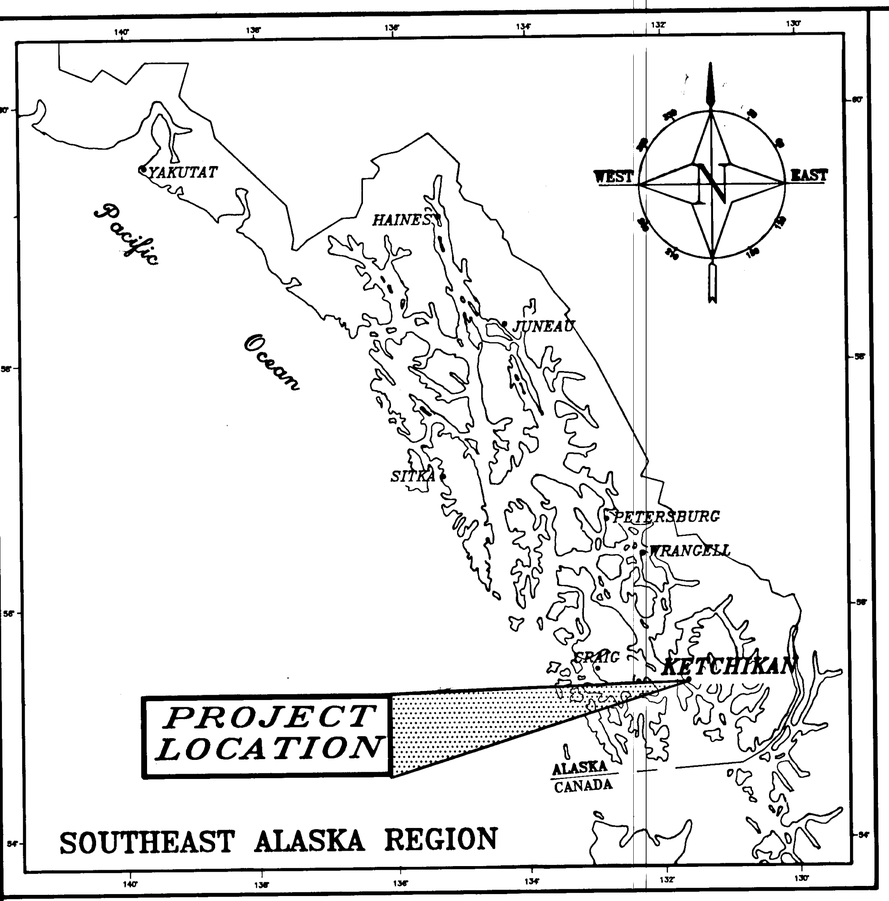


DESIGN DESIGNATION

A.D.T. (1990)	=	6700
A.D.T. (2107)	=	8200
D.H.V. (11%)	=	900
%T	=	7%
V.	=	40 M.P.H.
T.I.	=	8.5

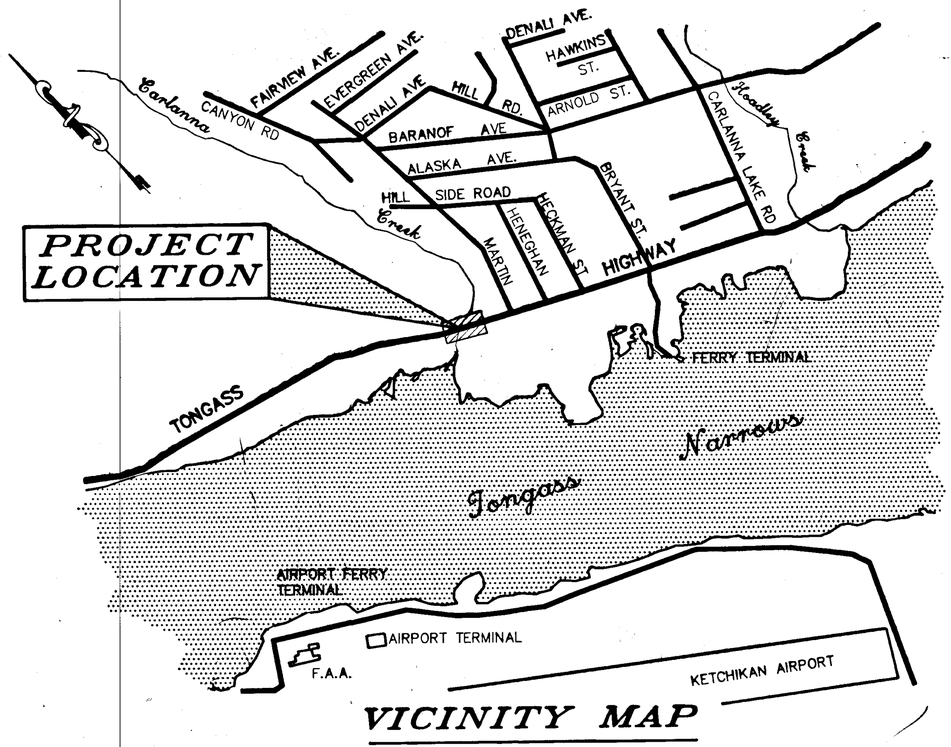
"As-Built" PLANS

CONTRACTOR: Southeast Engineering, Inc.
PROJECT ENGINEER: Dale F. Robbins
BEGIN CONSTRUCTION: November 13, 1990
END CONSTRUCTION: June 28, 1991

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

KETCHIKAN CARLANNA CREEK BRIDGE

PROJECT NO. BH-091-1(3), 70100



VICINITY MAP

INDEX OF SHEETS

The following Standard Drawings apply to this project :

A-1, C-01.03, C-02.01, C-04.03S, C-14.04W, C-46.00, S-00.00, S-05.00, S-20.00, S-30.01

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

APPROVED _____ Date 6-15-90
S.E. Region Design Chief

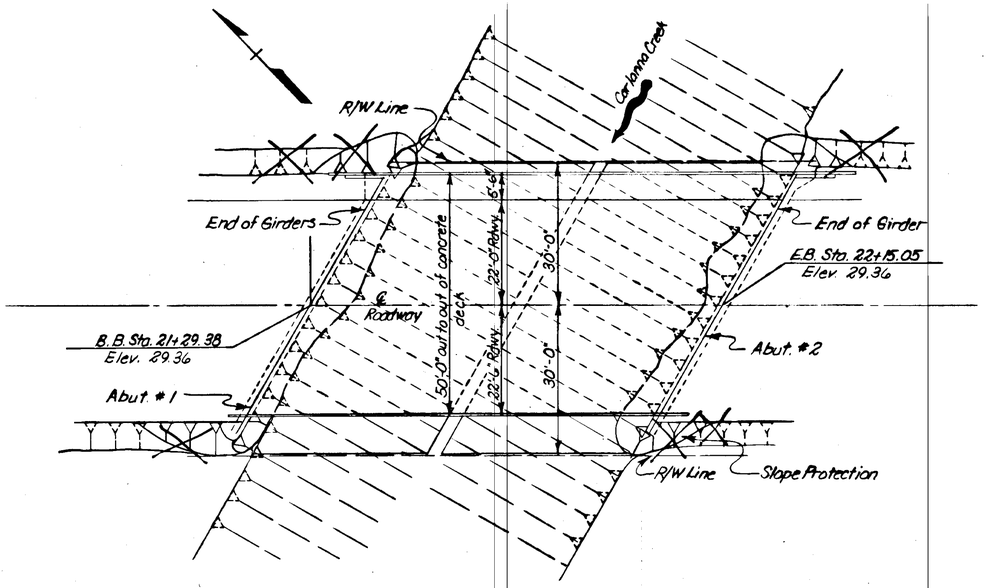
APPROVED _____ Date 6-15-90
Director, S.E. Region Design & Construction

PROJECT NUMBER: BH-091-1(3)

DATE:

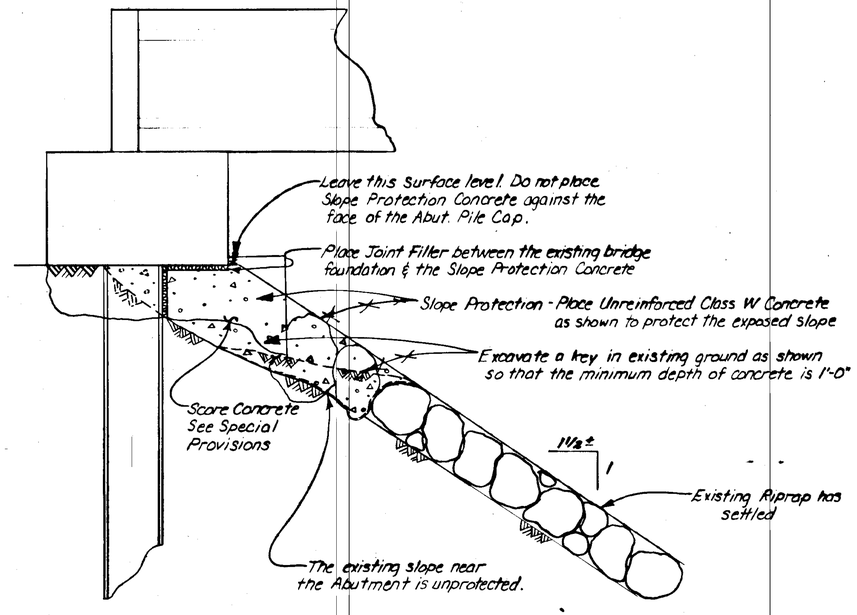
SHEET 1 OF 7

ENGINEER'S SEAL
STATE OF ALASKA
49TH
Wm. L. Townsend
CE-5543
REGISTERED PROFESSIONAL ENGINEER



SLOPE PROTECTION PLAN

(No Scale)



SLOPE PROTECTION PROFILE

(No Scale)

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	BH-091-1(3)	90	2	7

ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
120(1)	DBE Adjustments	C.S.	All Req'd
502(3)	Post Tension Concrete Girders Redesign	C.O.#1	
502(2)	Post Tension Concrete Girders	L.S.	All Req'd
606(8)	Bridge Rail and Transition Upgrade	L.S.	All Req'd
612(1)(1A)	Concrete Slope Protection C.O.#1	C.Y.	~~100~~ 24
640(1)	Mobilization and Demobilization	L.S.	All Req'd
641(1)	Temporary Erosion and Pollution Control	C.S.	0 ~~All Req'd~~
643(2)	Traffic Maintenance	L.S.	All Req'd
643(4)	Construction Sign	Ea./Day	~~300~~ 20
643(5)	Type II Barricade	Ea./Day	~~60~~ 2
643(7)	Traffic Cone	Ea./Day	~~1050~~ 0
643(15)	Flagging	Hour	~~10~~ 0

STATE OF ALASKA
49TH
Mark D. Miles
No. GE-7558
REGISTERED PROFESSIONAL ENGINEER
6/6/90

CARLANNA CREEK BRIDGE UPGRADE

ROUTE NO. F-920

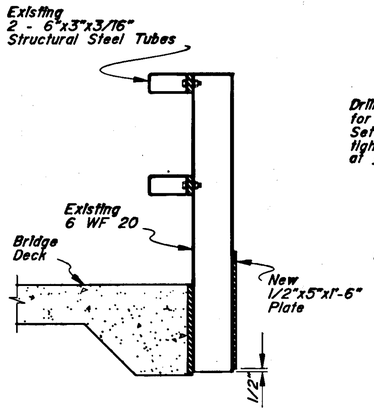
SLOPE PROTECTION

State of Alaska
DEPARTMENT OF TRANSPORTATION and PUBLIC FACILITIES
Juneau, Alaska

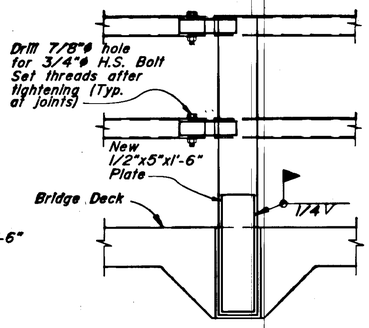
BRIDGE NO. 749

DWNG. NO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	BH-091-1(3)	90	3	7



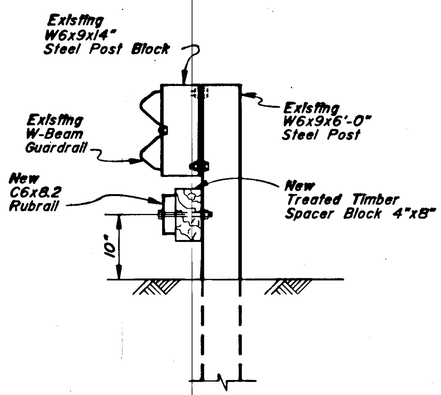
SECTION B-B



ELEVATION

RAIL POST DETAILS

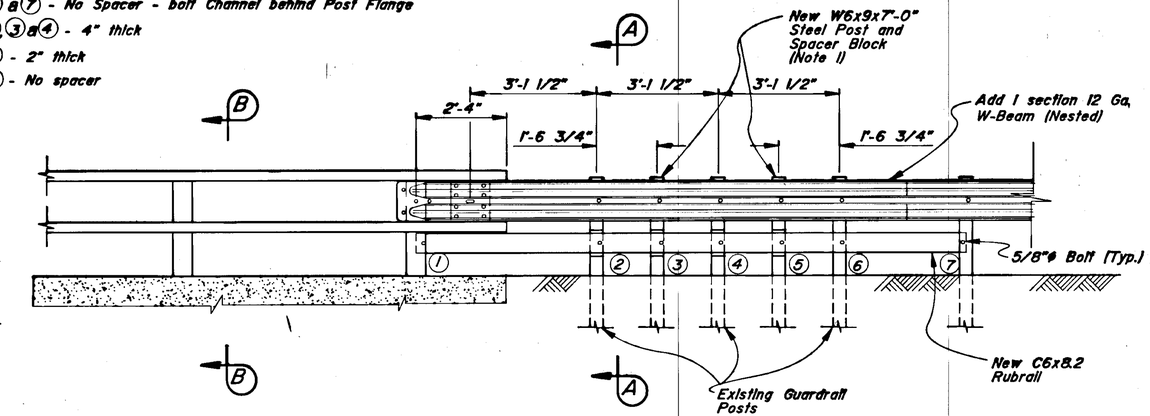
Not to Scale



SECTION A-A

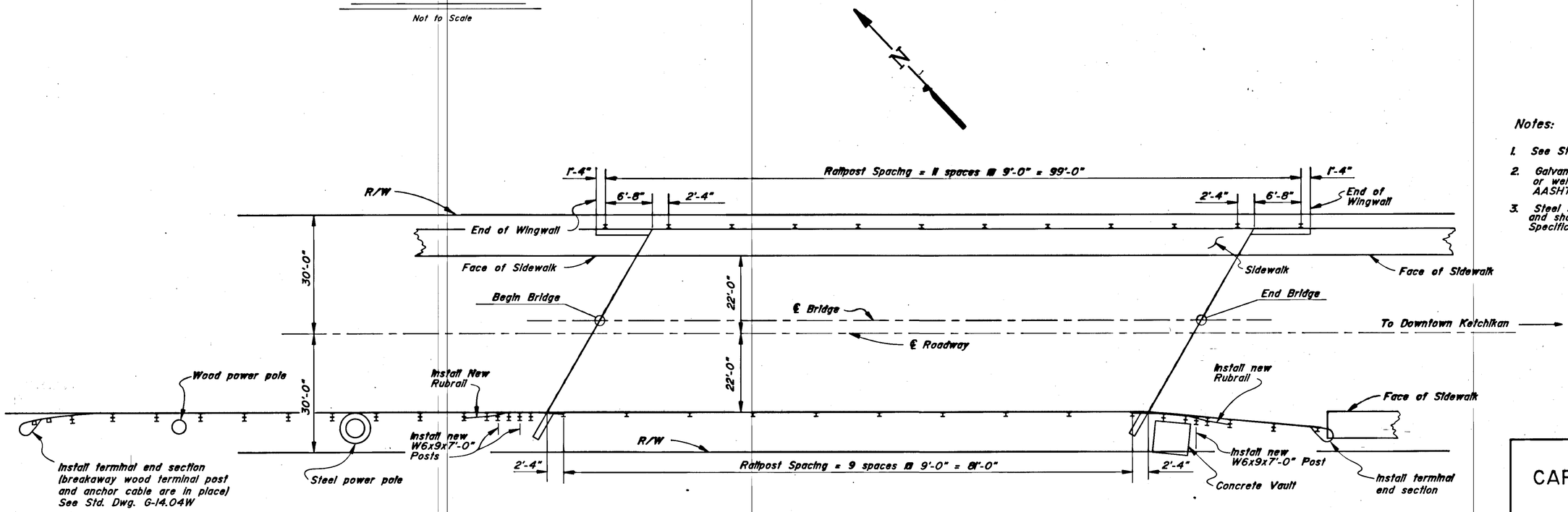
Rubrail Spacer Block

① & ⑦ - No Spacer - bolt Channel behind Post Flange
②, ③ & ④ - 4" thick
⑤ - 2" thick
⑥ - No spacer



BRIDGE RAIL TRANSITION UPGRADE

Not to Scale



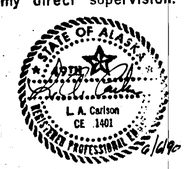
RAILPOST LAYOUT

Not to Scale

Notes:

1. See Std. Dwg. G-04.03S for installation details.
2. Galvanized Steel damaged by field cutting, drilling or welding shall be repaired in accordance with AASHTO specification M-36.
3. Steel shall conform to AASHTO M270 Grade 36 and shall be galvanized in accordance with Standard Specification 722.

Plans prepared under my direct supervision.



CARLANNA CREEK BRIDGE

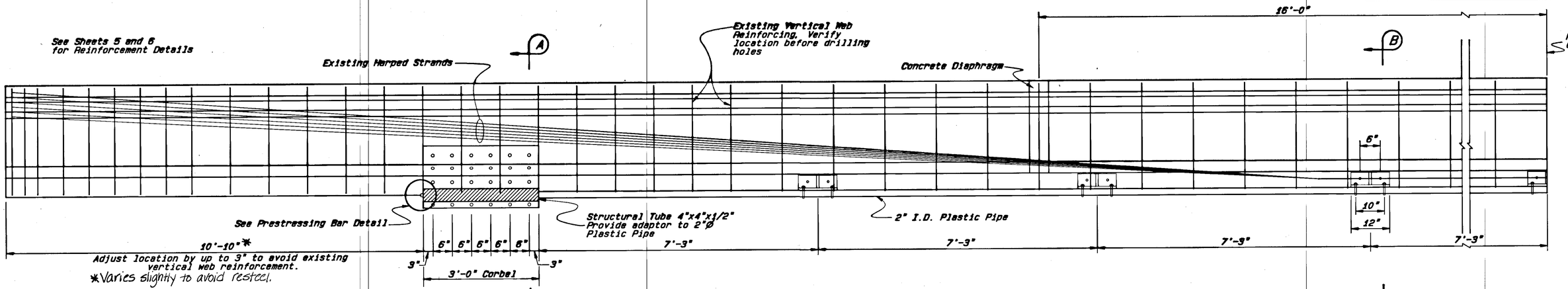
BRIDGE RAIL AND TRANSITION UPGRADE

STATE of ALASKA
DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES
JUNEAU, ALASKA

BRIDGE NO. 749

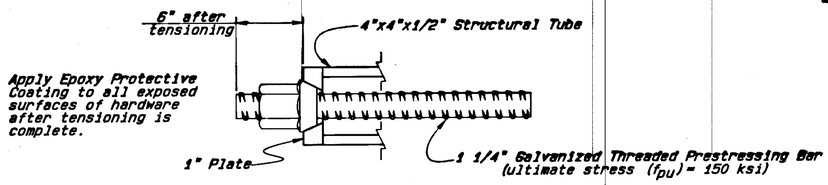
DWG. NO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	BH-091-1 (3)	90	4	7



GIRDER ELEVATION

Scale
12 6 0 1 2 3
In. Feet



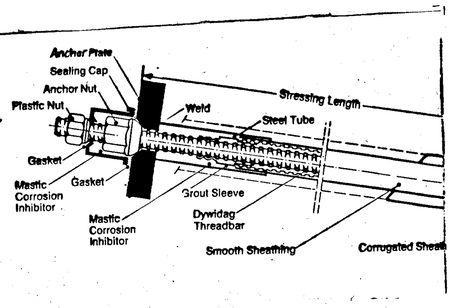
PRESTRESSING BAR DETAIL

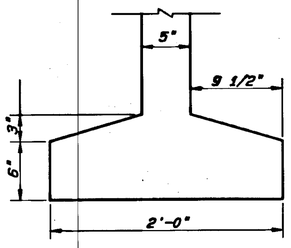
(24 required)

Scale
6 3 0 1
In. Feet

SEE DRAWING OF DOUBLE PROTECTION SYSTEM BY DYWIDAG

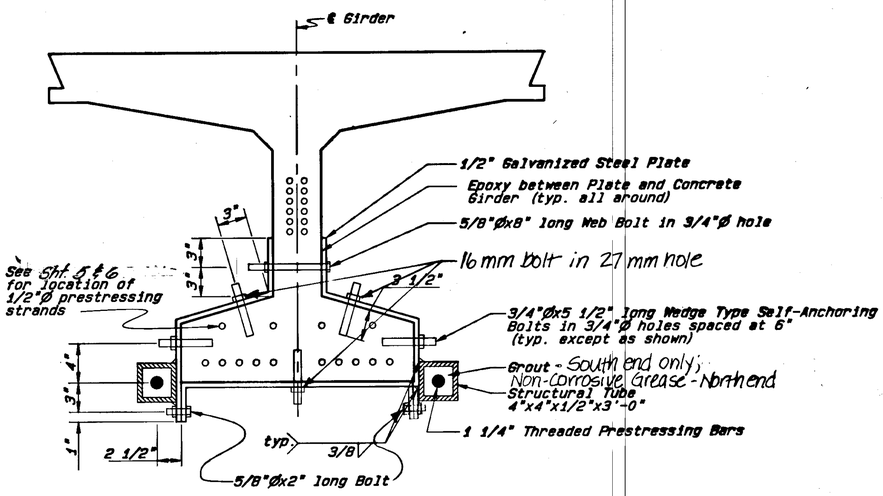
DYWIDAG Anchor with double corrosion protection





APPROXIMATE EXISTING FLANGE DIMENSIONS

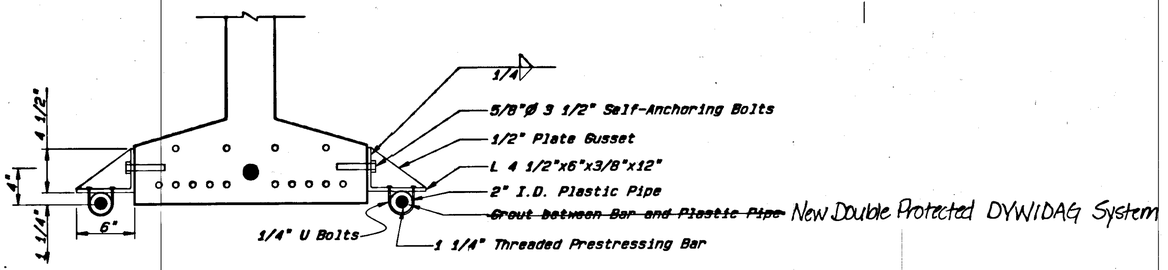
Scale
12 6 0 1
In. Feet



SECTION A-A @ CORBEL

(See attachment on Project "As-Built" Red-Lines)

Scale
12 6 0 1
In. Feet



SECTION B-B @ BRACKET

Scale
12 6 0 1
In. Feet

GENERAL NOTES

Specifications AASHTO Standard Specifications for Highway Bridges 1989 Edition, with the latest Interim Specifications.

Construction State of Alaska Standard Specifications for Highway Construction, 1988, with Standard Modifications and Special Provisions.

Live Load HS-25

Dead Load Includes 50 psf for all paving.

Materials All Structural Steel shall be AASHTO M270 Grade 36

All corbels, brackets, and other steel hardware shall be galvanized after fabrication.

Prestressing Bars shall be ASTM A722
Bolts shall be ASTM A325

~~Plastic Pipe shall be ASTM D2997, Type II, Grade E, Class B, Design Basis 4000.~~

Utilities are present under bridge, see Special Provisions.

All holes in steel shall be drilled (not punched) to 1/16" greater than bolt size.

CARLANNA CREEK BRIDGE

ROUTE NO. F-920

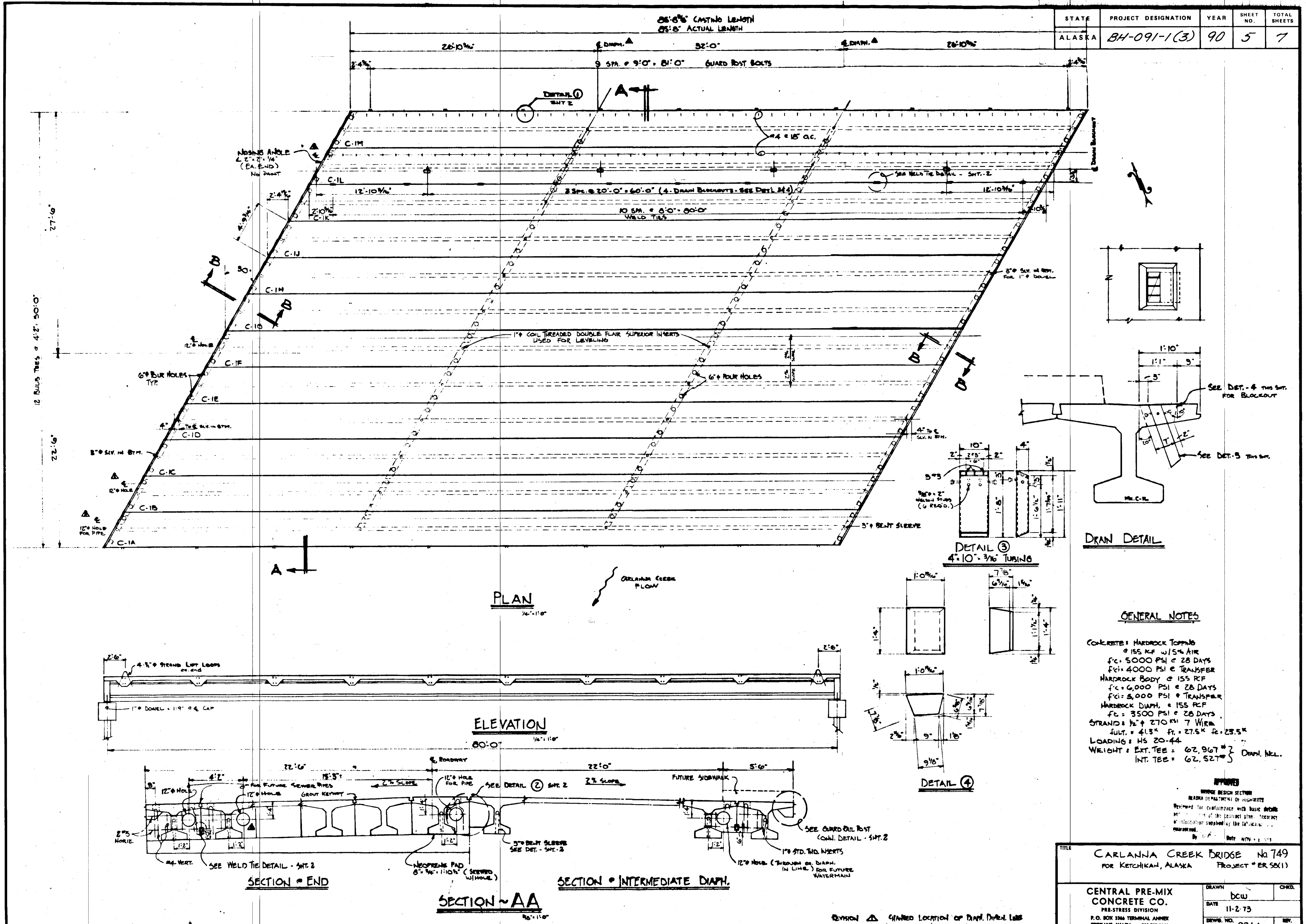
EXTERNAL POST-TENSIONING

State of Alaska
DEPARTMENT OF TRANSPORTATION and PUBLIC FACILITIES
Juneau, Alaska

STATE OF ALASKA 49TH
Mark D. Miles No. CE-7558
REGISTERED PROFESSIONAL ENGINEER
6/6/90

BRIDGE NO. 749
DWNG. NO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	BH-091-1(3)	90	5	7



GENERAL NOTES

CONCRETE: HARDROCK TOPPING @ 155 PCF w/5% AIR
f'c = 5000 PSI @ 28 DAYS
f'ci = 4000 PSI @ TRANSFER
HARDROCK BODY @ 155 PCF
f'c = 6,000 PSI @ 28 DAYS
f'ci = 5,000 PSI @ TRANSFER
HARDROCK DIAPH. @ 155 PCF
f'c = 3500 PSI @ 28 DAYS
STRAND: ½" φ 270 KSI 7 WIRE
fult. = 41.3K ft. = 27.5K fe = 23.5K
LOADING: HS 20-44
WEIGHT: EXT. TEE = 62,967# } DIAPH. INCL.
INT. TEE = 62,527# }

APPROVED
BRIDGE DESIGN SECTION
ALASKA DEPARTMENT OF HIGHWAYS
Reviewed for conformance with basic details and ... of the contract plans. Accuracy of information supplied by the fabricator ... guaranteed.
By ... Date NOV ...

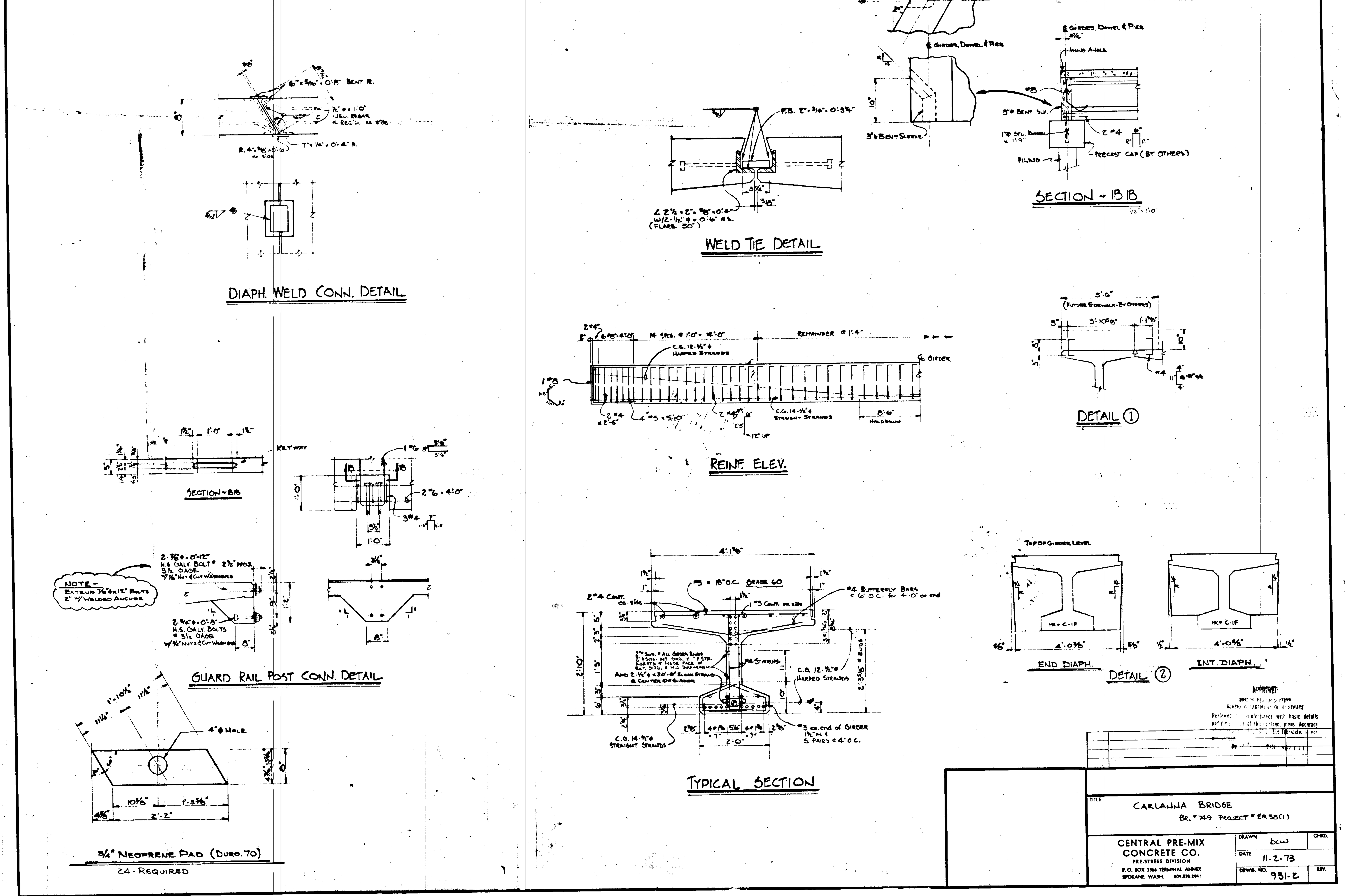
Revision △ CHANGED LOCATION OF DIAPH. DWEL. LEGS
△ ADDED 12"φ HOLES TO DIAPH'S

TITLE: CARLANNA CREEK BRIDGE No. 749
FOR KETCHIKAN, ALASKA PROJECT # ER 58(1)

CENTRAL PRE-MIX CONCRETE CO.
PRE-STRESS DIVISION
P.O. BOX 3366 TERMINAL ANNEX
SPOKANE, WASH. 509-535-2941

DRAWN	CHKD.
bcw	
DATE 11-2-73	
DRWG. NO. 931-1	REV.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	BH-091-1(3)	90	6	7

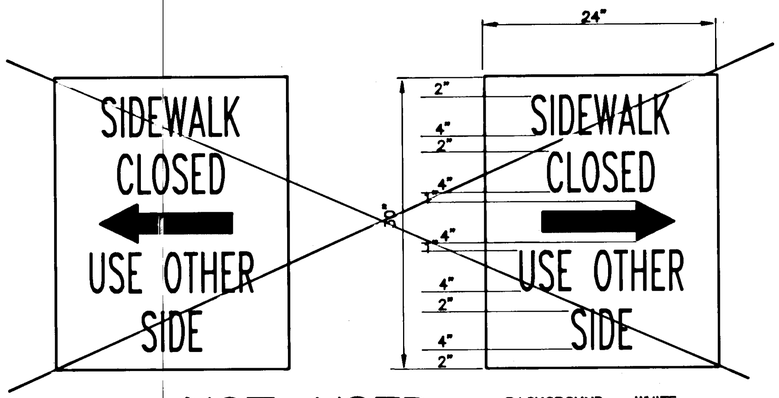


DIAPH. WELD CONN. DETAIL
6" x 5/16" x 0'-8" BENT PL.
WELD TIE DETAIL
F.B. 2" x 1/4" x 0'-3¾"
SECTION - 1B 1B
PILING
PRECAST CAP (BY OTHERS)
REINF. ELEV.
REMAINDER @ 1'-4"
℄ GIRDER
C.G. 12-½"φ HARPED STRANDS
C.G. 14-½"φ STRAIGHT STRANDS
HOLDDOWN
DETAIL ①
(FUTURE SIDEWALK - BY OTHERS)
SECTION - BB
KEYWAY
GUARD RAIL POST CONN. DETAIL
NOTE - EXTEND ⅞"φ x 12" BOLTS 2" W/ WELDED ANCHOR
TYPICAL SECTION
#5 @ 18" O.C. GRADE 60
#4 BUTTERFLY BARS @ 6" O.C. for 4'-0" ea end
#4 STIRRUPS
C.G. 12-½"φ HARPED STRANDS
C.G. 14-½"φ STRAIGHT STRANDS
#3 ea end of GIRDER
5 PAIRS @ 4" O.C.
TOP OF GIRDER LEVEL
END DIAPH.
INT. DIAPH.
DETAIL ②
4" φ HOLE
¾" NEOPRENE PAD (DURO. 70)
24 - REQUIRED
APPROVED
CARLANNA BRIDGE
BR. #749 PROJECT # ER 38(1)
CENTRAL PRE-MIX CONCRETE CO.
PRE-STRESS DIVISION
P.O. BOX 3366 TERMINAL ANNEX
SPOKANE, WASH.
DRAWN bcw
DATE 11-2-73
DRWG. NO. 931-2

CONSTRUCTION SIGN SUMMARY

SIGN NO.	MUTCD NO.	LEGEND	NO. OF SIGNS	SIGNS
①	CW20-1F	ROAD CONSTRUCTION AHEAD	2	48"X48"
②	CW21-5	SHOULDER WORK	2	30"X30"
③	CW21-1	20 M.P.H.	2	48"X48"
④	*	SIDEWALK CLOSED USE OTHER SIDE	2	30"X24"
⑤	G20-2	END CONSTRUCTION	2	24"X60"
⑥	*	SIDEWALK CLOSED USE OTHER SIDE	1	30"X24"

* SEE DETAIL ON THIS SHEET



NOT USED

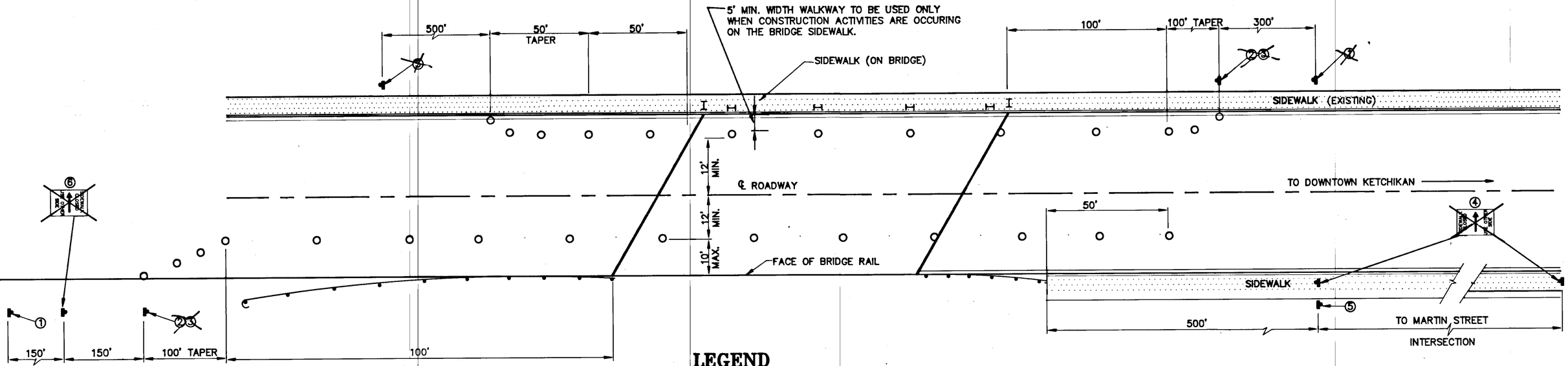
BACKGROUND – WHITE
LETTERING – BLACK
LETTER SIZE – SERIES B
(ALASKA SIGN DESIGN SPECIFICATIONS)

TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE PUBLIC ADVISED THROUGH THE LOCAL NEWS MEDIA OF HIS CONSTRUCTION ACTIVITIES AND SCHEDULING. (SEE STANDARD SPECIFICATIONS).
2. CONSTRUCTION SIGNS SHALL BE PORTABLE AND SHALL BE REMOVED OR COVERED DURING NON-WORKING HOURS.
3. CONSTRUCTION EQUIPMENT AND MATERIALS SHALL NOT BE LEFT ON THE BRIDGE OR ROADWAY DURING NON-WORKING HOURS.

~~4.~~ ~~A 5 FOOT MIN. WIDTH PEDESTRIAN WALKWAY SHALL BE PROVIDED AT ALL TIMES ON THE UPSTREAM (NORTHEAST) SIDE OF THE BRIDGE.~~

~~5.~~ ~~FLAGGING (WITH CORRESPONDING SIGNING) MAY BE REQUIRED ON A LIMITED BASIS AS DIRECTED BY THE ENGINEER.~~



LEGEND

○ CONES OR TUBES SPACED @ 20' APART

H TYPE II BARRICADES @ 20' APART

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

ENGINEER'S SEAL
STATE OF ALASKA
49TH
Wm. L. Townsend
CE-5543
REGISTERED PROFESSIONAL ENGINEER

DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

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

KETCHIKAN ALASKA

CARLANNA CREEK BRIDGE
TRAFFIC CONTROL PLAN

DESIGNED BY: M. BUNTON	PROJECT NO. BH-091-1(3)
DRAWN BY: AUTOCADD/CSA	DATE:
CHECKED BY: W. TOWNSEND	SHEET 7 OF 7