



# REQUEST FOR PROPOSALS

**CDBG-DR WATERSHED RESILIENCE & NRCS EMERGENCY WATERSHED PROTECTION  
IMPLEMENTATION PROJECT:**

**Estes Valley Watershed Coalition EWP Restoration Projects**

**For**

**Fawn Valley & Elkhorn**

**DATE:**

June 19, 2017

**ISSUED BY:**

Estes Valley Watershed Coalition

P.O. Box 4494

Estes Park, CO 80517

**PROJECT NUMBER:**

EVWCFR-2017

**PROPOSAL DUE DATE:**

July 7, 2017

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## **REQUEST FOR PROPOSALS (RFP)**

The Estes Valley Watershed Coalition is requesting proposals for a single consulting team to construct two (2) river restoration projects collectively known as the Fawn Valley & Elkhorn projects that are federally-funded through CDBG-DR Watershed Resilience & NRCS Emergency Watershed Protection Implementation Projects on Fall River.

Proposals must be submitted electronically and received by the Estes Valley Watershed Coalition (EVWC), [molly.mills@evwatershed.org](mailto:molly.mills@evwatershed.org), by 5:00 pm on **July 7, 2017**. Late proposals will not be considered regardless of delays as a result of electronic server or other electronic communication problems.

Proposal documents are available via the RFP supporting documents on Rocky Mountain E bids, the coalition website at [www.evwatershed.org](http://www.evwatershed.org) or at the Colorado EWP website at [www.coloradoewp.com/bids](http://www.coloradoewp.com/bids).

### **Mandatory Pre-Proposal Meeting & Site Visit:**

**Tuesday June 27<sup>th</sup> 10:00 a.m., followed by a site visit at 11:00 a.m. LOCATION: 1191 Woodstock, Estes Park CO 80517**

Cost may not exceed **\$1,096,000.64**

For additional information regarding this RFP, please contact: Molly Mills, Coordinator  
970-203-5116  
[Molly.mills@evwatershed.org](mailto:Molly.mills@evwatershed.org)

### **ANTICIPATED SCHEDULE FOR PROJECT Fawn Valley and Elkhorn (EVWCFR-2017)**

Pre-proposal meeting: Tuesday June 27<sup>th</sup>, 2017 at 10:00 AM at 1191 Woodstock, Estes Park, CO 80517.

Pre-Proposal Inquiry deadline: Friday June 30<sup>th</sup>, 2017

Last day for submitting proposal: July 7<sup>th</sup>, 2017

Contract period: contract signing date through December 2017 Construction period: contract signing date through August 2017; November 10<sup>th</sup> if an extension is allowed.

# 1.0 PROJECT BACKGROUND AND SCOPE

## 1.1 Project Background and Purpose

This RFP is requesting proposals for two projects within the Estes Valley along Fall River, Fawn Valley and Elkhorn Lodge. These projects propose to construct the following improvements:

- Excavate and export sand and gravel sediment deposited from the flood;
- Stabilize channel banks and repair flood cause erosion;
- Provide long term stream stability via in-stream structures;
- Install aquatic habitat features throughout project limits; and
- Revegetate the floodplain within the project boundaries.

The primary objective of the work proposed in the Estes Valley Projects, is to protect life and property. This will be accomplished by expanding floodplain capacity, and increasing channel stability, promoting sediment transport, and enhancing the ecological conditions of the river.

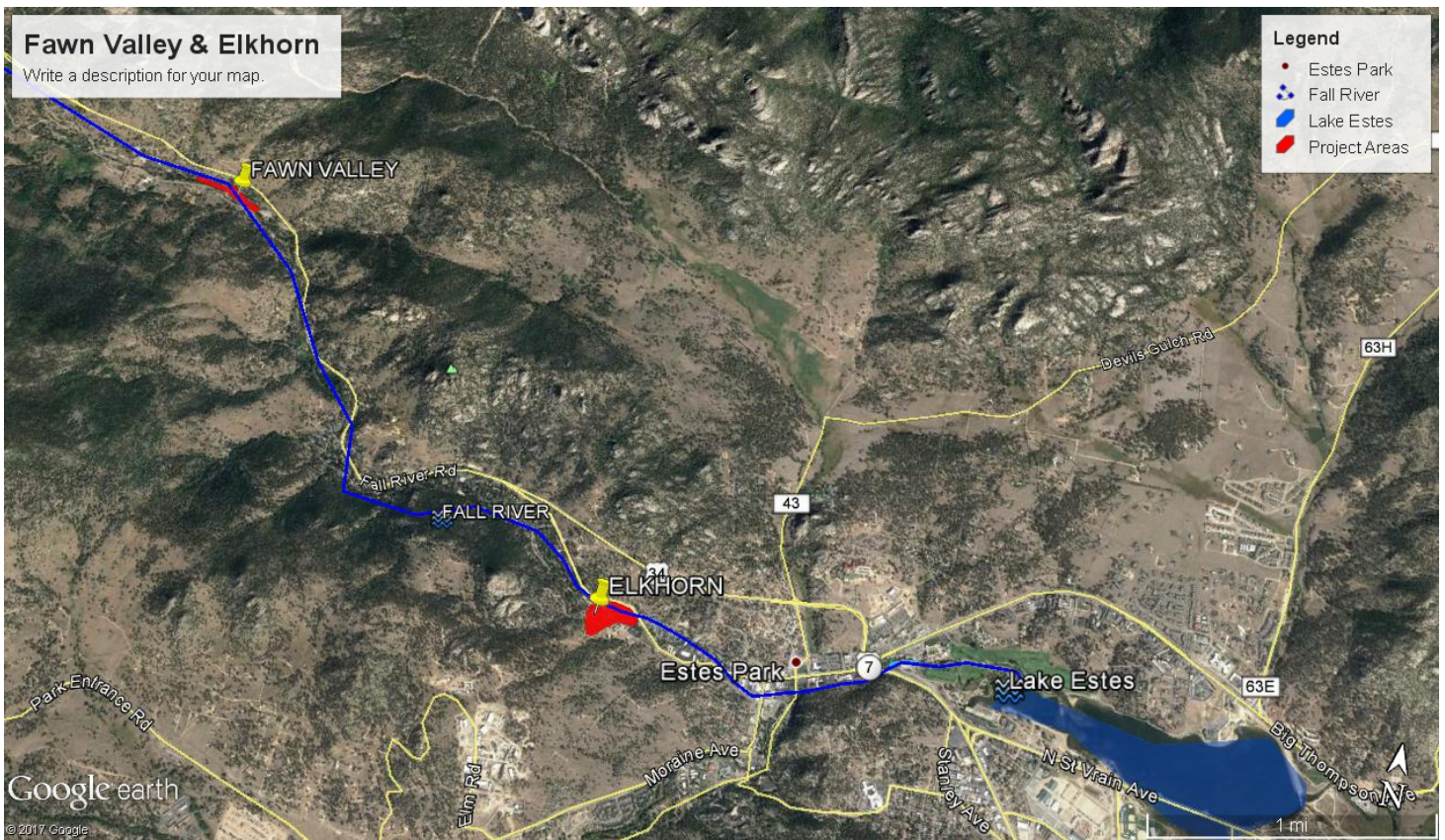


Figure 1: Estes Valley Watershed Coalition Fawn Valley and Elkhorn Projects location.

Estes Valley Watershed is concentrating on flood recovery work between Rocky Mountain National Park and Lake Estes. This project will concentrate on two projects in on Fall River as it flows through the north areas of the Estes Valley.

Estes Valley Watershed Coalition (“EVWC” or the “Coalition”) has received a project award from the Natural Resources Conservation Service (NRCS) under the Emergency Watershed Protection (EWP) Program. This project award, is intended to remove sediment deposited by the flood, reestablish a resilient river channel and stabilize the floodplain with native riparian vegetation. Additionally, the Coalition received cost share match funding from the Colorado Department of Local Affairs Community Development Block Grant - Disaster Recovery (CDBG-DR) Watershed Resilience Pilot Program. Due to the nature of this funding, the Antlers & Elkhorn project must comply with all regulations associated with the CDBG-DR Watershed Resilience Pilot Program, including Davis Bacon and Section 3 of the Housing and Urban Development Act of 1968. This federally-funded Program is designed to help watersheds recover from damage sustained in the federally-declared fire and flood events of 2012 and 2013. The Program’s goal is to align watershed restoration and risk mitigation with community and economic development goals using a collaborative, multi-jurisdictional, coalition-of-partners approach. Project implementation grants are meant to address long-term watershed system improvements that build watershed resilience.

The selected contractor shall perform or supply all necessary services as specified in this document, or pursuant to generally accepted standard industry practice, with regard to construction surveying, utility location and coordination, traffic control plans, stormwater discharge permit, erosion control best management practices, and as-built plans with associated GIS shape files.

All construction work will be performed by a qualified contractor with experience on similar types of projects under the direction and supervision of the design engineer, hereto referred to as the ENGINEER in this RFP.

EVWC is a 501(c)(3) nonprofit, landowner-driven organization dedicated to the restoration of flood damaged rivers throughout the Estes Valley. The Coalition’s mission is to promote an ecologically healthy watershed that also seeks to maximize public benefits and minimizes public risk, through community engagement and sound science. It is made up of landowners in each watershed within the Estes Valley serving as the Board of Directors with an Advisory Committee of stakeholders from various river reaches, representatives from government agencies, technical experts in river restoration, volunteer organizations, and others. The Coalition formed in response to the September 2013 floods and has been working since that time to restore the watershed.

EVWC is an Equal Opportunity Employer and no otherwise qualified individual shall be subject to discrimination on the basis of race, color, religion, creed, national origin, ancestry, sex, age, sexual orientation (incl. transgender status), physical or mental disability, marriage to a co-worker and retaliation for engaging in protected activity (opposing a discriminatory practice or participating in an employment discrimination proceeding) in any phase of employment for this position.

Further, the work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (Section 3), which states that: 1) Employment, training, contracting and other economic opportunities generated by HUD assistance shall, to the greatest extent feasible, be directed to low and very low-income persons residing within the project area; and 2) Contracts for work in connection with the projects shall, to the greatest extent feasible, be awarded to businesses which are located in, or owned substantially by persons residing in the project area. All CDBG-DR funded projects must, to the greatest extent feasible, comply with Section 3 when contracting for professional services.

The selected Contractor must adhere to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (Section 3). Selection will be made based on qualifications and the cost of proposed

services that provide best value to the project. The project to which the construction work covered by this proposal is being assisted by the United States of America and must comply with all provisions of the Davis-Bacon Act.

## **1.2 Scope of Work**

The following provides a summary of the items to be completed under the contract for construction for this project. CONTRACTOR will be responsible for bidding unit costs for project as specified in the FORMS.

Currently the deadline is September 10, 2017 for all work to be completed. We are working with our funders to get a 60 day extension but will not be granted until we have a contractor under contract and work has been invoiced. To accomplish this, we will work with the contractor to adjust the scope of work to reflect the priorities of the project and what we would like to see accomplished before September 10<sup>th</sup> while tasks that have a lower priority will be accomplished within the 60 day extension.

### **Fawn Valley**

The upstream boundary of the project begins at the top of 1531 Fish Hatchery Road and continues downstream to the Fish Hatchery Road Bridge crossing (approximately 1,600ft reach). This reach of Fall River is primarily commercial vacation rentals with a few single family homes, all which are in close proximity to the river creating a very confined and constricted channel. This reach is straight and fast-moving during normal flows, but during the flood of 2013 this created avulsion areas along the banks of Fall River. Due to its channelization, Fall River breached its banks in several areas creating new high flow channels and putting structures at risk for flooding. Deposition zones that were created still have feet of sediment built up.

Development in this area has encroached on the river corridor for many years placing homes, vacation rentals, and lodging accommodations feet from the river. The interactions between property owners in this area are very intimate and dependent on one another which will require creative strategy and delicate timing to implement removal of deposition and bank stabilization to protect property and structures. Upstream from this reach several areas in and near Rocky Mountain National Park had been severely damaged and have become sources for sediment input.

This project aims to create bank-full and overbank benches, remove sediment and restore riparian and floodplain function within the river corridor by construction riparian habitats and reestablishing vegetation. Plans include removing and lowering a small parking area, re-working/addition of riprap, bench cutting, addition of habitat boulders and vegetation.

### **Elkhorn**

The Elkhorn Reach begins at Old Ranger Road & W. Elkhorn and extends downstream to 522 W. Elkhorn Ave (approximately 1,200ft reach). This is an important reach because of its proximity to downtown Estes Park, the economic engine of the Estes Valley, and its potential destruction during another high flow event. During the flood of 2013 sediment from upper Fall River was deposited in this area creating hazards that damaged buildings, infrastructure, bridges, and downtown businesses. The river was also rechanneled in several sections that caused further erosion and damage. This area is mainly addressing the floodplain at the historic Elkhorn Lodge and Ranch that is on the National Register of Historic Places and is one of the most endangered historic properties in Colorado. Due to it being a natural floodplain, sediment that was removed immediately after the flood by FEMA has re-accumulated due the damaged floodplain, spring runoff events and sediment contributions from upstream. Old Ranger Road marks a change in valley slope (to 2%) and confinement that yields a depositional reach at the Elkhorn lodge. Sediments mobilized and transported through the prior reaches (typically smaller gravels and sands) fall out of the bed load here causing aggradation and braiding during a flood event.

The primary goal in this area are to improve the capacity and function of the floodplain to provide a buffer for the downtown area of Estes Park, the infrastructure and the business. This goal is expected to be achieved by incorporating sediment removal, replanting and protection of the riparian area, and maximizing protection for Downtown Estes Park. In addition to the historic Elkhorn Lodge property, there is potential to improve the river corridor and interactions with neighbors, neighboring business and the Sewer District.



### **1.3 Permitting**

It is anticipated that the Army Corps permit, Larimer County and all Town of Estes Park land use and floodplain development permits, will receive a provisional approval obtained by EVWC prior to construction. The contractor will be required to obtain the State Stormwater Discharge permit and associated erosion control plan, traffic control permit, and an oversize/overweight permit for construction prior to commencing work. The traffic control/management plan must include:

- a. The applicant shall provide the haul routes to be used at building permit application for approval.
- b. Flaggers and/or other traffic control measures must be used at the intersections of the access points during hauling operations.
- c. Locations and types of warning signs along the roads shall be shown.
- d. The applicant must use vehicle tracking to minimize the amount of rocks, mud, and other debris tracked.
- e. The applicant must provide a sweeping plan for the affected roads if sweeping becomes necessary.
- f. Prior to project commencement, the applicant must photo-document the conditions of all County roads used for hauling. The applicant must restore all affected roadways to pre-project conditions or better.
- g. The project shall be coordinated with the Larimer County and Town of Estes Park Transportation Departments.

The Consultant is required to locate utilities prior to beginning construction. Appropriate erosion control measures shall be installed downslope and parallel to contours for all disturbed areas including staging areas. The location of erosion control shall be shown on site plans submitted for Town of Estes Park or Larimer County building permit approval. Stockpiled fill piles over 30 days shall be properly covered and/or stabilized with temporary vegetation.

### **1.4 Construction Surveying**

The contractor will be responsible for all construction surveying and staking. Control will be provided by the design engineer. The contractor will also be responsible for as-built surveys with associated CADD files.

### **1.5 Construction**

Complete construction of all improvements identified in the plans including providing a safe work environment, complying with permitting requirements, and close coordination with the Engineer. The contractor will address all landowner requests and concerns facilitated through the Coalition staff. Under no circumstance will the contractor do work for a landowner that is not approved by the design engineer and coalition staff. Project design and Construction Specifications can be found in Section 4 of this RFP.

EVWC expects that project timelines and budgets will be aligned in a way that facilitates the successful completion of the projects with efficiency and logic. The projects will aim to provide protection of a specific asset; however, the approach may vary. In all cases, channel work to improve fisheries and aquatic habitat are important and will be considered part of the project.

## **Construction Phase Requirements**

### **A Guaranteed Minimum Work**

This project will have a fixed budget, the selection process will focus on maximizing the quality and quantity of work that can be done with the allotted funds. There will be no flexibility in exceeding the defined budget. Bidders are asked to provide a Guaranteed Minimum Work (GMW) estimate which will commence upon the completion of permitting and agreed-on designs and will include the costs developed through an open book process. The consulting team may choose to perform some preliminary aspects of the GMW preparation prior to the acquisition of the permits. However,

the GMW describes those details that will be completed during the construction phase of the project, as well as potential project enhancements that might be completed if funds permit.

## **B Construction**

The selected Consulting Team will complete construction of all improvements identified in the plans; GMW plans, and project enhancements as estimated. At a minimum, this will include:

- a. The development of appropriate bank stabilization measures where significant erosion has taken place;
- b. The broadening of the floodplain
- c. Create a stable “natural appearing and functioning” river channel incorporating habitat improvements for fish and other aquatic organisms
- d. Contractor team will be performed in a safe work environment;
- e. All work will comply with permitting requirements;
- f. Contractor team will comply with property supervision;
- g. Contractor team will adhere to Construction Administration Requirements;
- h. All work will minimize disturbance to surrounding areas;
- i. All work will be completed in a timely manner;
- j. All work will be limited to daylight hours, starting no earlier than 8 am.

## **C As-Builts**

- a. Contractor work with the design team to provide as-builts of the project, including cross sections to match the design location cross sections and any physical construction features such as culverts, bridges, and structures.
- b. As-builts must include any field notes, exhibits, final quantities, and a record of unforeseen conditions, including the area of revisions and the reason that revisions were made.
- c. GIS shape files of all completed work must be included.

## 1.6 Construction Administration

- A. The management and administration of the Consultant's Construction Phase contract obligations including, but not limited to, the following activities:
- Provide all requisite bonds and insurance for the construction of the project;
  - Possess the requisite licenses and assure that all subcontractors are also appropriately licensed and bonded for the tasks needed to complete the construction phase of the project;
  - Procure and manage all construction contractors to complete the Construction Phase scope of work for the project;
  - Hold weekly progress/construction meetings between the contractor, the coalition and the ENGINEER;
  - Develop and update a construction management plan that includes Construction Phase quality control procedures, safety programs, construction document management protocol, etc.;
  - Manage subcontractors (contracts, compliance, insurance, and bonds);
  - Work with ENGINEER as they perform construction oversight and be responsive to necessary adaptive management, field fitting suggestions, and updated design;
  - Prepare payment requests, relevant back up documentation, and maintain cash flow projection, including wage compliance with Davis-Bacon;
  - Track permit compliance;
  - Track Requests for Information and/or clarification (RFIs);
  - Manage change orders and documentation necessary to support changes; all change orders require written approval from EVWC prior to implementing work under the change order;
  - Prepare and provide as-built drawings;
  - Coordinate all monitoring activity as described previously; and
  - Administer warranties through the warranty period.
- B. Site Security will be the responsibility of the contractor throughout the duration of the Construction Phase. The contractor will need to develop an acceptable security control plan to control access to the construction site during all phases of construction while maintaining traffic flow. The contractor will be responsible for construction of any alternate entrance locations or detours, as well as any repairs required to bring facilities back to their current condition. The contractor may close the site to the public during construction.
- C. Project Schedule requirements will include developing a detailed project construction schedule defining construction activities of each element of the project and their inter-relationships, along with milestone dates relative to project completion and permit requirements. Regular monitoring, updating, and reporting of the project schedule and implementation process will be required to demonstrate an efficient and timely delivery of the product. The detailed project schedule must include all critical path permit activities through the issuance of Proposed Agency Action by each respective permitting agency. Critical permits include any necessary permits that, if delayed, would delay the Project Schedule.
- D. Project Budget reporting requirements will include the preparation of a project budget monitoring protocol to provide regular updates on the status and attributes of the project. Provide documentation of any resultant changes in the projected project costs resulting from construction-related decisions and/or changes. Change orders, including additive change orders, are allowable but only with prior written approval from EVWC. Circumstances that would warrant a change order are primarily those which would require shifting the project location. Note that all

work must be done within the area covered in the environmental review. In addition, cost of services must not exceed the total funds awarded for this project, and construction costs must not exceed the Not to Exceed figure established at the time of contracting.

- E. Permitting requirements for the contractor during the Construction Phase will include compliance with all permit requirements as well as the responsibility for the completion of all necessary work activities needed for the completeness determination of all permits and approvals required to construct and operate the project. All permits, whether obtained by EVWC or contractor, will become part of the project construction specifications and final design package. Permit completeness determination includes, but is not limited to, the following tasks:
- Develop a permitting compliance schedule and/or matrix, generating and/or assembling associated requisite technical data/documents as required for permit compliance;
  - Prepare permit applications and fees for all required permits with the exception of those obtained by the EVWC;
  - Coordinate responses to Requests for Information (RFIs); and
  - Develop requisite permit compliance and monitoring programs associated with permits obtained by the design engineer along with any potential redesign activities required to achieve permit compliance.
- F. Design Compliance Review, will be included in the weekly construction meetings with EVWC to validate that the design requirements are being provided during the Construction Phase. EVWC will establish a small project team to communicate with the contractor during this phase. The meetings will occur at a frequency dictated by EVWC and agreed upon by the contractor. One objective of these meetings will be to review the contractor's documentation of any resultant changes in the projected costs resulting from construction-related decisions and/or changes.
- G. Construction Document Management will be implemented as defined in the construction management plan to collect and store the following data in a readily retrievable manner: correspondence, payment requests, schedule updates, RFIs, change requests, and as-built drawings.
- H. Project Closeout will include activities needed to achieve final completion of the Construction Phase following the notification of Substantial Completion by the EVWC. Closeout activities will include, but not be limited to, the completion of all punch list items defined at the point of Substantial Completion, final permit closeout, production of as-built drawings and survey, and project document transfer.
- I. Warranty Administration will be provided by the contractor throughout the requisite warranty period and will include activities such as: warranty request tracking, event documentation, and response. Geomorphic monitoring must conform to the CWCB Standard Operating Procedure for Topographic Survey of Stream Channels. The Contractor must directly interface with suppliers, subcontractors, and others for requesting and monitoring all warranty service needs and corrective activities, and provide any modification and/or updates to the project record drawings that may result from warranty activities. The warranty period for the Project will be 12 months from the date of closeout, unless otherwise negotiated and agreed upon between EVWC and contractor and included in the amended Contract for Phase B – Construction Phase Services.
- J. The work under this project must be Davis-Bacon Act compliant. EVWC is responsible for monitoring the consultant for Davis-Bacon compliance, including monitoring consultant's weekly payroll. In addition, all work will comply with federal, state, and local law, including but not limited to the Copeland "Anti-Kickback" Act (40 USC 276c), Contract Work Hours and Safety Standards Act (40 USC 327-332), Fair Labor Standards Act (29 USC 102 et seq), and comply

with minimum wage (8-16-101 CRS 1973, as amended), discrimination and affirmative action (24-34-402, 1973 as amended), and Colorado labor preference (8-17-101 & 102 CRS 2013, as amended).

## **2.0 Proposal Process**

The intent of the Proposal Process is to select the most responsive and responsible proposer. Due to the overall schedule of the NRCS EWP program and deadlines for CDBG-DR grants, designs for the project are not yet fully completed. The plans and specifications included herein are **preliminary only**. Changes, including but not limited to adjustments to quantities, revised plan layouts, and updated specification revisions may still be made to the construction documents. The contractor is to provide a proposal, specifically unit prices, based on the preliminary construction documents provided with the RFP. The proposal price provided in the RFP will not be used as the final price. Instead, it is the intention of this process to bring the contractor on-board as part of a collaborative project partners team consisting of the EVWC, the engineer, and the contractor. In the first 30 days or less, the contractor will perform permitting tasks and provide value engineering and support to the design team. This work will not be paid for separately, but will be considered subsidiary to all construction activities. Costs for this time should be included in the overall unit costs provided by the contractor. The contractor and engineer will work together to clarify design details, design intent, discuss materials, and value engineer the project. Once a final plan set and quantities are developed, the contractor, using the **original unit costs** provided in the contractor's initial proposal, will prepare a final proposal to be used for the construction contract covering the physical construction of the project. If, during the project partners process, further clarification of the design allows or necessitates that the contractor revise a unit price for the project the finalized unit costs may not exceed 15% above the original proposed unit costs unless agreed upon in writing by EVWC and the design engineer. Unit costs will not be changed due to adjustments in quantities. This project partner's process to finalize the design and proposal will not exceed 30 days.

### **2.1 General**

These instructions apply to proposal preparation for construction work for the Estes Valley Watershed Coalition.

### **2.2 Proposal**

Each proposal must include information requested in the FORMS section, it is not required that this format or sheet is included so long as the information is provided in the submitted proposal. All FORMS shall be submitted electronically as instructed in the request for proposals.

### **2.3 Qualifications of Proposer**

Specific qualifications related to the project shall be submitted as required in the FORMS. Additional detail related to the information required on the FORMS is provided in the following sections.

### **2.4 Contractor Experience and Capability to Perform Work**

Provide company background and relevant project experience using the PREVIOUS PROJECT EXPERIENCE table provided with the FORMS. Project experience should reflect work performed on stream stabilization improvements, stream and floodplain restoration, flood recovery, revegetation, and if projects involved alternative project delivery approaches.

Provide up to six relevant project examples and note whether they were federally funded in part or in whole. In addition, for each project please provide the following:

- Narrative of project work and key components.
- Client contact information for each project.

- Up to 3 photos of completed work.

## **2.5 Experience and Qualifications of Project Team**

Describe the contractor's team for the project. Include key staff on the PROPOSED PROJECT TEAM MEMBERS table provided with the FORMS.

## **2.6 Project Understanding and Value Engineering Approaches**

Provide understanding of the project and the location; potential risks that may directly affect cost, schedule, or project success; proposed contractor activities to mitigate the identified risk; and provide value engineering approaches for the proposed work.

## **2.7 Unit Costs**

Provide unit costs using the attached BID SCHEDULE and/or electronic schedule included with the proposal documents. Approximate quantities for this project are included on the BID SCHEDULE, however, these shall not be considered final quantities. Final quantities will be determined following the project partners process described in Section 1.2.

## **2.8 Proposed Work Schedule and Workload Capacity**

Due to the unique nature of flood recovery work in a natural disaster of this significance, sufficient contractor workload capacity is critical for this contract. Anticipated implementation of this project requires that construction be completed within 220 days of a signed Financial Assistance (FA) agreement between the Natural Resources Conservation Service (NRCS) and the Colorado Water Conservation Board. The anticipated signature date of the FA agreement is mid-January, 2017 putting the end of the contract in August of 2017. The contractor's ability and commitment to perform this work in the available time frame is essential.

Provide a proposed work schedule with milestone deliverables and dates, with a completion date according to details listed in "Contract Term." Also, please list your proposed project team's current workload capacity and commitments in addition to its anticipated capacity for the EVEWP project, through August 2017. Please state your team's commitment to accomplish this project in what is acknowledged to be a tight time frame.

Currently the deadline is September 10, 2017 for all work to be completed. We are working with our funders to get a 60 day extension but will not be granted until we have a contractor under contract and work has been invoiced. To accomplish this, we will work with the contractor to adjust the scope of work to reflect the priorities of the project and what we would like to see accomplished before September 10<sup>th</sup> while tasks that have a lower priority will be accomplished within the 60 day extension.

## **2.9 Completion and Signing**

Proposal must be legibly signed in ink and must cover all of the items of work called for herein and no others. All of the blank spaces in the BEST VALUE BID FORM must be properly completed. Proposer must sign and give a complete business address. Proposal(s) by corporations must be signed with the name of the corporation followed by the signatures and designations of the President and Secretary (or other person authorized to bind it in the matter) and must have the corporate seal affixed thereto.

## **2.10 Bid Bond**

All proposals must be accompanied by a bid bond at 5% of the proposed price. Proposals without a bid bond will be removed from consideration.

## **2.11 Addenda**

Proposer must acknowledge the receipt of all Addenda on the proposal, in the place provided, and include it with the proposal. There will be at least one addendum, which will include the pre-proposal Meeting attendee list and answers to questions.

## **2.12 Unbalanced Proposal**

Any proposal that, in the opinion of owner, is unbalanced so that each item does not reasonably carry its own proportion of cost, or that contains inadequate or unreasonable prices for any item, may be rejected.

## **2.13 Site Inspection and Investigations**

Prior to submitting a proposal, proposer(s) must inspect the work Site and its surroundings. It will be conclusively presumed that the inspection of the Site has been made by the submittal of a proposal.

DRAWINGS and SPECIFICATIONS, defining the work, were prepared on the basis of interpretation by ENGINEER of information derived from investigations of the work Site. Such information and data are subject to sampling errors, and the interpretation of the information and data depends to a degree on the judgment of ENGINEER. In view of this, proposer is invited to make additional investigations. Information about the degree of difficulty of the work to be done cannot totally be derived from either the DRAWINGS and SPECIFICATIONS or from ENGINEER or ENGINEER's representatives.

Since the proposal information cannot be guaranteed, proposer will have assumed the risks attendant to successful performance of the work at the amount of the proposal and will never make claim for additional payments or time extensions on the grounds that the nature or amount of work to be done was not understood by proposer when submitting the proposal.

## **2.14 Inconsistencies and Interpretations**

Any seeming inconsistencies between different provisions of the contract documents or any point requiring explanation must be inquired into by proposer, in writing, to owner at least five (5) days, excluding Saturdays, Sundays, and holidays, prior to the deadline for submission of proposal. A copy of the decision will be distributed only to those who have registered their contact information with EVWC. After proposals are opened, all proposers must abide by the decision of EVWC as to such interpretation.

If the decision or interpretation requires that addenda to the CONTRACT DOCUMENTS be issued, such ADDENDA will be distributed only to those who have registered their contact information with EVWC. Each proposer must acknowledge the addenda in the proposal.

Only those interpretations, clarifications, and explanations issued in writing by EVWC, either by addenda or by a formal written decision, will be binding. Oral or other interpretations, clarifications, or explanations will be without legal effect.

## **2.15 Award of Contract**

EVWC reserves the right to award the contract at any time within ninety (90) days from the date of the opening of proposals unless otherwise specified in the CONTRACT DOCUMENTS. EVWC further reserves the right to reject any and all proposals and waive any and all informalities, and the right to disregard all non-conforming or conditional or counter proposals.

In evaluating the proposal, EVWC will consider the following: capability of contractor to perform work, experience and qualifications of proposed construction team, project understanding and value engineering approaches, cost, and proposed work schedule and work capacity. Each of the five listed evaluation criteria will be scored and weighted specifically for the project as follows:



## 2.16 Selection Process

The consultant selection process is anticipated to follow the previously described schedule. Upon receipt of proposals, EVWC and The selection committee will individually review and score each proposal and meet to make a selection. The scores will be compiled in order to rank the applicants from highest to lowest. While price is one of the primary factors in proposal selection, the selection committee will select the most responsive and responsible proposer, comparing price with qualifications. The best value contracting company(s) will be selected to enter into a professional services agreement with EVWC, subject to the approval of the designated selection committee of the EVWC. Interviews may be held with a short-list of top-scoring contracting companies if necessary and/or desired by the selection committee.

## 2.17 Selection Criteria

The proposals will be evaluated using the following general criteria with a maximum of 100 points available:

### **Contractor Experience and Ability of Contractor to Perform Work (0-20 points):**

Previous experience by the construction team implementing stream channel modifications, stream bank stabilization, floodplain revegetation, previous flood recovery work, revegetation, understanding of the unique permitting requirements of river related construction projects, and previous experience working on Colorado watersheds. LTWC will also consider prior experience with projects funded in whole or in part with federal funding.

### **Experience and Qualifications of the Proposed Construction Team (0-20 points):**

Construction manager, key team members, and the construction company's qualifications; defined responsibilities; key team member's experience working together (continuity). Note team members with relevant experience with federally-funded projects involving regulations such as Davis Bacon and Section 3 of the Housing and Urban Development Act of 1968 (described above in Section 1 of this RFP).

### **Project understanding and Value Engineering Approaches (0-20 points):**

Demonstrated understanding of the project goals and objectives, potential project risks, and evaluation of value added engineering approaches.

### **Cost (0-20 points):**

Costs will be evaluated based on engineer's estimate, current industry construction bids/proposals and competitiveness with other received proposals.

### **Proposed Work Schedule and Workload Capacity (0-20 points):**

Demonstrated capacity to complete the work within the 220-day construction period and understanding of project components and scheduling.

## 2.18 Rejection of Proposal

If, at a minimum, any of the below-listed items are encountered, then the proposal will be deemed unacceptable.

1. Proposer(s) name is not on the plan holders list (established at the mandatory pre-proposal meeting);
2. Proposal is missing any of the Procurement Forms;
3. Required bonds and requirements are not included in the proposal package;
4. Proposal not signed by an authorized person of the corporation or company; and

5. Receipt of addenda not acknowledged by proposer on the proposal;

### **2.19 Failure to Execute Contract and Furnish Bond**

If the successful proposer fails to execute the contract and furnish the performance and payment bonds and certificate of insurance within ten (10) days from the issuance of the notice of award, the proposer shall forfeit the proposal security accompanying the proposal. The proposal security shall be retained as liquidated damages by the EVWC, and it is agreed that this said sum is a fair estimate of the amount of damages the EVWC will sustain.

### **2.20 Confidential Information**

Pursuant to the Colorado Open Records Act, C.R.S. §§ 24-72-201 et seq. (“Act”), all information contained in any bid or proposal is subject to public disclosure unless it meets one of the exceptions set forth in the Act. To avoid disclosure of trade secrets, privileged information, or confidential commercial, financial, geological, or geophysical data (“Confidential Information”), the proposer must clearly mark all Confidential Information as such and provide a written, detailed justification with its bid or proposal of the protected nature of the Confidential Information under Colorado law. This justification must address, at a minimum, the specific competitive harm that may result from any disclosure, the intrinsic value of the Confidential Information to the proposer, and any safeguards the proposer uses to protect the Confidential Information from disclosure.

By submitting a proposal, the proposer agrees to hold the EVWC harmless from any claim arising from the release of Confidential Information not clearly marked as such by the proposer or lacking written, detailed justification supported by Colorado law.

## **3.0 PROJECT FORMS AND EXHIBITS**

### **3.1 Supplemental Exhibits**

- 3.1.1 VIII-H [INVITATION FOR BIDS](#)
- 3.1.2 VIII-I Instructions to Bidders- Please refer to [3.3 BEST VALUE BID FORM](#)- This form must be followed for contractor proposal format
- 3.1.3 VIII-O [CONTRACTOR/SUBCONTRACTOR CERTIFICATIONS](#) This form must be included with the proposal.
- 3.1.4 VIII-D [WAGE DETERMINATION](#) This form must be included with the proposal.
- 3.1.5 [BID TABS](#) This form must be included with the proposal.
- 3.1.6 VIII-M [BID BOND](#) This form must be included with the proposal.
- 3.1.7 [Federal Labor Standards](#)
- 3.1.8 [Federal Wage Decision](#)

### **3.2 Project Design Plans, and Technical Specifications**

Please access the [PROJECT DESIGNS](#) with this link and [TECHNICAL SPECIFICATIONS](#) with this link.

### **3.3 Best Value Bid Form**

Please access the [BEST VALUE BID FORM](#) with this link. This form must be included with the proposal.

### **3.4 Sample Construction Contract**

This is a sample and will be filled in and signed after negotiations with the awarded consultant. Please review and be aware of language and expectations in the [Contract](#) and [General Conditions](#).

**ESTES VALLEY WATERSHED COALITION  
SAMPLE CONSTRUCTION CONTRACT**

THIS CONTRACT is made this \_\_\_\_\_ day of \_\_\_\_\_, 2017 by and between the **Estes Valley Watershed Coalition**, a Colorado nonprofit corporation (hereafter “the **Watershed Coalition**”), and \_\_\_\_\_ (hereafter the “**Contractor**”).

**RECITALS**

WHEREAS, the Watershed Coalition desires to have designed and constructed \_\_\_\_\_ as more fully described in a Request for Proposals dated \_\_\_\_\_, 2017 (hereafter the “**Project**”).

WHEREAS, the Contractor provides professional design and construction services to the public and is fully qualified to perform the design and construction of the Project.

WHEREAS, pursuant to Title I of the Housing and Community Development Act of 1974, as amended, the State of Colorado Department of Local Affairs (“**DOLA**”) is authorized by the federal Department of Housing and Urban Development (“**HUD**”) to provide State of Colorado Community Development Block Grant Disaster Recovery Program funds (hereinafter referred to as “**CDBG-DR funds**”) to nonprofit organizations selected to undertake and carry out certain programs and projects under the State of Colorado Community Development Block Grant Disaster Recovery Program in compliance with all applicable local, state, regulations and policies

*WHEREAS, the Watershed Coalition, as part of its CDBG-DR grant agreement with DOLA under contract number CDBG-DR\_\_\_\_\_, has been awarded CDBG-DR funds for the purposes set forth herein (hereinafter referred to as the “**CDBG-DR Grant Agreement**”).*

WHEREAS, the Scope of Work (as hereinafter defined) included in this contract is authorized as part of the Watershed Coalition’s CDBG-DR Grant Agreement.

WHEREAS, it would be beneficial to the Watershed Coalition to utilize the Contractor as an independent entity to accomplish the Scope of Work as set forth herein and such endeavor would tend to best accomplish the objectives of the CDBG-DR Grant Agreement.

WHEREAS, the Watershed Coalition has designated \_\_\_\_\_, its Watershed Coordinator, to act as the “**Project Manager**” for this Project. Watershed Coordinator and the State’s Technical Assistance Team will jointly act as the “**Coalition’s Representative**” with respect to this Project.

NOW, THEREFORE, in consideration of the mutual promises, covenants and provisions contained herein, and the mutual benefits to be derived therefrom, the parties hereto agree as follows:

**COVENANTS AND CONDITIONS**

NOW, THEREFORE, in consideration of the promises and obligations set forth below, the Watershed Coalition and the

Contractor agree as follows:

**I. GEOGRAPHIC SCOPE OF WORK UNDER THIS CONTRACT**

A. General.

The Project is to be constructed on property owned by third parties and not on property owned by the Watershed Coalition (see Section III, below). The general geographic area involved within the scope of this contract can be described as:

PROJECT LOCATION AND OWNERS

The foregoing may be referenced herein as the “**Project Area.**” All of the Project Area is contained within Larimer County, Colorado.

B. Specific Affected Properties.

The specific parcels of real properties directly involved or significantly affected by the Project as presently known are as set forth on Exhibit A, attached hereto and incorporated herein as if fully set forth. These parcels may be referred to herein as the “**Affected Properties.**” The owners of the Affected Properties, as shown in the records of Larimer County, are as set forth on Exhibit A and may be referred to herein as the “**Affected Landowners.**”

C. Other Interested Properties.

Other parcels of properties that either adjoin or neighbor the specifically affected properties as presently known may also be set forth on Exhibit A, attached hereto and incorporated herein as if fully set forth. These parcels may be referred to herein as “**Interested Properties.**” The owners of the Interested Properties, as shown in the records of Larimer County, are as set forth on Exhibit A and may be referred to herein as the “**Interested Landowners.**” It is not presently contemplated that the Contractor shall have any need to or will actually (i) perform any work under this Contract on any parcel that is only an Interested Property, (ii) use an Interested Property as a means of access, ingress or egress to perform any work under this Contract, or (iii) otherwise set foot on, store equipment or materials on (even temporarily) or directly impact any parcel of an Interested Property. In the event that any of the foregoing does occur, the Contractor will immediately notify EVWC and the Coalition’s Representative and appropriate remediation steps, if any are necessary, shall be taken at the Contractor’s sole cost and expense.

**II. SCOPE OF WORK UNDER THIS CONTRACT (the “Work”)**

A. General.

The Contractor shall finalize all necessary plans, designs, drawings and specifications for the Project, complete all construction work necessary to complete the construction of the Project, and furnish all equipment and materials needed for the completion of the Project in accordance with such plans, designs, drawings and specifications.

B. Consultation with the Watershed Coalition.

The Contractor shall communicate with the Watershed Coalition about the Project as necessary or appropriate in order

to ensure that the Project is completed on time and in accordance with the goals, objectives and requirements of the Project as set forth in the Scope of Work, as hereinafter defined. Such communication shall occur primarily through the Coalition's Representative with copies of all written communication also given to EVWC.

C. Specific Duties and Responsibilities.

Additional specifics for the Project are set forth in Exhibit B, captioned "Scope of Work," which is attached hereto and made a part hereof (hereafter the "**Scope of Work**").

- (i) Part 1 of the Scope of Work describes the preliminary plans and designs that have been heretofore prepared by or on behalf of the Watershed Coalition. Such preliminary plans and designs constitute approximately 30% completion of the design work for the Project and shall be supplemented, reduced in scope or modified as agreed upon during the Final Design Plan Development stage of the work to be done in cooperation with the design team, selected contractor and the Coalition.
- (ii) Part 2 of the Scope of Work sets for a breakdown of the Project into specific tasks to be accomplished by the Contractor.
- (iii) Part 3 of the Scope of Work contains a more detailed statement of the goals, objectives and requirements of the Project.

D. Cleanup and Remediation.

The Contractor shall remove all debris and excess material generated by its work and remediate and mitigate any disturbance of vegetation and soil conditions on the Affected Properties caused by or resulting from, either directly or indirectly, the work performed by the Contractor. Such cleanup and remediation shall be to the satisfaction of the Watershed Coalition in its reasonable discretion.

E. Compliance with Applicable Laws.

The design and construction of the Project will comply with all applicable laws including but not limited to those of the Town of Estes Park, Colorado, if applicable, the County of Larimer, Colorado, the State of Colorado and all federal laws including, again without limitation, those set forth in the General Provisions attached hereto as Exhibit C which is, by this reference, incorporated herein as if fully set forth. The Contractor shall obtain any and all permits necessary for the completion of the Project. The Contractor and any and all subcontractors or tradespersons providing services to the Contractor in the performance of the work under this Contract shall obtain and maintain during the term of their work under this Contract all licenses that may be necessary under local, state or federal law.

F. Subcontractors.

The Contractor may not assign this Contract but may subcontract any or all of the work to be performed under this Contract. However, notwithstanding any subcontract of work, the Contractor shall supervise all work performed by such subcontractor and shall be strictly liable for the performance of such work and the compliance by such subcontractors with the terms of this Contract including, without limitation, their compliance with Paragraph E of this Section II. If any additional subcontractor is brought on, the prime must make efforts to comply with Section 3 and outreach to LMI & minority & women-owned businesses. They must also submit proof of this to EVWC. The General Conditions set forth in Exhibit C will be incorporated into each and every subcontract for work performed under this Contract. The Contract must certify that none of its subcontractors are ineligible or debarred through HUD or the General Services Administration.

G. Participation of the Contractor in Public and Private Meetings.

An important and essential part of the duties of the Contractor will involve the presentation by representatives of the Contractor of plans and designs to (i) Affected Landowners (either in a group setting or, in limited situations, with a single Affected Landowner), (ii) groups of interested members of the public, (iii) the Board of Directors of the

Watershed Coalition, and/or (iv) the staff and/or board of trustees of the Town of Estes Park and/or the staff or commissioners of Larimer County (collectively **“Stakeholder Meetings”**). The Contract Price set forth in Section V below includes all costs associated with or arising out of the Contractor’s participating in such Stakeholder Meetings. EVWC shall arrange all such meetings and shall exercise reasonable efforts to consolidate such meetings and limit, to the extent possible, the number of such meetings. The duties of the Contractor include the preparation of handout materials and displays as may be reasonable necessary or appropriate for such meetings as well as travel to attend such meetings.

H. **Change Orders and Extra Services.**

Upon the written request of the Watershed Coalition acting through EVWC, the Contractor shall, if requested, alter the design and construct improvements in addition to and/or instead of the design and improvements set forth in the Scope of Work. Notwithstanding the foregoing, services requested by the Watershed Coalition in writing shall only constitute a change order pursuant to this subsection if this Paragraph H of Section II is expressly referenced in that written request (a **“Change Order”**). The Contractor shall charge the Watershed Coalition for such extra services, if any, in accordance with the contract price adjustment, if any, set forth in the Change Order. In no case may the total project budget of \$xxxxxx be exceeded. If no contract price adjustment is referenced in the Change Order, the Contract Price as set forth in Section V shall remain unadjusted.

**III. LANDOWNER RELATIONS**

A. **Landowner Consent Agreement for Planning and Design Activities.**

The Watershed Coalition has obtained or will exercise reasonable efforts to obtain an executed Landowner Authorization, Consent and Limited Easement for Planning and Design Activities from each of the Affected Landowners either prior to or as soon as possible after the execution of this Contract. The Watershed Coalition will provide written notice to the Contractor of any Affected Landowner who has not executed such a consent agreement or any instance in which such an executed consent agreement ceases to be in full force and effect.

B. **Landowner Consent Agreement for Implementation and Construction.**

The Watershed Coalition will exercise reasonable efforts to obtain an executed Landowner Authorization, Consent and Limited Easement for Implementation and Construction from each of the Affected Landowners once final designs are completed by the Contractor and prior to the Contractor commencing work on the Affected Property of such Affected Landowner unless the Scope of Work does not involve implementation or construction activities on the property of an Affected Landowner and the Scope of Work can be accomplished without the Contractor needing access across the property of an Affected Landowner.

C. **Contractor’s Strict Compliance with Terms of Landowner Consent Agreements.**

The Contractor will not engage in any activities except as permitted under executed and effective Landowner Authorization, Consent and Limited Easement agreements entered into by the Watershed Coalition with Affected Landowners. The Contractor shall strictly comply with all terms, conditions and responsibilities of the Watershed Coalition and its Authorized Parties as provided under such agreements.

**IV. TIME OF PERFORMANCE**

The Contractor hereby agrees to commence Work under this Contract on or before a date to be specified in a written **“Notice to Contractor to Proceed”** issued by the Watershed Coalition and to fully complete all Work

under this Contract within 200 consecutive calendar days thereafter. The Contractor agrees to pay, as liquidated damages, the sum of \$10 for each calendar day or portion thereof between the end of such period and the actual completion of the Work under this Contract as further provided in Paragraph 42 of the General Conditions.

#### AMOUNT OF PAYMENTS TO CONTRACTOR AND TIME OF PAYMENTS

A. Total Amount of Payments.

The total amounts to be paid by the Watershed Coalition to the Contractor for completion of the Project and the performance by the Contractor of its obligations under this Contract shall not exceed the sum of (\$xxxxxx.xx) (the “**Contract Price**”). Any changes, whether additions or deductions, shall be made in writing and agreed upon by a change order pursuant to Section II, Paragraph F and expressly authorized by EVWC.

B. Invoices for Partial Completion.

The Contractor may bill the Watershed Coalition by the 15<sup>th</sup> of every month and no less frequently than on a monthly basis. Billings shall be made by invoice delivered electronically to the Watershed Coalition. Each invoice shall refer to the “**contract number**” and specify the task or tasks as set forth in Part 2 of the Scope of Work that have been completed since the last invoice together with the estimated cost of such completed task. The invoice may also include a pro-rata portion of the estimated cost of Task 1 Project Management. The total invoice shall be reduced by five percent (5%) which shall be the retainage amount which will be paid upon Completion.

C. Invoice for Final Payment upon Completion.

Upon completion of the Project and acceptance of the work in accordance with this Contract, the Contractor may invoice the Watershed Coalition for the balance of the full Contract Price (as such may have been adjusted by any change orders) including the retainage amount.

D. Dispute of any Invoice.

If the Watershed Coalition disputes any invoice for any reason, it shall notify the Contractor as soon as reasonably practicable. The Contractor understands that an invoice may be disputed by the Watershed Coalition after it has been submitted to DOLA for payment pursuant to the terms of the CDBG-DR Grant and a delay notice of a dispute an invoice arising from a delay in DOLA accepting an invoice for payment or a delay in the Watershed Coalition in communicating such a dispute to the Contractor shall not preclude or prevent the Watershed Coalition from disputing the payment of any invoice. No verbal or email communication from the Watershed Coalition shall constitute a waiver of the right to dispute any invoice.

E. Payment of Invoices.

EVWC will require all invoices to be submitted monthly by the 15<sup>th</sup> of the month for processing on the 16<sup>th</sup>. Invoices that are received after the 15<sup>th</sup> will be processed the following month. We will review invoices and ensure that all work is documented correctly and required information is provided. If there is any additional information or clarification needed we will contact the prime and keep that invoice on track for payment. Invoices will be submitted to the funders at the end of the month for payment.

Invoices will be considered complete when the prime contractor submits the attached spreadsheet packet and back up documentation for each project. If multiple projects are contracted, a separate spreadsheet packet for each is required. A packet will be considered complete and ready for processing when the prime contractor submits:

- A signed DOLA Coversheet; including signature of the supervising engineer

- Contract work spreadsheet
- Change order spreadsheet
- Stored materials spreadsheet
- Davis Bacon required weekly payroll reports
- Invoices that include date range, task, completed by whom, rate of pay, and percentage complete.
- Supporting documentation including photos, receipts, log books, calculations, volunteer logs if used, scale tickets or other quantity estimates.

EVWC will pay consultants based on the invoice received no more than three (3) days after receiving the funds.

F. Qualifications on Obligations to Pay.

Notwithstanding any other terms of this Contract, the Watershed Coalition may withhold any payment (whether a progress payment or final payment) to the Contractor if any one or more of the following conditions exists:

- (i) The Contractor is in default of any of its obligations under this Contract.
- (ii) Any part of such payment is attributable to services which are not performed according to this Contract. (The Watershed Coalition will pay for only the part thereof attributable to services performed according to this Contract.)
- (iii) The Contractor fails to make payments promptly to any third parties used in the services for which the Watershed Coalition has made payment to the Contractor.
- (iv) The Watershed Coalition, in its good faith judgment, determines that the portion of the compensation then remaining unpaid will not be sufficient to complete the Project or any task according to this Contract. In such case, no additional payments will be due to the Contractor until the Contractor, at its sole cost, performs a sufficient portion of the Project or task so that the Watershed Coalition determines that the compensation then remaining unpaid is sufficient to complete the Project or task.
- (v) No partial payment shall be final acceptance or approval of that part of the Project or task paid for, or shall relieve the Contractor of any of its obligations under this Contract.

V. **PAYMENT AND PERFORMANCE BOND**

The Contractor shall, within seven (7) calendar days after the execution of this Contract, furnish the Watershed Coalition with a Performance Bond and a Payment Bond each in the penal amount of one-hundred percent (100%) of the Contract Price. Such bonds shall be obtained from a surety licensed to transact such business in the state of Colorado and acceptable to both the Watershed Coalition and DOLA. The expense of such bonds shall be borne by the Contractor. Such bonds shall be maintained until such time as the final payment is made by the Watershed Coalition to the Contractor in accordance with this Contract.

VI. **CONTRACT DOCUMENTS**

The documents that together comprise the entire agreement between the Watershed Coalition and the Contractor concerning the Project (the “**Contract Documents**”) consist of the following:

- A. The terms and conditions of the CDBG-DR Grant Agreement;
- B. This Contract
- C. The Exhibits to this Contract (Exhibit A, Exhibit B and Exhibit C);
- D. The Watershed Coalition’s Request for Proposals dated June 19, 2017;
- E. The Proposal submitted by the Contractor dated July 7<sup>th</sup>, 2017;
- F. The Notice of Award dated \_\_\_\_\_;



- G. The Existing Preliminary Plans and Designs referenced in Part 1 of Exhibit A;
- H. Landowner Consent Agreements obtained by the Watershed Coalition from Affected Landowners in accordance with Paragraphs A and B of Section III of this Contract;
- I. The Notice to Contractor to Proceed issued by the Watershed Coalition pursuant to Section IV of this Contract.
- J. The Final Design Plan Drawings and Specifications prepared by the Contractor during the course of performing the work under this Contract;
- K. Any Change Orders prepared and authorized pursuant to Section II, Paragraph H of this Contract;
- L. Any amendments to this Contract provided that any such amendment is in writing, specifically references that it amends this Contract and is executed by the Contractor, in its sole discretion, and by the Watershed Coalition, in its sole discretion.
- M. Wage determination

The foregoing constitutes the entire agreement between the Watershed Coalition and the Contractor and incorporates all prior verbal and written communications between the parties concerning the subject matter included herein.

In the event of conflicting provisions, requirements or discrepancies among the provisions of the Contract Documents, their provisions shall apply in the following order of priority:

- (i) The CDBG Grant Agreement unless an exception has been granted by DOLA in writing and in its sole discretion;
- (ii) Amendments to this Contract;
- (iii) Change Orders for clarification of drawings, design or work to be performed;
- (iv) This Contract;
- (v) Exhibits to this Contract;
- (vi) Any applicable Landowner Consent Agreement;
- (vii) Final Design Plan Drawings and Specifications;
- (viii) The Request for Proposals;
- (ix) The Existing Preliminary Plans and Designs; and then
- (x) Other documents in a reverse order of chronology (latest documents given priority over older documents).

## **VII. MISCELLANEOUS**

### **A. Captions.**

Each paragraph of this contract has been supplied with a caption to serve only as a guide to the contents. The caption does not control the meaning of any paragraph or in any way determine its interpretation or application.

### **B. Amendments in Writing.**

No amendment or modification shall be made to this Contract unless it is in writing and signed by both parties.

### **C. Governing Law and Venue.**

This Contract is governed by the laws of the State of Colorado. Any suit between the parties arising under this Contract shall be brought only in a court of competent jurisdiction in Larimer County, Colorado.

### **D. No Third-Party Beneficiaries.**

The parties intend no third-party beneficiaries under this Contract. Any person other than the Watershed Coalition or the Contractor receiving services or benefits under this Contract is an incidental beneficiary only.

E. No Waiver.

No waiver of any breach or default under this Contract shall be a waiver of any other or later breach or default.

F. Addresses for Notices and Communications.

All notices required or permitted to be given under this Contract shall be in writing, sent by regular mail or by electronic delivery (email), addressed as follows:

Estes Valley Watershed Coalition

Attn.: Watershed Coordinator

P.O. Box 4494

Estes Park, Colorado 80517

[Molly.Mills@evwatershed.org](mailto:Molly.Mills@evwatershed.org)

[Cc: Lindsay.Mcfarland@evwatershed.org](mailto:Lindsay.Mcfarland@evwatershed.org)

\_\_\_\_\_, Principal

Contractor

XXX Main Street

City, Colorado ZIP

\_\_\_\_\_

\_\_\_\_@YYYY.com

Either party may, by notice in writing to the other party, change the address to which notices to that party are to be given.

G. Authority.

Each party executing this Contract warrants that the individual executing this Contract is properly authorized to bind such party to this Contract.

IN WITNESS WHEREOF, the parties hereto have signed this Contract effective as of the day and year first above written.

**CONTRACTOR [replace with actual name]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**ESTES VALLEY WATERSHED COALITION**

\_\_\_\_\_

\_\_\_\_\_, President

**Exhibit A**  
**General Conditions**

**INDEPENDENT CONTRACTOR**

1. The relationship between the Contractor and the Watershed Coalition is that of an independent contractor. The Contractor shall supply all personnel, equipment, materials and supplies at its own expense, except as specifically set forth herein. The Contractor shall not be deemed to be, nor shall it represent itself as, an employee, partner, or joint venturer of the Watershed Coalition. No employee or officer of the Watershed Coalition shall supervise the Contractor. **The Contractor is not entitled to workers' compensation benefits and is obligated to directly pay federal and state income tax on money earned under this Contract.**

**PERSONNEL**

2. The Contractor represents that it has, or will secure at its own expense, all personnel required in order to perform under this contract. Such personnel shall not be employees of, or have any contractual relationship to, the Watershed Coalition. All services required hereunder will be performed by the Contractor or under its supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under federal, state and local law to perform such services. None of the work or services covered by this contract shall be subcontracted without prior written approval of the Watershed Coalition. Any work or services subcontracted hereunder shall be specified in written contract or agreement and shall be subject to each provision of this contract.

**INTELLECTUAL PROPERTY RIGHTS**

3. The Contractor shall hold and save harmless the Watershed Coalition from any and all claims for infringement, by reason of the use of any patented design, device, material, process, or trademark or copyright, and shall indemnify the Watershed Coalition for any costs, expenses, and damages, including court costs and attorney fees, which it might be obligated to pay by reason of infringement at any time during the prosecution or after completion of its work under this Contract.

4. All work notes, reports, documents, computer programs (non-proprietary), computer input and output, analyses, tests, maps, surveys, or any other materials developed specifically for the Project are and shall remain the sole and exclusive property of the Watershed Coalition. The Contractor, upon request by the Watershed Coalition, agrees to provide documents or any other materials developed specifically for the Project in an electronically editable format (for example, Word or Excel). The Contractor shall not, without the prior written consent of EVWC, provide copies of any material prepared under this Contract to any other party other than the Coalition's Representative, the

Watershed Coalition or, in accordance with the instructions of EVWC, to Affected Landowners or persons in attendance at Stakeholder Meetings.

### **CONFLICT OF INTEREST PROVISIONS**

5. The Contractor represents, warrants and covenants that it presently has no interest and shall not acquire interest, direct or indirect, in any of the Affected Properties or any other real property or financial interest which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants that in the performance of this contract, no person having such interest shall be employed.

6. The Contractor represents, warrants and covenants that no member of the governing body of the Watershed Coalition, and no other officer, employee, or agent of the Watershed Coalition who exercises any functions or responsibilities in connection with the planning and carrying out of the Project has any interest, direct or indirect, in the Contractor or this Contract; and the Contractor shall take appropriate steps to assure compliance with this provision for the term of the Contract.

### **CONTRACTOR'S DUTIES**

7. Notwithstanding anything to the contrary contained in this Contract, the Watershed Coalition and the Contractor agree and acknowledge that the Watershed Coalition enters into this Contract relying on the special and unique abilities of the Contractor to accomplish the Project. The Contractor accepts the relationship of trust and confidence established between it and the Watershed Coalition by this Contract. The Contractor covenants with the Watershed Coalition to use its best efforts. The Contractor shall further the interests of the Watershed Coalition according to the Watershed Coalition's requirements and procedures, according to the highest professional standards and in compliance with all applicable national, federal, state, municipal laws, regulations, codes, ordinances, and orders and with those of any other body having jurisdiction.

8. The Contractor represents, covenants, and agrees that it has and will undertake no obligations, commitments, or impediments of any kind that will limit or prevent it from the timely completion of the Project, loyally and strictly according to the best interests of the Watershed Coalition. In case of any conflict between interests of the Watershed Coalition and any other entity, the Contractor shall fully and immediately disclose the issue to the Watershed Coalition and shall take no action contrary to the Watershed Coalition's interests.

9. The Contractor has familiarized itself with the nature and extent of the Contract Documents, the geographic area of the Project and its physical characteristics, including without limitation the existing improvements, soil conditions, drainage, topography and all other features of the terrain and the local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect the cost, progress or performance of the work to be performed under this Contract.

10. The Contractor understands that it shall not be allowed any extra compensation by reason of any condition as described in Paragraph 9 above concerning which it might have fully informed itself prior to signing this Contract.

11. The Contractor is retained to perform work for the Watershed Coalition that includes confidential data, work product, and other privileged or confidential information that is protected under pertinent laws and Watershed Coalition policies. In order to maintain the fact and appearance of absolute objectivity, loyalty, and professionalism, the Contractor shall not, without the prior written consent of the Watershed Coalition, do any of the following:

- a. Disclose at any time information obtained as a result of this contractual relationship to any third party;
- b. Make any public statements or appear at any time to give testimony at any public meeting on the subject matters with regard to which the Contractor is or was retained by the Watershed Coalition. To the extent that the Watershed Coalition provides written consent for the disclosure of information or authorizes the making of public statements, the Watershed Coalition may impose such conditions upon such disclosure or communications as it thinks appropriate, and the Contractor agrees to comply with those conditions. This provision shall not preclude the Contractor from providing information to law enforcement officials in connection with any criminal justice investigation.

12. The Contractor represents, covenants, and agrees that all of the services furnished, work performed and materials used by the Contractor under this Contract shall be of at least the standard and quality prevailing among highly competent professionals who perform work of a similar nature to the work described in this Contract and shall be of good quality, free from faults or defects and in conformance with the Contract Documents to the reasonable satisfaction of the Watershed Coalition.

13. The Contractor represents, covenants, and agrees that its work will be accurate and free from any material errors. The Contractor additionally represents, covenants, and agrees that the planning for the Project will conform to all foreseeable uses thereof. Watershed Coalition approval shall not diminish or release the Contractor's duties since the Watershed Coalition is ultimately relying upon the Contractor's skill and knowledge.

14. The Contractor agrees to call to the Watershed Coalition's attention errors in any drawings, plans, sketches, instructions, information, requirements, procedures, and other data supplied to the Contractor (by the Watershed Coalition or any other party) that it becomes aware of and believes may be unsuitable, improper, or inaccurate in a material way. However, the Contractor shall not independently verify the validity, completeness, or accuracy of such information unless otherwise expressly engaged to do so by the Watershed Coalition. Nothing shall detract from this obligation unless the Contractor advises the Watershed Coalition in writing that such data may be unsuitable, improper, or inaccurate and the Watershed Coalition nevertheless confirms in writing that it wishes the Contractor to proceed according to the data as originally given.

15. The Contractor represents, covenants, and agrees to furnish efficient business administration and superintendence and perform the services required by this Contract in the best, most expeditious and most economical manner consistent with the interests of the Watershed Coalition.

16. The Contractor shall promptly pay all bills for labor and material performed and furnished by others in performance of the Project.

17. The Contractor is solely responsible for its own review and understanding of the terms and requirements under the CDBG-DR Grant Agreement and shall fully comply with such requirements in performing the services required by this Contract.

18. The Contractor shall comply with the Watershed Best Management Practices, as adopted by the Watershed Coalition from time to time, so as to prevent harm arising to the Affected Properties as a result of the Contractor's performance of work under this Contract.

#### **COMPLIANCE WITH LAWS**

19. This Contract is funded in whole or in part with CDBG-DR funds through the State of Colorado's Community Development Block Grant Program as administered by the Division of Local Government, Department of Local Affairs. Contractors are responsible for complying with those regulations and restrictions normally associated with federally-funded programs and any other requirements that the state may prescribe. The Contractor shall comply with all applicable laws, ordinances and codes of the state and local government and the Contractor shall save the Watershed Coalition harmless with respect to any damages arising from any tort done in performing any of the work embraced by this Contract.

20. Under Title VI of the Civil Rights Act of 1964, no person shall, on the grounds of race, color, creed, religion, sex or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance including funds received under the CDBG Grant Agreement.

21. Under Section 109 of the Housing and Community Development Act of 1974, no person in the United States shall, on the grounds of race, color, creed, religion, sex or national origin, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title including funds received under the CDBG Grant Agreement.

22. Under the Age Discrimination Act of 1975, as amended, (42 U.S.C. 610 et. seq.), no person shall be excluded from participation, denied program benefits, or subjected to discrimination on the basis of age under any program or activity receiving federal funding assistance including funds received under the CDBG Grant Agreement.

23. Under Section 504 of the Rehabilitation Act of 1973, as amended, (29 U.S.C. 794), no otherwise qualified individual shall, solely by reason of his or her disability, be excluded from participation (including employment), denied program benefits, or subjected to discrimination under any program or activity receiving federal funds including funds received under the CDBG Grant Agreement.

24. Under Public Law 101-336, Americans with Disabilities Act of 1990, no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity.

25. Under Section 3 of the Housing and Community Development Act of 1968, Compliance in the Provision of Training, Employment, and Business Opportunities.

a. The work to be performed under this Contract is on a project assisted under a program providing direct federal financial assistance from HUD and is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended (12 U.S.C. 1701u, Section 3), requires that, to the greatest extent feasible, opportunities for training and employment be given to lower-income residents of the project area; and contracts for work in connection with the project be awarded to business concerns which are located in, or owned in substantial part by persons residing in, the area of the project.

b. The parties to this Contract will comply with the provisions of said Section 3 and the regulations issued pursuant thereto by the Secretary of HUD set forth in 24 CFR 135, and all applicable rules and orders of HUD and CTED issued thereunder prior to the execution of this contract. The parties to this contract certify and agree that they are under no contractual or other disability that would prevent them from complying with these provisions.

c. If any person is hired either by the Contractor or any subcontractor, the hiring entity will make the opportunity known to potential Section 3 candidates and will document that process. The Contractor will submit an Employee Certification Form, marked as Exhibit VIII-O.X of the CDBG Guidebook, to the Watershed Coordinator.

d. The Contractor will send to each labor organization or representative of workers with which it has a collective bargaining agreement or other contract or understanding, if any, a notice advising the said labor organization or workers' representative of its commitments under this law and shall post copies of the notice in conspicuous places available to employees and applicants for employment or training.

e. The Contractor will include this Paragraph 22 clause in every subcontract for work in connection with the project and will, at the direction of the applicant or recipient of federal financial assistance, take appropriate action pursuant to the subcontract upon a finding that the subcontractor is in violation of regulations issued by the Secretary of HUD, 24 CFR Part 135. The Contractor will not subcontract with any subcontractor where it has notice or knowledge

that the latter has been found in violation of regulations under 24 CFR Part 135 and will not let any subcontract, unless the subcontractor has first provided it with a preliminary statement of ability to comply with the requirements of these regulations.

f. Compliance with the provisions of Section 3, the regulations set forth in 24 CFR Part 135, and all applicable rules and orders of HUD and CTED issued hereunder prior to the execution of the contract, shall be a condition of the federal financial assistance provided to the project, binding upon the applicant or recipient for such assistance, its successors, and assigns. Failure to fulfill these requirements shall subject the applicant, or recipient, its Contractor and subcontractors, its successors and assigns to those sanctions specified by the grant or loan agreement or contract through which federal assistance is provided, and to such sanctions as are specified by 24 CFR Part 135.

26. The Contractor certifies that it shall comply with the provisions of section 8-17.5-101 *et seq.*, C.R.S. The Contractor shall not knowingly employ or contract with an illegal alien to perform work under this contract or enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Contract.

27. Under the Contract Work Hours and Safety Standards Act, as amended, (40 U.S.C. 327-332), workers must be compensated for overtime and be provided safe and healthy working conditions when working on federally assisted (including funds received under the CDBG Grant Agreement) construction projects.

28. The Contractor represents, warrants, and agrees (i) that it has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Contract through participation in either the E-Verify or the Department Program; (ii) that the Contractor is prohibited from using either the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while the public contract for services is being performed; and (iii) if the Contractor obtains actual knowledge that a subcontractor performing work under the public contract for services knowingly employs or contracts with an illegal alien, the Contractor shall be required to:

a. Notify the subcontractor and the contracting state agency or political subdivision within three (3) days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and

b. Terminate the subcontract with the subcontractor if within three (3) days of receiving the notice required pursuant to 8-17.5-102(2)(b)(III)(A) the subcontractor does not stop employing or contracting with the illegal alien; except that the Contractor shall not terminate the contract with the subcontractor if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.



29. The Contractor further agrees that it shall comply with all reasonable requests made in the course of an investigation under section 8-17.5-102(5), C.R.S. by the Colorado Department of Labor and Employment. If the Contractor fails to comply with any requirement of this provision or section 8-17.5-101 *et seq.*, C.R.S., the Watershed Coalition may terminate this contract for breach and the Contractor shall be liable for actual and consequential damages to the Watershed Coalition.

### **COMPLIANCE WITH DAVIS-BACON ACT PROVISIONS**

30. The Project to which the construction work covered by this Contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

- A. 1. (i) Minimum Wages.** All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor as determined between three (3) and ten (10) days prior to the bid opening which determination is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section I(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

- (ii)** **(a)** Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:
- (1)** The work to be performed by the classification requested is not performed by a classification in the wage determination; and
  - (2)** The classification is utilized in the area by the construction industry; and
  - (3)** The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (b)** If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)
- (c)** In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)
- (d)** The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this Contract from the first day on which work is performed in the classification.

**(iii)** Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

**(iv)** If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

**2. Withholding.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this Contract or any other Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime Contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the Contractor, disburse such amounts withheld for and on account of the Contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

**3. (i) Payrolls and basic records.** Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any

laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section I(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

- (ii)**     **(a)** The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The Contractor shall also submit payrolls for those weeks after work begins and where no work is performed for whatever reason with hours and payments marked with zeroes (0) until the final walk through is completed. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime Contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime Contractor to require a subcontractor to provide addresses and social security numbers to the prime Contractor for its own records, without weekly

submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

**(b)** Each payroll submitted shall be accompanied by a “Statement of Compliance,” signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

**(1)** That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

**(2)** That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

**(3)** That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

**(c)** The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by subparagraph A.3.(ii)(b).

**(d)** The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

**(iii)** The Contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job and shall not require notice of planned interviews. If the Contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the Contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

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#### 4. Apprentices and Trainees.

**(i) Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

**(ii) Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be

greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

**(iii) Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

**5. Compliance with Copeland Act requirements.** The Contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this Contract.

**6. Subcontracts.** The Contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

**7. Contract termination; debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act Requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this Contract

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general disputes clause of this Contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

**10. (i) Certification of Eligibility.** By entering into this Contract the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

**(ii)** No part of this Contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

**(iii)** The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1010, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

**11. Complaints, Proceedings, or Testimony by Employees.** No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

**B. Contract Work Hours and Safety Standards Act.** The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.



**1 Overtime requirements.** No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

**2 Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

**3 Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime Contractor such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

**4 Subcontracts.** The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

**C. Health and Safety.** The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

**1** No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

**2** The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

**3** The Contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

#### **INDEMNIFICATION**

31. The Contractor shall comply with the requirements of all applicable laws, rules, and regulations in connection with the services of the Contractor, and shall exonerate, indemnify, and hold harmless the Watershed Coalition, its officers, directors, agents, and all employees from and against it, and local taxes or contributions imposed or required under the Social Security, Workers' Compensation, and Income Tax Laws. Further, the Contractor shall exonerate, indemnify, and hold harmless the Watershed Coalition with respect to any damages, expenses, or claims arising from or in connection with any of the work performed or to be performed under this contract by the Contractor. This shall not be construed as a limitation of the Contractor's liability under this Contract or as otherwise provided by law.

#### **INSURANCE**

32. The Contractor agrees to procure and maintain in force during the terms of this Contract, at its own cost, the following minimum coverages:

- |    |   |             |
|----|---|-------------|
| a. | Workers' Compensation and Employers' Liability          | Statutory   |
|    | Waiver of Subrogation                                   |             |
| b. | Commercial General Liability                            |             |
|    | Bodily Injury & Property Damage General Aggregate Limit | \$1,000,000 |
|    | Personal & Advertising Injury Limit                     | \$1,000,000 |
|    | Each Occurrence Limit                                   | \$1,000,000 |

The policy shall be on an Occurrence Form and include the following coverages: Premises Operations; Personal and Advertising Injury; Medical Payments; Liability Assumed under an

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Insured Contract; Independent Contractors; and Broad Form Property Damage. Coverage provided should be at least as broad as found in Insurance Services Office (ISO) form CG0001.

c. Professional Liability (errors and omissions)

Each Claim/Loss: \$1,000,000

Aggregate: \$1,000,000

This coverage shall remain in place for at least two years after the project is complete.

d. Commercial Automobile Liability Limits

Bodily Injury & Property Damage Combined Single Limit \$1,000,000

Medical Payments per person \$ 5,000

Uninsured/Underinsured Motorist \$ 100,000

Coverage is to be provided on Business Auto, Garage, or Truckers form. Coverage provided should be at least as broad as found in ISO form CA0001 (BAP), CA0005 (Garage) or CA0012 (Trucker) including coverage for owned, non-owned, & hired autos.

33. Insurance required by this Contract shall be primary coverage, unless otherwise specified, and shall specify that in the event of payment for any loss under the coverage provided, the insurance company shall have no right of recovery against the Watershed Coalition or its insurers. All policies of insurance under this Contract shall be provided by a reputable insurance company or companies qualified to conduct business in Colorado. The Watershed Coalition reserves the right, but shall not have the duty, to reject any insurer which it finds to be unsatisfactory and insist that the Contractor substitute another insurer that is reasonably satisfactory to the Watershed Coalition. Property and Liability Insurance Companies shall be licensed to do business in Colorado and shall have an AM Best rating of not less than A- VI. This insurance shall be maintained in full force and effect during the term of this Contract and for the additional periods set forth herein and shall protect the Contractor, its agents, employees and representatives from claims for damages for personal injury and wrongful death and for damages to property arising in any manner from negligent or wrongful acts or omissions of the Contractor, its agents, employees, and representatives in the performance of the services covered herein.

34. **All Insurance policies** (except Workers' Compensation and Professional Liability) **shall include Estes Valley Watershed Coalition and its officers, directors, agents and employees as additional insureds as their interests may appear.** The additional insured endorsement should be at least as broad as ISO form CG2010 for General Liability coverage and similar forms for Commercial Auto and Umbrella Liability.

35. Automobile insurance shall, without limitation, cover all automobiles used in performing any services under this Contract.

36. In the case of any claims-made insurance policies, the Contractor shall procure necessary retroactive dates, tail coverage and extended reporting periods to cover a period at least two (2) years

beyond the expiration date of this Contract. This obligation shall survive the termination or expiration of this Contract.

37. The Contractor shall not cancel, materially change, or fail to renew required insurance coverages. The Contractor shall notify EVWC of any material reduction or exhaustion of aggregate limits. Should the Contractor fail to immediately procure other insurance, as specified, to substitute for any policy canceled before final payment to the Contractor, the Watershed Coalition may procure such insurance and deduct its cost from any sum due to the Contractor under this Contract.

38. Certificates showing that the Contractor is carrying the above-described insurance, and the status of the additional insureds, shall be furnished to the Watershed Coalition prior to the execution of this Contract by the Watershed Coalition. Certificates of insurance on all policies shall give the Watershed Coalition written notice of not less than fifteen (15) days prior to cancellation or change in coverage. The Contractor shall forthwith obtain and submit proof of substitute insurance in the event of expiration or cancellation of coverage.

H. ***[Paragraph H is not applicable to this Contract and is intentionally omitted and left blank]***

#### **BOOKS AND RECORDS OF THE CONTRACTOR**

39. The Contractor agrees to maintain such records and follow such procedures as may be required under the state's CDBG-DR Grant Agreement and any such procedures as the Watershed Coalition may prescribe. In general, such records will include information pertaining to the contract, obligations and unobligated balances, assets and liabilities, outlays, equal opportunity, labor standards (as appropriate), and performance.

40. All such records and all other records pertinent to this contract and work undertaken under this contract shall be retained by the Contractor for a period of five years after final payment is made by the Watershed Coalition to the Contractor under this Contract project, unless a longer period is required to resolve audit findings or litigation. In such cases, the Watershed Coalition shall request a longer period of record retention.

41. The Watershed Coalition and other authorized representatives of the state and federal government shall have access to any books, documents, papers and records of the Contractor which are directly pertinent to the contract for the purpose of making audit, examination, excerpts, and transcriptions.

42. The Watershed Coalition and duly authorized officials of the state and federal government shall have full access to and the right to examine any pertinent documents, papers, records and books of the Contractor involving transactions related to the CDBG Grant Agreement or this contract.

#### **TIME FOR COMPLETION AND LIQUIDATED DAMAGES**

43. Time is of the essence of each and every portion of this Contract. It is hereby understood and mutually agreed, by and between the Contractor and the Watershed Coalition, that the date of beginning and the time for completion as specified in the Contract of the work to be done hereunder are essential conditions of this Contract; and it is further mutually understood and agreed that the work embraced in this Contract shall be commenced on a date to be specified in the "Notice to Proceed." The Contractor agrees that the Work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed that the time for the completion of the Work set forth in this Contract is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality. Upon becoming aware of any reason why there may be a delay in the completion of any portion of the Work under this Contract, the Contractor shall notify EVWC and the Coalition's Representative of the nature and cause of the delay.

If the Contractor refuses, neglects or fails for any reason to complete the work within the time specified, or any proper extension thereof granted by the Watershed Coalition in its sole discretion, then the Contractor shall pay the Watershed Coalition the amount specified in this Contract, not as a penalty but as liquidated damages for such breach of contract. Such amount is fixed and agreed upon by and between the Contractor and the Watershed Coalition because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Watershed Coalition would in such event sustain.

#### **PROJECT COMPLETION AND FINAL PAYMENT**

44. Upon completion of work on the Project, the Contractor shall, within ten (10) calendar days send the Watershed Coalition notice that the Project has been completed (the "**Contractor's Notice of Completion**"). This Notice of Completion shall be accompanied by an invoice from the Contractor for the balance of the Contract Price increased or decreased by any adjustment of such Contract Price made by any Change Order. It shall also be accompanied by an affidavit from the Contractor stating that all subcontractors, vendors, persons or firms who have supplied labor or materials for the work on the Project have been fully paid or satisfactorily secured and that all taxes, if any, have been paid. The Contractor's Notice of Completion shall also be accompanied by a statement from the surety company that provided the Contractor's payment and performance bonds, as required under Section VI of this Contract, consenting to final payment by the Watershed Coalition under this Contract.

45. Upon receipt of a Contractor's Notice of Completion, the Watershed Coalition shall:
- a. Be entitled to publish a Notice of Final Settlement in accordance with the provisions of Colorado Revised Statutes Section 36-26-107;
  - b. Be entitled to inspect the Affected Properties and provide written notice to the Contractor of either (i) any observed deficiencies in the work to have been performed under this Contract or (ii) the acceptance by the Watershed Coalition of the work performed under this Contract; provided, however, that such written notice shall not waive any claims the Watershed Coalition may otherwise have against the Contractor under this Contract.

46. Upon the expiration of the time allowed for claims to be made under the provisions of Colorado Revised Statutes Section 36-26-107 or within three (3) calendar days after receipt by the Watershed Coalition of reimbursement of the Contractor's final invoice pursuant to the CDBG Grant Agreement, whichever comes later, the Watershed Coalition shall pay the Contractor the balance of the Contract Price increased or decreased by any adjustment of such Contract Price made by any Change Order less the amount of any claims received by the Watershed Coalition in accordance with the provisions of Colorado Revised Statutes Section 36-26-107.

47. By submitting a Contractor's Notice of Completion to the Watershed Coalition, the Contractor, by such act, agrees to indemnify and save the Watershed Coalition, the Affected Landowners and their respective agents harmless from any and all claims growing out of any demand (whether with merit or not) from any subcontractor, laborers, workmen, mechanics, material men and furnishers of machinery, equipment, tools, supplies or materials incurred by the Contractor in the performance of the work under this Contract.

48. The acceptance by the Contractor of final payment shall be and shall operate as a release of the Watershed Coalition of all claims and all liability to the Contractor for all claims for all work performed and materials provided in connection with this Contract.

#### **AUDITS AND INSPECTIONS**

49. The Watershed Coalition, its independent certified public accounts, the State Auditor of the State of Colorado, DOLA and HUD or their delegates shall have the right to review and monitor the financial records, payroll records, records of personnel, invoice of materials and other components of the work and services provided and undertaken as part of the CDBG-DR project and this Contract, by whatever legal and reasonable means are deemed expedient by such persons. Such persons shall also be permitted to inspect all work and worksites at any time deemed appropriate by such persons.

#### **SUSPENSION OF THE CONTRACT**

50. If the Contractor fails to comply with the terms and conditions of this contract, or whenever the Contractor is unable to substantiate full compliance with provisions of this contract, the Watershed

Coalition may suspend the contract pending corrective actions or investigation, effective not less than seven (7) days following written notification to the Contractor or its authorized representative. The suspension will remain in full force and effect until the Contractor has taken corrective action to the satisfaction of the Watershed Coalition and is able to substantiate its full compliance with the terms and conditions of this contract. No obligations incurred by the Contractor or its authorized representative during the period of suspension will be allowable under the contract except:

- a. Reasonable, proper and otherwise allowable costs which the Contractor could not avoid during the period of suspension;
- B. If upon investigation, the Contractor is able to substantiate complete compliance with the terms and conditions of this contract, otherwise allowable costs incurred during the period of suspension will be allowed; and
- C. In the event all or any portion of the work prepared or partially prepared by the Contractor is suspended, abandoned or otherwise terminated, the Watershed Coalition shall pay the Contractor for work performed to the satisfaction of the Watershed Coalition, in accordance with the percentage of the work completed.

#### **TERMINATION OF THE CONTRACT**

51. This Contract may be terminated by either party for a material breach of this Contract by the other party not caused by any action or omission of either the terminating party or DOLA by giving the other party written notice at least three (3) days in advance of the termination date. The termination notice shall specify in reasonable detail each such material breach. In the event of such termination by either party, the Contractor shall promptly deliver to the Watershed Coalition all drawings, computer programs, computer input and output, analysis, plans, photographic images, tests, maps, surveys, and written materials of any kind generated in the performance of services under this Contract up to and including the date of termination. If this Contract is so terminated by the Contractor, it will be paid for all services rendered up to the date of termination, except as set forth in Section VI above. If this Contract is so terminated by the Watershed Coalition, the Contractor will be paid for all services rendered to the date of termination, except those services which, in the Watershed Coalition's judgment, constituted the grounds, in whole or in part, of the notice of termination, and except as set forth in Section VI, above. Upon such payment, all obligations of the Watershed Coalition to the Contractor under this Contract shall cease.

52. In addition to the foregoing, this Contract may be terminated by the Watershed Coalition for its convenience and without cause of any nature by giving the Contractor written notice at least seven days in advance of the termination date. In the event of such termination, the Contractor will be paid for all services rendered to the date of termination, except as set forth in Section VI, above, and upon such payment, all obligations of the Watershed Coalition to the Contractor under this Contract shall cease. Furthermore, in the event of such termination, the Contractor shall promptly deliver to the Watershed Coalition all drawings, computer programs, computer input and output, plans, photographic images, analyses, test, maps, surveys, and written materials of any kind generated in the performance of its services under this Contract up to and including the date of termination.







0' 30' 60' 120'

1 INCH = 60 FEET (22X34)  
1 INCH = 120 FEET (11X17)

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Plotfile: Jun 07, 2017 - 9:56am



LEGEND	
PROTECTED ASSET	
EXISTING OVERFLOW CHANNEL	
NO WORK AREA	
EXISTING RIPRAP	
PROPERTY LINE	
EXISTING MAJOR CONTOUR 5'	
EXISTING MINOR CONTOUR 1'	

# SITE STAGING AND ACCESS

**DRAFT -- NOT FOR CONSTRUCTION**

## SITE STAGING AND ACCESS

FALL RIVER- FAWN VALLEY REACH  
FINAL EWP DESIGN PLANSET  
ESTES PARK, COLORADO



5777 Central Avenue  
Suite 228  
Boulder, Colorado 80301  
Phone: 303-296-3304  
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32610  
Project No. Drawing No.  
**P1.1**  
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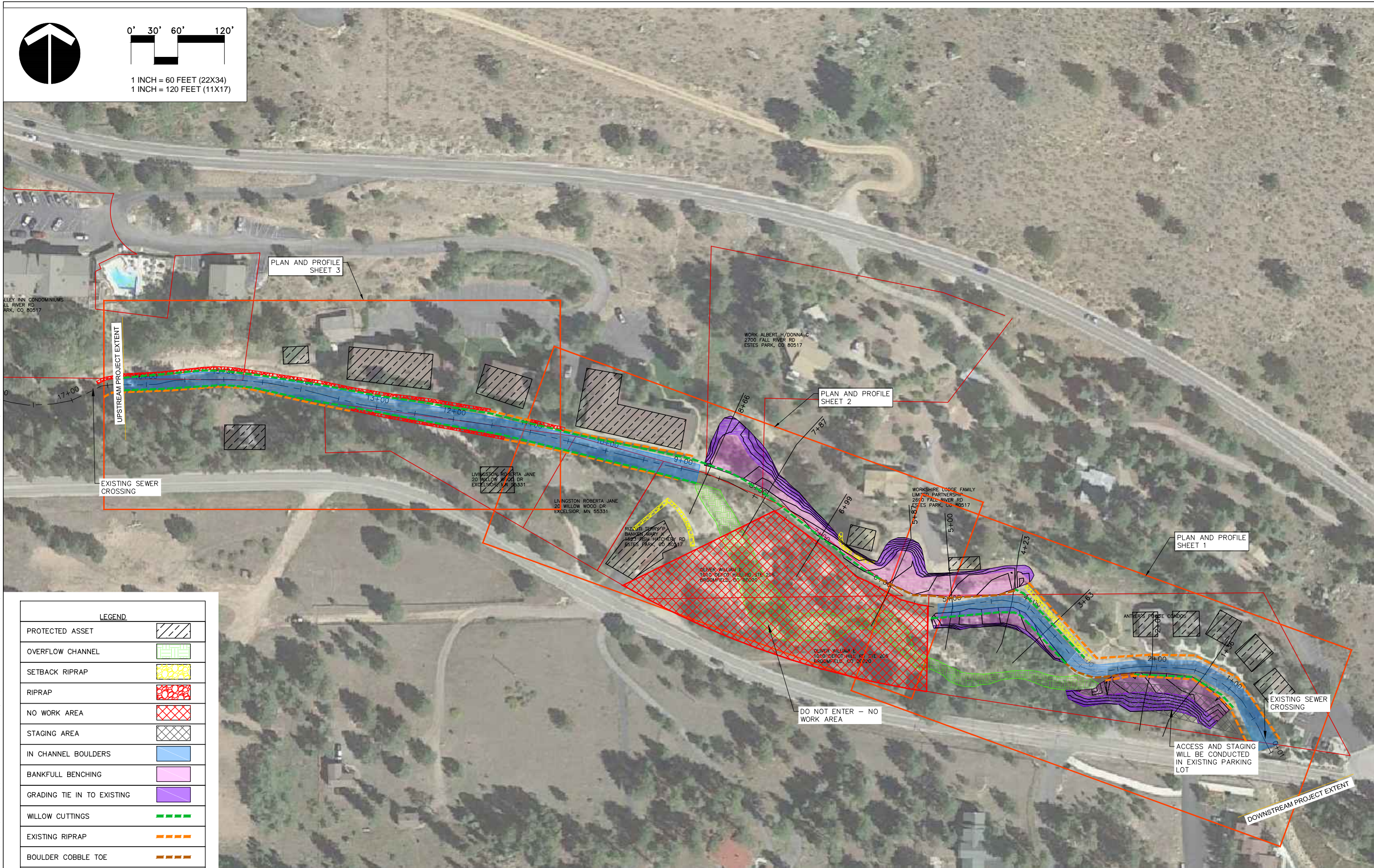
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JCB	ALN	JEA	16/05/17	14/05/2017		



0' 30' 60' 120'

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1 INCH = 120 FEET (11X17)

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LEGEND	
PROTECTED ASSET	
OVERFLOW CHANNEL	
SETBACK RIPRAP	
RIPRAP	
NO WORK AREA	
STAGING AREA	
IN CHANNEL BOULDERS	
BANKFULL BENCHING	
GRADING TIE IN TO EXISTING	
WILLOW CUTTINGS	
EXISTING RIPRAP	
BOULDER COBBLE TOE	
PROPERTY LINE	
PROPOSED MAJOR CONTOUR 5'	
PROPOSED MINOR CONTOUR 1'	

# GRADING PLAN OVERVIEW

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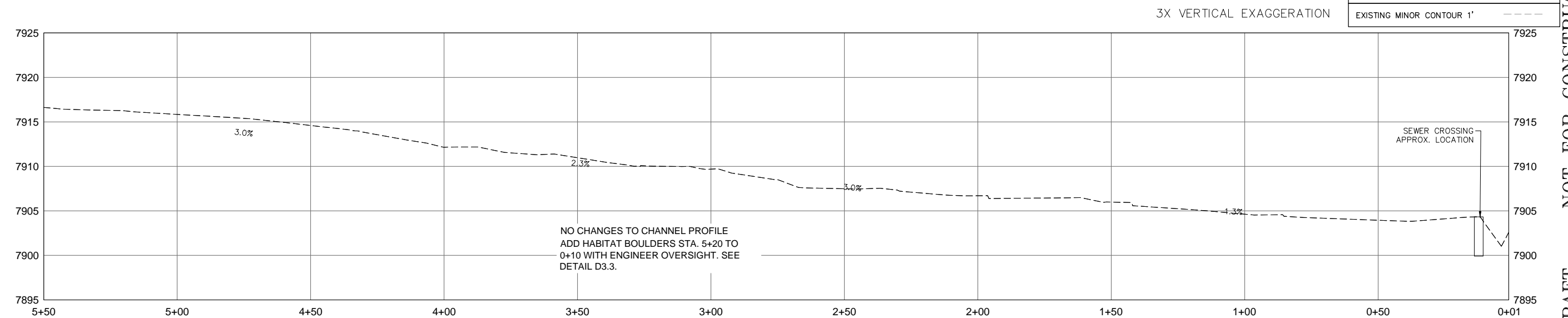
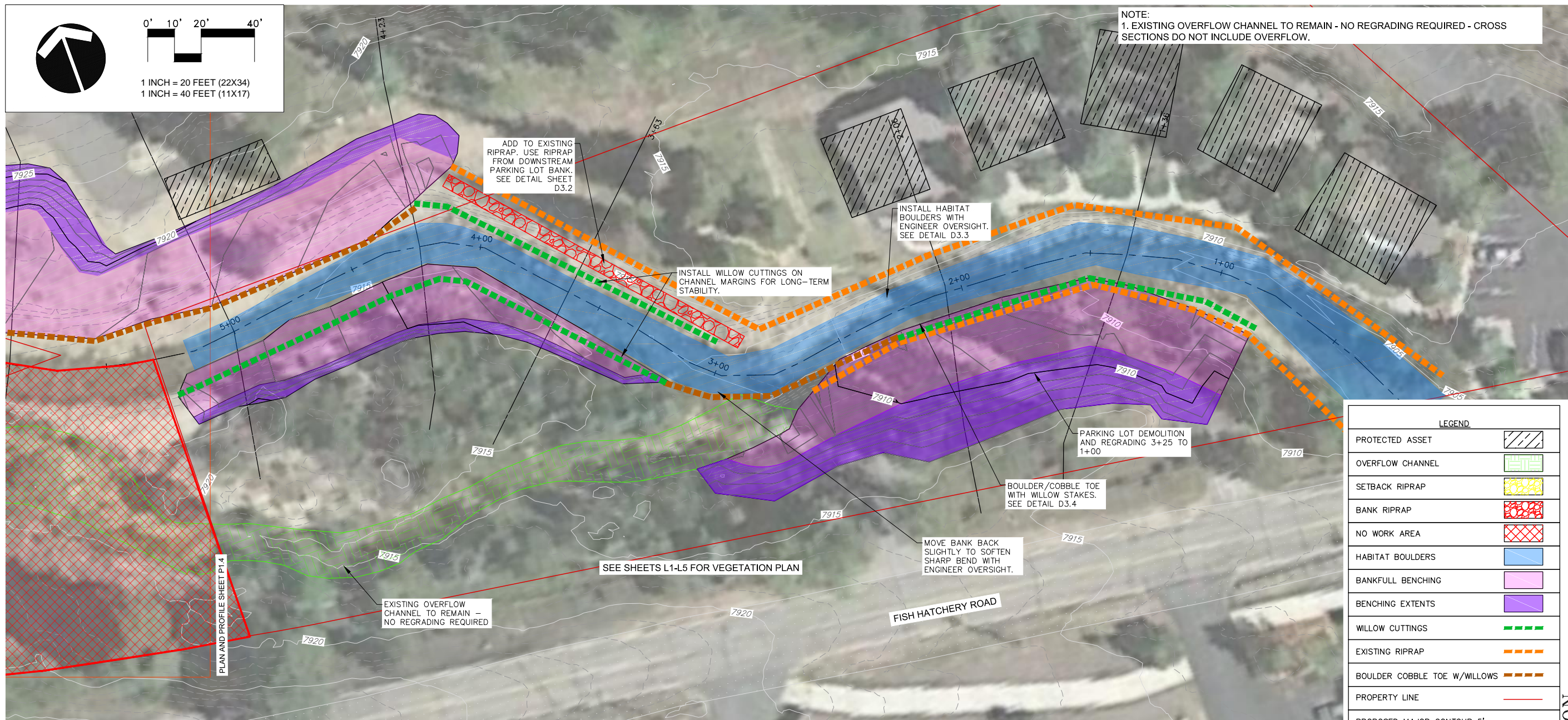
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FALL RIVER - FAWN VALLEY REACH  
FINAL EWP DESIGN PLANSET  
ESTES PARK, COLORADO



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**P1.2**  
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PLAN AND PROFILE 1

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# PLAN AND PROFILE 1

FALL RIVER - FAWN VALLEY REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



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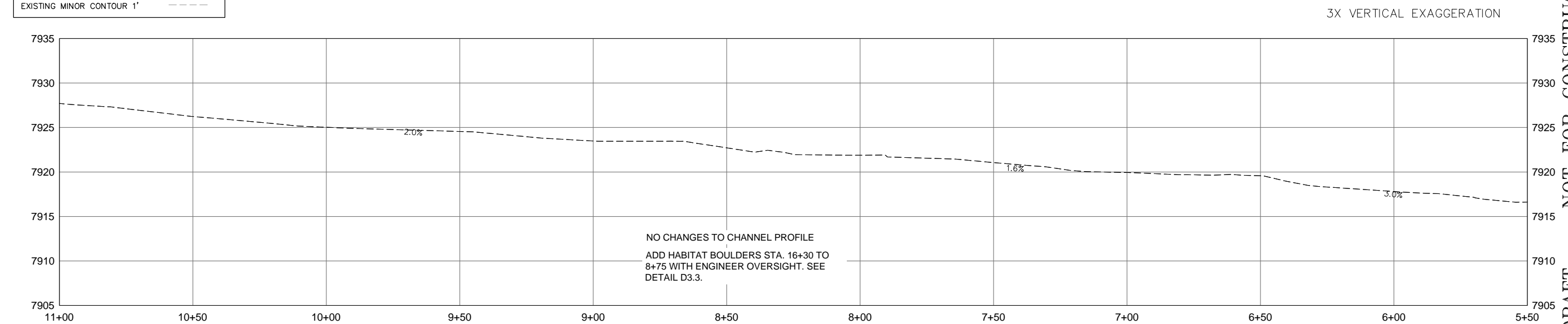
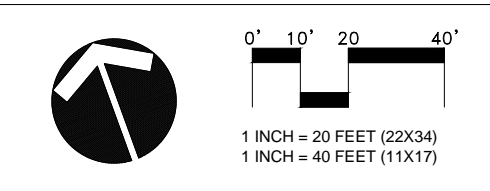
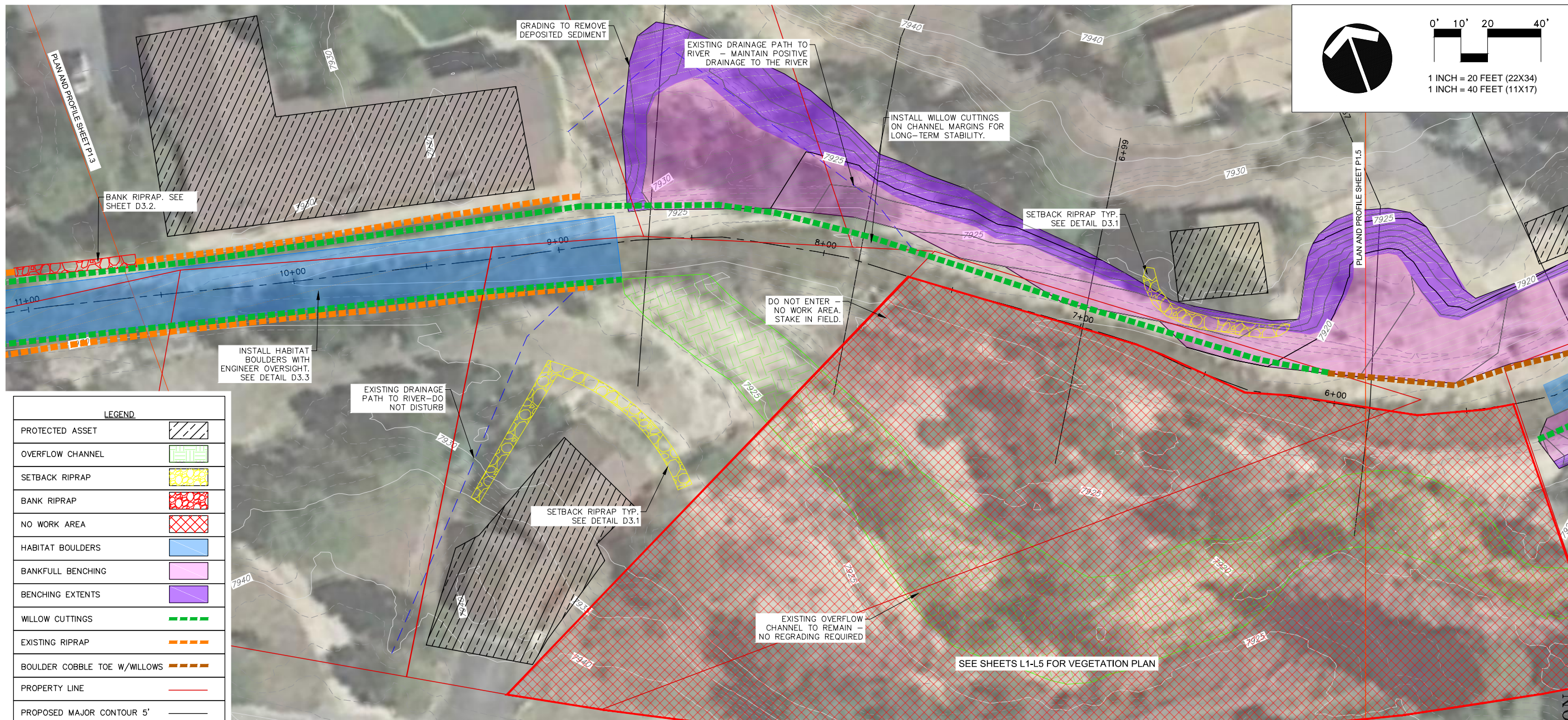
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**P1.3**  
 Sheet No.  
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NO.	DATE	BY	REVISION COMMENTS

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 Checked: JEA  
 Date: 05/14/2017  
 Initial Issue Date: 05/2017

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PLAN AND PROFILE 2

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 Initial Issue Date: 16/05/2017

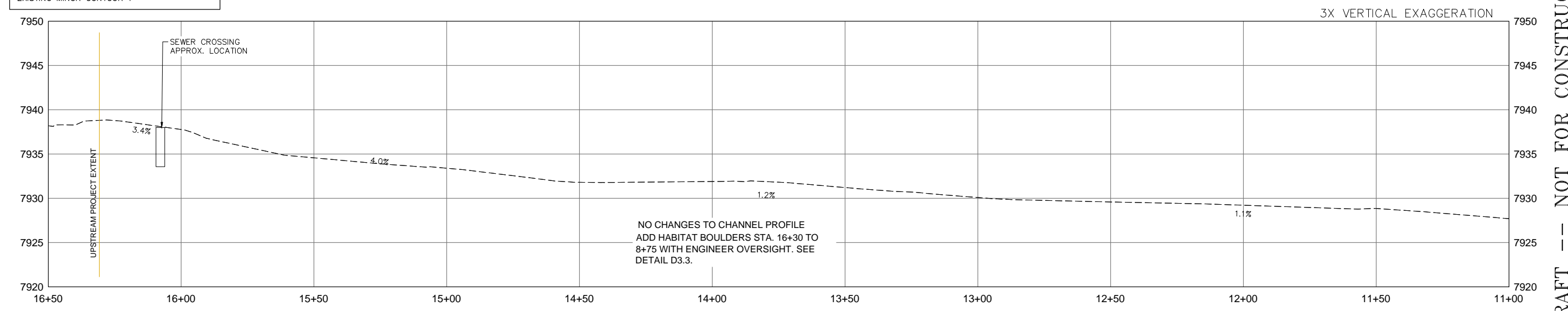
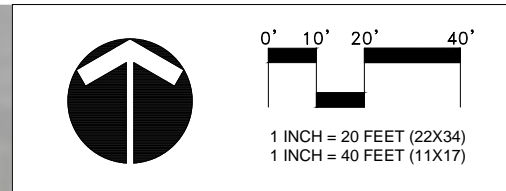
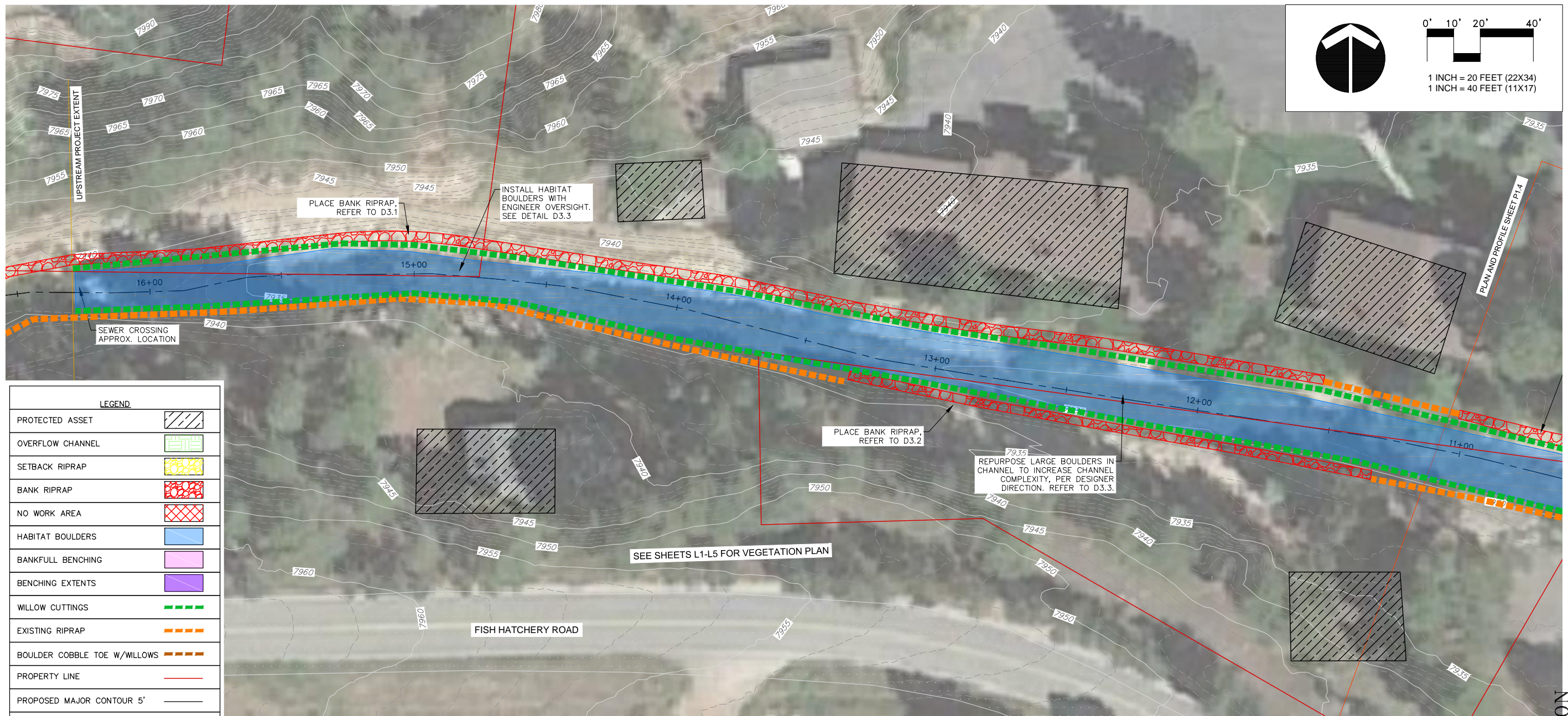
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 FALL RIVER - FAWN VALLEY REACH  
 FINAL EWP DESIGN PLANSET  
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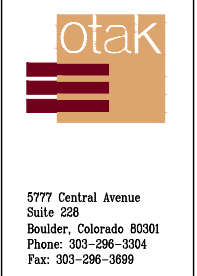


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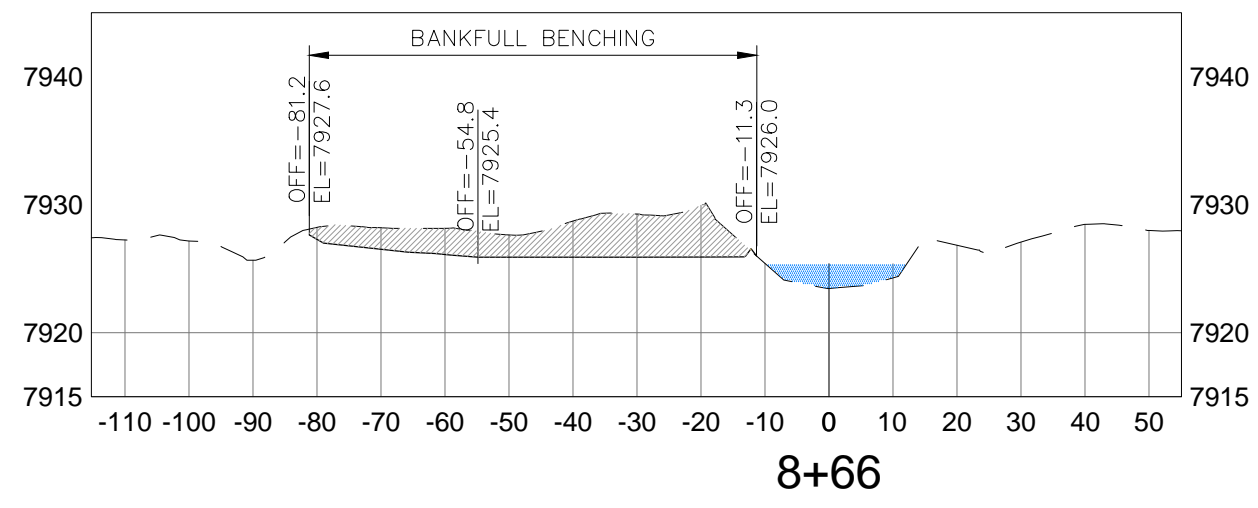
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FALL RIVER - FAWN VALLEY REACH  
FINAL EWP DESIGN PLANSET  
ESTES PARK, COLORADO



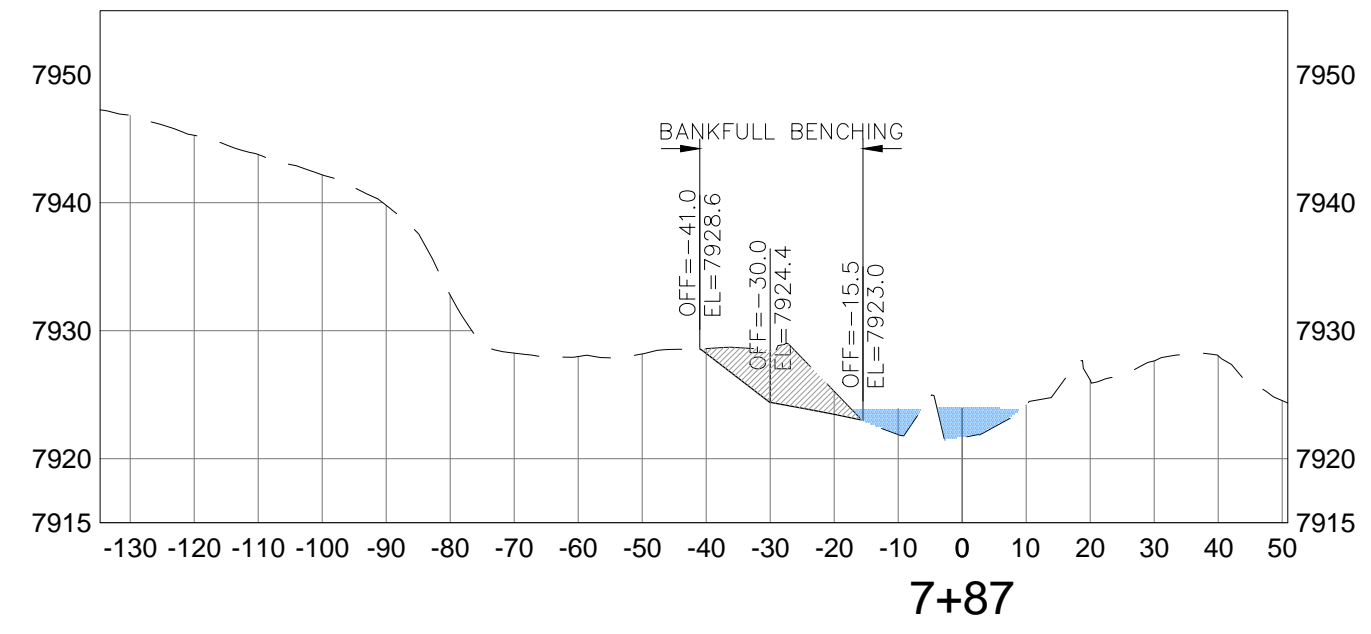
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**P1.5**  
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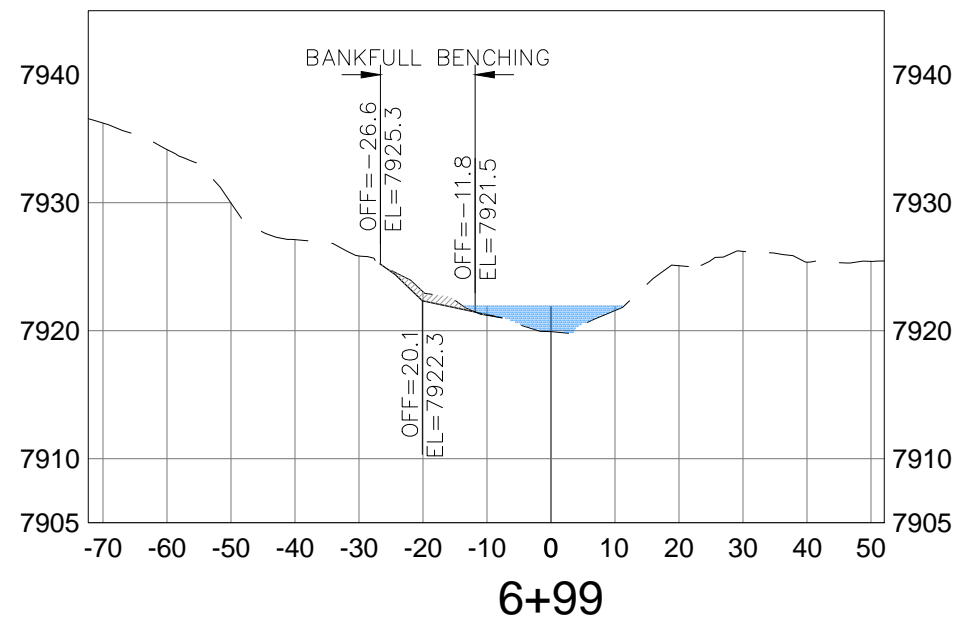
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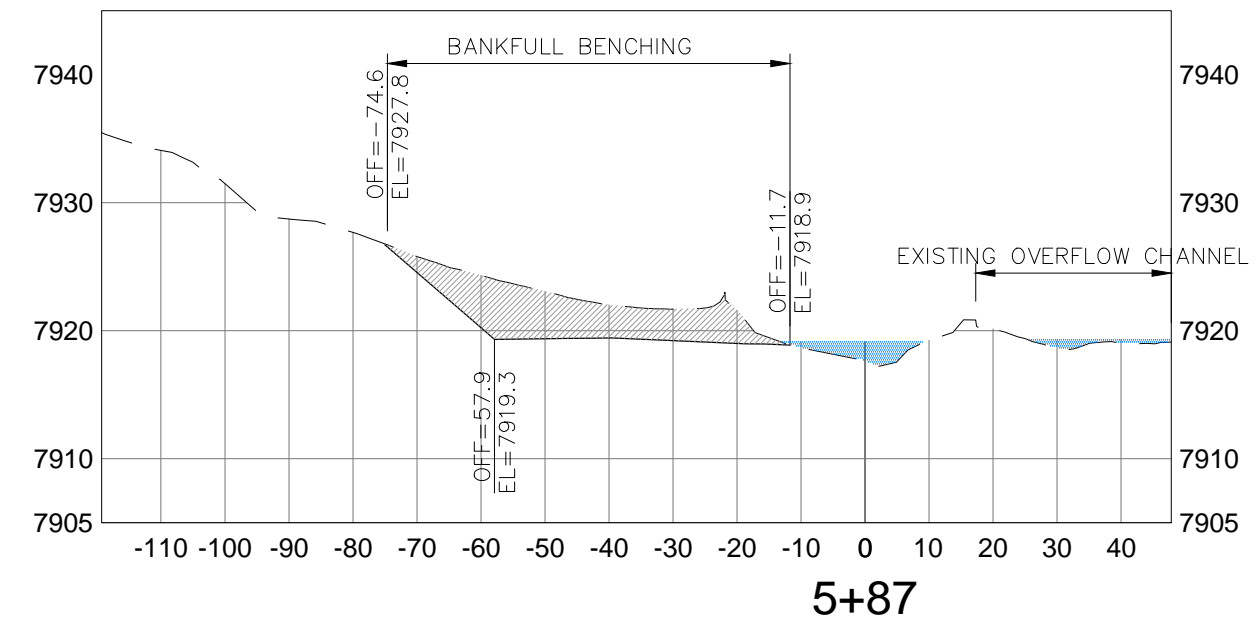
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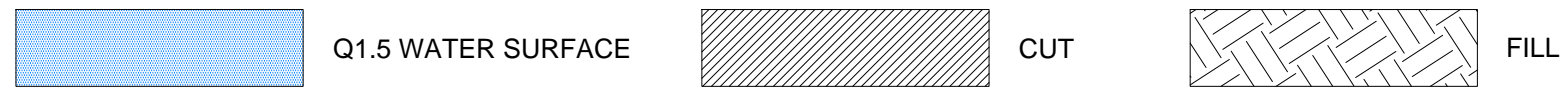
**7+87**



**6+99**



**5+87**



2X VERTICAL EXAGGERATION

— — EXISTING CONDITION (EC)

— — PROPOSED CONDITION (PC)

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**SECTION VIEWS 1**  
 FALL RIVER- FAWN VALLEY REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



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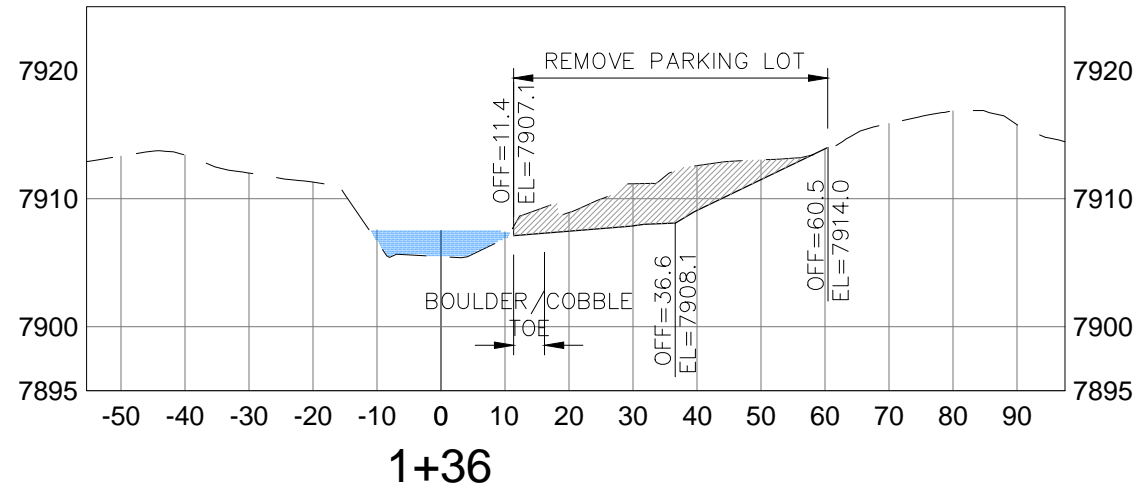
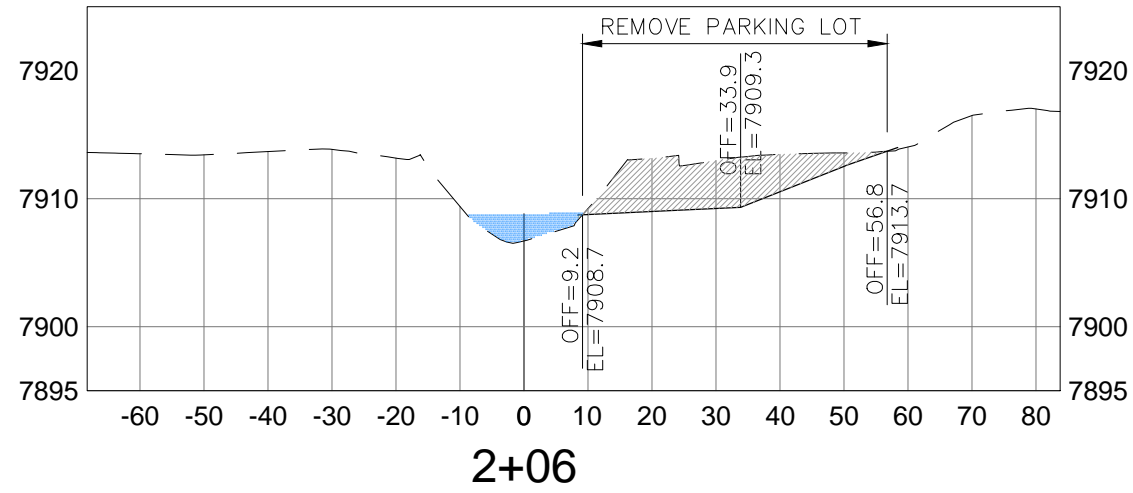
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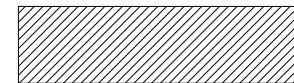
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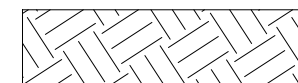
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Q1.5 WATER SURFACE



CUT



FILL

2X VERTICAL EXAGGERATION

— — EXISTING CONDITION (EC)

— — PROPOSED CONDITION (PC)

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**SECTION VIEWS 3**  
 FALL RIVER- FAWN VALLEY REACH  
 FINAL EWP DESIGN PLANSET  
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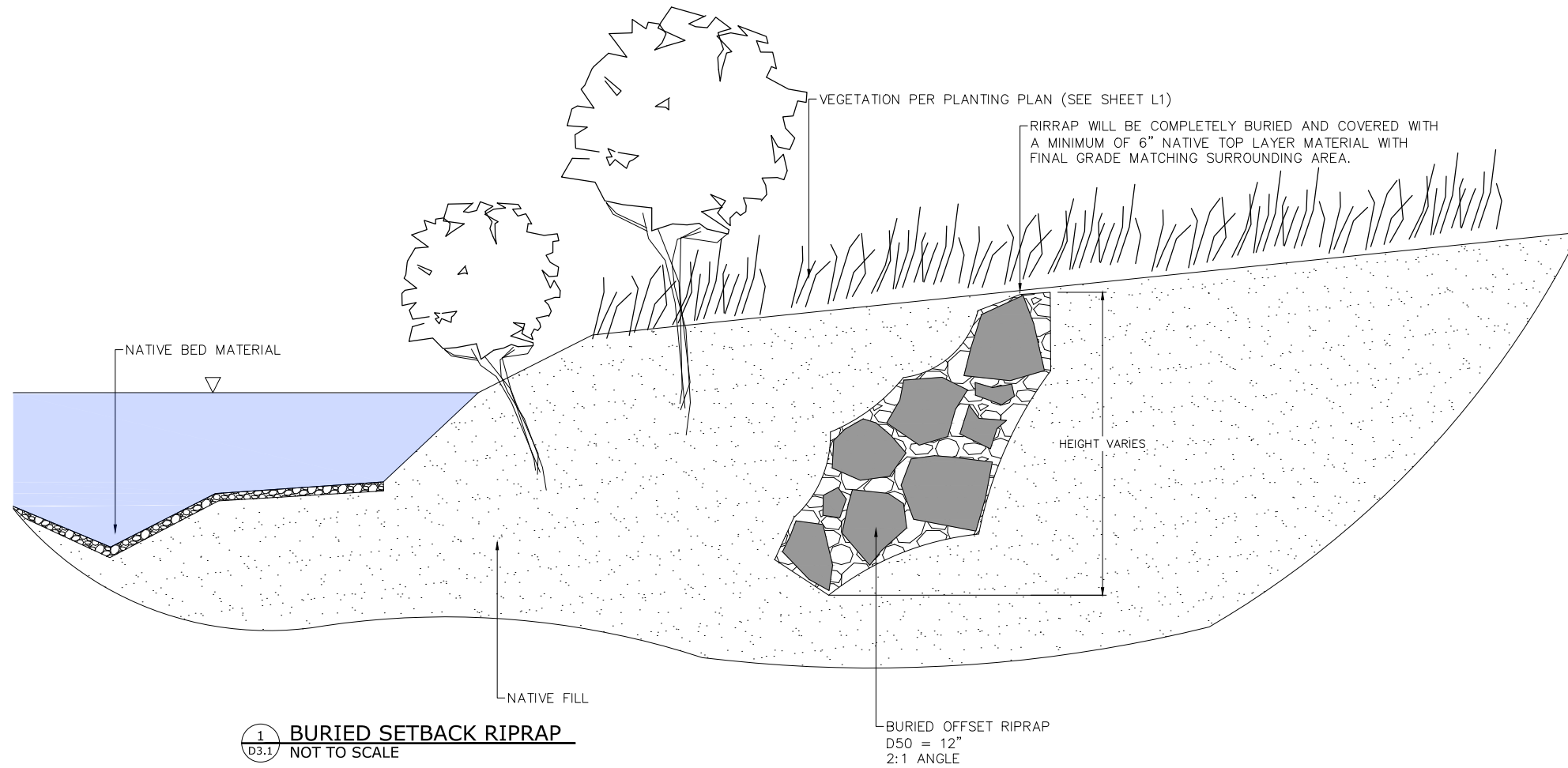
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NO.	DATE	BY	REVISION COMMENTS

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1 **BURIED SETBACK RIPRAP**  
 NOT TO SCALE

BURIED OFFSET RIPRAP  
 D50 = 12"  
 2:1 ANGLE

LOCATION	LENGTH (FT.)	WIDTH (FT.)	DEPTH (FT.)	UPSTREAM STA.	DOWNSTREAM STA.
1524 FISH HATCHERY ROAD	70	3	6	6+85	6+20
1523 FISH HATCHERY ROAD	130	3	5	9+00	7+80

CDOT GRADATIONS	
	D50 12"
DMAX	21"
D85	18"
D50	12"
D10	4"

**NOTES:**

- BEFORE EXCAVATION, LOCATE UTILITIES AND WORK AROUND EXISTING UTILITIES DURING CONSTRUCTION
- AVOID REMOVAL OF TREES UNLESS ABSOLUTELY NECESSARY.
- DESIGN ENGINEER TO APPROVE IMPORTED RIPRAP MATERIAL PRIOR TO INSTALLATION TO CONFIRM GRADATION

NO.	DATE	BY	REVISION COMMENTS

PREPARED FOR:



**SETBACK RIPRAP DETAIL**

FALL RIVER - FAWN VALLEY REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



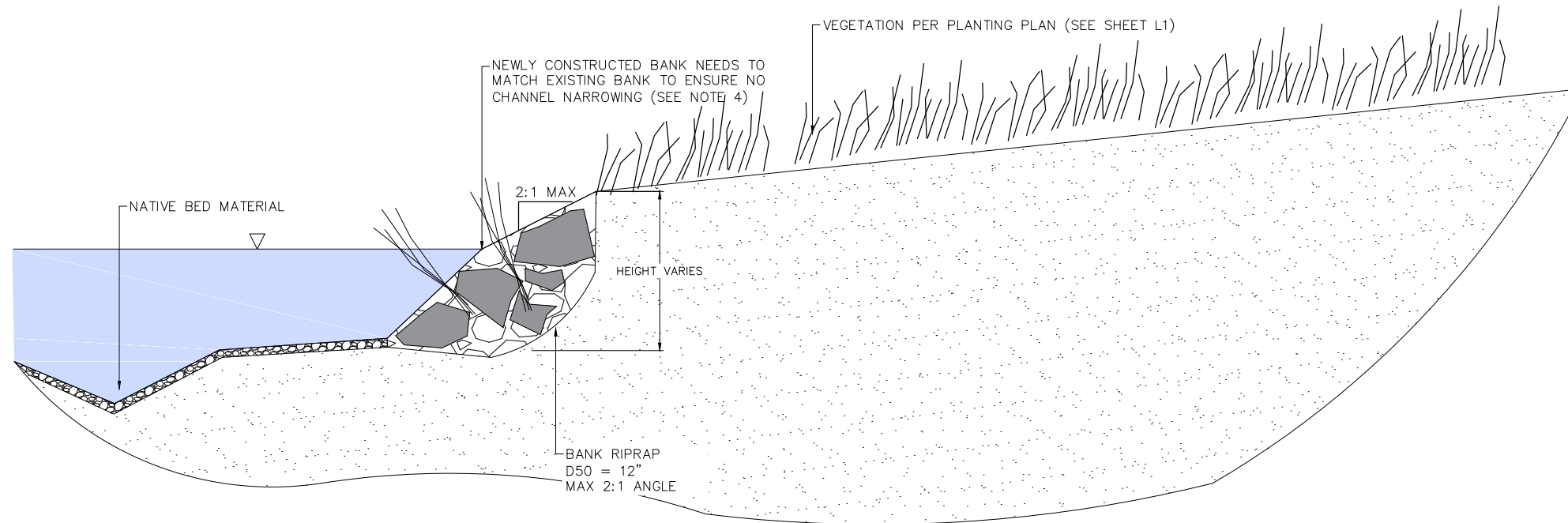
5777 Central Avenue  
 Suite 228  
 Boulder, Colorado 80301  
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 Fax: 303-296-3699

32610  
 Project No. Drawing No.  
**D3.1**  
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**SETBACK RIPRAP DETAIL**

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**1 BANK RIPRAP**  
 D3.2 NOT TO SCALE

RIPRAP				
BANK	UPSTREAM STA.	DOWNSTREAM STA.	RIPRAP HEIGHT (FT)	RIPRAP WIDTH (FT)
RIGHT	3+50	3+00	3	2
LEFT	11+10	10+50	6	2
LEFT	16+60	11+50	5	2
RIGHT	13+40	11+40	4.5	2

CDOT GRADATIONS	
	D50 12"
DMAX	21"
D85	18"
D50	12"
D10	4"

**NOTES:**

- ANGULAR RIPRAP WILL BE PLACED ALONG BANKS WHERE EXISTING LARGE RIVER ROCK WILL BE REMOVED AND PLACED BACK IN THE CHANNEL, OR ON CURRENTLY UNPROTECTED BANKS AS CALLED OUT ON P1.1-P1.5.
- EXISTING RIPRAP PLACED DURING EWP PHASE 1 DID NOT TOE-IN BELOW THE RIVER BED. THE COST OF REWORKING ALL OF THE EXISTING RIPRAP TO TOE-IN MADE IT UNFEASIBLE. THEREFORE, RIPRAP TO BE PLACED DURING CONSTRUCTION WILL MATCH EXISTING RIPRAP AND NOT TOE-IN BELOW THE RIVER BED.
- GRANULAR BEDDING FOR THE RIPRAP WAS NOT POSSIBLE WITH BUDGET CONSTRAINTS.
- NEWLY CONSTRUCTED RIPRAP BANK NEEDS TO MATCH EXISTING BANK EXTENTS TO ENSURE NO CHANNEL NARROWING THAT MAY CAUSE A RISE IN 100 YEAR WATER SURFACE IN AS-BUILT HEC-RAS MODEL. SLIGHT EXCAVATION OF BANK MATERIAL BEFORE RIPRAP IS PLACED MAY BE NECESSARY IN AREAS.



LARGE BOULDERS PLACED ON THE BANKS WILL BE REMOVED AND STOCKPILED FOR REUSE IN THE CHANNEL. RIPRAP WILL BE INSTALLED IN ITS PLACE.

**BANK RIPRAP DETAIL**

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**BANK RIPRAP DETAIL**  
 FALL RIVER - FAWN VALLEY REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



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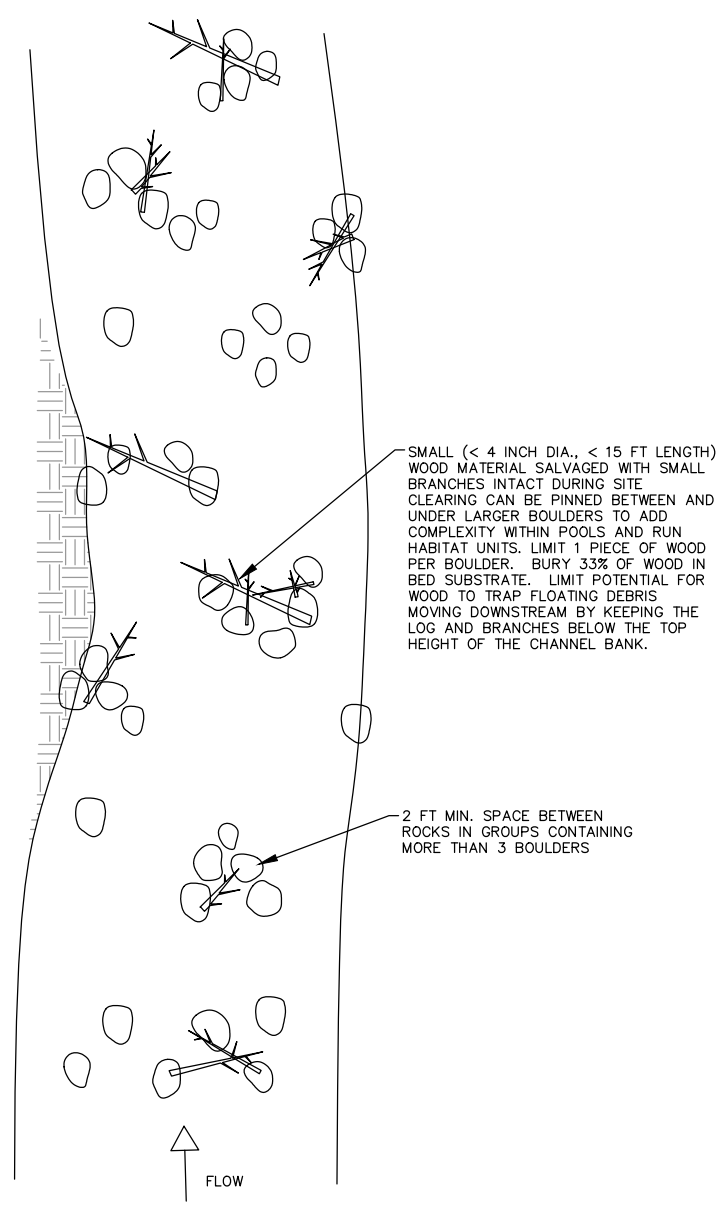
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 Project No. Drawing No.  
**D3.2**  
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Design: JCB  
 Drawn: ALN  
 Checked: JEA  
 Initial Issue Date: 16/05/14/05/2017

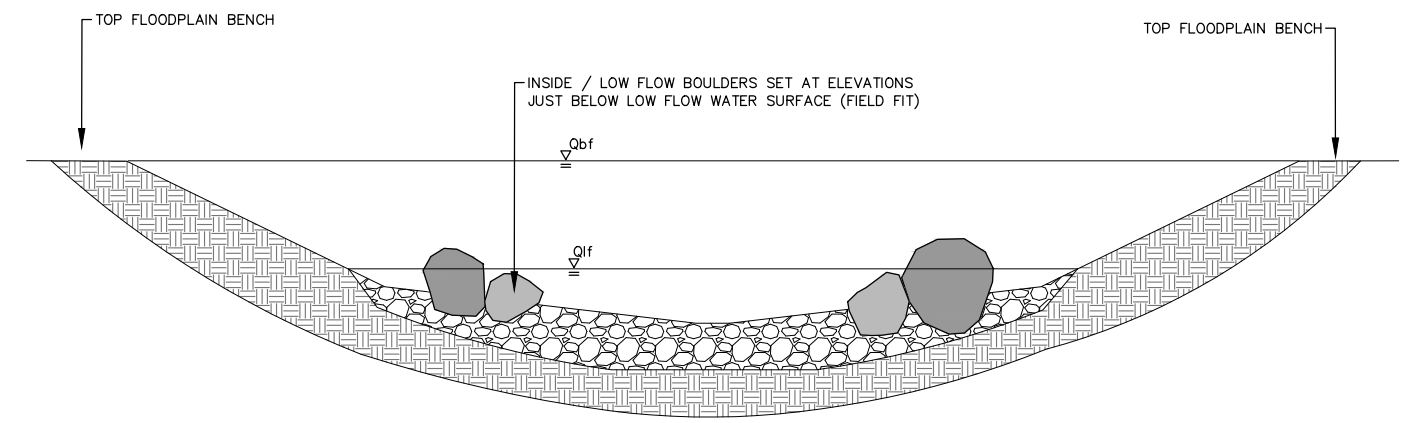
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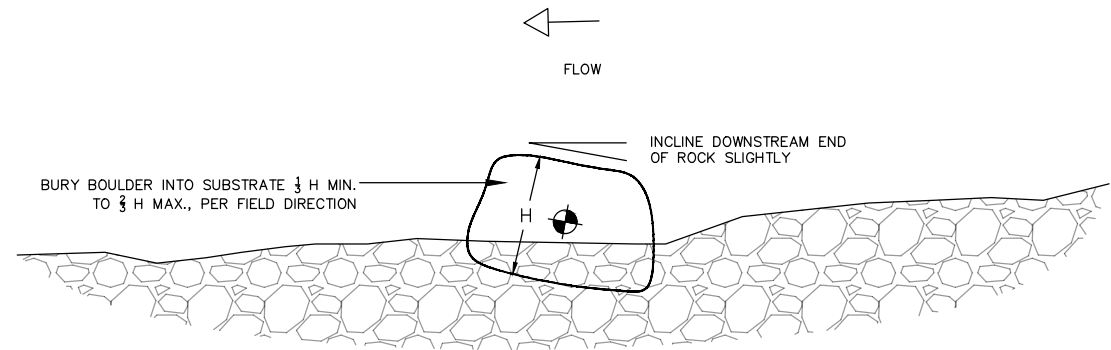
**1**  
D3.3 **TYPICAL HABITAT BOULDER PLAN LAYOUT**  
NOT TO SCALE

- GENERAL NOTES:
- 1) PLACE HABITAT BOULDERS PER GUIDANCE ON THIS SHEET UNLESS OTHERWISE DIRECTED BY ENGINEER IN THE FIELD.
  - 2) SALVAGE BOULDERS FOR USE IN RESTORED CHANNEL.
  - 3) BOULDERS USED FOR HABITAT SHALL BE ROUNDED OR SUBANGULAR.
  - 4) BOULDERS TO BE PLACED AT VARYING ELEVATIONS CORRESPONDING TO LOW-FLOW WATER SURFACE AND BANKFULL WATER SURFACE.
  - 5) BOULDERS PLACED AT LOW FLOW ELEVATION SHALL BE PLACED SO CREST (HIGHEST PART) IS WITHIN 2 TO 4 INCHES OF THE WATER SURFACE.
  - 6) LIMIT SIZE OF INDIVIDUAL BOULDER CLUSTER IN RIFFLE UNITS TO A MAXIMUM OF 3 ROCKS.

## HABITAT BOULDER DETAIL



**2**  
D3.3 **TYPICAL BOULDER CROSS SECTION**  
NOT TO SCALE



**3**  
D3.3 **TYPICAL HABITAT BOULDER PROFILE**  
NOT TO SCALE



EXAMPLE PHOTO: HABITAT BOULDERS

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**HABITAT BOULDER DETAIL**  
 FALL RIVER - FAWN VALLEY REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



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LEGEND	
ZONES:	
	0-1 FOOT ABOVE BASE FLOW WATER SURFACE ELEVATION
	1-2 FEET ABOVE BASE FLOW WATER SURFACE ELEVATION
	2-4 FEET ABOVE BASE FLOW WATER SURFACE ELEVATION
	4+ FEET ABOVE BASE FLOW WATER SURFACE ELEVATION

HYDROLOGIC ZONE	RELATIVE DEPTH ABOVE BASE FLOW WSEL (FT)	AREA (SQ FT)	SEED (Y/N)	AMENDMENT, WOODSTRAW (Y/N)	CUTTINGS (Y/N)	CONTAINERS (SQ FT)
ZONE 1	0-1'	4757	N	Y	Y	Y
ZONE 2	1-2'	8533	Y	Y	Y	Y
ZONE 3	2-4'	5602	Y	N	N	Y
ZONE 4	4+	3363	Y	N	N	N

- NOTES:
1. AREAS SHOWN ARE APPROXIMATE BASED ON THE RELATIVE DEPTH OF THE 25CFS (BASE FLOW) WATER SURFACE ELEVATION FROM THE DESIGN HYDRAULIC MODEL.
  2. THIS FIGURE DOES NOT CONSTITUTE AN ASSESSMENT OF GROUNDWATER HYDROLOGY. THE INFORMATION IN THIS FIGURE IS INTENDED TO BE USED FOR INITIAL COST ESTIMATING ONLY.
  3. THIS FIGURE DOES NOT DEPICT HYDROLOGIC ZONES FOR REVEGETATION PURPOSES. HYDROLOGIC ZONES FOR PLANTING SHALL BE ASSESSED BY A PLANT ECOLOGIST AND/OR THE ENGINEER BEFORE CONSTRUCTION.
  4. REFER TO SHEET L2 FOR REVEGETATION INFORMATION.
  5. FOR CONSTRUCTION COSTING PURPOSES ONLY, PLANT LAYOUT IS ASSUMED TO BE AT A CONSISTENT OFFSET SPACING THROUGHOUT ANY GIVEN PLANTING AREA AND ZONE (REFER TO SHEET L2 FOR PLANT LIST AND OFFSET SPACING). REVEGETATION DESIGNER WILL FIELD STAKE FINAL LOCATIONS FOR PLANT INSTALLATIONS BY GROUPING AND MAY ADJUST PLANT NUMBERS WITHIN EACH PLANTING AREA AS PART OF THE FIELD LAYOUT.

## PLANTING ZONES AND AREAS

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## PLANTING ZONES AND AREAS

FALL RIVER - FAWN VALLEY REACH  
 FINAL EWP DESIGN PLANSET  
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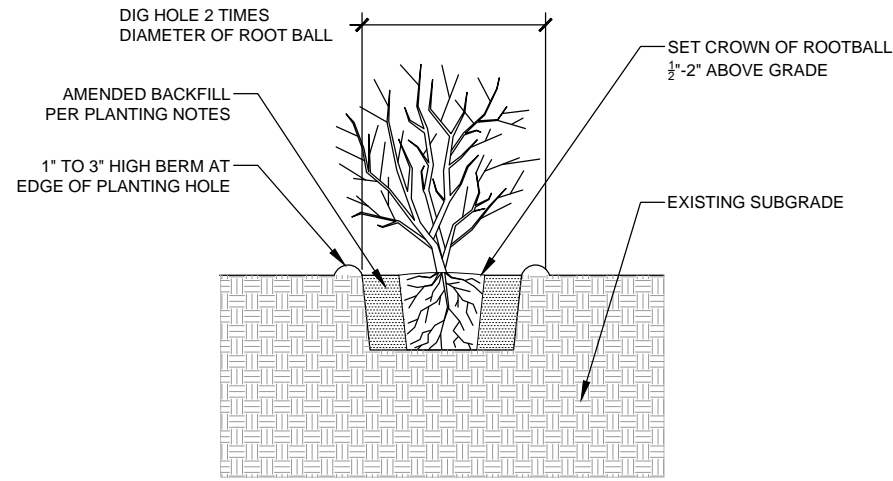


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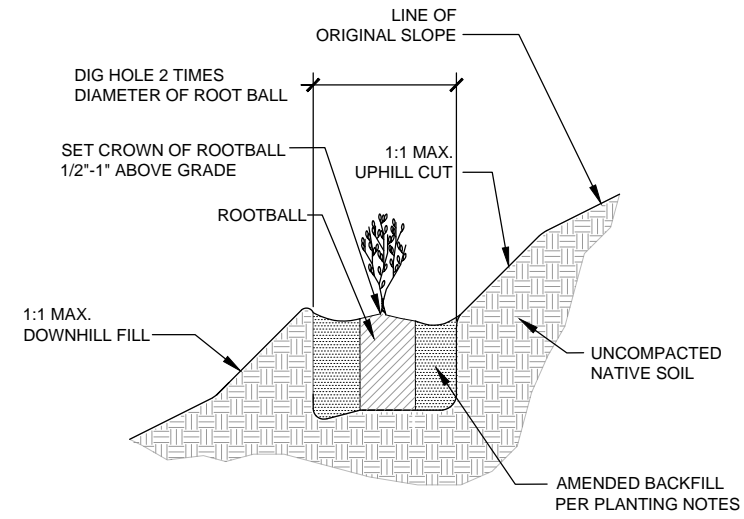
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**NOTES:**

1. WATER PREPARED PLANTING HOLES PER THE PLANTING NOTES.
2. PLANT CONTAINERS PER PLANTING NOTES.
3. MULCH THE NEWLY PLANTED AREA WITH WOODSTRAW AT MINIMUM TO THE MANUFACTURER'S RECOMMENDED RATE.

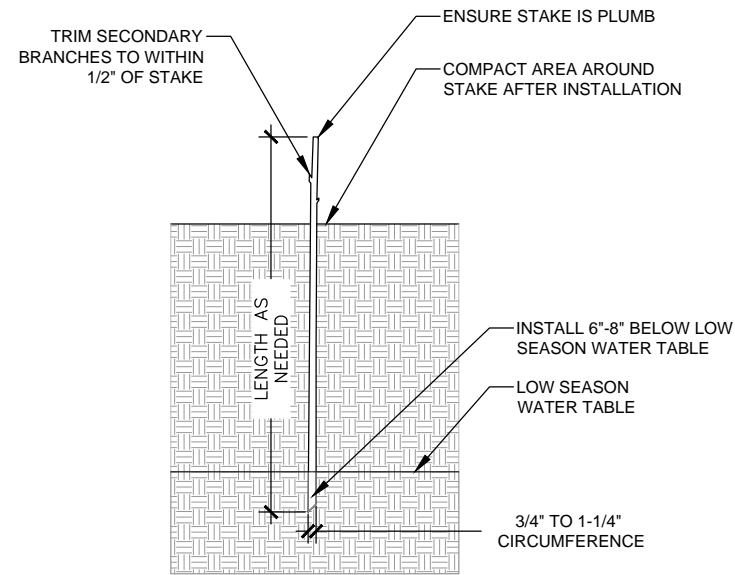
**A** CONTAINER PLANTING  
NTS



**NOTES:**

1. WATER PREPARED PLANTING HOLES PER THE PLANTING NOTES.
2. PLANT CONTAINERS PER PLANTING NOTES.
3. MULCH THE NEWLY PLANTED AREA WITH WOODSTRAW AT MINIMUM TO THE MANUFACTURER'S RECOMMENDED RATE.

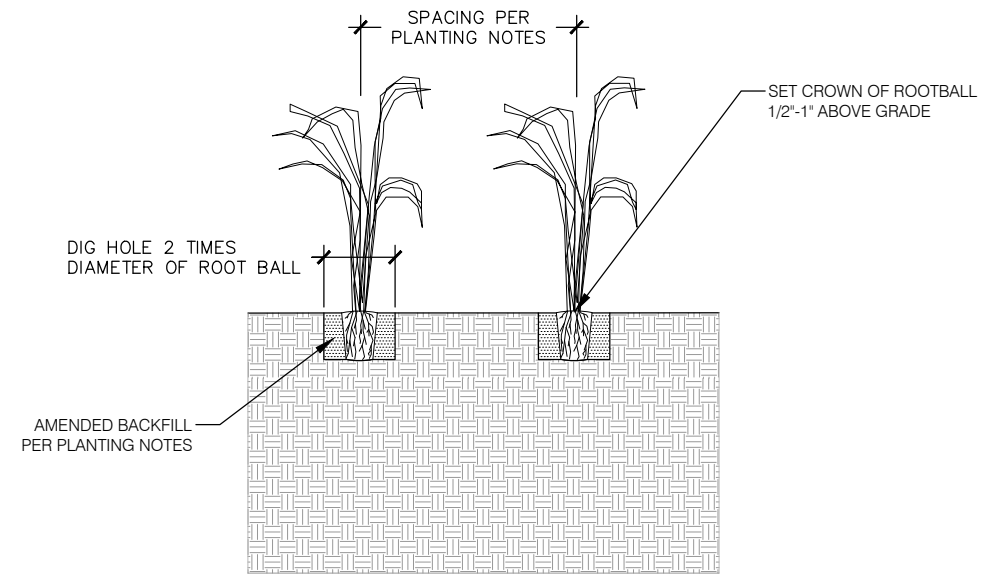
**B** CONTAINER PLANTING ON SLOPE  
NTS



**NOTES:**

1. HARVEST STAKES PER PLANTING NOTES.
2. PLANT IN LATE FALL BUT NOT WHEN GROUND IS FROZEN OR IN EARLY SPRING WHILE STILL DORMANT.
3. PUSH OR USE A RUBBER MALLETT TO DRIVE POINTED END OF STAKE INTO GROUND.
4. MULCH THE NEWLY PLANTED AREA WITH WOODSTRAW AT MINIMUM TO THE MANUFACTURER'S RECOMMENDED RATE.

**C** LIVE STAKE INSTALLATION  
NTS



**NOTES:**

1. WATER PREPARED PLANTING HOLES PER THE PLANTING NOTES.
2. PLANT CONTAINERS PER PLANTING NOTES.
3. MULCH THE NEWLY PLANTED AREA WITH WOODSTRAW AT MINIMUM TO THE MANUFACTURER'S RECOMMENDED RATE.

**D** WETLAND PLUG INSTALLATION  
NTS



**PLANTING DETAILS**  
 FALL RIVER - FAWN VALLEY REACH  
 FINAL EWP DESIGN PLANSET  
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 Layout Name: PLANTING REQUIREMENT TABLES 1

**ESTIMATED PLANTING REQUIREMENTS:**



ZONE 1 (0-1 FEET BASED ON RELATIVE DEPTH OF BASE FLOW WATER SURFACE ELEVATION): SEED						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	SEEDS/SQ FT	PURE LIVE SEED (PLS) WEIGHT	PLS LB REQUIRED PER AC	PLS LBS REQUIRED PER PROJECT AREA
FORB SPECIES						
CALAMAGROSTIS CANADENSIS	BLUEJOINT REEDGRASS	10	15	4,114,584	0.16	0.02
CAREX EMORYI	EMORY'S SEDGE	6	9	912,000	0.43	0.05
CAREX MICROPTERA	SMALLWINGED SEDGE	6	9	846,850	0.46	0.05
CAREX PRAEGRACILIS	CLUSTERED FIELD SEDGE	6	9	587,000	0.67	0.07
DESCHAMPSIA CAESPITOSA	TUFTED HAIRGRASS	15	22.5	1,182,500	0.83	0.09
GLYCERIA GRANDIS	GIANT MANNAGRASS	10	15	170,000	3.84	0.42
JUNCUS ARCTICUS SSP. LITTORALIS	MOUNTAIN RUSH	15	22.5	6,950,000	0.14	0.02
JUNCUS TORREYI	TORREY RUSH	10	15	12,150,000	0.05	0.01
POA PALUSTRIS	FOWL BLUEGRASS	22	33	2,078,000	0.69	0.08
TOTAL		100	150		7.28	0.79

ZONE 1 (LOWER RIPARIAN): CONTAINERS						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	MATERIAL TYPE	CONTAINER SIZE	PLANT SPACING	NUMBER OF PLANTS
GRAMINOIDS						
CAREX AQUATILIS	WATER SEDGE	10	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	25
CAREX BEBBII	BEBB'S SEDGE	5	CONTAINER	11 CUBIC INCH	4-FOOT SPACING	13
CAREX MICROPTERA	SMALLWINGED SEDGE	5	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	13
CAREX NEBRASCENSIS	NEBRASKA SEDGE	20	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	49
CAREX PELLITA	WOOLLY SEDGE	15	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	37
GLYCERIA GRANDIS	AMERICAN MANNAGRASS	10	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	25
GLYCERIA STRIATA	FOWL MANNAGRASS	10	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	25
JUNCUS ARCTICUS SSP. LITTORALIS	MOUNTAIN RUSH	10	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	25
JUNCUS LONGISTYLIS	LONGSTYLE RUSH	5	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	13
JUNCUS SAXIMONTANUS	ROCKY MOUNTAIN RUSH	5	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	13
JUNCUS TORREYI	TORREY'S RUSH	5	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	13
TOTAL		100				251

ZONE 2 (1-2 FEET BASED ON RELATIVE DEPTH OF BASE FLOW WATER SURFACE ELEVATION): SEED						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	SEEDS/SQ FT	PURE LIVE SEED (PLS) WEIGHT	PLS LB REQUIRED PER AC	PLS LBS REQUIRED PER PROJECT AREA
FORB SPECIES						
ASCLEPIAS INCARNATA	SWAMP MILKWEED	3	4.5	68,100	2.88	0.56
HELIANTHUS NUTTALLII	NUTTALL'S SUNFLOWER	3	4.5	217,000	0.9	0.18
IRIS MISSOURIENSIS	ROCKY MOUNTAIN IRIS	3	4.5	23,440	8.36	1.64
SOLIDAGO CANADENSIS	CANADA GOLDENROD	3	4.5	700,000	0.28	0.05
VERBENA HASTATA	BLUE VERBENA	3	4.5	1792800	0.11	0.02
GRAMINOIDS						
BECKMANNIA SYZIGACHNE	AMERICAN SLOUGHGRASS	6	9	1,025,000	0.38	0.07
CALAMAGROSTIS CANADENSIS	BLUEJOINT REEDGRASS	7	10.5	4,114,584	0.11	0.02
DESCHAMPSIA CAESPITOSA	TUFTED HAIRGRASS	7	10.5	1,182,500	0.39	0.08
GLYCERIA GRANDIS	GIANT MANNAGRASS	10	15	1,280,000	0.51	0.1
JUNCUS ARCTICUS SSP. LITTORALIS	MOUNTAIN RUSH	15	22.5	6,950,000	0.14	0.03
JUNCUS TORREYI	TORREY RUSH	10	15	12,150,000	0.05	0.01
NASELLA VIRIDULA	GREEN NEEDLEGRASS	5	7.5	152,117	2.15	0.42
POA PALUSTRIS	FOWL BLUEGRASS	25	37.5	2,078,000	0.79	0.15
TOTAL		100	150		17.05	3.34

ZONE 2 (LOWER RIPARIAN): CONTAINERS AND RHIZOMES						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	MATERIAL TYPE	CONTAINER SIZE	PLANT SPACING	NUMBER OF PLANTS
WOODY SPECIES						
SALIX BEBBIANA	BEBB'S WILLOW	2.5		48-INCH CUTTING	6-FOOT SPACING	6
SALIX BEBBIANA	BEBB'S WILLOW	2.5	CUTTING	D60	6-FOOT SPACING	6
SALIX DRUMMONDIANA	DRUMMOND'S WILLOW	5	CONTAINER	48-INCH CUTTING	6-FOOT SPACING	11
SALIX DRUMMONDIANA	DRUMMOND'S WILLOW	5	CUTTING	D60	6-FOOT SPACING	11
SALIX GEYERIANA	GEYER'S WILLOW	7.5	CONTAINER	48-INCH CUTTING	6-FOOT SPACING	17
SALIX GEYERIANA	GEYER'S WILLOW	7.5	CUTTING	D60	6-FOOT SPACING	17
SALIX IRRORATA	BLUESTEM WILLOW	5	CONTAINER	48-INCH CUTTING	6-FOOT SPACING	11
SALIX IRRORATA	BLUESTEM WILLOW	5	CUTTING	D60	6-FOOT SPACING	11
SALIX LASIANDRA SSP. CAUDATA	WHIPLASH WILLOW	5	CONTAINER	48-INCH CUTTING	6-FOOT SPACING	11
SALIX LASIANDRA SSP. CAUDATA	WHIPLASH WILLOW	5	CUTTING	D60	6-FOOT SPACING	11
SALIX MONTICOLA	ROCKY MOUNTAIN WILLOW	10	CONTAINER	48-INCH CUTTING	6-FOOT SPACING	22
SALIX MONTICOLA	ROCKY MOUNTAIN WILLOW	10	CUTTING	D60	6-FOOT SPACING	22
GRAMINOIDS						
CAREX NEBRASCENSIS	NEBRASKA SEDGE	10	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	22
CAREX PELLITA	WOOLLY SEDGE	4	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	9
ELEOCHARIS PALUSTRIS	CREEPING SPIKERUSH	5	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	11
GLYCERIA STRIATA	FOWL MANNAGRASS	4	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	9
JUNCUS ARCTICUS SSP. LITTORALIS	MOUNTAIN RUSH	4	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	9
JUNCUS SAXIMONTANUS	ROCKY MOUNTAIN RUSH	3	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	7
TOTAL		100				223

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**PLANTING REQUIREMENT TABLES 1**

FALL RIVER - FAWN VALLEY REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



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**PLANTING REQUIREMENT TABLES 1**



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**ESTIMATED PLANTING REQUIREMENTS:**

ZONE 3 (2-4 FEET BASED ON RELATIVE DEPTH OF BASE FLOW WATER SURFACE ELEVATION): SEED						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	SEEDS/SQ FT	PURE LIVE SEED (PLS) WEIGHT	PLS LB REQUIRED PER AC	PLS LBS REQUIRED PER PROJECT AREA
<b>HERBACEOUS DICOT</b>						
CLEOME SERRULATA	ROCKY MOUNTAIN BEEPLANT	3	4.5	87,250	2.25	0.29
ERIGERON SPECIOSUS	ASPEN FLEABANE	3	4.5	1,450,000	0.14	0.02
HELIANTHUS MULTIFLORA	SHOWY GOLDENEYE	3	4.5	566,875	0.35	0.04
GERANIUM RICHARDSONII	RICHARDSON'S GERANIUM	3	4.5	40,000	4.90	0.63
LUPINUS ARGENTEUS	SILVER LUPINE	3	4.5	22,000	8.91	1.15
<b>GRAMINOIDS</b>						
ELYMUS LANCEOLATUS SSP. LANCEOLATUS	THICKSPIKE WHEATGRASS	15	22.5	155,350	6.31	0.81
ELYMUS CANADENSIS	CANADA WILD RYE	7.5	11.25	103,000	4.76	0.61
GLYCERIA GRANDIS	GIANT MANNAGRASS	5	7.5	1,280,000	0.26	0.03
JUNCUS ARCTICUS SSP. LITTORALIS	MOUNTAIN RUSH	5	7.5	6,950,000	0.05	0.01
JUNCUS TORREYI	TORREY RUSH	5	7.5	12,150,000	0.03	0.00
MUHLENBERGIA RACEMOSA	MARSH MUHLY	7.5	11.25	1,608,000	0.30	0.04
NASSELLA VIRIDULA	GREEN NEEDLEGRASS	10	15	152,117	4.30	0.55
PASCOPIRON SMITHII	WESTERN WHEATGRASS	15	22.5	133,000	7.37	0.95
POA PALUSTRIS	FOWL BLUEGRASS	15	22.5	2,078,000	0.47	0.06
<b>TOTAL</b>		<b>100</b>	<b>150</b>		<b>40.37</b>	<b>5.19</b>

ZONE 3 (UPPER RIPARIAN): CONTAINERS/RHIZOMES						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	MATERIAL TYPE	CONTAINER SIZE	PLANT SPACING	NUMBER OF PLANTS
<b>WOODY SPECIES</b>						
ACER GLABRUM	ROCKY MOUNTAIN MAPLE	12	CONTAINER	D-60	6-FOOT SPACING	16
ALNUS INCANA SSP. TENUIFOLIA	THINLEAF ALDER	12	CONTAINER	D-60	6-FOOT SPACING	16
BETULA OCCIDENTALIS	WESTERN RIVER BIRCH	12	CONTAINER	D-60	6-FOOT SPACING	16
POPULUS ANGUSTIFOLIA	NARROWLEAF COTTONWOOD	20	CONTAINER	D-60	6-FOOT SPACING	26
POPULUS TREMULOIDES	QUAKING ASPEN	7	CONTAINER	D-60	6-FOOT SPACING	9
PRUNUS VIRGINIANA SSP. MELANOCARPA	CHOCHECHERRY	7	CONTAINER	D-60	6-FOOT SPACING	9
RIBES AUREUM	GOLDEN CURRANT	10	CONTAINER	D-60	6-FOOT SPACING	13
ROSA WOODSII	WOOD'S ROSE	7	CONTAINER	D-60	6-FOOT SPACING	9
SALIX BEBBIANA	BEBB'S WILLOW	7	CONTAINER	D-60	6-FOOT SPACING	9
SALIX LASIANDRAS SSP. CAUDATA	WHIPLASH WILLOW	6	CONTAINER	D-60	6-FOOT SPACING	8
<b>TOTAL</b>		<b>100</b>				<b>131</b>

ZONE 4: (4+ FEET BASED ON RELATIVE DEPTH OF BASE FLOW WATER SURFACE ELEVATION) SEED						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	SEEDS/SQ FT	PURE LIVE SEED (PLS) WEIGHT	PLS LB REQUIRED PER AC	PLS LBS REQUIRED PER PROJECT AREA
<b>HERBACEOUS DICOT</b>						
ARTEMISIA LUDOVICIANA	WHITE SAGEBRUSH	2.5	3	4,449,000	0.03	0.002
CLEOME SERRULATA	ROCKY MOUNTAIN BEEPLANT	2.5	3	87,250	1.5	0.12
ERIGERON SPECIOSUS	ASPEN FLEABANE DAISY	2.5	3	1,135,000	0.12	0.01
GALLARDIA ARISTATA	BLANKETFLOWER	2.5	3	189,959	0.69	0.05
IPOMOPSIS AGGREGATA	SCARLET BUGLER	2.5	3	350,000	0.37	0.03
PENSTEMON VIRENS	BLUEMIST PENSTEMON	2.5	3	1,316,600	0.1	0.01
PHACELIA HETEROPHYLLA	VARILEAF PHACELIA	2.5	3	700,000	0.19	0.01
<b>GRAMINOIDS</b>						
ACHNATHERUM HYMENOIDES	INDIAN RICEGRASS	7.5	9	181,741	2.16	0.17
BOUTELOUA GRACILIS	BLUE GRAMA	5	6	780,500	0.33	0.03
BROMUS CILIATUS	FRINGED BROME	5	6	158,000	1.65	0.13
BROMUS MARGINATUS	MOUNTAIN BROME	7.5	9	104,843	3.74	0.29
ELYMUS CANADENSIS	CANADA WILD RYE	5	6	103,000	2.54	0.2
ELYMUS LANCEOLATUS SSP. LANCEOLATUS	THICKSPIKE WHEATGRASS	10	12	155,350	3.36	0.26
ELYMUS TRACHYCAULUS	SLENDER WHEATGRASS	5	6	215,000	1.22	0.09
KOELERIA MACRANTHA	JUNEGRASS	5	6	2,057,500	0.13	0.01
NASSELLA VIRIDULA	GREEN NEEDLEGRASS	5	6	152,117	1.72	0.13
PASCOPIRON SMITHII	WESTERN WHEATGRASS	20	24	133,000	7.86	0.61
POA SECUNDA	SANDBERG BLUEGRASS	5	6	902,500	0.29	0.02
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	5	6	195,000	1.34	0.1
<b>TOTAL</b>		<b>100</b>	<b>120</b>		<b>29.33</b>	<b>2.26</b>



**PLANTING REQUIREMENT TABLES 2**

FALL RIVER - FAWN VALLEY REACH  
FINAL EWP DESIGN PLANSET  
ESTES PARK, COLORADO



5345 Arapahoe Avenue  
Suite 1B  
Boulder, Colorado 80303  
Phone: 303-296-3304  
Fax: 303-296-3699

32610  
Project No. Drawing No.  
L5  
Sheet No.  
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**PLANTING REQUIREMENT TABLES 2**

# NRCS EMERGENCY WATERSHED PROTECTION PROGRAM

## FALL RIVER RESTORATION PROJECT

### ELKHORN REACH

FINAL EWP DESIGN PLANSET  
PRODUCED FOR ESTES VALLEY WATERSHED COALITION  
ESTES PARK, CO



PROJECT AREA (POST-FLOOD IMAGERY, 2014)

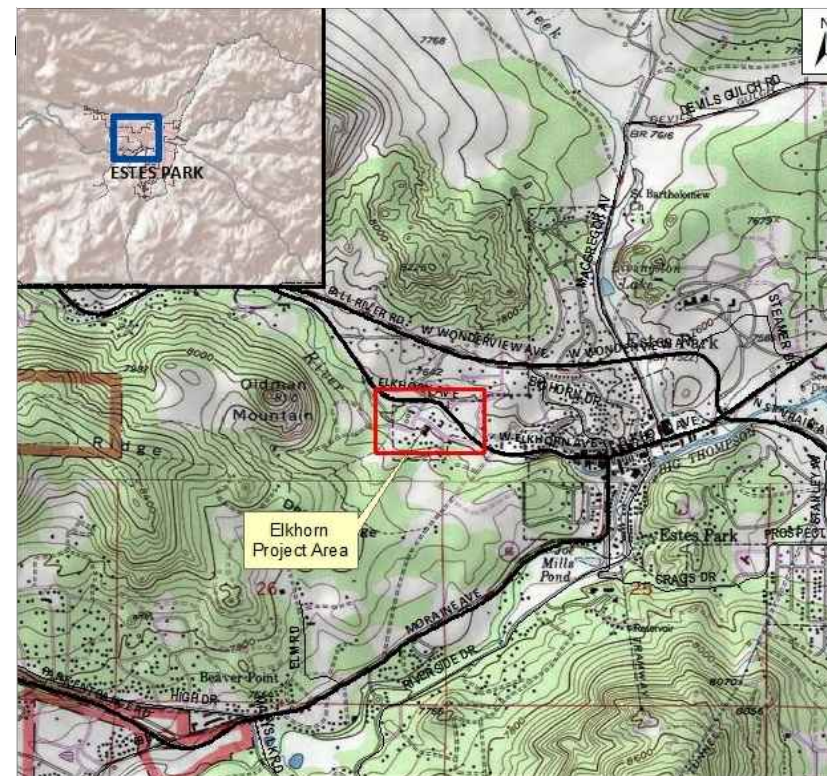


TABLE OF CONTENTS	
SHEET NO.	TITLE
C0	COVER SHEET
P1.1	SITE STAGING AND ACCESS
P1.2	GRADING PLAN
P1.3	REACH 2 PLAN AND PROFILE
P1.4	REACH 1 PLAN AND PROFILE
P1.5	EXISTING AND OVERFLOW P&P
S2.1	SECTION VIEWS 1
S2.2	SECTION VIEWS 2
S2.3	SECTION VIEWS 3
S2.4	SECTION VIEWS 4
S2.5	SECTION VIEWS 5
S2.6	SECTION VIEWS 6
D3.1	TYPICAL CROSS SECTION
D3.2	POOL-RIFFLE DETAIL
D3.3	BOULDER COBBLE TOE
D3.4	EXISTING RIPRAP REVEGETATION DETAIL
D3.5	HABITAT BOULDERS DETAIL
D3.6	RIPARIAN AREA DETAIL
L4.1	PLANTING NOTES AND SCHEDULE
L4.2	REACH 2 PLANTING
L4.3	REACH 1 PLANTING
L4.4	PLANTING DETAILS
L4.5	PLANTING DETAILS

DRAFT EWP DESIGN—NOT FOR CONSTRUCTION

PROJECT TEAM:



NO.	DATE	BY	REVISION COMMENTS



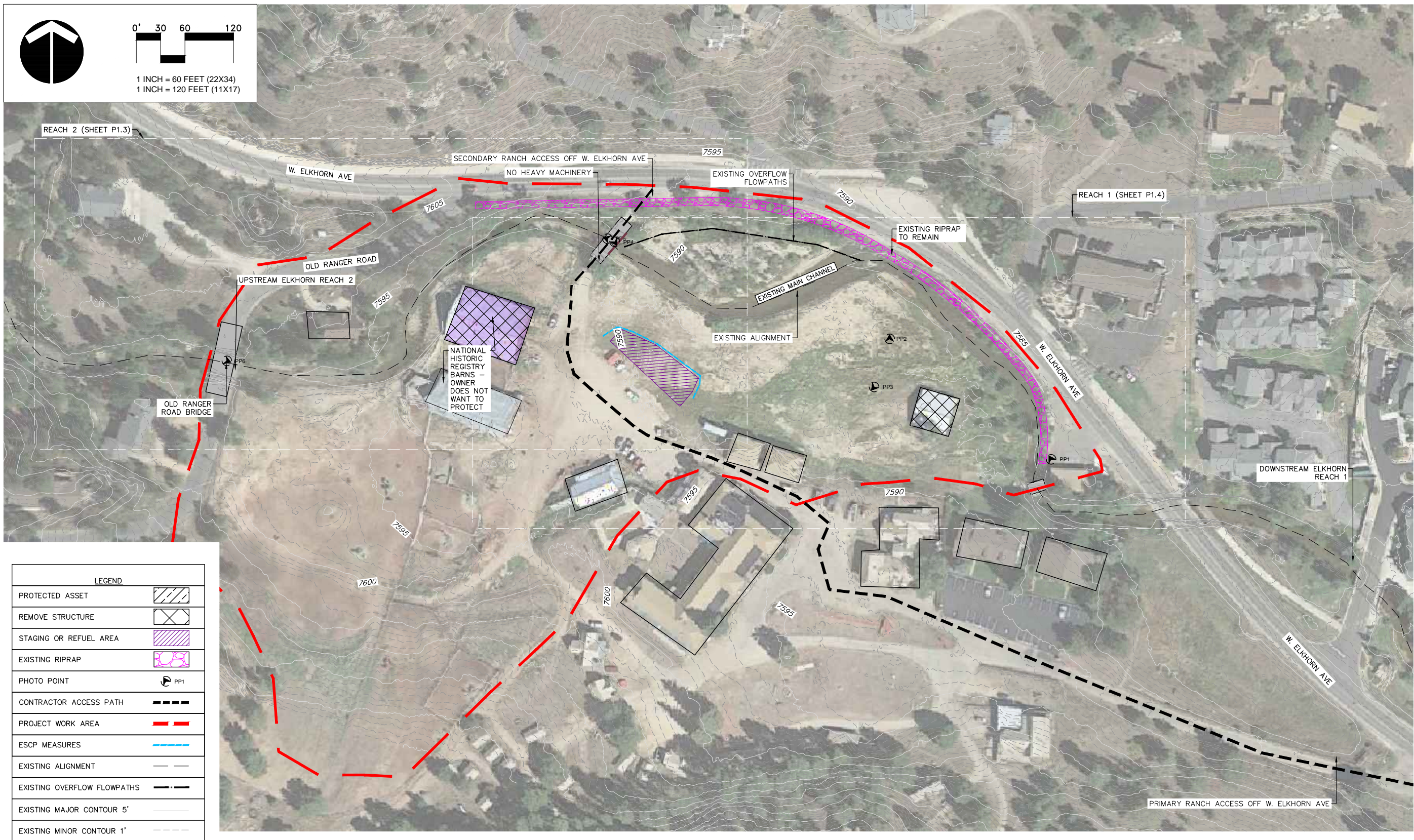
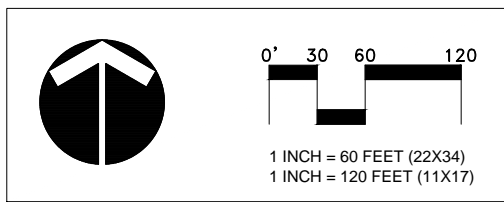
**COVER SHEET**  
FALL RIVER RESTORATION AT ELKHORN REACH  
FINAL EWP DESIGN PLANSET  
ESTES PARK, COLORADO



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Fax: 303-296-3699

326101  
Project No. Drawing No.  
**C0**  
Sheet No.

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 Layout Name: SITE STAGING AND ACCESS  
 Plotted: Jun 07, 2017 - 9:53 am  
 allison



LEGEND	
PROTECTED ASSET	
REMOVE STRUCTURE	
STAGING OR REFUEL AREA	
EXISTING RIPRAP	
PHOTO POINT	
CONTRACTOR ACCESS PATH	
PROJECT WORK AREA	
ESCP MEASURES	
EXISTING ALIGNMENT	
EXISTING OVERFLOW FLOWPATHS	
EXISTING MAJOR CONTOUR 5'	
EXISTING MINOR CONTOUR 1'	

- NOTES:**
1. TAKE PRE-CONSTRUCTION PHOTOGRAPHS AT PHOTO POINTS (PP).
  2. EROSION AND SEDIMENT CONTROL PLAN (ESCP) MEASURES TO BE DESIGNED, IMPLEMENTED, AND MAINTAINED BY CONTRACTOR.
  3. ESCP MEASURES SHOWN HERE MAY CHANGE (TO BE DETERMINED BY CONTRACTOR).
  4. PROPOSED STAGING AREA LOCATION MAY CHANGE (TO BE DETERMINED BY CONTRACTOR).
  5. PROPOSED ACCESS ROUTE MAY CHANGE (TO BE DETERMINED BY CONTRACTOR).
  6. SALVAGE BOULDERS/COBLES/NATIVE ALLUVIUM MATERIAL AND WOOD MATERIAL DURING DEBRIS REMOVAL FOR REUSE PER SPECIFICATIONS.
  7. DO NOT DISTURB EXISTING VEGETATION THAT HAS BEEN FLAGGED TO REMAIN.
  8. CONTRACTOR WILL COMPLY WITH EQUIPMENT CLEANING PROTOCOLS TO PREVENT THE SPREAD OF NEW ZEALAND MUD SNAILS, OTHER AQUATIC NUISANCE SPECIES (HITCHHIKERS), AND NOXIOUS PLANT SPECIES PRIOR TO ENTERING THE SITE (REFER TO SPECIFICATIONS PACKAGE).
  9. CONTRACTOR WILL KEEP A SPILL KIT ONSITE DURING ALL WORK WITH MACHINERY, INCLUDING EMERGENCY POLLUTANT ISOLATION AND CLEAN-UP MATERIALS, WITH PROCEDURES.
  10. SEE SPECIFICATIONS PACKAGE FOR SUPPLEMENTAL INFORMATION. THESE NOTES PREVAIL OVER SPECIFICATIONS.

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**SITE STAGING AND ACCESS**  
 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



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32610  
 Project No. Drawing No.  
**P1.1**  
 Sheet No.  
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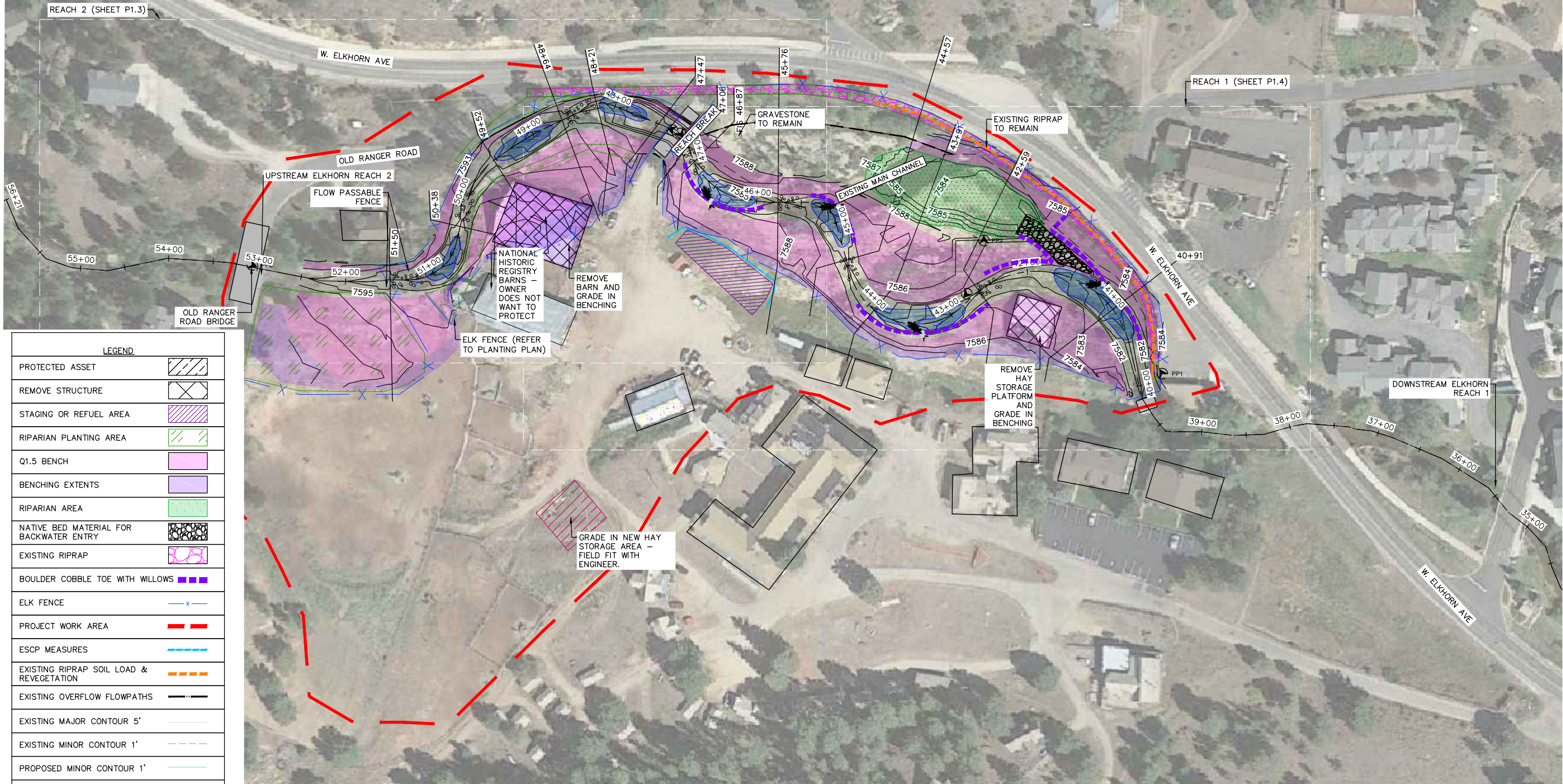
NO.	DATE	BY	REVISION COMMENTS



PREPARED FOR:  
 Design: JCB  
 Drawn: RBM  
 Checked: JEA  
 Date: 14/19/17  
 Initial Issue Date:



0' 30 60 120  
 1 INCH = 60 FEET (22X34)  
 1 INCH = 120 FEET (11X17)



LEGEND	
PROTECTED ASSET	
REMOVE STRUCTURE	
STAGING OR REFUEL AREA	
RIPARIAN PLANTING AREA	
Q1.5 BENCH	
BENCHING EXTENTS	
RIPARIAN AREA	
NATIVE BED MATERIAL FOR BACKWATER ENTRY	
EXISTING RIPRAP	
BOULDER COBBLE TOE WITH WILLOWS	
ELK FENCE	
PROJECT WORK AREA	
ESCP MEASURES	
EXISTING RIPRAP SOIL LOAD & REVEGETATION	
EXISTING OVERFLOW FLOWPATHS	
EXISTING MAJOR CONTOUR 5'	
EXISTING MINOR CONTOUR 1'	
PROPOSED MINOR CONTOUR 1'	
EXISTING ALIGNMENT	
PHOTO POINT	
MEMORIAL TREE	
BURIED OFFSET RIPRAP	
TREE (WILLOW) BENEFICIAL REUSE	
POOL/RIFFLE	

NO.	DATE	BY	REVISION COMMENTS



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 Suite 228  
 Boulder, Colorado 80301  
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 Fax: 303-296-3699

**GRADING PLAN**  
 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



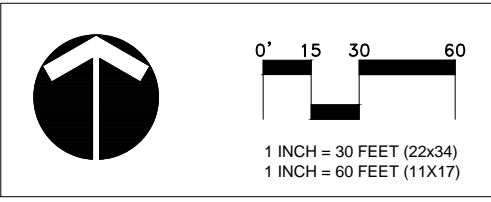
5777 Central Avenue  
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 Sheet No.  
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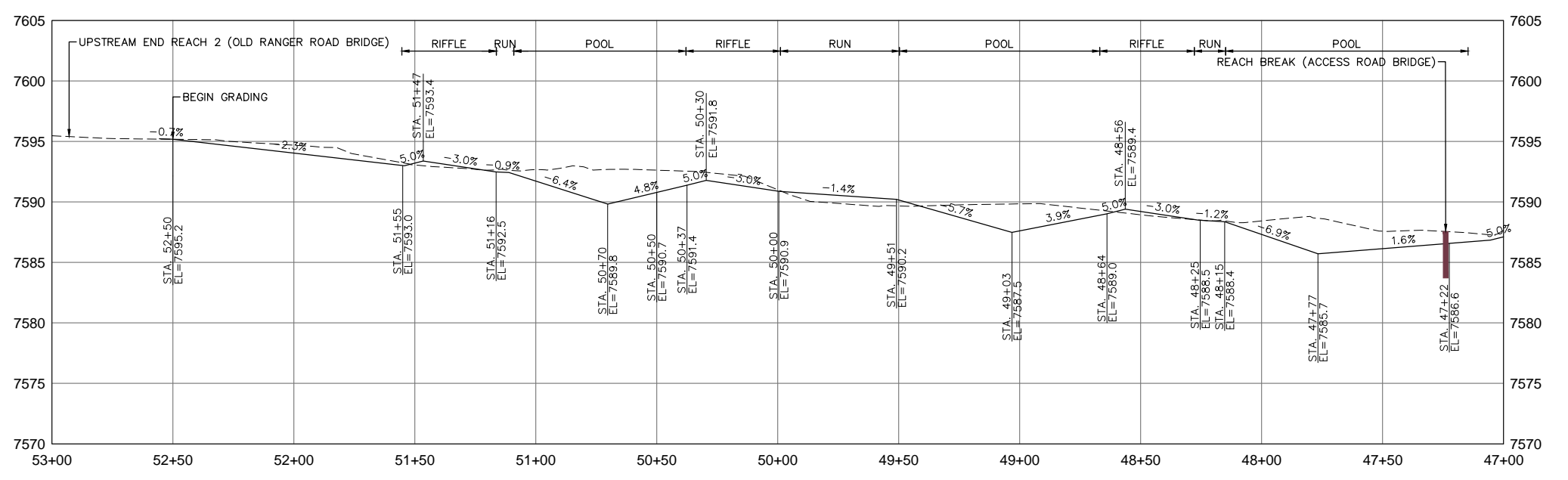
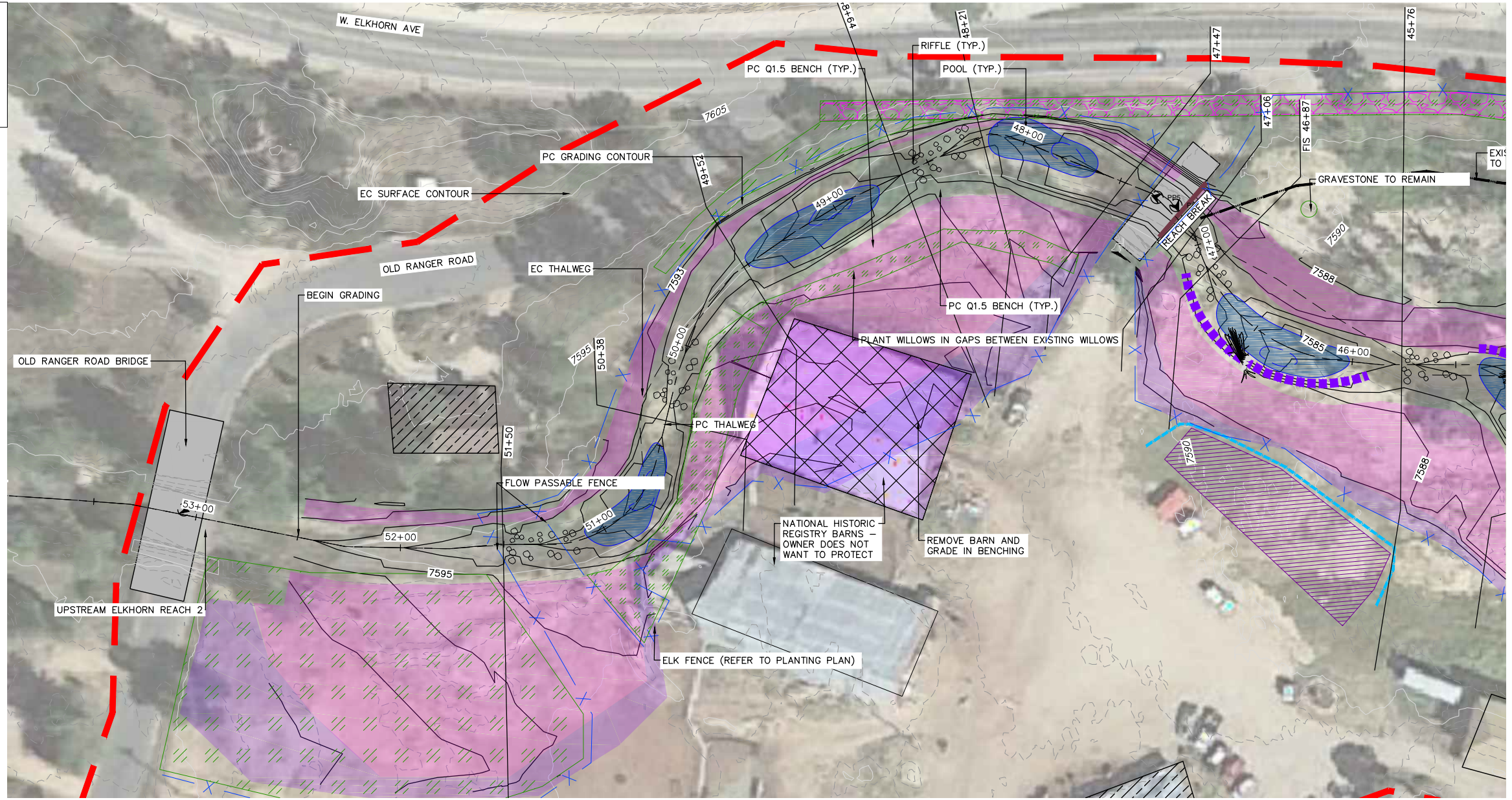
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 Plotted: Jun 07, 2017 - 9:53 am  
 ellison



LEGEND	
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REMOVE STRUCTURE	
STAGING OR REFUEL AREA	
RIPARIAN PLANTING AREA	
Q1.5 BENCH	
BENCHING EXTENTS	
RIPARIAN AREA	
NATIVE BED MATERIAL FOR BACKWATER ENTRY	
EXISTING RIPRAP	
BOULDER COBBLE TOE WITH WILLOWS	
ELK FENCE	
PROJECT WORK AREA	
ESCP MEASURES	
EXISTING RIPRAP SOIL LOAD & REVEGETATION	
EXISTING OVERFLOW FLOWPATHS	
EXISTING MAJOR CONTOUR 5'	
EXISTING MINOR CONTOUR 1'	
PROPOSED MINOR CONTOUR 1'	
EXISTING ALIGNMENT	
PHOTO POINT	
MEMORIAL TREE	
BURIED OFFSET RIPRAP	
TREE (WILLOW) BENEFICIAL REUSE	
POOL/RIFFLE	



# REACH 2 PLAN AND PROFILE

5X VERTICAL EXAGGERATION    - - - EXISTING CONDITION (EC)    ——— PROPOSED CONDITION (PC)

NO.	DATE	BY	REVISION COMMENTS

PREPARED FOR:

## REACH 2 PLAN AND PROFILE

FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO

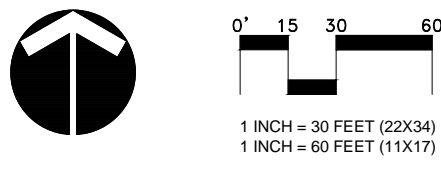


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 Fax: 303-296-3699

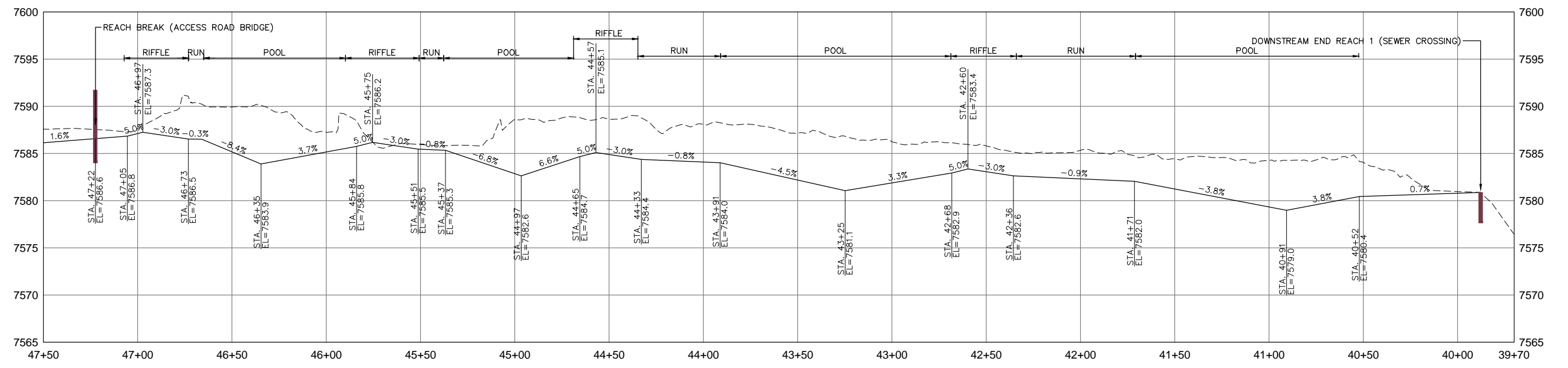
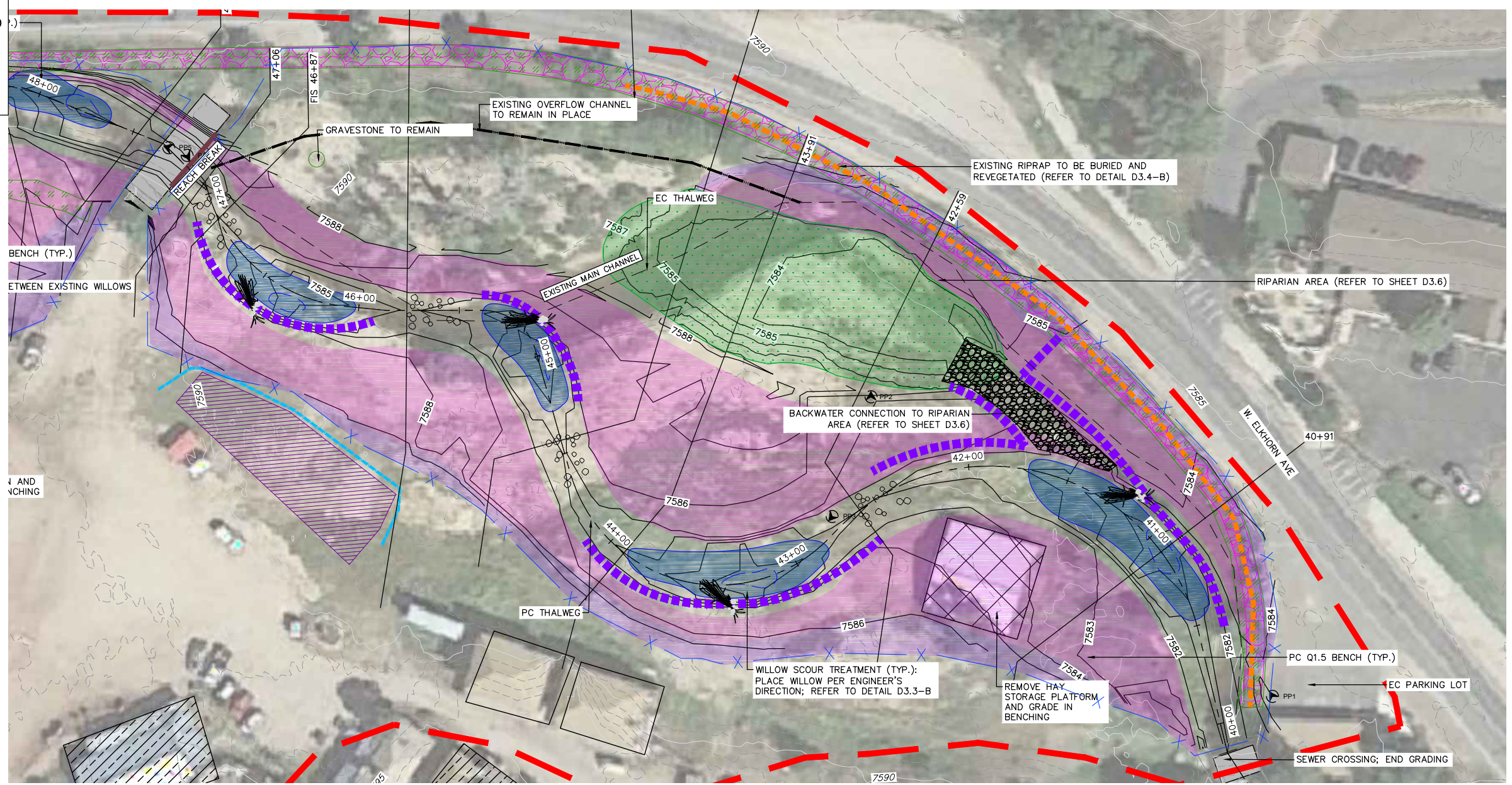
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 Sheet No.  
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RIPARIAN PLANTING AREA	
Q1.5 BENCH	
BENCHING EXTENTS	
RIPARIAN AREA	
NATIVE BED MATERIAL FOR BACKWATER ENTRY	
EXISTING RIPRAP	
BOULDER COBBLE TOE WITH WILLOWS	
ELK FENCE	
PROJECT WORK AREA	
ESCP MEASURES	
EXISTING RIPRAP SOIL LOAD & REVEGETATION	
EXISTING OVERFLOW FLOWPATHS	
EXISTING MAJOR CONTOUR 5'	
EXISTING MINOR CONTOUR 1'	
PROPOSED MINOR CONTOUR 1'	
EXISTING ALIGNMENT	
PHOTO POINT	
MEMORIAL TREE	
BURIED OFFSET RIPRAP	
TREE (WILLOW) BENEFICIAL REUSE	
POOL/RIFFLE	



REACH 1 PLAN AND PROFILE

5X VERTICAL EXAGGERATION — — — EXISTING CONDITION (EC) — — — PROPOSED CONDITION (PC)

NO.	DATE	BY	REVISION COMMENTS



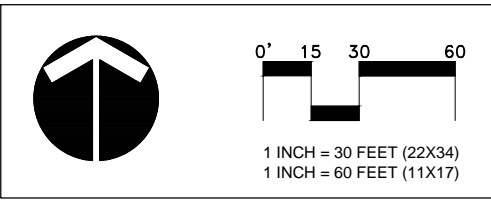
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 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



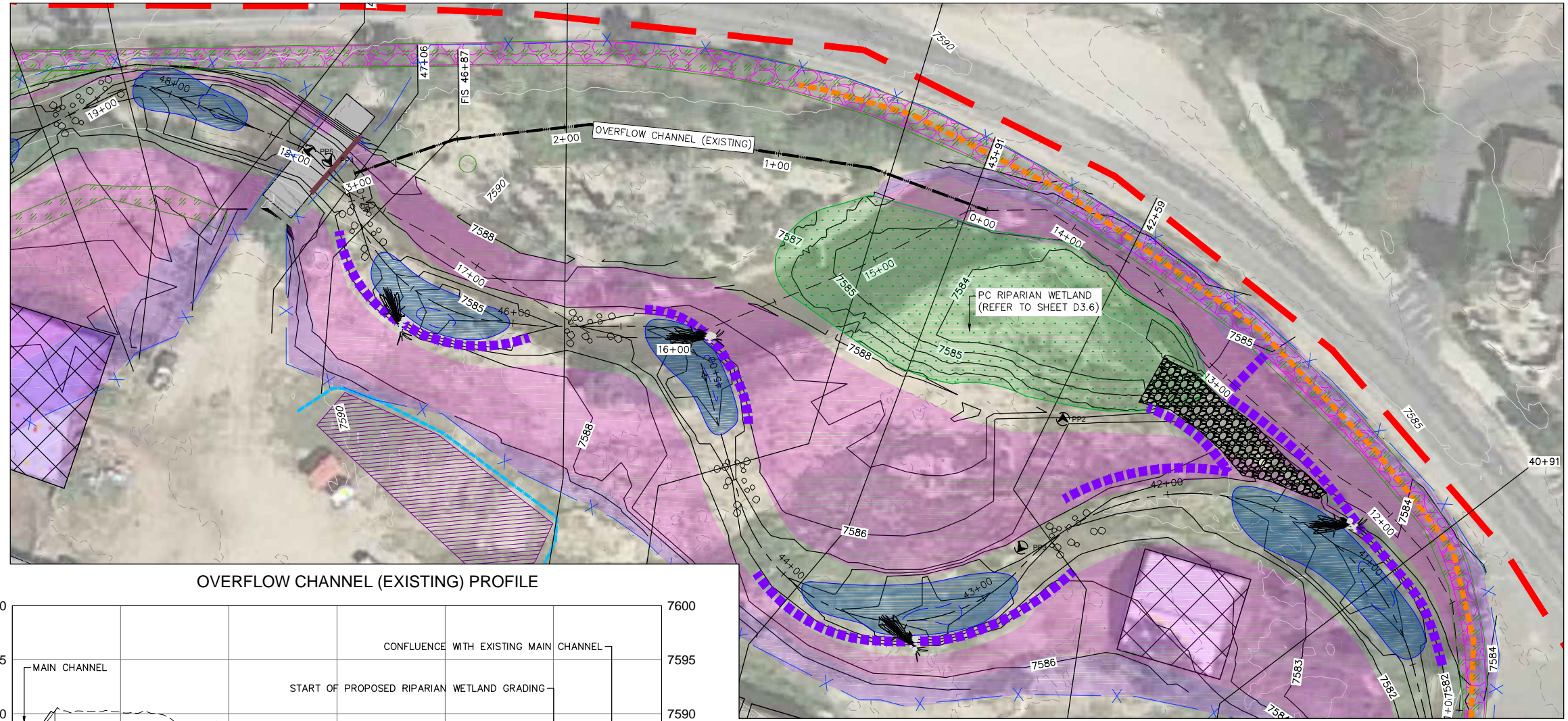
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**P1.4**  
 Sheet No.  
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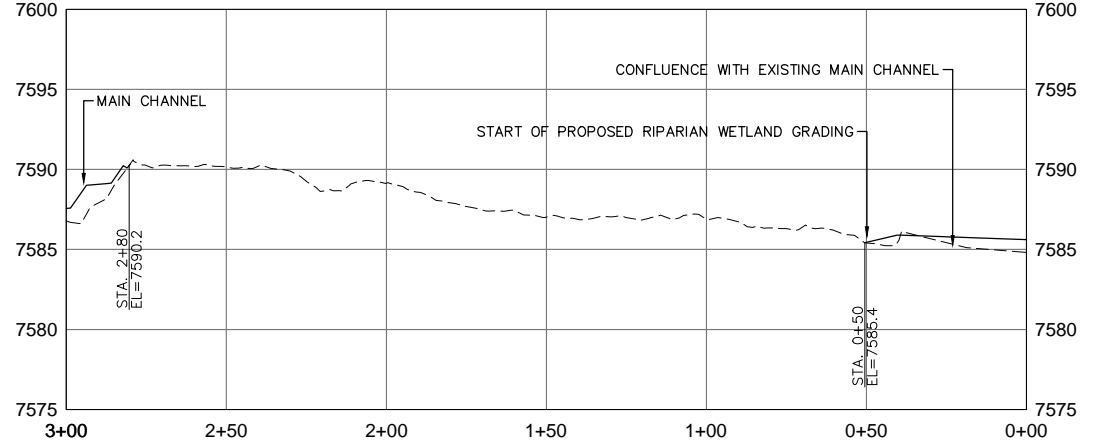
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 Layout Name: EXISTING AND OVERFLOW P&P



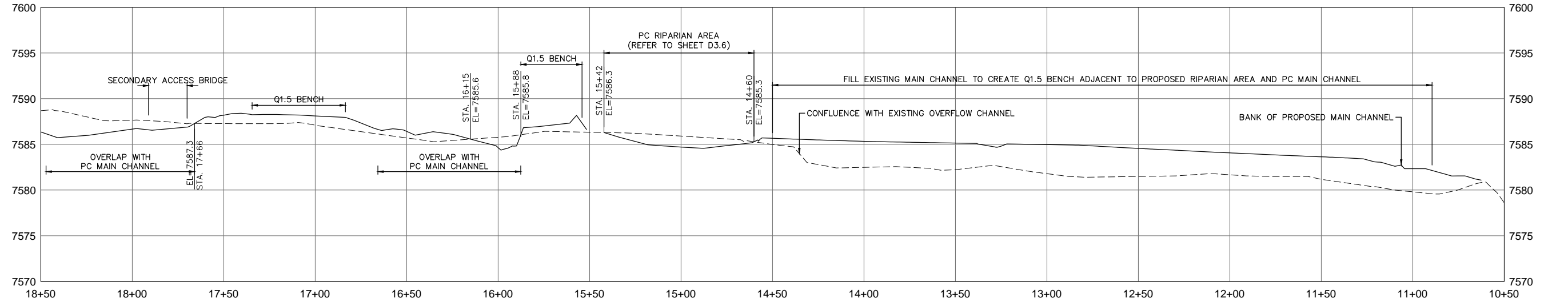
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RIPARIAN PLANTING AREA	
Q1.5 BENCH	
BENCHING EXTENTS	
RIPARIAN AREA	
NATIVE BED MATERIAL FOR BACKWATER ENTRY	
EXISTING RIPRAP	
BOULDER COBBLE TOE WITH WILLOWS	
ELK FENCE	
PROJECT WORK AREA	
ESCP MEASURES	
EXISTING RIPRAP SOIL LOAD & REVEGETATION	
EXISTING OVERFLOW FLOWPATHS	
EXISTING MAJOR CONTOUR 5'	
EXISTING MINOR CONTOUR 1'	
PROPOSED MINOR CONTOUR 1'	
EXISTING ALIGNMENT	
PHOTO POINT	
MEMORIAL TREE	
BURIED OFFSET RIPRAP	
TREE (WILLOW) BENEFICIAL REUSE	
POOL/RIFFLE	



OVERFLOW CHANNEL (EXISTING) PROFILE



EXISTING MAIN CHANNEL (REALIGNED PORTION) PROFILE



EXISTING AND OVERFLOW P&P

5X VERTICAL EXAGGERATION    - - - EXISTING CONDITION (EC)    ——— PROPOSED CONDITION (PC)

NO.	DATE	BY	REVISION COMMENTS



**EXISTING AND OVERFLOW P&P**  
 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO

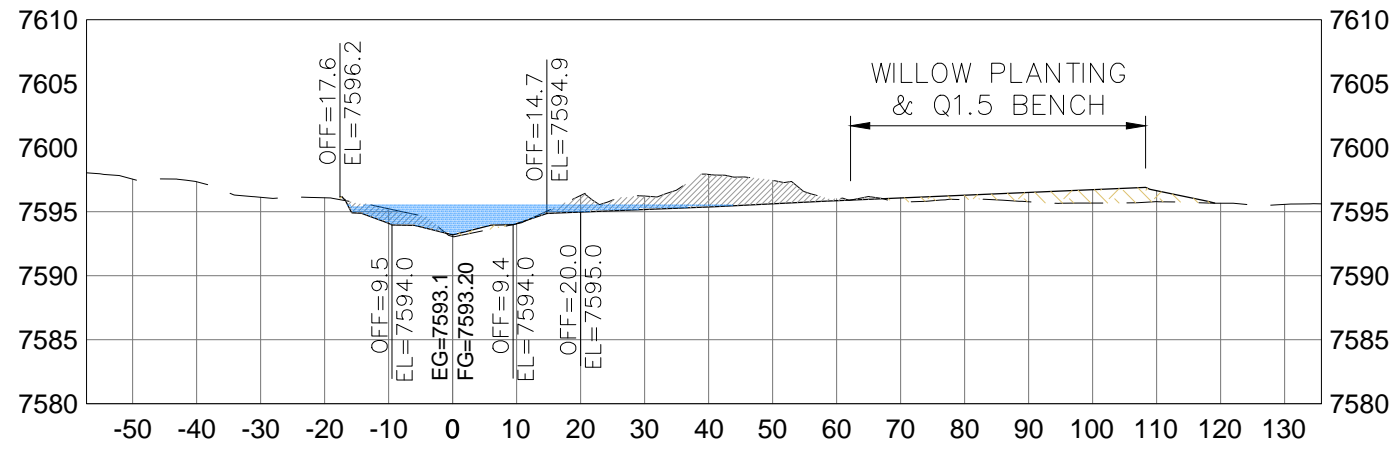
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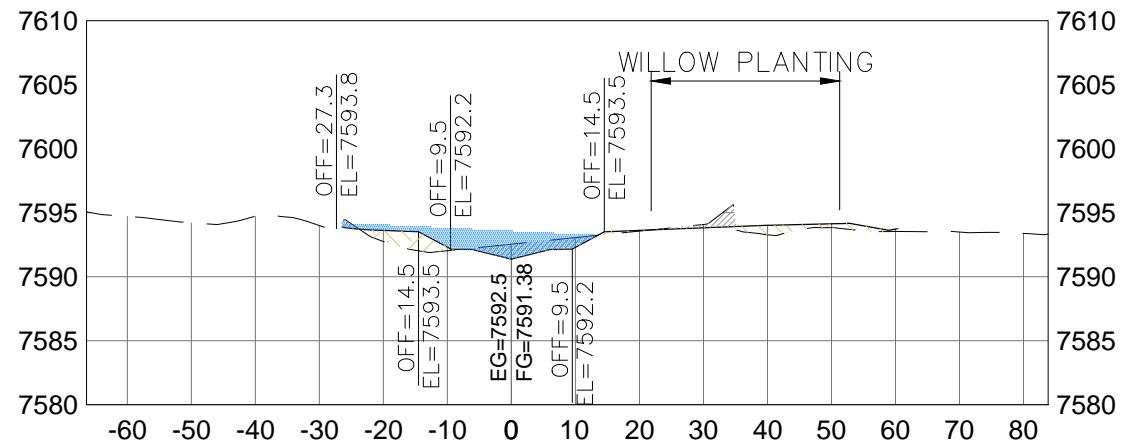
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 Sheet No.  
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 Plot: Jun 07, 2017 - 8:53am allison



51+50

RIFFLE CREST



50+38

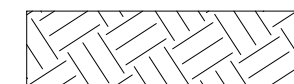
RIFFLE CREST



Q1.5 WATER SURFACE



CUT

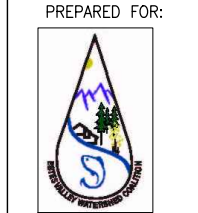


FILL

2X VERTICAL EXAGGERATION

— — EXISTING CONDITION (EC)

———— PROPOSED CONDITION (PC)



PREPARED FOR:

NO.	DATE	BY	REVISION COMMENTS

Design: JCB  
 Drawn: RBM  
 Checked: JEA  
 Date: 4/19/17  
 Initial Issue Date: -----

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**SECTION VIEWS 1**

FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



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 Fax: 303-296-3699

326101  
 Project No. Drawing No.

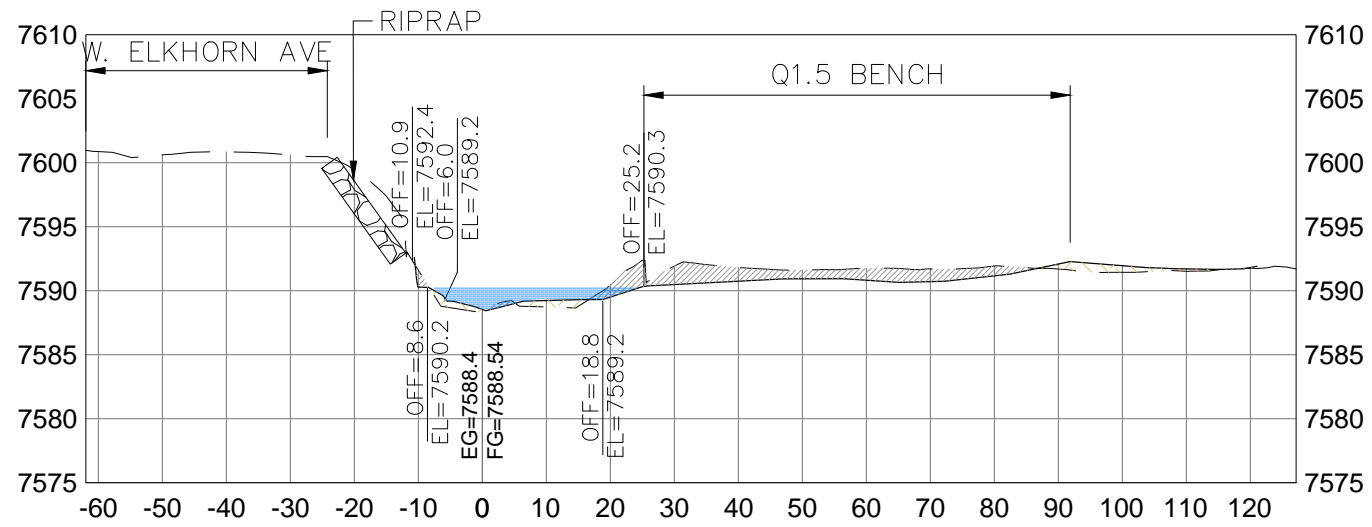
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 Sheet No.

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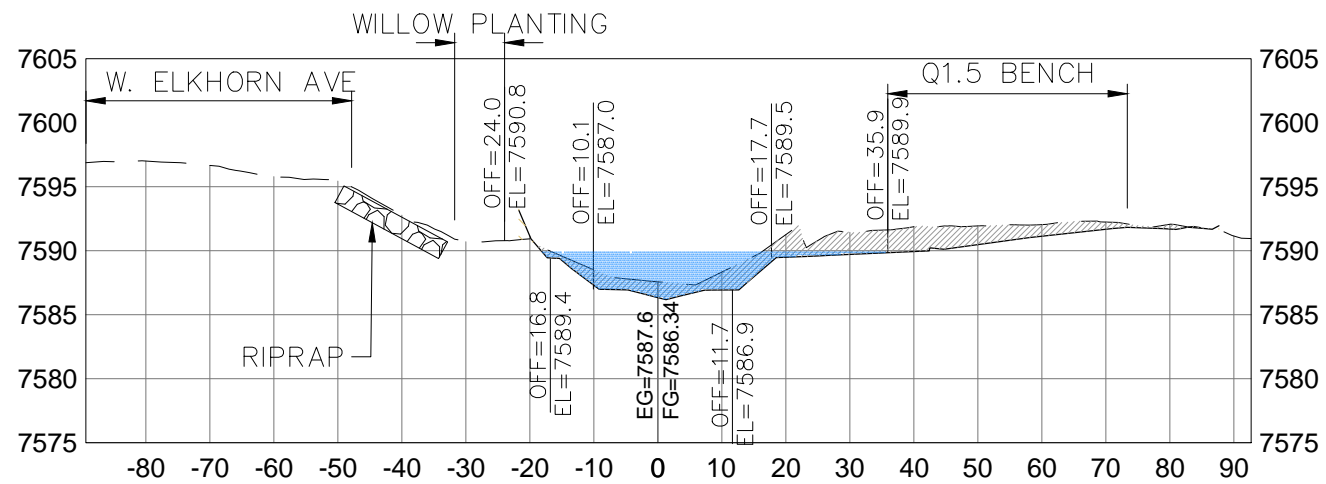


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 Picked: Jun 07, 2017 - 8:53am  
 alison



48+21

UPSTREAM OF BRIDGE



47+47

UPSTREAM OF BRIDGE



Q1.5 WATER SURFACE



CUT



FILL

2X VERTICAL EXAGGERATION

— — EXISTING CONDITION (EC)

— — PROPOSED CONDITION (PC)

NO.	DATE	BY	REVISION COMMENTS

PREPARED FOR:

**SECTION VIEWS 3**  
 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO

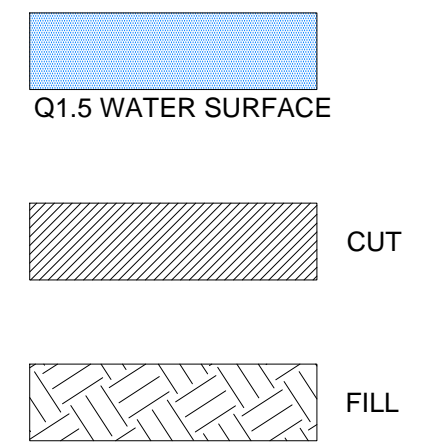
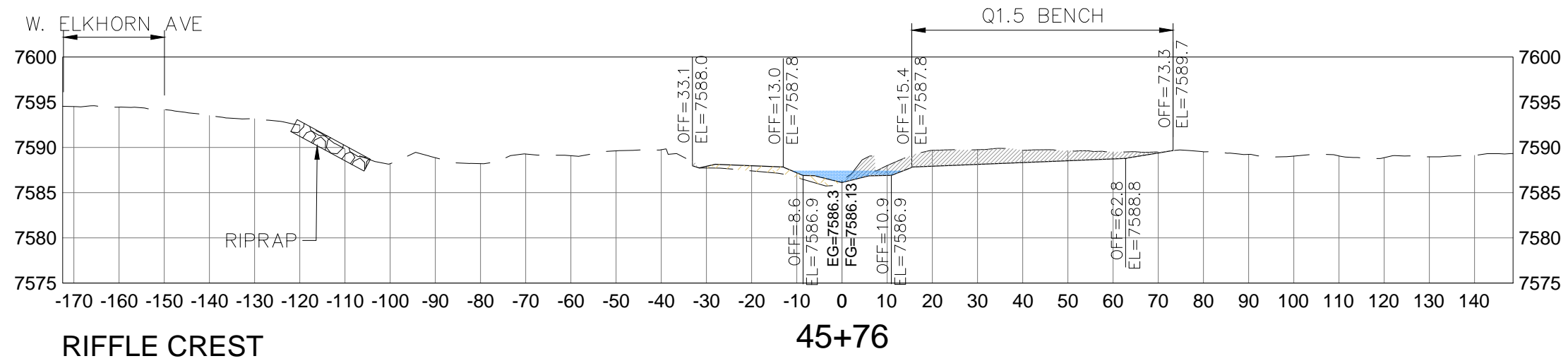
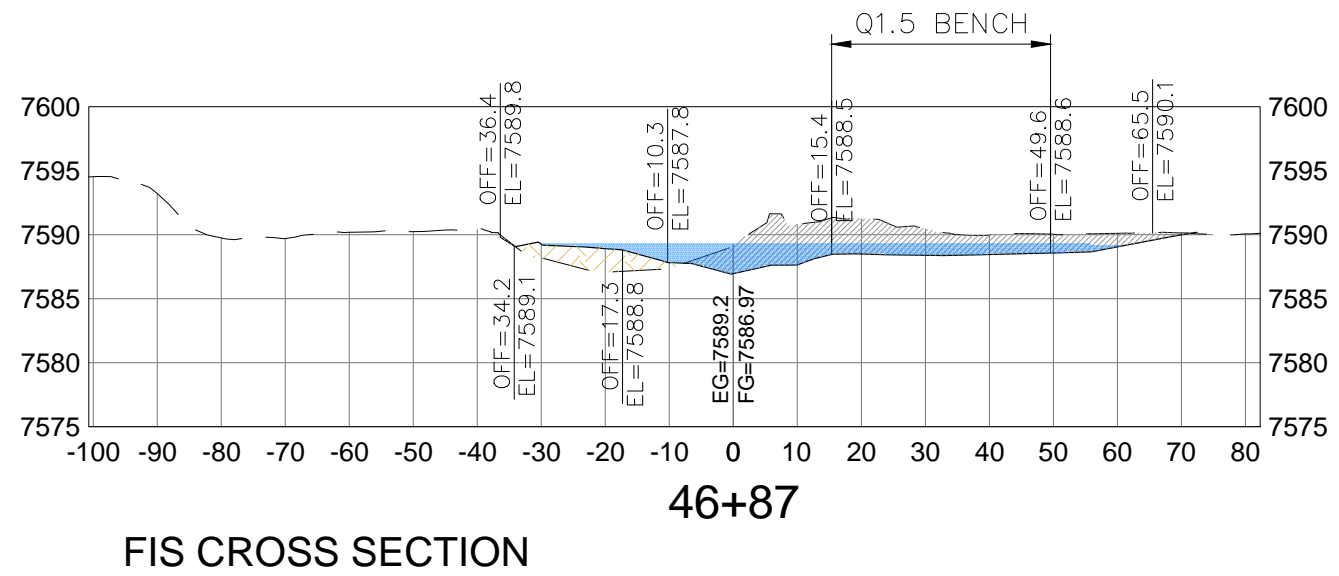
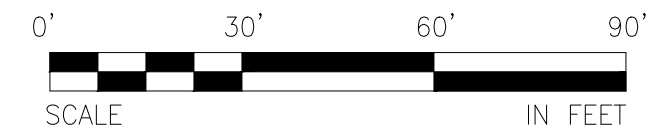
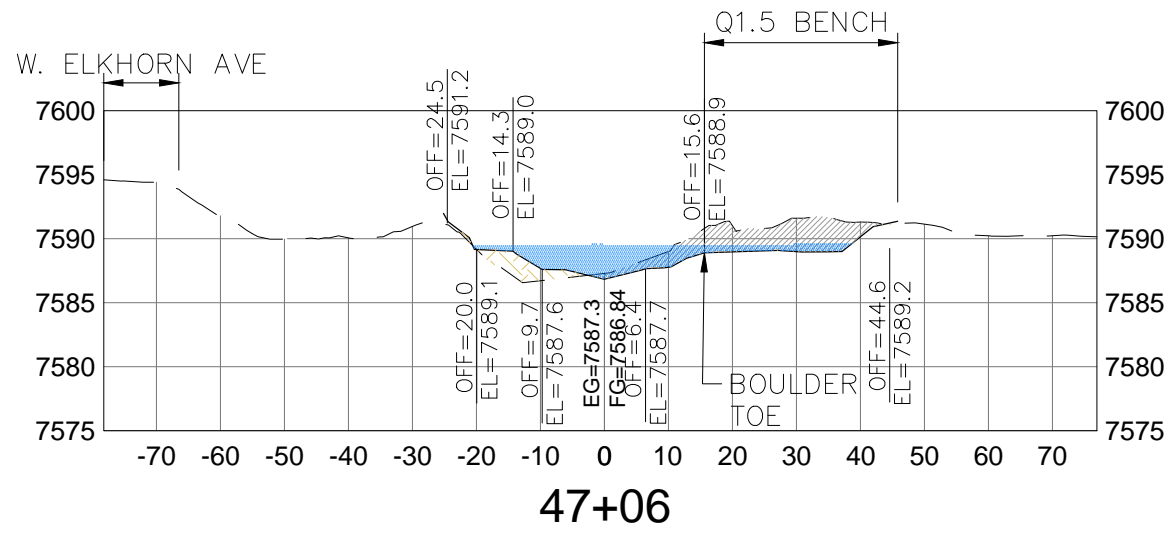


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**S2.3**  
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 Layout Name: SECTION VIEWS 4



2X VERTICAL EXAGGERATION      — — — EXISTING CONDITION (EC)      — — — PROPOSED CONDITION (PC)

NO.	DATE	BY	REVISION COMMENTS

PREPARED FOR:



**SECTION VIEWS 4**  
 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



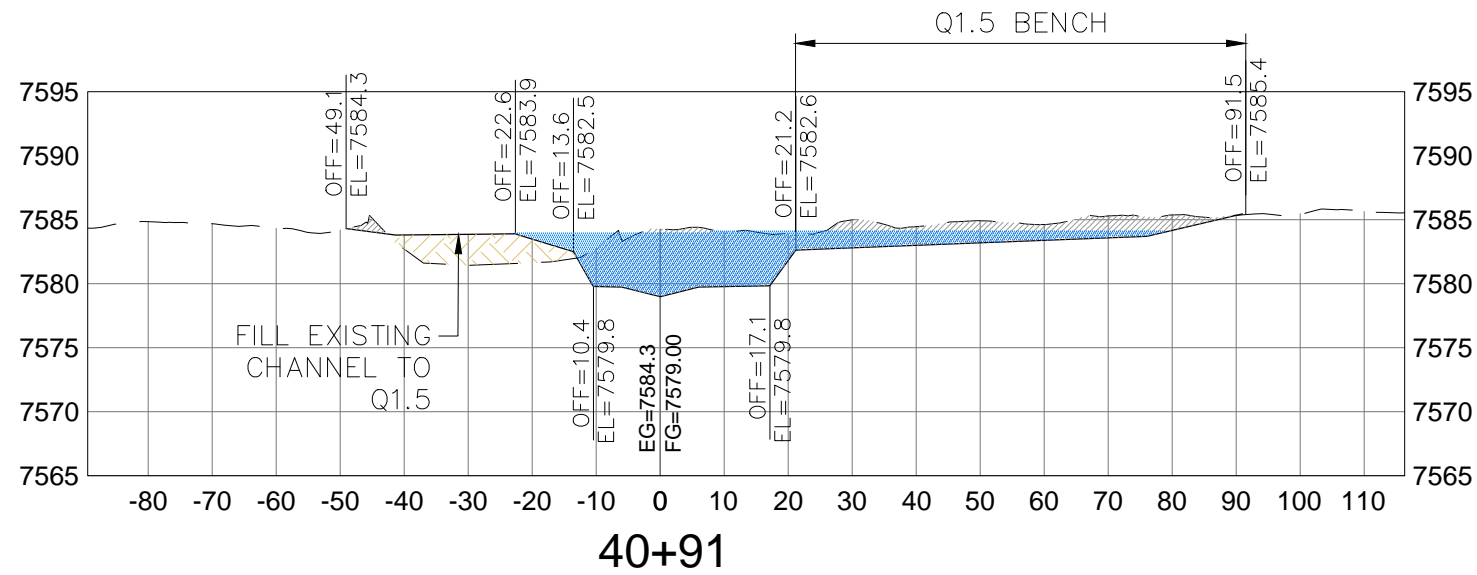
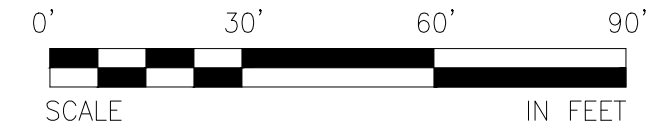
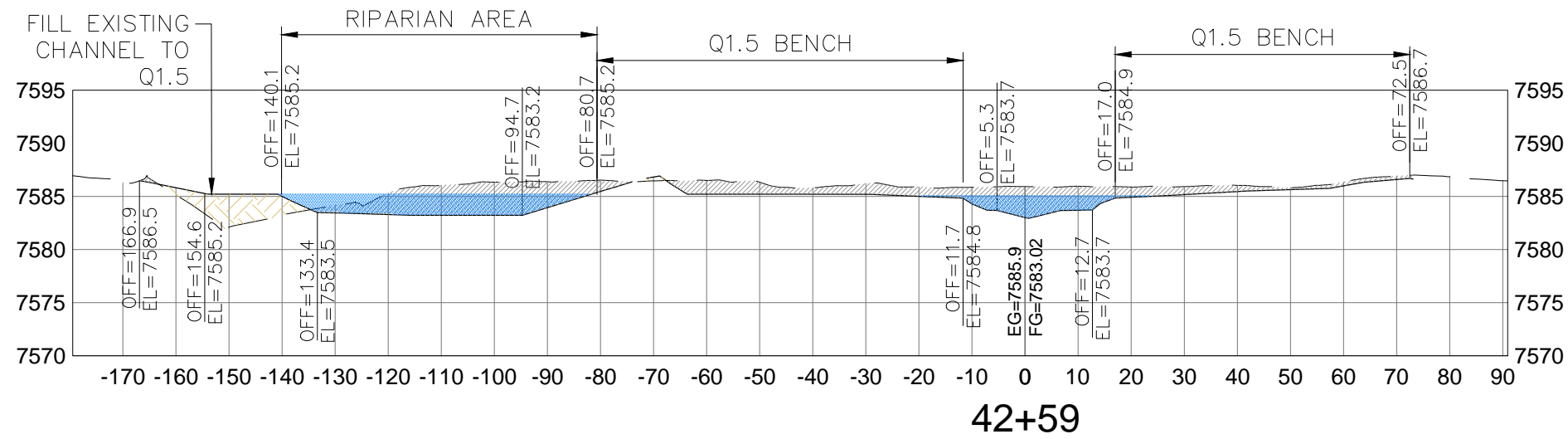
5777 Central Avenue  
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 Boulder, Colorado 80301  
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32610I  
 Project No. Drawing No.  
**S2.4**  
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Q1.5 WATER SURFACE



CUT

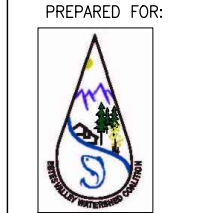


FILL

2X VERTICAL EXAGGERATION

— — EXISTING CONDITION (EC)

— — PROPOSED CONDITION (PC)



PREPARED FOR:

NO.	DATE	BY	REVISION COMMENTS

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 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EMP DESIGN PLANSET  
 ESTES PARK, COLORADO

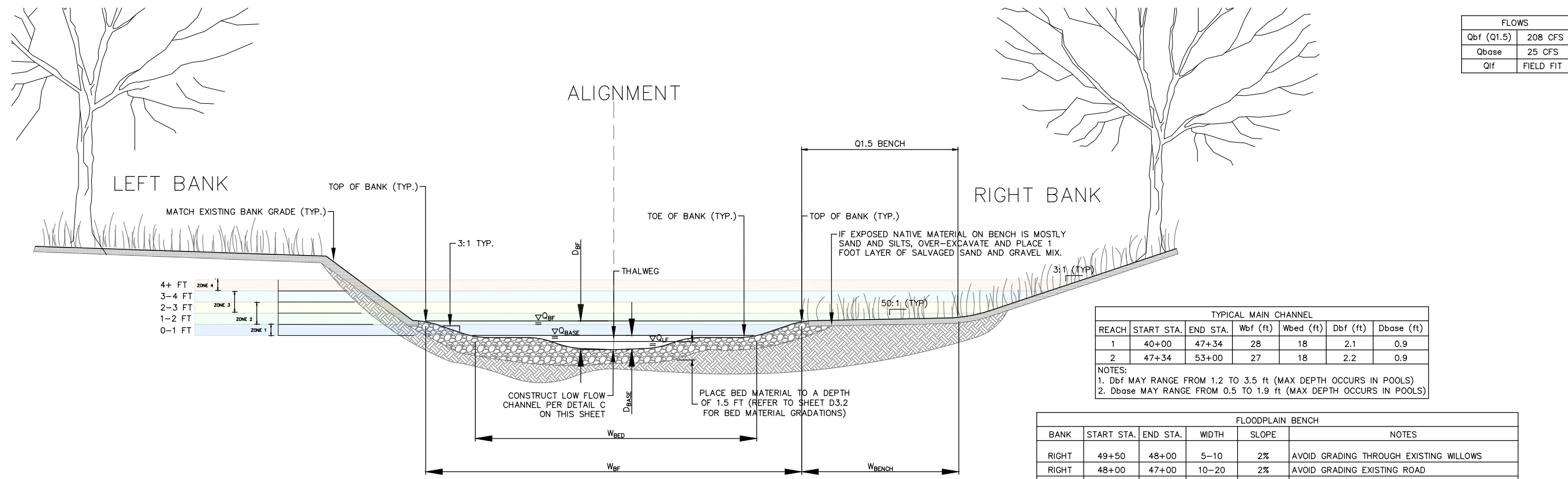


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32610I  
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 Sheet No.  
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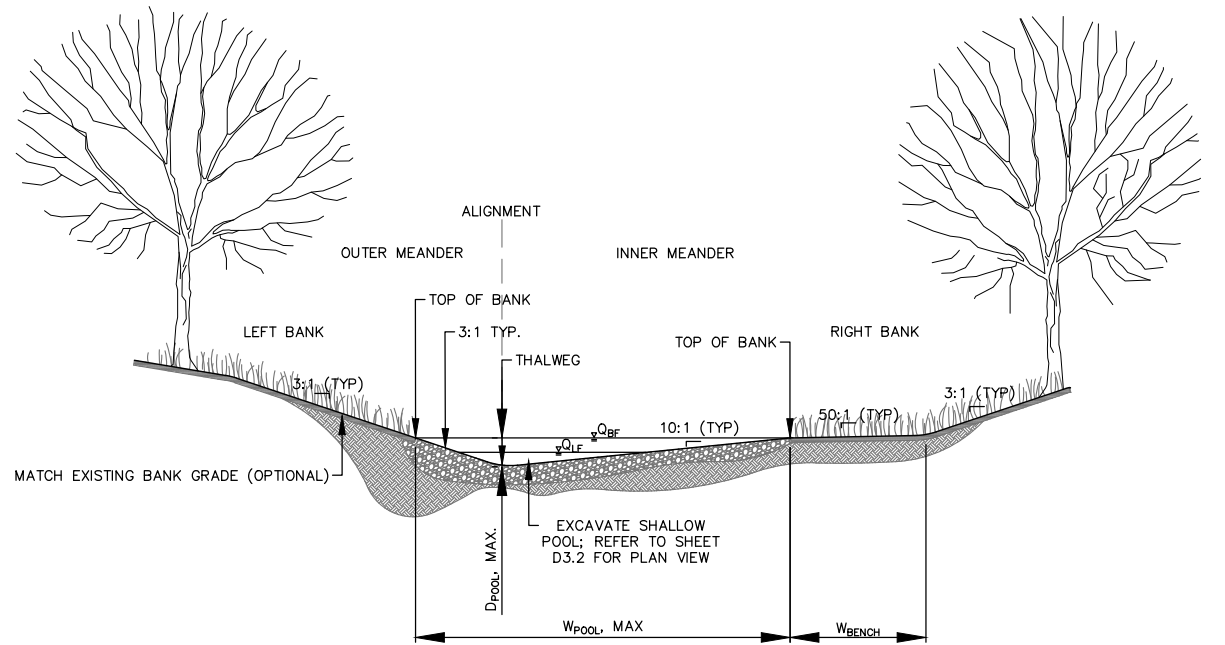
FLOWS	
Qbf (Q1.5)	208 CFS
Qbase	25 CFS
Qlf	FIELD FIT

TYPICAL MAIN CHANNEL						
REACH	START STA.	END STA.	Wbf (ft)	Wbed (ft)	Dbf (ft)	Dbase (ft)
1	40+00	47+34	28	18	2.1	0.9
2	47+34	53+00	27	18	2.2	0.9

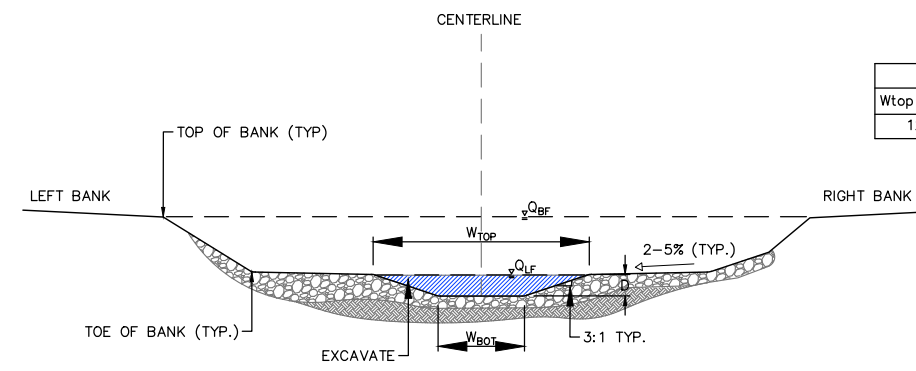
NOTES:  
 1. Dbf MAY RANGE FROM 1.2 TO 3.5 ft (MAX DEPTH OCCURS IN POOLS)  
 2. Dbase MAY RANGE FROM 0.5 TO 1.9 ft (MAX DEPTH OCCURS IN POOLS)

FLOODPLAIN BENCH					
BANK	START STA.	END STA.	WIDTH	SLOPE	NOTES
RIGHT	49+50	48+00	5-10	2%	AVOID GRADING THROUGH EXISTING WILLOWS
RIGHT	48+00	47+00	10-20	2%	AVOID GRADING EXISTING ROAD
RIGHT	47+00	46+00	20-30	2%	
RIGHT	46+00	44+00	10-50	2%	
RIGHT	44+00	43+00	5-15	2%	
RIGHT	43+00	40+00	15-50	2%	AVOID GRADING THROUGH HAY STORAGE PLATFORM
LEFT	47+00	45+25	10-15	2%	
LEFT	45+25	42+50	15-80	2%	

**A** TYPICAL STREAM CROSS SECTION, STRAIGHT REACH  
 D3.1 NOT TO SCALE



**B** TYPICAL STREAM CROSS SECTION, MEANDER REACH AND EXCAVATED POOLS, TYP.  
 D3.1 NOT TO SCALE



LOW FLOW CHANNEL		
Wtop (FT)	Wbot (FT)	D (FT)
12	9	0.75

**C** LOW FLOW CHANNEL TYPICAL DETAIL  
 D3.1 NOT TO SCALE

TYPICAL CROSS SECTION

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**TYPICAL CROSS SECTION**  
 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
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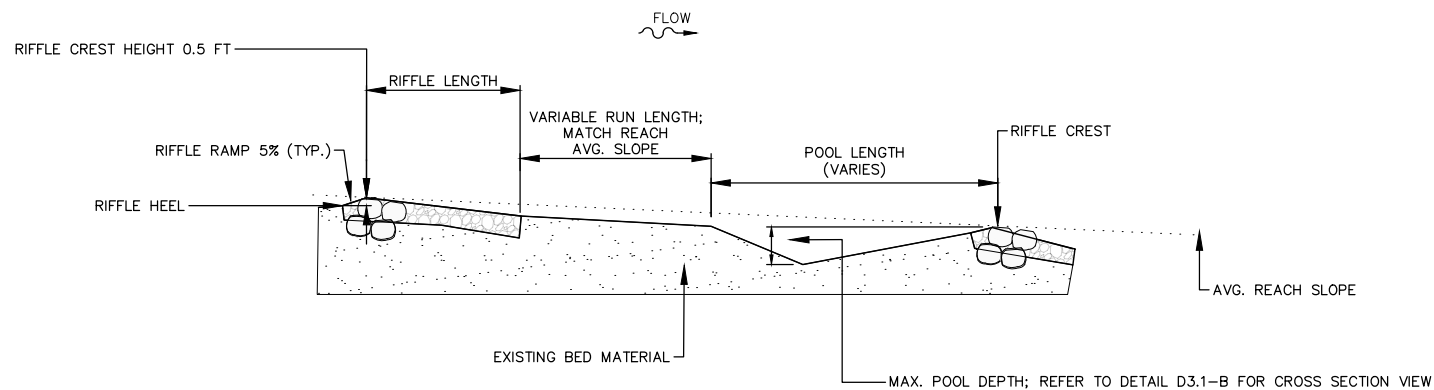
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 Project No. Drawing No.  
**D3.1**  
 Sheet No.  
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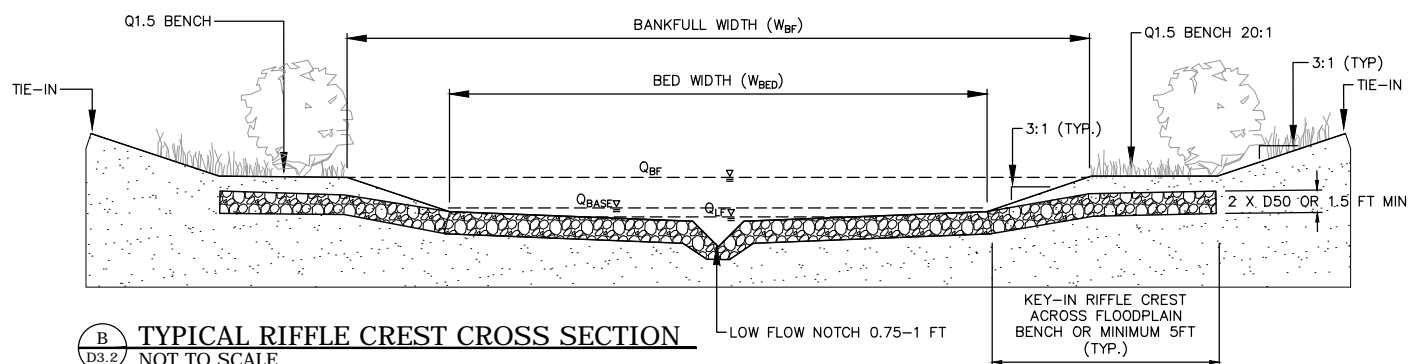
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Design	Drawn	Checked	Date	Initial	Issue Date
JCB	RBM	EA	14/19/17		

Plotted: Jun 07, 2017 - 9:53am  
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**A** TYPICAL POOL-RIFFLE PROFILE VIEW  
 D3.2 NOT TO SCALE



**B** TYPICAL RIFFLE CREST CROSS SECTION  
 D3.2 NOT TO SCALE

RIFFLE CREST STATIONS AND ELEVATIONS				
REACH	CREST STA.(FT)	CREST ELEV.(FT)	TOE STA.(FT)	TOE ELEV.(FT)
REACH 2	51+47	7594.15	51+16	7592.5
	50+30	7592.55	50+00	7590.9
	48+56	7590.15	48+25	7588.5
REACH 1	46+97	7588.05	46+73	7586.5
	45+75	7586.95	45+51	7585.5
	44+57	7585.85	44+33	7584.4
	42+60	7584.15	42+36	7582.6

RIFFLE-POOL-RUN DIMENSIONS (TYP.)		
DIMENSION	REACH 1	REACH 2
<b>RIFFLE</b>		
SLOPE	3.00%	3.00%
LENGTH	25 FT	30 FT
BANKFULL WIDTH, Wbf	28 FT	29 FT
BED WIDTH, Wbed	19 FT	19 FT
BANKFULL DEPTH, Dbf	1.5	1.7
BASE FLOW DEPTH, Dbase	0.9	0.9
<b>POOL</b>		
MAX PONDED DEPTH	2.3 FT	2.1 FT
LENGTH	VARIES	VARIES
BANKFULL WIDTH, Wbf (MAX)	36 FT	38 FT
BED WIDTH, Wbed	6.4 FT	5.2 FT
BANKFULL DEPTH Dbf	3.4	3.5
BASE FLOW DEPTH, Dbase	1.8	1.9
<b>RUN</b>		
SLOPE	1.40%	0.90%
LENGTH	VARIES	VARIES
BANKFULL WIDTH, Wbf	27 FT	28 FT
BED WIDTH, Wbed	19 FT	19 FT
BANKFULL DEPTH, Dbf	1.7	1.5
BASE FLOW DEPTH, Dbase	0.9	0.9
NOTES:		
1. ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED		
2. TYPICAL DIMENSIONS MAY VARY		

REACH 1 DESIGN BED MATERIAL GRADATIONS				
DIMENSION (IN.)	RUN	POOL	RIFFLE	CREST
Dmin	SAND	SAND	0.3	12.0
D16	0.8	0.8	1.2	
D50	2.6	2.6	3.6	
D84	4.5	4.5	5.4	
Dmax	9.8	9.8	7.2	18.0

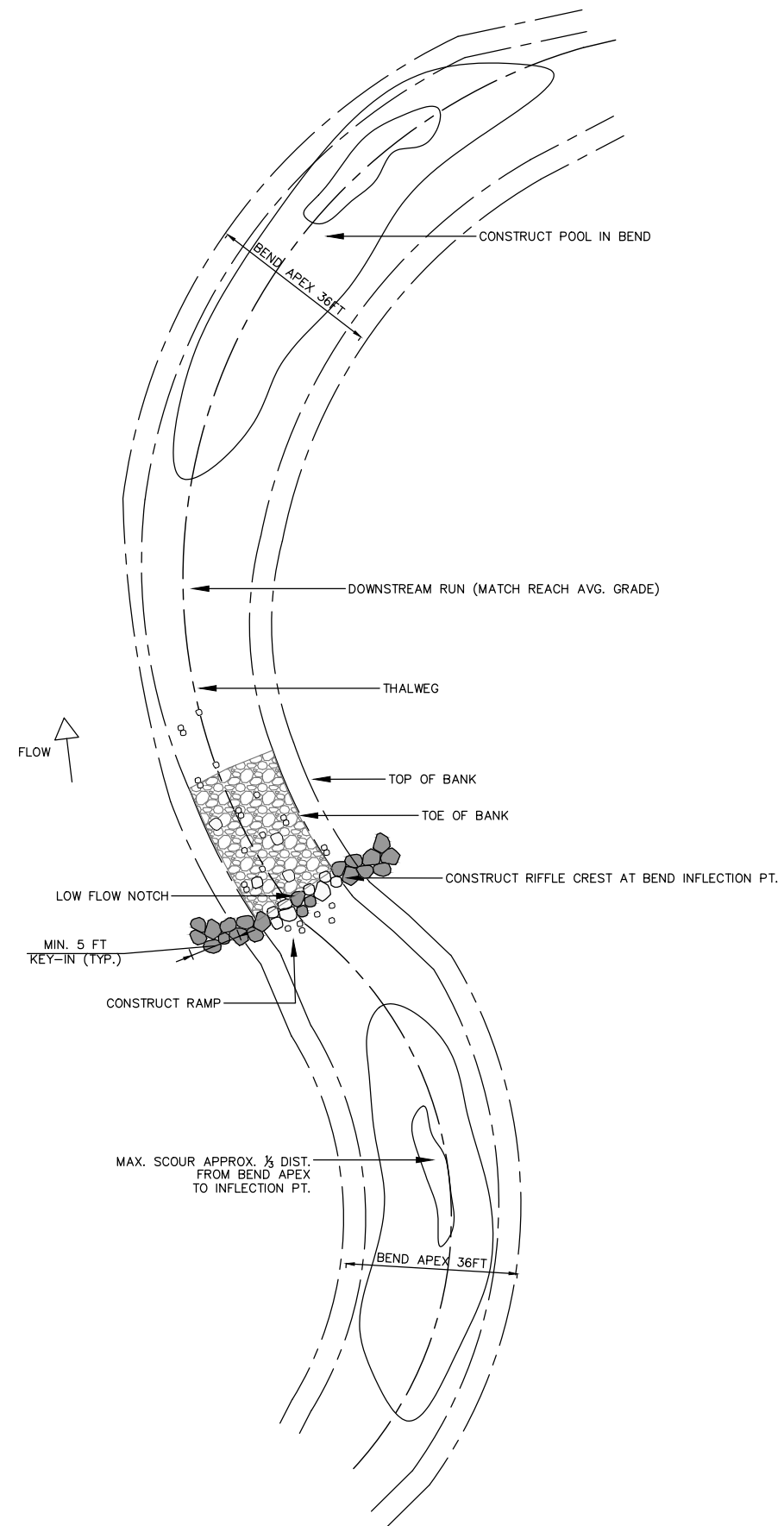
REACH 2 DESIGN BED MATERIAL GRADATIONS				
DIMENSION (IN.)	RUN	POOL	RIFFLE	CREST
Dmin	SAND	SAND	0.3	12.0
D16	1.8	1.8	1.4	
D50	3.4	3.4	4.2	
D84	5.0	5.0	6.3	
Dmax	11.8	11.8	8.4	18.0

- BED MATERIAL NOTES:**
- SPECIFIED RUN AND POOL GRADATIONS REFLECT APPROXIMATE EXISTING NATIVE MATERIAL GRADATIONS.
  - FOR REALIGNED CHANNEL IN REACH 1, PLACE MIN. 1FT OF BED MATERIAL SIMILAR TO THE EXISTING NATIVE MATERIAL IN REACH 1.
  - PROCESS NATIVE MATERIAL ON-SITE TO SOURCE BED MATERIAL. IMPORTED MATERIAL MAY BE USED IF SUFFICIENT VOLUMES CANNOT BE GENERATED ON-SITE.
  - REACH 1 RIFFLE (RIFFLE RAMP) MAY USE THE SPECIFIED GRADATION FOR REACH 2 RIFFLE TO SIMPLIFY ON-SITE PROCESSING AN/OR IMPORT.



EXAMPLE PHOTO: HABITAT BOULDERS

## POOL-RIFFLE



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# POOL-RIFFLE DETAIL

FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



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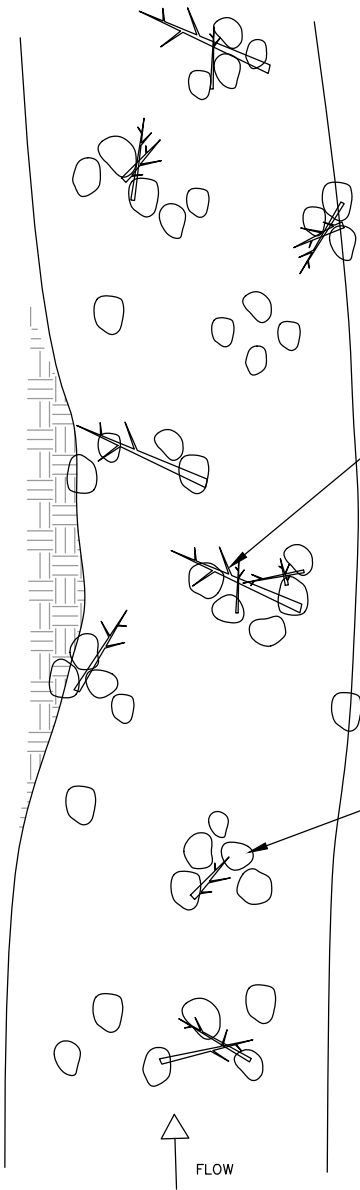
Design: JCB  
 Drawn: RBM  
 Checked: JEA  
 Date: 14/19/17  
 Initial Issue Date: -----







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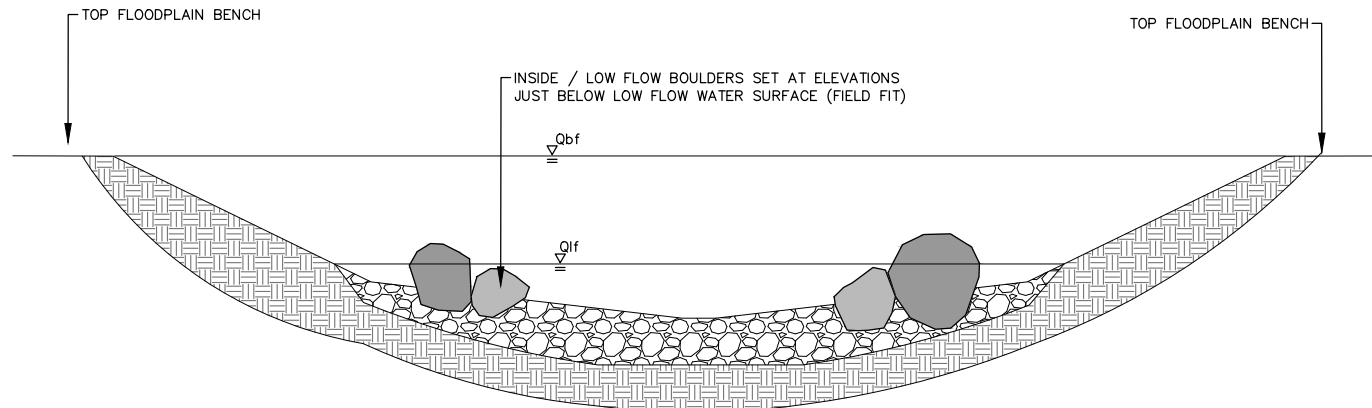


**TYPICAL HABITAT BOULDER PLAN LAYOUT**  
NOT TO SCALE

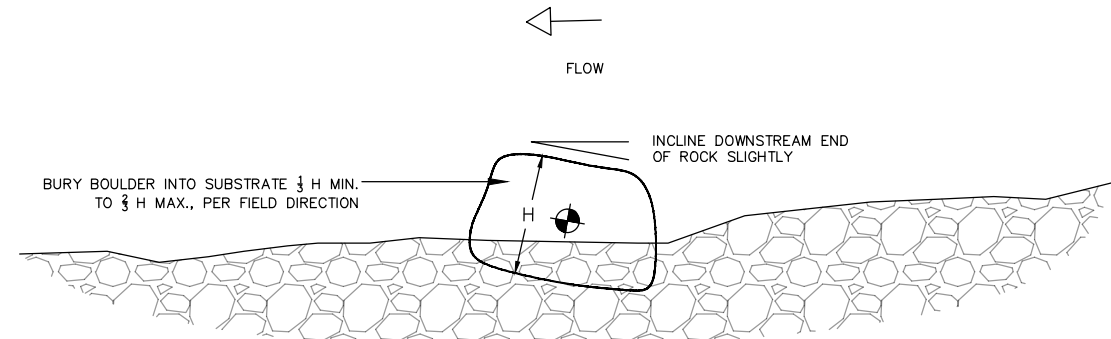
- GENERAL NOTES:
- 1) PLACE HABITAT BOULDERS PER GUIDANCE ON THIS SHEET UNLESS OTHERWISE DIRECTED BY ENGINEER IN THE FIELD.
  - 2) SALVAGE BOULDERS FOR USE IN RESTORED CHANNEL.
  - 3) BOULDERS USED FOR HABITAT SHALL BE ROUNDED OR SUBANGULAR.
  - 4) BOULDERS TO BE PLACED AT VARYING ELEVATIONS CORRESPONDING TO LOW-FLOW WATER SURFACE AND BANKFULL WATER SURFACE.
  - 5) BOULDERS PLACED AT LOW FLOW ELEVATION SHALL BE PLACED SO CREST (HIGHEST PART) IS WITHIN 2 TO 4 INCHES OF THE WATER SURFACE.
  - 6) LIMIT SIZE OF INDIVIDUAL BOULDER CLUSTER IN RIFFLE UNITS TO A MAXIMUM OF 3 ROCKS.

SMALL (< 4 INCH DIA., < 15 FT LENGTH) WOOD MATERIAL SALVAGED WITH SMALL BRANCHES INTACT DURING SITE CLEARING CAN BE PINNED BETWEEN AND UNDER LARGER BOULDERS TO ADD COMPLEXITY WITHIN POOLS AND RUN HABITAT UNITS. LIMIT 1 PIECE OF WOOD PER BOULDER. BURY 33% OF WOOD IN BED SUBSTRATE. LIMIT POTENTIAL FOR WOOD TO TRAP FLOATING DEBRIS MOVING DOWNSTREAM BY KEEPING THE LOG AND BRANCHES BELOW THE TOP HEIGHT OF THE CHANNEL BANK.

2 FT MIN. SPACE BETWEEN ROCKS IN GROUPS CONTAINING MORE THAN 3 BOULDERS



**TYPICAL HABITAT BOULDER CROSS SECTION**  
NOT TO SCALE



**TYPICAL HABITAT BOULDER PROFILE**  
NOT TO SCALE



EXAMPLE PHOTO: HABITAT BOULDERS

**HABITAT BOULDERS DETAIL**

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PREPARED FOR:

**HABITAT BOULDERS DETAIL**  
 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



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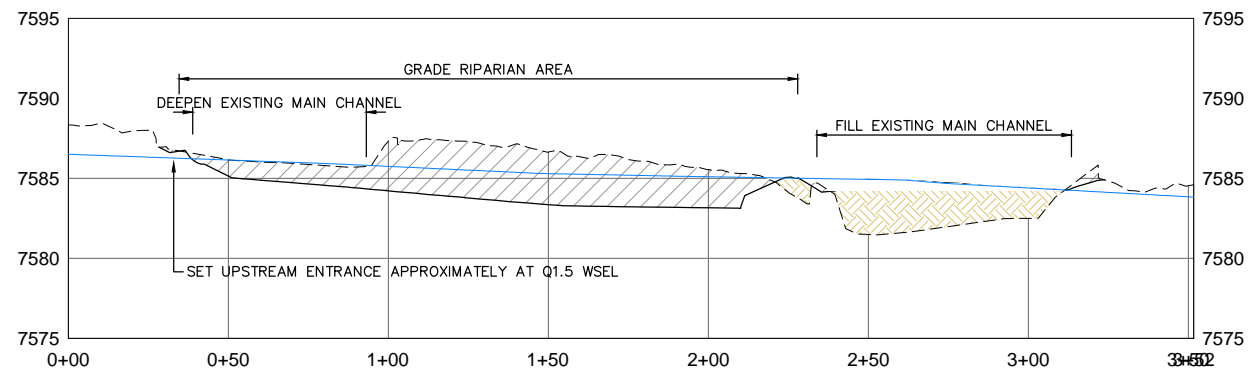
0' 15 30 60  
 1 INCH = 30 FEET (22x34)  
 1 INCH = 60 FEET (11X17)



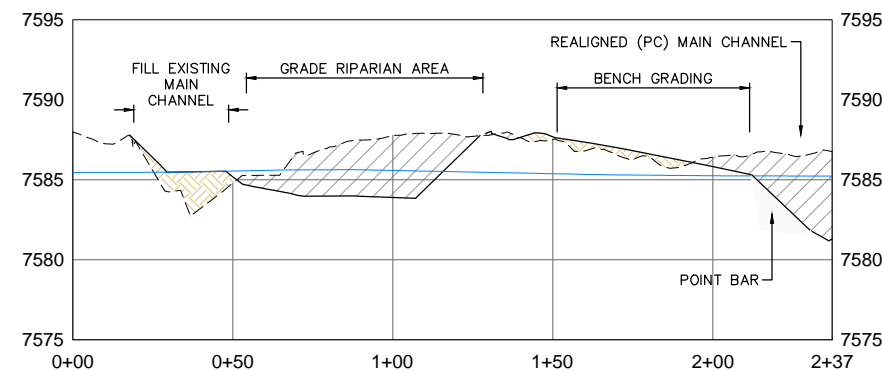
**NOTES:**

1. GRADE FLOODPLAIN DEPRESSION TO FUNCTION AS A RIPARIAN AREA UNDER THE SUPERVISION OF THE ENGINEER AND/OR ECOLOGIST. THE ECOLOGIST SHALL APPROVE THE FINAL ELEVATION OF THE RIPARIAN AREA TO ENSURE THE SUCCESS OF RIPARIAN AREA VEGETATION SPECIES.
2. REFER TO PLANTING PLAN FOR REVEGETATION SPECIFICATIONS.
3. PLACE A 1FT THICK LAYER OF BED MATERIAL (NATIVE ALLUVIUM SIMILAR TO THE ADJACENT CHANNEL) AS SHOWN THROUGH THE CONNECTION BETWEEN THE RIPARIAN AREA DEPRESSION AND THE MAIN CHANNEL.
4. THE ENGINEER MAY DIRECT THE CREATION OF MICROTOPOGRAPHY TO CREATE A PREFERENTIAL BACKWATER FLOWPATH FROM THE MAIN CHANNEL TO THE RIPARIAN AREA DEPRESSION DURING A Q1.5 FLOW EVENT.
5. DO NOT REVEGETATE THE CONNECTION TO THE MAIN CHANNEL WITH PLANTS THAT WOULD OBSTRUCT THE BACKWATER ENTRANCE TO THE RIPARIAN AREA DEPRESSION.
6. BOTTOM OF RIPARIAN AREA TO BE FILLED WITH ONSITE NATIVE MATERIAL INCLUDING COBBLES, GRAVELS AND SAND AND ANY TOPSOIL IF AVAILABLE.

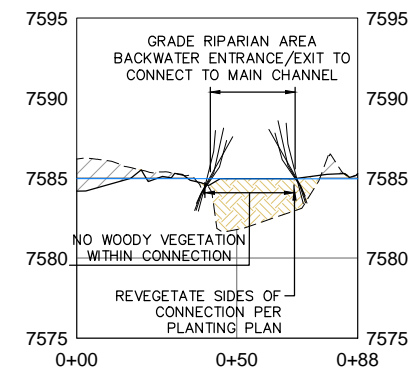
**A-A' PROFILE**  
 HORIZ. SCALE: 1" = 30'  
 VERT. SCALE: 1" = 6'



**B-B' PROFILE**  
 HORIZ. SCALE: 1" = 30'  
 VERT. SCALE: 1" = 6'



**C-C' PROFILE**  
 HORIZ. SCALE: 1" = 30'  
 VERT. SCALE: 1" = 6'



**RIPARIAN AREA DETAIL**

CUT FILL

--- EXISTING CONDITION (EC) — PROPOSED CONDITION (PC) — Q1.5 WSEL (HEC-RAS MODEL)

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**RIPARIAN AREA DETAIL**  
 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
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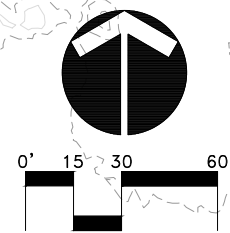
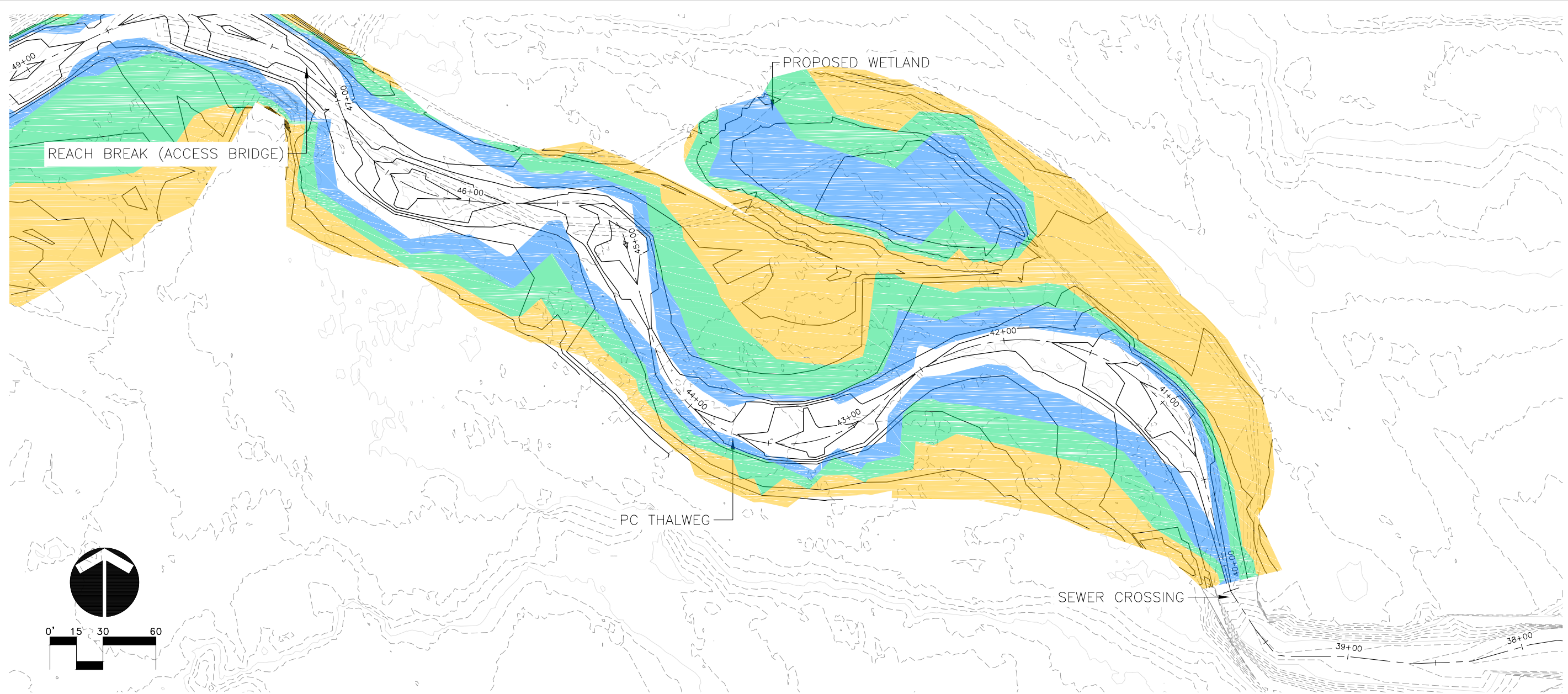
326101  
 Project No. Drawing No.  
**D3.6**  
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 Layout Name: RIPARIAN AREA DETAIL





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 alisonn  
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LEGEND	
ZONES:	
	0-1 FOOT ABOVE BASE FLOW WATER SURFACE ELEVATION
	1-2 FEET ABOVE BASE FLOW WATER SURFACE ELEVATION
	2-4 FEET ABOVE BASE FLOW WATER SURFACE ELEVATION

HYDROLOGIC ZONE	RELATIVE DEPTH ABOVE BASE FLOW WSEL (FT)	AREA (SQ FT)	SEED (Y/N)	AMENDMENT, WOODSTRAW (Y/N)	CUTTINGS (Y/N)	CONTAINERS (SQ FT)
ZONE 1	0-1'	33,105	Y	N	Y	Y
ZONE 2	1-2'	36,480	Y	Y	Y	Y
ZONE 3	2-4'	51,895	Y	Y	Y	Y

- NOTES:**
- AREAS SHOWN ARE APPROXIMATE BASED ON THE RELATIVE DEPTH OF THE 25CFS (BASE FLOW) WATER SURFACE ELEVATION FROM THE DESIGN HYDRAULIC MODEL.
  - THIS FIGURE DOES NOT CONSTITUTE AN ASSESSMENT OF GROUNDWATER HYDROLOGY. THE INFORMATION IN THIS FIGURE IS INTENDED TO BE USED FOR INITIAL COST ESTIMATING ONLY.
  - THIS FIGURE DOES NOT DEPICT HYDROLOGIC ZONES FOR REVEGETATION PURPOSES. HYDROLOGIC ZONES FOR PLANTING SHALL BE ASSESSED BY A PLANT ECOLOGIST AND/OR THE ENGINEER BEFORE CONSTRUCTION.
  - REFER TO SHEET L2 FOR REVEGETATION INFORMATION.
  - FOR CONSTRUCTION COSTING PURPOSES ONLY, PLANT LAYOUT IS ASSUMED TO BE AT A CONSISTENT OFFSET SPACING THROUGHOUT ANY GIVEN PLANTING AREA AND ZONE (REFER TO SHEET L2 FOR PLANT LIST AND OFFSET SPACING). REVEGETATION DESIGNER WILL FIELD STAKE FINAL LOCATIONS FOR PLANT INSTALLATIONS BY GROUPING AND MAY ADJUST PLANT NUMBERS WITHIN EACH PLANTING AREA AS PART OF THE FIELD LAYOUT.

# REACH 1 PLANTING

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**REACH 1 PLANTING**  
 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
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 ellsonn

BANK TREATMENT AREAS						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	MATERIAL TYPE	PLANT SPACING	CONTAINER SIZE	PLANT NUMBER
<b>WOODY SPECIES</b>						
SALIX EXIGUA	NARROWLEAF WILLOW	20	CUTTING	2-FOOT CENTERS	48-INCH CUTTING	290
SALIX IRRORATA	BLUESTEM WILLOW	20	CUTTING	2-FOOT CENTERS	48-INCH CUTTING	145
SALIX MONTICOLA	ROCKY MOUNTAIN WILLOW	15	CUTTING	2-FOOT CENTERS	48-INCH CUTTING	145
TOTAL		100				580

ZONE 1: CONTAINERS						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	MATERIAL TYPE	CONTAINER SIZE	PLANT SPACING	NUMBER OF PLANTS
CAREX AQUATILIS	WATER SEDGE	10	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	169
CAREX BEBBII	BEBB'S SEDGE	5	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	85
CAREX MICROPTERA	SMALLWINGED SEDGE	5	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	85
CAREX NEBRASCENSIS	NEBRASKA SEDGE	20	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	337
CAREX PELLITA	WOOLY SEDGE	15	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	253
GLYCERIA GRANDIS	AMERICAN MANNAGRASS	10	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	169
GLYCERIA STRIATA	FOWL MANNAGRASS	10	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	169
JUNCUS ARCTICUS SSP. LITTORALIS	MOUNTAIN RUSH/ARCTIC RUSH	10	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	169
JUNCUS LONGISTYLIS	LONGSTYLE RUSH	5	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	85
JUNCUS TORREYI	TORREY'S RUSH	5	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	85
SCIRPUS MICROCARPUS	PANICLED BULRUSH	5	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	85
TOTAL		100				1691

ZONE 1: SEED						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	SEEDS/SQ FT	PURE LIVE SEED (PLS) WEIGHT	PLS LB REQUIRED PER AC	PLS LBS REQUIRED PER PROJECT AREA
CALAMAGROSTIS CANADENSIS	BLUEJOINT REEDGRASS	10	15	4,114,584	0.16	0.12
CAREX EMORYI	EMORY'S SEDGE	5	7.5	912,000	0.36	0.27
CAREX PRAEGRACILIS	CLUSTERED FIELD SEDGE	5	7.5	587,000	0.56	0.42
DESCHAMPSIA CAESPITOSA	TUFTED HAIRGRASS	15	22.5	1,182,500	0.83	0.63
GLYCERIA GRANDIS	GIANT MANNAGRASS	15	22.5	1,280,000	0.77	0.58
JUNCUS ARCTICUS SSP. LITTORALIS	MOUNTAIN RUSH/ARCTIC RUSH	15	22.5	6,950,000	0.14	0.11
JUNCUS TORREYI	TORREY RUSH	10	15	12,150,000	0.05	0.04
POA PALUSTRIS	FOWL BLUEGRASS	25	37.5	2,078,000	0.79	0.6
TOTAL		100	150		3.65	2.77

ZONE 2: CONTAINERS AND CUTTINGS						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	MATERIAL TYPE	CONTAINER SIZE	PLANT SPACING	NUMBER OF PLANTS
SALIX BEBBIANA	BEBB'S WILLOW	5	CUTTING	48-INCH CUTTING	6-FOOT SPACING	41
SALIX DRUMMONDIANA	DRUMMOND'S WILLOW	6	CONTAINER	48-INCH CUTTING	6-FOOT SPACING	49
SALIX EXIGUA	NARROWLEAF WILLOW	10	CUTTING	D-60	6-FOOT SPACING	82
SALIX EXIGUA	NARROWLEAF WILLOW	10	CONTAINER	48-INCH CUTTING	6-FOOT SPACING	82
SALIX GEYERIANA	GEYER'S WILLOW	6	CUTTING	48-INCH CUTTING	6-FOOT SPACING	49
SALIX GEYERIANA	GEYER'S WILLOW	6	CONTAINER	D-60	6-FOOT SPACING	49
SALIX IRRORATA	BLUESTEM WILLOW	7	CUTTING	48-INCH CUTTING	6-FOOT SPACING	58
SALIX LASIANDRA SSP. CAUDATA	WHIPLASH WILLOW	5	CONTAINER	48-INCH CUTTING	6-FOOT SPACING	41
SALIX MONTICOLA	ROCKY MOUNTAIN WILLOW	20	CUTTING	48-INCH CUTTING	6-FOOT SPACING	164
SALIX MONTICOLA	ROCKY MOUNTAIN WILLOW	10	CONTAINER	D-60	6-FOOT SPACING	82
CAREX NEBRASCENSIS	NEBRASKA SEDGE	8	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	149
CAREX PELLITA	WOOLLY SEDGE	3	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	56
ELEOCHARIS PALUSTRIS	CREEPING SPIKERUSH	4	CONTAINER	10 CUBIC INCH	4-FOOT SPACING	75
TOTAL		100				977

## PLANTING TABLES

ZONE 2: SEED						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	SEEDS/SQ FT	PURE LIVE SEED (PLS) WEIGHT	PLS LB REQUIRED PER AC	PLS LBS REQUIRED PER PROJECT AREA
ASCLEPIAS INCARNATA	SWAMP MILKWEED	3	4.5	68,100	2.88	2.41
IRIS MISSOURIENSIS	ROCKY MOUNTAIN IRIS	3	4.5	21,000	9.33	7.82
SOLIDAGO CANADENSIS	CANADA GOLDENROD	3	4.5	700,000	0.28	0.23
VERBENA HASTATA	BLUE VERBENA	3	4.5	1,792,800	0.11	0.09
BECKMANNIA SYZIGACHNE	AMERICAN SLOUGHGRASS	5	7.5	1,025,000	0.32	0.27
CALAMAGROSTIS CANADENSIS	BLUEJOINT REEDGRASS	5	7.5	4,114,584	0.08	0.07
DESCHAMPSIA CAESPITOSA	TUFTED HAIRGRASS	15	22.5	1,812,500	0.54	0.45
GLYCERIA GRANDIS	AMERICAN MANNAGRASS	10	15	1,280,000	0.51	0.43
JUNCUS ARCTICUS SSP. LITTORALIS	MOUNTAIN RUSH/ARCTIC RUSH	15	22.5	6,950,000	0.14	0.12
JUNCUS TORREYI	TORREY RUSH	10	15	12,150,000	0.05	0.05
NASELLA VIRIDULA	GREEN NEEDLEGRASS	8	12	152,117	3.44	2.88
POA PALUSTRIS	FOWL BLUEGRASS	20	30	2,078,000	0.63	0.53
TOTAL		100	150		18.31	15.34

ZONE 3: CONTAINERS/CUTTINGS						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	MATERIAL TYPE	CONTAINER SIZE	PLANT SPACING	NUMBER OF PLANTS
ACER GLABRUM	ROCKY MOUNTAIN MAPLE	10	CONTAINER	D-60	6-FOOT SPACING	95
ALNUS INCANA SSP. TENUIFOLIA	THINLEAF ALDER	10	CONTAINER	D-60	6-FOOT SPACING	95
BETULA OCCIDENTALIS	WESTERN RIVER BIRCH	10	CONTAINER	D-60	6-FOOT SPACING	95
CORNUS SERICEA	REDSIER DOGWOOD	3	CONTAINER	D-60	6-FOOT SPACING	29
POPULUS ANGUSTIFOLIA	NARROWLEAF COTTONWOOD	5	CUTTING	60-INCH CUTTING	6-FOOT SPACING	48
POPULUS ANGUSTIFOLIA	NARROWLEAF COTTONWOOD	10	CONTAINER	D-60	6-FOOT SPACING	95
PRUNUS AMERICANA	AMERICAN PLUM	5	CONTAINER	D-60	6-FOOT SPACING	48
PRUNUS VIRGINIANA SSP. MELANOCARPA	CHOKECHERRY	7	CONTAINER	D-60	6-FOOT SPACING	67
RIBES AUREUM	GOLDEN CURRANT	10	CONTAINER	D-60	8-FOOT SPACING	95
SALIX BEBBIANA	BEBB'S WILLOW	5	CONTAINER	D-60	6-FOOT SPACING	48
SALIX DRUMMONDIANA	DRUMMOND'S WILLOW	5	CONTAINER	D-60	6-FOOT SPACING	48
SALIX GEYERIANA	GEYER'S WILLOW	5	CONTAINER	D-60	6-FOOT SPACING	48
SALIX IRRORATA	BLUESTEM WILLOW	5	CONTAINER	D-60	6-FOOT SPACING	48
SALIX LASIANDRA SSP. CAUDATA	WHIPLASH WILLOW	5	CONTAINER	D-60	6-FOOT SPACING	48
SALIX MONTICOLA	ROCKY MOUNTAIN WILLOW	5	CONTAINER	D-60	6-FOOT SPACING	48
TOTAL		100				955

ZONE 3: SEED						
SCIENTIFIC NAME	COMMON NAME	PERCENT OF MIX	SEEDS/SQ FT	PURE LIVE SEED (PLS) WEIGHT	PLS LB REQUIRED PER AC	PLS LBS REQUIRED PER PROJECT AREA
ARTEMISIA LUDOVICIANA	WHITE SAGEBRUSH	3	4.5	4,449,000	0.04	0.05
CLEOME SERRULATA	ROCKY MOUNTAIN BEEPLANT	3	4.5	87,250	2.25	2.68
HELIANTHUS MULTIFLORA	SHOWY GOLDENEYE	3	4.5	566,875	0.35	0.41
HELIANTHUS NUTTALLII	NUTTALL'S SUNFLOWER	3	4.5	217,000	0.9	1.08
SOLIDAGO CANADENSIS	CANADA GOLDENROD	3	4.5	700,000	0.28	0.33
BROMUS MARGINATUS	MOUNTAIN BROME	9	13.5	64,080	9.18	10.93
ELYMUS LANCEOLATUS SSP. LANCEOLATUS	THICKSPIKE WHEATGRASS	15	22.5	155,350	6.31	7.52
ELYMUS CANADENSIS	CANADA WILDRIE	7	10.5	103,000	4.44	5.29
GLYCERIA STRIATA	FOWL MANNAGRASS	7	10.5	170,000	2.69	3.21
JUNCUS ARCTICUS SSP. LITTORALIS	MOUNTAIN RUSH/ARCTIC RUSH	5	7.5	6,950,000	0.05	0.06
MUHLENBERGIA RACEMOSA	MARSH MUHLY	5	7.5	1,608,000	0.2	0.24
NASELLA VIRIDULA	GREEN NEEDLEGRASS	10	15	152,117	4.3	5.12
PASCOPYRON SMITHII	WESTERN WHEATGRASS	15	22.5	133,000	7.37	8.78
POA PALUSTRIS	FOWL BLUEGRASS	15	22.5	2,078,000	0.47	0.56
TOTAL		100	150		38.82	46.25

DRAFT -- NOT FOR CONSTRUCTION

## PLANTING TABLES

FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



5345 Arapahoe Avenue  
 Suite 1B  
 Boulder, Colorado 80303  
 Phone: 303-296-3304  
 Fax: 303-296-3699

326101  
 Project No. Drawing No.

L4.4  
 Sheet No.

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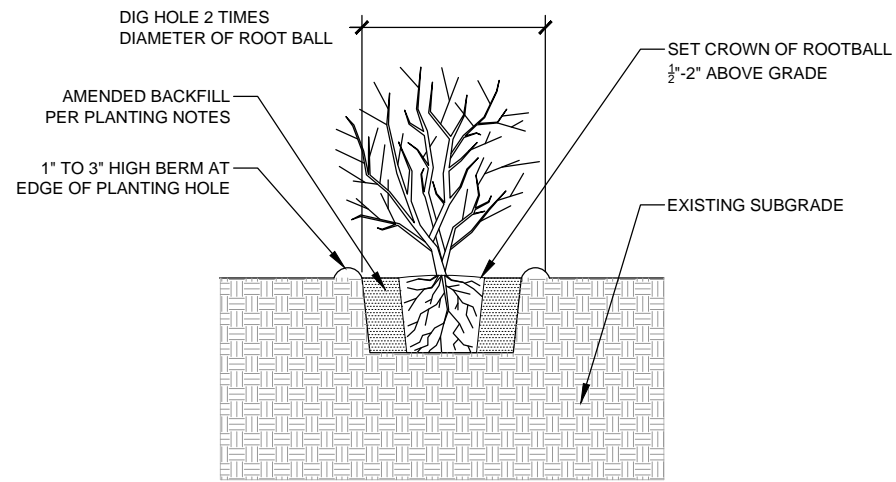
PREPARED FOR:



NO.	DATE	BY	REVISION COMMENTS

Design: JCB  
 Drawn: RBM  
 Checked: JEA  
 Date: 14/19/17  
 Initial Issue Date: ----

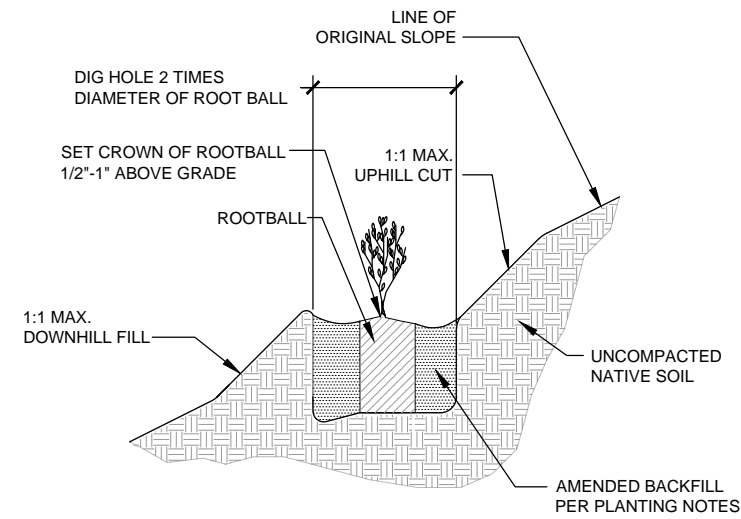
Plotted: Jun 07, 2017 - 9:55am  
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 Layout Name: PLANTING DETAILS



**NOTES:**

1. WATER PREPARED PLANTING HOLES PER THE PLANTING NOTES.
2. PLANT CONTAINERS PER PLANTING NOTES.
3. MULCH THE NEWLY PLANTED AREA WITH WOODSTRAW AT MINIMUM TO THE MANUFACTURER'S RECOMMENDED RATE.

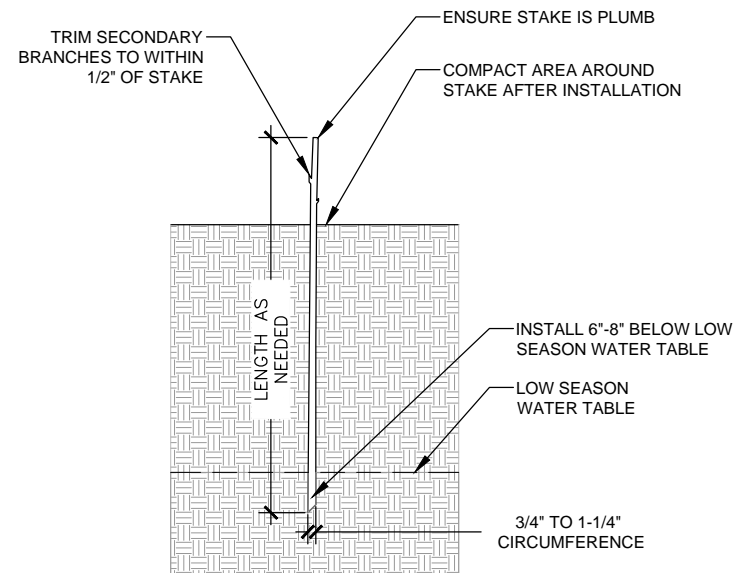
**A** CONTAINER PLANTING  
NTS



**NOTES:**

1. WATER PREPARED PLANTING HOLES PER THE PLANTING NOTES.
2. PLANT CONTAINERS PER PLANTING NOTES.
3. MULCH THE NEWLY PLANTED AREA WITH WOODSTRAW AT MINIMUM TO THE MANUFACTURER'S RECOMMENDED RATE.

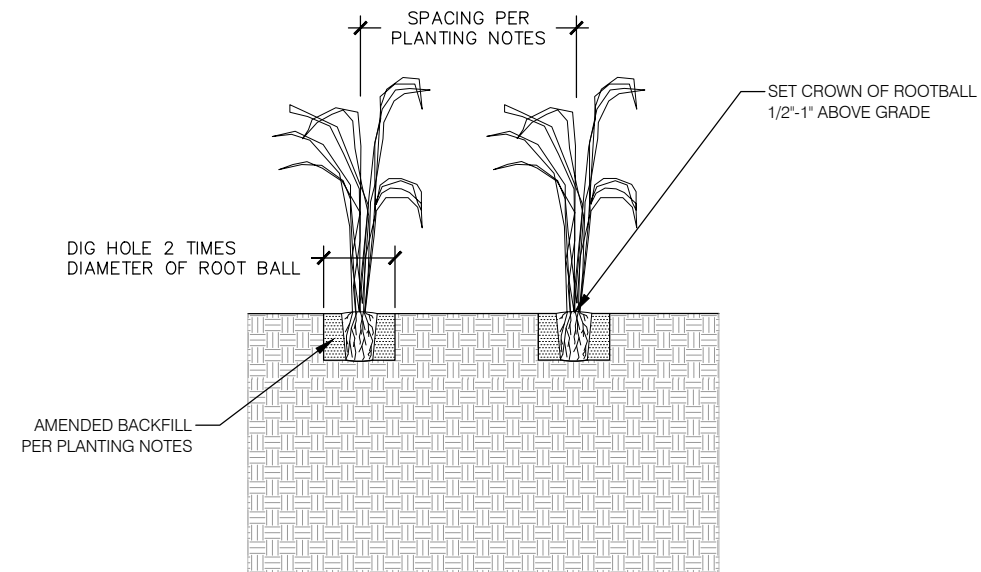
**B** CONTAINER PLANTING ON SLOPE  
NTS



**NOTES:**

1. HARVEST STAKES PER PLANTING NOTES.
2. PLANT IN LATE FALL BUT NOT WHEN GROUND IS FROZEN OR IN EARLY SPRING WHILE STILL DORMANT.
3. PUSH OR USE A RUBBER Mallet TO DRIVE POINTED END OF STAKE INTO GROUND.
4. MULCH THE NEWLY PLANTED AREA WITH WOODSTRAW AT MINIMUM TO THE MANUFACTURER'S RECOMMENDED RATE.

**C** LIVE STAKE INSTALLATION  
NTS



**NOTES:**

1. WATER PREPARED PLANTING HOLES PER THE PLANTING NOTES.
2. PLANT CONTAINERS PER PLANTING NOTES.
3. MULCH THE NEWLY PLANTED AREA WITH WOODSTRAW AT MINIMUM TO THE MANUFACTURER'S RECOMMENDED RATE.

**D** WETLAND PLUG INSTALLATION  
NTS

PLANTING DETAILS

DRAFT -- NOT FOR CONSTRUCTION

**PLANTING DETAILS**  
 FALL RIVER RESTORATION AT ELKHORN REACH  
 FINAL EWP DESIGN PLANSET  
 ESTES PARK, COLORADO



5777 Central Avenue  
 Suite 228  
 Boulder, Colorado 80301  
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32610  
 Project No. Drawing No.  
**L4.5**  
 Sheet No.  
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PREPARED FOR:

NO.	DATE	BY	REVISION COMMENTS

Design: JCB  
 Drawn: RBM  
 Checked: JEA  
 Date: 14/19/17  
 Initial Issue Date: -----



TECHNICAL SPECIFICATIONS  
FOR  
FAWN VALLEY AT FALL RIVER RESTORATION PROJECT  
OTAK PROJECT NO. 032610.I00

GENERAL

This scope of work incorporates by reference the Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction (2011). The Contractor shall use the 2011 CDOT specifications for the subject work, with the following exceptions as amended below and additional Project Special Provisions and Supplemental Specifications.

Per CDOT Section 105.09, in case of a discrepancy the order of precedence is as follows:

- 1) Special Provisions
  - a. Project Special Provisions
  - b. Standard Special Provisions
- 2) Plans
  - a. Detailed Plans
  - b. Standard Plans
- 3) Supplemental Specifications
- 4) Standard Specifications

Per CDOT Section 105.09, “the Contractor shall not take advantage of any apparent error or omission in the Contract. If the Contractor discovers an error or omissions, the Engineer shall immediately be notified. The Engineer will make corrections and interpretations as necessary to fulfill the intent of the Contract.”

**PROJECT SPECIAL PROVISIONS**

REVISION OF SECTION 201 — CLEARING AND GRUBBING .....	3
REVISION OF SECTION 202 — REMOVAL OF STRUCTURES AND OBSTRUCTIONS .....	4
REVISION OF SECTION 203 — EXCAVATION AND EMBANKMENTS .....	5
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REVISION OF SECTION 506 — IN-CHANNEL BOULDER FEATURE.....	11
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REQUIREMENTS OF THE 404 PERMIT AND SB 40 REGARDING PREVENTION OF THE SPREAD OF AQUATIC INVASIVE SPECIES .....	18

REVISION OF SECTION 101 —  
DEFINITIONS AND TERMS

Section 101 of the Standard Specifications is hereby revised for this project as follows:

Delete Subsection 101.29 and replace with the following:

**101.29 Engineer.** The Engineer who designed the project acting directly or through an authorized representative, who is responsible for engineering and administrative supervision of the project.

Add the following definition:

**Ecologist.** The Ecologist who designed the portions of the project relating to vegetation (i.e. Great Ecology) acting directly or through and authorized representative.

**REVISION OF SECTION 201 —  
CLEARING AND GRUBBING**

Section 201 of the Standard Specifications is hereby revised for this project as follows:

**DESCRIPTION**

Subsection 201.01 is replaced with the following:

The work consists of clearing and grubbing(light density) of vegetation and within the limits of grading areas, staging areas, and access routes. Salvageable vegetation may be beneficially reused onsite. Vegetation and objects designated to remain shall be preserved free from injury or defacement, including the limbs and rootwads of large wood. No chipping will be required as all woody material shall be reused onsite or in the vicinity.

**CONSTRUCTION REQUIREMENTS**

Subsection 201.02 shall include the following:

The contractor shall retain, process and stockpile native alluvium encountered during clearing and grubbing for reuse as bank protection (Refer to Revision of Section 506—In-Channel Boulder Features). Processing and management of native alluvium for reuse will be paid for under Section 203.

The Contractor shall remove all trees and stumps designated for removal and beneficial reuse. The Contractor shall place the woody material flagged for beneficial reuse under Engineer direction. This work includes keying-in woody material into the Boulder-Cobble Toe Bank Treatment (Refer to Section 506) at the locations specified in the planset to create the habitat scour pools.

All trees of any size will be designated for reuse. Trees onsite are expected to be relatively small (e.g. young pine, willow, or alder). The limbs and rootwads of large wood material shall remain intact.

The Engineer and/or Ecologist shall flag vegetation that shall not be disturbed before construction begins. The Contractor shall not disturb existing stands of vegetation that have been flagged for protection. The Contractor shall review flagged vegetation stands with the Engineer and/or Ecologist prior to the start of work.

**BASIS OF PAYMENT**

Subsection 201.04 shall include the following:

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Clearing and Grubbing	ACRE

**REVISION OF SECTION 202 —  
REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

Section 202 of the Standard Specifications is hereby revised for this project as follows:

DESCRIPTION

Subsection 202.01 is replaced with the following:

The work consists of the removal of asphalt covering the parking lot at downstream end of project area. Flood debris along the Workshire and Antlers Pointe Condos shall also be removed and hauled away to landfill. Material includes parts of a wooden porch.

CONSTRUCTION REQUIREMENTS

Subsection 202.02 shall include the following:

The project scope includes the removal and disposal of the asphalt covered parking lot located opposite of the Antlers Pointe Condos, as shown in the planset. Other flood debris found in the project area as designated by the Engineer shall be collected and hauled offsite to the landfill.

BASIS OF PAYMENT

Subsection 202.12 shall include the following:

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Trash, Debris, Parking lot asphalt removal to landfill	CY

**REVISION OF SECTION 203 —  
EXCAVATION AND EMBANKMENTS**

Section 203 of the Standard Specifications is hereby revised for this project as follows:

**DESCRIPTION**

Subsection 203.02 shall include the following:

*Unclassified Excavation* This work consists of excavation and fills within the Fall River channel and floodplain. This work includes the processing, sorting, and stockpiling of in-situ material located in the existing river bottom, banks, and floodplain, to be used in later stages of construction to form river features (Section 506– In Channel Boulder/Cobble Feature).

This work also consists of importing and placing riprap for bank protection as shown in the planset.

**CONSTRUCTION REQUIREMENTS**

Subsection 203.04 (General) shall include the following:

Coordination with Kiewit Construction for the proposed haul route is necessary to ensure no negative impacts or delays from road work on US34. Haul site needs to be identified by Contractor and approved by Engineer.

Subsection 203.05 (Excavation) shall include the following:

Final grade cuts and fills shall not be steeper than 1.5: 1. The typical floodplain bench grading dimensions shown in the planset shall be field fit to tie into existing topography at slopes less steep than 3:1 where practicable.

Existing river conditions prior to mass grading shall be carefully documented with photographs or other approved method. All rounded cobbles and boulders suitable for use with In-Channel Boulder Features (as shown on the river plans; see Section 506 (In-Channel Boulder Feature)) shall be removed, processed, and stockpiled as close to the work area as possible. The proposed channel and floodplain shall be formed according to the typical sections and grading contours as shown on the plans.

The Engineer may direct the creation of micro-topography at their discretion to create small-scale stream channel and landscape features not shown on the plan set provided they are in-line with the vision of the project and not time intensive.

The work consists of placing riprap in accordance with the materials and placement specifications for setback riprap described in Section 506 or as modified in these Project Special Provisions. Riprap shall be as part of bank protection treatments as necessary (Refer to Revision to Section 506—Setback Riprap).

**METHOD OF MEASUREMENT**

Subsection 203.13(a) shall include the following:

Channel and floodplain grading is measured by the volume of material excavated in cubic yards. When grading is either partially or entirely complete and Engineer has approved grading, contractor shall estimate the volume (CY) of excavation in a method approved by the Engineer.

Processing, sorting, and stockpiling of river rock material is measured by the volume of material stockpiled in CY, based on field estimates.

**BASIS OF PAYMENT**

Subsection 203.14 shall include the following:

Payment includes the total volume excavated and reshaped into the final dimensions of the channel and floodplain. Payment includes haul away of any excess material to Longmont Area if necessary. Haul away area needs to be identified by Contractor and approved by Engineer. Payment includes the detailed processing, sorting, stripping, stockpiling and replacement of native alluvium as described above.

The work to be paid under pay item *Unclassified Excavation* consists of excavation, hauling, and disposal of excess cut material, including channel and floodplain grading excess material.

The work to be paid under pay item *Stockpile, Stage, and Grade Native Top Soil* includes all labor and equipment to separate native topsoil into stockpiles and stage separately from alluvial fill and other soils. The work also includes placing and grading the native topsoil on floodplain benches as a planting medium for revegetation.

The final compaction level of graded areas shall be consistent with the intent to re-establish vegetation. Final compaction level shall be approved by the Engineer.

<b>Pay Item</b>	<b>Pay Unit</b>
Unclassified Excavation (offsite haul to Longmont)	CY
Unclassified Excavation (Stockpile, Stage, and Grade Native Top Soil)	CY
Unclassified Excavation (Parking Lot)	CY
Riprap Placement	CY
Riprap Import	TN

**REVISION TO SECTION 208 —  
EROSION CONTROL**

**DESCRIPTION**

Subsection 208.01 shall include the following:

The Contractor shall develop a Stormwater Management Plan (SWMP) and obtain a construction stormwater permit and construction dewatering permit from CDPHE as applicable.

Erosion control measures shall be installed and maintained in the locations specified and as described in the SWMP. Erosion control measures will consist of silt fence, erosion control log, or other approved measure.

**CONSTRUCTION REQUIREMENTS**

Subsection 208.06 shall include the following:

Contractor will comply with equipment cleaning protocols to prevent the spread of New Zealand Mud Snails, other aquatic nuisance species (hitchhikers) , and noxious plant species prior to entering the site per requirements of the 404 Permits(details provided at the end of this specifications package).

A spill kit, including absorbent socks and booms, shall be kept onsite during all work with machinery (emergency pollutant isolation and clean-up materials, with procedures). All crew members shall be trained on how to use the spill kit equipment and where the materials are kept onsite. Engineer to approve Contractor plan for leaking equipment extraction from river (spill plan information to be included in SWMP).

Vehicle tracking pads are required to prevent tracking debris on Fish Hatchery Road.

**BASIS OF PAYMENT**

Subsection 208.12 shall include the following:

Erosion Control Management assumes labor only for regular maintenance and inspections as required for erosion and sediment control measures, or approximately 1-2 hours per day on average.

<b>Pay Item</b>	<b>Pay Unit</b>
Erosion Control Management	DAY
Vehicle Tracking Control	LS

**REVISION OF SECTION 212 —  
SEED AND SOIL CONDITIONING**

Section 212 of the Standard Specifications is hereby revised for this project as follows:

The work consists of revegetating areas that have been disturbed as part of floodplain benching, channel grading, debris removal, staging, construction access, or otherwise. This work also includes revegetation that is specified as part of bank stabilization treatments (refer to Revision of Section 506)

**CONSTRUCTION REQUIREMENTS**

Subsection 212.06 shall include the following:

Onsite soil shall be amended with Biocomp/Biosol. Biosol shall be applied and integrated into the top 3 inch layer of soil by raking.

Seed will be applied by broadcast seeding.

**METHOD OF MEASUREMENT**

Section 212.07 shall include:

Payment for Soil Conditioning shall include application and materials.

**BASIS OF PAYMENT**

Subsection 212.08 shall include the following:

<b><u>Pay Item</u></b>	<b><u>Pay Unit</u></b>
Soil Conditioning (Biocomp/Biosol and Verydol) acquisition and installation	ACRE
Zone 1 Seeding (Native) - acquisition, shipping, and installation	ACRE
Zone 2 Seeding (Native) - acquisition, shipping, and installation	ACRE
Zone 3 Seeding (Native) - acquisition, shipping, and installation	ACRE
Zone 4 Seeding (Native) - acquisition, shipping, and installation	ACRE

Payment will be full compensation for all work necessary to furnish seed and complete the work.



**REVISION OF SECTION 213 —  
MULCHING**

Section 213 of the Standard Specifications is hereby revised for this project as follows:

**BASIS OF PAYMENT**

Subsection 213.05 shall include the following:

<b>Pay</b>	<b>Pay Unit</b>
Mulching (Woodstraw)	ACRE

Payment for wood straw mulch will be full compensation for all work and materials necessary to furnish and apply the mulch.

**REVISION OF SECTION 214 —  
PLANTING**

Section 214 of the Standard Specifications is hereby revised for this project as follows:

**DESCRIPTION**

Subsection 214.01 shall include the following:

The work consists of furnishing all plants, labor, materials and equipment and performing all work necessary and incidental to installing live cuttings, container stock, or bank treatments involving vegetation material as indicated in the planset.

**CONSTRUCTION REQUIREMENTS**

Subsection 214.03 shall include the following:

Seed will require watering during construction from installation until demobilization.

**BASIS OF PAYMENT**

Subsection 214.06 shall include the following:

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Willow Cuttings (acquisition, shipping, installation)	EA
Cottonwood Cuttings (acquisition, shipping, installation)	EA
Nursery Stock Deep Rooted Container (10-cubic inch) acquisition, shipping, and installation	EA
Nursery Stock Deep Rooted Container (D-60) acquisition, shipping, and installation	EA
Elk Fencing	LS
Irrigation	LS

**REVISION OF SECTION 506 —  
IN-CHANNEL BOULDER FEATURE**

Section 506 of the Standard Specifications is hereby revised for this project to include the following:

**GENERAL**

Subsection 506.01 shall include the following:

This work includes construction of in-channel boulder features, including bank toe stabilization treatments, within Fall River. Each feature contains a variable number of boulders and rocks from onsite sources. Work includes the selection and placement of approved boulders and cobbles into distinct features as shown on the plans, including:

- a. Sorting and Stockpile Usable Native Boulder/Cobbles on site
- b. Boulder-Cobble Toe (bank stabilization)
- c. Habitat/Channel Forming Native Boulders

Delineations of what constitutes a single “feature” are depicted on the plans. Construction will be limited to areas as shown on the plans or as agreed to by the Engineer.

**MATERIALS**

Subsection 506.02 shall include the following:

Boulders and cobbles for use in-channel features shall be rounded to subrounded, and diameters as specified in the planset (measured on the A-axis). Rocks that make up subgrade materials or other less prominent portions of each feature may be angular (i.e. existing onsite riprap or imported riprap may be used for subgrade materials). Specific details of the boulder and rock materials required for each feature are depicted in the typical details in the plans.

Boulders and rocks for use in the in-channel features shall be selected in the field, and approved by the Engineer.

**CONSTRUCTION REQUIREMENTS**

Subsection 506.03 shall include the following:

Arrangement of boulders within each feature and spacing between channel features will be as shown on the plans and per the Engineer’s direction.

Any dewatering required during construction shall follow the approved construction dewatering permit requirements and/or water control plan.

Materials generated by onsite processing and sorting will be paid for under this section. Imported materials will be paid for under separate line items. Installation costs are considered separately.

Revegetate the bank per the specifications of the planting plan. The Planting Plan overrides the vegetation information shown on the Boulder-Cobble Toe detail in the planset.

**METHOD OF MEASUREMENT**

Subsection 506.04 shall include the following:

Construction of the In-Channel Boulder Features will be measured by each feature, constructed and completed in place.

**BASIS OF PAYMENT**

Subsection 506.05 shall include the following:

The accepted quantities will be paid for at the contract unit price for each feature. Pay items indicated as “Installation Only” include only labor and equipment. Materials are paid under separate pay items.

<b>Pay Item</b>	<b>Pay Unit</b>
Boulder-Cobble Toe (Installation Only)	Linear Foot
Boulder-Cobble Toe (Material Import)	TN
Habitat Boulders (Installation Only)	Each
Sorting and Stockpile Usable Native Boulder/Cobble on site	TN

Vegetation associated with each feature will be paid for under Sections 212-214.

**REVISION OF SECTION 506 —  
SETBACK RIPRAP PROTECTION**

**DESCRIPTION**

Subsection 506.01 shall include the following:

The work consists of placing buried riprap in accordance with the materials and placement specifications for riprap described in Section 506 or as modified in these Project Special Provisions. Buried riprap shall be used to construct offset protection features and as part of bank protection treatments as necessary (Refer to Revision to Section 506—In-Channel Boulder Features). This item does not include procurement of materials.

**MATERIALS**

Subsection 506.02 shall include the following:

Either angular riprap or rounded river rock found on-site is acceptable for the offset protection treatment. Angular riprap is preferred due to its interlocking properties and will be imported if quantities of onsite river rock are fully expended for instream work and therefore not available for the offset protection. Riprap import will be included as a bid alternative during the construction bidding phase and bid pricing received, along with quantity refinements during construction, which will help guide the decision to import riprap or use onsite materials.

The gradation of imported riprap used bank protection treatments shall be CDOT 12” as described in the Standard Specifications.

The gradation of imported riprap used for offset protection treatments shall be CDOT 12” as described in the Standard Specifications. CDOT 18” is also acceptable at these locations.

**CONSTRUCTION REQUIREMENTS**

Subsection 506.03 shall include the following:

The maximum slope for riprap or rock placement for offset protection features is 1.5:1. A slope of 2:1 or flatter is preferred where space allows or where available material size dictates a flatter slope.

Excavated slopes to install the Steback Protection treatment (Part of Item 203) shall not exceed 1:1.

**BASIS OF PAYMENT**

Subsection 506.05 shall include the following:

<u>Pay Item</u>	<u>Pay Unit</u>
Setback Riprap Placement (Installation Only)	CY
Setback Riprap Import (12 Inch)	CY

**REVISION OF SECTION 625 —  
CONSTRUCTION LAYOUT AND SURVEYING**

DESCRIPTION

Subsection 625.01 shall include the following:

The work consists of pre-construction surveying and layout, an As-Built survey, and utility locating.

CONSTRUCTION REQUIREMENTS

Subsection 625.03 shall include the following:

A pre-construction survey shall be conducted to mark the limits of grading and location of proposed in-stream features as indicated in the construction planset.

A post-construction survey shall be conducted to survey the final stations, elevations, and dimensions of constructed in-channel features and bench grading, at a minimum.

Prior to mobilization of construction equipment, Ecologists on the EWP team shall field flag critical stands of existing vegetation which are not to be disturbed. The Engineer shall review flagged areas with the Contractor prior to initiation of construction activities. Construction equipment shall not be mobilized before the Contractor has reviewed the flagged vegetation with the Engineer.

The Contractor shall be responsible for coordinating with local Utility owners (i.e. Colorado811) and conducting a private utility survey to locate utilities on-site.

**REVISION OF SECTION 626 —  
MOBILIZATION AND DEMOBILIZATION**

DESCRIPTION

Subsection 626.01 shall include the following:

The contractor shall establish a staging area in the area indicated on the plans. The grading associated with creating this staging area is described in Section 203 and the revegetation after demobilization for this area is described in Section 212-214.) The Contractor shall use BMPs to best protect the floodplain area per Section 208. The Contractor shall restore any areas disturbed by staging that are outside the proposed grading as shown on the plans to pre-disturbance grade and native revegetation (e.g. native seeding).



**REVISION OF SECTION 630 —  
CONSTRUCTION ZONE TRAFFIC CONTROL**

DESCRIPTION

Subsection 630.01 shall include the following:

This work consists of developing and implementing a traffic control/management plan (TCP).

The traffic control/management plan shall include the following items:

- (1) Flaggers and/or other traffic control measures must be used at the intersections of the access points Fish Hatchery Road during hauling operations.
- (2) Locations and types of warning signs along the roads shall be shown.
- (3) The applicant must use vehicle tracking to minimize the amount of rocks, mud, and other debris tracked onto Fish Hatchery Road.
- (4) The applicant must provide a sweeping plan for the affected portion of Fish Hatchery Road if sweeping becomes necessary.
- (5) Prior to project commencement, the applicant must photo-document the conditions of all Town of Estes roads used for hauling. The applicant must restore all affected roadways to pre-project conditions or better.

The Contractor shall obtain Oversize/Overweight permits from CDOT if applicable.

**REQUIREMENTS OF THE 404 PERMIT AND SB 40  
REGARDING PREVENTION OF THE SPREAD OF AQUATIC INVASIVE SPECIES**

Equipment and gear that were previously used in another stream, river, lake, pond or wetland, and that are to be used in or near the waters on the project, shall be treated to prevent the spread of aquatic invasive species. These species include, but are not limited to:

- (1) Eurasian watermilfoil
- (2) Zebra mussel
- (3) Quagga mussel
- (4) New Zealand mudsnail

Equipment that shall be treated includes all parts of machinery and vehicles of all types and sizes that came into contact with the live water.

Gear that must be treated includes boots, waders, hand tools, and all other materials and attire used previously in the live water.

The Contractor shall use one of the following two treatments:

- Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.)
- Spray/soak equipment with a solution of commercial grade quaternary ammonium disinfectant compound containing at least 8.0% active ingredient diluted in solution to achieve at least 0.8% concentration (roughly 12 ounces of product per gallon of water). Specifically, a 1:15 solution of Quat 4 or Super HDQ Neutral institutional cleaner and water, could be used for effective treatment.
- Treated equipment should be kept moist for at least 10 minutes, managing rinsate as a solid waste in accordance with local, county, state, or federal regulations

or

- Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.)
- Spray/soak equipment with water hotter than 140 degrees Fahrenheit for at least 10 minutes.
  
- Do not move water from one water body to another
- Be sure Equipment is dry before use.

Prior to moving such equipment onto the project, the Contractor shall submit to the Engineer a written list of the equipment and a signed certification that it was treated using one of the two methods specified above.

After project completion, this equipment shall be treated prior to its use in another stream, river, lake, pond or wetland.

TECHNICAL SPECIFICATIONS  
FOR  
ELKHORN AT FALL RIVER RESTORATION PROJECT  
OTAK PROJECT NO. 032610.I00

GENERAL

This scope of work incorporates by reference the Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction (2011). The Contractor shall use the 2011 CDOT specifications for the subject work, with the following exceptions as amended below and additional Project Special Provisions and Supplemental Specifications.

Per CDOT Section 105.09, in case of a discrepancy the order of precedence is as follows:

- 1) Special Provisions
  - a. Project Special Provisions
  - b. Standard Special Provisions
- 2) Plans
  - a. Detailed Plans
  - b. Standard Plans
- 3) Supplemental Specifications
- 4) Standard Specifications

Per CDOT Section 105.09, “the Contractor shall not take advantage of any apparent error or omission in the Contract. If the Contractor discovers an error or omissions, the Engineer shall immediately be notified. The Engineer will make corrections and interpretations as necessary to fulfill the intent of the Contract.”

**PROJECT SPECIAL PROVISIONS**

REVISION OF SECTION 201 — CLEARING AND GRUBBING ..... 3

REVISION OF SECTION 202 — REMOVAL OF STRUCTURES AND OBSTRUCTIONS ..... 4

REVISION OF SECTION 203 — EXCAVATION AND EMBANKMENTS ..... 5

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REVISION OF SECTION 101 —  
DEFINITIONS AND TERMS

Section 101 of the Standard Specifications is hereby revised for this project as follows:

Delete Subsection 101.29 and replace with the following:

**101.29 Engineer.** The Engineer who designed the project acting directly or through an authorized representative, who is responsible for engineering and administrative supervision of the project.

Add the following definition:

**Ecologist.** The Ecologist who designed the portions of the project relating to vegetation (i.e. Great Ecology) acting directly or through an authorized representative.

**REVISION OF SECTION 201 —  
CLEARING AND GRUBBING**

Section 201 of the Standard Specifications is hereby revised for this project as follows:

**DESCRIPTION**

Subsection 201.01 is replaced with the following:

The work consists of clearing and grubbing(light density) of vegetation and within the limits of grading areas, staging areas, and access routes. Salvageable vegetation may be beneficially reused onsite. Vegetation and objects designated to remain shall be preserved free from injury or defacement, including the limbs and rootwads of large wood. No chipping will be required as all woody material shall be reused onsite or in the vicinity.

**CONSTRUCTION REQUIREMENTS**

Subsection 201.02 shall include the following:

The contractor shall retain, process and stockpile native alluvium encountered during clearing and grubbing for reuse as bed material, riffle crests and riffles, and bank protection (Refer to Revision of Section 506—In-Channel Boulder Features). Processing and management of native alluvium for reuse will be paid for under Section 203.

The Contractor shall remove all trees and stumps designated for removal and beneficial reuse. The Contractor shall place the woody material flagged for beneficial reuse under Engineer direction. This work includes keying-in woody material (preferably on-site dead willows) into the Boulder-Cobble Toe Bank Treatment (Refer to Section 506) at the locations specified in the planset to create the habitat scour pools.

All trees of any size will be designated for reuse. Trees onsite are expected to be relatively small (e.g. willow or alder). The limbs and rootwads of large wood material shall remain intact.

The Engineer and/or Ecologist shall flag vegetation that shall not be disturbed before construction begins. The Contractor shall not disturb existing stands of vegetation that have been flagged for protection. The Contractor shall review flagged vegetation stands with the Engineer and/or Ecologist prior to the start of work.

**BASIS OF PAYMENT**

Subsection 201.04 shall include the following:

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Clearing and Grubbing	ACRE

**REVISION OF SECTION 202 —  
REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

Section 202 of the Standard Specifications is hereby revised for this project as follows:

DESCRIPTION

Subsection 202.01 is replaced with the following:

The work consists of the removal of an existing barn frame and hay storage structure which will be hauled to a nearby area on-site. The barn has fallen down and has had some of the siding removed and hauled away. The hay structure is standing intact and may have concrete flooring buried by flood deposit which will also need to be removed. This will be paid through bid alternate if necessary.

CONSTRUCTION REQUIREMENTS

Subsection 202.02 shall include the following:

The contractor shall remove barn and hay storage material to site nearby. Material designated as salvageable by landowner shall be removed first and place on-site at direction of Engineer. Final haul site for barn and hay storage deemed not reusable will be discussed with landowner and confirmed by the Engineer in the field.

BASIS OF PAYMENT

Subsection 202.12 shall include the following:

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Hay Storage Structure demolition and removal to nearby area on-site	LS
Barn Frame removal to nearby area on-site	LS

**REVISION OF SECTION 203 —  
EXCAVATION AND EMBANKMENTS**

Section 203 of the Standard Specifications is hereby revised for this project as follows:

**DESCRIPTION**

Subsection 203.02 shall include the following:

*Unclassified Excavation* This work consists of excavation and fills within the Fall River channel and floodplain. This work includes the processing, sorting, and stockpiling of in-situ material located in the existing river bottom, banks, and floodplain, to be used in later stages of construction to form river features (Section 506– In Channel Boulder Feature) or as bed material in the proposed channel.

**CONSTRUCTION REQUIREMENTS**

Subsection 203.04 (General) shall include the following:

Coordination with Kiewit Construction for the proposed haul route is necessary to ensure no negative impacts or delays from road work on US34.

Subsection 203.05 (Excavation) shall include the following:

Final grade cuts and fills shall not be steeper than 1.5: 1. The typical floodplain bench grading dimensions shown in the planset shall be field fit to tie into existing topography at slopes less steep than 3:1 where practicable.

Existing river conditions prior to mass grading shall be carefully documented with photographs or other approved method. All rounded cobbles and boulders suitable for use with In-Channel Boulder Features (as shown on the river plans; see Section 506 (In-Channel Boulder Feature)) shall be removed, processed, and stockpiled as close to the work area as possible. In addition, any alluvial material encountered during floodplain or channel grading suitable for reuse as bed material shall be processed and reused as such to form the bed of the realigned main channel. The proposed channel and floodplain shall be formed according to the typical sections and grading contours as shown on the plans.

The Engineer may direct the creation of micro-topography at their discretion to create small-scale stream channel and landscape features not shown on the plan set provided they are in-line with the vision of the project and not time intensive.

**METHOD OF MEASUREMENT**

Subsection 203.13(a) shall include the following:

Channel and floodplain grading is measured by the volume of material excavated in cubic yards. When grading is either partially or entirely complete and Engineer has approved grading, contractor shall estimate the volume (CY) of excavation in a method approved by the Engineer.

Processing, sorting, and stockpiling of river rock material is measured by the volume of material stockpiled in CY, based on field estimates.

**BASIS OF PAYMENT**

Subsection 203.14 shall include the following:

Payment includes the total volume excavated and reshaped into the final dimensions of the channel and floodplain. Payment includes haul away of any excess material to Longmont Area if necessary. Haul away area needs to be identified by Contractor and approved by Engineer. Payment includes the detailed processing, sorting, stripping, stockpiling and replacement of native alluvium as described above.

The work to be paid under pay item *Unclassified Excavation* consists of excavation, hauling, and disposal of excess cut material, including channel and floodplain grading excess material.

The work to be paid under pay item *Unclassified Excavation (Complete in Place)* consists of excavation, placement, and compaction of material to be handled as part of channel rough grading and floodplain grading. This includes placing material on the existing riprap embankment as specified in the planset to cover the riprap and allow the area to be planted.

The work to be paid under pay item *Stockpile, Stage, and Grade Native Top Soil* includes all labor and equipment to separate native topsoil into stockpiles and stage separately from alluvial fill and other soils. The work also includes placing and grading the native topsoil on floodplain benches as a planting medium for revegetation.

The work to be paid under *Unclassified Excavation (Process/Sort/Stockpile Usable Native Alluvium)* consists of selectively removing, processing, sorting, and stockpiling native alluvium suitable for reuse in In-Channel Boulder Features (refer to Revision of Section 506) or as channel bed material as specified in the planset.

The final compaction level of graded areas shall be consistent with the intent to re-establish vegetation. Final compaction level shall be approved by the Engineer.

Pay Item	Pay Unit
Unclassified Excavation	CY
Unclassified Excavation (Complete in Place)	CY
Unclassified Excavation (Stockpile, Stage, and Grade Native Top Soil)	CY
Unclassified Excavation (Process/Sort/Stockpile Usable Native Alluvium)	CY



**REVISION OF SECTION 203 —  
UNCLASSIFIED EXCAVATION (FINE CHANNEL GRADING)**

Section 203 of the Standard Specifications is hereby revised for this project to include the following:

DESCRIPTION

Subsection 203.02 shall include the following:

*Unclassified Excavation (Fine Channel Grading)*. This work consists of the final excavation and fills (shaping) of the reconstructed or rehabilitated Fall River channel bottom as shown on the plans, after other mass grading has been completed (see Revision of Section 203 Excavation and Embankments (Unclassified Excavation)).

The work includes of fine grading to create riffles, pools, and a low flow channel at the locations and with the typical dimensions indicated on the planset. The Engineer may provide additional direction in the field on the location and dimensions of these channel features. Per the Revision of Section 203 (Unclassified Excavation), the Engineer may direct the creation of micro-topography at their discretion to create small-scale stream channel and landscape features not shown on the plan set. Completion of the River Rehabilitation Implementation Plan is part of this work.

CONSTRUCTION REQUIREMENT

Subsection 203.05 shall include the following:

*Unclassified Excavation (Channel Grading)*. Channel Grading is performed in multiple steps; the first steps are described in Revision of Section 203 (Unclassified Excavation). After that mass grading surface is prepared, excavation will then occur in the bottom of the final multi-stage channel which was prepared as part of mass grading. The channel bottom will be reshaped by excavating 12” or greater (typical) deep pools, as shown on the plans. This excavated material will then be placed and graded into slightly elevated areas adjacent to the low flow channel as directed by the Engineer. The placed material is then track packed. This process is repeated until design depths and shapes are achieved. This work is followed by (or concurrent) with the placement of boulder features (separate pay item) with the initially harvested materials (rounded cobbles and boulders as shown on the river plans). Most of this work is performed by utilizing an excavator equipped with a thumb and assisted by a second excavator, loader, tracked skid steer, or small dozer. Graded channel elements shall be inspected and approved by the Engineer. Contractor shall confirm existing conditions represent design plans prior to all road revetment and mass grading activity.

Where practicable, fine grading in run sections shall consist of moving river cobbles from the thalweg (as identified by the Engineer) across the channel to enhance the existing low-flow channel shape without extensive disturbance to the bed.

The intent of the proposed channel profile as shown in the planset is to create pool-riffle-run sequences to achieve a bed slope that matches the calculated equilibrium bed slope for each reach while minimizing disturbance to the bed. The specific location of certain riffle crests and pool tail-outs may be adjusted under the supervision of the Engineer to better match existing conditions and minimize bed disturbance if

field conditions differ from the existing conditions shown in the planset. In particular, profile changes in critical areas near bends or structures must be approved by the Engineer.

Bed material cut during fine channel grading shall be used as the fill for areas in the channel requiring alluvial fill.

The Contractor shall submit a River Rehabilitation Implementation Plan (narrative and plan view drawings at 1"=50' scale with aerial photo backdrop) which details the proposed methods, equipment, and locations of all thalweg and pool excavations and the adjacent placement of excavated materials. The implementation plan shall be approved by the Engineer prior to start of river rehabilitation work.

#### METHOD OF MEASUREMENT

Subsection 203.13(a) shall include the following:

Unclassified Excavation (Fine Channel Grading). Channel grading is measured by the cubic yard volume of material excavated for the low flow channel and pool excavations and cut or fill required for minor slope adjustments and general channel shaping. This will not be measured in the field, but will be by plan quantity.

#### BASIS OF PAYMENT

Subsection 203.14 shall include the following:

Payment includes the excavation of the low flow channel and pools, and the subsequent placement of excavated material into areas requiring alluvial fill in the vicinity of the excavations, to shape the overall low flow channel, based on plan quantity. The completion of the River Rehabilitation Implementation Plan is included in this work.

<b>Pay Item</b>	<b>Pay Unit</b>
Unclassified Excavation (Fine Channel Grading, Complete in Place)	CY

**REVISION TO SECTION 208 —  
EROSION CONTROL**

DESCRIPTION

Subsection 208.01 shall include the following:

The Contractor shall develop a Stormwater Management Plan (SWMP) and obtain a construction stormwater permit and construction dewatering permit from CDPHE as applicable.

Erosion control measures shall be installed and maintained in the locations specified and as described in the SWMP. Erosion control measures will consist of silt fence, erosion control log, or other approved measure.

**CONSTRUCTION REQUIREMENTS**

Subsection 208.06 shall include the following:

Contractor will comply with equipment cleaning protocols to prevent the spread of New Zealand Mud Snails, other aquatic nuisance species (hitchhikers) , and noxious plant species prior to entering the site per requirements of the 404 Permits(details provided at the end of this specifications package).

A spill kit, including absorbent socks and booms, shall be kept onsite during all work with machinery (emergency pollutant isolation and clean-up materials, with procedures). All crew members shall be trained on how to use the spill kit equipment and where the materials are kept onsite. Engineer to approve Contractor plan for leaking equipment extraction from river (spill plan information to be included in SWMP).

Vehicle tracking pads are required to prevent tracking debris on W. Elkhorn Road.

**BASIS OF PAYMENT**

Subsection 208.12 shall include the following:

Erosion Control Management assumes labor only for regular maintenance and inspections as required for erosion and sediment control measures, or approximately 1-2 hours per day on average.

<b>Pay Item</b>	<b>Pay Unit</b>
Erosion Control Log (9 inch)	LF
Erosion Control Management	DAY
Vehicle Tracking Control	LS

**REVISION OF SECTION 212 —  
SEED AND SOIL CONDITIONING**

Section 212 of the Standard Specifications is hereby revised for this project as follows:

The work consists of revegetating areas that have been disturbed as part of floodplain benching, channel grading, debris removal, staging, construction access, or otherwise. This work also includes revegetation that is specified as part of bank stabilization treatments (refer to Revision of Section 506)

**CONSTRUCTION REQUIREMENTS**

Subsection 212.06 shall include the following:

Onsite soil shall be amended with Biocomp/Biosol. Biosol shall be applied and integrated into the top 3 inch layer of soil by raking.

Seed will be applied by broadcast seeding.

**METHOD OF MEASUREMENT**

Section 212.07 shall include:

Payment for Soil Conditioning shall include application and materials.

**BASIS OF PAYMENT**

Subsection 212.08 shall include the following:

<b><u>Pay Item</u></b>	<b><u>Pay Unit</u></b>
Soil Amendments (acquisition and installation)	ACRE
Seeding (Native) (acquisition)	ACRE
Seeding (Native) (shipping)	ACRE
Seeding (Native) (installation, broadcast seeding)	ACRE

Payment will be full compensation for all work necessary to furnish seed and complete the work.

**REVISION OF SECTION 213 —  
MULCHING**

Section 213 of the Standard Specifications is hereby revised for this project as follows:

**BASIS OF PAYMENT**

Subsection 213.05 shall include the following:

<b>Pay</b>	<b>Pay Unit</b>
Mulching (Woodstraw)	LS

Payment for wood straw mulch will be full compensation for all work and materials necessary to furnish and apply the mulch.

**REVISION OF SECTION 214 —  
PLANTING**

Section 214 of the Standard Specifications is hereby revised for this project as follows:

**DESCRIPTION**

Subsection 214.01 shall include the following:

The work consists of furnishing all plants, labor, materials and equipment and performing all work necessary and incidental to installing live cuttings, container stock, or bank treatments involving vegetation material as indicated in the planset.

**CONSTRUCTION REQUIREMENTS**

Subsection 214.03 shall include the following:

Seed will require watering during construction from installation until demobilization.

One of the specified evergreen trees will be placed as specified in the planset as a “memorial tree.”

**BASIS OF PAYMENT**

Subsection 214.06 shall include the following:

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Willow Cuttings (48-inch cuttings) acquisition, shipping, and installation	EA
Cottonwood Cuttings acquisition, shipping, and installation	EA
Nursery Stock Deep Rooted Container (10-cubic inch) acquisition, shipping, and installation	EA
Nursery Stock Deep Rooted Container (D-60) acquisition, shipping, and installation	EA
Plant Protection Fence (Elk Fencing)	LF
Irrigation	LS

**REVISION OF SECTION 506 —  
IN-CHANNEL BOULDER FEATURE**

Section 506 of the Standard Specifications is hereby revised for this project to include the following:

**GENERAL**

Subsection 506.01 shall include the following:

This work includes construction of in-channel boulder features, including bank toe stabilization treatments, within Fall River. Each feature contains a variable number of boulders and rocks from onsite sources. Work includes the selection and placement of approved boulders and cobbles into distinct features as shown on the plans, including:

- a. Riffle Crests
- b. Boulder-Cobble Toe (bank stabilization)
- c. Habitat Boulders

\*Dependent on the amount of material sourced on-site for riffle crests, boulder-cobble toe, and for the newly aligned channel bed, extra material import will be considered a bid alternative. Placement of imported habitat boulders will be considered as an alternative bid item.

Delineations of what constitutes a single “feature” is depicted on the plans. Construction will be limited to areas as shown on the plans or as agreed to by the Engineer.

**MATERIALS**

Subsection 506.02 shall include the following:

Boulders and cobbles for use in-channel features shall be rounded to subrounded, and diameters as specified in the planset (measured on the B-axis). Rocks that make up subgrade materials or other less prominent portions of each feature may be angular (i.e. existing onsite riprap or imported riprap may be used for subgrade materials). Specific details of the boulder and rock materials required for each feature are depicted in the typical details in the plans.

Boulders and rocks for use in the in-channel features shall be selected in the field, and approved by the Engineer.

**CONSTRUCTION REQUIREMENTS**

Subsection 506.03 shall include the following:

Arrangement of boulders within each feature and spacing between channel features will be as shown on the plans and per the Engineer’s direction.

Any dewatering required during construction shall follow the approved construction dewatering permit requirements and/or water control plan.

Materials generated by onsite processing and sorting will be paid for under Section 203. Imported materials will be paid for under separate line items. Installation costs are considered separately.

Revegetate the bank per the specifications of the planting plan. The Planting Plan overrides the vegetation information shown on the Boulder-Cobble Toe detail in the planset.

### **METHOD OF MEASUREMENT**

Subsection 506.04 shall include the following:

Construction of the In-Channel Boulder Features will be measured by each feature, constructed and completed in place. Excavations for pools that correspond to some features shall be measured separately (Section 203—Unclassified Excavation, Fine Channel Grading).

### **BASIS OF PAYMENT**

Subsection 506.05 shall include the following:

The accepted quantities will be paid for at the contract unit price for each feature. Pay items indicated as “Installation Only” include only labor and equipment. Materials are paid under separate pay items.

<b>Pay Item</b>	<b>Pay Unit</b>
Riffle Crest (Installation Only)	Each
Boulder-Cobble Toe (Installation Only)	Linear Foot
Riffle Crest/Boulder-Cobble Toe (Material Import)	TN
Habitat Boulders (CIP)	Each
Import Bed Material	TN
Import Boulder/cobbles	

Excavations for pools that correspond to features above shall be paid for under Section 203.

Processing, sorting, and stockpiling of onsite boulder and cobble materials to be used as materials for each feature will be paid for under Section 203.

Vegetation associated with each feature will be paid for under Sections 212-214.



**REVISION OF SECTION 625 —  
CONSTRUCTION LAYOUT AND SURVEYING**

DESCRIPTION

Subsection 625.01 shall include the following:

The work consists of pre-construction surveying and layout, an As-Built survey, and utility locating.

CONSTRUCTION REQUIREMENTS

Subsection 625.03 shall include the following:

A pre-construction survey shall be conducted to mark the limits of grading and location of proposed in-stream features as indicated in the construction planset.

A post-construction survey shall be conducted to survey the final stations, elevations, and dimensions of constructed in-channel features and bench grading, at a minimum.

Prior to mobilization of construction equipment, Ecologists on the EWP team shall field flag critical stands of existing vegetation which are not to be disturbed. The Engineer shall review flagged areas with the Contractor prior to initiation of construction activities. Construction equipment shall not be mobilized before the Contractor has reviewed the flagged vegetation with the Engineer.

The Contractor shall be responsible for coordinating with local Utility owners (i.e. Colorado811) and conducting a private utility survey to locate utilities on-site.

**REVISION OF SECTION 626 —  
MOBILIZATION AND DEMOBILIZATION**

DESCRIPTION

Subsection 626.01 shall include the following:

The contractor shall establish a staging area in the area indicated on the plans. The grading associated with creating this staging area is described in Section 203 and the revegetation after demobilization for this area is described in Section 212-214.) The Contractor shall use BMPs to best protect the floodplain area per Section 208. The Contractor shall restore any areas disturbed by staging that are outside the proposed grading as shown on the plans to pre-disturbance grade and native revegetation (e.g. native seeding).

**REVISION OF SECTION 630 —  
CONSTRUCTION ZONE TRAFFIC CONTROL**

DESCRIPTION

Subsection 630.01 shall include the following:

This work consists of developing and implementing a traffic control/management plan (TCP).

The traffic control/management plan shall include the following items:

- (1) Flaggers and/or other traffic control measures must be used at the intersections of the access points on W. Elkhorn Ave during hauling operations.
- (2) Locations and types of warning signs along the roads shall be shown.
- (3) The applicant must use vehicle tracking to minimize the amount of rocks, mud, and other debris tracked onto W. Elkhorn Ave.
- (4) The applicant must provide a sweeping plan for the affected portion of W. Elkhorn Ave if sweeping becomes necessary.
- (5) Prior to project commencement, the applicant must photo-document the conditions of all Town of Estes roads used for hauling. The applicant must restore all affected roadways to pre-project conditions or better.

The Contractor shall obtain Oversize/Overweight permits from CDOT if applicable.

**REQUIREMENTS OF THE 404 PERMIT AND SB 40  
REGARDING PREVENTION OF THE SPREAD OF AQUATIC INVASIVE SPECIES**

Equipment and gear that were previously used in another stream, river, lake, pond or wetland, and that are to be used in or near the waters on the project, shall be treated to prevent the spread of aquatic invasive species. These species include, but are not limited to:

- (1) Eurasian watermilfoil
- (2) Zebra mussel
- (3) Quagga mussel
- (4) New Zealand mudsnail

Equipment that shall be treated includes all parts of machinery and vehicles of all types and sizes that came into contact with the live water.

Gear that must be treated includes boots, waders, hand tools, and all other materials and attire used previously in the live water.

The Contractor shall use one of the following two treatments:

- Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.)
- Spray/soak equipment with a solution of commercial grade quaternary ammonium disinfectant compound containing at least 8.0% active ingredient diluted in solution to achieve at least 0.8% concentration (roughly 12 ounces of product per gallon of water). Specifically, a 1:15 solution of Quat 4 or Super HDQ Neutral institutional cleaner and water, could be used for effective treatment.
- Treated equipment should be kept moist for at least 10 minutes, managing rinsate as a solid waste in accordance with local, county, state, or federal regulations

or

- Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.)
- Spray/soak equipment with water hotter than 140 degrees Fahrenheit for at least 10 minutes.
  
- Do not move water from one water body to another
- Be sure Equipment is dry before use.

Prior to moving such equipment onto the project, the Contractor shall submit to the Engineer a written list of the equipment and a signed certification that it was treated using one of the two methods specified above.

After project completion, this equipment shall be treated prior to its use in another stream, river, lake, pond or wetland.

**PERIODIC ESTIMATE FOR PARTIAL PAYMENT  
SUMMARY AND APPROVALS**



PERIODIC ESTIMATE NO. # - PERIOD XXXX, 2017 THROUGH XXXXXX, 2017

**ORIGINAL CONTRACT WORK**

Bid Item (1)	Description (2)	ORIGINAL CONTRACT WORK				THIS PAY PERIOD		COMPLETED TO DATE		
		Quantity (3)	Pay Unit (4)	Unit Price (5)	Total Cost (6)	Quantity (7)	Total Cost (8)	Quantity (9)	Total Cost (10)	Percent Complete (11)
<b>TASK 1 - REMOVALS AND RELOCATIONS</b>										
1	Clearing and Grubbing	1	ACRE	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
2	Trash, Debris, Parking lot asphalt removal to landfill	12	CY	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>					<b>\$0.00</b>		<b>\$0.00</b>		<b>\$0.00</b>	<b>#DIV/0!</b>
<b>TASK 2 - EARTHWORK AND GRADING</b>										
3	Unclassified Excavation - offsite haul to Longmont Area	1173	CY	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
4	Unclassified Excavation - Parking Lot	682	CY	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
5	Riprap Placement	282	CY	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
6	Riprap - Import	564	CY	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
7	Stockpile, Stage and Grade Native Toplayer of Onsite Soil	570	CY	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>					<b>\$0.00</b>		<b>\$0.00</b>		<b>\$0.00</b>	<b>#DIV/0!</b>

<b>TASK 3 - EROSION CONTROL</b>										
8	Erosion Control Management	25	DAY	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
9	Vehicle Tracking Control (VTC)	1	LS	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>					<b>\$0.00</b>		<b>\$0.00</b>		<b>\$0.00</b>	<b>#DIV/0!</b>

<b>TASK 4 - CHANNEL WORK AND STABILIZATION</b>										
10	Setback Riprap - Installation only	411	TN	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
11	Sorting and Stockpile Usable Native Boulder/Cobbles on site	393	TN	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
12	Habitat/Channel Forming Native Boulders - Installation only	393	TN	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
13	Setback Riprap - Import	238	TN	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
14	Boulder Cobble Toe - Import	185	TN	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
15	Boulder Cobble Toe - Installation	277	LF	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!

**PERIODIC ESTIMATE FOR PARTIAL PAYMENT  
SUMMARY AND APPROVALS**



PERIODIC ESTIMATE NO. # - PERIOD XXXX, 2017 THROUGH XXXXXX, 2017

**ORIGINAL CONTRACT WORK**

Bid Item	Description	ORIGINAL CONTRACT WORK				THIS PAY PERIOD		COMPLETED TO DATE		
		Quantity	Pay Unit	Unit Price	Total Cost	Quantity	Total Cost	Quantity	Total Cost	Percent Complete
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>					<b>\$0.00</b>		<b>\$0.00</b>		<b>\$0.00</b>	<b>#DIV/0!</b>
<b>TASK 5 - REVEGETATION</b>										
16	Willow Cuttings (48-inch cuttings) acquisition, shipping, and installation	2814	EACH	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
17	Nursery Stock Deep Rooted Container (10-cubic inch) acquisition, shipping, and installation	318.00	EACH	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
18	Nursery Stock Deep Rooted Container (D-60) acquisition, shipping, and installation	209.00	EACH	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
19	Soil Conditioning (Biocomp/Biosol and Verydol) acquisition and installation	0.40	ACRE	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
20	Plant Protection Fence (Individual Tree/Shrub)	287	EACH	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
21	Zone 1 Seeding (Native) - acquisition, shipping, and installation	0.109	ACRE	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
22	Zone 2 Seeding (Native) - acquisition, shipping, and installation	0.195	ACRE	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
23	Zone 3 Seeding (Native) - acquisition, shipping, and installation	0.128	ACRE	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
24	Zone 4 Seeding (Native) - acquisition, shipping, and installation	0.077	ACRE	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
25	Landscape Maintenance (Containerized Stock Watering/Maintenance during Construction)	2	LS	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
26	Mulching - acquisition and installation of woodstraw	0.401	ACRE	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>					<b>\$0.00</b>		<b>\$0.00</b>		<b>\$0.00</b>	<b>#DIV/0!</b>
<b>TASK 6 - GENERAL</b>										
27	Construction Surveying (Layout & Staking)	1	LS	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
28	Mobilization	1	LS	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
29	Traffic Control	14	DAY	\$0.00	\$0.00	0	\$0.00	0	\$0.00	#DIV/0!
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>					<b>\$0.00</b>		<b>\$0.00</b>		<b>\$0.00</b>	<b>#DIV/0!</b>

PERIODIC ESTIMATE FOR PARTIAL PAYMENT  
SUMMARY AND APPROVALS



PERIODIC ESTIMATE NO. # - PERIOD XXXX 2017 THROUGH XXXXXX 2017

Bid Item (1)	Description (2)	ORIGINAL CONTRACT WORK				THIS PAY PERIOD		COMPLETED TO DATE		
		Quantity (3)	Pay Unit (4)	Unit Price (5)	Total Cost (6)	Quantity (7)	Total Cost (8)	Quantity (9)	Total Cost (10)	Percent Complete (11)
<b>TASK 1 - REMOVALS AND RELOCATIONS</b>										
1	Clearing and Grubbing	1	Acre							
2	Hay Storage Structure Demolition and Removal to Nearby Area on-site	1	LS							
3	Barn Frame Removal to Nearby Area On-Site	1	LS							
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>										
<b>TASK 2 - EARTHWORK AND GRADING</b>										
4	Unclassified Excavation - Channel Grading - offsite haul to Longmont Area	2387	CY							
5	Unclassified Excavation - Bench Grading - offsite haul to Longmont Area	2377	CY							
6	Unclassified Excavation - Riparian Area Grading - offsite haul to Longmont Area	732	CY							
7	Unclassified Ex (CIP) - channel grading-onsite use - includes compaction	107	CY							
8	Unclassified Ex (CIP) - bench grading-onsite use - includes compaction	1247	CY							
9	Unclassified Ex -Process//Sort/Stockpile Usable Native Alluvium	783	CY							
10	Unclassified Ex-Stockpile, Stage and Grade Native Toplayer of Onsite Soil	400	CY							
11	Unclassified Ex (Fine Channel Grading, CIP) (e.g. pool-riffle, habitat) - Installation only	1333	CY							
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>										
<b>TASK 3 - EROSION CONTROL</b>										
12	Erosion Control Log (9 inch)	350	LF							
13	Erosion Control Management	20	DAY							
14	Vehicle Tracking Control (VTC)	1	LS							
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>										
<b>TASK 4 - CHANNEL WORK AND STABILIZATION</b>										
15	Riffle Crests - Installation Only	7	EA							
16	Bank Stabilization Treatment: Boulder-Cobble Toe - Installation Only	672	CY							
17	Boulders-Import (for riffle crests, boulder-cobble toes)	585	SY							
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>										
<b>TASK 5 - REVEGETATION</b>										

PERIODIC ESTIMATE FOR PARTIAL PAYMENT  
SUMMARY AND APPROVALS



PERIODIC ESTIMATE NO. # - PERIOD XXXX 2017 THROUGH XXXXXX 2017

Bid Item	Description	ORIGINAL CONTRACT WORK				THIS PAY PERIOD		COMPLETED TO DATE		
		Quantity	Pay Unit	Unit Price	Total Cost	Quantity	Total Cost	Quantity	Total Cost	Percent Complete
18	Willow Cuttings (48-inch cuttings) acquisition, shipping and installation	1064	EACH							
19	Cottonwood Cuttings acquisition, shipping and installation	48.00	EACH							
20	Nursery Stock Deep Rooted Conatiner (10-cubic inch) acquisition, shipping and installation	1971.00	EACH							
21	Nursery Stock Deep Rooted Conatiner (D-60) acquisition, shipping and installation	1120.00	EACH							
22	Soil Conditioning (Biocomp/Biosol and Verrydol) acquisition and installaion	2.03	AC							
23	Plant Protection Fence (Elk Fencing)	2090	LF							
24	Zone 1 Seeding (Native) - acquisition, shipping and installation	0.759	ACRE							
25	Zone 2 Seeding (Native) - acquisition, shipping and installation	0.837	ACRE							
26	Zone 3 Seeding (Native) - acquisition, shipping and installation	1.191	ACRE							
27	Landscape Maintenance (Containerized Stock Watering/Maintenance during Construction)	1	LS							
28	Mulching - acquisition and installation of woodstraw	2.03	ACRE							
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>										
<b>TASK 6 - GENERAL</b>										
29	Construction Surveying (Layout & Staking)	1	LS							
30	Mobilization	1	LS							
31	Traffic Control	20	DAY							
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>										
<b>TASK 7 - BID ALTERNATIVES</b>										
1	Habitat Boulders - Complete in Place	100	EA							
2	Import Bed Material	142	TN							
3	Import Boulders/Cobbles	26	TN							
4	Water Control	1	LS							
5	Hay Storage Concrete Removal	1	LS							
*****INSERT ADDITIONAL PAY ITEMS ABOVE THIS LINE*****										
<b>Task Subtotal</b>										



# EXHIBIT VIII-H

## INVITATION FOR BIDS

The Estes Valley Watershed Coalition will receive Bids  
(Name of Local Public Agency)  
for Estes Valley Watershed Coalition Fawn Valley & Elkhorn Resiliency Projects  
(Brief Description of Site Improvements and Project Identification)  
until 5:00PM AM/PM (Local Time) on the 7th day of July, 2017 at  
molly.mills@evwatershed.org.

Bids are invited upon the several items and quantities of work as follows:

- Item 1 bank stabilization and flood plain reconnection
- Item 2 channel definition
- Item 3 wetland creation via beaver dam analogue construction
- Item 4 revegetation and grazing protection
- Item 5 Sediment removal

Contract documents, including Drawings and Technical Specifications, are on file at the office of

Estes Valley Watershed Coalition; 1191 Woodstock Dr, Estes Park CO 80517.

Copies of the Contract Documents may be downloaded from [www.evwatershed.org](http://www.evwatershed.org)

A certified check or bank draft, payable to the order of Estes Valley Watershed Coalition negotiable U.S. Government bonds (at par value) or a satisfactory Bid Bond executed by the Bidder and an acceptable surety in an amount equal to five percent (5%) of the total Bid shall be submitted with each Bid.

Attention is called to the fact that **not less than the minimum salaries and wages** as set forth in the Contract Documents must be paid on this project, and that the Contractor must ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex, or national origin. (Davis Bacon Wages)

In the event that the bidder anticipates hiring employees to work on this job, the bidder should contact the local manpower office for qualified candidates. (Section 3)

Prior to the awarding of the Contract, Estes Valley Watershed Coalition may defer its decision for a period not to exceed (30) days from the date of the opening of Bids for the purpose of reviewing the Bids and investigating the qualifications of Bidders, prior to awarding of the Contract.

Date: 6/14/17 Estes Valley Watershed Coalition

By Molly Mills

Title Coordinator

**BEST VALUE BID FORM**

**(ALL INFORMATION MUST BE PRESENT BUT FORMAT IS FLEXIBLE)**

**CDBG-DR WATERSHED RESILIENCE & NRCS EMERGENCY WATERSHED PROTECTION  
IMPLEMENTATION PROJECT:  
Fawn Valley & Elkhorn**

Bid of \_\_\_\_\_ (hereinafter called "BIDDER"), organized and existing under the laws of the State of \_\_\_\_\_, doing business as \_\_\_\_\_, (Corporation, Partnership, Individual).

In conformity with the preliminary CONTRACT DOCUMENTS, listed in the AGREEMENT between Estes Valley Watershed Coalition (EVWC) and CONTRACTOR:

(I)(We) hereby certify that this BID is made and submitted without fraud or collusion with any other person, firm, or corporation whatsoever; that an examination has been made of the Site of the WORK and the CONTRACT form, together with the preliminary CONTRACT DOCUMENTS for the improvement.

(I)(We) understand the BIDDER(s) will be evaluated on five criteria based on information submitted in BID(s). The five evaluation criteria are: capability of contractor to perform work, experience and qualifications of proposed construction team, project understanding and value engineering approaches, unit costs, and proposed work schedule and work capacity

(I)(We) understand that the quantities of WORK shown herein are approximate only and are subject to increase or decrease; are to be performed at the unit prices shown on the attached schedule; and that, at the time of the evaluation of BID(s), totals of BID(s) will be based on the correct summation of item totals obtained from the unit prices BID.

(I)(We) understand that after selection of CONTRACTOR a CHANGE ORDER for PROJECT design phase of work will be given. Work performed during the design phase will be done at an hourly rate with a Not to Exceed amount. Work includes attending meetings and providing expertise and knowledge to assist in how to best deliver PROJECT goals. Work may also include equipment or product research, field investigation, permitting, public outreach, coordination, and project partnering activities.

(I)(We) understand at the completion of the PROJECT design phase, the project team will develop a bid schedule and finalize PLANS and SPECIFICATIONS for the PROJECT. CONTRACTOR will work with project team to finalize unit prices based on the field ready PLAN and SPECIFICATIONS. A third-party evaluator may be used in negotiating/verifying pricing. If CONTRACTOR and EVWC cannot come to an agreement on unit prices at the end of the design phase, then no AWARD will be given for the construction phase. If CONTRACTOR and EVWC successfully negotiate, NOTICE OF AWARD will be given.

(I)(We) propose to furnish all necessary machinery, equipment, tools, labor, and other means of construction and to furnish all materials specified, in the manner and at the time prescribed, all in accordance with the terms of the CONTRACT DOCUMENTS.

(I)(We) further propose to do all extra work that may be required to complete the contemplated improvement, at unit prices, lump sums, or time and materials to be agreed upon in writing prior to starting such WORK.

(I)(We) further propose to execute the AGREEMENT and BOND(s) within ten (10) days after receiving written NOTICE OF AWARD.

(I)(We) further propose to perform all WORK in accordance with the CONTRACT DOCUMENTS and in a good and workmanlike manner, and to renew or repair any WORK that may be rejected due to defective materials or workmanship, prior to final completion and acceptance of the PROJECT by EVWC.

BIDDER acknowledges receipt of the following ADDENDA:

No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_      No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_  
 No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_      No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_  
 No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_      No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_

**Evaluation Factor 1: Contractor Experience and Ability of Contractor to Perform Work**

Provide information on a minimum of six projects in the table below. In addition, for each project please provide and attach the following:

- Narrative of project work and key components.
- Client contact information for each project.
- Up to 3 photos of completed work.

<b>Previous Project Experience Chart</b>						
No.	Project Name	Owner	Owner's Contact	Cost	Major Work Elements (see key below)	Alternative Delivery Approach Used (y/n)
1						
2						
3						
4						
5						
6						

Major Work Element Key (use for column 6)

- |                         |                     |                           |
|-------------------------|---------------------|---------------------------|
| 1. Stream Grading       | 5. Sediment Removal | 8. Federally Funded       |
| 2. Instream Structures  | 6. Bioengineering   | 9. Davis Bacon Compliance |
| 3. Large Woody Material | 7. Revegetation     | 10. EWP                   |
| 4. Stream Stabilization | 8. Water Control    |                           |



**Evaluation Factor 4: Unit Costs**

Provide unit costs on the UNIT PRICE BID SCHEDULE included with the RFP.

**Evaluation Factor 5: Proposed Work Schedule and Workload Capacity**

For purposes of this project, the proposed schedule is as follows:

Permit Completion and Final Design Revisions: 30 days from NTP

Construction Phase: 30 days from NTP to 220 days from signature of FA agreement

Construction Duration: 220 days from signature of FA agreement

Provide explanation of workload capacity and commitment to perform work on the required 220-day time frame. Attach a proposed construction schedule with the proposal.

## **UNIT PRICE BID SCHEDULE**

BIDDER agrees to perform all the WORK described in the CONTRACT DOCUMENTS per the unit prices provided on the attached BID SCHEDULE:

**(INSERT UNIT PRICE BID SCHEDULE HERE)**  
**(Electronic Bid Schedule.xlsx – print single-sided)**

TOTAL OF BASE BID: \$ \_\_\_\_\_  
(Numbers)

\_\_\_\_\_ Dollars  
(Words)

BIDDER STATES THAT:

1. MAJOR MATERIAL AND EQUIPMENT  
SUPPLIERS ARE:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

MATERIAL THEY WILL SUPPLY:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. MAJOR SUBCONTRACTORS ARE:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

WORK THEY WILL PERFORM:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ATTEST:

By: \_\_\_\_\_  
(Signature)

Name: \_\_\_\_\_  
(Print)

(SEAL)

CONTRACTOR:

\_\_\_\_\_  
Company Name (Print)

By: \_\_\_\_\_  
(Signature)

Name: \_\_\_\_\_  
(Print)

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Date: \_\_\_\_\_

# **EXHIBIT VIII-O**

## **CONTRACTOR/SUBCONTRACTOR CERTIFICATIONS**

---

Grantee must require that prospective bidders complete and incorporate the following certifications as part of their bid submittal package.

1. EQUAL EMPLOYMENT OPPORTUNITY - EXECUTIVE ORDER 11246
2. SECTION 3 & SEGREGATED FACILITIES CERTIFICATION
3. NONCOLLUSION AFFIDAVIT OF PRIME CONTRACTOR



# EXHIBIT VIII-O, Cont.

## CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY

### INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F.R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such a report is submitted.

---

### CERTIFICATION BY BIDDER

---

NAME AND ADDRESS OF BIDDER (Include ZIP Code)

---

- 
1. Bidder has participated in a previous contract or subcontractor subject to the Equal Opportunity Clause.  
\_\_\_\_\_ Yes      \_\_\_\_\_ No
- 
2. Compliance reports were required to be completed in connection with such contract or subcontract.  
\_\_\_\_\_ Yes      \_\_\_\_\_ No
- 
3. Bidder has filled all compliance reports due under applicable instructions.  
\_\_\_\_\_ Yes      \_\_\_\_\_ No
- 
4. Have you ever been or are you being considered for sanction due to violation of Executive Order 11246, as amended.  
\_\_\_\_\_ Yes      \_\_\_\_\_ No
- 

NAME AND TITLE OF SIGNER (Please type)

---

SIGNATURE

DATE

---

**EXHIBIT VIII-O, Cont.**

**CERTIFICATION OF CONTRACTOR REGARDING  
SECTION 3 AND SEGREGATED FACILITIES**

---

Name of Contractor or Sub-Contractor

---

Project Name and Number

The undersigned hereby certifies that:

- (a) Section 3 provisions are included in the Contract if this is a Section 3 project.
- (b) No segregated facilities will be maintained as required by Title VI of the Civil Rights Act of 1964.

---

Name and Title of Signer (Type of Print)

---

Signature

---

Date

# EXHIBIT VIII-O, Cont.

## NONCOLLUSION AFFIDAVIT OF PRIME BIDDER

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss.

\_\_\_\_\_ being first duly sworn, deposes and says that:

- (1) He is \_\_\_\_\_ of \_\_\_\_\_  
\_\_\_\_\_, the Bidder that has submitted the attached Bid;
- (2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;
- (3) Such Bid is genuine and is not a collusive or sham Bid;
- (4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affined, has in any way colluded, conspired, connived or agreed, directly or indirectly with another Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix an overhead, profit or cost element of the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the (Local Public Agency) or any person interested in the proposed Contract; and
- (5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including is affined.

(Signed) \_\_\_\_\_

Title \_\_\_\_\_

Subscribed and sworn to me this

\_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_

By: \_\_\_\_\_  
Notary Public

My Commission expires: \_\_\_\_\_

# EXHIBIT VIII-M

## BID BOND

---

KNOW ALL PEOPLE BY THESE PRESENT, that we, the undersigned \_\_\_\_\_  
as Principal, and \_\_\_\_\_ as Surety, are hereby held  
and firmly bound unto \_\_\_\_\_ as Owner in the penal  
sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) for the  
payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs,  
executors, administrators, successors and assigns. Signed this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

The condition of the above obligation is such that whereas the Principal has submitted to  
\_\_\_\_\_ a certain bid, attached hereto and hereby made  
a part hereof to enter into a contract in writing, for the

NOW THEREFORE,

- (a) If said Bid shall be rejected, or in the alternate,
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid,

that this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS THEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these present to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_  
Principal (L.S.)

(SEAL)

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

General Decision Number: CO170012 06/09/2017 CO12

Superseded General Decision Number: CO20160012

State: Colorado

Construction Type: Heavy

Counties: Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo and Weld Counties in Colorado.

HEAVY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/06/2017
1	01/20/2017
2	02/03/2017
3	04/07/2017
4	05/19/2017
5	05/26/2017
6	06/02/2017
7	06/09/2017

ASBE0028-001 07/01/2016

	Rates	Fringes
Asbestos Workers/Insulator (Includes application of all insulating materials, protective coverings, coatings and finishings to all types of mechanical systems).....	\$ 29.73	13.93

BRCO0007-004 01/01/2017

ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS AND JEFFERSON COUNTIES

Rates	Fringes
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BRICKLAYER.....	\$ 26.62	7.99
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BRCO0007-006 05/01/2017

EL PASO AND PUEBLO COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 25.32	9.90

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ELEC0012-004 09/01/2016

PUEBLO COUNTY

	Rates	Fringes
ELECTRICIAN		
Electrical contract over		
\$1,000,000.....	\$ 28.00	11.00+3%
Electrical contract under		
\$1,000,000.....	\$ 24.85	11.00+3%

---

ELEC0068-001 06/01/2017

ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS,  
JEFFERSON, LARIMER, AND WELD COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 34.70	14.97

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\* ELEC0111-001 01/01/2017

	Rates	Fringes
Line Construction:		
Groundman.....	\$ 24.87	22.25%+\$5.75
Line Equipment Operator.....	\$ 30.36	22.25%+\$5.75
Lineman and Welder.....	\$ 43.51	25.25%+\$5.75

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ELEC0113-002 06/01/2017

EL PASO COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 31.00	15.38

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ELEC0969-002 06/01/2015

MESA COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 24.00	7.92

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\* ENGI0009-001 05/01/2017

	Rates	Fringes
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Power equipment operators:

Blade: Finish.....	\$ 27.92	10.10
Blade: Rough.....	\$ 27.60	10.10
Bulldozer.....	\$ 27.60	10.10
Cranes: 50 tons and under..	\$ 27.75	10.10
Cranes: 51 to 90 tons.....	\$ 27.92	10.10
Cranes: 91 to 140 tons.....	\$ 28.55	10.10
Cranes: 141 tons and over...	\$ 29.82	10.10
Forklift.....	\$ 27.22	10.10
Mechanic.....	\$ 28.08	10.10
Oiler.....	\$ 26.84	10.10
Scraper: Single bowl under 40 cubic yards.....	\$ 27.75	10.10
Scraper: Single bowl, including pups 40 cubic yards and over and tandem bowls.....	\$ 27.92	10.10
Trackhoe.....	\$ 27.75	10.10

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IRON0024-003 05/01/2017

	Rates	Fringes
Ironworkers:.....	\$ 26.30	21.45
Structural		

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LABO0086-001 05/01/2009

	Rates	Fringes
Laborers:		
Pipelayer.....	\$ 18.68	6.78

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PLUM0003-005 06/01/2017

ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS,  
JEFFERSON, LARIMER AND WELD COUNTIES

	Rates	Fringes
PLUMBER.....	\$ 39.08	16.44

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PLUM0058-002 07/01/2016

EL PASO COUNTY

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 35.60	13.65

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PLUM0058-008 07/01/2016

PUEBLO COUNTY

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 35.60	13.65

PLUM0145-002 07/01/2016

MESA COUNTY

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 35.17	11.70

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PLUM0208-004 06/01/2016ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS,  
JEFFERSON, LARIMER AND WELD COUNTIES

	Rates	Fringes
PIPEFITTER.....	\$ 37.10	16.62

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SHEE0009-002 07/01/2016

	Rates	Fringes
Sheet metal worker.....	\$ 32.56	15.96

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TEAM0455-002 07/01/2016

	Rates	Fringes
Truck drivers:		
Pickup.....	\$ 20.16	4.02
Tandem/Semi and Water.....	\$ 20.79	4.02

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SUCO2001-006 12/20/2001

	Rates	Fringes
BOILERMAKER.....	\$ 17.60	
Carpenters:		
Form Building and Setting...	\$ 16.97	2.74
All Other Work.....	\$ 15.14	3.37
Cement Mason/Concrete Finisher...	\$ 17.31	2.85
IRONWORKER, REINFORCING.....	\$ 18.83	3.90
Laborers:		
Common.....	\$ 11.22	2.92
Flagger.....	\$ 8.91	3.80
Landscape.....	\$ 12.56	3.21
Painters:		
Brush, Roller & Spray.....	\$ 15.81	3.26
Power equipment operators:		
Backhoe.....	\$ 16.36	2.48
Front End Loader.....	\$ 17.24	3.23
Skid Loader.....	\$ 15.37	4.41



WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

## Federal Labor Standards Provisions

U.S. Department of Housing  
and Urban Development  
Office of Labor Relations**Applicability**

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

**A. 1. (i) Minimum Wages.** All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section I(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part

of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

**2. Withholding.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

**3. (i) Payrolls and basic records.** Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been

communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### 4. Apprentices and Trainees.

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who

is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by

the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) **Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

**6. Subcontracts.** The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

**7. Contract termination; debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act Requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

**10. (i) Certification of Eligibility.** By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be

awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration.... makes, utters or publishes any statement knowing the same to be false.... shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

**11. Complaints, Proceedings, or Testimony by Employees.** No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

**B. Contract Work Hours and Safety Standards Act.** The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

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**(3) Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

**(4) Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

**C. Health and Safety.** The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

**(1)** No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

**(2)** The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

**(3)** The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.



