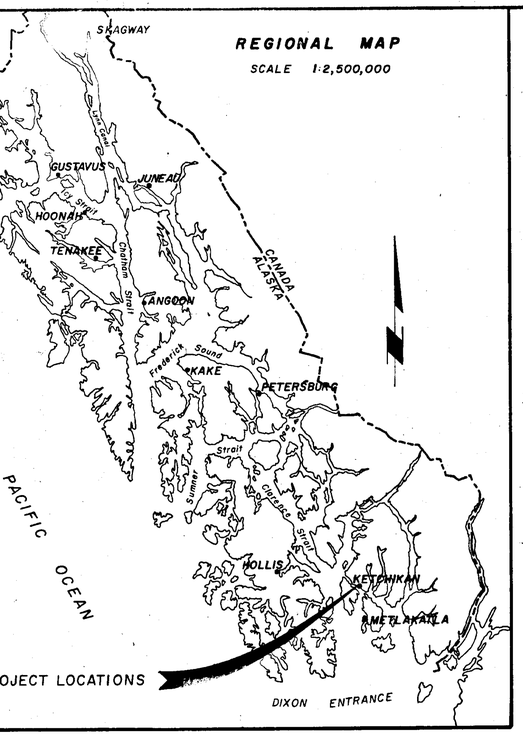
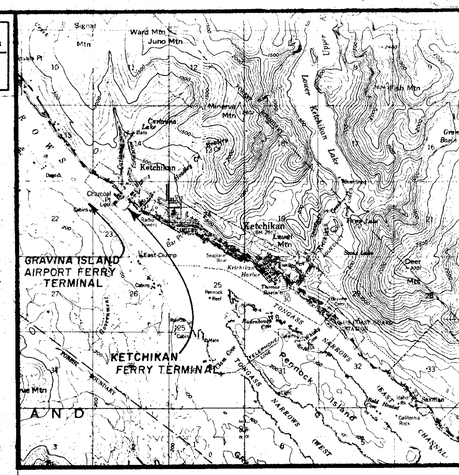


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) ADAP 8-02-0144-03	1972	1	35



LOCATION MAP
1" = 1 MILE

"AS BUILT" PLANS

Contractor: Swalling-General

DATE Actual Beginning: Jan. 16, 1973 Date Actual Completion: Sept. 21, 1973

Project Engineer: Thomas Solberg

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

KETCHIKAN & GRAVINA ISLAND AIRPORT FERRY TERMINALS

PROJECT F-095-2(9)
AND
A.D.A.P. No. 8-02-0144-03

INDEX OF SHEETS

THE FOLLOWING STANDARD DRAWINGS APPLY:
A-1, D-1a, D-1b, D-2, D-4, M-1, M-5, T-15, T-16, T-21, T-51, T-53 & T-70

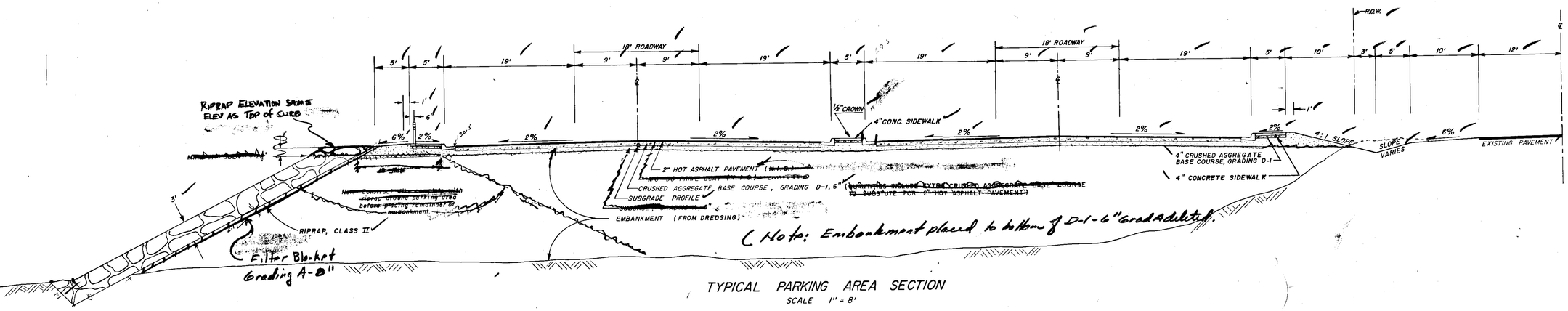
6-1

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

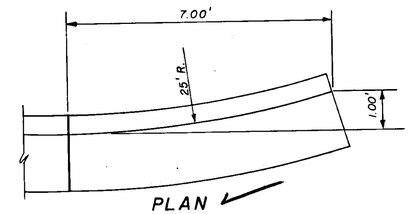
APPROVED [signature] COMMISSIONER OF HIGHWAYS
DATE, 8/18/72

APPROVED [signature] COMMISSIONER
DATE, August 1, 1972

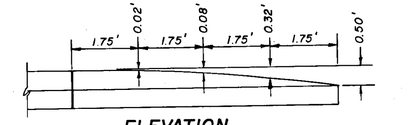
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	2	35



TYPICAL PARKING AREA SECTION
SCALE 1" = 8'

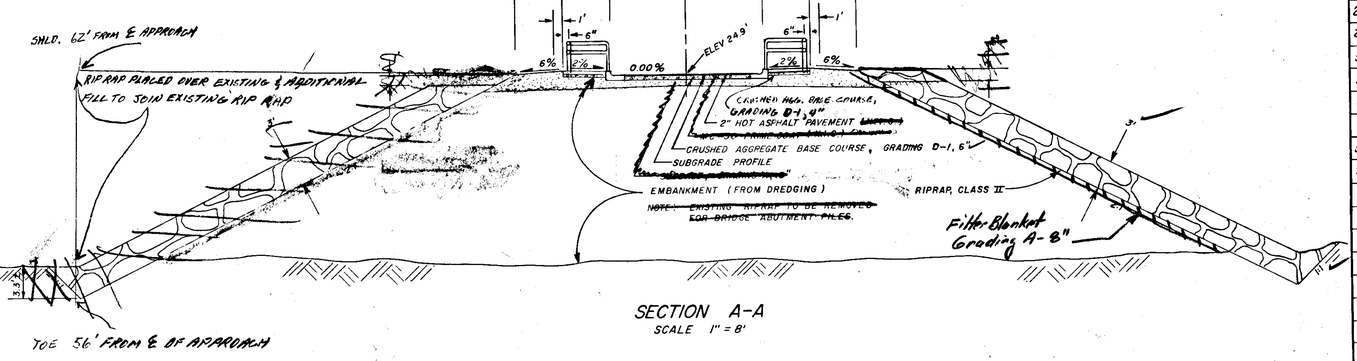


PLAN

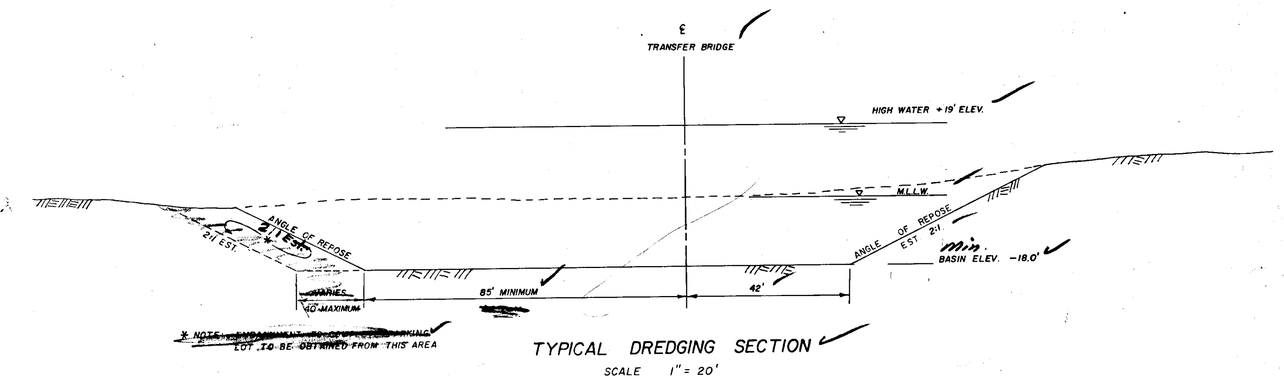


ELEVATION

CURB TRANSITION DETAIL



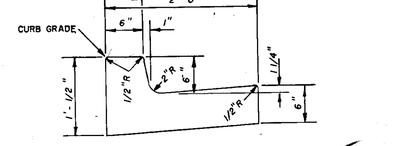
SECTION A-A
SCALE 1" = 8'



TYPICAL DREDGING SECTION
SCALE 1" = 20'

FINAL
~~ESTIMATE~~ OF QUANTITIES F-095-2(9)

ITEM NO.	ITEM	UNIT	QUANTITY
110(1)	Mobilization	Lump Sum	All Req'd.
~~110(1)~~	~~Temporary Erosion and Pollution Control~~	~~Lump Sum~~	~~All Req'd.~~ None Req'd.
112(1)	Training Programs in Accordance with FHWA Order, Interim 7-8(2)	Lump Sum	All Req'd.
202(2)	Removal of Structures & Obstructions	Lump Sum	All Req'd.
203(3)	Unclassified Excavation	Cu. Yd.	~~15,000~~ 19,054
301(1.)	Crushed Aggregate Base Course, Grading D-1	Cu. Yd.	~~850~~ 596 [32]
304(2)	Subbase, Grading A	Cu. Yd.	~~850~~ 387
501(1)	Class A Concrete	Lump Sum	All Req'd.
503(1)	Reinforcing Steel	Lump Sum	All Req'd.
504(3)	Transfer Bridge, Furnished and Fabricated	Lump Sum	All Req'd.
504(4)	Transfer Bridge, Erected	Lump Sum	All Req'd.
504(5)	Towers, Furnished and Fabricated	Lump Sum	All Req'd.
504(6)	Towers, Erected	Lump Sum	All Req'd.
504(7)	Catwalks, Furnished and Fabricated	Lump Sum	All Req'd.
504(8)	Catwalks, Erected	Lump Sum	All Req'd.
504(9)	Dolphin Caps, Furnished and Fabricated	Lump Sum	All Req'd.
504(10)	Dolphin Caps, Erected	Lump Sum	All Req'd.
505(2a)	Treated Timber Piles, Furnished and Driven (Ketchikan)	Lin. Ft.	~~3350~~ 3,185 [1]
505(4)	Cast-in-Place Concrete Piles, Furnished and Driven	Lin. Ft.	~~1,900~~ 2,542 [3]
505(11)	Rock Socketing	Lin. Ft.	~~60~~ 60
509(1)	Operating Equipment	Lump Sum	All Req'd.
603(9)	18" Asbestos Bonded Bituminous Coated Corrugated Steel Pipe	Lin. Ft.	~~363~~ 363
603(10)	58"x36" Asbestos Bonded Bituminous Coated Corrugated Steel Pipe Arch	Lin. Ft.	~~153~~ 153
603(11)	End Section for 18" Asbestos Bonded Bit. Coated Corrugated Steel Pipe	Each	1
603(12)	End Section for 58"x36" Asb. Bonded Bit. Coated Corrugated Steel Pipe Arch	Each	1
604(7)	Inlet, Type "A"	Each	5
604(8)	Inlet, Type "B"	Each	2
604(9)	Inlet, Field	Each	1
608(1)	Concrete Sidewalk, Depth 4"	Sq. Yd.	~~400~~ 417 [3]
609(2)	Curb & Gutter, Type I	Lin. Ft.	~~1,597~~ 1,595 [7]
611(1)	Riprap, Class II	Cu. Yd.	~~1,900~~ 1,762 [4]
625(1)	Pipe Handrail	Lin. Ft.	~~406~~ 408 [2]
628(9)	Water Service Connection	Each	1
671(1)	Electrical Utilities	Lump Sum	All Req'd.
401(1)	Hot Asphalt Pavement	Ton	447 [5]



STANDARD CURB & GUTTER SECTION

TYPICAL SECTIONS AND QUANTITIES

KETCHIKAN FERRY TERMINAL

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

E.C. Schwabauer

DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
SCALE:	
DATE:	
SHEET	OF

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	3

BENCH MARK: FIRE HYDRANT AT CORNER BRYANT STREET AND TONGASS AVENUE - "X" ON SOUTHEAST HEADBOLT.
ELEV. + 25.69' FEET ABOVE M.L.L.W.

⦿ BRASS CAP — WITNESS CORNER TO COR. 1 MEANDER CORNER U.S.S. NO. 1408, AND COR. 6 M.C. U.S.S. NO. 1296, TIDELANDS ADDITION, CITY OF KETCHIKAN.
STATE PLANE COORDINATES (N. 1292484.916 , E. 3096969.380)

NOTE: BASIS OF BEARING ESTABLISHED BY TRAVERSE NET TO U.S.C. & G.S. TRIANGULATION STATIONS, "RAIN" & "ISLE", USING BACK AZIMUTH FROM "ISLE" TO "RAIN" (147° 08' 31.7")

LEGEND:

— — —	PROPERTY LINE
▲	SURV-KAP SET
○	THEORETICAL PROPERTY CORNERS
⦿	BRASS CAPS, FOUND

MASTER PLAN
KETCHIKAN FERRY TERMINA

BOMHOFF & ASSOC
Engineering and Sur
1020 West Fireweed Lane
Anchorage, Alaska 99503

[illegible]

DESIGNED BY: PFH
DRAWN BY: BLH
CHECKED BY:
SCALE: 1" = 40'
DATE: 3/20/72
SHEET OF

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	4	35

"POB" (92328.163, 96650.551)

CONNECT TO EXIST. PIPE HANDRAIL

S 15° 16' 17" W - 125.09'

Installed 47 L.F. PIPE HANDRAIL

Installed 69 L.F. PIPE HANDRAIL

CONNECTED TO EXIST. PIPE HANDRAIL

CONNECTED TO EXIST. PIPE HANDRAIL

PROJECT IDENTIFICATION SIGN APPROXIMATE LOCATION

N 53° 18' 32" E - 267.28'

S 23° 39' 52" W 18.32'

W.P. BRASS CAP (92484.874, 96860.863)

S 89° 58' 43" W - 108.92'

W.C. BRASS CAP (N92484.916, E 96969.380')

NOTES:

COORDINATE SYSTEM BASED ON LAST 5 DIGITS OF THE STATE PLANE COORDINATES TO W.C. BRASS CAP. ALL OTHER COORDINATES ARE BASED ON TRUE NORTH BEARINGS AND DISTANCES FROM W.C.B.C. AS SHOWN.

ALL DIMENSIONS ARE TO FACE OF CURB.

* - 4" CRUSHED AGGREGATE BASE COURSE ~~RECODED 4"~~ ~~TO RECEIVE FUTURE PAVEMENT~~ & 2" HOT ASPHALT PAVEMENT PLACED.

NOTE: ~~Gangway~~ catwalk with 3° bend at stair

TRANSFER BRIDGE S 16° 41' 57" E

151.58'

BEARING

DUCTILE IRON MOORING CLEATS OLYMPIC FOUNDRY B-400 OR EQUAL

CAST IRON BOLLARD

STAIRS

SLOPE 2:1

7 PILE DOLPHINS

DOLPHIN PILES

TRANSFER BRIDGE ℄

SLOPE 2:1

7 PILE DOLPHIN

7 PILE DOLPHIN

7 PILE DOLPHIN

NOTE:

ALL DIMENSIONS GIVEN FROM THE END OF TRANSFER BRIDGE ARE TO BE MEASURED WHEN BRIDGE IS IN HORIZONTAL POSITION

PROPERTY LINE S 40° 01' 59" W

(92273.424, 96645.913)

74 CAR PARKING LOT

℄ TONGASS AVE.

254.03'

196.30'

207.85'

S 49° 58' 01" E 296.74'

5' CONCRETE SIDEWALK WITH 6" CURB

91' L.F. PIPE HANDRAIL

LAYOUT PLAN
KETCHIKAN FERRY TERMINAL

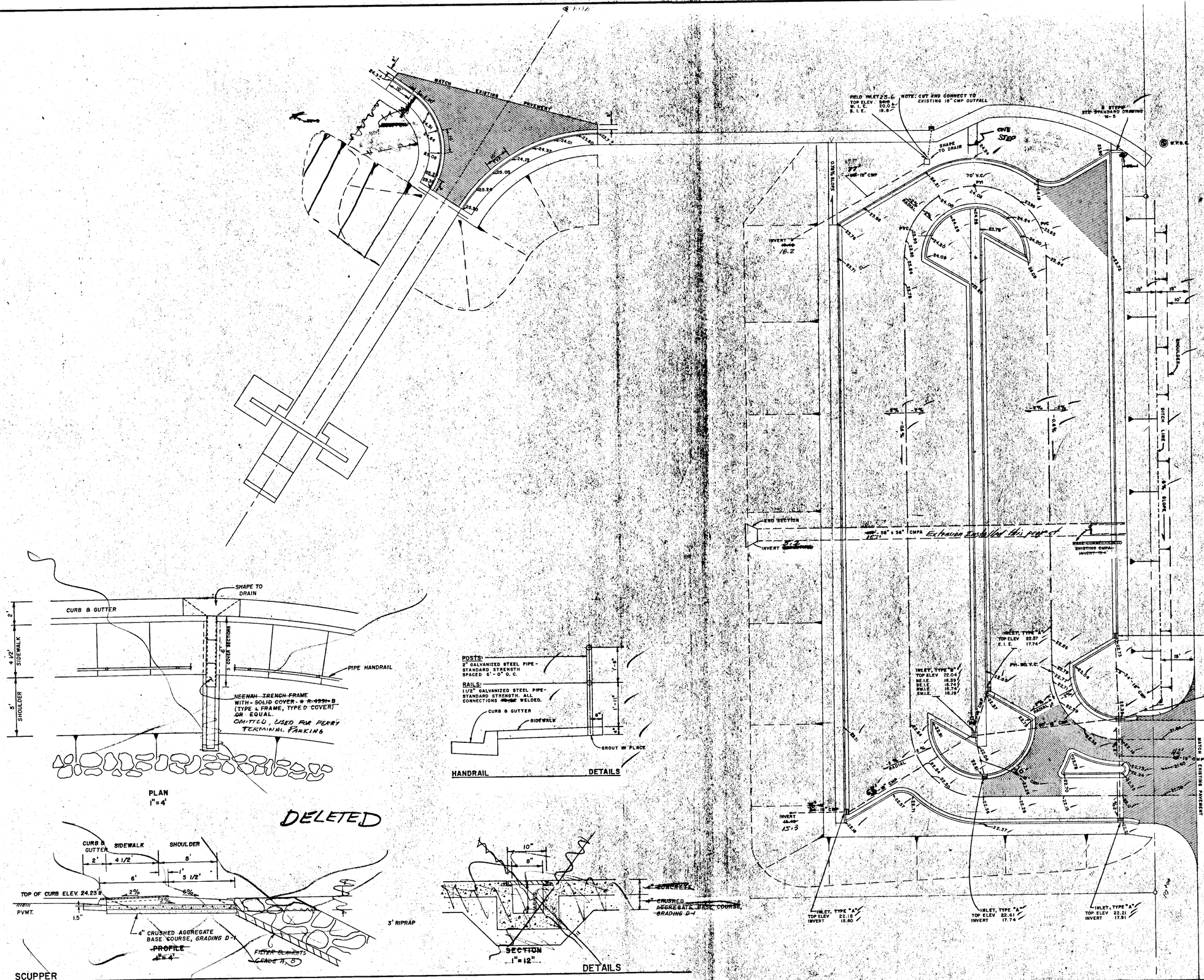
BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

STATE OF ALASKA

G.C. Schwabe

DESIGNED BY: PFH
DRAWN BY: BLH
CHECKED BY:
SCALE: 1" = 20'
DATE: 3/20/72
SHEET OF

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	5



DRAINAGE PLAN

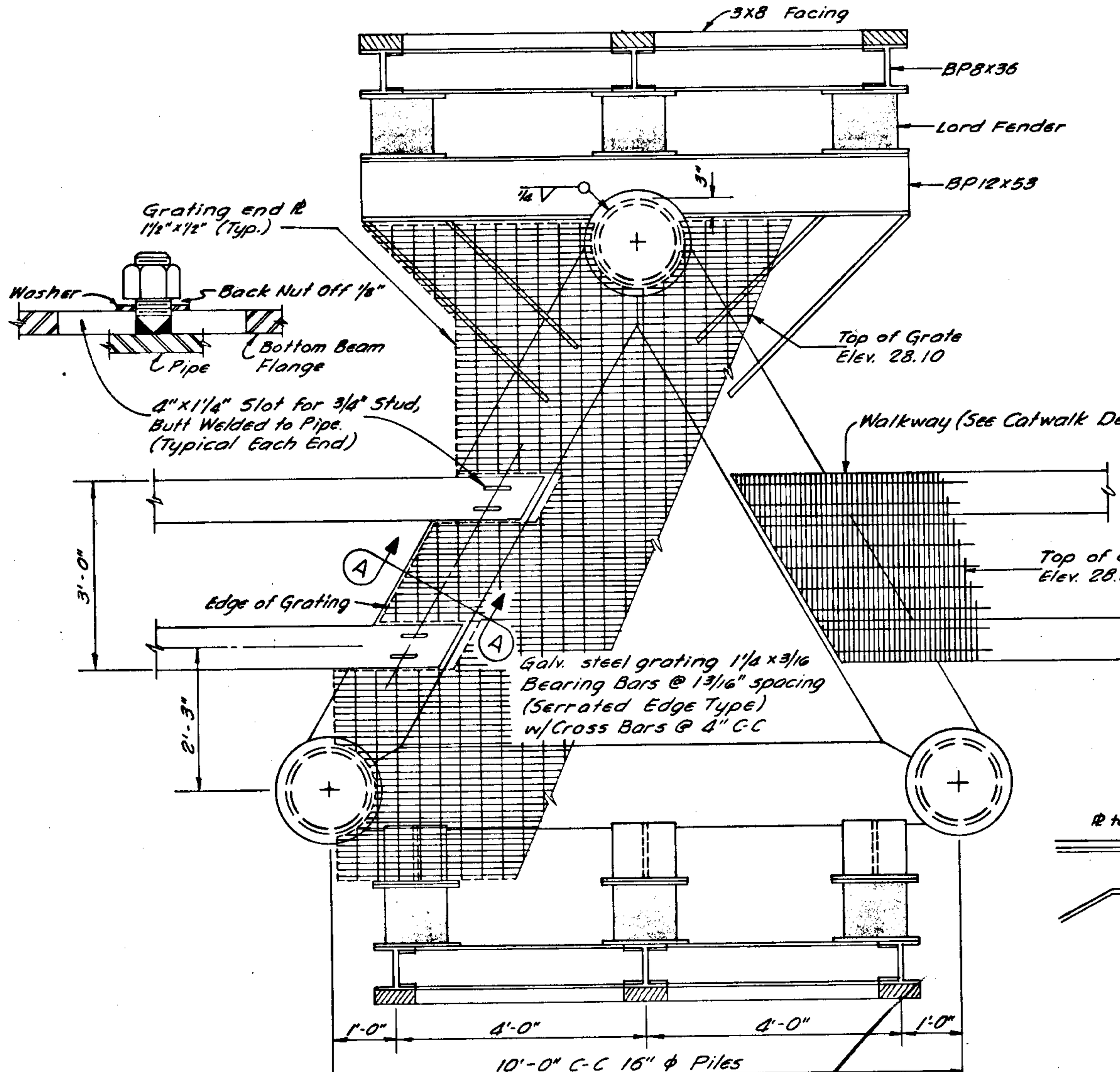
KETCHIKAN FERRY TERMIN

BOMHOFF & ASSOC
Engineering and Sur
1020 West Fireweed Lane
Anchorage, Alaska 99503

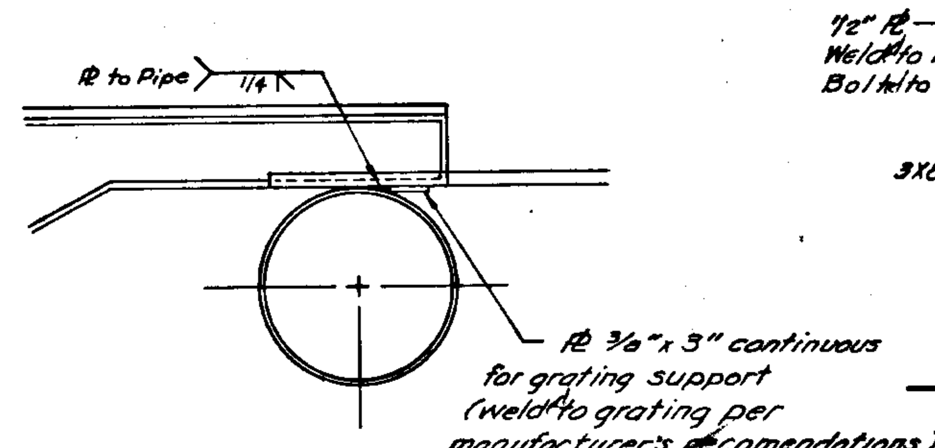
STATE OF ALASKA — 4991-S — REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: PFH
DRAWN BY:
CHECKED BY:
SCALE: 1" = 20'
DATE:
SHEET OF

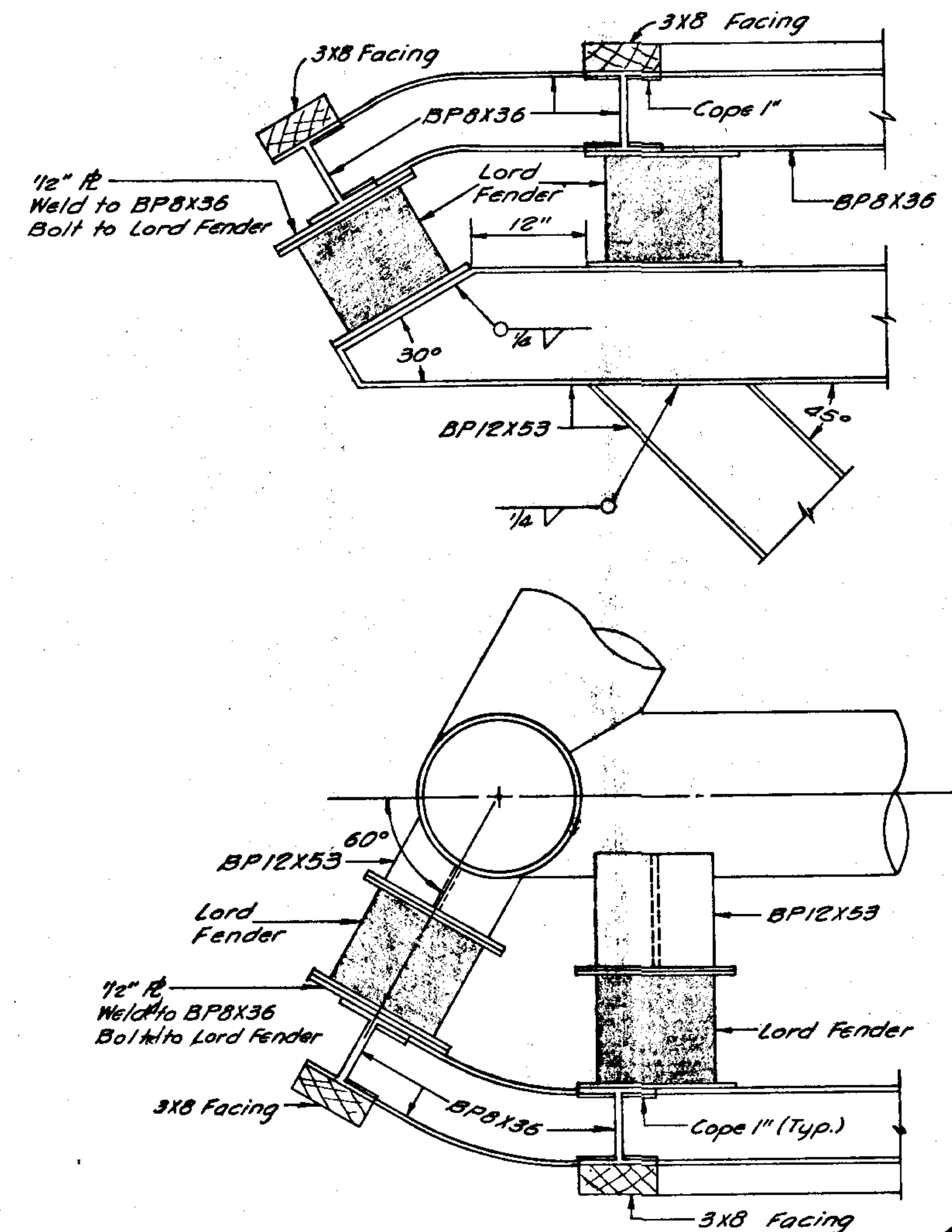
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	6	35



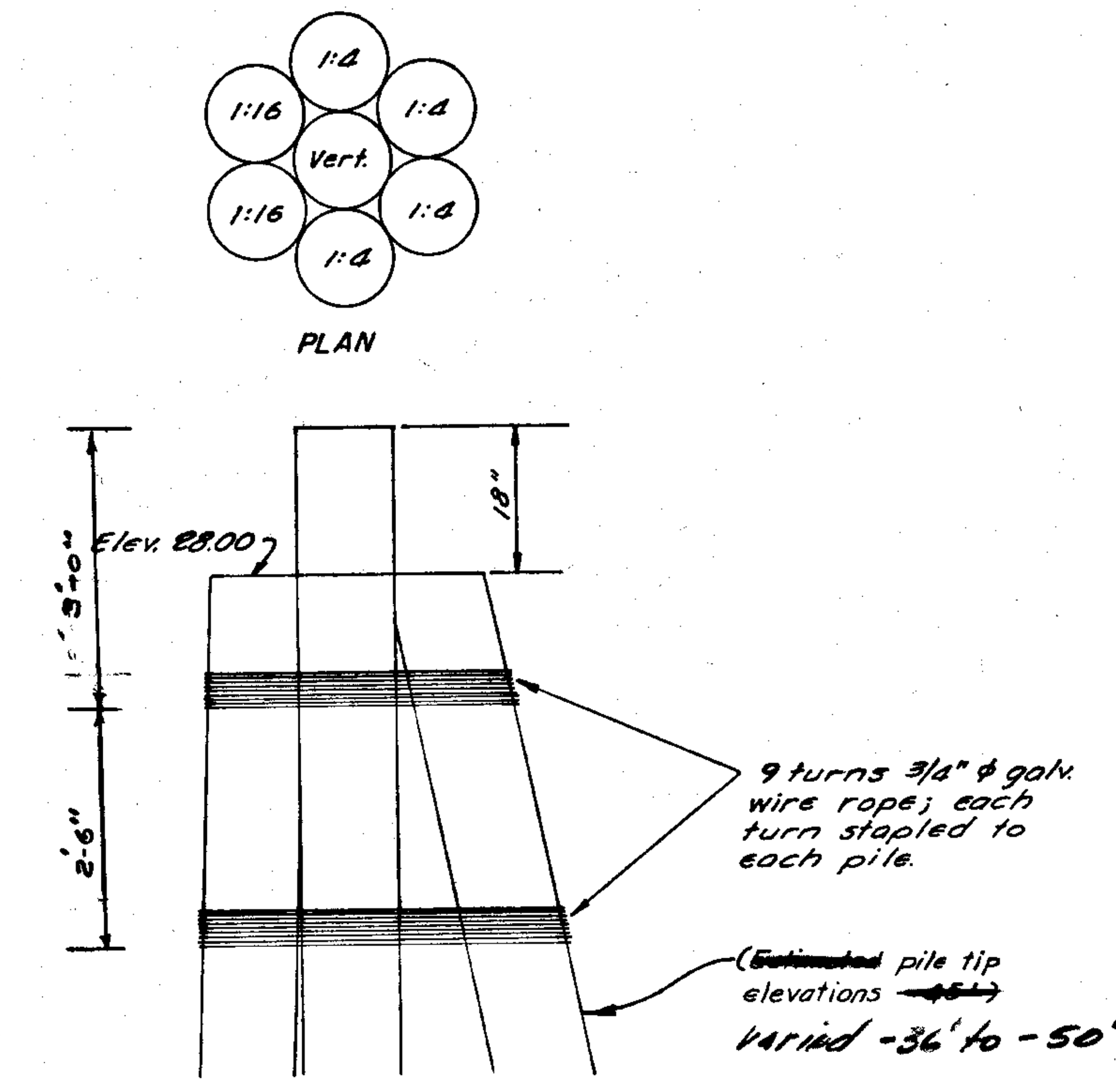
DOLPHIN PLAN



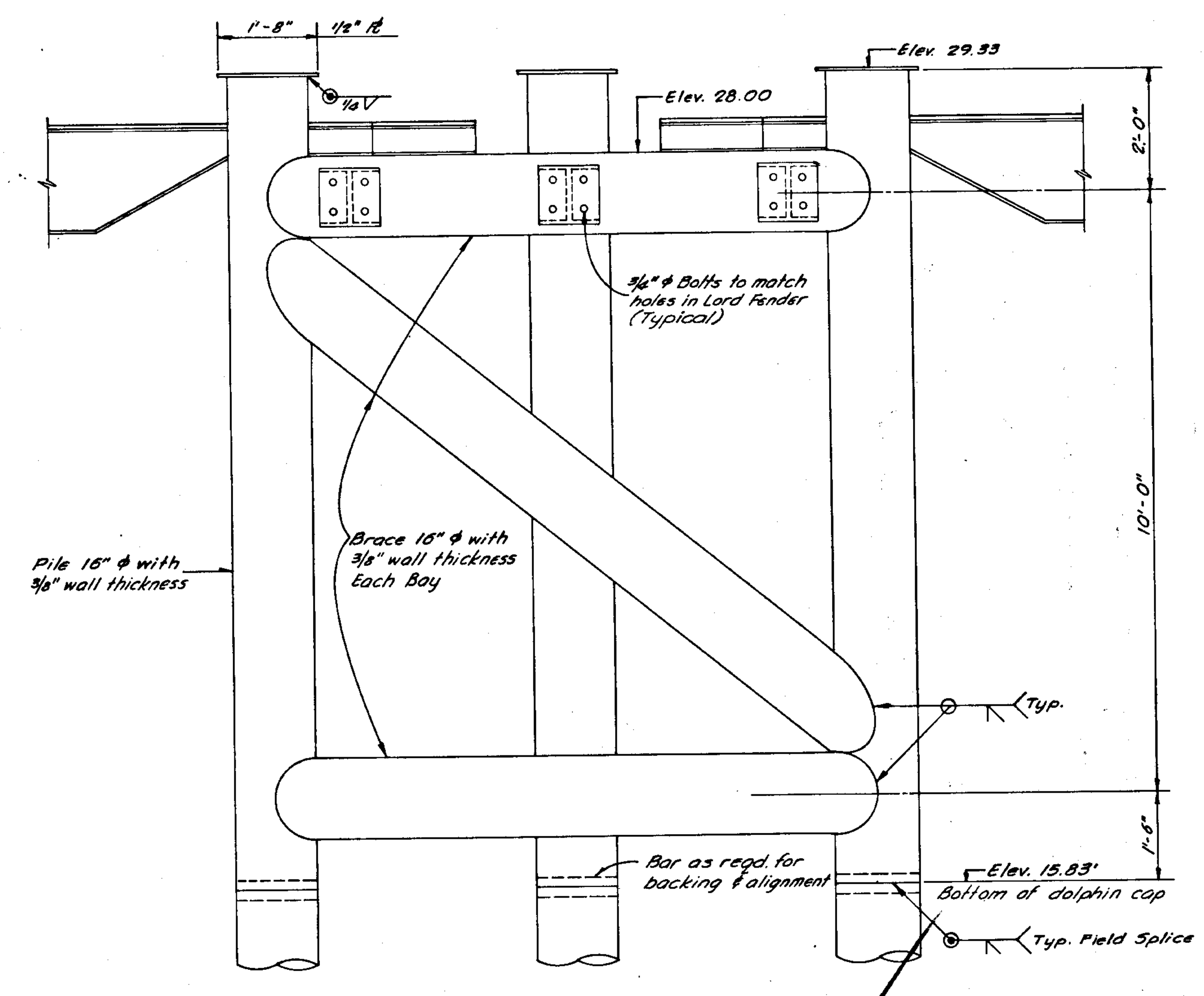
SECTION A-A



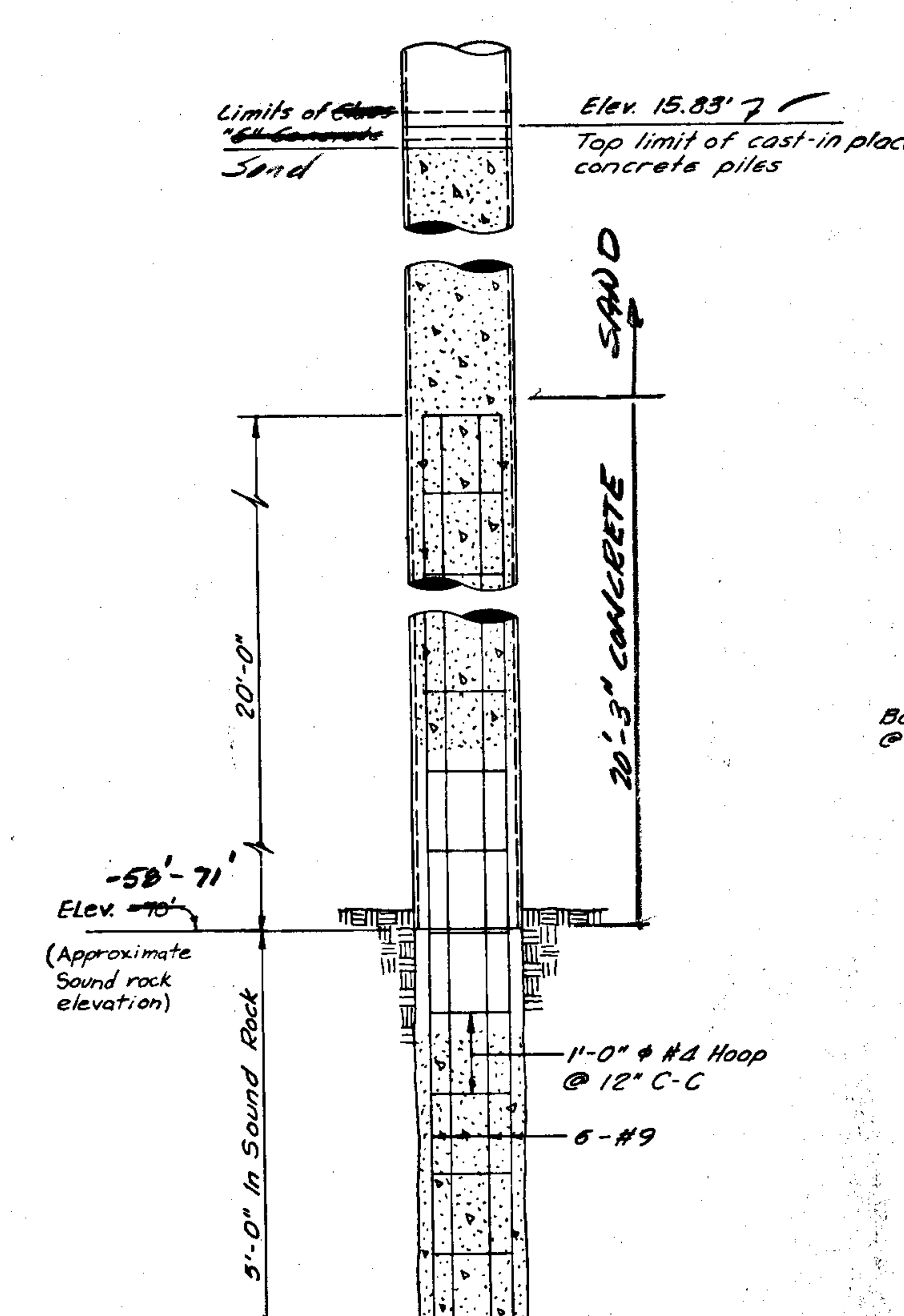
CORNER FENDER SYSTEM PLAN



7-PILE DOLPHIN

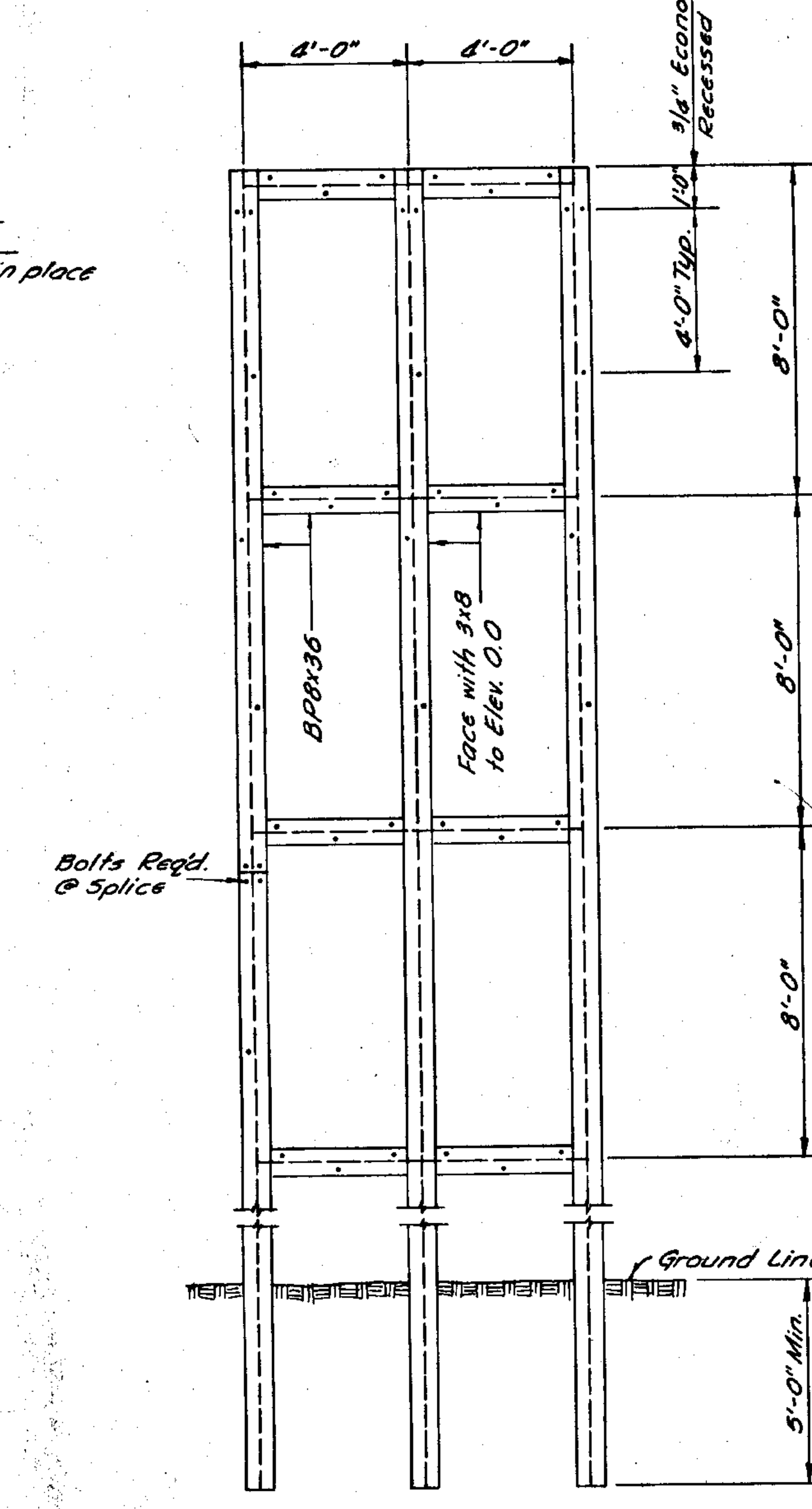


DOLPHIN ELEVATION

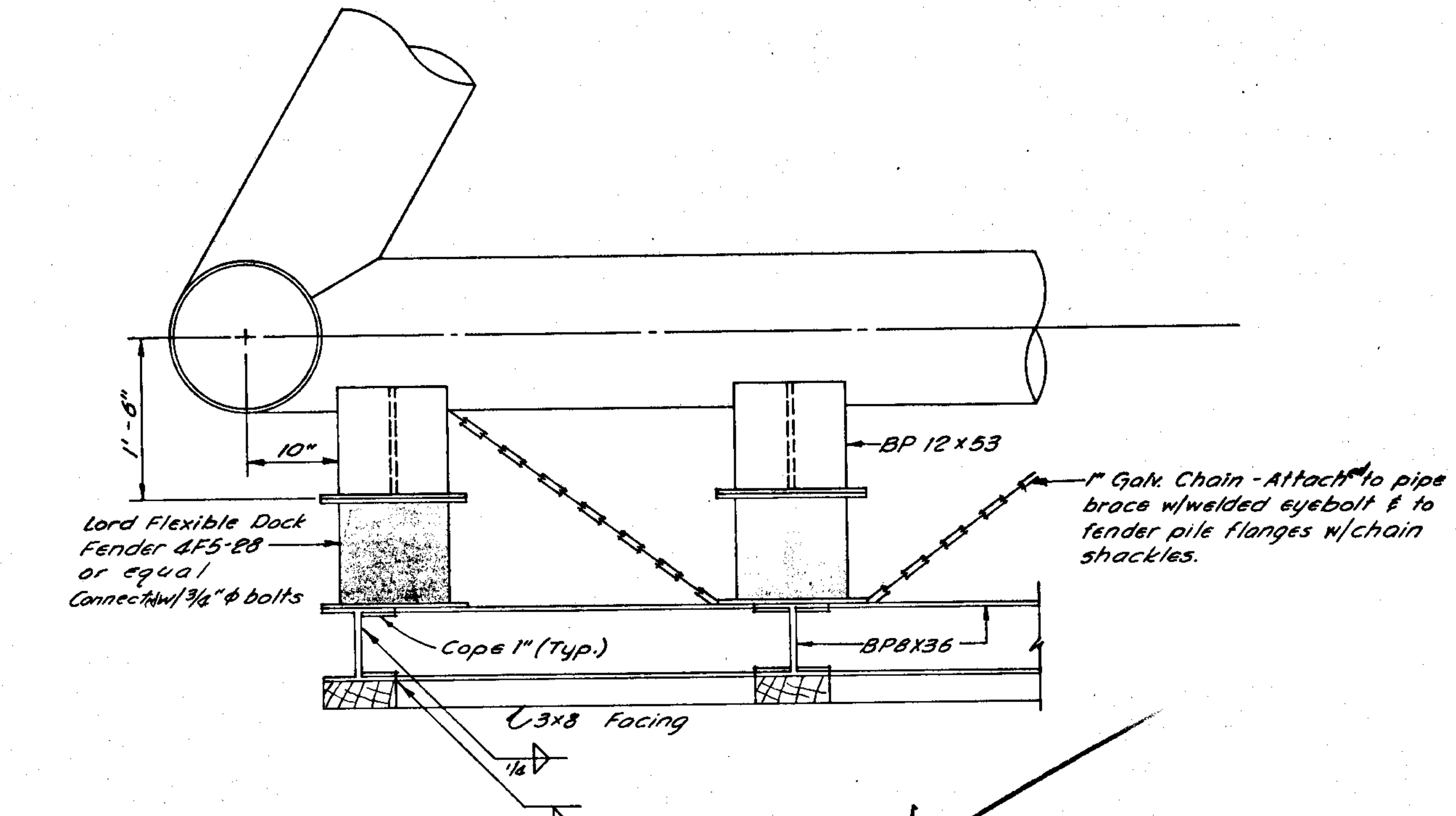


TYPICAL PILE*

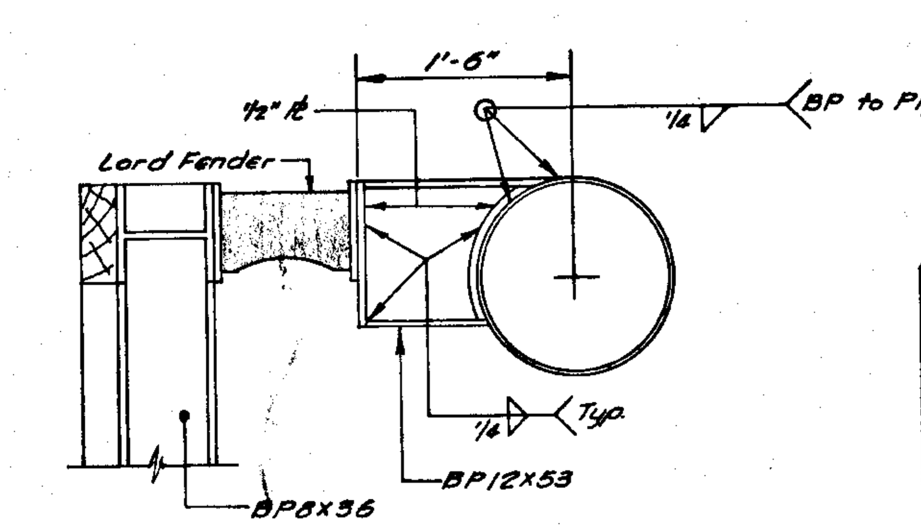
* Piles for dolphin No.1 did not require rock socketing & are filled with sand from pile tip to elev. 15.83'



FENDER PILE ELEVATION



FENDER SYSTEM PLAN

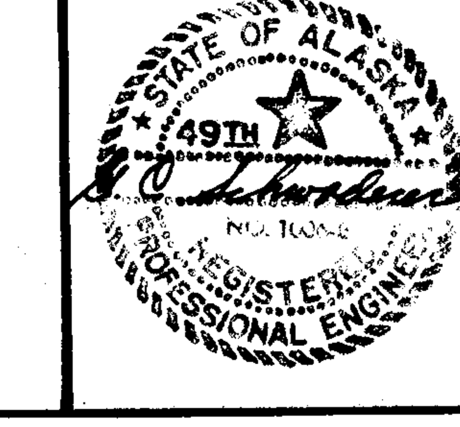


FENDER SYSTEM SECTION

DOLPHIN DETAILS

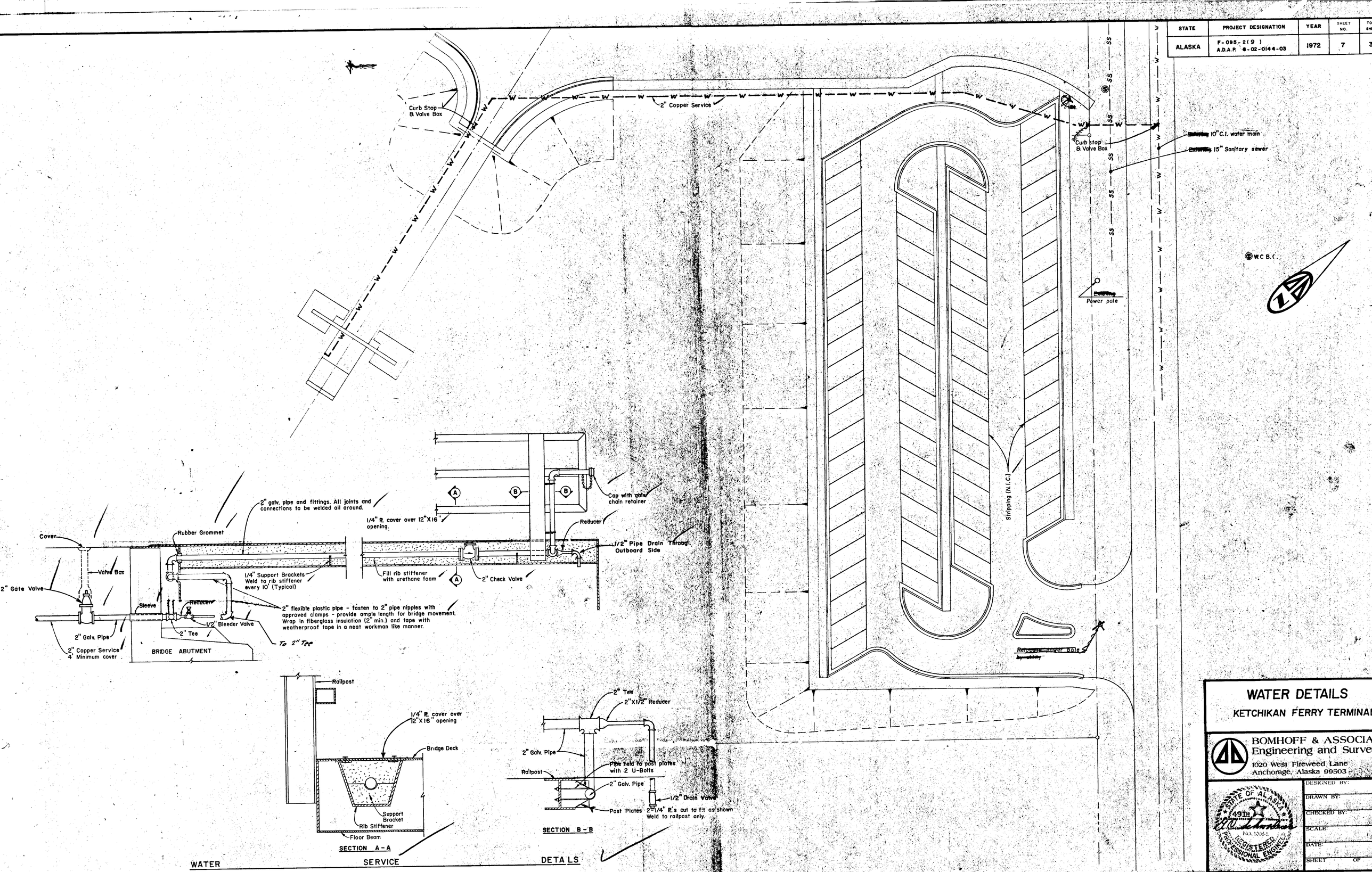
KETCHIKAN FERRY TERMINAL

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503



DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:
DATE:
SHEET OF

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	7	31



WATER SERVICE DETAILS

KETCHIKAN FERRY TERMINAL

BOMHOFF & ASSOCIATES
Engineering and Surveying
1020 West Fireweed Lane
Anchorage, Alaska 99503

STATE OF ALASKA 49TH
E.O. Schonbar
NO. 10054
REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:
DATE:
SHEET OF

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	8	35

STATE FERRY RAMP

#8's in Conduit

Motor circuits connected to Panel "D" ckts 2&4.

EXIST 2"S RGS

L-2 "M15"

Existing Panel in Ticket Office

SEE DETAIL FOR INTERIOR

EXIST 4"-2½" R.S.C.

~~3-#4/0, 1-#2 GRD IN 3" RGS FOR STARTING CIRCUIT~~

TWO CONDUCTORS IN USE, TWO SPARE

2-#8-1" RSC Typ. this circuit

Utility Pole - #2 AWG CONDUCTORS SPLICED TO NEW #8 AWG CONDUCTORS IN EXISTING METER BASE METER NO LONGER INSTALLED

L-2, "M15"

STANDARD

TERM BLDG #1

TRANSFORMER PAD SEE DETAIL

"P"

"P6" 2#8

L-2, "M17"

CONCRETE CONDUIT CO PULL VAULT #444-LAWITH" 44-5687 COVER

2"S-1" RC C-H WA8866CG04 JUNCTION ON POLE

~~ABANDON DIRECT BURIAL~~

TYPICAL THIS CIRCUIT

L-1

4"S-17½"

P-1

3"S-1"

2-3" Rigid Steel Conduit To Transformer Pad - Buried 36" Below Grade

SEE SHEET #10 FOR TRANSFER BRIDGE

A SEE DETAIL

2#8-1"

RELOCATED ON UTILITY POLE

TO BARTLETT C.T. & METER

TO PAD 2-3

TO CHILKAT

Water Heater

MEN

P

SD

M

120/208V PNL ~~IN~~ IN FURNACE ROOM

OFFICE

NOTE 1

4"x4" WIREWAY ~~CONTACTORS~~

TIME CLOCKS & CONTROLS, 75KVA ON FLOOR - ~~37.5KVA~~

37.5KVA Rests on Top of 75KVA

WAITING

TERMINAL BUILDING #1

FLOOR PLAN

1/4" = 1'-0"

NOTES

1) TRANSFORMER SECONDARY CONNECTED 480V-3ϕΔ TO BE RECONFIGURED IN FUTURE TO 277/480V-3ϕ, 4W BY UTILITIES. NEUTRAL CONDUCTOR IS INSTALLED BUT IS NOT BONDED TO ANY TRANSFORM SECONDARY OR GROUND CONNECTION.

2) EQUIPMENT CASES ARE NOT BANDED TO GROUND.

3) WIRING METHOD - METALLIC RACEWAYS

4) PORTABLE PLUG INSTALLED ON END OF RAMP AND CONNECTED TO CIRCUIT #8, PANEL "M" SUPPLIES SINGLE PHASE 208V ONLY TO HEATER ON MV ABWAKI.

5) TIMER CONTROLS ARE SET FOR MANUAL OPERATION - TRIPPERS ARE REMOVED.

54"

54"

3"R.S.C. Typ.

5'-0"

11.5

6"

~~3 MARKING & LABEL BARE CONTINUOUS WIRING WITH UTILITY~~

GROUND RODS & GROUND CONDUCTOR INSTALLED THRU & UNDER PAD

#4-10'-0" OC EACH WAY

DIMENSIONS VERIFY ~~WITH~~ WITH UTILITY - ~~CONCRETE~~ METAL

TRANSFORMER SLAB

1/2" = 1'-0"

SLOPE

8"

36" GRAVEL 95% COMPACTION

36" PRIMARY

24" SECONDARY

TRANSFORMER SLAB ELEV

1/2" = 1'-0"

AVAILABLE POWER 100A ~~480V 3ϕΔ~~ ~~3 #4/0, 1 #1/0 1~~ C-H AREA 10616-4P

MV BARTLETT

AVAILABLE POWER 50A-240V ~~200V 3ϕ Δ~~ ~~1Ø 3W 120/240V~~ ~~CHANGED~~ C-H M.C. 6-8-3P w/BLACK BOX & Angle Adapter

3¼" x 12" x 24" MARINE PLY 2 COATS GREY PAINT Typ.

6"x6"x8'-0 CEDAR POST 2 COATS GREY PAINT Typ.

MV CHILKAT

4"S-2"-2"RC TO ~~PANEL P~~ CKT 4.

3"S-6'-1¼" TO ~~Panel D~~ CKT 3

POWER OUTLET

3/8" = 1'-0"

Utility Pole - Spare 3"RSC capped 4"c.w. typ. 3"RSC risers, cable terminations, lighting arrestors, Future cutouts as required by Utility.

PLAN

1" = 40'

POLE ~~EXISTING~~ 45' AT 35° ~~TO BE DISCARDED~~

3 - #2 AWG 15KV PRIMARY CABLES IN 3"RSC

2"S DOWNLEAD

V VAULT

TRANSFORMER BANK 2.4/4.16 (FUTURE 7.2/12.47) TO ~~480V 3ϕ Δ~~ BY UTILITY - SEE NOTE 1

I-T-E IMPERIAL CORP. CAT. NO. WBCT-400-3

39" 32x~~39~~x10" CT CAB & 3ϕ SOCKET COORD WITH UTILITY

4" 350 500 MCM-3" + 1-3" SPARE

Utility Metering

Panelboard I-T-E type QDP 250 Amp 277/480V, 3ϕ, 4W #AW 33761

MAIN BREAKER ~~CB DEVICE 480V 3ϕ 4W~~ 250/3

4"S-2"-2"

SPARE 15/3 1 2 15/3 SPARE

75KVA TRANSFORMER 100/3 3 4 100/3

37.5KVA TRANSFORMER ~~50~~ 50/3 5 6 50/3

SPACE SPACE

"P"

MV BARTLETT

Abwaki Ramp HOIST MOTOR AND INTERIOR LIGHTS IN BRIDGE TOWER

TO ~~LOAD CTR~~

ONE LINE DIAGRAMS

NO SCALE

TO CKT #5 "P" PANEL 3"S-1¼"

TIERNEY ~~480V 3ϕ~~ TO 240V 220V 3ϕ Δ 37.5 KVA TRANSFORMER

3"S-1¼"

MAIN BREAKER 100/3

SPARE 15/3 1 2 50/3

MV CHILKAT 50/3 3 4 50/3 STATE FERRY RAMP APRON MOTOR

STATE FERRY RAMP BRIDGE MOTOR

"D"

2 BLANKS

~~CB DEVICE 480V 3ϕ Δ~~

PANEL BOARD I-T-E TYPE NLAB 100 AMP 240V, 3ϕ, 3W #AK 210001

MAIN BREAKER 100/3

To Ckt #3 Panel "M" 4-#2-1¼" "Flex

Tierney 480V 3ϕ Δ TO 120/208V 3ϕ 4W 75KVA Transformer

4" 350 500 MCM-3"

Single Photoelectric Cell Tork #2100 provides common control of L-1, L-2 & L-3.

Timeric - Intermatic Model T101 (TYP)

Contactor with Hand-OFF-Auto Switch Control - GE CR120L32000A Series A (Typ)

Main Breaker 225/3

SPARE 15/1 1 2 20/3 SPACE

SPACE 15/1 3 4 20/3 SPACE

Photo-cell 15/1 5 6 50/3 FURNACE ROOM PANEL BOARD

Hot Water Heater 30/2 7 8 50/3 PORTABLE PLUG END OF RAMP - SEE NOTES

SPARE 30/1 9 11

SPARE 30/1 13

LIGHTING SOUTH SIDE FERRY LOT (L-2) 30/1 15

LIGHTING SOUTH SIDE FERRY LOT (L-2) 30/1 17

TICKET OFFICE PANELBOARD 70/3 19

SOUTH PARKING LIGHTS L-1

SOUTH EAST TERMINAL LIGHTS L-3

"M"

L-2, STATE FERRY PARKING LOT LIGHTING

Panelboard I-T-E TYPE NLAB 225Amp, 120/208V, 3ϕ, 4W #AW 33763

6'-0

CROUSE-HINDS ~~CATALOG NO. PAR-3-Y-N-CW-2~~ CATALOG NO. PAR-3-Y-N-CW-2 FOR ~~120V~~ 120V 400 WATT MERCURY VAPOR LAMP ARRANGEMENT CODE FIXTURE "A" - DOUBLE FIXTURE "B" - SINGLE

HEAVY DUTY RIGID GALV STEEL POLE ~~ANCHOR BASE~~ 100 MPH MIN-125 MPH GUSTS + SAFTEY FACTOR 1.65

25'

5'-6"

~~#8's~~ 1-#8 DOWN 24"

36"

NOTE: SEE STD. DRAWINGS #T-51 & #T-53 FOR POLE & FOOTING DETAILS.

ROAD LIGHTING DETAIL

1/4" = 1'-0"

ILLUMINATION AND ELECTRICAL DETAILS

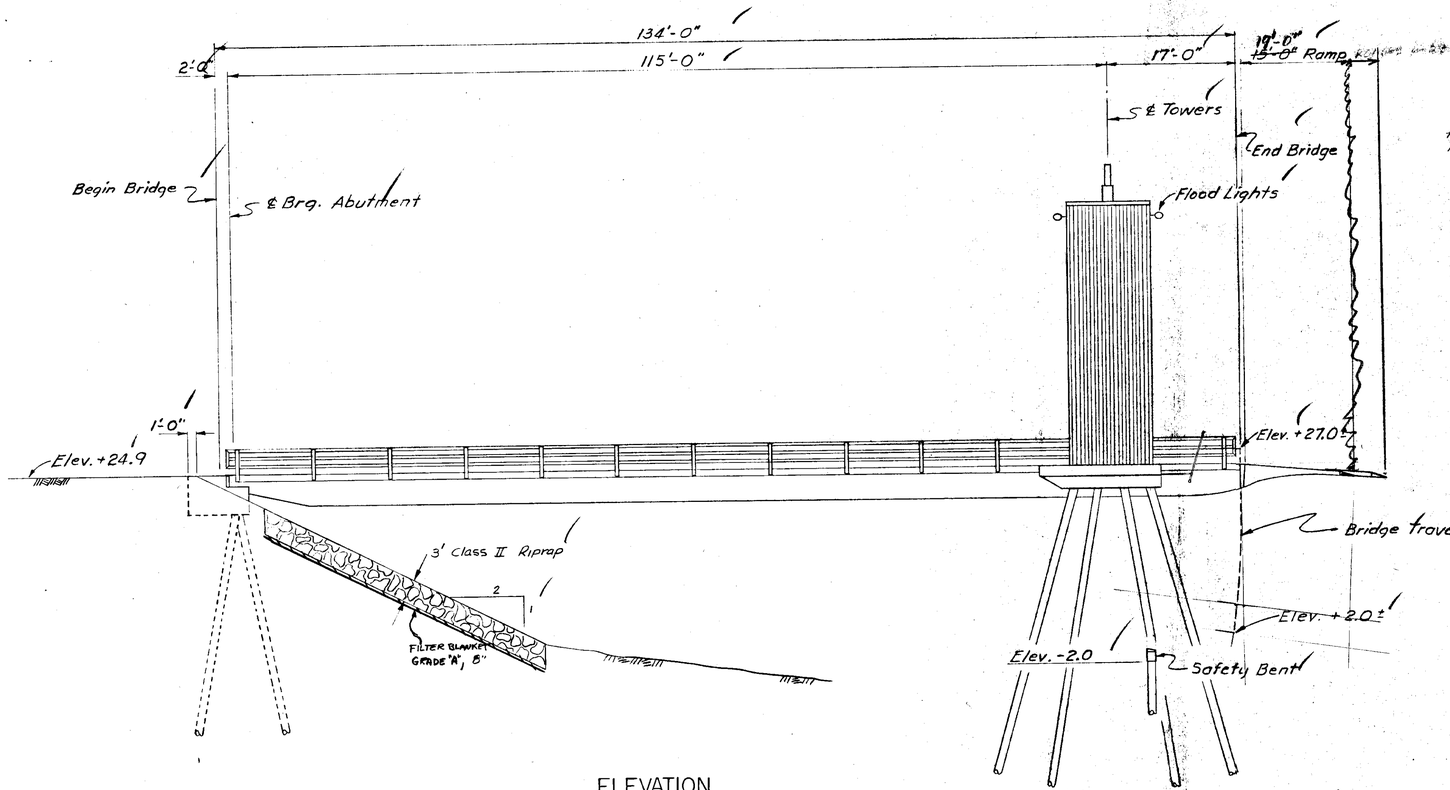
KETCHIKAN FERRY TERMINAL

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

DESIGNED BY:	LPL
DRAWN BY:	
CHECKED BY:	
SCALE:	
DATE:	
SHEET	OF

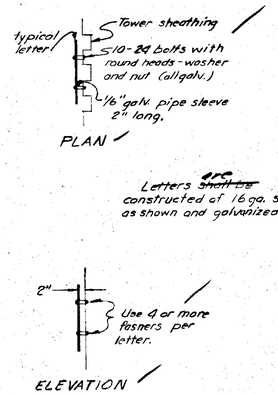
NORTHERN TRADING ASSOC. 138-3 5-71 45794

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1975	9	35

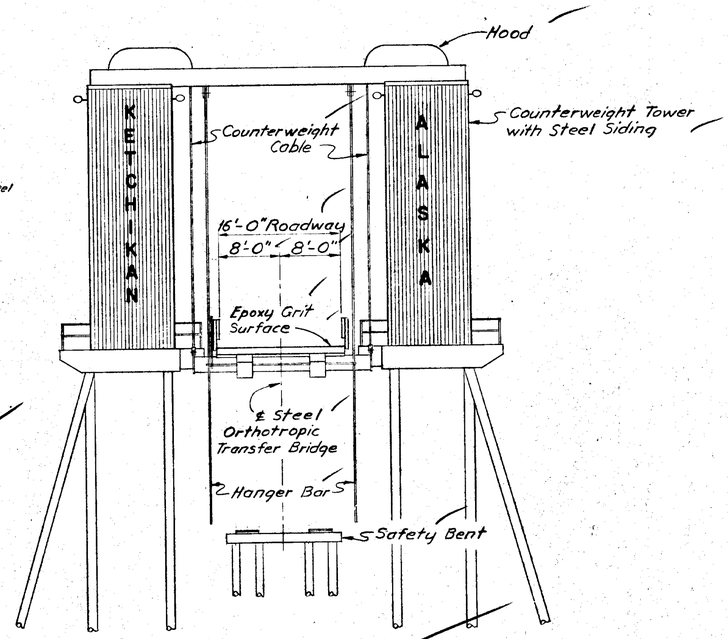


ELEVATION

10 0 10 20
Feet

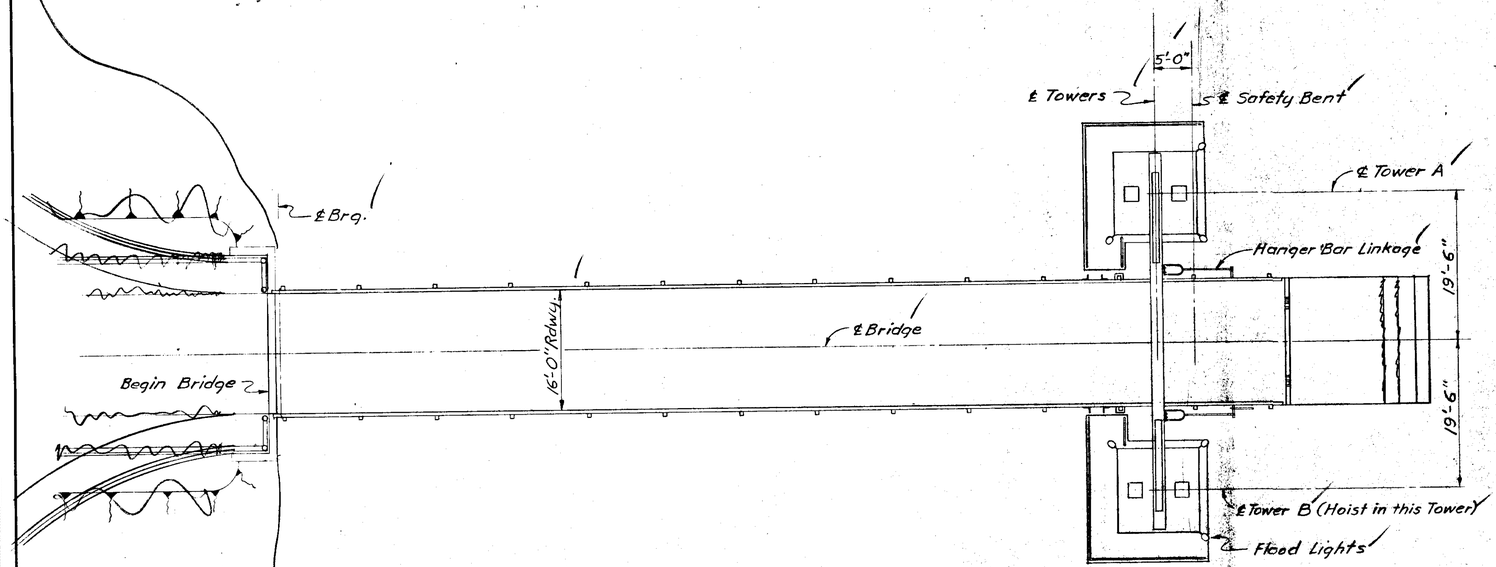


LETTERING DETAILS



FRONT ELEVATION

10 0 10 20
Feet



PLAN

10 0 10 20
Feet

GENERAL NOTES:

Specifications:

Design: A.A.S.H.O. Standard Specifications for Highway Bridges, 1969 Edition, with latest interim specifications. Live Load: HS-20-44.

Construction: State of Alaska Standard Specifications for Highway Construction, 1972 and the Special Provisions.

Unit Stresses:

Reinforced Concrete: $F_c = 1200$ psi
$F_s = 20{,}000$ psi

Structural Steel: Bending stress in extreme fiber

Type of Steel	Allowable Stress
A-36	20,000 psi
A-572, Grade 50	27,000 psi

Concrete: All concrete shall be Class A

Reinforcing Steel: All reinforcing steel shall be A615 Grade 40

Structural Steel: Unless otherwise shown on the plans or noted in the specifications, all structural steel shall be A-36. All A572 steel shall be Grade 50

Pile Bearing Capacity & Penetration: See Drawing No 2612

~~ESTIMATED~~ QUANTITIES

ITEM	Unit	Quantity
Class A Concrete	Cu. Yd.	910
Reinforcing Steel	Lbs.	11,700
Structural Steel Transfer Bridge furnished, fabricated & erected	Lump Sum	*
Structural Steel Towers furnished, fabricated & erected	Lump Sum	**
Structural Steel Catwalks f.f.&e.	LUMP SUM	***
Treated Timber Piles (Safety Bent)	Lin. Ft.	~~100~~ 1605
Steel Pipe Piles	Lin. Ft.	~~H35~~ 1337

* Includes approximately 140,350 lbs. A36 & 16,050 lbs. A572

** Includes approximately 38,400 lbs. A36 & 300 lbs. A572 + 4000 Sq. Ft. Sheet Metal Siding

*** Includes approximately 14,000 lbs A36

KETCHIKAN FERRY TERMINAL

GENERAL LAYOUT

State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

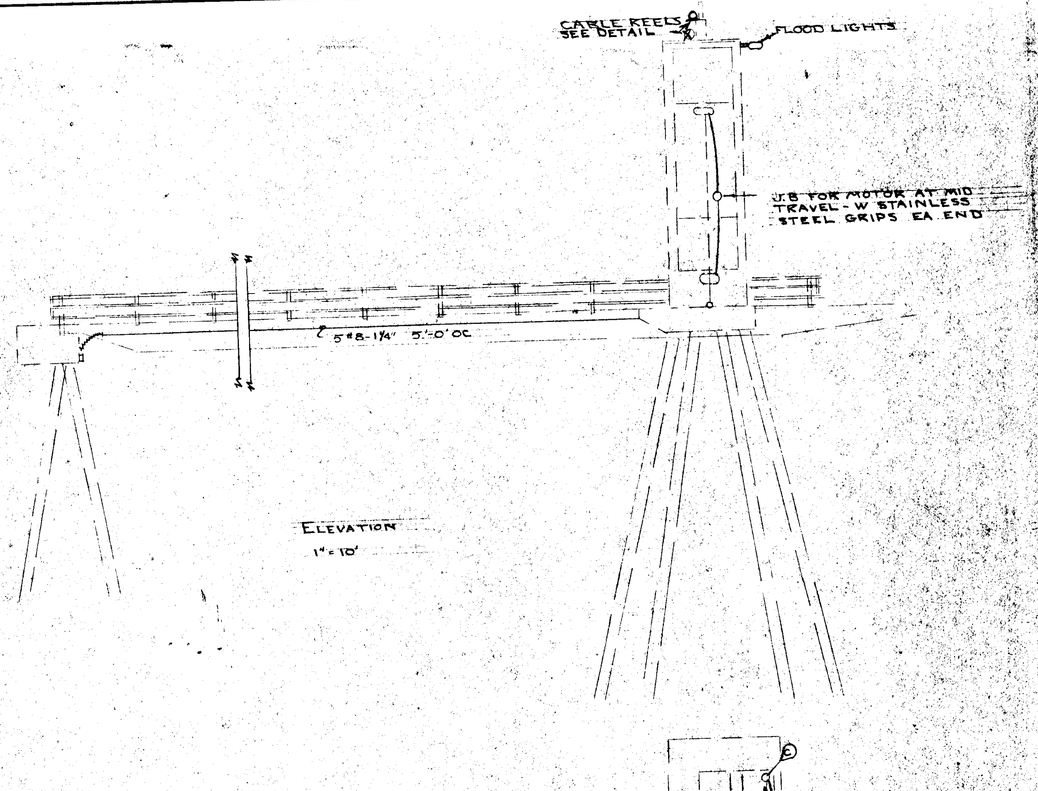
Date 8-2-72
Approved [signature]

BRIDGE NO. 175
DWNG. NO. 2610

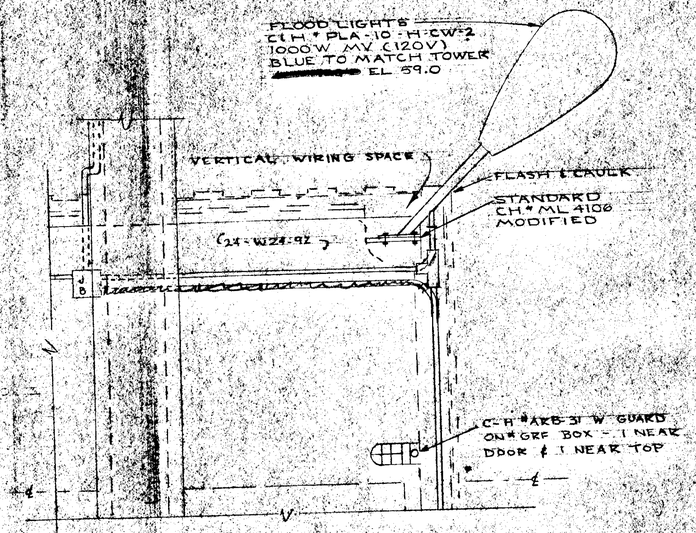
Checked By KFM Date 11-71
Traced By Date

NORTHERN TRADING ASSOC. 138-3 5-71 45796

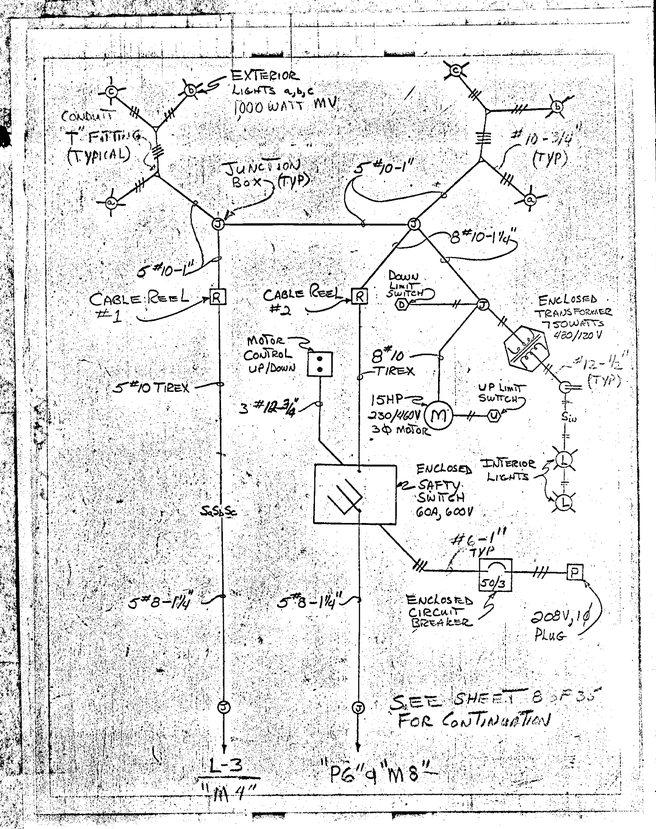
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	10	35



ELEVATION
1" = 10'

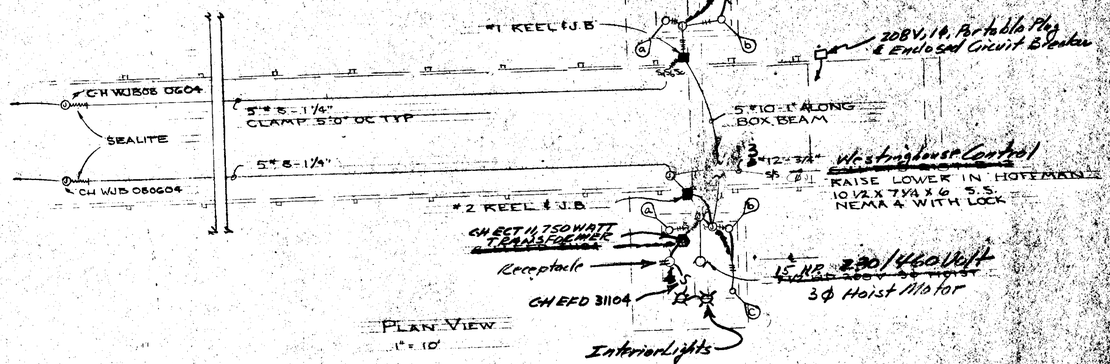


SECTION
3/4" = 1'-0"

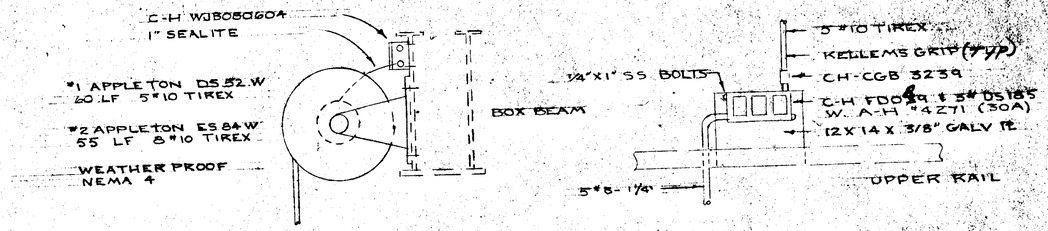


SEE SHEET 8 OF 35 FOR CONTINUATION

ONE LINE DIAGRAM
No Scale



PLAN VIEW
1" = 10'

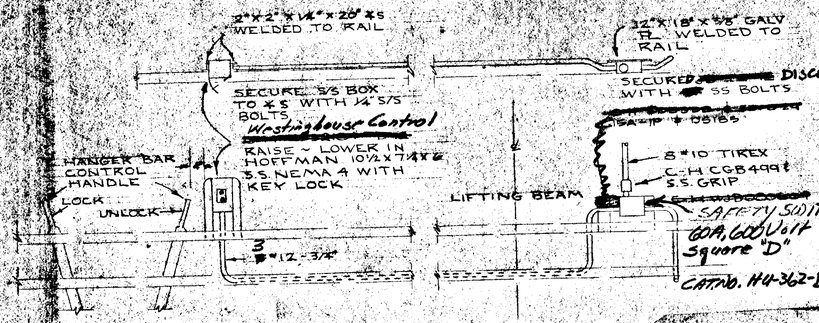


CABLE REEL DETAIL
3/4" = 1'-0"

SWITCH DETAIL
1" = 1'-0"

Note: Reels mounted on top of Box Beam on 2" x 2" Ls Ketchikan Side Only.

SPECIFIED OR EQUAL PRODUCT MAY BE USED



CONTROL STATION
1½" = 1'-0"

KETCHIKAN FERRY TERMINAL

ELECTRICAL DETAILS

State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

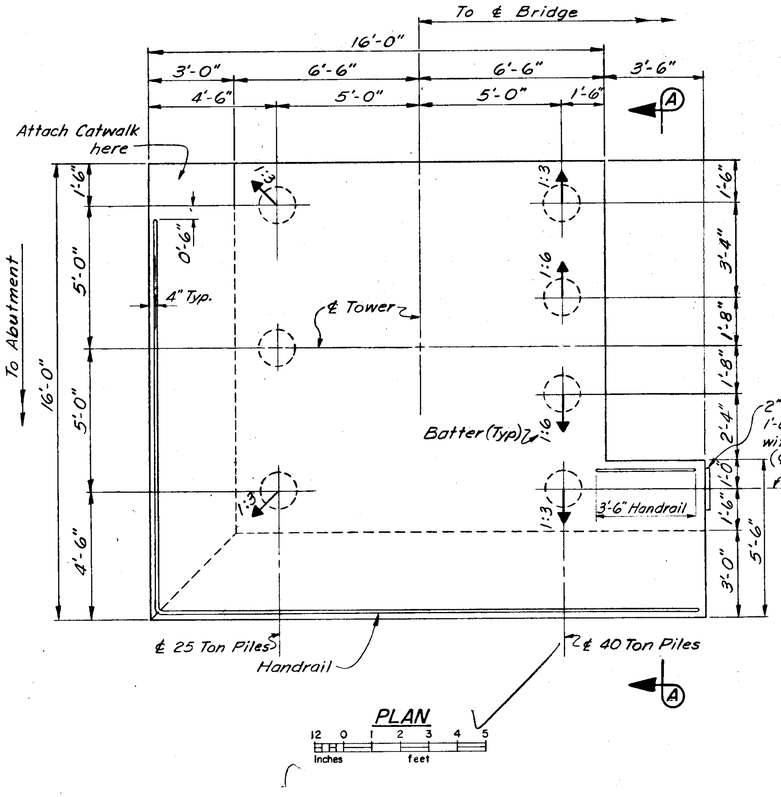
STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER NO. 5535

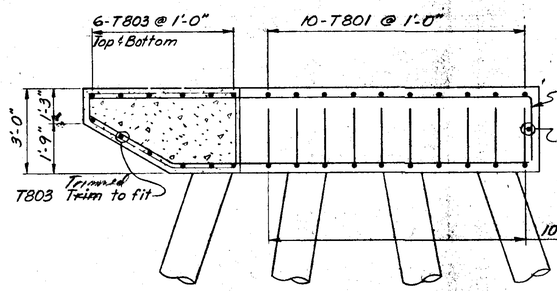
Date
Approved

BRIDGE NO. 175
DWNG. NO. 2611

Drawn By ..... Date .....
Checked By ..... Date .....
Traced By ..... Date .....

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	S
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	11	



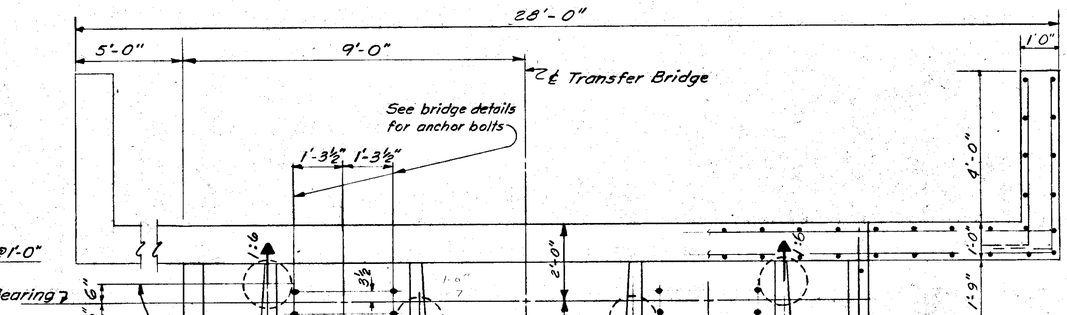


2" Elastomeric Pad (60 Durometer) 1'-6" x 1'-6" Fastened to tower base with 4 - ⅞"ϕ x 1'-6" Anchor bolts. (℄ Pad 1'-0" from top of tower base)

℄ Wind Brace

SECTION A-A

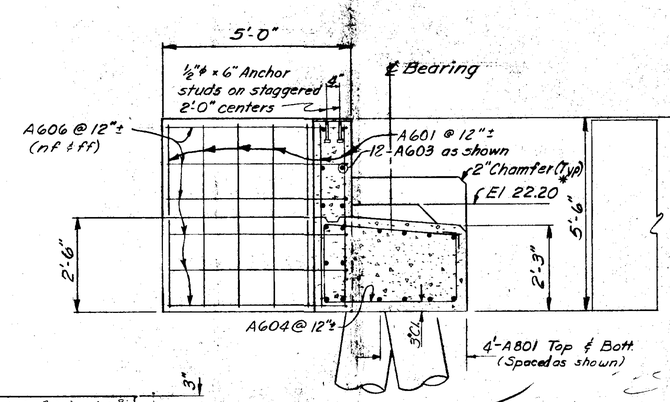
12 0 1 2 3 4 5
inches feet

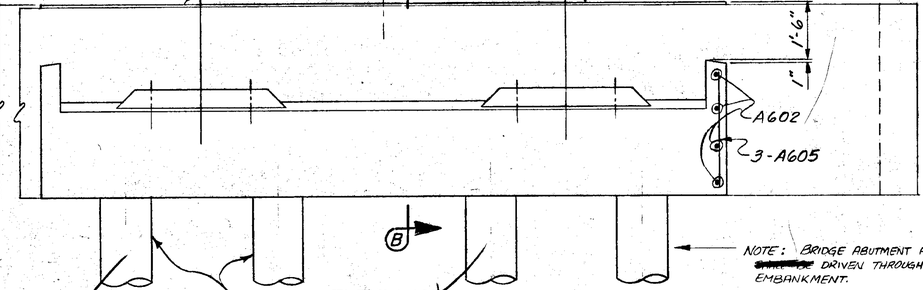


PLAN

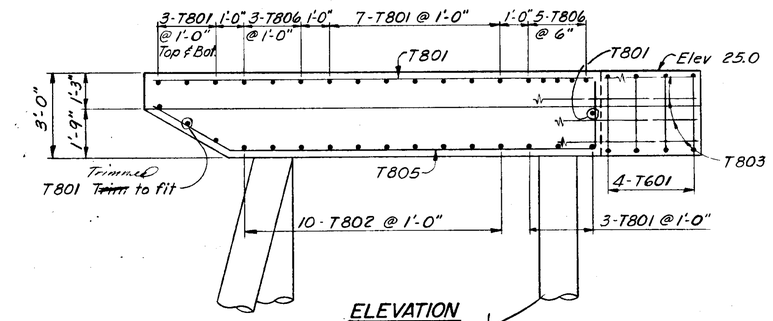
℄ Box Girder

Elev 24.9 @ Top of ½" Pl.

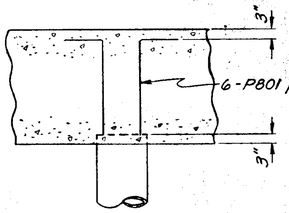




SECTION B-B



ELEVATION



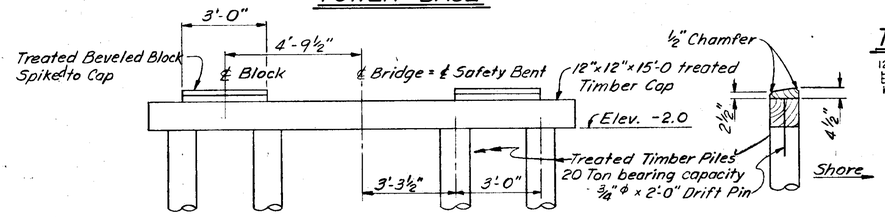
ABUTMENT

12 0 1 2 3
inches feet

C.I.P. Concrete Piles

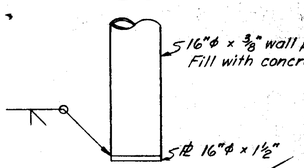
ELEVATION

NOTE: BRIDGE ABUTMENT ~~WALLS~~ DRIVEN THROUGH EMBANKMENT.



SAFETY BENT

12 0 1 2 3 4 5
inches feet

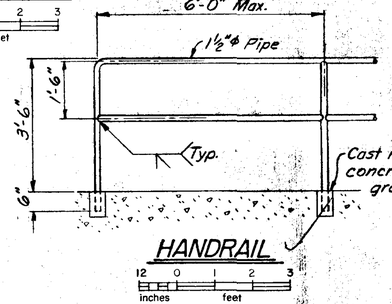


TYPICAL PILE

12 0 1 2 3
inches feet

PILE TIP ELEVATIONS

	~~MAX~~ Est.	Min.
Abutment 30 Ton Piles	-47 ~~-40.0~~	-43 ~~0.0~~
Tower 25 Ton Piles 40 Ton Piles	-63 ~~-40.0~~ ~~-50.0~~ -64	-48 ~~-25.0~~ ~~-25.0~~ -50
Safety Bent 20 Ton Piles	-47 ~~-50.0~~	-42 ~~-30.0~~



HANDRAIL

12 0 1 2 3
inches feet

REINFORCING STEEL

Location	Mark	No.	Size	Length	Type	Bending Diagrams
Tower Base	T601	8	6	14'-9"	Bent	1'-9", 3'-6", 12'-6"
	T801	56	8	15'-6"	——	T802
	T802	20		16'-0"	Bent	1'-9", 3'-6", 12'-6", 2'-0"
	T803	24		19'-0"	——	
	T805	20		18'-0"	Bent	T805 15'-6" 2'-0"
	T806	16	8	17'-6"	Bent	T806
Abut.	A601	72	6	5'-0"	——	5'-0" 6" 1'-9" 2'-9" 2'-3" 2'-6"
	A602	8		3'-6"	——	T601
	A603	12		27'-6"	——	2'-0" 4" 1'-9" 3'-6"
	A604	18		11'-5"	Bent	A604
	A605	6		3'-6"	——	4'-6" 2'-0"
	A606	24	6	6'-6"	Bent	A606
	A801	8	8	17'-6"	——	9'-0" 1'-0"
Piles	P801	108	8	10'-0"	Bent	P801 6" 4'-0" 8'-0"
Counter-weight	C501	86	5	25'-0"	Bent	C501
	C801	16	8	6'-9"	——	
	C501A	4	5	15'-0"		

* Note: Top of Deck Pl. ~~will be~~ approx. 0.10' above backwall when bridge is level.

All resteel ~~shall have~~ has minimum concrete cover of 3" clear.

KETCHIKAN FERRY TERMINAL

SUBSTRUCTURE

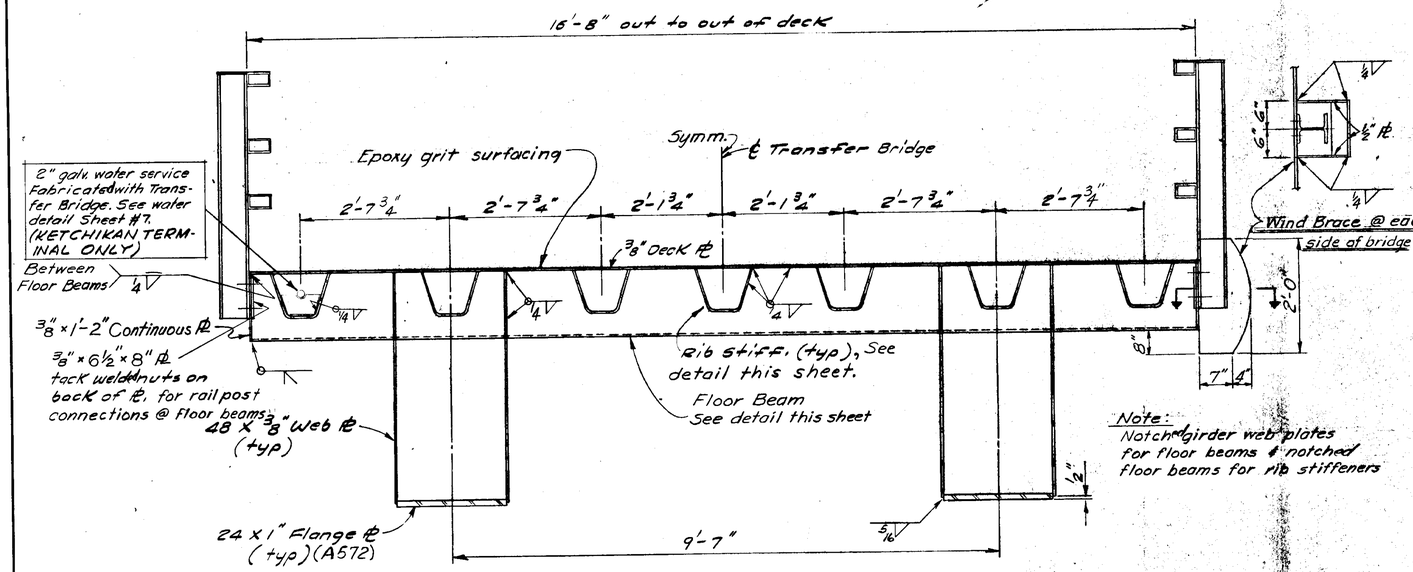
State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

Designed By: [illegible] Date: [illegible]
Checked By: [illegible] Date: [illegible]
Drawn By: [illegible] Date: [illegible]
Checked By: [illegible] Date: [illegible]
Traced By: Date:

Date 8-2-72
Approved D. E. Halsted

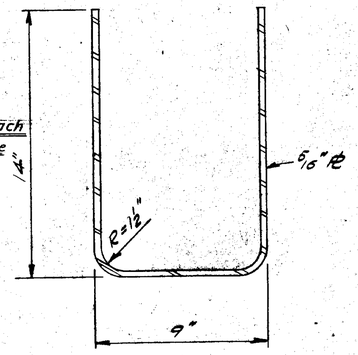
BRIDGE NO. 175
DWNG. NO. 2612

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-05	1972	12	35

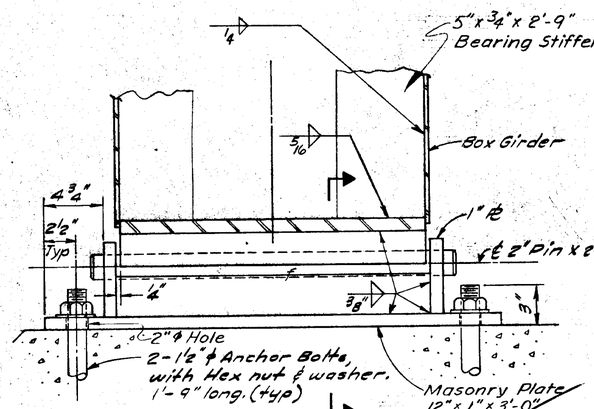


TYPICAL SECTION

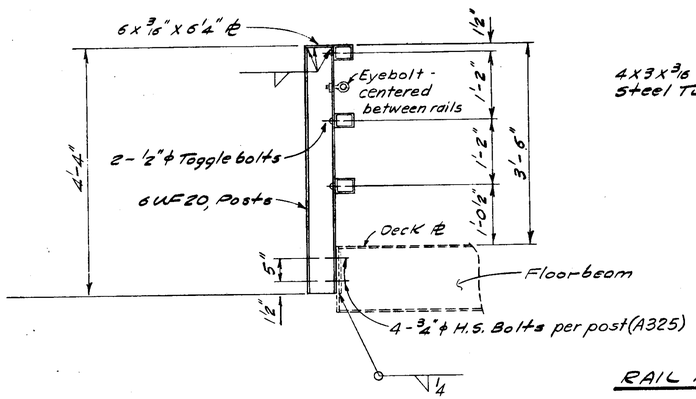
Note:
Notch girder web plates for floor beams & notched floor beams for rib stiffeners

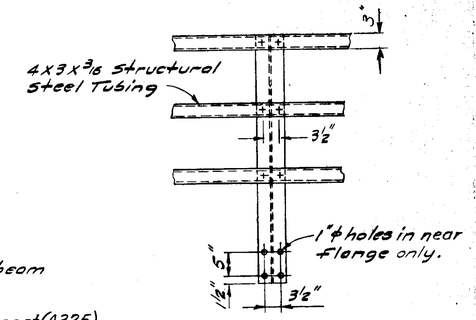


FLOORBEAM DETAIL

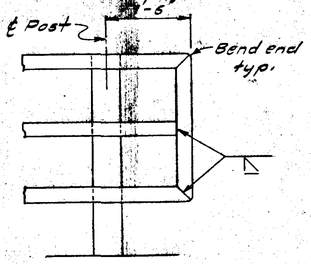


ELEVATION OF BEARING

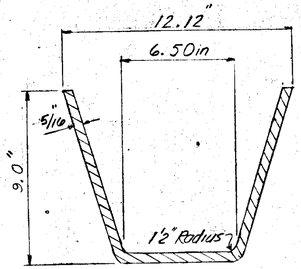




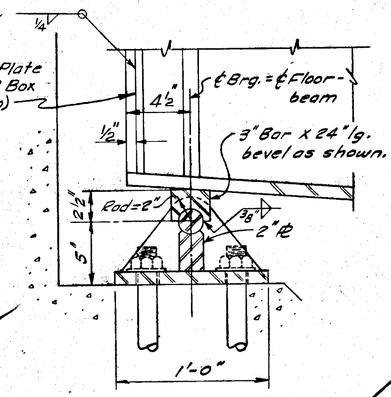
RAIL AND POST DETAILS



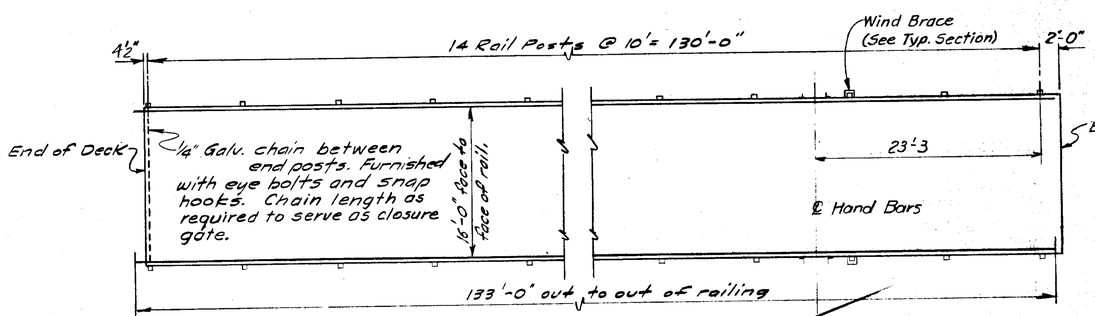
END DETAIL



RIB DETAIL
No Scale

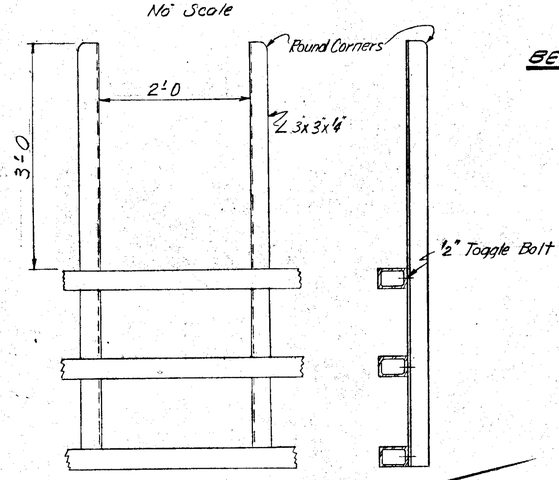


SECTION
BEARING DETAILS



RAILING LAYOUT

Note: All railing, posts, bolts and other steel railing components ~~shall be~~ galvanized after fabrication.



HAND BARS

BRIDGE DETAILS

State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

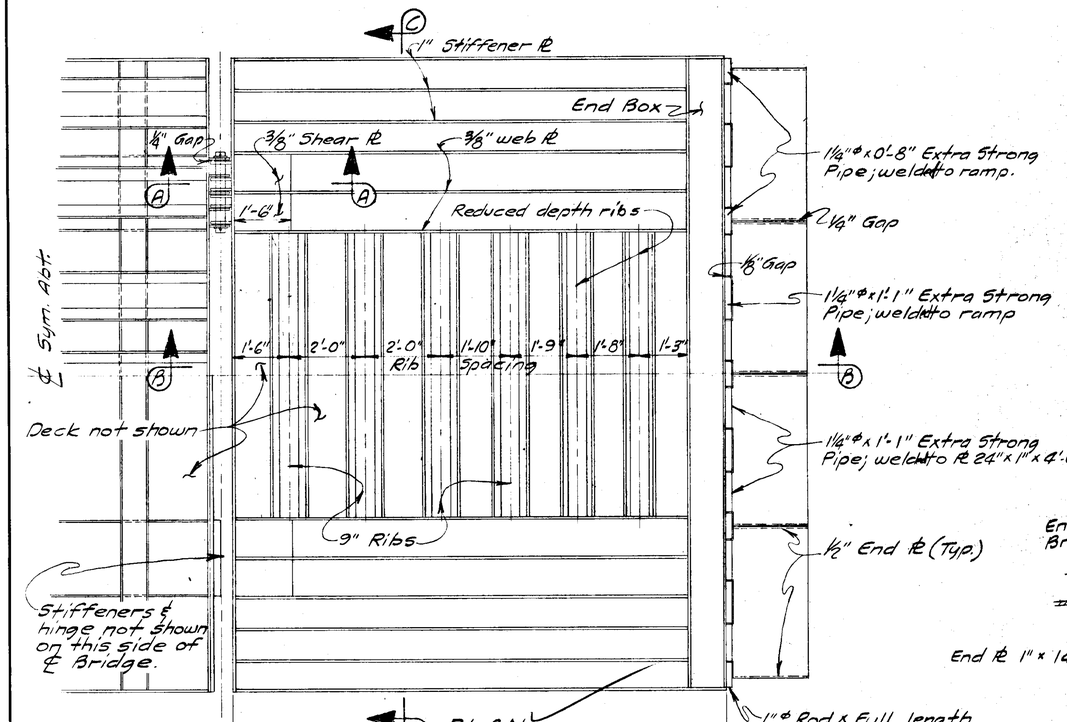
Date 8-2-72
Approved [illegible]

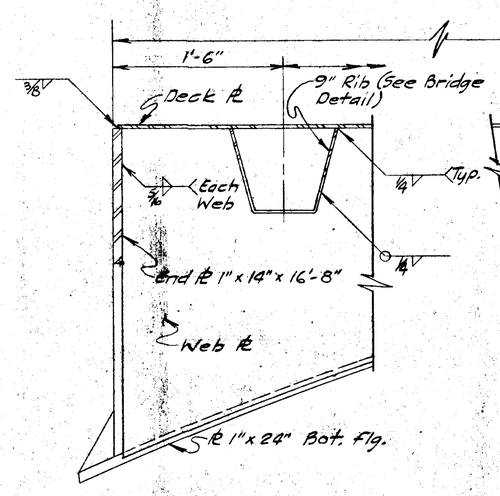
BRIDGE NO. 175
DWNG. NO. 2613

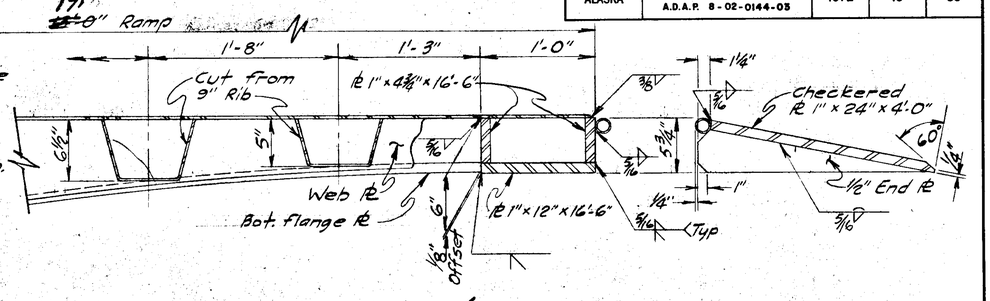
Checked By: KEM Date. 11-71
Drawn By: KEM Date. 11-71
Checked By: KEM Date. 11-71
Traced By: Date.

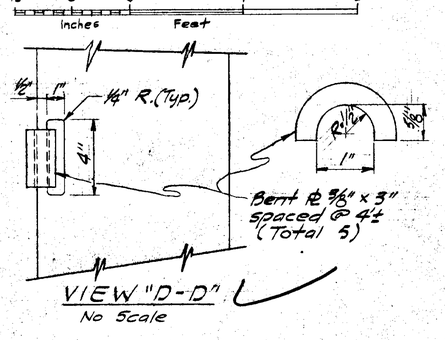
NORTHERN TRADING ASSOC. 138-3 5-71 45790

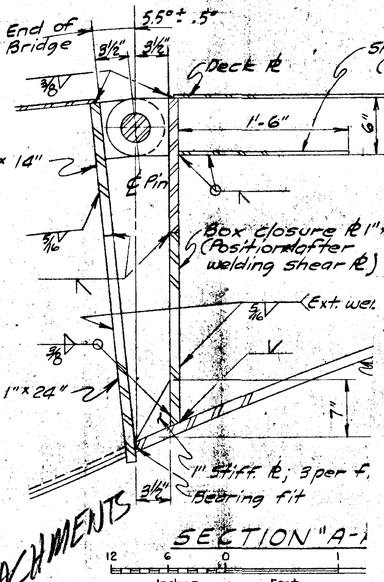
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F - 095 - 2(9) A.D.A.P. 8 - 02 - 0144 - 03	1972	13	35

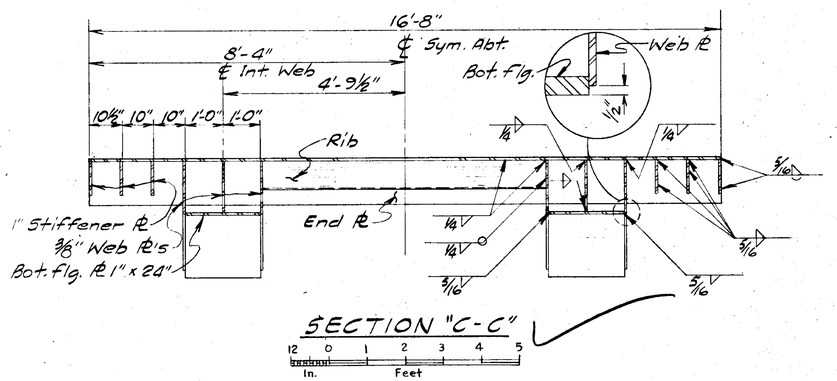












SEE ATTACHMENTS FOR 4' RAMP EXTENSION & AND ADDITIONAL RAMP RAIL DETAILS

Checkered ℄ 10" x ½" x 16'-8" ~ 3' radius bend & round edges.

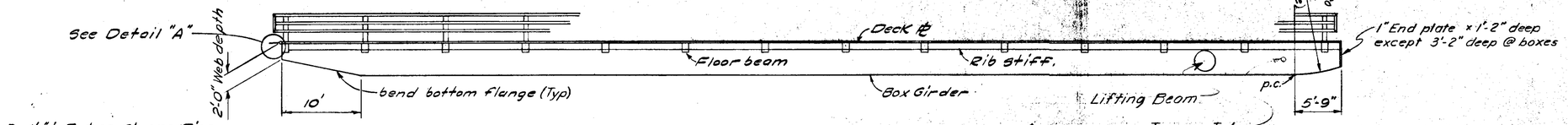
Ketchikan & Gravina Ferry Terminals
Project F-095-2(9)
& ADAP 8-02-0144-03

RAMP RAILING

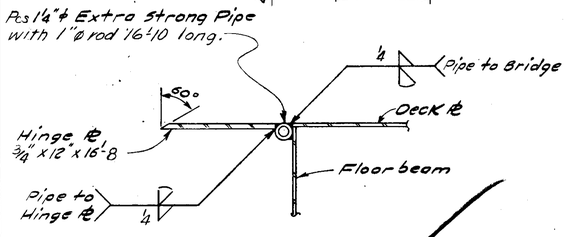
Approved ... Date ...

Traced By ... Date ...

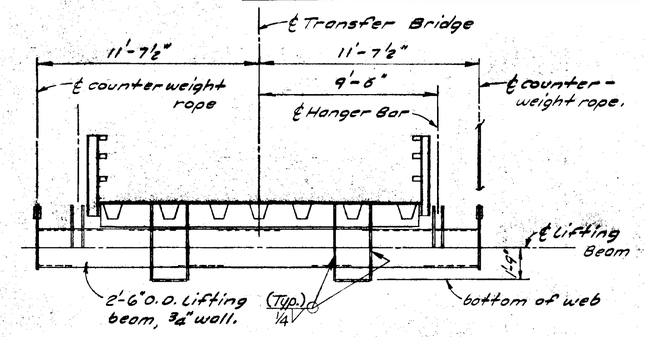
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F - 095 - 2(9) A.D.A.R 8-02-0144-03	1972	14	35



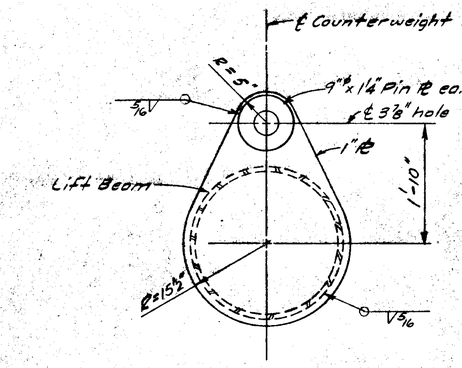
INTERIOR SECTION



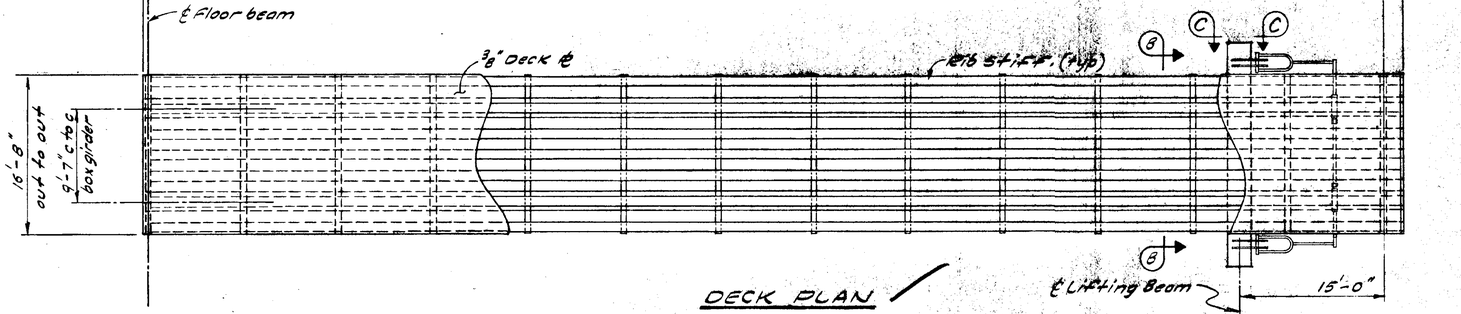
DETAIL "A"



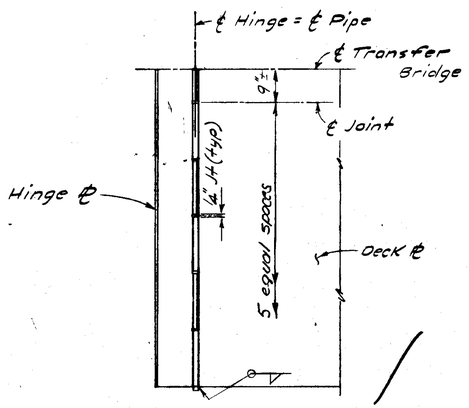
SECTION B-B



VIEW C-C



DECK PLAN



HALF PLAN AT HINGE ℄

TRANSFER BRIDGE

State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

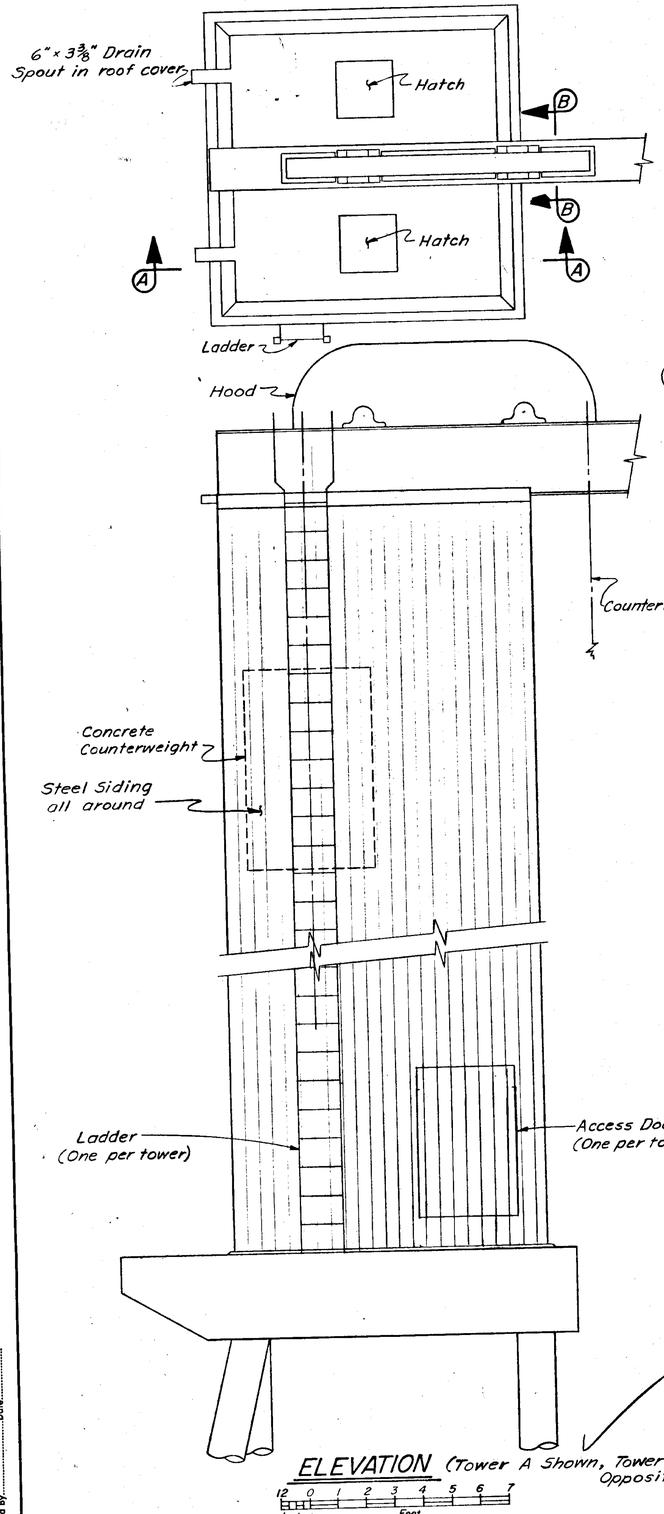
Date 8-2-72
Approved

BRIDGE NO. 175
DWNG. NO. 2615

Drawn By..... Date.....
Checked By..KEM..... Date..8-72.....
Traced By..... Date.....

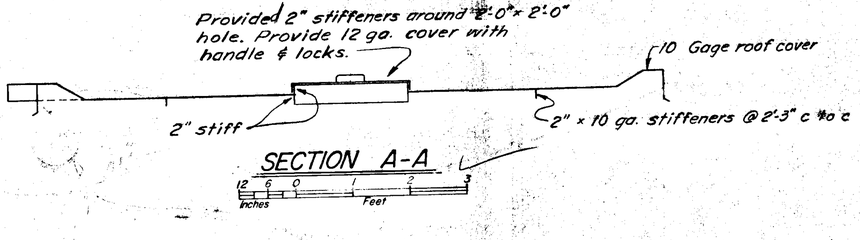
NORTHERN TRADING ASSOC. 135-3 5-71 45796

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	15	35



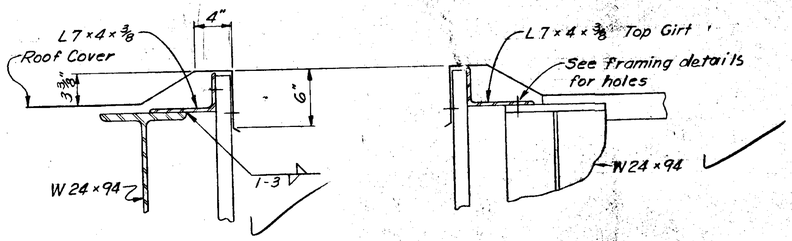
ELEVATION (Tower A Shown, Tower B Opposite)

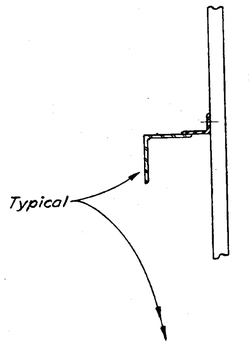
Inches 12 0 1 2 3 4 5 6 7 Feet

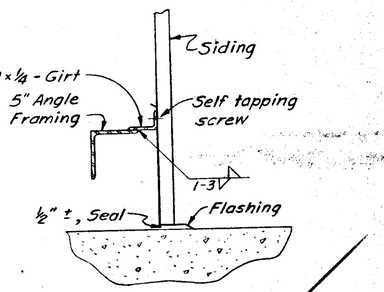


SECTION A-A

Inches 12 6 0 1 2 3 Feet

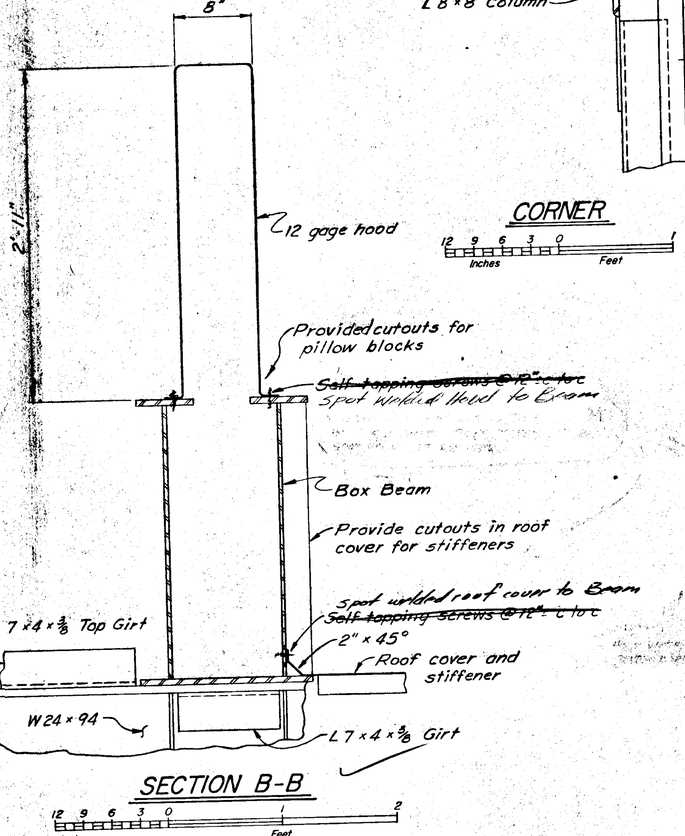






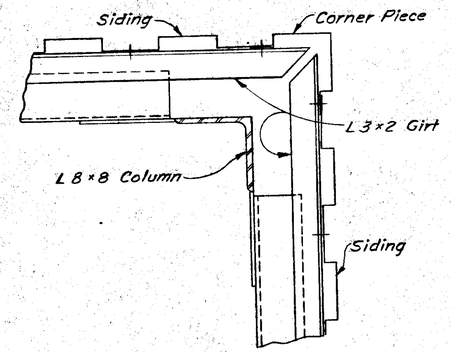
WALL SECTION

Inches 12 9 6 3 0 1 2 Feet



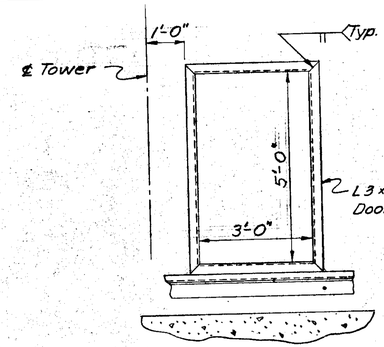
SECTION B-B

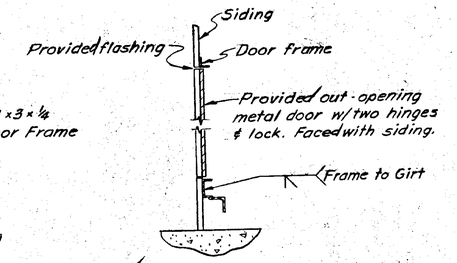
Inches 12 9 6 3 0 1 2 Feet



CORNER

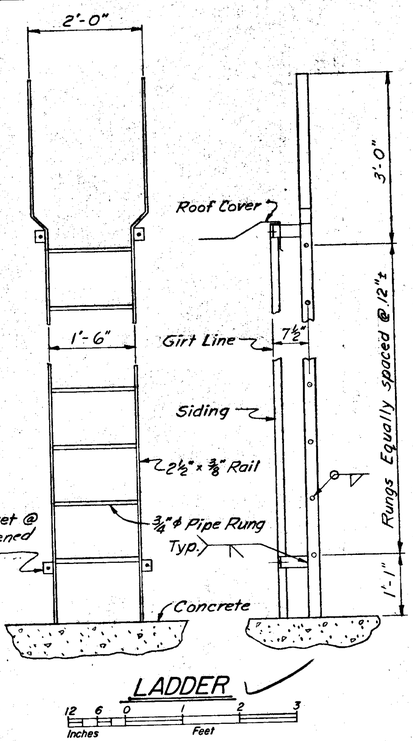
Inches 12 9 6 3 0 1 Feet





ACCESS DOOR

Inches 12 0 1 2 3 4 Feet



LADDER

Inches 12 6 0 1 2 3 Feet

TOWER SHEATHING

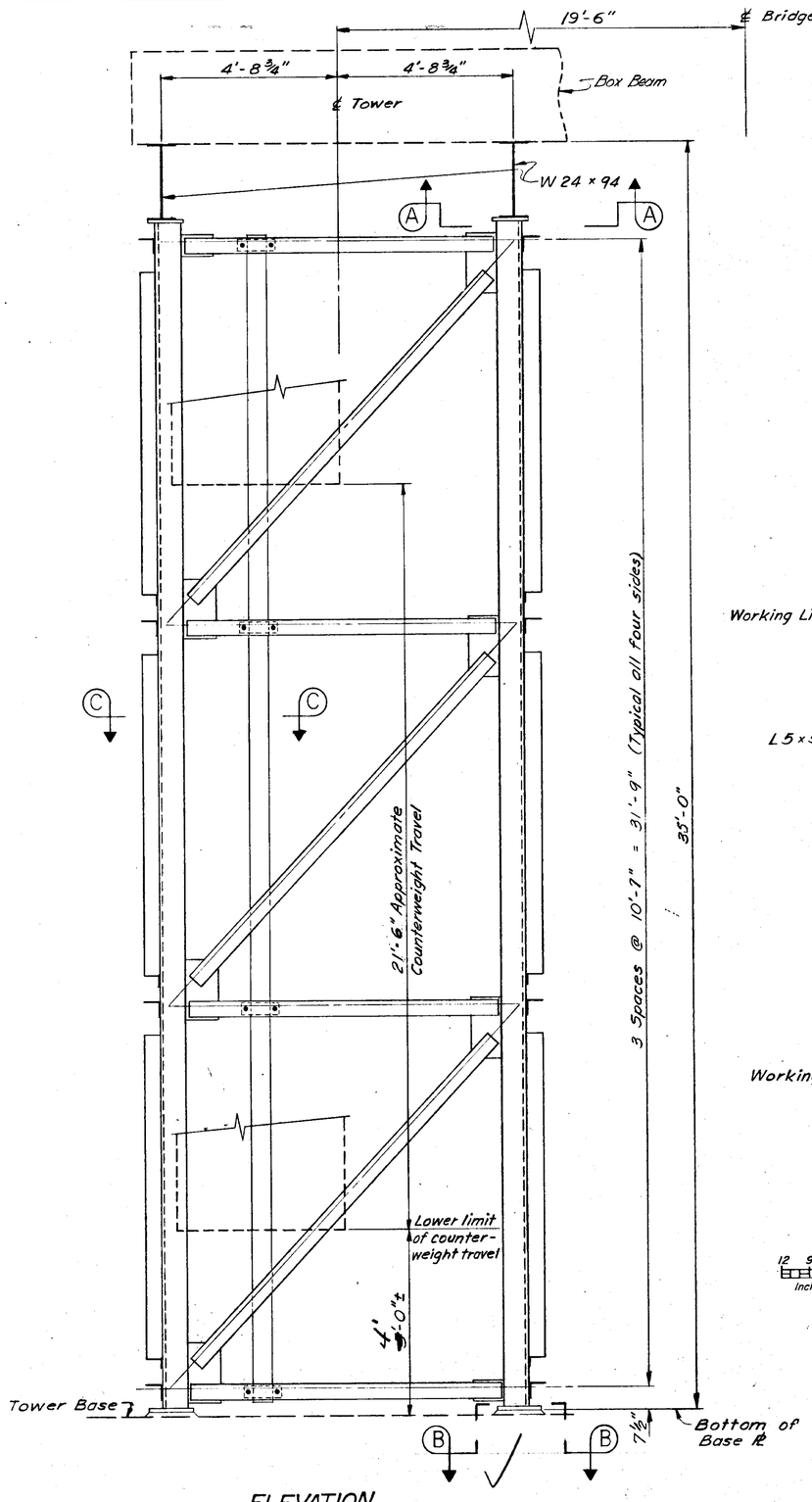
State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

Date 8-2-72
Approved

BRIDGE NO. 175
DWNG. NO. 2616

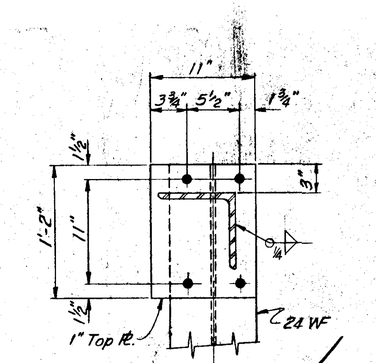
Designed By KEM Date 11-71
Detailed By KH Date 11-71
Drawn By KH Date 11-71
Checked By KEM Date 11-71
Traced By Date

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-05	1972	16	35



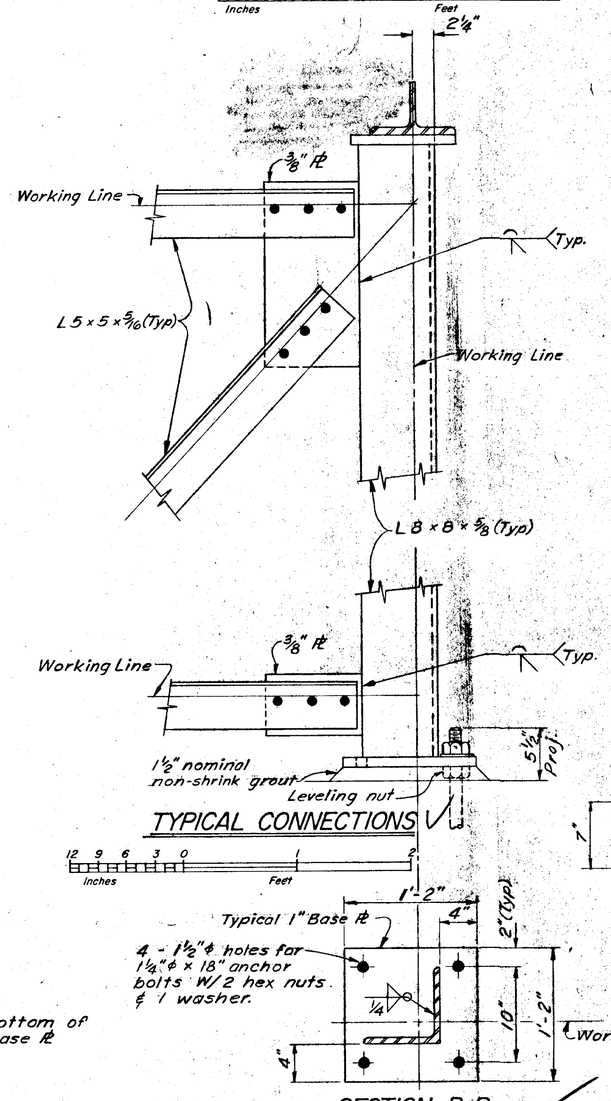
ELEVATION

12 0 1 2 3 4 5 6 7
Inches Feet



SECTION A-A

12 9 6 3 0 2
Inches Feet

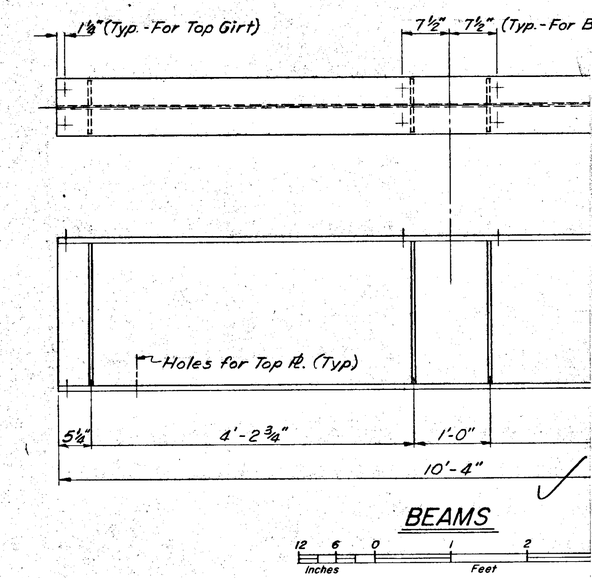


TYPICAL CONNECTIONS

12 9 6 3 0 1 2
Inches Feet

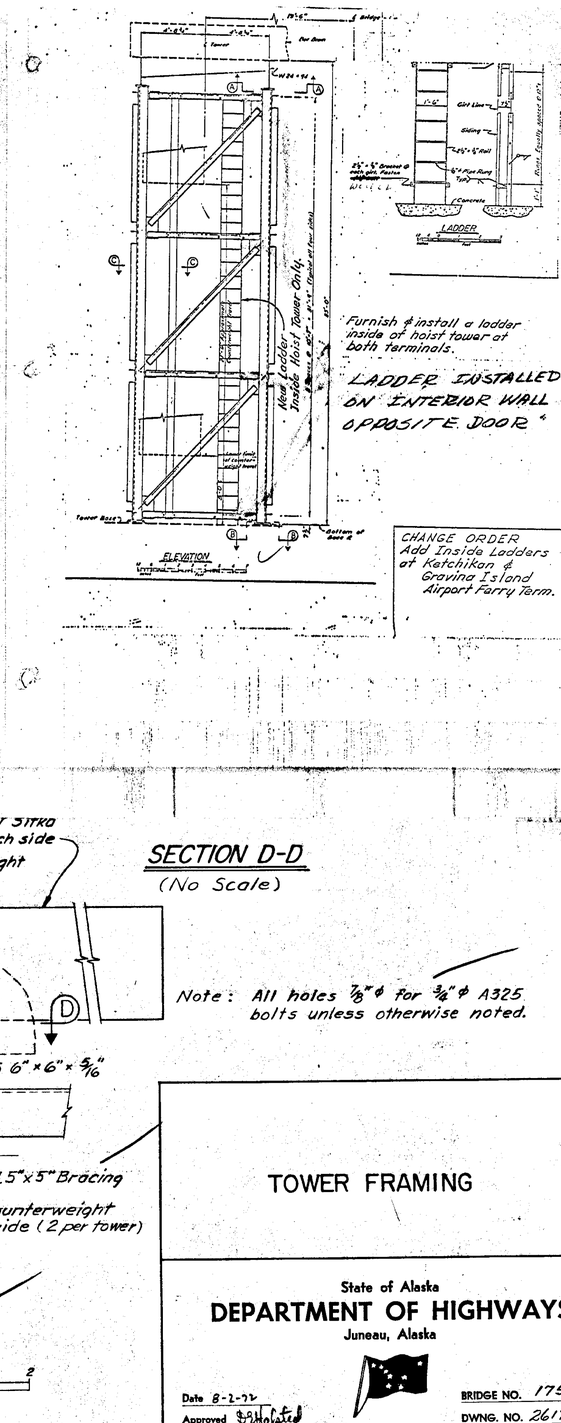
SECTION B-B

12 9 6 3 0 1 2
Inches Feet

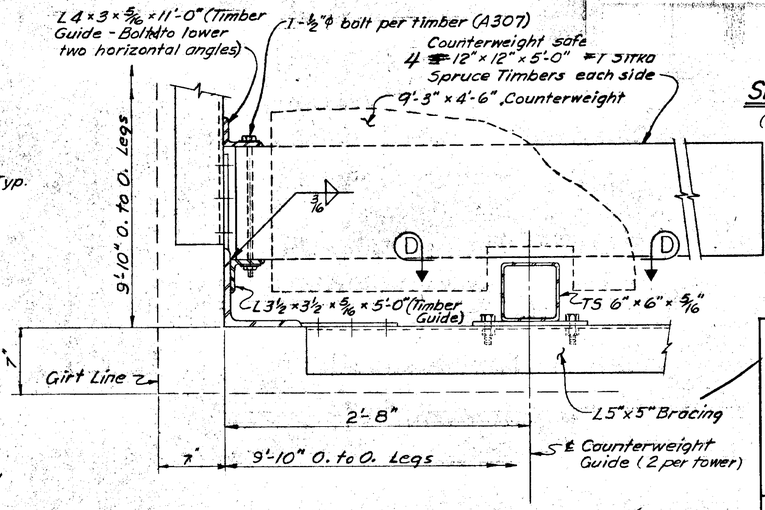


BEAMS

12 6 0 1 2
Inches Feet



CHANGE ORDER
Add Inside Ladders at Ketchikan & Gravina Island Airport Ferry Term.



SECTION C-C

12 9 6 3 0 1 2
Inches Feet

SECTION D-D
(No Scale)

Note: All holes 7/8"ϕ for ¾"ϕ A325 bolts unless otherwise noted.

TOWER FRAMING

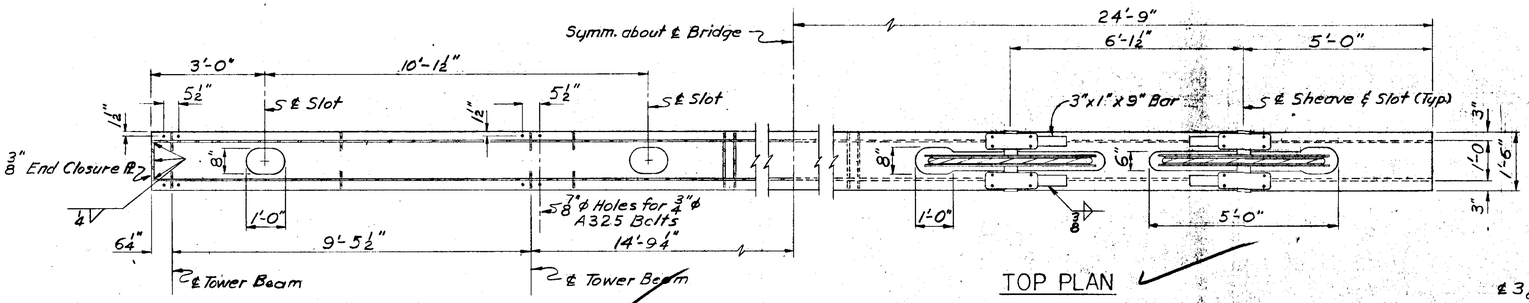
State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

Date 8-2-72
Approved [signature]

BRIDGE NO. 175
DWNG. NO. 2617

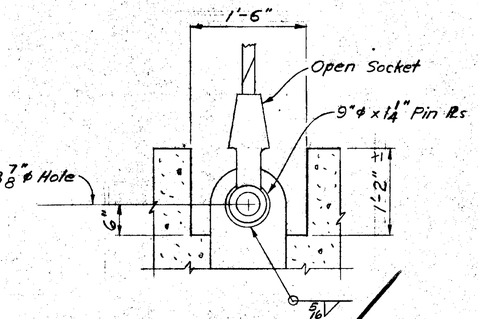
Checked By KFM Date 11-21
Traced By Date

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	17	35

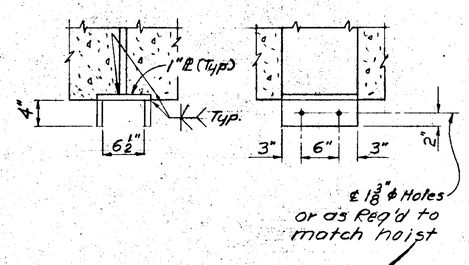


BOTTOM PLAN

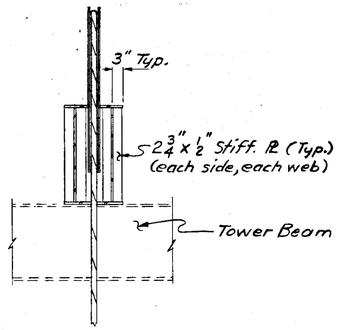
TOP PLAN

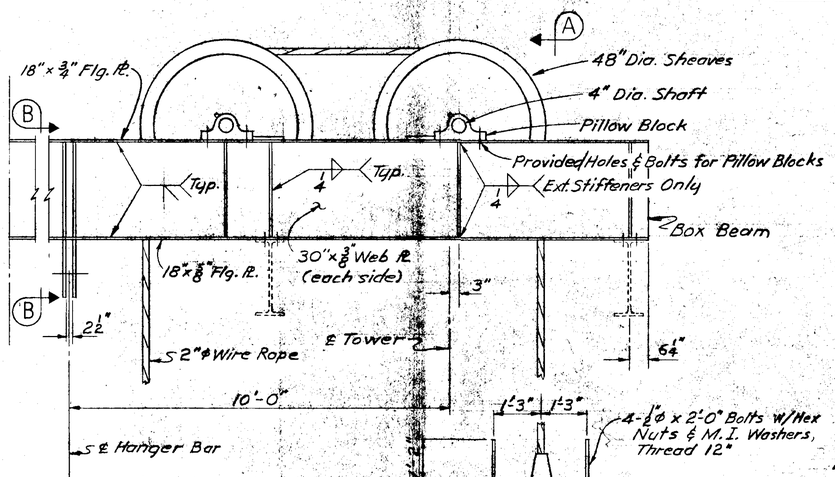


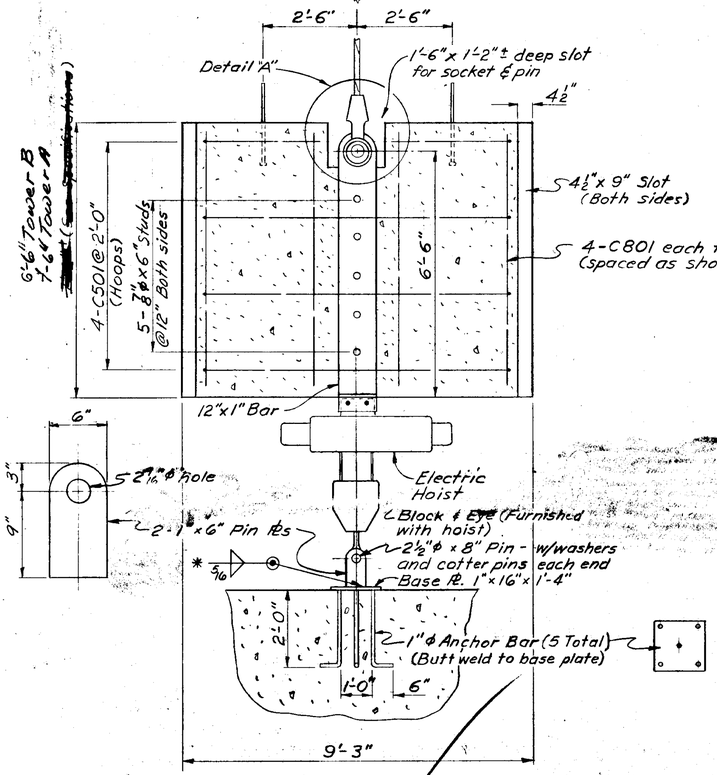
DETAIL "A"
(No Scale)



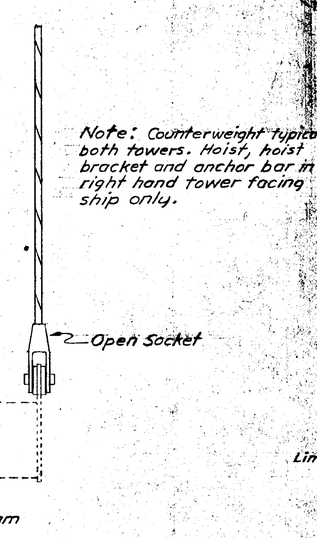
HOIST BRACKET
(No Scale)

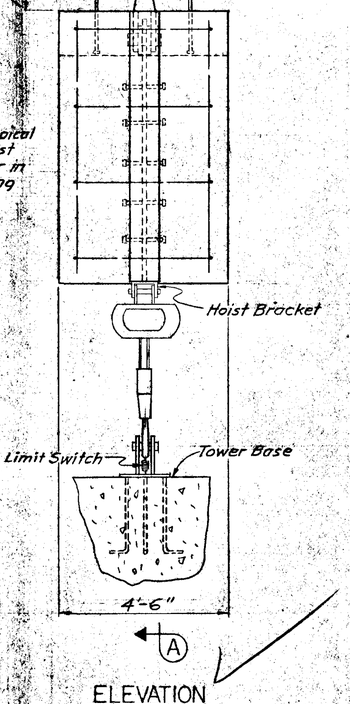




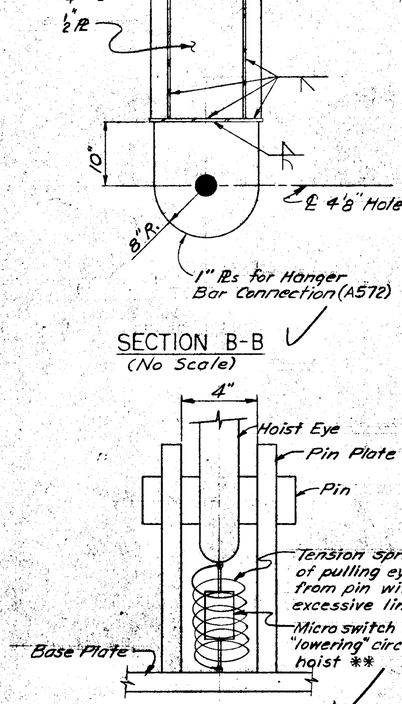


SECTION A-A



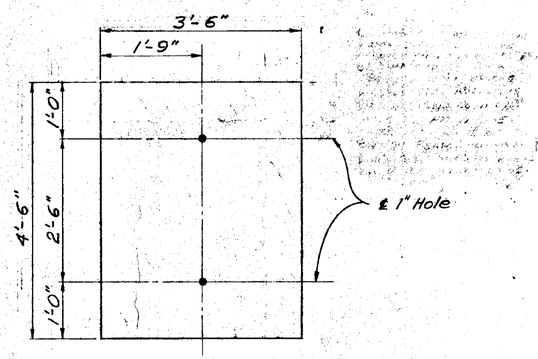


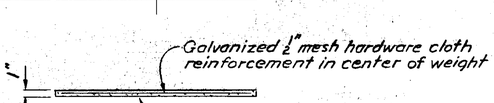
ELEVATION



SECTION B-B
(No Scale)

SCHEMATIC VIEW OF LIMIT SWITCH
(No Scale)





COUNTERWEIGHT ADJUSTING WEIGHTS
(Furnish ~~48~~ 96 (48 for Bridge Used)
(No Scale)

** Purpose of limit switch is to prevent hoist line from uncoiling when hoist is unloaded by transfer bridge seating in honger bars.

* ~~Position and field weld pin Rs~~ to base Rs after installing hoist to insure proper block to hoist orientation.

12 0 1 2 3 4 5 6
In. Feet

COUNTERWEIGHTS AND HOIST

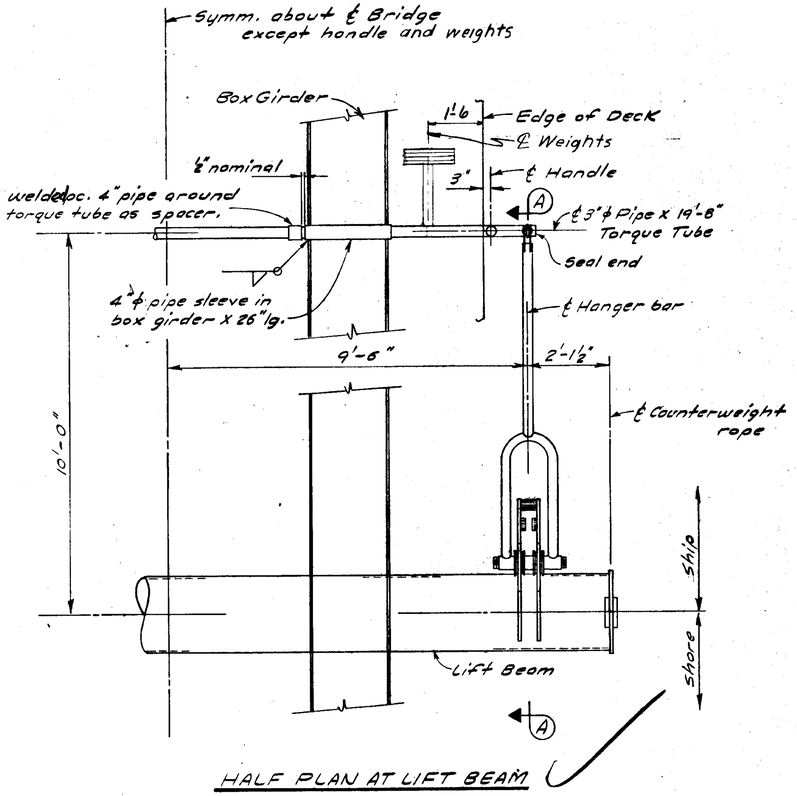
State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

Date 8-2-72
Approved

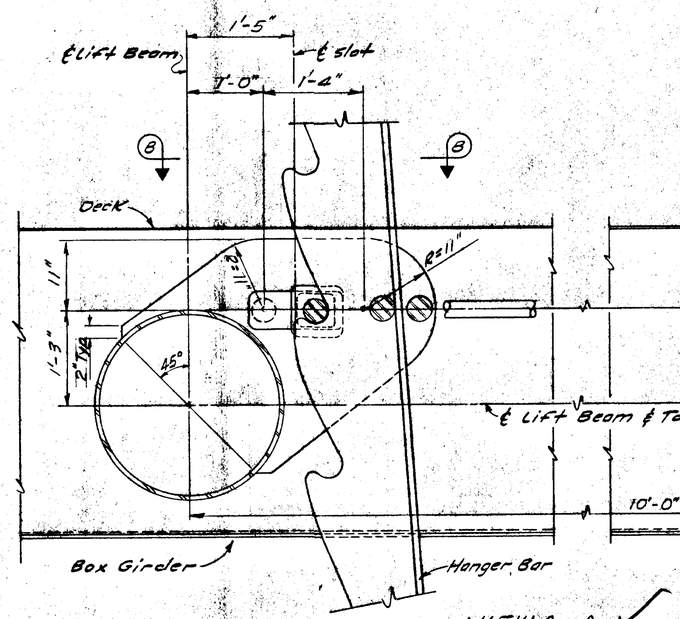
BRIDGE NO. 175
DWNG. NO. 2618

Traced By: Date:

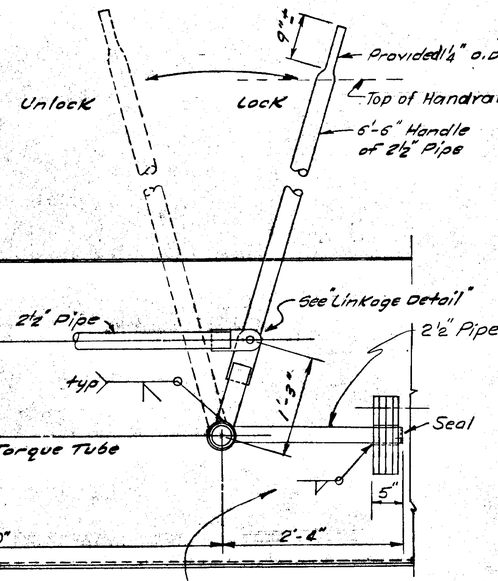
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	18	35



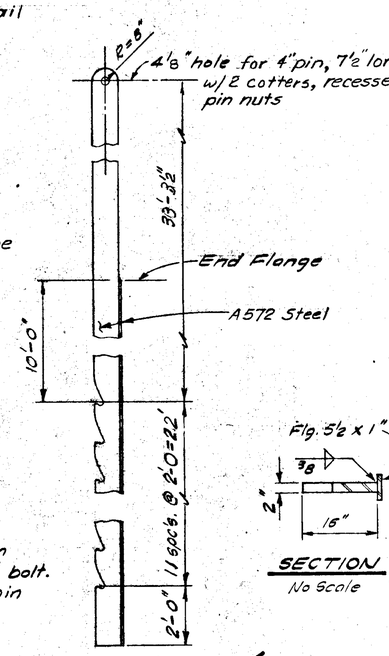
HALF PLAN AT LIFT BEAM



VIEW A-A

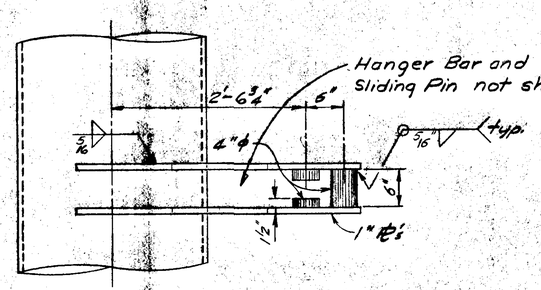


One fixed and three loose weights 12"ϕx1" w/ 3"ϕ hole in center and ⅞"ϕ hole for ¾" bolt. Add loose weights until pin locks automatically.

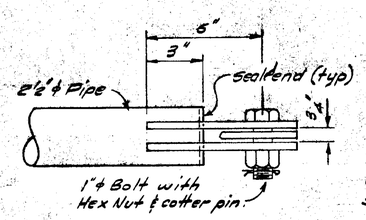


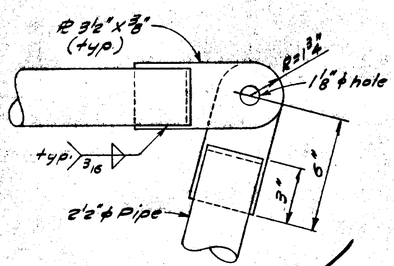
SECTION
No Scale

HANGER BAR
No Scale

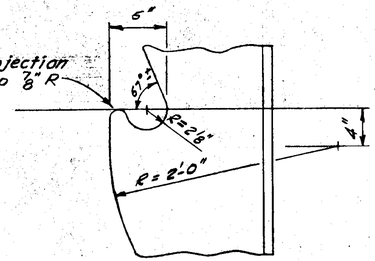


VIEW B-B

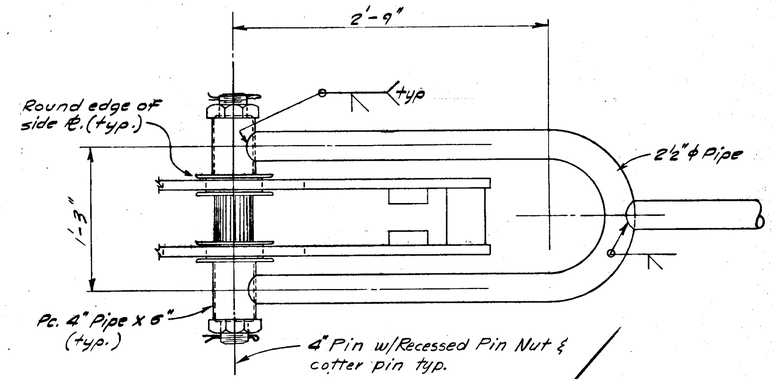




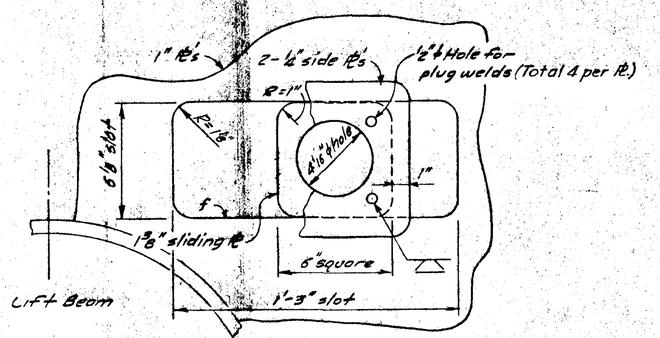
LINKAGE DETAIL



BAR NOTCH DETAIL
No Scale



PIN AND YOKE DETAIL



DETAIL OF SLOT

HANGER BAR & LOCK

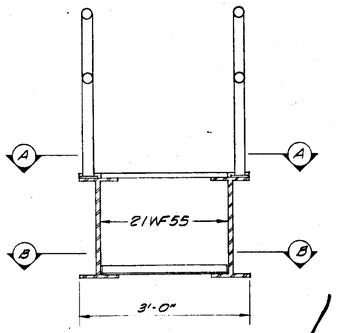
State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

Date 8-2-72
Approved [signature]

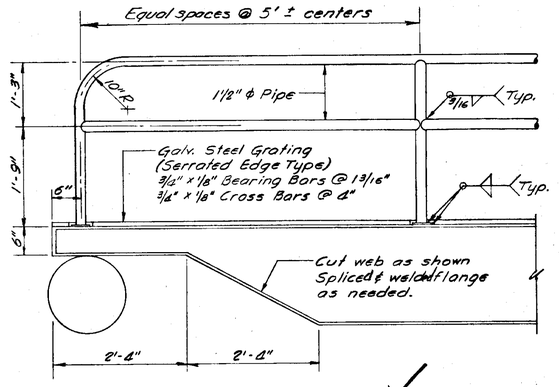
BRIDGE NO. 175
DWNG. NO. 2619

Checked By: [illegible] Date: [illegible]
Traced By: [illegible] Date: [illegible]

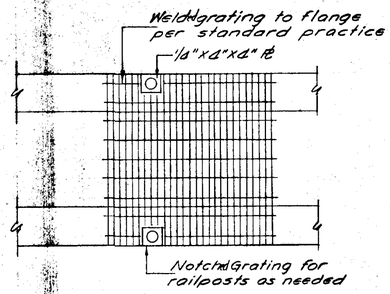
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	19	35



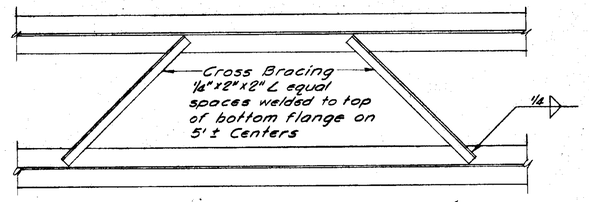
TYPICAL SECTION



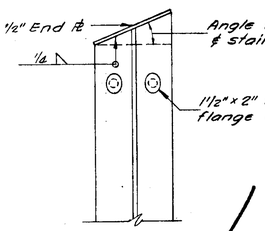
ELEVATION



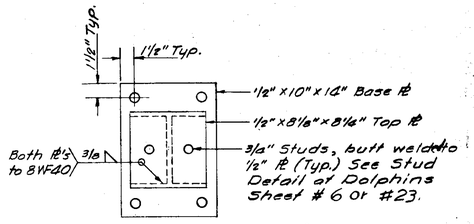
VIEW A-A



GENERAL NOTES
1. Natural camber in 21WF55 beam ~~shall be~~ placed up.
2. ~~Grid deck @ stairs of slightly different dimensions may be substituted with the approval of the engineer.~~
3. For catwalk layout see Layout Plans sheets #4 & #23.



VIEW "C"

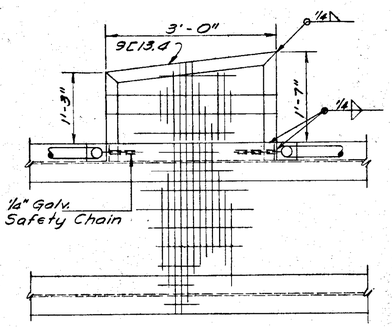


TOWER ANCHOR

APPROXIMATE SPAN LENGTH

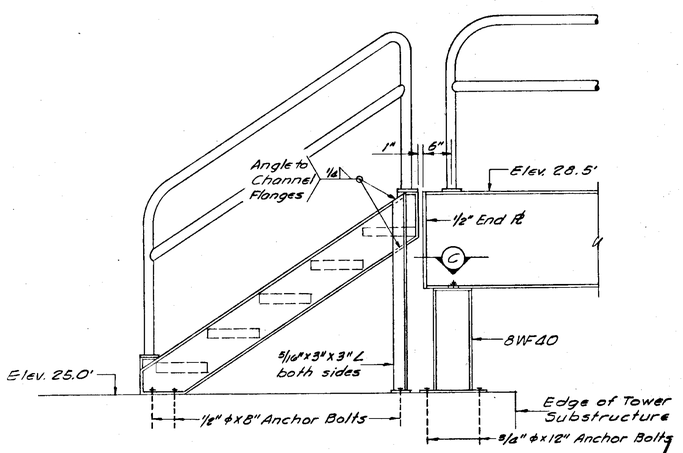
KETCHIKAN TERMINAL		GRAVINA TERMINAL	
Dolphin #1 to #2	31'	Dolphin #1 to #2	36'
" #2 to #3	31'	" #2 to #3	37'
" #3 to Tower	65'	" #3 to Tower B	30'
		" #5 to Tower A	19'
Approx. wt. A-36 steel		Approx. wt. A-36 steel	
12,000 lbs.		17,400 lbs.	

~~Note: The contractor shall determine the actual span lengths from field measurements.~~

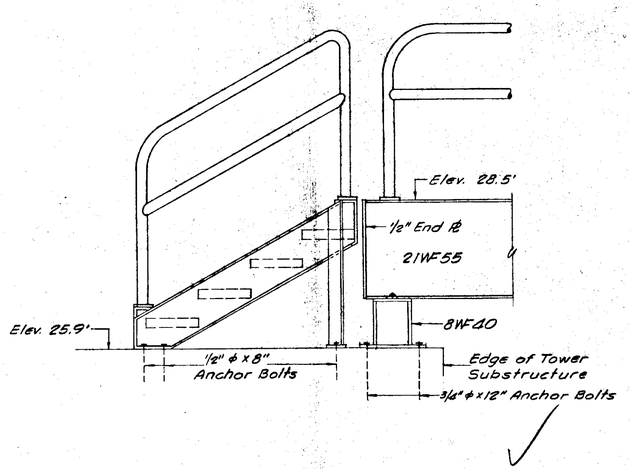


VIEW B-B

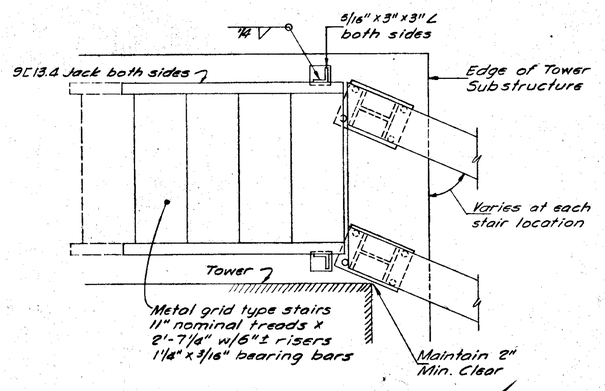
DOLPHIN ACCESS
(Dolphin #2 Gravina Island)



KETCHIKAN TERMINAL STAIR DETAILS



GRAVINA TERMINAL STAIR DETAILS



TYPICAL STAIR PLAN

CATWALK DETAILS

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

STATE OF ALASKA
49TH
ASSISTEREN
PROFESSIONAL ENGINEER

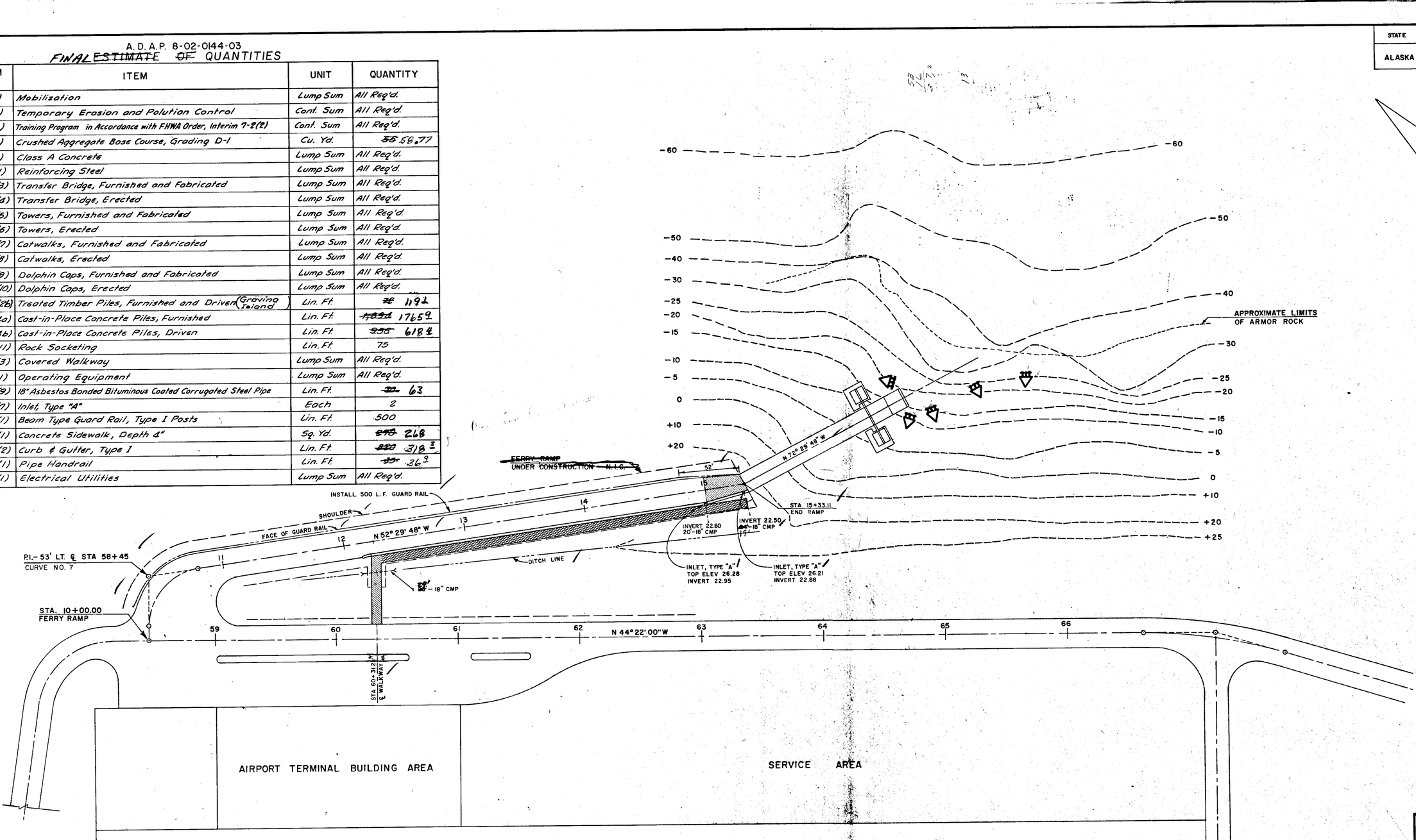
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
SCALE:	
DATE:	
SHEET	OF

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	20	35

A.D.A.P. 8-02-0144-03

FINAL ~~ESTIMATE~~ ~~OF~~ QUANTITIES

	ITEM	UNIT	QUANTITY
)	Mobilization	Lump Sum	All Req'd.
)	Temporary Erosion and Polution Control	Conl. Sum	All Req'd.
)	Training Program in Accordance with FHWA Order, Interim T-8(8)	Conl. Sum	All Req'd.
)	Crushed Aggregate Base Course, Grading D-1	Cu. Yd.	~~55~~ 56.77
)	Class A Concrete	Lump Sum	All Req'd.
1)	Reinforcing Steel	Lump Sum	All Req'd.
3)	Transfer Bridge, Furnished and Fabricated	Lump Sum	All Req'd.
4)	Transfer Bridge, Erected	Lump Sum	All Req'd.
5)	Towers, Furnished and Fabricated	Lump Sum	All Req'd.
6)	Towers, Erected	Lump Sum	All Req'd.
7)	Catwalks, Furnished and Fabricated	Lump Sum	All Req'd.
8)	Catwalks, Erected	Lump Sum	All Req'd.
9)	Dolphin Caps, Furnished and Fabricated	Lump Sum	All Req'd.
10)	Dolphin Caps, Erected	Lump Sum	All Req'd.
12b)	Treated Timber Piles, Furnished and Driven (Gravina Island)	Lin. Ft.	~~76~~ 1192
10a)	Cast-in-Place Concrete Piles, Furnished	Lin. Ft.	~~1091~~ 1765 9
10b)	Cast-in-Place Concrete Piles, Driven	Lin. Ft.	~~995~~ 618 4
11)	Rock Socketing	Lin. Ft.	75
13)	Covered Walkway	Lump Sum	All Req'd.
1)	Operating Equipment	Lump Sum	All Req'd.
9)	18" Asbestos Bonded Bituminous Coated Corrugated Steel Pipe	Lin. Ft.	~~32~~ 63
7)	Inlet, Type "A"	Each	2
1)	Beam Type Guard Rail, Type I Posts	Lin. Ft.	500
1)	Concrete Sidewalk, Depth 4"	Sq. Yd.	~~278~~ 268
2)	Curb & Gutter, Type I	Lin. Ft.	~~330~~ 318 3
1)	Pipe Handrail	Lin. Ft.	~~35~~ 36 9
1)	Electrical Utilities	Lump Sum	All Req'd.



CURVE NO. 7

P.C. STA.	10+12.00
P.T. STA.	10+79.54
Δ =	81° 52' 12"
D =	121° 11' 19"
R =	47.27'
T =	41.00'
L =	67.54'
E =	15.30'

NOTES:
HOROZONTAL AND VERTICAL CONTROL WILL BE COORDINATED WITH THE CONTROL ESTABLISHED BY DIVISION OF AVIATION FOR THE KETCHIKAN AIRPORT.

℄ SERVICE ROAD STATIONING IS RUNWAY STATIONING OFFSET 1044' LT.

LEGEND
- COVERED WALKWAY (ENCLOSED)
- COVERED WALKWAY (OPEN)
- TRANSITION TO ZERO CROWN AT BRIDGE ABUTMENT

MASTER PLAN

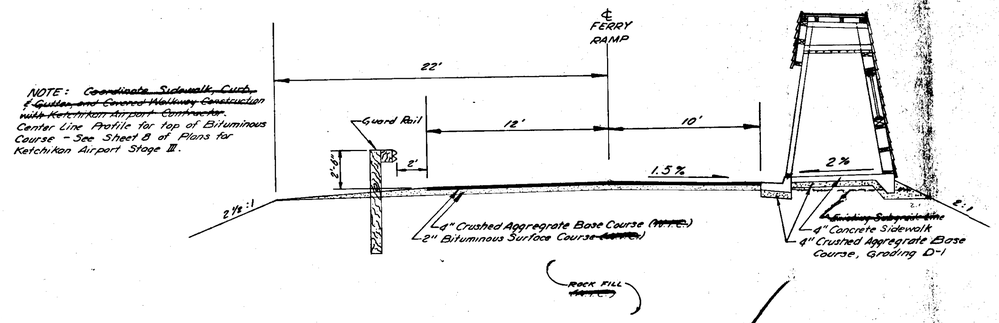
GRAVINA ISLAND AIRPORT
FERRY TERMINAL

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

STATE OF ALASKA 49TH
NO. 10661
REGISTERED PROFESSIONAL ENGINEER

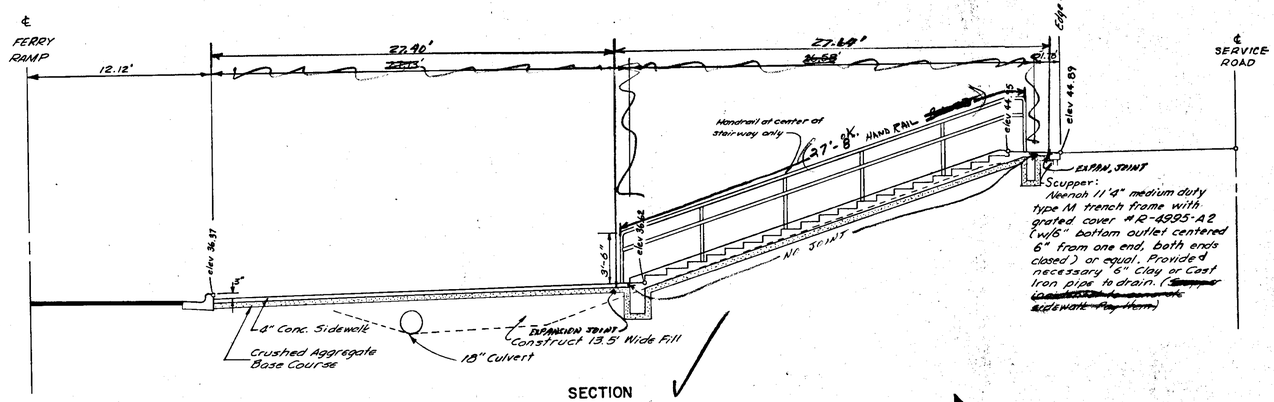
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
SCALE:	1" = 40'
DATE:	
SHEET	OF

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	21	35

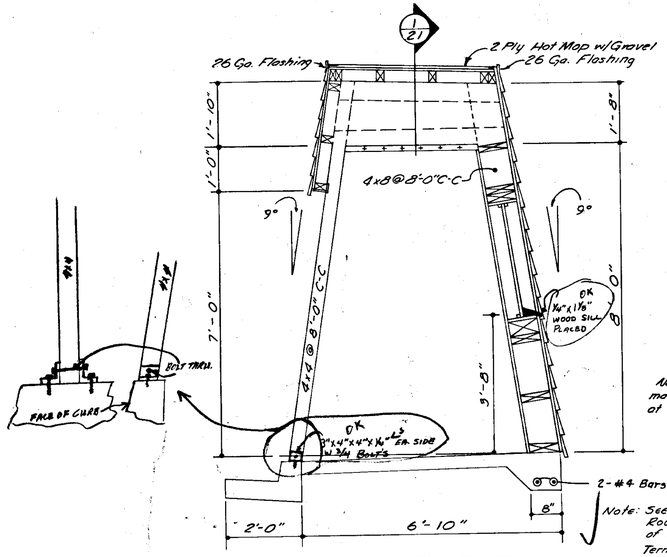


NOTE: ~~Coordinate Sidewalk, Curb, & Gutter, and Covered Walkway Construction with Ketchikan Airport Contractor.~~ Center Line Profile for Top of Bituminous Course - See Sheet 18 of Plans for Ketchikan Airport Stage III.

TYPICAL FERRY RAMP SECTION



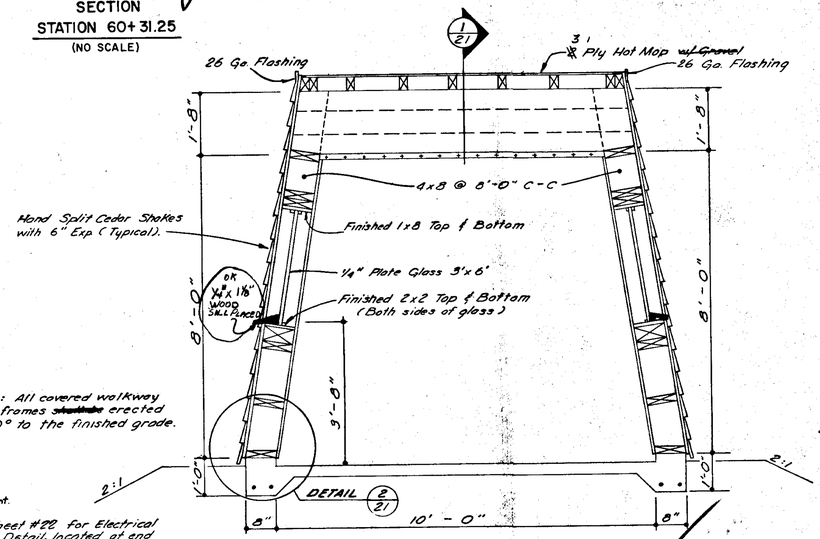
SECTION
STATION 60+31.25
(NO SCALE)



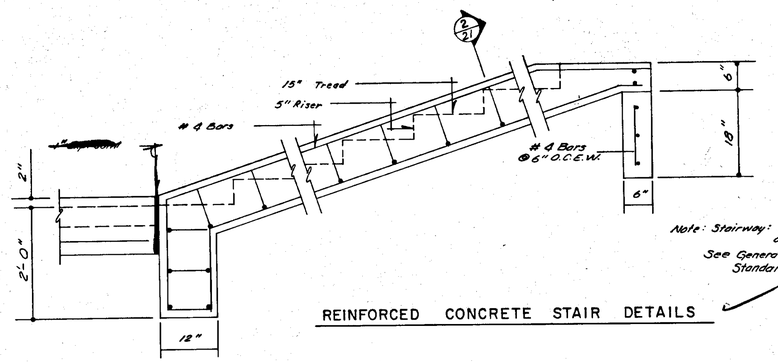
Note: All covered walkway main frames ~~shall be~~ erected at 90° to the finished grade.

Note: See sheet #22 for Electrical Room Detail, located at end of Ramp. Terminated Ramp at Station 15+93.

COVERED WALKWAY SECTION
(ALONG FERRY RAMP)

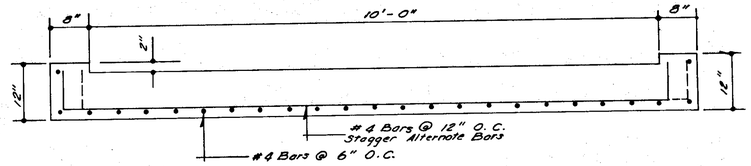


COVERED WALKWAY SECTION
(FROM FERRY RAMP TO AIRPORT TERMINAL)



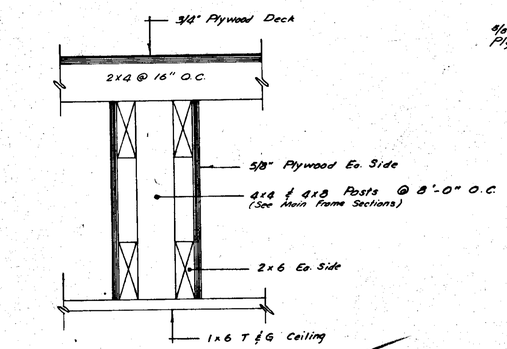
Note: Stairway: 9.5 cubic yards of class A concrete
See General Notes: Standard Drawing M-5

REINFORCED CONCRETE STAIR DETAILS

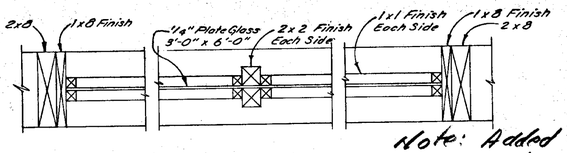


2/21 SECTION

REINFORCING STEEL						
LOCATION	MARK	NO	SIZE	LENGTH	TYPE	BENDING DIAGRAM
STAIRWAY	S-100	29	4	12'-0"	BENT	8" 10'-8" 8" S-100
	S-101	23		28'-1"	BENT	26'-3" 5" 18" #4 S-101 1'-10"
	S-102	2		29'-6"	BENT	25'-6" #4 S-102
	S-103	5		11'-0"	—	
	S-104	23	4	1'-0"	—	
WALKWAY	W-100	30	4	25'-0"	—	
TOTAL REINFORCING WEIGHT 1260 LBS.						

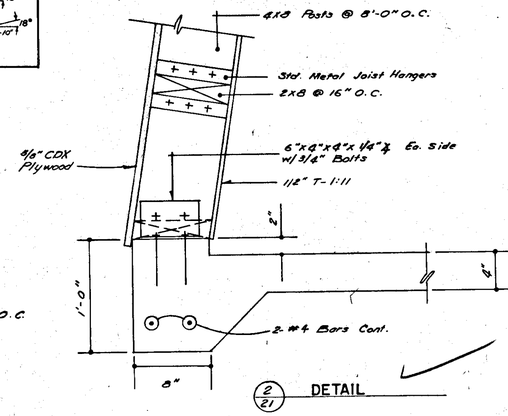


1/21 SECTION



TYPICAL WINDOW SECTION

Note: Added sill as shown to all exterior windows.



2/21 DETAIL

COVERED WALKWAY

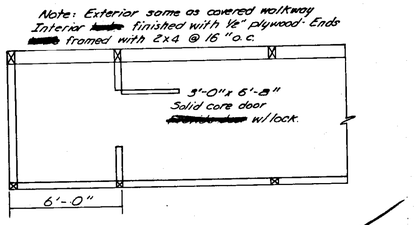
GRAVINA ISLAND AIRPORT FERRY TERMINAL

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

STATE OF ALASKA 49TH — REGISTERED PROFESSIONAL ENGINEER — NO. 10061

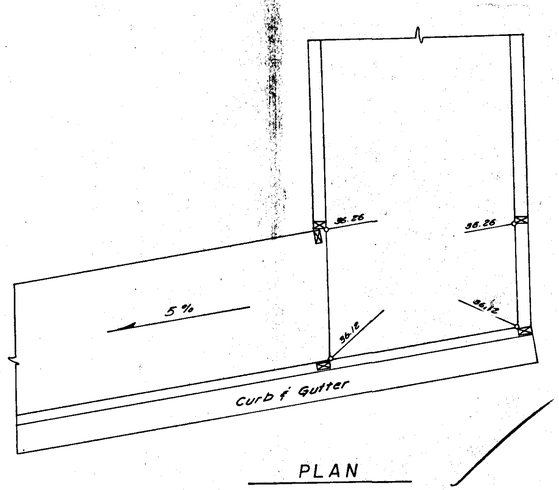
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
SCALE:	
DATE:	
SHEET	OF

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. S-02-0144-03	1972	22	35

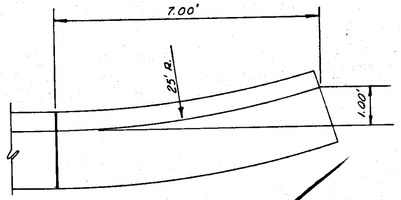


ELECTRICAL ROOM PLAN

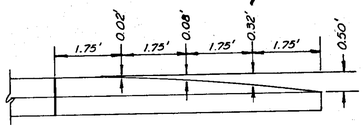
(See sheet #24 for equipment layout)



PLAN

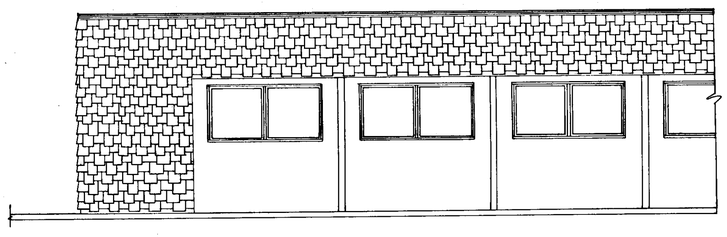


PLAN

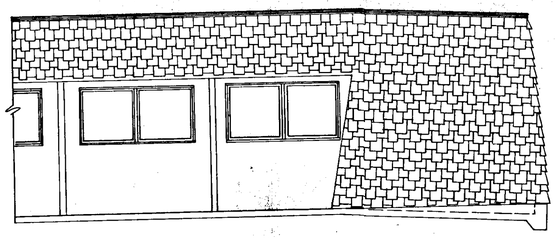


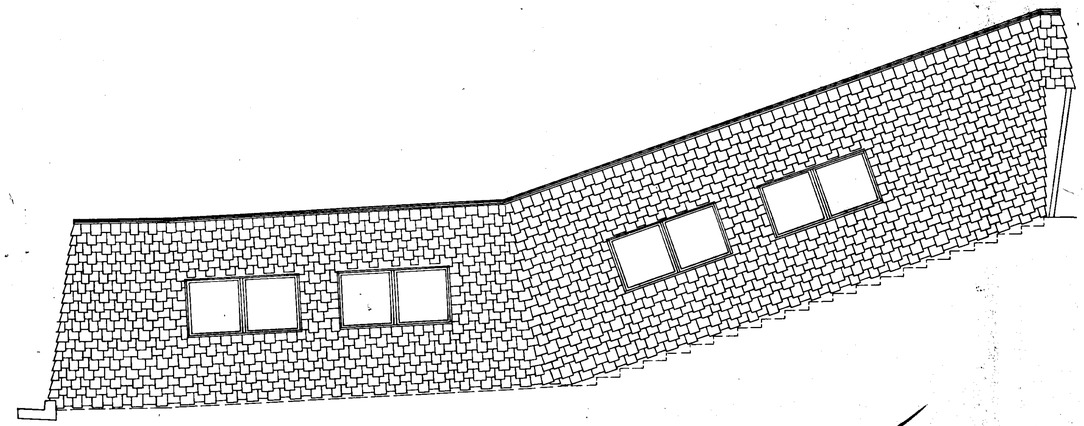
ELEVATION

CURB TRANSITION DETAIL

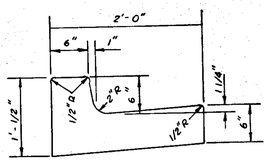


SOUTH ELEVATION





EAST ELEVATION



STANDARD CURB & GUTTER SECTION

COVERED WALKWAY

GRAVINA ISLAND AIRPORT

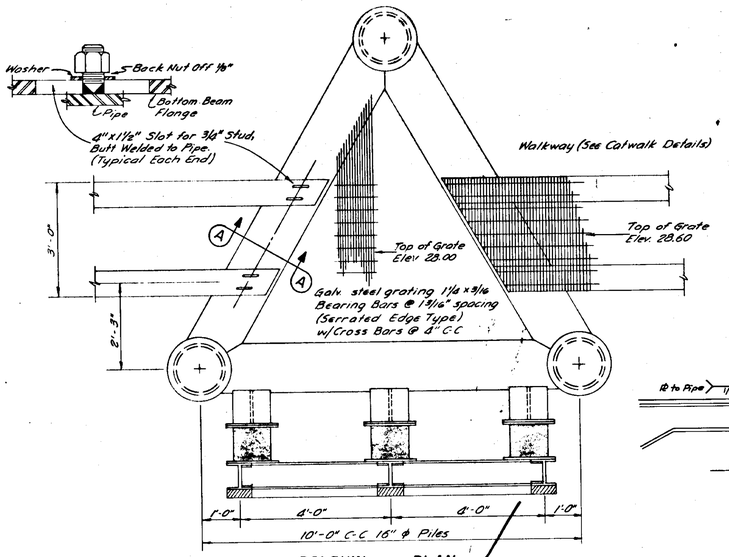
FERRY TERMINAL

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

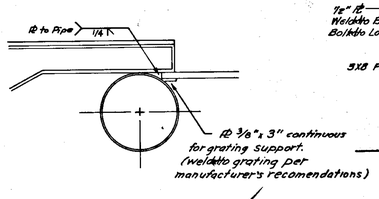
STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER NO. 1006-L

DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
SCALE:	
DATE:	
SHEET	OF

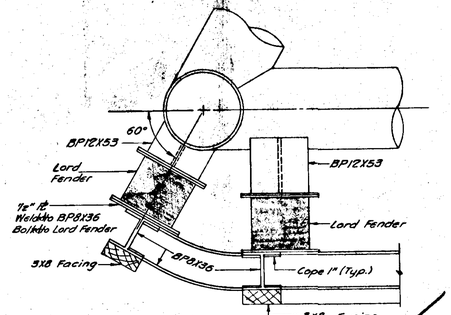
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	23	35



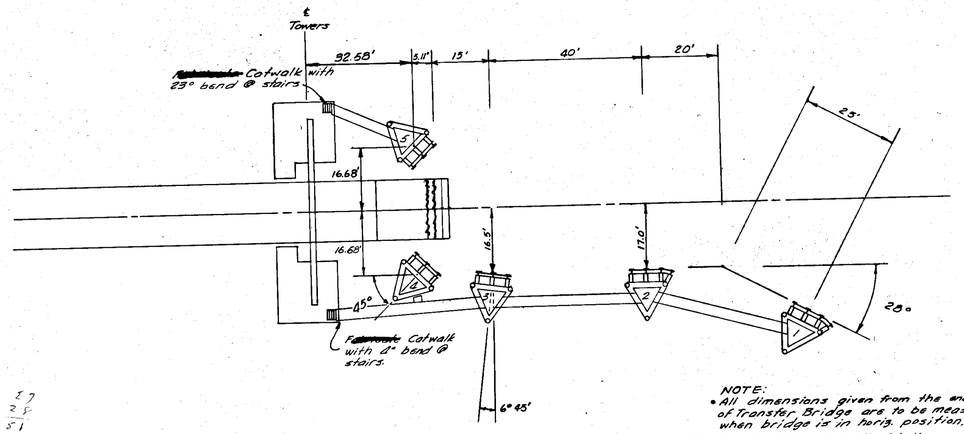
DOLPHIN PLAN



SECTION A-A



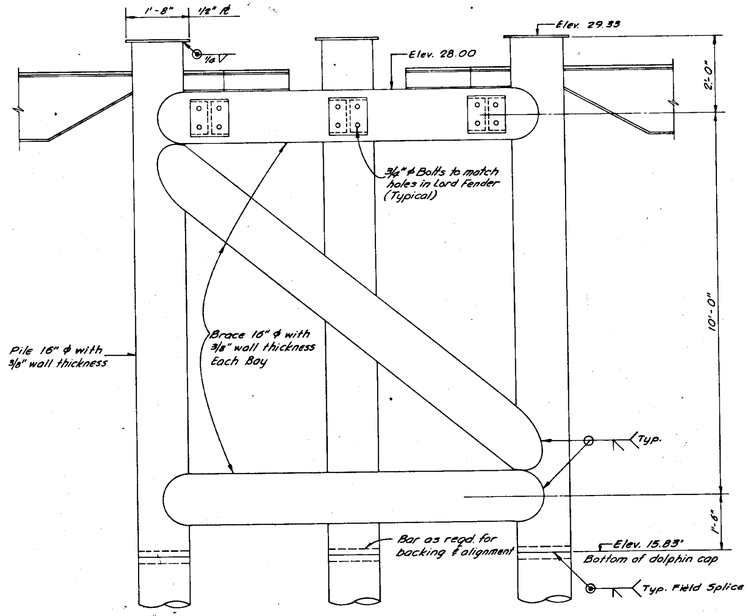
CORNER FENDER SYSTEM PLAN



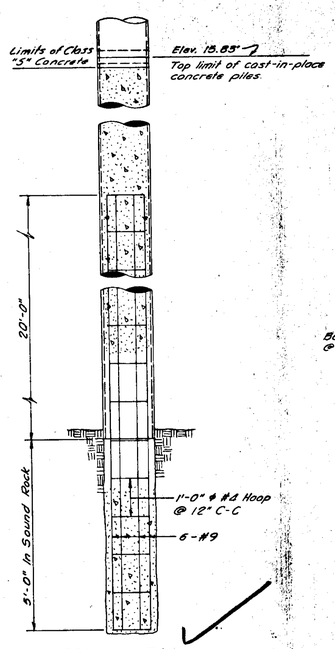
LAYOUT PLAN

NOTE:
- All dimensions given from the end of Transfer Bridge are to be measured when bridge is in horiz. position.
- See sheet 19 for catwalk details.
- ~~Verify dolphin locations from approved shop drawings~~

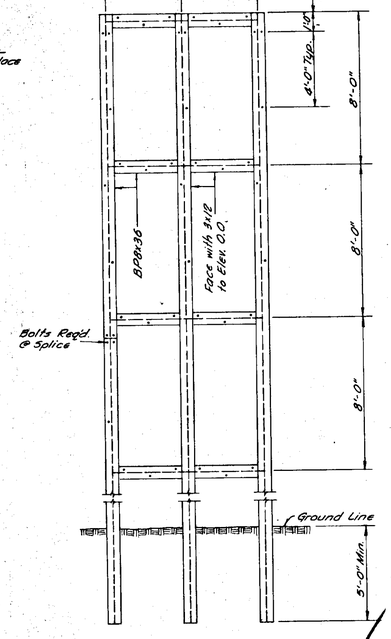
APPROXIMATE SOUND ROCK ELEV.	
Dolphin No. 1	~~-42'~~
No. 2	~~-46'~~ -47'
No. 3	~~-42'~~ -40'
No. 4	~~-42'~~ -38'
No. 5	~~-45'~~ -43'



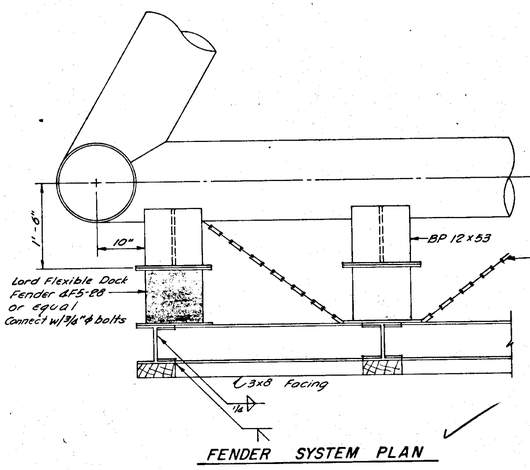
DOLPHIN ELEVATION



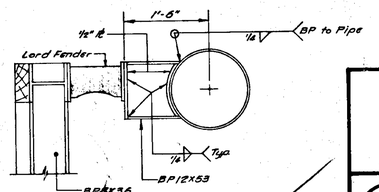
TYPICAL PILE



FENDER PILE ELEVATION



FENDER SYSTEM PLAN



FENDER SYSTEM SECTION

DOLPHIN DETAILS

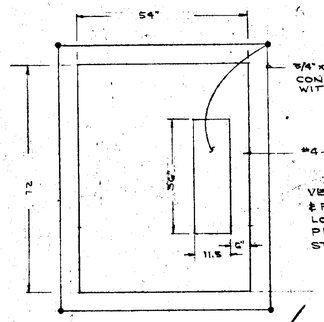
GRAVINA ISLAND AIRPORT
FERRY TERMINAL

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

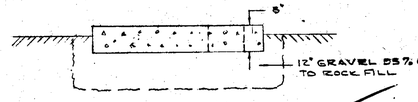
STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
SCALE:	
DATE:	
SHEET	OF

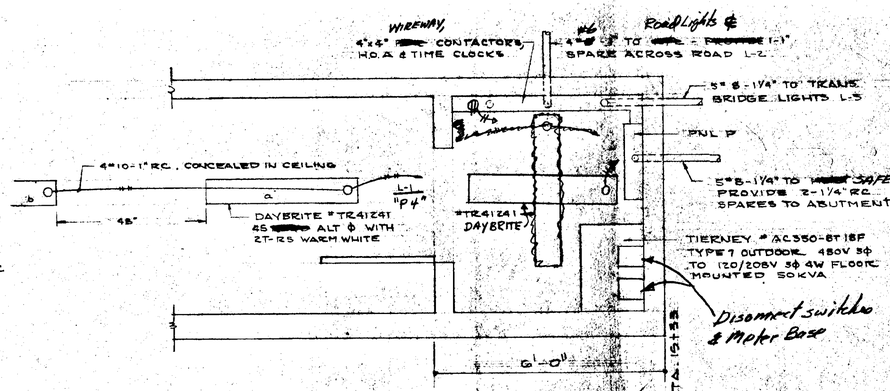
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	24	35

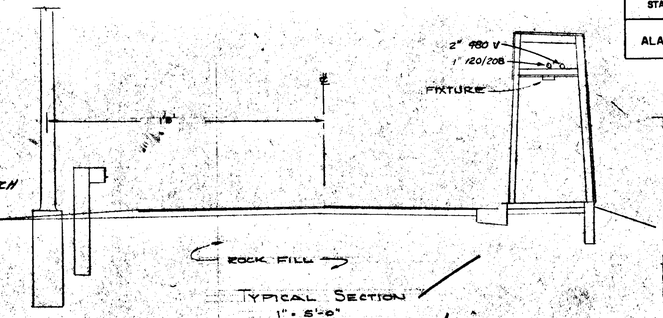


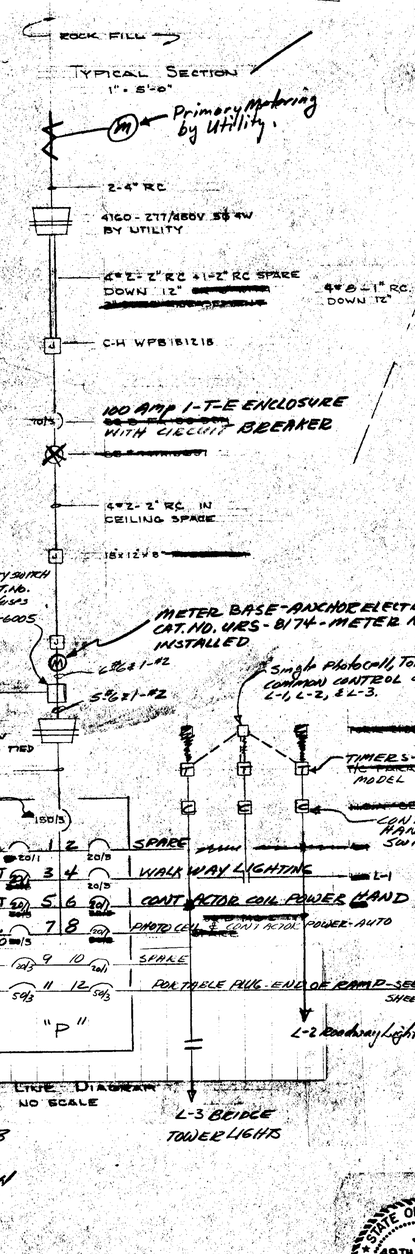
TRANSFORMER SLAB
½" = 1'-0"



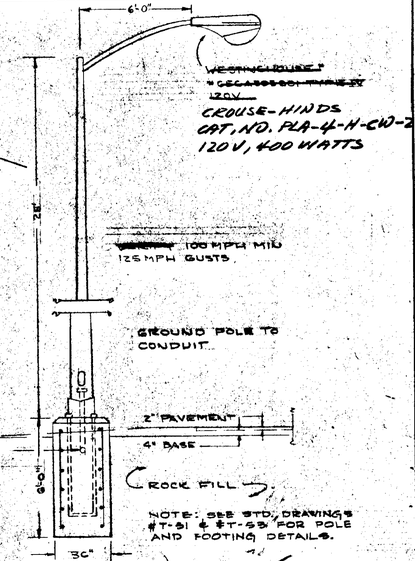
TRANSFORMER SLAB ELEV
½" = 1'-0"



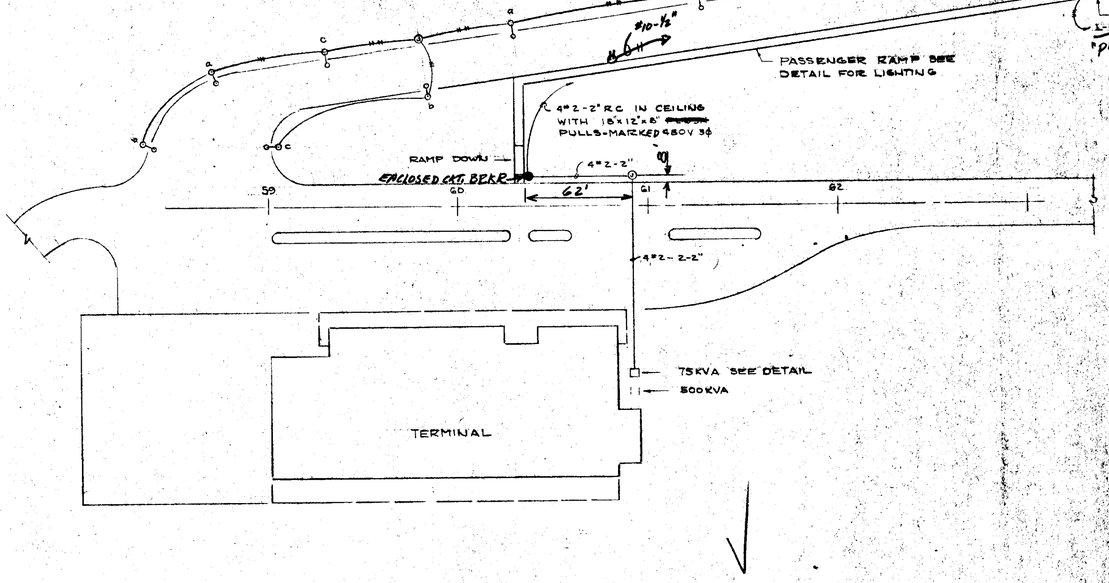




NOTES
1. ALL CONDUIT GALV RIGID STEEL, RED LEAD JOINTS - MINIMUM BURY 12"
2. ~~WHERE EVER STAND TIMES ARE SPECIFIED IN BOOM PRODUCT MAY BE USED.~~



ROAD LIGHTING DETAIL
¼" = 1'-0"



PARTIAL PLAN
1" = 40'

ILLUMINATION AND ELECTRICAL DETAILS

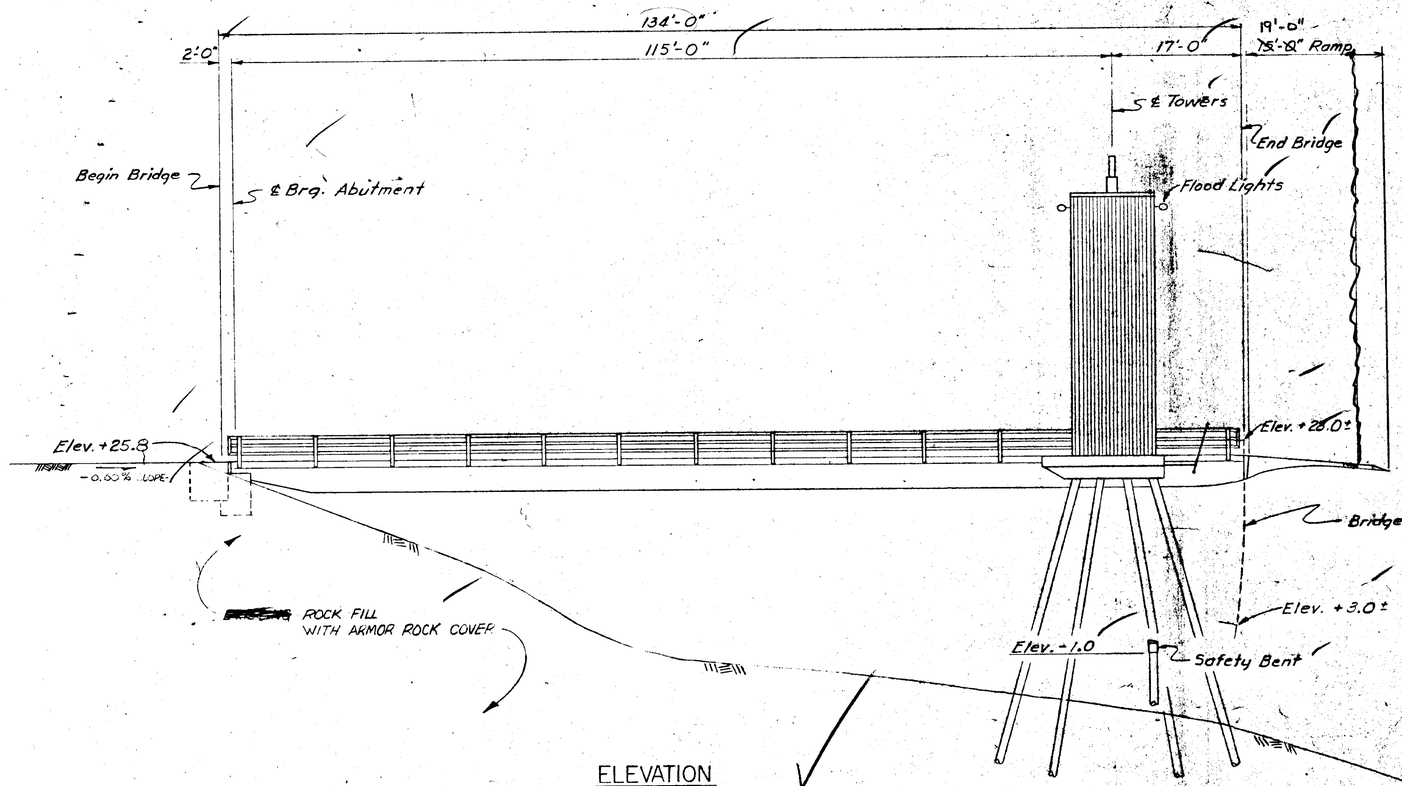
GRAVINA ISLAND AIRPORT
FERRY TERMINAL

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

STATE OF ALASKA 49TH
NO. 5536
REGISTERED PROFESSIONAL ENGINEER

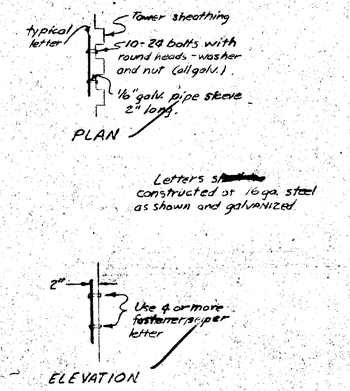
DESIGNED BY:	LPL
DRAWN BY:	
CHECKED BY:	
SCALE:	
DATE:	
SHEET	OF

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-05	1972	25	35



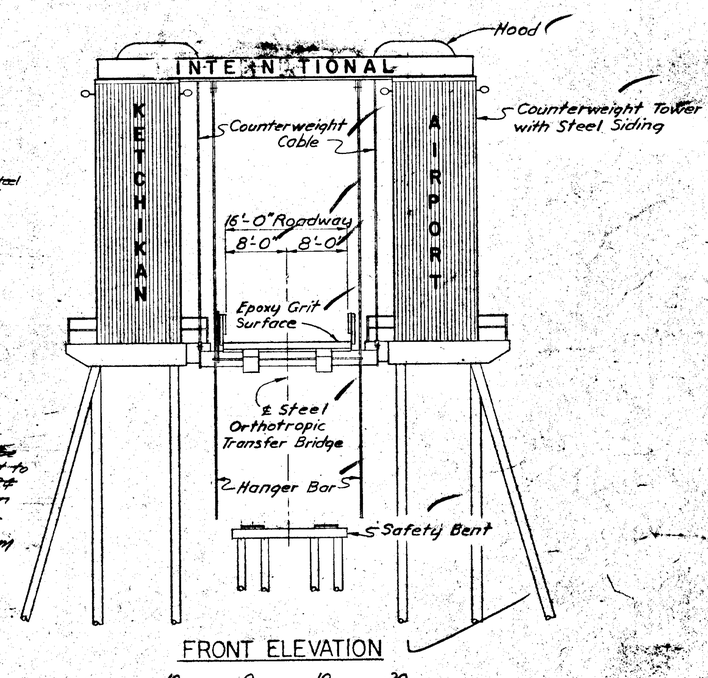
ELEVATION

10 0 10 20
Feet



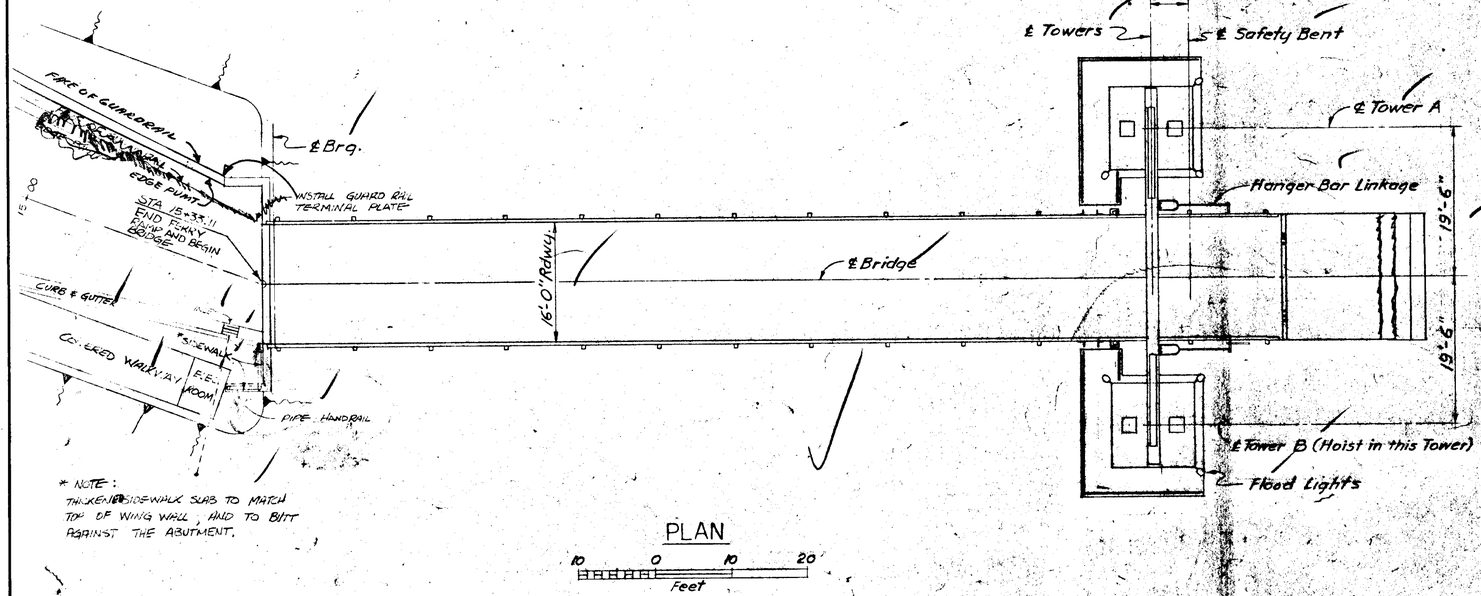
LETTERING DETAILS

"International" letters ~~shall be offset 2" from and fastened to web of box beam with 10 x 24 machine screws. Tap holes in beam web, welded to~~ 2"x2"L AT TOP & Bottom ~~and~~ & 2"x2"L TACK WELDED TO BOX BEAM WEB.



FRONT ELEVATION

10 0 10 20
Feet



* NOTE:
THICKENED SIDEWALK SLAB TO MATCH TOP OF WING WALL, AND TO BUTT AGAINST THE ABUTMENT.

PLAN

10 0 10 20
Feet

GENERAL NOTES:

Specifications:

Design: A.A.S.H.O. Standard Specifications for Highway Bridges, 1969 Edition, with latest interim specifications. Live Load: HS-20-44.

Construction: State of Alaska Standard Specifications for Highway Construction, 1972 and the Special Provisions.

Unit Stresses:

Reinforced Concrete: $F_c = 1200$ psi, $F_s = 20{,}000$ psi

Structural Steel: Bending stress in extreme fiber

Type of Steel	Allowable Stress
A-36	20,000 psi
A-572, Grade 50	27,000 psi

Concrete: All concrete shall be Class A

Reinforcing Steel: All reinforcing steel shall be A615 Grade 40

Structural Steel: Unless otherwise shown on the plans or noted in the specifications, all structural steel shall be A-36. All A572 steel shall be Grade 50

Pile Bearing Capacity & Penetration: See Drawing No 2612

~~ESTIMATED~~ QUANTITIES

ITEM	Unit	Quantity
Class A Concrete	Cu. Yd.	10.4
Reinforcing Steel	Lbs.	12,200
Structural Steel Transfer Bridge furnished, fabricated & erected	Lump Sum	*
Structural Steel Towers furnished, fabricated & erected	Lump Sum	**
Structural Steel Catwalks f.f.& e	Lump Sum	***
Treated Timber Piles (Safety Bent)	Lin Ft.	119
Steel Pipe Piles	Lin. Ft.	879

* Includes approximately 140,350 lbs. A36 & 16,050 lbs. A572.

** Includes approximately 38,400 lbs A36 & 300 lbs. A572 + 4000 Sq. Ft. Sheet Metal Siding

*** Includes approximately 17,400 lbs A36

GRAVINA ISLAND AIRPORT FERRY TERMINAL

GENERAL LAYOUT

State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

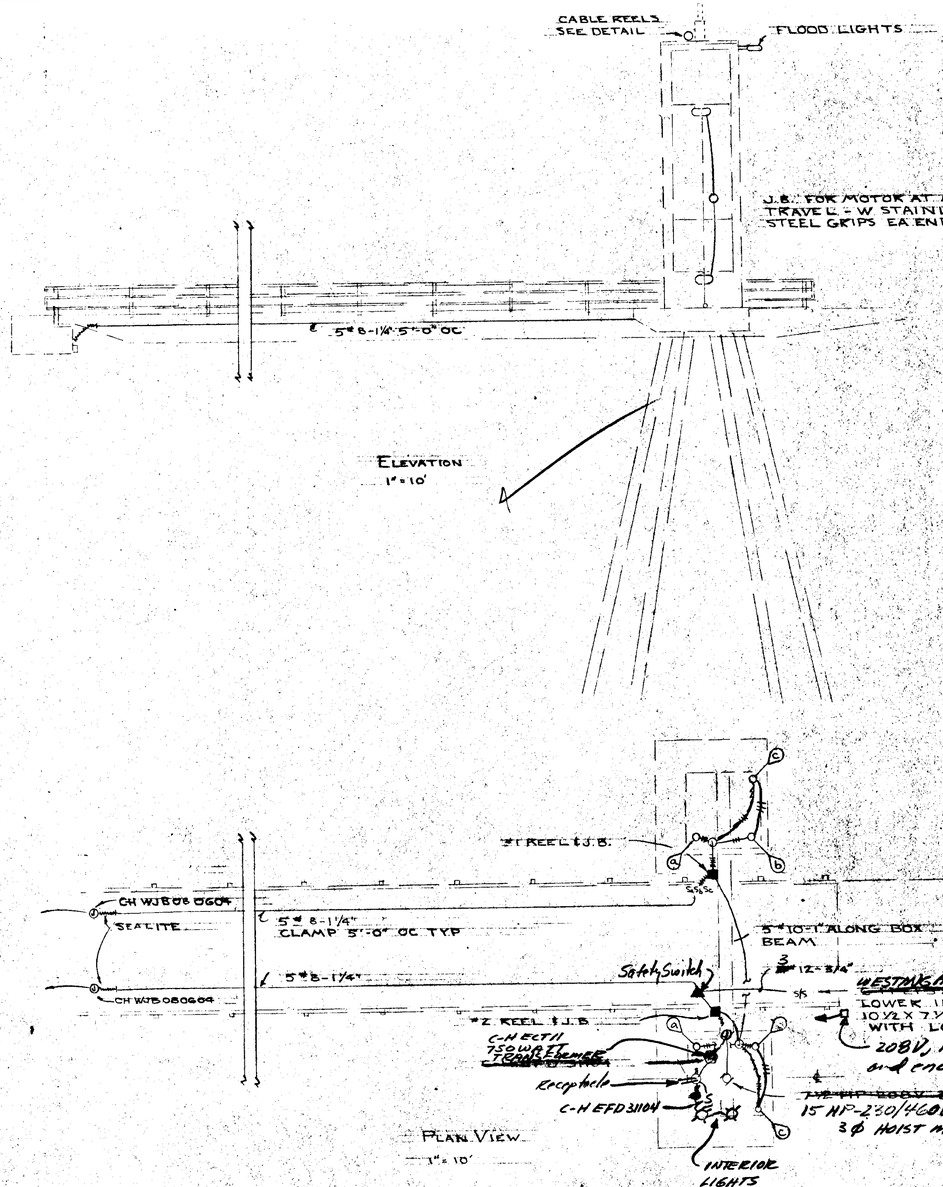
Date 6-2-72
Approved [illegible]

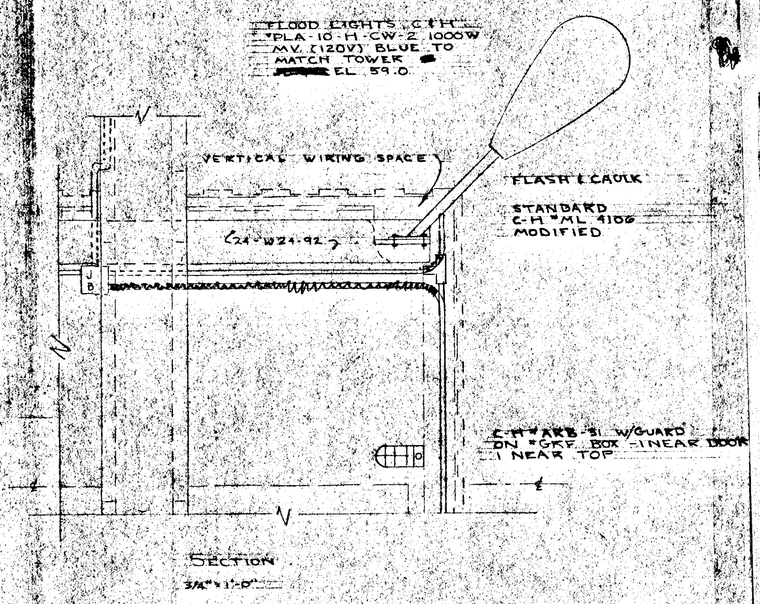
BRIDGE NO. 175
DWNG. NO. 2610A

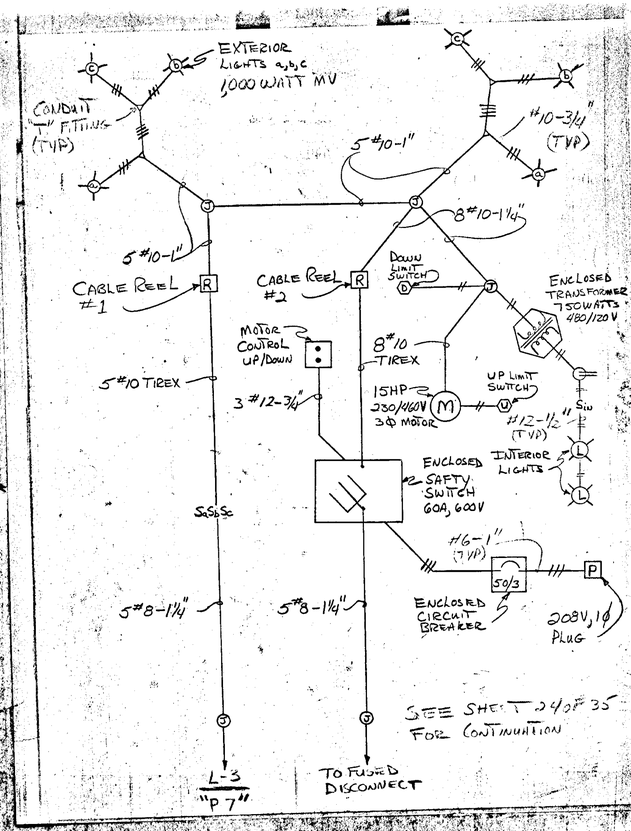
Checked By KFM Date 11-21
Traced By Date

NORTHERN TRADING ASSOC. 138-3 5-71 45799+

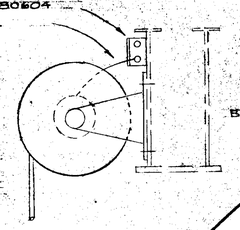
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-2(9) A.D.A.P. 8-02-0144-03	1972	26	35



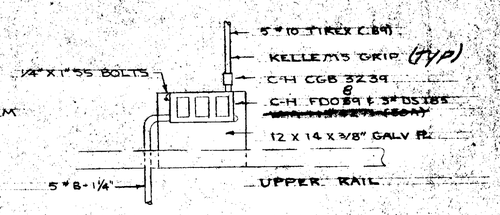




ONE LINE DIAGRAM
NO SCALE

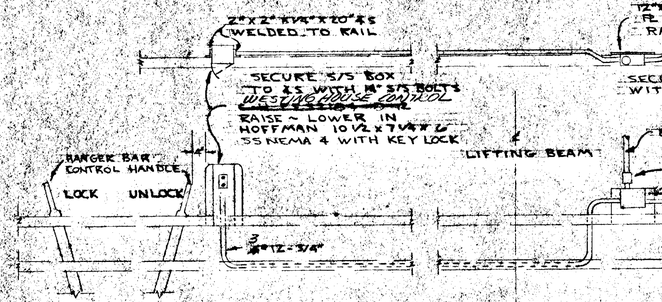


CABLE REEL DETAIL
3/4" = 1'-0"



SWITCH DETAIL
1" = 1'-0"

NOTE
WHERE EQUIPMENT IS SPECIFIED AN APPROVED EQUAL MAY BE USED.



CONTROL STATION
½" = 1'-0"

GRAVINA ISLAND
AIRPORT FERRY TERMINAL

ELECTRICAL DETAILS

State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

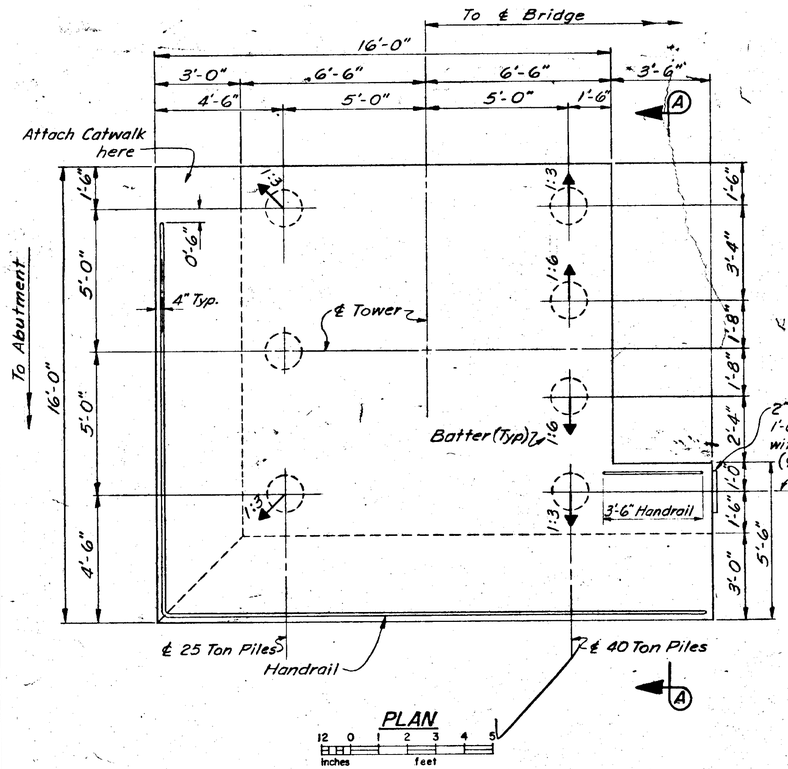
STATE OF ALASKA 49TH NO. 5551 REGISTERED PROFESSIONAL ENGINEER

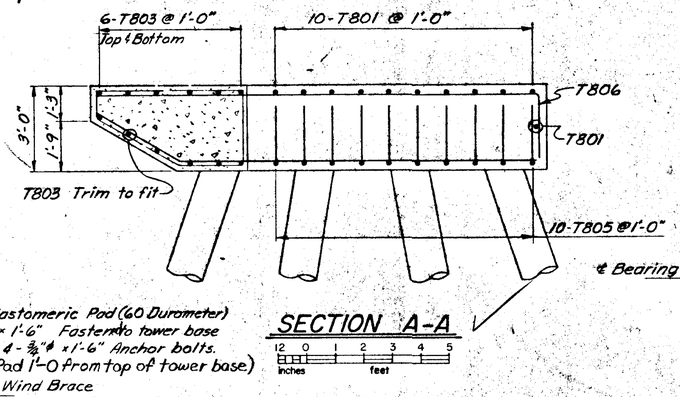
Date
Approved

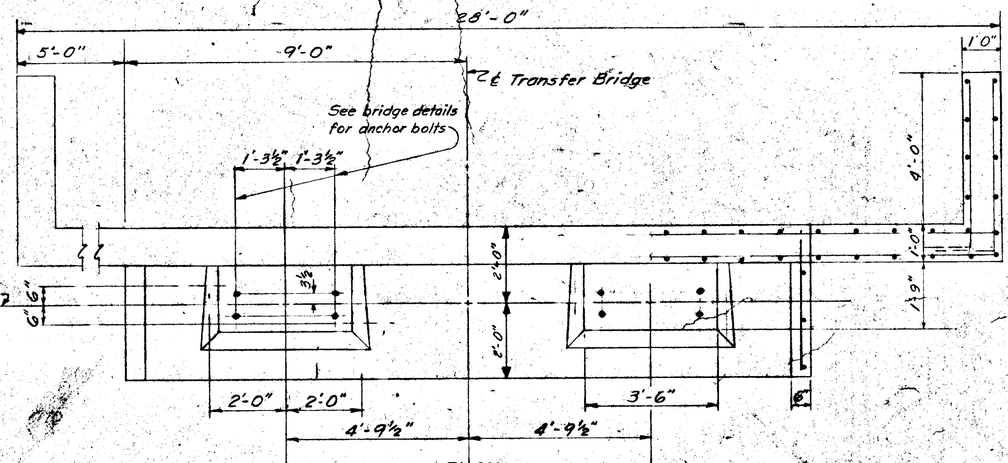
BRIDGE NO. 175
DWNG. NO. 2611A

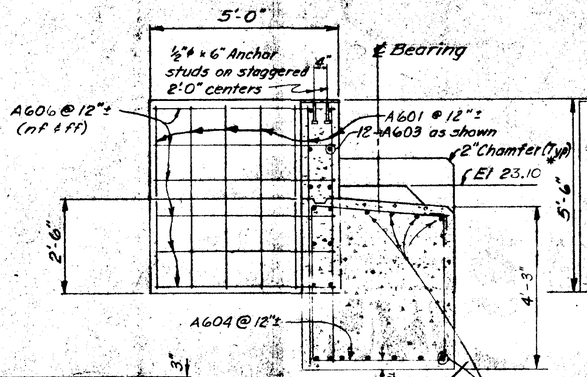
Drawn By..... Date.....
Checked By..... Date.....
Traced By..... Date.....

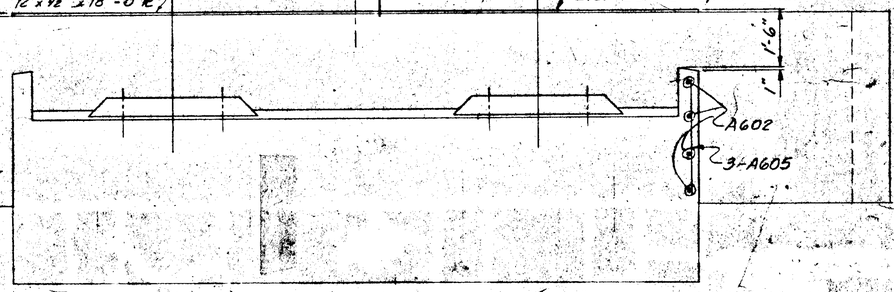
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.
ALASKA	F-095-2(9) A.D.A.P. S-02-0144-05	1972	27

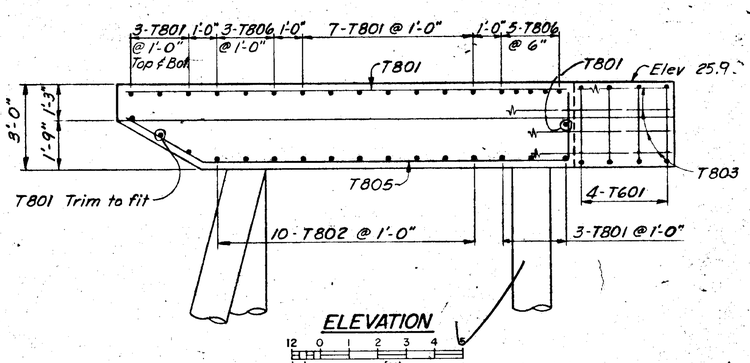


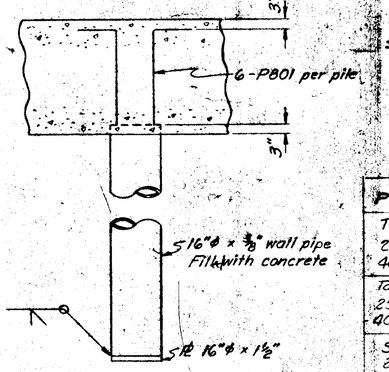




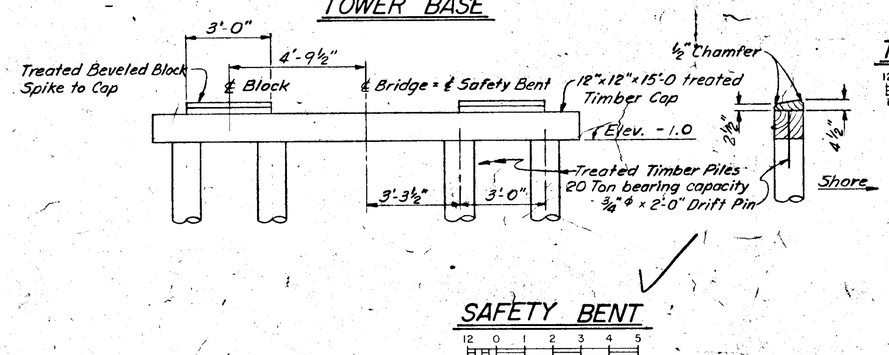


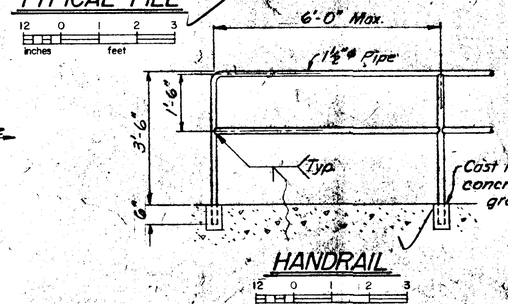


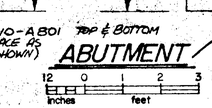




PILE TIP ELEVATIONS	Avg. Est.	Min.
Tower A		
25 Ton Piles	~~-42.5~~ -45	~~-40~~ -42.2
40 Ton Piles	~~-45~~ -45.5	-40
Tower B		
25 Ton Piles	~~-42.5~~ -40	-36.2
40 Ton Piles	~~-40~~ -47	~~-35~~ -34.5
Safety Bent		
20 Ton Piles	~~-30~~ -33.5	~~-30~~ -27







REINFORCING STEEL

Location	Mark	No.	Size	Length	Type	Bending Diagrams
Tower Base	T601	8	6	14'-9"	Bent	1'-9" 3'-6" 12'-6"
	T801	56	8	15'-6"	—	T802
	T802	20		16'-0"	Bent	1'-9" 3'-6" 12'-6" 2'-0"
	T803	24		19'-0"	—	
	T805	20		18'-0"	Bent	T805 15'-6" 2'-0"
	T806	16	8	17'-6"	Bent	T806
						5'-0" 6" 1'-9" 2'-9" 2'-3" 2'-0"
Abut.	A600	36	6	7'-0"	—	T601 4"
	A601	36	6	5'-0"	—	4'-0" 3'-6" 6"
	A602	8		3'-6"	—	A604
	A603	12		27'-6"	—	4'-6" 2'-0"
	A604	18		11'-5"	Bent	A606
	A605	6		3'-6"	—	9'-0" 1'-0"
	A606	24	6	6'-6"	Bent	P801
	A801	10	8	17'-6"	—	6" 4'-0" 8'-0"
Piles	P801	108	8	10'-0"	Bent	C501
Counter-weight	C501	8	5	25'-0"	Bent	
	C801	16	8	6'-9"	—	

* Note: Top of Deck Pl ~~will be~~ approx 0.10' above backwall when bridge is level.

All resteel ~~shall have~~ minimum concrete cover of 3" clear.

GRAVINA ISLAND
AIRPORT FERRY TERMINAL

SUBSTRUCTURE

State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

Date 8-2-72
Approved

BRIDGE NO. 175
DWNG. NO. 2612

Designed By: [illegible] Date 11-71
Checked By: [illegible] Date 11-71
Drawn By: [illegible] Date 11-71
Checked By: [illegible] Date 11-71
Traced By: Date