Hydrology File No. D-18/D001

PLANS/PLATS ON FILE

FILE DESC: D-18/D001

PLANS/PLATS 2

ENGINEERS PLANNERS PHOTOGRAMMETRISTS

BOHANNAN-HUSTON INC.

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

RECEIVED
JUL 01 1985
HYDROLOGY SECTION

June 5, 1985

Mr. Dan Sabo
Amafco
P. O. Box 25851
Albuquerque, NM 87125

Re: Coronado Reservoir and Well Site

Dear Dan:

Enclosed are two copies of the Drainage Report for this project which we have submitted to Clyde Vigil at the County. We propose to pass the reservoir overflow and drain line as well as the site drainage into the Domingo Baca Arroyo south of the site. Will you please review the report in concept and let me know if you have any problems with it? We have not yet designed the outlet structure to the Domingo Baca but will also submit it to you as soon as we do so.

Please call me if you have any questions.

Sincerely,

James V. Domenick, P.E.
Director of Finance
Administration and
Business Development

Enclosures

cc: Art Stuart
Clyde Vigil

JVD/db

PRINCIPALS
JERRY R. BOHANNAN, P.E. & L.S.
LARRY W. HUSTON
MICHIAL H. EMERY, P.E.

ENGINEERS PLANNERS PHOTOGRAMMETRISTS

BOHANNAN-HUSTON INC.

4125 CARLISLE BLVD., N. E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000
UNIVERSITY PLAZA, 330 GARFIELD SUITE 104 SANTA FE, N. M. 87509 505 988-7671
6713 VISCOUNT BLVD. EL PASO, TEXAS 79925 915 778-4491

RECEIVED
JUL 01 1985
HYDROLOGY SECTION

June 5, 1985

RECEIVED
JUN 10 1985

Mr. Clyde Vigil
County Building Department
Bernalillo County
1429 Central N.W.
Albuquerque, NM 87104

Re: Coronado Reservoir and Well Equipment Site

Dear Clyde:

Enclosed for your review are two copies of the drainage report for the referenced project. We are currently designing a reservoir and well equipment building for the City Water Resources Department. The site will ultimately include two reservoirs and the well building but we are now applying for a building permit for the southern reservoir and well equipment only.

Please feel free to call me if you have any questions or need additional information.

Sincerely,

James V. Domenick

James V. Domenick, P.E.
Director of Finance
Administration and
Business Development

Enclosures

JVD/db

cc: Art Stuart
Dan Sabo

PRINCIPALS
JERRY R. BOHANNAN, P.E. & L.S.
LARRY W. HUSTON
MICHIAL M. EMERY, P.E.

DRAINAGE REPORT
FOR
CORONADO RESERVOIR SITE

May 1985

DRAINAGE REPORT
FOR
CORONADO RESERVOIR SITE

PREPARED FOR:

WATER SYSTEMS DIVISION
WATER RESOURCES DEPARTMENT
CITY OF ALBUQUERQUE
ALBUQUERQUE, NEW MEXICO

PREPARED BY:

BOHANNAN-HUSTON, INC.
4125 CARLISLE BOULEVARD N.E.
ALBUQUERQUE, NEW MEXICO

May 1985

Job No. 4 236 0

JAMES V. DOMENICK
NEW MEXICO
No. 7643
REGISTERED PROFESSIONAL ENGINEER

James Domenick

James V. Domenick, P.E.
N.M.P.E. No. 7643

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Zone 2E Alameda Trunk Facilities Coronado Reservoir ZONE ATLAS/DRNG. FILE #: D-18-Z

LEGAL DESCRIPTION: Lots 11 and 12, Block 11, Tract A, Unit A, North Albuquerque Acres

CITY ADDRESS: Palomas Avenue, NE

ENGINEERING FIRM: Bohannan-Huston, Inc. CONTACT: James Domenick, P.E.

ADDRESS: 4125 Carlisle Blvd., NE Albuquerque, NM 87107 PHONE: (505) 881-2000

OWNER: City of Albuquerque CONTACT: Art Stuart, Project Manager

ADDRESS: 5501 Pino Yard, NE Albuquerque, NM 87109 PHONE: (505) 823-4052

ARCHITECT: Bohannan-Huston, Inc. CONTACT: James Domenick, P.E.

ADDRESS: 4125 Carlisle Blvd., NE Albuquerque, NM 87107 PHONE: (505) 881-2000

SURVEYOR: Bohannan-Huston, Inc. CONTACT: Dwain Weaver, PLS

ADDRESS: 4125 Carlisle Blvd., NE Albuquerque, NM 87107 PHONE: (505) 881-2000

CONTRACTOR: (To Be Bid) CONTACT:

ADDRESS: PHONE:

RECEIVED JUL 01 1985 HYDROLOGY SECTION

PRE-DESIGN MEETING:

X YES (to be scheduled)

___ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO.

EPC NO.

PROJ. NO.

TYPE OF SUBMITTAL:

X DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

___ GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

X BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

DATE SUBMITTED: June 4, 1985

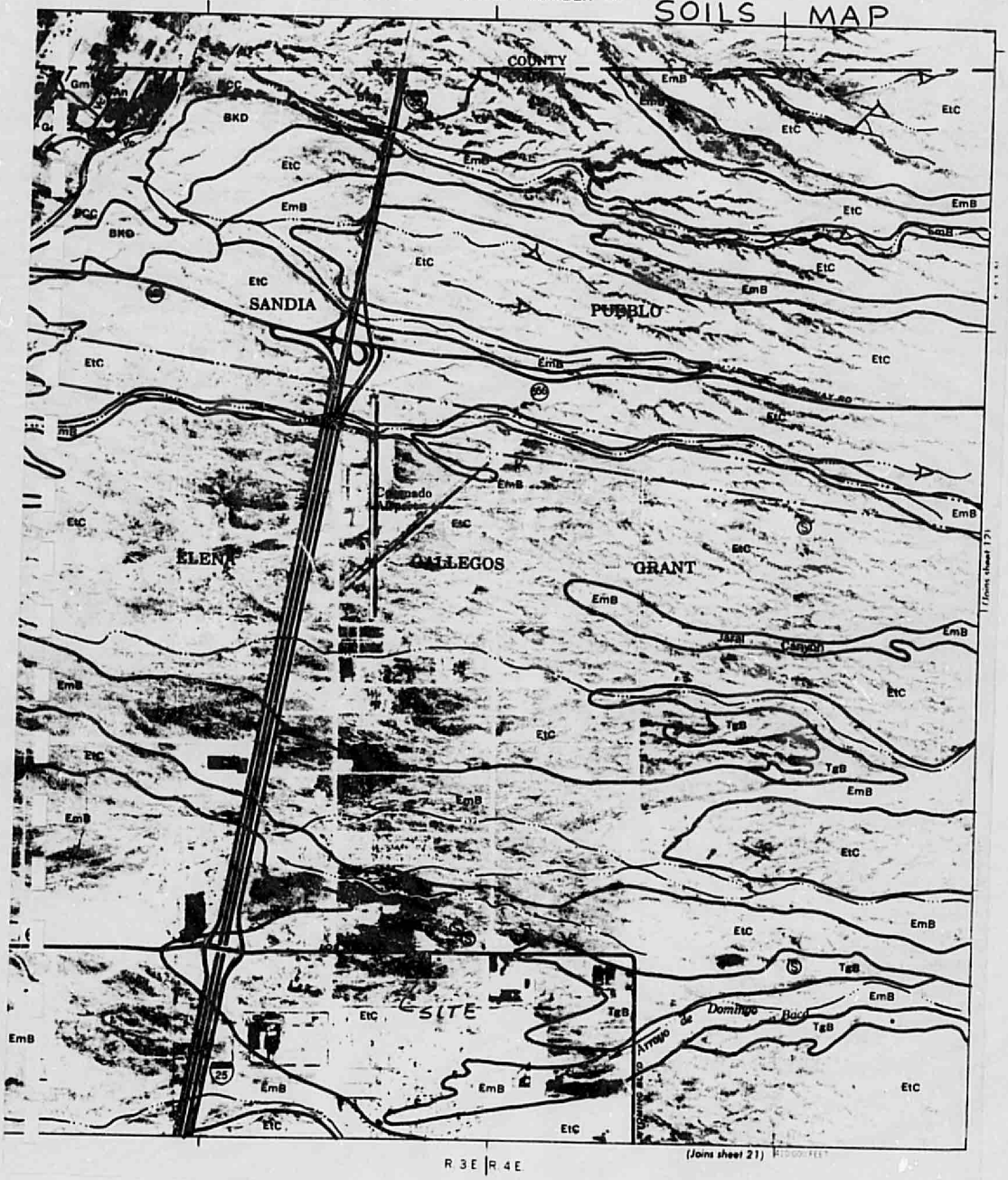
BY: James Domenick, P.E.

SOILS MAP

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

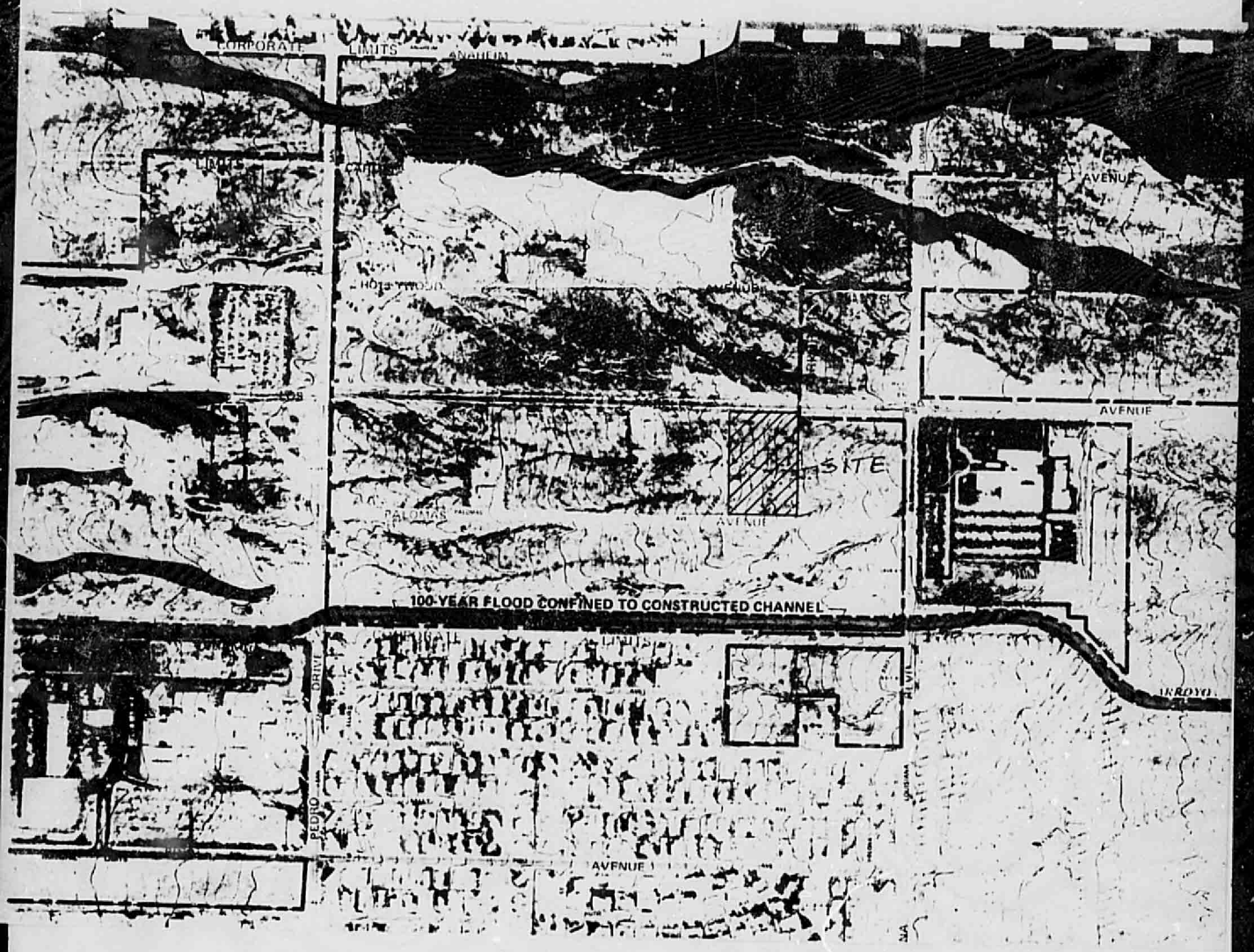
AL AND VALENCIA COUNTIES, NEW MEXICO — SHEET NUMBER 11

SOILS MAP



FLOOD INSURANCE MAP

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

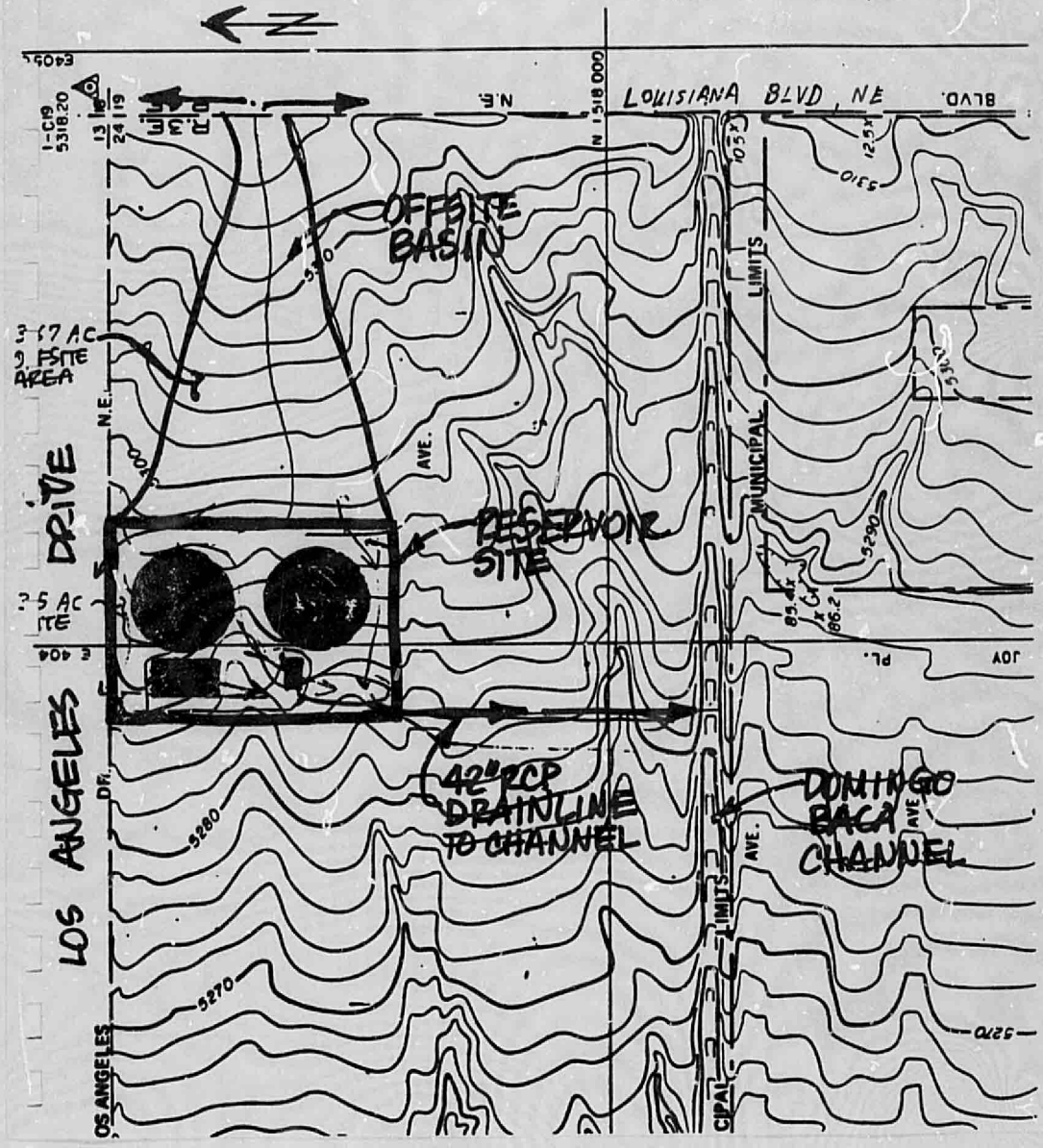


CALCULATIONS

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

CORONADO RESERVOIR FACILITIES

ALAMEDA ZONE 2E
RESERVOIR SITE
DRAINAGE ANALYSIS



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

CORONADO RESERVOIR FACILITIES

DRAINAGE CALCULATIONS (FULL SITE, FOR PHASED CALCS SEE SHEET 3)

	Onsite (undeveloped)	Onsite (developed)	Offsite (developed)
Acreage	3.50 ac.	3.50	3.7
Time of Concentration	10 min	10	10
Soil Group	B (Ferndale)	B	B
% Impervious	0%	40%	—
Runoff Coeff., C	0.34	0.52	assume 0.70
6-Hr. Rainfall (100 year)	2.3"	2.3"	2.3"
Intensity, I	4.86 in/hr	4.86	4.86
Peak Flowrate, Q_{100} *	5.78 cfs	8.84	12.59
Peak Volume$_{100}$ **	0.22 ac/ft	0.34	0.49
6-Hr. Rain. (10-year)	1.5"	1.5"	1.5"
Intensity, I_{10}	3.19 in/hr	3.19	3.19
Peak Flow, Q_{10}	3.79	5.81	8.27
Volume$_{10}$	0.14	0.22	0.32

* PEAK FLOWRATE = C I A (Rational Formula)

** PEAK VOLUME = C A $\left(\frac{\text{Rainfall}}{12}\right)$.

ASSUME: all site and offsite runoff will be directed to reservoir drainline (this is not completely true since some negligible flows run to Los Angeles Blvd.).

PROJECT NAME CORONADO RESERVOIR SHEET 1 OF 3
PROJECT NO. BY JTOP DATE 5/20/87
SUBJECT DRAINAGE CALC CH'D " DATE

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

TOTAL RUNOFF TO DRAINLINE =
12.6 + 8.8 cfs = 21.4 cfs

see below * DRAINLINE CAPACITY > 78 cfs > 21.4 cfs OK
(sized for reservoir overflow)

DRAINLINE RUNS TO DOMINGO BACA CONCRETE LINED CHANNEL (Assume unlimited capacity)

ONSITE MANAGEMENT:

1) onsite & offsite flows will be directed to SW corner of tract
2) inlets will be placed to transfer surface runoff to drainline
3) inlets will collect 21.4 cfs

* precedents are established @ other reservoir sites to allow storm runoff to enter reservoir drainlines due to the negligible likelihood of a reservoir overflow / 100-year storm - event.

PROJECT NAME CORONADO RESERVOIR SHEET 2 OF 3
PROJECT NO. BY TOP DATE 5/20/85
SUBJECT DRAINAGE CALCS CH'D DATE

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

single "D" inlet (Albuquerque grate) = 4.5 square feet
double "D" inlet (Albuq. grate) = 9.0 sq. ft.
apply 30% clogging factor, use 6.3 sq. ft.

determine depth to capacity curve for orifice;

depth (h)	flow capacity*
0.3	16.6 cfs
0.5	21.5 cfs
1.0	30.3 cfs

flow cap. = $Q = CA\sqrt{2gh}$
$C = 0.6$ (from Brater & King)
$A = 6.3$ sq. ft

ALLOW FOR 0.5' HEAD OVER GRATE

PHASE 1

calculate Phase 1 (south reservoir only) drainage characteristics

use approx. 75% of offsite area — 2.7 acres
OFFSITE FLOW = 0.75 (12.59 cfs) = 9.44 cfs
approx. Ph. 1 onsite drainage area - 2.1 acres
ONSITE FLOW = 0.60 (8.84) = 5.3 cfs
TOTAL - 9.44 + 5.3 = 14.7 cfs < 21.5 cfs (grate) OK

PROJECT NAME CORONADO PLANNING SHEET 3 OF 3
PROJECT NO. BY JTOP DATE 5/20/85
SUBJECT DRAINAGE CALCS CH'D DATE

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

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

October 18, 1985

Mr. James Domenick
Bohannan-Huston, Inc.
4125 Carlisle Blvd. NE
Albuquerque, NM 87107

REF: DRAINAGE PLAN FOR CORONADO RESERVOIR (D18-D1) RECEIVED JULY 1, 1985

Dear Mr. Domenick:

I apologize for our late response but we were not sure who has jurisdiction. We will make recommendations to the county since you are requesting building permit in the county.

1. Please submit a plat showing the easement for the 42" RCP to the Domingo Baca Channel.
2. Submit drawings for the 42" RCP.
3. The outlet to the Domingo Baca will require concurrence from Jim Fink of City Hydrology.

If I can be of further assistance, please call this office at 766-7644.

Sincerely,

Carlos A. Montoya
City/County Flood Plain Admin.

CAM/cl

cc: Clyde Vigil, County

ENGINEERS PLANNERS PHOTOGRAMMETRISTS

BOHANNAN-HUSTON INC.

4125 CARLISLE BLVD., N. E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000
UNIVERSITY PLAZA, 330 GARFIELD SUITE 104 SANTA FE, N. M. 87509 505 988-7571
6773 VISCOUNT BLVD. EL PASO, TEXAS 79925 915 778-4491

November 6, 1985

RECEIVED
NOV 15 1985
HYDROLOGY SECTION

City of Albuquerque
Design Hydrology Section
123 Central NW
Albuquerque, NM 87102

Attn: Mr. Carlos A. Montoya
City/County Flood Plain Administrator

Re: Drainage Plan for Coronado Reservoir (D18-D1)

Gentlemen:

In response to your letter of request on October 18, 1985, the following information is forwarded:

1. A copy of the Grant of Easement between the Albuquerque Board of Education and the City of Albuquerque for the 42" RCP to the Domingo Baca Channel is enclosed. The document was filed with the County without a plat.

2. Two (2) prints of the plan and profile sheet for the 42" RCP are enclosed.

3. I will be calling Mr. Fink of City Hydrology to discuss the 42" RCP and the outlet into the channel.

Please call should you require any further information.

Sincerely,

W.J. Westmoreland
Project Engineer

Enclosures

cc: Mr. Art Stuart
Mr. Bill Otto

WJW/bl
Job No. 4 236 1

PRINCIPALS
JERRY R. BOHANNAN, P.E. & L.S.
LARRY W. HUSTON
MICHIAL M. EMERY, P.E.

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Zone 2E Alameda Trunk Facilities
Coronado Reservoir

ZONE ATLAS/DRNG. FILE #: D-18-Z / D1

LEGAL DESCRIPTION: Lots 11 and 12, Block 11, Tract A, Unit A, North Albuquerque Acres

CITY ADDRESS: Palomas Avenue, NE

ENGINEERING FIRM: Bohannan-Huston, Inc.
ADDRESS: 4125 Carlisle Blvd., NE
Albuquerque, NM 87107
CONTACT: James Domenick, P.E.
PHONE: (505) 881-2000

OWNER: City of Albuquerque
ADDRESS: 5501 Pino Yard, NE
Albuquerque, NM 87109
CONTACT: Art Stuart, Project Manager
PHONE: (505) 823-4052

ARCHITECT: Bohannan-Huston, Inc.
ADDRESS: 4125 Carlisle Blvd., NE
Albuquerque, NM 87107
CONTACT: James Domenick, P.E.
PHONE: (505) 881-2000

SURVEYOR: Bohannan-Huston, Inc.
ADDRESS: 4125 Carlisle Blvd., NE
Albuquerque, NM 87107
CONTACT: Dwain Weaver, PLS
PHONE: (505) 881-2000

CONTRACTOR: (To Be Bid)
ADDRESS:
CONTACT:
PHONE:

RECEIVED
NOV 15 1985
HYDROLOGY SECTION

PRE-DESIGN MEETING:

X YES (to be scheduled)
___ NO
___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____
EPC NO. _____
PROJ. NO. _____

TYPE OF SUBMITTAL:

X DRAINAGE REPORT
___ DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

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

DATE SUBMITTED: June 4, 1985
BY: James Domenick, P.E.

ENGINEERS PLANNERS PHOTOGRAMMETRISTS

BOHANNAN-HUSTON INC.

4125 CARLISLE BLVD., N.E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000
UNIVERSITY PLAZA, 330 GARFIELD SUITE 104 SANTA FE, N.M. 87509 505 988-7671
673 VISCOUNT BLVD. EL PASO, TEXAS 79925 915 778-4491

November 14, 1985

RECEIVED
NOV 15 1985
HYDROLOGY SECTION

City of Albuquerque
Design Hydrology Section
123 Central NW
Albuquerque, New Mexico 87102

Attn: Mr. Carlos A. Montoya
City/County Flood Plain Administrator

Re: Drainage Plan for Coronado Reservoir (D18-D1)

Gentlemen:

The following items are enclosed in supplement to the submittal made on November 6, 1985, for the above-referenced project:

1. One plan/profile sheet of the 42" RCP drain, with P.E. seal added.

2. A copy of the Drainage Information Sheet from the Drainage Plan booklet of July, 1985.

Please call with any further requests for information on this project.

Sincerely,

W.J. Westmoreland
Project Engineer

Enclosures

WJW/bl
Job No. 4 236 1

PRINCIPALS
JERRY R. BOHANNAN, P.E.& L.S.
LARRY W. HUSTON
MICHIAL M. EMERY, P.E.

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

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

DEcember 19, 1985

James Domenick
Bohannan-Huston, Inc.
4125 Carlisle Blvd., NE
Albuquerque, New Mexico 87107

RE: DRAINAGE PLAN FOR CORONADO RESERVOIR
RECEIVED NOVEMBER 15, 1985 (D-18/D1)

Dear Mr. Domenick:

I am requesting that a complete set of drawings be sent to Dan Hogan's attention at Planning & Programming Hydrology.

The project is in the County, however, the tie-in to the Domingo Baca Arroyo is of concern to them.

If you have any questions, call me at 766-7644.

Cordially,

Carlos A. Montoya

Carlos A. Montoya, P.E.
City/County Floodplain Administrator

cc: Dan Hogan
Planning & Programming Hydrology

CAM/bsj

ENGINEERS · PLANNERS · PHOTOGRAMMETRISTS

BOHANNAN-HUSTON INC.

4125 CARLISLE BLVD., N.E. ALBUQUERQUE, NEW MEXICO 87107 (505) 881-2000
6713 VISCOUNT BLVD., EL PASO, TEXAS 79925 (915) 778-4481
330 GARFIELD SANTA FE, NEW MEXICO 87501 (505) 988-7671

RECEIVED
JAN 08 1986
DH595
HYDROLOGY SECTION

January 6, 1986

D18-D1

Mr. Dan Hogan MDD/Engineering
1 Civic Plaza
P.O. Box 1293
5th Floor City/County Bldg.
Albuquerque, New Mexico 87103

Re: Alameda Zone 2E - Coronado Reservoir Facilities

Dear Mr. Hogan:

Mr. Carlos Montoya of Design Hydrology Section, City of Albuquerque, has requested that we send you a complete set of drawings for the above-referenced water project. There is a planned tie-in to the Domingo Baca Arroyo, for surface drainage from the site, in which you will have an interest.

A set of preliminary construction plans for the project are enclosed for your information. These have been submitted to the Water Utilities Department, to Mr. Art Stuart, for review and are not yet final.

I have also included a copy of the drainage plan submittal for your information.

Please call Mr. James Domenick, Project Manager, or me with any questions or should you require further information on the project.

Sincerely,

W.J. Westmoreland
Project Engineer

Enclosures

cc: ~~Mr. Carlos Montoya~~
Mr. Art Stuart
Mr. James Domenick

WJW/BL
Job No. 4 236 0

PRINCIPALS
JERRY R. BOHANNAN, P.E. & L.S.
LARRY W. HUSTON
MICHIAL M. EMERY, P.E.

CITY REAL ESTATE OFFICE
P.O. Box 1293

Zone 2E
Well Wash or
Reserv. Ov. Flow Ins:
231

GRANT OF EASEMENT FOR WATER, SEWER AND PUBLIC UTILITIES

THIS INDENTURE made and executed this 19th day of February, 1978, and between Albuquerque Board of Education in the County of Bernalillo and State of New Mexico hereinafter called the Grantors and THE CITY OF ALBUQUERQUE, NEW MEXICO, a municipal corporation.

WITNESSETH, that for good and valuable consideration the receipt of which is hereby acknowledged the Grantors ~~have~~ ~~xxxx

235

As a part of the consideration for this grant, the Grantors do hereby release any and all claims for damages for whatsoever cause incidental to the exercise of the rights herein granted provided, however, that the Grantee agrees to save Grantors harmless from any and all liability that may arise as a result of the construction and use of the easement for the purposes set forth.

IN WITNESS WHEREOF, the parties have set their hands and seals this 19th day of February, 1974.

APPROVED

MAR 12 1974

STATE BOARD OF FINANCE

Board of Education of the City of Albuquerque, New Mexico

By: _____
President

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

The foregoing instrument was acknowledged before me this 19th day of February, 1974 by H. M. Willis, President of the Board of Education of the City of Albuquerque, New Mexico, a public corporation, on behalf of said corporation.

_____
Notary Public

My commission expires:

10/08/74

State of New Mexico
County of Bernalillo } SS
This instrument was filed for record on
MAR 21 1974
At 8 o'clock / m. Recorded in Vol Misc 359
of records of said County Folio 284-285
_____ Clerk & Recorder
_____ Deputy Clerk

RECEIVED
NOV 15 1985
HYDROLOGY SECTION

PLAN/PLATS

ON

FILE