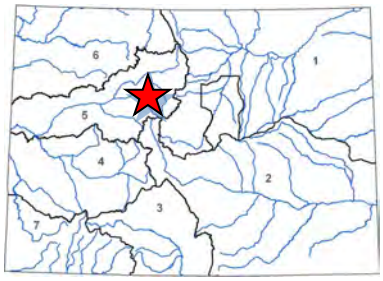
COLORADO
Colorado Water Conservation Board

Water Plan Grant Program Application

Stone Creek Restoration Phase II
Eagle/Vail Metro District
March 2022 Board Meeting

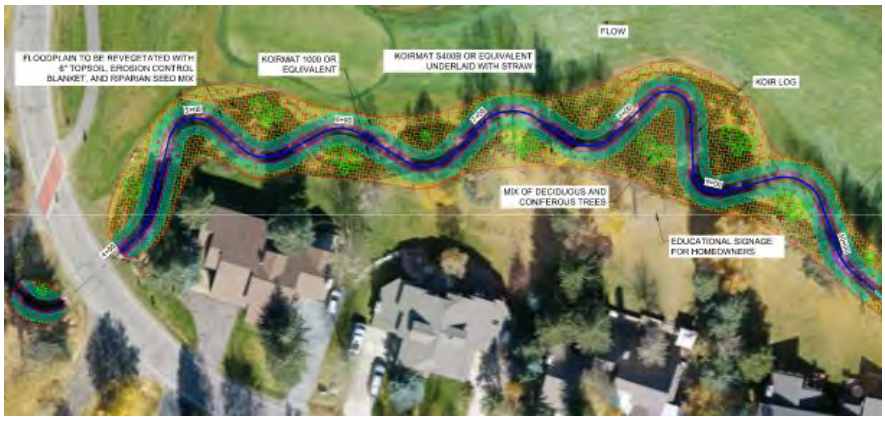


LOCATION	
County/Counties:	Eagle
Drainage Basin:	Colorado

DETAILS	
Total Project Cost:	$843,730
WPG Request:	$413,915
Recommended amount:	$413,915
Other CWCB Funding:	$0
Other Funding Amount:	$0
Applicant Match:	$429,815
Project Type(s): Stream Restoration	
Project Category(Categories): Environment & Recreation	
Measurable Result: 1,496 linear ft. of restored stream; 2 acres of restored habitat	

Stone Creek is a headwater tributary to the Eagle River. It originates in the White River National Forest where it is pristine and healthy in its natural state. As it leaves the National Forest, it enters EagleVail, where it was re-aligned and drastically changed during the development of the area. The EagleVail Metropolitan District has recognized this and has created the Stone Creek Master Plan to pursue solutions.

This project is a direct result of the Stone Creek Master Planning effort. The primary focus is the protection and enhancement of aquatic resources and would address an over-widened stream channel, bank stabilization, sediment aggradation, water quality, and fish passage.



The objectives of this project include:

- Removing nine man-made boulder dams that are causing sediment aggradation, bank erosion, poor water quality, and ones that are a fish barrier
- Implementing a series of smaller riffle-pool sequences to improve hydraulics, fish passage, provide habitat, and spawning beds
- Creating a low-flow channel within a bankfull channel to alleviate sediment aggradation and floodplain connectivity spring runoff, high-flow events, and riparian inundation
- Providing wetland and riparian plantings throughout the corridor to provide ecological uplift to the system
- Educating homeowners throughout EVMD on the importance of these headwater streams and the reasons behind the restoration taking place for the homeowners to become stewards of Stone Creek into perpetuity

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Water Plan

Water Project Summary

Name of Applicant	EagleVail Metro District	
Name of Water Project	Project-01863 Stone Creek Restoration Phase II	
Grant Request Amount		**$413,915.00**
Primary Category		$413,915.00
Watershed Restoration & Recreation		
Total Applicant Match		**$15,900.00**
Applicant Cash Match		
Applicant In-Kind Match		$15,900.00
Total Other Sources of Funding		**$413,915.00**
Water Fund Grant		$413,915.00
Total Project Cost		**$843,730.00**

Applicant & Grantee Information

Name of Grantee: EagleVail Metro District
Mailing Address: PO Box 5660 Avon CO 81620
FEIN: 840,685,829

Organization Contact: Steven Barber
Position/Title:
Phone: (970) 390-8976
Email: sbarber@eaglevail.org

Organization Contact - Alternate: Brent Barnum
Position/Title: Superintendent of Golf Courses & Parks
Phone: 9706880818
Email: bbarnum@eaglevail.org

Grant Management Contact: Steven Barber
Position/Title:
Phone: (970) 390-8976
Email: sbarber@eaglevail.org

Grant Management Contact - Alternate: Brent Barnum
Position/Title: Superintendent of Golf Courses & Parks
Phone: 9706880818
Email: bbarnum@eaglevail.org

Engineering Contact: Scott Schreiber
Position/Title: Water Engineer
Phone: 4239437500
Email: sschreiber@wrightwater.com

Description of Grantee/Applicant

No description provided

Type of Eligible Entity

- ☐ Public (Government)
- ☐ Public (District)
- ■ Public (Municipality)
- ☐ Ditch Company
- ☐ Private Incorporated
- ☐ Private Individual, Partnership, or Sole Proprietor
- ☐ Non-governmental Organization
- ☐ Covered Entity
- ☐ Other

Category of Water Project

- ☐ Agricultural Projects
  Developing communications materials that specifically work with and educate the agricultural community on headwater restoration, identifying the state of the science of this type of work to assist agricultural users among others.
- ☐ Conservation & Land Use Planning
  Activities and projects that implement long-term strategies for conservation, land use, and drought planning.
- ☐ Engagement & Innovation Activities
  Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website.
- ■ Watershed Restoration & Recreation
  Projects that promote watershed health, environmental health, and recreation.
- ☐ Water Storage & Supply
  Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity and Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap.

Location of Water Project

Latitude	39.621267
Longitude	-106.493711
Lat Long Flag	Stream location: Coordinates based on general location on stream
Water Source	Stone Creek and Eagle River
Basins	Colorado
Counties	Eagle
Districts	37-Eagle River Basin

Water Project Overview

Major Water Use Type	Environmental
Subcategory	Construction
Scheduled Start Date - Design	3/1/2022
Scheduled Start Date - Construction	9/1/2022

Description

Stone Creek is a headwater tributary to the Eagle River. It originates in the White River National Forest where it is pristine and healthy in its natural state. As it leaves the National Forest it enters EagleVail, where it was re-aligned and drastically changed during the development of the area.

Over the years this section has become unsustainable and difficult to manage. Contributing to its decline has been due to over widened stream sections, man-made alterations and structures, eroded banks, sediment

aggradation, and existence of fish barriers. The EVMD has recognized these issues and has actively pursued a solution in creating a Stone Creek Master Plan. The Master Plan identified numerous areas along the creek that need improvement, including Phase 2. Phase 1 of The Master Plan was completed in 2019 with great success. The project goal for Phase 2 is to construct a long-term solution that will help us better utilize the water in Stone Creek for multiple benefits. The primary focus is the protection and enhancement of our aquatic resources.

Measurable Results

	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
	Existing Storage Preserved or Enhanced (acre-feet)
	New Storage Created (acre-feet)
1,496	Length of Stream Restored or Protected (linear feet)
	Efficiency Savings (dollars/year)
	Efficiency Savings (acre-feet/year)
2	Area of Restored or Preserved Habitat (acres)
	Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement (acre-feet)
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning
	Number of Coloradans Impacted by Engagement Activity

Water Project Justification

Stone Creek Restoration Phase II meets many of the Colorado Water Plan and the Colorado River Basin Roundtable by ultimately providing a strong and healthy environment as well as education and outreach. As provided in the many letters of supports from environmental non-profits to the Colorado Parks and Wildlife this project will help to benefit the headwater streams that are so important to the underlying ecosystem and the community that calls this home. The project will specifically “Understand, protect, maintain, and improve conditions of streams, lakes, wetlands, and riparian areas to promote self-sustaining fisheries and functional riparian and wetland habitat to promote long-term resiliency.” And “Maintain watershed health by protecting or restoring watersheds that could affect critical infrastructure and/or environmental and recreational areas.” The project supports the goals and objectives in the Colorado Water Plan, Chapter 10-Section F “Watershed Health, Environment, and Recreation.

Related Studies

2014 Stone Creek Feasability Study
2016 Stone Creek Master Plan
2019 Phase I Stone Creek Restoration Project
EVMD Annual Water Quality Testing
Monthly Reporting Water Usage to ERWSD
Assessment of Water Quantity, Eagle River Watershed, 2007

Taxpayer Bill of Rights

N/A

Budget and Schedule

This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.

Reporting Requirements

Progress Reports: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that: (1) Summarizes the project and how the project was completed. (2) Describes any obstacles encountered, and how these obstacles were overcome. (3) Confirms that all matching commitments have been fulfilled. (4) Includes photographs, summaries of meetings and engineering reports/designs. The CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions. Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to as part of the project documentation.

Performance Measures

Performance measures for this contract shall include the following: (a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in the Budget & Schedule Exhibit B. Per Water Plan Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment. (b) Accountability: Per Water Plan Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Water Plan Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment. (c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary. (d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

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Last Updated: May 2021

Colorado Water Conservation Board
Water Plan Grant – Statement of Work – Exhibit A

Statement Of Work	
Date:	**November 17, 2021**
Name of Grantee:	**EagleVail Metropolitan District**
Name of Water Project:	**Stone Creek Restoration – Phase 2**
Funding Source:	**Colorado Water Conservation Board**

Water Project Overview:

Stone Creek is a headwater tributary to the Eagle River. It originates in the White River National Forest where it is pristine and healthy in its natural state. As it leaves the National Forest, it enters EagleVail, where it was re-aligned and drastically changed during the development of the area.

Over the years, this section has become unsustainable and difficult to manage. Contributing to its decline has been due to over-widened stream sections, man-made alterations and structures, eroded banks, sediment aggradation, and the existence of fish barriers. EagleVail Metropolitan District (EVMD) has recognized these issues and has actively pursued a solution in creating a Stone Creek Master Plan. The Master Plan identified numerous areas along the creek that need improvement, including Phase 2.

Phase 1 of The Master Plan was completed in 2019 with great success. Phase 1 was toured with Kendall Bakich of the Colorado Parks and Wildlife where she also agreed it was a great success. There was even evidence of clean gravels dictating spawning was/is taking place. The reconnection of the floodplain provided an amazing riparian corridor. The surrounding homeowners were grateful for the work that was completed.

The project goal for Phase 2 is to construct a long-term solution that will help us better utilize the water in Stone Creek for multiple benefits. The primary focus is the protection and enhancement of our aquatic resources. The funding provided by the CWCB would assist the EVMD in the completion of Phase 2 by the Fall of 2021. Phase 2 would address an over widened stream channel, bank stabilization, sediment aggradation, water quality, and fish passage through these sections of Stone Creek. Our emphasis is to create a balanced self-sustaining aquatic ecosystem with beautiful/resilient riffles and pools. The project would also allow for public engagement and education.

Last Updated: May 2021

Project Objectives:

The Stone Creek Master Plan was designed with the goal of creating a self-sustaining creek that could endure high and low flows through proper channel cross section and floodplain connectivity, improve water quality, reduce erosion & sediment aggradation, and create fish passage throughout the creek. The Master Plan was designed to be implemented in five phases. These phases have been categorized by importance. Phase 1 was completed in the fall of 2021.

Phase 2 List of Objectives:

- Remove nine man-made boulder dams that are causing sediment aggradation, bank erosion, poor water quality, and ones that are a fish barrier.
- Implement a series of smaller riffle-pool sequences to improve hydraulics, fish passage, provide habitat, and spawning beds.
- Create a low flow channel within a bankfull channel to alleviate sediment aggradation and floodplain connectivity spring runoff, high flow events, and riparian inundation.
- Provide wetland and riparian plantings throughout the corridor to provide ecological uplift to the system.
- Educate homeowners throughout EVMD on the importance of these headwater streams and the reasons behind the restoration taking place for the homeowners to become stewards of Stone Creek into perpetuity.

By accomplishing Phase 1 in 2019 and now Phase 2, our hope would be to continue the momentum needed to complete the remaining phases and the Stone Creek Master Plan in its entirety in the years to come.

Phase 2 is separated into two sections for Stone Creek. Section A is a 631 ft section of Stone Creek and Section B is an 832 ft section of Stone Creek that has been identified with the following deficiencies. Deficiencies such as: inadequate channeling, hydraulic influences, water quality, man-made alterations & structures, eroded banks, and poor fish passage.

The overly wide channel in these sections (Phase 2) is producing aggradation of sediment in the creek and ponds. Also, in this section, the creek is not connected to the floodplain; therefore, producing erosive velocities that are causing erosion and failing stream banks. There are also nine man-made boulder dams that are too large for fish passage and affect the overall slope of the channel and the sediment carrying capacity of the creek in these sections.

These oversized dams were constructed to create ponds. In doing so, these structures have created large shallow pools that collect sediment and reduce depth for habitat throughout the pools. The low gradient and excess width have allowed for suspended materials to settle and accumulate in slow-moving water thus creating “sediment” islands. Also, in high water flow events such as runoff, the flow is pushed outward causing erosion and unstable banks. These dams not only create shallow depths, collect sediment, and influence bank erosion, they also make fish passage nearly impossible.

Phase 2 would include developing a defined channel through these sections with appropriately designed riffle-run-pool-glide sequences. This would allow for adequate streamflow during all seasons whether high runoff or low flow. The channel would provide consistent water movement, regardless of flow, and eliminate excess sediment build-up. This channel would also improve water quality and provide access for fish to move freely up and downstream.

Phase 2 would also consist of eliminating the nine man-made boulder dams. By removing the dams, it would create a more desirable slope through these sections and riffle-pools would be developed that will not only meet the geomorphic demands of the creek, but would also provide great habitat for aquatic organisms as well as spawning beds. Each drop would be 1 to 2 feet in height with a recommended slope of 1% between

each drop. Not only would these boulder cross vanes improve the slope through these sections, but they would aid a great deal in erosion control, bank stabilization, fish passage, fish habitat, and better water quality.

Another facet to Phase 2 would be the process of bank stabilization and to lay back the slopes of the banks to allow for floodplain connectivity. This would allow relief during high flows and spring runoff that would not compromise the integrity of the creek banks.

Throughout the process, public engagement and education would also take place so that the residents of EagleVail can learn to become good stewards of Stone Creek. Multiple public education outreach events took place during Phase 1 along with stewardship fact sheets and distribution of other educational materials. Phase 2 will continue with our public education and outreach campaign by holding public gatherings where the project can be discussed with the EVMD community. Educational signs will also be developed to inform the homeowners and the golfers about the intent of the project and how to be good stewards of our resources. Stakeholder engagement will be completed with the CWCB, the Eagle River Watershed Council, the Restore the Gore group, Trout Unlimited, homeowners, and other environmentally centric groups.

Once Phase 2 is complete and these sections of Stone Creek are restored, it will greatly improve water quality, water flow, erosion control, bank stabilization, and fish passage. These sections would become self-sustainable and require zero to no maintenance. Adaptive management is still being included to adjust any restoration aspects that need to be adjusted following the first couple of years of establishment.

The EVMD would provide documentation and updates to the CWCB throughout the process, from the beginning to its completion. Once completed, the EVMD would communicate to the CWCB the effects it has had on Stone Creek and any further developments in implementing the remaining Phases of the Master Plan.

Our hope is that after the completion of Phase 1 in 2019 and with the completion of Phase 2, EVMD along with other partners could continue the momentum needed in completing the Stone Creek Master Plan in its entirety. Once the Master Plan is implemented, Stone Creek would be a healthy self-sustaining creek that would contribute greatly to the entire Eagle River Watershed and Colorado River Basin. The Stone Creek Restoration and the EVMD could continue to set the standard in Stream Restoration and be an example for other communities to follow.

Attached to this grant applications are initial concepts developed for the project.

Tasks

Task 1 – Final Design, Engineering and Permitting

Description of Task: Task 1 will include the final design, engineering, and permitting to develop construction drawings and bid documents that can be constructed during Task 2. Task 1 will also include a robust public education and outreach process. The following sections break out the various subtasks of the work.

Subtask A: Project Management, Meetings Coordination, and Site Visits – This task will provide overarching project management and coordination for Task 1. This will include multiple site visits to review designs and meet with the public to educate them about the upcoming project and receive stakeholder input. This task will also coordinate with other environmentally-centric organizations in the valley to provide updates on the project and also receive feedback.

Subtask B: Public Education and Outreach – This task will include at least two public outreach campaigns. It is anticipated that at least one of these campaigns will take place on-site with the public so that the project sections can be walked and discussed. Additional public education and outreach will include reaching out directly to homeowners along the restoration sections via door knocking and pamphlets. A presentation will

also be provided to the EVMD on the project's purpose and goals. Educational materials will also be provided to the stakeholders to provide a better understanding of what it means to be a steward of our streams.

Subtask C: Hydraulic Modeling – This task will include detailed two-dimensional hydraulic modeling of the existing and proposed conditions of the project sections. This information will help to inform channel restoration designs as well as support the floodplain permitting. The detailed modeling will be used to develop stable geomorphic parameters to be emplaced during construction.

Subtask D: 60% Designs – Prior to this grant, concepts were developed based on the Master Plan and Phase 1 information. The designs will be developed further during the first few months of 2022 to a 30% level to meet the project deadline (Furthering concepts to 30% designs are not included in this grant request due to the timing of grant approval). This task will further the 30% designs into 60% designs that can be used to finalize permitting aspects. The hydraulic modeling will help to inform modifications to the design. Under this task's details, alignments, profiles, and sections will also be further developed.

Subtask E: Wetland and Floodplain Permitting – This task will utilize the 60% designs to develop wetland and floodplain permitting. It is anticipated the wetland permitting will be completed via a Nationwide or Regional General Permit through the US Army Corps of Engineers. It is anticipated that a no rise certification will be submitted for the floodplain permitting through Eagle County.

Subtask F: 100% Designs – Following acceptance of permits, the 60% designs will be finalized into a construction-ready planset with all applicable notes, details, and callouts.

Subtask G: Preparation of Construction Documents – This task will include developing project-specific specifications and contract documents for construction.

Subtask H: Expenses – This task covers any expenses necessary for the development of final plans, permits and constructions documents which includes mileage, reproduction, and travel.

Deliverable: Final Set of Construction Documents and Permits for Construction

Tasks

Task 2 – Construction

Description of Task: This task incorporates the construction of the design plans developed under the previous tasks. Included in the cost spreadsheet are a breakout of quantities, unit costs, and total costs for the work to be performed. The work includes developing a single thread channel with riffle-pool sequences and reconnected floodplain. The project will include substantial revegetation and educational efforts. This task includes construction observation by the design team. This task also includes adaptive management to take place in the first year following construction. This task also includes a 20% contingency since all quantities are based on concepts.

The contractor selected for this work will be vetted by the owners and the design engineers are required to have extensive experience in stream restoration. The project will be competitively bid.

Deliverable: Final constructed project.

Budget and Schedule

Last Updated: May 2021

Included in this submittal is a complete statement of work template.

Reporting Requirements

Progress Reports: The applicant shall provide the CWCB a progress reports every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

The CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

Payment

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Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to as part of the project documentation.

Performance Measures

Performance measures for this contract shall include the following:
(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit C. Per Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.
(b) Accountability: Per Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.
(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.

(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

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Water Plan Grant - Detailed Budget Estimate
Fair and Reasonable Estimate

Prepared Date: Scott Schreiber
Name of Applicant: EagleVail Metro District
Name of Water Project: Stone Creek Restoration Phase II

Stone Creek Restoration - Phase II Final Engineering and Construction

Task 1 - Final Design, Engineering and Permitting			Water Consultants						Subcontracts				
Sub-task	Task State Date	Task End Date	Principal (S. Schreiber)	Engineering Specialist (D. Ludwig)	Engineering Designer (A. Giles)	Engineering Technician I (B. Trotter)	Engineering Technician II (M. Octavidya)	Subtotal	Revegetation (AloTerra)	Subtotal	Project Total	CWCB Funds	Matching Funds
			$ 231	$ 157	$ 129	$ 115	$ 100		Lump sum				
			Estimated Hours						Estimated Cost				
A: Project Mananment, Meetings, Coordination, and Site Visits	3/1/2022	10/1/2022	6	6			4	$ 2,728		$ -	$2,728	$ 1,364.0	$ 1,364.0
B: Public Education and Outreach	3/1/2022	10/1/2022	6	4		4	4	$ 2,874		$ -	$2,874	$ 1,437.0	$ 1,437.0
C: Hydraulic Modeling	3/1/2022	5/1/2022	6	16		8	4	$ 5,218		$ -	$5,218	$ 2,609.0	$ 2,609.0
D: 60% Desings	4/1/2022	6/1/2022	6	20		8	3	$ 5,746		$ -	$5,746	$ 2,873.0	$ 2,873.0
E: Wetland and Floodplain Permitting	4/1/2022	6/1/2022	6	24		16	4	$ 7,394		$ -	$7,394	$ 3,697.0	$ 3,697.0
F: 100% Designs	6/1/2022	8/1/2022	8	33	8	20		$ 10,361	$ 10,000	$ 10,000	$20,361	$ 10,180.5	$ 10,180.5
G: Preparation of construction documents (bid docs, specs)	7/1/2022	8/1/2022	8	24				$ 5,616		$ -	$5,616	$ 2,808.0	$ 2,808.0
H: Expenses (Mileage, Printing, Plotting, Lodging)	3/1/2022	10/1/2022						$ 5,000			$5,000	$ 2,500.0	$ 2,500.0
Engineering Subtotal											**$ 54,937**	**$ 27,469**	**$ 27,469**

Task 2 - Construction								
Item	Task State Date	Task End Date	Unit	Quantity	Unit Cost	Total Cost	CWCB Funds	Matching Funds
Mobilization And Demobilization	8/15/2022	10/1/2022	LS	1	$ -	$ 50,000	$ 25,000	$ 25,000
Water Control And Dewatering	8/15/2022	10/1/2022	LS	1	$ -	$ 15,900	$ 5,900	$ 10,000
Construction Staking & Surveying	8/15/2022	10/1/2022	LS	1	$ -	$ 10,000	$ -	$ 10,000
Erosion And Sediment Control	8/15/2022	10/1/2022	LS	1	$ 10,000	$ 20,000	$ 10,000	$ 10,000
24" Boulders (B24), Crest Boulders	8/15/2022	10/1/2022	EA	120	$ 250	$ 30,000	$ 14,100	$ 15,900
24" Boulders (B24), Feature Boulders	8/15/2022	10/1/2022	EA	184	$ 250	$ 46,000	$ 23,000	$ 23,000
Type VI Void-Filled Riprap With Cobble Top-Dress	8/15/2022	10/1/2022	CY	2,216	$ 90	$ 199,467	$ 99,733	$ 99,733
Riparian Seeding And Planting	8/15/2022	10/1/2022	SF	61,017	$ 0	$ 7,322	$ 3,661	$ 3,661
2" Caliper Trees	8/15/2022	10/1/2022	EA	50	$ 500	$ 25,000	$ 12,500	$ 12,500
Erosion Control Blanket (Koirmat 1000)	8/15/2022	10/1/2022	SY	1,652	$ 20	$ 33,032	$ 16,516	$ 16,516
Erosion Control Blanket (Koirmat S400B)	8/15/2022	10/1/2022	SY	4,895	$ 10	$ 48,951	$ 24,476	$ 24,476
Koir Logs	8/15/2022	10/1/2022	LF	2,525	$ 10	$ 25,249	$ 12,624	$ 12,624
Log Structure	8/15/2022	10/1/2022	EA	26	$ 300	$ 7,800	$ 3,900	$ 3,900
Educational Signage	8/15/2022	10/1/2022	EA	4	$ 500	$ 2,000	$ 1,000	$ 1,000
Earthwork	8/15/2022	10/1/2022	CY	4,102	$ 10	$ 41,020	$ 20,510	$ 20,510
Import Fill	8/15/2022	10/1/2022	CY	1,886	$ 30	$ 56,571	$ 28,286	$ 28,286
Construction Observation	8/15/2022	10/1/2022	LS	1	$ 30,000	$ 30,000	$ 15,000	$ 15,000
Adaptive Management	8/15/2023	10/1/2023	LS	1	$ 20,000	$ 20,000	$ 10,000	$ 10,000
Contingency (≈20%)	8/15/2022	10/1/2022	LS	1	$ 120,482	$ 120,482	$ 60,241	$ 60,241
Construction Subtotal						**$ 788,793**	**$ 386,447**	**$ 402,347**
Project Total (CWCB Funds / Matching Funds)							**$ 413,915**	**$ 429,815**
Project Total							**$**	**843,730**

Stone Creek Phase 2 Engineers Estimate (30% Design)					
BID ITEM NUMBER	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL COST
1	MOBILIZATION AND DEMOBILIZATION	LS	1		$ 50,000
2	WATER CONTROL AND DEWATERING	LS	1		$ 15,900
3	CONSTRUCTION STAKING & SURVEYING	LS	1		$ 10,000
4	EROSION AND SEDIMENT CONTROL	LS	1	$ 10,000	$ 20,000
5	24" BOULDERS (B24), CREST BOULDERS	EA	120	$ 250	$ 30,000
6	24" BOULDERS (B24), FEATURE BOULDERS	EA	184	$ 250	$ 46,000
8	TYPE VL VOID-FILLED RIPRAP WITH COBBLE TOP-DRESS	CY	2,216	$ 90	$ 199,467
9	RIPARIAN SEEDING AND PLANTING	SF	61,017	$ 0.12	$ 7,322
11	2" CALIPER TREES	EA	50	$ 500	$ 25,000
12	EROSION CONTROL BLANKET (KOIRMAT 1000)	SY	1,652	$ 20	$ 33,032
13	EROSION CONTROL BLANKET (KOIRMAT S400B)	SY	4,895	$ 10	$ 48,951
14	KOIR LOGS	LF	2,525	$ 10	$ 25,249
15	LOG STRUCTURE	EA	26	$ 300	$ 7,800
16	EDUCATIONAL SIGNAGE	EA	4	$ 500	$ 2,000
18	EARTHWORK	CY	4,102	$ 10	$ 41,020
19	IMPORT FILL	CY	1,886	$ 30	$ 56,571
SUBTOTAL					**$ 618,311**
CONTINGENCY (≈20%)					$ 120,482
CONSTRUCTION OBSERVATION					$ 30,000
ADAPTIVE MANAGEMENT					$ 20,000
FINAL CONSTRUCTION SUBTOTAL					**$ 788,793**

Photo Gallery - Phase 2

Stone Creek Master Plan

Arial photo of Stone Creek – the 1.6 miles through the EagleVail Community

Deficiencies & Issues

Nine Man-made boulder dams – causing sediment aggradation, bank erosion, poor water quality, and that are fish barriers.

Sediment Aggradation

Bank Erosion

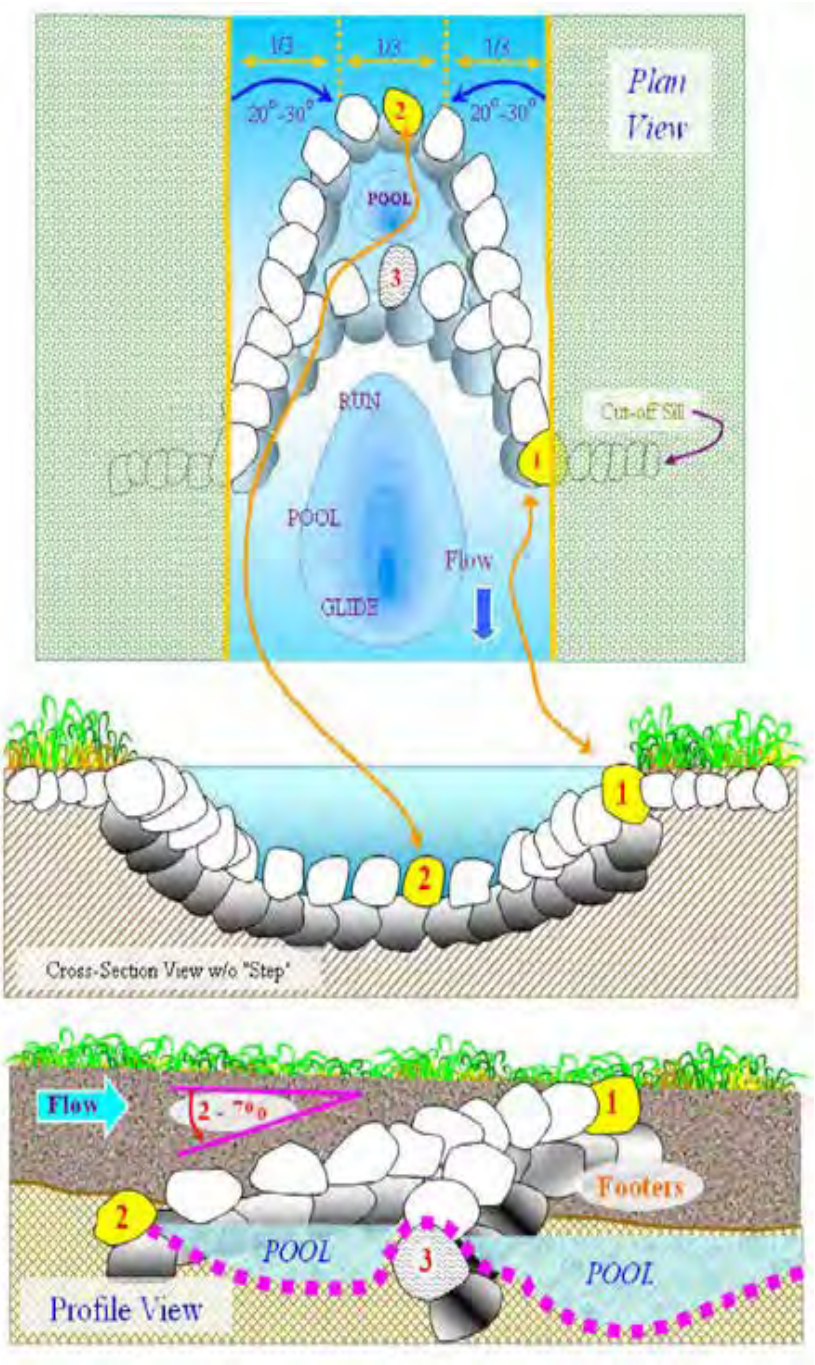
Over Widen Channel


Poor Water Flow

Inadequate Channeling

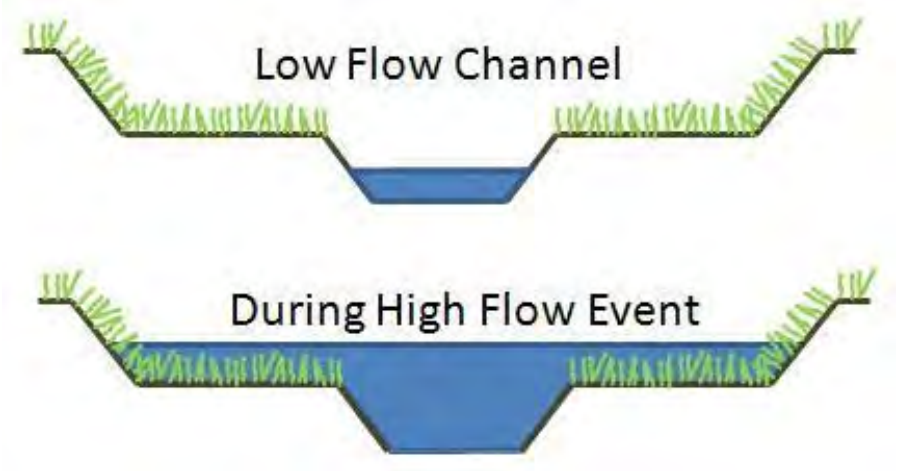
Sediment Laden Pond

Phase 1 – Objectives



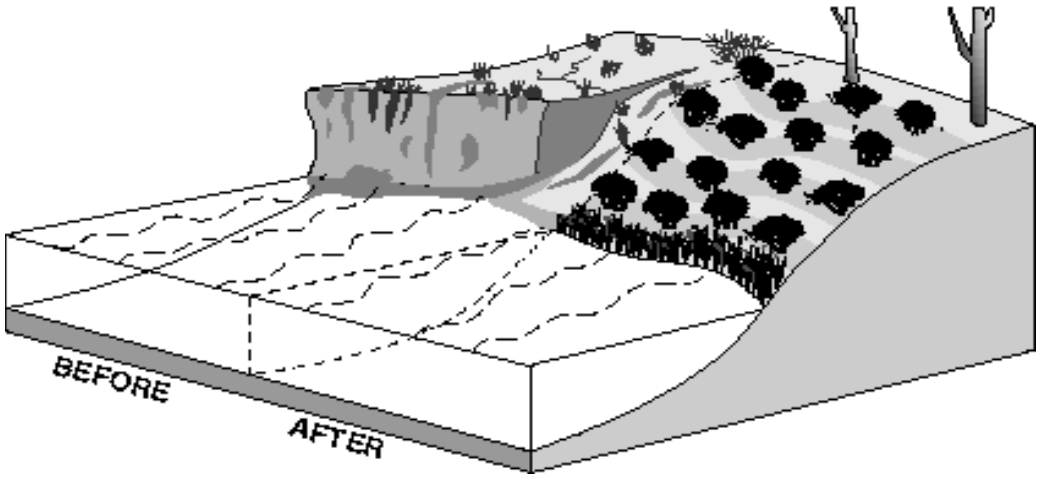
Remove the nine man-made dams

In their place implement a series of smaller drops composed of boulder cross vanes. Improving slope, erosion control, and fish passage.



Low Flow Channel & Floodplain Bench

This will alleviate sediment aggradation, create floodplain connectivity, accommodate both high and low flows, and riparian inundation. The channel would provide consistent water movement, regardless of flow and improve water quality and fish passage.



Bank Stabilization

By sloping back the banks and establishing vegetation along the banks this will reduce the erosion and improve water quality.

Fish barriers throughout Stone Creek

Spawning fish in Stone Creek

Fish Passage

By removing the nine man-made dams, implementing a series of smaller drops, create a low flow channel, and by improving the slope through this section will allow for fish to swim freely up & down Stone Creek while expanding their spawning grounds.

Phase 2 – Completion

- **Address** deficiencies that currently exist in Stone Creek
- Our **Goal** is to complete the Master Plan in its entirety by 2027
- We want to be an **example** for other mountain communities that are facing similar challenges
- This project will allow for numerous **public engagements** and **educational** opportunities
- Fish passage will be **improved** throughout stream

Completion of PHASE 2 and the Master Plan the EVMD would reach its ultimate goal of improving several key categories in water management:

- **Water Supply**
- **Water Efficiency**
- **Water Quality**
- **Drought Management**
- **Aquatic & Wildlife**

Phase 1 – Stone Creek Master Plan Project

Project Summary

Parties Involved:

Steven Barber – *District Manager,* EVMD
Brent Barnum – *Superintendent of Golf Courses & Parks,* EVMD
Scott Schreiber – *Senior Water Resources Engineer,* Wright Water Engineering
Jeff Crane – *River Hydrologist & Watershed Planner,* Crane Associates

Supporting Parties:

Eagle River Water & Sanitation	Eagle River Watershed Council
EagleVail Property Owners	Homestake Peak School
Colorado Parks & Wildlife	U.S. Fish & Wildlife Services
Town of Vail	The Boy Scouts - Troop 231
Audubon International	Trout Unlimited

Description & Purpose of Phase 1:

Phase 1 of the Stone Creek Master Plan is a 270ft section of Stone Creek that has been suffering from deficiencies. Deficiencies such as inadequate channeling, hydraulic influences, water quality, man-made alterations & structures (dams), eroded banks and poor fish passage.
The overly wide channel in this section (Phase 1) is producing aggradation of sediment in the creek and ponds. Also, this section of the creek is not connected to the floodplain therefore producing erosive velocities that are causing erosion and failing stream banks. There are two man-made dams that are too large for fish passage and that affect the overall slope of the channel and sediment carrying capacity in this section. The two dams have created large shallow pools that collect sediment, reduce water depth, push flow outward causing bank erosion, and make fish passage nearly impossible.

Phase 1 List of Objections:

- Remove two man-made dams that are causing sediment aggradation, bank erosion, poor water quality, and that are fish barriers.
- Implement a series of riffles and smaller pools to improve hydraulics, fish passage, provide habitat, and spawning beds.
- Improved fish passage would allow fish to travel/spawn an additional 1200ft up stream.
- Create a low flow channel within the bankfill channel to alleviate aggradation and floodplain connectivity spring runoff, high flow events and riparian inundation.

Summary of Project:

Phase 1 of the Stone Creek Master Plan began on September 9th, 2019. The project began with diverting the water in this section to allow for the work to be done. The water was diverted along the northside of the creek bank via 24" plastic drainage pipe. This process took approximately two days. At this point the contractor removed the two man-made dams. Then proceeded to move the materials in the creek creating a beginning grade. Once established, the work on the single thread channel begun using the survey points set by the design. After the channel was created, the riffles and pools were installed to specifications. Bolder cross vanes were created at the beginning of each riffle, strategic rocks, logs, and features were installed along the way to create habit for wildlife. Also, during this time, the riverbed cobble was implemented in the channel. Once the channel was complete, the grading of the banks and the floodplain connectivity was established.

Before the water was released back into the new creek channel, bio-logs were created and installed within the creek banks. Inside the bio-logs were willow cuttings and soil. The willow cuttings were harvested on property at a nearby pond. The in-stream work was completed on September 27th, 2019. The project was planned in such a way to have the in-stream work completed by October 1st, which is the beginning of the spawning of the Brown Trout.

The remaining work outside the stream then took place. This work included the final grading of the banks. The re-vegetation phase of the project took roughly 10 days to complete. This included placing erosion matting over the native seed areas and throughout the project. Plants such as willows, bushes, native flowers, and trees were then planted along each side of the creek to create habitat. Also, the work staging area and access road were graded, over seeded, and matted to finish the reclamation process. The re-vegetative area and project was then roped off to protect the establishing vegetation. Also, signs were installed to educate the community on the riparian area.

The project was completed on time and within budget on October 10th, 2019. The project was a great success.

In the following weeks, from October 19th to November 9th, the local Boy Scout Troop 231, assisted a fellow Scout in the installation of over 30 riparian signs along Stone Creek. This was part of an Eagle Scout project. These signs will aid in the educational aspect as part of environmental stewardship.

Obstacles:

As with any project there are obstacles, but for this project the obstacles were minimal. One obstacle or challenge we encountered during the process was with the homeowners along the site area itself. They had concerns about how the creek would look in the end, features being placed in the creek, and certain vegetation that was being planted. These concerns were addressed through discussion and education.

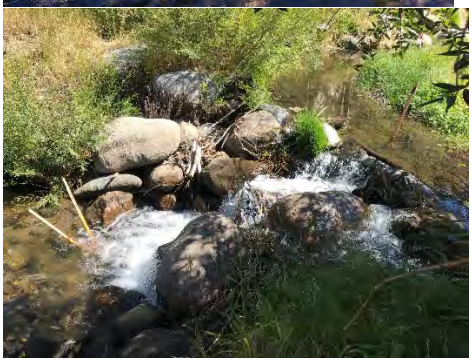
Another obstacle that we overcame, was extra soil not accounted for in the original design of a zero balanced project. The solution was to use the excess soil and incorporate it into a golf course project.

Additional Information

Phase 1 – Stone Creek Master Plan

Picture Gallery

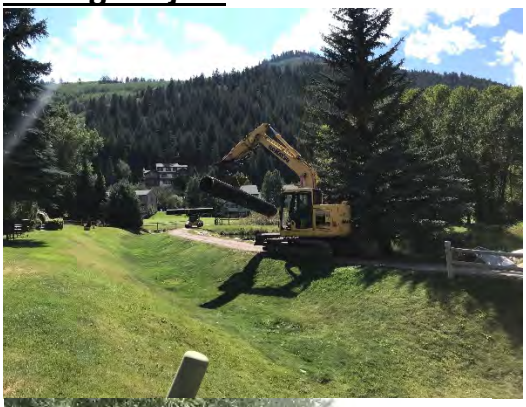
Before Pictures of Phase 1 area



PO Box 5660, Avon, CO 81620 • (970) 949-5400 • Fax (970) 949-0520

www.eaglevail.org • evmd@eaglevail.org

During Project



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After Pictures of Phase 1

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www.eaglevail.org • evmd@eaglevail.org

STONE CREEK RESTORATION: PHASE II
30% CONCEPT PLANS

EAGLEVAIL METRO DISTRICT

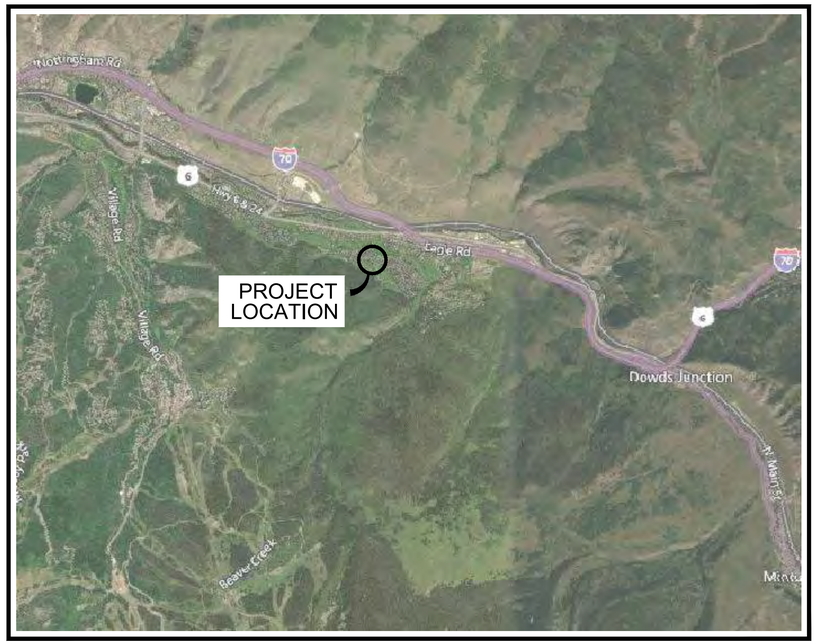
GENERAL NOTES

1. 30% DESIGN PLANS ARE FOR BIDDING PURPOSES ONLY. NOT FOR CONSTRUCTION.
2. DESIGN CHANGES IN THE FIELD ARE EXPECTED BASED UPON EXISTING CONDITIONS.
3. EXISTING MATERIALS ON SITE SHALL BE USED FOR CREEK IMPROVEMENTS WHERE POSSIBLE. BASED UPON EXISTING AVAILABILITY, THE CONTRACTOR MAY NEED TO SUPPLEMENT ONSITE MATERIALS WITH OFFSITE MATERIALS.
4. THE OVERALL GOAL OF THE PROJECT IS TO REMOVE THE LARGE DROP STRUCTURES AND AGGRADED PONDS TO DEVELOP A SINGLE THREAD CHANNEL THAT PROVIDES BEDFORM DIVERSITY, FISH PASSAGE, AND GRADE CONTROL. CONTINUITY BETWEEN UP- AND DOWNSTREAM CHANNEL SECTIONS SHALL BE RESTORED UPON COMPLETION OF THE PROJECT.

30% CONCEPT PLAN

THESE PLANS REPRESENT 30% CONCEPTS FOR GRANT PURPOSES. THE DESIGNS WILL BE UPDATED WITH FINAL ENGINEERING AND FOLLOWED BY PERMITTING. OVERALL INTENT OF THE DESIGN WILL BE THE SAME BUT SOME MINOR MODIFICATIONS MIGHT TAKE PLACE

PROJECT LOCATION



NORTH 3000 0 3000 6000 FT

CONTACTS

OWNER:
EAGLEVAIL METRO DISTRICT

CONTACT: BRENT BARNUM
970-688-0818

ENGINEER:
WRIGHT WATER ENGINEERS, INC.
818 COLORADO AVENUE
SUITE 307
GLENWOOD SPRINGS, CO 81601

CONTACT: SCOTT SCHREIBER, P.E.
970-945-7755 (OFFICE)

SURVEY:
SOPRIS ENGINEERING
502 MAIN STREET, SUITE A-3
CARBONDALE, CO 81623

CONTACT: NATE HADDEN, E.I.T.
970-704-0311

SHEET INDEX

CALL COLORADO 811 OR CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 NOTE: 2 BUSINESS DAYS IS REQUIRED BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

DRAFT WORK IN PROGRESS

WRIGHT WATER ENGINEERS, INC.
818 COLORADO AVE. P.O. BOX 219
GLENWOOD SPRINGS, CO 81602
(970)945-7755 FAX(970)945-9210

NO.	BY	DATE	DESCRIPTION	COMMENTS

NOT FOR CONSTRUCTION

		DATE
DESIGN	SDS	12/01/21
DETAIL	DTL	12/01/21
CHECK	SDS	12/01/21
SCALE		AS SHOWN

STONE CREEK RESTORATION: PHASE II
30% CONCEPTS

TITLE SHEET

JOB NO. 191-017.020
REVISION NO. ---
SHEET NO. TS01

Plot Date/Time: 11/15/2021, 03:11:58 PM; G:\WWE\191-017\020\CAD\01_DWGS\TSXX.DWG-TS01

ISSUE DATE: --/--/--

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH URBAN DRAINAGE AND FLOOD CONTROL (UDFCD) STANDARDS AND SPECIFICATIONS, PROJECT CONTRACT AND PROJECT TECHNICAL SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE STANDARDS AND REGULATIONS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
3. NO FIELD CHANGES SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER AND OWNER.
4. SUBMITTALS SHALL BE MADE FOR ALL MATERIALS TO BE INCORPORATED INTO THE PROJECT.
5. THE PHYSICAL FEATURES WITHIN THE LIMITS OF THE PROJECT HAVE BEEN SHOWN BASED ON THE AVAILABLE INFORMATION AT THE TIME OF DESIGN. THE CONTRACTOR SHALL REVIEW AND VERIFY EXISTING PHYSICAL FEATURES AND ELEVATIONS.
6. THE CONTRACTOR SHALL LIMIT ALL WORK AND STORAGE AREAS TO THE APPROVED PROJECT SITE, AND EASEMENTS.
7. ALL CONSTRUCTION IS TO INCLUDE COMPACTION AND FINISH GRADING IN THE RELATED WORK ITEM.
8. ALL WORK SHALL BE DONE TO THE LINES, GRADES, SECTIONS, AND ELEVATIONS SHOWN ON THE PLANS UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER.
9. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE ENGINEER.
10. THE ENGINEER SHALL BE NOTIFIED WITHIN 48 HOUR PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
11. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPE AS SHOWN ON THE PLANS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR AT HIS/HER OWN EXPENSE.
12. THE CONTRACTOR SHALL PROTECT THE EXISTING DRAINAGE STRUCTURES AND REROUTE ANY RUNOFF AS NECESSARY DURING CONSTRUCTION ACTIVITIES TO PREVENT EROSION AND DAMAGE.
13. THE CONTRACTOR SHALL CLOSELY MONITOR ACCESS FOR HEAVY CONSTRUCTION EQUIPMENT THROUGH THE PROJECT.
14. THE PHYSICAL FEATURES REQUIRING REMOVAL OR OBLITERATION WITHIN THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF OFF-SITE UNLESS NOTED OTHERWISE IN THE PLANS AND/OR SPECIFICATIONS.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING ANY MONUMENT, RANGE POINTS, TIES, BENCHMARKS AND/OR SURVEY CONTROL POINTS WHICH MAY BE DISTRIBUTED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENT BY A REGISTERED PROFESSIONAL LAND SURVEYOR AUTHORIZED TO PRACTICE LAND SURVEYING IN THE STATE OF COLORADO.
16. THE CONTRACTOR SHALL HAVE A COPY OF ALL APPLICABLE STANDARDS AND SPECIFICATIONS ON SITE FOR THE DURATION OF THE PROJECT.
17. ANY DISCREPANCY WITHIN THESE PLANS SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND WORK SHALL STOP UNTIL THE DISCREPANCY IS DISCUSSED AND DECISIONS/AGREEMENTS HAVE BEEN MADE.
18. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS THAT ARE PERTINENT TO THIS WORK.
19. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE OWNER. THE OWNER RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO THE STANDARDS AND SPECIFICATIONS.
20. THE CONTRACTOR SHALL HAVE ONE SIGNED COPY OF THE APPROVED PLANS, ONE COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND A COPY OF ANY PERMITS NEEDED AT THE JOB SITE AT ALL TIMES.
21. PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL MEET WITH THE OWNER'S REPRESENTATIVE AND RECORD NOTES AND PICTURES OF EXISTING CONDITIONS OF THE SITE AND ADJACENT PROPERTY DURING PRE-CONSTRUCTION MEETING.
22. UNAUTHORIZED CHANGES AND USES: THE ENGINEER WHO PREPARED THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS AND SPECIFICATIONS MUST BE IN WRITING AND MUST BE APPROVED BY THE OWNER AND THE PREPARER OF THESE PLANS.
23. THE CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE IMMEDIATELY OF ANY FIELD CONDITION NOT CONSISTENT WITH THE CONSTRUCTION DOCUMENTS.
24. THE CONTRACTOR SHALL PERFORM ALL WORK WITHIN THE CONSTRUCTION LIMITS AS SHOWN ON THE DRAWINGS AND IN THE CONTRACT DOCUMENTS. IF THE CONTRACTOR DAMAGES ANY EXISTING SITE OR PUBLIC/PRIVATE AMENITIES (PAVEMENTS, CURBS, CURB AND GUTTER, SOD, GRASS, LANDSCAPING, TREES, FENCES, ETC.) OUTSIDE OR WITHIN THE EASEMENTS OR CONSTRUCTION LIMITS, THEY SHALL REMOVE AND REPAIR SUCH TO THE SATISFACTION OF THE INDIVIDUAL PROPERTY OWNERS.
25. ALL ITEMS NOT INCLUDED IN THE BID TAB AND NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL PROJECT OR NOTED AS 'INCIDENTAL' IN THE PLANS OR SPECIFICATIONS OR WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT ARE INCLUDED IN THE WORK.
26. DIMENSIONS AND NOTATIONS SUPERSEDE SCALE OF THE DRAWINGS. GRADES SHOWN ARE FINISHED GRADES EXCEPT WHERE OTHERWISE NOTED ON THE DRAWINGS.

30% CONCEPTS
NOTES DEVELOPED FROM PHASE I WORK AND WILL BE UPDATED DURING FINAL ENGINEERING.

CALL COLORADO
811
OR CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBERS OF UNITED

PROJECT NOTES

1. THE OVERALL GOAL OF THE PROJECT IS TO REMOVE THE LARGE DROP STRUCTURES AND AGGRADED PONDS TO DEVELOP A SINGLE THREAD CHANNEL THAT PROVIDES BEDFORM DIVERSITY, FISH PASSAGE, AND GRADE CONTROL. CONTINUITY BETWEEN UP- AND DOWNSTREAM CHANNEL SECTIONS SHALL BE RESTORED UPON COMPLETION OF THE PROJECT.
2. MANY OF THE ITEMS LISTED IN THE QUANTITIES ARE TYPICAL UDFCD ITEMS. TYPE VL VOID FILLED RIPRAP WITH RIVER COBBLE CAN BE GENERATED FROM EXISTING ON SITE OR NEARBY MATERIALS. USE OF MATERIALS WILL NEED TO BE VERIFIED BY ENGINEER. THE BOULDERS LISTED IN THE QUANTITIES ARE MINIMUM SIZES. BOULDERS CAN BE FOUND ON SITE AND USED TO SUPPLEMENT OFF SITE MATERIALS.
3. THIS DESIGN IS INTENDED TO BE FIELD ENGINEERED DEPENDING ON THE CONDITIONS ENCOUNTERED DURING CONSTRUCTION AND IT IS UNDERSTOOD FIELD CHANGES MIGHT BE REQUIRED.
4. SALVAGEABLE MATERIAL FOUND ON SITE MAY BE USED AT THE DISCRETION OF THE ENGINEER AND OWNER. SALVAGEABLE MATERIAL INCLUDES LARGE BOULDERS, WILLOWS AND EXISTING STREAM SUBSTRATE.
5. CONSTRUCTION OBSERVATION TO BE PROVIDED BY ENGINEER AND OWNERS REPRESENTATIVE. ADEQUATE NOTICE SHALL BE GIVEN TO CONSTRUCTION OBSERVATION PERSONNEL AT THE ONSET OF THE PROJECT, DURING MAJOR CONSTRUCTION MILESTONES, SUBSTANTIAL COMPLETION, AND FINAL COMPLETION.
6. DEPENDING ON TIME OF YEAR CONSTRUCTION IS PERFORMED DEWATERING MIGHT BE REQUIRED. THE DEWATERING PLAN MUST BE APPROVED BY ENGINEER AND OWNER PRIOR TO COMMENCING WORK. WORK IS ALLOWED IN THE WET, BUT AT CONTRACTORS RISK TO ENSURE BASE BOULDERS ARE ANCHORED IN EXISTING GRADE.
7. WORK TO BE PERFORMED OUTSIDE SPAWNING WINDOWS FOR TROUT.

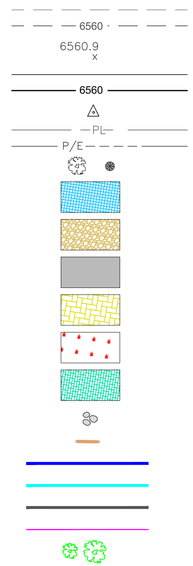
SITE CONDITIONS

1. ANY CONSTRUCTION DEBRIS OR MUD TRACKING ONTO THE PUBLIC RIGHT-OF-WAY, RESULTING FROM THE PROJECT, SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR. THE CONTRACTOR SHALL IMMEDIATELY FIX ANY EXCAVATION, OR PAVEMENT FAILURE CAUSED BY THE PROJECT, AND SHALL PROPERLY BARRICADE THE SITE UNTIL CONSTRUCTION IS COMPLETE.
2. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS AT, AND ADJACENT TO, THE JOB SITE, INCLUDING BUT NOT LIMITED TO TRENCH EXCAVATIONS AND SHORING, TRAFFIC CONTROL, SECURITY, AND SAFETY OF ALL PERSONS AND PROPERTY, DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE OWNERS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN OR NEAR THE CONSTRUCTION SITE.
3. THE CONTRACTOR SHALL PROVIDE A SANITARY FACILITY AT THE SITE AT ALL TIMES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCEPTANCE, CONVEYANCE, AND CONTROL OF ALL SURFACE AND SUBSURFACE WATER FLOWS IN AND ENTERING THE AREA AFFECTED BY THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OPERATIONS OR ANY OTHER ACCEPTABLE MEANS TO PREVENT POLLUTION OF THE AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NEEDED DEWATERING OPERATIONS INCLUDING ANY REQUIRED PERMITS FOR DEWATERING OPERATIONS. THE CONTRACTOR SHALL MAINTAIN AND PROVIDE DRAINAGE THROUGH THE SITE DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL THROUGHOUT THE CONSTRUCTION DURATION AND SHALL INSTALL EROSION CONTROL MEASURES AS NECESSARY.
6. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, ETC., RESULTING FROM WORK DONE AS PART OF THIS PROJECT. THE CONTRACTOR SHALL REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO OR, ACCUMULATE IN, THE FLOW LINES AND PUBLIC RIGHTS OF WAYS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SAID REMOVAL SHALL BE CONDUCTED IN A TIMELY MANNER.
7. SOILS THAT WILL BE STOCKPILED FOR MORE THAN 30 DAYS SHALL BE PROTECTED FROM WIND AND WATER EROSION WITHIN 14 DAYS OF STOCKPILE CONSTRUCTION. IF STOCKPILES ARE LOCATED WITHIN 100 FEET OF A DRAINAGEWAY, ADDITIONAL SEDIMENT CONTROLS SUCH AS TEMPORARY DIKES OR SILT FENCE SHALL BE REQUIRED.
8. UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION WILL NEED TO BE LOCATED BY THE CONTRACTOR. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION OF ANY UTILITIES AFFECTED BY THE EXECUTION OF THIS CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES AND AGENCIES AND FOR THE COORDINATION OF ALL WORK IN THE PROXIMITY OF THE UTILITIES. THE CONTRACTOR SHALL NOTE THAT ALL UTILITIES MAY NOT APPEAR ON THESE PLANS. UTILITIES SHOWN ARE APPROXIMATE AND BASED ON INFORMATION PROVIDED BY OTHERS.

ABBREVIATIONS

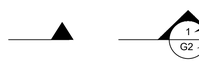
APPROX	APPROXIMATE	LF	LINEAR FOOT
CF	CUBIC FEET	MAX	MAXIMUM
CL	CENTER LINE	MIN	MINIMUM
CMP	CORRUGATED METAL PIPE	N	NORTH
DEG	DEGREE	NTS	NOT TO SCALE
DEMO	DEMOLITION	PROP	PROPOSED
DIM	DIMENSION	QTY	QUANTITY
E	EAST	R, RAD	RADIUS
EL, ELEV	ELEVATION	ROW	RIGHT-OF-WAY
ENGR	ENGINEER	S	SOUTH
EST	ESTIMATE	SPEC	SPECIFICATION
EXST	EXISTING	SQ FT, SF	SQUARE FOOT
FG	FINISHED GRADE	SQ YD	SQUARE YARD
FL	FLOWLINE	STA	STATION
GB	GRADE BREAK	STD	STANDARD
HORIZ	HORIZONTAL	TYP	TYPICAL
INV	INVERT	VERT	VERTICAL
INV EL	INVERT ELEVATION	W	WEST

LEGEND

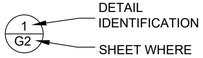


EXISTING 1' CONTOUR
EXISTING 5' CONTOUR
ELEVATION POINT
PROPOSED 1' CONTOUR
PROPOSED 5' CONTOUR
SURVEY CONTROL POINT
PROPERTY LINE
CREEK EASEMENT
TREES, BUSHES
PROPOSED LOCATION OF POOL
PROPOSED LOCATION OF RIFFLE
PROPOSED LOCATION OF GLIDE
PROPOSED S400B EROSION CONTROL BLANKET
PROPOSED RIPARIAN PLANTINGS
PROPOSED KOIRMAT 1000 EROSION CONTROL BLANKET
PROPOSED FEATURE BOULDERS
PROPOSED LOG STRUCTURE
PROPOSED CHANNEL CENTERLINE
PROPOSED CHANNEL CENTERLINE (NO GRADING)
PROPOSED TOP OF BANK
PROPOSED KOIR LOG
PROPOSED TREES

SECTION OR ELEVATION MARKER
ARROW INDICATES VIEWING ORIENTATION



DETAIL TITLE



BID QUANTITIES

BID ITEM NUMBER	ITEM	UNIT	QUANTITY
1	MOBILIZATION AND DEMOBILIZATION	LS	1
2	WATER CONTROL AND DEWATERING	LS	1
3	CONSTRUCTION STAKING & SURVEYING	LS	1
4	EROSION AND SEDIMENT CONTROL	LS	1
5	24" BOULDERS (B24), CREST BOULDERS	EA	120
6	24" BOULDERS (B24), FEATURE BOULDERS	EA	184
8	TYPE VL VOID-FILLED RIPRAP WITH COBBLE TOP-DRESS	CY	2,216
9	RIPARIAN SEEDING AND PLANTING	SF	61,017
11	2" CALIPER TREES	EA	50
12	EROSION CONTROL BLANKET (KOIRMAT 1000)	SY	1,652
13	EROSION CONTROL BLANKET (KOIRMAT S400B)	SY	4,895
14	KOIR LOGS	LF	2,525
15	LOG STRUCTURE	EA	26
16	EDUCATIONAL SIGNAGE	EA	4
18	EARTHWORK	CY	4,102
19	IMPORT FILL	CY	1,886

WWE
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818 COLORADO AVE. P.O. BOX 219
GLENWOOD SPRINGS, CO 81602
(970)945-7755 FAX(970)945-9210

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STONE CREEK RESTORATION: PHASE II
30% CONCEPTS

GENERAL NOTES

JOB NO. 191-017.020
REVISION NO. ----
SHEET NO. GN01

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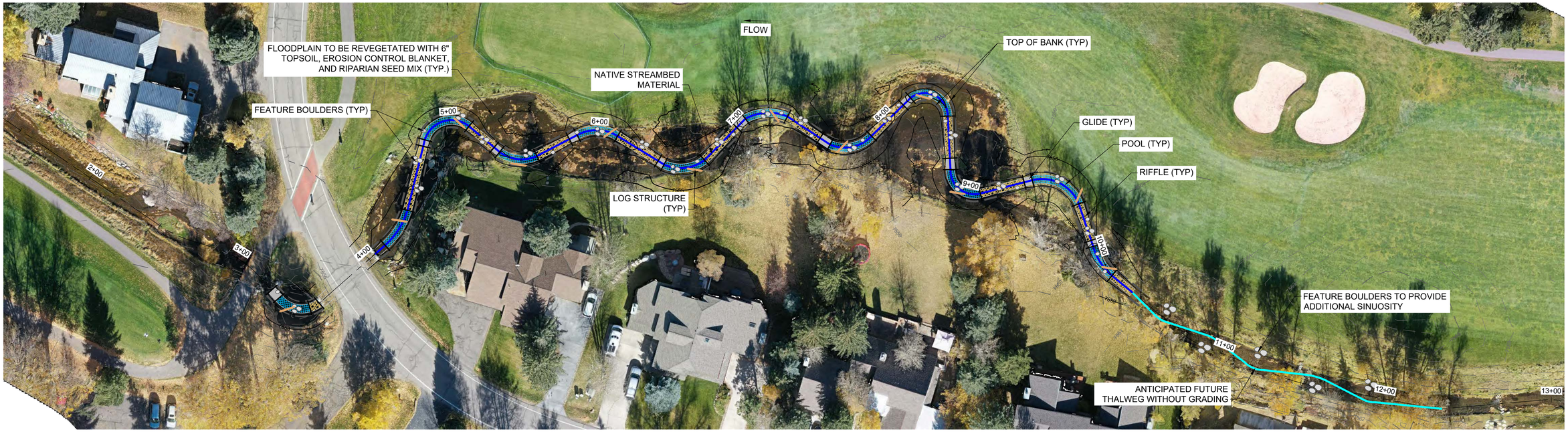
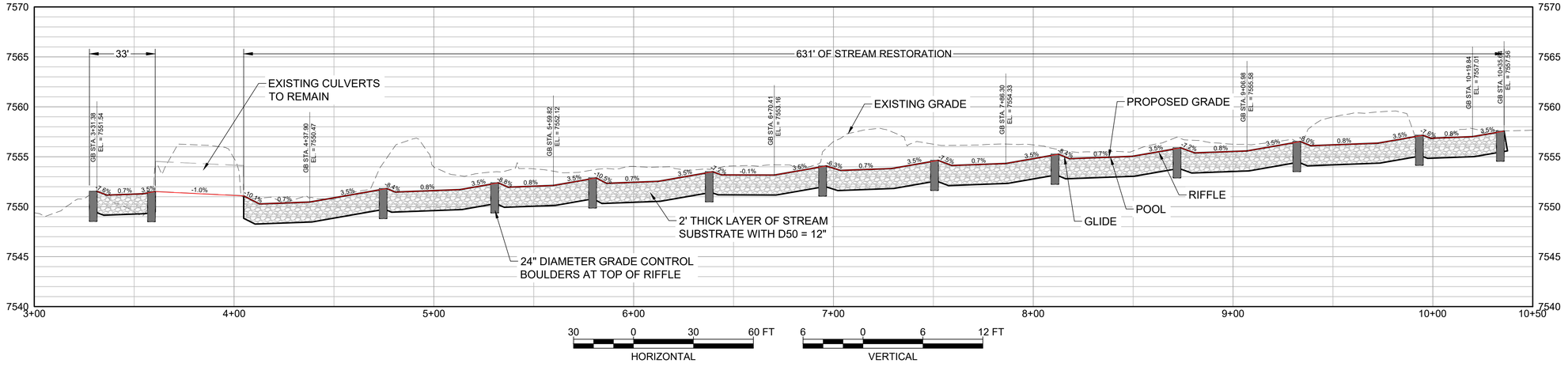


30 0 30 60 FT

NORTH

NOTES:

1. CONTRACTOR TO MAINTAIN CONTINUITY IN CHANNEL DIMENSION AND BED MATERIAL BETWEEN UP- AND DOWNSTREAM LIMITS OF WORK.
2. FOR ALL CHANNEL GRADING, SMOOTH PARABOLIC TRANSITIONS SHOULD BE MADE BETWEEN CHANGES IN SLOPE AND TIE-IN WITH EXISTING GRADE.
3. CONTRACTOR TO PROTECT ALL TREES IN PLACE. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY IF DESIGN CONFLICTS WITH TREE LOCATIONS.
4. CONTRACTOR TO PROTECT ALL EXISTING LANDSCAPE FEATURES (BOULDERS, RETAINING WALLS, ETC.) IN PLACE.
5. CONTRACTOR TO PROTECT ALL GOLF COURSE IRRIGATION SYSTEMS IN PLACE.



30 0 30 60 FT HORIZONTAL

6 0 6 12 FT VERTICAL

CALL COLORADO 811 OR CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 CALL TWO BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

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818 COLORADO AVE. P.O. BOX 219
GLENWOOD SPRINGS, CO 81602
(970)945-7755 FAX(970)945-9210

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STONE CREEK RESTORATION: PHASE II
30% CONCEPTS

PLAN AND PROFILE - HOLE 6

JOB NO. 191-017.020
REVISION NO. ----
SHEET NO. PP01

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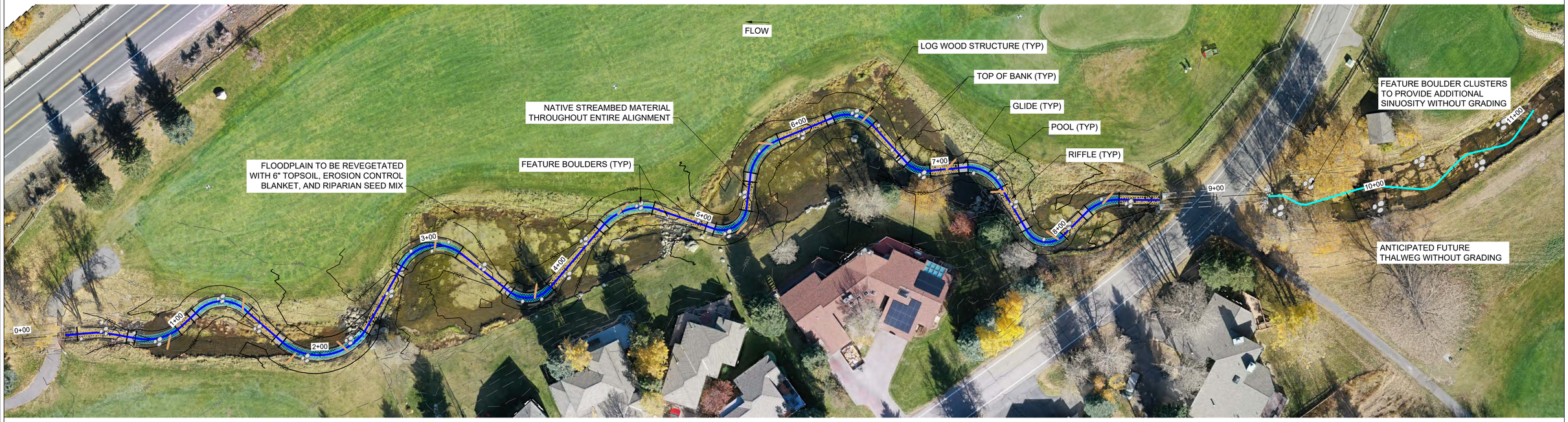

30 0 30 60 FT

NORTH

NOTES:

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2. FOR ALL CHANNEL GRADING, SMOOTH PARABOLIC TRANSITIONS SHOULD BE MADE BETWEEN CHANGES IN SLOPE AND TIE-IN WITH EXISTING GRADE.
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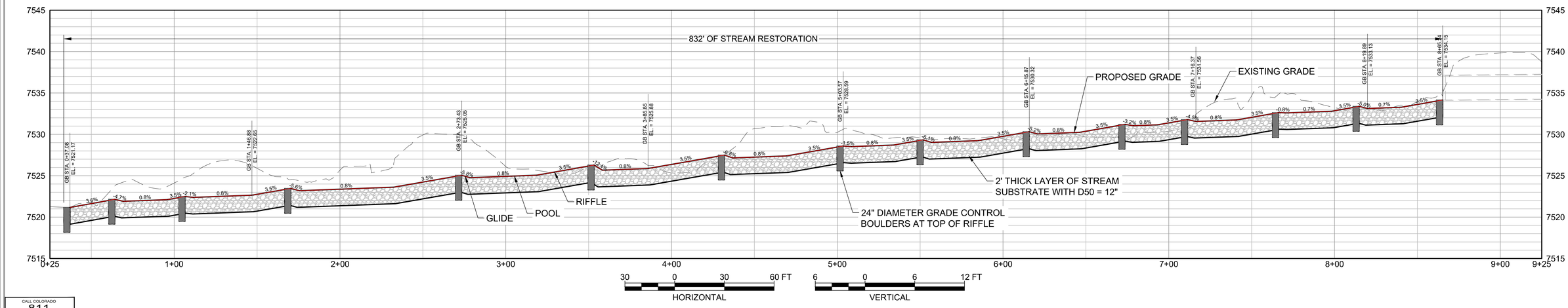

30 0 30 60 FT HORIZONTAL

6 0 6 12 FT VERTICAL

CALL COLORADO 811 OR CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 CALL TWO BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

Plot Date/Time: 11/15/2021, 02:53:26 PM; G:\WWE\191-017\020\CAD\01_DWGS\PPXX.DWG-PP02

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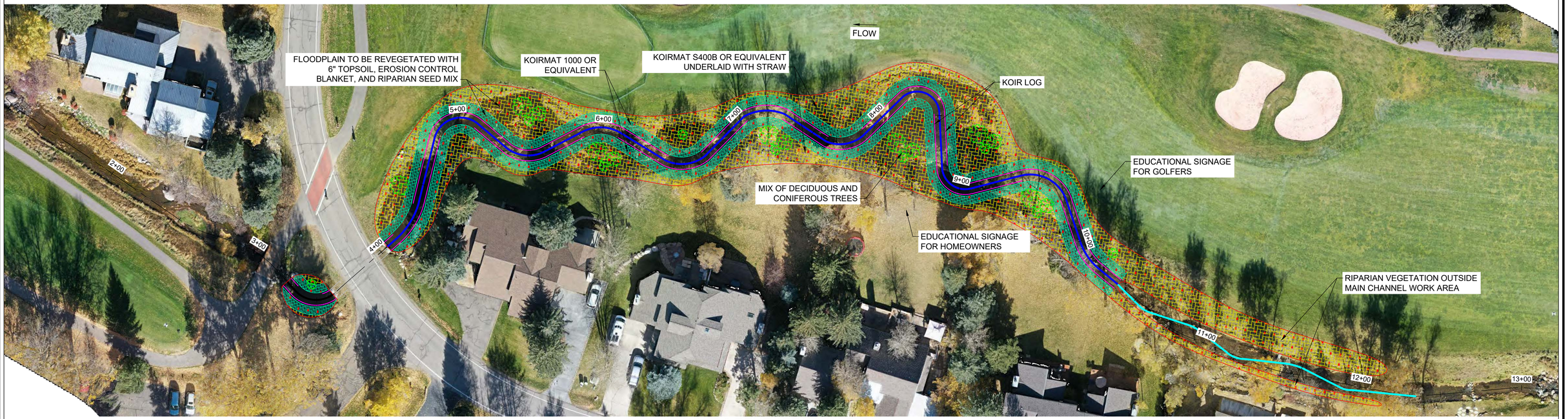
STONE CREEK RESTORATION: PHASE II
30% CONCEPTS

PLAN AND PROFILE - HOLE 11

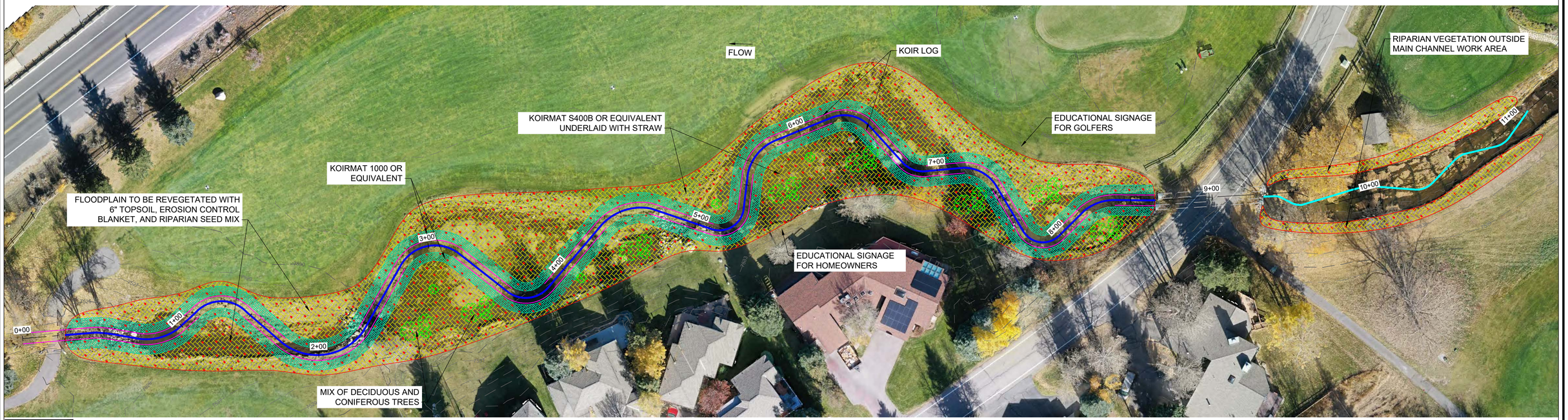
JOB NO. 191-017.020

REVISION NO. -----

SHEET NO. PP02



HOLE 6 REVEGETATION PLAN



HOLE 11 REVEGETATION PLAN

30 0 30 60 FT

NORTH

CALL COLORADO 811
OR CALL 1-800-922-1987
FOR LOCATION OF UNDERGROUND MEMBER UTILITIES
811 SAVES LIVES! IT'S IN EVERYONE'S INTEREST TO KNOW WHAT'S BELOW BEFORE YOU DIG, GRADE, OR EXCAVATE

WRIGHT WATER ENGINEERS, INC.
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GLENWOOD SPRINGS, CO 81602
(970)945-7755 FAX(970)945-9210

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STONE CREEK RESTORATION: PHASE II
30% CONCEPTS

REVEGETATION PLAN

JOB NO. 191-017.020
REVISION NO. ----
SHEET NO. R01

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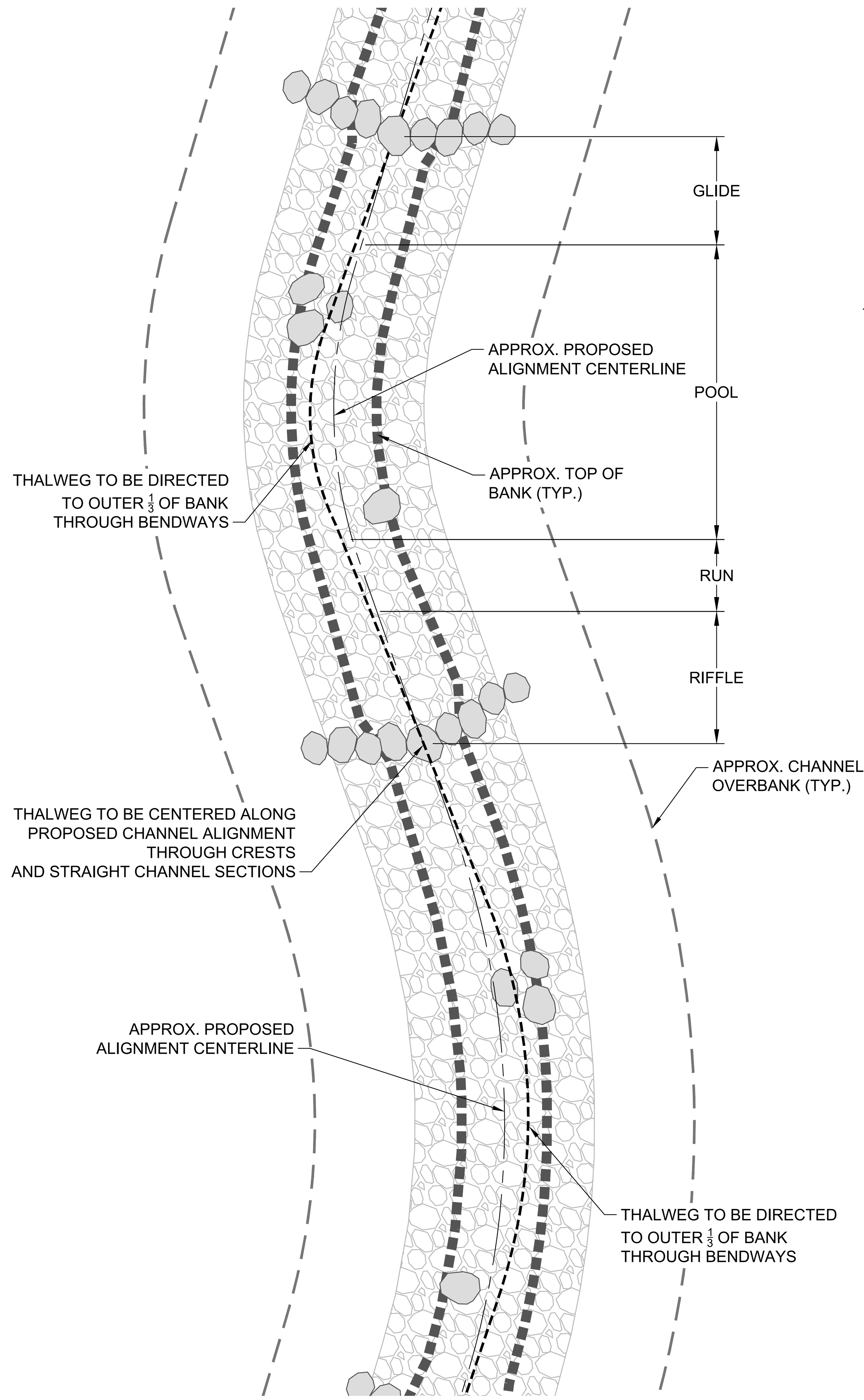
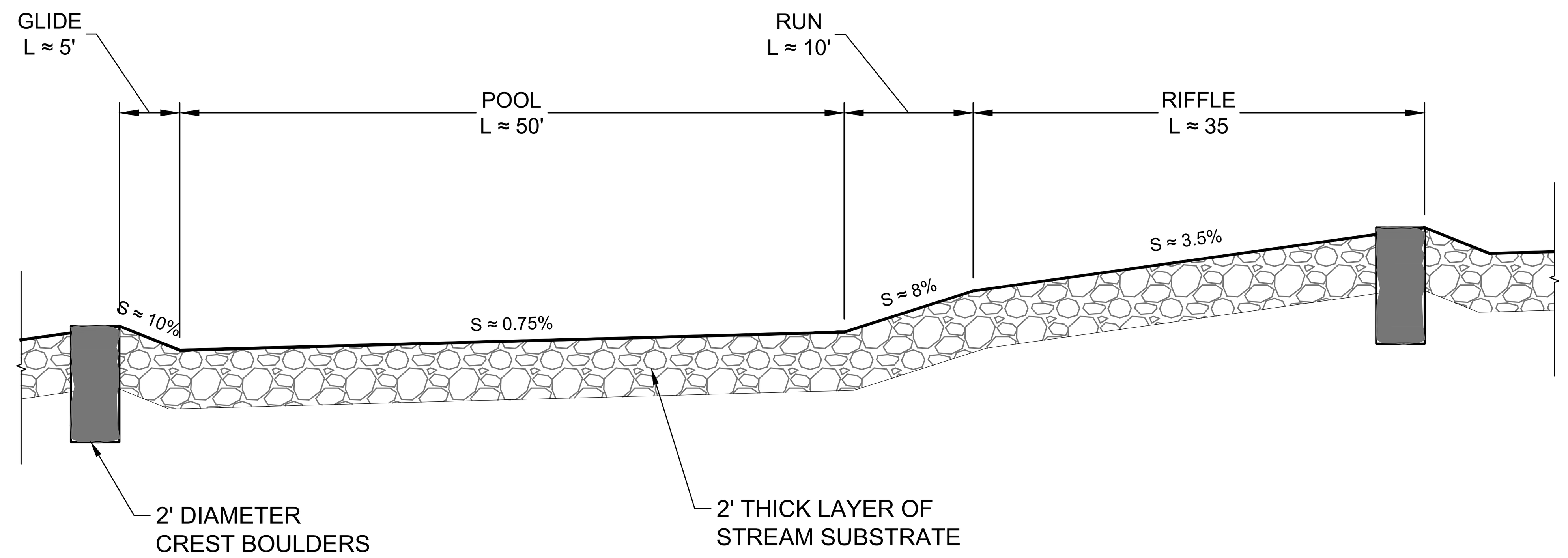


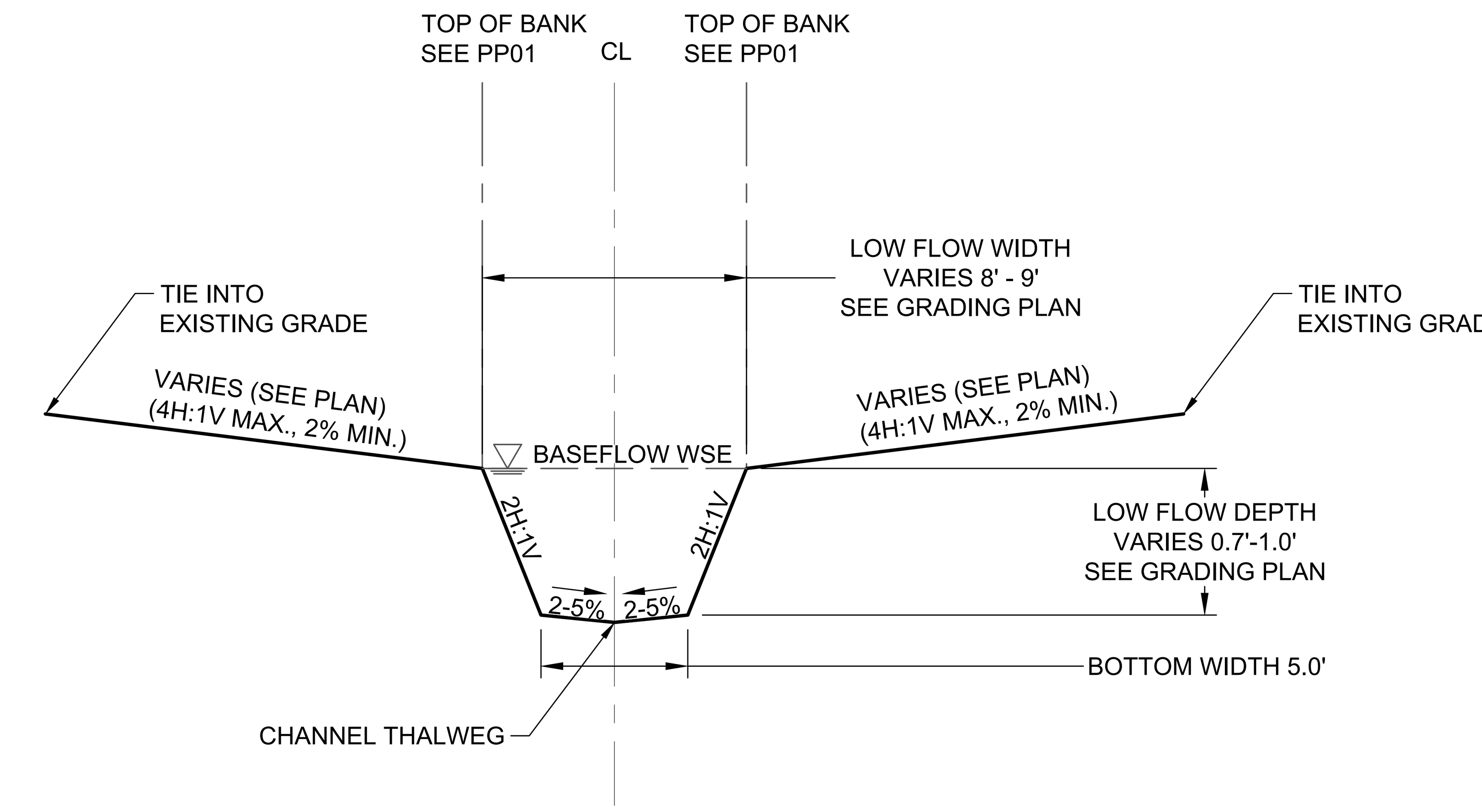
TYPICAL THALWEG PATTERN

HORIZONTAL SCALE: 1" = 10'



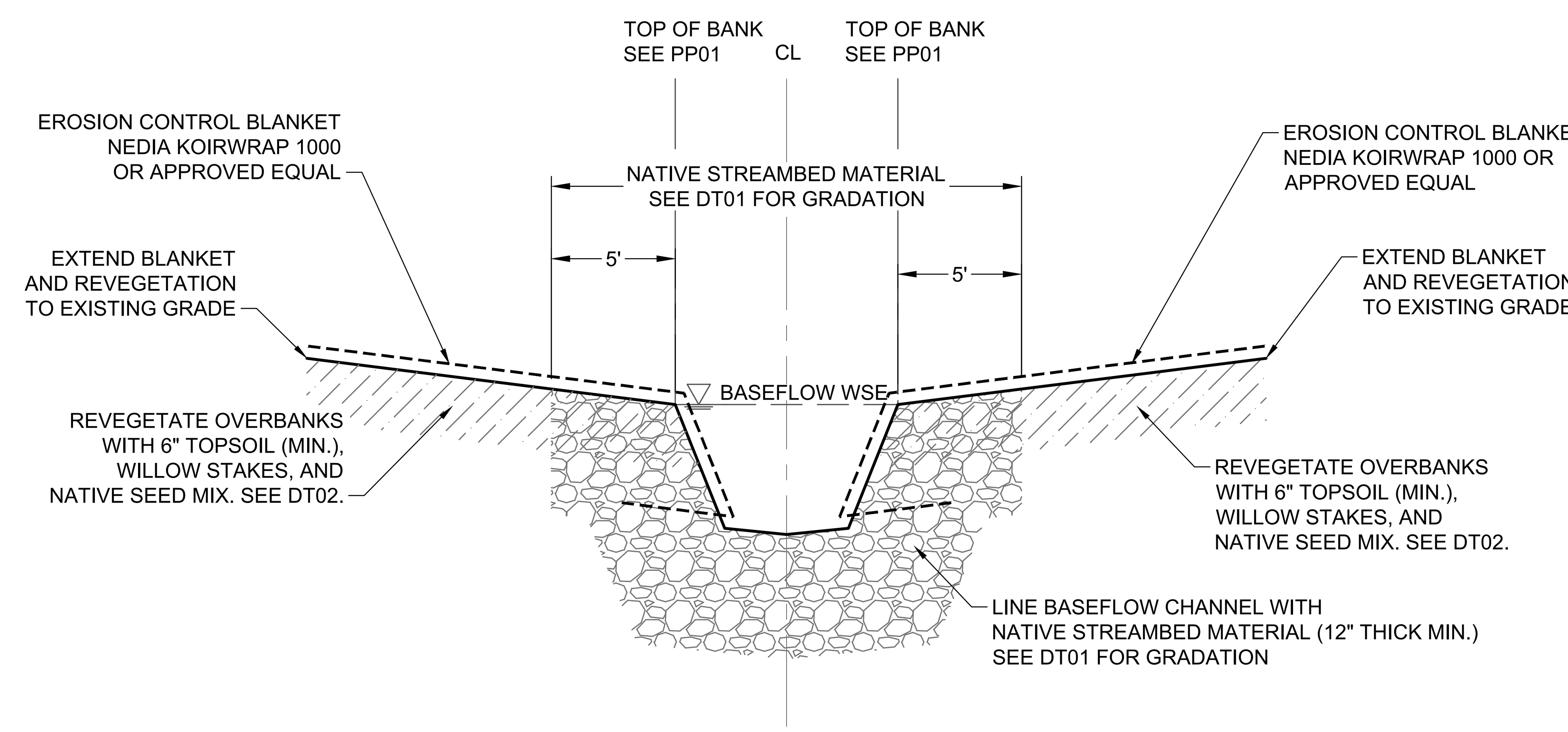
TYPICAL CHANNEL PROFILE

NOT TO SCALE



TYPICAL CHANNEL DIMENSION

HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 1'



TYPICAL CHANNEL IMPROVEMENTS

HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 1'

NOTES:
1. CONTRACTOR SHALL NOTIFY ENGINEER DURING THE SHAPING OF CHANNEL THALWEG AND COORDINATE WITH ENGINEER IN THE FIELD REGARDING FINISHED THALWEG PATTERN AND SECTION THROUGH CHANNEL CREST AND CHANNEL BENDWAYS.
2. INTENT IS NOT TO HAVE A FLAT CHANNEL BOTTOM, RATHER A SMOOTH PARABOLIC TRANSITION FROM TOP OF BANK TO A DEPRESSED CHANNEL THALWEG.
3. THALWEG TO BE DIRECTED TO OUTER ⅓ OF BANK THROUGH BENDWAY AND CENTERED THROUGH CREST . SMOOTH TRANSITIONS SHALL BE MADE FROM STRAIGHT TO BENDWAY CHANNEL SECTIONS

NATIVE STREAMBED MATERIAL

NATIVE STREAMBED MATERIAL GRADATION	
	DIA. (MM)
D16	12
D25	16
D50	30
D75	52
D95	100

NOTES:
1. WHERE AVAILABLE, NATIVE STREAMBED MATERIAL SHALL BE SALVAGED FROM EXISTING CHANNEL AND STOCKPILED ON SITE TO BE INSTALLED WITHIN THE BASEFLOW CHANNEL, AS SHOWN ON THE PLANS.
2. OFFSITE MATERIAL MAY BE REQUIRED TO SUPPLEMENT ONSITE STREAMBED MATERIAL. REFERENCE UDFCD TYPE VL VOID FILLED RIPRAP SPECIFICATIONS FOR MATERIAL INPUT. ALL NATIVE STREAMBED MATERIAL SHALL BE TOP DRESSED IN COBBLE AS OUTLINED IN UDFCD SPECIFICATIONS.
3. FINAL GRADATION OF NATIVE STREAMBED MATERIAL SHALL GENERALLY MEET THAT OUTLINED IN THE TABLE ABOVE AND BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

CALL COLORADO
811
1-800-922-1987

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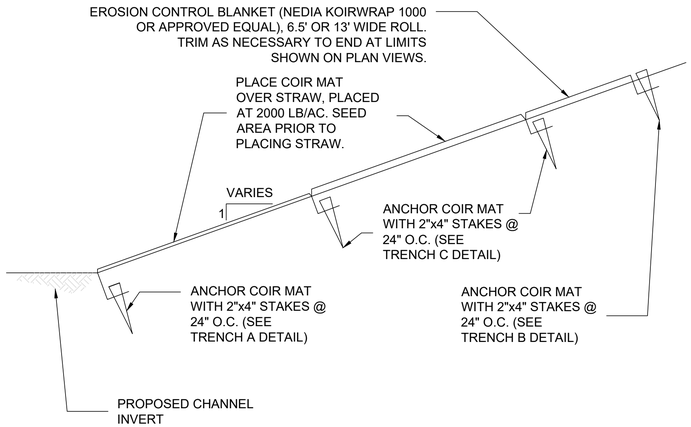
STONE CREEK RESTORATION: PHASE II
30% CONCEPTS

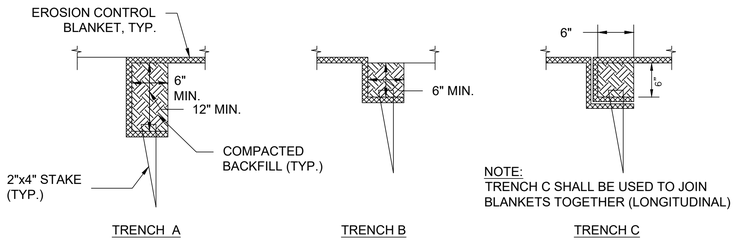
DETAILS

JOB NO. 191-017.020
REVISION NO. ----
SHEET NO. DT01

EROSION CONTROL BLANKET DETAILS



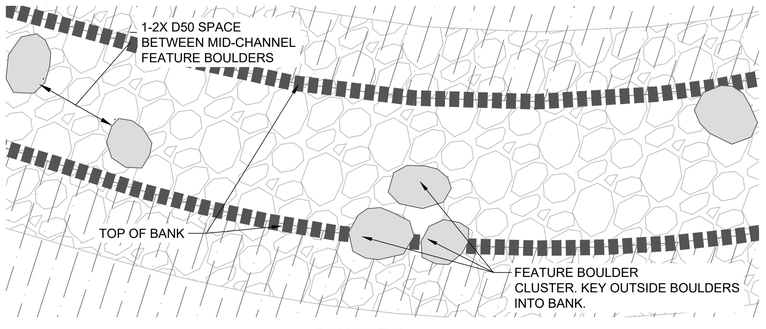
EROSION CONTROL BLANKET PLACEMENT DETAIL
NTS



TRENCH A TRENCH B TRENCH C

ANCHOR TRENCH FOR EROSION CONTROL BLANKET
NTS

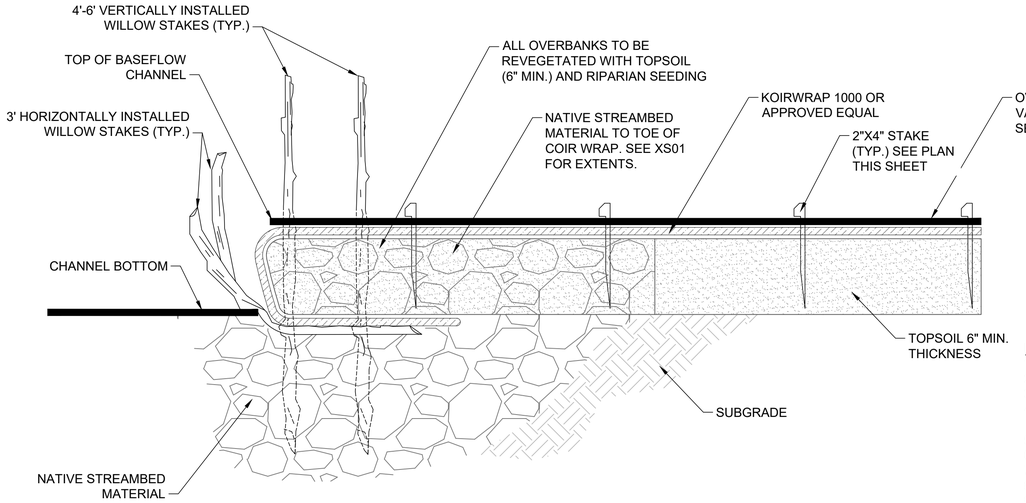
FEATURE BOULDER DETAILS



PLAN VIEW
NTS

NOTES:
1. PLACE FEATURE BOULDERS AS DIRECTED BY ENGINEER IN THE FIELD. ANY BOULDERS PLACED WITHOUT OBSERVATION AND CONCURRENCE OF THE ENGINEER SHALL BE SUBJECT TO BEING REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
2. SALVAGE EXISTING BOULDERS FOR USE WITHIN THE CHANNEL WHERE POSSIBLE.
3. FEATURE BOULDERS SHOULD CONSIST OF ROUNDED RIVER ROCK AND RANGE IN SIZE FROM D50 = 18"(MIN.) - 36"(MAX.)
4. BOULDERS SHOULD BE APPROXIMATELY ½ TO ⅔ BURIED INTO NATIVE STREAMBED MATERIAL. AND SET BELOW OR AT TOP OF BANK ELEVATION.
5. TOP OF FEATURE BOULDERS SHOULD SLIGHTLY INCLINE IN THE DOWNSTREAM DIRECTION.

WILLOW EDGE DETAIL



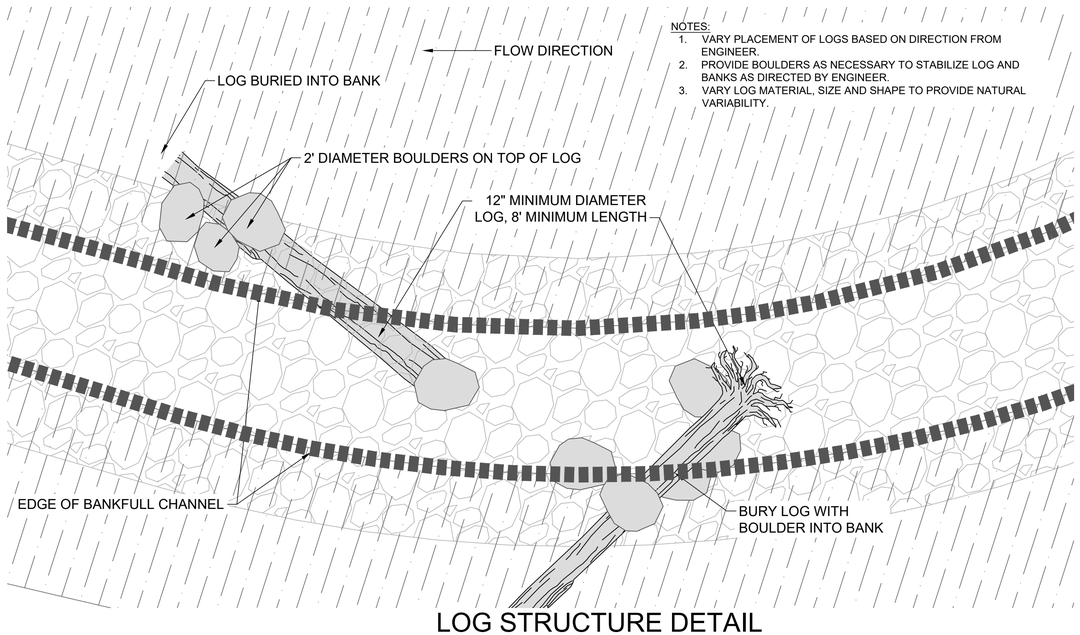
WILLOW EDGE SECTION DETAIL
NTS

WILLOW EDGE EXAMPLE
NTS

NOTES
1. KOIRWRAP1000 TO BE INSTALLED PER MANUFACTURES SPECIFICATIONS.
2. ECO-STAKE ARE NOT TO BE USED. 2"X4" STAKES SHOULD BE USED IN THEIR PLACE.
3. GOOD COMPACTION OF MATERIAL BEHIND KOIRWRAP IS A NECESSITY.
4. WILLOW EDGE SHALL BE INSTALLED ALONG ENTIRE CHANNEL LENGTH (EXCLUDING CROSS VANE LOCATIONS) AND ON BOTH SIDES OF THE CHANNEL.
5. TWO 3' HORIZONTALLY INSTALLED WILLOW STAKES PER 3 LINEAR FEET OF BANK.
6. TWO 4'-6' VERTICALLY INSTALLED WILLOW STAKES PER 3 LINEAR FEET OF BANK.
7. EXTEND BOTTOM LAYER OF EROSION CONTROL BLANKET 4' INTO BANK (MIN.)
8. EXTEND TOP LAYER OF COIR BLANKET TO LIMITS OF DISTURBANCE.
9. 3' WILLOW SHALL BE USED AT THE FACE OF THE WILLOW EDGE - 12 INCH ROOT BARRIER ONLY.
10. HARVEST AND PLANT WILLOW LIVE STAKES DURING DORMANT SEASON
11. WILLOW STAKE SHALL HAVE CUT END ON AN ANGLE TO SIGNIFY PLANTING END.
12. USE HEALTHY, STRAIGHT, AND LIVE WOOD AT 2 TO 3 YEARS OLD (½"-1" DIA.).
13. MAKE CLEAN CUTS AND DO NOT DAMAGE STAKES OR SPLIT ENDS.
14. PLACE CUTTINGS IN 5 GALLON PAILS OR TRASHCANS WITH WATER IMMEDIATELY AFTER HARVESTING.
15. SOAK CUTTINGS FOR 24 HOURS (MIN.) PRIOR TO INSTALLATION.
16. STORE CUT WILLOWS WITH LOWER ENDS IN WATER FOR NO LONGER THAN 7 DAYS BEFORE PLANTING. DO NOT STORE WILLOW BUNDLES HORIZONTALLY AS SOME WILLOWS WILL DROWN AND OTHERS WILL DRY OUT
17. LENGTH OF STAKES SHALL BE 2' (MIN.). PRE-DRILL HOLES WITH STEEL REBAR.
18. PLANT AT LEAST 3/4 LENGTH OF STAKE INTO MOIST SOIL.

REVEGETATION NOTES

NOTES:
1. ALL DISTURBED AREAS TO BE REVEGETATED AND COORDINATED WITH ENGINEER.
2. AREAS WITHIN THE RIPARIAN AREA BUT OUTSIDE THE ACTIVE CHANNEL WILL BE REVEGETATED WITH RIPARIAN SEED MIX APPLICABLE TO SEED MIX APPLICABLE TO THIS AREA AND THEN COVERED WITH EROSION CONTROL BLANKET. SEED MIX TO BE APPROVED BY ENGINEER.
3. WILLOWS SHOULD BE HARVESTED IN AREAS WHERE DISTURBANCES ARE TO TAKE PLACE PRIOR TO CONSTRUCTION. MATURE WILLOWS AS WELL AS STAKES CAN BE HARVESTED FOR LATER USE.
4. IF MATURE WILLOWS ARE TRANSPLANTED, THEY SHOULD BE PLANTED PRIOR TO PLACEMENT OF EROSION CONTROL BLANKET.
5. ONSITE WILLOW STAKES WILL BE HARVESTED AND PLANTED ONCE SOIL RETENTION BLANKET HAS BEEN PLACED.
6. AREAS OUTSIDE THE RIPARIAN AREA, SUCH AS STAGING AND ACCESS AREAS, TO BE REVEGETATED TO ORIGINAL CONDITION.
7. OWNER MAINTAINS OPTION TO WORK WITH LOCAL LANDSCAPE CONTRACTOR AND COORDINATION WITH GENERAL CONTRACTOR MAY BE REQUIRED.



LOG STRUCTURE DETAIL

WWE
WRIGHT WATER ENGINEERS, INC.
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GLENWOOD SPRINGS, CO 81602
(970)945-7755 FAX(970)945-9210

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STONE CREEK RESTORATION: PHASE II
30% CONCEPTS

DETAILS

JOB NO. 191-017.020
REVISION NO. ----
SHEET NO. DT02

Plot Date/Time: 11/16/2021, 07:50:04 AM; G:\WWE\191-017\020\CAD\01_DWGS\DT\XLD\WG-DT02
ISSUE DATE: --/--/--

COLORADO
Parks and Wildlife
Department of Natural Resources

Glenwood Springs Area Office
0088 Wildlife Way
Glenwood Springs, CO 81601
P 970.947.2920 | F 970.947.2936

November 30, 2021

RE: Stone Creek Habitat Restoration Project

Dear To Whom It May Concern,

CPW's statutory mission is to perpetuate the wildlife resources of the State, to provide a quality State parks system, and to provide enjoyable and sustainable outdoor recreation opportunities that educate and inspire current and future generations to serve as strategic stewards of Colorado's natural resources. EagleVail Metropolitan District has actively sought expert advice from CPW staff in project development. As the local Aquatic Biologist for Colorado Parks and Wildlife (CPW), I submit this letter in support of EagleVail's Stone Creek Restoration Project as it also strives to for the same goals.

The Stone Creek Restoration Project benefits Stone Creek itself, as well as the Eagle River downstream. First, improvements within the stream channel will improve sediment transport and encourage natural channel processes that will improve fish holding and spawning/rearing habitat. Indeed, in a recent site visit to evaluate Phase 1, active redds (brown trout spawning beds) were documented in the restored channel. Increased reproductive habitat will ultimately increase fishing opportunity for anglers to a publicly accessible stream reach. Furthermore, the reduction of fine sediment deposits that provide habitat for tubifex worms, a vector for the whirling disease parasite, will reduce the parasitic load to the creek as well as downstream to the Eagle River.

Local CPW staff appreciates the opportunity to provide input in and supports this project. I encourage you to help contribute to this project for the benefits it will have to support stream function and health for the creek and downstream fisheries, and increase recreational angling opportunities.

Sincerely,

Kendall Bakich
CPW Aquatic Biologist
Glenwood Springs Area

Cc: Matt Yamashita - Area Wildlife Manager; Devin Duvall - District Wildlife Manager; Lori Martin - Senior Aquatic Biologist

Homestake Peak School of Expeditionary Learning

Principal Stephanie Gallegos

To Whom It May Concern:

I am pleased to write this letter in support of the Stone Creek restoration project. Every spring our 8th graders at Homestake Peak volunteer time as part of a community service day to help clean up Stone Creek. Stone Creek is a vital part of the Eagle Vail community and provides water for many recreational amenities. This is a day that the students and teachers look forward to all year long and students and teacher work side by side to help where needed. Some of the teachers have shared that they have seen students who have been hard to motivate in a traditional setting come to life and they see a completely different side to them.

As an Expeditionary Learning school we have several principles that guide our work with our students. Two of those principles are what we call "The Natural World" which is a belief that a direct and respectful relationship with the natural world refreshes the human spirit and teaches the recurring cycles and cause and effect. We want our students to learn to become stewards of the earth for future generations. The work with the Stone Creek restoration project helps to make this belief live.

We also believe that students and teachers are strengthened by consequential service to others and one of our school's functions is to prepare students with the attitude and skills to learn form and be of service.

We hope to be part of this project for years to come.

Stephanie Gallegos
HPS Principal

Office: 970 328-2940 Fax: 970 328-2945
750 Eagle Road, Eagle-Vail • PO 5810 • Avon, CO 81620

TOWN OF VAIL

75 South Frontage Road
Vail, Colorado 81657
www.vailgov.com

Environmental Sustainability Department
970.479.2144

11/17/21

Dear members of the CWCB grant review committee,

I would like to express my strong support for Eagle-Vail Metro District's application for Water Plan Grant funding to support restoration work on Stone Creek. I believe that Eagle-Vail has been ahead of the curve in acting on what many peer communities are just beginning to recognize; that a changing climate is only going to further strain water resources in our region. Few communities built around a golf course have so actively accepted the role they need to play in protecting their water resources. Eagle-Vail has been quick to pivot their management of the golf course and the creek that runs through it to reflect their community values for a healthy ecosystem.

An investment in Stone Creek, under the thoughtful stewardship of Eagle-Vail Metro District, will be an investment in the long-term health of that waterway and the greater Eagle River Watershed. In the last decade the Eagle-Vail Golf Course has become an Audubon Certified course, eliminated use of algicides in their ponds, and undertaken a thorough planning process to identify and prioritize programs and projects to restore and protect Stone Creek. The community and its leaders have shown an ongoing commitment to stewardship, one that could grow and benefit enormously if they receive this funding.

An initial round of riparian restoration on Stone Creek was already completed in 2019 with funding from CWCB. Eagle-Vail is now showing its commitment to careful stewardship by following through on the next phase of projects recommended by the Stone Creek Master Plan, adopted in 2016. The work completed so far was an impressive step in the right direction and was well-received by community members and adjacent property owners. This is a community committed to responsible stewardship of its natural resources. I hope you will consider helping them uphold those values by funding this important project.

Sincerely,

Peter Wadden
Watershed Education Coordinator
Town of Vail
pwadden@vailgov.com
970-479-2144

Richard Van Gytenbeek, Colorado River Basin Outreach Coordinator, Colorado Water Project

November 17, 2021

Colorado Water Conservation Board
1313 Sherman Street, Rm. 718
Denver, CO 80203

RE: Stone Creek Stream Restoration-Phase II.

Dear Members of the Board

Trout Unlimited is a national conservation organization dedicated to protecting, reconnecting, restoring and sustaining cold water fisheries throughout the United States. The organization represents over 300,000 members nationally, 12,000 of which are here in Colorado. Projects such as the Eagle/Vail Metro District's Stone Creek Stream Restoration-Phase II project are beneficial to our water resources in many ways.

1) Environmentally the project will reconnect and restore a section of creek by restoring a functioning channel thereby improving sediment transport, fish passage, spawning and juvenile rearing habitat.
2) The proposed channel modifications will further improve water quality not only for aquatic species but also for consumptive uses (AG/Municipal).
3) The project supports the goals and objectives enumerated in the Co. Water Plan, Chapter 10-Section F "Watershed Health, Environment and Recreation".
4) Lastly, the conversion of a decorative landscape into a functioning and diverse stream channel helps to inform and educate the community about the importance of natural processes and expands their knowledge of the mountain environment and aesthetic.

For these reasons Trout Unlimited supports the Eagle/Vail Metro District's application to the CWCB Colorado Water Plan grant program and other funding opportunities with similar goals and objectives.

Sincerely,

Richard Van Gytenbeek

Richard Van Gytenbeek

Ted Vickerman

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November 25, 2021

Grant Application

To Grant Committee-

My name is Ted Vickerman and my family and I have lived in the Eagle Vail subdivision for 20 years on the banks of Stone Creek. Stone creek is not only a significant tributary to the Eagle and Colorado Rivers but also a vital part of our community. I feel that water quality and wildlife habitat are 2 vital components to the heath and well being of our area.

The Eagle Vail Metro District has shown the ability to meet the challenging needs of our small valley. I feel that Eagle Vail can become leaders in the Golf Course communities throughout the valley and make a big impact on water quality with stream restoration projects. Stream Restoration on Stone Creek will have an amazing result on the Eagle Valley Watershed. Please help us make Stone Creek be the start of positive change in Eagle County.

Sincerely yours,

Ted Vickerman and Family