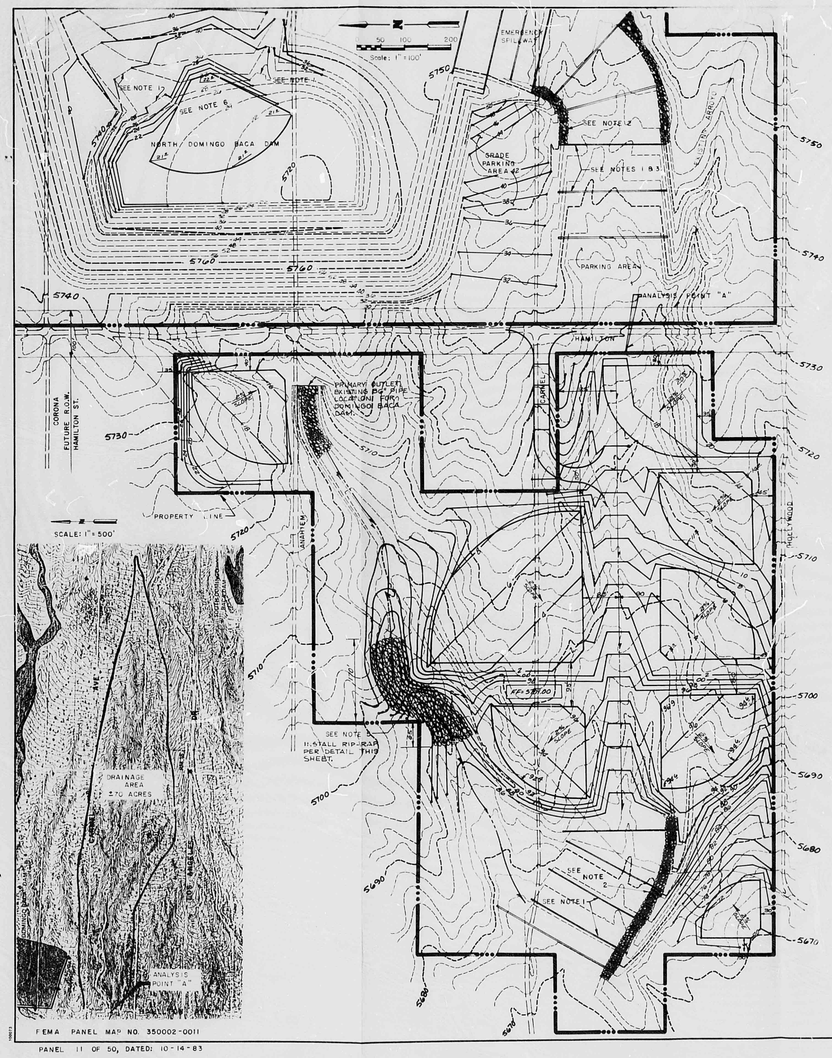
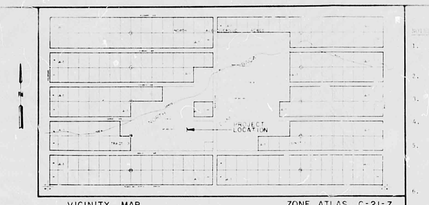
PUBLIC WORKS/HYDROLOGY

C21/D2





VICINITY MAP ZONE ATLAS C-21-Z

LEGAL DESCRIPTION
TRACT A & B, AMAFCA, NORTH BACA DAM, BOOK 327, PAGE 50, DOCUMENT NO. 85-57486

CHANNEL AT PRIMARY OUTLET

25' = Bottom Width Of Channel

3:1 = Back Slope

±730' = Channel Re-alignment Length

5700.00 = Upper ℄ Elevation
5680.00 = Lower ℄ Elevation
20.00

Slope = 2.74%

Q = 178 cfs = 100 yr. design; Once La Cueva has been included.

OPEN CHANNEL FLOW CALCULATIONS (PRIMARY OUTFALL)

Velocity = 7.16 fps

Depth = 0.90' Normal Depth

Top Width = 30.4'

Critical Depth = 1.11'

n = .030

EXISTING ARROYO & EMERGENCY OUTLET

ANALYSIS POINT "A"

Area = 70 Ac

2.6" = 6 Hr, 100 Yr (Per DPM Plate 22.2 D-1)

Soils Group = B

Z_m = 206

L = 5000'

T_c = 18.77 Minutes

CN = 79

R = 0.85

Q_{pk} = 161 cfs

n = 0.030

50' Bottom Width Of Channel

3:1 Back Slope

1000' Channel Length

5720.00 Upper ℄ Elevation
5684.00 Lower ℄ Elevation
36.00

Slope = 3.50%

OPEN CHANNEL FLOW CALCULATIONS (EMERGENCY OUTLET)

Velocity = 6.0 fps

Depth = 0.52' Normal Depth

Top Width = 53.1'

Critical Depth = 0.68'

NOTE: Analysis Point "A" calculations are for existing arroyo whose drainage area = ±70 acres. Drainage calculations for point "A" do not include any runoff from the emergency spillway.

ANALYSIS POINT "A"

HYDROGRAPH COMPUTATION WORKSHEET

PROJECT: Altamont Little League

LOCATION: West of N. Domingo Baca Dam Site

ANALYSIS POINT #: Hamilton Ave.

(DR. AREA) A = 70.0 ACRES

T_c = 18.77 MIN

POINT RAINFALL 2.6 IN. FROM PLATE 22.2 D-1

CN = 79 FROM PLATES 22.2 C-2, 22.2 C-3

RUNOFF VOLUME R = 0.85 IN. FROM PLATE 22.2 C-4

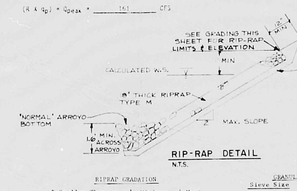
COMPUTED T_p = 18.77 MIN. T_p = 1 (rounded to even minute)

$q_p = \frac{484 \times A \times R}{T_p}$ = 169.31 CFS/INCH OF RUNOFF

(R x q_p) = Q_{peak} = 161 CFS

LEGEND

—X—X— EXISTING CONTOURS
—70— PROPOSED CONTOURS



RIP-RAP DETAIL
N.T.S.

RIPRAP GRADATION

% Smaller Than or Equal to Given Size by Weight	Minimum Dimension Inches	Mean Particle
100	18	
35-55	12	12**
10	3	

** At least 30% of all stones by weight shall be this dimension

GRANULAR FILTER GRADATION

Sieve Size	% by Weight Passing
2"	90-100
3/4"	20-90
#4	0-20
#200	0-3

A subbase material meeting city specs. (Section 303) may be substituted if the thickness is increased to 12".

NOTES:

1. The existing cut-off walls (erosion control structures) shall not be disturbed during grading.
2. The existing rip-rap shall not be disturbed during grading.
3. The emergency spill-way arroyo east of Hamilton Ave. shall not be disturbed.
4. All grading shall be kept within the property line.
5. The Contractor shall notify AMAFCA (294-2215), Larry Blair and City Storm Drain Maintenance (291-6216) one week prior to grading operations.
6. The ball field that is to be graded within the North Domingo Baca Dam shall be a small practice field. A back stop will be built above the confluence of the two existing arroyos. No other fencing will be installed. Tee & mound-check are not to be disturbed by the Contractor.
7. The City of Albuquerque agrees to operate, maintain, and if necessary, rehabilitate the dam and its appurtenances to insure that they will fulfill flood control and drainage functions. SEE DEED AGREEMENT FOR THE NORTH BACA ARROYO DETENTION DAM, dated December 18, 1985.

NO	DATE	REMARKS	BY
		REVISIONS	

DESIGNED BY: R.L.
DRAWN BY: K.C.
CHECKED BY: R.L.

DATE 8/21/86
DATE 8/21/86
DATE 8/21/86

ENGINEER'S SEAL

PROJECT NO. 384.0255

SURVEY INFORMATION

NO	FIELD NOTES	BY

BENCH MARKS

1"=21A" A 3" BRASS CAP SET IN THE S.W. CORNER OF THE DAM
ELEVATION = 5760.29'

AS BUILT INFORMATION

NO	DATE	REMARKS	BY

MICRO-FILM INFORMATION

NO	DATE	REMARKS	BY

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

RECEIVED SEP 17 1986 HYDROLOGY SECTION

TITLE ALTAMONT LITTLE LEAGUE
DRAINAGE & GRADING PLAN

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E. Design			Traffic		
A.C.E. Hydrology			Water		
A.M.A.F.C.A.					

DRAWING NO | MAP NO. C-21 | SHEET 1 OF 1

R# 24 DATE 3/14/2008

CITY OF ALBUQUERQUE

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The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (MS115-1977)

DIRECTOR 11/5/92

NOTARY PUBLIC
OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires

PLAN SHOT TWICE ONCE ON LIGHT ONCE ON DARK

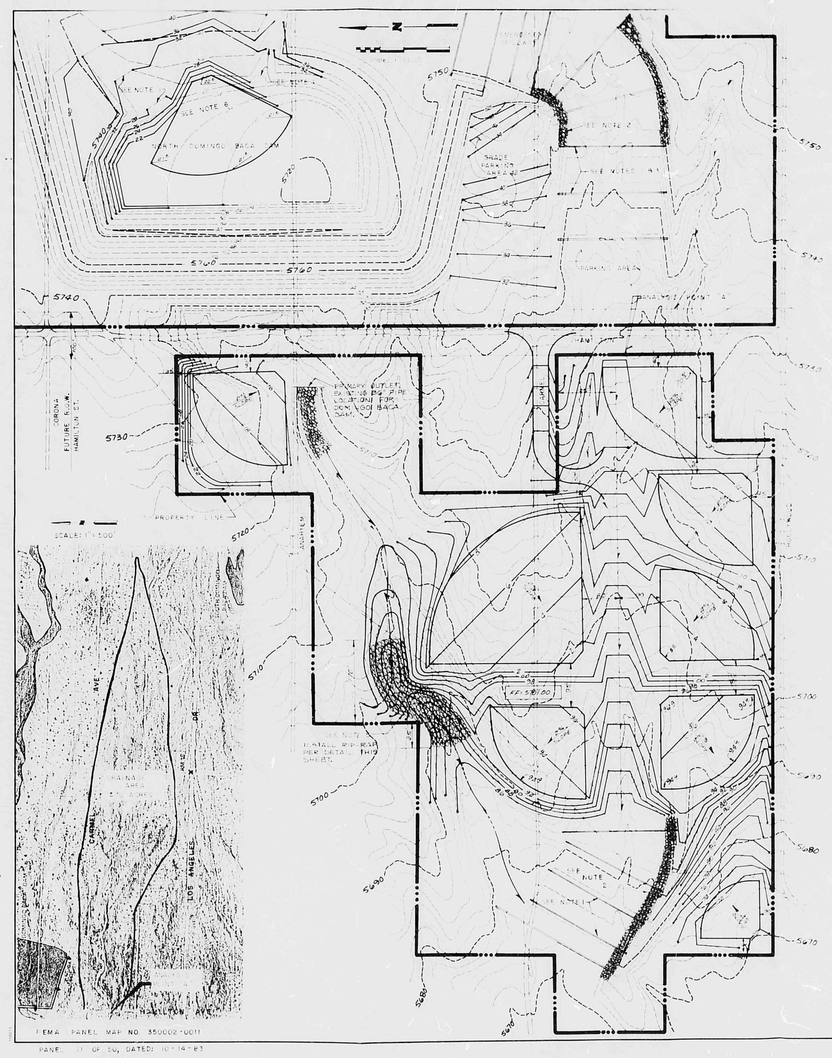
CITY OF ALBUQUERQUE THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

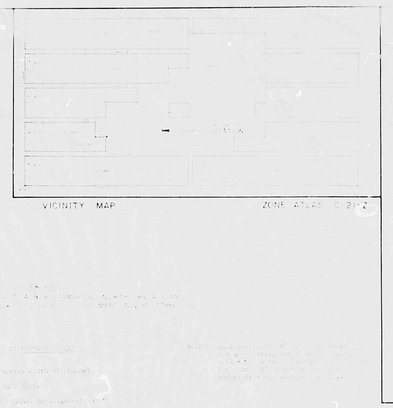
PLANS/PLATS ON FILE

FILE DESC: C21/D2

PLANS/PLATS 1

E 30 D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D F





RIP-RAP DETAIL

NO	DATE	REMARKS	BY
		REVISIONS	

ENGINEER'S SEAL

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: ALTAMONT LITTLE LEAGUE
DRAINAGE & GRADING PLAN

APPROVAL	OWNER	DATE	APPROVAL	OWNER	DATE
City Engineer			Transportation		
A.C.E. Design			Traffic		
A.C.E. Hydrology			Water		
C.W.S.E.					

DRAWING NO. | MAP NO. C-21 | SHEET 1 OF 1

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

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R# 54 DATE 3/14/02 OP

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NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 6/26/02

F 30 D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE C D F