

Addendum

DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
SOUTHCOST REGION CONTRACTS SECTION
6860 GLACIER HIGHWAY
JUNEAU, ALASKA 99801-7999
TELEPHONE: (907) 465-4489
FAX: (907) 465-4238

TO ALL PROSPECTIVE BIDDERS AND OTHERS INTERESTED IN PROJECT NO. **Z73221000**;
Angoon Ferry Terminal Apron Ramp Repairs

ADDENDUM NO. 3

December 17, 2019

This transmittal consists of ELEVEN (11) pages. **If it is unreadable or clarification is needed, contact the Southeast Regional Contracts Office immediately.**

The Plans are modified as follows:

Delete the previous plan set and replace with the plan set identified as Attachment #1 to this addendum.

**Bidders are required to acknowledge this addendum on the proposal form or by FAX
prior to the bid opening.**

Addendum Number (3) received.

Name/Title

Date

Firm

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

ANGOON FERRY TERMINAL APRON REPAIRS

PROJECT NO. Z73221000

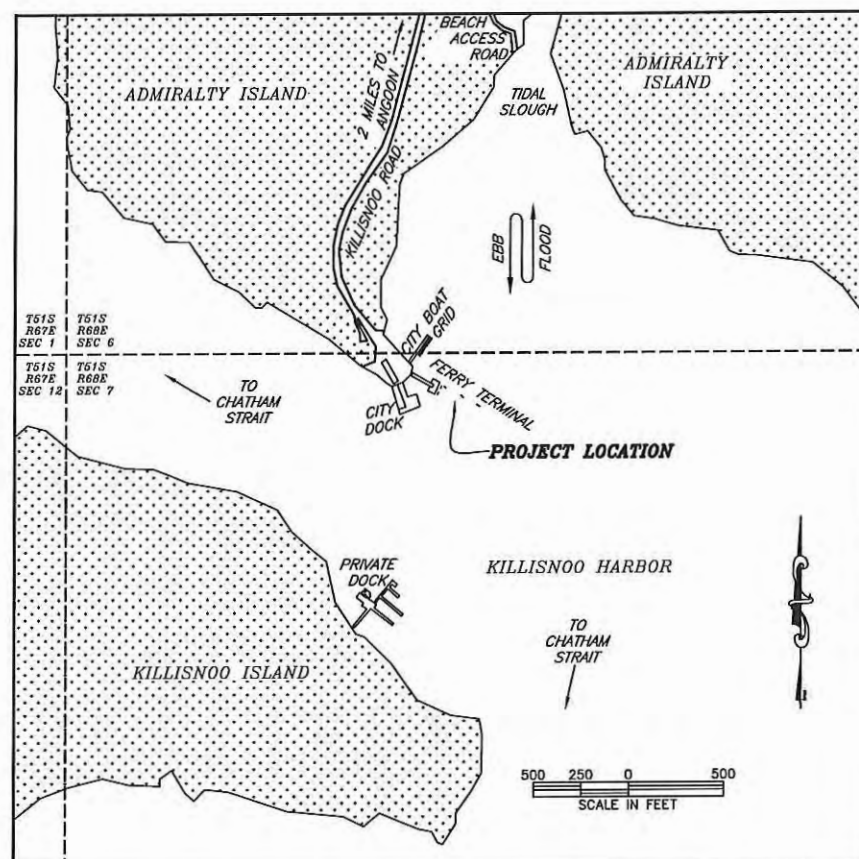


NO.	DATE	REVISIONS	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z73221000	2019	1	10

SHEET INDEX	
SHEET NO.	DESCRIPTION
GENERAL	
1	TITLE SHEET
2	EXISTING SITE PLAN
3	FLOAT AND PLATFORM LAYOUT
4	RAMP PLAN & ELEVATIONS
5	RAMP & APRON LIFT FRAMING
6	APRON LIFT DETAILS
7	EXISTING CONDITIONS PHOTOS

NOTES:

1. THIS PLANSET WAS DEVELOPED USING THE EXISTING AS-BUILT DRAWINGS AND ALL NOTES, SHEET OR DETAIL REFERENCES, ETC. DO NOT APPLY. NEW WORK OR MODIFICATIONS FOR THIS PROJECT ARE SHOWN IN RED.
2. REFERENCE AS-BUILT AND SHOP FABRICATION DRAWINGS & SPECIFICATIONS FOR ADDITIONAL DETAILS & WORK REQUIREMENTS NOT INDICATED.



VICINITY MAP



EXISTING TERMINAL SITE

TIDAL DATA (ft)

EHW	+19.0
MHHW	+14.1
MHW	+13.2
MTL	+7.4
MLW	+1.6
MLLW	0.0
ELW	-5.5

USE THESE PLANS IN CONJUNCTION WITH THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2017 EDITION AND THE PROJECT SPECIAL PROVISIONS.

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APPROVED:

Kirk Miller
KIRK MILLER, P.E.
DESIGN GROUP CHIEF

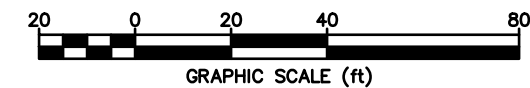
12/16/19
DATE

CONCUR:

D. Lance Mearig
D. LANCE MEARIG, P.E.
DIRECTOR, SOUTHCOAST REGION

16 Dec 2019
DATE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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LOCATION OF WORK

New structure N5 intentionally set 6" off line from other dolphins to accommodate sponsons of LeConte, Lituya, and IFA.

PROJECT SCOPE:

- MAKE FIELD REPAIRS TO NORTH SIDE OF APRON LIFT ASSEMBLY.
- INSTALL STATE-FURNISHED APRON LIFT CYLINDERS TO INTERMEDIATE RAMP.
- RE-COMMISSION ELECTRICAL CONTROL SYSTEM. CONTRACTOR TO COORDINATE WITH STATE-FURNISHED CONTROLS SYSTEM ENGINEER/ELECTRICIAN AND ASSIST AS NEEDED.
- CLEAN TOP & UNDERSIDE OF APRON & LIFT BEAM.
- LOWER APRON FROM ITS STORED POSITION AND RESTORE APRON OPERATION.

NOTE:
ALL BOLTS ARE ASTM A325,
HOT DIP GALVANIZED.

LEGEND:



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ANGOON FERRY TERMINAL
APRON REPAIRS

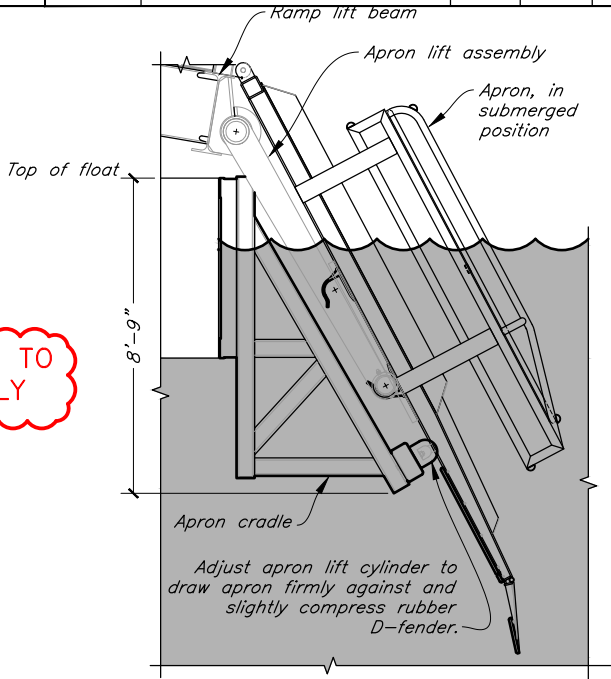
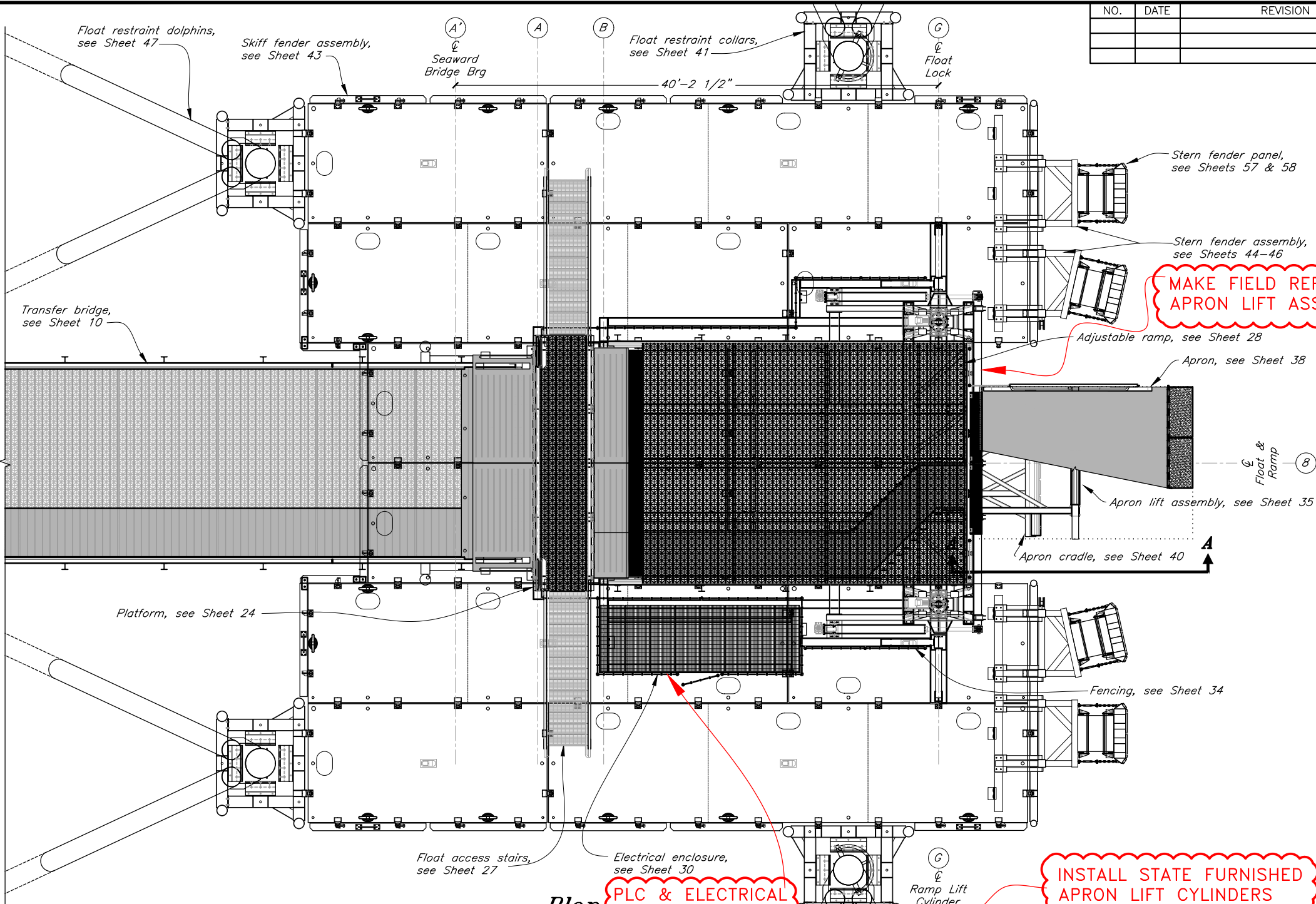
EXISTING
SITE PLAN

DRAWING SCALES ARE FOR FULL-SIZE SHEETS. USE DIMENSIONS WHEN SCALE NOT SHOWN.

12/16/2019

FILE q:\Marine\Angoon\ang - apron lift beam replacement\Drawings\PLANSET\03 Float & Platform Plan.dwg DATE 12/16/2019 15:24 LAYOUT 3 DESIGNED STAFF CHECKED STAFF DRAFTED STAFF

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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Section A-A

HORIZONTAL CONTROL OF BRIDGE, PLATFORM, AND RAMP:

1. Centerline of bridge, platform, and ramp (Grid 8) coincides with centerline of float assembly.
2. Centerline of ramp lift cylinder (Grid G) coincides with second lock from seaward face of float assembly.

LEGEND:



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ANGOON FERRY TERMINAL
APRON REPAIRS

FLOAT AND PLATFORM
LAYOUT

Note: Restraint piles and fencing not shown for clarity

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ELECTRIC LINEAR CYLINDER SPECIFICATIONS:

Ramp and apron lift systems are operated by electromechanical linear cylinders with the following capacities, speed, control systems, and dimensions. Cylinders shall be manufactured by RACO International, or an approved equal.

Provide certification and supporting calculations, sealed by a U.S. licensed civil engineer, that cylinders are designed to support the following loads in accordance with AASHTO LRFD Bridge Design Specifications, 2007 with interim updates.

Configuration of ramp and apron lift systems are based on RACO cylinders. Substitution from a different manufacturer may require redesign of ramp and apron framing. Redesign will be at no additional expense to the State.

Ramp Lift Cylinder: RACO Unit 10

Thrust: 65,500 lbs. dynamic
90,000 lbs. static
Stroke: 78.7 inches maximum
Rod speed: 0.7 in./sec (min)
Lead: ACME screw with catch nut
Thrust tube: Chrome plate
Gear: Helical-worm

Motor: 460 V / 3 phase / 60 HZ, 1800 base speed, IP65 enclosure, class F insul, inverter duty, right angle gear

Brake: Electromagnetic single disk brake with function monitoring microswitch, braking force applied when power is off

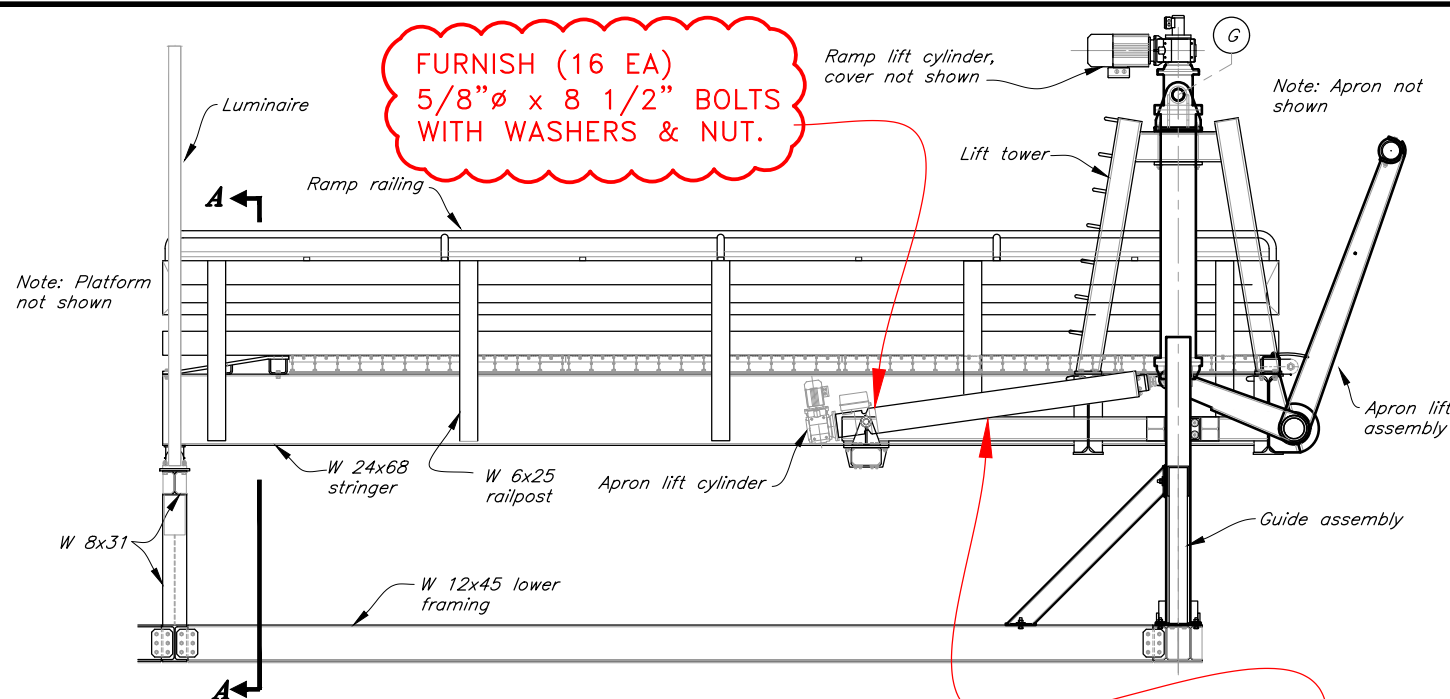
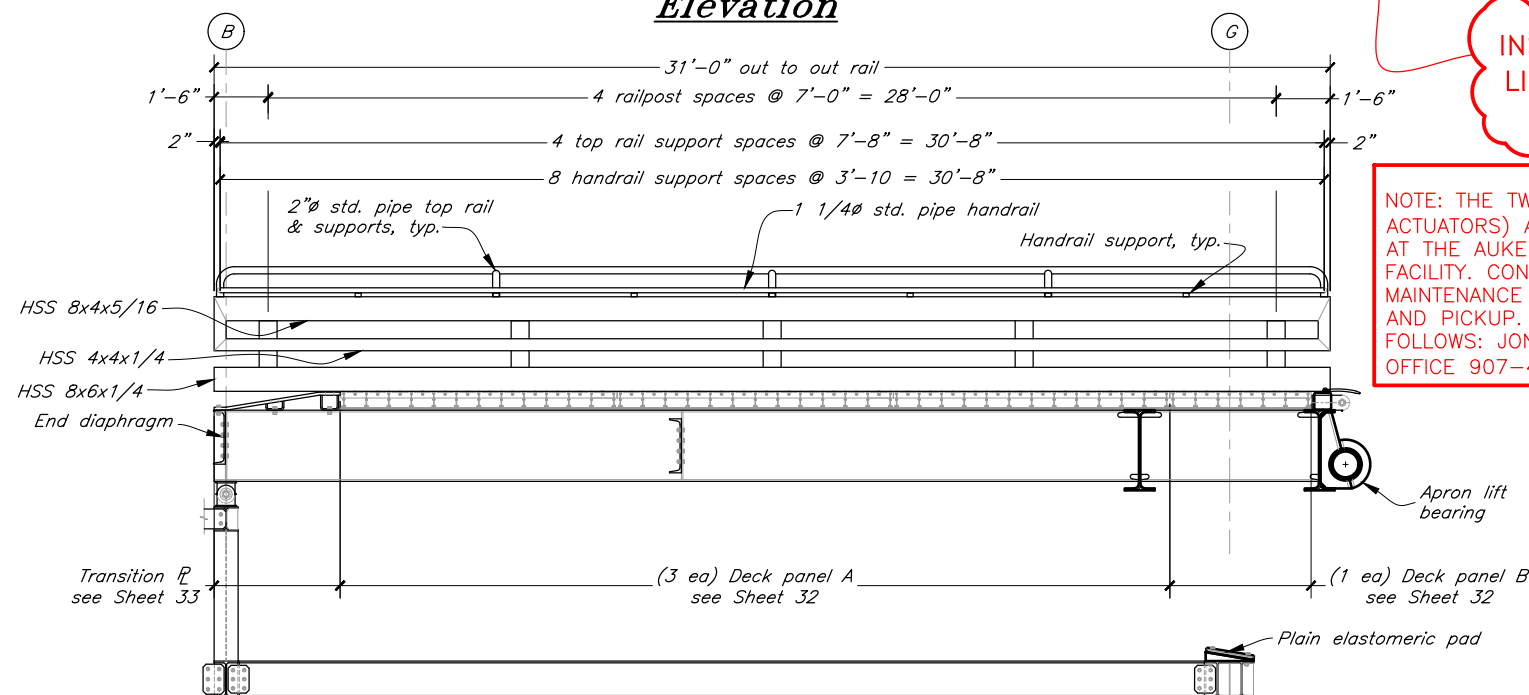
Electronics: Absolute position encoder, brake rectifier, vector drives with software, and associated electronics required for synchronization of cylinder pairs, as shown on Function Control Diagram, Sheet E8.

Misc: Thrust tube accordion type cover, sperical bearing rod end, and trunnion pins & bracket.

High corrosion protection package including: double front cap sealing with dirt/ice wiper, epoxy exterior coating, varnish base interior coating, sealing cable glands, anti-condensation heaters on motors and brakes.

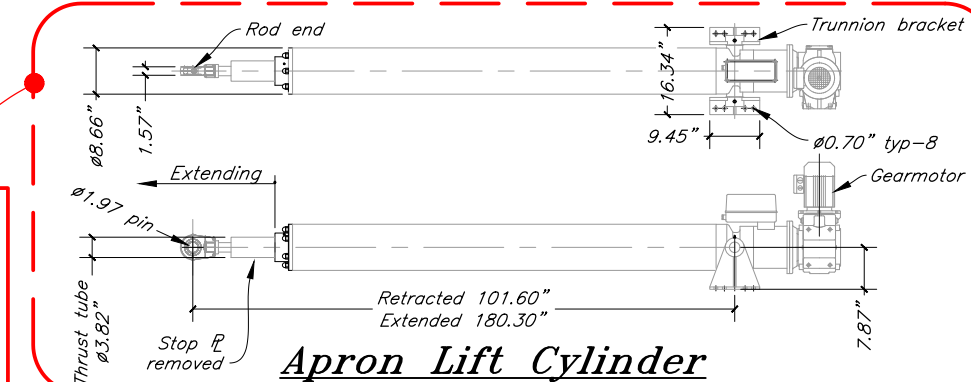
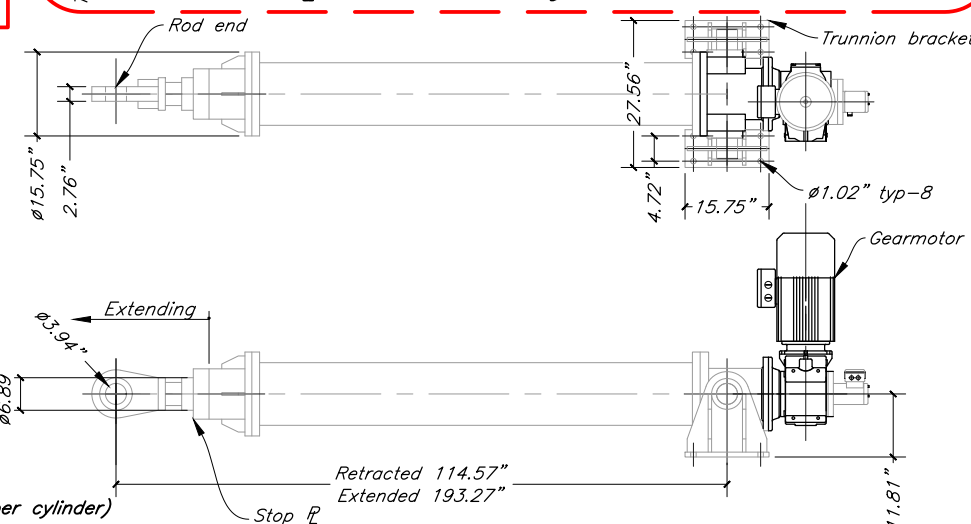
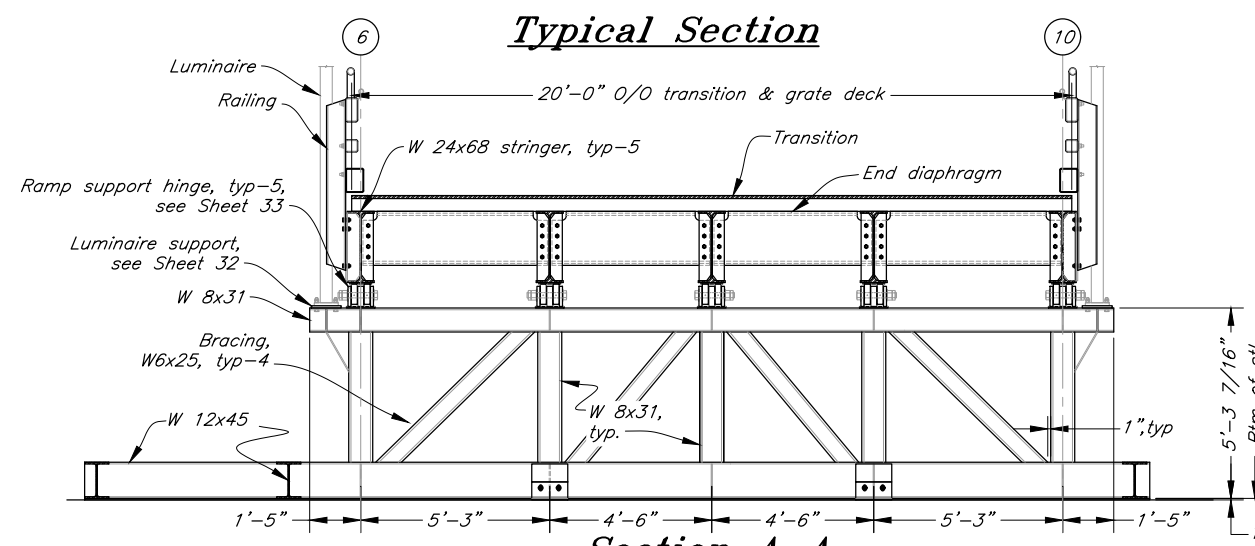
Apron Lift Cylinder: RACO Unit 8

Thrust: 18,000 lbs. dynamic
Stroke: 78.7 inches maximum
Rod speed: 0.7 in./sec (min)
Lead: ACME screw
Thrust tube: Stainless steel (316)
Gear: Helical

**Elevation**

INSTALL REBUILT APRON LIFT CYLINDERS (2 EA) STATE FURNISHED

NOTE: THE TWO APRON LIFT CYLINDERS (ELECTRIC ACTUATORS) AND TRUNNION MOUNTS ARE LOCATED AT THE AUKE BAY FERRY TERMINAL, AMHS SHOP FACILITY. CONTRACTOR SHALL CONTACT AMHS MAINTENANCE STAFF TO ARRANGE FOR INSPECTION AND PICKUP. CONTACT INFORMATION IS AS FOLLOWS: JONATHON GUNDSTROM, OFFICE 907-465-4002 / CELL 907-209-1630.

**Apron Lift Cylinder****Ramp Lift Cylinder****LEGEND:****Typical Section****Section A-A****RAMP LIFT CYLINDER DESIGN LOADS: (service loads per cylinder)**

Load Combinations	D	S	L	(LxIM)xMPF	(LL)xMPF	DESIGN THRUST (kips)
Dynamic Loading:						
D	32.90					32.9
D + L	32.90		32.11			65.0
D + S	32.90	11.30				44.2
D + 0.75L + 0.75S	32.90	8.47	24.08			65.5
Static Loading:						
D	32.90					32.9
D + L	32.90		46.12	9.72		88.7
D + S	32.90	11.30				44.2
D + 0.75L + 0.75S	32.90	8.47	34.59	7.29		83.3

D = Dead Load (self-weight)
L = Truck HS20, wheel centered over Grid ②
LL = Lane Load 640 plf, 10 ft. wide lane
S = Snow 70 psf
IM = Dynamic Allowance 1.33
MPF = Multiple Presence Factor 1.08

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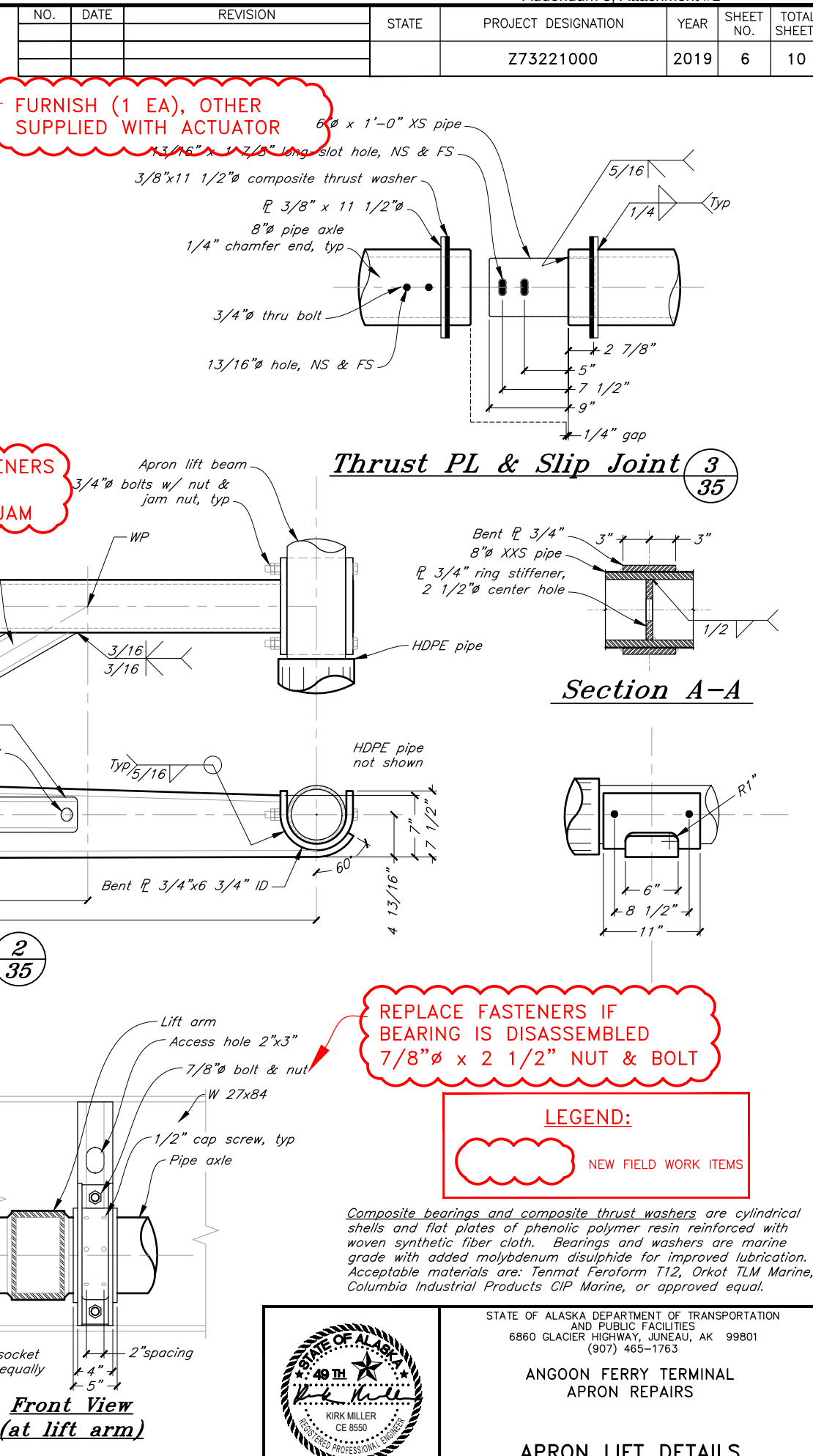
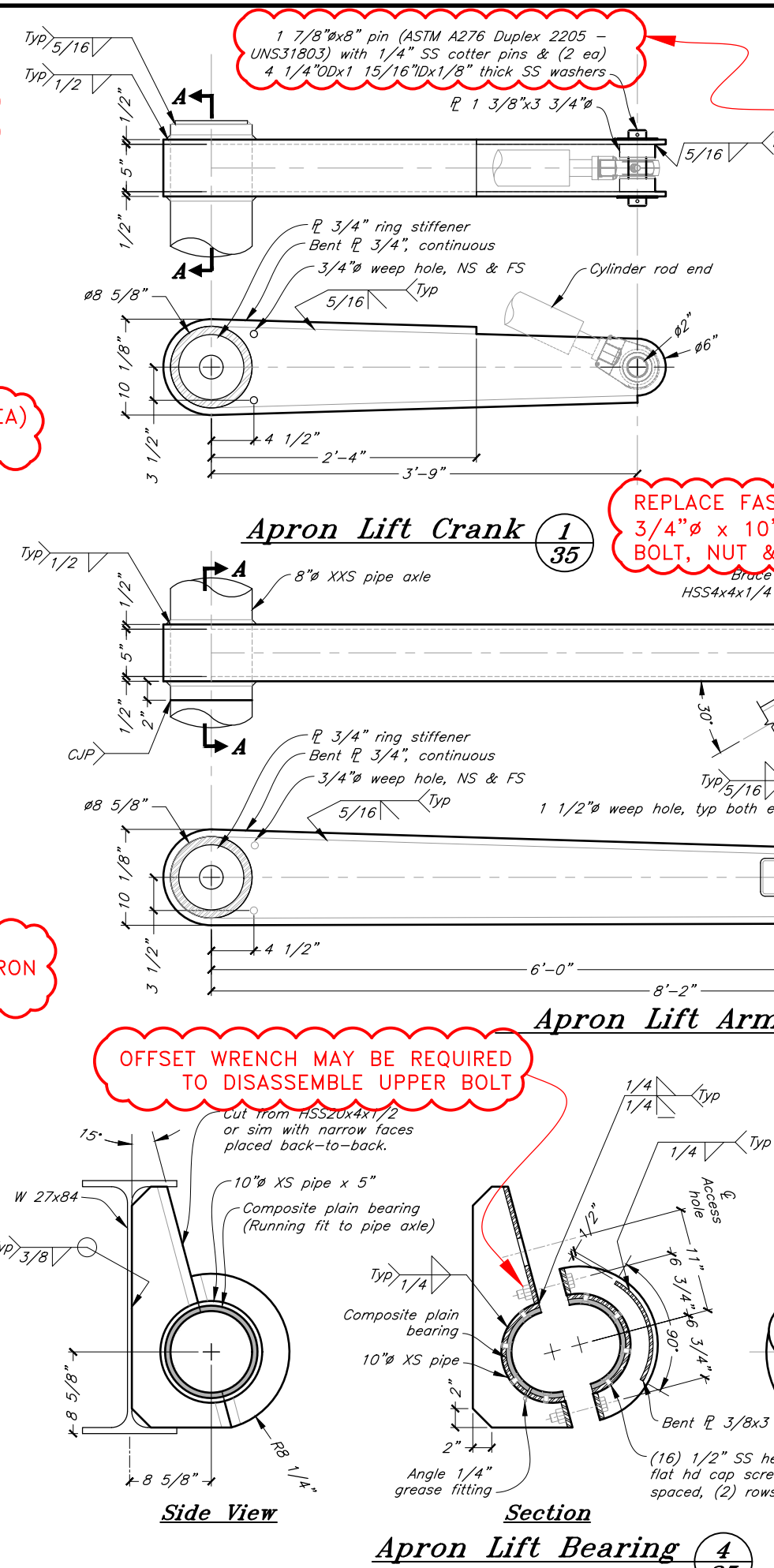
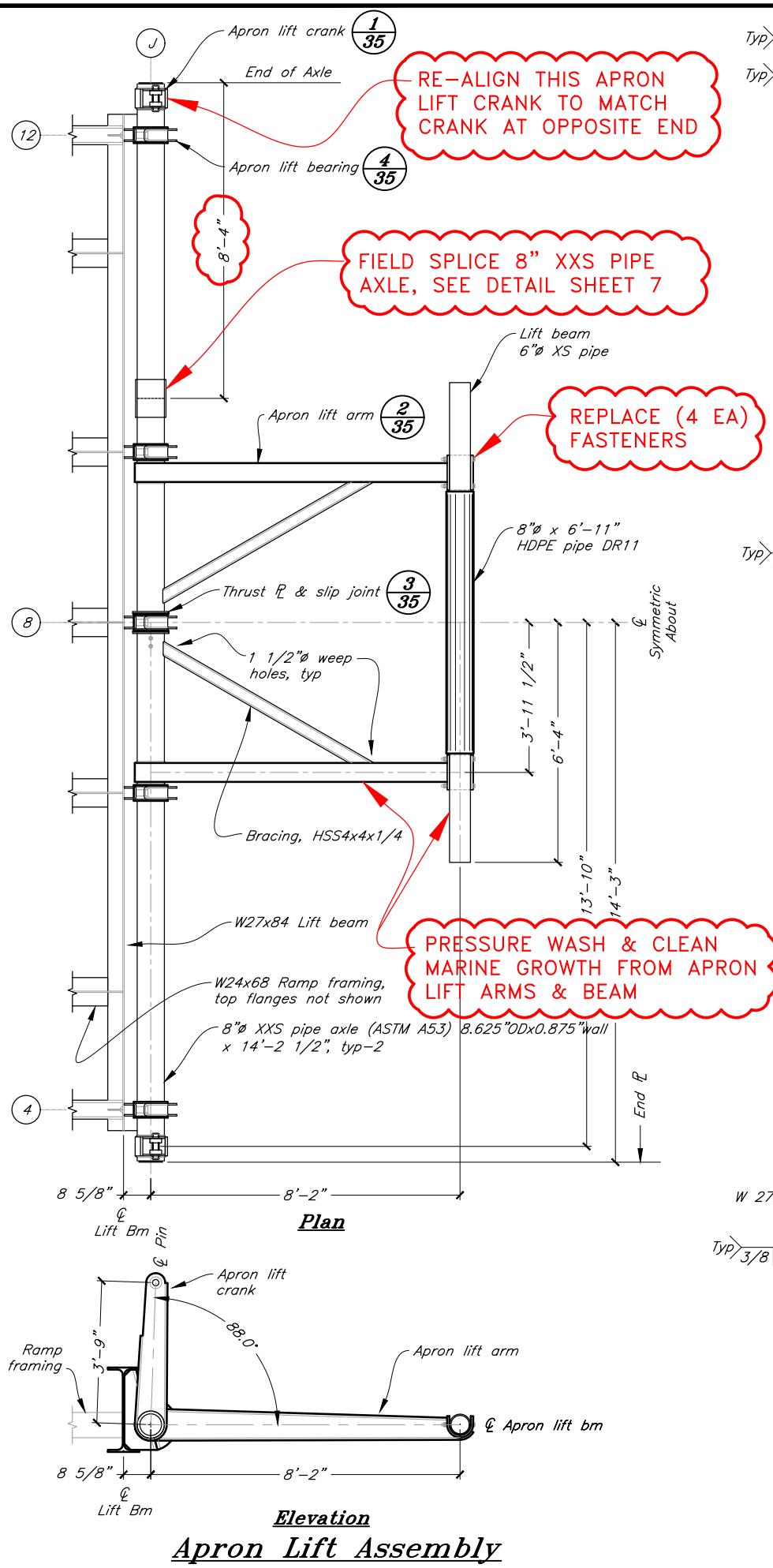
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ANGOON FERRY TERMINAL
APRON REPAIRS

**RAMP &
APRON LIFT FRAMING**

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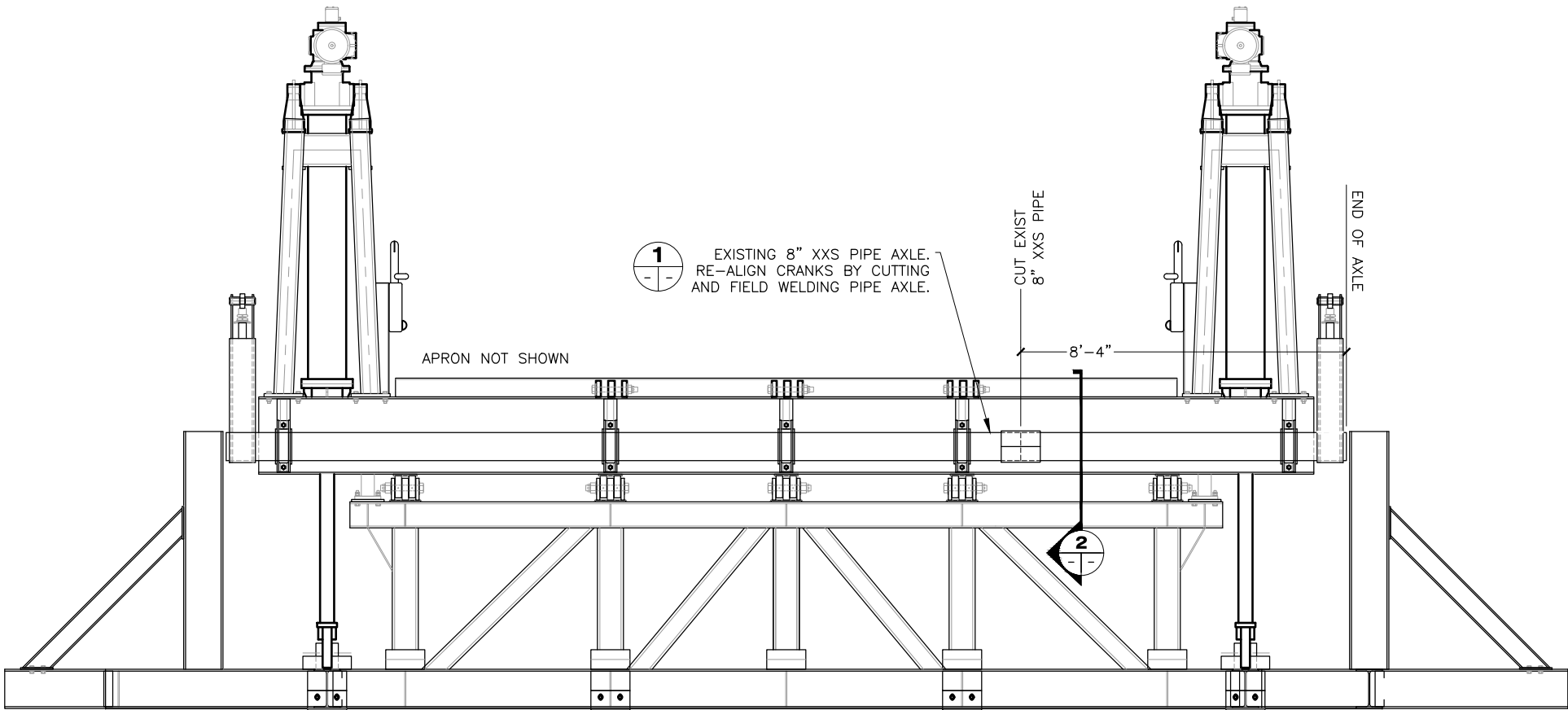
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ANGOON FERRY TERMINAL
APRON REPAIRS

APRON LIFT DETAILS

FILE q:\Marine\Angoon\ang — apron lift beam replacement\Drawings\PLANSET\07_Field_Splice.dwg DATE 12/16/2019 16:03 LAYOUT 7 DESIGNED STAFF CHECKED STAFF DRAFTED STAFF

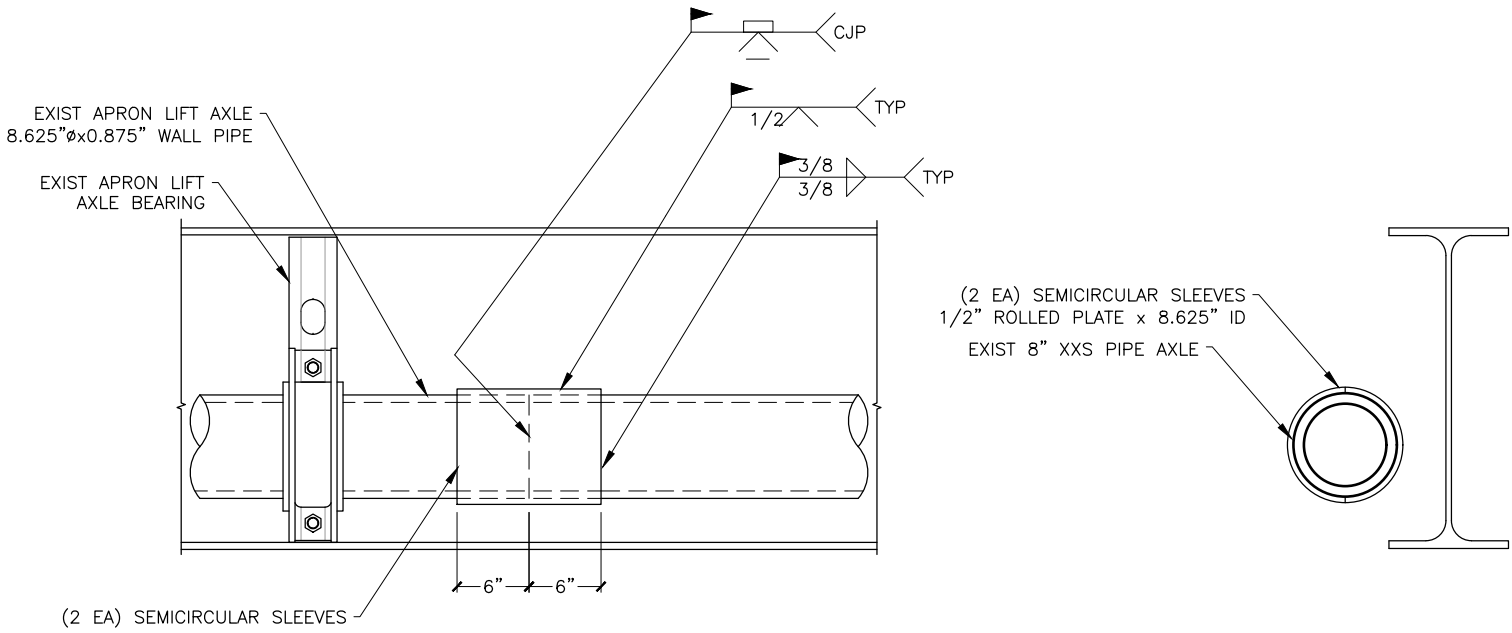
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						TOTAL SHEETS
						8



FRONT ELEVATION

FIELD WELDING NOTES:

1. WELDING IN ACCORDANCE WITH AWS D1.1 BY WELDERS CERTIFIED IN TUBULAR GROOVE CJP WELDS IN ALL POSITIONS.
2. USE MINIMUM PREHEAT 150°F AND LOW HYDROGEN ELECTRODES.
3. MAXIMUM ROTATION OF AXLE IS APPROXIMATELY 130°. IF AXLE IS WELDED IN PLACE, STAGGER START AND STOP OF WELD PASSES SO THEY DO NOT ALL COINCIDE.
4. REMOVE GALVANIZE COATING A MINIMUM OF 1 1/2" FROM EDGES OF JOINT PRIOR TO WELDING. REPAIR DAMAGE TO GALVANIZING AT WELDS PER SECTION 504-3.03. PIPE SLEEVE MAY BE GALVANIZED OR BARE AND FIELD COATED WITH (2) COATS OF COLD GALVANIZING.



1 ELEVATION

2 SECTION

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ANGOON FERRY TERMINAL
APRON REPAIRS

APRON LIFT ASSEMBLY
FIELD SPLICE

12/16/2019

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FERRY TERMINAL OVERVIEW
ORIGINAL CONDITION



APRON IN STORED POSITION



APRON & LIFT ASSEMBLY
ORIGINAL CONDITION



APRON LIFT ASSEMBLY

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ANGOON FERRY TERMINAL
APRON REPAIRS

EXISTING
CONDITIONS PHOTOS

FILE q:\Marine\Angoon\ang — apron lift beam replacement\Drawings\PLANSET\09 Extg Conditions Photos.dwg DATE 12/16/2019 15:52 LAYOUT 9 DESIGNED STAFF CHECKED STAFF DRAFTED STAFF

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APRON LIFT ASSEMBLY



PIPE AXLE (LOOKING SOUTH)



PIPE AXLE (LOOKING NORTH)



APRON

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ANGOON FERRY TERMINAL
APRON REPAIRS

EXISTING
CONDITIONS PHOTOS

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APRON LIFT BEAM



APRON LIFT BEARING

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