PLANS/PLATS ON FILE

FILE DESC:

K-23/0017

PLANS/PLATS 5

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

K13 - D17

January 5, 1981

David M. Y. Millikan
Bohannan-Huston, Inc.
4125 Carlisle Blvd. N.E.
Albuquerque, N.M. 87103

RE: PIEDRA VISTA SUBDIVISION DRAINAGE PLAN

Dear Dave:

The referenced drainage plan dated November, 1981 and received by our office on December 8, 1981 is approved with the following contingencies:

1. Written permission is given from City planning permitting the construction of the berm on cities open space adjacent Eastern boundary of Piedra Vista.

2. That there is a dedicated drainage easement on the Eastern boundary of Cityview Estates Unit D diverting flows into the inlet of the Copper Channel.

If I can be of any further help, please call.

Sincerely,

Jim Fink
Civil Engineer/Hydrology

JF/tsl

ENGINEERS PLANNERS PHOTOGRAMMETRISTS

BOHANNAN-HUSTON INC.

4125 CARLISLE BLVD. N.E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000
6713 VISCOUNT BLVD. EL PASO, TEXAS 79925 915 778-4491
330 GARFIELD, SANTA FE, NEW MEXICO 87501 505 988-7671

K23-D17

November 3, 1981

RECEIVED
DEC 08 1981
ENGINEERING

Mr. Charles M. Easterling
Principal Assistant City Engineer
Hydrology
P.O. Box 1293
Albuquerque, NM 87103

Re: Drainage Report for the Proposed Piedra Vista Subdivision

Dear Chuck:

The purpose of this letter is to transmit to you, for review, the Drainage Report for Piedra Vista Subdivision. By copy of this letter, we are transmitting one copy of the Drainage Report to Mr. Rich Leonard at AMAFCA for his files.

If you should have any questions concerning this report, please feel free to contact Dave Millikan or me.

Sincerely yours,

Michial M. Emery, P.E.
Vice President

Enclosure

cc: Mr. Rich Leonard (w/enclosure)
Mr. Ron Brown (w/enclosure)

MME/js
Job No. 1 167 0

RECEIVED
DEC 8 1981
CITY ENGINEER

PRINCIPALS
JERRY R. BOHANNAN, P. E. & L.S.
LARRY W. HUSTON
DONALD T. CREMANS, P. E.
C.J. (SKIP) MEAD, P. E.
MICHIAL M. EMERY, P. E.

ASSOCIATES
ANDRES ARAGON VIAMONTE, P. E.
JACK EICHORN
ROBERT H. GREENLEE, P. E.
G. LEE TRUSSELL
ISAAC J. PINO, P. E.
RAMON LARA, P. E.
DARRELL L. WADE, P. E.
PATRICK L. STIEHR, P. E.
DAVID M. Y. MILLIKAN, P. E.

SUPPER ROCK

CITY VIEW ESTATES (Unit A)

DRAINAGE CHANNEL OVERFLOW

Presentation by Mr Eggenberger 7/26/89 Supper Rock Neighborhood Meeting

OBJECTIVE

- CORRECT DRAINAGE CHANNEL RIGHT-OF WAY TO ELIMINATE DRAINAGE OVERFLOW

- RECOVER EXPENSES ASSOCIATED WITH DRAINAGE OVERFLOW

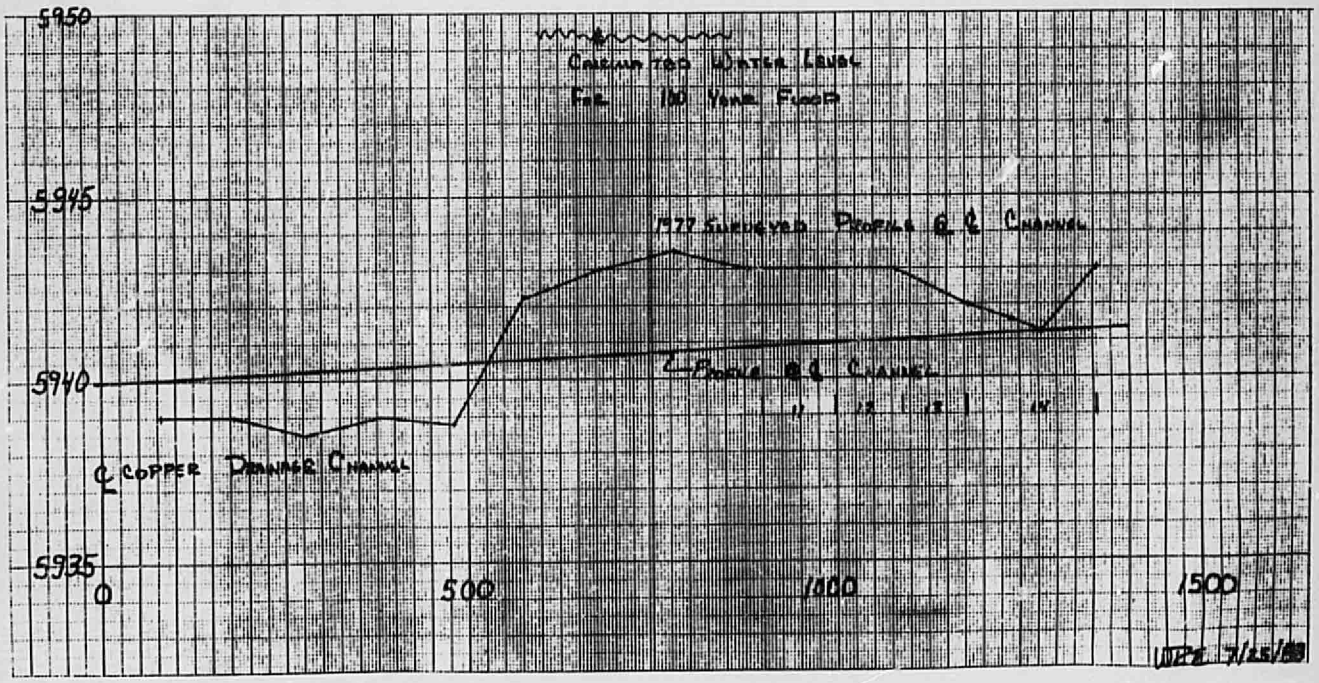
DRAINAGE CHANNEL HISTORY

- o 1977 - INITIAL CORRESPONDENCE FILED WITH CITY ABOUT CONSTRUCTION OF DRAINAGE RIGHT-OF-WAY

  - CITY SURVEYED DRAINAGE CHANNEL

  - CITY NOTIFIED DEVELOPER FOR REMEDIAL ACTION

1977 SURVEY OF DRAINAGE CHANNEL



DRAINAGE CHANNEL HISTORY (cont)

- 1982 - CITY INFORMALLY NOTIFIED OF DRAINAGE PROBLEM

  - CITY RECONTOURED DRAINAGE CHANNEL

- 1987 - CITY FORMALLY NOTIFIED OF DRAINAGE OVERFLOW PROBLEM THAT OCCURRED IN JULY 1986

8 July 1987

City Attorney
Attn: Legal Department
One Civic Plaza NW
Albuquerque, NM

To whom it may concern,

I reside at 632 La Jolla Pl NE, lot 14, Supper Rock Addition in the city of Albuquerque. Since 1981 I have had a problem with my yard being flooded by a city maintained drainage right-of-way. Twice the city has attempted to correct the problem to no avail. I have been in contact with the city arroyo maintenance people every summer to get the problem corrected. People contacted include former city councillor Ken Schultz, Michael Wiener, city engineering Brian Burnett, Bruno Conegliano, Jim Fink, Glenn Jurgensen, and John Kelley.

Last summer I returned home from vacation late afternoon on 20 July to find water from the drainage right-of-way running into the backyard through the garage to the street. The city arroyo maintenance department was contacted on the morning of 21 July and advised of the problem. Since that time there has been no resolution of the problem. Currently the floor of the drainage right-of-way is fifteen (15) inches above the base of my block wall as opposed to the base of the block wall being twenty-four (24) inches above the floor of the drainage right-of-way when the house was built in 1977.

Since the city has failed to properly maintain the drainage right-of-way, which has caused flood damage to my property in the past, I feel that the city should be responsible for any flood damage that I incur in the future due to non-maintenance of the drainage right-of-way.

Respectfully submitted,

William R. Espander
632 La Jolla Pl NE

cc: Ken Schultz
Michael Wiener
AMAFCA
Arroyo Maintenance

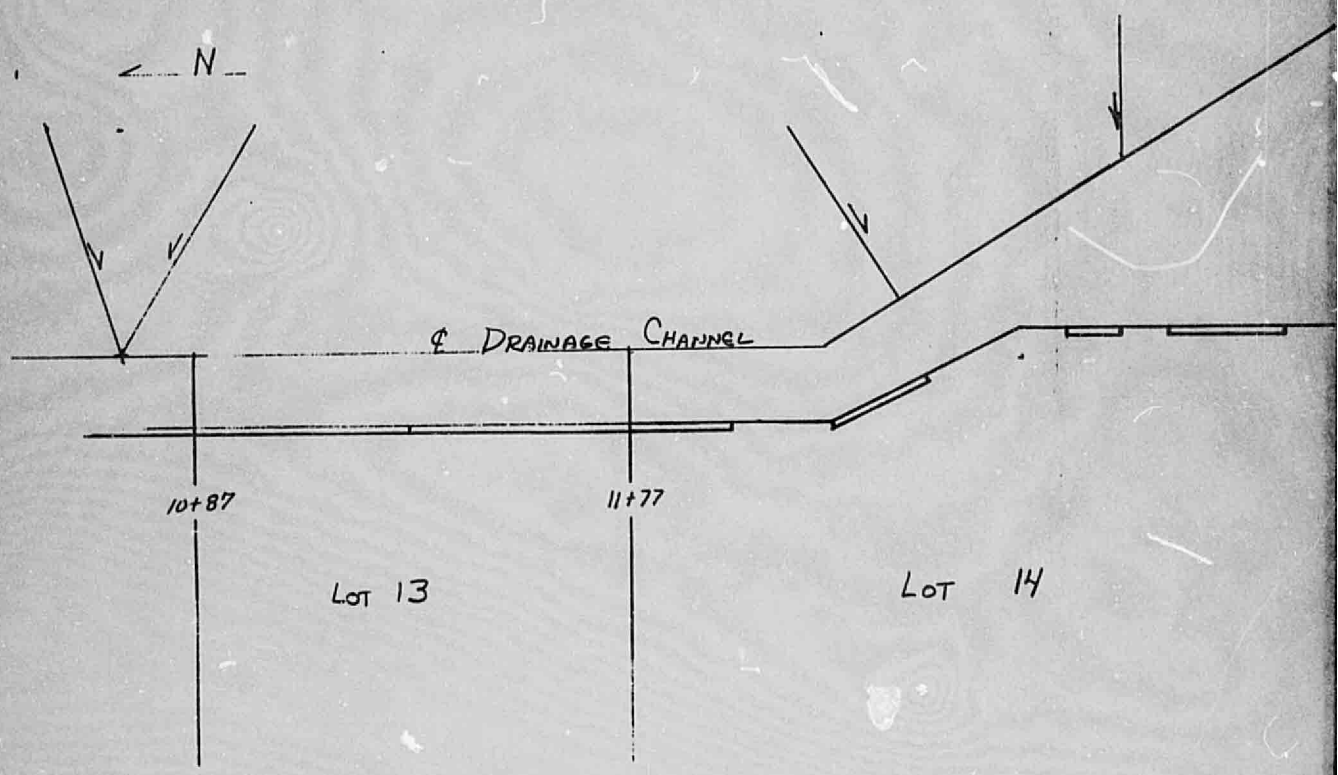
SUMMARY OF 1987 RESPONSE

	COMPLETED
o CONSTRUCT EARTHEN BERM	YES
o STABILIZE EARTHEN BERM	NOT APPARENT
o SURVEY FLOW LINE	NO SURVEY RECEIVED
o RE-ANALYSIS OF DRAINAGE BASIN	NO ANALYSIS RECEIVED

DRAINAGE CHANNEL HISTORY (CONT)

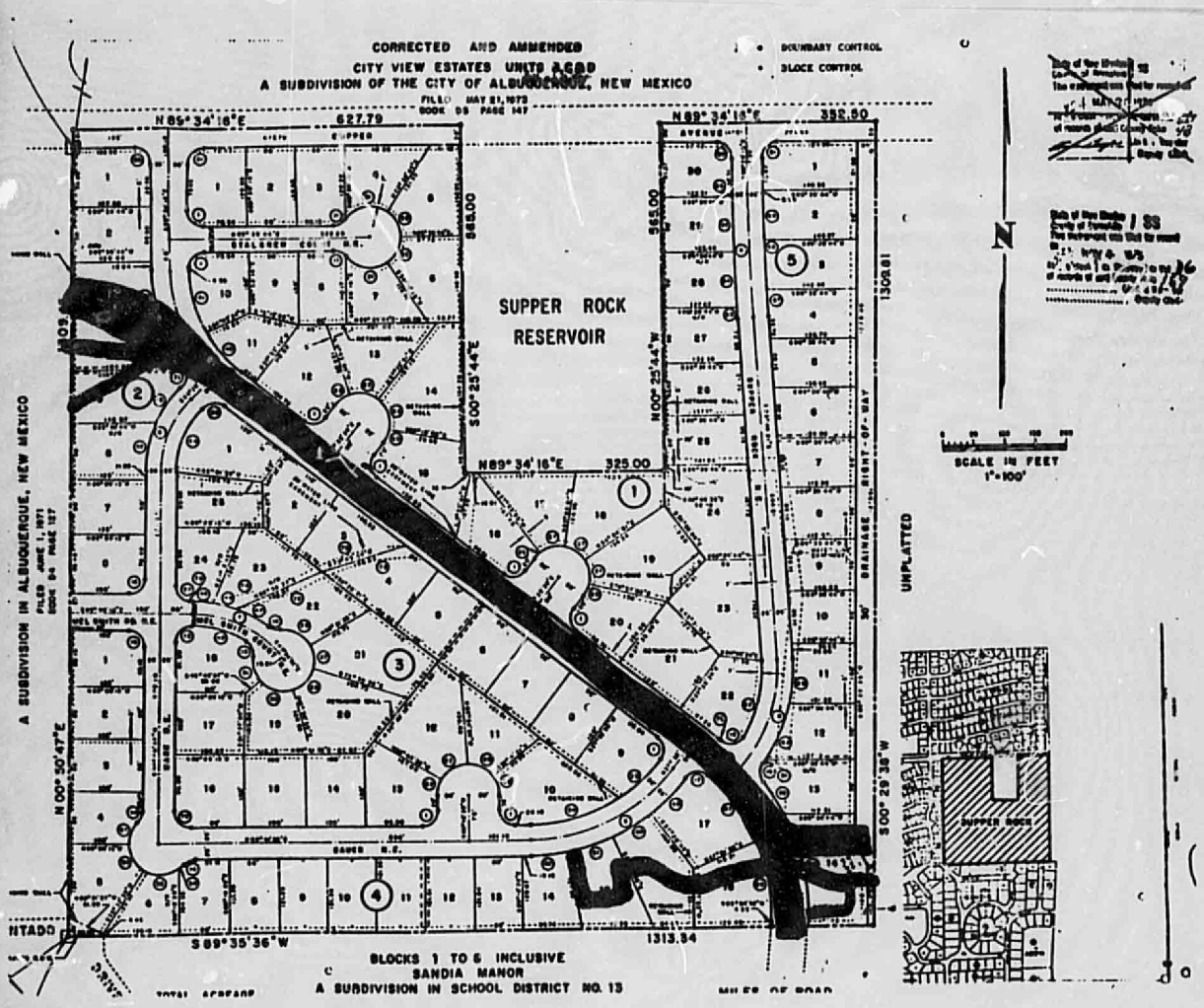
- 1988 - DISASTER

NATURAL DRAINAGE RE-ESTABLISHED



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

DRAINAGE OVERFLOW PATH



CONCLUSIONS

- CITY ACCEPTED DRAINAGE RIGHT-OF-WAY IMPROPERLY CONSTRUCTED
- CITY FAILED TO CORRECT DRAINAGE PROBLEM
- CITY FAILED TO MAINTAIN DRAINAGE CHANNEL
- CITY SURVEY AND ANALYSIS NEVER COMPLETED

ESTIMATED COSTS TO RECOVER

o INTERIOR CLEANUP	$???
o REMOVE MUD FROM HEATING DUCTS	$???
o PAINT	$???
o FLOOR COVERINGS	$???
o LANDSCAPE	$???
o BLOCK WALLS	$???
TOTAL	$???

ACTION REQUIRED OF CITY

- IMMEDIATE REPAIR OF DRAINAGE CHANNEL (4-8" ABOVE GRADE OF REAR LOT LINE AT 632 LA JOLLA PL)

- REIMBURSEMENT OF EXPENSES TO RETURN TO STATUS QUO

BOHANNAN-HUSTON INC

THIS MICROFILM IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

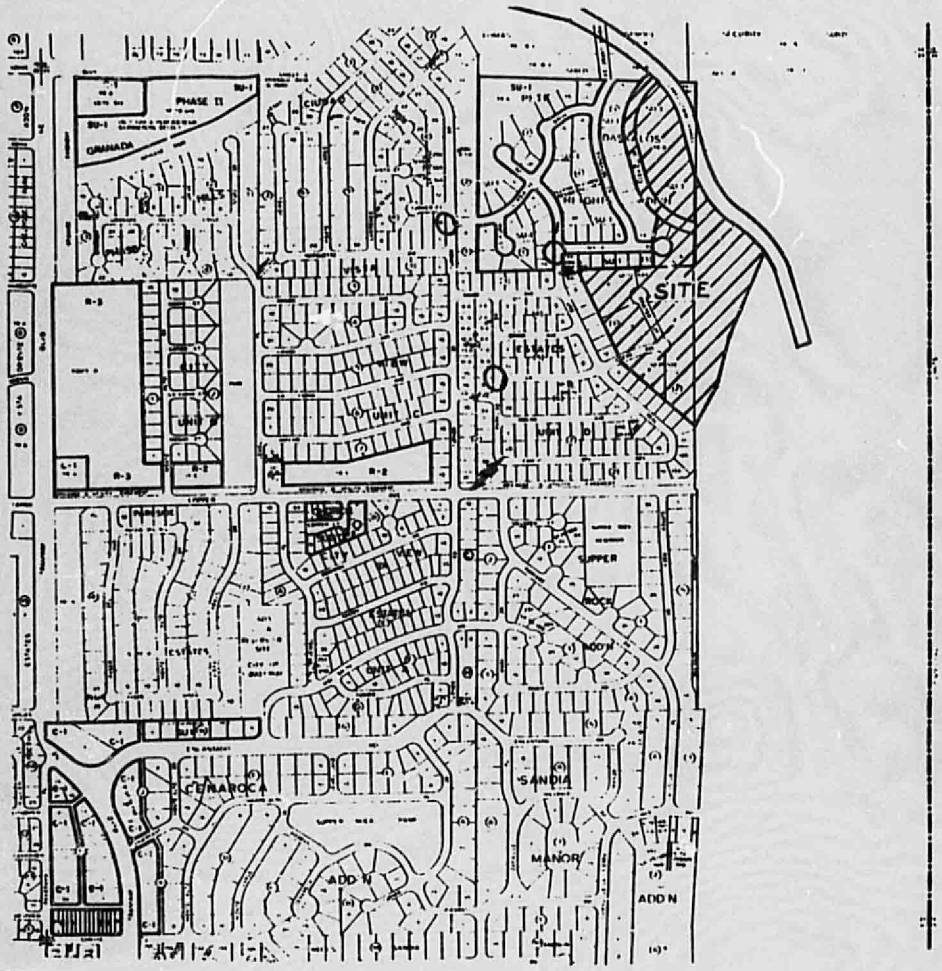


PLATE I

SITE LOCATION

K-23-Z

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

BERNALILLO COUNTY, AND PARTS OF SANDOVAL AND VALENCIA COUNTIES, NEW MEXICO —

PLATE 4

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

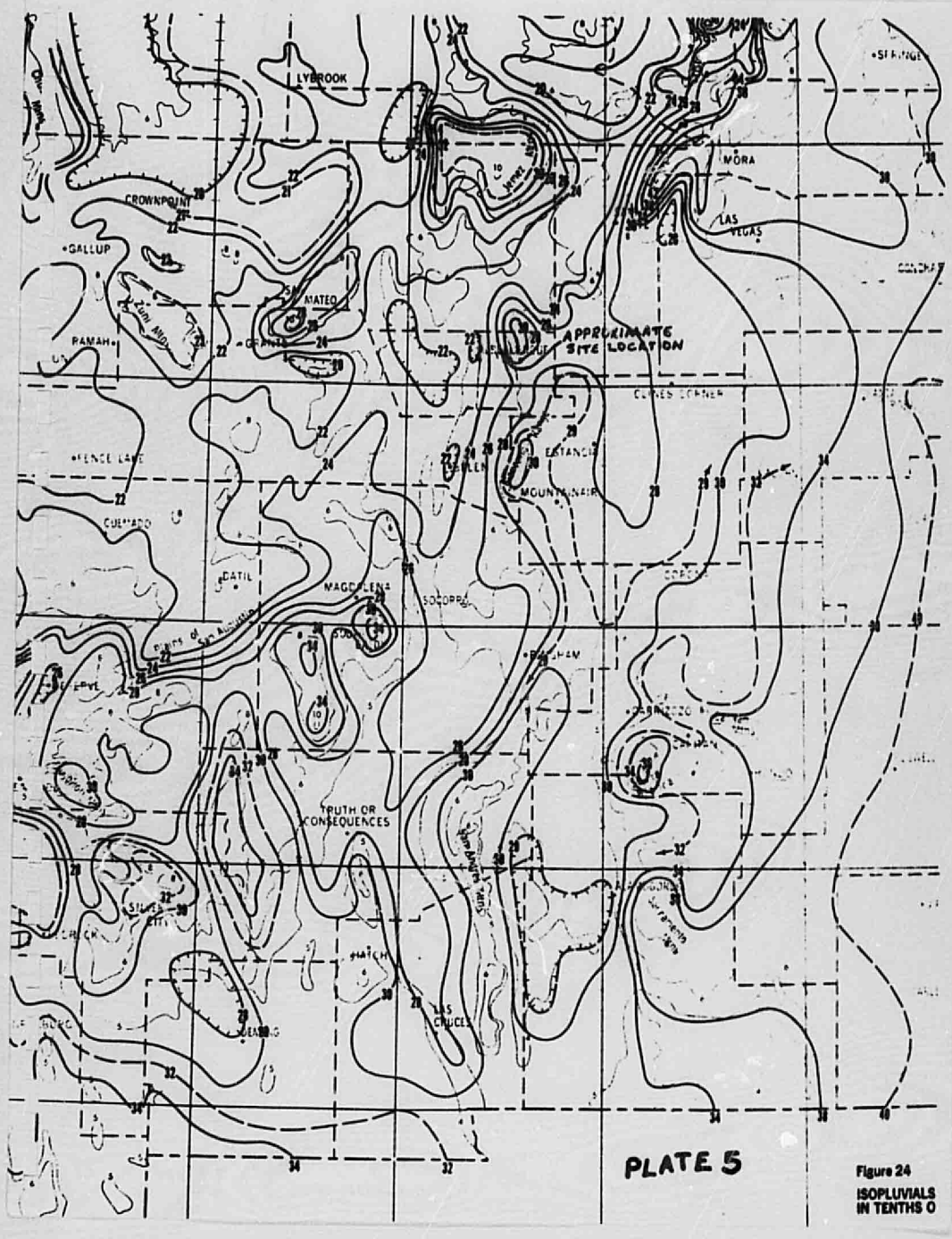


Figure 24
ISOPLUVIALS IN TENTHS O

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

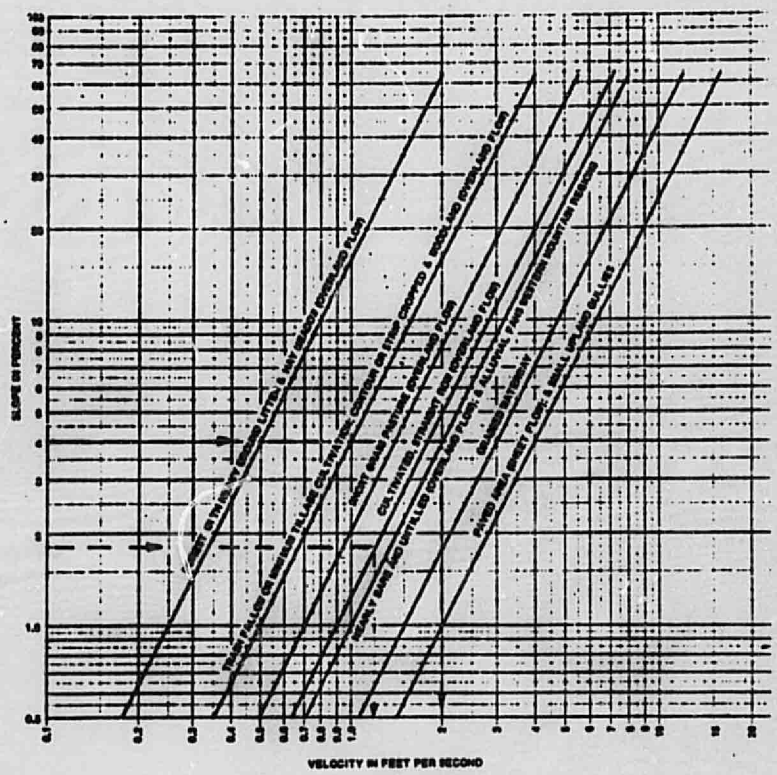


Figure 2-3 -Velocities for upland method of estimating T_c

PLATE 6

AGENDA ITEM ..19..

FILE: PICONA VISTA FILE

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
PLANNING DIVISION

ENVIRONMENTAL PLANNING COMMISSION
September 17, 1981
Z-81-116

Z-81-116

Bohannan-Huston, Inc., agents for Sproul Enterprises, requests a change of zone from SU-1 (PRD) to R-1, for Tract B, and the vacated Scenic Drive right-of-way, and Lots 14 through 17, Block 3, Pete Daskalos Heights Addition, located south of the Upper Lomas Channel and abutting the Foothills Demarcation Line on the east, containing approximately 7.54 acres. (K-23)

COMMENTS FROM OTHER DEPARTMENTS, 9-17-81:

Traffic Engineering	"No comment."
Transportation	"No adverse comment."
COG	"No adverse comment."
City Engineers Office	Design: "a. A drainage study must be submitted for review and approval prior to approval of plat, development plans and building plans. b. Do not concur in the piecemeal platting and approval of this subdivision. There are too many factors which must be addressed and constructed for the entire subdivision. c. Recommend that Z-81-116, S-81-20, V-81-3 & Z-81-46 be combined into one planning item for review."
Refuse Removal	"No adverse comment."
Real Estate Officer	"No adverse comment."
APS	"No adverse comment."
Zoning Enforcement	"No comment."

APPLICANT'S REASON FOR REQUEST:
The property proposed for the change of zone is part of the Pete Daskalos Heights Addition which is zoned SU-1 for planned residential development. The Pete Daskalos Heights Addition was approved through a site development plan process and was platted under R-1 restrictions. At the present time the applicant wishes the subject property to be considered as part of a subdivision request, of which the remaining property is zoned R-1. This proposed zone change will consolidate the zoning of the proposed subdivision and simplify the approval process.

Because the surrounding subdivisions are zoned R-1, this proposed change will provide stability in land use and zoning, and will be consistent with the health, safety and general welfare of the city.

PLANNING DIVISION COMMENTS TO THE ENVIRONMENTAL PLANNING COMMISSION, 9-17-81:
A change of zone from SU-1 (Special Use for Planned Residential Development) to R-1 is requested for a 7.54 tract.

The site is part of a pending subdivision with two zoning categories and the applicant would like to have R-1 zoning for the entire project.

Area Characteristics:
Surrounding development is single family.

Area Zone History:
Special Use zoning for a Planned Residential Development was approved on 1-16-73.

Special Use zoning for a Planned Residential Development for the site was approved on 5-15-73.

Applicable Plans and Policies:
The site is located in the Established Urban Metropolitan area of the Comprehensive Plan that recommends densities of 3-9 DU/AC. It is also located within the Foothills Plan area that recommends a density of 3 DU/AC.

The request conforms to adopted city policies for zone map changes and due to the surrounding R-1 zoning it will not be detrimental to adjoining property or development.

FINDINGS:
1. A change of zone to R-1 is requested to obtain the same zoning for a 7.54 acre tract.
2. The surrounding zoning is R-1.
3. The proposed change conforms to adopted policies for zone changes.

RECOMMENDATION: APPROVAL OF Z-81-116 IS RECOMMENDED BASED UPON FINDINGS 1 - 3.

John R. Lucero, Planner

IT IS REQUESTED THAT THE APPLICANT/AGENT BE PRESENT AT THE MEETING.

cc: Sproul Enterprises, 5115 Menaul Blvd., NE
Bohannan-Huston, Inc., 4125 Carlisle Blvd., NE

DRAINAGE REPORT
FOR
PIEDRA VISTA SUBDIVISION
November, 1981

RECEIVED

DEC 08 1981

ENGINEERING

RECEIVED

DEC 8 1981

CITY ENGINEER

DRAINAGE REPORT

FOR

PIEDRA VISTA SUBDIVISION

November, 1981

PREPARED FOR

Sproul Enterprises
3800 Carlisle Blvd., NE
Albuquerque, NM 87107

PREPARED BY

Bohannan–Huston, Inc.
4125 Carlisle Blvd., NE
Albuquerque, NM 87107

DAVID M. Y. MILLIKAN
NEW MEXICO
7547
REGISTERED PROFESSIONAL ENGINEER

David M.Y. Millikan

David M.Y. Millikan
N.M.P.E. No. 7547

DRAINAGE REPORT
FOR
PIEDRA VISTA SUBDIVISION

TABLE OF CONTENTS

	PAGE
PURPOSE AND LOCATION	1
METHOD OF ANALYSIS	1
EXISTING CONDITIONS	2
Basin 1	2
Basin 2	2
Basin 3	2
Basin 4	3
DEVELOPED CONDITIONS	3
Basin C	3
Basin D	3
Basin E	4
Basin F	4
Basin G	4
Basin H	5
RECOMMENDATIONS	5

APPENDIX

Basin Runoff Calculations	1
Developed Runoff Coefficients	2
Velocity x Depth Calculations	2
Typical Lot Ponding Detail	3
City View Estates Street Capacity	4
Rocky Point Court Storm Drain	4
East Property Line Berm Detail	5
Existing Earth Channel Detail	5
Planning Action	6

PLATES

1 Location Map
2 Undeveloped Drainage
3 Developed Drainage
4 Bernalillo County Soils Map
5 6-Hour 100-Year Rainfall From NOAA Atlas
6 Figure 2.3 From SCS Engineering Field Manual for Conservation Practices

DRAINAGE REPORT

FOR

PIEDRA VISTA SUBDIVISION

PURPOSE AND LOCATION

The Piedra Vista Subdivision is located east of Daskalos Drive and Oro Real. The upper Lomas Channel forms the northeast boundary of the property and the Copper Channel starts approximately 330 feet south of the property (see Plate 1). The site contains approximately 24.3 acres.

The majority of the site consists of soils which are classified by the Soils Report for Bernalillo County as gravelly fine sandy loam and sandy clay loam. The western edge of the site consists of soil classified as gravelly fine sandy loam and gravelly sandy loam. There are rock outcroppings scattered throughout the site. These soils are classified as hydrologic soil groups A, B, and D respectively. The site slopes from east to west at approximately 5% – 10%.

METHOD OF ANALYSIS

The Rational Formula was used for determining runoff quantities from within and around this parcel. Rainfall intensities were calculated using information contained in the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) Resolution No. 1980–15. Times of concentration for the undeveloped basins were calculated using Figure 2.3 of the U.S. Department of Agriculture, Soil Conservation Services Engineering Field Manual for Conservation Practices (see Plate 6). The time of concentration for the developed basins was calculated using the Manning Equation for flow in streets and an average velocity of 1 fps for conveyance of runoff from the rear of the developed lots to the street.

The runoff coefficients and areas given for City View Estates in the approved Drainage Report for that project are included in the appendix of this report. The runoff rates generated within City View Estates have been revised to utilize the rainfall intensities from AMAFCA Resolution 1980–15.

EXISTING CONDITIONS

The Upper Lomas Channel collects the upland flows from the area to the northeast of the site (see Plate 2). The only off-site basins which might impact the site under existing conditions are Basins A and B. These basins are discussed with on-site Basin 3 below. Under present conditions, the site contains four drainage basins. These are identified as Basins 1 – 4 on Plate 2. The existing drainage conditions for these basins will be analyzed individually in this report.

Basin 1

Basin 1 is bounded by Daskalos Heights Subdivision on the west. The flows from its 6.4 acres are collected by an existing berm and channel on the west property line of the site and discharged at a rate of 13.3 cfs to a drainage easement in Daskalos Heights Subdivision (see Plate 2).

Basin 2

Basin 2 is also bounded by Daskalos Heights Subdivision on the west. It contains an area of 3.1 acres and discharges at a peak rate of 6.3 cfs onto Soula Drive.

Basin 3

Basin 3 contains 7.0 acres and is located in the southeast section of the parcel. This basin accepts off-site flows of 5.1 cfs from upland Basin B (see Plate 2). This combines with the on-site generated flow of 13.5 cfs and flows southwest into an existing earth drainage ditch. This drainage ditch discharges into the upstream end of the Copper Channel. It appears that flows from Basin A do not impact this basin. These flows appear to be collected in a small channel paralleling the southeast boundary of the site. The peak flow rate from Basin A is 13.5 cfs.

Basin 4

? where is this Report

Basin 4 is bounded by City View Estates Unit D on the west. A concrete block wall along the east boundary of City View Estates Unit D directs a portion of the runoff from Basin 4 to La Cueva Avenue (13.8 cfs). These flows are conveyed to a drainageway which discharges into the Copper Channel at the south end of Parkside Drive (see Plate 1). The remainder of the runoff from Basin 4 (3.5 cfs) enters City View Estates Unit D through a drainage easement just south of Soula Drive. These flows are conveyed through Oro Real and Nambe Avenue to Turner Drive. Basin 4 contains 8.7 acres.

DEVELOPED CONDITIONS

Under developed conditions, the parcel will be divided into drainage basins similar to the existing drainage basins (see Plate 3). Due to topographic necessity, rear yard ponding will be required on several lots which are located on the downhill side of the streets. The area of the basins to be used in determining the developed flow rates does not include the areas which are ponded on the lots. Runoff from the basins will be handled as follows:

Basin C

The Upper Lomas Channel effectively eliminates any upland flows which might have impacted this basin in the past. The developed runoff (15.9 cfs) will be collected at the north end of Rocky Point Court. From this point, it will be conveyed through a storm drain and discharged into the Upper Lomas Channel (see Plate 3). No runoff from Basin C will be discharged to the Daskalos Heights Subdivision.

Basin D

The Upper Lomas Channel also protects this basin from any upland flows. The developed flow rate generated by Basin D is 12.2 cfs. This runoff will enter Daskalos Heights through Soula Drive. The total runoff which enters Daskalos Heights from undeveloped Basins 1 and 2 is 19.6 cfs. The only developed runoff entering

Daskalos Heights is 12.2 cfs from Basin D and 0.9 cfs from Basin H (see below). Therefore, the developed runoff entering Daskalos Heights will be less than the undeveloped runoff entering Daskalos Heights.

Basin E

The developed runoff generated by Basin E is 20.0 cfs. It will discharge from Basin E through a drainageway at the south end of Piedra Vista Avenue. An existing earth channel will convey these flows to the Copper Channel (see Appendix Page 5). A 1.5 foot high berm will be constructed along the east and southeast boundaries of Basin E. This berm will intercept the runoff from off-site Basins A and B (18.6 cfs) and convey it to the existing earth channel at the south end of the site. OK where property will this berm be constructed

Basin F

The total runoff from Basin F (25.7 cfs) will be conveyed through the streets to La Cueva Avenue. These flows leave the site through La Cueva Avenue and are conveyed to Parkside Avenue (see Plate 1). They are conveyed within Parkside Avenue to a concrete lined drainageway, at the south end of Parkside Drive, which discharges into the Copper Channel.

This flow combined with the developed flow from City View Estates amounts to 51.7 cfs. This amount is 11.9 cfs greater than the undeveloped discharge from Basin F and the developed discharge from the contributing portion of City View Estates. All of these flows are collected at the intersection of Parkside Drive and Camino Del Ray. Parkside Drive has adequate capacity to carry the increased flow rate at less than curb height. The concrete-lined drainageway to the Copper Channel has adequate capacity at the entrance and within the drainageway to handle these increased flows (see Appendix Page 4). supporting calculations? OK

Basin G

The runoff from Basin G (1.7 cfs) is discharged through an existing drainage easement to Oro Real. This flow is conveyed in Oro Real to Nambe Avenue where it flows west to Turner Drive. This flow is less than the undeveloped flow of 3.5 cfs.

Basin H

The total flow from Basin H (0.9 cfs) will be discharged through the existing concrete-lined drainageway to Daskalos Heights. This and the discharge from Basin D (12.2 cfs) will be the only discharges into Daskalos Heights. This discharge rate is less than the undeveloped discharge from Basins 1 and 2 into Daskalos Heights.

RECOMMENDATIONS

1. Rocky Point Court should be designed to drain to the north. The runoff will be removed from the street by an appropriately-sized inlet and a 24" RCP and conveyed to the Upper Lomas Channel.
2. The two lots adjacent to the existing drainageway in the Daskalos Heights be graded so that the rear half of each lot drains into the drainageway. No other runoff will be directed to this easement.
3. A berm 1.5 feet in height should be constructed along the east and southeast property lines with 3:1 side slopes. This will protect the site from the runoff from Basins A and B.
4. A drainage easement should be located at the south end of Piedra Vista Avenue with a 5 foot wide type "B" lining with 1.5 foot high sides.
5. Tetilla Place be graded to drain to La Cueva Avenue.
6. All streets are to be 32' wide with a 4" crown. They shall be constructed to City of Albuquerque design standards for residential streets.
7. Mountable curb-roll type may be used throughout the subdivision except at the south end of Piedra Vista Avenue.
8. Computations are included in the Appendix for the 10-year storm runoff calculations. They indicate that the velocity times depth values are less than 4.8 in all cases.

9. Retention ponds should be constructed on those lots shown on Plate 3. They shall be designed to provide adequate capacity for the runoff generated by the areas draining to them (see Appendix Page 3). These ponds will be maintained by the individual property owners.
10. Typical lot grading is shown on Plate 3.
11. As noted on Plate 3, all lots shown to be graded similarly to the Typical 2-Story Lot Detail may be left in their undeveloped state to allow construction of custom homes. The grading indicated is one grading alternative for this area.
12. Development of the subdivision as indicated in this report will meet the requirements of AMAFCA Resolution 1980-15 and the Interim Drainage Guidelines.

APPENDIX

THIS MICROFIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

BASIN RUNOFFS

PLANIMITER CONVERSION 3.5658

BASIN	PLANIMITER READING	ACREAGE	ΔELEV.	LONG RUN	SLOPE	T_c*
UNDEVELOPED						
A	1.833	6.54	370	1630	.227	5.61
B	0.689	2.457	34	730	.047	5.79
1	1.800	6.418	46	1000	.046	7.94
2	0.854	3.045	50	730	.068	4.87
3	1.959	6.985	70	1500	.047	11.40
4	2.425	8.647	44	1200	.037	10.53
DEVELOPED						
C	1.350	4.814	42	870	.048	7.00
D	0.955	3.405	50	730	.068	3.70
E	1.557	5.551	70	1300	.054	7.34
F	2.001	7.136	46	900	.052	6.50
G	0.196	0.701	10	310	.032	2.87
H	0.092	0.328	7	150	.047	1.19

* T_c IS EXPRESSED IN MINUTES

UNDEVELOPED DRAINAGE T_c WAS FOUND USING FIGURE 2.3 OF THE ENGINEERING FIELD MANUAL FOR CONSERVATION PRACTICES, US DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE.

DEVELOPED DRAINAGE T_c WAS FOUND USING n = .015 AND MANNINGS EQUATION FOR FLOW IN STREETS AND A FLOW RATE OF 1 FPS ON DEVELOPED LOTS

FLOW RATES

BASIN	ACREAGE	C	I_{10}	I_{100}	Q_{10}	Q_{100}
UNDEVELOPED						
A	6.54	.35	4.8	5.9	11.0	13.5
B	2.46	.35	4.8	5.9	4.1	5.1
1	6.42	.35	4.8	5.9	10.8	13.3
2	3.05	.35	4.8	5.9	5.1	6.3
3	6.99	.35	3.5	5.5	8.6	13.5
4	8.65	.35	4.7	5.7	14.2	17.3
DEVELOPED						
C	4.82	.56	4.8	5.9	13.0	15.9
D	3.41	.61	4.8	5.9	10.0	12.2
E	5.55	.61	4.8	5.9	16.3	20.0
F	7.14	.61	4.8	5.9	20.9	25.7
G	0.70	.40	4.8	5.9	1.3	1.7
H	0.33	.45	4.8	5.9	0.7	0.7

SEE SHEET 2 FOR C DETERMINATIONS

PROJECT NAME	PIEDRA VISTA	SHEET 1	OF 5
PROJECT NO.	11670	BY DW	DATE 11/6/81
SUBJECT	BASIN RUNOFFS	CH'D	DATE

DEVELOPED C DETERMINATIONS

BASIN	TOTAL AREA	POND'D LOTS	NON-POND'D LOTS	AREA OF STREET	TOTAL IMPERVIOUS	% IMPERVIOUS C=.95	% PERVIOUS C=.35	C
C	209697	10	8	700×50				
IMPERVIOUS AREA/UNIT		1650	2900					
IMPERVIOUS AREA		16500	23200	35000	74700	35.6	64.4	.56
D	143539	15	9.8	660×50				
IMPERVIOUS AREA/UNIT		1650	2900					
IMPERVIOUS AREA		2475	28420	33000	63895	43.0	57.0	.61
E	241738	8	16.2	910×50				
IMPERVIOUS AREA/UNIT		1650	2900					
IMPERVIOUS AREA		13200	46980	45500	105680	43.7	56.3	.61
F	318018	9	18.6	1340×50				
IMPERVIOUS AREA/UNIT		1650	2900					
IMPERVIOUS AREA		14850	53940	67000	135790	43.7	56.3	.61
G	30492	0	2	0				
IMPERVIOUS AREA/UNIT			1250					
IMPERVIOUS AREA		0	2500	0	2500	8.2	91.8	.40
H	14375	0	2	0				
IMPERVIOUS AREA/UNIT			1250					
IMPERVIOUS AREA		0	2500	0	2500	17.4	82.6	.45

VELOCITY×DEPTH CALCULATIONS (10 YEAR STORM)

ROAD WIDTH = 32' CROWN 4" n = .015 USE MANNING EQ.

BASIN	SLOPE	Q_{10}	d	V	dV
C	.0167	13.0	.27	2.94	.79
D	.0640	10.0	.20	5.71	1.14
E	.0767	16.3	.23	6.83	1.57
F	.0835	20.9	.25	7.5	1.9
CITY VIEW	.0300	42.8	.38	5.56	2.15

PROJECT NAME PIEDRA VISTA SHEET 2 OF 5

PROJECT NO. 11670 BY DW DATE 11/12/81

SUBJECT C DETERMINATIONS + 10 YR. VELOCITY × DEPTH CALCULATIONS CH'D DATE

TYPICAL LOT PONDING

AVERAGE SIZE LOT 125 x 75

IMPERVIOUS AREA

25 x 50 = 1250 ☐ 20.8%

TOTAL AREA

80 x 75 = 6000 ☐

PERVIOUS AREA

6000 - 1250 = 4750 ☐ 79.2%

C_{EFF} = .208 x .95 + .792 x .35 = **.47**

6 HR 100 YR STORM 2.8 IN

$\frac{2.8}{12}$ x .47 x 6000 = **664.7 FT³**

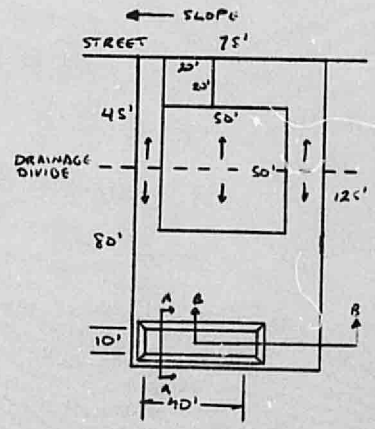
USE A 1 FOOT DEEP POND WITH 3:1 SIDE SLOPES

USE A FLAT BOTTOM 11' x 45'

1' DEPTH VOLUME

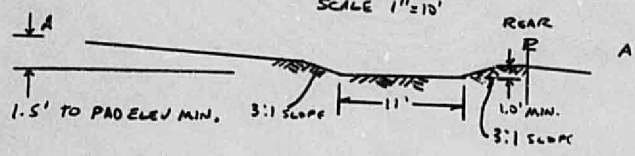
672 CU FT

DESIGN DEPTH **.99'**

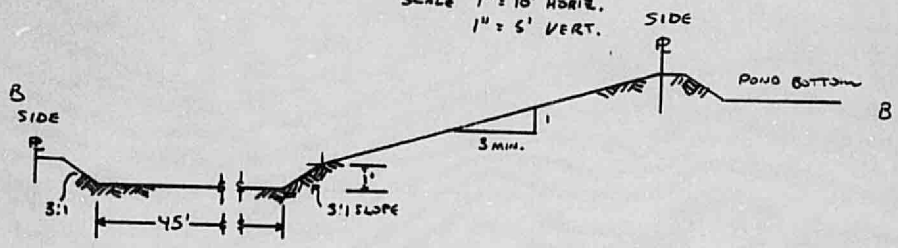


NOTE: TOP OF WATER SURFACE SHALL BE A MINIMUM OF 15' FROM HOUSE

SECTION THROUGH A-A
SCALE 1" = 10'



SECTION THROUGH B-B
SCALE 1" = 10' HORIZ.
1" = 5' VERT.



PROJECT NAME	PIEDRA VISTA	SHEET 3	OF 5
PROJECT NO.	11670	BY DK	DATE 11/12/81
SUBJECT	TYPICAL LOT PONDING	CH'D	DATE

RUNOFF IN CITY VIEW ESTATES

A= 10.7 C=.66 T_c=9.2 FROM CITY VIEW DRAINAGE REPORT OCT. 1975

I= 5.9 AMAFCA 1980-15 (BOHANNAN-HUSTON, INC.)

Q= 41.67 CFS

ONLY NEW INTENSITIES WERE USED TO DETERMINE THE FLOW RATES. THE AREA WAS AN EFFECTIVE AREA OBTAINED FROM AN APPROVED DRAINAGE REPORT FOR CITY VIEW ESTATES ASSUMING THE BACK 2/3 OF EACH LOT WAS PONDED

THE PEAK RUNOFF FROM CITY VIEW ESTATES AND BASINS F+G IS 51.7 CFS DEVELOPED AND 39.8 CFS UNDEVELOPED.

USING AS BUILT DRAWINGS AS A REFERENCE FOR THE APPROXIMATE SLOPE OF PARKSIDE DRIVE S= .0300

THE DEPTH OF FLOW IN PARKSIDE DRIVE

WITH UNDEVELOPED BASIN 4

d= .38 FEET V= 6.2 FPS = total Head .977

WITH DEVELOPED BASINS F+G

d= .41 FEET V= 6.3 FPS total Head 1.02

THE DEPTH OF FLOW IN THE CONCRETE LINED DRAINAGEWAY TO UPPER CHANNEL USING MANNING'S EQ. IS:

WIDTH = 10' n= .015 S= .016 d= .62 FEET

THIS GIVES .9 FEET OF FREEBOARD.

STORM DRAIN TO UPPER LOMAS CHANNEL

CAPACITY OF 24" PIPE

S= .010 R=.50 A= 3.14 n= .013 USE MANNING EQ

Q= 22.6 CFS

Q REQUIRED = 15.9 CFS

PROJECT NAME	PIEDRA VISTA	SHEET 4	OF 5
PROJECT NO.	11670	BY DCW	DATE 11/12/81
SUBJECT	CITY VIEW ESTATES CAPACITIES ROCKY POINT STORM DRAIN	CH'D	DATE

EAST BERM HEIGHT

EAST BOUNDARY BASIN B FLOW 5.1 CFS

ASSUME 3:1 SIDESLOPES, S = .035

DEPTH OF FLOW = .7 FEET
VELOCITY 3.4 FPS

BUILD A BERM 1.5' HIGH (MIN.)

SOUTH-EAST BERM HEIGHT

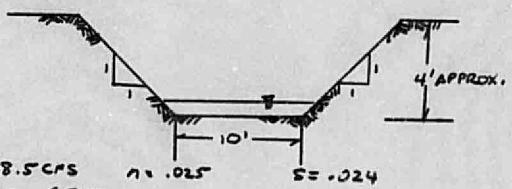
Q = 5.1 + 13.5 = 18.6 CFS BASINS A+B COMBINED

S = .09

DEPTH OF FLOW .95'
VELOCITY 6.8 FPS

BUILD A BERM 1.5' HIGH (MIN.)

EXISTING EARTH CHANNEL TO COPPER CHANNEL



Q = 18.5 + 20.0 = 38.5 CFS n = .025 S = .024
DEPTH OF FLOW = .6 FEET
VELOCITY = 6.05 FPS

PROJECT NAME	PIEDRA VISTA	SHEET 5	OF 5
PROJECT NO.	11670	BY AC	DATE 11/12/21
SUBJECT	EAST BERM + EXISTING EARTH CHANNEL	CH'D	DATE

PLAN/PLATS

ON

FILE

HYDROLOGY K23/D17 3 PLANS

K23/D17

3 Plans

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

K13 - D17

January 5, 1981

David M. Y. Millikan
Bohannan-Huston, Inc.
4125 Carlisle Blvd. N.E.
Albuquerque, N.M. 87103

RE: PIEDRA VISTA SUBDIVISION DRAINAGE PLAN

Dear Dave:

The referenced drainage plan dated November, 1981 and received by our office on December 8, 1981 is approved with the following contingencies:

1. Written permission is given from City planning permitting the construction of the berm on cities open space adjacent Eastern boundary of Piedra Vista.

2. That there is a dedicated drainage easement on the Eastern boundary of Cityview Estates Unit D diverting flows into the inlet of the Copper Channel.

If I can be of any further help, please call.

Sincerely,

Jim Fink
Civil Engineer/Hydrology

JF/tal

BOHANNAN-HUSTON INC.
4125 CARLISLE BLVD., N. E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000
6773 VISCOUNT BLVD., EL PASO, TEXAS 79925 915 775-4491
330 GARFIELD, SANTA FE, NEW MEXICO 87501 505 988-7671

K23-D17

November 3, 1981

RECEIVED
DEC 08 1981
ENGINEERING

Mr. Charles M. Easterling
Principal Assistant City Engineer
Hydrology
P.O. Box 1293
Albuquerque, NM 87103

Re: Drainage Report for the Proposed Piedra Vista Subdivision

Dear Chuck:

The purpose of this letter is to transmit to you, for review, the Drainage Report for Piedra Vista Subdivision. By copy of this letter, we are transmitting one copy of the Drainage Report to Mr. Rich Leonard at AMAFCA for his files.

If you should have any questions concerning this report, please feel free to contact Dave Millikan or me.

Sincerely yours,

Michial M. Emery

Michial M. Emery, P.E.
Vice President

Enclosure

cc: Mr. Rich Leonard (w/enclosure)
Mr. Ron Brown (w/enclosure)

MME/js
Job No. 1 167 0

RECEIVED
DEC 8 1981
CITY ENGINEER

PRINCIPALS
JERRY R. BOHANNAN, P. E. & L.S.
LARRY W. HUSTON
DONALD T. CREMANS, P. E.
C. J. (SKIP) MEAD, P. E.
MICHIAL M. EMERY, P. E.

ASSOCIATES
ANDRES ARAGON VIAMONTE, P. E.
JACK EICHORN
ROBERT H. GREENLEE, P. E.
G. LEE TRUSSELL
ISAAC J. PINO, P. E.
RAMON LARA, P. E.
DARRELL L. WADE, P. E.
PATRICK L. STIEHR, P. E.
DAVID M. Y. MILLIKAN, P. E.

BOHANNAN-HUSTON

DRAINAGE REPORT
FOR
PIEDRA VISTA SUBDIVISION
November, 1981

INC.

DRAINAGE REPORT
FOR
PIEDRA VISTA SUBDIVISION
November, 1981

RECEIVED

DEC 0 8 1981

ENGINEERING

RECEIVED

DEC

CITY ENGINEER

DRAINAGE REPORT

FOR

PIEDRA VISTA SUBDIVISION

November, 1981

PREPARED FOR

Sproul Enterprises
3800 Carlisle Blvd., NE
Albuquerque, NM 87107

PREPARED BY

Bohannan–Huston, Inc.
4125 Carlisle Blvd., NE
Albuquerque, NM 87107

DAVID M. Y. MILLIKAN
NEW MEXICO
7547
REGISTERED PROFESSIONAL ENGINEER

David M.Y. Millikan

David M.Y. Millikan
N.M.P.E. No. 7547

DRAINAGE REPORT
FOR
PIEDRA VISTA SUBDIVISION

TABLE OF CONTENTS

	PAGE
PURPOSE AND LOCATION	1
METHOD OF ANALYSIS	1
EXISTING CONDITIONS	2
Basin 1	2
Basin 2	2
Basin 3	2
Basin 4	3
DEVELOPED CONDITIONS	3
Basin C	3
Basin D	3
Basin E	4
Basin F	4
Basin G	4
Basin H	5
RECOMMENDATIONS	5

APPENDIX

Basin Runoff Calculations	1
Developed Runoff Coefficients	2
Velocity x Depth Calculations	2
Typical Lot Ponding Detail	3
City View Estates Street Capacity	4
Rocky Point Court Storm Drain	4
East Property Line Berm Detail	5
Existing Earth Channel Detail	5
Planning Action	6

PLATES

1 Location Map
2 Undeveloped Drainage
3 Developed Drainage
4 Bernalillo County Soils Map
5 6-Hour 100-Year Rainfall From NOAA Atlas
6 Figure 2.3 From SCS Engineering Field Manual for Conservation Practices

DRAINAGE REPORT

FOR

PIEDRA VISTA SUBDIVISION

PURPOSE AND LOCATION

The Piedra Vista Subdivision is located east of Daskalos Drive and Oro Real. The upper Lomas Channel forms the northeast boundary of the property and the Copper Channel starts approximately 330 feet south of the property (see Plate 1). The site contains approximately 24.3 acres.

The majority of the site consists of soils which are classified by the Soils Report for Bernalillo County as gravelly fine sandy loam and sandy clay loam. The western edge of the site consists of soil classified as gravelly fine sandy loam and gravelly sandy loam. There are rock outcroppings scattered throughout the site. These soils are classified as hydrologic soil groups A, B, and D respectively. The site slopes from east to west at approximately 5% — 10%.

METHOD OF ANALYSIS

The Rational Formula was used for determining runoff quantities from within and around this parcel. Rainfall intensities were calculated using information contained in the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) Resolution No. 1980–15. Times of concentration for the undeveloped basins were calculated using Figure 2.3 of the U.S. Department of Agriculture, Soil Conservation Services Engineering Field Manual for Conservation Practices (see Plate 6). The time of concentration for the developed basins was calculated using the Manning Equation for flow in streets and an average velocity of 1 fps for conveyance of runoff from the rear of the developed lots to the street.

The runoff coefficients and areas given for City View Estates in the approved Drainage Report for that project are included in the appendix of this report. The runoff rates generated within City View Estates have been revised to utilize the rainfall intensities from AMAFCA Resolution 1980–15.

EXISTING CONDITIONS

The Upper Lomas Channel collects the upland flows from the area to the northeast of the site (see Plate 2). The only off-site basins which might impact the site under existing conditions are Basins A and B. These basins are discussed with on-site Basin 3 below. Under present conditions, the site contains four drainage basins. These are identified as Basins 1 – 4 on Plate 2. The existing drainage conditions for these basins will be analyzed individually in this report.

Basin 1

Basin 1 is bounded by Daskalos Heights Subdivision on the west. The flows from its 6.4 acres are collected by an existing berm and channel on the west property line of the site and discharged at a rate of 13.3 cfs to a drainage easement in Daskalos Heights Subdivision (see Plate 2).

Basin 2

Basin 2 is also bounded by Daskalos Heights Subdivision on the west. It contains an area of 3.1 acres and discharges at a peak rate of 6.3 cfs onto Soula Drive.

Basin 3

Basin 3 contains 7.0 acres and is located in the southeast section of the parcel. This basin accepts off-site flows of 5.1 cfs from upland Basin B (see Plate 2). This combines with the on-site generated flow of 13.5 cfs and flows southwest into an existing earth drainage ditch. This drainage ditch discharges into the upstream end of the Copper Channel. It appears that flows from Basin A do not impact this basin. These flows appear to be collected in a small channel paralleling the southeast boundary of the site. The peak flow rate from Basin A is 13.5 cfs.

P where is this Report

Basin 4

Basin 4 is bounded by City View Estates Unit D on the west. A concrete block wall along the east boundary of City View Estates Unit D directs a portion of the runoff from Basin 4 to La Cueva Avenue (13.8 cfs). These flows are conveyed to a drainageway which discharges into the Copper Channel at the south end of Parkside Drive (see Plate 1). The remainder of the runoff from Basin 4 (3.5 cfs) enters City View Estates Unit D through a drainage easement just south of Soula Drive. These flows are conveyed through Oro Real and Nambe Avenue to Turner Drive. Basin 4 contains 8.7 acres.

DEVELOPED CONDITIONS

Under developed conditions, the parcel will be divided into drainage basins similar to the existing drainage basins (see Plate 3). Due to topographic necessity, rear yard ponding will be required on several lots which are located on the downhill side of the streets. The area of the basins to be used in determining the developed flow rates does not include the areas which are ponded on the lots. Runoff from the basins will be handled as follows:

Basin C

The Upper Lomas Channel effectively eliminates any upland flows which might have impacted this basin in the past. The developed runoff (15.9 cfs) will be collected at the north end of Rocky Point Court. From this point, it will be conveyed through a storm drain and discharged into the Upper Lomas Channel (see Plate 3). No runoff from Basin C will be discharged to the Daskalos Heights Subdivision.

Basin D

The Upper Lomas Channel also protects this basin from any upland flows. The developed flow rate generated by Basin D is 12.2 cfs. This runoff will enter Daskalos Heights through Soula Drive. The total runoff which enters Daskalos Heights from undeveloped Basins 1 and 2 is 19.6 cfs. The only developed runoff entering

Daskalos Heights is 12.2 cfs from Basin D and 0.9 cfs from Basin H (see below). Therefore, the developed runoff entering Daskalos Heights will be less than the undeveloped runoff entering Daskalos Heights.

Basin E

The developed runoff generated by Basin E is 20.0 cfs. It will discharge from Basin E through a drainageway at the south end of Piedra Vista Avenue. An existing earth channel will convey these flows to the Copper Channel (see Appendix Page 5). A 1.5 foot high berm will be constructed along the east and southeast boundaries of Basin E. This berm will intercept the runoff from off-site Basins A and B (18.6 cfs) and convey it to the existing earth channel at the south end of the site. OK where specifically will this berm be constructed

Basin F

The total runoff from Basin F (25.7 cfs) will be conveyed through the streets to La Cueva Avenue. These flows leave the site through La Cueva Avenue and are conveyed to Parkside Avenue (see Plate 1). They are conveyed within Parkside Avenue to a concrete lined drainageway, at the south end of Parkside Drive, which discharges into the Copper Channel.

This flow combined with the developed flow from City View Estates amounts to 51.7 cfs. This amount is 11.9 cfs greater than the undeveloped discharge from Basin F and the developed discharge from the contributing portion of City View Estates. All of these flows are collected at the intersection of Parkside Drive and Camino Del Ray. Parkside Drive has adequate capacity to carry the increased flow rate at less than curb height. The concrete-lined drainageway to the Copper Channel has adequate capacity at the entrance and within the drainageway to handle these increased flows (see Appendix Page 4). summarizing calculations? OK

Basin G

The runoff from Basin G (1.7 cfs) is discharged through an existing drainage easement to Oro Real. This flow is conveyed in Oro Real to Nambe Avenue where it flows west to Turner Drive. This flow is less than the undeveloped flow of 3.5 cfs.

Basin H

The total flow from Basin H (0.9 cfs) will be discharged through the existing concrete-lined drainageway to Daskalos Heights. This and the discharge from Basin D (12.2 cfs) will be the only discharges into Daskalos Heights. This discharge rate is less than the undeveloped discharge from Basins 1 and 2 into Daskalos Heights.

RECOMMENDATIONS

1. Rocky Point Court should be designed to drain to the north. The runoff will be removed from the street by an appropriately-sized inlet and a 24" RCP and conveyed to the Upper Lomas Channel.
2. The two lots adjacent to the existing drainageway in the Daskalos Heights be graded so that the rear half of each lot drains into the drainageway. No other runoff will be directed to this easement.
3. A berm 1.5 feet in height should be constructed along the east and southeast property lines with 3:1 side slopes. This will protect the site from the runoff from Basins A and B.

Owner of Land Property Basin A & B are ON!

4. A drainage easement should be located at the south end of Piedra Vista Avenue with a 5 foot wide type "B" lining with 1.5 foot high sides.
5. Tetilla Place be graded to drain to La Cueva Avenue.
6. All streets are to be 32' wide with a 4" crown. They shall be constructed to City of Albuquerque design standards for residential streets.
7. Mountable curb-roll type may be used throughout the subdivision except at the south end of Piedra Vista Avenue.
8. Computations are included in the Appendix for the 10-year storm runoff calculations. They indicate that the velocity times depth values are less than 4.8 in all cases.

9. Retention ponds should be constructed on those lots shown on Plate 3. They shall be designed to provide adequate capacity for the runoff generated by the areas draining to them (see Appendix Page 3). These ponds will be maintained by the individual property owners.

10. Typical lot grading is shown on Plate 3.

11. As noted on Plate 3, all lots shown to be graded similarly to the Typical 2-Story Lot Detail may be left in their undeveloped state to allow construction of custom homes. The grading indicated is one grading alternative for this area.

12. Development of the subdivision as indicated in this report will meet the requirements of AMAFCA Resolution 1980-15 and the Interim Drainage Guidelines.

APPENDIX

BASIN RUNOFFS

PLANIMITER CONVERSION 3.5658

BASIN	PLANIMITER READING	ACREAGE	ΔELEV.	LONG RUN	SLOPE	T_c*
UNDEVELOPED						
A	1.833	6.54	370	1630	.227	5.61
B	0.689	2.457	34	730	.047	5.79
1	1.800	6.418	46	1000	.046	7.94
2	0.854	3.045	50	730	.068	4.97
3	1.959	6.985	70	1500	.047	11.40
4	2.425	8.647	44	1200	.037	10.53
DEVELOPED						
C	1.350	4.814	42	870	.048	7.00
D	0.955	3.405	50	730	.068	3.70
E	1.557	5.551	70	1300	.054	7.94
F	2.001	7.136	46	880	.052	6.50
G	0.196	0.701	10	310	.032	2.87
H	0.092	0.328	7	150	.047	1.14

* T_c IS EXPRESSED IN MINUTES

UNDEVELOPED DRAINAGE T_c WAS FOUND USING FIGURE 2.3 OF THE UNDEVELOPED FIELD MANUAL FOR CONSERVATION PRACTICES, US DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE.

DEVELOPED DRAINAGE T_c WAS FOUND USING n = .015 AND MANNINGS EQUATION FOR FLOW IN STREETS AND A FLOW RATE OF 1 FPS ON DEVELOPED LOTS

FLOW RATES

BASIN	ACREAGE	C	I_{10}	I_{100}	Q_{10}	Q_{100}
UNDEVELOPED						
A	6.54	.35	4.8	5.9	11.0	13.5
B	2.46	.35	4.8	5.9	4.1	5.1
1	6.42	.35	4.8	5.9	10.8	13.3
2	3.05	.35	4.9	5.9	5.1	6.3
3	6.99	.35	3.5	5.5	8.6	13.5
4	8.65	.35	4.7	6.7	14.2	17.3
DEVELOPED						
C	4.82	.56	4.8	5.9	13.0	15.9
D	3.41	.61	4.8	5.9	10.0	12.2
E	5.55	.61	4.8	5.9	16.3	20.0
F	7.14	.61	4.8	5.9	20.9	25.7
G	0.70	.40	4.8	5.9	1.3	1.7
H	0.33	.45	4.8	5.9	0.7	0.9

SEE SHEET 2 FOR C DETERMINATIONS

PROJECT NAME	PIEDRA VISTA	SHEET 1	OF 5
PROJECT NO.	11670	BY DW	DATE 11/6/91
SUBJECT	BASIN RUNOFFS	CH'D	DATE

DEVELOPED C DETERMINATIONS

BASIN	TOTAL AREA	POND'D LOTS	NON-POND'D LOTS	AREA OF STREET	TOTAL IMPERVIOUS	% IMPERVIOUS C: .95	% PERVIOUS C: .35	C
C	209697	10	8	700×50				
IMPERVIOUS AREA/UNIT		1650	2900					
IMPERVIOUS AREA		16500	23200	35000	74700	35.6	64.4	.56
D	148539	15	9.8	660×50				
IMPERVIOUS AREA/UNIT		1650	2900					
IMPERVIOUS AREA		2475	28420	33000	63895	43.0	57.0	.61
E	241758	8	16.2	910×50				
IMPERVIOUS AREA/UNIT		1650	2900					
IMPERVIOUS AREA		13200	46980	45500	105680	43.7	56.3	.61
F	3118018	9	18.6	1340×50				
IMPERVIOUS AREA/UNIT		1650	2900					
IMPERVIOUS AREA		14850	53940	67000	135790	43.7	56.3	.61
G	30492	0	2	0				
IMPERVIOUS AREA/UNIT			1250					
IMPERVIOUS AREA		0	2500	0	2500	8.2	91.8	.40
H	14375	0	2	0				
IMPERVIOUS AREA/UNIT			1250					
IMPERVIOUS AREA		0	2500	0	2500	17.4	82.6	.45

VELOCITY×DEPTH CALCULATIONS (10 YEAR STORM)

ROAD WIDTH = 32' CROWN 4" n = .015 USE MANNING EQ.

BASIN	SLOPE	Q_{10}	d	V	dV
C	.0167	13.0	.27	2.94	.79
D	.0040	10.0	.20	5.71	1.14
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PROJECT NAME PIEDRA VISTA
PROJECT NO. 11670
SUBJECT C DETERMINATIONS + 10 YR. VELOCITY × DEPTH CALCULATIONS

SHEET 2 OF 5
BY DW DATE 11/12/81
CH'D DATE

TYPICAL LOT PONDING

AVERAGE SIZE LOT 125 x 75

IMPERVIOUS AREA

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$\frac{2.8}{12}$ x .47 x 6000 = **664.7 FT³**

USE A 1 FOOT DEEP POND WITH 3:1 SIDE SLOPES

USE A FLAT BOTTOM 11' x 45'

1' DEPTH VOLUME

672 CU FT

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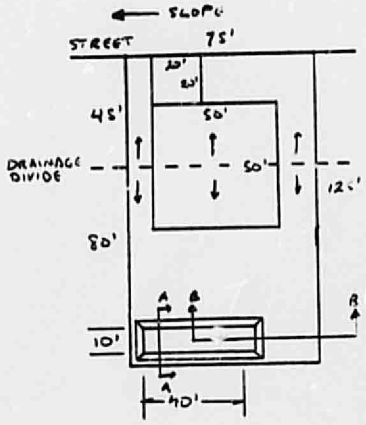
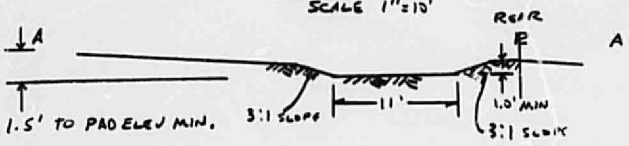
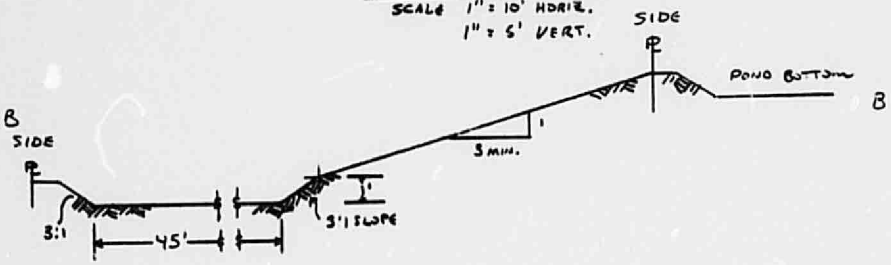


NOTE: TOP OF WATER SURFACE SHALL BE A MINIMUM OF 15' FROM HOUSE

SECTION THROUGH A-A
SCALE 1" = 10'



SECTION THROUGH B-B
SCALE 1" = 10' HORIZ.
1" = 5' VERT.



PROJECT NAME	PIEDRA VISTA	SHEET 3	OF 5
PROJECT NO.	11670	BY DXC	DATE 11/12/91
SUBJECT	TYPICAL LOT PONDING	CHD	DATE

RUNOFF IN CITY VIEW ESTATES
A: 13.7 C: .66 T_c: 9.2
I: 5.9 AMAFCA 1950-15

FROM CITY VIEW DRAINAGE REPORT (BOHANNAN-HUSTON, INC.) OCT. 1975

Q: 41.67 CFS

ONLY NEW INTENSITIES WERE USED TO DETERMINE THE FLOW RATES. THE AREA WAS AN EFFECTIVE AREA OBTAINED FROM AN APPROVED DRAINAGE REPORT FOR CITY VIEW ESTATES ASSUMING THE BACK 2/3 OF EACH LOT WAS PONDED

THE PEAK RUNOFF FROM CITY VIEW ESTATES AND BASINS F+G IS 51.7 CFS DEVELOPED AND 39.8 CFS UNDEVELOPED.

USING AS BUILT DRAWINGS AS A REFERENCE FOR THE APPROXIMATE SLOPE OF PARKSIDE DRIVE S: .0300

THE DEPTH OF FLOW IN PARKSIDE DRIVE
WITH UNDEVELOPED BASIN 4
d: .38 FEET V: 6.2 FPS Total Head .977
WITH DEVELOPED BASINS F+G
d: .41 FEET V: 6.3 FPS Total Head 1.02

THE DEPTH OF FLOW IN THE CONCRETE LINED DRAINAGEWAY TO COPPER CHANNEL USING MANNING'S EQ. IS:
WIDTH = 10' n: .015 S: .016 d: .62 FEET

THIS GIVES .9 FEET OF FREEBOARD.

STORM DRAIN TO UPPER LOMAS CHANNEL

CAPACITY OF 24" PIPE
S: .010 R: .50' A: 3.14 n: .013 USE MANNING EQ

Q: 22.6 CFS

$Q_{REQUIRED}$: 15.9 CFS

PROJECT NAME	PIEDRA VISTA	SHEET 4	OF 5
PROJECT NO.	11670	BY DOV	DATE 11/2/
SUBJECT	CITY VIEW ESTATES CAPACITIES ROCKY POINT STORM DRAIN	CHD	DATE

EAST BERM HEIGHT

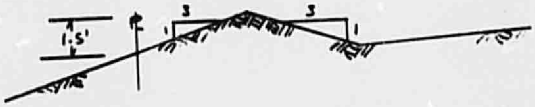
EAST BOUNDARY BASIN B FLOW 5.1 CFS

ASSUME 3:1 SIDESLOPES, S = .035

DEPTH OF FLOW = .7 FEET

VELOCITY 3.4 FPS

BUILD A BERM 1.5' HIGH (MIN.)



SOUTH-EAST BERM HEIGHT

Q = 5.1 + 13.5 = 18.6 CFS BASIN A+B COMBINED

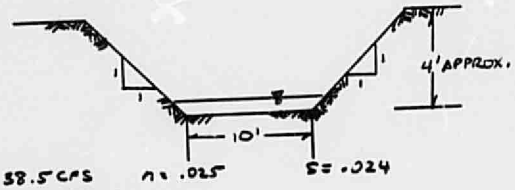
S = .09

DEPTH OF FLOW .95'

VELOCITY 6.8 FPS

BUILD A BERM 1.5' HIGH (MIN.)

EXISTING EARTH CHANNEL TO COPPER CHANNEL



Q = 18.5 + 20.0 = 38.5 CFS n = .025 S = .024

DEPTH OF FLOW = .6 FEET

VELOCITY = 6.05 FPS

PROJECT NAME PIEDRA VISTA

PROJECT NO. 11670

SUBJECT EAST BERM + EXISTING EARTH CHANNEL

SHEET 5 OF 5

BY AOC DATE 11/12/01

CHKD DATE

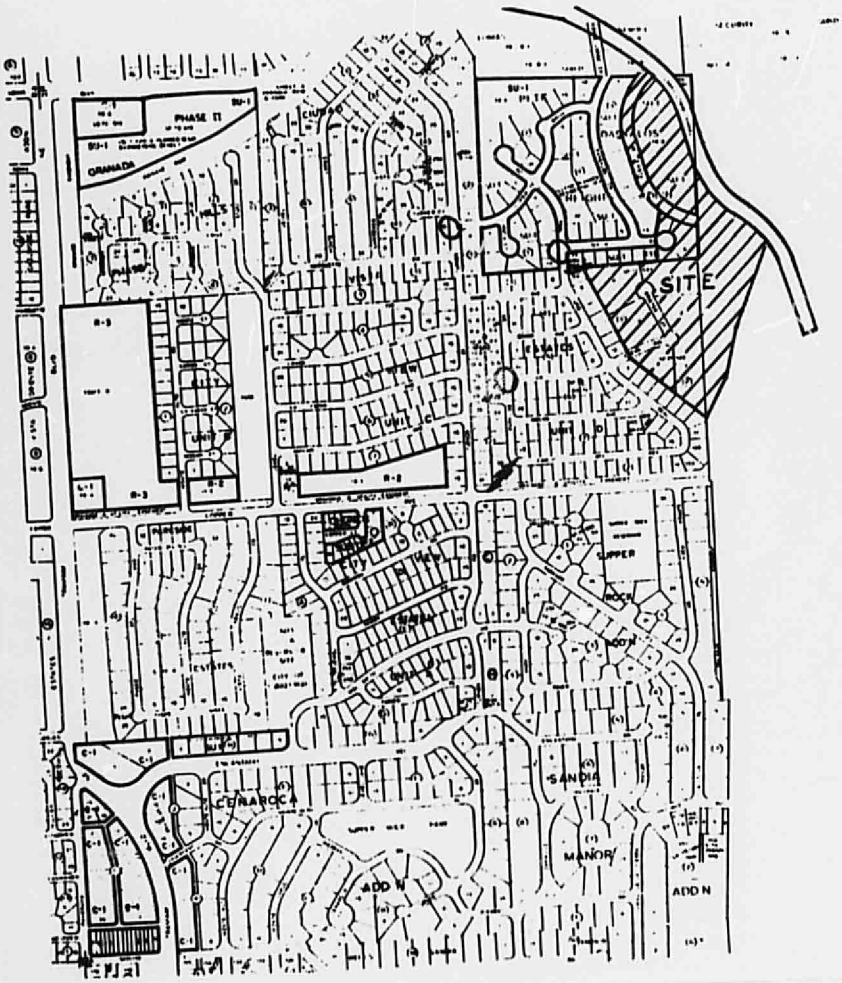


PLATE I

SITE LOCATION

K-23-Z

BERNALILLO COUNTY, AND PARTS OF SANDOVAL AND VALENCIA COUNTIES, NEW MEXICO

PLATE 4

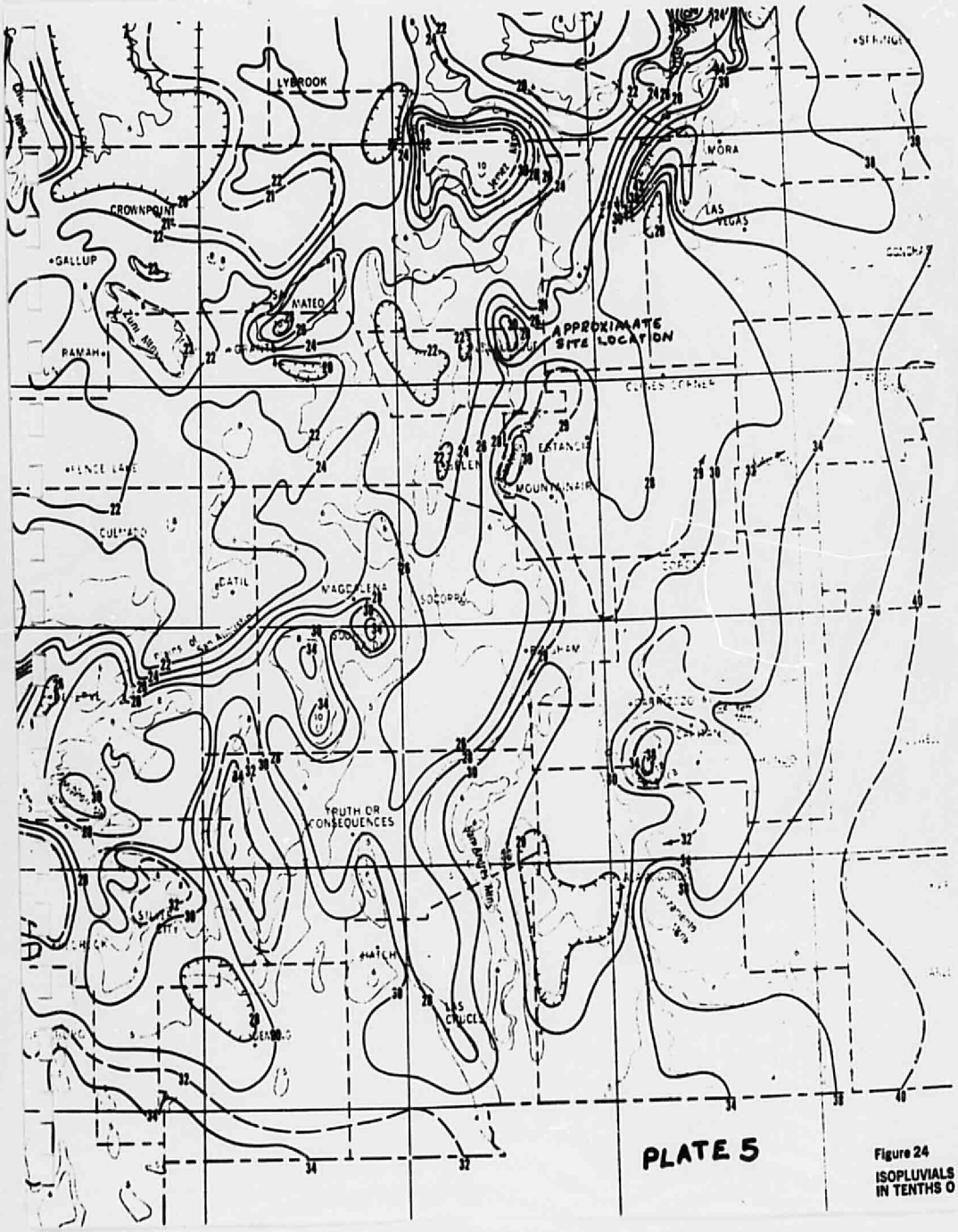


Figure 24
ISOPLUVIALS IN TENTHS O

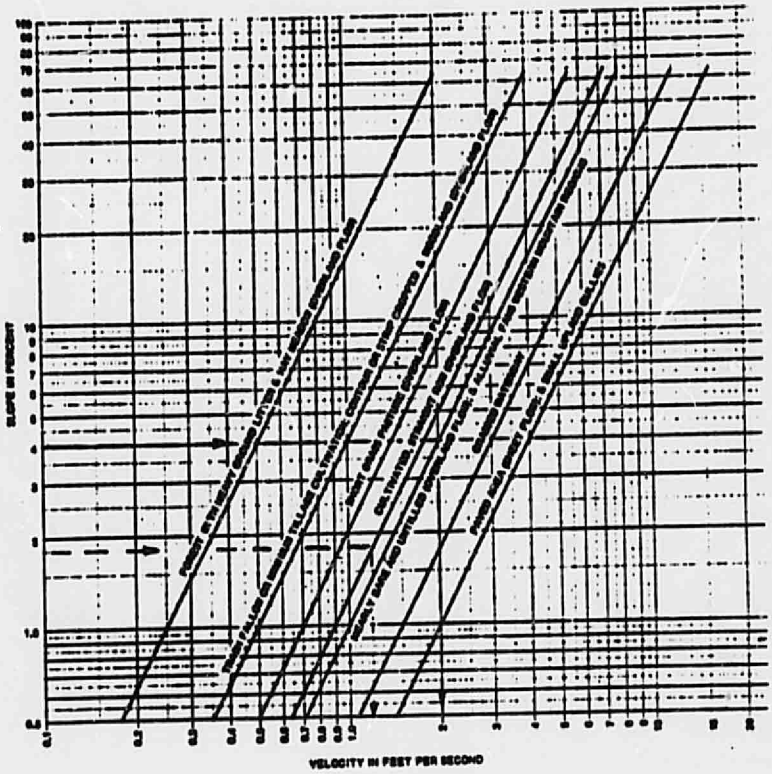


Figure 2-3 Velocities for upland method of estimating T_c

PLATE 6

AGENDA ITEM #10

FILE: PICONA VISTA FILE

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
PLANNING DIVISION

ENVIRONMENTAL PLANNING COMMISSION
September 17, 1981
Z-81-116

Z-81-116

Bohannan-Huston, Inc., agents for Sproul Enterprises, requests a change of zone from SU-1 (PRD) to R-1, for Tract B, and the vacated Scenic Drive right-of-way, and Lots 14 through 17, Block 3, Pete Daskalos Heights Addition, located south of the Upper Lomas Channel and abutting the Foothills Demarcation Line on the east, containing approximately 7.54 acres. (K-23)

COMMENTS FROM OTHER DEPARTMENTS, 9-17-81:

Traffic Engineering	"No comment."
Transportation	"No adverse comment."
COG	"No adverse comment."
City Engineers Office	Design: "a. A drainage study must be submitted for review and approval prior to approval of plat, development plans and building plans. b. Do not concur in the piecemeal platting and approval of this subdivision. There are too many factors which must be addressed and constructed for the entire subdivision. c. Recommend that Z-81-116, S-81-30, V-81-31 & Z-81-46 be combined into one planning item for review."
Refuse Removal	"No adverse comment."
Real Estate Officer	"No adverse comment."
APS	"No adverse comment."
Zoning Enforcement	"No comment."

APPLICANT'S REASON FOR REQUEST:
The property proposed for the change of zone is part of the Pete Daskalos Heights Addition which is zoned SU-1 for planned residential development. The Pete Daskalos Heights Addition was approved through a site development plan process and was platted under R-1 restrictions. At the present time the applicant wishes the subject property to be considered as part of a subdivision request, of which the remaining property is zoned R-1. This proposed zone change will consolidate the zoning of the proposed subdivision and simplify the approval process.

Because the surrounding subdivisions are zoned R-1, this proposed change will provide stability in land use and zoning, and will be consistent with the health, safety and general welfare of the city.

PLANNING DIVISION COMMENTS TO THE ENVIRONMENTAL PLANNING COMMISSION, 9-17-81:
A change of zone from SU-1 (Special Use for Planned Residential Development) to R-1 is requested for a 7.54 tract.

The site is part of a pending subdivision with two zoning categories and the applicant would like to have R-1 zoning for the entire project.

Area Characteristics:
Surrounding development is single family.

Area Zone History:
Special Use zoning for a Planned Residential Development was approved on 1-16-73.

Special Use zoning for a Planned Residential Development for the site was approved on 5-15-73.

Applicable Plans and Policies:
The site is located in the Established Urban Metropolitan area of the Comprehensive Plan that recommends densities of 3-9 DU/AC. It is also located within the Foothills Plan area that recommends a density of 3 DU/AC.

The request conforms to adopted city policies for zone map changes and due to the surrounding R-1 zoning it will not be detrimental to adjoining property or development.

FINDINGS:

1. A change of zone to R-1 is requested to obtain the same zoning for a 7.54 acre tract.
2. The surrounding zoning is R-1.
3. The proposed change conforms to adopted policies for zone changes.

RECOMMENDATION: APPROVAL OF Z-81-116 IS RECOMMENDED BASED UPON FINDINGS 1 - 3.

John R. Lucero, Planner

IT IS REQUESTED THAT THE APPLICANT/AGENT BE PRESENT AT THE MEETING.

cc: Sproul Enterprises, 5115 Menaul Blvd., NE
Bohannan-Huston, Inc., 4125 Carlisle Blvd., NE