

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	PAY UNIT	ESTIMATED QUANTITIES	UNIT	FINAL QUANTITY
110	Mobilization & Demobilization	L.S.	All Req'd		✓
111(1)	Erosion & Pollution Control, Administration	L.S.	All Req'd		✓
111(2)	Erosion & Pollution Control NONE REQUIRED	C.S.	All Req'd		✓
116	Furnishing And Maintaining Field Office	L.S.	All Req'd		✓
120(1)	DBE Adjustment NONE	C.S.	All Req'd		✓
201	Removal Of Structures & Obstructions	L.S.	All Req'd		✓
301(1)	18"Ø x 3/8" wall Structural Steel Pipe Piles, Furn.	L.F.	1700		1,709.8
301(2)	18"Ø x 3/8" wall Structural Steel Pipe Piles, Driven	EA.	24		✓
302(1)	Mooring Structure Cap, Furn, Fabr. & Erected	EA.	4		✓
302(2)	Mooring Structure Fender System, Furn, Fabr. & Erected	EA.	3		✓
302(3)	Bridge Bearing Repair	L.S.	All Req'd		✓
303(1)	Corrosion Proof Existing Transfer Brige	L.S.	All Req'd		✓
303(2)	Overcoat Existing Bridge	L.S.	All Req'd		✓
306	Pre-stressed Pile Anchors DELETED BY C.O. #1	EA	12		
604	Bridge Inspection Survey & Report NOT USED	C.S.	All Req'd		✓

NEW ITEMS ESTABLISHED BY CHANGE ORDER				
ITEM NO.	ITEM	CHANGE ORDER NO.	UNIT	QUANTITY
308(1)	PRE-STRESSED PILE ANCHORS	1	EACH	12
302(4)	TRANSFER BRIDGE RAILING	2	L.S.	ALL REQ'D.
302(5)	TRANSFER BRIDGE CONNECTION WELDMENT	3	L.S.	ALL REQ'D.
604(1)	BRIDGE INSPECTION SURVEY AND REPORT	4	L.S.	ALL REQ'D.
660(1)	WINDCONE, FURNISHED	5	L.S.	ALL REQ'D.

PATH: P:\KAE\75525\MF\KAE-2		
PLOT: P:\-LIB\-PLOT\PLOT.PCP(12) OR PLOT.PCP(24)		
BY:	DATE:	DESCRIPTION OF CHANGE:
RECORD OF REVISIONS		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

GENERAL NOTES

Construction: Per contract documents for project STP-0939(6)/75525

Design:
Dolphin: AMHS Marine Facilities Design Standards.
Design Loads:
Dolphin: Berthing E = 30 ft - Kips Service
Mooring Line = 30 Kips

Design Unit Stresses:
Steel:
A36 $F_y = 20$ Ksi
A252 Gr. 2 $F_y = 19.25$ Ksi
A500 Gr. B $F_y = 25$ Ksi
A572 $F_y = 27$ Ksi
A108 $F_y = 29$ Ksi
A608 Gr. D $F_y = 30$ Ksi

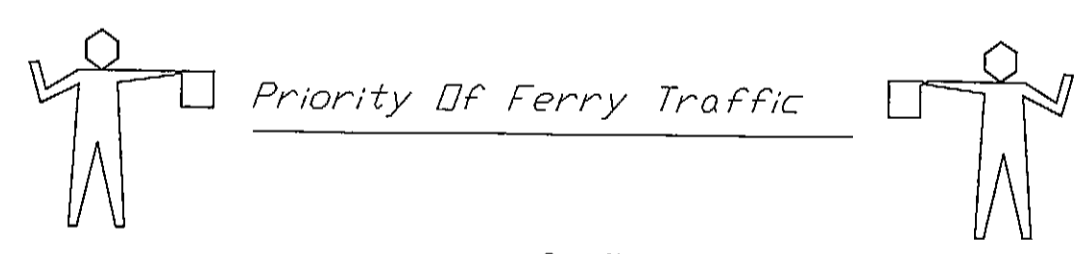
EKKI Timber: $F_b = 4$ Ksi.

Materials:
Steel: Tube Sections A500 Gr. B
Pile A252 Gr. 2, A501 or A53, Gr. B, type E or S
Pipe A53, Gr. B, type E or S
All other shall be A36

Timber: Mooring Fender Faces, EKKI

Protective Coatings:
New EKKI Fender Face Timbers: Untreated
Dolphin Cap, Piles and Fender System Steel: Galvanized after fabrication.
Rails and Misc. Steel: Galvanized after fabrication.
Bridge Overcoat: Paint per Section 303, System 5.
Bridge Corrosion Proofing: Per Section 303, System 6.

Piling:
Size: 18"dia. x 3/8"wall steel pipe
Tips: Steel Cutting Shoe APF 0-14000 or equal
Driving Requirements: See table this sheet.
Pre-stressed Pile Anchors As Required.



- Once the Contractor begins improvements the following will remain in force until the project is completed.
 - The Contractor shall not stockpile any materials in the existing staging area without approval of the Engineer.
- A. The Contractor shall conduct his operations so as not to interfere with normal scheduled ferry access or vehicular traffic to and from the existing ferry facilities.
B. Ferry traffic shall have priority over construction activities and it shall be the Contractor's responsibility to coordinate his activities with ferry arrivals and departures.
C. Terminal personnel will stage traffic and operate the transfer equipment.
D. Contractor shall provide safe access and lighting for terminal personnel to the facility as required throughout the contract.

PILING DATA

SEE PILE LOG FOR ACTUAL PILE DATA

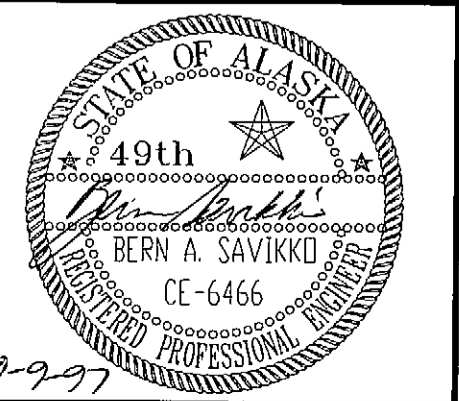
LOCATION ORIENTATION	DIAMETER (inches)	CAPACITY IN TONS		TIP ELEVATIONS		CUTOFF ELEV
		BEARING	UPLIFT	MIN.	EST.	
MOORING STRUCTURE B						
VERTICAL	18	120	120	-42	-42*	+22.0
BATTER	18	65	50	-42	-42*	+27.0
FENDER	18	10	---	-43	-43	+22.0
MOORING STRUCTURE C						
VERTICAL	18	120	120	-46	-46*	+22.0
BATTER	18	65	50	-39	-39*	+27.0
FENDER	18	10	---	-46	-46	+22.0
MOORING STRUCTURE D						
VERTICAL	18	120	120	-53	-53*	+22.0
BATTER	18	65	50	-51	-51*	+27.0
MOORING STRUCTURE E						
VERTICAL	18	120	120	-50	-50*	+22.0
BATTER	18	65	50	-47	-47*	+27.0
FENDER	18	10	---	-51	-51	+22.0

* VERTICAL & BATTER PILES WILL REQUIRE PILE ANCHORS INTO BEDROCK

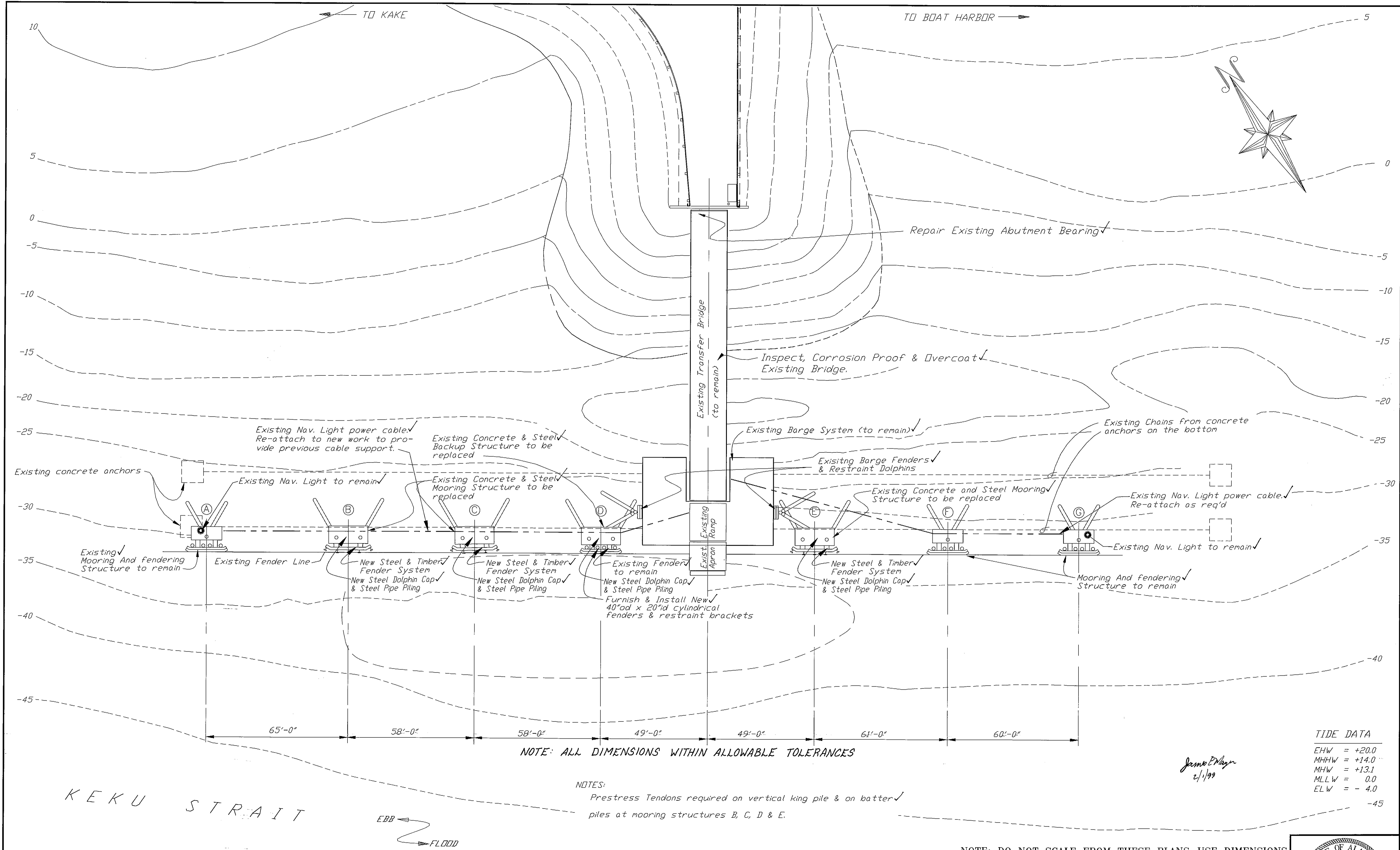
James P. Meyer
2/1/99

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

DESIGNED BY: BAS	PROJECT NO. 75525
DRAWN BY: BN	DATE: 9/9/97
CHECKED BY: JAL	SHEET 2 OF 12



KAKE DOLPHIN REPLACEMENT & BRIDGE REHAB
FED. NO. STP-0939(6) ~ PROJECT NO. 75525
QUANTITIES & GENERAL NOTES

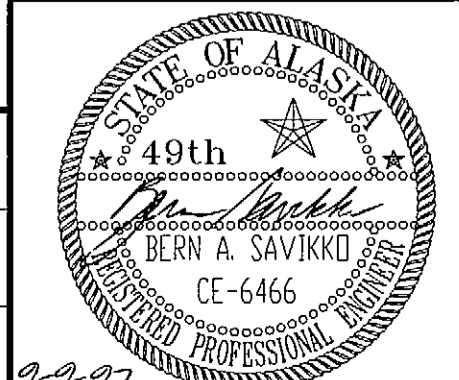


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PLOT:		
BY:	DATE:	DESCRIPTION OF CHANGE:
RECORD OF REVISIONS		

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 SOUTHEAST REGION DESIGN & CONSTRUCTION

KAKE DOLPHIN REPLACEMENT & BRIDGE REHAB
 PROJECT NO. STP-0939(6)/75525
PROJECT PLAN

DESIGNED BY:	PROJECT NO.
BAS	75525
DRAWN BY:	DATE:
BN	JULY, 1997
CHECKED BY:	SHEET 3 OF 12
JAL	9-9-97



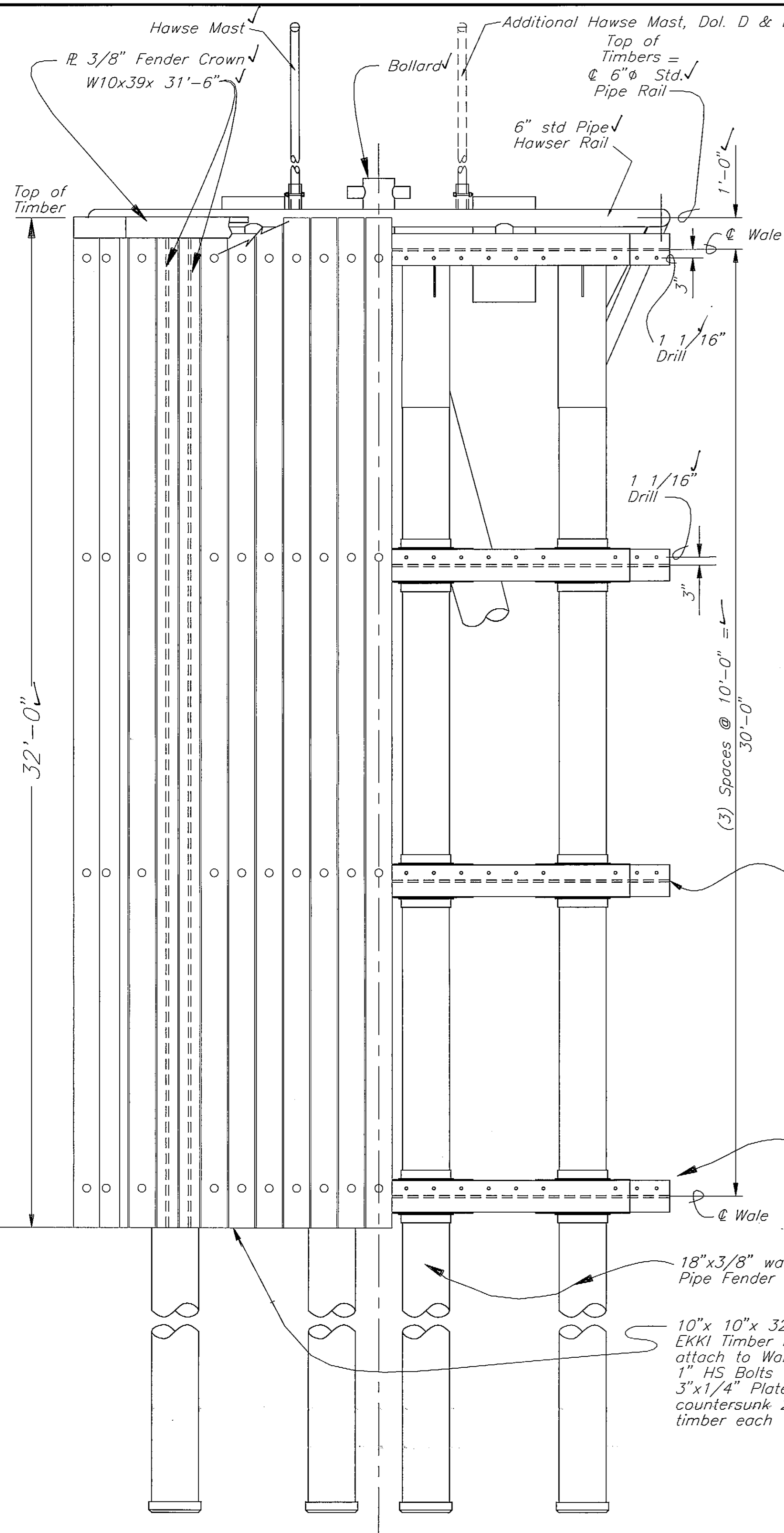
TIDE DATA
 EHW = +20.0
 MHHW = +14.0
 MHW = +13.1
 MLLW = 0.0
 ELW = - 4.0

NOTES:
 Prestress Tendons required on vertical king pile & on batter piles at mooring structures B, C, D & E.

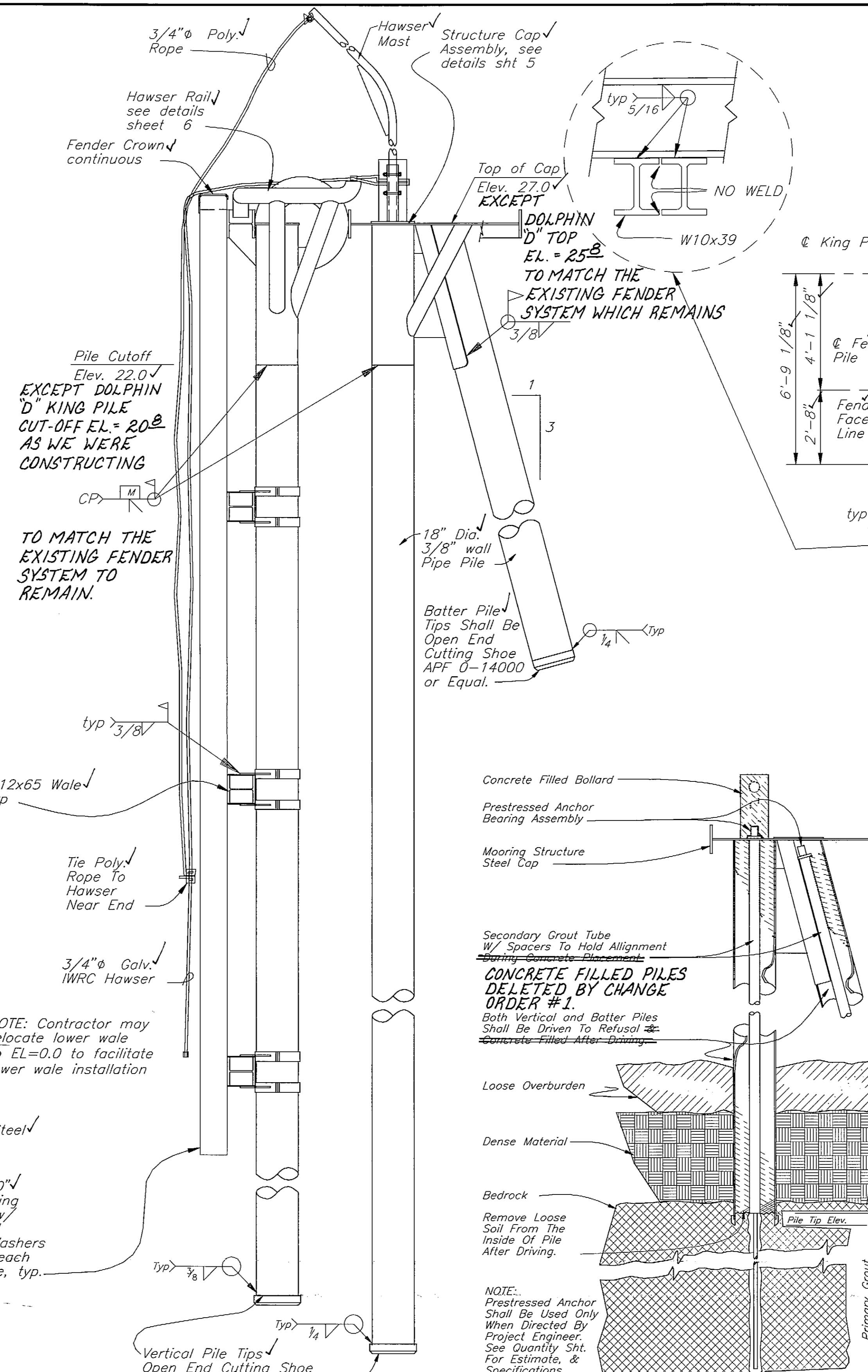
NOTE: ALL DIMENSIONS WITHIN ALLOWABLE TOLERANCES

Jemo E. Day
 2/1/99

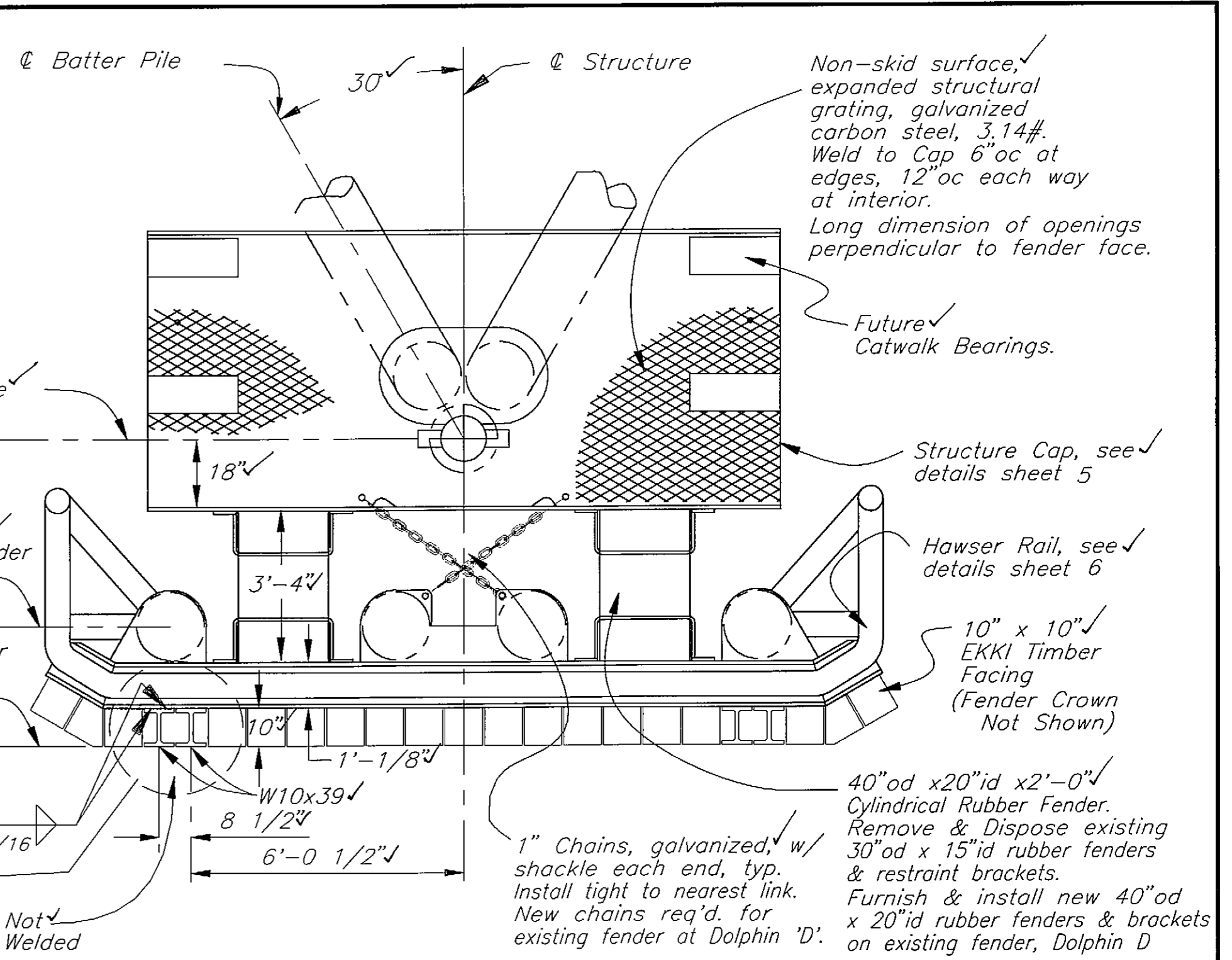
NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS



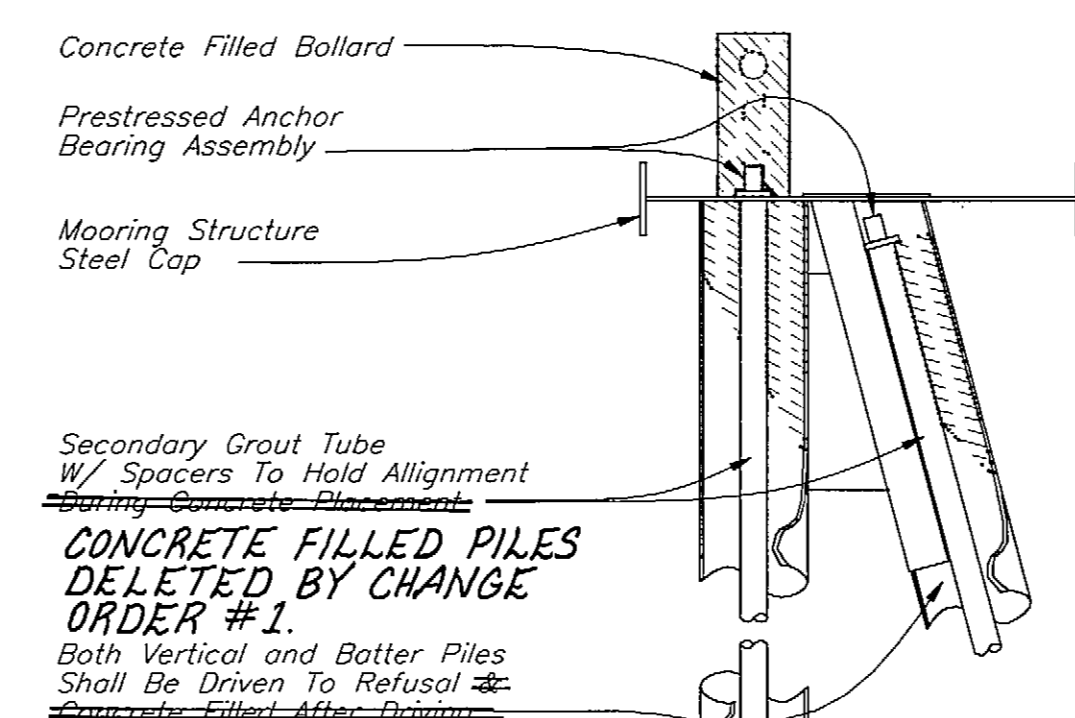
FRONT ELEVATION



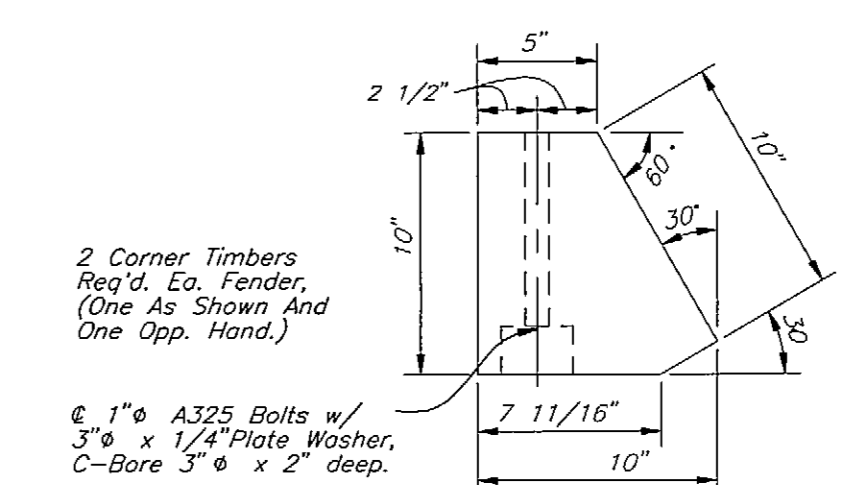
SIDE ELEVATION



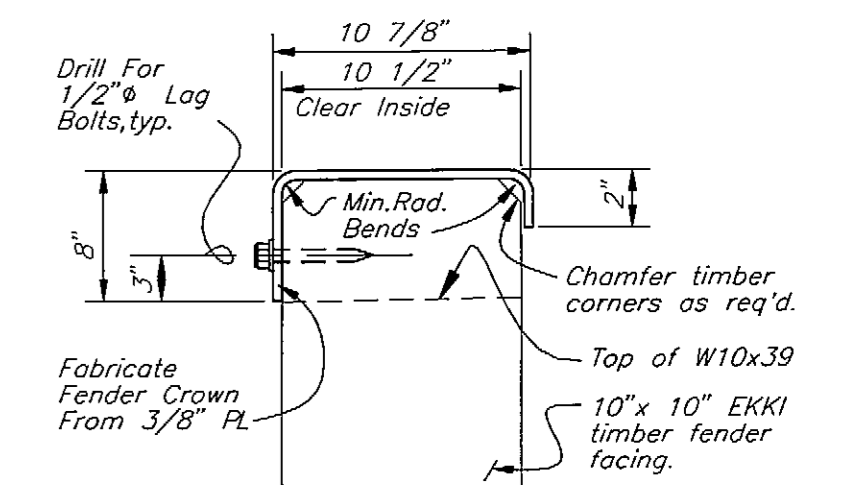
MOORING STRUCTURE PLAN



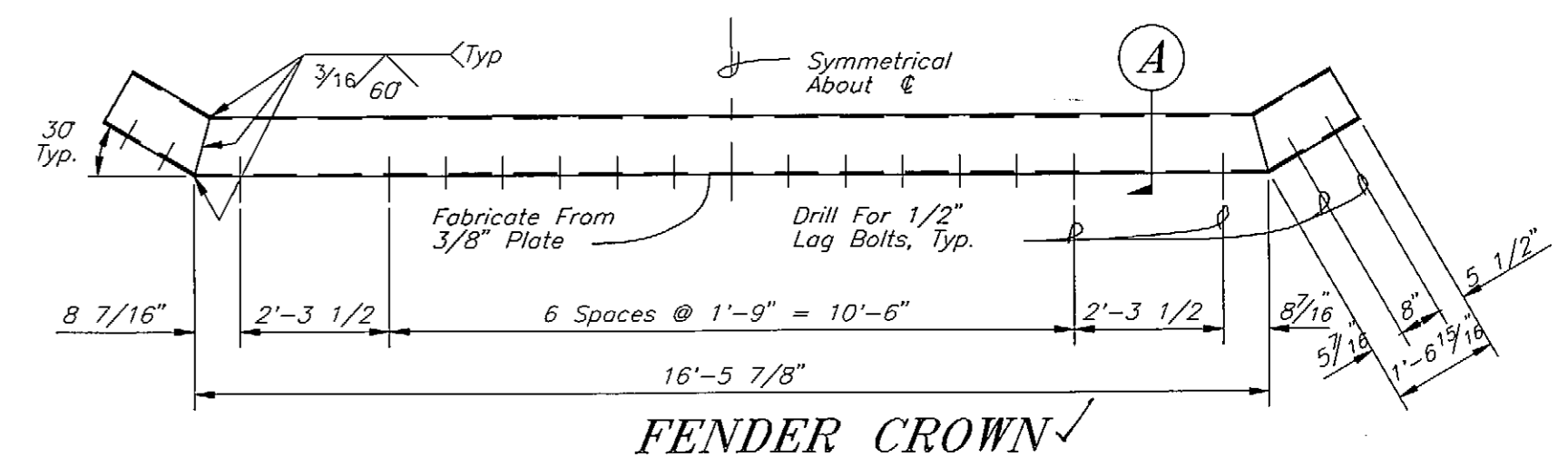
PRESTRESSED PILE ANCHOR



CORNER TIMBER



SECTION A



FENDER CROWN

Note: Top of existing concrete dolphin cap shall be used for the basis of vertical control.

James E. Meyer
2/1/99

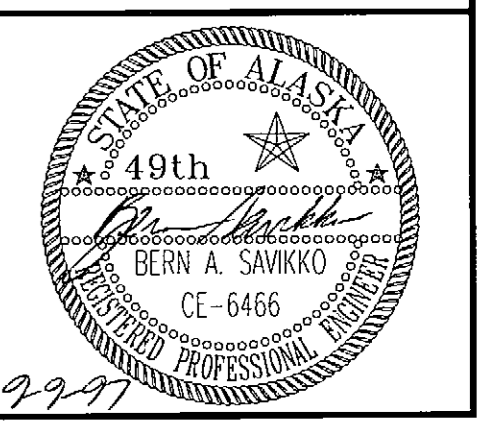
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BY:	DATE:	DESCRIPTION OF CHANGE:
RECORD OF REVISIONS		

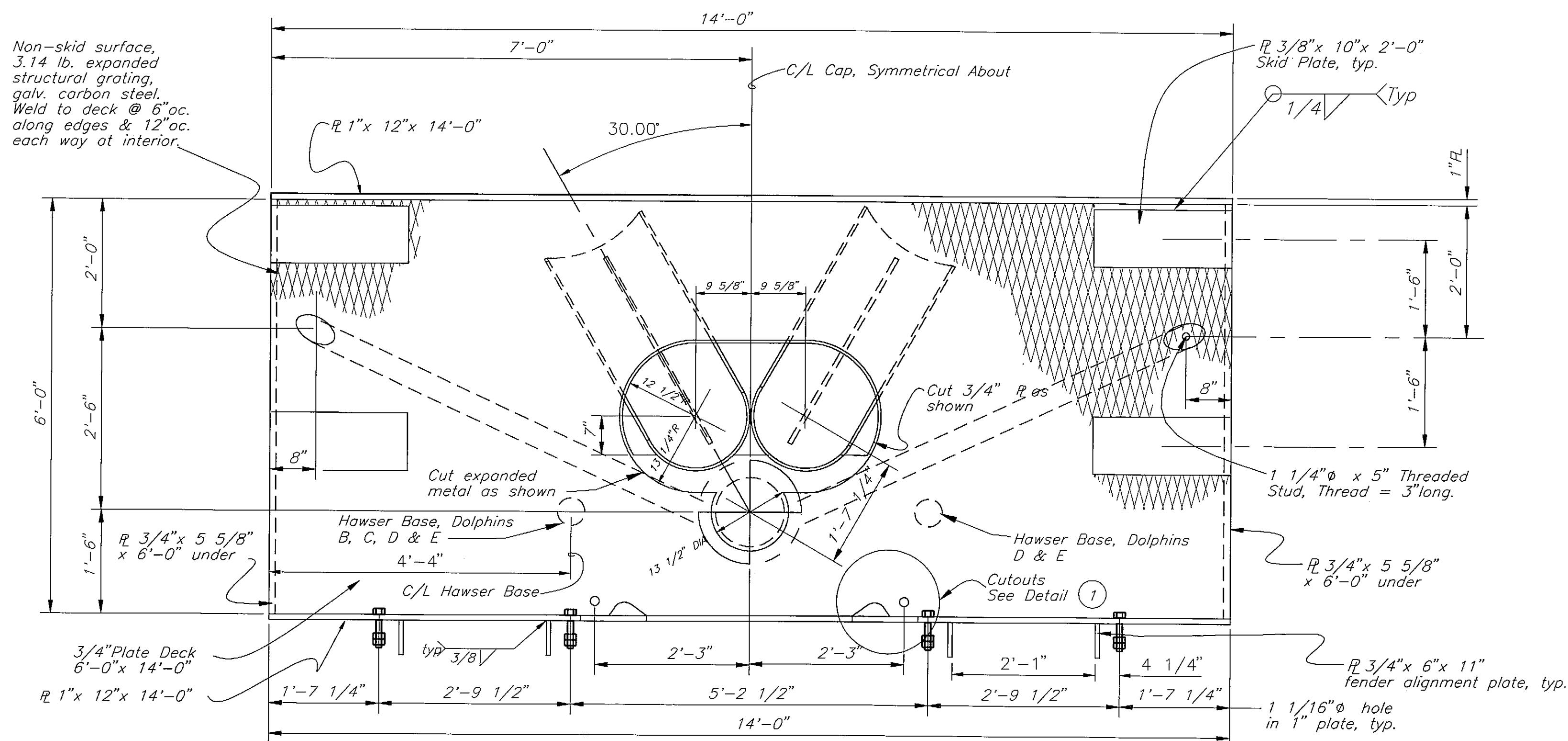
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KAKE DOLPHIN REPLACEMENT & BRIDGE REHAB
FED. NO. STP-0939(6) ~ PROJECT NO. 75525
DOLPHIN STRUCTURE PLAN & ELEVATION

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

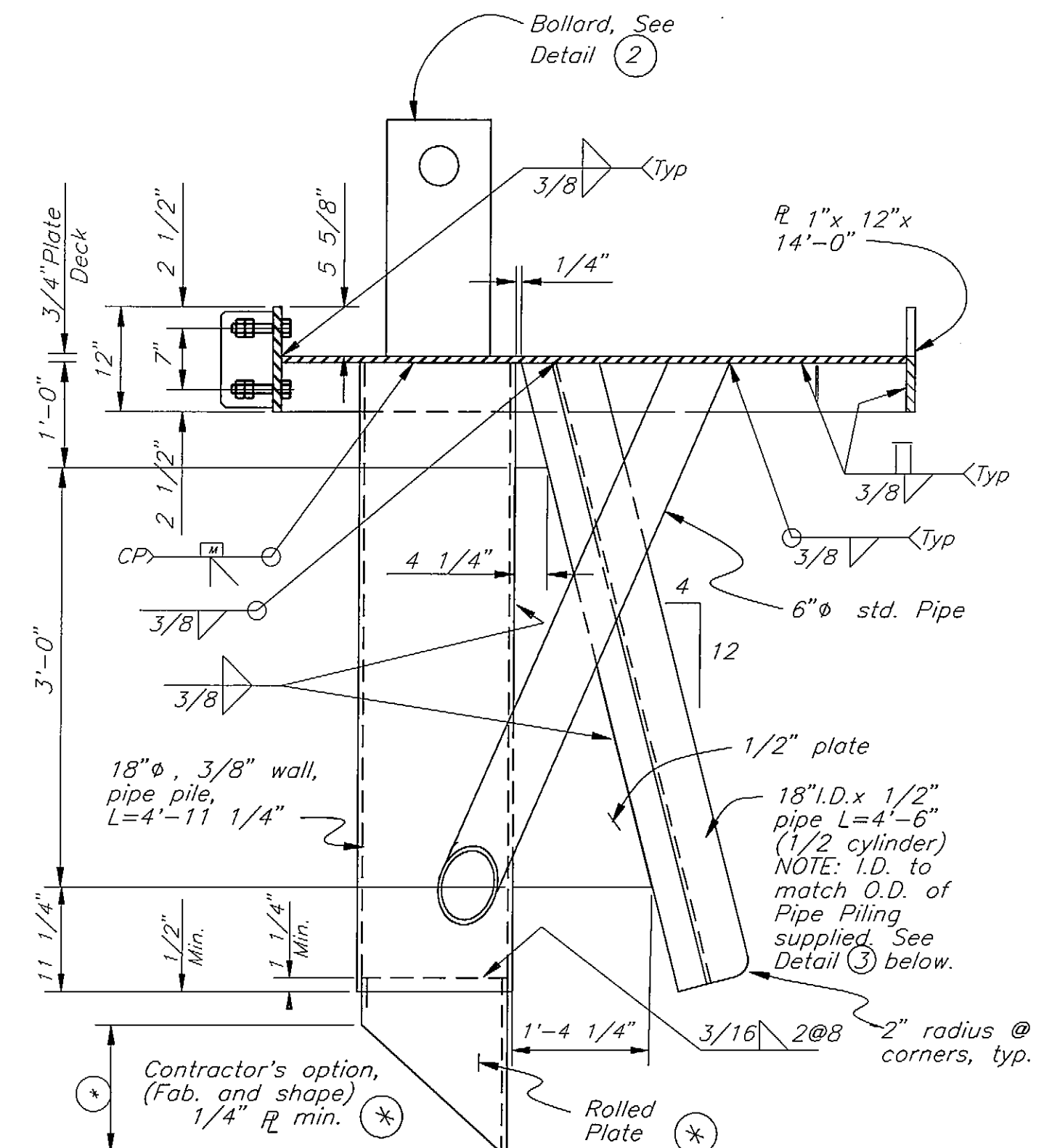
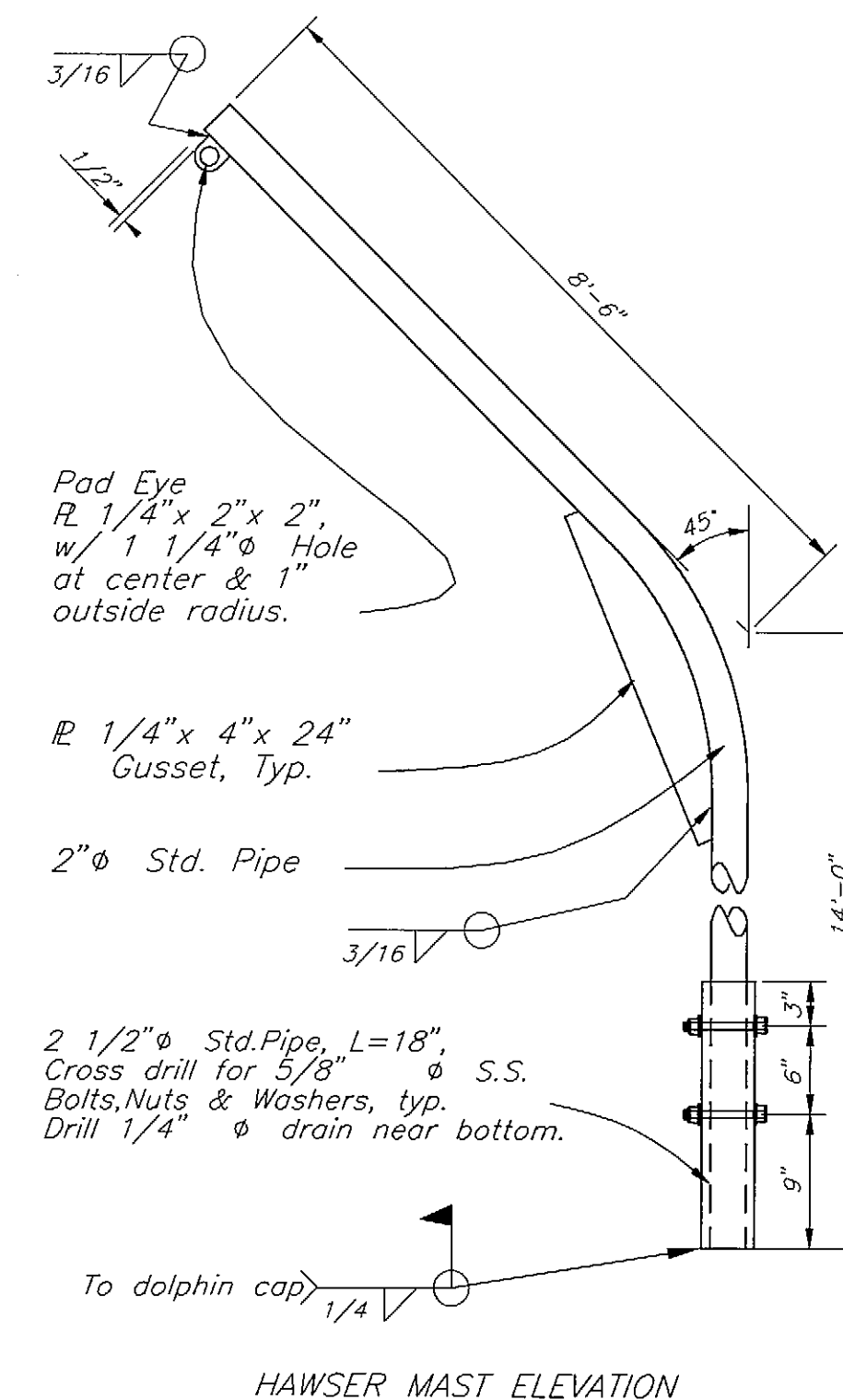
DESIGNED BY:	PROJECT NO.
STAFF	75525
DRAWN BY:	DATE:
BN	JULY, 1997
CHECKED BY:	SHEET 4 OF 12
BAS	2297



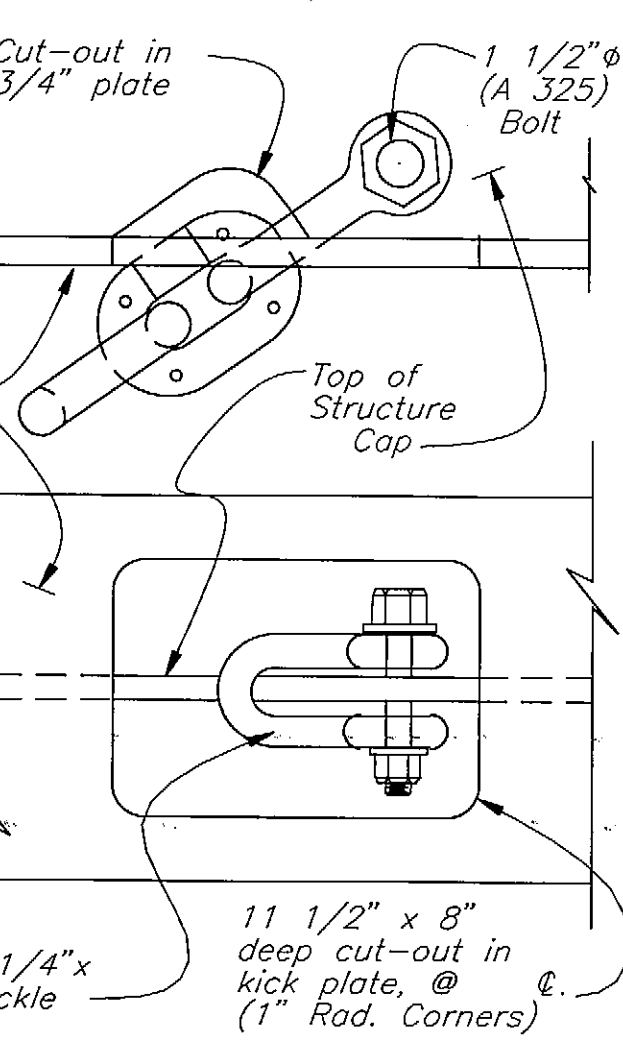
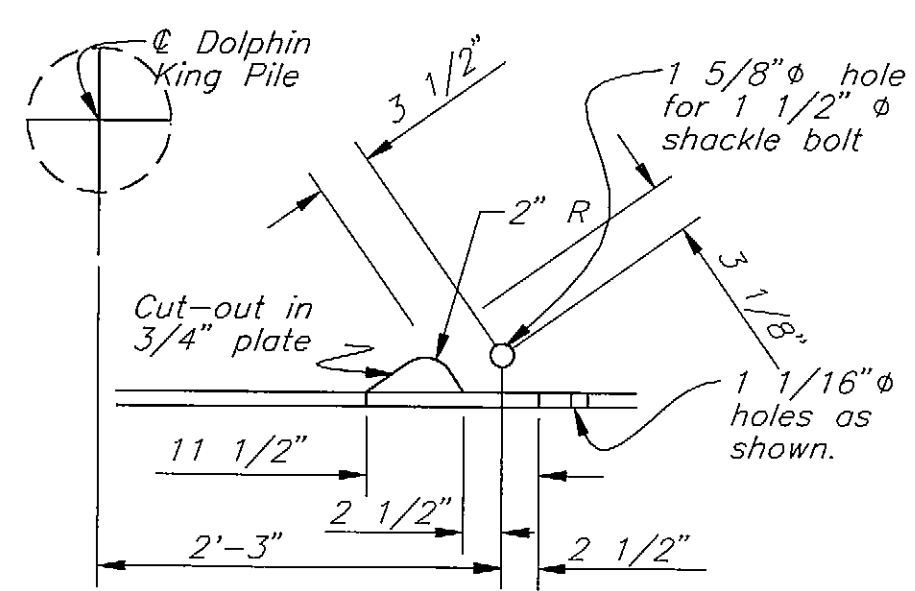


DOLPHIN STRUCTURE CAP, PLAN ✓

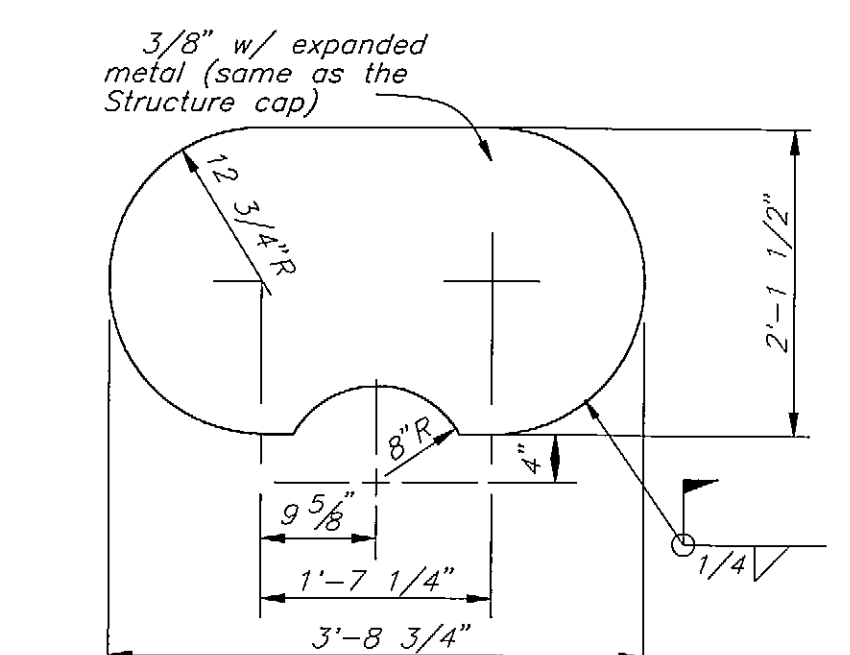
(4 Req'd)



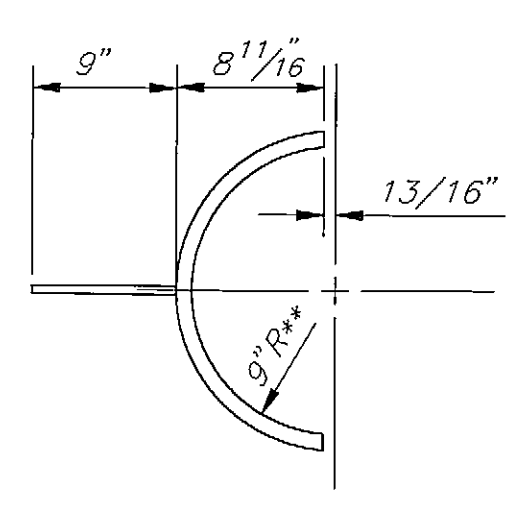
SECTION D-D ✓



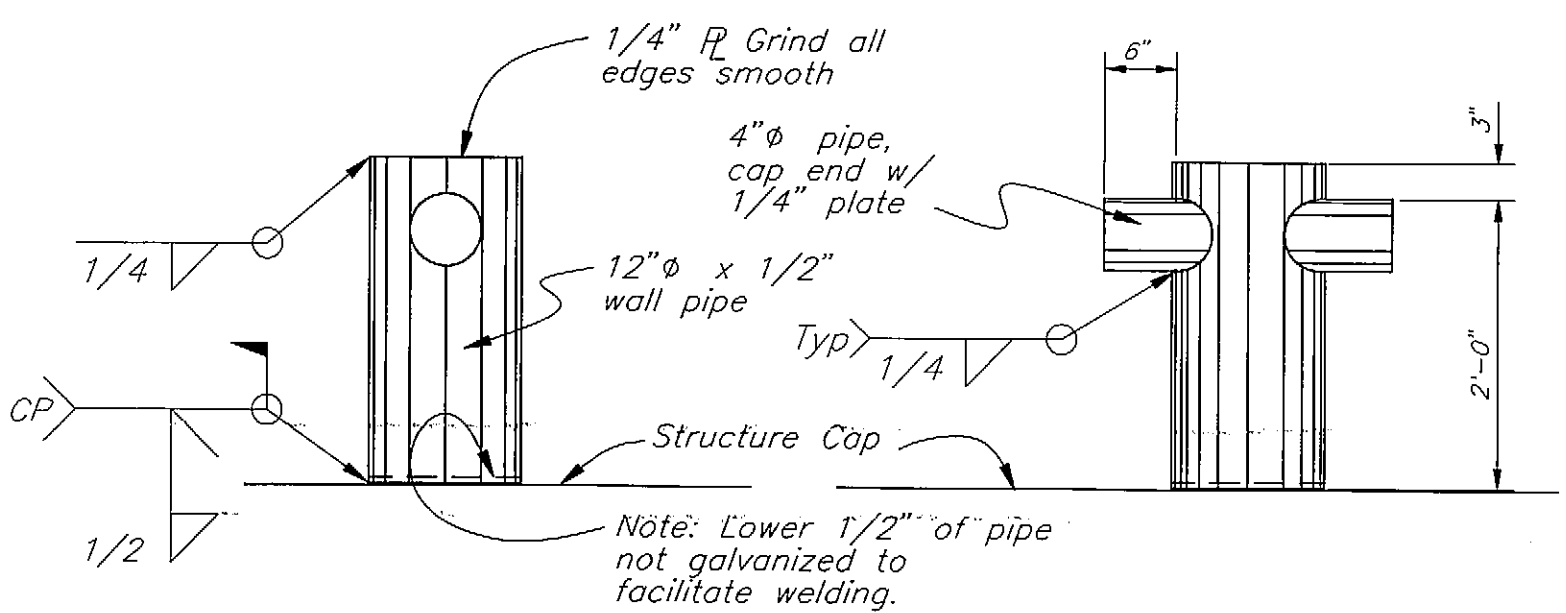
DETAIL 1 ✓



COVER PLATE DETAIL ✓



DETAIL 3 ✓

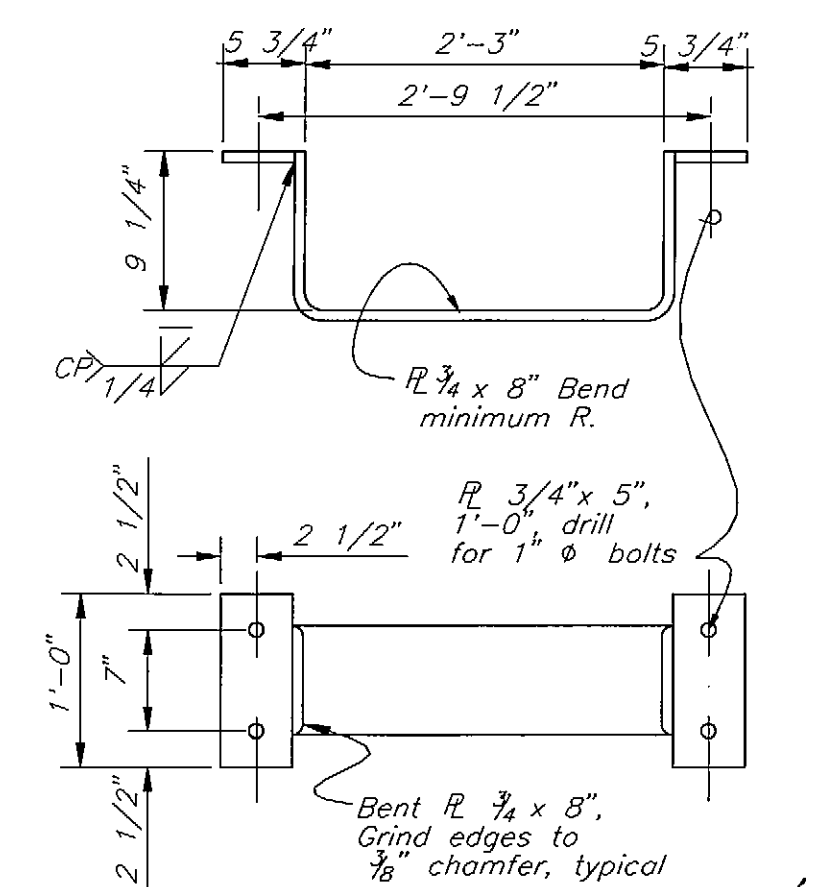


BOLLARD DETAIL 2 ✓

HIGH HAWSER MAST DETAIL ✓

(6 Req'd)

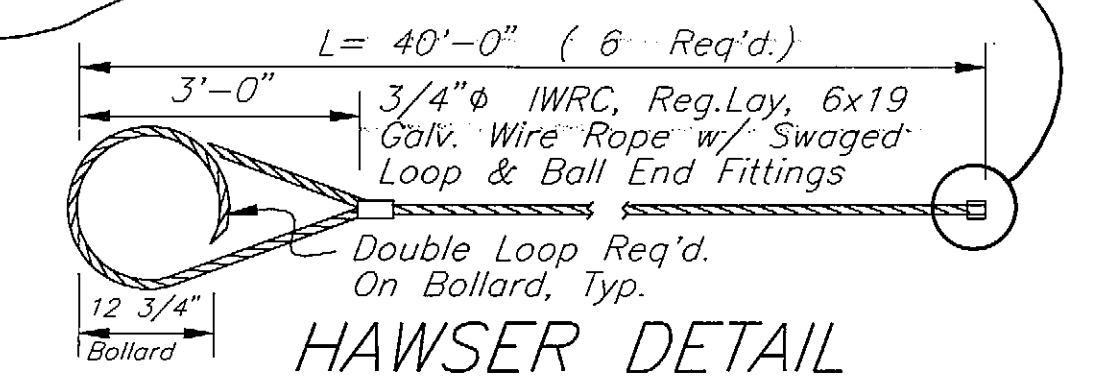
Two Masts Required @ Structures D & E
One Mast Required @ Structures B & C



FENDER RETAINING BAR ✓

MOORING STRUCTURES B,C,D, & E (16 Req'd.) FASTEN TO DOLPHIN CAPS W/ 1" A325 GALV. BOLTS, TYP.

WE DIDN'T SPECIFY DIA FOR SWAGED END. WHAT ARRIVED WAS WRONG SIZE. RE-USED EXISTING & TURNED NEW OVER TO LECONTE CREW.



HAWSER DETAIL

James P. Meyer
2/1/99

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

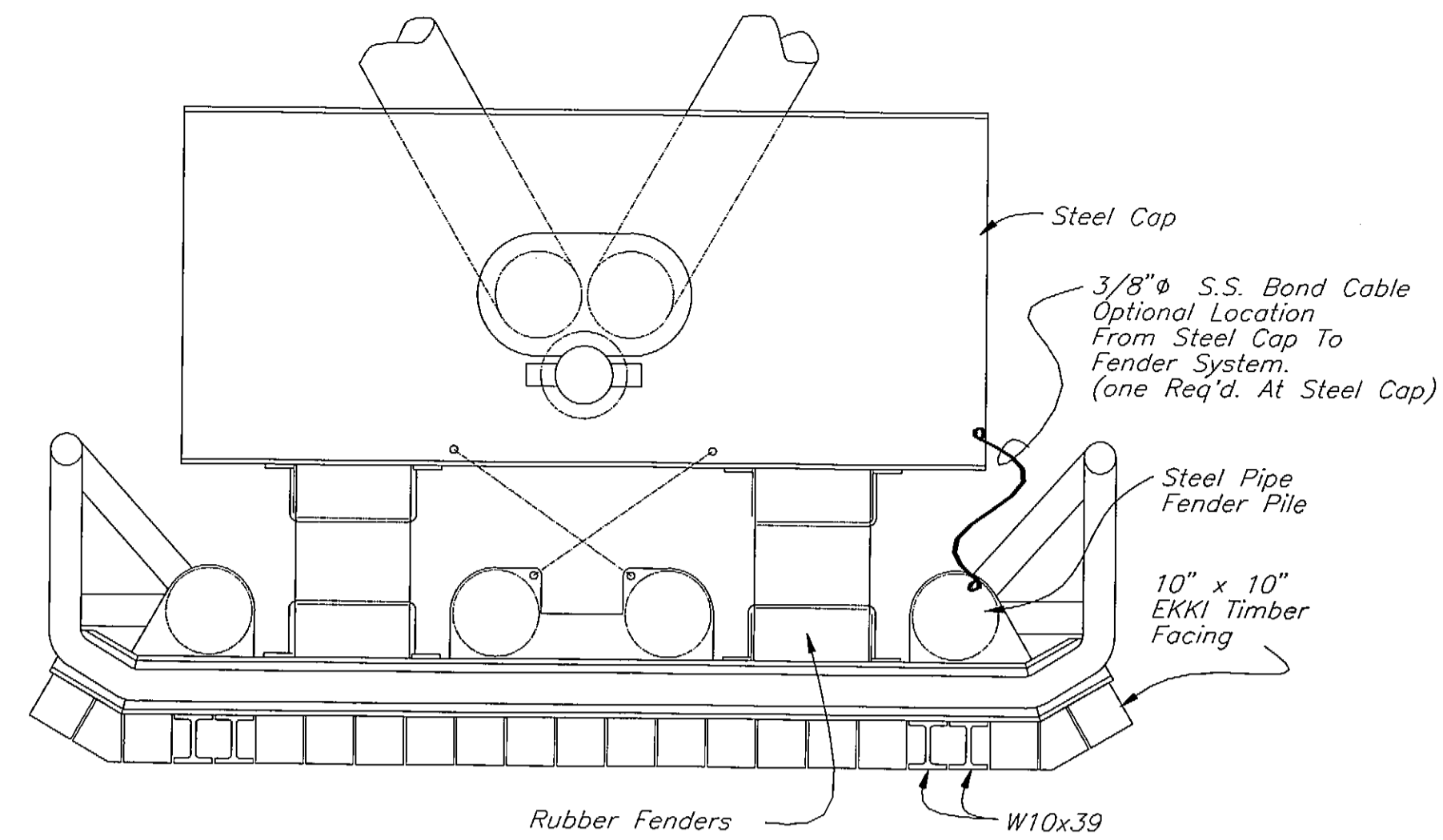
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PLOT:		
BY:	DATE:	DESCRIPTION OF CHANGE:
RECORD OF REVISIONS		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

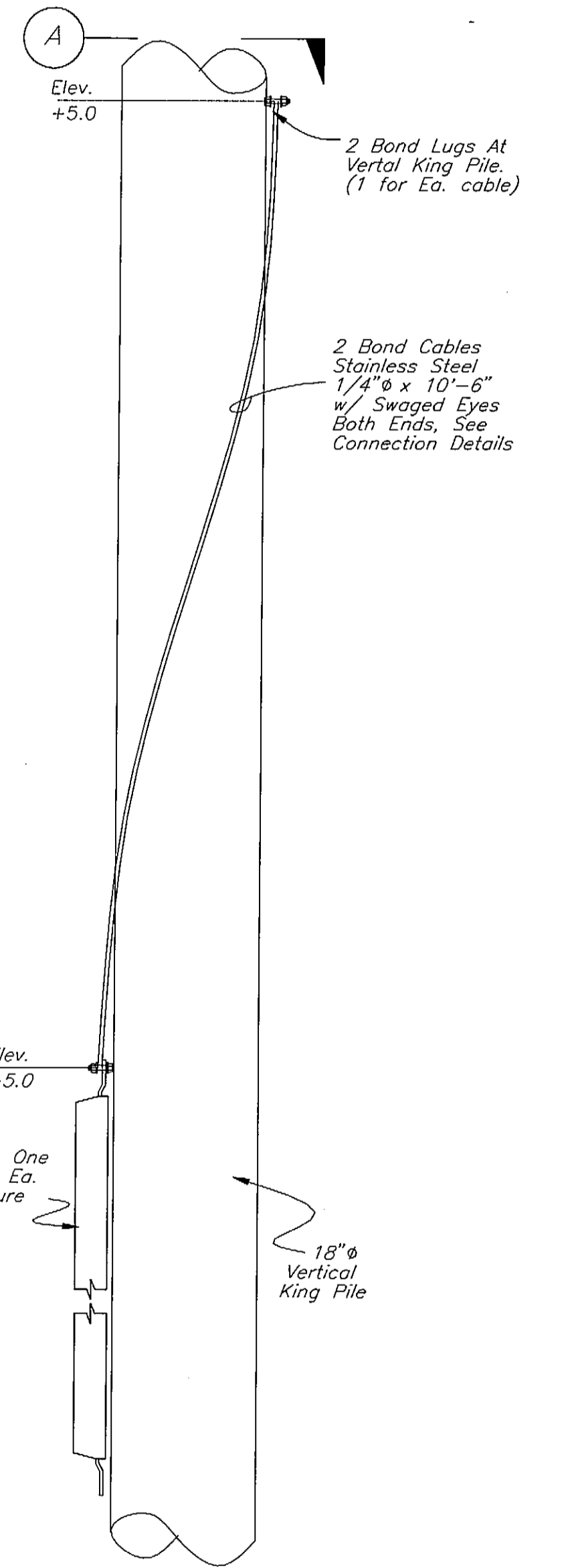
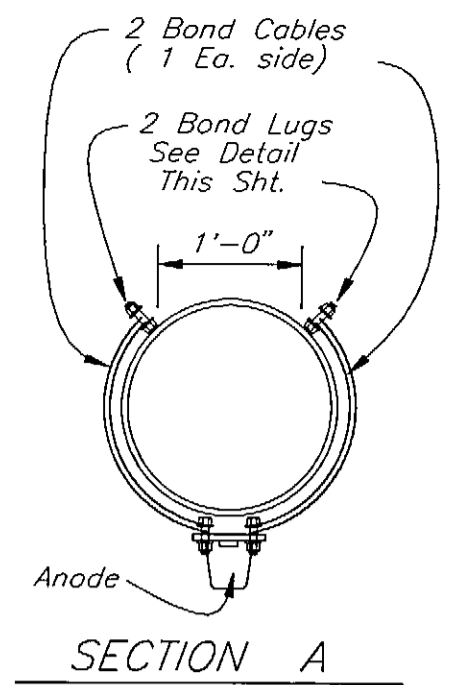
KAKE DOLPHIN REPLACEMENT & BRIDGE REHAB
PROJECT NO. STP-0939(6)/75525
DOLPHIN STRUCTURE CAP DETAILS

DESIGNED BY:	PROJECT NO.
STAFF	75525
DRAWN BY:	DATE:
BN	JULY, 1997
CHECKED BY:	SHEET 5 OF 12
BAS	9997

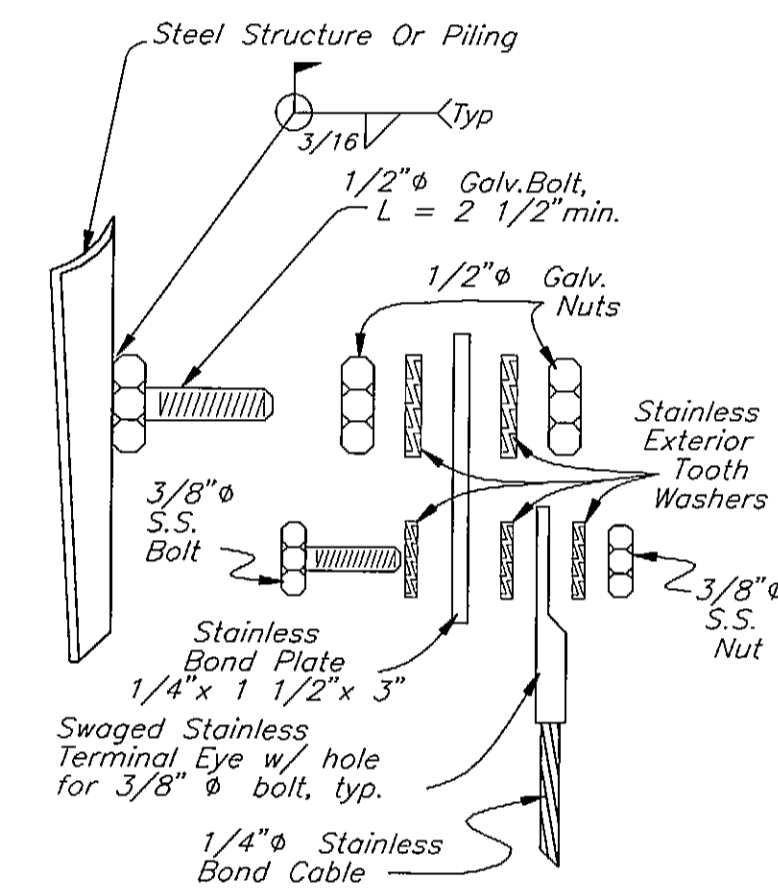




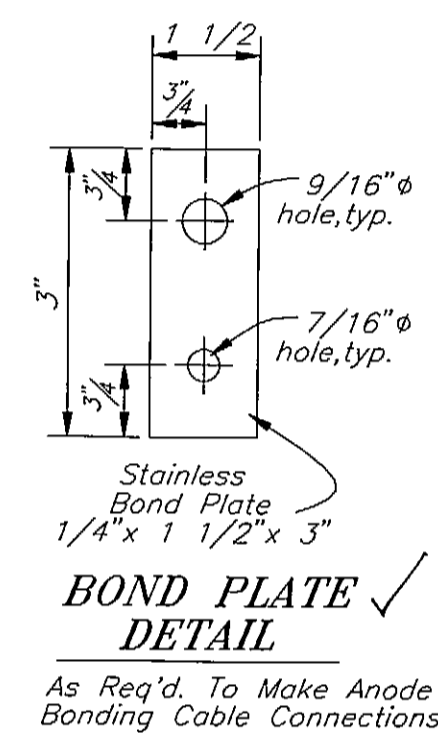
ANODE & BONDING PLAN, STEEL DOLPHIN STRUCTURES ✓



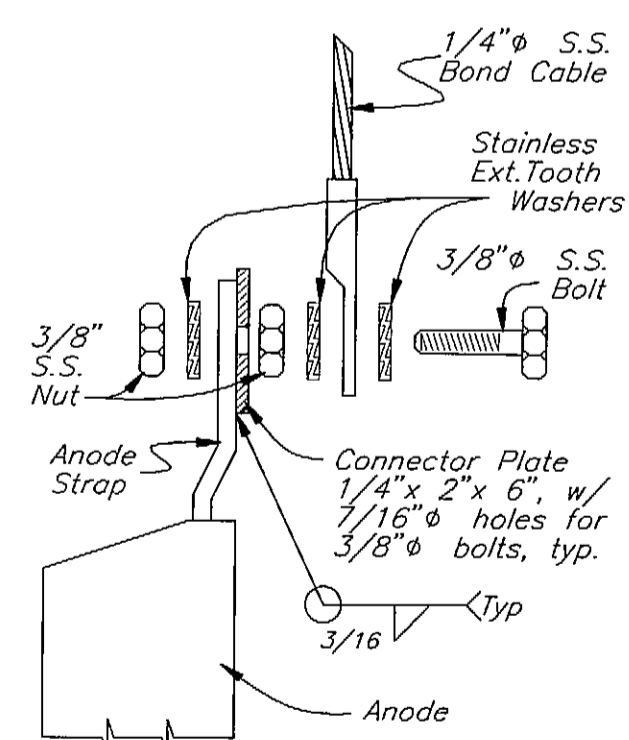
ANODE INSTALLATION TYPICAL ELEVATION ✓



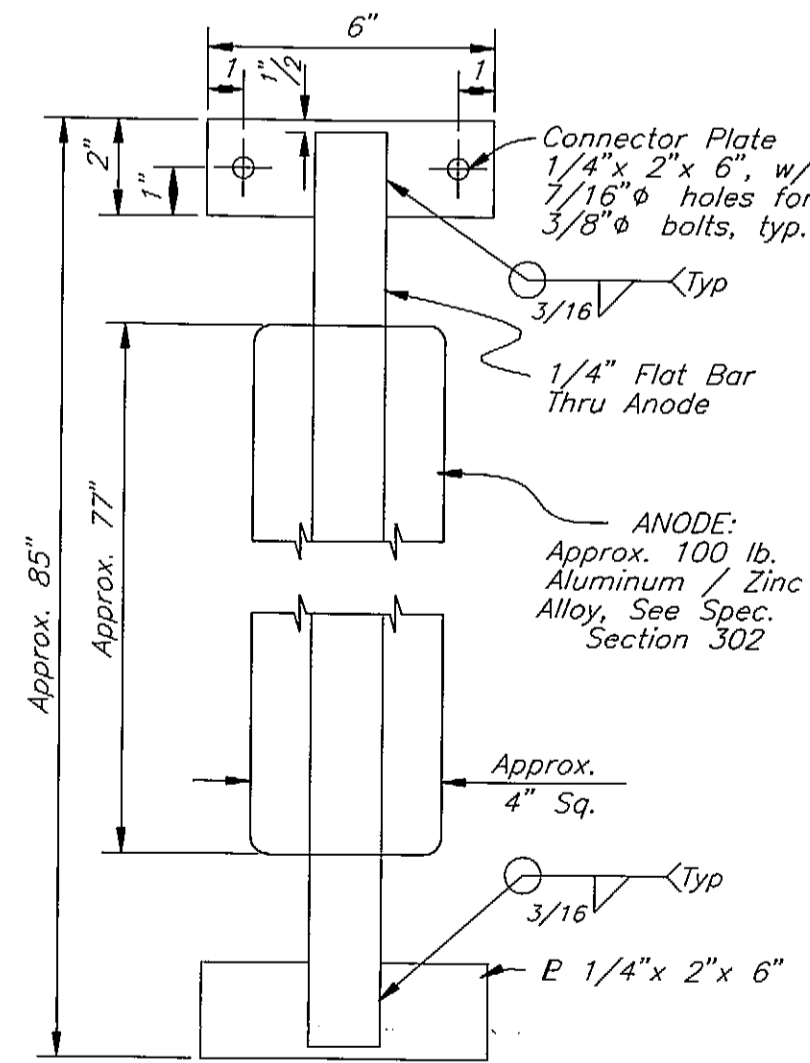
BOND LUG CONNECTION DETAIL ✓



BOND PLATE DETAIL ✓
As Req'd. To Make Anode Bonding Cable Connections



ANODE & CABLE CONNECTION DETAIL ✓



ANODE DETAIL ✓

James P. May Jr.
2/1/99

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

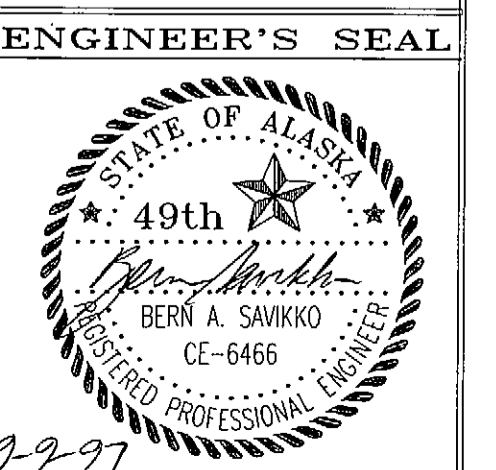
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BY:	DATE:	DESCRIPTION OF CHANGE:

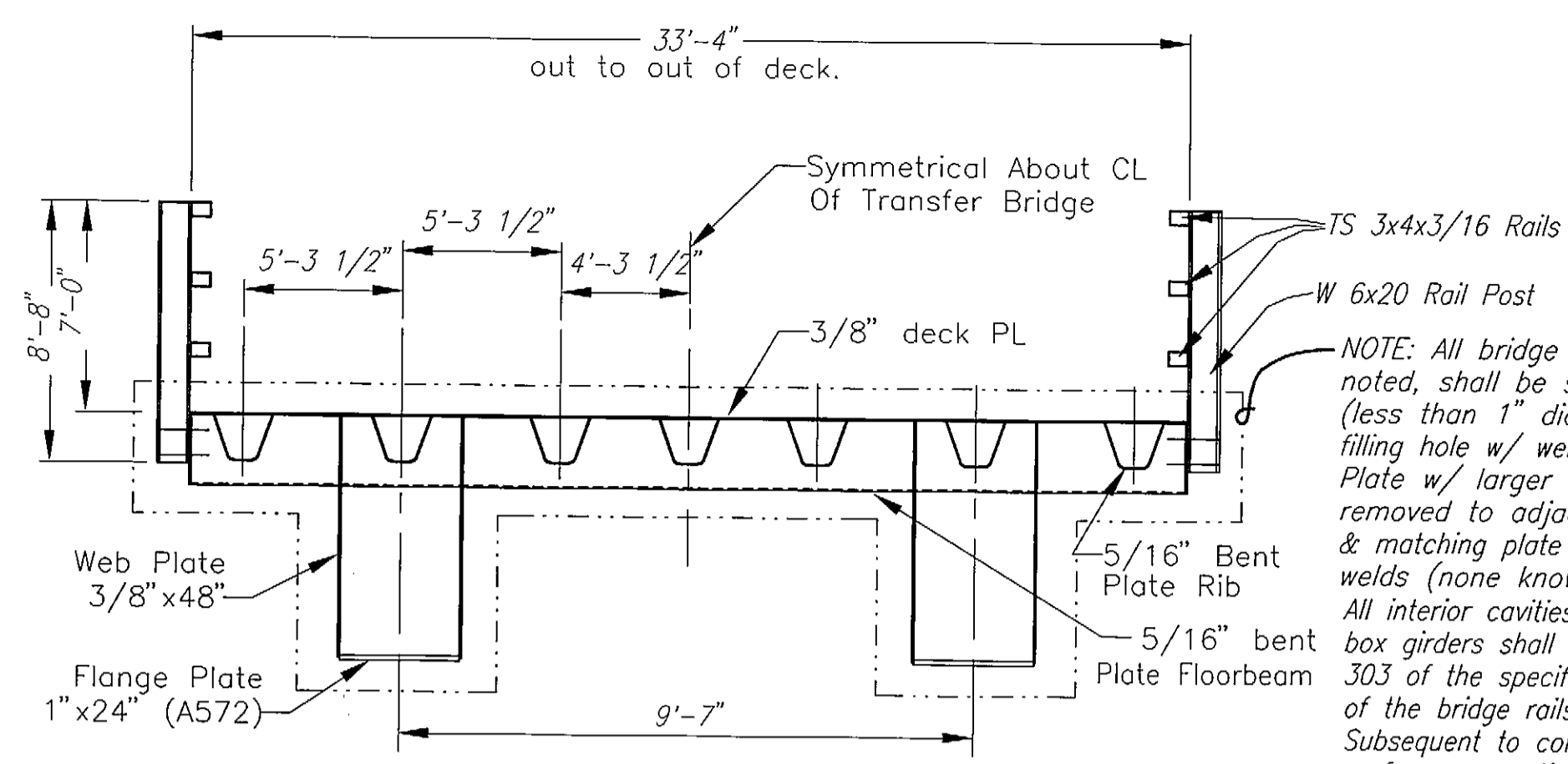
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KAKE DOLPHIN REPLACEMENT & BRIDGE REHAB
Fed. No. STP-0939(6) ~ Proj. No. 75525
DOLPHIN STRUCTURE, MISC. DETAILS

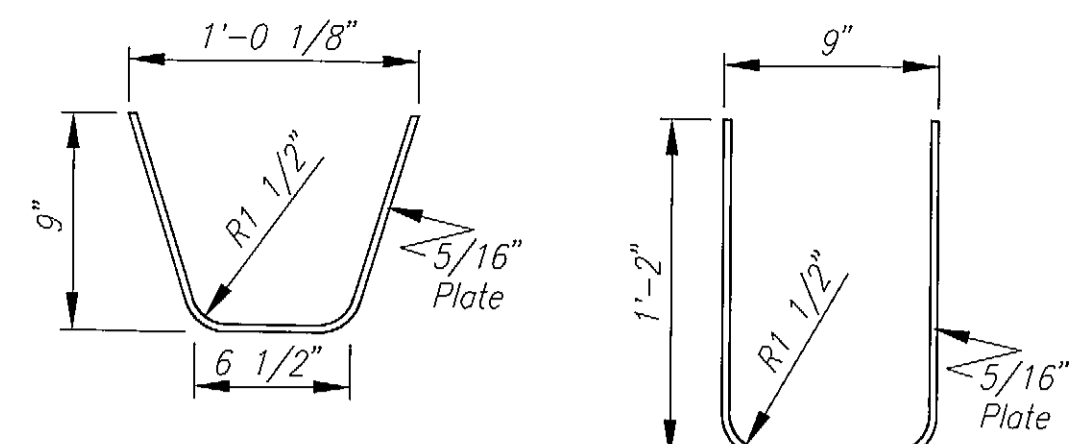
DESIGNED BY: BN
DRAWN BY: BN
CHECKED BY: STAFF

PROJECT NO. 75525
DATE: JULY, 1997
SHEET 7 OF 12

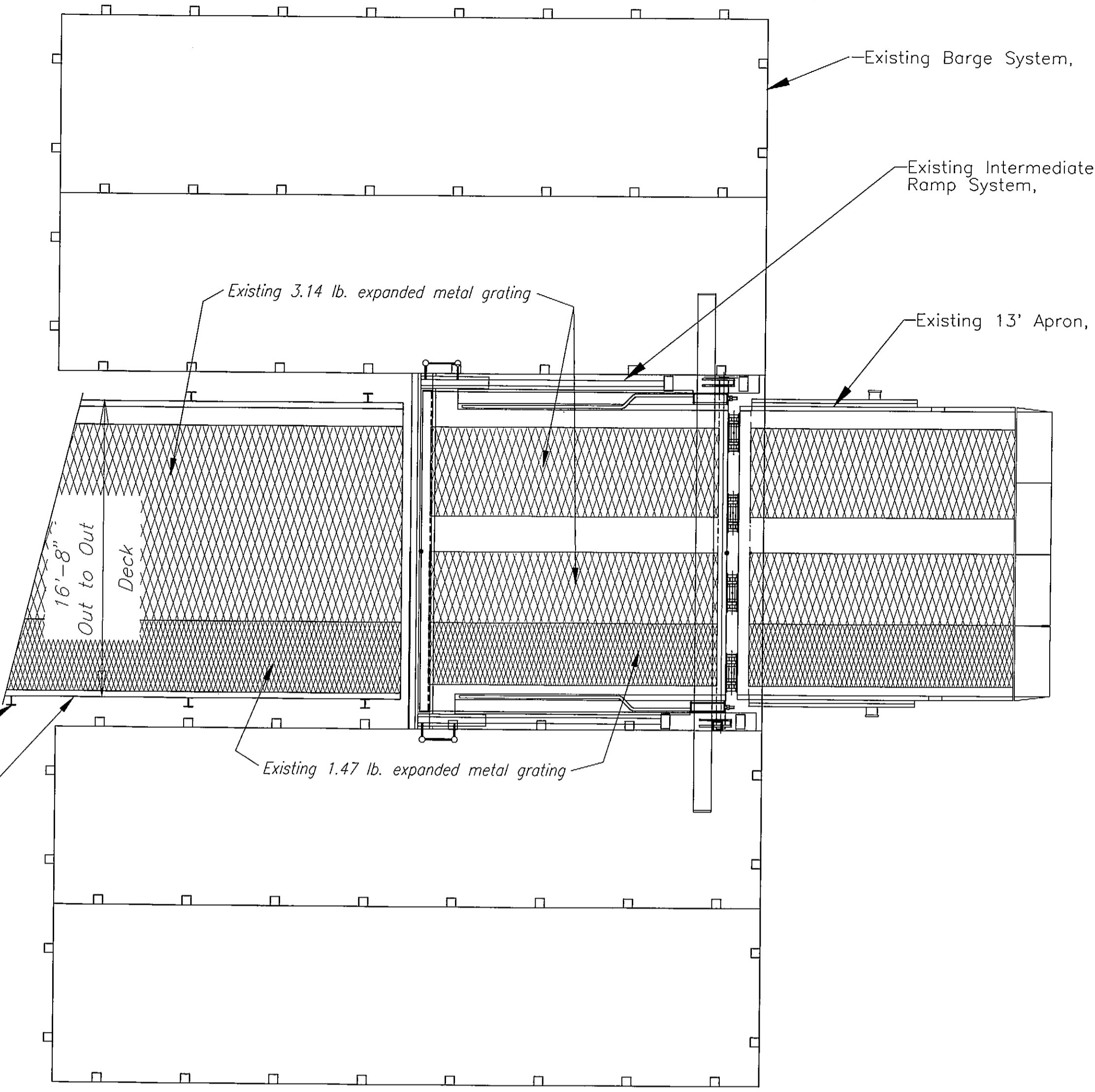
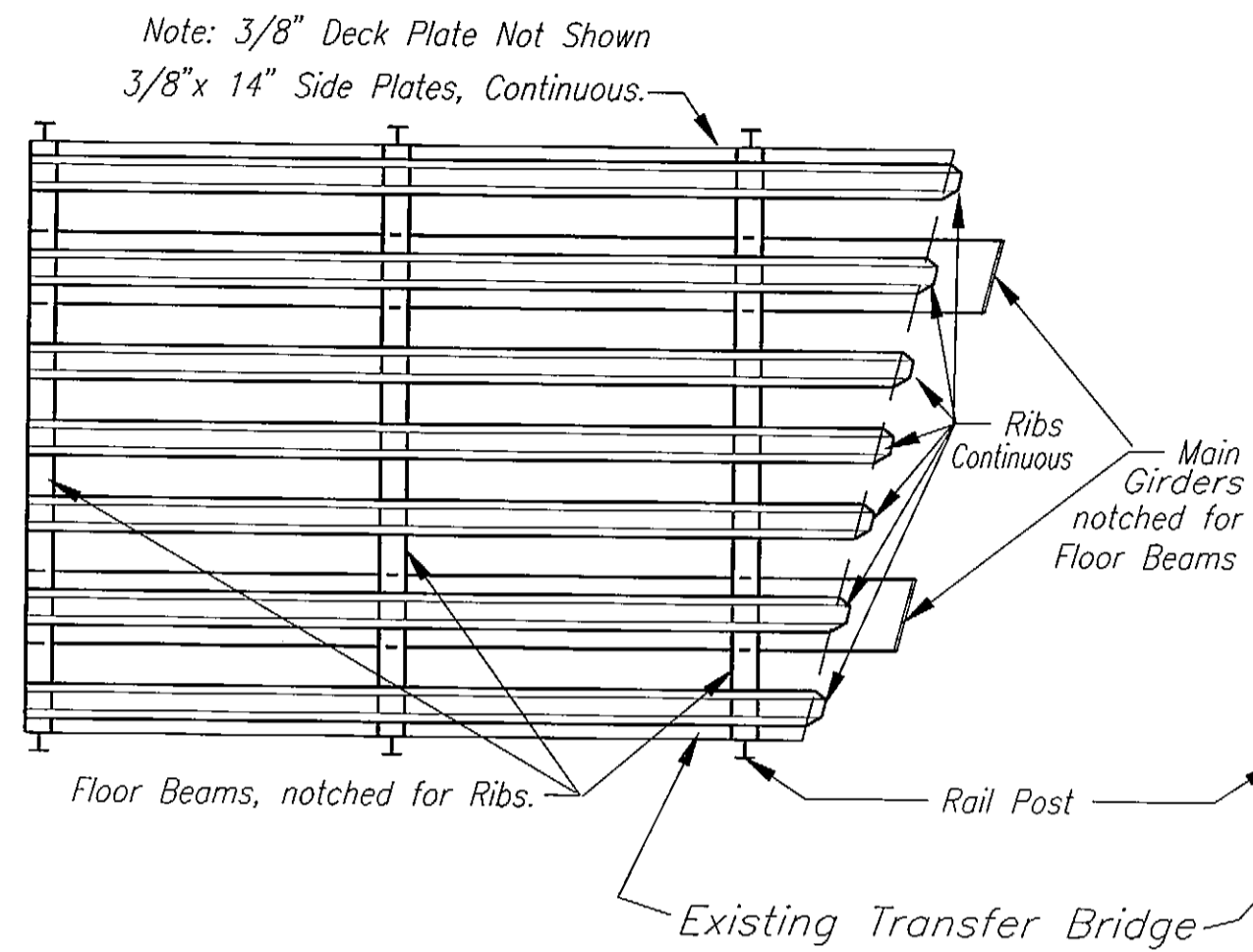




EXISTING BRIDGE SECTION



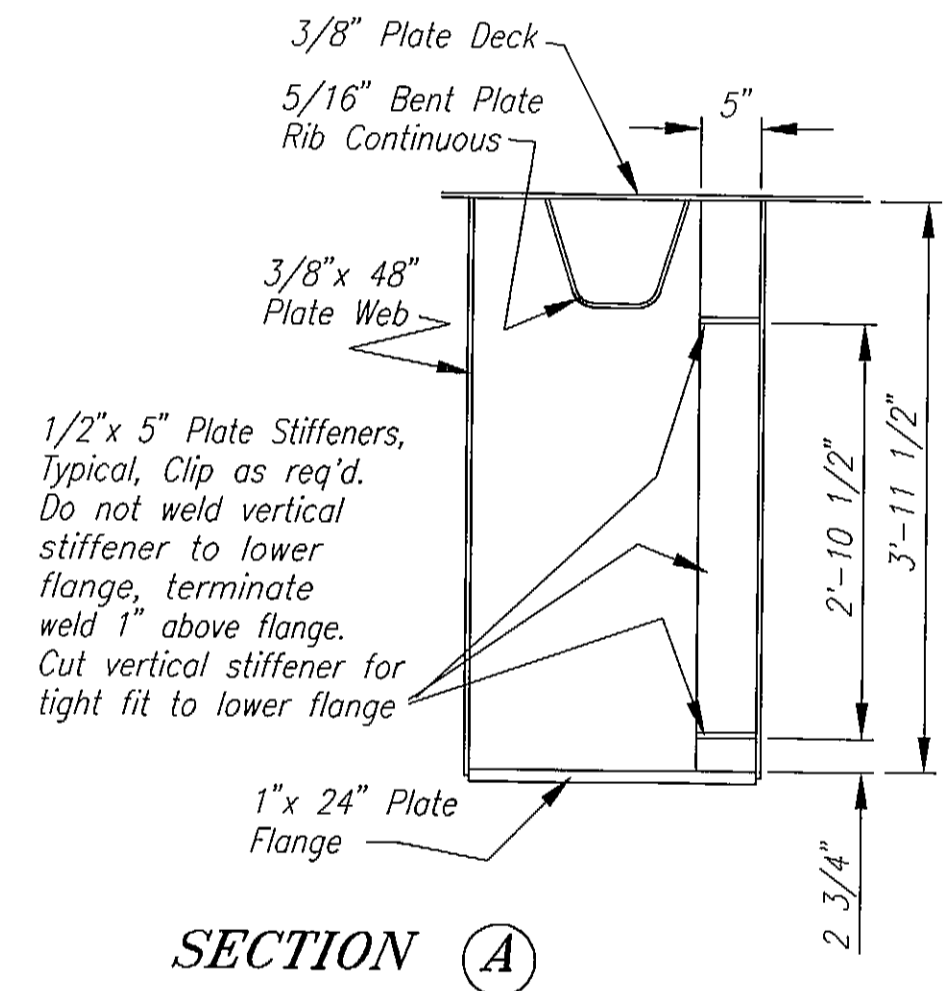
Continuous Rib Floor Beam



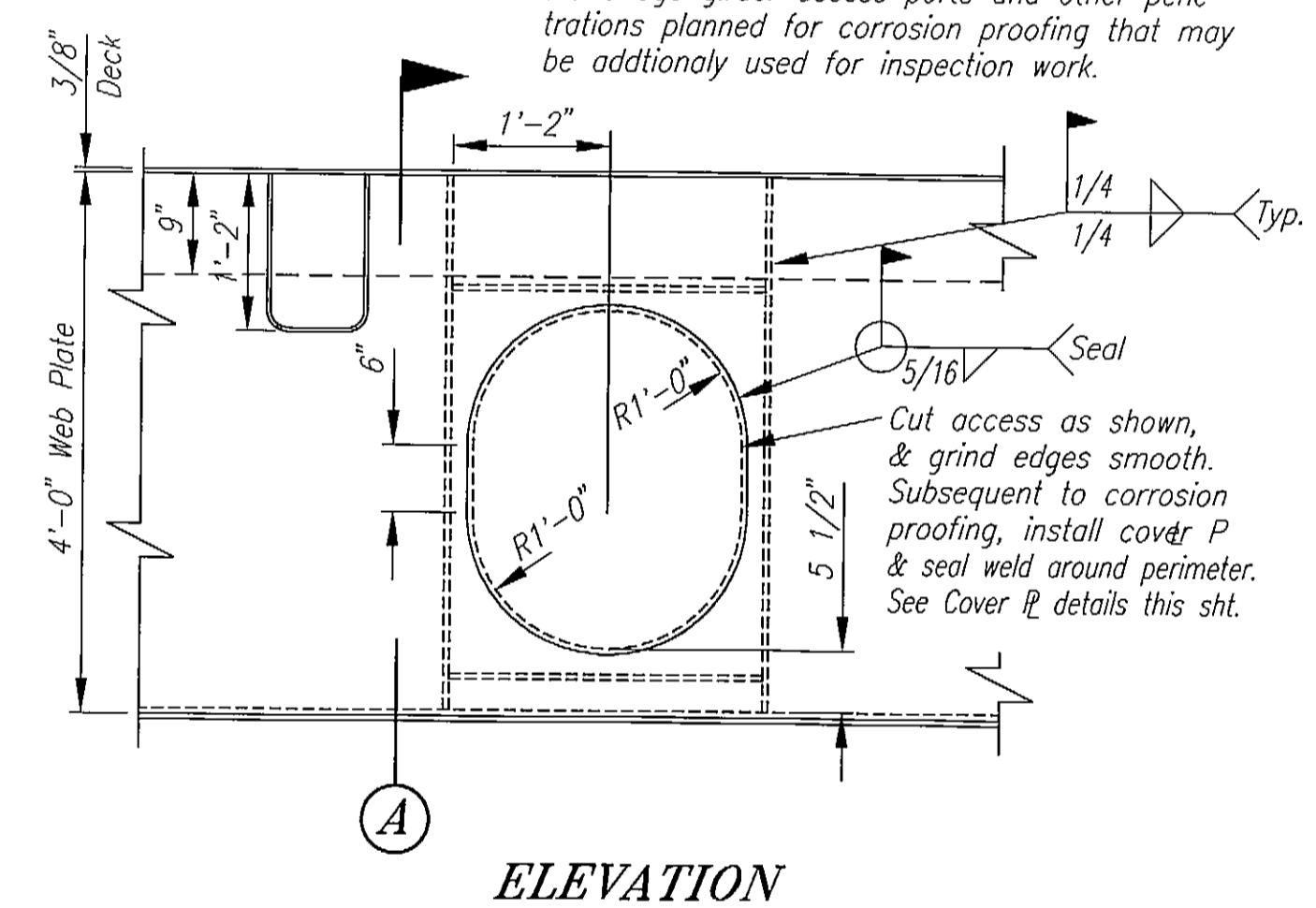
PLAN

APPROXIMATE BRIDGE WEIGHT = 136,000 LBS.

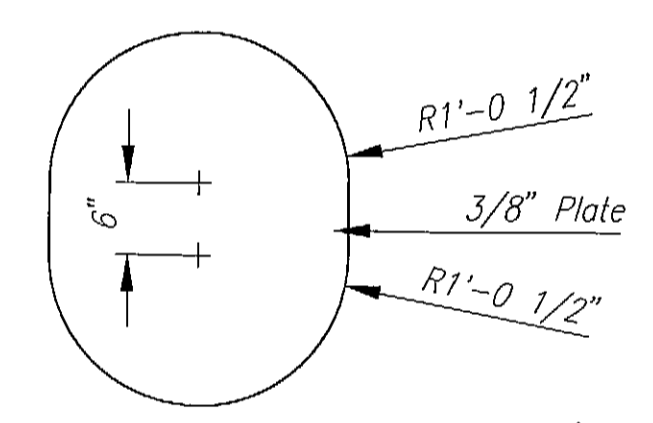
James E. Magee
2/1/99



SECTION A

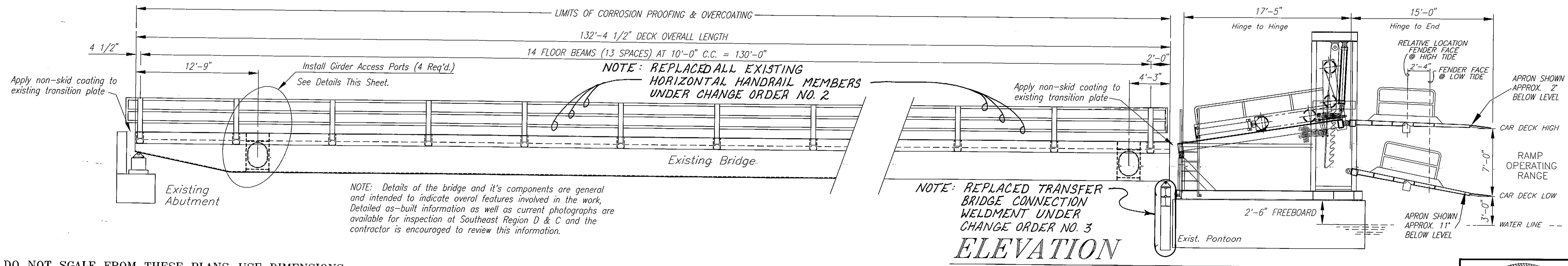


ELEVATION



ACCESS PORT COVER PLATE

GIRDER ACCESS PORT DETAILS



ELEVATION

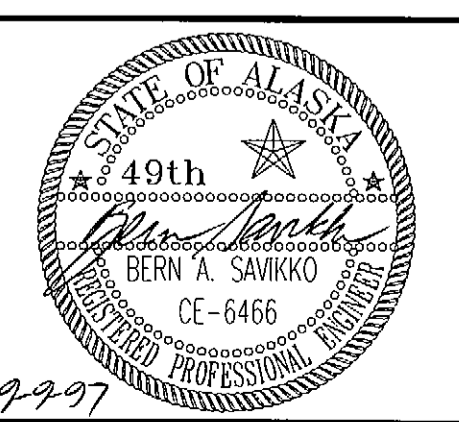
NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

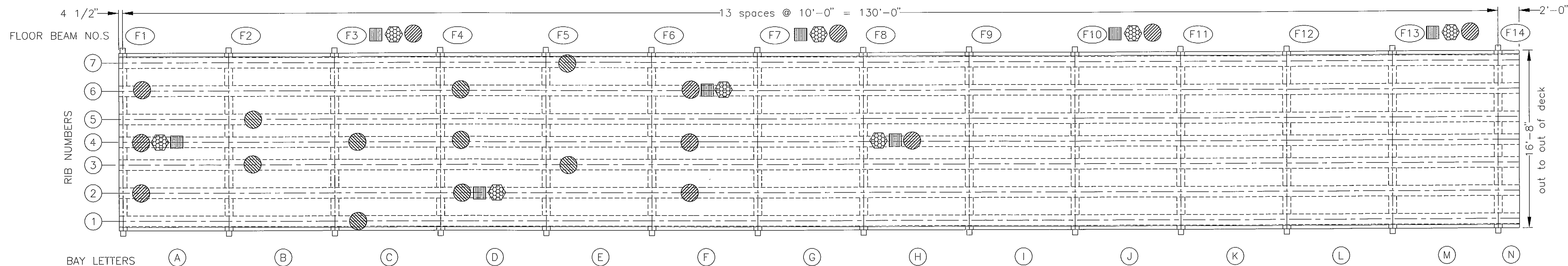
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PLOT:		
BY:	DATE:	DESCRIPTION OF CHANGE:
RECORD OF REVISIONS		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KAKE
KAKE DOLPHIN REPLACEMENT & BRIDGE REHAB
ALASKA
FED. NO. STP-0939(6) ~ PROJECT NO. 75525
TRANSFER BRIDGE LAYOUT & DETAILS

DESIGNED BY:	BAS	PROJECT NO.	75525
DRAWN BY:	BN	DATE:	JULY, 1997
CHECKED BY:	JAL	SHEET	9 OF 12





TRANSFER BRIDGE PLAN ✓

FIBER OPTIC AREAS:

Bay Letter	Rib Number
A	4
D	2
F	6
H	4

Flr. Beam	@ Rib Number
F3	5
F7	3
F10	4
F13	2

Note: Fiber Optic photography to show overall and example of worst condition of deck PL/rib interior.

U.T. THICKNESS READINGS:

Bay Letter	Rib Number
A	2,4,6
B	3,5
C	1,4
D	2,4,6
E	3,7
F	2,4,6
H	4

Flr. Beam	@ Rib Number
F3	6
F7	2
F10	5
F13	6

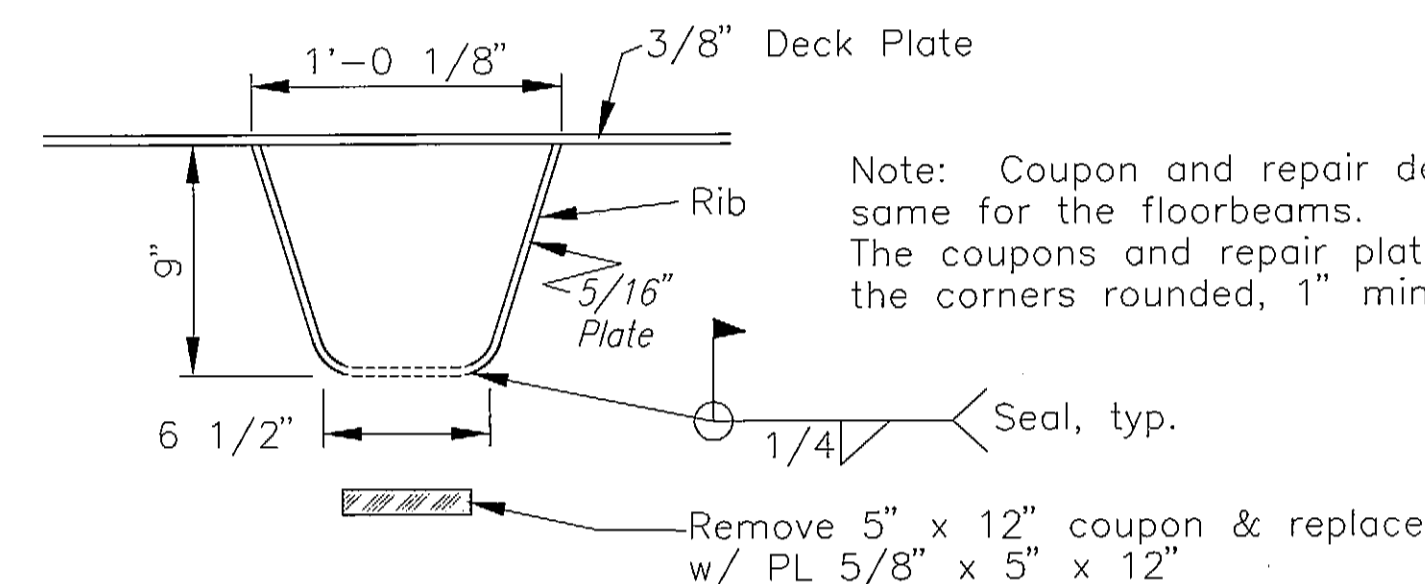
Note: U.T. thickness readings to be taken at each of the member faces (2 sides & bottom) to yield an average thickness of the face at that location.

COUPON LOCATIONS

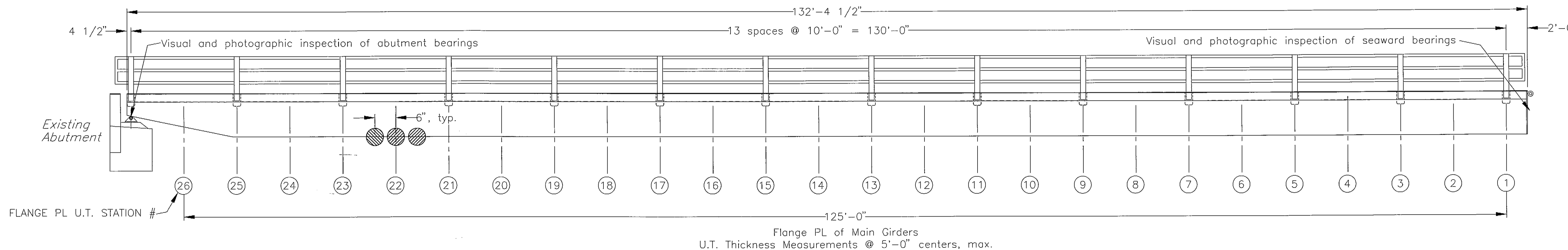
Bay Letter	Rib Number
A	4
D	2
F	6
H	4

Flr. Beam	@ Rib Number
F3	5
F7	3
F10	4
F13	2

Note: Coupons to be taken from bottom of rib and or floorbeam. Coupon holes to be used as Fiber Optic access where possible.



COUPON DETAILS ✓



TRANSFER BRIDGE ELEVATION ✓

NOTES FOR MAIN GIRDER INTERIOR & LOWER FLANGE INVESTIGATION

1. U.T. thickness readings to be taken at each station to arrive at an average thickness at each station. A series of three transverse U.T. profiles shall be taken at each flange plate station. Transverse U.T. readings shall be taken @ 4" o.c..
2. Investigators to document overall condition of bottom flange with 35mm still photographs and supplement these photos as required with photos of examples of "worst areas" found.
3. Investigators shall document the condition of the interior of bridge box girders. 35mm still photographs shall be taken to document overall condition and examples of "worst areas" found.

James E. Whelan
2/1/99

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

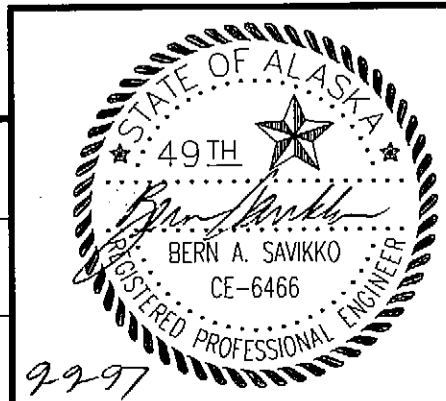
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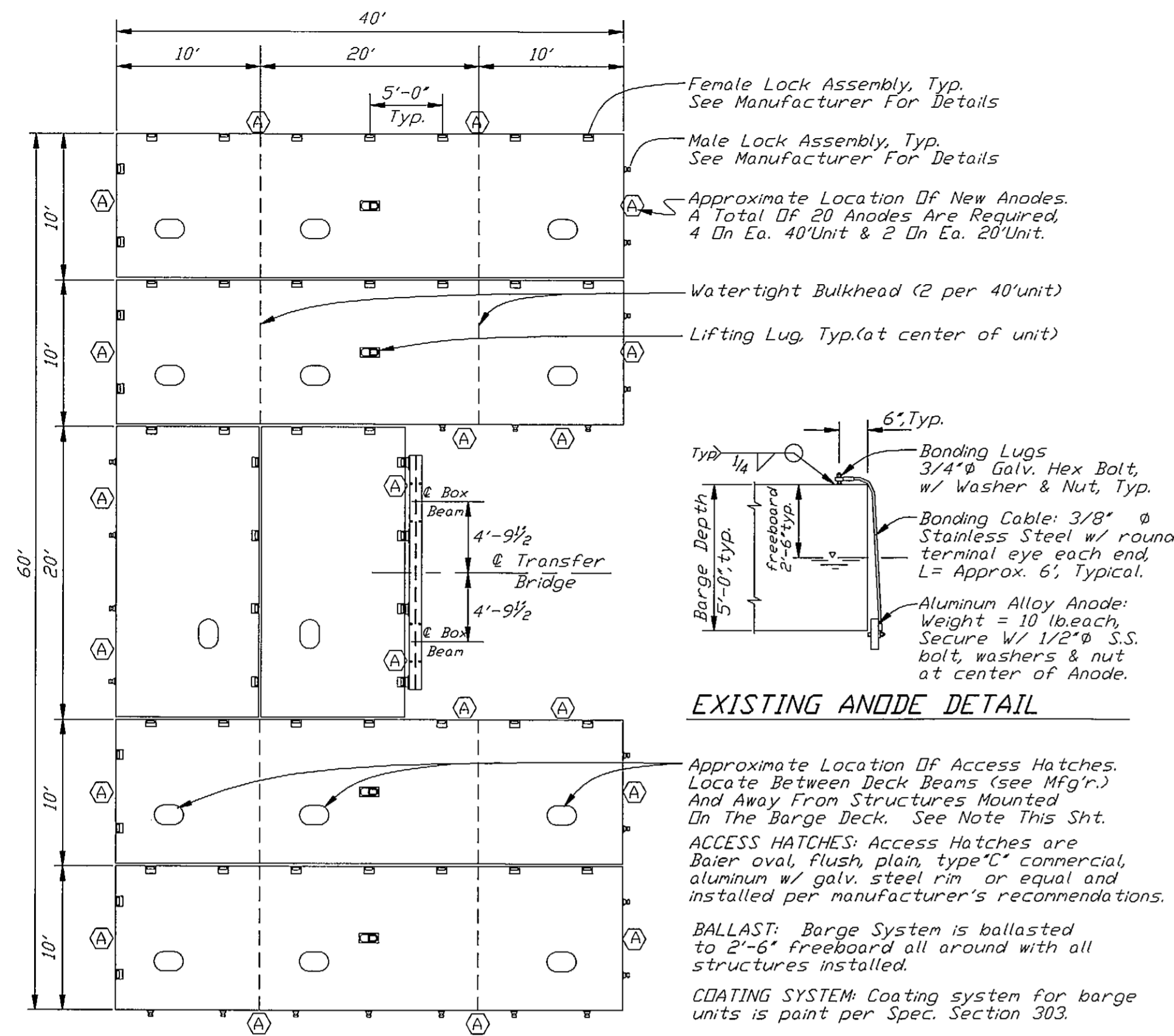
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

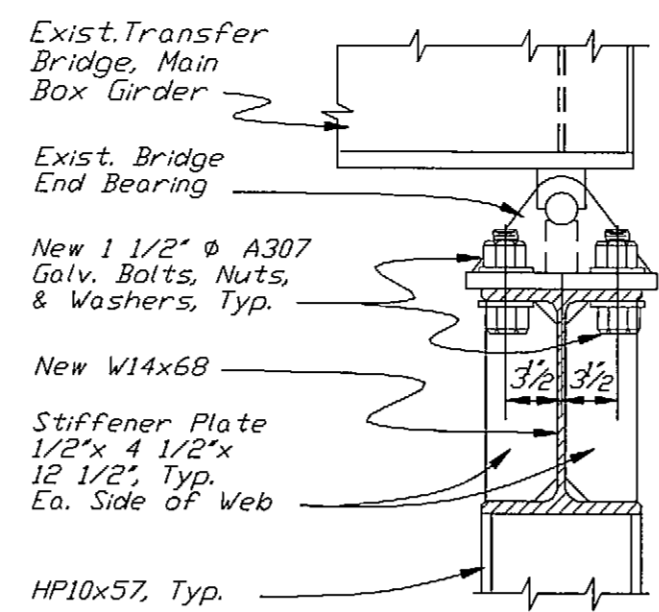
KAKE DOLPHIN REPLACEMENT & BRIDGE REHAB.
FED. NO. STP-0939(6) ~ PROJECT NO. 75525
BRIDGE INSPECTION LAYOUT

DESIGNED BY: BAS	PROJECT NO. 75525
DRAWN BY: BAS	DATE: AUGUST 1997
CHECKED BY: WN	SHEET 10 OF 12

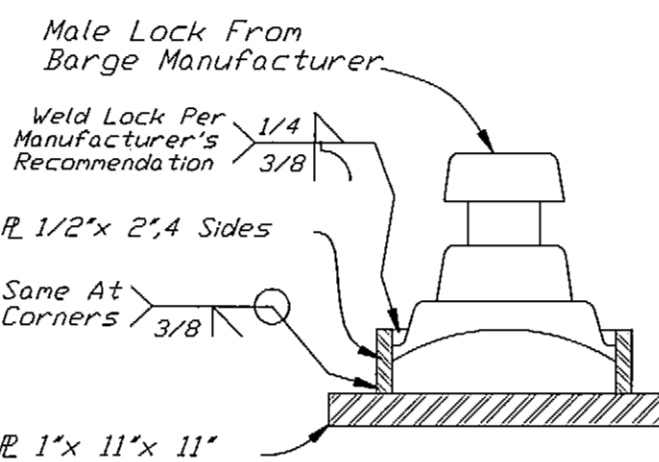




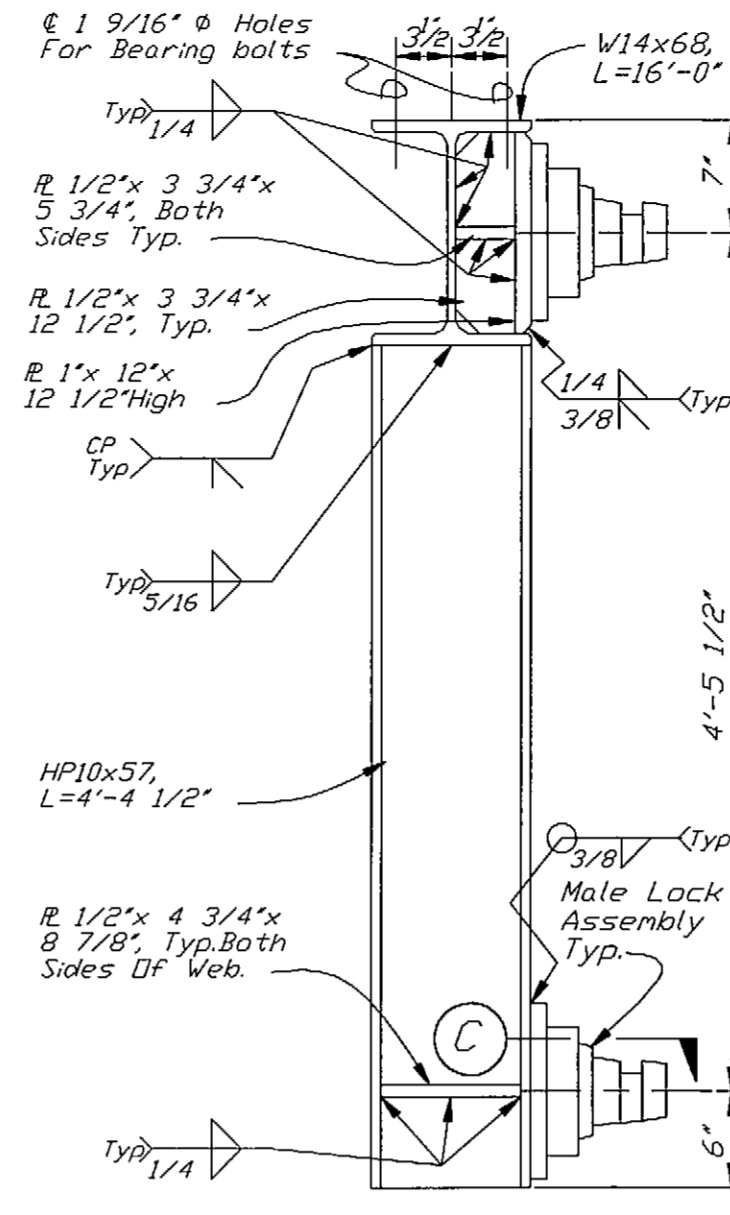
EXISTING BARGE SYSTEM LAYOUT



SECTION B

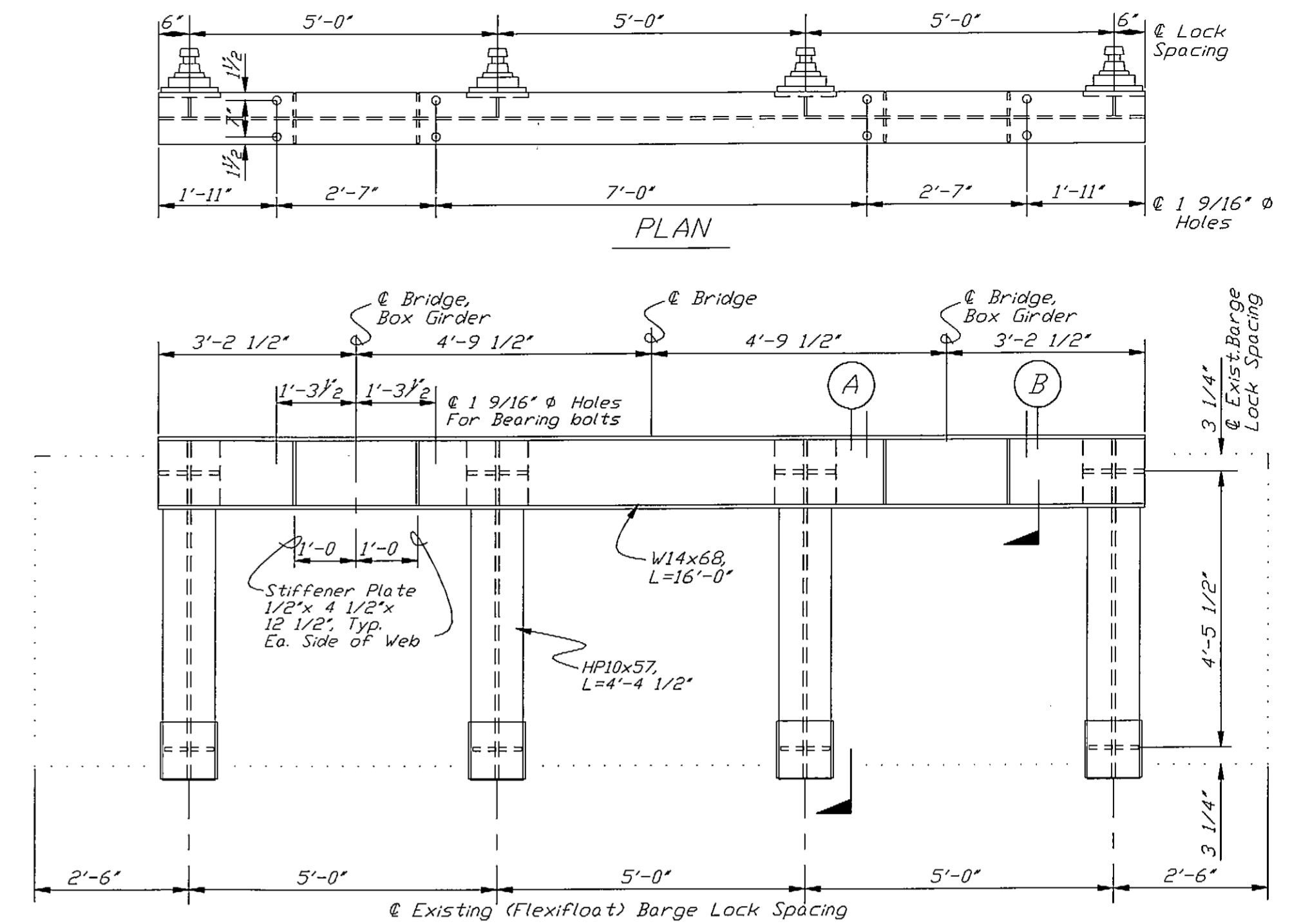


SECTION C
MALE LOCK ASSEMBLY

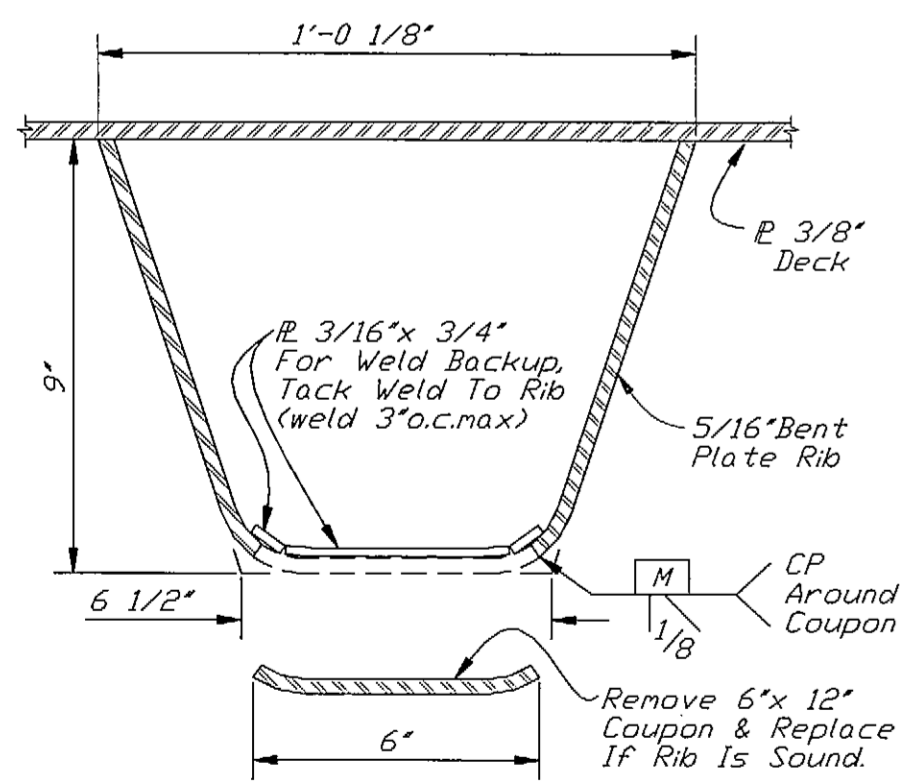


SECTION A

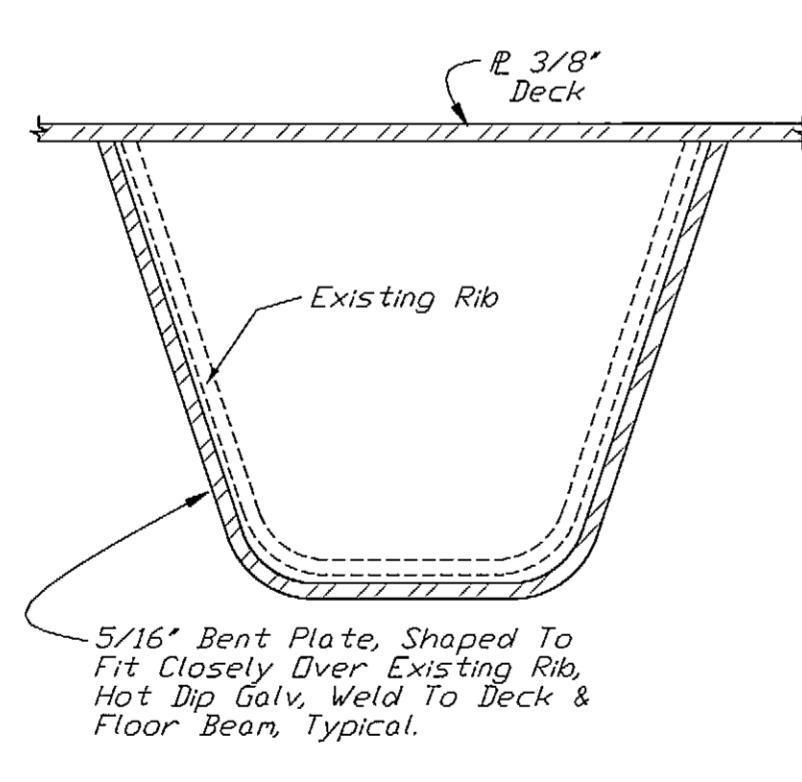
NOTE: Existing Barge Units Are FlexiFloat S-50 Series From: Robishaw Engineering, Inc. P.O. Box 19246 Houston, Texas 77224 Phone (713) 468-1706



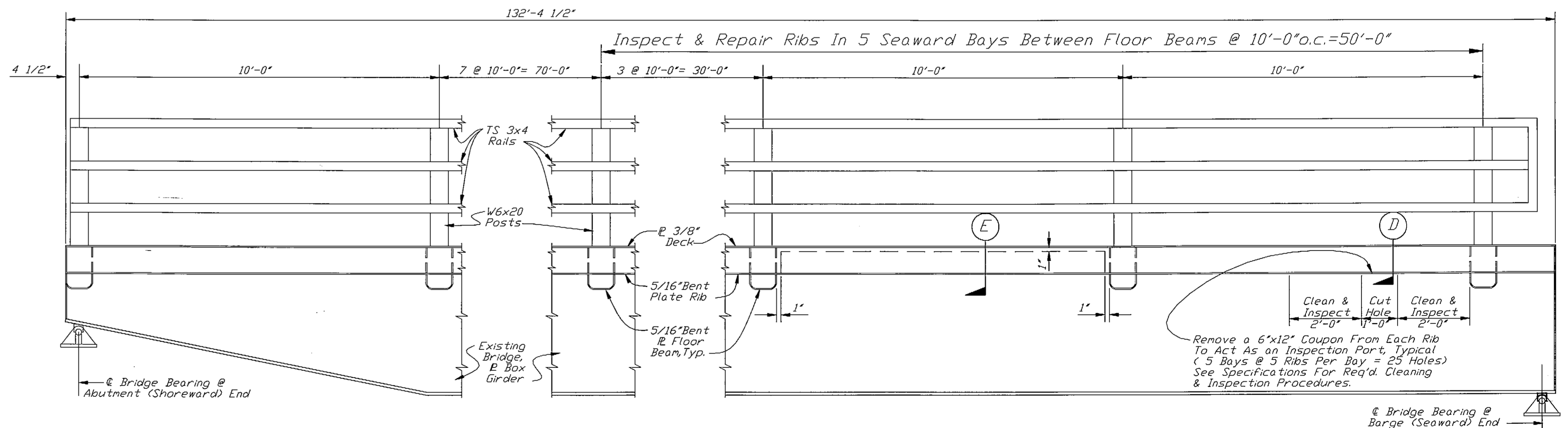
EXISTING BRIDGE-BARGE CONNECTION



SECTION D



SECTION E



PREVIOUS TRANSFER BRIDGE RIB INSPECTION & EXISTING REPAIRS

Longitudinal Section Along Existing Transfer Bridge

James P. Mayer
2/1/99

INFORMATION FROM PROJ. NO. RS-0989(1)
NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: P:\KAE\75525\MF\KAE-11.dwg (KAE-REPR.dwg)		
PLOT:		
BY:	DATE:	DESCRIPTION OF CHANGE:
RECORD OF REVISIONS		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KAKE DOLPHIN REPLACEMENT & BRIDGE REHAB
FED. NO. STP-0939(6) ~ PROJECT NO. 75525
EXISTING BRIDGE REPAIR & BARGE DETAILS

DESIGNED BY:	BS	PROJECT NO.	75525
DRAWN BY:	BN	DATE:	AUGUST 1997
CHECKED BY:	JAL	SHEET 11 OF 12	227

