

# **DOCUMENT 00 90 10**

## **ADDENDUM No. 1**



### **PART 1 GENERAL**

#### **1.1 DOCUMENT INCLUDES**

- A. Changes to Document 00 41 10 Bid Schedule

#### **1.2 CONSTRUCTION CONTRACT**

- A. The Construction Contract is known as Serge Simmons River Restoration Project
  - A. Date of this Addendum is December 2<sup>nd</sup>, 2024

### **PART 2 CHANGES**

#### **2.1 CHANGES TO PRIOR ADDENDA**

- A. None

#### **2.2 CHANGES TO BIDDING REQUIREMENTS**

##### **A. Bid Schedule No.1**

1. Bid Item No. 24 - CONTAINERIZED 1-GALLON WILLOW
  - i. Changed the Bid Item Description by replacing "3-Gallon" with "1-Gallon".
2. Bid Item No. 25 - CONTAINERIZED 1-GALLON DOGWOOD
  - i. Changed the Bid Item Description by replacing "3-Gallon" with "1-Gallon".
3. Bid Item No. 45 - CONTAINERIZED 1-GALLON WILLOW
  - i. Changed the Bid Item Description by replacing "3-Gallon" with "1-Gallon".

##### **B. Measurements and Payment**

1. Section 3.63 CONTAINERIZED 1-GALLON WILLOW, Bid Item No. 24,45
  - i. Changed the Bid Item Description by replacing "3-Gallon" with "1-Gallon".
  - ii. Parts A & B, replaced "3-gallon" with "1-gallon"
2. Section 3.64 CONTAINERIZED 1-GALLON DOGWOOD, Bid Item No. 25
  - i. Changed the Bid Item Description by replacing "3-Gallon" with "1-Gallon".
  - ii. Parts A & B, replaced "3-gallon" with "1-gallon"

## **2.3 CHANGES TO AGREEMENT AND OTHER CONTRACT FORMS**

A. None

## **2.4 CHANGES TO CONDITIONS OF THE CONTRACT**

A. None

## **2.5 CHANGES TO SPECIFICATIONS**

A. None

## **2.6 CHANGES TO DRAWINGS**

A. Sheets L01 and L02

1. Changed the size for Willow and Dogwood from 3-Gallon to 1-Gallon listed in the Legends and callouts.

## **2.7 CLARIFICATIONS**

- A. In the pre-bid meeting, the engineer misspoke saying GPS machinery was not a requirement, but upon further review of the contract documents, the GPS machinery IS required. In Section 01 12 00 SPECIAL PROVISION - section 2.08 Site Grading, it is stated “The CONTRACTOR is required to accomplish all site grading through the use of GPS Control. The ENGINEER will provide a proposed XML-compatible digital surface model and alignments to the CONTRACTOR. The CONTRACTOR shall have the means to load the alignments and surface into handheld and/or machine mounted field survey controllers to establish proposed elevations and grades.”
- B. To avoid confusion and issues with bid pricing 3-gallon vs 1-gallon willows and dogwood, we changed the size to 1 gallon size for both willows and dogwood.

END OF SECTION

# **DOCUMENT 00 41 10**

## **BID SCHEDULE**

### **PART 1 GENERAL**

#### **1.1 DOCUMENT INCLUDES**

- A. Bid schedules.
- B. Measurement and payment provisions.

#### **1.2 CONSTRUCTION CONTRACT**

- A. The Construction Contract is known as:  
**Serge Simmons River Restoration Project**

#### **1.3 REFERENCES**

- A. APWA 01 29 00: Payment Procedures.
- B. Document 00 50 00: Agreement.

#### **1.4 SCHEDULE TO BE ADDED TO THE AGREEMENT**

- A. This document will be added to the Bid and Agreement by reference.

### **PART 2 BID SCHEDULES**

#### **2.1 BASE BID**

- A. Bid Schedule No. 1 below describes work basic to the Contract.

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**BID SCHEDULE No. 1****Weber River at Fort Buenaventura Park, Serge Simmons River  
Restoration Project**

<b><u>Item #</u></b>	<b><u>Description</u></b>	<b><u>QTY</u></b>	<b><u>Unit</u></b>	<b><u>Unit Cost</u></b>	<b><u>Total Cost</u></b>
	<b>Site Preparation</b>				
1	Mobilization, Demobilization	1	LS		
2	Traffic Control	1	LS		
3	Construction Survey	1	LS		
4	Protect In Place (PIP)	1	LS		
5	Construction Access and Repair	1	LS		
6	Erosion Control and General BMPs - Furnish, Install, and Manage	1	LS		
7	Care of Water - Furnish, Install, and Manage	1	LS		
8	Demo and reroute drain pipe	1	LS		
	<b>South Serge Channel and Bank Improvements</b>				
9	Remove Large Woody Debris, Haul off and Disposal	1	LS		
10	Remove Tree, Haul Off and Disposal	3	EA		
11	General Excavation and Stockpiling	2,285	CY		
12	Backfill of Alluvium	1,424	CY		
13	Haul Off and Disposal of Alluvial Material	1,043	CY		
14	Furnish and Install Riprap	48	CY		
15	Furnish Boulder	603	TON		
16	Harvest Existing Onsite Boulder	448	TON		
17	Install Boulder	929	TON		
18	Erosion Control Blanket	754	SY		
19	Non-Woven Filter Fabric	79	SY		
20	Furnish and Install Top Soil	126	CY		
21	Planting Zone A Seed Mix	0.12	ACRE		
22	Planting Zone B Seed Mix	0.05	ACRE		
23	Hydromulch	0.17	ACRE		
24	Containerized 1-Gallon Willow	13	EA		



25	Containerized 1-Gallon Dogwood	14	EA		
26	Live Willow Fascine	173	LF		
27	Live Dormant Willow Staking	6,698	EA		
28	Live Dormant Dogwood Staking	2,871	EA		
	<b>Bank Access Stabilization, Boulder Walls, Slabstone Steps</b>				
29	General Excavation and Stockpiling	1,264	CY		
30	Haul Off and Disposal of Alluvial Material	804	CY		
31	Furnish Boulder	837	TON		
32	Install Boulder	837	TON		
33	Furnish and Install Slabstone Steps	132	TON		
34	Furnish and Install Flagstone Path	28	TON		
35	Compacted Structural Backfill	150	CY		
36	Furnish and Install Alluvium/Cobble D50 = 2.5"	104	CY		
37	Furnish and Install Alluvium/Cobble D50 = 6"	221	CY		
38	Furnish and Install Alluvium/Cobble D50 = 18"	171	CY		
39	Non-Woven Filter Fabric	873	SY		
40	Furnish and Install Topsoil	60	CY		
41	Drainage Mat	202	SY		
42	Planting Zone A Seed Mix	0.07	ACRE		
43	Hydromulch	0.07	ACRE		
44	Live Dormant Willow Staking	100	EA		
45	Containerized 1-Gallon Willow	90	EA		
46	Erosion Control Blanket	195	SY		
47	Wood Slat Fence	180	LF		
48	High Flow Channel: Excavation, Haul Off and Disposal of Alluvial Material	222	CY		
49	Furnish and Install Coarse Alluvium	81	CY		
50	Union Pacific Permit	1	LS	ALLOWANCE	\$1,000. <sup>00</sup>

Total = \$ \_\_\_\_\_

Schedule Total in Words \_\_\_\_\_

Signature \_\_\_\_\_

## **PART 3 MEASUREMENTS AND PAYMENT**

### **3.1 GENERAL**

- A. See measurement and payment procedures in APWA Section 01 29 00.
- B. ENGINEER will take all measurements and compute all quantities.
- C. CONTRACTOR will verify measurement and quantities.
- D. CONTRACTOR will provide all equipment, workers, and survey crews to assist ENGINEER in making measurements.
- E. Units of measurement are listed above in the bid schedule(s).

### **3.2 MOBILIZATION/ DEMOBILIZATION, Bid Item No. 1**

- A. Measurement is per Lump Sum (LS).
- B. Work includes but is not limited to: mobilization; demobilization; installation of temporary work area facilities, bringing in and removing all necessary construction equipment to and from the site; obtaining Ogden City construction permits; obtaining access permission from Ogden City and/or private property owners, preparing all required submittals; contracting, scheduling, delays and any and all incidentals.
- C. Payment also includes submitting the Union Pacific agreement and following all their requirements (does not include union pacific permit fee which is a separate allowance under bid item 50), coordination with Union Pacific on project timeline, and additional insurance policy that includes railroad liability coverage on the contractors insurance policy as stated in Exhibit C in Section 01 31 14 RAILROAD COORDINATION.
- D. Payment will be made on a percentage basis as follows.

Percent of Original Contract Amount Earned	Percent of Amount Bid for Mobilization to be Paid
5	40
15	20
40	30
50	10

### **3.3 TRAFFIC CONTROL, Bid Item No. 2**

- A. Measurement is per Lump Sum (LS).
- B. Work includes but is not limited to: development, implementation, maintenance and restoration of a traffic control plan for construction that addresses vehicle, bicyclist, pedestrian and river traffic on the surrounding roads, pedestrian path, and Weber River. Work includes all materials, signage, labor, equipment, and any and all incidentals. Traffic control shall meet all requirements of Ogden City.

### **3.4 CONSTRUCTION SURVEY, Bid Item No. 3**

- A. Measurement is per Lump Sum (LS).

- B. Work associated with this bid item includes furnishing all material, equipment, labor, and incidentals necessary to complete the work as specified. No separate or additional payment will be made for any temporary protection and direction of traffic measures including flaggers and signing necessary for the performance of the construction survey work. Includes Protect-in-Place survey control and relocating control monuments within the limits of excavation. No separate or additional payment will be made for preparing surveying documents including but not limited to office time, preparing and checking survey notes, and all other related preparation work. The CONTRACTOR is required to accomplish all site grading through the use of GPS control. Costs incurred caused by survey errors will be at no additional cost to the OWNER. Repair any damage to the Work caused by CONTRACTOR'S survey errors at no additional cost to the OWNER. The ENGINEER may make an equitable adjustment, which may decrease the Contract Amount, if the required survey work is not performed.

### **3.5 PROTECT IN PLACE (PIP), Bid Item No. 4**

- A. Measurement is per Lump Sum (LS).
- B. Work covers taking necessary measures to mark in the field and ensure protection of existing utilities, structures, pavements, mature trees, vegetation, wetlands, cultural resources, properties, and other features not identified for removal or construction (resources). This includes stoppages and notifications to evaluate buried utilities or resources not identified on the plans that may be discovered during the work. Work includes but is not limited to: video documentation of preconstruction conditions; labor, equipment, invasive species control, and materials required for protecting-in-place or restoration of incidental damage. CONTRACTOR is responsible for identifying and protecting-in-place existing utilities. Any cost associated with temporary outages, environmental damage, or repairing utilities or resources, as determined by OWNER, shall be wholly the responsibility of the CONTRACTOR.

### **3.6 CONSTRUCTION ACCESS AND REPAIR, Bid Item No. 5**

- A. Measurement is per Lump Sum (LS).
- B. Work includes the installation, maintenance and removal of temporary access roads, temporary haul roads, access ramps and other access points required for construction of the project. Work covers furnishing all materials, equipment, labor, and any and all incidentals necessary to complete the work. Restoration of the temporary access is considered a part of the work, which includes but is not limited to resurfacing, seeding, revegetation, and any and all incidentals including furnishing materials and BMPs.

### **3.7 EROSION CONTROL AND GENERAL BMPS – FURNISH, INSTALL, AND MANAGE, Bid Item No. 6**

- A. Measurement is per Lump Sum (LS).
- B. Work covers development of an Erosion and Sediment Control (ESC) Plan and submittal to the OWNER for review and approval.
- C. Work covers the development, implementation, and management of the project's ESC

program. This work includes all materials, equipment, labor and incidentals associated with implementing the ESC plan, performing regular inspections and documentation of installed ESC BMPs, and cleanout, maintenance, or replacement of ESC BMPs as required during project construction including approval delays and any and all incidentals. This also includes the removal of non-biodegradable BMPs after establishment of vegetation (approximately 1-2 years).

- D. Work covers development of a Spill Prevention Control and Countermeasures (SPCC) Plan and list of Equipment Operating with Certified Biodegradable Hydraulic Fluid, and submittal to the OWNER and ENGINEER for review.
- E. Work covers the development, implementation, and management of the project's SPCC program. This work includes all materials, equipment, labor and incidentals associated with finalizing the SPCC plan, installing the SPCC plan, performing regular inspections and documentation of installed SPCC BMPs and cleanout, maintenance, and/or replacement of SPCC BMPs as required during project construction, including delays and any and all incidentals.

### **3.8 CARE OF WATER – FURNISH, INSTALL, AND MANAGE, Bid Item No. 7**

- A. Measurement is per Lump Sum (LS).
- B. Work covers complete cost of development, implementation, and management of the Care of Water (CW) Plan to minimize environmental impacts and simultaneously provide construction access, to the work below the Ordinary High Water Mark (OHWM). Work includes installation of turbidity curtains, cofferdams, river diversions, oil booms, pumps and filters, intermittent excavation operations of excessive turbidity, all BMPs and shoring necessary for open bank excavations and channel work in the wet, and Care of Water and 401/404 permit conditions adherence. Payment covers labor, methods, precautions, delays, installations, modifications, maintenance, replacement, and materials for water control structures and removal and disposal of structures and incidentals required to complete work.
- C. Work covers maintaining necessary de-watering during construction. This may include gravity feed dewatering systems or pumped systems as the CONTRACTOR deems necessary. Work associated with this bid item also includes removal and proper disposal of equipment and materials required for de-watering once no longer required on site. Work covers furnishing all equipment, labor, and incidentals (to include but not limited to permitting and/or fuel/power to operate pumps) necessary to complete the work as specified.
- D. Work covers filtering pumped water to meet local and state environmental requirements prior to returning it to the river. Work covers furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

### **3.9 DEMO AND REROUTE DRAIN PIPE, Bid Item No. 8**

- A. Measurement is per Lump Sum (LS)
- B. Payment covers all labor, tools, and equipment costs to cut and remove a portion of the existing 8" PVC storm drain pipe in order to shorten drainage pipe and route out through

the boulder tier wall as called out in sheet R05.

**3.10 REMOVE LARGE WOODY DEBRIS, HAUL OFF AND DISPOSAL, Bid Item No. 9**

- A. Measurement is per Lump Sum (LS).
- B. Payment covers complete cost of large wood debris removal, haul off, and disposal offsite. Work includes but is not limited to: BMPs, excavation, debris removal, cutting material; stockpiling material; dewatering material onsite; supplying equipment; loading; hauling; handling; disposal fees; and any and all incidentals. CONTRACTOR shall provide receipt of documentation of proper disposal prior to payment.

**3.11 REMOVE TREE, HAUL OFF AND DISPOSAL, Bid Item No. 10**

- A. Measurement is per Each (EA).
- B. Payment covers complete cost of large wood debris removal, haul off, and disposal offsite. Work includes but is not limited to: BMPs, excavation, debris removal, cutting material; stockpiling material; dewatering material onsite; supplying equipment; loading; hauling; handling; disposal fees; and any and all incidentals. CONTRACTOR shall provide receipt of documentation of proper disposal prior to payment.

**3.12 GENERAL EXCAVATION AND STOCKPILING, Bid Item No. 11, 29**

- A. Measurement is per Cubic Yard (CY) of excavated material.
- B. Payment covers complete cost of salvage, excavation, stockpiling, handling, sorting, stabilizing or incidental redistribution onsite of existing clean unclassified materials. Includes hauling to a designated onsite stockpiling area and all incidental work or materials. Includes BMPs, care of water, handling of suitable materials for reuse including sorting and stockpiling and any other incidentals. CONTRACTOR is responsible for identifying and protecting in place existing utilities. Any cost associated with temporary outages or repairing utility, as determined by OWNER, shall be wholly the responsibility of the CONTRACTOR.

**3.13 BACKFILL OF ALLUVIUM, Bid Item No. 12**

- A. Measurement is per Cubic Yard (CY) of excavated material.
- B. Payment covers complete cost of backfill of native alluvium to the depth specified in the Project Drawings. Includes BMPs, care of water, handling of suitable materials for reuse including sorting and stockpiling and any other incidentals. CONTRACTOR is responsible for identifying and protecting in place existing utilities. Any cost associated with temporary outages or repairing utility, as determined by OWNER, shall be wholly the responsibility of the CONTRACTOR.

**3.14 HAUL OFF AND DISPOSAL OF ALLUVIAL MATERIAL, Bid Item No. 13, 30**

- A. Measurement is per Cubic Yard (CY) of excavated material.

- B. Payment covers complete cost of haul off and disposal of alluvial materials offsite. Work includes but is not limited to: BMPs, excavation, debris removal, sorting material; stockpiling material; dewatering material onsite; supplying equipment; loading; hauling; handling; disposal fees; and any and all incidentals. CONTRACTOR shall provide receipt of documentation of proper disposal prior to payment.

### **3.15 FURNISH AND INSTALL RIPRAP, Bid Item No. 14**

- A. Measurement is per Cubic Yard (CY) of excavated material.
- B. Payment covers complete cost of furnishing and installation of riprap as shown in the Project Drawings and described in the technical specifications. Cost includes all labor, equipment, and materials required to complete the work. Work includes sorting material to specified gradation and installation of sorted material where identified. Work includes stockpiling, handling, work area isolation (as required), installation, and compaction. Excess, poor quality or rejected riprap material delivered to the site will be removed at the CONTRACTOR's expense.

### **3.16 FURNISH BOULDER, Bid Item No. 15, 31**

- A. Measurement is per Ton (TON) of furnished boulders per certified scale tickets.
- B. Payment covers complete cost of furnishing boulder as shown in the Project Drawings and described in the technical specifications. Boulder structures pertaining to this item includes boulder toe bank treatment, boulder vanes, and boulder terraces. Work includes all equipment, materials and labor required to purchase boulder, deliver boulder, stockpile boulder, sort boulder and dispose of excess boulder. Payment for this line item will only cover boulder installed at the site per the Project Drawings and the ENGINEER'S direction. Excess, poor quality or rejected boulder delivered to the site will be at the CONTRACTOR's expense. Furnishing and aggregate bedding/backing as shown in plans is considered incidental to the work.

### **3.17 HARVEST EXISTING ONSITE BOULDERS, Bid Item No. 16**

- A. Measurement is per Ton (TON) of harvested boulders.
- B. Payment covers complete cost of harvesting and stockpile existing onsite boulder as shown in the Project Drawings and described in the technical specifications. This boulder will be reused for the project's proposed boulder structures. Boulder structures pertaining to this item includes boulder toe bank treatment, boulder vanes, and boulder terraces. Work includes all equipment, materials, labor, and incidentals required to retrieve and stockpile boulder from the site, including care of water and erosion and sediment control.. Payment for this line item will only cover boulder installed at the site per the Project Drawings and the ENGINEER'S direction. Excess, poor quality or rejected boulder delivered to the site will be at the CONTRACTOR's expense.

### **3.18 INSTALL BOULDER, Bid Item No. 17, 32**

- A. Measurement is per Ton (TON) installed boulders per certified scale tickets.
- B. Payment covers complete cost of placement of existing or imported boulder in structures

with furnished or stockpiled boulder as shown in the Project Drawings and described in the technical specifications. Boulder structures pertaining to this item includes buried boulder toe bank treatment, rock barbs, and boulder terraces. Work includes all equipment, materials and labor required to sort boulder, and place and adjust boulder. Payment for this line item will only cover boulder installed at the site per the Project Drawings and the ENGINEER'S direction. Excess, poor quality or rejected boulder delivered to the site will be at the CONTRACTOR's expense. Furnishing and aggregate bedding/backing as shown in plans is considered incidental to the work.

**3.19 EROSION CONTROL BLANKET, Bid Item No. 18, 46**

- A. Measurement is per square yard (SY) of installed erosion control blanket surface (including landscaping stakes). Embedded lengths of erosion control fabrics, vertical faces, and overlapped fabric shall not be measured for payment.
- B. Payment covers the complete cost of installing erosion control blankets. Work includes providing all necessary good quality materials; labor; excavation; installation; and any and all incidentals such as key downs at edges and stakes; differing fabrics and installations for appropriate application.

**3.20 NON-WOVEN FILTER FABRIC, Bid Item No. 19, 39**

- A. Measurement is per square yard (SY) of installed non-woven filter fabric installed between undisturbed subgrade and untreated base course and boulders. Embedded lengths of fabrics, vertical faces, and overlapped fabric shall not be measured for payment.
- B. Payment covers the complete cost of installing non-woven filter fabric as shown in the Project Drawings and described in the technical specifications. Work includes providing all necessary good quality materials; furnishing and installing gravel bedding; labor; fasteners; excavation; installation per manufacturers recommendations; and any and all incidentals such as overlap and tucking into ground; storing and protecting fabric from tears; or damage replacement throughout construction.

**3.21 FURNISH AND INSTALL TOPSOIL, Bid Item No. 20, 40**

- A. Measurement is per Cubic Yard (CY) of furnished and installed topsoil.
- B. Payment covers complete cost of furnishing, stockpiling, and installing topsoil to extents and depths shown in Project Drawings and described in the technical specifications. Work includes but is not limited to: BMPs; erosion and sediment control; excavation; loading, hauling, handling and stockpiling material; placement of all materials; and any and all incidentals. Includes all equipment, labor, materials and incidentals needed to complete the work.

**3.22 PLANTING ZONE A SEED MIX, Bid Item No. 21, 42**

- A. Measurement is per Acre (ACRE) of seeded area as measured in place.
- B. Payment covers the complete cost of furnishing and installing Planting Zone A Seed Mix as shown in the Project Drawings and described in the technical specifications. Work



includes: BMPs; loading, hauling, handling and stockpiling material; supplying equipment; seeding (drilling or raking); special guarantees; any and all incidentals such as initial watering. Includes all equipment, labor, materials and incidentals needed to complete the work.

**3.23 PLANTING ZONE B SEED MIX, Bid Item No. 22**

- A. Measurement is per Acre (ACRE) of seeded area as measured in place.
- B. Payment covers the complete cost of furnishing and installing Planting Zone B Seed Mix as shown in the Project Drawings and described in the technical specifications. Work includes: BMPs; loading, hauling, handling and stockpiling material; supplying equipment; seeding (drilling or raking); special guarantees; any and all incidentals such as initial watering. Includes all equipment, labor, materials and incidentals needed to complete the work.

**3.24 HYDROMULCH, Bid Item No. 23, 43**

- A. Measurement is per Acre (ACRE) of seeded area as measured in place.
- B. Payment covers the complete cost of furnishing and installing hydromulch with the Type 1 Riparian Seed Mix as shown in the Project Drawings and described in the technical specifications. Work includes: BMPs; loading, hauling, handling and stockpiling material; supplying equipment; spreading, raking, tackifier, and fertilizer; special guarantees; any and all incidentals such as initial watering. Includes all equipment, labor, materials, and incidentals needed to complete the work.

**3.25 CONTAINERIZED 1-GALLON WILLOW, Bid Item No. 24, 45**

- A. Measurement is per Each (EA) containerized 1-gallon willow installed.
- B. Payment covers the complete cost of furnishing and installing containerized 1-gallon willow as shown on the plans. Work includes: BMPs; harvesting, loading, hauling, handling and stockpiling material; supplying equipment; over-excavation; backfill; planting; fertilizing; final grading; mulching; special guarantees; any and all incidentals such as providing water for establishment. Includes all equipment, labor, materials and incidentals needed to complete the work.

**3.26 CONTAINERIZED 1-GALLON DOGWOOD, Bid Item No. 25**

- A. Measurement is per Each (EA) containerized 1-gallon dogwood installed.
- B. Payment covers the complete cost of furnishing and installing containerized 1-gallon willow as shown on the plans. Work includes: BMPs; harvesting, loading, hauling, handling and stockpiling material; supplying equipment; over-excavation; backfill; planting; fertilizing; final grading; mulching; special guarantees; any and all incidentals such as providing water for establishment. Includes all equipment, labor, materials and incidentals needed to complete the work.

**3.27 LIVE WILLOW FASCINE, Bid Item No. 26**

- A. Measurement is per Linear Foot (LF) of live willow fascine installed.
- B. Payment covers the complete cost of furnishing and installing live willow fascines as shown on the plans. Work includes: BMPs; harvesting, loading, hauling, handling and stockpiling material; supplying equipment; over-excavation; backfill; planting; staking, fertilizing; final grading; mulching; special guarantees; any and all incidentals such as providing water for establishment. Includes all equipment, labor, materials and incidentals needed to complete the work.

### **3.28 LIVE DORMANT WILLOW STAKING, Bid Item No. 27, 44**

- A. Measurement is per Each (EA) live dormant willow stake installed.
- B. Payment covers the complete cost of furnishing and installing live dormant willow staking as shown on the plans. Work includes: BMPs; harvesting, loading, hauling, handling and stockpiling material; supplying equipment; over-excavation; backfill; planting; staking, fertilizing; final grading; mulching; special guarantees; any and all incidentals such as providing water for establishment. Includes all equipment, labor, materials and incidentals needed to complete the work.

### **3.29 LIVE DORMANT DOGWOOD STAKING, Bid Item No. 28**

- A. Measurement is per Each (EA) live dormant willow stake installed.
- B. Payment covers the complete cost of furnishing and installing live dormant willow staking as shown on the plans. Work includes: BMPs; harvesting, loading, hauling, handling and stockpiling material; supplying equipment; over-excavation; backfill; planting; staking, fertilizing; final grading; mulching; special guarantees; any and all incidentals such as providing water for establishment. Includes all equipment, labor, materials and incidentals needed to complete the work.

### **3.30 FURNISH AND INSTALL SLABSTONE STEPS, Bid Item No. 33**

- A. Measurement is per Ton (TON) of slabstone per certified scale ticket.
- B. Payment covers complete cost of furnishing and installing slabstone steps as shown in the Project Drawings and described in the technical specifications. Work includes all equipment, materials and labor required to purchase slabstone, deliver slabstone, stockpile slabstone, and installing slabstone steps. Payment for this line item will only cover slabstone installed at the site per the Project Drawings and the ENGINEER'S direction. Excess, poor quality or rejected slabstone delivered to the site will be at the CONTRACTOR's expense. Overlap of steps is considered incidental to the work. Furnishing and aggregate bedding/backing as shown in plans is considered incidental to the work.

### **3.31 FURNISH AND INSTALL FLAGSTONE PATH, Bid Item No. 34**

- A. Measurement is per Ton (TON) of flagstone per certified scale ticket.
- B. Payment covers complete cost of furnishing and installing flagstone path as shown in the Project Drawings and described in the technical specifications. Work includes all

equipment, materials and labor required to purchase flagstone, deliver flagstone, stockpile flagstone, and installing flagstone path. Payment for this line item will only cover flagstone path installed at the site per the Project Drawings and the ENGINEER'S direction. Excess, poor quality or rejected flagstone delivered to the site will be at the CONTRACTOR's expense. Furnishing and aggregate bedding/backing and compaction as shown in plans is considered incidental to the work.

### **3.32 COMPACTED STRUCTURAL BACKFILL, Bid Item No. 35**

- A. Measurement per Cubic Yard (CY) of compacted structural backfill.
- B. Payment covers complete cost of furnishing, delivering, placing, and compacting structural backfill as shown on the Project Drawings and described in the technical specifications. Work includes but is not limited to all equipment, materials, labor and incidentals associated with: BMPs; care of water, vegetation clearing; loading, hauling, handling and stockpiling material; placement of material. Cost includes all labor, equipment and materials required to complete the work.

### **3.33 FURNISH AND INSTALL ALLUVIUM/COBBLE, Bid Item No. 36, 37, 38**

- A. Measurement per Cubic Yard (CY) of alluvium/cobble installed.
- B. Payment covers complete cost of furnishing, delivering, excavating, and placing alluvial cobble as shown on the Project Drawings and described in the technical specifications. Work includes but is not limited to all equipment, materials, labor and incidentals associated with: BMPs; care of water, vegetation clearing; loading, hauling, handling and stockpiling material; placement of material. Cost includes all labor, equipment and materials required to complete the work.

### **3.34 DRAINAGE MAT, Bid Item No. 41**

- A. Measurement is per square yard (SY) of installed drainage mat. Embedded lengths of erosion control fabrics, vertical faces, and overlapped matting shall not be measured for payment. Non-woven geotextile wrap on both sides of the drainage mat are included as incidental to this bid item.
- B. Payment covers the complete cost of installing drainage mat to the extents shown in the plans. Work includes providing all necessary good quality materials; labor; excavation; installation; and any and all incidentals such as key downs at edges and stakes; differing fabrics and installations for appropriate application. Non-woven geotextile wrap on both sides of the drainage map are included as incidental to this bid item.

### **3.35 WOOD SLAT FENCE, Bid Item No. 47**

- A. Measurement is per Linear Foot (LF) of wood slat fence installed.
- B. Payment covers the complete cost of furnishing and installing the wood slat fence as shown on the plans. Work includes: BMPs; loading, hauling, handling and stockpiling material; supplying equipment; special guarantees; any and all incidentals such as concrete and hardware. Includes all equipment, labor, materials and incidentals needed to

complete the work.

**3.36 HIGH FLOW CHANNEL: EXCAVATION, HAUL OFF AND DISPOSAL OF ALLUVIAL MATERIAL, Bid No. 48**

- A. Measurement is per Cubic Yard (CY) of excavated material.
- B. Payment covers complete cost of excavation, haul off and disposal of alluvial materials offsite. Work includes but is not limited to: BMPs, excavation, debris removal, sorting material; stockpiling material; dewatering material onsite; supplying equipment; loading; hauling; handling; disposal fees; and any and all incidentals. CONTRACTOR shall provide receipt of documentation of proper disposal prior to payment.

**3.37 FURNISH AND INSTALL COARSE ALLUVIUM, Bid No. 49**

- A. Measurement per Cubic Yard (CY) of coarse alluvium.
- B. Payment covers complete cost of furnishing, delivering, excavating, and placing alluvial cobble as shown on the Project Drawings and described in the technical specifications. Work includes but is not limited to all equipment, materials, labor and incidentals associated with: BMPs; care of water, vegetation clearing; loading, hauling, handling and stockpiling material; placement of material. Cost includes all labor, equipment and materials required to complete the work.

**3.38 UNION PACIFIC RAILROAD PERMIT / COORDINATION, Bid Item No. 50**

- A. Measurement is per Lump Sum (LS).
- B. Payment includes but is not limited to: \$1,000 Union Pacific permit fee.

SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
WEBER RIVER - OGDEN, UT  
SEPTEMBER 2024

BID SET

SHEET INDEX

SHEET NO.	SHEET TITLE
G01	COVER SHEET
G02	BASE MAP
G03	HORIZONTAL CONTROL PLAN
CW00	CARE OF WATER OVERVIEW AND NOTES
CW01	CARE OF WATER PHASE 1
CW02	CARE OF WATER PHASE 2
CW03	CARE OF WATER DETAILS
CW04	CARE OF WATER DETAILS
CW05	CARE OF WATER DETAILS
R00	PLAN VIEW
R01	SOUTH SERGE PLAN AND PROFILE VIEW
R02	SOUTH SERGE PROFILE AND SECTIONS
R03	SOUTH SERGE UPPER CHANNEL PLAN AND PROFILE VIEW
R04	HIGH FLOW CHANNEL PLAN AND PROFILE VIEW
R05	RIVER ACCESS PLAN VIEW
R06	RIVER ACCESS SECTIONS
R07	RIVER ACCESS SECTIONS
L01	SOUTH SERGE PLANTING PLAN
L02	RIVER ACCESS PLANTING PLAN
D01	BOULDER VANE DETAILS
D02	EROSION CONTROL BLANKET DETAILS
D03	HABITAT/EDDY BOULDERS DETAILS
D04	SOUTH SERGE BANK DETAILS
D05	PLANTING DETAILS
D06	PATH AND STEPS DETAILS
D07	RIVER ACCESS BOULDER TERRACE DETAILS
D08	SPLIT RAIL FENCE DETAILS

CONTACTS

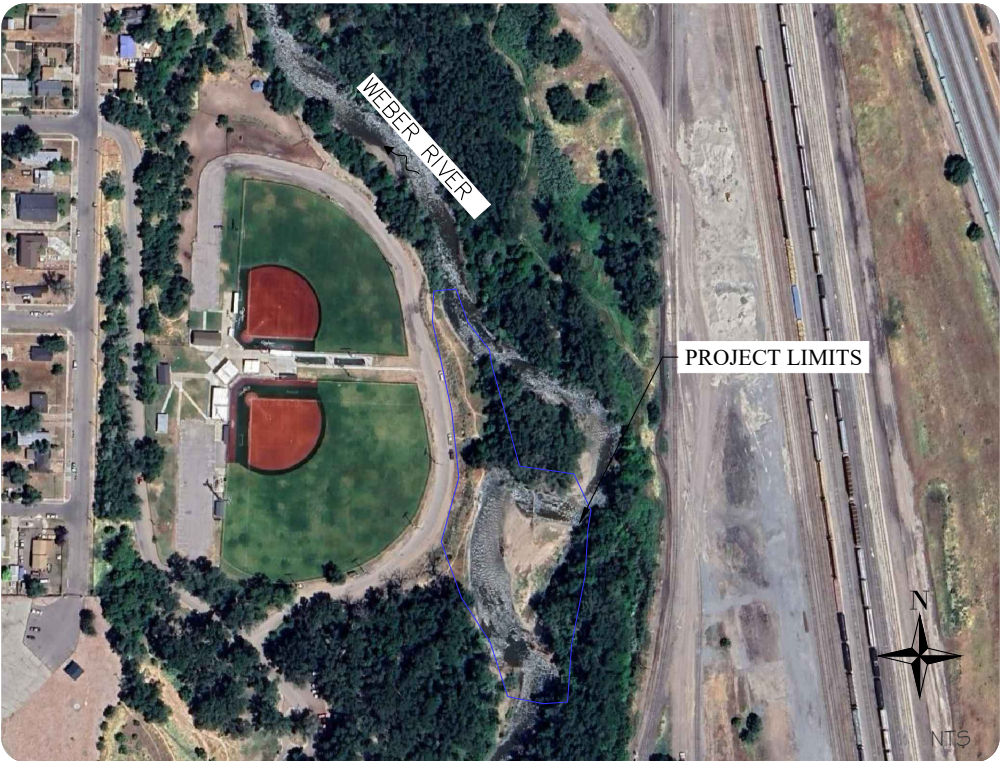
Mr. Phil Suiter  
Ogden City Corporation - Engineering  
Ogden City, UT  
(801) 629-8919

Mr. Quinn Donnelly, P.E.  
Project Manager  
RiverRestoration.org, LLC.  
(970) 947-9568

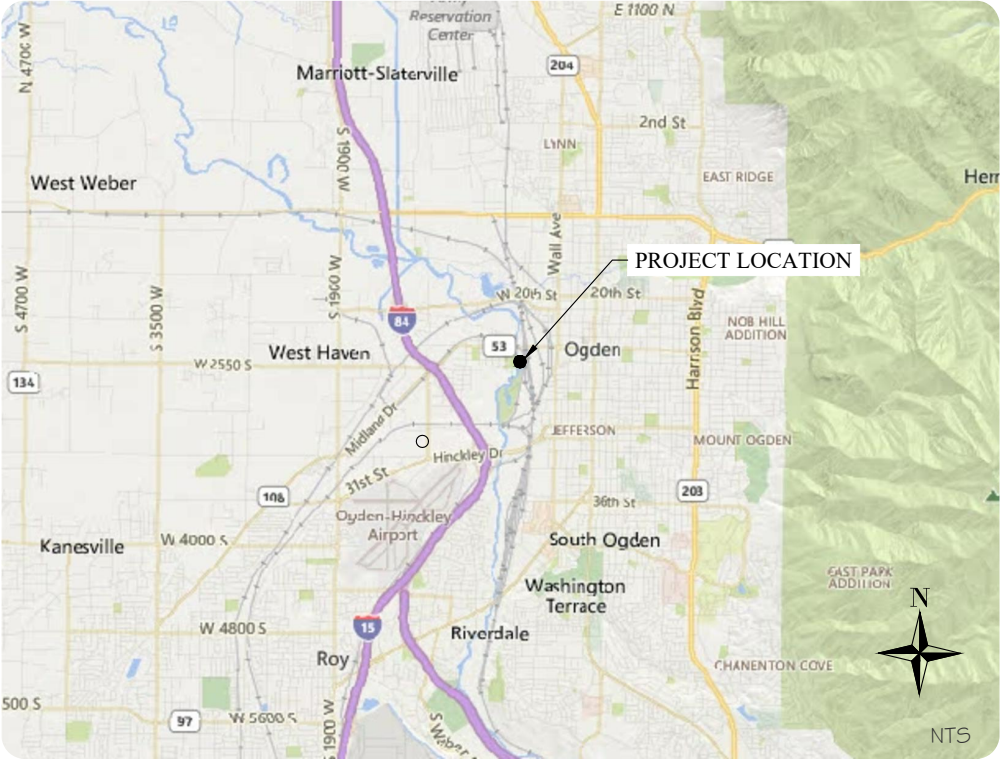
Mr. Russell Bair, P.E.  
Project Engineer  
RiverRestoration.org, LLC.  
(970) 628-3901

Ms. Lindsey Hayter, E.I.  
Lead Designer  
RiverRestoration.org, LLC.  
(970) 947-9568

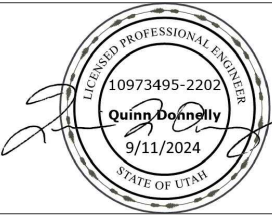
LOCATION MAP



VICINITY MAP



PROFESSIONAL ENGINEER STAMP



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
COVER SHEET

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS



RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

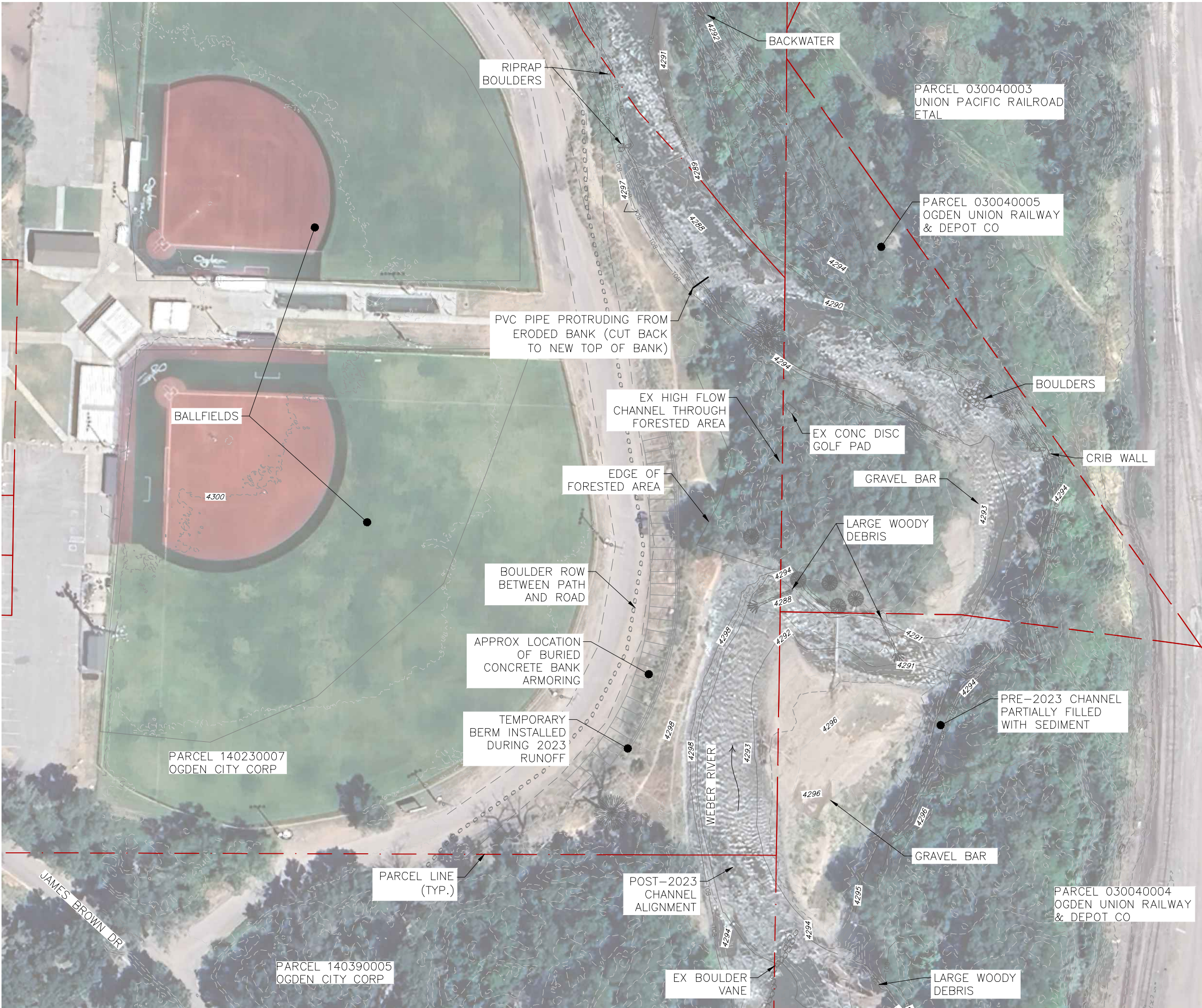
PROJECT NAME AND ADDRESS

Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	Sheet
45078	GO 1
Date SEPTEMBER 2024	
Scale NTS	

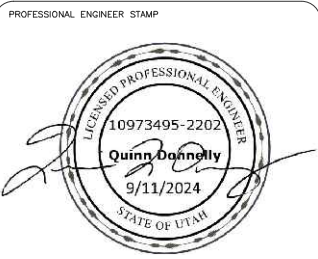
BID SET





HORIZONTAL DATUM:  
NORTH AMERICAN DATUM 1983  
(NAD83), UTAH STATE PLANE,  
NORTH ZONE, US FOOT

VERTICAL DATUM:  
NORTH AMERICAN VERTICAL  
DATUM 1988 (NAVD88)



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
BASE MAP

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



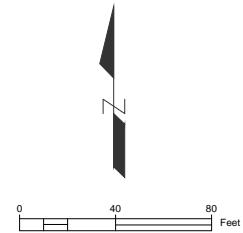
Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS



RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS	
Weber River Ogden, UT Serge Simmons Bank Repair and River Access Project	
Project	45078
Date	SEPTEMBER 2024
Scale	1" = 40' (FULL SIZE)
Sheet	G02



PLAN VIEW

BID SET





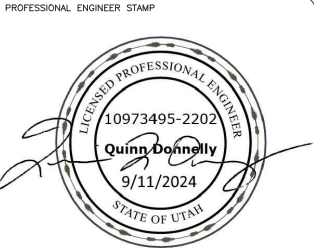
PLAN VIEW



TP2 MARK IN THE THE CONCRETE BETWEEN THE TWO BALLFIELDS

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	3604196.868	1505651.780	4331.62	CP01 – B&C
2	3604495.447	1506225.364	4298.18	TP2 Concrete Mark (Photo)
5	3604585.402	1506323.140	4297.88	CP05 Orange Cap
10	3603757.099	1503683.463	4372.57	CP Monument on West Side of F Ave
114	3605529.820	1506051.010	4299.81	WC–114 BRASS CAP

- NOTES:
- CP5 IS WITHIN THE PROJECT FOOTPRINT AND LIKELY TO BE DESTROYED ONCE CONSTRUCTION BEGINS.
  - TP2 MAY FADE OR DISAPPEAR WITH TIME. IT IS MARKED BOTH WITH A BLACK "X" AS WELL AS A DIMPLE IN THE CONCRETE.
  - ADDITIONAL CONTROL POINTS MAY NEED TO BE ESTABLISHED TO UTILIZE MACHINE CONTROLLED EQUIPMENT.



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
HORIZONTAL CONTROL PLAN

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS



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Carbondale, CO 81623  
www.RiverRestoration.org

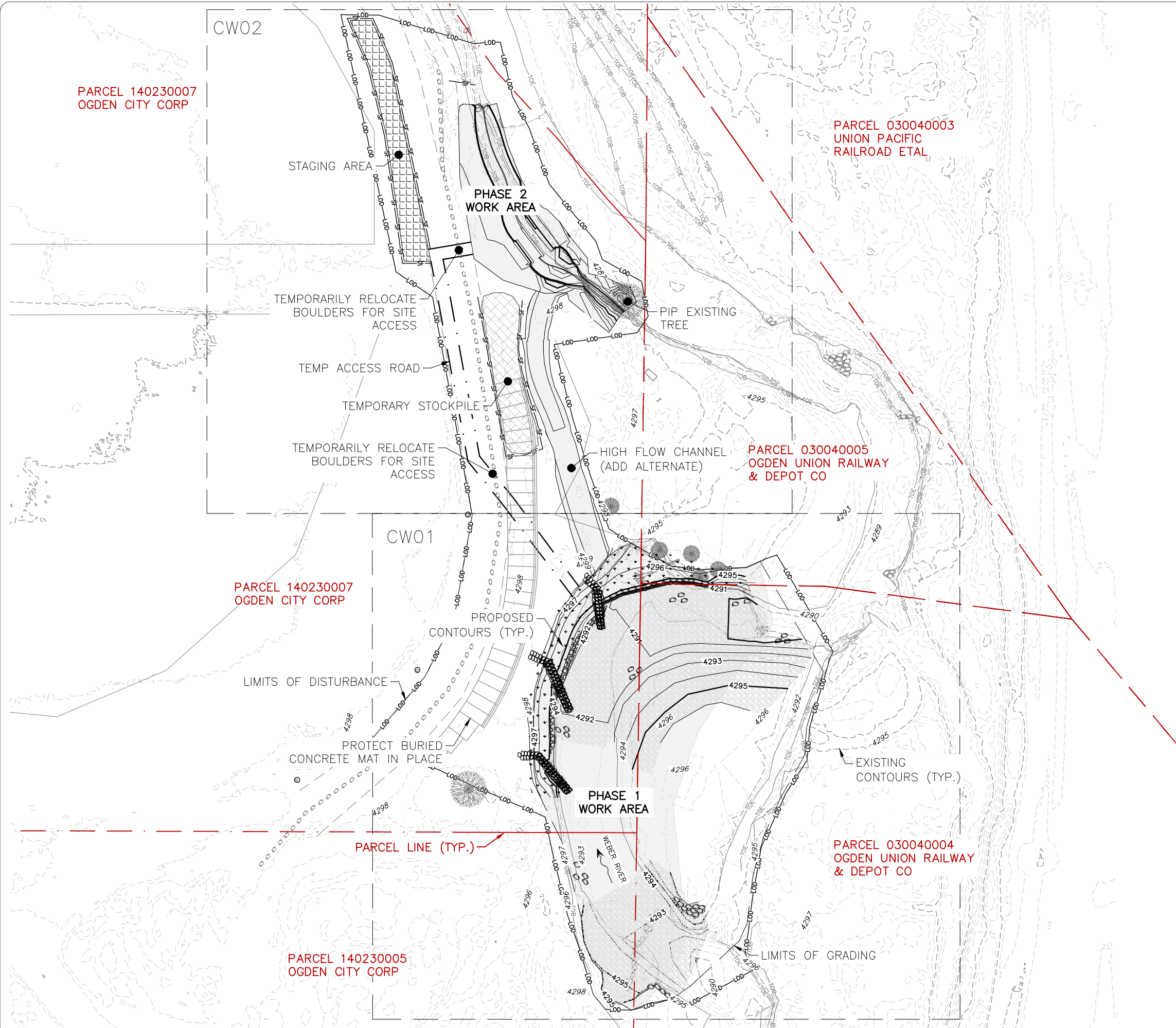
PROJECT NAME AND ADDRESS

Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	45078	Sheet	G03
Date	SEPTEMBER 2024		
Scale	1"= 150' (FULL SIZE)		

BID SET





CARE OF WATER NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND BEST MANAGEMENT PRACTICES (BMPs).
2. BMPs SHOWN ON THESE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPMENT OF STAGING AREAS, ACCESS, SELECTION OF BMPs, AND CARE OF WATER DURING CONSTRUCTION.
3. ISOLATION FROM THE RIVER MAY BE NEEDED DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION OF ISOLATION PLAN. SEE TECHNICAL SPECIFICATIONS FOR ANTICIPATED FLOW RATES AND WATER SURFACE ELEVATIONS (WSEs).

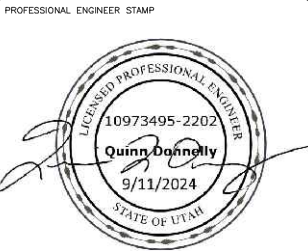
CARE OF WATER SEQUENCE:

PHASE 1

1. CHANNEL GRADING
2. LEFT BANK GRADING
3. BOULDER VANES
4. HIGH FLOW CHANNEL
5. CLEANUP TEMPORARY DIVERSION CHANNEL

PHASE 2

6. RIVER ACCESS GRADING



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
CARE OF WATER  
OVERVIEW AND NOTES


No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS

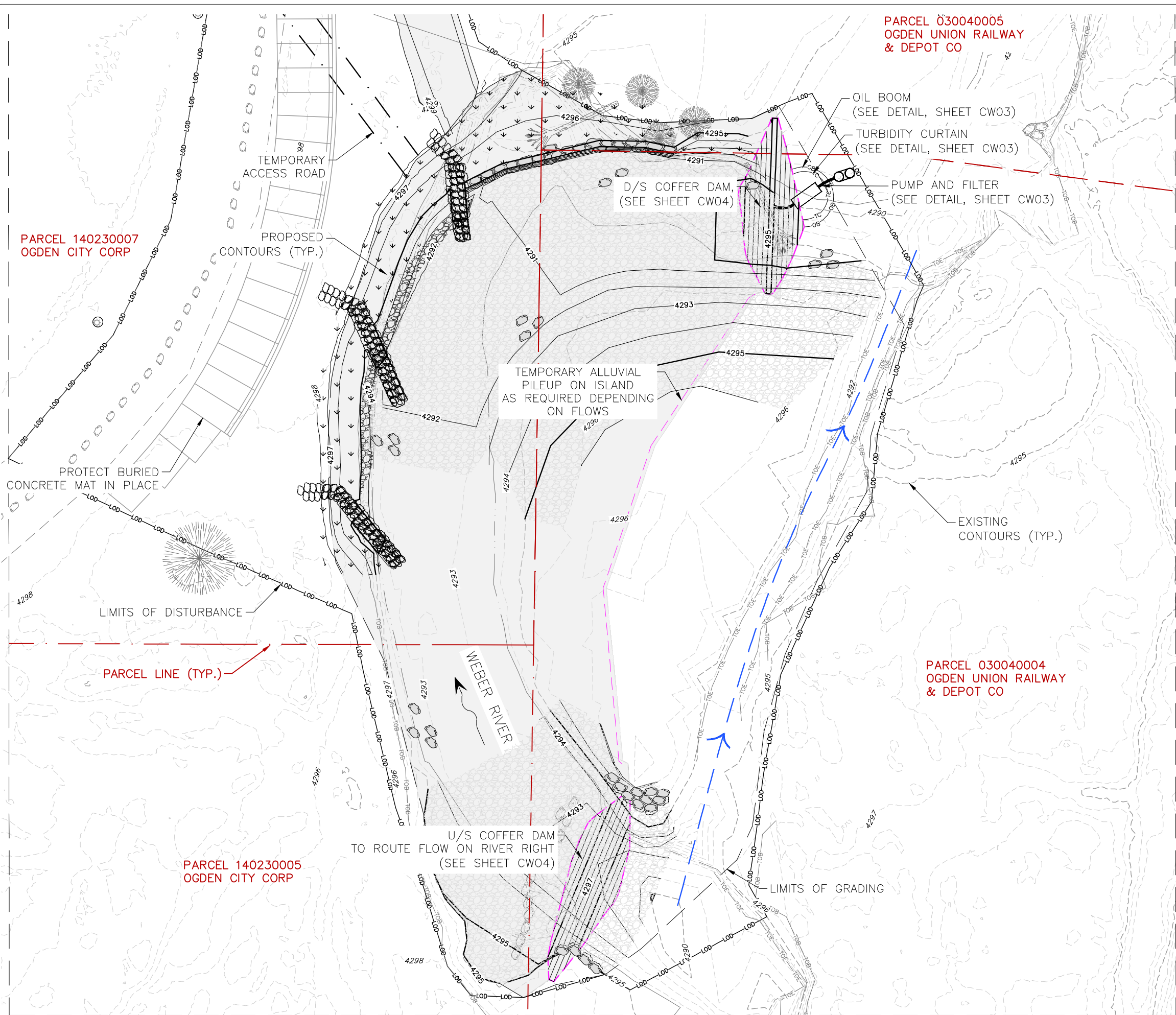


RiverRestoration  
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Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS	
Weber River Ogden, UT Serge Simmons Bank Repair and River Access Project	
Project	45078
Date	SEPTEMBER 2024
Scale	1" = 40' (FULL SIZE)
Sheet	CW00

BID SET





CARE OF WATER NOTES:

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SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
CARE OF WATER PHASE 1


No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

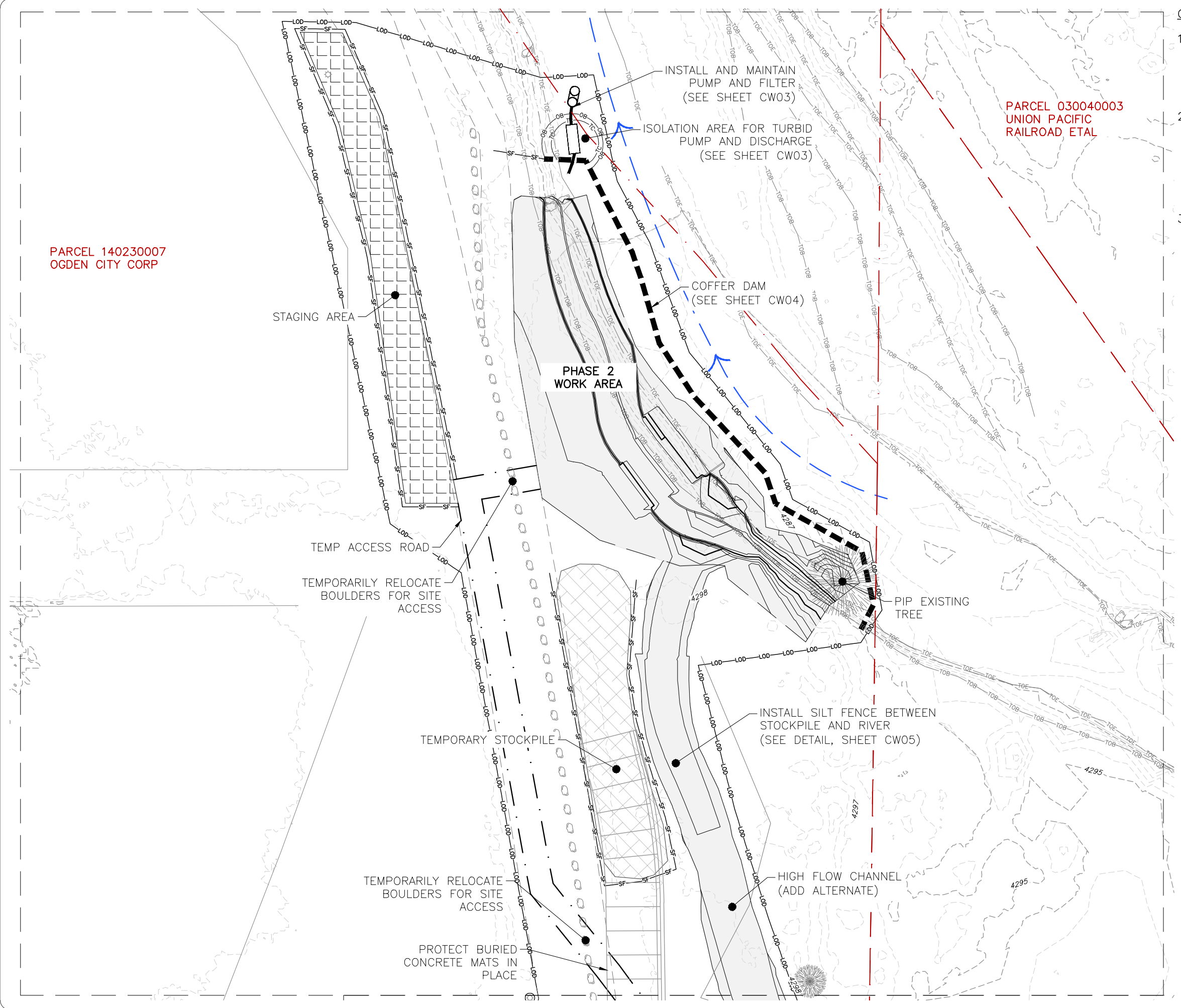
DESIGN FIRM NAME AND ADDRESS



RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS	
Weber River Ogden, UT Serge Simmons Bank Repair and River Access Project	
Project	45078
Date	SEPTEMBER 2024
Scale	1" = 20' (FULL SIZE)
Sheet	CW01

BID SET



CARE OF WATER NOTES:

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SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
CARE OF WATER PHASE 2


No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS

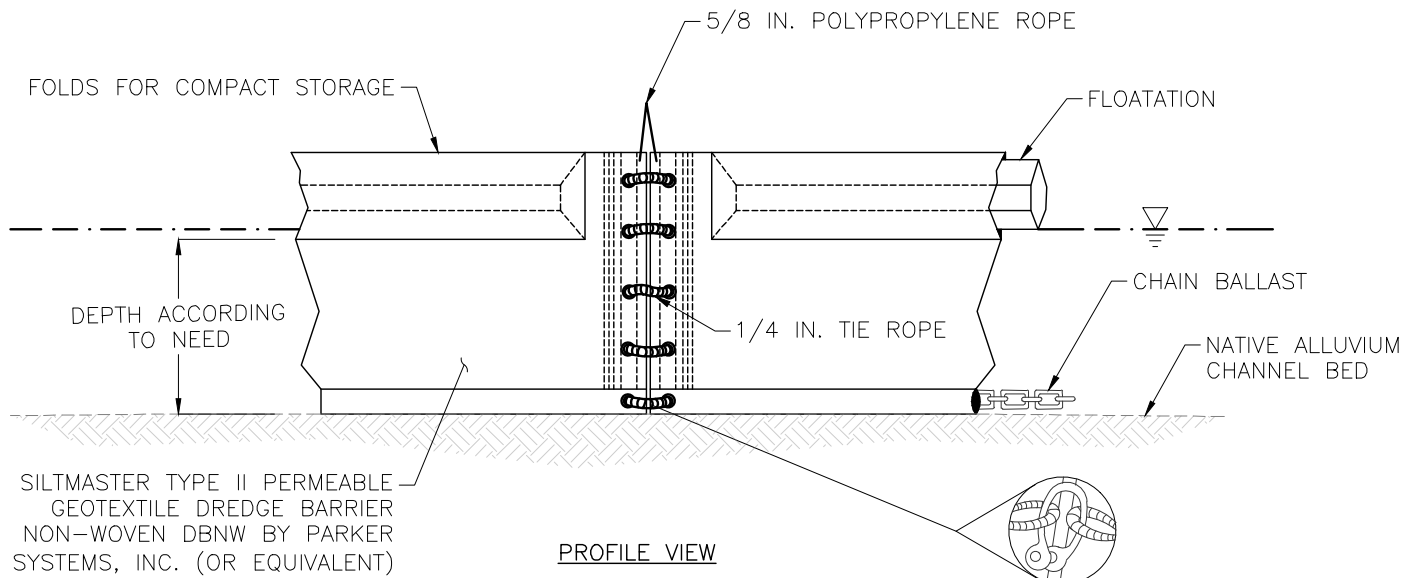
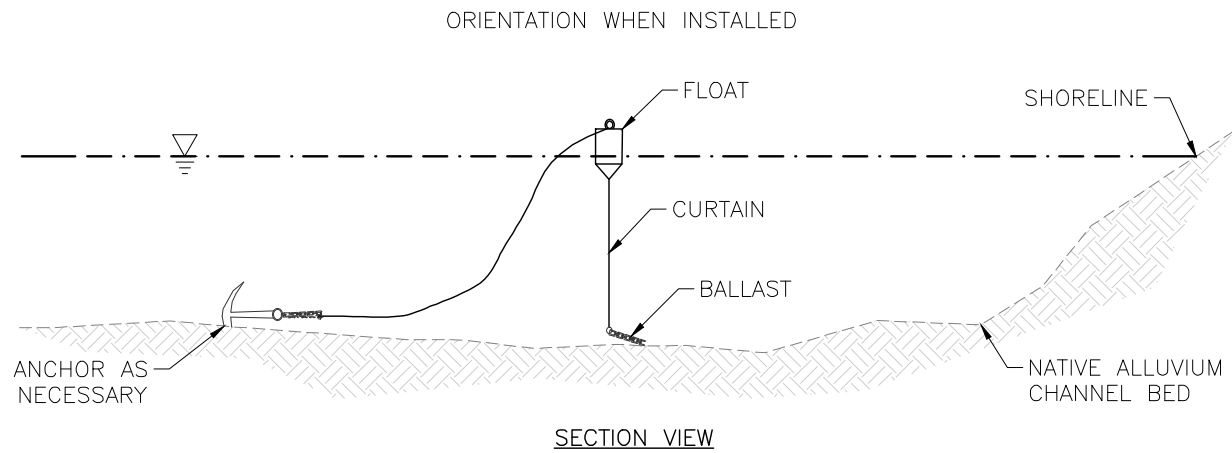


RiverRestoration  
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Carbondale, CO 81623  
www.RiverRestoration.org

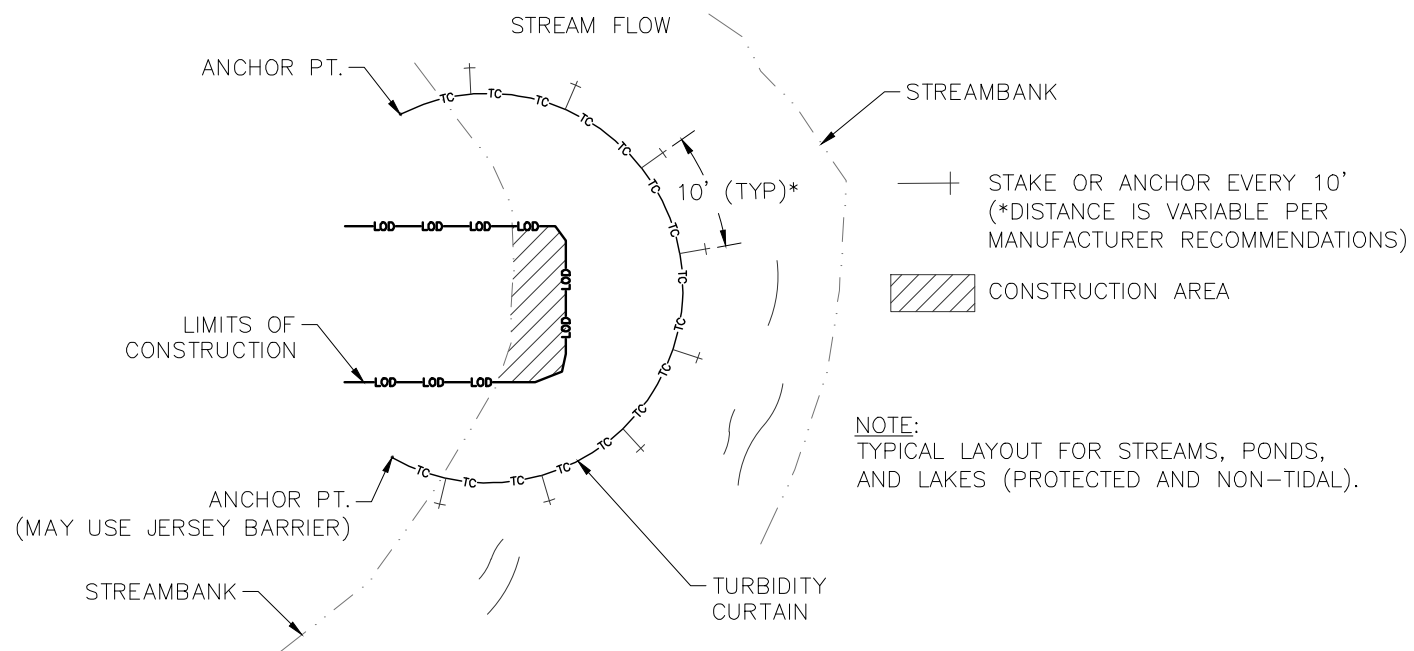
PROJECT NAME AND ADDRESS	
Weber River Ogden, UT Serge Simmons Bank Repair and River Access Project	
Project	45078
Date	SEPTEMBER 2024
Scale	1"=20' (FULL SIZE)
Sheet	CW02

BID SET

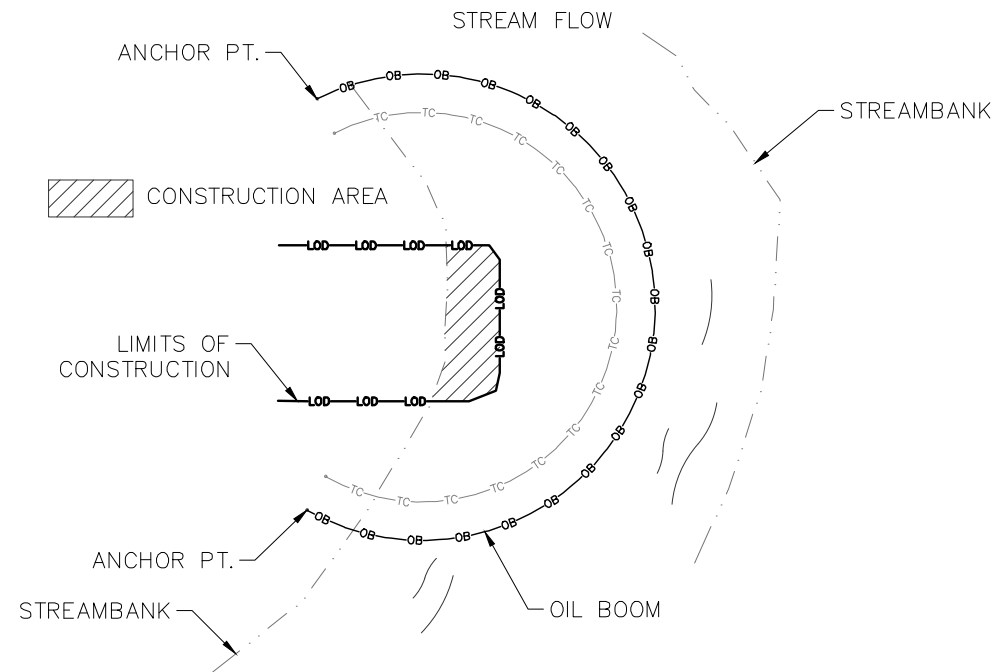




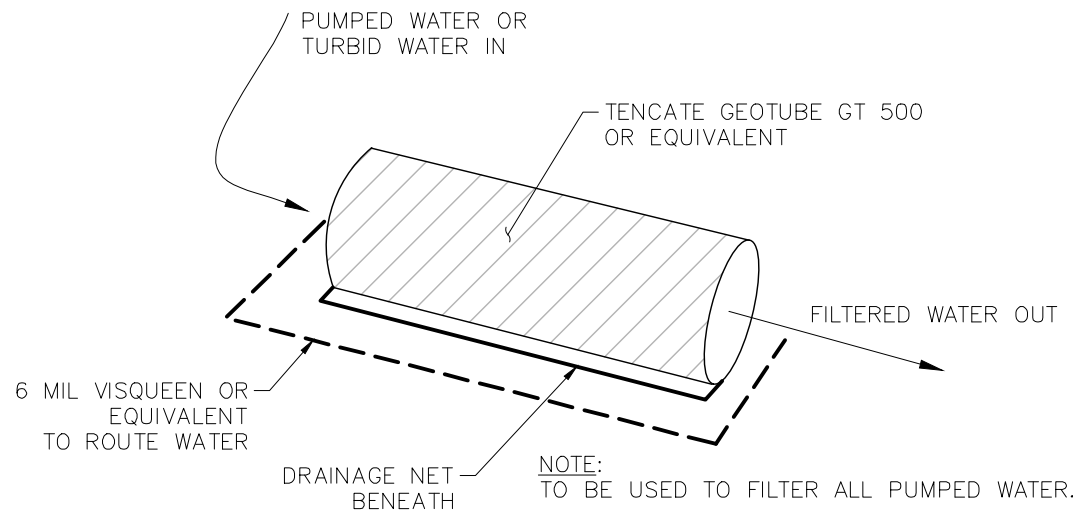
(BLOW-UP OF SHACKLE CONNECTION)



1 TURBIDITY CURTAIN (TYP)  
CW03 PLAN VIEW - NTS



2 OIL BOOM (TYP)  
CW03 PLAN VIEW - NTS



3 GEO-TUBE FILTER (TYP)  
CW03 NTS

PROFESSIONAL ENGINEER STAMP



# SERGE SIMMONS BANK REPAIR AND RIVER ACCESS PROJECT CARE OF WATER DETAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS



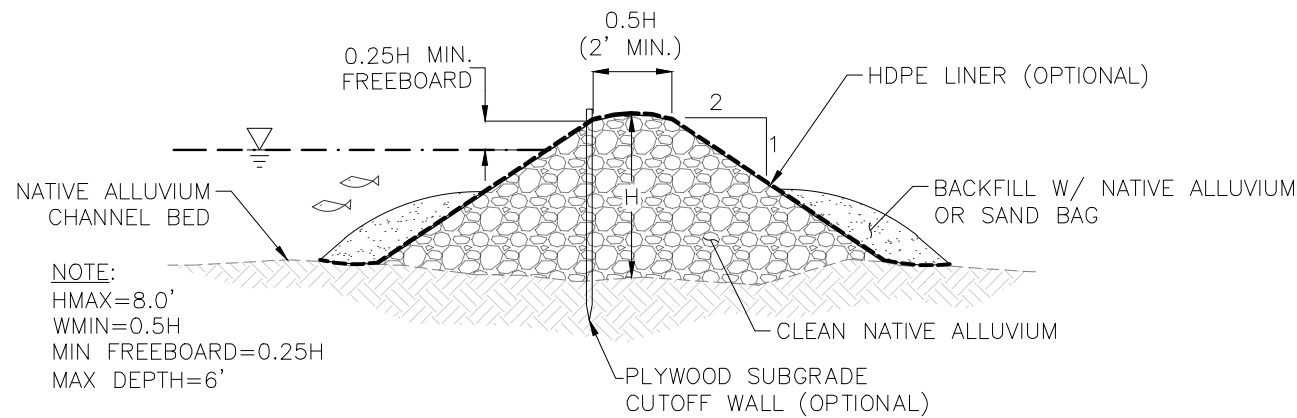
RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS

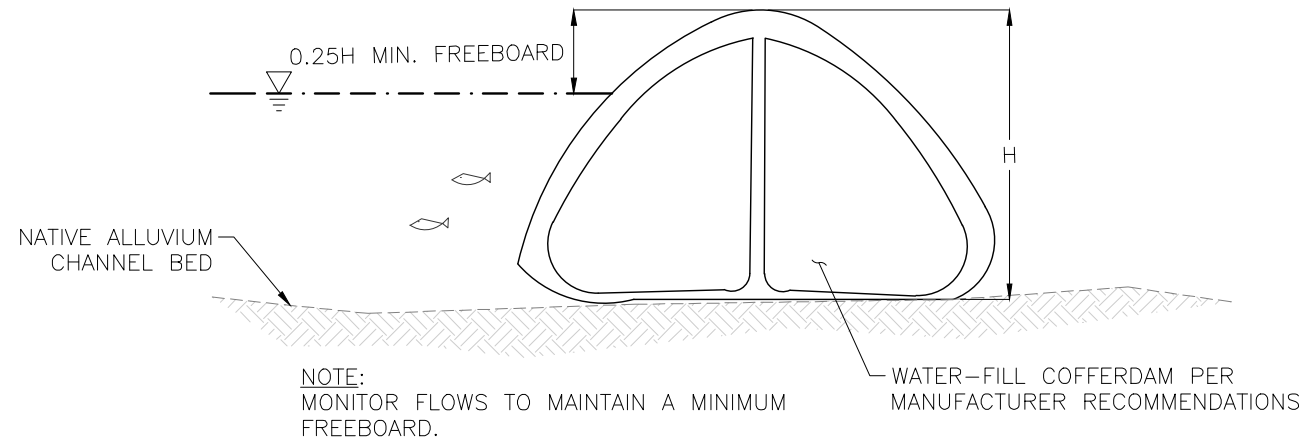
Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	Sheet
45078	CW03
Date	SEPTEMBER 2024
Scale	NTS

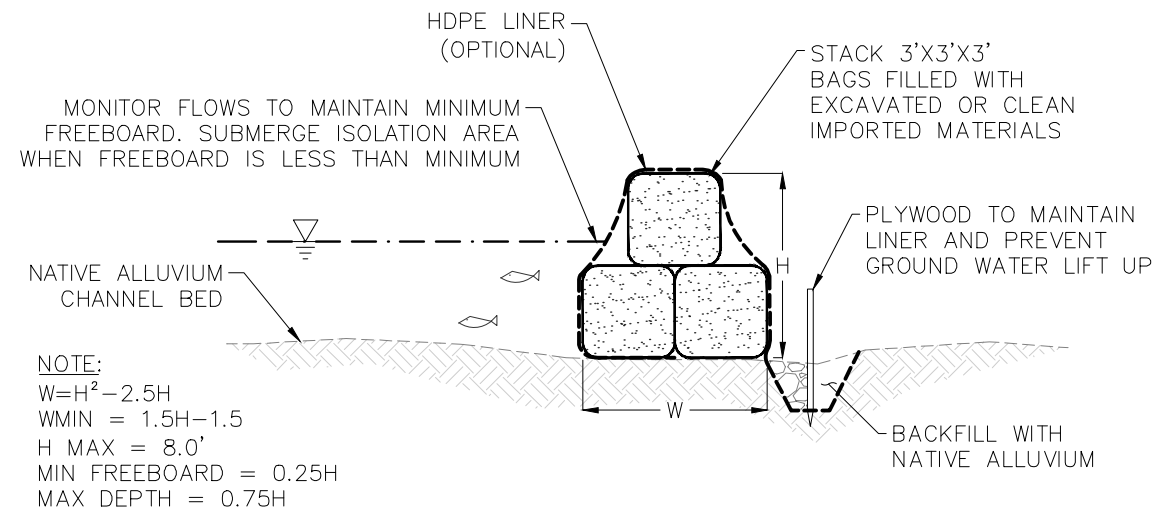
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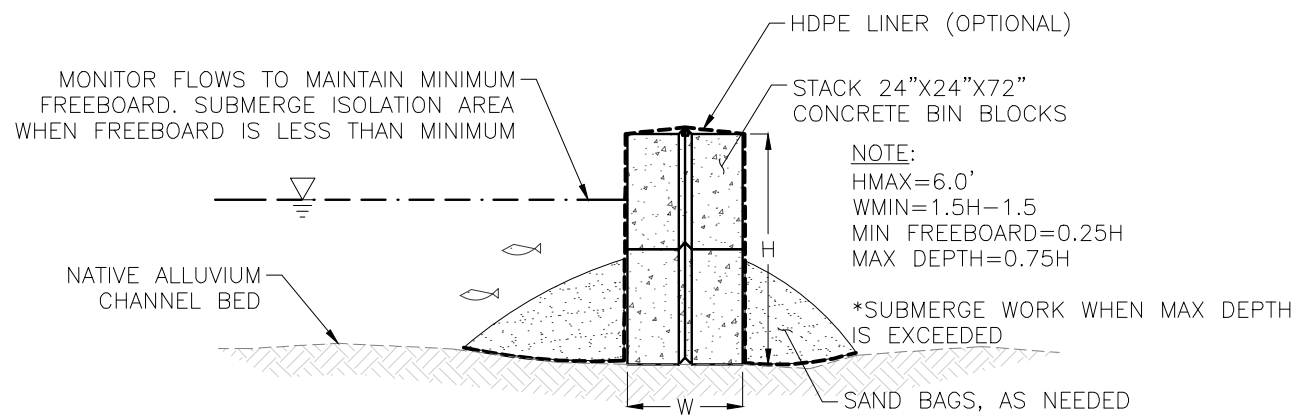
1 ALLUVIUM COFFERDAM (TYP)  
CW04 SECTION VIEW - NTS



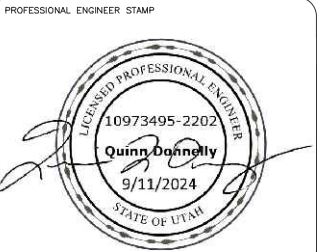
3 WATER-FILLED COFFERDAM (TYP)  
CW04 SECTION VIEW - NTS



2 AGGREGATE BAGS COFFERDAM (TYP)  
CW04 SECTION VIEW - NTS



4 CONCRETE BLOCK COFFERDAM (TYP)  
CW04 SECTION VIEW - NTS



# SERGE SIMMONS BANK REPAIR AND RIVER ACCESS PROJECT CARE OF WATER DETAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS



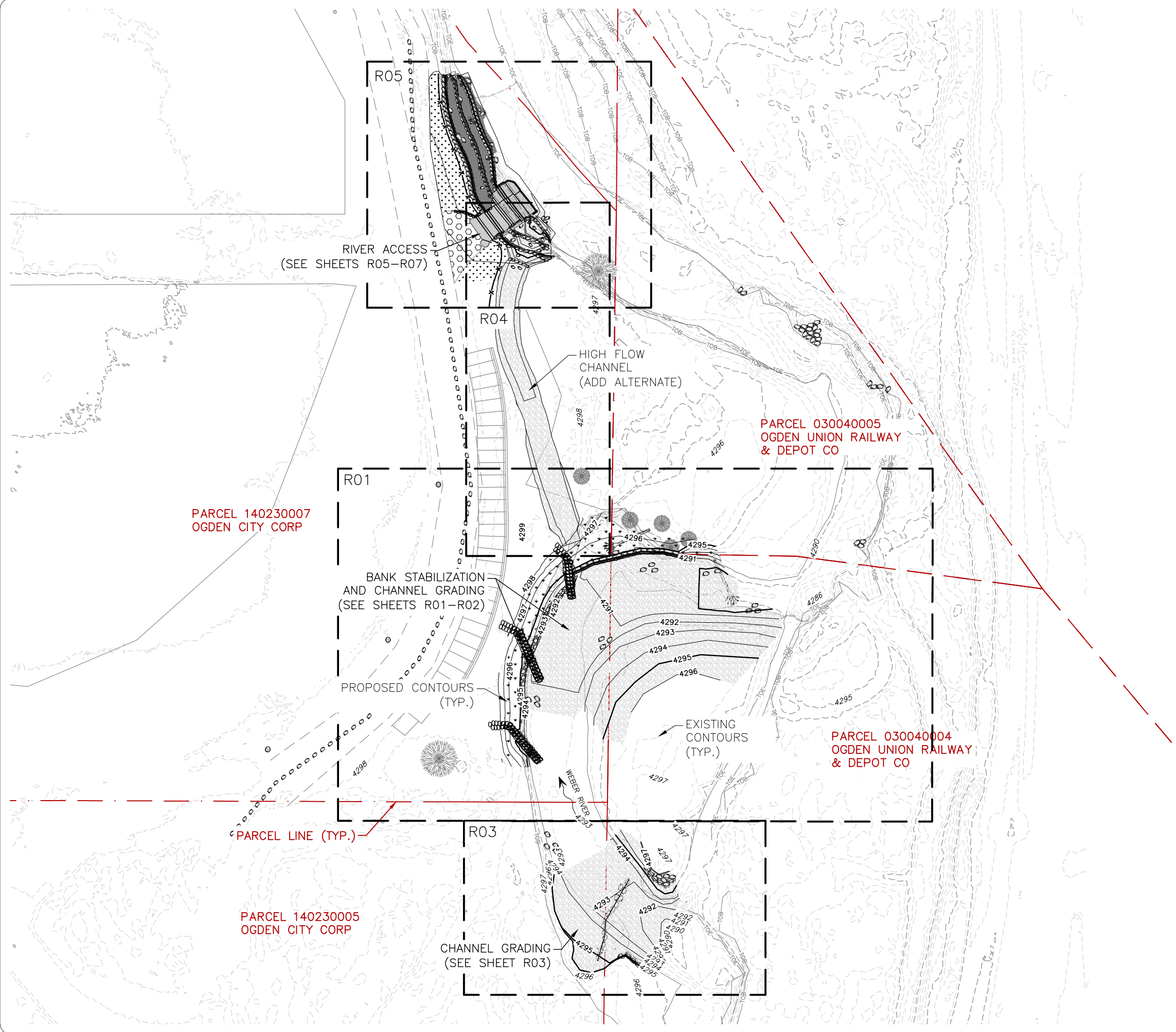
RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS	
Weber River Ogden, UT Serge Simmons Bank Repair and River Access Project	
Project	Sheet
45078	
Date	SEPTEMBER 2024
Scale	NTS
CW04	

BID SET

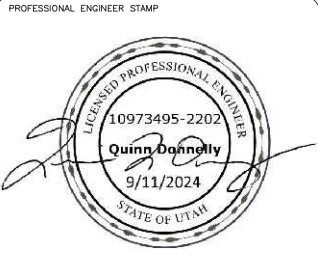






CONSTRUCTION NOTES:

1. SEE SHEET D01 FOR BOULDER VANE DETAILS.
2. SEE SHEETS D02, D04, & D05 FOR BANK STABILIZATION DETAILS.
3. SEE SHEET D03 FOR HABITAT BOULDER DETAILS.
4. SEE SHEETS D07-D10 FOR BANK ACCESS DETAILS.



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
PLAN VIEW

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS

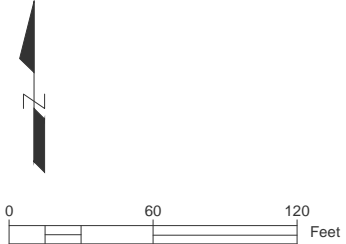


RiverRestoration  
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Carbondale, CO 81623  
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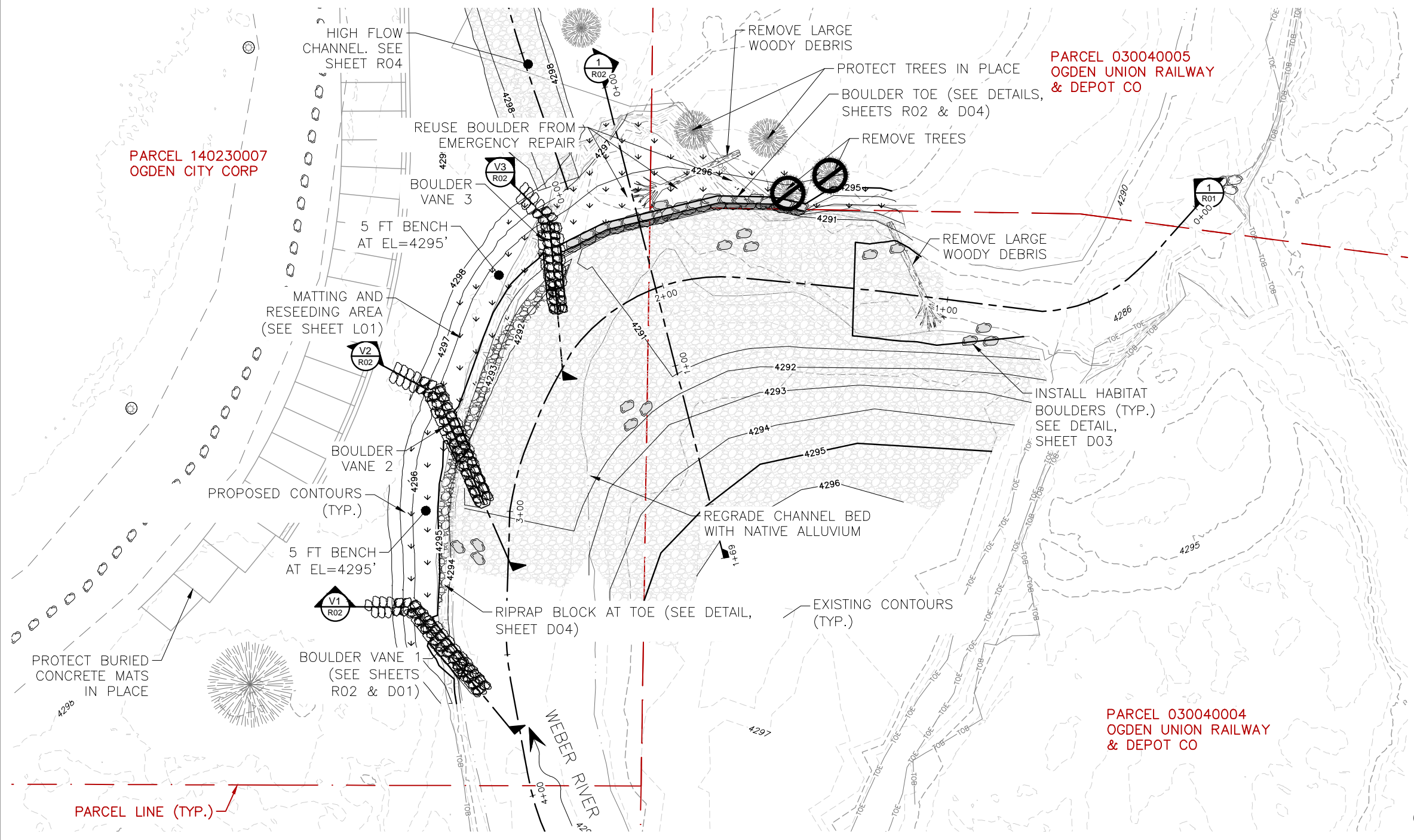
PROJECT NAME AND ADDRESS

Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	45078	Sheet	R00
Date	SEPTEMBER 2024		
Scale	1"=40' (FULL SIZE)		



BID SET



- CONSTRUCTION NOTES:
1. SEE SHEET D01 FOR BOULDER VANE DETAILS.
  2. SEE SHEETS D02, D04, AND D05 FOR BANK STABILIZATION DETAILS.
  3. SEE SHEET D03 FOR HABITAT BOULDER DETAILS.



# SERGE SIMMONS BANK REPAIR AND RIVER ACCESS PROJECT SOUTH SERGE PLAN AND PROFILE VIEW

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS

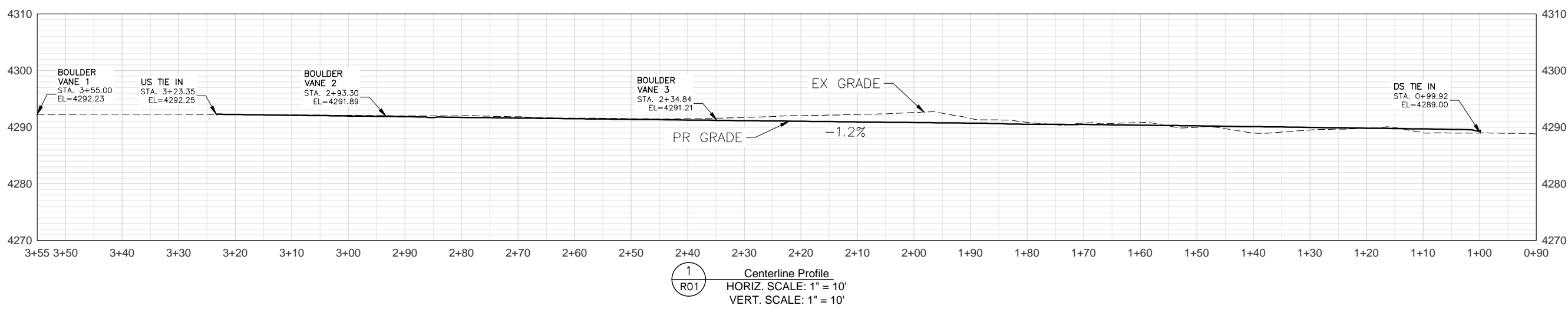


RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS

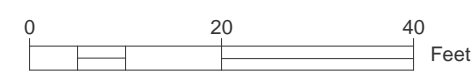
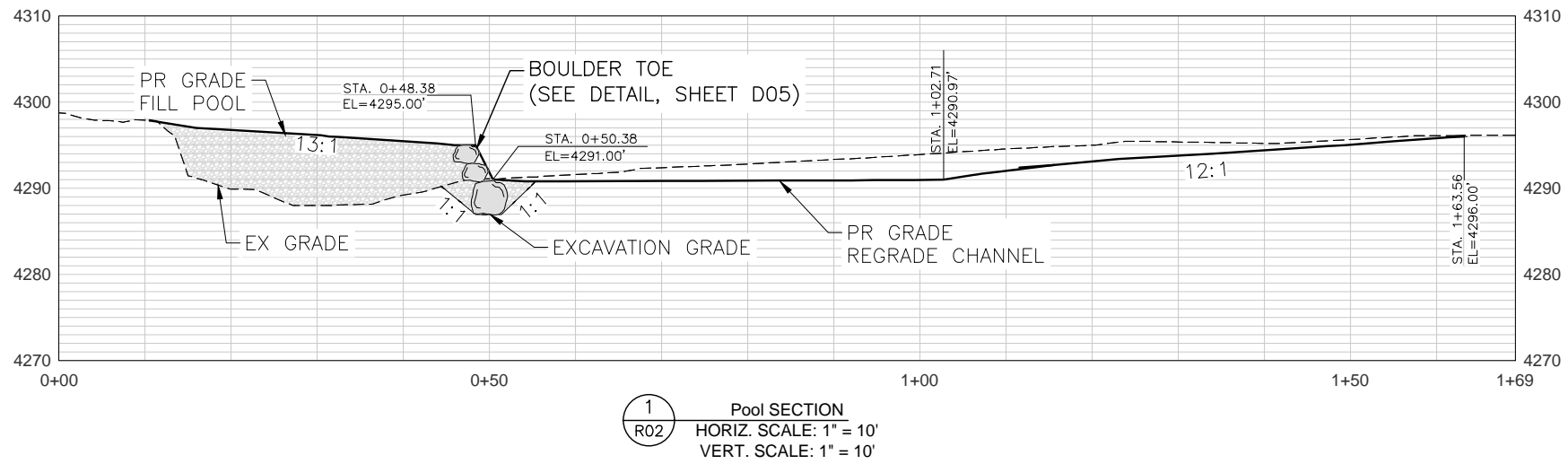
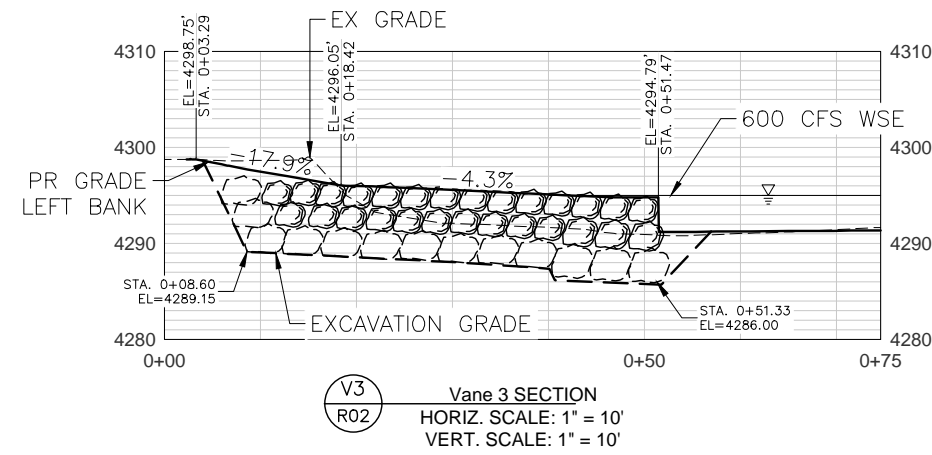
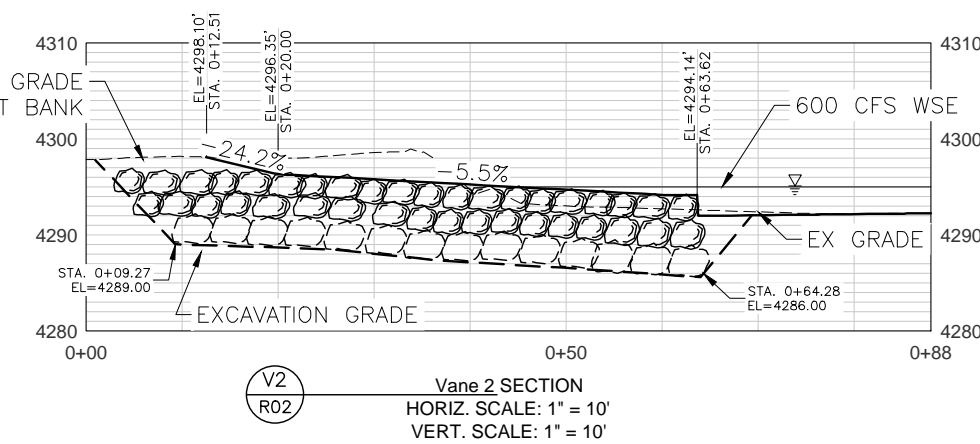
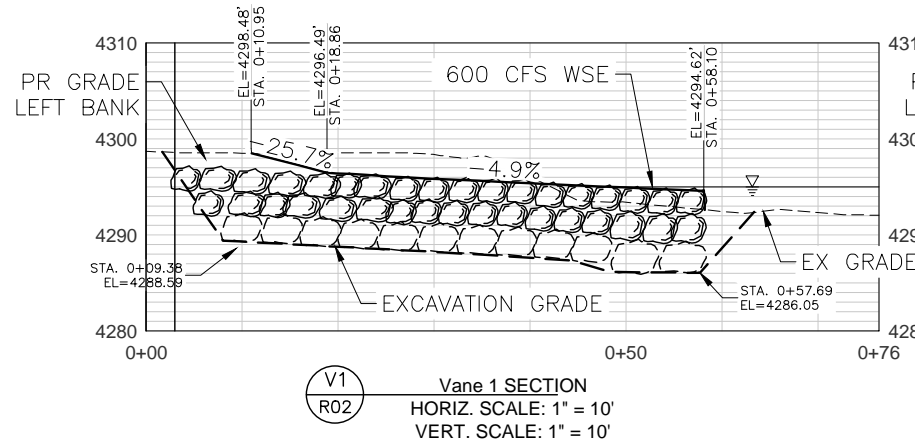
Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	45078	Sheet
Date	SEPTEMBER 2024	R01
Scale	1"=20' (FULL SIZE)	



BID SET






SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
SOUTH SERGE PROFILE  
AND SECTIONS


No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS



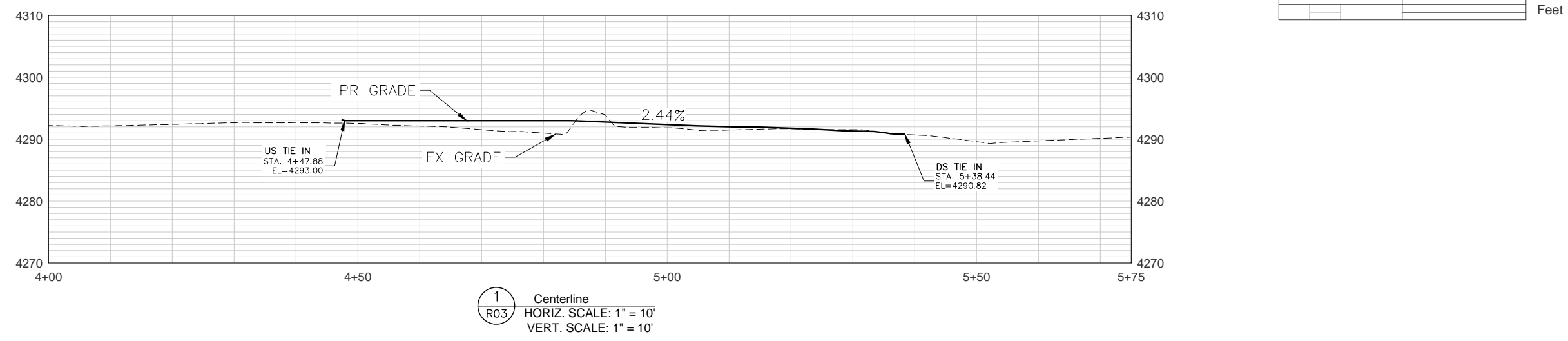
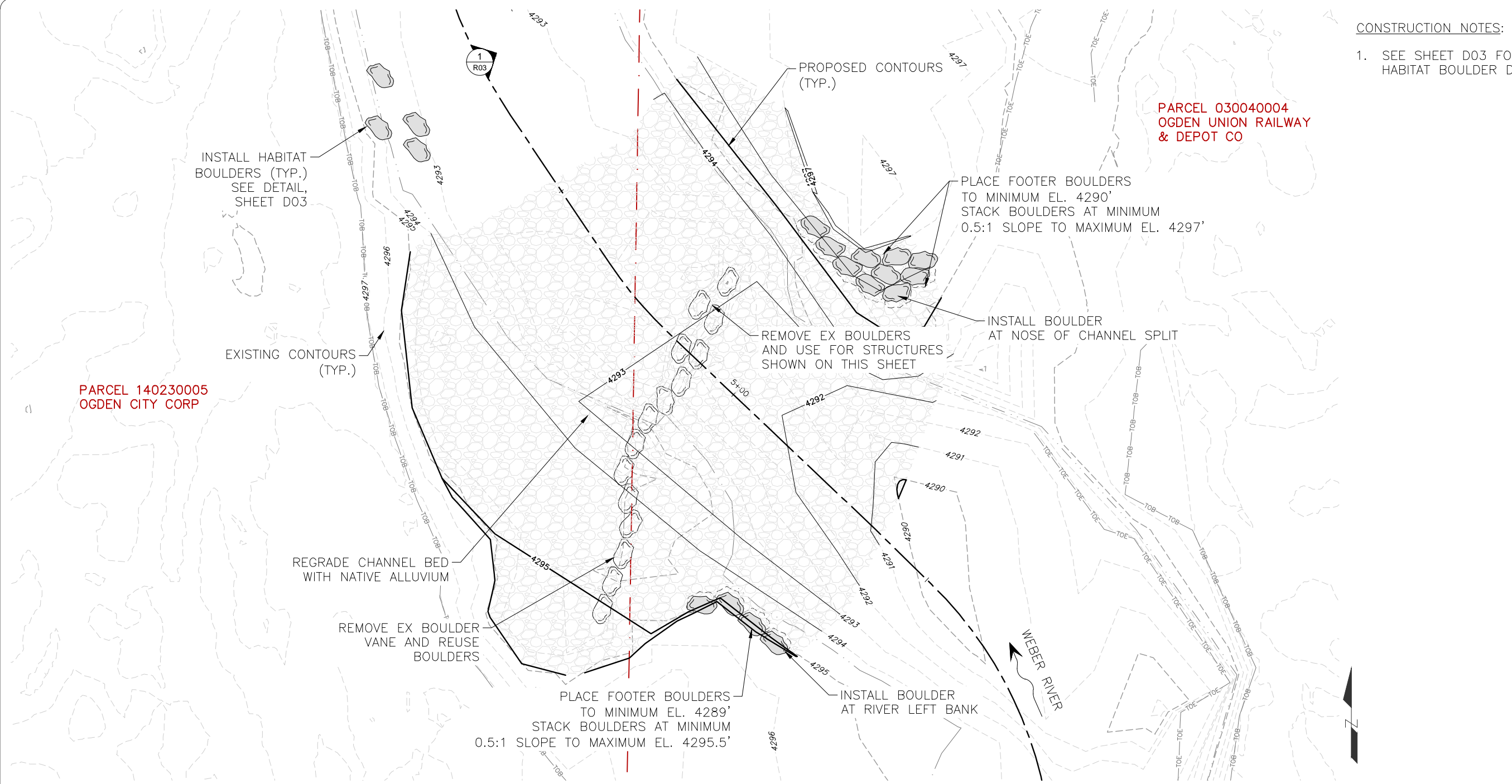
RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS  
Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	45078	Sheet	R02
Date	SEPTEMBER 2024		
Scale	1" = 10' (FULL SIZE)		

BID SET





CONSTRUCTION NOTES:  
1. SEE SHEET D03 FOR HABITAT BOULDER DETAILS.


PARCEL 030040004  
OGDEN UNION RAILWAY  
& DEPOT CO


PARCEL 140230005  
OGDEN CITY CORP



# SERGE SIMMONS BANK REPAIR AND RIVER ACCESS PROJECT SOUTH SERGE UPPER CHANNEL PLAN AND PROFILE VIEW

No.	REVISION/UPDATE	Date

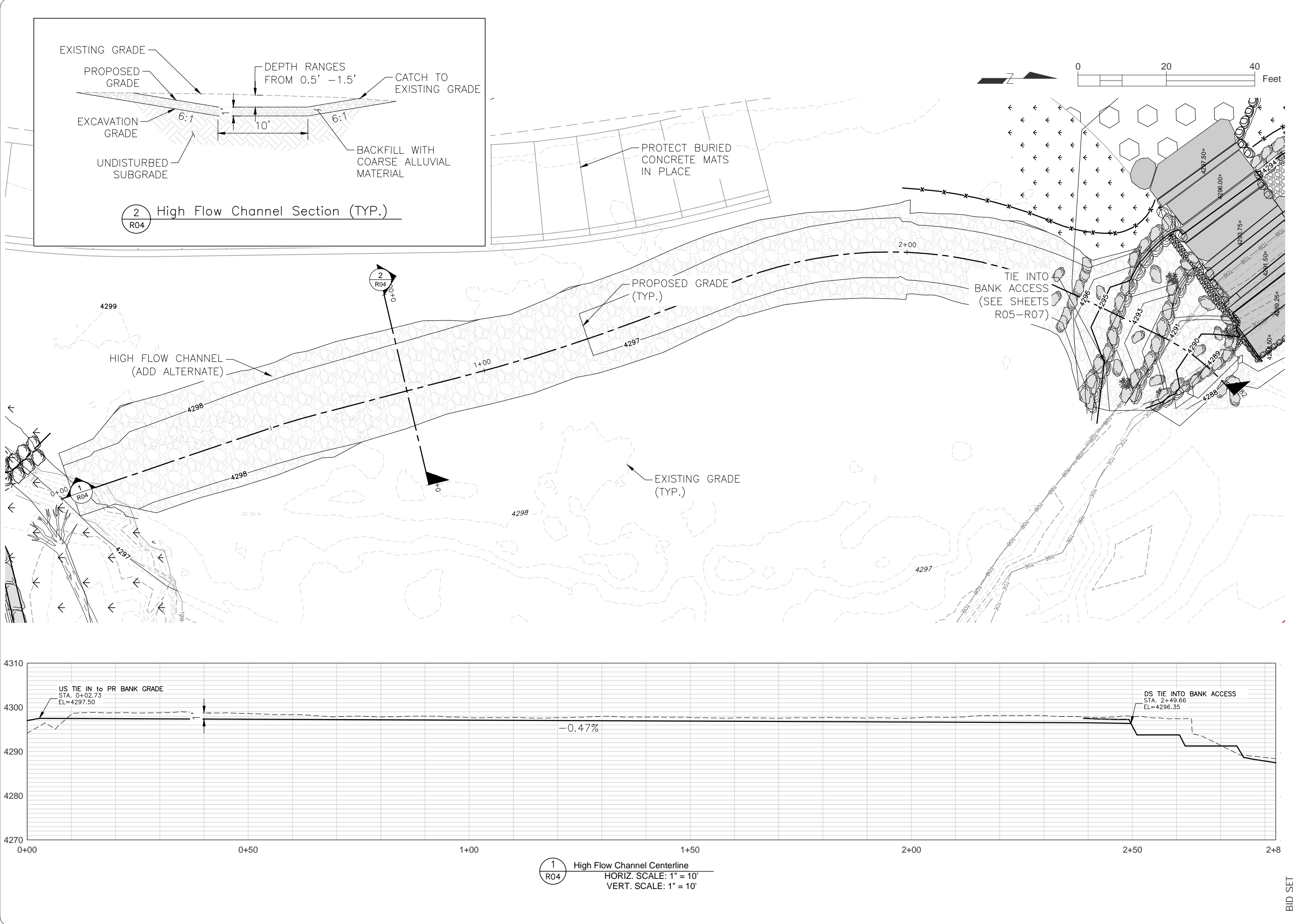
CLIENT NAME AND ADDRESS  
  
Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS  
  
RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS  
Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	45078	Sheet <b>R03</b>
Date	SEPTEMBER 2024	
Scale	1" = 10' (FULL SIZE)	


BID SET



# SERGE SIMMONS BANK REPAIR AND RIVER ACCESS PROJECT HIGH FLOW CHANNEL PLAN AND PROFILE VIEW


No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS

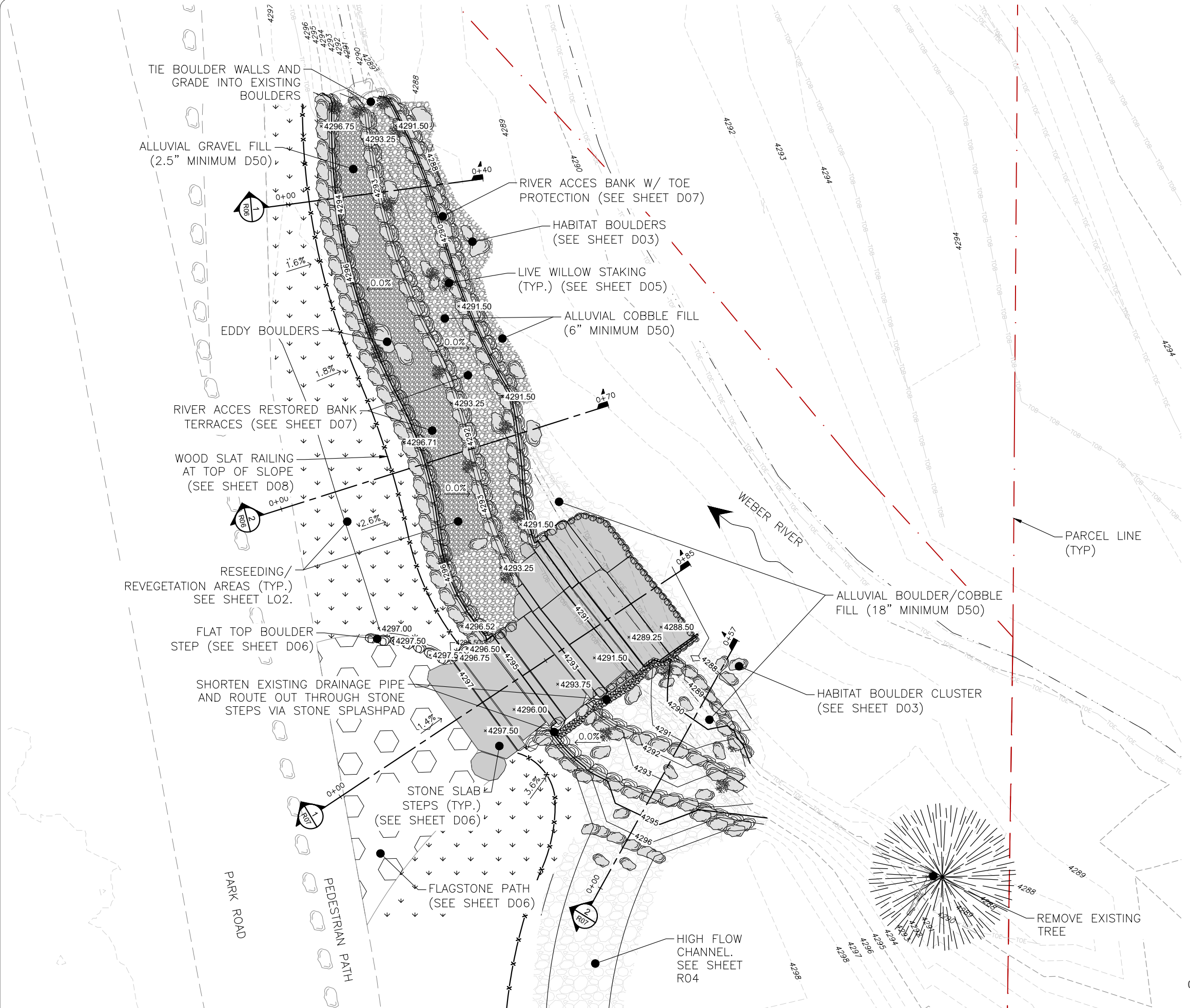


RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS	
Weber River Ogden, UT	
Serge Simmons Bank Repair and River Access Project	
Project	Sheet
45078	R04
Date	
SEPTEMBER 2024	
Scale	1" = 10' (FULL SIZE)

BID SET

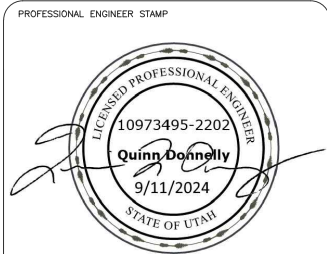




PLAN VIEW

CONSTRUCTION NOTES:

1. SEE SHEET R06 FOR SECTIONS.
2. SEE SHEETS D06 FOR SLAB STONE STEP DETAILS.
3. SEE SHEET D06 FOR FLAGSTONE PATH AND BOULDER STEP DETAILS.
4. SEE SHEET D07 FOR BOULDER WALL AND TERRACE DETAILS.
5. SEE SHEET D08 FOR SPLIT RAIL RAILING DETAILS.



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
RIVER ACCESS PLAN VIEW

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

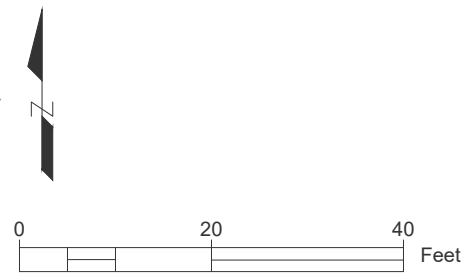
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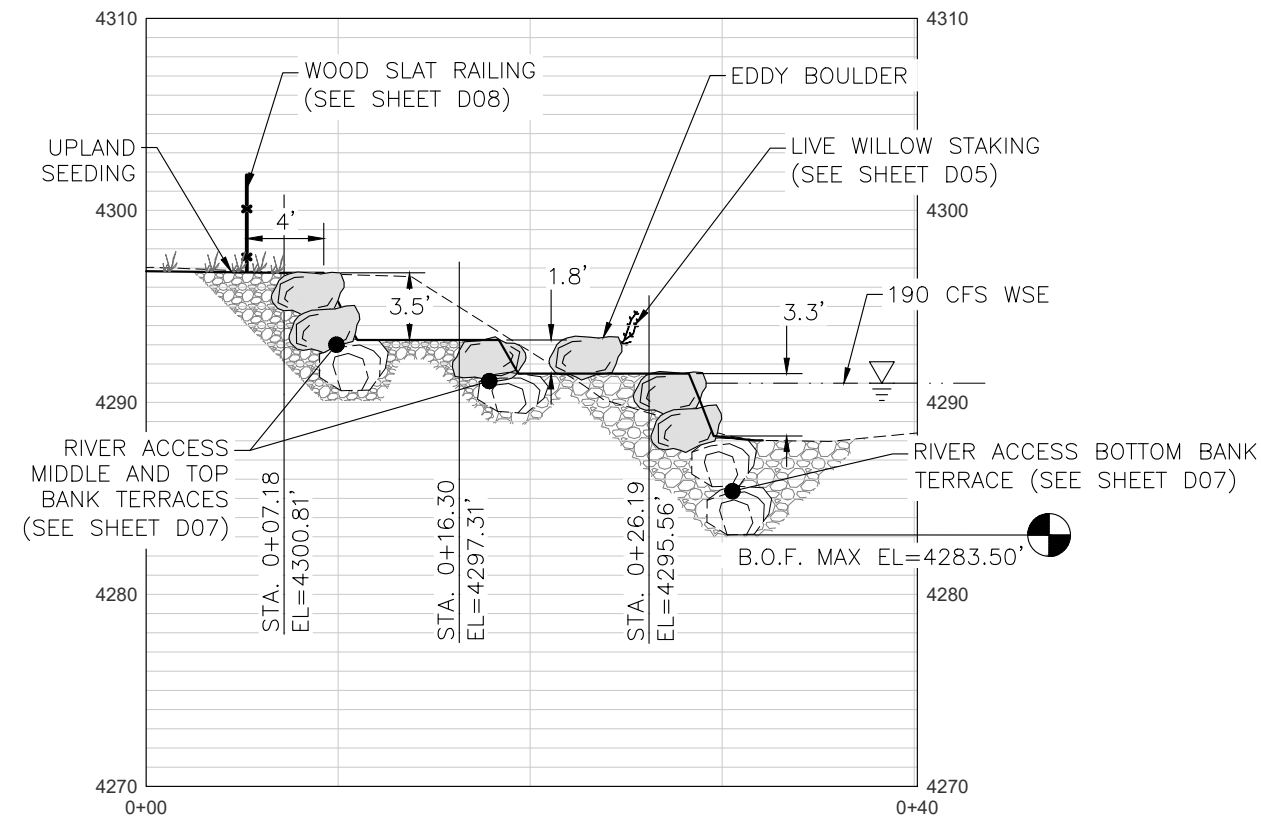
RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS  
Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

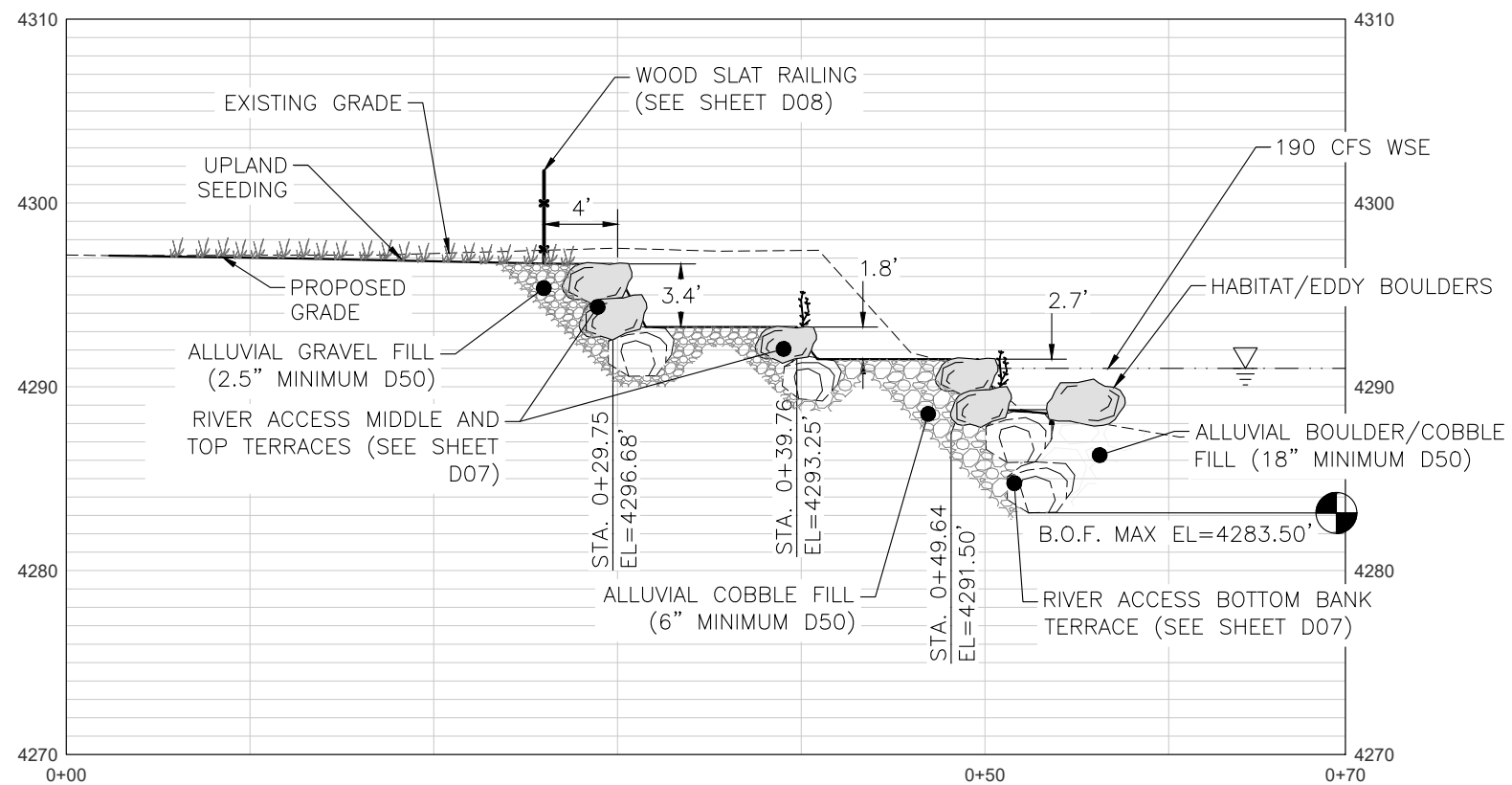
Project	45078	Sheet	R05
Date	SEPTEMBER 2024		
Scale	1" = 10' (FULL SIZE)		



BID SET



1 DS WALLS SECTION  
R06 SCALE 1" = 5'



2 MIDDLE WALLS SECTION  
R06 SCALE 1" = 5'

PROFESSIONAL ENGINEER STAMP



# SERGE SIMMONS BANK REPAIR AND RIVER ACCESS PROJECT RIVER ACCESS SECTIONS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



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Engineering Division  
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Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS



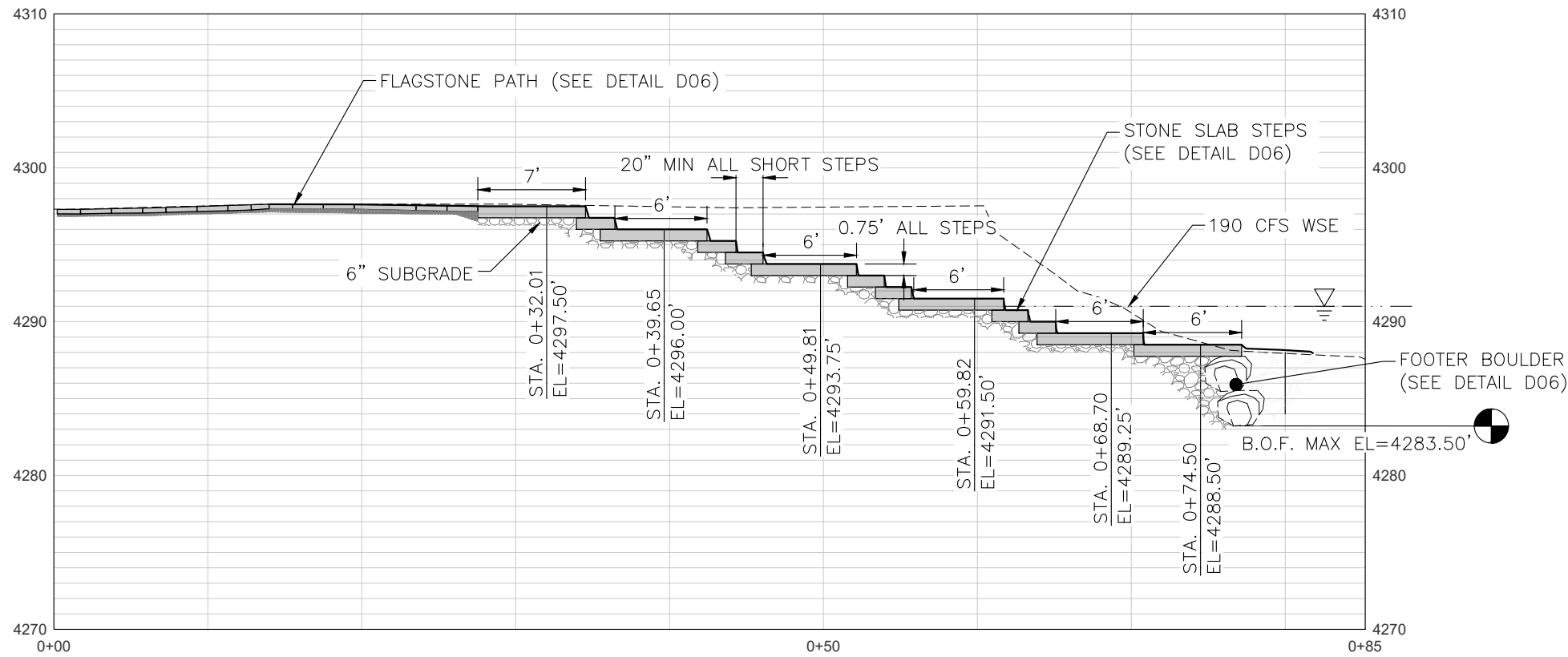
RiverRestoration  
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Carbondale, CO 81623  
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PROJECT NAME AND ADDRESS

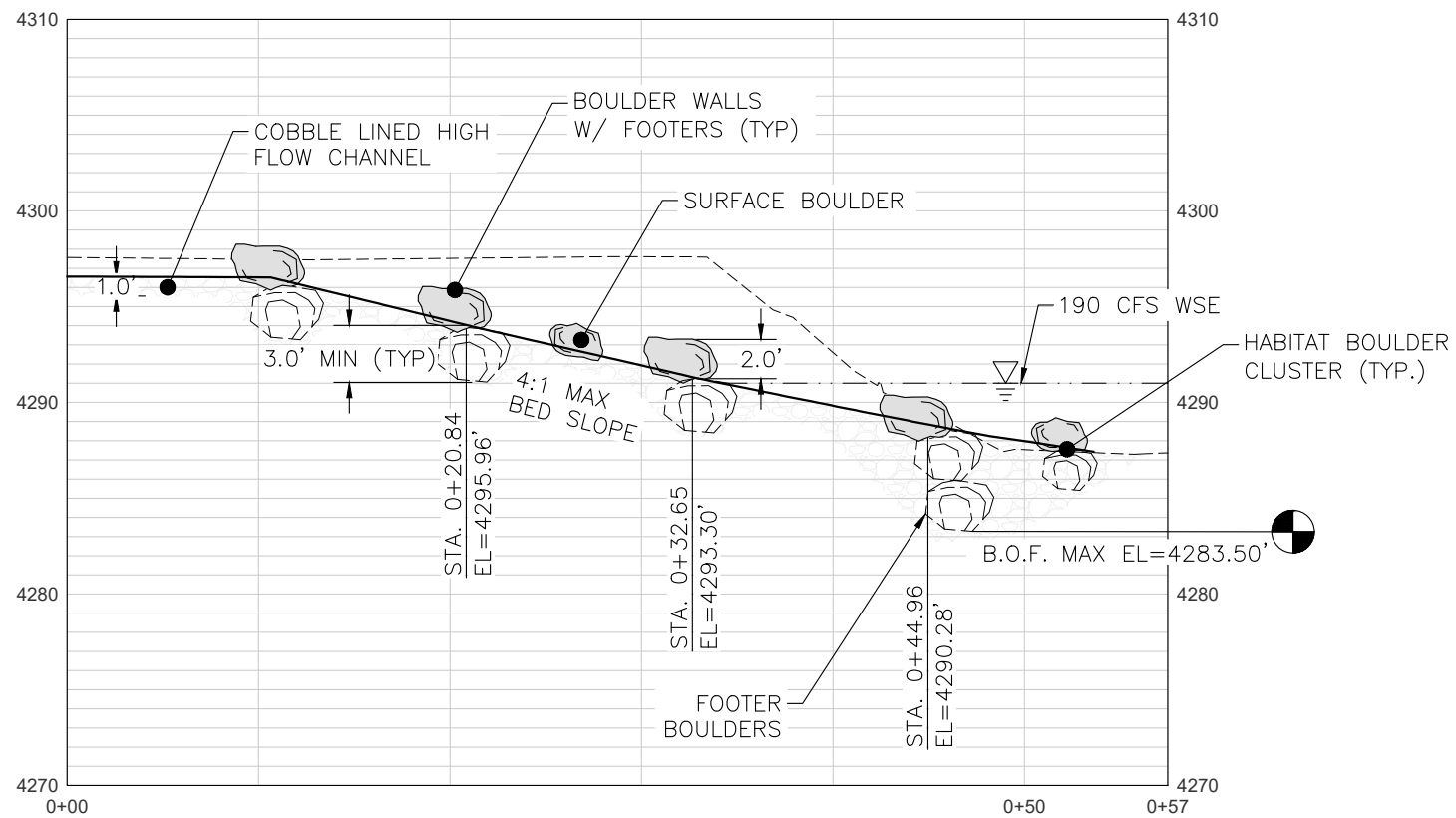
Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	Sheet
45078	R06
Date SEPTEMBER 2024	
Scale NTS	

BID SET



1 SLABSTONE STEPS SECTION  
R07 SCALE 1" = 5'



2 US HIGH FLOW CHANNEL SECTION  
R07 SCALE 1" = 5'

PROFESSIONAL ENGINEER STAMP



# SERGE SIMMONS BANK REPAIR AND RIVER ACCESS PROJECT RIVER ACCESS SECTIONS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



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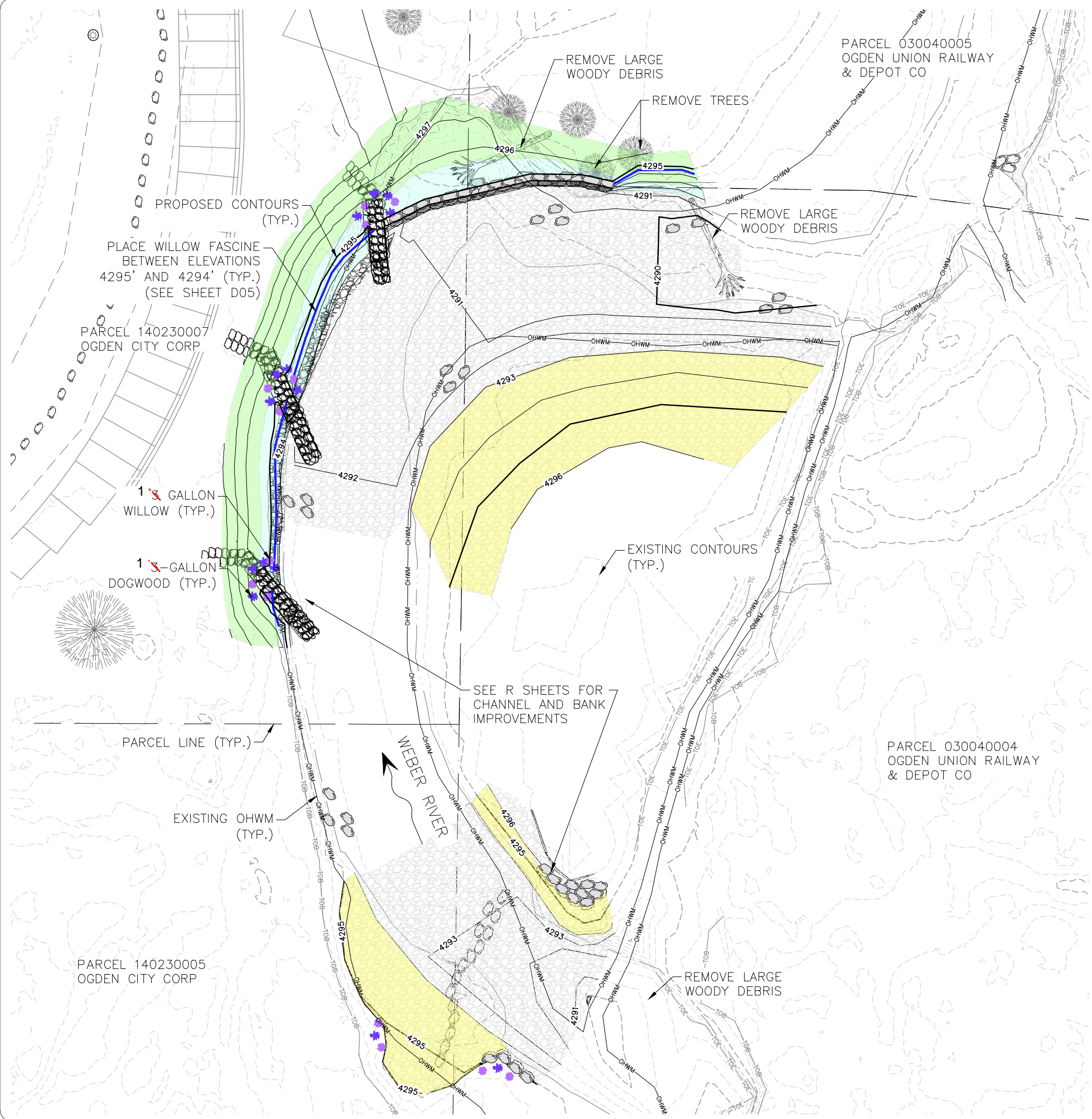
PROJECT NAME AND ADDRESS

Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	Sheet
45078	R07
Date SEPTEMBER 2024	
Scale NTS	

BID SET





LEGEND

- PLANTING ZONE A (4770 SF)
- PLANTING ZONE B (2015 SF)
- PLANTING ZONE C (8793 SF)
- 1 3-GALLON WILLOW (13 EA)
- 1 3-GALLON DOGWOOD (14 EA)
- WILLOW FASCINE (173 LF)

PLANTING ZONE A			4770 SF
COMMON NAME	BOTANICAL NAME	SEEDS/OZ	% OF MIX
BLUEBUNCH WHEATGRASS	<i>Pseudoroegneria spicata</i>	8,750	20
BLUE-JOINT GRASS	<i>Calamagrostis canadensis</i>	141,875	15
INDIAN RICEGRASS	<i>Achnatherum hymenoides</i>	8,812	15
INTERMEDIATE WHEATGRASS	<i>Thinopyrum intermedium</i>	5,500	15
BLUE WILDRYE	<i>Elymus glaucus</i>	8,406	15
PURPLE PRARIE CLOVER	<i>Dalea purpurea</i>	13,125	10
NEW ENGLAND ASTER	<i>Aste novae-anliae</i>	76,000	10

PLANTING ZONE B			2015 SF
COMMON NAME	BOTANICAL NAME	SEEDS/OZ	% OF MIX
BLUE-JOINT GRASS	<i>Calamagrostis canadensis</i>	141,875	20
NEBRASKA SEDGE	<i>Carex nebrascensis</i>	33,312	15
WATER SEDGE	<i>Carex aquatilis</i>	30,312	15
BALTIC RUSH	<i>Juncus balticus</i>	681,250	15
WILDER GERANIUM	<i>Geranium viscosissimum</i>	3,250	10
NEW ENGLAND ASTER	<i>Aste novae-anliae</i>	76,000	10
CREEPING FOXTAIL	<i>Alopecurus arundinaceus</i>	49,125	5
GOLDEN CURRANT	<i>Ribes aureum</i>	22,262	5
REDOSIER DOGWOOD	<i>Cornus sericea ssp. sericea</i>	1,442	5
PLANT STAKES			

PLANTING ZONE C			8793 SF
PLANT STAKES ONLY			

PLANT STAKES: PLANTING ZONE B & C			
COMMON NAME	BOTANICAL NAME	STAKES/HOLE	% OF STAKES
COYOTE WILLOW	<i>Salix exigua</i>	3	70
REDOSIER DOGWOOD	<i>Cornus sericea ssp. sericea</i>	3	30

NOTES:

A TEMPORARY IRRIGATION SYSTEM WILL BE INSTALLED ABOVE GROUND TO PROVIDE ADEQUATE WATER DURING THE MONTHS OF MAY-SEPTEMBER FOR THE FIRST TWO YEARS POST PLANTING. THE GOAL OF IRRIGATION WILL BE TO PROVIDE SUFFICIENT IRRIGATION TO SUCCESSFULLY ESTABLISH THE PLANTINGS SUCH THAT THEY ARE ABLE TO SURVIVE WITHOUT SUPPLEMENTAL IRRIGATION IN SUBSEQUENT GROWING SEASONS.



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
SOUTH SERGE PLANTING PLAN

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS



RiverRestoration  
P.O. Box 248  
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PROJECT NAME AND ADDRESS	
Weber River Ogden, UT Serge Simmons Bank Repair and River Access Project	
Project	Sheet
45078	L01
Date	SEPTEMBER 2024
Scale	1"=20' (FULL SIZE)

BID SET

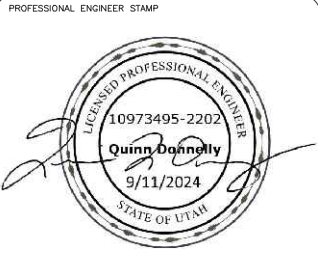


LEGEND

- PLANTING ZONE A (5,015 SF)
- 1 3-GALLON WILLOW (15 EA)

NOTES:

A TEMPORARY IRRIGATION SYSTEM WILL BE INSTALLED ABOVE GROUND TO PROVIDE ADEQUATE WATER DURING THE MONTHS OF MAY-SEPTEMBER FOR THE FIRST TWO YEARS POST PLANTING. THE GOAL OF IRRIGATION WILL BE TO PROVIDE SUFFICIENT IRRIGATION TO SUCCESSFULLY ESTABLISH THE PLANTINGS SUCH THAT THEY ARE ABLE TO SURVIVE WITHOUT SUPPLEMENTAL IRRIGATION IN SUBSEQUENT GROWING SEASONS.



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
RIVER ACCESS PLANTING PLAN

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
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2549 Washington Blvd  
Ogden, UT 84401

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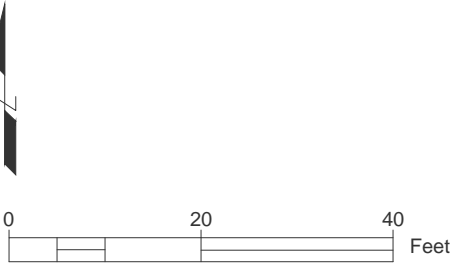
RiverRestoration  
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Carbondale, CO 81623  
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PROJECT NAME AND ADDRESS

Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	45078	Sheet	L02
Date	SEPTEMBER 2024		
Scale	1" = 10' (FULL SIZE)		

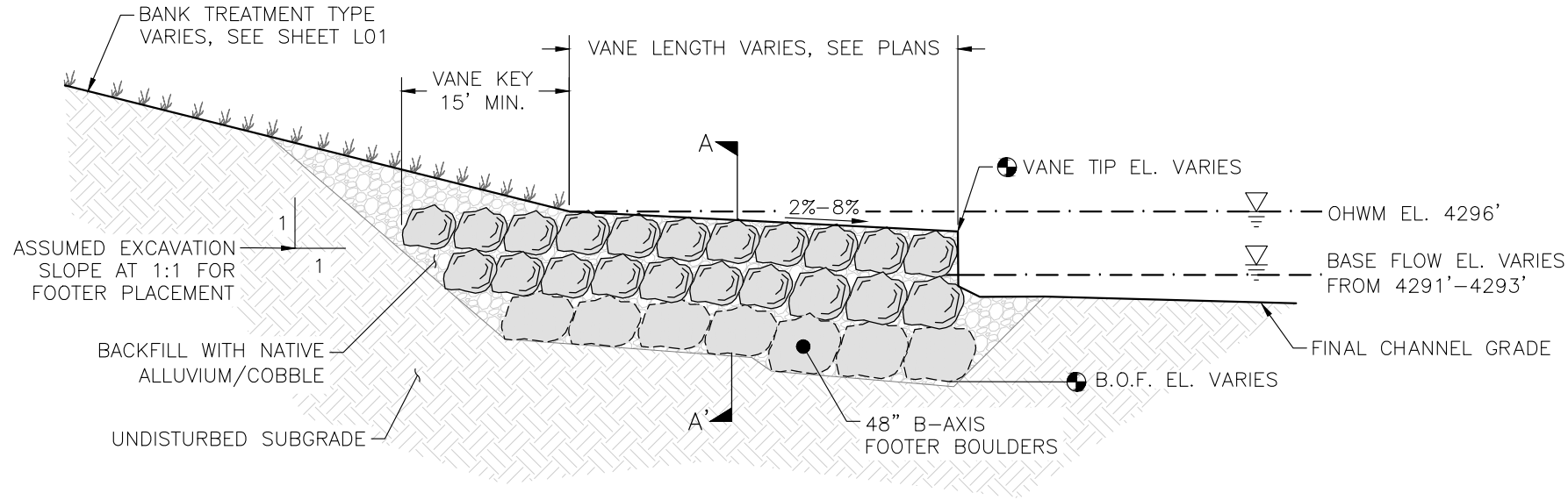
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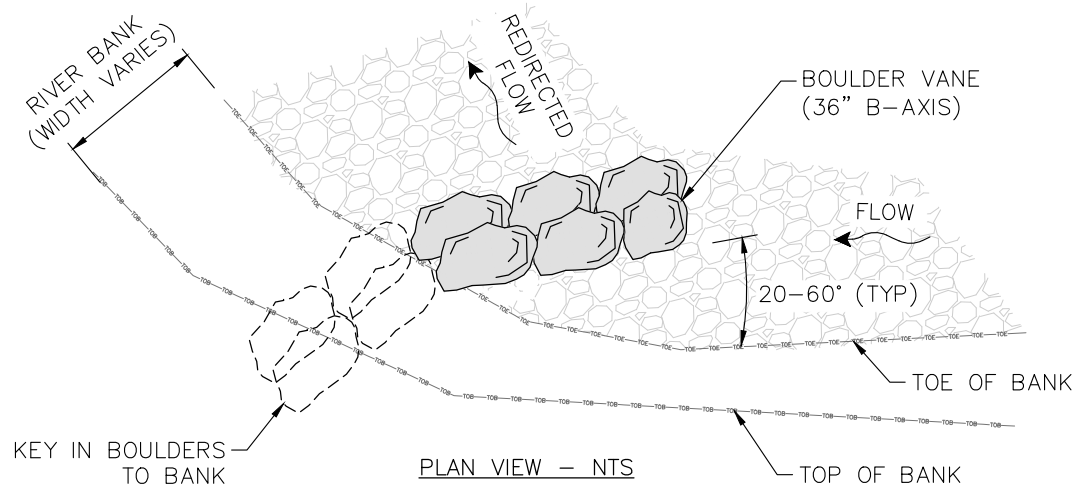


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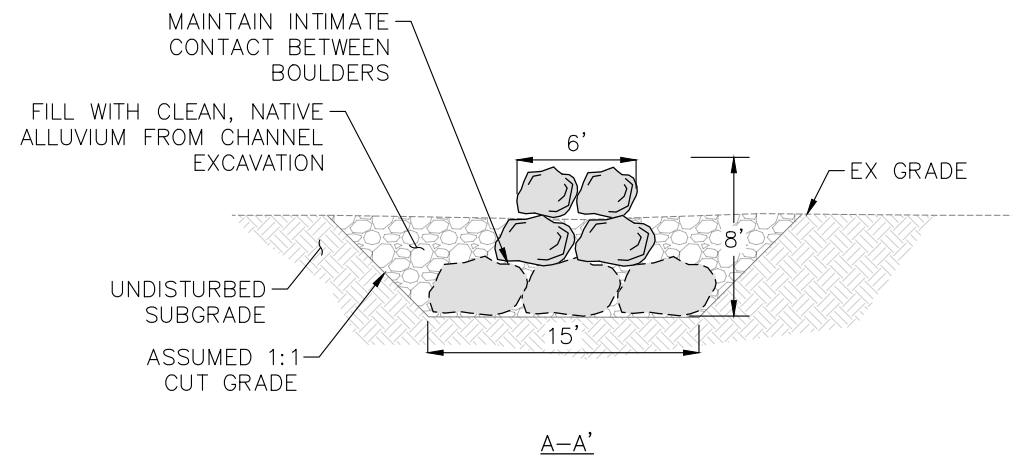
1. VANES SHALL CONSIST OF 36" MIN B-AXIS BOULDER UNLESS NOTED



SECTION (TYP) - NTS



PLAN VIEW - NTS



A-A'

1 BOUNDER VANE (TYP)  
D01 NTS

PROFESSIONAL ENGINEER STAMP



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
BOULDER VANE DETAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



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Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

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Carbondale, CO 81623  
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PROJECT NAME AND ADDRESS

Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	Sheet
45078	DO I
Date	SEPTEMBER 2024
Scale	NTS

BID SET



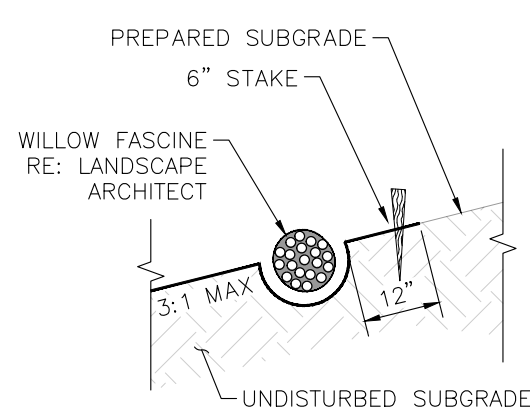


FIGURE A: KEY-IN BEHIND WILLOW TRENCH – NTS

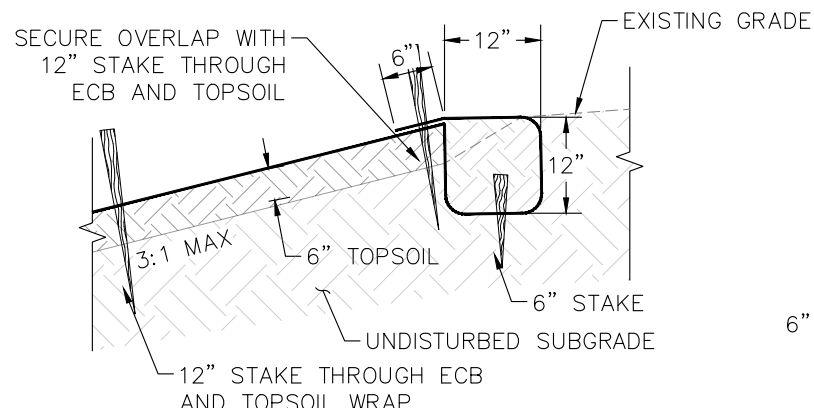


FIGURE B: SECURE ECB AT TOP OF BANK – NTS

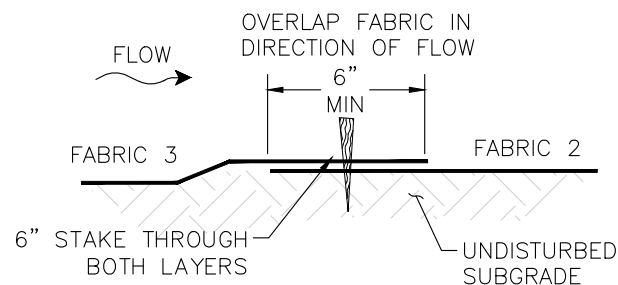


FIGURE C: CROSS SECTION VIEW OF OVERLAP – NTS

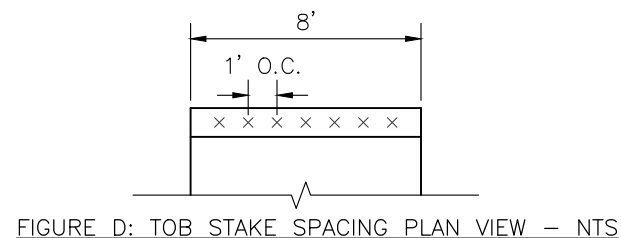
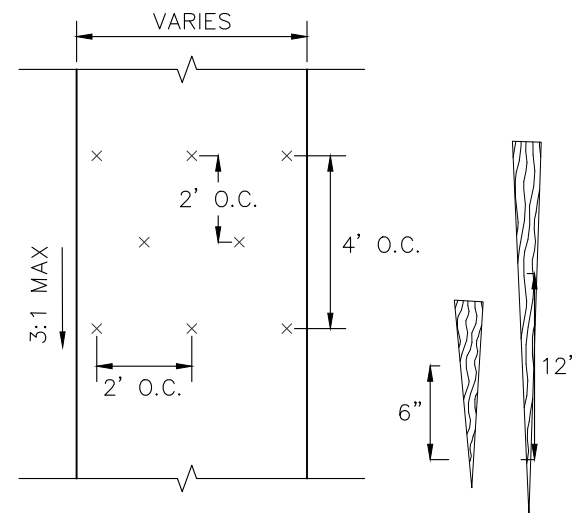


FIGURE D: TOB STAKE SPACING PLAN VIEW – NTS



× DENOTES STAKE LOCATION (APPROXIMATELY 0.7 STAPLES PER SY)

FIGURE E: STAKE SPACING PLAN VIEW – NTS

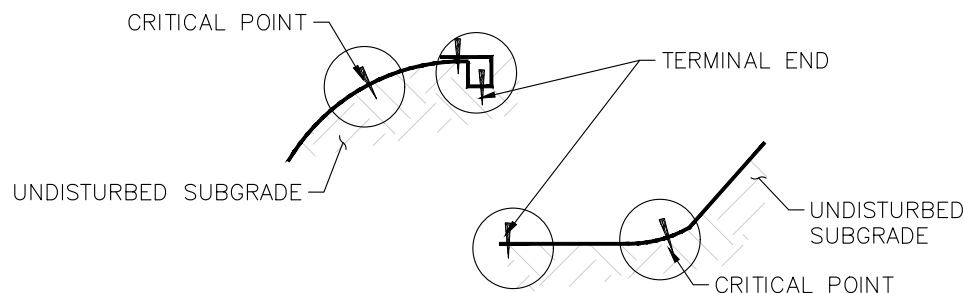
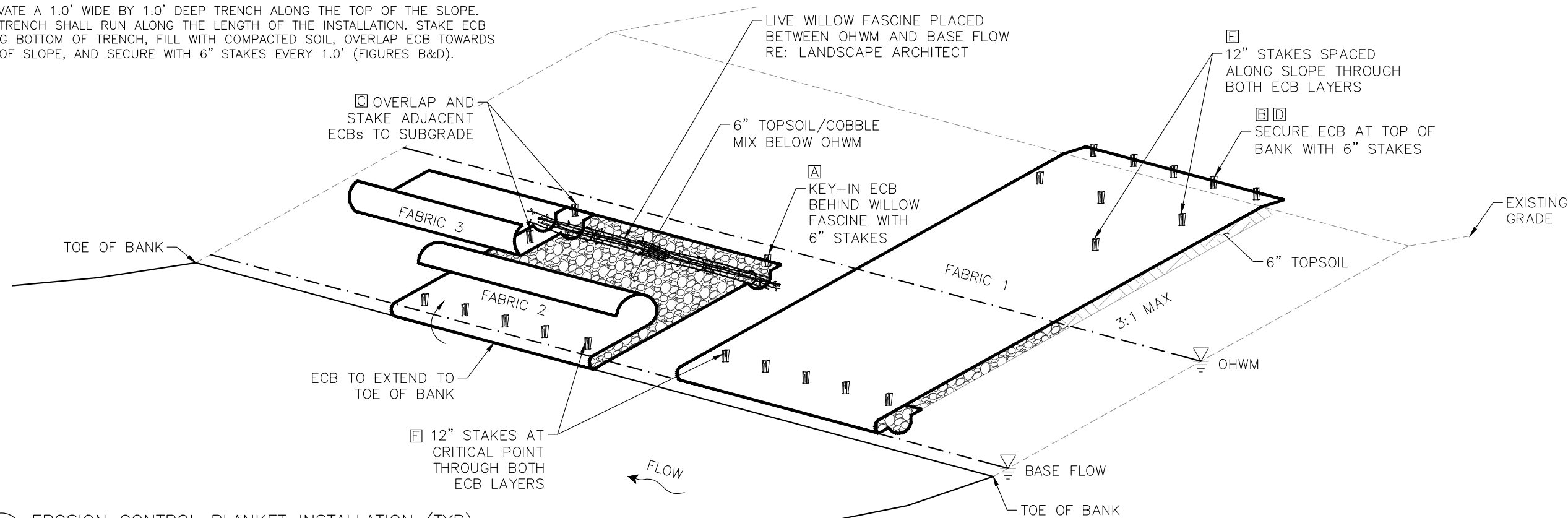


FIGURE F: CRITICAL POINT SECURING – NTS

#### ECB INSTALLATION NOTES:

1. CONTRACTOR SHALL USE ALL NATURAL 100% BIODEGRADABLE COIR 700 EROSION CONTROL BLANKETS (ECBs). STAKES SHALL ALSO BE 100% BIODEGRADABLE. SEE SPECIFICATIONS AND MANUFACTURER'S INSTALLATION GUIDELINES FOR ADDITIONAL INFORMATION.
2. FOR WILLOW FASCINE PLACEMENT, EXCAVATE A 1.0' WIDE BY 0.5' DEEP TRENCH AT VARYING DISTANCES BETWEEN ORDINARY HIGH WATER AND BASE FLOW ELEVATIONS.
3. ROLL ECB DOWNSLOPE AND SECURE IN PLACE PER STAKING PLAN (FIGURE E). ECB MUST BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
4. EDGES OF PARALLEL ECBs MUST BE STAKED WITH AN APPROXIMATE 2"–5" OVERLAP (FIGURE C). IF NEEDED, CONSECUTIVE ECBs SPLICED DOWNSLOPE MUST BE OVERLAPPED END–OVER–END (SHINGLED) WITH AN APPROXIMATE 3" OVERLAP.
5. IN THE FOLLOWING ORDER, APPLY TOPSOIL\*, SEED MIX, STRAW MULCH AND BONDED FIBER MATRIX, THEN WRAP ECB AT THE TOE TOWARDS THE TOP OF BANK.
6. EXCAVATE A 1.0' WIDE BY 1.0' DEEP TRENCH ALONG THE TOP OF THE SLOPE. THE TRENCH SHALL RUN ALONG THE LENGTH OF THE INSTALLATION. STAKE ECB ALONG BOTTOM OF TRENCH, FILL WITH COMPACTED SOIL, OVERLAP ECB TOWARDS TOE OF SLOPE, AND SECURE WITH 6" STAKES EVERY 1.0' (FIGURES B&D).

\* TOPSOIL/COBBLE MIX SHALL BE PLACED BELOW THE OHWM



1 EROSION CONTROL BLANKET INSTALLATION (TYP)  
D02 NTS

PROFESSIONAL ENGINEER STAMP



## SERGE SIMMONS BANK REPAIR AND RIVER ACCESS PROJECT EROSION CONTROL BLANKET DETAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS



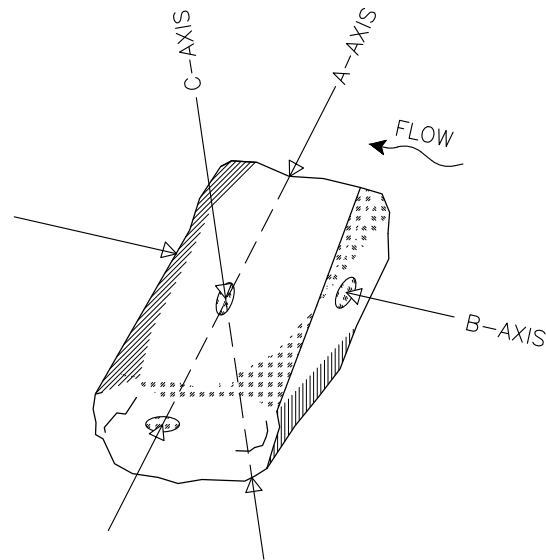
RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS

Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

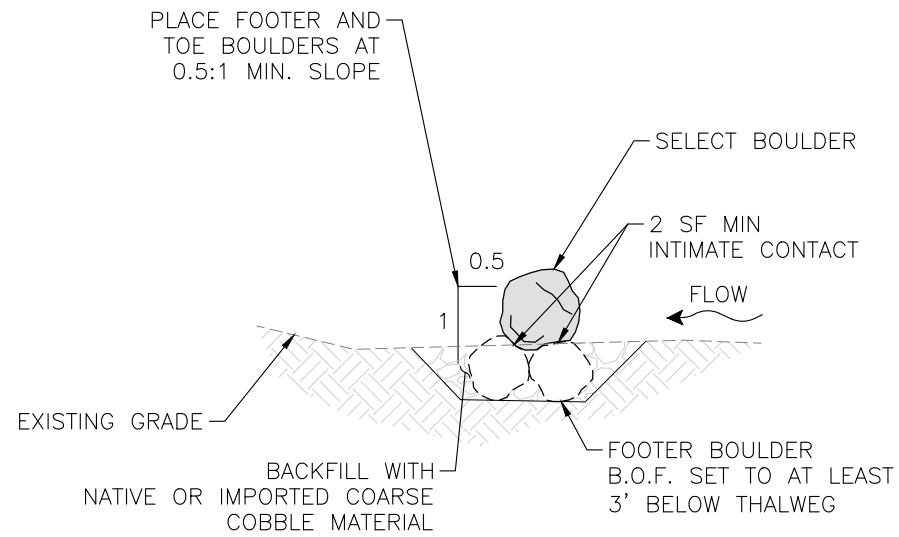
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Date	SEPTEMBER 2024	D02
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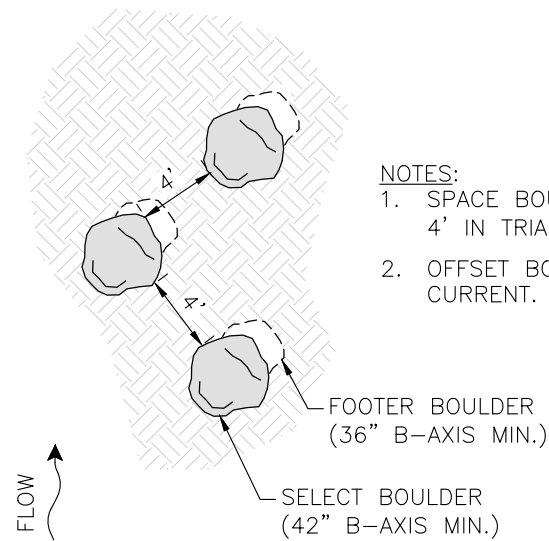
NOTES:  
1. SEE SPECIFICATIONS FOR  
BOULDER GRADATION.

1 BOULDER AXIAL PLACEMENT (TYP)  
D03 NTS



NOTES:  
1. WHEN TOP BOULDER IS EXPOSED, OFFSET FOOTER BOULDERS IN THE UPSTREAM & DOWNSTREAM DIRECTIONS, PERPENDICULAR TO FLOW.  
2. FOOTER BOULDERS ARE NOR REQUIRED IF BEDROCK IS PRESENT.

2 HABITAT BOULDER CLUSTER (TYP)  
D03 SECTION VIEW - NTS



NOTES:  
1. SPACE BOULDER A MINIMUM OF 4' IN TRIANGLE PATTERN.  
2. OFFSET BOULDERS FROM MAIN CURRENT.

3 HABITAT BOULDER CLUSTER (TYP)  
D03 PLAN VIEW - NTS

PROFESSIONAL ENGINEER STAMP



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
HABITAT / EDDY  
BOULDER DETAILS

No.	REVISION/UPDATE	Date

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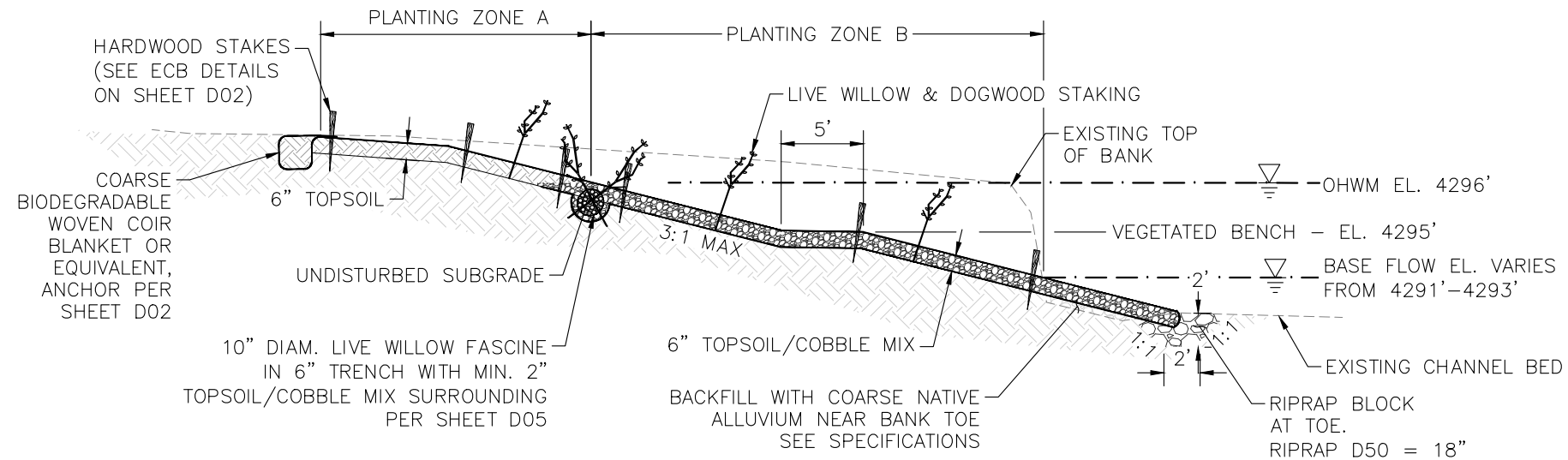
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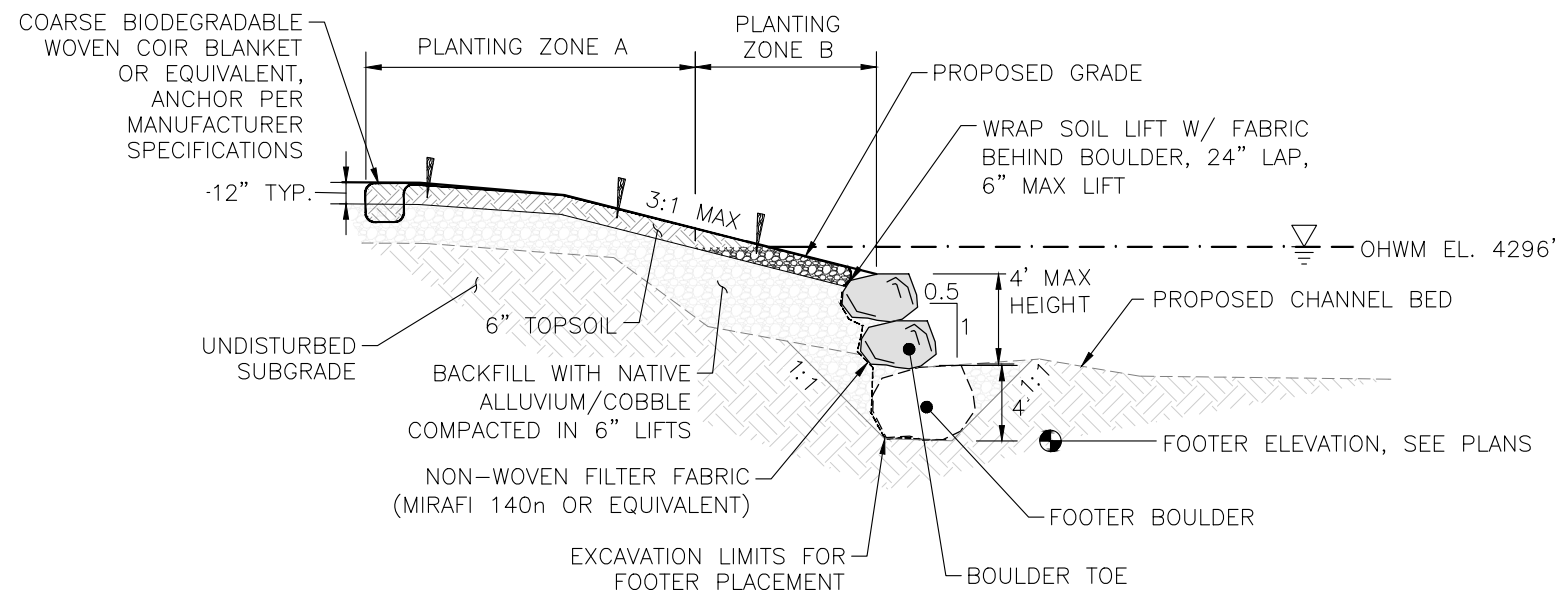
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Project	Sheet
45078	D03
Date SEPTEMBER 2024	
Scale NTS	

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1 SOUTH SERGE VEGETATED SLOPE WITHOUT TOE BOULDER (TYP)  
D04 SECTION VIEW - NTS



2 SOUTH SERGE VEGETATED SLOPE W/ BOULDER TOE PROTECTION (TYP)  
D04 PROFILE VIEW - NTS

PROFESSIONAL ENGINEER STAMP



# SERGE SIMMONS BANK REPAIR AND RIVER ACCESS PROJECT SOUTH SERGE BANK DETAILS

No.	REVISION/UPDATE	Date

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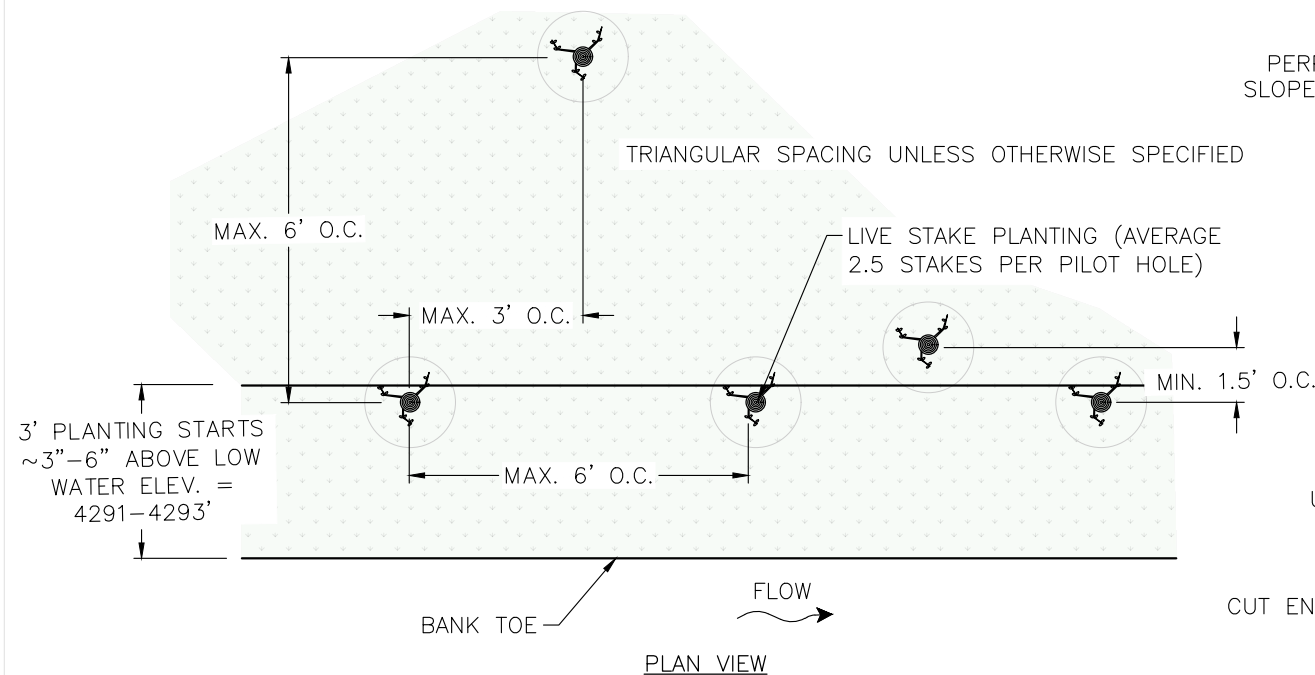
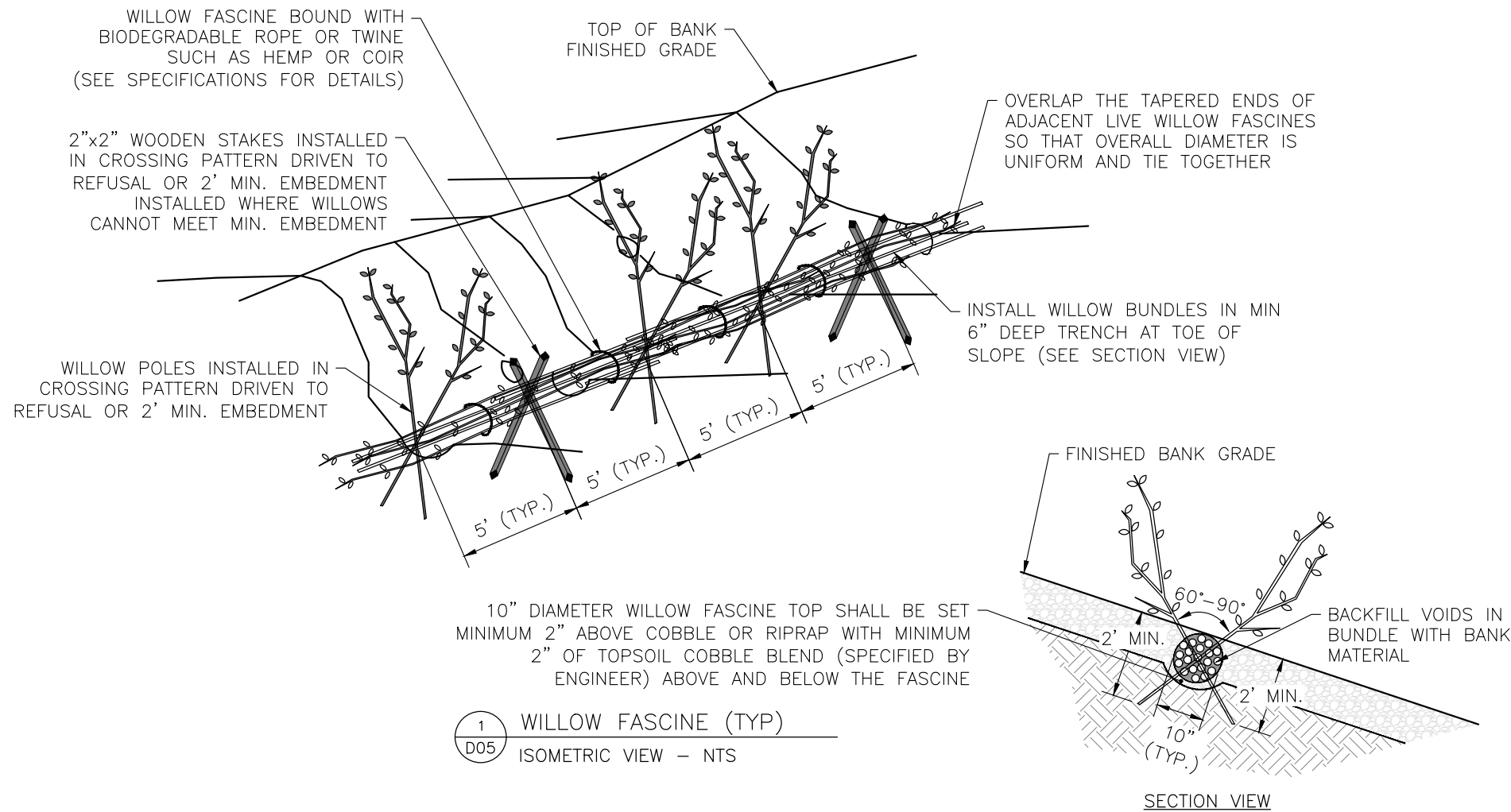
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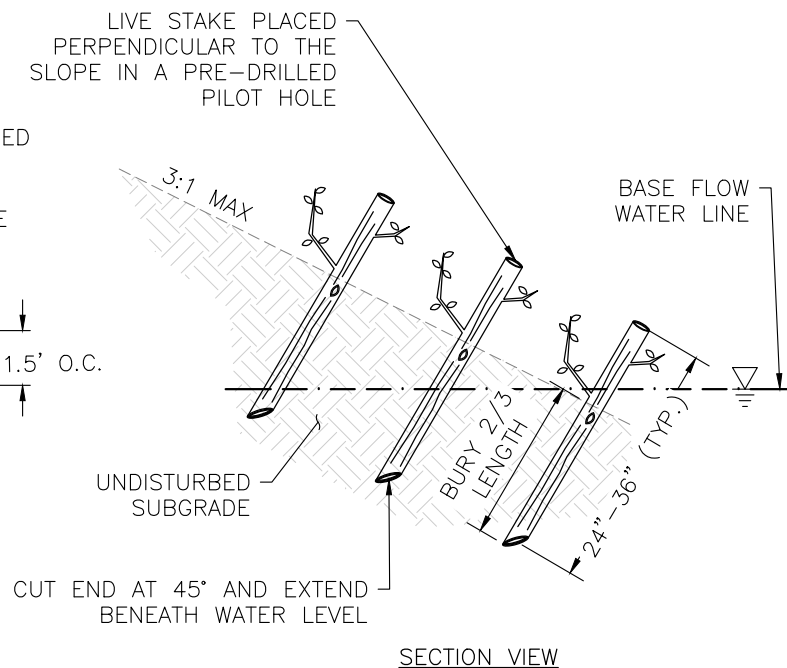
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Project	45078	Sheet
Date	SEPTEMBER 2024	D04
Scale	NTS	

BID SET



2 LIVE STAKING - WILLOW/DOGWOOD  
D05 SECTION VIEW - NTS



#### WILLOW FASCINE INSTALLATION NOTES:

1. GRADE BANK TO FINISHED ELEVATIONS FROM TOP OF BANK.
2. DIG 12" DEEP TRENCH AT TOE OF BANK SLOPE.
3. PREPARE 16" DIAMETER BUNDLES OF 10.0' MINIMUM LENGTH,  $\frac{3}{4}$ " MINIMUM DIAMETER WILLOWS.
4. WILLOWS SHALL HAVE CLEAN CUTS AT BASE AND SHALL BE STORED PARTIALLY IN WATER AND IN THE SHADE PRIOR TO INSTALLATION.
5. WRAP BUNDLES 2-3 TIMES EVERY 4 FEET WITH  $\frac{3}{8}$ " OR GREATER DIAMETER BIODEGRADABLE ROPE AND TIE SECURELY WITH SQUARE KNOT OR SIMILAR.
6. INSTALL WILLOW BUNDLES IN TRENCH AND BACKFILL VOIDS OF THE BUNDLES WITH BANK MATERIAL TAKING CARE NOT TO DAMAGE BARK OF WILLOWS DURING BACKFILLING.
7. STAKE BUNDLES INTO THE TRENCH EVERY 5 FEET WITH WILLOW POLES TO REFUSAL OR 2.0' MINIMUM DEPTH IN CROSSING PATTERN WHERE SOIL DENSITY PERMITS. PILOT HOLES MAY BE NECESSARY.
8. WHERE SOILS ARE TOO DENSE OR ROCKY TO STAKE WITH WILLOW POLES, POUND IN WOODEN STAKES IN SAME PATTERN AND TO THE SAME DEPTHS.
9. WILLOW POLES AND WOODEN STAKES SHOULD HAVE A MINIMUM 1.0' EXPOSED FROM THE BUNDLES.
10. INSTALL ECB PER DETAIL IN SHEET D02.

#### LIVE STAKING/POLE PLANTING NOTES:

1. WILLOW AND DOGWOOD STAKES SHALL BE PLACED RANDOMLY AT A RATE OF 2 HOLES EVERY 3 LINEAR FOOT OF BANK. INSTALL 2.5 LIVE STAKES (AVERAGE) PER HOLE.
2. STAKES SHALL HAVE A MINIMUM DIAMETER OF 0.75"
3. CUTTINGS SHALL BE COLLECTED WHILE DORMANT, WHEN THE LEAVES HAVE FALLEN, AND NIGHT TEMPERATURES ARE FREEZING.
4. CUTTINGS MAY BE DOGWOODS OR NATIVE WILLOWS. CUTTINGS SHALL BE 0.75"-1.5" IN DIAMETER AND 36"-60" IN LENGTH.
5. CUTTINGS SHALL BE TAKEN FROM THE BASE OF THE STEMS. CUT THE BOTTOMS AT A 45 DEG. ANGLE AND THE TOPS FLAT. PLANT THE CUTTINGS WITH THEIR BASES AT LOW WATER ELEVATION.
6. CUTTINGS SHALL BE STRIPPED OF LEADERS, AND LONG BRANCHES TO AVOID EXCESS DRYING.
7. CUTTINGS SHOULD BE BUNDLED IN GROUPS OF 10, 25, OR 50 BY LIKE SPECIES FOR EASE OF COUNTING AND STORED IN WATER AND SHADE FOR AT LEAST 2 DAYS AND NO MORE THAN 60 DAYS BEFORE PLANTING.
8. ALTERNATE BETWEEN WILLOW AND DOGWOOD RANDOMLY, WITH DOGWOOD TOTALING NO MORE THAN 30% OF THE TOTAL VOLUME OF STAKES.

PROFESSIONAL ENGINEER STAMP



## SERGE SIMMONS BANK REPAIR AND RIVER ACCESS PROJECT

### PLANTING DETAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS



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P.O. Box 248  
Carbondale, CO 81623  
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PROJECT NAME AND ADDRESS

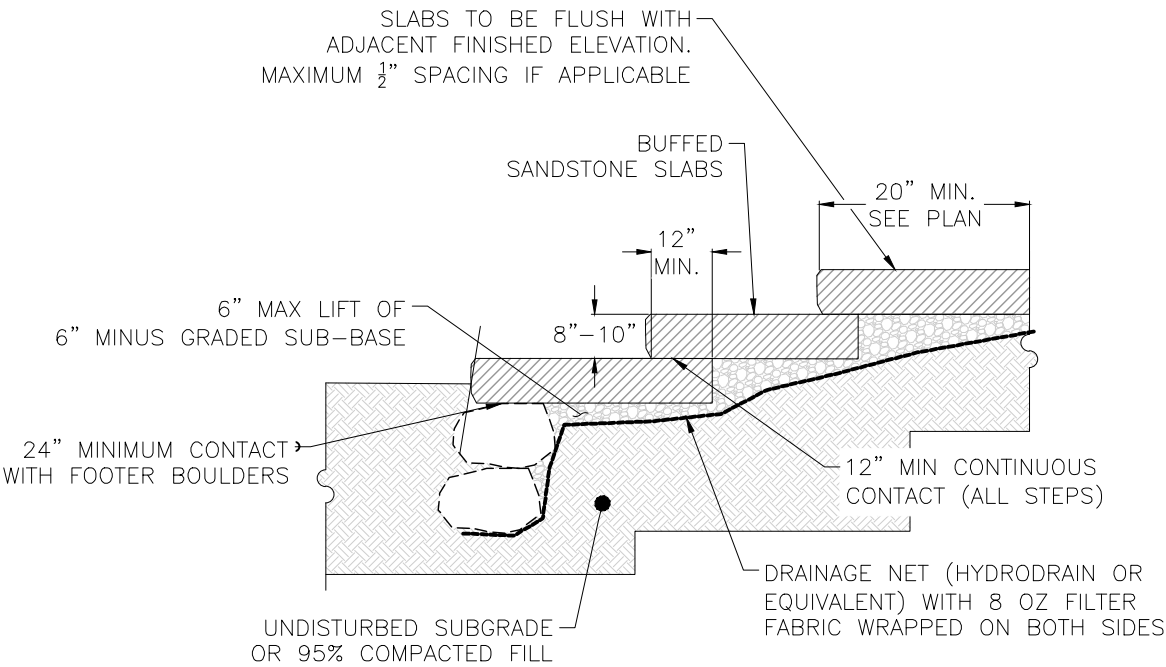
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Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

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Date	SEPTEMBER 2024	D05
Scale	NTS	

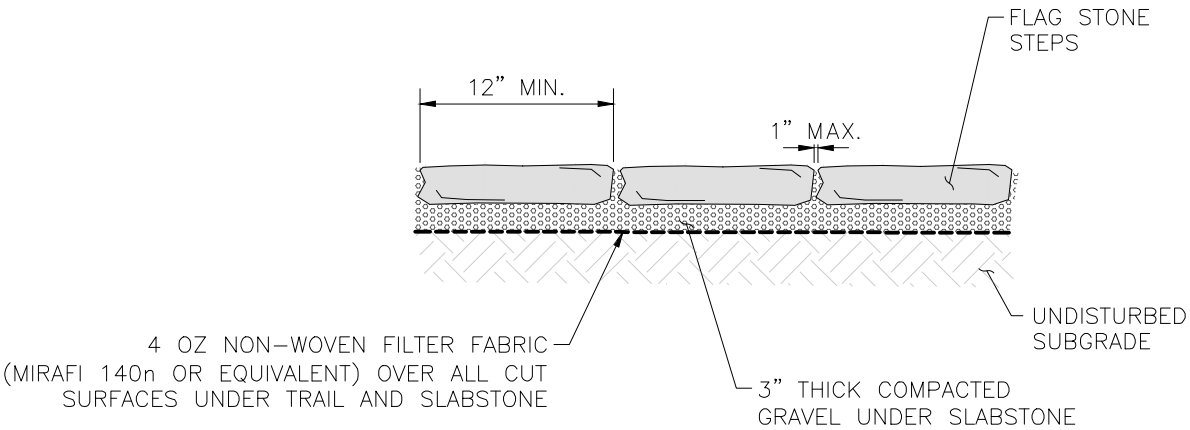
BID SET



NOTE: MODIFY ENDS OF SLABS AS NEEDED TO ENSURE SEAM GAPS LESS THAN 1 INCH.



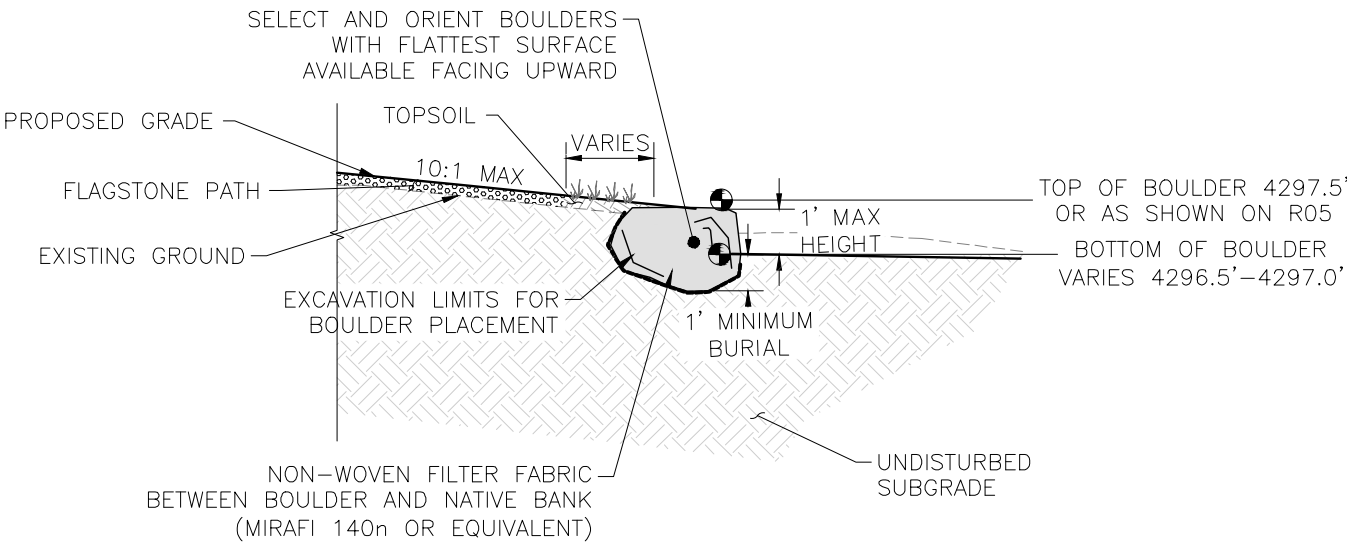
1 SLAB STONE STEP DETAIL  
D06 NTS



2 FLAGSTONE PATH  
D06 PROFILE VIEW - NTS



EXAMPLE PHOTO OF FINISHED SLAB STONE ACCESS STEPS



3 FLAT TOP BOULDER STEP  
D06 PLAN VIEW - NTS

PROFESSIONAL ENGINEER STAMP



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
PATH AND STEPS DETAILS

No.	REVISION/UPDATE	Date

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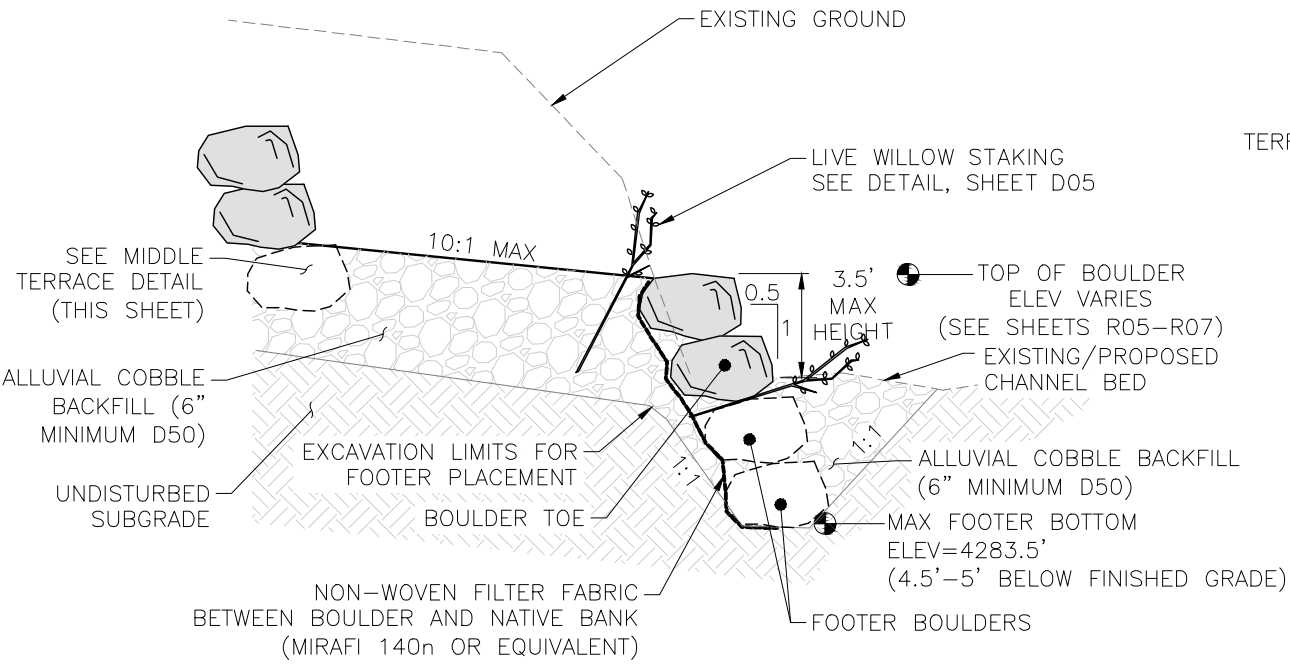
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Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

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Date	SEPTEMBER 2024	D06
Scale	NTS	

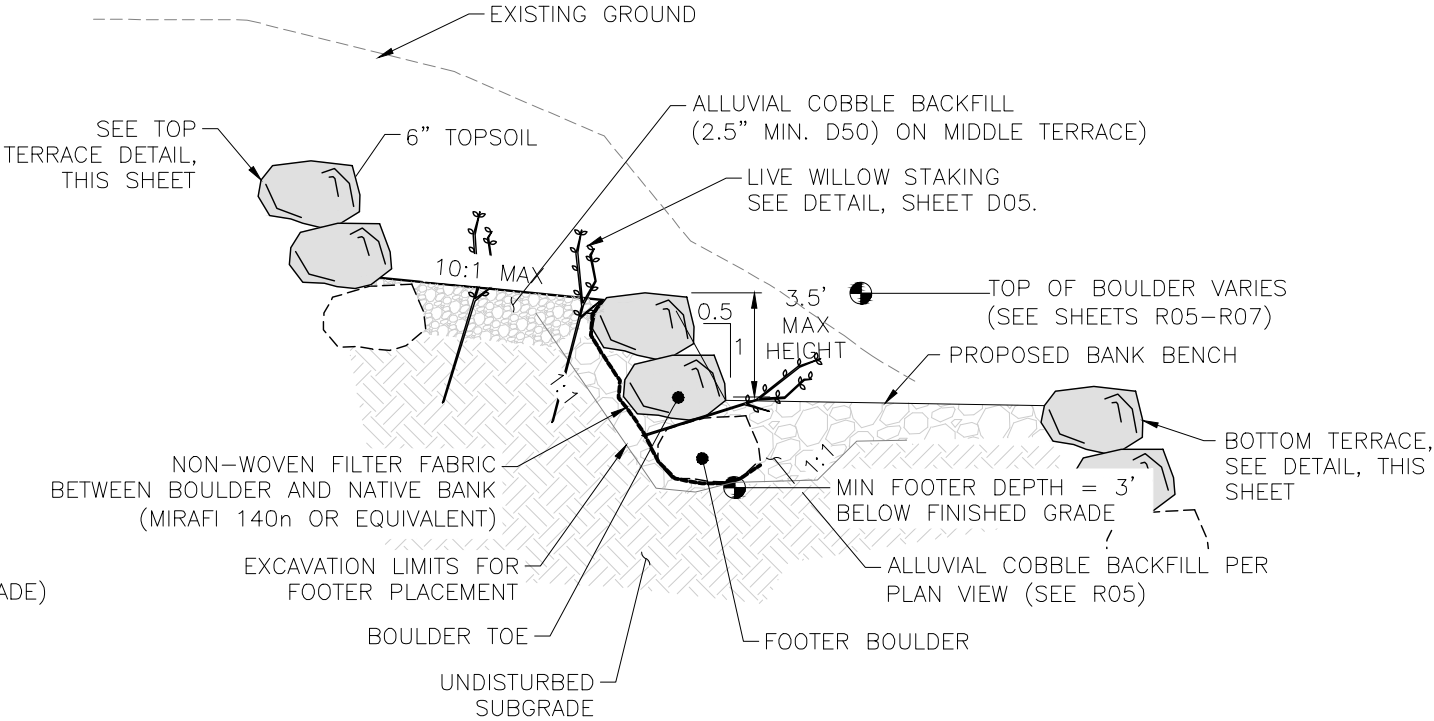
BID SET

BOTTOM TERRACE



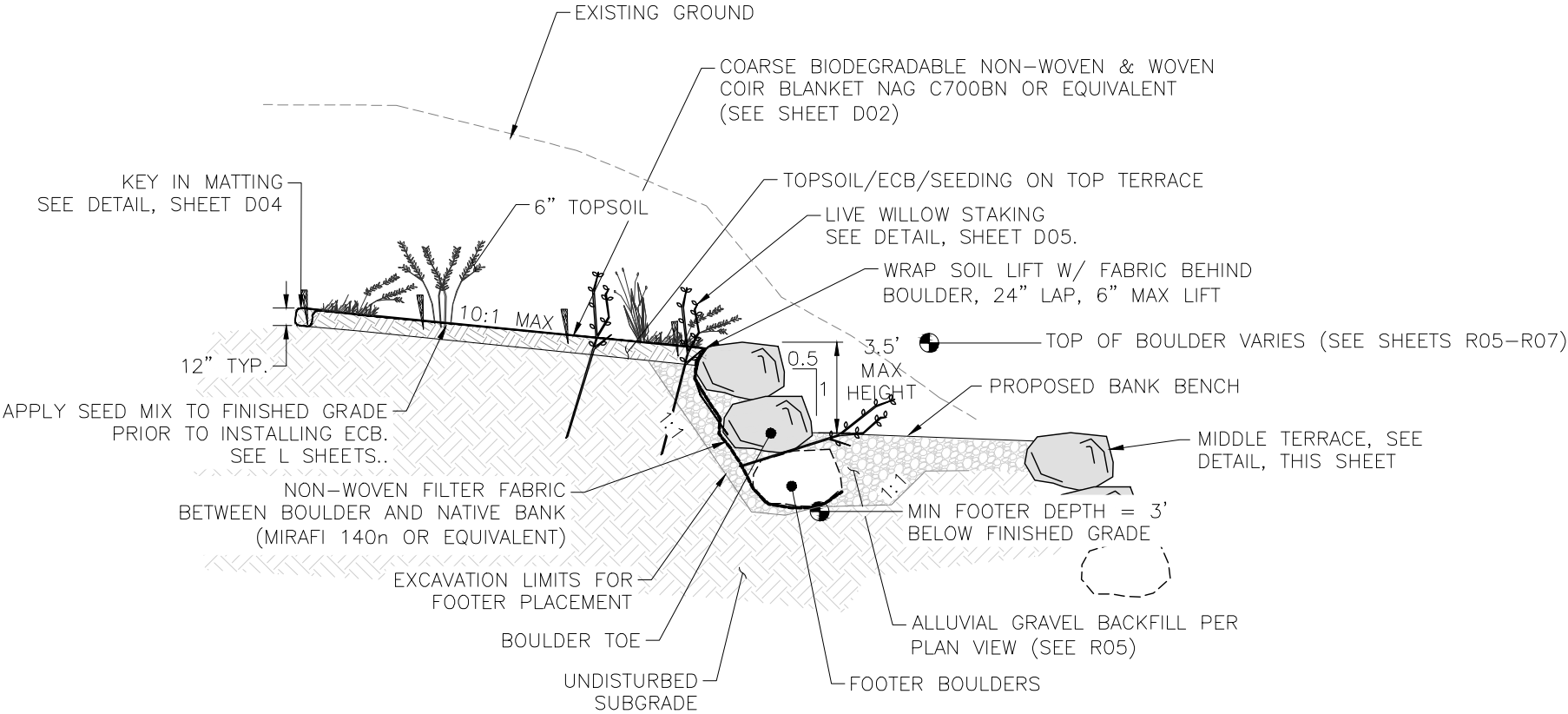
1 RIVER ACCESS BOTTOM BANK TERRACE  
D07 PROFILE VIEW - NTS

MIDDLE TERRACE

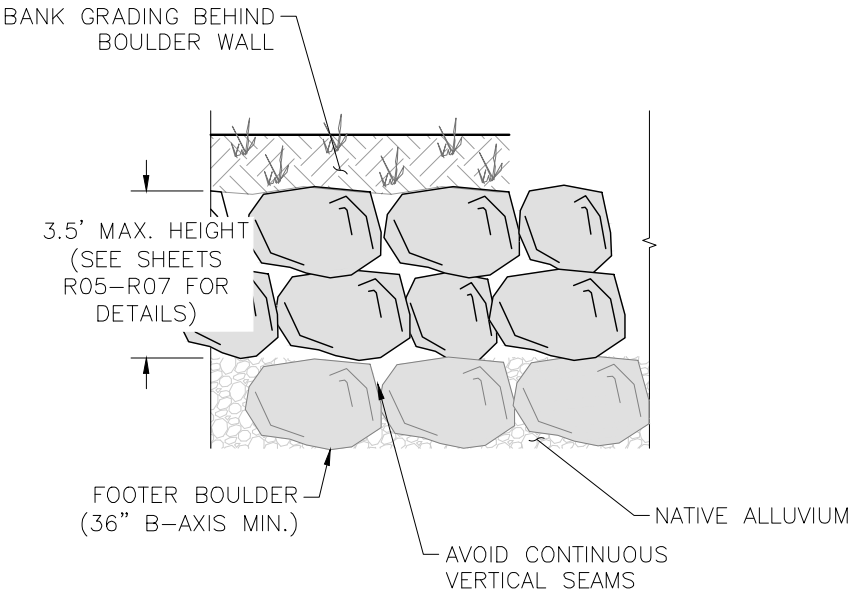


2 RIVER ACCESS MIDDLE BANK TERRACE  
D07 PROFILE VIEW - NTS

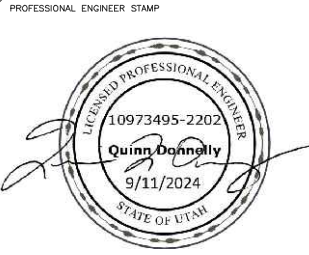
TOP TERRACE



3 RIVER ACCESS TOP BANK TERRACE  
D07 PROFILE VIEW - NTS



4 BOULDER WALL (TYP)  
D07 SECTION VIEW - NTS



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
RIVER ACCESS  
BOULDER TERRACE DETAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
Engineering Division  
2549 Washington Blvd  
Ogden, UT 84401

DESIGN FIRM NAME AND ADDRESS



RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

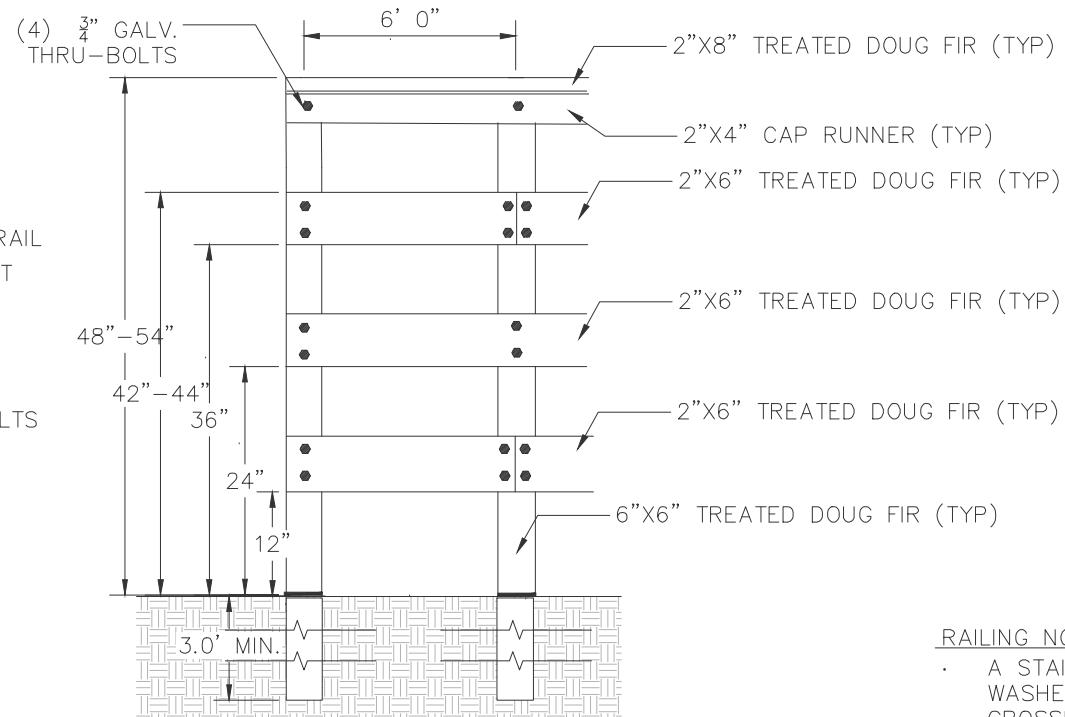
PROJECT NAME AND ADDRESS

Weber River  
Ogden, UT  
Serge Simmons Bank Repair and  
River Access Project

Project	Sheet
45078	D07
Date	SEPTEMBER 2024
Scale	NTS

BID SET

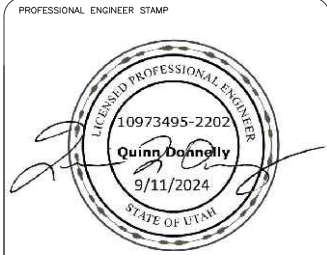




- RAILING NOTES**
- A STAINLESS HEX. HEAD BOLT WITH NUT AND WASHERS SHALL BE USED TO FASTEN THE CROSSBARS TO THE SUPPORTS
  - ALL WOOD DOUGLAS FIR PRESSURE TREATED TYP.

1 WOOD SLAT RAILING SECTION, TYP  
D08 NTS

END OF DOCUMENT



SERGE SIMMONS BANK REPAIR  
AND RIVER ACCESS PROJECT  
SPLIT RAIL FENCE DETAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Ogden City Corporation  
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2549 Washington Blvd  
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Project	45078	Sheet
Date	SEPTEMBER 2024	D08
Scale	NTS	

BID SET