

KEY MAP

# STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

## PLAN AND PROFILE PROPOSED HIGHWAY PROJECT

### KETCHIKAN FERRY TERMINAL FACILITY PROJECT NO. F-M-0902(8) AS BUILT PLANS

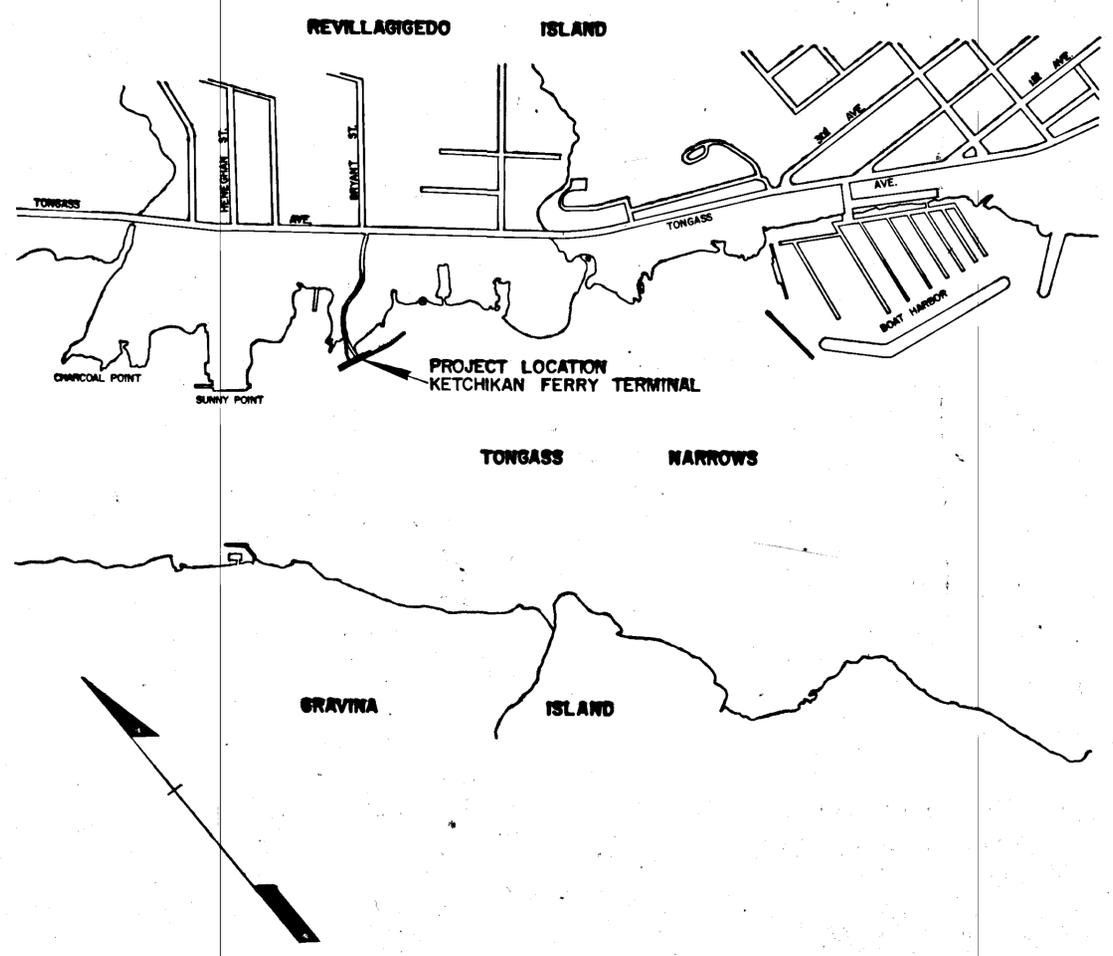
STATE	PROJECT	SHEET NO.	TOTAL SHEETS
ALASKA	F-M-0902(8)	1	12

INDEX TO SHEETS	
1. Title Sheet	12. 68'-0" Catwalk Details
2. Summary of Quantities & Project Layout	
3. Fender System Details	
4. Dock Plan, Details	
5. Elevations & Misc. Details	
6. Sections & Panel Assembly	
7. Sections & Cleat Details	
8. Misc. Details	
9. As-Constructed Dolphin Details	
10. Steel Dolphin & Fender Details	
11. Catwalk Details	

STANDARD DRAWINGS: C-00.04, C-10.03, C-11.05

DESIGN DESIGNATION

ADT (1978)	= 98
ADT (2000)	= 512
DHV	= N/A
D	= N/A
T	= 10%
TI	= 65



*Contractor: Tomico, Inc.  
Proj. Engr: Dale F. Robbins  
Began: 5/31/79  
Complete: 10/26/79*

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
&  
PUBLIC FACILITIES

APPROVED *[Signature]* Date *11/29/78*  
DIRECTOR HARBOR DESIGN & CONSTRUCTION

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITY	UNIT	TOTAL
110 (1)	Mobilization	LS			All Req'd.
111 (1)	Temporary Erosion and Pollution Control	CS			All Req'd.
114 (1)	Construction Engineering by Contractor	LS			All Req'd.
202 (1)	Removal of structures and obstructions	LS			All Req'd.
502 (1)	Prestressed Concrete Deck	LS	1472	SF	All Req'd.
504 (1)	Structural Steel, furnished, fabricated and erected.	LS	188,000	LBS	All Req'd.
505 (11A)	Furnish and Drive 18"x0.500" Pipe Piles	LF		1374	2,969
505 (11B)	Furnish and Drive 18"x0.375" Pipe Piles	LF		1746	735
505 (11C)	Furnish and Drive 14"x0.375" Pipe Piles	LF		456	421
504 (3)	Retainer Chain Modification E.W.O.#2	L.S.			All Req'd.
504 (4)	Dolphin Cap Bracing E.W.O.#3	F.A.			All Req'd.
109 (1)	Fender Pile Sleeve Welding E.W.O.#4	L.S.			All Req'd.
504 (5)	Timber Fender Reinforcing E.W.O.#5	L.S.			All Req'd.

WORK SUMMARY

The scope of work consists of removing existing timber dock, two timber dolphins and one concrete capped mooring dolphin. New construction includes one 16'x84' concrete and steel dock, (3) steel pile dolphins and (3) catwalks. A new fender system shall be constructed on the existing west dolphin.

Design Criteria

Dock live load 150 p.s.f.  
 Catwalk live load 85 p.s.f.  
 Mooring line pull 30,000 lbs.  
 Berthing Design Energy 36,000 ft. lbs.

Design Stress

Prestress Concrete  $f_c = 8000$  psi  
 Steel (bar)  $f_s = 24,000$  psi  
 Strand (TYPE 270K)  $f_s = 270,000$  psi (final = .6fs)  
 Dolphin Piles

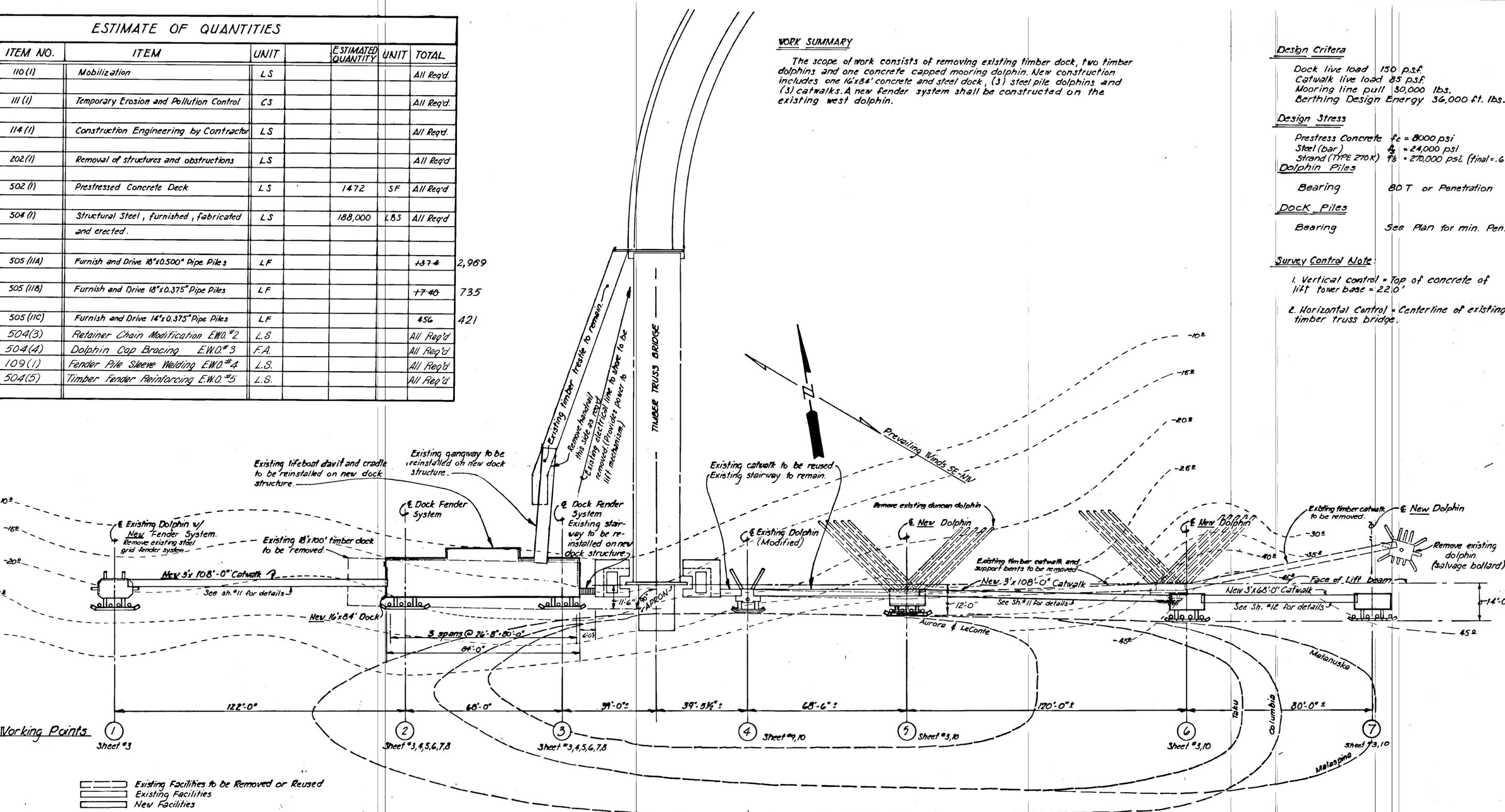
Bearing BOT or Penetration

Dock Piles

Bearing See Plan for min. Pen.

Survey Control Note:

- Vertical control = Top of concrete of lift tower base = 22.0'
- Horizontal Control = Centerline of existing timber truss bridge.



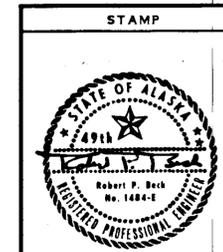
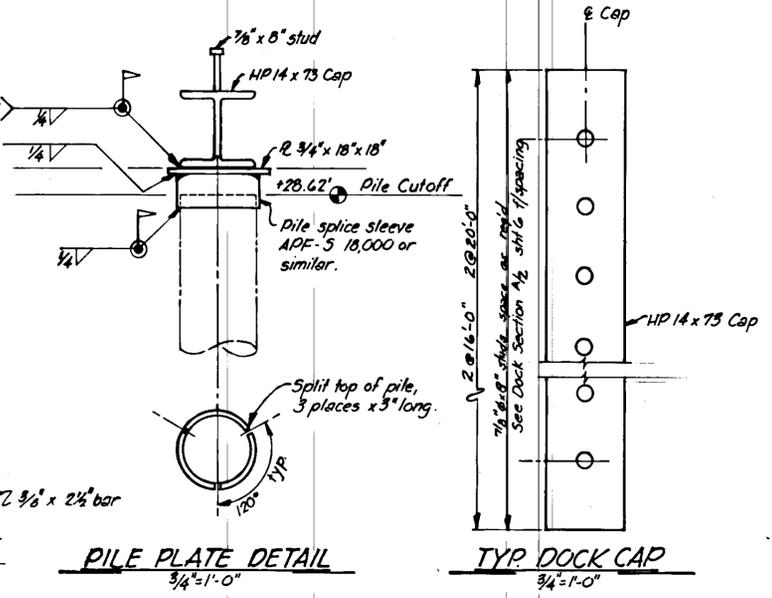
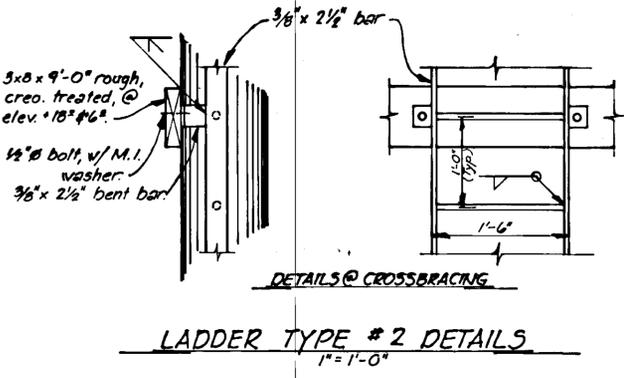
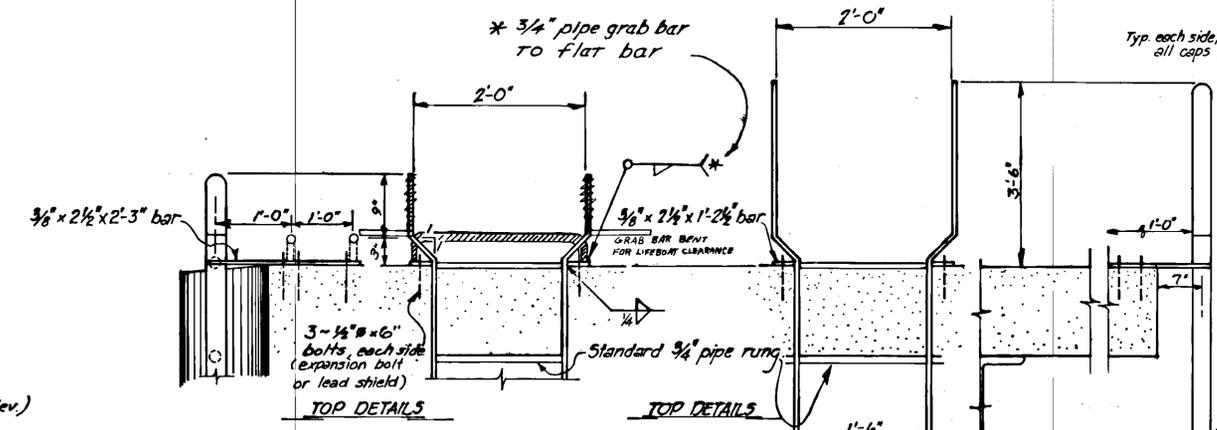
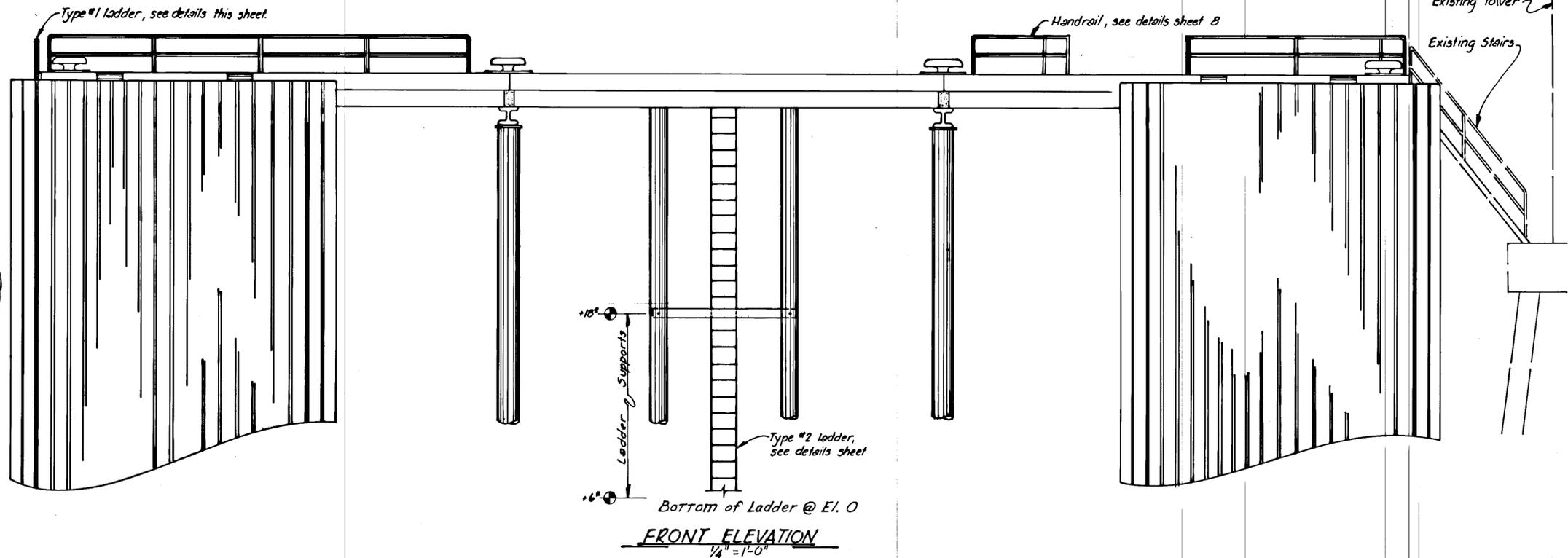
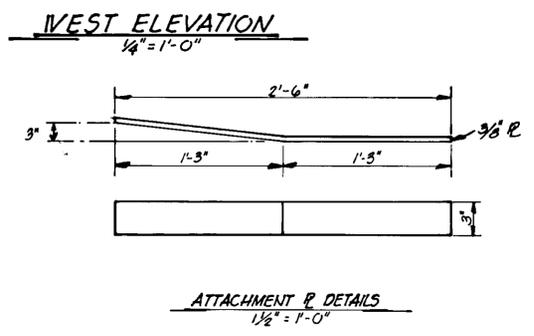
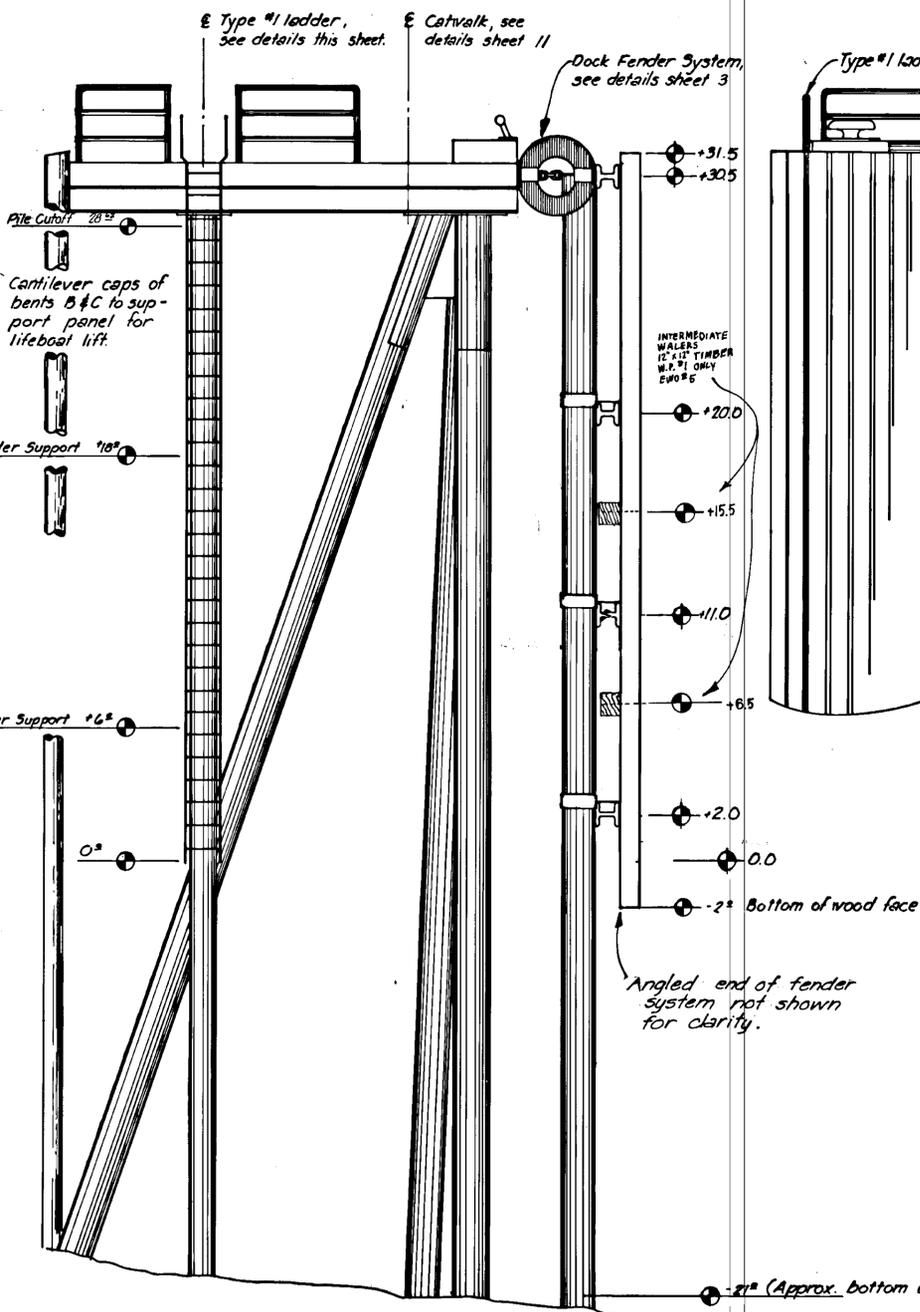
PROJECT LAYOUT  
1" = 20'

GENERAL NOTES:  
 Piling to be removed by pulling, breaking  
 = piling off at ground line will not be allowed.

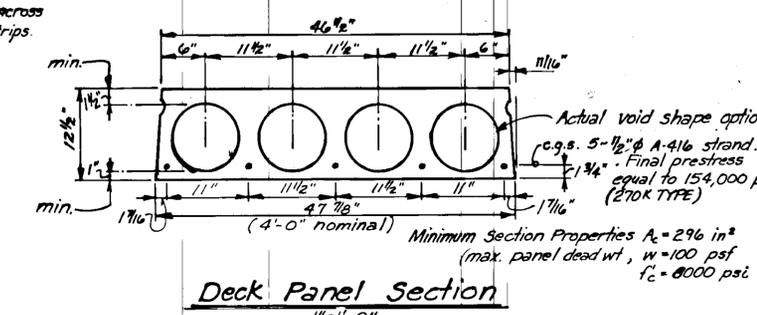
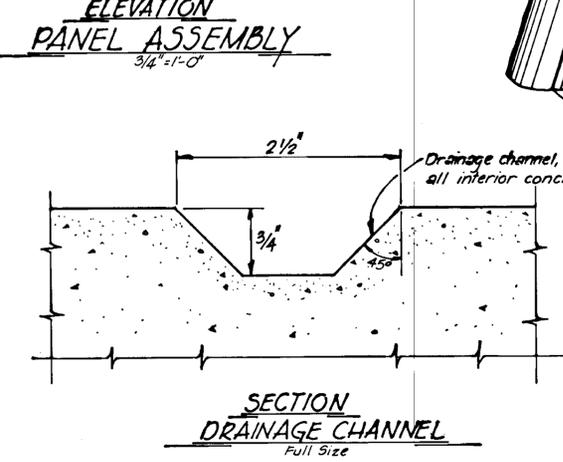
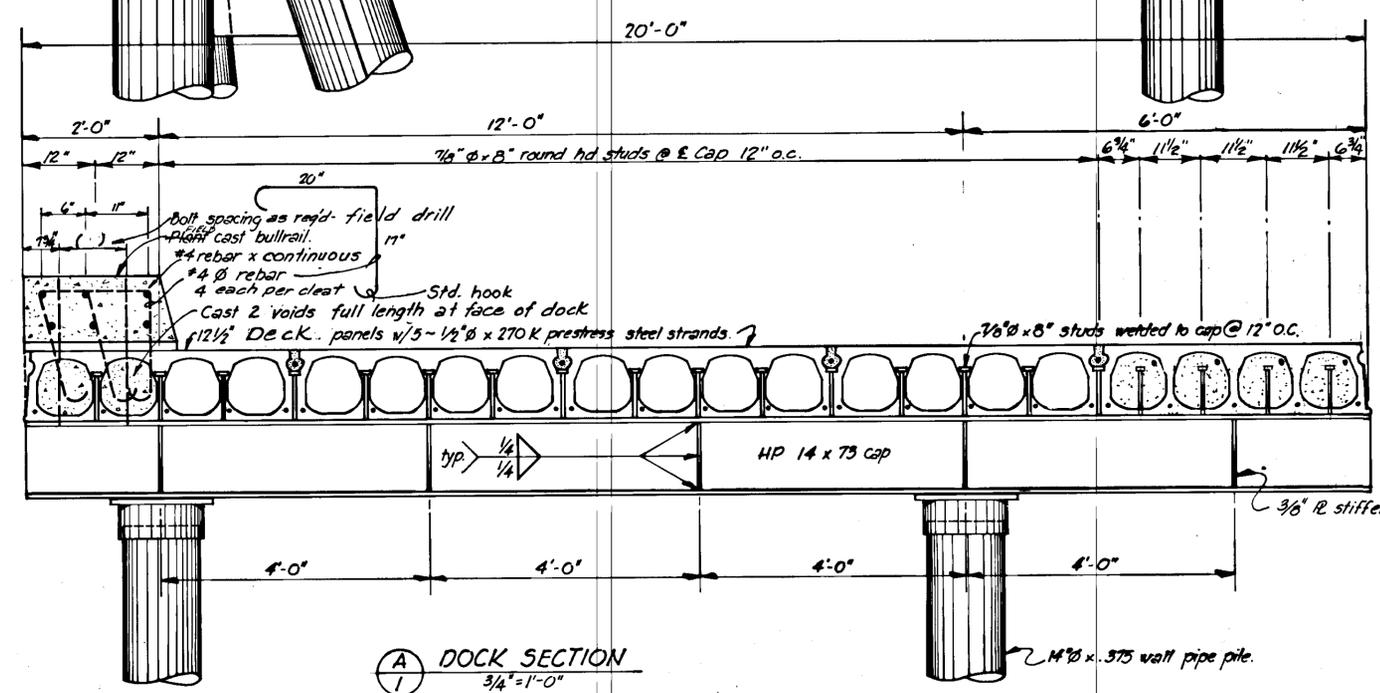
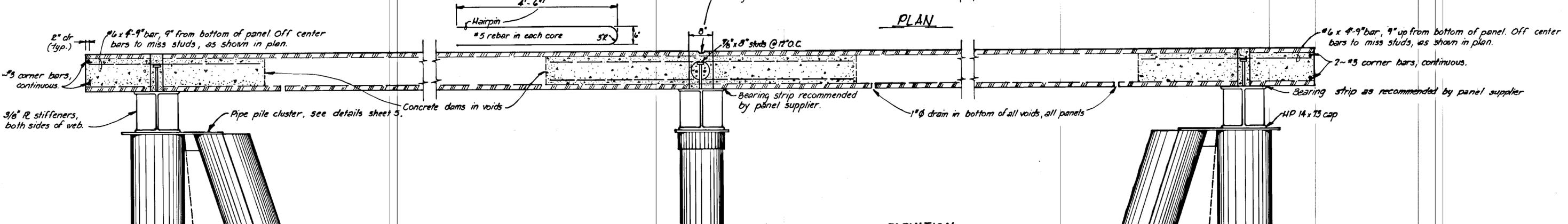
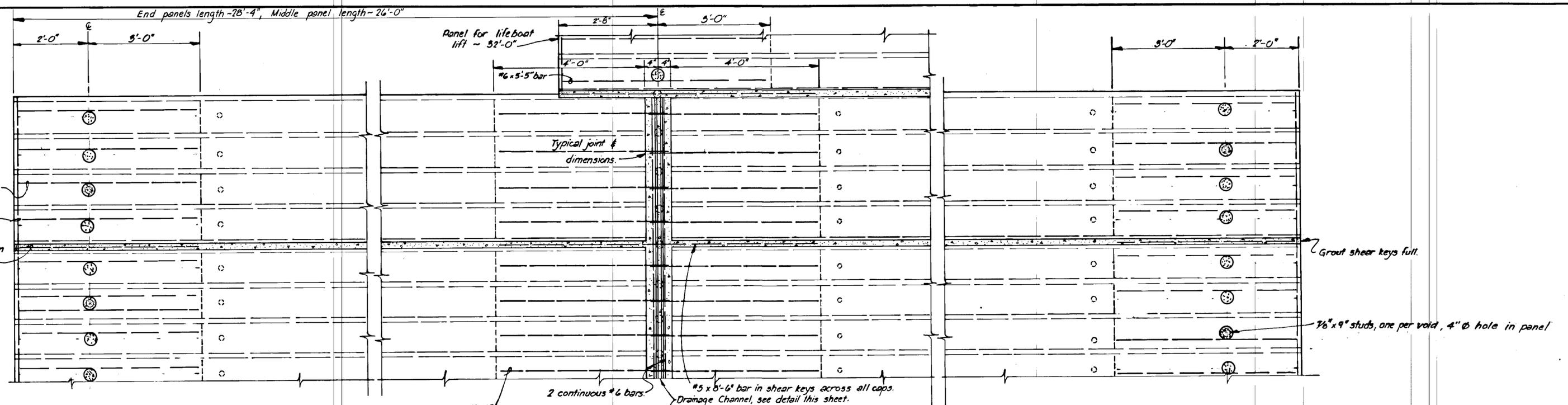
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<b>PROJECT LAYOUT</b>		
SCALE As Noted	SURVEYED -	APPROVED
DESIGNED HRM	DRAWN JTM	Don Statter DIRECTOR
CHECKED HM	DATE AUG 1978	
PROJECT NUMBER F-M-0902 (8)	SHEET 2 OF 12	



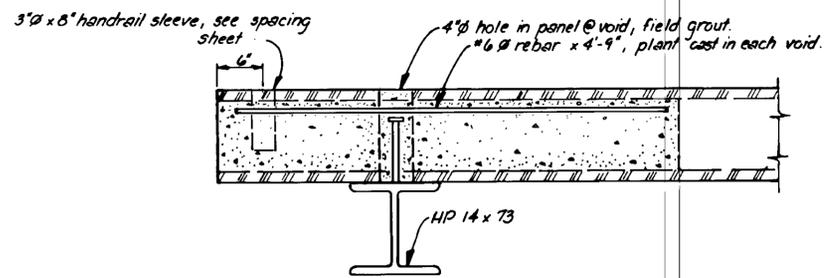




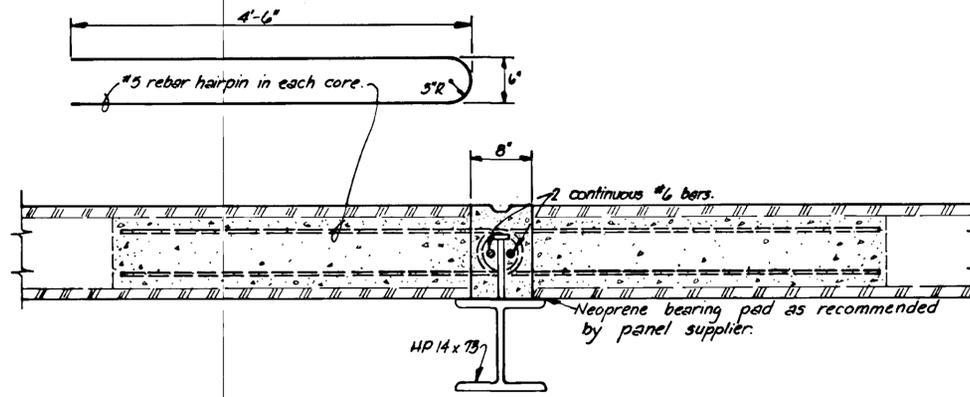
DO NOT SCALE THIS DRAWING - USE DIMENSIONS		
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION		
<b>ELEVATIONS &amp; MISC. DETAILS</b>		
SCALE: As Noted	SURVEYED: ~	APPROVED: Don Statter, DIRECTOR
DESIGNED: HRM	DRAWN: TM	
CHECKED: RB	DATE: Sept 28, 78	
PROJECT NUMBER: F-M-0902(8)	SHEET 5 OF 12	



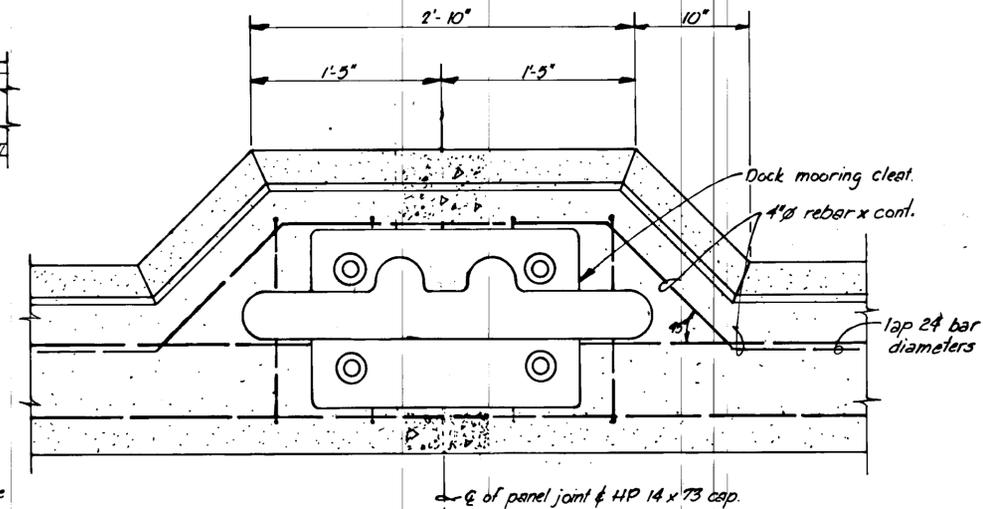
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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION			
<b>DOCK SECTION &amp; PANEL ASSEMBLY</b>			
SCALE As Noted	SURVEYED ~	APPROVED	
DESIGNED HM	DRAWN JTM	Don Statter DIRECTOR	
CHECKED RB	DATE 8/17/10		
PROJECT NUMBER F-M-0902(B)	SHEET 6 OF 12		



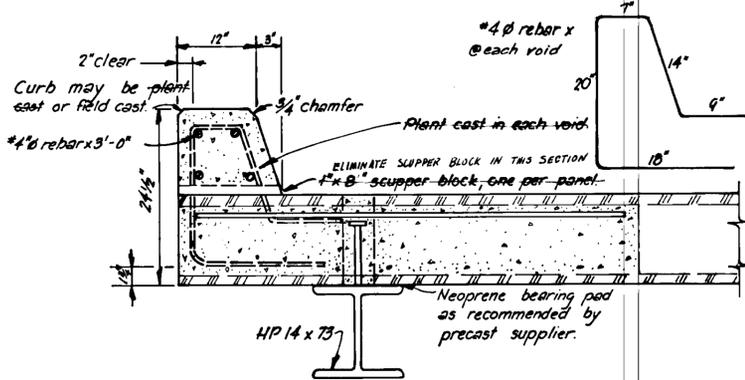
SECTION 1  
1/2" = 1'-0"



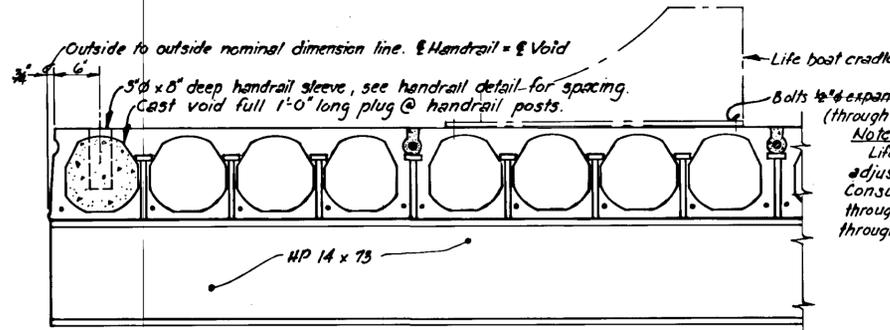
SECTION 4  
1/2" = 1'-0"



MODIFIED CURB FOR CLEAT  
1/2" = 1'-0"

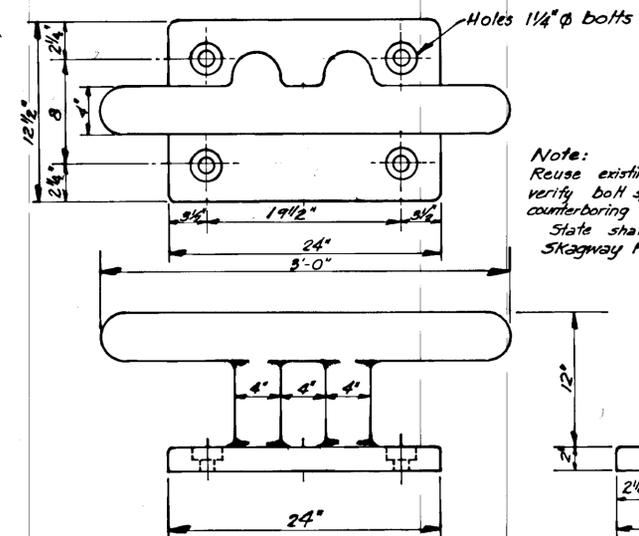


SECTION 2  
1/2" = 1'-0"



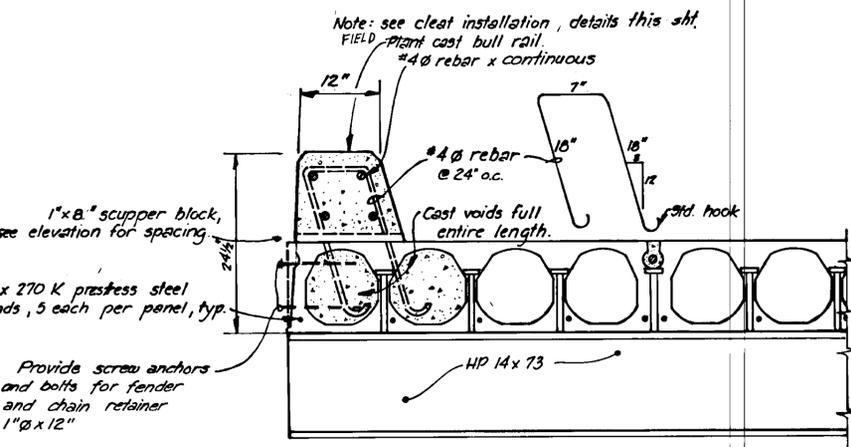
SECTION 5  
1/4" = 1'-0"

Life boat cradle  
Bolts 1/2" expansion type in deck (8 total)  
(through deck optional) (OPTION TAKEN)  
Note:  
Life bolt davit bolt pattern to be adjusted to clear prestress steel. Consult project engineer before drilling through deck. Provide for 24-3/8" bolts through deck fasteners with washers.

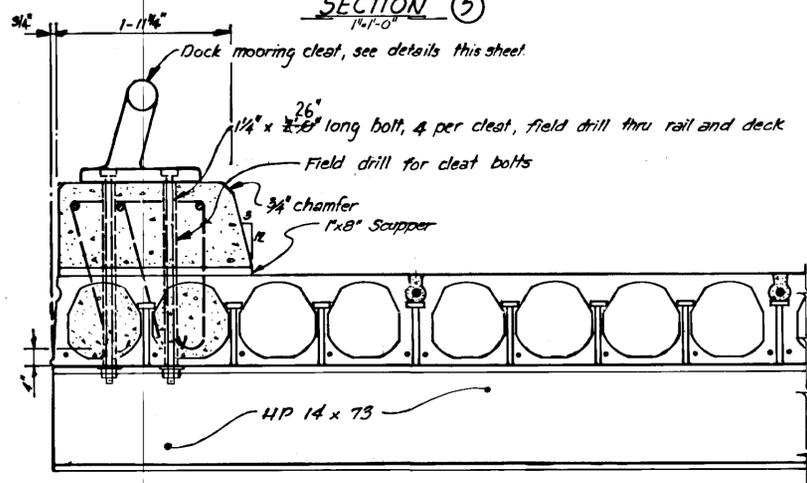


DOCK MOORING CLEAT  
1/2" = 1'-0"

Note:  
Reuse existing cleats from old dock. Contractor verify bolt spacing. Modify by shop drilling and counterboring if req'd to clear steel cap below. State shall furnish one (1) cleat from Skagway Ferry Terminal Project.



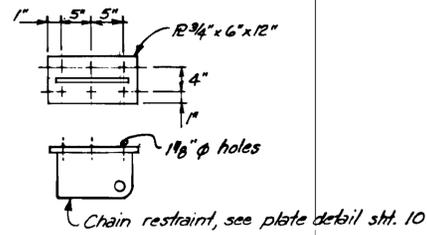
SECTION 3  
1" = 1'-0"



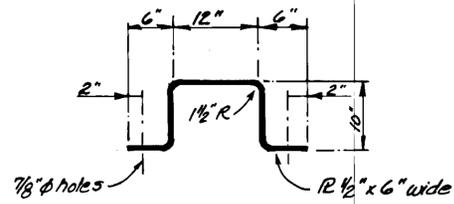
CLEAT INSTALLATION  
1" = 1'-0"

Note:  
Holes through deck shall not be drilled without prior approval of the project engineer.

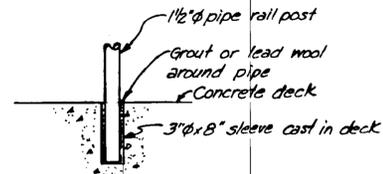
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SECTIONS & CLEAT INSTALLATION DETAILS		
SCALE As Noted DESIGNED HM/JL CHECKED RB	SURVEYED DRAWN JTM DATE AUG. 25, 1978	APPROVED Don Staller DIRECTOR
PROJECT NUMBER F-M-0902(8)	SHEET 7 OF 12	



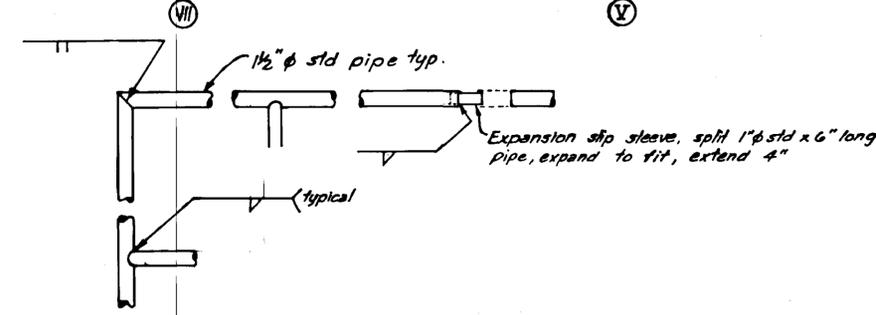
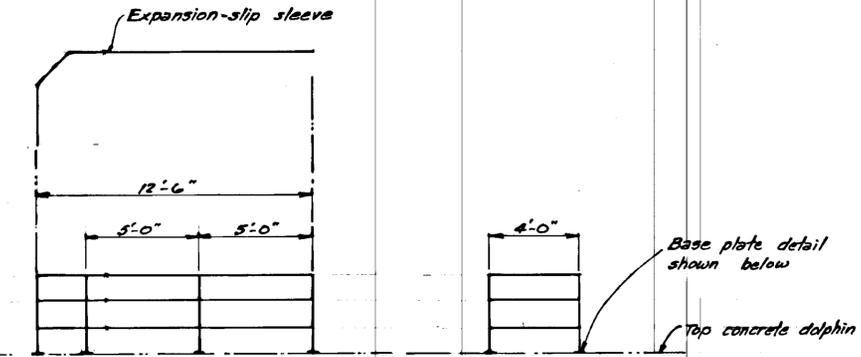
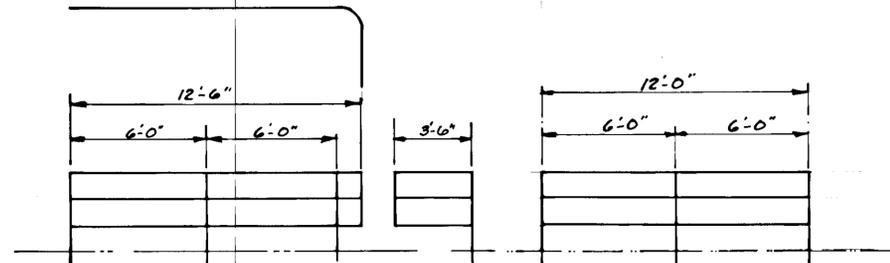
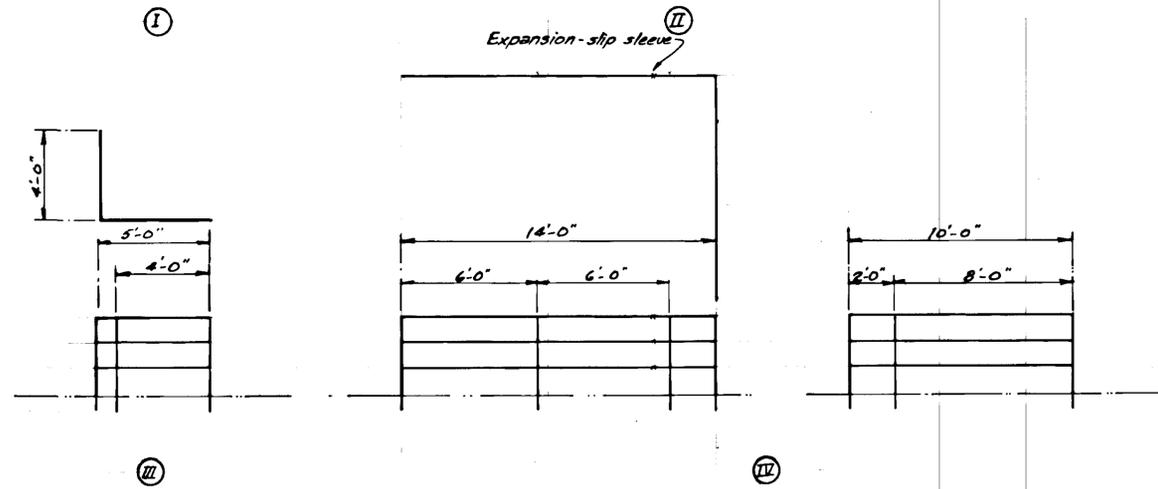
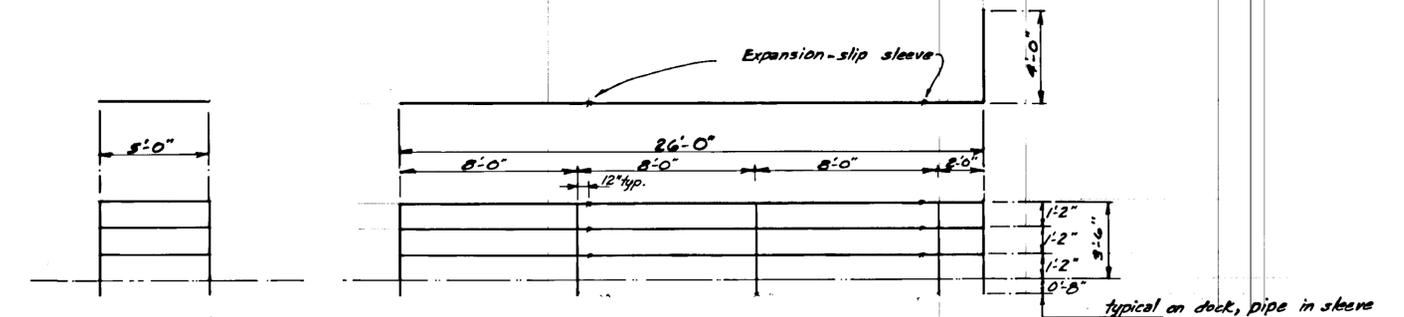
**CHAIN RESTRAINT FOR DOCK**  
1" = 1'-0"



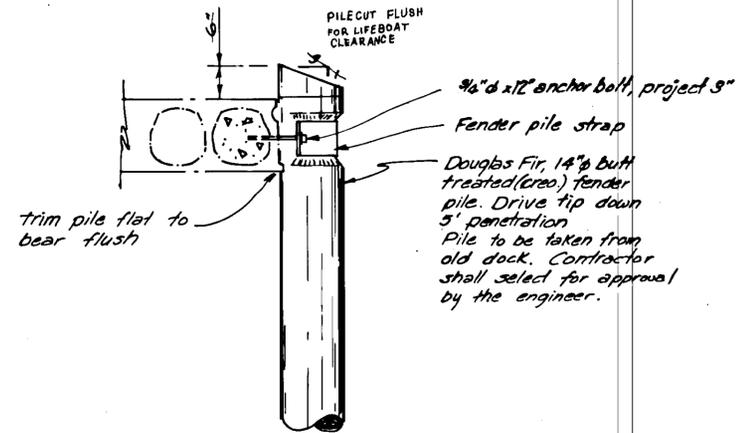
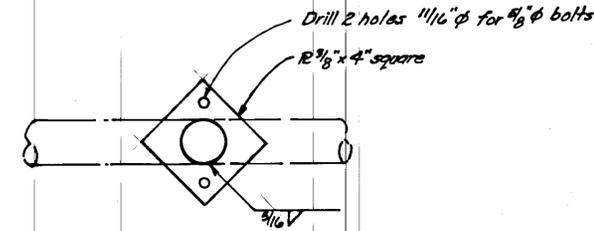
**FENDER PILE STRAP**  
1" = 1'-0"



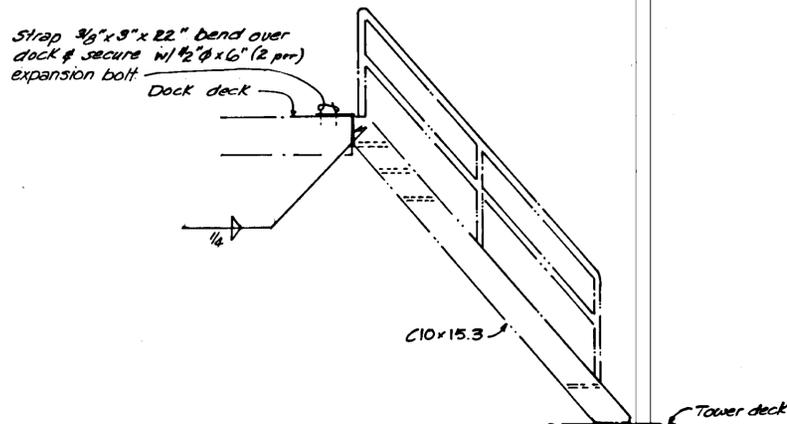
**HANDRAIL SUPPORT DETAIL**  
1" = 1'-0"



**HANDRAIL CONSTRUCTION DETAILS**  
1" = 1'-0"



**FENDER PILE DETAIL**  
3/4" = 1'-0"

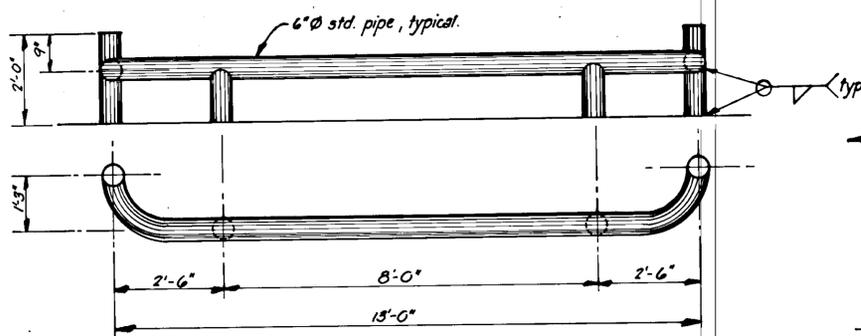


**EXISTING STAIR DETAIL**  
N.T.S.

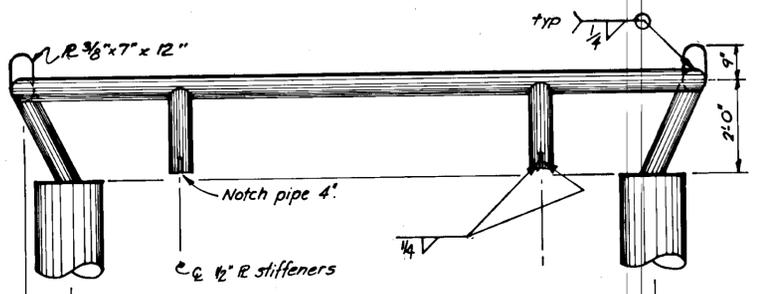
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MISCELLANEOUS		DETAILS	
SCALE: As Noted	SURVEYED: _____	APPROVED: _____	
DESIGNED: HM	DRAWN: JM/HM	Don Statter DIRECTOR	
CHECKED: RB	DATE: Sept 28, 78		
PROJECT NUMBER: F-M-0902(8)	SHEET: 8 OF 12		



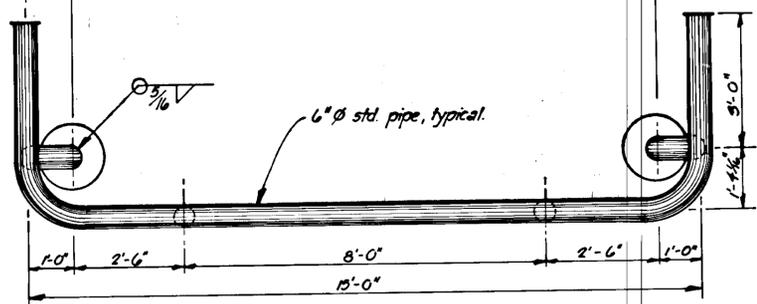




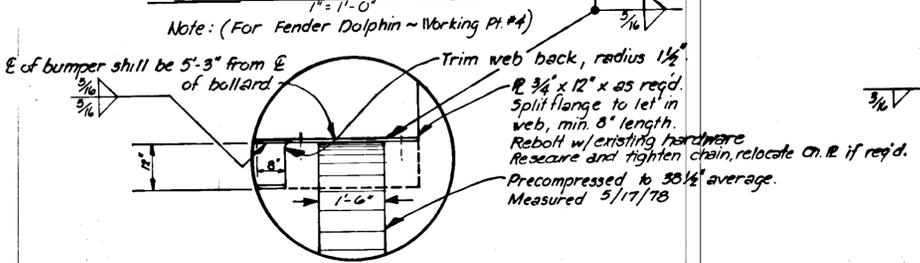
**LOWER RAIL** (Supplied but not used)  
1/2" = 1'-0"



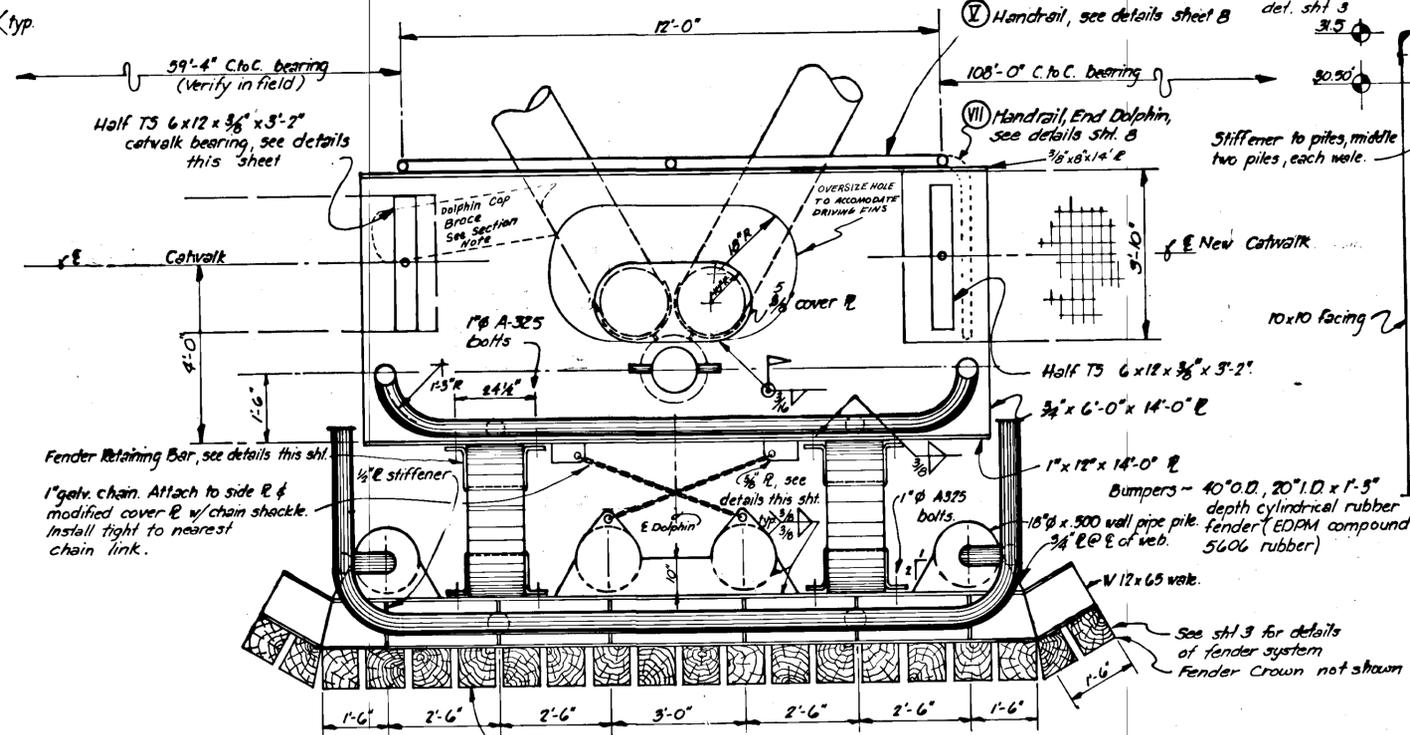
**UPPER RAIL**  
1/2" = 1'-0"



**MODIFIED I-WALE TO WALE**  
1" = 1'-0"

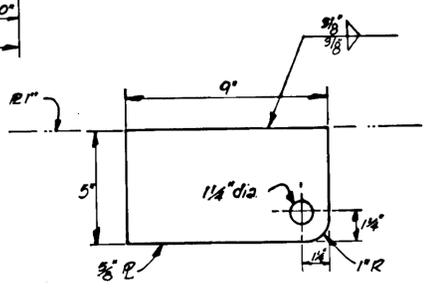


**MODIFIED CAP** (Other side similar)  
1" = 1'-0"

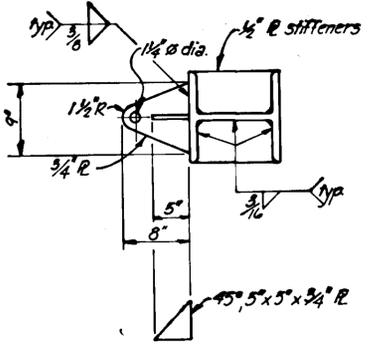


**STEEL FENDER DOLPHIN PLAN**  
1/2" = 1'-0"

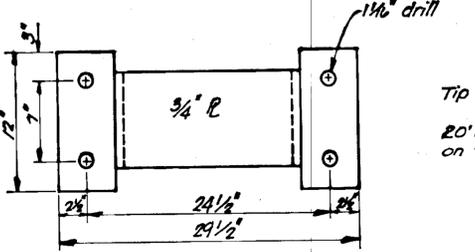
NOTE: (For elevation, see similar details sht. 3)



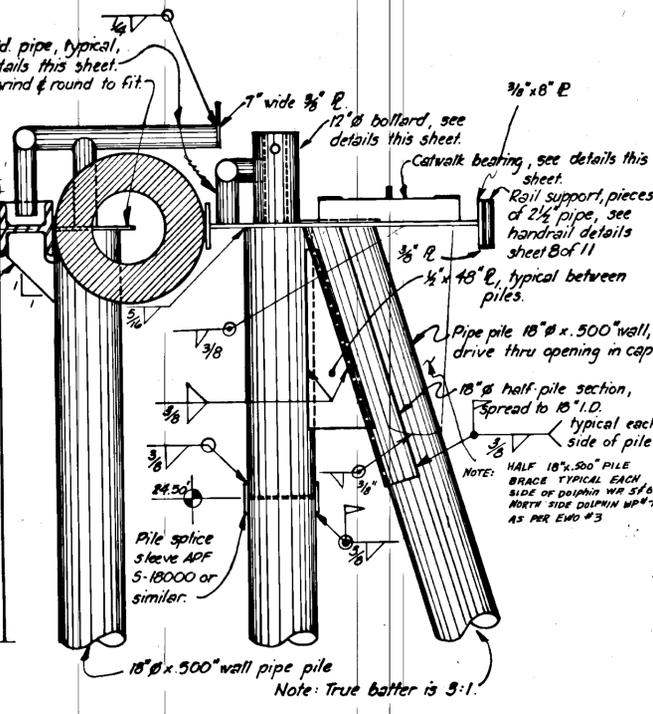
**PLATE DETAIL**  
3" = 1'-0"



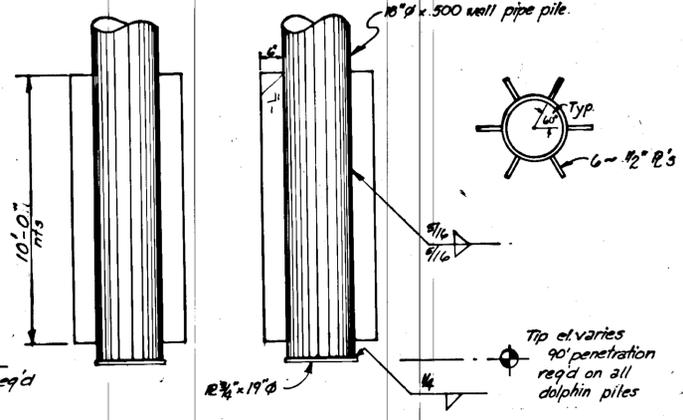
**PENNANT PAD EYE**  
1" = 1'-0"



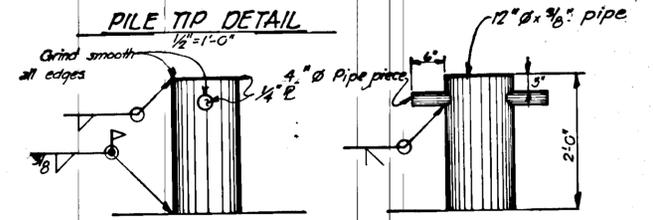
**FENDER RETAINING BAR**  
1/2" = 1'-0"



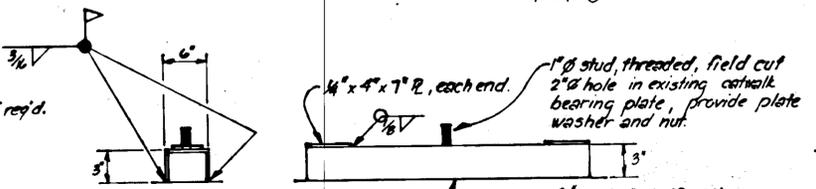
**STEEL FENDER DOLPHIN SECTION**  
1/2" = 1'-0"



**PILE TIP DETAIL**  
1/2" = 1'-0"

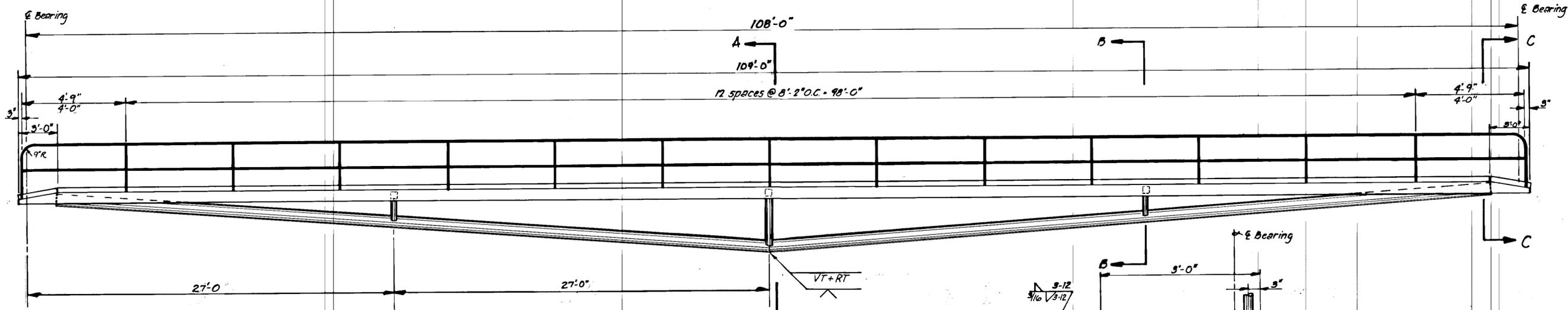


**BOLLARD DETAIL**  
3/4" = 1'-0"

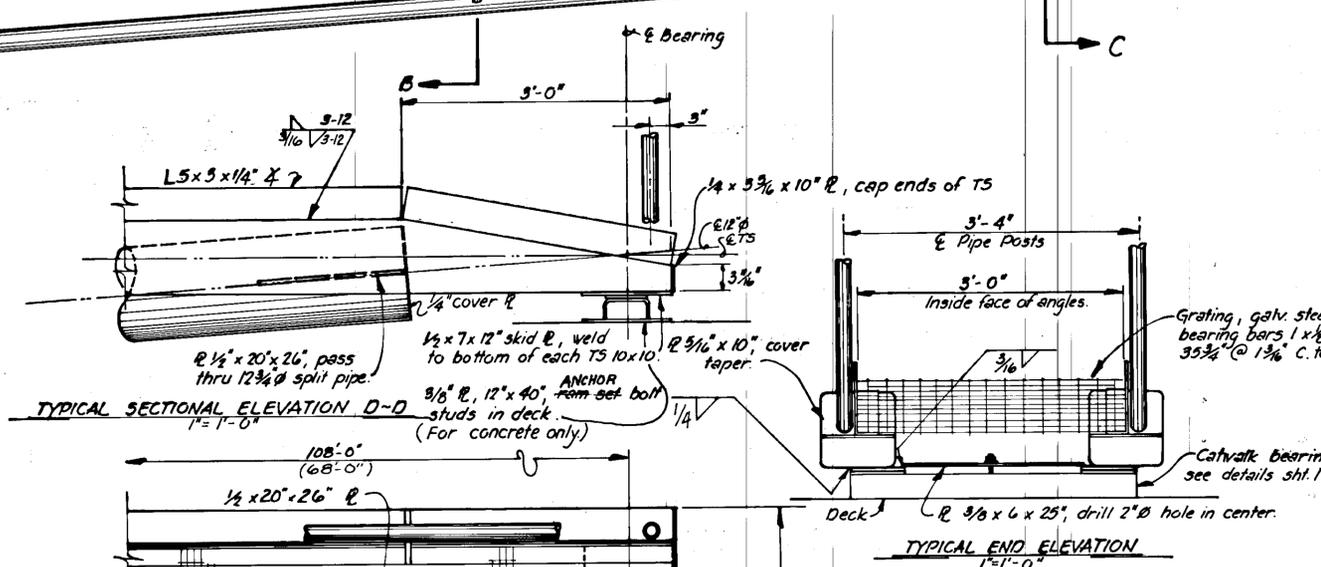


**TYP. CATWALK BEARING DETAIL**  
1" = 1'-0"

STAMP		DO NOT SCALE THIS DRAWING - USE DIMENSIONS	
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION			
<b>STEEL FENDER DOLPHIN / MISC. DETAILS</b>			
SCALE: As Noted	SURVEYED: ~	APPROVED: Don Statter	
DESIGNED: HRM	DRAWN: JTM	DIRECTOR	
CHECKED: RB	DATE: 9/8/78		
PROJECT NUMBER: F-M-0902(8)	SHEET 10 OF 12		

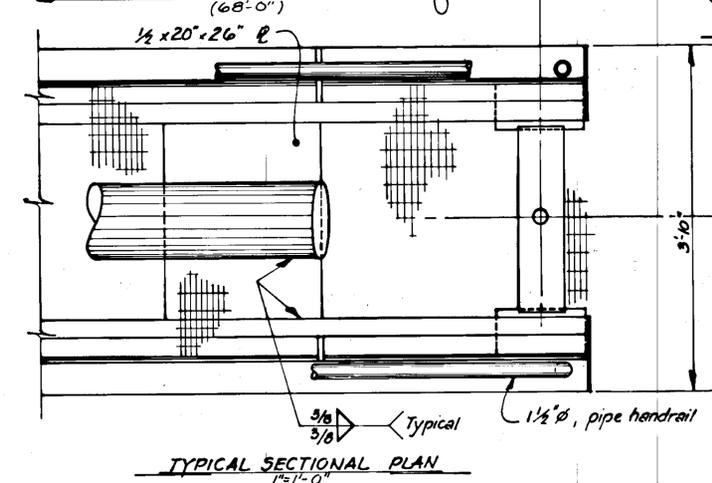


ELEVATION  
1/4" = 1'-0"

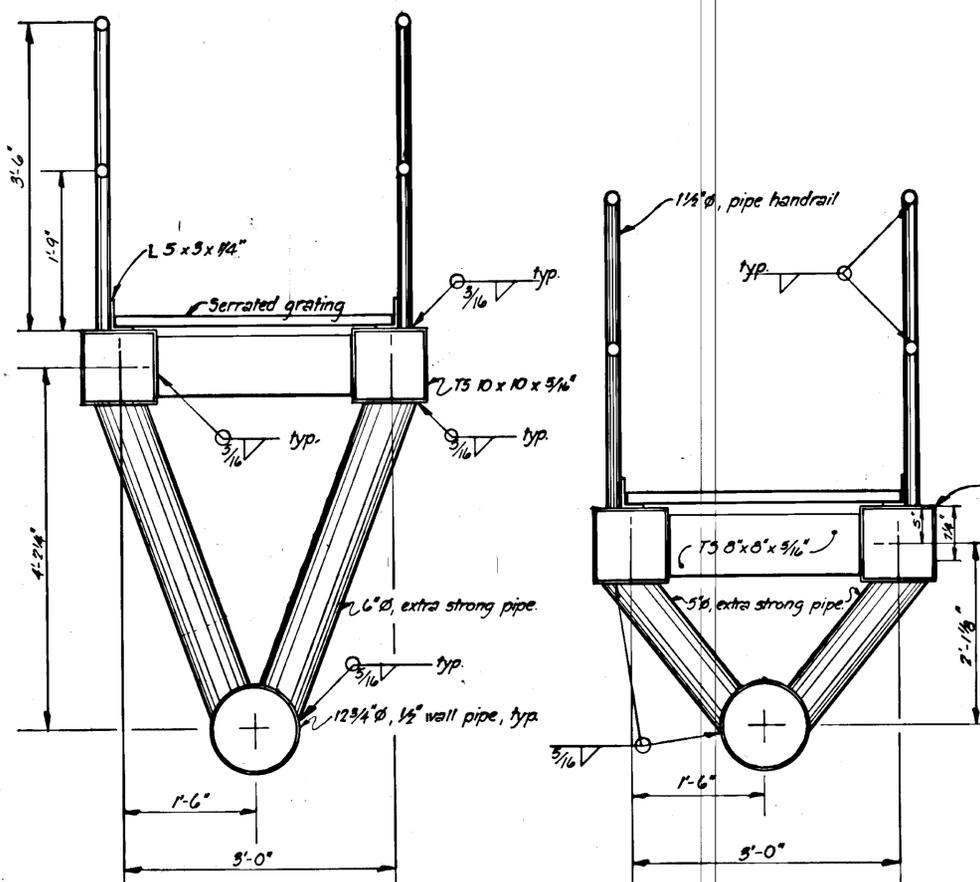


TYPICAL SECTIONAL ELEVATION D-D  
1/4" = 1'-0"

TYPICAL END ELEVATION  
1/4" = 1'-0"

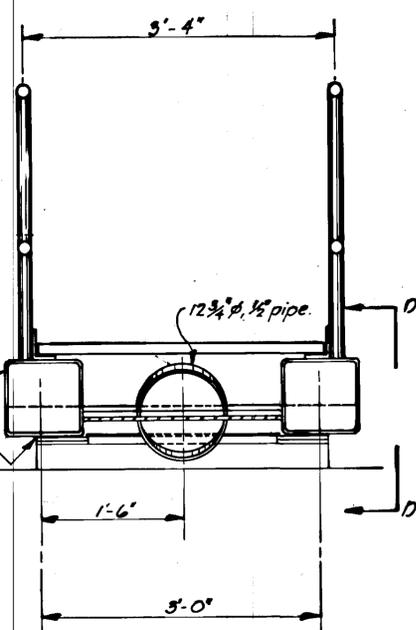


TYPICAL SECTIONAL PLAN  
1/4" = 1'-0"



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

SECTION B-B  
1/4" = 1'-0"



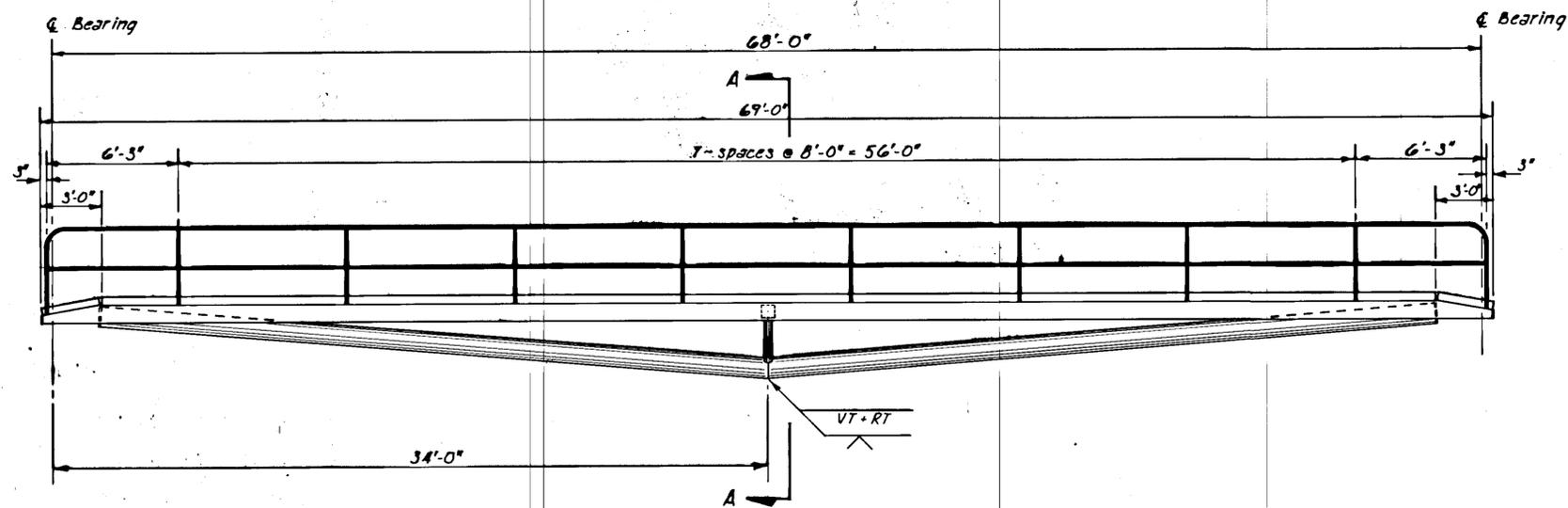
SECTION C-C  
1/4" = 1'-0"

Note:  
Grating shall be galv. steel serrated edge.  
1" x 1/8" bearing bars, 1 3/4" O.C., 1" x 1/8"  
crossbars, 4" O.C. Weld grating to T5 10x10 per  
standard practice.

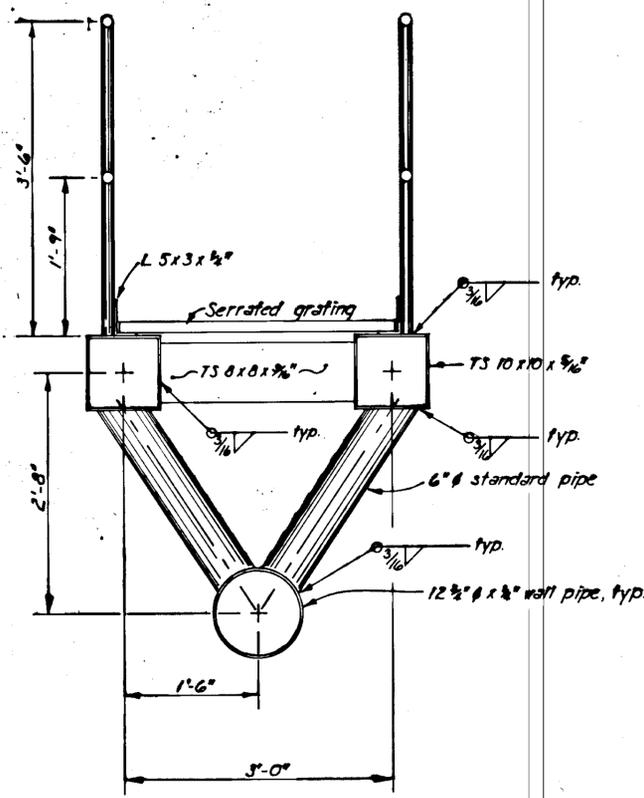
USE STANDARD  
BENT TYPE  
ATTACHMENT  
CLIPS IN LIEU  
OF WELDING

All splices in tension or compression  
components of structure to be double bevel  
full penetration.  
The fully erected catwalk structure  
shall only be lifted @ the quarter points.

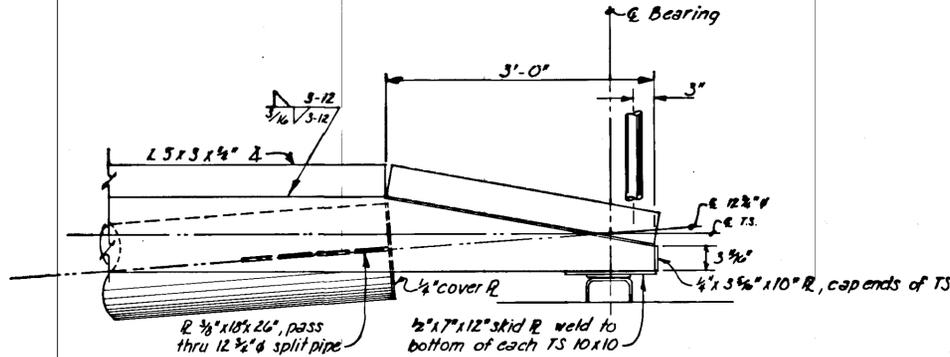
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		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION	
		<b>CATWALK DETAILS</b>	
SCALE: As Noted	SURVEYED: JAL/TM	APPROVED: Don Stalter, DIRECTOR	
DESIGNED: JAL/TM	DRAWN: JAL/TM		
CHECKED: JL/RB	DATE: 6/21/78		
PROJECT NUMBER: F-M-0902 (8)	SHEET 11 OF 12		



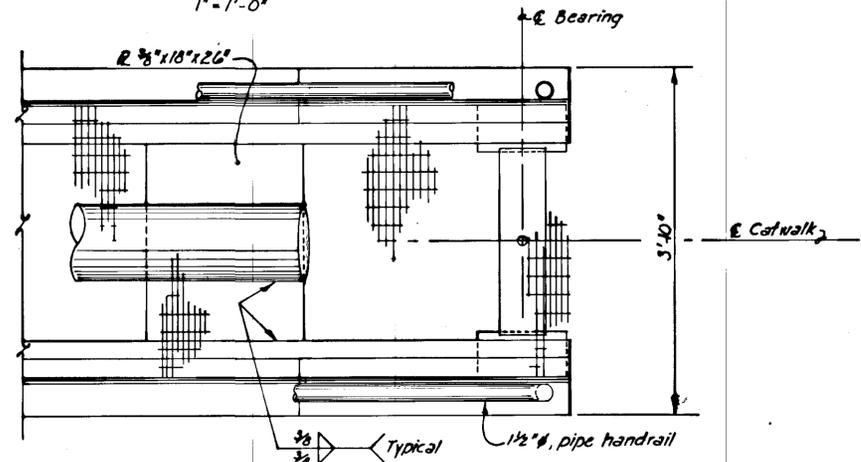
**ELEVATION**  
1/4" = 1'-0"



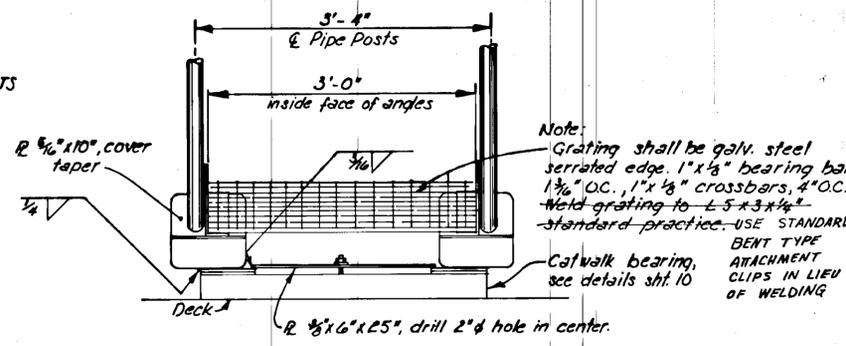
**SECTION A-A**  
1" = 1'-0"



**PARTIAL END ELEVATION**  
1" = 1'-0"



**PARTIAL END PLAN**  
1" = 1'-0"



**TYPICAL END ELEVATION**  
1" = 1'-0"

Note:  
Grating shall be galv. steel serrated edge, 1"x1/4" bearing bars, 1 3/4" O.C., 1"x1/8" crossbars, 4" O.C. Weld grating to L5x3x1/4" standard practice. USE STANDARD BENT TYPE ATTACHMENT CLIPS IN LIEU OF WELDING

Note:  
All splices in tension or compression components of structure to be double bevel complete penetration  
The fully erected catwalk structure shall only be supported or lifted @ end bearing points.

STAMP		DO NOT SCALE THIS DRAWING - USE DIMENSIONS	
		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION	
		<b>68'-0" CATWALK DETAILS</b>	
SCALE <i>As Noted</i>	SURVEYED	APPROVED	
DESIGNED <i>JAL/HM</i>	DRAWN <i>GRF</i>	<i>Don Stoffer</i> DIRECTOR	
CHECKED	DATE <i>NOV. 1978</i>		
PROJECT NUMBER <i>F-M-0902 (B)</i>	SHEET <i>12</i> OF <i>12</i>		