HYDROLOGY ○ L23/D8 ○ TWO PLANS

L 23/ D 8

2 PLANS

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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ENGINEERING

DRAINAGE REPORT INFORMATION SHEET

PROJECT TITLE TOWNHOUSES 172 Monte Largo NE

ZONE ATLAS PAGE NO. L 23 CITY ADDRESS 172 Monte Largo NE

LEGAL ADDRESS Lot 14 Orona Addition

ENGINEERING FIRM Ray Harrison & Associates CONTACT Ray Harrison

ADDRESS 1517 A Girard NE PHONE 265 4276

OWNER Ernie Orona Co Realtor CONTACT Pablo Reyes

ADDRESS 10601 Lomas NE PHONE 298 7403

~~ARCHITECT~~/SURVEYOR Ray Harrison & assoc. CONTACT Ray Harrison

ADDRESS 1517 A Giarrd NR PHONE 265 4276

DATE SUBMITTED 11/2/81

BY R Harrison

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E., City Engineer ENGINEERING DIVISION Telephone (505) 766-7467

RAY L. HARRISON & ASSOCIATES
CONSULTING ENGINEERS

1517-A GIRARD BLVD. NE
ALBUQUERQUE, NEW MEXICO 87106
(505) 265-4276

DRAINAGE REPORT
TOWNHOUSES, 172 Monte Largo NE
Lot 14, Orona Addition

This lot is located in the foothills of Albuquerque, it will be developed as townhouse apartments. The lot is 9,580 sq. ft. in size.

Design Criteria: The lot will be graded to drain into the stree at the driveway. A three foot retaining wall will be built at the east end of the lot to protect the lot from the off-site flows from the east. A curb cut and concrete channel will be construced to take care of the off-site flow from the west.

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Planning history: The lot is zoned properly, no zoning or planning action is proposed.

Watershed areas: There is a 51 acre watershed above the intersection of Lawrence Drive and Arcadia Road immediately to the East of this lot.and 3.4 acres above the driveway curb cut of this lot on Monte Largo Dr.

Storm flows: 100 year, 180 CFS at Lawrence Drive and Arcadia Road.
12.5 CFS at curb cut on Monte Largo Drive.
10 year, 116 CFS at Lawrance Dr. & Arcadia Rd.
7.7 CFS at Curb cut on Monte Largo DR.

Flow depth: Lawrence Dr. has a slope of 3.98% velocity will be 11.3 FPS and the street will run full curb to curb, depth at curb .67 feet. The street changes to a 1.74% grade at the interection, there will be a hydraulic jump at this point with an excess drainage of about 100 CFS. The lot on Lawrence Drive to the East of lot 14 has been filed to about .5 feet above Lawrence Dr. which will provide a measure of protection to this lot. The off-site flow on Monte Largo Dr. has a velocity of 8 FPS, depth of .2 feet on a stree with a grade of 3%.

Other conditions: There are no other conditions that will affect drainage.

Proposed treatment: A retaining wall will be built on the east end of the lot to protect the townhouses from the possible off-site flows. A curb cut and concrete channel will be constructed to deliver the Monte Largo Dr drainage to a channel. The offsite drainage from the east will be eliminated with the construction of drainage facilities above Lawrence Dr.

Flow volumes and rates:

On-site developed flow

impervious 4800/43560 X 6 X .9 = .59 CFS

4780/43560 X 6 X .5 = .33 CFS

On-site undeveloped flow total .92 CFS

9,580/43560 X 6 X .5 = .69 CFS

Proposed treatment, on-site flows: The on-site flows will be conveyed to the stree at the drive way.

Ray L. Harrison
11/1/81

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

L23-D8

November 13, 1981

Mr. Ray L. Harrison
Ray L. Harrison & Associates
1517-A Girard Blvd. N.E.
Albuquerque, New Mexico 87106

Re: Townhouse - 172 Monte Largo N.E. Drainage Report

Dear Ray:

A review of the referenced plan has resulted in the comments listed below. The numbers refer to the Drainage Report (DR) and Construction Plan (CP) checklists. Please supply the following information:

a. DR#4. Delineation of site on pertinent Flood Hazard Boundary Map. If site is not in a flood hazard area, please state such.

b. DR#5. Delineation of site and contributing off-site watersheds on SCS Bernalillo County Soil Survey Map.

c. DR#7. Delineation of off-site contributing watersheds on City of Albuquerque ortho-topo area maps.

d. DR#11A. Definition of required drainage facilities for off site drainage. A cross-section showing the swale and retaining wall would help, also, how is the water to get into the drainage channel? Rip rap or some other treatment will be needed where the flows enter the drainage channel.

e. DR#15C. Channel characteristics including flow depths and velocities for proposed channel and curb cut off of Monte Largo to the drainage easement. The channel design should be included with this report.

f. DR#20G. Indicate all existing easements and right-of-ways on and adjacent to the site with dimensions and purpose shown. If there are none then state such.

g. DR#21J. Slope on the area along north property line appear to be greater than 3:1. Please supply cross-sections in this area to better represent what is happening.

h. DR#21L. Details of the retaining wall should be supplied and the dimensions and location indicated.

Written permission from the property owner must be obtained in order to fill on the property to the south and to construct the channel on the west sides of the proposed project.

If you should have any questions regarding the above, please feel free to call me at 766-7467.

Sincerely,

James Fink
Civil Engineer/Hydrology

JF/fs

RAY L. HARRISON & ASSOCIATES
CONSULTING ENGINEERS

1517-A GIRARD BLVD. NE
ALBUQUERQUE, NEW MEXICO 87106
(505) 265-4276

123-D8

DECEMBER 17, 1981

Richard S. Heller, City Engineer
City of Albuquerque
Box 1293
Albuquerque, New Mexico 87103

Re: Townhouse, 172 Monte Largo N.E., Drainage Report

Ref: Memorandum, Jim Fink to Ray L. Harrison Dated November 13, 1981 Subject Drainage Report, file 123 - D8

Inclosed are clarifications requested in the referenced memorandum.

a. Site is not in the Master Drainage Study Area.

b. Site was delineated on a SCS map with the original submittal,

c. Delineation of offsite watershed on orthophoto topo map attached.

d. The wall and channel at the East end of the lot are being provided as temporary protection until drainage facilities to the East are completed that will eliminate the problem. No drainage flow is anticipated except in emergency conditions. Any drainage would enter the channel as sheet flow from lot 2, block 15 Wells Sandia Manor. The channel will provide about 50 Sq. Ft. of flow area (see section "AA") and with a minimal velocity of 2 FPS, the channel would have a capicity of 100 CFS and would provide adequate protection.

e. The channel and curb cut to divert drainage from the existing drive pad cut at the front of the lot would be on I-40 R-O-W and would require Bureau of Public Roads approval with a drawing, a report and take 2-3 months . It is proposed to delete the curb cut and channel and allow the drainage to flow to the end of Monte Alto and flow out the existing curb cut and channel, as called for in the original drainage report.

f. The Easements are shown on the revised drawing.

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DEC 1 8 1981
CITY ENGINEER

g. Slope, the drawing has been corrected as to the slope between the buildings.

h. Retaining wall drawing attached.

Permission to fill and construct channel, it is proposed to delete the channel. The fill is necessary to meet city requirements to have positive flow to the street and protect the property. Bureau of Public Roads permission would be required. A waiver of this requirement is requested because the fill is not a significant amount, the fill would not affect the adjacent property and would conform to the existing facilities.

Ray L. Harrison

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

L23-D8

December 22, 1981

Mr. Ray L. Harrison
Ray L. Harrison & Associates
1517-A Girard Blvd. N.E. 87106

Re: Townhouse - 172 Monte Largo N.E. Drainage Report

Dear Ray:

A review of your revised referenced drainage plan dated December 17, 1981 has resulted in the comments listed below. The numbers refer to the Drainage Report (DR) and Construction Plan (CP) Checklists. Please supply the following information:

a. DR#4.- Delineation of site on pertinent Flood Hazard Boundary Map. It is true that this area is not included in the Master Drainage Study Area but it is included on the FHBM Flood Hazard Boundary Map, Community - Panel Number 350002 0006B, dated December 4, 1979.

b. DR#5 Delineation of site and contributing off-site watersheds on SCS Bernalillo County Soil Survey Map. The map included with the original submittal is not a SCS Soil Survey Map.

c. DR#7 Delineation of off-site contributing watersheds on City ortho-topo area map. This map was not attached.

d. DR#21J. Slope on the area along north property line still appears to be greater than 3:1. Please supply a cross-section in this area to better represent what is happening.

The requirement that written permission from the property owner to fill on the property to the south, cannot be waived. This permission is needed or a retaining wall must be built.

If you have any questions, please call.

Sincerely,

Jim Fink
Civil Engineer/Hydrology

JF/fs
9483A

RAY L. HARRISON & ASSOCIATES
CONSULTING ENGINEERS

1517-A GIRARD BLVD. NE
ALBUQUERQUE, NEW MEXICO 87106
(505) 265-4276

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JAN 20 1982

ENGINEERING

Richard Heller, City Engineer
City of Albuquerque
Box 1293
Albuquerque, NM 87103

January 19, 1982

Re: Townhouse-172 Monte Largo N.E. Drainage Report
File L23-D8

Ref: Memorandum, Jim Fink to Ray Harrison dated December 22, 1981, Same Subject.

The following are answers to your comments in the referenced letter.

a. DR#4 The map attached to the first submittal was a section of the FHBM, Title page attached.

b. DR#5 Delineation of site and watershed area on SCS Bernalillo County Soils Survey Map attached.

c. DR#7 Offsite watershed delinated on Ortho Photo Topo Map attached, inadvertently left off second submittal.

d. DR23J. Retainag walls have been added to take care of the slope problem and the filling of Highway department land.

Ray L. Harrison

Ray L. Harrison

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

L23 - D8

January 29, 1982

Mr. Ray Harrison
Ray L. Harrison & Associates
1517-A Girard Blvd. N.E.
Albuquerque, NM 87106

RE: TOWNHOUSES - 172 MONTE LARGO N.E. DRAINAGE REPORT

Dear Ray:

The referenced drainage report revised on 1/19/82, and received in our office on Jan. 20, 1982 is approved.

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

Sincerely,

Jim Fink
Civil Engineer/Hydrology

JF/tsl

cc: Fred Aguirre, Civil Engineer/Hydrology
Jim Fink, Civil Engineer/Hydrology
Drainage File
Reading File

40021

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

HYDROLOGY SECTION PROJ. NO. L-23 DATE: 1/19/84

PLANNING DIVISION NO. _____

CONFERENCE RECAP

SUBJECT: 4 Plex for Walter Reed

	WHO	REPRESENTING
ATTENDANCE:	Tom Mann	
	Billy Goolsby	

FINDINGS: ① Drainage Plan per DPM
② Encroachment on flood plain AO Zone 1 foot depth - flood proofing required.
③ Discharge to Public R/W

Submit copy of recap w/ submittal

The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED: Billy Goolsby SIGNED: Tom Mann
TITLE: CE/Hydrology TITLE: _____
DATE: 1/19/84 DATE: 1/19/84

811 DALLAS, N.E. • ALBUQUERQUE • NEW MEXICO • 87110 • 505-265-5611

Tom Mann Associates, Inc. Engineers

40021
April 9, 1984

Federal Emergency Management Agency
Washington, D.C. 20472

Dear Gentlemen:

Tom Mann & Associates is presently preparing a grading and drainage plan for a site which is located in a designated Flood Hazard Zone. The site is more particularly described as Lot 14 of the Orona Addition, Albuquerque, New Mexico. We would like to request a map amendment to remove that site from the current "AO" Zone. The basis for this request is presented below.

The area under consideration for a map amendment is shown as undeveloped land on the Federal Emergency Management Agency Flood Hazard Boundary Map (FHBM) and the Flood Insurance Rate Map (FIRM) currently in effect as shown by Figures 1 and 2. The most current revisions to the FHBM and FIRM Maps are identified as February, 1978; therefore, these maps do not adequately reflect any improvements since that time. Improvements made since that time include paved streets, a storm drainage system and the individual development of lots, as detailed in Figure 3. This area has been developed such that all runoff contributing to the subject "AO" Zone is diverted at a point east of the site to a lower point within the watershed; thereby eliminating the Flood Hazard Zone as mapped.

Based upon these observations, the subject site does not currently lie within a Flood Hazard Zone. Consequently, the Flood Hazard Zone mapped on Panel 37 of the FHBM and FIRM does not reflect the presence of the existing storm drainage and diversion features which protect the subject site from the previously mentioned flooding.

If you have any questions or comments concerning this matter, please do not hesitate to call. Your prompt attention to this matter will be greatly appreciated.

TOM MANN & ASSOCIATES, INC.

Jay T. Olson

Jay T. Olson
Project Engineer

Federal Emergency Management Agency

Washington, D.C. 20472

REQUEST FOR LETTER OF MAP AMENDMENT

The following information is submitted in support of my request that a determination be made as to whether or not a certain land area or structure is within a Special Flood Hazard Area. The property is shown on the Federal Emergency Management Agency Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM) identified as: Albuquerque, New Mexico (Community Name), L-23 (Community Number).

(Please check appropriate boxes)

[X] (1) A copy of the ~~XXXXXXXXXXXXXXXXX~~ recorded plat indicating both the legal description of the property and the official recordation information (deed or plat book volume and page number) and bearing the seal of the Recorder of Deeds.

[X] (2) Topographic information, including contours and elevations of both the lowest finished grade adjacent to the structure and the lowest floor (including basement).

[X] (3) Planimetric information indicating the location of structures on the property.

[ ] (4) Certification by a registered professional engineer or licensed land surveyor indicating the type of structure, whether it is elevated on posts, piers, or walls, and whether it is built on a barrier sand dune.

[X] (5) Other (please list)

Illustrations:
1. FHMB - Area of Proposed Map Amendment
2. FIRM - Area of Proposed Map Amendment
3. Detail of Area of Proposed Map Amendment

The above statements and all documents submitted in support of this appeal are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

April 9, 1984 (Date)

Jay T. Olson (Signature of Applicant)

INFORMATION SHEET

PROJECT TITLE LOT 14 DRONA ADDITION TYPE OF SUBMITTAL GRADING & DRAINAGE PLAN

ZONE ATLAS PAGE NO. L-23 CITY ADDRESS MONTE LARGO DRIVE NE

LEGAL DESCRIPTION

ENGINEERING FIRM TOM MANN & ASSOCIATES CONTACT JAY T. OLSON

ADDRESS 811 DALLAS NE, 87110 PHONE 265-5611

OWNER WALTER REED CONTACT WALTER REED

ADDRESS 10601 LOMAS NE, SUITE 110, 87112 PHONE 298-7403

ARCHITECT BILL BUCKLEY CONTACT BILL BUCKLEY

ADDRESS 740 SAN MATEO NE, 87108 PHONE 255-9196

SURVEYOR TOM MANN & ASSOCIATES CONTACT TOM MANN

ADDRESS 811 DALLAS NE, 87110 PHONE 265-5611

CONTRACTOR N/A CONTACT

ADDRESS PHONE

PRE-DESIGN MEETING:

✓ YES
___ NO
✓ COPY OF CONFERENCE RECAP SHEET PROVIDED

PLEASE CHECK TYPE OF APPROVAL EXPECTED WITH THIS SUBMITTAL:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ SITE DEVELOPMENT PLAN APPROVAL
___ FINAL PLAT APPROVAL
✓ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ ROUGH GRADING PERMIT APPROVAL
___ GRADING/PAVING PERMIT APPROVAL
___ OTHER _____ (SPECIFY)

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APR 12 1984
HYDROLOGY SECTION

DATE SUBMITTED: APRIL 12, 1984

BY: Jay T. Olson

INFORMATION SHEET

PROJECT TITLE Lot 14 ORONA ADDITION TYPE OF SUBMITTAL GRADING & DRAINAGE PLAN

ZONE ATLAS PAGE NO. L-23 D8 CITY ADDRESS ____

LEGAL DESCRIPTION ____

ENGINEERING FIRM Tom MANN & ASSOCIATES CONTACT JAY T. OLSON

ADDRESS 811 DALLAS NE; 87110 PHONE 265-5611

OWNER WALTER REED CONTACT JAY T. OLSON

ADDRESS ____ PHONE 265-5611

ARCHITECT BILL BUCKLEY CONTACT BILL BUCKLEY

ADDRESS 740 SAN MATEO NE; 87108 PHONE 255-9196

SURVEYOR Tom MANN & ASSOCIATES CONTACT Tom MANN

ADDRESS 811 DALLAS NE; 87110 PHONE 265-5611

CONTRACTOR N/A CONTACT ____

ADDRESS ____ PHONE ____

PRE-DESIGN MEETING:

✓ YES
___ NO
✓ COPY OF CONFERENCE RECAP SHEET PROVIDED

PLEASE CHECK TYPE OF APPROVAL EXPECTED WITH THIS SUBMITTAL:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ SITE DEVELOPMENT PLAN APPROVAL
___ FINAL PLAT APPROVAL
✓ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ ROUGH GRADING PERMIT APPROVAL
___ GRADING/PAVING PERMIT APPROVAL
___ OTHER ____ (SPECIFY)

DATE SUBMITTED: JUNE 14, 1984

BY: Jay T. Olson

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JUN 15 1984
HYDROLOGY SECTION

811 DALLAS, N.E. • ALBUQUERQUE • NEW MEXICO • 87110 • 505-265-5611

Tom Mann Associates, Inc.
Engineers

L23-D8

4002
June 6, 1984

Walter Reed
10601 Lomas N.E., Suite 110
Albuquerque, NM 87112

Re: Lot 14, Orona

Dear Walter:

Please accept our apologies for the length of time that this project has taken, however, this project has been more than I bargained for.

On June 6, 1984, I met with Jim Hicks and Billy Goolsby of the City Staff. At that time, we went over the contract that you originally signed on October 8, 1980. There was a subsequent revision to that contract. It was agreed at the June 6th meeting that the following would be done:

1. The City has requested from their engineer, Gardner-Mason, a drainage report that was prepared for SAD 211. This drainage report should show that Lot 14 has been removed from the flood plain.

2. The Hydrology Section will forward the drainage report to FIMA requesting that Lot 14 be removed from the flood plain.

3. The Hydrology Section will sign our grading and drainage plan allowing you to permit your building.

4. If FIMA does not accept the drainage report from Gardner-Mason concerning the drainage in the vicinity of Lot 14, the City then reserves the right to request additional information from you. This information is beyond the scope of our contract. We would be happy to provide the information for you, and would negotiate with you at that time.

In summary, it appears that we have obtained concurrence from the Hydrology Section on our grading and drainage plan, and, therefore, have completed our contract with you. As soon as I receive the letter from Mr. Goolsby, I will transmit a copy to you.

If you have any questions or comments, please do not hesitate to call.

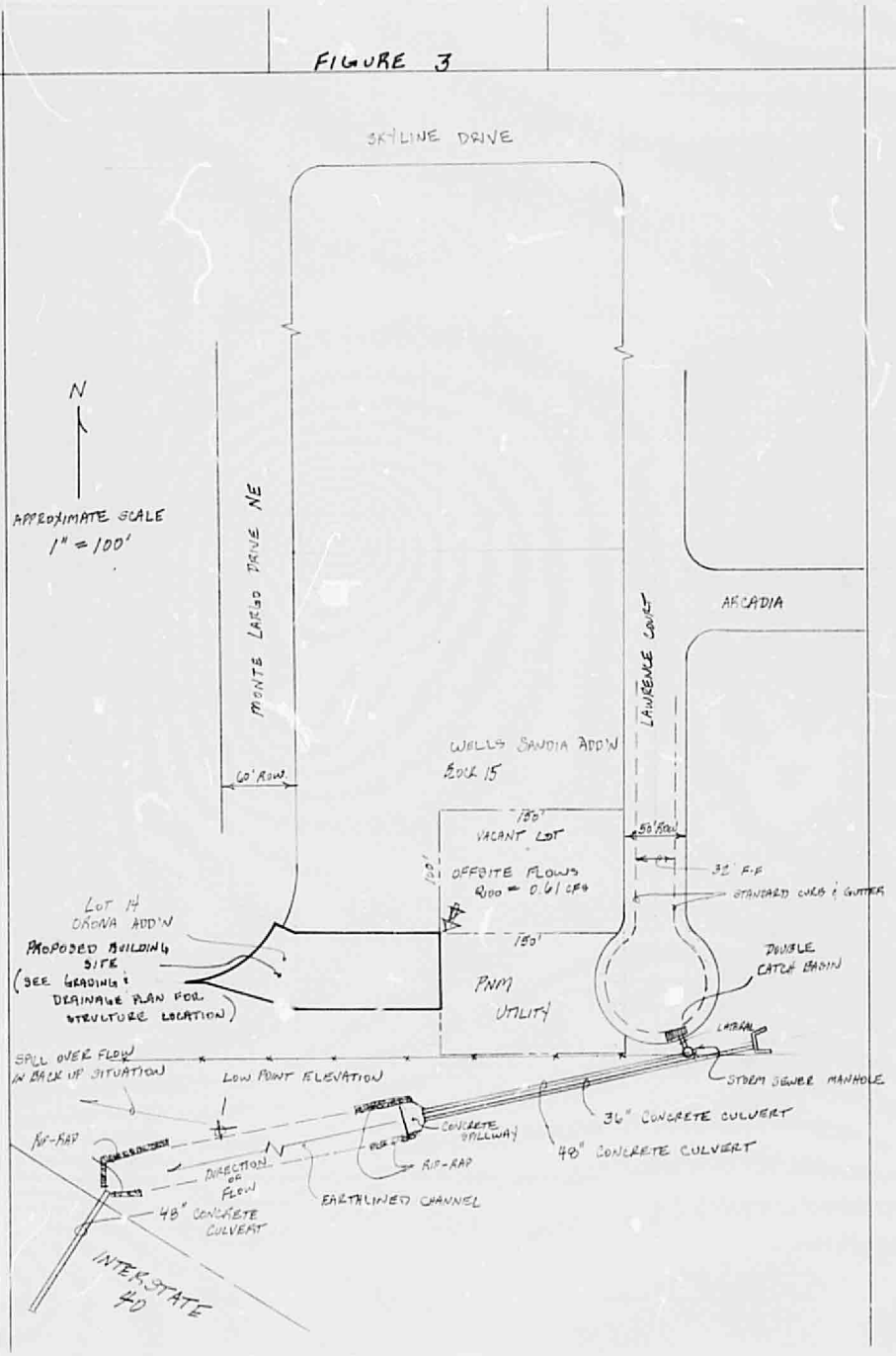
Thank you,

TOM MANN & ASSOCIATES, INC.

Thomas T. Mann, Jr., P.E.
President

TTM:ra
cc: Jim Hicks
Billy Goolsby

FIGURE 3


SKYLINE DRIVE
N
APPROXIMATE SCALE
1" = 100'
MONTE LARGO DRIVE NE
60' R/W
WELLS SANDIA ADD'N
BLOCK 15
LAWRENCE COURT
ARCADIA
50' R/W
180'
VACANT LOT
OFFSITE FLOWS
Q100 = 0.61 CFS
120'
180'
PNM
UTILITY
3" F.F
STANDARD CURB & GUTTER
DOUBLE
CATCH BASIN
LATERAL
LOT 14
ORONA ADD'N
PROPOSED BUILDING
SITE
(SEE GRADING & DRAINAGE PLAN FOR
STRUCTURE LOCATION)
SPILL OVER FLOW
IN BACK UP SITUATION
LOW POINT ELEVATION
STORM SEWER MANHOLE
36" CONCRETE CULVERT
CONCRETE
SPILLWAY
RIP-RAP
48" CONCRETE CULVERT
RIP-RAP
DIRECTION
OF
FLOW
EARTHLINED CHANNEL
48" CONCRETE
CULVERT
INTERSTATE
40

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

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

July 26, 1984

Mr. Jay T. Olson
Tom Mann & Associates
811 Dallas NE
Albuquerque, New Mexico 87110

REF: LOT 14 ORONA ADDITION (4 PLEXES FOR WALTER REED) (L-24 D-8)
JULY 24, 1984.

Dear Mr. Olson:

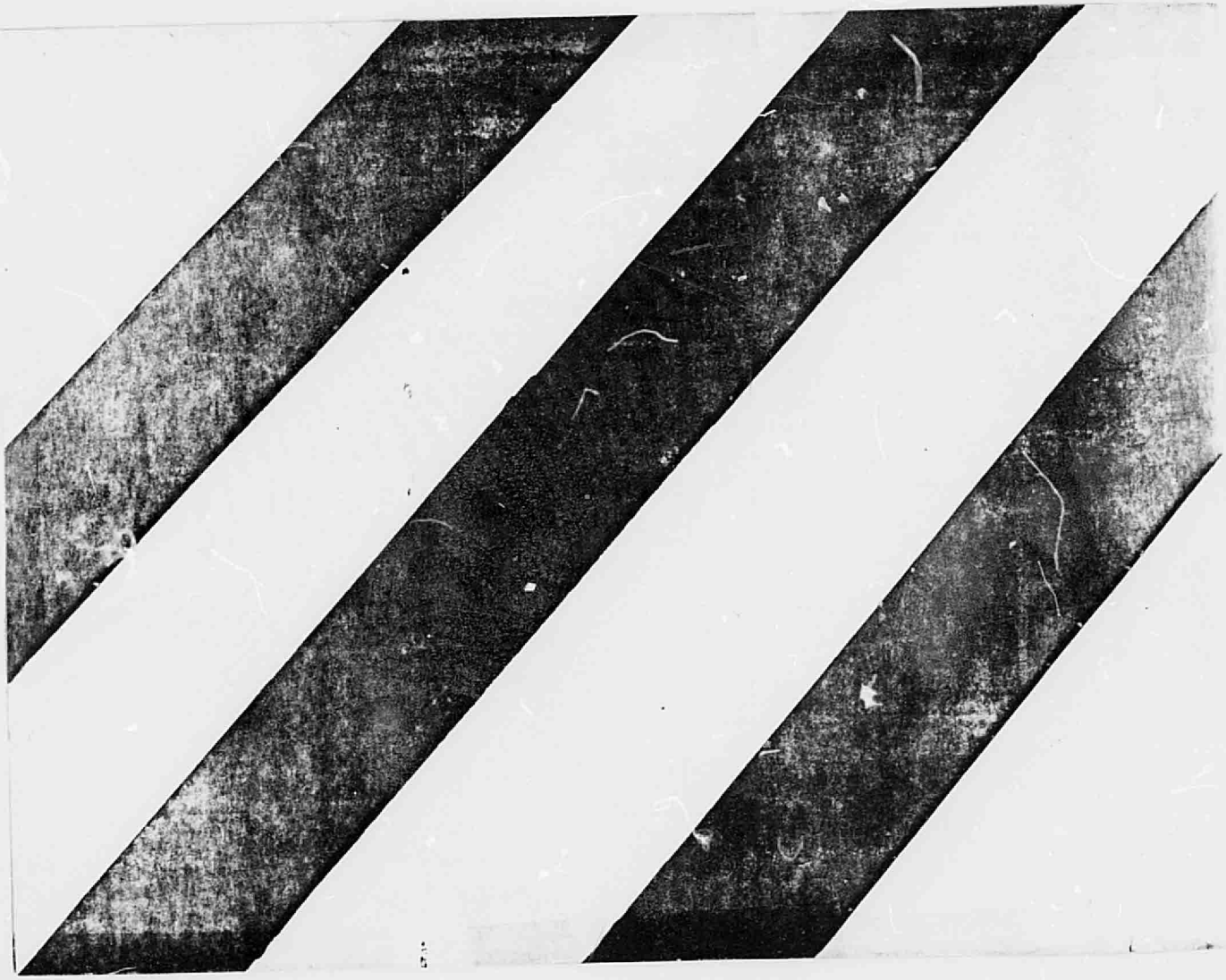
Based on the information that you have provided on your submittal of July 24, 1984, the above referenced drainage plan is approved.

The approved "Drainage Facilities Within City R/W" document must be attached to the construction sets before Hydrology will sign-off.

If you have any questions or comments, please feel free to call me at 766-7644.

Sincerely,

Billy J. Goolsby

Billy J. Goolsby, PE
City/County Flood Plain Admin.

BJM/BJG/cl