STATE OF COLORADO

Colorado Water Conservation Board
Department of Natural Resources
1580 Logan Street, Suite 600
Denver, Colorado 80203
Phone: (303) 866-3441
Fax: (303) 894-2578
www.cwcb.state.co.us

December 30, 2013

Upper Arkansas Water Conservancy District
Mr. Ralph Scanga, General Manager
P.O. Box 1090
Salida, CO 81201

RE: WSRA – Helena Diversion Structure – BV Boat Chute Improve – Phase 2 in the Arkansas River Basin

Dear Ralph:

This letter is to inform you that the WSRA grant request to assist in the Helena Diversion Structure Phase 2 project was signed on December 20, 2013. The original signed purchase order will be mailed to you.

With the executed purchase order, you are now able to proceed with the project and invoicing the State of Colorado for costs incurred through March 1, 2014. Upon receipt of your invoice(s), the State of Colorado will provide payment no later than 45 days. I wish you much success in your project.

If you have any additional questions or concerns, please contact Mr. Brent Newman, Project Manager at (303) 866-3441 x3222.

Sincerely,

/s/

Dori Vigil
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 200
Denver CO 80203
(303) 866-3441 x3250
dori.vigil@state.co.us

WATER CONSERVATION BOARD
1313 SHERMAN STREET, ROOM 721
DENVER, CO 80203

Buyer: MAGGIE VAN CLEEF
Phone Number: 303-866-3292
Agency Contact: DORI VIGIL
Phone Number: 303 866 3441

DATE: 12-20-13

IMPORTANT
The PO# and Line # must appear on all invoices, packing slips, cartons and correspondence

ACC: 12-19-13

PURCHASE ORDER
STATE OF COLORADO

P.O. # OE PDA 14IBC000021 Page# 01

State Award #

BID #

FEIN 840817067 **Phone:** - -
Vendor Contact: RALPH SCANGA
Purchase Requisition #:

VENDOR
UPPER ARKANSAS WTR ACTIVITY ENTPRSE
339 EAST HIGHWAY 50
SALIDA CO 81201

Invoice in Triplicate
To: DIVISION OF WATER CONSERVATION
1313 SHERMAN STREET, ROOM 721
DENVER, CO 80203

Payment will be made by this agency

Ship To: DIVISION OF WATER CONSERVATION
1313 SHERMAN STREET, ROOM 721
DENVER, CO 80203

Delivery/Installation Date: 03-01-14
F.O.B. DESTINATION STATE PAYS NO FREIGHT

INSTRUCTIONS TO VENDOR:

1. If for any reason, delivery of this order is delayed beyond the delivery/installation date shown, please notify the agency contact named at the top left. (Right of cancellation is reserved in instances in which timely delivery is not made.)
2. All chemicals, equipment and materials must conform to the standards required by OSHA.
3. NOTE: Additional terms and conditions on reverse side.

SPECIAL INSTRUCTIONS:

LINE ITEM	COMMODITY/ITEM CODE	UNIT OF MEASUREMENT	QUANTITY	UNIT COST	TOTAL ITEM COST
001	91843000000				$43,125.00

CMS# WSRA GRANT - HELENA DIVER STRUCT/BV BOAT CHUTE IMPROVE - PHASE 2

DOCUMENT TOTAL = $43,125.00

THIS PO IS ISSUED IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS
This PO is effective on the date signed by the authorized individual.
EPSPO PAA

FOR THE STATE OF COLORADO

Brenda Hanner
Authorized Signature

12/20/13
Date

DP-01 (R-02/06)

Exhibit A

Statement of Work

WATER ACTIVITY NAME – Helena Diversion Structure/ BV Boat Chute Improvement Project Arkansas River Basin Phase 2

GRANT RECIPIENT – Upper Arkansas Water Conservancy District

FUNDING SOURCE – Basin Account

INTRODUCTION AND BACKGROUND

This grant application is to continue an existing engineering and construction project on the Helena Diversion Structure in the Arkansas River at Buena Vista. Improvements to this structure will be beneficial in many ways. Construction will improve the delivery efficiency, availability and sustainability of water for irrigation to water right owners as well as integrating further boater safety and improved fishery.

The Phase 2 portion of the Helena Ditch Headgate involves the addition of a concrete ditch channel and flow bypass structure to the Arkansas River. The ditch headgate diversion structure is an integrated system that involves the headgate wall and side gate, delivery channel, and bypass structure. Phase 1 of the project will construct the headgate wall. Phase 2 will complete the replacement of the existing bypass structure and with the Phase 1 improvements allow the system to regulate water right flow amounts in to the ditch while at the same bypassing excess flows that are experienced during river water level fluctuations.

OBJECTIVES

The objectives of Phase 2 of the study are to:

- Construct a new concrete channel and bypass structure that will improve the availability and sustainability of water right flow amounts.
- Improve the system's ability to regulate flow amounts while at the same time bypassing excess flows that are experienced at water flow fluctuations.
- Improve boater safety and fish habitat by fully restoring all structures associated with this integrated system.
- Improve future habitat by installing rock armoring erosion protection
- Improving the overall engineering soundness of the structures

TASKS

- Task1: Removal of Existing Structures
- Task 2: Construction and Installation of Concrete Channel and Bypass Structure
- Task 3: Installation of Control Gate
- Task 4: Installation of Rock Armoring Erosion Protection
- Task 5: Engineering and Inspection
- (Please refer to Exhibit C for construction details)

TASK 1 – Removal of Existing Structures

Description of Task

The purpose of this task is to remove the existing diversion channel and bypass structures. The removal of these structures will allow for a new concrete channel and bypass structure to be installed.

Method/Procedure

The contractor will remove all structures with approved construction techniques and equipment.

Deliverable

Complete removal of the existing channel and bypass structure to allow for future installment of new channel and bypass structures.

TASK 2 – Construction and Installation of New Concrete Channel and Bypass Structure

Description of Task

The purpose of this task is to construct and install a 45-feet of 8-foot wide concrete channel and bypass structure to be connected to the headgate wall.

Method/Procedure

The contractor will furnish a concrete cast in place channel and bypass structure. The structures will be made with cold weather concreting and will be tied into the existing wall.

Deliverable

Complete construction and installation of the concrete channel and bypass structure. The channel will be 8 feet wide and 4 feet deep. The new ditch invert flow line will be lowered 3 inches and the bypass structure will be widened.

TASK 3- Installation of Control Gate

Description of Task

The purpose of this task is to furnish and install a 6-foot wide by 4-foot tall regulating control gate.

Method/Procedure

Contractor will install control gate

Deliverable

An installed 6 foot wide and 4 feet tall regulating control gate.

TASK 4- Installation of Rock Armoring Erosion Protection

Description of Task

The purpose of this task is to furnish and install Un-grouted Rock below the bypass structure for erosion protection.

Method/Procedure

Contractor will use approved equipment and techniques to fill the area under the bypass structure with un-grouted rock.

Deliverable

The final product will be a new un-grouted rock armoring erosion protection area.

Task 5- Engineering and Inspection

Description of Task

The purpose of this task is to have a licensed professional Engineer one site for two inspections as well as a final review.

Method/ Procedure

Higher a licensed professional Engineer and request 2 inspections and a final review

Deliverable

The Engineer will approve all new structures and will ensure that they are structurally sound and meet all requirements of the project.

Budget: Helena Ditch Structure Improvement Project - Phase 2

Task	Description	Matching Funds	WSRA Funds	Total
1	Removal of Existing Structures	$0.00	$1,083.46	$1,083.46
2	Construction and Installation of Concrete Channel and Bypass Structure	$0.00	$25,859.70	$25,859.70
3	Installation of Control Gate	$0.00	$8,907.80	$8,907.80
4	Installation of Rock Armoring Erosion Protection	$0.00	$4,149.04	$4,149.04
5	Engineering and Inspection	$10,000.00	$3,125.00	$13,125.00
	Totals	**$10,000.00**	**$43,125.00**	**$53,125.00**

Helena Ditch Structure Improvement Project Phase 2
Schedule

Date: 11/27/2013

TASK	Start Date	Finish Date
Task 1: Removal of Existing Structures	Upon NTP	NTP + 15days
Task 2: Construction and Installation of Concrete Channel and Bypass Structure	Upon NTP	NTP + 30 days
Task 3: Installation of Control Gate	Upon NTP	NTP + 30 days
Task 4: Installation of Rock Armoring Erosion Protection	Upon NTP	NTP + 45 days
Task 5: Engineering and Inspection	Upon NTP	NTP + 45 days

EXHIBIT B
Project Maps

Exhibit B

Maps

Exhibit B

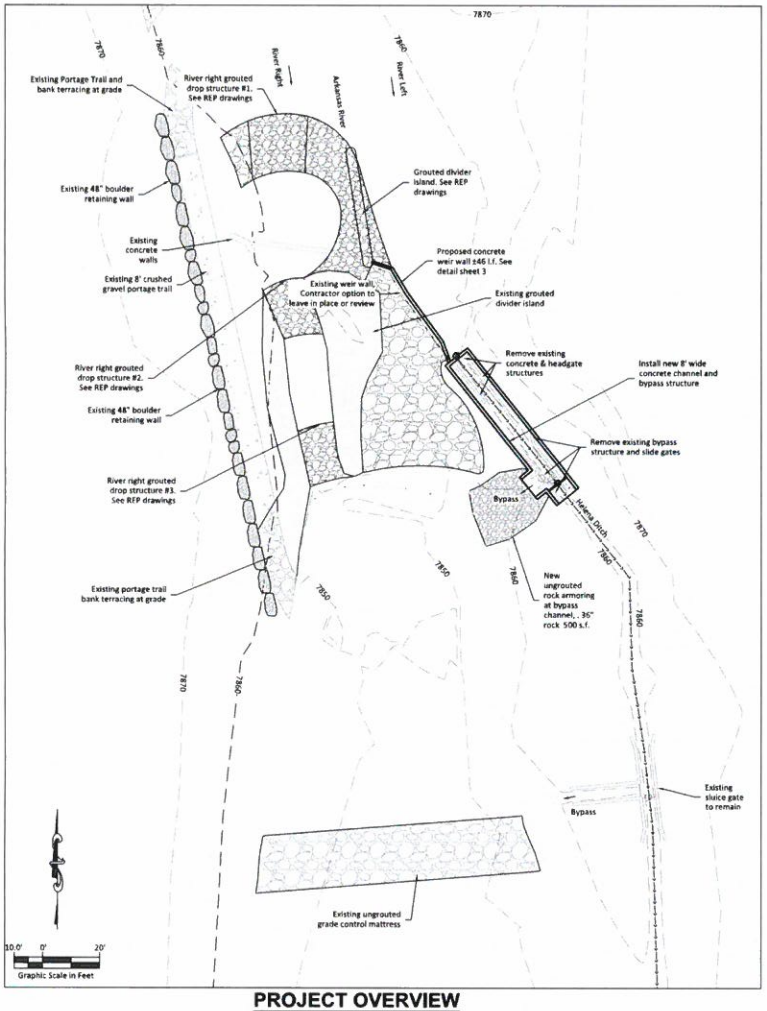
Maps

EXHIBIT C
PROJECT DESIGN DRAWINGS
PROJECT OVERVIEW & CROSS SECTIONS

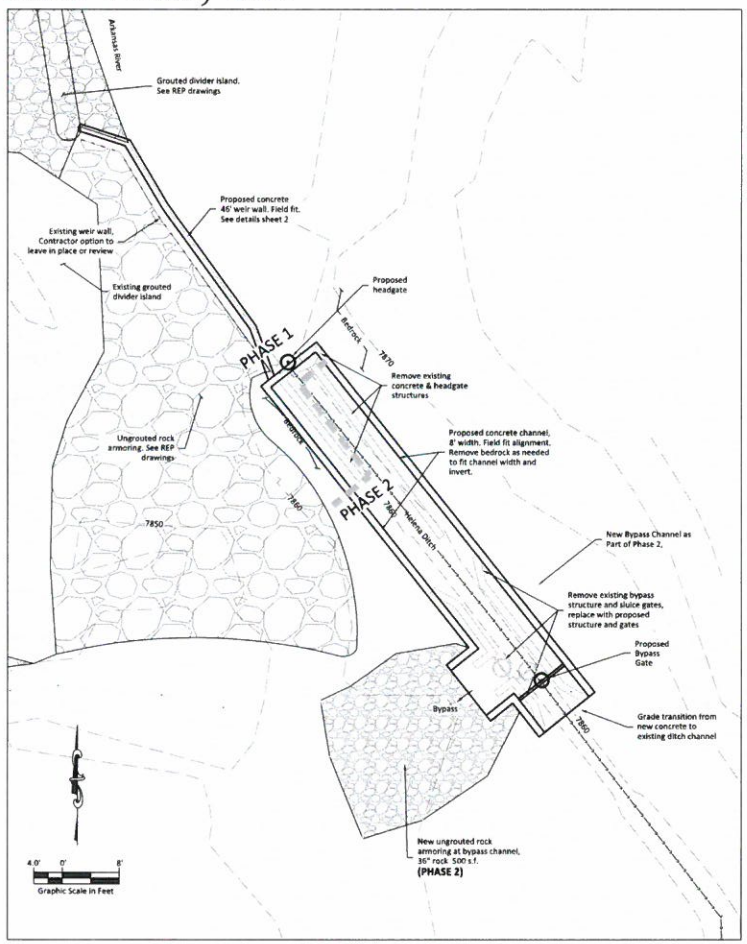
Helena Ditch Diversion on the Arkansas River
Construction Drawings - Headgate
Buena Vista, CO

PROJECT:	Arkansas Headwaters Recreation Area
CLIENT:	Upper Arkansas Water Conservancy District
OWNER:	Helena Ditch Users
ENGINEER:	COLORADO RIVER ENGINEERING INCORPORATED

P.O. BOX 1301
RIFLE, COLORADO 81650
PHONE: 970-625-4933
FAX: 970-625-4564
PROJECT ENGINEER:
CHRISTOPHER MANERA P.E. #30579



PROJECT OVERVIEW



Helena Ditch Diversion Structure

GENERAL NOTES

1. Match existing elevations for improvements.
2. The elevations on the plan set are approximate. The contractor is to document profile elevations prior to the start of construction.
3. Field fit the proposed weir wall, diversion channel box structures, and headgate locations based on the existing site conditions and per the engineer's approval.
4. This design set is a subset of the Helena Ditch Diversion Structure Improvement Project by Recreation Engineering and Planning (REP).

Sheet	Title
9	Plan View
10	Wall Plan, Profile and Details
11	Structure Plan and Profile
12	Details

UNCC
CALL BEFORE YOU DIG
1-800-922-1987
Utility Notification Center of Colorado
BEFORE YOU DIG, GRADE, OR EXCAVATE, CALL 2 BUSINESS DAYS IN ADVANCE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

10/7/13

These drawings have been prepared for the client identified on the design sheet titleblock. Unless these drawings bear a signed engineers seal, they may be used only at owners sole risk.

This Drawing Not Valid Unless Latest Revision Initials Are Handwritten					Original Drawing Preparation		
No.	Description	By	Date	Approved	Date		By	Date
1	Designated split of Phase 1 & Phase 2	CM	9/30/13			Drawn	NM	7/13
2						Checked	CM	7/13
3						Approved	CM	8/8/2013
4						Client Approved	--	--
5								

Engineer's Seal
Christopher Manera 2013.10.07 12:59:39 -06'00'

COLORADO RIVER ENGINEERING INCORPORATED
PO Box 1301
Rifle, CO 81650
Tel 970-625-4933

CLIENT: Upper Arkansas Water Conservancy District
339 East Rainbow Blvd.
Salida, CO 81201

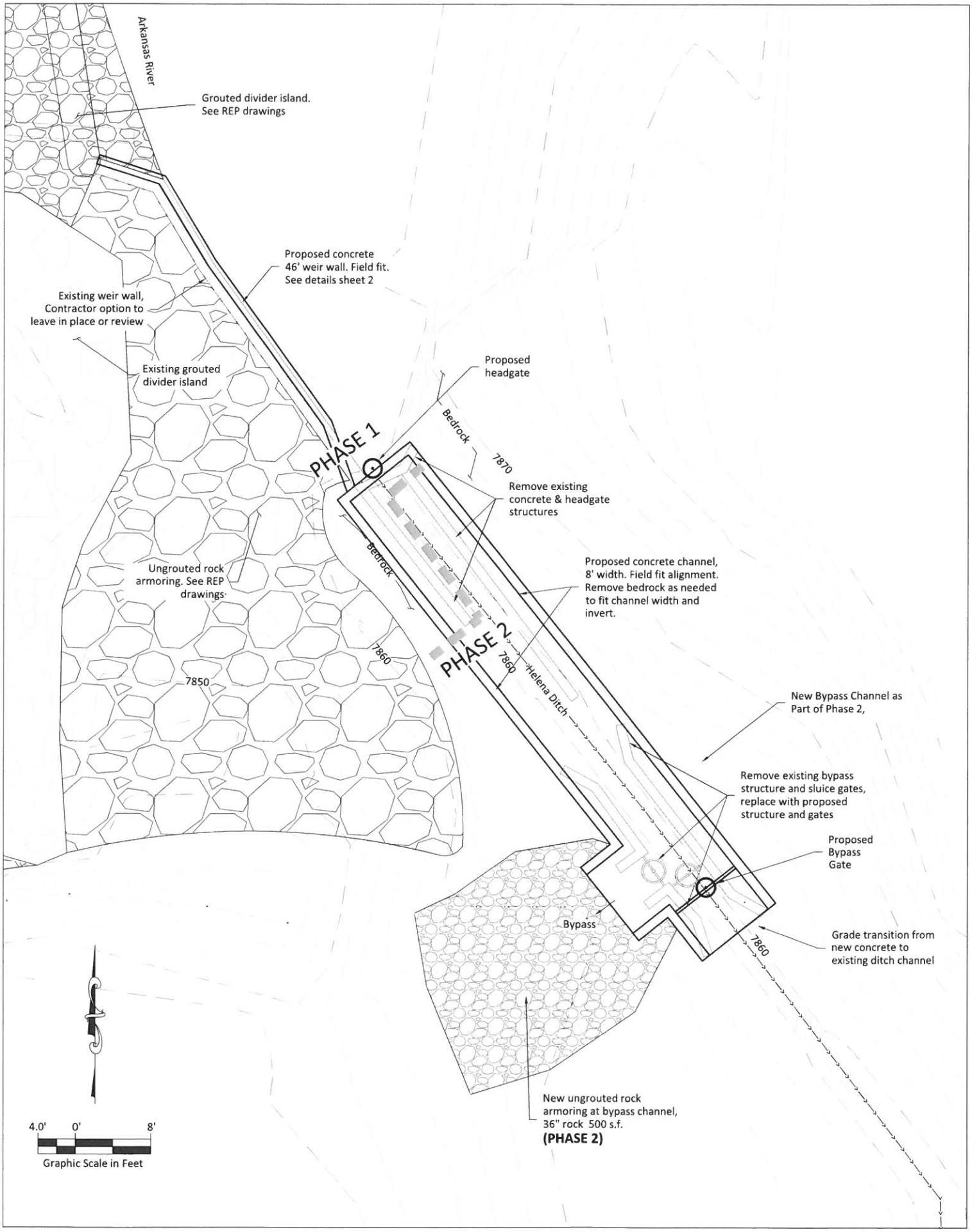
SHEET TITLE: Helena Ditch Diversion Plan View

SHEET NO. 9 OF

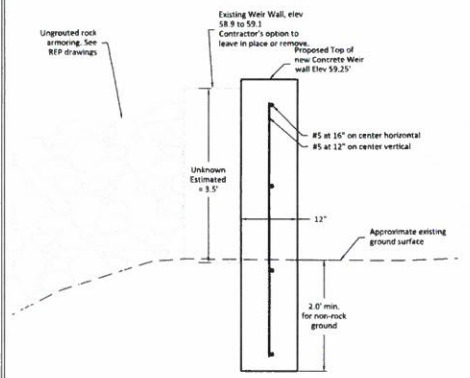
PROJECT: Helena Ditch Diversion

CRE FILE: M:\Land Projects\R2\572.12-HelenaDitch\dwg\CRE-Design.dwg

Revision 1

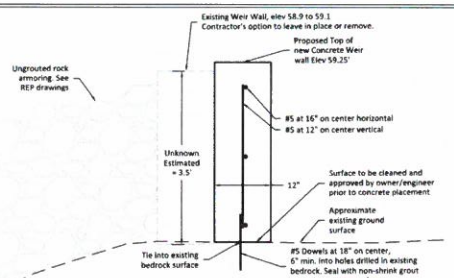


Helena Ditch Diversion Structure



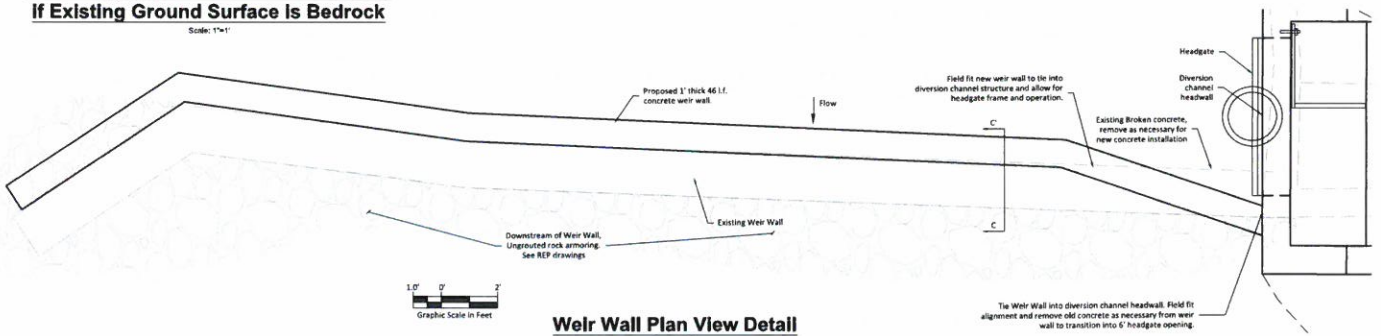
Concrete Weir Wall Cross Section C-C' If Existing Ground Surface is Non-Rock

Scale: 1"=1'



Concrete Weir Wall Cross Section C-C' If Existing Ground Surface is Bedrock

Scale: 1"=1'

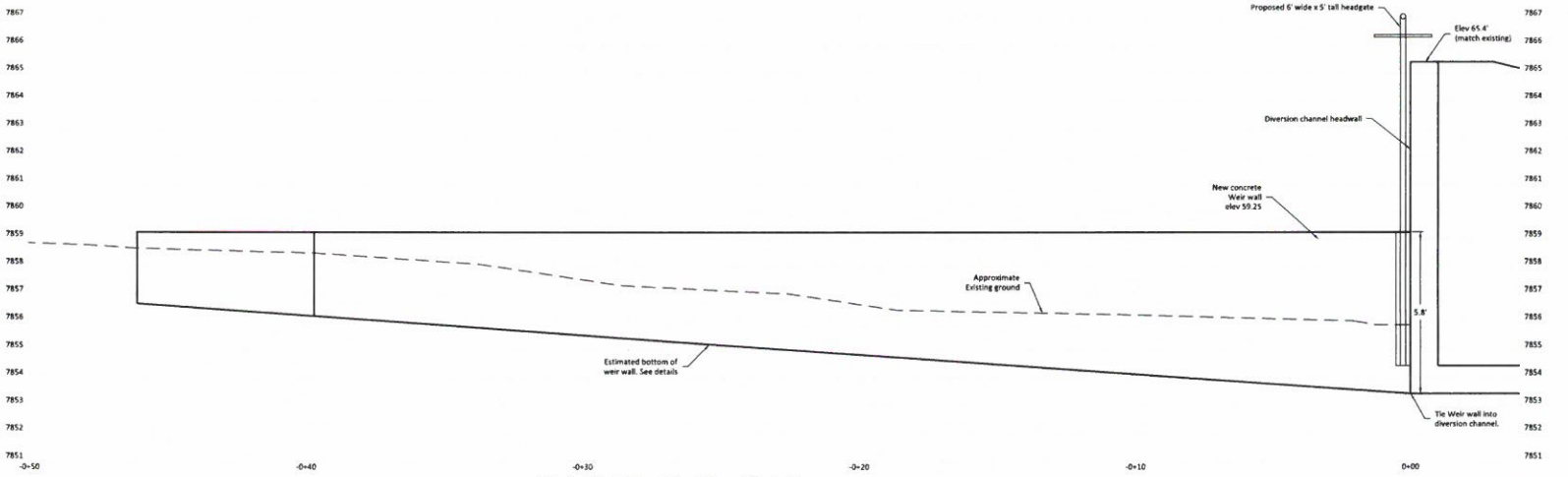


Weir Wall Plan View Detail

Scale: 1"=2'

GENERAL NOTES

1. The contractor has the option of building the new weir wall in front of the existing wall as shown in Section C-C' or removing the existing wall and building the new wall in the same place as the existing wall.



Weir Wall Profile View Detail

Scale: 1"=2'

Engineer's Seal

10/7/13

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2						Checked	CM	7/13
3						Approved	CM	8/8/13
4						Client Approved	--	--
5								

COLORADO RIVER ENGINEERING INCORPORATED

PO Box 1301
Rifle, CO 81650
Tel 970-625-4933

CLIENT: Upper Arkansas Water Conservancy District
339 East Rainbow Blvd.
Salida, CO 81201

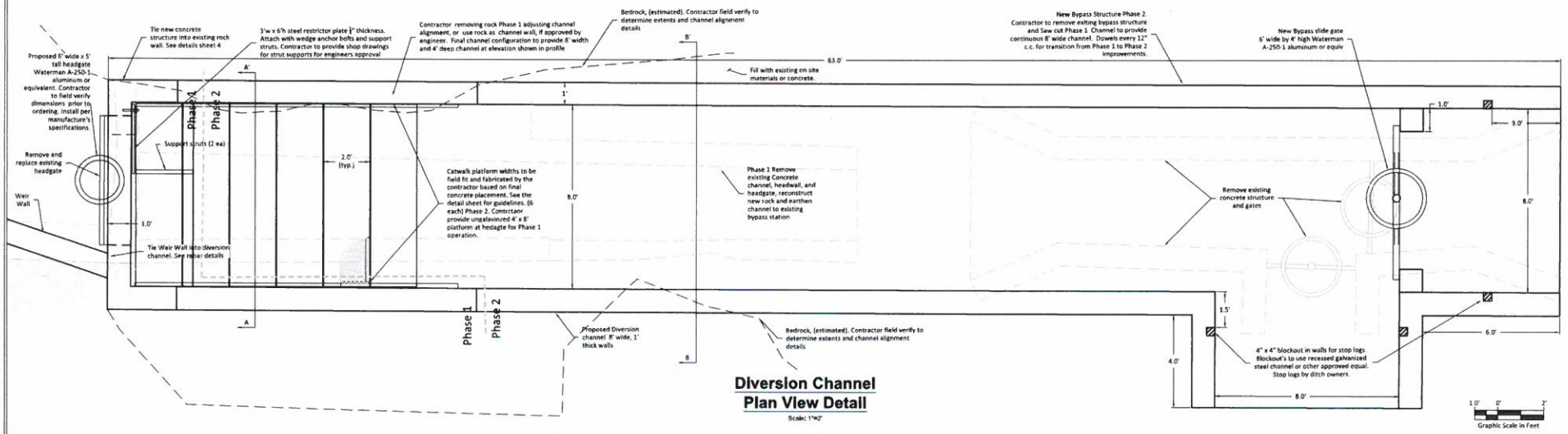
PROJECT: Helena Ditch Diversion

SHEET TITLE: Helena Ditch Diversion
Wall Plan, Profile and Details

CRE FILE: M:\Land Projects R2\572.12-HelenaDitch\dwg\CRE-Design.dwg

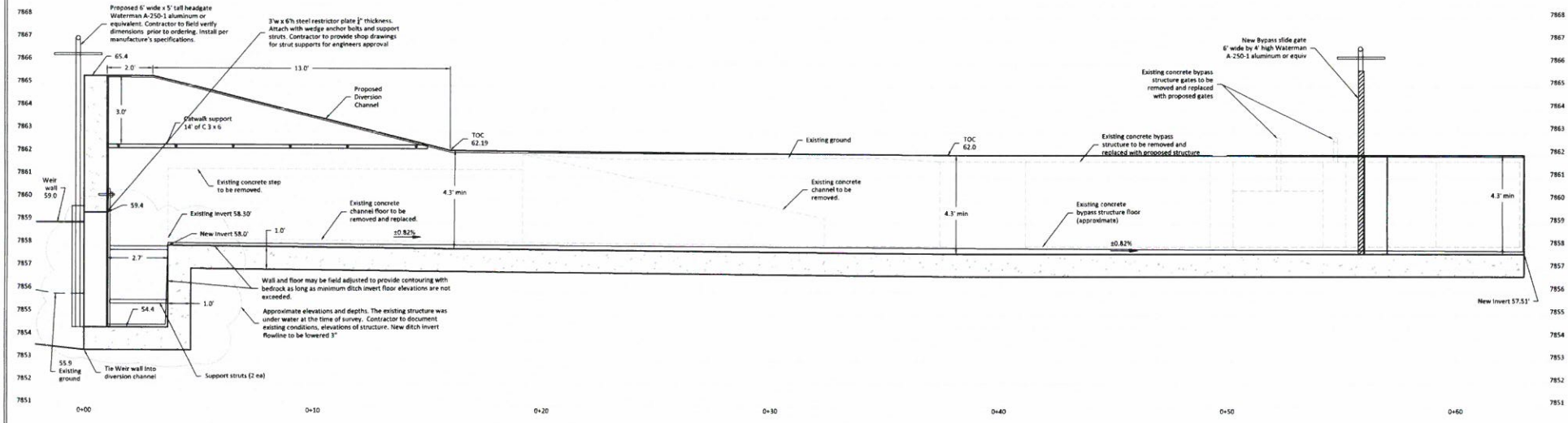
SHEET NO. 10 OF

Revision 1



Diversion Channel
Plan View Detail

Scale: 1"=2'



Diversion Channel
Profile View Detail

Scale: 1"=2'

10/7/13

Engineer's Seal

This Drawing Not Valid Unless Latest Revision Initials Are Handwritten					Original Drawing Preparation		
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COLORADO RIVER ENGINEERING INCORPORATED
PO Box 1301
Rifle, CO 81650
Tel 970-625-4933

CLIENT: Upper Arkansas Water Conservancy District
339 East Rainbow Blvd
Salida, CO 81201

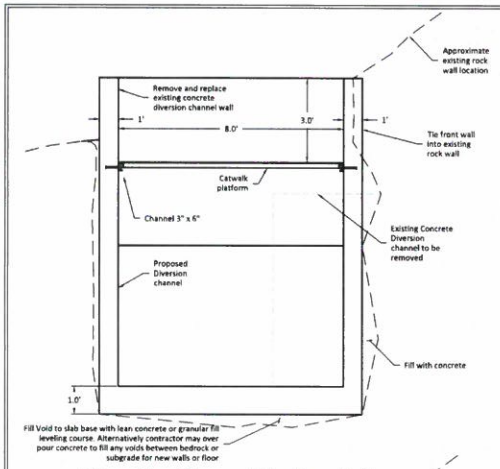
PROJECT: Helena Ditch Diversion

SHEET TITLE: Helena Ditch Diversion Structure Plan and Profile

CRE FILE: M:\Land Projects R2\572.12-HelenaDitch\dwg\CRE-Design.dwg

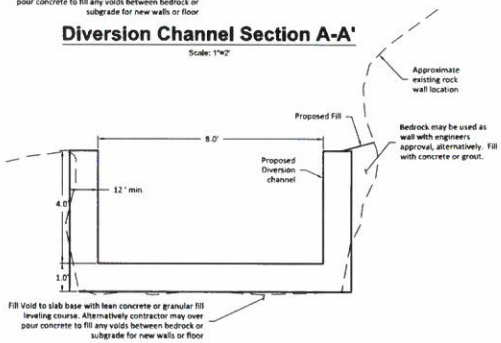
SHEET NO. 11 OF

Revision: 1



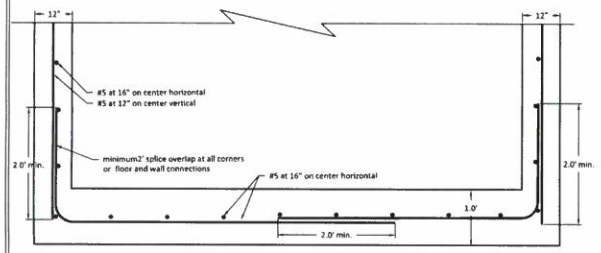
Diversion Channel Section A-A'

Scale: 1"=2'



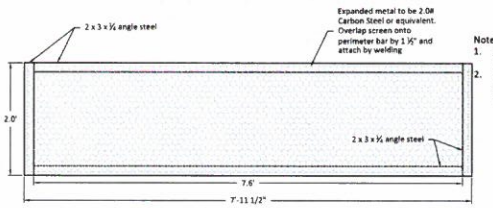
Diversion Channel Section B-B'

Scale: 1"=2'



Diversion & Bypass Channel Reinforcement Cross Section View Detail

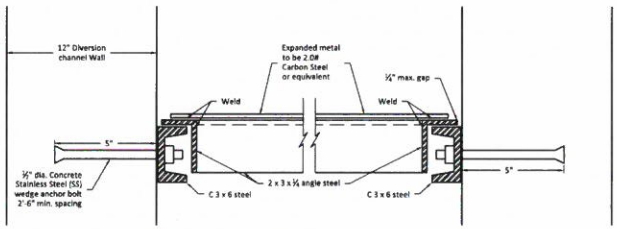
Scale: 1"=1'



Note:
1. Metal fabrication to be hot dipped galvanized steel finish.
2. Adjust lengths to fit diversion channel structure based on the final concrete placement.

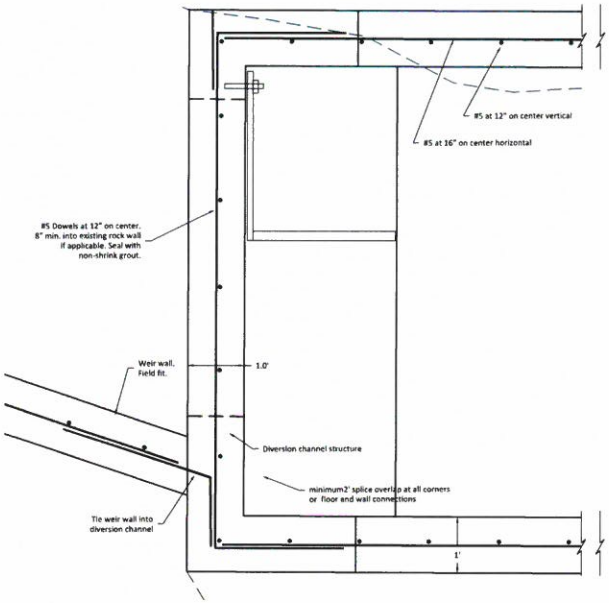
Catwalk Detail Top View

Scale: 1"=1'



Diversion Channel Catwalk Platform Cross Section View Detail

Not to Scale

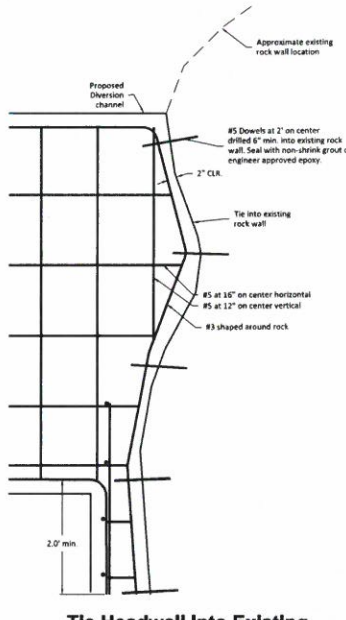


Diversion Channel/Headwall Reinforcement Top View Detail

Scale: 1"=1'

Diversion Channel Reinforcement Top View Detail

Scale: 1"=1'



Tie Headwall Into Existing Rock Detail Side View

Scale: 1"=1'

Notes:
- All dowel placement spacing into bedrock could be reduced with engineer's field approval based on observation of existing anchoring system (if any) and condition or shape of bedrock during removal of old concrete structures
- No contraction or control joints proposed
-All construction joints to include water stop as per specifications.

10/7/13

Engineer's Seal

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No.	Description	By	Date	Approved	Date
1	Designated split of Phase 1 & Phase 2	CM	9/30/13		
2					
3					
4					
5					

Original Drawing Preparation

	By	Date
Drawn	NM	7/13
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Approved	CM	8/8/13
Client Approved	--	--

COLORADO RIVER ENGINEERING INCORPORATED
PO Box 1301
Rifle, CO 81650
Tel 970-625-4933

CLIENT: Upper Arkansas Water Conservancy District
339 East Rainbow Blvd.
Salida, CO 81201

PROJECT: Helena Ditch Diversion

SHEET TITLE: Helena Ditch Diversion Details

CRE FILE: M:\Land Projects\2577.13-HelenaDitch\dwg\CRE-Design.dwg

SHEET NO. 12 OF

Revision 1