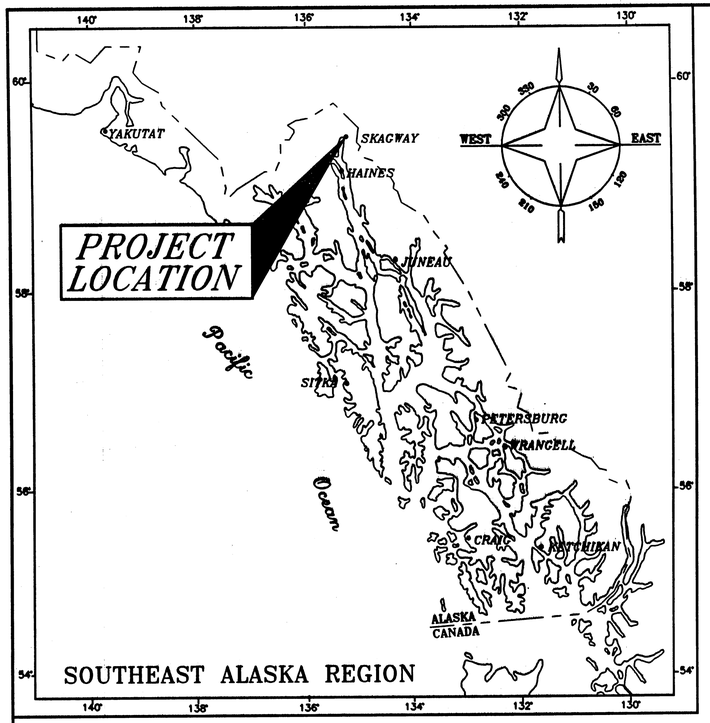


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND
PUBLIC FACILITIES
SOUTHEAST REGION
DESIGN AND CONSTRUCTION DIVISION

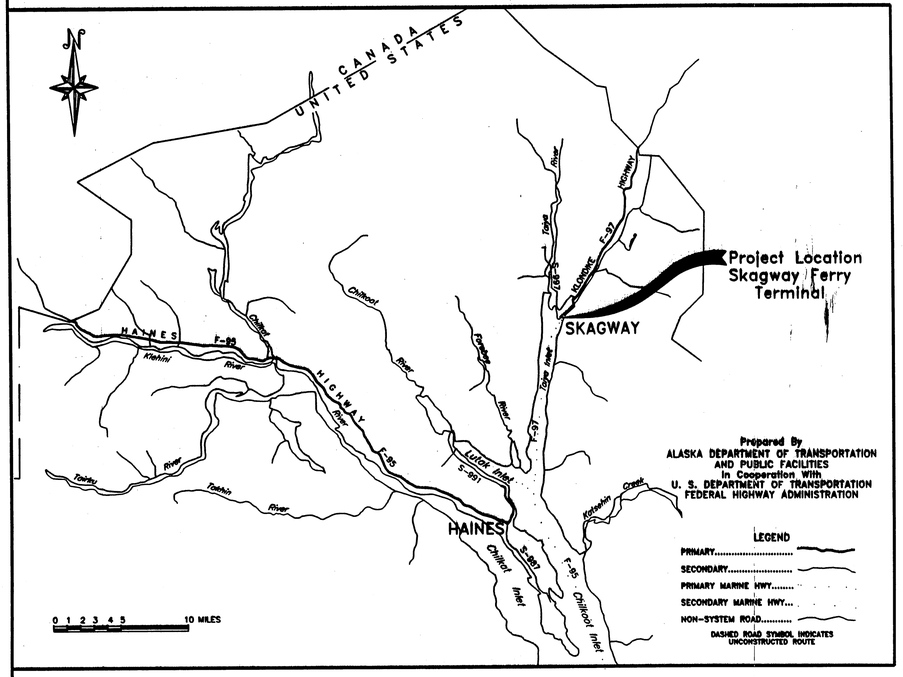
SKAGWAY F.T.
RECONSTRUCTION

PROJECT NO. ER-0069(1)/75468

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	QUANTITIES & GENERAL NOTES
3	PROJECT LAYOUT
4–7	DOLPHIN "R" RECONSTRUCTION DETAILS
8	ALT. "A", DOLPHIN "C" FENDER REPAIR
9	BRIDGE RECOAT & CORROSION PROOF DETAILS
10–13	PEDESTRIAN GANGWAY DETAILS
14–15	WATERLINE RECONSTRUCTION & MISC. DETAILS
16	CONCRETE CURB DETAILS
17–18	ELECTRICAL

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:



VICINITY MAP

PROJECT SUMMARY

-- *Corrosion proof and recoat existing transfer span and relocate existing utilities to the new passenger ramp.*

-- *Fabricate and install new passenger ramp.*

-- *Repair damaged sections of concrete curb rail on concrete barge.*

-- *Rehabilitate upper linehandler gangway support weldment.*

-- *Remove and dispose existing concrete dolphin cap and support piles. Fabricate and install new steel dolphin cap and support piles. Remove and dispose lower fender system wale and corner timbers. Fabricate and install new lower wale and corner fender timbers. Remove and replace damaged 24"ø fender pile.*

-- *Reconstruct damaged corner of existing terminal building walkway.*

-- *Alt. "A" Reconstruct damaged fender system, Dolphin "C".*

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

APPROVED _____ Date 6/29/95
Regional Preconstruction Engineer

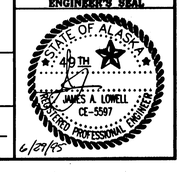
APPROVED _____ Date 6/29/95
Director, S.E. Region Design & Construction

PROJECT NUMBER: 75468

DATE: MAY, 1995

SHEET 1 OF 18

ENGINEER'S SEAL



ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	ESTIMATED QUANTITIES	UNIT
110	Mobilization/Demobilization	All Req'd	L.S.
111(1)	Erosion & Pollution Control Administration	All Req'd	L.S.
111(2)	Erosion & Pollution Control	All Req'd	C.S.
114	Traffic Maintenance and Control	All Req'd	L.S.
116	Furnish and Maintain Field Office		
120(1)	DBE Adjustment	All Req'd	C.S.
201	Removal of Structures and Obstructions	All Req'd	L.S.
301(1)	24" ø x 1/2" wall Pipe Pile, Furnished	592	L.F.
301(2)	24"ø x 1/2" wall Pipe Pile, Driven	7	EA.
302(1)	New Pedestrian Gangway, Furn., Fabr. & Erected	All Req'd	L.S.
302(2)	New Mooring Structure Cap, Dolphin "R", Furn., Fabr. & Erected	All Req'd	L.S.
302(3)	Repair Fender System, Dolphin "R", Furn., Fabr. & Erected	All Req'd	L.S.
303(1)	Corrosion Proof Existing Transfer Bridge	All Req'd	L.S.
303(2)	Recoat Existing Transfer Bridge	All Req'd	L.S.
306(1)	Repair Passenger Walkway	All Req'd	L.S.
306(2)	Alt. "A", Fender System Repairs, Dolphin "C"	All Req'd	L.S.
501	Electrical Power & Lighting	All Req'd	L.S.
605	Furnish & Install New Concrete Curb Rail	All Req'd	L.S.
607	Relocate Fuel Line	All Req'd	L.S.
608(1)	Waterline Reconstruction	All Req'd	L.S.
608(2)	Water Service Relocation	All Req'd	L.S.

GENERAL NOTES

Specifications:

Construction: Per Contract Documents for Project No.ER-0069(1) / 75468

Design: Restraint and Mooring Structures:
Marine Engineering Design Standards.

Design Loads:
Mooring Structure: Berthing E 30 ft.- Kips(service)
Mooring Line - 50 Kips

Catwalks and Gangways: LL - 60 psf

Pedestrian Ramps: LL - 85 psf

Design Unit Stresses:

Steel:

A36	F_s = 20 Ksi
A252 Gr. 2	F_s = 19.25 Ksi
A500 Gr. B	F_s = 25 Ksi
A572	F_s = 27 Ksi
A108	F_s = 29 Ksi
A608 Gr. D	F_s = 30 Ksi

Fender Timber: EKKI, Fb = 4.0 Ksi.

Concrete: Min.28 day strength Fc: Class A-A= 5 ksi. & Class A = 4 ksi.

Reinforcement: Fy = 60 ksi

Materials:

Steel:
Tube Sections A500 Gr. B
Pile A252 Gr. 2, A501 or A53, Gr. B, type E or S
Pipe A53, Gr. B, type E or S
Stainless Type 302, 304 or 316
All other shall be A36 or A572 as noted.
Charpy Group 2 impact requirements shall apply.

Timber: Fender Faces: EKKI (Lophira Procera)

Concrete: Class A-A & Class A

Protective Coatings:

Pedestrian Gangways: Painted per Sec. 303 (System 5) after fabrication.

Pipe Piles and Structural Steel Caps, Wales, Rails and Hardware:
Galvanized after fabrication

Reinforcing Steel: Epoxy Coat

EKKI: Untreated.

Piling:

Size: 24"ø x 1/2" wall steel pipe

Tips: Reinforced tips w/ APF 0-14000 or APF 0-14001 Drive Shoes or Approved Equal. Drive Shoes Are Required At All Piles.

Driving Requirements: (See table this sheet)

As-Built Drawings : As-Built Drawings Of Catwalks, Bridges And Other Structures Are Available For Inspection By Prospective Bidders at the Marine Facilities Engineering Office, 6860 Glacier Highway, In Juneau AK. Contact Jim Lowell or William Nelson at (907)465-8884.

Priority Of Ferry Traffic

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 ferry access or vehicular traffic to and from the existing ferry facilities.
   - B. Ferry traffic shall have priority over construction activities and it shall be the Contractor's responsibility to coordinate his activities with ferry arrivals and departures.
   - C. Terminal personnel will stage traffic, and operate the transfer equipment.
   - D. Contractor shall provide safe access and lighting for terminal personnel to tie up points as required throughout the contract.
2. The Contractor shall not stockpile any materials in the existing staging area without approval of the Engineer.

NEW PILING DATA

PILE LOCATION (Layout Shts. 4-7) 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
MOORING STRUCTURE "R"									
Vertical	2	24	120	120	-27	24.16	-42	-75	198
3:1 batter	3	24	65	50	-27	29.13	-42	-50	250
4:1 batter	1	24	65	50	-27	29.13	-42	-50	81
Fender	1	24	10		-27	24.16	-37	-39	63

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH:		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

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

SKAGWAY — SKAGWAY FERRY TERMINAL RECONSTRUCTION — ALASKA

FED. NO. ER-0069(1) ~ PROJECT NO. 75468

QUANTITIES & GENERAL NOTES

DESIGNED BY: JAL	PROJECT NO. 75468
DRAWN BY: JAL	DATE: MAY, 1995
CHECKED BY: BAS	SHEET 2 OF 18

STATE OF ALASKA 49TH — JAMES A. LOWELL CE-5597 REGISTERED PROFESSIONAL ENGINEER — 6/29/95

Taiya Inlet

True

Existing Broadway Dock

⑦ Dolphin "C"

Dolphin "A"

⑤ Dolphin "R"

④ Existing Linehandler Gangway

Note:
The existing northeast batter pile of Dolphin "R" is broken approx. 15 feet above mud-line. Contractor shall also verify location of existing barge anchor chain(s) and adjust as necessary to allow placement of new piling.

③ Existing Concrete Barge

② New Passenger Gangway

① Existing Transfer Bridge

⑥ Existing Walkway

Existing Terminal Building

Existing Staging Area

Existing Barge Restraint Chains

-80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

WORK SUMMARY

1. Corrosion proof and recoat existing transfer bridge and relocate existing utilities to the new passenger ramp.
2. Fabricate and install new passenger ramp.
3. Fabricate and install new concrete curb rail.
4. Rehabilitate upper linehandler gangway support weldmwnt.
5. Remove and dispose existing concrete dolphin cap and support piles. Fabricate and install new steel dolphin cap and support piles. Remove and dispose lower fender system wale and corner timbers. Fabricate and install new lower wale and corner fender timbers Remove and replace damaged 24"ø fender pile
6. Reconstruct damaged corner of existing terminal building walkway.
7. Alternate "A", Reconstruct damaged corner of fender system, Dolphin "C".

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH:		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

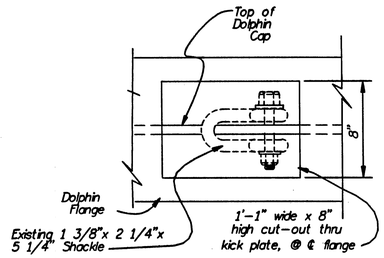
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

SKAGWAY — ALASKA

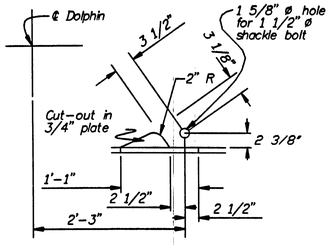
SKAGWAY FERRY TERMINAL RECONSTRUCTION
FED. NO. ER-0069(1) ~ PROJECT NO. 75468
PROJECT LAYOUT

DESIGNED BY: JAL	PROJECT NO. 75468
DRAWN BY: JAL	DATE: MAY, 1995
CHECKED BY: BAS	SHEET 3 OF 18

STATE OF ALASKA 49th
James A. Lowell CE-5597
REGISTERED PROFESSIONAL ENGINEER
6/29/95

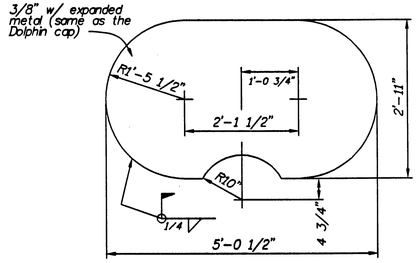


ELEVATION

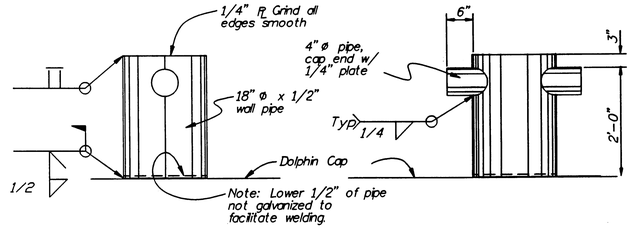


PLAN

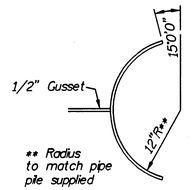
DETAIL (1)



COVER PLATE DETAIL



BOLLARD DETAIL (2)



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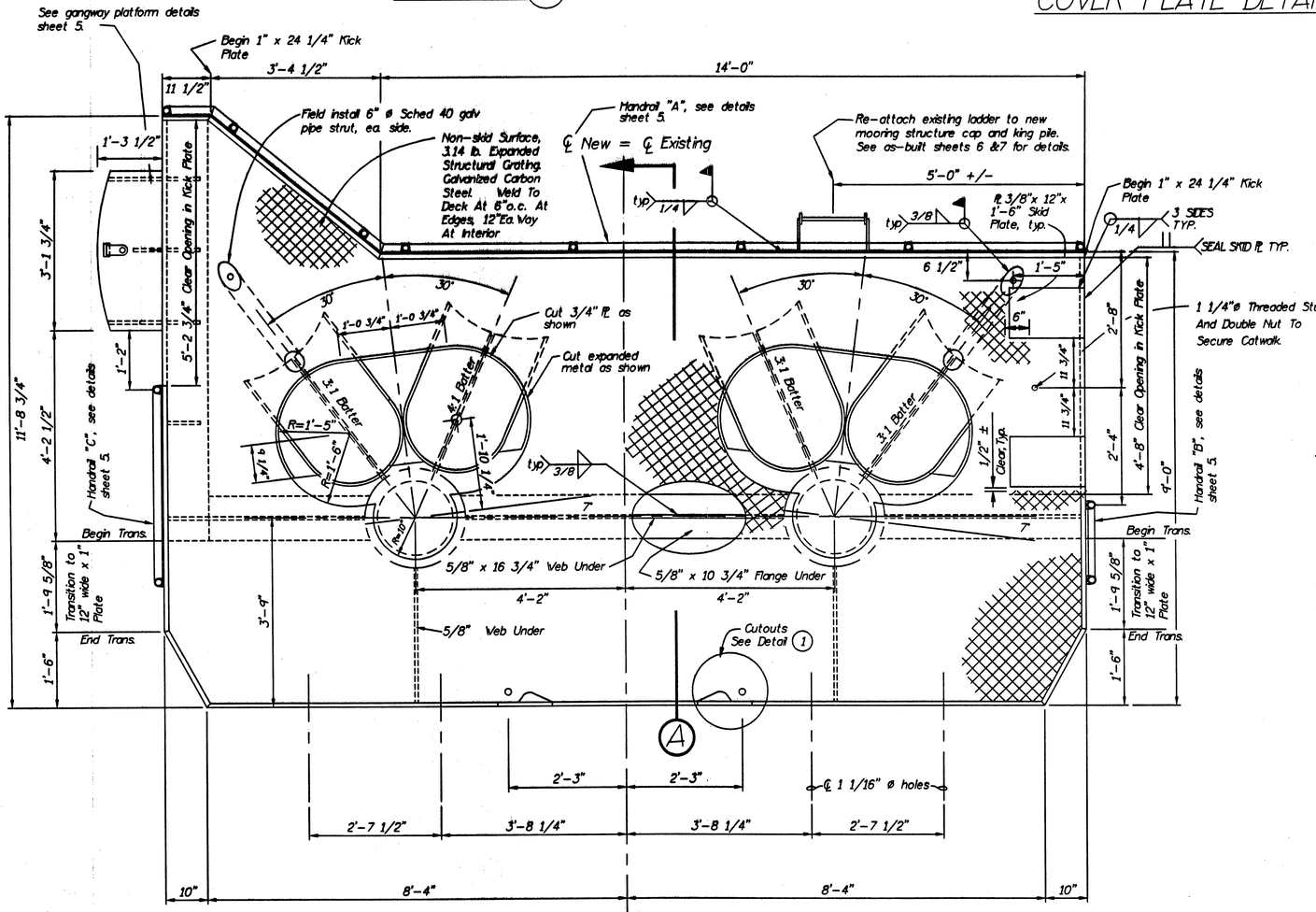
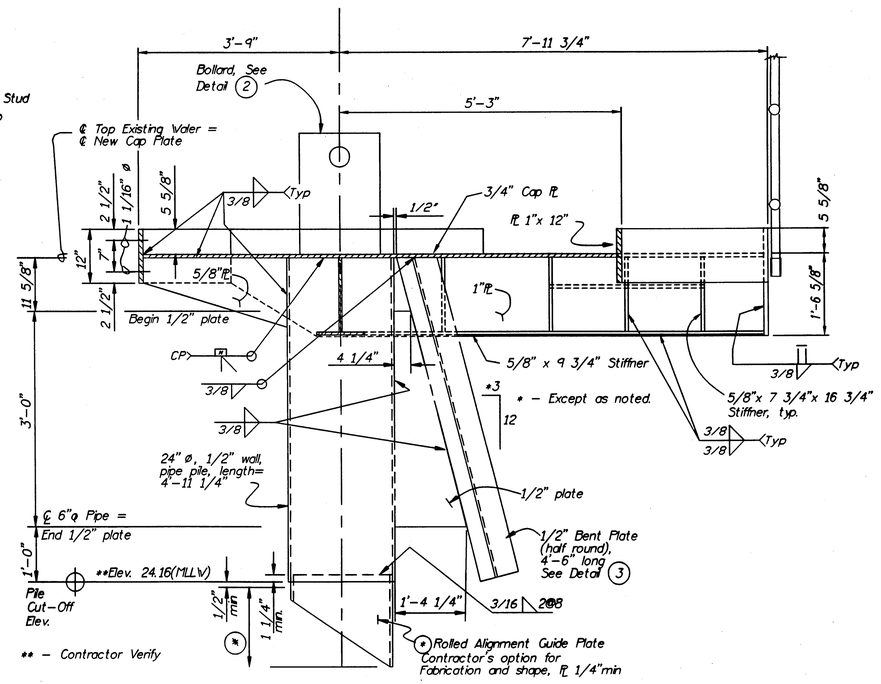


℄ New = ℄ Existing

DOLPHIN CAP PLAN

Note: Existing fender system not shown for purposes of clarity.



SECTION A-A

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH:		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

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

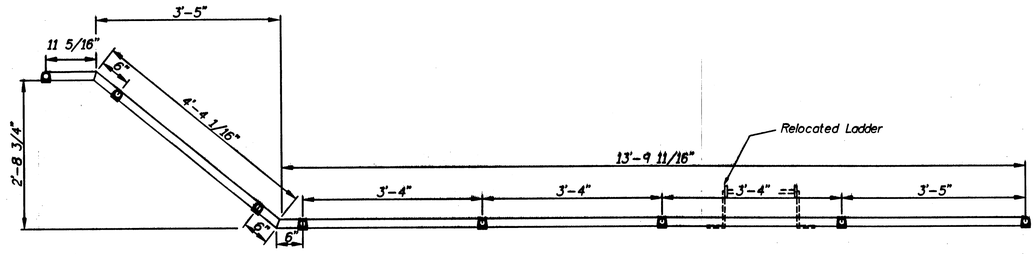
SKAGWAY — ALASKA

SKAGWAY FERRY TERMINAL RECONSTRUCTION
FED. NO. ER-0069(1) ~ PROJECT NO. 75468

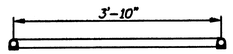
DOLPHIN "R" - CAP DETAILS

DESIGNED BY:	JAL	PROJECT NO.	75468
DRAWN BY:	JAL	DATE:	MAY, 1995
CHECKED BY:	BAS	SHEET 4 OF 18	

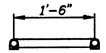
STATE OF ALASKA * 49th * James A. Lowell CE-5597 REGISTERED PROFESSIONAL ENGINEER 6/29/95



Handrail "A"

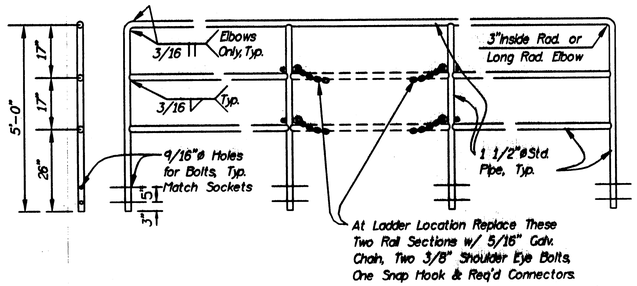


Handrail "C"

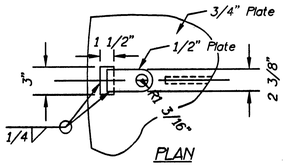


Handrail "B"

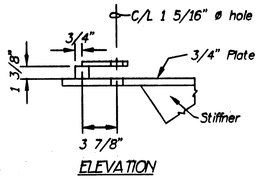
HANDRAIL PLAN



ELEV. – TYPICAL HANDRAIL

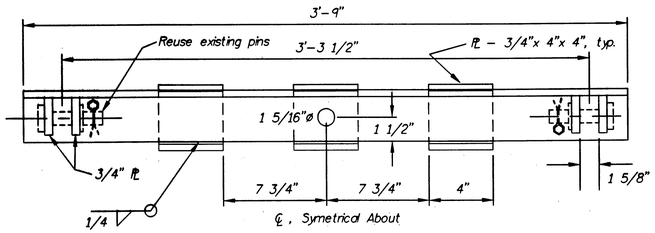


PLAN

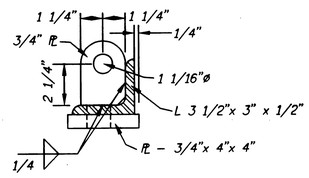


ELEVATION

SUPPORT WELDMENT

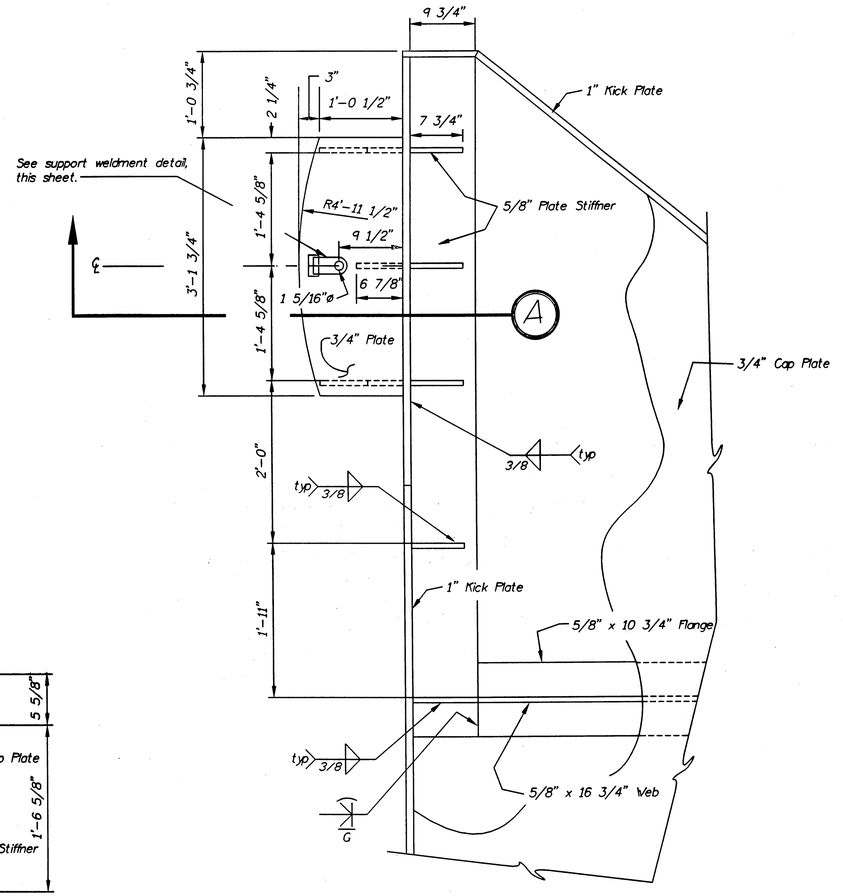


PLAN

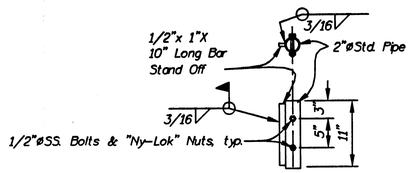


ELEVATION

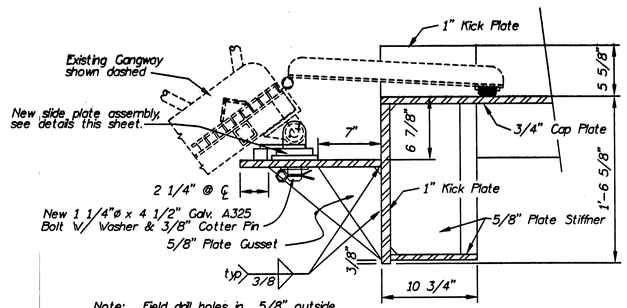
SLIDE PLATE ASSEMBLY



GANGWAY PLATFORM – PLAN



HANDRAIL SOCKET



SECTION A–A

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH:		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

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

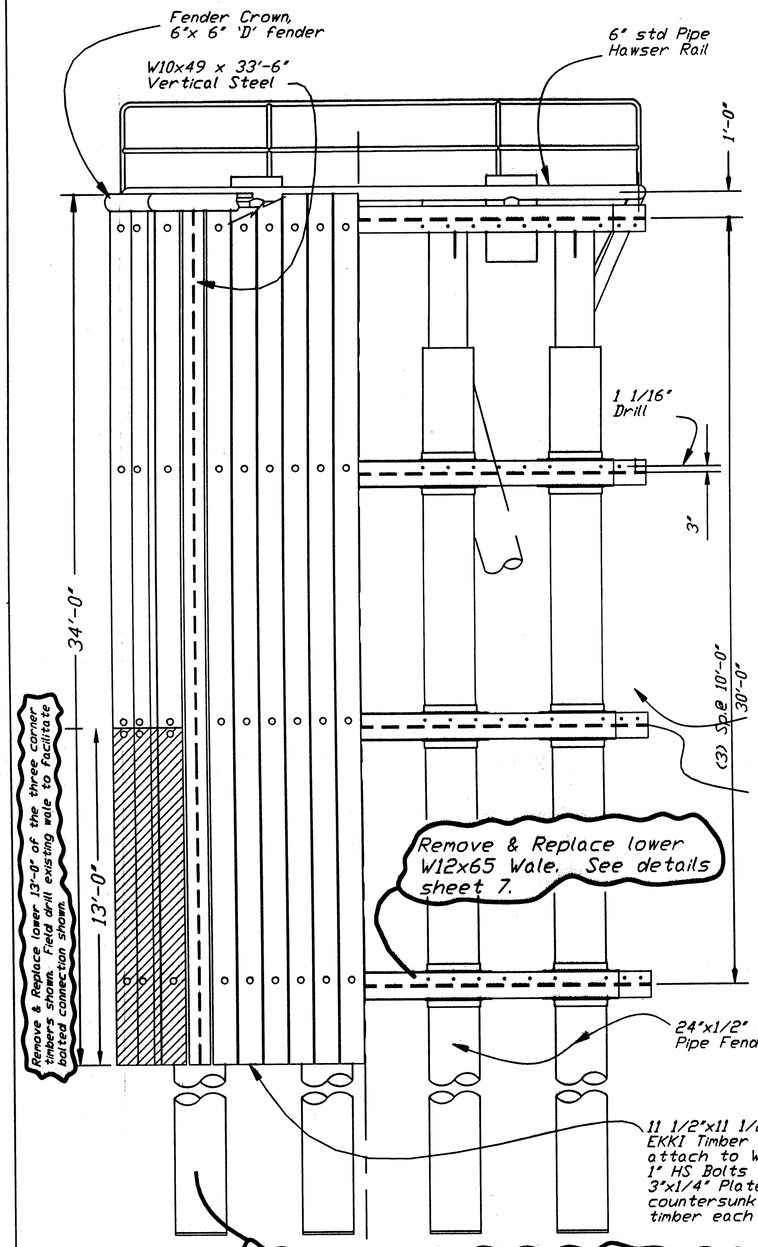
SKAGWAY — SKAGWAY FERRY TERMINAL RECONSTRUCTION — ALASKA

FED. NO. ER-0069(1) ~ PROJECT NO. 75468

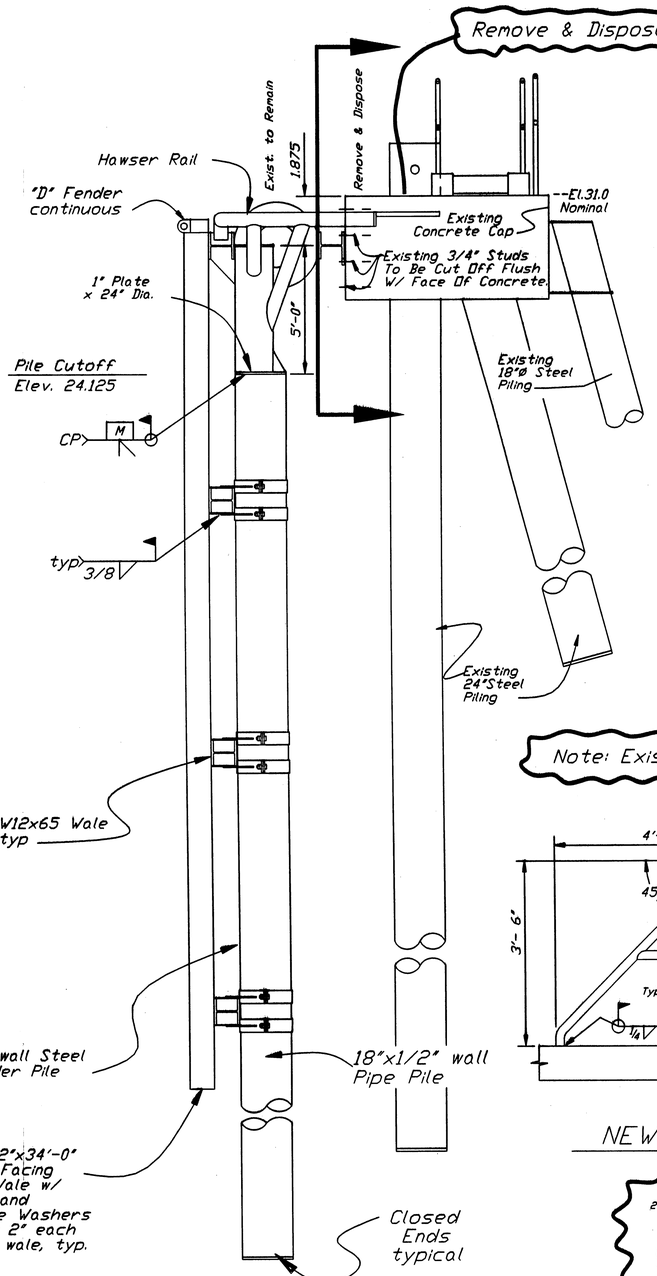
MISCELLANEOUS DOLPHIN CAP DETAILS

DESIGNED BY:	JAL	PROJECT NO.	75468
DRAWN BY:	JAL	DATE:	MARCH, 1995
CHECKED BY:	BAS	SHEET	5 OF 18

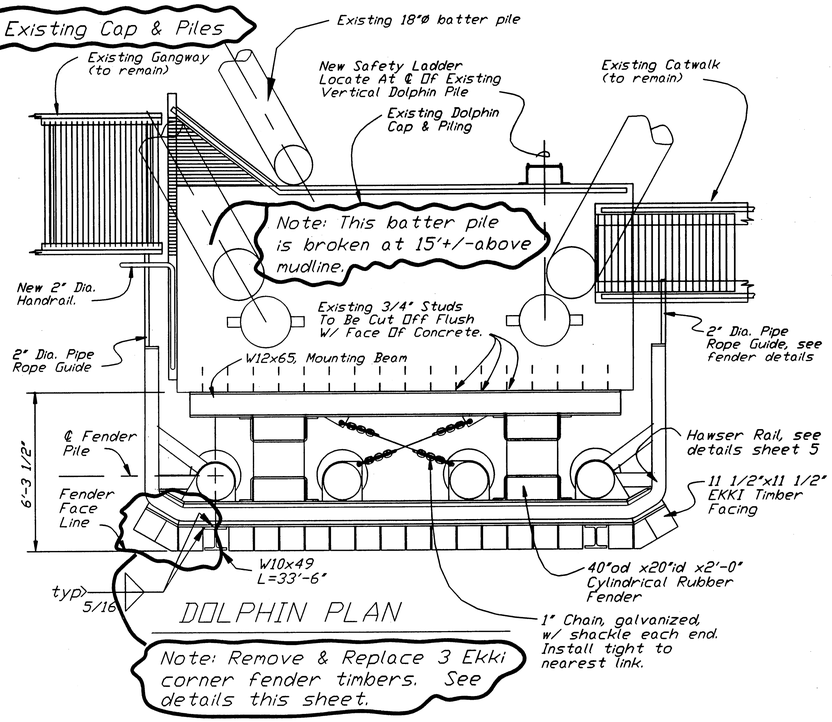
STATE OF ALASKA · 49th · James A. Lowell CE-5597 REGISTERED PROFESSIONAL ENGINEER 6/21/95



FRONT ELEVATION

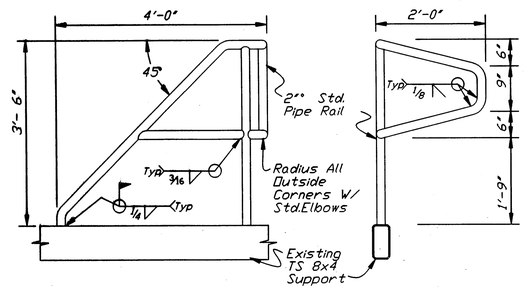


SIDE ELEVATION

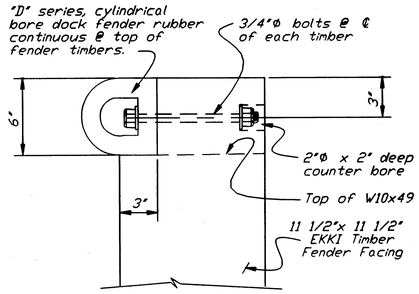


DOLPHIN PLAN

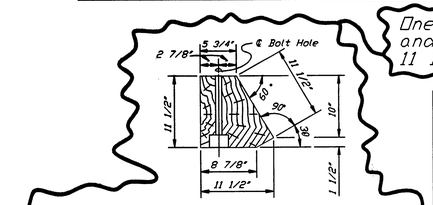
Note: Existing 24" ø piling are concrete filled.



NEW HANDRAIL DETAILS



DETAIL (1) NTS



One req'd as shown and two @ 11 1/2"x 11 1/2".

CORNER TIMBER DETAIL

AS-BUILT

STAMP

STATE OF ALASKA 49th JAMES A LOWELL CE-5597 REGISTERED PROFESSIONAL ENGINEER 6/26/91

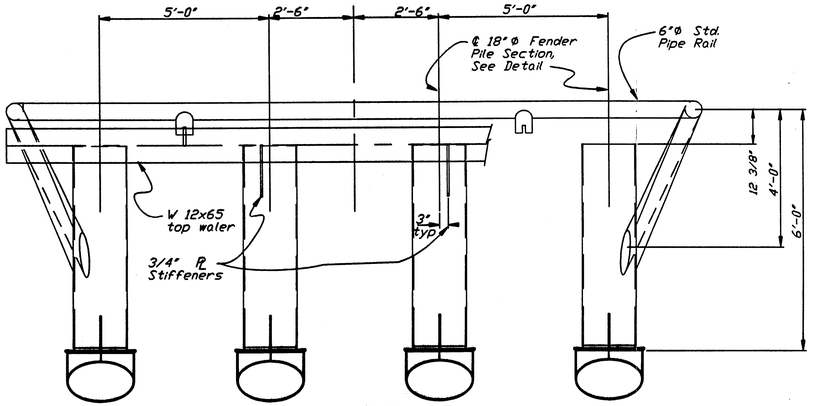
DO NOT SCALE THIS DRAWING - USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

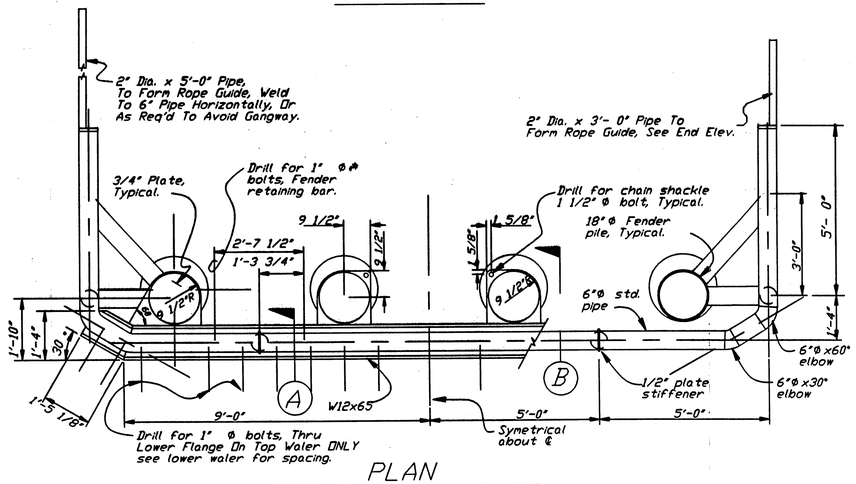
SKAGWAY ALASKA

AS-BUILT
MOORING STRUCTURE "R",
REPLACEMENT FENDER PLAN & ELEV.

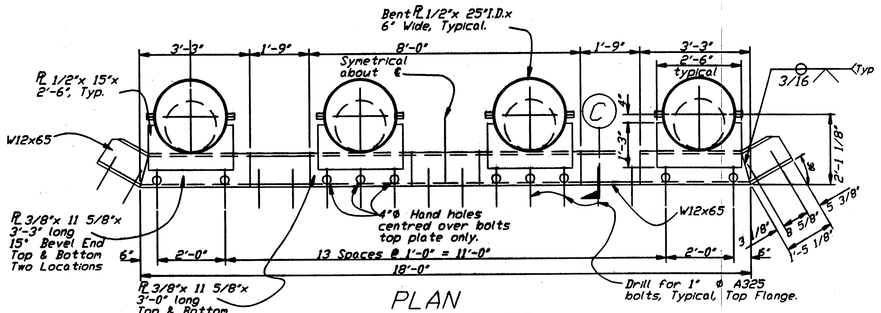
DESIGNED B.S.	CHECKED	DRAWN W.N.	DATE JAN.1991
PROJECT NUMBER ER-0069(1)/75468		SHEET 6	OF 18



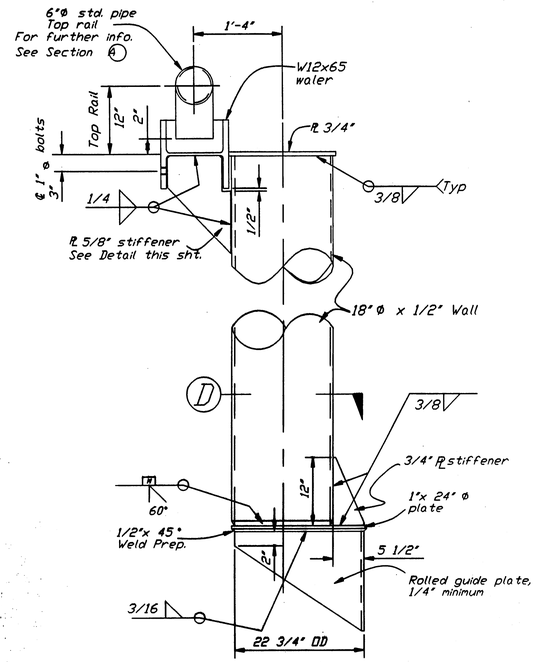
ELEVATION



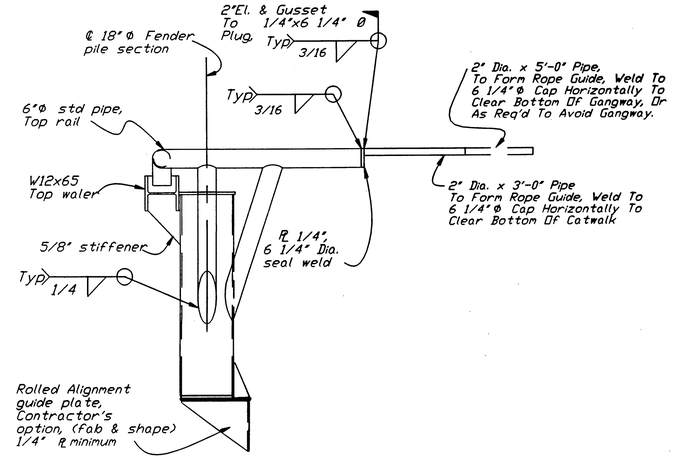
PLAN
TOP RAIL & WALER



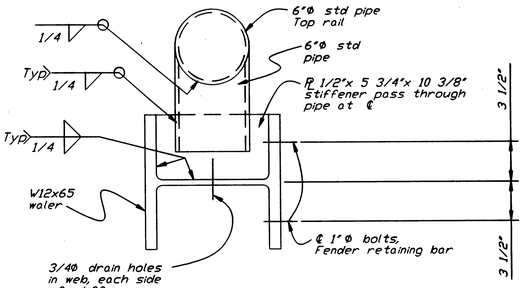
PLAN
LOWER WALER



SECTION B

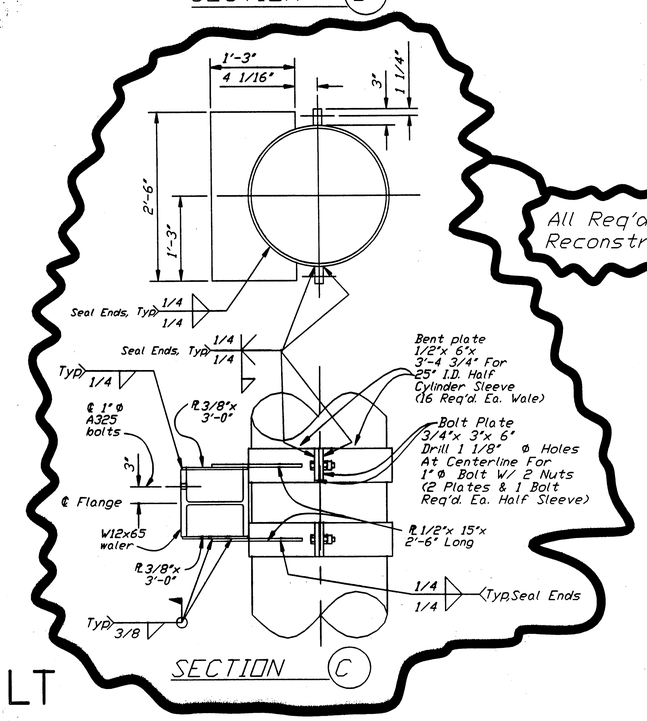


END ELEVATION

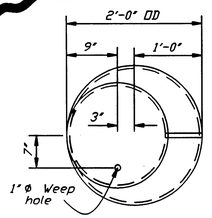


SECTION A

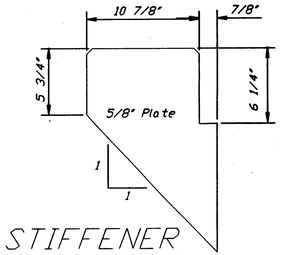
All Req'd for Lower Wale Reconstruction



SECTION C



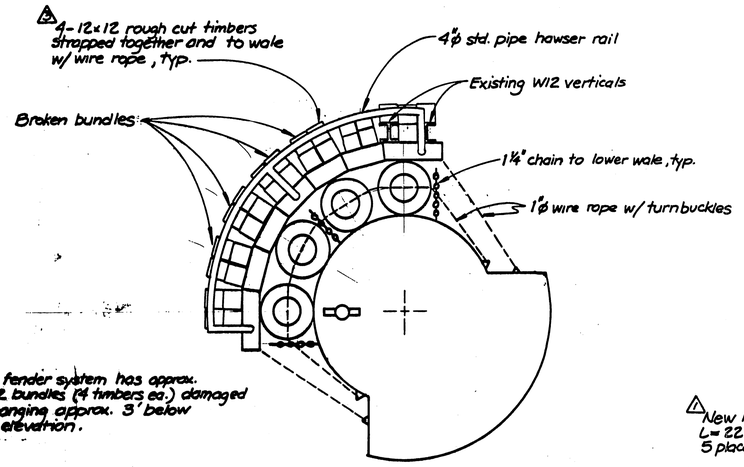
SECTION D



STIFFENER

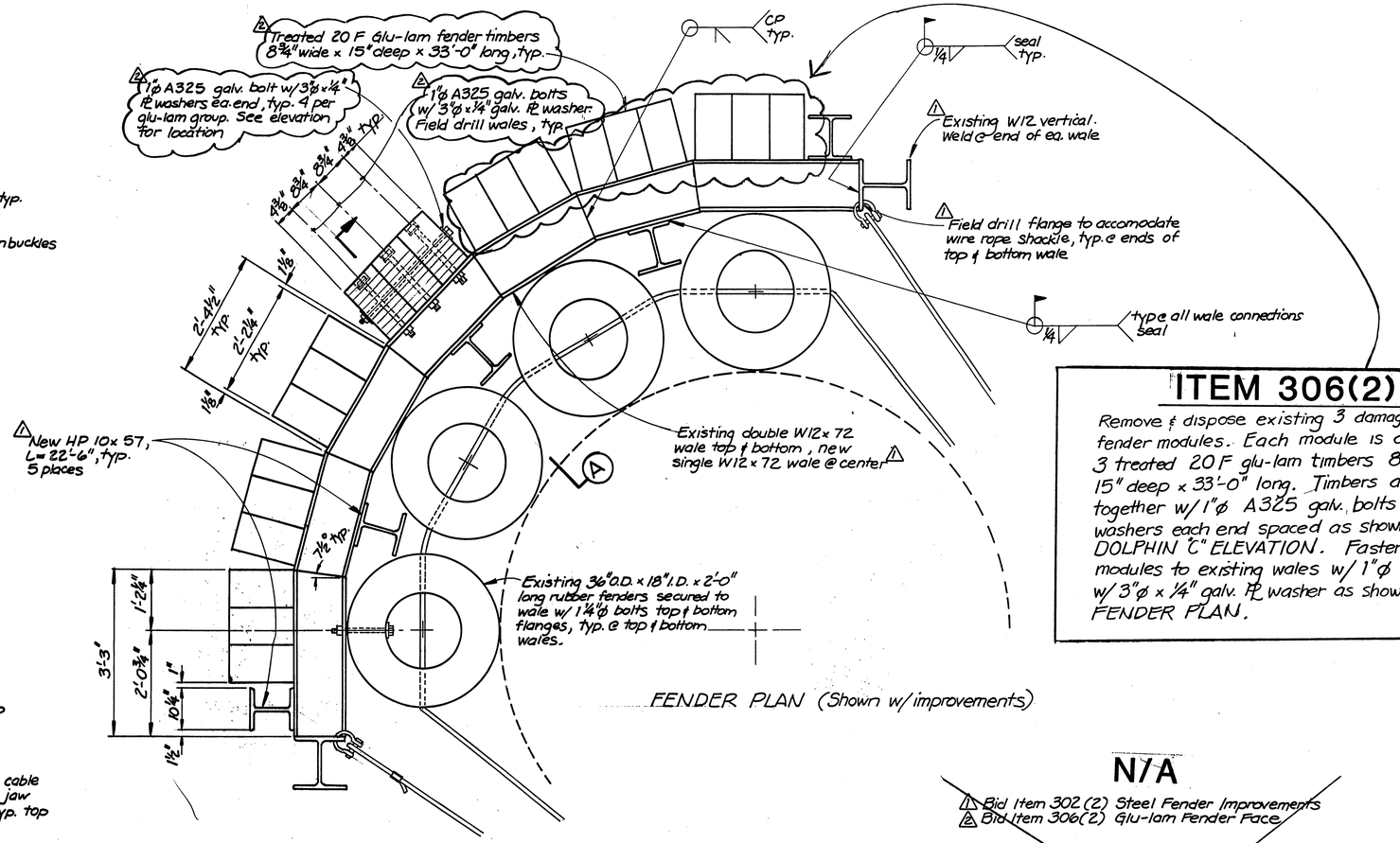
AS-BUILT

STAMP	DO NOT SCALE THIS DRAWING - USE DIMENSIONS
STATE OF ALASKA 49th STATE JAMES A. LOWELL CE-5597 REGISTERED PROFESSIONAL ENGINEER 6/27/95	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES SKAGWAY AS-BUILT MOORING STRUCTURE "R" FENDER DETAILS ALASKA DESIGNED BS CHECKED JS DRAWN Geoal/WN DATE JAN.1991 PROJECT NUMBER ER-0069(1)/75468 SHEET 7 OF 18



NOTE:
Existing fender system has approx. (4) 12x12 bundles (4 timbers ea.) damaged and is hanging approx. 3' below original elevation.

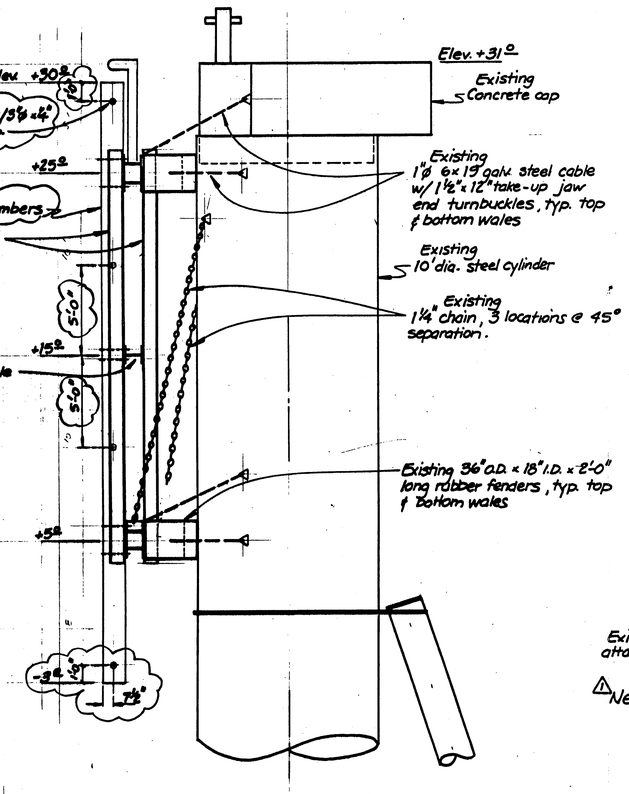
EXISTING DOLPHIN CAP PLAN



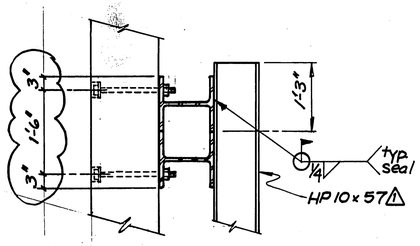
FENDER PLAN (Shown w/ improvements)

ITEM 306(2)

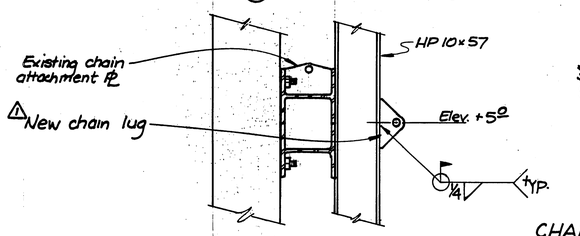
Remove & dispose existing 3 damaged timber fender modules. Each module is a group of 3 treated 20F glu-lam timbers 8¾" wide x 15" deep x 33'-0" long. Timbers are bolted together w/ 1"ø A325 galv. bolts w/ 3"ø x ¼" PL washers each end spaced as shown in DOLPHIN "C" ELEVATION. Fasten timber modules to existing wales w/ 1"ø A325 bolts w/ 3"ø x ¼" galv. PL washer as shown on FENDER PLAN.



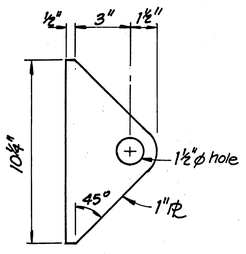
DOLPHIN "C" ELEVATION (Shown w/ improvements)



SECTION (A) @ TOP WALE (typ.)



SECTION (A) @ BOTTOM WALE



CHAIN LUG DETAIL
(lower wale, center chain only)

N/A

Bid Item 302(2) Steel Fender Improvements
Bid Item 306(2) Glu-lam Fender Face

Contractor may, at his option, choose to pre-fabricate fender structure and install complete assembly in lieu of field fabrication and erection.

Bid Item 306(1) Rough Timber Fender Face
Broken bundles to be replaced with similar construction. Bundles are wrapped with ¾"ø galv. 6x19 wire rope @ 10' o.c. and strapped to wales with same.

Contractor is urged to visit the site to inspect the damaged fender system. Videotapes and photos are available, and may be viewed during normal office hours at the following location:
A.K. D.O.T./PF. Bldg.
3132 Channel Dr. Rm #140
Juneau, Alaska

AS-BUILT FOR ITEM 306(2)

Project No. 75468 Sheet 8 of 18

STAMP

STATE OF ALASKA 49TH Bern A. Sevilla CE-6488 PROFESSIONAL ENGINEER 6-16-88

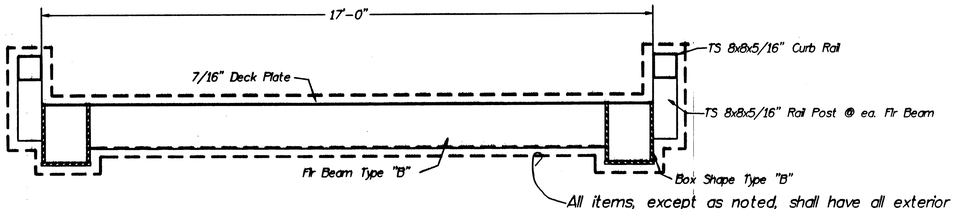
DO NOT SCALE THIS DRAWING — USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Skagway Alaska

SKAGWAY DOLPHIN FENDER REPAIR

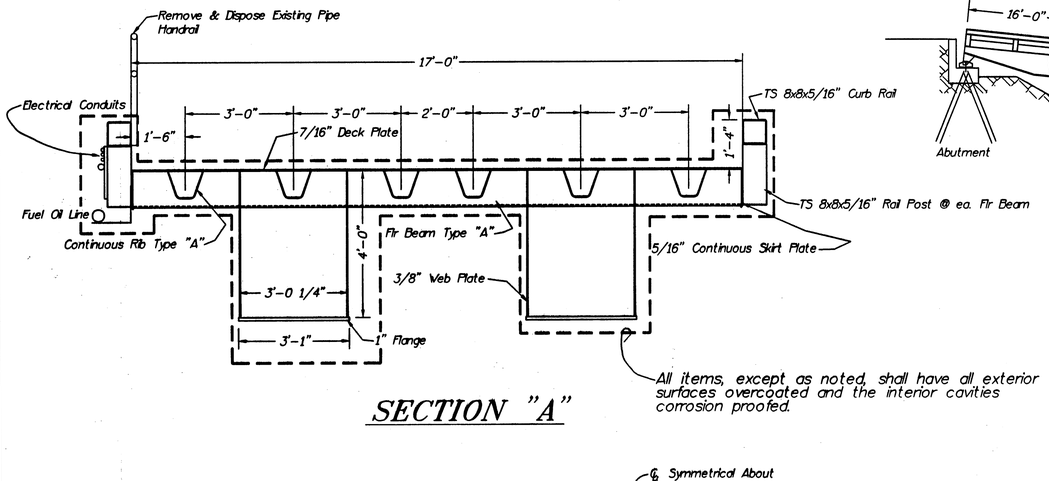
DESIGNED	CHECKED	DRAWN BS	DATE 5-88
PROJECT NUMBER 75033		SHEET 2	OF 2



SECTION "B"

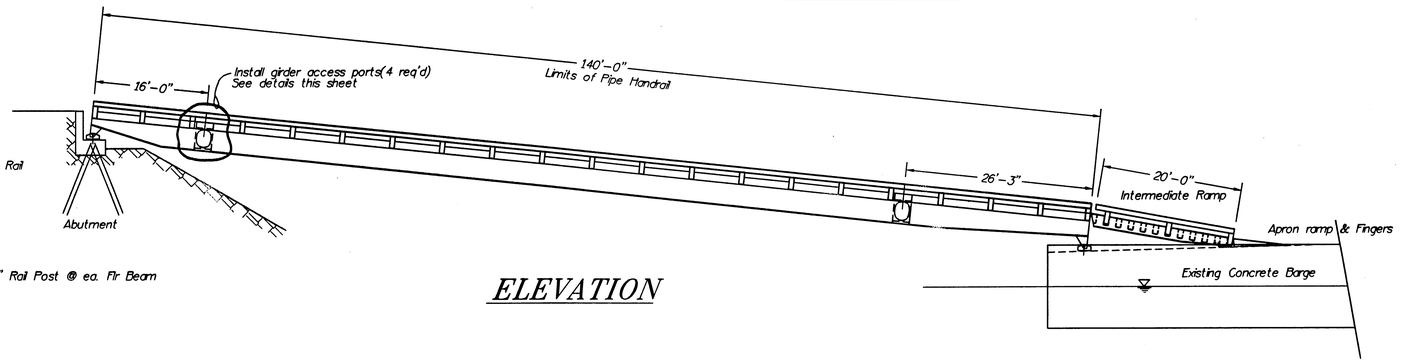
Note: All utilities shall be relocated prior to the overcoat process. The interiors of the rail and rail posts need not be corrosion proofed.

Note: For specific requirements regarding the overcoat and corrosion proofing processes, see Section 303 of the Technical Specifications.



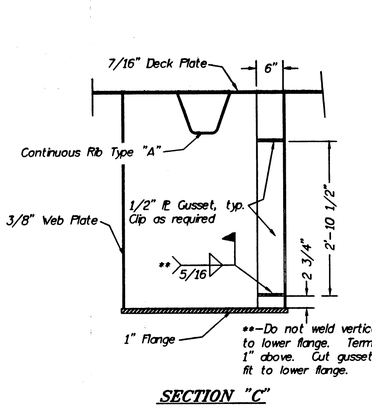
SECTION "A"

RIB & FLR BEAM DETAILS

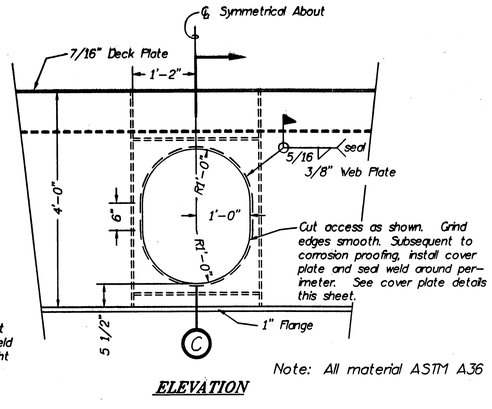


ELEVATION

Note: Details of the bridge and its' components are general and intended to indicate overall features involved in the work. Detailed as-built information as well as current photographs are available for inspection at Southeast Region D & C and the contractor is encouraged to review this information.

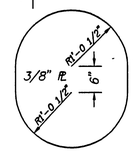


SECTION "C"

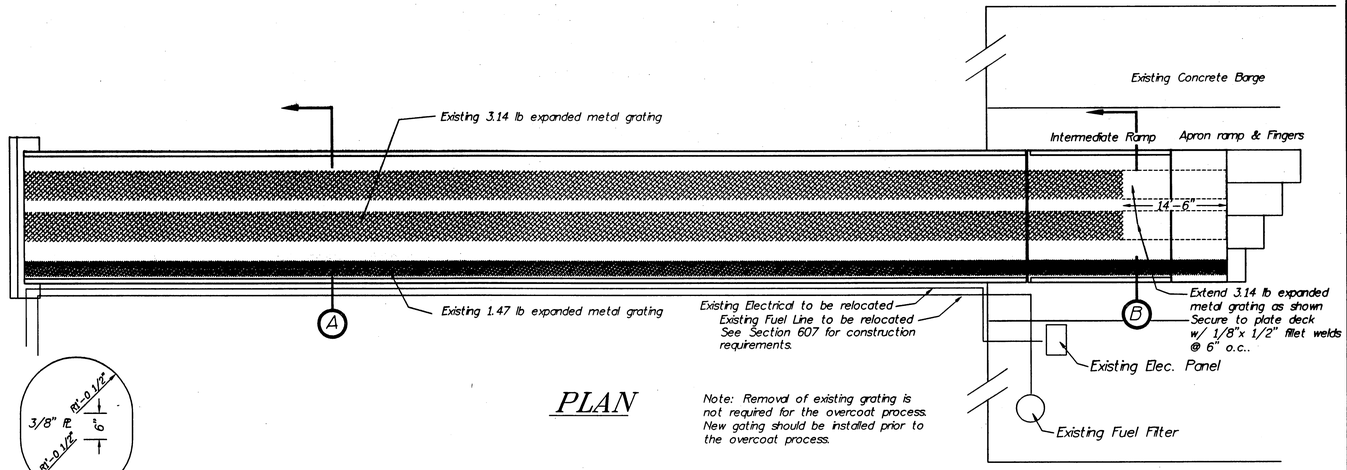


ELEVATION

Note: All material ASTM A36



COVER PLATE



PLAN

Note: Removal of existing grating is not required for the overcoat process. New gating should be installed prior to the overcoat process.

GIRDER ACCESS PORT DETAILS

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH:		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

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

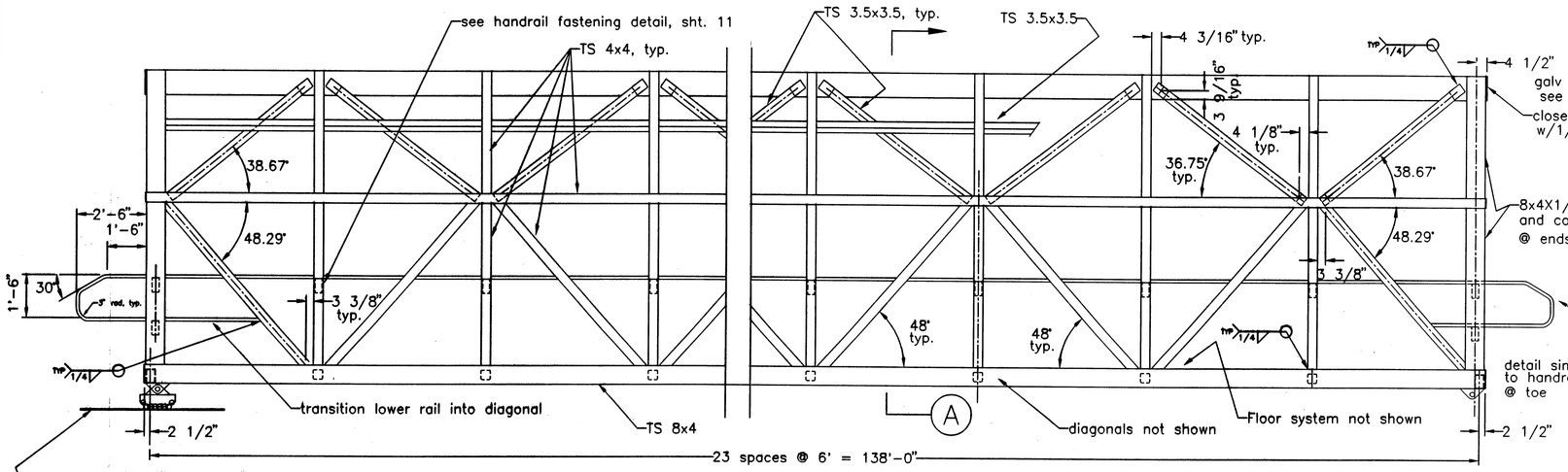
SKAGWAY — SKAGWAY FERRY TERMINAL RECONSTRUCTION — ALASKA

FED. NO. ER-0069(1) ~ PROJECT NO. 75468

BRIDGE RECOAT & CORROSION PROOF DETAILS

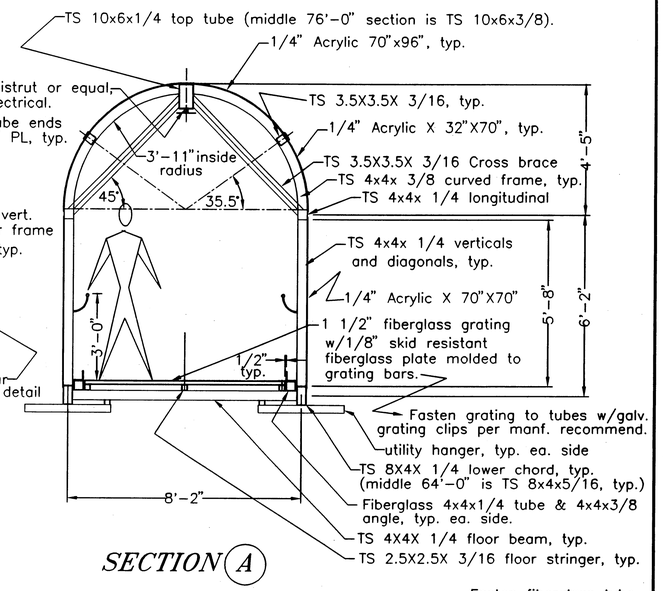
DESIGNED BY: JAL	PROJECT NO. 75468
DRAWN BY: JAL	DATE: May, 95
CHECKED BY: BAS	SHEET 9 OF 18

STATE OF ALASKA 40TH — JAMES A. LOWELL CE-5597 REGISTERED PROFESSIONAL ENGINEER — 6/30/95

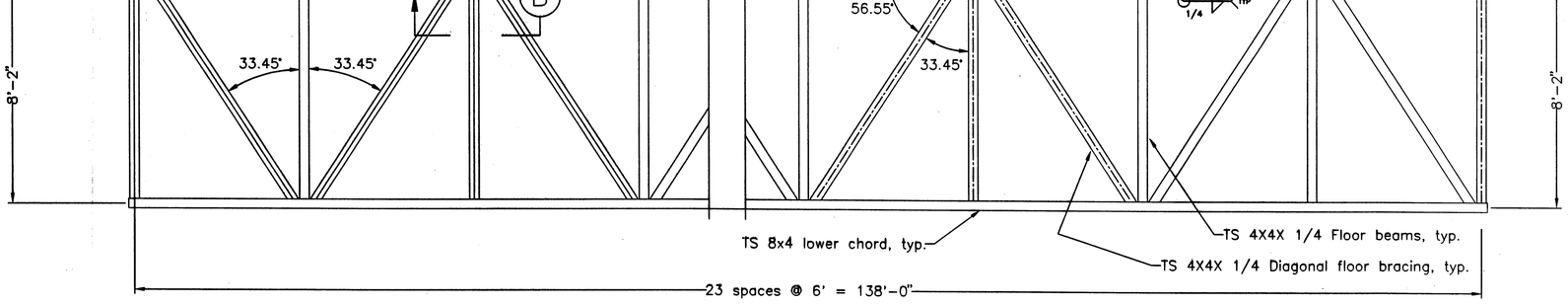


SIDE ELEVATION

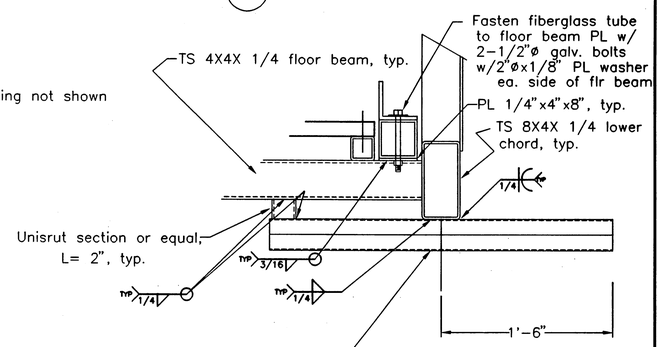
Existing 1/2" PL gangway tracks are to be relocated on barge.
As-Built plans available. PL is bolted to barge w/ 1/2"ø anchor bolts, approx. 14 bolts.



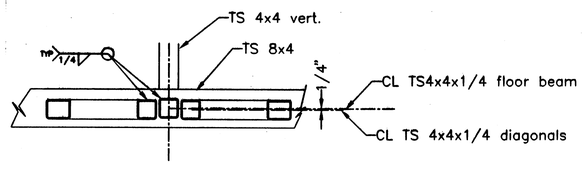
SECTION A



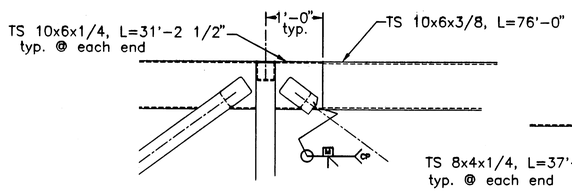
FLOOR PLAN



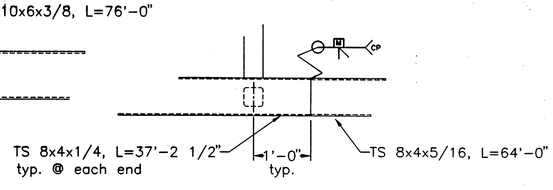
UTILITY HANGER DETAIL



ELEVATION SECTION B



UPPER SPLICE DETAIL



LOWER SPLICE DETAIL

NOTES

1. Design live load = 85 psf and design wind load = 30 psf transverse to the cross section.
2. All seamless pipe shall conform to ASTM A-53, Grade B or ASTM A-500 and shall be painted, unless specified to be galvanized.
3. All shapes and plates shall conform to ASTM A36 and shall be galvanized.
4. Ship assembled.
5. No stringer or pipe splices may be located in middle third of gangway.
6. Camber to compensate for dead load deflection (approx. 1.75" @ midspan).
7. Approx. weight = 56000 lbs.
8. Paint entire structure after assembly and prior to installation of glazing.
9. All welds joining tubular members and cover or end plates to be seal weld.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: C:\BAS\SKAGWAY\GANGWAY1		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

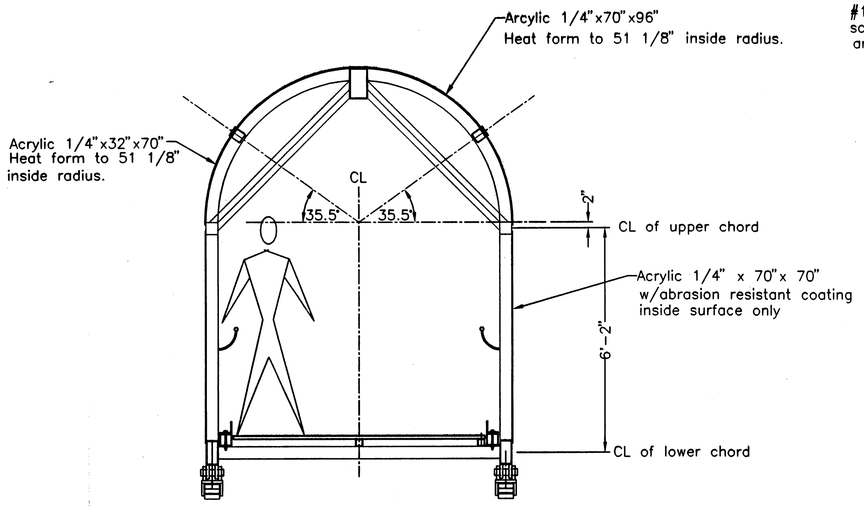
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

SKAGWAY — SKAGWAY FERRY TERMINAL RECONSTRUCTION — ALASKA
FED. NO. ~ PROJECT NO. ER-0069(1)

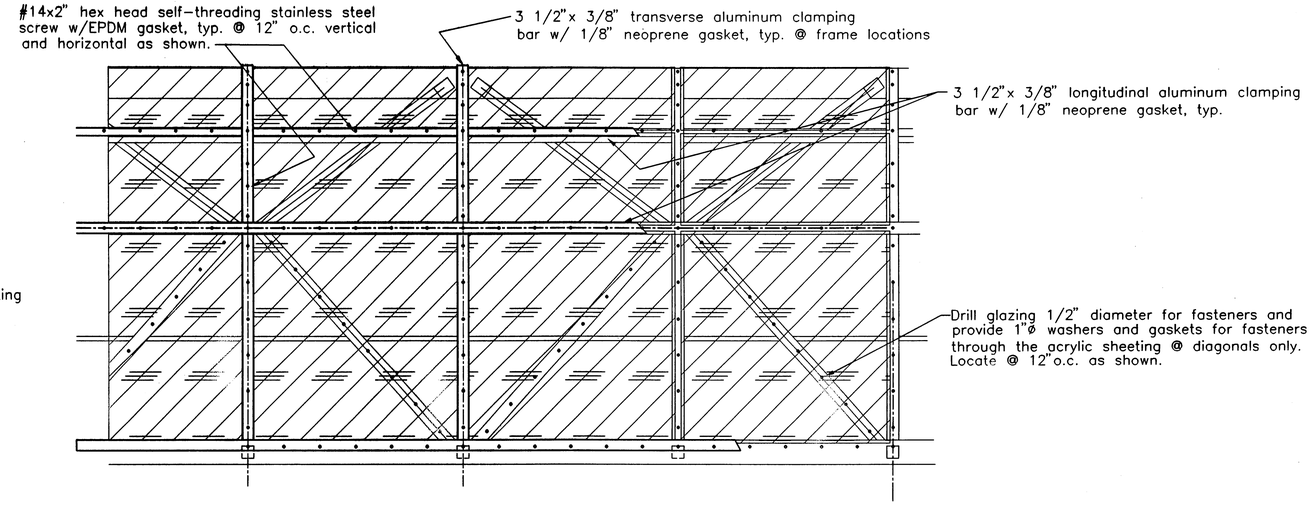
8'X138' PEDESTRIAN GANGWAY

DESIGNED BY: BAS	PROJECT NO. 75468
DRAWN BY: BAS	DATE: APRIL, 1995
CHECKED BY: JAL	SHEET 10 OF 18

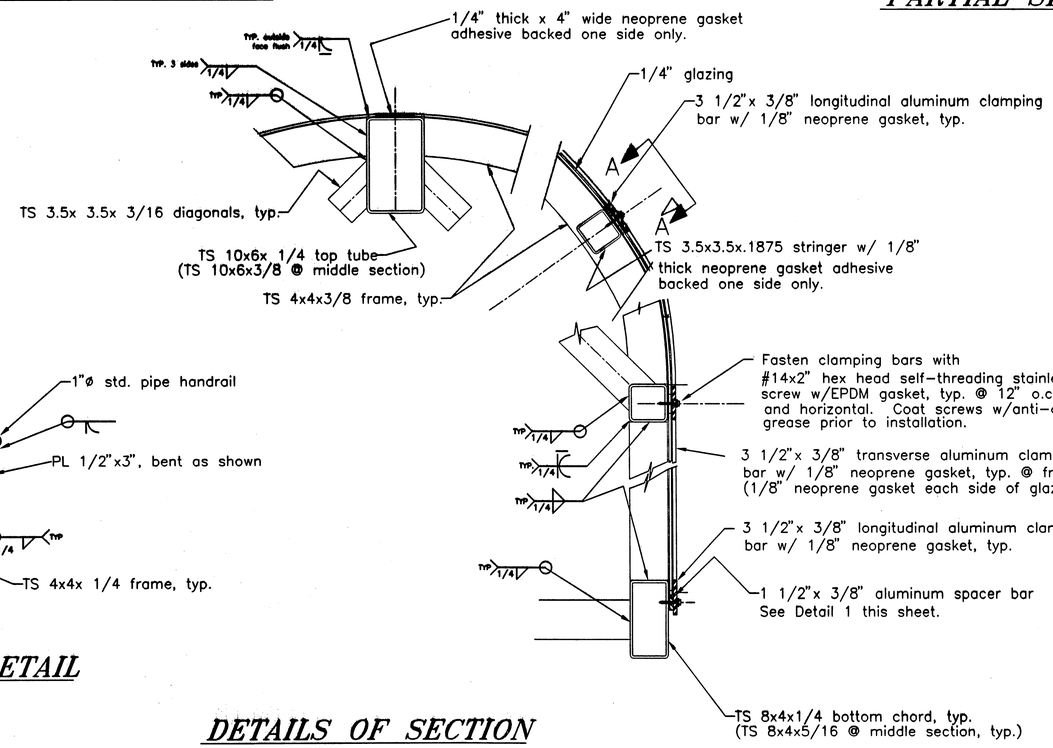
STATE OF ALASKA 49TH — BERT A. SAWKKO CE-6468 REGISTERED PROFESSIONAL ENGINEER — 6-29-95

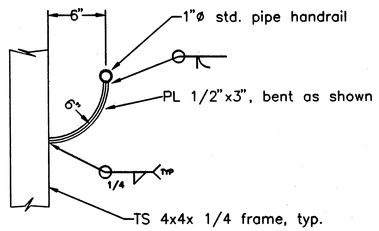


SECTIONAL ELEVATION



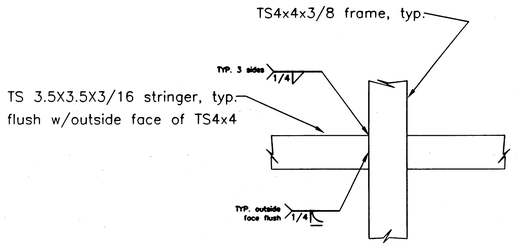
PARTIAL SIDE ELEVATION



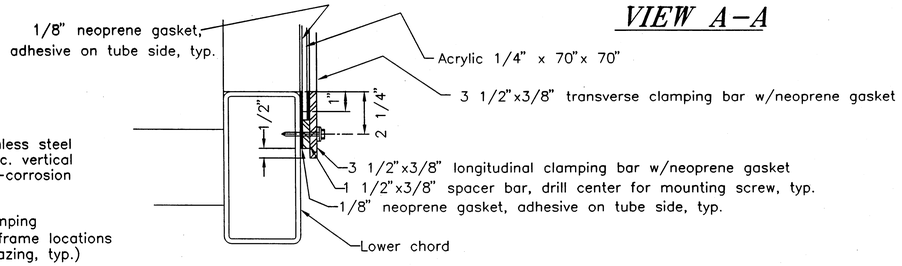


HANDRAIL DETAIL

DETAILS OF SECTION



VIEW A-A



DETAIL 1

NOTE: Cutting, drilling, bending and installation of acrylic sheets shall be per manufacturer's recommendations. Adhesives, seals, and gaskets shall be compatible with acrylic sheets.

All aluminum mounting bars, plates, and spacers shall be 6061-T6.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: C:\BAS\SKAGWAY\GANGWAY2		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

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

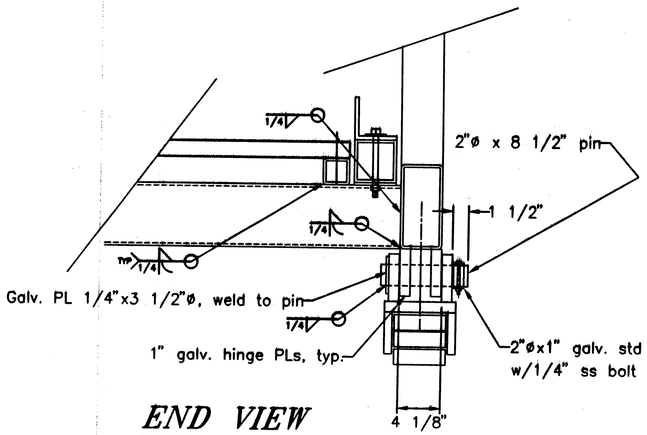
SKAGWAY — SKAGWAY FERRY TERMINAL RECONSTRUCTION — ALASKA

FED. NO. ~ PROJECT NO. ER-0069(1)

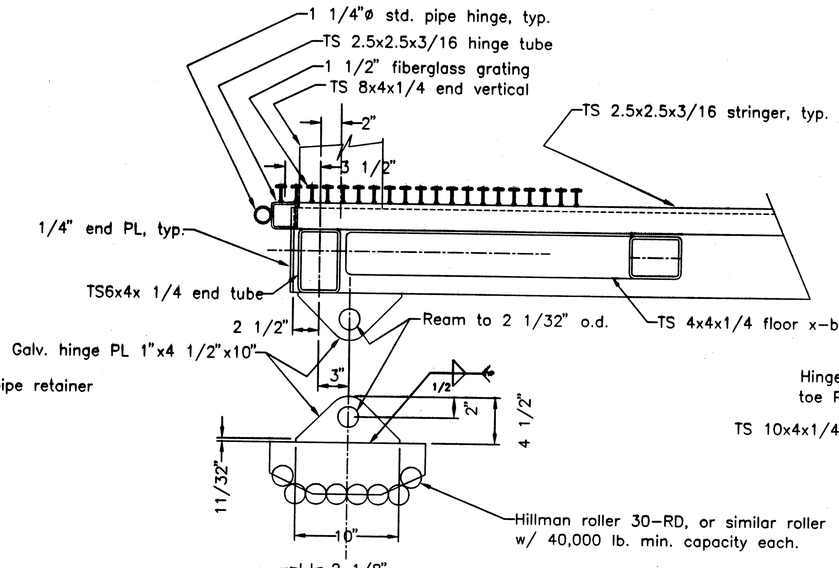
FRAME AND COVER DETAILS

DESIGNED BY: BAS	PROJECT NO. 75468
DRAWN BY: BAS	DATE: APRIL, 1995
CHECKED BY: JAL	SHEET 11 OF 18

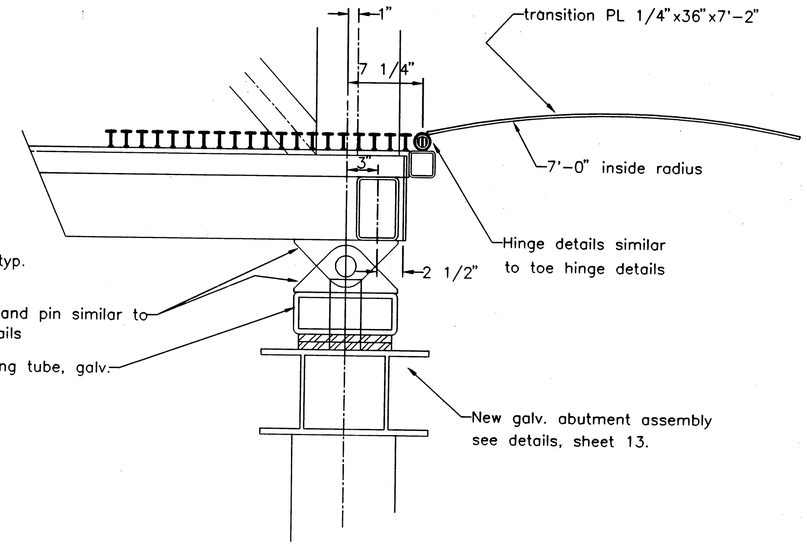
STATE OF ALASKA 49TH BERN A. SAVIKKO CE-6466 REGISTERED PROFESSIONAL ENGINEER 6-29-95



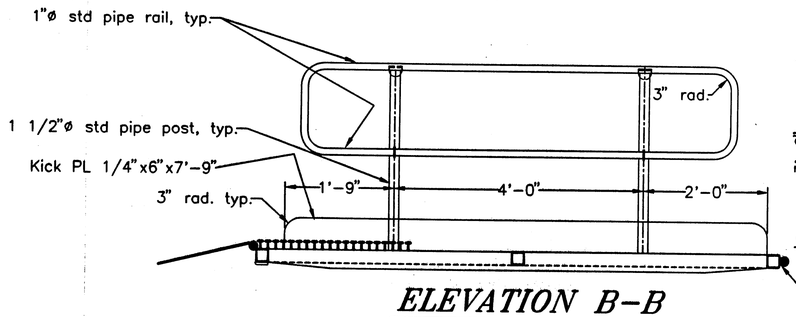
END VIEW



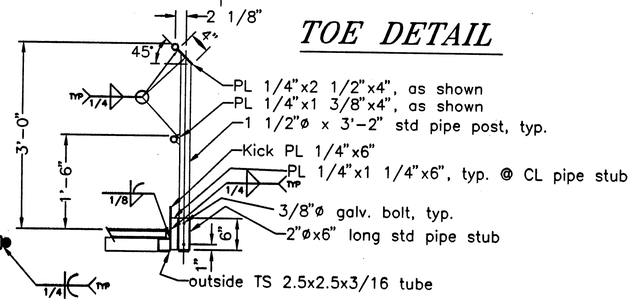
TOE DETAIL

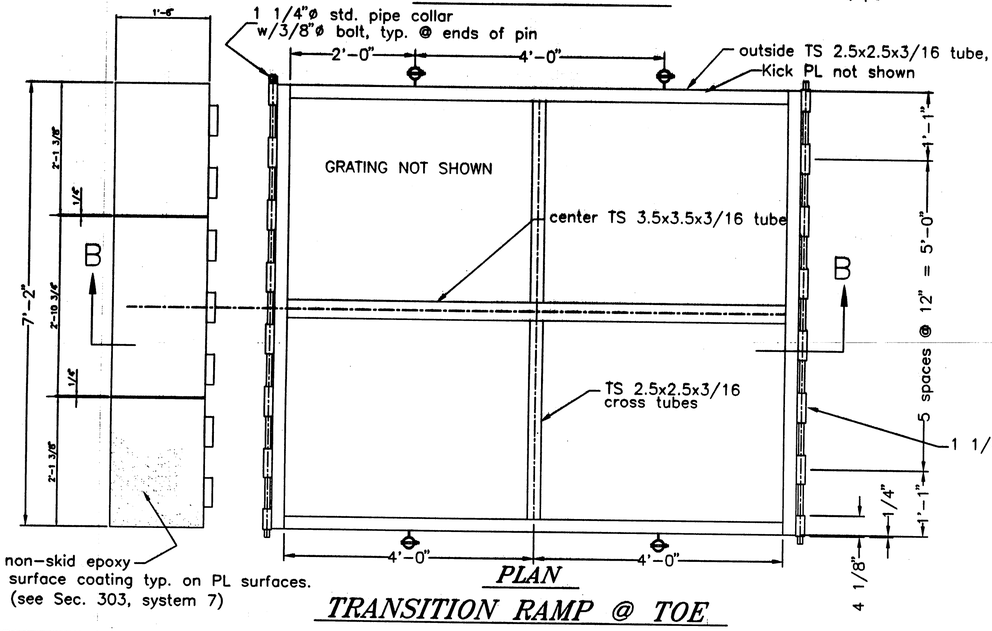


HEAD DETAIL



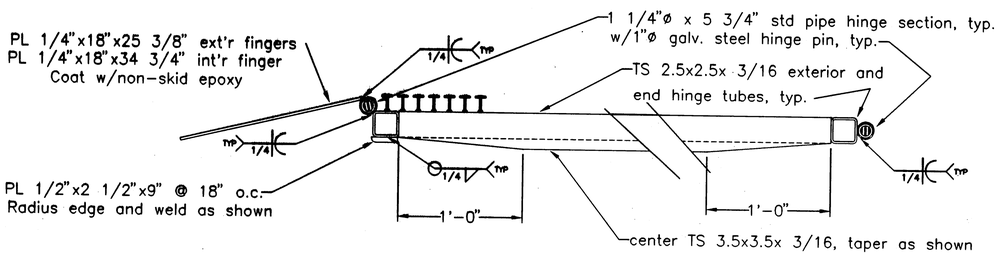
ELEVATION B-B



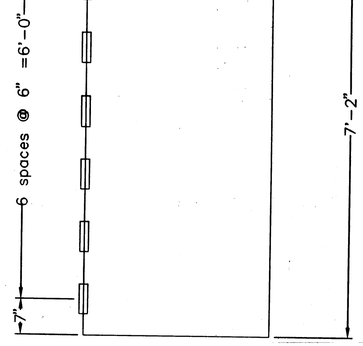


PLAN

TRANSITION RAMP @ TOE



FINGER PL & RAMP END DETAIL



TRANSITION PL @ HEAD

NOTE:
Transition ramp and finger PLs and transition PL @ head of gangway to be galvanized after fabrication, and non-skid coating applied after galvanizing.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: C:\BAS\SKAGWAY\GANGWAY3		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

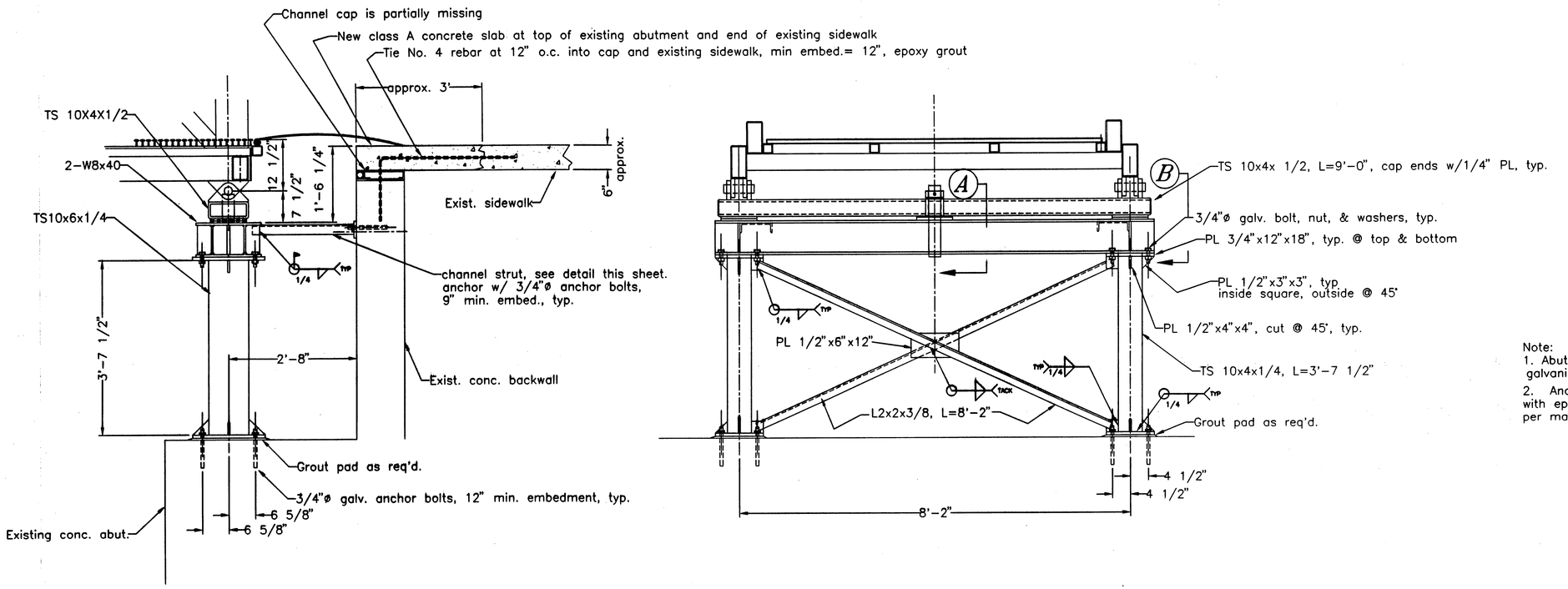
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

SKAGWAY — SKAGWAY FERRY TERMINAL RECONSTRUCTION — ALASKA
FED. NO. ~ PROJECT NO. ER-0069(1)

GANGWAY DETAILS

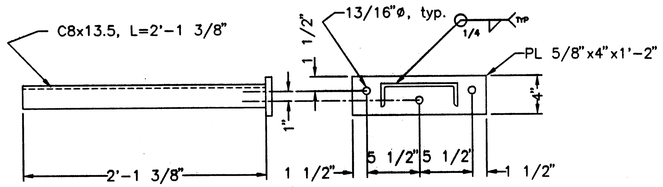
DESIGNED BY: BAS	PROJECT NO. 75468
DRAWN BY: BAS	DATE: APRIL, 1995
CHECKED BY: JAL	SHEET 12 OF 18

STATE OF ALASKA 49TH BERN A. SAVIKKO CE-6466 REGISTERED PROFESSIONAL ENGINEER 6-29-95



Note:
1. Abutment weldment and swivel assembly to be galvanized after fabrication.
2. Anchor bolts shall be galvanized and installed with epoxy grout and min. embedment specified, per manf. written recommendations.

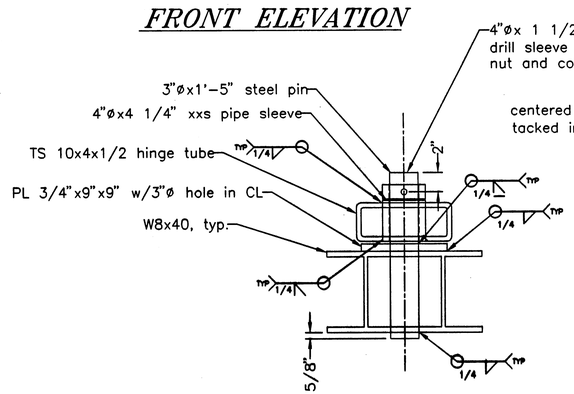
SIDE ELEVATION



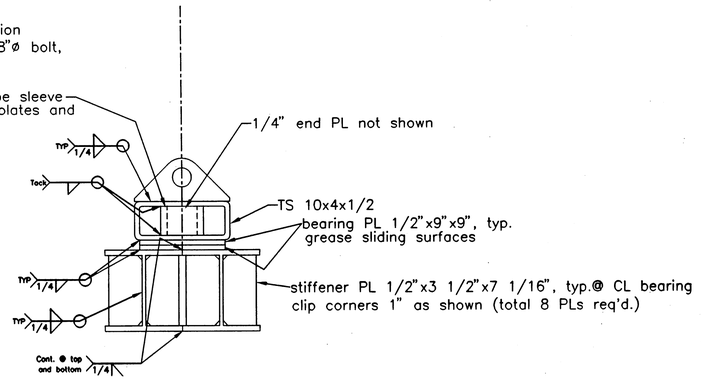
ABUTMENT CHANNEL STRUT

(Total 2 req'd.)

FRONT ELEVATION



SECTION A



SECTION B

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: C:\BAS\SKAGWAY\GANGWAY5		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

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

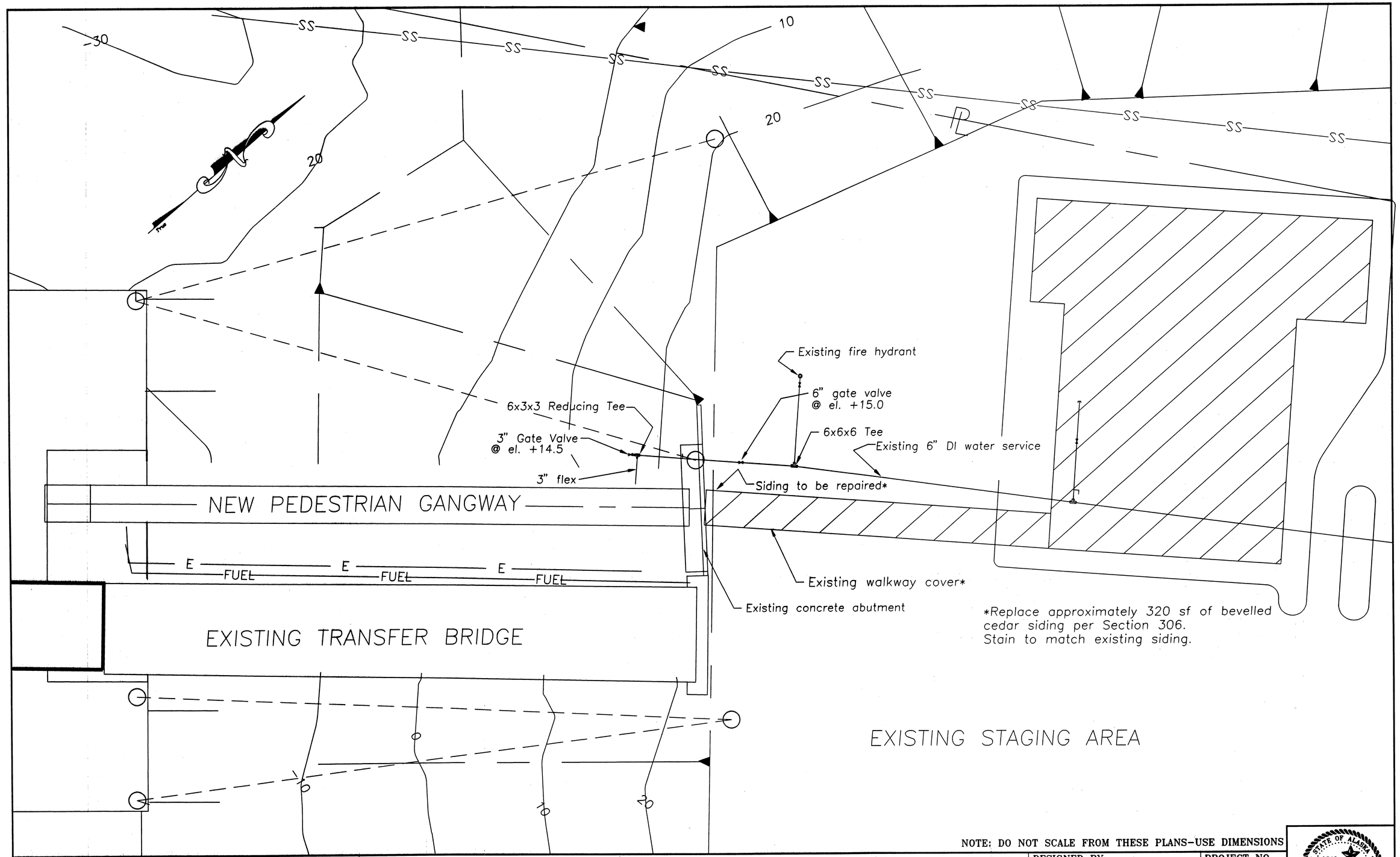
SKAGWAY — *ALASKA*

SKAGWAY FERRY TERMINAL RECONSTRUCTION
FED. NO. ~ PROJECT NO. ER-0069(1)

ABUTMENT DETAILS

DESIGNED BY: *BAS/STAFF*	PROJECT NO. *75468*
DRAWN BY: *BAS*	DATE: *MAY, 1995*
CHECKED BY: *JAL*	SHEET *13* OF *18*

STATE OF ALASKA 49TH — BERN A. SAWKO CE-6466 REGISTERED PROFESSIONAL ENGINEER — 6-29-95



*Replace approximately 320 sf of bevelled cedar siding per Section 306. Stain to match existing siding.

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH: C:\BAS\SKAGWAY\WATER-PL		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

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

SKAGWAY — SKAGWAY FERRY TERMINAL RECONSTRUCTION — ALASKA

FED. NO. ~ PROJECT NO. ER-0069(1)

LAYOUT – WATERLINE & SIDING REPAIR

DESIGNED BY: STAFF	PROJECT NO. 00000
DRAWN BY: JAL/BAS	DATE: MAY, 1995
CHECKED BY: JAL	SHEET 14 OF 18

STATE OF ALASKA 49th
James A. Lovell CE-5597 REGISTERED PROFESSIONAL ENGINEER
6/28/95

NOTES:

Heat Trace, Insulation and Jacket:

1. *Insulation:*

   a. *Rigid conduit, piping and fittings insulation shall be nominal 2 lb. /cu.ft. density polyurethane foam, "K" factor less than or equal to 0.13 BTU/Hr-Sqft- ° F/In. The insulation thickness (approx. 1") shall be such that the heat loss does not exceed 4 watts/ft with the carrier pipe at +40 ° F and the ambient temperature at +10 ° F with a 15 mph wind*

   b. *Flex hose insulation shall be 1-1/2" single or layered thickness minimum for all hose sizes, closed cell flexible elastomeric insulation. Insulation shall consist of preformed tubular shapes/sheets field formed to the tube surface, or a combination of both as recommended by the manufacturer to meet the total specified thickness. Provide multiple layer insulation with longitudinal and circumferential joints staggered where sheets only are used. Provide manufacturers recommended adhesive and seal all joints and adhere all layers per manufacturers recommendations.*

2. *Jacketing:*

   a. *Rigid Conduit. For straight sections of insulated piping shall be 60 mils thickness, factory applied, high density black polyethylene, with ultraviolet inhibitors for exposed outdoor installation. For insulated fittings, and field joints containing heat trace channel shall be same as for straight sections where factory applied. If field applied overlap wrappings of black heat shrink tape built up to 60 mils.*

   b. *Flex Hose. Final outer layer of flex hose insulation shall consist of spiral overlap wrap of closed cell elastomeric tape with pressure sensitive adhesive, protected with a weather resistant coating as recommended by the manufacturer for high humidity, outdoor/marine locations.*

3. *Insulation/Jacket Installation:*

   a. *Piping and Fittings. Where possible lengths of piping, fittings and attachments shall be insulated and jacketed in the factory/shop and shall be furnished complete with a metallic channel sized and installed to accomodate the installation and future replacement of the electric heat trace adjacent to the carrier O.D. Coordinate channel size and details with the tracing supplier. Provide field connection kits consisting of channel, preformed split insulation, adhesives and jacketing system as recommended by the manufacturer. Total system to result in a continuous insulated waterproof jacket to protect the piping and appurtenances and the heat trace system from moisture including field joints.*

   b. *Valves, Flanges, Irregular Equipment Surfaces. These portions of the system shall be insulated and covered with a removable, reusable, flexible jacketed waterproof insulation paks consisting of silicone impregnated fiberglass inner liner, 1" thick fiberglass insulation and a silicone impregnated fiberglass outer jacket. Outer jacket to be constructed with tabbing to support the insulation without any through cover pins to protect against water penetration. The parting line fastner/closure system shall consist of stainless steel lacing hooks and stainless wire, clinch belts ,velcro hook and loop placket or a combination of the above. Provide wind flaps with drowstrings at assembly openings, and drain grommets at bottom of assembly where parting line is not located at the bottom. Containment of heat trace in channel not required on valve bodies, flanges and irregular equipment surfaces.*

4. *Heat Trace:*

   Provision of heat trace controls and connection of trace cable to controls and power source shall be done under this contract. Provide a power connection kit at the shoreward end of piping installed on this project. To provide matching system and components already in service on AMHS, facilities heat trace system/components shall be as manufactured by Raychem-Chemelex and shall by NEMA 4X.

   a. *Cable. Catalog No. 8BTV2 @ 240 V.*
   b. *Power Connection Kit. Catalog No. PMK-PJB1*
   c. *Splice Kit. Catalog No. PMK-LS*
   d. *Thermostat Catalog No. AMC-1A(BD) Set to 32'F*

5. *Miscellaneous:*

   a. *Provide stainless steel sheet metal shields over piping insulation jacketing at bearing points for hangers and supports.*

   b. *The ends of pipe insulation at insulation terminations points shall be sealed and jacketed to prevent ingress of moisture.*

   c. *Penetrations of the jacket for heat trace cables and other penetrations shall be sealed with waterproof sealant.*

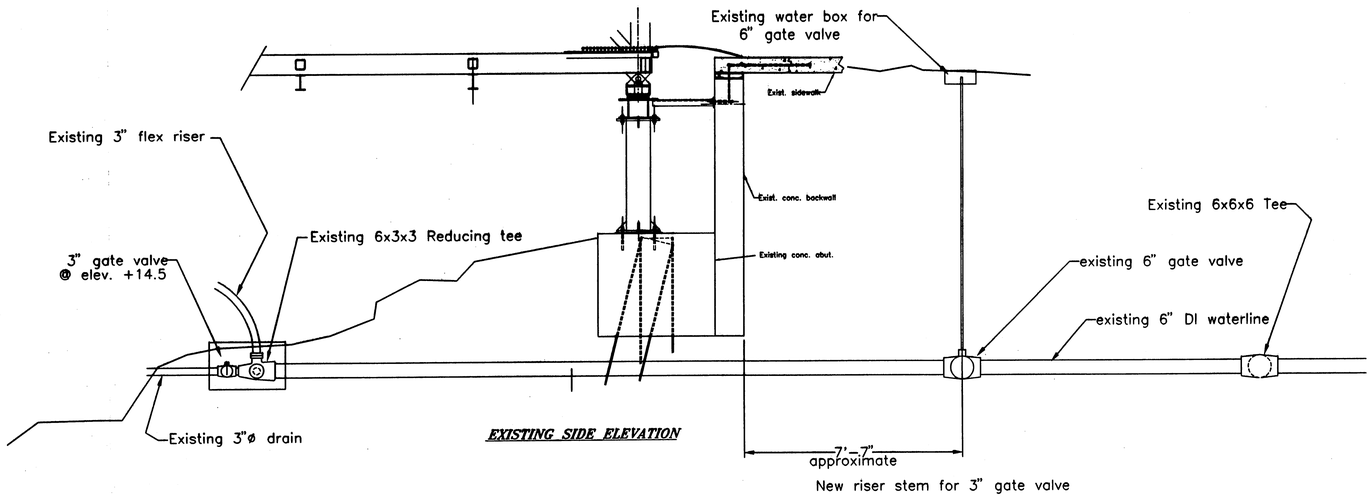
6. *Coating Repair and Touchup:*

   All protective coatinggs damaged by the installation of the waterline shall be repaired per the coatin manufacturers recommendations. The protective coating system utilized on the Transfer Bridge is manufactured by Porter Coatings. It is a three part system:
   1. Primer is "Zinc Lock 351" (DFT 2-3 mils)
   2. Intermediate coat is MCR-43, "High Build" (DFT 4-6 mils)
   3. Top Coat is "HYTHANE" (DFT 2-3 mils)
   The Color used is "Classic Blue No. 5177F"
   Galvanized surfaces damaged shall be appropriately prepared and coated with 3 coats of an approved cold galvanizing paint.

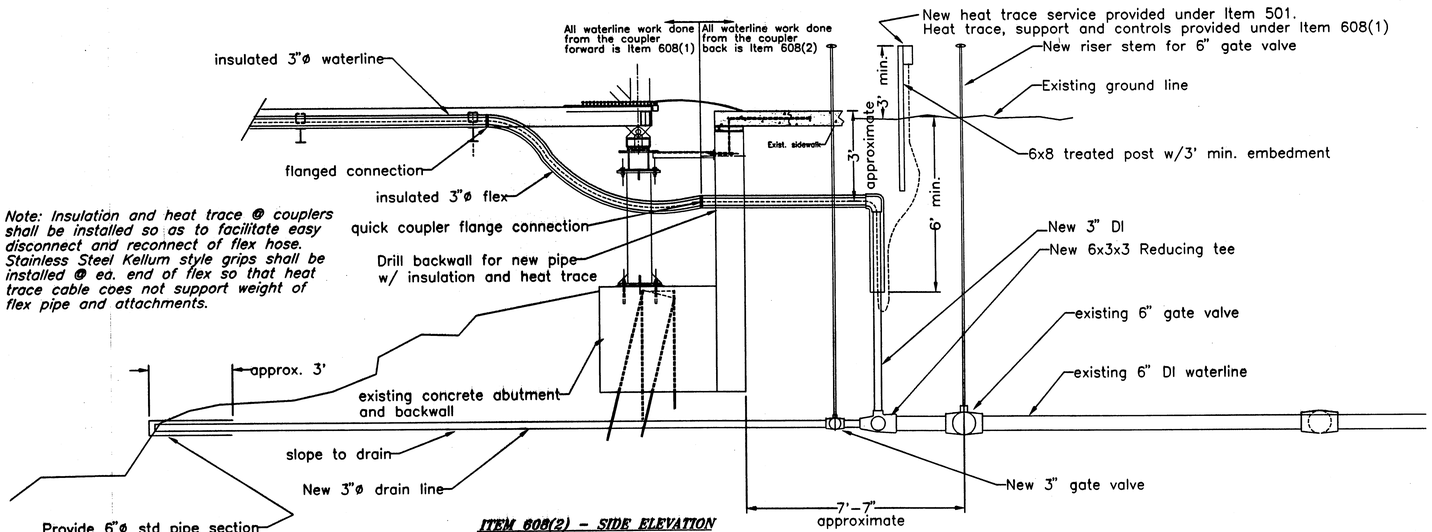
NOTES:

Waterline:

1. *3" ø Conduit to be rigid galvanized steel Std. wt. pipe. If welded pipe and fittings are used then galvanize after fab.*
2. *Flex hose shall be heavy duty water discharge hose rated up to 150 psi. min. working pressure. Wear and abrasion resistant cover suitable for saltwater exposure, multi-ply carcass, and tube material per manufacturer's recommendations for service indicated. Integral duck and rubber flanged ends to match ANSI Class 150 flanges, complete with steel retaining rings. Allowable min. bend radius shall be six times the inside diameter of the hose, or less. Length as required.*
3. *Fittings, Nipples and hardware to be galvanized or Stainless Steel. (Hose flange inserts may be Brass, banding to be Stainless.)*
4. *All threaded and fitting joints to be sealed with Teflon tape or Teflon dope.*
5. *Upon completion pressure test to 150 psi. for 4 hours. No visible leakage to result. If fail, repair/correct and retest.*
6. *Flush line after line completed and tested with fresh potable water. Disinfect with chlorine by flooding line at 50 ppm solution of sodium hyperchlorate and potable water for 24 hours then flush with fresh potable water, drain and seal.*
7. *Hose Couplers at Abutment to be stainless steel or Bronze with Stainless Steel hardware, Similar to Andrews Ind., Inc., 3" ø female thread adaptor cam and groove style quick coupler or equal.*



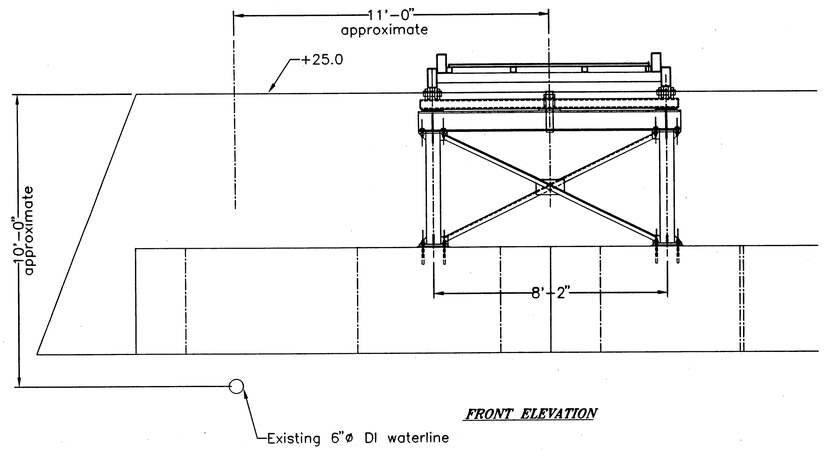
EXISTING SIDE ELEVATION



Note: Insulation and heat trace @ couplers shall be installed so as to facilitate easy disconnect and reconnect of flex hose. Stainless Steel Kellum style grips shall be installed @ ea. end of flex so that heat trace cable coes not support weight of flex pipe and attachments.

ITEM 608(2) - SIDE ELEVATION

Note: Details shown are to indicate intent of the contract.
Existing waterline service details may vary slightly from details shown.



FRONT ELEVATION

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: C:\BAS\SKAGWAY\WATER		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

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

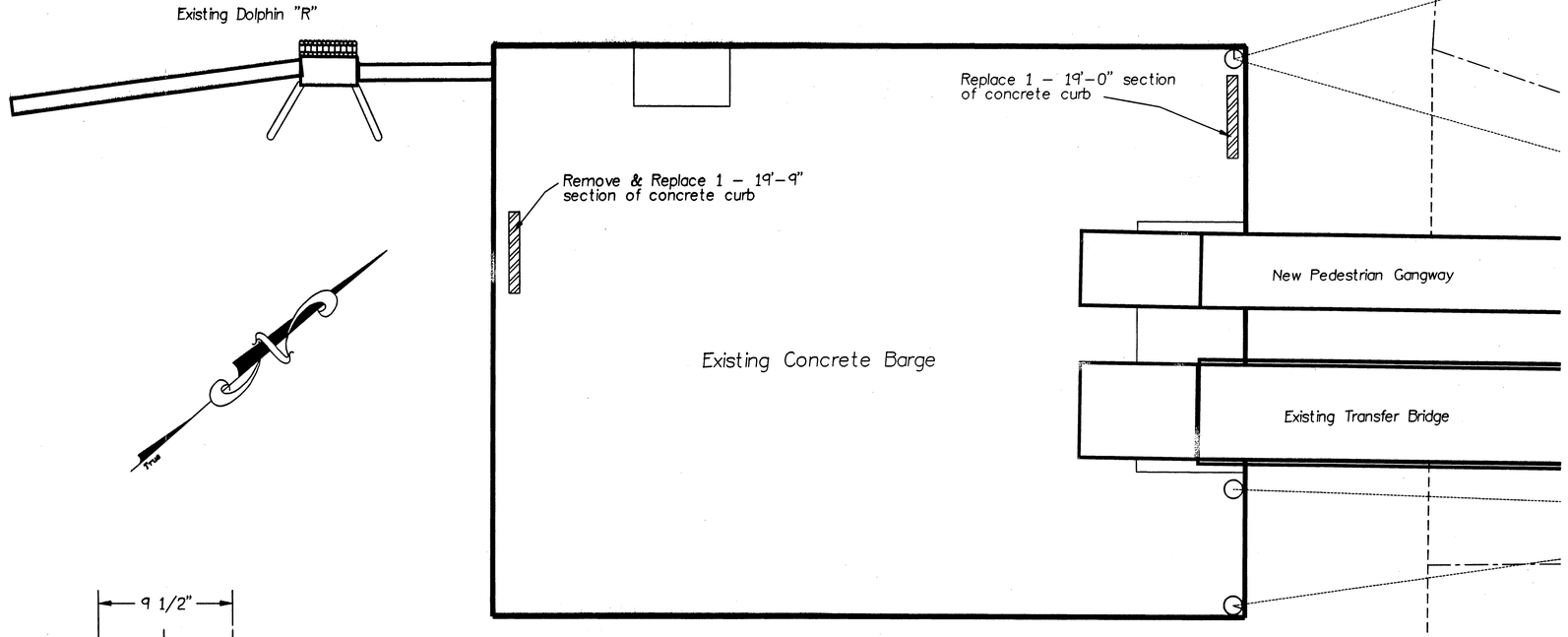
SKAGWAY — *SKAGWAY FERRY TERMINAL RECONSTRUCTION* — *ALASKA*

FED. NO. ~ PROJECT NO. ER-0069(1)

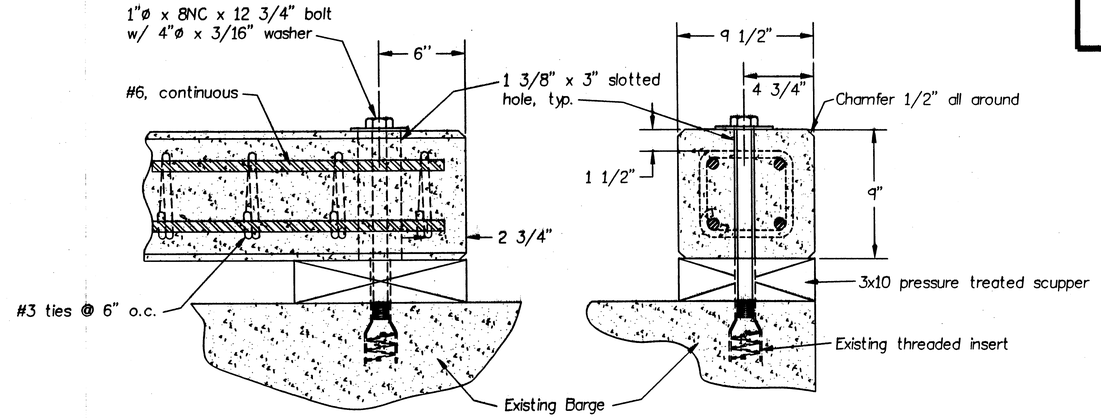
WATERLINE DETAILS

DESIGNED BY: *BAS/STAFF*	PROJECT NO. *75468*
DRAWN BY: *BAS*	DATE: *MAY, 1995*
CHECKED BY: *JAL*	SHEET *15* OF *18*

STATE OF ALASKA 49TH — BERN A. SAVIKKO CE-6466 REGISTERED PROFESSIONAL ENGINEER — 6-29-95

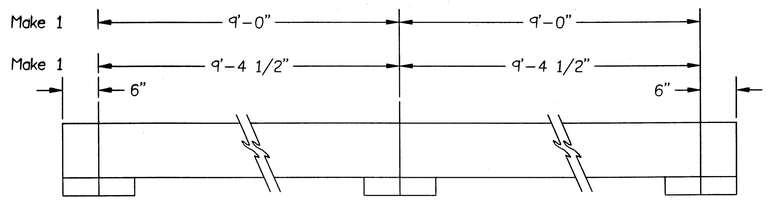


CURB RAIL REPLACEMENT PLAN



ELEVATION

SECTION



CURB RAIL DIMENSIONS

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH:		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

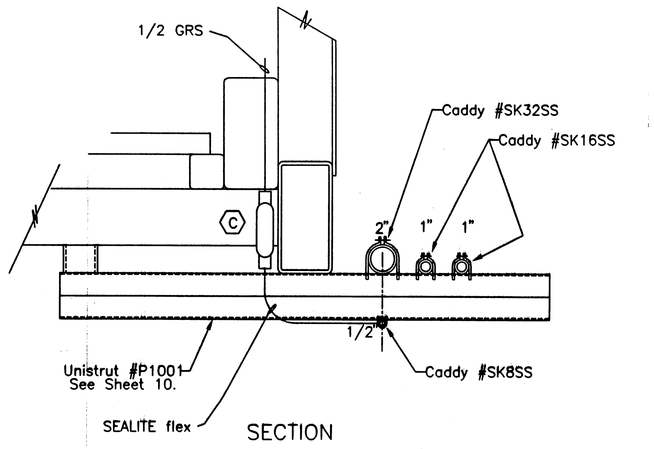
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

SKAGWAY — ALASKA

SKAGWAY FERRY TERMINAL RECONSTRUCTION
FED. NO. ER-0069(1) ~ PROJECT NO. 75468
CONCRETE CURB DETAILS

DESIGNED BY: JAL	PROJECT NO. 75468
DRAWN BY: JAL	DATE: MAY, 1995
CHECKED BY: BAS	SHEET 16 OF 18

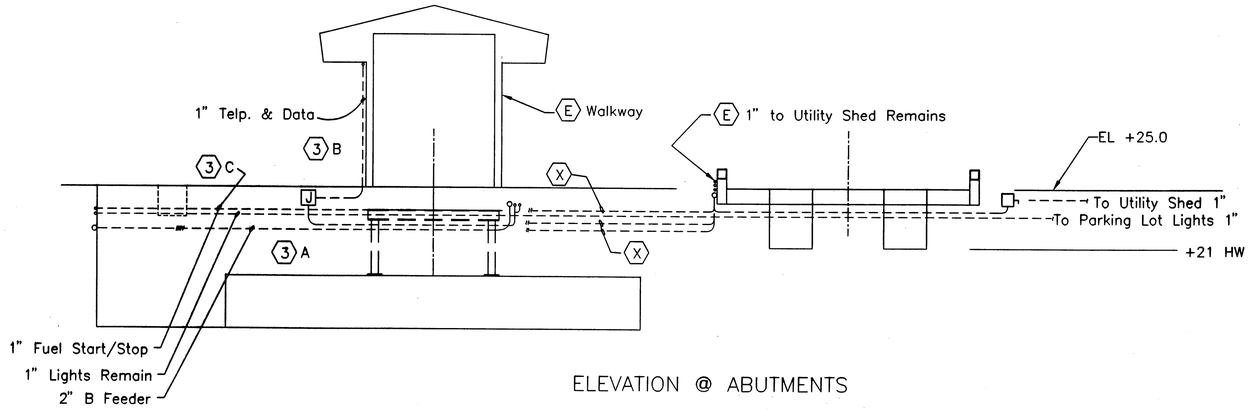
STATE OF ALASKA 49th James A. Lowell CE-5597 REGISTERED PROFESSIONAL ENGINEER 6/29/95



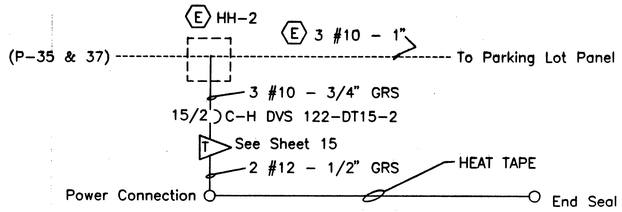
SECTION

LEGEND

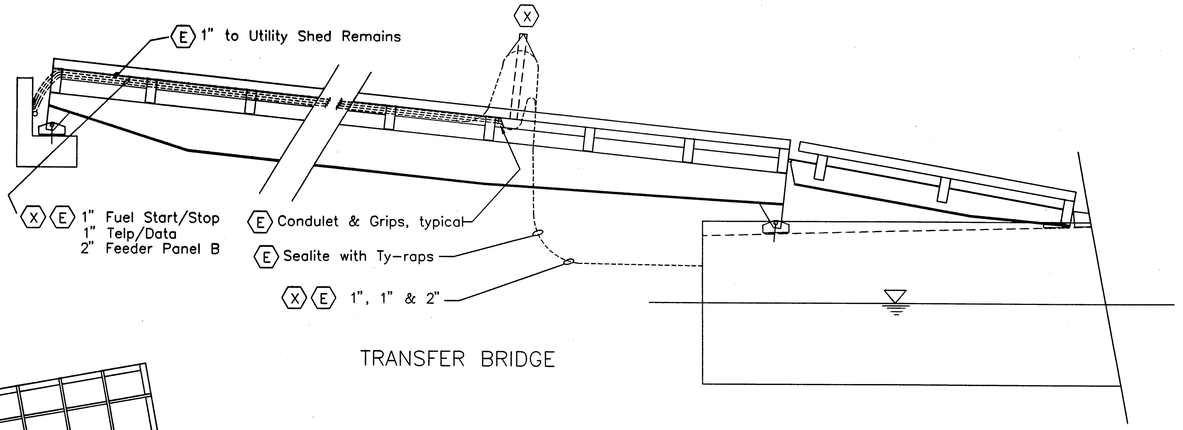
- ELECTRIC MOTOR
- J JUNCTION
- E EXISTING
- X REMOVE
- C CONNECT
- 2 NOTE 2
- MAGNETIC STARTER
- DISCONNECT
- NEW CONDUIT & WIRE 3/C
- EXISTING CONDUIT & WIRE
- EXISTING CONDUIT & WIRE 3/C
- EXISTING CONDUIT CONTINUES
- EXISTING CONDUIT DISCONNECTED
- SS STAINLESS STEEL
- S_3 SWITCH 3-WAY
- GRS GALVANIZED RIGID STEEL
- T THERMOSTAT SEE SHEET 15
- TELEPHONE/DATA



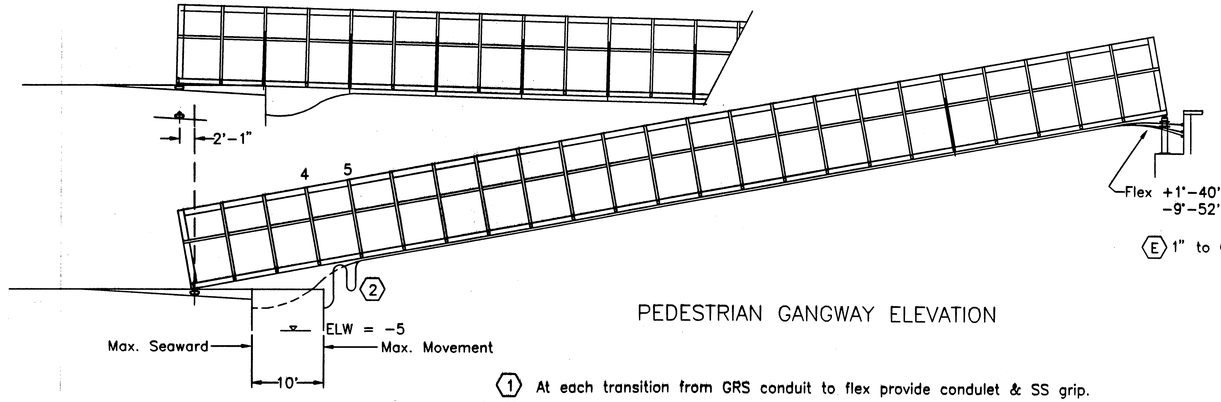
ELEVATION @ ABUTMENTS



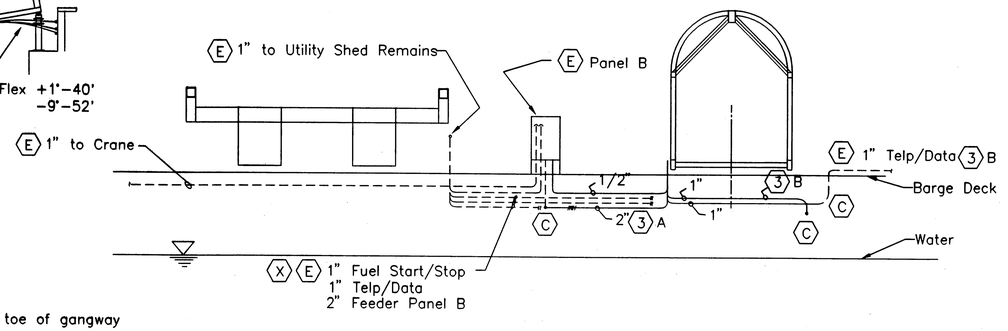
HEAT TAPE DIAGRAM
No Scale



TRANSFER BRIDGE



PEDESTRIAN GANGWAY ELEVATION



BARGE ELEVATION

1. At each transition from GRS conduit to flex provide condulet & SS grip.
2. Provide & install 6'-6" galv. Unistrut #P1000HS between Bents 4 & 5 from toe of gangway with trolling springs, shackles & SS grips. Adjust for travel.
3. Relocate following from existing vehicle transfer bridge to new passenger gangway:
   - A 2" GRS & flex with 5 #1 XHHW from HH-2 to Panel B.
   - B 1" GRS & flex with DBL 2C#18 from T-1 to the dock shed telephone & data outlets.
   - C 1" GRS & flex with #14/4 SO or SND from existing HH-2 to the start/stop switches in dock shed.
   - C 1" GRS & flex with #14/4 SO or SND from existing HH-2 to the start/stop switches in dock shed (Coordinate with White Pass).
4. Power to Panel B & ferry hydraulic ramp to be always available 1 hour prior to and 1 hour after the ferry arrival or departure
5. Connect 208V heat tape circuit to HH-2 with 2#10-3/4" GRS (Circuit P-35-37) See Detail.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH:		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

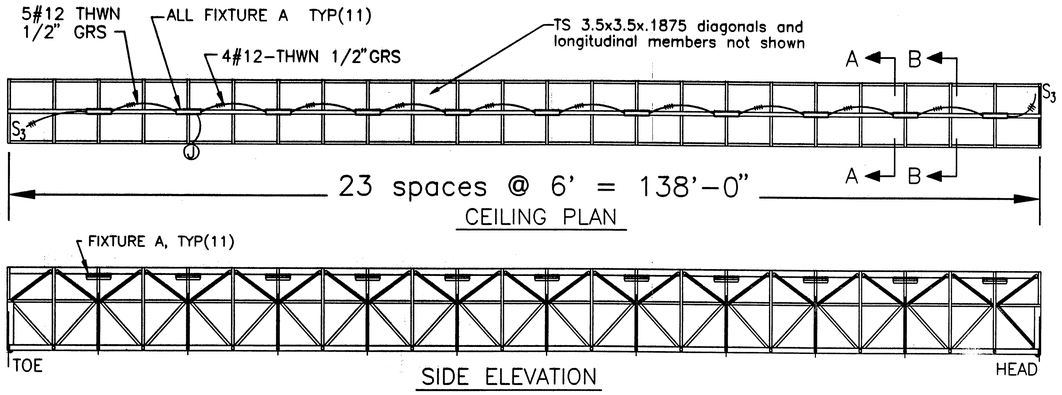
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

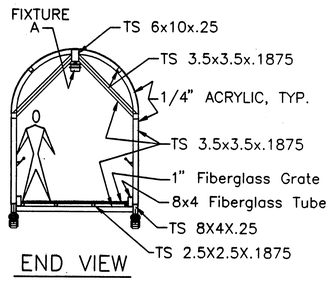
SKAGWAY — ALASKA

SKAGWAY FERRY TERMINAL RECONSTRUCTION
FED. NO. ER-0069(1) ~ PROJECT NO. 75468
ELECTRICAL - E1

DESIGNED BY: LPL	PROJECT NO. 75468
DRAWN BY: LPL/STAFF	DATE: May, 95
CHECKED BY: 000	SHEET 17 OF 18

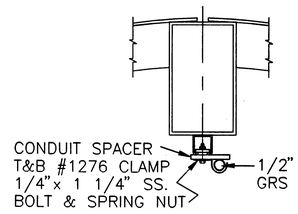
STATE OF ALASKA 49TH
LEONARD P. LOWELL 553-E
REGISTERED PROFESSIONAL ENGINEER



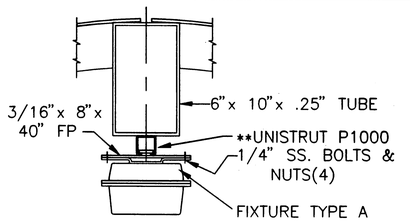


FIXTURE SCHEDULE

TYPE	MFG	W	REMARKS
A	PAULUHN FPS 140XT 0'F	1-40 WRS	SEE DETAIL

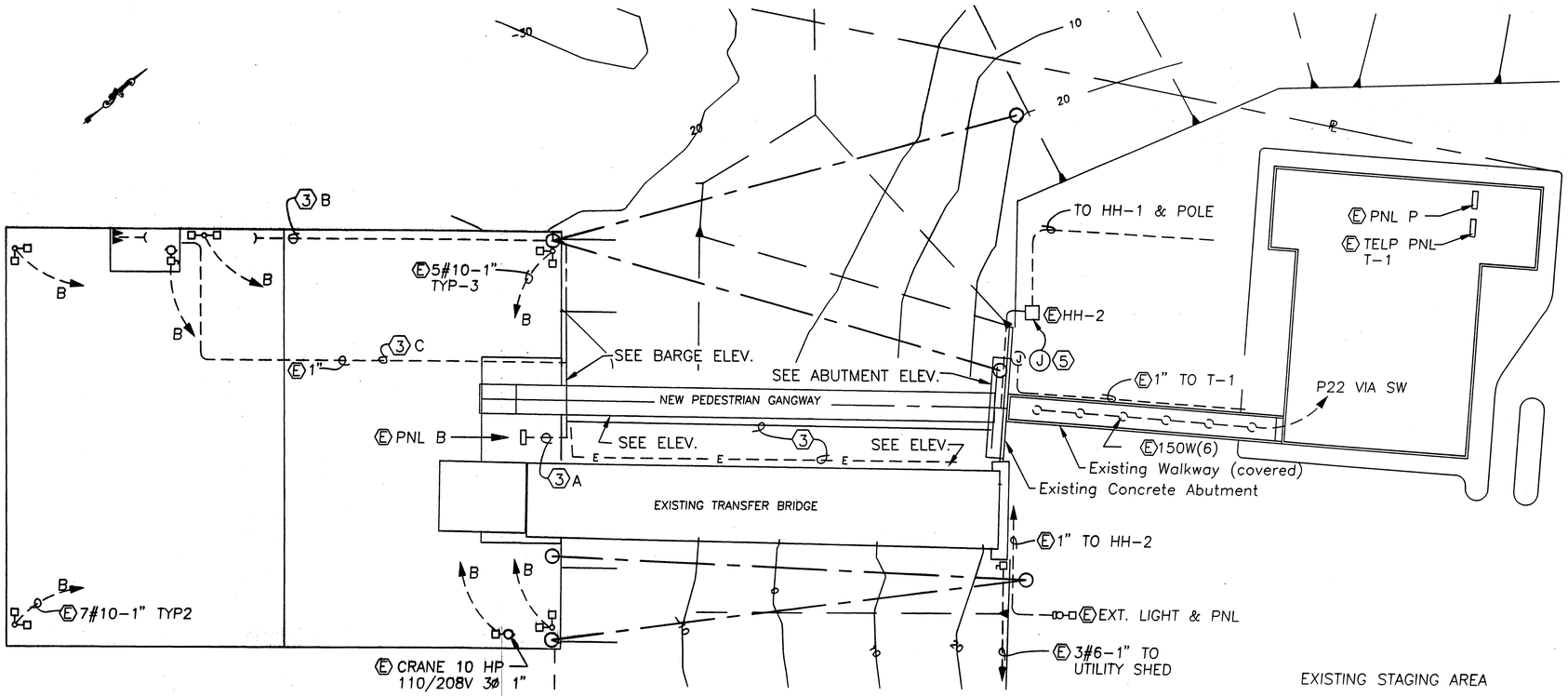


CONDUIT DETAIL B-B



FIXTURE DETAIL A-A

** - Provided under Item 302(1)



NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: \BAS\SKG\SKG-E1		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

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

SKAGWAY — ALASKA

SKAGWAY FERRY TERMINAL RECONSTRUCTION
FED. NO. ~ PROJECT NO. ER-0069(1)
ELECTRICAL - E2

DESIGNED BY: LPL	PROJECT NO. 75468
DRAWN BY: BAS/BN	DATE: MAY, 1995
CHECKED BY: LPL	SHEET 18 OF 18

STATE OF ALASKA 49TH
Leonard P. Lowell No. 553-E
REGISTERED PROFESSIONAL ENGINEER