

RO Anderson

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May 7, 2011

DOUGLAS COUNTY
COMMUNITY DEVELOPMENT

Via Hand Delivery

Mimi Moss, AICP Director/Flood Plain Administrator
DOUGLAS COUNTY COMMUNITY DEVELOPMENT
1594 Esmeralda Avenue
Minden, NV 89423

**Douglas County: Smelter Creek Flood Control Project
Conceptual Design Documents**

Dear Mimi:

Thank you, again, for meeting with us on April 22nd concerning potential Flood Hazard Mitigation projects in 2011.

In furtherance of our meeting, please find attached the conceptual design sheets (1 through 4) for the proposed Smelter Creek Flood Control Project in Gardnerville. As you will note from your review of these sheets, the proposed detention basin is proposed to be located immediately east of the Ruhenstroth development on ground managed by BLM. The facility is proposed as an on-stream (Smelter Creek) structure with a total height of 33 feet, resulting in 140 acre-feet of capacity below the proposed spillway. As shown on the attached Stage-Storage Curve and basin hydrographs, this capacity is sufficient to fully detain the estimated 1% recurrence interval (100-year) storm.

The projected results of constructing such a detention basin at this location are shown on Sheet 4, *Preliminary Analysis of FIRM Changes*. Based on our initial estimates of probable release rates from this facility, as well as the downstream hydraulic capacity within the floodplain, we estimate that about 98 parcels will be removed from the primary flood zones (A and AE); an additional 82 parcels would be removed from the Shaded Zone X.

We are now in the process of preparing a Preliminary Estimate of Probable Project Costs. Once we have that data assembled we will forward it to you for your consideration and comments.

Y:\Client\Projects\2010\2010-04-22\Design\2011\11-01\11-01-01\Conceptual Design Documents.doc

Best professional regards.

R.O. ANDERSON ENGINEERING, INC.

Robert S. Anderson / Apr

Attachments

cc: Mahmood Azad, P.E.
T. Michael Brown

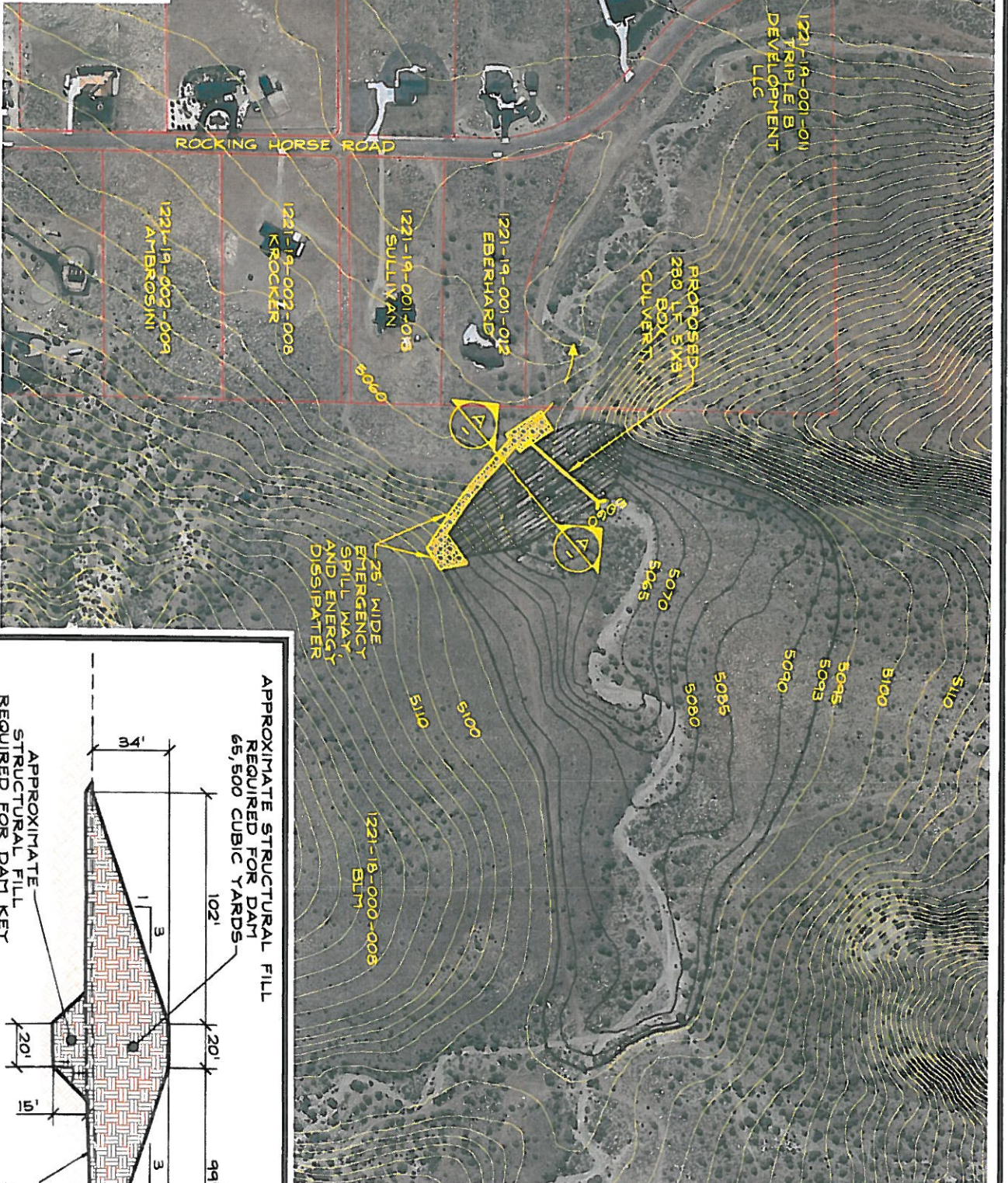
SMELTER CREEK FLOOD CONTROL PROJECT PROPOSED DETENTION BASIN

SHEET 2 OF 4

05/03/2011

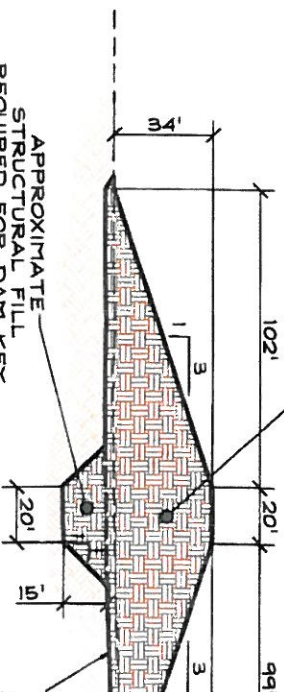
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APPROXIMATE STRUCTURAL FILL
REQUIRED FOR DAM
65,500 CUBIC YARDS

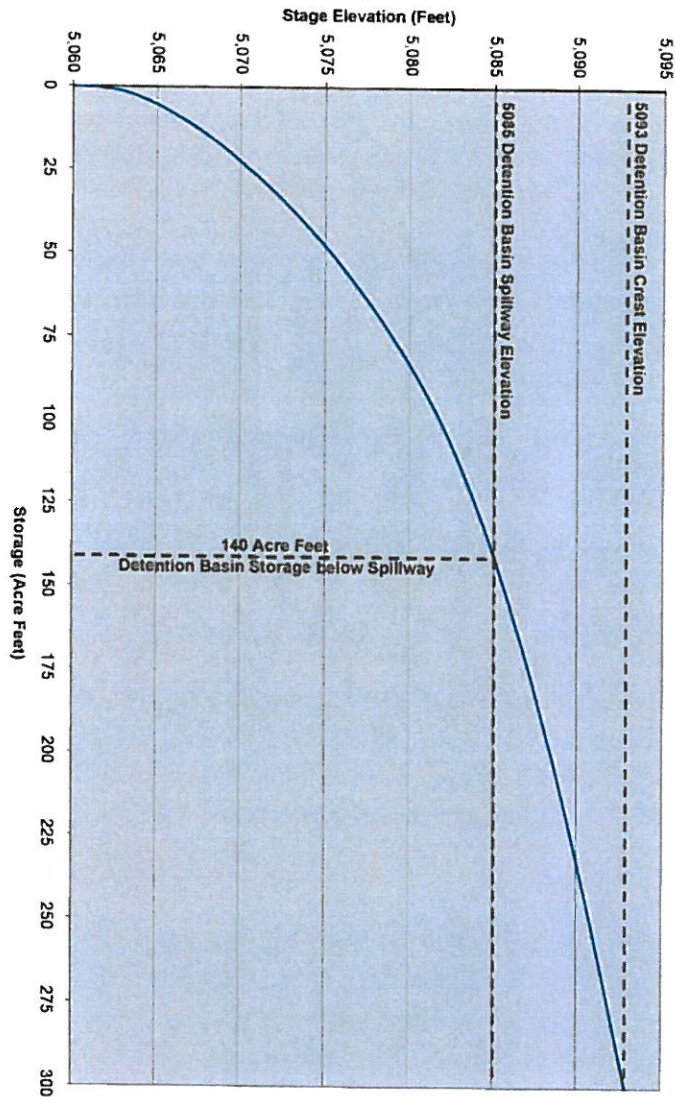
APPROXIMATE
STRUCTURAL FILL
REQUIRED FOR DAM KEY
12,000 CUBIC YARDS



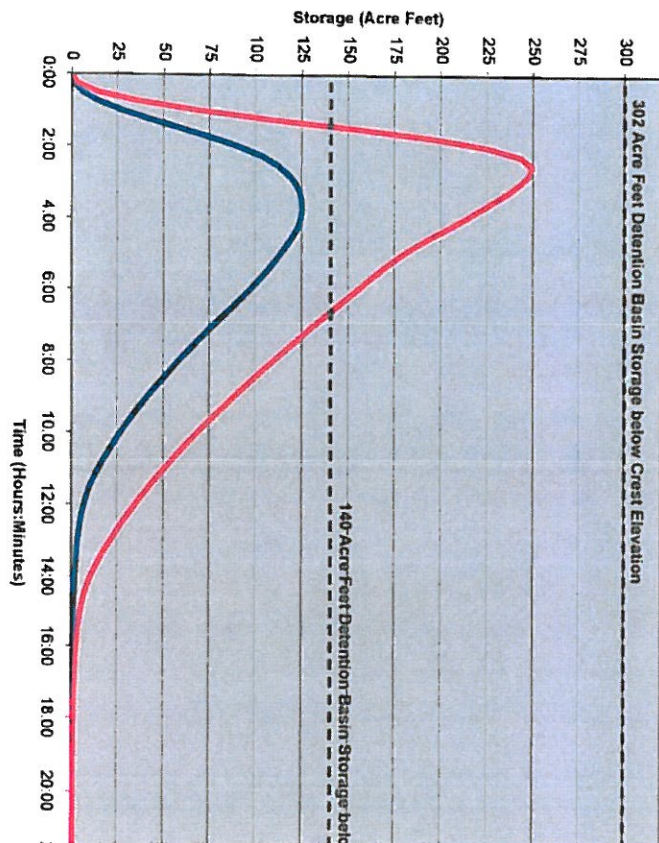
DAM SECTION A

NOT TO SCALE

Smelter Creek Flood Control Project: Detention Basin Stage and Storage



Smelter Creek Flood Control Project: Detention Basin Storm Storage



SMELTER CREEK FLOOD CONTROL PROJECT DETENTION BASIN STORAGE GRAPHS

SHEET 3 OF 4

05/03/2011

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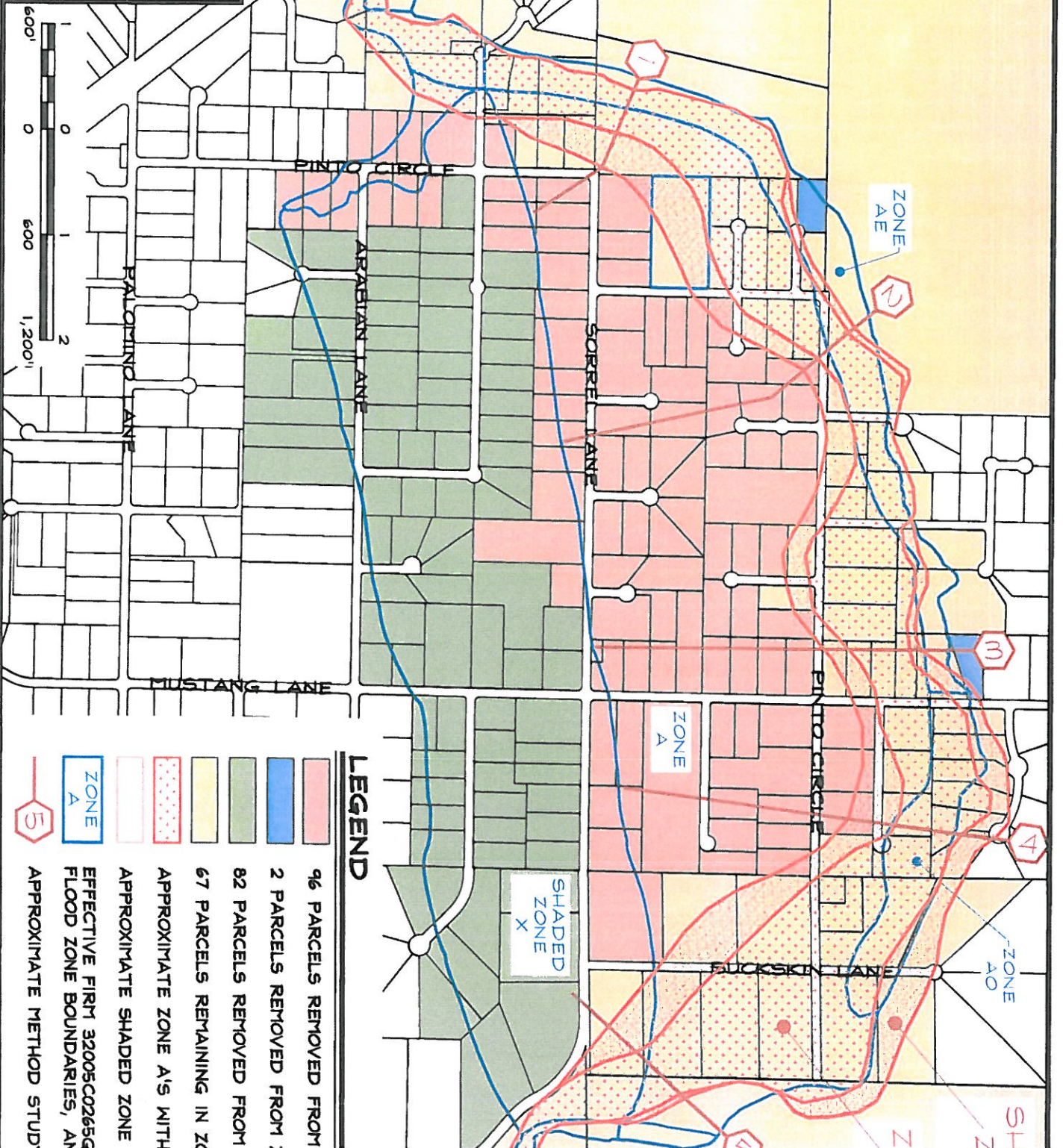
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SHEET 4 OF 4

05/03/2011

**SMELTER CREEK
 FLOOD CONTROL PROJECT
 PRELIMINARY ANALYSIS
 OF FIRM CHANGES**



LEGEND

- 96 PARCELS REMOVED FROM
- 2 PARCELS REMOVED FROM :
- 82 PARCELS REMOVED FROM
- 67 PARCELS REMAINING IN ZC
- APPROXIMATE ZONE A'S WITH
- APPROXIMATE SHADED ZONE
- EFFECTIVE FIRM 32005C0265G
- FLOOD ZONE BOUNDARIES, AN
- APPROXIMATE METHOD STUD'

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**SMELTER CREEK
FLOOD CONTROL PROJECT**

EFFECTIVE FIRMS

SHEET 1 OF 4

05/03/2011

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