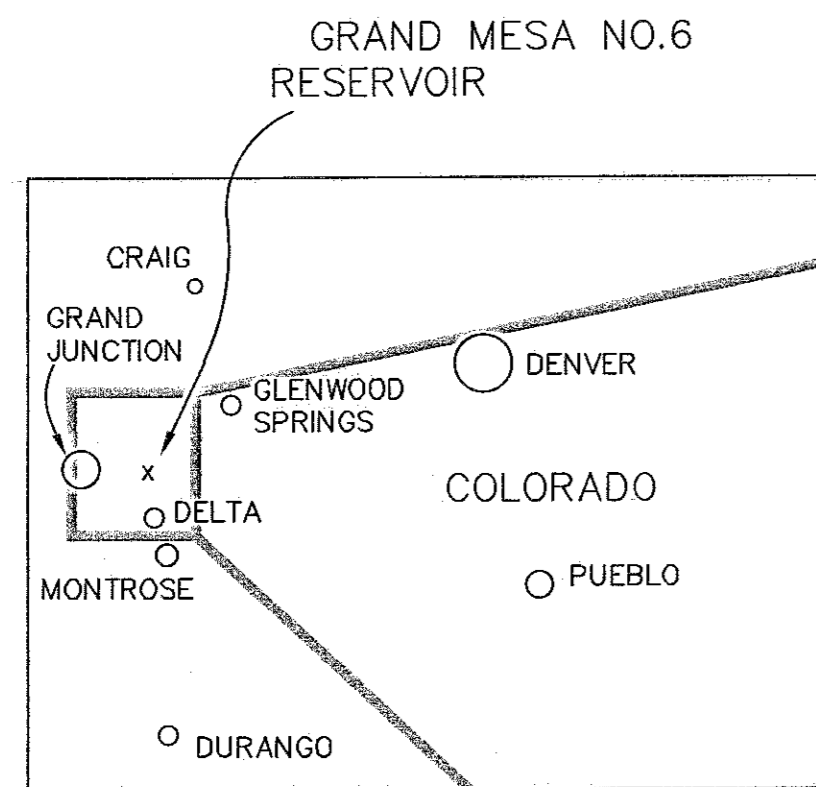
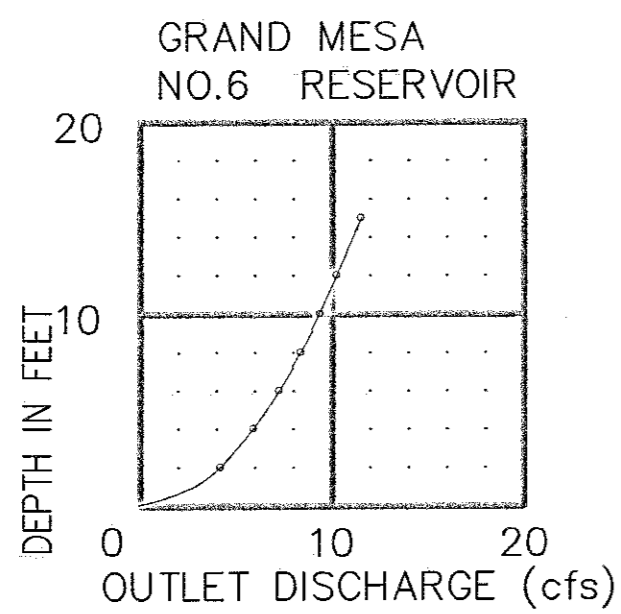


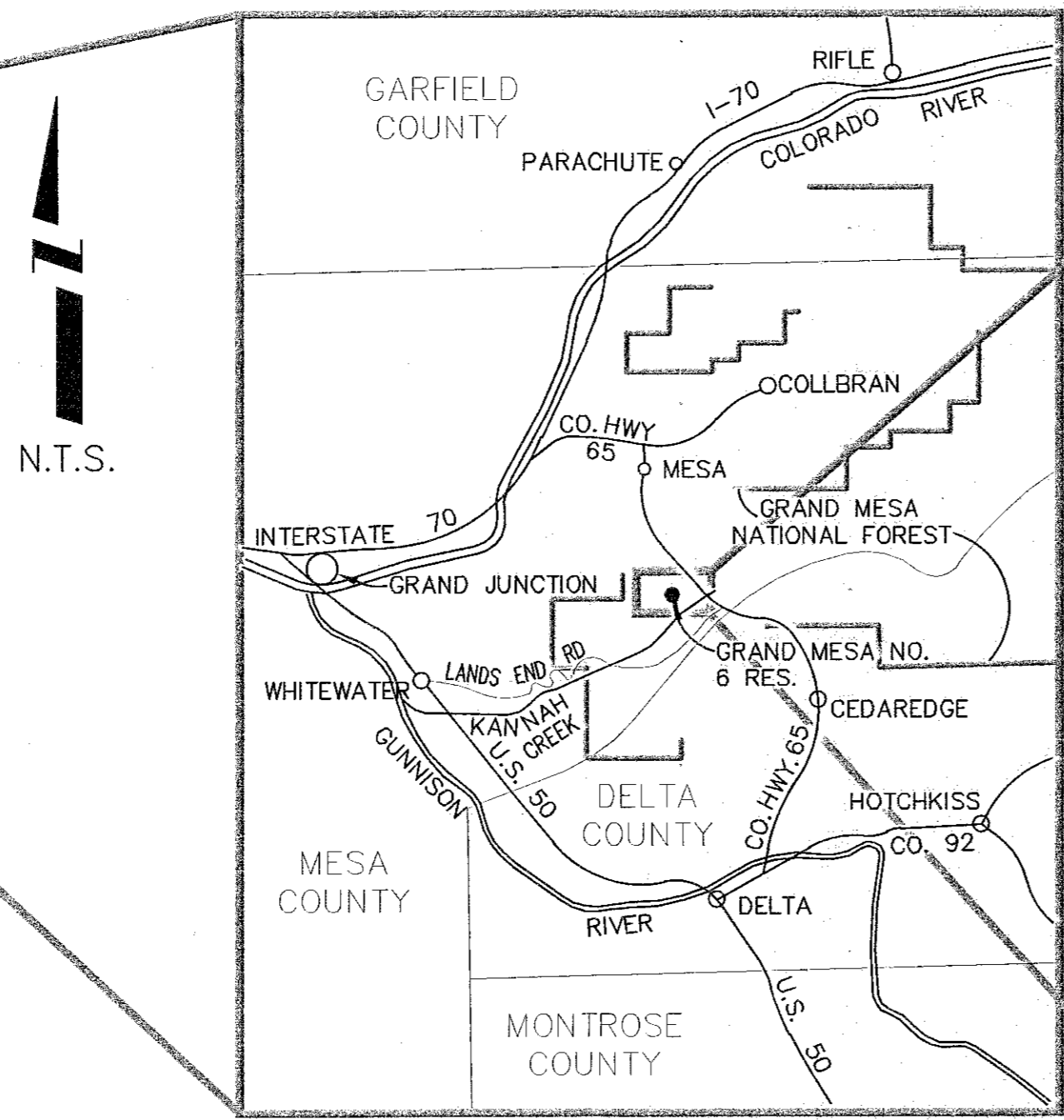
GRAND MESA NO. 6 RESERVOIR OUTLET WORKS REHABILITATION MESA COUNTY, W. DIV. 4, DAMID: 420121 MARCH 2012



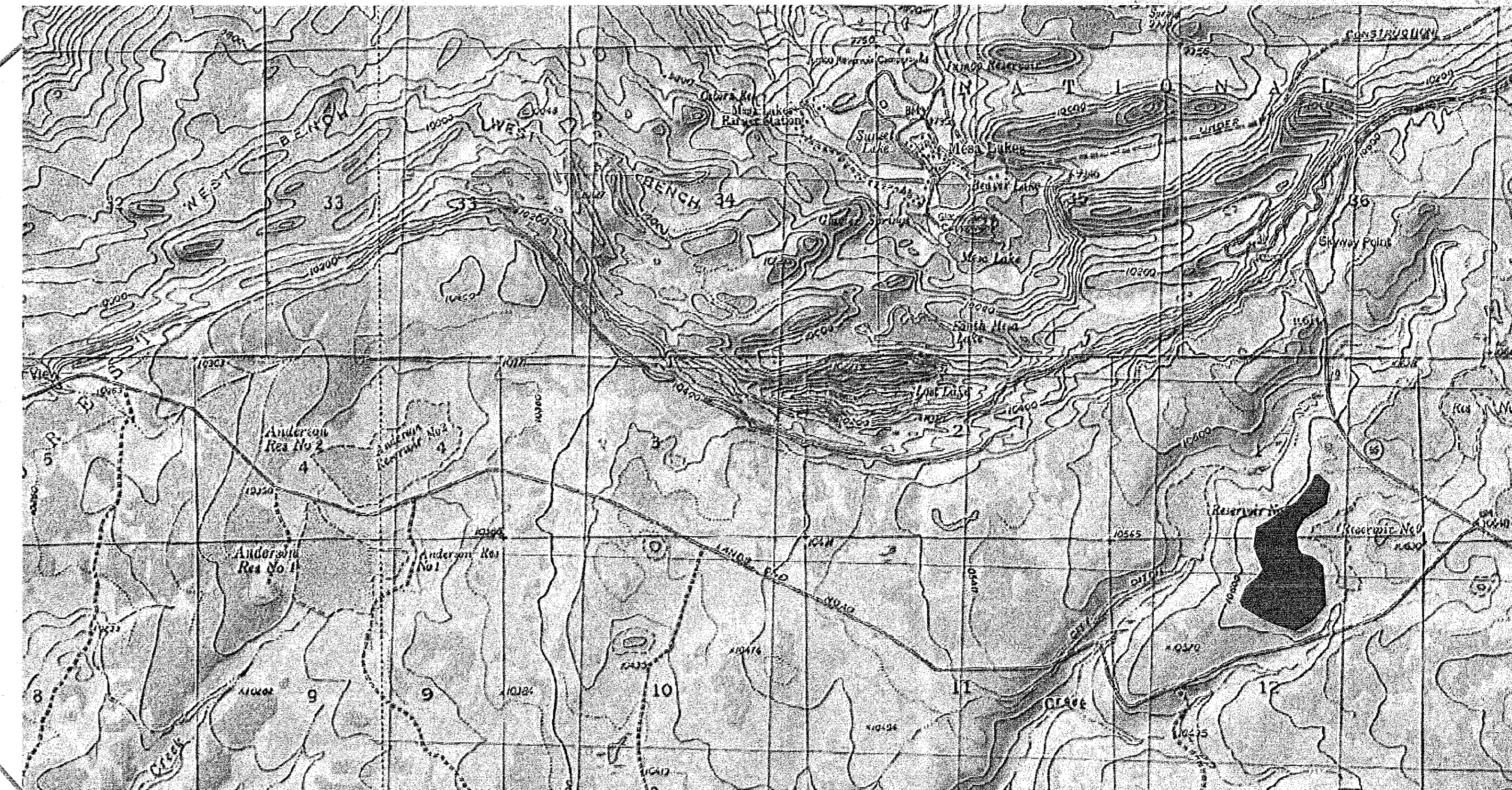
LOCATION MAP
N.T.S.



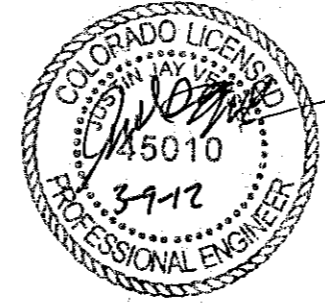
- 1 — Cover Sheet
- 2 — Outlet Works Rehabilitation,
Plan and Section Views



REGIONAL MAP
N.T.S.



VICINITY MAP



ENGINEER CERTIFICATION

I, JUSTIN VENSEL CERTIFY THAT THESE PLANS AND ACCOMPANYING SPECIFICATIONS WERE PROVIDED BY ME OR UNDER MY DIRECT SUPERVISION.

Justin Vensel SIGNATURE
45010 LICENSE NO.
MARCH 9 2012 DATE

OWNER ACCEPTANCE

AS OWNER OF GRAND MESA NO. 6 RESERVOIR WE ACKNOWLEDGE THAT THESE PLANS AND ACCOMPANYING SPECIFICATIONS HAVE BEEN REVIEWED AND ACCEPTED BY US, AND WE REQUEST CONSIDERATION FOR APPROVAL BY THE OFFICE OF THE STATE ENGINEER.

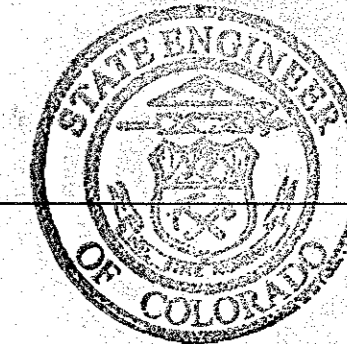
William T. McCormick III SIGNATURE
President TITLE
3/9/12 DATE

STATE ENGINEER APPROVAL

APPROVED ON THE 21ST DAY OF JUNE, 2012

STATE ENGINEER Dick Wolfe

BY: *William T. McCormick III*
FOR, DEPUTY WILLIAM T. MCCORMICK III
CHIEF, DAM SAFETY BRANCH
CO PE 29127



AS-BUILT CERTIFICATION

THESE PLANS REPRESENT THE AS-CONSTRUCTED CONDITIONS OF GRAND MESA RESERVOIR OUTLET WORKS TO THE BEST OF OUR KNOWLEDGE AND JUDGEMENT, BASED IN PART ON INFORMATION FURNISHED BY OTHERS AS OF THE _____ DAY OF _____ 2011.

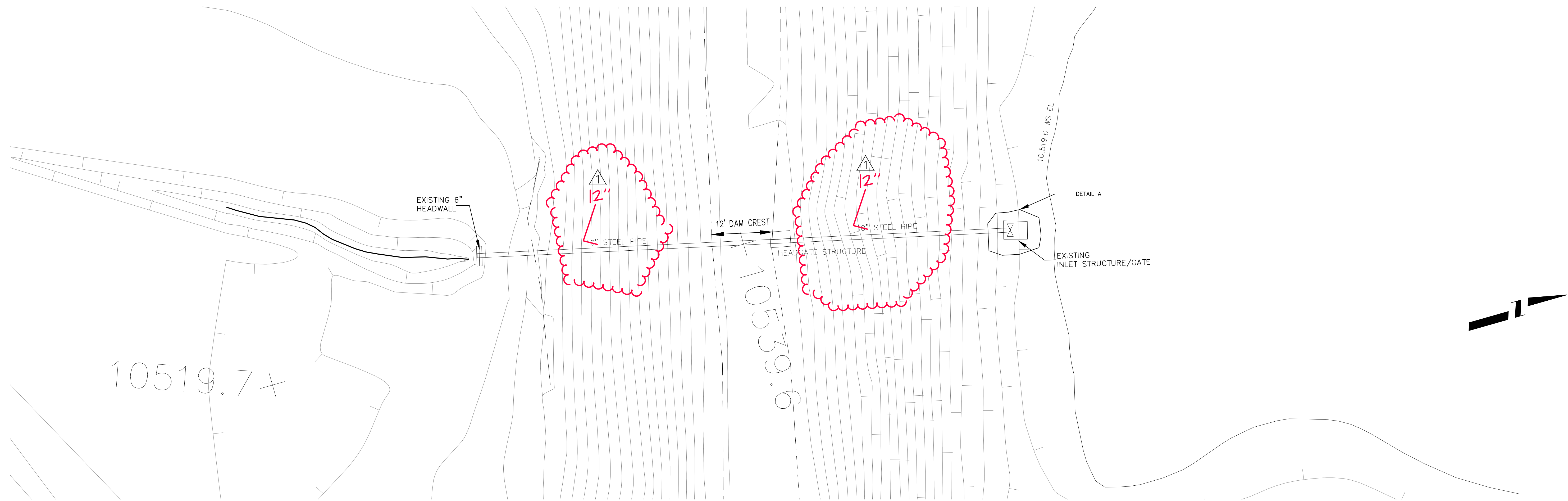
ENGINEER'S PRINTED NAME _____ SIGNATURE _____

City of Grand Junction, Colorado
Department of Public Works & Utilities

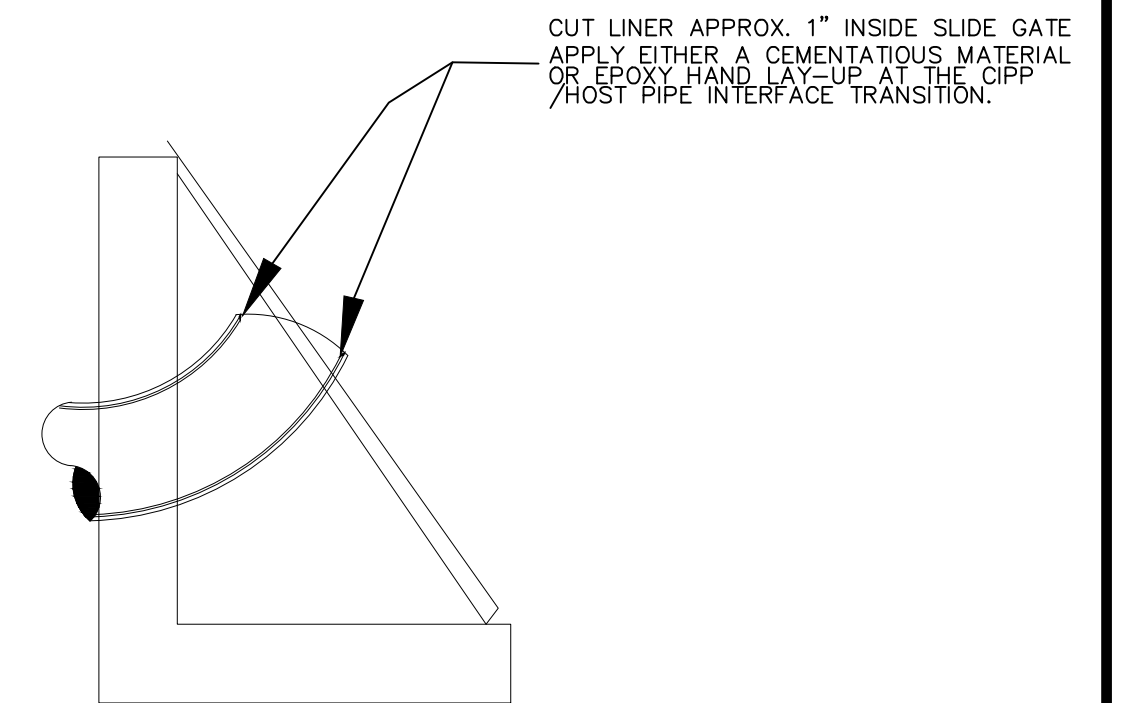
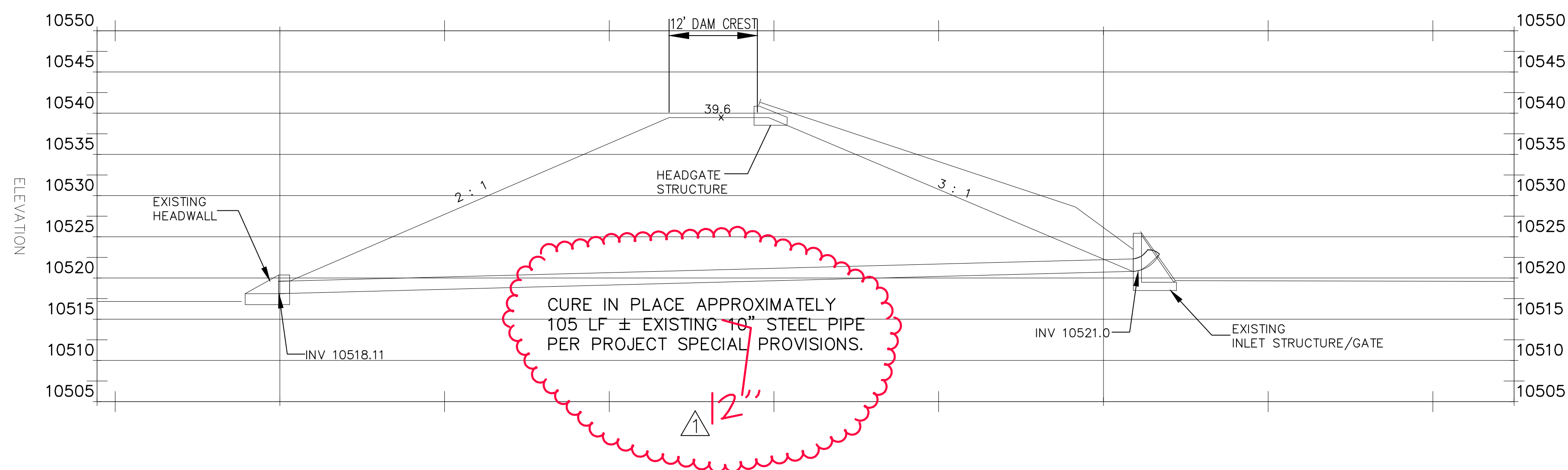
C-1180A
Engineering Division

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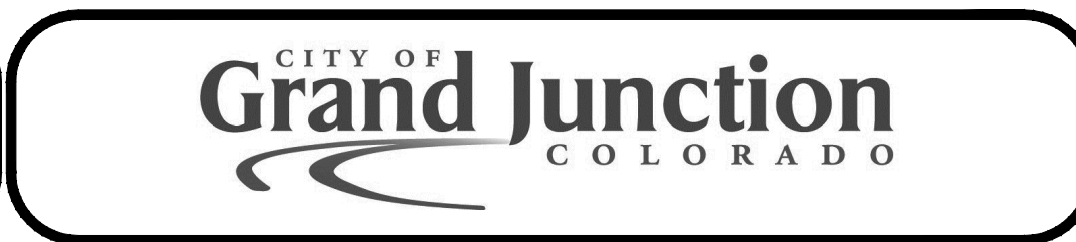
GRAND MESA NO. 6 RESERVOIR, OUTLET WORKS REHABILITATION, MARCH 2012



DETAIL A
N.T.S



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALE:
REVISION Δ 1	AS BUILT	3-5-13	JCS	JUNE 2011	0 2.5 5 10
REVISION Δ 2			JJV	MARCH 2012	
REVISION Δ 3			JJV	MARCH 2012	
REVISION Δ 4					



PUBLIC WORKS
AND UTILITIES
ENGINEERING DIVISION

GRAND MESA RESERVOIR NO 6
MESA COUNTY, W. DIV. 4, DAMID: 420121
OUTLET WORKS REHABILITATION

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PHOTO 1:
WORKERS PREPPING OUTER PORTION OF 2 PART LINER TO PULL THROUGH HOST PIPE FROM THE RESERVOIR OR INLET STRUCTURE END OF THE HOST PIPE.



PHOTO 3:
WORKER PREPPING INNER PORTION OF 2 PART LINER FROM OUTLET SIDE OF DAM TO BE PUSHED AND INVERTED BACK THROUGH THE OUTER PORTION PREVIOUSLY PULLED THROUGH THE HOST PIPE FROM THIS SIDE



PHOTO 5:
END OF INNER PORTION OF 2 PART LINER APPROACHING PIPE LINER AIR INVERSION TOOL AND PUSHED NEARLY ALL THE WAY BACK THROUGH THE OUTER LINER AND HOST PIPE TOWARD THE RESERVOIR SIDE. PHOTO AT THE OUTLET SIDE.



PHOTO 2:
OUTER PORTION OF 2 PART LINER BEING FED THROUGH HOST PIPE FROM THE RESERVOIR OR INLET STRUCTURE END OF THE HOST PIPE AND PULLED FROM THE OUTLET END OF THE PIPE (NOT SHOWN).



PHOTO 4:
INNER PORTION OF 2 PART LINER FROM OUTLET SIDE OF DAM PUSHED AND INVERTED BACK THROUGH THE OUTER PORTION OF LINER WITH COMPRESSED AIR VIA A PIPE LINER AIR INVERSION TOOL



PHOTO 6:
STEAM IS ADDED TO COMPRESSED AIR FROM A CONNECTION ON THE PIPE LINER AIR INVERSION TOOL (NOT SHOWN, BUT SHOWN IN PHOTO 5) TO ACTIVATE THE CATALYST CURING THE RESIN THEREBY COMPLETING THE CURED IN PIPE PROCESS FOR THE PROJECT

REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALE:
REVISION A	AS BUILT	3-5-13	JCS	JUNE 2011	0 2.5 5 10
REVISION B			JJV	MARCH 2012	
REVISION C			JJV	MARCH 2012	
REVISION D					



PUBLIC WORKS
AND UTILITIES
ENGINEERING DIVISION

GRAND MESA RESERVOIR NO 6
MESA COUNTY, W. DIV. 4, DAMID: 420121
OUTLET WORKS REHAB PHOTOS

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