

**THE EYAK CORPORATION
ALASKA
FISH PASSAGE IMPROVEMENT PROJECTS
SURVEY AND DESIGN DOCUMENT
PREPARATION ARCHITECTURE / ENGINEERING
SERVICES FOR CULVERTS**



STATEMENT OF WORK

JANUARY 2024

**The Eyak Corporation
Cordova Office**

**THE EYAK CORPORATION
REQUEST FOR PROPOSAL EVOSTC-2024**

PURCHASE FISH PASSAGE CULVERTS

Copper River Watershed Habitat Enhancement Project, Cordova EVOS Sites COP 9 and SHER 1 (Fish Passage Improvements at Sheridan River Tributary), Cordova EVOS Site CAB 2 (Fish Passage Improvements at Elsner River Tributary)

1.1 Introduction

The Eyak Corporation was formed July 25, 1973, as a for-profit corporation under Alaska law pursuant to the Alaska Native Claims Settlement Act (ANCSA) enacted by Congress on December 18, 1971. TEC is seeking bids to procure culverts for three fish passage improvement projects in Cordova, AK. The bid also includes the necessary engineering, i.e. shop drawings, manufacturing, delivery and offloading of the culverts to Cordova, Alaska

TEC is working with Copper River Watershed Project, Alaska Department of Fish & Game, Chugach National Forest, U.S. Fish & Wildlife Service, National Oceanic and Atmospheric Administration (NOAA), and Alaska Department of Transportation & Public Facilities (ADOT&PF) to install three stream simulation culverts that will ensure fish passage by coho salmon at all life stages. Funding for these culverts was provided by NOAA.

1.2 General Statement of Work

Provide all culvert materials, bands, and miscellaneous accessories/hardware required to assemble the requested pipe arch culverts and aluminized steel culvert (assembly to be completed by a third party and is not in contract) identified in the drawings attached and as described in the scope of work, specifications, and Bid Form. Provide engineering calculations and shop drawings as required for the Culvert Bridge Design Package as described in the specifications. Ship culvert materials to Cordova, Alaska. Deliver materials to the laydown area at Alaska Marine Lines located at 202 Industry Road, Cordova, AK 99574. The vendor shall provide necessary off-loading equipment and transportation equipment to transfer the culvert materials to the laydown area. Notify TEC at least 3 business days prior to arrival of materials in Cordova, Alaska.

At the date of this RFP, design drawings for COP 9/SHER 1 are at 65% design and design drawings for CAB 2 are at 95% design and therefore not stamped. Drawings will be stamped prior to culvert installation.

1.3 Specifications, Codes, Ordinances, and Standards

Comply with the current Alaska Department of Transportation and Public Facilities (ADOT&PF) Standard Specifications for Highway Construction (SSHC) 2020 Edition. Modifications, clarifications, and project special provisions are detailed in the following sections. The requirements contained in these specifications and special provisions are made a part of this solicitation and resultant contract.

This project is required to use American Iron, Steel, and Manufactured Products, and Construction Materials meeting the Build American, Buy American (BABA) Act, Pub. L. No. 117-58. Documentation of compliance shall be submitted with the Bid.

SECTION 602

STRUCTURAL PLATE PIPE

Special Provisions

602-1.01 DESCRIPTION. Add the following:

Furnish manufacturer-designed aluminum structural plate culverts to meet the contract requirements. Provide manufacturer shop drawings.

602-2.01 MATERIALS. Add the following:

Furnish a corrugated aluminum structural plate pipe arch culvert:

Material: aluminum

Minimum material thickness: 2 gage (0.125")

Length: 76 feet

Span: 8 feet 5 inches

Rise: 6 feet 3 inches

Area: 41.9 square feet

Live loading: HL-93

Minimum cover: 2.0 feet

Maximum cover: 16 feet

Furnish a corrugated aluminum structural plate pipe arch culvert:

Material: aluminum

Minimum material thickness: 2 gage (0.125")

Length: 78 feet

Span: 8 feet 5 inches

Rise: 6 feet 3 inches

Area: 41.9 square feet

Live loading: HL-93

Minimum cover: 2.0 feet

Maximum cover: 16 feet

602-3.01 CONSTRUCTION REQUIREMENTS. Add the following:

The Culvert Manufacturer shall be responsible for shipping and transporting the structural plate aluminum pipe arch culverts to identified laydown area in Cordova, Alaska as identified in the culvert purchase solicitation.

If requested by the Engineer, provide the Engineer access to manufacturer's installation recommendations such as attendance at the pre-construction meeting or written literature.

602-5.01 BASIS OF PAYMENT. Delete the first sentence and replace with the following:

All work including labor, materials, and equipment necessary to complete design and load rating for culvert bridges and meet the submittal requirements stated in this Section is subsidiary to Section 602 pay items.

All work including labor, materials, and equipment associated with furnishing, transporting, assembling, inspecting, and installing culvert bridges is subsidiary to Section 602 pay items.

Replace the Pay Item table with the following:

Pay Item	Pay Unit
602.0003.0000 Structural Plate Aluminum Arch Culvert, 8'-5" Span, 6'-3" Rise (COP 9)	Lump Sum
602.0003.0000 Structural Plate Aluminum Arch Culvert, 8'-5" Span, 6'-3" Rise (SHER 1)	Lump Sum

SECTION 603

CULVERTS AND STORM DRAIN

Special Provisions

603-2.01 MATERIALS. Add the following:

Furnish aluminized corrugated steel culvert. Provide manufacturer shop drawings.

603-3.01 CONSTRUCTION REQUIREMENTS. Add the following:

The Culvert Manufacturer shall be responsible for shipping and transporting the aluminized corrugated steel culvert to the identified laydown area in Cordova, Alaska as identified in the culvert purchase solicitation.

If requested by the Engineer, provide the Engineer access to manufacturer's installation recommendations such as attendance at the pre-construction meeting or written literature.

603-5.01 BASIS OF PAYMENT. Delete the first sentence and replace with the following:

All work including labor, materials, and equipment necessary to meet the submittal requirements stated in this Section is subsidiary to Section 603 pay items.

All work including labor, materials, and equipment associated with furnishing, transporting, assembling, inspecting, and installing the culvert is subsidiary to Section 603 pay items.

Replace the Pay Item table with the following:

Pay Item	Pay Unit
603.0001.0072 Aluminized Corrugated Steel Pipe 72 Inch (CAB 2)	Lump Sum

1.4 Delivery

Delivery will be to the Alaska Marine Lines located at 202 Industry Road, Cordova, AK 99574.

Contact The Eyak Corporation, Land Manager (Tiffany Beedle, 541-620-1710, tbeedle@eyakcorp.com) with any questions regarding this location. Please notify when product is being shipped.

Delivery Date: Fabrication time from award of bid is estimated to take up to 16 weeks with delivery taking up to 2 weeks.

Desired delivery date is May 1, 2024. Materials must be delivered no later than June 1, 2024.

Schedule

The permitted/anticipated work window for construction of the culverts is June 1, 2024 to July 31, 2024.

February 1, 2024 Bids due

February 8, 2024 Anticipated award / purchase order.

February 15, 2024 Provide shop drawings to TEC. Expect a one-week review period. June 1, 2024 All materials delivered on or before June 1, 2024.

1.5 Attachments

At the date of this RFP, design drawings for COP 9/SHER 1 are at 65% design and design drawings for CAB 2 are at 95% design and therefore not stamped. Drawings will be stamped prior to culvert installation. Files available for download here:
<https://copperriver.org/programs/fish-habitat-restoration/restoration/culverts-are-the-culprits/copper-river-watershed-enhancement/>

- A. Design plans for COP 9 culvert
- B. Design plans for SHER 1 culvert
- C. Design plans for CAB 2 culvert
- D. Geotechnical Report for the project (Download Only)
- E. Hydrologic and Hydraulic Reports Cab 2 (Download Only)
- F. Hydrologic and Hydrologic Reports COP 9/ SHER 1 (Download Only)

BID FORM
PURCHASE FISH PASSAGE CULVERTS

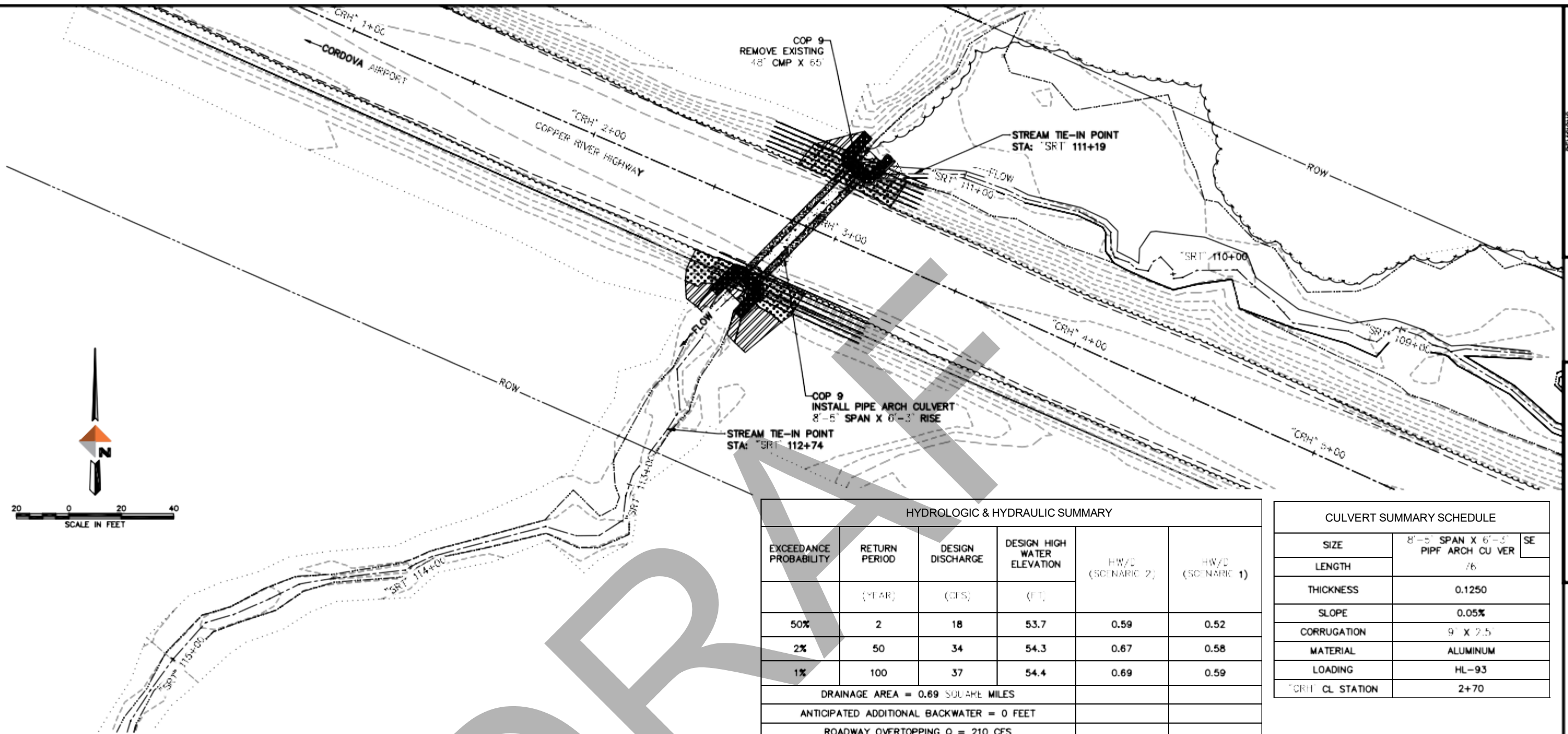
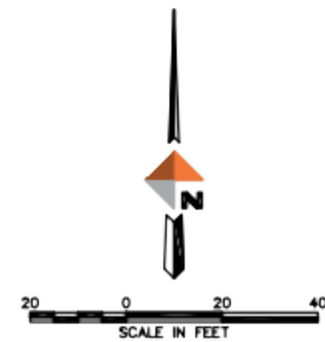
Provide all culvert materials, bands, and miscellaneous accessories/hardware required to assemble the requested pipe arch culverts and aluminized steel culvert (assembly to be completed by a third party and is not in contract) identified in the drawings attached and as described in the scope of work, specifications, and Bid Form. The award will be based on the low bid submitted and the ability to provide materials for construction in 2024. TEC reserves the right to reject any and all bids if materials cannot be delivered by the **June 1, 2024**, deadline.

To be completed by the Bidder:

Item	Description	Unit	Bid Price
602.0003.0000	STRUCTURAL PLATE ALUMINUM ARCH CULVERT 8'-5" SPAN, 6'-3" RISE, (76' LENGTH)	LS	\$ _____
602.0003.0000	STRUCTURAL PLATE ALUMINUM ARCH CULVERT 8'-5" SPAN, 6'-3" RISE, (78' LENGTH)	LS	\$ _____
603.0001.0072	ALUMINIZED CORRUGATED STEEL PIPE 72 INCH, (50' LENGTH)	LS	\$ _____
TOTAL			\$ _____

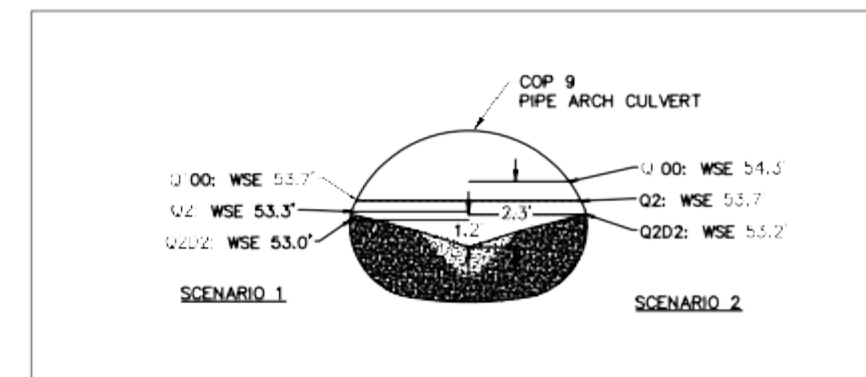
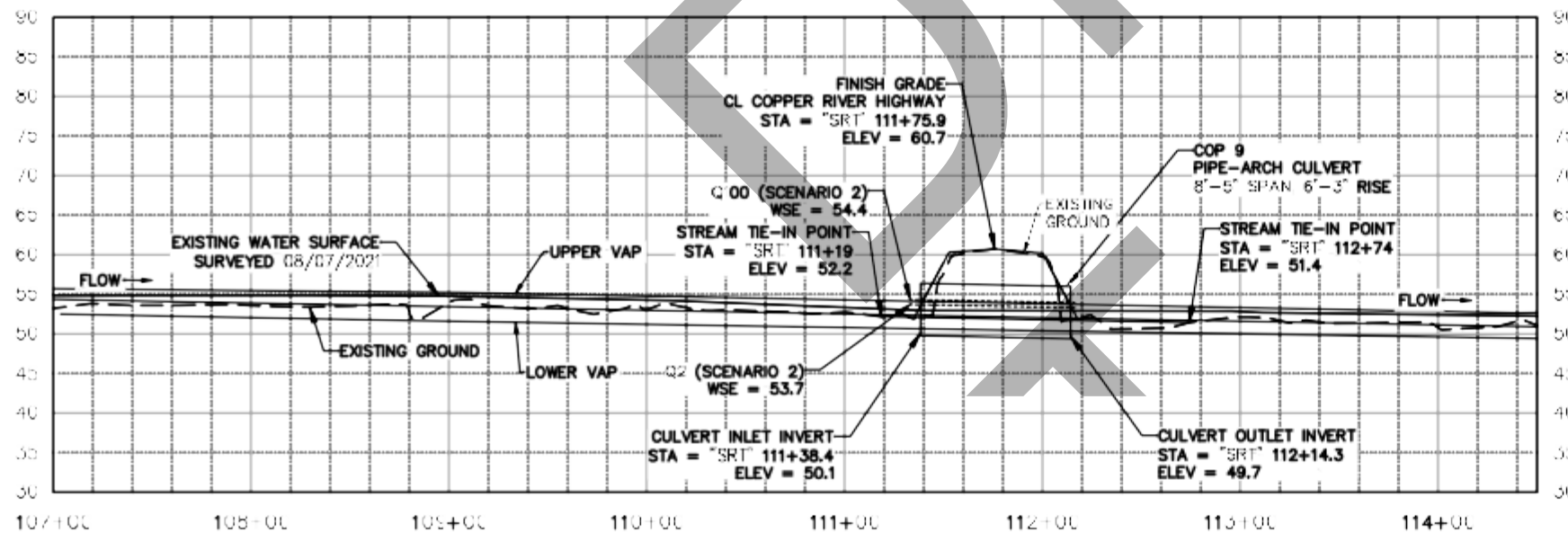
The anticipated date for delivery of materials to Cordova, Alaska is _____.

G:\dowl_p\00393483\SC20-CH-DR-63349-COP9-SH1.dwg PLOT DATE 2023-11-27 16:02 SAVED DATE 2023-11-27 16:56 USER: hrobuck



HYDROLOGIC & HYDRAULIC SUMMARY					
EXCEEDANCE PROBABILITY	RETURN PERIOD	DESIGN DISCHARGE	DESIGN HIGH WATER ELEVATION	HW/D (SCENARIO 2)	HW/D (SCENARIO 1)
	(YEAR)	(CFS)	(FT)		
50%	2	18	53.7	0.59	0.52
2%	50	34	54.3	0.67	0.58
1%	100	37	54.4	0.69	0.59
DRAINAGE AREA = 0.69 SQUARE MILES					
ANTICIPATED ADDITIONAL BACKWATER = 0 FEET					
ROADWAY OVERTOPPING Q = 210 CFS					

CULVERT SUMMARY SCHEDULE		
SIZE	8'-5" SPAN X 6'-3" PIPE ARCH CU VER	SE
LENGTH	/6	
THICKNESS	0.1250	
SLOPE	0.05%	
CORRUGATION	9" X 2.5"	
MATERIAL	ALUMINUM	
LOADING	HL-93	
"CRH" CL STATION	2+70	



1
C7 WATER SURFACE ELEVATIONS AT DESIGN FLOW
NTS

NOTES:

- SCENARIO 1: FLOW FROM WATERSHED IS EVENLY SPLIT TO COP 9 AND SHER 1.
- SCENARIO 2: FLOW FROM WATERSHED IS DIRECTED TO SINGLE CULVERT.

REV	DATE	DESCRIPTION	BY

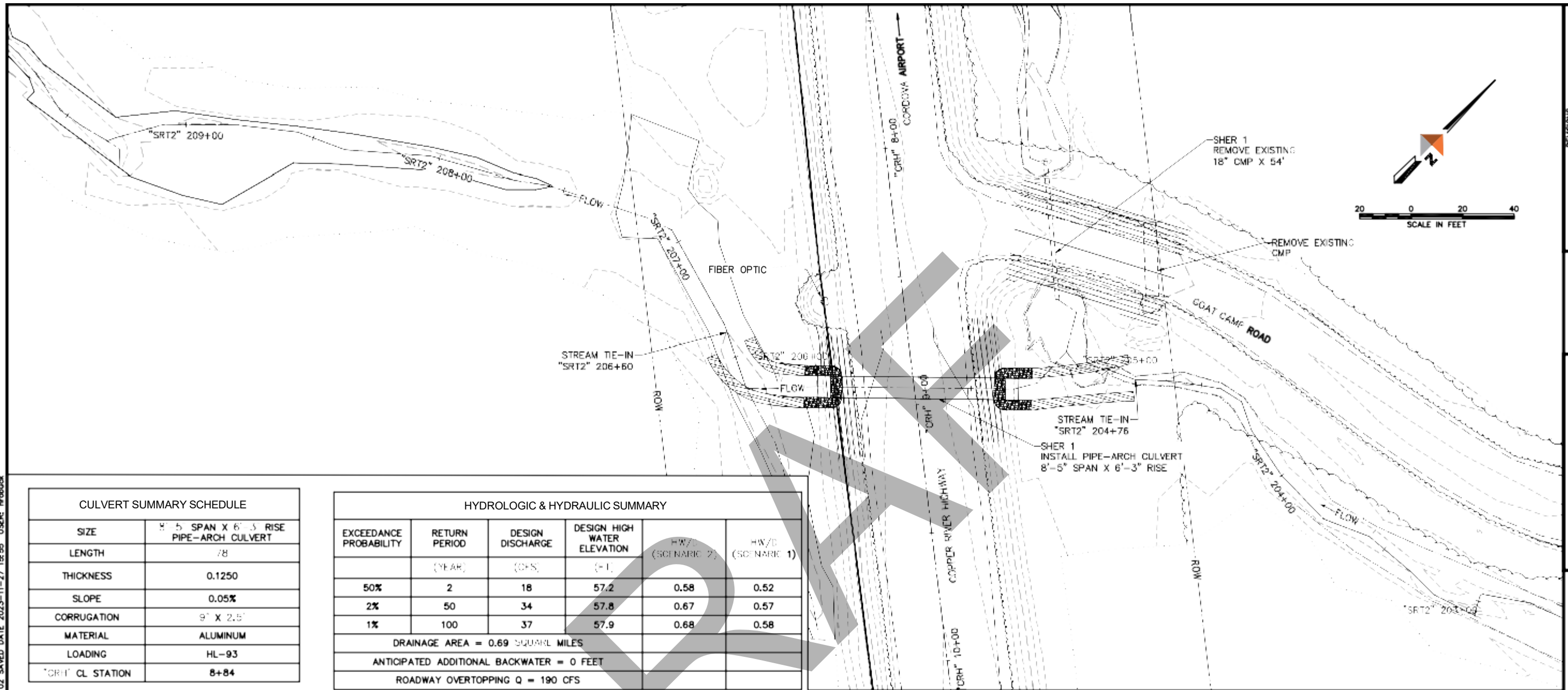
65%
DESIGN

DOWL
CORPORATION

CORDOVA FISH PASSAGE IMPROVEMENTS
SHERIDAN RIVER TRIB - COP 9 & SHER 1
COP 9 - STREAM PLAN AND PROFILE
CORDOVA, ALASKA

PROJECT 1138.63349.01
DATE NOVEMBER 2023
DOWL 2023
SHEET
07 OF 018

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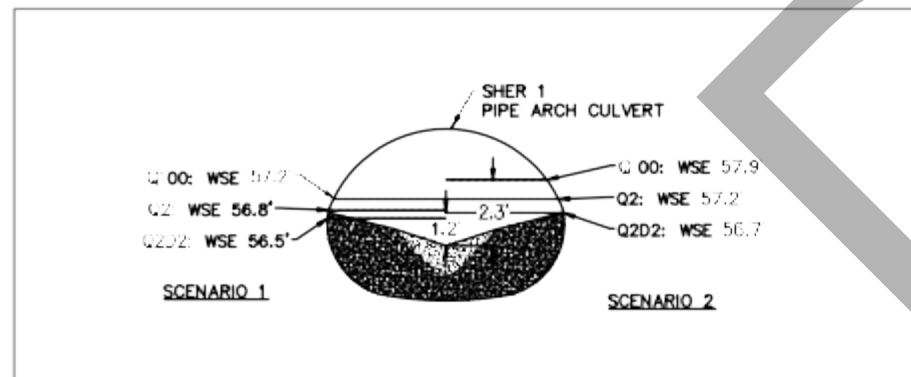


CULVERT SUMMARY SCHEDULE

SIZE	8' - 5" SPAN X 6' - 3" RISE PIPE-ARCH CULVERT
LENGTH	78
THICKNESS	0.1250
SLOPE	0.05%
CORRUGATION	9" X 2.5"
MATERIAL	ALUMINUM
LOADING	HL-93
"CRH" CL STATION	8+84

HYDROLOGIC & HYDRAULIC SUMMARY

EXCEEDANCE PROBABILITY	RETURN PERIOD	DESIGN DISCHARGE	DESIGN HIGH WATER ELEVATION	HW/D (SCENARIO 2)	HW/D (SCENARIO 1)
	(YEAR)	(CFS)	(+/-)		
50%	2	18	57.2	0.58	0.52
2%	50	34	57.8	0.67	0.57
1%	100	37	57.9	0.68	0.58
DRAINAGE AREA = 0.69 SQUARE MILES					
ANTICIPATED ADDITIONAL BACKWATER = 0 FEET					
ROADWAY OVERTOPPING Q = 190 CFS					

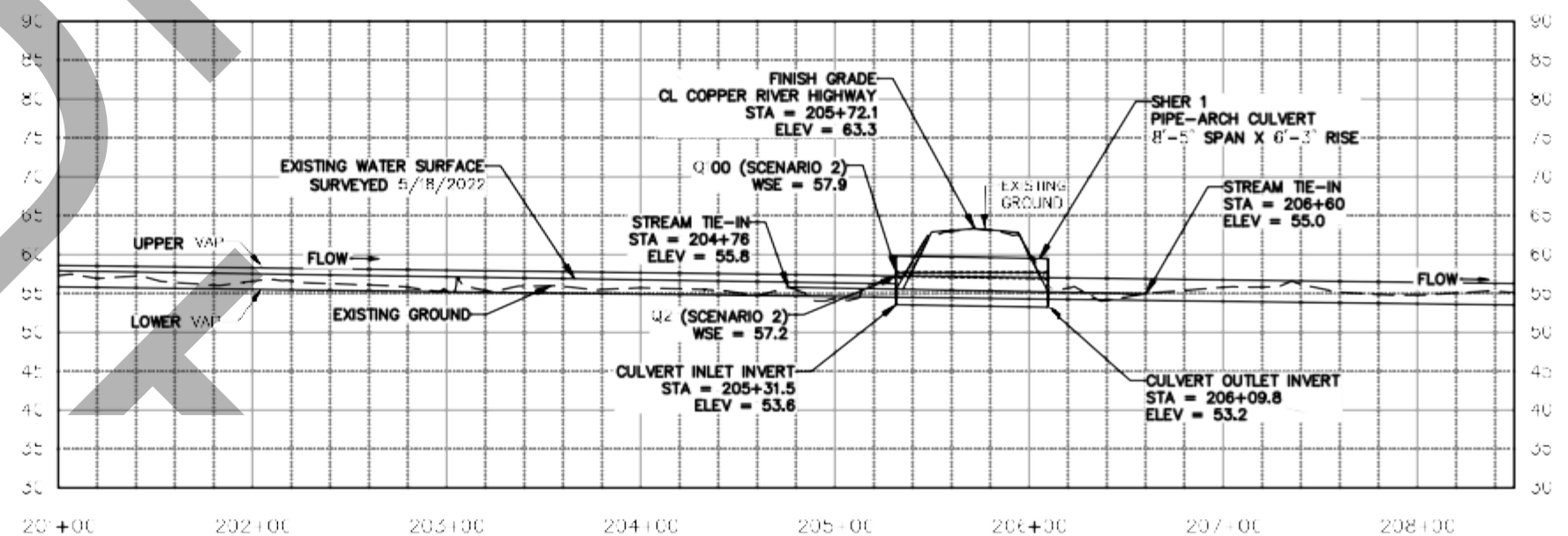


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C8

WATER SURFACE ELEVATIONS AT DESIGN FLOW
NTS

NOTES:

- SCENARIO 1: FLOW FROM WATERSHED IS EVENLY SPLIT TO COP 9 AND SHER 1.
- SCENARIO 2: FLOW FROM WATERSHED IS DIRECTED TO SINGLE CULVERT.



REV	DATE	DESCRIPTION	BY

65%
DESIGN



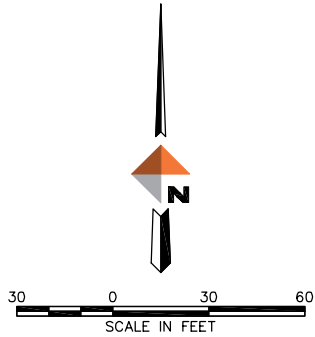
CORDOVA FISH PASSAGE IMPROVEMENTS
SHERIDAN RIVER TRIP - COP 9 & SHER 1
SHER 1 - STREAM PLAN AND PROFILE

PROJECT 1138.63349.01
DATE NOVEMBER 2023

DOWL 2023
SHEET

08 OF 018

C:\dowl_pw\40393483\SC20-CH-DR-63349-CAB1-CAB2.dwg PLOT DATE 2023-11-21 14:03 SAVED DATE 2023-11-21 13:44 USER: hrobuck

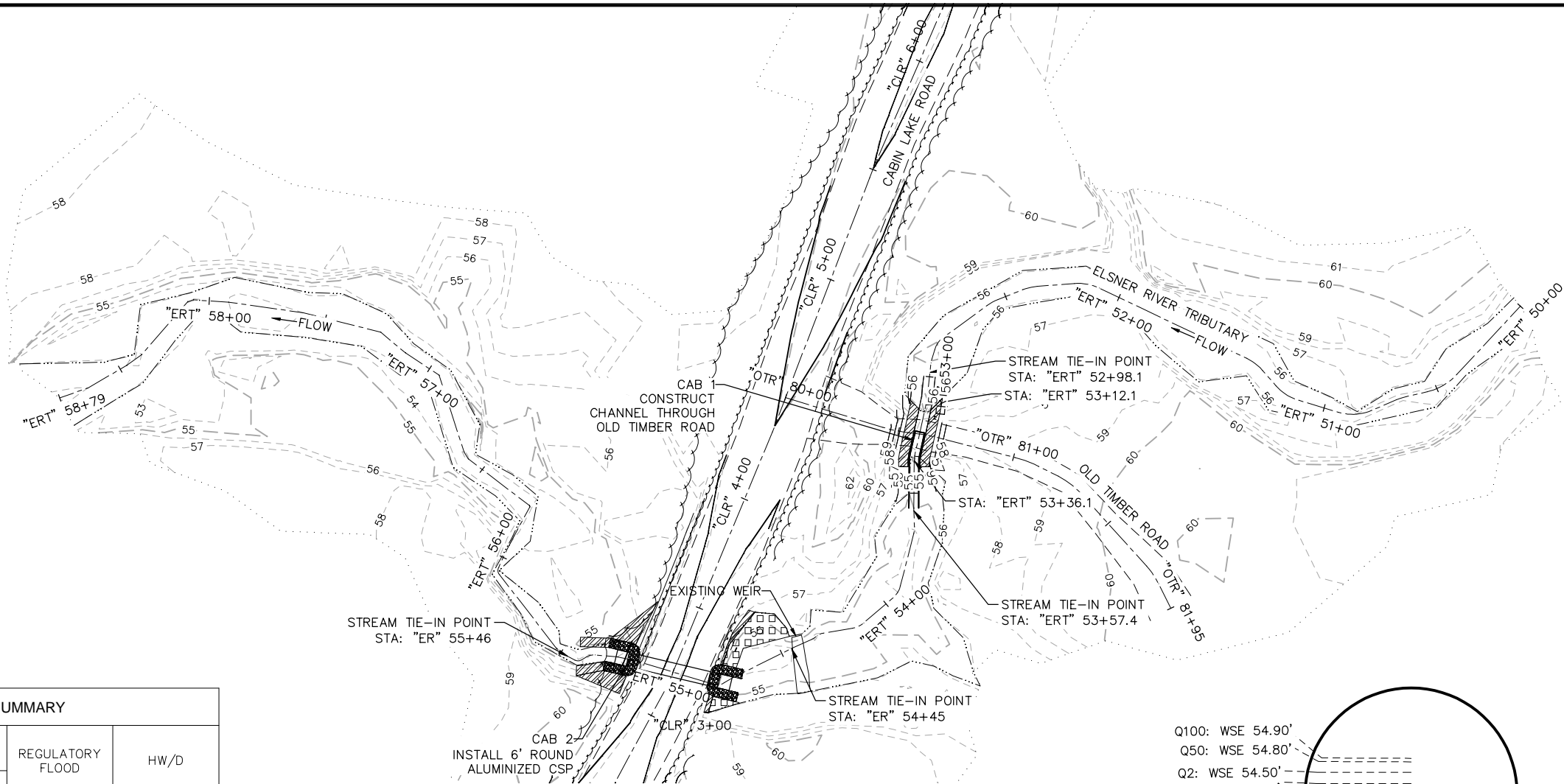


CAB 2 - CULVERT SUMMARY SCHEDULE

SIZE	6' ROUND CSP
LENGTH	50'
SLOPE	0.7%
CORRUGATION	3" X 1"
MATERIAL	ALUMINIZED STEEL
LOADING	HL-93
EMBEDMENT	2.9'
"CLR" CL STATION	3+20.64

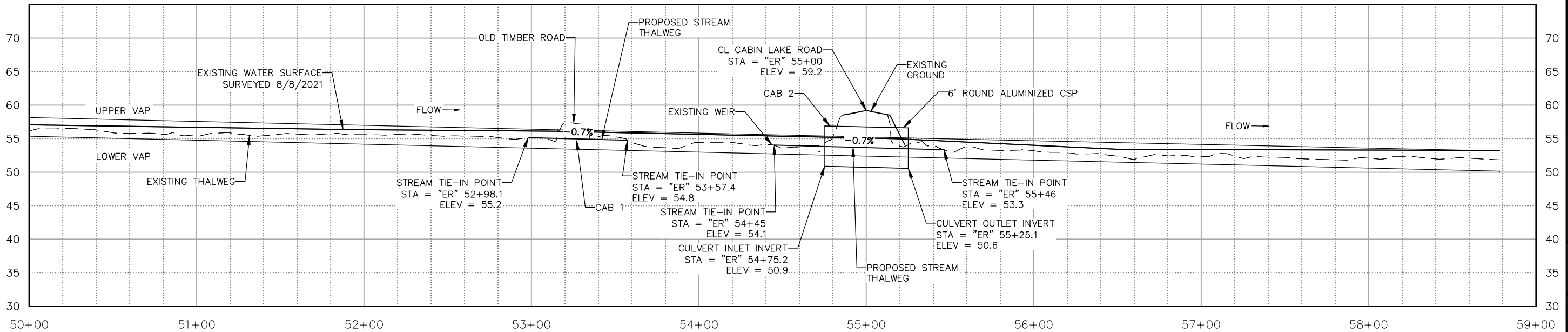
CAB 2 - HYDROLOGIC & HYDRAULIC SUMMARY

EXCEEDANCE PROBABILITY	RETURN PERIOD (YEAR)	DESIGN DISCHARGE (CFS)	DESIGN HIGH WATER ELEVATION (FT)	REGULATORY FLOOD	HW/D
50%	2	6	54.50	N/A	0.21
2%	50	10	54.80	N/A	0.32
1%	100	11	54.90	N/A	0.34
DRAINAGE AREA = 0.08 SQUARE MILES					
ANTICIPATED ADDITIONAL BACKWATER = 0 FEET					
ROADWAY OVERTOPPING Q = 67.5 CFS					

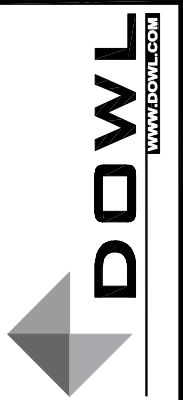


Q100: WSE 54.90'
Q50: WSE 54.80'
Q2: WSE 54.50'
Q2D2: WSE 54.18'

1
C5
WATER SURFACE ELEVATIONS AT DESIGN FLOW
NTS



REVISIONS		DESCRIPTION	BY
REV	DATE		



CORDOVA FISH PASSAGE IMPROVEMENTS
ELSNER RIVER - CAB 1 & CAB 2
STREAM PLAN AND PROFILE
CORDOVA, ALASKA

PROJECT 1136.63349.01
DATE NOVEMBER 2023

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SHEET

C5 OF C12