

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103



HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

November 13, 1986

John Rocha
Gardner, Mason & Associates, Inc.
2721 Menaul Blvd., NE
Albuquerque, New Mexico 87107

RE: GRADING AND DRAINAGE PLAN SUBMITTAL OF SUNSET CANYON PARK
RECEIVED NOVEMBER 4, 1986 FOR GRADING AND PAVING PERMIT
APPROVAL (F-23/D2B)

Dear John:

The above referenced submittal, dated October 31, 1986, is approved for Grading and Paving construction activities. Topsoil Disturbance permits must be coordinated through the Environmental Health Department.

If you have any questions, call me at 768-2650.

Cordially,

Roger A. Green, P.E.
C.E./Hydrology Section

cc; Diane Scena, COA

RAG/bsj

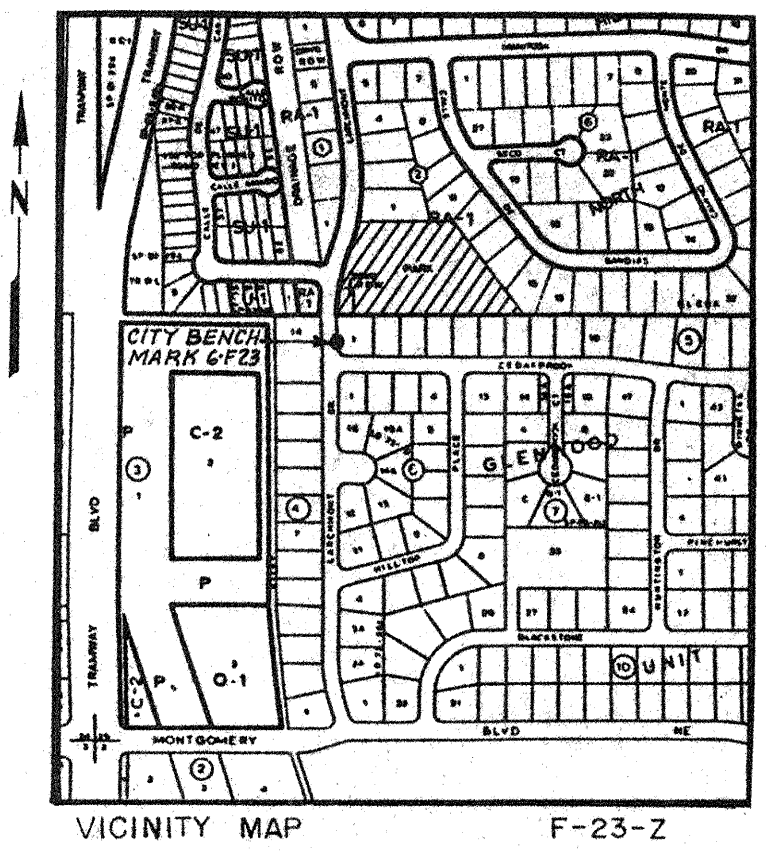
PUBLIC WORKS DEPARTMENT

ENGINEERING GROUP

Walter Nickerson, P.E., City Engineer

Telephone (505) 768-2500

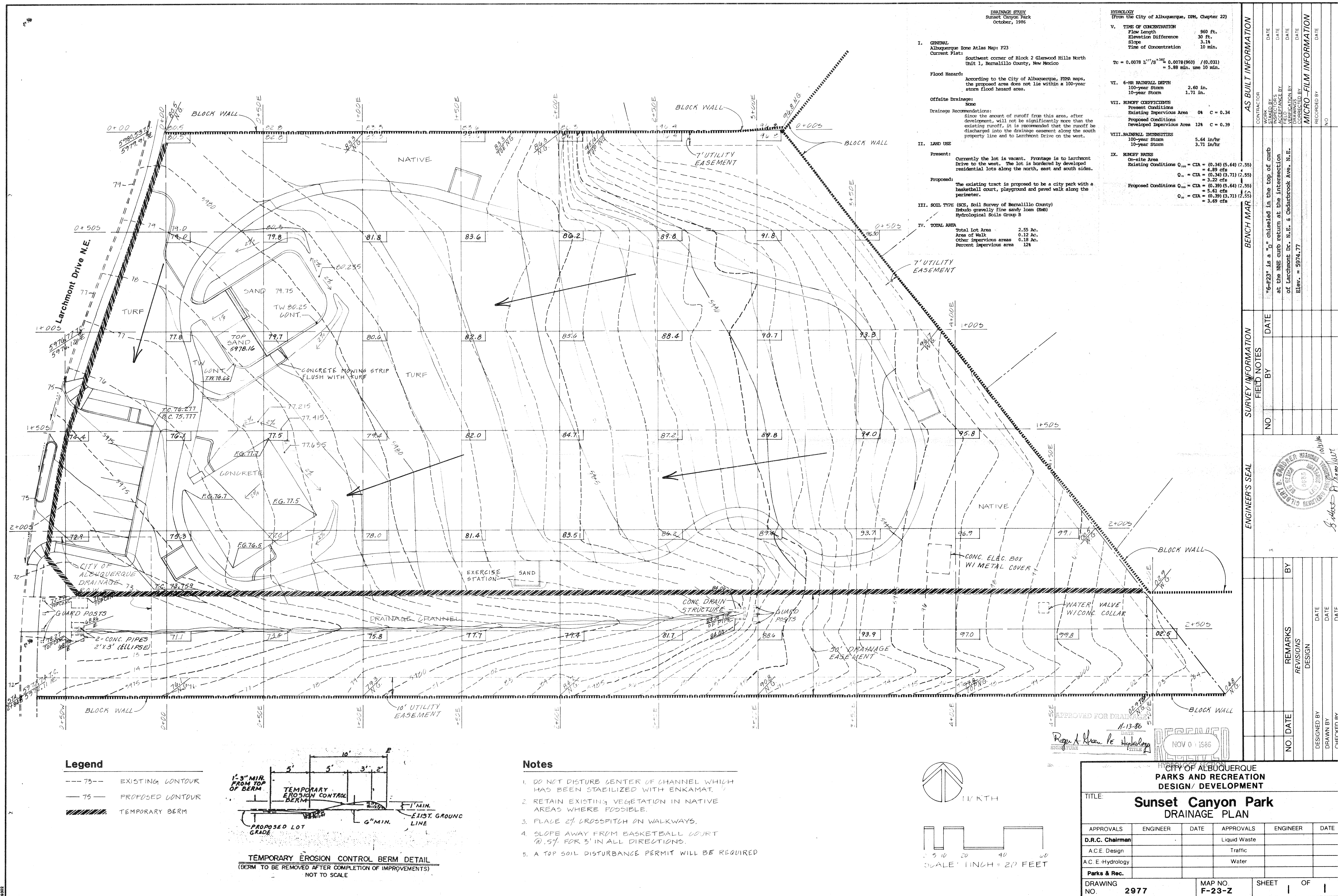
AN EQUAL OPPORTUNITY EMPLOYER



RECEIVED
NOV 01 1986
HYDROLOGY SECTION

APPROVED FOR DRAINAGE
11-13-86
DATE
Signature: *Rogert Owen, Jr.*
Hydrology
TIT

[illegible]



DRAINAGE STUDY
Sunset Canyon Park
October, 1986

HYDROLOGY
(From the City of Albuquerque, DPM, Chapter 22)

V. TIME OF CONCENTRATION
Flow Length 960 ft.
Elevation Difference 30 ft.
Slope 3.14
Time of Concentration 10 min.

$T_c = 0.0078 L^{0.77} S^{-0.385} = 0.0078(960) / (0.031) = 5.88 \text{ min. use } 10 \text{ min.}$

VI. 6-HR RAINFALL DEPTH
100-year Storm 2.69 in.
10-year Storm 1.71 in.

VII. KINCE CREST COEFFICIENTS
Present Conditions
Existing Impervious Area 04 C = 0.34
Proposed Conditions
Developed Impervious Area 124 C = 0.39

VIII. RAINFALL INTENSITIES
100-year Storm 5.64 in/hr
10-year Storm 3.71 in/hr

IX. KINCE RATES
On-site Area
Existing Conditions $Q_{100} = CIA = (0.34)(5.64)(2.35) = 4.89 \text{ cfs}$
 $Q_{10} = CIA = (0.34)(3.71)(2.55) = 3.22 \text{ cfs}$
Proposed Conditions $Q_{100} = CIA = (0.39)(5.64)(2.35) = 5.61 \text{ cfs}$
 $Q_{10} = CIA = (0.39)(3.71)(2.55) = 3.69 \text{ cfs}$

I. GENERAL
Albuquerque Zone Atlas Map: F23
Current Plat: Southwest corner of Block 2 Glenwood Hills North Unit 1, Bernalillo County, New Mexico

Flood Hazard:
According to the City of Albuquerque, FEMA maps, the proposed area does not lie within a 100-year storm flood hazard area.

Offsite Drainage:
None

Drainage Recommendations:
Since the amount of runoff from this area, after development, will not be significantly more than the existing runoff, it is recommended that the runoff be discharged into the drainage easement along the south property line and to Larchmont Drive on the west.

II. LAND USE
Present: Currently the lot is vacant. Frontage is to Larchmont Drive to the west. The lot is bordered by developed residential lots along the north, east and south sides.

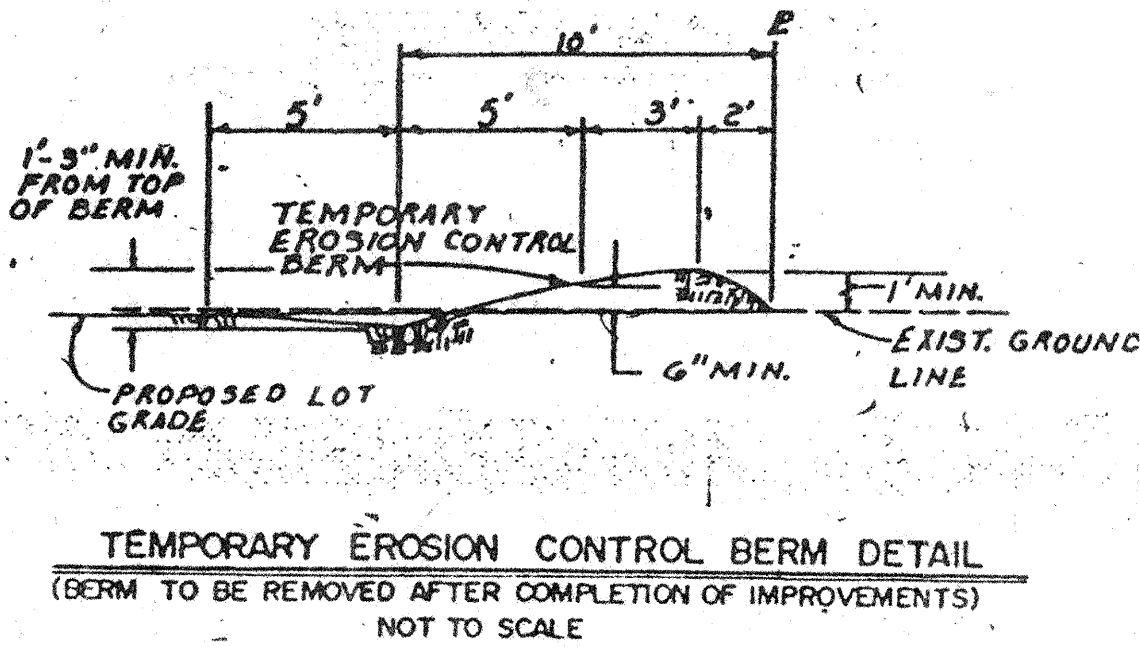
Proposed: The existing tract is proposed to be a city park with a basketball court, playground and paved walk along the perimeter.

III. SOIL TYPE (SCS, Soil Survey of Bernalillo County)
Brubio gravelly fine sandy loam (B86)
Hydrological Soils Group B

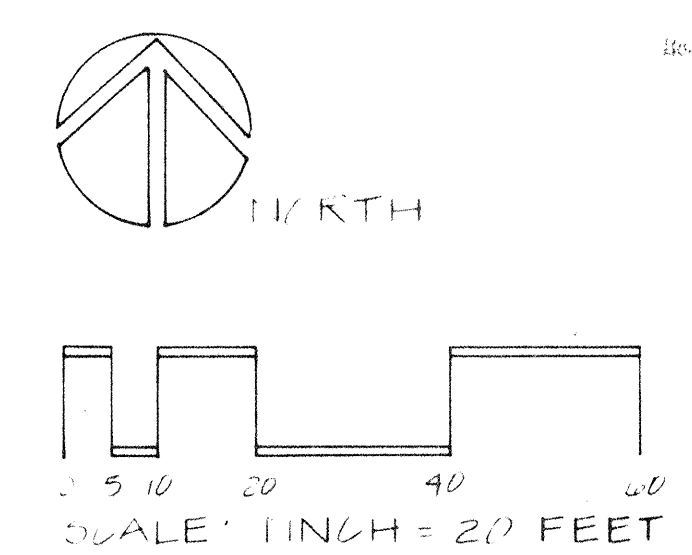
IV. TOTAL AREA
Total Lot Area 2.55 Ac.
Area of Walk 0.12 Ac.
Other Impervious Areas 0.18 Ac.
Percent Impervious Area 12%

Legend

--- 75 --- EXISTING CONTOUR
--- 75 --- PROPOSED CONTOUR
TEMPORARY BERM



- Notes**
- DO NOT DISTURB CENTER OF CHANNEL WHICH HAS BEEN STABILIZED WITH ENKAMAT.
 - RETAIN EXISTING VEGETATION IN NATIVE AREAS WHERE POSSIBLE.
 - FLARE 2% CROSSPITCH ON WALKWAYS.
 - SLOPE AWAY FROM BASKETBALL COURT @ .5% FOR 3' IN ALL DIRECTIONS.
 - A TOP SOIL DISTURBANCE PERMIT WILL BE REQUIRED



APPROVED FOR DRAINAGE
11-13-86
Rogers & Kline Inc. Hydrology
NOV 0 1986

CITY OF ALBUQUERQUE PARKS AND RECREATION DESIGN/ DEVELOPMENT					
TITLE: Sunset Canyon Park DRAINAGE PLAN					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chairman			Liquid Waste		
A.C.E. Design			Traffic		
A.C.E. Hydrology			Water		
Parks & Rec.					
DRAWING NO.	2977		MAP NO.	F-23-Z	
SHEET			OF		