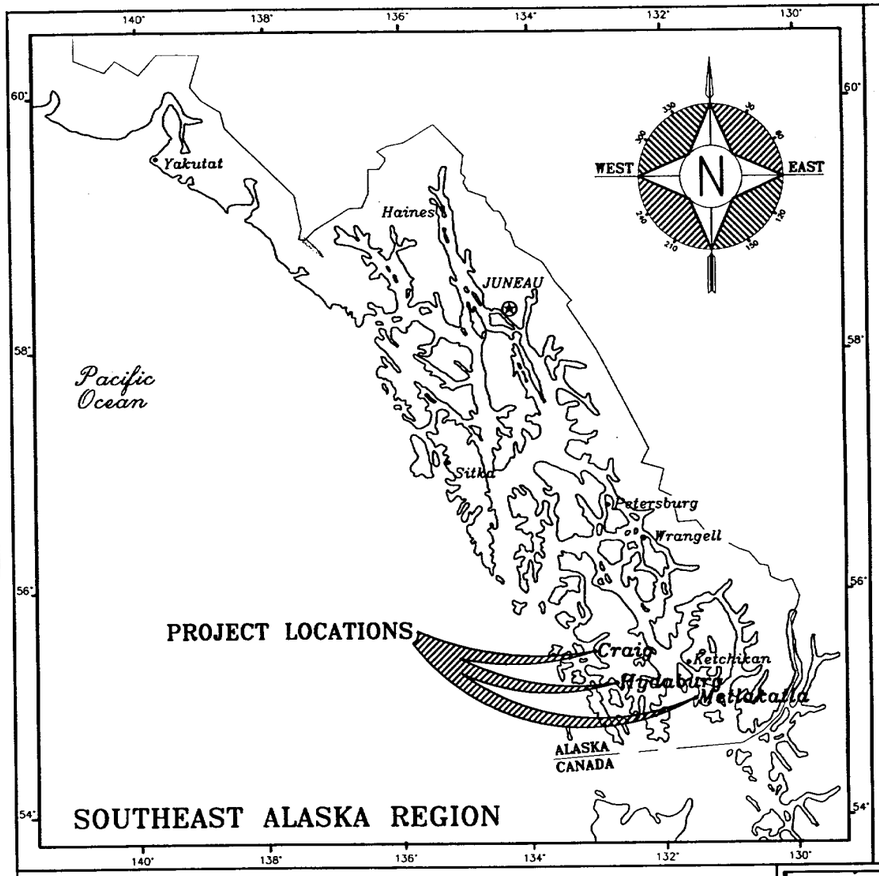


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEASTERN REGION
DESIGN AND CONSTRUCTION DIVISION

CRAIG CITY HARBOR FLOAT REPAIRS AT CRAIG, ALASKA

HYDABURG HARBOR FLOAT REPAIRS AT HYDABURG, ALASKA

METLAKATLA HARBOR FLOAT REPAIRS AT METLAKATLA, ALASKA

PROJECT No. 67746

INDEX OF SHEETS

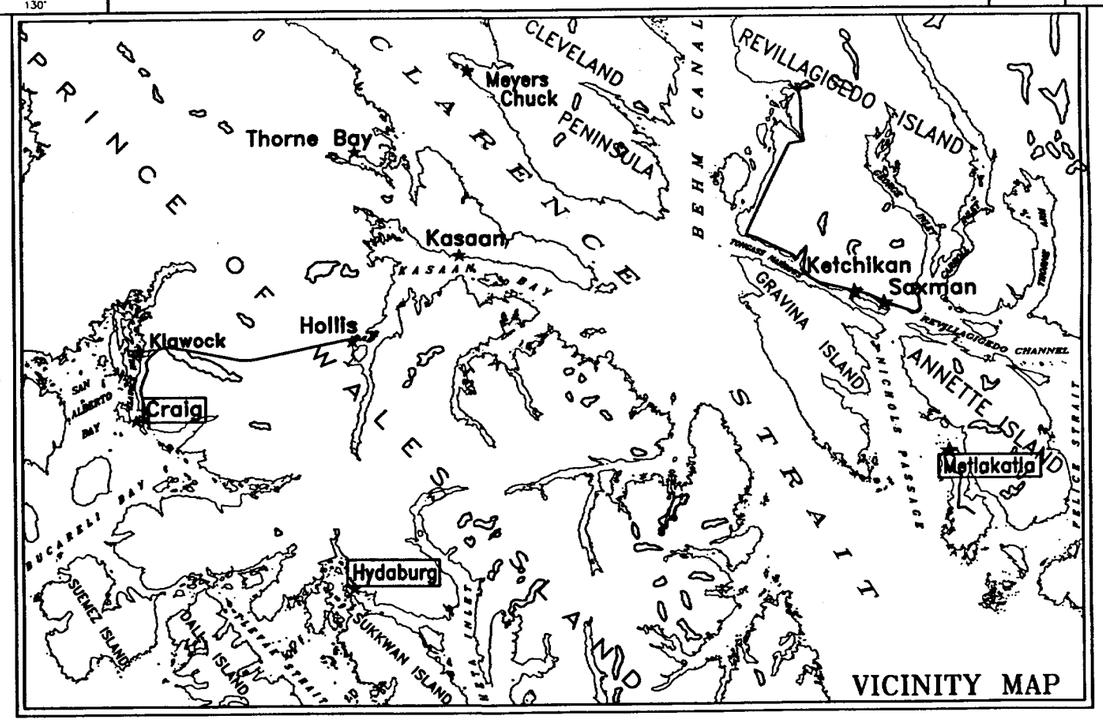
As Built Plans

Contractor: Tamico Inc.

Beginning Date: 6-12-00

End Date: 10-15-00

Project Engineer: Todd Fleming



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEASTERN REGION DESIGN SECTION

APPROVED _____ Date 2/11/00
Regional Preconstruction Engineer

APPROVED _____ Date 2-11-00
S.E. Regional Director

PROJECT NUMBER: 67746

DATE: DECEMBER 1999

SHEET 1 OF 41

ENGINEER'S SEAL
STATE OF ALASKA
19th
Robert W. Miller
CE-7436
REGISTERED PROFESSIONAL ENGINEER

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ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	PAY UNIT	ESTIMATED QUANTITIES
110	Mobilization/Demobilization	L.S.	All Req'd
111(1)	Erosion & Pollution Control, Administration	L.S.	All Req'd
111(2)	Erosion & Pollution Control	C.S.	All Req'd
	Craig City Harbor		
201(1)	Removal or Relocation of Structures and Obstructions	L.S.	All Req'd
301(1)	12 3/4"ø x 3/8" wall Pipe Piles, Furnished	L.F.	~~360~~ 503.70
301(2)	12 3/4"ø x 3/8" wall Pipe Piles, Driven	EA.	9
301(3)	Creosote Treated Timber Piles, Furnished	L.F.	~~468~~ 515.20
301(4)	Creosote Treated Timber Piles, Driven	EA.	~~9~~ 12
301(5)	Rehabilitate Existing Fender Piles	L.S.	All Req'd
302(1)	Pile Caps, Furnished and Installed	L.S.	All Req'd
302(2)	Steel Safety Ladders, Furnished and Installed	L.S.	All Req'd
306(1)	Timber Handrail Repair	L.S.	All Req'd
311(1)	Furnish & Install 12'x50' Float	L.S.	All Req'd
311(2)	Furnish & Install 10'x150' Float	L.S.	All Req'd
403	Float Water System	L.S.	All Req'd
501	Electrical Lighting System	L.S.	All Req'd
	Hydaburg City Harbor		
201(2)	Removal or Relocation of Structures and Obstructions	L.S.	All Req'd
301(6)	Creosote Treated Timber Piles, Furnished	L.F.	~~208~~ 183.50
301(7)	Creosote Treated Timber Piles, Driven	EA.	~~6~~ 8
302(3)	Gangway Transition Plate, Non-Skid Surface & Handrail Extensions	L.S.	All Req'd
302(4)	Galvanized Steel Pile Collars For Existing Floats	L.S.	All Req'd
302(5)	Replace Hinges & Hardware on Existing Timber Floats	L.S.	All Req'd
304	Precast Concrete Abutment	L.S.	All Req'd
306(2)	Timber Approach Handrails, Luminare Poles & Braces	L.S.	All Req'd
306(3)	Miscelleneous Repairs	L.S.	All Req'd
311(3)	Furnish & Install 2'-5 1/2"x 21'-0" Stall Floats	L.S.	All Req'd
311(4)	Furnish & Install 6'x 50' Stall Floats	L.S.	All Req'd
311(5)	Furnish & Install Foam Repair & Leveling Billets	L.S.	All Req'd
	Metlakatla Main Harbor		
201(3)	Removal or Relocation of Structures and Obstructions	L.S.	All Req'd
302(6)	Gangway Expanded Metal Non-Skid Surface & Steel Treads	L.S.	All Req'd
302(7)	Steel Pile Collars For New & Existing Stall Floats & Marginal Float	L.S.	All Req'd
302(8)	Replace Hinges & Hardware on New & Existing Concrete Floats	L.S.	All Req'd
302(9)	Tighten All Thru-Rods & Replace Damaged Hardware on Existing Floats	L.S.	All Req'd
306(4)	Miscelleneous Repairs	L.S.	All Req'd
309	Furnish & Install 4'x48' Concrete Float	L.S.	All Req'd

GENERAL NOTES

Specifications:

Construction: Per Contract Documents for Project No. 67746

Design: Float and Restraint Piles:
5 foot wave load, 20 degrees to longitudinal axis of gangway
20 psf Live Load on float deck

Protective Coatings:
Timber bumper, deck, planks & timbers above deck shall be pressure treated with pentachlorophenol in light oil except as noted.

Timber stringers, sills & timbers below deck shall be pressure treaded w/ creosote.

Timber piles shall be pressure treaded with creosote.

Steel Pipe Piles and Cops, Hinge Assemblies, and Hardware: Galvanized after fabrication.

Bolts, washers, nuts and hardware 1/2" diameter and larger shall be hot dip galvanized; bolts, nuts, washers, and hardware 3/8" diameter and smaller shall be A316 stainless steel.

Water line shall be U.V. stabilized P.E. plastic per specifications.

Pipe risers, fittings, hose bibs, and backflow preventers shall be brass suitable for marine environment or A316 stainless steel.

Glue-laminated Members :

Glu-Lam members shall be Douglas Fir. Glu-Lam stringers and sills used in vessel floats & gangway support float shall be AITC Combination 22F-V7. Glu-Lams shall be produced to U.S. Commercial Standard PS 56-73 (latest edition), with adhesives for wet conditions of use & appearance of members shall be industrial grade or better.

Steel Piling:

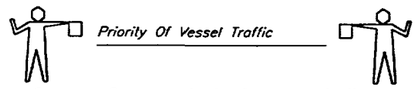
Size: 12 3/4"ø x 3/8" wall steel piles

Tips: Reinforced tips w/ APF 0-14000 or APF 0-14001 Drive Shoes or Approved equal. Drive Shoes are required for all steel piling.

Timber Piling: Timber Bearing Piles & Timber Fender Piles shall be driven tip down, and Timber Float Restraint Piles shall be driven butt end down.

Size: 25" min. tip circumference (turn to 45" max. butt circumf. if req'd.) length on pile table = length in place, add length for trimming & cut-off.

Tips: Reinforce timber with 1 1/4" steel banding per spec. Allow additional length to square ends prior to driving and to trim damaged pile top (as required) during & after driving.



1. Once the Contractor begins improvements the following will remain in force until the project is completed.

   A. The Contractor shall conduct his operations so as not to interfere with normal scheduled boat or barge access or vehicular traffic to and from the existing City Dock at Craig.

   B. Scheduled vessel traffic shall have priority over construction activities and it shall be the Contractor's responsibility to coordinate his activities with the City Harbor Master for vessel arrivals and departures.

   C. The Contractor shall coordinate with each city harbor master to have vessels and property moved during repairs. Move vessels and property from the repair site and adjacent areas such as those "downwind" from deck cleaning or pile driving operations.

   D. The Contractor shall maintain pedestrian & scheduled vehicular access to harbor approach, floats and/or dock at all times except during hazardous operations such as pile driving. Contractor shall provide and use cones, folding barricades, rope barriers and signs to maintain work area and control vehicular & pedestrian traffic.

2. The Contractor shall not stockpile any materials at any site or in the adjacent parking areas without approval of the Engineer and/or appropriate City Authority.

PILING DATA

PILE LOCATION (Layout Sht. 3) STRUCTURE ORIENTATION & (pile tip)	# PILES	DIA. Inches	CAPACITY (TONS) BEARING	CAPACITY (TONS) UPLIFT	ELEVATIONS APPROX MUDLINE	ELEVATIONS CUT-OFF	TIP ELEVATIONS MIN.	TIP ELEVATIONS EST.	TOTAL ESTIMATED LENGTH
CRAIG CITY HARBOR									
1 - 50' Gangway Float - Vert. (o)	1	12 3/4"	penet.	---	-6	+28.0	-21	-27	55
2 - 50' Gangway Float - Vert. (o)	1	12 3/4"	penet.	---	-6	+28.0	-21	-27	55
3 - 150' Main Float - Vert. (o)	1	12 3/4"	penet.	---	-7	+28.0	-22	-27	55
4 - 150' Main Float - Vert. (o)	1	12 3/4"	penet.	---	-8	+28.0	-23	-30	58
5 - 150' Main Float - Vert. (o)	1	12 3/4"	penet.	---	-9	+28.0	-24	-30	58
6 - 150' Main Float - Vert. (o)	1	12 3/4"	penet.	---	-10	+28.0	-25	-32	60
7 - 150' Main Float - Vert. (o)	1	12 3/4"	penet.	---	-12	+28.0	-27	-32	60
8 - 150' Main Float - Vert. (o)	1	12 3/4"	penet.	---	-14	+28.0	-29	-34	62
9 - 150' Main Float - Vert. (o)	1	12 3/4"	penet.	---	-14	+28.0	-29	-34	62
10-18 Timber Fender Piles -1:10btr	9	8"tip	penet.	---	-16	+17.8	-31	-34	52
HYDABURG CITY HARBOR									
19 - South End Float-D - Vert.	1	8"tip	penet.	---	-31	+24.0	-46	-46	70
20 - Stall 5-West, Float-A - Vert.	1	8"tip	penet.	---	-31	+24.0	-46	-46	70
21 - Stall 5-West, Float-A - Vert.	1	8"tip	penet.	---	-28	+24.0	-43	-44	68
* 22 - Stall 3-East, Float-A - Vert.	1	8"tip	penet.	---	-27	+24.0	-42	-42	66
* 23 - Stall 3-East, Float-A - Vert.	1	8"tip	penet.	---	-26	+24.0	-41	-41	65
* 24 - Stall 9-West, Float-B - Vert	1	8"tip	penet.	---	-18	+24.0	-33	-34	58

* Reuse existing salvaged timber piles

STRUCTURE NAME
Craig Float

DATE	ABUT. OR PIER NO	PILE NO	TYPE OF PILE (specify tip & butt diameter of timber & concrete pile in inches)	LENGTH PLACED IN LEADS INCLUDING EXTENSIONS (FT)	CUTOFF LENGTH (FT)	NET LENGTH CUTOFF TO TIP (FT)	PENETRATION IN GROUND (FT)	PILE CUTOFF ELEV
7/10/00		1	12 3/4" Steel Pile	60	14	46	10	+28.0
7/10/00		2	12 ¾" Steel Pile	60	10	60	12	+28.0
7/10/00		3	12 ¾" Steel Pile	60	15.3	44.7	15	+28.0
7/10/00		4	12 ¾" Steel Pile	60	14.4	45.6	15	+28.0
7/10/00		5	12 ¾" Steel Pile	60	10.2	49.8	15	+28.0
7/11/00		6	12 ¾" Steel Pile	65	12.6	52.4	9	+28.0
7/11/00		7	12 ¾" Steel Pile	65	17.0	48	7	+28.0
7/11/00		8	12 ¾" Steel Pile	65	9.8	55.4	12	+28.0
7/11/00		9	12 ¾" Steel Pile	65	9.0	55.8	12	+28.0
7/20/00		10	Timber Fender Pile	55	14.5	40.5	7	17.5
7/20/00		11	Timber Fender Pile	55	15.5	39.5	6.5	17.5
7/20/00		12	Timber Fender Pile	55	12.3	42.7	8	17.5
7/21/00		13	Timber Fender Pile	55	12.5	42.5	6	17.5
7/21/00		14	Timber Fender Pile	55	10.8	44.2	7	17.5
7/21/00		15	Timber Fender Pile	55	11.5	43.5	7.5	17.5
7/21/00		16	Timber Fender Pile	55	12.2	42.8	7	17.5
7/21/00		17	Timber Fender Pile	55	11.2	43.8	8	17.5
7/21/00		18	Timber Fender Pile	55	12.0	43.0	8	17.5
7/21/00		25	Timber Fender Pile	55	12.0	43.0	8	17.5
7/21/00		26	Timber Fender Pile	55	9.0	46.0	9	17.5
7/21/00		27	Timber Fender Pile	55	11.3	43.7	7	17.5

STRUCTURE NAME
Hydaburg Harbor

DATE	ABUT. OR PIER NO	PILE NO	TYPE OF PILE (specify tip & butt diameter of timber & concrete pile in inches)	LENGTH PLACED IN LEADS INCLUDING EXTENSIONS (FT)	CUTOFF LENGTH (FT)	NET LENGTH CUTOFF TO TIP (FT)	PENETRATION IN GROUND (FT)	PILE CUTOFF ELEV
8/8	Float D	1	New Timber	70	0	70	15	17.5
8/8	Float D	2	Used Timber	66.5	1.5	86	13	17.5
8/8	Float D	3	Used Timber	67	1	86	14	17.5
8/8	Float A	4	New Timber	70	13.5	56.5	7	17.5
8/8	Float A	5	New Timber	70	13.0	57	7	17.5
8/12	Gangway	6	Used Timber	56	11.0	45	8	17.5
/812	Gangway	7	Used Timer	48	3.0	45	8	17.5
8/14	Float C (endpile)	8	12 ¾" Steel Pile	49	3.0	46	10	17.5

Pile driving records from Construction

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

ENGINEER'S SEAL
STATE OF ALASKA
Robert W. Miller
CE-7436
REGISTERED PROFESSIONAL ENGINEER

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BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

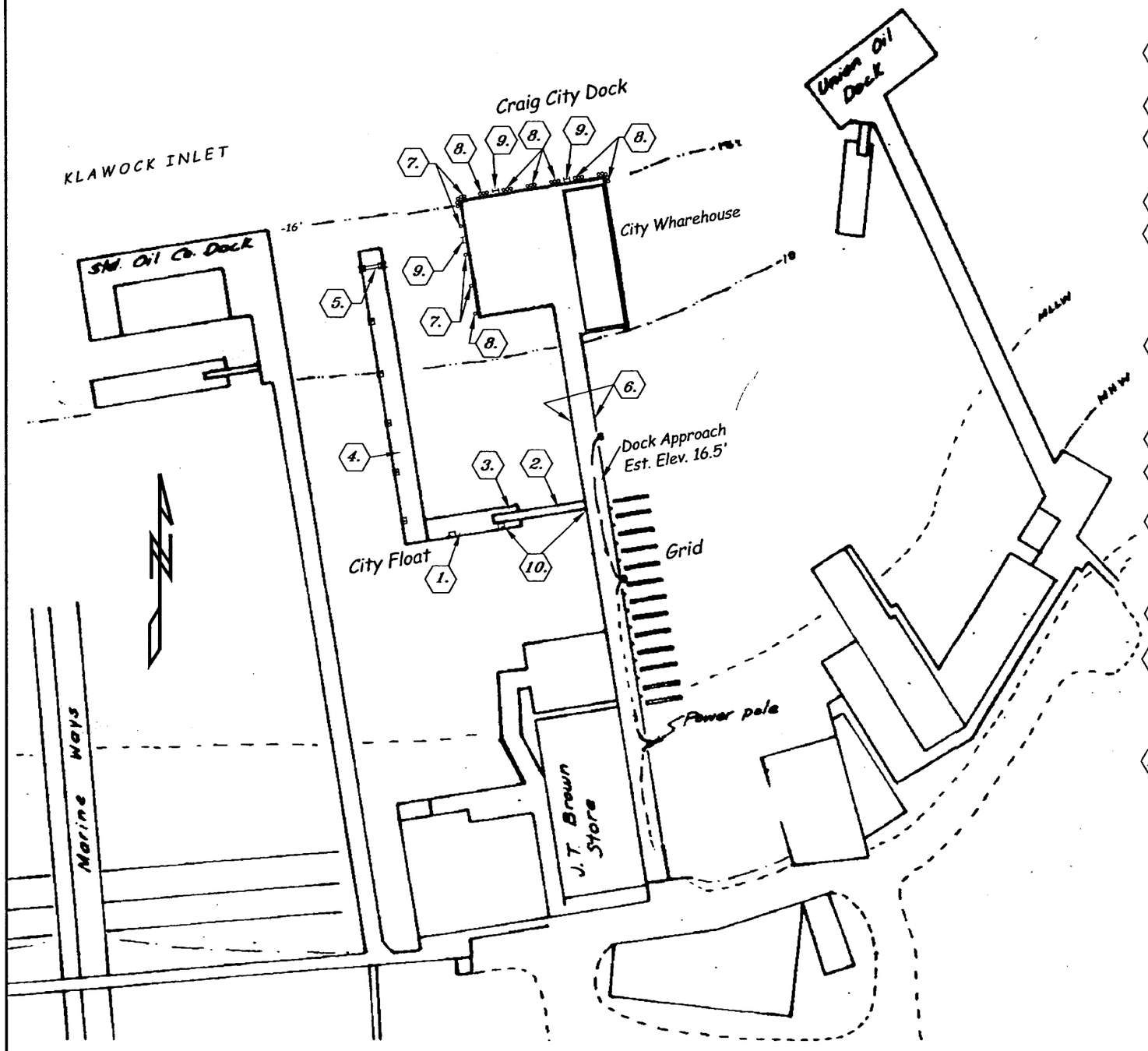
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

SOUTHEAST ALASKA

HARBOR REHAB PROJECTS
Proj. No. 67746

ESTIMATE OF QUANTITIES & GENERAL NOTES

DESIGNED BY: RWM	PROJECT NO. 67746
DRAWN BY: BN	DATE: DECEMBER 1999
CHECKED BY: BAS	SHEET 2 OF 41



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

CRAIG — ALASKA

HARBOR REHAB PROJECTS
Proj. No. 67746

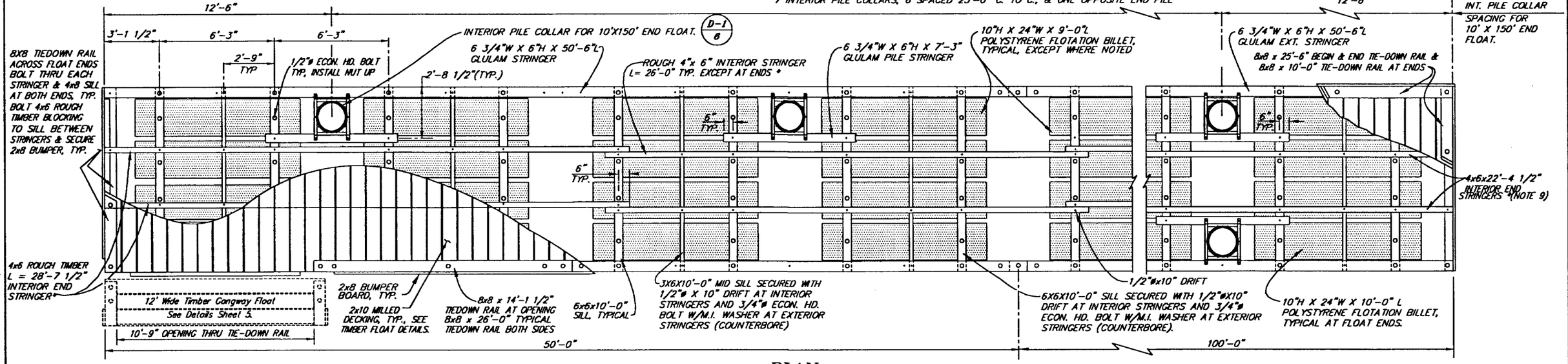
CRAIG CITY HARBOR REPAIRS

DESIGNED BY: *RWM*	PROJECT NO. *67746*
DRAWN BY: *BN*	DATE: *DECEMBER 1999*
CHECKED BY: *BAS*	SHEET *3* OF *41*

ENGINEER'S SEAL
STATE OF ALASKA
49th
Robert W. Miller
CE-7436
REGISTERED PROFESSIONAL ENGINEER

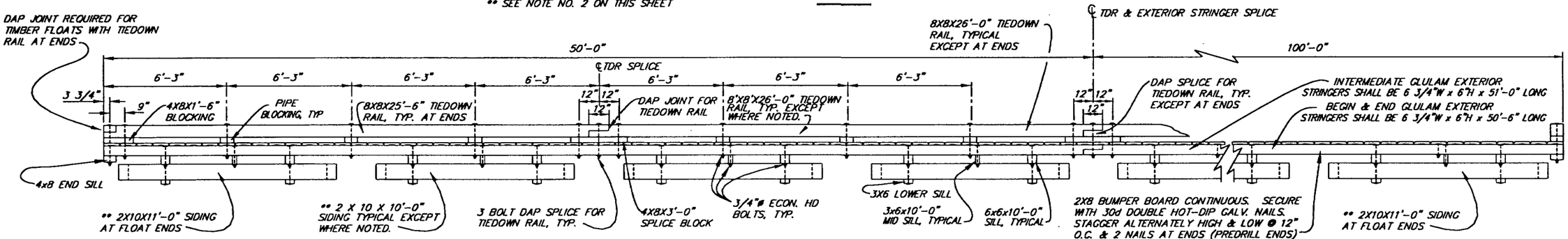
HARBOR REHAB PROJECT NOTES :

1. *Fabricate & Install new 12'x 50' timber Gangway Float. Supply personnel, equipment & supplies to place survey control, locate existing dock, gangway & floats, and to facilitate field placement of all new floats & piling. Supply & Install 2 new 12 3/4" steel piling. Supply & install new P.E. plastic conical pile tops with SS. hardware. Remove & salvage existing timber piling for City of Craig. Salvage existing 12'x 50' Gangway Float for City of Craig. Transport to City property for storage. Carefully salvage exist. conical pile tops for city.*
2. *Rehab existing gangway deck w/ 2'x50' open grating & 3'x50' treated timber w/ non–skid surface. Supply & Install new transition plate to approach. Supply & Install new 1 1/2"ø pipe rail extensions. Locate new skid plates on New Gangway Float as req'd for tidal movement. See Sht 10 of 41.*
3. *Contractor shall coordinate connection of new float waterline to new underwater service supply line with City of Craig, Harbor Office. See note 11 this sheet.*
4. *Fabricate & Install new 10'x150' timber float. Supply & Install new 12 3/4" steel piling (7 req'd). Supply & install new P.E. plastic conical pile tops with SS. hardware. Remove & salvage existing timber piling for City of Craig. Carefully salvage exist. 10'x150' float (disassemble to 10'x50' modules) & salvage old conical pile tops for City of Craig. Transport to City property for storage.*
5. *Supply & Install a steel tube (TS8x12) cross–tie brace between the two piling at the north end of the new 10'x 150' timber float. See float details.*
6. *Clean exist. approach handrail by applying 5% hypochlorate solution (chlorine bleach) and rinsing with 1500 psi. hot water. Clean no more than 50' along one rail at a time to minimize inconvenience and use caution to protect people and adjacent boats or properties. Supply & install as required, 6ea.4x6 treated posts & 580 LF. of 2x6 treated planks (CCA, ACA, ACZA or ACQ) as middle girt along exist. wood handrail. Coat new posts, girts & exist. rail prior to installing girt. Coating shall be a penetrating semi–transparent stain light grey or white color. Secure with 2 – 20d nails each post, predrill nail holes near ends.*
7. *Supply & Install 9 creosote treated fender piling, 5 at the northwest corner & 3 along the west face of the existing timber City Dock. Supply & Install one additional pile (9 total) to replace other hidden damage or the most worn of the remaining fender piles. Supply new 7/8"ø economy head bolts & nuts (long threads are recommended). Reuse existing bolt holes through the bull rail, existing backing plates at corners & M.I. washers where possible. Salvage old piles for City of Craig. See As–built drawings for details.*
8. *Rehab those fender piling not replaced as required. Where existing fender pile top has some core rot the pile shall be pulled up 1' to 2' cut–off & trimmed to fit 8x12 fender chocks & adjacent piling.*
9. *Supply & Install 3 steel safety ladders. Each safety ladder requires two new 4x8 x 16'–0" horizontal braces at approx. –0.5' and +9.5' elevations. Remove and salvage existing ladders & braces for City of Craig. Where existing piles are to remain, immediately plug & repair (or reuse) existing brace bolt holes.*
10. *Supply & Install Two luminares Adjacent To Existing Gangway. Supply One 6x6x16'–0" Luminaire Pole, One 4x6x2'–6" & One 4x14x3'–0" Blocking (field cut to fit), And One 4x8x7'–0" Diagonal Brace (all Penta Treated). Secure w/ 3/4"ø Econ. Hd. Bolts. Supply and Install Luminaires, Brackets, Insulators, Junction Boxes, Conduit & Wire Cable as shown on sheet 7 of 41. Coordinate with City of Craig Harbormaster & Electrical Utility to connect with existing conduit. Remove & Salvage existing luminaire, pole, & upper conduit for City of Craig.*
11. *Supply to the City of Craig one Back Flow Preventer Assembly, 1"ø Febco 805 Y double check with optional ball shut–off valves as required by Craig Utilities. Service supply line w/ back flow preventer to be installed by City of Craig. See note 3 this sheet.*
12. *Repair all drill holes & cuts (new & old timbers) with three separate brush coats of creosote oil. Plug all abandoned holes 1/4"ø & larger with pressure treated wood dowels (creosote), cover dowel ends and holes less than 1/4"ø with asphaltic roof pitch. To repair pile cut–off tops drill 3 to 5 equally spaced holes 1"øx 3" deep in Pile Cut–off Ends (after brush creo. treat) and fill holes with Copper Naphthenate crystals or rods. Seal Pile Cut–off Ends with 1/4" thick layer of asphaltic roof pitch, add a layer of burlap fabric (size 1/2" less than pile dia.), then add a second 1/4" layer of roof pitch.*
13. *The contractor shall supply the following new materials. Any remaining new material shall be stockpiled as directed, at Juneau, Alaska.*
    1. *One 12' x 50' timber gangway float, complete & in place.*
    2. *One 10' x 150' timber walkway float, complete & in place.*
    3. *Nine (9) Steel 12 3/4"øx 3/8"wall galv. pipe float restraint piles, Approx. 468 LF. from 55' to 62' long as required. Driven to 15' minimum penetration and cut–off at +28.0' elevation. Supply & install UV. stabilized plastic pile tops & SS. fasteners.*
    4. *Nine (9) creosote treated fender piles approx. 52' long. Driven to 15' minimum penetration and cut–off at top of bull rail (est.+17.75' elev).*
    5. *Three (3) steel safety ladders w/ 4x8 timber bracing & hardware.*
    6. *6 each 4x6 treated posts for approach handrail*
    7. *580 LF. of 2x6 treated planks for approach handrail*
    8. *Supply 2'x50' Serrated Grating Deck w/ Angle Stringers & Treads for one side of the exist. gangway & 3'x50' of 2x12 Treated Timber Deck w/ Expanded Steel Mesh Grating Surface for the other side. Supply transition plate w/ non–skid surface to approach. Supply 1 1/2"ø pipe rail extensions.*
    9. *Supply Two Luminaires w/ brackets, insulators, Junction Boxes, Conduit & Wire Cable for lighting modifications. Supply 6x6x16'–0" Luminaire Pole, 4x8x7'–0" Diagonal Brace, 4x6x2'–6" & 4x14 x3'–0"Blocking. Supply SS. Screws and galvanized bolts, M.I.washers & nuts.*
    10. *Supply one Back Flow Preventer Assembly, 1"ø Febco 805 Y double check with optional ball shut–off valves.*
    11. *Supply all consumables, cleaners, fasteners, coatings & wood treatments required to complete installation.*

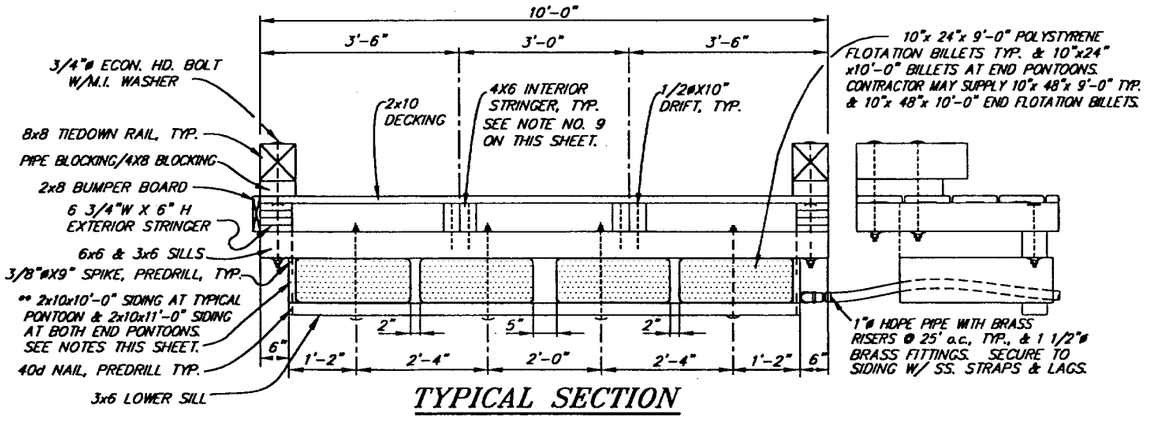


* SEE NOTE NO. 9 ON THIS SHEET
** SEE NOTE NO. 2 ON THIS SHEET

PLAN



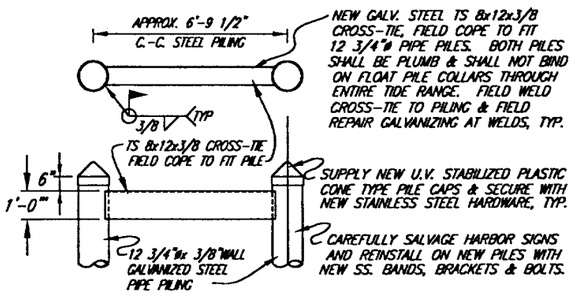
ELEVATION



TYPICAL SECTION

NOTES:

1. COUNTERBORE FOR ALL BOLT HEADS FACING DECKING 3/8".
2. ALL TIMBER SHALL BE S4S EXCEPT DECKING (MILLED S1S2E), & 4x6 INTERIOR STRINGERS & 2X10 SIDING (FULL DIMENSION ROUGH).
3. 2X10 SIDING MAY BE A 2X12 (S4S) CUT TO MATCH THICKNESS OF FLOTATION BILLETS.
4. ALL BOLTS ARE 3/4"ø ECONOMY HEAD TYPE WITH LUGS, UNLESS OTHERWISE NOTED. ALL HARDWARE SHALL BE HOT-DIP GALVANIZED EXCEPT AS NOTED.
5. ALIGN BUMPER BOARD SPLICES WITH EXTERIOR STRINGER SPLICES. MINIMUM BUMPER BOARD LENGTH = 10'-0".
6. PRESSURE TREAT ALL MILLED DECKING, RUB BOARDS, TIE-DOWN RAILS, UTILITY LEDGER & BLOCKING ABOVE DECK WITH PENTACHLOROPHENOL IN LIGHT OIL
7. DECKING SHALL BE SPACED 1/4" APART AND SECURED TO EACH STRINGER W/2-20d GALVANIZED NAILS.
8. CREOSOTE TREAT ALL STRINGERS, SILLS, PONTOON SIDING & BLOCKING BELOW DECK TO 25 PCF RETENTION
9. THE 4X6 INTERIOR STRINGERS SHALL BE ROUGH CUT TO MATCH THE THICKNESS OF THE GLULAM EXTERIOR STRINGER. THE CONTRACTOR MAY ELECT TO USE 3 1/8"X6" GLULAM INTERIOR STRINGERS.
10. USE 4x8 TIE DOWN RAIL BLOCKING AT SPLICES & CORNER DAP JOINTS, AND USE FABRICATED PIPE BLOCKING AT ALL OTHER TIE-DOWN RAIL BOLTS. FOR MORE INFORMATION SEE DETAIL SHEET.



CROSS-TIE DETAIL

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

ENGINEER'S SEAL
STATE OF ALASKA
29th
Robert W. Miller
CE-7436
REGISTERED PROFESSIONAL ENGINEER

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BY:	DATE:	DESCRIPTION OF CHANGE:

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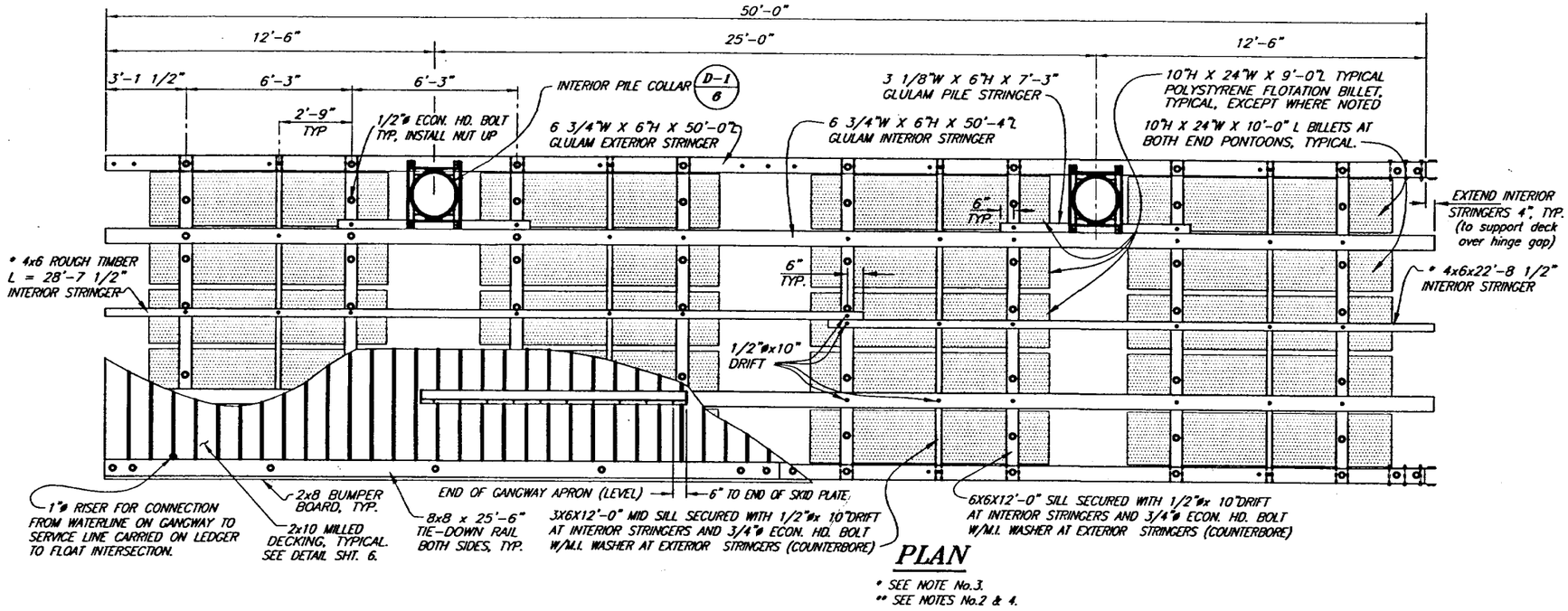
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

CRAIG ALASKA

HARBOR REHAB PROJECTS
Proj. No. 67746

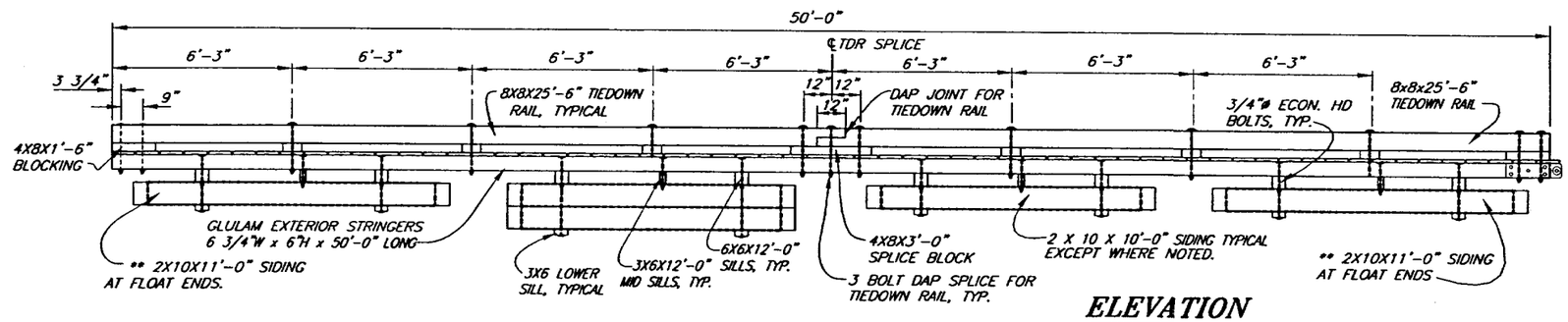
10' WIDE TIMBER FLOAT

DESIGNED BY: RWM	PROJECT NO. 67746
DRAWN BY: BN	DATE: DECEMBER 1999
CHECKED BY: BAS	SHEET 4 OF 41

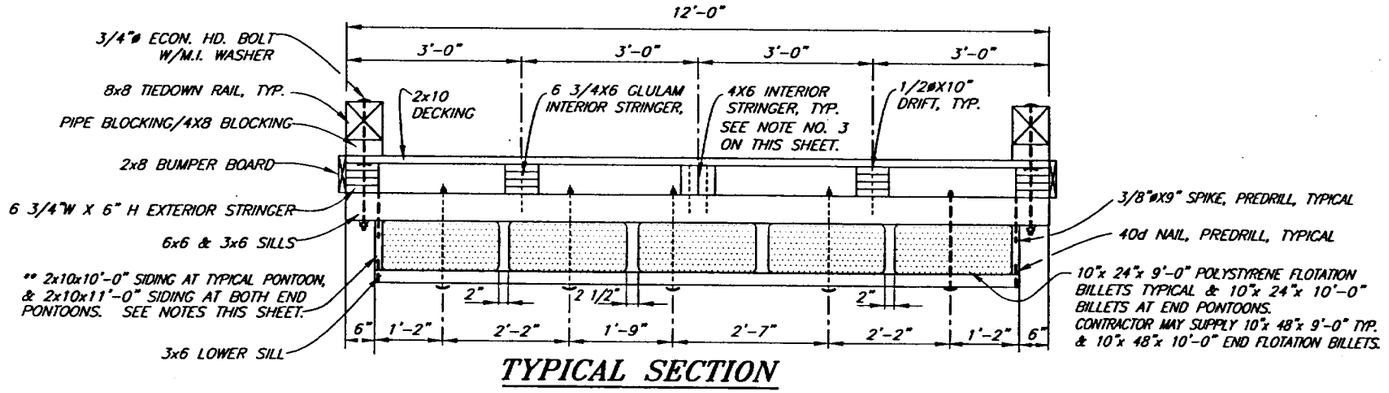


PLAN

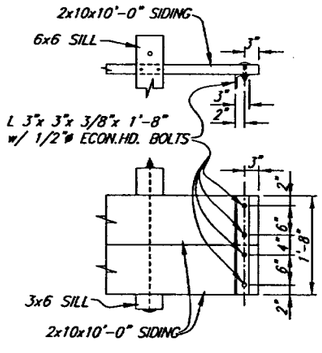
* SEE NOTE No.3.
** SEE NOTES No.2 & 4.



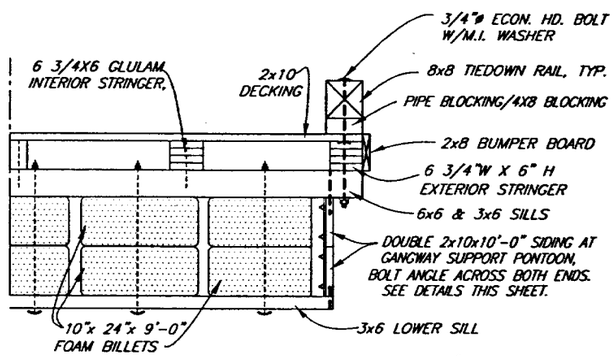
ELEVATION



TYPICAL SECTION



SIDING ANGLE DETAILS



GANGWAY SUPPORT PONTOON, 1/2 SECTION

NOTES:

1. ALL PRESSURE TREATED MATERIAL SHALL BE CUT TO SIZE AND DRILLED PRIOR TO TREATMENT AND SHALL BE SELECT STRUCTURAL NO.1 DOUGLAS FIR.
2. ALL TIMBER SHALL BE S4S EXCEPT DECKING (MILLED S1S2E), 4x6 INTERIOR STRINGERS (NOTE BELOW), & 2x10 SIDING (NOTE BELOW).
3. THE 4x6 INTERIOR STRINGERS SHALL BE ROUGH CUT TO MATCH HEIGHT OF 6 3/4"x6" GLULAM STRINGERS. CONTRACTOR MAY ELECT TO USE 3 1/8"x6" GLULAM INTERIOR STRINGERS.
4. 2x10 SIDING MAY BE FULL DIMENSION ROUGH OR 2x12 (S4S) CUT TO MATCH THICKNESS OF FLOTATION BILLETS.
5. TREAT ALL MILLED DECKING, RUB BOARDS, TIE-DOWN RAILS, UTILITY LEDGER, & BLOCKING ABOVE DECK WITH PENTACHLOROPHENOL IN LIGHT OIL.
6. CREOSOTE TREAT ALL STRINGERS, SILLS, PONTOON SIDING, & BLOCKING BELOW DECK TO 25 PCF RETENTION.
7. 2x8 BUMPER BOARD CONTINUOUS BOTH SIDES OF FLOAT. MINIMUM BUMPER BOARD LENGTH = 10'-0". SECURE WITH 30d DOUBLE HOT-DIP GALV. NAILS, STAGGER ALTERNATELY HIGH & LOW AT 12"o.c. & 2 NAILS AT ENDS (PREDRILL ENDS).
8. DECKING SHALL BE SPACED 1/4" APART AND SECURED TO EACH STRINGER WITH 2 - 20d GALVANIZED NAILS.
9. ALL HARDWARE SHALL BE HOT-DIP GALVANIZED. ALL BOLTS ARE 3/4"ø ECONOMY HEAD TYPE WITH LUGS, EXCEPT AS NOTED. A MALLEABLE IRON WASHER SHALL BE PLACED BETWEEN ANY NUT AND WOOD SURFACES.
10. BOLT HOLES TO BE DRILLED 1/16" OVERSIZE EXCEPT SILL HOLES FOR FLOTATION BILLETS 1/8" OVERSIZE. COUNTERBORE FOR ALL BOLT HEADS FACING DECKING 3/8" DEEP. DRIFT PIN HOLES TO BE DRILLED 1/16" UNDERSIZE.
11. REPAIR FIELD DRILLED HOLES & CUTS PER SPEC. WITH TWO BRUSH COATS 60% CREOSOTE & 40% ROOF PITCH, OR WITH 3 SEPARATE COATS HOT CREOSOTE OIL, OR ON PENTACHLOROPHENOL TREATED TIMBER WITH COPPER NAPHTHENATE SOLUTION AS REQUIRED.
12. ALL PILING SHALL BE CREOSOTE TREATED PER SPEC. TO 20 PCF RETENTION.
13. CONTRACTOR MAY SUBMIT LARGER BILLET SIZES SO AS TO REDUCE SURFACE AREA TO BE COATED WITH URETHANE. NOTE THAT 10"x24"x9'-0" AND 10"x24"x10'-0" ARE NOT STANDARD BILLETS.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

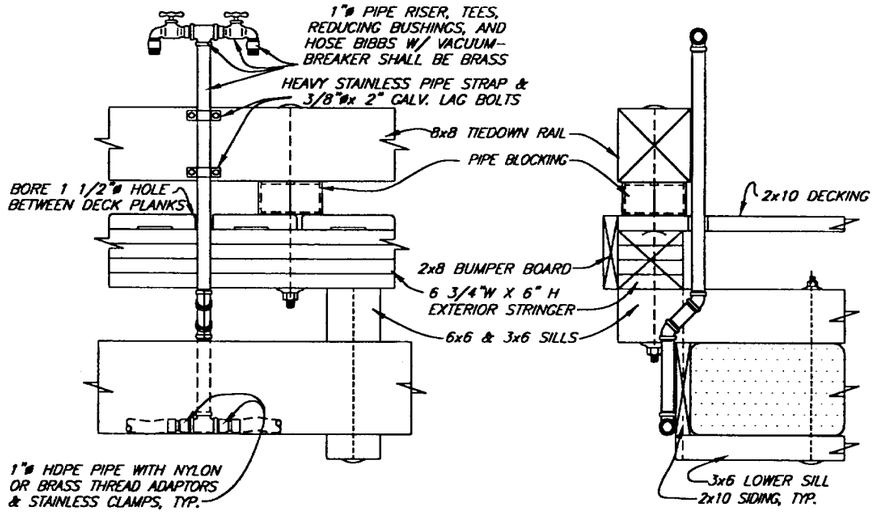
CRAIG ALASKA

HARBOR REHAB PROJECTS
Proj. No. 67746

12' WIDE TIMBER GANGWAY FLOAT

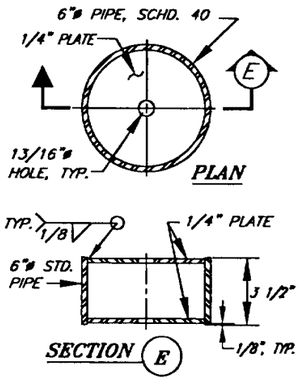
DESIGNED BY: RWM	PROJECT NO. 67746
DRAWN BY: BN	DATE: DECEMBER 1999
CHECKED BY: BAS	SHEET 5 OF 41

ENGINEER'S SEAL
STATE OF ALASKA
19th
Robert W. Miller
CE-7436
REGISTERED PROFESSIONAL ENGINEER

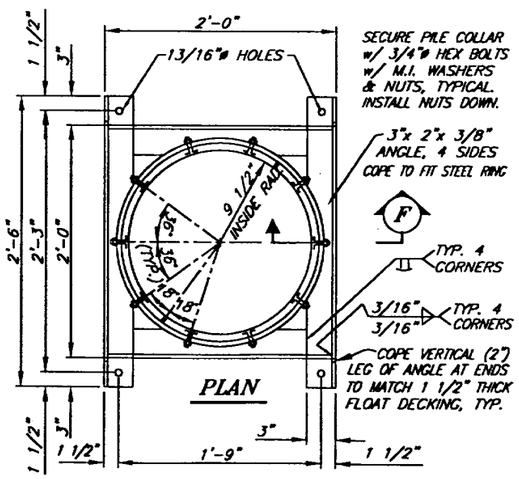


HOSE BIBB RISER DETAILS

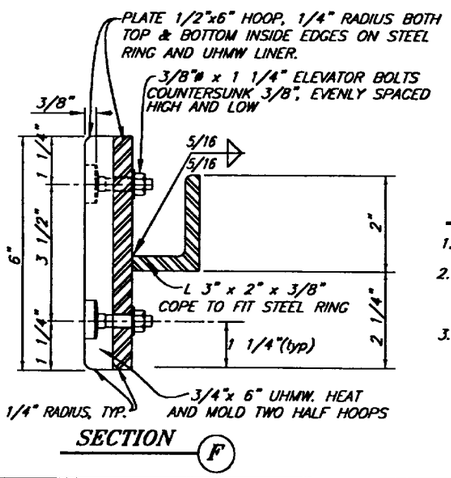
6 REQ'D. ON 150' FLOAT AT APPROX. 25'o.c. (opposite pile collars)

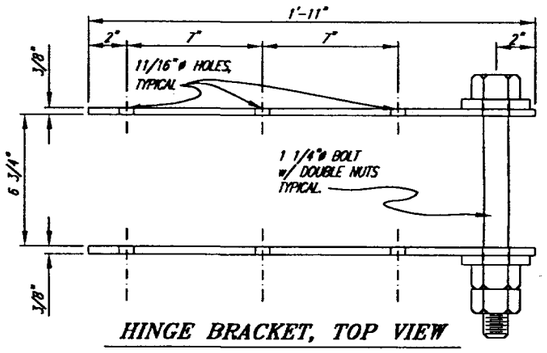


PIPE BLOCKING DETAILS

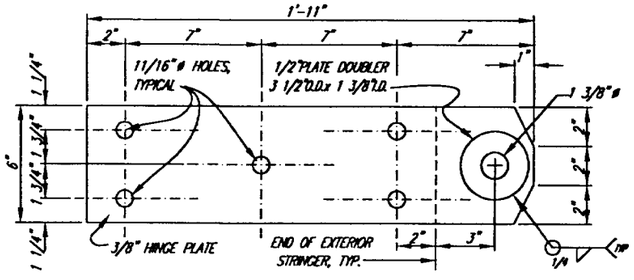


INTERIOR PILE COLLAR DETAIL D-1 4,5

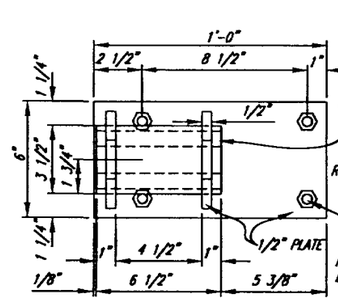




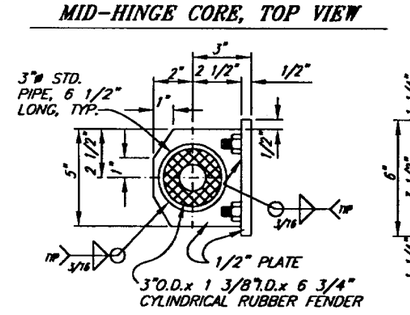
HINGE BRACKET, TOP VIEW



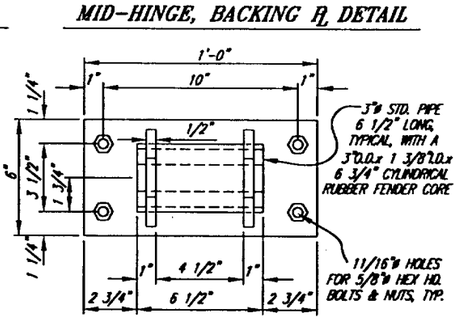
HINGE BRACKET, SIDE VIEW



END-HINGE CORE, FRONT VIEW

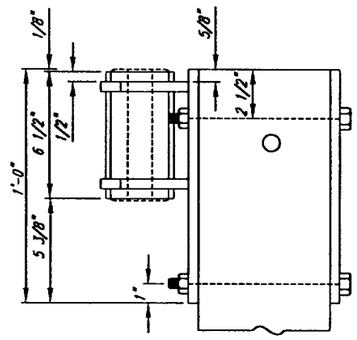


HINGE CORE, TYPICAL SIDE VIEW

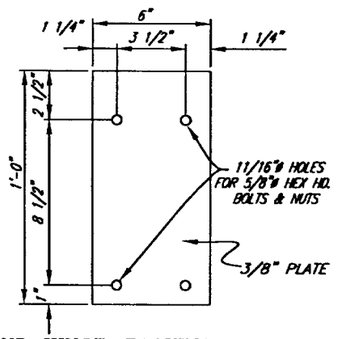


MID-HINGE CORE, FRONT VIEW

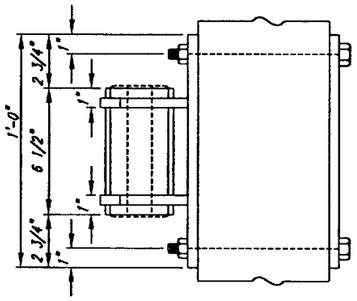
TIMBER FLOAT HINGE DETAILS



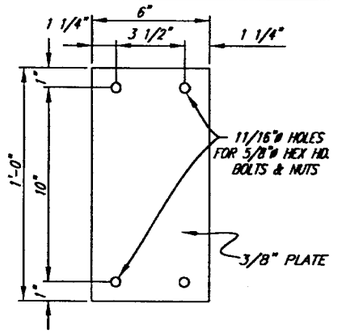
END-HINGE CORE, TOP VIEW



END-HINGE, BACKING PL DETAIL



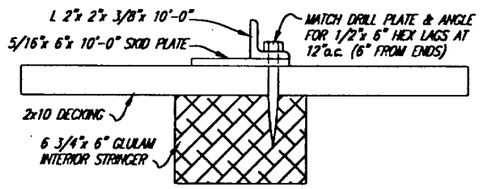
MID-HINGE CORE, TOP VIEW



MID-HINGE, BACKING PL DETAIL

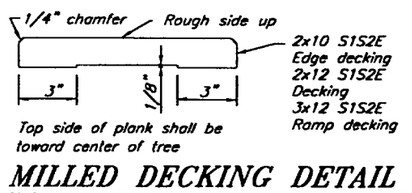
INTERIOR COLLAR NOTES

1. ALL WELDS ON INSIDE OF STEEL RING SHALL BE GROUND SMOOTH.
2. UHMW POLY LINERS, AS SHOWN, WITH 5 BOLTS PER CIRCULAR HALF COLLAR. UHMW POLY LINERS SHALL BE HEATED AND THEN MOLDED TO THE SHAPE SHOWN ON THE DETAILS.
3. THE SECURING BOLTS SHALL BE COUNTERSUNK AS SHOWN AND EVENLY SPACED HIGH AND LOW.



GANGWAY SKID PLATE DETAILS

2 REQ'D. AT 12' FLOAT FOR EXISTING GANGWAY



MILLED DECKING DETAIL

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

ENGINEER'S SEAL

STATE OF ALASKA 49th Robert W. Miller CE-7436 REGISTERED PROFESSIONAL ENGINEER

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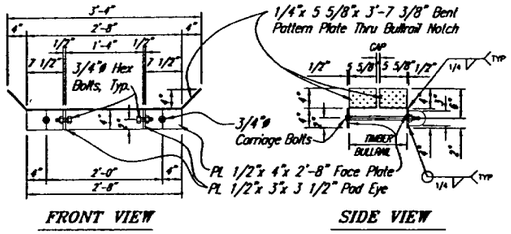
SOUTHEAST REGION DESIGN & CONSTRUCTION

CRAIG ALASKA

HARBOR REHAB PROJECTS
Proj. No. 67746

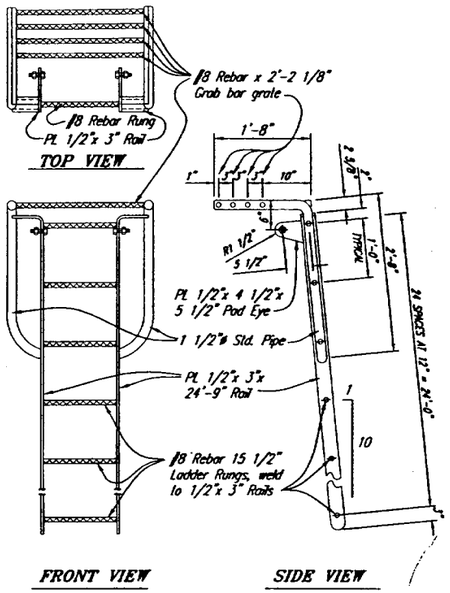
TIMBER GANGWAY FLOAT DETAILS

DESIGNED BY: RWM	PROJECT NO. 67746
DRAWN BY: BN	DATE: DECEMBER 1999
CHECKED BY: BAS	SHEET 6 OF 41



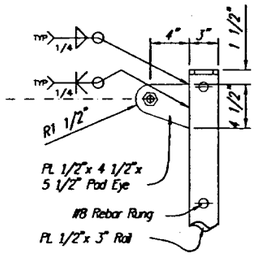
LADDER MOUNT, NOTCH BULLRAIL

NOTE: Two Halves Similar, Pad Eyes on Front Only, Punch Square Holes Back Only

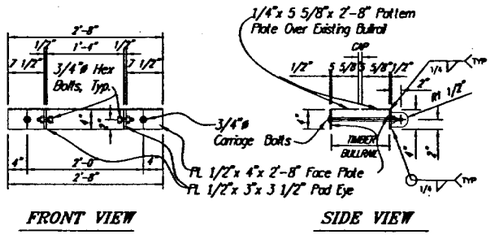


TYPE 'B' LADDER DETAILS

Two Required Adjacent To Dock Crane

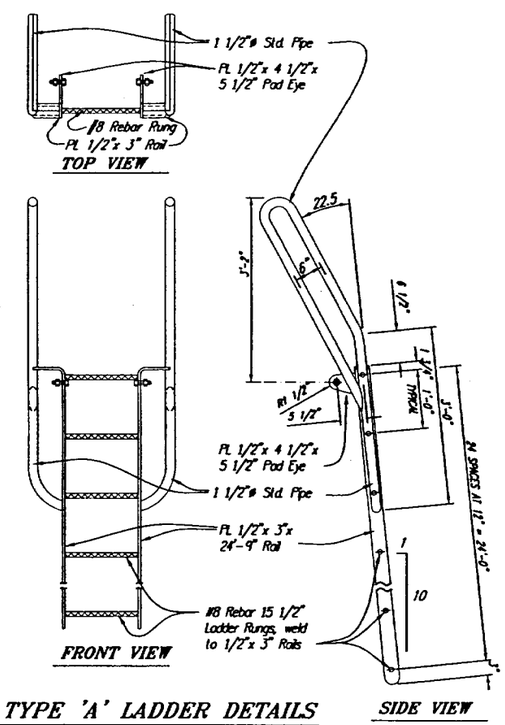


PAD EYE DETAIL



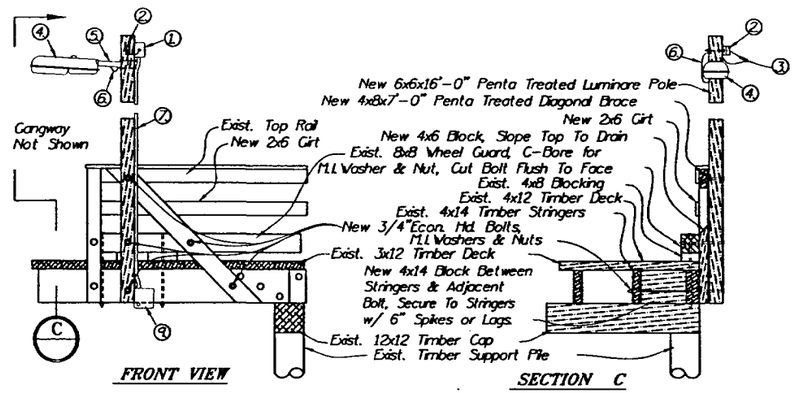
LADDER MOUNT, TOP BULLRAIL

NOTE: Two Halves Similar, Pad Eyes on Front Only, Punch Square Holes Back Only



TYPE 'A' LADDER DETAILS

One Required Adjacent To Warehouse

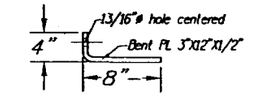


LIGHTING NOTES :

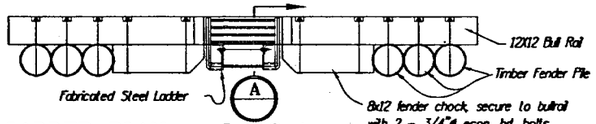
1. 6x6x4 NEMA 4 Junction Box, Secure w/ SS. Screws or Bolts
2. Clevis & Insulator : Joslin JA3 & J1151, Secure w/ 5/8"ø Galv. Bolt, M.L. Washer & Nut.
3. AERIAL CABLE : #8 Triplex w/ ACSR Messenger
4. LUMINAIRE : Thorn Beta 79, 70 watt High Pressure Sodium, IES Type I, (QB79570). Equip One With Photoelectric Cell To Control Curcuit.
5. Luminaire Pole Bracket, Galvanized, Secure w/ 3/8"ø Galv. Bolts, Nuts & M.L. Washers as req'd.
6. Feed each luminaire with #10/3 SO Cord (black UV stabilized) from Junction Box.
7. 1"ø Galvanized Rigid Conduit Between Junction Boxes.
8. All bolts and fabrication hardware shall be hot-dipped galvanized or stainless steel.
9. 8x8x4 NEMA 4 Junction Box, Secure w/ SS. Screws. Coordinate w/ City of Craig Harbormaster and Electric Utility to route the existing conduit to the new junction box.

GANGWAY LIGHTING MODIFICATION

Two Luminaires Required One On Approach & One On First Float Pile

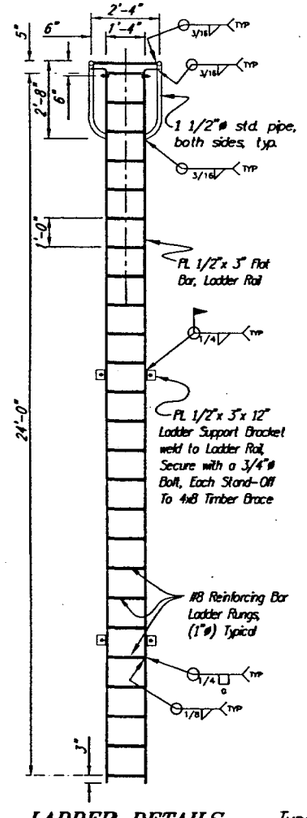


LADDER SUPPORT BRACKET



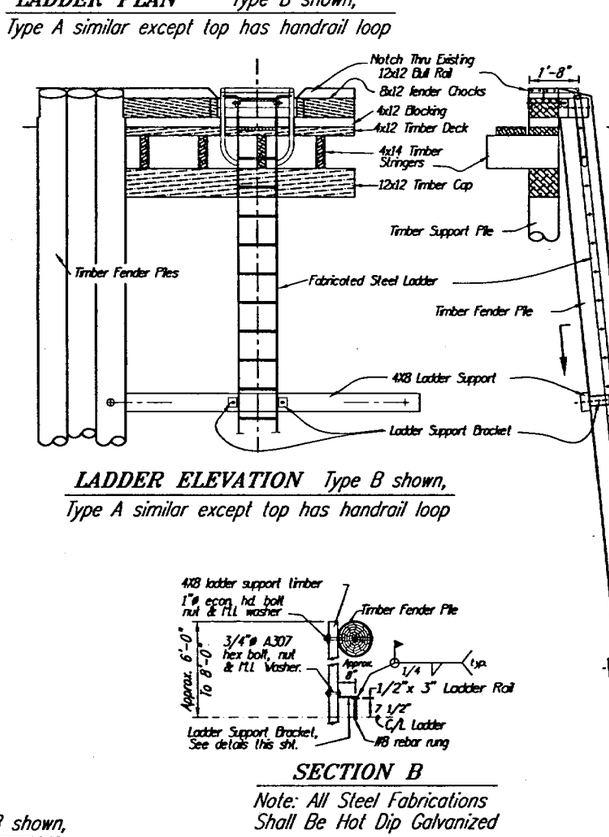
LADDER PLAN Type B shown,

Type A similar except top has handrail loop



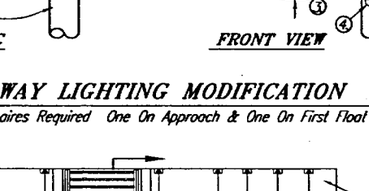
LADDER DETAILS Type B shown,

Type A similar except top has handrail loop



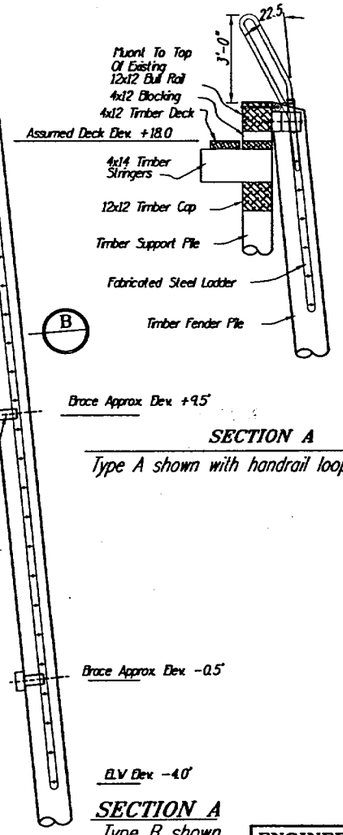
LADDER ELEVATION Type B shown,

Type A similar except top has handrail loop



SECTION B

Note: All Steel Fabrications Shall Be Hot Dip Galvanized



SECTION A

Type A shown with handrail loop

SECTION A

Type B shown

NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS

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STATE OF ALASKA
Robert W. Miller
CE-7436
REGISTERED PROFESSIONAL ENGINEER

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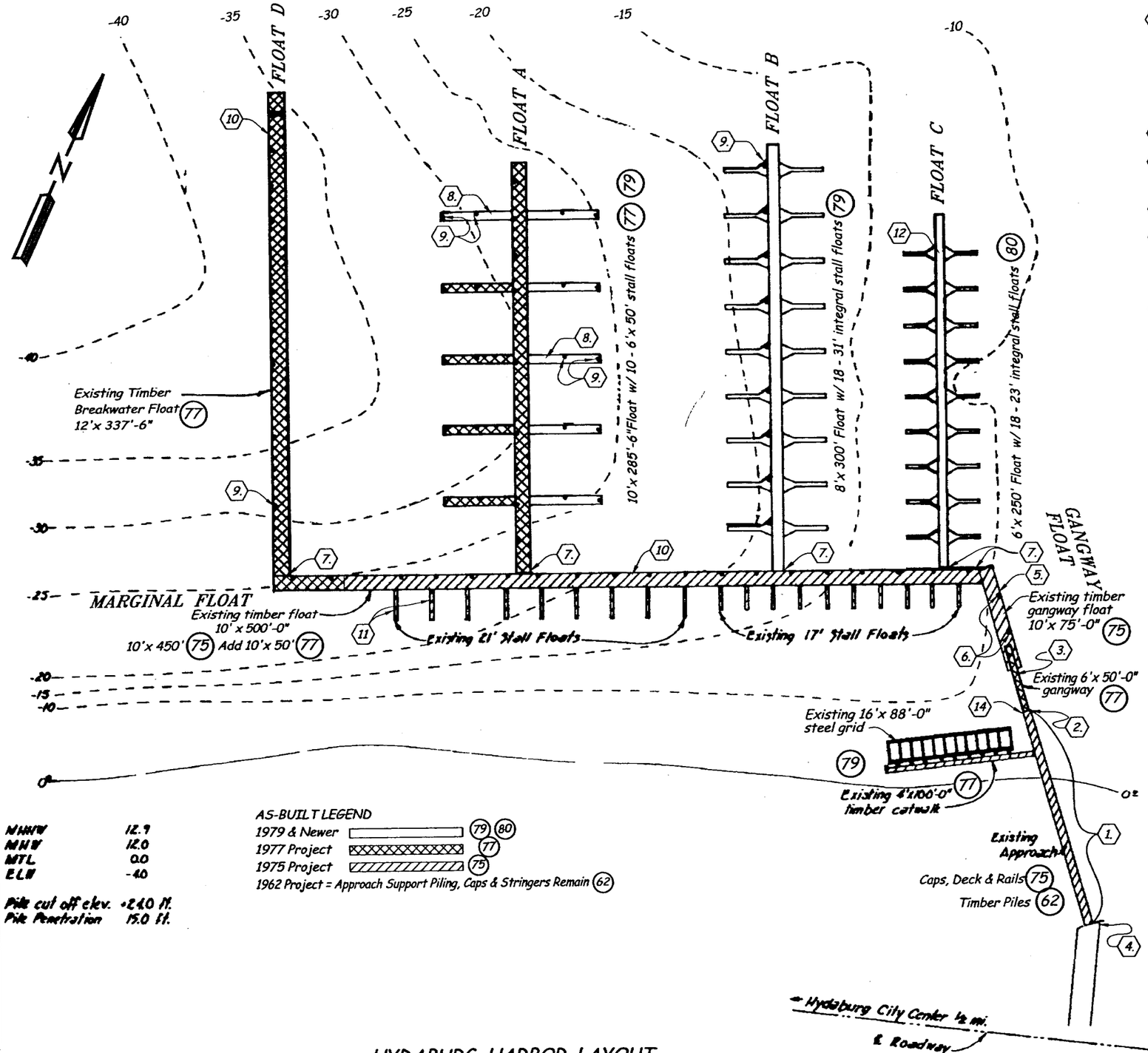
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

CRAIG ALASKA

HARBOR REHAB PROJECTS
Proj. No. 67746

STEEL SAFETY LADDER DETAILS

DESIGNED BY: BN	PROJECT NO. 67746
DRAWN BY: BN	DATE: DECEMBER 1999
CHECKED BY: RWM	SHEET 7 OF 41



MHHW	12.9
MHW	12.0
MTL	0.0
ELW	-4.0

Pile cut off elev. +2.0 ft.
Pile Penetration 15.0 ft.

AS-BUILT LEGEND

1979 & Newer 79 80
1977 Project 77
1975 Project 75
1962 Project = Approach Support Piling, Caps & Stringers Remain 62

HYDABURG HARBOR LAYOUT

HARBOR REHAB PROJECT NOTES :

1. Replace Timber Approach Handrails, Posts & Luminare Poles. Supply & install new 4x4 x 4'-6" posts approx. 8'-0"o.c. (reuse exist. bolt holes thru stringers if practical) and new 2x6 rails & girts. Refer also to 1962 project as-built drawing for approach length & pile bent spacing. Replace treated double 2x12 mounts for electrical j-boxes on railing both sides of last seaward end span. Supply & install 5ea. 8x8x 16'-0" timber luminare poles with 2ea. 4x8 diagonal braces each pole. All rails, girts, posts, poles & braces shall be pressure treated with pentochlorophenol in light oil solution. All cut ends and holes (include temporary nail holes) shall get three brush applied coats of copper naphthenate in light oil solution. Plug abandoned holes 1/4"ø larger w/ same size treated dowels & seal all holes w/ roof pitch. Supply all new bolts, nuts, M.I. washers to secure posts, poles & braces.
2. Furnish & install transition plate between existing steel & wood gangway and existing timber approach. See Craig/Hydaburg Harbor Miscellaneous Detail sheet 10 of 41 for more information.
3. Rehab Exist. Gangway Surface. Supply & install 3'x 49'-5 5/8" treated timber deck with 3'-0"wide galv. steel 3/4 #9 standard expanded carbon steel grate (1.80 psf before galv.) non-skid surface. Supply & install 2'-4"x 49'-9 5/8" serrated open steel bar grating with angle stringers & treads. See sheet 10 of 41 for details.
4. Remove existing wood crib abutment except 10x10 sill & construct a new concrete abutment. See shoreward end of approach detail sheet for precast abutment or submit similar cast-in-place abutment plans for approval.
5. Supply & install new flotation billets to level gangway float. Remove marine growth from bottom of existing flotation billets prior to installing new foam. Supply standard billets(10"x 20"x 9'-0") to replace missing or broken billets, supply quarter billets (5"x 20"x 4'-6") for leveling and supply 3/8"øx 4"x 18" galv. steel L-pins, w/ chisel point on long end. Billets shall be urethane coated, see spec. Where leveling is req'd, place leveling billet between lower sills and drive L-pins through existing flotation into new leveling billet. Use 3 L-pins per leveling billet evenly spaced.
6. Remove 22 existing timber pile guide collars & Replace with new steel collars, 2 req'd. on gangway float, 20 req'd. on marginal float. See Misc. Detail Sheet for details. Treat all bolt holes, nail holes, cuts & abrasions prior to replacing deck planks.
7. Remove & replace all existing gangway float & main float to marginal float hinges, hinge bolts and fastener bolts with new hinges & hardware. See as-built plans for hinge details (1974 gangway to marginal), (1977 main A & D to marginal), (1979 main B & C to marginal).
8. Replace Two 6'x50' stall floats on main float A. Add billets to level the other 8 existing 6'x50' stall floats at main float A. See details 1979 project as-built drawings. Refer also to note 5 above.
9. Pull 6 existing piling, 2 at each of 2 damaged 6'x50' stall floats on main float A, one loose piling on main float D and one leaning pile at stall float 9-west,float-B. Replace 2 piling at stall 5-west,float-A with new 70'& 68'long timber piles and one pile at float D with a new 70'long timber pile, all piles treated with creosote to 20 lb/cf per spec. Reuse remaining used piling at stall 3-east,float-A and at stall 9-west,float B where shorter piles should be sufficient. Repair any small holes, cuts or surface scuffing with 50-50 mix of creosote & roof pitch. Treat pile tops: drill 3 to 5 holes 1"øx 3"deep, 3"o.c.; fill with copper naphthanate crystals or rod & seal top w/ 1/4" roof pitch.
10. Replace segment of failed 8x8 timber bullrail along breakwater float D & along marginal float. Supply 3ea. new 26'-0" long sections of pentochlorophenol treated 8x8 timber and new economy head bolts, nuts & M.I.washers as required.
11. Replace 2 damaged stall floats near the west end of the marginal float with new 2'-5 1/2"x 21'-0" stall floats. See 1975 project as-built drawings for details.
12. Add billets to raise & level a 25' segment of the 6'x250' main float C near the north end between stalls 9-east & 9-west. See details 1979 project as-built drawings. Refer also to note 5 above.
13. Some deck planking & bullrails must be removed & reinstalled to make repairs such as replacing hinges & pile collars or securing foam leveling billets. Carefully remove & store existing planks & timbers and Treat & Fill ALL Nail Holes in stringers prior to reinstalling planks. Replace broken, split or damaged planks with new 2x10 milled decking, and repair minor damage (holes, cuts or abrasions) similar to note 1 above.
14. Fabricate 1 1/2"ø galv. std. pipe rail extensions, 2 required, weld to shoreward end of exist. gangway rail. Refer to details in Section A on Sheet 10
15. Supply the following materials for Hydaburg repairs. Any remaining new materials shall be stockpiled as directed by the engineer at Juneau, Alaska.
    1. Approx. 1400 l.f. 2x6x16'-0"min.(verify post spacing to minimize waste) penta treated rails & girts.
    2. 46 ea. 4x4x 4'-6" pentochlorophenol treated handrail posts
    3. 4 ea. 2x12x 4'-0" penta treated planks to mount J-boxes
    4. Fab. precast concrete abutment (see detail for options)
    5. 148.4 LF. Treated Timber Decking (verify exact plank sizes), 150 sf. Galv. 3/4"#9S Standard Expanded Steel Mesh non-skid gangway surface.
       Fab. 2'-4"x 49'-5 5/8" galv. serrated steel deck w/ L3"x5"x1/4"stringers, L2 1/2"x3/16" treads at 16 5/8"o.c.
       Fab. galv. steel transition plate for approach to gangway.
       Fab. 1 1/2"ø galv. std. pipe gangway rail extensions
    6. Flotation billets with urethane coating :
       2 ea. 10"x 20"x 9'-0" std. replacement billets
       40 ea. 5"x 20"x 4'-6" leveling billets
       120 ea. 3/8"ø x 4"x 18" galv. steel L-pins to secure leveling billets
    7. Fab. 22 ea. galv. steel pile collars (req'd. at gangway & marginal floats)
    8. Fab. New Hinges for Gangway float & 4 main floats to marginal float
    9. Fab. 2 ea. 6'x50' stall floats (with new pile collars, hinges & hardware)
    10. 2 ea. 70' & One 68' crea. treated timber pilings (tip 8"dia. min. & butt 15"dia. max.)
    11. 3 ea. 8x8x 26'-0" penta. treated timber bullrails
    12. Fab. 2 ea. 2'-5 1/2"x 21'-0" stall floats for marginal float
    13. 240 lf. 2x10 milled decking (6 pc. 12'-0", 12 pc. 10'-0", 6 pc. 8'-0")
    14. 5 ea. 8x8x 16'-0" penta treated timber luminare poles
    15. 10 ea. 4x8x 6'-0" pent. treated timber diagonal braces
    16. Supply all consumables, cleaners, fasteners, coatings & wood treatments required to complete installation.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

ENGINEER'S SEAL
STATE OF ALASKA
16th
Robert W. Miller
CE-7436
REGISTERED PROFESSIONAL ENGINEER

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RECORD OF REVISIONS

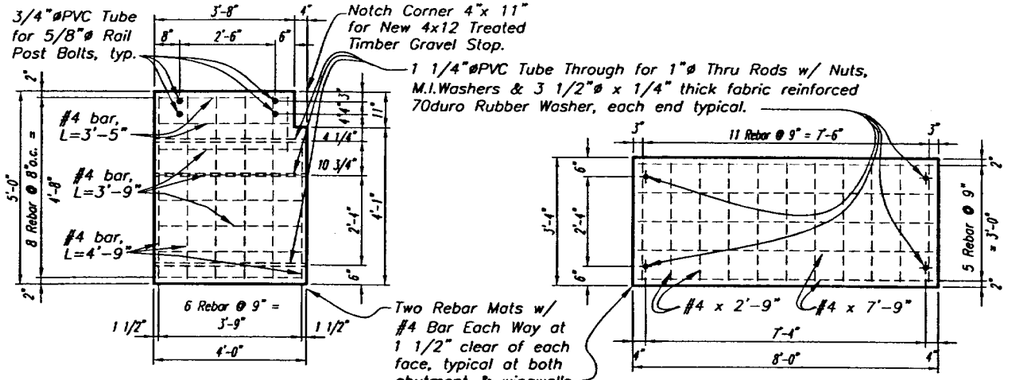
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HYDABURG — ALASKA

HARBOR REHAB PROJECTS
Proj. No. 67746

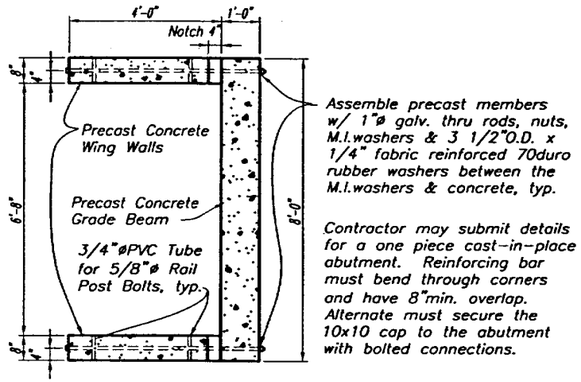
HYDABURG HARBOR REPAIRS, LAYOUT

DESIGNED BY: RWM	PROJECT NO. 67746
DRAWN BY: BN	DATE: DECEMBER 1999
CHECKED BY: BAS	SHEET 8 OF 41



PRECAST ABUTMENT, WING WALLS

PRECAST ABUTMENT, GRADE BEAM



PRECAST ABUTMENT, PLAN VIEW

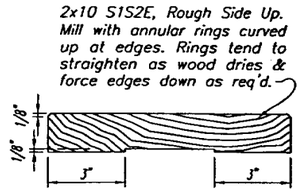
GENERAL NOTES :

1. Pressure treat ALL rails, girts, posts, luminair poles & braces w/ Pentachlorophenol in light oil solution to 0.6 lb/cf after cutting.

2. Treat cut ends, drilled holes, nail holes & minor abrasions with three(3) brush coats of Copper Naphthenate in light oil for members at deck level & above. Treat cuts, abrasions, drill holes & nail holes (new & existing) below deck level with two brush coats creosote oil & one brush coat of approx. 50-50 creosote oil & asphaltic roof pitch. Plug unused and/or abandoned holes 1/4" & larger (after brush treatment as above) with snug fit pressure treated dowels, cut flush & treat cut end as above.

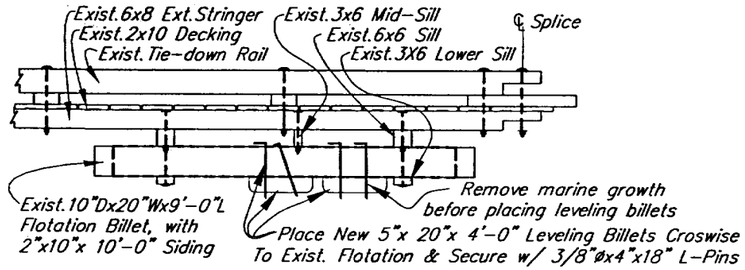
3. All hardware to be hot-dip galvanized with malleable iron washers between nut and wood surfaces. All bolts to be economy head (mushroom head), except as noted. Bolt holes to be drilled true size in wood for snug fit, holes in steel to be 1/16" oversize.

4. Traffic Note : Contactor shall maintain pedestrian traffic at all times except for short periods, up to one hour. A sign notifying CLOSURE PERIOD, DATE _____, 1 HOUR STARTING ____ AM/PM shall be posted at the head of the approach & toe of the gangway at least 24 hours prior to closure. Remove & rehab handrail along one side of approach at a time to minimize inconvenience and use caution to protect people and adjacent boats or properties. A short pedestrian bridge w/ handrails may be required to access approach while replacing abutment. Contractor may submit a traffic control plan with an on-request skiff shuttle to & from shore that is manned and ready during a longer closure period. Contractor must have an emergency plan to get sick or injured persons ashore during worst case situation.

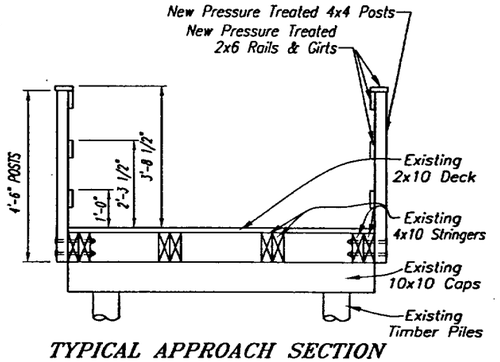


2x10 MILLED DECKING DETAIL

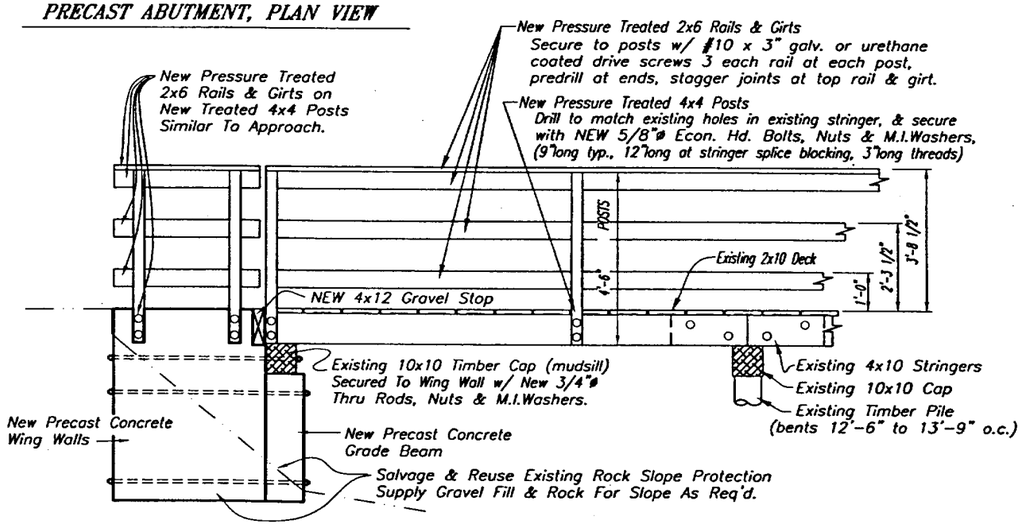
(req'd where float or approach decking is damaged)



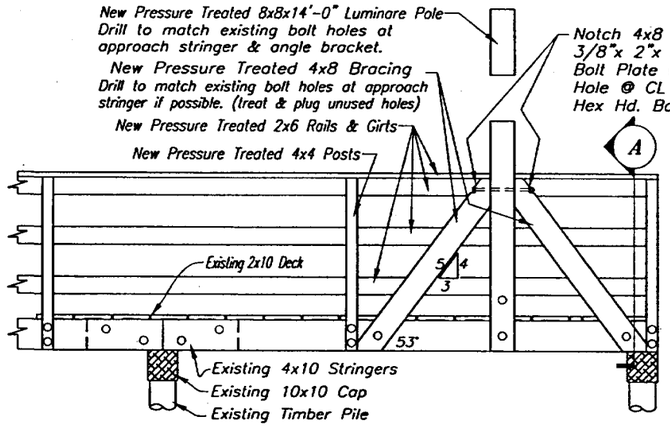
LEVELING FLOTATION PLACEMENT DETAILS



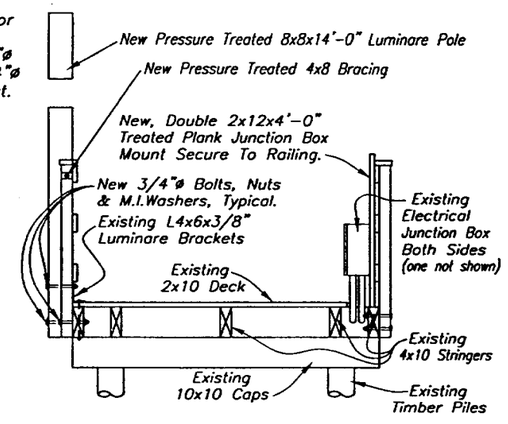
TYPICAL APPROACH SECTION



APPROACH DETAILS, SHOREWARD END



SEAWARD END ELEVATION



APPROACH SECTION A

APPROACH DETAILS, SEAWARD END

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

ENGINEER'S SEAL

STATE OF ALASKA · Robert W. Miller · CE-7436 · REGISTERED PROFESSIONAL ENGINEER

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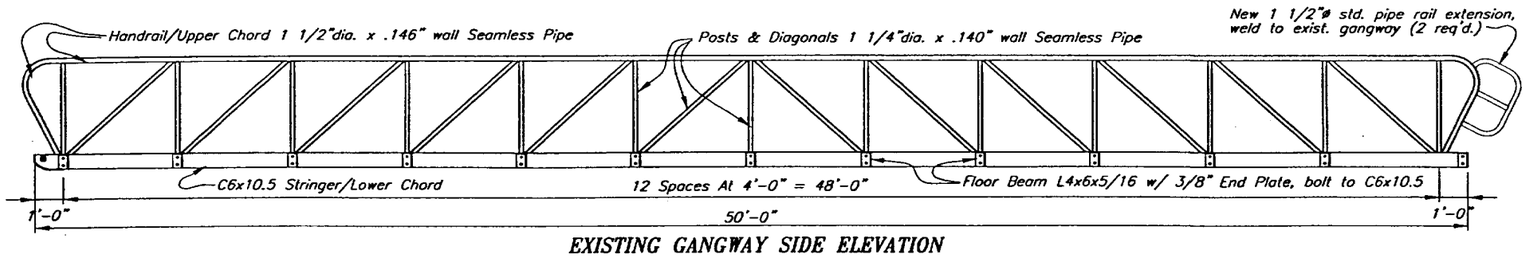
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

HYDABURG — ALASKA

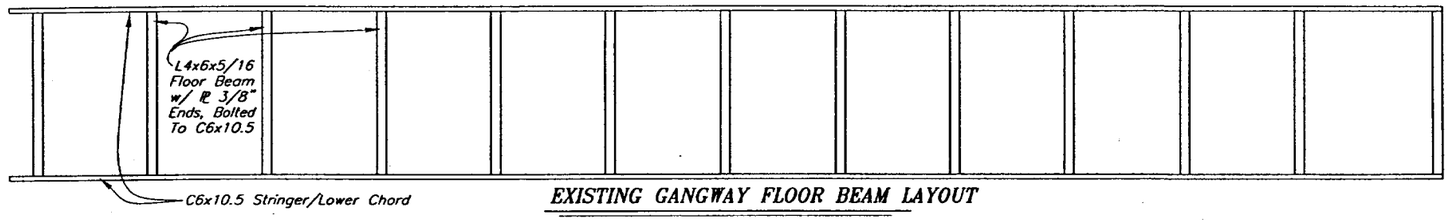
HARBOR REHAB PROJECTS
Proj. No. 67746

HYDABURG HARBOR APPROACH DETAILS

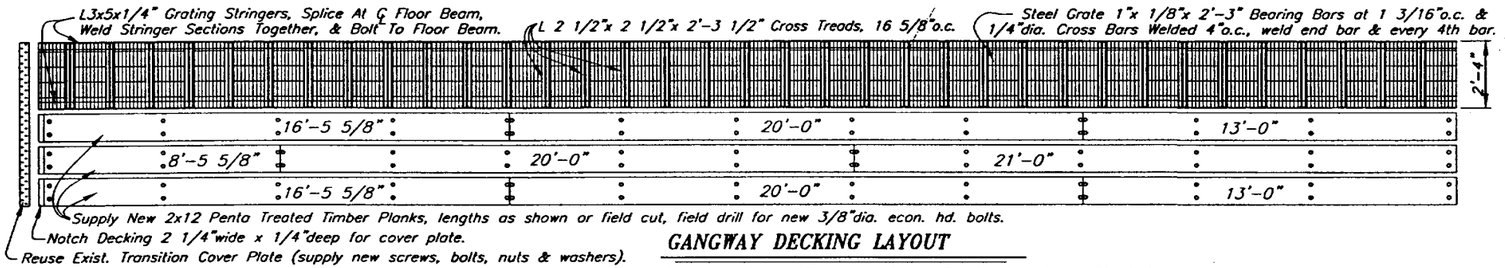
DESIGNED BY: RWM	PROJECT NO. 67746
DRAWN BY: BN	DATE: DECEMBER 1999
CHECKED BY: BAS	SHEET 9 OF 41



EXISTING GANGWAY SIDE ELEVATION

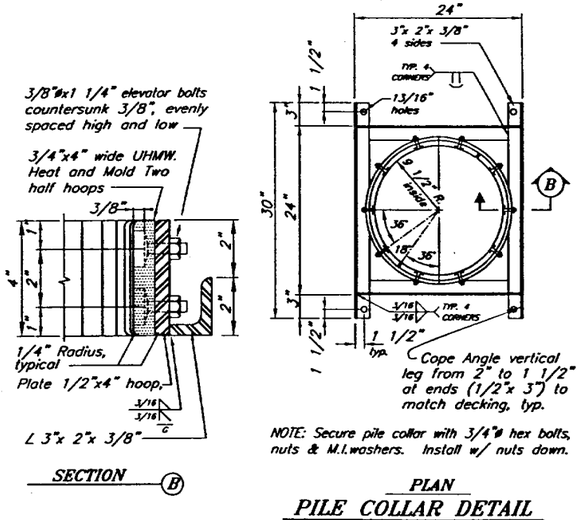


EXISTING GANGWAY FLOOR BEAM LAYOUT



GANGWAY DECKING LAYOUT

New Decking Required At Both Craig & Hydaburg



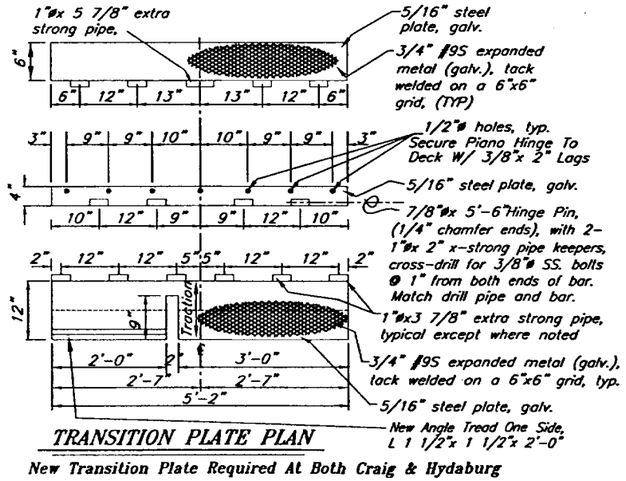
SECTION (B)

NOTE: Secure pile collar with 3/4"ø hex bolts, nuts & M.I.washers. Install w/ nuts down.

PLAN

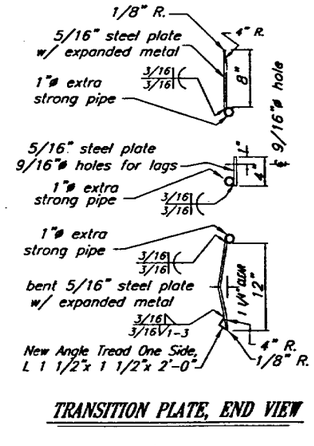
PILE COLLAR DETAIL

(HYDABURG MARGINAL & GANGWAY FLOATS)

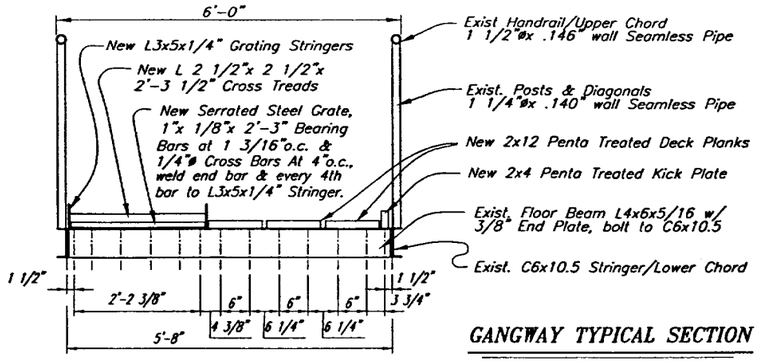


TRANSITION PLATE PLAN

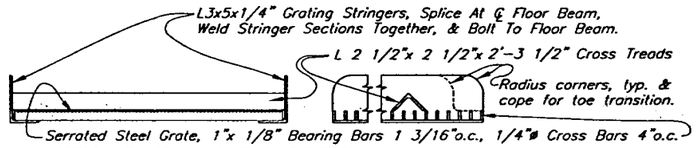
New Transition Plate Required At Both Craig & Hydaburg



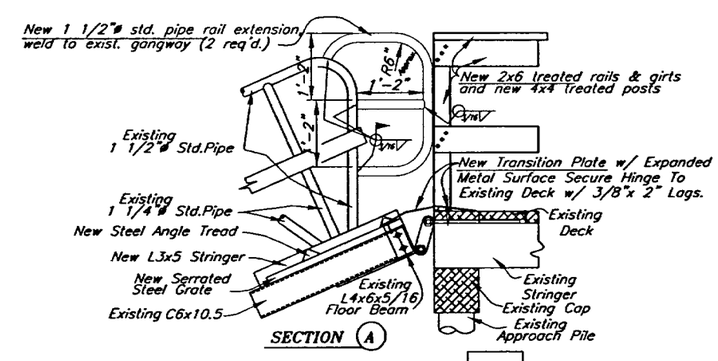
TRANSITION PLATE, END VIEW



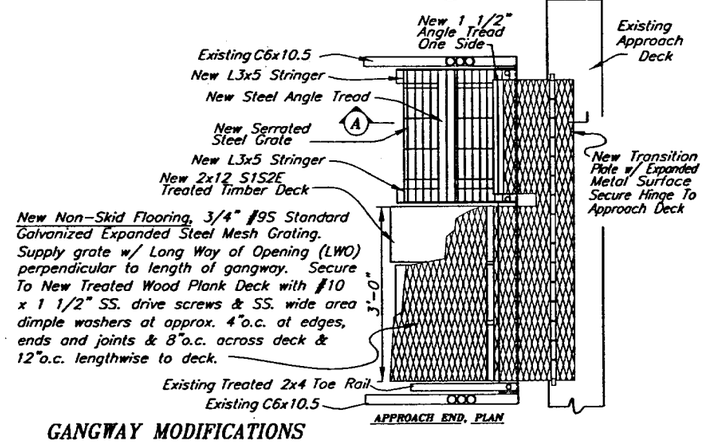
GANGWAY TYPICAL SECTION



NEW GRATE & TREAD DETAIL



SECTION (A)



APPROACH END, PLAN

GANGWAY MODIFICATIONS

New Transition Plate, Decking & Handrail Loops Required At Both Craig & Hydaburg Gangways

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

ENGINEER'S SEAL

STATE OF ALASKA — Robert W. Miller — CE-7436 — REGISTERED PROFESSIONAL ENGINEER

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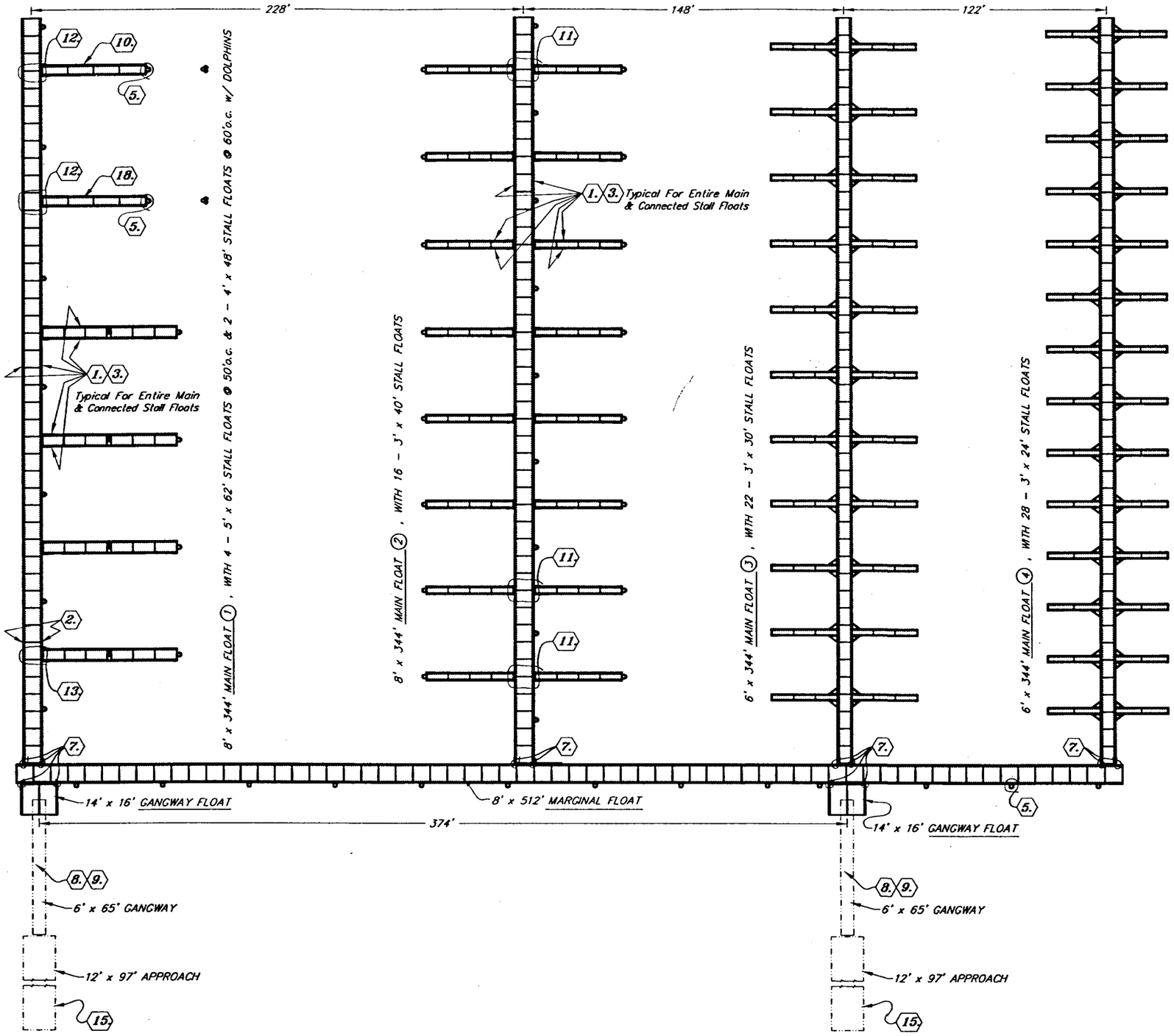
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

CRAIG & HYDABURG — HARBOR REHAB PROJECTS Proj. No. 67746 — ALASKA

CRAIG & HYDABURG HARBOR MISC. DETAILS

DESIGNED BY: RWM	PROJECT NO. 67746
DRAWN BY: BN	DATE: DECEMBER 1999
CHECKED BY: BAS	SHEET 10 OF 41



HARBOR REHAB PROJECT NOTES :

1. Remove & replace all 2x8 bumper boards on Main Floats 1 & 2 & all Stall Floats connected to Main Floats 1 & 2. Bumper boards have 3 1/2"ø x 1/2" deep C-bore & 2"ø hole thru at center, spaced 12"o.c. Begin holes at 6" from ends. Pressure treat wood with pentachlorophenol in light oil after drilling holes. See Detail Sheet for Bumper Board
2. Remove & Replace all Broken 3x8 wales (estimated 2 locations). Wales have 3/4"ø holes through timber spaced 12"o.c. along centerline of face, beginning 6" from ends. Pressure treat wood w/ pentachlorophenol in light oil solution after drilling holes. Floats have 2 wales each side with staggered splices. Removal of thru rods from at least 24 LF. of float (min. 12 rods) is required for repair.
3. Check & Tighten all thru Rods on Main Floats 1 & 2 and all connected Stall Floats. Replace all broken or missing thru rods where required. Each float unit is tied to wales with 4 req'd thru rods, plus rods req'd for hinges & pile collars (8'-0"long float has 8 conduits, 12"oc.)
4. Pressure Wash bottoms and sides of all Main, Marginal, and Stall floats to remove marine growth.
5. Replace 3 Pile Collars, Two end collars at the 4'x 48' Stall floats with Three 5/8"ø x 5'-0" Thru Rods each collar, and One exterior collar at the Marginal float with Four 5/8"ø x 5'-0" Thru Rods. See Collar Details Sht.12. See also note 3 above.
6. Tighten all Stall Float attachment brackets and Replace Broken or Damaged Brackets. Small cracks in attachment brackets or pile collars shall be ground out and repaired with field welds.
7. Replace 12ea. 1"ø Hinge Bolts at Main Float & Gangway Float connections to the Marginal Float. Replace all worn stall hinge bolts. Hinge bolts are tack welded to the C4x7.25 channel connector, new bolt welds will require galvanize coating repair per spec.
8. Supply & Install 3'-0" wide galvanized 1 1/2" #6S Standard Steel Expanded Grating along one side of both 6'x 65' Gangways. Grating Long Way of Opening shall be Perpendicular to the gangway length. Secure over surface of existing open bar steel grate deck with tack welds approx. 3"o.c. along edges & ends and 12"o.c. each way over surface.
9. Install angle iron tread at bottom of both gangways adjacent to piono hinge at the toe transition. The angles are 1 1/2"x 1 1/2"x 3/16"x 2'-0"long, placed touching top edge of hinge, weld to fixed side of hinge & tack to bearing bars. Placement shall not interfere with hinge movement.
10. Replace the 6x6 Tie Down Rail on the seaward edge of the end 4'x 48' stall on main float 1. Carefully measure existing 6x6 & fabricate new members to reuse existing bolt holes. Pressure treat wood with pentachlorophenol in light oil solution after cutting dopp joints & drilling holes.
11. Remove & Reinstall Stall Float Hinges (3 locations w/ 2 adjacent stalls). Supply at each location 3ea. 5/8"ø x 9'-0" Main Float Thru Rods & Four 1"ø Hinge Bolts with all Nuts, Washers & Pins, As Required.
12. Supply & Install Entire Stall Float Hinge Assembly at Two Locations. Supply at each location 4ea. 5/8"ø x 9'-0" Main Float Thru Rods, 3ea. 5/8"ø x 5'-0" Stall Float Thru Rods & Two 1"ø Hinge Bolts with all Nuts, Washers & Pins, As Required.
13. Remove & Reinstall Stall Float Hinges. Supply 4ea. 5/8"ø x 6'-0" Stall Float Thru Rods & Two 1"ø Hinge Bolts with all Nuts, Washers & Pins, As Required.
14. Hot-dip Galvonize all steel weldments and hardware after fabrication. Hardware 1/2"& larger are galvonized, hardware 3/8"& smaller are stainless steel.
15. Replace missing & damaged handrail & girts on approach to gangway. Pressure treat wood w/ pentachlorophenol in light oil solution.
16. All tie-down rails, walers & bumper shall be pressure treated with pentachlorophenol in light oil solution. All cut ends and holes (include temporary nail holes) shall get three brush applied coats of copper naphthenate in light oil solution. Plug abandoned holes 1/4"& larger w/ same size treated dowels & seal all holes w/ roof pitch.
17. The adjacent layout has notes for only the most obvious damage, the contractor shall adjust & tighten all connections, & repair other minor damage as required.
18. Supply & Install one new 4'x 48' stall float assembled with 3x8 walers, 5/8". thru-rods, 6x6 tie-down rail, 4x6 blocking, and 2x8 bumper board (see as-built Sht.35 of 41) to replace missing float, secure with new pile collar (note 5 above) & new hinges (note 12 above).
19. The Contractor Shall Provide the following new materials. Any remaining new materials shall be stockpiled, as directed, at Juneau, Alaska.
    1. 3500 LF. 2x8 treated Bumper Boards
    2. 12ea. 3x8x16'-0" float Walers
    3. 30ea. 5/8"ø x 9'-0"main float thru rods w/60 nuts & 60 M.I. washers.
    4. 12ea. 5/8"ø x 6'-0"stall floot thru rods w/24 nuts & 24 M.I. washers,(5'x62'stall)
    5. 12ea. 5/8"ø x 5'-0"stall floot thru rods w/24 nuts & 24 M.I. washers,(4'x48'stall)
    6. 12ea. 5/8"ø x4'-8 1/2"stall floot t-rods w/24 nuts & 24 M.I. washers,(3'x40'stall)
    7. 6ea. 5/8"ø x 3'-4"stall floot thru rods w/12 nuts & 12 M.I. washers,(2'-9"x21'stall)
    8. 2ea. 4'x48'stall attachment brackets, main floot 1
    9. 2ea. 3'x40'stall attachment brackets, main floot 2
    10. 2ea Pile Collars for end 4'x48' stall float
    11. One ea. Exterior Pile Collars, marginal & main floats
    12. 48ea. 1"ø Hinge Bolts, Nuts & 1/4 Cotter Pins
    13. 48Lf 6x6 tie down rail, 5ea 4x6x8" scupper blocks & 4ea 4x6x2'-0" splice blocks @ end 4'x48'stall float
    14. 17ea 3/4"ø x18" econ. hd. tie-down rail bolts
    15. 400sf., Galv. 1 1/2" #6S Standard Steel Expanded Grate, at gwys
    16. 2ea galv.1 1/2"x 1 1/2"x 3/16"angle, at gangways
    17. Pressure treated approach handrail & girts, 4ea 2x6x16'-0" & 6ea 2x4x16'-0"
    18. One ea. 4'x 48' concrete stall float, complete & in place.
    19. Supply all consumables, cleaners, fasteners, coatings & wood treatments required to complete installation.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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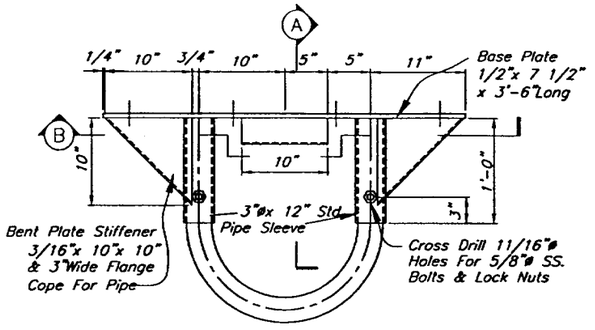
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

METLAKATLA — *HARBOR REHAB PROJECTS* — ALASKA
Proj. No. 67746

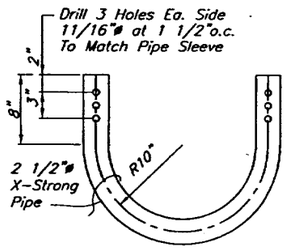
METLAKATLA MAIN HARBOR LAYOUT

DESIGNED BY: RWM	PROJECT NO. 67746
DRAWN BY: BN	DATE: DECEMBER 1999
CHECKED BY: BAS	SHEET 11 OF 41

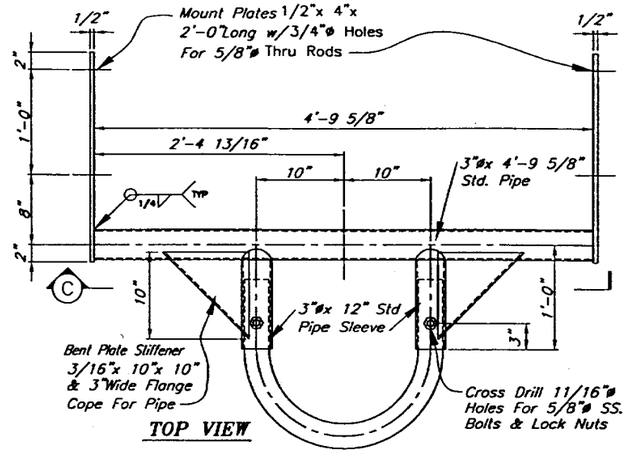
ENGINEER'S SEAL
STATE OF ALASKA
Robert W. Miller
CE-7436
REGISTERED PROFESSIONAL ENGINEER



TOP VIEW



REMOVABLE PIPE LOOP



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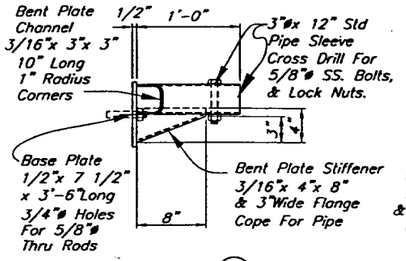

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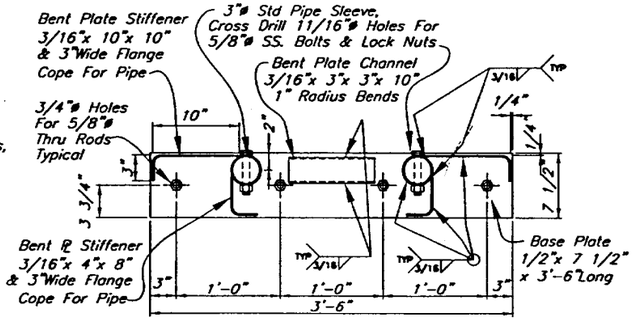
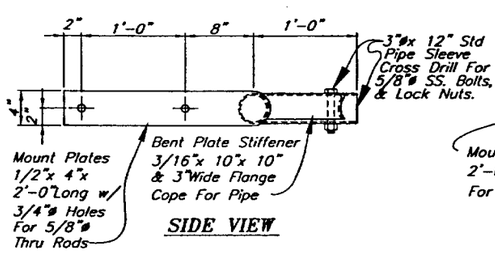


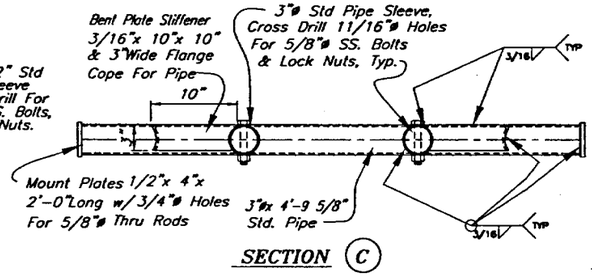
SECTION (B)

NEW EXTERIOR PILE COLLAR

(MARGINAL FLOAT, ONE REQ'D.)

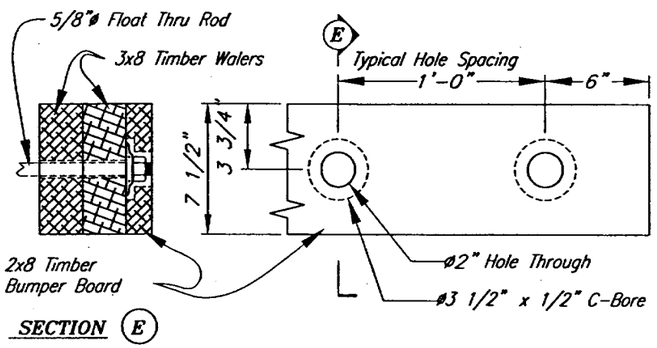


SIDE VIEW



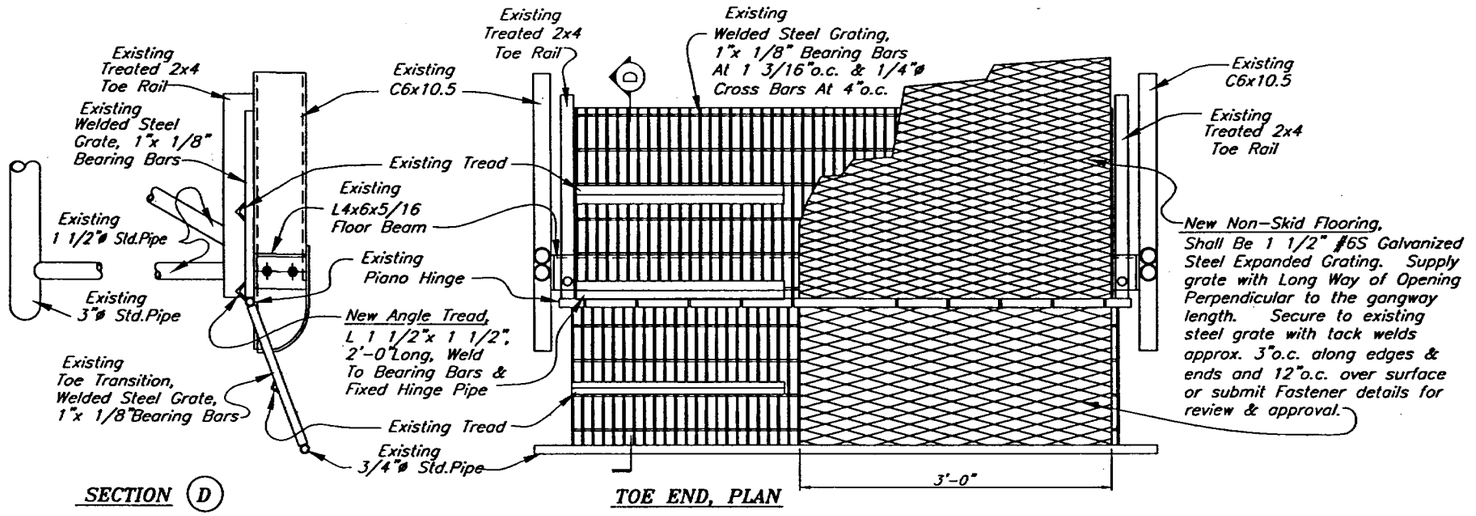
SECTION (C)

NEW END PILE COLLAR @ 4'x 48' STALL FLOAT



SECTION (E)

BUMPER BOARD DETAIL



SECTION (D) TOE END, PLAN

EXISTING GANGWAY MODIFICATIONS

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

ENGINEER'S SEAL

STATE OF ALASKA — Robert W. Waller CE-7436 — REGISTERED PROFESSIONAL ENGINEER

PATH: Q:\SEA\67746\MF\Sheet12.dwg Plot Scale=12.00 10/15/1999 16:33		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

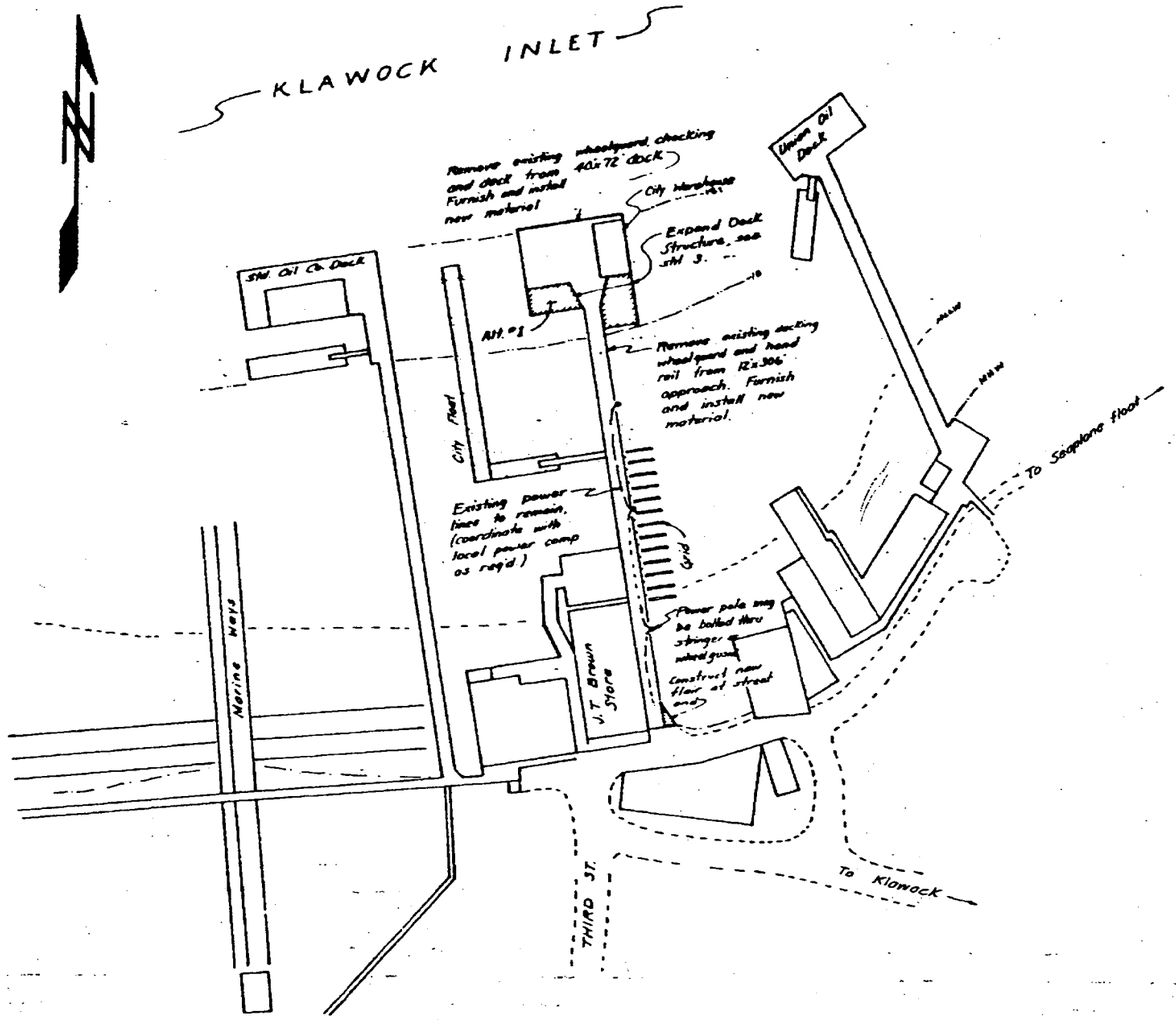
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

METLAKATLA — ALASKA

HARBOR REHAB PROJECTS
Proj. No. 67746

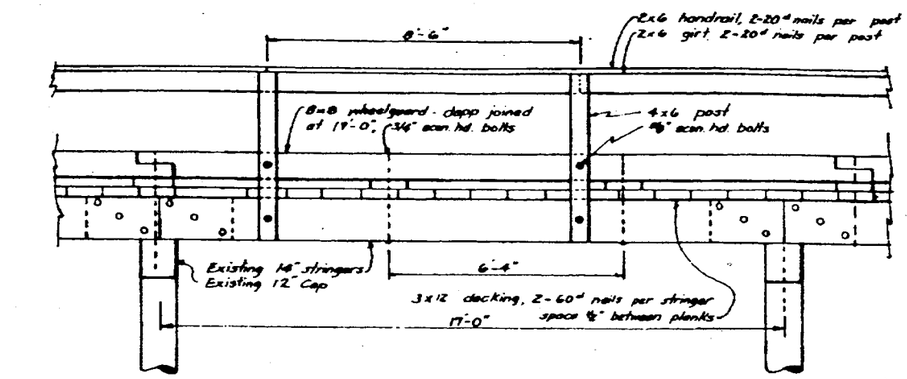
METLAKATLA HARBOR MISC. DETAILS

DESIGNED BY: *RWM*	PROJECT NO. *67746*
DRAWN BY: *BN*	DATE: *DECEMBER, 1999*
CHECKED BY: *BAS*	SHEET *12* OF *41*



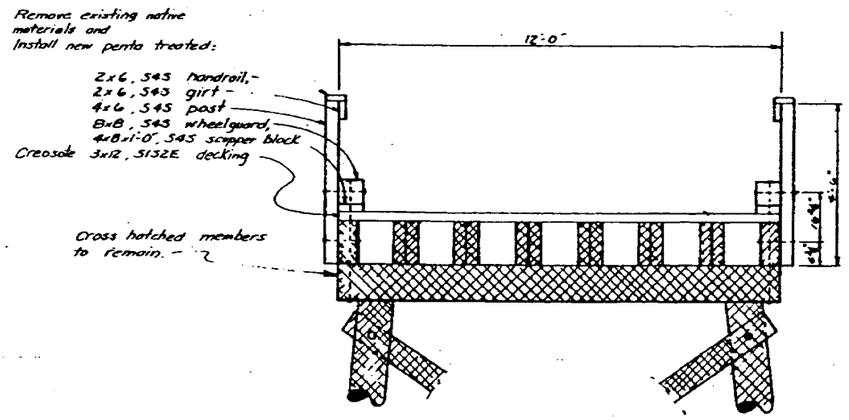
PROJECT LAYOUT

1" = 50'



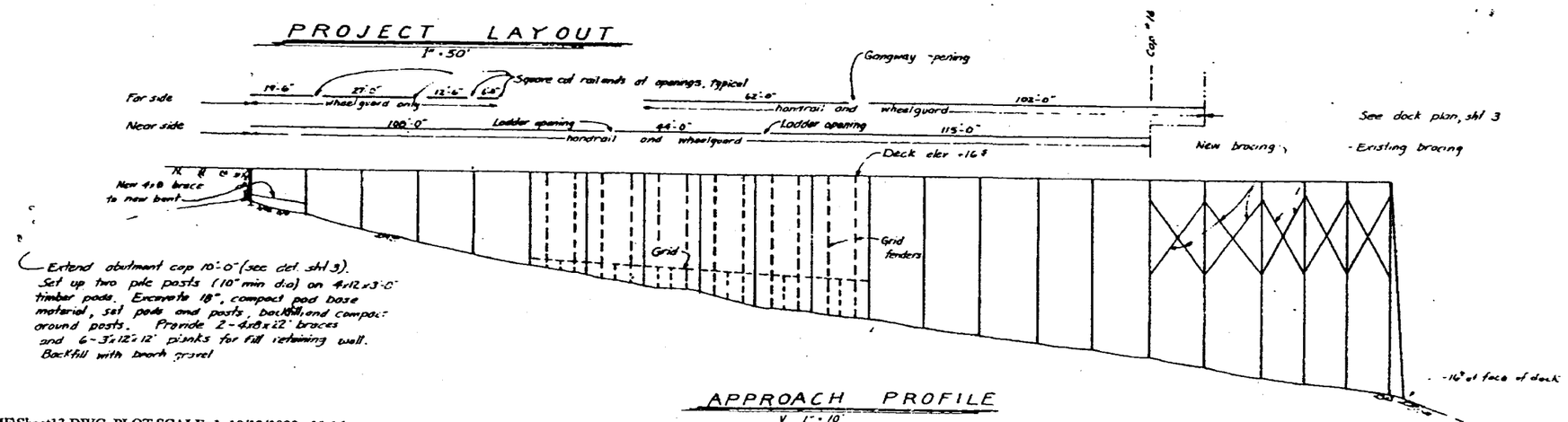
APPROACH ELEVATION

1/2" = 1'-0"



APPROACH SECTION

1/2" = 1'-0"



APPROACH PROFILE

V 1" = 10'
H 1" = 20'

AS BUILT
Sheet 13 of 41

DO NOT SCALE THIS DRAWING USE DIMENSIONS

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

Craig Alaska

Project Layout and Approach Reconstruction Details

SCALE As noted	SURVEYED MI	APPROVED
DESIGNED HM	DRAWN HM	Don Statter
CHECKED	DATE July 6	DIRECTOR
PROJECT NUMBER 8 74029	SHEET 2 OF 10	

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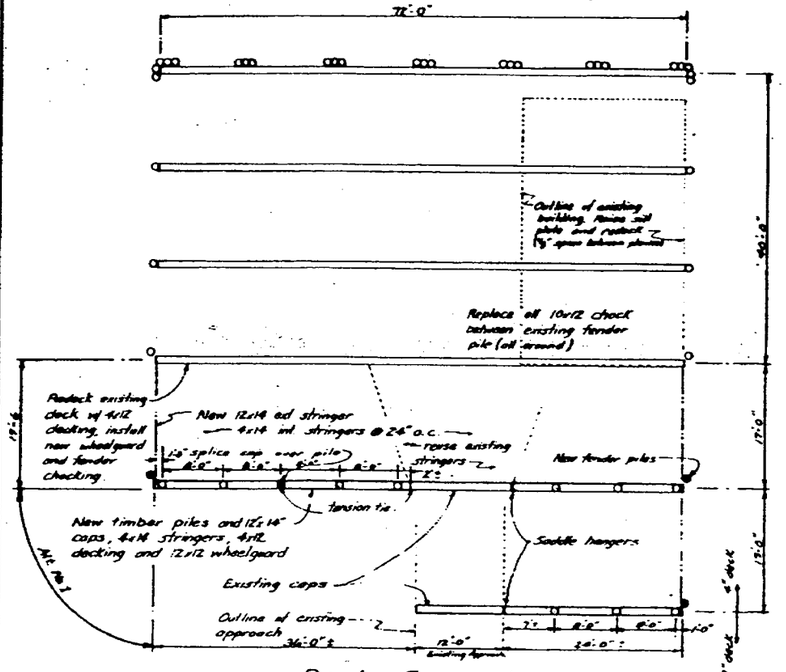
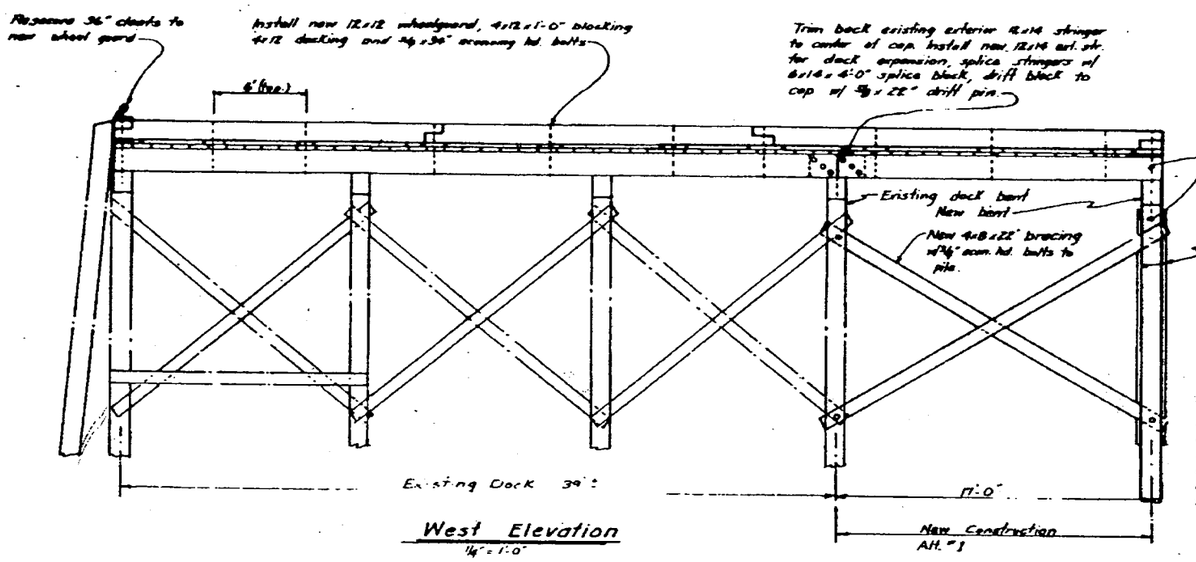


Dock Expansion Pile & Cap Layout

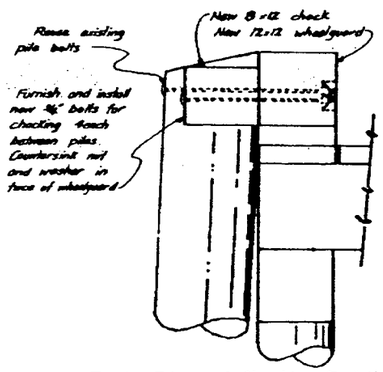
1"=10'

& Cap @ Kg, begin dock, bevel plane first deck plank to provide smooth transition between 5" deck and 4" deck



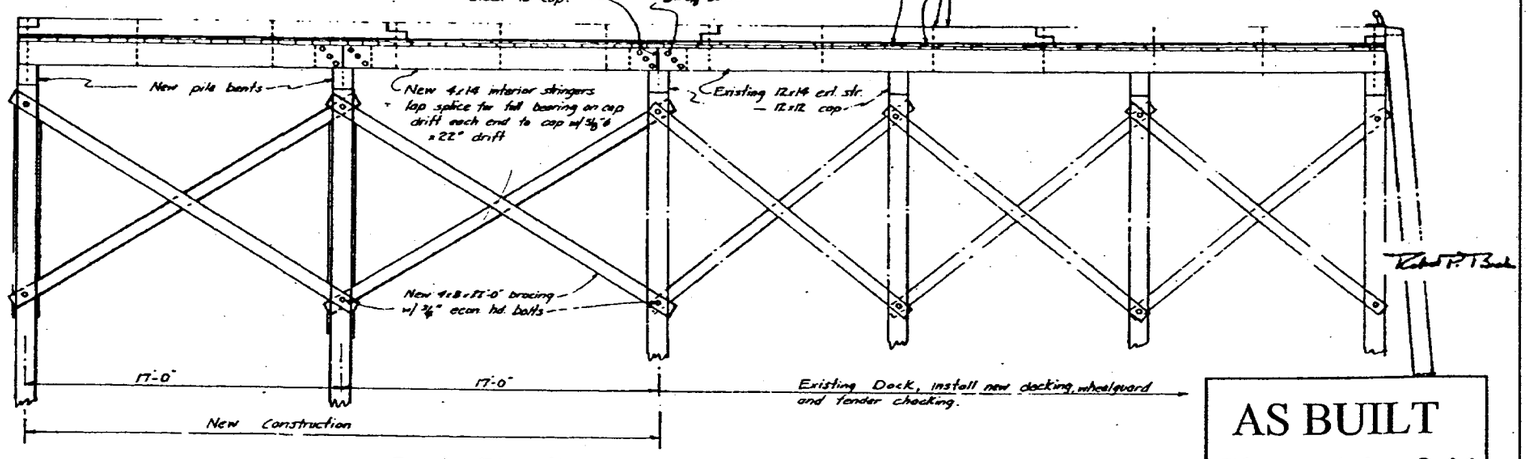
West Elevation

¼"=1'-0"



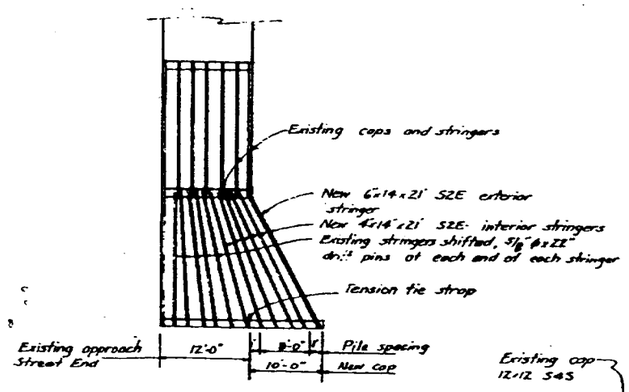
Fender Pile and Chocking Detail

1"=1'-0"



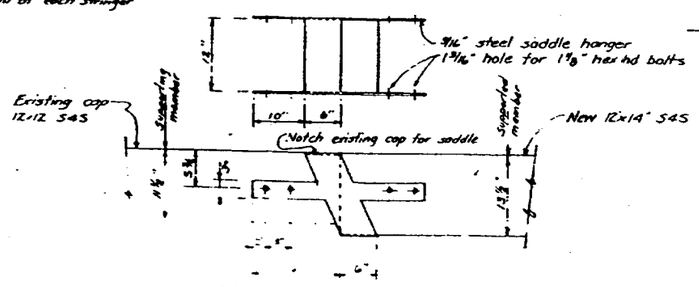
East Elevation

1¼"=1'-0"

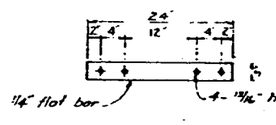


Approach Flair Layout

1"=10'



Saddle Hanger Detail



Tension Tie Strap (6 ea)

General Notes:

All dock materials to be creosote treated, and dressed as follows:

Caps	12x14	S4S
Stringers	12x14	S4S
	4x14	S2E
Decking	4x12	S1S2E
Wheel guard	12x12	Rough
Chocking	10x12	Rough

AS BUILT
Sheet 14 of 41

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

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

Craig Alaska

Dock Reconstruction and Expansion Plan and Details

SCALE As noted	SURVEYED	APPROVED	
DESIGNED HM	DRAWN HM	Don Statler DIRECTOR	
CHECKED	DATE July 20, 1999		
PROJECT NUMBER 8.74029	SHEET 3 OF 10		

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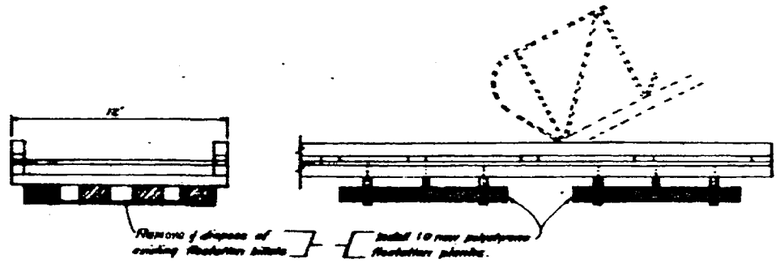
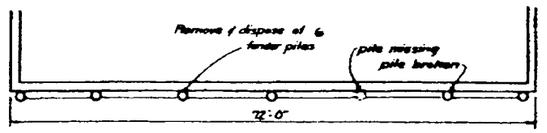
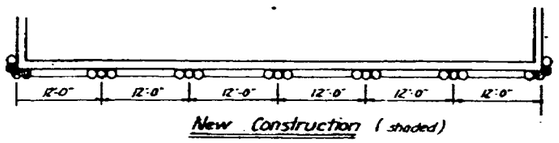


Gangway Float Flotation (Craig City Float)
scale: 1/4" = 1'-0"



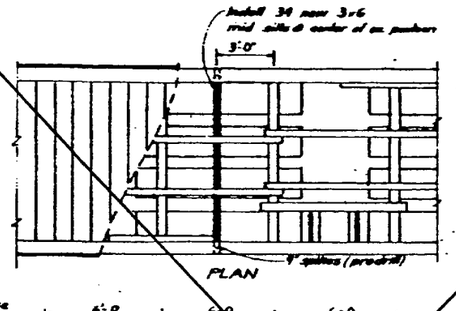
Craig City Dock (existing conditions)

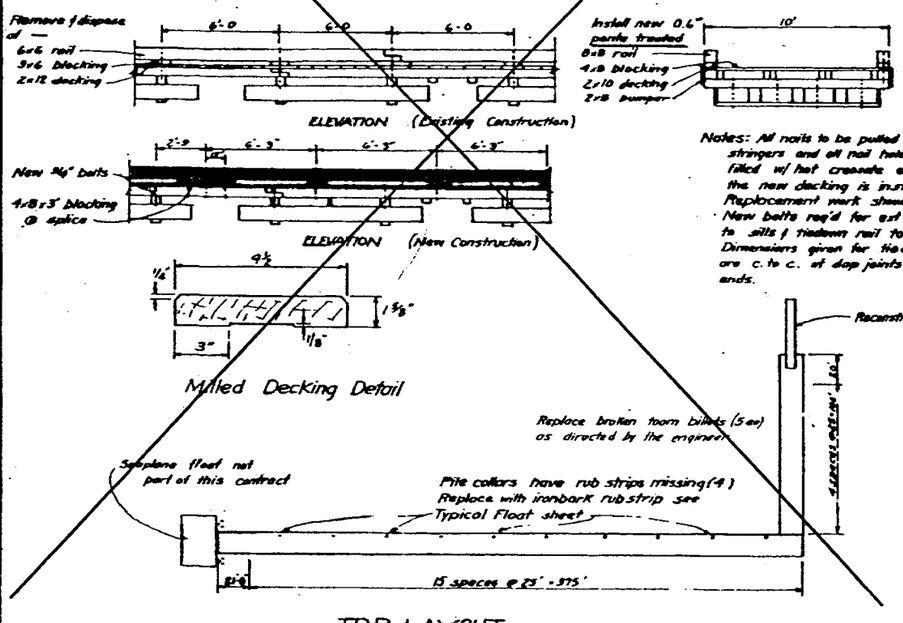
Install new fender piles as shown



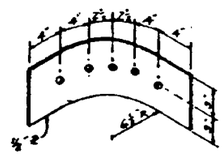
New Construction (shaded)

Note: Provide and install 3-3"x8"x16' bracing as directed by engineer

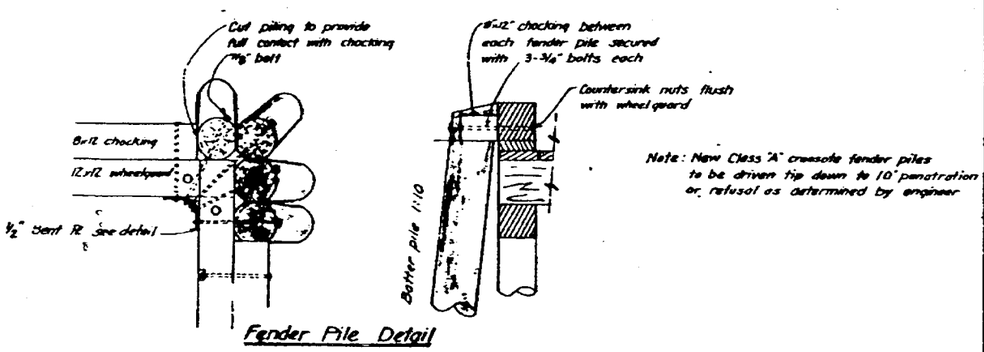




KLAWOCK ALASKA



Bent Plate
scale: 1/2" = 1'-0"



Note: New Class "A" creosote fender piles to be driven tip down to 10' penetration or refusal as determined by engineer

Fender Pile Detail

Craig City Dock
Reconstruction

AS BUILT
Sheet 15 of 41

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

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

Craig Alaska

City Float and Dock

Klawock Alaska

SCALE As noted	SUBMITTED	APPROVED
DESIGNED MM	DRAWN HRM	Don Statter DIRECTOR
CHECKED [illegible]	DATE Mar '74	
PROJECT NUMBER 3 75:06		SHEET 12 OF 24

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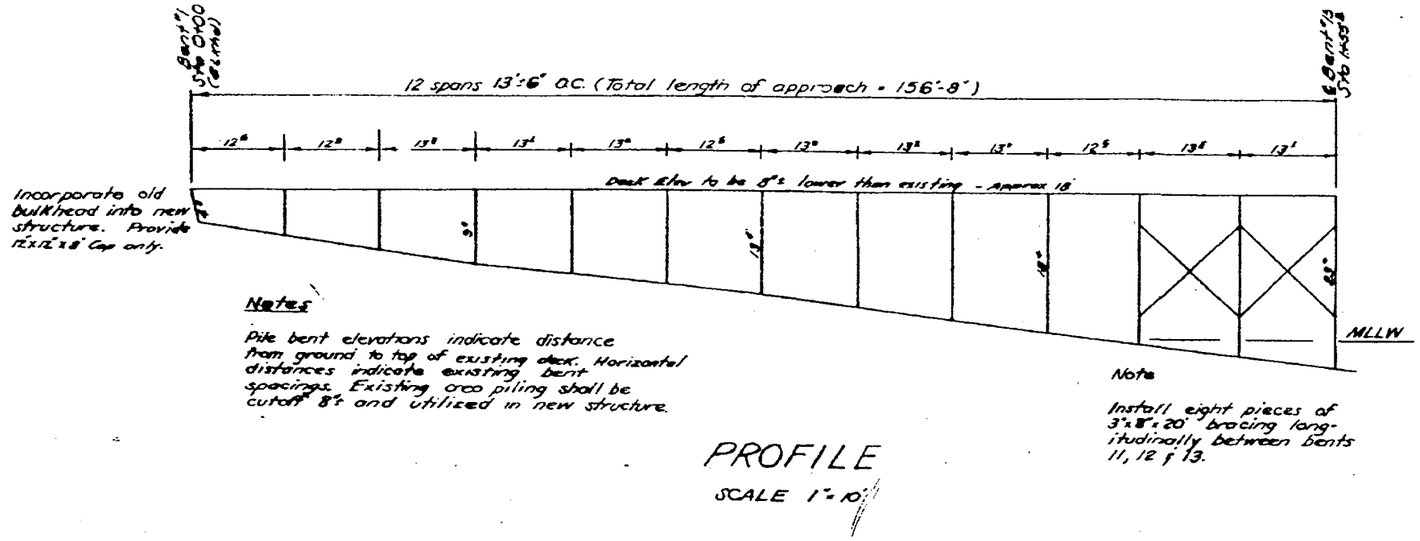


Notes

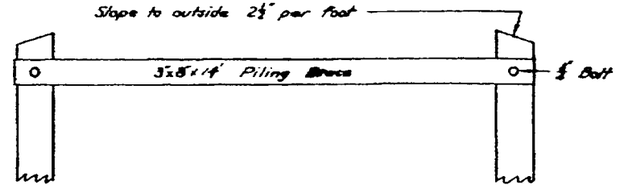
Pile bent elevations indicate distance from ground to top of existing deck. Horizontal distances indicate existing bent spacings. Existing creo piling shall be cutoff 8"± and utilized in new structure.

Note

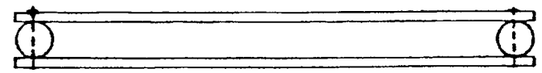
Install eight pieces of 3"x8"x20' bracing longitudinally between bents 11, 12 & 13.

PROFILE

SCALE 1" = 10'



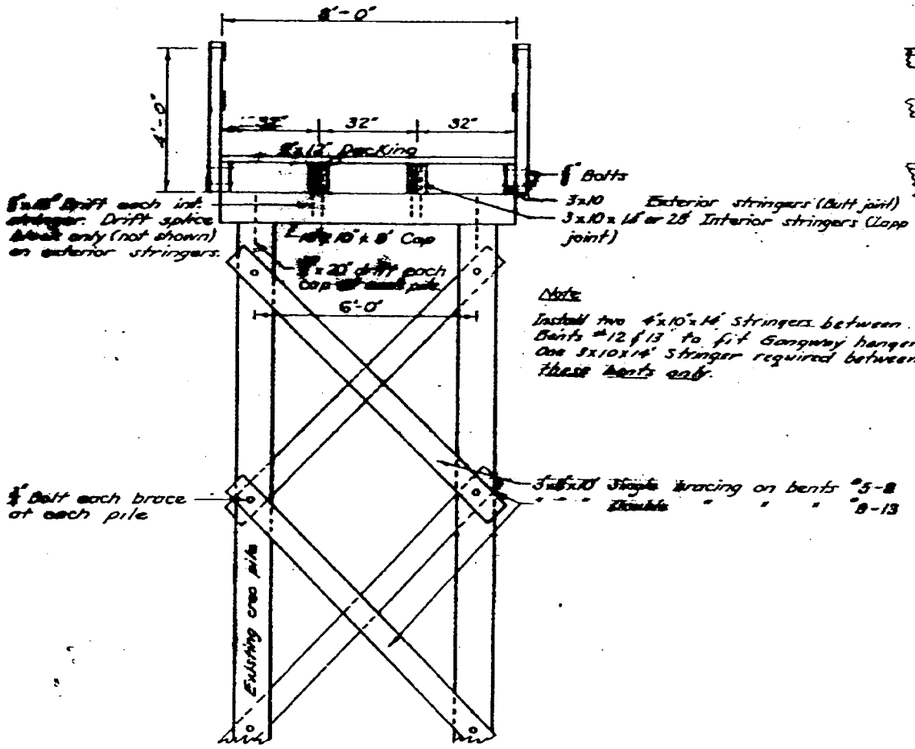
ELEVATION VIEW



PLAN VIEW

FLOAT PILE BRACING DETAIL
(For log float only)

SCALE ½" = 1'-0"



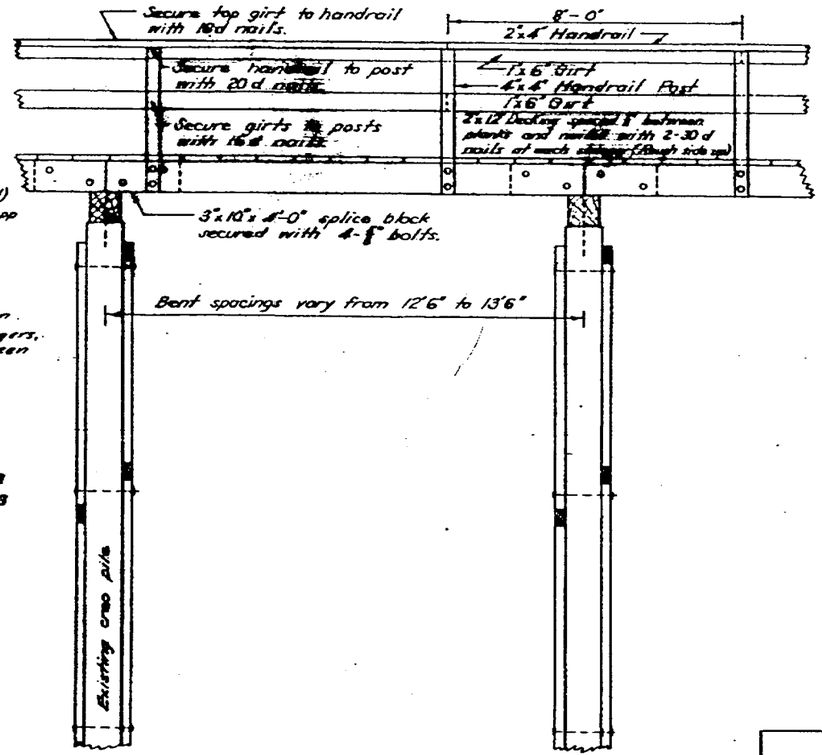
Drift each int. stringer. Drift splice block only (not shown) on exterior stringers.

Note

Install two 4"x10"x14' stringers between Bents #12 & 13 to fit Gangway hangers. One 8"x10"x14' Stringer required between these bents only.

APPROACH SECTION

SCALE ½" = 1'-0"



APPROACH ELEVATION

SCALE ½" = 1'-0"

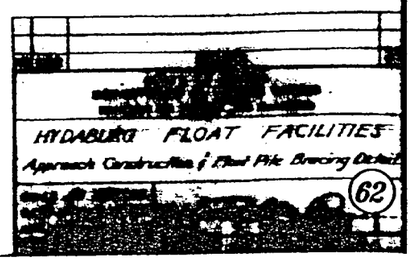
MATERIALS

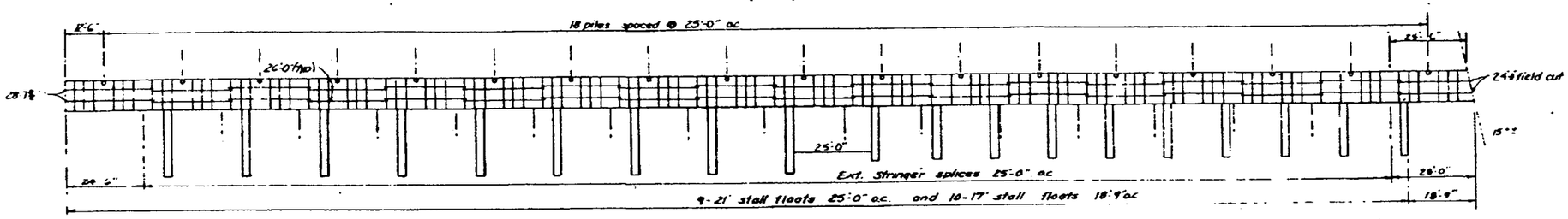
ITEM	GRADE	DRESSING	TREATMENT	TYPE
PILING	Class "A"		12 Ret.	Douglas Fir or Western Hemlock
BRACING	Const.	Rough	" "	
CAPS	"	S 4 S	10" Ret	
STRINGERS	"		" "	
SPLICE BLOCKS	"		" "	
DECKING	"	S 1 S	None	Sitka Spruce
HANDRAIL POSTS	"	S 4 S	"	
HANDRAILS	"	" "	"	
GIRTS	"	" "	"	

NOTES

All hardware to be galvanized with malleable iron washers between nut and wood surfaces. All bolts to be of the mushroom type. Bolt holes to be drilled true size. Drift holes to be drilled ⅛ undersize. Drill holes to be treated with hot creosote oil.

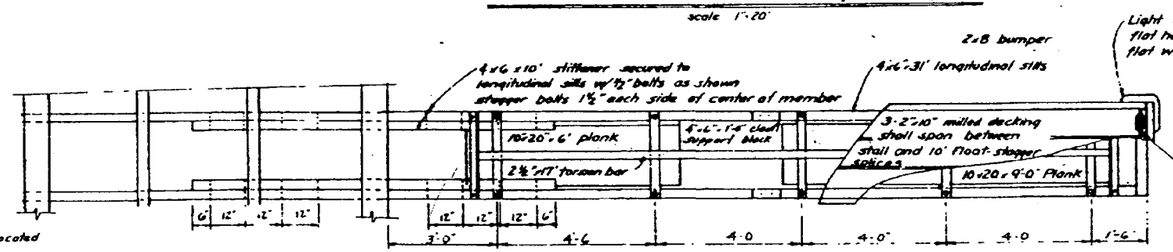
AS BUILT
Sheet 16 of 41

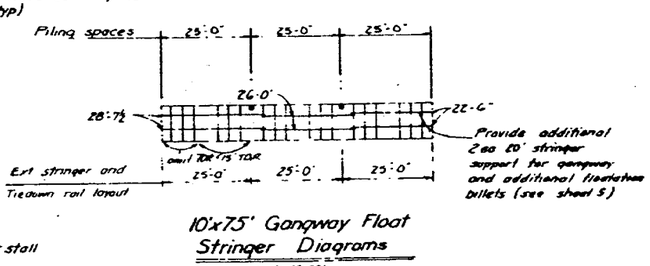




10'x 450' Timber Float Stringer Diagrams

scale 1"=20'





10'x75' Gangway Float Stringer Diagrams

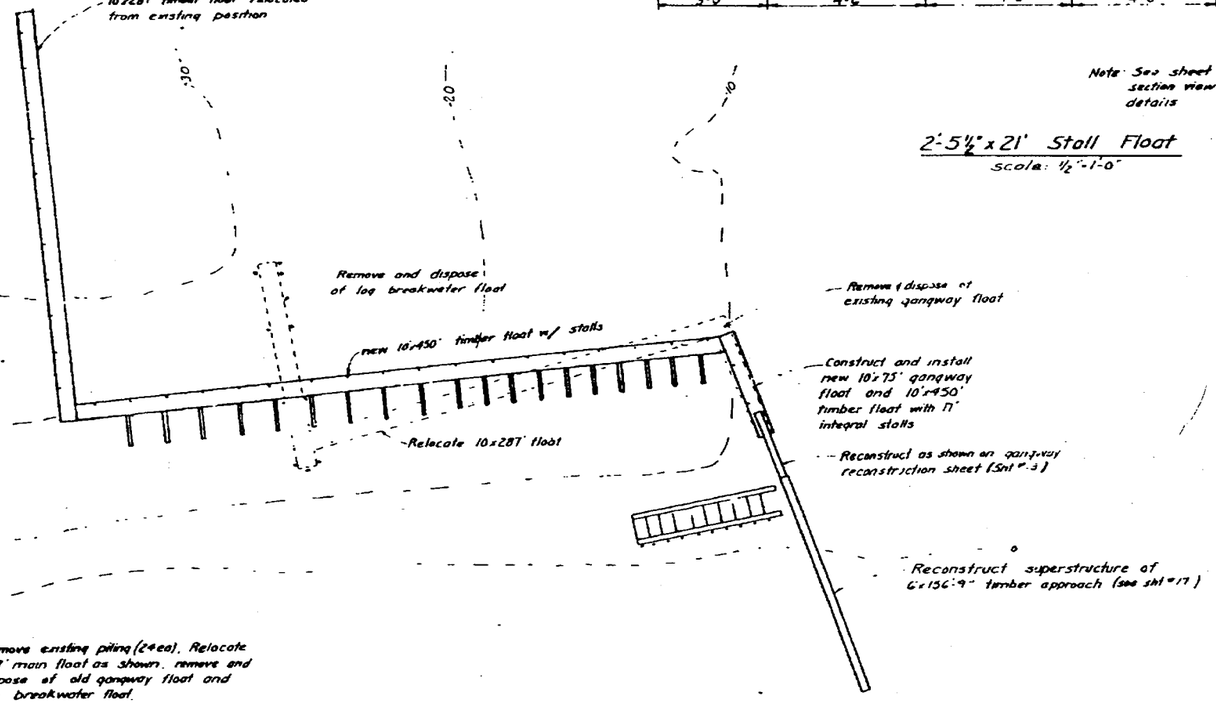
scale 1"=20'

4 each 8" dock cleats (galv malleable iron) per stall

Note: See sheet 6 for section view & torsion bar details

2'-5½" x 21' Stall Float

scale: ½"=1'-0"



Note:
1. Remove existing piling (24 ea). Relocate 287' main float as shown. remove and dispose of old gangway float and log breakwater float.
2. Approximately 12 piles are considered to be reusable but pile soundness will be determined in the field by the engineer

Project Layout

scale 1"=50'

Hydaburg city center ½ mi / Center line roadway to city center

Notes
1. 10' Floats to be constructed as detailed on Typical Float Sheet (sht #5). Str & TDR dimensions given from center of dapp to center of dapp or butt ends. Provide TDR at end of 75' float.
2. Final float position to be determined by the engineer
3. Float piling to be driven butt down to 15' penetration or refusal as determined by the engineer. Pile cut off elevation = +22 ±
4. 17' stall floats to be constructed as detailed on sheet 6
5. 21' stall float to be constructed as detailed on this sheet. 21' stall float section and stabilizer details are same as 17' stalls see sheet 6 for details.

AS BUILT
Sheet 17 of 41

DO NOT SCALE THIS DRAWING USE DIMENSIONS

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

Hydaburg Alaska

Project Layout and Stringer Diagram (75)

SCALE As noted	SURVEYED	APPROVED
DESIGNED HM	DRAWN HM	Don Stalter
CHECKED DW	DATE Apr 74	DIRECTOR
PROJECT NUMBER 3-75116		SHEET 17 OF 29

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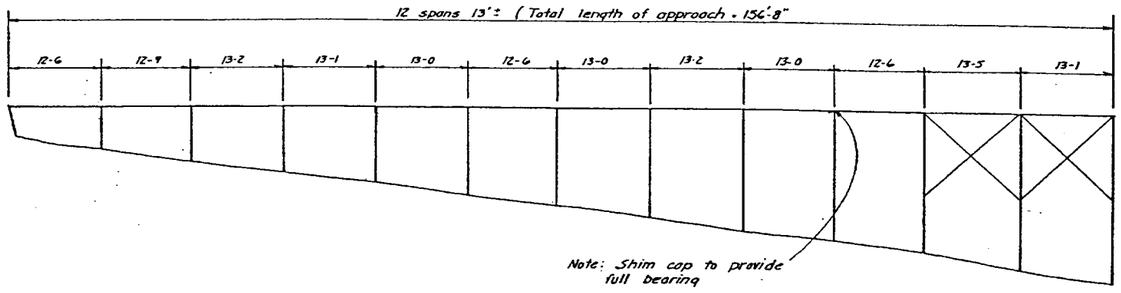


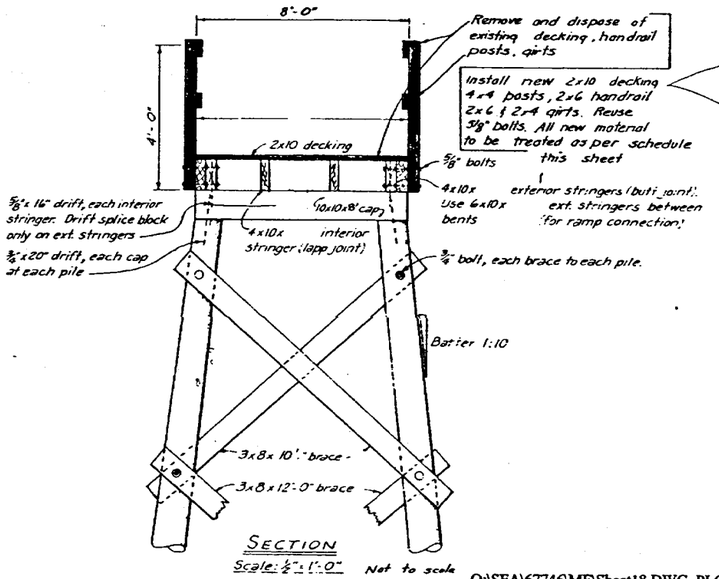
2 replaced

Provide for new bracing (3"ø - 3x8x20' & 2"ø - 3x8x10')
to be installed as directed
by the engineer

Note: New Construction Shaded

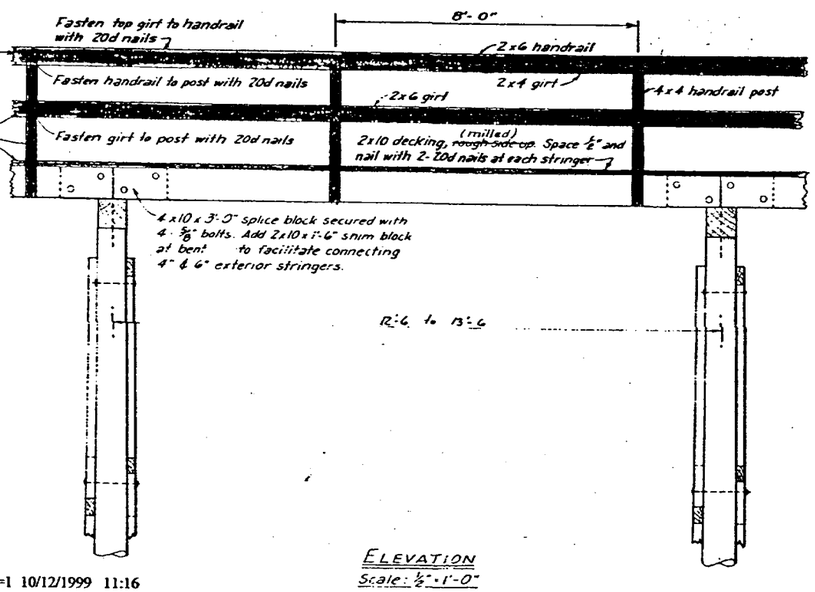
All nails to be pulled from stringers and all nail holes filled w/hot creosote oil before the new decking is installed

All handrails & girts come cut to 8' lengths.



SECTION
Scale: ½" = 1'-0"

Not to scale



ELEVATION
Scale: ½" = 1'-0"

NOTES:
1. All hardware to be hot dip galvanized. A malleable iron washer shall be placed between all nut and wood surfaces.
2. All bolts to be of the economy headed type. Bolt holes to be drilled 1/16" oversize.
3. Drift holes to be 1/16" undersize.
4. All pressure treated creosote materials shall be cut to size prior to treatment.
5. Drift holes in stringers & splice blocks, and bolt holes in exterior stringers for splice blocks shall be drilled prior to treatment. All other holes may be Field drilled.
6. All field drilled holes shall be treated with hot creosote oil.

MATERIALS		
ITEM	DRESSING	TREATMENT
Piling		12" Creo. Ret.
Bracing	Rough	" " "
Caps	S4S	8" Creo. Ret.
Stringers	S2E	" " "
Splice Block	"	" " "
Decking	S1S	.06" Penta
Handrail Post	S4S	0.6" Penta
Handrail	"	W.R. Penta
Girts	"	" " "

All 12-lb. creo. treatment to be Full Cell.
All 8-lb. creo. treatment to be Empty Cell.
All material to be constr. grade Douglas fir.

AS BUILT
Sheet 18 of 41

As Constructed 6-12-70

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

Hydaburg Alaska

TYPICAL 8'-0" APPROACH
CONSTRUCTION DETAILS

SCALE As noted
DATE
PROJ NO. 3-75116 APPROVED Don Statter DIRECTOR

SURVEYED BY DRAWN BY JET CHECKED BY DJW

75

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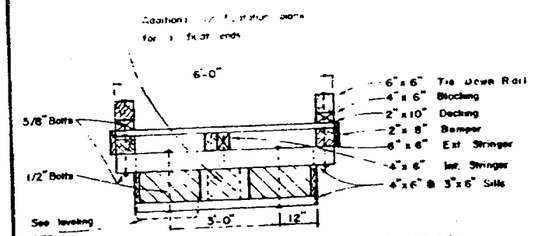
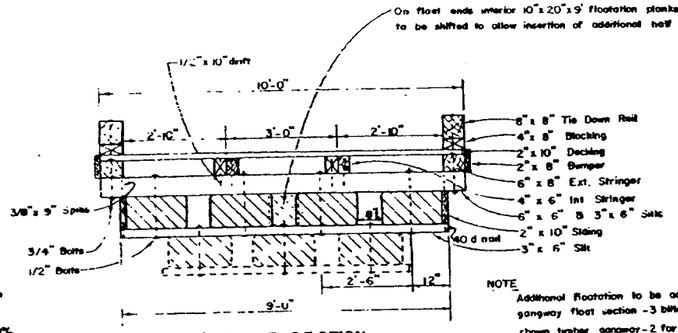


6' FLOAT SECTION
1/2" = 1'-0"

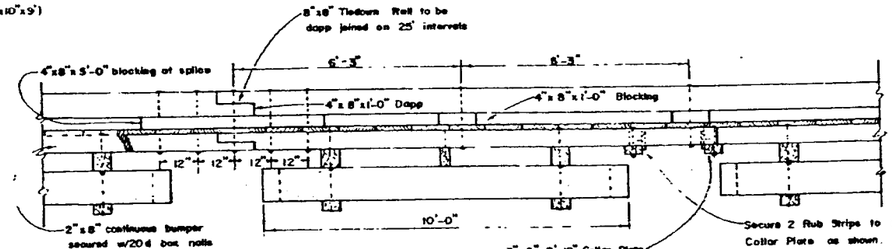
NOTE
6' Float construction shall conform to 10' float constr except as noted.

Leveling note
5"x20"x 4' to 5' leveling flotation shall be installed as directed by the Engr (required on approx 20% of the stall floats excluding 6' stall floats) Place flotation between toe-er sill members with the outer edge bearing on siding members (cut side up) Pin flotation together with 3/8" x 20" "sb" pin (see detail, this sheet), 3 places, approx. equally spaced

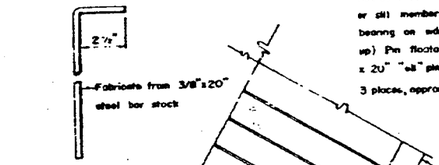


10' FLOAT SECTION
1/2"=1'-0"

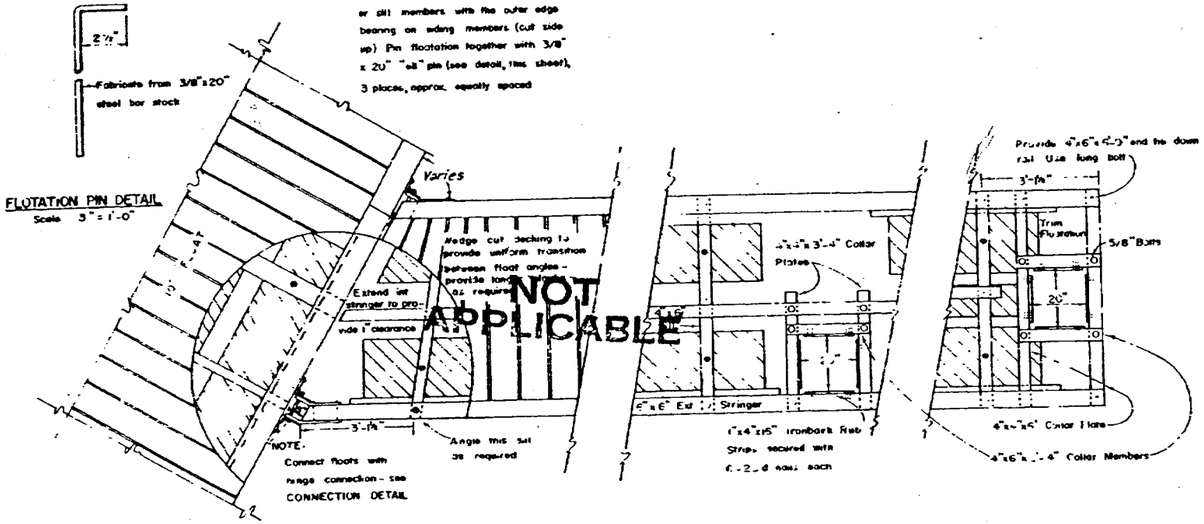
NOTE
Additional flotation to be added on gangway float section - 3 billets as shown timber gangway - 2 for steel gangway

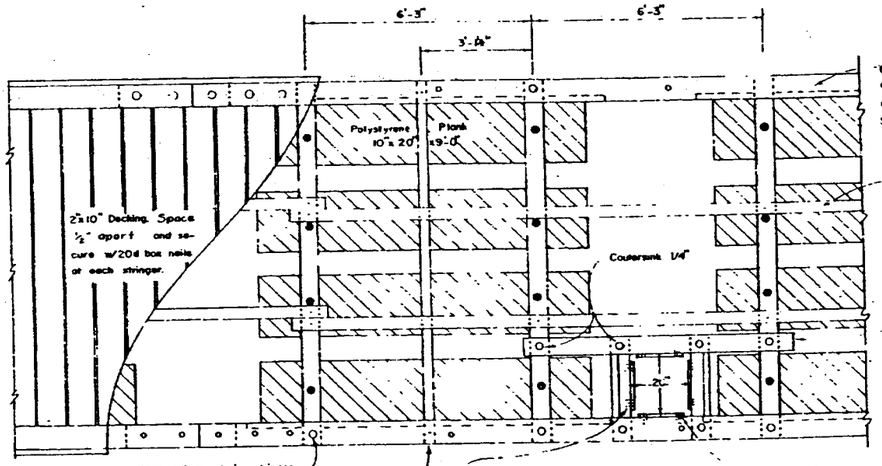


ELEVATION
1/2"=1'-0"

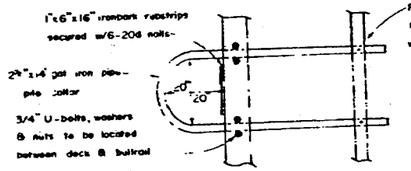


FLOTATION PIN DETAIL
Scale 3"=1'-0"

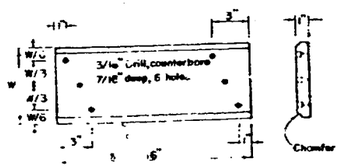




PLAN VIEW 10' FLOAT
1/2" = 1'-0"



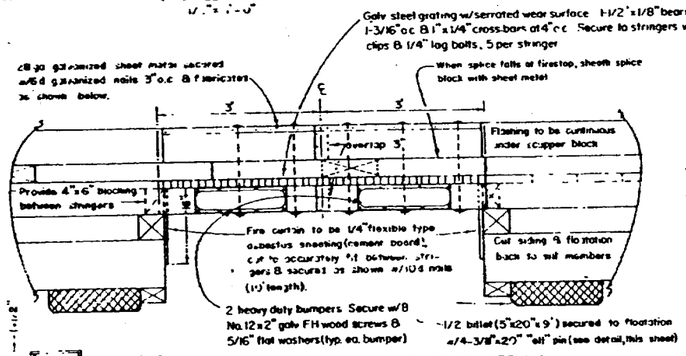
PIPE PILE COLLAR DETAIL
1/2"=1'-0"



W = 4'-0" float & 4' stall float
6"-3" other

IRONBARK RUB STRIP
1" = 6"

CONNECTION & COLLAR DETAIL
4' STALL FLOAT
1/2" = 1'-0"



S4S, 8"x6" tiedown rail

FLASHING FABRICATION
Scale 1" to 1'-0"

S4S, 6"x 8" ext stringer

S2E, 4"x6" int stringer

FIRE STOP DETAILS
Scale 3/4" to 1'-0"

NOTES:
Secure grating to stringers with zinc clips & 1/4" lag bolts - 5 at each stringer per 6' width

* Exact width to conform to width of flotation material

MATERIALS		
ITEM	DRESSING	TREATMENT
3"x6"-4"x6" & 6"x6" upper sill	S-4-E 1/8" off	12 lbs ret.
2"x10" Siding	2"x10¼"	" "
3"x6" Lower Sill	Rough	" "
6"x 4" & 3"x6" Collar Plates	Rough	6 lbs. ret
6"x6" Collar Members	S-2-E	" "
4"x6" Interior Stringers	" "	" "
6"x6" & 6"x8" Ext Stringers	S-4-S	" "
2"x8" Bumpers	" " "	0.5 lb Penta
6"x6" Collar Stringers	" " "	8 lb. creo. ret.
2"x10" Decking	Milled	0.5 lb Penta.
4"x6" & 4"x8" Blocking	S-4-S	" "
6"x6" & 8"x8" Rail	" " "	" "

All material to be construction grade Douglas Fir
All piling to be Class A creosoted to 12 lbs retention
All 12 lb. ret. creosoted treatment to be Full Cell
All 8 " " " " " " Empty "

PRE-DRILLED BOLT HOLES
COLLAR MEMBERS - 3/8 holes
SILLS - holes for flotation plank bolts
STRINGERS - 1 holes for stringer to sill bolts
TIE DOWN RAIL - 3/4 holes
PILE COLLAR STRINGER - 10' FLOAT - 3/8 holes

FIELD DRILLED BOLT HOLES
SILLS - 1 holes for stringer to sill bolts
2 " collar stringer to sill
PILE COLLAR INT STRINGER - 6' FLOAT - all holes
RAIL BLOCKING - 3/8 holes
COLLAR PLATES - all holes
EXT STRINGER - 1 holes for tiedown rail bolts
2 " " pile collar plate bolt

NOTES
All hardware to be hot-dipped galvanized A malleable iron washer shall be placed between all nut and wood surfaces. All bolts to be of the economy headed type. Bolt holes to be drilled 1/16" oversize except sill bolt holes for flotation planks 1/8" oversize. Drift holes to be drilled 1/16" undersize. All field drift holes shall be treated with hot creosote oil. All pressure treated creosote material shall be cut to size prior to treatment. Tie down rails shall extend across all float ends except under gangway. All bolt heads facing decking shall be countersunk 1/4" previous to treatment. Field drift all drift bolt holes. A barrier of 6 mil black polyethylene shall be placed between the contact surfaces of all creosote timber and flotation material (except float sliding members).

AS BUILT
Sheet 19 of 41

DO NOT SCALE THIS DRAWING USE DIMENSIONS

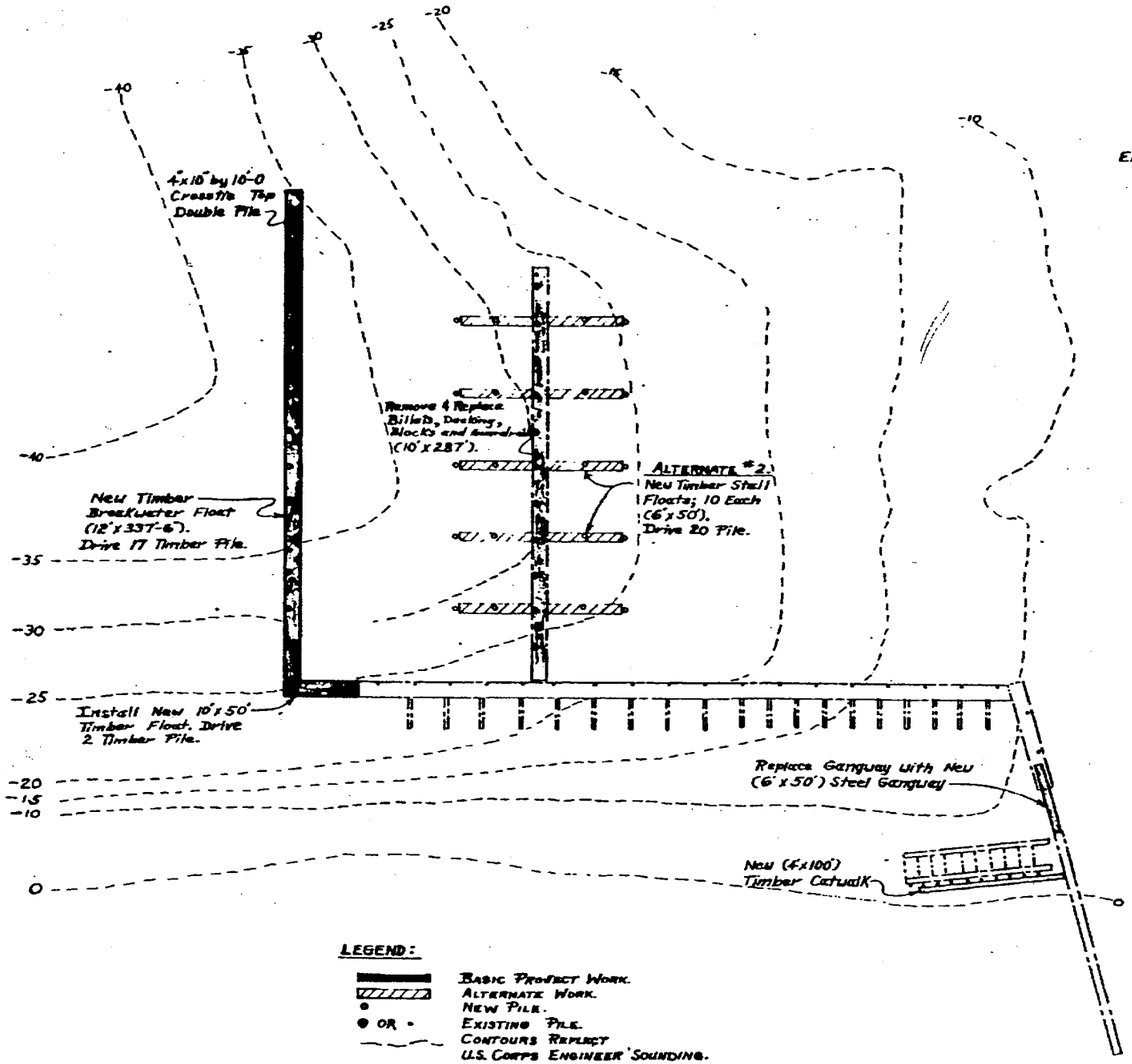
STATE OF ALASKA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER AND HARBORS

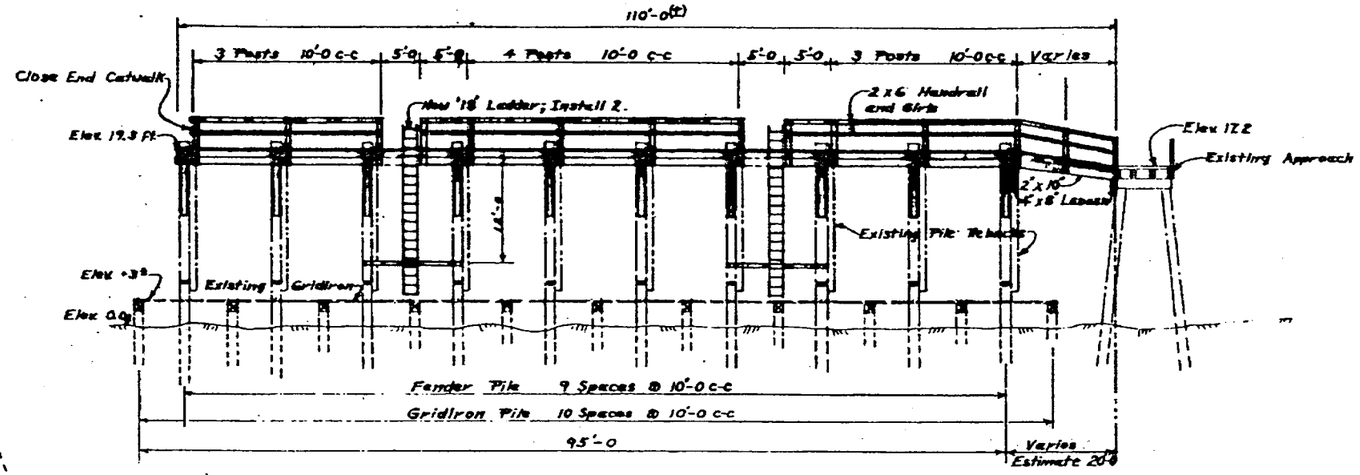
TYPICAL FLOATS

(75)

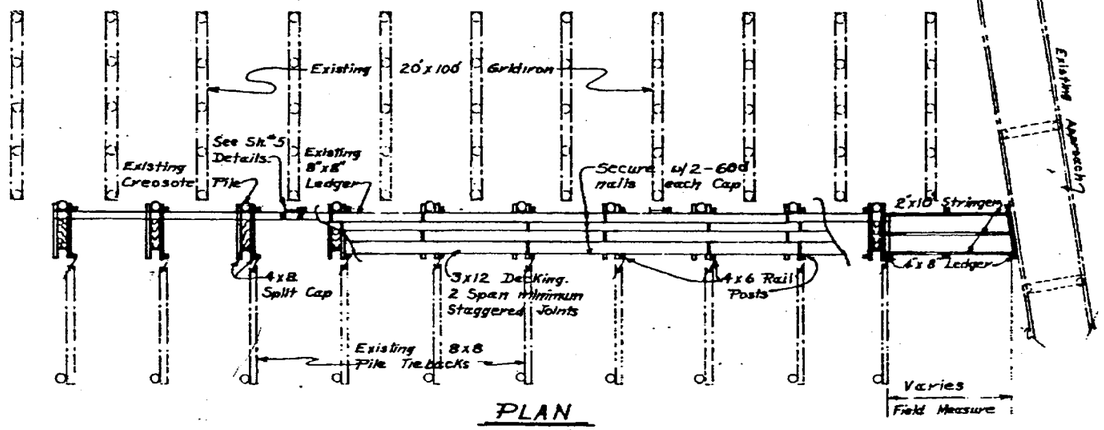
SCALE As shown	SURVEYED	APPROVED	
DESIGNED DW/DB	DRAWN MH/ET	DIRECTOR Don Statter	
CHECKED DB	DATE 4-60		
PROJECT NUMBER		SHEET 5 OF 24	

No.	Revision	Date	
1	Changed treatment for bumpers, decking, blocking & tie-down rails to 0.5 lb Penta. Spaced deck planks ¼"	7-29-71	

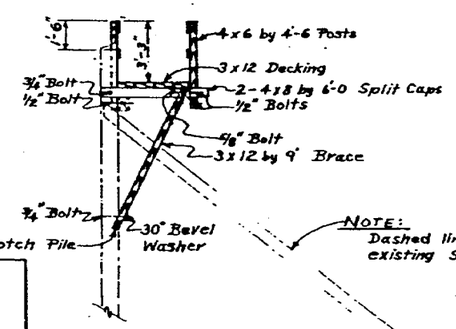




ELEVATION
Scale 1/8" = 1'-0



PLAN
Scale 1/8" = 1'-0



SECTION
Scale 1/4" = 1'-0

NOTE: Dashed lines indicate existing Structure.

LEGEND:

- Basic Project Work.
- Alternate Work.
- New Pile.
- ● OR • Existing Pile.
- Contours Reflect U.S. Corps Engineer Sounding.
- Existing Facilities (Reconstructed 1975).

PROJECT LAYOUT
Scale 1" = 50'-0

GENERAL:

1. Reconstruct 10'x287' Float Superstructure, per Sheet #2.
2. Provide Steel Gangway As Detailed Sheets #9 & 10.
3. New Catwalk Details Are As Shown On Sheet #4 & 5.
4. Breakwater Float Details Are On Sheet #5.
5. 50'-0" Shell Float Details Are On Sheet #7.
6. Float Connections Are Shown On Sheet #8.
7. Piling Shall be Driven Butt Down To 15 Ft. or Refusal As Determined By The Engineer.

AS BUILT
Sheet 20 of 41

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

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

HYDABURG ALASKA

PROJECT

CATWALK DETAILS

(77)

SCALE AS NOTED	SURVEYED —	APPROVED	
DESIGNED RMH	DRAWN RMH		DIRECTOR
CHECKED	DATE Aug. 1976		
PROJECT NUMBER 377116		SHEET 4 OF 10	

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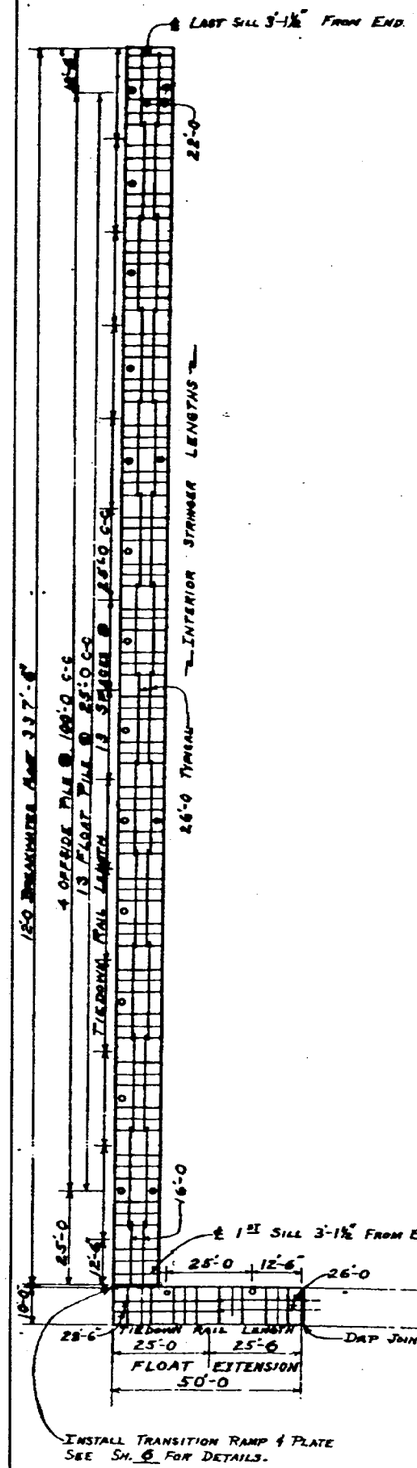
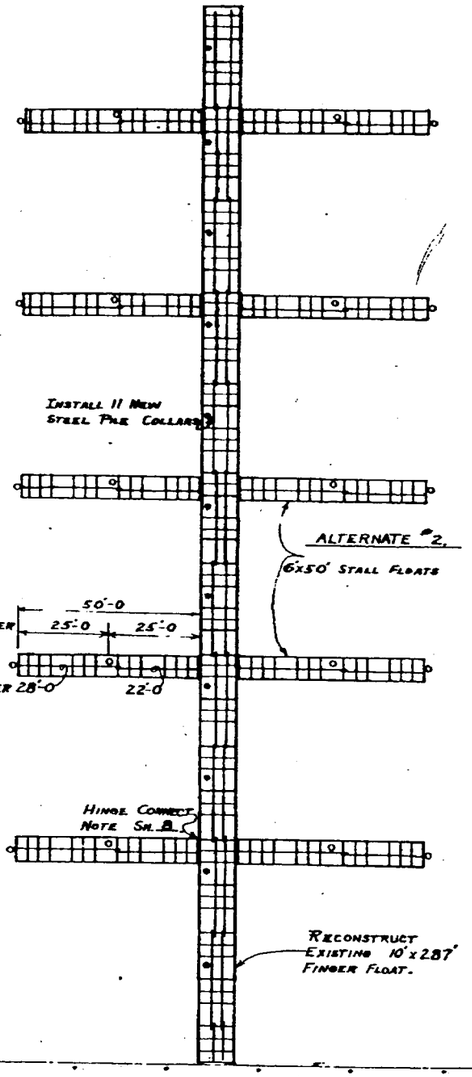
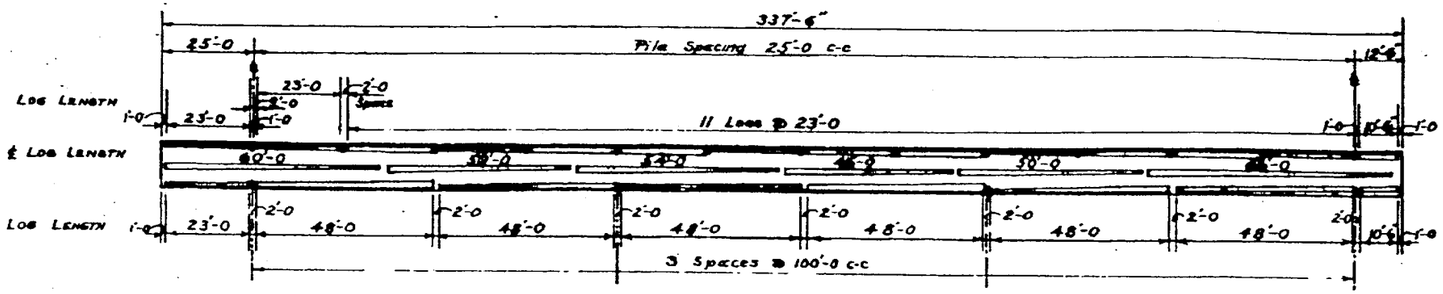
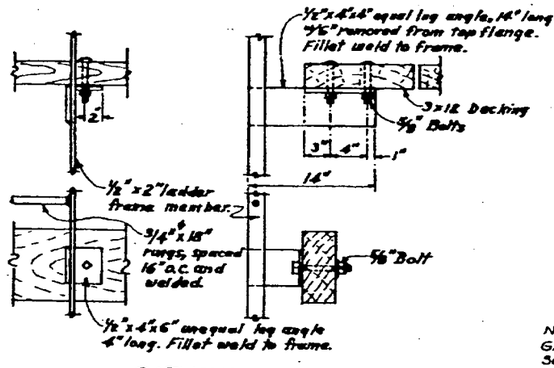


FLOAT LAYOUT
Scale 1" = 20'-0

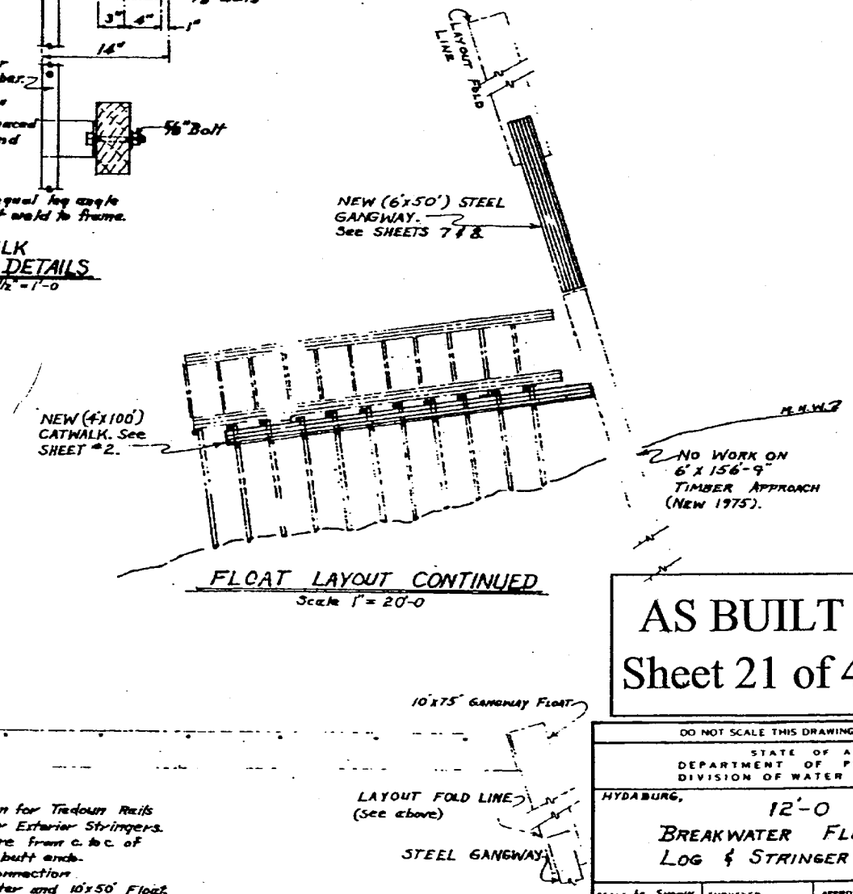




BREAKWATER FLOAT
LOG PLAN
Scale 1" = 20'-0



CATWALK
LADDER DETAILS
Scale 1½" = 1'-0



FLOAT LAYOUT CONTINUED
Scale 1" = 20'-0

NO WORK ON THIS FLOAT (NEW 1975)

GENERAL NOTES:
1. Dimensions given for Tiedown Rails are the same for Exterior Stringers. Measurements are from c. to c. of dapp joints or to butt ends.
2. Install Hinge Connection between Breakwater and 10'x50' Float.
3. Breakwater Float Log Plan Shown This Sheet.
4. New 6'x50' Stall Floats shall be Hinge Connected to existing 10'x28' Float.

AS BUILT
Sheet 21 of 41

DO NOT SCALE THIS DRAWING USE DIMENSIONS

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

HYDABURG, ALASKA

12'-0
BREAKWATER FLOAT ~
LOG & STRINGER PLAN
(77)

SCALE As Shown	SURVEYED	APPROVED
DESIGNED BMH 1999	DRAWN BMH	
CHECKED -	DATE	DIRECTOR
PROJECT NUMBER 377116	SHEET 5 OF 10	

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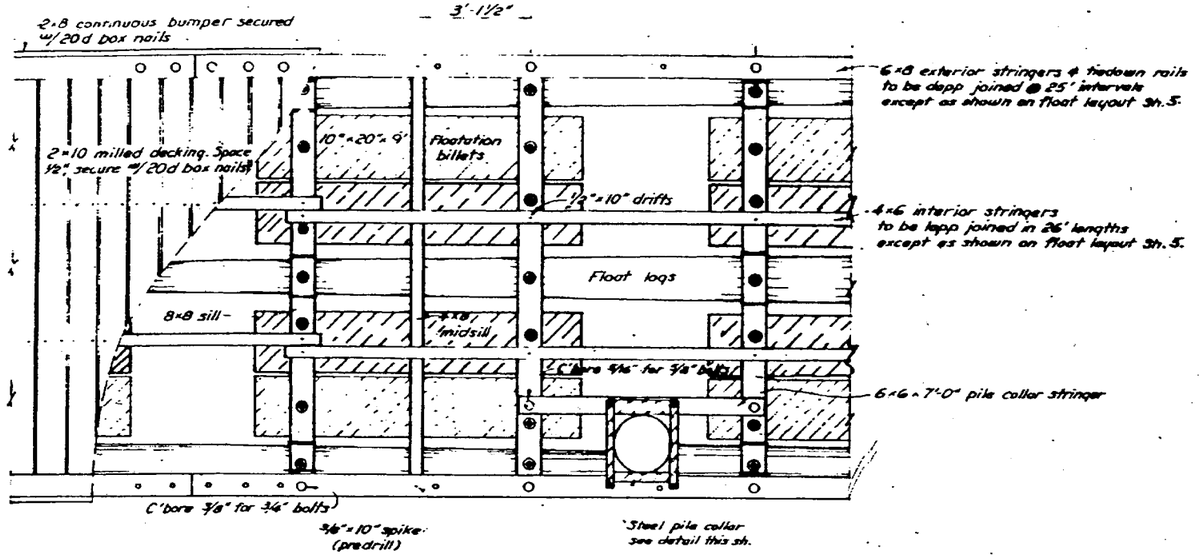
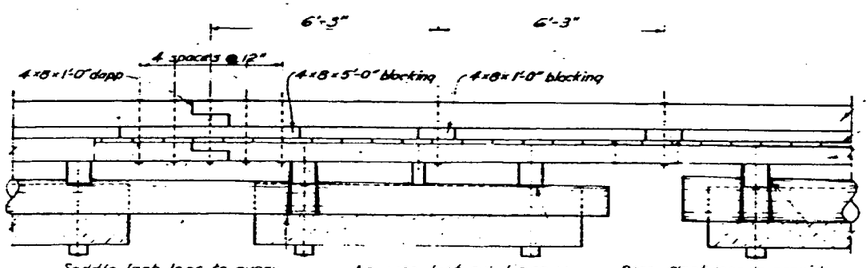
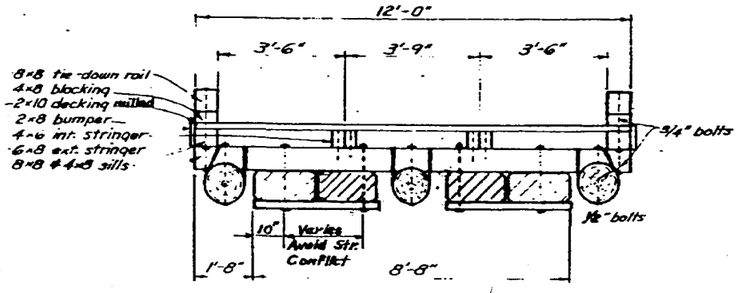


PLAN
½"=1'-0"

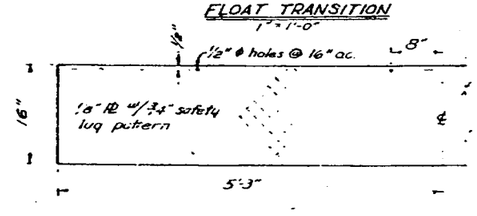


ELEVATION
½"=1'-0"

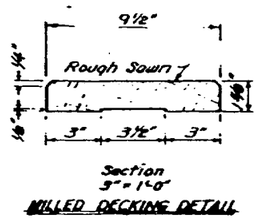


SECTION
½"=1'-0"

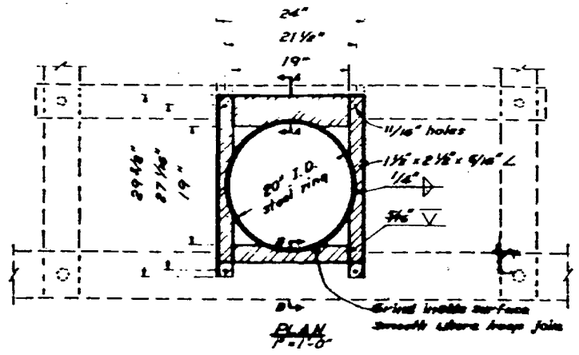
FLOAT TRANSITION
1"=1'-0"



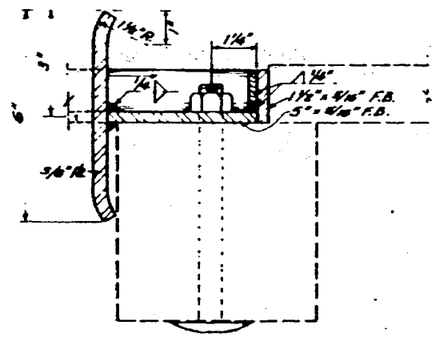
COVER PLATE
1"=1'-0"



Section
3"=1'-0"
MILLED DECKING DETAIL

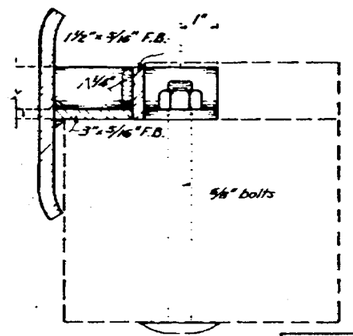


PLAN
1"=1'-0"



SECTION A-A
Half Size

NOTE: All mat'l mild steel. Hot dip galv. after fab



SECTION B-B
Half Size

STEEL PILE COLLAR DETAILS

MATERIAL

ITEM	DRESSING	TREATMENT
8x8 tiedown rail	S4S	0.5 lb. pentu
4x8 blocking	"	"
2x10 decking	milled	"
2x8 bumpers	"	"
6x8 exterior stringers		8 lb. creo.
4x6 interior stringers	S2E	"
6x6 collar stringers	S2E	"
4x6 collar stringer	S2E	"
3x6 collar plates	Rough	"
8x8 & 4x8 Sills	S4S	12 lb. creo.
2x8 Lower Sills	Rough	"
Float logs	Class A	20 lb. creo.

APPROVED

DRILLING SCHEDULE

SHOP DRILL
Tie down rail - all holes.
Stringers - holes for stringer to sill bolts drifts & spikes.
Pile collar stringers - all holes.
Sills - holes for flotation billets & logs.

FIELD DRILL
Tiedown rail blocking - all holes.
Ext. stringers - holes for tiedown rail & pile collar plate bolts.
Sills - holes for all stringer to sill bolts & spikes.
Pile collar member - all holes for nails.

Drill holes for flotation billet bolts 1/8" oversize.
Drill holes for all other bolts 1/16" oversize.
Drill holes for drifts & spikes 1/16" undersize.

AS BUILT
Sheet 22 of 41

DO NOT SCALE THIS DRAWING USE DIMENSIONS

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

HYDABURG
12' BREAKWATER FLOAT

(77)

SCALE AS NOTED	SURVEYED	APPROVED Don Statter DIRECTOR
DESIGNED R.C.H.	DRAWN B	
CHECKED	DATE Nov. 1974	
PROJECT NUMBER 377116		SHEET 6 OF 10

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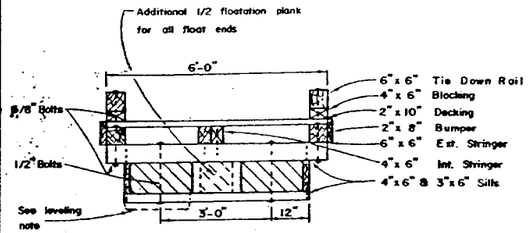
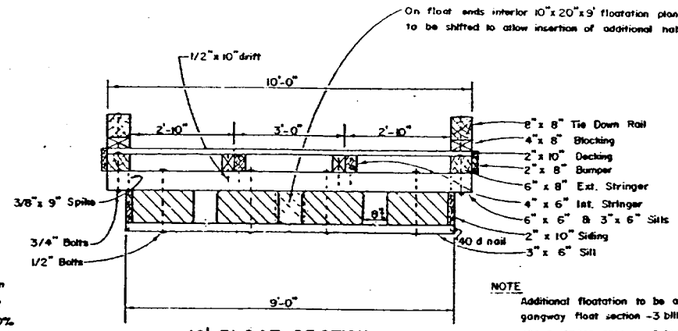


6' FLOAT SECTION

1/2" = 1'-0"

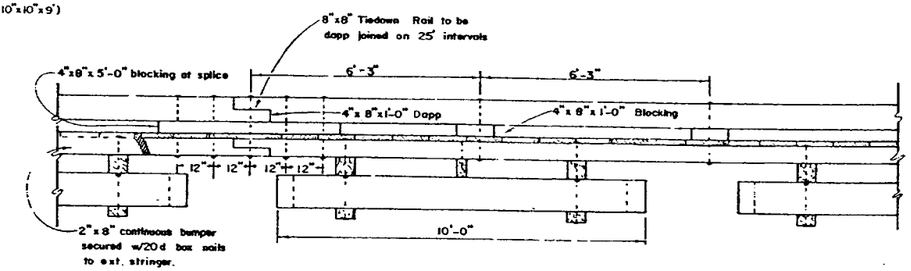
NOTE
6' Float construction shall conform to 10' float constr. except as noted.



10' FLOAT SECTION

1/2"=1'-0"

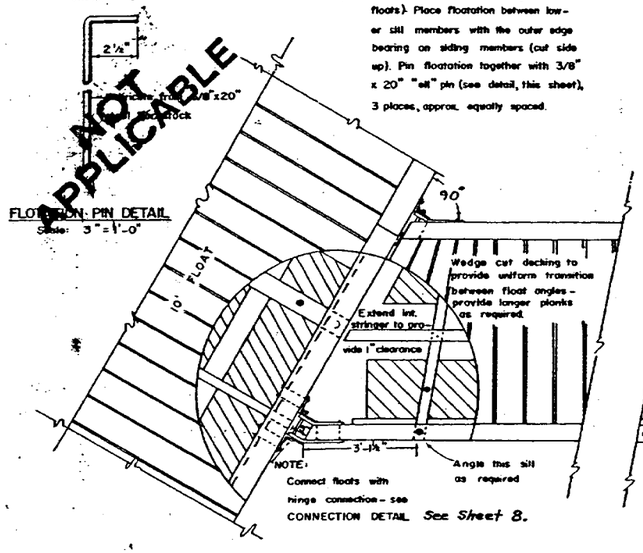
NOTE
Additional floatation to be added on gangway float section -3 billets as shown timber gangway - 2 for steel gangway.



ELEVATION

1/2" = 1'-0"

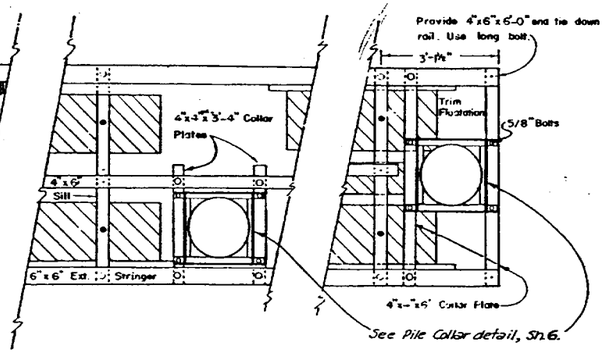
Leveling note
5"x 20"x 4' to 5' leveling floatation shall be installed as directed by the Engr. (required on approx. 20% of the stall floats including 6' stall floats). Place floatation between lower sill members with the outer edge bearing on siding members (cut side up). Pin floatation together with 3/8" x 20" "eel" pin (see detail, this sheet), 3 places, approx. equally spaced.

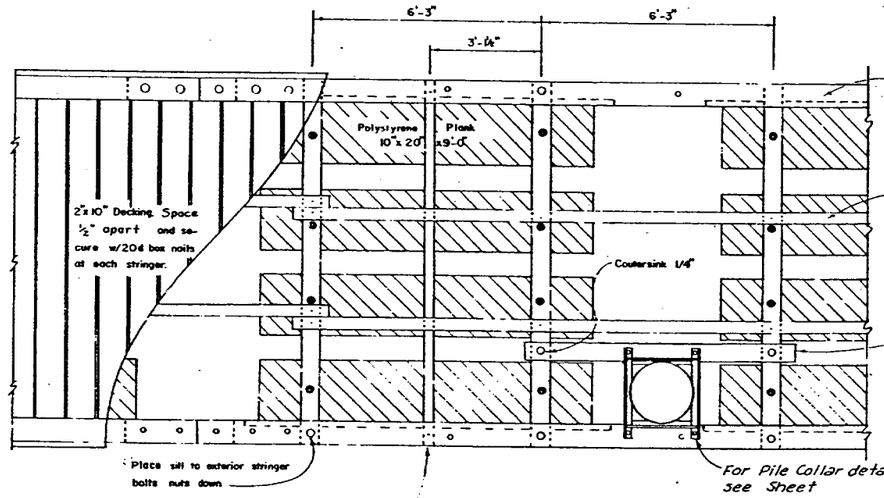


NOT APPLICABLE

FLOATATION PIN DETAIL

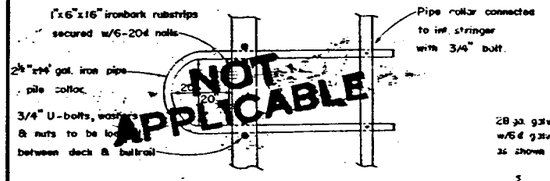
Scale: 3" = 1'-0"





PLAN VIEW 10' FLOAT

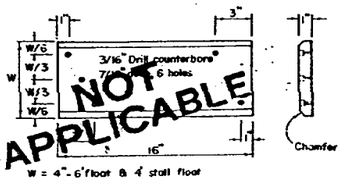
1/2" = 1'-0"



NOT APPLICABLE

PIPE PILE COLLAR DETAIL

1/2" = 1'-0"



NOT APPLICABLE

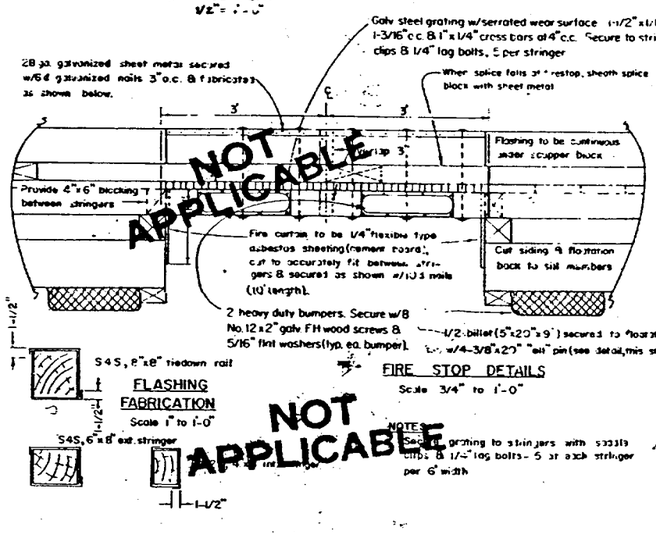
W = 4'-6' float & 4' stall float
6"-all others

IRONBARK RUB STRIP

1" = 6"

CONNECTION & COLLAR DETAIL

6' STALL FLOAT
1/2" = 1'-0"



NOT APPLICABLE

FLASHING FABRICATION

Scale 1" = 1'-0"

FIRE STOP DETAILS

Scale 3/4" = 1'-0"

NOTE
Secure decking to stringers with 5"x3/8" lag bolts - 5 at each stringer per 6' width

NOT APPLICABLE

* Exact width to conform to width of floatation material.

MATERIALS

ITEM	DRESSING	TREATMENT
3"x6"-4"x6" & 6"x6" upper sill	S-1-E 1/8" off	10 lbs. ret (LP-55)
2"x10" Siding	2"x10½"	" " "
3"x6" Lower Sill	Rough	" " "
4"x4"& 3"x6" Collar Plates	Rough	" " "
4"x6" Collar Members	S-2-E	" " "
4"x6" Interior Stringers	" "	8 lbs ret (LP-5)
6"x6" & 8"x8" Ext. Stringers	S-4-S	" " "
2"x8" Bumpers	" " "	0.5 lb. Penta
6"x6" Collar Stringers	" " "	8 lb. ret. (LP-5
2"x10" Decking	Milled	0.5 lb Penta.
4"x6" & 4"x8" Blocking	S-4-S	" "
6"x6" & 8"x8" Rail	" " "	" "

All materials to be Dense No.1 grade Douglas Fir
All piling shall be Class A creosoted to 20 lbs. retention (MP-2)

PRE-DRILLED BOLT HOLES

COLLAR MEMBERS - all holes
SILLS - holes for floatation plank bolts
STRINGERS - L holes for stringer to sill bolts

TIE DOWN RAIL - all holes
PILE COLLAR STRINGER - 10' FLOAT - all holes

FIELD DRILLED BOLT HOLES

SILLS - 4 holes for stringer to sill bolts
2 " " collar stringer to sill
PILE COLLAR INT. STRINGER - 6' FLOAT - all holes
RAIL BLOCKING - all holes
COLLAR PLATES - all holes
EXT. STRINGER - 4 holes for tiedown rail bolts
2 " " pile collar plate bolt

NOTES

All hardware to be hot-dipped galvanized. A malleable iron washer shall be placed between all nut and wood surfaces. All bolts to be of the economy headed type. Bolt holes to be drilled 1/16" oversize except sill bolt holes for floatation planks 1/8" oversize. Drift holes to be drilled 1/16" undersize. All field drill holes shall be treated with hot creosote oil. All pressure treated creosote materials shall be cut to size prior to treatment. Tie down rails shall extend across all float ends except under gangway flat bolt heads facing; decking shall be countersunk 1/4" previous to treatment. Field drill all drift bolt holes. A barrier of 6 mil black polyethylene shall be placed between the contact surfaces of all creosote timber and floatation material (except float siding members).

AS BUILT
Sheet 23 of 41

DO NOT SCALE THIS DRAWING USE DIMENSIONS

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

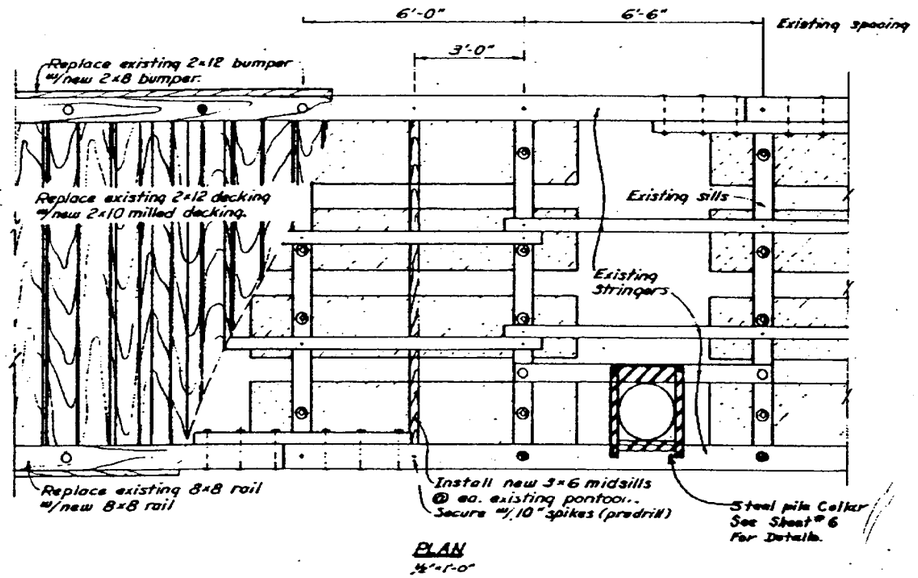
TYPICAL FLOATS

(77)

No.	Revision	Date	By
1	Changed treatment for Bumpers, Decking, Blocking & Tie-down rails to 0.5 lb. Penta. Spaced deck planks ½"	7-29-11	JET

SCALE As Shown
DESIGNED DW/DS
CHECKED DS
SURVEYED —
DRAWN MH/RT
DATE 4-60
APPROVED Don Statter DIRECTOR
PROJECT NUMBER 377116
SHEET 7 OF 10

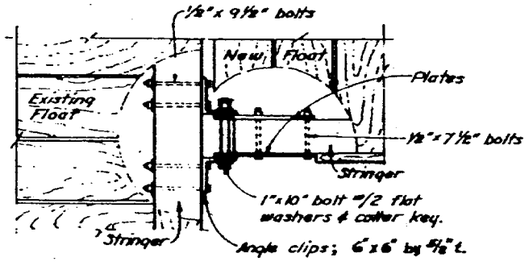
Q:\SEA\67746\MF\Sheet23.DWG PLOT SCALE=1 10/12/1999 11:16



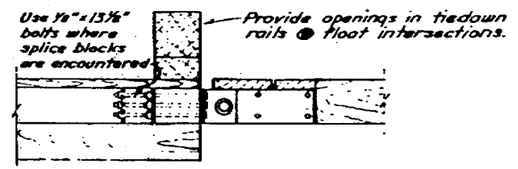
PLAN
½"=1'-0"

NOTES

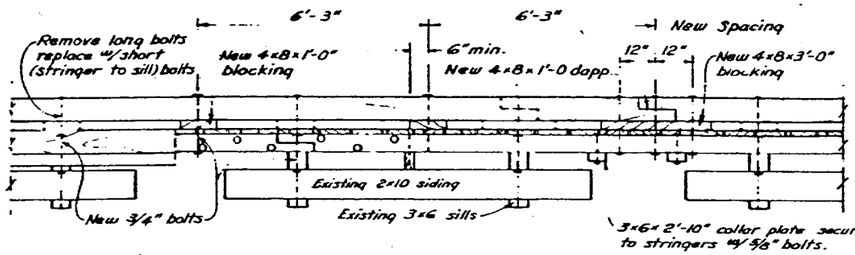
1 Existing tiedown rails, scupper blocks, decking and bumpers to be removed and replaced with new penta. treated material.
2 New creo. treated midsills shall be installed at each existing pontoon.
3 All existing flotation billets shall be replaced.
4 Flotation replacement requires the removal and reinstallation of the existing siding, and lower sills. Replace ¾" bolts w/new 1" G.I. bolts.
5 All pile collars shall be replaced; details are shown on this sheet, Collars are called out on float layout sheet 6.
6 Field c'bore all existing bolt heads facing decking.



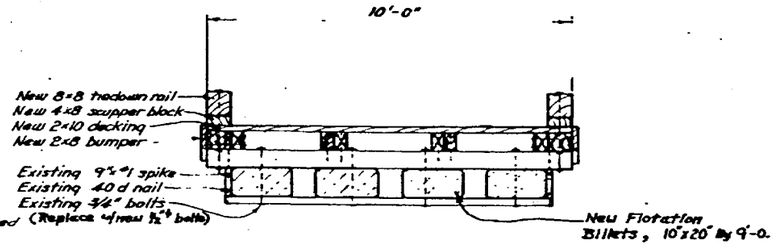
PLAN
1"=1'-0"



ELEVATION
1"=1'-0"



ELEVATION
½"=1'-0"



SECTION
½"=1'-0"

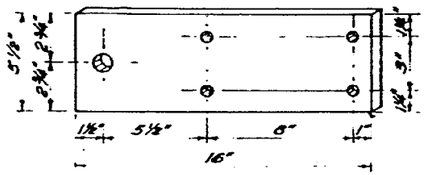


PLATE DETAIL
3"=1'-0"

MATERIALS

ITEM	DRESSING	TREATMENT
8×8 tiedown rail	S4S	6.5 lb. penta
4×8 blocking	"	"
2×10 decking	milled	"
2×8 bumper	S4S	"
3×6 midsills	S2E	12 lb. creo.
4×6 collar member	S2E	"
3×6 collar plate	S2E	"

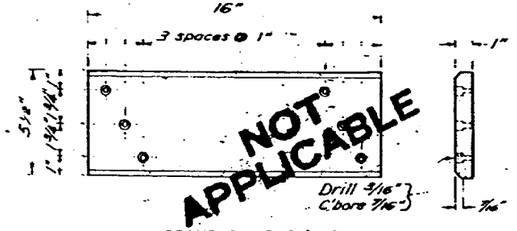
NOT APPLICABLE

DRILLING SCHEDULE

SHOP DRILL	FIELD DRILL
Tiedown rail - all holes.	Decking, bumper, blocking - all holes. Midsill holes for stringer to midsill spikes.

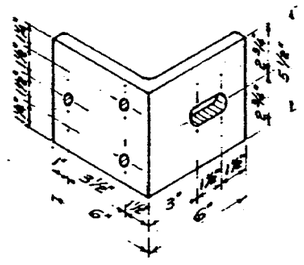
Drill holes for bolts 1/16" oversize.
Drill holes for spikes 3/16" undersize.

NOT APPLICABLE



NOT APPLICABLE

IRONBARK RUB STRIP DETAIL
3"=1'-0"



ANGLE CLIP DETAIL
3"=1'-0"

HINGE CONNECTION DETAILS

AS BUILT
Sheet 24 of 41

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

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

10' x 287'
FLOAT RECONSTRUCTION
HINGE CONNECTION
(77)

SCALE As Noted	SURVEYED	APPROVED:
DESIGNED	DRAWN EB	Don. Stotter
CHECKED D.C.W.	DATE Nov. 1974	DIRECTOR
PROJECT NUMBER 377/16	SHEET 8 OF 10	

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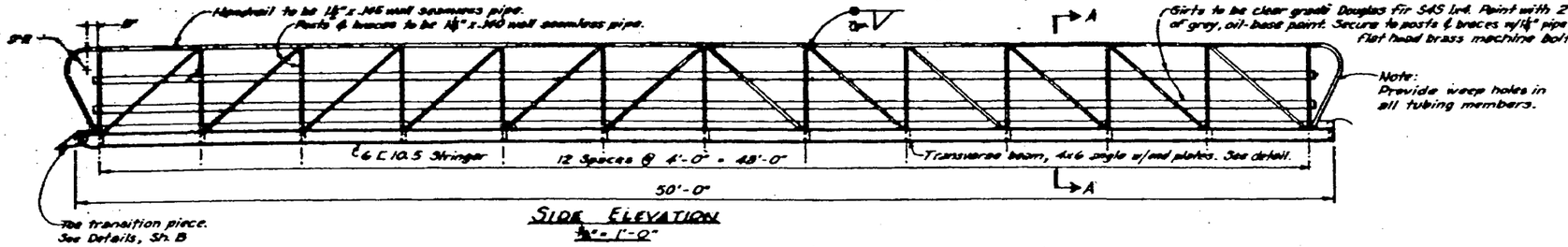
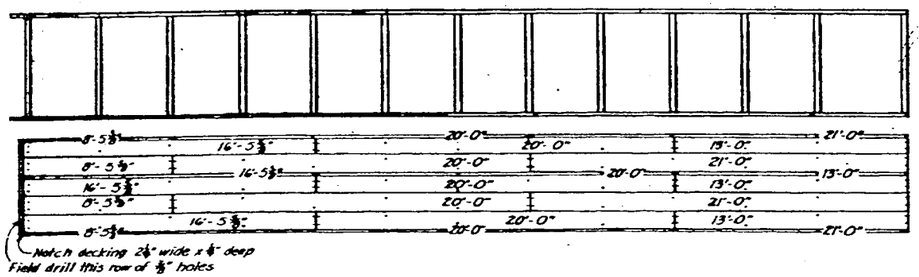
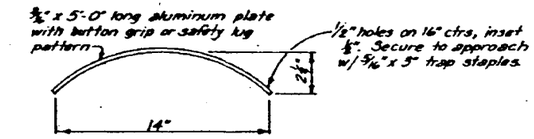


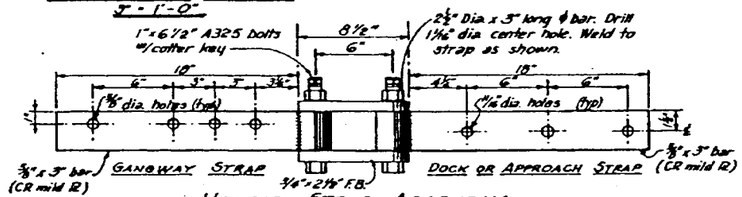
SIDE ELEVATION
¼" = 1'-0"



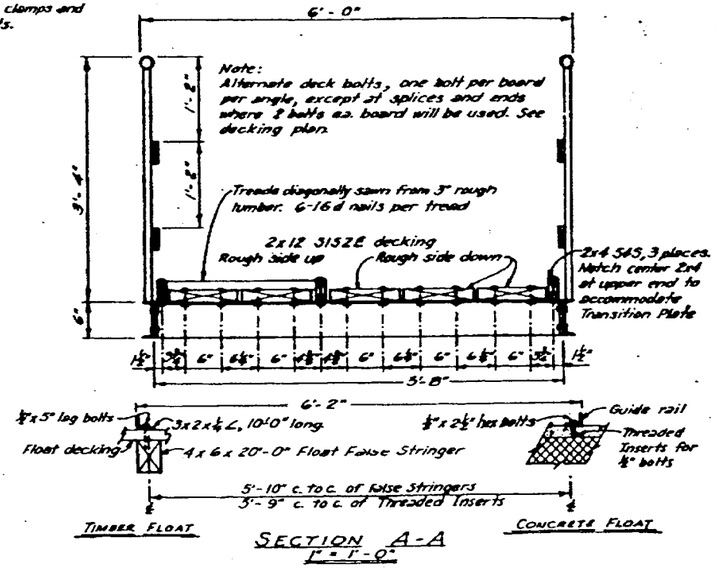
DECKING SPLICE LAYOUT
⅛" = 1'-0"



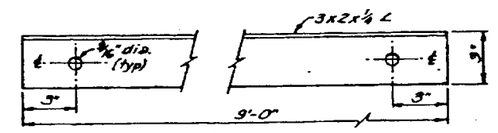
TRANSITION PLATE
3" = 1'-0"



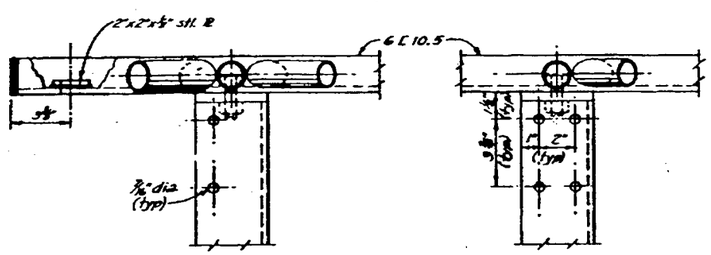
HANGER STRAP ASSEMBLY
No Scale



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



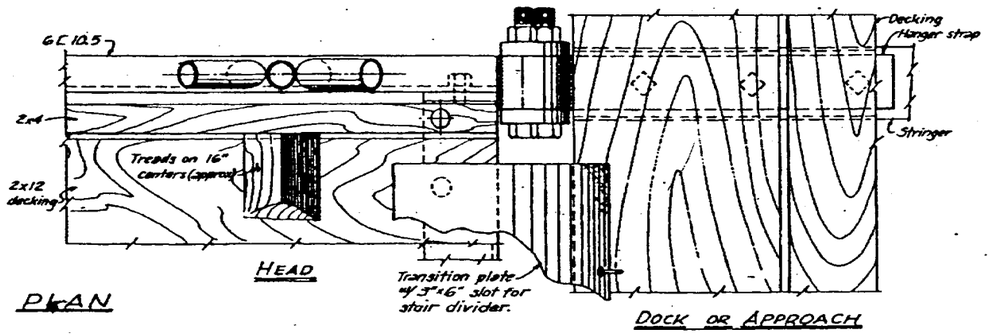
GUIDE RAIL
3" = 1'-0"



TOE

NOTE: FOR TOE TRANSITION PIECE, SEE SH. B

TYP @ DECKING SPLICE

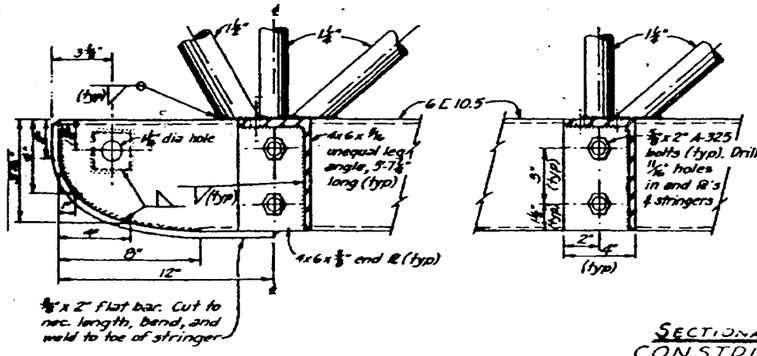


PLAN

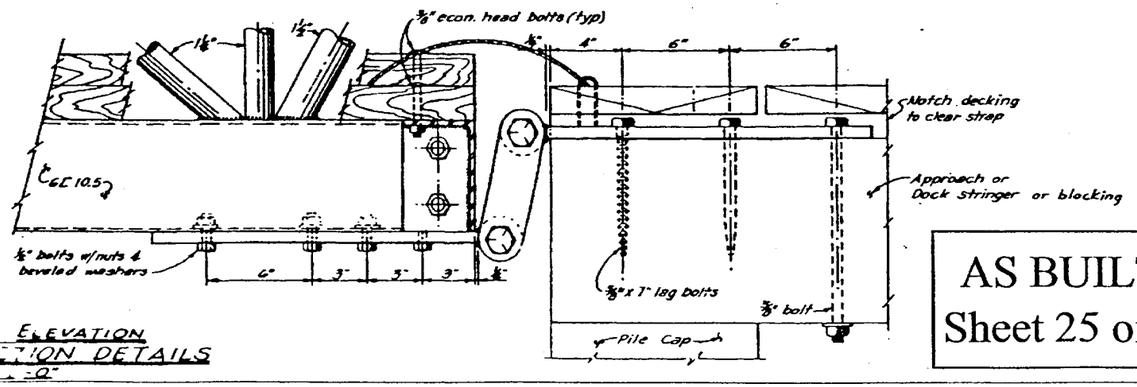
HEAD

DOCK OR APPROACH

NOTES:
1. All seamless pipe shall conform to ASTM A-53.
2. All channels, angles & plates shall conform to ASTM A-36.
3. Trusses shall be shop fabricated & assembled including hangers.
4. Splices shall be held to a minimum and, where necessary, shall be made in a manner that will not reduce the strength of the truss.
5. No tubing or channel splices will be permitted within the middle half of the truss structure.
6. Trusses & transverse beams shall be hot dipped galvanized after fabrication and in accordance with ASTM A-123, A-384, A-385 & A-386.
7. All steel hardware & fasteners shall be hot dipped galvanized in accordance with ASTM A-153.
8. Decking & deck spacers shall be Dense No 1 grade Douglas fir, W.P. Penta or equivalent pressure treated to 0.5 lb cu ft retention, and shall be field drilled to match shop drilled holes in transverse members.



SECTIONAL ELEVATION
CONSTRUCTION DETAILS
3" = 1'-0"



Revised 3-12-73 Hanger linkage
Lumber grade
Penta. retent
Misc. holes, no. & size ELS
Revised 4-7-11. Removed Tension Wires. JET

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

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

TYPICAL STEEL GANGWAY CONSTRUCTION DETAILS (SHEET A) (77)

SCALE As shown	SURVEYED —	APPROVED Don Statter, DIRECTOR
DESIGNED JT/RB	DRAWN JET	
CHECKED DSM	DATE Dec. 1970	
PROJECT NUMBER [illegible]		SHEET 7 OF 10

AS BUILT
Sheet 25 of 41

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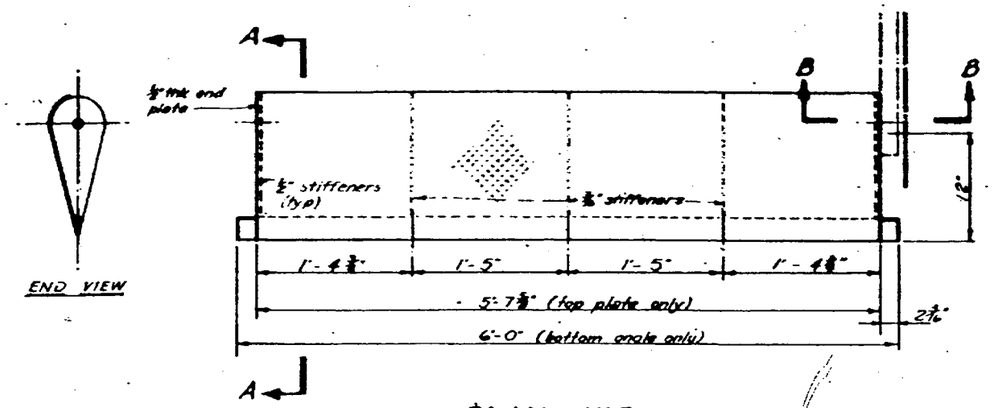
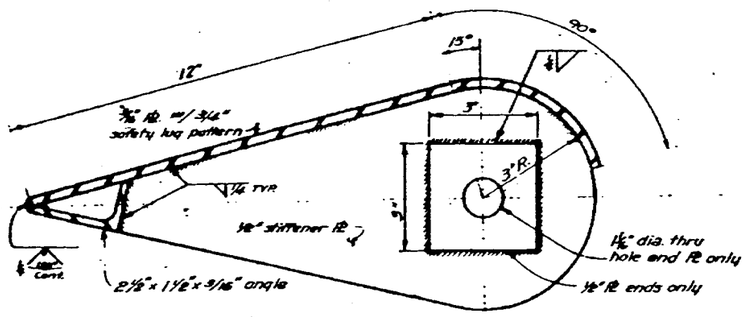
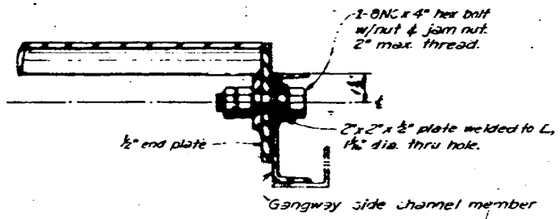


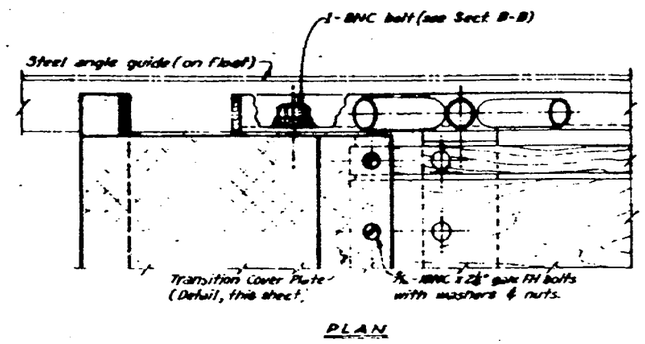
PLAN VIEW
1½" = 1'-0"



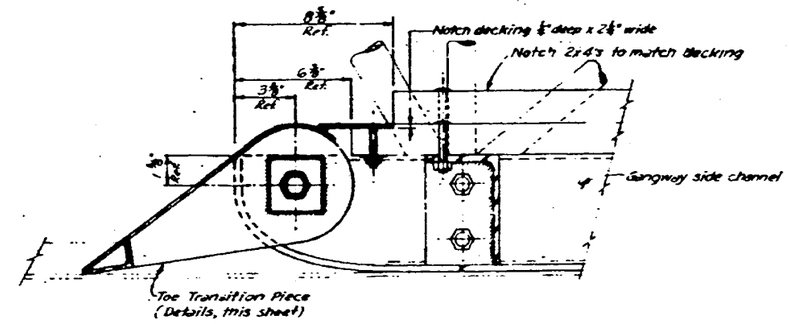
SECTION A-A
SYMMETRICAL ABT. HORIZ. ℄
HALF SIZE



SECTION B-B
3" = 1'-0"
(TYP. EA. END)

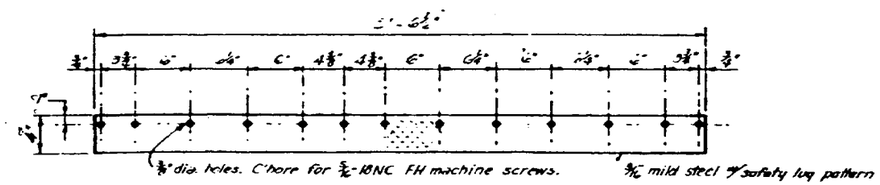


PLAN



SECTIONAL ELEVATION

ASSEMBLY DETAIL
3" = 1'-0"



TRANSITION COVER PLATE
1½" = 1'-0"

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

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

TYPICAL STEEL GANGWAY TRANSITION PIECE DETAILS (SHEET B)

77

DES. J. STOUT	SURVEYED —	APPROVED
DETAILED E.T.	DRAWN E.T.	— Don Statter DIRECTOR
CHECKED D.M.	DATE 2-11-74	
PROJECT NUMBER		SHEET 10 OF 10

AS BUILT
Sheet 26 of 41

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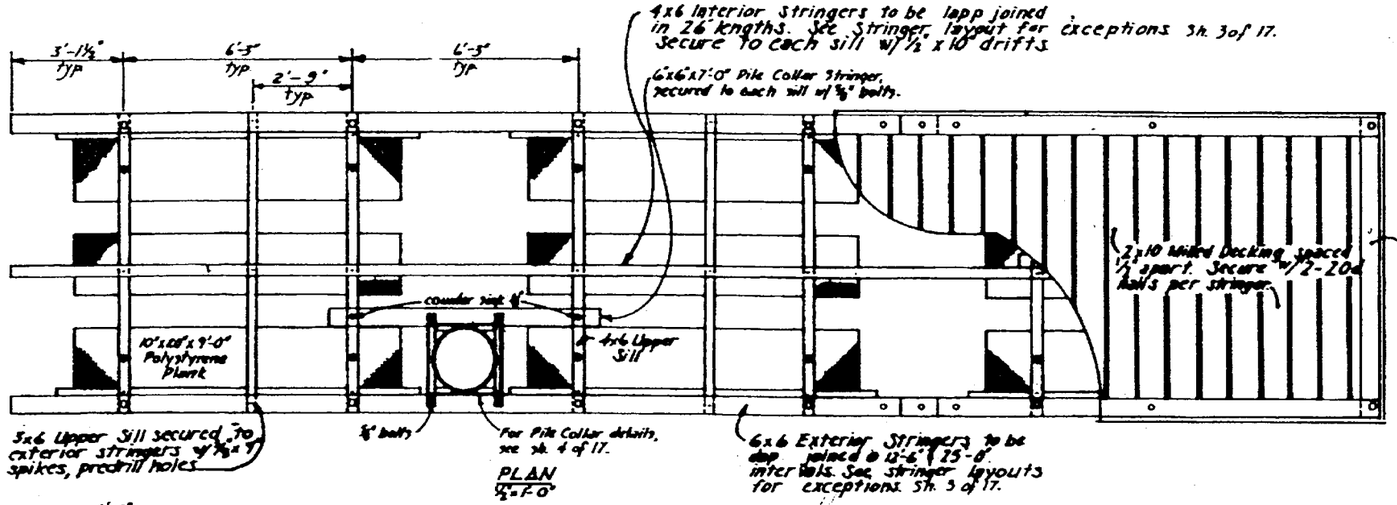
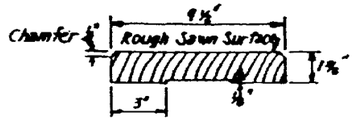
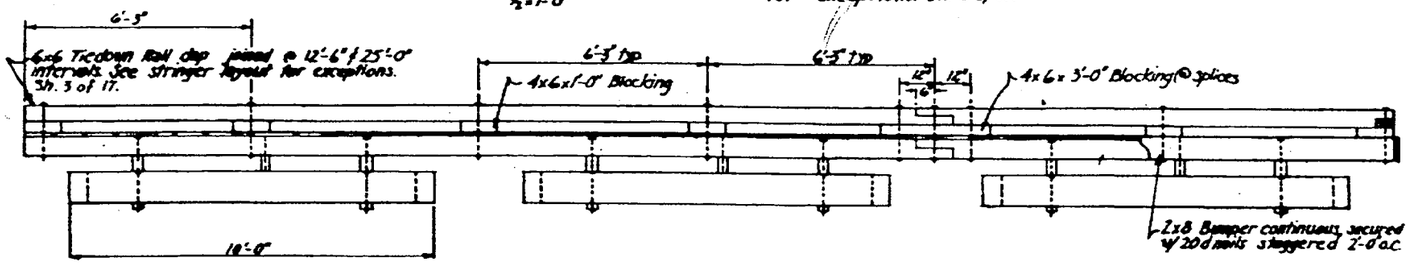


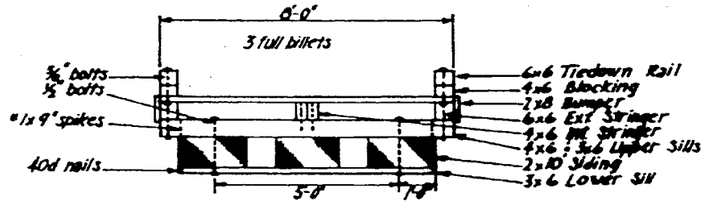
PLAN
½"=1'-0"



MILLED DECKING DETAIL
3"=1'-0"



ELEVATION
½"=1'-0"



SECTION
½"=1'-0"

Note: See Specifications for Treatment.

MATERIALS		
ITEM	DRESSING	TREATMENT
3x6 - 4x6 upper sills	S-4-S	Creosote
2x10 siding	2" x 10" See note	"
3x6 lower sill	S-4-S	"
6x6 x 7'-0" Pile Collar Stringer	"	"
4x6 interior stringers	"	"
6x6 exterior stringers	S4S	"
2x8 bumpers	"	Penta
4x6 blocking	"	"
6x6 rail	"	"
2x10 decking	Milled	"

NOTES: All pressure treated material shall be cut to size prior to treatment, and shall be per specifications.

* Exact width of siding to conform to thickness of floatation billets.
All piles shall be per specifications.

All hardware shall be hot-dipped galvanized. A malleable iron washer shall be placed between all nut and wood surfaces. All bolts shall be of the economy headed type.
Bolt holes to be drilled 1/16" oversize except sill bolt holes for floatation billets ⅛" over-size. Drift holes to be drilled 1/16 undersize in the field. All bolt heads facing decking shall be countersunk ⅛" prior to treatment. All field drilled holes shall be treated with hot creosote oil.

Shop Drilled Holes:
Tiedown rails-all holes.
Stringers-holes for stringer to sill bolts.
Sills - holes for floation billet bolts.
Collar members-all holes.
Field Drilled Holes:
Rail blocking-all holes.
Exterior stringer-holes for tiedown rail bolts.
holes for collar plate bolts.
Interior stringer-all holes.
Sills - holes for stringer to sill bolts.
Collar plates-all holes.

Tiedown rails shall extend across all float ends.
A barrier of 6 mill black polyethylene shall be placed between the contact surfaces of treated timber & floatation material except the siding.
Nails shall be galv box.

Revised 5-19-77 - Pile Collar.

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

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

8' FLOAT (79)

SCALE AS NOTED	SURVEYED —	APPROVED
DESIGNED —	DRAWN TM	CHIEF OF DESIGN
CHECKED —	DATE JAN 1977	
PROJECT NUMBER K39118		SHEET 12 OF 17

AS BUILT
Sheet 27 of 41

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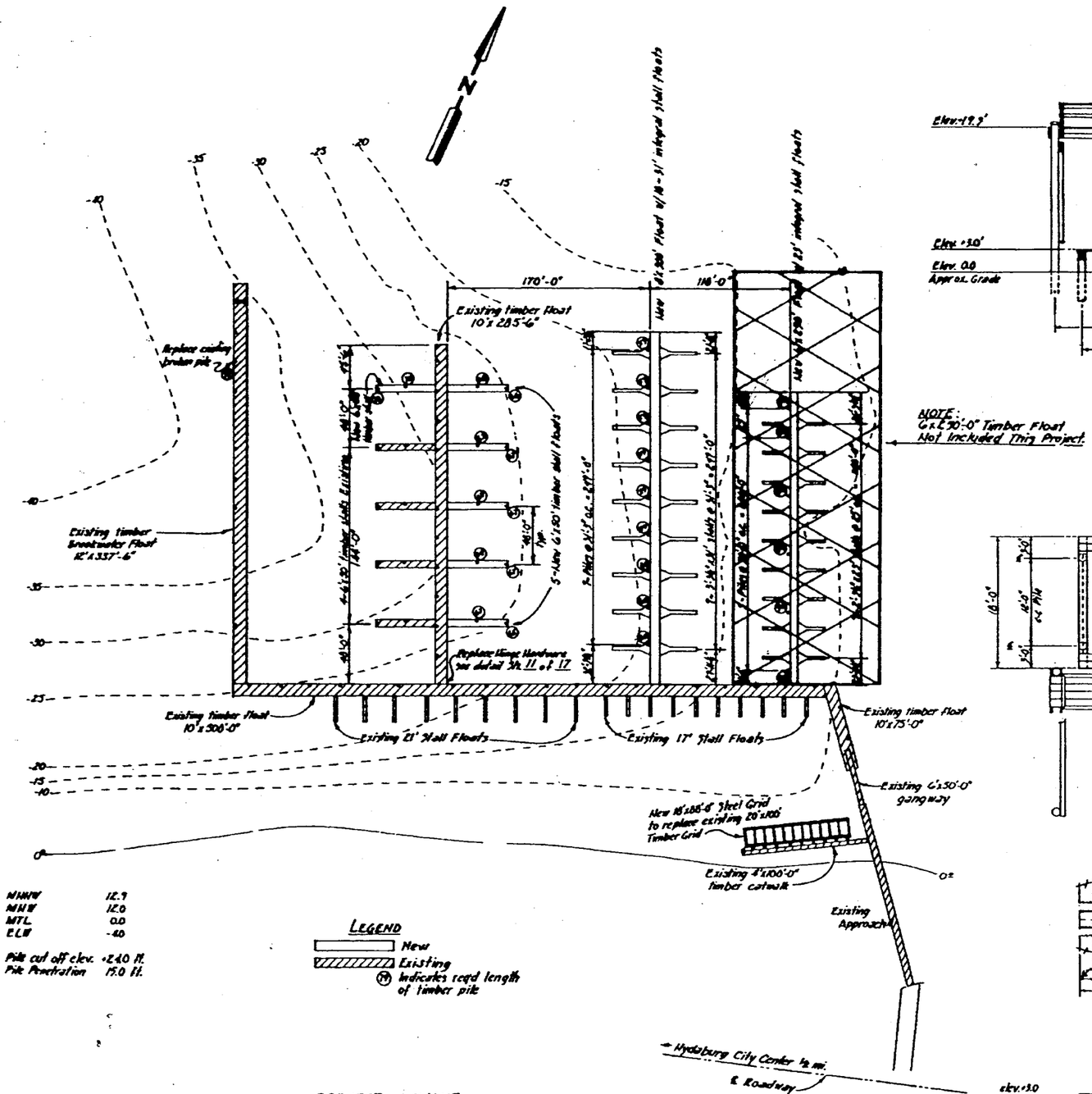
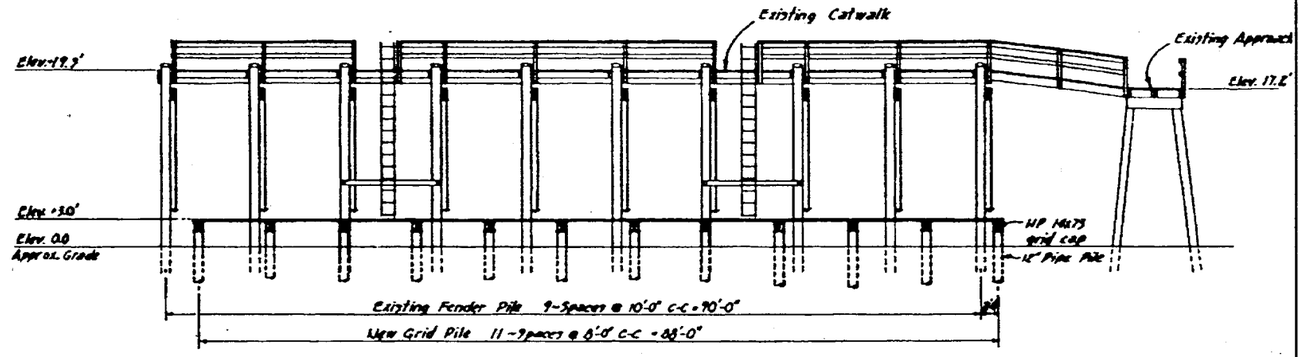
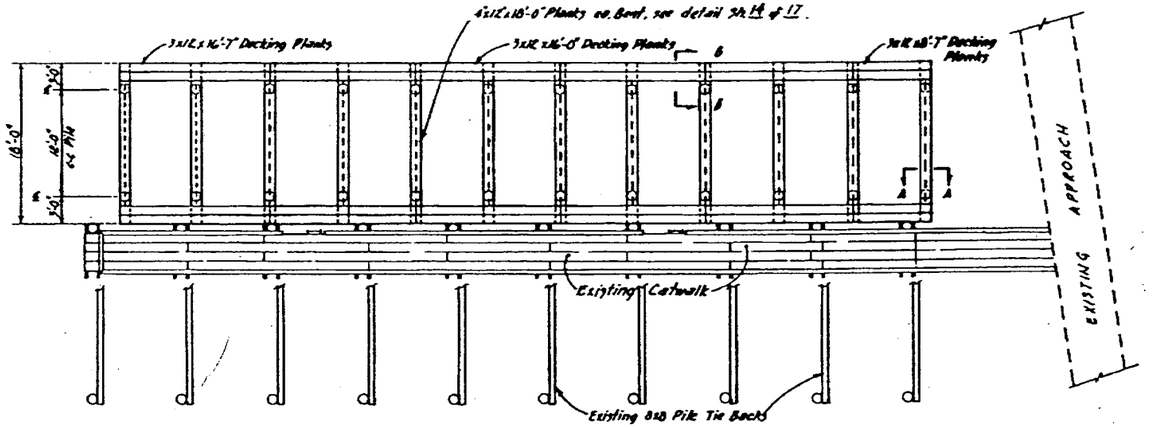


PROJECT LAYOUT
1" = 50'-0"



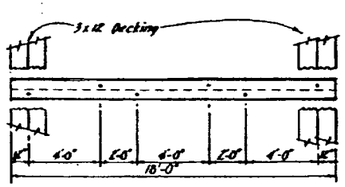
ELEVATION
½" = 1'-0"

NOTE: G.R.L. 30'-0" Timber Float Not Included This Project

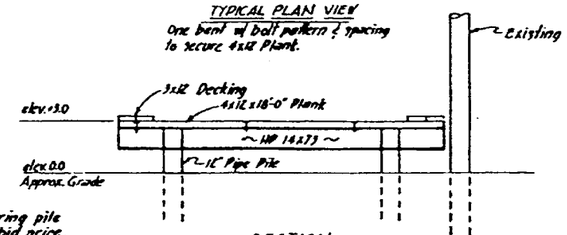


PLAN
½" = 1'-0"

Note: See Grid Details Sh. 14 of 17.



TYPICAL PLAN VIEW
One bent w/ bolt pattern & spacing to secure 4x12 Plank.



Note: 20' of Grid bearing pile included in lump sum bid price.

SECTION
½" = 1'-0"

AS BUILT
Sheet 28 of 41

STAMP

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF HARBOR DESIGN AND CONSTRUCTION

HYDABURG ALASKA

PROJECT LAYOUT & STEEL GRID PLAN (79)

SCALE As Noted	SURVEYED	APPROVED	
DESIGNED	DRAWN GRF		
CHECKED RPB	DATE Nov. 1978	Chief of Design	
PROJECT NUMBER K39116		SHEET 13 OF 17	

Q:\SEA\67746\MF\Sheet28.DWG PLOT SCALE=1 10/13/1999 11:16

Note: For 6x30 stall float details, see Sh. 5 of 17.

For Hinge Conn. See Sh. 11 of 17.

4-Existing 6'x30' STALL FLOATS

Existing 10'x285'-6" Timber Float

50'-0"

25'-0" 25'-0"

Est. Stringer & LDR. Splice (typ.)

28'-0"

22'-0 Int. Stringer (typ.)

Existing 10'x300'-0" Timber Float

Note: For 8' Float w/ 3' stall float, details, see Sh. 13 of 17.

Est. 21" timber pile

15'-2½"

25'

9'-10⅝"

26'-0" typ.

16'-1⅝"

Note: For 6' Float w/ 2.5' stall float details see Sh. 6

28'-1⅝"

26'-0" typ.

21'-1½"

Hinge Details, see Sh. 11 of 17.

NOTE: NOT APPLICABLE THIS PROJECT

3x12 decking, S1S2E creosote treated (rough side up)

Counter sink bolts

4x12 each bent

HP 14x73 grid cap

Half pile section each side of web

3/16

1/4

NOTE: Allowable horiz. driving variation no greater than 1½".

12" pipe pile

Section A-A
1"=1'-0"

2-3"x12" deck planks secured w/- 40 d nails ea. end.

4x12 Planks, secured w/ ⅝" econ. head bolts.

HP 14x73 Grid cap

Half pile section each side of web

elev. +3.0

elev. +1.91 pile cut-off ± .005"

3/16

R 3/4"x 16"x16"

1/4

12" nominal x .375" wall thickness

Section B-B
1"=1'-0"

1/4 Typ.

3x12 decking

Plan
1"=1'-0"

GRID CONSTRUCTION DETAILS

HYDABURG
STRINGER LAYOUT DIAGRAM
1"=20'-0"

AS BUILT
Sheet 29 of 41

STAMP

STATE OF ALASKA

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF HARBOR DESIGN AND CONSTRUCTION
ALASKA

HYDABURG
STRINGER LAYOUT DIAGRAM & GRID DETAILS
(79)

SCALE As Noted	SURVEYED	APPROVED
REVISED HM	DRAWN GRF	
CHECKED RPB	DATE Feb 1979	Chief, D.H.D.
PROJECT NUMBER K39116		SHEET 14 OF 17

Q:\SEA\67746\MF\Sheet29.DWG PLOT SCALE=1 10/13/1999 11:16

Omit decking as shown when pile collar is installed at these locations.

NOTE: FOR PILE COLLAR LOCATIONS, SEE LAYOUT SHEET 13.

Heavy duty bumper. Secure w/14 N°12x2" galv. flat head wood screws & 3/16" flat washers (typical).

Access hatches to stabilizer. Planks cut at center of stringers, w/finger hole near one end.

Deck planks to be full width between float bracing.

2"x10" decking. Space 1/4" between planks & secure w/20d box nails at each stringer.

2"x8" bumper strip to be continuous.

Each 16" grey iron cleats per stall float, or at 12'-6" centers both sides of 8' float when it is installed without stall floats.

4"x6"x6'-0" splice block secured w/6-1/2" bolts at dapp joint.

Provide additional drill holes in pile collar to accomodate staggered stringers.

3/4" U-bolts

2½"x14' iron pipe pile collar (see Detail Sh. 4)

3/8" bolt (at sill nearest collar only)

3"x6"x8' sill (for additional floatation support) secured w/9"x3/8" spikes. Not required where stall float sills provide floatation support.

Polystyrene plank (typ.) floatation

NOTE: Full sized floatation planks shall be used when 8' float is installed without stall floats.

3"x6" int. stringers to be lapp joined on 25' sill intervals and secured to sill w/9"x3/8" spikes.

Place middle floatation plank bolts nuts down - countersink heads.

Stall float longitudinal shall be connected to the 8'-0" float sill & splice block w/ 3-5/8" bolts each.

6"x6" ext. stringers to be dapp joined on 25' intervals. Stagger all splices. End stringers to be 9'-4½", 15'-7½", 21'-10½" or 28'-1½" lengths as measured from butt end to center of dapp joint. (SEE STRINGER LAYOUT DIAGRAM). SH. 14.

27'-11½" to conform to 6'-3" sill spacing

PLAN
TYPICAL 8' FLOAT
¼"=1'-0"

6'-3" 6'-3" 6'-3"

2"x8" continuous bumper secured w/20d box nails

4"x6" exterior stringers

5"x6"x1'-0" dapp joint

pile collar

Floatation Plank

2"x6" lower sill (typical)

1'-4½"

9'-0"

10'-0" (2"x10" siding)

ELEVATION

TYPICAL 8' FLOAT
½"=1'-0"

8'-0"

4'-0"

½" bolts

9"x½" spikes

⅝" bolts

2"x10" siding

floatation planks

2"x10" decking
2"x8" bumper
4"x6" exterior stringers
4"x6" splice blocks
3"x6" interior stringers
4"x6" sills
2"x6" sill

7'-4"

12"

SECTION

TYPICAL 8' FLOAT
½"=1'-0"

NOTE: Full sized floatation planks shall be used when 8' float is installed without stall floats.

8' FLOAT BOLT HOLES

PRE-DRILL
SILLS - holes for floatation plank bolts.
STRINGERS - holes for stringer to sill bolts.
2 splice block holes.

FIELD DRILL
SILLS - holes for stringer to sill bolts.
STRINGERS - 1 pile collar holes.
2 holes for exterior stringers to longitudnal stall float sill bolts.
SPLICE BLOCKS - all holes.

STALL FLOAT BOLT HOLES

PRE-DRILL
STRINGERS - all holes.
BLOCKING - all holes.
LONGITUDINAL SILLS -
1 stringer to sill holes.
2 splice block holes.

FIELD DRILL
LONGITUDINAL SILLS - holes for 8' float exterior stringer bolts & float stabilizer.
SPLICE BLOCK & BRACES - all holes field drill all 9" spike holes.

NOTE
Install 16" grey iron cleats at 12'-6" centers along 8' float (both sides) when it is installed without stall floats.

NOTES

All hardware to be hot dip galvanized. A malleable washer shall be placed between all nut & wood surfaces. All bolts to be of the economy head type. Bolt holes to be drilled 1/16" oversize, except holes for floatation planks 1/8" oversize, 9" spike holes to be drilled 1/16" undersize. All drill holes to be treated with hot creosote oil. All pressure treated creosote material shall be cut to size prior to treatment. All bolts to be 5/8" except floatation plank bolts & exterior stringer splice block bolts 3/4" bolt holes facing decking to be countersunk ¼" deep by 2½" diameter-½" bolt holes ¼ x 1½" prior to treatment. Connect 8' float to main float with hinge connection as shown on connection detail sheet. A barrier of 6 mil polyethylene shall be placed between the contact surfaces of all creosote timber & floatation material.

5"x2"x½"L x 3'-3½" angle iron

2½" std. wall Gal. pipe torsion bar 25" long

13/16" ϕ hole in 2" from each end, typ.

5"x6" stringer

5"

3/4"

3/16" fillet weld pipe to angles

5/8" threaded rod

4"x6" sill

To level float take up on nuts as required. Be sure to loosen nuts on opposite side of angle iron before attempting adjustment in order to allow unrestricted rotation.

DETAILS
STALL FLOAT STABILIZER
1"=1'-0"

Note: See specifications for Treatment.

MATERIALS		
ITEM	DRESSING	TREATMENT
PILING		20 lb ret (MP-2)
3"x6" & 4"x6" UPPER SILLS	S-4-S	Creosote
2"x6" LOWER SILLS	" "	"
3"x6"x8' SPLICE BLKS	" "	"
4"x6" LONGITUDNAL STALL FLOAT SILLS	" "	"
3"x6" BLOCKING	" "	"
6"x6" EXT. STRINGERS	S-4-S	"
3"x6" INT. STRINGERS	" "	"
2"x10" DECKING	MILLED	Penta
2"x8" BUMPERS	S-4-S	"
4"x6" SPLICE BLOCKS	" "	Creosote
2"x10 siding	2"x10½"	"

Splice sills w/ 4"x6"x3'-0" splice block and 3/8"x4"x3'-0" steel plate secured w/ 6-3/8" bolts as shown

4"x6"x1'-0" block, 3"x6" stringers (typ.)

4"x6" end stringer

4"x6" longitudinal sills

10"x20"x9' polystyrene floatation planks

2"x6" lower sills

ELEVATION

3'-3½"x31' STALL FLOAT
½"=1'-0"

5'-5½"

5/8" bolts

2"x8" bumper

3"x6"x3'-3½" stringer

3"x6"x2'-1" blocking

4"x6" sill

2"x6"x2'-6" sill

9"

½" bolts

TYPICAL SECTION

3'-3½" STALL FLOAT
½"=1'-0"

⅝"x3'x16" steel splice plate See Collar detail, sh. 4.

3"x6"x9" brace field cut to fit

3'-10"

31'-0"

9"x⅜" spikes, typical to hold blocking

4"x6"x1'-0" cleat support block

4"x6"x15' sill

10"x20"x4'-6"

½" plank

10"x20"x9'-0" polystyrene plank

10"x10"x9'-0"

4"x6"x11' sill

3'-3½"

2'-1½" 2'-10½" 2'-0" 2'-0" 4'-0" 4'-0" 4'-0" 4'-0" 4'-0" 2'-0"

3"x6"x 8'-2½" stringer (field cut to fit)

Toenail to side brace, 2 nails each end

PLAN

3'-3½"x31' STALL FLOAT
½"=1'-0"

2-40d nails/stringer

Assemble stringer & sill with outside edge flush. Field trim ends of blocking to fit between sills if req'd.

AS BUILT
Sheet 30 of 41

STATE OF ALASKA
49TH
Harold R. Hiner
No. 4324-E
REGISTERED PROFESSIONAL ENGINEER

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

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

TYPICAL 8' FLOAT WITH INTEGRAL STALLS

79

SCALE As noted	SURVEYED —	APPROVED
DESIGNED —	DRAWN TM	Chief of Design
CHECKED —	DATE JAN '77	
PROJECT NUMBER K39116		SHEET 15 OF 17

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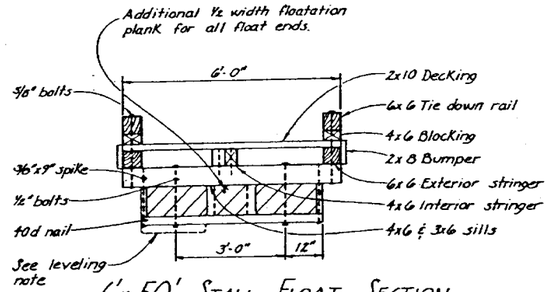
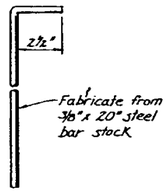


6'x50' Stall Float Section

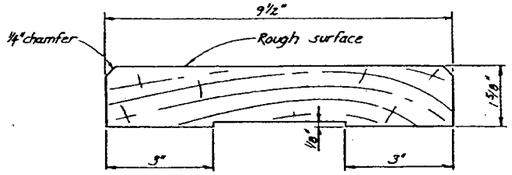
½" = 1'-0"

Leveling Note:
5"x 20" x 4'-0" to 5'-0" leveling floatation shall be installed as directed by the engineer (may be required on approx. 20% of stall floats). Place floatation between lower sill members with the outer edge bearing on siding members (cut side up). Pin floatation together with 3/8" x 20" ell pin, (see detail this sheet), required 3 places approx. equally spaced.



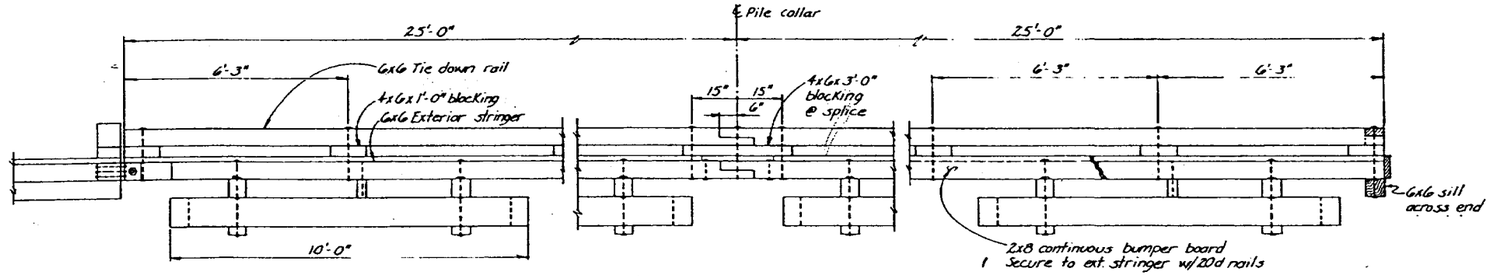
Floatation Pin Detail

3" = 1'-0"



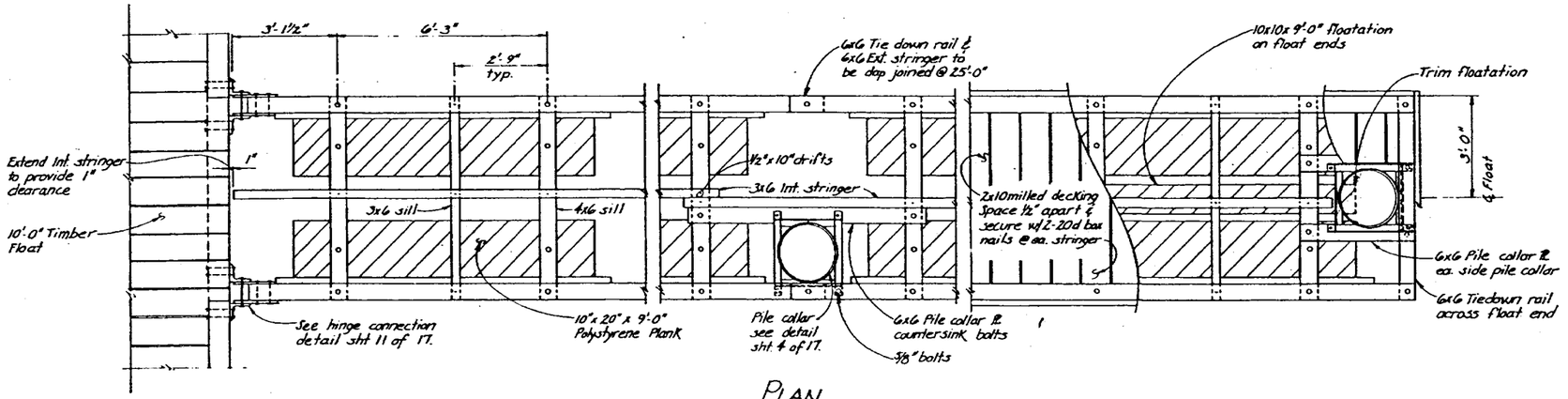
Milled Decking Detail

half size



Elevation

½" = 1'-0"



Plan

½" = 1'-0"

MATERIALS

ITEM	DRESSING	TREATMENT
3"x6"-4"x6"℄6"x6" Upper Sill	S-4-S	Creosote
* 2"x10" Siding	2"x 10½"	"
3"x6" Lower Sill	S-4-S	"
6"x6" Collar Plates		
4"x6" Interior Stringers	S-4-S	Creosote
6"x6" Exterior Stringers	S-4-S	"
2"x8" Bumpers	S-4-S	Penta
2"x10" Decking	Milled	"
4"x6" Blocking	S-4-S	"
6"x6" Rail	S-4-S	"
		See Specs

* Exact width to conform to thickness of floatation material

Pre-Drilled Bolt Holes

COLLAR MEMBERS ~ all holes
SILLS ~ holes for floatation plank bolts
STRINGERS ~ holes for stringer to sill bolts
TIE DOWN RAIL ~ all holes

Field Drilled Bolt Holes

SILLS ~ 1. holes for stringer to sill bolts
2. pile collar stringer to sill
PILE COLLAR INT STRINGER ~ 6' FLOAT ~ all holes
RAIL BLOCKING ~ sill holes
COLLAR PLATES ~ all holes
EXTERIOR STRINGER ~ 1. holes for tie down rail bolts
2. holes for pile collar plate bolts

Notes

All hardware to be hot-dipped galvanized. A malleable iron washer shall be placed between all nut and wood surfaces. All bolts to be of the economy head type. Bolt holes to be drilled 1/16" oversize except sill bolt holes for floatation planks 1/8" oversize. Drift holes to be drilled 1/16" undersize. All field drill holes shall be treated with hot creosote oil. All pressure treated creosote material shall be cut to size prior to treatment. Tie down rails shall extend across all float ends, except under gangway. All bolt heads facing decking shall be countersunk ¼" previous to treatment. Field drill all drift bolt holes. A barrier of 6 mil black polyethylene shall be placed between the contact surfaces of all creosote timber and floatation material (except float siding members).

AS BUILT
Sheet 31 of 41

STAMP

STATE OF ALASKA * 49TH * REGISTERED PROFESSIONAL ENGINEER — Ronald R. Mercer — No. 4324-E

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF HARBOR DESIGN AND CONSTRUCTION

6'x50' Timber Stall Float

(79)

SCALE As Noted	SURVEYED	APPROVED	
DESIGNED	DRAWN JJJ		Chief of Design
CHECKED	DATE		
PROJECT NUMBER	K39106 & K39118	SHEET 5	OF 17

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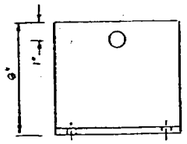
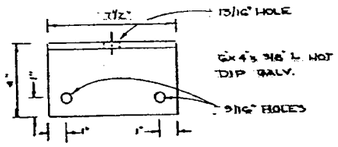
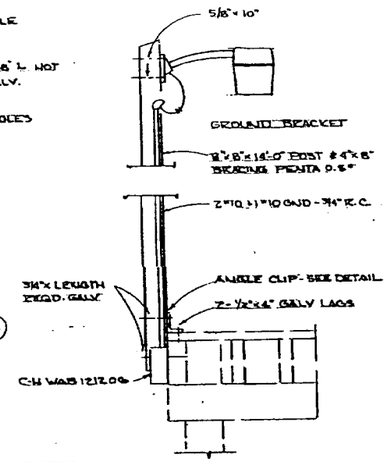


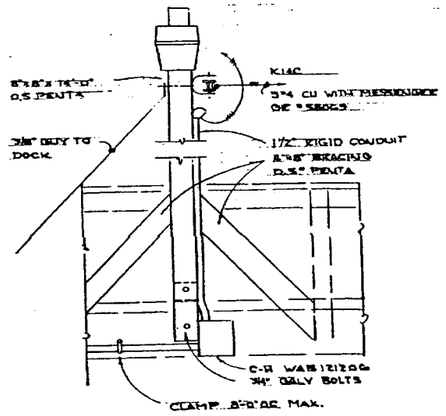
ELEVATION
3/4" = 1'-0"



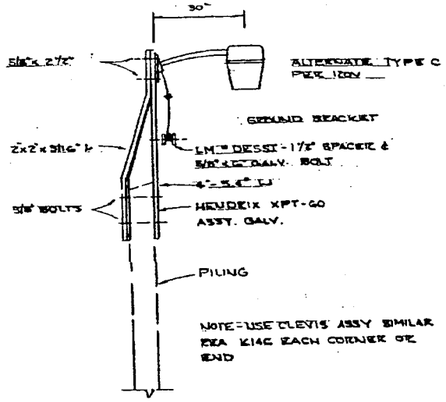
ANGLE CLIP PLAN
3/4" = 1'-0"



TYPE A FIXTURE
1/2" = 1'-0"

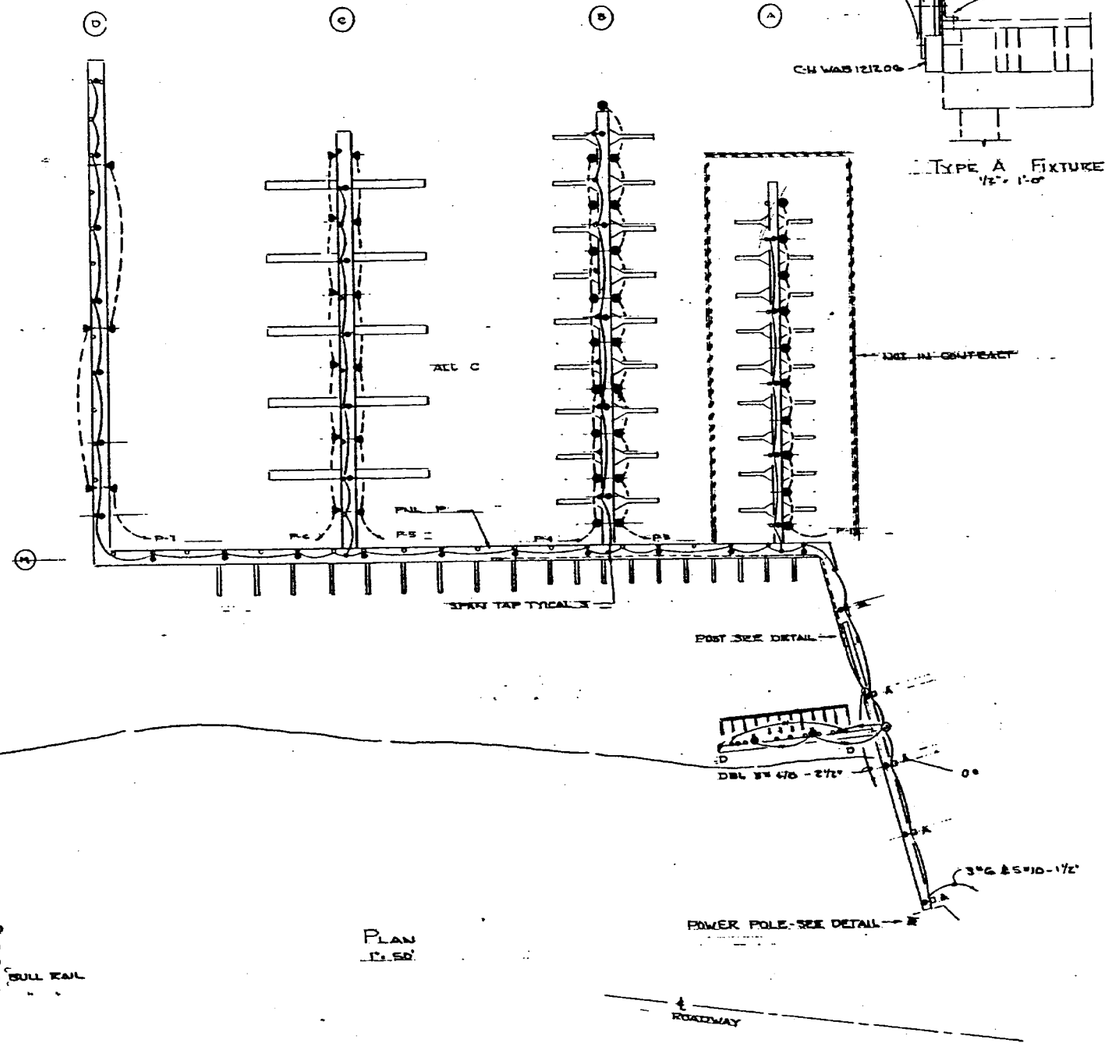


TYPE B FIXTURE
1/2" = 1'-0"



NOTE - USE CLEVIS ASSY SIMILAR PER K14C EACH CORNER OF END

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



PILE CUT OFF = +33.9
EHHW = 14.0
ELW = -4.0
FLOATS A & B NO SCUPPER RAIL
" C, D & M 8" " "

PLAN
1" = 50'

FIXTURE SCHEDULE

TYPE	M.E.G.	W	REMARKS
A	WESTINGHOUSE VSP-SDMK-1JA	35 HPS	120V ON POST TYPE III
B	" " " "	"	" " " " "
C	" VSP-SDMK-2JA	"	120V - PILING - "
D	" VSP-SDMR-1JA	"	" - POST - " III

ARM. SIMILAR. MCGRAW EDISON #16-1000L OR PHOTO CELL. ALL BALLASTS FOR 208 & REGULATED OUTPUT WITH POWER FACTOR 90% OR BETTER

TYPE D. SAME DETAIL AS A EXCEPT BOLT VERTICAL POST TO SIDE OF EXISTING PILING

Legend:
- NEW WIRING OVERHEAD OR IN CONDUIT
- " " BELOW FLOATS
- TWIN POWER OUTLET ON WOOD FLOATS BULL RAIL
- " " " " " " NO " "
- POWER OUTLET GRID ICES 33005 AT ELEV 15.0 NEAR LADDER
- (P) PHOTO ELECTRIC
- (J) JUNCTION
- LIGHT FIXTURE SEE SCHEDULE

E-1

AS BUILT
Sheet 32 of 41

STAMP

STATE OF ALASKA
Leonard P. Lovell
No. 333-E
REGISTERED PROFESSIONAL ENGINEER

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF HARBOR DESIGN AND CONSTRUCTION

ELECTRICAL
HYDABURG BOAT HARBOR
HYDABURG ALASKA (79)

SCALE NOTED	SURVEYED	APPROVED
DESIGNED	DRAWN LPL	Chief of Design
CHECKED	DATE APRIL '99	
PROJECT NUMBER K 39116		SHEET 16 OF 17

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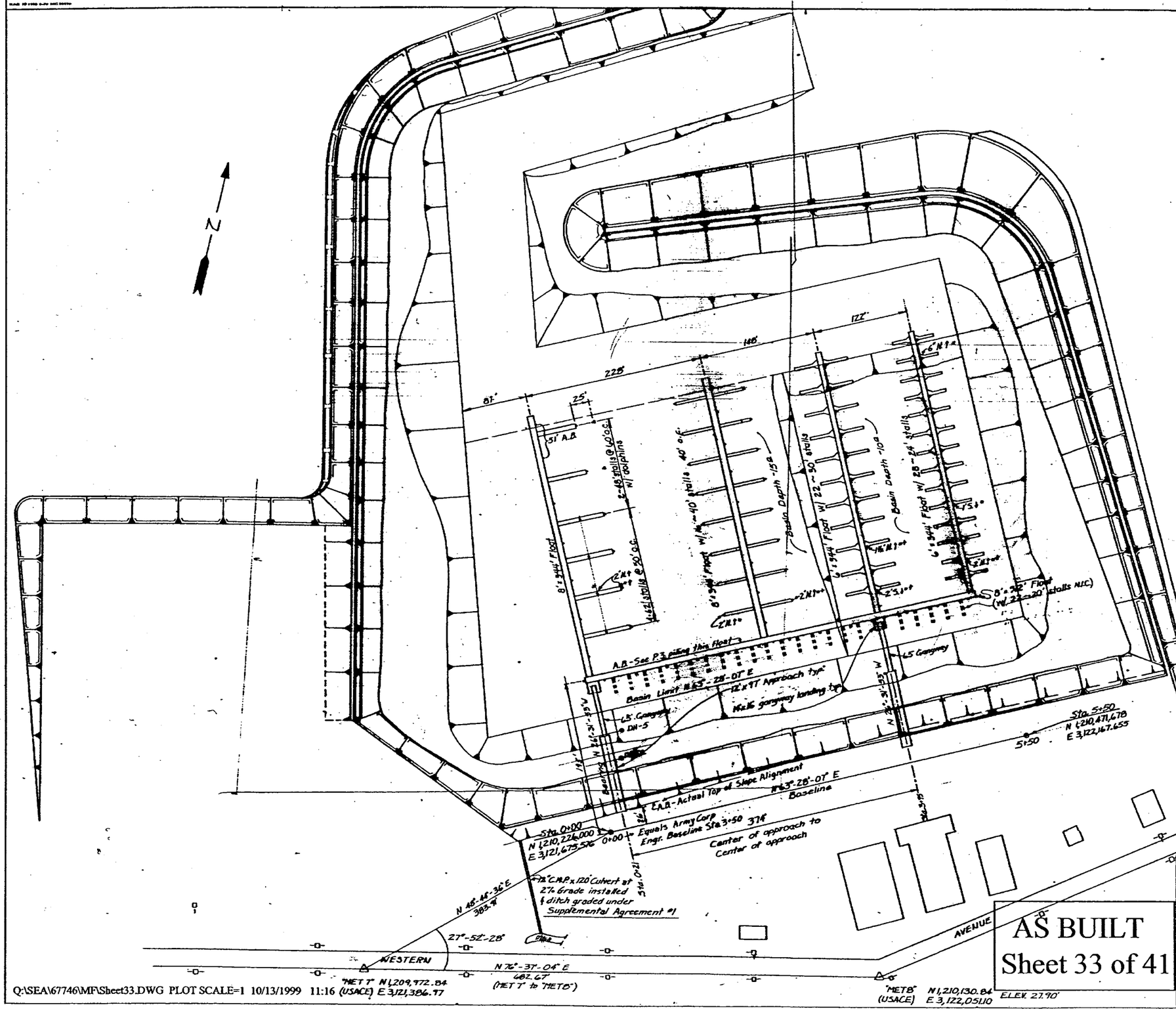
NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS



TIDE DATA

Highest tide (estimated)	19.5'
Mean Higher High Water	14.7'
Mean High Water	13.9'
Mean Tide Level	7.7'
Mean Low Water	1.5'
Mean Lower Low Water	0.0'
Lowest Tide (estimated)	-4.5'

NOTES

Electric Pole cutoff at 40'
Float pile cutoff at 30'
Dolphin pile cutoff at 30'
Socket all timber piles-
10' penetration minimum - A.B.: Used 7' min. primarily
A.B. - Changed to 6' minimum w/ State approval-sufficient support
Horizontal control (basis of bearing) shall be established between "MET T" (N 1,209,972.84, E 3,121,386.77) and "MET B" (N 1,210,130.84, E 3,122,051.10)
Vertical control shall be "MET B" Elev. 27.90 (USACE, brass cap at sidewalk curb).

- Timber Float Pile
- 3-Pile Timber Dolphin
- Approximate Drill Hole Location (Corps of Engrs.)

As Built:
† Original socket drilled crooked, discarded, moved & redrilled
* Stall float pairs moved distance & direction indicated to fit drilled pile sockets

AS BUILT

AS BUILT
Sheet 33 of 41

STAMP	DO NOT SCALE THIS DRAWING – USE DIMENSIONS
STATE OF ALASKA · Ronald E. Reese · No. 4373-S · REGISTERED PROFESSIONAL ENGINEER	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION METLAKATLA — ALASKA PROJECT LAYOUT
	SCALE 1" = 60' · DESIGNED · CHECKED · SURVEYED · DRAWN T.S. · DATE 12/80 · APPROVED Robert P. Beck CHIEF OF DESIGN PROJECT NUMBER K93124 · SHEET 2 OF 21

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Rubber corner bumpers to be used on all exterior corners of float system.

8'x8' Concrete Float Unit typ.

2 - 48' stall floats @ 60' o.c.

43 Float Units

5/8ø thru rods

62' stall float

4-62' stall floats @ 50' o.c. A.B.-See Sh. #2

62' stall float

1½ gap typ.

8½"

3x8 wale
2x8 bumper

15' cleats @ 20' o.c. this side only

12" cleat

7'-6"

4'-11½" to ℄ of First Stall Float

25'-11½" to ℄ Firgt Pile

Locate remaining Pile Collars at center of stalls (See Project Layout)

℄ 9" wide raceway

228'-0"

A.B. 1¼"x14" Cleat

6'-0"

℄ 12" cleat

12" cleats @ 20'-0" o.c.

3/4ø threaded inserts typ.

Rubber corner bumper typ.

8'x8' Conc. Float Unit

Hinge Connection typ. See H/11

40' stall float

2-3x8 wales
2x8 bumper

Note: Provide one 12" cleat each side of float typ. at intersection of all 8' wide floats. Cleats to be field located by engineer.

Stall Floats 40'-0" o.c.

40' stall float

43 Float Units

Locate remaining Pile Collars at center of stalls (See project layout)

A.B. 40'-5¼" - See Sh. #2 - 38'-5½" to ℄ of First Stall Float

18'-11½" to ℄ of First Pile

148'-0"

10"

6'-0"

℄ 12" cleat

12" cleats 20'-0" o.c.

12" cleat typ.

8'x8' Concrete Float Unit

℄ 12" wide raceway

3x8 wale

A.B. - See Sh. #3

8x8 Concrete Float Unit Typ.

2x8 bumper

2'-0"

14x8 G unit typ.

continuous thru-rod typ.

Gangway Connection see A/10

3x12 wale

Note: provide cleats 20'-0" o.c. this side of float except @ gangway floats.

19'-5"

20' Stall Float (N.I.C.)

Stalls 20' o.c. (N.I.C.)

gangway guiderail

2x12 bumper

¾ø inserts typ.

1½" (max) x 12" x 13'-11½" typ.

3x12 wale

2x12 bumper

Exterior Pile Collar - See main float layout for location of collars.

Stall Floats 30'-0" o.c. A.B. - See Sh. #2

6'x8' Concrete Float Unit

5/8ø thru rods

30' stall float

30' stall float

Pile location indicated on project layout

8½"

℄ 9" wide raceway

A.B. 29'-5¼" - See Sh. #2 - 27'-5½" to ℄ of First Stall Float

43 Float Units

Provide two cleats @ beginning of ea. float. Cleats to be field located by engineer.

122'-0"

13'-0"

12" cleats 20'-0" o.c.

3'-11½"

℄ 12" wide raceway

14x8 G Unit typ.

continuous thru-rod typ.

3x12 wale

18'-0"

20' Stall Float (N.I.C.)

Stalls 20' o.c. (N.I.C.)

2x12 bumper

℄ 16" wide raceway

10'-0" typ.

12"

gangway guiderail - center rails on floats

Rubber Corner Bumper

¾ø inserts typ.

3x12 wale

2x12 bumper

Stall Floats 24' o.c. A.B. - See Sh. #2

6'x8' Concrete Float Unit

5/8ø thru rods

24' stall float

24' stall float

Pile location indicated on project layout

8½"

℄ 9" wide raceway

23'-5½" to ℄ of First Stall Float

43 Float Units

Float Connection typ. A/10 B/10

AS BUILT

AS BUILT
Sheet 34 of 41

STAMP

STATE OF ALASKA
Ronald E. Reese
No. 4373-S
REGISTERED PROFESSIONAL ENGINEER

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF HARBOR DESIGN AND CONSTRUCTION

Metlakatla Alaska

MAIN FLOAT PLAN

SCALE 1/4"=1'-0"	SURVEYED	APPROVED Robert P. Beck
DESIGNED STS	DRAWN RJT	CHIEF OF DESIGN
CHECKED	DATE	
PROJECT NUMBER K 93124		SHEET 4 OF 21

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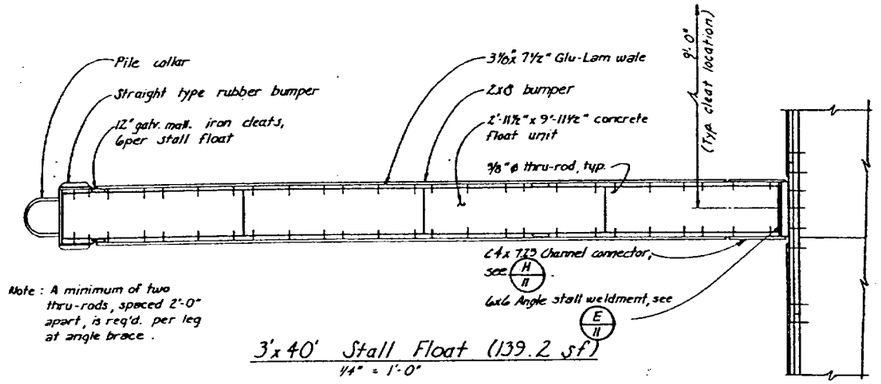
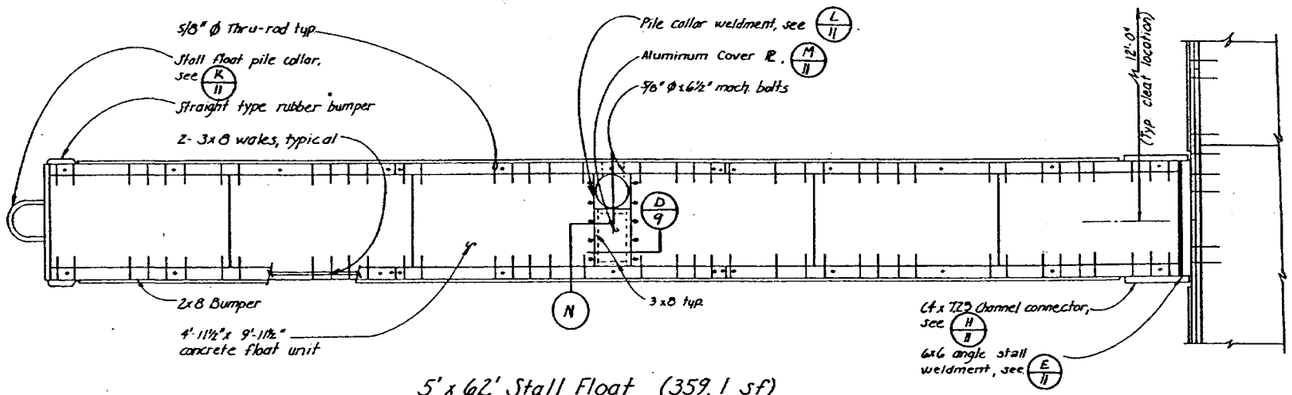
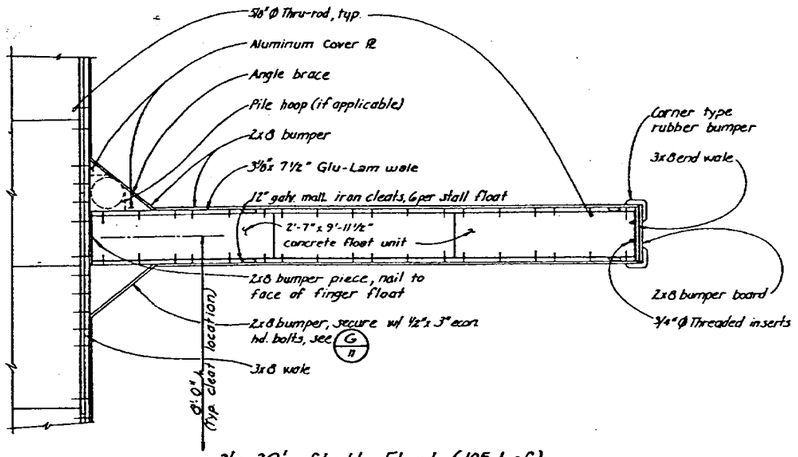


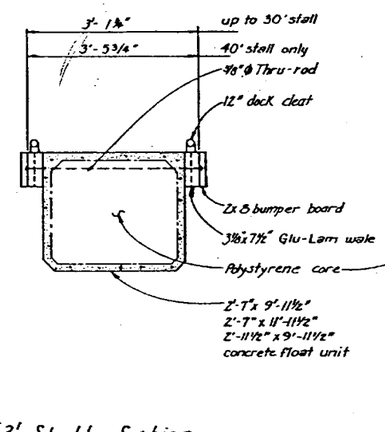
3'x 40' Stall Float (139.2 sf)
¼" = 1'-0"



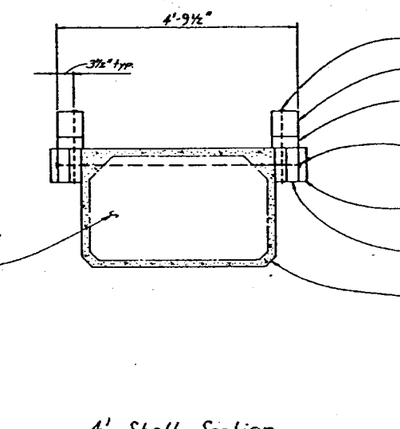
5'x 62' Stall Float (359.1 sf)
¼" = 1'-0"



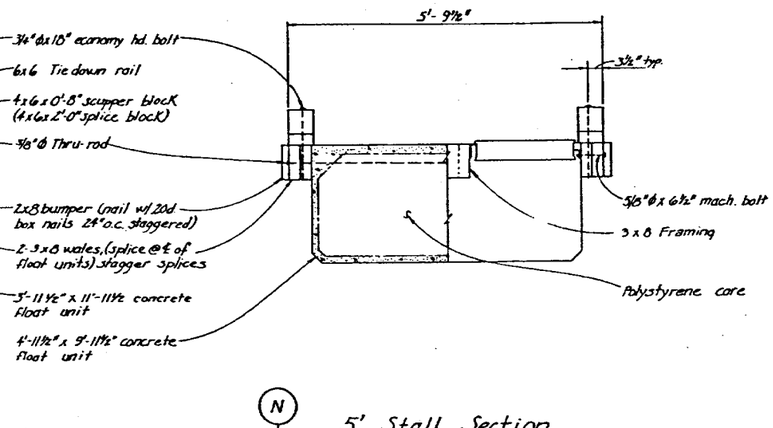
3'x 30' Stall Float (105.1 sf)
¼" = 1'-0"



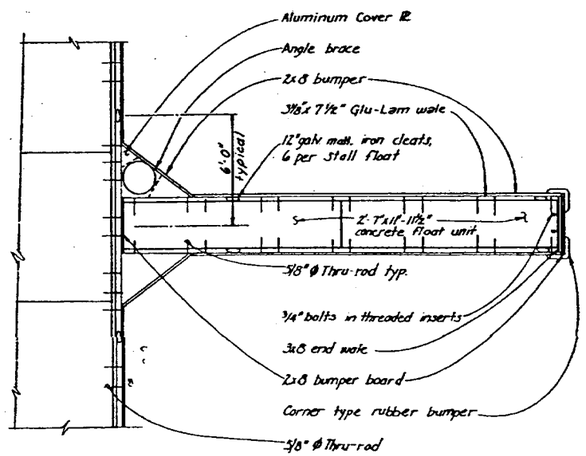
3' Stall Section
¾" = 1'-0"



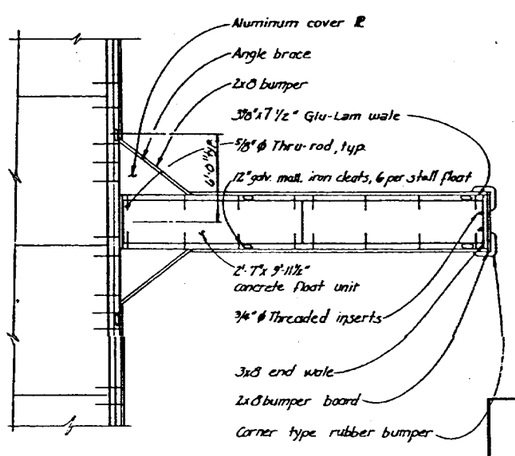
4' Stall Section
¾" = 1'-0"



N
5' Stall Section
¾" = 1'-0"



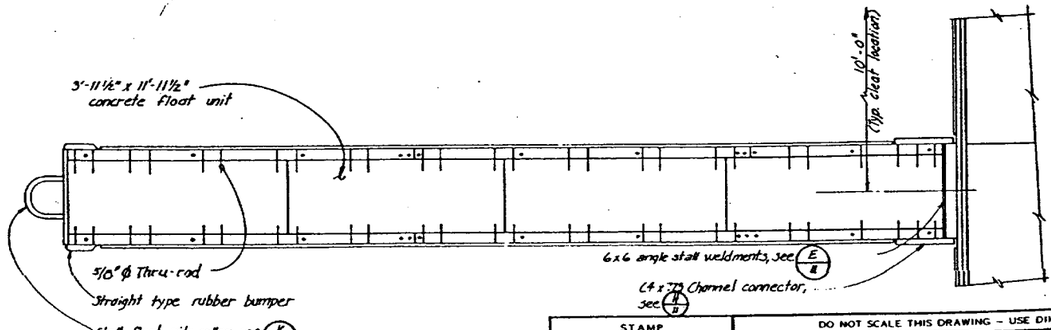
3'x 24' Stall Floats (86.5 sf)
¼" = 1'-0"



N.I.C.

3'x 20' Stall Floats (74.1 sf)
¼" = 1'-0"

AS BUILT
Sheet 35 of 41



AS BUILT

4'x 48' Stall Floats (230.0 sf)
¼" = 1'-0"

STAMP

STATE OF ALASKA
4918
Harold R. Beaver
No. 4327-S
REGISTERED PROFESSIONAL ENGINEER

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

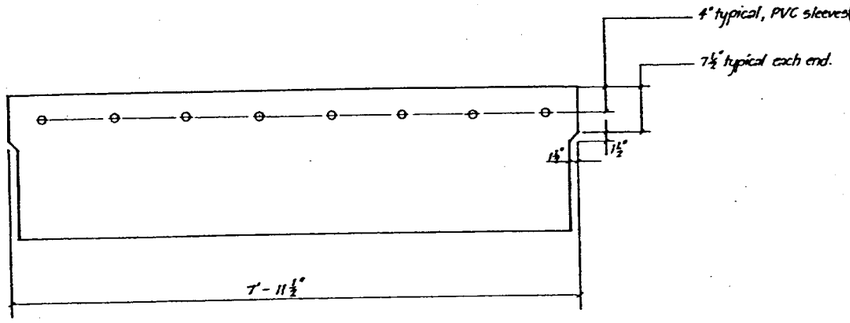
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF HARBOR DESIGN AND CONSTRUCTION

Metlakatla, Alaska

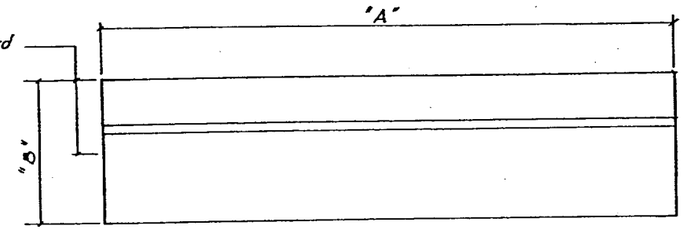
TYPICAL STALL FLOATS

SCALE As Noted	SURVEYED	APPROVED	Robert P. Beck
DESIGNED	DRAWN SJS		CHIEF OF DESIGN
CHECKED	DATE		
PROJECT NUMBER K 93124		SHEET 5 OF 21	

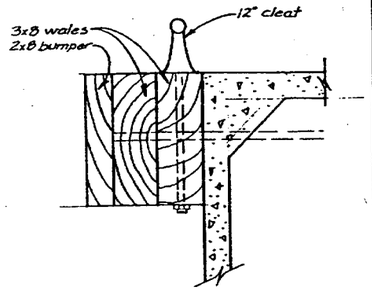
Q:\SEA\67746\MF\Sheet35.DWG PLOT SCALE=1 10/13/1999 11:16



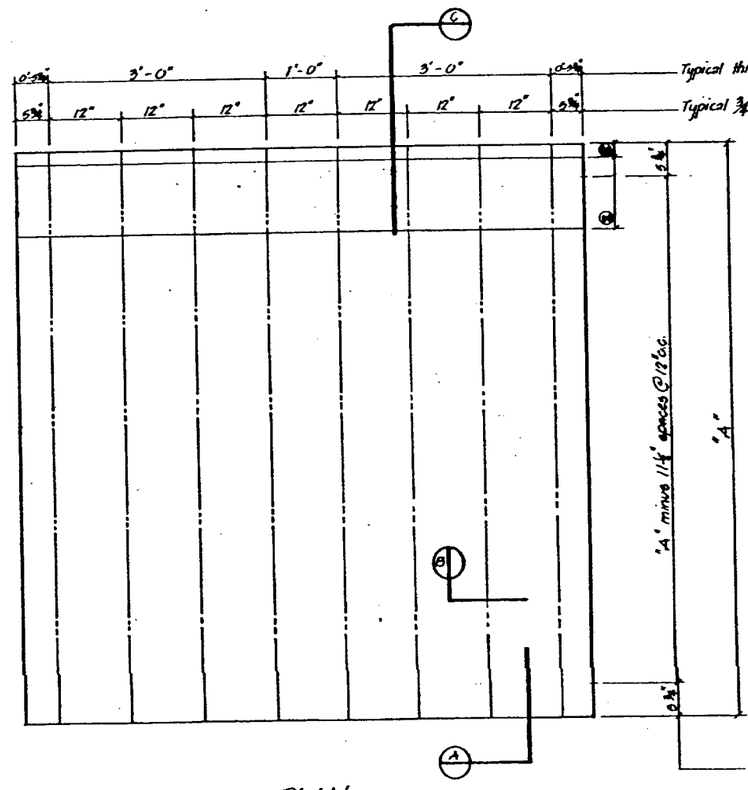
OUTBOARD ELEVATION
1"=1'-0"



END ELEVATION
1"=1'-0"



TYPICAL WALE DETAIL
6'±8' FLOATS
3"=1'-0"



PLAN
1"=1'-0"

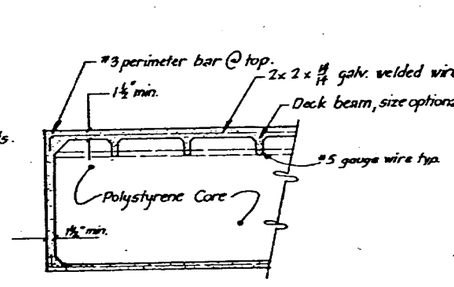
Design Freeboard 12" ①
Maximum Freeboard 14"
Minimum Freeboard 11"

DIMENSIONS			IMMERSION CONSTANT
Nominal Float	"A"	"B"	Pounds per linear ft.
6x8	5'-11¼"	Note ①	30.6
8x8	7'-11¼"	" "	40.8
10x8	9'-11¼"	" "	51.0
12x8	11'-11¼"	" "	61.3

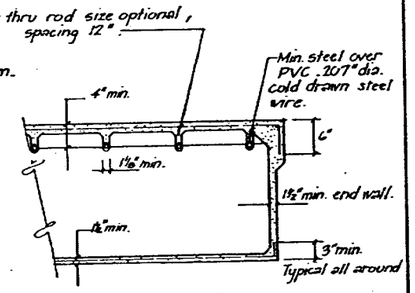
General Notes:
① Pontoon supplier to provide float unit w/ required freeboard. Allow 35 lbs. per linear foot for wales, bumper & utilities.

② Utility raceway location shown on layout drawings.

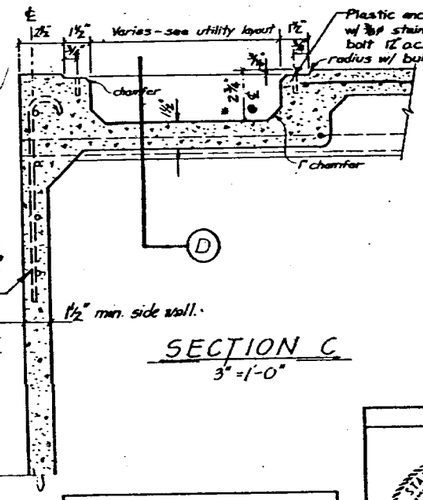
12" cont. 3x6 - W3x W3, shape as shown side trough only. Haunch typical all troughs. Cut cross wires to go around thru rods. See note ②



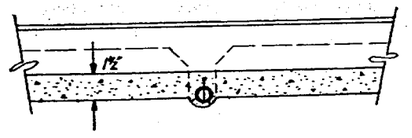
SECTION A
1"=1'-0"



SECTION B
1"=1'-0"



SECTION C
3"=1'-0"



*Raceway to slope down from ℄ of each unit ½" per 4' in both directions.

SECTION (D)
3"=1'-0"

AS BUILT

STAMP

STATE OF ALASKA
Ronald R. Beck
No. 6974
REGISTERED PROFESSIONAL ENGINEER

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF HARBOR DESIGN AND CONSTRUCTION

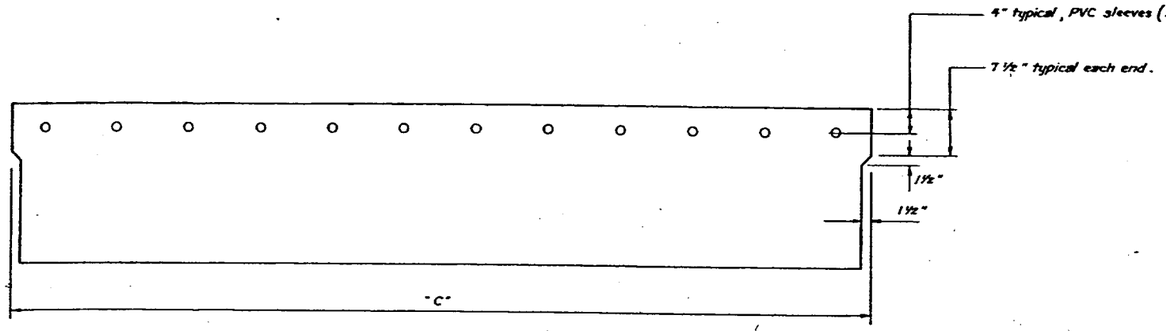
Mattakatta Alaska

TYPICAL FLOAT UNITS

SCALE As Shown	SURVEYED	APPROVED Robert P. Beck CHIEF OF DESIGN
DESIGNED	DRAWN	
CHECKED	DATE 11-80	
PROJECT NUMBER K 93124		SHEET 6 OF 21

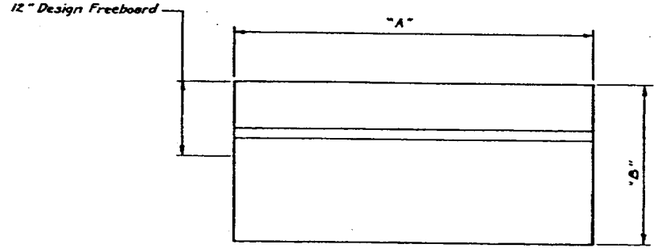
AS BUILT
Sheet 36 of 41

Q:\SEA\67746\MF\Sheet36.DWG PLOT SCALE=1 10/13/1999 11:16



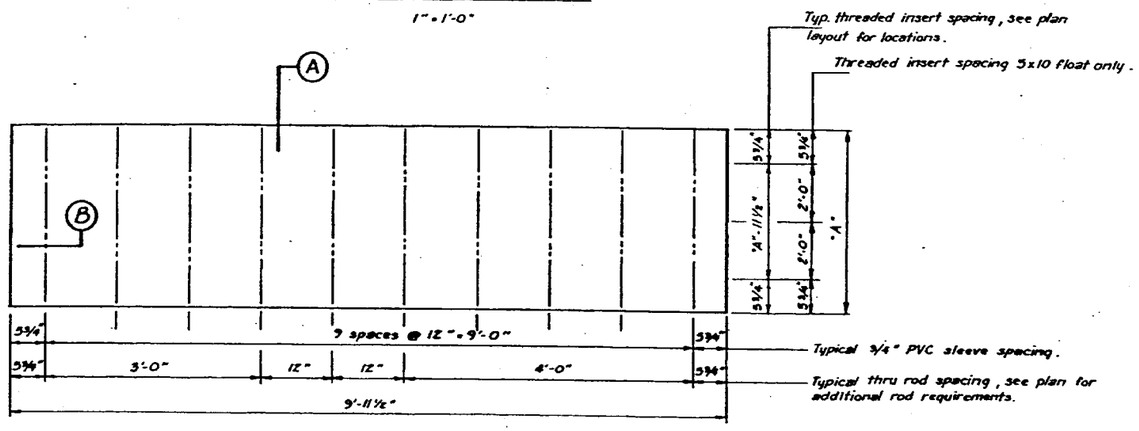
OUTBOARD ELEVATION

1" = 1'-0"



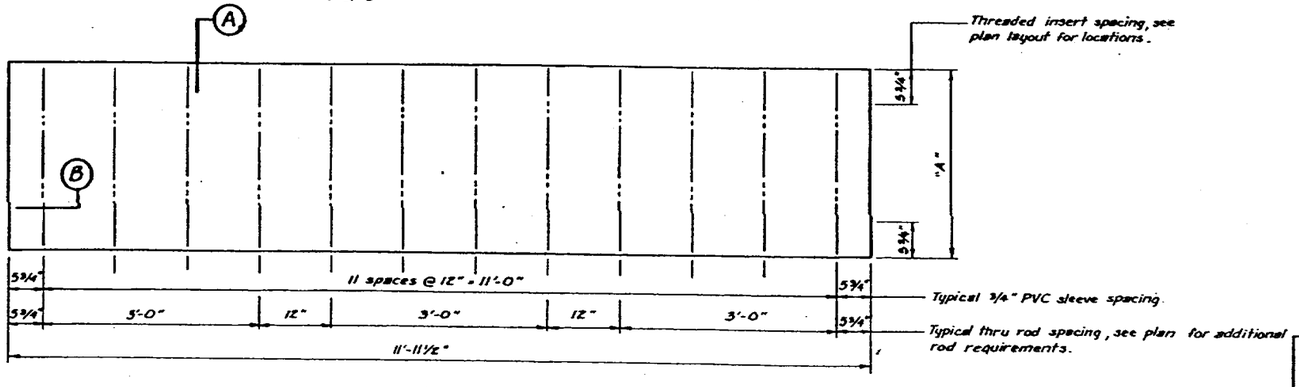
END ELEVATION

1" = 1'-0"



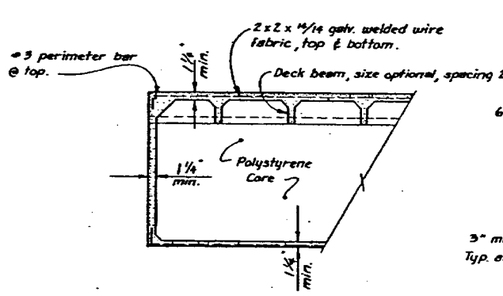
PLAN

1" = 1'-0"



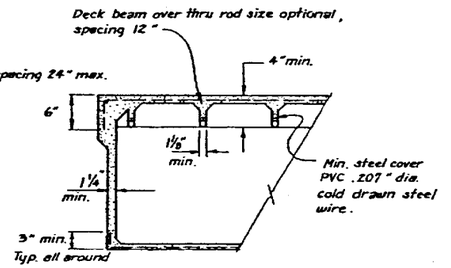
PLAN

1" = 1'-0"



SECTION (A)

1" = 1'-0"



SECTION (B)

1" = 1'-0"

General Notes:

(1) Pontoon supplier to provide float unit w/ required freeboard. Allow 16.4 lbs. per lin. ft. for 3' wide float and 26.0 lbs. per lin. ft. for 4' & 5' wide floats for walks & bumpers.

DIMENSIONS				IMMERSION CONSTANT
Nom. Float	"A"	"B"	"C"	Pounds per linear ft.
3 x 10	2'-7"	Note 1	9'-11½"	13.4
3 x 12	2'-7"	" "	11'-11½"	13.4
4 x 12	3'-11½"	" "	11'-11½"	20.6
5 x 10	4'-11½"	" "	9'-11½"	21.4
3 x 10	2'-11½"	" "	9'-11½"	15.8

Design Freeboard 12" (1)
Maximum Freeboard 14"
Minimum Freeboard 11"

AS BUILT

STAMP

STATE OF ALASKA 49th
Harold R. Mercer
No. 49734
REGISTERED PROFESSIONAL ENGINEER

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF HARBOR DESIGN AND CONSTRUCTION

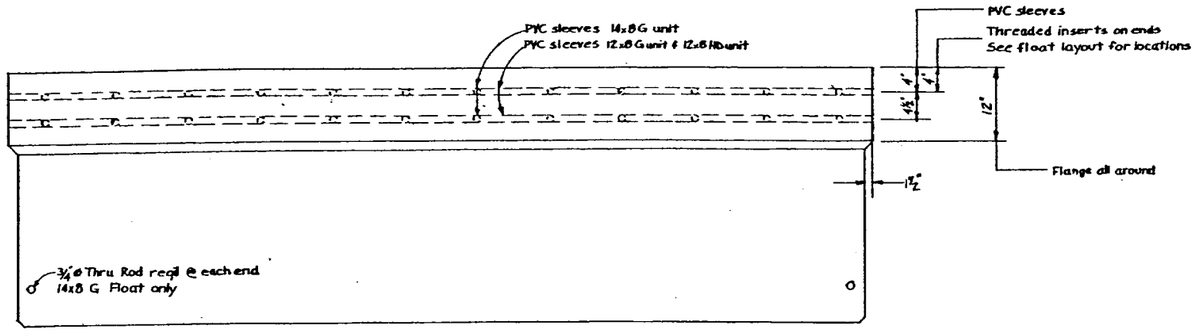
Metlakatla, Alaska

TYPICAL STALL FLOAT UNITS

SCALE As Noted	SURVEYED 13	APPROVED Robert P. Beck	
DESIGNED	DRAWN 13	CHIEF OF DESIGN	
CHECKED	DATE 10/80		
PROJECT NUMBER K 93124	SHEET 7 OF 21		

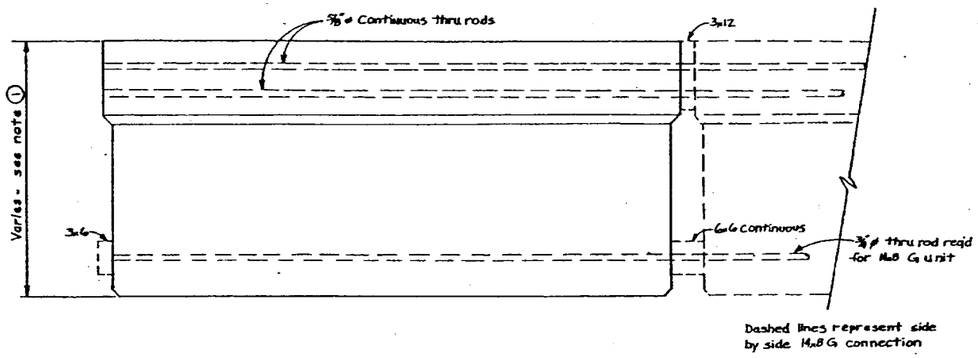
AS BUILT
Sheet 37 of 41

Q:\SEA\67746\MF\Sheet37.DWG PLOT SCALE=1 10/13/1999 11:16



OUTBOARD ELEVATION

1" = 1'-0"



END ELEVATION

1" = 1'-0"

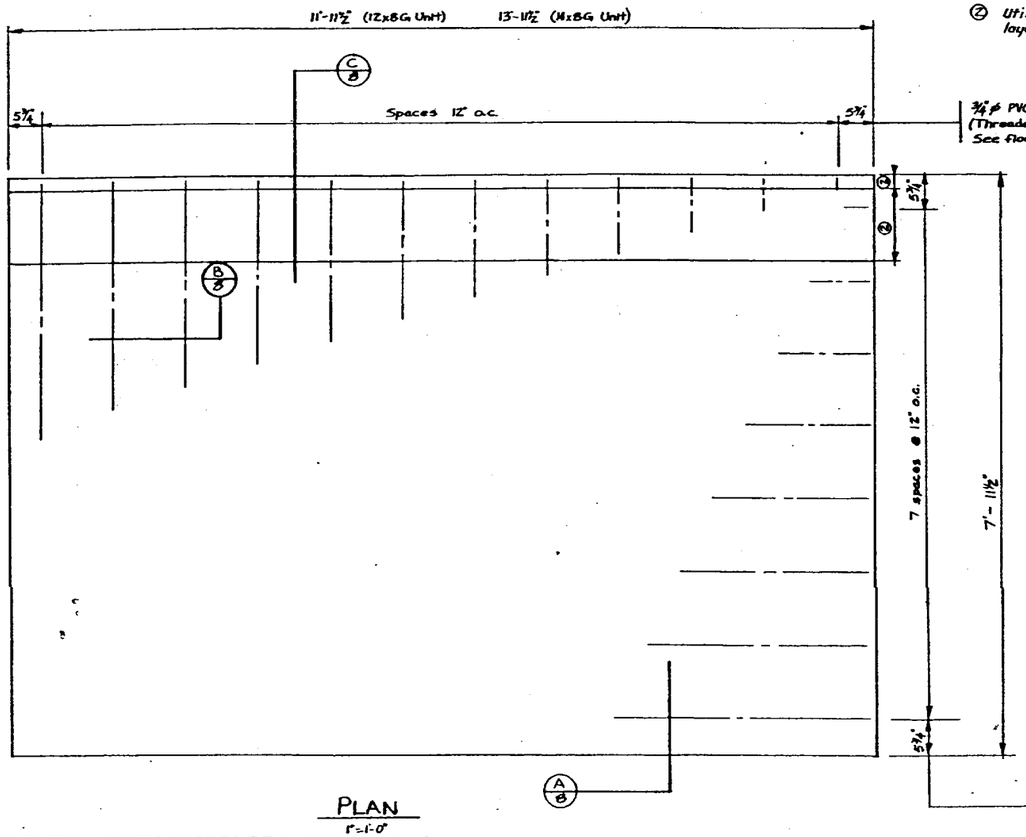
Design Freeboard 16" ①
Maximum Freeboard 18"
Minimum Freeboard 12"

Dimensions			Immersion Constant
Nominal Float	Width	Length	Lbs. Per linear ft.
12x8 HD	11'-11½"	7'-11½"	61.2
12x8 G	11'-11½"	7'-11½"	61.2
14x8 G	7'-11½"	13'-11½"	40.8

General Notes:

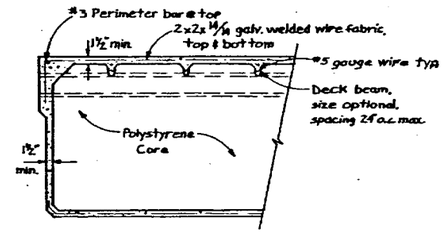
① Pontoon supplier to provide float unit w/ reqd. freeboard. Allow 35 Lbs. per linear foot for wales, bumper & utilities on HD units. Allow 2000 lbs. per float unit for gangway on all G units.

② *Utility raceway location shown on layout drawings.*



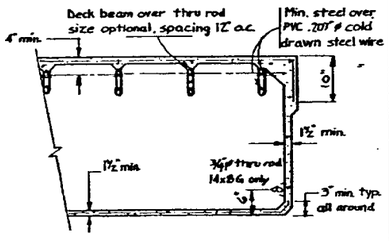
PLAN

1" = 1'-0"



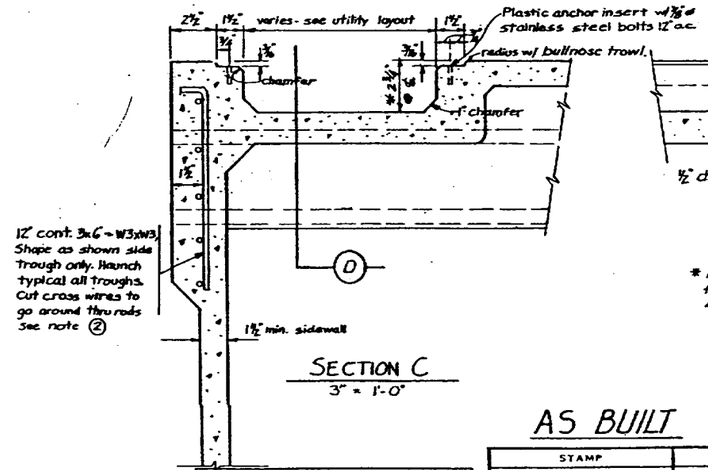
SECTION A

3/8" = 1'-0"



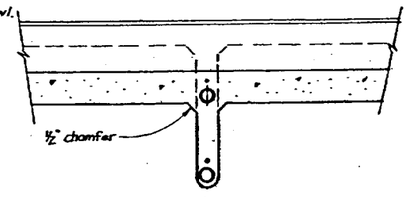
SECTION B

3/4" = 1'-0"



SECTION C

3" = 1'-0"



* Raceway to slope down from ℄ of each unit ¼" per 4' in both directions.

SECTION D

3" = 1'-0"

AS BUILT

AS BUILT
Sheet 38 of 41

STAMP

STATE OF ALASKA
49TH
Harold K. Dunn
No. 13734
REGISTERED PROFESSIONAL ENGINEER

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

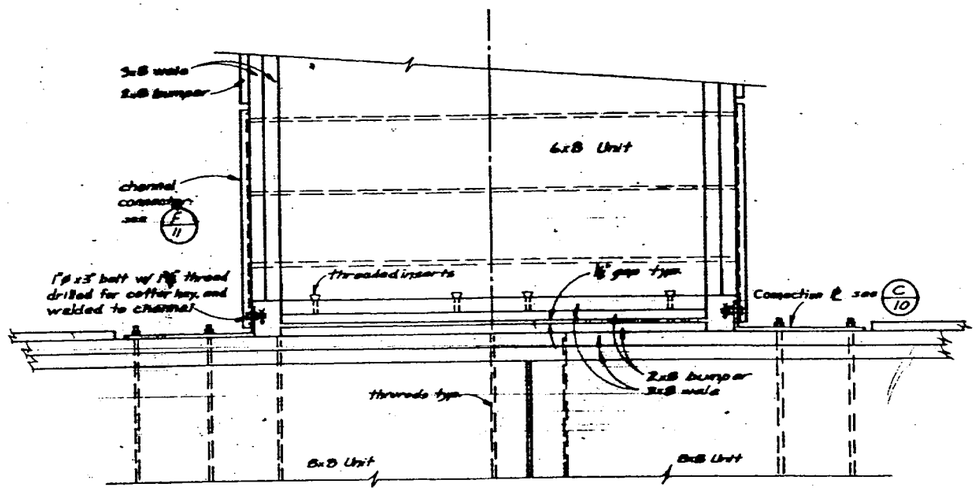
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF HARBOR DESIGN AND CONSTRUCTION

Metlakatla Alaska

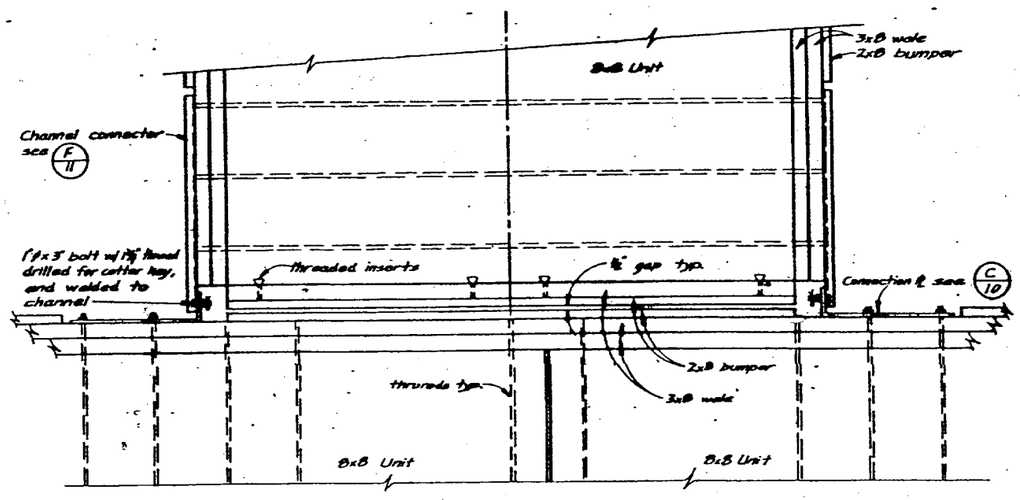
GANGWAY AND HEAVY DUTY FLOAT UNITS

SCALE As noted	SURVEYED	APPROVED	Robert P. Beck
DESIGNED	DRAWN RJT/CV		CHIEF OF DESIGN
CHECKED	DATE		
PROJECT NUMBER K.93124		SHEET 8 OF 21	

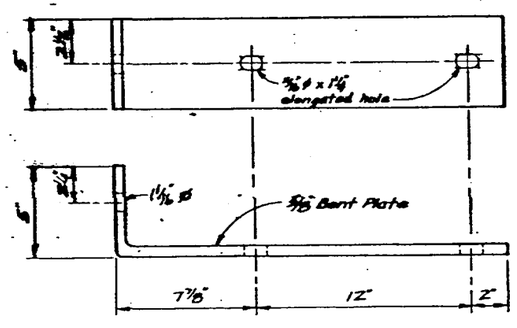
Q:\SEA\67746\MF\Sheet38.DWG PLOT SCALE=1 10/13/1999 11:16



6x8 FINGER FLOAT CONNECTION DETAIL A/10
1" = 1'-0"



8x8 FINGER FLOAT CONNECTION DETAIL B/10
1" = 1'-0"



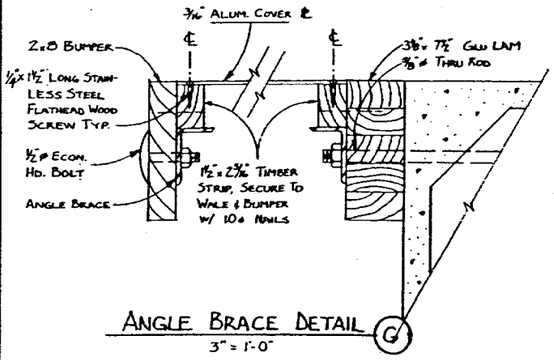
CONNECTION ℄ C/10
3" = 1'-0"

AS BUILT
Sheet 39 of 41

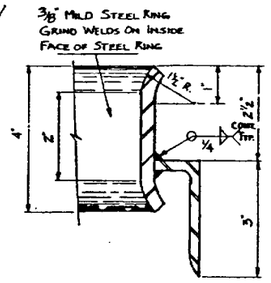
AS BUILT

STAMP	DO NOT SCALE THIS DRAWING – USE DIMENSIONS
STATE OF ALASKA 4918 Ronald E. Hoover No. 4918 REGISTERED PROFESSIONAL ENGINEER	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES DIVISION OF HARBOR DESIGN AND CONSTRUCTION
	Metlakatla Alaska
	FLOAT CONNECTION DETAILS
SCALE AS NOTED DESIGNED CHECKED	SURVEYED DRAWN RJT DATE APR. 81
APPROVED Robert P. Beck CHIEF OF DESIGN	
PROJECT NUMBER K93124	SHEET 10 OF 21

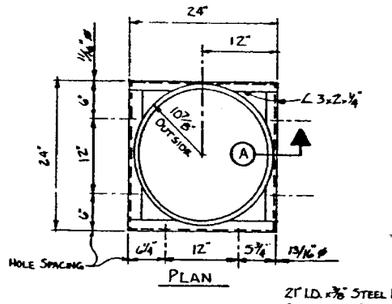
Q:\SEA\67746\MF\Sheet39.DWG PLOT SCALE=1 10/13/1999 11:16



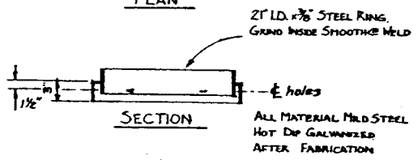
ANGLE BRACE DETAIL (G)
3" = 1'-0"



SECTION (A)
Half Size



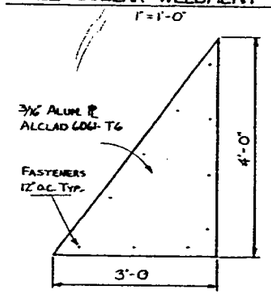
PLAN



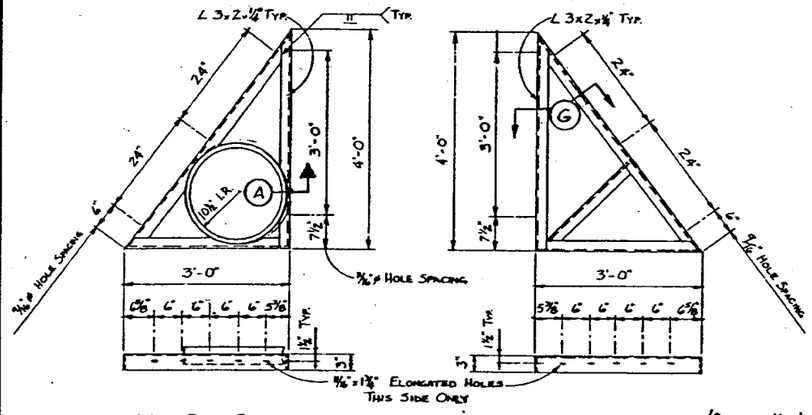
SECTION

All Material Mild Steel Hot Dip Galvanized After Fabrication

PILE COLLAR WELDMENT DETAILS
1" = 1'-0"



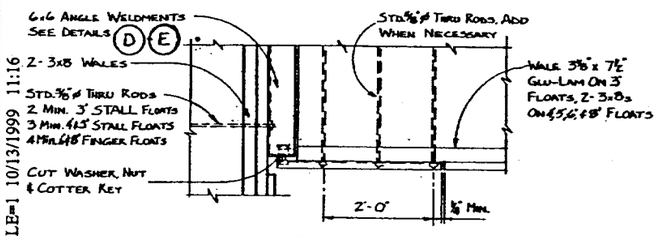
ANGLE BRACE COVER PLATE
3/4" = 1'-0"

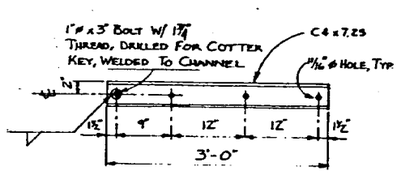


WITH PILE COLLAR

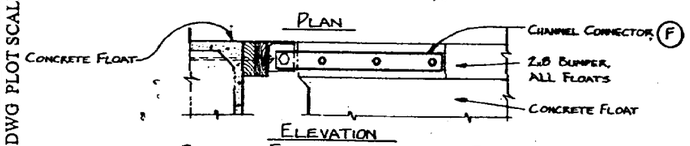
WITHOUT PILE COLLAR (Opposite Hand Similar)

ANGLE BRACE
3/4" = 1'-0"

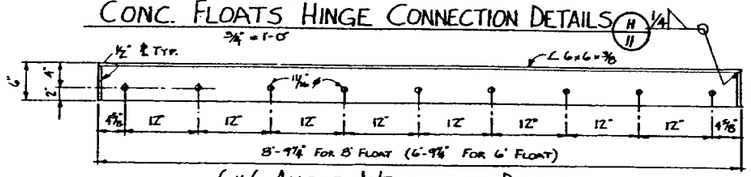




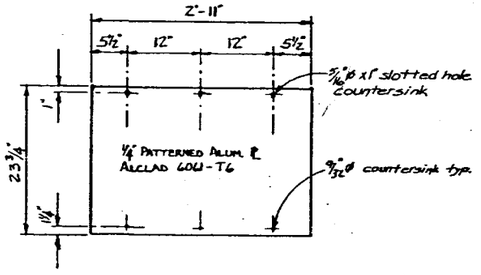
C4x7.25 CHANNEL CONNECTOR (F)
1" = 1'-0"



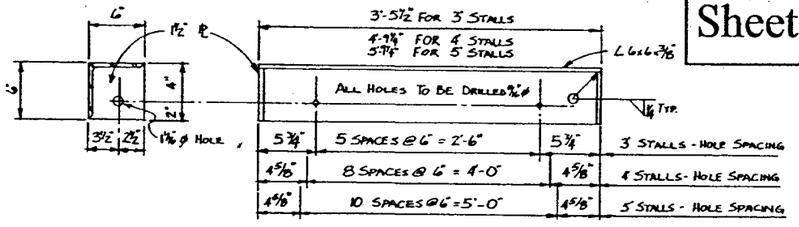
CONC. FLOATS HINGE CONNECTION DETAILS (H 1/4 / 11)
3/4" = 1'-0"



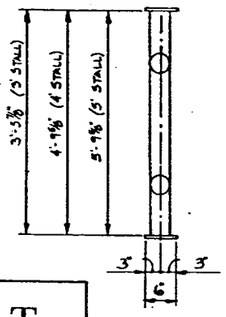
6x6 ANGLE WELDMENT DETAIL (D)
1" = 1'-0"

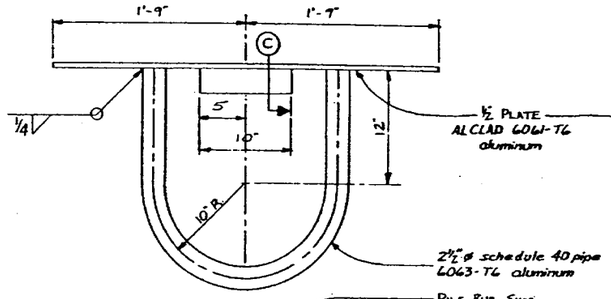


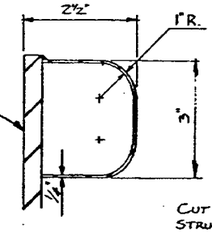
STALL FLOAT COVER ℄ (M / 11)
1" = 1'-0"



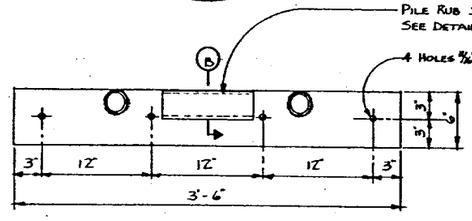
6x6 L STALL WELDMENT DETAIL (E)
1 1/2" = 1'-0"



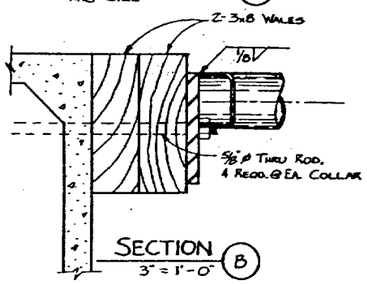




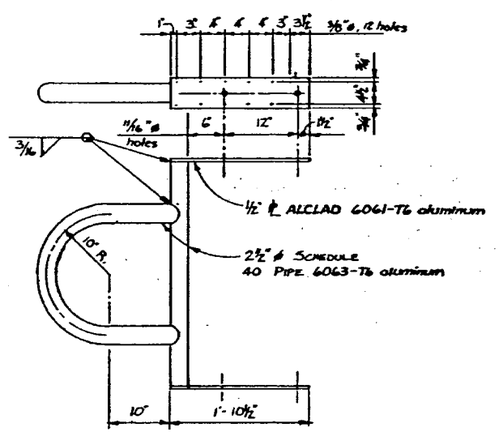
RUB SHOE DETAIL (C)
Half Size



EXTERIOR PILE COLLAR (J / 11)
1 1/2" = 1'-0"



SECTION (B)
3" = 1'-0"



STALL FLOAT PILE COLLAR (K / 11)
1" = 1'-0"

AS BUILT

AS BUILT
Sheet 40 of 41

STAMP

STATE OF ALASKA
9898
Ronald R. Beaver
No. 43734
REGISTERED PROFESSIONAL ENGINEER

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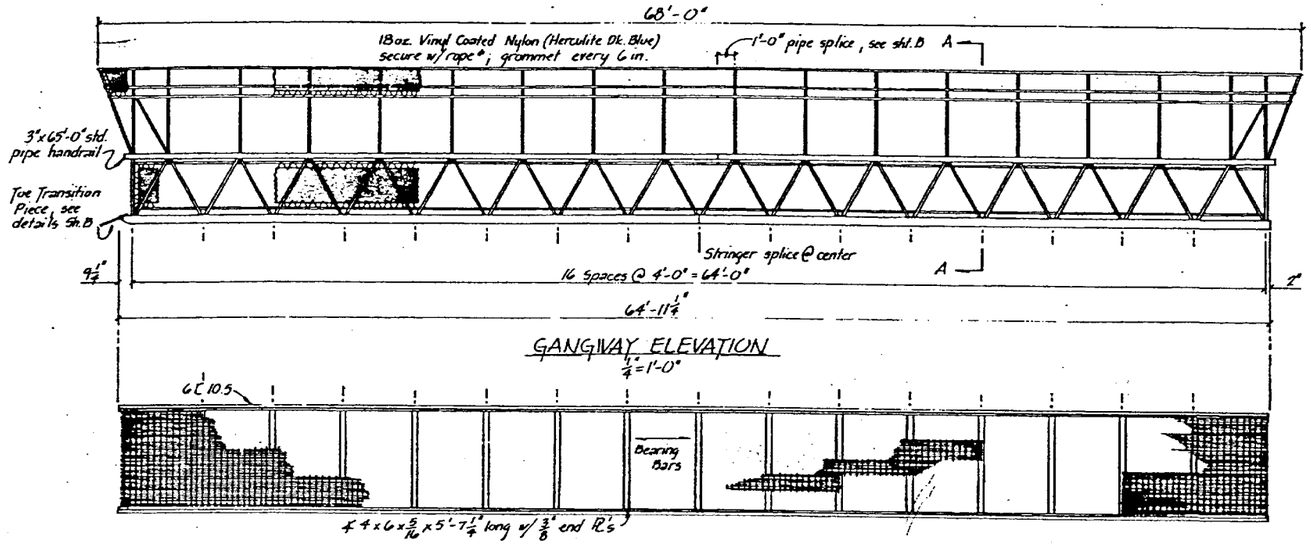
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF HARBOR DESIGN AND CONSTRUCTION

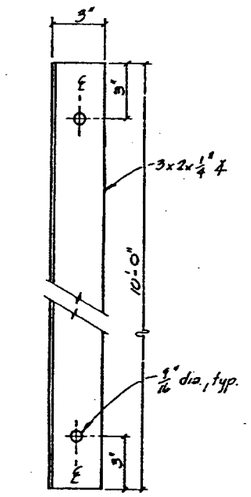
METLAKATLA ALASKA

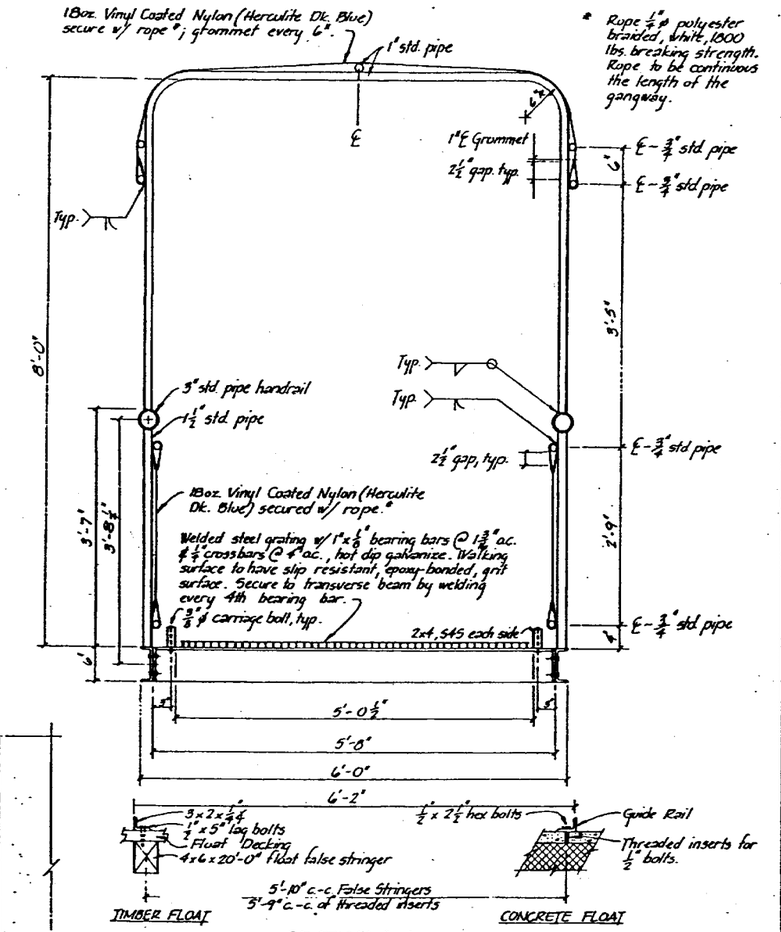
MISCELLANEOUS DETAILS

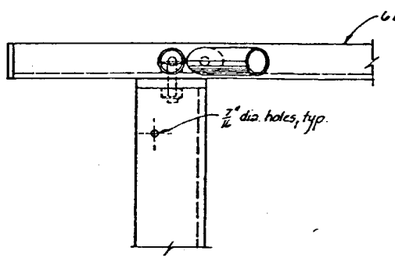
SCALE AS NOTED	SURVEYED	APPROVED	ROBERT P. BECK
DESIGNED	DRAWN B.J.T		CHIEF OF DESIGN
CHECKED	DATE		
PROJECT NUMBER K 93124		SHEET 11 OF 21	

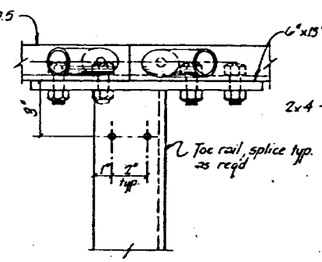
Q:\SEA\67746\MF\Sheet40.DWG PLOT SCALE=1 10/13/1999 11:16

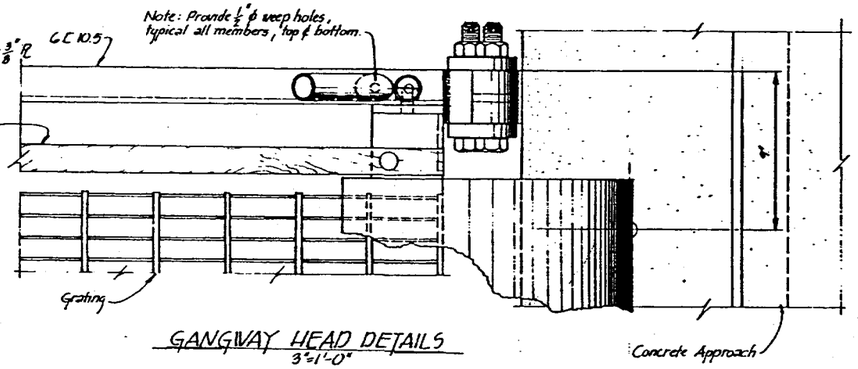


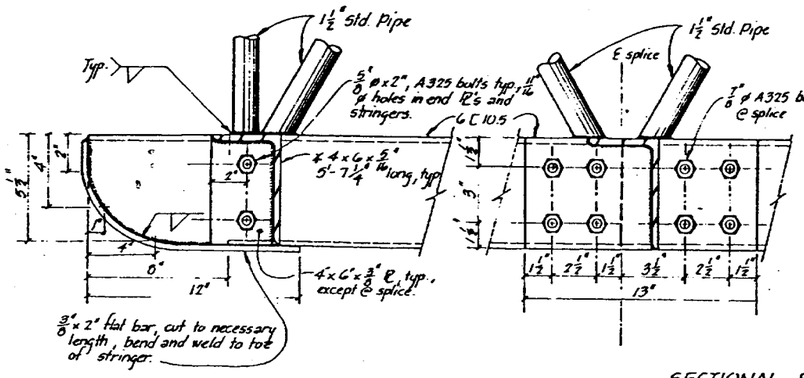


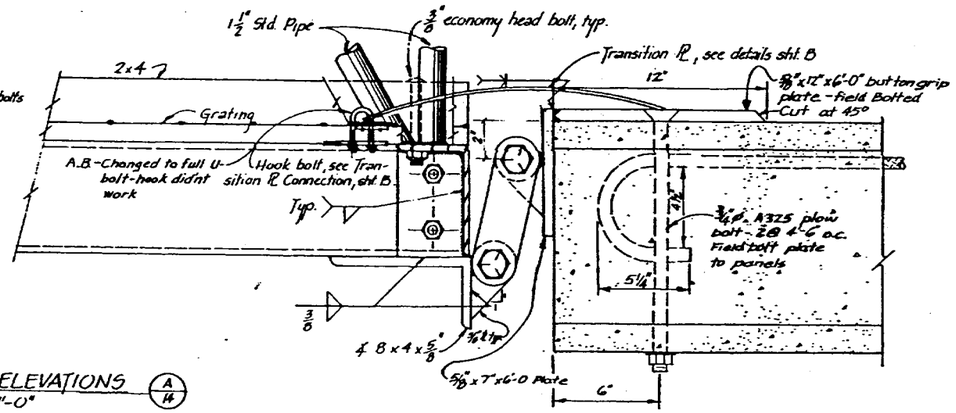












NOTES

1. Design live load 85 psf.
2. All seamless pipe shall conform to ASTM A-53, Grade B or ASTM A-500.
3. All shapes & plates shall conform to ASTM A-36
4. Trusses shall be shop fabricated & assembled after galvanizing, including hangers.
5. Shop splices shall be held to a minimum, optional field splice as shown.
6. Trusses & transverse beams shall be hot dipped galvanized after fabrication and in accordance w/ ASTM, A-123, A-384, A-385, A-386.
7. All steel hardware & fasteners shall be hot dipped galvanized in accordance with ASTM, A-153.
8. Toe rails shall be No. 1 Grade Hem-Fir penta pressure treated to 0.4 lb. cu.ft retention and shall be field drilled holes to match shop drilled holes in transverse members.
9. Assembly shop drawing shall be submitted for approval. Ship assembled except cover may be shipped separately.

AS BUILT
Sheet 41 of 41

AS BUILT

STAMP

STATE OF ALASKA 49th
REGISTERED PROFESSIONAL ENGINEER

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF HARBOR DESIGN AND CONSTRUCTION

Metlakatla, Alaska

6'x65'-0" COVERED STEEL GANGWAY
SHEET A

SCALE As Noted	SURVEYED	APPROVED	
DESIGNED HRM	DRAWN JTM	Robert P. Beck	
CHECKED	DATE 11-80	CHIEF OF DESIGN	
PROJECT NUMBER K93124	SHEET 14 OF 21		

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