

**DRAFT FINAL DESIGN  
FEBRUARY 2024**



WOLF WATER RESOURCES, INC.  
1001 SE WATER AVE, SUITE #180  
PORTLAND, OR 97214  
503.207.6688

COLVILLE CONFEDERATED TRIBES  
P.O. BOX 150  
NESPELEM, WA 99155  
509.634.2277

**COLVILLE CONFEDERATED TRIBES  
ANTOINE CREEK  
ENHANCEMENT PROJECT  
OKANOGAN COUNTY, WA**

**PLAN & PROFILE  
STA 177+00 - STA  
190+00**

REVISION NUMBER		
No.	Date	Revision

Date: 3/11/2024  
Designed By: SR, LE  
Drawn By: LE, HC  
Checked By: SR

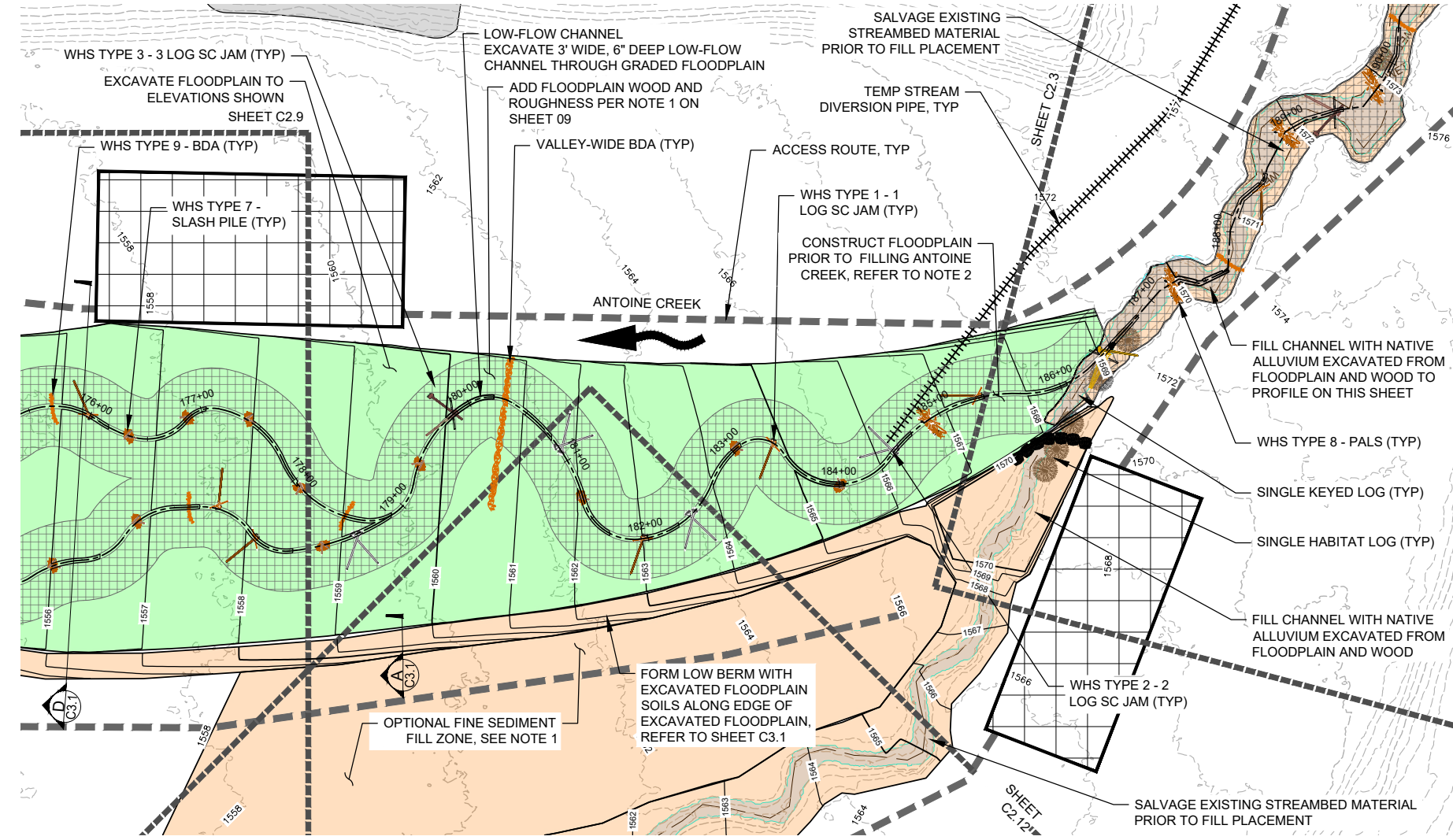
SCALE: 1" = 60'  
JOB NO.: 20220046  
SHEET NO.: C2.8  
16 OF 36

**NOTES:**

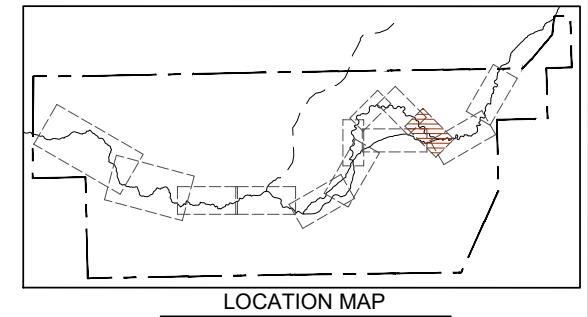
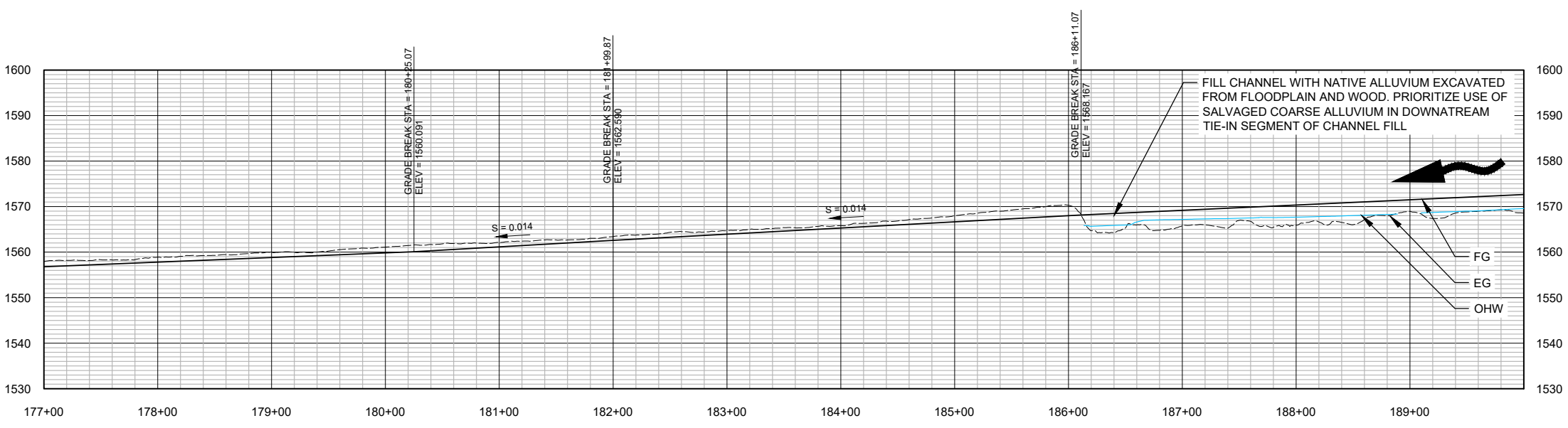
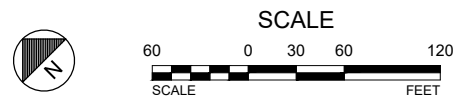
1. THE CONTRACTOR MAY PLACE FINE SEDIMENT WITHIN THE OPTIONAL FINE SEDIMENT PLACEMENT ZONE SHOWN ON THIS SHEET AS APPROVED BY THE CAR. THE FINE SEDIMENT PLACEMENT ZONE SHALL ONLY BE USED IF EXCESS CUT MATERIAL IS AVAILABLE. FINE SEDIMENT SHALL BE SPREAD EVENLY IN A THIN LAYER OVER THE PLACEMENT AREA TO A DEPTH NOT TO EXCEED TWO FEET.
2. THE CONTRACTOR SHALL COMPLETE ALL EARTHWORK AND INSTALL ALL WHS STRUCTURES WITHIN THE FLOODPLAIN CUT ZONE SHOWN ON SHEETS 16 TO 19 PRIOR TO PLACING ANY FILL WITHIN ANTOINE CREEK SHOWN ON THIS SHEET AND SHEET 20. THE CONTRACTOR SHALL DIVERT FLOW ON THE FLOODPLAIN CUT ZONE AFTER EARTHWORK AND WHS STRUCTURES HAVE BEEN INSTALLED AND APPROVED BY THE CAR. FILL OF ANTOINE CREEK SHALL BEGIN AFTER THIS DIVERSION IS COMPLETE.

**LEGEND**

- 2 --- EXISTING 2' CONTOUR LINES
- 10 --- EXISTING 10' CONTOUR LINES
- TAX LOTS
- PROJECT OWNERSHIP BOUNDARY
- ROAD CENTERLINE
- WET --- WETLANDS
- OHW --- OHW
- 1 --- 1' CONTOURS LINES
- 5 --- 5' CONTOURS LINES
- ACCESS ROUTE
- DIVERSION PIPE
- STAGING AREA
- FILL
- CUT
- FLOODPLAIN WOOD PLACEMENT AREA
- WHS TYPE 1 - 1 LOG SC JAM
- WHS TYPE 2 - 2 LOG SC JAM
- WHS TYPE 3 - 3 LOG SC JAM
- WHS TYPE 4 - 4 LOG SC JAM
- WHS TYPE 5 - FLOODPLAIN WOOD
- WHS TYPE 6 - WOOD CLUSTER
- WHS TYPE 7 - SLASH PILE
- WHS TYPE 8 - PALS
- WHS TYPE 9 - BDAS
- SINGLE HABITAT LOGS
- SINGLE KEYED LOG



**PROPOSED SITE PLAN: STA 177+00 - 190+00**  
SCALE: 1"=60"



DWG: Z:\Shared\W2\CAD\2022\046-Antoine Creek\DWGS\HETSAC - PP.FP.RECONNECT.dwg USER: hleagg DATE: Mar 11, 2024 3:31pm XREFS: X-TB-W2-22434 AC-XR-BASEMAP.WBLOCK AC-XR-DESIGN AC-XR-WHS AC-XR-ACCESS-STAGING-WATER-MANAGEMENT

# DRAFT FINAL DESIGN FEBRUARY 2024



WOLF WATER RESOURCES, INC.  
1001 SE WATER AVE. SUITE #180  
PORTLAND, OR 97214  
503.207.6888



COLVILLE CONFEDERATED TRIBES  
P.O. BOX 150  
NESPELEM, WA 99155  
509.634.2277

## COLVILLE CONFEDERATED TRIBES ANTOINE CREEK ENHANCEMENT PROJECT OKANOGAN COUNTY, WA

## PLAN & PROFILE STA 164+00 - STA 177+00

### REVISION NUMBER

No.	Date	Revision

Date: 3/11/2024  
Designed By: SR, LE  
Drawn By: LE, HC  
Checked By: SR

SCALE: 1" = 100'  
JOB NO.: 20220046

SHEET NO.: C2.9

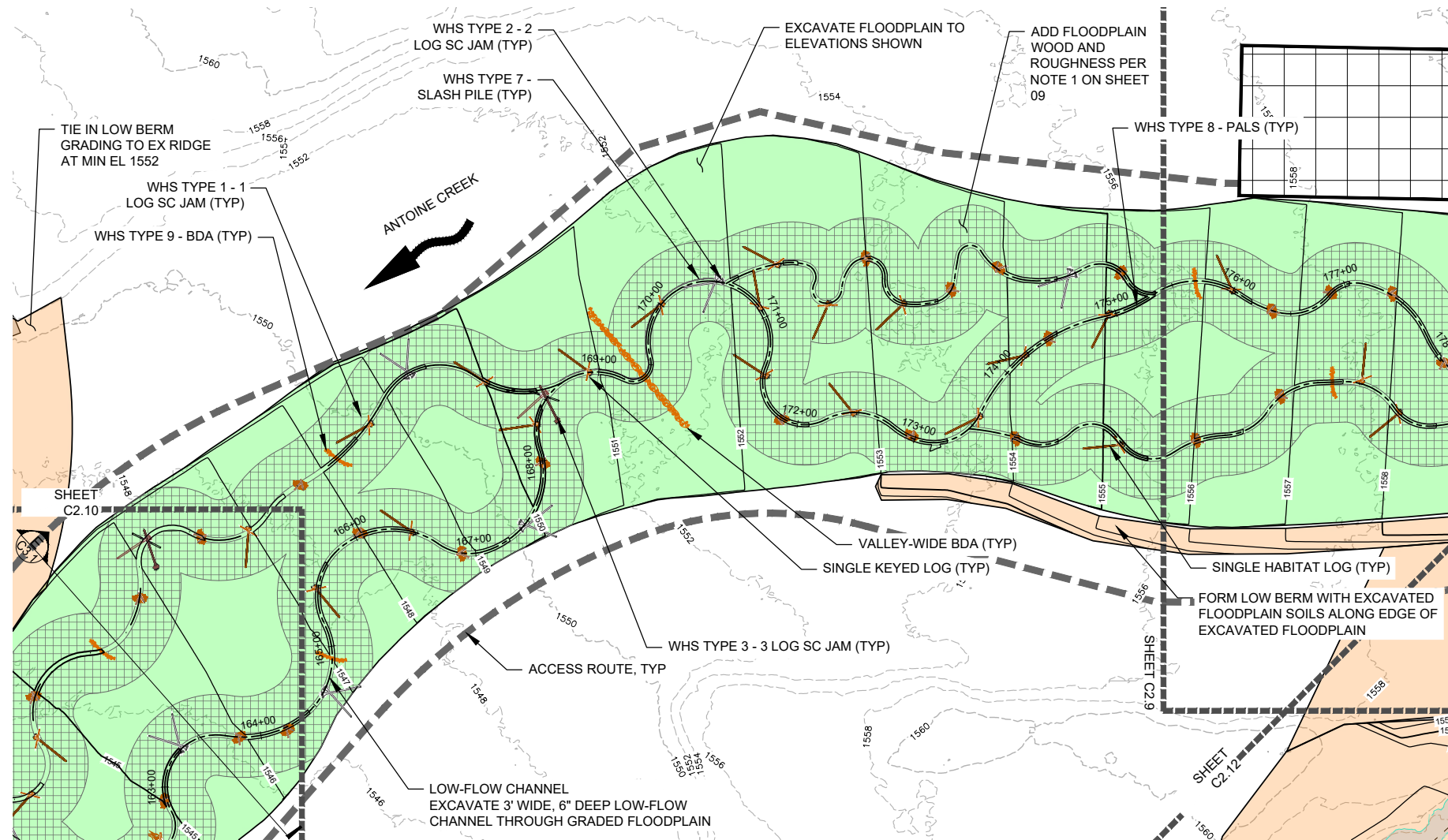
17 OF 36

### NOTES:

- THE CONTRACTOR SHALL CONSTRUCT THE LOW BERMS SHOWN ON THIS SHEET WITH ELEVATIONS AND SIDE SLOPES PER THE TYPICAL SECTION ON SHEET C3.1. TOP WIDTHS SHALL BE IRREGULAR AND MAY VARY DEPENDING ON THE QUANTITY OF EXCESS FILL MATERIAL ENCOUNTERED DURING FLOODPLAIN EXCAVATION. THE CONTRACTOR SHALL PRIORITIZE FILL MATERIAL FOR USE IN ALL CHANNEL FILL LOCATIONS PRIOR TO EXPANDING THE FOOTPRINT OF THE LOW BERM.

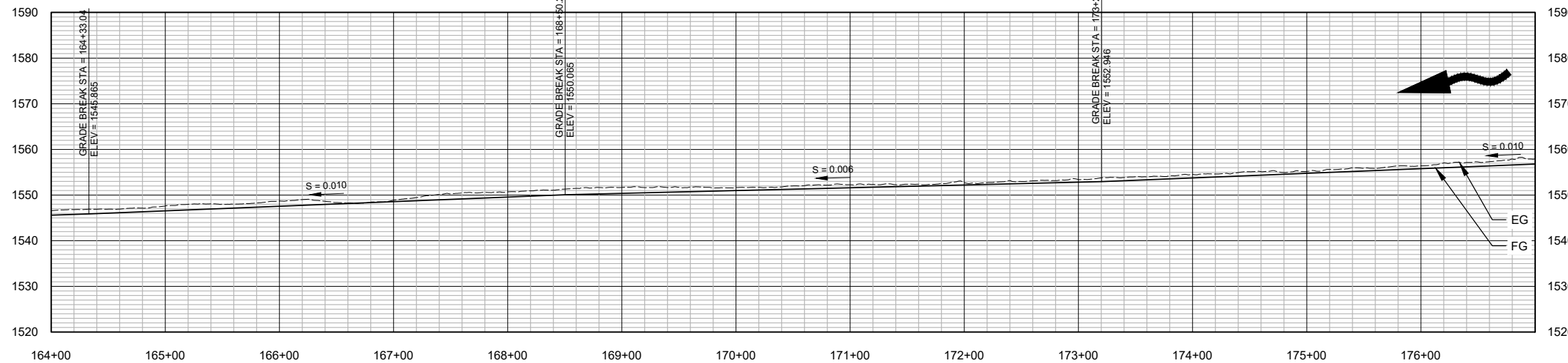
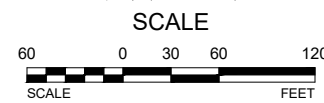
### LEGEND

- 2 --- EXISTING 2' CONTOUR LINES
- 10 --- EXISTING 10' CONTOUR LINES
- TAX LOTS
- PROJECT OWNERSHIP BOUNDARY
- ROAD CENTERLINE
- WET WETLANDS
- OHW
- 1 --- 1' CONTOURS LINES
- 5 --- 5' CONTOURS LINES
- ACCESS ROUTE
- DIVERSION PIPE
- STAGING AREA
- FILL
- CUT
- FLOODPLAIN WOOD PLACEMENT AREA
- WHS TYPE 1 - 1 LOG SC JAM
- WHS TYPE 2 - 2 LOG SC JAM
- WHS TYPE 3 - 3 LOG SC JAM
- WHS TYPE 4 - 4 LOG SC JAM
- WHS TYPE 5 - FLOODPLAIN WOOD
- WHS TYPE 6 - WOOD CLUSTER
- WHS TYPE 7 - SLASH PILE
- WHS TYPE 8 - PALS
- WHS TYPE 9 - BDAS
- SINGLE HABITAT LOGS
- SINGLE KEYED LOG



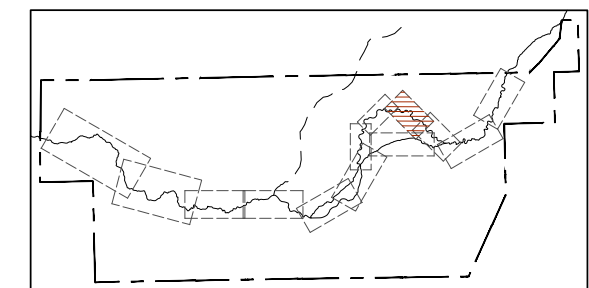
### PROPOSED SITE PLAN: STA 164+00 - 177+00

SCALE: 1"=60'



### PROPOSED ANTOINE CREEK PROFILE: STA 164+00 - 177+00

HORIZ. SCALE: 1" = 60'  
VERT. EXAGGERATION: 4X



LOCATION MAP

**DRAFT FINAL DESIGN  
FEBRUARY 2024**



WOLF WATER RESOURCES, INC.  
1001 SE WATER AVE. SUITE #180  
PORTLAND, OR 97214  
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NESPELEM, WA 99155  
509.634.2277

**COLVILLE CONFEDERATED TRIBES  
ANTOINE CREEK  
ENHANCEMENT PROJECT  
OKANOGAN COUNTY, WA**

**PLAN & PROFILE  
STA 153+00 - STA  
164+00**

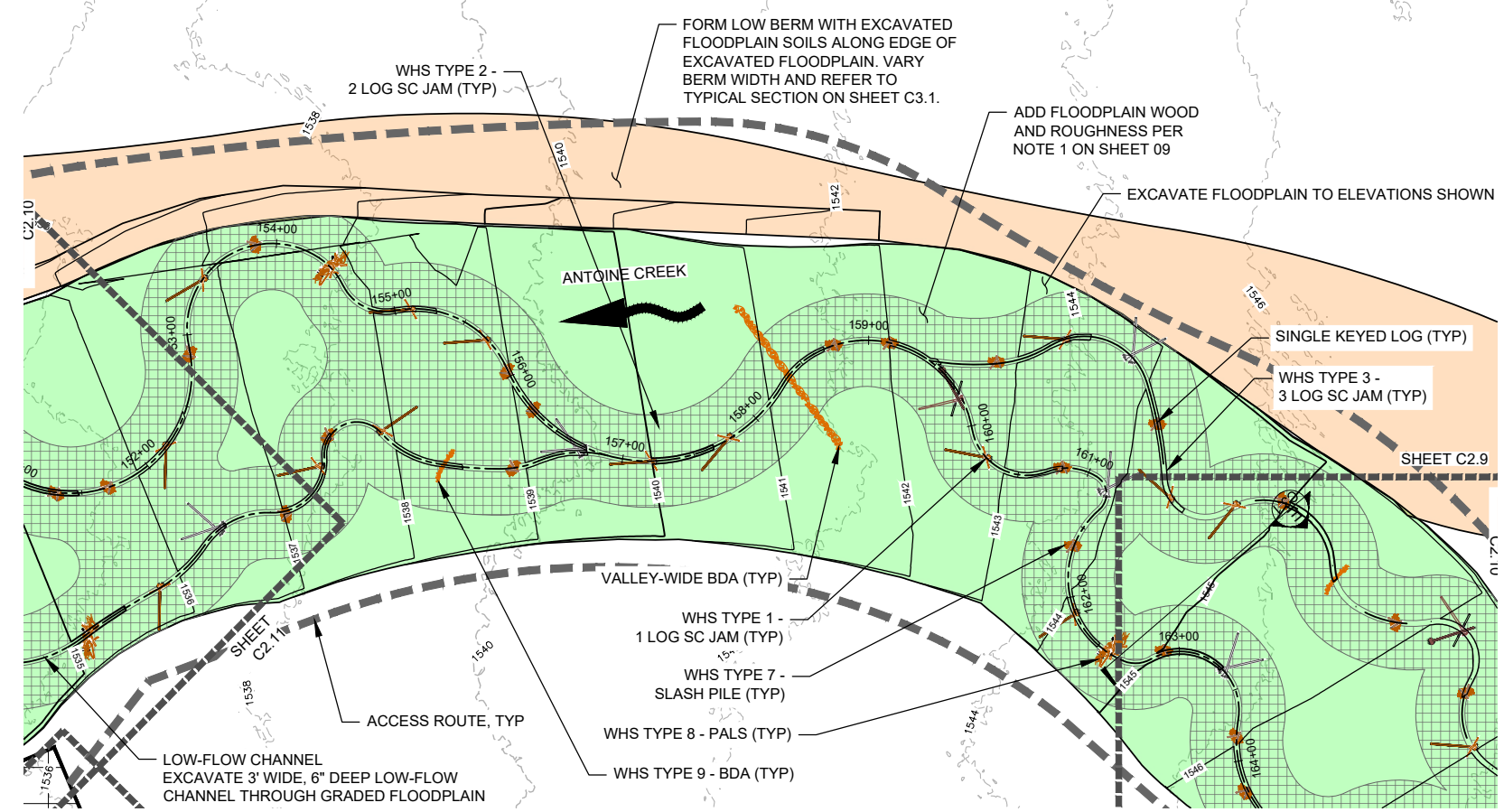
REVISION NUMBER		
No.	Date	Revision

Date: 3/11/2024  
Designed By: SR, LE  
Drawn By: LE, HC  
Checked By: SR

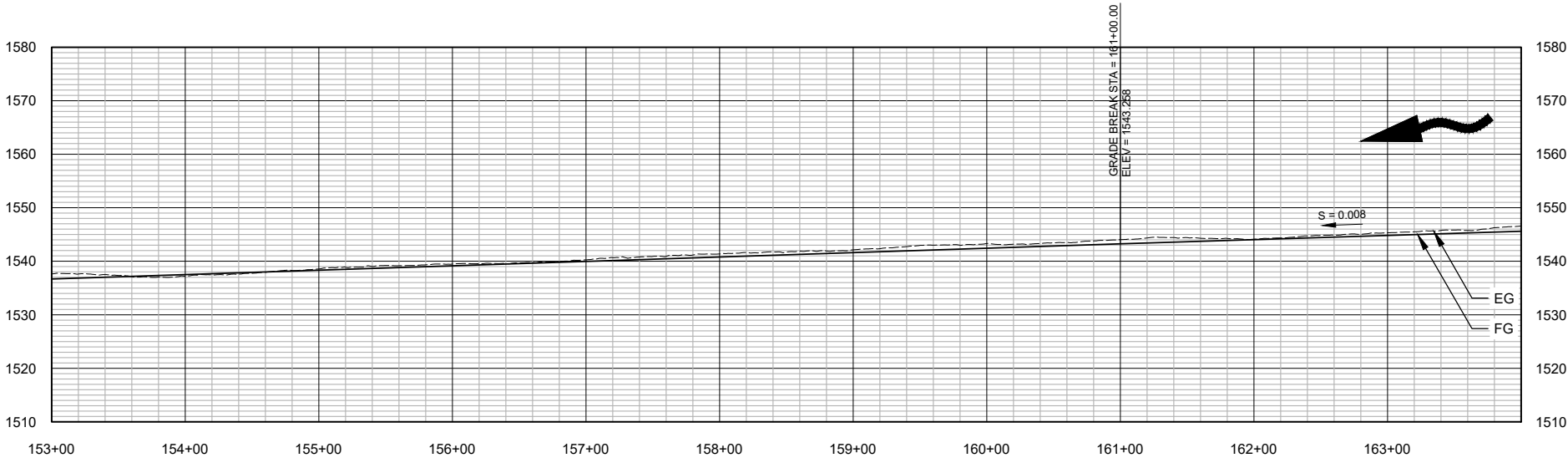
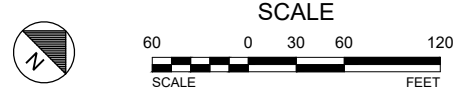
SCALE: 1" = 100'  
JOB NO.: 20220046  
SHEET NO.: C2.10  
18 OF 36

**NOTES:**  
1. THE CONTRACTOR SHALL CONSTRUCT THE LOW BERM SHOWN ON THIS SHEET WITH ELEVATIONS AND SIDE SLOPES PER THE TYPICAL SECTION ON SHEET C3.1. TOP WIDTHS SHALL BE IRREGULAR AND MAY VARY DEPENDING ON THE QUANTITY OF EXCESS FILL MATERIAL ENCOUNTERED DURING FLOODPLAIN EXCAVATION. THE CONTRACTOR SHALL PRIORITIZE FILL MATERIAL FOR USE IN ALL CHANNEL FILL LOCATIONS PRIOR TO EXPANDING THE FOOTPRINT OF THE LOW BERM.

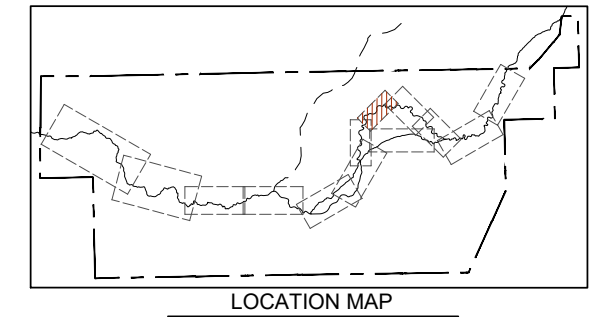
- LEGEND**
- 2 --- EXISTING 2' CONTOUR LINES
  - 10 --- EXISTING 10' CONTOUR LINES
  - TAX LOTS
  - PROJECT OWNERSHIP BOUNDARY
  - ROAD CENTERLINE
  - WET --- WETLANDS
  - OHW --- OHW
  - 1 --- 1' CONTOURS LINES
  - 5 --- 5' CONTOURS LINES
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  - WHS TYPE 5 - FLOODPLAIN WOOD
  - WHS TYPE 6 - WOOD CLUSTER
  - WHS TYPE 7 - SLASH PILE
  - WHS TYPE 8 - PALS
  - WHS TYPE 9 - BDAS
  - SINGLE HABITAT LOGS
  - SINGLE KEYED LOG



**PROPOSED SITE PLAN: STA 153+00 - 164+00**  
SCALE: 1"=60"



**PROPOSED ANTOINE CREEK PROFILE: STA 153+00 - 164+00**  
HORIZ. SCALE: 1" = 60'  
VERT. EXAGGERATION: 4X



DWG: Z:\Shared\W2\CAD\2022\0046-Antoine Creek\DWG\SHEETS\SAC - PP\PP RECONNECT.dwg USER: hclegg DATE: Mar 11, 2024 3:32pm XREFS:X-TB-W2-2243 AC-XR-BASEMAP.WBLOCK AC-XR-DESIGN AC-XR-WHS AC-XR-ACCESS-STAGING-WATER-MANAGEMENT

**DRAFT FINAL DESIGN  
FEBRUARY 2024**



WOLF WATER RESOURCES, INC.  
1001 SE WATER AVE, SUITE #180  
PORTLAND, OR 97214  
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COLVILLE CONFEDERATED TRIBES  
P.O. BOX 150  
NESPELEM, WA 99155  
509.634.2277

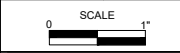
**COLVILLE CONFEDERATED TRIBES  
ANTOINE CREEK  
ENHANCEMENT PROJECT  
OKANOGAN COUNTY, WA**

**PLAN & PROFILE  
STA 140+00 - STA  
153+00**

**REVISION NUMBER**

No.	Date	Revision

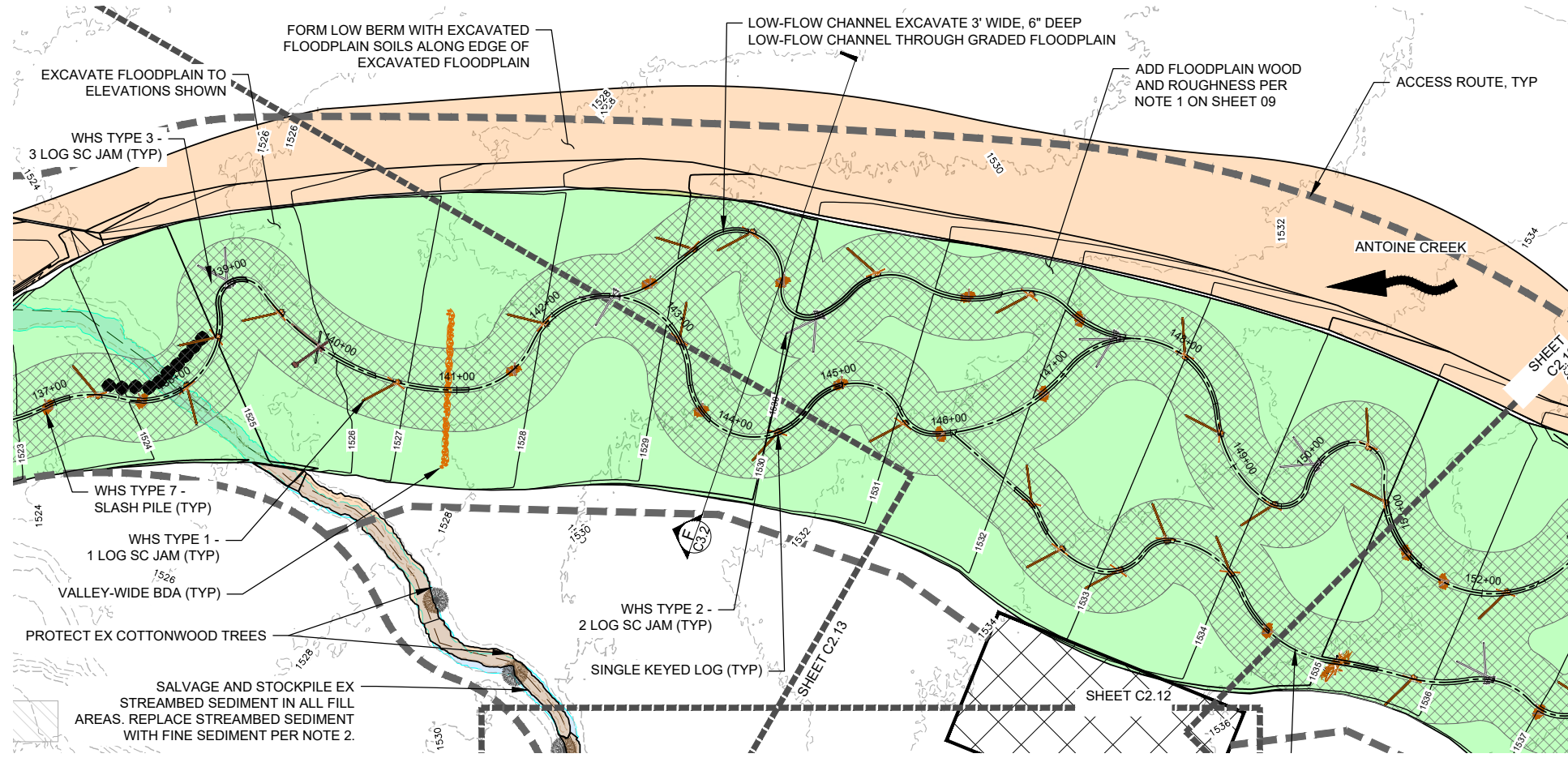
Date: 3/11/2024  
Designed By: SR, LE  
Drawn By: LE, HC  
Checked By: SR



JOB NO. 20220046

SHEET NO. C2.11

19 OF 36



- LEGEND**
- 2 --- EXISTING 2' CONTOUR LINES
  - 10 --- EXISTING 10' CONTOUR LINES
  - TAX LOTS
  - PROJECT OWNERSHIP BOUNDARY
  - ROAD CENTERLINE
  - WET --- WETLANDS
  - OHW --- OHW
  - 1 --- 1' CONTOURS LINES
  - 5 --- 5' CONTOURS LINES
  - ACCESS ROUTE
  - STAGING AREA
  - FILL
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  - WHS TYPE 7 - SLASH PILE
  - WHS TYPE 8 - PALS
  - WHS TYPE 9 - BDAS
  - SINGLE HABITAT LOGS
  - SINGLE KEYED LOG

**PROPOSED SITE PLAN: STA 140+00 - 153+00**

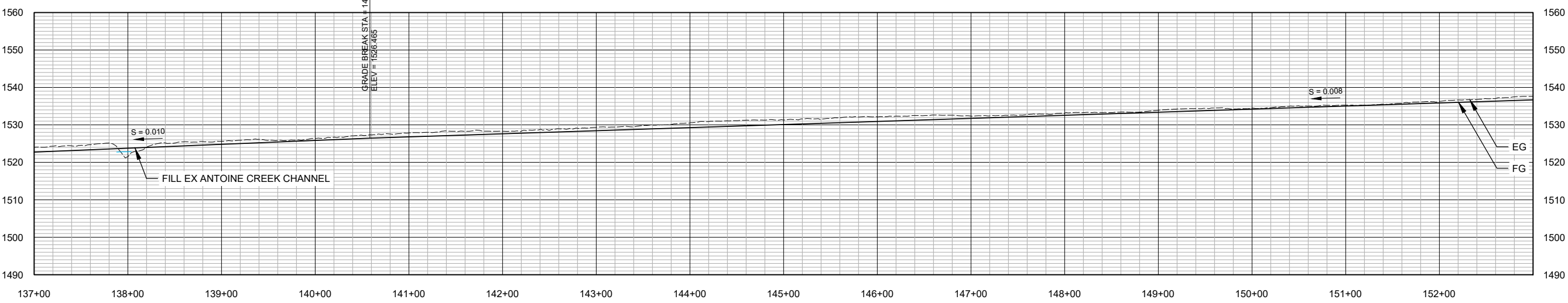
SCALE: 1"=60'



**LOCATION MAP**

**NOTES:**

1. THE CONTRACTOR SHALL CONSTRUCT THE LOW BERM SHOWN ON THIS SHEET WITH ELEVATIONS AND SIDE SLOPES PER THE TYPICAL SECTION ON SHEET C3.1. TOP WIDTHS SHALL BE IRREGULAR AND MAY VARY DEPENDING ON THE QUANTITY OF EXCESS FILL MATERIAL ENCOUNTERED DURING FLOODPLAIN EXCAVATION. THE CONTRACTOR SHALL PRIORITIZE MATERIAL FOR USE IN ALL CHANNEL FILL LOCATIONS PRIOR TO EXPANDING THE FOOTPRINT OF THE LOW BERM.
2. THE CONTRACTOR SHALL SALVAGE AND TEMPORARILY STOCKPILE ALL STREAMBED SEDIMENT ENCOUNTERED IN ANTOINE CREEK PRIOR TO PLACING FINE SEDIMENT FILL. FINE SEDIMENT FILL SHALL BE PLACED TO A DEPTH MIN 2' ABOVE THE EG STREAM PROFILE. SALVAGED STREAMBED SEDIMENT SHALL BE PRIORITIZED FOR REUSE IN LOW FLOW CHANNELS.



**PROPOSED ANTOINE CREEK PROFILE: STA 137+00 - 153+00**

HORIZ. SCALE: 1" = 60'  
VERT. EXAGGERATION: 4X

DWG: Z:\Shared\W2\CAD\2022\046-Antoine Creek\DWGS\SHETS\SAC - PP.FP.RECONNECT.dwg USER: hleagg DATE: Mar 11, 2024 3:33pm XREFS: X-TB-W2r-22\34 AC-XR-BASEMAP.WBLOCK AC-XR-DESIGN AC-XR-WHS AC-XR-ACCESS-STAGING-WATER-MANAGEMENT

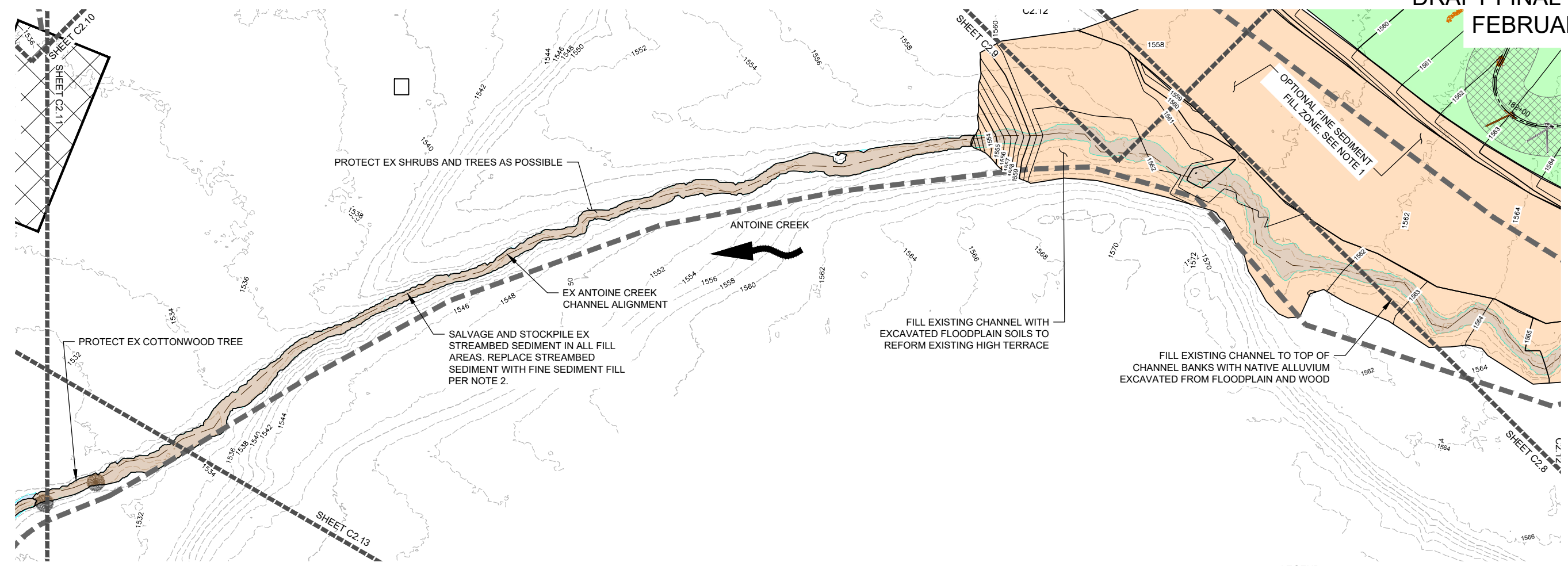


WOLF WATER RESOURCES, INC.  
1001 SE WATER AVE. SUITE #180  
PORTLAND, OR 97214  
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NESPELEM, WA 99155  
509.634.2277

COLVILLE CONFEDERATED TRIBES  
ANTOINE CREEK  
ENHANCEMENT PROJECT  
OKANOGAN COUNTY, WA

EXISTING BYPASS  
CHANNEL PLAN



**PROPOSED SITE PLAN: EXISTING BYPASS CHANNEL**  
SCALE: 1"=60'

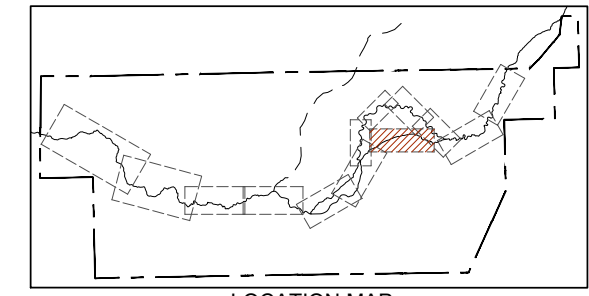


**LEGEND**

--- 2' ---	EXISTING 2' CONTOUR LINES
--- 10' ---	EXISTING 10' CONTOUR LINES
---	TAX LOTS
- - -	PROJECT OWNERSHIP BOUNDARY
—	ROAD CENTERLINE
— WET —	WETLANDS
—	OHW
— 1' —	1' CONTOURS LINES
— 5' —	5' CONTOURS LINES
[Orange Box]	FILL
[Green Box]	CUT
- - - - -	ACCESS ROUTE

**NOTES:**

- THE CONTRACTOR SHALL CONSTRUCT THE LOW BERM SHOWN ON THIS SHEET WITH ELEVATIONS AND SIDE SLOPES PER THE TYPICAL SECTION ON SHEET C3.1. TOP WIDTHS SHALL BE IRREGULAR AND MAY VARY DEPENDING ON THE QUANTITY OF EXCESS FILL MATERIAL ENCOUNTERED DURING FLOODPLAIN EXCAVATION. THE CONTRACTOR SHALL PRIORITIZE MATERIAL FOR USE IN ALL CHANNEL FILL LOCATIONS PRIOR TO EXPANDING THE FOOTPRINT OF THE LOW BERM.
- THE CONTRACTOR SHALL SALVAGE AND TEMPORARILY STOCKPILE ALL STREAMBED SEDIMENT ENCOUNTERED IN ANTOINE CREEK PRIOR TO PLACING FINE SEDIMENT FILL. FINE SEDIMENT FILL SHALL BE PLACED TO A DEPTH MIN 2' ABOVE THE EG STREAM PROFILE. SALVAGED STREAMBED SEDIMENT SHALL BE PRIORITIZED FOR REUSE IN LOW FLOW CHANNELS.



**REVISION NUMBER**

No.	Date	Revision

Date: 3/11/2024  
Designed By: SR, LE  
Drawn By: LE, HC  
Checked By: SR

SCALE: 1"=60'

JOB NO. 20220046  
SHEET NO. C2.12  
20 OF 36

DWG: Z:\Shared\W2\CAD\2022\2046-Antoine Creek\DWGSHEETS\SAC - PP\PP RECONNECT.dwg USER: htelegg  
DATE: Mar 11, 2024 3:33pm XREFS:X-TB-W2-r-22x34 AC-XR-BASEMAP.WBLOCK AC-XR-DESIGN AC-XR-WHS AC-XR-ACCESS-STAGING-WATER-MANAGEMENT

**DRAFT FINAL DESIGN  
FEBRUARY 2024**



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**COLVILLE CONFEDERATED TRIBES  
ANTOINE CREEK  
ENHANCEMENT PROJECT  
OKANOGAN COUNTY, WA**

**PLAN & PROFILE  
STA 125+00 - STA  
140+00**

REVISION NUMBER		
No.	Date	Revision

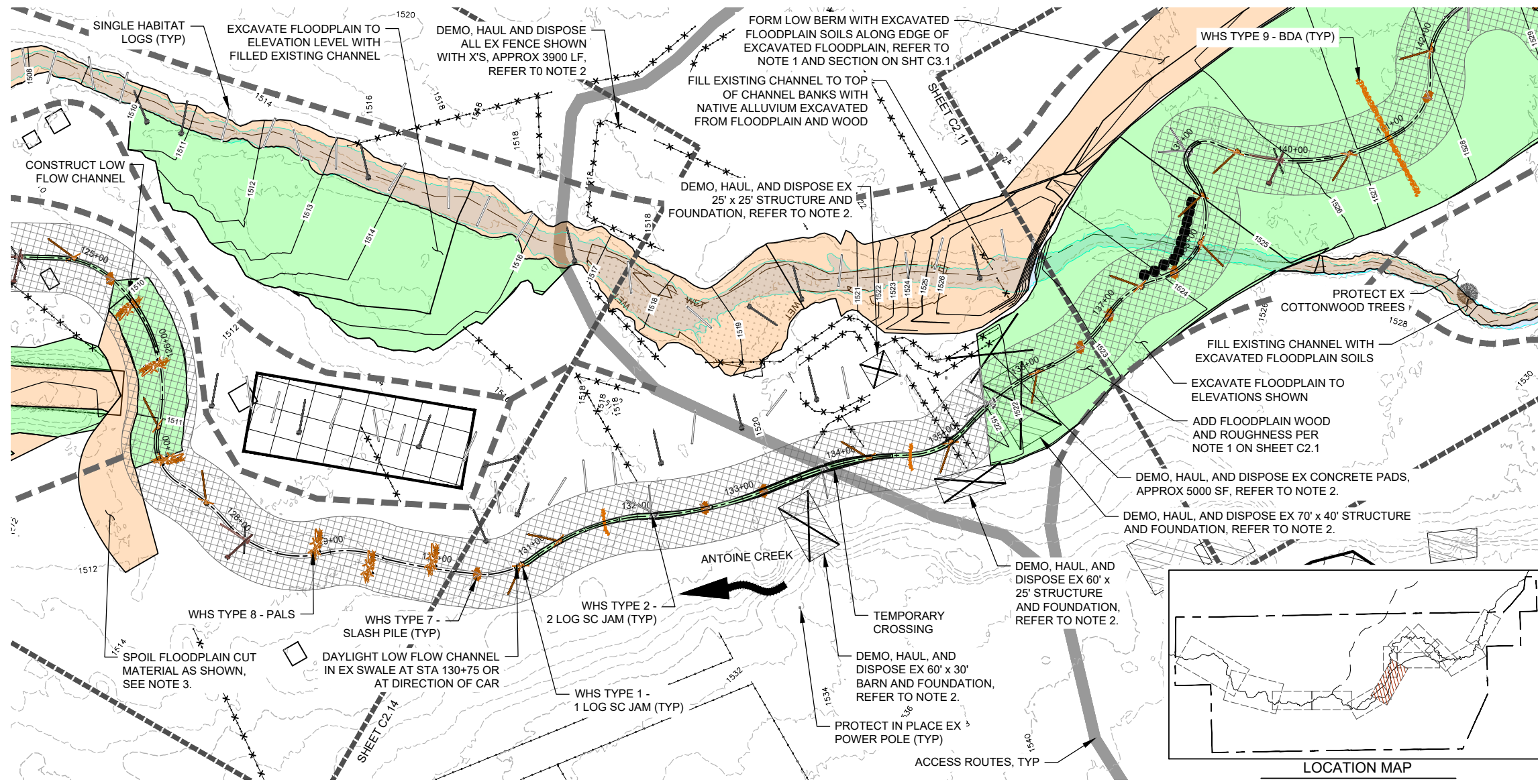
Date: 3/11/2024  
Designed By: SR, LE  
Drawn By: LE, HC  
Checked By: SR

SCALE: 1" = 60'

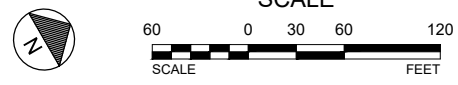
JOB NO. 20220046

SHEET NO. C2.13

21 OF 36

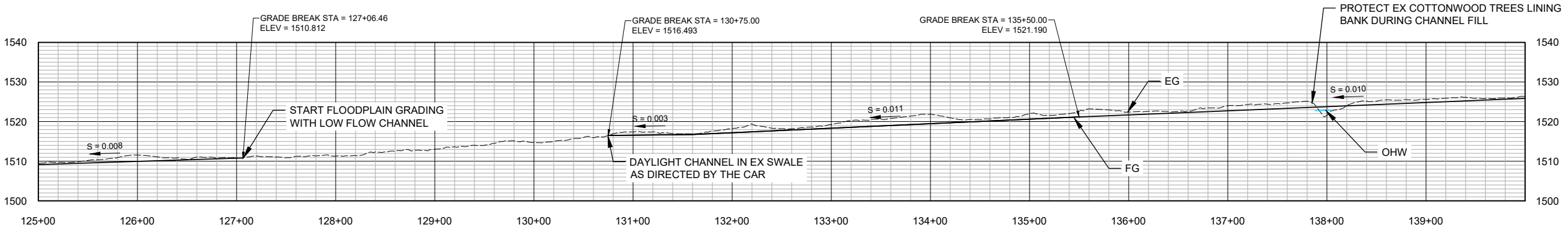


**PROPOSED SITE PLAN: STA 125+00 - 140+00**  
SCALE: 1"=60"



**NOTES:**

1. THE CONTRACTOR SHALL CONSTRUCT THE LOW BERM SHOWN ON THIS SHEET WITH ELEVATIONS AND SIDE SLOPES PER THE TYPICAL SECTION ON SHEET C3.1. TOP WIDTHS SHALL BE IRREGULAR AND MAY VARY DEPENDING ON THE QUANTITY OF EXCESS FILL MATERIAL ENCOUNTERED DURING FLOODPLAIN EXCAVATION. THE CONTRACTOR SHALL PRIORITIZE MATERIAL FOR USE IN ALL CHANNEL FILL LOCATIONS PRIOR TO EXPANDING THE FOOTPRINT OF THE LOW BERM.
2. THE CONTRACTOR SHALL DEMO, HAUL AND DISPOSE OF ALL INFRASTRUCTURE ON THE FLOODPLAIN CALLED OUT ON THIS SHEET AND ANY ADDITIONAL INFRASTRUCTURE ENCOUNTERED ON THE SITE THAT CONFLICTS WITH PROPOSED GRADING OR WHS INSTALLATION. INFRASTRUCTURE INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:
  - 2.1. APPROX 3900LF OF EX WOOD POST FENCING. ANY UNTREATED NATURAL WOOD POSTS MAY BE LEFT LOOSE ON THE FLOODPLAIN IF ALL HARDWARE AND METAL IS REMOVED. FENCES TO BE REMOVED ARE DENOTED WITH AN X.
  - 2.2. FOUR EXISTING STRUCTURES WITH CONCRETE FOUNDATIONS. STRUCTURE DIMENSIONS ARE CALLED OUT ON THIS SHEET.
  - 2.3. APPROX. 5000 SF OF CONCRETE PADS ADJACENT TO STRUCTURES AND SCATTERED WITHIN THE FLOODPLAIN.
3. SPOIL FLOODPLAIN CUT MATERIAL EXCAVATED FROM STATION 127+00 TO STATION 124+00 IN A LOW MOUND NOT TO EXCEED 2' IN HEIGHT WITHIN THE POLYGON SHOWN ON THIS SHEET OR AS DIRECTED BY THE CAR.



**PROPOSED ANTOINE CREEK PROFILE: STA 125+00 - 140+00**

HORIZ. SCALE: 1" = 60'  
VERTICAL EXAGGERATION: 4X

DWG: Z:\Shared\W2\CAD\20220046-Antoine Creek\DWGSHEETS\SAC - PP BARN FIELD.dwg USER: hdegg DATE: Mar 11, 2024 3:35pm XREFS:X-TB-W2r-22x34 AC-XR-BASEMAP.WBLOCK AC-XR-DESIGN AC-XR-WHS AC-XR-DEMO AC-XR-ACCESS-STAGING-WATER-MANAGEMENT

DRAFT FINAL DESIGN  
FEBRUARY 2024



COLVILLE CONFEDERATED TRIBES  
ANTOINE CREEK  
ENHANCEMENT PROJECT  
OKANOGAN COUNTY, WA

PLAN & PROFILE  
STA 110+00 - STA  
125+00

REVISION NUMBER

No.	Date	Revision

Date: 3/11/2024  
Designed By: SR, LE  
Drawn By: LE, HC  
Checked By: SR

SCALE: 1" = 60'

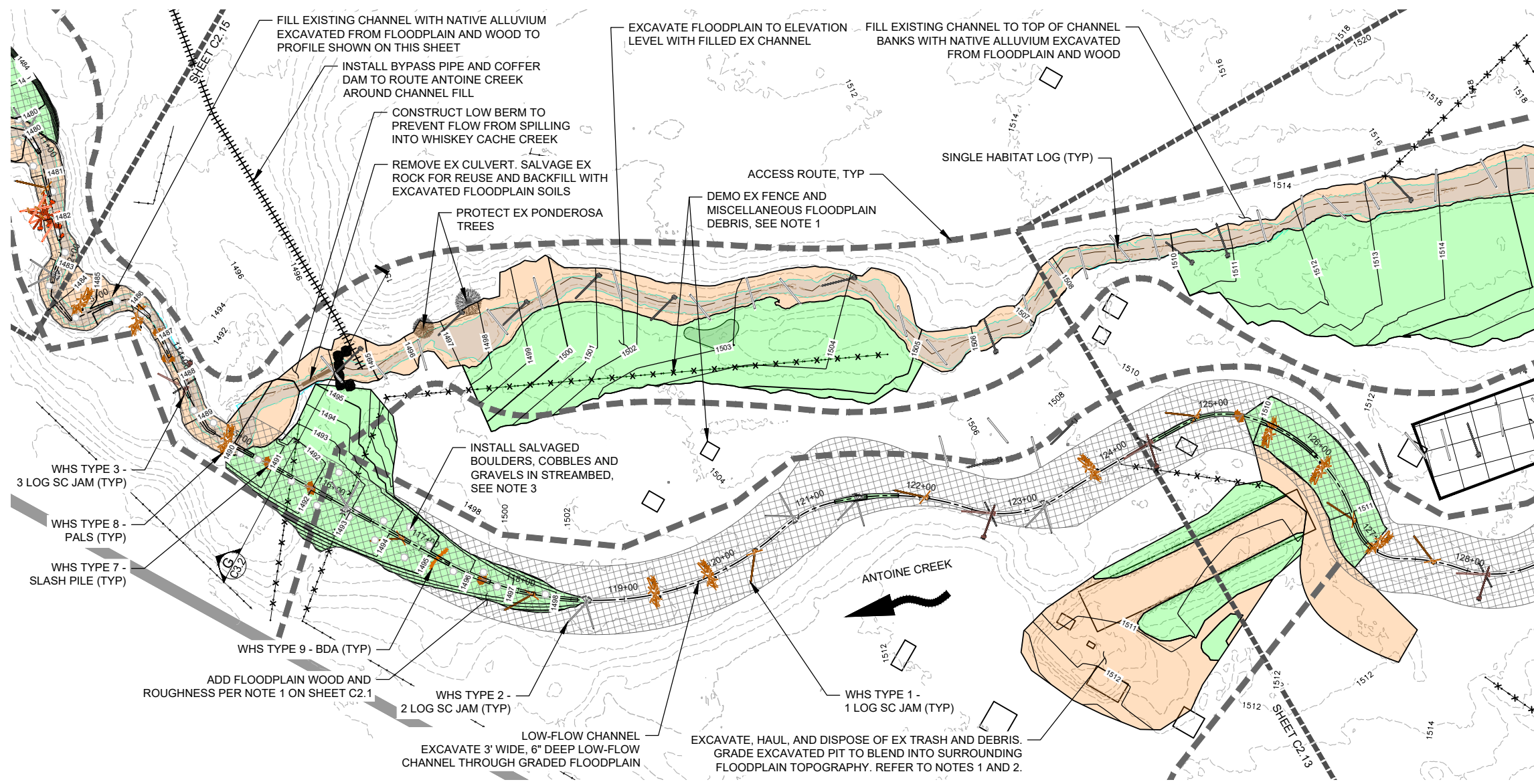
JOB NO. 20220046

SHEET NO. C2.14

22 OF 36

**LEGEND**

- 2 --- EXISTING 2' CONTOUR LINES
- 10 --- EXISTING 10' CONTOUR LINES
- TAX LOTS
- PROJECT OWNERSHIP BOUNDARY
- ROAD CENTERLINE
- WET WETLANDS
- OHW
- 1 --- 1' CONTOURS LINES
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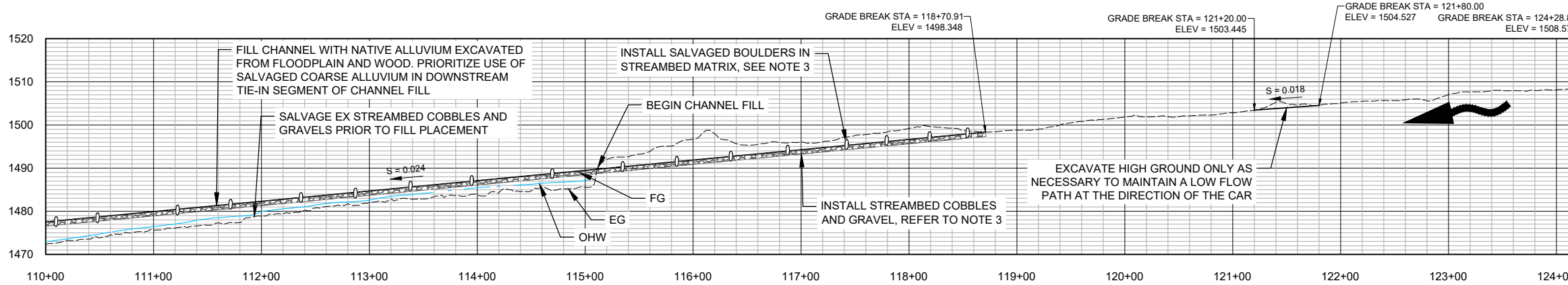
PROPOSED SITE PLAN: STA 110+00 - 125+00

SCALE: 1"=60"



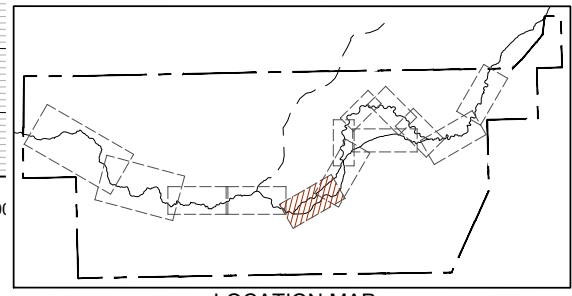
NOTES:

- THE CONTRACTOR SHALL DEMO, HAUL AND DISPOSE OF ALL INFRASTRUCTURE ON THE FLOODPLAIN CALLED OUT ON THIS SHEET AND ANY ADDITIONAL INFRASTRUCTURE ENCOUNTERED ON THE SITE THAT CONFLICTS WITH PROPOSED GRADING OR WHS INSTALLATION. INFRASTRUCTURE INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:
  - A CONCRETE PAD WITH CONCRETE WINGWALLS APPROX 175 FEET LONG AND 50 FEET WIDE. MISCELLANEOUS TRASH, DEBRIS AND WASTE HAS BEEN DUMPED WITHIN THE CONCRETE PAD AND SHALL BE OFFHAULLED AND DISPOSED OF PROPERLY.
  - APPROX 1030 LF OF WOOD POST FENCING IN THE FLOODPLAIN SHOWN WITH AN X THROUGH IT.
  - MISCELLANEOUS TRASH, CONCRETE AND DEBRIS PILES WITHIN THE FLOODPLAIN.
- THE CONTRACTOR SHALL GRADE THE SITE OF THE TRASH DEBRIS PILE TO MATCH EXISTING GRADE AFTER DEMO AND OFFHAUL OF ALL DEBRIS IS COMPLETE. THE CONTRACTOR SHALL ENSURE A MINIMUM OF 2' OF CLEAN FILL MATERIAL IS SPREAD AS TOP DRESSING TO CAP THE FORMER DUMP SITE.
- SALVAGED AND STOCKPILED STREAMBED GRAVELS, COBBLES AND OTHER COARSE ALLUVIUM SHALL BE PRIORITIZED FOR USE BETWEEN STATIONS 118+70 TO 105+00 WHERE THE STREAMBED PROFILE IS STEEPEST. THE CONTRACTOR SHALL TOPDRESS THE TOP OF CHANNEL FILL BETWEEN THESE STATIONS WITH MIN 6" OF STREAMBED MATERIAL AND SHALL INSTALL ALL SALVAGED AND STOCKPILED BOULDERS IN THE STREAMBED MATRIX AS DIRECTED BY THE CAR.



PROPOSED ANTOINE CREEK PROFILE: STA 110+00 - 125+00

HORIZ. SCALE: 1" = 60'  
VERTICAL EXAGGERATION: 4X



LOCATION MAP

DWG: Z:\Shared\W2\CAD\20220046-Antoine Creek\DWGSHEETS\SAC - PP BARN FIELD.dwg USER: hdeggs DATE: Mar 11, 2024 3:35pm XREFS: X-TB-W2-22-234 AC-XR-BASEMAP.WBLOCK AC-XR-DESIGN AC-XR-WHS AC-XR-DEMO AC-XR-ACCESS-STAGING-WATER-MANAGEMENT



COLVILLE CONFEDERATED TRIBES  
ANTOINE CREEK  
ENHANCEMENT PROJECT  
OKANOGAN COUNTY, WA

PLAN & PROFILE  
STA 93+00 -  
110+00

REVISION NUMBER

No.	Date	Revision

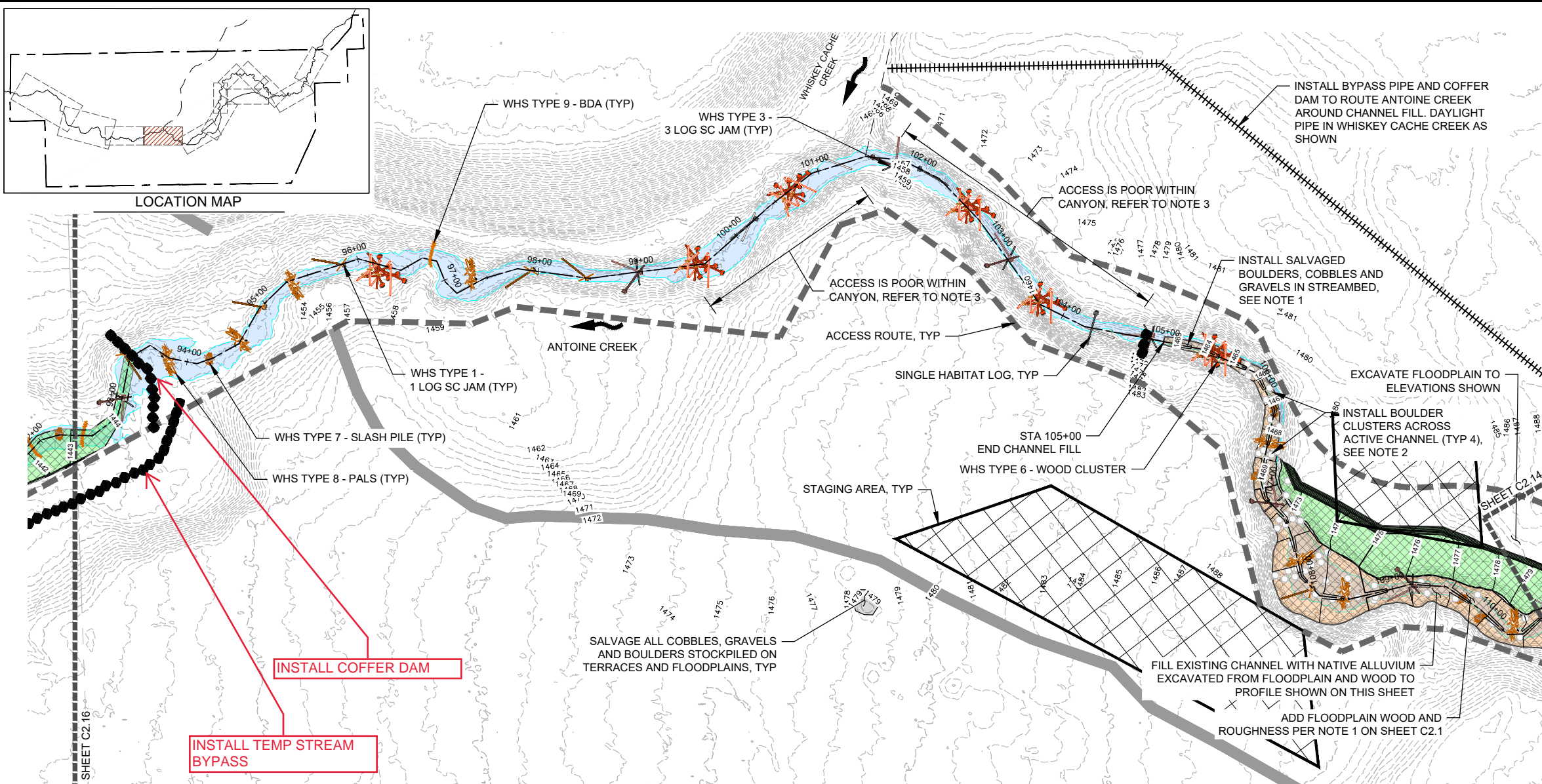
Date: 3/11/2024  
Designed By: SR, LE  
Drawn By: LE, HC  
Checked By: SR

SCALE: 1" = 100'

JOB NO. 20220046

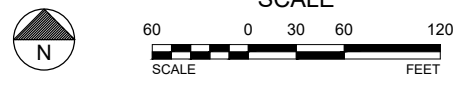
SHEET NO. C2.15

23 OF 36



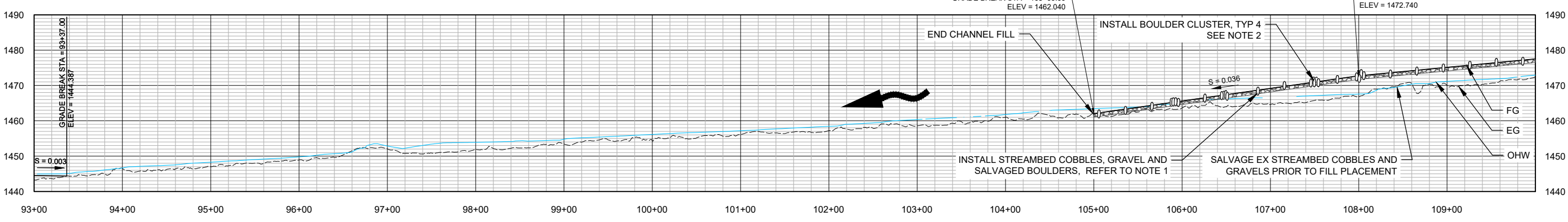
- LEGEND**
- - - 2 - - - EXISTING 2' CONTOUR LINES
  - - - 10 - - - EXISTING 10' CONTOUR LINES
  - - - TAX LOTS
  - - - PROJECT OWNERSHIP BOUNDARY
  - - - ROAD CENTERLINE
  - - - WET - - - WETLANDS
  - - - 1 - - - 1' CONTOUR LINES
  - - - 5 - - - 5' CONTOUR LINES
  - - - ACCESS ROUTE
  - - - DIVERSION PIPE
  - - - STAGING AREA
  - - - FILL
  - - - CUT
  - - - FLOODPLAIN WOOD PLACEMENT AREA
  - - - WHS TYPE 1 - 1 LOG SC JAM
  - - - WHS TYPE 2 - 2 LOG SC JAM
  - - - WHS TYPE 3 - 3 LOG SC JAM
  - - - WHS TYPE 4 - 4 LOG SC JAM
  - - - WHS TYPE 5 - FLOODPLAIN WOOD
  - - - WHS TYPE 6 - WOOD CLUSTER
  - - - WHS TYPE 7 - SLASH PILE
  - - - WHS TYPE 8 - PALS
  - - - WHS TYPE 9 - BDAS
  - - - SINGLE HABITAT LOGS
  - - - SINGLE KEYED LOG

**PROPOSED SITE PLAN: STA 93+00 - 110+00**  
SCALE: 1"=60"



**NOTES:**

- SALVAGED AND STOCKPILED STREAMBED GRAVELS, COBBLES AND OTHER COARSE ALLUVIUM SHALL BE PRIORITIZED FOR USE BETWEEN STATIONS 105+00 TO 108+00 AS A FIRST PRIORITY WHERE THE STREAMBED PROFILE IS STEEPEST AND THEN SHALL BE PRIORITIZED FOR USE BETWEEN STATIONS 108+00 TO 118+70. THE CONTRACTOR SHALL TOP DRESS THE TOP OF CHANNEL FILL BETWEEN THESE STATIONS WITH MIN 6" OF STREAMBED MATERIAL AND SHALL INSTALL ALL SALVAGED AND STOCKPILED BOULDERS IN THE STREAMBED MATRIX AS DIRECTED BY THE CAR.
- BOULDER CLUSTERS SHALL BE INSTALLED BETWEEN STATIONS 105+00 TO 108+00 WITHIN CHANNEL FILL AS SHOWN. CONTRACTOR SHALL EMBED BOULDERS MIN 1/4 OF THEIR DIAMETER WITHIN STREAMBED SEDIMENT AND SHALL INSTALL A SUFFICIENT QUANTITY OF BOULDERS TO SPAN THE ACTIVE CHANNEL AND FLOODPLAIN AS SHOWN ON THIS SHEET.
- BOULDERS SHALL BE OFFSET AND SPACED MIN 1' APART FROM EACH OTHER TO ENSURE LOW FLOW PATHS EXIST BETWEEN BOULDERS.
- ACCESS TO ANTOINE CREEK BETWEEN STATIONS 99+00 AND 105+00 IS POOR; THE CREEK IS WITHIN A DEEP AND NARROW CANYON WITH STEEP SIDE WALLS. THE CONTRACTOR MAY INSTALL WHS TYPE 3 AND TYPE 6 WITHIN THIS REACH BY LOWERING OR DROPPING WOOD INTO THE CREEK FROM THE TOP OF BANK. IF ACCESS TO THE CREEK BOTTOM IS POSSIBLE THE CONTRACTOR SHALL INSTALL WOOD FROM THE CREEK BOTTOM. SINGLE HABITAT LOGS WITHIN THIS REACH MAY BE INSTALLED SIMILARLY BUT MUST BE STACKED ON TOP OF EACH OTHER MIN TWO LAYERS THICK.



**PROPOSED ANTOINE CREEK PROFILE: STA 93+00 - 110+00**

HORIZ. SCALE: 1" = 60'  
VERT. EXAGGERATION: 4X

DWG: Z:\Shared\W2\CAD\20220046-Antoine Creek\DWGS\SHEETS\SAC - PP ALLUVY CYN.dwg USER: hclg9g DATE: Mar 11, 2024 3:37pm XREFS:X-TB-W2-2234 AC-XR-BASEMAP.WBLOCK AC-XR-DESIGN AC-XR-WHS AC-XR-HAWS AC-XR-ACCESS-STAGING-WATER-MANAGEMENT AC-XR-DEMO