NO SCALE



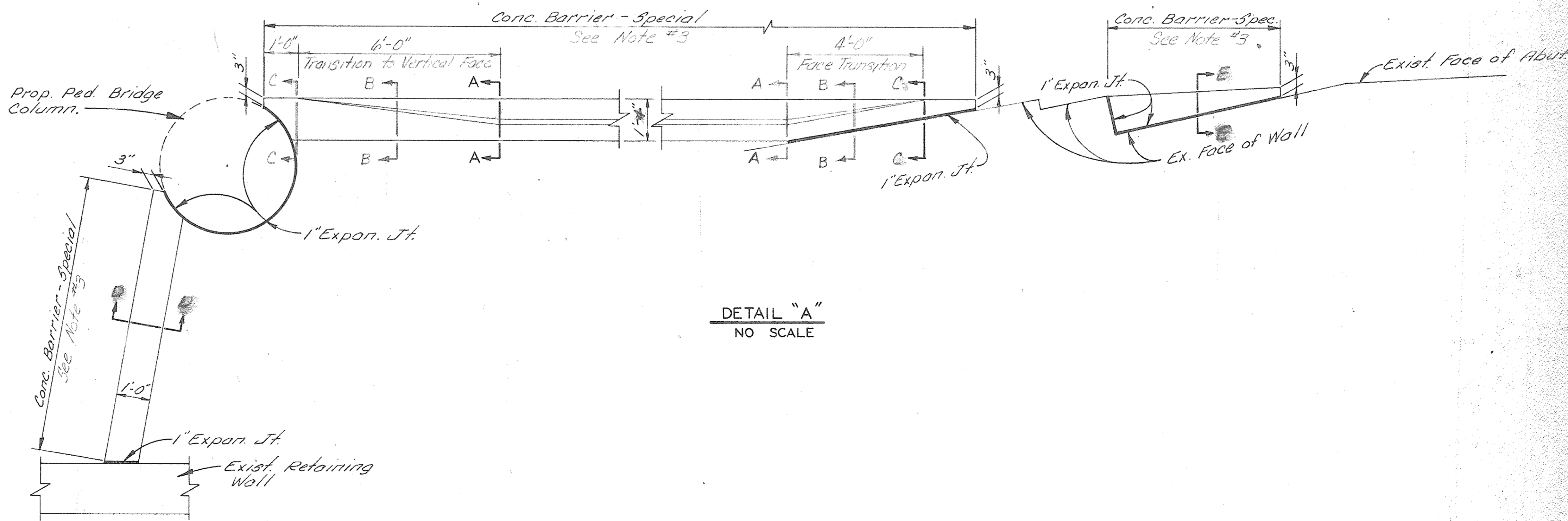
SECTION D-D AND SECTION E-E NO SCALE



PLAN SCALE 1"=20'

NOTES:

1. Remove the three catch Basin frames and covers shown by the symbol above. Replace these with "Drainage Structure Cover (Type D)". See sheet #3.
2. For sections X-X and Y-Y, See sheet #3.
3. Length, for pay item limits, of Concrete Barrier - Special



DETAIL "A" NO SCALE

COORD.	DESCRIPTION	DRN	CK'D	AP'D	DATE

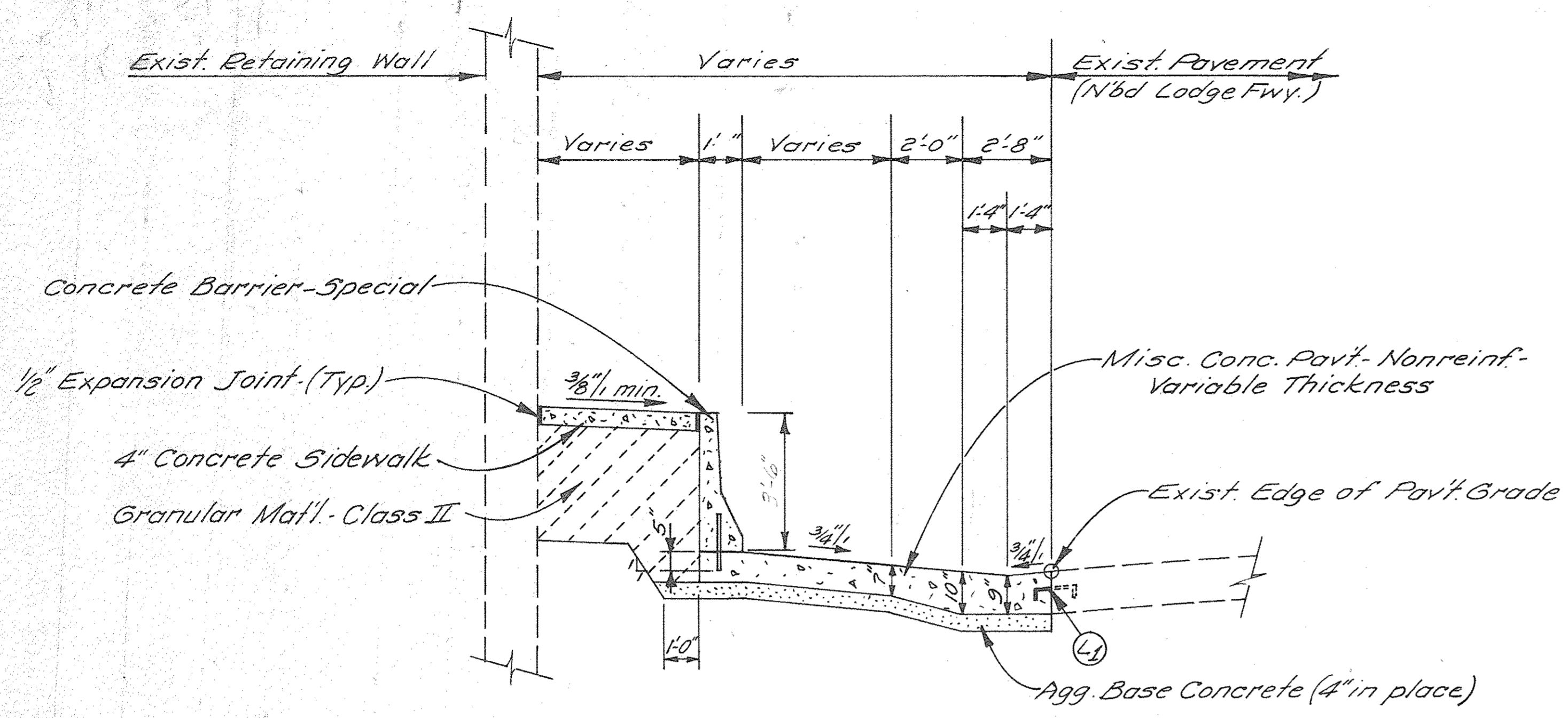
REFERENCE DRAWINGS	DESIGNED BY	APPROVED:

CITY OF DETROIT  
CITY ENGINEERING DIVISION - EPMD  
BUREAU OF STREETS AND HIGHWAYS  
FOR

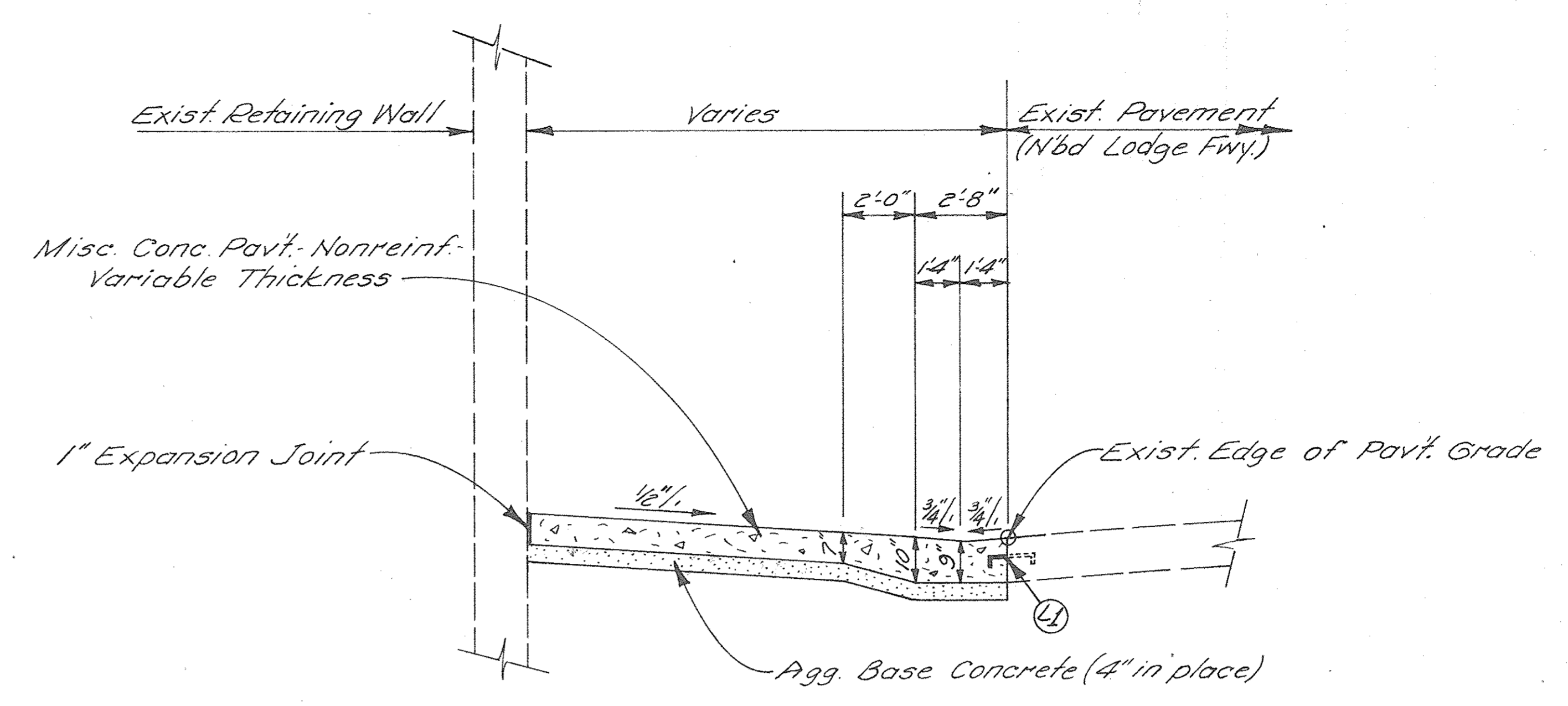
JOE LOUIS ARENA PEDESTRIAN WALKWAYS

SHEET C-9 OF SHEETS
CONTRACT NO. 15031A
ASSIGNMENT NO.
DATE 5-14-80

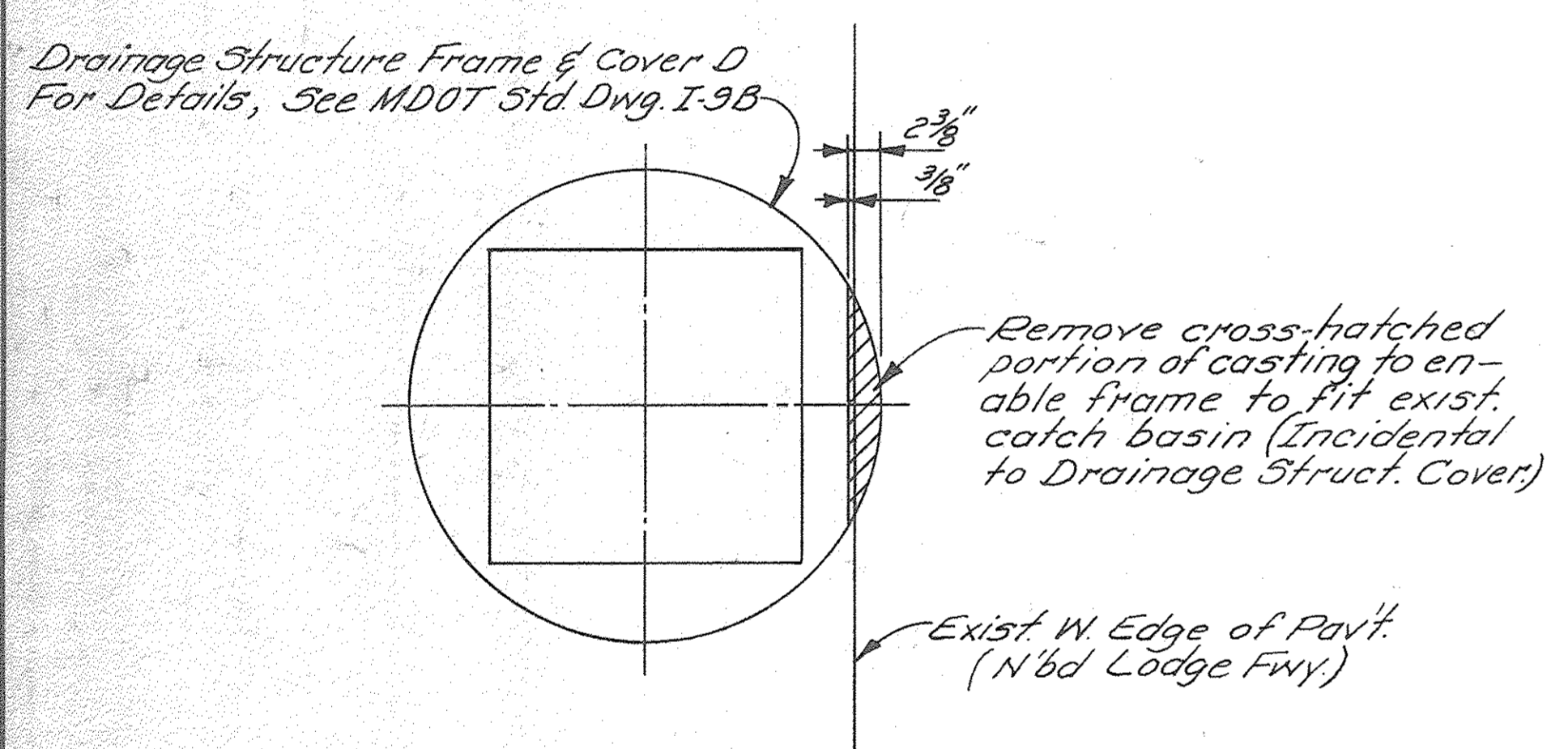




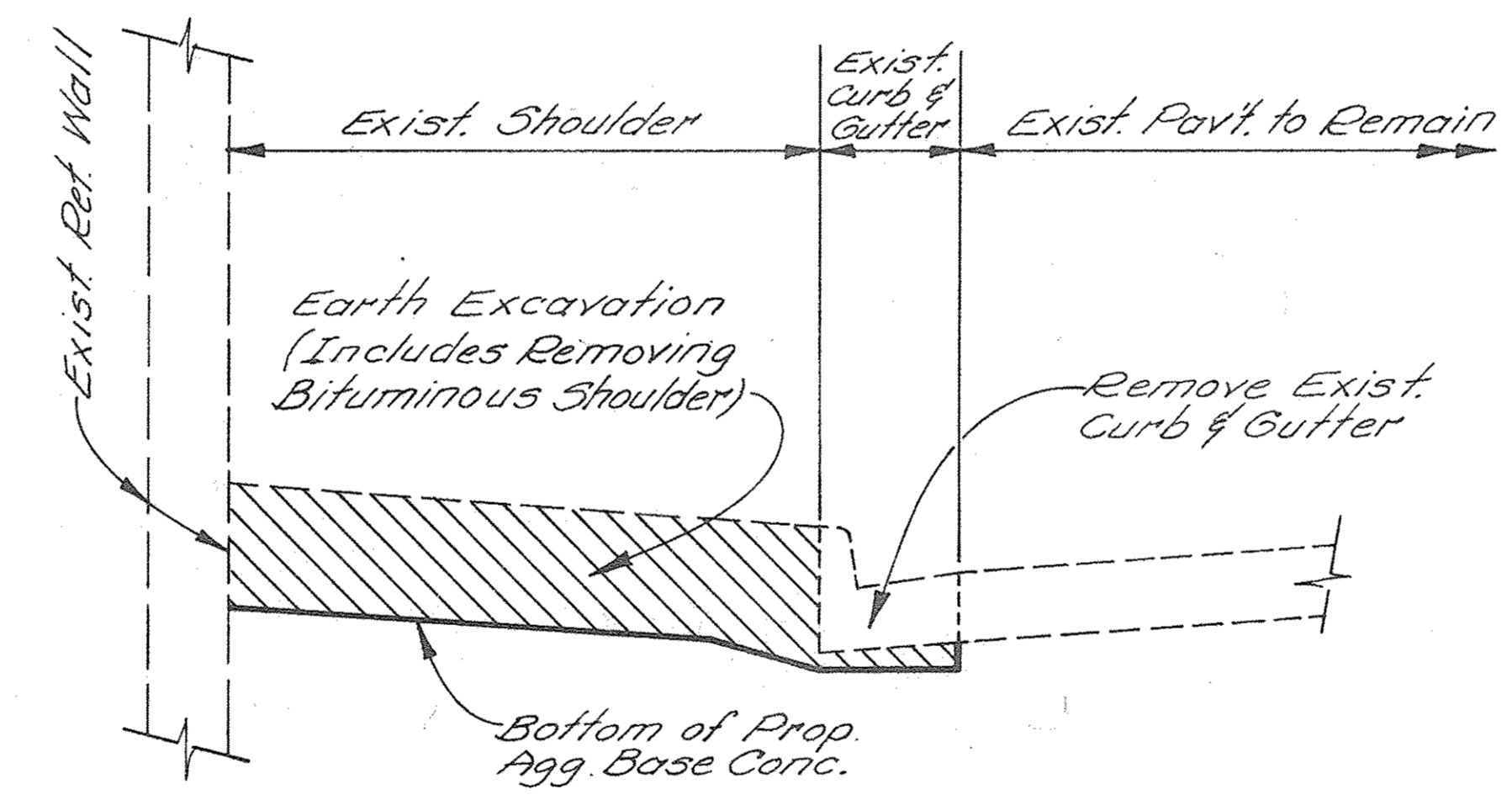
**SECTION X-X**  
NO SCALE



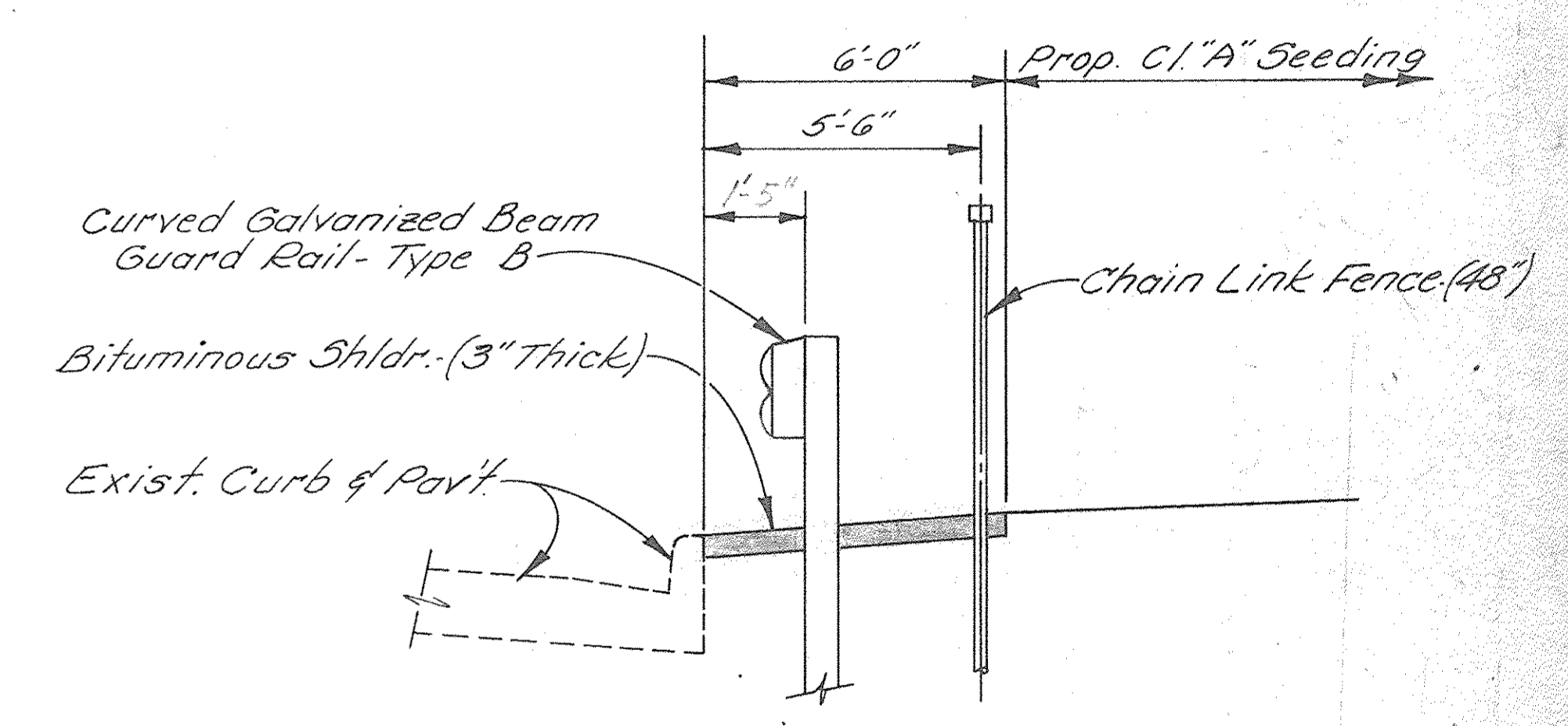
**SECTION Y-Y**  
NO SCALE



**DRAINAGE STRUCTURE COVER**  
NO SCALE



**EXCAVATION & REMOVAL SECTION**  
NO SCALE



**SECTION Z-Z**  
NO SCALE

**NOTES:**

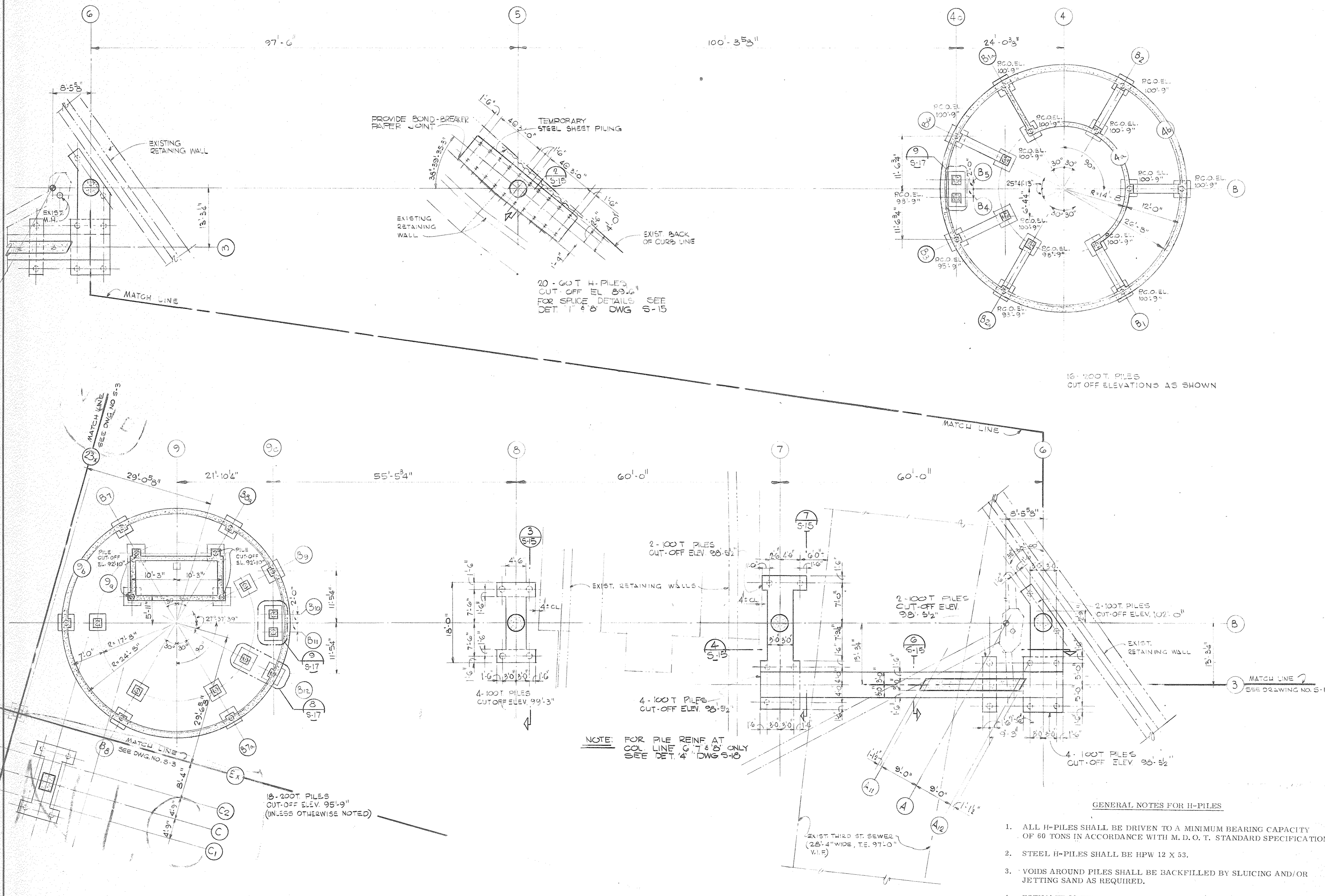
- It is estimated that 50% of the existing lane ties can be preserved in the areas where (1) Longitudinal Bulkhead Joints are called for. Additional hook bolts shall be placed where the existing coupling can be re-tapped and used. The additional care required to preserve the existing lane ties and the additional hook bolts required for the (2) Joint will be included in the pay item "Misc. Conc. Pavt.-Nonreinf.-Variable Thickness." Expansion Anchors will not be required for this joint.

<table border="1"> <tr> <td>COORD.</td> <td>DESCRIPTION</td> <td>DRN</td> <td>CK'D</td> <td>AP'VD</td> <td>DATE</td> </tr> <tr> <td colspan="6">REVISIONS LOCATED BY COORDINATES ON SHEET</td> </tr> </table>		COORD.	DESCRIPTION	DRN	CK'D	AP'VD	DATE	REVISIONS LOCATED BY COORDINATES ON SHEET						<table border="1"> <tr> <td>REFERENCE DRAWINGS</td> <td>DESIGNED BY</td> <td>APPROVED:</td> </tr> <tr> <td></td> <td>DRAWN BY <i>MAG</i></td> <td>ENGINEER OF STREETS</td> </tr> <tr> <td></td> <td>TRACED BY</td> <td>HIGHWAY ENGINEER</td> </tr> <tr> <td></td> <td>CHECKED BY</td> <td></td> </tr> </table>	REFERENCE DRAWINGS	DESIGNED BY	APPROVED:		DRAWN BY <i>MAG</i>	ENGINEER OF STREETS		TRACED BY	HIGHWAY ENGINEER		CHECKED BY		<p align="center"> <b>CITY OF DETROIT</b>                  CITY ENGINEERING DIVISION - EPMD                  BUREAUS OF STREETS AND HIGHWAYS             </p>	<p align="center"> <b>JOE LOUIS ARENA PEDESTRIAN WALKWAYS</b>                  N'BD LODGE FWY. SHOULDER DETAILS             </p>	<table border="1"> <tr> <td>SHEET C-10 OF SHEETS</td> </tr> <tr> <td>CONTRACT NO. 15031A</td> </tr> <tr> <td>ASSIGNMENT NO.</td> </tr> <tr> <td>DATE 5-14-80</td> </tr> </table>	SHEET C-10 OF SHEETS	CONTRACT NO. 15031A	ASSIGNMENT NO.	DATE 5-14-80
COORD.	DESCRIPTION	DRN	CK'D	AP'VD	DATE																												
REVISIONS LOCATED BY COORDINATES ON SHEET																																	
REFERENCE DRAWINGS	DESIGNED BY	APPROVED:																															
	DRAWN BY <i>MAG</i>	ENGINEER OF STREETS																															
	TRACED BY	HIGHWAY ENGINEER																															
	CHECKED BY																																
SHEET C-10 OF SHEETS																																	
CONTRACT NO. 15031A																																	
ASSIGNMENT NO.																																	
DATE 5-14-80																																	









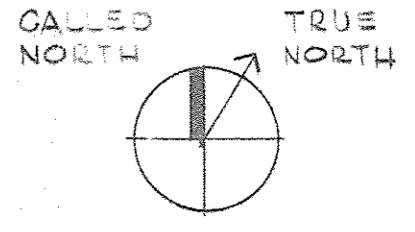
20 - 60 T H-PILES  
CUT OFF EL. 89'-6"  
FOR SPICE DETAILS SEE  
DET. 1' & 8' DWG S-15

16 - 100 T PILES  
CUT OFF ELEVATIONS AS SHOWN

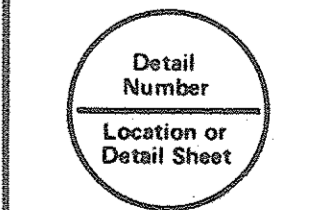
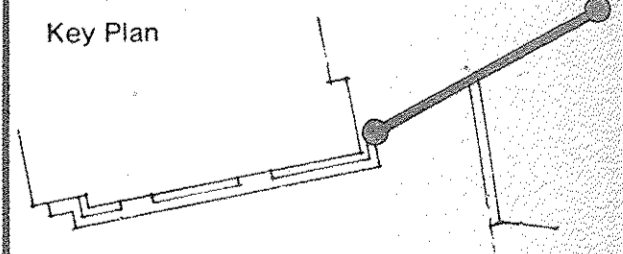
NOTE: FOR PILE REINF AT  
COL LINE C-7 & D-1 ONLY  
SEE DET. 4' DWG S-18

**GENERAL NOTES FOR H-PILES**

1. ALL H-PILES SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 60 TONS IN ACCORDANCE WITH M. D. O. T. STANDARD SPECIFICATIONS.
2. STEEL H-PILES SHALL BE HPW 12 X 53.
3. VOIDS AROUND PILES SHALL BE BACKFILLED BY SLUICING AND/OR JETTING SAND AS REQUIRED.
4. ESTIMATE 90 FEET FOR LENGTH OF EACH PILE (OR 1620' TOTAL).
5. TEST PILE WILL NOT BE REQUIRED FOR THIS PROJECT.



OWNER	5-30-80
Issued For	Date
1-18-80	Date
Drawn By	
Div. Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	



**EAST - WEST BRIDGE AND TOWERS FOUNDATION PLAN**

15031A  
Project No.  
S-2  
Drawing No.  
332-1-C  
Scale











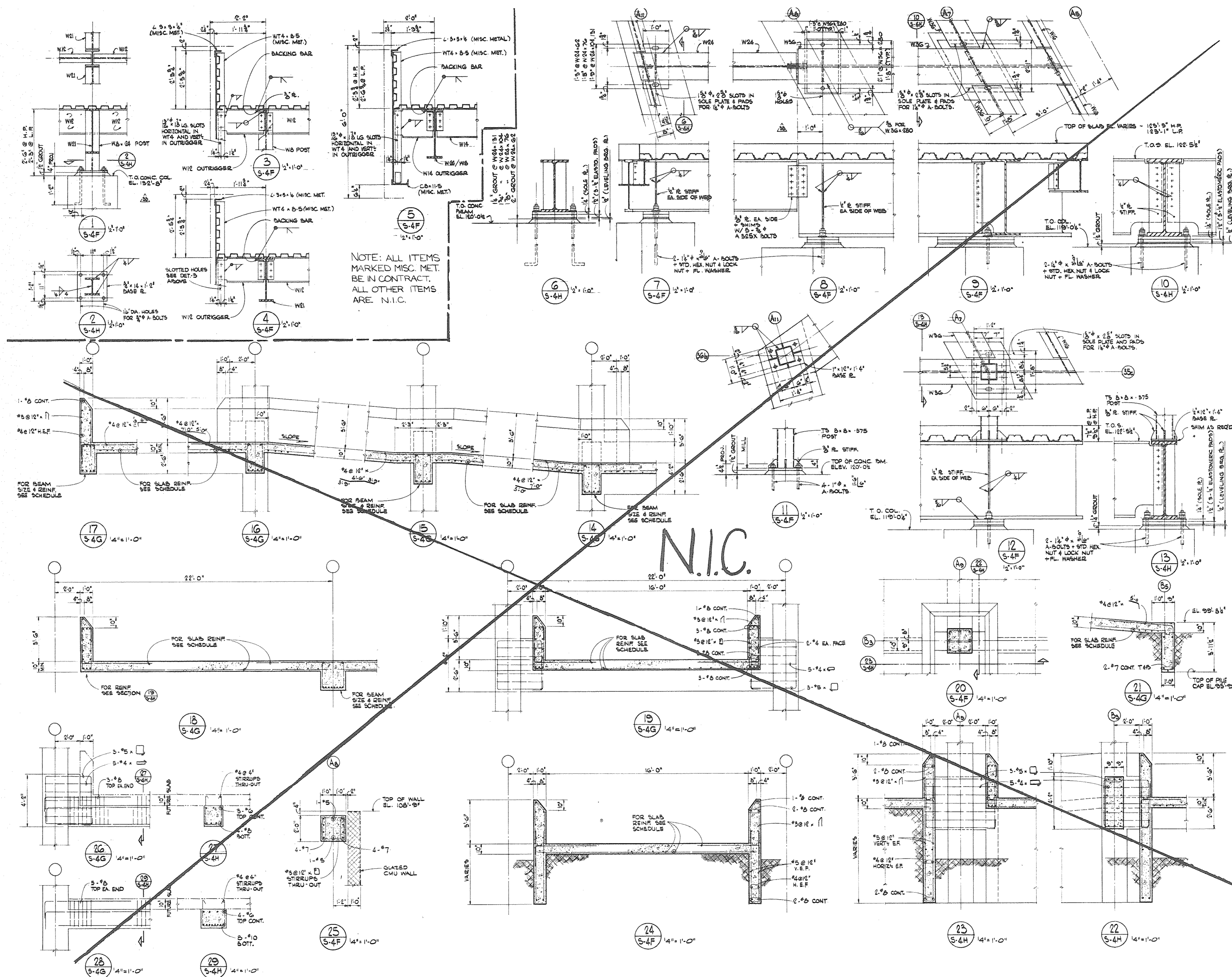




**SH&G**  
Smith, Hinchman & Grylls  
Associates, Inc.  
Architects Engineers  
Planners

455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000

SH&G Job. No. 11732C



OWNER	5-30-80
Issued For	Date
0-2-79	N.R.
Date	Drawn By
J. Smith	
Div. Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	

Key Plan

Detail Number  
Location or Detail Sheet

↑  
N

Drawing Title  
**THIRD STREET  
BRIDGE AND  
RAMP  
DETAILS**

15031A  
Project No.  
**S-4H**  
Drawing No.  
1"=10" (U.O.N.)  
Scale  
48 of 96

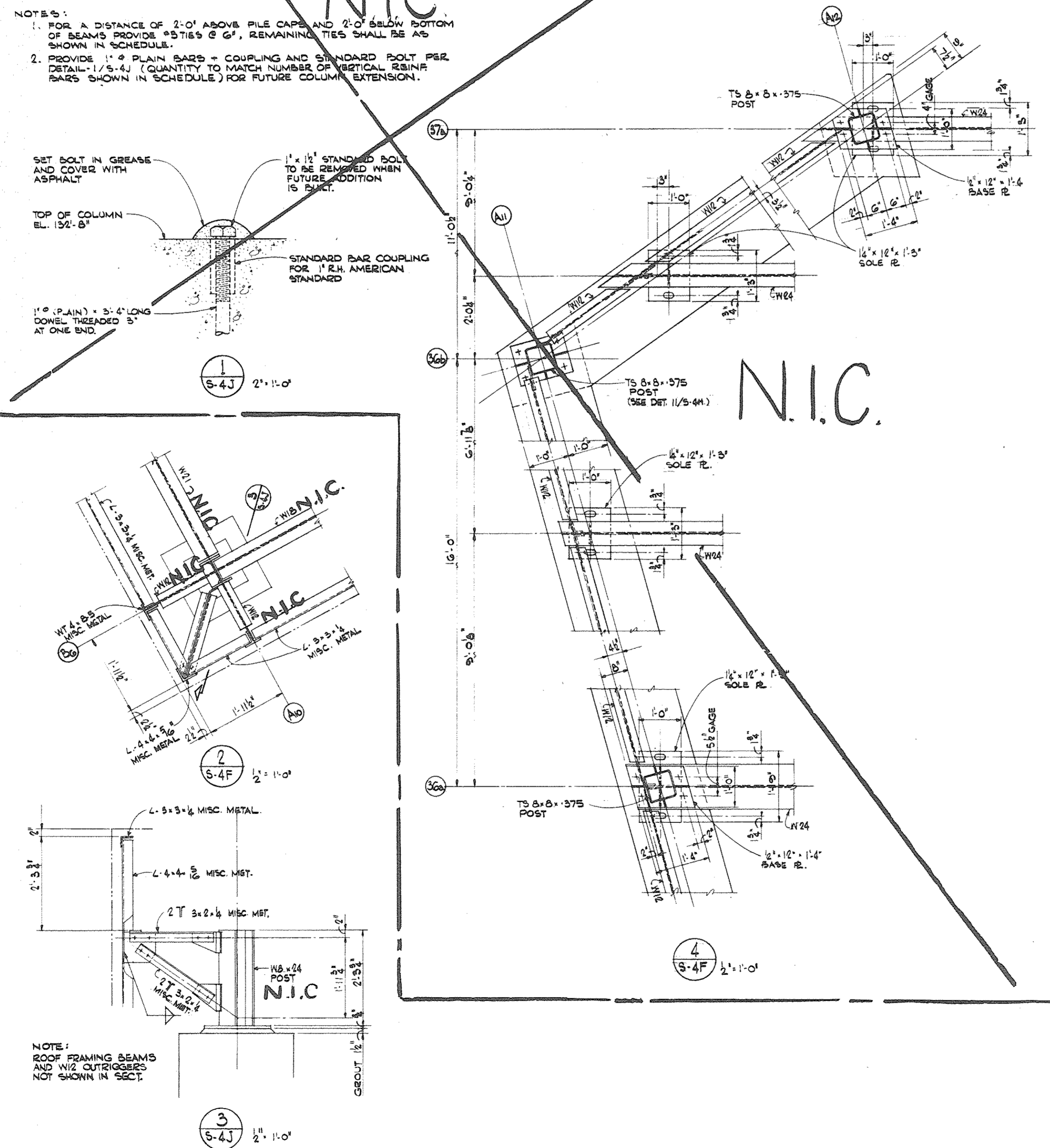


COLUMN SCHEDULE													
COLUMN NUMBER	A7-35c	A7-36a A8-36a	A8-35c	A11-35c	A11-36a	A11-36b	A12-37a	A8-37a	A8-37b	A8-B1 A9-B1	A10-B1	A10-B2 A8-B2 A8-B3 A8-B5	A8-B5 A10-B5 A10-B5 A10-B5 A10-B5 A10-B5 A10-B5 A10-B5
SIZE	SEE DETAIL 1/5-4E	SEE DETAILS 2,17/5-4E	SEE DETAIL 12/5-4E	SEE DETAIL 10/5-4E	SEE DETAIL 6/5-4E	SEE DETAIL 6/5-4E	SEE DETAIL 5/5-4E	SEE DETAIL 4/5-4E	SEE DETAIL 3/5-4E	SEE DETAILS 12,11/5-4E	SEE DETAIL 10/5-4E	24' x 24'	24' x 24'
VERTICAL REINFR	10-#9	10-#10	10-#9	10-#9	8-#9	8-#9	9-#9	10-#9	15-#8	8-#10	8-#10	8-#9	8-#10
TIES	#3 @ 12"	#3 @ 12"	#3 @ 12"	#3 @ 12"	#3 @ 12"	#3 @ 12"	#3 @ 12"	#3 @ 12"	#3 @ 12"	#3 @ 9"	#3 @ 9"	#3 @ 9"	#3 @ 9"
DOWELS FROM PILE CAP	10-#9	10-#10	10-#9	10-#9	8-#9	8-#9	9-#9	10-#9	15-#8	8-#10	8-#10	8-#9	8-#10
REMARKS	SEE NOTE-1	SEE NOTE-1	SEE NOTE-1	SEE NOTE-1	SEE NOTE-1	SEE NOTE-1	SEE NOTE-1	SEE NOTE-1	SEE NOTE-1	SEE NOTE-2	SEE NOTE-2	SEE NOTE-2	SEE NOTE-2

NOTES:  
 1. FOR A DISTANCE OF 2'-0" ABOVE PILE CAPS AND 2'-0" BELOW BOTTOM OF BEAMS PROVIDE #5 TIES @ 6", REMAINING TIES SHALL BE AS SHOWN IN SCHEDULE.  
 2. PROVIDE 1" #9 PLAIN BARS = COUPLING AND STANDARD BOLT PER DETAIL 1/5-4J (QUANTITY TO MATCH NUMBER OF VERTICAL REINFR BARS SHOWN IN SCHEDULE) FOR FUTURE COLUMN EXTENSION.

GENERAL NOTES FOR CONCRETE WORK

- STRUCTURAL STEEL WORK IS ISSUED UNDER ANOTHER CONTRACT. METAL DECK AND STUDS ARE INCLUDED IN THIS CONTRACT.
- DESIGN LIVE LOADS ARE AS FOLLOWS:  
 ROOF 30 PSF  
 RAMP, FLOOR & BRIDGE 100 PSF
- ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI IN 28 DAYS.
- ALL BAR REINFORCEMENT SHALL BE DEFORMED WITH MINIMUM YIELD STRENGTH AS FOLLOWS:  
 TIES, STIRRUPS AND RE-BAR FOR SLAB ON GROUND 40,000 PSI  
 ALL OTHER BARS 60,000 PSI  
 TIES AND STIRRUPS SHALL BE BILLET STEEL CONFORMING WITH ASTM A615-40.
- ALL HORIZONTAL BARS IN CONCRETE WALLS SHALL BE CONTINUOUS AND BENT AT ALL CORNERS AND INTERSECTIONS. SEPARATE CORNER BARS OF THE SAME SIZE AND SPACING MAY BE SUBSTITUTES FOR THE BENT BARS. SPLICES COMPLY WITH ACI 318, SECTION 12.16, CLASS "A".
- TOP AND BOTTOM BARS FOR GRADE BEAMS SHALL BE OF MAXIMUM OBTAINABLE LENGTHS. SPLICES SHALL BE LOCATED AT MID-SPAN FOR TOP BARS AND AT SUPPORTS FOR BOTTOM BARS, COMPLYING WITH ACI 318, SECTION 12.16, CLASS "B".
- UNLESS OTHERWISE SHOWN OR NOTED, PROVIDE TWO #5 BARS (ONE EACH FACE) AROUND UNFRAMED OPENINGS IN CONCRETE WALLS AND SLABS. PLACE BARS PARALLEL TO SIDES OF OPENINGS AND EXTEND THEM 24 INCHES BEYOND CORNERS.
- REINFORCEMENT NOTED ON PLANS AND SECTIONS IS ADDITIONAL TO THAT CALLED FOR IN THE SCHEDULES.
- COLUMNS SHALL BE POURED MONOLITHIC WITH CONNECTING WALLS AND DOWELED TO THE FOOTINGS AS NOTED IN THE COLUMN SCHEDULE. CONCRETE WALLS RESTING PARTIALLY ON COLUMN FOOTINGS SHALL BE KEYED, BUT NOT DOWELED, TO THE FOOTINGS.
- UNLESS OTHERWISE SHOWN OR NOTED, DIMENSIONS ARE ROUGH CONCRETE SURFACE MEASUREMENTS. SEE ARCHITECTURAL DRAWINGS FOR FLOOR FINISHES, DEPRESSIONS, CURBS, ETC. WHERE DEPRESSIONS OCCUR, THE SCHEDULED DEPTH OF BEAMS AND SLABS ARE MEASURED FROM BOTTOM OF DEPRESSION.
- PROVIDE #4 AT 12 INCHES ON CENTER BY 5 FEET LONG, TOP BARS OVER BEAMS WHICH ARE PARALLEL TO MAIN BARS OF ONE-WAY SLABS.
- SEE ARCHITECTURAL DRAWINGS FOR ALL GIRT FRAMING AND EMBEDDED ITEMS IN CONCRETE.



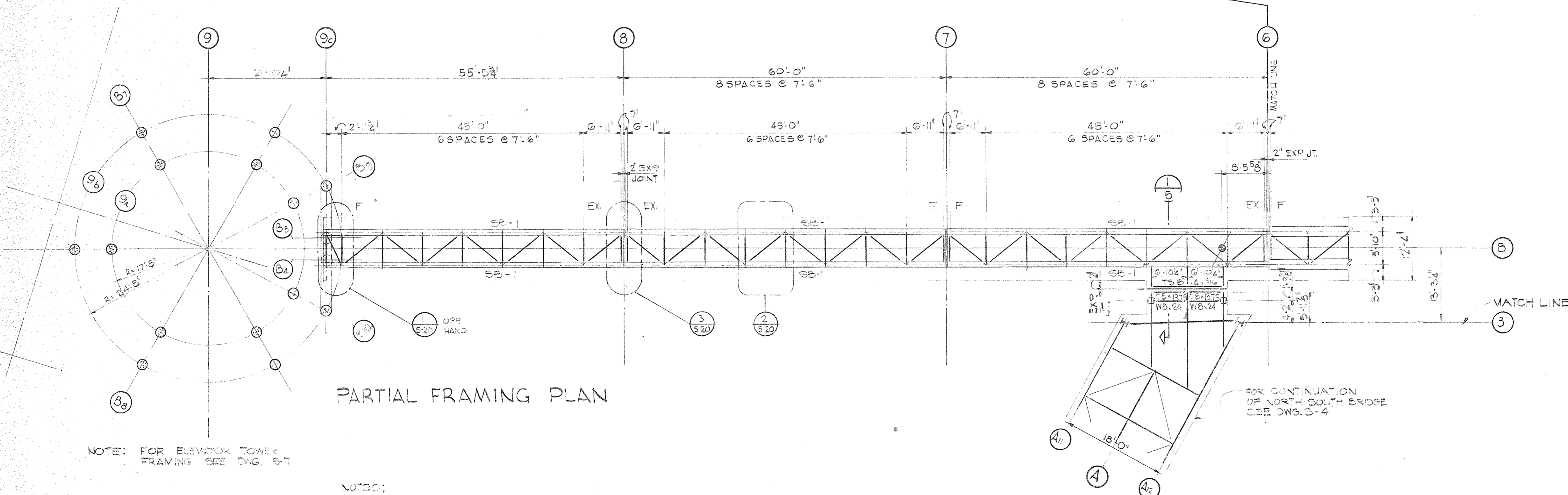
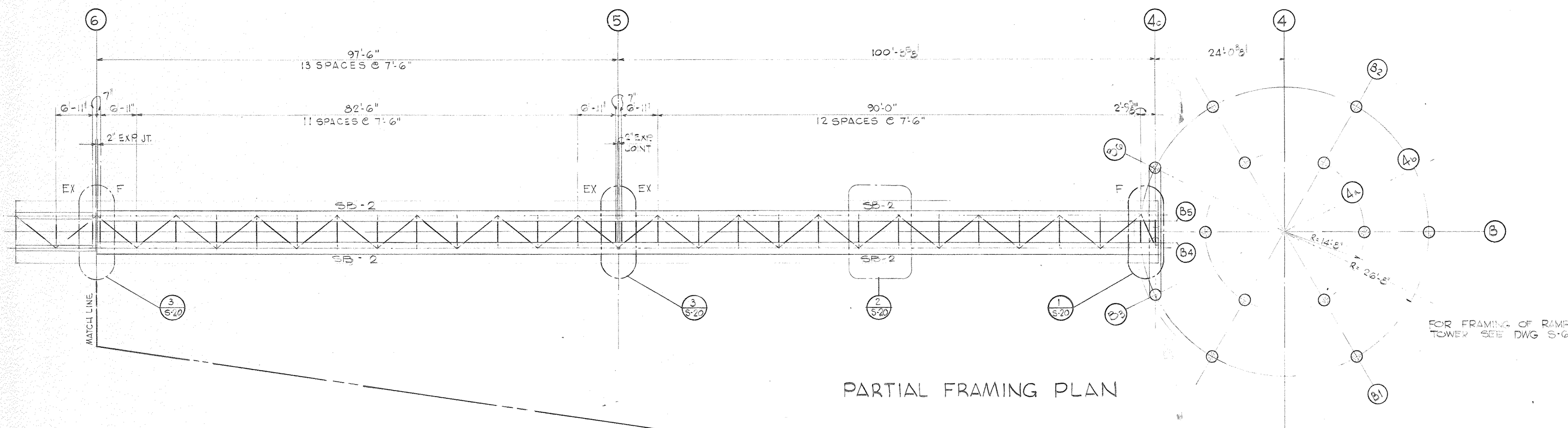
**SH&G**  
 Smith, Hinchman & Grylls  
 Associates, Inc.  
 Architects Engineers  
 Planners  
 455 West Fort Street  
 Detroit, Michigan 48226  
 (313)964-3000  
 SH&G Job. No. 11732C

OWNER	City of Detroit
Issued For	2-2-79
Date	N.R.
Dtge	J. Mitchell
Drawn By	Architect/Engineer
Correlation Check	Correlation Check
Project Manager	Project Manager
Construction Administrative Div. Approval	Construction Administrative Div. Approval
Division Approval	Division Approval

Key Plan  
 Detail Number  
 Location or Detail Sheet  
 ↑ N

Drawing Title  
 THIRD STREET BRIDGE AND RAMP  
 COLUMN SCHEDULE AND DETAILS  
 15031A  
 Project No.  
 S-4J  
 Drawing No.  
 1/10  
 Scale  
 4.9 OF 96





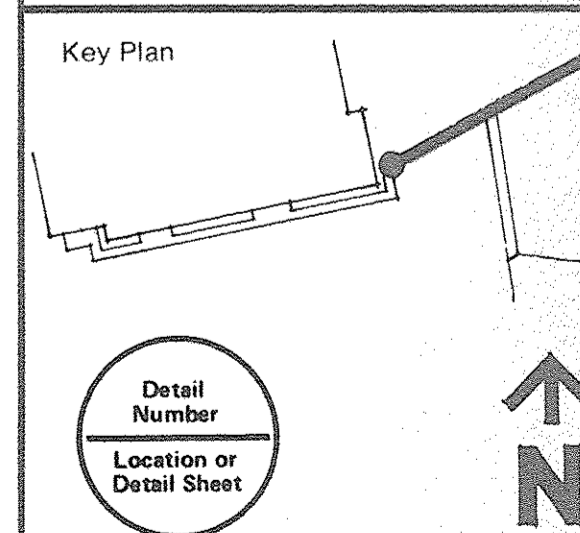
NOTE: FOR ELEVATOR TOWER FRAMING SEE DWG. S-7

NOTES:

1. T.O.S. GIRDER EL. 134'-1/2"
2. CAMBER @ CENTER OF SPAN.
  - a. FOR 60'-0" SPAN & SHORTER = 1/4"
  - b. FOR SPAN LONGER THAN 60'-0" = 1/2"
3. DESIGN LIVE LOAD = 100 PSF FLOOR  
 20 PSF ROOF
4. FOR SIZE OF BM. SP-1 & SP-2 SEE SECT. '4' DWG. S-20
5. DESIGNATION OF TYPE OF BEARING ON THIS PLAN
  - F = FIXED BEARING
  - EX = EXPANSION BEARING
6. DESIGN WIND LOAD:
  - (a) SUPERSTRUCTURE
    - LATERAL = 30 PSF (WITH SHAPE FACTOR = 0.6)
    - LONGITUDINAL = 12 PSF
  - (b) SUBSTRUCTURE = 40 PSF

OWNER	Issued For	5-30-80
Issued For	Date	

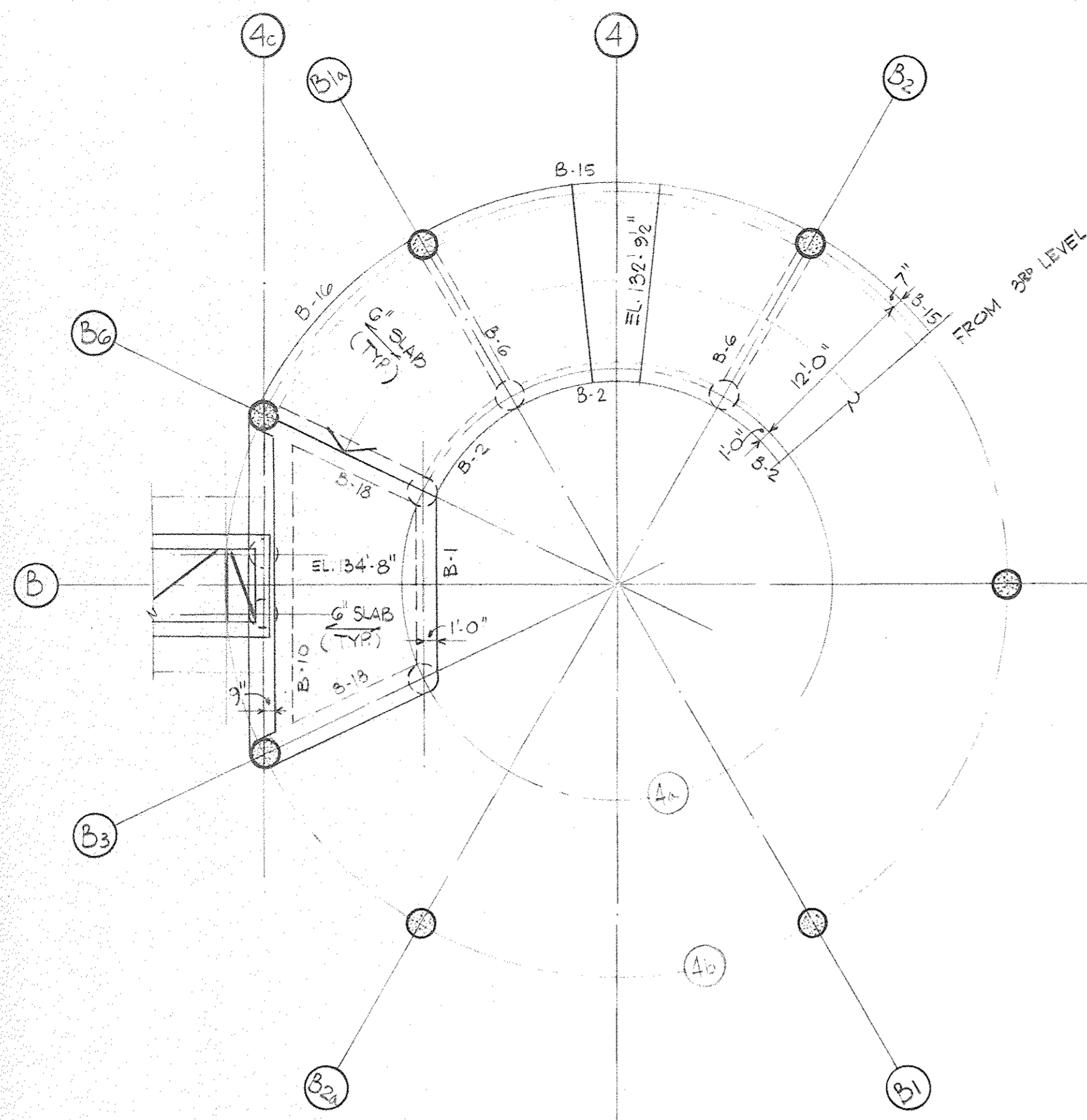
1-18-80	Date	Drawn By
Div. Architect/Engineer	Correlation/Check	Project Manager
Construction Administration Div. Approval	Division Approval	



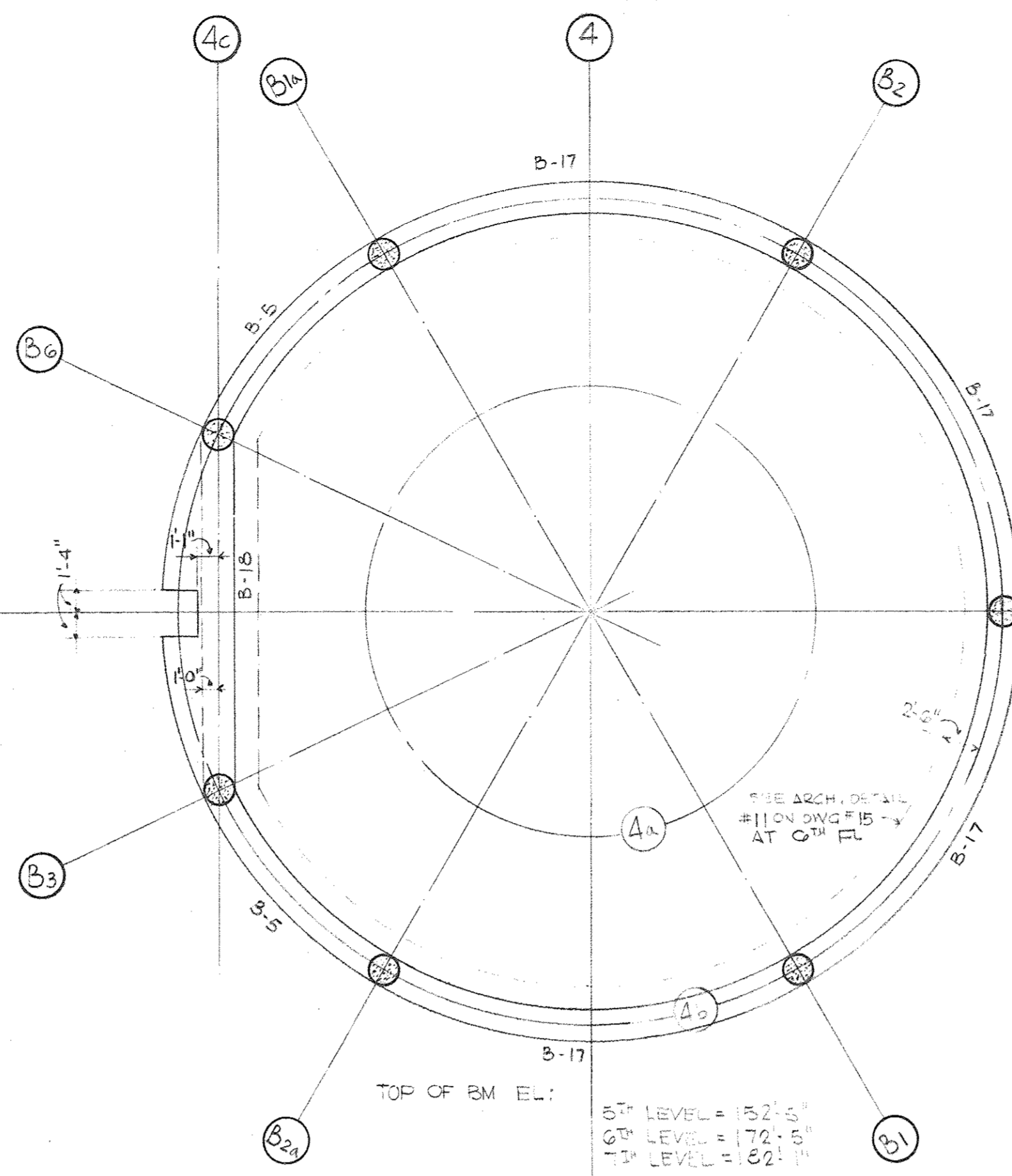
Drawing Title  
**EAST - WEST BRIDGE FRAMING PLAN**

15031A  
 Project No.  
**S-5**  
 Drawing No.  
 3/32 = 1'-0"  
 Scale  
 50 OF 96

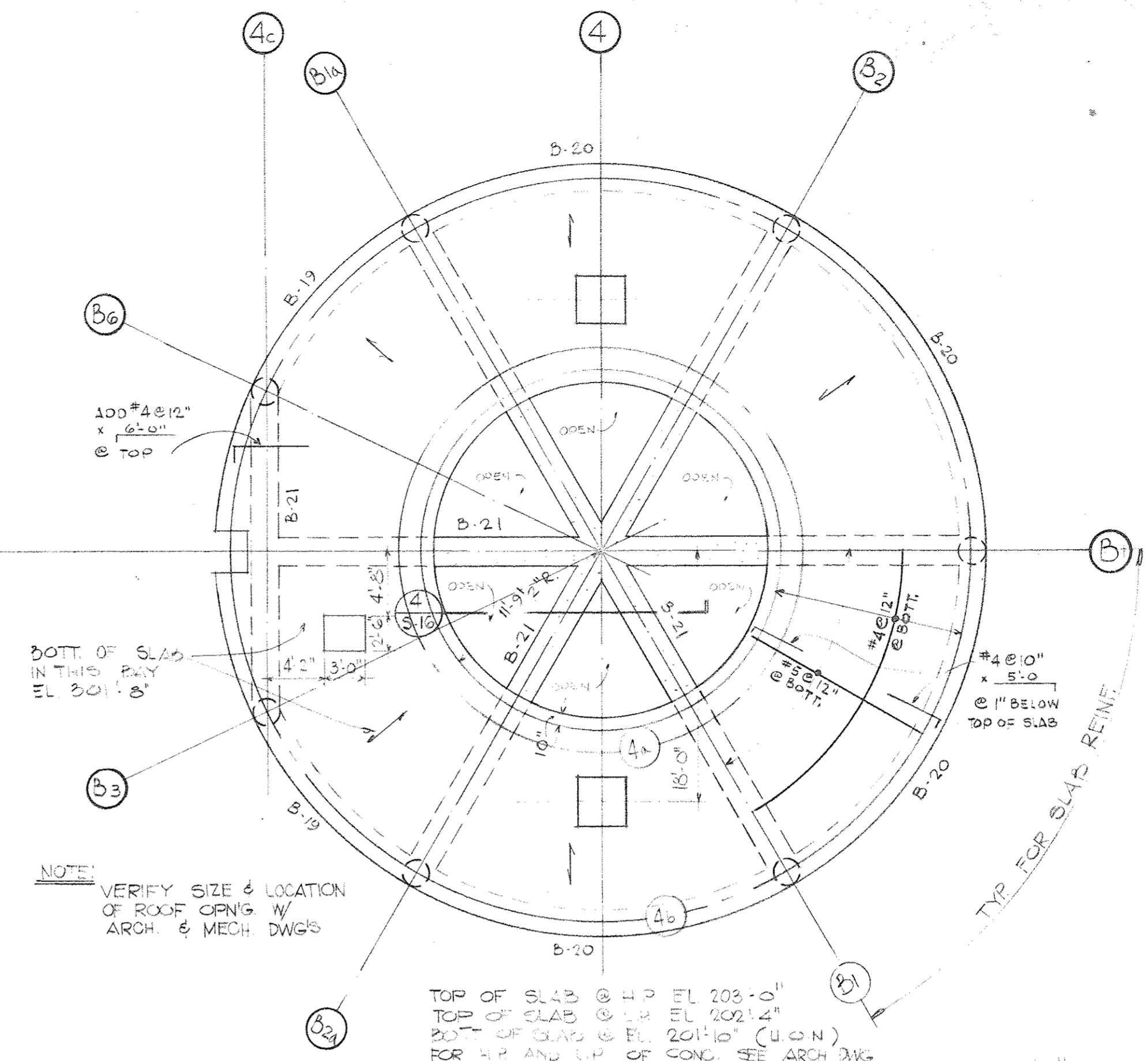




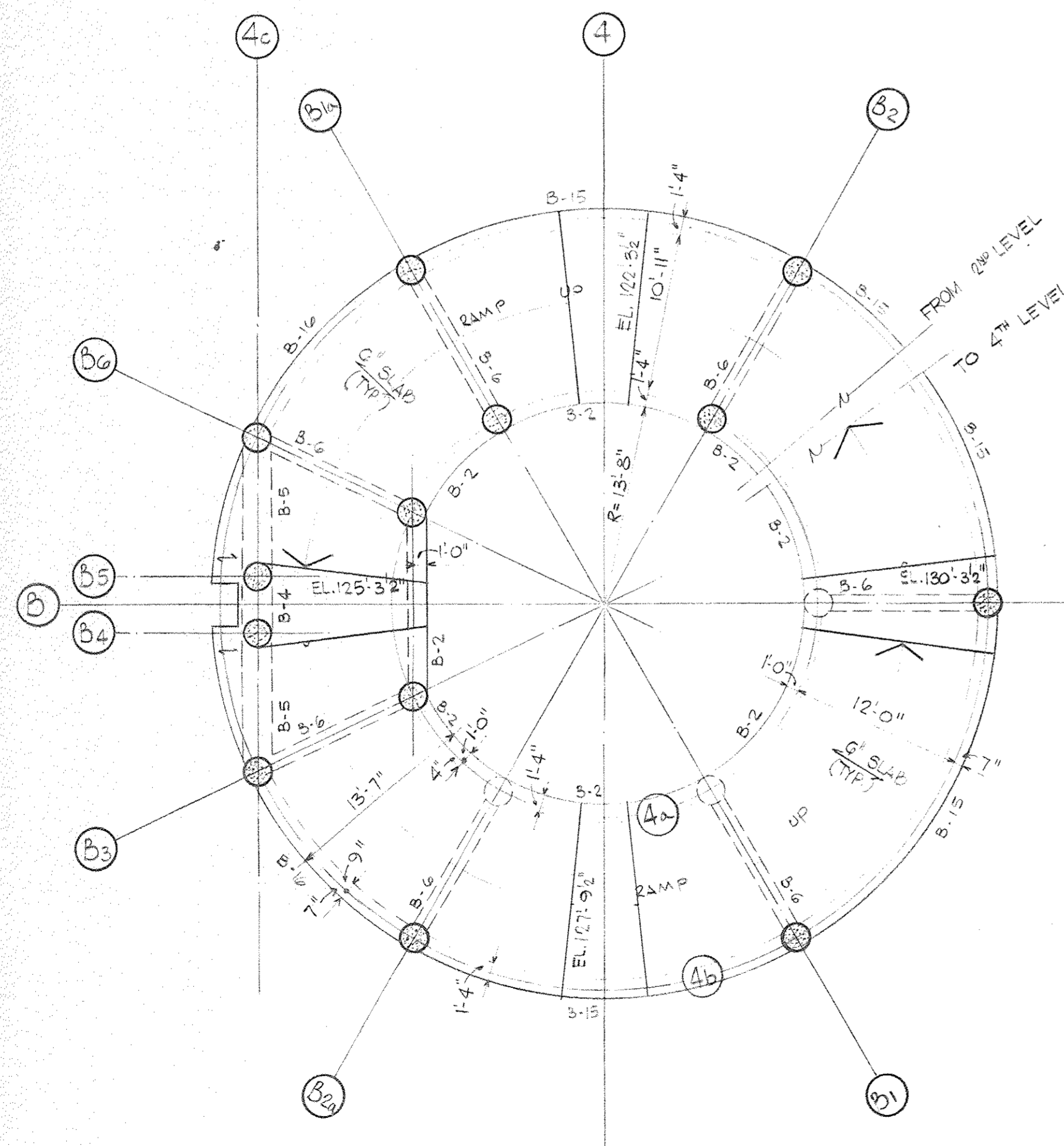
FOURTH LEVEL PLAN



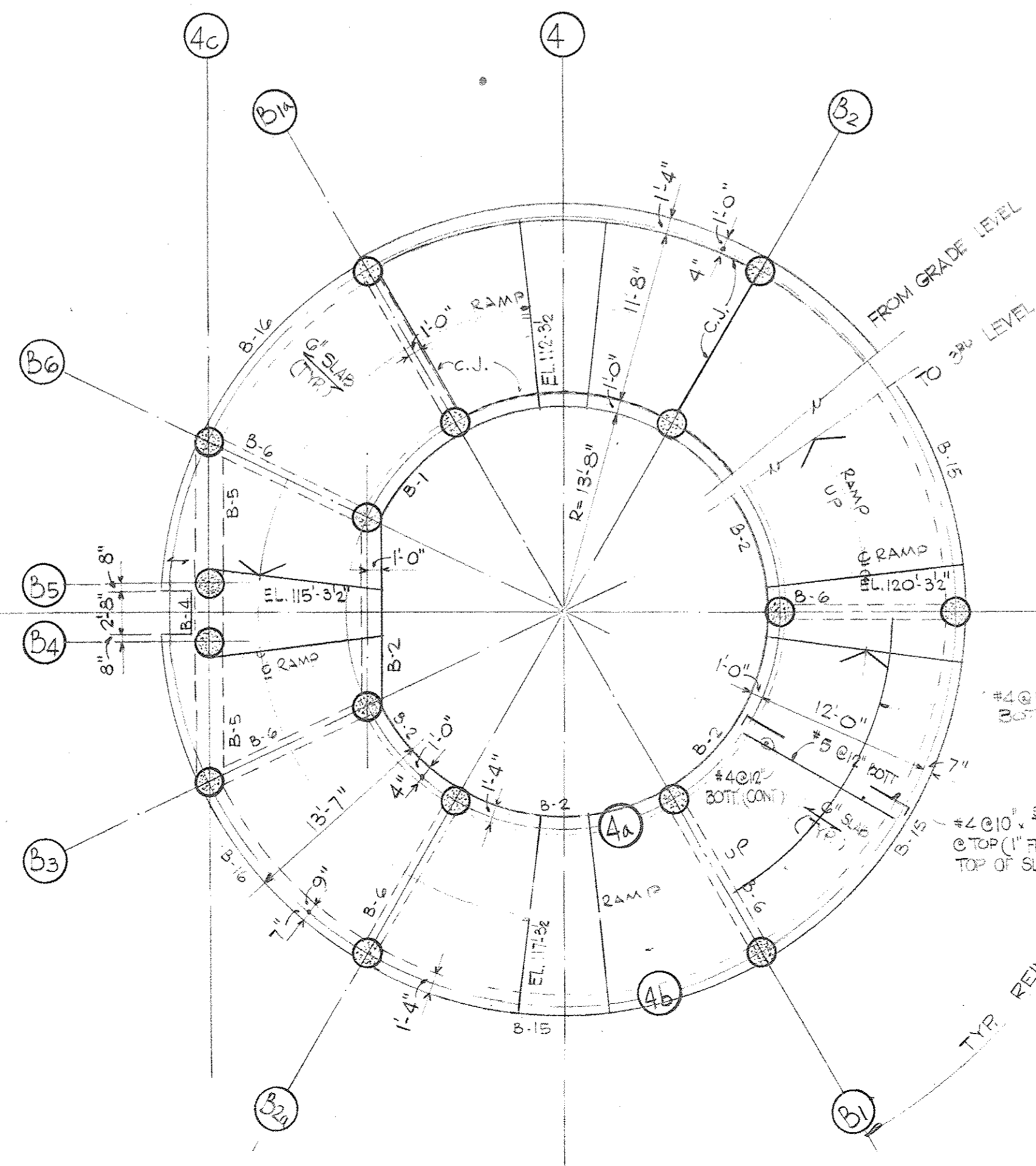
FIFTH, SIXTH & SEVENTH LEVEL PLAN



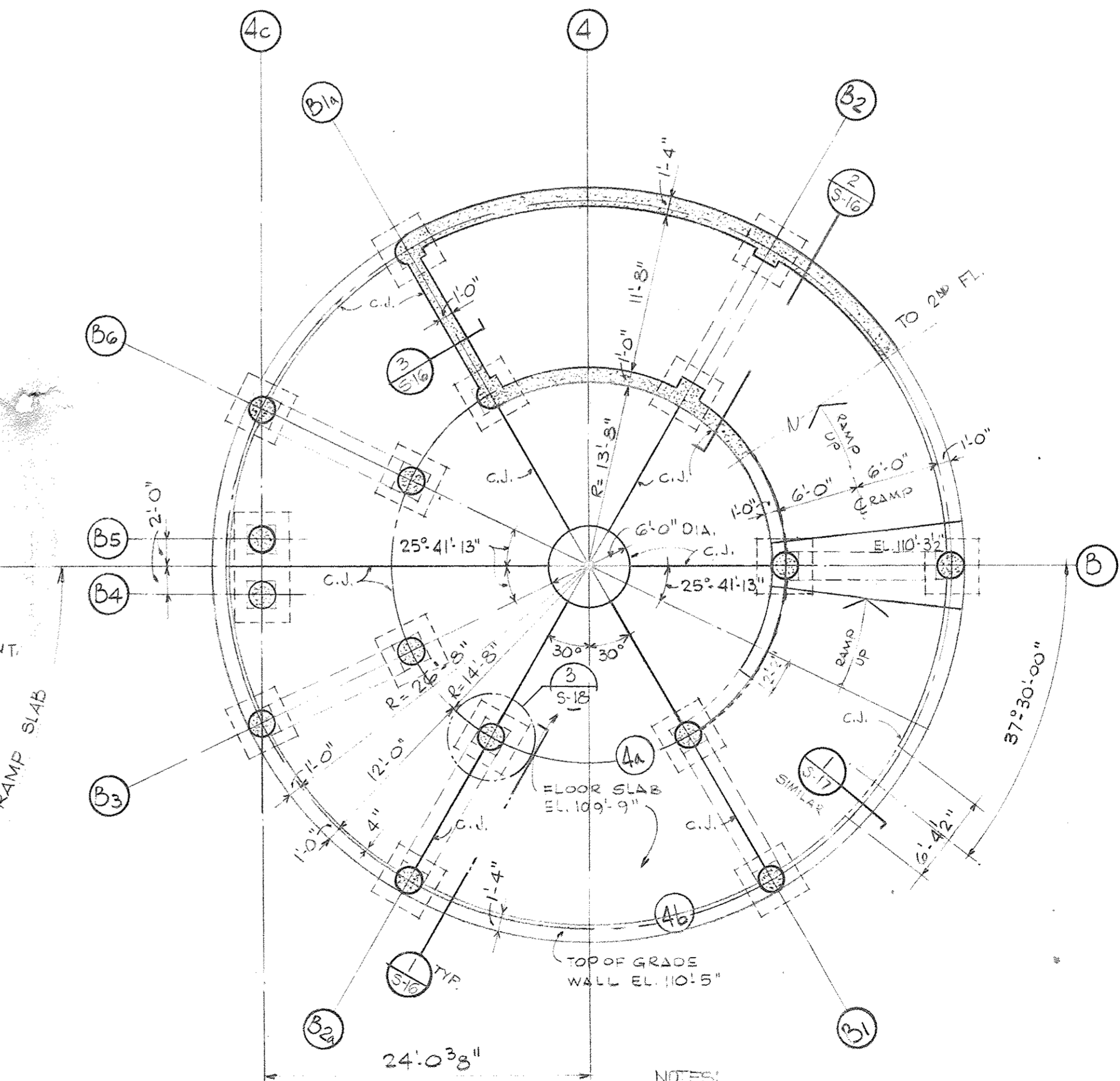
ROOF PLAN



THIRD LEVEL PLAN



SECOND LEVEL PLAN



GRADE LEVEL PLAN

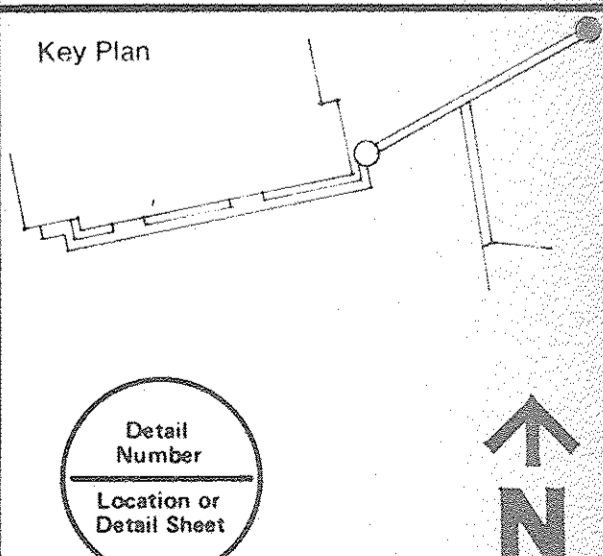
- NOTES:
1. 6" SLAB ON GRADE W/ G.C. - W29, W29 W.W.F.
  2. FOR PILE OUT-OFF ELEVATION SEE DWG. S-2
  3. C.J. = CONTROL JOINT

**Joe Louis Sports Arena**  
**Pedestrian Walkway**  
 For City Engineering Division

**SH&G**  
 Smith, Hinchman & Grylls  
 Associates, Inc.  
 Architects Engineers  
 Planners

455 West Fort Street  
 Detroit, Michigan 48226  
 (313)964-3000  
**SH&G Job. No. 11732C**

OWNER	1-18-80
Issued For	Date
1-18-80	1-18-80
Date	Drawn By
	J. J. J. J.
	Div. Architect/Engineer
	Correlation/Check
	Project Manager
	Construction Administration Div. Approval
	Division Approval



Drawing Title  
**RAMP TOWER FRAMING PLAN**

15031A  
 Project No.  
**S-6**  
 Drawing No.  
 1/2" = 1'-0"  
 Scale

51 OF 96



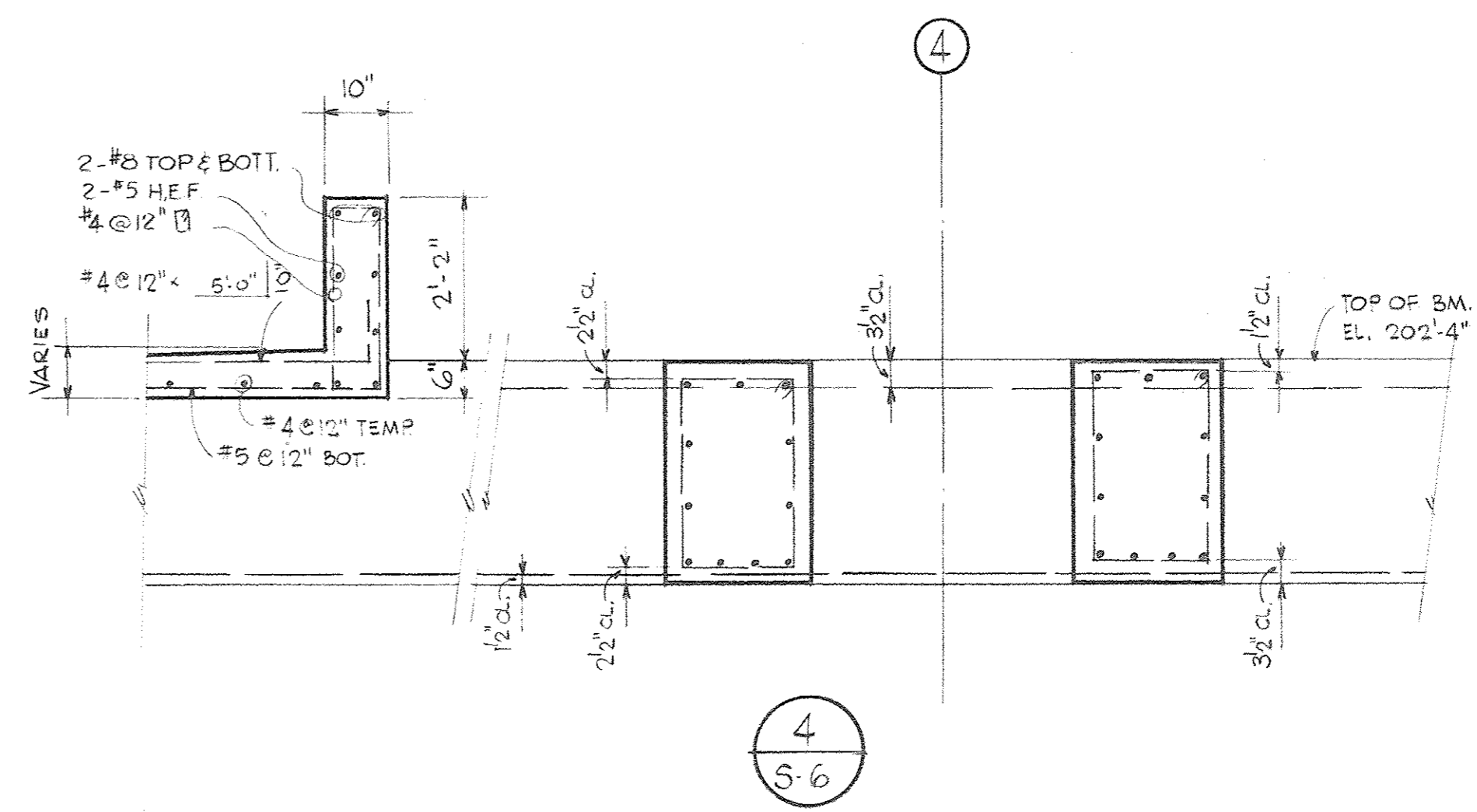
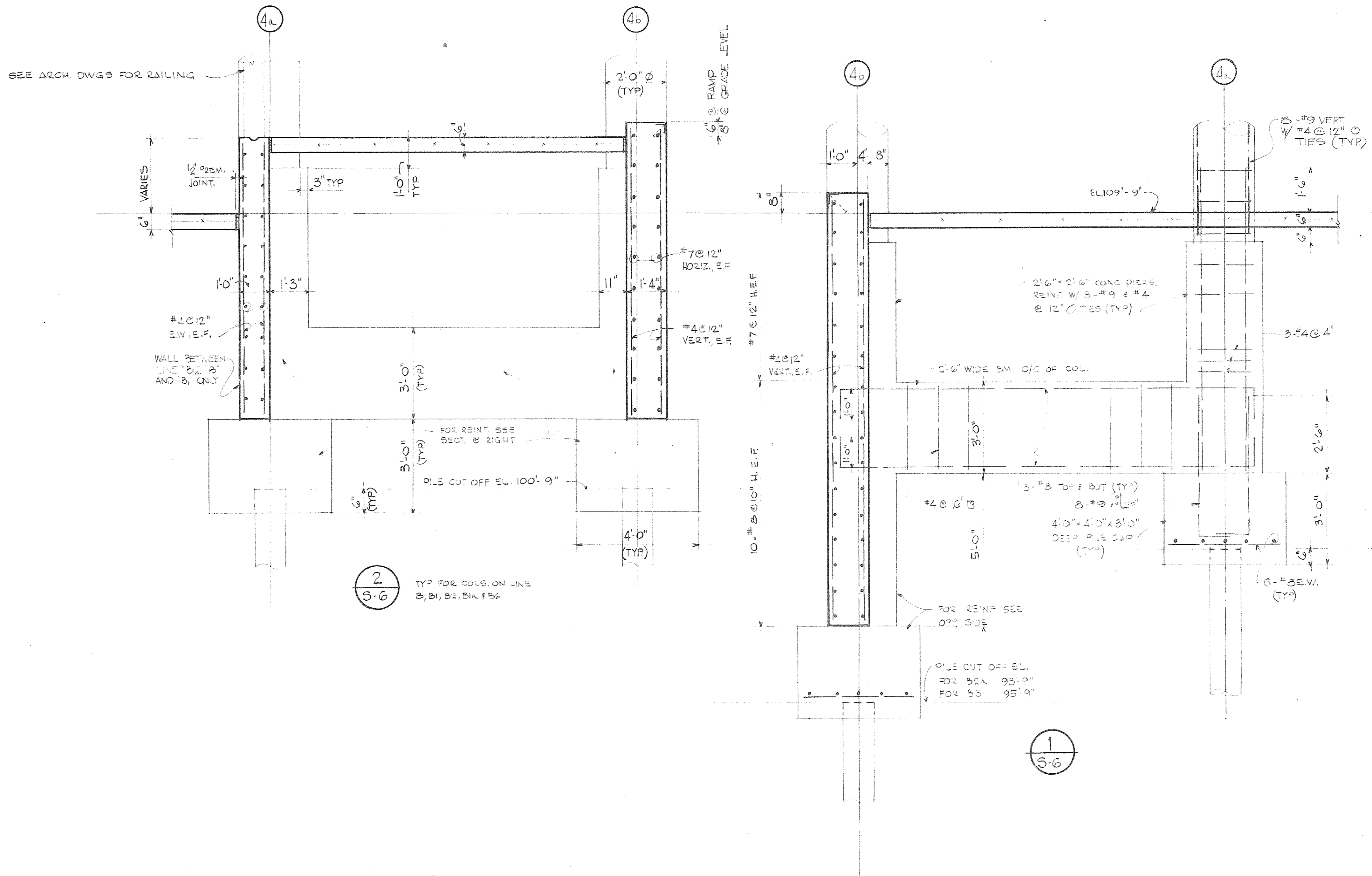
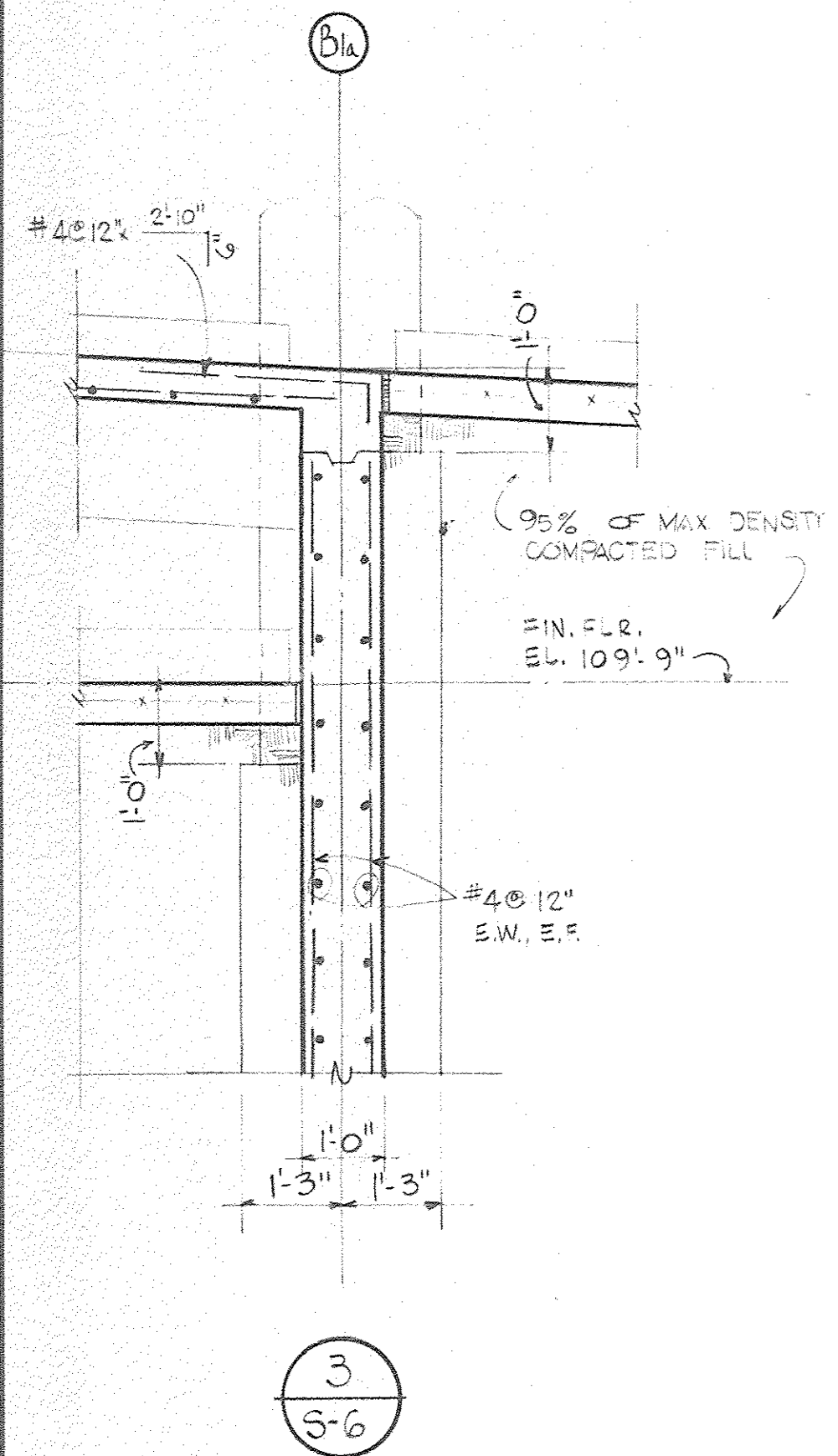




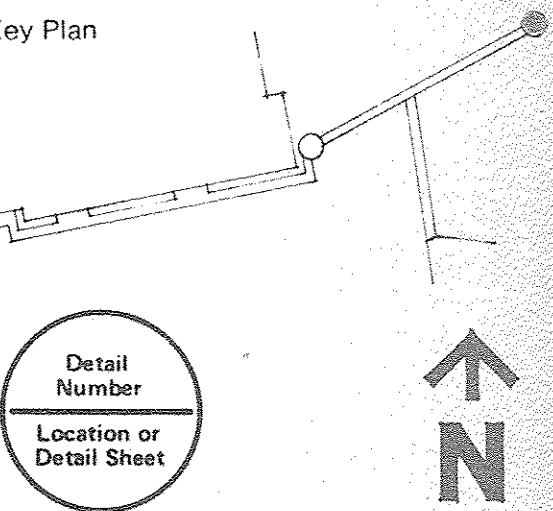




**SH&G**  
Smith, Hinchman & Grylls  
Associates, Inc.  
Architects Engineers  
Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. Nc. 11732C

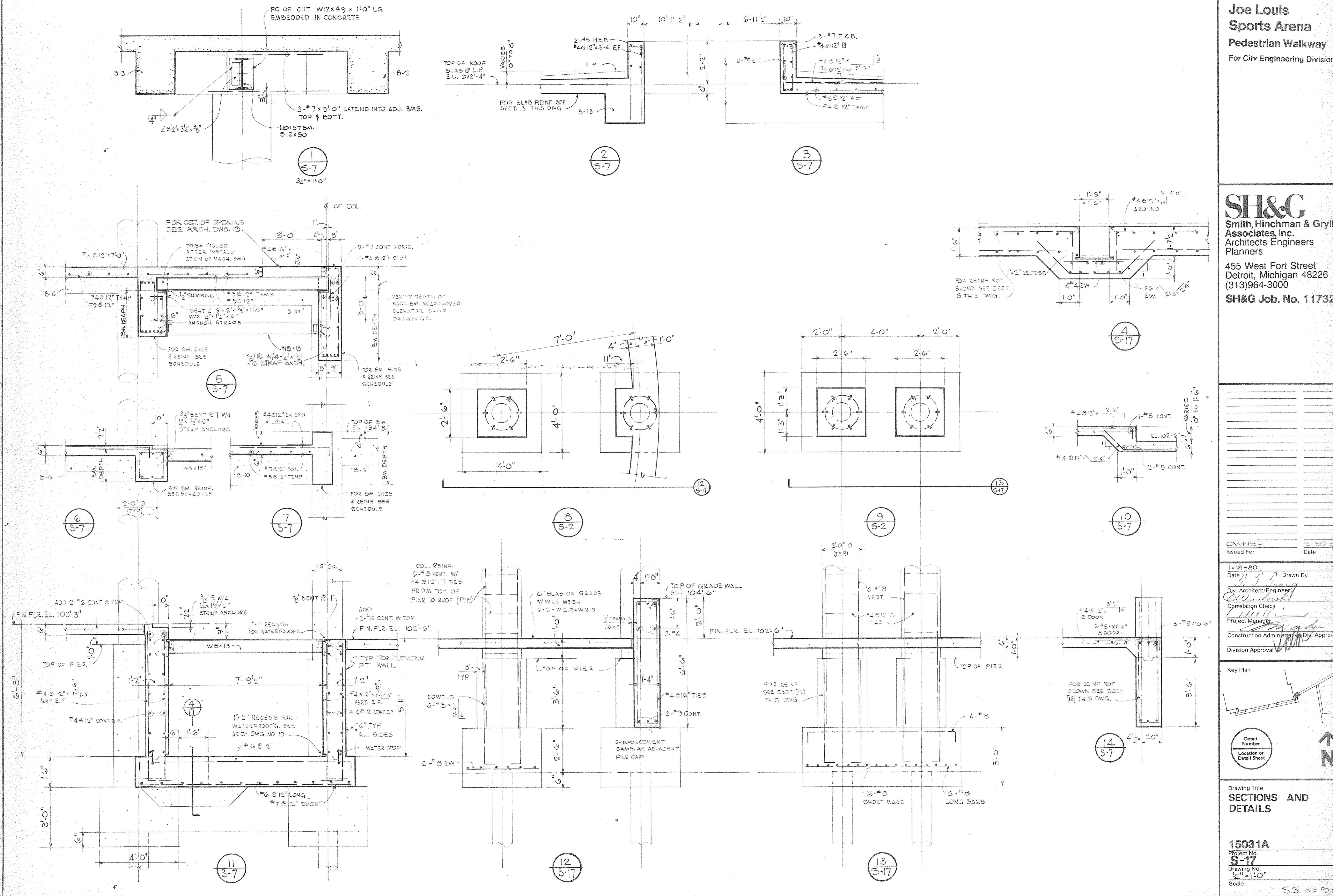


OWNER	3-20-80
Issued For	Date
1-18-80	Date
Drawn By	
Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	

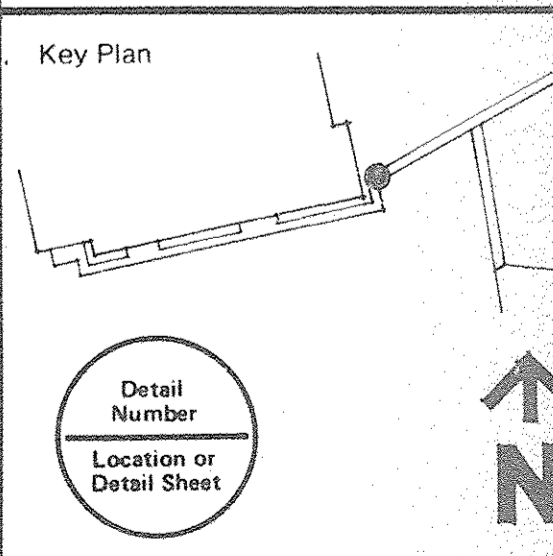


Drawing Title  
**SECTIONS AND DETAILS**  
15031A  
Project No.  
**S-16**  
Drawing No.  
1/2" = 1'-0"  
Scale  
54 OF 96





OWNER	1-18-80
Issued For	Date
Date	1-18-80
Drawn By	
Div. Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	



Drawing Title  
**SECTIONS AND DETAILS**

15031A  
 Project No.  
 S-17  
 Drawing No.  
 12" = 1'-0"  
 Scale

SS OF 9/6



BEAM SCHEDULE

MARK	BEAM SHAPE	WIDTH	DEPTH	REINFORCEMENT			STIRRUPS THRU-OUT	REMARKS
				TOP DISC. END	STRAIGHT BOTTOM	TOP EA. END		
B-1	□	16	24	2-#6	3-#6	-	#4@12"	EXTEND TOP REIN. INTO ADJ. SPAN
B-2	□	16	24	-	3-#6	2-#6	#4@12"	
B-3	□	16	24	2-#6	3-#6	-	#4@12"	
B-4	□	24	24	-	3-#7	-	#4@12"	ADD 3-#6 TOP CONT. & EXTEND INTO ADJ. SPAN
B-5	□	24	24	3-#6	3-#7	-	#4@12"	ADD 2-#7 @ CONT. END
B-6	□	12	16	2-#5	2-#6	-	#4@12"	
B-7	□	12	16	2-#6	2-#7	-	#4@12"	
B-8	□	12	16	-	2-#7	2-#6	#4@12"	
B-9	□	20	22	3-#6	3-#7	-	#4@12"	
B-10	□	16	24	3-#6	3-#8	-	#4@12"	
B-11	□	18	36	4-#9	6-#9	-	#4@12"	ADD 2-#7 @ EA. VERT. FACE
B-12	□	14	42	3-#8	5-#9	-	#4@12"	ADD 2-#7 @ EA. VERT. FACE
B-13	□	24	24	4-#8	6-#9	-	#4@12"	ADD 1-#7 @ MID OF EA. VERT. FACE
B-14	□	12	32	-	3-#7	2-#7	#4@12"	
B-15	□	16	24	-	3-#6	2-#7	#4@12"	
B-16	□	16	24	3-#6	3-#6	-	#4@12"	ADD 2-#7 @ CONT. END.
B-17	□	24	24	-	3-#7	2-#7	#4@12"	
B-18	□	24	24	3-#6	3-#7	-	#4@12"	
B-19	□	24	36	2-#7	4-#8	2-#8	#4@12"	ADD 2-#7 @ MID OF EA. VERT. FACE.
B-20	□	24	36	-	4-#8	2-#8	#4@12"	ADD 2-#7 @ MID OF EA. VERT. FACE.
B-21	□	24	36	3-#8	5-#10	-	#4@12"	ADD 2-#7 @ MID OF EA. VERT. FACE, ADD 3-#7 TOP CONT.
B-22	□	16	36	2-#8	3-#8	-	#4@12"	ADD 2-#7 @ MID OF EA. VERT. FACE

NOTE: DASH LINES IN "ARRANGEMENT" COLUMN DENOTE REINFORCEMENT FROM ADJACENT SPANS.

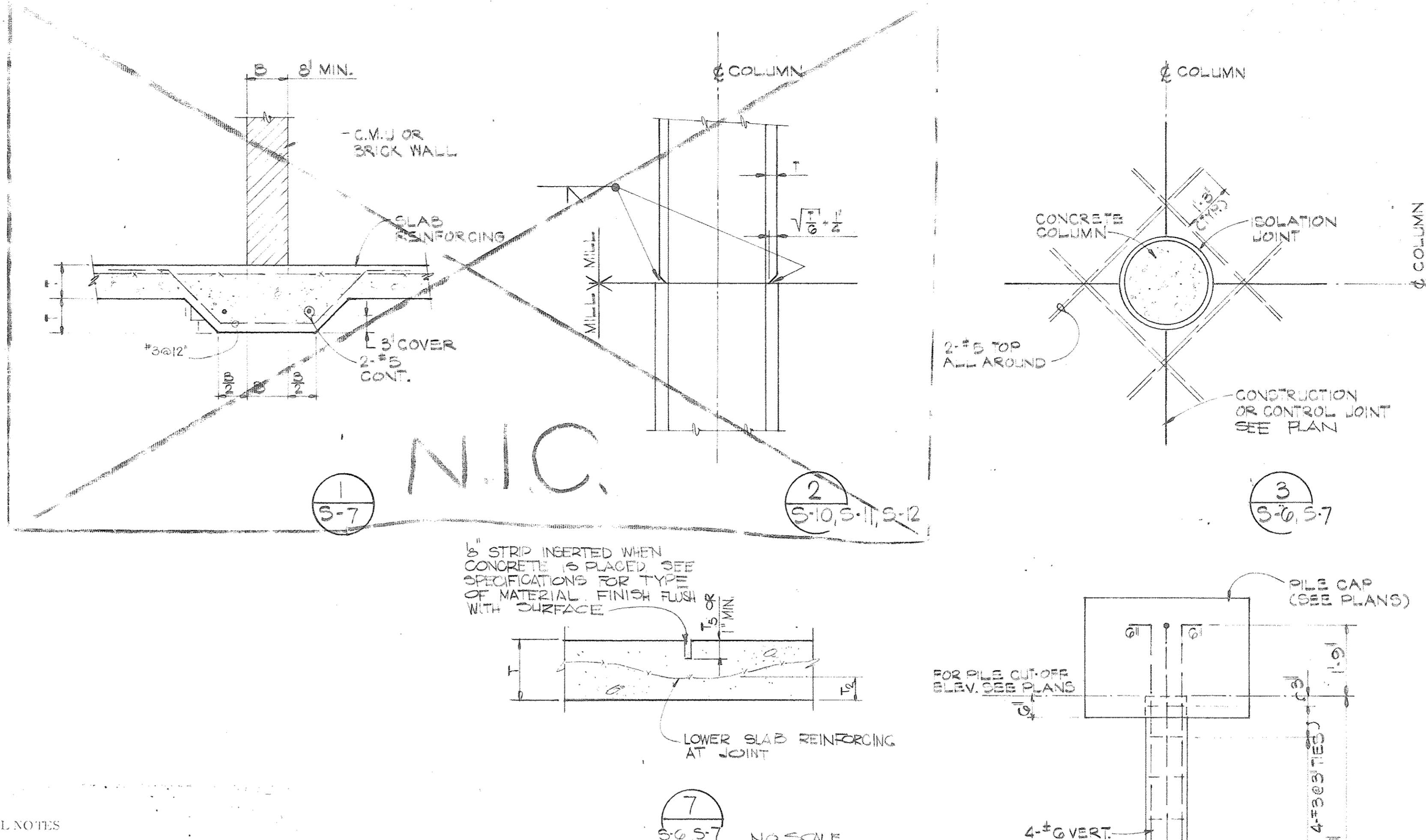
TABLE OF BEAM SHEAR CONNECTION

BEAM SIZE	NO. OF BOLTS REQUIRED	
	SINGLE SHEAR	DOUBLE SHEAR
W6, W10, W12	2	2
W12, W14	3	2
W16 EXCEPT W16x89	3	2
W18 & W16x89	4	3

NOTE: ALL BOLTS SHALL BE 3/4" HIGH STRENGTH BOLTS STEEL CONFORM TO ASTM A325 X

STRUCTURAL STEEL

- STRUCTURAL STEEL WORK SHALL COMPLY WITH THE SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS OF THE AISC CURRENT EDITION.
- ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM, A-36 CURRENT EDITION. STRUCTURAL STEEL FOR THE TUBE SECTION SHALL CONFORM TO ASTM, A-501.
- ALL FIELD CONNECTION SHALL BE FASTENED WITH 3/4" DIAMETER HIGH STRENGTH BOLTS CONFORM WITH ASTM A325. SEE SPECS.
- ELASTOMERIC BEARING PADS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, 12TH EDITION, SECTION 2.25. THE HARDNESS FOR FIX BEARING SHALL BE OF 70 DUROMETER AND FOR EXPANSION BEARING SHALL BE OF 50 DUROMETER.
- RECORD ELEVATIONS AT TOP OF TRUSSES (AND BOX GIRDERS) AT EACH QUARTER POINT OF SPAN IMMEDIATELY AFTER THE ERECTION OF TRUSS (OR BOX GIRDER) AND ALSO AFTER ALL DEAD LOADS ARE IN PLACE.
- A-36 STRUCTURAL STEEL SHALL MEET THE REQUIREMENTS SET FORTH IN THE M.D.O.T. STANDARD SPECIFICATIONS FOR CONSTRUCTION, 1979-ART. 8.06.04 a. THE TESTING TEMPERATURE FOR ALL STRESS MEMBERS SHALL BE 10°F.

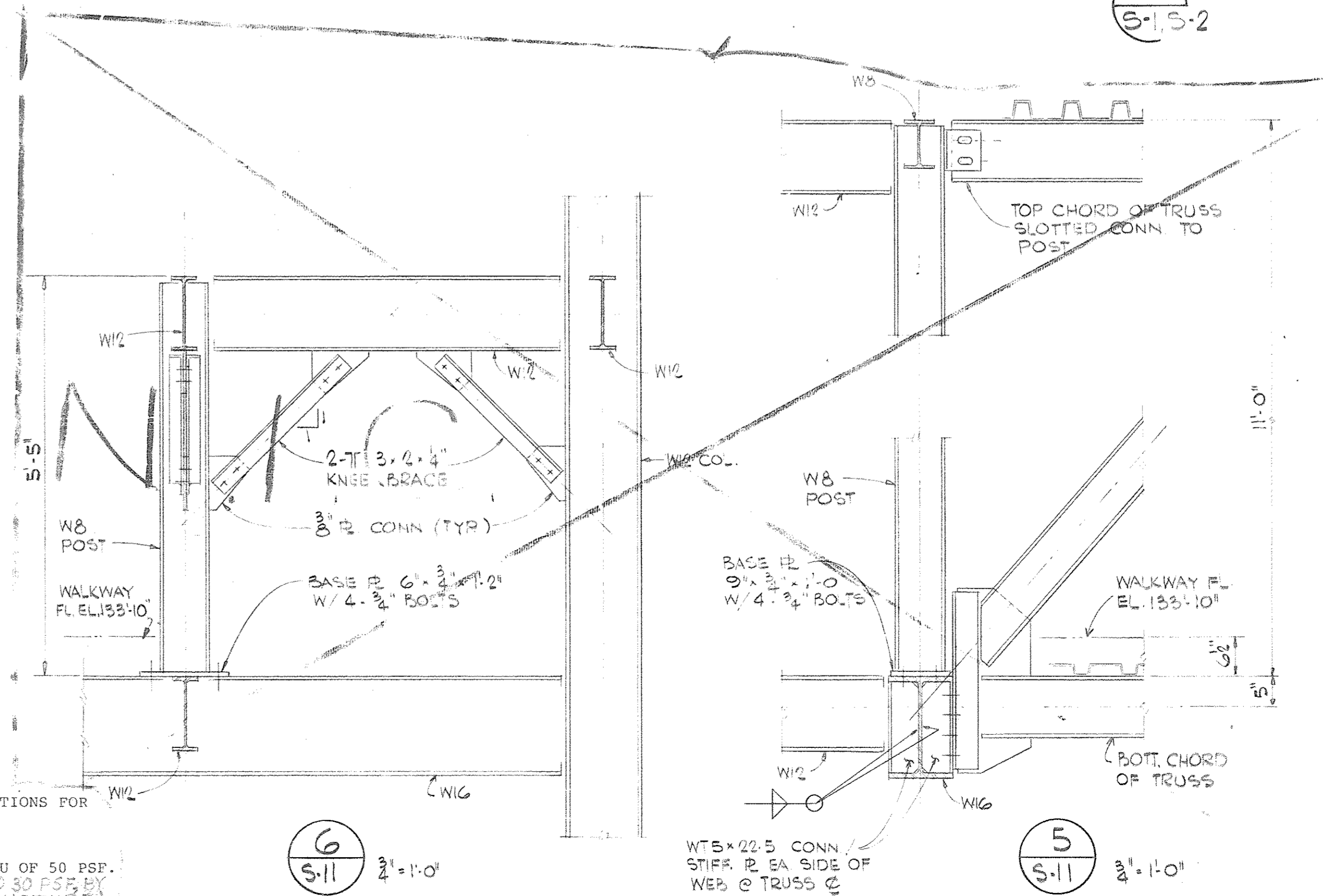


GENERAL NOTES

- CONCRETE
- ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS AS FOLLOWS:  
CAST IN PLACE CONCRETE PILES 6000 PSI  
ALL OTHERS 4000 PSI
  - ALL FAB REINFORCEMENT SHALL CONFORM TO ASTM A 615, GRADE 60 EXCEPT TIES AND STIRRUPS SHALL CONFORM TO ASTM A615 - GRADE 40.
  - DESIGN LIVE LOAD  
ROOF 30 PSF  
RAMP, WALKWAYS AND BRIDGES 100 PSF.
  - ALL HORIZONTAL BARS IN CONCRETE WALLS SHALL BE CONTINUOUS AND BENT AT ALL CORNERS AND INTERSECTIONS. SEPARATE CORNER BARS OF THE SAME SIZE AND SPACING MAY BE SUBSTITUTED FOR THE BENT BARS. SPLICES SHALL COMPLY WITH ACI 318, SECTION 12.16, CLASS "A".
  - TOP AND BOTTOM BARS FOR GRADE BEAMS SHALL BE OF MAXIMUM OBTAINABLE LENGTHS. SPLICE SHALL BE LOCATED AT MID-SPAN FOR TOP BARS AND AT SUPPORTS FOR BOTTOM BARS COMPLYING WITH ACI 318-77, SECTION 12.16, CLASS "B".
  - UNLESS OTHERWISE NOTED OR SHOWN, PROVIDE 2 - #5 BARS (ONE EACH FACE) AROUND UNFRAMED OPENING IN CONCRETE WALLS AND SLABS. PLACE BARS PARALLEL TO SIDES OF OPENINGS AND EXTEND THEM 2'-0" BEYOND CORNERS.
  - REINFORCEMENT NOTED ON PLANS AND SECTIONS IS ADDITIONAL TO THAT CALLED FOR IN THE SCHEDULES.
  - COLUMNS SHALL BE CAST MONOLITHIC WITH CONNECTING WALLS AND DOWELED TO THE PILE CAPS WITH SAME NUMBER AND SIZE OF COLUMN REINFORCING BARS.
  - UNLESS OTHERWISE SHOWN OR NOTED, DIMENSIONS ARE ROUGH CONCRETE SURFACE MEASUREMENTS. SEE ARCH. DRAWINGS FOR FLOOR FINISHES, DEPRESSIONS, CURBS, PARAPET, ETC. WHERE DEPRESSIONS OCCUR, THE SCHEDULED DEPTH OF BEAMS AND SLABS ARE MEASURED FROM BOTTOM OF DEPRESSION.
  - PROVIDE #4 @ 12" ON CENTER BY 5 FEET LONG TOP BARS OVER BEAMS WHICH ARE PARALLEL TO MAIN BARS OF ONE-WAY SLAB.
  - INSTALL EMBEDDED ITEMS INCLUDED IN THE MISCELLANEOUS STEEL SECTION AS INDICATED IN THE ARCHITECTURAL DRAWINGS.
  - SIZES OF EXPANSION JOINT SHOWN ON PLAN ARE AT 60°F.
  - BRIDGE DESIGN IS IN COMPLIANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES WITH THE FOLLOWING EXCEPTIONS:

- LIVE LOAD = 100 PSF IN LIEU OF 85 PSF.
- WIND LOAD ON CURTAIN WALLS OF THE N-S BRIDGE IS 30 PSF IN LIEU OF 50 PSF. STRUCTURAL STEEL FRAMING IS DESIGNED TO 50 PSF. (REDUCED TO 30 PSF BY USE OF SHAPE FACTOR OF 0.6 IN E-W CIRCULAR STRUCTURE)

NOTE: THE DESIGN AND CONSTRUCTION OF THE BRIDGE STRUCTURES, EXCLUSIVE OF ARCHITECTURAL HOUSING AND DECORATION, WILL CONFORM TO THE CURRENT AASHTO SPECIFICATIONS AND M.D.O.T. STANDARD AND SUPPLEMENTAL SPECIFICATIONS AND PROVISIONS. THESE SPECIFICATIONS WILL TAKE PRECEDENCE OVER ANY OTHER BLDG. CODE OR SPECIFICATION.



Joe Louis Sports Arena  
Pedestrian Walkway  
For City Engineering Division

SH&G  
Smith, Hinchman & Grylls  
Associates, Inc.  
Architects Engineers  
Planners

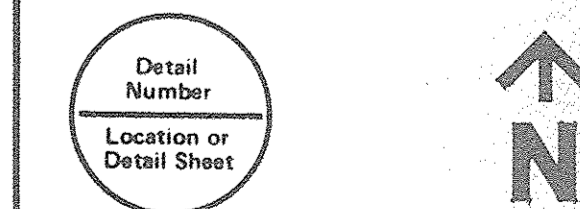
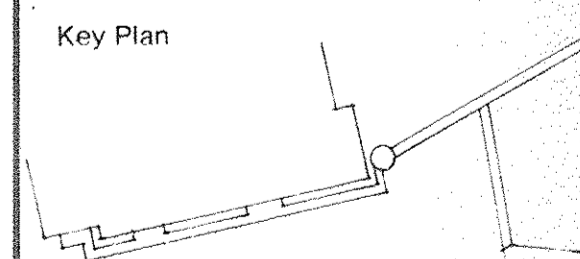
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

OWNER: City of Detroit  
Issued For: 5-30-80  
Date: \_\_\_\_\_

Date: 1-18-80  
Drawn By: \_\_\_\_\_

By: Architect/Engineer  
O. W. [Signature]  
Correlation Check  
Project Manager

Construction Administration Div. Approval  
Division Approval: [Signature]



Drawing Title  
**SECTIONS AND DETAILS**

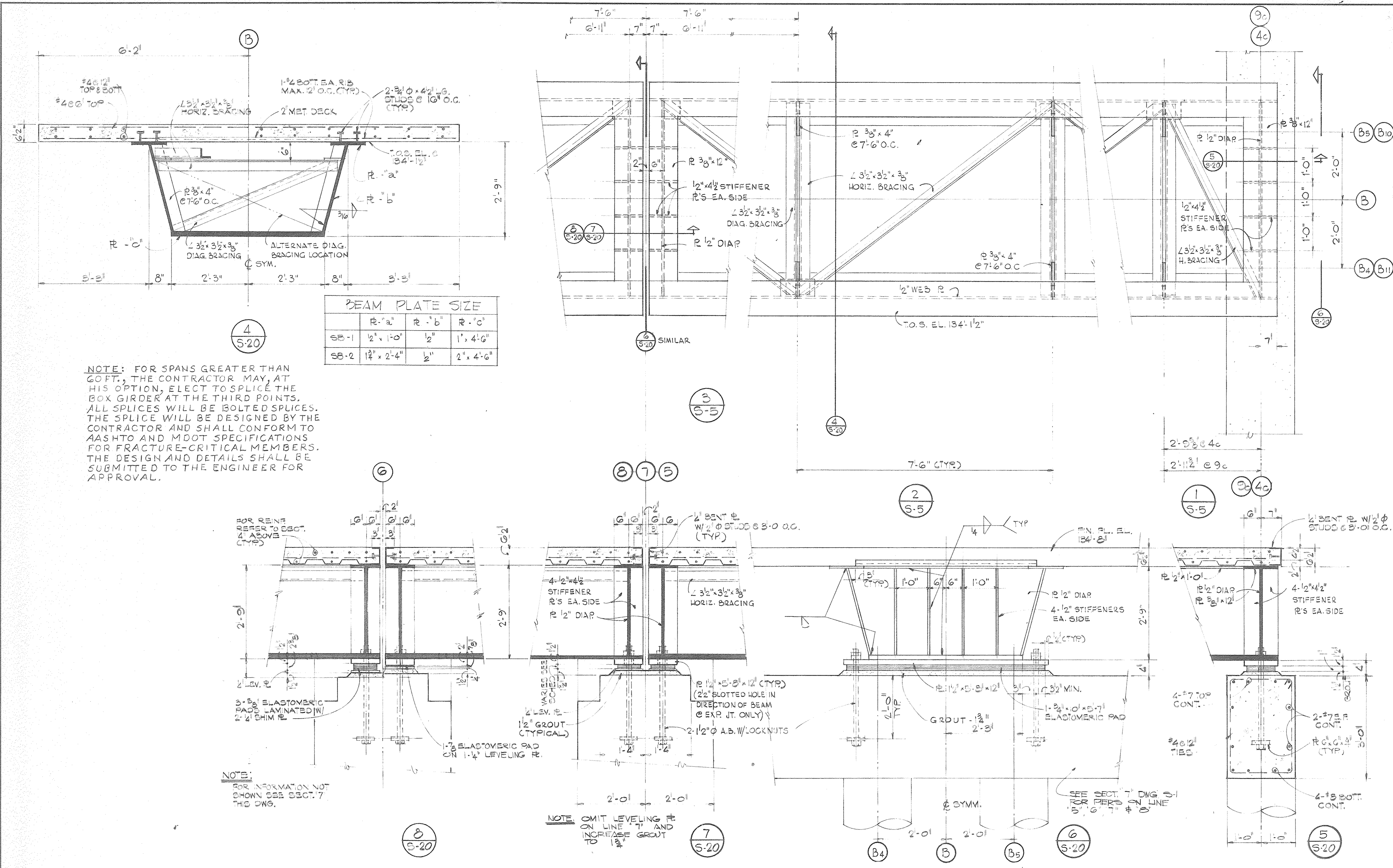
15031A  
Project No.  
S-18  
Drawing No.

Scale: 5/8" = 1'-0"









	R-'a'	R-'b'	R-'c'
SB-1	1/2" x 1'-0"	1/2"	1'-4'-6"
SB-2	1/2" x 2'-4"	1/2"	2'-4'-6"

NOTE: FOR SPANS GREATER THAN 60 FT., THE CONTRACTOR MAY, AT HIS OPTION, ELECT TO SPLICE THE BOX GIRDER AT THE THIRD POINTS. ALL SPLICES WILL BE BOLTED SPLICES. THE SPLICE WILL BE DESIGNED BY THE CONTRACTOR AND SHALL CONFORM TO AASHTO AND MDOT SPECIFICATIONS FOR FRACTURE-CRITICAL MEMBERS. THE DESIGN AND DETAILS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

NOTE: FOR INFORMATION NOT SHOWN SEE SECT. 7 THIS DWG.

NOTE: OMIT LEVELING PLATE ON LINE 7 AND INCREASE GROUT TO 1 1/2"

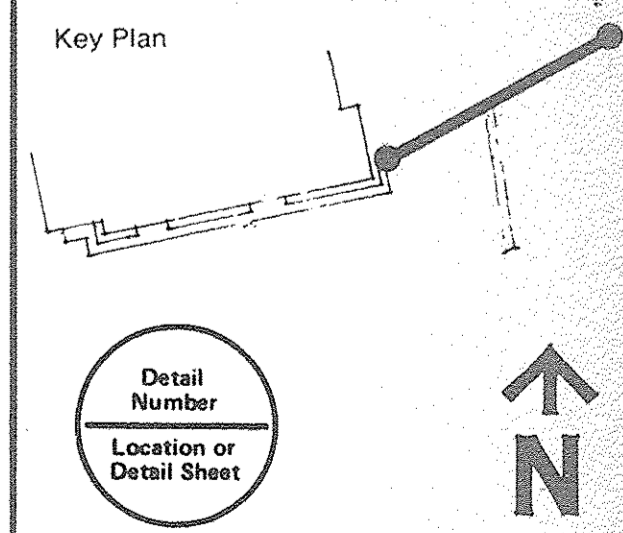
SCHED. OF BEARING THICKNESS

COL. LINE NO.	ELASTOMERIC PADS AND/OR SHIM PLS	TOTAL THICKNESS
5	4-3/8" ELASTOMERIC PADS LAMINATED W/ 3/4" SHIM PLS	3'-4"
6	SEE DETAIL '8' (THIS DWG.)	-
7	1-3/4" ELASTOMERIC PAD	2'-1"
8	3-3/8" ELASTOMERIC PADS LAMINATED W/ 3/4" SHIM PLS	2'-3 1/2"

**Joe Louis Sports Arena**  
Pedestrian Walkway  
For City Engineering Division

**SH&G**  
Smith, Hinchman & Grylls Associates, Inc.  
Architects Engineers Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

OWNER	5-30-80
Issued For	Date
1-18-80	Drawn By
Date	
Div. Architect/Engineer	
Correlation/Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	



Drawing Title  
**SECTIONS AND DETAILS**  
15031A  
Project No.  
S-20  
Drawing No.  
31" = 1'-0"  
Scale  
58 of 96



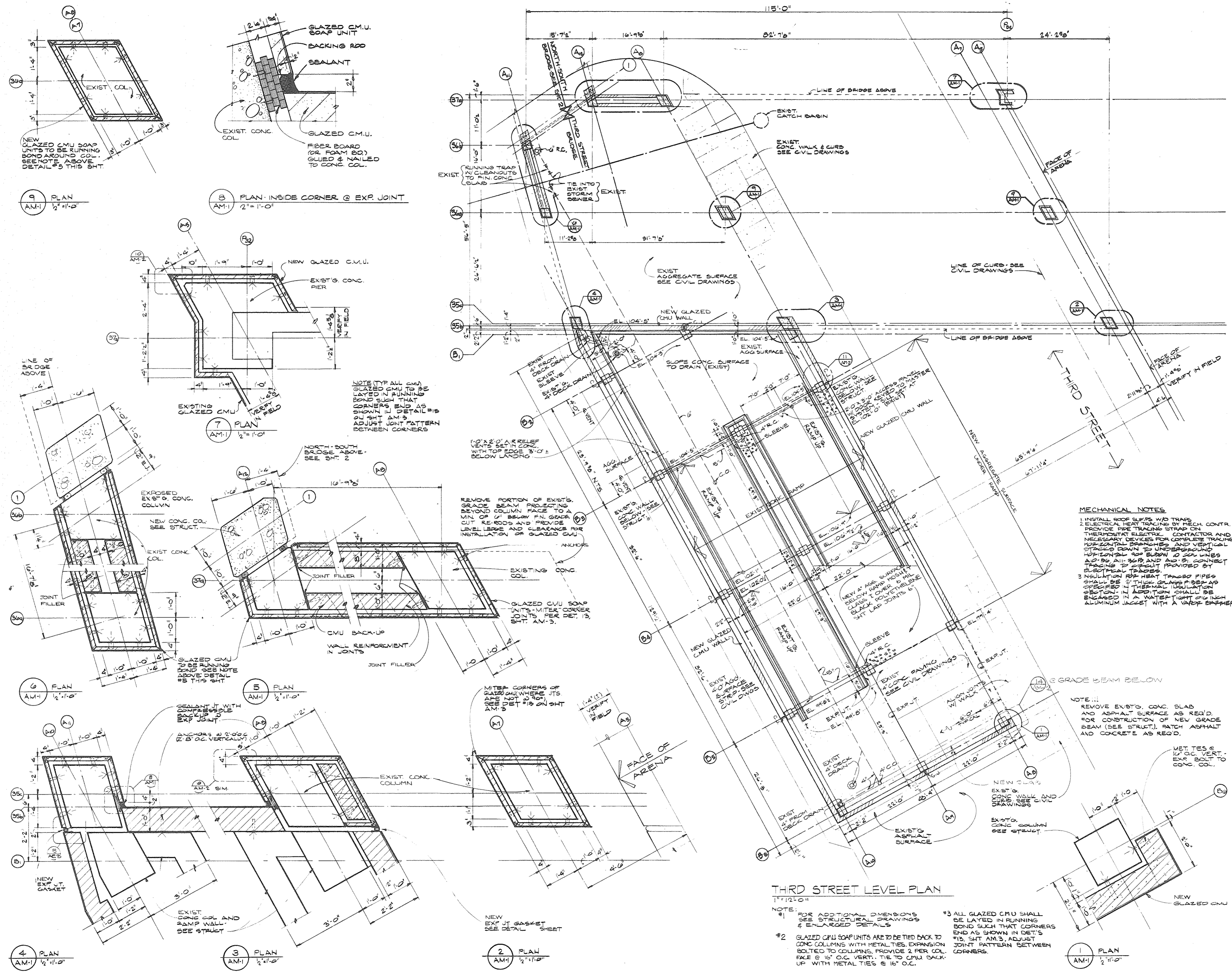








**SH&G**  
 Smith, Hinchman & Grylls  
 Associates, Inc.  
 Architects Engineers  
 Planners  
 455 West Fort Street  
 Detroit, Michigan 48226  
 (313)964-3000  
 SH&G Job. No. 11732C



**MECHANICAL NOTES**

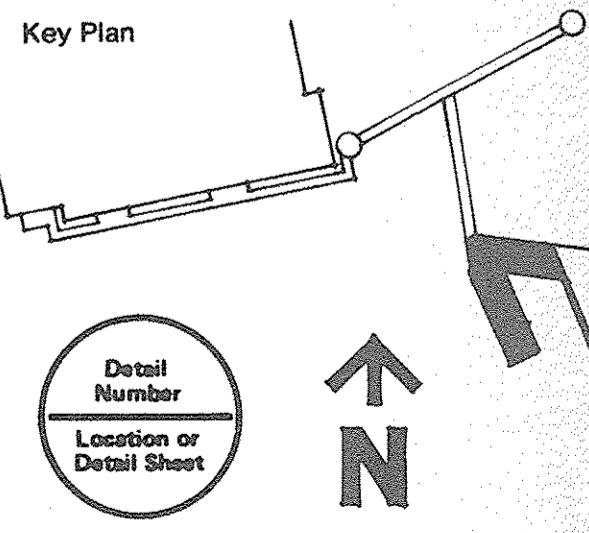
1. INSTALL ROOF SLIPS W/ TRAPS
2. ELECTRICAL HEAT TRACING BY MECH. CONTR. PROVIDE FIRE TRACING STRAP ON THERMOSTAT ELECTRICAL CONTACTOR AND NECESSARY DEVICES FOR COMPLETE TRACING. HORIZONTAL BRANCHES AND VERTICAL STUBS DOWN TO UNDERGROUND. HORIZONTAL W/ BUSHING TO SOLID WIRE. ALL 90° AND 45° BENDS, CONNECT TRACING TO HEAT PROVIDED BY ELECTRICAL TRACES.
3. INSULATION FOR HEAT TRACING PIPES SHALL BE 2" THICK GLASS FIBER AS SPECIFIED IN THERMAL INSULATION SECTION. IN ADDITION SHALL BE ENCASED IN A WATER TIGHT GUNNED ALUMINUM JACKET WITH A VEEK SHIMMER.

**THIRD STREET LEVEL PLAN**  
 1/12/01

**NOTE:**

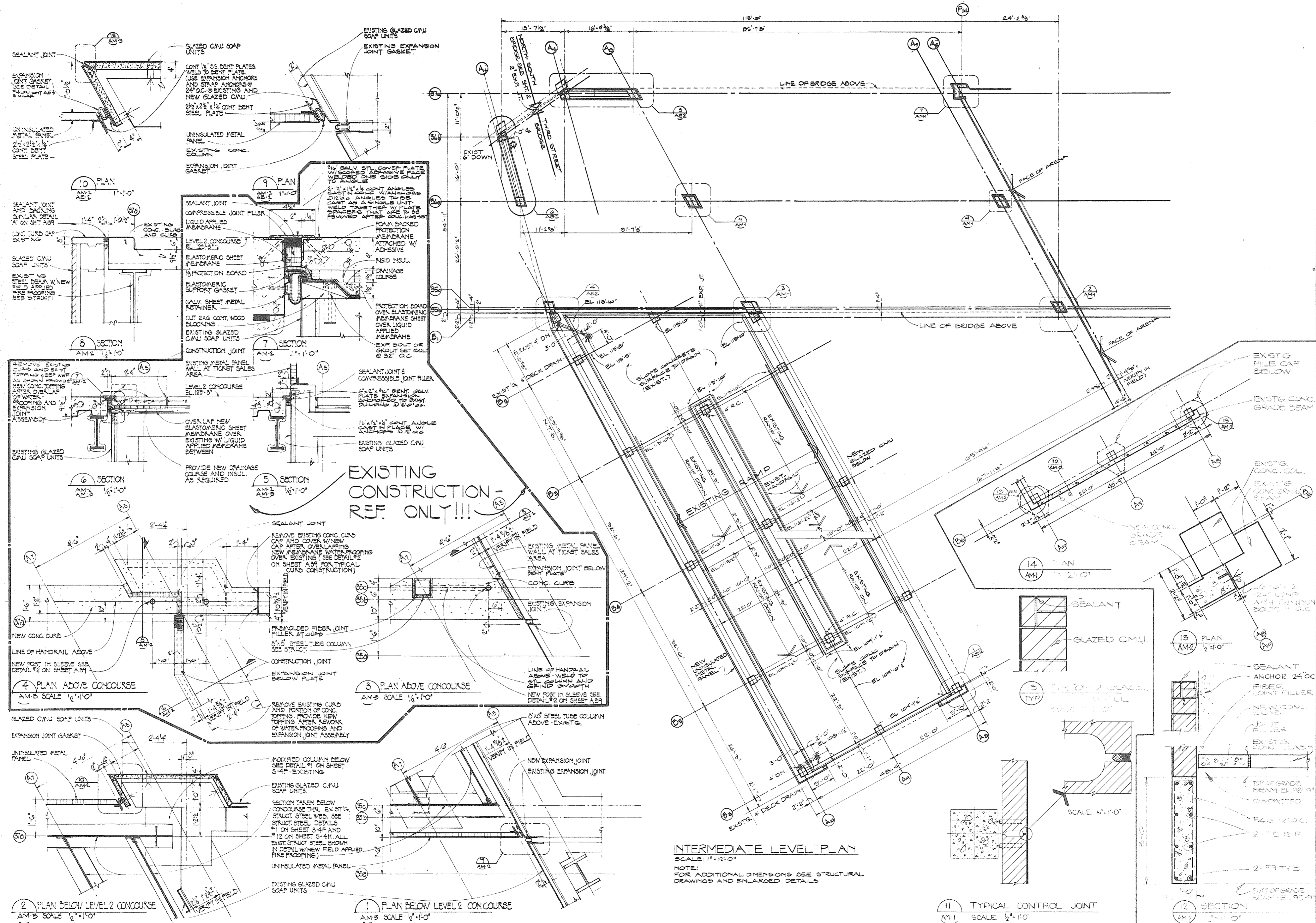
- \*1 FOR ADDITIONAL DIMENSIONS SEE STRUCTURAL DRAWINGS & ENLARGED DETAILS
- \*2 GLAZED CMU SOAP UNITS ARE TO BE TIED BACK TO CONC. COLUMNS WITH METAL TIES. EXPANSION BOLTS TO COLUMNS. PROVIDE 2 PER COL. FACE @ 16" O.C. VERT. TIE TO CMU BACK-UP WITH METAL TIES @ 16" O.C.
- \*3 ALL GLAZED CMU SHALL BE LAYED IN RUNNING BOND SUCH THAT CORNERS END AS SHOWN IN DET'S #13, SHT. AM-1. ADJUST JOINT PATTERN BETWEEN CORNERS.

OWNER	5-30-80
Issued For	Date
10-2-79	B.E.M.D.
Date	Drawn By
J. Smith	
Div. Architect/Engineer	
Correlation/Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	

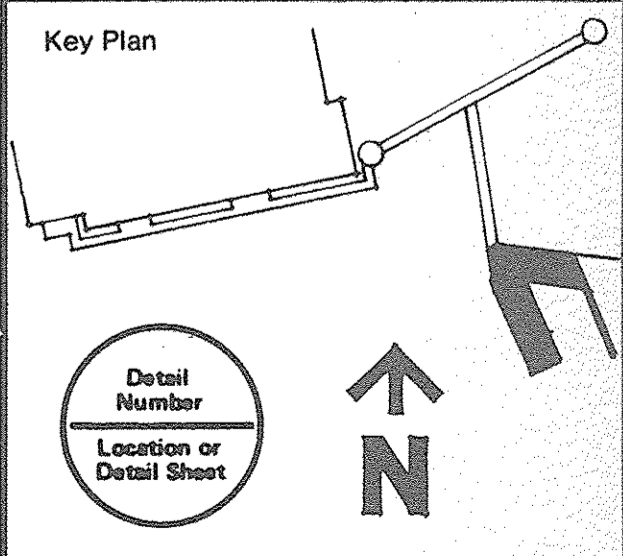


Drawing Title  
**ARENA BRIDGE AND RAMP**  
**THIRD STREET LEVEL PLAN AND DETAILS**  
**15031A**  
 Project No.  
**AM-1**  
 Drawing No.  
**AS NOTED**  
 Scale  
 61 of 96





OWNER	5-20-80
Issued For	Date
0-2-79	T.D.M.D.
Date	Drawn By
1/2/80	Div. Architect/Engineer
Correlation Check	Project Manager
Construction Administrative Div. Approval	Division Approval



Drawing Title  
**ARENA BRIDGE AND RAMP INTERMEDIATE LEVEL PLAN AND DETAILS**

Project No.  
**15031A**

Drawing No.  
**AM-2**

Scale  
**AS NOTED**

Scale  
6/2 of 9/6



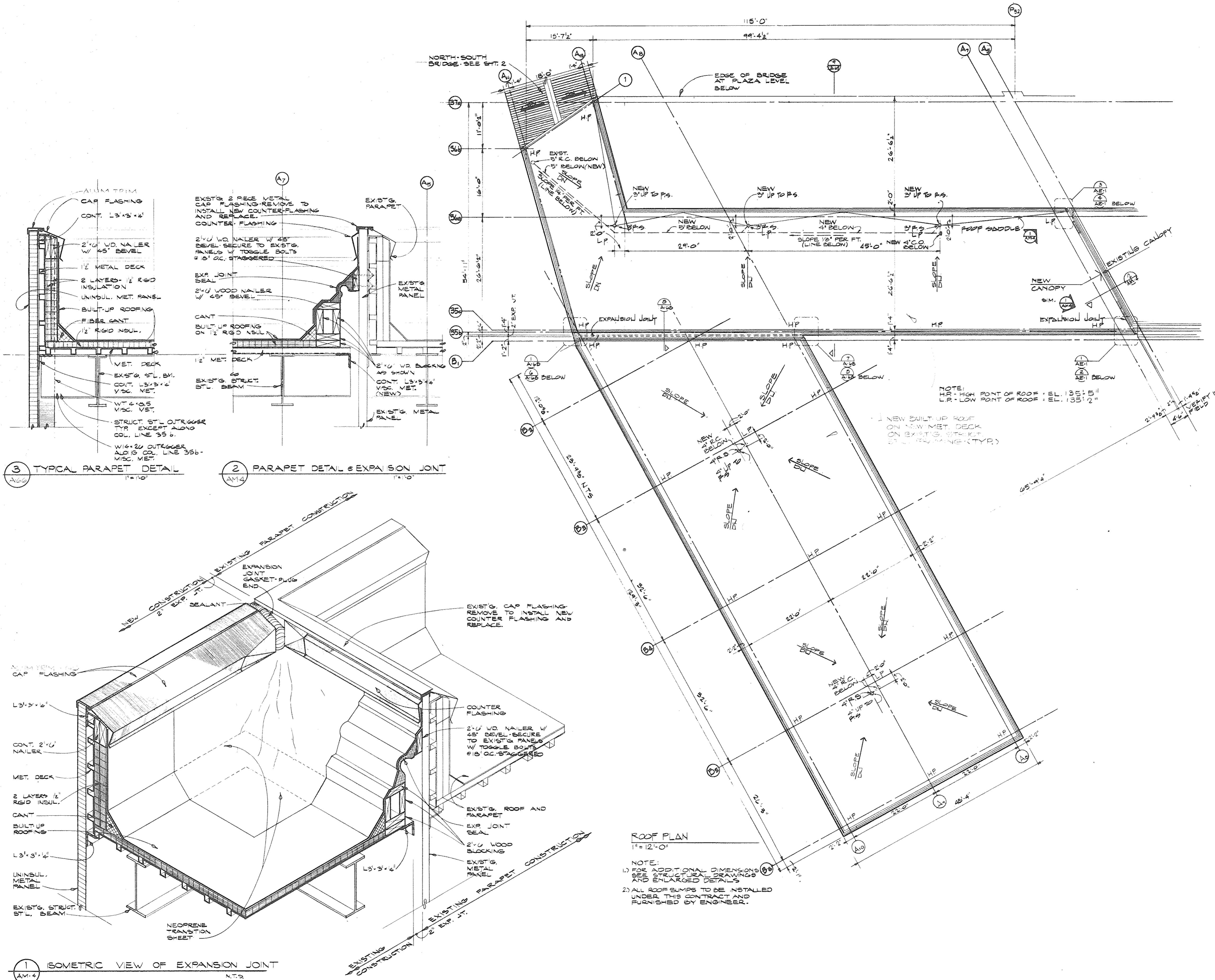




**SH&G**  
Smith, Hinchman & Grylls  
Associates, Inc.  
Architects Engineers  
Planners

455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000

SH&G Job. No. 11732C



3 TYPICAL PARAPET DETAIL  
1"=1'-0"

2 PARAPET DETAIL @ EXPANSION JOINT  
1"=1'-0"

1 ISOMETRIC VIEW OF EXPANSION JOINT  
1"=1'-0"

ROOF PLAN  
1"=12'-0"

NOTE:  
1) FOR ADDITIONAL DIMENSIONS  
SEE STRUCTURAL DRAWINGS  
AND ENLARGED DETAILS  
2) ALL ROOF SUMPS TO BE INSTALLED  
UNDER THIS CONTRACT AND  
FURNISHED BY ENGINEER.

OWNER: 5-30-80  
Issued For: \_\_\_\_\_ Date: \_\_\_\_\_

Date: 6-2-79 S.E.A.I.  
Drawn By: [Signature]

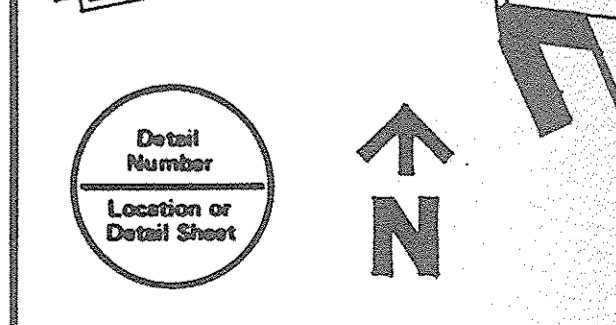
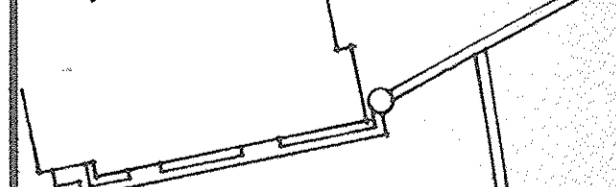
Div. Architect/Engineer: [Signature]

Correlation Check: [Signature]

Project Manager: [Signature]

Construction Administrative Div/ Approval: [Signature]

Division Approval: [Signature]



Drawing Title  
ARENA BRIDGE  
AND RAMP  
ROOF  
LEVEL PLAN  
AND DETAILS  
15031A  
Project No.  
**AM-4**  
Drawing No.  
AS NOTED  
Scale  
64 OF 96



**ELECTRICAL LEGEND**

SYMBOL	DESCRIPTION
	RECEPTACLE PANELBOARD
	LIGHTING PANELBOARD
	POWER PANELBOARD
	DRY TYPE DISTRIBUTION TRANSFORMER
	DISCONNECT SWITCH
	CONDUIT CONCEALED IN CEILING, WALL OR IN SLAB
	CONDUIT EXPOSED
	GROUND ROD
	CONDUIT TURNED DOWN
	CONDUIT TURNED UP
	LIGHTNING AIR TERMINAL
	SINGLE POLE SWITCH
	WALL MOUNTED DUPLEX RECEPTACLE (NOTES 2,3)
	FLUORESCENT LUMINAIRE - WALL MOUNTED
	FLUORESCENT LUMINAIRE - RECESSED MOUNTED
	FLUORESCENT LUMINAIRE - SURFACE MOUNTED
	FLUORESCENT LUMINAIRE - SUSPENDED INDUSTRIAL TYPE
	FLUORESCENT STRIP LIGHT
	WALL MOUNTED EXIT LIGHT (NOTES 4,5)
	WALL MOUNTED MERCURY VAPOR LUMINAIRE
	RECESSED MERCURY VAPOR LUMINAIRE
	FIRE ALARM SPEAKER
	THERMOSTAT
	THREE PHASE MOTOR
	SINGLE PHASE MOTOR
	THREE PHASE COMBINATION MAGNETIC MOTOR STARTER
	LIGHTING CONTACTOR
	FIRE ALARM MANUAL PULL STATION
	FIRE ALARM HORN

**NOTES:**

1. ALL LUMINAIRES WHICH ARE DARKENED IN (EG. ) OR NOTED WITH "EM" (EG. ) SHALL BE ON AN EMERGENCY LIGHTING CIRCUIT.
2. "WP" SUBSCRIPT INDICATES WEATHERPROOF
3. "K" SUBSCRIPT INDICATES KEY LOCK COVERPLATE
4. SHADING INDICATES ILLUMINATED FACE
5. ARROWS INDICATE REQUIREMENT FOR AND ORIENTATION OF DIRECTIONAL ARROWS.

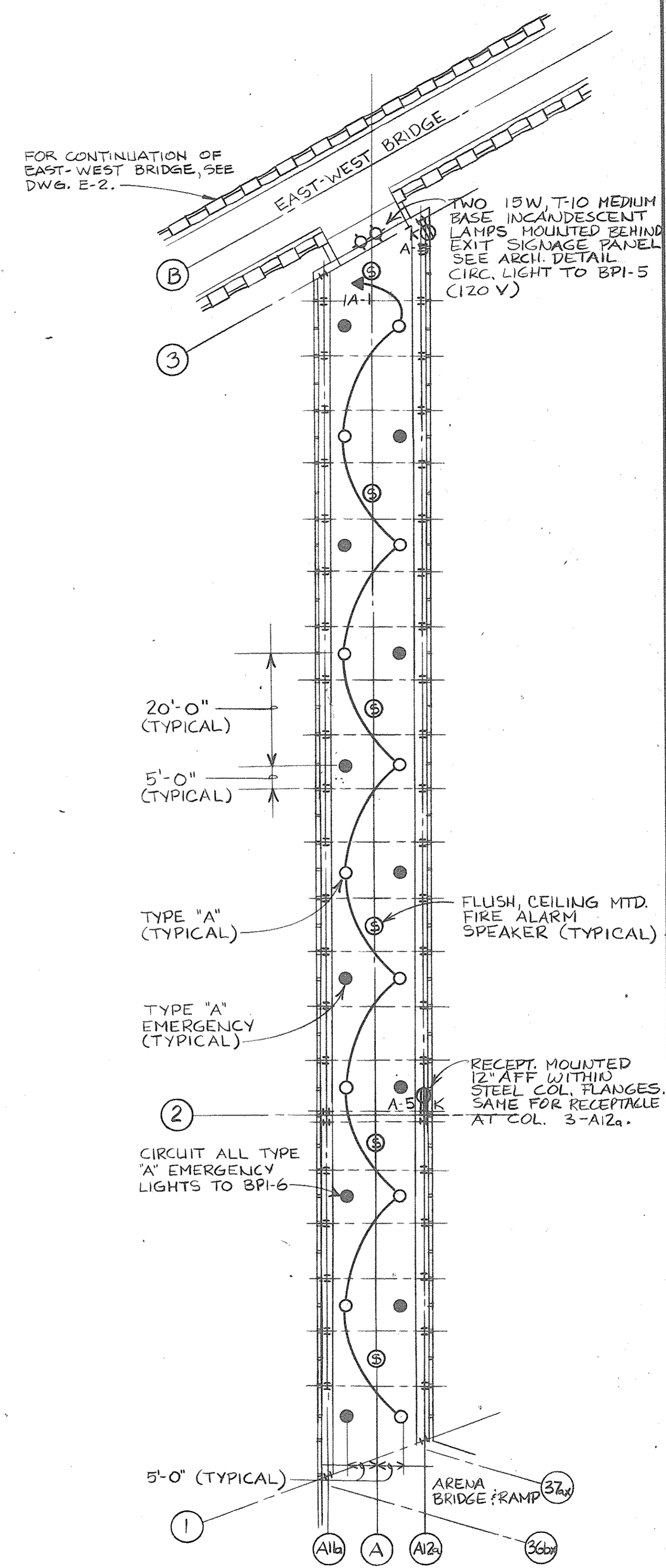
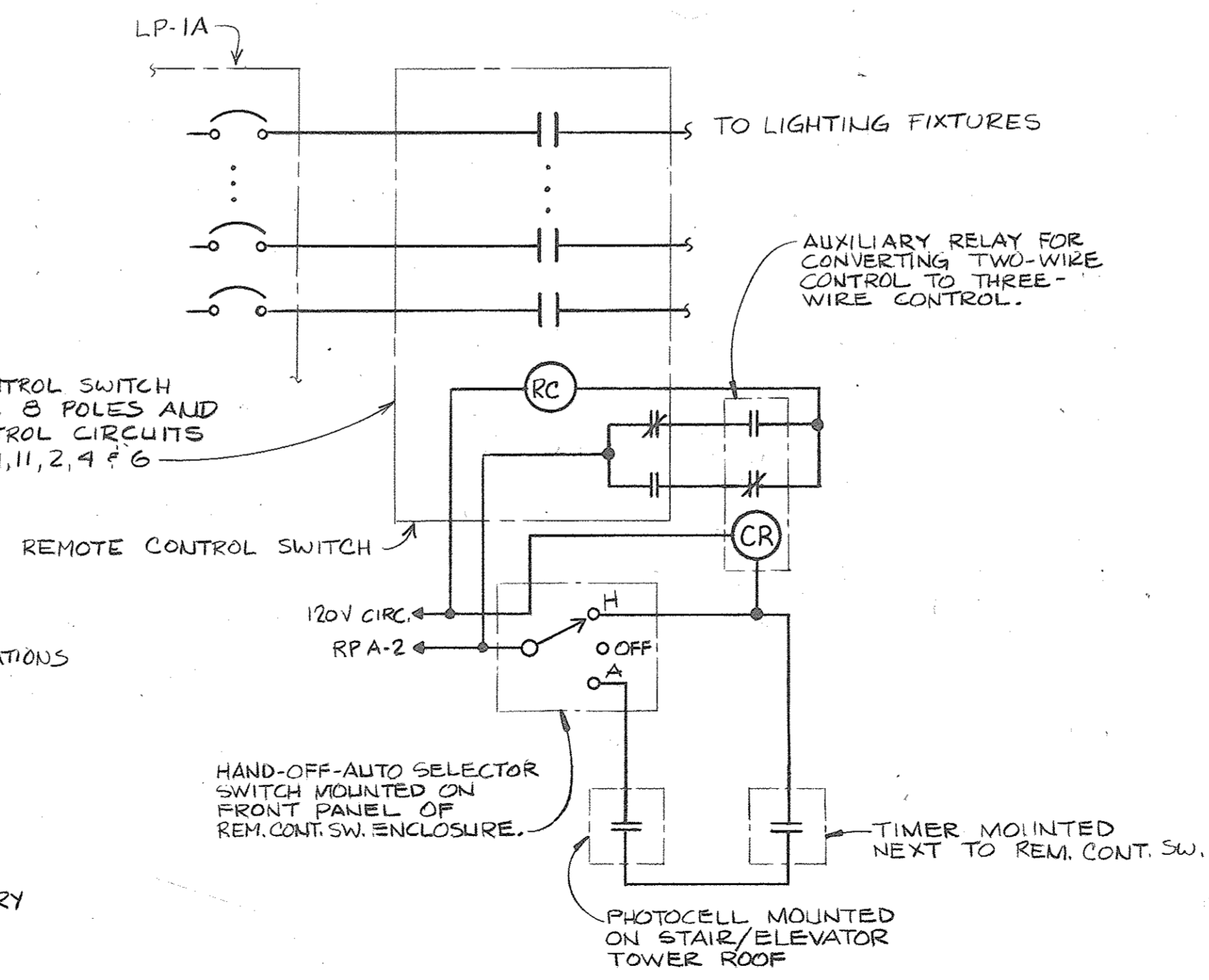
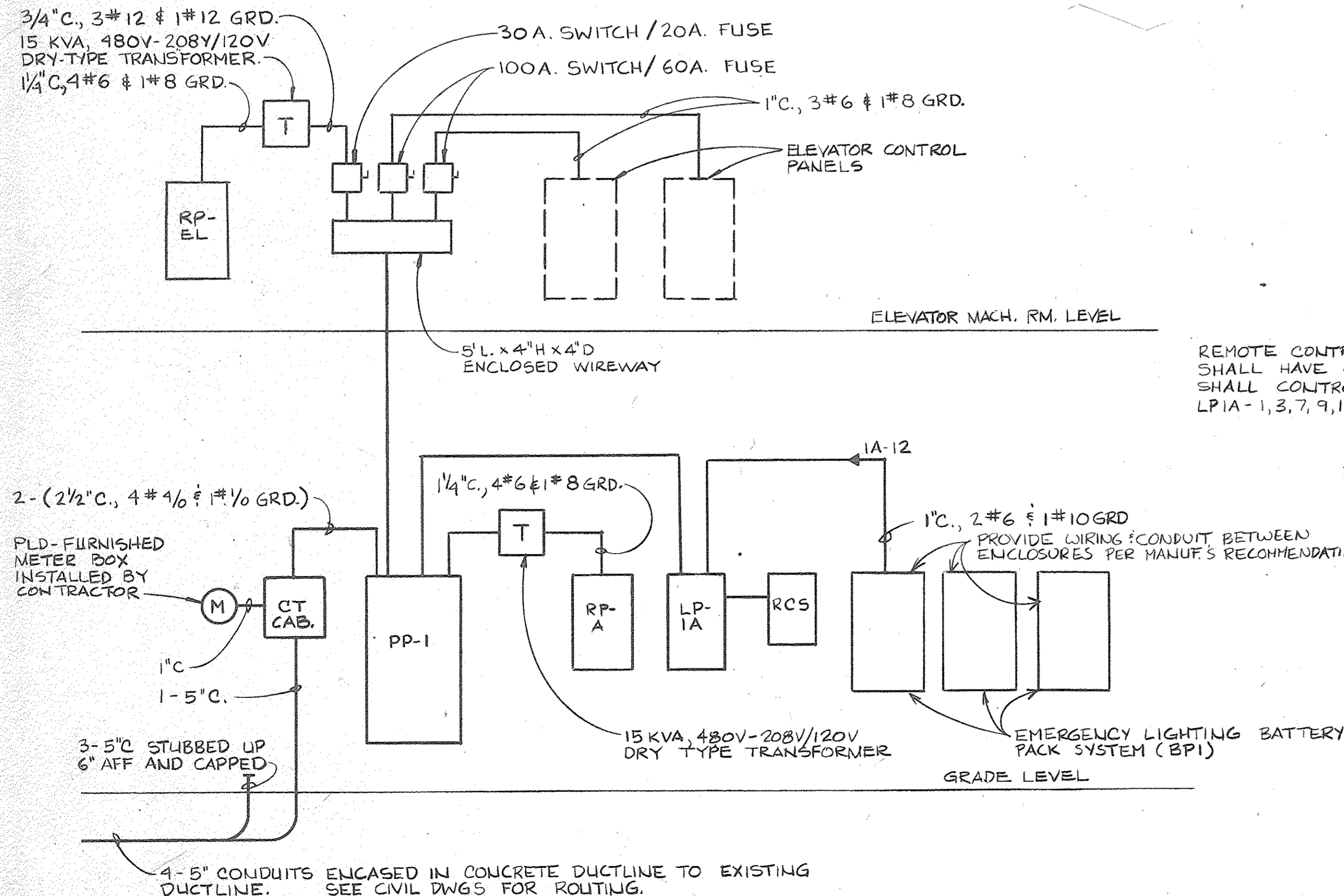
**POWER PANEL PP-1 SCHEDULE**

MAINS	400A	VOLTAGE	480/277	MOUNTING SURFACE	
MAIN SW.	400A	PHASES	3		
MAIN FUSE	400A	WIRES	4	NOTES	

CIRC. NO.	LOAD SERVED	LOAD RATING	SWITCH/FUSE	FEEDER
1	ELEV. WIREWAY	98 KVA	200/150	2" C, 3# 1/0 & 1# 6 GRD.
2	LP-1A	27 KVA	100/100	1 1/2" C, 4# 2 & 1# 8 GRD.
3	RP-A	15 KVA	30/30	3/4" C, 3# 10 & 1# 10 GRD
4	STAIR/ELEV. FANS	2-3/4 HP	30/20	3/4" C, 3# 12 & 1# 12 GRD
5	RAMP FANS	2-2 HP	30/20	3/4" C, 3# 12 & 1# 12 GRD
6	SPARE	-	30/-	-
7	SPARE	-	60/-	-
8	SPARE	-	60/-	-
9	SPACE	-	100/-	-

**RECEPTACLE/LIGHTING PANELBOARD SCHEDULE**

PANEL	MAINS	MAIN BRKR.	VOLTAGE	PHASE-WIRE	BRANCH BREAKERS	SPACES	TOTAL POLES
RP-A	60A.	50A.	208/120	3-4	14-1P-20A.	0	14
RP-EL	60A.	50A.	208/120	3-4	12-1P-20A.	2	14
LP-1A	125A	-	480/277	3-4	17-1P-20A, 1P-60A	12	30
BP-1	60A	-	277		6-1P-20A	-	6

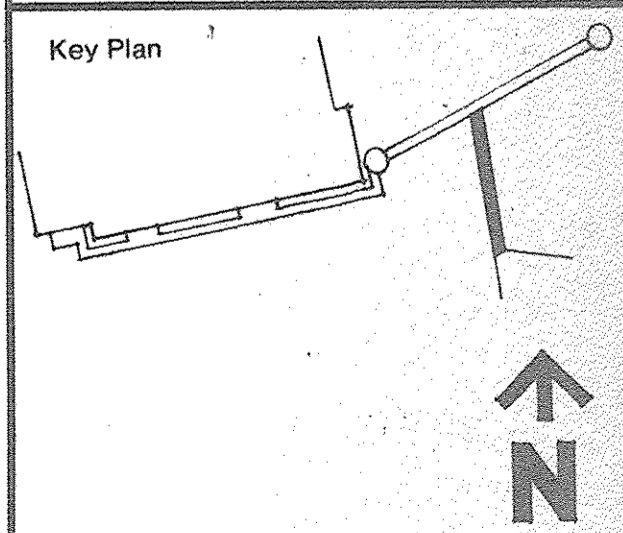


NOTE: FOR ELECTRICAL WORK AT ARENA BRIDGE AND RAMP, SEE DWGS AE-1, 2, 3 & AM-3.

**Joe Louis Sports Arena**  
Pedestrian Walkway  
For City Engineering Division

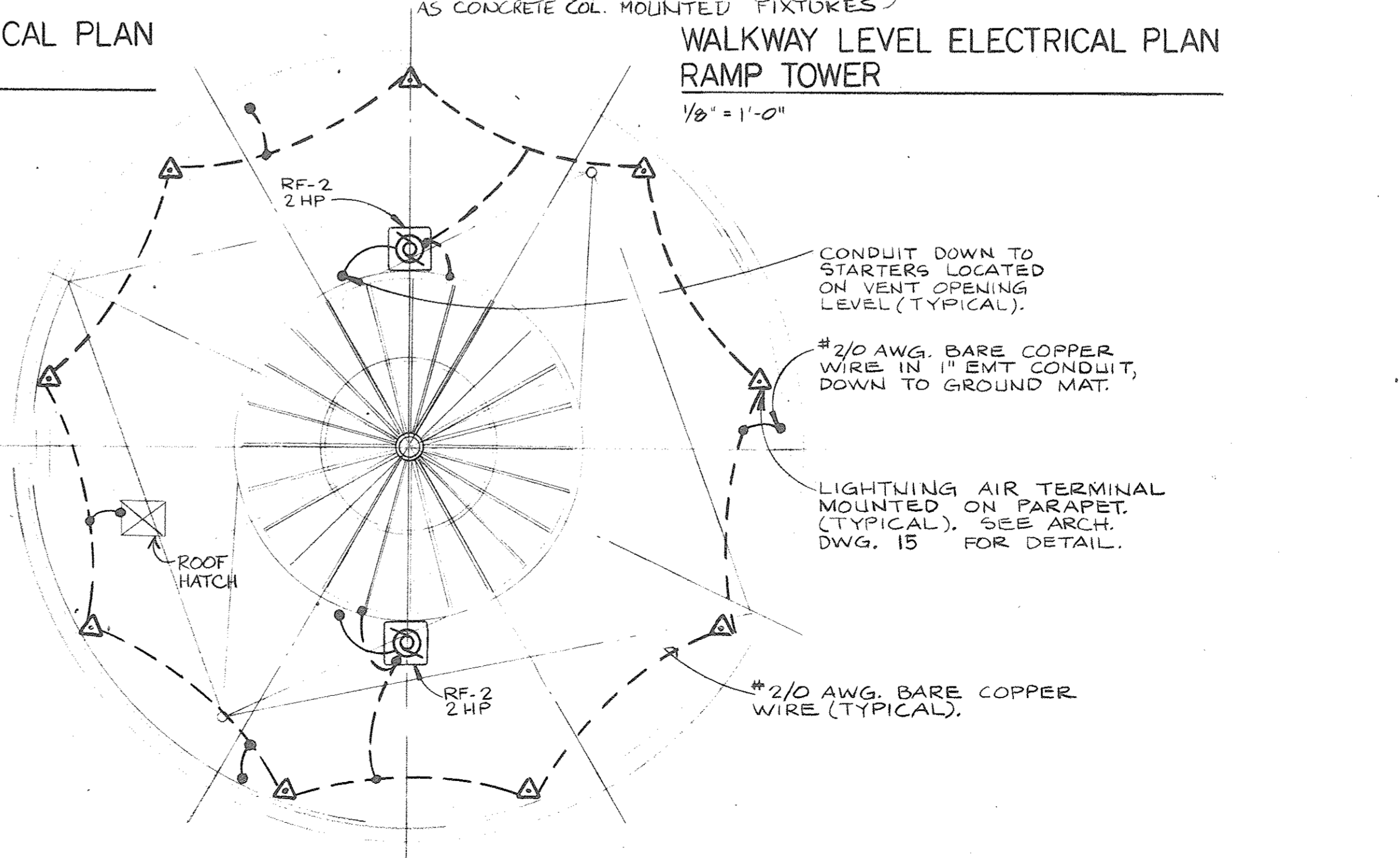
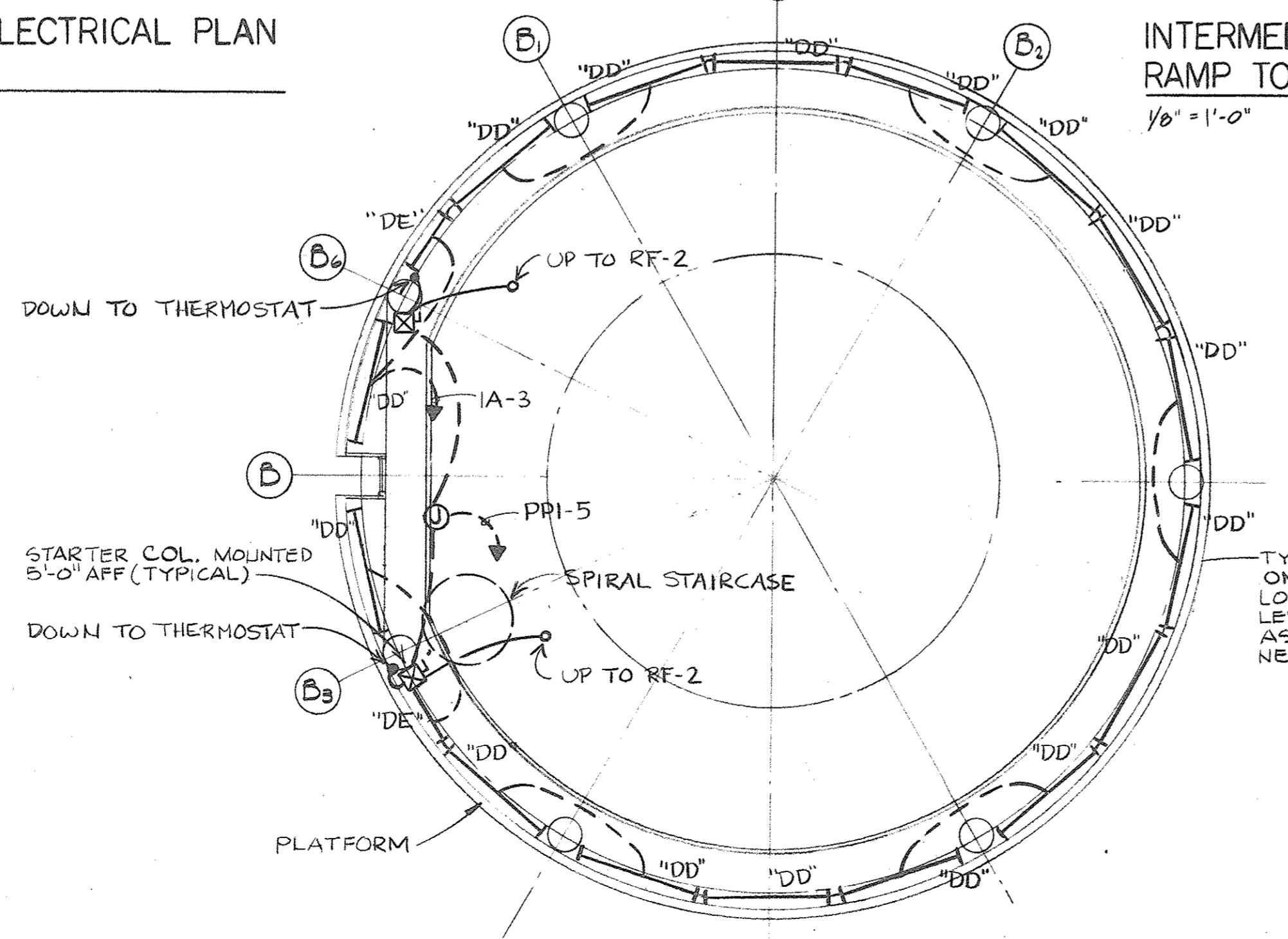
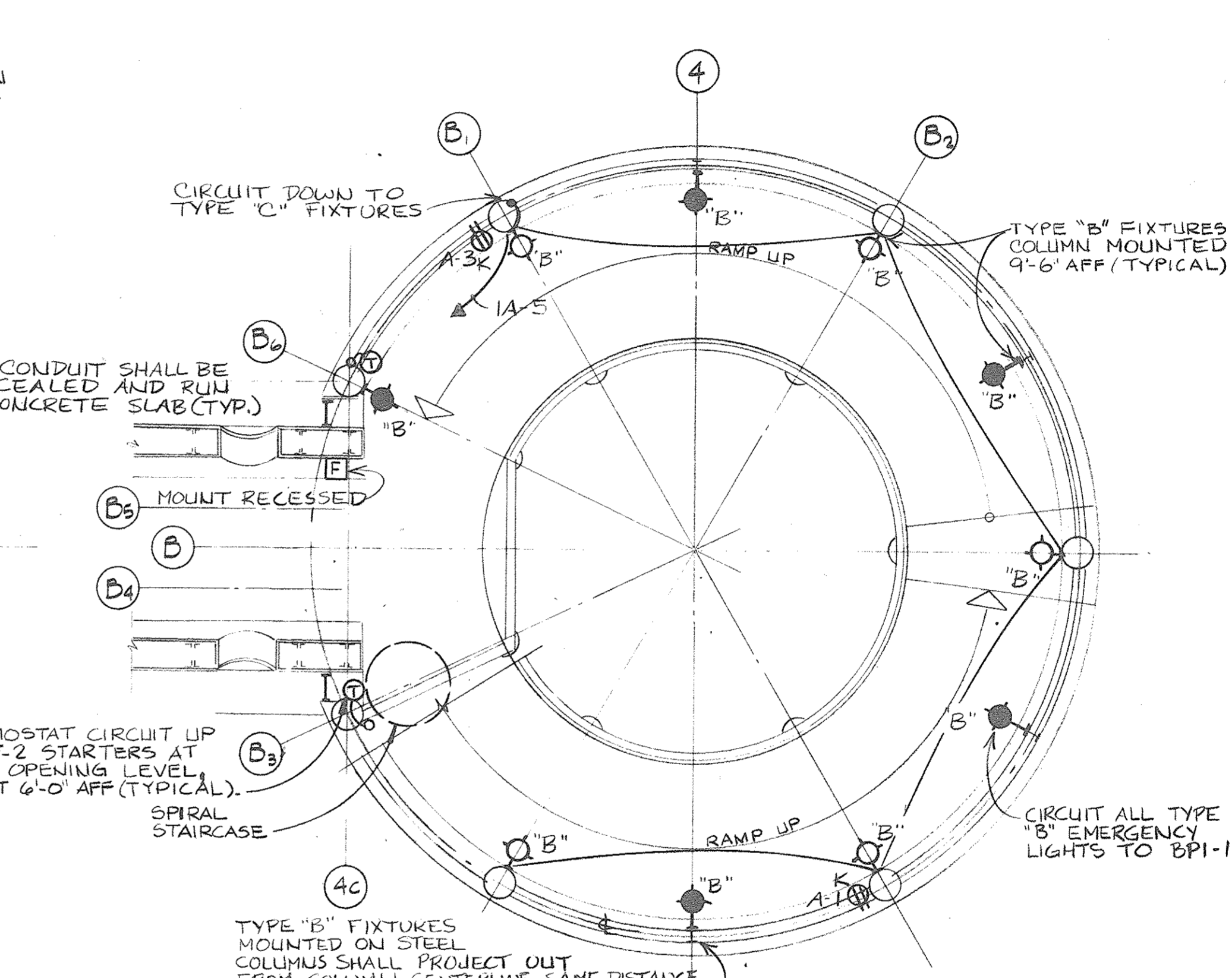
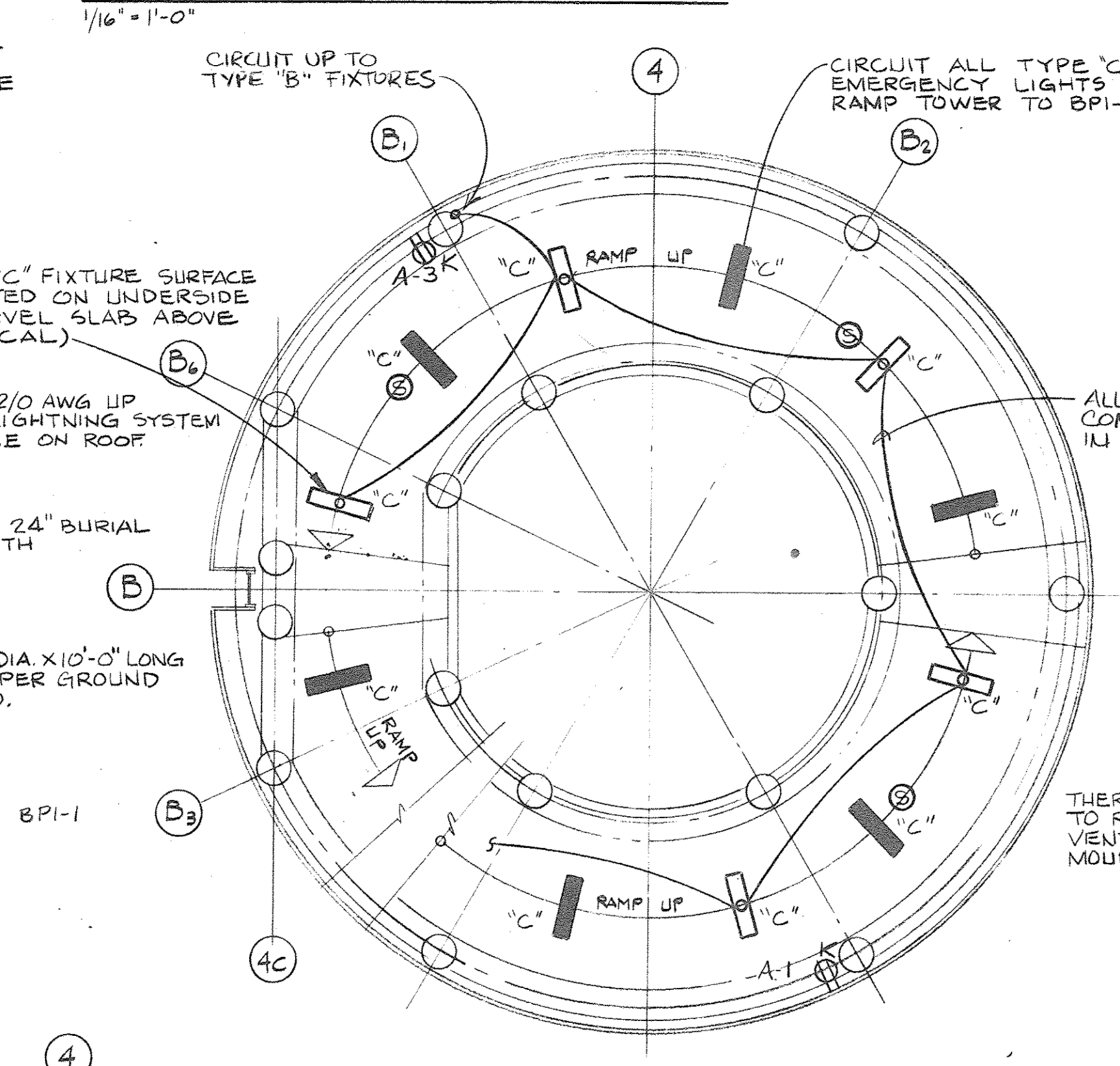
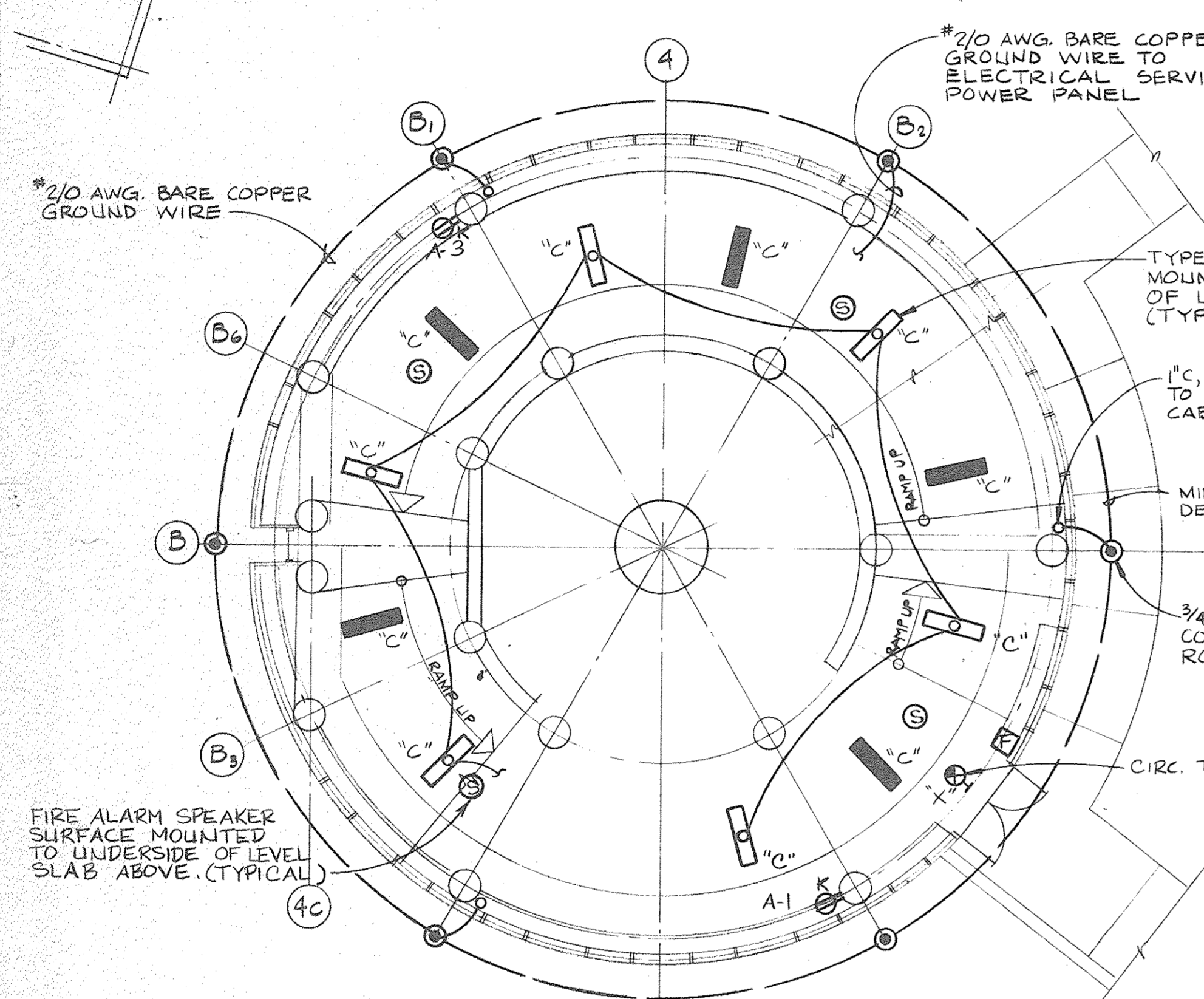
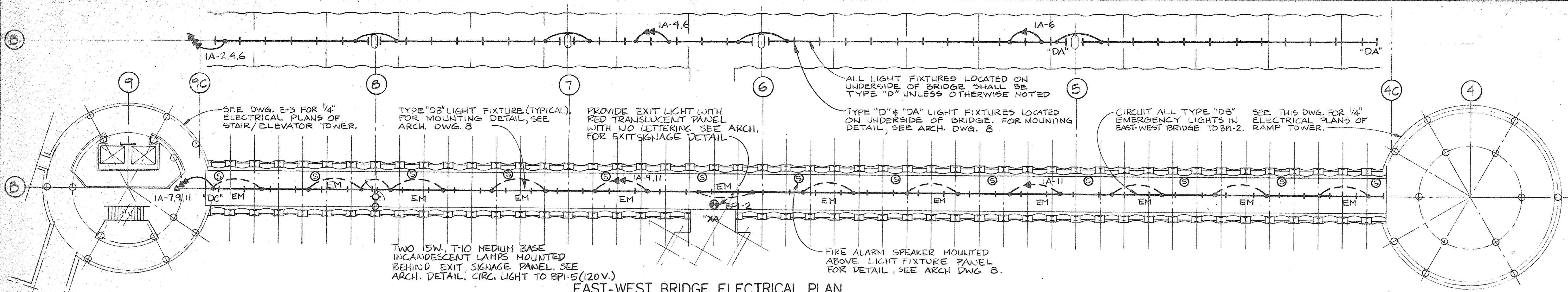
**SH&G**  
Smith, Hinchman & Grylls Associates, Inc.  
Architects Engineers Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

OWNER: **5-30-80**  
Issued For: \_\_\_\_\_ Date: \_\_\_\_\_  
1-18-80 RES. LUT, DFW  
Date: \_\_\_\_\_ Drawn By: \_\_\_\_\_  
Checked By: \_\_\_\_\_  
Project Manager: \_\_\_\_\_  
Construction Administration Div. Approval: \_\_\_\_\_  
Division Approval: \_\_\_\_\_



Drawing Title: **ELECTRICAL RISER, SCHEDULES, LEGEND AND NORTH-SOUTH BRIDGE PLAN**  
15031A  
Project No. \_\_\_\_\_  
E-1  
Drawing No. \_\_\_\_\_  
AS NOTED  
Scale: \_\_\_\_\_

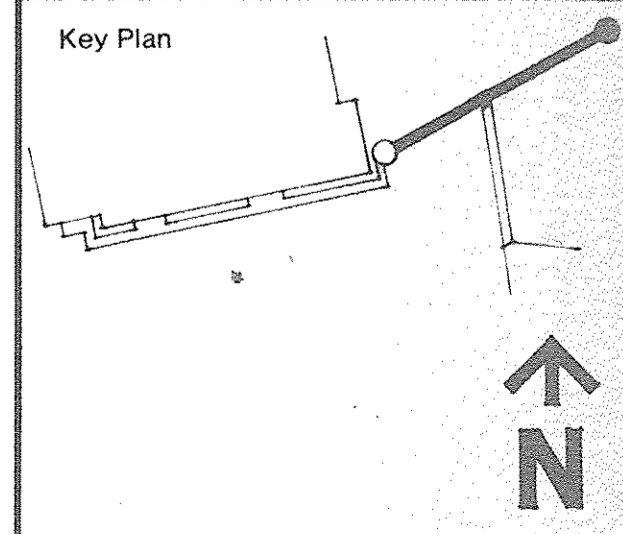




**Joe Louis Sports Arena Pedestrian Walkway**  
For City Engineering Division

**SH&G**  
Smith, Hinchman & Grylls Associates, Inc.  
Architects Engineers Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C

OWNER	RES, LJT, DFW
Issued For	5-30-80
Date	
1-18-80	RES, LJT, DFW
Date	Drawn By
	R. Rosapen
	Div. Architect/Engineer
	R. Swick
Completion Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	

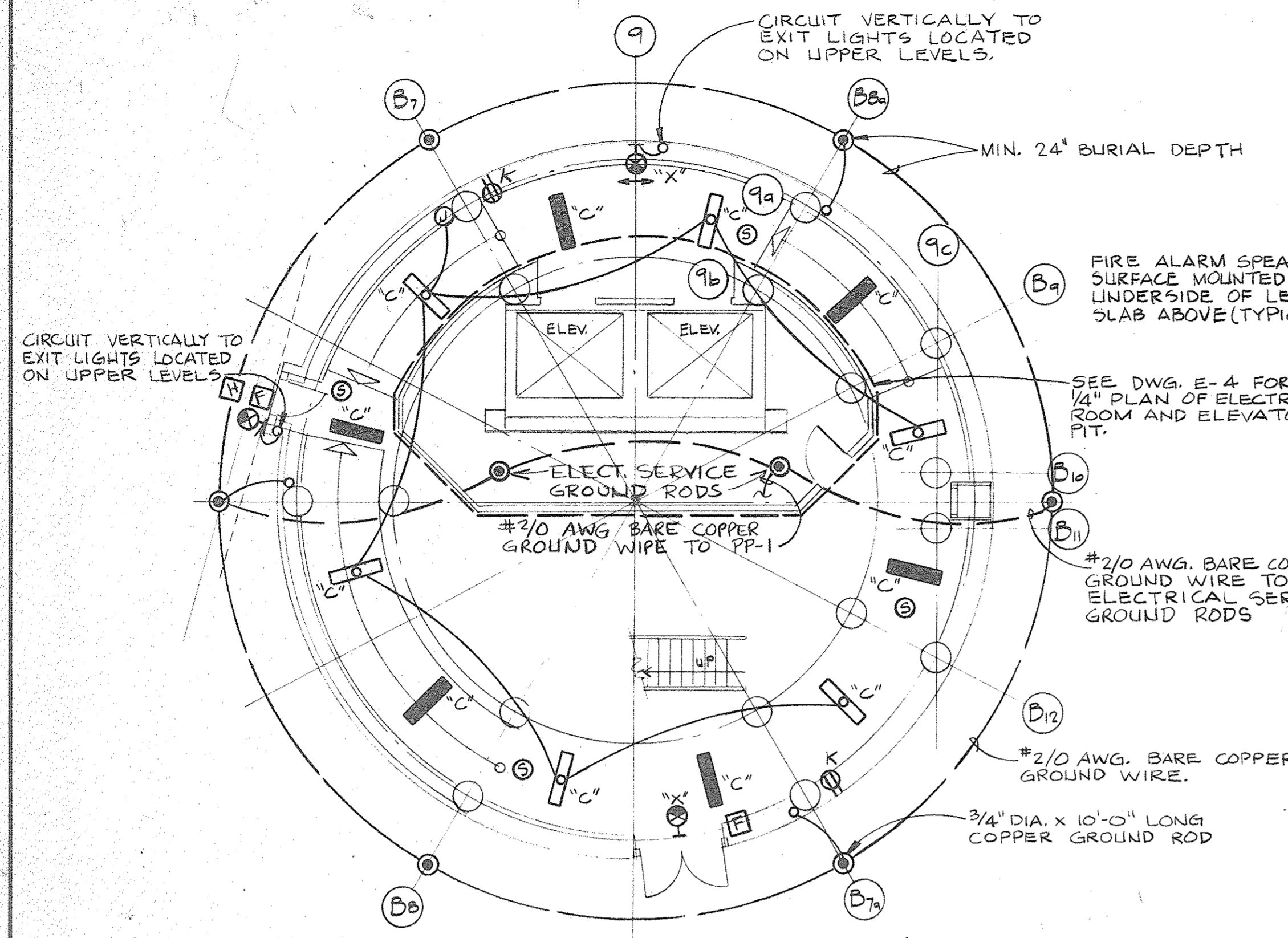


Drawing Title  
**EAST WEST BRIDGE AND RAMP TOWER ELECTRICAL PLANS**

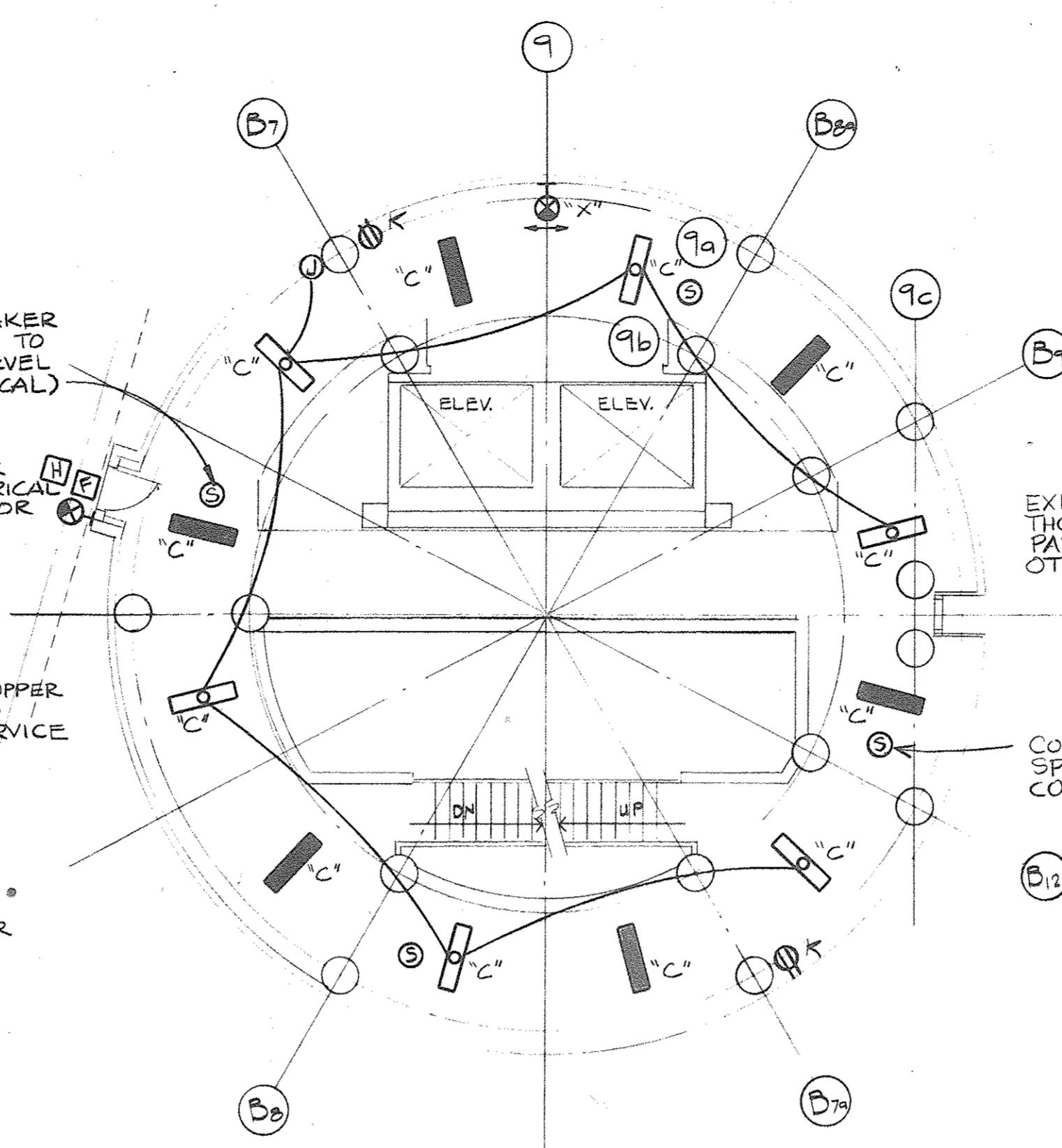
15031A  
Project No.  
E-2  
Drawing No.  
AS NOTED  
Scale  
66 of 90



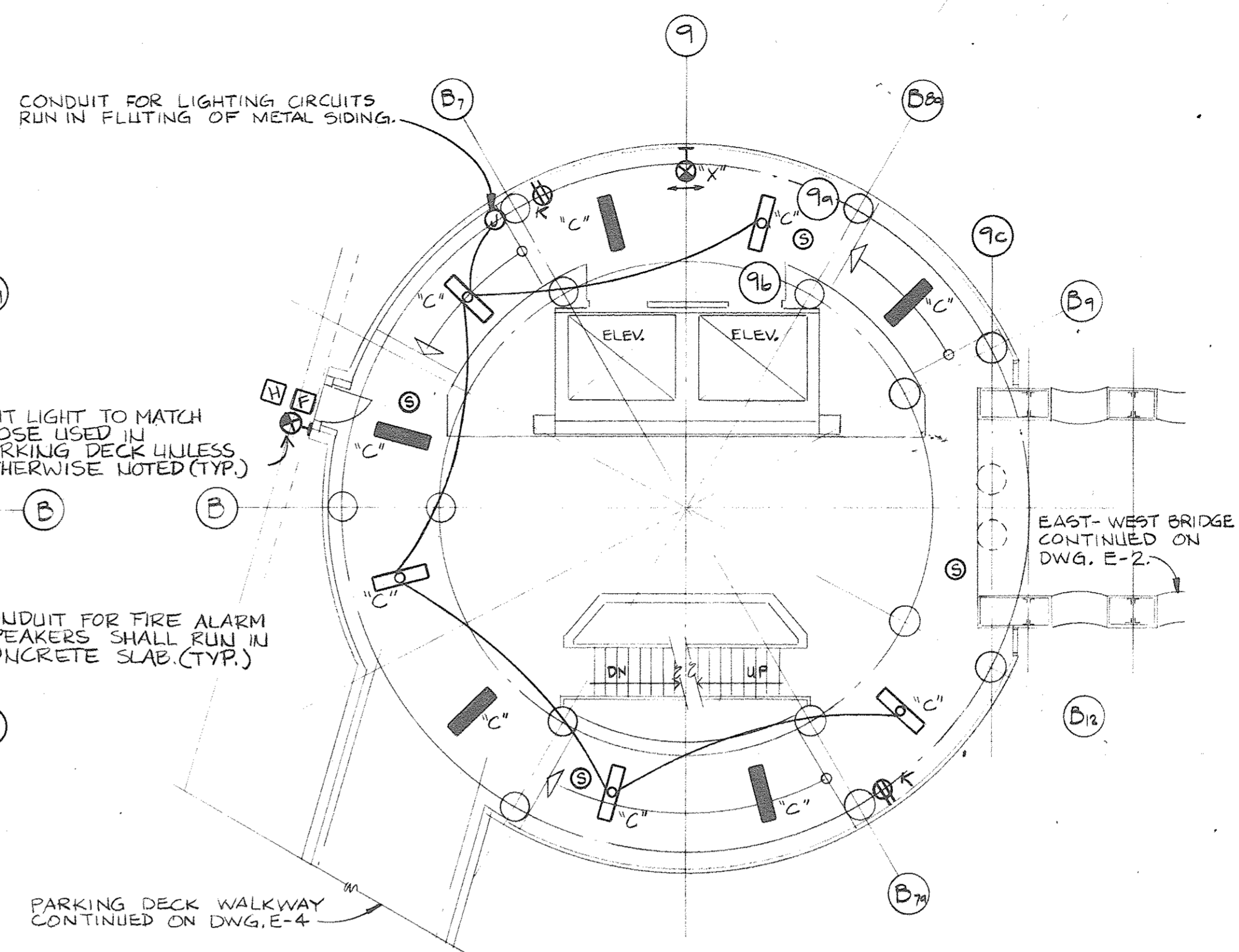
**SH&G**  
Smith, Hinchman & Grylls  
Associates, Inc.  
Architects Engineers  
Planners  
455 West Fort Street  
Detroit, Michigan 48226  
(313)964-3000  
SH&G Job. No. 11732C



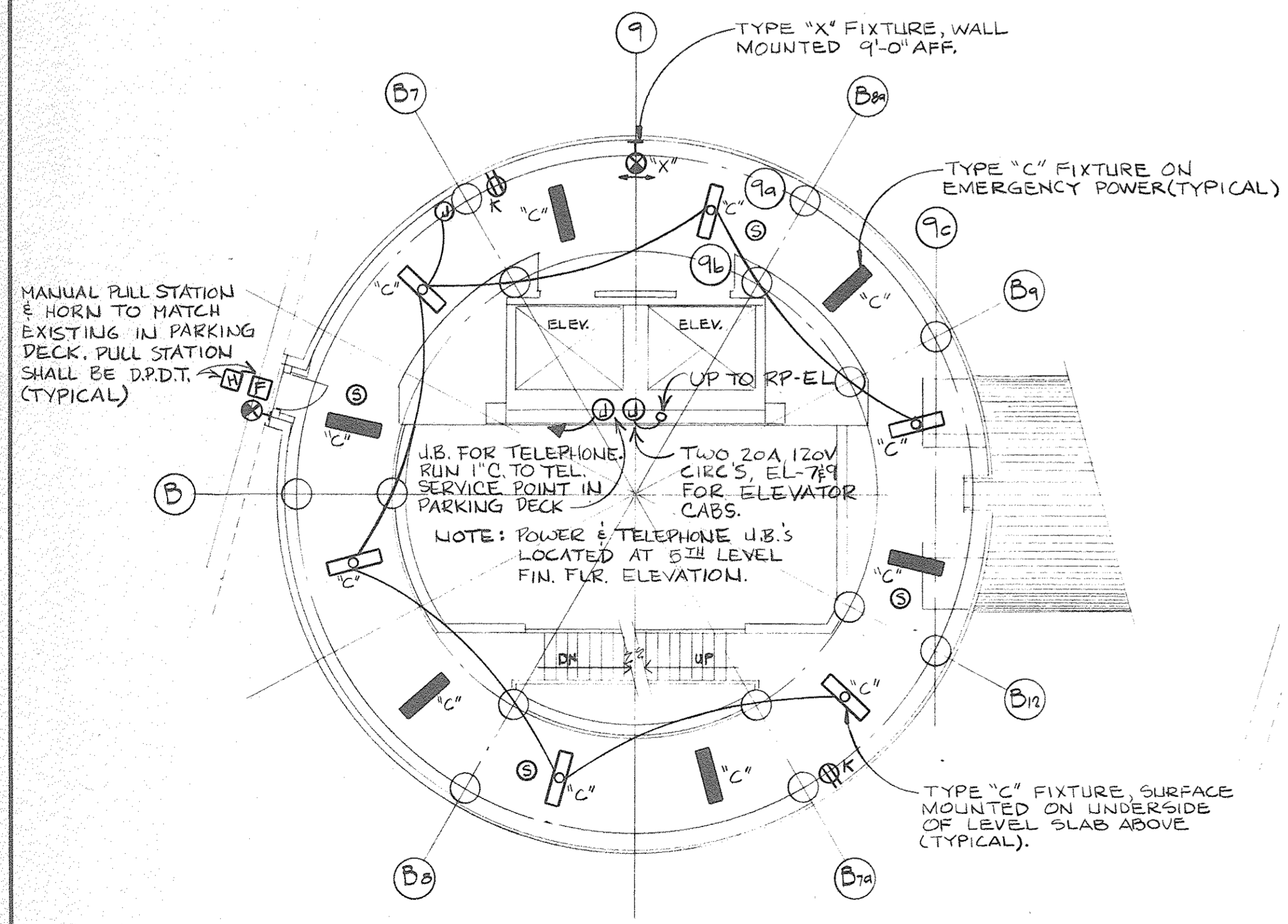
GRADE LEVEL ELECTRICAL PLAN  
STAIR/ ELEVATOR TOWER  
1/8" = 1'-0"



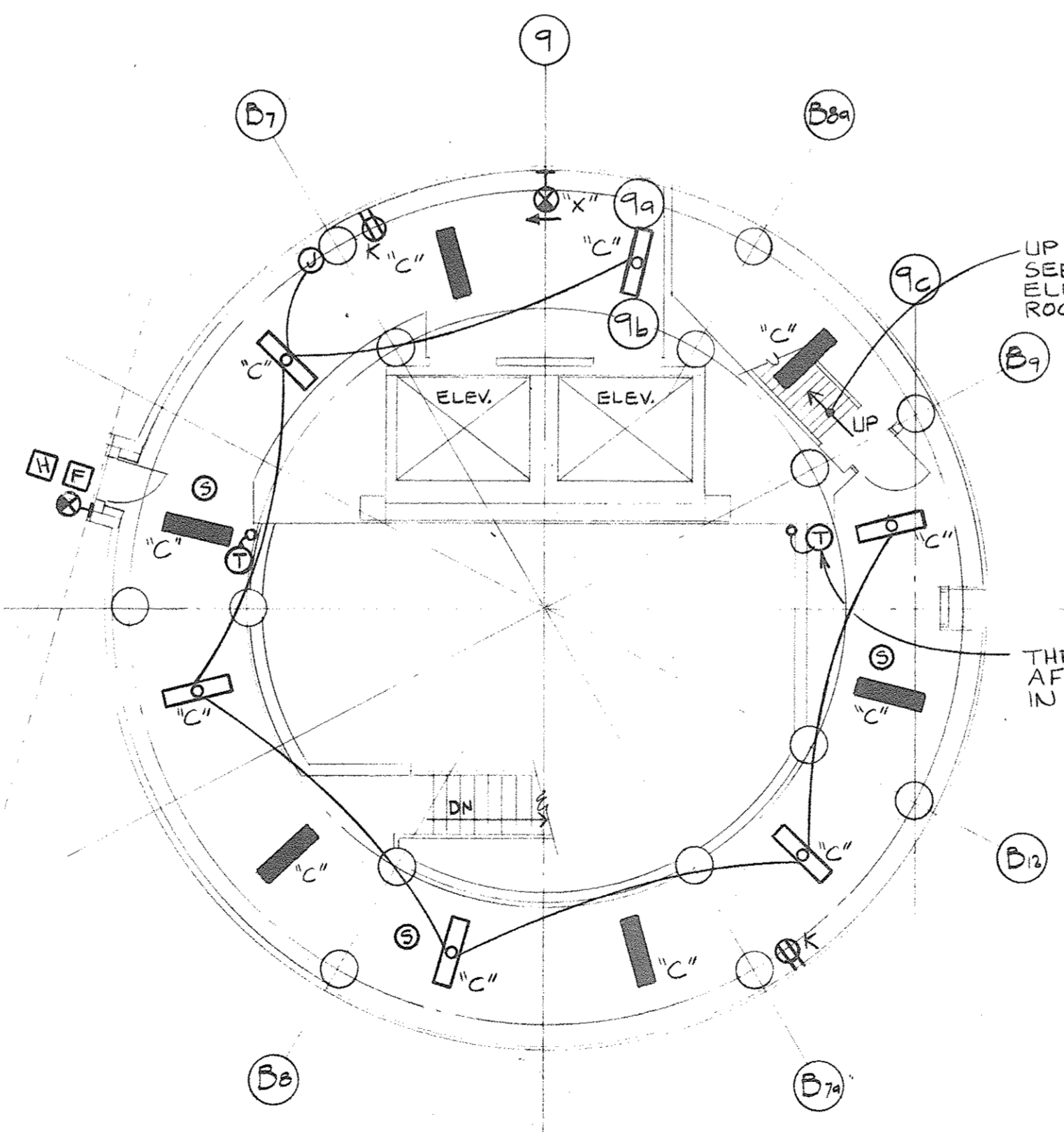
SECOND LEVEL ELECTRICAL PLAN  
STAIR/ ELEVATOR TOWER  
1/8" = 1'-0"



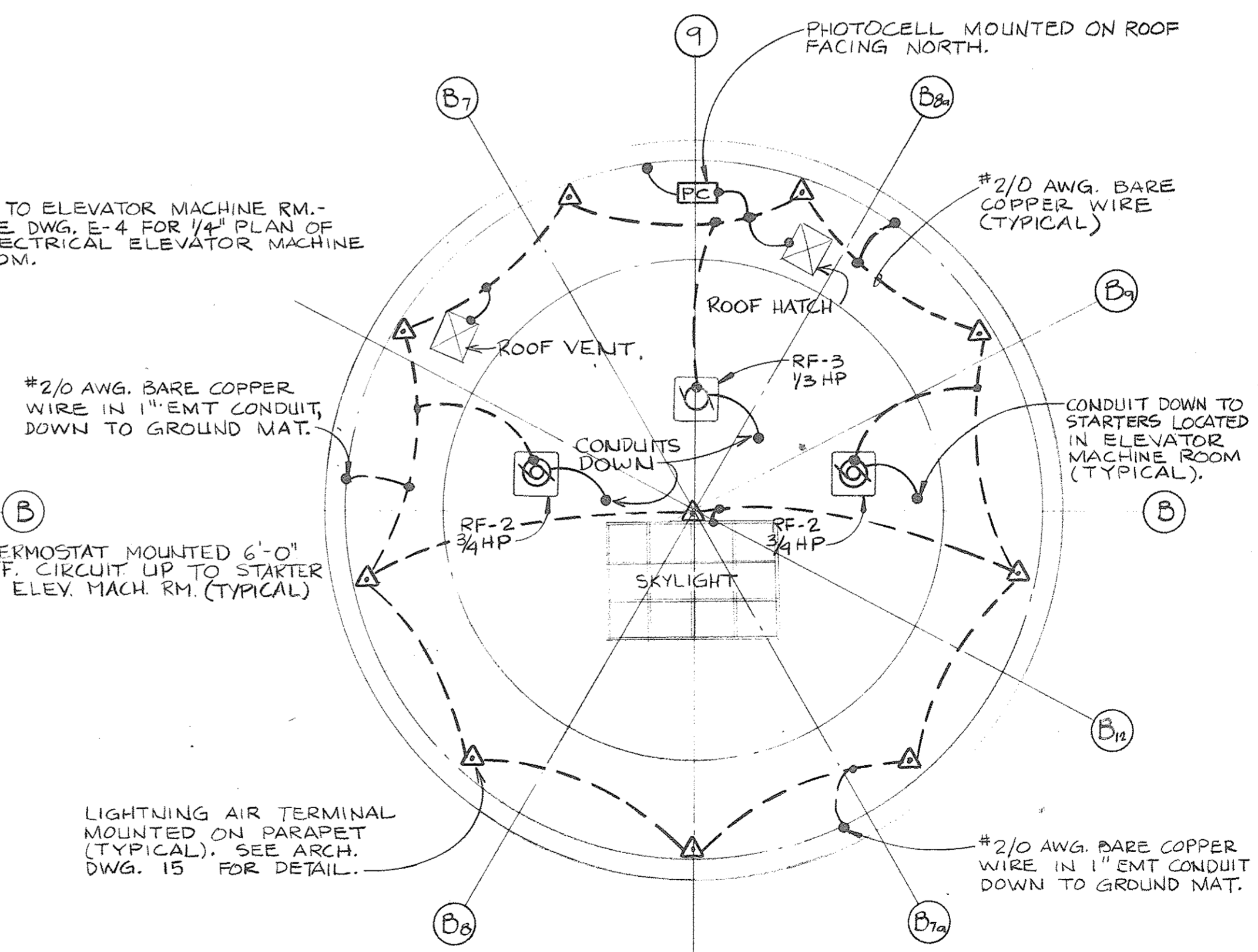
WALKWAY LEVEL ELECTRICAL PLAN  
STAIR/ ELEVATOR TOWER  
1/8" = 1'-0"



TYPICAL LEVEL ELECTRICAL PLAN  
STAIR/ ELEVATOR TOWER  
1/8" = 1'-0"  
NOTE: TYPICAL LEVEL PLAN APPLIES TO LEVELS 3, 5, 6 & 7.



EIGHTH LEVEL ELECTRICAL PLAN  
STAIR/ ELEVATOR TOWER  
1/8" = 1'-0"



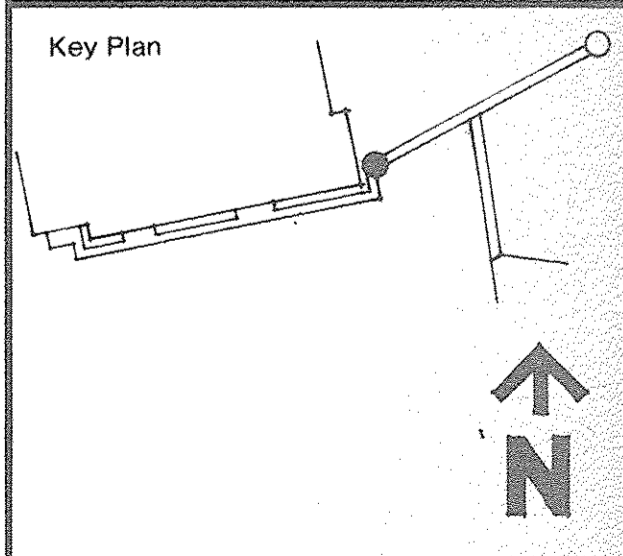
ROOF ELECTRICAL PLAN  
STAIR/ ELEVATOR TOWER  
1/8" = 1'-0"

RECEPTACLE CIRCUITING NOTES: ALL RECEPTACLES IN THE CORRIDORS SHALL BE CIRCUITED AS FOLLOWS; COLUMN B7 RECEPTACLES TO A-6; COLUMN B7a RECEPTACLES TO A-8. CONDUIT SHALL BE WITHIN METAL SIDING FLUTING.

LIGHTING CIRCUITING NOTES: ALL TYPE "C" LUMINAIRES SHALL BE CIRCUITED AS FOLLOWS; LEVELS 1, 2, 3 & 4 TO 1A-8; LEVELS 5, 6, 7 & 8 TO 1A-10. ALL TYPE "C" & "X" EMERGENCY LUMINAIRES SHALL BE CIRCUITED AS FOLLOWS: LEVELS 1, 2, 3 & 4 TO BPI-3; LEVELS 5, 6, 7 & 8 TO BPI-4. ALL CONDUIT INDICATED AS CONCEALED SHALL BE RUN IN CONCRETE SLAB.

OWNER	5-30-80
Issued For	Date

1-18-80 RES. LJT, DFW  
Date Drawn By  
*R. Lewis*  
Div. Architect/Engineer  
Correlation Check  
*Collin*  
Project Manager  
Construction Administration & Div. Approval  
Division Approval



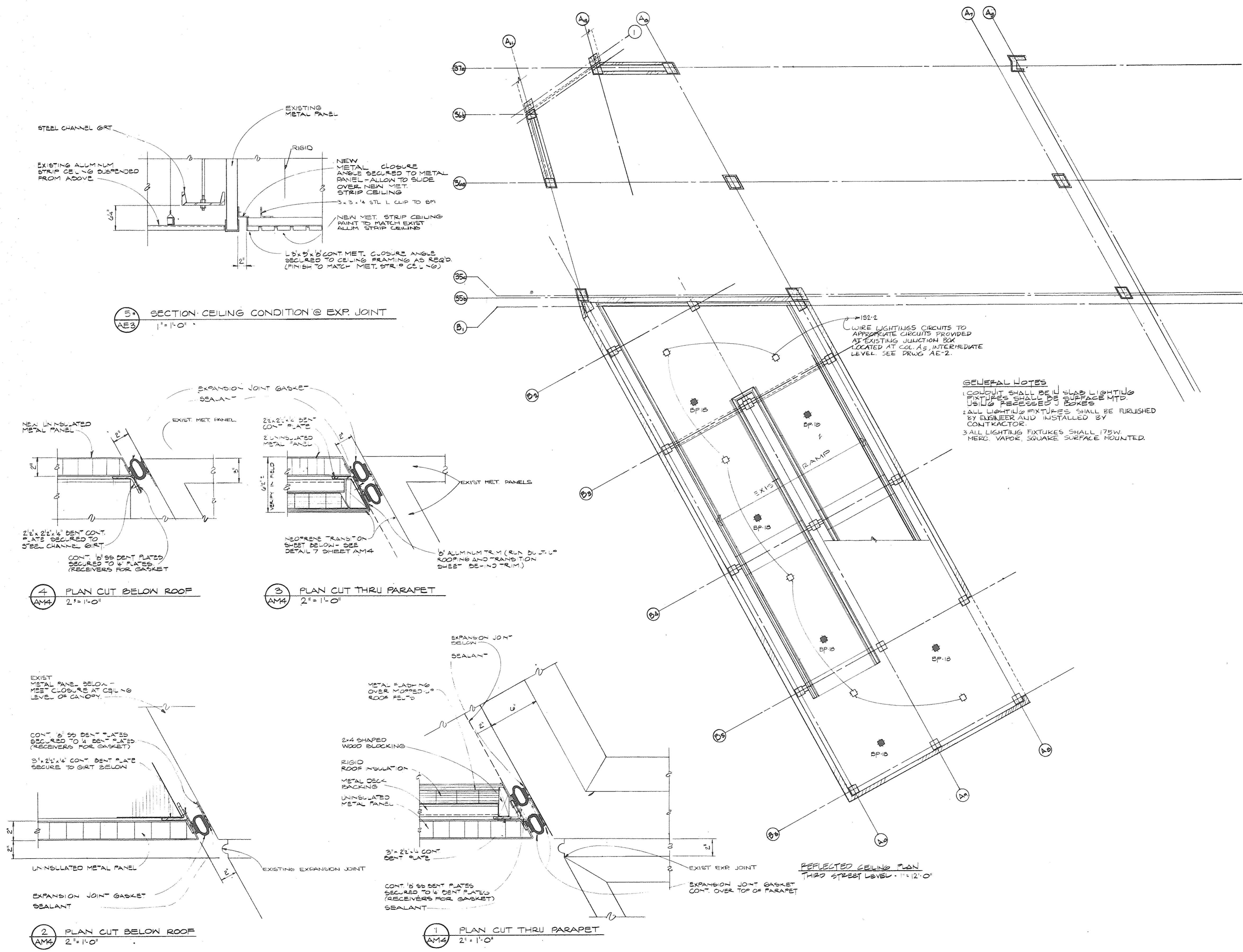
Drawing Title  
**STAIR/ELEVATOR TOWER ELECTRICAL PLANS**

15031A  
Project No.  
E-3  
Drawing No.  
Scale 67 of 90









5 SECTION CEILING CONDITION @ EXP. JOINT  
AE3 1"=1'-0"

4 PLAN CUT BELOW ROOF  
AM4 2"=1'-0"

3 PLAN CUT THRU PARAPET  
AM4 2"=1'-0"

2 PLAN CUT BELOW ROOF  
AM4 2"=1'-0"

1 PLAN CUT THRU PARAPET  
AM4 2"=1'-0"

OWNER	3-30-70
Issued For	Date
10-2-70	B. E. J. W.
Date	Drawn By
Architect/Engineer	
Correlation Check	
Project Manager	
Construction Administrative Div. Approval	
Division Approval	

Key Plan

Detail Number  
Location or Detail Sheet

Scale 69 of 96

Drawing Title  
ARENA BRIDGE  
AND RAMP  
REFLECTED  
CEILING PLAN  
AND DETAILS  
15031A  
Project No.  
AE-1  
Drawing No.  
AS NOTED  
Scale











**GENERAL NOTES**

All Water Main construction shall be performed with materials and workmanship of the highest quality for the particular purpose and shall strictly conform to the current standards and specifications of the Detroit Water and Sewerage Department.

Pavement removal and replacement, excavation and backfilling for the entire work shall be done by the contractor, including that for work to be done by the D.W.S.D.

The contractor shall furnish all waterworks material required for the entire work, including materials for work indicated on the drawings to be done by the D.W.S.D., except for materials for services 2-inch in diameter or smaller.

After the newly constructed Water Mains have been satisfactorily pressure tested, flushed and chlorinated, the contractor shall make all connections to existing Water Mains, unless otherwise noted or shown on the drawings.

Service connections, 2-inch in diameter or smaller and their relocations will be made by D.W.S.D. Abandoned water services 2-inch in diameter or smaller on Existing Water Mains to remain in service will be abandoned at the Existing Water Mains by D.W.S.D. Services to be abandoned at the Existing Water Main or to be reconnected to the New Water Mains are not all shown on the plans.

Existing Water Mains, as shown, indicate approximate locations only as shown by D.W.S.D. records and no guarantee is made as to completeness or accuracy.

Elevations of Existing Water Mains are not known. Approximate elevations shown on the profiles are based on the assumption of 5 feet average depth. The grades of the Proposed Water Mains are subject to change to suit actual elevations of Existing Water Mains.

The locations and elevations of existing utilities are shown in accordance with available data. The Contractor shall expose these utilities, where required, to determine actual locations.

Other utilities may be making alterations to their existing systems in the vicinity of the Water Main construction shown on the plans. These utilities should be consulted for the latest information regarding the location of their facilities.

A minimum clearance of one foot vertically and three and one half feet horizontally shall be maintained between the Water Main and other utilities, unless otherwise shown on the plans or approved by the Engineer. If a conflict is indicated between the Water Main and any other utility, that utility should be consulted.

The location of Fire Hydrants, as shown, are approximate. D.F.D. will give exact location of New or Relocated Fire Hydrants prior to installation.

Elevation Datum is City of Detroit Datum.

Pipe shall have Bell and Spigot Joints designed for sealing with a Rubber Gasket such as "Tyton" Super Bell Tight, or approved equal except that Line Valves, Hydrant Connections and Hydrant Valves shall have leaded joints. (See Specifications)

The Drawings indicate the arrangement, general design and extent of the Water Main alterations. The Mains and connections are shown, more or less, in diagram and in their general locations, except where in certain cases the Drawings may include details giving the exact location and arrangement. Due to the small scale of the Drawings, it is not possible to indicate all offsets, fittings, valves and accessories that are required. The Contractor shall carefully investigate the structural and other conditions affecting all the work and shall arrange and perform his work under this Contract accordingly, furnishing and installing such items of material as may be required to meet such conditions.

In compliance with Public Act 53 of the State of Michigan (Effective Aug. 1, 1974), the Contractor shall notify in advance of construction all public and private owners having existing facilities in or near the immediate working area. For convenience the known utility owners are listed on this sheet. This listing does not, however, relieve the Contractor of the responsibility of verifying utility locations and notifying all utility owners and Miss Dig (Phone 462-7171 in Area Code 800)

The Detroit Edison Co. 2000 Second Ave. Detroit, Mich. 48226 Overhead 644-3040 Underground 962-2100	Mich. Consolidated Gas Co. One Woodward Ave. Street Department 10th. Fl. Detroit, Mich. 48226 Phone 965-2430	Mich. Bell Telephone Co. 29350 Southfield Rd. Rm 25 Southfield, Mich. 48076 Phone 353-9942	Public Lighting Comm. 7500 Joseph Campau Detroit Mich 48211 Phone 875-0972
---	--	---	---

**CONSTRUCTION NOTES**

All Water Main work performed by the Contractor shall require inspection by the D.W.S.D.

Encasements and Thrust Blocks shall be poured against undisturbed earth. Bottom 3" of Encasement may be poured separate from Encasement and used as a sub-footing.

All Encasements and Thrust Blocks shall terminate at the face of pipe bells.

Removal of abandoned Water Mains as required for clearance to construct the proposed Water Mains shall be done by the contractor.

The Contractor shall expose existing Water Mains at points of connection and verify their location prior to pipe laying, so that minimum work will be required.

Thrust Blocks will be required at all bends greater than 11 1/4° for C.I. or D.I. Water Mains. Vertical Thrust Blocks for all top bends will require reinforcing steel.

Contractor shall construct all Concrete Thrust Blocks and Gate Wells.

The Contractor shall perform the work required to connect or disconnect water mains at junctions with the existing system which is to remain in service, except as otherwise shown. Valve operations, installation of Hydrants connecting to existing, or new Water Mains, shall be included in the Contractors Work. Flushing and chlorination will be included in D.W.S.D. work. The Contractor shall perform all other work in conjunction with D.W.S.D. work. Contractor's work includes Earth Excavation, Disposal, Backfill, Sheet piling, Bracing, Pumping and Drainage required for maintenance of trench and for disposal of waste water; Barricades, Traffic Control, Material handling and Standby assistance (including crane work required), Pavement Removal and Replacement; Thrust Blocks Encasements and Gate Wells.

The Contractor shall cut and cap or plug existing Water Mains to remain in service where required.

All 4" C.I. Blow-off Assemblies, C.I. Plugs and Caps to be installed and/or removed by Contractor have not been shown on the drawings.

The Contractor shall remove all temporary C.I. Plugs, Tees and Blow-off Assemblies at points of water main connections unless otherwise specified.

The Contractor shall install all Pipe and Fittings necessary to complete the connections shown.

Proposed construction work by other Utility Companies, as shown on these drawings, is in accordance with information supplied by the Utility Company. The D.W.S.D. does not guarantee the Completeness or accuracy of Locations of Proposed Utility Work by others. The Contractor Shall make his own investigation regarding such work.

Outline of demolished building substructures as shown on the drawings are based on the best available information. We do not guarantee that these or other underground substructures are or are not present.

Existing Water Mains to be cut and abandoned for new Water Main construction shall be bulkheaded with a minimum 8" thickness of concrete or brick mortared in place.

Exist. gate Wells on Water Mains to be Abandoned shall be broken down to an elevation of 2 feet below pavement surfaces and elsewhere to an elevation of 1 foot below the existing grade or as directed by the Engineer and/or Jurisdiction Authority. This includes the removal of frame and cover which shall become the property of the Contractor.

The gate Well shall then be backfilled in the same manner as specified for the Water Main trench. The surface shall be restored in kind to the surrounding area to the satisfaction of the Engineer and Jurisdiction Area.

The above work required to abandon a gate Well shall be considered as incidental to the Water Main alteration work.

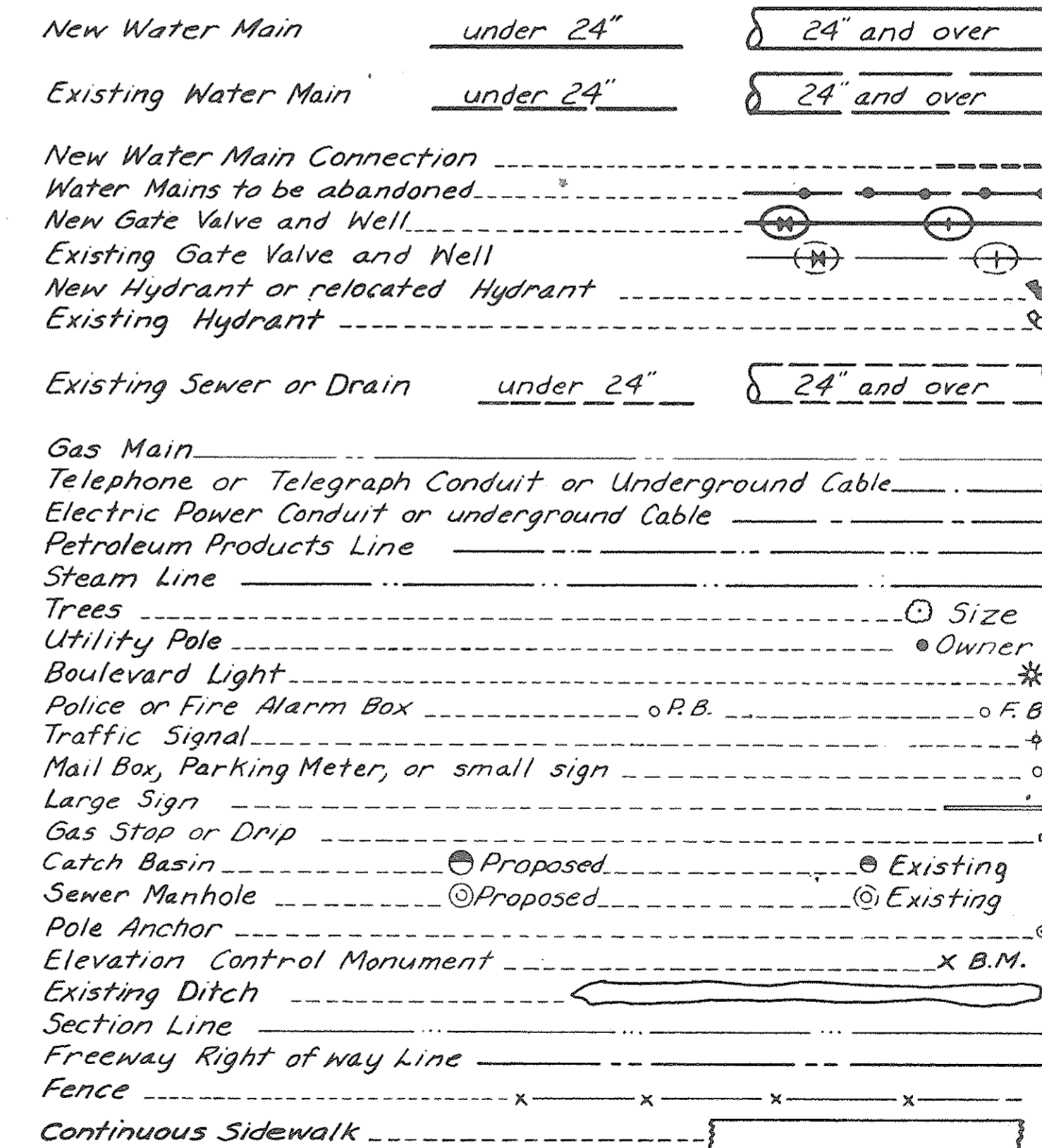
**WATER SYSTEM ALTERATION QUANTITIES**

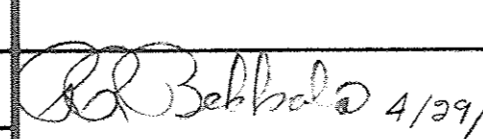
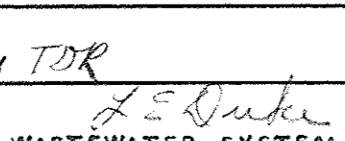
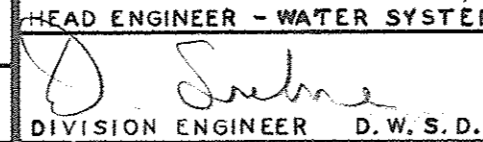
DESCRIPTION OF ITEM	QUANTITIES AND PAY UNIT	AS CONSTRUCTED
16-inch Ductile Iron Water Main	129 lin. ft.	
3'-6" x 3'-6" Reinforced Concrete Encasement	125 lin. ft.	
Permanent Steel Sheet Piling (L.I.P.)	1,200 sq. ft.	

All Hydrant alterations involved shall be done by the Contractor in accordance with D.W.S.D. Standards and Specifications and D.F.D. requirements. Hydrant removal work shall be considered as incidental to the Water Main alteration work.

See "Standard Specifications for Paving Related Construction" dated January, 1974 as Amended, and "Specifications for Paving Replacement and Isolated and Continuous Cuts in Detroit Streets Under City of Detroit Jurisdiction," dated September, 1971

**LEGEND**



DESIGNED BY		APPROVED		M.D.P.H. PERMIT NO.	
DRAWN BY		 HEAD ENGINEER - WATER SYSTEM DATE 4/29/80		FED. REF. NO.	
CHECKED BY TDR		 ENGINEER - WASTEWATER SYSTEM DATE 4-27-80		CONTRACT NO.	
CO-OR.		DIVISION ENGINEER D.W.S.D. 		15031A	
DESCRIPTION		SCALE		DRAWING NO.	
REVISIONS		DATE		SHEET W1 OF 4	
		DATE 20-J-1		WORK ORDER NO. D-272	

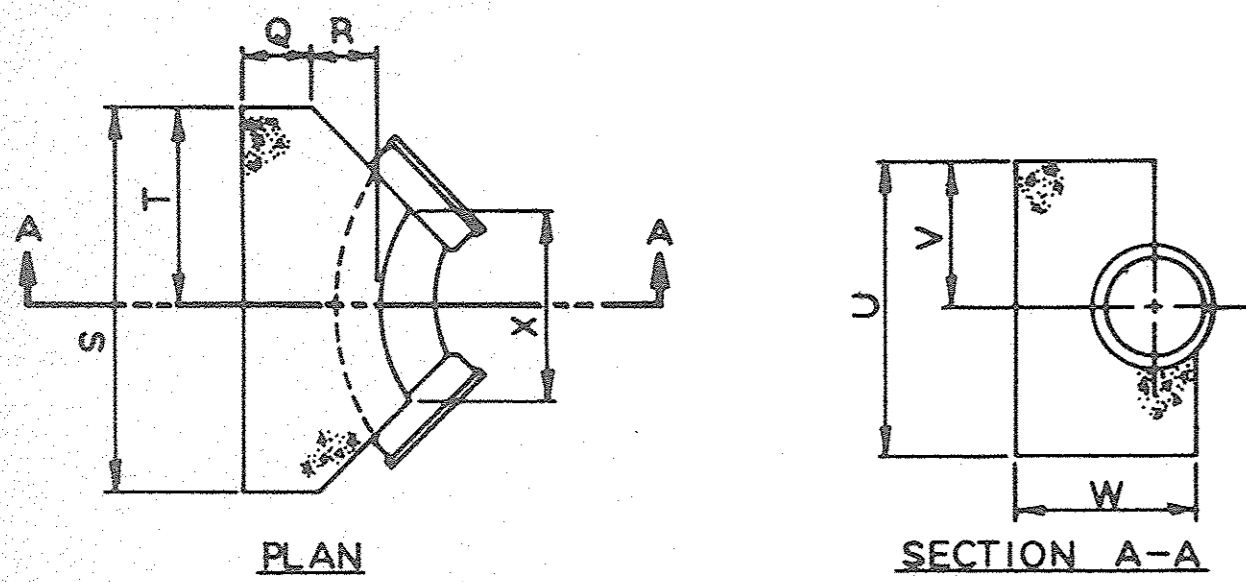












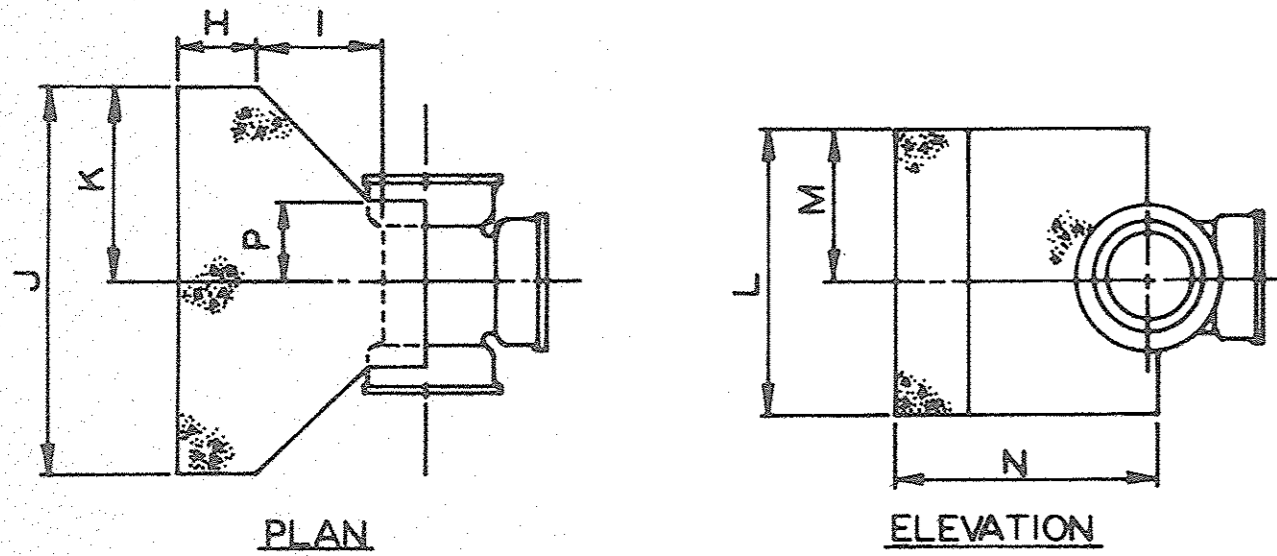
**SCHEDULE OF THRUST BLOCK DIMENSIONS**

BEND SIZE	Q	R	S	T	U	V	W	X
6"-22 1/2" 45°	0'-9"	1'-0"	2'-0"	1'-0"	1'-6"	0'-9"	1'-11"	1'-4"
6"-90°	0'-9"	1'-0"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"	1'-2"
8"-22 1/2" 45°	0'-9"	1'-0"	2'-4"	1'-2"	2'-0"	1'-0"	1'-11"	1'-4"
8"-90°	0'-9"	1'-0"	3'-4"	1'-8"	2'-6"	1'-3"	1'-11"	1'-2"
12"-22 1/2" 45°	0'-9"	1'-0"	2'-6"	1'-3"	2'-0"	1'-0"	2'-0"	1'-4"
12"-45°	0'-9"	1'-4"	3'-6"	1'-9"	2'-6"	1'-3"	2'-4"	1'-4"
12"-90°	0'-9"	1'-4"	5'-6"	2'-9"	3'-0"	1'-6"	2'-4"	1'-8"
16"-22 1/2" 45°	1'-0"	1'-8"	3'-4"	1'-8"	2'-6"	1'-3"	3'-0"	1'-2"
16"-45°	1'-0"	1'-8"	5'-4"	2'-8"	3'-0"	1'-6"	3'-0"	2'-6"
16"-90°	1'-0"	1'-8"	6'-0"	3'-0"	5'-0"	2'-6"	3'-0"	2'-8"

DETAIL OF STANDARD THRUST BLOCKS FOR BENDS

Not to Scale

**NOTES**  
The bearing face of all Thrust Blocks shall be poured against undisturbed earth. Thrust Blocks when required for vertical bends are shown by special details.

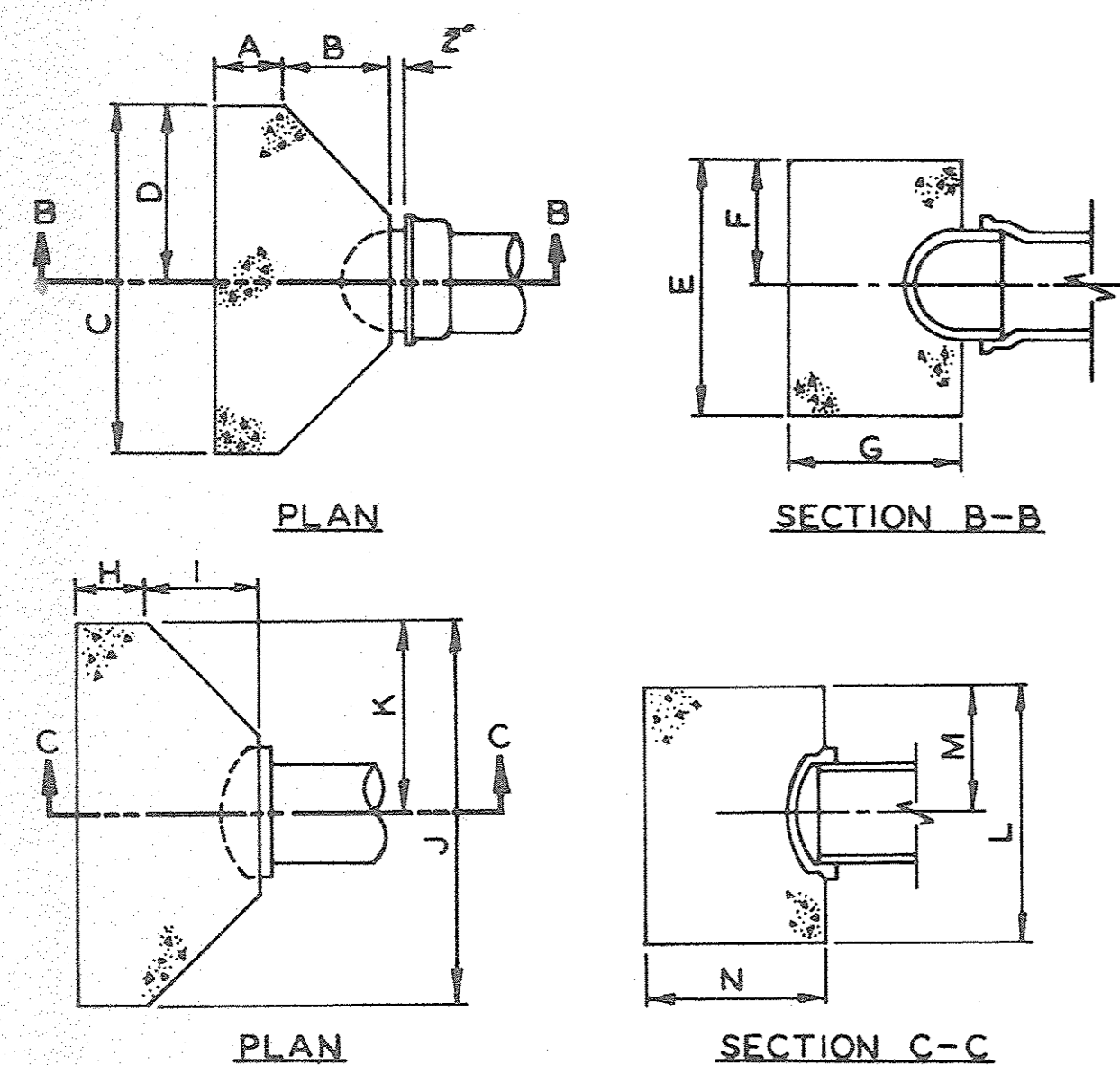


**SCHEDULE OF THRUST BLOCK DIMENSIONS**

TEE SIZE	H	I	J	K	L	M	N	P
6" x 6"	0'-9"	1'-0"	2'-6"	1'-3"	1'-6"	0'-9"	2'-3"	0'-6"
8" x 8"	0'-9"	1'-0"	3'-0"	1'-6"	2'-0"	1'-0"	2'-3"	0'-6"
10" x 10"	0'-9"	1'-2"	3'-6"	1'-9"	2'-6"	1'-3"	2'-7"	0'-7"
12" x 8"	0'-9"	1'-0"	3'-0"	1'-6"	2'-0"	1'-0"	2'-5"	0'-6"
12" x 12"	0'-9"	1'-4"	4'-0"	2'-0"	3'-0"	1'-6"	2'-9"	0'-8"
16" x 8"	0'-9"	1'-0"	3'-0"	1'-6"	2'-0"	1'-0"	2'-9"	0'-6"
16" x 12"	0'-9"	1'-4"	4'-0"	2'-0"	3'-0"	1'-6"	3'-1"	0'-8"
16" x 16"	1'-0"	1'-8"	5'-0"	2'-6"	4'-0"	2'-0"	3'-8"	0'-11"

DETAIL OF STANDARD THRUST BLOCKS FOR TEES

Not to Scale



**SCHEDULE OF THRUST BLOCK DIMENSIONS**

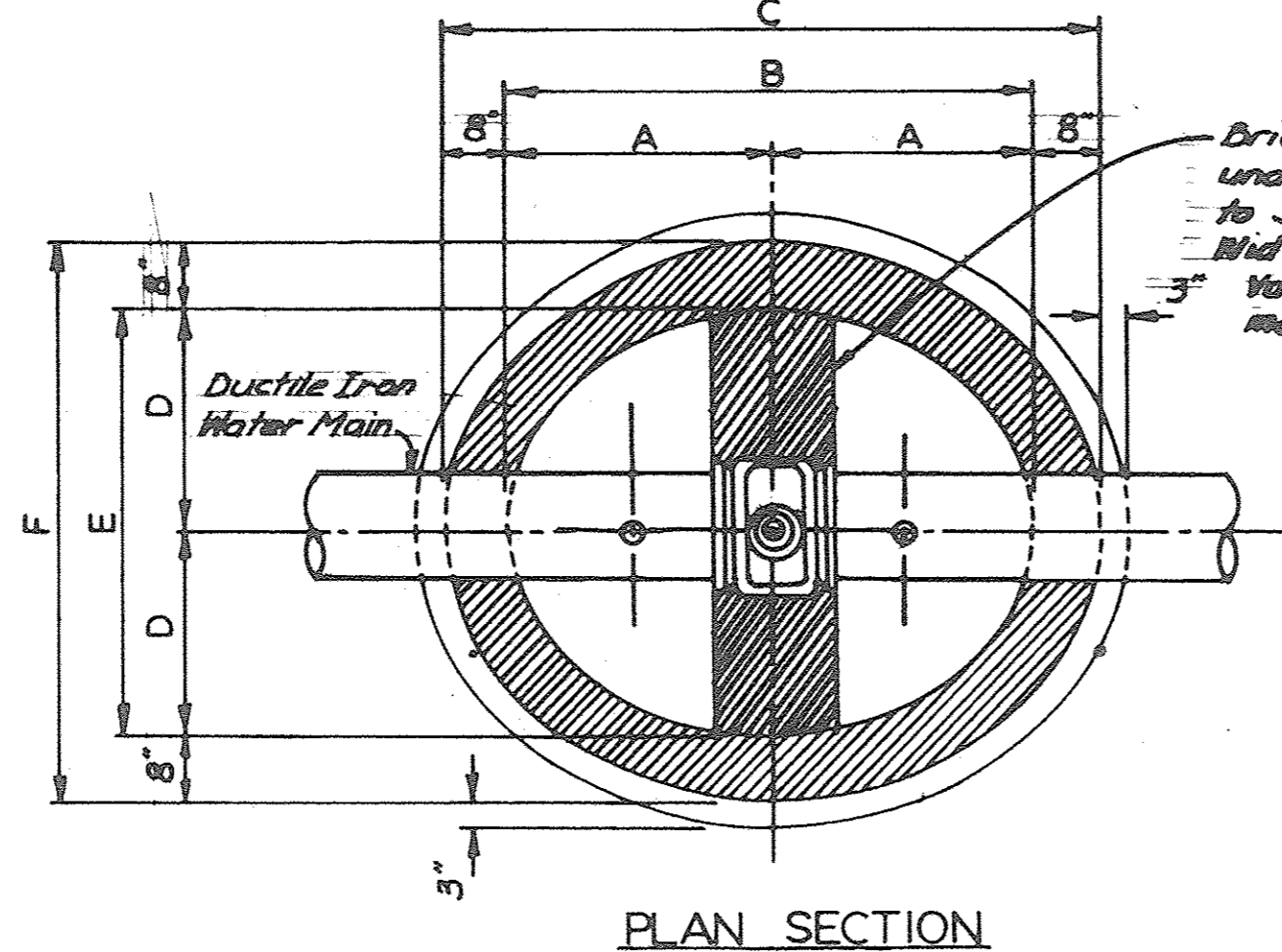
PLUG SIZE	A	B	C	D	E	F	G
6"	0'-9"	1'-2"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"
8"	0'-9"	1'-2"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"
12"	0'-9"	1'-4"	4'-0"	2'-0"	3'-0"	1'-6"	2'-11"
16"	1'-0"	1'-8"	5'-0"	2'-6"	4'-0"	2'-0"	2'-8"

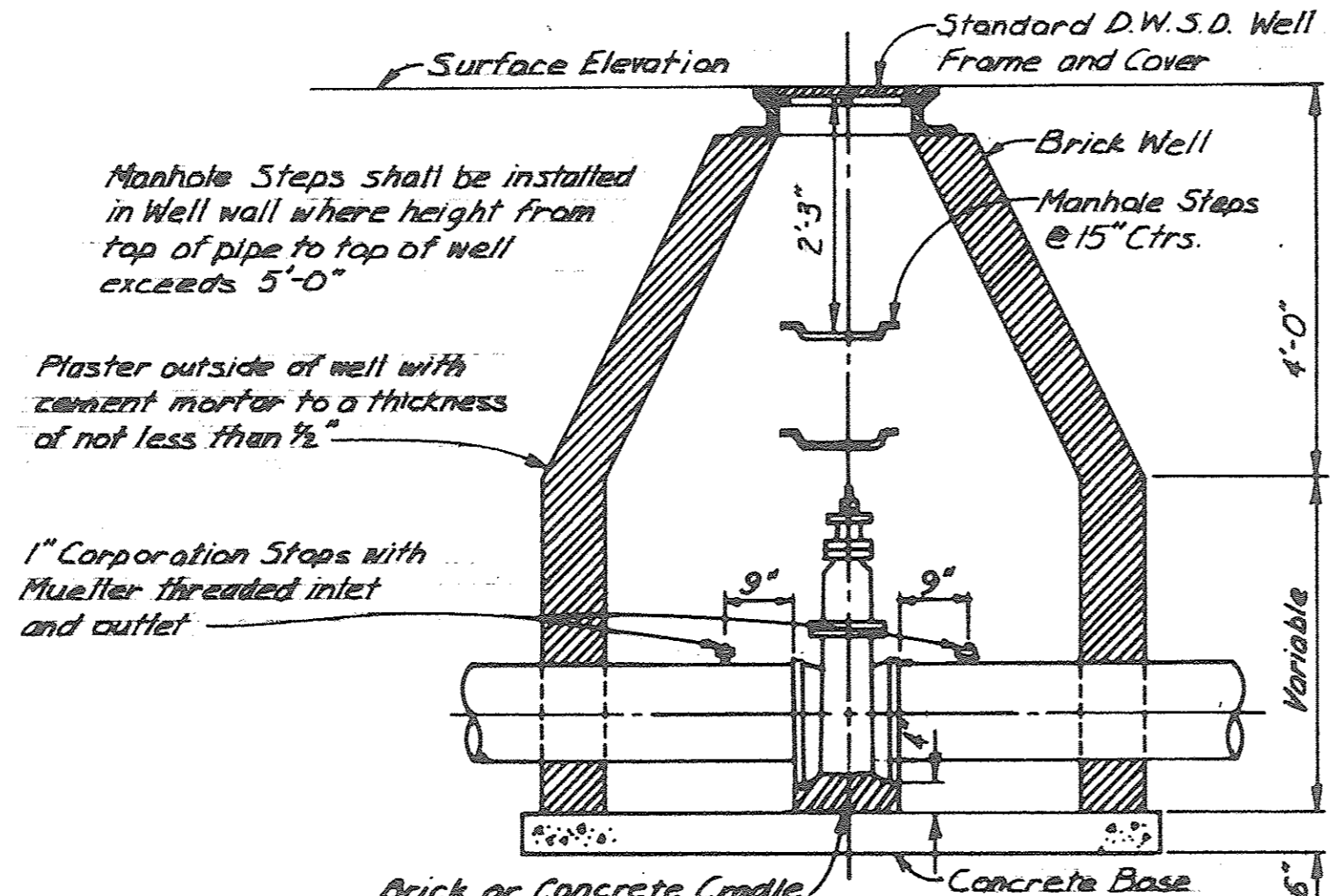
CAP SIZE	H	I	J	K	L	M	N
6"	0'-9"	1'-2"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"
8"	0'-9"	1'-2"	3'-0"	1'-6"	2'-0"	1'-0"	1'-11"
12"	0'-9"	1'-4"	4'-0"	2'-0"	3'-0"	1'-6"	2'-11"
16"	1'-0"	1'-8"	5'-0"	2'-6"	4'-0"	2'-0"	2'-8"

DETAIL OF STANDARD THRUST BLOCKS FOR PLUGS AND CAPS

Not to Scale



PLAN SECTION



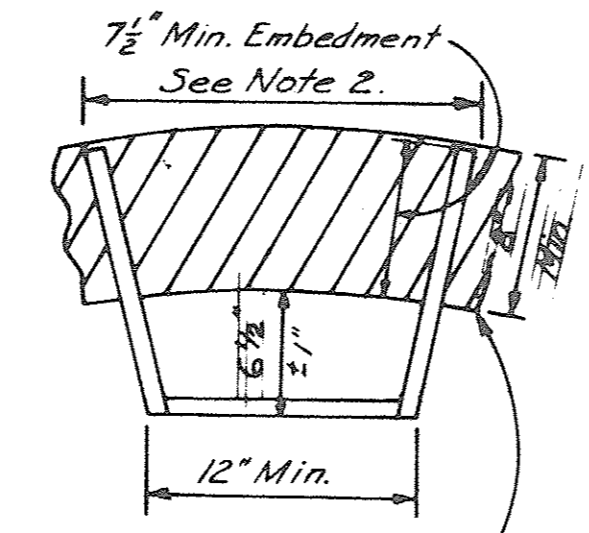
SECTION THROUGH GATE WELL

**SCHEDULE OF GATE WELL DIMENSIONS**

SIZE	A	B	C	D	E	F
6"	2'-6"	5'-0"	6'-4"	2'-0"	4'-0"	5'-4"
8"	2'-6"	5'-0"	6'-4"	2'-0"	4'-0"	5'-4"
12"	2'-9"	5'-6"	6'-10"	2'-3"	4'-6"	5'-10"
16"	3'-0"	6'-0"	7'-4"	2'-9"	5'-6"	6'-10"

DETAIL OF STANDARD GATE WELLS

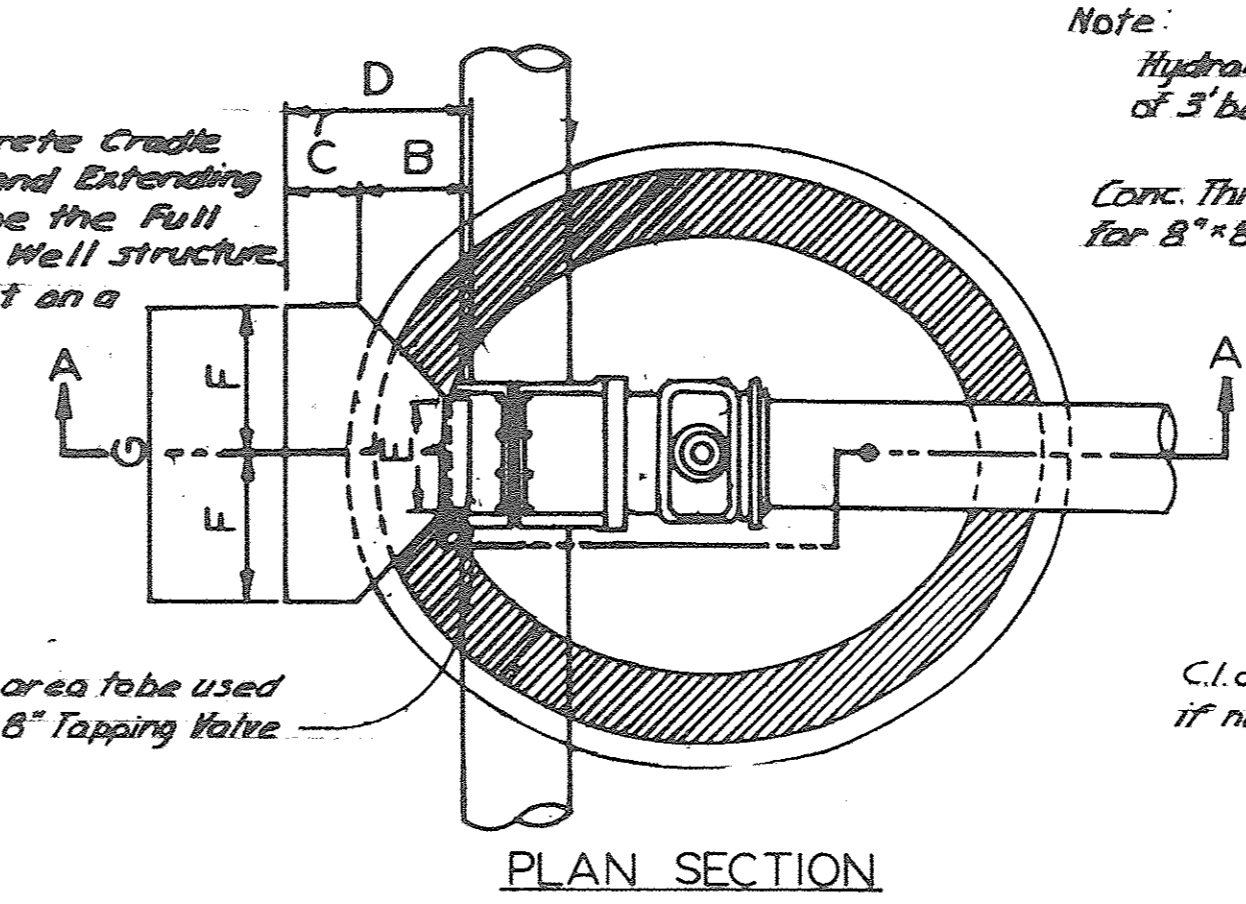
Not to Scale



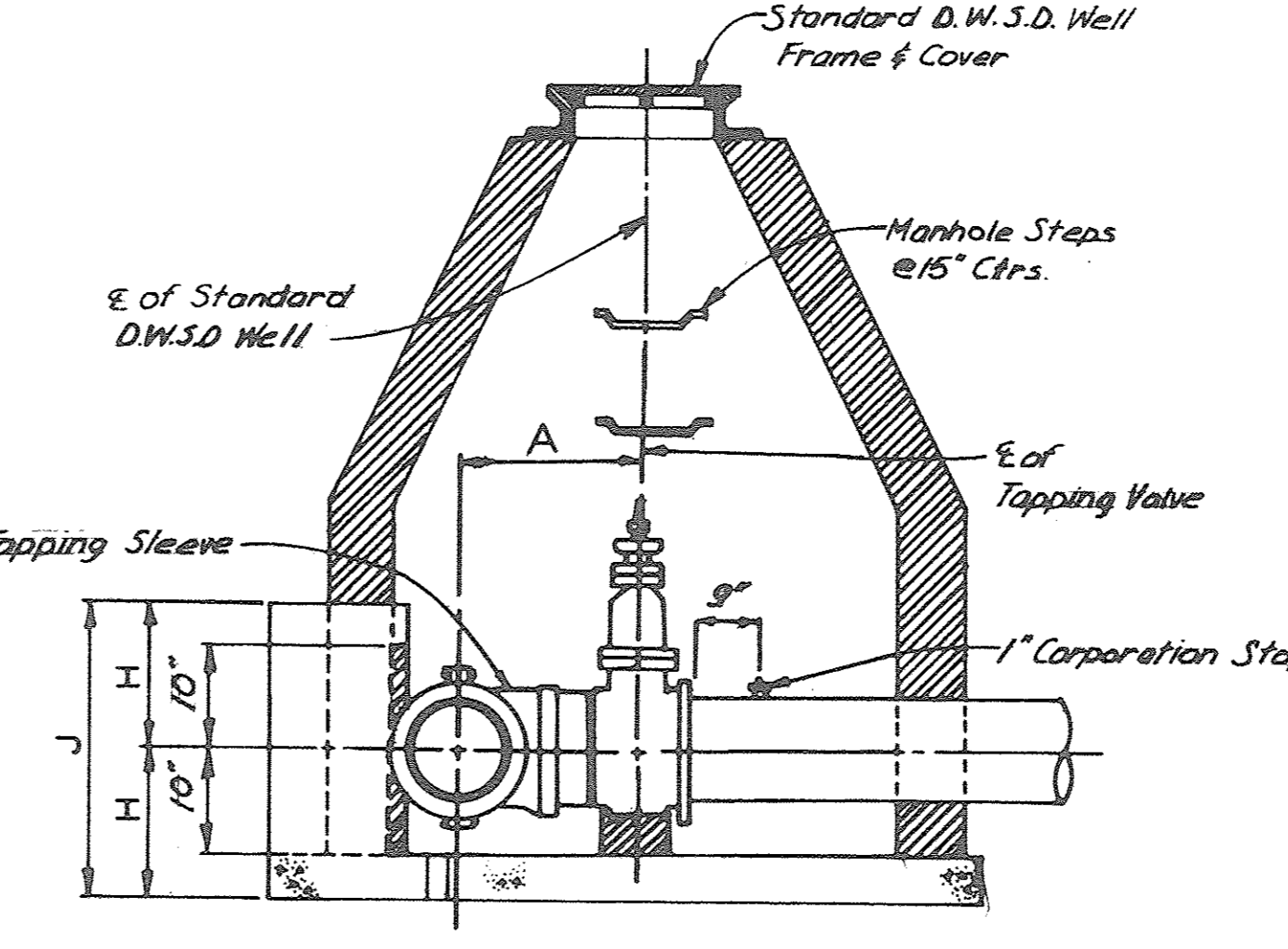
ALUMINUM MANHOLE STEP

Not to Scale

Note: Manhole steps shall conform to the requirements for Aluminum Alloy Extruded Bars, Rods, Shapes and Tubes, A.S.T.M. B 221 (current), Alloy 6061, Temper T-6, or approved equal.



PLAN SECTION



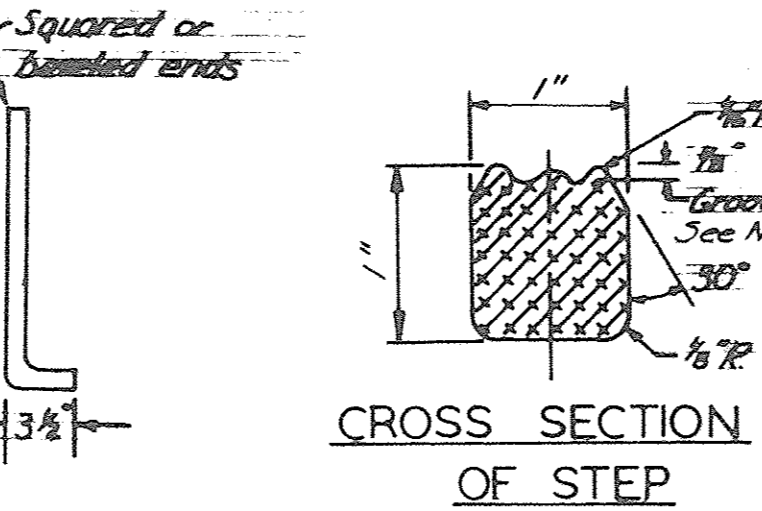
SECTION A-A

**SCHEDULE OF STANDARD THRUST BLOCK DIMENSIONS FOR TAPPING VALVE**

SIZE	A	B	C	E	F	G	H	J
8" x 8" 1'-6"				0'-7"				
12" x 8" 1'-9"				0'-7"				
16" x 8" 1'-11 1/2"				0'-7 1/2"				
12" x 12" 1'-8 1/2"	1'-6"	0'-9"	2'-3"	0'-7"	1'-9"	3'-6"	1'-6"	3'-0"
16" x 12" 1'-11 1/2"	1'-6"	0'-9"	2'-3"	0'-10 1/2"	1'-9"	3'-6"	1'-6"	3'-0"
16" x 16" 2'-2"	2'-7"	1'-0"	3'-7"	0'-10 1/2"	2'-11"	5'-10"	1'-8"	3'-4"

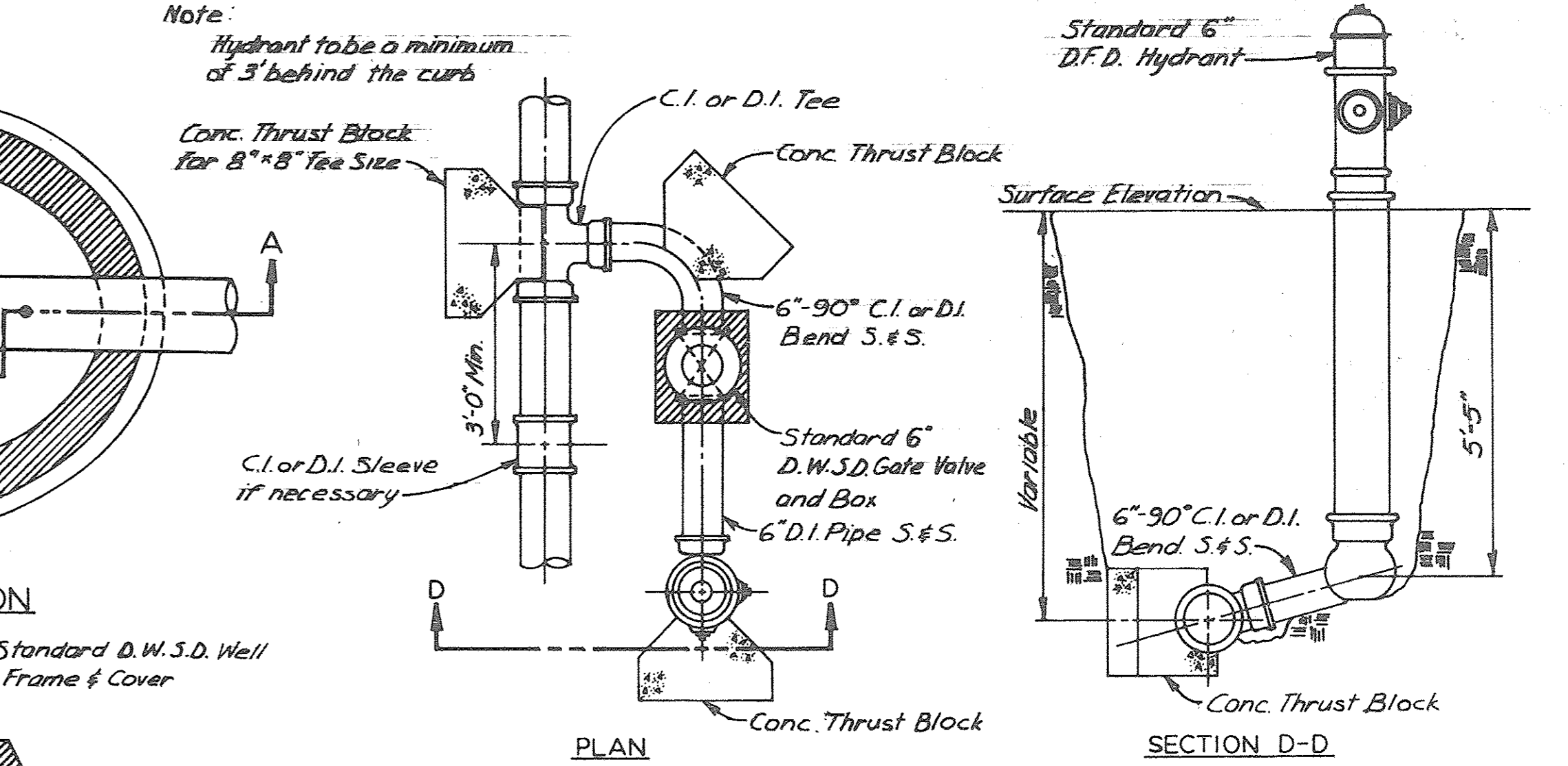
DETAIL OF STANDARD THRUST BLOCKS FOR TAPPING VALVES

Not to Scale



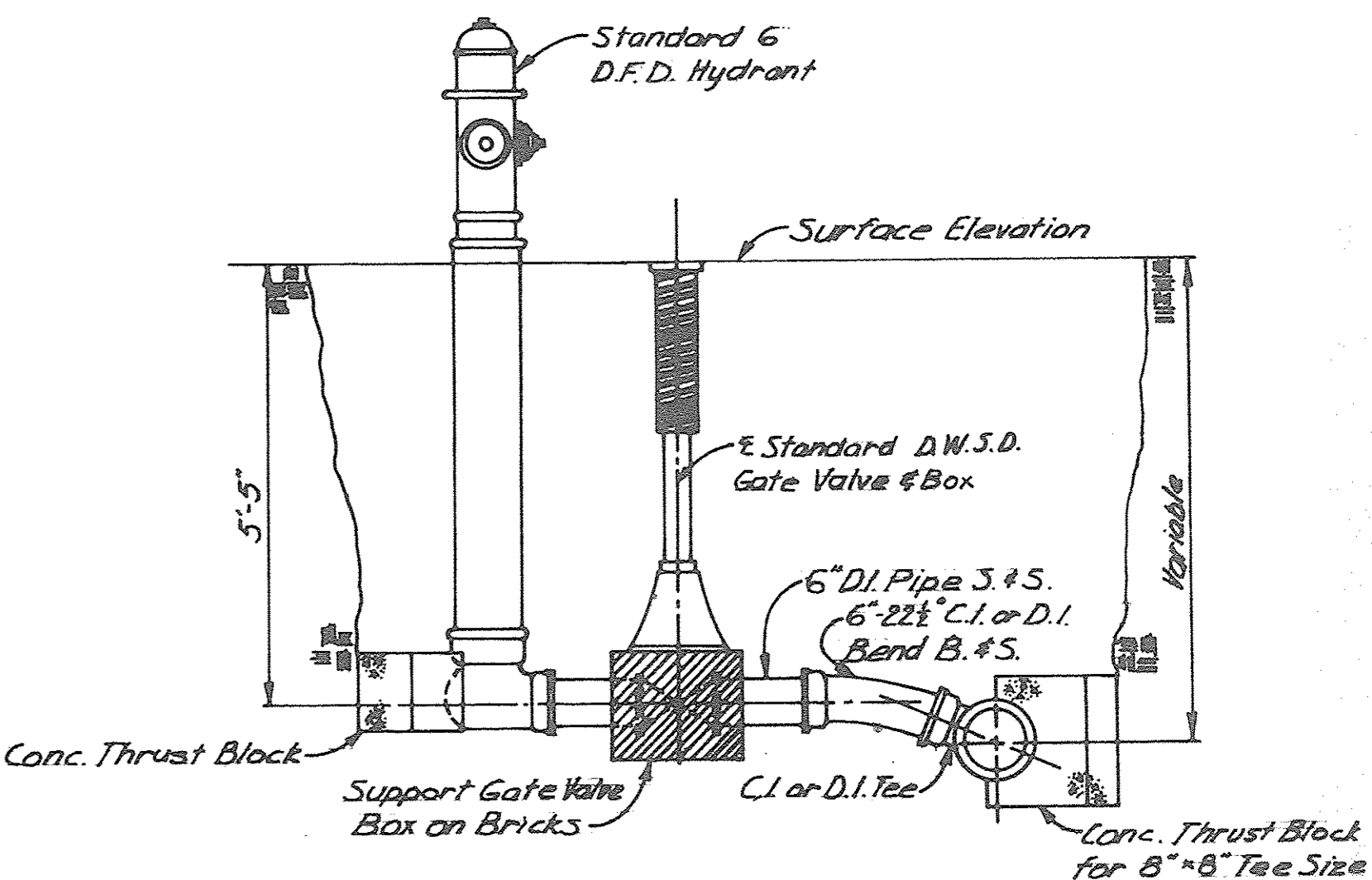
CROSS SECTION OF STEP

Note: 1. In lieu of grooves, alternate foot hold configurations will be considered for approval. 2. Flared legs shall be radial to the manhole wall.



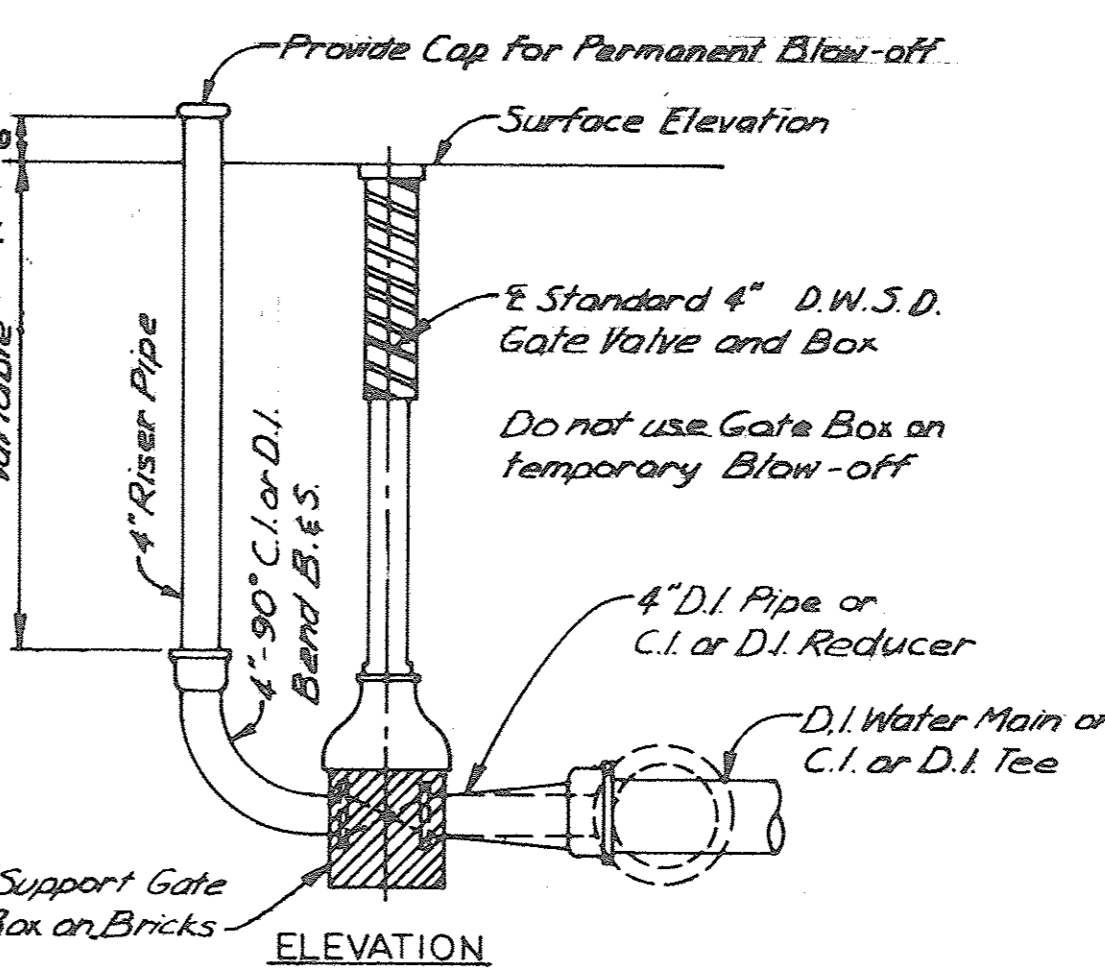
DETAIL OF 6" HYDRANT INSTALLATION OFF SET

Not to Scale



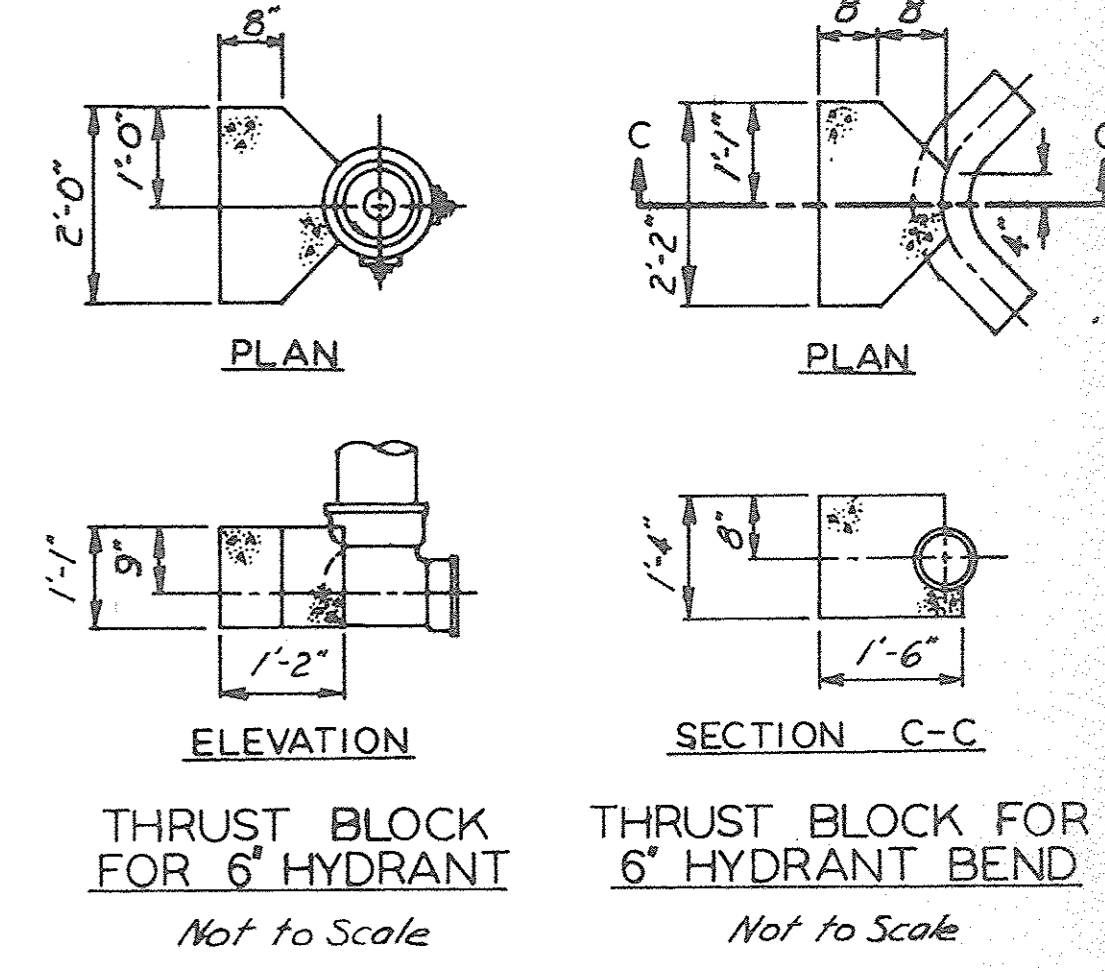
DETAIL OF 6" HYDRANT INSTALLATION STRAIGHT AWAY

Not to Scale



DETAIL OF 4" BLOW-OFF

Not to Scale



THRUST BLOCK FOR 6" HYDRANT

Not to Scale

THRUST BLOCK FOR 6" HYDRANT BEND

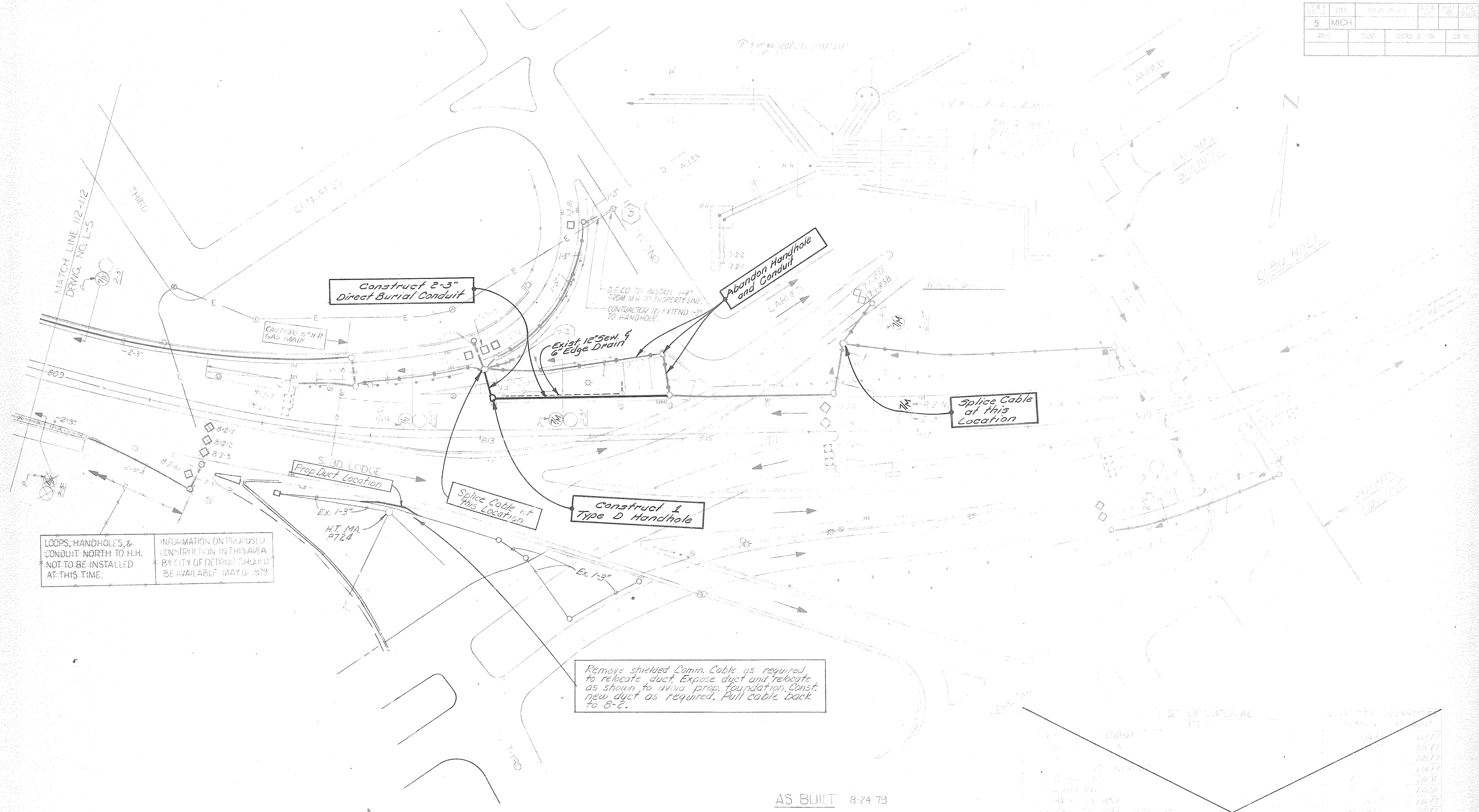
Not to Scale

Note: The bearing face of Thrust Blocks shall be poured against undisturbed earth.

DESIGNED BY		APPROVED		JOE LOUIS ARENA PEDESTRIAN WALKWAY SYSTEM PROPOSED 16-INCH WATER MAIN RELOCATION		CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT		M.D.P.H. PERMIT NO.	
DRAWN BY R.A.C.		[Signature]		MISCELLANEOUS DETAILS		SECTION MAP		FED. REF. NO.	
CHECKED BY R.T.D. TDR		[Signature]		SCALE AS SHOWN		TOWN		CONTRACT NO.	
ENGINEER - WASTEWATER SYSTEM		HEAD ENGINEER - WATER SYSTEM		DATE		RANGE		15031A	
CO-OR.		DIVISION ENGINEER D. W. S. D.		2011-11-11		SECTION		DRAWING NO.	
REVISIONS		SCALE AS SHOWN		DATE		PORTION CODE		SHEET W4 OF 4	
APRVD.		SCALE AS SHOWN		DATE		WORK ORDER NO.		175 OF 216	
DATE		SCALE AS SHOWN		DATE		D-272			



STATE	FEDERAL PROJECT	PLAN NO.	SHEET NO.
5 MICH.			
DATE	QUANT.	CONTROL STATION	JOB NO.



LOOPS, HANDHOLES, & CONDUIT NORTH TO H.H. NOT TO BE INSTALLED AT THIS TIME.

INFORMATION ON PROPOSED CONSTRUCTION IN THIS AREA BY CITY OF DETROIT SHOULD BE AVAILABLE MAY OF 1979.

Remove shielded Comm. Cable as required to relocate duct. Expose duct and relocate as shown to avoid prop. foundation. Const. new duct as required. Pull cable back to 8-2.

AS BUILT 8-24-79

**NOTE:**  
The Contractor is cautioned not to disturb any of the SCANDI wiring other than those being relocated.

PLAN  
SCALE: 1"=40'

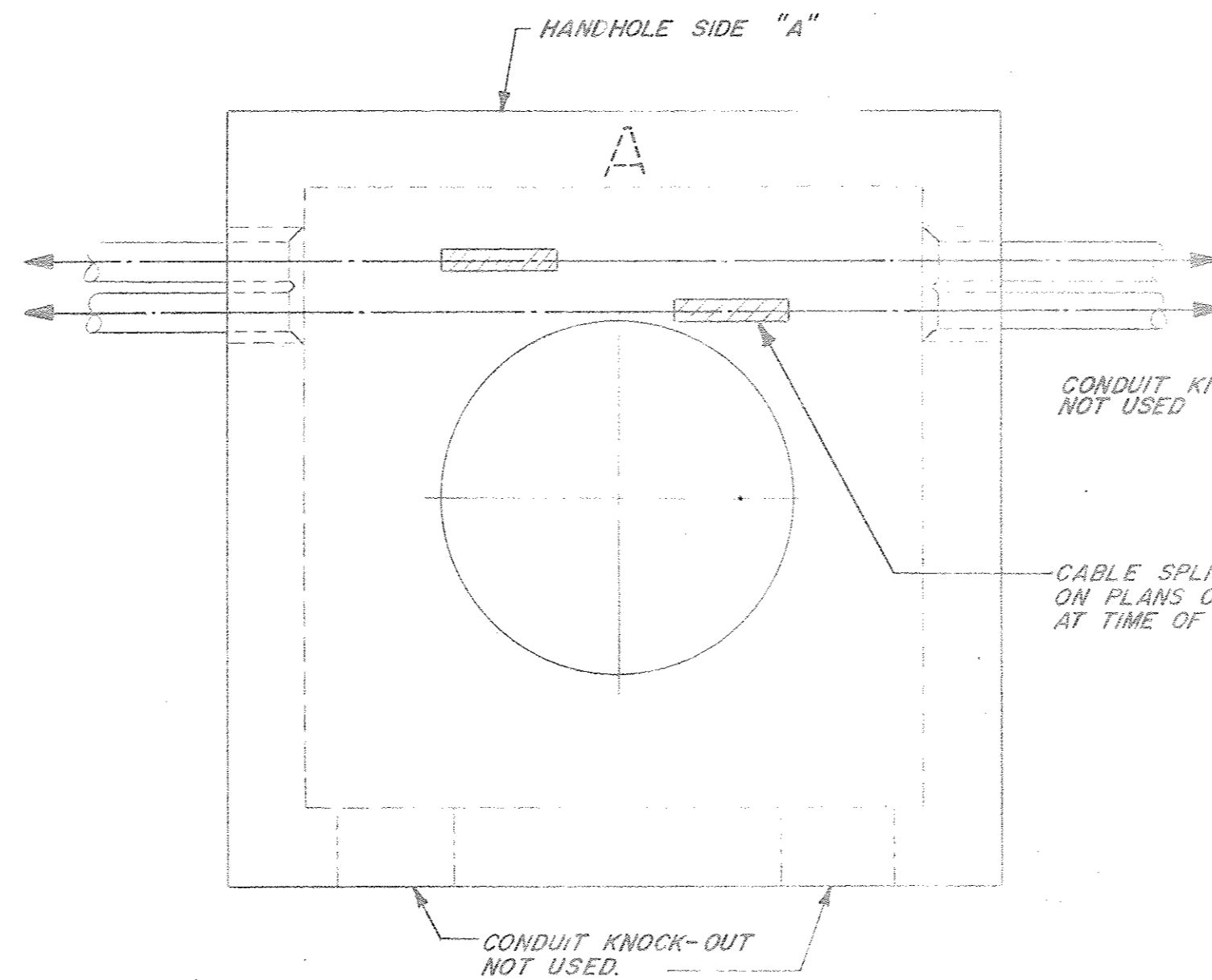
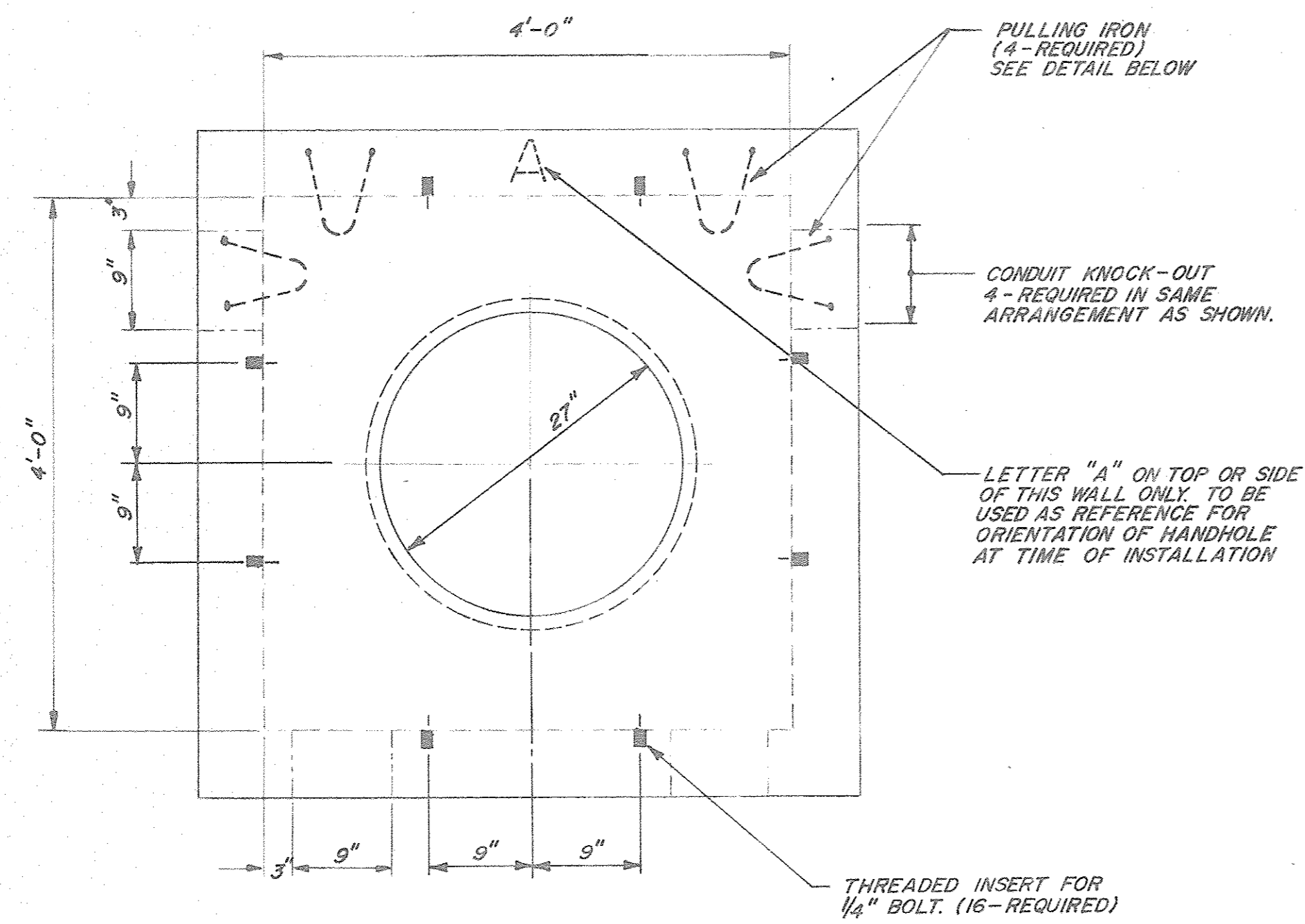
REVISION LETTER	CHANGE DESCRIPTION
A	DELETED CONDUIT RISER IN ALLEY E. OF SECOND AVE. (USE D.E. CO. M.H. 2620)
A	DELETED CABLES FROM CAB. 8-3 SOUTH.
A	CHANGED LOOPS, H.H.'S, CONDUITS, CABLING. (S.B.D. LODGE NEAR STA. 810+)

REVISION LETTER	A	DRAWN	DATE	12-12-78	PLAN PREPARED BY	CONSULTING ENGINEERS ASSOCIATES INC. ENGINEERING CONSULTANTS	MICHIGAN DEPARTMENT OF STATE HIGHWAYS AND TRANSPORTATION
CHECKED		APPROVED	DATE	12-12-78	16380 WYOMING DETROIT, MICH. 48224		DETROIT AREA FREEWAY SURVEILLANCE CONTROL & DRIVER INFORMATION SYSTEM GENERAL PLAN

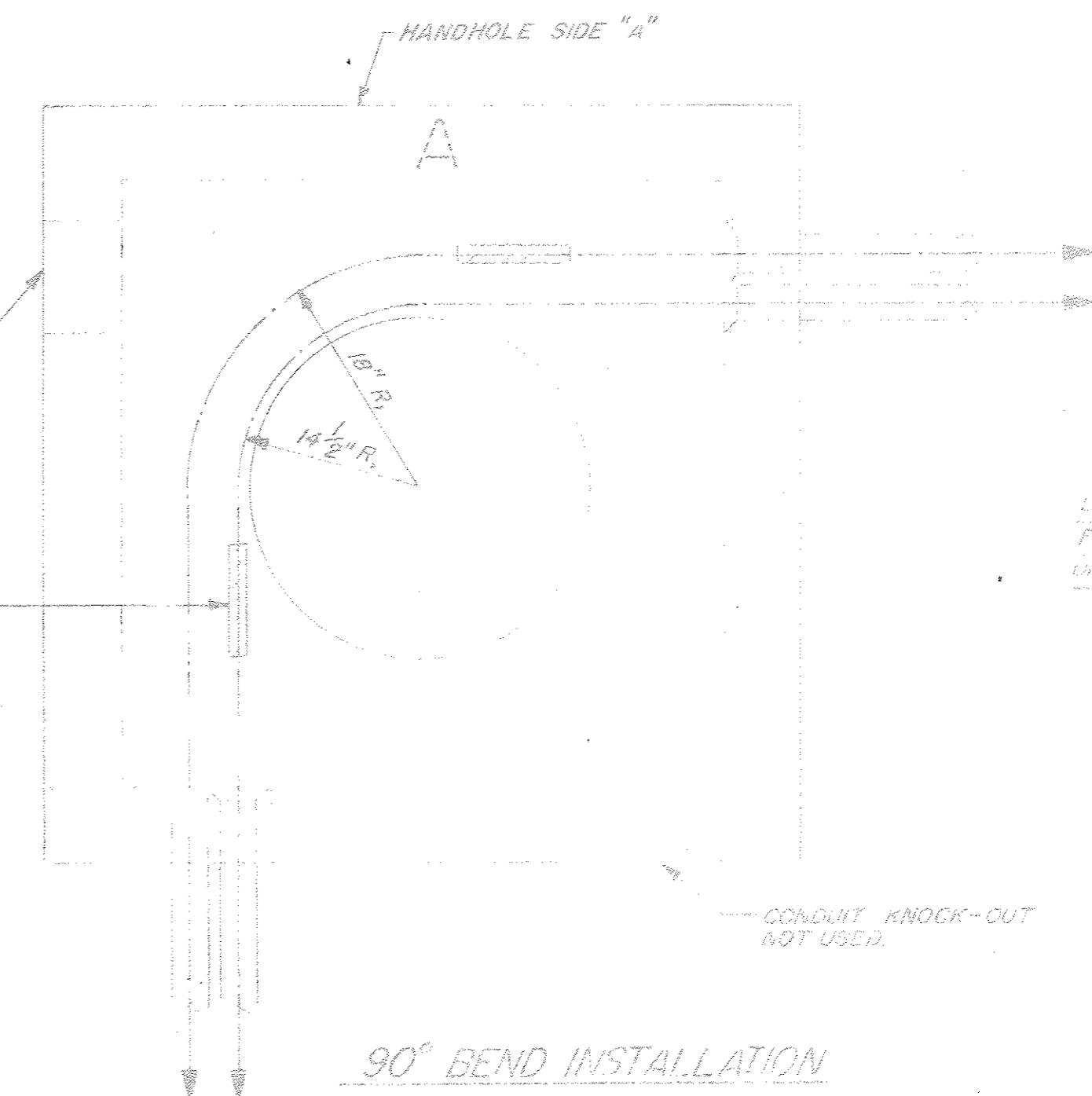
SECTION	JOB NO.	15031A	FEDERAL PROJECT	
---------	---------	--------	-----------------	--



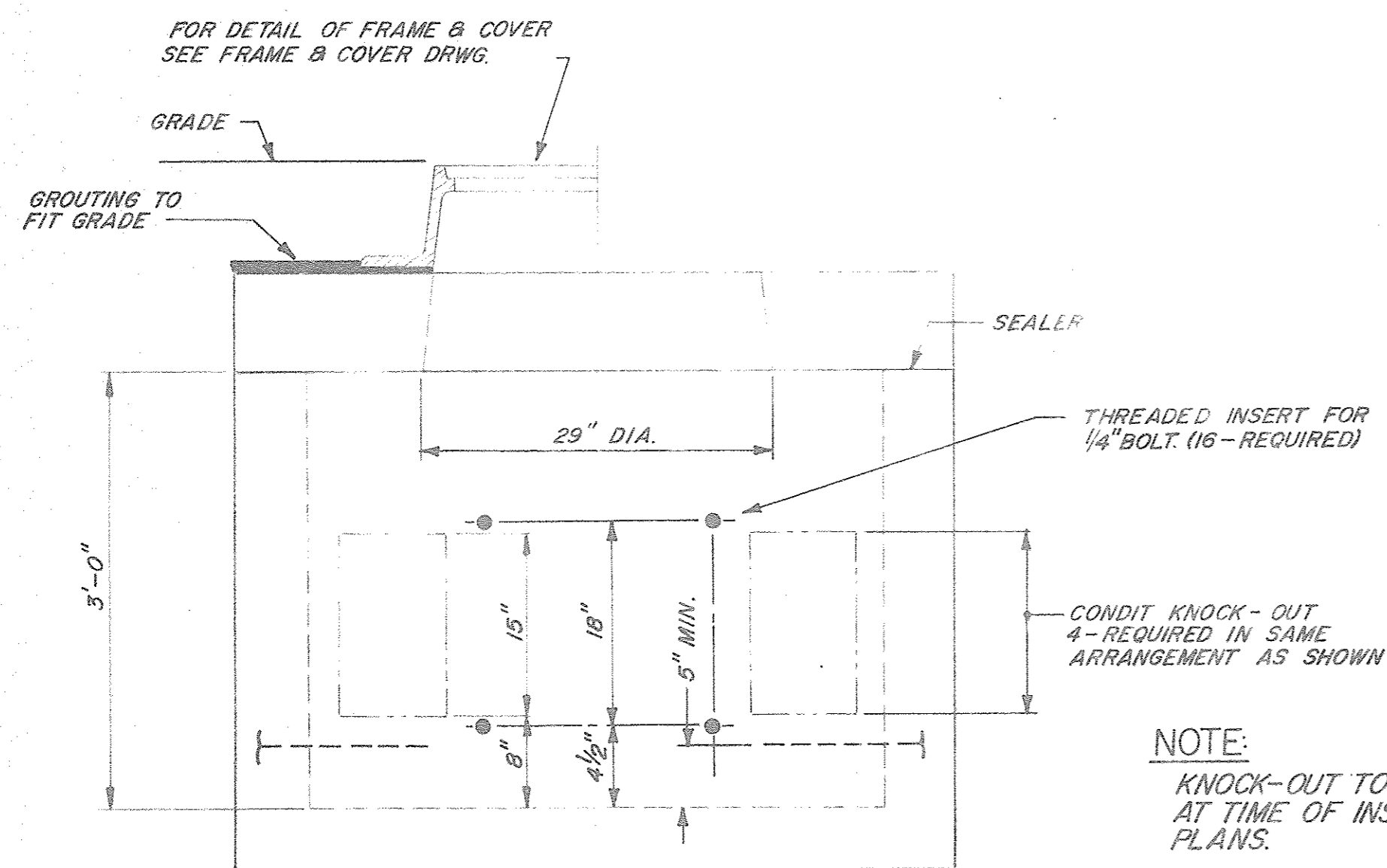
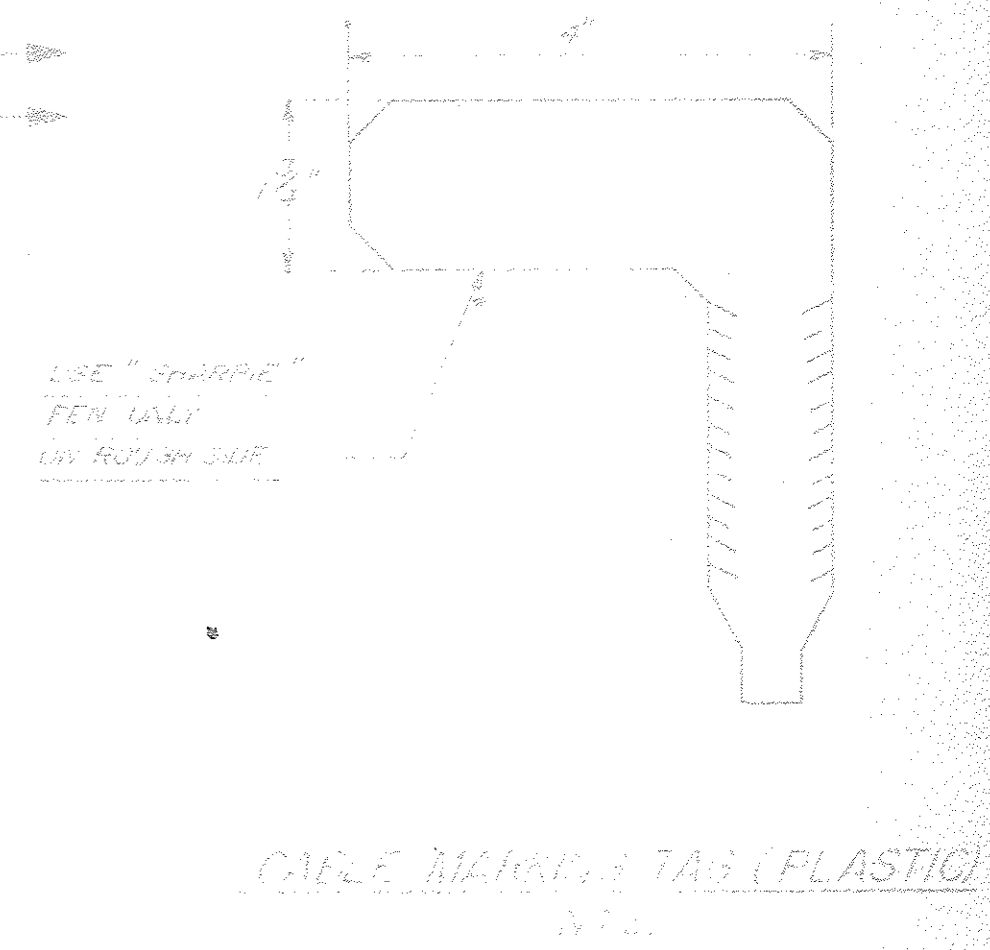
NO.	DATE	BY	CHKD.	APP'D.
5	MICH.			



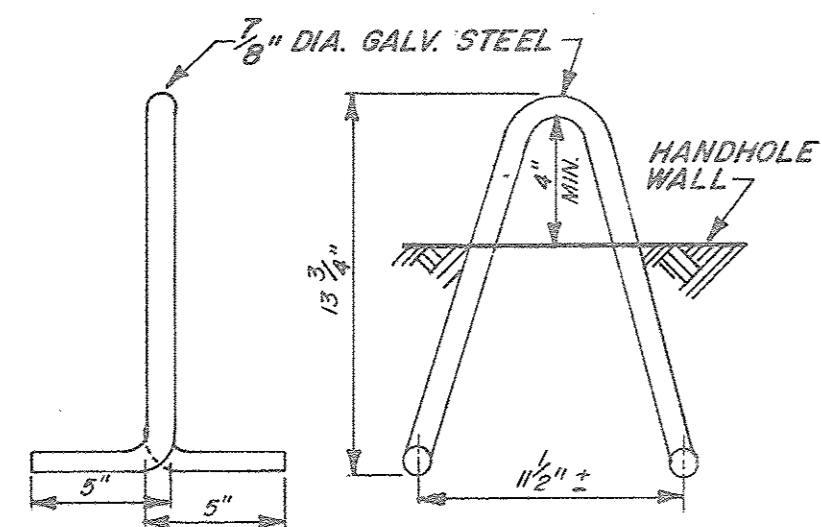
STRAIGHT THRU INSTALLATION



90° BEND INSTALLATION

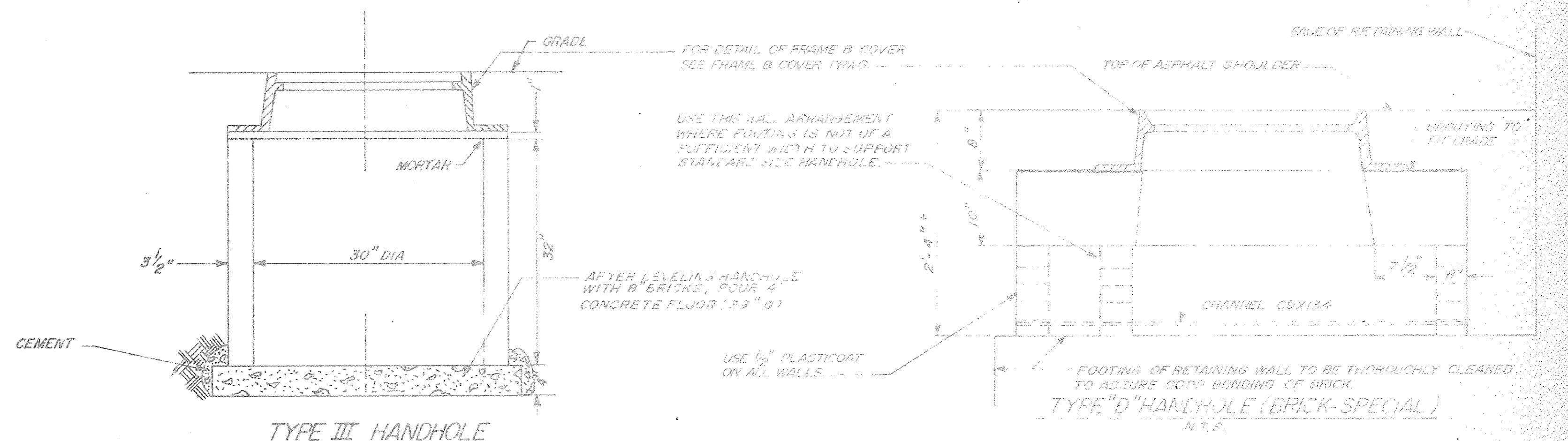
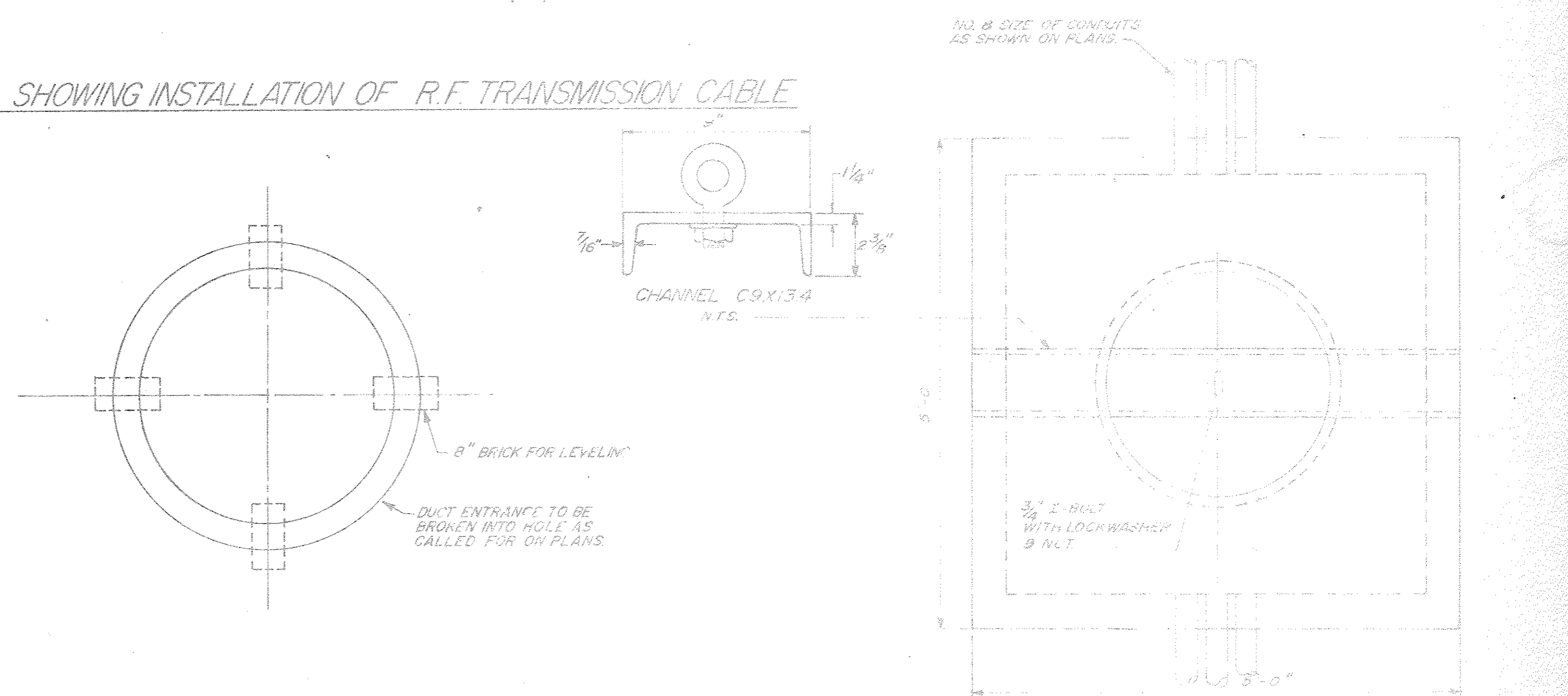


TYPE "D" HANDHOLE  
SQUARE SHAPE  
N.T.S.



PULLING IRON  
N.T.S.

DETAIL SHOWING INSTALLATION OF R.F. TRANSMISSION CABLE



TYPE III HANDHOLE  
N.T.S.  
REINFORCED CONCRETE  
PIPE (CLASS III)

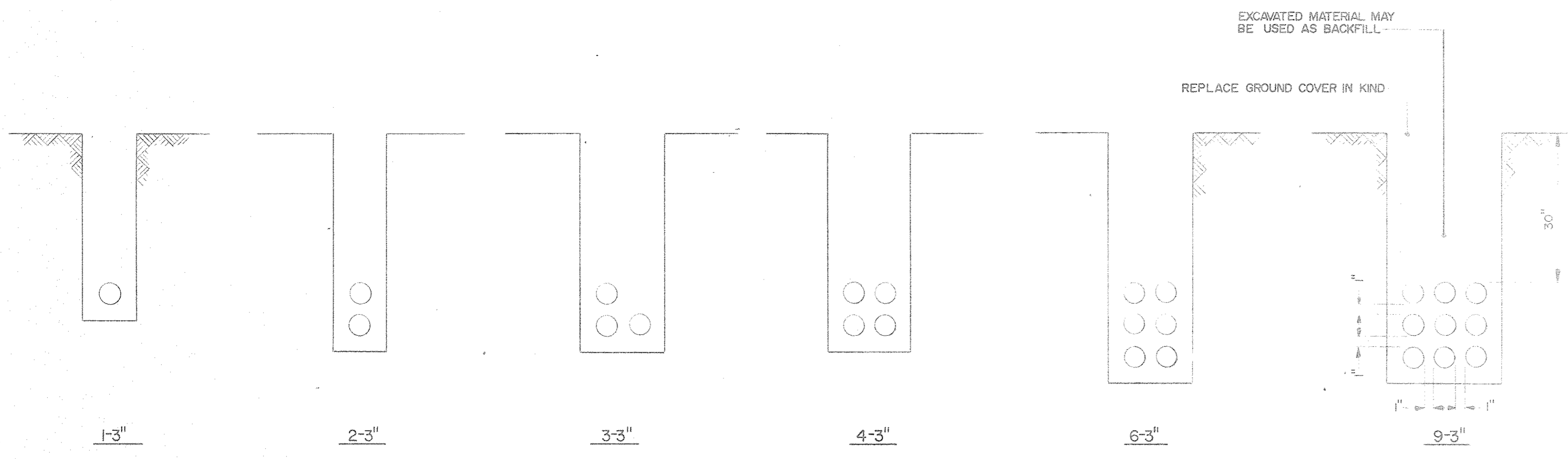
REVISION LETTER		DRAWN	PLAN PREPARED BY	MICHIGAN DEPARTMENT OF STATE HIGHWAYS AND TRANSPORTATION
CHECKED		CONSULTING ENGINEERING ASSOCIATES INC. ENGINEERING CONSULTANTS		
APPROVED		16580 WYOMING DETROIT, MICH 48221		DETROIT AREA FREDWAY SURVEILLANCE CONTROL & DRIVER INFORMATION SYSTEM
DATE		D-1		TYPE D HANDHOLE AND TYPE III HANDHOLE



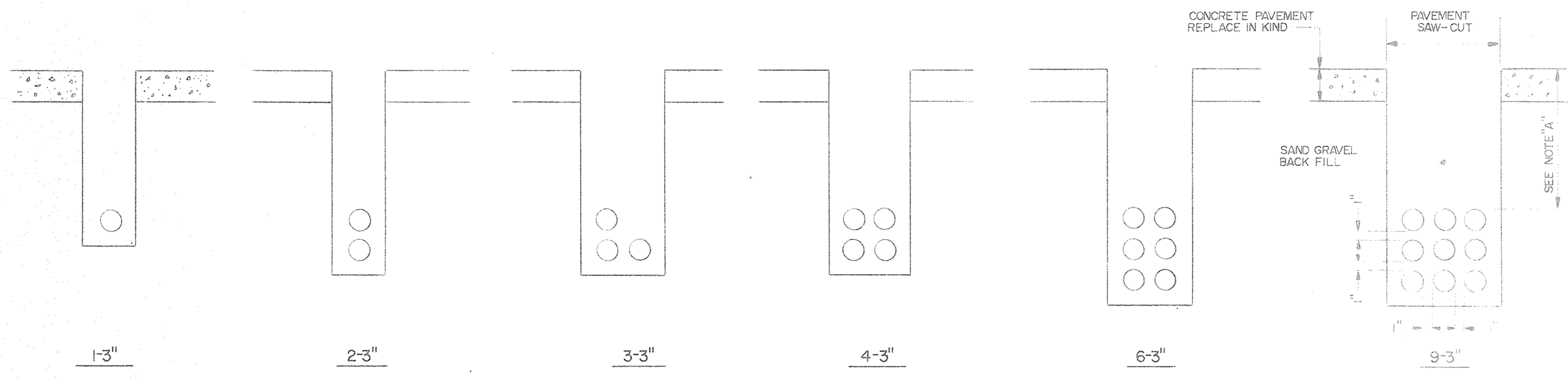




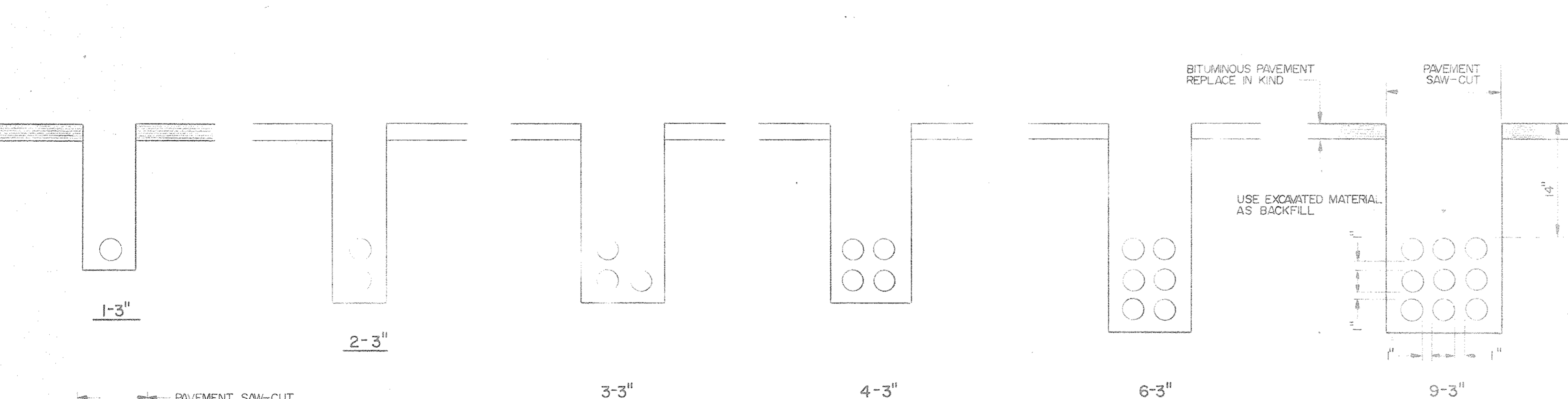
6	MICH				
---	------	--	--	--	--



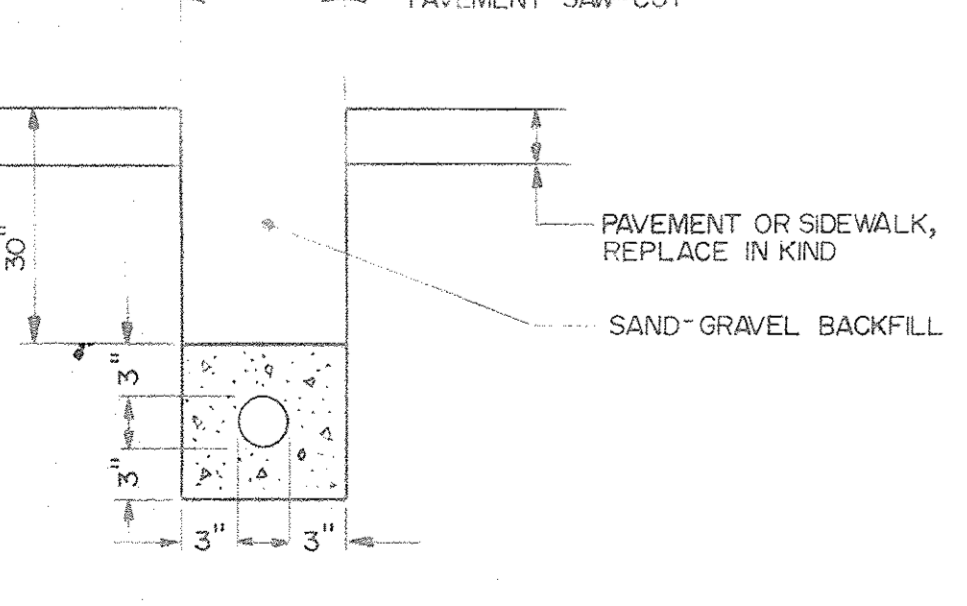
DIRECT BURIAL CONDUIT



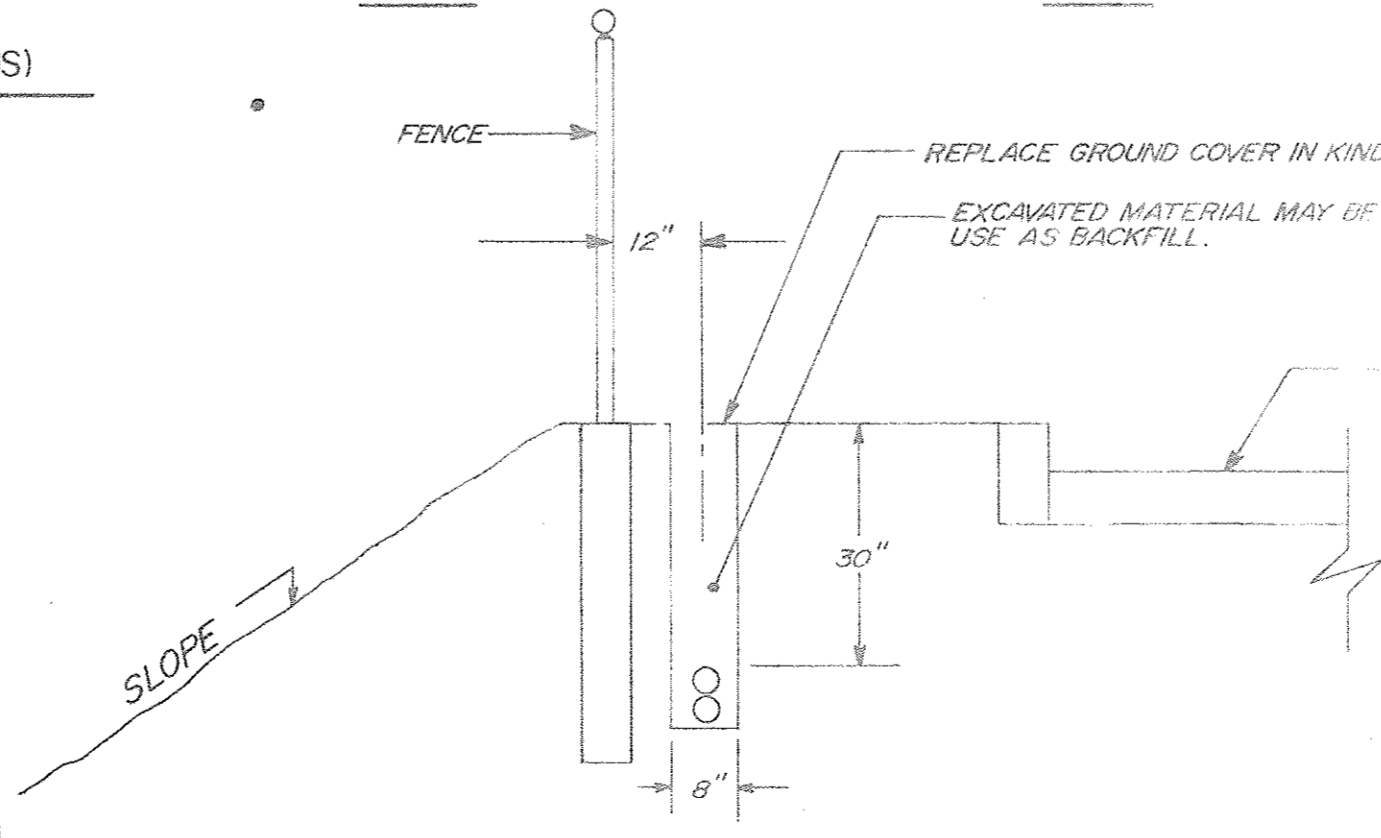
CONDUIT UNDER PAVEMENT (CONCRETE)



CONDUIT UNDER PAVEMENT (BITUMINOUS)

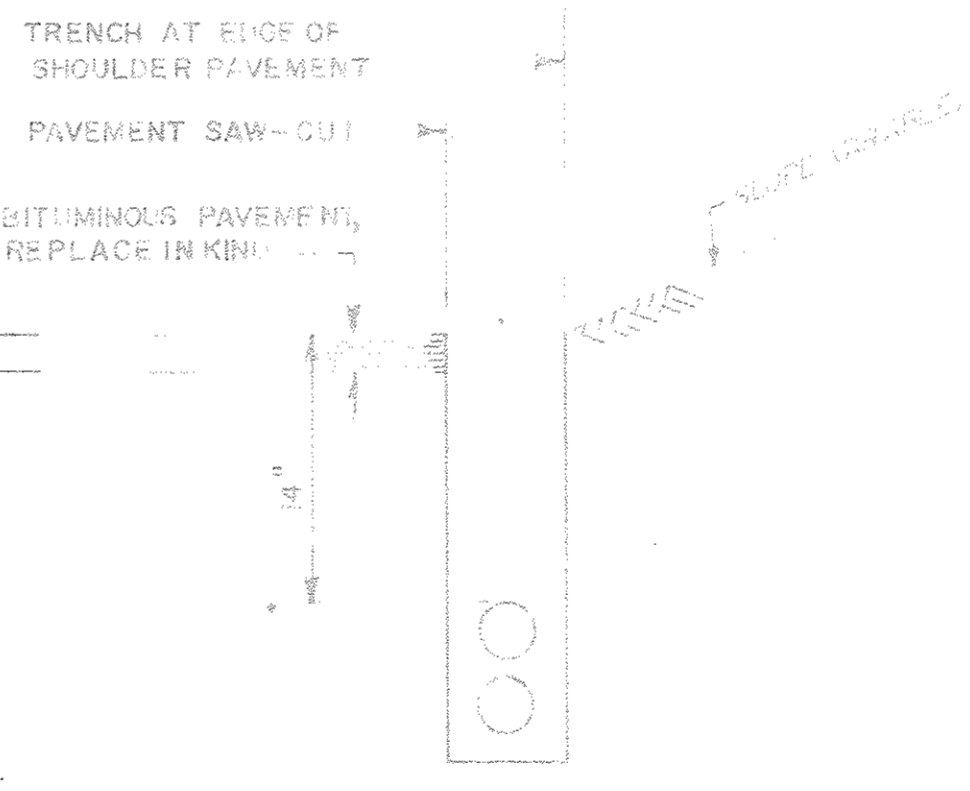
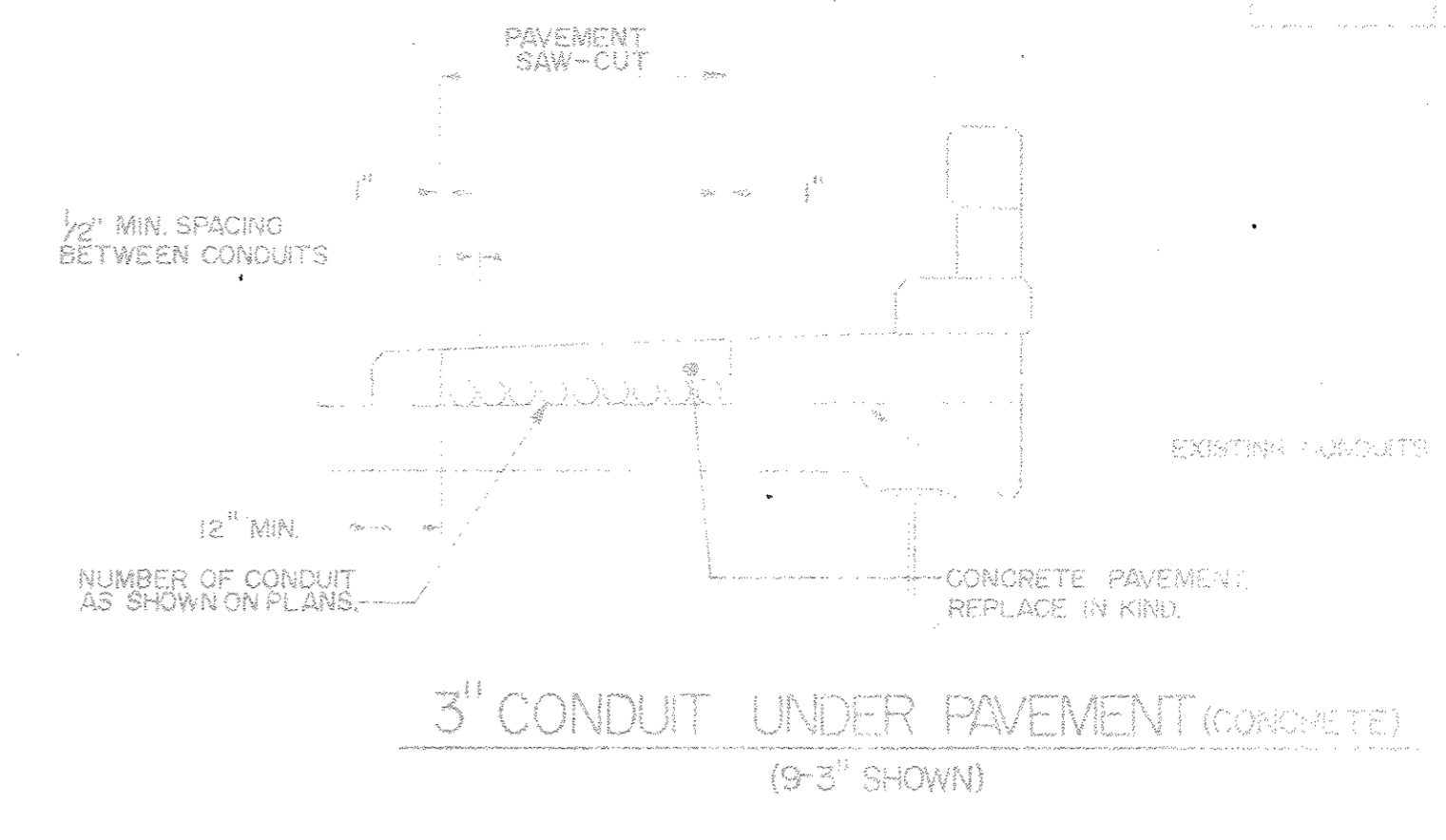


1-3" CONDUIT UNDER PAVEMENT  
CONCRETE ENCASED, TO CONDUIT RISERS.



2-3" DIRECT BURIAL CONDUIT  
INSTALL OUTSIDE OF FENCE WHERE DIRECTED BY THE ENGINEER.

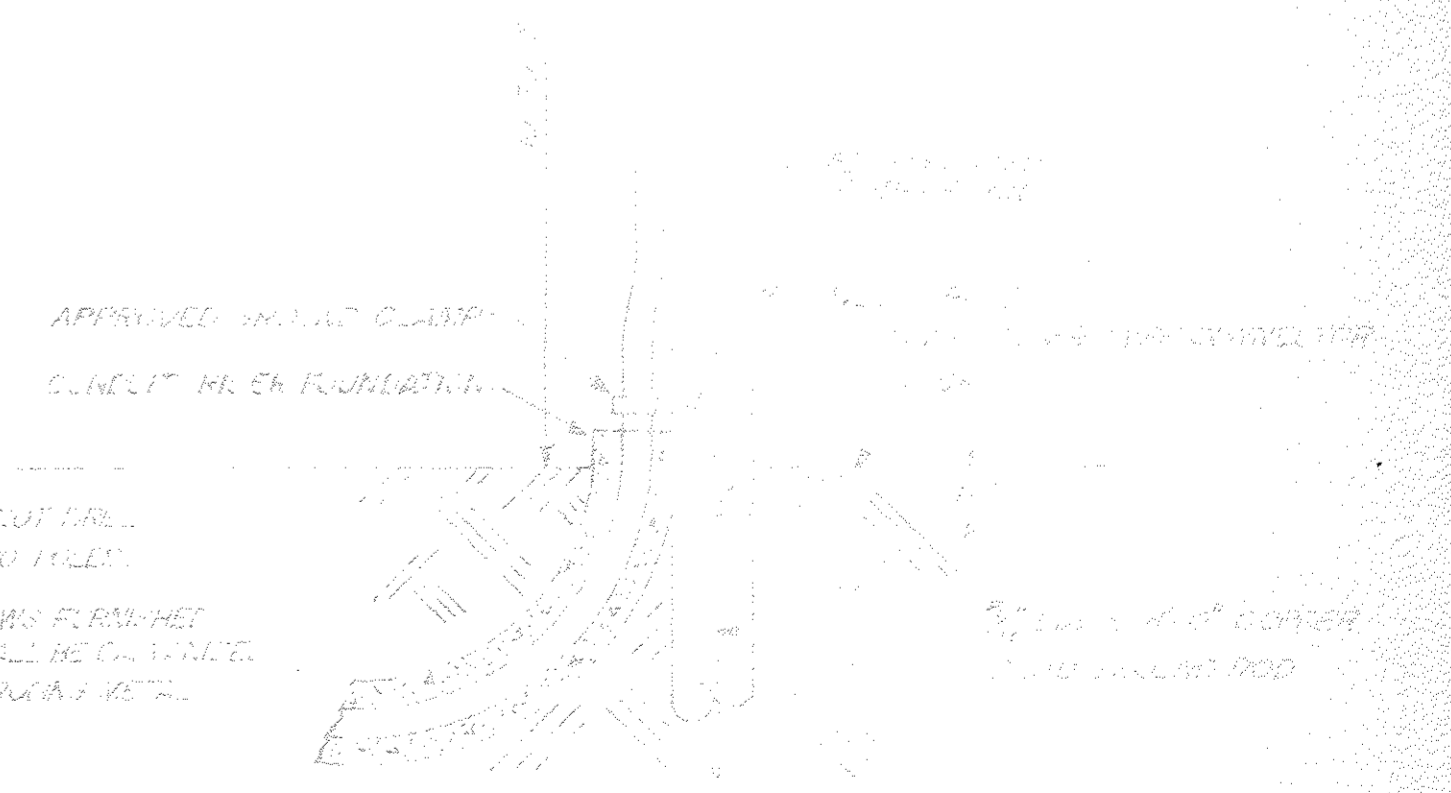
**NOTE "A"**  
THIS DIMENSION TO BE 30" IN LOCATIONS WHERE STAKE EXTENDS FROM HANDHOLE TO HANDHOLE AND/OR HANDHOLE IN LOCATIONS WHERE CONDUIT UNDER PAVEMENT MEET DIRECT BURIAL CONDUITS. THE ELEVATION OF CONDUITS UNDER PAVEMENT SHALL BE IN ALIGNMENT WITH THE DIRECT BURIAL CONDUITS & THEREFORE COULD BE WHAT LESS THAN 30"



2-3" AT DET. DETAIL JULY 24-78

**FLUSHING AND WIPING**  
THE POINT OF THE PIPE OPPOSITE THE END OF THE PIPE SHALL BE WIPED BY THE CONTRACTOR WITH A WIPER OR OTHER DEVICE TO REMOVE ALL DEBRIS FROM THE END OF THE PIPE. THE WIPER SHALL BE MADE OF A MATERIAL THAT WILL NOT DAMAGE THE INSIDE OF THE PIPE. THE WIPER SHALL BE USED TO WIPER THE END OF THE PIPE TO A MINIMUM OF 10 FEET FROM THE END OF THE PIPE. THE WIPER SHALL BE USED TO WIPER THE END OF THE PIPE TO A MINIMUM OF 10 FEET FROM THE END OF THE PIPE.

**30 AMP. 2 POLE SPLIT NEUTRAL WEATHER-RESISTANT FUSED SAFETY SWITCH, 120/240 V. 15 AMP.**



CONDUIT RISER  
(120/240 V. POWER SERVICE)  
N.T.D.

REVISION LETTER	DESCRIPTION
A	ADDED 2-3" DIRECT BURIAL CONDUIT DETAIL (OUTSIDE OF FENCE)
	CHANGE DESCRIPTION

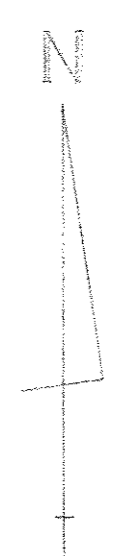
REVISION LETTER	A
DATE	

ADDED	2-3" CONDUIT, JULY 24 78
DRAWN C.E.A.	PLAN PREPARED BY CONSULTING ENGINEERING ASSOCIATES ENGINEERING CONSULTANTS
CHECKED	
APPROVED	16580 WYOMING DETROIT, MICH 48227
DATE	D-7

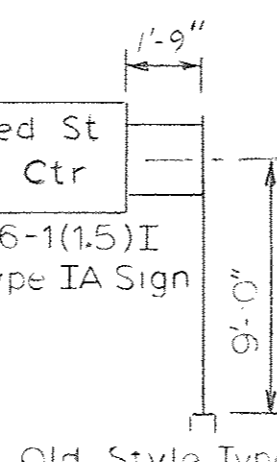
APPROVED	WILLIAM R. CLARK
CHECKED	H. ER. FURBERG
DATE	JAN 24 79

**SPERRY**  
SYSTEMS MANAGEMENT GREAT NECK, NEW YORK 11020





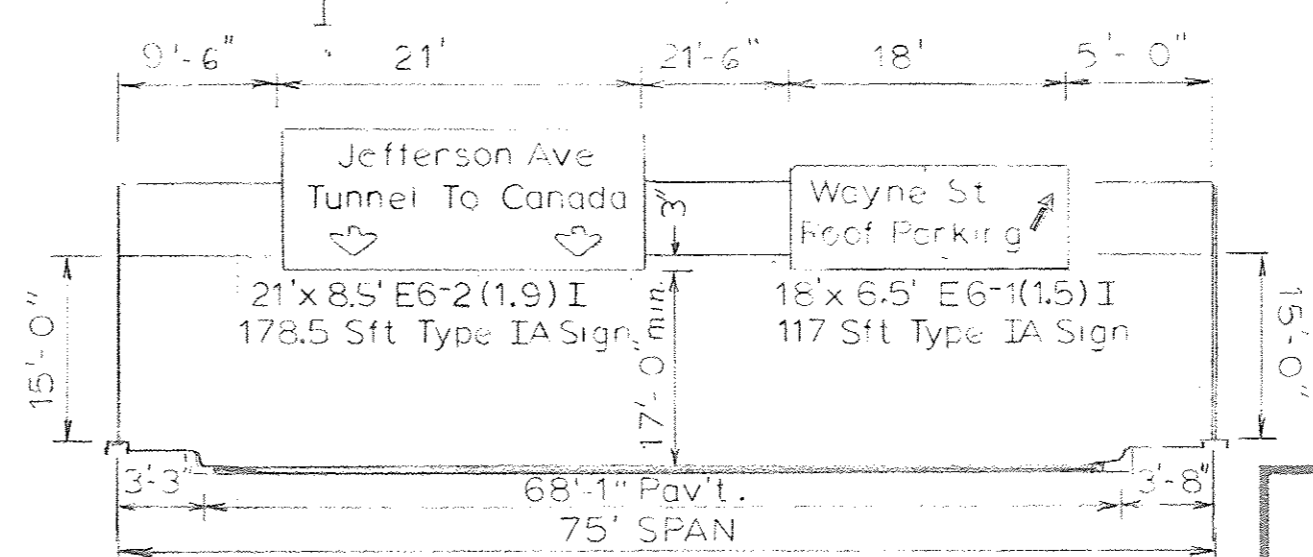
Larned St  
Civic Ctr  
15'x 6' E6-1(1.5) I  
90 Sft Type IA Sign



Old Style Type "D" Cant.  
Special Cant. Found. See sht # ...  
Erect @ Ramp Sta 1+00  
(or 812+31.58 Mainline)  
see sht #

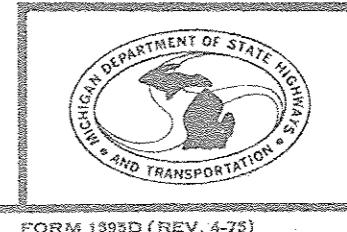
Larned St  
Civic Ctr  
Jefferson Ave  
Canada  
Wayne St  
Roof Parking

Remove 3-Type J Signs, Truss & Cut Anchor  
Bolts Flush with Sidewalk (existing foundations  
flush with sidewalk)



1-75' Type C Truss  
2 Special Type C Truss Founds, C-1 AND C-2.  
see shts. # 48 & 59 (Sta. 2+96.36)

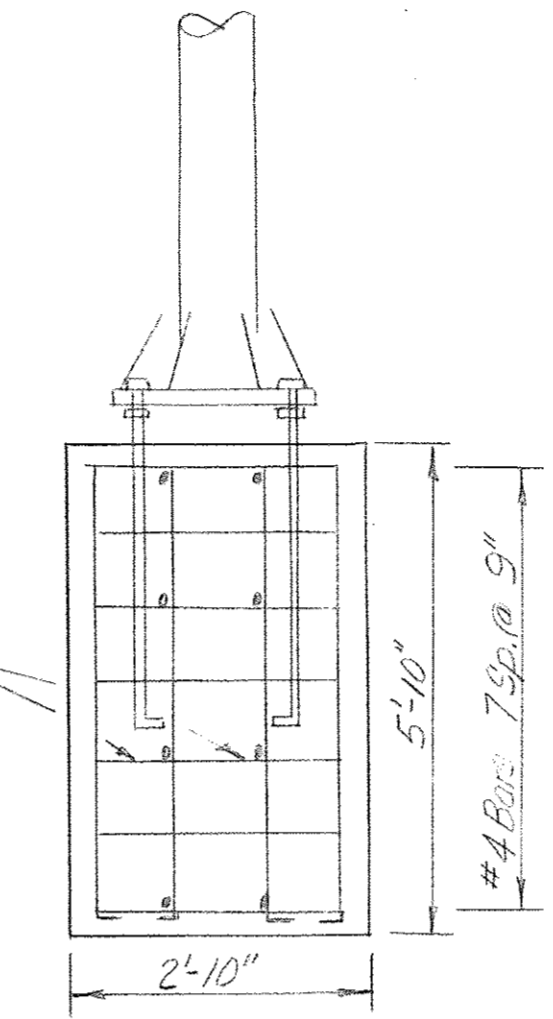
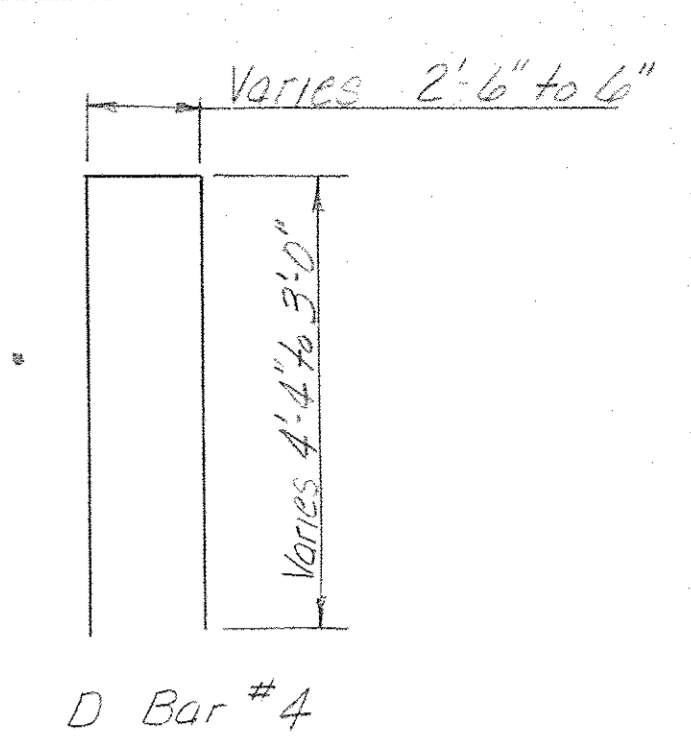
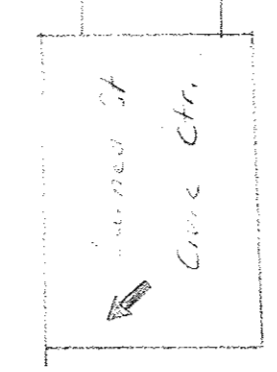
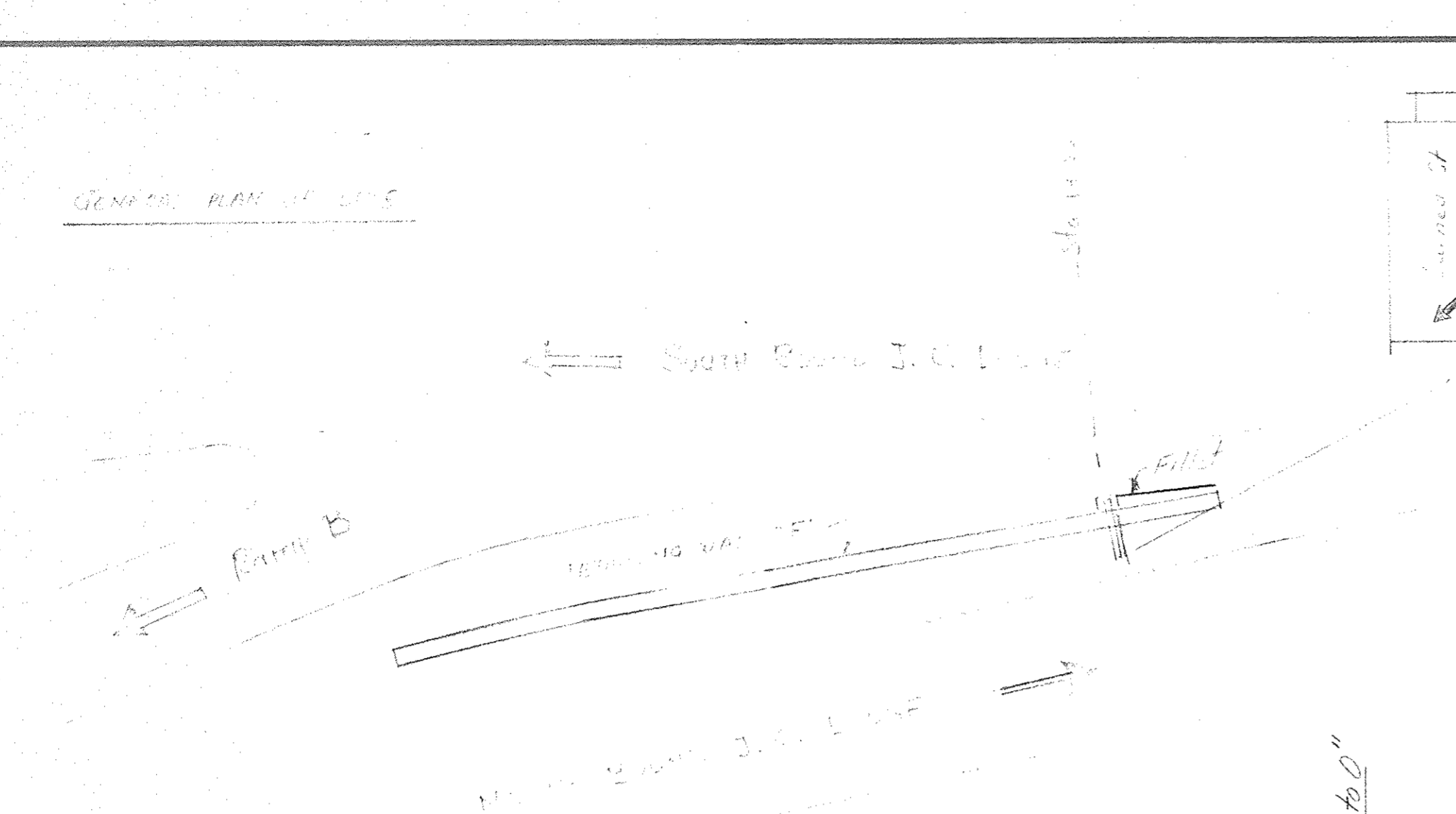
M2000 (112)



AUTH. NO.	DATE	DRAWN	DATE
CONT. SEC.	SCALE	DATE	SCALE
REF.	SCALE	DATE	SCALE
SHEET	OF	PLAN	

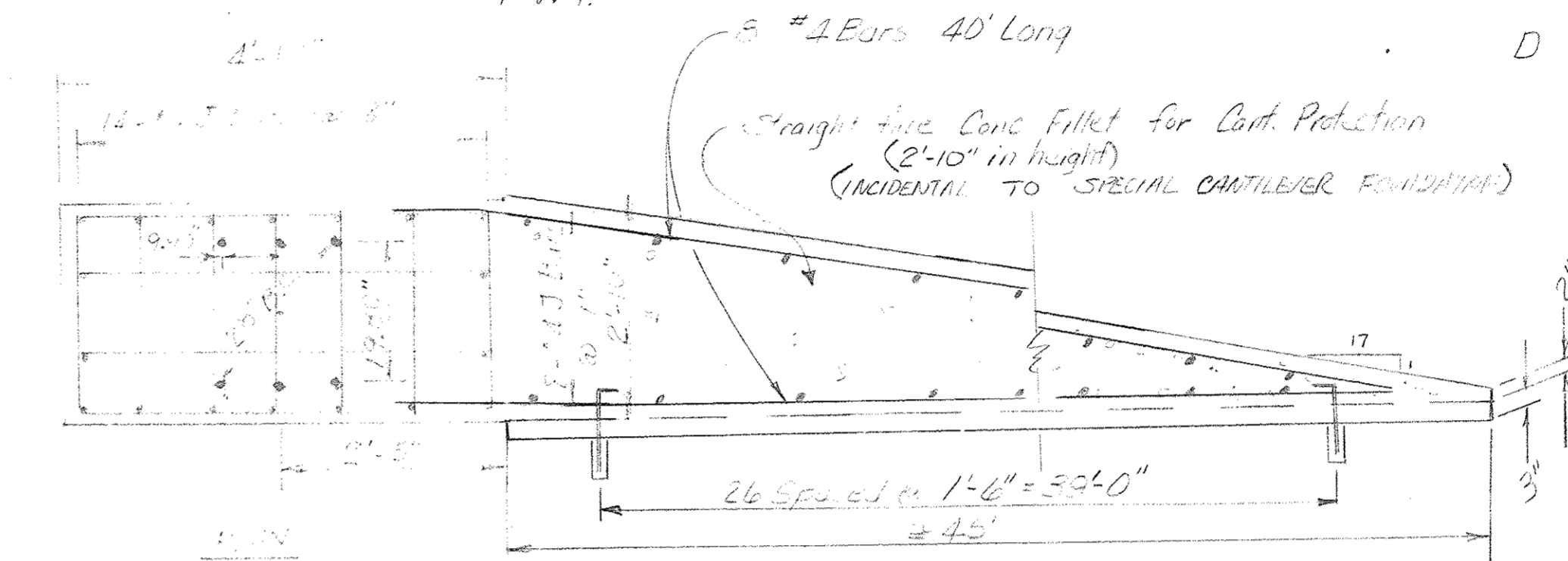


GENERAL PLAN AT L.S.P.E.



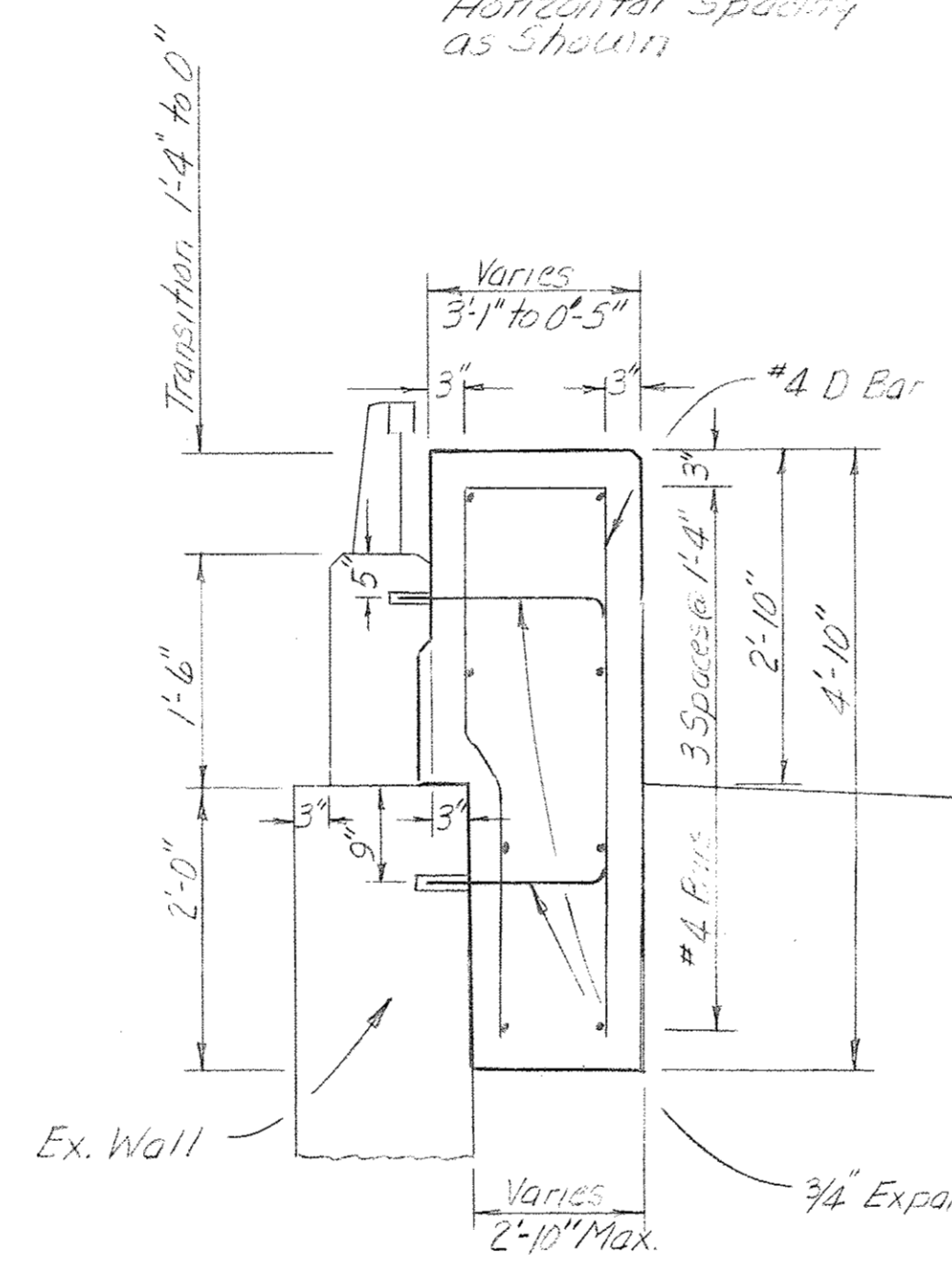
End View

S.B. LODGE F.W.Y.

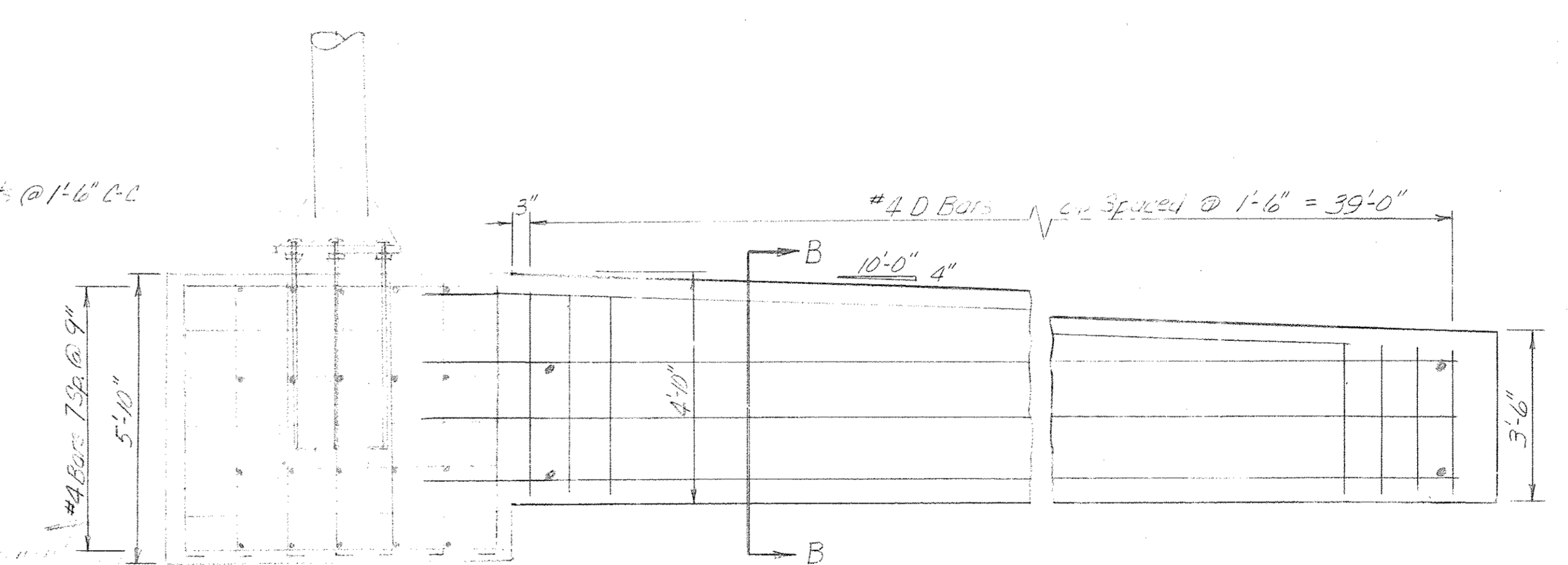


8 #1 Bars 40' Long  
Straight five Conc Fillet for Curb Protection  
(2'-10" in height)  
(INCIDENTAL TO SPECIAL CANTILEVER FOUNDATION)

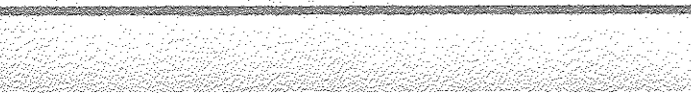
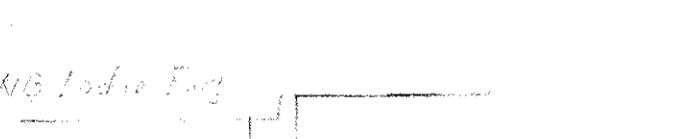
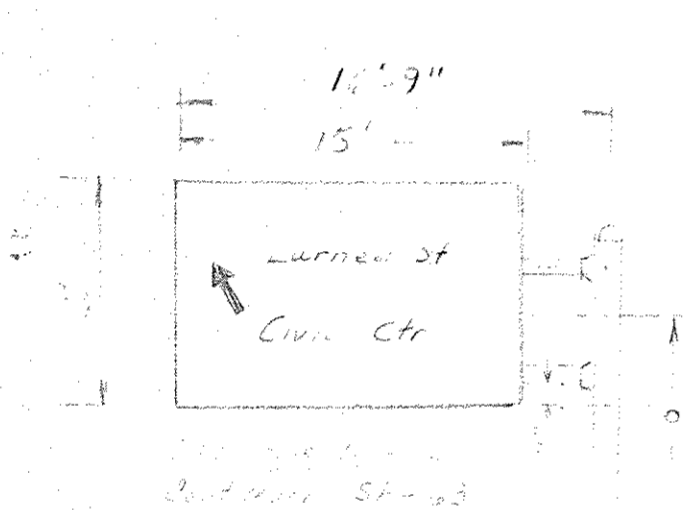
#4 Bars  
Longitudinal Reinf  
With Vertical and  
Horizontal Spacing  
as Shown



SECTION B-B



Elevation of Fillet



Var. Height

of this "fillet" (Incidental)

Section View A-A  
(Along with Fillet)

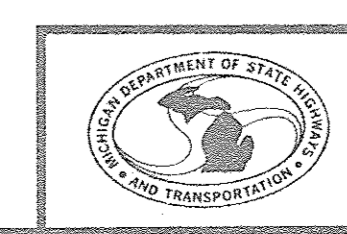
Expansion Anchor

76 Anchors Required

#4 Bars  
Transverse Reinf  
With Vertical and  
Horizontal Spacing  
as Shown

Longitudinal #1 Bars 40' Long  
Anchor Bolt 1/2" Steel grade 1025  
40' long with Spacing of  
22" @ 1025

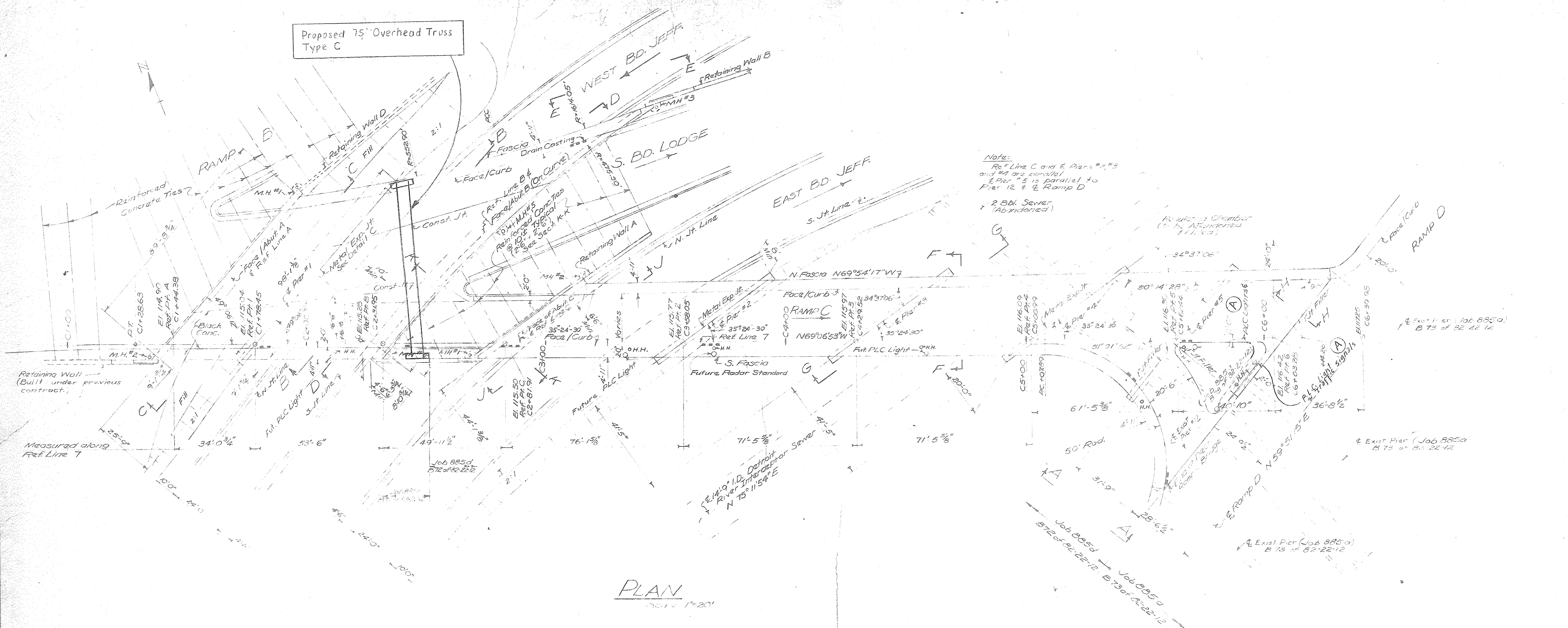
Anchor Bolt  
6" dia steel with  
with 2 extra heavy  
hex head galvanized  
nuts, two  
per bolt, standard  
flat galvanized



AUTH. NO.	DRAWN	MEI
CONT. SKC.	DATE	2-14-80
REF.	SCALE	NOTE
SHEET 1 OF 1	PLAN	

Proposed Cantilever  
Foundation - Ramp B  
J.C. Lodge Freeway

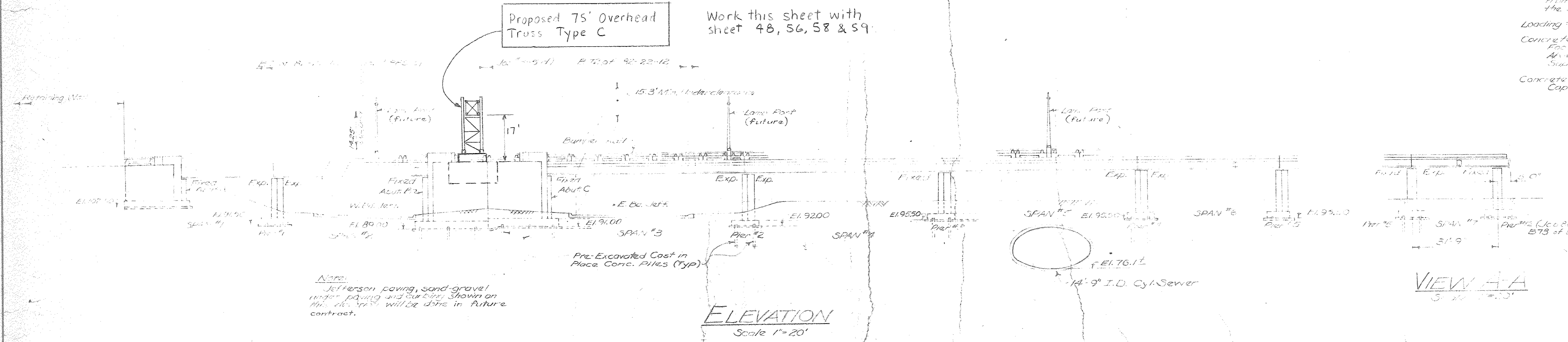




PLAN  
Scale 1"=20'

Note:  
Ref Line C and E Plans #425  
and #4 are parallel  
Ref #5 is parallel to  
Pier 12 & Ramp D  
2 Sbl. Sewer  
(Abandoned)

**GENERAL NOTES**  
Design Specifications: MSHD Specifications for the  
Design of Highway Bridges, 1958 Edition, Deflection  
from Total Load shall not more than 1/600 of  
the span length.  
Loading: H20-S16-44 & Special Military Loading  
Concrete:  
Footings: Grade A (6A)  
Abut. Footings: Grade A (6A)  
Substructure: Grade A (6B)  
Concrete Piles: Pre-erected cast in place  
Capacity: 60 tons



ELEVATION  
Scale 1"=20'

Note:  
Jefferson paving sand-gravel  
under paving and curbing shown on  
this sheet will be done in future  
contract.

(A) Rev. P.L.C. Lights 5-26-58 MT vfw

REVISIONS		DRAWN BY Cummings		CHECKED BY BECKLEY		DATE 4-9-56		APPROVED <i>J. W. Burns</i> ENGINEER OF BRIDGES AND STRUCTURES	
		CORRECT <i>M. J. ...</i>						APPROVED <i>J. W. Burns</i> COUNTY HIGHWAY ENGINEER	

BOARD OF  
**WAYNE COUNTY ROAD COMMISSIONERS**  
DETROIT, MICHIGAN  
MICHAEL J. O'BRIEN  
WILLIAM E. KREGER  
CHARLES L. WILSON

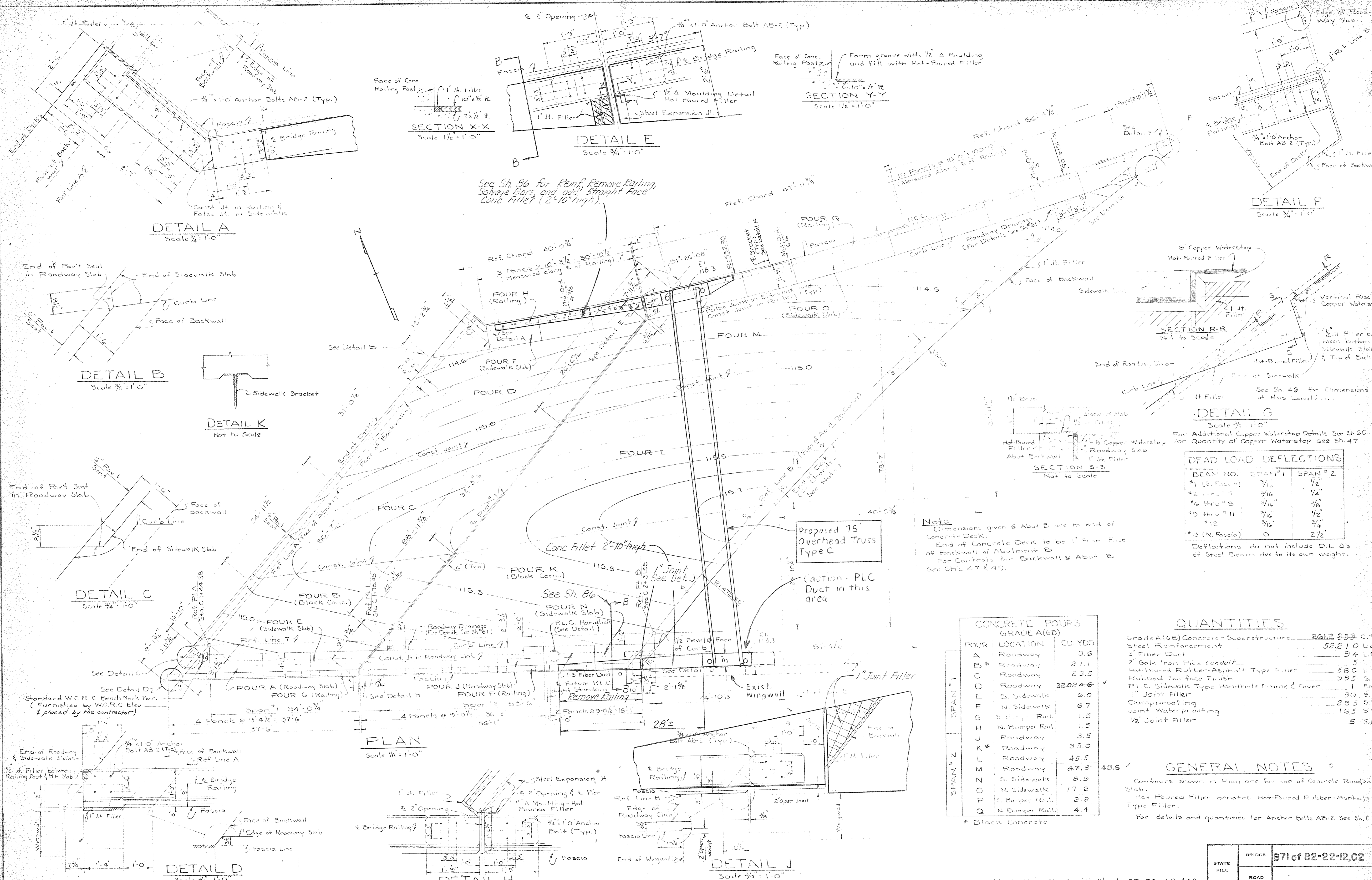
Work this sheet with Sht. #42 & 43  
**JOHN C. LODGE EXPRESSWAY  
CIVIC CENTER AREA  
SOUTHBOUND LODGE & RAMP C BRIDGES  
GENERAL PLAN OF STRUCTURE**

STATE PROJECT <b>82-127</b>	COUNTY JOB <b>885c&amp;d</b>
ISSUE NO. <b>3</b>	SHEET NO.
DATE <b>12-6-57</b>	









**DEAD LOAD DEFLECTIONS**

BEAM NO.	SPAN #1	SPAN #2
#1 (S. Fascia)	3/16"	1/2"
#2 thru #5	3/16"	1/4"
#6 thru #8	3/16"	3/8"
#9 thru #11	3/16"	1/2"
#12	3/16"	3/4"
#13 (N. Fascia)	0	2 1/2"

Deflections do not include D.L. of Steel Beams due to its own weight.

**CONCRETE POURS**

POUR	LOCATION	CU. YDS.
A	Roadway	3.6
B*	Roadway	2.1
C	Roadway	23.5
D	Roadway	32.024.6
E	S. Sidewalk	6.0
F	N. Sidewalk	6.7
G	S. Bumper Rail	1.5
H	N. Bumper Rail	1.5
J	Roadway	3.5
K*	Roadway	35.0
L	Roadway	45.5
M	Roadway	47.8
N	S. Sidewalk	8.9
O	N. Sidewalk	17.2
P	S. Bumper Rail	2.2
Q	N. Bumper Rail	4.4

\* Black Concrete

**QUANTITIES**

Grade A(G) Concrete - Superstructure	261.2	253 C.Y.
Steel Reinforcement	52.2	10 LBS.
3" Fiber Duct	94	L.F.
2" Galv. Iron Pipe Conduit	5	L.F.
Hot Poured Rubber Asphalt Type Filler	580	S.F.
Rubbed Surface Finish	995	S.F.
P.L.C. Sidewalk Type Handhole Frame & Cover	1	Each
1" Joint Filler	90	S.F.
Dampproofing	23.5	S.F.
Joint Waterproofing	165	S.F.
1/2" Joint Filler	5	S.F.

**GENERAL NOTES**

- Contours shown in Plan are for top of Concrete Roadway Slab.
- Hot Poured Filler denotes Hot Poured Rubber Asphalt Type Filler.
- For details and quantities for Anchor Bolts AB-2 See Sh. 67.

**Note**  
 Dimensions given @ Abut B are to end of Concrete Deck.  
 End of Concrete Deck to be 1" from Face of Backwall of Abutment B.  
 For Controls for Backwall @ Abut B See Sh. 47 & 49.

Proposed 75' Overhead Truss Type C  
 Caution - PLC Duct in this area

Field Rev. 7-3-59 FK V.G.B.

REVISIONS	DRAWN BY	CHECKED BY	DATE	APPROVED
	J. Carner	W. R. R. Jr.	8-31-57	J. McLaughlin
				J. W. Sun

ENGINEER OF DESIGN, STRUCTURES AND EXPRESSWAYS  
 COUNTY HIGHWAY ENGINEER

BOARD OF  
**WAYNE COUNTY ROAD COMMISSIONERS**  
 DETROIT, MICHIGAN

MICHAEL J. O'BRIEN  
 WILLIAM E. KREGER  
 CHARLES L. WILSON

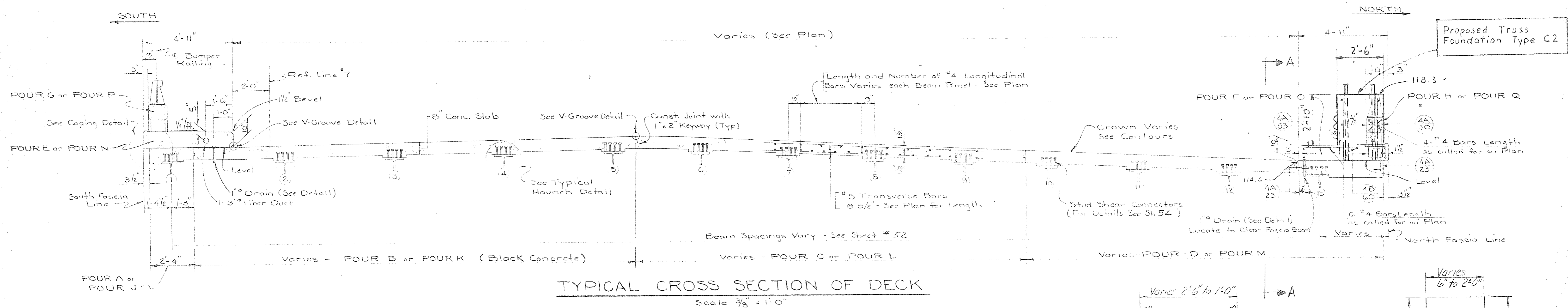
STATE PROJECT	COUNTY JOB
82-127	885c
ISSUE NO.	SHEET NO.
1	56

DATE 12-12-57









**BILL OF REINFORCING BARS - SPAN #1**

MARK	NO.	SIZE	LENGTH	REMARKS
5-329	8	#6	32'-9"	Straight
5-300	7	"	30'-0"	"
5-280	11	"	28'-0"	"
5-270	7	"	27'-0"	"
5-240	10	"	24'-0"	"
5-230	82	"	23'-0"	"
5-220	10	"	22'-0"	"
5-210	94	"	21'-0"	"
5-200	130	"	20'-0"	"
5-190	20	"	19'-0"	"
5-180	22	"	18'-0"	"
5-170	24	"	17'-0"	"
5-160	22	"	16'-0"	"
5-150	26	"	15'-0"	"
5-140	26	"	14'-0"	"
5-130	24	"	13'-0"	"
5-123	7	"	12'-3"	"
5-120	24	"	12'-0"	"
5-110	26	"	11'-0"	"
5-106	1	"	10'-6"	"
5-100	28	"	10'-0"	"
5-96	2	"	9'-6"	"
5-90	26	"	9'-0"	"
5-83	2	"	8'-3"	"
5-80	22	"	8'-0"	"
5-70	26	"	7'-0"	"
5-60	24	"	6'-0"	"
5-50	26	"	5'-0"	"
5-43	3	"	4'-3"	"
5-40	26	"	4'-0"	"
5-30	22	"	3'-0"	"
5-20	6	#5	2'-0"	Straight
4-226	34	#4	22'-6"	Straight
4-216	45	"	21'-6"	"
4-210	76	#4	21'-0"	Straight

**BILL OF REINFORCING BARS - SPAN #2**

MARK	NO.	SIZE	LENGTH	REMARKS
5-340	4	#5	34'-0"	Straight
5-296	8	"	29'-6"	"
5-289	8	"	28'-9"	"
5-286	108	"	28'-6"	"
5-280	8	"	28'-0"	"
5-260	6	"	26'-0"	"
5-250	8	"	25'-0"	"
5-240	12	"	24'-0"	"
5-230	174	"	23'-0"	"
5-220	18	"	22'-0"	"
5-216	256	"	21'-6"	"
5-210	36	"	21'-0"	"
5-200	30	"	20'-0"	"
5-190	32	"	19'-0"	"
5-180	30	"	18'-0"	"
5-170	36	"	17'-0"	"
5-160	32	"	16'-0"	"
5-150	28	"	15'-0"	"
5-140	30	"	14'-0"	"
5-130	32	"	13'-0"	"
5-120	34	"	12'-0"	"
5-110	32	"	11'-0"	"
5-100	34	"	10'-0"	"
5-90	36	"	9'-0"	"
5-80	32	"	8'-0"	"
5-70	36	"	7'-0"	"
5-60	32	"	6'-0"	"
5-50	36	"	5'-0"	"
5-40	40	"	4'-0"	"
5-30	28	"	3'-0"	"
5-20	20	#5	2'-0"	Straight
5A-50	2	#5	5'-0"	Bent
4A-123	6	#4	12'-3"	Bent
4A-110	1	"	11'-0"	"
4B-100	3	"	10'-0"	"
4B-83	40	"	8'-3"	"
4B-80	7	"	8'-0"	"
4A-23	115	"	2'-3"	Bent
4-216	12	#4	21'-6"	Straight
4-190	12	"	19'-0"	"
4-110	4	"	11'-0"	"
4-70	2	"	7'-0"	"
4-56	1	"	5'-6"	"
4-50	2	"	5'-0"	"
4-46	4	"	4'-6"	"
4-40	5	"	4'-0"	"
4-30	3	"	3'-0"	"
4-20	2	#4	2'-0"	Straight
4A-53	50	#4	5'-3"	Bent
4B-35	1	"	3'-0"	"
4B-60	33	"	6'-0"	"
4B-23	1	"	2'-3"	"
4C-60	1	#4	6'-0"	Bent
4-99	12	#4	9'-9"	Straight
4-90	16	"	9'-0"	"
4-49	2	"	4'-9"	"
4-40	2	#4	4'-0"	Straight
4A-30	29	#4	3'-0"	Bent

STATE FILE	BRIDGE	B71 of 82-22-12,02
	ROAD	
STATE PROJECT	COUNTY JOB	
82-127	885c	
ISSUE NO. 1	SHEET NO.	
DATE 12-12-57	59	

WAYNE COUNTY ROAD COMMISSIONERS

BOARD OF

DETROIT, MICHIGAN

MICHAEL J. O'BRIEN

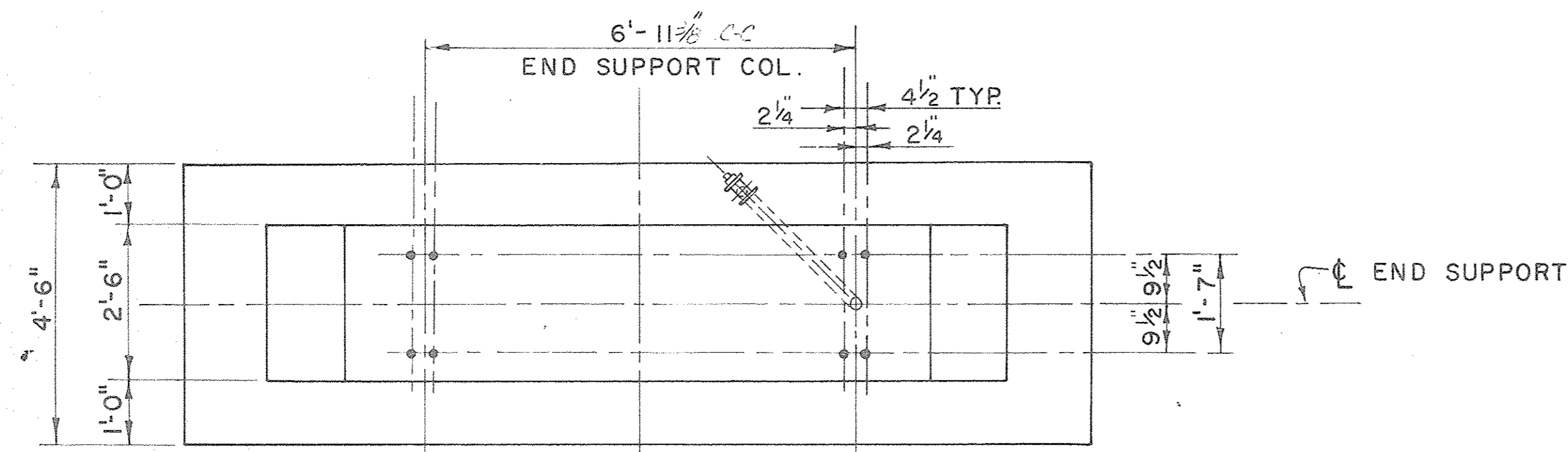
WILLIAM E. KREGER

CHARLES L. WILSON

JOHN C. LODGE EXPRESSWAY  
CIVIC CENTER AREA  
SOUTHBOUND LODGE BRIDGE  
DECK DETAILS (CONT'D)

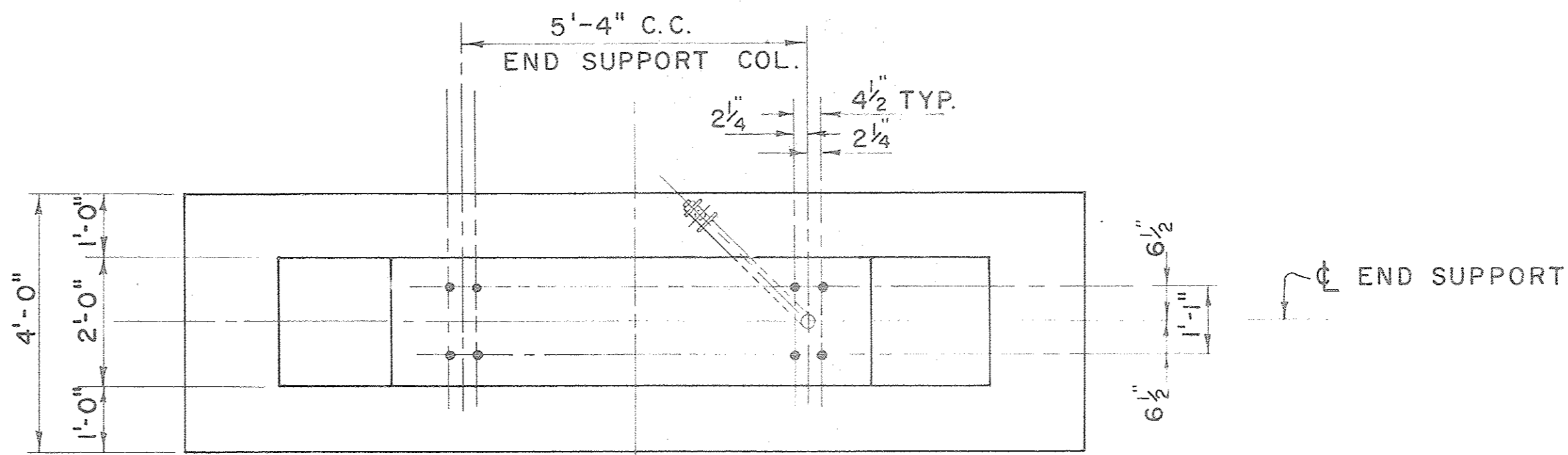
Work this sheet with Sheets #56, 57, 58 & 60



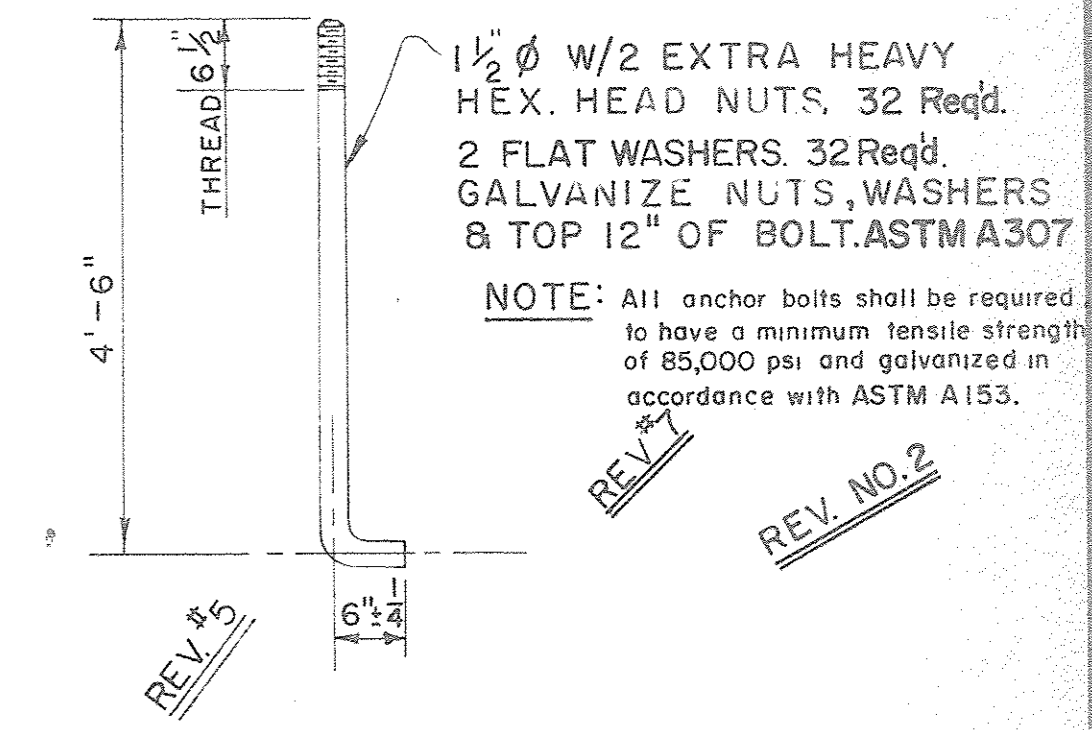


PLAN

DIRECTION OF TRAFFIC

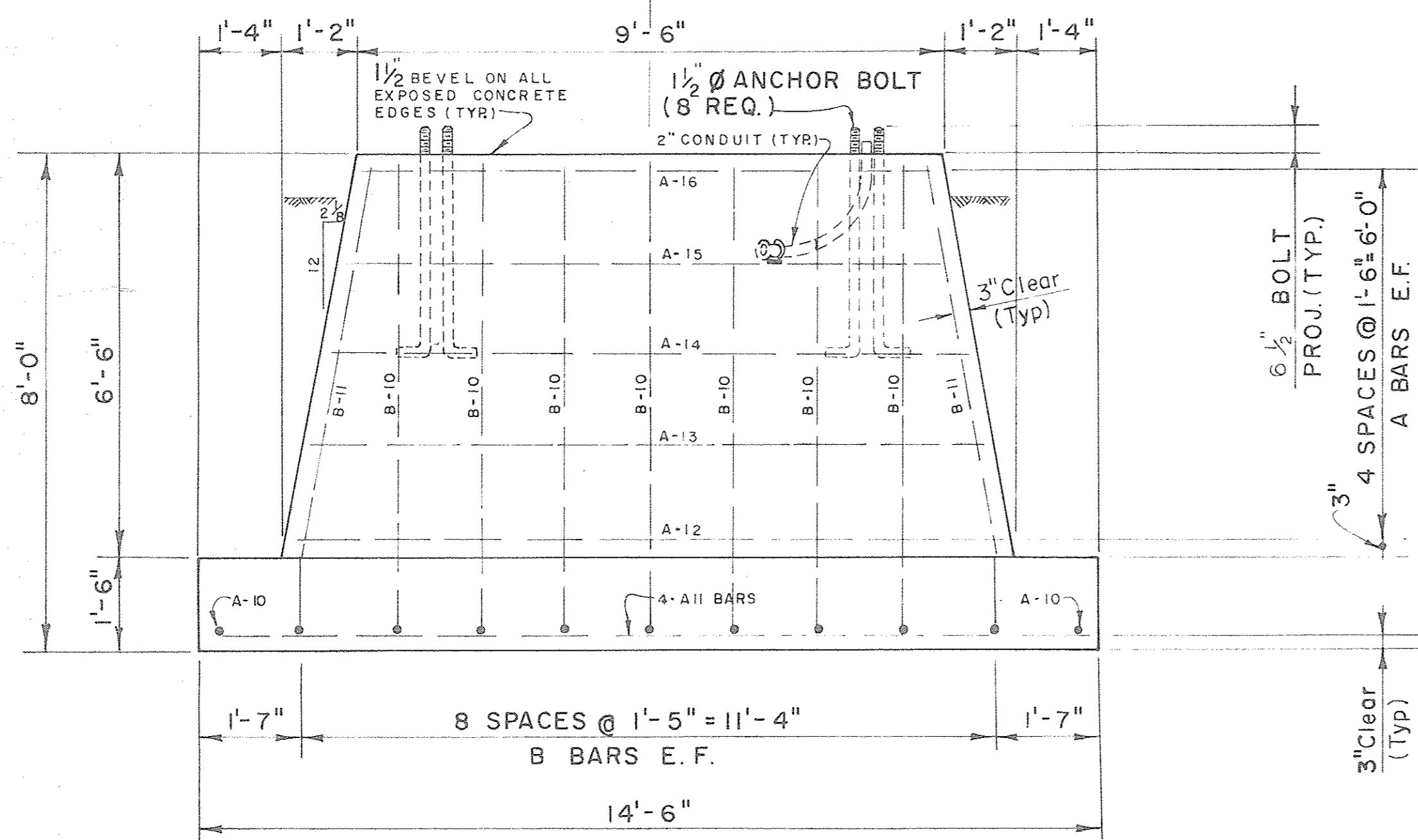


PLAN

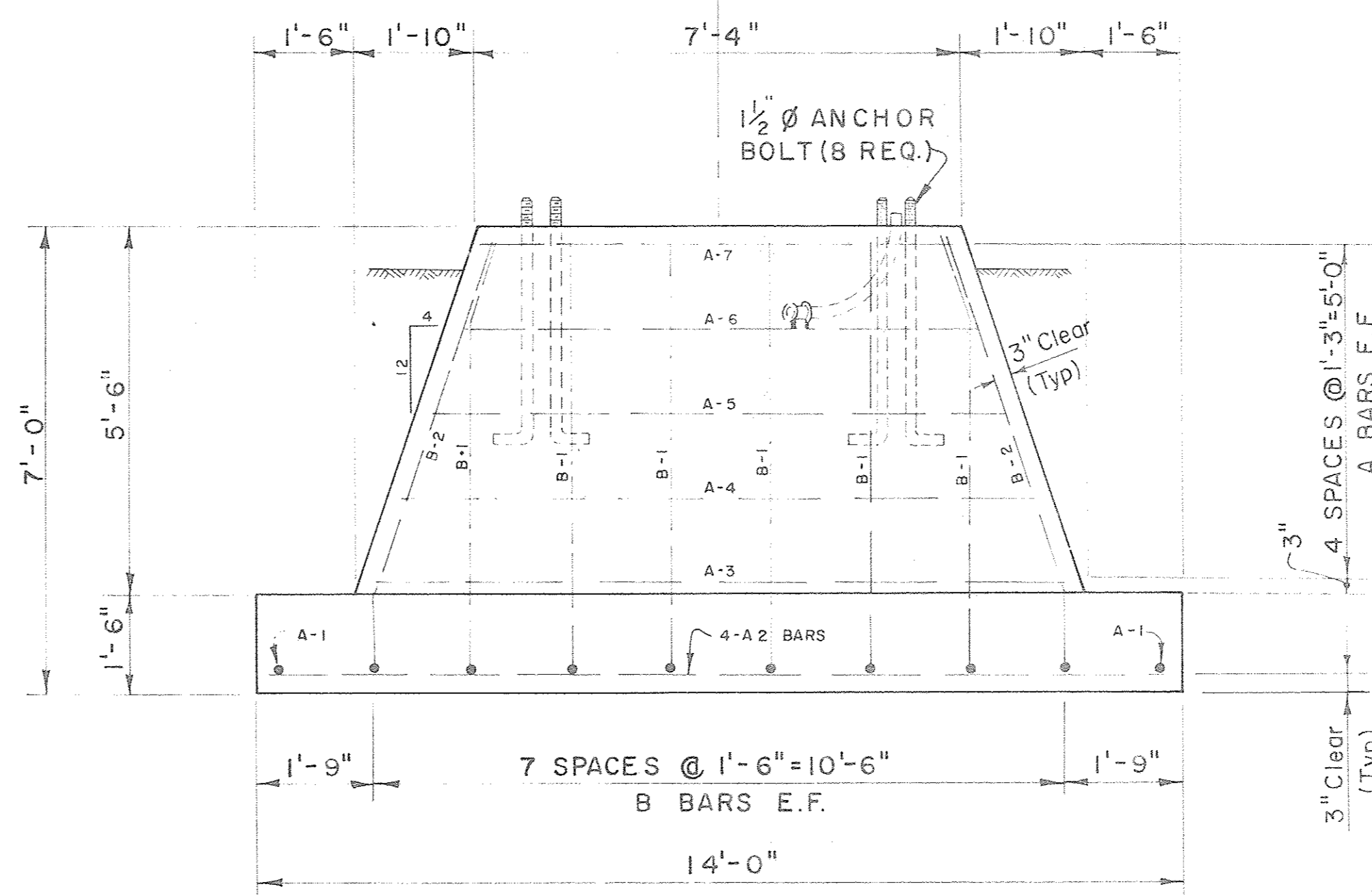


ANCHOR BOLT DETAIL

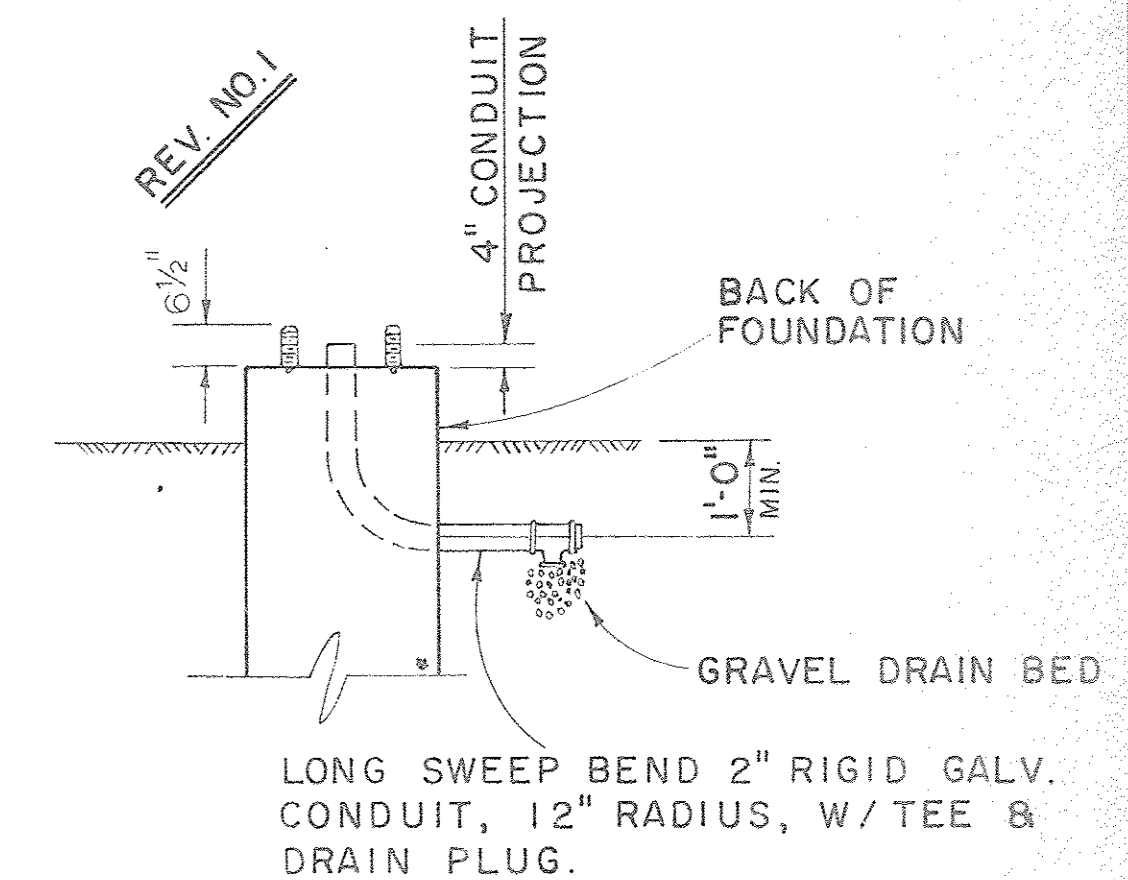
16 Required



ELEVATION



ELEVATION



CONDUIT DETAIL

STEEL REINFORCEMENT			
BAR	SIZE	DIMENSIONS	NO. REQ.
A-10	#4	4'-0"	2
A-11	#4	14'-0"	4
A-12	#4	11'-3"	2
A-13	#4	10'-8"	2
A-14	#4	10'-2"	2
A-15	#4	9'-7"	2
A-16	#4	9'-1"	2
B-10	#4	7'-6" x 3'-0"	14
B-11	#4	7'-7" x 3'-0"	4

10.0 CU. YDS. CONC.  
237 \* REINF. STEEL

TYPE C  
SCALE 1/2" = 1'-0"

STEEL REINFORCEMENT			
BAR	SIZE	DIMENSIONS	NO. REQ.
A-1	#4	3'-6"	2
A-2	#4	13'-6"	4
A-3	#4	10'-4"	2
A-4	#4	9'-6"	2
A-5	#4	8'-8"	2
A-6	#4	7'-10"	2
A-7	#4	7'-0"	2
B-1	#4	6'-6" x 2'-6"	12
B-2	#4	6'-9" x 2'-6"	4

6.82 CU. YDS. CONC.  
196 \* REINF. STEEL

TYPE B  
SCALE 1/2" = 1'-0"

- NOTES:
- CONDUIT SHALL BE INSTALLED IN RIGHT FOUNDATION OR AS OTHERWISE SPECIFIED BY THE ENGINEER.
  - TOP OF CONC. SHALL BE 3" MIN. ABOVE GROUND (DESIRABLE)
  - ANCHOR BOLTS SHALL BE CAREFULLY SET AND HELD VERTICAL AT THE CORRECT LOCATION AND AT THE PROPER ELEVATION UNTIL CONCRETE HAS SET, IF DESIRED, EACH SET OF FOUR BOLTS MAY BE TIED TOGETHER NEAR THE TOP AND BOTTOM BY WELDING INTO A BASKET WITH BAR STOCK OR EQUIVALENT MATERIAL.

REV #4

MICHIGAN DEPARTMENT OF TRANSPORTATION

**TRUSS FOUNDATION**  
TYPE B, C

NO.	DESCRIPTION	DATE	BY
1	WIRE ENTRANCE	11/66	TMW
2	Anchor bolt strength note	3-3-67	TMW
3	Re-bar dimension change	3/20/67	TMW
4	NOTE ADDED	5-26-69	TMW
5	ANCHOR BOLT DETAIL REVISED	6/73	TMW
6	QUANTITIES ADDED TO ANCHOR BOLT DETAIL	2/74	JDB

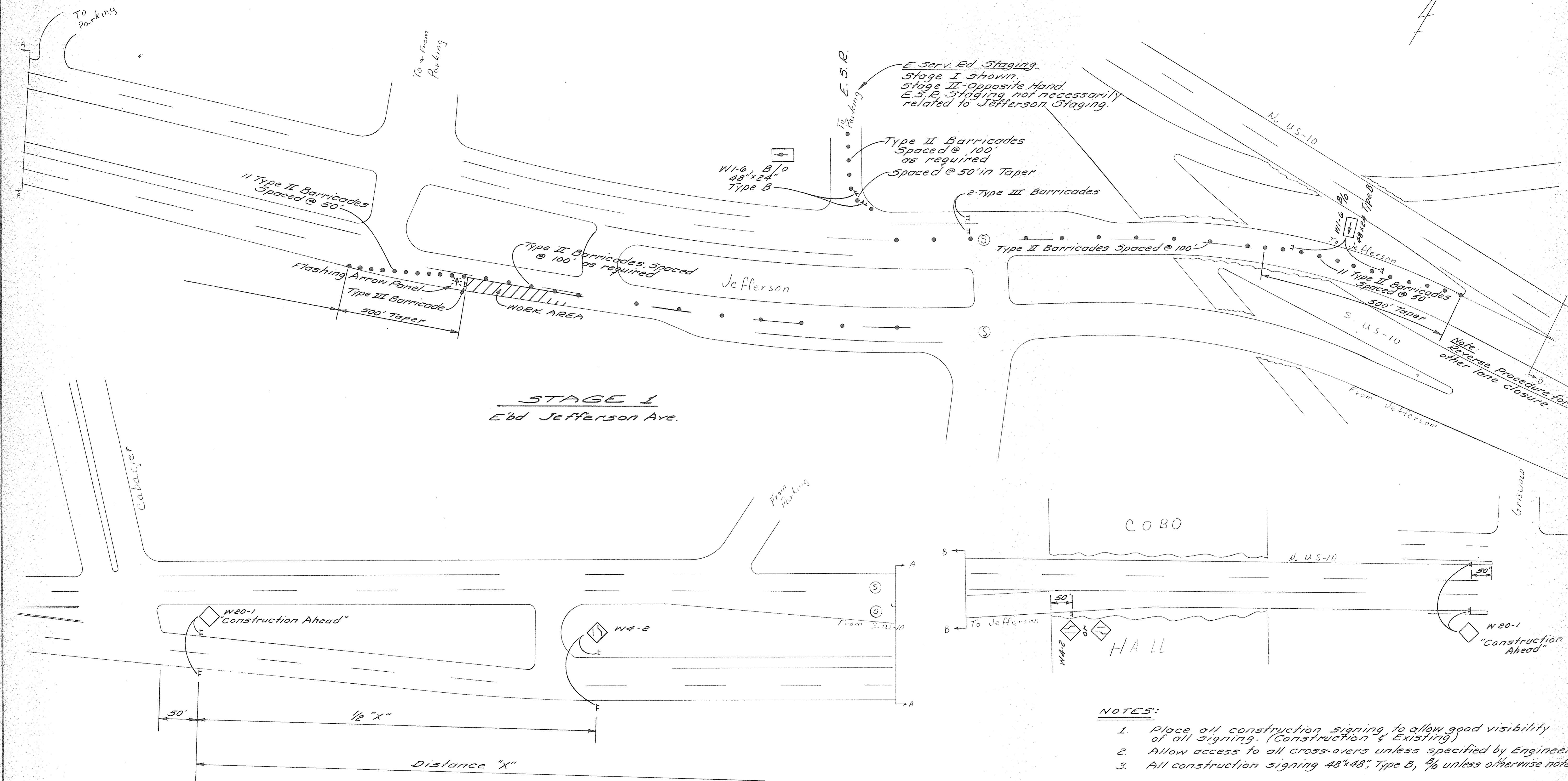
7 Anchor Bolt Note Changed 2/76

15031A  
87 OF 90 LS8









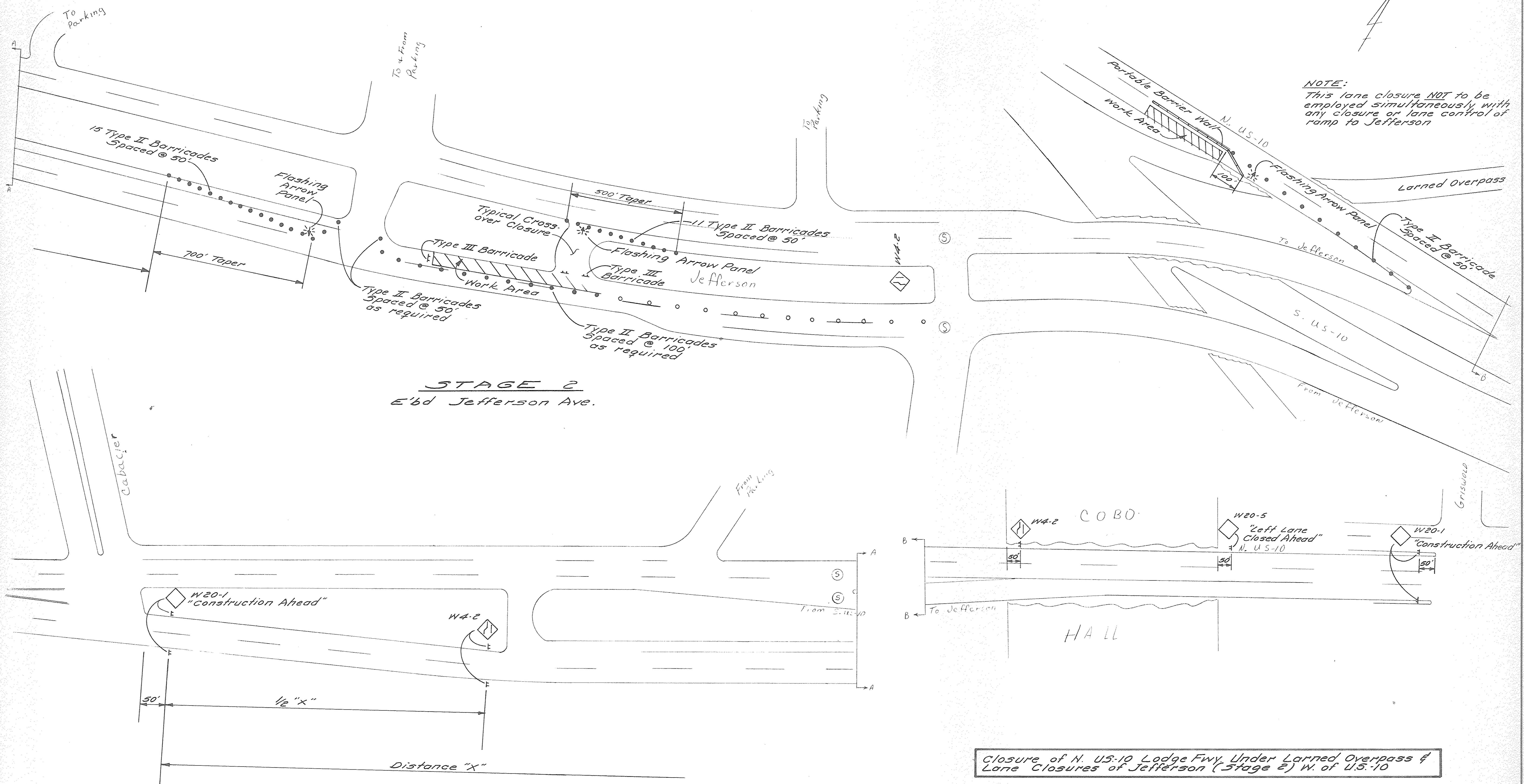
**STAGE 1**  
E'bd Jefferson Ave.

- NOTES:**
1. Place all construction signing to allow good visibility of all signing. (Construction & Existing)
  2. Allow access to all cross-overs unless specified by Engineer.
  3. All construction signing 48"x48", Type B, 3/4 unless otherwise noted.

Lane Closures of Jefferson Ave. (Stage 1) W. of U.S.-10 Lodge Fwy.  
Also, One Lane Closures of E. Service Rd.

<table border="1"> <tr> <td>DESIGNED BY</td> <td></td> </tr> <tr> <td>DRAWN BY</td> <td></td> </tr> <tr> <td>TRACED BY</td> <td></td> </tr> <tr> <td>CHECKED BY</td> <td></td> </tr> </table>		DESIGNED BY		DRAWN BY		TRACED BY		CHECKED BY		<table border="1"> <tr> <td>APPROVED:</td> <td></td> </tr> <tr> <td>ENGINEER OF STREETS</td> <td></td> </tr> <tr> <td>HIGHWAY ENGINEER</td> <td></td> </tr> </table>	APPROVED:		ENGINEER OF STREETS		HIGHWAY ENGINEER		<p align="center">CITY OF DETROIT CITY ENGINEERING DIVISION - D.P.W. BUREAUS OF STREETS AND HIGHWAYS</p>	<p align="center">JOE LOUIS ARENA PEDESTRIAN WALKWAYS</p>	<p>SHEET 89 OF 96 SHEETS</p>
DESIGNED BY																			
DRAWN BY																			
TRACED BY																			
CHECKED BY																			
APPROVED:																			
ENGINEER OF STREETS																			
HIGHWAY ENGINEER																			
<table border="1"> <tr> <th>COORD</th> <th>DESCRIPTION</th> <th>DRN</th> <th>CKD</th> <th>APVD</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		COORD	DESCRIPTION	DRN	CKD	APVD	DATE							<p align="center">TRAFFIC STAGING</p>		<p>CONTRACT NO. 15031A</p>			
COORD	DESCRIPTION	DRN	CKD	APVD	DATE														
<p>REVISIONS LOCATED BY COORDINATES ON SHEET</p>		<p>DATE 7-80</p>		<p>ASSIGNMENT NO.</p>															



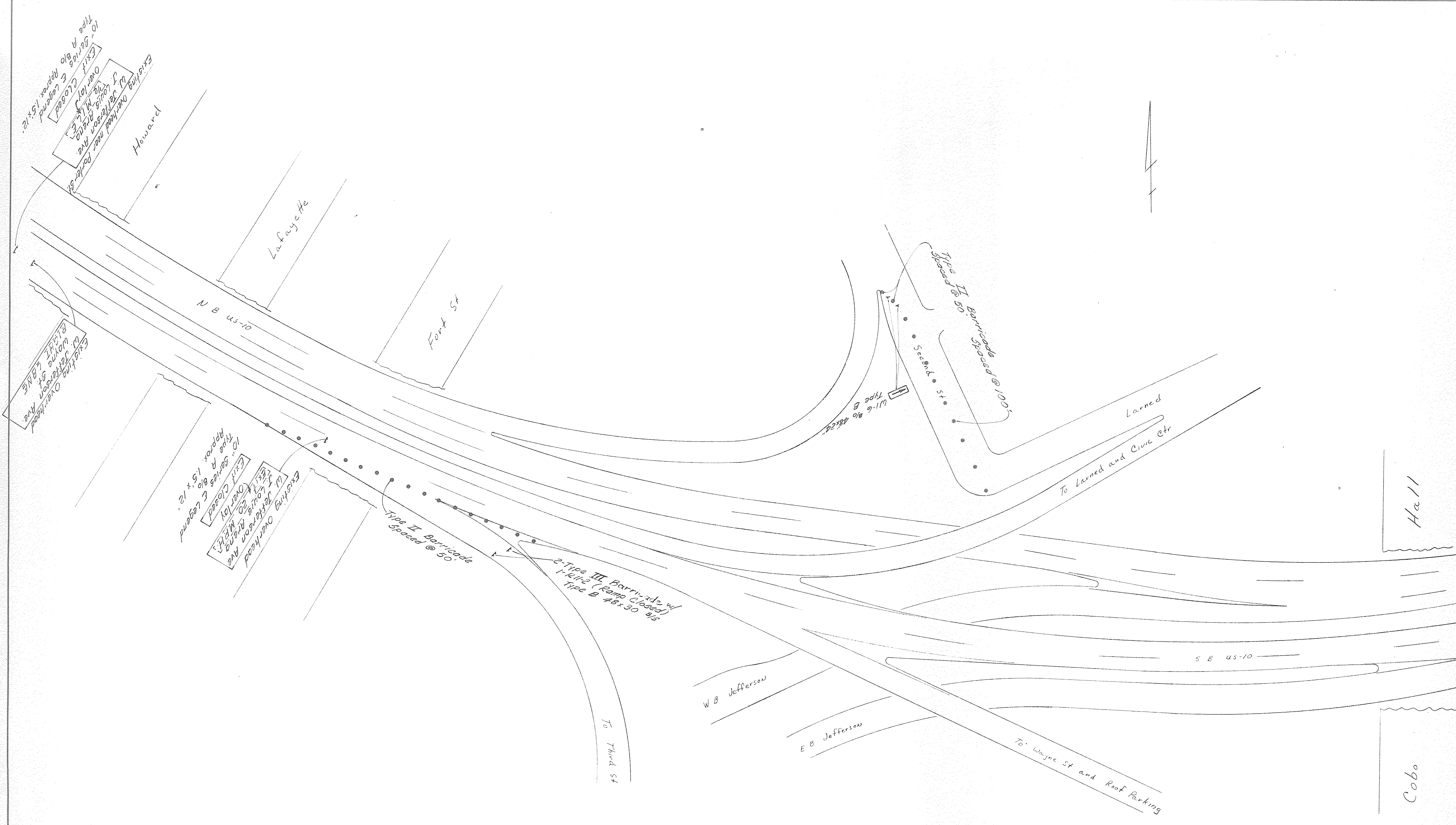


**STAGE 2**  
E'bd Jefferson Ave.

Closure of N. U.S.-10 Lodge Fwy. Under Larned Overpass & Lane Closures of Jefferson (Stage 2) W. of U.S.-10

<table border="1"> <tr> <td>COOR'D</td> <td>DESCRIPTION</td> <td>DRN</td> <td>CHK'D</td> <td>AP'VD</td> <td>DATE</td> </tr> <tr> <td colspan="6">REVISIONS LOCATED BY COORDINATES ON SHEET</td> </tr> </table>		COOR'D	DESCRIPTION	DRN	CHK'D	AP'VD	DATE	REVISIONS LOCATED BY COORDINATES ON SHEET						<table border="1"> <tr> <td>REFERENCE DRAWINGS</td> <td>DESIGNED BY</td> <td>APPROVED:</td> </tr> <tr> <td></td> <td></td> <td>ENGINEER OF STREETS</td> </tr> <tr> <td></td> <td></td> <td>HIGHWAY ENGINEER</td> </tr> </table>	REFERENCE DRAWINGS	DESIGNED BY	APPROVED:			ENGINEER OF STREETS			HIGHWAY ENGINEER	<p align="center">CITY OF DETROIT CITY ENGINEERING DIVISION - DRW. BUREAUS OF STREETS AND HIGHWAYS</p>	<p align="center">JOE LOUIS ARENA PEDESTRIAN WALKWAYS</p>	<p align="center">TRAFFIC STAGING</p>	<p align="center">SHEET 90 OF 96 SHEETS CONTRACT NO. 15031A ASSIGNMENT NO. DATE 7-80</p>
COOR'D	DESCRIPTION	DRN	CHK'D	AP'VD	DATE																						
REVISIONS LOCATED BY COORDINATES ON SHEET																											
REFERENCE DRAWINGS	DESIGNED BY	APPROVED:																									
		ENGINEER OF STREETS																									
		HIGHWAY ENGINEER																									

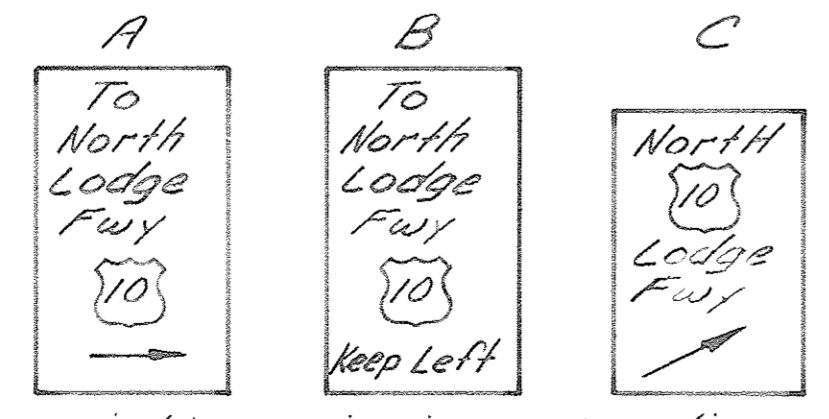
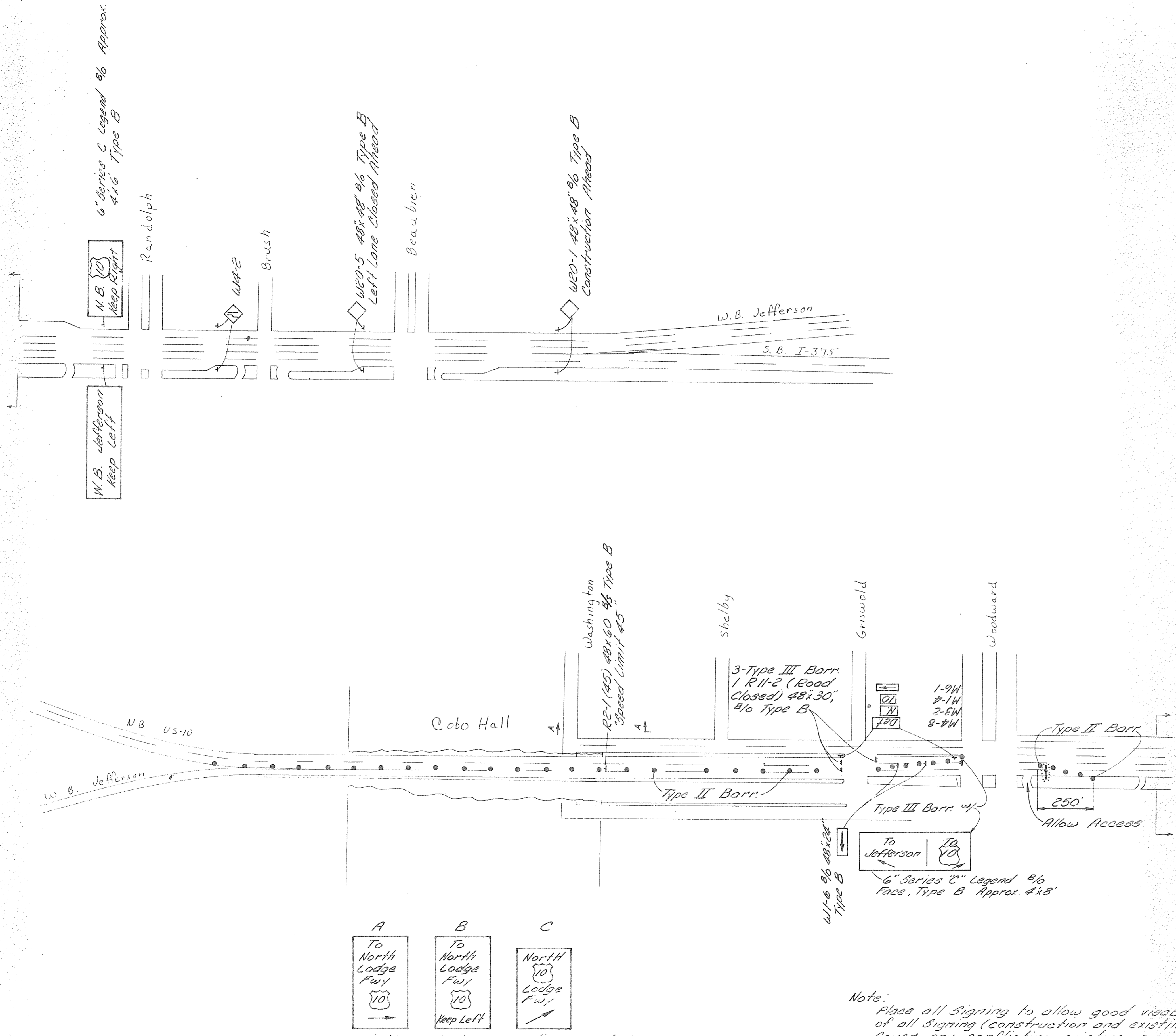




Closure of Exit Ramp from S. U.S.-10 to W. Jefferson  
 & Closure of W. half Second Ave. bet. Larned & Congress.

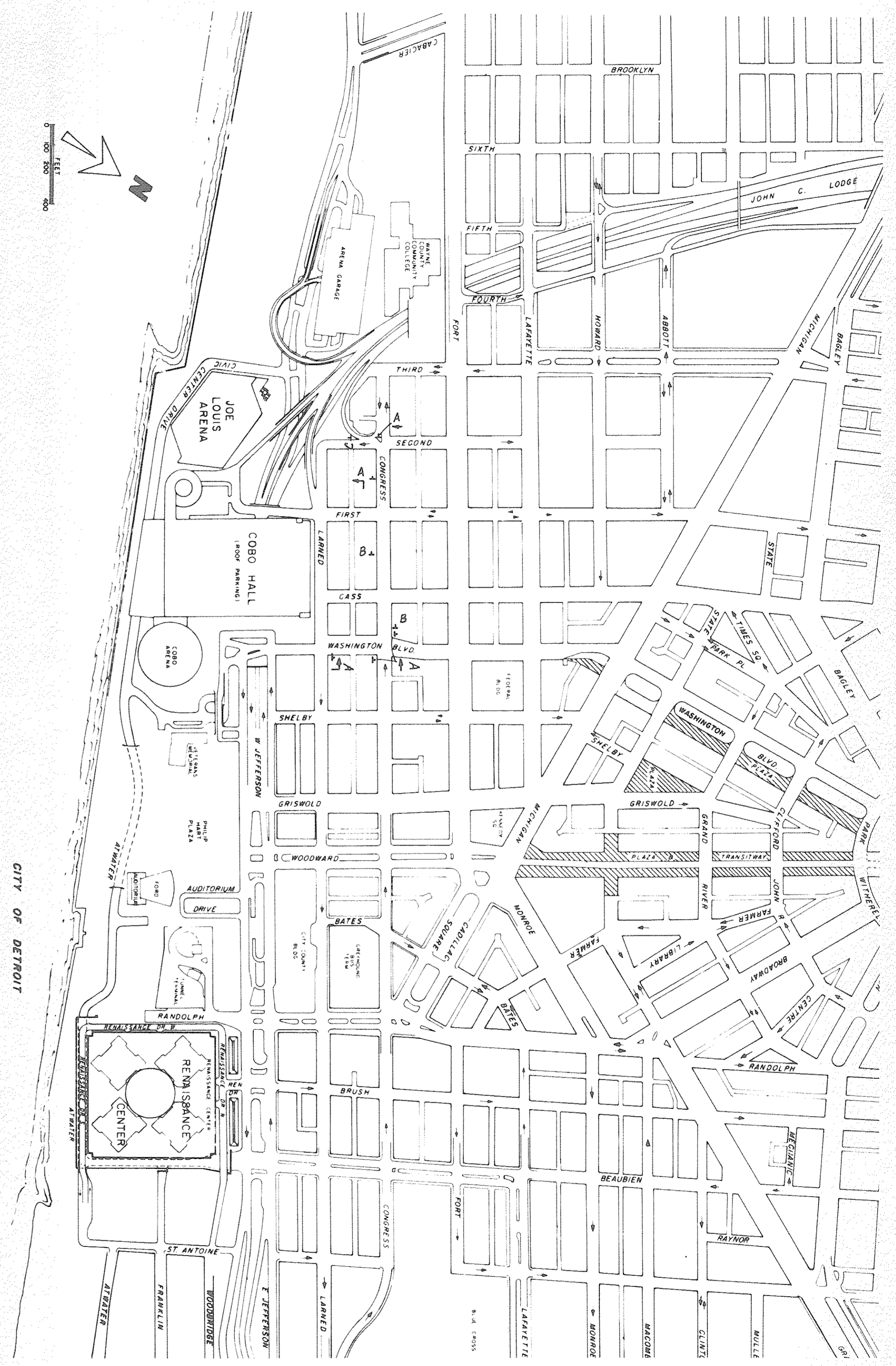
<table border="1"> <tr> <td>DESIGNED BY</td> <td></td> </tr> <tr> <td>DRAWN BY</td> <td></td> </tr> <tr> <td>TRACED BY</td> <td></td> </tr> <tr> <td>CHECKED BY</td> <td></td> </tr> </table>		DESIGNED BY		DRAWN BY		TRACED BY		CHECKED BY		<table border="1"> <tr> <td>APPROVED</td> <td></td> </tr> <tr> <td>ENGINEER OF STREETS</td> <td></td> </tr> <tr> <td>HIGHWAY ENGINEER</td> <td></td> </tr> </table>		APPROVED		ENGINEER OF STREETS		HIGHWAY ENGINEER		CITY OF DETROIT CITY ENGINEERING DIVISION - D.R.W. BUREAUS OF STREETS AND HIGHWAYS			JOE LOUIS ARENA PEDESTRIAN WALKWAYS TRAFFIC STAGING			SHEET 91 OF 96 SHEETS CONTRACT NO. 15031A ASSIGNMENT NO. DATE 7-80	
DESIGNED BY																									
DRAWN BY																									
TRACED BY																									
CHECKED BY																									
APPROVED																									
ENGINEER OF STREETS																									
HIGHWAY ENGINEER																									
<table border="1"> <tr> <th>COORD</th> <th>DESCRIPTION</th> <th>DRN</th> <th>CHKD</th> <th>APVSD</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		COORD	DESCRIPTION	DRN	CHKD	APVSD	DATE							REVISIONS LOCATED BY COORDINATES ON SHEET		1      2      3      4      5      6      7      8      9      10      11			12      13      14      15      16      17      18      19      20						
COORD	DESCRIPTION	DRN	CHKD	APVSD	DATE																				





Existing Signing Direction Symbol indicated at each location. Attach one Daylo Flag to each sign

Note: Place all signing to allow good visibility of all signing (construction and existing) Cover any conflicting existing signing (Routing).



Closure of North U.S.10 Lodge Fwy. at Jefferson

DESIGNED BY	APPROVED:
DRAWN BY	ENGINEER OF STREETS
TRACED BY	HIGHWAY ENGINEER
CHECKED BY	
COORD	DESCRIPTION
DRN	CKD
APV	DATE
REVISIONS LOCATED BY COORDINATES ON SHEET	

CITY OF DETROIT  
CITY ENGINEERING DIVISION - DPW  
BUREAU OF STREETS AND HIGHWAYS

JOE LOUIS ARENA PEDESTRIAN WALKWAYS  
TRAFFIC STAGING

SHEET 92 OF 96 SHEETS  
CONTRACT NO. 15031A  
ASSIGNMENT NO.  
DATE 7-80











QUANTITY SHEET - E

ITEMS	AS PER PLANS													AS CONSTRUCTED													
	TOTALS	UNITS	CITY-STATE-FEDERAL PARTICIPATION	CITY-FEDERAL PARTICIPATION										TOTALS	UNITS	CITY-STATE-FEDERAL PARTICIPATION	CITY-FEDERAL PARTICIPATION										
Removing Pavement	7	S.Y.	7																								
Removing Curb and Gutter	520	L.F.	520																								
Removing Masonry and Concrete Structures	50	C.Y.	50																								
Removing Beam Guard Rail	225	L.F.	225																								
Removing Fence	320	L.F.	320																								
Removing Heavy Foundations	54	C.Y.	54																								
Granular Material Class II	38	C.Y.	38																								
Structure Backfill (C.I.P.)	30	C.Y.	20	10																							
Aggregate Base-Concrete (4" in Place)	570	S.Y.	570																								
Bituminous Shoulders (3" Thick)	25	Tons	25																								
Misc. Conc. Pavt. Unreinforced-Variable Thickness	569	S.Y.	569																								
Permanent Steel Sheet Piling (L.I.P.)	1200	S.F.	1200																								
Temporary Steel Sheet Piling	500	S.F.	500																								
Steel Piles, Furnished and Driven (12")	1800	L.F.	1800																								
C.I.P. Conc. Piles, Furnished and Driven (200 Ton)	3,400	L.F.	3,400																								
C.I.P. Conc. Piles, Furnished and Driven (100 Ton)	2,280	L.F.	1,710	570																							
Substructure Concrete	395	C.Y.	211	184																							
Drainage Structure Cover (D)	3	Each	3																								
4" Concrete Sidewalk	14,233	S.F.	6,125	8,108																							
6" Concrete Sidewalk	576	S.F.	58	518																							
Sidewalk Ramp, Type 1	210	S.F.	210																								
Sidewalk Ramp, Type 3	320	S.F.	64	256																							
Concrete Barrier-Special	89	L.F.	89																								
Galvanized Curved Beam Guard Rail, Type B (Detail I)	225	L.F.	225																								
48" Chain Link Fence	330	L.F.	330																								
Field Office	11	Months	11																								
Sign, Type IA	386	S.F.	386																								
Removal of Sign, Type I	3	Each	3																								
Lighted Arrow, Type A, Furnished	3	Each	2	1																							
Lighted Arrow, Type A, Operated	3	Each	2	1																							
Barricade, Type II, Lighted, Furnished	284	Each	188	96																							
Barricade, Type II, Lighted, Operated	144	Each	95	49																							
Barricade, Type III, Lighted	11	Each	5	6																							
Temporary Concrete Barrier	200	L.F.	200																								
Sign, Type A, Temporary	54	S.F.	54																								
Sign, Type B, Temporary	1,052	S.F.	790	262																							
Class "A" Sodding	1,435	S.Y.	1,168	267																							
Water	4	Units	3	1																							
Class A Seeding	38	Lbs.	38																								
Chemical Fertilizer Nutrient	10	Lbs.	10																								
Topsoil Surface - 3"	3,275	S.Y.	3,008	267																							