HYDROLOGY M18/D2 6 PLANS 1 of 2

M18/D2

---

6 Plans

C.A. (PAT) COONCE & ASSOC.
ENVIRONMENTAL, WATER RESOURCES, & SANITARY CONSULTING ENGINEERS
12324 PINERIDGE, N.E.
ALBUQUERQUE, N.M. 87112
PHONE (505) 296-1699

LR
MB-D2

June 6, 1981

RECEIVED
JUN 15 1981
CITY ENGINEER

Bruno Conegliano, Hydrologist
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

RE: S-8012 SIESTA HILLS

Dear Mr. Conegliano:

This letter is in response to a letter from Mr. Robert J. Casias, dated February 25, 1981 to Mr. P. W. Vanderhoof on the referenced subject. Mr. Vanderhoof of Construction Analysts, Inc. has closed his office in Albuquerque and moved from the city. The owner of the referenced tract has retained C. A. Coonce and Associates to complete the items required to file this plat.

I have reviewed all of the correspondence, submittals and previous work files on this plat. In addition, I have made on-site inspections of the tract. In attempting to quantify the flows from a small 4.039 acre parcel of R-1 land such as this in which there is no planned houses at this time, judgement must be based on the surrounding homes in the $100,000 plus price range. No doubt the purchasers of these lots will build similar homes. The existing homes have privacy walls, generally concrete masonery walls, and that trend is assumed to continue.

To estimate the coefficient of runoff take the smallest lot of 0.3087 Ac. or 13,491 feet and assume it to be 13,000 ft.^{2} Further assume that a 3000 ft.^{2} house and 1000 ft.^{2} of driveway and associated sidewalks with a C of 0.90 will be built. This leaves 9000 ft.^{2} of area assumed to be grass and trees with a C of 0.25. This configuration would yield a composite C of 0.45. This should be an upper bound on C. However, if one assumes that the owner will have a concrete block wall around the back lot where C = 0.0 with the same house and sidewalk but with a southwest landscape in front with a C of 0.65 and using a 1/3 - 2/3 split between the front and rear yards, and assuming that 4000 ft.^{2} @ C = 0.90 will divide between the front a rear lot by a ratio of 1/3 and 2/3 then the composite C will be 0.2[illegible] which would probably be a lower bound. A more probably C would be near the average of 0.35 which is near the current undeveloped C.

Using a C of 0.35, a 100 year intensity storm of 5.85 inches per hour for 10 minutes the Q contributed to the streets are as follows: Ridgecrest - 3.8 cfs, Lovelace - 2.7 cfs and Kentucky - 1.7 cfs. A fraction of the 3.8 cfs computed may go northward down Louisiana depending upon the house and wall configuration which the builder chose for lot 3.

These maximum Q's are undoubtedly high because a combination of the smallest lot and the largest house was assumed. The current building costs of $50.00 up per square foot and rising plus the high interest rates would indicate that the average house on these lots will be somewhat less than 3000 square feet.

Should you require further information, please call.

Sincerely,

C. A. COONCE
mls
cc: Robert Fosnaugh, Traffic Engineer
Robert J. Casias, Planner
Richard Heller, City Engineer

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR
David Rusk

May 3, 1979

Mr. Neal F. Godwin
Godwin Engineering Corporation
3820 Academy Parkway, North
Albuquerque, New Mexico 87109

Ref: ZA-79-83 Five 4-Plexes on Tract L1, Siesta Hills Subdivision No. 2

Dear Mr. Godwin:

I have reviewed the drainage report for the reference project and am in agreement with the proposal submitted. The drainage report is hereby approved.

Very truly yours,

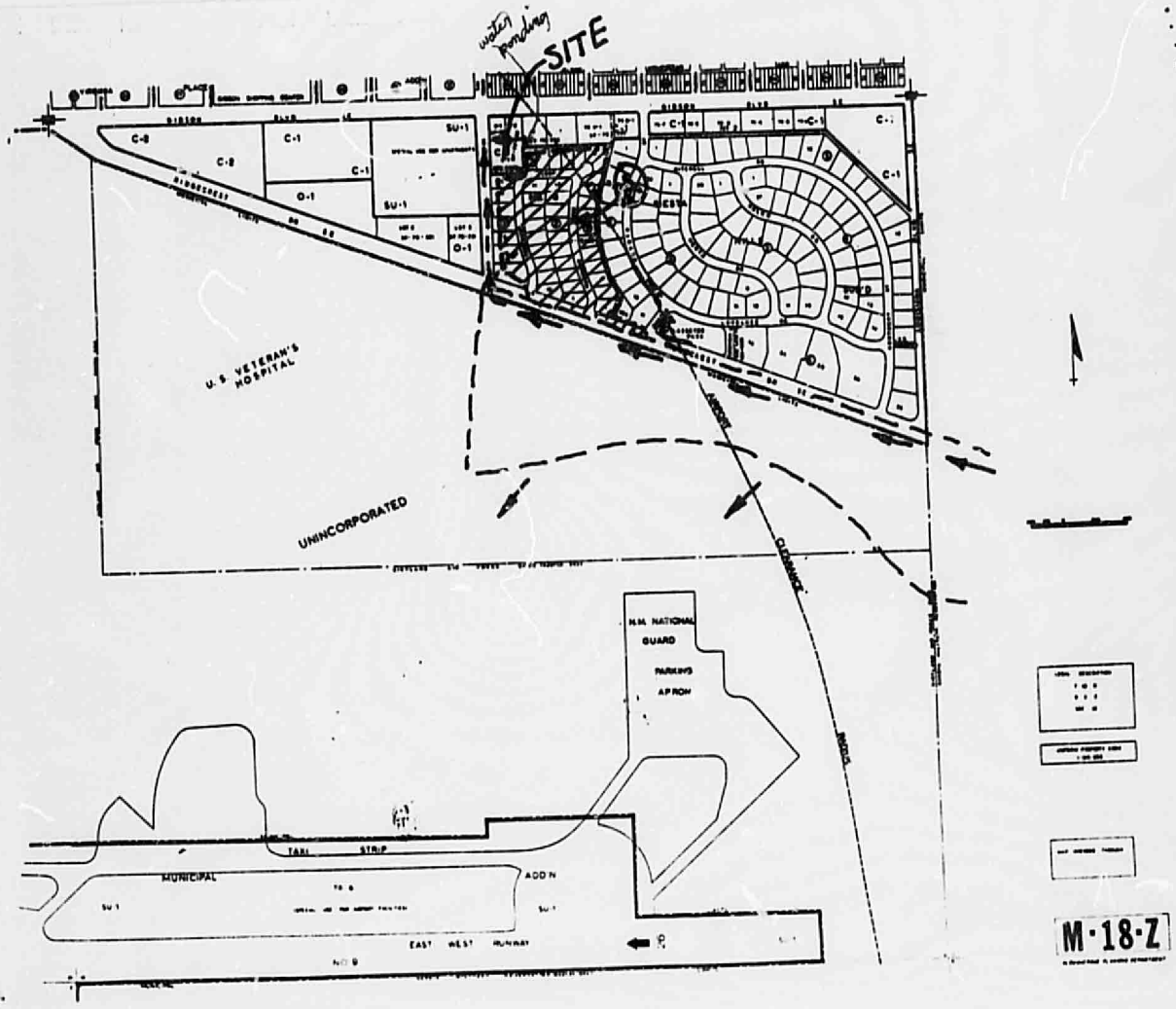
Bruno Conegliano
Assistant City Engineer-Hydrology

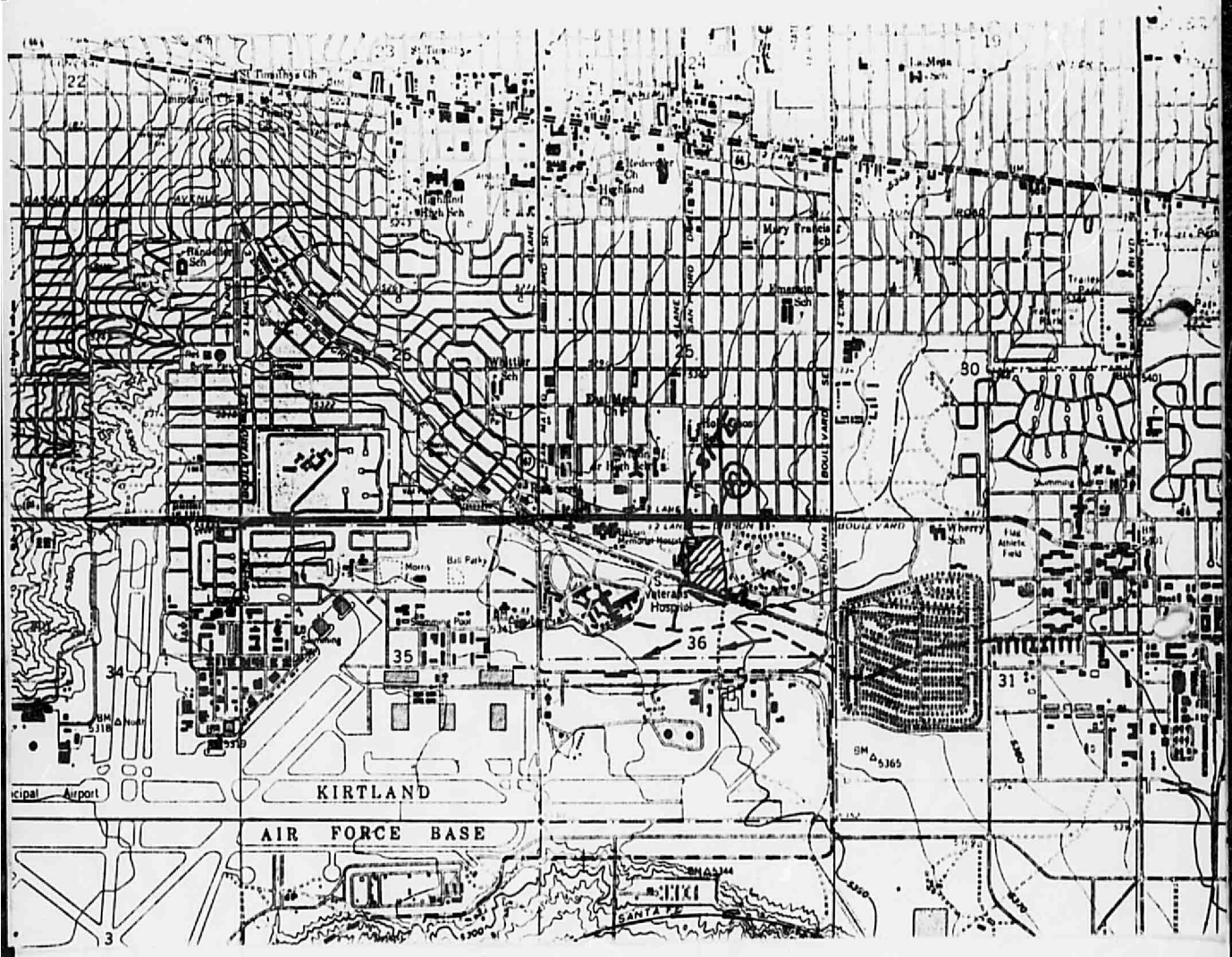
BC/ms

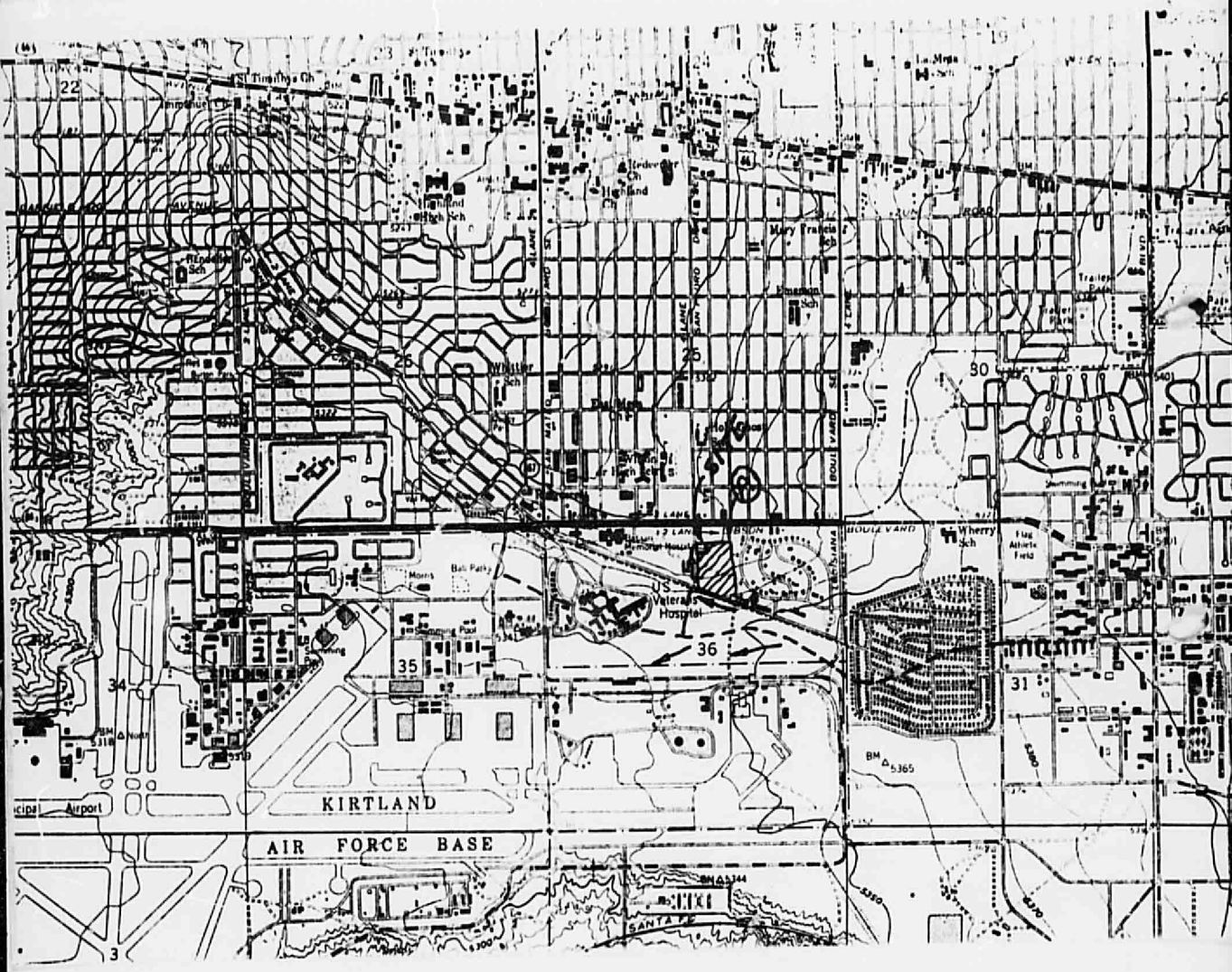
cc - Richard Heller, City Engineer
Rich Leonard
Drainage File

DEPOSITION EXHIBIT 8

AN EQUAL OPPORTUNITY EMPLOYER


water ponding
SITE
U.S. VETERAN'S HOSPITAL
UNINCORPORATED
N.M. NATIONAL GUARD
PARKING APRON
TAXI STRIP
MUNICIPAL
ADD'N
EAST WEST RUNWAY
M-18-Z


KIRTLAND
AIR FORCE BASE
Veterans Hospital
Wherry Sch
Mary Francis Sch
Emerson Sch
Whittier Sch
Highland High Sch
Highland Ch
Ball Park
Flat Athletic Field
Swimming
Pool
Municipal Airport
SANTA FE
22
23
24
25
26
27
30
31
34
35
36
3


KIRTLAND
AIR FORCE BASE
US Veterans Hospital
Wherry Sch
Whittier Sch
Mary Frances Sch
Emerson Sch
Highland High Sch
Highland Ch
Timothy Ch
Morris
Ball Park
Swimming Pool
Tennis
Trailer Park
Fire Athletic Field
Air Force Cemetery
Municipal Airport
SANTA FE
BM △5365
BM △5344
22
25
26
30
31
34
35
36
3

GODWIN
ENGINEERING
CORPORATION

Professional Consultants

3820 ACADEMY PARKWAY, NORTH • ALBUQUERQUE, NEW MEXICO 87109 • PHONE (505) 345-8371

April 25, 1979

17-28

Mr. Bruno Conegliano
Assistant City Engineer/Hydrology
Public Works Dept.
P.O. Box 1293
Albuquerque, NM 87103

RE: ZA-79-83 Five 4-Plexes on Tract L1, Siesta Hills Subdivision No. 2

Dear Mr. Conegliano:

This letter will supplement our drainage and grading plan as prepared and previously discussed with you in connection with the above referenced project.

You have asked for our estimate of the drainage quantity which approaches and could enter the drainage easement from Ridgecrest Loop to San Pedro SE.

We have made a careful study of the upstream area from the subject drainage easement and have found the following. Please refer to the attached topographic map of the area and the attached zone atlas sheet M-18, on which we have marked the drainage area boundaries and flow directions.

You will note that there is a small area of undeveloped land which lies south of Ridgecrest Drive that drains generally to Ridgecrest Drive. However, drainage from this area is intercepted by a bar-ditch along the south side of Ridgecrest Drive and is carried westward to San Pedro Drive thence northward to Gibson Blvd. None of such drainage appears to cross Ridgecrest Drive and therefore could not enter the drainage easement with which we are concerned here. Otherwise the topography indicates that the Veterans Hospital lands and the Kirkland Air Force Base lands generally drain to the southwest through various airport facilities.

East of the intersection of Dakota and Ridgecrest Drive all land lying north of Ridgecrest Drive drains to the north. Therefore, east of Dakota the only drainage which moves westward along Ridgecrest Drive would be that water which falls upon the street itself. However, the intersection of Dakota and Ridgecrest Drive is constructed in such a way that water in the north gutter of Ridgecrest Drive is diverted northward at Dakota and through the Siesta Hills Subdivision No. 1 to Gibson Blvd.

Thus, the area which contributes to the subject drainage easement is only that area from the center of Ridgecrest Drive northward, the lots of which front onto Ridgecrest Loop. (Labeled on the zone atlas sheet as Siesta Hills Subdivision No. 3). This area contains approximately 15 acres and based upon its vertical and horizontal configuration, and using a "C" factor of 0.65 would contribute a maximum discharge of Q_{100} = 42.6 CFS.

DEPOSITION EXHIBIT 7

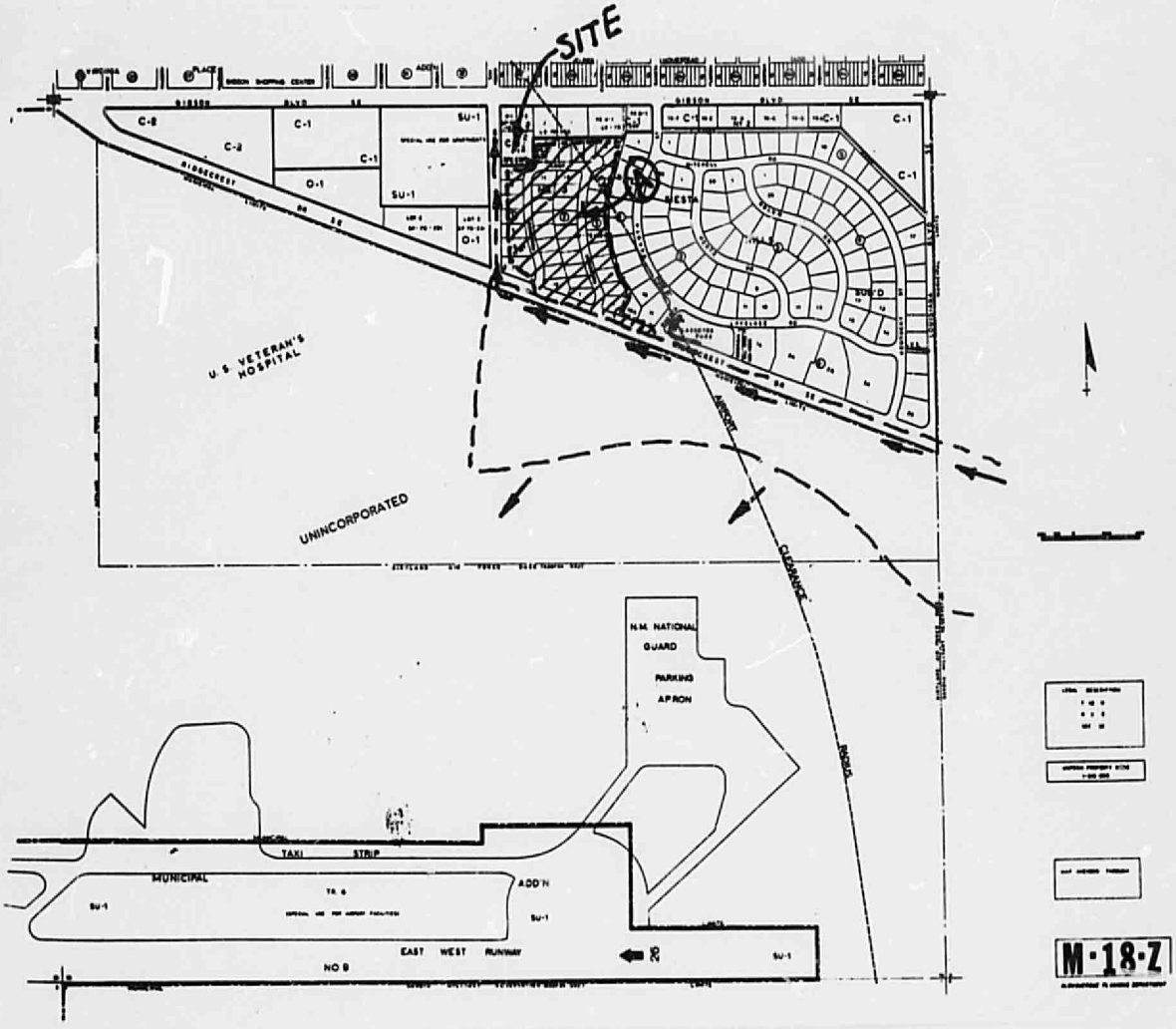
The capacity of the 20' wide driveway which is proposed for construction through the project is calculated as 49.6 CFS. Therefore, the improved driveway should be more than adequate.

We trust that the foregoing satisfies your concerns in this matter and respectfully request your approval of the grading and drainage plan and Summary Plat for the project.

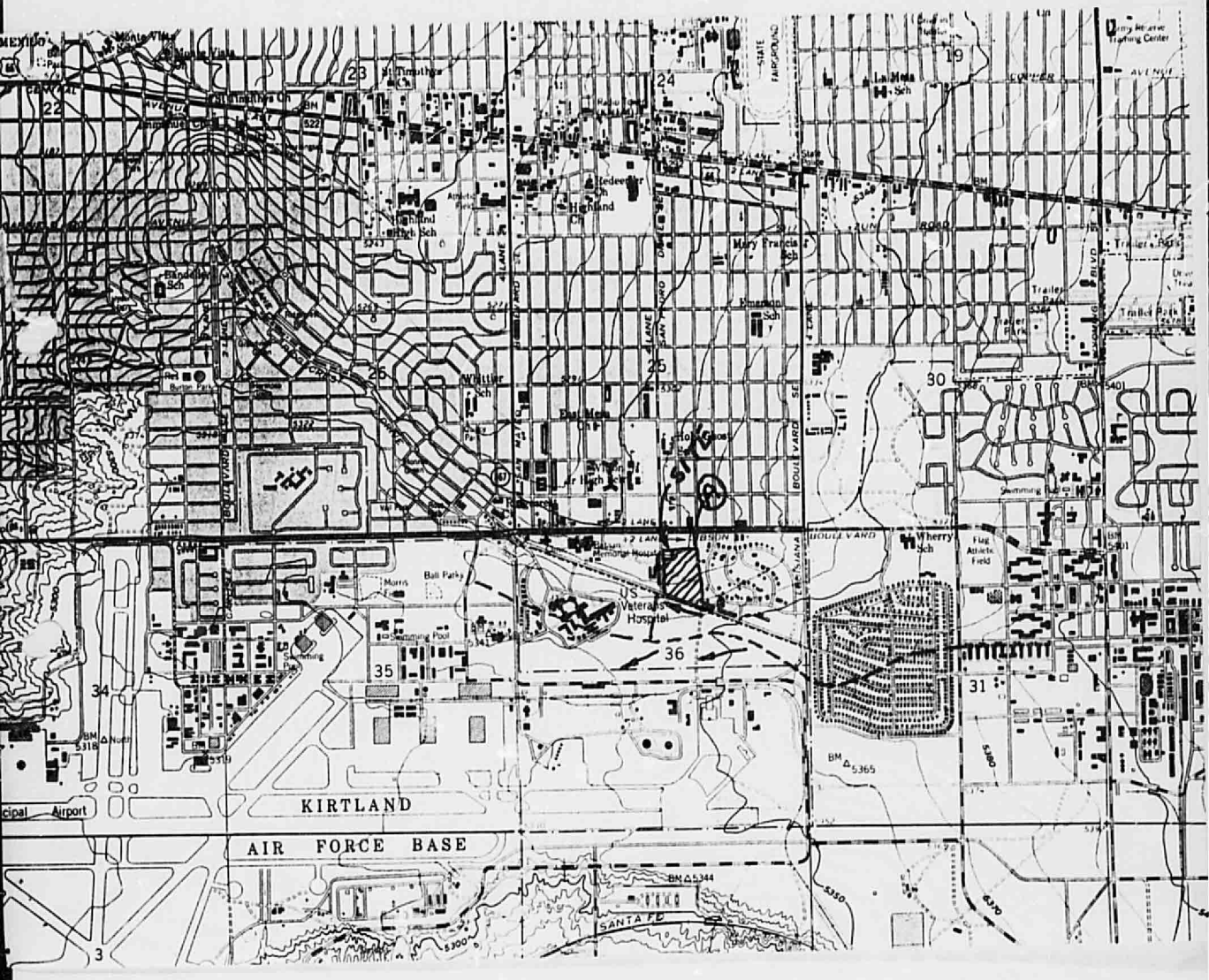
Respectfully submitted,

Neal F. Godwin

NFG:mjb
cc: R. P. Corporation
Enclosures


SITE
C-2
C-1
SU-1
O-1
U.S. VETERAN'S HOSPITAL
UNINCORPORATED
MESA
SUNSET
AIRPORT
CLEARANCE
RADIUS
N.M. NATIONAL GUARD
PARKING
APRON
MUNICIPAL
TAXI
STRIP
ADD'N
EAST WEST RUNWAY
NO 9
M-18-Z

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



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

February 5, 1980

Mr. Neal F. Godwin
Godwin Engineering Corporation
3820 Academy Parkway North N. E.
Albuquerqua, New Mexico 87109

Re: ZA-79-83, Five 4-Plexes on Tract L1, Siesta Hills Subdivision #2

Dear Mr. Godwin:

As per our meeting at the Sirloin Stockade, we concur with the proposed scheme to provide an opening in the northeast pond (Siesta Hills Subdivision No. 2, Tract L-1-D) to allow the storm runoff from the Sirloin Stockade to flow into the dedicated 10 foot drainage and utility easement.

Sincerely,

Fred Aguirre
Civil Engineer

FA:pp

cc - Charles Monroe, 3417 Bryn Mawr N.E.
Richard S. Heller, City Engineer
Drainage File

DEPOSITION EXHIBIT 14

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

January 29, 1980

Mr. Neal P. Godwin
Godwin Engineering Corporation
3820 Academy Parkway North N.E.
Albuquerque, New Mexico 87109

Re: ZA-79-83 - Five 4-Plexes on Tract L1, Siesta Hills Subdivision No. 2

Dear Mr. Godwin:

It has recently been brought to my attention that existing storm runoff of the Sirloin Stockade at 5814 Gibson S.E. is being blocked as a result of the new construction to the east (referenced above). A field inspection revealed that the problem stems from not addressing the offsite flows as is required.

Our records indicate that your firm designed this drainage plan and must therefore be held accountable for the problem. I would appreciate your immediate attention in working towards a solution.

Please contact this office as soon as possible with your alternate plan. I Am looking forward to working with you in order to rectify this unfortunate situation. If, however, we cannot reach an agreement or a solution to this matter, I will have no choice but to turn my findings over to the City Attorney.

If you have any questions concerning this problem, please feel free to call on me.

Sincerely,

Richard S. Heller

Richard S. Heller
City Engineer

RC/RSH/fs

cc - Charles Monroe, 3417 Bryn Mawr N.E.
Bruno Conegliano
Fred Aguirre
M. deVesty, City Attorney's Office
Drainage File

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

January 29, 1980

Mr. Neal F. Godwin
Godwin Engineering Corporation
3820 Academy Parkway North N.E.
Albuquerque, New Mexico 87109

Re: ZA-79-83 - Five 4-Plexes on Tract L1, Siesta Hills Subdivision No. 2

Dear Mr. Godwin:

It has recently been brought to my attention that existing storm runoff of the Sirloin Stockade at 5814 Gibson S.E. is being blocked as a result of the new construction to the east (referenced above). A field inspection revealed that the problem stems from not addressing the offsite flows as is required.

Our records indicate that your firm designed this drainage plan and must therefore be held accountable for the problem. I would appreciate your immediate attention in working towards a solution.

Please contact this office as soon as possible with your alternate plan. I am looking forward to working with you in order to rectify this unfortunate situation. If, however, we cannot reach an agreement or a solution to this matter, I will have no choice but to turn my findings over to the City Attorney.

If you have any questions concerning this problem, please feel free to call on me.

Sincerely,

Richard S. Heller

Richard S. Heller
City Engineer

RC/RSH/fs

cc - Charles Monroe, 3417 Bryn Mawr N.E.
Bruno Conegliano
Fred Aguirre
M. deVesty, City Attorney's Office
Drainage File

DEPOSITION EXHIBIT 13

Tijeras Valley

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR
Harry E. Kinney

CHIEF
ADMINISTRATIVE OFFICER
Frank A. Kleinhenz

October 24, 1975

Mr. Al Aldridge
Molzen-Corbin & Associates
P. O. Box 3632
Albuquerque, New Mexico 87110

RE: DRAINAGE REPORT SIESTA HILLS NO. 2

Dear Mr. Aldridge:

The subject drainage report is approved. Please send 2 copies of the grading plan when completed. Detailed construction drawings must be approved by the City Engineer.

Very truly yours,

Kleston H Laws

Kleston H. Laws
Assistant City Engineer-Hydrology

KHL/fs

cc: John Robert, AMAFCA

DEPOSITION EXHIBIT 6

Public Works Department

Director – Erwin F. Hensch, P. E. 766-7467
Engineering 766-7441 – V. M. Kimmick, P. E.
Street Maint. 766-7755 – G. E. Paul, P. E.
Ass't. Director – Harold R. Orr, Jr. P. E.
Liquid Waste 766-7535 – R. P. Lowe, P. E.
Water 766-7437 – W. H. Otto, P. E.

GODWIN
ENGINEERING
CORPORATION

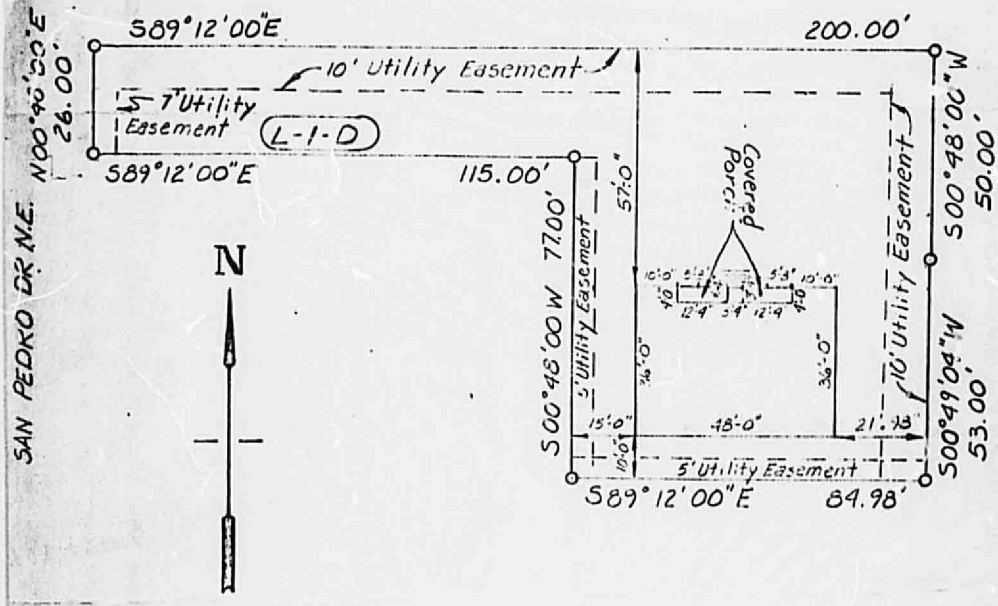
Professional Consultants

3820 ACADEMY PARKWAY, NORTH • ALBUQUERQUE, NEW MEXICO 87109 • PHONE (505) 345-8371

CERTIFICATE OF SURVEY

LOCATION San Pedro Drive, SE
Albuquerque, NM DATE 6/21/79 SCALE 1" = 30' JOB NO 26-01

Unless otherwise indicated, unrecorded easements, overhang of eaves, private and community walls, driveways, steps, and other improvements subject to conformation, but not shown on the plat of record, are not covered by this certificate.



I, Neal F. Godwin, New Mexico Registered Professional Engineer and Land Surveyor No. 3620, hereby certify that I have checked the location of the buildings and improvements on the following described real estate:

Tract L-1-D of Siesta Hills Subdivision No. 2, an Addition to the City of Albuquerque, New Mexico, as the same is shown and designated on the Summary Plat of said Addition, filed in the Office of the County Clerk of Bernalillo County, New Mexico on May 3, 1979.

I further certify that the location of said buildings and improvements on said real estate are as shown on the above drawing and that the location of the utility easements as shown on the plat of the above subdivision are also as shown on the above drawing and that there are NO encroachments an the above described real estate and that the same is true and correct to the best of my knowledge and belief.
IN WITNESS WHEREOF, this certificate is executed at Albuquerque, New Mexico on this 21st day of June, 1979. NM PE & LS No. 3620

W

SUBPOENA AND SUBPOENA DUCES TECUM

In the District Court of the Second Judicial District in and for the County of Bernalillo, State of New Mexico.

CASE No. CV 81-05687

MONROE ENTERPRISES, INC., a New Mexico Corporation, TRUDY M. MONROE, and FIRST CITY BANK, N.A., personal representative of the estate of Lenora D. Carrington, deceased,

Plaintiffs

-vs-

HAROLD D. PALANKER and JANICE E. PALANKER,
Defendants

THE STATE OF NEW MEXICO

To Fred Aguirre
123 Central, N.W.
Albuquerque, New Mexico

Please bring with you all drain plans, maps, correspondence, memoranda, records and ordinances covering Lot L-1-D and Lot J in Siesta Hills Subidivison and any other documents in your possession and control relating to drainage or property rights relating to this area.

cancelled

....., Greeting:

We command you, and each of you, to be and appear before Judge Richard B. Traub, Division No. XI of the District Court of the Second Judicial District of the State of New Mexico, within and for the County of Bernalillo, at the Court House in said County on April 11, 1983, at the hour of 9:00 A.M. of said day and thereafter as you may be advised by the Court or the attorney requesting this subpoena, to testify in the above entitled cause on behalf of Plaintiff.

And this do ye under penalty of the Law.

WITNESS, the HONORABLE Richard B. Traub, Judge of said Court, and the seal thereof this 28th day of March, 19 83

(Seal)

ELOISE E. YOUNG, Clerk

By [signature], Deputy

NOTE: Subpoena issued at request of JOHN R. POLK,

Attorney for Plaintiff, Address: Suite 810, 320 Gold, S.W.

Albuquerque, New Mexico 87102, Telephone Number: 247-1100

FORM NO. 112 — REVISED 3-76

SUBPOENA (DUCES TECUM)
FOR NOTICE OF DEPOSITION

In the District Court of the Second Judicial District in and for the County of Bernalillo, State of New Mexico.

CASE No. Cv 81 05687

MONROE ENTERPRISES, Inc.
a New Mexico Corporation

Plaintiff,

vs.

HAROLD PALANKER, M.D.

Defendant

THE STATE OF NEW MEXICO

To

Fred Aguirre
123 Central, N.W.
Albuquerque, New Mexico

YOU ARE HEREBY NOTIFIED, that the plaintiff in the above-captioned cause of action will take your deposition upon oral interrogatories before a certified court reporter and notary public from the offices of General Court Reporters on Tuesday, October 26, 1982 commencing at 3:30 p.m. at the offices of Polk and Camacho, located at 810 First Interstate Bank, 320 Gold S.W. Albuquerque, New Mexico.

PLEASE BRING WITH YOU any and all documents, maps, ordinances, plans, memoranda, correspondence, notations and other writings, photographs or diagrams, drawings or blue prints, concerning any improvements or hydrological studies or data regarding Tracts J.& L. of Siesta Hills No. 2 a sub-division of a tract of land in the City of Albuquerque, New Mexico dated the 19th day of October, 1970, and filed in the office of the County Clerk of Bernalillo County, New Mexico on the 9th day of November, 1970.

Mr. Aguirre, Greeting:

[illegible]

And this do ye under penalty of the Law.

WITNESS, the HONORABLE Richard B. Traub, Judge of said Court,

and the seal thereof this 19th day of October, 19 82

(Seal)

ELOISE E. YOUNG, Clerk

By Louise Gonzales Deputy

NOTE: Subpoena issued at request of Polk and Camacho (John R. Polk),

Attorney for Plaintiff, Address: 810 First Interstate Bank

Albuquerque, New Mexico 87102, Telephone Number: 247-1100

FORM NO. 112 — REVISED 3-76

SUBPOENA (DUCES TECUM)

FOR NOTICE OF DEPOSITION

In the District Court of the Second Judicial District in and for the County of Bernalillo, State of New Mexico.

CASE No. No. Cv 81 05687

MONROE ENTERPRISES, Inc.
a New Mexico Corporation

Plaintiff,

vs.

HAROLD PALANKER, M.D.

Defendant.

THE STATE OF NEW MEXICO

To

Bruno Conegliani
City of Albuquerque
123 Central, N.W.
Albuquerque, New Mexico 87102

YOU ARE HEREBY NOTIFIED, that the Plaintiff in the above-captioned cause of action will take your deposition upon oral interrogatories before a certified court reporter and notary public from the offices of General Court Reporters on Tuesday, October 26, 1982 commencing at 2:00 p.m. at the offices of Polk and Camacho, located at 810 First Interstate Bank, 320 Gold S.W. Albuquerque, New Mexico.

PLEASE BRING WITH YOU any and all documents, maps, ordinances, plans, memoranda, correspondence, notations and other writings, photographs or diagrams, drawings or blue prints, concerning any improvements or hydrological studies or data regarding Tracts J.& L. of Siesta Hills No. 2 a sub-division of a tract of land in the City of Albuquerque, New Mexico dated the 19th day of October, 1970, and filed in the Office of the County clerk of Bernalillo County, New Mexico on the 9th day of November, 1970.

Mr. Conegliani, Greeting:

[illegible]

And this do ye under penalty of the Law.

WITNESS, the HONORABLE Richard B. Traub, Judge of said Court,

and the seal thereof this 19th day of October, 1982.

(Seal)

ELOISE E. YOUNG, Clerk

By Louise Gonzales Deputy

NOTE: Subpoena issued at request of POLK AND CAMACHO (John R. Polk),

Attorney for Plaintiff, Address: 810 First Interstate Bank

Albuquerque, New Mexico 87102, Telephone Number: 247-1100

FORM NO. 112 — REVISED 3-76

SECOND JUDICIAL DISTRICT COURT
COUNTY OF BERNALILLO
STATE OF NEW MEXICO

NO. CV-81-05687

MONROE ENTERPRISES, INC., et.al.
Plaintiffs

vs.

HAROLD D. PALANKER & JANICE E. PALANKER,
Defendants

SUBPOENA

TO FRED AGUIRRE
% City of Albuqurque
Civil Engineer Dept.
City Hall
Albq. N.M.

GREETINGS:

You and each of you are commanded to appear on Wed. November 9th, 19 83 at 9:00 o'clock a.m., before the District Court Judge Richard Traub within and for the Second Judicial District of the State of New Mexico, at the Courthouse in the City of Albuquerque, in the County of Bernalillo, then and there to testify in the above-entitled action on behalf of the Plaintiffs.

And this do ye under the penalty of the law.

IN WITNESS WHEREOF, I have hereunto set my hand and Seal of said Court this 4th day of November, 19 83.

ELOISE E. YOUNG
CLERK OF THE DISTRICT COURT

(SEAL)

By: Karen Martinez
Deputy

ATTORNEY JOHN R. POLK

Address/Phone 320 Gold S.W. #810 Albq. N.M. 87102 247-1100

Revised 1/1/83

CV 4.30-S

SHERIFF'S RETURN

STATE OF NEW MEXICO)
) ss.
COUNTY OF _____)

I, _____, Sheriff of _____ County, New Mexico, do hereby certify that I served the within Subpoena by delivering a copy thereof to each of the following persons therein named, in _____ County, New Mexico, on the dates hereinafter set out, as follows:

_____ on _____, 19 ___
_____ on _____, 19 ___
_____ on _____, 19 ___
_____ on _____, 19 ___
_____ on _____, 19 ___
_____ on _____, 19 ___

I further certify that none of said persons, except _____, at the time of service of the Subpoena, demanded fees and mileage for one day's attendance allowed by law, and that such fees and mileage were tendered to any of said persons who demanded same.

FEES: Service and Return $ _____

Mileage _____ Miles $ _____

TOTAL $ _____

_____
Sheriff

By: _____
Deputy

RETURN BY PERSON OTHER THAN SHERIFF OR DEPUTY

STATE OF NEW MEXICO)
) ss.
COUNTY OF _____)

_____, being duly sworn, upon oath says: I am not less than 18 years of age and not a party to this action, and I served the within Subpoena by delivering a copy thereof to each of the following persons therein named, in _____ County, New Mexico, on the dates hereinafter set out, as follows:

_____ on _____, 19 ___
_____ on _____, 19 ___
_____ on _____, 19 ___
_____ on _____, 19 ___
_____ on _____, 19 ___
_____ on _____, 19 ___

I further certify that none of said persons, except _____ at the time of service of the Subpoena, demanded fees and mileage for one day's attendance allowed by law, and that such fees and mileage were tendered to any of said persons who demanded same.

FEES: Service and Return $ _____

Mileage _____ Miles $ _____

TOTAL $ _____

_____

Subscribed and sworn to before me this _____ day of _____, 19 ___

(SEAL)

_____
Notary Public

My Commission expires: _____

STATE OF NEW MEXICO COUNTY OF BERNALILLO

IN THE DISTRICT COURT

MONROE ENTERPRISES, INC., a New Mexico corporation, TRUDY M. MONROE, and FIRST CITY BANK, N.A., personal representative of the estate of Lenora D. Carrington, deceased,
Plaintiffs

-vs-

HAROLD D. PALANKER and JANICE E. PALANKER,
Defendants

ENDORSED
FILED IN MY OFFICE THIS
APR 18 1983
Elsie E. Young
CLERK DISTRICT COURT

No. CV 81-05687

ORDER

THIS CAUSE COMING ON for hearing on plaintiffs' motion to continue in full force and effect the subpoenas heretofore issued to witnesses to attend the now-vacated trial setting of this cause on April 11, 1983 to the next trial setting of this cause, and the Court being fully advised in the premises,

IT IS HEREBY ORDERED that the subpoenas heretofore issued by plaintiffs to witnesses are continued in full force and effect until the next trial setting of this cause, at which time they shall be required to attend pursuant to the subpoenas heretofore issued.

RICHARD B. TRAUB
DISTRICT JUDGE

Approved:

JOHN R. POLK

Approved as to form only

THOMAS P. HOOKER, JR., ESQ.

SECOND JUDICIAL DISTRICT COURT

COUNTY OF BERNALILLO

STATE OF NEW MEXICO

MONROE ENTERPRISES, INC., a New Mexico Corporation, TRUDY M. MONROE, and FIRST CITY BANK, N.A., Personal Representative of the Estate of Lenora D. Carrington, Deceased,

Plaintiffs

vs.

No. CV-81-05687

HAROLD D. PALANKER and
JANICE E. PALANKER,

Defendants

INTERROGATORIES

TO: Harold D. PALANKER and JANICE E. PALANKER
% Thomas F. Hooker, Jr. Esq.
1412 Lomas N.W.
Albuquerque, New Mexico 87104

Plaintiffs request you to answer the following Interrogatories under oath as provided in Rules of Civil Procedure for District Courts of New Mexico.

Interrogatory No. 1:

Please state the name, address, occupation and business telephone of the person actually providing the factual basis for the Answer to the following Interrogatories.

ANSWER:

Thomas F. Hooker, Jr., P.C., attorney for Defendants. Business address: 1412 Lomas Blvd., NW, Albuquerque, New Mexico 87104

Interrogatory No. 2:

Please state or fully describe each and every exhibit you may introduce at the trial of this cause and for each exhibit state the name, address, telephone number of the witness through whom you will pro-offer this exhibit to the Court.

ANSWER:

Defendants have no plans at this time to introduce exhibits into evidence during the trial on this matter.

If Defendants are forced to go forward with their case, Defendants will introduce the following Exhibits:

1. Any and all Exhibits produced by Plaintiffs.

2. Topographical maps of the area.

3. Models of the area prepared using topographical maps.

4. An accurate survey of the area.

Interrogatory No. 3:

State whether or not any photographs, motion pictures, charts or diagrams relating to this lawsuit have been taken or made by you, your attorney, your employees, and/or agents and please state the name, address and telephone number of the person who has custody of these items, and please describe each of the aforesaid items in detail.

ANSWER:

Yes. The photographs have been made, and you can look at them anytime.

Interrogatory No. 4.

Please state the name, business address and telephone number of each and every witness you intend to call at the trial of this cause, and a Summary of his, her or their expected testimony.

ANSWER:

Dr. Palanker, in keeping with his depositon.

1. Harold Palanker - to testify in accordance with his deposition.

2. James Fink, 320 Yucca, NW, City of Albuquerque, will testify regarding easements, flow patterns, hydrology, engineering, and construction.

3. Frank Wilson, 215 Marble, NW, will testify about a survey conducted in the area.

4. A real estate appraiser, if we elect to locate one.

5. Any other witness required to authenticate Exhibits or rebut unanticipated testimony including: a) tenants or former tenants to testify about trash and garbage coming from the Sirloin Stockage, b) any persons listed on Plaintiff's witness list, and c) customers of Sirloin Stockade.

Interrogatory No. 5.

Pursuant to Rule 26(B)(4)(a)(i), please identify each person whom you expect to call or may call as an expert witness at trial, state the subject matter on which the expert is expected to testify, state in detail the substance of the facts and opinions to which the expert is expected to testify, state in detail the substance of the facts and opinions to which the expert is expected to testify, and the summary for the ground for each opinion.

ANSWER:

Defendants object to the form of Interrogatory No. 5 in that it contains excessive subparts which constitute distinct questions, and should therefore be broken down into separate questions.

Notwithstanding the objection, all persons listed in the Answer to Interrogatory No. 4 are experts, and can be expected to controvert the testimony of Plaintiff's experts.

Interrogatory No. 6.

Please state each and every item of special damage including, but not limited to, physical damage to Lot L-1-D and/or its approvement, the name, address and telephone number of any tenant who vacated the premises for any reason stated in the four bases of your Counterclaim and the name, address, telephone number of each and every witness you intend to call to prove your four Counterclaims and each and every written document or item of physical evidence which you may introduce at trial to prove any of your four counterclaims and for each exhibit, please list the name, address and telephone number of the witness through whom you intend to pro-offer this exhibit to the Court, and please list the name, address and telephone number of each and every witness you intend to call to prove any and all of your four counterclaims and please give a detailed summary of the facts to which they will testify, including time, date, place and presence of other persons of each occurrence.

ANSWER:

Defendants' object to the form of Interrogatory #6 as having excessive subparts, each subpart constituting separate and distinct questions.

Defendants further object that Plaintiffs' Interrogatories violate Local Rule 15 (c) of the Rules of the District Court for the Second Judicial District, in that the total number of Interrogatories served upon Defendants, including subparts, are in excess of thirty (30) questions.

Interrogatory No. 7:

Please review each of the interrogatories heretofore served upon you by Plaintiffs and the answers you made thereto and if any information, documents or physical evidence has come to your attention which would alter, change, modify, supplement and/or contradict your previous answer, please, by the number of the previous interrogatory, provide plaintiffs with such information documents, or physical evidence as if that interrogatory was being answered now.

ANSWER:

Defendants have no change in their prior answer to Interrogatories at this time.

Harold R. Palanker

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

SUBSCRIBED AND SWORN TO before me this 7th day of ~~October~~ November, 1985, by ~~Thomas F. Parker, Jr.~~ HAROLD R. PALANKER.

Notary Public

My commission expires:
12-20-86

Harold D. Palanker

SUBSCRIBED TO AND SWORN BEFORE
ME THIS _____DAY OF _____
_____, 1983.

_____
Notary Public

My Commission Expires:

_____

/s/ JRP

JOHN R. POLK
320 Gold S.W.
Albuquerque, New Mexico 87102
Phone: 247-1100

I hereby certify that I hand-
delivered a copy of the foregoing
to opposing counsel of record
this 27th day of October, 1983.

/s/ JRP
JOHN R. POLK

SECOND JUDICIAL DISTRICT COURT

COUNTY OF BERNALILLO

STATE OF NEW MEXICO

ENDORSED
FILED IN MY OFFICE THIS
SEP 9 1983
Elsie E. Young
CLERK DISTRICT COURT

MONROE ENTERPRISES, INC.,
a New Mexico corporation,
TRUDY M. MONROE, and
FIRST CITY BANK, N.A.,
Personal Representative of
the Estate of LENORA D. CARRINGTON,
Deceased,

Plaintiffs,

-vs-

No. CV-81-05687

HAROLD D. PALANKER and
JANICE E. PALANKER,

Defendants.

REQUEST FOR ADMISSIONS

COMES NOW the Defendants, by and through their attorney, THOMAS F. HOOKER, JR., P.C., and pursuant to Rule 36 of the Rules of Procedure for the District Courts of New Mexico, request that the Plaintiffs either admit or deny the truth of the facts stated as follows:

1. That the property on which the Sirloin Stockade is located, legally described in Defendants' Request for Admissions Paragraph Seven (7), has been at all times prior to May 24, 1979, lower than, and therefore, downstream to, Defendants' property in question, being Lot L-1-D.

2. That, as a result of a meeting which took place between Fred Aguirre, Bruno Conegliano, Neal Godwin,

Chuck Monroe and Dee N. Corley was unlawfully directed to excavate the land on Lot L-1-D in such a manner as to cause water located on Plaintiffs' property to unnaturally flow onto Defendants' property.

3. That Dee N. Corley wrongfully complied with the directives above, and that, as a result, Defendants' land was made a repository for the waters used by persons on Plaintiffs' property to clean various cooking equipment, without Defendants' knowledge or permission.

4. That persons unknown to Defendants but in the employ of said Sirloin Stockade located on Plaintiffs' property did, on numerous occasions, and in violation of various City Ordinances, unlawfully wash cooking grease and other noxious and foul substances from the equipment used by Sirloin Stockade in the preparation and working of foods into the parking lot designed to service Sirloin Stockade customers.

5. That as a result of said washing of cooking equipment in combination with unlawful grading done to Plaintiffs' property, various greases and other foul and noxious substances were caused to drain upon Defendants' property.

6. That Defendants have no moral or legal obligation to permit their property to become a septic tank for Plaintiffs' unlawful use of their property.

7. That Defendants, as owners of a dwelling

place, have a legal right to complete construction begun on their property.

8. That Plaintiffs, or their predeceasors in title, did grade, change, landscape, and excavate their property.

9. That Plaintiffs, or their predeceasors in title, as a result of the grading referred to in Paragraph Eight (8), did change the natural contours of the land.

10. That Plaintiffs, or their predeceasors in title, changed the natural contour of the land in an attempt to prevent surface runoff from entering upon Plaintiffs' land.

11. That paving an unimproved lot obstructs the natural percolation of surface water into the ground.

12. That when surface water is prevented from percolating into the ground due to paving, runoff is inevitably increased.

13. That an adjoining landowner is under no obligation to maintain his fence for the benefit of the adjacent business.

14. That Neal Godwin, Bruno Conegliano, Fred Aguire, Dee Corley and Chuck Monroe did unlawfully conspire to allow Plaintiffs to wash their foul and noxious waste products onto Defendants' land.

15. That when Dee Corley was unlawfully directed to cut a diversion into Defendants' property, Corley was no

longer the owner of the property.

16. That because Corley was no longer owner of the property, he had no right to enter upon the land of Defendants and cut said unlawful drainage out.

THOMAS F. HOOKER, JR., P.C.
Attorney for Defendants
1412 Lomas Blvd., NW
Albuquerque, NM 87104
(505) 842-0392

By.....
Thomas F. Hooker, Jr.

I hereby certify that I have mailed a true copy of the foregoing pleading to opposing counsel this 9th day of September, 1983.

.....

STATE OF NEW MEXICO COUNTY OF BERNALILLO

IN THE DISTRICT COURT

MONROE ENTERPRISES, INC.,
a New Mexico Corporation,

Plaintiff, No. CV 81-05687

vs

HAROLD PALANKER, M.D.,

Defendant.

The Deposition of FRED AGUIRRE, having been produced, sworn, and examined on behalf of the Plaintiff, pursuant to Notice of Deposition and the Rules of Civil Procedure, was taken at 2:00 p.m. on November 12, 1982, at 821 First Interstate Bank Bldg., 320 Gold Avenue, Albuquerque, New Mexico, before June R. Madlener, Notary Public and court reporter in and for the State of New Mexico.

A P P E A R A N C E S

For the Plaintiff: POLK AND COMACHO
810 First Interstate Bank
320 Gold S.W.
Albuquerque, New Mexico 87102

By: John R. Polk, Esq.

For the Defendant: THOMAS F. HOOKER, Jr. Esq.
1412 Lomas, N.W.
Albuquerque, New Mexico 87104

I N D E X

	Page
Examination by Mr. Polk	2
Examination by Mr. Hooker	24

having first been duly sworn, testifi

EXAMINATION BY MR. POLK:

Q Would you state your name for the

A My name is Fred J. Aguirre.

Q And what is your trade or occupa

A I'm a civil engineer with the Ci

Q How long have you been so employ

A I have been there a little over

Q Where did you receive your prof

A University of New Mexico.

Q And did you receive any degrees

New Mexico?

A Yes, I got a bachelor of scienc

Q When did you receive that degr

A The school year 1975.

Q Have you received any subseque

A No.

Q Have you done any post graduat

A Not as a formal request in the univ school - I have tal

a degree program.

Q From 1975 to the present time

employed?

A In 1975 I went to work with

Los Angeles County Flood Control

Q In what capacity?
A As an assistant civil engineer.
Q In the area of civil engineering, do you have a specialty?
A I would consider that hydrology and hydraulics.
Q Did you take a special course of study at the University of New Mexico in that area?
A Yes, I have nine hours in such courses, hydrology and hydraulics.
Q How long were you with the County of Los Angeles, did you say?
A A little over - - '75 to '78. That's around three years, approximately three years. From there I came here.
Q So you have had two positions in civil engineering since 1975, with Los Angeles and the City of Albuquerque.
A Yes.
Q Are you familiar with the land that is the subject matter of this lawsuit?
A To a certain degree, yes.
Q Have you reviewed the city records with regard to the various drainage plans and other documents that are involved in that Siesta Hills No. 2 subdivision and the property to the north and to the west of it up to Gibson Avenue and San Pedro Avenue?
A At one time or other I have read the report and looked at the plans.
MR. POLK: We should put on the record that by stipulation,

unless a new document is introduced, that we are going to use the same numbering system for exhibits as we had in Mr. Conegliano's deposition. Is that agreed, counsel?

MR. HOOKER: That's fine, and I understand we are taking it according to the rule except for that stipulation.

MR. POLK: All right.

Q Now, I show you what has been marked as Deposition Exhibit 2 and ask you if you recognize that document.

A Yes, I do.

Q What is it, sir?

A It's a drainage plan for the subdivision to the immediate, I guess, to the south of Sirloin Stockade. I'm using that as a reference because I don't know the tracts by heart.

Q If counsel will permit, let's call that Siesta Hills No. 2. I believe that is at least a large part of that tract. I show you what has been marked Deposition Exhibits 10, 11, and 12, and I ask you if that helps you identify by name and description the subdivision we are talking about.

A I have trouble with plats unless I know it's the latest one, unless I sit down and kind of look at it.

Q It might help you, sir, if you look at the various dates of the plats as they came through of the resubdivision.

A O.K.

Q All right, do you recognize those documents and what they purport to show?

A Yes, I recognize them.
Q Now, referring to Exhibit No. 2, or that part of Exhibit No. 2 which shows the schematic of the subdivision. In what direction does the water flow?
A It's got a northwesterly direction.
Q All right, sir, and referring specifically to what is thereon marked Tract L and Tract K, from where do those two tracts receive their water?
A Tract K and Tract L?
Q Right. What tracts drain to them?
A It looks like Tract J and Lots 1 through -- I don't want to say 1 -- Yes, I guess 1. In it's undeveloped state, I guess.
Q Right.
A For the most part it's portions of Tract J and lots 1 through - - Well, Blocks 1, 2 and 3, I guess that's probably the easiest way.
Q Now, I assume, and please correct me if my assumption is incorrect, that the drainage gradients placed on Exhibit 2 are in their undeveloped state and that the overlay of the proposed subdivision would alter those grades; is that correct?
MR. HOOKER: Let me object to the form of the question. You're asking him to assume that the improvement on Tract J is not there?
MR. POLK: No, I am assuming that the gradients are in its undeveloped state as of the time of making the plan.

A This portion here?

Q No, the whole thing. That the gradients, however they are, are being set up prior to the Siesta Hills No. 2 Subdivision being developed on the property.

MR. HOOKER: Let me interpose another objection. That assumes facts not in evidence. We have already established in a prior deposition that gradient line 5309 is a result of grading.

MR. POLK: The witness said he made that assumption, but we have not established it.

Q What I am trying to find out, and I am not trying to trap or trick anyone here, I am trying to find out if these gradient lines will still be in existence after the development of Siesta Hills No. 2 goes into place, including the roadways and everything else, or will the curbing and gutters and everything else change the grades?

A This is Siesta Hills No. 2. You have to help me with this.

Q Siesta Hills No. 2, if you will examine it, is that. Turn that like this (referring to plat), and I think you will see it's conterminous.

A The grades shown here will not be the same upon development of these lots for Siesta Hills 2.

Q However, does that report show after development that the water flow will be in part from what is Siesta Hills No. 2?

A With the exception of these properties, I can't determine that from this plan, because they don't show grades on the

parcels, but the streets will be graded such that they will be draining north. Ridgecrest Place will be draining north and then west until it hits an easement. Ridgecrest Loop will drain north until it hits a dedicated 25 foot drainage easement on Tract L.

Q Does it appear that this plan, as shown in Exhibit No. 2, is to route the water from the subdivision to San Pedro via that drainage easement? Is that what appears on that?

A Yes, I would say so.

Q So does it follow that subsequent to the development of Siesta Hills No. 2 that the overland water flow from Siesta Hills No. 2 will be diverted off Tracts J, K, and L and into the drainage easement?

A J. K. and L.

Q Will the water from Siesta Hills No. 2 Subdivision be diverted from Tracts J, K, and L and into this easement?

A Again, with the exception of these lots, I can't determine that. It appears from the streets -- Well, I can see these flows will be intercepted by the street, if it's a standard curb and gutter, and carried into the 25 foot drainage easement which diverts flows away from these parcels.

Q In Lots 13 through 18 on Exhibit 2, you can't tell, because you can't tell if they have been graded; is that correct, sir?

A This plan is not complete for a drainage plan, because it doesn't have elevations, that I can determine. They call it a

drainage plan. Well, if it's a drainage plan, they should show the proposed grading with particulars on how the water from the lots will be handled. That information is not here.

Q Now, subsequent thereto - -

A May I interject something else?

Q Certainly.

A The report may have something about the scheme, also, so the report may - - -

Q The report, I believe, was given to you, and it was the attachment. Here you go. Let me call your attention - - I'm not trying to trick or trap you in any way. There are apparently three or four of these reports, and perhaps you would want to refer to your own file and not our copies. We have them marked from the attachment to Exhibit 2 through our Exhibits 3, 4, and 5, which were shown as various stages of the report with, perhaps, our Exhibit No. 5 being - - - No, that's incorrect. Our Exhibit No. 2 is in fact the last one we show.

A Exhibit No. 5, right?

Q No, Exhibit No. - - This one here. Going by the dates, Exhibit No. 2 has the date October 24, 1975, Exhibit No. 3 has September 24th, and Exhibit No. 4 has October 1st, and - -

A Is there any reason I didn't have an exhibit number on this, but I have it on this? This is the one you are using?

Q The exhibit is attached to Exhibit No. 2.

A O.K. I haven't sat down and reread this as far as the concept, but they usually complement one with the other.
Q That's what we made the assumption they were for, some kind of modification, but you made reference in your last answer that perhaps the actual writing, the written report, handled the problem. I was inquiring about that. I want to know if you can find that for us and point it out.
A It appears there is going to be back yard ponding, so there will be water contained on site.
Q In which lots is that?
A They don't specify one lot, they are talking about generally the entire development, talking about ponding on each lot to contain the runoff and not to increase the runoff that existed there before. We are talking about cube as opposed to volume of drainage rate. It's impossible to control. You have impervious areas, paving and streets. Before, it would be run into the ground, now you have runoff. The design is to keep the discharge in cubic feet per second down to its undeveloped state. They're going to accumulate this by back yard ponds and retainage on site.
Q Do you know for a fact if that was done or not?
A No, I have not investigated each lot.
Q Is that really possible, given the tremendous variation in the volume of water that falls in the Albuquerque area?
A Once they establish the volume of ponding required and the

construction is done, it's possible if you have the manpower to go out and inspect each and every site, survey, and all that stuff. Without the manpower it is not feasible.

Q I show you Deposition Exhibit 7 and ask you if you recognize that document?

A Yes, I recognize that.

Q What is that, sir?

A Let me read it first. O.K. This is a - - I would call it a drainage report or supplement to a drainage plan for Tract L and Tract K. I don't know what they call it now. Here is the five 4-plexes on Tract L-1, which is the replatting of that parcel, and it appears they are just discussing the off-site flows that are generated from A, which is Siesta Hills 2.

Q Is there another flow plan in that series? In other words, is that a supplement to the 1975 flow plan, or is there another flow plan that that supplements, Exhibit No. 7?

A This plan appears to be the basis of approval for Tract L-1, discussing offsite flows. I don't believe it's a supplement - - It is not a supplement I interpreted for the Molzen-Corbin report.

Q Now, who made that submission to the City of Albuquerque?

A The logo -- the engineer's name is Neal F. Godwin.

Q Does that sucessfully deal with all the offsite flows coming on to Tract L-1?

MR. HOOKER: Objection. Counsel assumes facts not in evidence.

Q Go ahead and answer.
A All I can talk about is what was there when I made my inspection, and there's a letter there about that time.
Q Do you have a copy of that, by chance?
A I haven't been out there since. It's around 1980, January.
Q Has that previously been marked as an exhibit to these depositions, do you know?
A It's a letter from the City Engineer to Neal Godwin.
Q Is that Exhibit 13, by chance?
A That's Exhibit 13. At this time - -
Q That time being?
A January 29, 1980, prior to this, which generated this letter, and field inspection indicated that Tract L-1 was intercepting flows from Tracts J, K, I, and H-1, they were intercepting flows from the adjacent property owners to the east.
Q Does Mr. Godwin's report shown in Exhibit No. 7 deal at all with the flows coming in that you just described?
A From the plan that I have seen that I have had on record, I don't see any place that makes reference to offsite flows from that particular area.
Q Does that mean that Mr. Godwin's plan is inadequate to describe the offsite flows as he purports to in that - -
A If I were reviewing it at this point in time, I would have required discussions of offsite flows. He may have talked to whoever reviewed the plan and assured the party there was not

any offsite flow.

Q Did the city have the Molzen-Corbin map on file at that point in time, Exhibit 2?

A I don't know for a fact. I assume so. I didn't become a party to this until after.

Q I am assuming you are basing this on records you have in your possession.

A Yes.

Q Doesn't Exhibit 2 show there is in fact going to be an offsite flow on to Lot L-1?

A Yes.

Q Excuse me. I'm sorry. That was an incomplete sentence. - - an offsite flow to Lot L-1 from Lot J, this being L-1, and for your edification, it takes in this piece here.

A Yes, there appears to be offsite flows contributed from Tract J on to L-1.

Q I show you now what has been marked Deposition Exhibit 1. Do you recognize that?

A Yes, I recognize this Exhibit 1.

Q What is it? Could you describe it for us?

A It's a grading and drainage plan for, as shown here, Lots L-1-C, B, A, E, and D.

Q Was this filed with you or made available to the City of Albuquerque, do you know?

A It was in our files.

Q How did it come to be there?
A Our record keeping system for approved drainage plans and reports.
Q According to this plan, what does it show with regard to the water drainage to and from Lot L-1-D?
A All I can see is the drainage pattern onsite for L-1-D. It looks like you're getting flows from L-1-E to L-1-D.
(A recess was taken)
Q You were referring to the Molzen-Corbin report, were you not, and also Exhibit 1?
A Yes, you were asking the flow pattern on this drainage plan.
Q Yes, No. 1.
A And from roof drains you have contribution from Lot 1-A into Lot 1-E, and Lot 1-B also contributes to Lot 1-E, and they have a common pond, which is the easement shown here. Lot 1-C contributes to Lot 1-D. They all contribute to the common pond. They are all comingling their runoff from roofs and possibly grading.
Q I want to talk about -- and look at Exhibit No. 15, and tell me if there is any substantial - - Leave Exhibit 1 there, that's part of the question. Is there any substantial difference between Exhibit 15 and Exhibit 1?
A They appear to be the same plan, with the exception there are survey notes.
Q Did you make those survey notes?

A No, my inspector did.
Q And who was that?
A Bernie Montoya.
Q Is he a civil engineer or surveyor?
A He lacks a few hours to get his degree in civil engineering. He has his experience in surveying, but doesn't have a profession.
Q Is he a reliable individual on whom you would lay credence with regard to his being able to find elevations?
A Yes, definitely.
Q And did you do so?
A Yes, I did.
Q In your letter of January 29, 1980, or I should not, perhaps say your letter, but the letter in which you were involved, directed from Mr. Heller to Mr. Godwin, which is Exhibit 13, was that written as a result of the inspection made in Exhibit 15?
A The survey was subsequent to this letter.
Q It was subsequent to the letter?
A Yes.
Q How did you find out the information contained in that lett
A Just visual inspection of the site.
Q And did it appear that the site had been in fact developed in accordance with the plans that had been filed with your office?

A That's a hard question. We didn't check the pond, the actual ponding capacities, and stuff like that. We were looking at how the site handles offsite flows and how to resolve the problem, the cause, so we were not looking at the site as to compliance with the plan, and I believe you will notice our survey is based on 100 datum as opposed to mean sea level.

Q What is 100 datum?

A We take a corner here, and everything is relative to that point.

Q If you have the point from which the 100 datum was taken, what it's elevation was, you could convert the other numbers to mean sea level?

A Yes you could convert the 100 datum to mean sea level.

Q Then you have a basis for correlation.

A Sure.

Q As a result of that letter being sent out, did you have any response to that response?

A I don't know if it was verbal. I think it was verbal.

Q Did you talk to anybody?

A Yes, we talked to Neal. We had a meeting with Neal; the owner of Sirloin Stockade, Monroe; Bernie, my inspector; and a contractor. I can't remember his name.

Q Would it refresh your recollection if I indicated Dee Corley or Darvell Hutchins?

A It doesn't ring a bell.

Q Could you check?
A Dee Corley.
Q He was present at the meeting?
A I believe so. I wrote it down there. 840-8890 is his number.
Q Do you know if anybody was representing a Dr. Palanker?
A Nobody was representing the doctor -- What was his last name?
Q Palanker.
A Palanker, no.
Q Had any attempt been made to reach him?
A Prior to our meeting, no, the meeting with Neal and Corley.
Q What happened at this meeting? Who said what to whom, and what was the bottom line?
A The bottom line was Neal agreed to have the contractor - -
Q Neal being Neal Godwin, the engineer?
A Yes. Neal Godwin and Dee Corley agreed to provide an opening at the -- that would be the northeast corner of Tract L-1 to allow the offsite flows from Tract J to enter the drainage easement.
Q Do you have anything in your records to show whether that's physically possible? Are the grades - - -
A The grades, I believe that's where we took our survey notes. Can I look at this?
Q Yes, feel free to make reference to any exhibit here.
A Our survey notes based on that 100 datum shows there's a

drop from the property line at the northeast corner of less than a foot, so there's a slope that could possible accomodate some offsite flows.

Q Do you know whether in fact that cut was made in there to allow that drainage?

A Yes, the cut was made, and I'm trying to remember if there was a screen placed, because there was a question about garbage.

Q How do you know that cut was made? Did you physically inspect it?

A I went out with Neal, and there was an opening.

Q When was that?

MR. POLK: Off the record.

(Off record discussion)

Q When you went out there with Neal Godwin, he had made a cut in such a way that the water would flow off the Sirloin Stockade property on to - - -

A We concurred with their proposal to opening it because we interpret that easement as city easement. I checked to see if that could be interpreted as a city easement, and from the information I got back, it could.

Q What do you refer to as a city easement?

A The 10 foot drainage easement shown on Tract L-1.

Q How do you say that's a city easement? Vis-a-vis what?

A As opposed to a private easement.

Q You're making a distinction between a public and private

easement?

A Yes. That's how we kind of took it upon ourselves to allow this thing to take place and put it in writing.

Q Did you put it in writing?

A In a letter to Neal Godwin, February 5, 1980.

Q That's Exhibit 14. And in that letter you are - - that's a letter from you to Mr. Godwin accepting that concept of opening that hole and putting the overland flow from Sirloin Stockade on to L-1-D; is that right?

A Yes.

Q Did Mr. Godwin ever represent to you or make any statement as to what his authority was to enter into these agreements?

A No. We called him up because he was the engineer that did the report, and that's the purpose of getting hold of him. We attempted to get the owner, but we have tenants, and that required going through taxes to find out the owner, and we are looking for a solution to eliminate problems that would cause damage.

Q Did Mr. Corley make any representation as to his authority to enter into binding agreements on behalf of whoever the land owner was?

A No.

Q Did they make statements that they didn't have the authority

A I believe we discussed that they couldn't represent them, that's how we interpreted the easement. We figured that was

adjoining property, and the flows we were accepting was flood water drainage.

Q So what your interpretation - - Is this the official interpretation for the City of Albuquerque at the present time -- let me state it and see if you can react to it. This 10 foot easement on L-1-D is a public easement to accept the upstream flow coming from whatever source and transmit it to San Pedro Avenue?

MR. HOOKER: I object to the form of the question. Counsel is leading the witness.

Q Is or is not? I want him to react to that statement any way he wants. Is that the position of the City of Albuquerque?

MR. HOOKER: Same objection.

A The position was mine. I interpreted that as drainage easement. From my investigation and talking to the surveyor, that could be interpreted as city easement and we be responsible for allowing or not allowing construction on that easement.

Q Can you cite any statute or ordinance that gives you the authority to make that statement?

A No, other than the plat itself. After discussing it with one of the city surveyors, that could be interpreted as city easement, therefore - - -

Q Did you refer it to the corporation counsel's office?

A No.

Q When you say city easement, I assume you're talking about

an easement of the nature of public right-of-way such as a street or similar public right-of-way?

A Right-of-way and easement are two different animals. The easement, we use it for a specific purpuse, like drainage; and right-of-way, the city owns the property.

Q I am not referring to where the city owns the street, but there can be a circumstance in which a public right-of-way is given on the surface, for example, for a street or sidewalk, and there is a property owner who owns it underneath.

A Again, right-of-way means the city owns it in fee simple. The easement - - -

Q Then let me make - - I don't care what you want to call it, but let's say where the city has an easement for a street and does not own the land underneath it but has the right for a street or to maintain a public conveyance or opening -- I like to use the term "right-of-way" - -

A I understand.

Q Is that the type of thing you are referring to when you say a city easement?

A Can I backtrack a minute and give a little more background on this. When I say - - When we are reviewing a plat and we need to have access for, say, drainage, we will require an easement, and I have seen plats that say "drainage easement", they do not say "city drainage easement", and as long as they are properly filed, recorded, and approved, I have interpreted

those to be city easements unless otherwise specified as private, and in this case that was the situation here.

Q So you maintain the position that this easement was an easement to the City of Albuquerque to control the drainage flow; is that correct, this 10 foot easement on the north and east side of L-1-D?

A I took it that it was an easement that was dedicated to the city for the conveyance of storm water.

Q Did it appear to you that the easement on L-1-D had been dedicated for the purpose of taking offsite flow, or was it strictly for the purpose of taking onsite flow?

A From looking at the plat, it appeared it was intended for onsite flow. I looked, but again, since it was dedicated, it was indicated as drainage easement, and these easements in the past, in my experience, they have been interpreted as city, and the city is responsible for maintenance; therefore, I allowed this plan to cut into it.

Q If, on the assumption you are correct, that this was a grant to the City of Albuquerque, then would it not follow that if anybody interfered with that easement, that would be a privilege of the easement granted to the City of Albuquerque?

A If there were specific plans that the thing was to be granted to the city and somebody went in and modified the thing, I would say they obstructed the intended purpose of it.

Q On the assumption this is in fact a public easement?

A Yes.
Q How did this thing ever slide through a crack in the city's office, that the offsite flow was never accounted for?
A I couldn't answer that.
Q Do you have anything in your own knowledge?
A No, this was, I believe, before I came on the picture, or about the same time, and that is both projects, as far as reviewing and approving and inspections on the site.
Q From your knowledge of the operation of the city's office, could you express an opinion with regard to whether this was a mistake by someone in the city department, or whether the city was misled by the report of Mr. Godwin in failing to take into consideration the offsite flow, or some third possibility which I have not listed?
A The plan should have addressed offsite flows. From my reviewing of it now, it should not have been accepted without that. I guess it must have been interpreted or been assumed that the engineer, since he didn't address it, there was no offsite flows. That's one of the criteria that has been used in the past to review reports. Because it is not indicated. We don't make physical inspection on each and every site. We have orthographic maps of the city, with the exception of the base, and there are aerial photographs. At the time I was looking at this complaint, I had not found this plan, and I was looking for something to show the drainage pattern that existed prior to

development, and we did not have it, and we use those to review plans for such things as offsite flows from existing developments, how it relates with other property. In this case there was not one available, so obviously the survey was done. Maybe the engineer did not have it available to him. I can't address that.

Q I take it that we can assume that since you made your inspection there was an offsite flow from Lot J.

A At the time I made the inspection, that letter was generated from the City Engineer.

Q Subsequent to your going out there - - Can you remember the date, by chance, that you went out and observed the cut in the fence?

A I think it was immediately thereafter. Rough guess, I would say in a week, two weeks at least, we went out and inspected it, and there was an opening to allow the water to enter the pond on that easement.

Q When was the last time you heard anything about this particular problem?

A I believe the inspector or investigator you have came to see me because he was going to take over the case, he wanted to look over the files, and I allowed him to look at the files.

Q But subsequent to that, you have not made any inspections out there or sent any city inspectors out?

A I don't believe we have had any more complaints from Mr.

Monroe that are documented. We may have something on file, he may have called and said the pond is there, but I don't recall that we did have anything after that.

Q Did Mr. Godwin, when you made your second inspection -- I'm referring to when the hole was cut in the fence -- indicate who cut the hole in the fence?

A I believe that the contractor was going to do the work.

Q Was that Mr. Corley?

A Yes.

Q Was he present when you went out the second time?

A I don't think so. I'm not sure if we all met out there again. I think it was just an inspection by myself and my inspector to take a look at the site. I don't remember being out with Mr. Corley and Mr. Godwin after that.

Q And at any time through this process in January and February and subsequent in 1980, did either Mr. Corley or Mr. Godwin indicate to you they had spoken to, got the concurrence of, got the refusal of, got the objection of, got anything of the land owner?

A Talking about the 4-plex land owners?

Q Yes, of Lot L-1-D.

A No.

MR. POLK: (Addressing Mr. Hooker) Go.

EXAMINATION BY MR. HOOKER:

Q I have one or two questions. When you met with Godwin, did

he make any statements admitting responsibility for an erroneous drainage study?

A No. I don't think we discussed it. I don't think he mentioned the subject of it to any great degree other than let's correct the problem.

MR. HOOKER: That's all I have.

MR. POLK: You have the right to do one of two things with regard to this deposition. You can read the deposition and review it for any mistranscription of what you have said of any nature. You will be provided with a piece of paper where you can write down the page and the line number where there is an error in something that was said, or you can waive reading and reviewing it, which is called waiving your signature. That's an option you have. You can read it and review it, or you can waive reading and reviewing it. You cannot change your testimony. The only thing you can change is if you believe there has been a mistranscription of something you said, that I said, or anybody else said. For example, if the court reporter wrote down a no where you had at the time said yes, then you can make that notation, but if you would later like to change that no to a yes, you can't do it.

WITNESS: It sounds like it's in my best interest to review the transcript.

MR. POLK: It depends. I used to waive , have all my clients waive signature, but after I got burned a few times I have just

about everybody read them. It's strictly your right. I am not advising you one way or the other. Whatever you would like to do. If you do waive signature you will be committed to that deposition, and if called as a witness, whatever is in that deposition is going to be not only presumed, but almost undisputedly presumed to be what you said, right or wrong, so please be so advised.

WITNESS: Then I would like to review it.

(The deposition was concluded at 3:40 p.m.)

HYDROLOGY M18/D2 6 PLANS 2 of 2

STATE OF NEW MEXICO

County of Bernalillo ... ss

I, the officer before whom the foregoing deposition was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me; that I personally recorded the testimony; that said deposition is a true record of the testimony given by said witness; that I am neither attorney nor counsel for, nor related to or employed by any of the parties to the action in which this deposition is taken, and that I am not a relative or employee of any attorney or counsel employed by the parties hereto, or financially interested in the action.

Notary Public

My commission expires:

May 5, 1984

Cost of Deposition to Plaintiffs:$ 57.57

I hereby certify that the foregoing transcription of the deposition given by me is a true and correct transcript, except as herein noted.

Fred Aguirre

COMMENTS ON DEPOSITION

DATED: November 12, 1982

Page	Line	Correction
3		Response to Question 9 - Worked with the County from January of 1975 to August of 1978.
7		Response to Question 15 - Cannot determine without a comprehensive grading and drainage plan showing the proposed grading on each individual lot within Blocks 1, 2 and 3 of the Siesta Hills Number 2 Subdivision and within the subdivision street right-of-ways.
9		Response to Question 10 - The report indicated all 46 lots would pond. The drainage concept (in the past) per the applicable Ordinance in effect at the time was to control the peak runoff from the site to its undeveloped rate.
10		Line 10 - Insert Portion of before Tract K.
14		Line 6 - 7 - Eliminate 10th word (profession) and add Professional Certification.
19		Line 14 - Second letter (position) change to Interpet tion.
19		Line 15 - Correct to read . . . talking to a City surveyor, . . .
19		Line 16 - Replace the eighth word (we) to would.
22		Line 22 - Second word (orthographic) change to Orthotopo.

file copy

GE REPORT

APPROVED FOR DRAINAGE

24 Oct 75
DATE

KH Laws ACE Hyd
SIGNATURE TITLE

CONTINGENCIES

SIESTA HILLS NO. 2

SUBDIVISION

DRAINAGE REPORT

MOLZEN-CORBIN & ASSOCIATES

ALBUQUERQUE, NEW MEXICO

October 23, 1975

INDEX

	PAGE
GENERAL	1
Chart I	2
Mannings Formula	2
Rational Formula	3
DESIGN ANALYSIS	3
COMPUTATIONS	4
Runoff, Improved Area, Proposed	4
Estimated Walled Areas	5
Pavement Sections	5
Outfall Channel	6
Depth of Flow	6
Runoff from Area After Completion of Improvements	6
CONCLUSIONS & RECOMMENDATIONS	8

DRAINAGE REPORT

SIESTA HILLS NO. 2 SUBDIVISION

GENERAL: This report is the result of the analysis of drainage runoff from the Siesta Hills No. 2 Subdivision.

Drainage from the area is all surface drainage which will flow in the system of streets and a designated drainage easement in the northwest part of the area and by means of this drainage easement into the present paved and curb and guttered San Pedro Drive, S.E. and thence in the said San Pedro Drive Improvement, north to Gibson Boulevard.

The criteria for the development includes the requirement that the total cubic feet per second delivered to the outlet shall not exceed the discharge in cubic feet per second as discharged by the area at the present time in its undeveloped stage.

As a result of this criteria, it will be necessary to provide ponding over the area sufficient to retard flow after the development is completed in order that the discharge at the outfall will not exceed the outfall from the present undeveloped area.

CRITERIA: Surface runoff has been determined using the 100-year storm and the 100-year intensity - duration curve, Chart I of the 1963 Master Plan of Drainage, for the City of Albuquerque

included in the Report by Gordon Herkenhoff & Associates.

From Chart I, the intensity is determined from

$I = 189/t + 25$

I = intensity

T = duration in minutes

T is determined from

$$T = 1.8\ \frac{(1.1-C)\ \sqrt{L}}{\sqrt[3]{S}}$$

C is the coefficient of runoff; 0.90 for paved areas and 0.35 for unpaved or grass areas.

L = length of drainage area along the route of drainage flow.

S = slope in feet per one hundred feet.

Mannings Formula for flow in open channels

$$Q = A \times \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$$

$$V = \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$$

Q = discharge in cubic feet per second

V = velocity of flow in feet per second

A = area of channel

n = coefficient of roughness

R = hydraulic radius = $\frac{\text{area of flow section}}{\text{wetted perimeter}}$

S = slope in foot per foot

WP = wetted perimeter = length in feet of wetted contact between the stream of water and containing channel measured at right angles to the flow of water

Values for the coefficient of roughness "n" were given the values:

Paved Area n = .015

Unpaved Areas n = .035

Runoff computations for overland flow were made using the Rational Formula:

Runoff Q = CIA

Q = Storm runoff in cubic feet per second

C = Runoff coefficients prorated for surface runoff

I = Rainfall intensity (inches per hour)

Runoff coefficients were determined from weighted values based on the estimated proportionate amounts of surfaces within the area having the following listed values.

Paved and/or Roofed Areas C = 0.90

Land and Landscaping C = 0.35

DESIGN ANALYSIS: Drainage is overland to the improved streets; it will flow in the streets to the northwest part of the area where it will be discharged from the street at curve number 3 into a paved drainage ditch. This drainage ditch will extend from the left or northwest curb of the street improvement, northwesterly and westerly to the east curb and gutter of the existing improvement on San Pedro Blvd., S.E. whence it will flow north to Gibson Blvd.

In order to satisfy the criteria of permitting no more runoff from the area after improvement than the runoff from the present unimproved area, the walled back yards will be utilized as ponding areas.

It is estimated that this will require the ponding of approximately 30,053 cubic feet of runoff or less than 0.20 feet over the area of the estimated walled back yards of the proposed 46 dwellings. This will generally be accomplished by sidewalk or other obstruction at the gate to the back yard. We believe that this will result in the retention of the cubic feet of runoff necessary to maintain the rate of runoff from the present unimproved area. From Technical Paper No. 40, U. S. Department of Commerce, the 100 year, 6 hour storm may be expected to result in rainfall of 3.00 inches. Using the walled back yards as a means of ponding, it is estimated that depth of ponding will be .09 feet.

Using the top of curb grades along the left curb of the improvement, the street capacity for the street section along these grades has been computed. The street section through the area of the least grade is several times the capacity required for the runoff of the outfall of the area. Therefore, the street sections at all proposed grades are more than adequate to handle the runoff.

COMPUTATIONS:

Runoff: Improved area, proposed

D = distance from crest to outlet, 1425 feet

S = slope, difference in elevation/distance 23.1/1425 = 1.62%

C; Roofs 2.20 acres C = .90

Streets 2.13 acres C = .90

Miscellaneous

Driveways	1.26 acres	
Patio Roofs	0.32 acres	
Porch Roofs	0.10 acres	
Yard Walks	.43 acres	
Sub-Total:	6.44 acres	C = .90
Lawns & Unimproved Land	7.16 acres	C = .35
Total:	13.60	

Estimated Walled Area

.24 acres x 46 x .63 = 6.96 acres, 303,178 Sq. Ft.

Pavement Sections, capacities using grade, top left curb

$$Q = A \times \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$$

A = area = 16.06

n = coefficient of roughness = 0.15

WP = wetted perimeter = 33.41

R = hydraulic radius $\frac{A}{WP}$ = .481

S = slope, foot per foot

S =	$S^{1/2}$ =	Q =
.0248	.157	153.19 cfs
.0052	.072	70.25 cfs
.0228	.151	147.33 cfs
.0268	.164	160.02 cfs

Outfall Channel; Grade = .0036 ft/ft.; Bottom width 12 ft.; 8 in. vertical curb

Depth of Flow	4.8"	6"	8"
A =	4.8000	6.075	8.174
n =	0.015	0.015	0.015
WP =	12.80	13.044	13.40
R =	0.375	.466	.610
S =	0.0036	0.0036	0.0036
cfs =	14.84	21.67	34.94
V =	3.09 fps	3.57 fps	4.27 fps
Froude =	.63	.89	.92

Runoff from the area on completion of all improvements including pavement, roofs, lawns and walled back yards.

$$T = \frac{1.8(1.0-C)\sqrt{L}}{\sqrt[3]{S}}$$

Ridgecrest Place and Ridgecrest Loop to Outlet:

from wall Lot 1, Block 3 to curb & gutter at north lot line

$$T = \frac{1.8(1.1-.35)\sqrt{100}}{\sqrt[3]{314}} = \frac{1.8 \times .75 \times 10}{146} = 9.25 \text{ min.}$$

1.46

from north lot line, Lot 1, Block 3 to PVI 25+50

$$T = \frac{1.8(1.1-.90)\sqrt{300.00}}{\sqrt[3]{2.76}} = \frac{1.8 \times .20 \times 17.32}{1.4} = 4.45 \text{ min.}$$

from PVI 25+50 to PVI 21+50

$$T = \frac{1.8(1.1-.90)\sqrt{400}}{\sqrt[3]{2.08}} = \frac{1.8 \times .20 \times 20}{1.28} = 5.63 \text{ min.}$$

from PVI 21+50 to 18+50

$$T = \frac{1.8(1.0-.90)\sqrt{300}}{\sqrt[3]{0.52}} = 1.8 \times .20 \times 17.32 = 7.79 \text{ min.}$$

from PVI 18+50 to 17+43.50

$$T = \frac{1.8(1.0-.20)\sqrt{106.5}}{\sqrt[3]{1.17}} = \frac{1.8 \times .20 \times 10.32}{1.05} = 3.54 \text{ min.}$$

Total = 30.66 min.

I = 189/30.66 + 25 = 3.40 inches

Ridgecrest to Ridgecrest Loop and Ridgecrest Loop to outlet:

from wall at eastment line Lot 9, Block 1 to north property line 11+60

$$T = \frac{1.8(1.1-.35\sqrt{85}}{\sqrt[3]{1.92}} = \frac{1.8 \times .75 \times 9.22}{1.24} = 10.03 \text{ min.}$$

from north line Lot 9, Block 1 to PVI 15+50

$$T = \frac{1.8(1.1-.20)\sqrt{369.41}}{\sqrt[3]{2.76}} = \frac{1.8 \times .20 \times 19.22}{1.4} = 4.94 \text{ min.}$$

from PVI 15+50 to 17+43.5

$$T = \frac{1.8(1.1-.20\sqrt{193.5}}{\sqrt[3]{202}} = \frac{1.8 \times .20 \times 13.91}{1.26} = \frac{3.97 \text{ min.}}{18.94 \text{ min.}}$$

$I = 189/18.94 + 25.00 = 4.30$ inches

Runoff in cfs:

Peak runoff elapsed time 30.66 min.

Walled Back Yards

Acreage Lot = .24 acre
Number of Lots = 46
Percentage of Walled Back Yard = .63
*Back Yard Area = .24 x 46 x .63 = 6.96 Acres
= 1.10 Acres

*Includes .50 roof area

13.60 - 6.96 - 6.64 less 1.10 = 5.54 Acres

Outside walled back yards

Q = CIA = .79 x 3.40 x 5.54 = 14.88 cfs

Runoff from present unimproved area = 14.28 cfs

CONCLUSIONS & RECOMMENDATIONS:

The drainage of the area proposed for improvement is contained within the area of the addition.

The area slopes to the northwest, uniformly. All drainage will be overland to the improved street, thence in the paved streets to the paved outfall channel from the center of curve number 3, north and west to San Pedro Blvd., S.E.

The runoff is not large and will be handled easily within the street section.

Three runoff figures are shown as follows:

1. Unimproved Area - 14.28 cfs
2. Improved Area including paved street and driveways, roofs and grassed areas - 29.37 cfs
3. Improved Area deleting walled backyards, ponding areas, capacity of the concrete paved outfall ditch for flow depths of 4.6 inches (14.84 cfs), 6 inch (21.67 cfs) and 8 inch (34.94 cfs) with Froude numbers of .63, .89, and .92 respectively and corresponding velocities of 3.09 fps; 3.57 fps and 4.27 fps.

Runoff from the area will be collected at Curve No. 3 in a Valley Gutter near the center of Curve No. 3. This Valley Gutter will flow from right to left and will discharge into the concrete line outfall ditch. In order to provide smooth flow in the outfall ditch, a curve will be constructed at the P.I. from northwesterly to westerly and the right wall increased in height by extending the wall on a 0.0 grade from the beginning of the wall to the P.T. of the curve then on a taper

to 8 inch height, 50 feet from the P.T. The left wall will be maintained at a uniform height of 8 inches throughout.

The criteria to retain the same discharge after improvement as exists for the unimproved area will be satisfied as the walled in yards requirement will be retardant to flow. With an estimate depth of .099 foot over the back yard areas to handle the estimated required ponding, there appears to be no problem. A .20 foot retardant at the yard outlet will more than satisfy the ponding problem.

Pavement Section 32'-3" back to back of curb, Albuquerque City Standard P-1, P-7.

Paving Typical Lining for Drainage Easements, Type B except the bottom to be flat.

Layout Map attached.

file copy

SIESTA HILLS NO. 2

SUBDIVISION

Received
30 September 1975
called M Aldrich
345.2459
10 Oct 75

DRAINAGE REPORT

MOLZEN-CORBIN & ASSOCIATES

ALBUQUERQUE, NEW MEXICO

September 29, 1975

SIESTA HILLS NO. 2

SUBDIVISION

DRAINAGE REPORT

MOLZEN-CORBIN & ASSOCIATES

ALBUQUERQUE, NEW MEXICO

September 29, 1975

INDEX

	PAGE
GENERAL	1
Chart I	2
Mannings Formula	2
Rational Formula	3
DESIGN ANALYSIS	3
COMPUTATIONS	4
Runoff, Improved Area, Proposed	4
Runoff, Unimproved Area	5
Ponding	5
Estimated Walled Areas	6
Pavement Sections	6
Outfall Channel	6
Depth of Flow	6
CONCLUSIONS & RECOMMENDATIONS	7

DRAINAGE REPORT

SIESTA HILLS NO. 2 SUBDIVISION

GENERAL: This report is the result of the analysis of drainage runoff from the Siesta Hills No. 2 Subdivision.

Drainage from the area is all surface drainage which will flow in the system of streets and a designated drainage easement in the northwest part of the area and by means of this drainage easement into the present paved and curb and guttered San Pedro Drive, S.E. and thence in the said San Pedro Drive Improvement, north to Gibson Boulevard.

The criteria for the development includes the requirement that the total cubic feet per second delivered to the outlet shall not exceed the discharge in cubic feet per second as discharged by the area at the present time in its undeveloped stage.

As a result of this criteria, it will be necessary to provide ponding over the area sufficient to retard flow after the development is completed in order that the discharge at the outfall will not exceed the outfall from the present undeveloped area.

CRITERIA: Surface runoff has been determined using the 100-year storm and the 100-year intensity - duration curve, Chart I of the 1963 Master Plan of Drainage, for the City of Albuquerque

included in the Report by Gordon Herkenhoff & Associates.

From Chart I, the intensity is determined from

$I = 189/t + 25$

I = intensity

T = duration in minutes

T is determined from

$$T = 1.8 \frac{(1.1-C)}{\sqrt[3]{S}} \sqrt{L}$$

C is the coefficient of runoff prorated from the value of .90 for paved and roof areas and .35 from unpaved and grass areas.

L = length of drainage area along the route of drainage flow.

S = slope in feet per one hundred feet.

Mannings Formula for flow in open channels

$$Q = A \times \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$$

$$V = \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$$

Q = discharge in cubic feet per second

V = velocity of flow in feet per second

A = area of channel

n = coefficient of roughness

R = hydraulic radius = $\frac{\text{area of flow section}}{\text{wetted perimeter}}$

S = slope in foot per foot

WP = wetted perimeter = length in feet of wetted contact between the stream of water and containing channel measured at right angles to the flow of water

Values for the coefficient of roughness "n" were given the values:

Paved Area	n = .015
Unpaved Areas	n = .035

Runoff computations for overland flow were made using the Rational Formula:

Runoff Q = CIA

Q = Storm runoff in cubic feet per second

C = Runoff coefficients prorated for surface runoff

I = Rainfall intensity (inches per hour)

Runoff coefficients were determined from weighted values based on the estimated proportionate amounts of surfaces within the area having the following listed values.

Paved and/or Roofed Areas	C = 0.90
Land and Landscaping	C = 0.35

DESIGN ANALYSIS: Drainage is overland to the improved streets; it will flow in the streets to the northwest part of the area where it will be discharged from the street at curve number 3 into a paved drainage ditch. This drainage ditch will extend from the left or northwest curb of the street improvement, northwesterly and westerly to the east curb and gutter of the existing improvement on San Pedro Blvd., S.E. whence it will flow north to Gibson Blvd.

Flow from the unimproved area is computed to be less than 15 cfs and from the proposed improved area is less than 30 cfs. Therefore, it is necessary to pond the acre feet, being the difference between a runoff of 14.28 cfs and 29.37 cfs.

It is estimated that this will require the ponding of approximately 30,053 cubic feet of runoff or less than 0.20 feet over the area of the estimated walled back yards of the proposed 46 dwellings. This will generally be accomplished by sidewalk or other obstruction at the gate to the back yard. We believe that this will result in the retention of the cubic feet of runoff necessary to maintain the rate of the amount from the unimproved area.

Using the top of curb grades along the left curb of the improvement, the street capacity for the street section along these grades has been computed. The street section through the area of the least grade is several times the capacity required for the runoff of the outfall of the area. Therefore, the street sections at all proposed grades are more than adequate to handle the runoff.

COMPUTATIONS:

Runoff: Improved area, proposed

D = distance from crest to outlet, 1425 feet

S = slope, difference in elevation/distance 23.1/1425 = 1.62%

C = roofs 2.20 acres

streets 2.13 acres

driveways 2.11 acres

total 6.44 acres

lawns & unimproved land 7.16 acres

6.44/13.60 x .90 = 0.43

7.16/13.60 x .35 = 0.18

Coefficient C = 0.61

$$T = \frac{1.8(1.1 - C)\sqrt{L}}{\sqrt[3]{S}} = \frac{1.8(1.1 - .61)\sqrt{1425}}{\sqrt[3]{1.62}} = 23.46 \text{ minutes}$$

Intensity I = 189/28.46 + 25.00 = 3.54 inches

Q = .61 x 3.54 x 13.60 = 29.37 cfs (improved area)

Runoff: Unimproved Area: present D = 1200'; Diff in Elev = 23.1
23.1/1200 = 1.925

$$T = \frac{1.8(1.1 - .35)\sqrt{1200}}{\sqrt[3]{1.925}} = 37.59 \text{ minutes}$$

Intensity 189/37.59 + 25.00 = 3.00
Q = .35 x 3.00 x 13.60 = 14.28 cfs

Ponding:

Q = CIA

for C = .35 CA = .35 x 13.60 = 4.76
for C = .61 CA = .61 x 13.60 = 8.30

Required Ponding, the difference between C = .35 & C = .61

Time of I for C = .61, same as I for C = .35

Q = CIA

14.28 = .61 x I x 13.60

I = 14.28/.61 x 13.60 = 1.72

Chart I: 1.72 Intensity, Duration 85 minutes.

Difference between C = .35 & C = .61

CA = .35 x 13.60 = 4.76 CA = .61 x 13.60 = 8.30

Minutes	Cu. Ft. Supplied by C = .35	Cu. Ft. Supplied by C = .61
85	4.76 x 1.72 x 5100 = 41754 CF	8.30 x 1.7[illegible] x 5100 = 72808 CF

72808 - 41754 = 30053 Cu. Ft. to be ponded

Estimated Walled Area

.24 acres x 46 x (50) = 5.52 acres, 240,451 Sq. Ft.

only west half; next page 4.46 acres.

30053/240451 = .125 Ft., Depth of Ponding — this assumes runoff

Pavement Sections, capacities using grade, top left curb

$$Q = A \times \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$$

A = area = 16.06

n = coefficient of roughness = 0.15

WP = wetted perimeter = 33.41

R = hydraulic radius $\frac{A}{WP}$ = .481

S = slope, foot per foot

S =	$S^{1/2}$ =	Q =
.0248	.157	153.19 cfs
.0052	.072	70.25 cfs
.0228	.151	147.33 cfs
.0268	.164	160.02 cfs

Outfall Channel; Grade = .0036 ft/ft.; Bottom width 12 ft.; 8 in. vertical curb

Depth of Flow	4.8"	6"	8"
A =	4.8000	6.075	8.174
n =	0.015	0.015	0.015
WP =	12.80	13.044	13.40
R =	0.375	.466	.610
S =	0.0036	0.0036	0.0036
cfs =	14.84	21.67	34.94
V =	3.09 fps	3.57 fps	4.27 fps
Froude =	.63	.89	.92

Runoff from the area on completion of all improvements including pavement, roofs, lawns and walled back yards.

Total Area	13.60 Acres
Walled Back Yards	4.46 Acres
Remainder	9.14 Acres
Roofs, Street Pavement & Driveways	6.44 Acres
Grassed Areas	2.70 Acres

6.44/9.14 x .90 = .63
2.70/9.14 x .35 = .10

Total .73

Unwalled Areas Q = CIA = .73 x 3.54 x 9.14 = 23.62 cfs vs 14.28

CONCLUSIONS & RECOMMENDATIONS:

The drainage of the area proposed for improvement is contained within the area of the addition.

The area slopes to the northwest, uniformly. All drainage will be overland to the improved street, thence in the paved streets to the paved outfall channel from the center of curve number 3, north and west to San Pedro Blvd., S.E.

The runoff is not large and will be handled easily within the street section.

Three runoff figures are shown as follows:

1. Unimproved Area - 14.28 cfs
2. Improved Area including paved street and driveways, roofs and grassed areas - 29.37 cfs
3. Improved Area deleting walled backyards, ponding areas, capacity of the concrete paved outfall ditch for flow depths of 4.8 inches (14.84 cfs), 6 inch (21.67 cfs) and 8 inch (34.94 cfs) with Froude numbers of .63, .89, and .92 respectively and corresponding velocities of 3.09 fps; 3.57 fps and 4.27 fps.

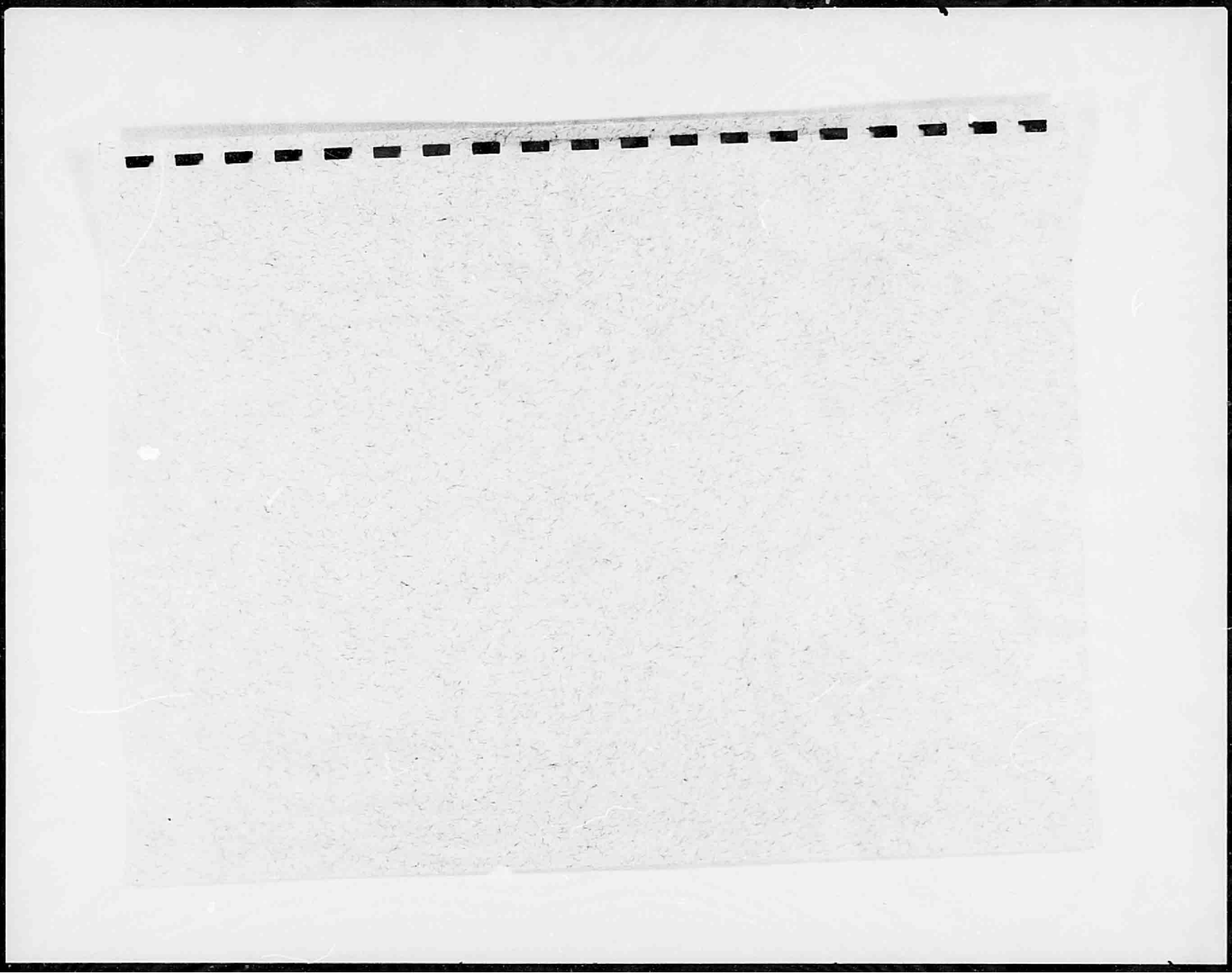
Runoff from the area will be collected at Curve No. 3 in a Valley Gutter near the center of Curve No. 3. This Valley Gutter will flow from right to left and will discharge into the concrete line outfall ditch. In order to provide smooth flow in the outfall ditch, a curve will be constructed at the P.I. from northwesterly to westerly and the right wall increased in height by extending the wall on a 0.0 grade from the beginning of the wall to the P.T. of the curve, then on a taper to 8 inch height, 50 feet from the P.T. The left wall will be maintained at a uniform height of 8 inches throughout.

The criteria to retain the same discharge after improvement as exists for the unimproved area will be satisfied as the walled in yards requirement will be retardant to flow. With an estimate depth of .105 foot over the back yard areas to handle the estimated required ponding, there appears to be no problem. A .20 foot retardant at the yard outlet will more than satisfy the ponding problem.

Pavement Section 32'-3" back to back of curb, Albuquerque City Standard P-1, P-7.

Paving Typical Lining for Drainage Easements, Type B except the bottom to be flat.

Layout Map attached.



SIESTA HILLS NO. 2

SUBDIVISION

M18

Received
9-23-75

called al Aldrich
345-2459
9-24-75

DRAINAGE REPORT

MOLZEN-CORBIN & ASSOCIATES

ALBUQUERQUE, NEW MEXICO

September 21, 1975

SIESTA HILLS NO. 2

SUBDIVISION

M18

Received
9-23-75

called al Aldrich
345-2459
9-24-75

DRAINAGE REPORT

MOLZEN-CORBIN & ASSOCIATES

ALBUQUERQUE, NEW MEXICO

September 21, 1975

DRAINAGE REPORT

SIESTA HILLS NO. 2 SUBDIVISION

GENERAL: This report is the result of the analysis of drainage runoff from the Siesta Hills No. 2 Subdivision.

Drainage from the area is all surface drainage which will flow in the system of streets and a designated drainage easement in the northwest part of the area and by means of this drainage easement into the present paved and curb and guttered San Pedro Drive, S.E. and thence in the said San Pedro Drive Improvement, north to Gibson Boulevard.

The criteria for the development includes the requirement that the total cubic feet per second delivered to the outlet shall not exceed the discharge in cubic feet per second as discharged by the area at the present time in its undeveloped stage.

As a result of this criteria, it will be necessary to provide ponding over the area sufficient to retard flow after the development is completed in order that the discharge at the outfall will not exceed the outfall from the present undeveloped area.

CRITERIA: Surface runoff has been determined using the 100-year storm and the 100-year intensity - duration curve, Chart I of the 1963 Master Plan of Drainage, for the City of Albuquerque

included in the Report by Gordon Herkenhoff & Associates.

From Chart I, the intensity is determined from

$I = 189/t + 25$

I = intensity

t = duration in minutes

t is determined from

$t = 1.8 \frac{(1.1-C)\sqrt{L}}{\sqrt[3]{S}}$ reference FAA

C is the coefficient of runoff prorated from the value of .90 for paved and roof areas and .35 from unpaved and grass areas.

L = length of drainage area along the route of drainage flow.

S = slope in feet per one hundred feet.

Mannings Formula for flow in open channels

$Q = A \times \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$

$V = \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$

Q = discharge in cubic feet per second

V = velocity of flow in feet per second

A = area of channel

n = coefficient of roughness

R = hydraulic radius = $\frac{\text{area of flow section}}{\text{wetted perimeter}}$

S = slope in foot per foot

WP = wetted perimeter = length in feet of wetted contact between the stream of water and containing channel measured at right angles to the flow of water

Values for the coefficient of roughness "n" were given the values:

Paved Area n = .015

Unpaved Areas n = .035

Runoff computations for overland flow were made using the Rational Formula:

Runoff Q = CIA

Q = Storm runoff in cubic feet per second

C = Runoff coefficients prorated for surface runoff

I = Rainfall intensity (inches per hour)

Runoff coefficients were determined from weighted values based on the estimated proportionate amounts of surfaces within the area having the following listed values.

Paved and/or Roofed Areas C = 0.90

Land and Landscaping C = 0.35

DESIGN ANALYSIS: Drainage is overland to the improved streets; it will flow in the streets to the northwest part of the area where it will be discharged from the street at curve number 3 into a paved drainage ditch. This drainage ditch will extend from the left or northwest curb of the street improvement, northwesterly and westerly to the east curb and gutter of the existing improvement on San Pedro Blvd., S.E. whence it will flow north to Gibson Blvd.

Flow from the unimproved area is computed to be less than 15 cfs and from the proposed improved area is less than 30 cfs. Therefore, it is necessary to pond the acre feet, being the difference between a runoff of 15 cfs and 30 cfs.

It is estimated that this will require the ponding of approximately 25,767 cubic feet of runoff or less than 0.20 feet over the area of the estimated walled back yards of the proposed 46 dwellings. This will generally be accomplished by sidewalk or other obstruction at the gate to the back yard. We believe that this will result in the retention of the cubic feet of runoff necessary to maintain the rate of the amount from the unimproved area.

Using the top of curb grades along the left curb of the improvement, the street capacities for the street section along these grades has been computed. The street section through the area of the least grade is several times the capacity required for the runoff of the outfall of the area. Therefore, the street sections at all proposed grades are more than adequate to handle the runoff.

COMPUTATIONS:

Runoff: Improved area, proposed

D = distance from crest to outlet, 1425 feet

S = slope, difference in elevation/distance 23.1/1425 = 1.62%

C = roofs 2.20 acres

streets 2.13 acres

driveways 2.11 acres

total 6.44 acres

lawns & unimproved land 7.16 acres

6.44
7.16
13.60

6.44/13.60 x .90 = 0.43

7.16/13.60 x .35 = 0.18

Coefficient C = 0.61

$$T = \frac{1.8(1.1 - C)\sqrt{D}}{3\sqrt{S}} = \frac{1.8(1.1 - .61)\sqrt{1425}}{\sqrt[3]{1.62}} = 28.46 \text{ minutes}$$

Intensity I = 1.89/28.46 + 25.00 = 3.54 inches

Q = .61 x 3.54 x 13.60 = 29.37 cfs (improved area)

Runoff: Unimproved Area: present D = 1200'; Diff in Elev = 23.1
23.1/1200 = 1.925

$$T = \frac{1.8(1.1 - .35)\sqrt{1200}}{3\sqrt{1.925}} = 37.59 \text{ minutes}$$

Intensity 189/37.59 + 25.00 = 3.00

Q = .35 x 3.00 x 13.60 = 14.28 cfs

Ponding: .35 x 13.60 x 3.00 = 14.28

.61 x 13.60 x 3.54 = 29.37

14.28 x 28.46 x 60 = 24,385

29.37 x 28.46 x 60 = 50,152

25,767 cf required ponding

Estimated Walled Area:

2.4 acres x 46 x .60 = 66.24 acres, 288,541 cu. ft.

25767/288,541 = .09 foot depth of ponding over 46 walled yards

Pavement Sections, capacities using grade, top left curb

$$Q = A \times \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$$

A = area = 16.06

n = coefficient of roughness = .015

WP = wetted perimeter = 33.41

R = hydraulic radius $\frac{A}{WP}$ = .481

S = slope, foot per foot

S =	$S^{1/2}$ =	Q =
.0248	.157	153.19 cfs
.0052	.072	70.25 cfs
.0228	.151	147.33 cfs
.0268	.164	160.02 cfs

Outfall Channel; Grade = .0036 ft/ft. Bottom width 12 ft.

	6" Depth	8" Depth
A =	6.075	8.174
n =	0.015	.015
WP =	13.044	13.40
R =	.466	.610
S =	.0036	.0036
cfs =	21.67 cfs	34.94 cfs

3.5 ft/sec

Need curbs contiguous to Gibson St.

give V for height need to keep water from jumping out.

CONCLUSIONS & RECOMMENDATIONS:

The drainage of the area proposed for improvement is contained within the area with the exception of a very small amount which may enter from the east.

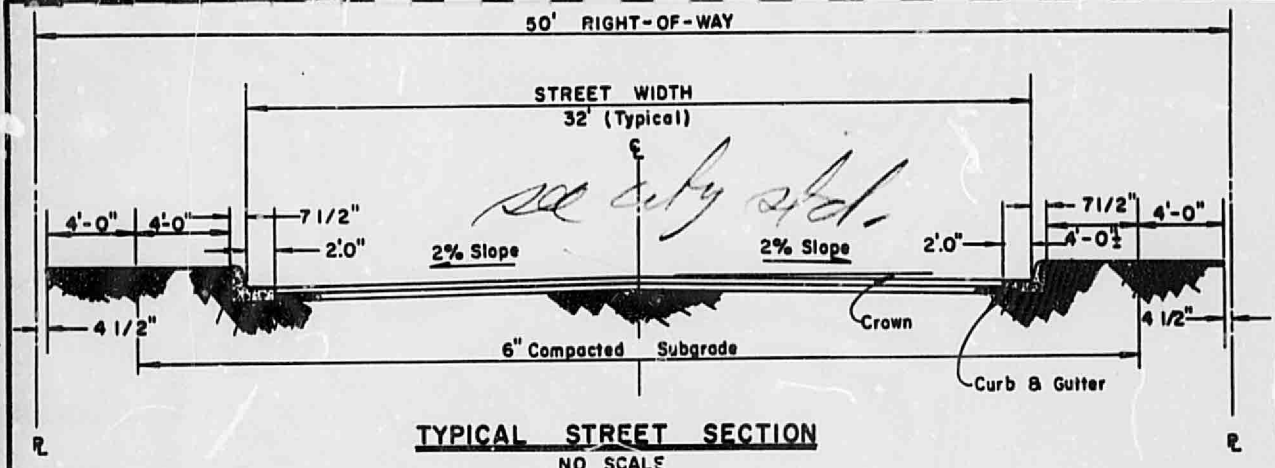
The area slopes to the northwest, uniformly. All drainage will be overland to the improved street, thence in the paved streets to the outfall paved channel from the center of curve number 3, north and west to San Pedro Blvd., S.E.

The runoff is not large and will be handled easily within the street section.

The criteria to retain the same discharge after improvement as exists for the unimproved area will be satisfied as the walled in yards requirement will be a retardant to flow. With an estimate depth of .09 foot over the back yard areas to handle the estimated required ponding, there appears to be no problem. A .20 foot retardant at the yard outlet would more than satisfy the ponding problem.

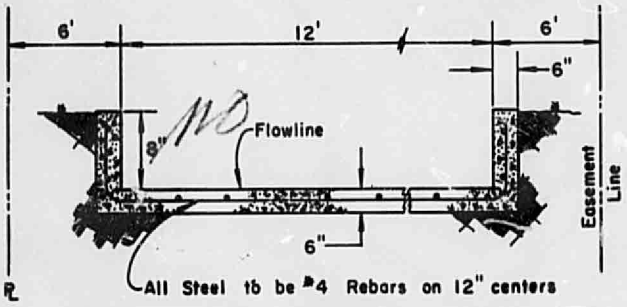
CONTOUR MAP PLATE I, attached

TYPICAL SECTIONS PLATE II, attached



TYPICAL STREET SECTION

NO SCALE



TYPICAL OUTFLOW SECTION

NO SCALE

SIESTA HILLS Nº2 SUBDIVISION

TYPICAL SECTION

ALBUQUERQUE NEW MEXICO

MOLZEN-CORBIN & Associates

Consulting Engineers

ALBUQUERQUE NEW MEXICO

Drawn A.B.M	Checked A.G.A	Sheet
File 75-07	Date Sept. 1975	of