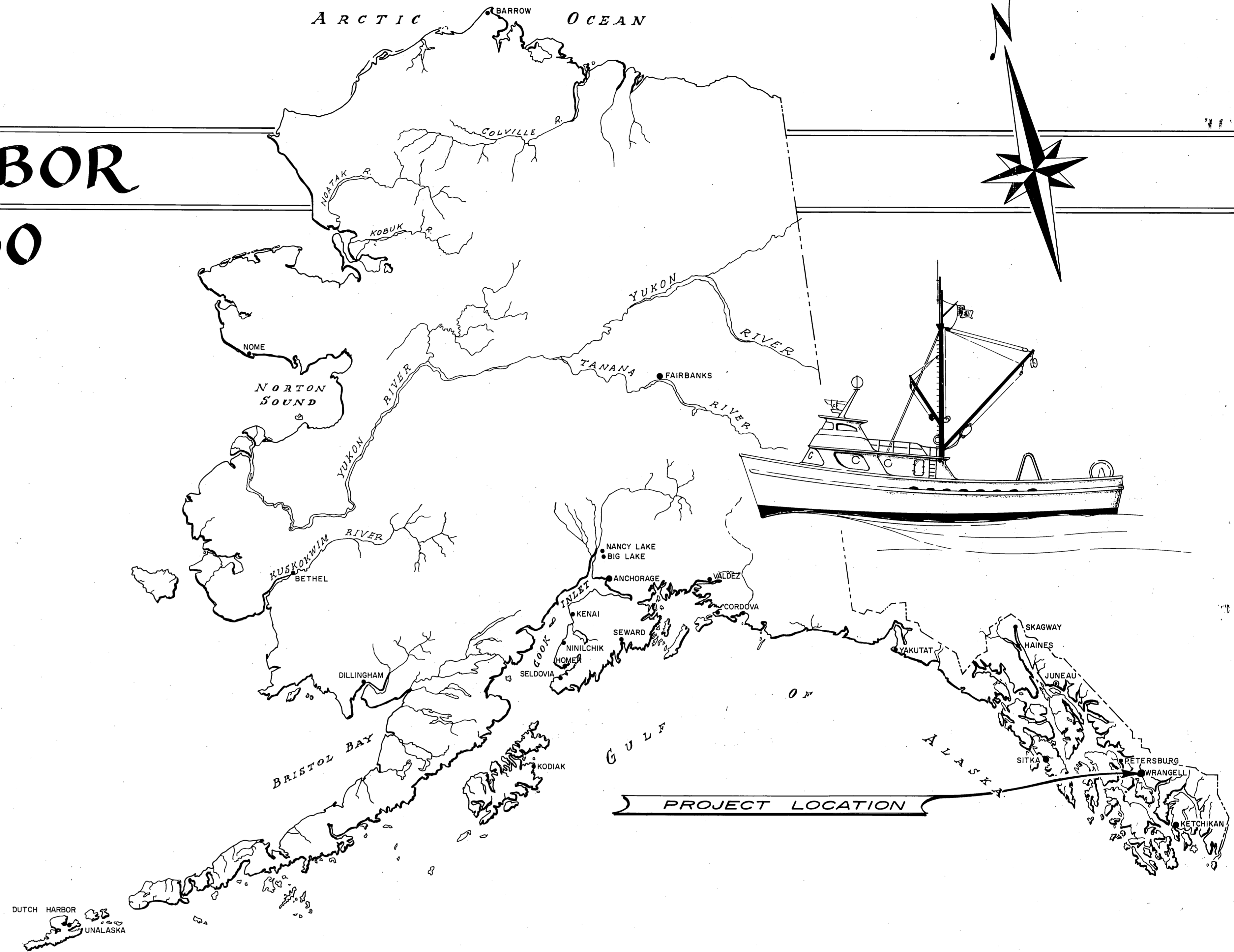


# WRANGELL SHOEMAKER BAY HARBOR PROJECT NO. 9-73130



### WORK SUMMARY

This project consists of constructing a new harbor at Wrangell, Shoemaker Bay and includes a 1440-foot long armor rock breakwater, an 8.5 acre boat mooring basin and entrance channel, and construction of (one) two parking areas totalling 6.9 acres. Major bid quantities include ~~215,000~~ (187,499.7) C.Y. of common excavation, ~~13,100~~ C.Y. of heavy armor rock, ~~9500~~ C.Y. of light armor rock, ~~14,800~~ C.Y. of quarry spall filter material, and 23,000 C.Y. of breakwater (core material). (10,516.4) (5.5) (18,666.5)

As Constructed 7-15-76

STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS  
DIVISION OF WATER & HARBORS

### INDEX TO SHEETS

- 1 TITLE & LOCATION
- 2 LOCATION PLAN & SECTIONS
- 3 PLANS - BREAKWATER, BOAT HARBOR & DISPOSAL AREA

APPROVED

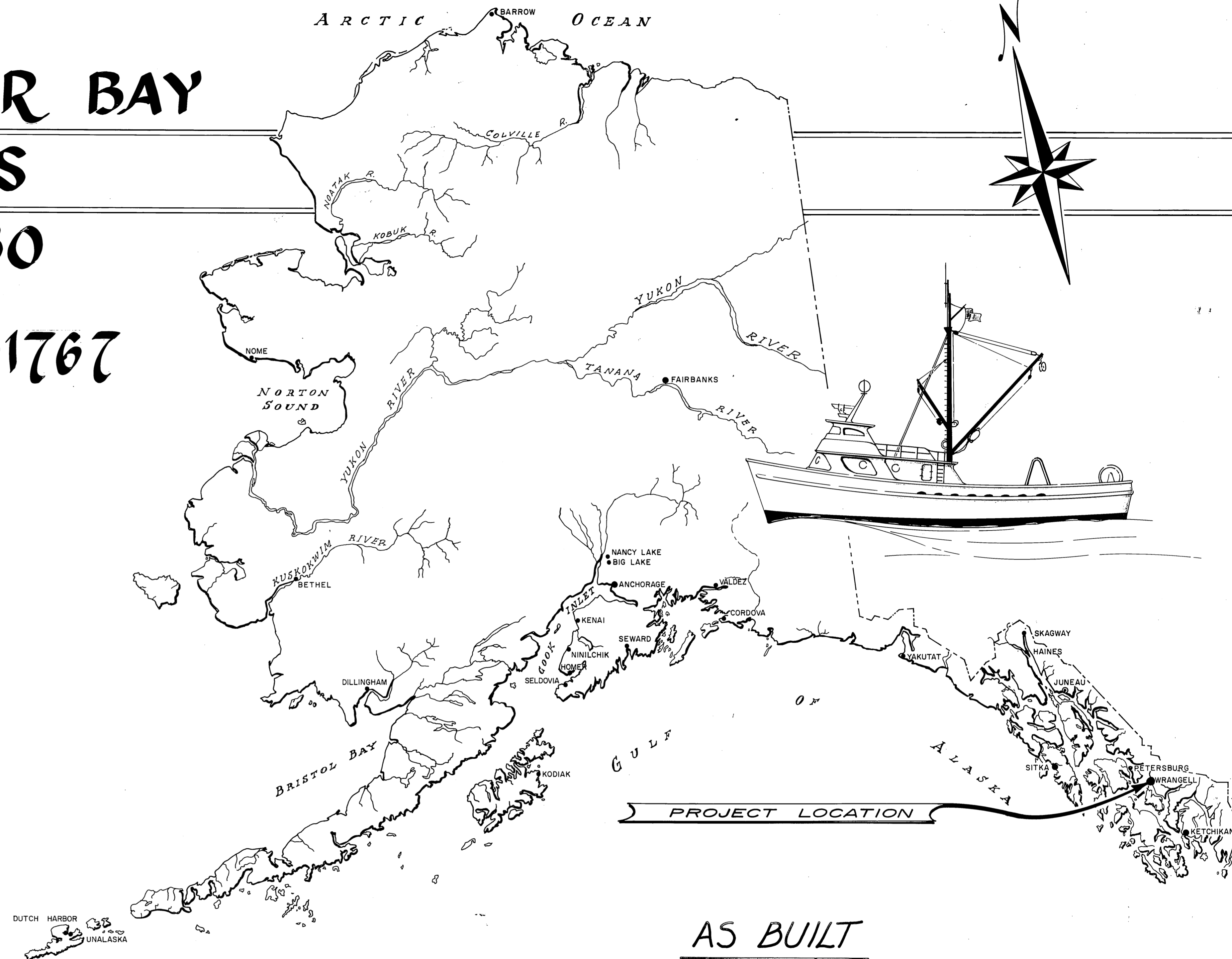
*Don Stutes*  
DIRECTOR

DATE 12/16/75

SHEET 1 OF 3

# WRANGELL~SHOEMAKER BAY HARBOR FACILITIES PROJECT NO. 9-73130

E.D.A. PROJECT NO. 07-01-01767



AS BUILT

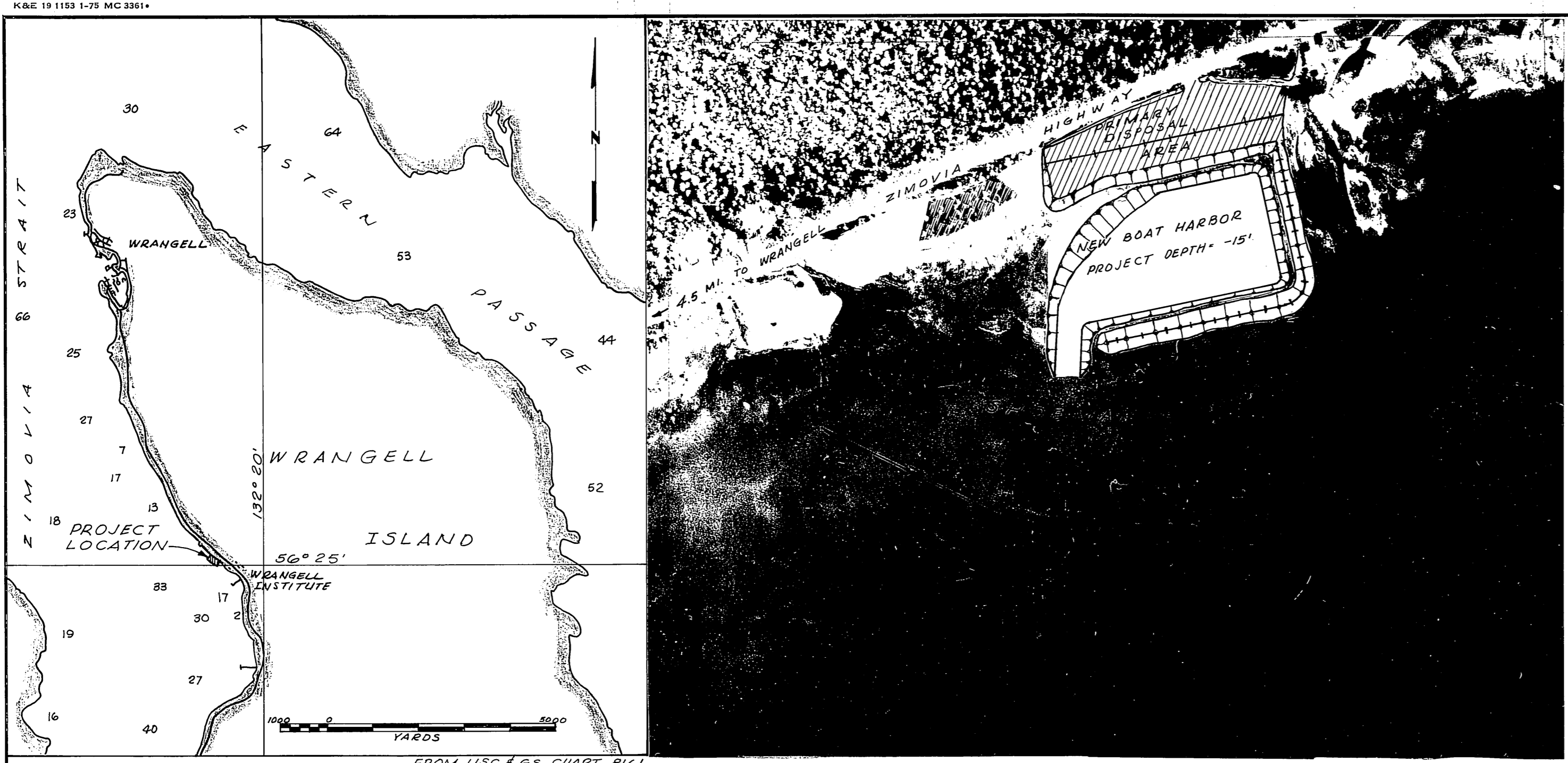
**WORK SUMMARY**

Major units of work in this project include 31,184 SF of concrete floats, 5046 LF of treated timber float piles, two (2) 12'x100' concrete and steel approach structures, two (2) 6'x50' steel gangways, and complete electrical utilities, except for electrical power on Finger Float "A" which shall be Additive Alternate No.1.

INDEX TO SHEETS	
1 TITLE & LOCATION	10 FLOAT UNIT DETAILS
2 PROJECT LAYOUT	11 FLOAT UNIT DETAILS
3 FLOAT INTERSECTION DETAILS	12 APPROACH PLAN & DETAILS
4 24' STALL FLOAT DETAILS	13 TYPICAL GANGWAY - SH. A
5 30' & 40' STALL FLOAT DETAILS	14 TYPICAL GANGWAY - SH. B
6 48' & 62' STALL FLOAT DETAILS	15 LIGHTING PLAN ~ SHEET E-1
7 PILE COLLAR & HINGE DETAILS	16 POWER PLAN ~ SHEET E-2
8 MISCELLANEOUS DETAILS	17 ELECTRICAL DETAILS ~ SH. E-3
9 FLOAT UNIT DETAILS	18

STATE OF ALASKA — DEPARTMENT OF PUBLIC WORKS  
**DIVISION OF WATER & HARBORS**

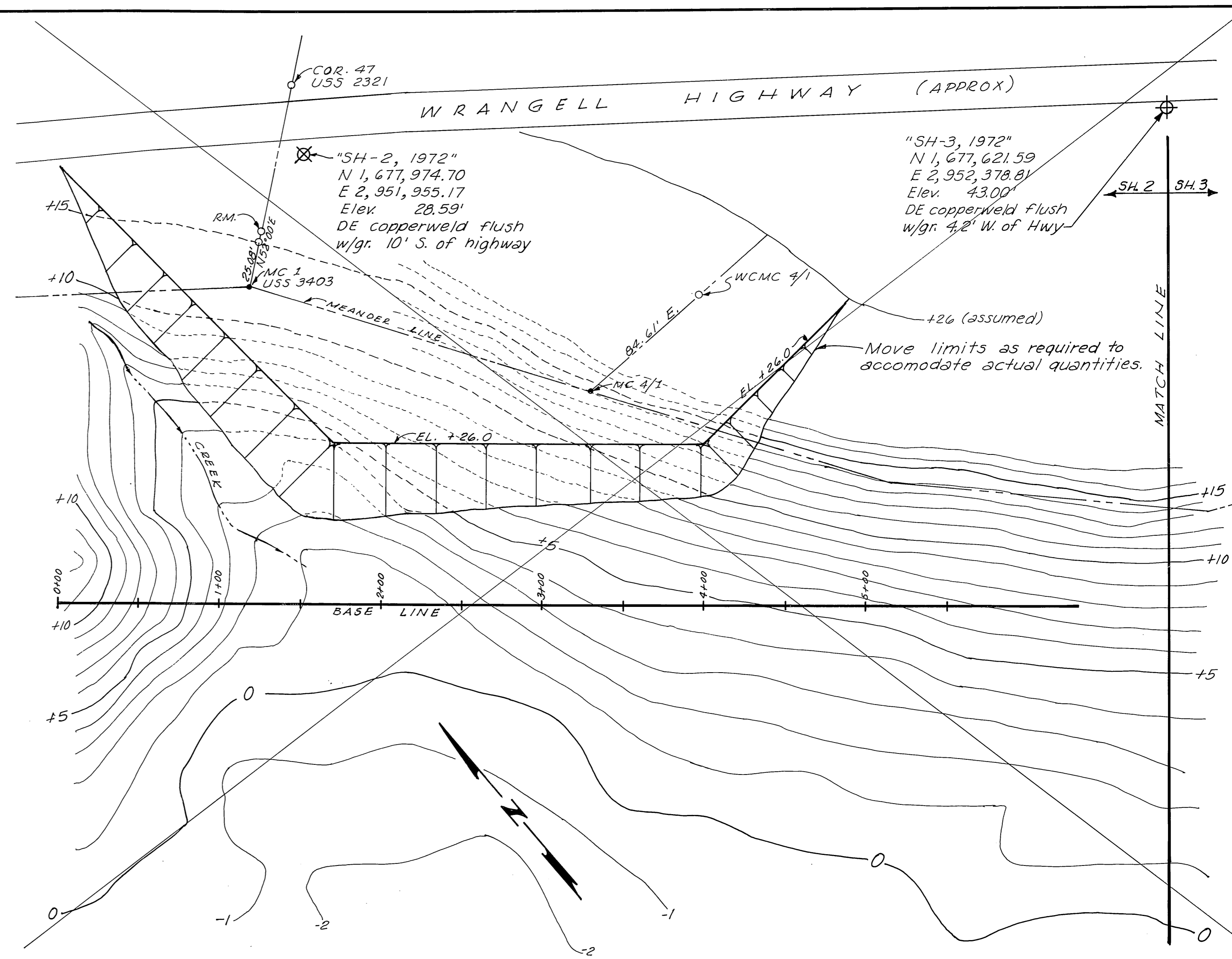
APPROVED  
*Robert P. Beck for*  
*Don Statter*  
DIRECTOR  
DATE Nov. 4, 1976  
SHEET 1 OF 17



VICINITY MAP

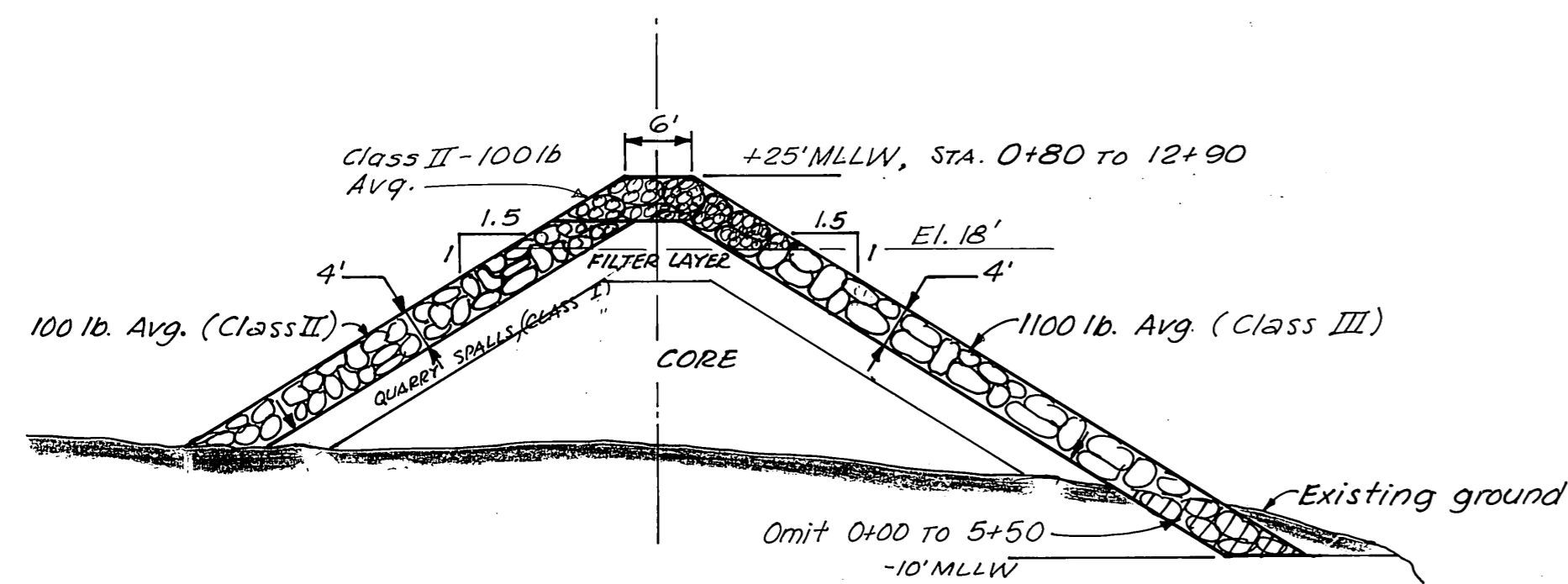
LOCATION PLAN

1" = 400'



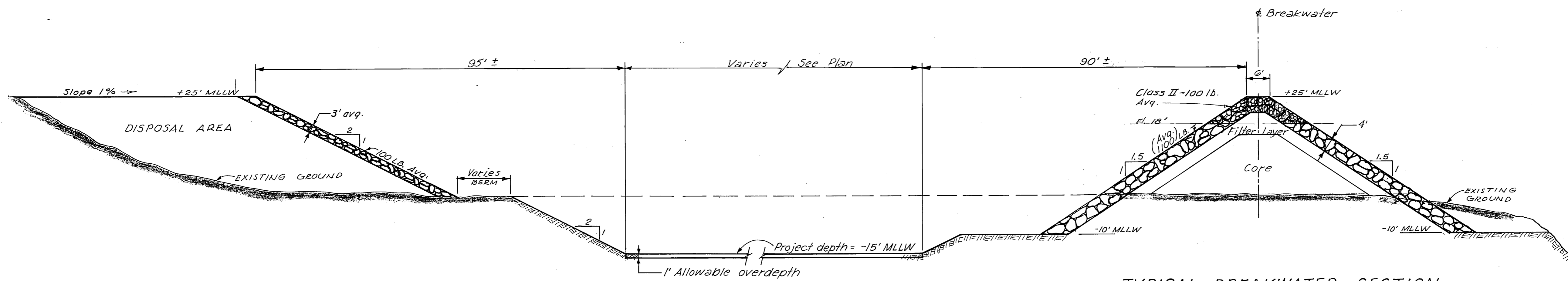
SECONDARY DISPOSAL AREA

1" = 50' Not Used



TYPICAL BREAKWATER SECTION

STA. 0+00 TO 12+90



TYPICAL DISPOSAL AREA SECTION

TYPICAL BASIN SECTION

TYPICAL BREAKWATER SECTION

STA. 12+90 TO 14+40

TYPICAL SECTIONS

1" = 15'



As Constructed 7-15-76

DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
<u>LOCATION PLAN</u> <u>SECONDARY DISPOSAL AREA</u> <u>TYPICAL SECTIONS</u>		
SCALE <i>As noted</i>	SURVEYED <i>U.S.C.E.</i>	APPROVED
DESIGNED <i>~</i>	DRAWN <i>JT</i>	<i>Don Statter</i> DIRECTOR
CHECKED <i>RB</i>	DATE <i>12-15-75</i>	
PROJECT NUMBER <i>9-73130</i>	SHEET <i>2</i> OF <i>3</i>	



T.B.M., Nail in Power Pole, Elev 23.61

WRANGELL HIGHWAY (approx)

"SH-3, 1972"  
N 1,677,621.59  
E 2,952,378.81  
Elev 43.00'  
DE copperweld  
Flush w/ground  
42' W. of highway

"SH-4, 1972"  
N 1,676,671.48  
E 2,953,581.19  
Elev 29.44'  
DE copperweld 0.2' below  
gr. in edge of lawn @ Wrangell  
Inst. on E. side of highway

MATCH LINE

MEANDER LINE

Stockpile of excavated material

Elev. along baseline = 26.2 ±

BASE LINE

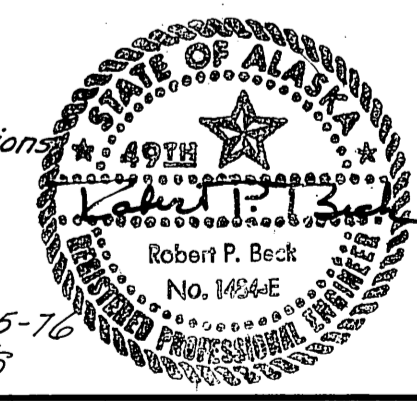
Elev. along shoulder = 25.2 ±

Soundings in N.W. corner taken Dec. 13, 1976 after clam dredging

To "SH-1 1972"  
N 1,677,879.11  
E 2,951,649.66  
Elev 20.81  
SBC on conc.  
pad, S. edge  
of seaplane  
ramp.

SH-5, 1972  
N 1,676,424.34  
E 2,953,326.26  
Elev. 13.52  
SBC set in conc.  
manhole.

Preconstruction - Contours  
Postconstruction - Soundings & Elevations



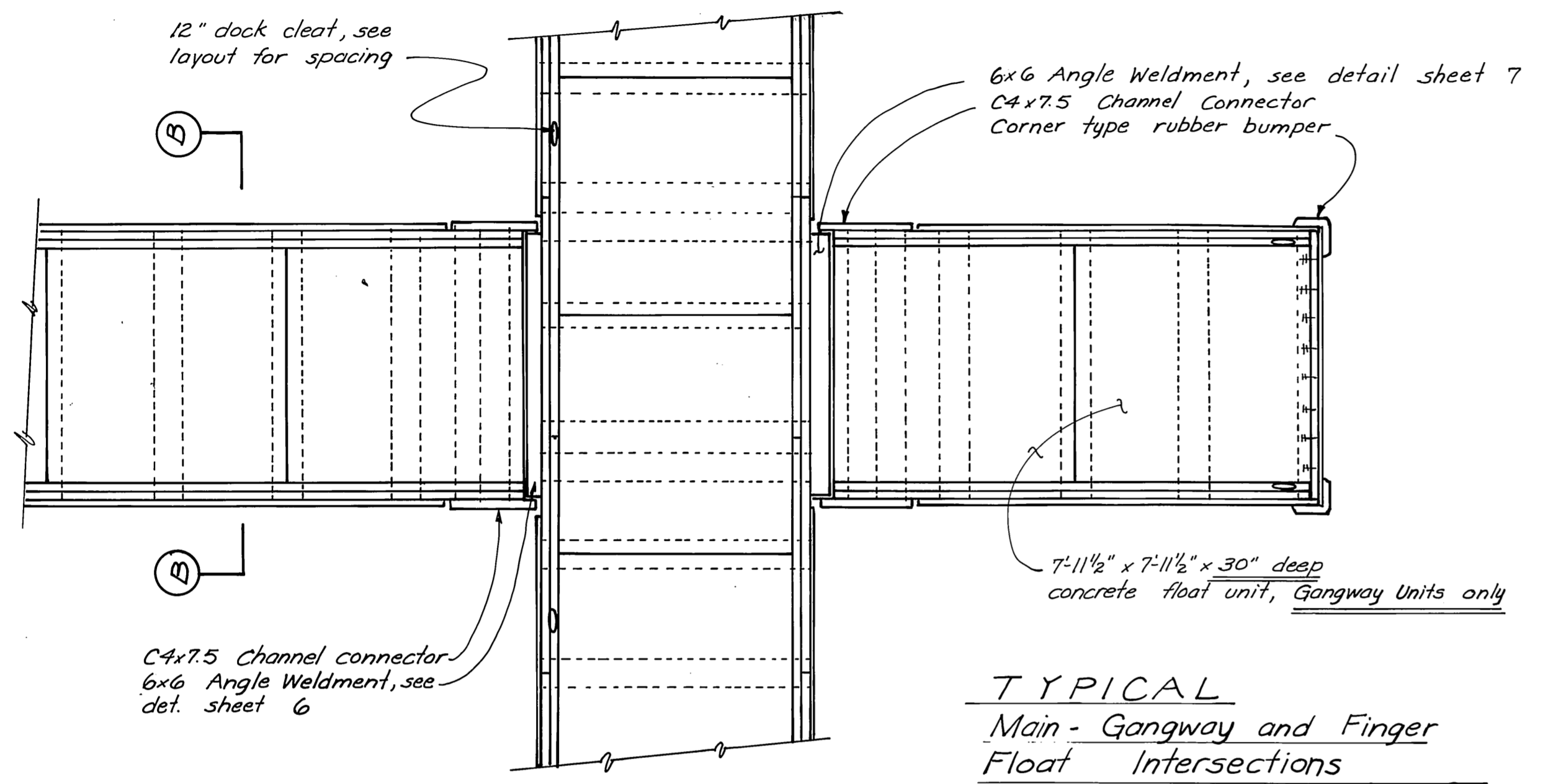
As Constructed 7-15-76

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

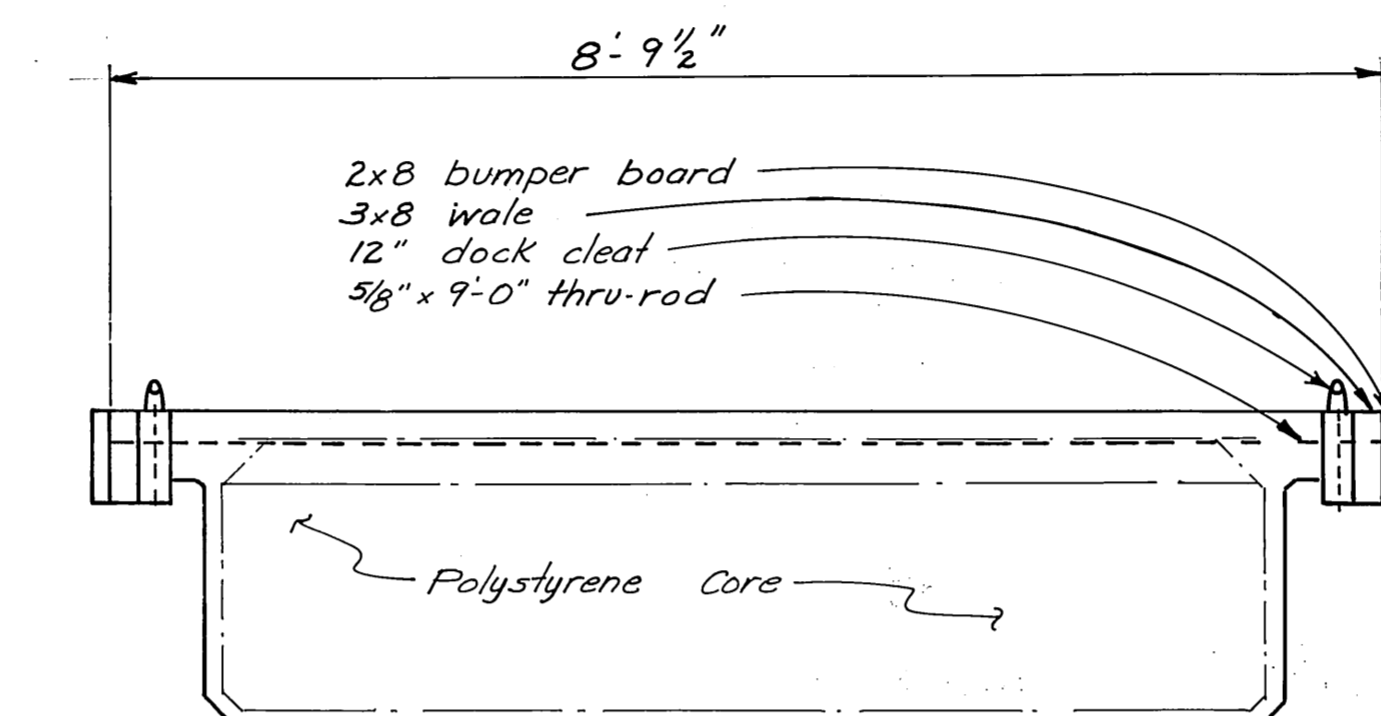
STATE OF ALASKA  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF WATER AND HARBORS

### PLAN SMALL BOAT HARBOR, DISPOSAL AREA & BREAKWATER

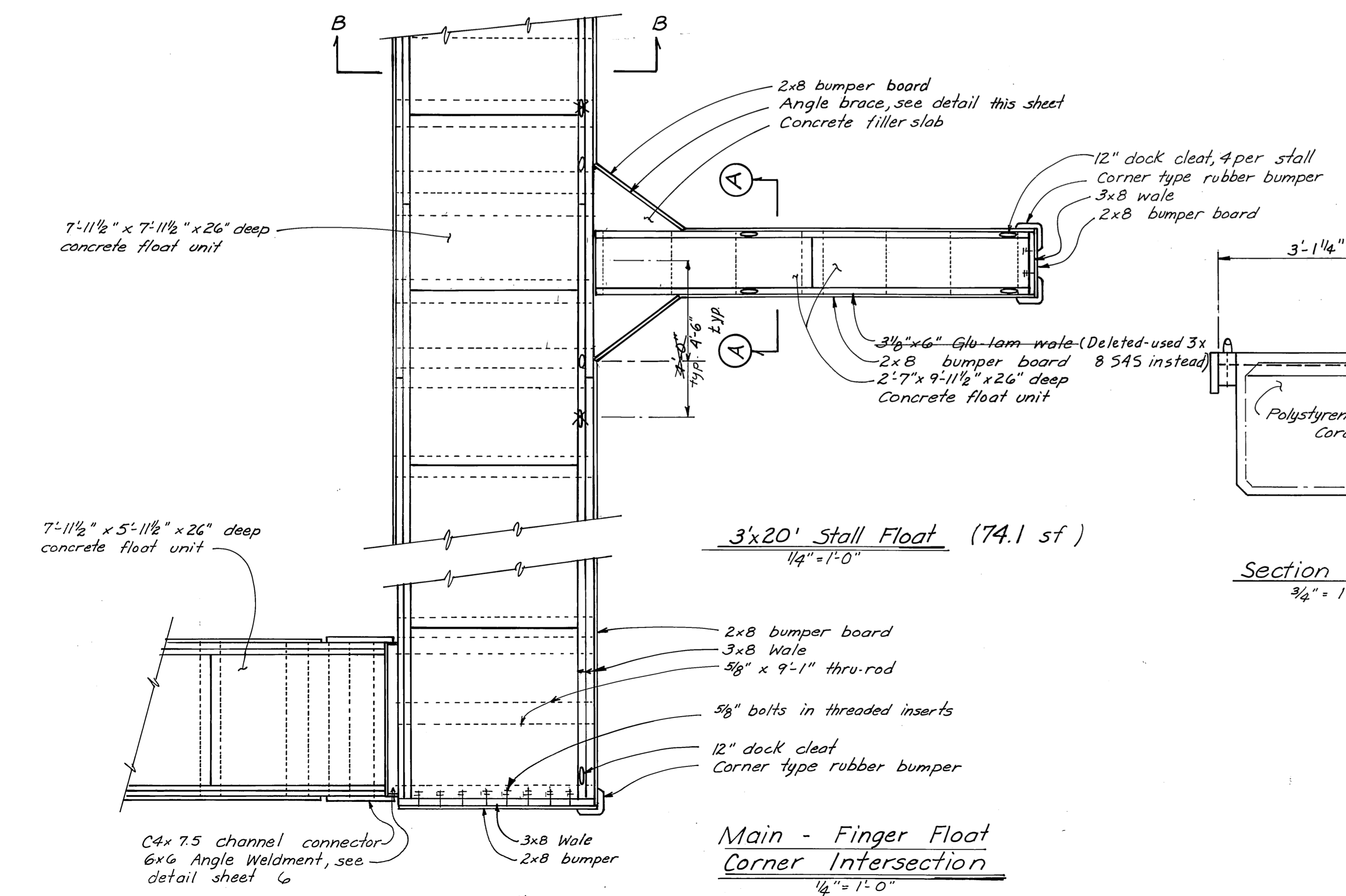
SCALE 1" = 50'	SURVEYED <u>U.S.C.E.</u>	APPROVED
DESIGNED <u>~</u>	DRAWN <u>JT</u>	<u>Don Statter</u> DIRECTOR
CHECKED <u>RB</u>	DATE <u>12-2-75</u>	
PROJECT NUMBER <u>9-73130</u>	SHEET <u>3</u> OF <u>3</u>	



**TYPICAL**  
Main - Gangway and Finger  
Float Intersections  
1/4" = 1'-0"

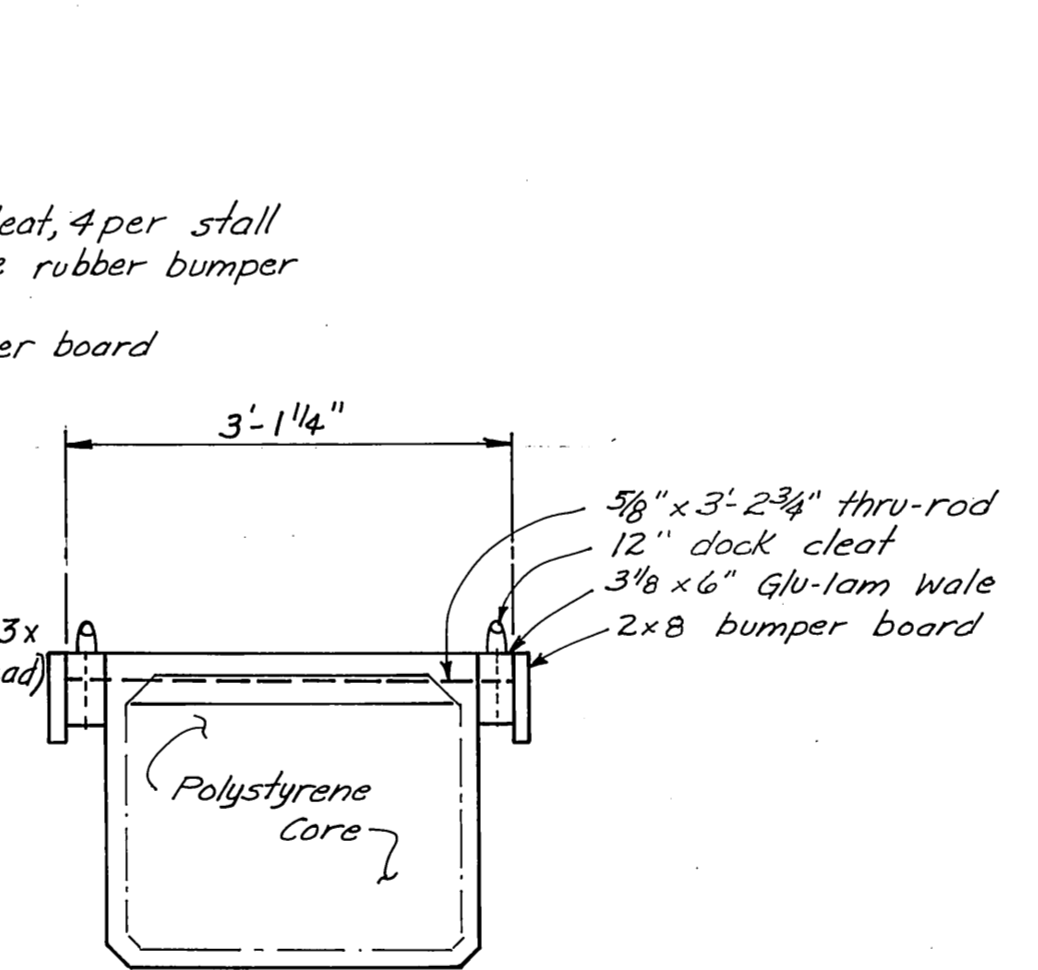


**Section B-B**  
3/4" = 1'-0"

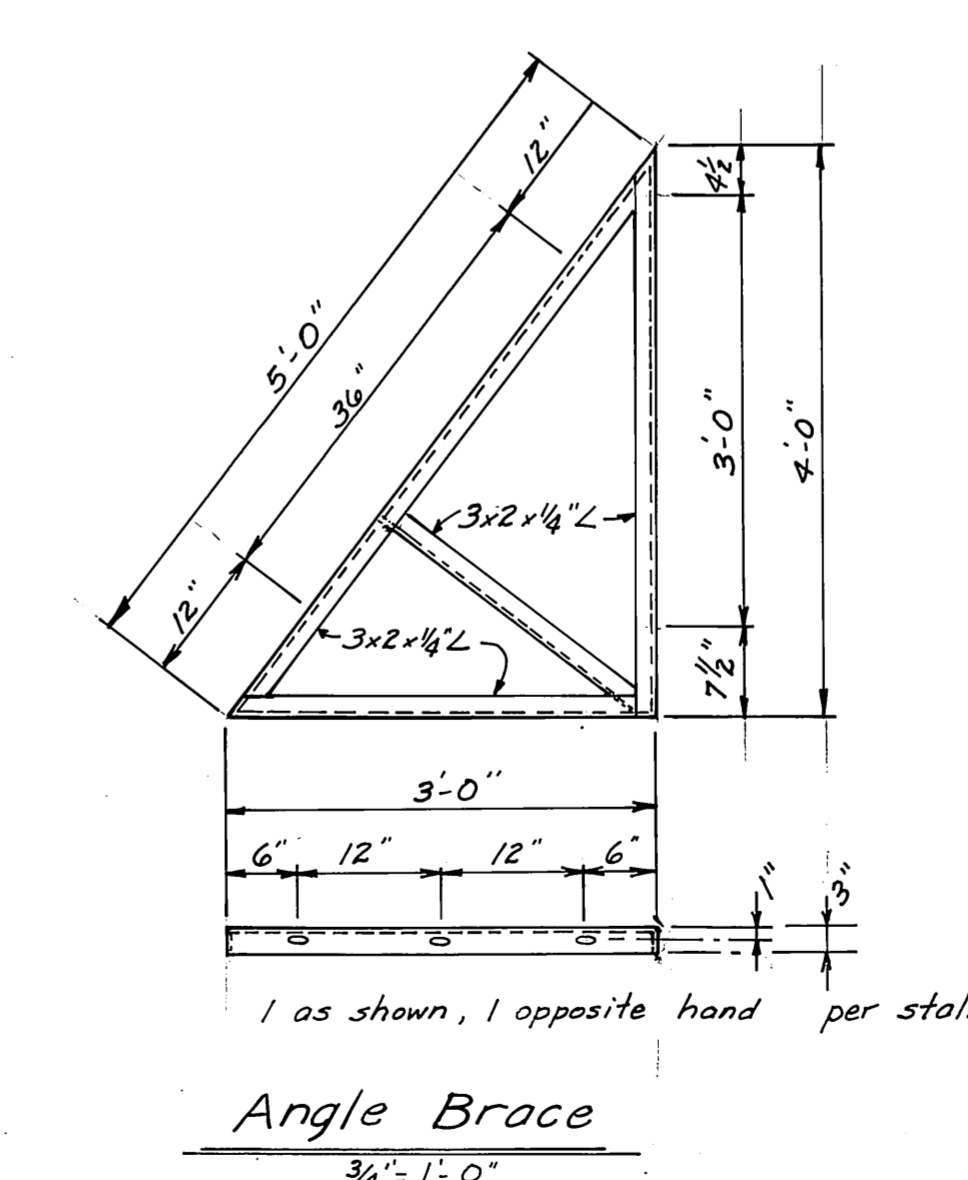


**3x20' Stall Float (74.1 sf)**  
1/4" = 1'-0"

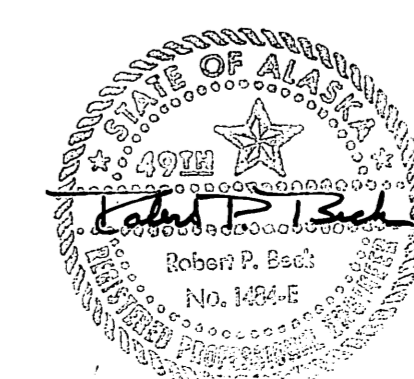
**Main - Finger Float  
Corner Intersection**  
1/4" = 1'-0"



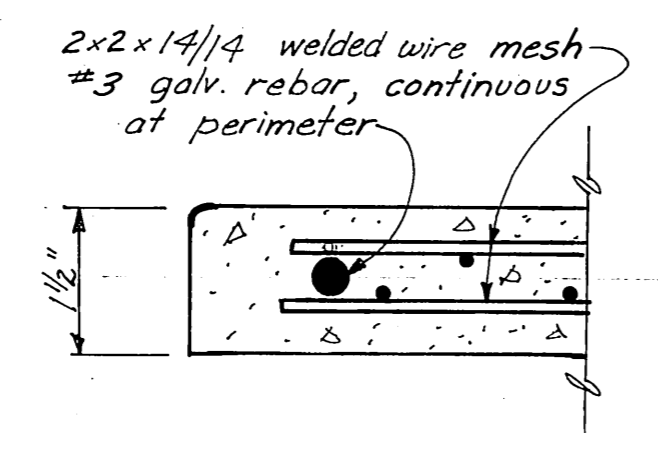
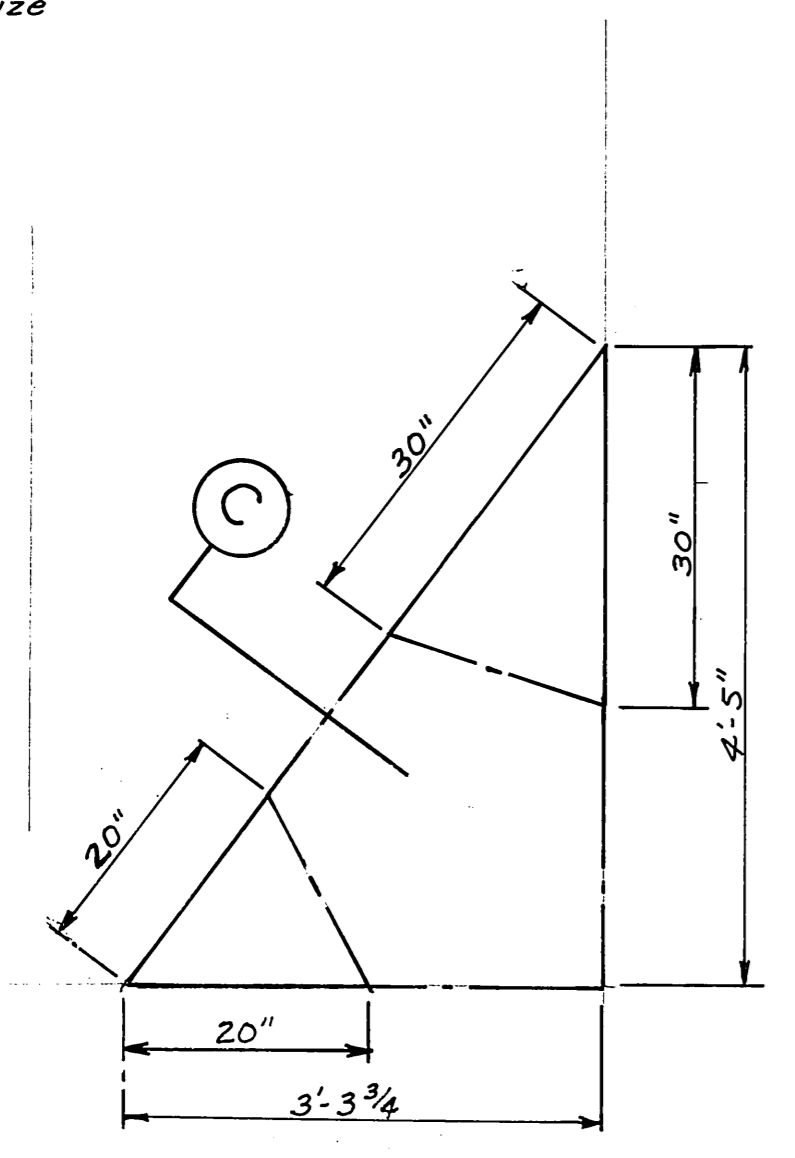
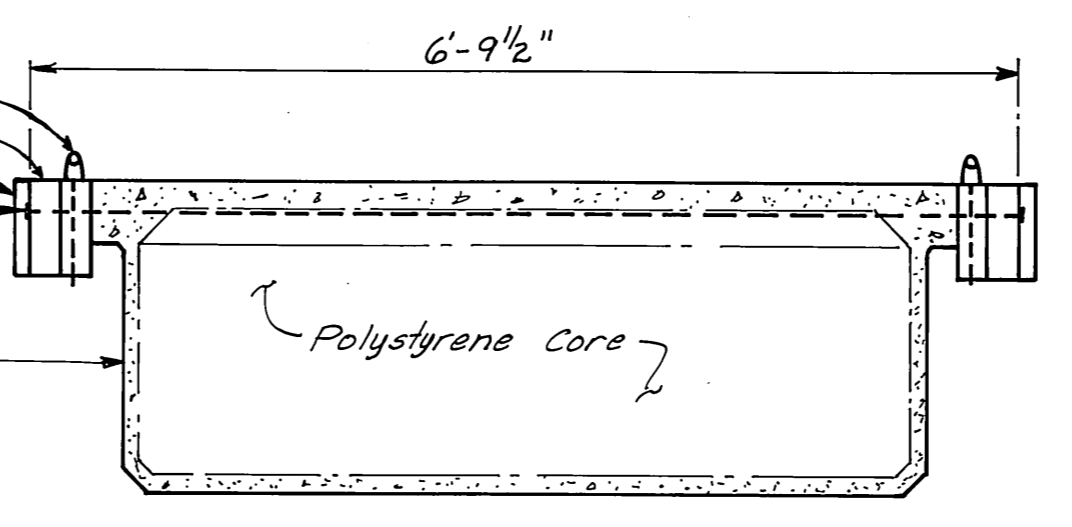
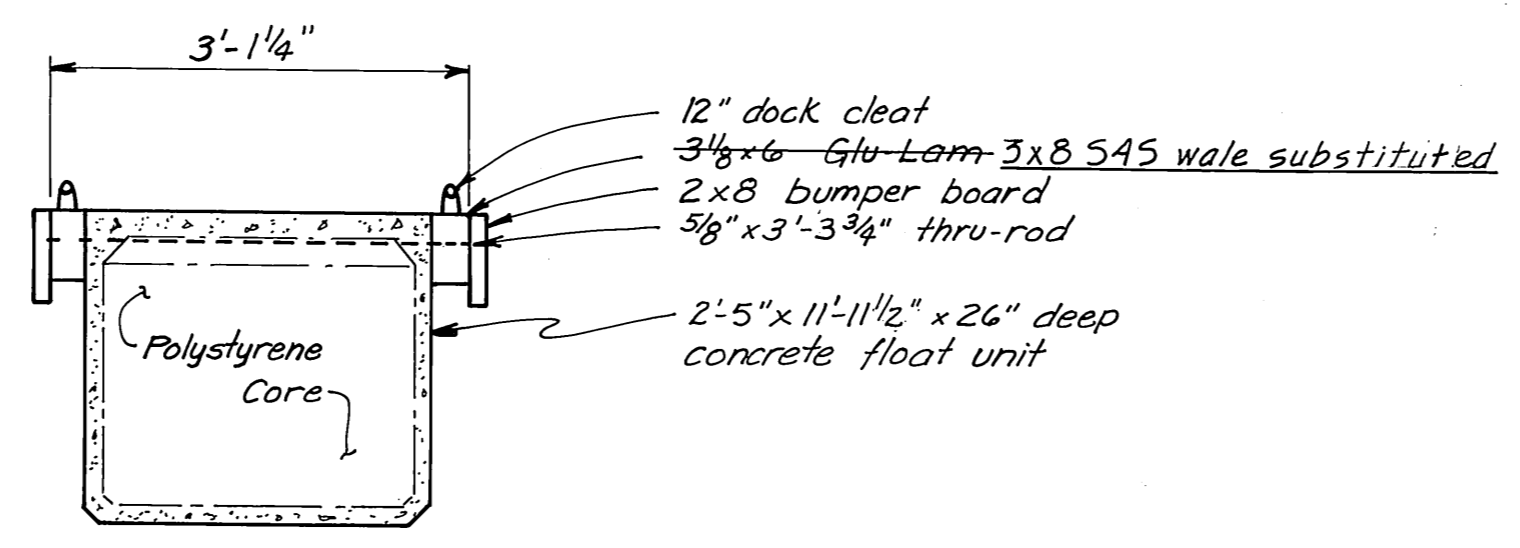
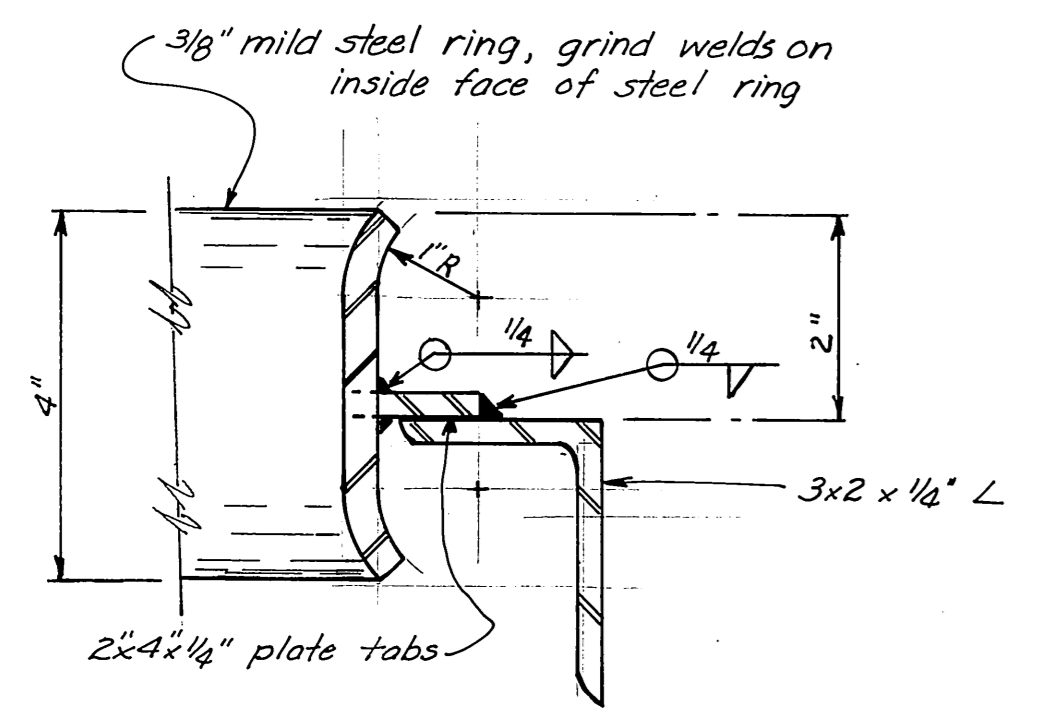
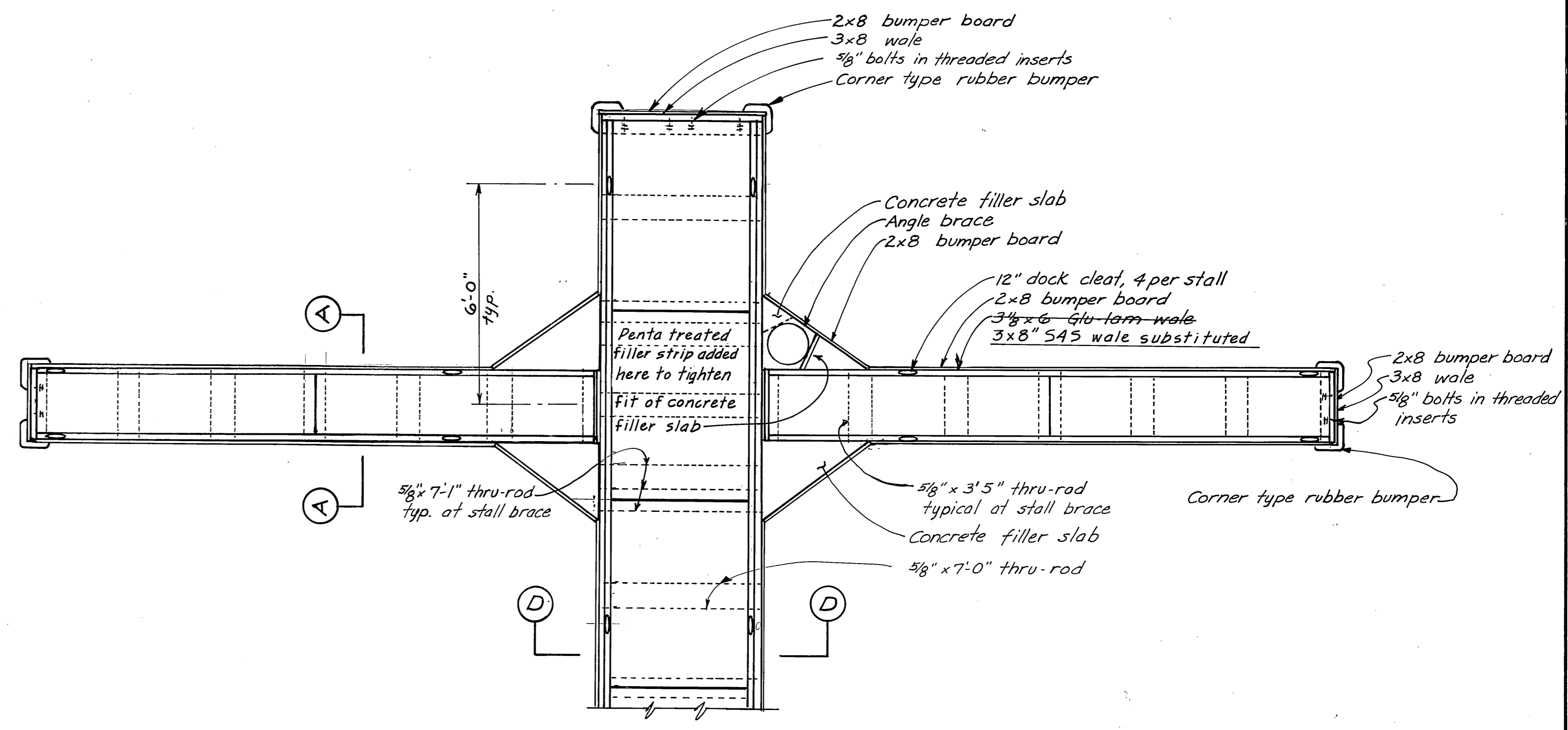
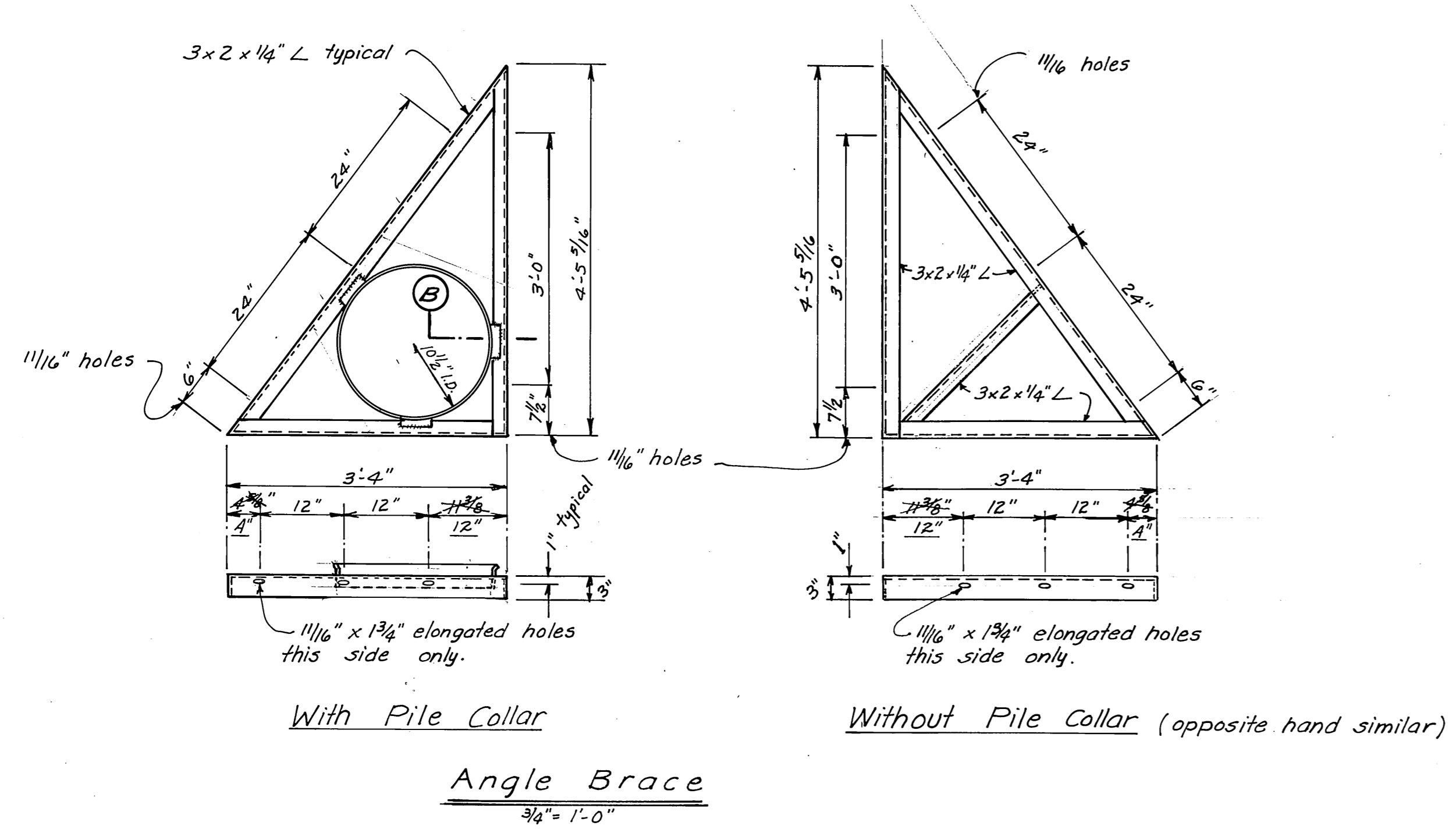
**Section A-A**  
3/4" = 1'-0"



**AS BUILT**

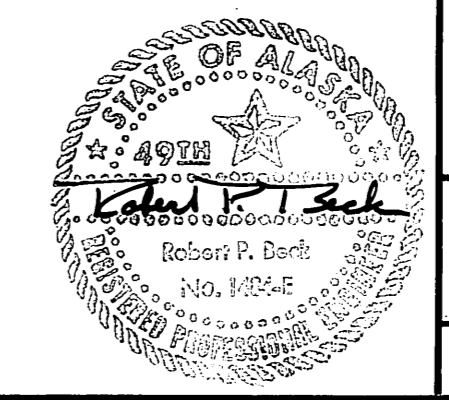


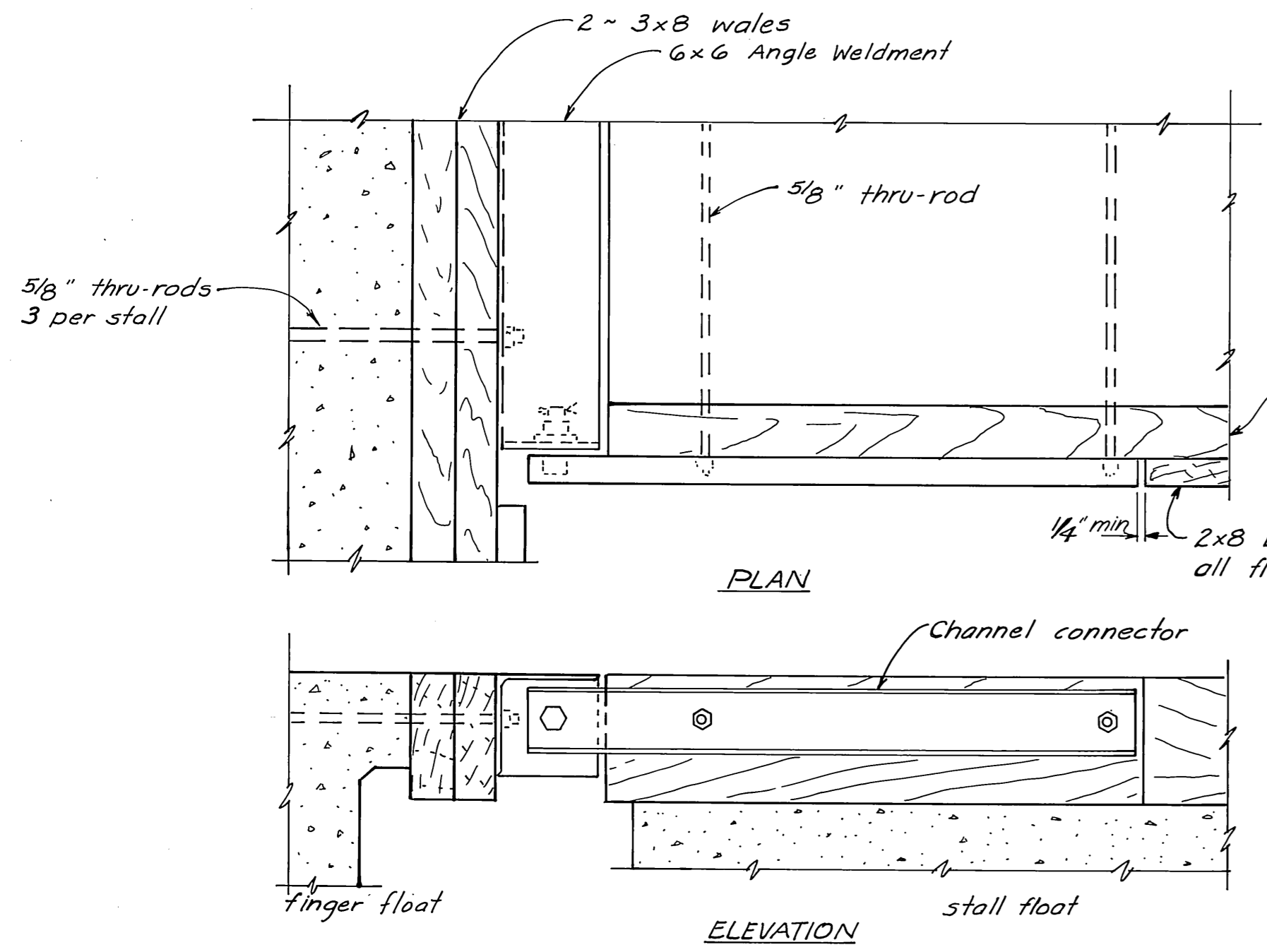
DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
FLOAT INTERSECTIONS 3x20' STALL FLOAT PLAN SECTION DETAILS		
SCALE <i>As noted</i>	SURVEYED _____	APPROVED _____
DESIGNED <i>HM</i>	DRAWN <i>HM</i>	<i>Don Statter</i> DIRECTOR
CHECKED _____	DATE <i>Sept 76</i>	
PROJECT NUMBER <i>9-73/30</i>	SHEET <i>3</i> OF <i>17</i>	



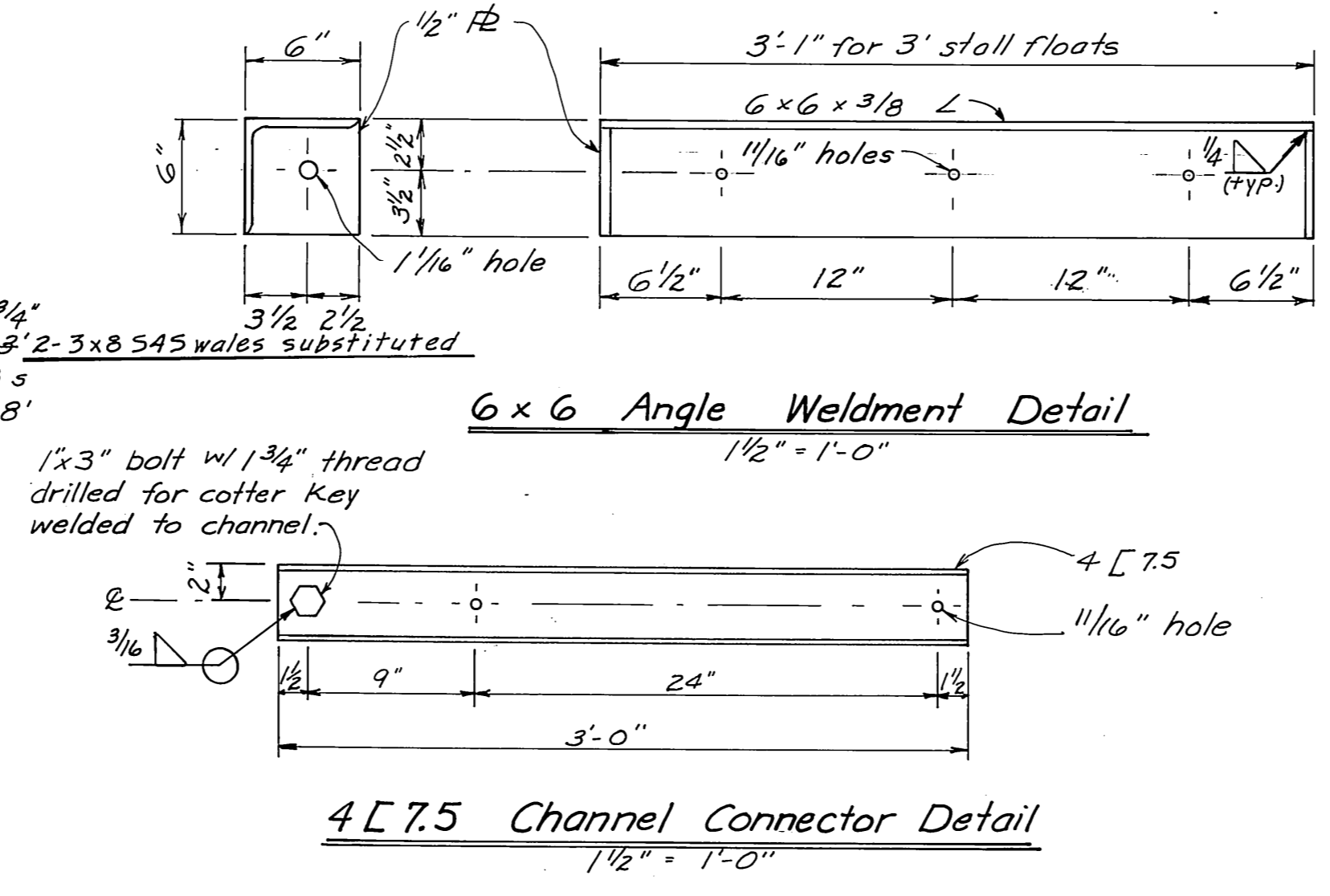
**AS BUILT**

DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
24' Stall Float Plan and Details		
SCALE <i>As noted</i>	SURVEYED	APPROVED
DESIGNED <i>MM</i>	DRAWN <i>MM</i>	<i>Don Statter</i> DIRECTOR
CHECKED	DATE <i>Sept 76</i>	
PROJECT NUMBER <i>9-73130</i>	SHEET <i>4</i> OF <i>17</i>	



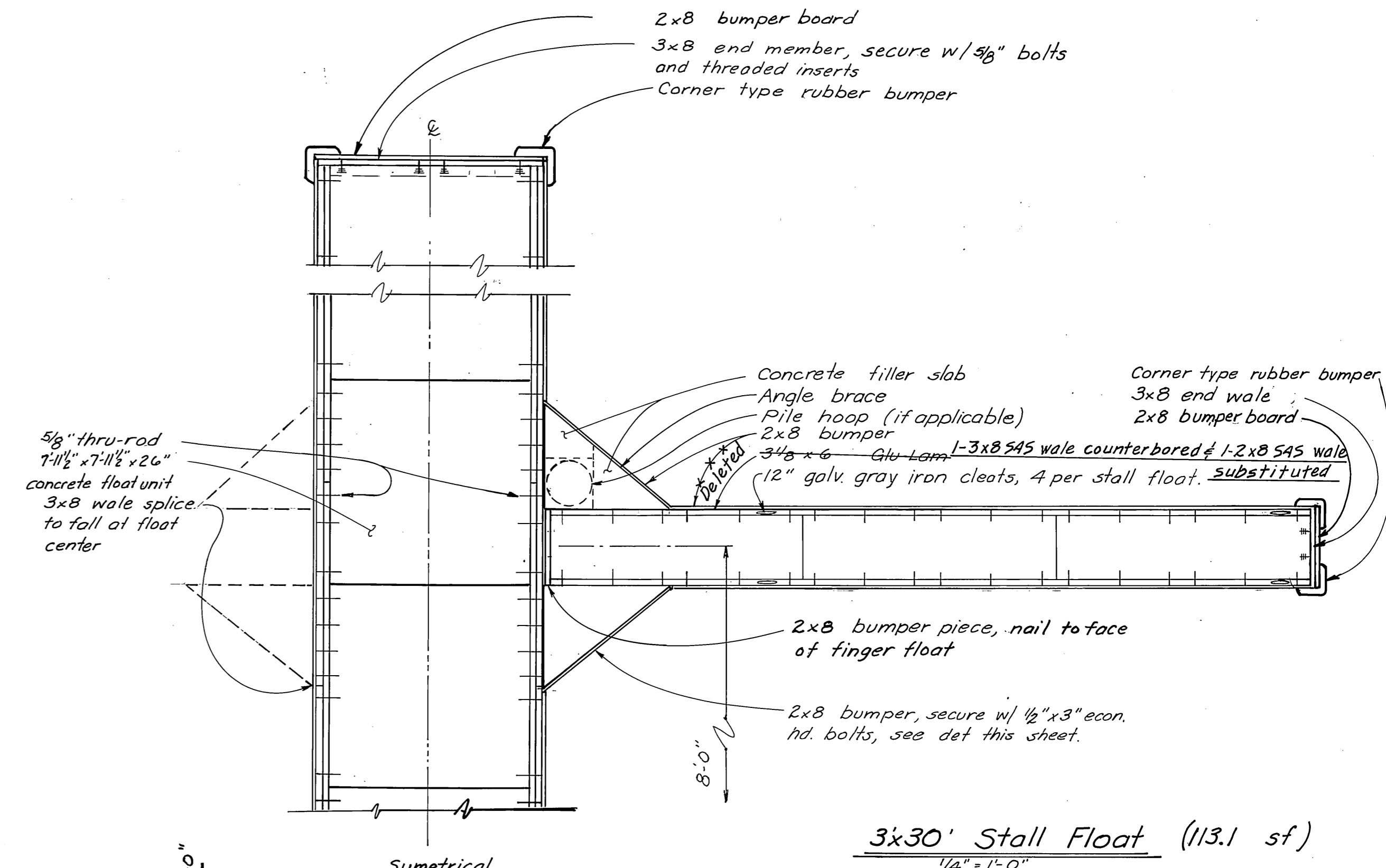


**3x40' Stall Float Connection Details**  
1/2" = 1'-0"

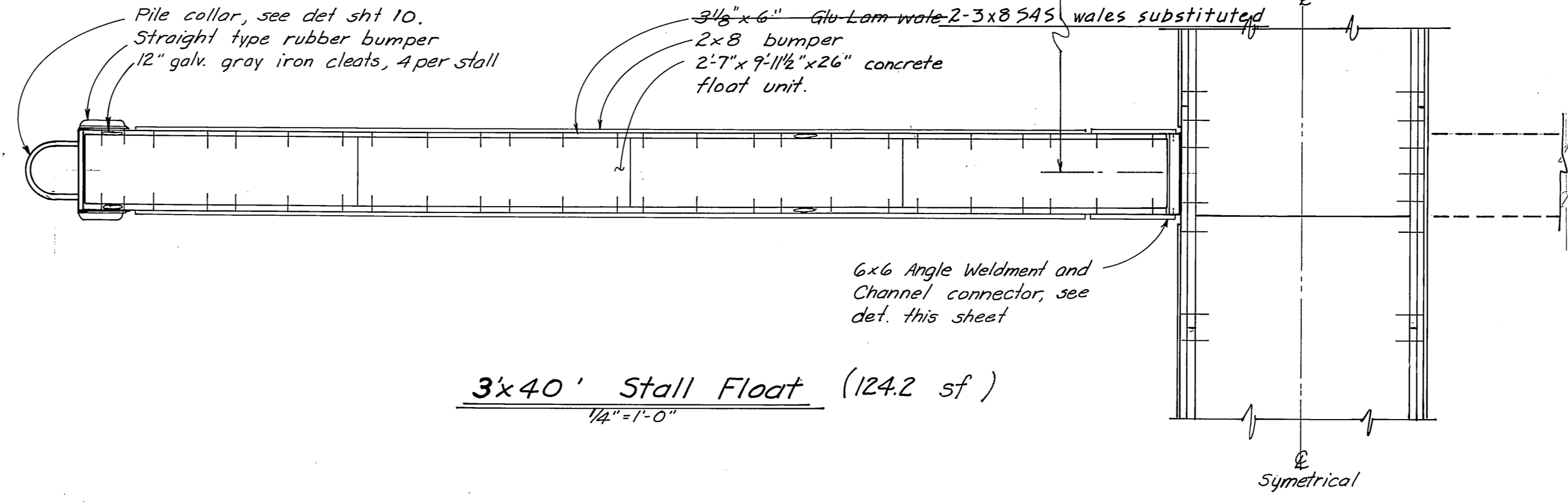


**6x6 Angle Weldment Detail**  
1/2" = 1'-0"

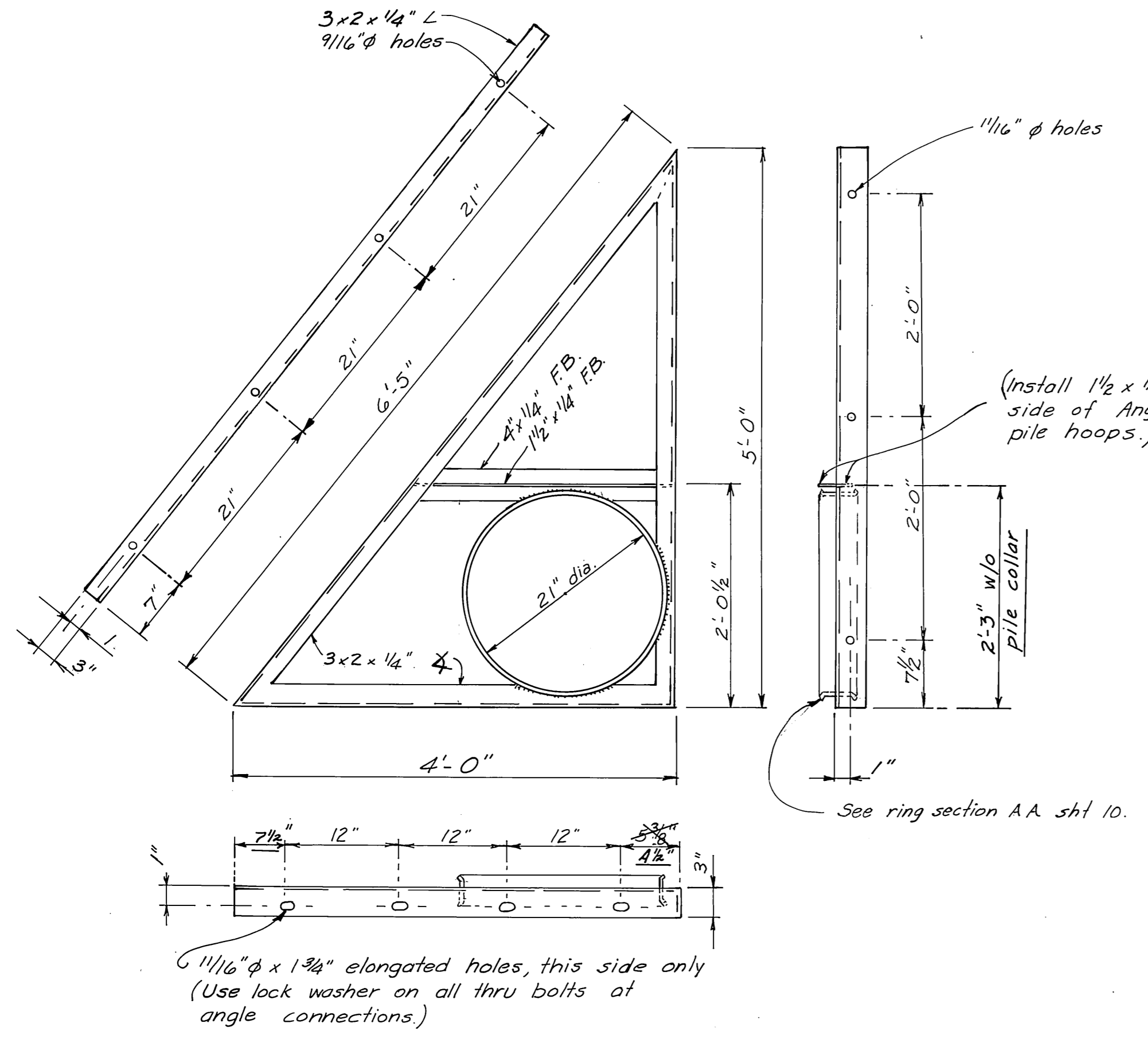
**4 [7.5] Channel Connector Detail**  
1/2" = 1'-0"



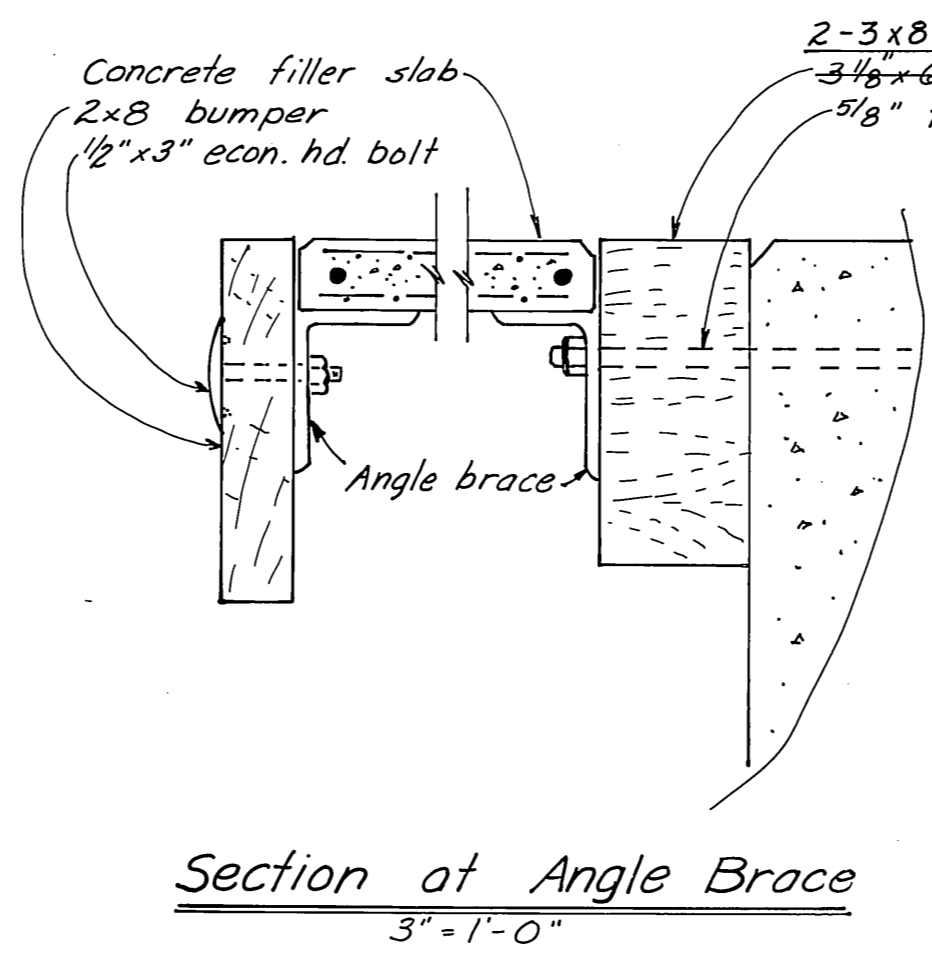
**3x30' Stall Float (113.1 sf)**  
1/4" = 1'-0"



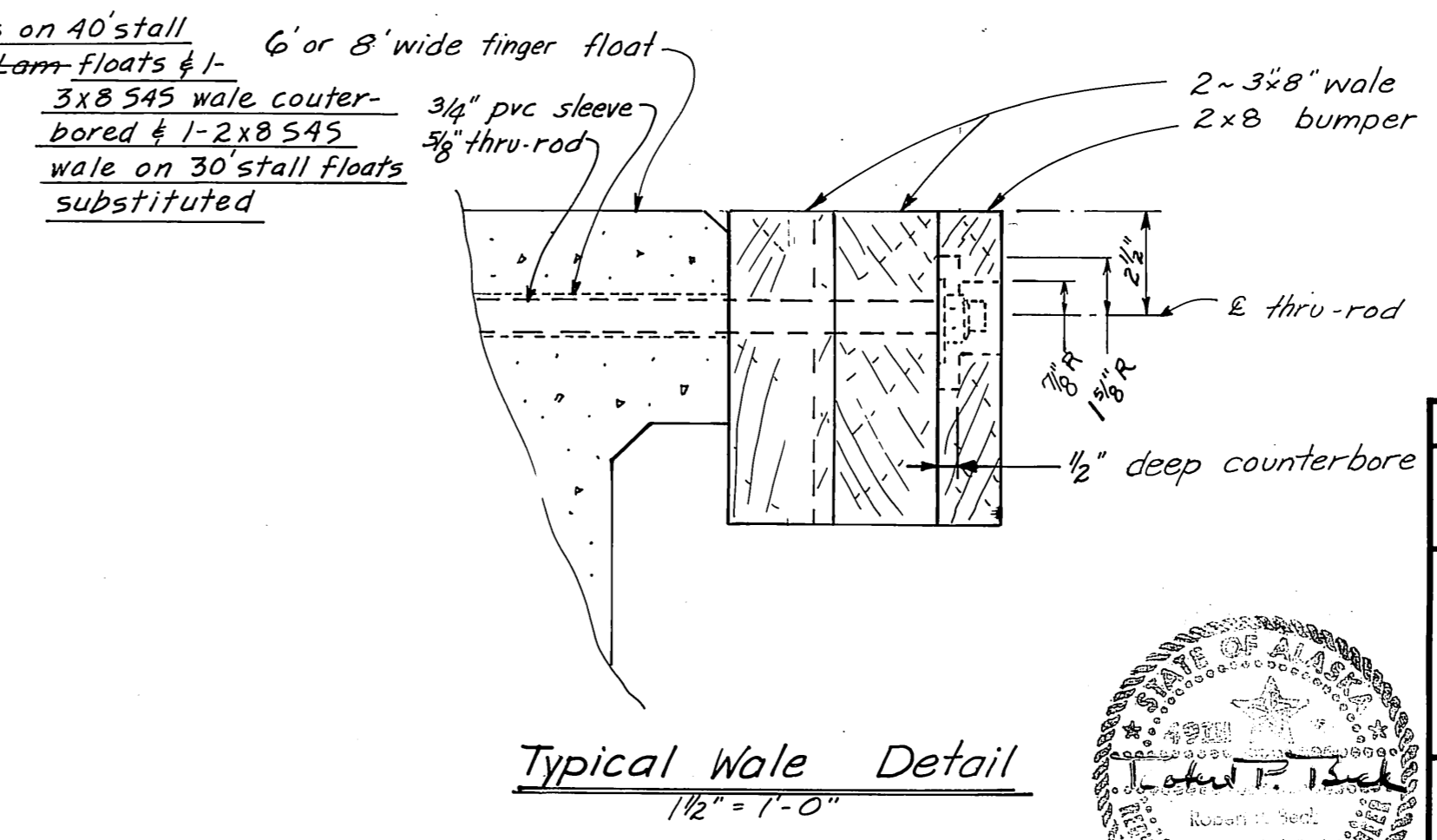
**3x40' Stall Float (124.2 sf)**  
1/4" = 1'-0"



**Angle Braces**  
1" = 1'-0"



**Section of Angle Brace**  
3" = 1'-0"

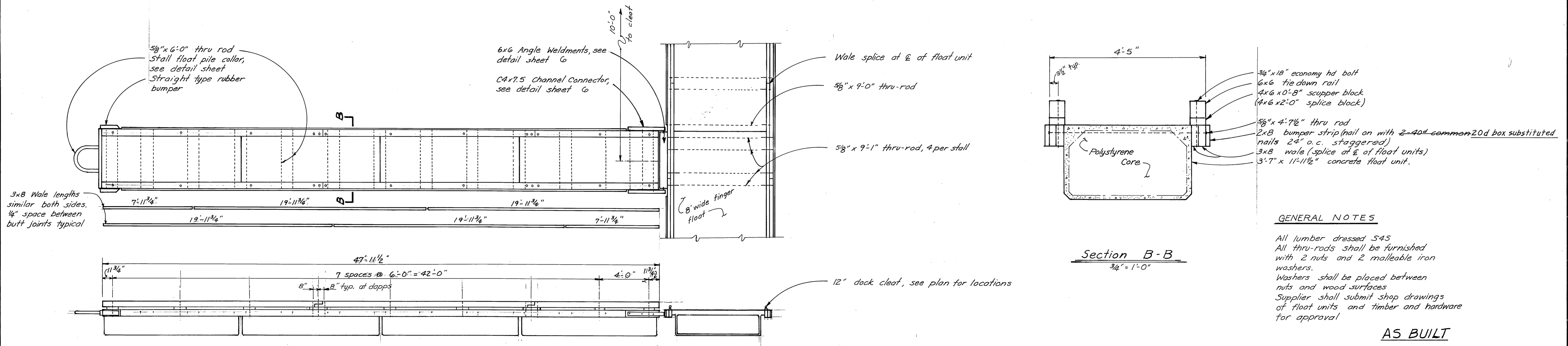
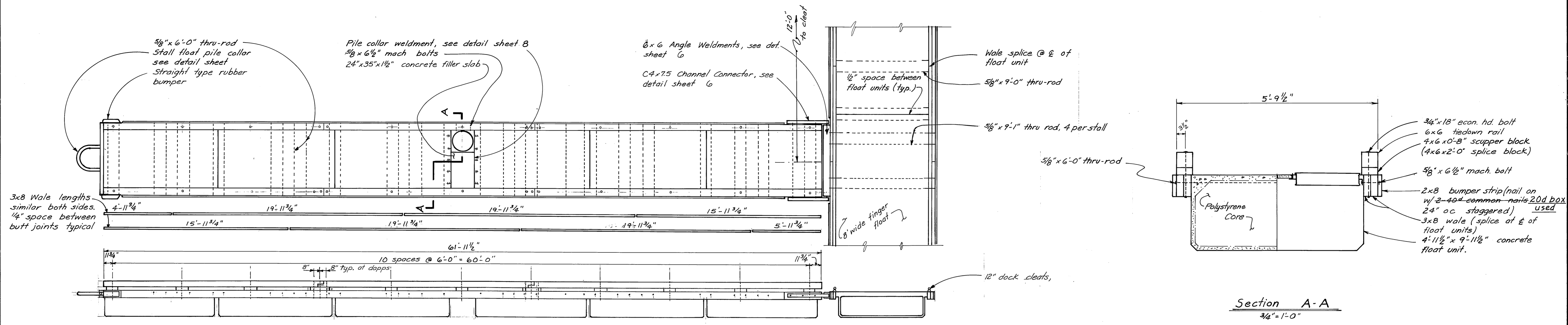


**Typical Wale Detail**  
1/2" = 1'-0"

**AS BUILT**

DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
<b>3x30' and 3x40' Stall Float Plan and Details</b>		
SCALE <i>As noted</i>	SURVEYED	APPROVED
DESIGNED	DRAWN <i>HM</i>	<i>Don Stoffer</i> DIRECTOR
CHECKED	DATE <i>Jan 76</i>	
PROJECT NUMBER <i>9-73130</i>	SHEET <i>5</i> OF <i>17</i>	





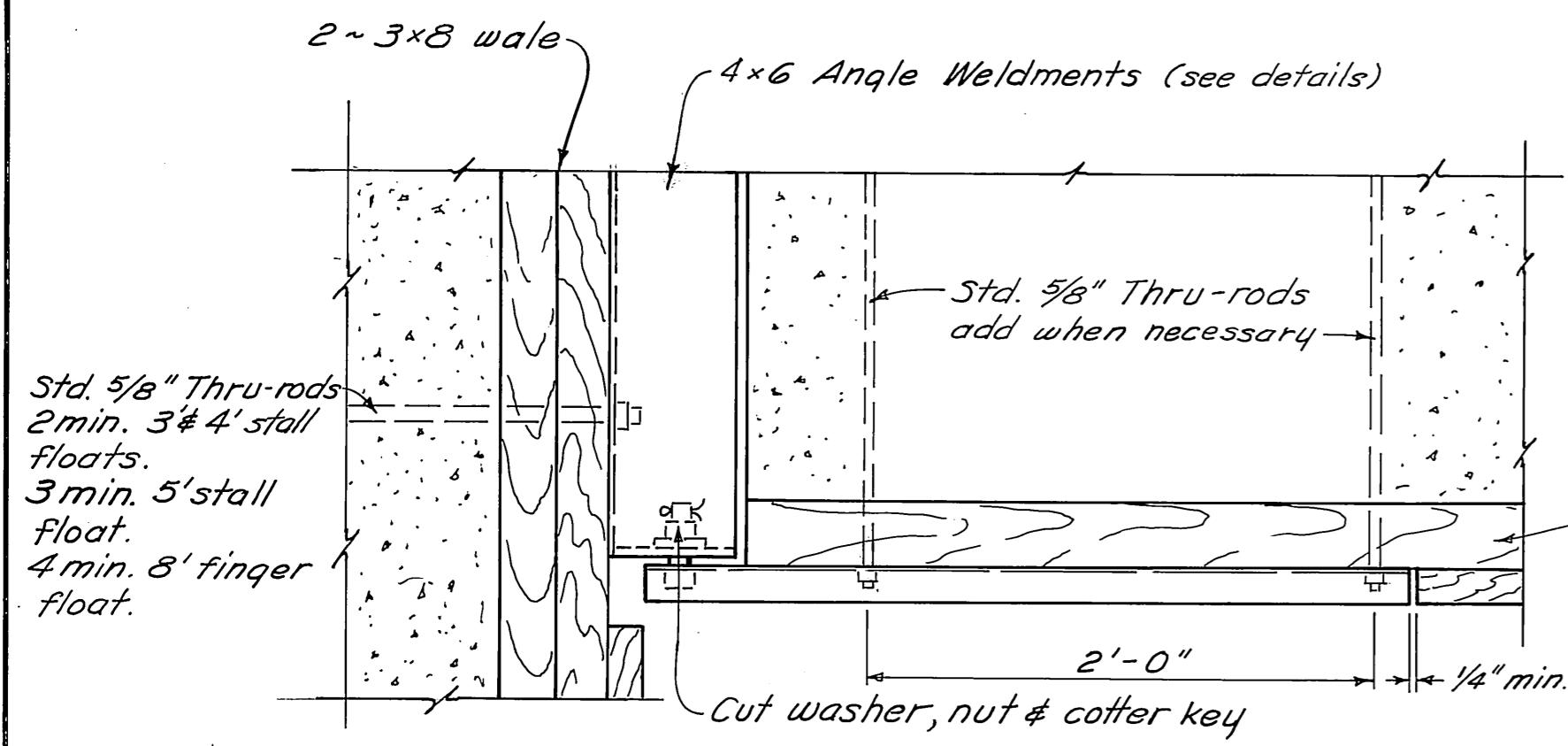
**GENERAL NOTES**

All lumber dressed S4S  
 All thru-rods shall be furnished with 2 nuts and 2 malleable iron washers.  
 Washers shall be placed between nuts and wood surfaces  
 Supplier shall submit shop drawings of float units and timber and hardware for approval

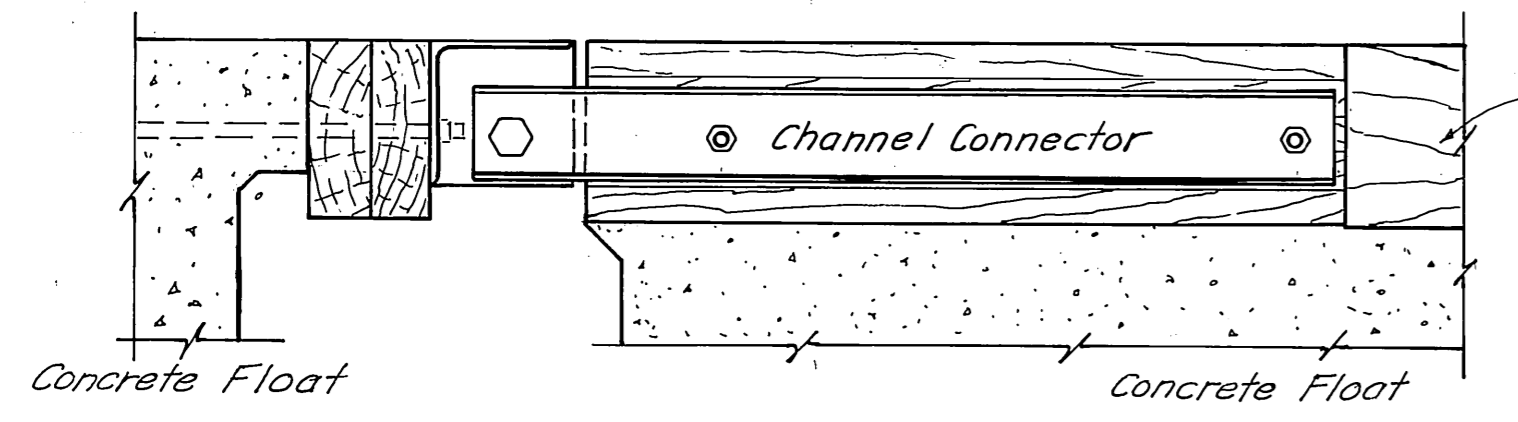
**AS BUILT**

DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
4x48 and 5x62 Stall Floats Plans and Details		
SCALE: As noted	SURVEYED: _____	APPROVED: _____
DESIGNED: Robert P. Beck	DRAWN: HM	Don Statter
CHECKED: _____	DATE: Sept 76	DIRECTOR
PROJECT NUMBER: 9-73130	SHEET 6 OF 17	





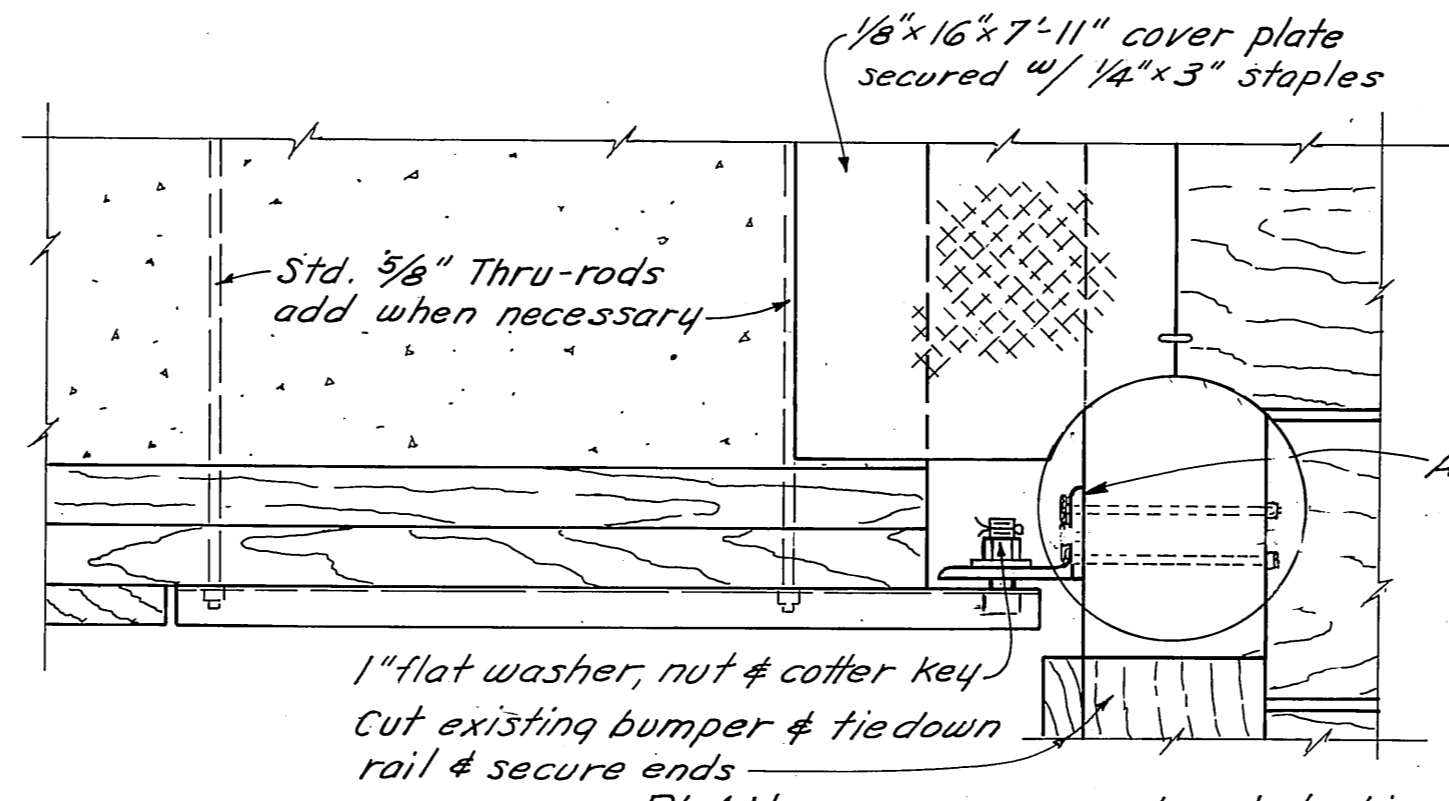
PLAN



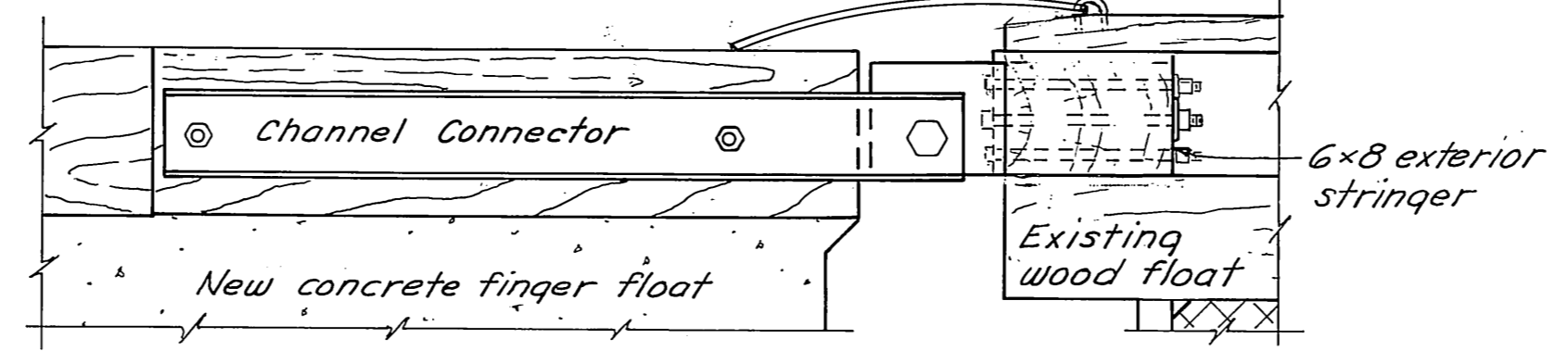
ELEVATION

**CONCRETE FLOATS HINGE CONNECTION DETAILS**

1 1/2" = 1'-0"



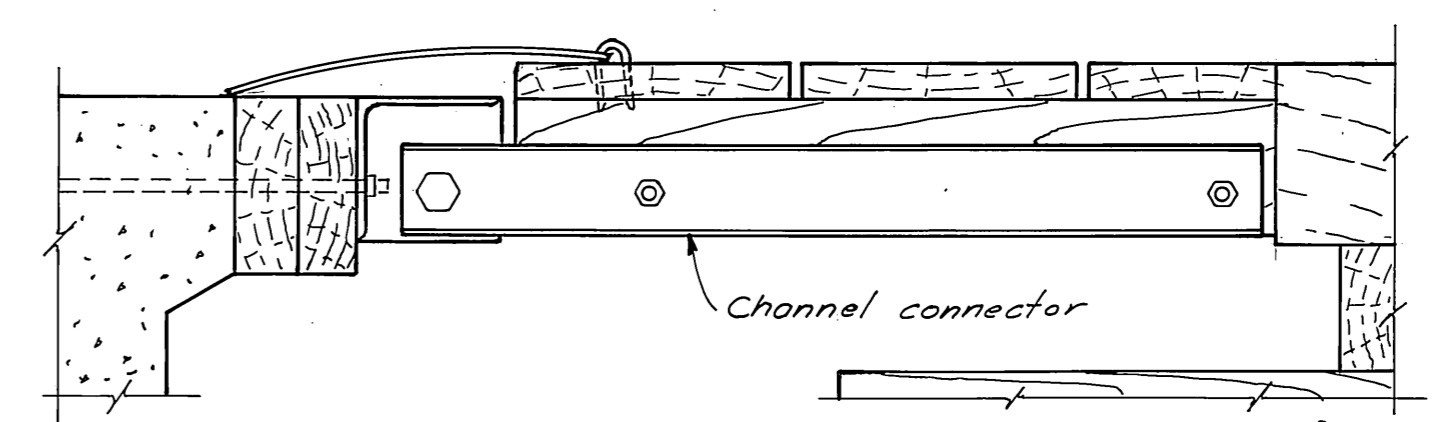
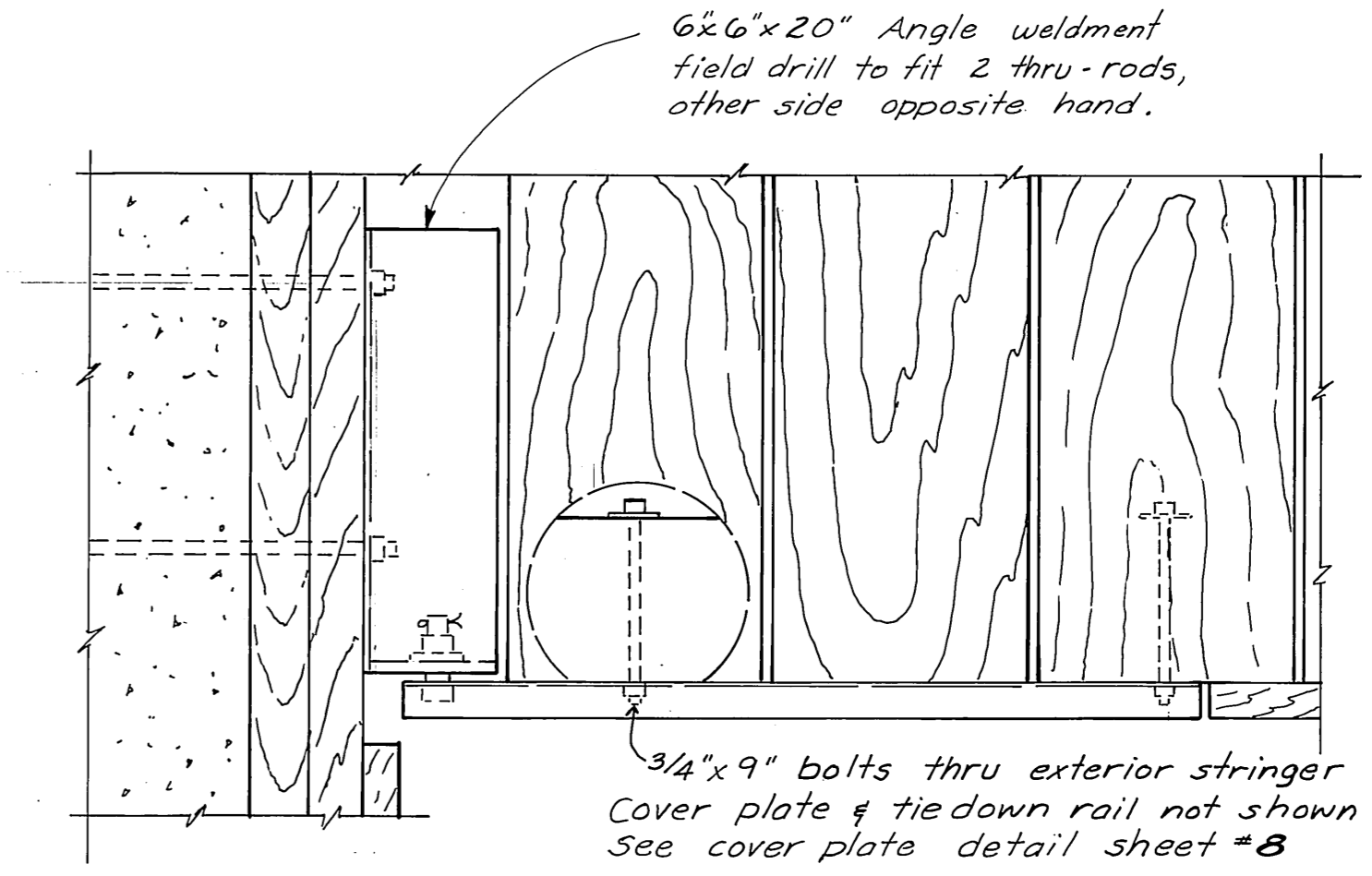
PLAN



ELEVATION

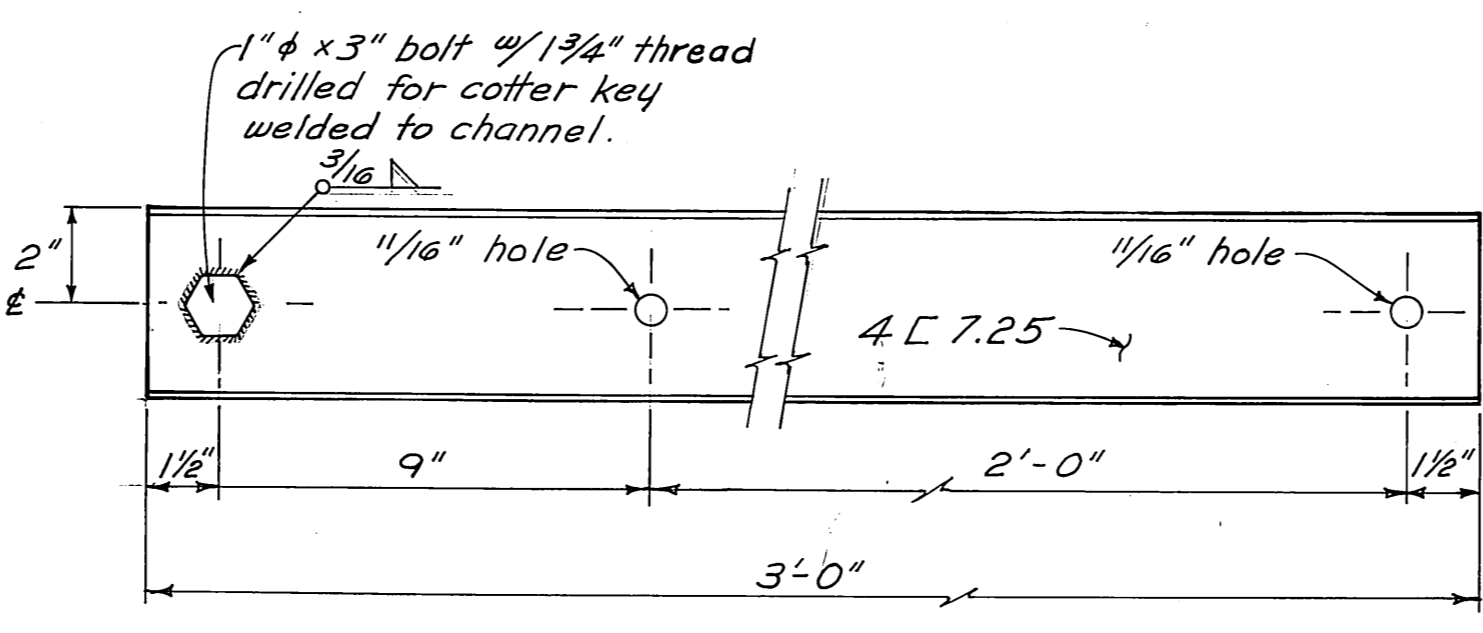
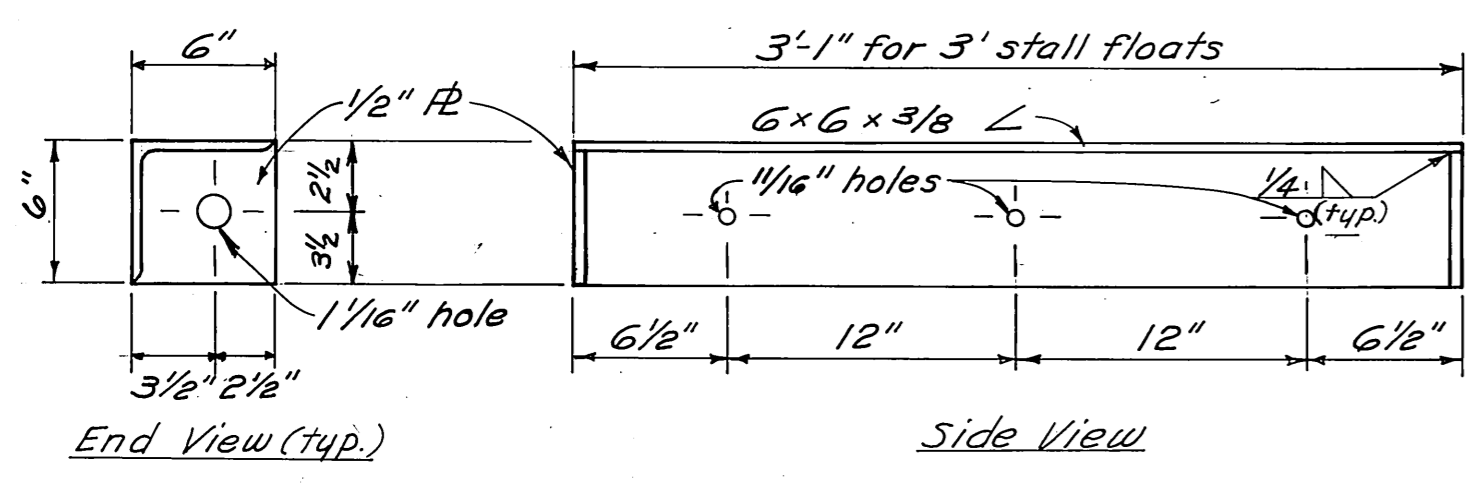
**FINGER TO MAIN FLOAT HINGE CONNECTION DETAILS**

1 1/2" = 1'-0"



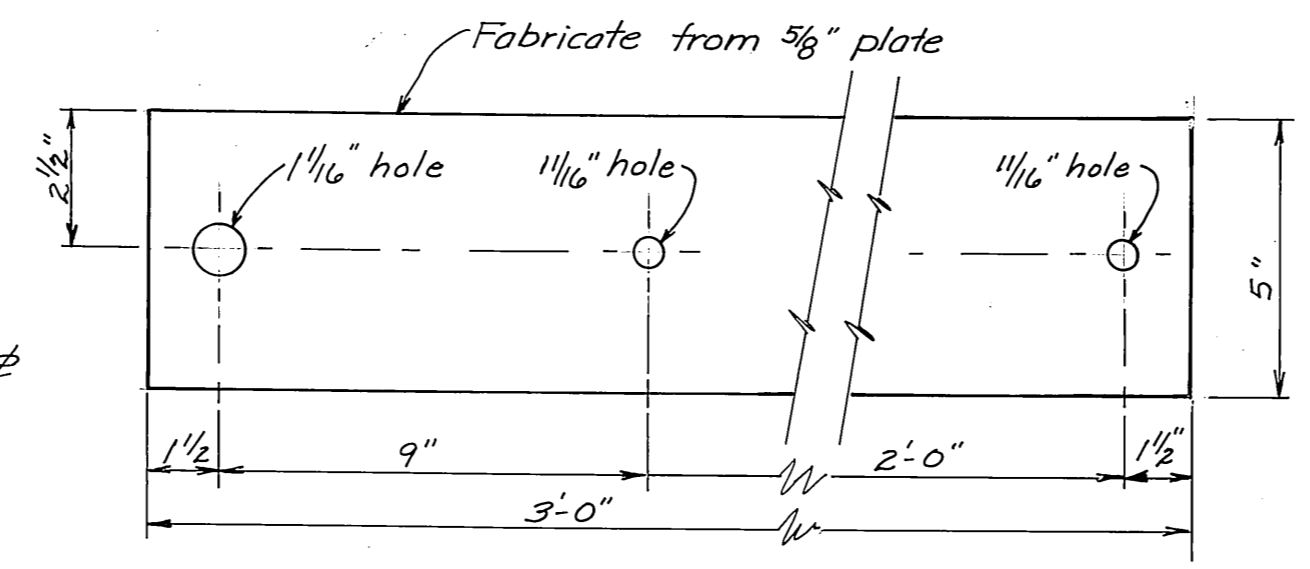
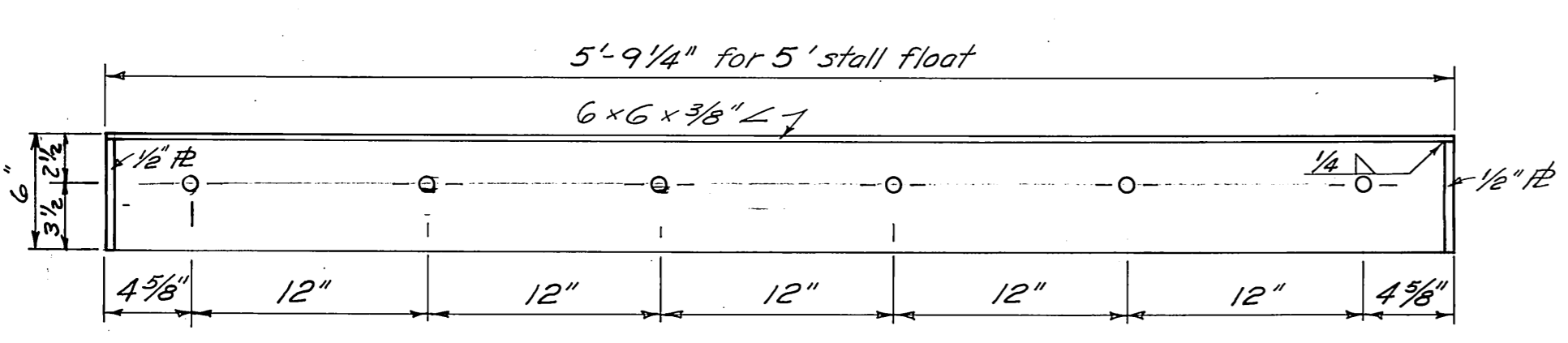
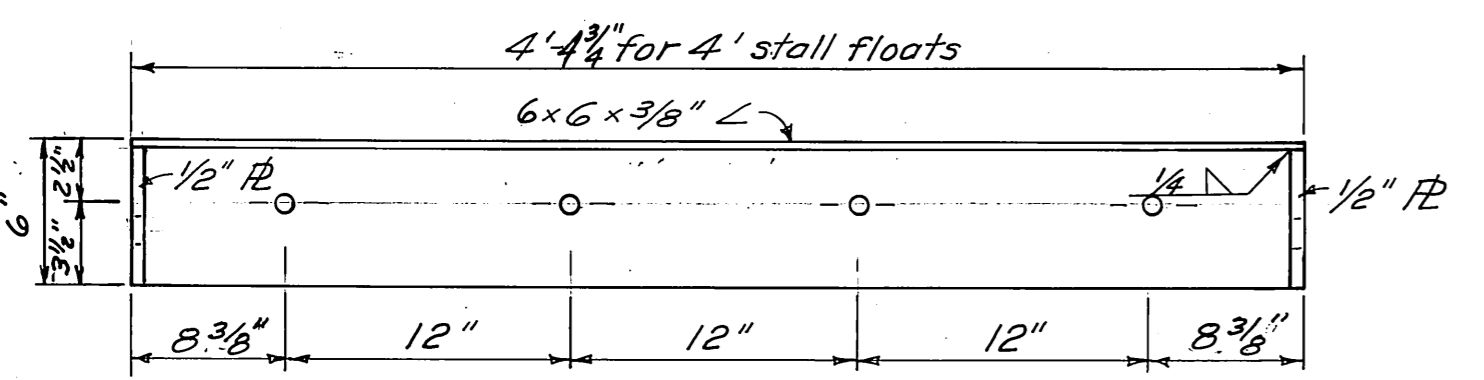
**FINGER TO EXISTING TIMBER FLOAT**

1 1/2" = 1'-0"



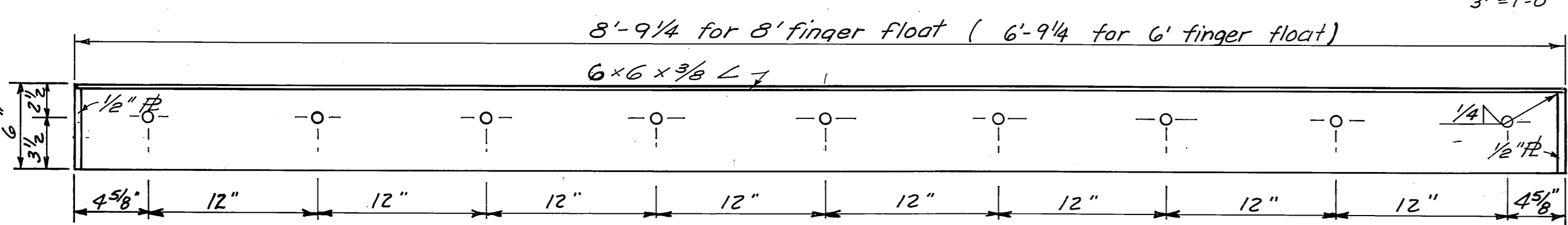
**CHANNEL CONNECTOR**

3" = 1'-0"



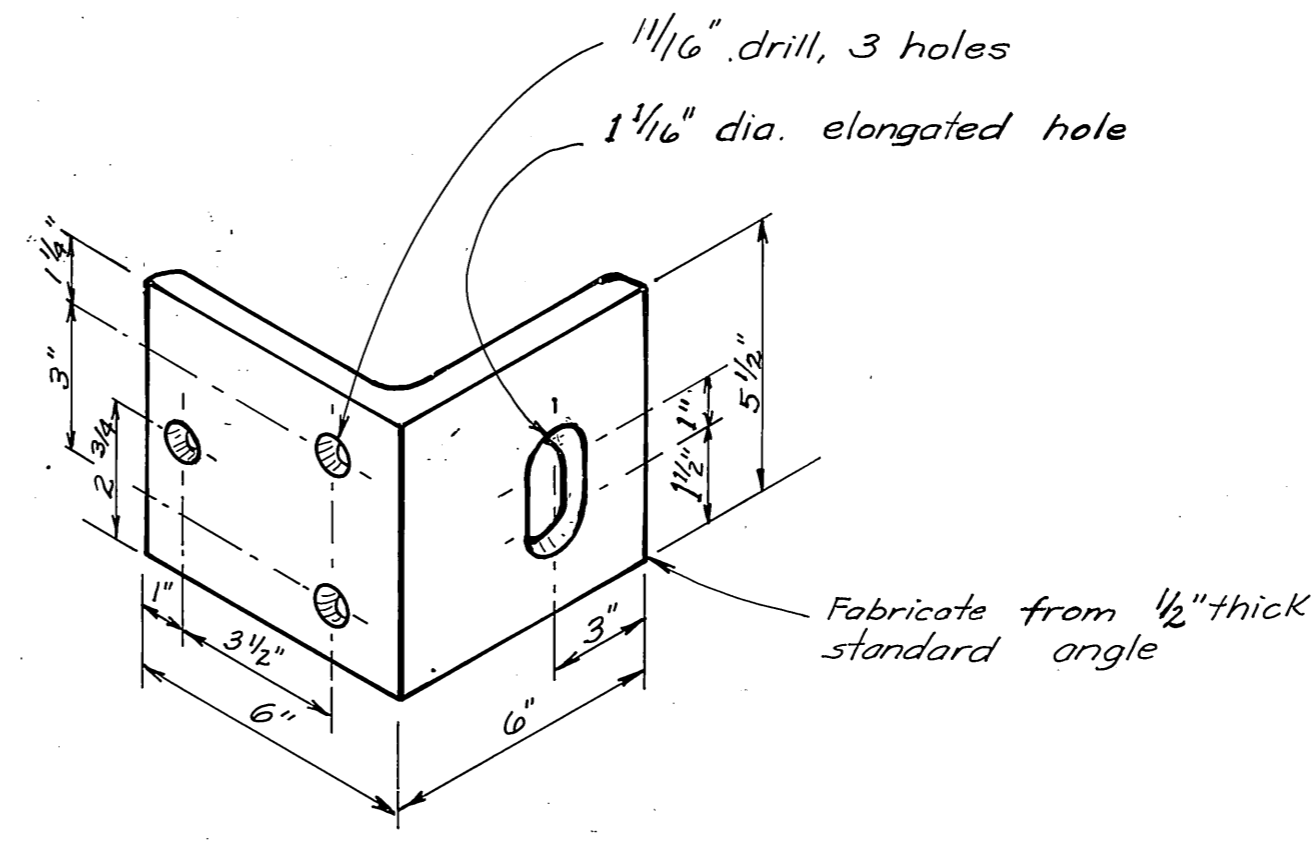
**PLATE CONNECTOR**

3" = 1'-0"



**6x6 ANGLE WELDMENTS DETAILS**

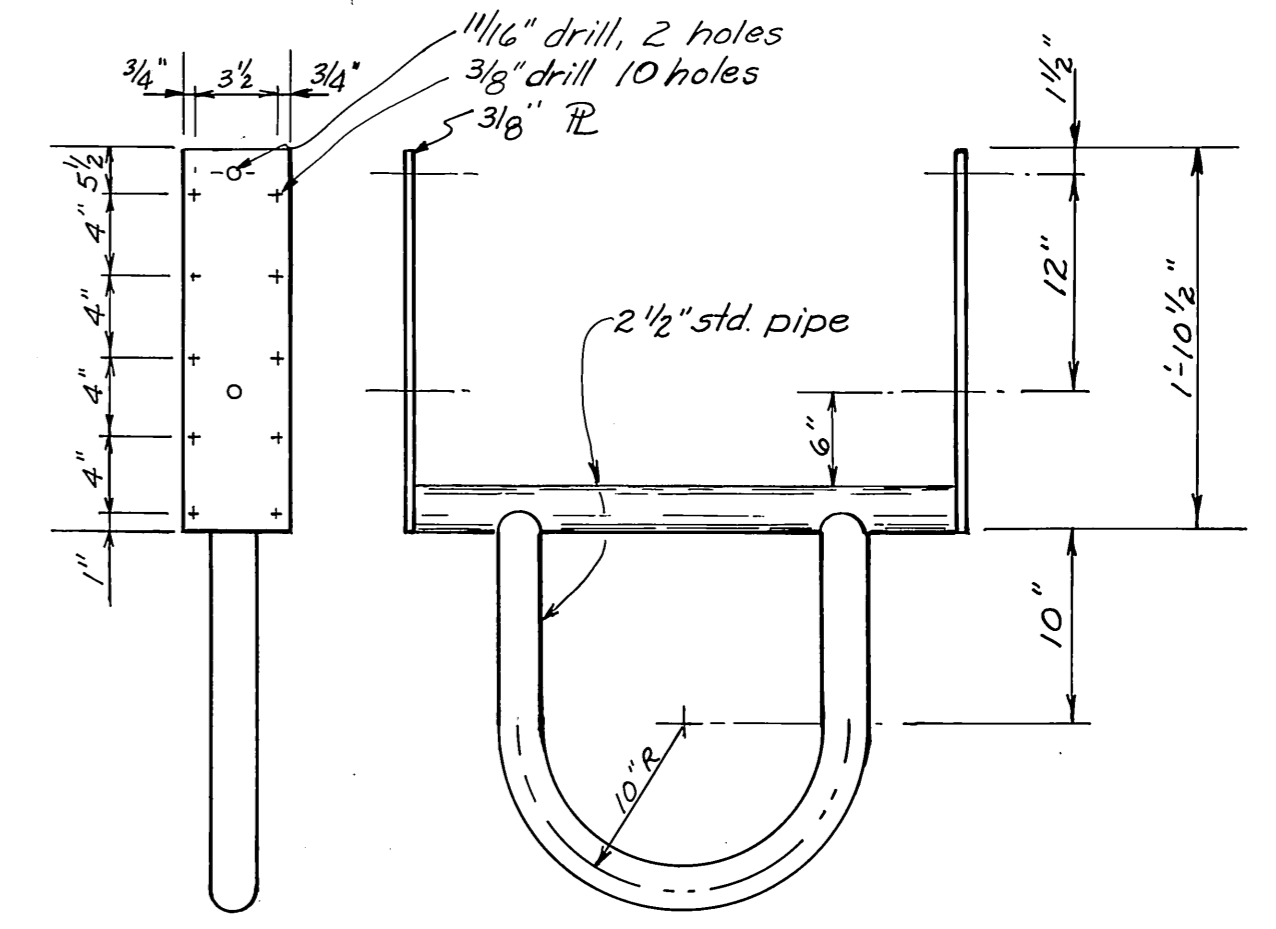
1 1/2" = 1'-0"



SIDE

**ANGLE CLIP**

3" = 1'-0"



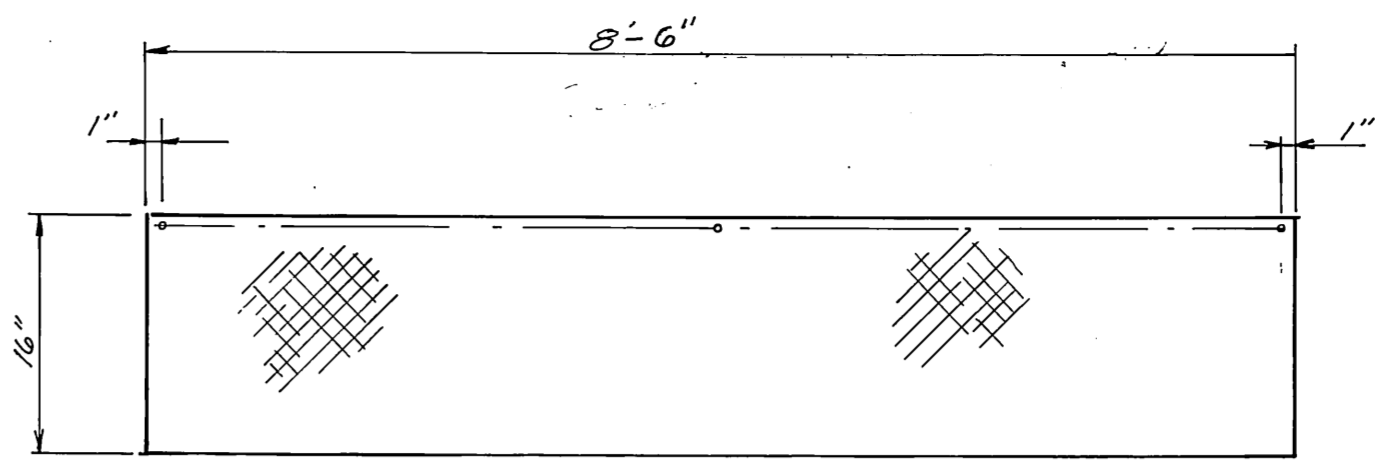
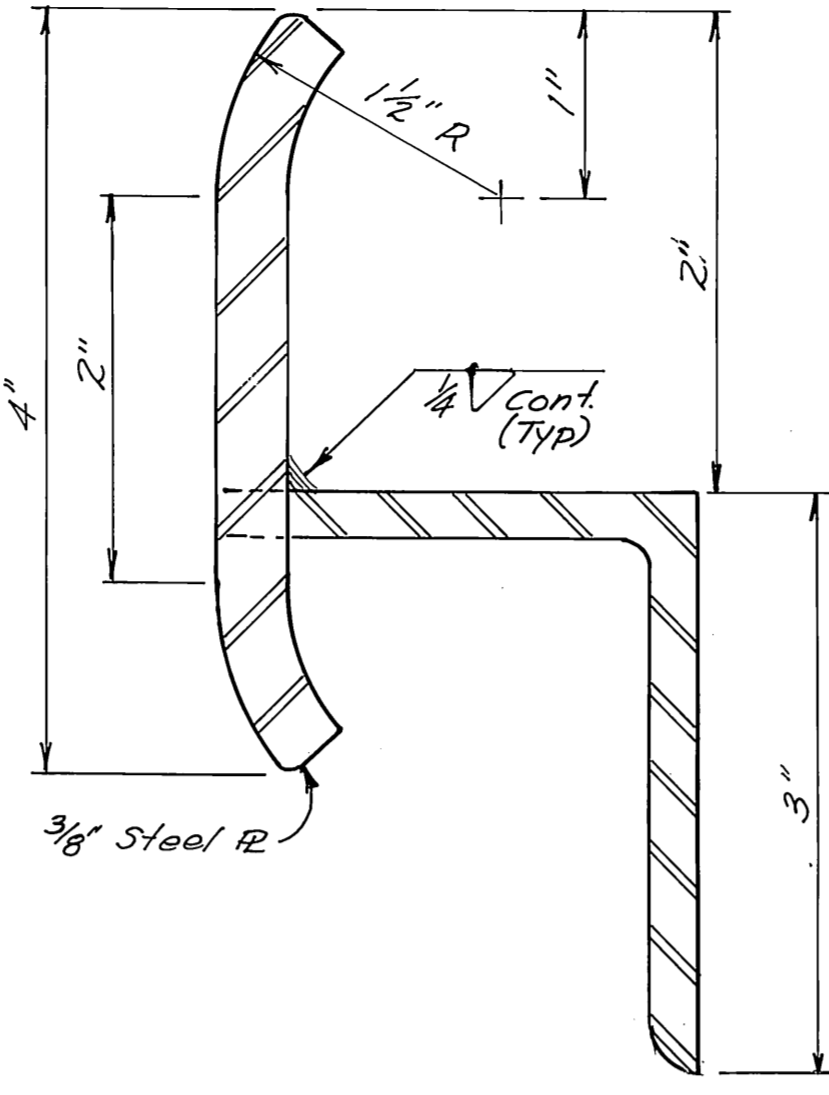
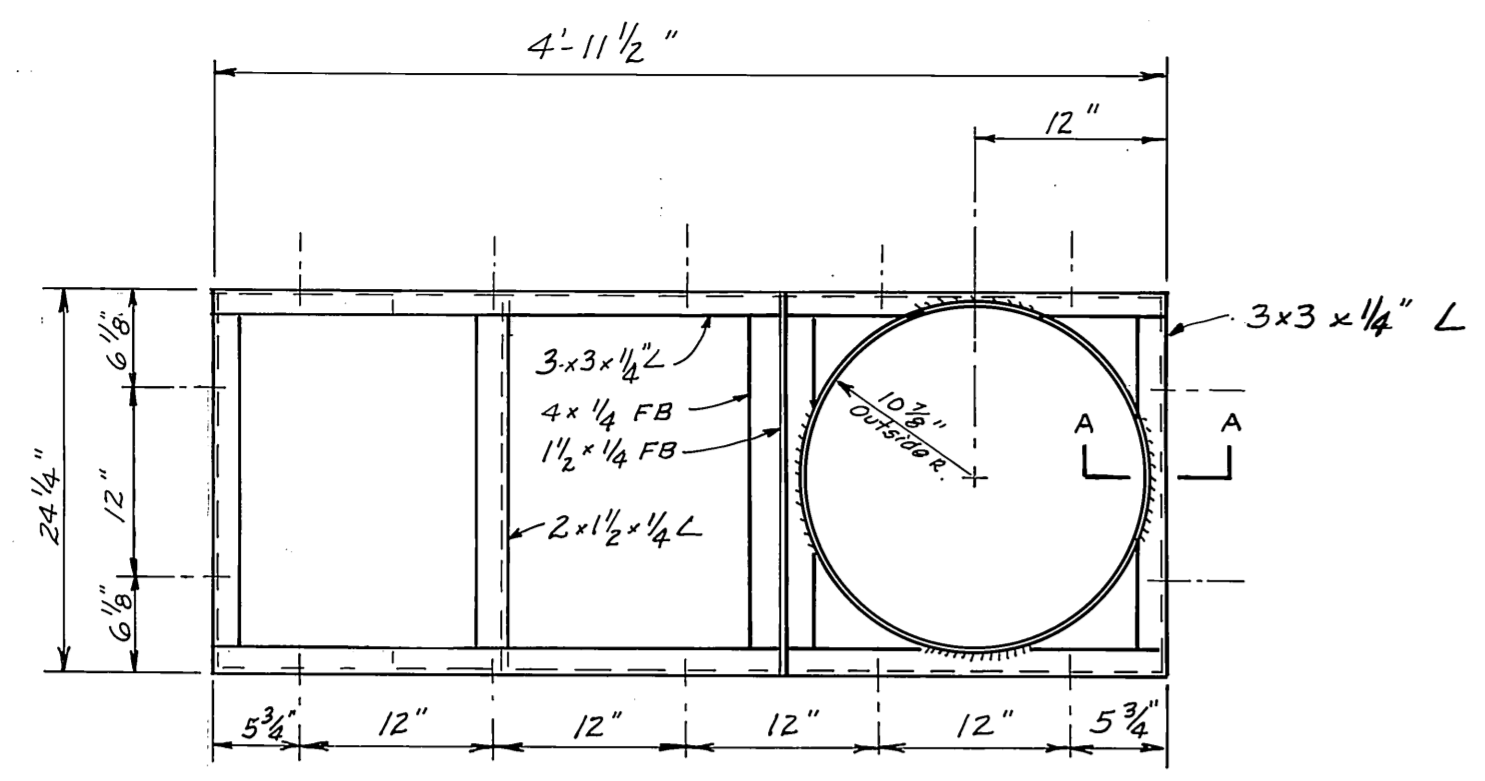
**STALL FLOAT PILE COLLAR**

3'-1 1/4" for 3' stalls  
4'-5" for 4' stalls  
5'-9 1/2" for 5' stalls

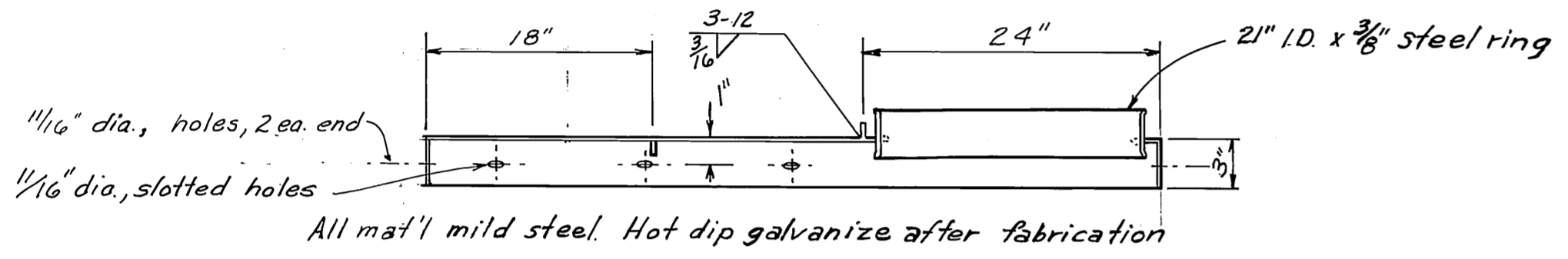
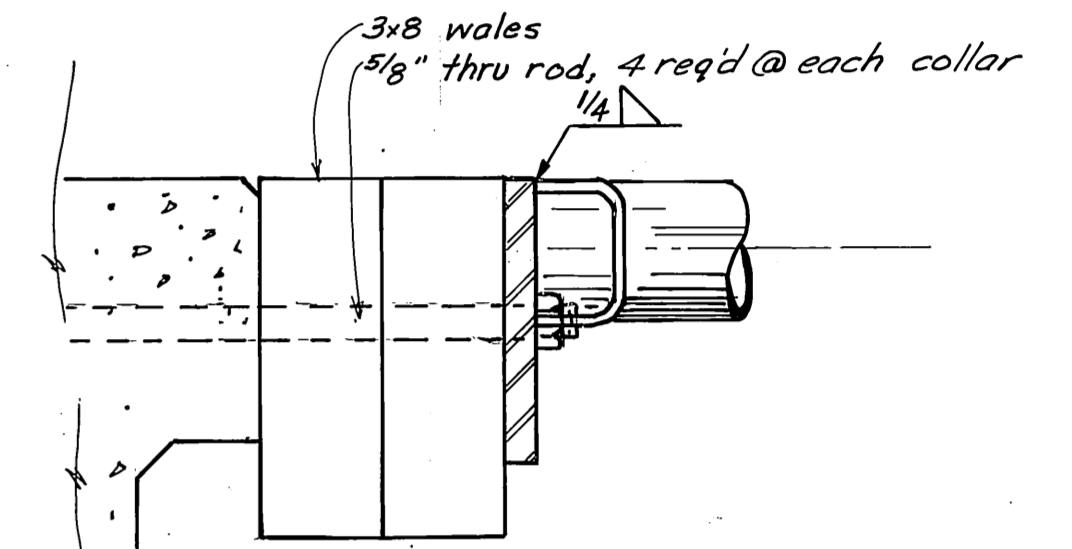
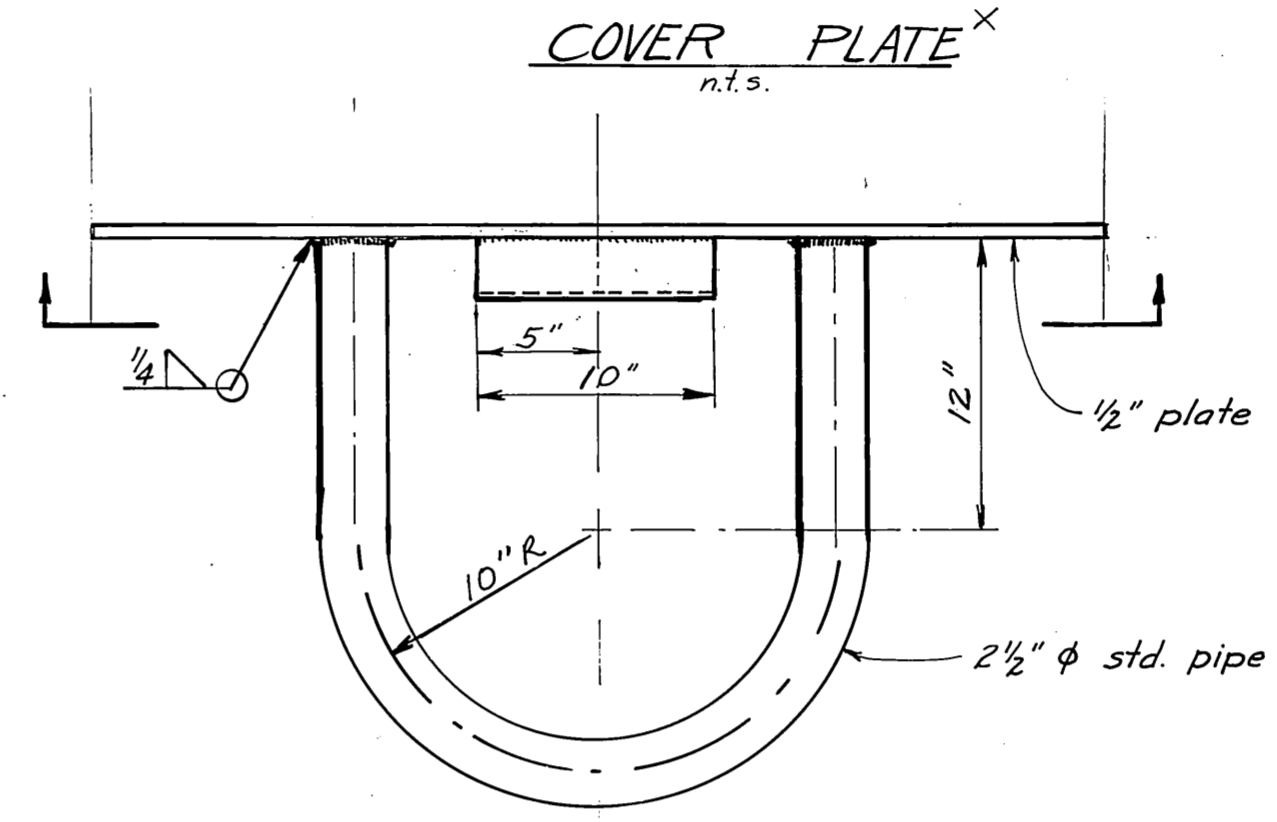
AS BUILT

DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
<b>HINGE CONNECTIONS and PILE COLLAR DETAILS</b>		
SCALE <i>As noted</i>	SURVEYED _____	APPROVED _____
DESIGNED <i>BS</i>	DRAWN <i>BS/ML</i>	<b>Don Statter</b> DIRECTOR
CHECKED _____	DATE <i>Dec 10, 1975</i>	
PROJECT NUMBER <i>9-73130</i>	SHEET <i>7</i> OF <i>17</i>	





Radius transition plates to give 2" rise

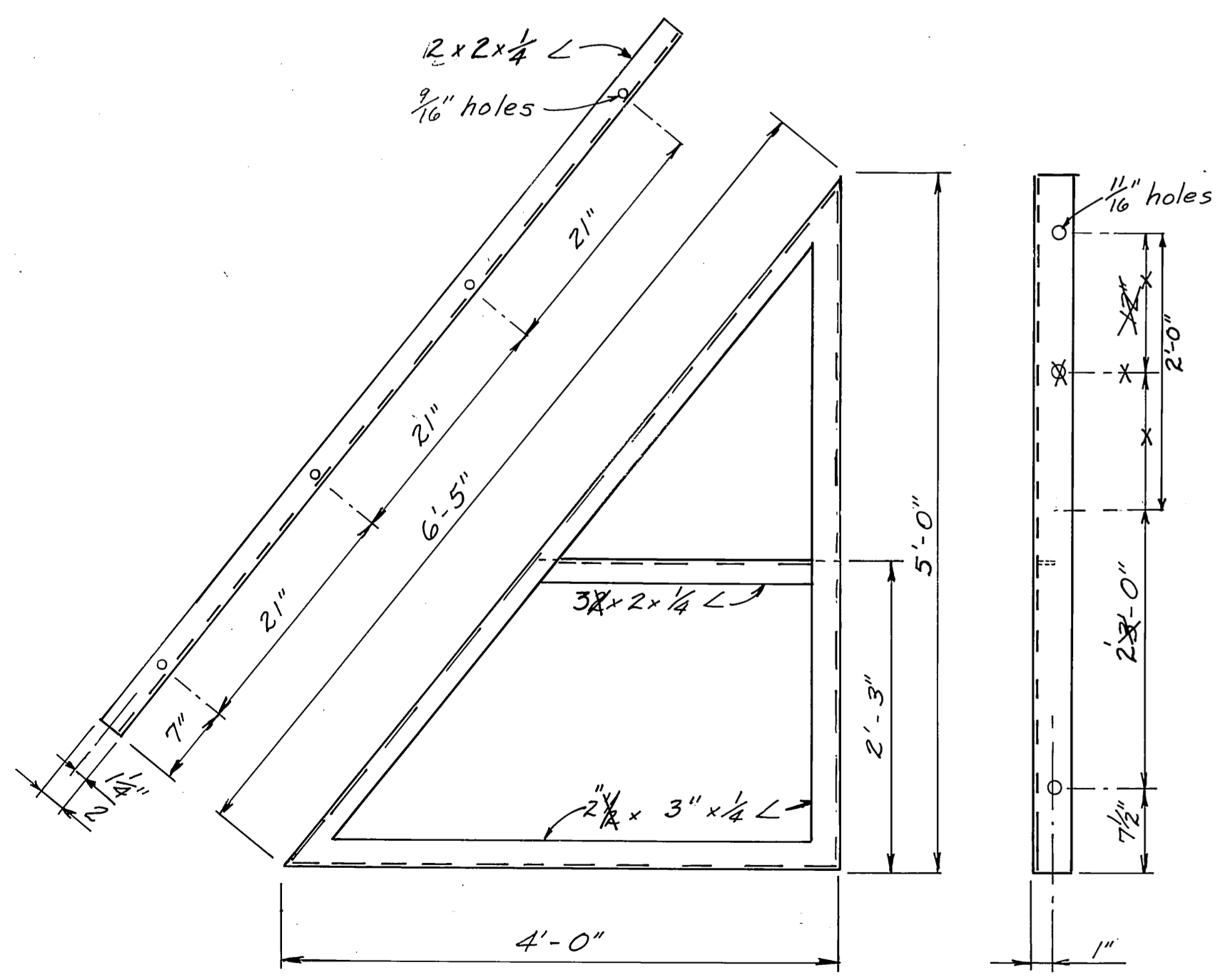


PILE COLLAR WELDMENT DET'L 1"=1'-0"

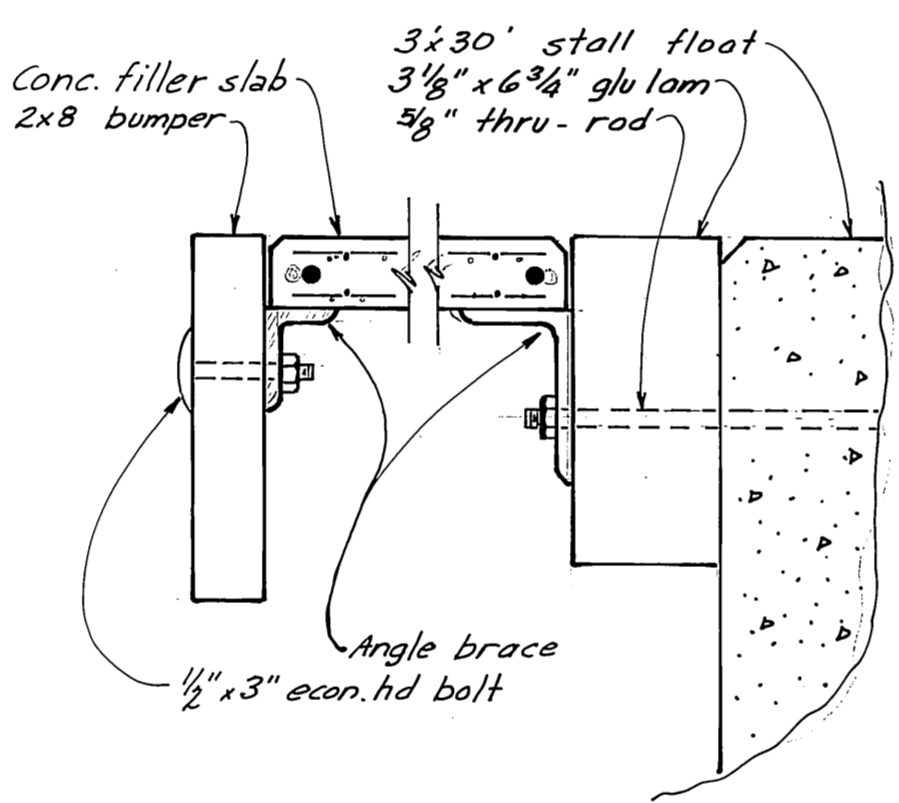
SECTION A-A FULL SIZE

COVER PLATE X n.t.s.

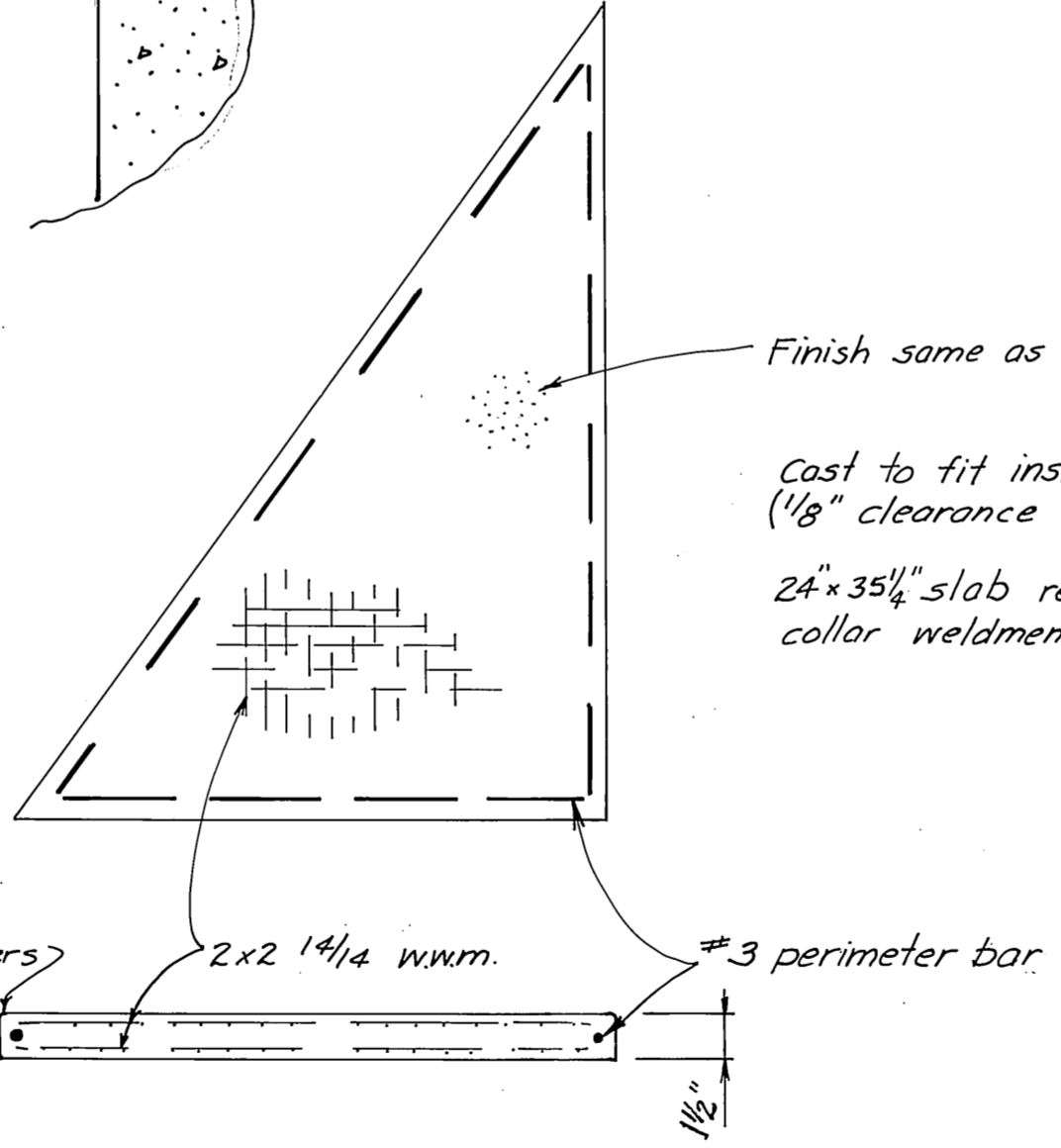
SECTION A-A 3/4"=1'-0"



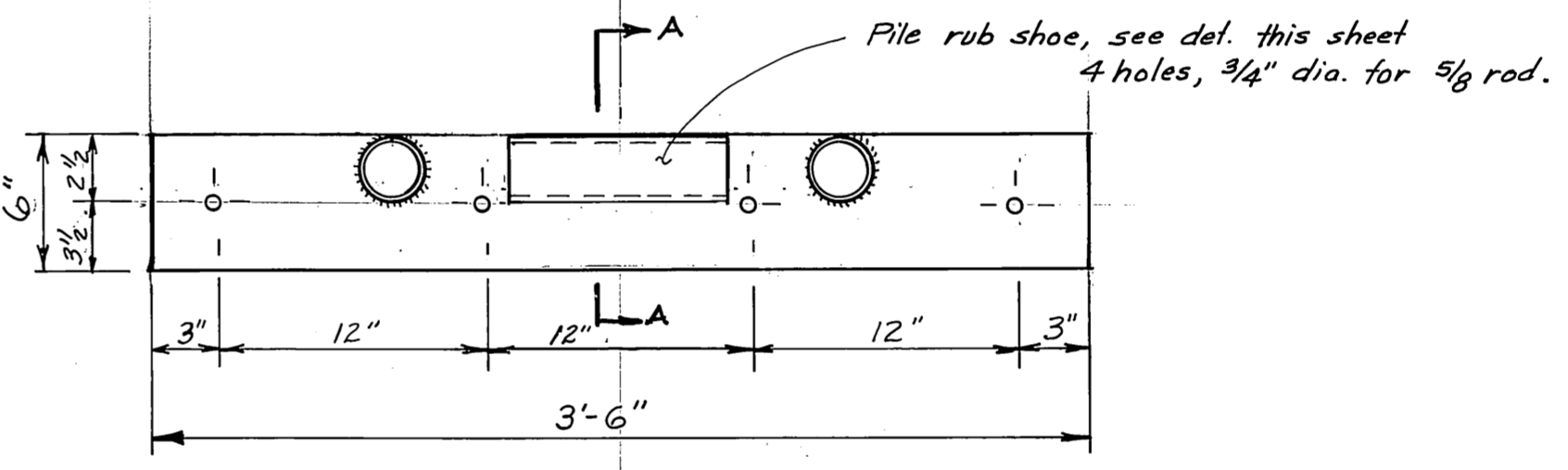
ANGLE BRACES 1"=1'-0"



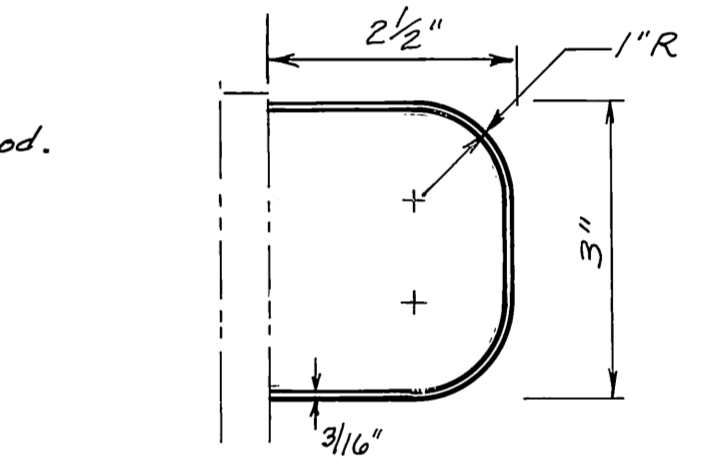
DETAIL AT BRACE



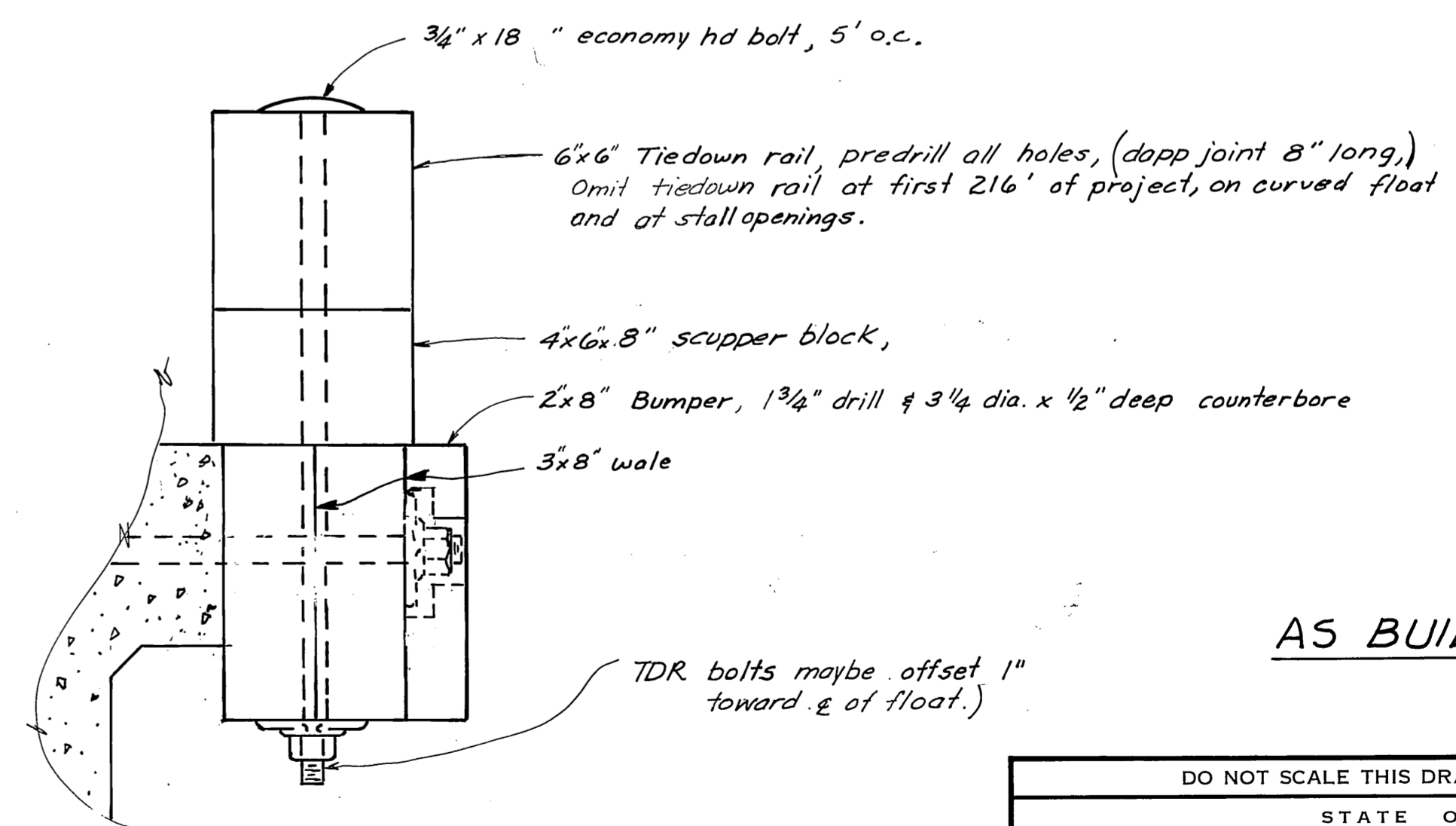
CONC. FILLER SLAB DETAIL



PILE COLLAR 1 1/2"=1'-0"

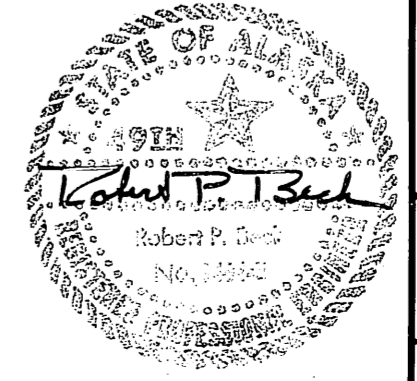


RUB SHOE DETAIL half size

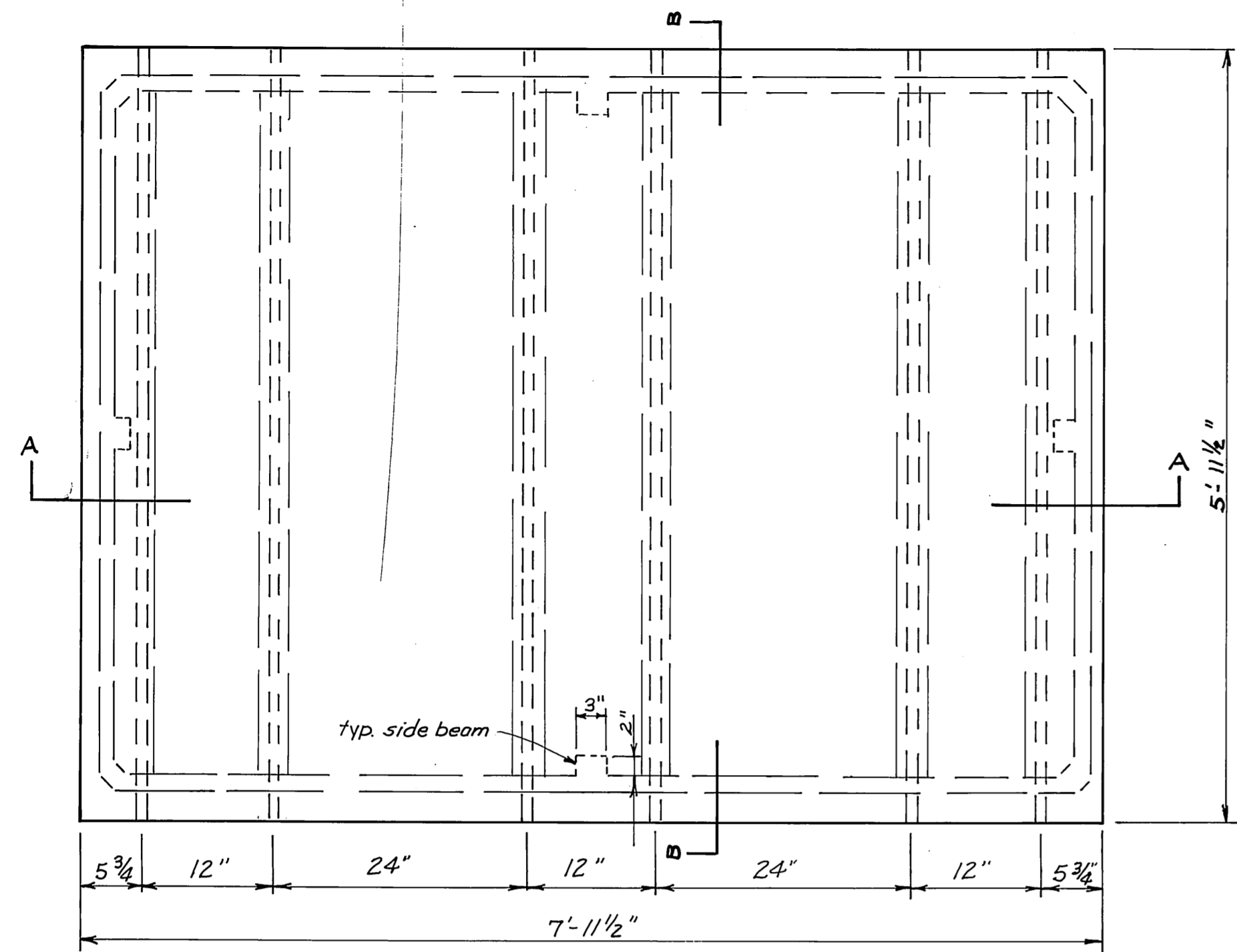


TIE-DOWN RAIL 3"=1'-0"

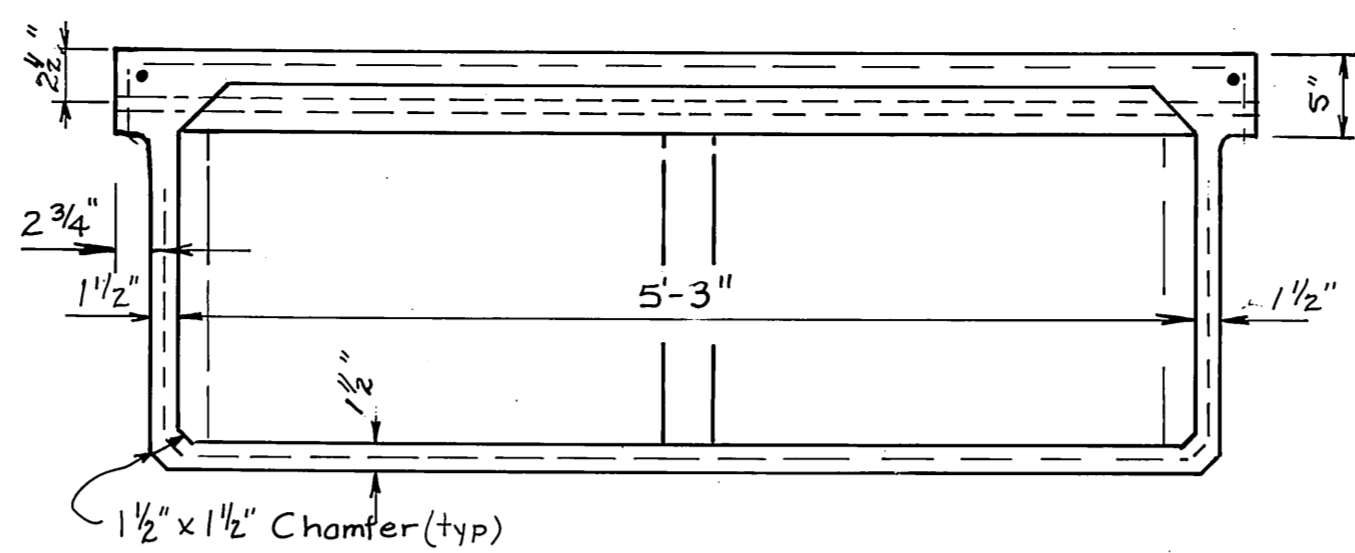
AS BUILT



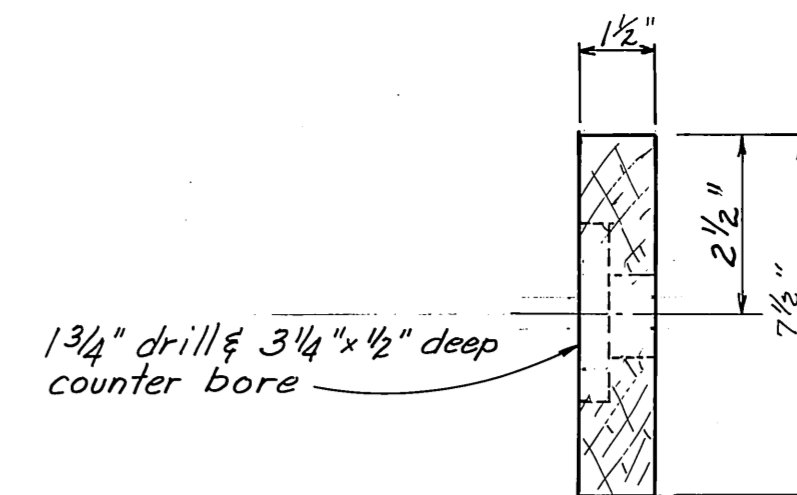
DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
MISC. DETAIL SHEET		
SCALE: As noted	SURVEYED: _____	APPROVED: _____
DESIGNED: _____	DRAWN: LM	Don Stetter DIRECTOR
CHECKED: _____	DATE: Dec 75	
PROJECT NUMBER: 9-73130	SHEET 8 OF 17	



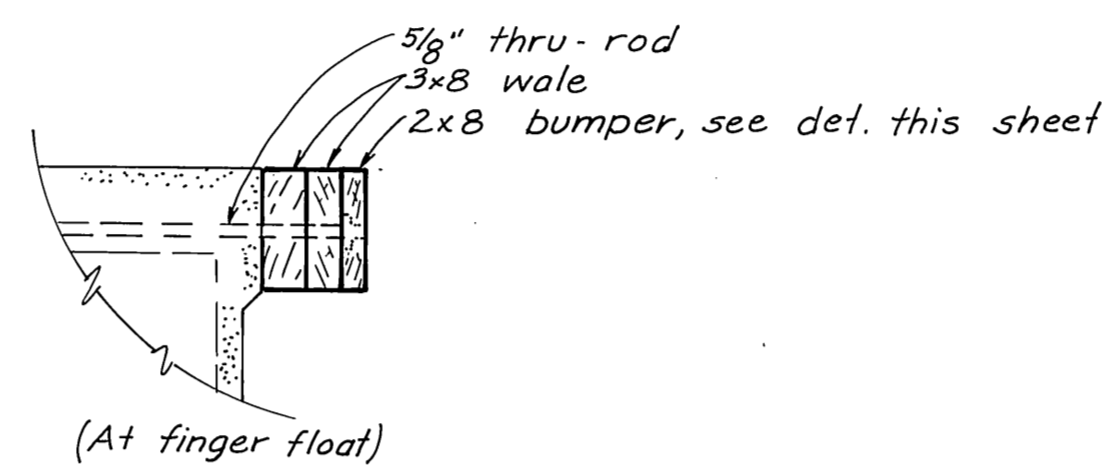
Plan



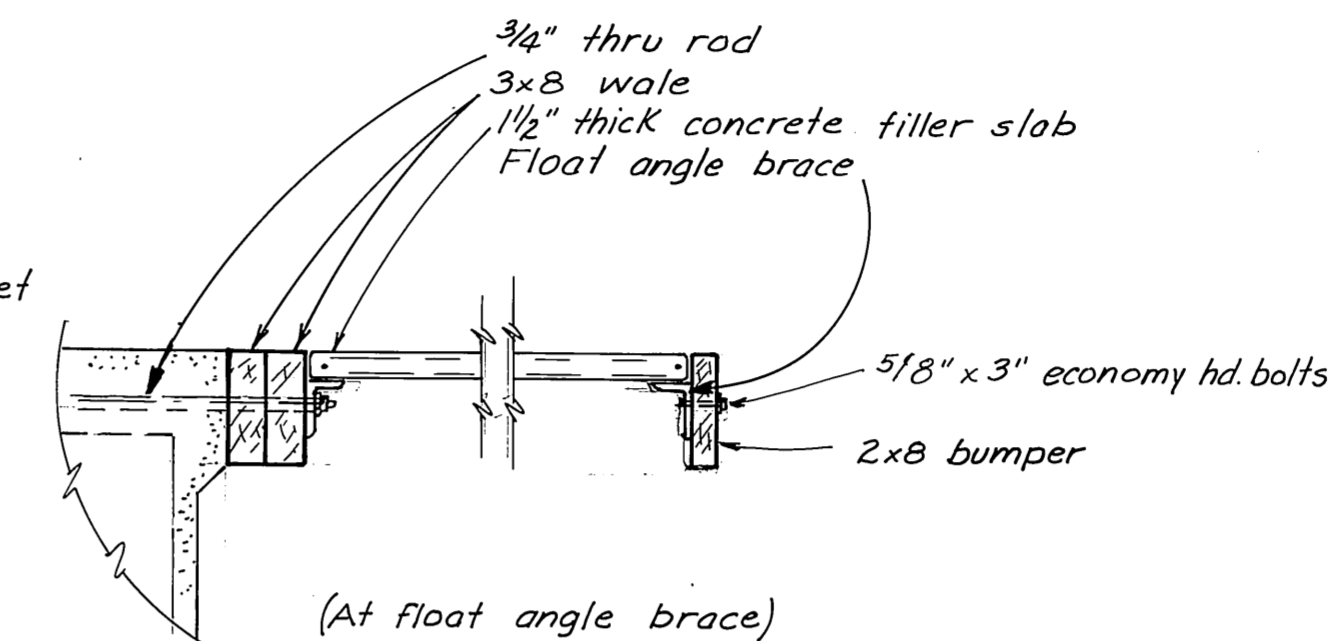
Section B-B



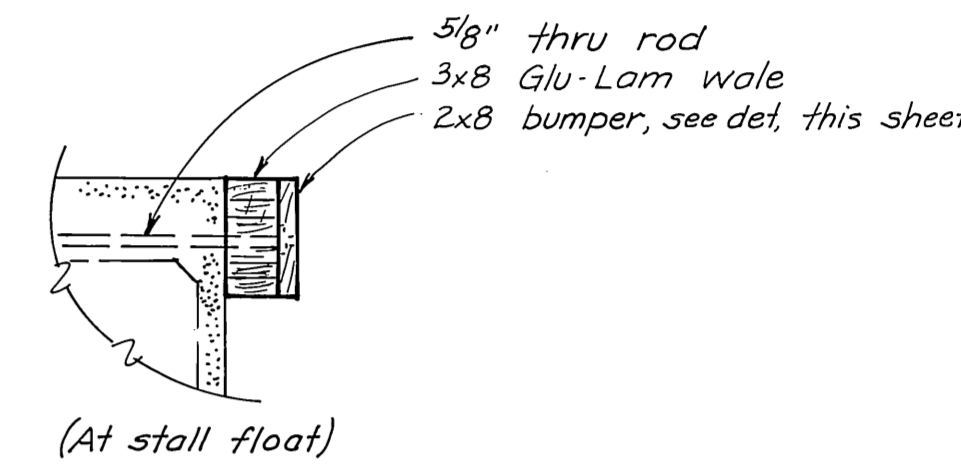
TYPICAL BUMPER BOARD  
no scale



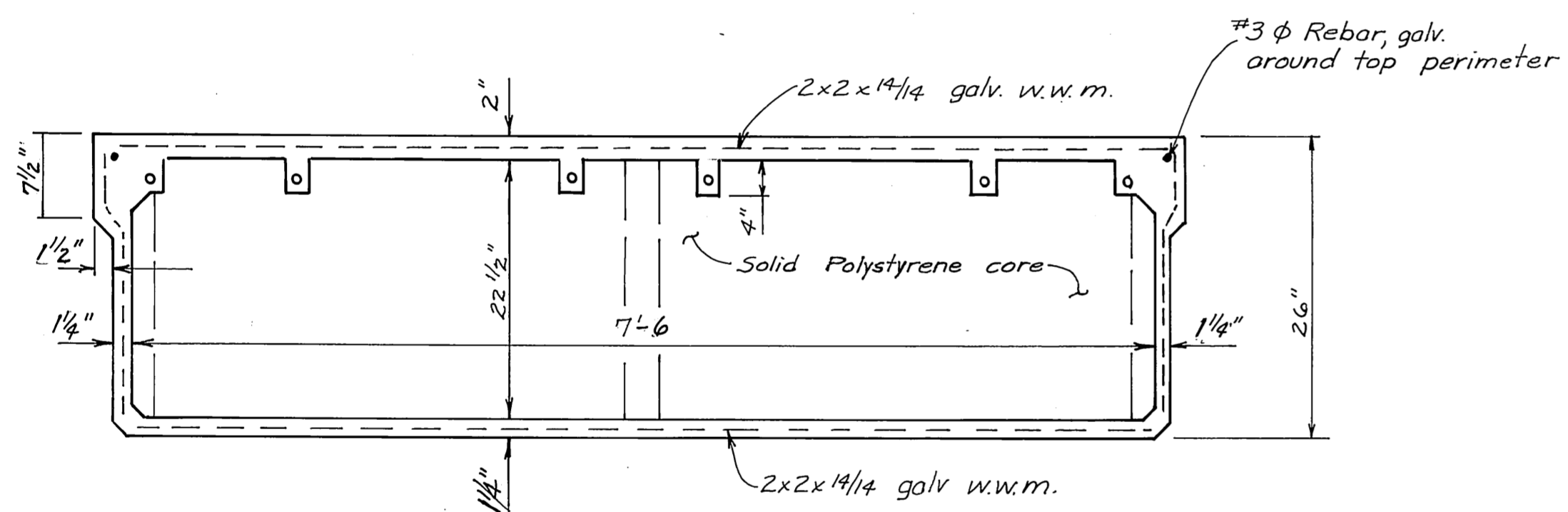
TYPICAL WALE ASSEMBLY



TYPICAL GLU-LAM ASSEMBLY

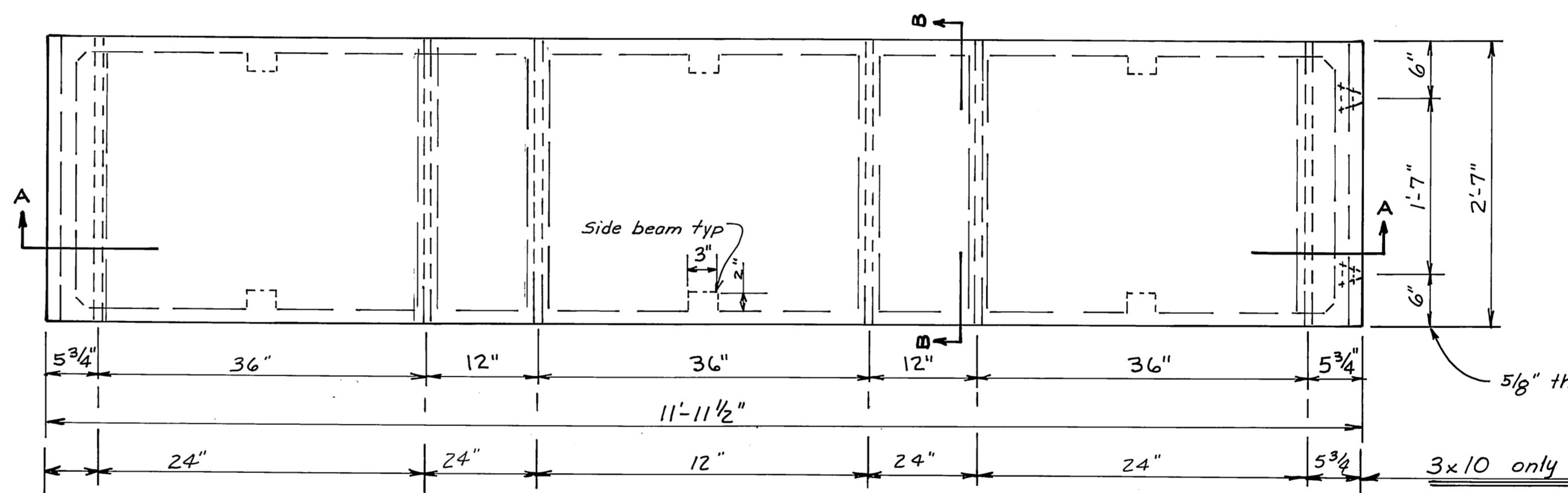


DELETED  
3x8 S45 wales substituted



Section A-A

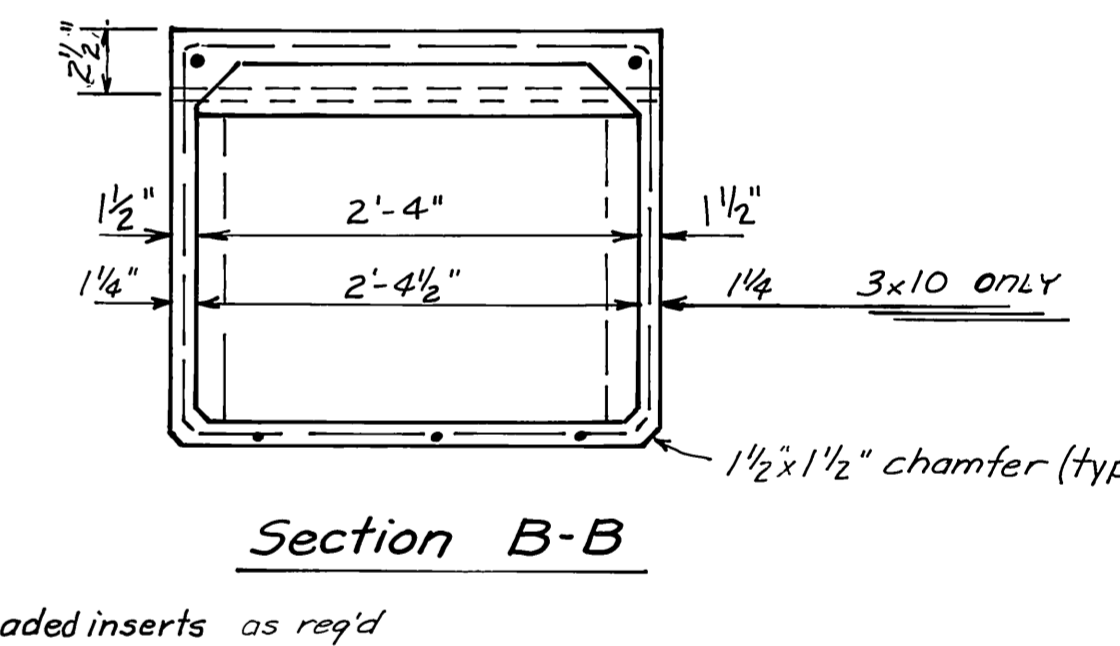
6x8 STANDARD FLOAT



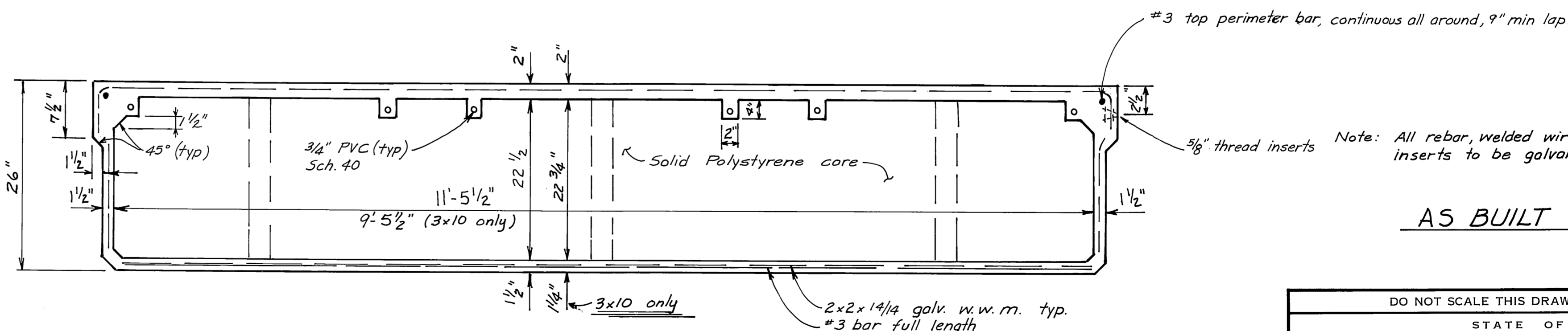
Section A-A

3x12 STANDARD STALL FLOAT

3x10 STALL FLOAT SIMILAR EXCEPT AS NOTED



Section B-B

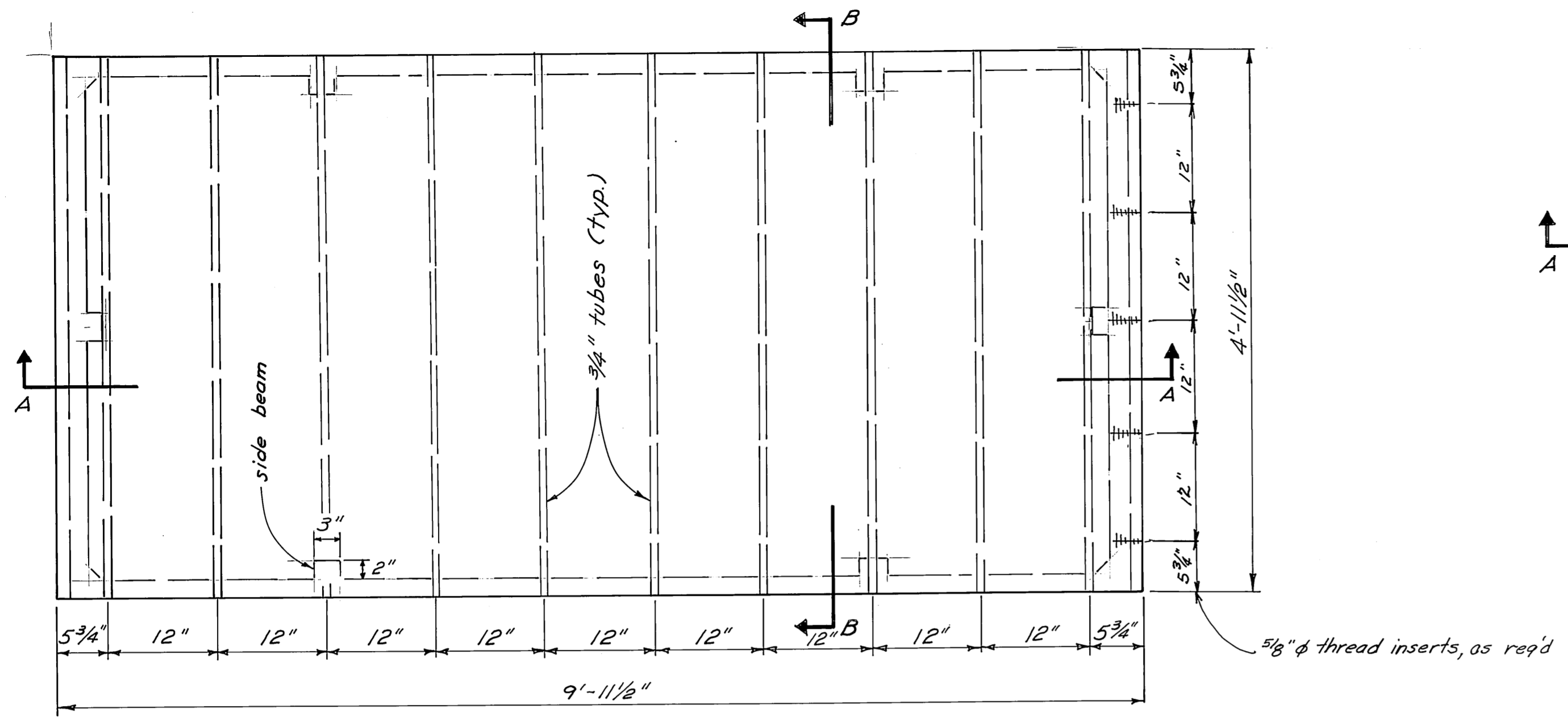


AS BUILT

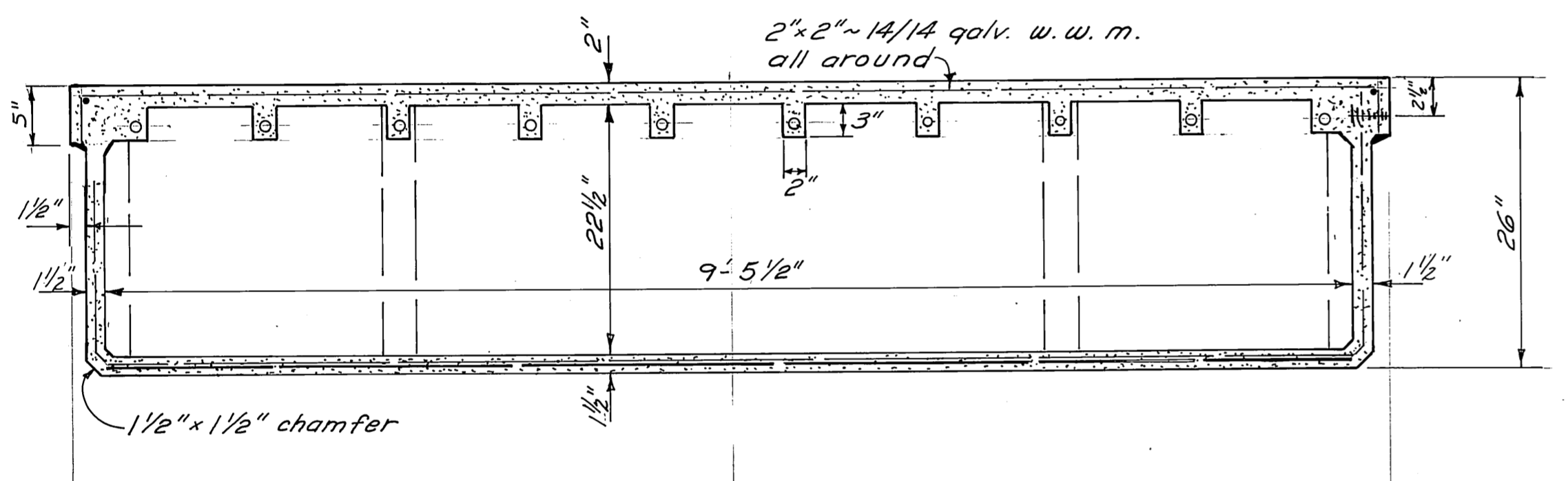
DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
STANDARD FLOAT UNITS 6x8      3x12 & 10		
SCALE 1" = 1'-0"	SURVEYED	APPROVED
DESIGNED	DRAWN HM	Don Statter DIRECTOR
CHECKED	DATE Oct 75	
PROJECT NUMBER 9-73/30	SHEET 9 OF 17	



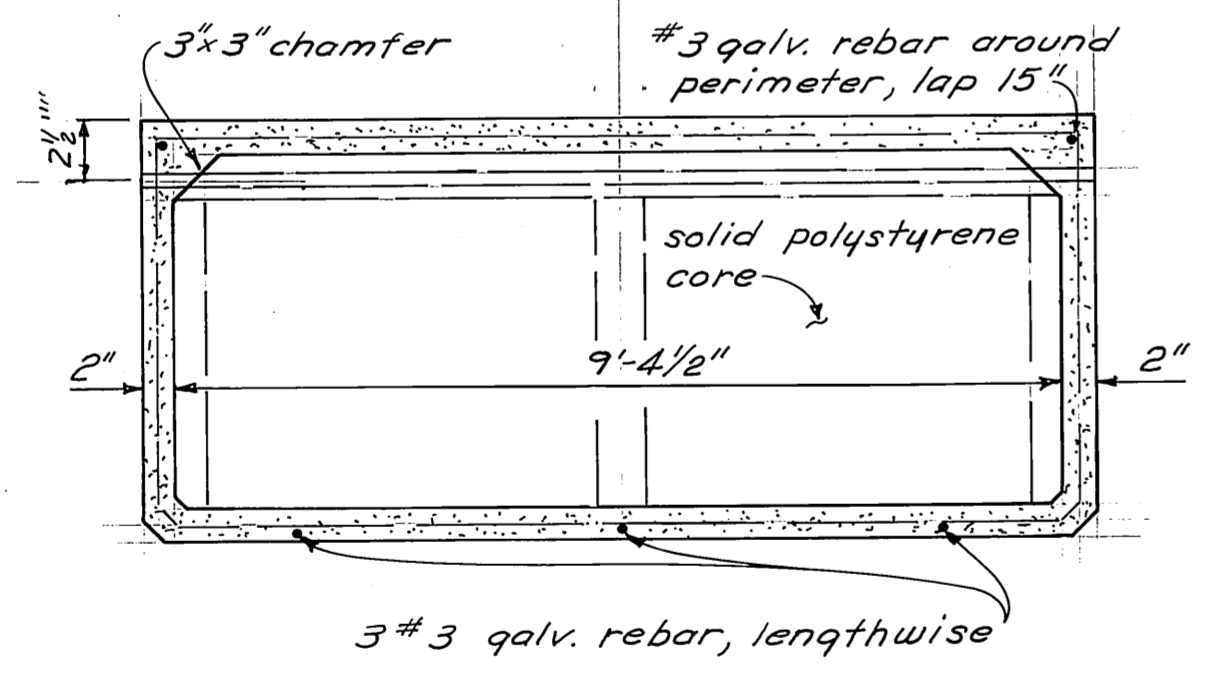
Note: All rebar, welded wire mesh and threaded inserts to be galvanized (hot dipped)



PLAN

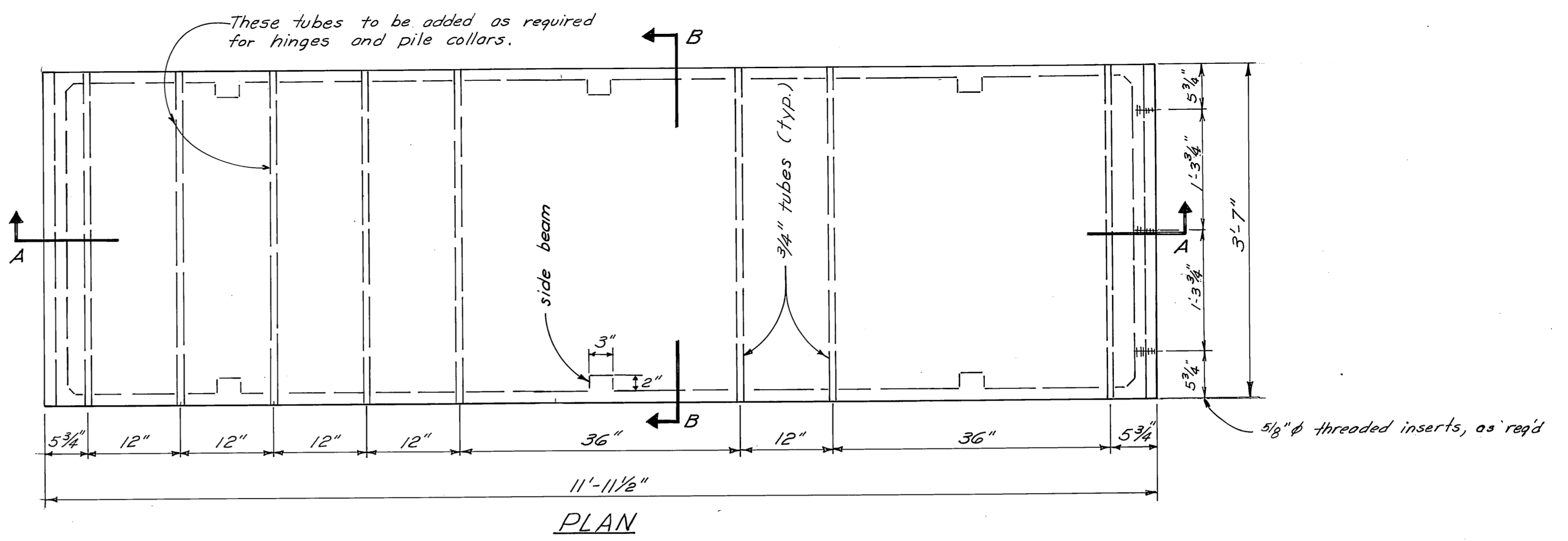


SECTION A-A

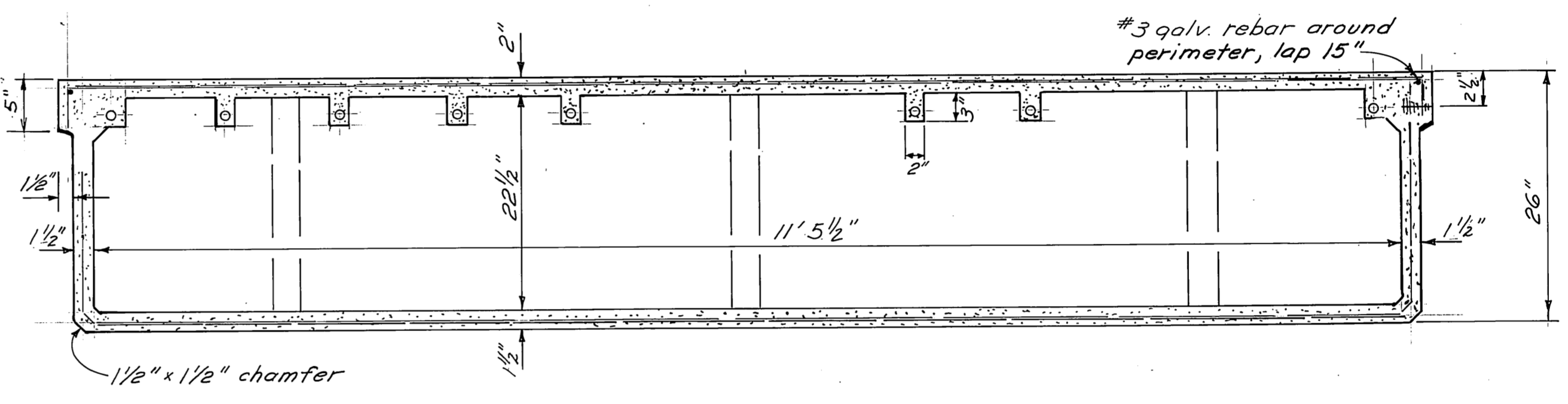


SECTION B-B

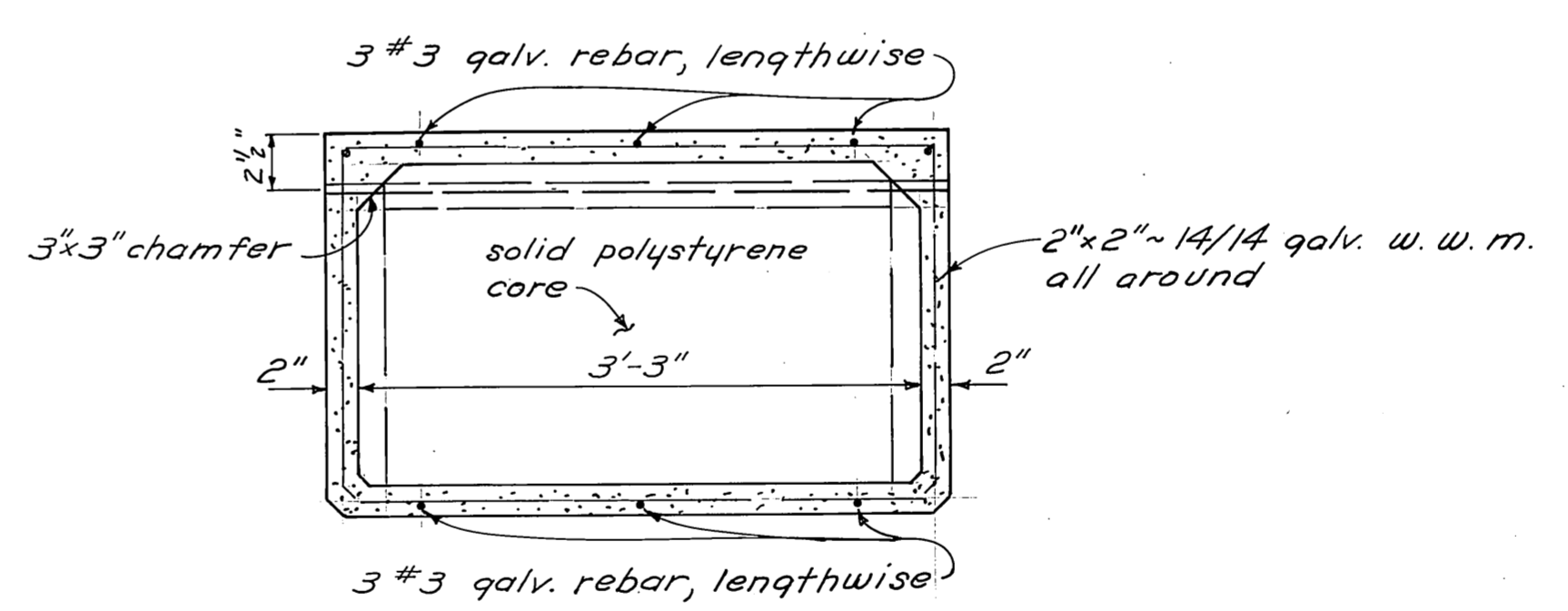
5x10 FLOAT UNIT



PLAN



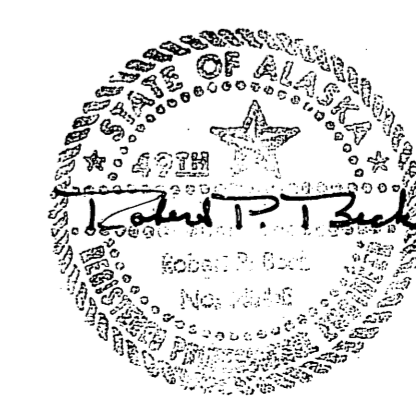
SECTION A-A



SECTION B-B

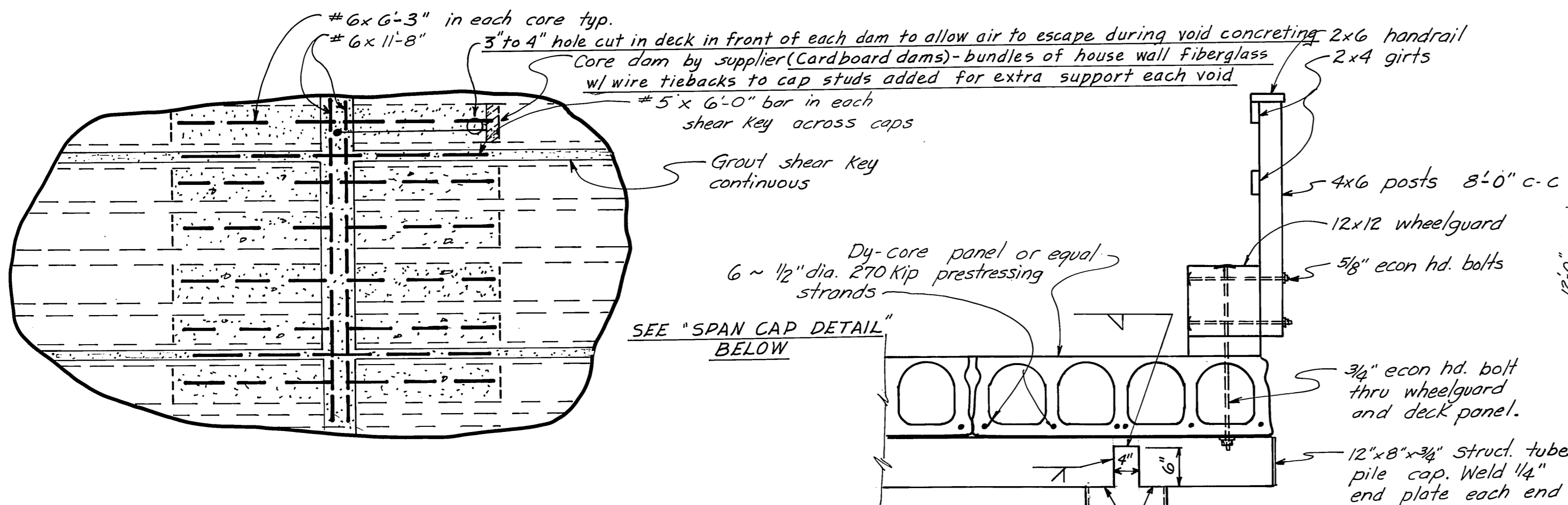
4x12 FLOAT UNIT

AS BUILT

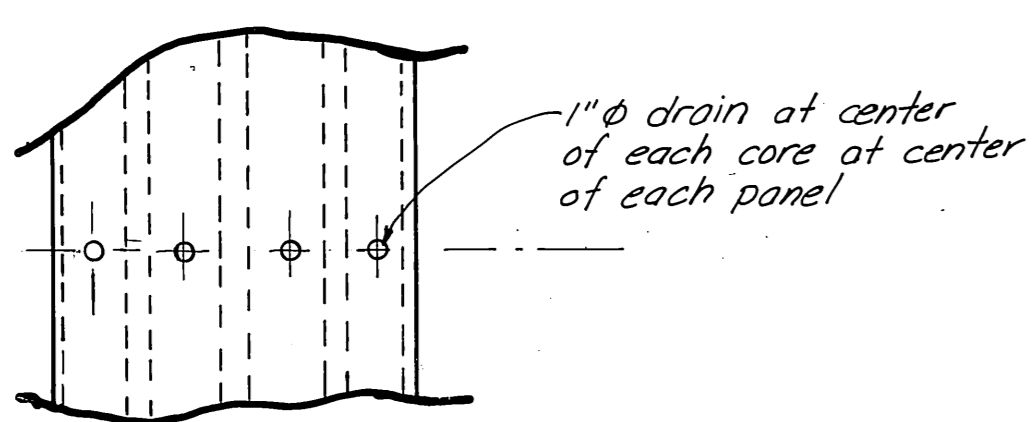


DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
4', 5' STALL FLOAT UNITS		
SCALE 1/4" = 1'-0"	SURVEYED	APPROVED
DESIGNED	DRAWN EJS/HM	Don Statter
CHECKED	DATE Oct 1975	DIRECTOR
PROJECT NUMBER 9-73130		SHEET 10 OF 17

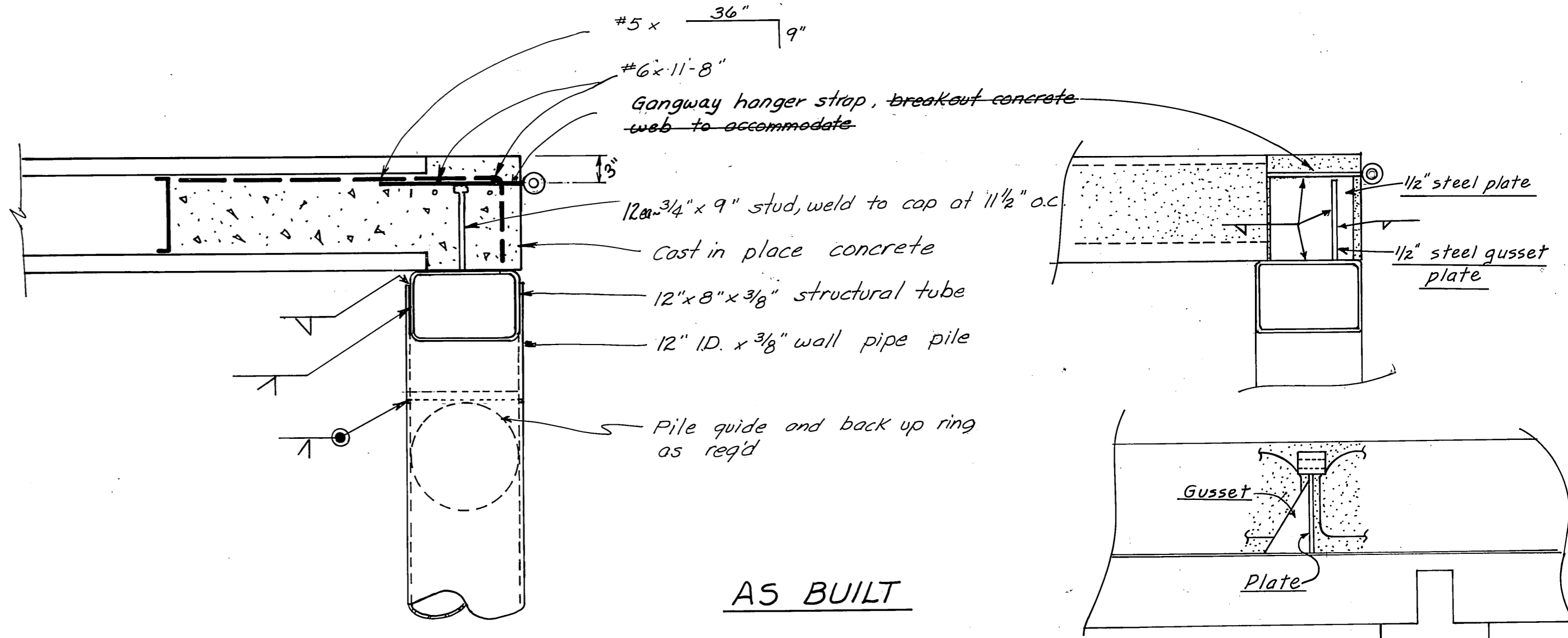
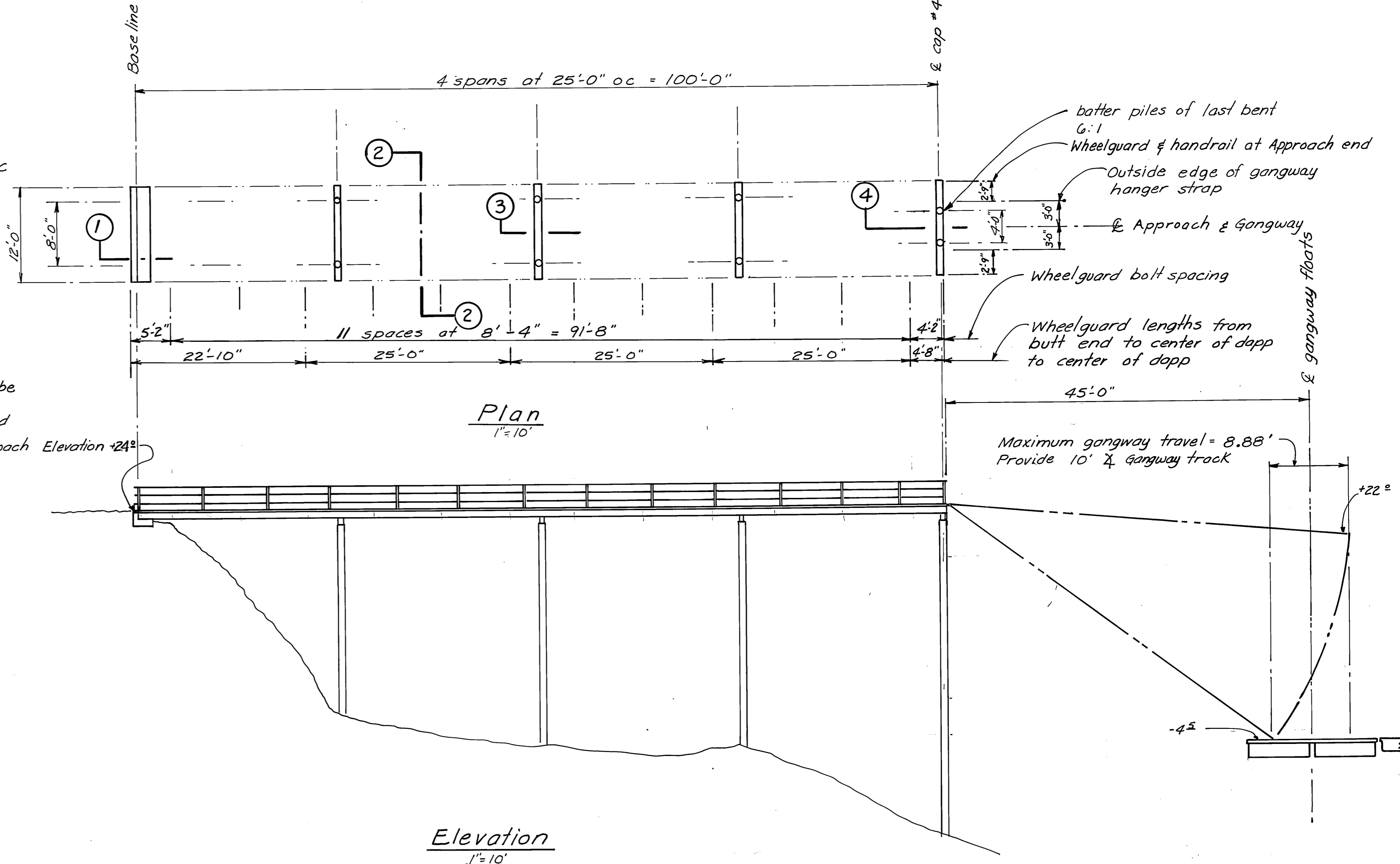
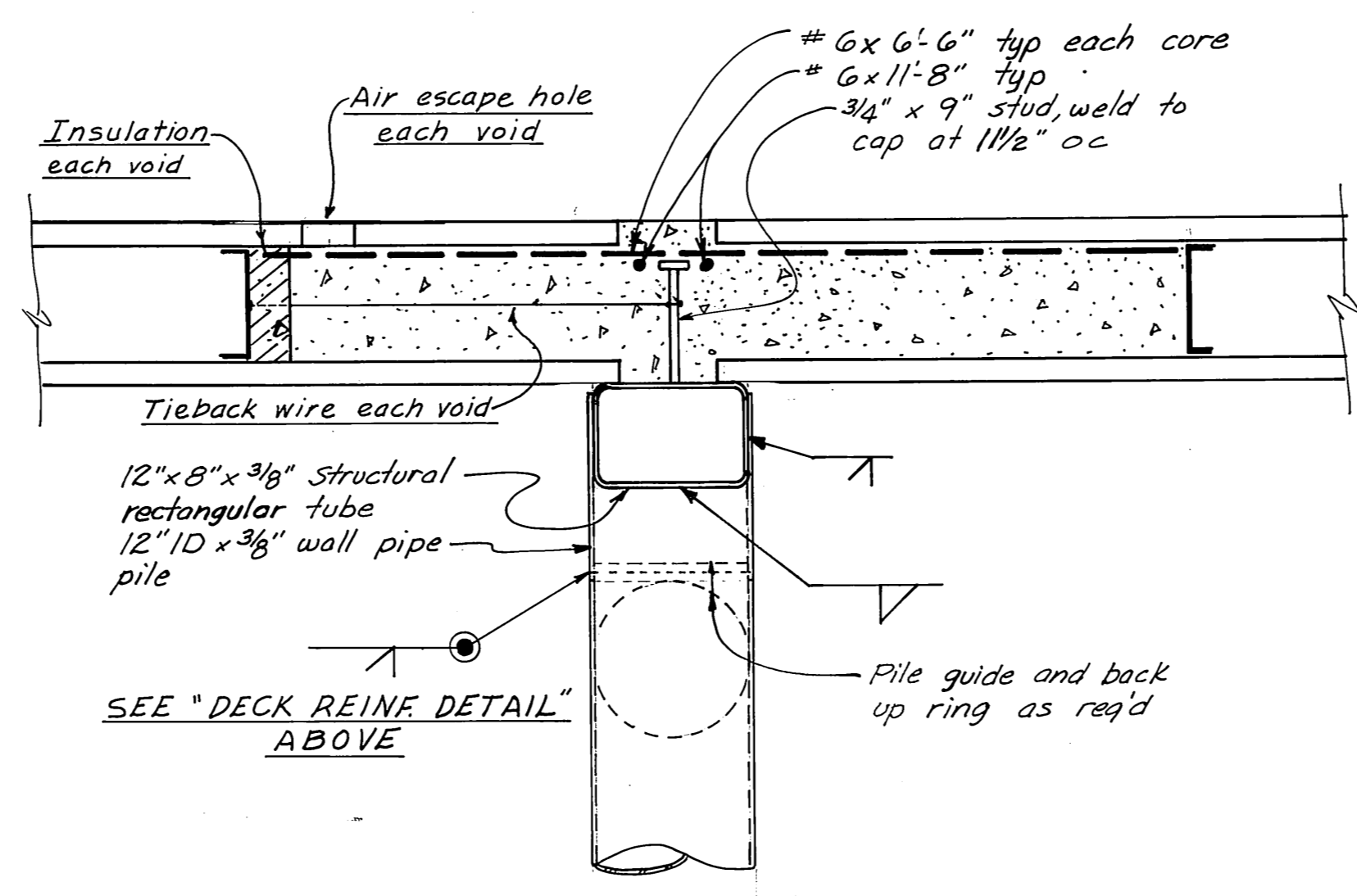
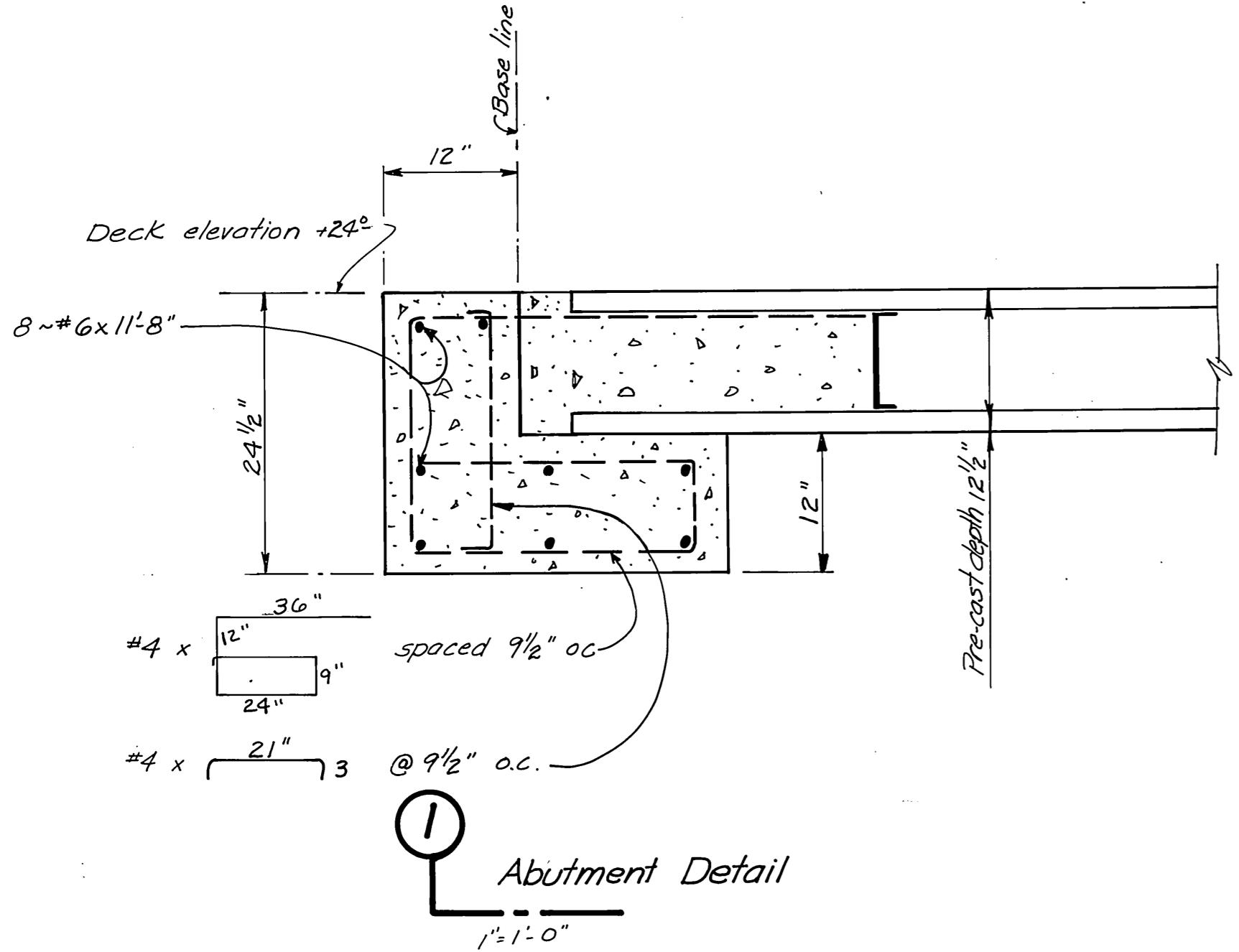




Deck Reinforcement Across Caps  
 1/2" = 1'-0"

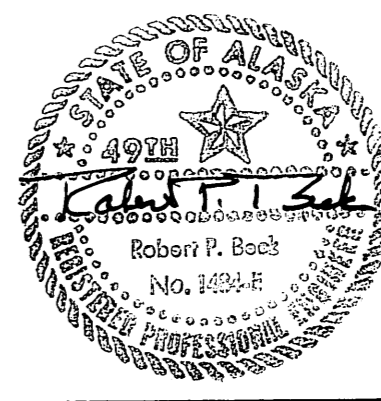


Bottom View at C of Span  
 1/2" = 1'-0"

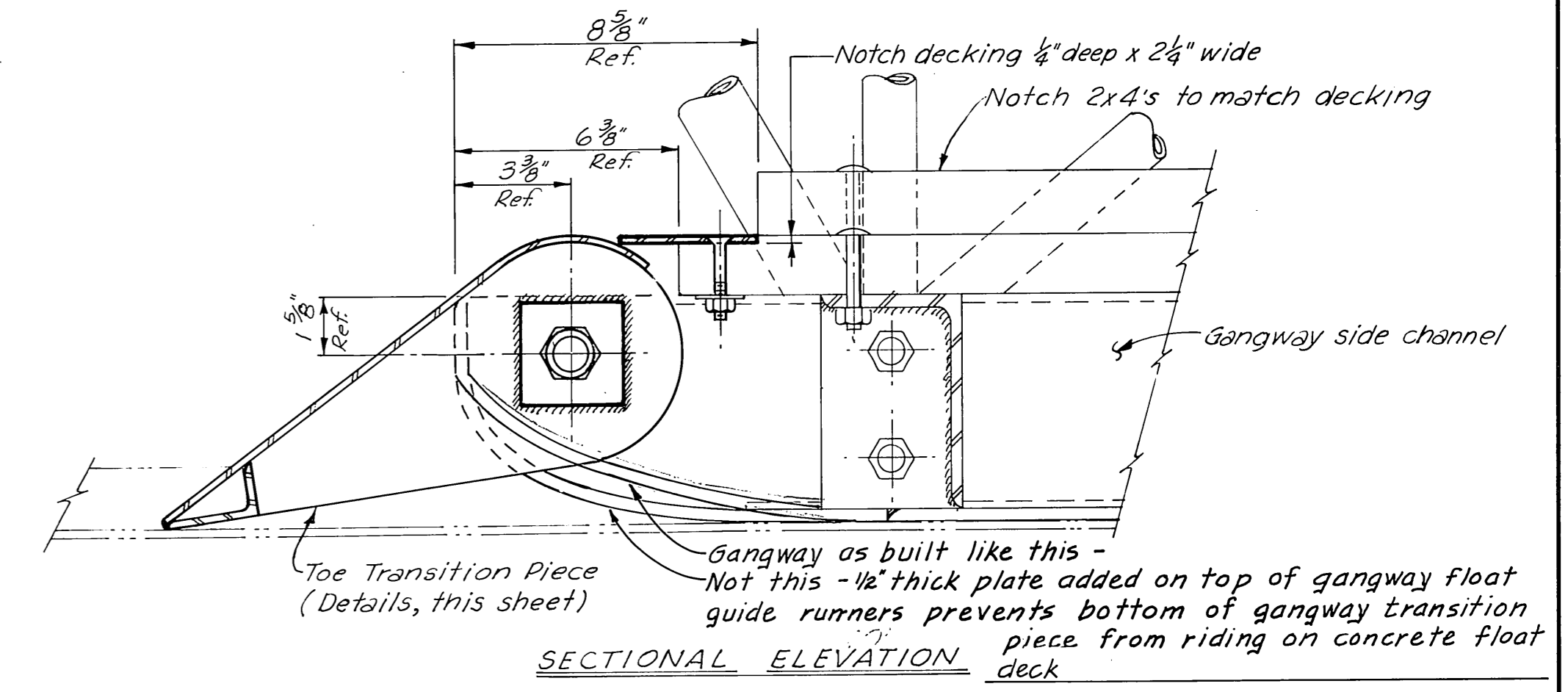
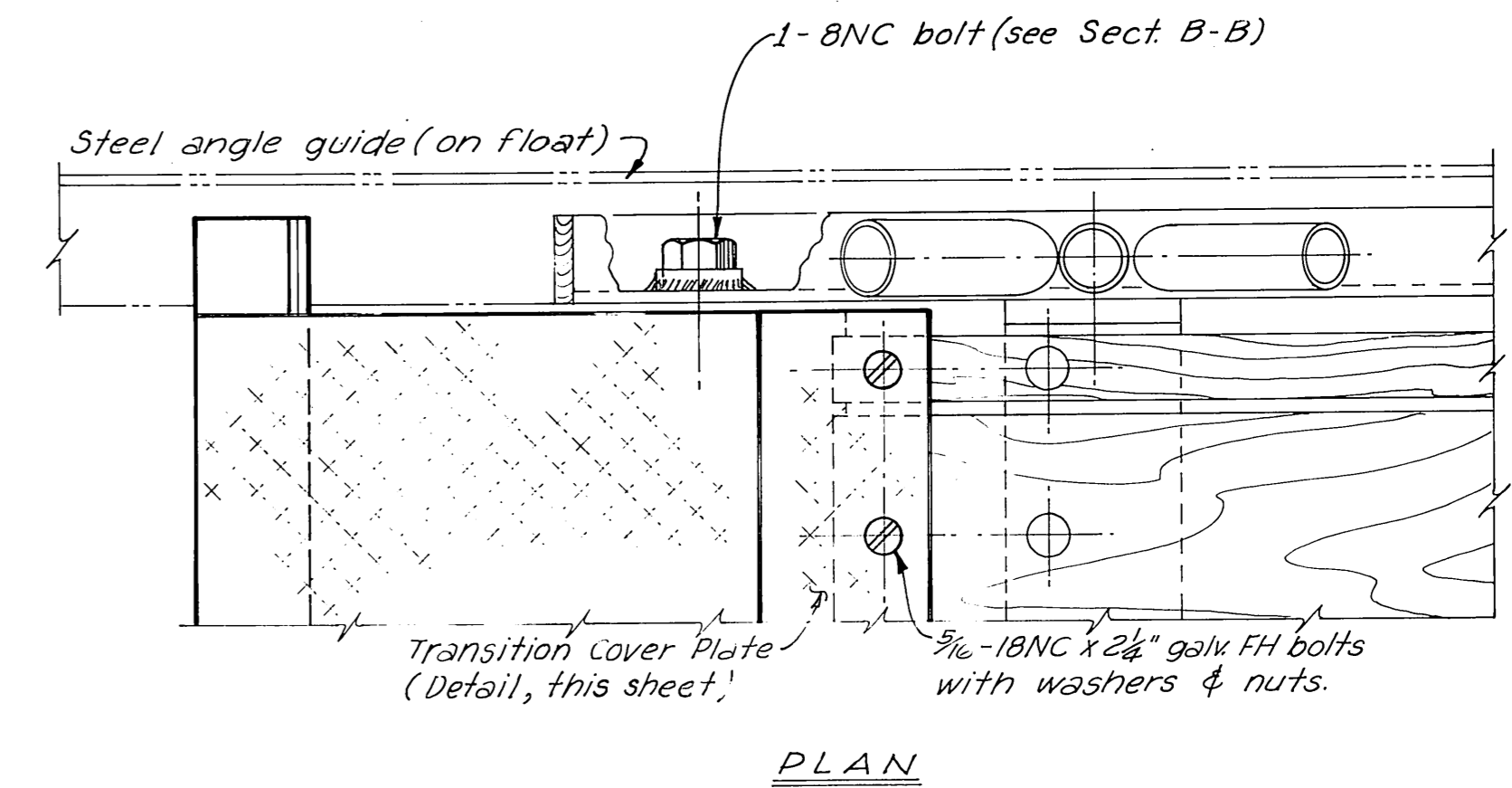
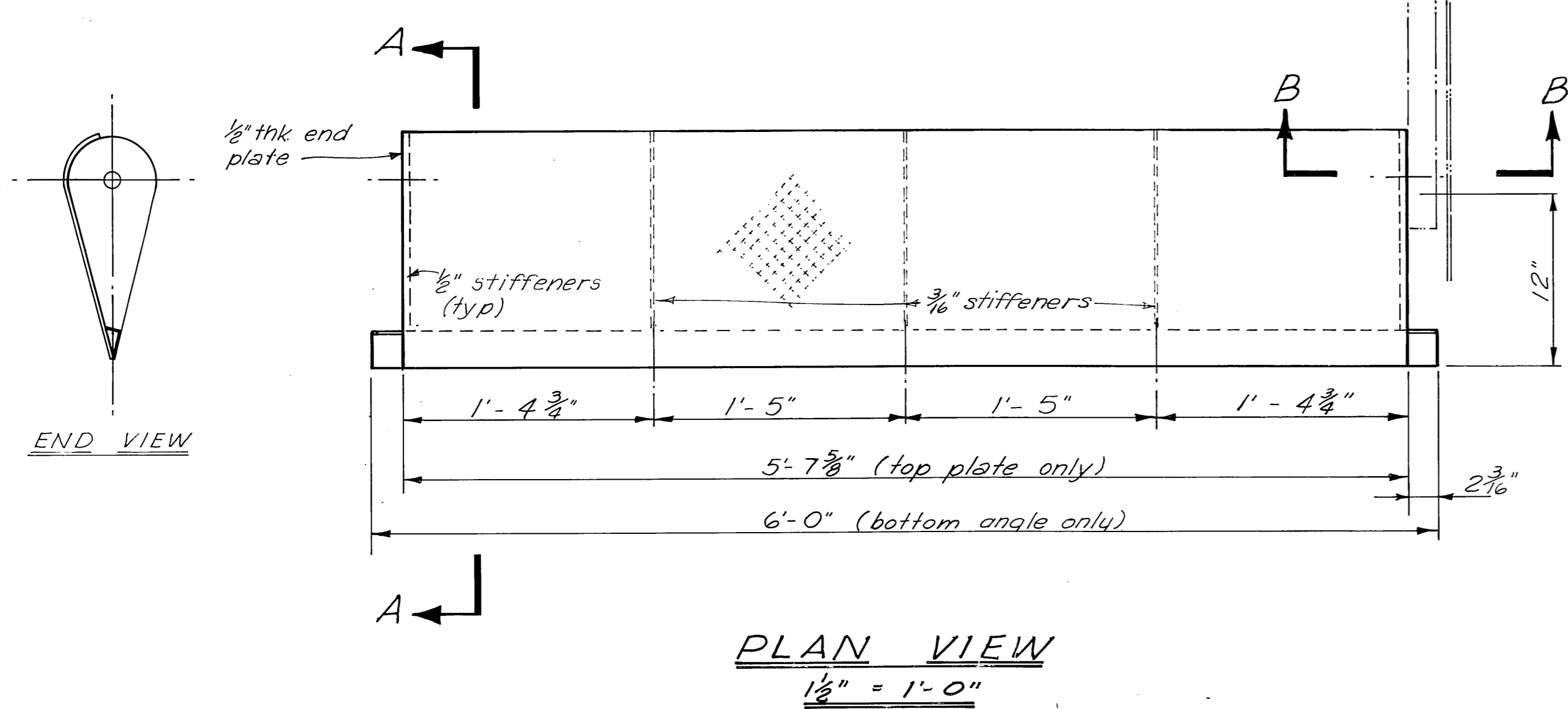


4 End Cap Detail  
 1" = 1'-0"

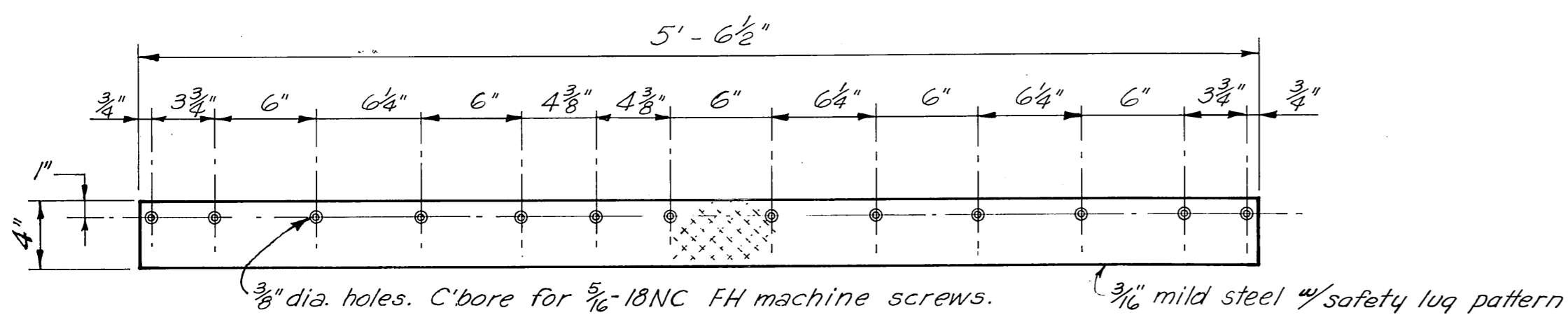
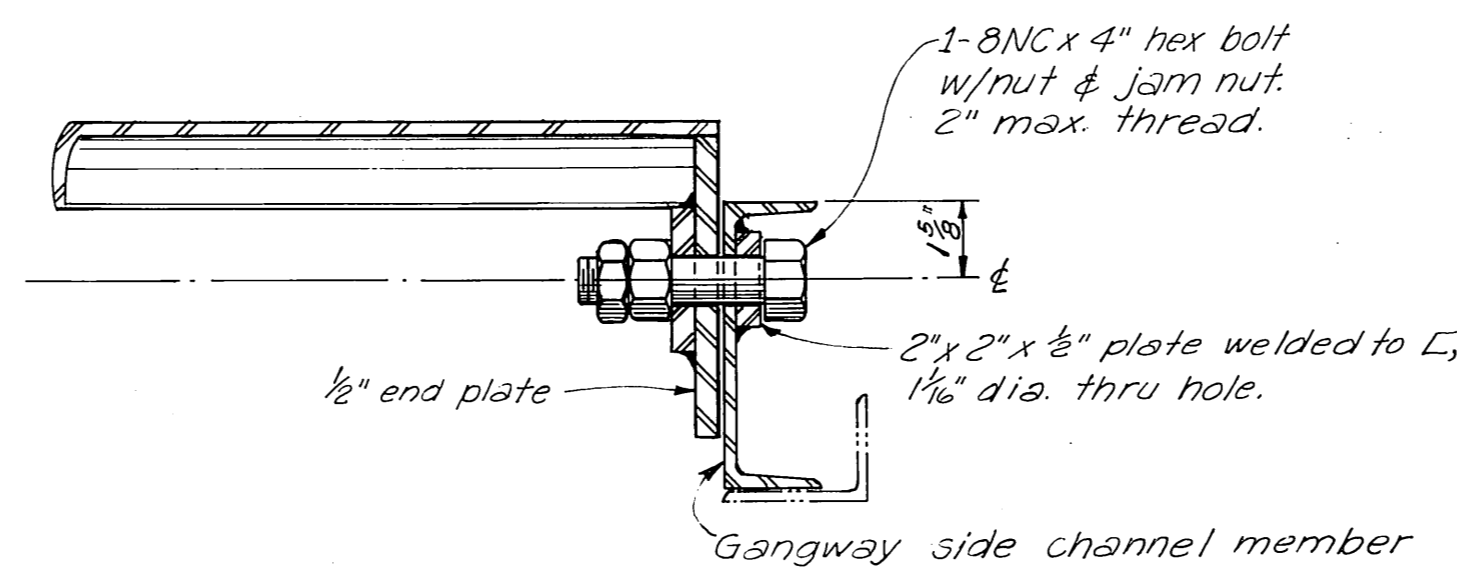
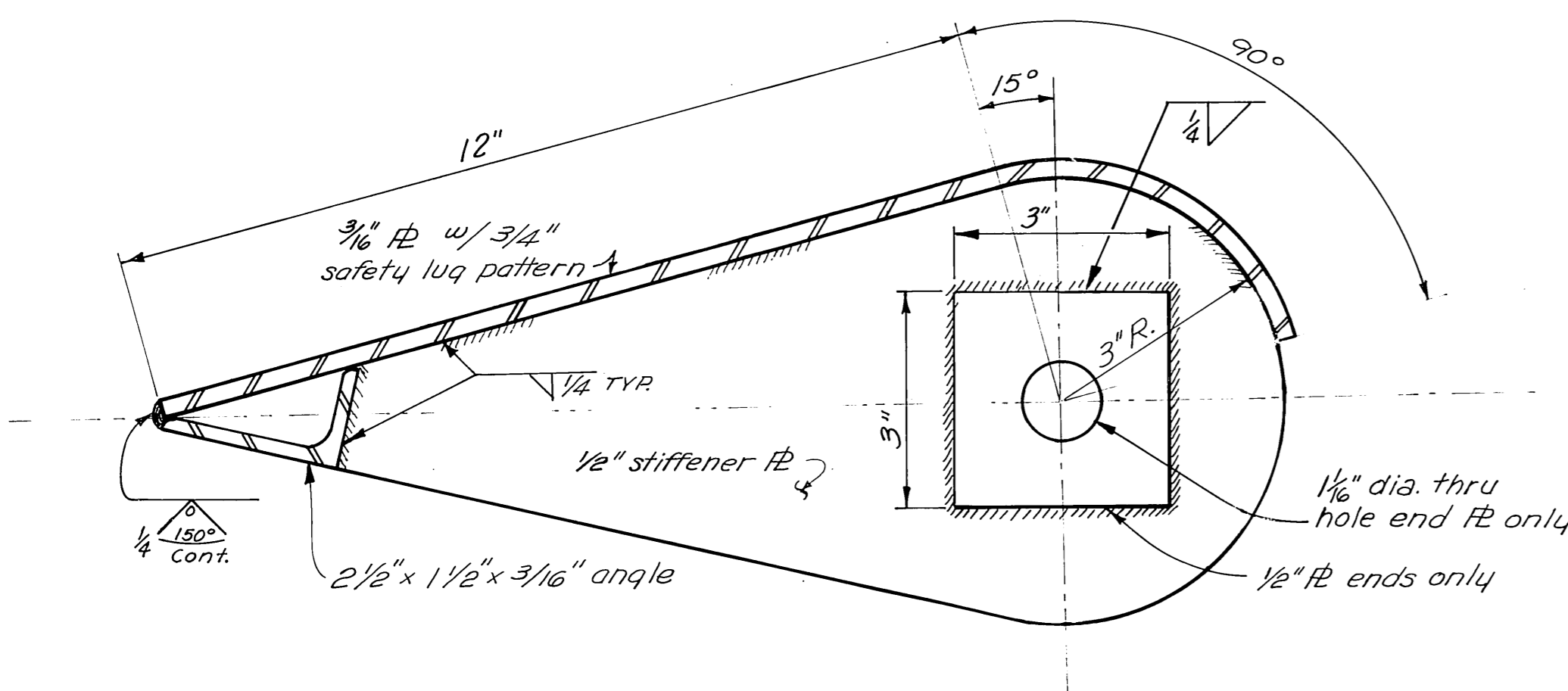
DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
APPROACH PLAN & DETAILS		
SCALE As noted	SURVEYED ES	APPROVED
DESIGNED HM	DRAWN HM	Don Stotter
CHECKED	DATE Oct 11, 1976	DIRECTOR
PROJECT NUMBER 9-73/30	SHEET 12 OF 17	







**ASSEMBLY DETAIL**  
3" = 1'-0"

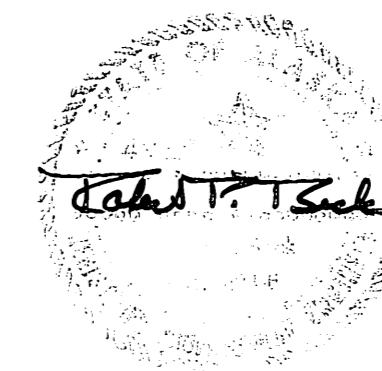


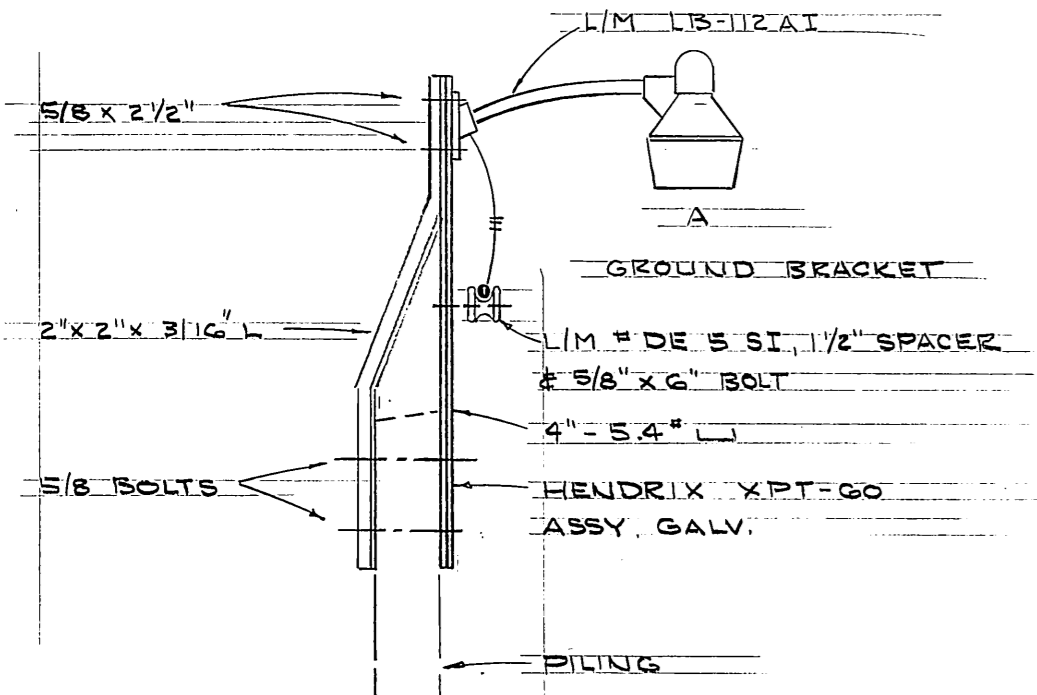
NOTES:  
For notes pertaining to fabrication and galvanizing, see Sheet A.

**A5 BUILT**

Revised 1-28-75 Removed 6" pipe ELS

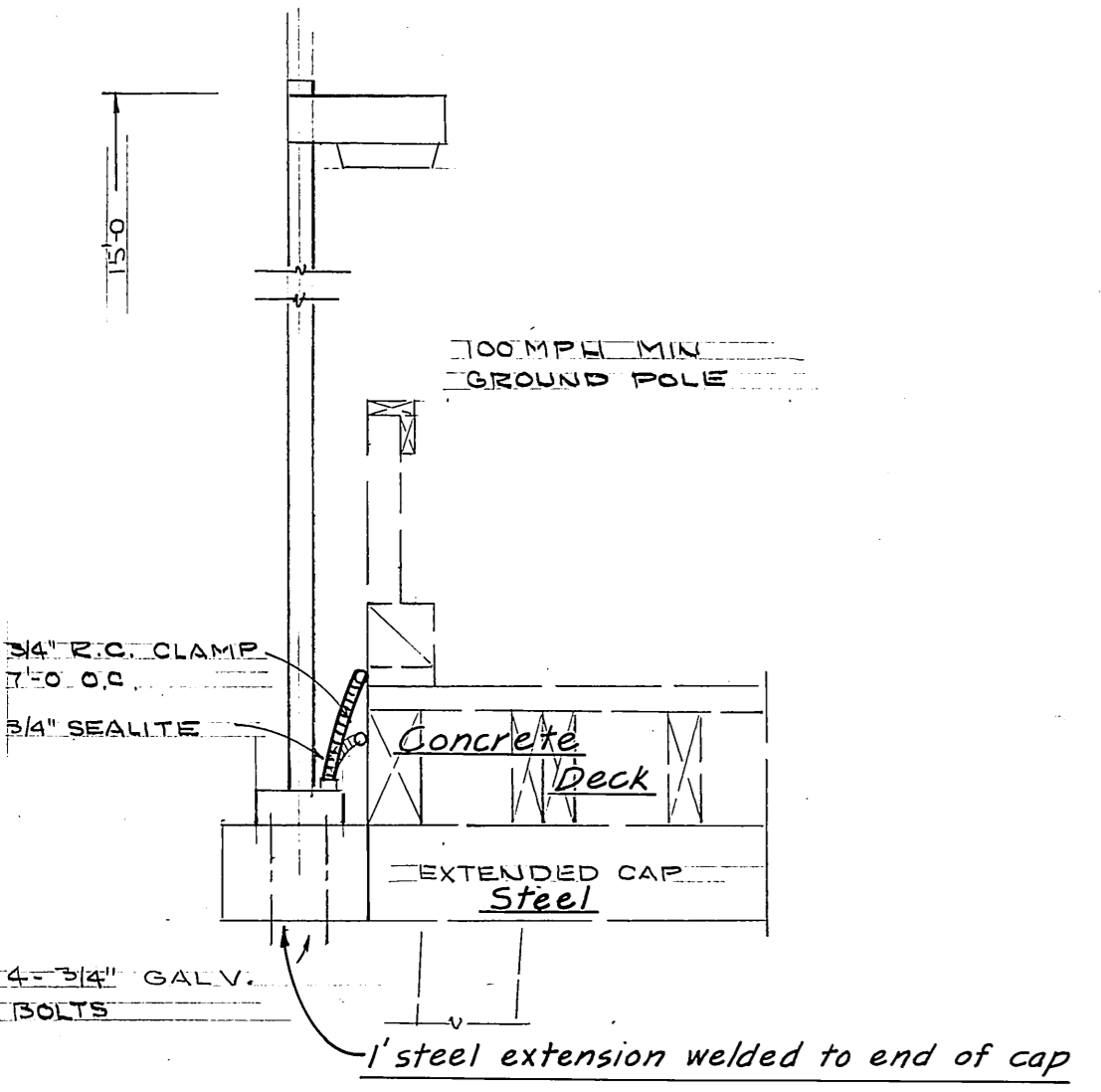
DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
<b>TYPICAL STEEL GANGWAY TRANSITION PIECE DETAILS (SHEET B)</b>		
SCALE <i>As shown</i>	SURVEYED -	APPROVED
DESIGNED <i>JET</i>	DRAWN <i>JET</i>	<i>Don Statter</i> DIRECTOR
CHECKED <i>DSM</i>	DATE <i>2-11-77</i>	
PROJECT NUMBER <i>9-73/30</i>	SHEET <i>14</i> OF <i>17</i>	



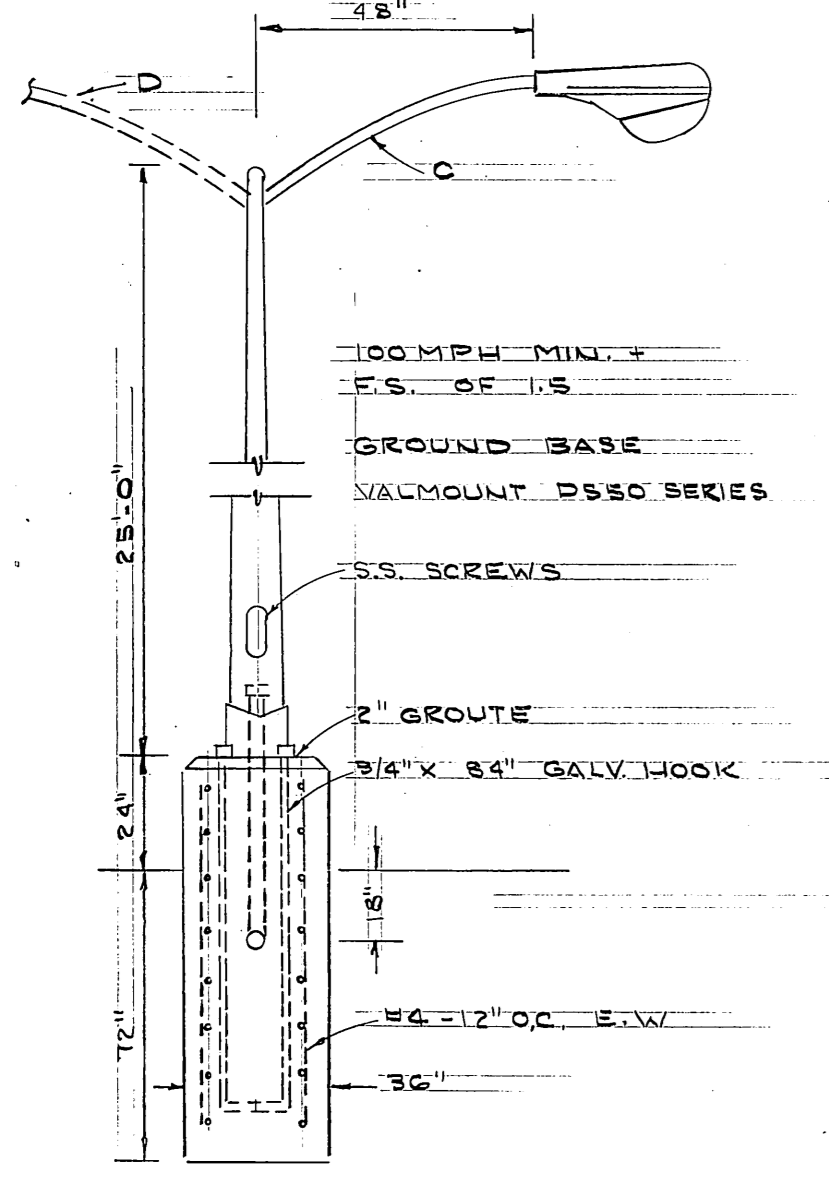


NOTE - USE DBL BRACKET Deleted - requires major modifications to 2nd EACH CORNER & END WITH bracket if two used on CLEVIS ASSY SIMILAR REA one pile - extra not K140 needed

FIXTURE TYPE A  
1/2" x 1'-6"



FIXTURE TYPE B  
1/2" x 1'-6"



FIXTURE TYPE C & D  
NO SCALE



FIXTURE SCHEDULE			
TYPE	MFG	W	REMARKS
A	ITT #12-245-B LEXAN	175 MV	SEE DETAIL TYPE II
B	MORPHILSEN 15BP120N3-1ST 208V	175 MV	" "
C	LINE MATERIAL LMS3AG8	400 MV	" " TYPE III
D	" " 2LMS3AG8	2-400 MV	" " TYPE III
E	" " LMS3AG8 & LBS6A1	400 MV	" " "

See Sheet 2 for locations of extra pile top extensions

AS BUILT

E-1

LIGHTING PLAN  
1" = 50'

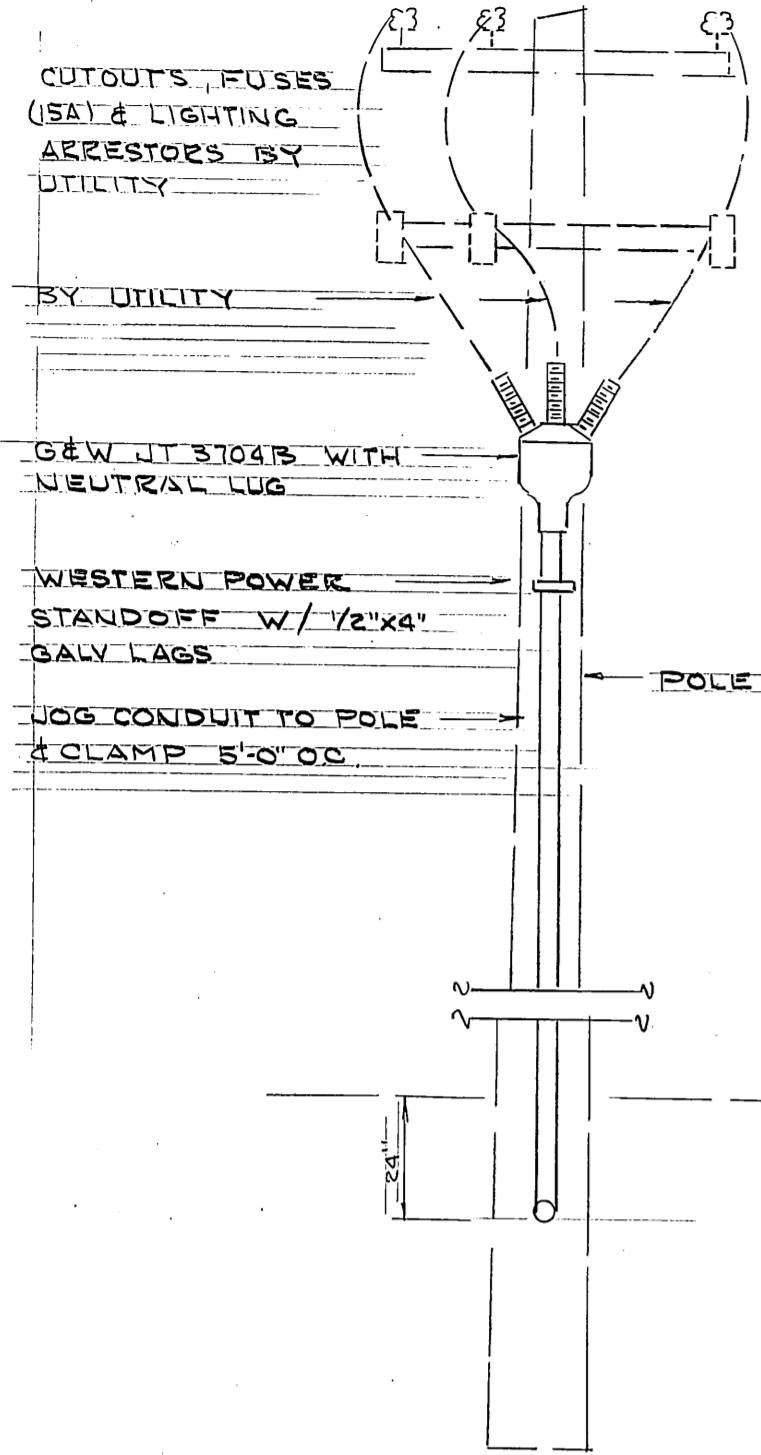


DO NOT SCALE THIS DRAWING - USE DIMENSIONS

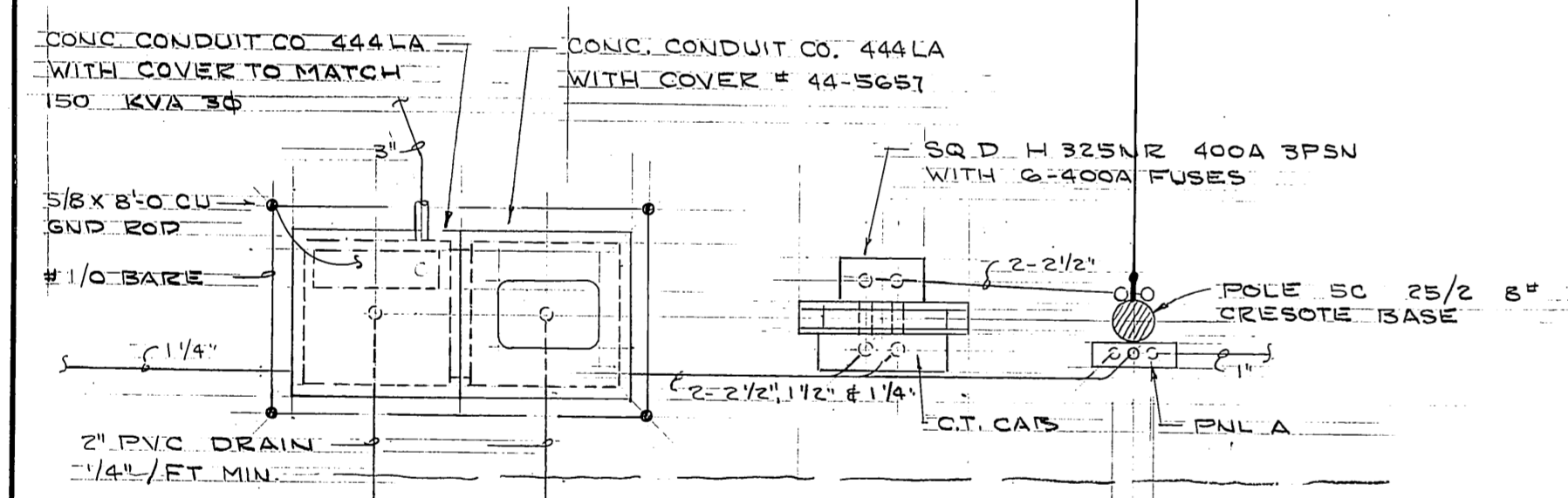
STATE OF ALASKA  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF WATER AND HARBORS

**LIGHTING PLAN**

SCALE NOTED	SURVEYED	APPROVED
DESIGNED: LPL	DRAWN	DIRECTOR
CHECKED	DATE: 10-12-76	
PROJECT NUMBER: 9-73130	SHEET 15 OF 17	



POLE 5B DETAIL  
NO SCALE

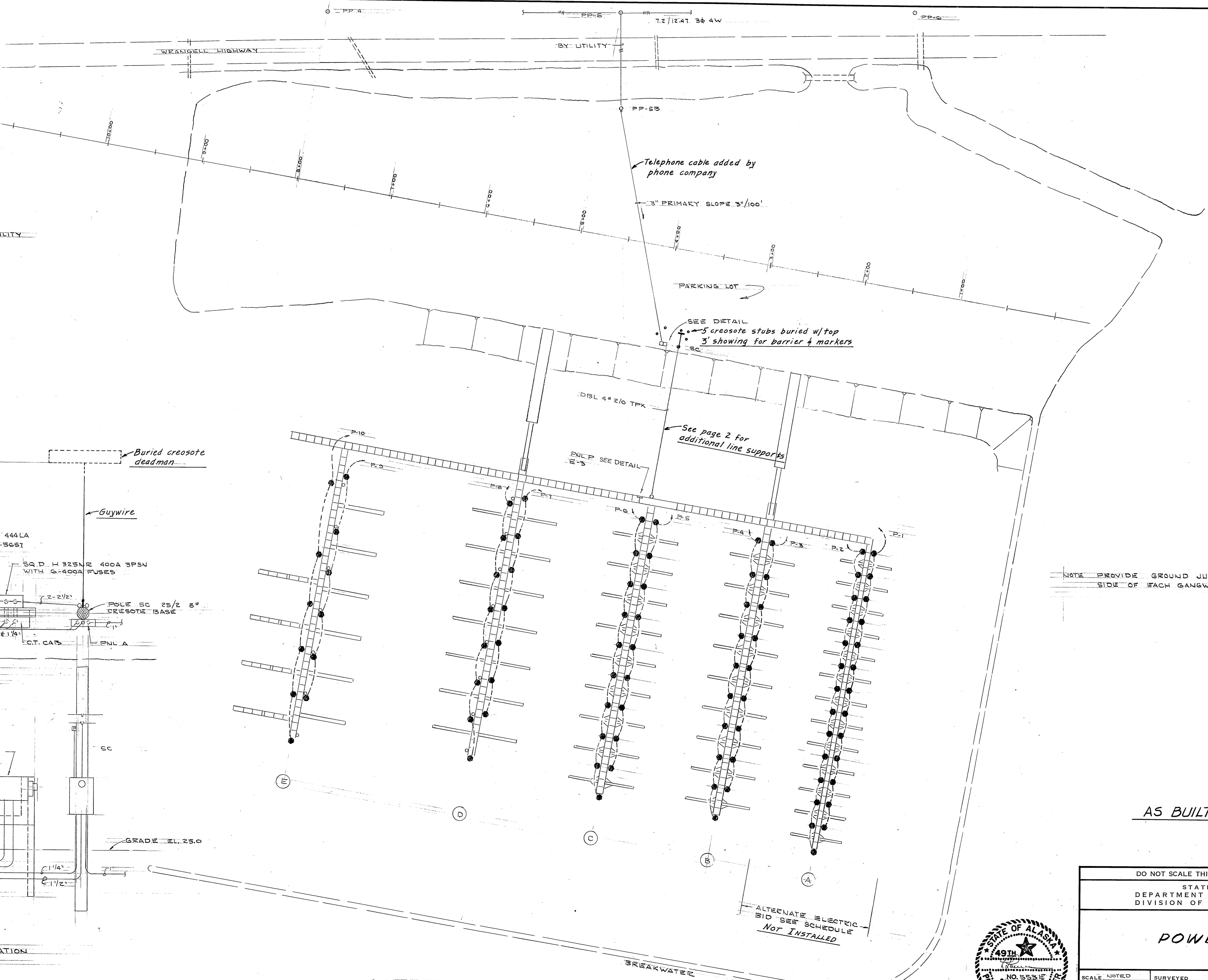


DETAIL PLAN  
1/4" = 1'-0"

2-2"x6"x10'-0" POSTS OS  
PENTA & 3/4" MARINE PLY  
2 COATS GREY EXT.

GRADE EL. 25.0

DETAIL ELEVATION  
1/4" = 1'-0"

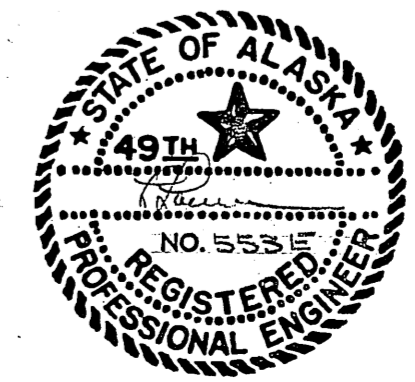


NOTE PROVIDE GROUND JUMPER 2/0 BARE ON EACH  
SIDE OF EACH GANGWAY TO DOCK STRUCTURE

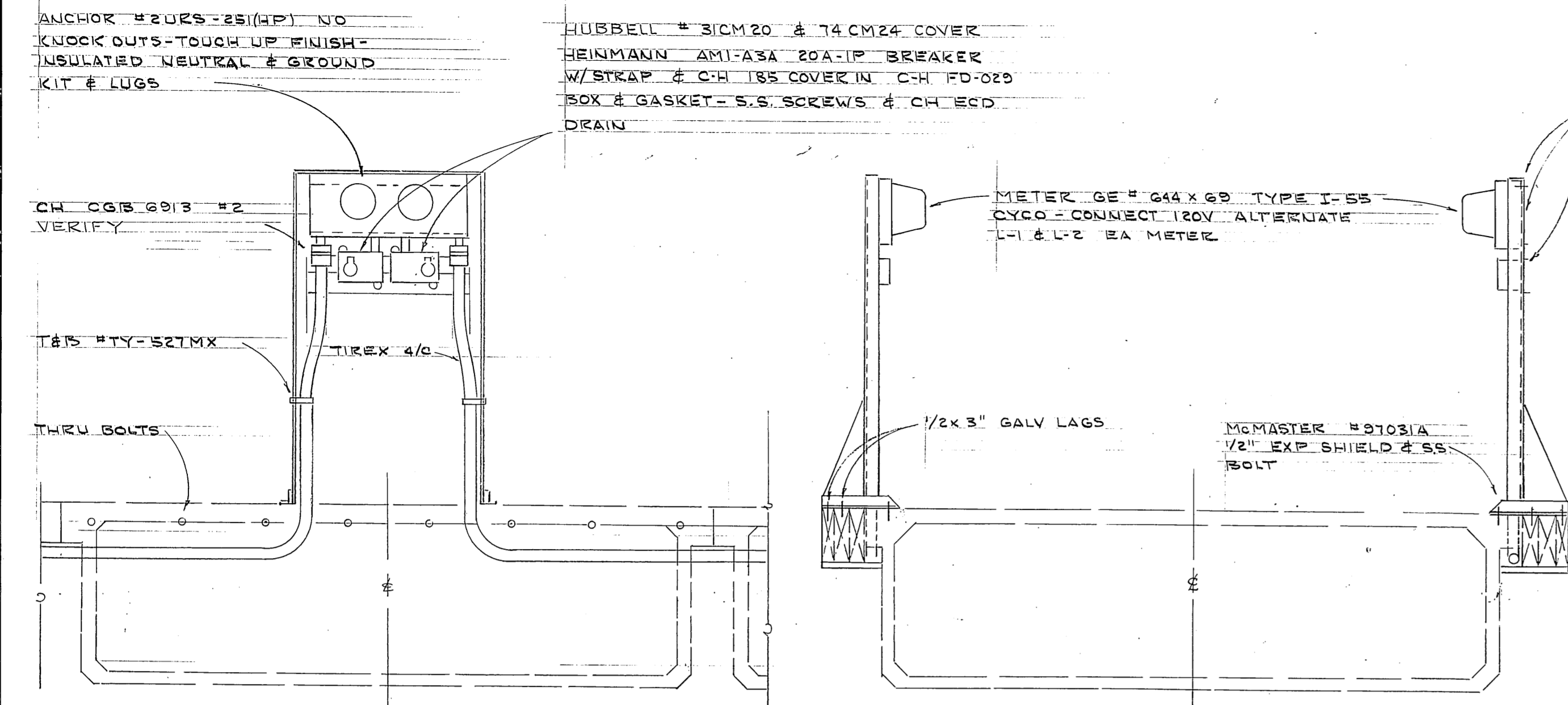
AS BUILT

E-2

Power Plan  
1" = 50'

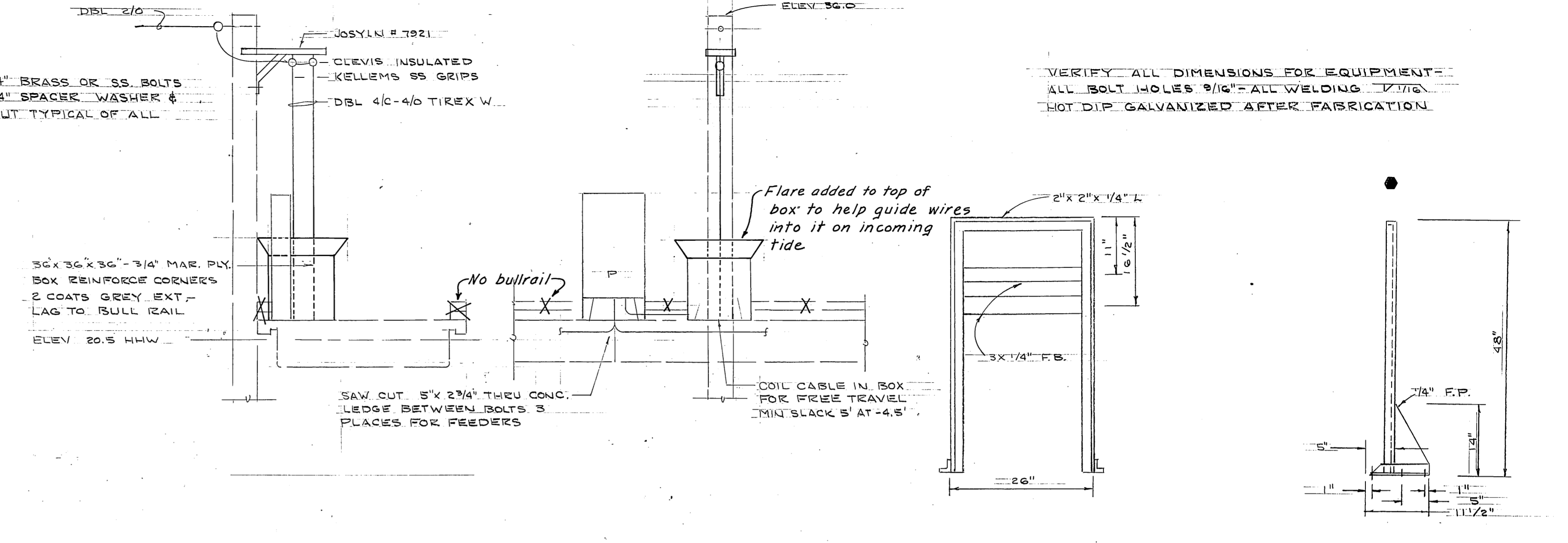


DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
<b>POWER PLAN</b>		
SCALE NOTED	SURVEYED	APPROVED
DESIGNED LPL	DRAWN	DIRECTOR
CHECKED	DATE 10-16-76	
PROJECT NUMBER 9-73130	SHEET 16 OF 17	



DETAIL  
3/4" x 1'-0"

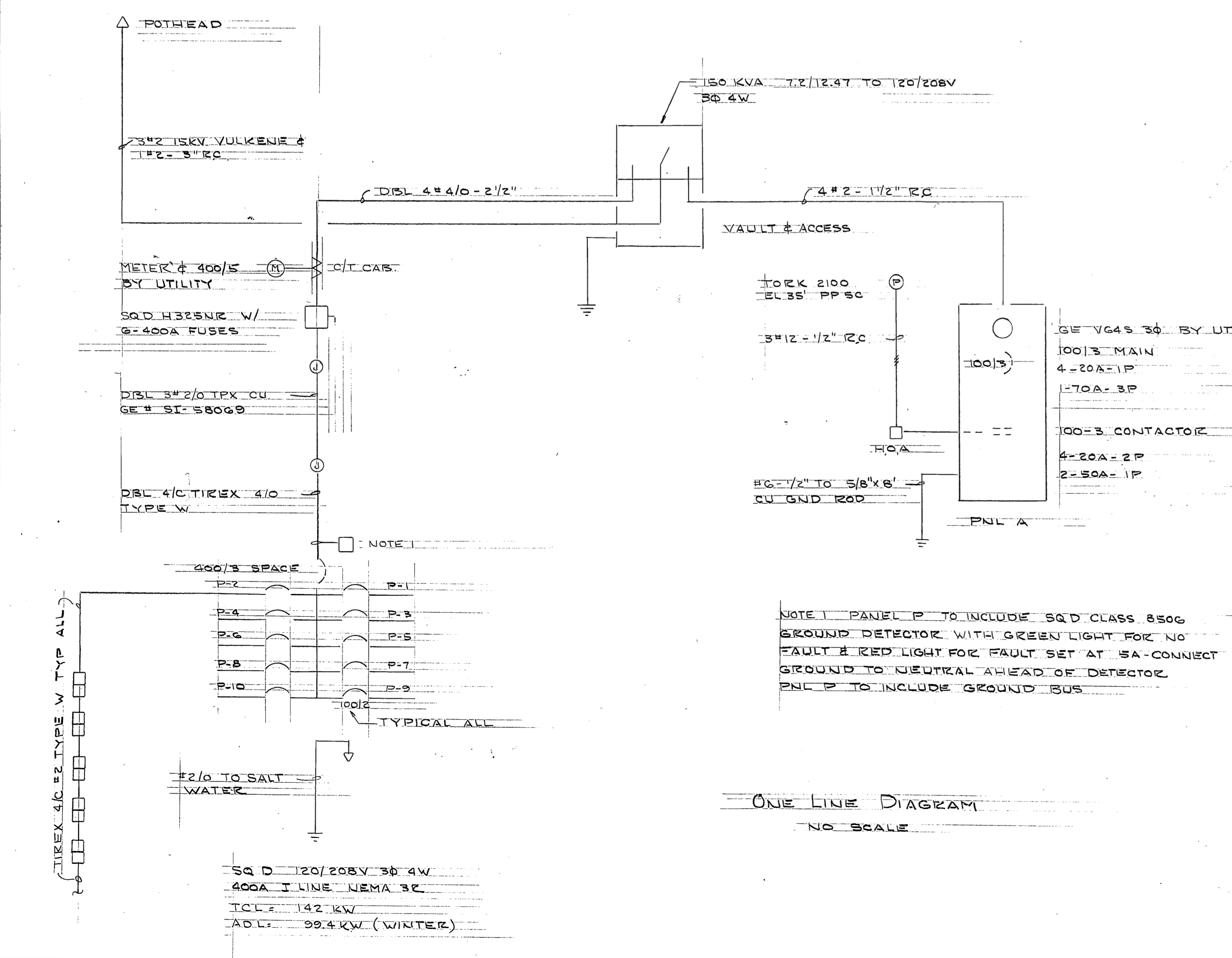
SECTION  
3/4" x 1'-0"



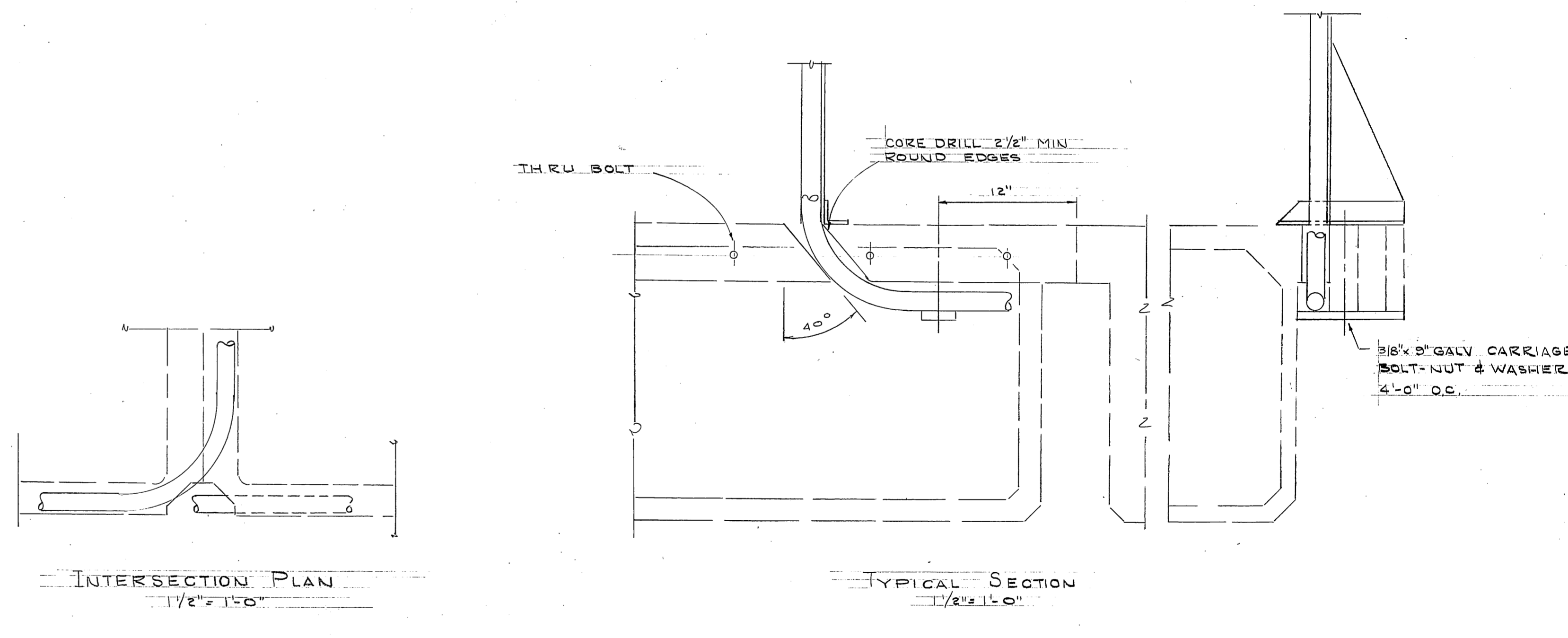
SECTION  
3/4" x 1'-0"

ELEVATION  
3/4" x 1'-0"

METER STAND  
3/4" x 1'-0"

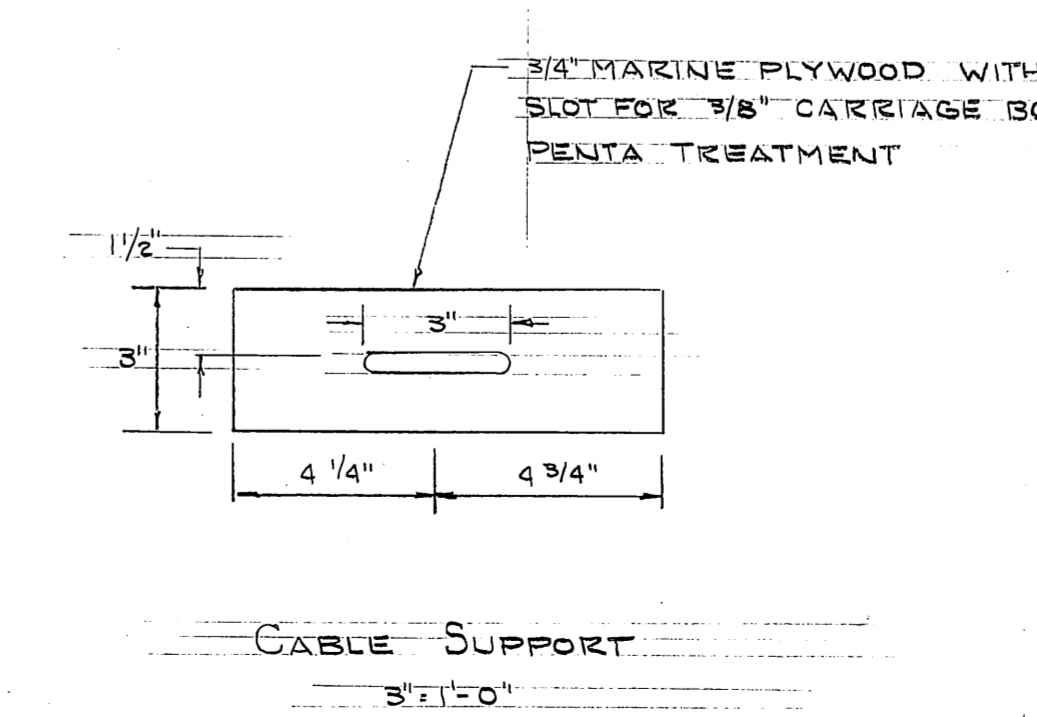


ONE LINE DIAGRAM  
NO SCALE



INTERSECTION PLAN  
1 1/2" x 1'-0"

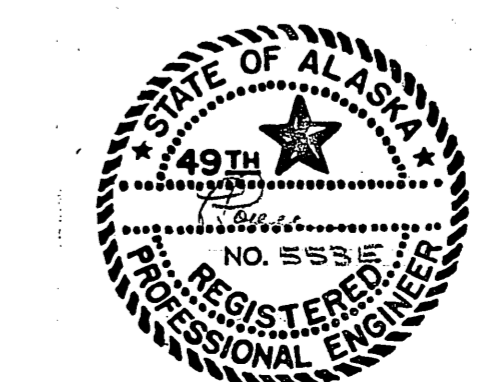
TYPICAL SECTION  
1 1/2" x 1'-0"



CABLE SUPPORT  
3" x 1'-0"

AS BUILT

E-3



DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND HARBORS		
<b>ELECTRICAL DETAILS</b>		
SCALE NOTED	SURVEYED	APPROVED
DESIGNED: LPL	DRAWN	DIRECTOR
CHECKED	DATE: 10-12-76	
PROJECT NUMBER: 9-73130	SHEET 17 OF 17	