APPENDIX D

Dam Cross Section Profiles and Preliminary Design Layouts for Dam Structures and Appurtenant Features

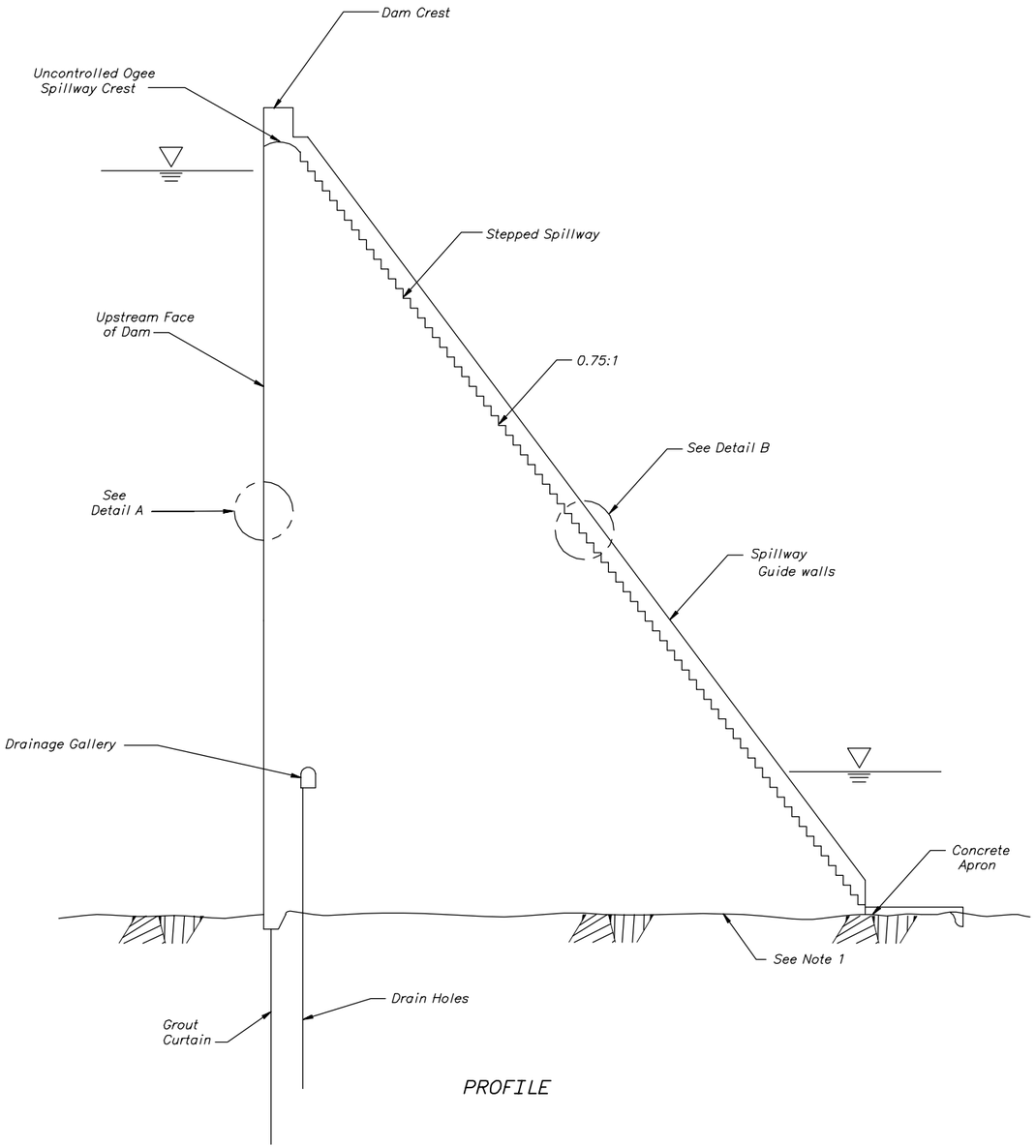
Fine Gold Reservoir

Appendix D contains preliminary, pre-feasibility level design drawings of the dam structures and appurtenant features that are being considered as surface storage options for Fine Gold Reservoir. They were prepared in order to develop estimates of quantities of materials that would be needed to construct the features, for inclusion in construction cost estimates, and to facilitate future planning. Designs for retained options will be refined as the Investigation progresses.

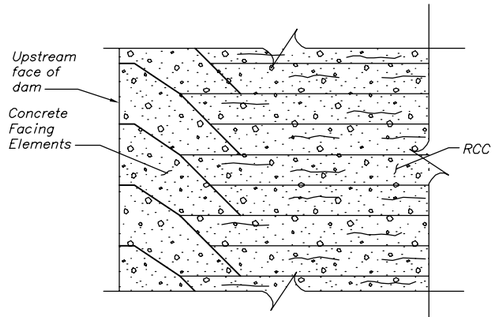
Sample cross section profiles for each dam type (CFRF, RCC) are presented first, followed by plan view layouts for the surface storage options.

The figures are displayed in the following order:

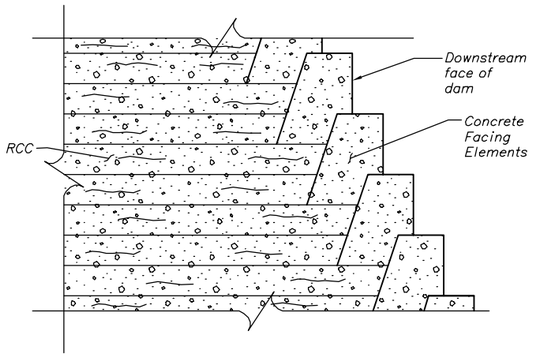
- RCC cross section profile
- CFRF cross section profile
- RCC crest elevation 900
- CFRF crest elevation 900
- RCC crest elevation 1,100
- CFRF crest elevation 1,100



PROFILE



DETAIL A



DETAIL B

NOTES

1. Foundation for RCC gravity dam to be excavated to competent rock.

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UPPER SAN JOAQUIN STORAGE INVESTIGATIONS

ROLLER COMPACTED CONCRETE DAM

FIGURE 1

CADD SYSTEM	CADD FILENAME
AutoCAD Rel. 15.06	FIGURE1.DWG
DENVER, COLORADO AUGUST 13, 2002 SHEET 1 OF 2	ZU-D-FIG 1

SOLICITATION NO. 0000

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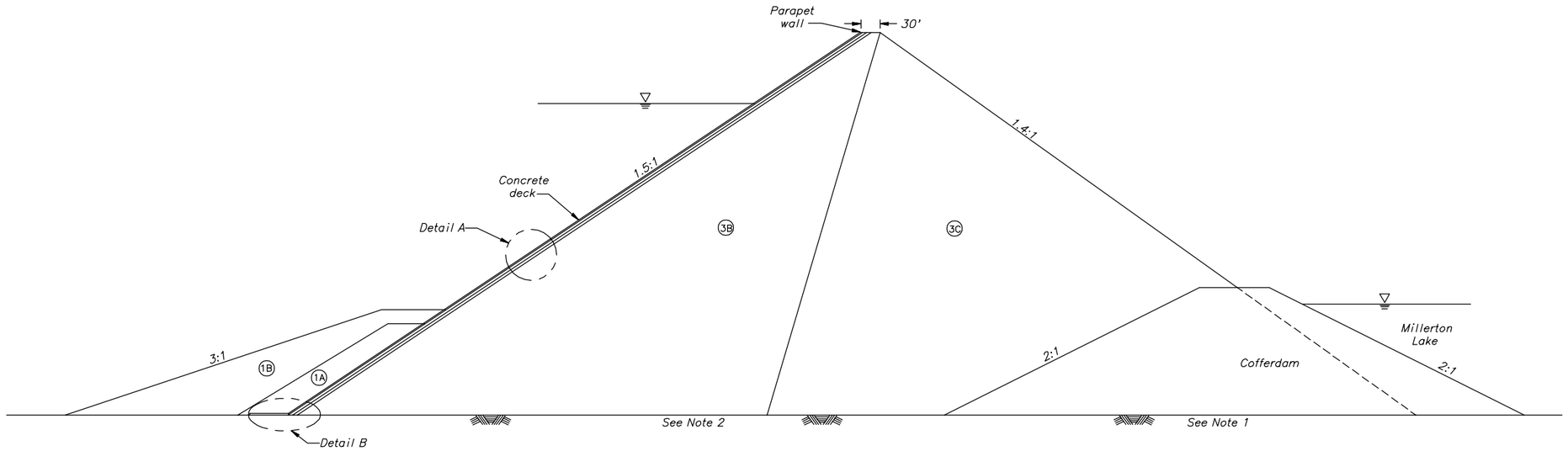
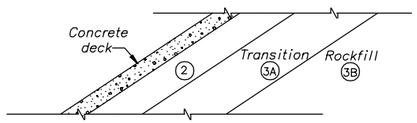
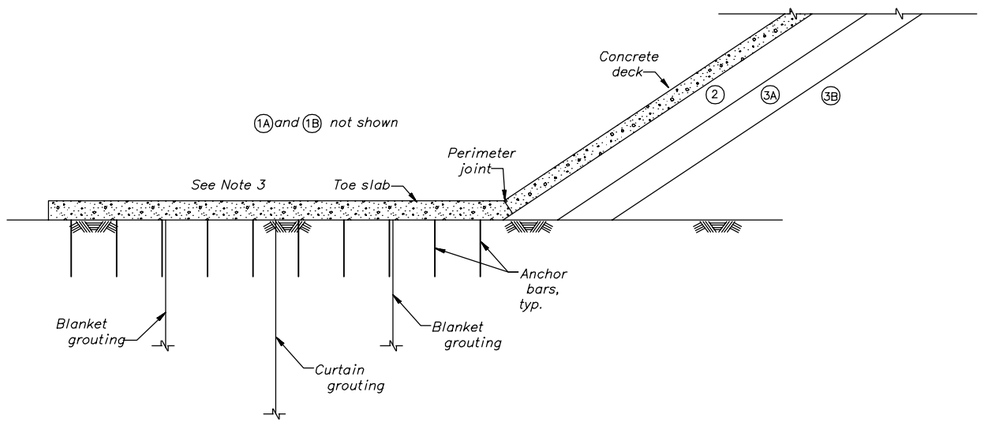
ZU-D-FIG 1



PLAN



DETAIL A



DETAIL B

EMBANKMENT EXPLANATION

(1A) *Clay, silt, sand, and gravel with a maximum particle size of 3-inches (> 12% fines) from borrow compacted to 6-inch layers*

(1B) *Gravel and cobbles with a maximum particle size of 12-inches from required excavation and borrow compacted to 18-inch layers.*

(2) *Silty gravel with sand processed from borrow compacted to 18-inch layers.*

(3A) *Gravel processed from borrow compacted to 18-inch layers.*

(3B) *Rock fill with a maximum particle size of 18-inch compacted to 36 inch layers.*

(3C) *Rock fill with a maximum particle size of 36-inches compacted to 48-inch layers.*

NOTES

1. *Cofferdam foundation conditions assumed to be coarse gravel, cobbles and boulders.*

2. *Foundation for shells assumed to be competent rock cleaned by standard construction equipment.*

3. *Foundation for toe slab assumed to be competent rock cleaned by hand and surface treated.*

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CONCRETE FACED ROCKFILL DAM

FIGURE 2

CADD SYSTEM	CADD FILENAME
AutoCAD Rel. 15.06	FIGURE2.DWG
DENVER, COLORADO	AUGUST 13, 2002
SHEET 2 OF 2	ZU-D-FIG 2

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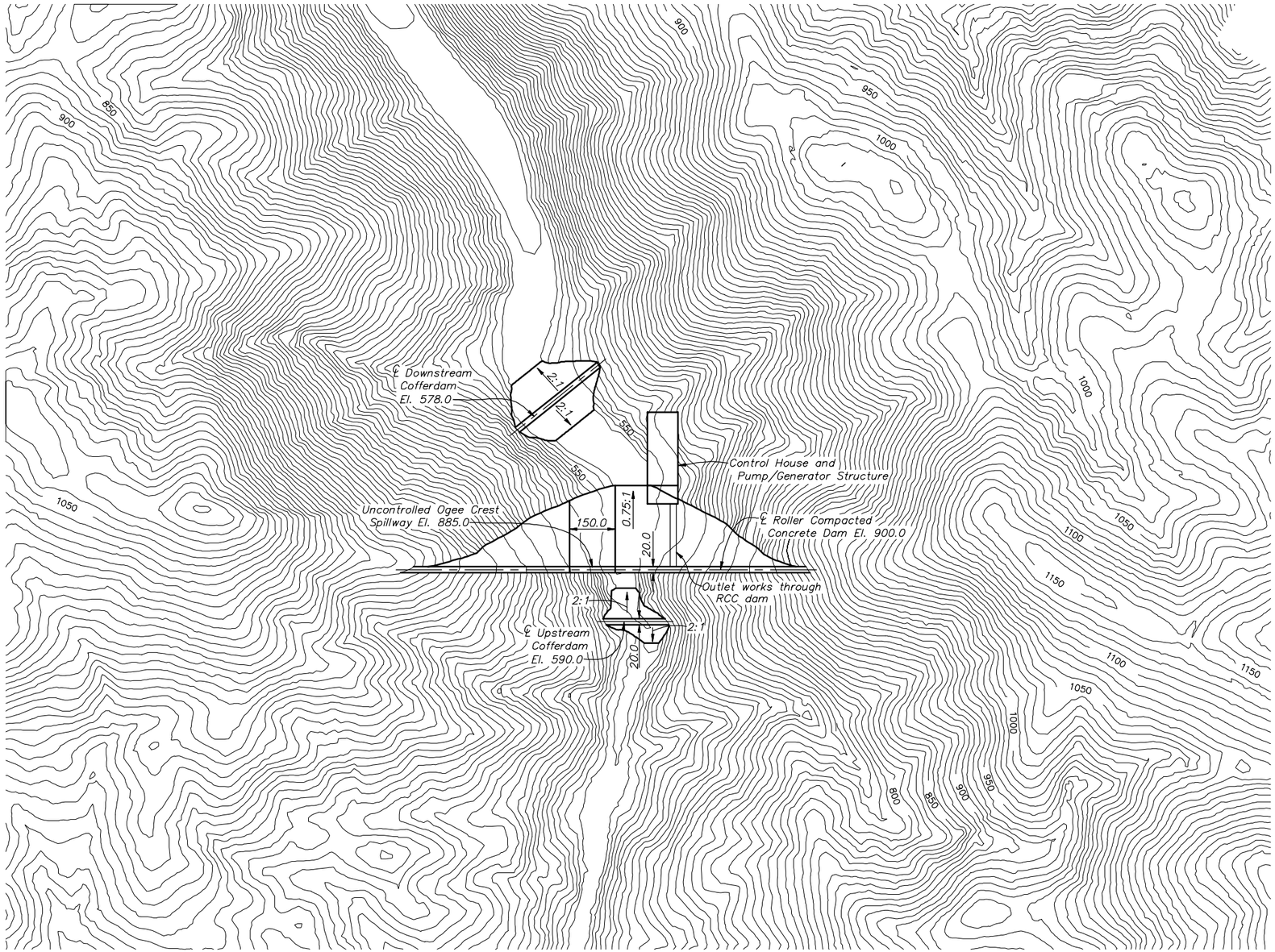
JWHITE



NOTES

Saddle dam on right reservoir rim not shown.

200 0 200 400 600
SCALE OF FEET

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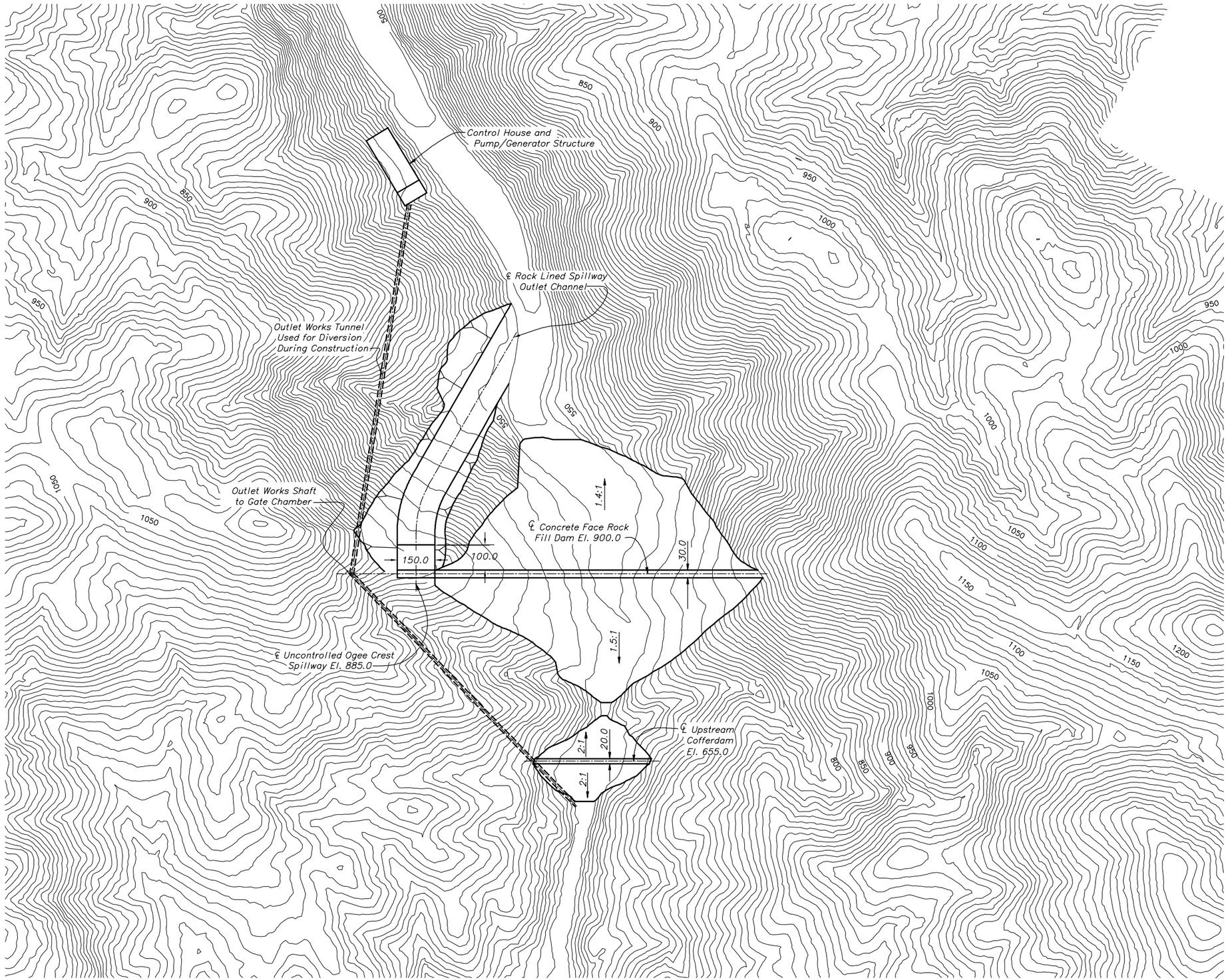
LAYOUT FOR DAM STRUCTURE AND APPURTENANT FEATURES

FINE GOLD RCC DAM
CREST EL. 900

CADD SYSTEM	CADD FILENAME
AutoCAD	FINE_GOLD_DAM
DENVER, COLORADO SEPTEMBER 25, 2002	

DATE AND TIME PLOTTED
10-01-02
PLOTTED BY
JROVER



NOTES

Downstream Cofferdam not shown. Downstream Cofferdam with crest elevation 578 will be incorporated into downstream dam embankment.

200 0 200 400 600
SCALE OF FEET

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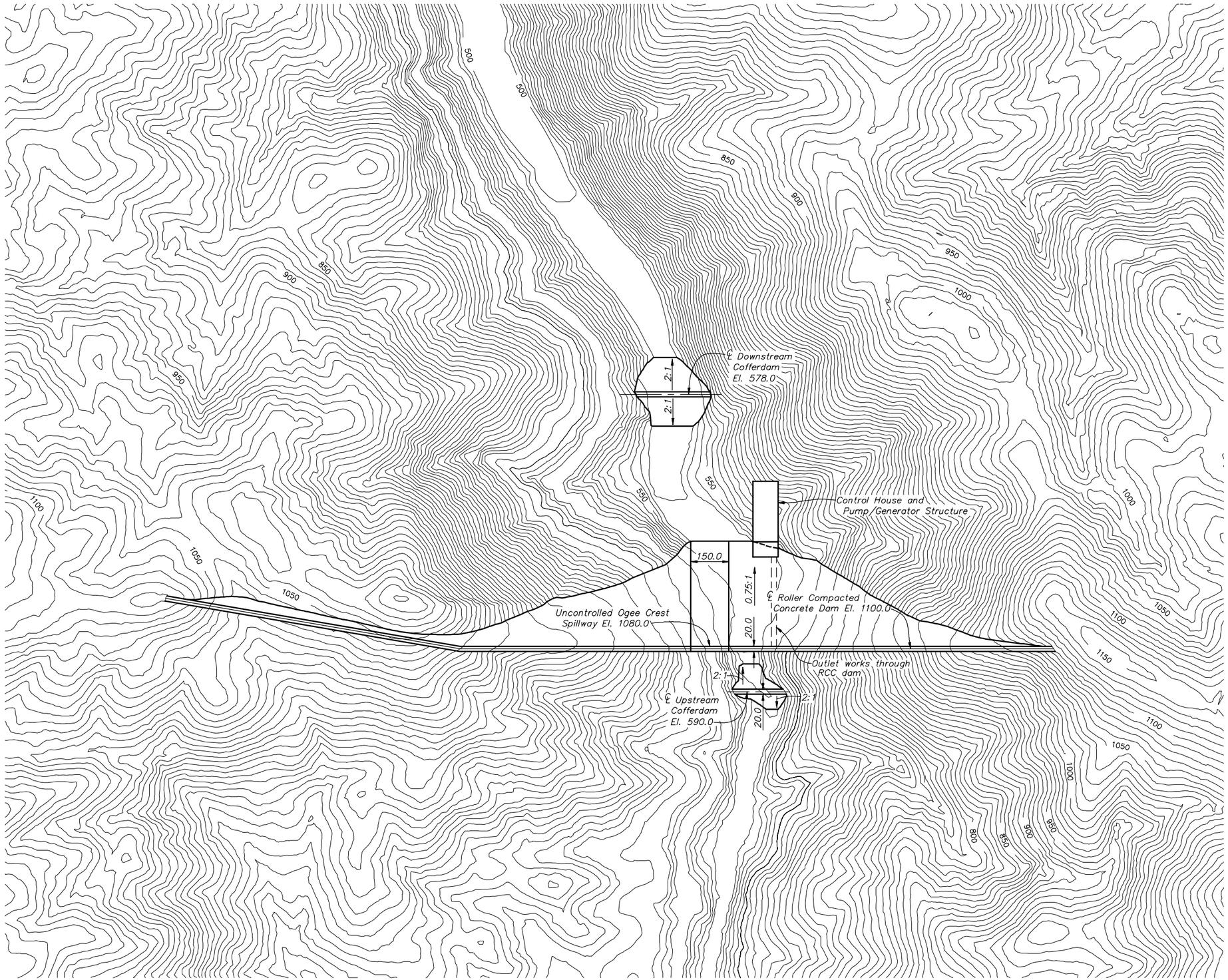
LAYOUT FOR DAM STRUCTURE AND APPURTENANT FEATURES

FINE GOLD CFR DAM
CREST EL. 900

CADD SYSTEM	CADD FILENAME
AutoCAD	
DENVER, COLORADO SEPTEMBER 25, 2002	

DATE AND TIME PLOTTED
10-01-02
PLOTTED BY
JROVER



NOTE

Saddle dam on right ressrvoir rim not shown.

200 0 200 400 600
SCALE OF FEET

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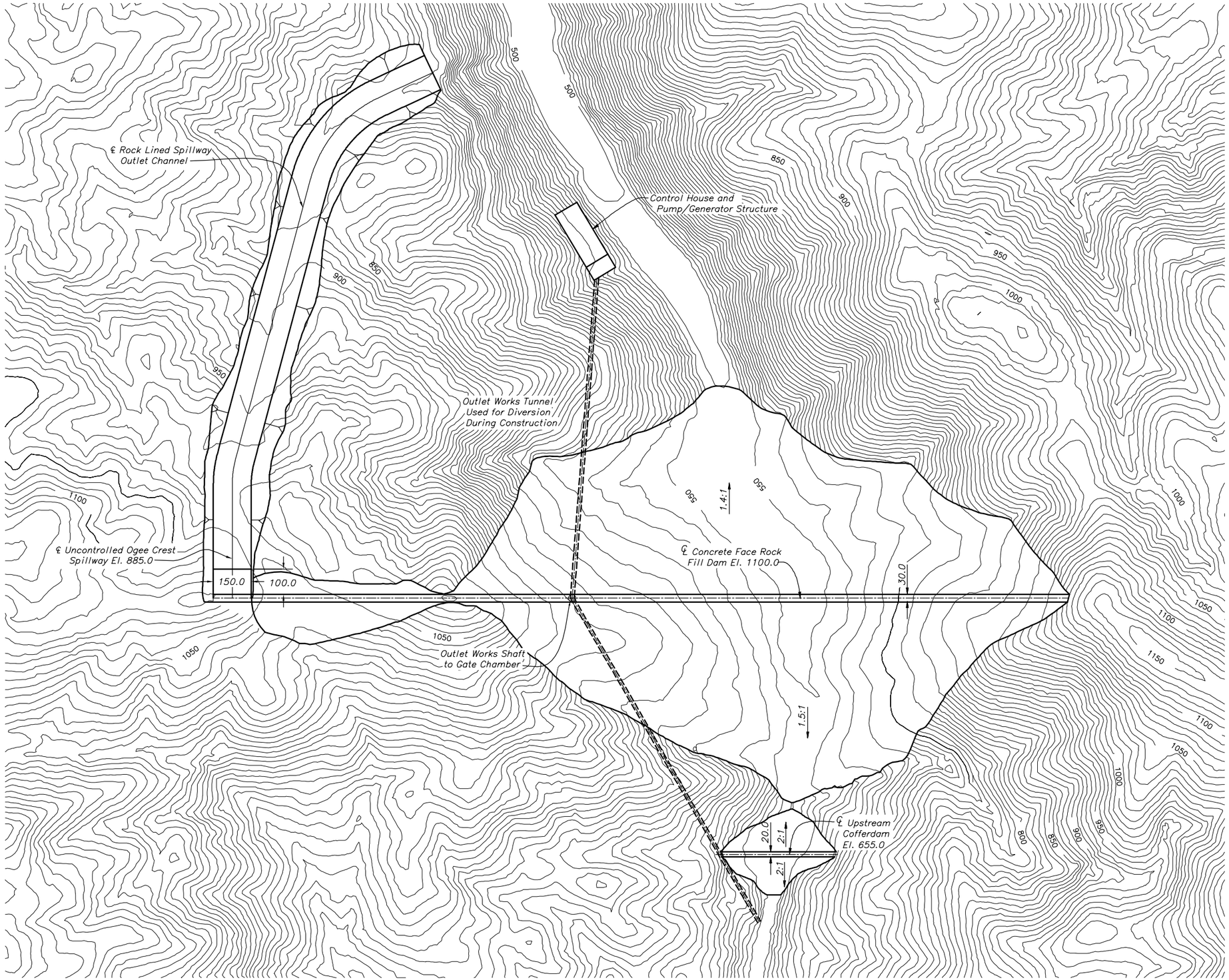
LAYOUT FOR DAM STRUCTURE AND APPURTENANT FEATURES

FINE GOLD RCC DAM
CREST EL. 1100

CADD SYSTEM	CADD FILENAME
AutoCAD	
DENVER, COLORADO SEPTEMBER 25, 2002	

DATE AND TIME PLOTTED
10-01-02
PLOTTED BY
JROVER



NOTES

Saddle dam on right ressrvoir rim not shown.
Downstream cofferdam not shown. Downstream Cofferdam with crest elevation 578 will be incorporated into downstream dam embankment.

200 0 200 400 600
SCALE OF FEET

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LAYOUT FOR DAM STRUCTURE AND APPURTENANT FEATURES

FINE GOLD CFR DAM
CREST EL. 1100

CADD SYSTEM	CADD FILENAME
AutoCAD	
DENVER, COLORADO SEPTEMBER 25, 2002	

DATE AND TIME PLOTTED
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APPENDIX E

Climate Data

Fine Gold Reservoir

FRIANT GOVERNMENT CAMP, CALIFORNIA (043261)

Period of Record Monthly Climate Summary

Period of Record : 7/ 1/1948 to 3/31/2003

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	55.2	61.2	66.0	73.9	84.0	92.9	100.0	98.5	92.3	81.6	66.6	55.9	77.3
Average Min. Temperature (F)	36.4	39.5	40.9	43.3	48.9	55.2	60.5	59.2	55.8	49.1	41.4	36.2	47.2
Average Total Precipitation (in.)	2.70	2.45	2.42	1.29	0.47	0.16	0.01	0.01	0.24	0.67	1.64	2.15	14.22
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 99.4% Min. Temp.: 99.4% Precipitation: 99.4% Snowfall: 99.4% Snow Depth: 99.4%

Source: Western Regional Climate Center, Desert Research Institute
(http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?cafria+nca)

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