



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

December 7, 1998

John MacKenzie
Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, New Mexico 87199

**RE: ENGINEER CERTIFICATION FOR NEW MEXICO DESIGN (C-17/D2A26A)
CERTIFICATION STATEMENT DATED 12/4/98.**

Dear Mr. MacKenzie:

Based on the information provided on your December 4, 1998 submittal, Engineer Certification for the above referenced site is acceptable.

If I can be of further assistance, please feel free to contact me at 924-3330.

C: File

Sincerely,

Parcel "C1-B"
Andrew Garcia

Andrew Garcia
Drainage Inspector

DRAINAGE INFORMATION SHEET

PROJECT TITLE: New Mexico Design ZONE/ATLAS/DRNG, FILE#: C-17/D2A26A
DRB#: 97-270 EPC# Z-97-48 WORK ORDER#: _____
LEGAL DESCRIPTION: Tract C1-13 Richfield Park Subdivision
CITY ADDRESS: 4801 Alameda SE NE.

ENGINEERING FIRM:	<u>Mark Goodwin & Associates, PA</u>	CONTACT:	<u>John M. MacKenzie, PE</u>
ADDRESS:	<u>P.O. Box 90606 Albuquerque, NM 87199</u>	PHONE:	<u>(505) 828-2200</u>
OWNER:	<u>Thomas Roffman</u>	CONTACT:	<u>David Bosley</u>
ADDRESS:	<u>105 4th Street Albuquerque, NM 87102</u>	PHONE:	<u>(505) 843-9639</u>
ARCHITECT:	<u>DCSW</u>	CONTACT:	<u>David Bosley</u>
ADDRESS:	<u>105 4th Street Albuquerque, NM 87102</u>	PHONE:	<u>(505) 843-9639</u>
SURVEYOR:	_____	CONTACT:	_____
ADDRESS:	_____	PHONE:	_____
CONTACTOR:	_____	CONTACT:	_____
ADDRESS:	_____	PHONE:	_____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☒ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL
☐ ENGINEER'S CERTIFICATION
☐ OTHER

PRE-DESIGN MEETING:

☐ YES
☒ NO
☐ COPY PROVIDED

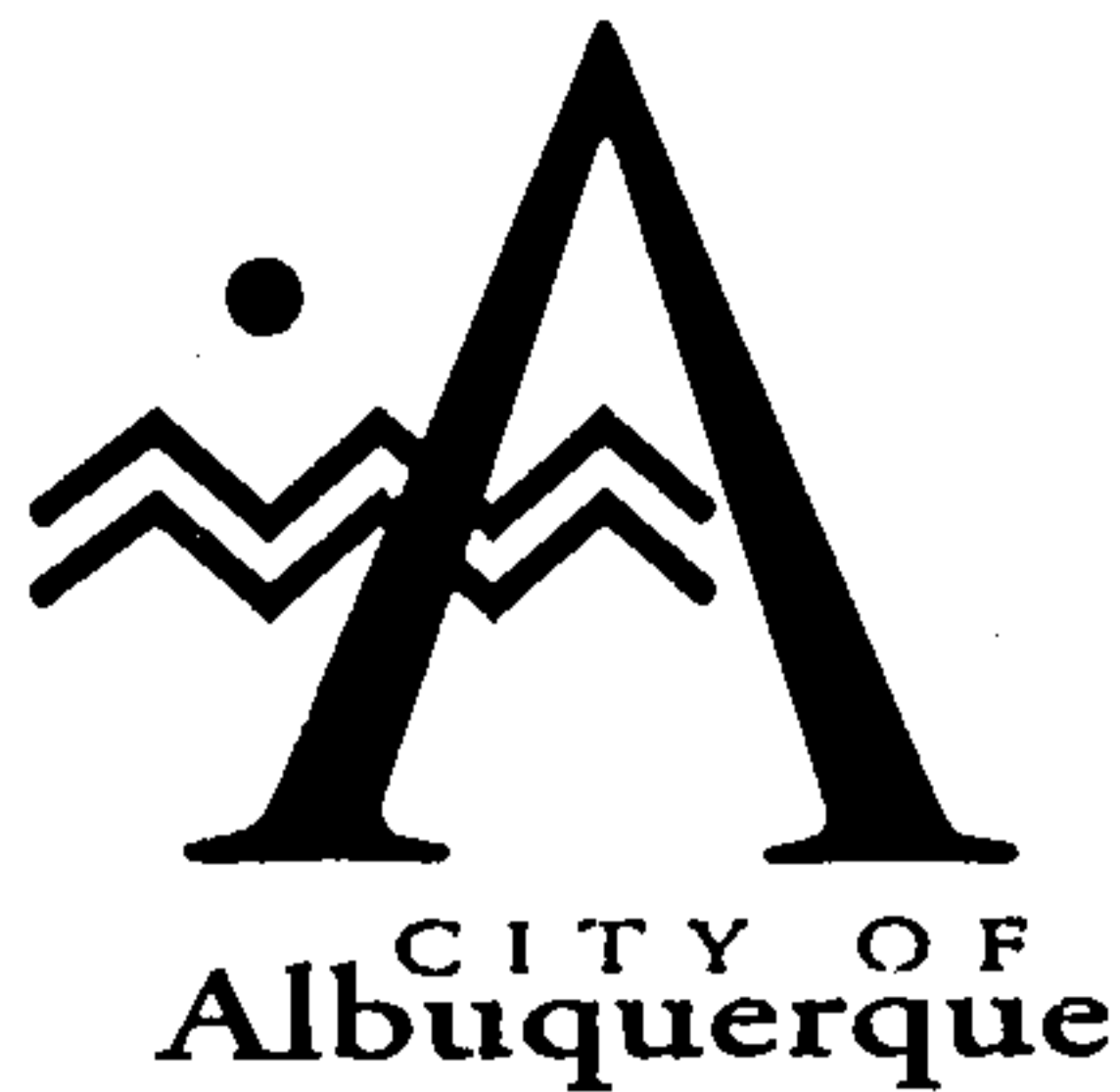
CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☒ CERTIFICATION OF OCCUPANCY APPROVAL
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER

DATE SUBMITTED: 12/4/98

BY: John M. MacKenzie

John M. MacKenzie, PE



Martin J. Chávez, Mayor

October 8, 1997

John M. MacKenzie PE
Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, New Mexico 87199

RE: REVISED DRAINAGE PLAN FOR NEW MEXICO DESIGN (C17-D2A26A)
REVISION DATED 9/12/97

Dear Mr. MacKenzie:

Based on the information provided on your September 15, 1997 resubmittal, listed are some concerns that will need to be addressed prior to final approval:

1. Your plan drawing indicates that you are proposing grading, ponding, asphalt, and curbing on the adjacent property to the west. You will need to readjust your design to keep it within the Tract C-1-B.
2. Indicate the proposed slopes on each of your swales.
3. Recommend that you route the roof drains under the sidewalk and onto the asphalt.

If I can be of further assistance, please feel free to contact me at 924-3986.

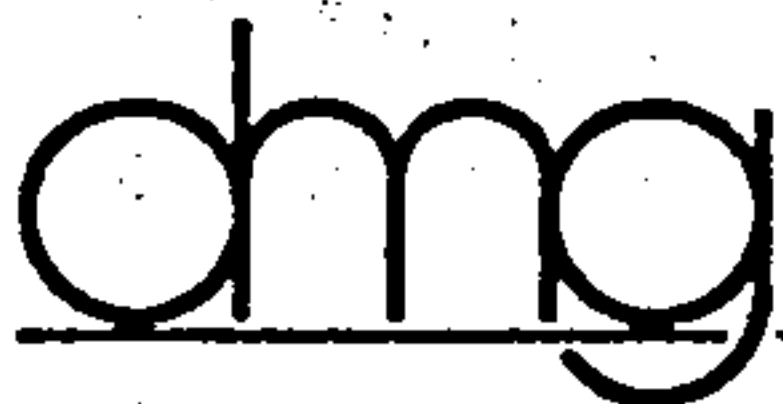
C: Andrew Garcia

File

Sincerely

Bernie J. Montoya CE
Associate Engineer





D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

September 8, 1997

Mr. Bernie Montoya, CE
Hydrology Division
City of Albuquerque
PO Box 1293
Albuquerque, NM 87102

Re: **New Mexico Design Center; Grading and Drainage Plan (C17-D2A27)**

Dear Mr. Montoya:

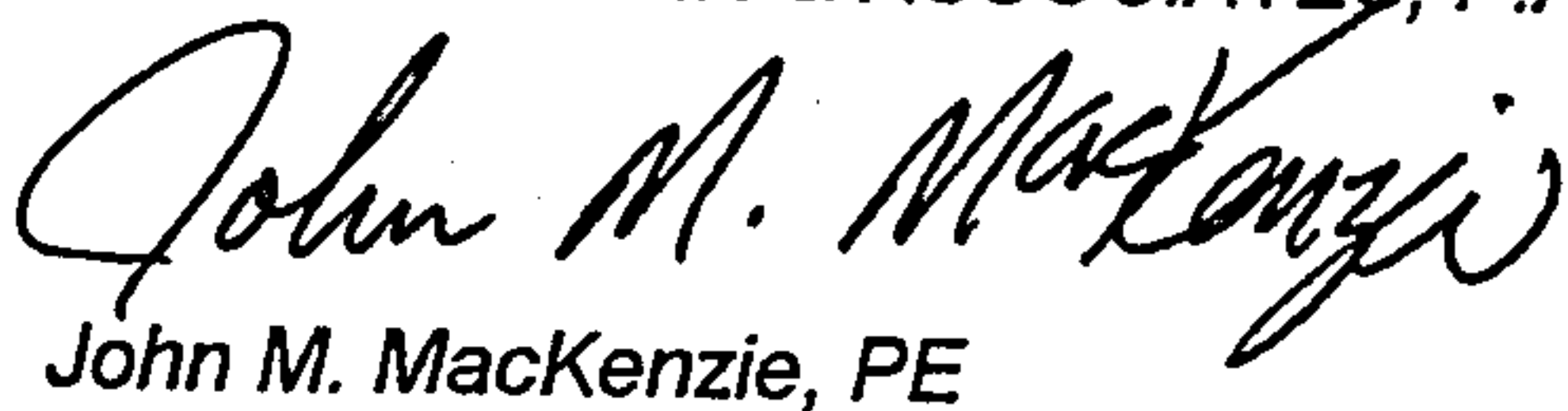
I have addressed your comments, dated 7/21/97, as follows:

1. The City of Albuquerque standard drawing number has now been included on the plan.
2. The TBM location has been shifted to the northeast corner of the site where an "X" has been chiseled into the existing concrete sidewalk.
3. Roof flow locations and directions are now identified on the plan.
4. The referenced water surface elevation has been revised accordingly.
5. The 10' private drainage easement has been created by plat (DRB-97-40).
6. As shown on the attached calculations, a detailed analysis has indicated the flow regime will not change as runoff is conveyed down the proposed concrete channel, so no hydraulic jump is anticipated. The channel's wall height along the outside of curves has been increased to account for the incidental bulging of water flowing around curves.
7. A straight rundown to Columbine is not acceptable to the adjoining property owner on the north. Bisecting a portion of his property with a concrete channel would diminish its full utilization potential.
8. More spot elevations on the channel have been added to the plan.

If I can be of further assistance please contact me.

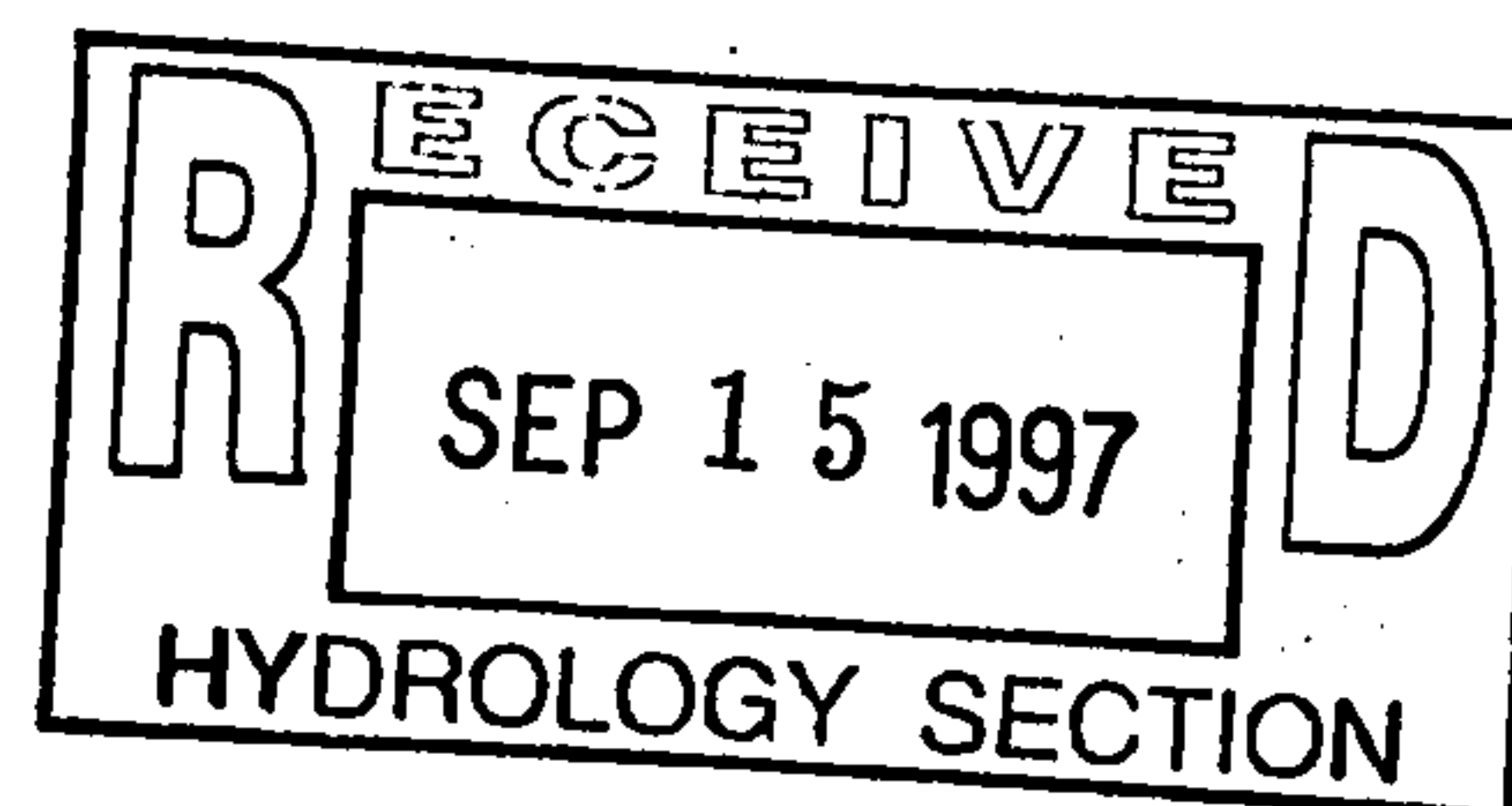
Sincerely,

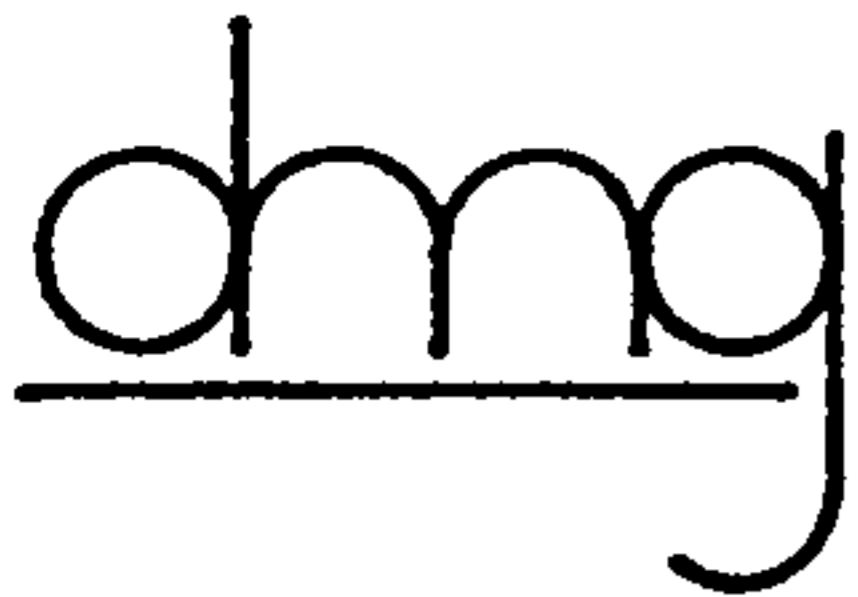
MARK GOODWIN & ASSOCIATES, P.A.


John M. MacKenzie, PE

JMM/sb

f:\design.ctr\comments.no1





D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

F. 12 617/D 2426A

PROJECT Design Center
SUBJECT Drainage
BY JMM DATE 9.5.97
CHECKED _____ DATE _____
SHEET _____ OF _____

OUTFALL CHANNEL

ATMAD predicts a maximum discharge from this site of 5.6 cfs during the 100 yr storm. From where on-site discharge emerges to the open channel (2' x 6"), there is a slope from elev. 20.13 to elev. 15.50 of 21%. From elevation 15.54 to Columbine Ave. the slope decreases to approximately 2%. Does a hydraulic jump occur at this transition?

$$\text{Critical depth} = d_c = \sqrt[3]{\frac{Q^2}{gA^2}} = \sqrt[3]{\frac{(5.6)^2}{(32.2)(2)^2}}$$

In 2' wide channel

$$d_c = \sqrt[3]{0.244} = 0.62 \text{ ft}$$

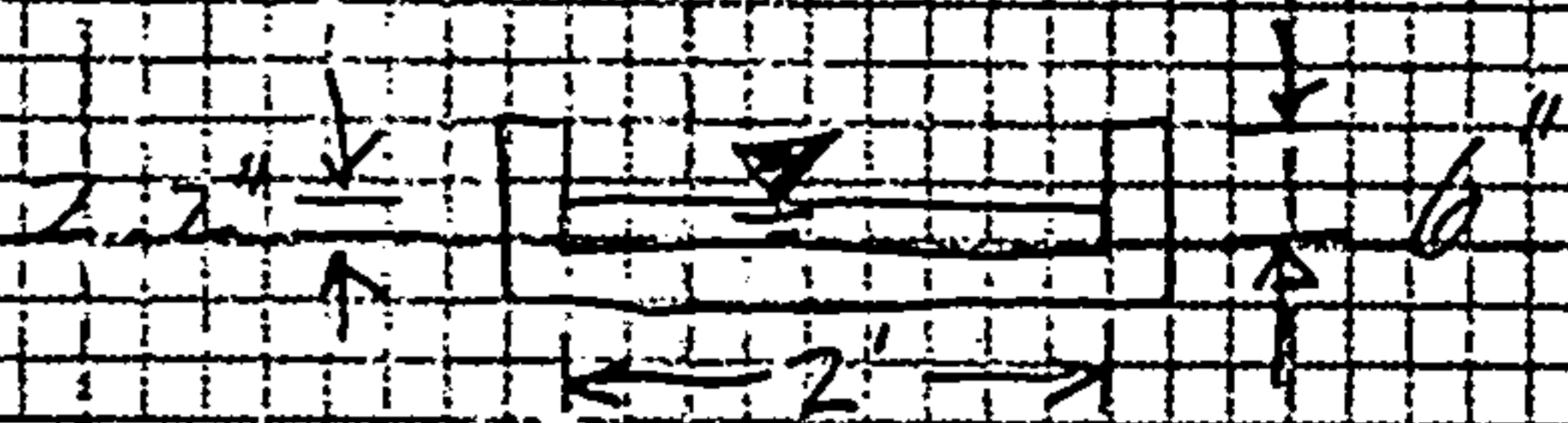
In upper reach

check $d_f \approx 0.185 \text{ ft}$

$$Q = \frac{1.49}{0.013} (0.37)^{1.49} \left(\frac{0.37}{2.36} \right)^{0.61} (0.21)^{0.5} = 5.61 \text{ cfs}$$

$A = 0.37$ WP = 2.36

In 2' x 6" channel the actual depth is 2.22 in. deep and flowing super critical.



What is the flow characteristic in the lower channel reach where the slope decreases to 2%?

Assume Depth of Flow = 0.4 ft In 2' x 6" channel WP = 2.6

$$Q = \frac{1.49}{0.013} (0.8)^{1.49} \left(\frac{0.8}{2.8} \right)^{0.67} (0.2)^{0.5} = 5.6 \text{ cfs}$$

$A = 0.8 \text{ ft}^2$

Therefore, depth of flow is below d_c and remains super critical.
NO HYDRAULIC JUMP!

SEP 15 1997

HYDROLOGY SECTION



July 30, 1998

John M. MacKenzie, P.E.
Mark Goodwin & Associates
P. O. Box 90606
Albuquerque, New Mexico 87199

RE: New Mexico Design (C17/D2A26A)

Dear Mr. MacKenzie:

It has just been brought to my attention that the new building's finish floor elevation on the above referenced site was not set at two feet above the existing flow line elevation. Because the existing floodplain in Alameda has a one foot depth, City Ordinance requires that the floor elevation be one foot above the base flood elevation, or in this case, two feet above the flow line of the street.

Note 6 on the plan states that the owner may be required to obtain flood insurance until an amendment to the flood maps is completed by AMAFCA. However, it does not appear that this area was included in the proposed map revision for the La Cueva arroyo done for AMAFCA. Therefore, the owner must be made aware that there is no map revision pending to remove this floodplain and that flood insurance will be required.

The owner's request for a Letter of Map Amendment will not be sent to FEMA unless both the finish floor elevation and the grade adjacent to the building are raised and certified to an elevation greater than the base flood elevation.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982.

Sincerely,

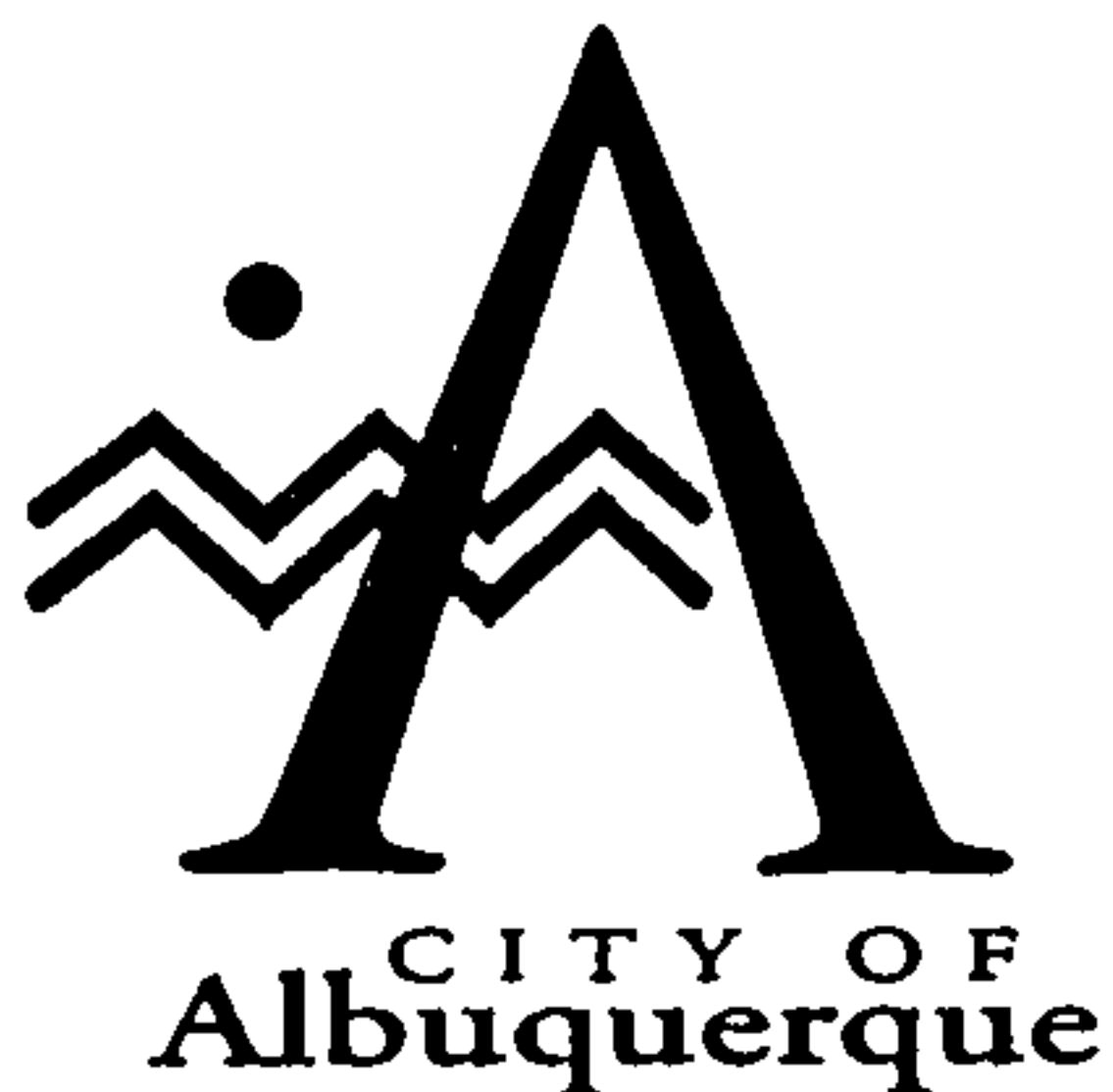
Susan M. Calongne, P.E.
City/County Floodplain Administrator

c: Bernard Freeman, P.E.

File

Good for You, Albuquerque!





Martin J. Chávez, Mayor

July 21, 1997

John M. MacKenzie PE
Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, New Mexico 87199

RE: DRAINAGE PLAN FOR NEW MEXICO DESIGN (C17-D2A27) ENGINEER'S STAMP
DATED 7/10/97

Dear Mr. MacKenzie:

Based on the information provided on your July 11, 1997 submittal, the above referenced site is approved for Site Development Plan For Building Permit and Foundation Permit. Please be advised that prior to Building Permit approval, the following must be addressed:

- ✓ 1. Spec. No. For the proposed sidewalk culverts must be included on the plan drawing.
- ✓ 2. T.B.M. should be established permanently within a location where it will not be destroyed or changed. On top of a manhole is not recommended because the street could be overlaid in the future and the manhole could be raised.
3. Location and direction of the roof flows.
- ✓ 4. Water surface elevation must be shown to full mean sea level designation.
- ✓ 5. Is the 10' private drainage easement by plat or paper easement?
- ✓ 6. Will the runoff be contained within the channel at the curve or will the hydraulic jump push it straight?
- ✓ 7. You may consider a straight run down towards Columbine.
- ✓ 8. More spot elevations within the proposed channel.

Good for You, Albuquerque!

P.O. Box 1293, Albuquerque, New Mexico 87103



DRAINAGE INFORMATION SHEET

D2A26A

PROJECT TITLE: New Mexico Design ZONE/ATLAS/DRNG, FILE#: C-17-~~621-1~~

DRB#: 97-270 EPC# Z-97-48 WORK ORDER#: _____

LEGAL DESCRIPTION: Tract C1-13 Richfield Park Subdivision

CITY ADDRESS: _____

ENGINEERING FIRM: <u>Mark Goodwin & Associates, PA</u>	CONTACT: <u>John M. MacKenzie, PE</u>
ADDRESS: <u>P.O. Box 90606 Albuquerque, NM 87199</u>	PHONE: <u>(505) 828-2200</u>
OWNER: <u>Thomas Roffman</u>	CONTACT: <u>David Bosley</u>
ADDRESS: <u>105 4th Street Albuquerque, NM 87102</u>	PHONE: <u>(505) 843-9639</u>
ARCHITECT: <u>DCSW</u>	CONTACT: <u>David Bosley</u>
ADDRESS: <u>105 4th Street Albuquerque, NM 87102</u>	PHONE: <u>(505) 843-9639</u>
SURVEYOR: _____	CONTACT: _____
ADDRESS: _____	PHONE: _____
CONTACTOR: _____	CONTACT: _____
ADDRESS: _____	PHONE: _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

☒ DRAINAGE PLAN

☐ CONCEPTUAL GRADING & DRAINAGE PLAN

☒ GRADING PLAN

☐ EROSION CONTROL

☐ ENGINEER'S CERTIFICATION

☐ OTHER

PRE-DESIGN MEETING:

☐ YES

☒ NO

☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL

☐ PRELIMINARY PLAT APPROVAL

☐ S. DEV. PLAN FOR SUB'D APPROVAL

☒ S. DEV. PLAN FOR BLDG PERMIT APPROVAL

☐ SECTOR PLAN APPROVAL

☐ FINAL PLAT APPROVAL

☒ FOUNDATION PERMIT APPROVAL

☒ BUILDING PERMIT APPROVAL

☐ CERTIFICATION OF OCCUPANCY APPROVAL

☐ GRADING PERMIT APPROVAL

☐ PAVING PERMIT APPROVAL

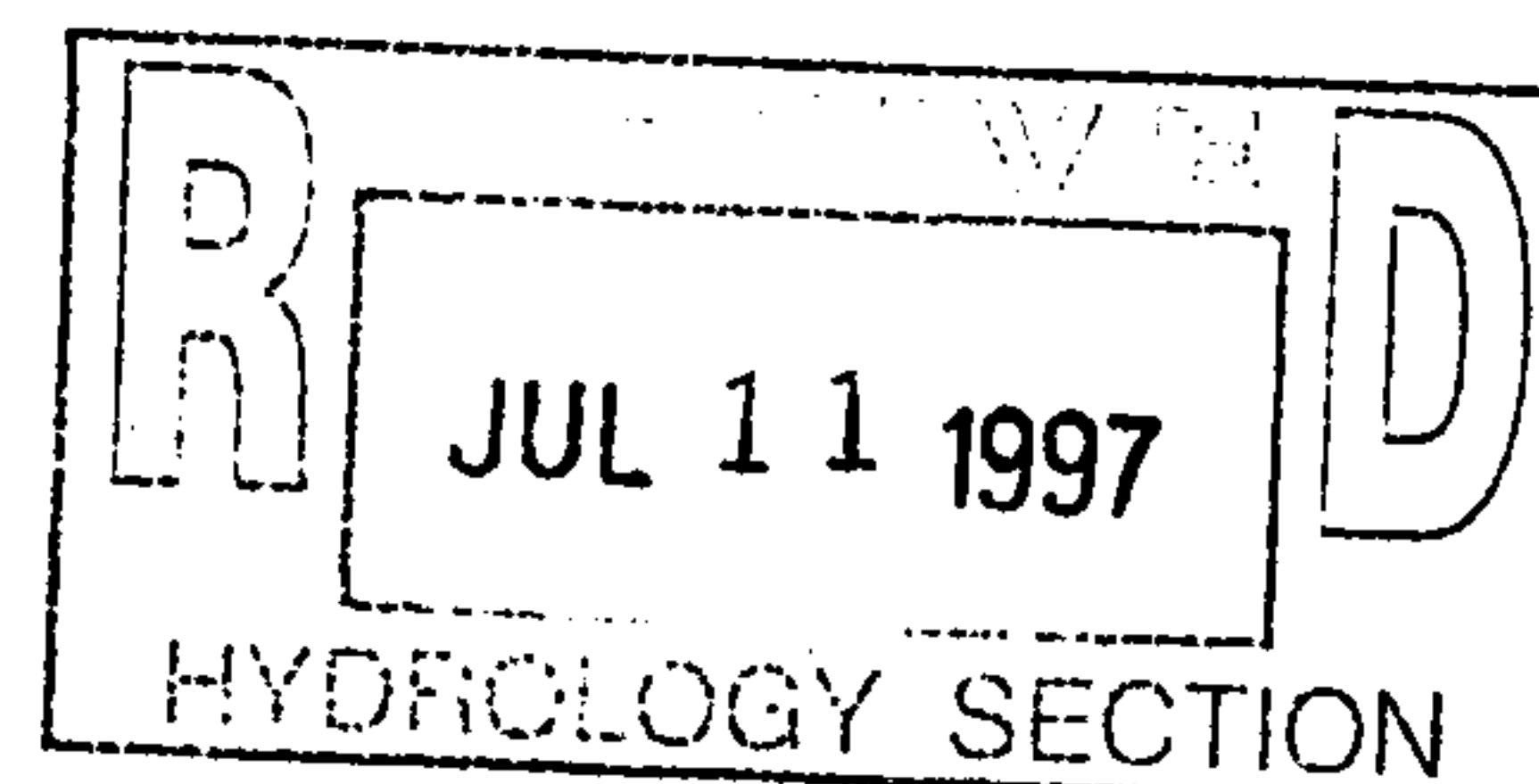
☐ S.A.D. DRAINAGE REPORT

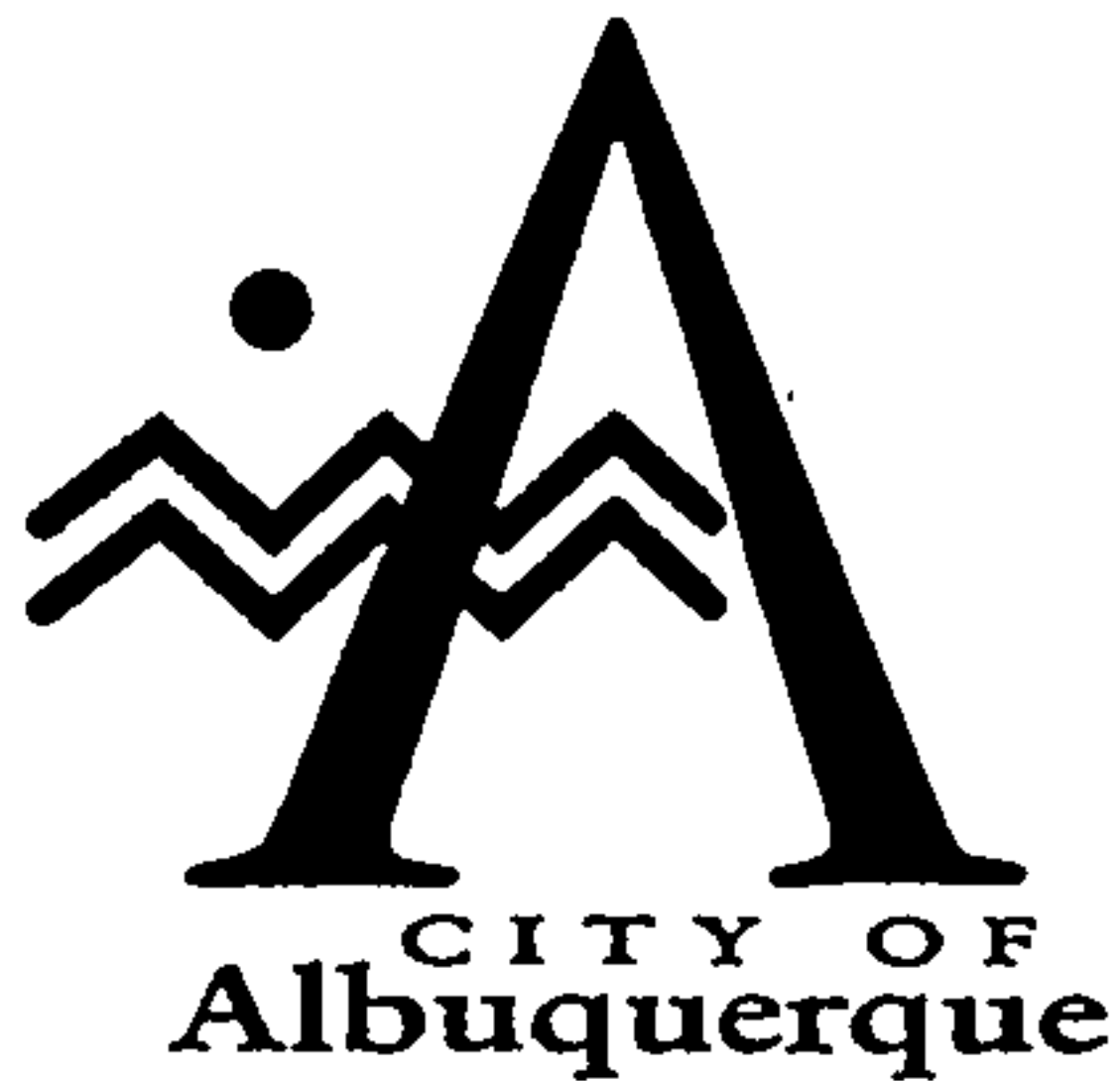
☐ DRAINAGE REQUIREMENTS

☐ OTHER

DATE SUBMITTED: 7/11/97

BY: John M. MacKenzie
John M. MacKenzie, PE





February 20, 1998

John M. MacKenzie, P.E.
Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

**RE: NEW MEXICO DESIGN (C17-D2A26A). GRADING AND DRAINAGE PLAN FOR
BUILDING AND SO #19 PERMITS. ENGINEER'S STAMP DATED 1-27-98.**

Dear Mr. MacKenzie:

Based on the information provided on your January 27, 1998 submittal, the above referenced project is approved for Building and SO #19 Permits.

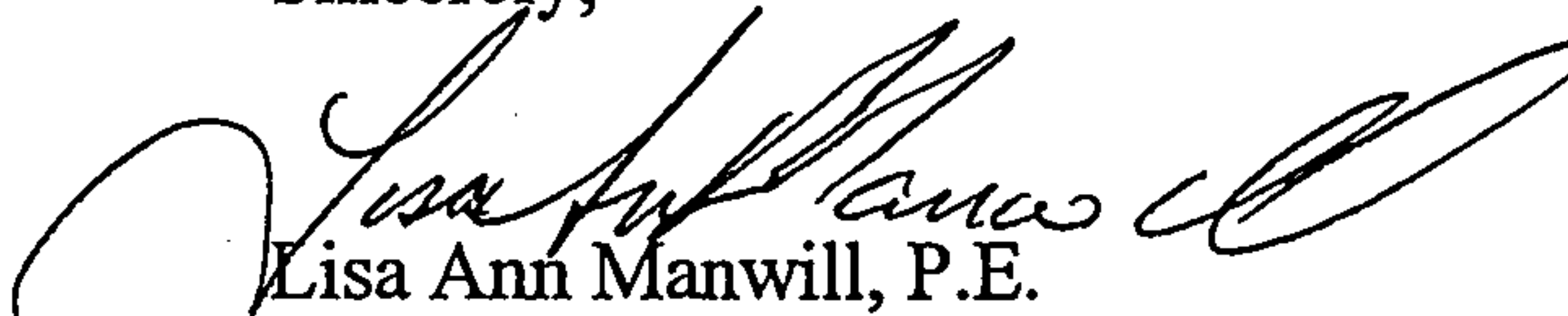
Please attach a copy of this approved plan to the construction sets prior to sign-off by the Hydrology Division.

A separate permit is required for construction within the City right-of-way. A copy of this approval letter must be on hand when applying for the excavation permit.

Prior to Certificate of Occupancy approval, and Engineer's Certification will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,


Lisa Ann Manwill, P.E.
Hydrology

c: Arlene Portillo
Andrew Garcia
File

Good for You, Albuquerque!





D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmg@swcp.com

January 27, 1998

Mr. Bernie Montoya, CE
Hydrology Division
City of Albuquerque
PO Box 1293
Albuquerque, NM 87102

Re: New Mexico Design Center; Grading and Drainage Plan (C17-D2A26A)

Dear Mr. Montoya:

I have addressed your comments, dated 10/8/97, as follows:

1. This project is a joint effort with the property owner of the tract to the west. The developer has obtained permission to grade on the adjoining tract as necessary (see attached).
2. The proposed slopes have been identified for each swale.
3. I also recommended to the architect that he discharge roof runoff into the paved parking area through the face of curb and he has followed our recommendation.

In addition, the owner has decided to drop the site by 12" to better balance the site grading. As a result, all internal elevations have been lowered one foot while elevations around the site perimeter have been adjusted accordingly to existing elevations. All other aspects of the previously submitted drainage concept remain unchanged.

If you're not able to grant building permit approval after this review, consider granting foundation approval with the understanding that outstanding comments would be addressed prior to release of building permit.

If I can be of further assistance please contact me.

Sincerely,

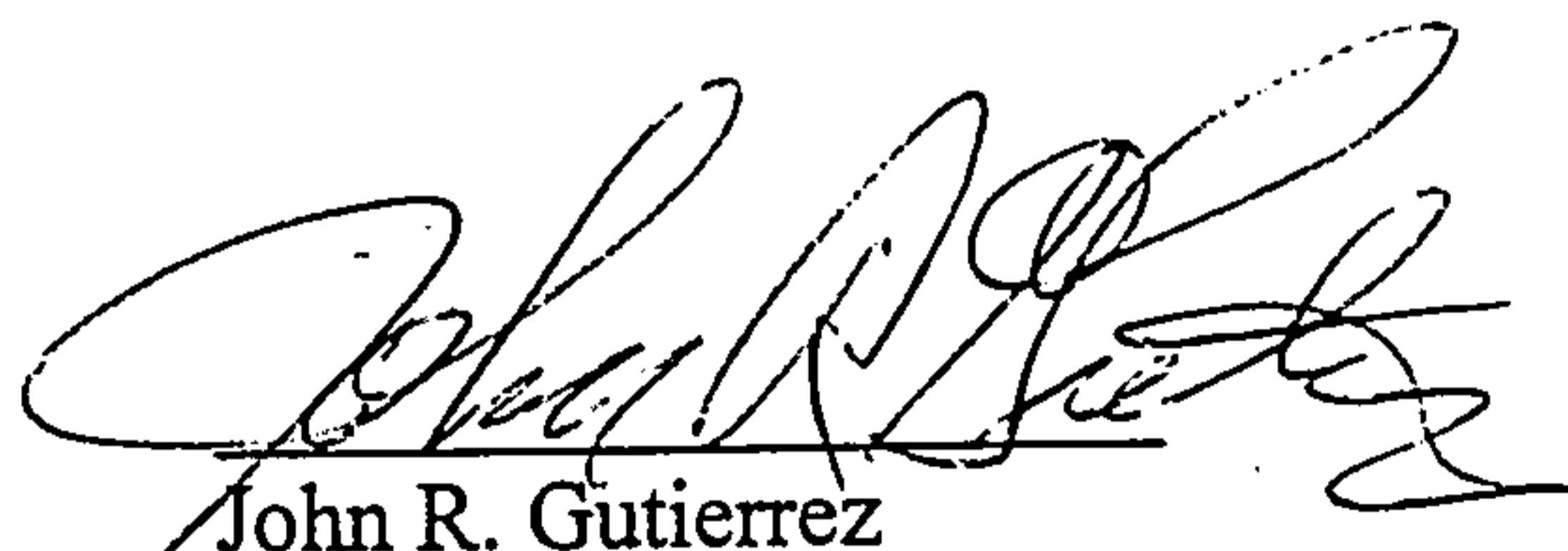
MARK GOODWIN & ASSOCIATES, P.A.

John M. MacKenzie, PE

Owners authorization to grade Tract C1-A Plat for Richfield Park

We John R. Gutierrez and Connie L. Gutierrez, husband and wife, acknowledge ownership of the vacant land known as Tract C1-A Richfield Park consisting of approximately 1.06 acres as shown on the attached map labeled "Exhibit One".

As owners, we grant permission to owners of Tracts C1-B, Tracts B/C as shown on "Exhibit One" to grade on Tract C1-A for the purpose of constructing an access road as shown on the Grading/Drainage Plan for NMDC.



John R. Gutierrez

Date 1-19-98


Connie L. Gutierrez

Date 1-19-98

DRAINAGE INFORMATION SHEET

PROJECT TITLE: New Mexico Design ZONE/ATLAS/DRNG, FILE#: C-17/02A26A
DRB#: 97-270 EPC# Z-97-48 WORK ORDER#: _____
LEGAL DESCRIPTION: Tract C1-13 Richfield Park Subdivision
CITY ADDRESS: _____

ENGINEERING FIRM:	<u>Mark Goodwin & Associates, PA</u>	CONTACT:	<u>John M. MacKenzie, PE</u>
ADDRESS:	<u>P.O. Box 90606 Albuquerque, NM 87199</u>	PHONE:	<u>(505) 828-2200</u>
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ARCHITECT:	<u>DCSW</u>	CONTACT:	<u>David Bosley</u>
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☐ DRAINAGE REQUIREMENTS
☐ OTHER

DATE SUBMITTED: 1/27/98

BY:

John M. MacKenzie
John M. MacKenzie, PE

