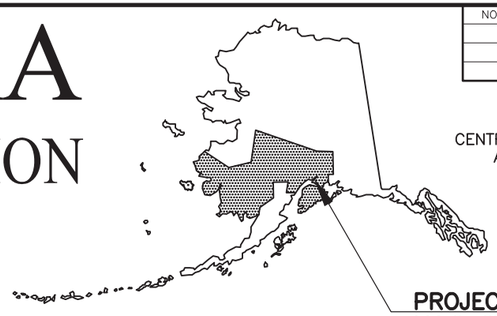
DESIGNED BY	S.L.H.
CHECKED BY	R.R.H.
DRAFTED BY	S.L.H.
SCALE	N/A
DATE	8/10/2022
TIME	3:45 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_A01NA02_TTL.DWG

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES



NO.	DATE	REVISION

STATE	PROJECT DESIGNATION		YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129		2022	A01	A04
ROUTE ID	8241004X000	MILEPOINT	20.500 - 22.500		
LATITUDE	62.968247	LONGITUDE	156.091078		

PROPOSED HIGHWAY PROJECT

TAKOTNA RIVER BRIDGE REPLACEMENT

PROJECT NO. 0001569/CFHWY00129

BRIDGE, GRADING, DRAINAGE, AND SIGNING

DESIGN DESIGNATIONS

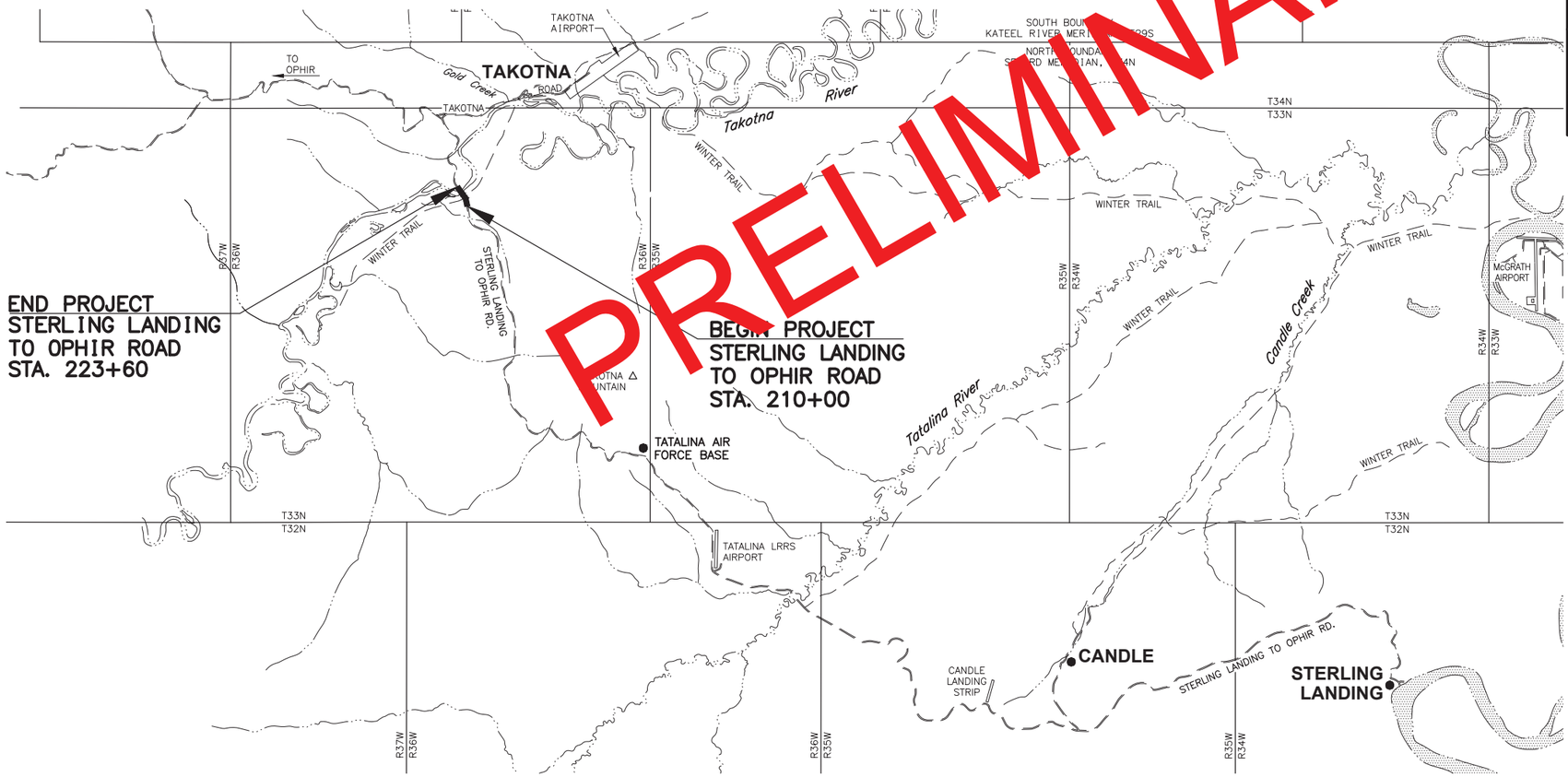
ROADWAY	FUNCTIONAL CLASS	AADT (2019)	DESIGN SPEED
STERLING LANDING TO OPHIR ROAD	MINOR COLLECTOR	58	30 MPH

PROJECT SUMMARY

ROADWAY	WIDTH	LENGTH
STERLING LANDING TO OPHIR ROAD	18 FT	0.26 MILES

BRIDGE SUMMARY

BRIDGE NAME	BRIDGE #	BRIDGE LENGTH	BRIDGE WIDTH
TAKOTNA RIVER BRIDGE	0463	294 FT	24 FT-3 IN



PRELIMINARY

PIH/PS&E
AUGUST 2022

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
4111 AVIATION AVENUE, ANCHORAGE, AK 99502
(907)269-0590

APPROVED:

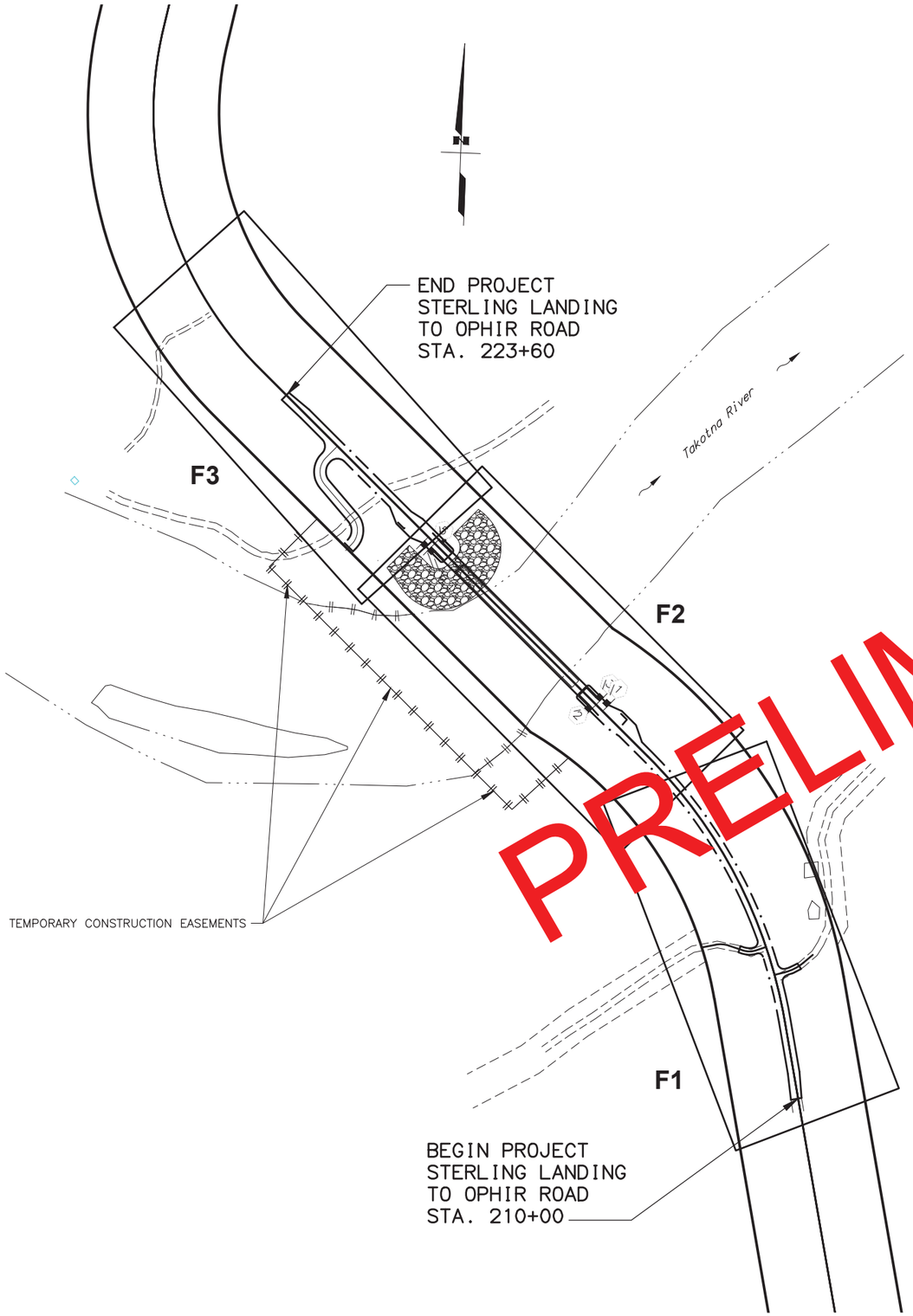
REGIONAL PRECONSTRUCTION ENGINEER DATE

CONCUR:

REGIONAL CONSTRUCTION ENGINEER DATE

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	A02	A04



GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE RIGHT-OF-WAY AND TEMPORARY CONSTRUCTION EASEMENTS. NO EXCESS MATERIAL SHALL BE DISPOSED OF WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS OR DIRECTED BY THE ENGINEER.
2. CLEARING AND GRUBBING LIMITS SHALL BE TO 5 FEET BEYOND THE SLOPE STAKE CATCH POINT, OR TO THE ROW, WHICHEVER IS CLOSER.
3. PLACE 4 INCHES OF TOPSOIL AND SEED ON ANY AREAS DISTURBED BY CONSTRUCTION AND AS DIRECTED BY THE ENGINEER.
4. ALL EMBANKMENT SLOPES STEEPER THAN 2:1 OR HIGHER THAN 10 FEET SHALL HAVE MATTING IN ADDITION TO TOPSOIL AND SEEDING.

INDEX

THE FOLLOWING ALASKA STANDARD PLANS APPLY TO THIS PROJECT:

D-01.02, D-04.22, D-06.10
E-09.00
G-00.05, G-05.11S, G-05.11W, G-10.20, G-14.01, G-20.12
M-13.01
S-00.12, S-05.02, S-30.05, S-31.02, S-32.02

SPECIFICATION:

CONSTRUCT THE IMPROVEMENTS COVERED BY THESE PLANS IN ACCORDANCE WITH THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES 2020 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE PROJECT SPECIAL PROVISIONS.

STATE OF ALASKA
49TH
NATHAN R. HAMMEL
CE 107681
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

SHEET LAYOUT, INDEX, AND GENERAL NOTES

DESIGNED BY SLH
CHECKED BY RRH
DRAFTED BY SLH

SCALE N/A

DATE TIME 8/10/2022 3:46 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_A01NA02_TTL.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	A03	A04

DESIGNED BY
CHECKED BY
DRAFTED BY

SCALE 1" = 1"

DATE 8/10/2022 TIME 3:46 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_A03_LGND.DWG

ROADWAY

	EXISTING	PROPOSED
EDGE OF PAVEMENT		
LIMIT OF CUT SLOPE & FILL SLOPE		CUT / FILL
GRAVEL EDGE		
SIDEWALK AND PATH/TRAIL		
CONCRETE CURB & GUTTER		
CONCRETE CURB CUT		
PARALLEL CURB RAMP PERPENDICULAR CURB RAMP		
UNIDIRECTIONAL CURB RAMP & MID-BLOCK CURB RAMP		
DETECTABLE WARNING TILE		
BRIDGE		
TUNNEL		
GUARDRAIL		
END & PARALLEL END SECTIONS		
ROADWAY OBLITERATION		
FENCE	— x — x —	— x — x —
STONE FENCE		
NOISE BARRIER	====x====x	====x====x
RETAINING WALL		
HEADWALL & WINGWALL		
BOTTOM OF DITCH		
SPECIAL DITCH		
FLAT BOTTOM DITCH		
BERM		
RIPRAP		
BOULDER OR BOULDERS		
MAILBOX	MB	MB
INTERPRETIVE SIGN		
POST, BOLLARD	□ ○	■ ●

UTILITIES

	EXISTING	PROPOSED
STORM DRAIN	SD	
STORM DRAIN MANHOLE, CLEANOUT	SD CO	SD CO
CURB INLET CATCH BASIN FIELD INLET CATCH BASIN	FI	FI
PIPE CULVERT WITH END SECTION		
SANITARY SEWER	SS	SS
SANITARY SEWER MANHOLE, CLEANOUT	SS CO	SS CO
SEPTIC VENT, SEWER SERVICE CONNECTION	S ▽	▼
WATER	W	W
FIRE HYDRANT, VALVE OR RISER		
WELL, WATER SERVICE CONNECTION	W	
NATURAL GAS	G G	
OIL OR GASOLINE PIPELINE	OIL	
TANKS (ABOVE GROUND, UNDERGROUND)	U	
ELECTRIC	OE (OVERHEAD) UE (UNDERGROUND) OE/OT (OVERHEAD)	
UTILITY POLE, POLE WITH LUMINAIRE		
GUY POLE, GUY WIRE ANCHOR	GP	
TRANSMISSION TOWER (WOOD, STEEL)		
ELECTRIC PEDESTAL, TRANSFORMER	E	E
ELECTRIC MANHOLE, METER	E	
ELECTRIC OUTLET, LANDSCAPE LIGHT		
TELEPHONE	OT (OVERHEAD) UT (UNDERGROUND) (UNDERGROUND)	
TELEPHONE MANHOLE, PEDESTAL		
FIBER OPTIC	OFO (OVERHEAD) FO (UNDERGROUND)	
FIBER OPTIC MANHOLE	FO	
CABLE TV	OTV (OVERHEAD) UTV (UNDERGROUND)	
CABLE TV PEDESTAL, SATELLITE DISH		
UNDERGROUND DUCT, UTILIDOR (ELECTRIC, TELEPHONE, FIBER OPTIC)		
VENT		

TOPOGRAPHY

	EXISTING	EXISTING	PROPOSED
LAKE OR POND, WETLANDS	LAKE/POND	CONTOUR, MAJOR OR MINOR	520
TREE (CONIFER/DECIDUOUS) TREELINE (EDGE OF VEGETATION)		DRAINAGE FLOW	
PLANTER	P	CREEK (CENTERLINE)	
BUILDING OR FOUNDATION		RIVER (EDGE OF WATER)	

TRAFFIC

	EXISTING	PROPOSED
LOAD CENTER		
STATE TRAFFIC, MOA TRAFFIC, & BEACON CONTROLLER ARROW INDICATES DOOR LOCATION		
TYPE 1A, II, III, IV JUNCTION BOX		## ## ## ##
FIBER OPTIC VAULT	F/O	F/O ##
ELECTROLIER		
HIGHTOWER		HT#
SIGNAL POLE WITH MASTARM		14
PEDESTRIAN PUSH BUTTON & SIGNAL		
VEHICULAR SIGNAL		
VEHICULAR SIGNAL LEFT & RIGHT		
OPTICAL, CAMERA, RADAR, AND GPS DETECTOR		CAM A RAD GPS C
LOOP DETECTOR		###
COMMUNICATION ANTENNA		
MASTARM BEACON		A D C Y
RURAL & SCHOOL ZONE BEACON		
LOOP DETECTOR CONDUIT		
SIGNAL CONDUIT	TR	TR
LIGHTING CONDUIT	LTG	LTG
SIGNAL & LIGHTING CONDUIT	T/L	T/L
CONDUIT BORING		
CONDUIT SIZE IN INCHES	2" 3C4	2" 1-3C4 CKT BA12 CKT BA13
INTERCONNECT	I/C	I/C
SIGN POST		##

PAVEMENT MARKINGS

	PROPOSED
TRAFFIC PROJECT CENTERLINE	
8" & 4" WHITE SOLID STRIPE	8"W 4"W
4" WHITE SKIP STRIPE 10' STRIPES AND 30' SPACES	4"W SKIP
8" WHITE LANE GUIDE SKIP LANE CONTINUATION OR TURN SKIP 1' STRIPES AND 3' SPACES	8"W GUIDE SKIP
8" & 4" YELLOW SOLID STRIPE	8"Y 4"Y
4" YELLOW SKIP STRIPE 10' STRIPES AND 30' SPACES	4"Y SKIP
STRIPING CHANGE STATION INTERVAL	+20
2' CROSSWALK OR STOPBAR	24"W (TYP)
LADDER CROSSWALK LAYOUT 2' WIDE RUNGS WITH 2' SPACES ALIGNED TO AVOID TIRE PATHS	10' 12' (2)-4"Y 3" APART
TYPICAL PAINTED MEDIAN	VARIES 18"Y @ 45°

RIGHT-OF-WAY

	RECOVERED	SET THIS PROJECT
FEDERAL GOV'T SURVEY MONUMENT		
GOV'T CONTROL STATION		
PRIMARY MONUMENT (BRASS/AL CAP)		
MISC SECONDARY CORNER		
PRIMARY CENTERLINE MONUMENT		
SECONDARY CENTERLINE MONUMENT		
RANDOM CONTROL MONUMENT	RCM	
PRIMARY GPS CONTROL POINT	GPS	
HORIZONTAL CONTROL POINT	CP	
SECONDARY CONTROL POINT	SCP	
VERTICAL BENCHMARK	BM	
TEMPORARY BENCHMARK	TBM	
TOWNSHIP AND RANGE LINES	T13N / T12N, R2W / R3W	
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
CORPORATE or CITY LIMITS		
EXISTING RIGHT-OF-WAY		
RIGHT-OF-WAY OR EASEMENT REQUIRED		
PROJECT RIGHT-OF-WAY LINE		
EXISTING RIGHT-OF-WAY EASEMENT		
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE		
EXISTING UTILITY EASEMENT		
PROPOSED UTILITY EASEMENT		
EXISTING CENTERLINE		
RAILROAD CENTERLINE		
TEMPORARY CONSTRUCTION EASEMENT		
TEMPORARY CONSTRUCTION PERMIT		

PRELIMINARY

PTHIPSBE

STATE OF ALASKA
49TH
R. HAMMEL
CE 107681
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

LEGEND

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	A04	A04

DESIGNED BY ---
CHECKED BY ---
DRAFTED BY ---

SCALE X" = XX'

DATE 8/10/2022 TIME 3:46 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_A04_SURVEY CONTROL.DWG

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

SURVEY CONTROL

NO.	DATE	REVISION

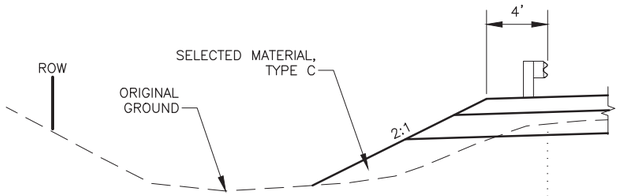
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	B01	B01

DESIGNED BY
CHECKED BY
DRAFTED BY

SCALE 1" = 1'

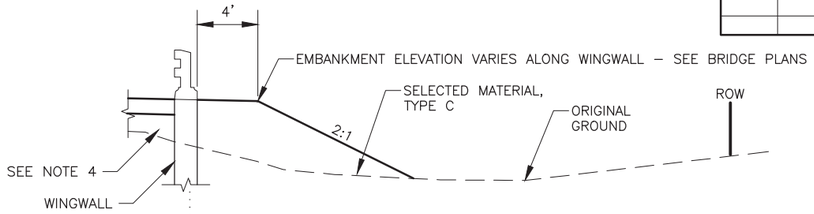
DATE TIME 8/15/2022 9:46 AM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_B01_TYP.DWG



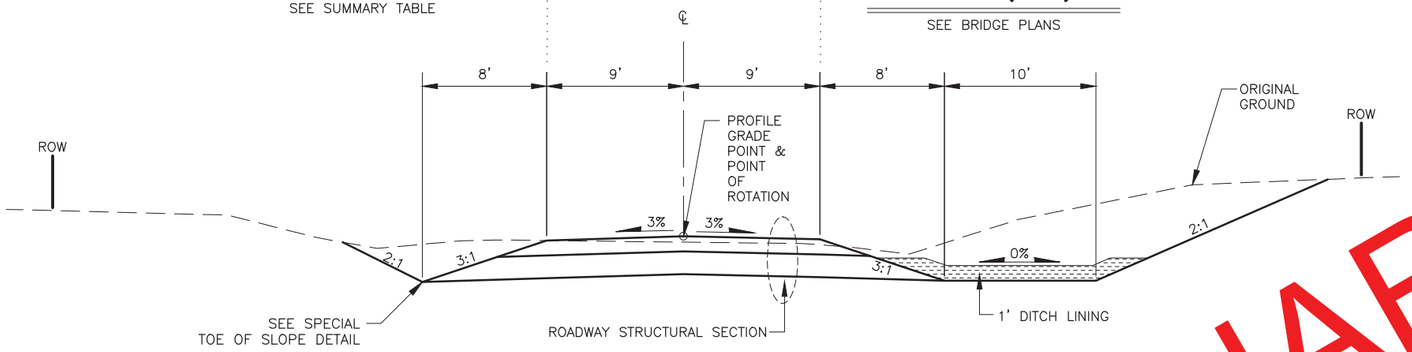
GUARDRAIL DETAIL (TYP.)

SEE SUMMARY TABLE



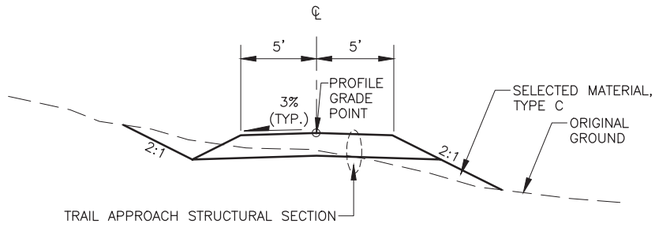
WINGWALL WIDENING DETAIL (TYP.)

SEE BRIDGE PLANS



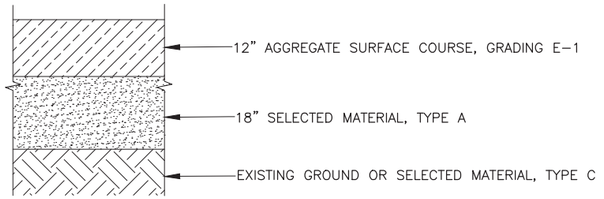
STERLING LANDING TO OPHIR ROAD

STA. 210+00 TO STA. 217+21.5



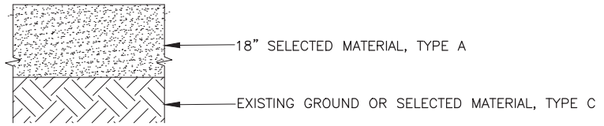
TRAIL APPROACH TYPICAL

APPROACHES STA. 211+93 RT AND STA 212+43 LT



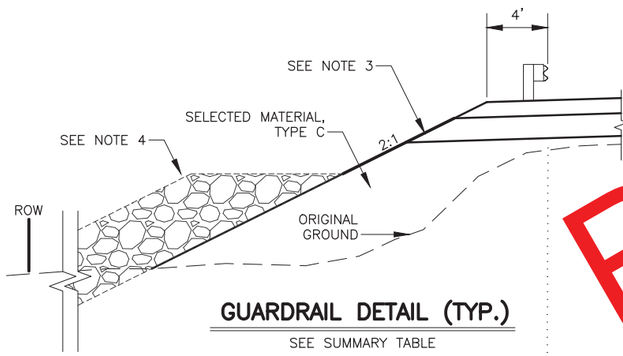
ROADWAY STRUCTURAL SECTION

N.T.S.



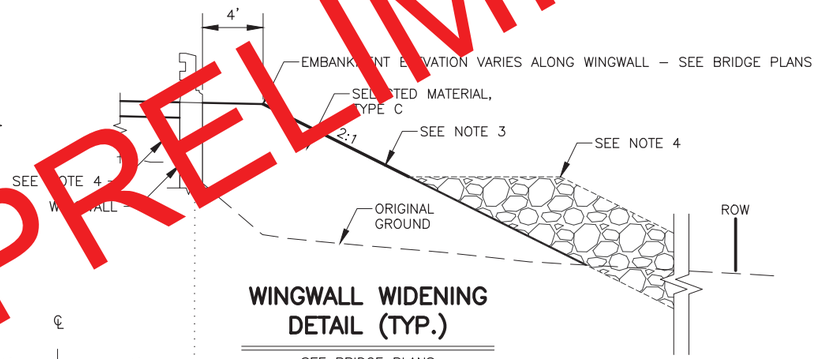
TRAIL APPROACH STRUCTURAL SECTION

N.T.S.



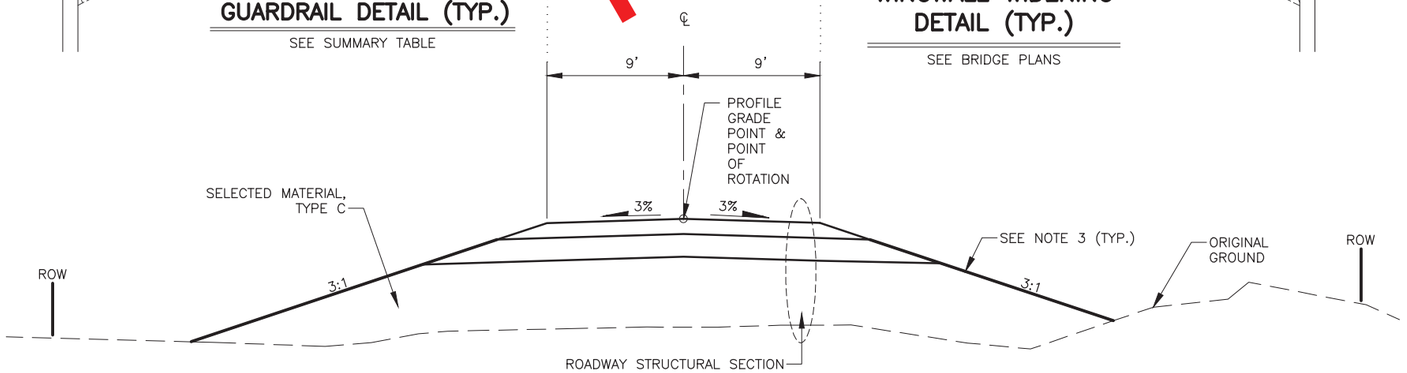
GUARDRAIL DETAIL (TYP.)

SEE SUMMARY TABLE



WINGWALL WIDENING DETAIL (TYP.)

SEE BRIDGE PLANS



STERLING LANDING TO OPHIR ROAD

STA. 220+11.5 TO STA. 223+60
APPROACH 222+50 LT

NOTES:

1. SEE PLAN SHEETS FOR PULLOUT WIDENING LOCATIONS.
2. FOR THE TRAIL APPROACHES AT STA 211+93 RT AND 212+43 LT, TRANSITION FROM ROADWAY STRUCTURAL SECTION TO TRAIL APPROACH STRUCTURAL SECTION BETWEEN THE EDGE OF ROADWAY AND THE RADIUS RETURN POINT.
3. ALL EMBANKMENT SLOPES STEEPER THAN 2:1 OR HIGHER THAN 10 FEET SHALL HAVE MATTING IN ADDITION TO TOPSOIL AND SEEDING.
4. SEE BRIDGE PLANS FOR STRUCTURAL FILL AND POROUS BACKFILL REQUIREMENTS AND RIPRAP LAYOUT DETAILS.

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

TYPICAL SECTIONS

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	C01	C01

DESIGNED BY
CHECKED BY
DRAFTED BY

SCALE 1" = 1"

DATE 8/10/2022 TIME 3:47 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_C01_EST.DWG

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
201.0003.0000	CLEARING AND GRUBBING	ACRE	2.6
202.0023.0000	REMOVAL OF BRIDGE 0463	LS	ALL REQ'D
203.0003.0000	UNCLASSIFIED EXCAVATION	CY	6,600
203.0006.000A	BORROW, TYPE A	TON	4,550
203.0005.000C	BORROW, TYPE C	TON	13,850
205.0006.0000	STRUCTURAL FILL	CY	608
301.0003.00E1	AGGREGATE SURFACE COURSE, GRADING E-1	TON	2,400
501.0001.0000	CLASS A CONCRETE	LS	ALL REQ'D
501.0007.0000	PRECAST CONCRETE MEMBER, DECK PANEL	EACH	61
501.0009.0000	CLASS DS CONCRETE, 3'-0" DIA.	LF	224.5
503.0002.0000	EPOXY-COATED REINFORCING STEEL	LS	ALL REQ'D
504.0001.0000	STRUCTURAL STEEL	LS	ALL REQ'D
507.0001.0002	STEEL BRIDGE RAILING, 2-TUBE	LF	660
515.0001.0000	DRILLED SHAFT	LS	ALL REQ'D
515.0002.0000	UNCLASSIFIED SHAFT EXCAVATION, 3'-0" DIA.	LF	180.2
515.0004.0000	SHAFT CASING, 3'-0" DIA.	LF	223.5
516.0001.0001	EXPANSION JOINT, STRIP SEAL	LF	3
520.0001.0000	TEMPORARY CROSSINGS	L	ALL REQ
603.2017.0024	PIPE 24 INCH	LF	4
606.0001.0000	W-BEAM GUARDRAIL	LF	100
606.0016.0000	TRANSITION RAIL	EA	4
610.0002.0000	DITCH LINING	CY	240
611.0001.0001	RIPRAP CLASS I	CY	450
611.0001.0003	RIPRAP CLASS III	CY	2,050
615.0001.0000	STANDARD SIGN	SF	19.5
618.0002.0000	SEEDING	LB	130
619.0002.0000	MATTING	SY	1,350
620.0001.0000	TOPSOIL	SY	9,600
622.2011.0000	INTERPRETIVE SIGN	EACH	3
639.2000.0000	APPROACH	EACH	3
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQ'D
640.0004.0000	WORKER MEALS AND LODGING, OR PER DIEM	LS	ALL REQ'D

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
641.0001.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LS	ALL REQ'D
641.0005.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CS	ALL REQ'D
641.0006.0000	WITHHOLDING	CS	ALL REQ'D
641.0007.0000	SWPPP MANAGER	LS	ALL REQ'D
642.0001.0000	CONSTRUCTION SURVEYING	LS	ALL REQ'D
642.0003.0000	THREE PERSON SURVEY PARTY	HR	50
643.0002.0000	TRAFFIC MAINTENANCE	LS	ALL REQ'D
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	LS	ALL REQ'D
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CS	ALL REQ'D
643.0025.0000	TRAFFIC CONTROL	CS	ALL REQ'D
643.0032.0000	FLAGGING	CS	ALL REQ'D
644.0001.0000	FIELD OFFICE	LS	ALL REQ'D
644.0002.0000	FIELD LABORATORY	LS	ALL REQ'D
644.0015.0000	NUCLEAR TESTING EQUIPMENT STORAGE SHED	EACH	1
644.0016.0000	STORAGE CONTAINER	EACH	1
644.2004.0000	ENGINEERING COMMUNICATIONS	CS	ALL REQ'D
644.2001.0000	VEHICLE (LT/SUV)	EACH	2
645.0001.0000	TRAINING PROGRAM, _ TRAINEES/APPRENTICES	LH	*
646.0001.0000	CPM SCHEDULING	LS	ALL REQ'D
647.2002.0000	BACKHOE, 4WD, 1 CY BUCKET, 75 HP MIN, 15 FT DEPTH	CS	ALL REQ'D

TABLE OF ESTIMATING FACTORS

ITEM NO.	ITEM DESCRIPTION	UNIT
203.0006.000A	BORROW, TYPE A	145 LB/CF
203.0006.000C	BORROW, TYPE C	144 LB/CF
205.0006.0000	STRUCTURAL FILL	138 LB/CF
301.0003.00E1	AGGREGATE SURFACE COURSE, GRADING E-1	148 LB/CF
610.0002.0000	DITCH LINING	110 LB/CF
611.0001.0001	RIPRAP, CLASS I	108 LB/CF
611.0001.0003	RIPRAP, CLASS III	108 LB/CF
618.0003.0000	WATER FOR SEEDING	1 GAL/SF

* ITEM 645.0001.0000 TRAINING PROGRAM, 2 TRAINEES/APPRENTICES IS FOR THE TOTAL CONTRACT COMPRISED OF 000S783/Z516210000 TAKOTNA: GOLD CREEK AND TATALINA RIVER BRIDGE REPLACEMENT AND 0001569/CFHWY00129 TAKOTNA RIVER BRIDGE REPLACEMENT. LABOR HOURS MAY BE ACCRUED THROUGH EITHER OF THE PROJECTS.

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
49TH
JOHN R. HAMMEL
CE 107681

PIH/PS&E

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

ESTIMATE OF QUANTITIES

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	D01	D02

DESIGNED BY ---
CHECKED BY ---
DRAFTED BY ---

SCALE X" = XX'

DATE 8/10/2022 TIME 3:47 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_D01_SUM.DWG

606 ITEMS - GUARDRAIL SUMMARY

SHEET	STATION TO STATION			606.0001.0000	606.0016.0000	DOWNSTREAM END ANCHOR	GUARDRAIL CASE*	REMARKS
	FROM	TO	OFFSET	W-BEAM GUARDRAIL (FT)	TRANSITION RAIL (EA)			
F2	216+54.0	216+67.0	LT			1		
F2	216+67.0	216+79.5	LT	12.5				
F2	216+79.5	217+01.5	LT		1			
F2	216+30.5	216+43.5	RT			1	II	
F2	216+43.5	216+79.5	RT	37.5				
F2	216+79.5	217+01.5	RT		1			
F2-F3	220+31.5	220+53.5	LT		1			
F2-F3	220+53.5	220+89.5	LT	37.5				
F2-F3	220+89.5	221+02.5	LT			1	II	
F2-F3	220+31.5	220+53.5	RT		1			
F2-F3	220+53.5	220+66.0	RT	12.5				
F2-F3	220+66.0	220+79.0	RT					
			TOTAL:	100	4	4		
			PAY ITEM QUANTITY:	100	4	4		

610.0001.0000 - DITCH LINING

SHEET	STATION		OFFSET	WEIGHT (CY)	REMARKS
	FROM	TO			
F1-F2	210+00	217+21	RT	237	
			TOTAL:	237	
			PAY ITEM QUANTITY:	240	

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

SUMMARY TABLES

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	D02	D02

619.0002.0000 - MATTING

SHEET	STATION FROM	STATION TO	OFFSET	AREA (SY)	REMARKS
F2-F3	220+11.5	221+80	RT	725	
F2-F3	220+11.5	222+00	LT	614	
			TOTAL:	1,339	
			PAY ITEM QUANTITY:	1,350	

622.2011.0000 - INTERPRETIVE SIGN SUMMARY

SHEET	STATION	OFFSET	SIGN (EA)	TYPE	REMARKS
F3	221+00	85.0 LT	1	INTERPRETIVE SIGN TYPE D	SIGN PANELS PROVIDED BY OTHERS
F3	220+99	81.0 LT	1	INTERPRETIVE SIGN TYPE D	SIGN PANELS PROVIDED BY OTHERS
F3	221+00	78.0 LT	1	INTERPRETIVE SIGN TYPE D	SIGN PANELS PROVIDED BY OTHERS
		TOTAL:	3		
		PAY ITEM QUANTITY:	3		

639.2003.0000 - APPROACH SUMMARY

SHEET	STATION	OFFSET	SKEW ANGLE (90° TYP.)	WIDTH (FT)	LENGTH (FT)	REMARKS
F1	211+92	RT	90	10	40	
F1	212+37	LT	90	10	42	
F4	222+50	LT	90	18	187	
		TOTAL:	3			
		PAY ITEM QUANTITY:	3			

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

SUMMARY TABLES

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

DESIGNED BY
CHECKED BY
DRAFTED BY

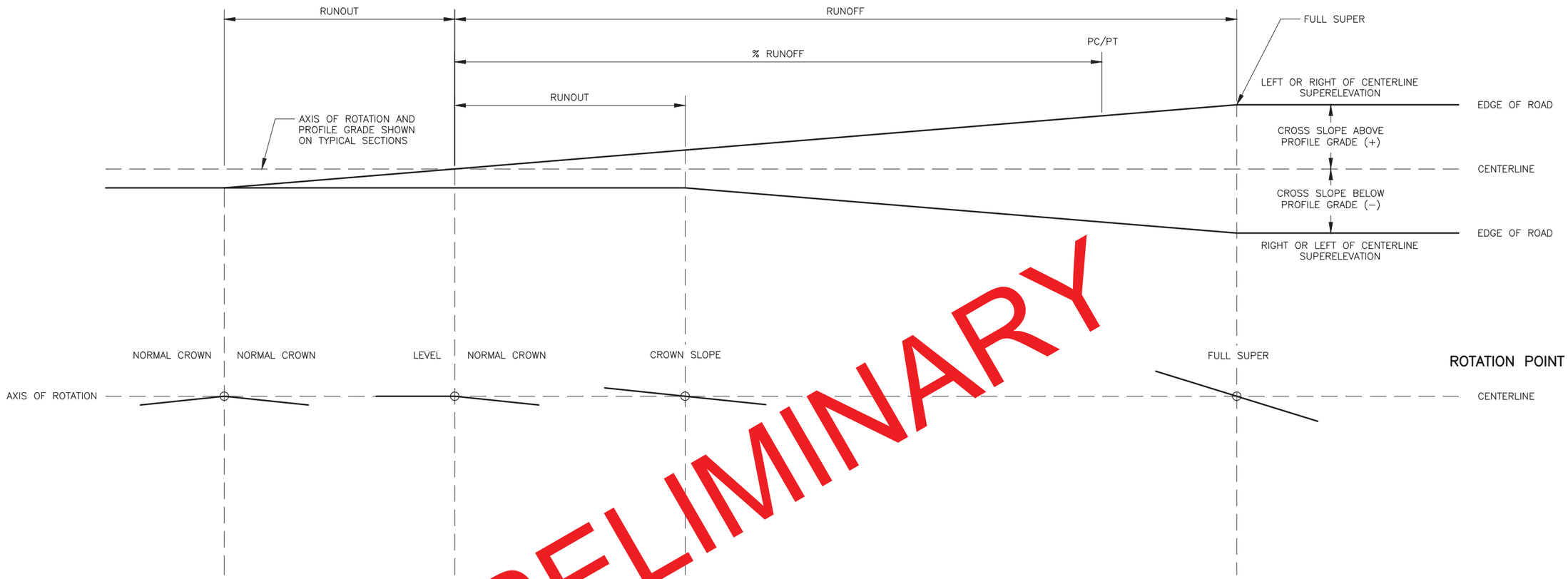
SCALE X" = XX'

DATE TIME 8/10/2022 3:47 PM

DRAWING LOCATION W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_D01_SUM.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	E01	E03



SUPERELEVATION TRANSITION

NOTES:

1. BUILD SUPERELEVATION INTO SUBGRADE AND CARRY THROUGH SHOULDERS.
2. % RUNOFF = PORTION OF RUNOFF ON TANGENT.
3. WIDENING FOR GUARDRAIL OR CURVATURE DOES NOT CHANGE THE LOCATION OF THE AXIS OF ROTATION

STATE OF ALASKA
49TH
TYLER R. HAMMEL
AK CE 107681
REGISTERED PROFESSIONAL ENGINEER
PIH/PS&E

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

SUPERELEVATION

DESIGNED BY SLH
CHECKED BY RRH
DRAFTED BY SLH

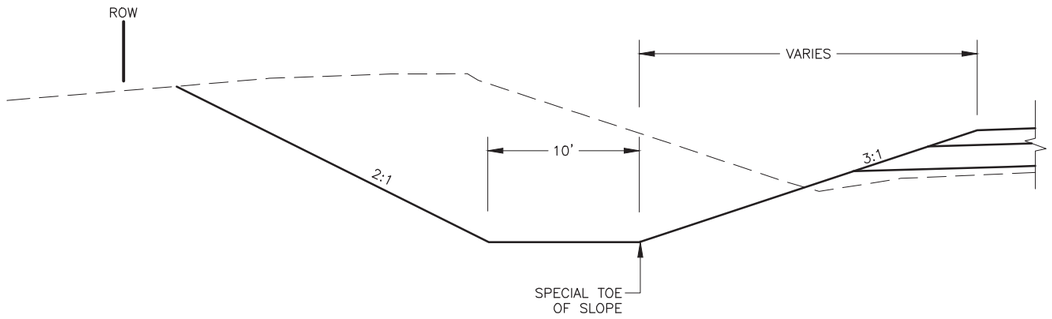
SCALE 1" = 1'

DATE 8/10/2022 TIME 3:47 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_E01_SUPERELEVATION.DWG

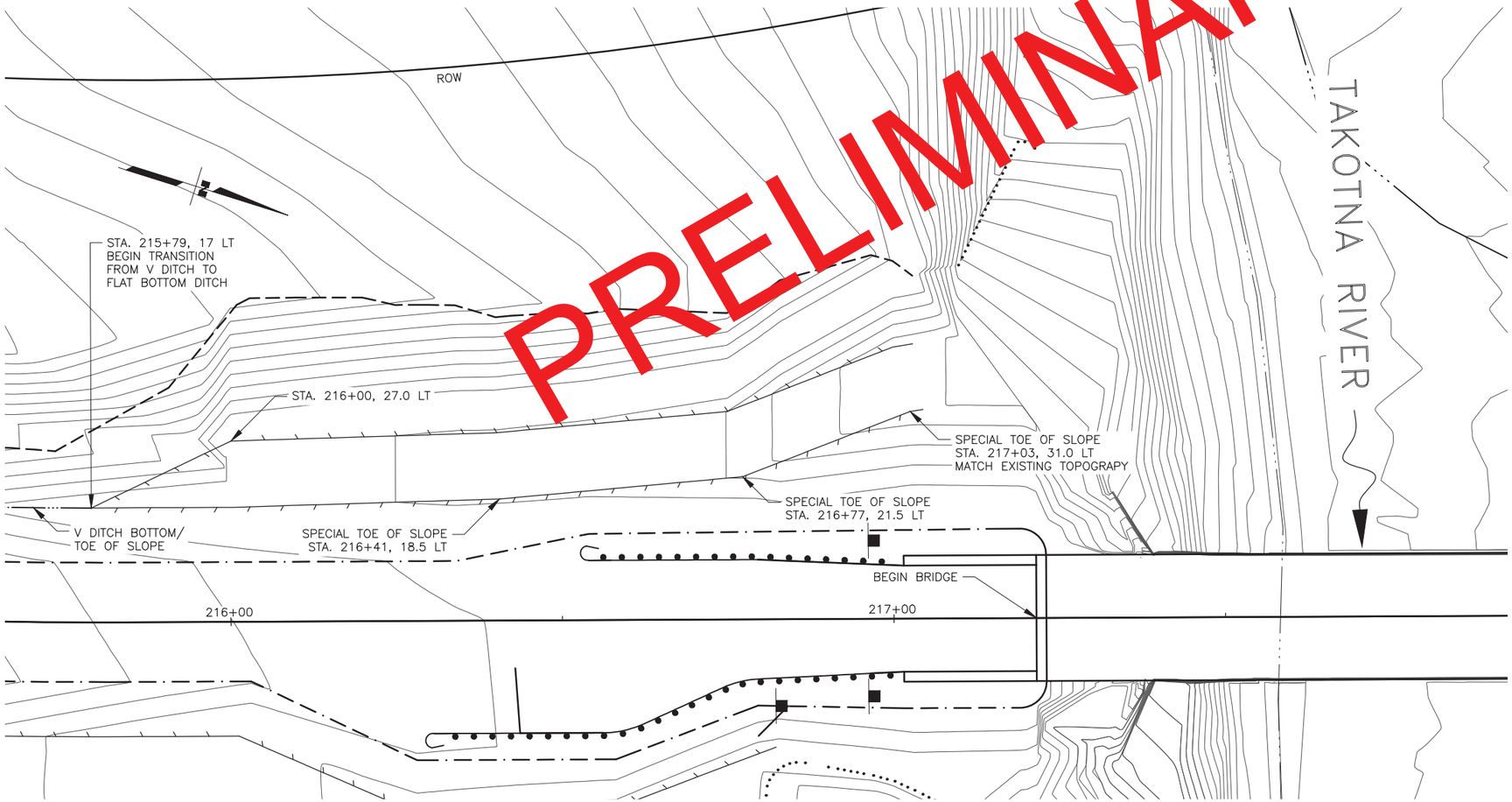
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	E02	E03



SPECIAL TOE OF SLOPE

STA. 216+00 TO STA. 216+97



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

SPECIAL TOE OF SLOPE DETAIL

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
49TH
STEVEN R. HAMMEL
PE 107681
REGISTERED PROFESSIONAL ENGINEER
PHPS&E

DESIGNED BY RRH
CHECKED BY RRH
DRAFTED BY SLH

SCALE 1" = 1'

DATE TIME 8/15/2022 9:50 AM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3019\PLANSET\00129_E02_ALT TOE.DWG

NO.	DATE	REVISION

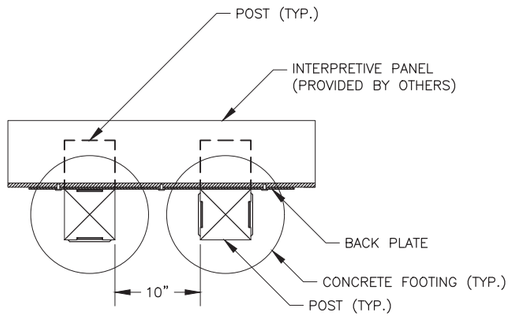
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	E03	E03

DESIGNED BY ---
CHECKED BY ---
DRAFTED BY ---

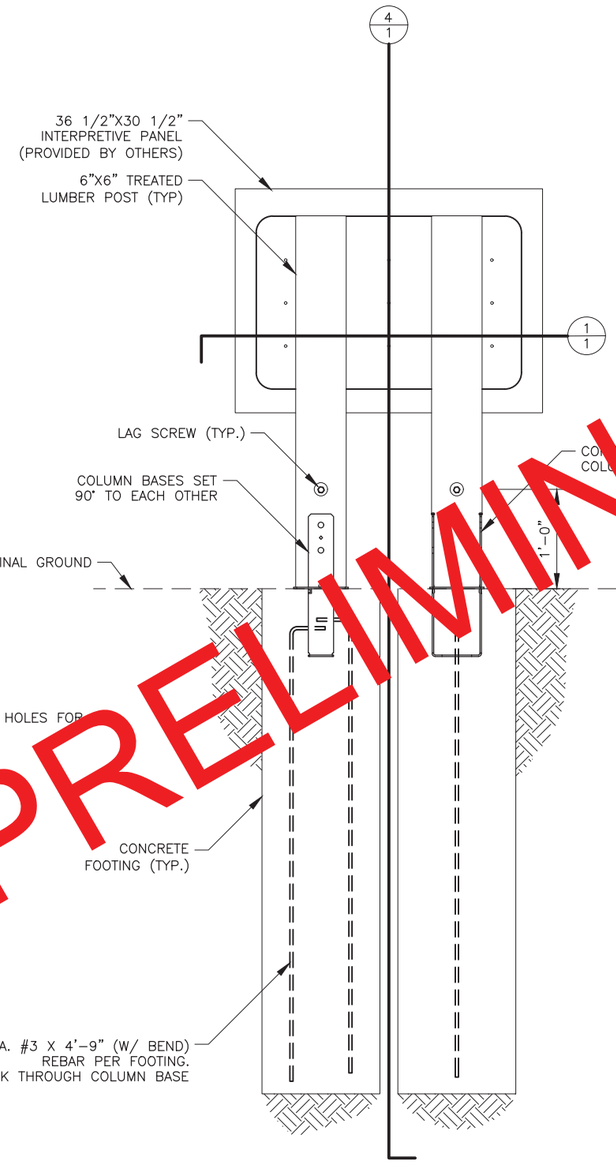
SCALE N/A

DATE 8/10/2022 TIME 3:47 PM

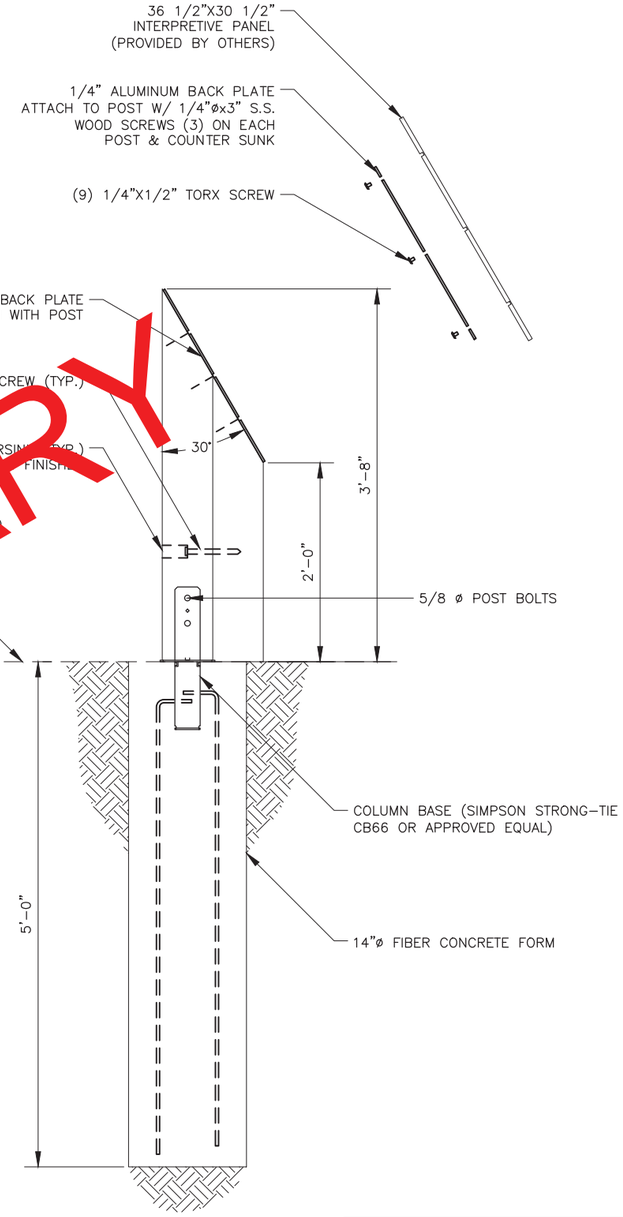
DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE – CFHWY00129\CIV3D19\PLANSET\00129_E03_INTERPRETIVE SIGNS.DWG



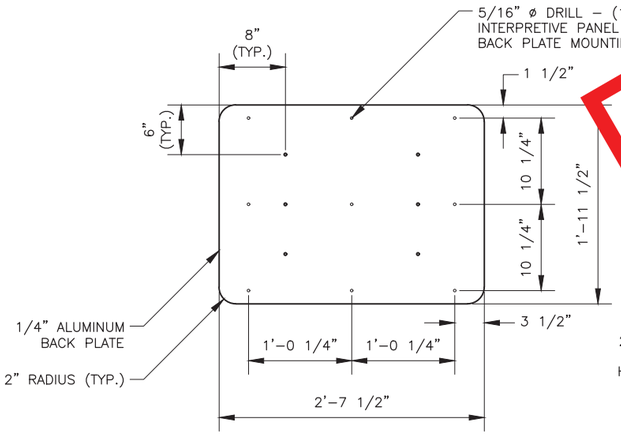
1/1 SECTION



3/1 BACK ELEVATION



4/1 SECTION



2/1 ALUMINUM BACK PLATE

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

INTERPRETIVE SIGN, TYPE D

DESIGNED BY SLH
CHECKED BY RRH
DRAFTED BY SLH

SCALE 1" = 20'

DATE 8/10/2022 TIME 3:47 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_F01_PLAN.DWG

ROW

MATCH LINE STA. 209+75

STA. 210+40.00 9.00' LT END TAPER

PC STA. 211+20.45

210+00

N09°46'10.1"W

211+00

212+00

213+00

214+00

215+00

MATCH LINE STA 215+21

STA. 210+40.00 9.00' RT END TAPER

BEGIN PROJECT
STA. 210+00.00
MATCH EXISTING
N 189491.4597
E 89814.2741

GRADE TO DRAIN:
STA. 211+62 TO PIPE INLET

P.I. STA. 213+58.63
N = 189844.8861
E = 89753.4207
Δ = 035°14'11.3"
T = 238.18'
L = 461.24'
R = 750.00'

PRELIMINARY

-7.50%

500
480
460
440
420
400
380
360

209+75 210+00 211+00 212+00 213+00 214+00 215+00 215+21

SHEET NO.	TOTAL SHEETS
F01	F05
STATE	YEAR
ALASKA	2022

PROJECT DESIGNATION
0001569/
CFHWY00129

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

TAKOTNA

THIS SHEET

STERLING LANDING TO OPHIR RD.

STATE OF ALASKA
40TH
NATHAN HAMMEL
107681
REGISTERED PROFESSIONAL ENGINEER
PHIPPS&E

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

PLAN AND PROFILE
B.O.P. TO 215+21

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE – CFHWY00129\CIV3D19\PLANSET\00129_F01_PLAN.DWG

DESIGNED BY	CHECKED BY	DRAFTED BY
SLH	RRH	SLH

SCALE 1" = 20'

DATE TIME
8/10/2022 3:47 PM

TEMPORARY CONSTRUCTION EASEMENT, SEE SHEET A02

ROW

MATCH LINE STA. 215+21

PT STA. 215+81.69

STA. 216+34.00 9.00 LT BEGIN TAPER

STA. 216+54.00 13.00 LT END TAPER

216+00

N45°00'21.4"W

217+00

218+00

219+00

220+00

TAKOTNA RIVER

BEGIN BRIDGE STA. 217+21.5

END BRIDGE STA. 220+11.5

STA. 216+03.00 9.00 RT BEGIN TAPER

STA. 216+28.00 21.00 RT END TAPER

STA. 216+58.00 21.00 RT BEGIN TAPER

STA. 216+79.45 13.00 RT END TAPER

Takotna River

STA. 220+33.25 ±13.75 BEGIN TAPER LEFT AND RIGHT

STA. 220+53.54 12.00 LT END TAPER

1 2 3 4 5 6

ROW

ROW

PRELIMINARY

500
480
460
440
420
400
380
360

V.P.I. STA. 216+00.00
ELEV. 423.14'
100' V.C.
K = 14.29

BEGIN BRIDGE
STA. 217+21.5
ELEV. = 422.53'

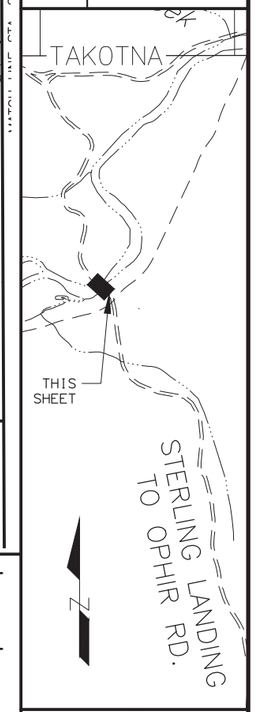
END BRIDGE
STA. 223+10
ELEV. = 421.08'

-0.50%

SHEET NO.	TOTAL SHEETS
F02	F05
STATE	YEAR
ALASKA	2022

PROJECT DESIGNATION
0001569/
CFHWY00129

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



PHIPS&E

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

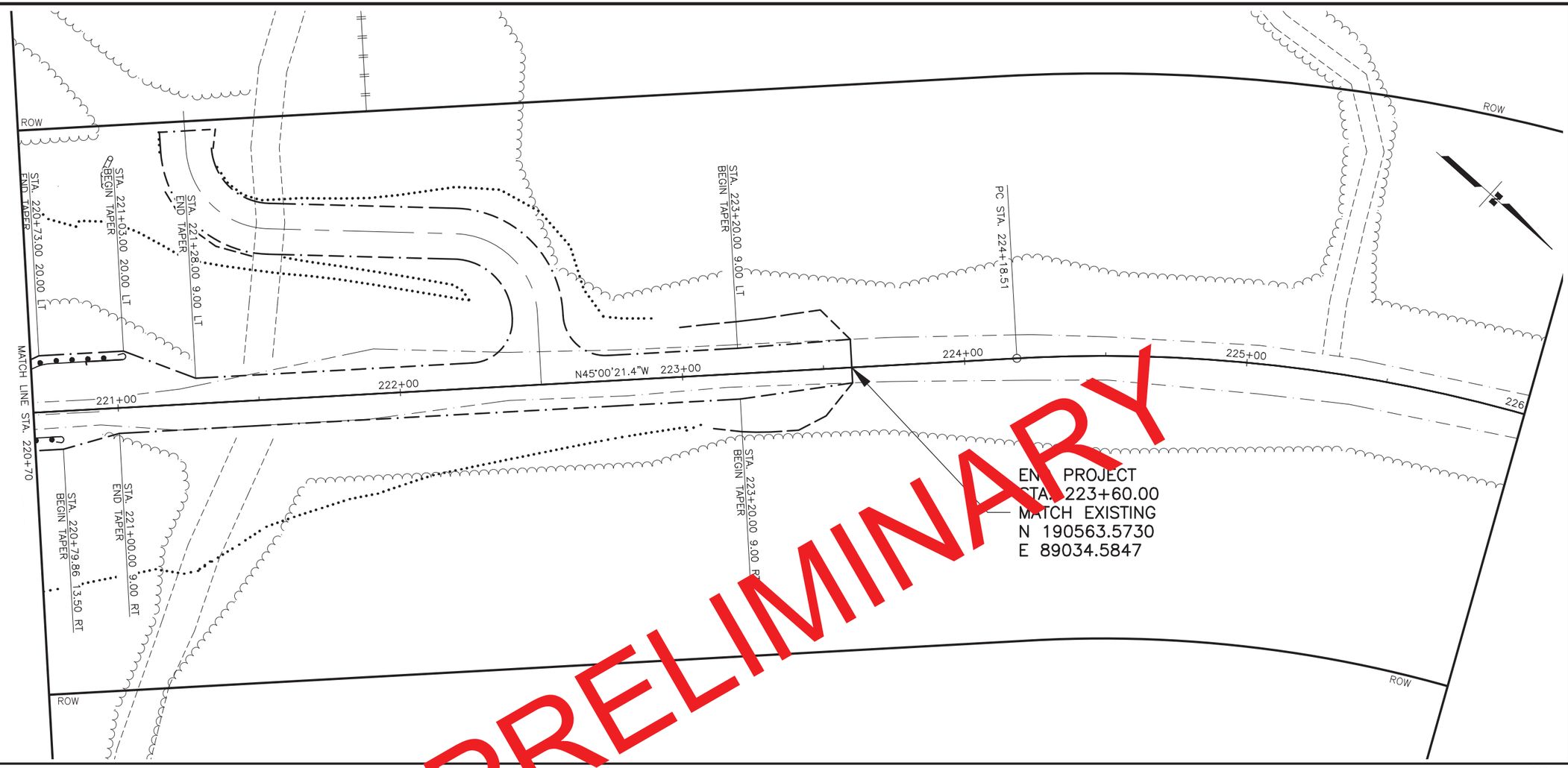
PLAN AND PROFILE STA. 215+21 TO STA. 220+60

DESIGNED BY	S.L.H.
CHECKED BY	R.R.H.
DRAFTED BY	T.S.

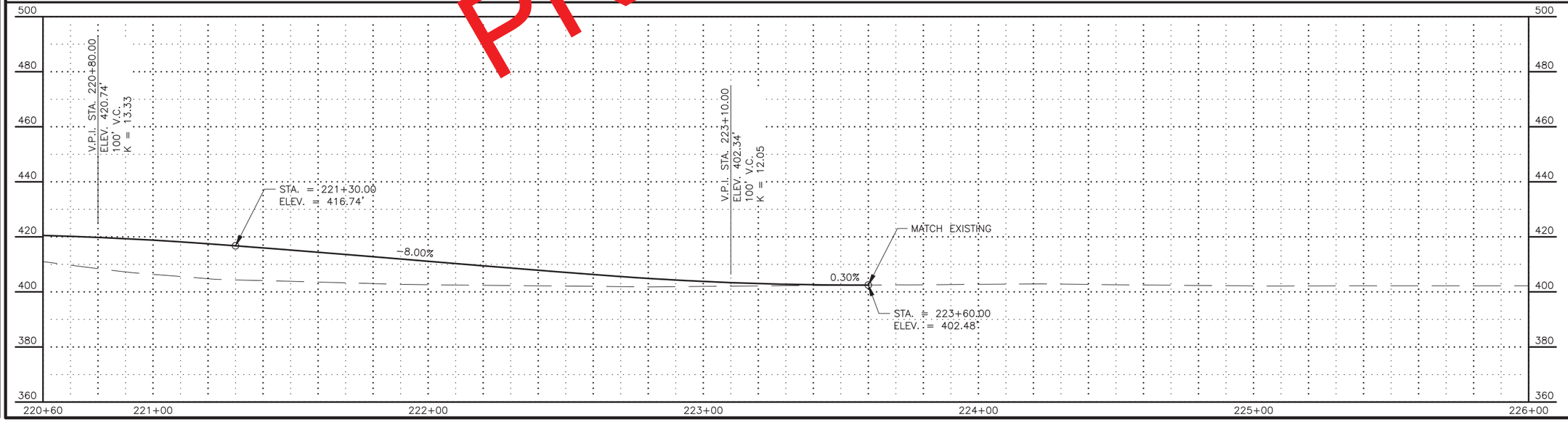
SCALE
1" = 20'

DATE	TIME
8/10/2022	3:47 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE – CFHWY00129\CIV3D19\PLANSET\00129_F01_PLAN.DWG



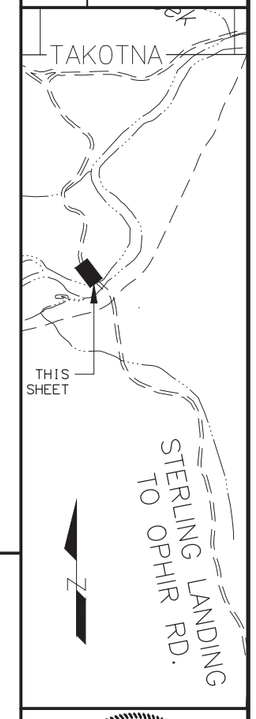
PRELIMINARY



SHEET NO.	TOTAL SHEETS
F03	F05
STATE	YEAR
ALASKA	2022

PROJECT DESIGNATION
0001569/
CFHWY00129

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



PRELIMINARY PS&E

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE
REPLACEMENT

PLAN AND PROFILE
STA. 220+60 TO E.O.P.

NO.	DATE	REVISION

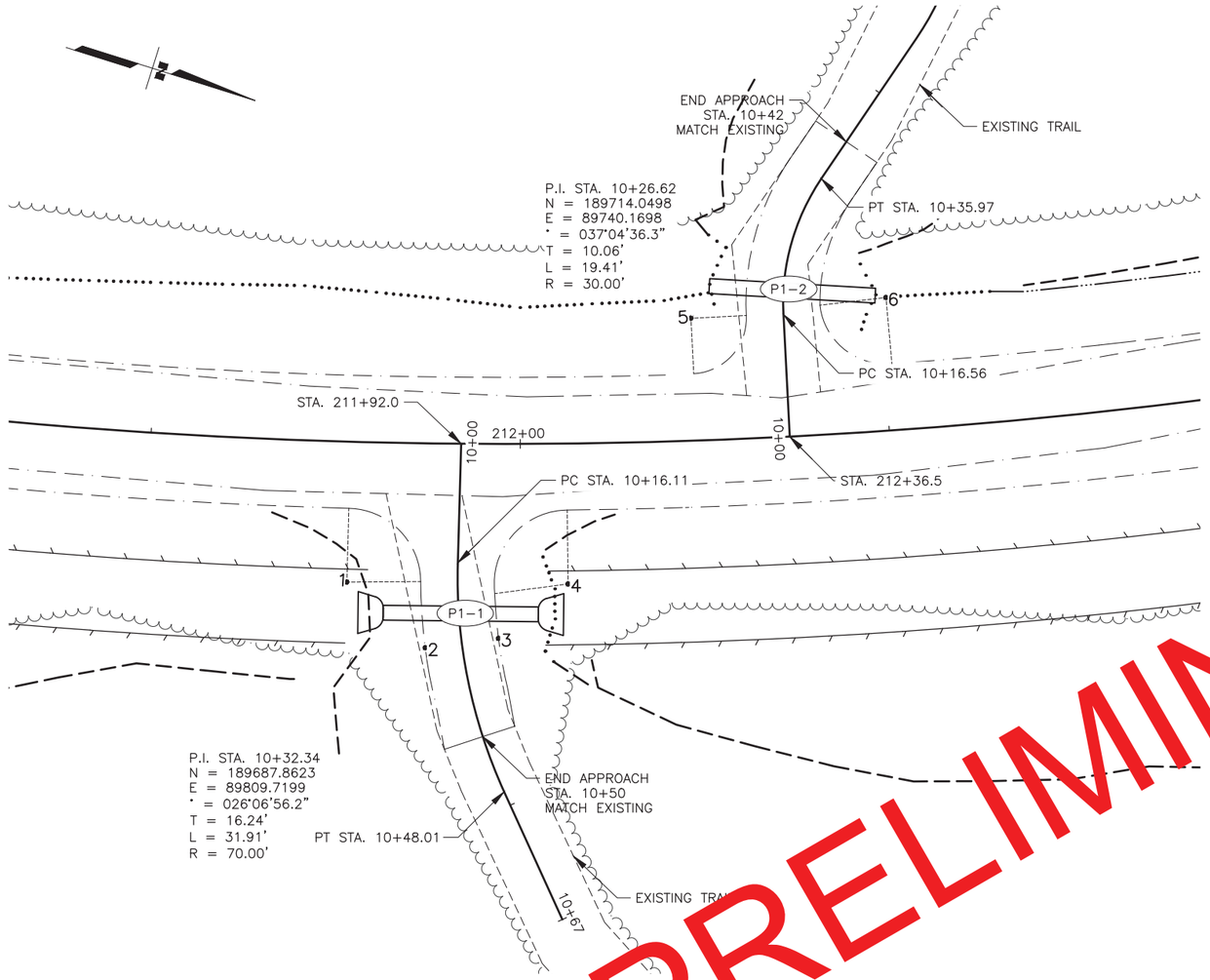
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	F04	F05

DESIGNED BY
CHECKED BY
DRAFTED BY

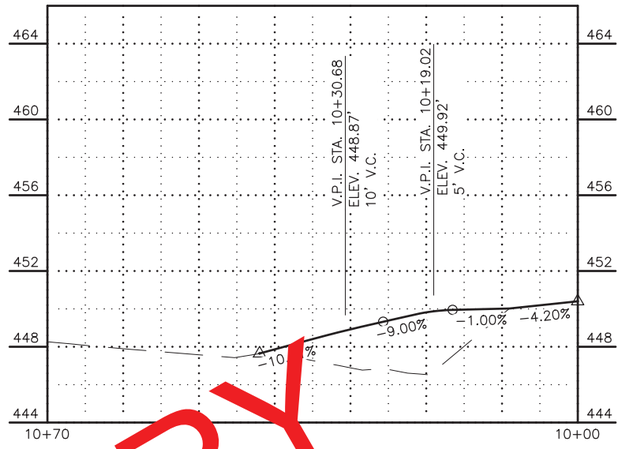
SCALE

DATE 8/10/2022 TIME 3:48 PM

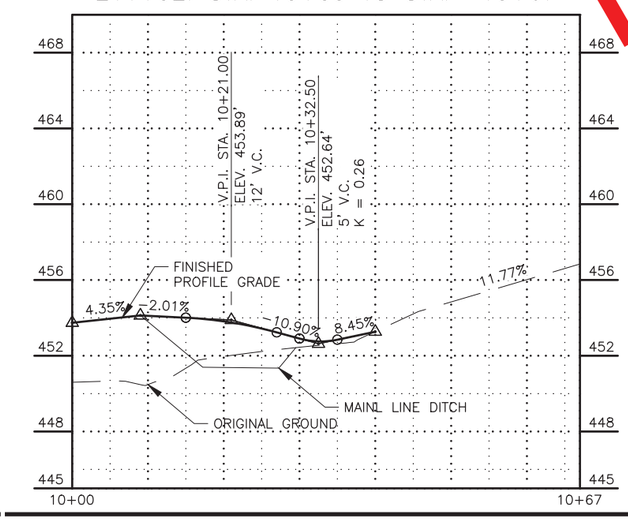
DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_F04_APPROACH.DWG



212+35: STA. 10+00 TO STA. 10+70



211+92: STA. 10+00 TO STA. 10+67



PIPE SUMMARY

PIPE	SIZE (IN)	LENGTH (FT)	START STATION	START OFFSET	START INVERT ELEV. (FT)	END STATION	END OFFSET	END INVERT ELEV. (FT)	% GRADE	REMARKS
P1-1	24	21.00	211+81.94	23.02' R	450.7900	212+02.32	23.08' R	450.5900	0.95%	
P1-2	24	22.49	212+26.40	-20.83' L	446.8400	212+49.35	-18.35' L	445.9400	4.00%	

STRUCTURE SUMMARY

STRUCTURE	TYPE	STATION	OFFSET	TOP OF CASTING	TYPE OF CASTING	REMARKS
S1-1	END SECTION	211+81.94	23.02' R	0.00	N/A	
S1-2	END SECTION	212+02.32	23.08' R	0.00	N/A	

APPROACH POINTS SUMMARY

SHEET	STATION	OFFSET	RADIUS (FT)	COMMENT
1	211+77.05	19.0 RT	10.0	
2	211+87.52	27.7 RT		BEGIN TAPER
3	211+97.61	26.3 RT		BEGIN TAPER
4	212+06.17	19.0 RT	10	
5	212+23.69	16.6 LT	7.5	
6	212+50.81	18.0 LT	10.0	

NOTES:

1. SEE APPROACH SUMMARY FOR APPROACH STATION, LENGTH, WIDTH, AND SKEW ANGLE.
2. APPROACH VERTICAL CURVE REQUIREMENTS:
   CREST – 2 ½ INCH MAXIMUM IN A 10 FOOT CHORD
   SAG – 2 INCH MAXIMUM IN A 10 FOOT CHORD
3. CONSTRUCT APPROACH SLOPES BEYOND THE RADIUS RETURN AS SHOWN IN THE TYPICAL SECTIONS.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

TAKOTNA RIVER BRIDGE REPLACEMENT

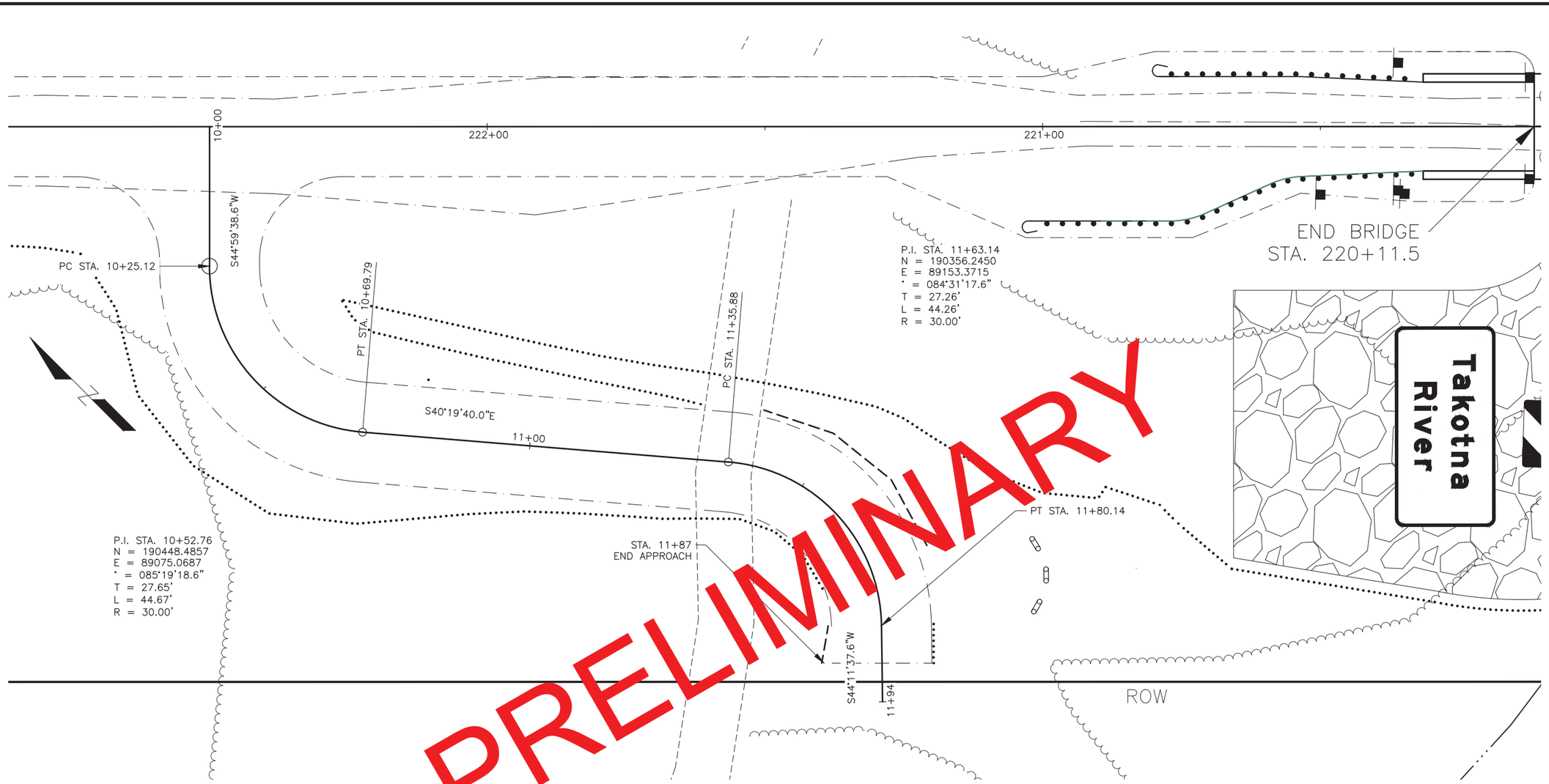
APPROACHES STA. 211+93 RT AND STA. 212+43 LT

DESIGNED BY
CHECKED BY
DRAFTED BY

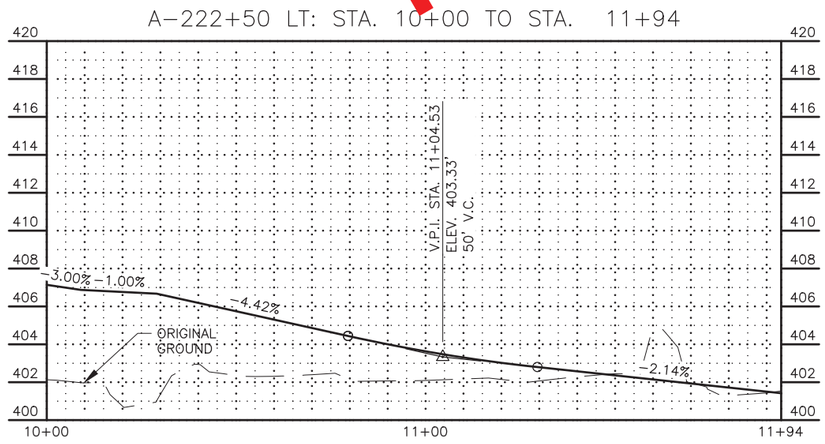
SCALE
X" = XX'

DATE TIME
8/10/2022 3:48 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_F04_APPROACH.DWG



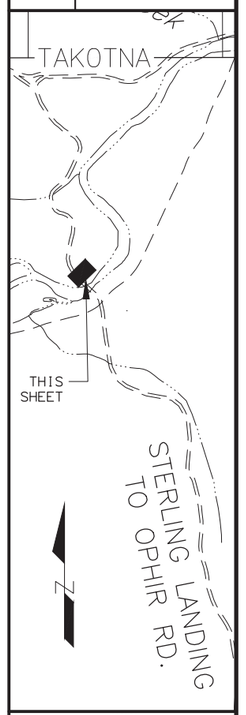
PRELIMINARY



SHEET NO.	TOTAL SHEETS
F05	F05
STATE	YEAR
ALASKA	2022

PROJECT DESIGNATION
0001569/
CFHWY00129

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
BRIAN D. HAMMEL
107681
REGISTERED PROFESSIONAL ENGINEER

PHIPPS&LL

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

PLAN AND PROFILE APPROACH 222+50 LT

NO.	DATE	REVISION

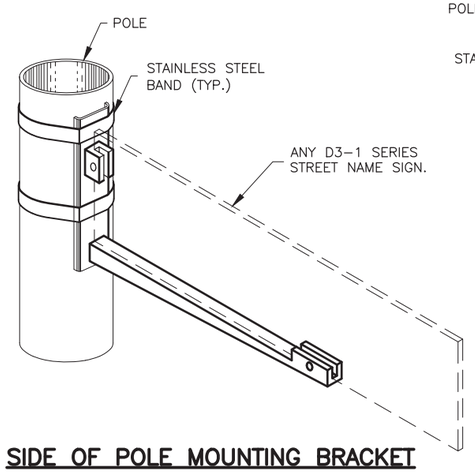
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	H01	H03

DESIGNED BY
CHECKED BY
DRAFTED BY

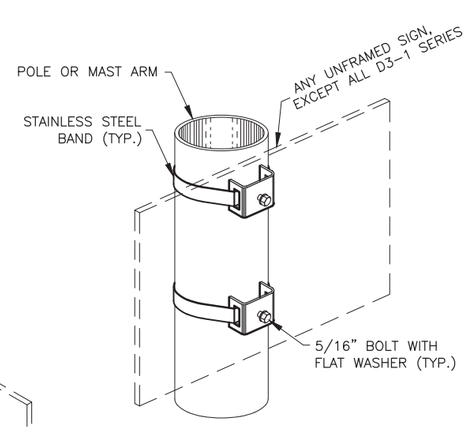
SCALE
X" = XX'

DATE TIME
8/10/2022 3:48 PM

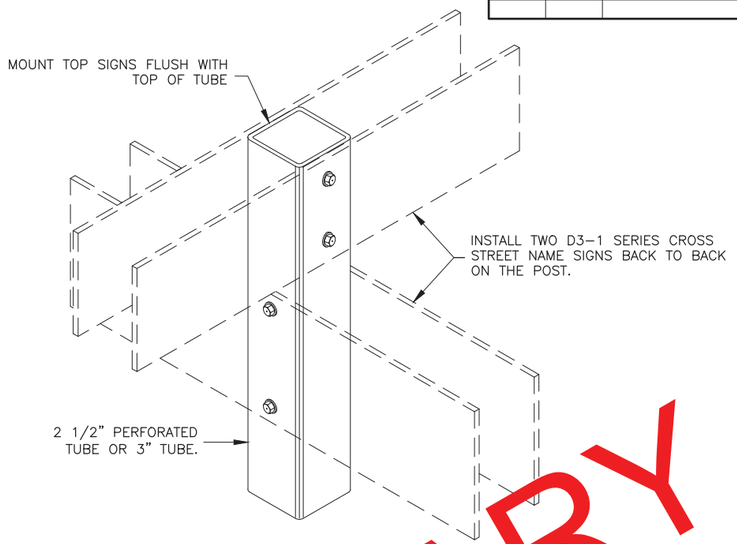
DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_H01_TRAFFIC.DWG



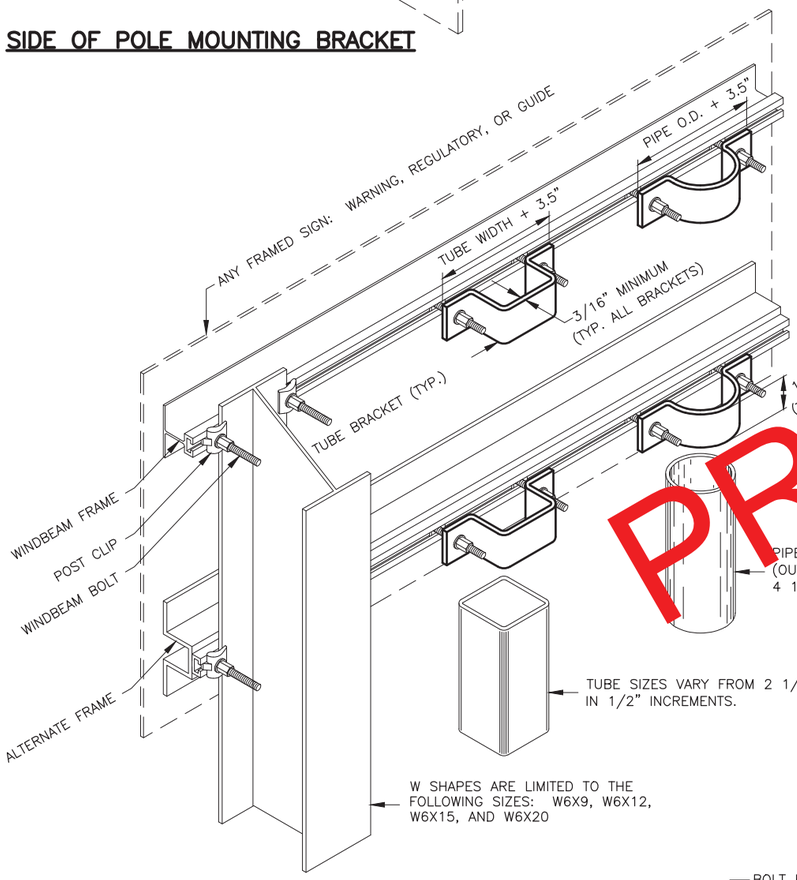
SIDE OF POLE MOUNTING BRACKET



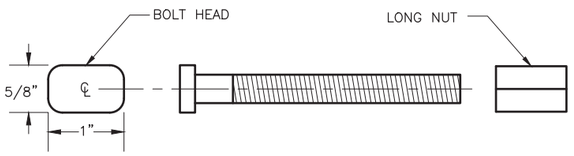
SADDLE BRACKETS



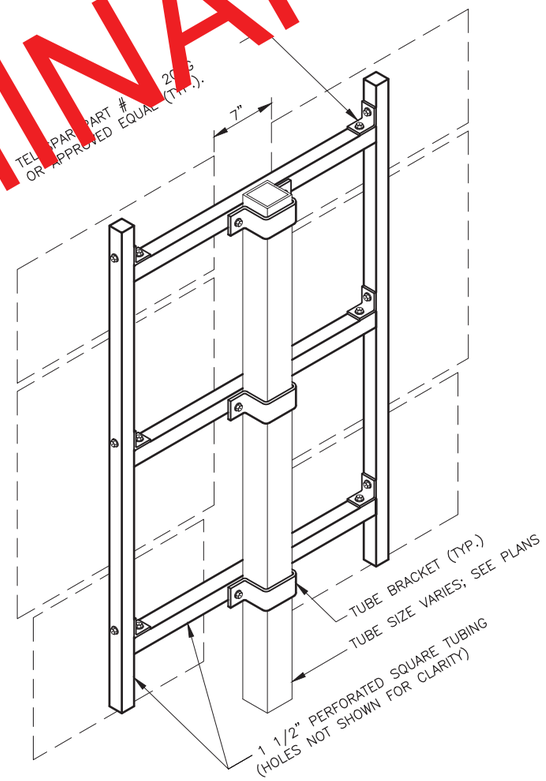
STREET NAME SIGN INSTALLATION



FRAMED SIGN ATTACHMENT BRACKETS



3/8" WINDBEAM BOLT AND LONG NUT



ROUTE MARKER TREE

NOTES:

1. EXCEPT FOR POLES AND MASTARMS, ONLY USE TUBES TO SUPPORT SIGNS MOUNTED ON ONE POST.
2. ATTACH SIGNS, FRAMED AND UNFRAMED TO THEIR SUPPORTS WITH ZINC PLATED 3/8" BOLTS, EXCEPT ATTACH UNFRAMED SIGNS TO PERFORATED TUBES WITH ACCESSORY DRIVE RIVETS AND TO SADDLES WITH 5/16" BOLTS.
3. BOLT UNFRAMED SIGNS DIRECTLY TO TUBES IN TWO LOCATIONS, NEAR TOP AND NEAR BOTTOM OF MATING SURFACE. ATTACH THEM TO POLES AND MASTARMS WITH TWO SADDLES.
4. ATTACH BRACKETS TO POLES AND MASTARMS WITH DOUBLE WRAPS OF 3/4" WIDE BY 0.020" THICK STAINLESS STEEL BANDING MATERIAL. TIGHTEN EACH BAND UNTIL IT STOPS MOVING THROUGH THE BUCKLE.
5. ATTACH FRAMED SIGNS TO POSTS WHEREVER THE FRAMES CROSS THE POSTS. AT EACH CROSSING, ATTACH THE SIGN USING TWO POST CLIPS ON W-SHAPE POSTS, A U-SHAPED BRACKET ON PIPES, AND A BRACKET WITH SQUARE CORNERS ON TUBES.
6. THE TUBE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.
7. ONLY USE THE SPECIAL WINDBEAM BOLTS TO ATTACH SIGNS FRAMED WITH THE WINDBEAM FRAMING MATERIAL.
8. ATTACH FRAMED SIGNS TO POLES AND MASTARMS USING POLE PLATES INSTALLED ACCORDING TO ALASKA STANDARD PLAN S-23.
9. FOR ROUTE MARKER TREES, CUT PERFORATED TUBES TO ENSURE TIGHT FITTING JOINTS. ASSEMBLE THE PIECES WITH ACCESSORY ELL-SHAPED ANGLE BRACKETS.
10. INSTALL THE TOP EDGE OF SIGNS 1" ABOVE THE TOPS OF POSTS, EXCEPT FOR THE D3-1 STREET NAME SIGNS.
11. INSTALL THE TOP EDGE OF SIGNS 3" BELOW THE TOP OF POST, WHENEVER THEY ARE MOUNTED BELOW SIGNS SECURED BY POST TOP MOUNTING BRACKETS.
12. THE BRACKET DETAILS SHOWN INDICATE GENERAL DESIGNS ONLY. DESIGNS MAY VARY BY MANUFACTURER.
13. INSTALL WEATHER TIGHT CAPS ON ALL PIPE AND TUBE POSTS, EXCEPT PERFORATED TUBING.

FASTENER SPECIFICATION TABLE

FASTENERS		STEEL	STAINLESS STEEL
BOLTS		ASTM A 307	ASTM F 593
NUTS	REGULAR	ASTM A 563	ASTM F 594
	LOCK		
WASHERS		ASTM A 36	ASTM A 480
POST CLIPS			

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

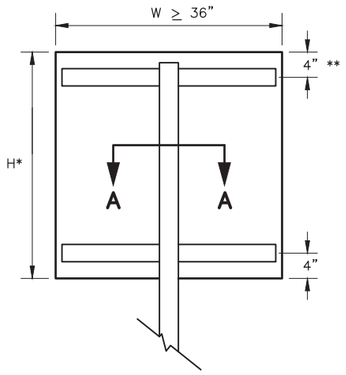
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

SIGN ATTACHMENT DETAILS

NO.	DATE	REVISION

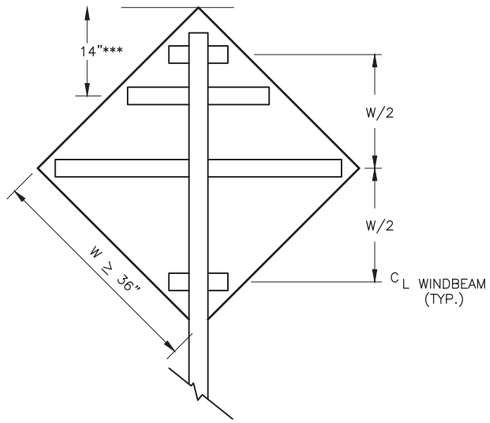
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	H02	H03



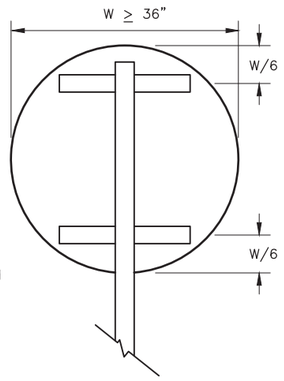
RECTANGLES AND TRAPEZOIDS

* WHEN H > 42 INCHES, INSTALL A 3RD WINDBEAM CENTERED ON THE SIGN.

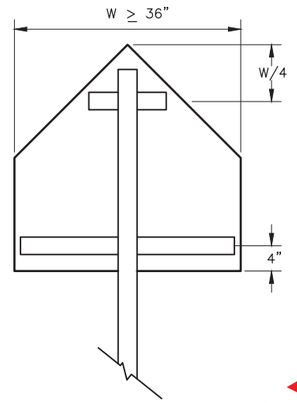
** FOR S5–1 SIGNS MOUNTED ON FLASHING BEACON POSTS, USE A 10" OFFSET. OTHERWISE, USE 4".

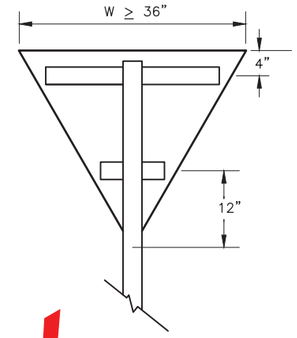


*** FOR WARNING SIGNS MOUNTED ON FLASHING BEACON POSTS, USE THE 14" OFFSET. OTHERWISE, USE W/2.



ROUNDS AND OCTAGONS



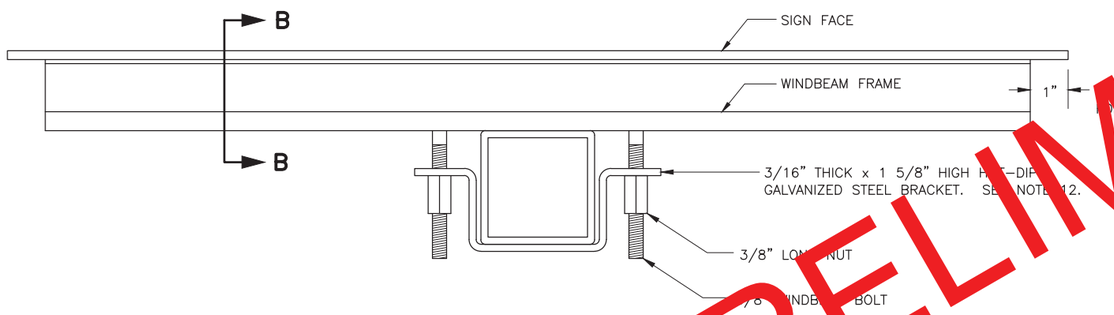


WINDBEAM LOCATIONS FOR EACH SIGN SHAPE

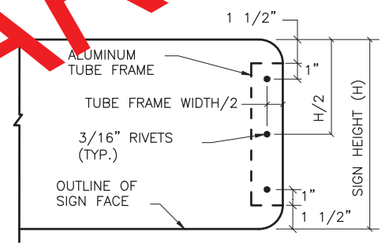
ELEVATION VIEW

NOTES:

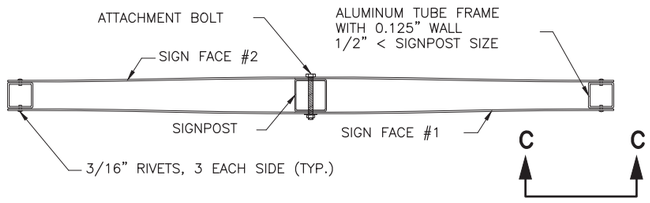
1. EXCEPT FOR POLES AND MAST ARMS, ONLY USE SQUARE STEEL TUBES TO SUPPORT SIGNS MOUNTED ON SINGLE POSTS.
2. INSTALL WINDBEAM OR ZEE SHAPED FRAMING MEMBERS ON DIAMOND SHAPED SIGNS 36 INCHES AND LONGER ON A SIDE AND ON OTHER SIGNS 36 INCHES WIDE AND WIDER.
3. IN HIGH WIND AREAS, THE PLANS MAY REQUIRE SIGNS SMALLER THAN THOSE LISTED IN NOTE 2 BE FRAMED AS SHOWN HERE IN.
4. THIS DRAWING DEPICTS THE WINDBEAM FRAMING AND ATTACHMENT SYSTEM. ATTACH SIGNS FRAMED WITH ZEE SHAPED FRAMING ACCORDING TO REGIONAL DRAWING "SIGN ATTACHMENT DETAILS", USING "U" SHAPED BRACKETS AND TWO BOLTS WITH NUTS.
5. THE ENGINEER MAY APPROVE OTHER FRAMING MEMBERS. SUBMIT DOCUMENTS THAT DETAIL THE FRAME'S CROSS SECTION AND STRENGTH, AND METHOD OF ATTACHING THE FRAME TO A POST.
6. USE FRAMING MEMBERS MADE FROM ALUMINUM ALLOY 6061–T6.
7. EACH FRAMING MEMBER SHALL BE ONE CONTINUOUS PIECE.
8. ATTACH FRAMING MEMBERS TO THE SIGN PANELS WITH RIVETS OR AN ENGINEER APPROVED, DOUBLE SIDED, HIGH STRENGTH, ADHESIVE TAPE.
9. WITH THE ADHESIVE TAPE, INSTALL TWO RIVETS IN BOTH ENDS OF EACH FRAMING MEMBER, AND ATTACH THE FRAMING MEMBERS TO THE SIGN PANELS ACCORDING TO THE TAPE MANUFACTURER'S WRITTEN INSTRUCTIONS, INCLUDING:
   A. THE CLEANING AND HANDLING OF THE SIGN PANELS AND FRAMING MEMBERS.
   B. THE APPLICATION OF THE ADHESIVE TAPE.
10. WHEN RIVETS ARE USED TO ATTACH FRAMING MEMBERS, INSTALL 2 RIVETS IN EACH END AND THE BALANCE ON 8" MAXIMUM CENTERS.
11. USE 3/16" DIAMETER RIVETS CONFORMING TO ALUMINUM ALLOY 6061–T6 FOR COLD DRIVEN RIVETS, OR ALUMINUM ALLOY 6061–T43 FOR HOT DRIVEN RIVETS.
12. THE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.



SECTION A – A TYPICAL SIGN ATTACHMENT DETAILS AT EACH WINDBEAM

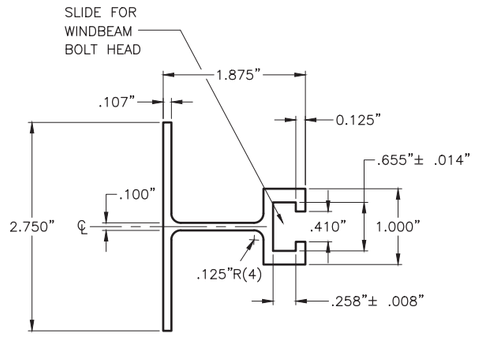


VIEW C – C

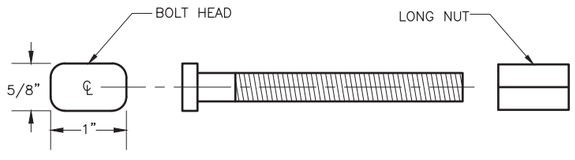


D3–1 STREET NAME SIGN FRAMING DETAIL

PLAN VIEW



SECTION B – B WINDBEAM CROSS SECTION



3/8" WINDBEAM BOLT AND LONG NUT

PRELIMINARY

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269–0590

PRELIMINARY PLANS NOT FOR CONSTRUCTION

STATE OF ALASKA 49TH
RYAN R. HAMMEL
LIC 107681
REGISTERED PROFESSIONAL ENGINEER

PRELIMINARY PLANS NOT FOR CONSTRUCTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

LIGHT SIGN FRAMING AND ATTACHMENT DETAILS

DESIGNED BY
CHECKED BY
DRAFTED BY

SCALE
X" = XX'

DATE TIME
8/10/2022 3:48 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE – CFHWY00129\CIV3D19\PLANSET\00129_H01_TRAFFIC.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001569/CFHWY00129	2022	H03	H03

DESIGNED BY
CHECKED BY
DRAFTED BY

SCALE

DATE TIME
8/10/2022 3:48 PM

DRAWING LOCATION
W:\PROJECTS\TAKOTNA RIVER BRIDGE - CFHWY00129\CIV3D19\PLANSET\00129_H03_SIGNSUMMARY.DWG

SIGN SUMMARY

PAGE NO.	SIGN NO.	STATION ALIGNMENT	CL REF	TYPE	LEGEND	SIZE (IN) WIDTH	SIZE (IN) HEIGHT	AREA (SQ.FT)	SIGN FACES	POSTS NO., SIZE, & TYPE	FRAMED? YES	FRAMED? NO	REMARKS
TAKOTNA RIVER BRIDGE													
F2	1	216+83	RT	I-3 TAKOTNA	Takotna River	30	18	3.75	SE	1-3.0" T	X		
F2	2	216+97	LT	OM3-L		12	36	3.00	SE	1-2.5"T		X	
F2	3	216+97	RT	OM3-R		12	36	3.00	SE	1-2.5"T		X	
F2	4	220+36	LT	OM3-L		12	36	3.00	NW	1-2.5"T		X	
F2	5	220+36	RT	OM3-R		12	36	3.00	NW	1-2.5"T		X	
F2	6	220+50	LT	I-3 TAKOTNA	Takotna River	30	18	3.75	NW	1-3.0" T	X		
								19.50					

PI/HPS&E

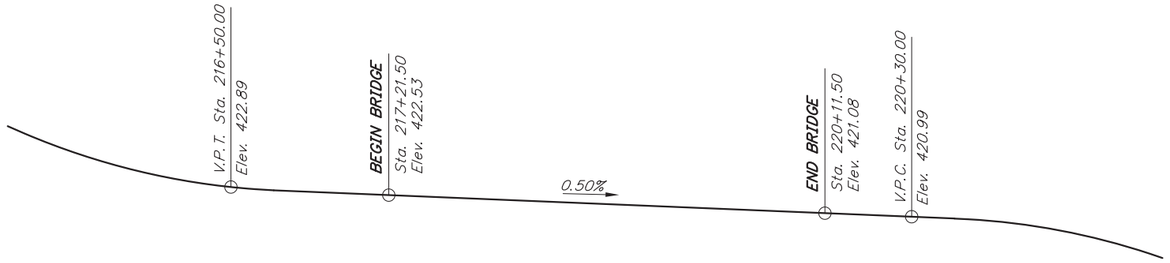
STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

TAKOTNA RIVER BRIDGE REPLACEMENT

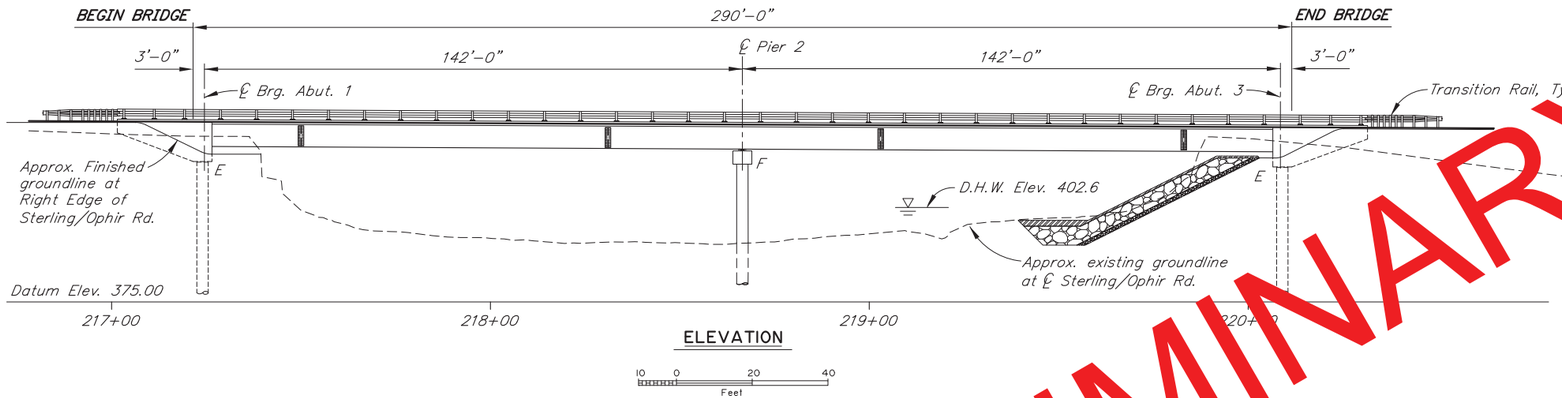
SIGN SUMMARY

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N1	N29



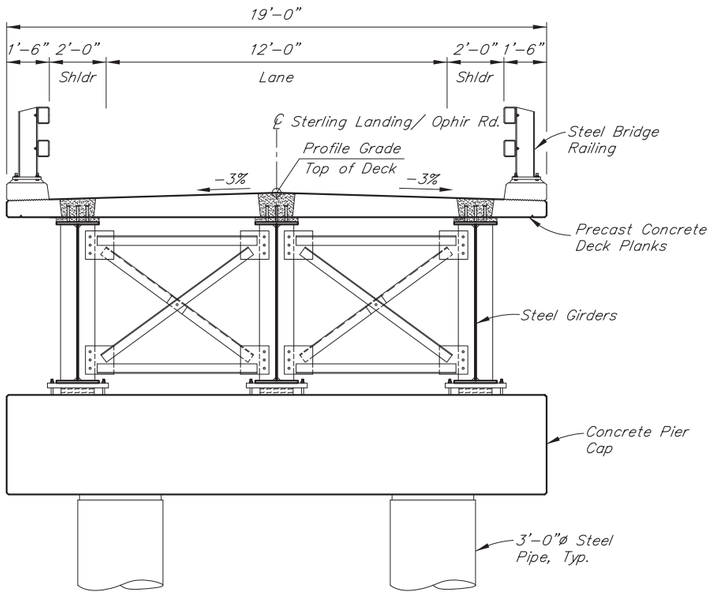
BRIDGE PROFILE GRADE DATA

No Scale



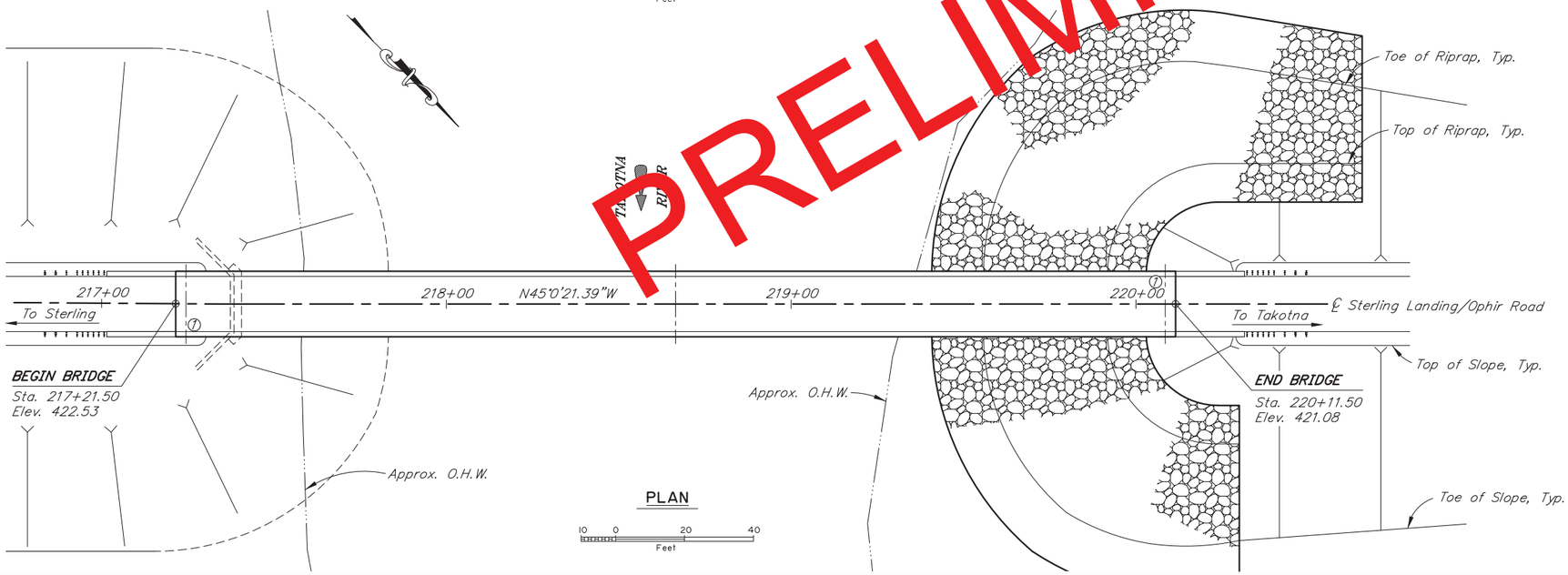
ELEVATION

10 0 20 40
Feet



TYPICAL SECTION

12 0 1 2 3 4
In. Feet



PLAN

10 0 20 40
Feet

PRELIMINARY

BRIDGE DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
SITE PLAN	2
RIPRAP LAYOUT	3
RIPRAP DETAILS	4
ABUTMENTS	5
ABUTMENT DETAILS	6
WINGWALLS	7
PIER 2	8
PIER DETAILS	9
FRAMING PLAN AND DECK PLAN	10
TYPICAL SECTIONS	11
GIRDER SEGMENTS	12
GIRDER DETAILS	13
GIRDER SEGMENTS A & B SPLICE DETAILS	14
GIRDER SEGMENTS B & C SPLICE DETAILS	15
CAMBER DIAGRAM	16
ABUTMENT DECK PANELS	17
INTERIOR DECK PANELS	18
DECK DRAINS	19
EXPANSION JOINTS	20
STEEL BRIDGE RAILING, 2-TUBE	21
TEST HOLE & PENETROMETER LOGS	22-29

PRELIMINARY PLAN

⑦ *Approximate location of Bridge Number Plate.*

DESIGNED BY: *Nick Murray*	CHECKED: *David McAdoo*	LAYOUT BY: *Nick Murray*	CHECKED BY: *David McAdoo*
DRAWN BY: *Sam Sollie*	CHECKED: *Nick Murray*	SPECIFICATIONS BY: *Nick Murray*	P S & E COMPARED: *David McAdoo*
QUANTITIES BY: *Nick Murray*	CHECKED: *David McAdoo*	APPROVAL RECOMMENDED BY: *Rich Pratt*	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

TAKOTNA RIVER BRIDGE

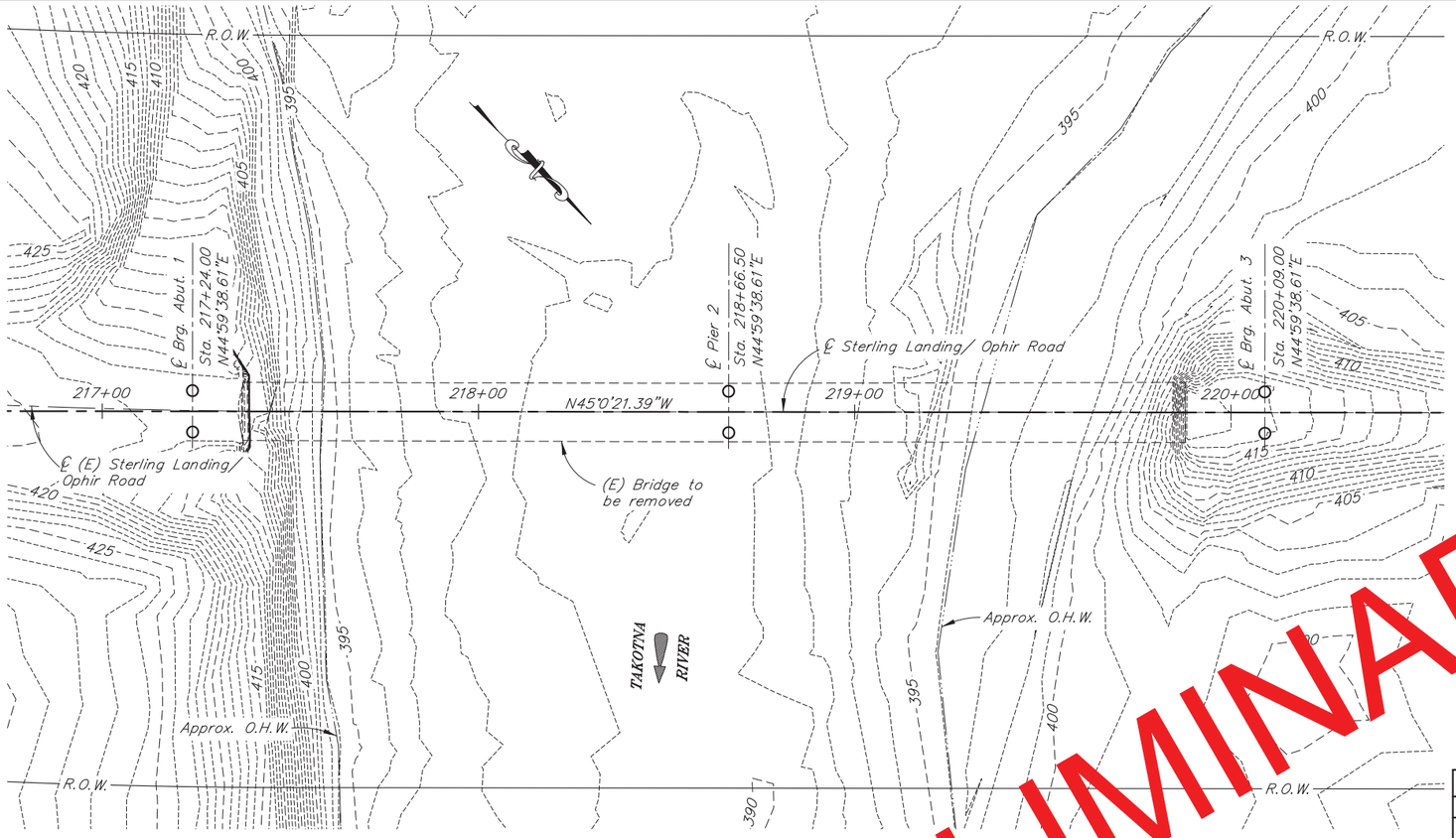
STERLING LANDING / OPHIR ROAD

GENERAL LAYOUT

BRIDGE NO. 463

DWG. NO. 1

R:\cad\463\463-1 Fri, Mar/18/22 01:46pm



PLAN

10 0 20 40
Feet

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N2	N29

GENERAL NOTES

DESIGN:..... AASHTO LRFD Bridge Design Specifications, 2020 Edition, with latest interim specifications.

Seismic design per AASHTO Guide Specifications for LRFD Seismic Bridge Design, 2011 with latest interim revisions.

LIVE LOAD:..... HL-93

DEAD LOAD:..... Includes 50 psf for all wearing surfaces.

ICE LOAD:..... Effective ice crushing strength = 24 ksf Design Ice Thickness 2 ft.

SEISMIC PARAMETERS:..... PGA = 0.112
Ss = 0.259
S1 = 0.102
Site Class = C
Liquefaction Potential = Medium
AASHTO 7% probability of exceedance in 75 years.

REINFORCEMENT:..... ASTM A706, Grade 60, Fy = 60,000 psi
ASTM A970 Headed bars, Class HA.
Space reinforcement evenly unless otherwise noted.

CONCRETE:..... Class A Concrete unless otherwise noted, f'c = 4,000 psi
Class DS Concrete for for drilled shafts, f'c = 4,000 psi
Class P Concrete for precast deck panels, f'c = 5,000 psi

STRUCTURAL STEEL:..... ASTM A709, Grade 50T3, Fy = 50,000 psi
Galvanize structural steel in accordance with AASHTO M111 or SSPC CS 23.00 unless shown otherwise.

HIGH STRENGTH BOLTS:..... Galvanized ASTM F3125 Grade A325 or ASTM F1852, Fu = 120,000 psi.
Exclude threads from shear plane. Do not use punched holes.

SHEAR STUD CONNECTORS:..... ASTM A108 Grade 1015 or 1020, Fu = 60,000 psi

STRUCTURAL STEEL CASING:..... API 5L X52 PSL2, Fy = 52,000 psi. or ASTM A709, GR50T3, Fy = 50,000 psi.
Galvanize casing to a point 10'-0" below finished groundline in accordance with AASHTO M111 or SSPC CS 23.00.

DRILLED SHAFT DATA TABLE

LOCATION	INSTALLATION CRITERIA: SHAFT DIAMETER	INSTALLATION CRITERIA: TIP ELEVATION (ft.)	INSTALLATION CRITERIA: MINIMUM ROCK SOCKET LENGTH (ft.)	INSTALLATION CRITERIA: MINIMUM TOP OF ROCK SOCKET ELEVATION (ft.)	DESIGN DATA: STRENGTH I FACTORED LOAD (K)	DESIGN DATA: NOMINAL RESISTANCE (K)	DESIGN DATA: RESISTANCE FACTOR, Φ
Abutment 1	3'-0"	389	15	404	465	>845	0.55
Pier 2	3'-0"	362	15	386	1,035	>1,880	0.55
Abutment 3	3'-0"	370	15	385	490	>890	0.55

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	PAY UNIT	ESTIMATE UNIT	SUBST.	SUPERST.	TOTAL QUANTITY
202.0023.0000	Removal of Bridge No. 463	LS	SF	All Req'd	All Req'd	All Req'd
205.0006.0000	Structural Fill	CY	CY	614	---	614
501.0001.0000	Class A Concrete	LS	CY	58.9	21.0	79.9
501.0007.0000	Precast Concrete Member, Deck Panel	EA	EA	---	61	61
501.0009.0000	Class DS Concrete, 3-0" Dia.	LF	LF	224.5	---	224.5
503.0001.0000	Reinforcing Steel	LS	LBS	26,780	---	26,780
503.0002.0000	Epoxy-Coated Reinforcing Steel	LS	LBS	---	1,650	1,650
504.0001.0000	Structural Steel	LS	LBS	600	267,700	268,300
507.0001.0002	Steel Bridge Railing, 2-Tube	LF	LF	---	660	660
515.0001.0000	Drilled Shaft	LS	EA	All Req'd	All Req'd	All Req'd
515.0002.0000	Unclassified Shaft Excavation, 3'-0" Dia.	LF	LF	180.2	---	180.2
515.0004.0000	Shaft Casing, 3'-0" Dia.	LS	EA	223.5	---	223.5
516.0001.0001	Expansion Joint, Strip Seal	LF	LF	---	38	38
520.0001.0001	Temporary Crossings	LS	LS	All Req'd	All Req'd	All Req'd
606.0016.0000	Transition Rail	EA	EA	---	4	4
611.0001.0001	Riprap, Class I	CY	CY	450	---	450
611.0001.0003	Riprap, Class III	CY	CY	2,050	---	2,050

Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

ABBREVIATIONS:

℄	= centerline	Elev.	= elevation	min.	= minimum
ℙ	= plate	e.f.	= each face	n.f.	= near face
&	= and	e.w.	= each way	No.	= number
@	= at	Ext.	= exterior	o.c.	= on center
ø	= diameter	F	= fixed	O.H.W.	= ordinary high water
±	= approximate	f.f.	= front/air face	pcf	= pounds per cubic foot
Abut.	= abutment	f'c	= specified concrete compressive strength	psf	= pounds per square foot
Approx.	= approximate			psi	= pounds per square inch
b.f.	= back/dirt face	Ft.	= feet	R	= radius
bot.	= bottom	Fy	= yield stress	R.O.W.	= right of way
Br.	= bridge	Galv.	= galvanize	RT.	= right
btwn.	= between	H.S.	= high strength	Rd.	= road
Brg.	= bearings	Hwy.	= highway	spcs.	= space, spaces
C.A.	= center of gravity	ID	= internal diameter	Sta.	= station
C.I.P.	= cast in place	Int.	= interior	SF	= square feet
CJP	= complete joint penetration	Jt.	= joint	SY	= square yard
Clr.	= clear, clearance	K	= kips	Std.	= standard
CMP	= corrugated metal pipe	ksf	= 1000 pounds per square foot	Symm.	= symmetric
CY	= cubic yard	ksi	= 1000 pounds per square inch	Typ.	= typical
Dia.	= diameter	LBS or lb	= pounds	UT	= ultrasonic testing
Dwg.	= drawing	LF	= linear foot	V.P.C.	= point of vertical curve
E	= expansion	LS	= lump sum	V.P.I.	= point of vertical intersection
(E)	= existing	LT.	= left	V.P.T.	= point of vertical tangent
EA	= each	max.	= maximum	w/	= with

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	PRELIMINARY PLAN	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

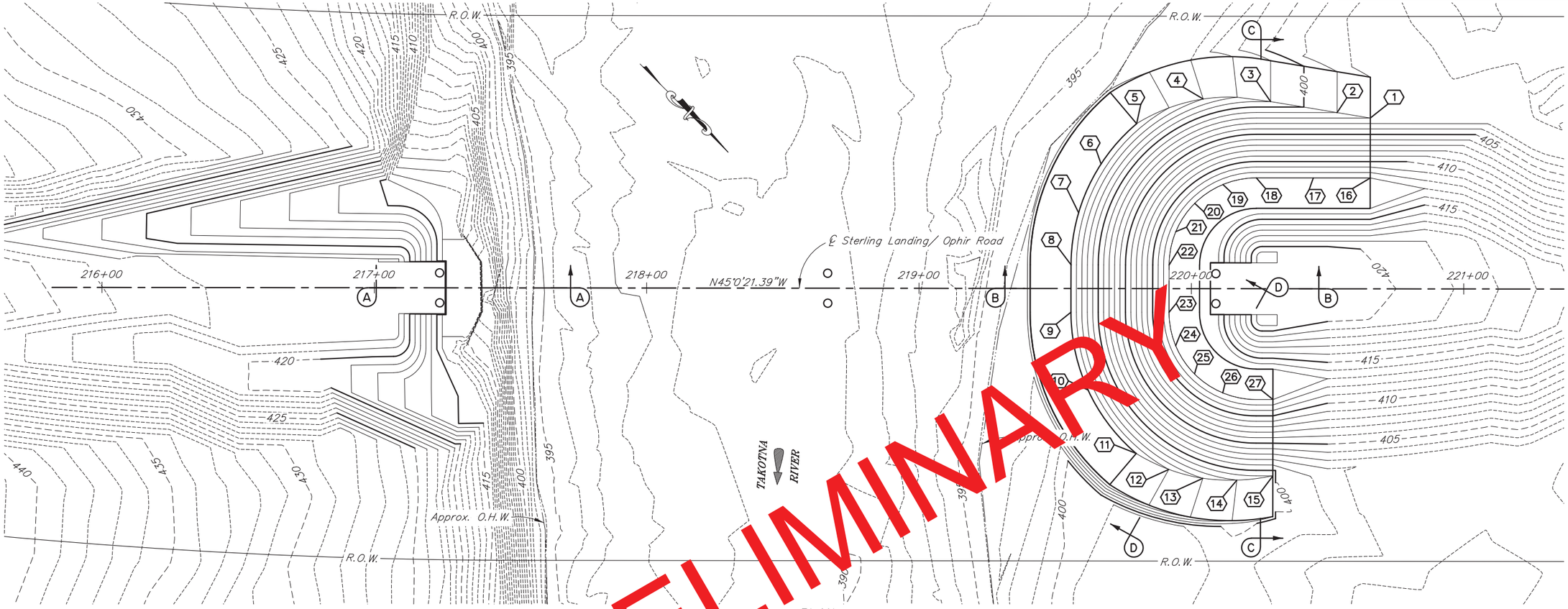
SITE PLAN

BRIDGE NO. 463

DWG. NO. 2

R:\cad\463\463-2 Fri, Mar/18/22 01:59pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N3	N29



PLAN

10 0 20 40
Feet

HYDRAULIC & HYDROLOGIC SUMMARY, BRIDGE NO. 463			
Flood Frequency (Yr.)	*50*	*100*	*500*
Exceedance Probability (%)	*2*	*1*	*0.2*
Discharge (cfs)	*12,870*	*14,500*	*16,150*
*Water Surface Elevation (ft)**	*402.6*	*403.0*	*403.8*
Anticipated Add'l Backwater (ft)		*0*	
Contraction Scour (ft)		*0*	*0*
Pier Scour (ft)		*8.0*	*8.2*
Abutment Scour (ft)		*na*	*na*
Long-Term Degradation (ft)		*1*	*1*

na = not applicable - Abutments protected with riprap countermeasures (FE) or bedrock (NE).

Drainage area for this crossing: 828 square miles

Hydraulic capacity: 11,200 cfs at FE approach embankment sag elevation 402 ft in ice free conditions, which has an exceedance probability of approximately 4 percent. for ice-free flow conditions.

Total scour equals contraction scour + local (pier/abutment) scour + long term degradation.

RIPRAP TABLE							
POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION
1	220+65.7	62.7' Left	402.00	15	220+30.0	64.7' Right	401.00
2	220+53.5	64.7' Left	401.00	16	220+65.7	40.7' Left	414.00
3	220+29.1	68.7' Left	399.00	17	220+44.8	40.7' Left	414.00
4	220+04.3	69.6' Left	397.00	18	220+23.9	40.7' Left	414.00
5	219+86.4	60.6' Left	397.00	19	220+11.6	38.2' Left	414.00
6	219+72.2	46.4' Left	397.00	20	220+01.2	31.3' Left	414.00
7	219+63.1	28.9' Left	397.00	21	219+94.3	20.9' Left	414.00
8	219+59.9	9.5' Left	397.00	22	219+91.9	8.7' Left	414.00
9	219+59.9	8.7' Right	397.00	23	219+91.9	8.7' Right	414.00
10	219+66.8	27.4' Right	399.00	24	219+94.3	20.9' Right	414.00
11	219+78.7	41.8' Right	401.00	25	220+01.2	31.3' Right	414.00
12	219+87.6	51.4' Right	401.00	26	220+11.6	38.2' Right	414.00
13	219+98.6	58.6' Right	401.00	27	220+30.0	40.7' Right	414.00
14	220+10.9	63.1' Right	401.00				

NOTE:

1.
2.
3. Existing abutments to be partially left in place.
4. For riprap sections not on "RIPRAP LAYOUT" Dwg. see "RIPRAP DETAILS" Dwg.

DESIGNED BY: Michael Knapp	CHECKED: Luke Boles	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Michael Knapp		
QUANTITIES BY: Michael Knapp	CHECKED: Luke Boles		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

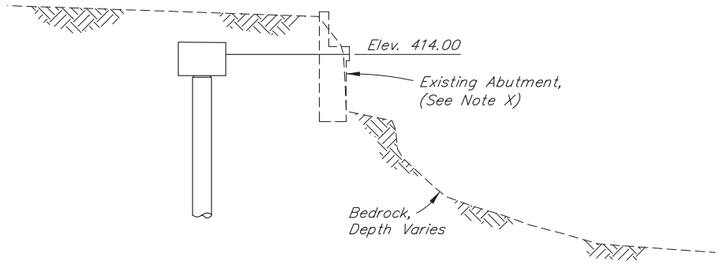
RIPRAP LAYOUT

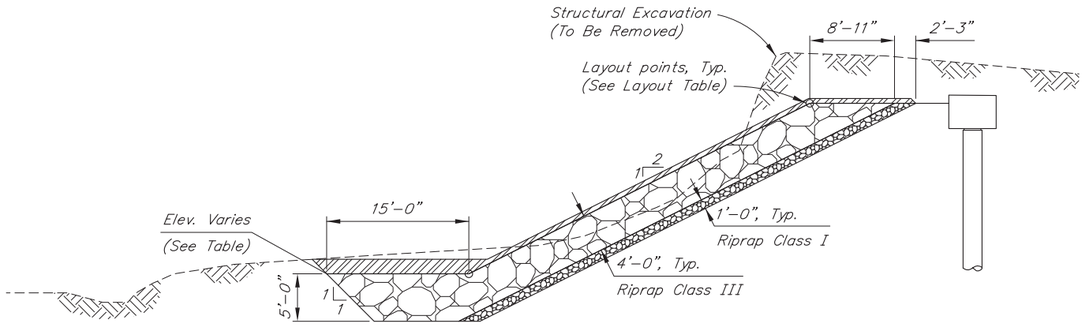
BRIDGE NO. 463

DWG. NO. 3

R:\cad\463\463-3 Fri, Mar/18/22 01:59pm

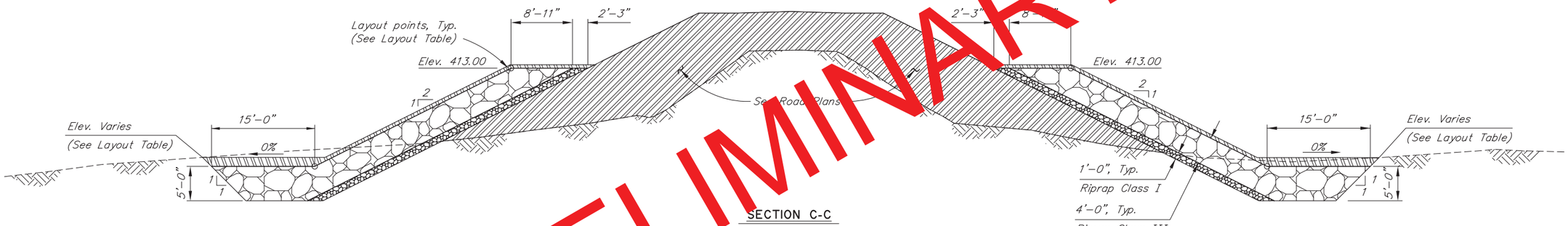
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N4	N29



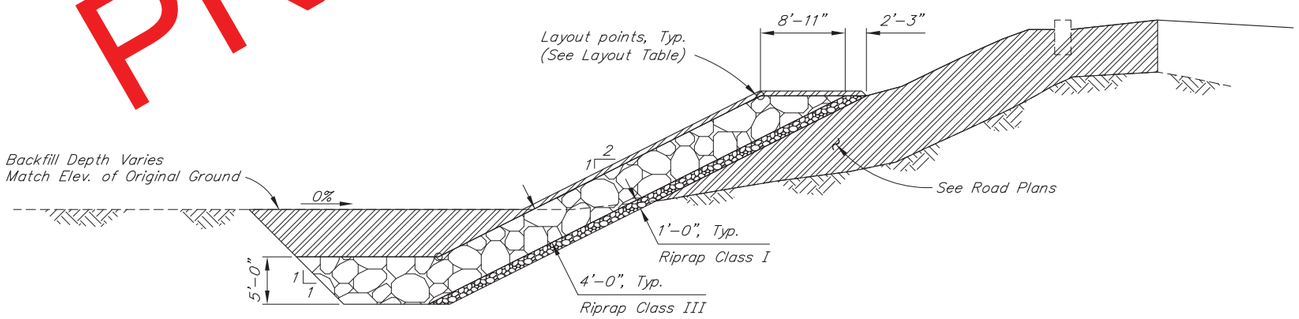


SECTION A-A

SECTION B-B



SECTION C-C



SECTION D-D

R:\cad\463\463-4 Fri, Mar/18/22 02:00pm

DESIGNED BY: Michael Knapp	CHECKED: Luke Boles	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Michael Knapp		
QUANTITIES BY: Michael Knapp	CHECKED: Luke Boles		

TAKOTNA RIVER BRIDGE

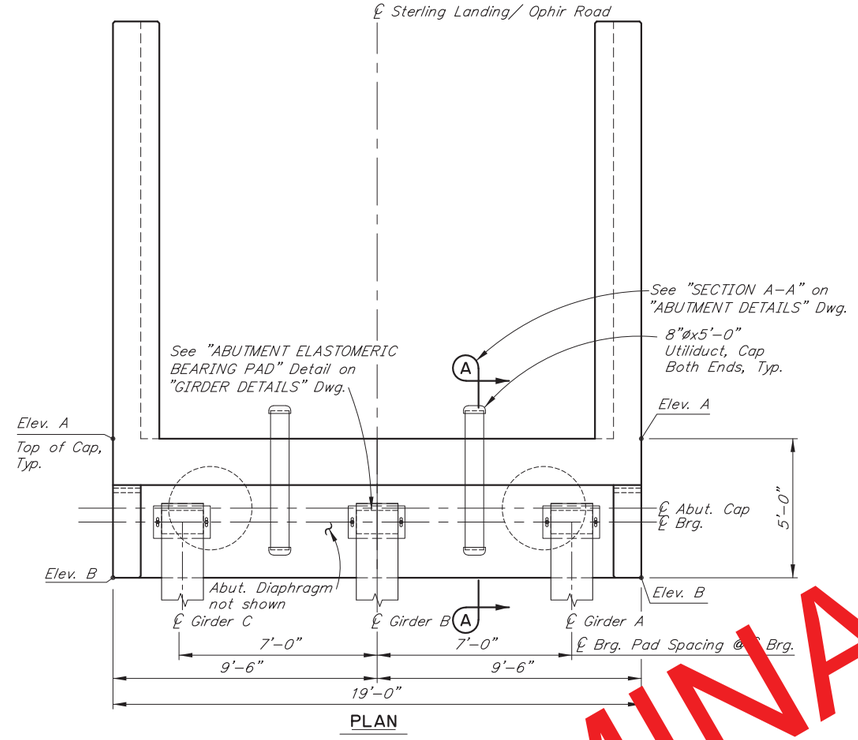
STERLING LANDING / OPHIR ROAD

RIPRAP DETAILS

BRIDGE NO. 463

DWG. NO. 4

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N5	N29



PRELIMINARY

ABUTMENT ELEVATION TABLE (FT)			
LOCATION	A	B	C
ABUTMENT 1	415.28	415.26	411.76
ABUTMENT 3	413.83	413.86	410.33

R:\cad\463\463-1-5 Fri, Mar/18/22 01:48pm

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	PRELIMINARY PLAN	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

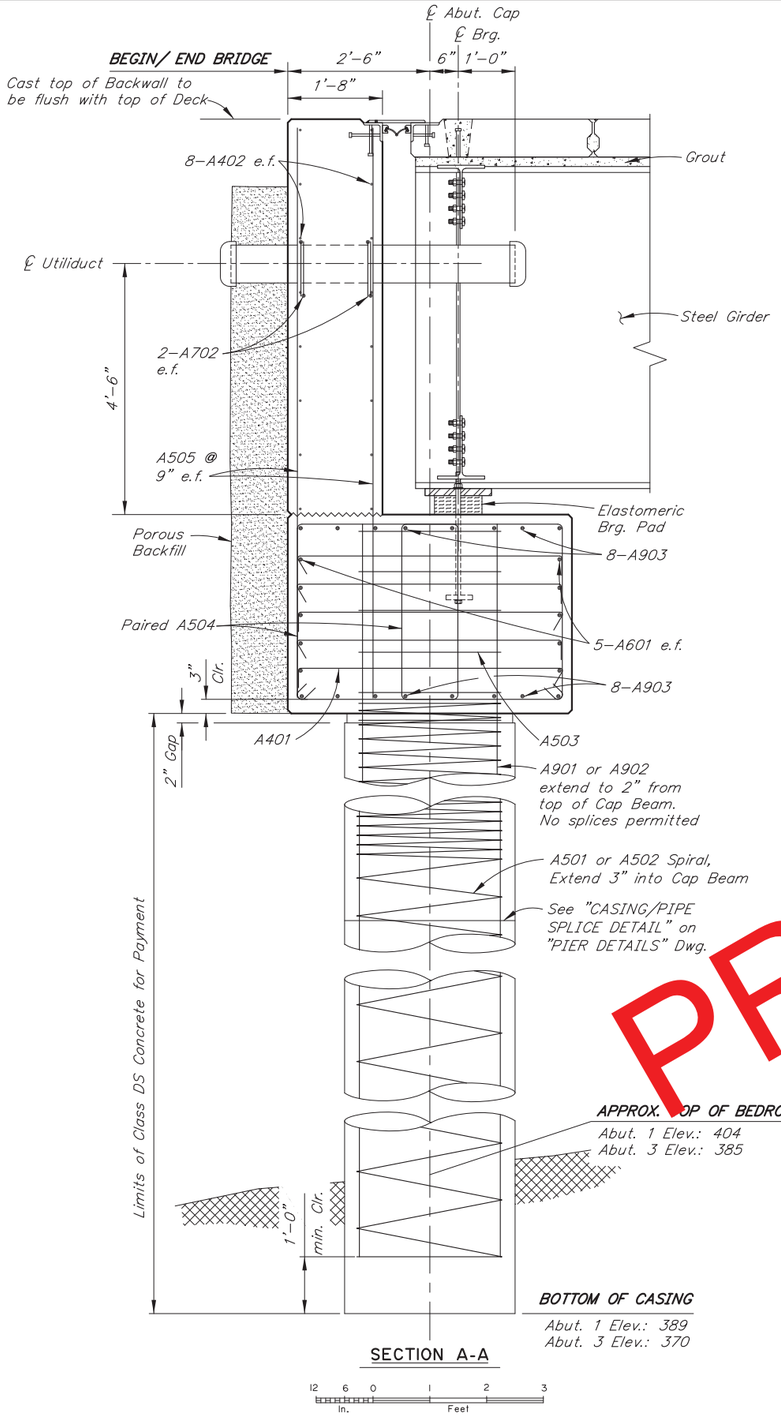
STERLING LANDING / OPHIR ROAD

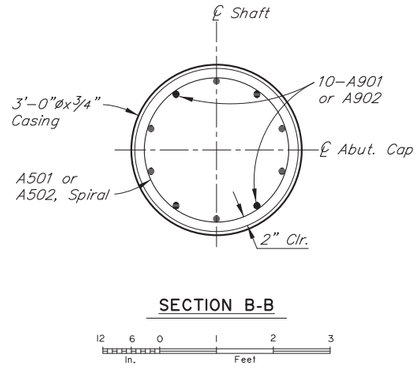
ABUTMENTS

BRIDGE NO. 463

DWG. NO. 5

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N6	N29

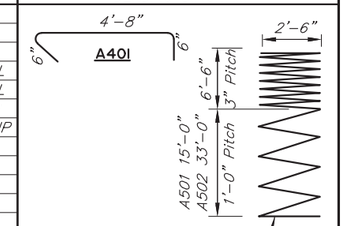


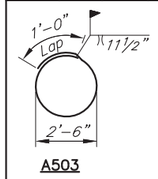


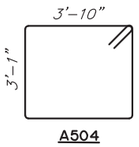
REINFORCING STEEL - ONE ABUTMENT

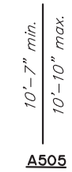
MARK	NOTE	SIZE	NO.	LENGTH	TYPE
A401		4	20	5'-8"	TIE
A402	E,M	4	16	18'-8"	---
A501	S	5	2	346'-9	SPIRAL
A502	S	5	2	489'-3"	SPIRAL
A503		5	8	8'-10"	HOOP
A504		5	40	14'-9"	STIRRUP
A505	E	5	54	VARIES	---
A601		6	10	18'-8"	---
A701	E	7	8	3'-0"	BENT
A901	1	9	20	24'-7"	---
A902	3	9	20	42'-7"	---
A903	H	9	16	18'-8"	HEADED

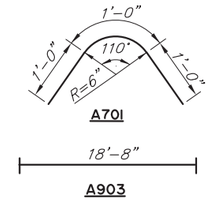
BENDING DIAGRAM



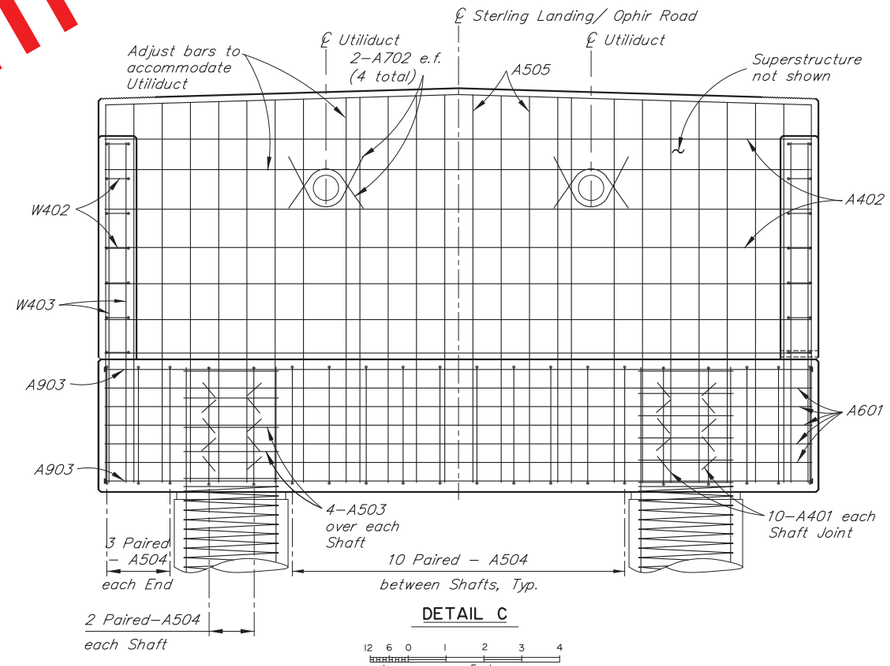








E – Epoxy-Coated
H – Headed reinforcing steel
M – Field adjust to match cross slope
S – Splices permitted. Splice length not included
1 – Abutment 1 only
3 – Abutment 3 only



DESIGNED BY:	Nick Murray	CHECKED:	David McAdoo
DRAWN BY:	Sam Sollie	CHECKED:	Nick Murray
QUANTITIES BY:	Nick Murray	CHECKED:	David McAdoo

PRELIMINARY PLAN

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

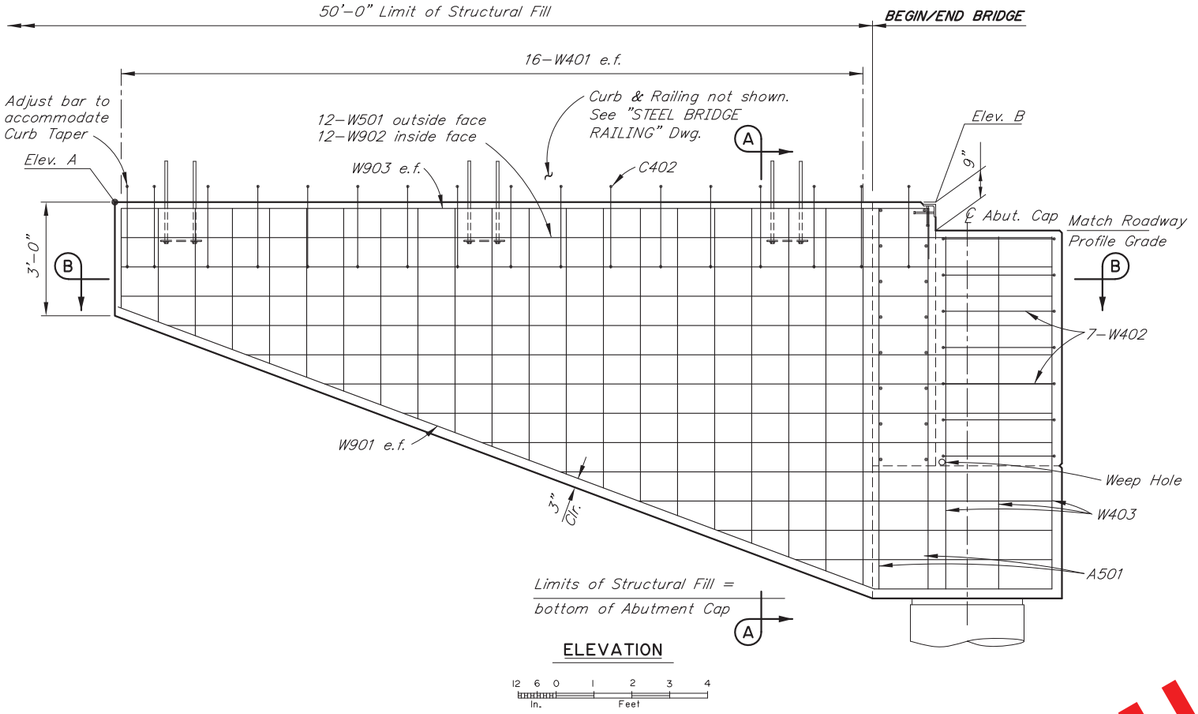
ABUTMENT DETAILS

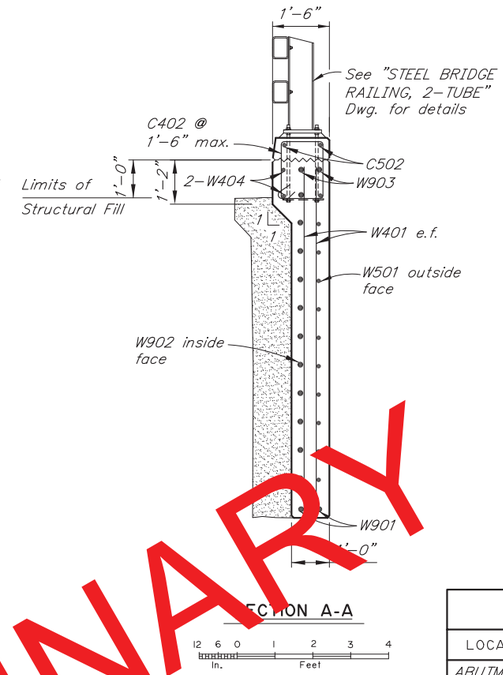
BRIDGE NO. 463

DWG. NO. 6

R:\cad\463\463-1-6 Fri, Mar/18/22 01:48pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N7	N29





REINFORCING STEEL - ONE ABUTMENT

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W401		4	84	VARIES	---	
W402		4	14	8'-1"	STIRRUP	
W403		4	12	9'-3"	---	
W404		4	4	21'-4"	---	
W501		5	14	VARIES	---	
W901		9	4	25'-11"	BENT	
W902		9	24	VARIES	---	
W903		9	4	23'-4"	BENT	
C402	E	4	34	5'-11"	BENT	
C502	E	5	4	21'-4"	---	

6'-10" Min.
24'-8" Max.
W501, W902

3'-0"
8"
W402

21'-2"
160°
4'-9"
W901

21'-4"
2'-0"
W903

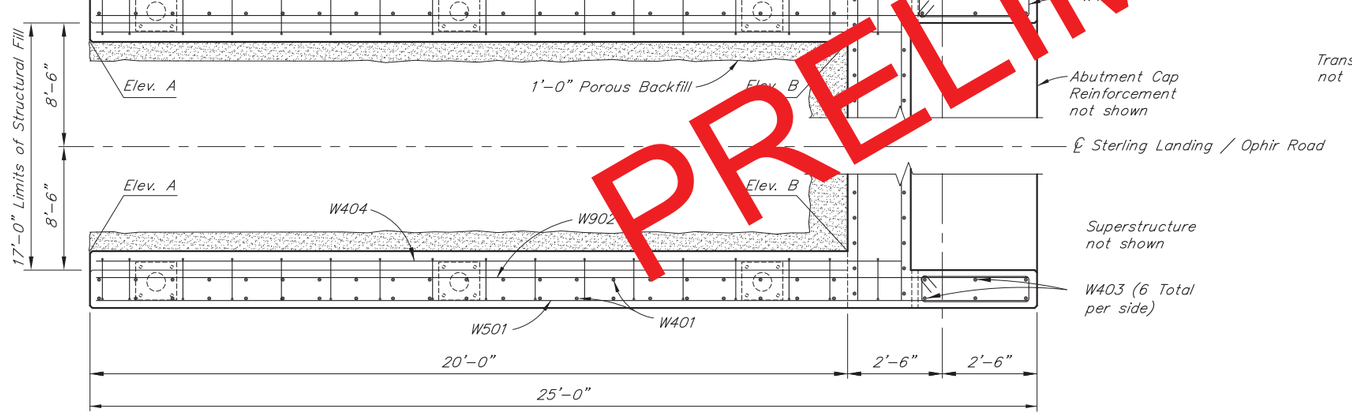
1'-1"
1'-6"
C402

2'-7" Min.
10'-0" Max.
W401

E - Epoxy-Coated

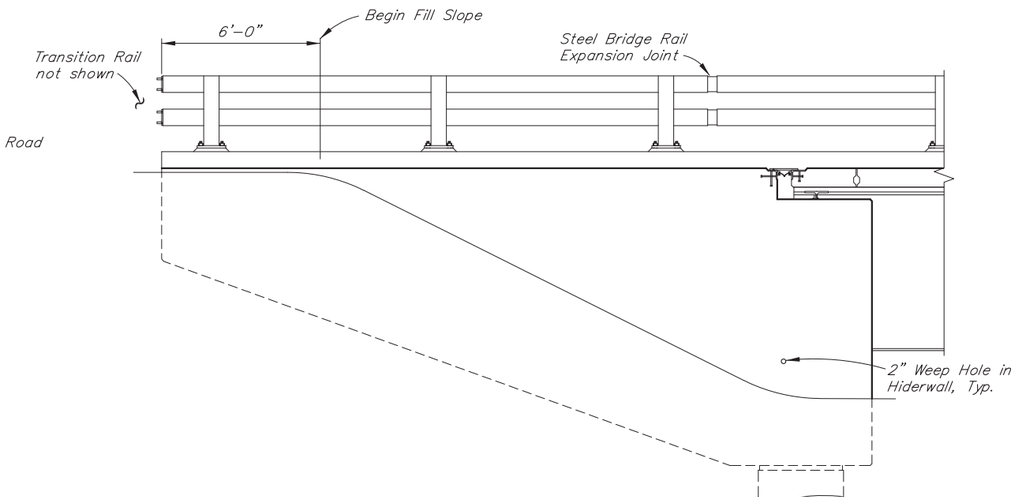
TOP OF WINGWALL ELEVATION TABLE (FT)

LOCATION	A	B
ABUTMENT 1	422.39	422.29
ABUTMENT 3	420.74	420.84



SECTION B-B

12 6 0 1 2 3 4
In. Feet



FINISHED ELEVATION

12 0 1 2 3 4
In. Feet

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	PRELIMINARY PLAN	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

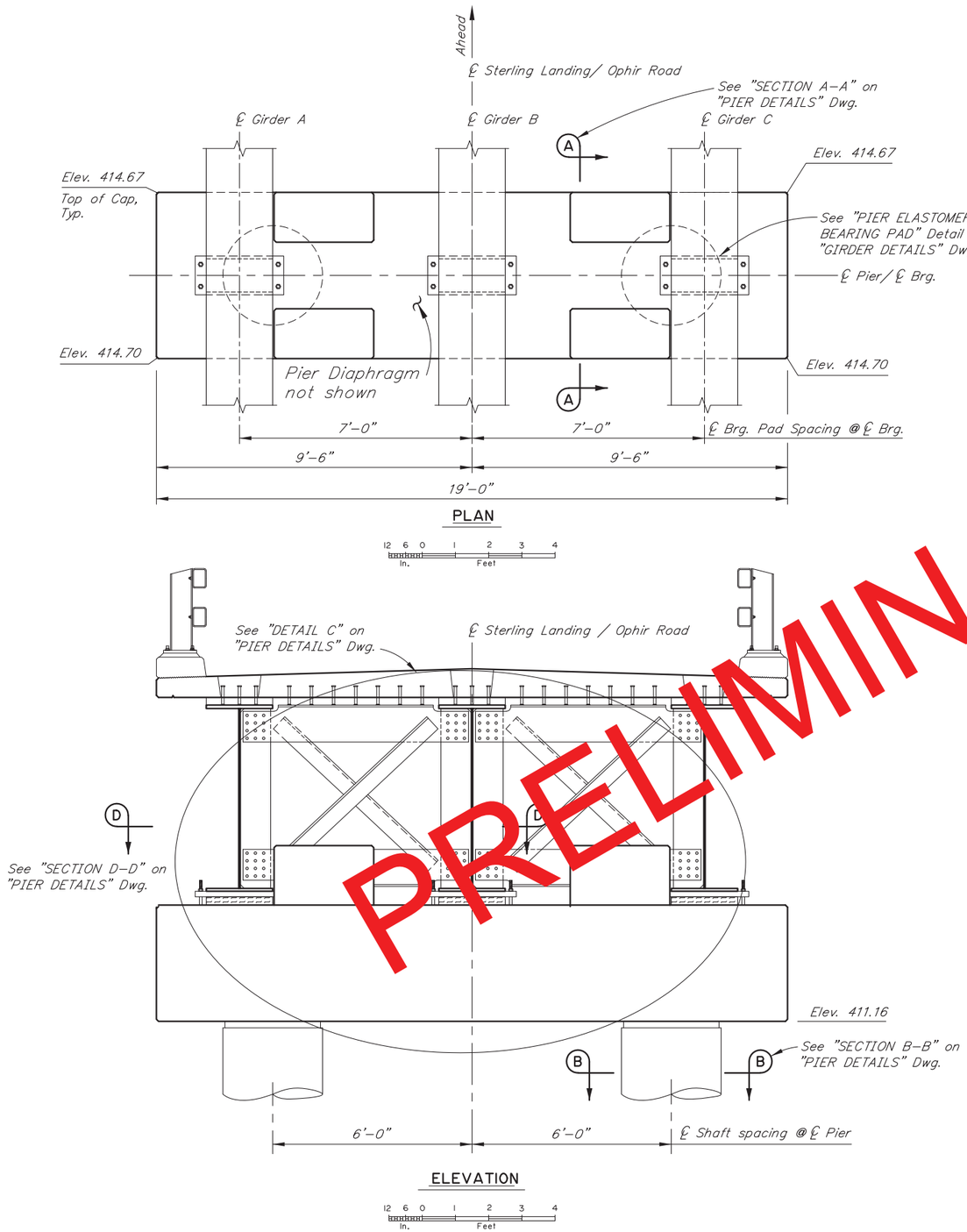
WINGWALLS

BRIDGE NO. 463

DWG. NO. 7

R:\cad\463\463-1-7 Fri, Mar/18/22 01:48pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N8	N29



R:\cad\463\463-1-8 Fri. Mar/18/22 01:48pm

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907–465–2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

PIER 2

BRIDGE NO. 463

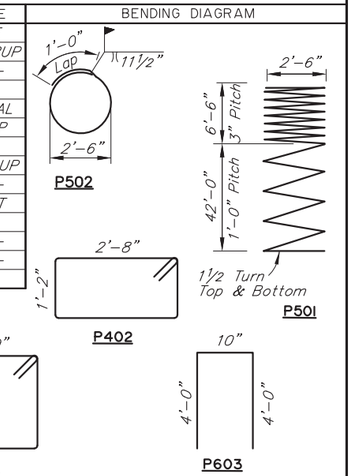
DWG. NO. 8

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N9	N29

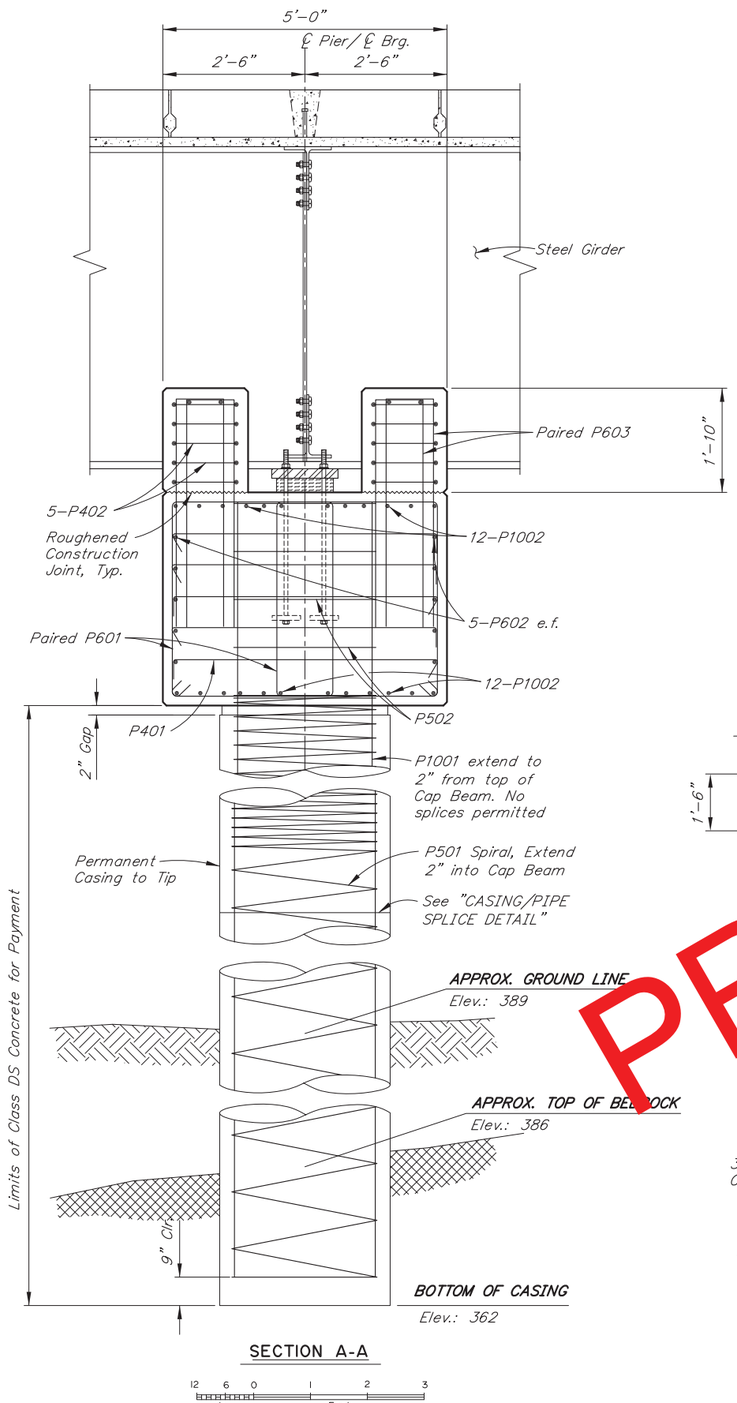
REINFORCING STEEL - PIER 2

MARK	NOTE	SIZE	NO.	LENGTH	TYPE
P401		4	20	5'-8"	TIE
P402		4	20	8'-5"	STIRRUP
P403		4	8	2'-8"	---
P501	S	5	2	560'-6"	SPIRAL
P502		5	10	8'-10"	HOOP
P601		6	56	15'-4"	STIRRUP
P602		6	10	18'-8"	---
P603		6	40	8'-10"	BENT
P1001		10	24	51'-8"	---
P1002	H	10	24	18'-8"	---

BENDING DIAGRAM

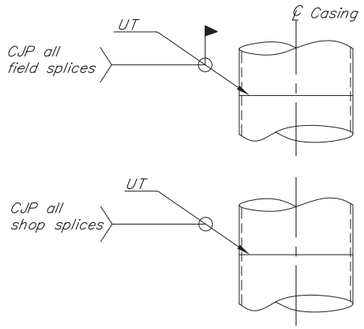


H – Headed reinforcing steel
S – Splices permitted. Splice length not included



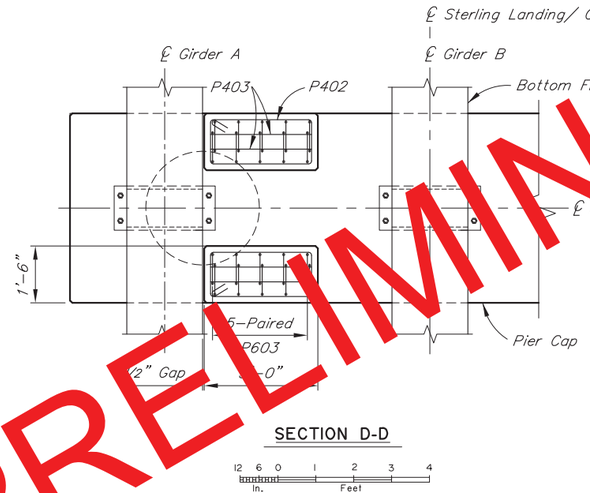
SECTION A-A

12 6 0 1 2 3
In. Feet



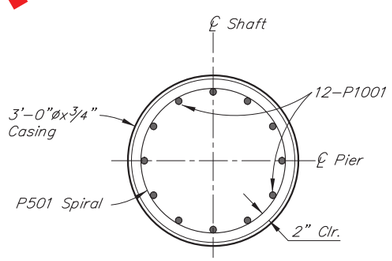
CASING/PIPE SPLICE DETAIL

No Scale



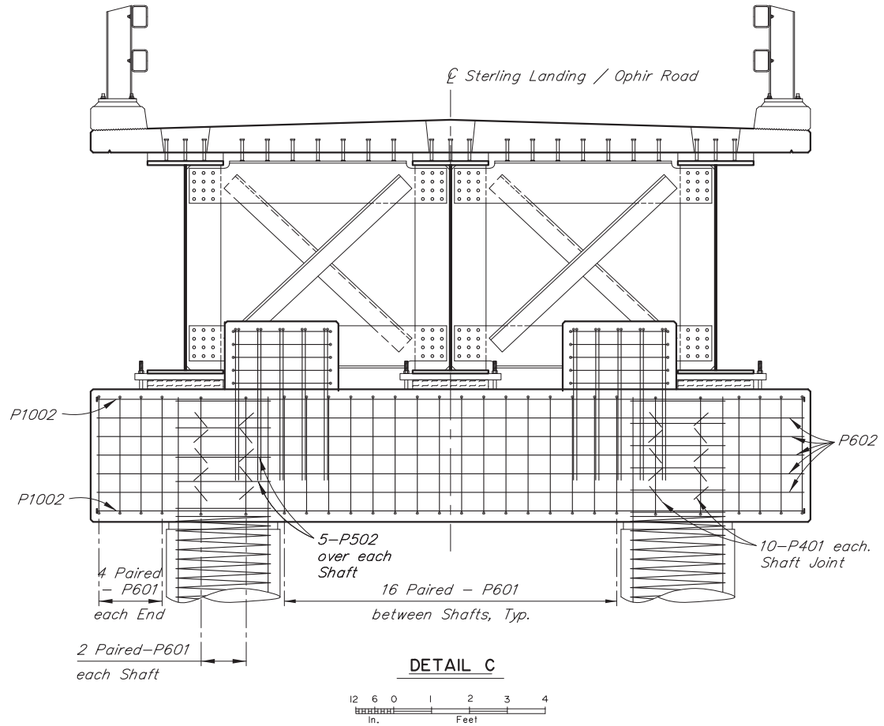
SECTION D-D

12 6 0 1 2 3 4
In. Feet



SECTION B-B

12 6 0 1 2 3
In. Feet



DETAIL C

12 6 0 1 2 3 4
In. Feet

DESIGNED BY:	Nick Murray	CHECKED:	David McAdoo
DRAWN BY:	Sam Sollie	CHECKED:	Nick Murray
QUANTITIES BY:	Nick Murray	CHECKED:	David McAdoo

PRELIMINARY PLAN

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

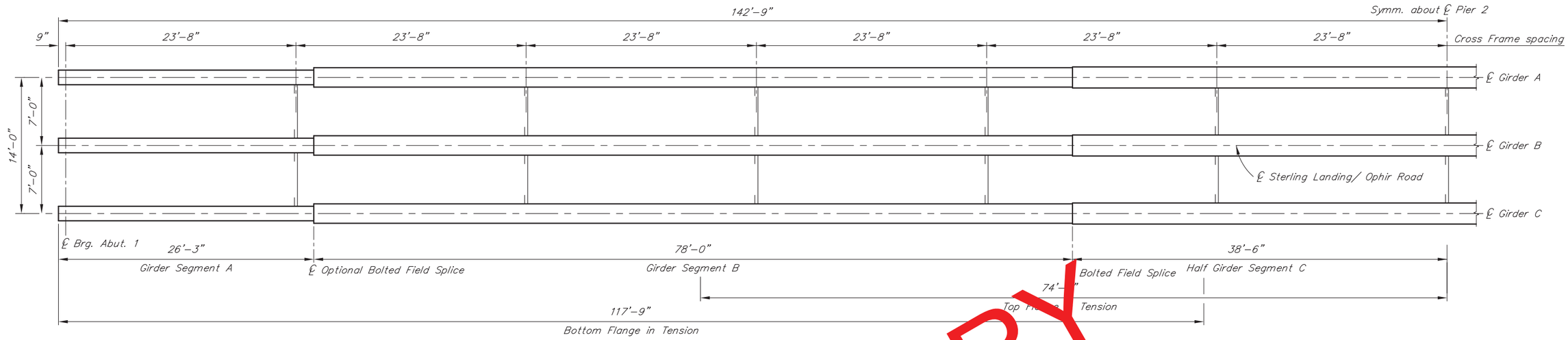
PIER DETAILS

BRIDGE NO. 463

DWG. NO. 9

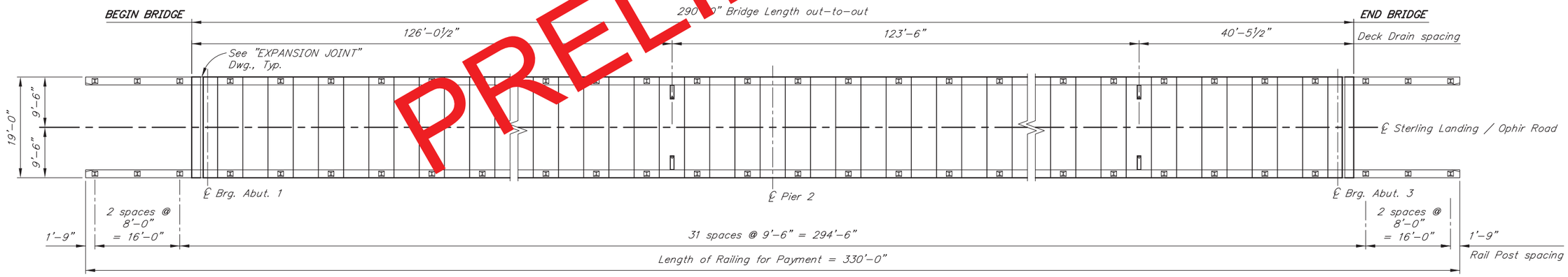
R:\cad\463\463-1-9 Fri, Mar/18/22 01:48pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N10	N29



HALF FRAMING PLAN

12 0 1 2 3 4
In. Feet



DECK PLAN

10 5 0 10 20
Feet

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

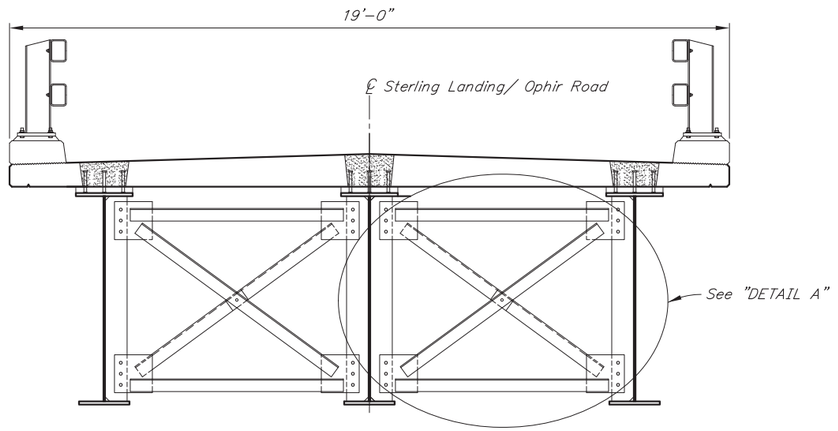
FRAMING PLAN AND DECK PLAN

BRIDGE NO. 463

DWG. NO. 10

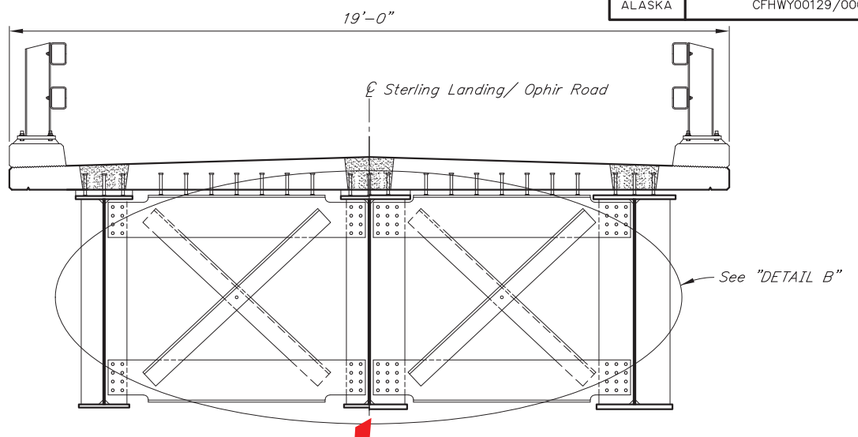
R:\cad\463\463-1-10 Fri, Mar/18/22 01:49pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N11	N29



TYPICAL SECTION AT INTERMEDIATE CROSS FRAMES

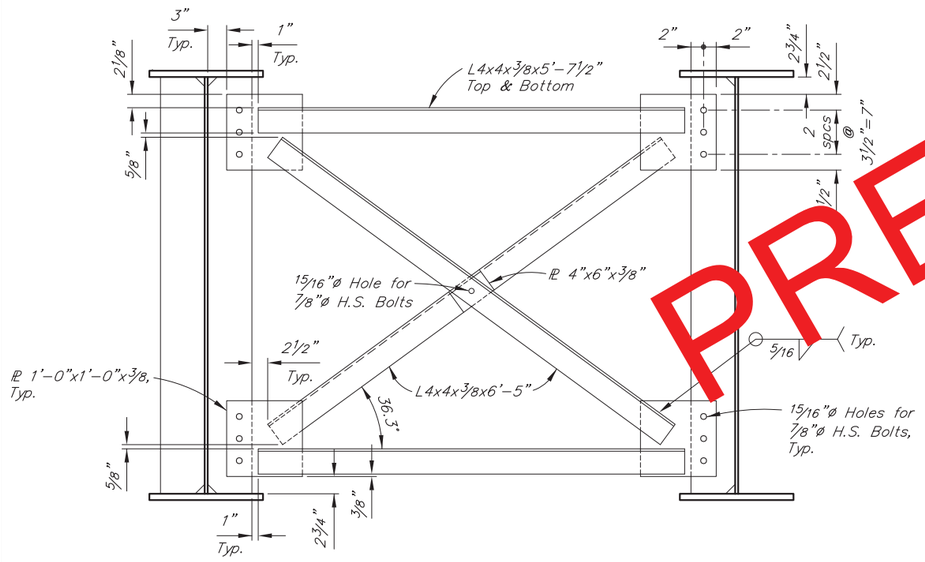
12 6 0 1 2 3
In. Feet



AT ABUTMENTS AT PIER

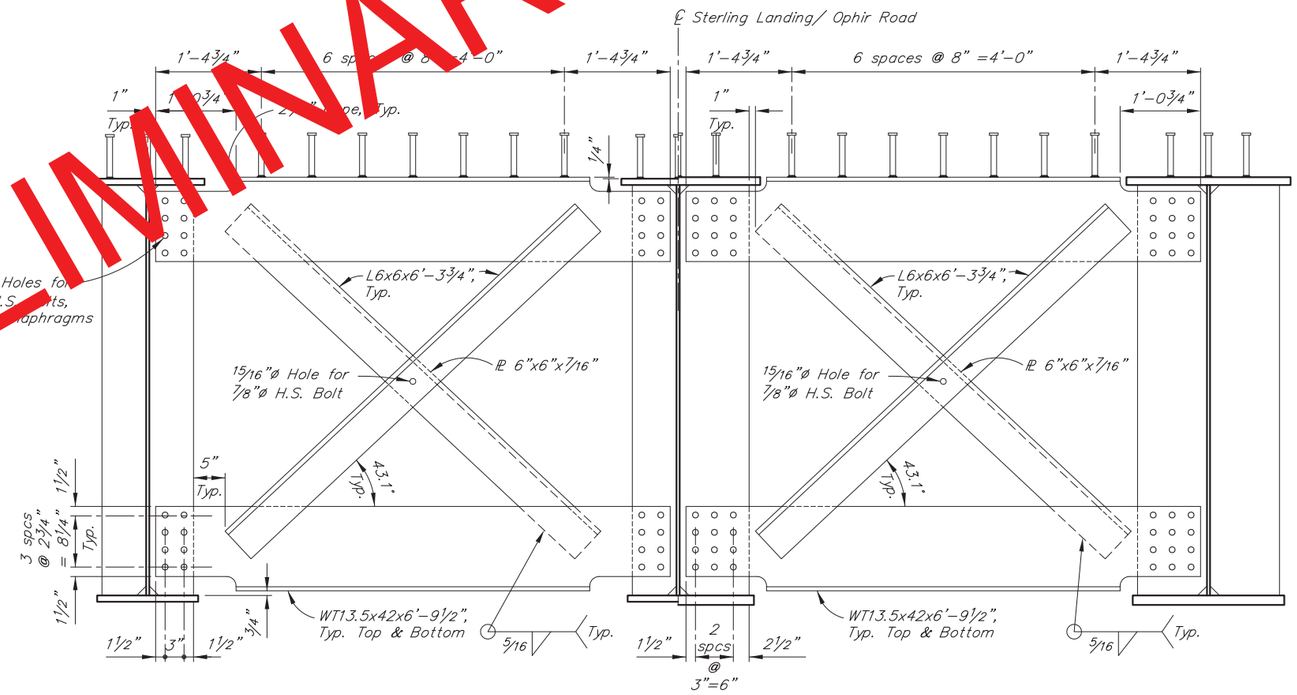
TYPICAL SECTION AT SUPPORTS

12 6 0 1 2 3
Feet



DETAIL A

12 6 0 1 2
In. Feet



AT ABUTMENTS AT PIER

DETAIL B

12 6 0 1 2
In. Feet

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

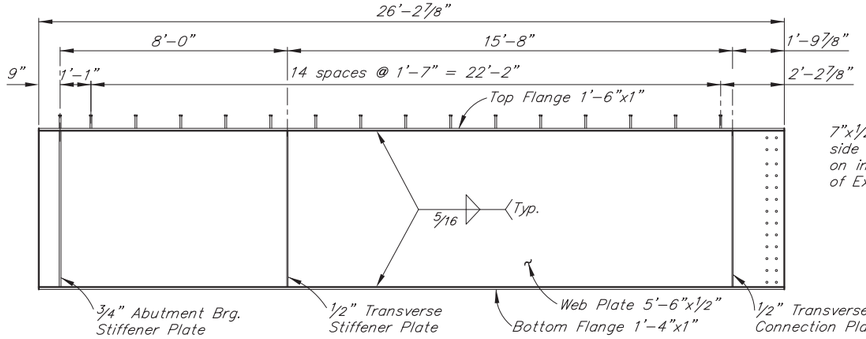
TYPICAL SECTIONS

BRIDGE NO. 463

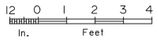
DWG. NO. 11

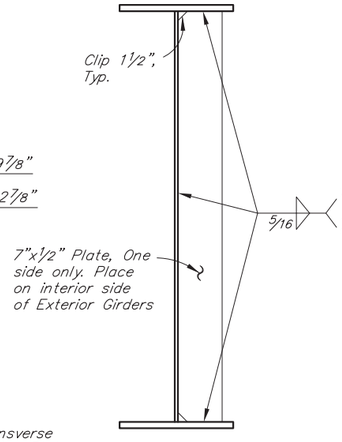
R:\cad\463\463-1-11 Fri, Mar/18/22 01:49pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N12	N29

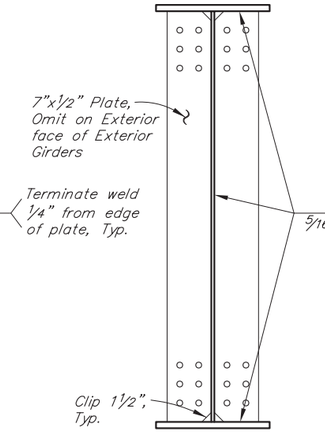


ELEVATION - SEGMENT A

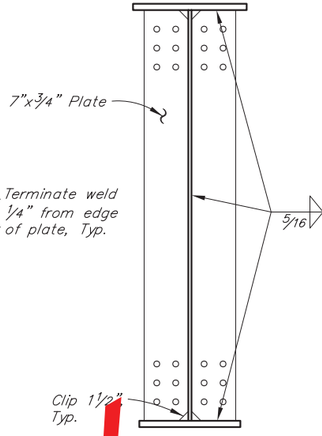




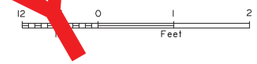
TRANSVERSE STIFFENER PLATE

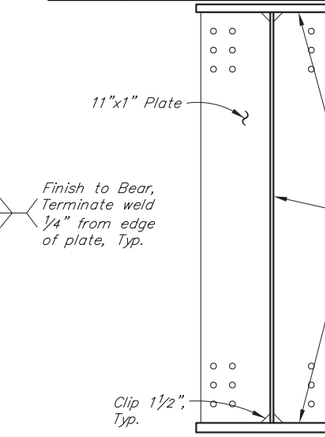


TRANSVERSE CONNECTION PLATE

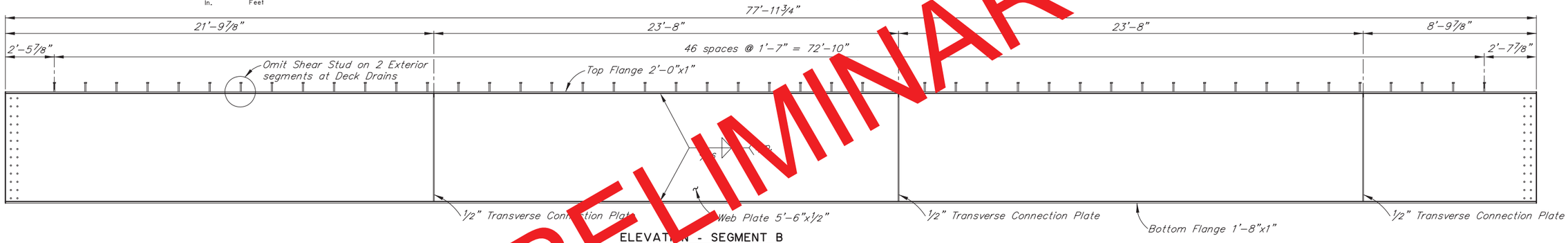


ABUTMENT BEARING STIFFENER PLATE

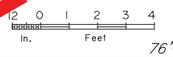


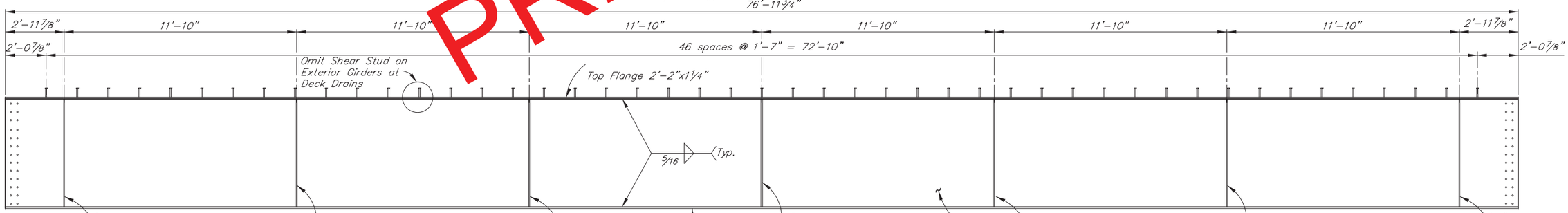


PIER BEARING STIFFENER PLATE



ELEVATION - SEGMENT B





ELEVATION - SEGMENT C

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

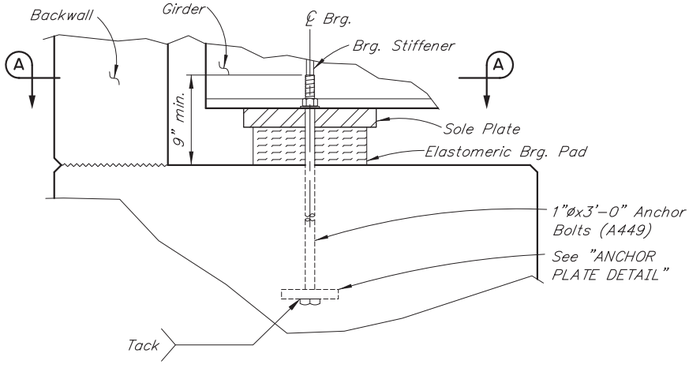
GIRDER SEGMENTS

BRIDGE NO. 463

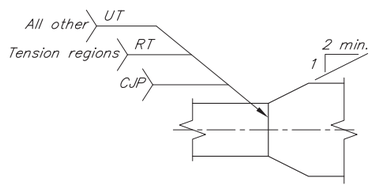
DWG. NO. 12

R:\cad\463\463-1-12 Fri, Mar/18/22 01:49pm

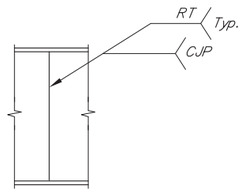
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N13	N29



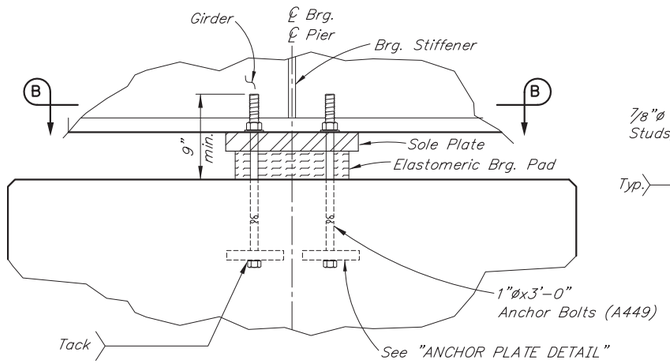
ABUTMENT BEARING DETAIL



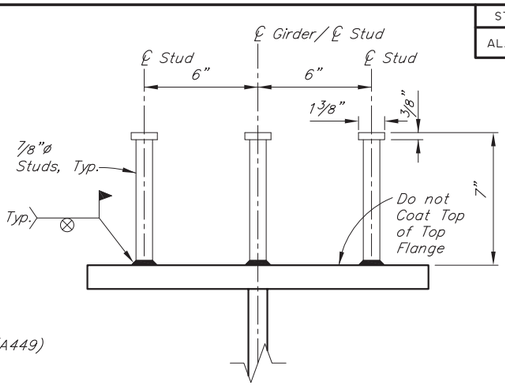
PLAN



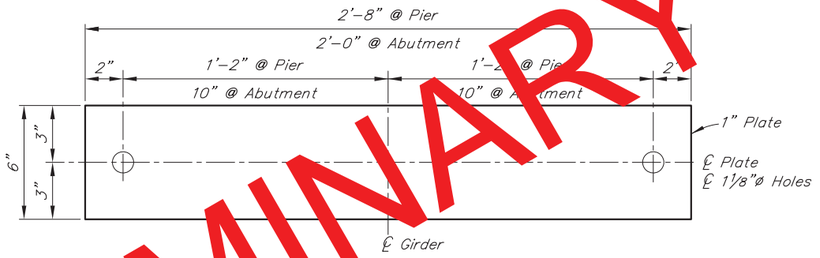
ELEVATION



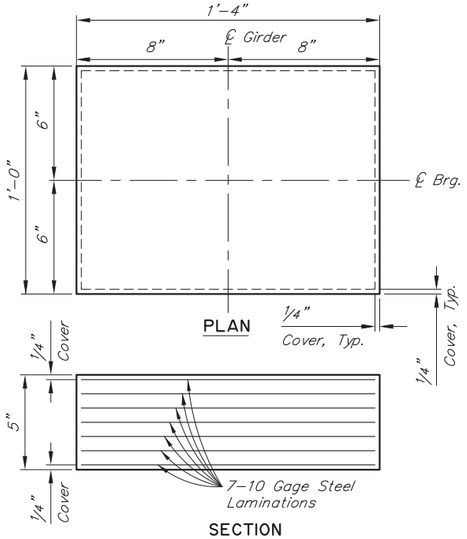
PIER BEARING DETAIL



SHEAR STUD DETAIL



ANCHOR PLATE DETAIL



PLAN

SECTION

ABUTMENT ELASTOMERIC BEARING PAD

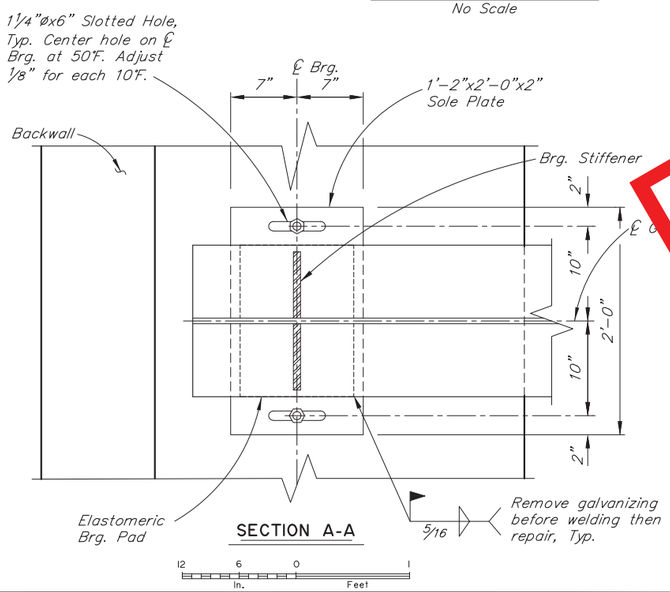
Grade 5
Max. Dead Load = 67 k
Max. Live Load = 81 k
Shear Modulus = 115 psi

FLANGE SPLICE

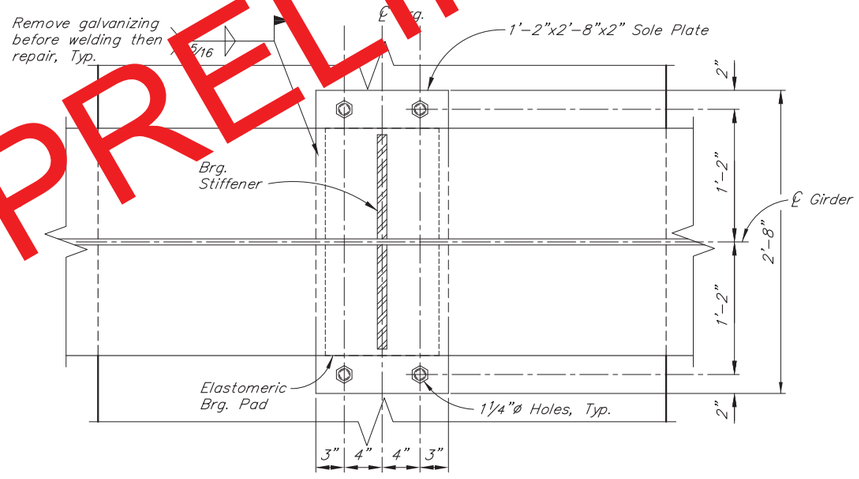
WEB SPLICE

GIRDER WELD DETAILS

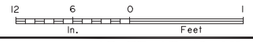
No Scale

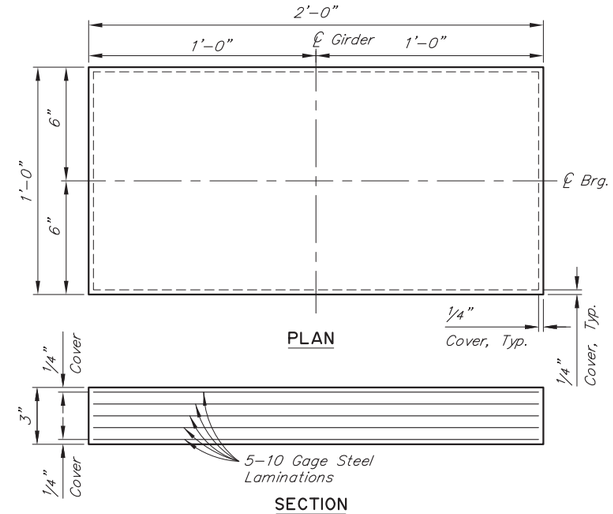


SECTION A-A



SECTION B-B





PLAN

SECTION

PIER ELASTOMERIC BEARING PAD

Grade 5
Max. Dead Load = 239 k
Max. Live Load = 190 k
Shear Modulus = 115 psi

R:\cad\463\463-1-13 Fri, May/18/22 01:49pm

DESIGNED BY: Nick Murray	CHECKED: David McAdoo		
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

PRELIMINARY PLAN

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

TAKOTNA RIVER BRIDGE

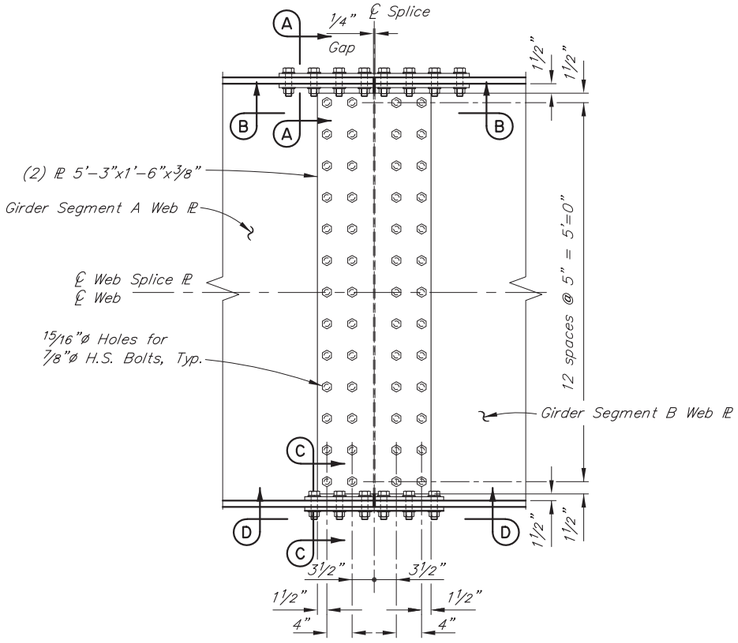
STERLING LANDING / OPHIR ROAD

GIRDER DETAILS

BRIDGE NO. 463

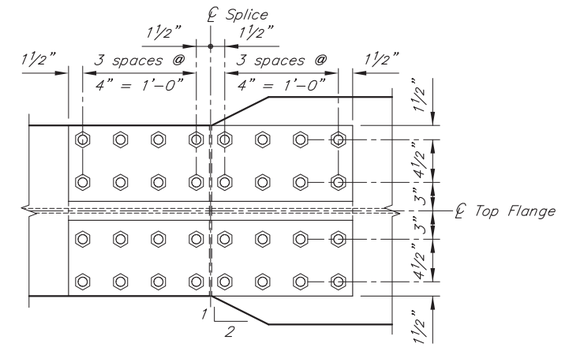
DWG. NO. 13

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N14	N29



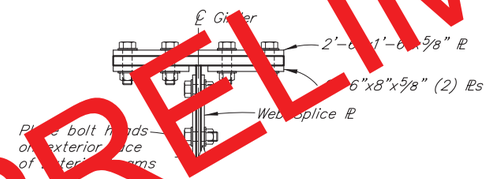
ELEVATION - SPLICE A/B

12 6 0 1 2
In. Feet



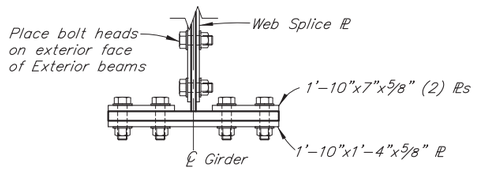
SECTION B-B

12 6 0 1
In. Feet



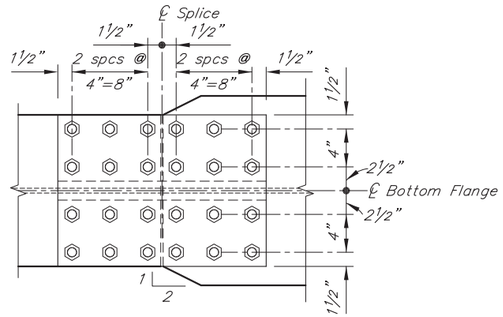
SECTION A-A

6 0 1
In. Feet



SECTION C-C

12 6 0 1
In. Feet



SECTION D-D

12 6 0 1
In. Feet

DESIGNED BY:	Nick Murray	CHECKED:	David McAdoo
DRAWN BY:	Sam Sollie	CHECKED:	Nick Murray
QUANTITIES BY:	Nick Murray	CHECKED:	David McAdoo

PRELIMINARY PLAN

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

TAKOTNA RIVER BRIDGE

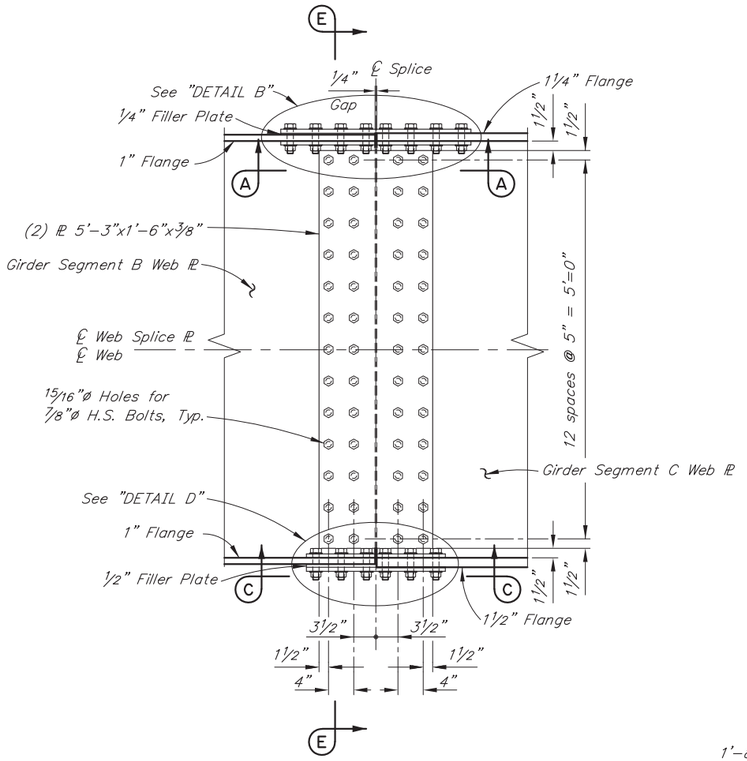
STERLING LANDING / OPHIR ROAD

GIRDER SEGMENTS A & B SPLICE DETAILS

BRIDGE NO. 463
DWG. NO. 14

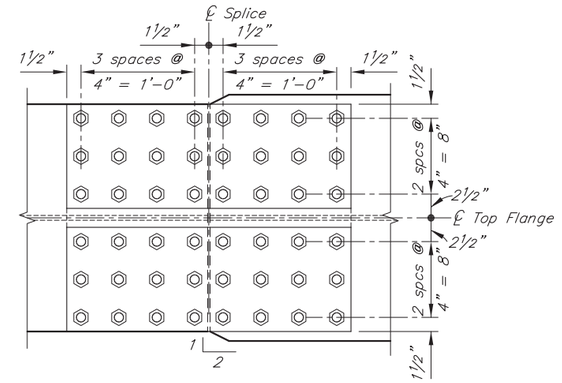
R:\cad\463\463-1-14 Fri, Mar/18/22 01:49pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N15	N29



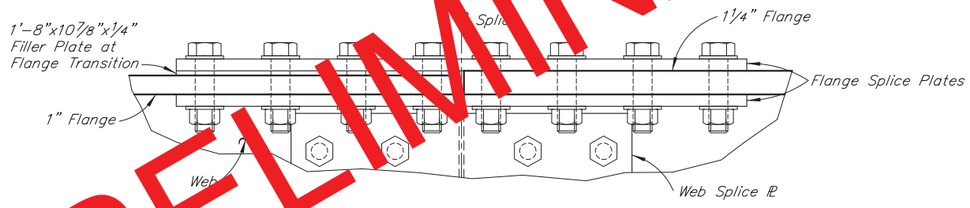
ELEVATION

12 6 0 1 2
In. Feet



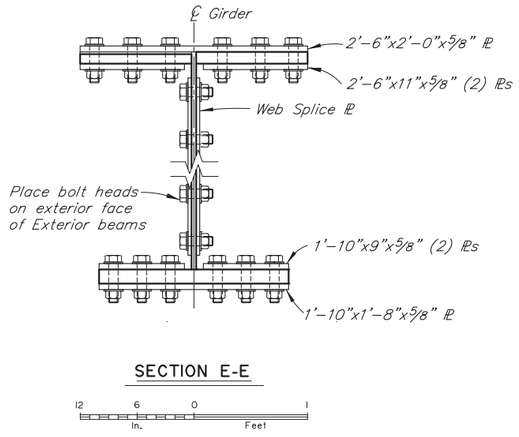
SECTION A-A

12 6 0 1
In. Feet



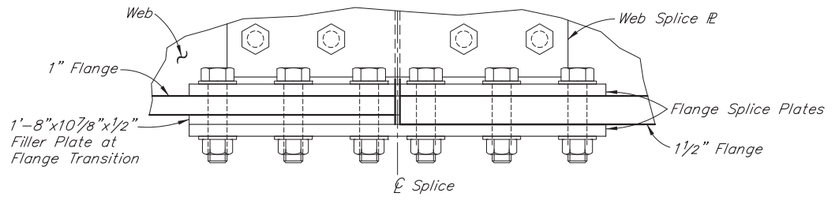
DETAIL B

6 3 0 1
In. Feet



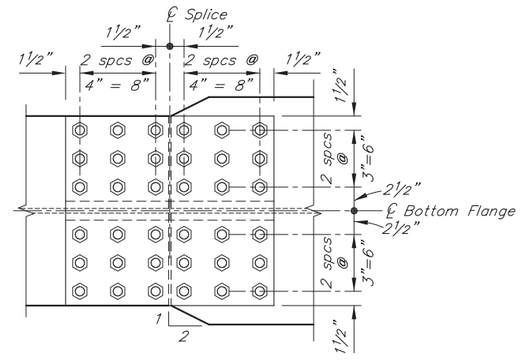
SECTION E-E

12 6 0 1
In. Feet



DETAIL D

6 3 0 1
In. Feet



SECTION C-C

12 6 0 1
In. Feet

PRELIMINARY

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	PRELIMINARY PLAN	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

GIRDER SEGMENTS B & C SPLICE DETAILS

BRIDGE NO. 463

DWG. NO. 15

R:\cad\463\463-1-15 Fri, Mar/18/22 01:49pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N16	N29

Distance from ℄ Brg. (ft.)	0.00	5.92	11.83	17.75	23.67	29.58	35.50	41.42	47.33	53.25	59.17	65.08	71.00	76.92	82.83	88.75	94.67	100.58	106.50	112.42	118.33	124.25	130.17	136.08	142.00
Girder + Cross Frame Deflection (in.)	0.00	0.09	0.19	0.27	0.35	0.41	0.47	0.51	0.54	0.56	0.57	0.56	0.54	0.51	0.47	0.42	0.37	0.31	0.25	0.19	0.14	0.09	0.04	0.01	0.00
Deck Deflection (in.)	0.00	0.26	0.50	0.73	0.94	1.12	1.26	1.38	1.46	1.51	1.52	1.50	1.45	1.36	1.25	1.12	0.97	0.82	0.66	0.50	0.35	0.22	0.11	0.04	0.00
Rail + Utilities Deflection (in.)	0.00	0.05	0.10	0.15	0.19	0.23	0.26	0.29	0.30	0.31	0.32	0.31	0.30	0.28	0.26	0.23	0.20	0.17	0.14	0.10	0.07	0.05	0.02	0.01	0.00
Future Wearing Surface Deflection (in.)	0.00	0.09	0.18	0.26	0.34	0.40	0.46	0.50	0.53	0.54	0.55	0.54	0.52	0.49	0.45	0.40	0.35	0.29	0.24	0.18	0.13	0.08	0.04	0.01	0.00
Total Deflection (in.)	0.00	0.50	0.98	1.42	1.82	2.16	2.45	2.67	2.83	2.93	2.95	2.91	2.81	2.65	2.43	2.18	1.90	1.59	1.28	0.97	0.69	0.43	0.22	0.07	0.00
"Y" Segment Chord (in.)	0.00	0.45	0.90	1.35	1.79	1.91	1.87	1.83	1.79	1.76	1.72	1.68	1.64	1.61	1.57	1.53	1.49	1.45	1.44	1.44	1.44	1.44	1.44	1.44	1.44
"X" Segment Camber (in.)	0.00	0.05	0.08	0.08	0.03	0.26	0.58	0.84	1.04	1.17	1.23	1.23	1.16	1.04	0.87	0.65	0.40	0.14	−0.16	−0.46	−0.75	−1.01	−1.22	−1.37	−1.44

Distance from ℄ Brg. (ft.)	0.00	12.75	25.50	65	103.5	142.0
Girder + Cross Frame Deflection (in.)	0.00	0.20	0.37	0.56	0.28	0.00
Deck Deflection (in.)	0.00	0.54	1.00	1.50	0.74	0.00
Rail + Utilities Deflection (in.)	0.00	0.11	0.21	0.31	0.15	0.00
Future Wearing Surface Deflection (in.)	0.00	0.20	0.36	0.54	0.27	0.00
Total Deflection (in.)	0.00	1.05	1.94	2.92	1.44	0.00
"Y" Segment Chord (in.)	0.00	0.97	1.90	1.68	1.44	1.44
"X" Segment Camber (in.)	0.00	0.08	0.00	1.24	0.00	−1.44

Symm. about Midspan

GIRDER SEGMENT A (25'−6") | GIRDER SEGMENT B (78'−8") | HALF−GIRDER SEGMENT C (38'−6")

℄ Brg. Abut. 1 — ℄ Optional Bolted Field Splice — ℄ Bolted Field Splice — ℄ Pier 2

CAMBER DIAGRAM

No Scale

Camber Notes:

1. Segment Chord line is a straight line through the top of the web connecting the ℄ of bearing and ℄ field splices.
2. Minimum camber (sum of x+y) is provided. Maximum additional camber may vary up to ½" at the mid−span of any span. Additional camber shall vary parabolically in each span.

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	PRELIMINARY PLAN	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907−465−2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

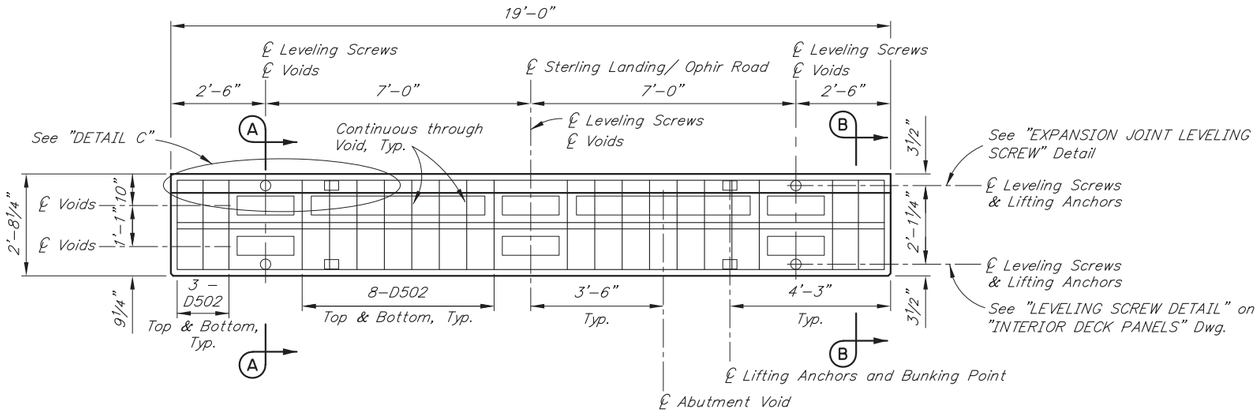
CAMBER DIAGRAM

BRIDGE NO. 463

DWG. NO. 16

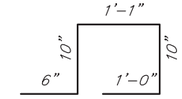
R:\cad\463\463−1−16 Fri, Mar/18/22 01:49pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N17	N29

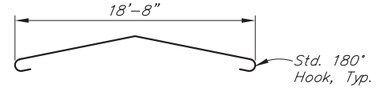


REINFORCING STEEL - ONE ABUTMENT PLANK

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
D502	E	5	44	2'-4"	---	
D601	E,M	6	4	20'-0"	BENT	
D602	E	6	4	18'-8"	---	
C401	E	4	4	4'-3"	BENT	
C501	E,S	5	4	205'-4"	---	



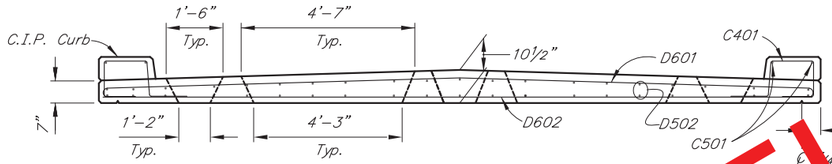
C401



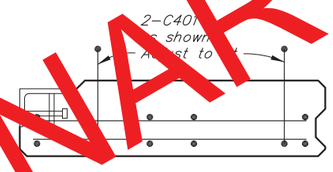
D601

E – Epoxy-Coated
M – Adjust to match cross slope
S – Splices permitted. Splice length not included

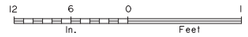
DECK PANEL - PLAN
(2 Total)

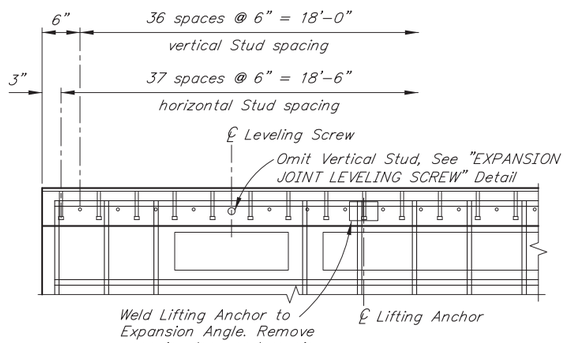


DECK PANEL - SECTION

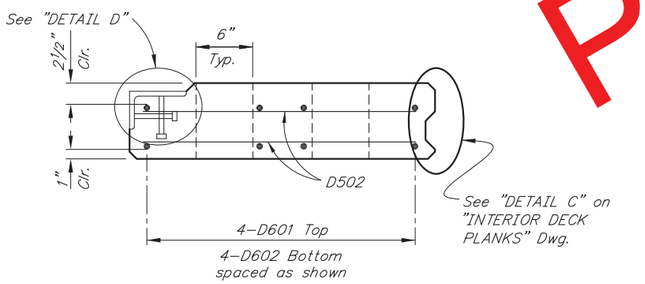


SECTION B-B

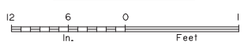


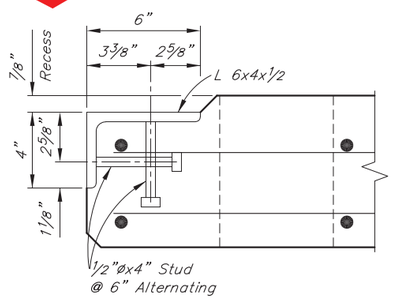


DETAIL C

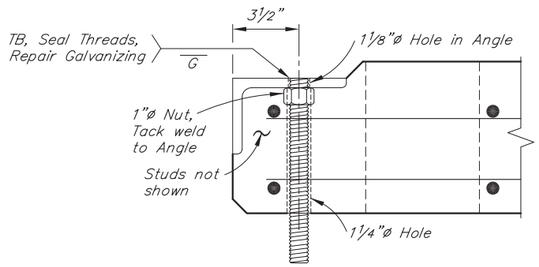


SECTION A-A





DETAIL D



EXPANSION JOINT LEVELING SCREW

NOTES:

1. Provide heavy broom finish transversely on deck panels and all grouted surfaces.
2. All leveling screws must be in contact with the girders prior to grouting or applying loads.
3. Turn D601 bars to maintain clear cover.

DESIGNED BY: Nick Murray	CHECKED: David McAdoo		
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

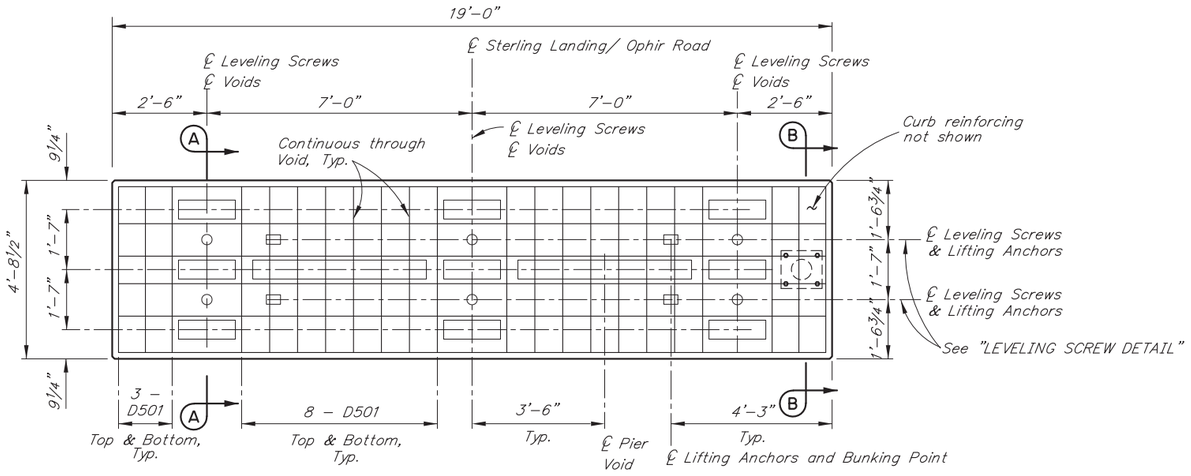
PRELIMINARY PLAN

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

TAKOTNA RIVER BRIDGE
STERLING LANDING / OPHIR ROAD
ABUTMENT DECK PANELS

BRIDGE NO. 463
DWG. NO. 17

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N18	N29

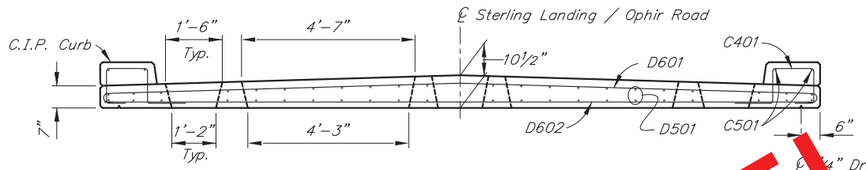


PANEL WITHOUT RAIL POST DETAIL
(29 Total)

PANEL WITH RAIL POST DETAIL
(30 Total)

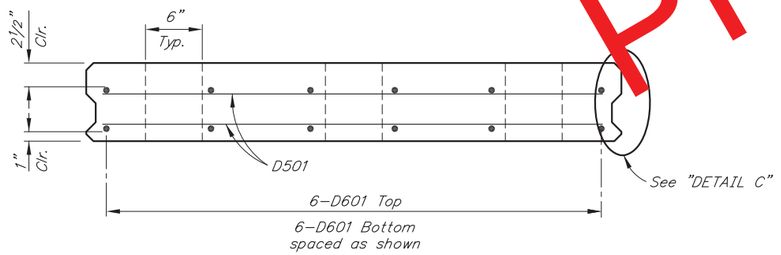
DECK PANEL - PLAN

12 6 0 1 2 3 4
In. Feet



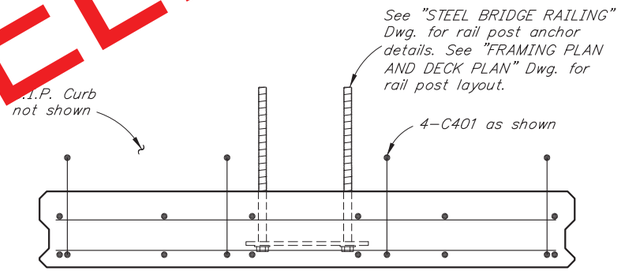
DECK PANEL - SECTION

12 6 0 1 2 3 4
In. Feet



SECTION A-A

12 6 0 1
In. Feet

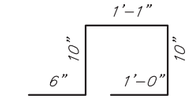


SECTION B-B

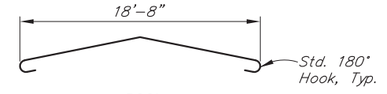
12 6 0 1
In. Feet

REINFORCING STEEL - ONE INTERIOR PLANK

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
D501	E	5	44	4'-4"	---	
D601	E	6	6	20'-0"	BENT	
D602	E	6	6	18'-8"	---	
C401	E	4	8	4'-3"	BENT	

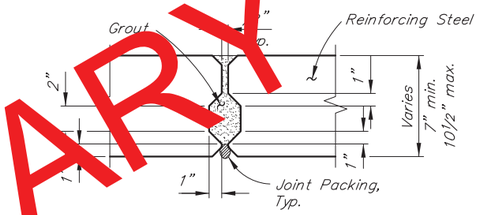


C401

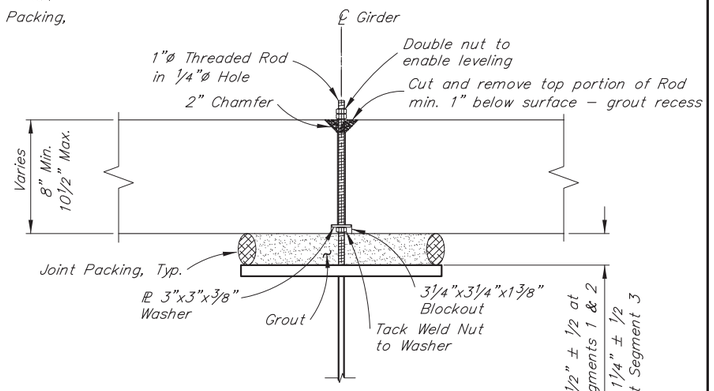


D601

E – Epoxy-Coated
M – Adjust to match cross slope



DETAIL C
No Scale



LEVELING SCREW DETAIL
No Scale

NOTES:

1. Provide heavy broom finish transversely on deck panels and all grouted surfaces.
2. Replace middle exterior voids with deck drain blockouts in two panels. See "DECK DRAINS" dwg.
3. All leveling rods must be in contact with the girders prior to grouting or applying loads.
4. Turn D601 bars to maintain clear cover.
5. Include 4'-7" voids only in one panel.

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	PRELIMINARY PLAN	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

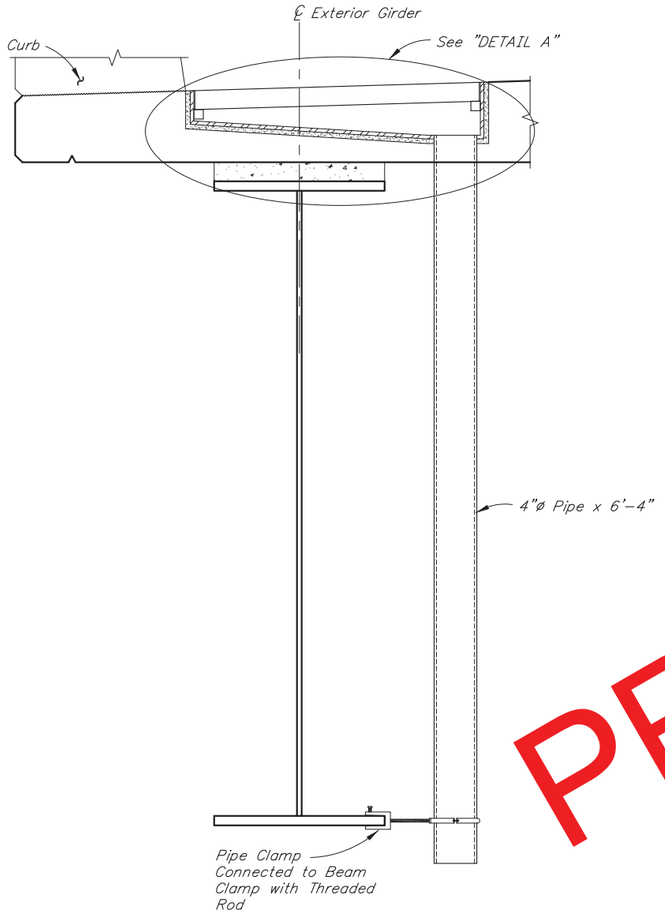
STERLING LANDING / OPHIR ROAD

INTERIOR DECK PANELS

BRIDGE NO. 463
DWG. NO. 18

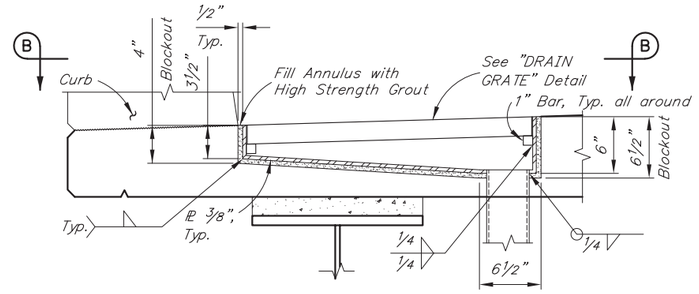
R:\cad\463\463-1-18 Fri, Mar/18/22 01:49pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N19	N29



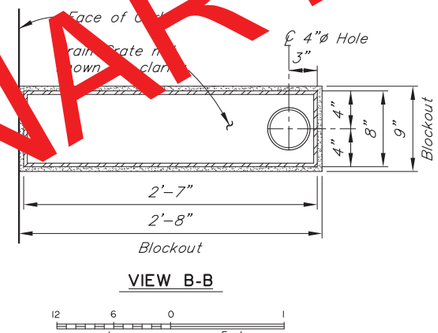
DECK DRAIN ELEVATION

12 6 0 1
In. Feet



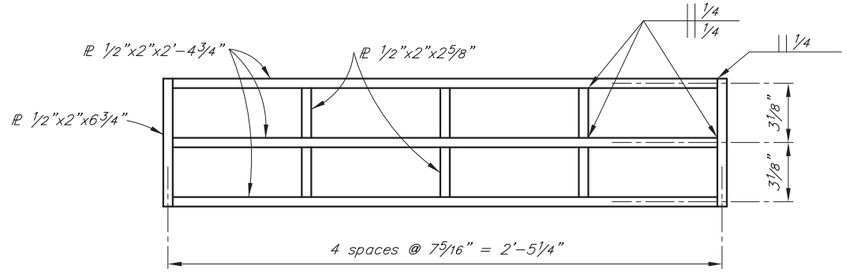
DETAIL A

12 6 0 1
In. Feet



VIEW B-B

12 6 0 1
In. Feet



DRAIN GRATE

6 3 0 1
In. Feet

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

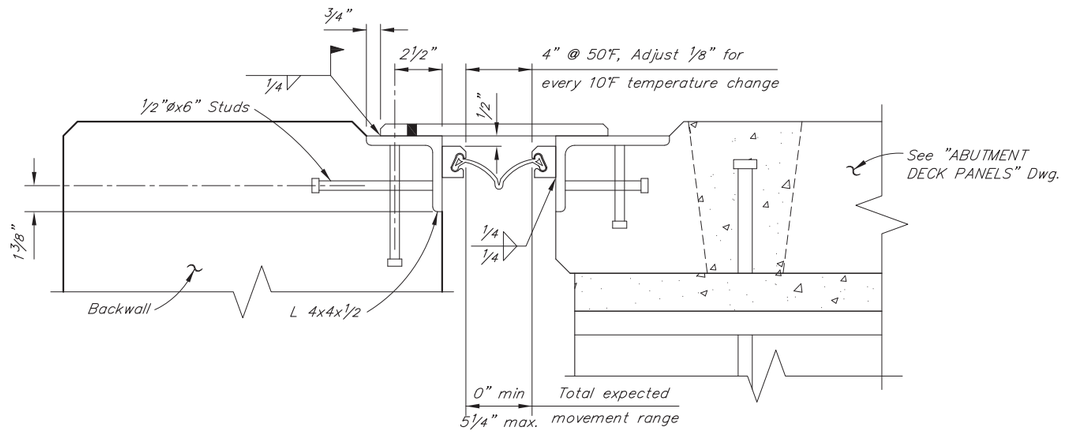
DECK DRAINS

BRIDGE NO. 463

DWG. NO. 19

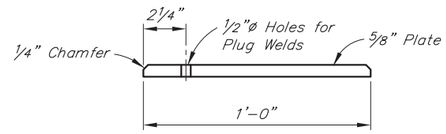
R:\cad\463\463-1-19 Fri, Mar/18/22 01:49pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N20	N29



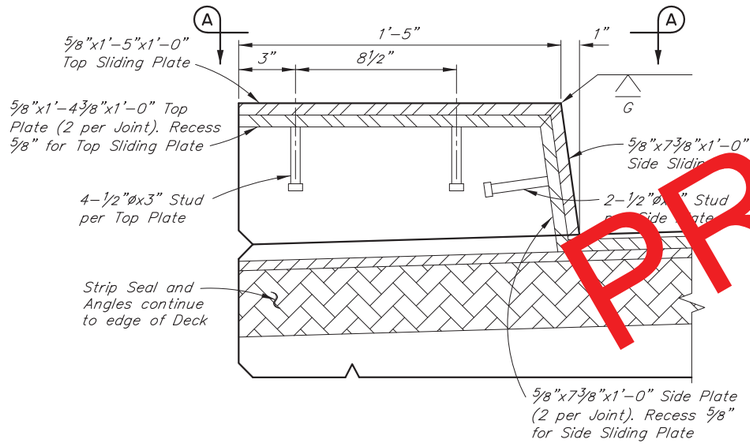
EXPANSION JOINT SECTION

6 3 0 1
In. Feet



SLIDING PLATE DETAIL

6 3 0 1
In. Feet



CURB SLIDING PLATE

6 3 0 1
In. Feet

VIEW A-A

12 6 0 1
In. Feet

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	PRELIMINARY PLAN	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

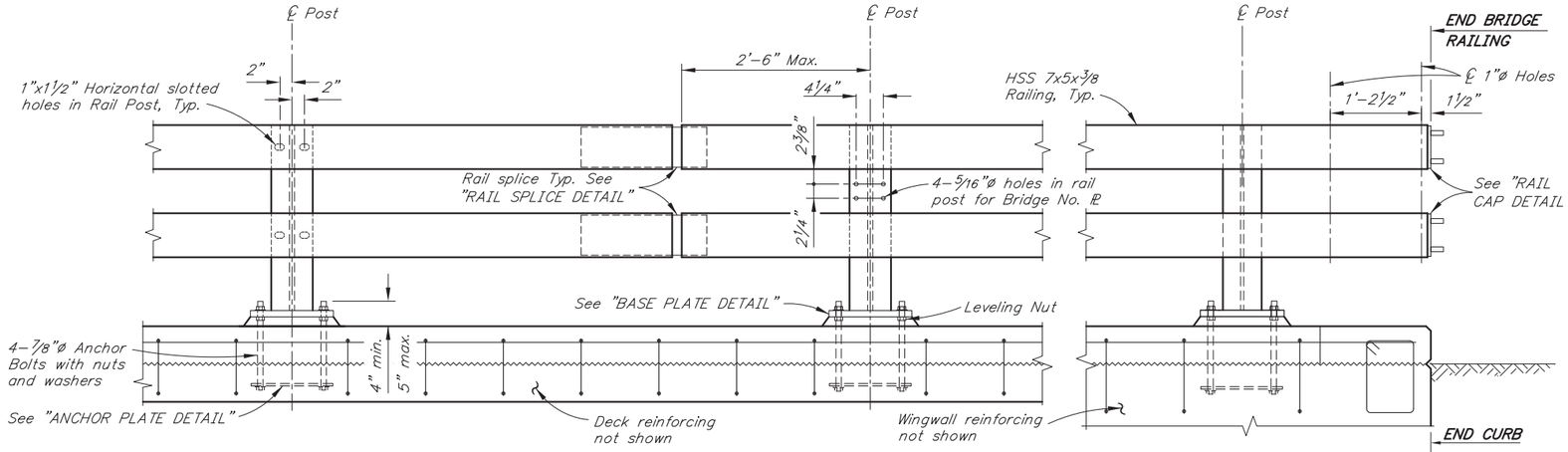
EXPANSION JOINTS

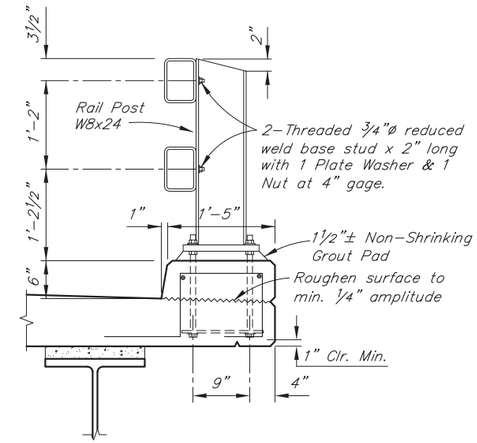
BRIDGE NO. 463

DWG. NO. 20

R:\cad\463\463-1-20 Fri, May/18/22 01:49pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N21	N29

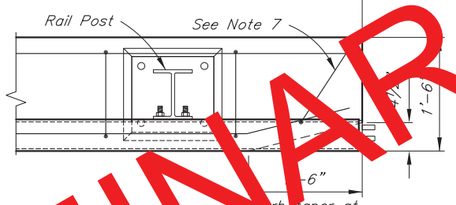




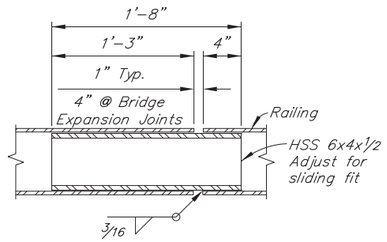
TYPICAL POST ELEVATION

EXPANSION JOINT

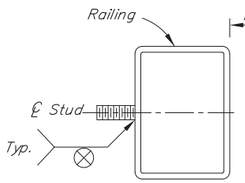
ELEVATION



TYPICAL SECTION

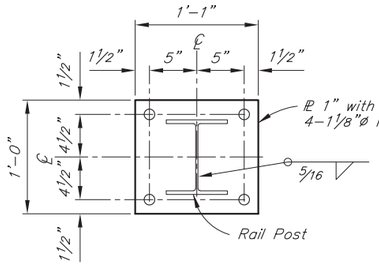


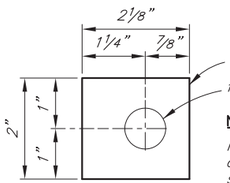
RAIL SPLICE DETAIL



END POST DETAIL

RAILING STUD DETAIL

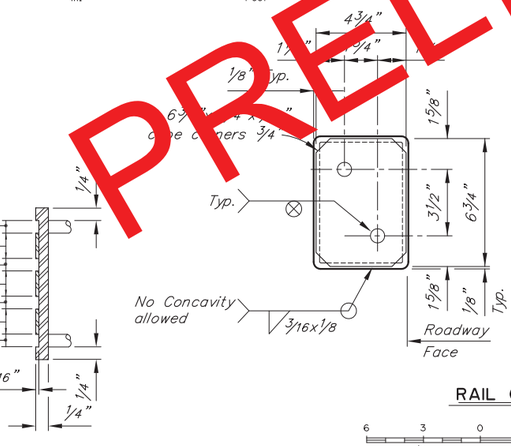


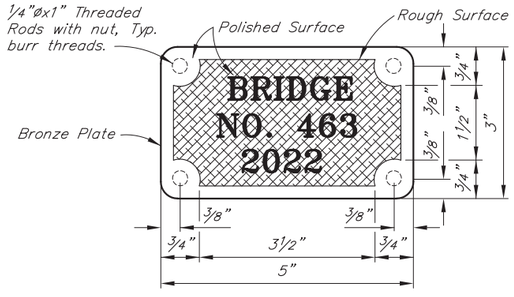


NOTE:
Position washer to completely cover slotted hole.

PLATE WASHER

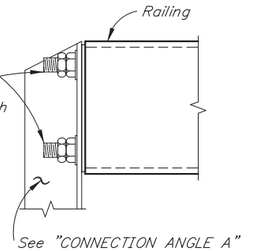
No Scale





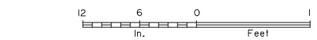
BRONZE BRIDGE NO. PLATE

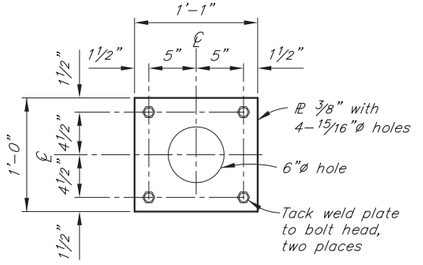
No Scale



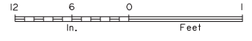
RAIL CAP DETAIL

BASE PLATE DETAIL





ANCHOR PLATE DETAIL



NOTES

1. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
2. Furnish bridge number plates. Use "Century" type style lettering. Use studs and nuts that conform to UNS C65100 or C65500. Braze ¼"ø threaded rod to back of plate with nut – 4 required. Use tamper proof nuts.
3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
4. Install grout in single placement.
5. See "FRAMING PLAN AND DECK PLAN" Dwg. for rail post spacing.
6. Install bridge rail posts plumb.
7. Adjust reinforcing to accommodate curb taper.
8. See Std. Plan G-32.02 for "MASH BRIDGE RAIL THRIE BEAM TRANSITION" Dwg.

DESIGNED BY: Nick Murray	CHECKED: David McAdoo	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Sam Sollie	CHECKED: Nick Murray		
QUANTITIES BY: Nick Murray	CHECKED: David McAdoo		

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

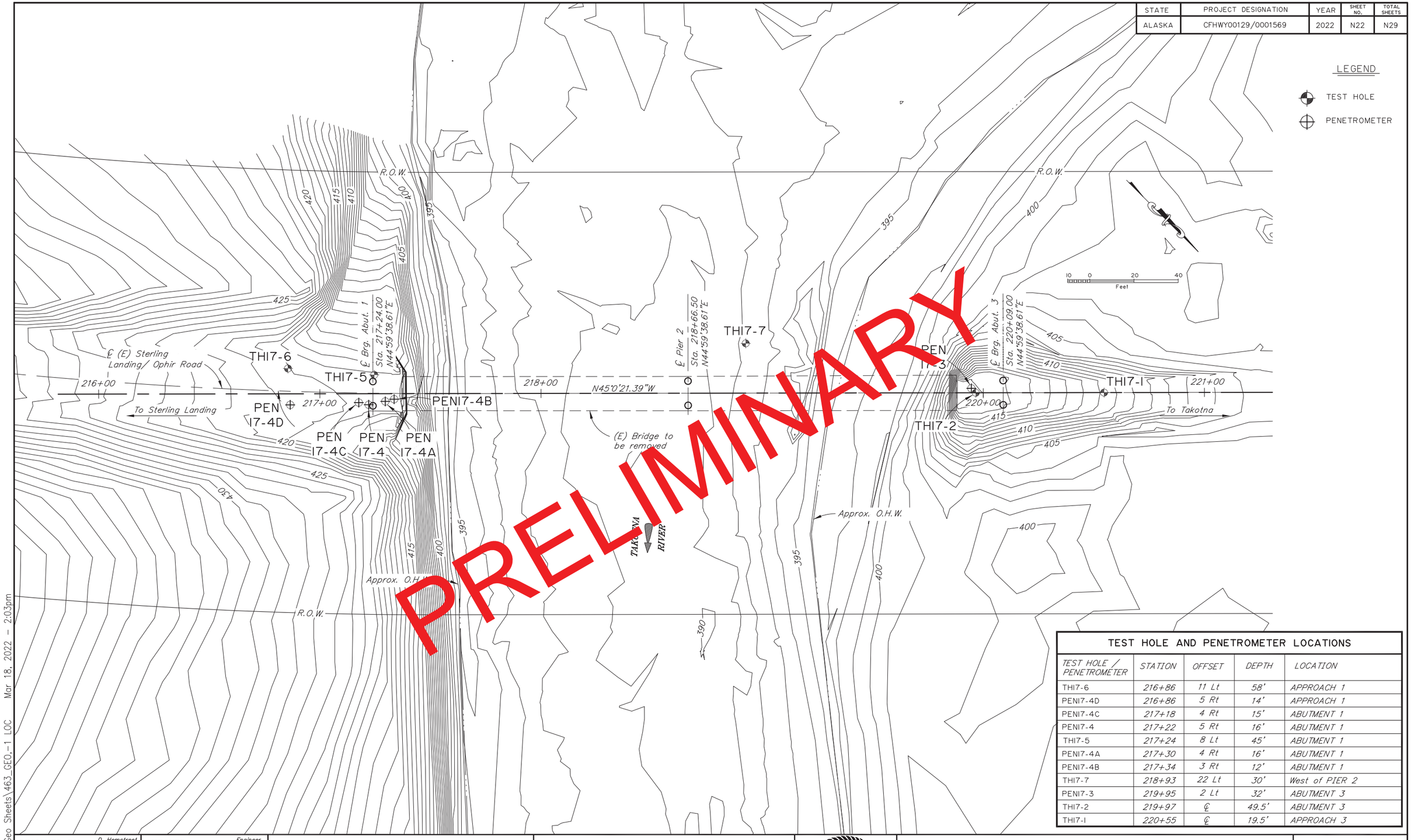
STEEL BRIDGE RAILING, 2-TUBE

BRIDGE NO. 463

DWG. NO. 21

R:\cad\463\463-1-21 Fri, Mar/18/22 01:49pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N22	N29



TEST HOLE AND PENETROMETER LOCATIONS

TEST HOLE / PENETROMETER	STATION	OFFSET	DEPTH	LOCATION
THI7-6	216+86	11 Lt	58'	APPROACH 1
PENI7-4D	216+86	5 Rt	14'	APPROACH 1
PENI7-4C	217+18	4 Rt	15'	ABUTMENT 1
PENI7-4	217+22	5 Rt	16'	ABUTMENT 1
THI7-5	217+24	8 Lt	45'	ABUTMENT 1
PENI7-4A	217+30	4 Rt	16'	ABUTMENT 1
PENI7-4B	217+34	3 Rt	12'	ABUTMENT 1
THI7-7	218+93	22 Lt	30'	West of PIER 2
PENI7-3	219+95	2 Lt	32'	ABUTMENT 3
THI7-2	219+97	℄	49.5'	ABUTMENT 3
THI7-1	220+55	℄	19.5'	APPROACH 3

DESIGNED BY: D. Hemstreet	CHECKED: Engineer		
DRAWN BY: R. Angell	CHECKED: J. Nicolazzo		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
STATEWIDE MATERIALS

STATE OF ALASKA 49TH
David A. Hemstreet No. CE 9800
REGISTERED PROFESSIONAL ENGINEER

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

TEST HOLE & PENETROMETER LOCATION

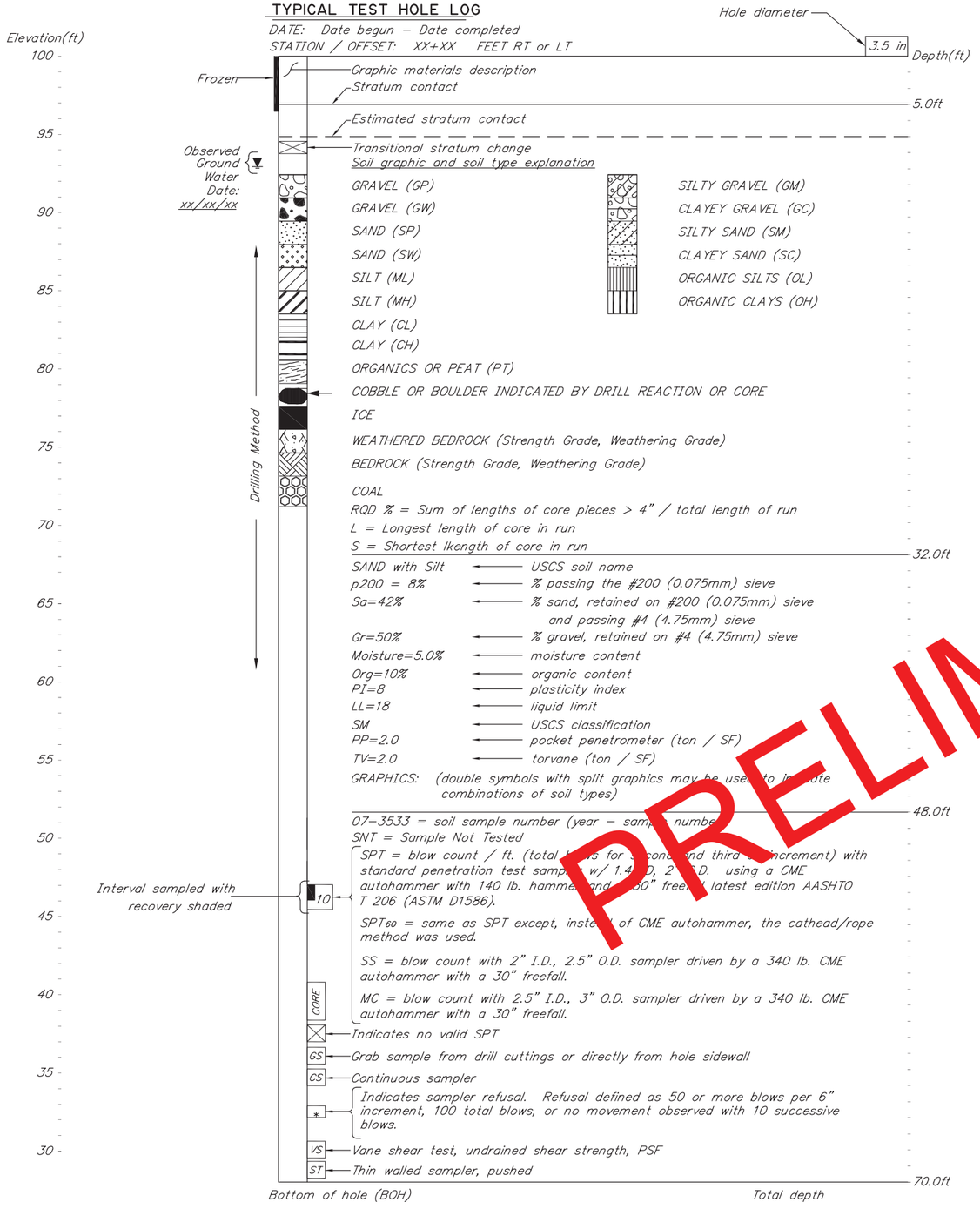
BRIDGE NO. 463

DWG. NO. 22

R:\cad\463\DWGS\Geo Sheets\463_GEO,-1 LOC Mar 18, 2022 - 2:03pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N23	N29

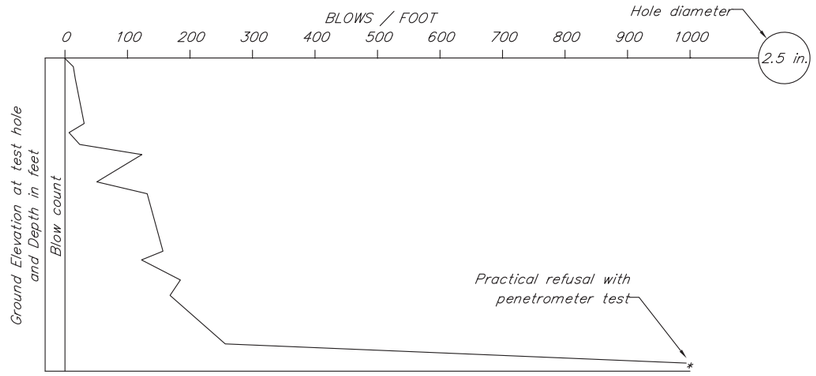
TYPICAL TEST HOLE LOG



NOTES:

1) The test hole logs depicted graphically in these drawings are distillations of the original field logs, based on post–field investigation review and analysis. These drafted logs include changes made to field descriptions based upon laboratory test data, review and analysis. Detailed field observations of rock and soil sampled during the drilling program are not reproduced in the drafted logs.
2) Description of soils follows Alaska Geotechnical Procedures manual. Classification of soils follows Unified Soil Classification System (ASTM D2487).
3) The test hole logs from these sheets are an integral part of the Foundation Geology Report. See Construction Contract Bid Documents – invitation to bid/notice to bidders. Important information about the test hole logs and the foundation investigation is contained in the report. The test hole logs are not severable from and cannot be completely and correctly interpreted without reference to the Foundation Geology Report.

TYPICAL PENETROMETER TEST LOG



NOTES:
Penetrometer W/2.5" O.D., with a CME AUTOMATIC Hammer using a 340 lb. weight and a 30" freefall

DESIGNED BY: D. Hemstreet	CHECKED: Engineer		
DRAWN BY: R. Angell	CHECKED: J. Nicolazzo		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
STATEWIDE MATERIALS

STATE OF ALASKA 49 TH
David A. Hemstreet No. CE 9800
REGISTERED PROFESSIONAL ENGINEER

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

TEST HOLE & PEMETROMETER LEGEND

BRIDGE NO. 463
DWG. NO. 23

R:\cad\463\DWGS\Geo Sheets\463_GEO_-2 TYP Mar 18, 2022 – 2:03pm

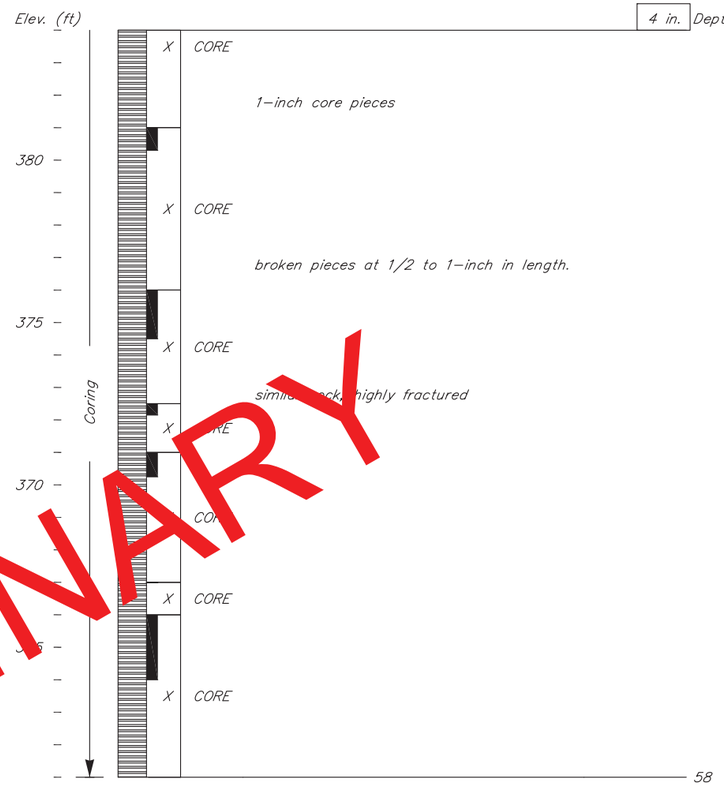
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N24	N29

TH17-6

Date: 5/6/17 – 5/6/17
Station: 216+86 Offset: 11' Lt

TH17-6 (cont)

Date: 5/6/17 – 5/6/17
Station: 216+86 Offset: 11' Lt



B.O.H. 58 ft.
Notes: Southeast Approach, 52-feet from existing abutment and 11-feet west of CL
Hammer: CME Auto Hammer both 140 and 340 lb hammer
Equipment: CME 850X Track Rig
Drilling Method: 4" Casing
Geologist: T. Weiss

DESIGNED BY: D. Hemstreet	CHECKED: Engineer		
DRAWN BY: R. Angell	CHECKED: J. Nicolazzo		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
STATEWIDE MATERIALS

STATE OF ALASKA 49TH
David A. Hemstreet
No. CE 9800
REGISTERED PROFESSIONAL ENGINEER

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

TEST HOLE & PENETROMETER LOGS

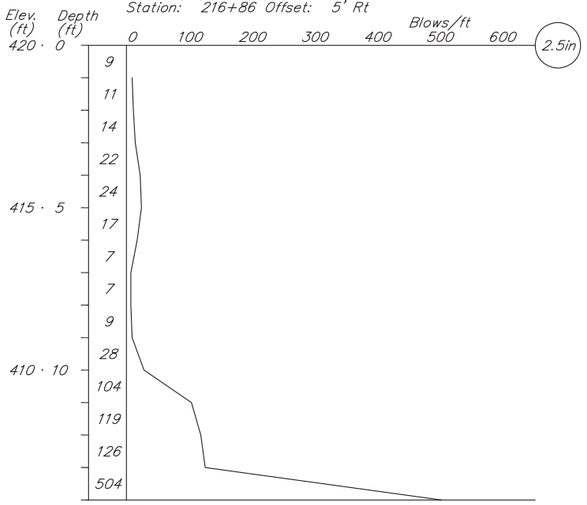
BRIDGE NO. 463
DWG. NO. 24

R:\cad\463\DWGS\Geo Sheets\463_GEO_-3 TH17-6 Mar 18, 2022 - 2:03pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N25	N29

PENI7-4D

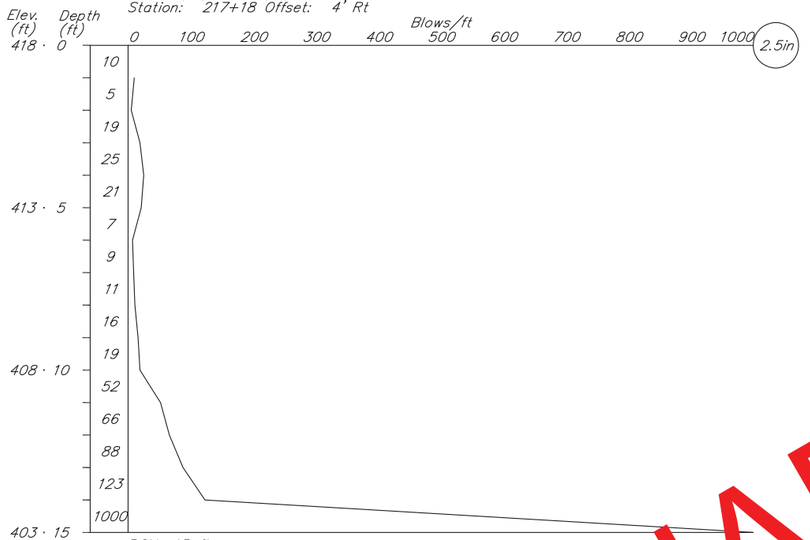
Date: 5/3/17 – 5/3/17
Station: 216+86 Offset: 5' Rt



BOH: 14 ft
Notes: Southeast Abutment, 51–feet from existing abutment, 5–feet east of CL.
Hammer: CME Auto Hammer 340 lb hammer
Equipment: CME 850X Track Rig
Drilling Method: Penetrometer
Geologist: T. Weiss

PENI7-4C

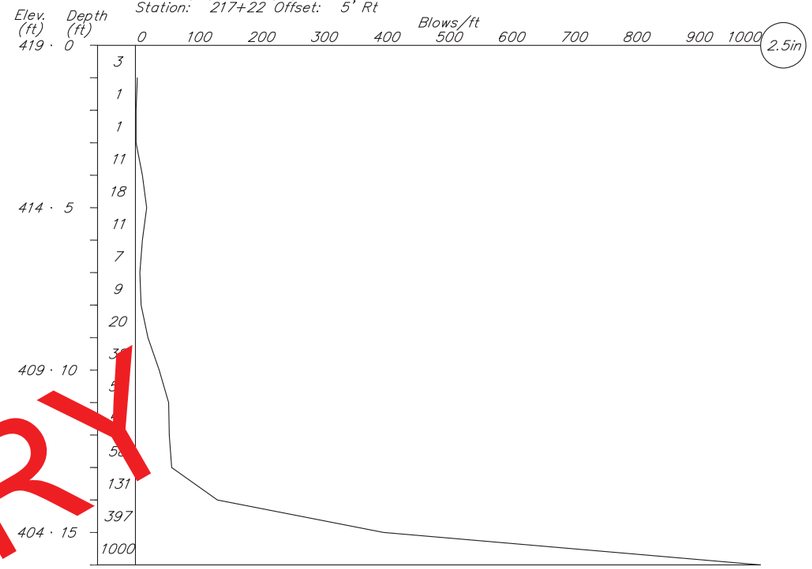
Date: 5/3/17 – 5/3/17
Station: 217+18 Offset: 4' Rt



BOH: 15 ft
Notes: Southeast Abutment, 20–feet from existing abutment, 4–feet east of C
Hammer: CME Auto Hammer 340 lb hammer
Equipment: CME 850X Track Rig
Drilling Method: Penetrometer
Geologist: T. Weiss

PENI7-4

Date: 5/3/17 – 5/3/17
Station: 217+22 Offset: 5' Rt



BOH: 16 ft
Notes: Southeast Abutment, 15.5–feet from existing abutment, 5–feet east of CL
Hammer: CME Auto Hammer 340 lb hammer
Equipment: CME 850X Track Rig
Drilling Method: Penetrometer
Geologist: T. Weiss

R:\cad\463\DWGS\Geo Sheets\463_GEO,-4 PEN17-4D&4C&4 Mar 18, 2022 - 2:03pm

DESIGNED BY: D. Hemstreet	CHECKED: Engineer		
DRAWN BY: R. Angell	CHECKED: J. Nicolazzo		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
STATEWIDE MATERIALS

STATE OF ALASKA 49TH
David A. Hemstreet
No. CE 9800
REGISTERED PROFESSIONAL ENGINEER

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

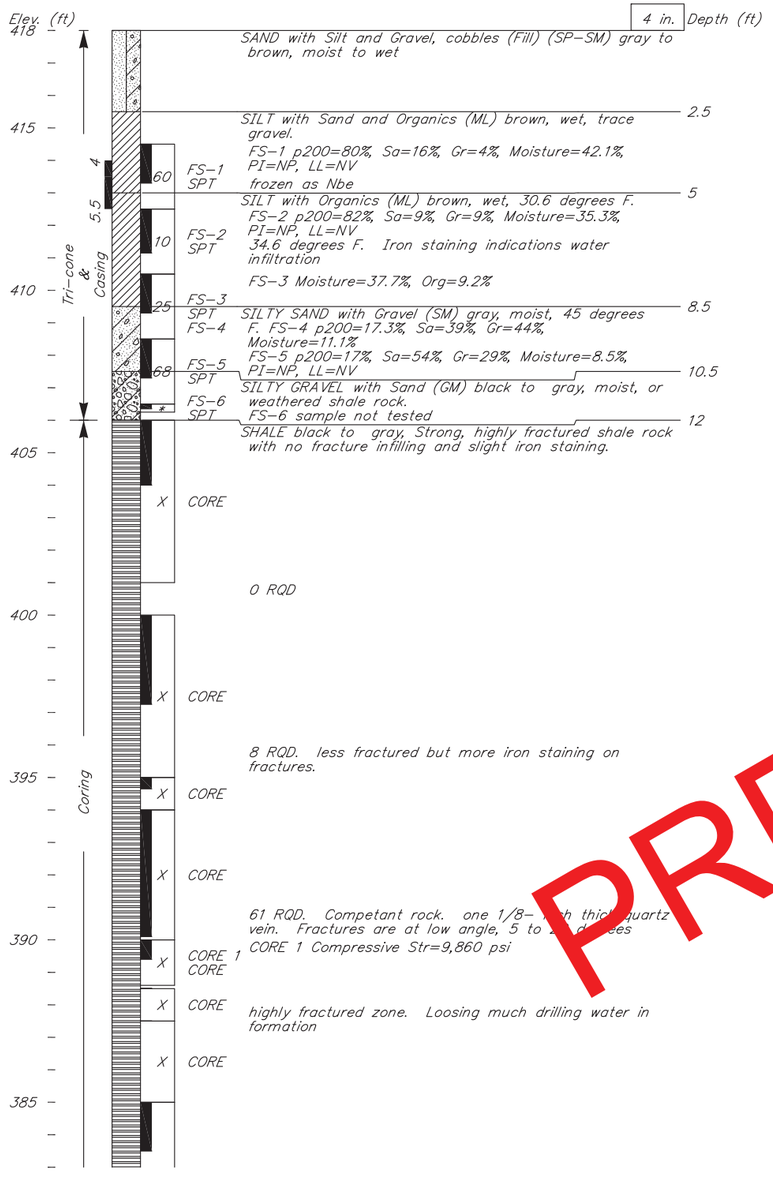
TEST HOLE & PENETROMETER LOGS

BRIDGE NO. 463
DWG. NO. 25

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N26	N29

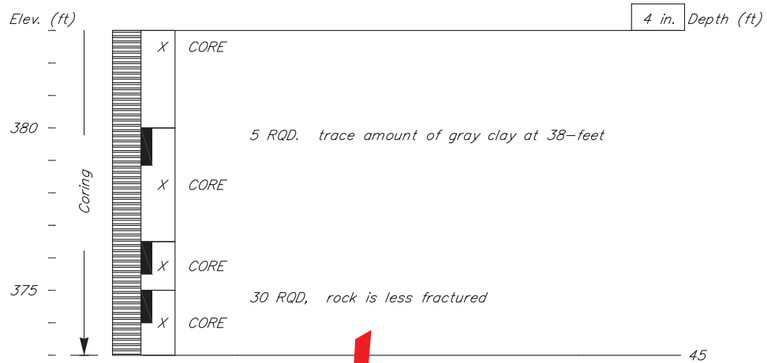
THI7-5

Date: 5/5/17 – 5/5/17
Station: 217+24 Offset: 8' Lt



THI7-5 (cont)

Date: 5/5/17 – 5/5/17
Station: 217+24 Offset: 8' Lt



B.O.H. 45 ft.
Notes: Southeast Abutm[illegible] 13-feet from existing abutment and 8.5-feet west of CL. Inst[illegible] inclinometer casing to 32.5-feet depth
Hammer: CME Auto[illegible]mmer 14[illegible]lb hammer
Equipment: CME 850[illegible] Track Rig
Drilling Method: 4" [illegible]sing
Geologist: T[illegible]

DESIGNED BY: D. Hemstreet	CHECKED: Engineer		
DRAWN BY: R. Angell	CHECKED: J. Nicolazzo		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
STATEWIDE MATERIALS

STATE OF ALASKA 49TH
David A. Hemstreet
No. CE 9800
REGISTERED PROFESSIONAL ENGINEER

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

TEST HOLE & PENETROMETER LOGS

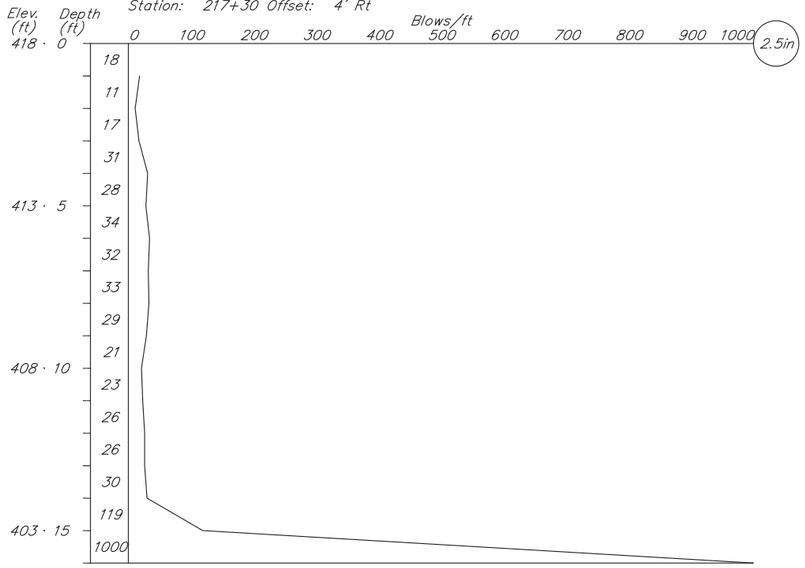
BRIDGE NO. 463
DWG. NO. 26

R:\cad\463\DWGS\Geo Sheets\463_GEO,-5 TH17-5 Mar 18, 2022 - 2:03pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N27	N29

PENI7-4A

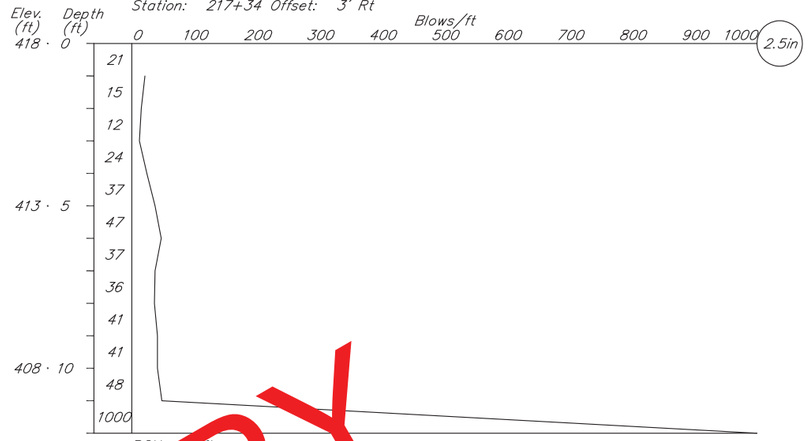
Date: 5/3/17 – 5/3/17
Station: 217+30 Offset: 4' Rt



BOH: 16 ft
Notes: Southeast Abutment, 8–feet from existing abutment, 3.5–feet east of CL
Hammer: CME Auto Hammer 340 lb hammer
Equipment: CME 850X Track Rig
Drilling Method: Penetrometer
Geologist: T. Weiss

PENI7-4B

Date: 5/3/17 – 5/3/17
Station: 217+34 Offset: 3' Rt



BOH: ft
Notes: Southeast Abutment, -feet from existing abutment,
2.5 et east of CL.
Hammer: ME Auto Hammer 340 lb hammer
Equipment: CME 850X Track Rig
Drilling Method: Penetrometer
Geologist: T. Weiss

DESIGNED BY: D. Hemstreet	CHECKED: Engineer		
DRAWN BY: R. Angell	CHECKED: J. Nicolazzo		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
STATEWIDE MATERIALS

STATE OF ALASKA 49TH
David A. Hemstreet
No. CE 9800
REGISTERED PROFESSIONAL ENGINEER

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

TEST HOLE & PENETROMETER LOGS

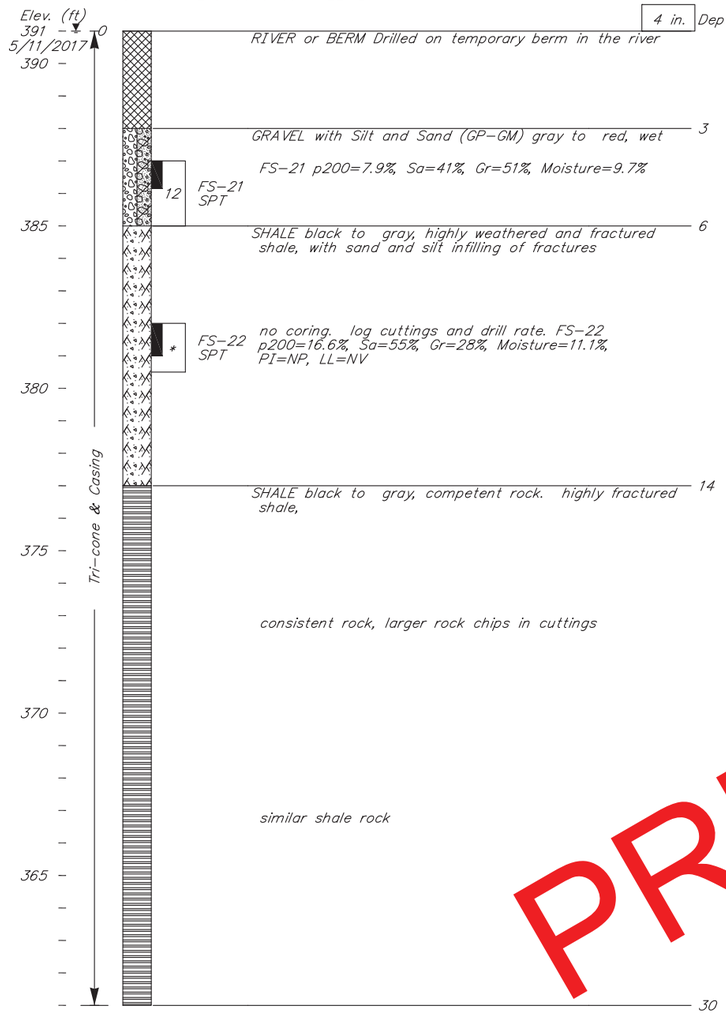
BRIDGE NO. 463
DWG. NO. 27

R:\cad\463\DWGS\Geo Sheets\463_GEO,-6 PEN17-4A&4B Mar 18, 2022 - 2:03pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N28	N29

TH17-7

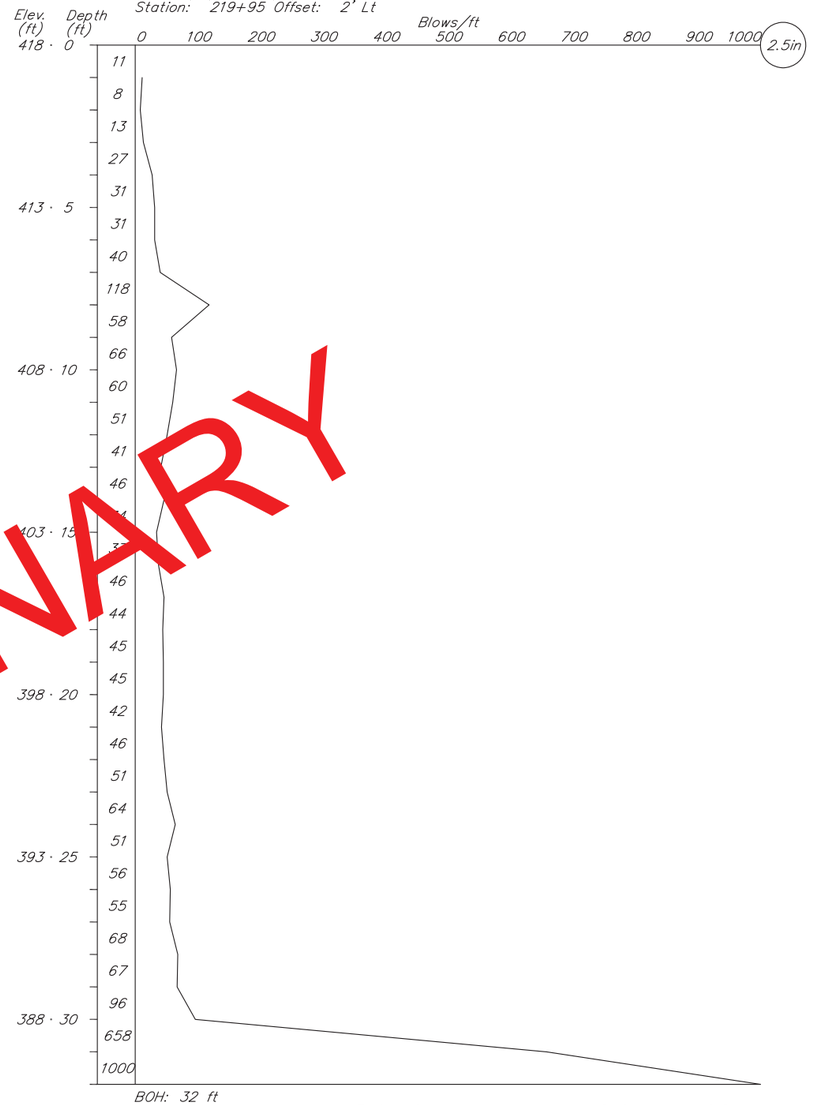
Date: 5/11/15 – 5/11/15
Station: 218+93 Offset: 22' Lt



B.O.H. 30 ft.
Notes: 30-feet from midspan, 95-feet from northwest existing abutment, drilled in the river on berm.
Hammer: CME Auto Hammer 140 lb hammer
Equipment: CME 850X Track Rig
Drilling Method: 4" Casing
Geologist: T. Weiss

PENI7-3

Date: 5/3/17 – 5/3/17
Station: 219+95 Offset: 2' Lt



BOH: 32 ft
Notes: Northwest Abutment, 7-feet from existing abutment, 2-feet west of CL
Hammer: CME Auto Hammer 340 lb hammer
Equipment: CME 850X Track Rig
Drilling Method: Penetrometer
Geologist: T. Weiss

DESIGNED BY: D. Hemstreet	CHECKED: Engineer		
DRAWN BY: R. Angell	CHECKED: J. Nicolazzo		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
STATEWIDE MATERIALS

STATE OF ALASKA 49TH
David A. Hemstreet
No. CE 9800
REGISTERED PROFESSIONAL ENGINEER

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

TEST HOLE & PENETROMETER LOGS

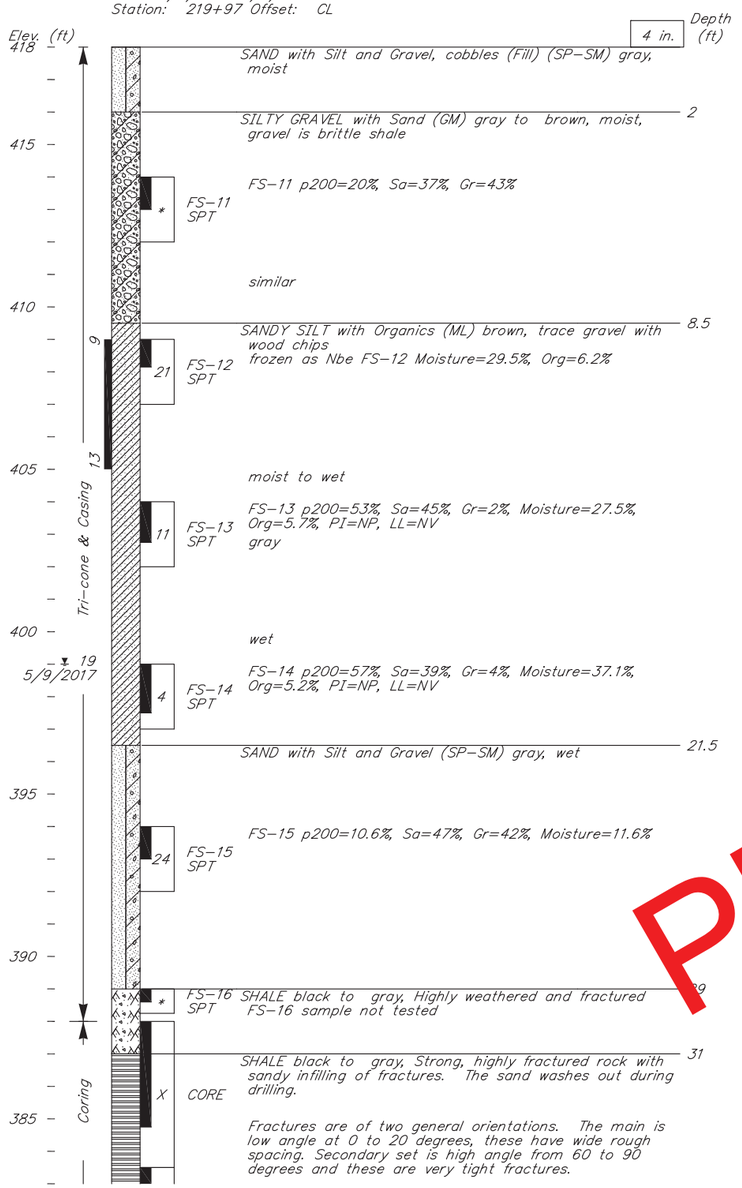
BRIDGE NO. 463
DWG. NO. 28

R:\cad\463\DWGS\Geo Sheets\463_GEO_7 TH17-7&PEN-3 Mar 18, 2022 – 2:03pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CFHWY00129/0001569	2022	N29	N29

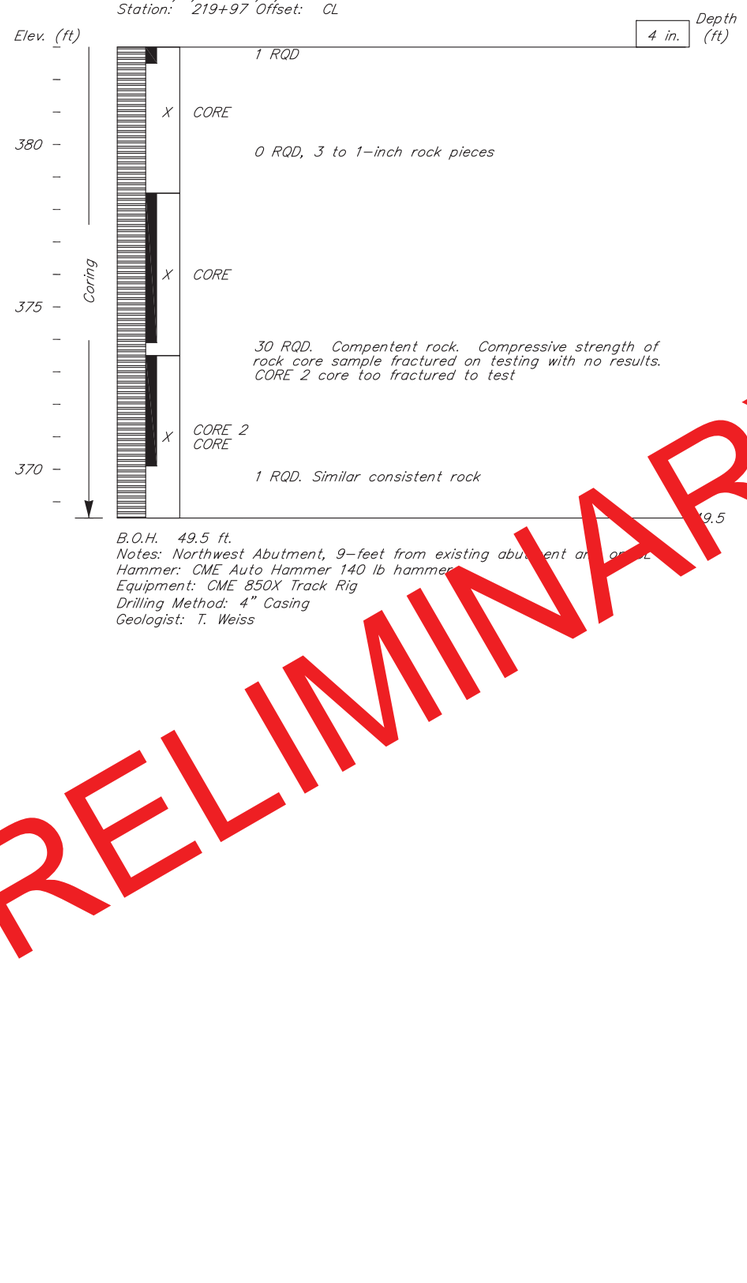
TH17-2

Date: 5/8/17 – 5/9/17
Station: 219+97 Offset: CL



THI7-2 (cont)

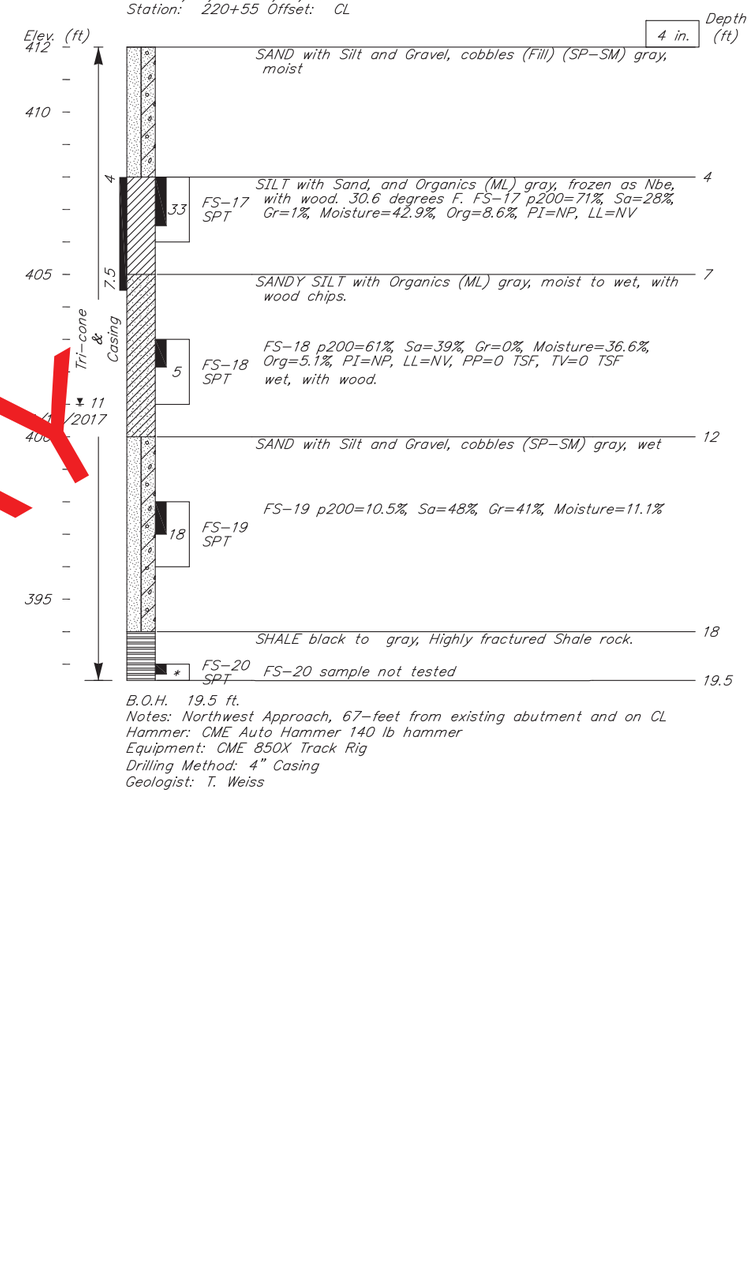
Date: 5/8/17 – 5/9/17
Station: 219+97 Offset: CL



B.O.H. 49.5 ft.
Notes: Northwest Abutment, 9–feet from existing abutment and on CL
Hammer: CME Auto Hammer 140 lb hammer
Equipment: CME 850X Track Rig
Drilling Method: 4" Casing
Geologist: T. Weiss

THI7-1

Date: 5/10/17 – 5/10/17
Station: 220+55 Offset: CL



B.O.H. 19.5 ft.
Notes: Northwest Approach, 67–feet from existing abutment and on CL
Hammer: CME Auto Hammer 140 lb hammer
Equipment: CME 850X Track Rig
Drilling Method: 4" Casing
Geologist: T. Weiss

R:\cad\463\DWGS\Geo Sheets\463_GEO,-8 TH17-2&1 Mar 18, 2022 - 2:03pm

DESIGNED BY: D. Hemstreet	CHECKED: Engineer		
DRAWN BY: R. Angell	CHECKED: J. Nicolazzo		
QUANTITIES BY: Engineer	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
STATEWIDE MATERIALS

STATE OF ALASKA 49TH
David A. Hemstreet
No. CE 9800
REGISTERED PROFESSIONAL ENGINEER

TAKOTNA RIVER BRIDGE

STERLING LANDING / OPHIR ROAD

TEST HOLE & PENETROMETER LOGS

BRIDGE NO. 463
DWG. NO. 29