



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 15, 2001

Marvin R. Kortum, PE
1605 Speakman Dr., SE
Albuquerque, NM 87123

Re: Mountain Breeze Subdivision Grading and Drainage Plan
Engineer's Stamp dated 12-15-97 (F21/D71)
Certification dated 8-14-00

Dear Mr. Kortum,

Based upon the information provided in your submittal dated 11-3-00, the above referenced certification is approved for Final Plat, Certificate of Occupancy and Release of Financial Guaranty. In the future, it would be prudent for your client to submit changes to the grading plan such as these prior to construction.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE
Sr. Engineer, Hydrology

C: Vickie Chavez, CoA
Arlene Portillo, CoA # 589081
Keith MacDuffie, Desert Sunrise
file

DRAINAGE INFORMATION SHEET

Keith Mac Duffee, Desert Sunrise

APPLICANT'S NAME: / _____ ZONE ATLAS/DRNG. FILE #: F21/D71

DRB #: _____ EPC #: _____ WORK ORDER #: 589081

LEGAL DESCRIPTION: Mountain Breeze Subdivision

CITY ADDRESS: 9704, 9708, 9712, 9716, 9720, 9724, 9728, 9732, 9734, 9740, & 9744, La Grima De Oro Road, NE, Albuquerque, NM 87111

ENGINEERING FIRM: MARVIN R KORTUM

CONTACT:

1605 Speakman Dr. SE

PHONE: (505) 299-0774 FAX 299-9405

ADDRESS: Albuquerque, NM 87123 PH
Keith MacDuffee, Desert Sunrise

CONTACT:

OWNER: P. O. Box 2243,

ADDRESS: Tijeras, NM 87059

PHONE: M 250-9100

ARCHITECT:

CONTACT:

ADDRESS:

PHONE:

SURVEYOR: Southwest Survey Company, Inc.

CONTACT: Dan Graney

333 Lomas Blvd, NE

ADDRESS: Albuquerque, NM 87102

PHONE: (505) 247-4444

CONTRACTOR:

CONTACT:

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TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ 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
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- ☐ S.A.D. DRAINAGE REPORT
- ☐ DRAINAGE REQUIREMENTS
- ☒ SUBDIVISION CERTIFICATION
- ☒ OTHER Release of financial (SPECIFY)
Guarantee

DATE SUBMITTED: Oct 23, 2000

BY: Marvin R Kortum

Revised 02/98

RECEIVED
NOV 03 2000
HYDROLOGY SECTION

Marvin R Kortum
1605 Speakman Drive SE
Albuquerque, New Mexico 87123
NMPE 6519
(505) 299-0774

October 23, 2000

City of Albuquerque
Hydrology Section
ATTN: Mr. Brad Bingham
Public Works Department
Albuquerque, New Mexico 87103
924-3986



REFERENCE: Grading and Drainage Plan for Mountain Breeze Subdivision, located at the southeast quadrant of the intersection of Eubank Boulevard and La Grima de Oro, NE, Albuquerque, New Mexico. (F21/D71)

Dear Brad:

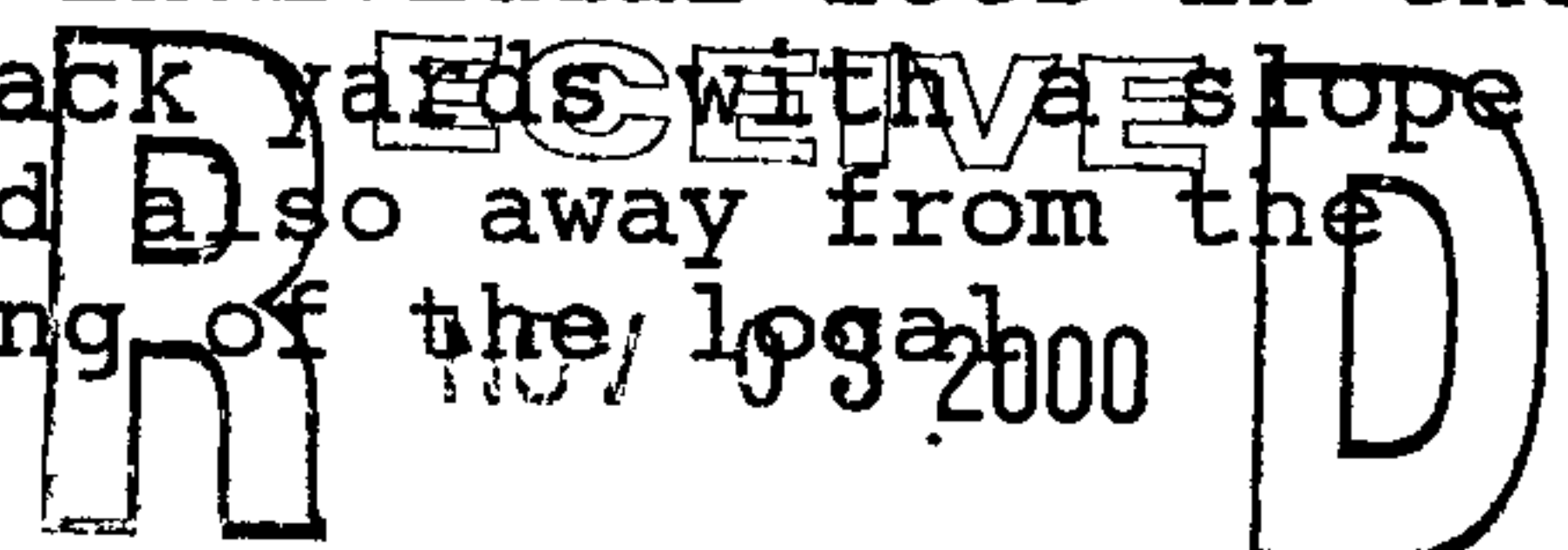
I regret that we have not been able to establish phone contact the past several weeks. After you told me on October 2, 2000 that Susan has left the Hydrology Section, I have been trying to contact you on a hang-fire on the referenced project. You returned my phone calls of 5 and 6 October last week during my absence, and this week (17-20 October) I have again been unable to contact you. Now I will be out of town again until October 30, 2000.

The issue I was trying to get resolved with Susan is the certification for the referenced project, the Mountain Breeze Subdivision. The issues to be resolved appear to be the items in Susan's letter of August 25, 2000. Specific discussion of these comments are given below:

Comment 1. Susan's comment is that grades (elevations?) have been changed by more than 18" within 50' of the perimeter of the subdivision, and, therefore, a public hearing and DRB approval of the changes would be required. I had stated in my letter of August 14, 2000, that the reasons that changes were acceptable were,

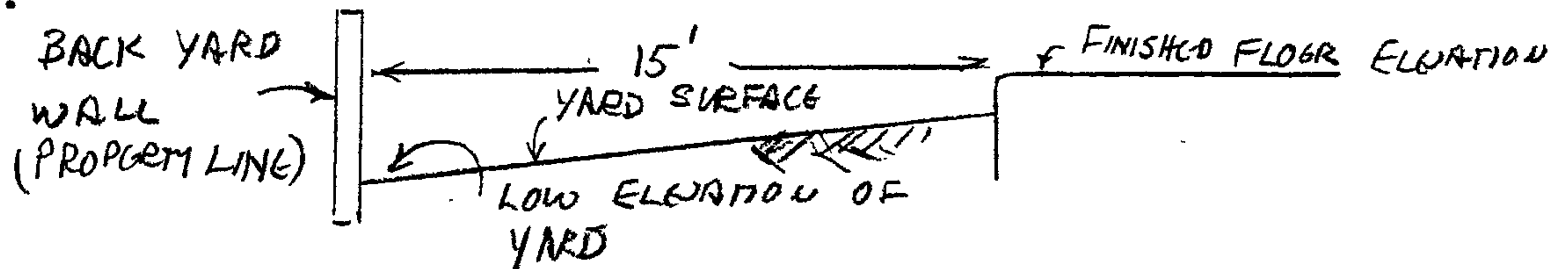
"1. The house dimensions as constructed are smaller on all lots except lots 2, 3 and 6. The original grading and drainage plan was based on all houses being built to the authorized set-back. The change in house size is based on buyer's preference.

4. The larger back yards for the individual lots in the subdivision has permitted grading of the back yards with a slope away from the back property line fence, and also away from the house. This regrading has permitted ponding of the local precipitation within the yards."

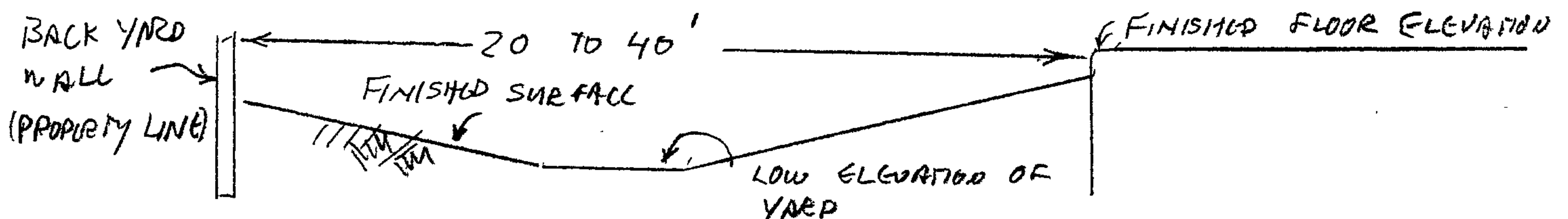


HYDROLOGY SECTION

Perhaps these two sketches will illustrate what the difference is between the planned grading concept, and the as-constructed grading.



The planned grading concept shows the house being built to or near the maximum setback permitted, which is 15 feet. This grading concept shows a slope away from the finished building so that no ponding will occur adjacent to the foundation. The swale along the back property line was added at the direction of the City of Albuquerque because at the time of approval of the Grading and Drainage Plan the City would not approve the back yard ponding for direct precipitation.



The as-constructed grading shows a much larger back yard, which permits varying elevations within the yard, and still provides for the required slope away from the finished building. The yard are also large enough to permit the necessary ponding of the direct precipitation within the yard area. At this time the builder is using an earth berm and fence along the north-south common property lines to contain the back yard precipitation. The back yards do not receive significant roof runoff, perhaps from a porch or over-hang.

The attached matrix shows the differences in elevation between the approved Grading and Drainage Plan and the as-built conditions. The big differences in elevations occur along the rear lot line, where the builder has graded a slope up to the separation wall. These differences in elevation are mostly for lots which are larger by 5 to 35 additional feet in length, except for lot 6, which receives no flow from up-stream lots.

In all cases, flow is permitted over adjacent lots from up-stream lots because of the cross lot drainage easements as shown on the plat.



Comment 2: I have very little idea what Susan's comments relate to concerning the sidewalk to the south of the property. For background, at the time of the design, there was a berm along the property line. The property to the south did have a curb along their parking area, 5 feet or so away from the property line. After the Mountain Breeze builder placed the perimeter wall, the owner of the property to the south placed a sidewalk between the existing curb and the new wall. The new sidewalk is completely on the property to the south, and there is no runoff from that sidewalk to the Mountain Breeze subdivision, nor was there any runoff from the earlier berm. I believe that there is no impact on the Mountain Breeze subdivision due to this new sidewalk, and I do not understand why the Mountain Breeze developer is being tasked to provide the information as requested by Susan, such as off-site runoff, swale capacity, easements, etc.

Comment 3: Susan asked for more information concerning the back yard ponds, and specifically states that all developed flows be directed towards the front, as required. My understanding of back yard ponds for zero lot line buildings is that the pond is required to retain the 100 year-6 hour storm, equivalent to 0.85 inches for a landscaped back yard, which would reasonably be 3.4 inches (4 X .85) if only 1/4 of the yard was used for the pond. Catastrophic flooding would overflow such ponds, and flow through the drainage easements of downstream lots, as discussed above.

In summary, the site as constructed appears very safe from hazards due to precipitation. I regret that Susan is not there to respond to these comments, but I believe that it is important to resolve this issue. The builder will require an occupancy permit for buildings that have sales pending, and I would hope that you could approve the certification without the necessity of further delay by having to go to the DRB. If the DRB step is necessary, what specifically is required?

Please call me if you have further questions.

Thank you.

Sincerely,


Marvin R Kortum

cc: Keith MacDuffee
Box 2243
Tijeras, New Mexico 87059
298-8400, M: 250-9100



OCTOBER 23, 2000

MOUNTAIN BREEZE SUBDIVISION AS-BUILT CONDITIONS

LOT	ADDITIONA	ELEVATIONS		DIFFERFENCE	BACK YARD	LOT AT LINE	DIFFERFENCE
	BACK YARD	FINISHED FLOOR	AS-BUILT		PLAN	AS-BUILT	
	FEET	PLAN	AS-BUILT	FEET	PLAN	AS-BUILT	FEET
1	20	5582.42	5582.06	-0.36	5581.25	5582.35	1.10
2	0	82.63	83.00	0.37	81.48	82.80	1.32
3	0	82.85	83.46	0.61	81.68	83.20	1.52
4	25	83.10	83.50	0.40	82.00	84.55	2.55
5	13	83.93	84.10	0.17	82.80	85.42	2.62
6	0	84.78	85.27	0.49	83.10	86.03	2.93
7	5	86.23	86.42	0.19	85.30	87.08	1.78
8	8	87.08	88.24	1.16	86.00	87.98	1.98
9	25	87.83	88.21	0.38	86.60	88.65	2.05
10	35	88.33	88.72	0.39	87.10	89.72	2.62
11	20	89.43	89.66	0.23	87.70	90.60	2.90
12	20	90.65	90.82	0.17	88.75	91.15	2.40





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 25, 2000

Marvin R. Kortum, P.E.
1605 Speakman Dr. SE
Albuquerque, New Mexico 87123

**RE: *Grading and Drainage Certification Plan for Mountain Breeze Subdivision (F21/D71)
Submitted for Final Plat and Release of Financial Guarantees, Engineer's
Certification Stamp Dated 8/14/00.***

Dear Mr. Kortum:

The above referenced Grading and Drainage Certification plan shows that some of the approved drainage concepts have been changed. Therefore, prior to approval for Final Plat sign-off or release of Financial Guarantees, the following comments must be addressed:

1. The certification plan shows that the grades have been changed by more than 18" within 50' of the perimeter of this subdivision. Per the Subdivision Ordinance, this requires a public hearing for DRB approval.
2. The plan also indicates that a sidewalk has been constructed on the south side of the south wall of the site. What are the limits of this sidewalk? It appears from the Paved Swale cross-section that off-site flows impact this sidewalk and wall. Therefore, an analysis is required regarding the off-site basin, runoff calculations and swale capacity. Does this swale outfall through a sidewalk culvert? Is this facility located within a public or private drainage easement? If an easement does not exist, please provide one.
3. More information is required regarding the backyard ponds. Will these ponds overflow across the lots in the case of a storm greater than the 100-year event? If each lot is to be self-contained, provide calculations. Are all developed flows directed towards the front, to the public right-of-way, as required?

If you have any questions, please call me at 924-3982.

Sincerely,

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

c: Terri Martin, DRB-97-349, City Project No. 589081
Keith MacDuffee, Desert Sunrise
File

DRAINAGE INFORMATION SHEET

CITY BY ~~MAIL~~ FAX
HANDCARRY - OCT 31 2000

Keith Mac Duffee, Desert Sunrise

APPLICANT'S NAME: / ZONE ATLAS/DRNG. FILE #: F21/D71

DRB #: EPC #: WORK ORDER #: 589081

LEGAL DESCRIPTION: Mountain Breeze Subdivision

CITY ADDRESS: 9704, 9708, 9712, 9716, 9720, 9724, 9728, 9732, 9734, 9740, & 9744, La Grima De Oro Road, NE, Albuquerque, NM 87111

ENGINEERING FIRM: MARVIN R KORTUM

CONTACT:

ADDRESS: 1605 Speakman Dr. SE

PHONE: (505) 299-0774 FAX 299-9405

OWNER: Keith MacDuffee, Desert Sunrise

CONTACT:

ADDRESS: P. O. Box 2243,

PHONE: M 250-9100

ADDRESS: Tijeras, NM 87059

ARCHITECT:

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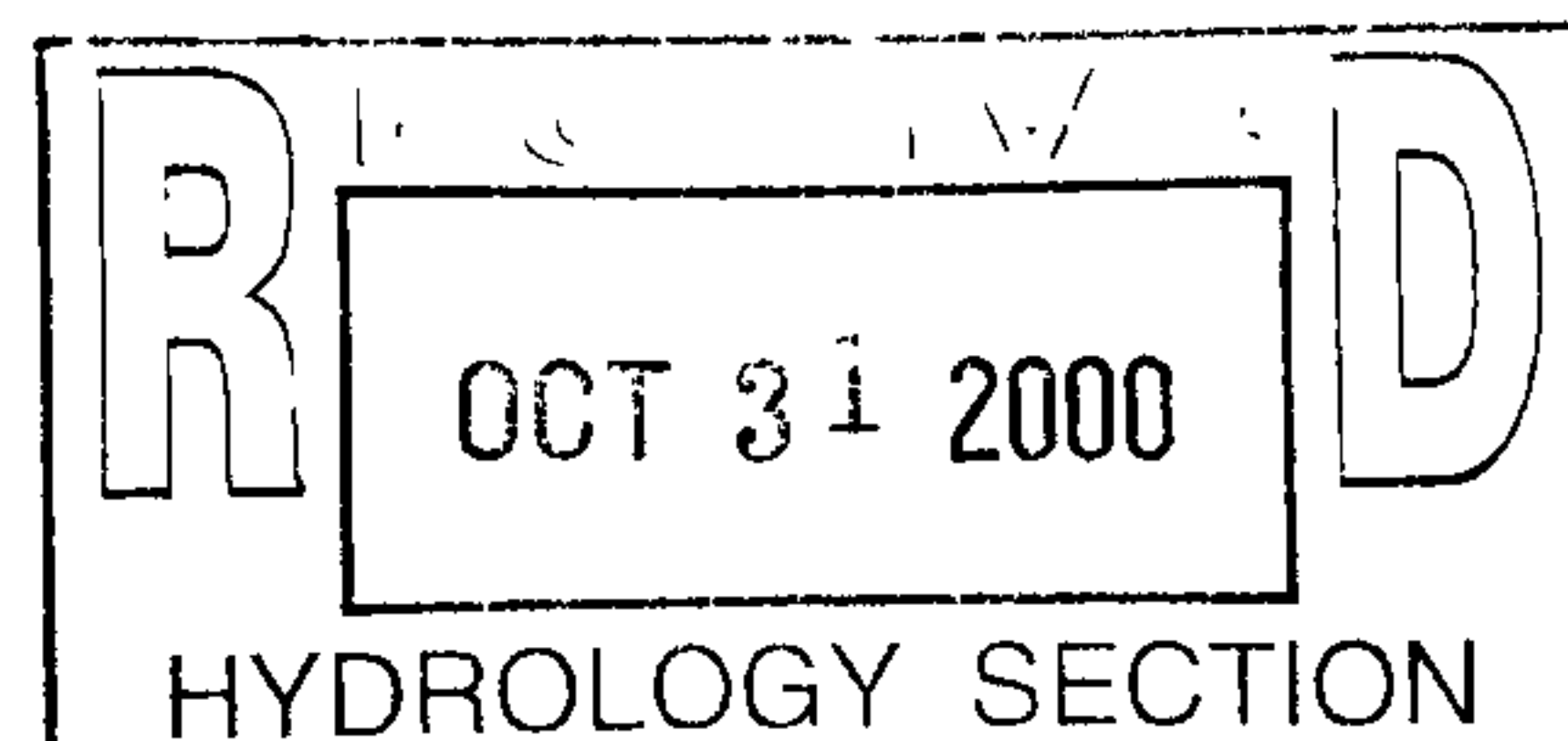
PRE-DESIGN MEETING:

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DATE SUBMITTED: Oct 23, 2000

BY: Marvin R Kortum

Revised 02/98



Marvin R Kortum
1605 Speakman Drive SE
Albuquerque, New Mexico 87123
NMPE 6519
(505) 299-0774

October 23, 2000

City of Albuquerque
Hydrology Section
ATTN: Mr. Brad Bingham
Public Works Department
Albuquerque, New Mexico 87103
924-3986

REFERENCE: Grading and Drainage Plan for Mountain Breeze Subdivision, located at the southeast quadrant of the intersection of Eubank Boulevard and La Grima de Oro, NE, Albuquerque, New Mexico. (F21/D71)

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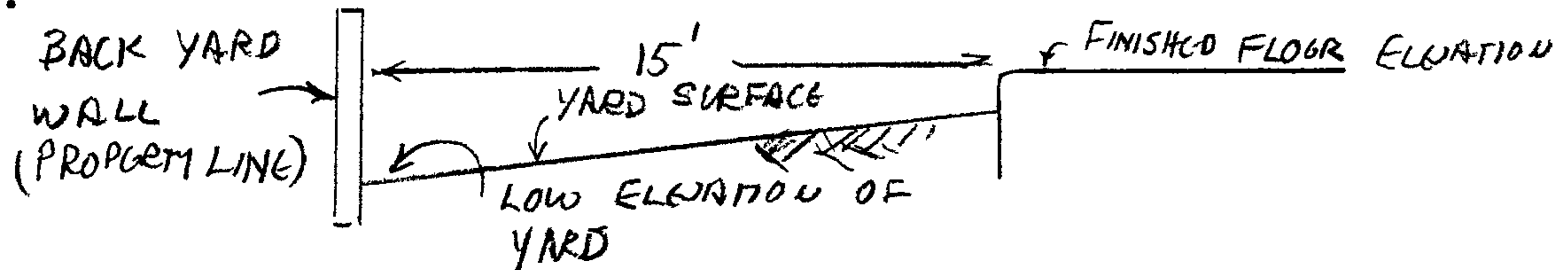
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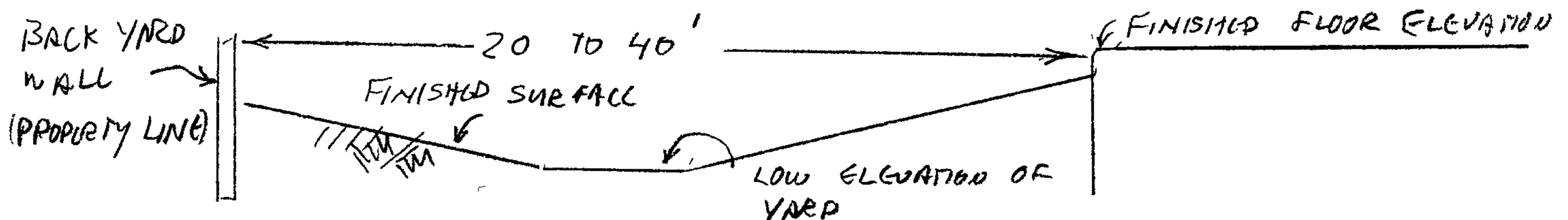
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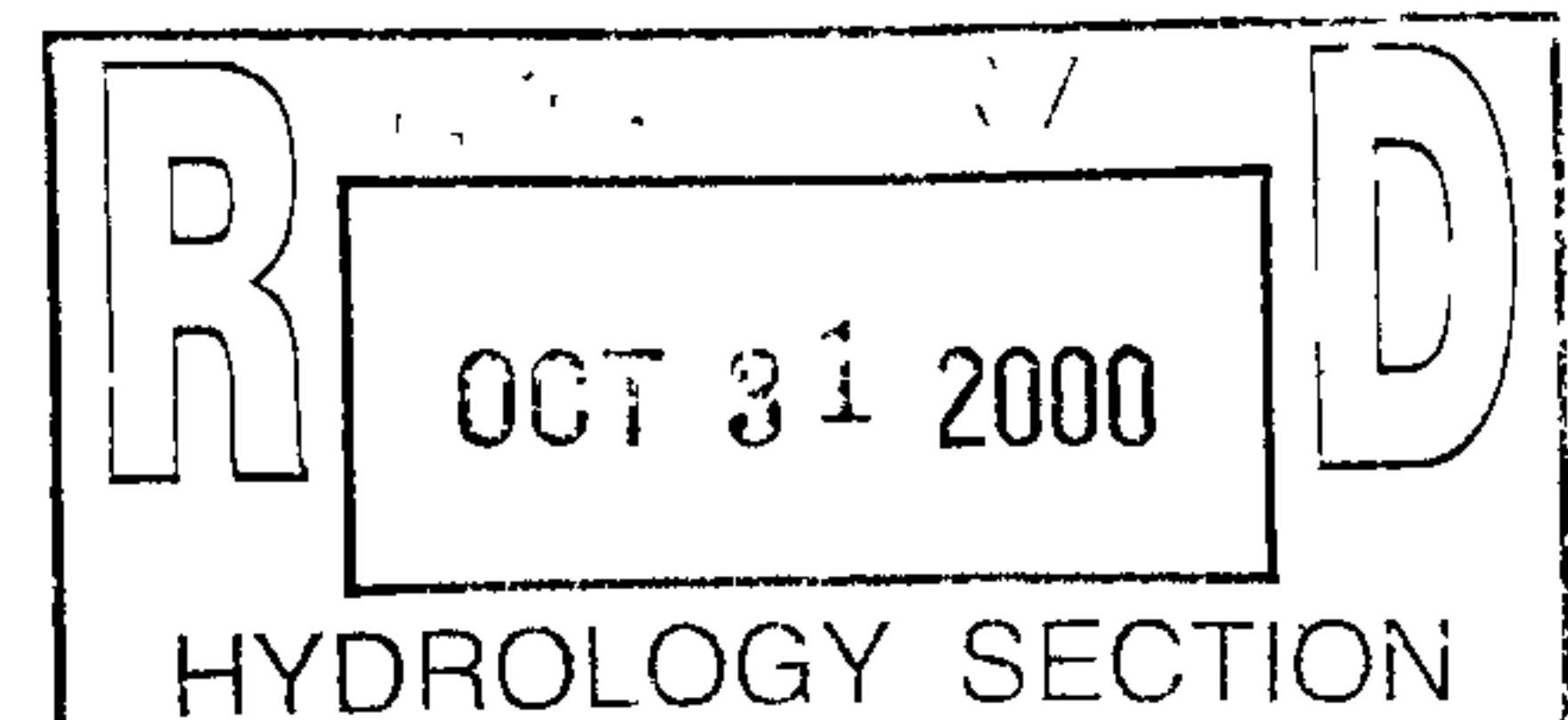
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OCTOBER 23, 2000

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City/County Floodplain Administrator

c: Terri Martin, DRB-97-349, City Project No. 589081
Keith MacDuffee, Desert Sunrise
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Albuquerque, New Mexico 87123

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c: Terri Martin, DRB-97-349, City Project No. 589081
Keith MacDuffee, Desert Sunrise
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DRAINAGE INFORMATION SHEET

CITY

Keith Mac Duffee, Desert Sunrise

APPLICANT'S NAME: / ZONE ATLAS/DRNG. FILE #: F21/D71 /

DRB #: EPC #: WORK ORDER #: 589081

LEGAL DESCRIPTION: Mountain Breeze Subdivision

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ENGINEERING FIRM: MARVIN R KORTUM

ADDRESS: 1605 Speakman Dr. SE
Albuquerque, NM 87123OWNER: Keith MacDuffee, Desert Sunrise
P. O. Box 2243,

ADDRESS: Tijeras, NM 87059

ARCHITECT:

ADDRESS:

SURVEYOR: Southwest Survey Company, Inc.
333 Lomas Blvd, NE

ADDRESS: Albuquerque, NM 87102

CONTRACTOR:

ADDRESS:

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

PRE-DESIGN MEETING:

- ☐ YES
☐ NO
☐ COPY PROVIDED

DATE SUBMITTED:

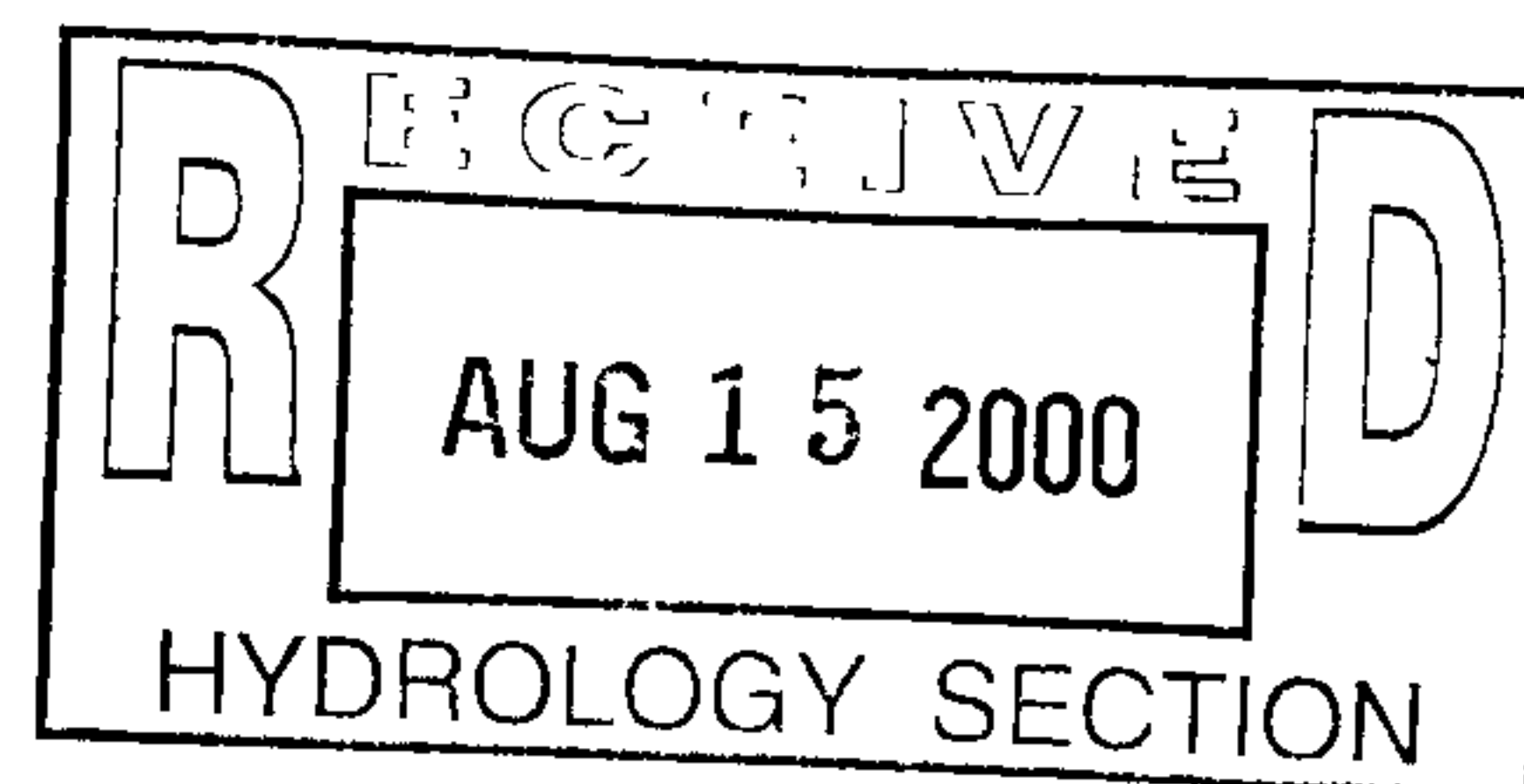
August 14 2000

BY: Marvin R Kortum

Revised 02/98

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☒ OTHER Release of financial Guarantee (SPECIFY)



plan shows grade has been
changed more than 18" w/in 50' of perimeter
Re adventure requires public hearing for DRB
approval

note, easement?
- appears from X-section that off-site
dr. impacts - need analysis
need easement

Marvin R Kortum
1605 Speakman Drive SE
Albuquerque, New Mexico 87123
NMPE 6519
(505) 299-0774

August 14, 2000

City of Albuquerque
Hydrology Section
ATTN: Ms. Susan M. Calongne
Public Works Department
Albuquerque, New Mexico 87103
924-3982

REFERENCE: Grading and Drainage Plan for Mountain Breeze Subdivision, located at the southeast quadrant of the intersection of Eubank Boulevard and La Grima de Oro, NE, Albuquerque, New Mexico. (F21/D71)

Dear Susan:

This letter forwards a revised certification for the Grading and Drainage Plan for the referenced project for your review and approval, as you requested in your letter on this subject on January 14, 2000. The certification shows changes to the grading and drainage plan as it was originally submitted and approved, the changes being generally as discussed below:

1. The house dimensions as constructed are smaller on all lots except lots 2, 3 and 6. The original grading and drainage plan was based on all houses being built to the authorized set-back. The change in house size is based on buyer's preference.

2. The houses are generally higher than the minimum finished floor elevation suggested in the original grading and drainage plan. The elevations shown on the original grading and drainage plan were specified minimum elevations.

3. The property adjacent to the south of the subdivision has been changed by that property owner, with a sidewalk being placed along the south side of the subdivision wall. The elevation of the sidewalk is generally lower than the original ground surface along the property line.

4. The larger back yards for the individual lots in the subdivision has permitted grading of the back yards with a slope away from the back property line fence, and also away from the house. This regrading has permitted ponding of the local precipitation within the yards.

5. The lowering of the finished surface on the property to the south, the raising of the house finished floor elevations, and the regrading of the back yards has eliminated the need for retaining walls because there is no change in elevation between

properties of more than 18 inches.

6. The swales along the west side of lots 1 and 7 are gravel surfaced and are satisfactory to provide for possible overflow of back lots. The individual lots also have the capacity to retain the 100 year storm, based on present rough grading of the lots. Final landscaping of all of the back yards has not been completed.

In summary, the site as constructed appears very safe from hazards due to precipitation, and I urge you to approve the certification.

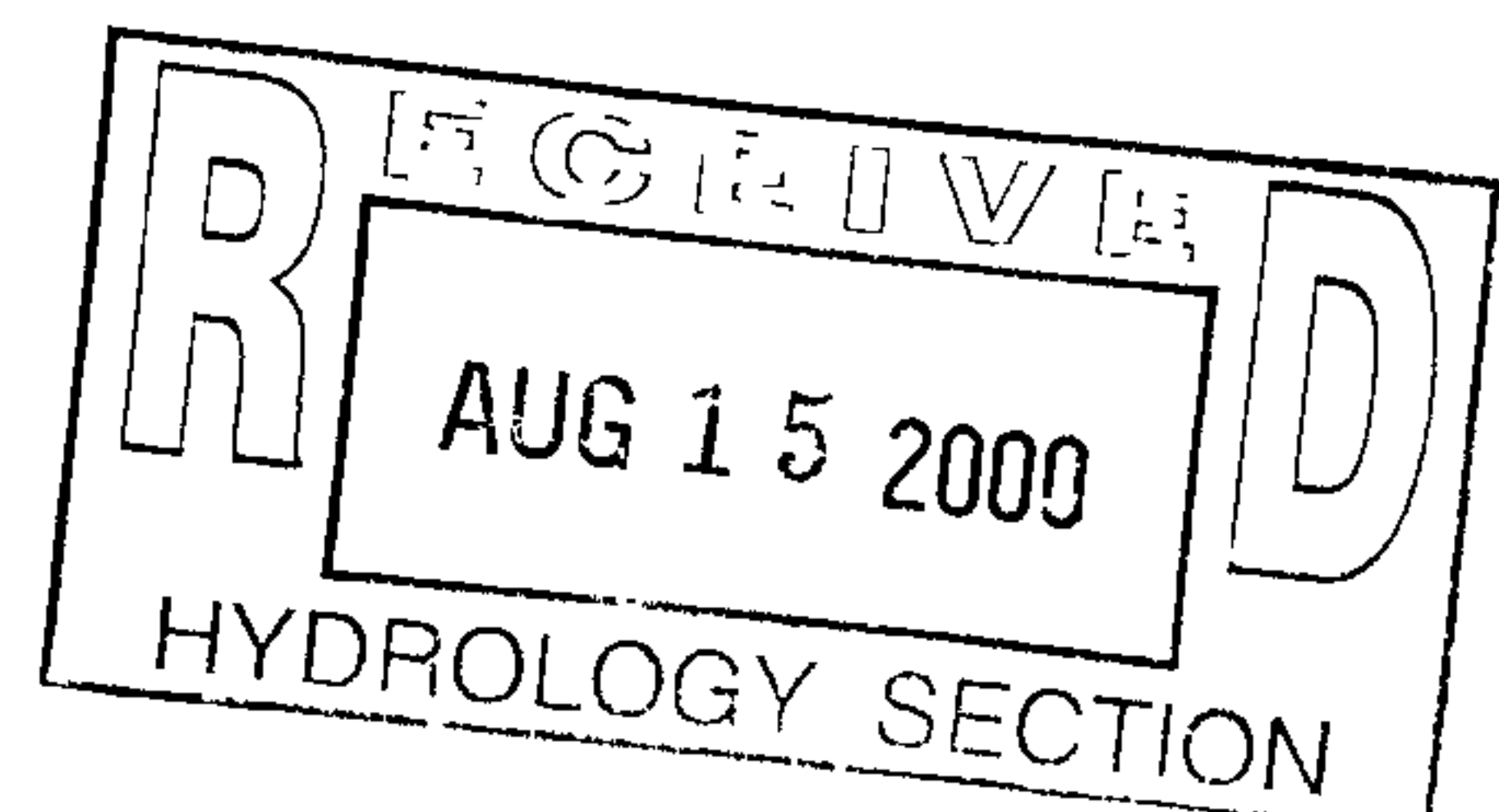
Please call me if you have further questions.

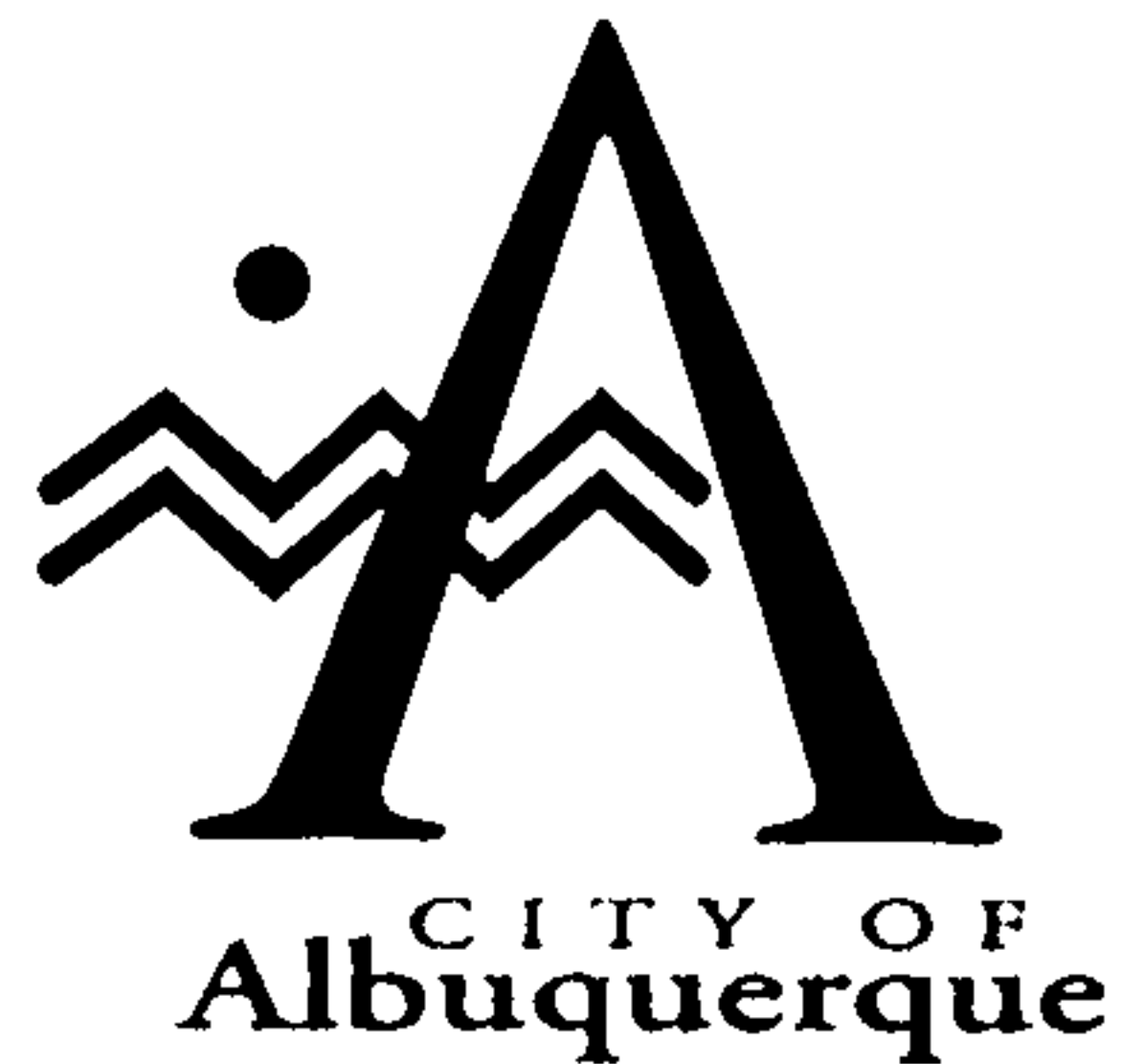
Thank you.

Sincerely,

Marvin R Kortum

cc: Keith MacDuffee
Box 2243
Tijeras, New Mexico 87059
298-8400, M: 250-9100





December 2, 1997

Martin J. Chávez, Mayor

Marvin R. Kortum, P.E.
1605 Speakman Dr. SE
Albuquerque, New Mexico 87123

RE: Grading and Drainage Plan for Mountain Breeze Subdivision (F21/D71) Submitted for Preliminary and Final Plat Approval, Engineer's Stamp Dated 10/29/97.

Dear Mr. Kortum:

Prior to Preliminary or Final Plat approval for the above referenced Subdivision, the following comments must be addressed:

1. Before the drainage concepts presented in this plan can be accepted, downstream capacity must be demonstrated.
2. The proposed land treatments have a high percentage of treatment "D." Did the existing drainage system, which was built under SAD 204, account for such a high percentage of impervious area?
3. The plan is not clear as to whether backyard ponding or cross-lot drainage is proposed. Provide more spot elevations or proposed contours and flow arrows. It appears that some of the flow arrows on the plan may be in the opposite direction.
4. The plan must clearly show where the proposed retaining walls are located. It appears that a wall is proposed around the entire subdivision. All retaining walls must be exhibited on the plan and be certified with the Grading and Drainage Certification.
5. The plan is not clear as to which areas are proposed to be paved. It appears that all of the Lots, except the back and side yards, are to be paved. Also provide a section to show how the side yards are graded.



Marvin R. Kortum, P.E.
page 2

December 2, 1997

If you should have any questions regarding these comments, please call me at 924-3982.

Sincerely,



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

c: Fred Aguirre, DRB-97-349
Keith MacDuffee, Ellis Realty
! File !

DRAINAGE INFORMATION SHEET

Mountain Breeze Subdivision

new

PROJECT TITLE: Grading and Drainage Plan ZONE ATLAS/DRNG. FILE #: F21/ 71LEGAL DESCRIPTION: Mountain Breeze SubdivisionCITY ADDRESS: SE Quadrant of Eubank Blvd and Lagrima de Oro Road, NEENGINEERING FIRM: Marvin R KortumCONTACT: Marvin R KortumADDRESS: 1605 Speakman Dr. SE
Albuquerque, NM 87123PHONE: (505) 299-0774OWNER: Keith MacDuffee

CONTACT: _____

ADDRESS: Ellis Realty
3809 Eubank Blvd. N.E.
Albuquerque, N.M. 87111

PHONE: _____

ARCHITECT: _____

CONTACT: _____

ADDRESS: _____

PHONE: _____

SURVEYOR: Southwest Surveying CompanyCONTACT: Dan GraneyADDRESS: 333 Lomas Blvd. N.E.
Albuquerque, N.M. 87102PHONE: (505) 247-4444

CONTRACTOR: _____

CONTACT: _____

ADDRESS: _____

PHONE: _____

PRE-DESIGN MEETING:

☒ YES☐ NO☒ COPY OF CONFERENCE RECAP
SHEET PROVIDEDDRB NO. 97-349

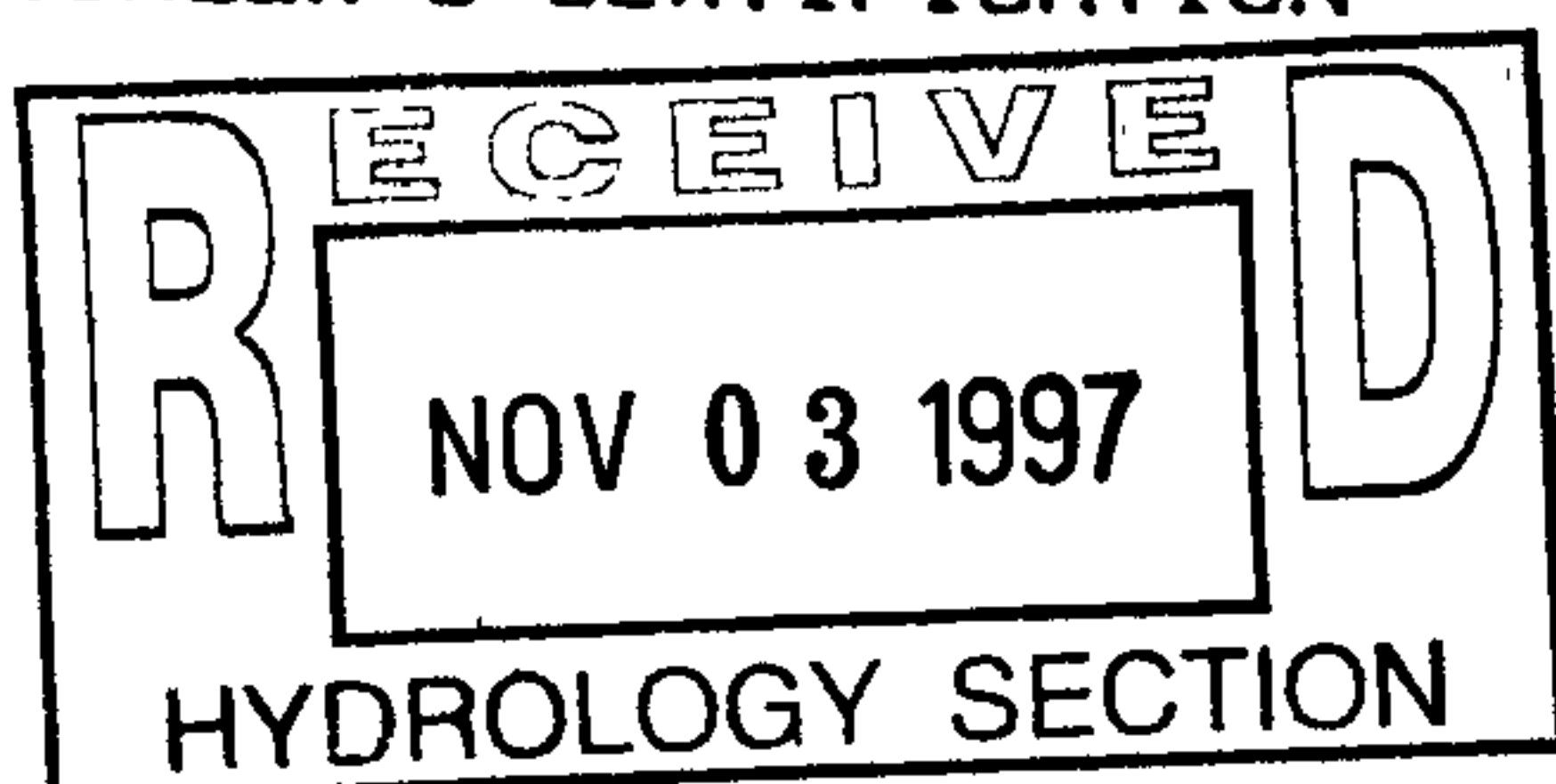
EPC NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

☐ 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☐ BUILDING PERMIT APPROVAL☐ FOUNDATION PERMIT APPROVAL☐ CERTIFICATE OF OCCUPANCY APPROVAL☐ ROUGH GRADING PERMIT APPROVAL☐ GRADING/PAVING PERMIT APPROVAL☐ OTHER _____ (SPECIFY)DATE SUBMITTED: Nov 3 1997BY: Marvin R Kortum



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 14, 2000

Marvin R. Kortum, P.E.
1605 Speakman Dr. SE
Albuquerque, New Mexico 87123

**RE: *Grading and Drainage Certification Plan for Mountain Breeze Subdivision (F21/D71)
Submitted for Final Plat and Release of Financial Guarantees, Engineer's
Certification Stamp Dated 12/20/99.***

Dear Mr. Kortum:

Prior to approval for Final Plat sign-off or for release of Financial Guarantees, the certification plan must be revised to include the As-Built elevations for the required retaining walls and concrete swales. It is unclear from the above referenced plan whether these items have been constructed. These structures must be certified.

If you have any questions, please call me at 924-3982.

Sincerely,

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

c: Terri Martin, DRB-97-349, City Project No. 589081
Keith MacDuffee, Desert Sunrise
File

DRAINAGE INFORMATION SHEET

Keith Mac Duffee, Desert Sunrise

APPLICANT'S NAME: / ZONE ATLAS/DRNG. FILE #: F21/D71

DRB #: EPC #: WORK ORDER #: 589081

LEGAL DESCRIPTION: Mountain Breeze Subdivision

9704, 9708, 9712, 9716, 9720, 9724, 9728, 9732, 9734, 9740, &
CITY ADDRESS: 9744, La Grima De Oro Road, NE, Albuquerque, NM 87111

ENGINEERING FIRM: MARVIN R KORTUM

CONTACT:

1605 Speakman Dr. SE

ADDRESS: Albuquerque, NM 87123

PHONE: (505) 299-0774 FAX 299-9405

OWNER: Keith MacDuffee, Desert Sunrise

P. O. Box 2243,

CONTACT:

ADDRESS: Tijeras, NM 87059

PHONE: M 250-9100

ARCHITECT:

CONTACT:

ADDRESS:

PHONE:

SURVEYOR: Southwest Survey Company, Inc

CONTACT: Dan Graney

333 Lomas Blvd, NE

ADDRESS: Albuquerque, NM 87102

PHONE: (505) 247-4444

CONTRACTOR:

CONTACT:

ADDRESS:

PHONE:

TYPE OF SUBMITTAL:

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

PRE-DESIGN MEETING:

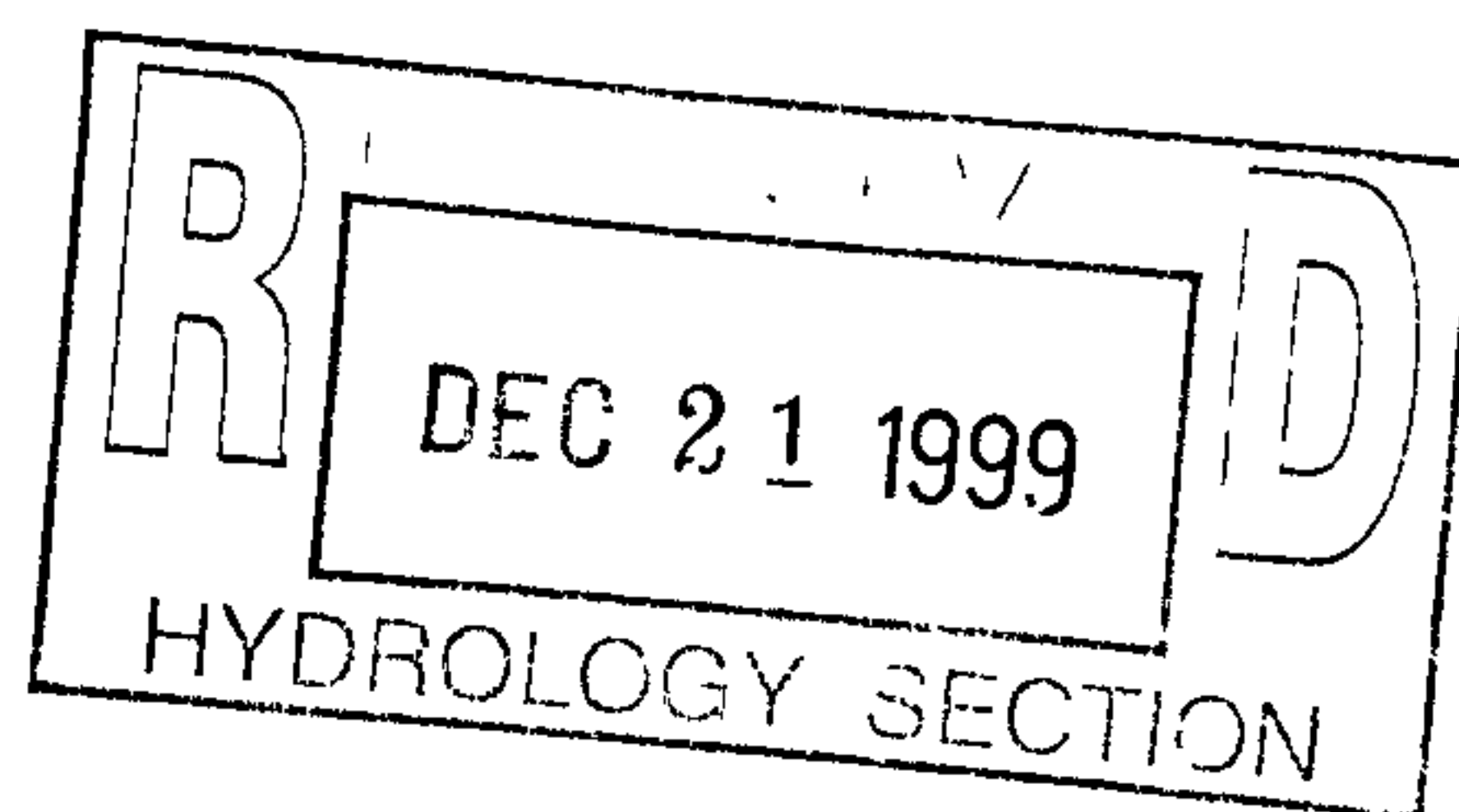
- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED

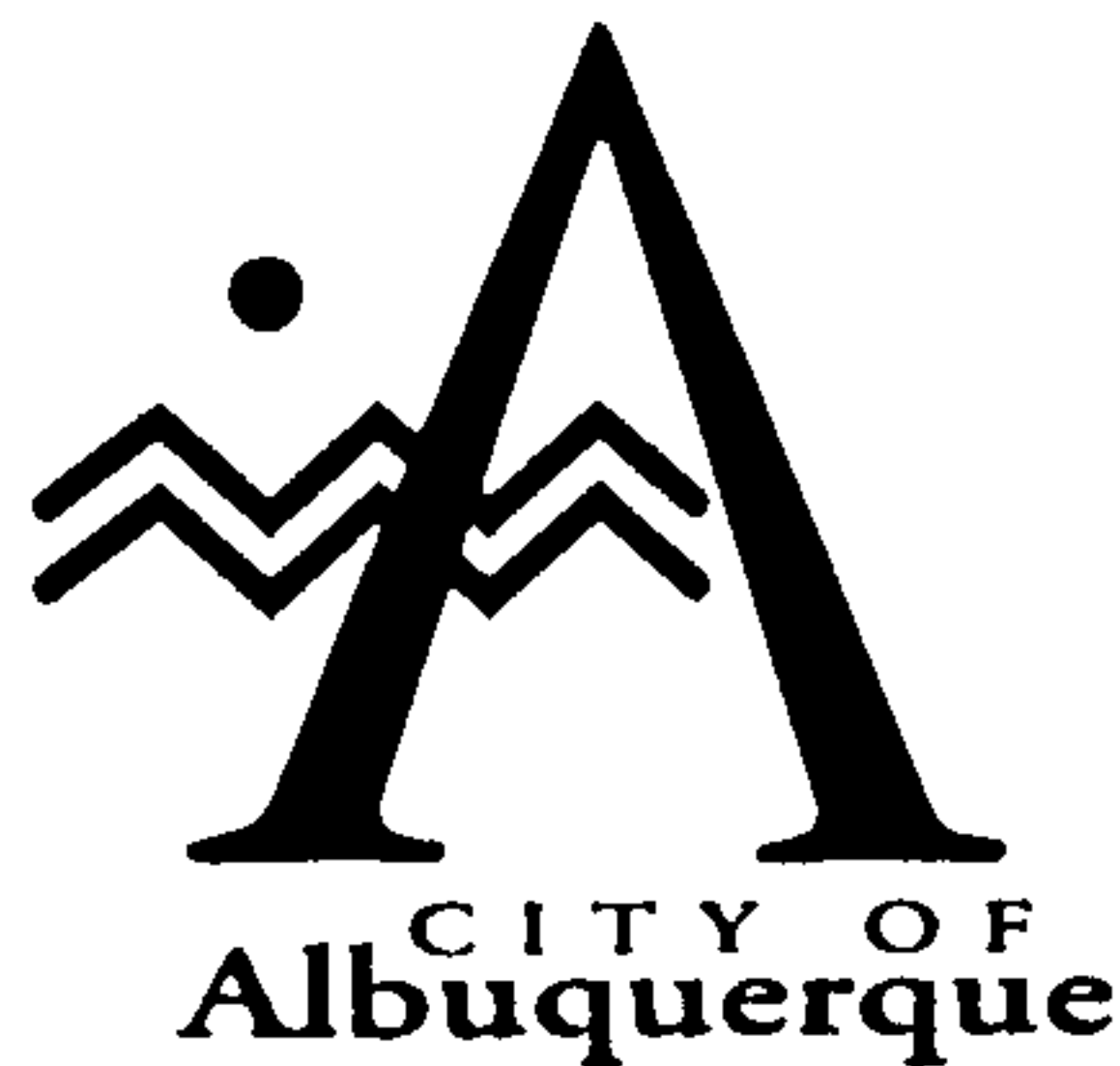
CHECK TYPE OF APPROVAL SOUGHT:

- ☐ 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
- ☒ CERTIFICATE OF OCCUPANCY APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ S.A.D. DRAINAGE REPORT
- ☐ DRAINAGE REQUIREMENTS
- ☒ SUBDIVISION CERTIFICATION
- ☒ OTHER Release of financial (SPECIFY) Guarantee

DATE SUBMITTED: December 21, 1999

BY: Marvin R Kortum





January 20, 1998

Martin J. Chávez, Mayor

Marvin R. Kortum, P.E.
1605 Speakman Dr. SE
Albuquerque, New Mexico 87123

**RE: Grading and Drainage Plan for Mountain Breeze Subdivision (F21/D71) Submitted
for Preliminary and Final Plat Approval, Engineer's Stamp Dated 10/29/97.**

REV. DATE 12-15-97 SMC

Dear Mr. Kortum:

Based on the information provided in the submittal of December 16, 1997, the above referenced plan is approved for Preliminary and Final Plat action.

As you are aware, the Grading and Drainage Certification will be required prior to release of Financial Guarantees. Prior to construction of the project, the north arrow and the scale must be added to Sheet 1 of 3. This information must be provided on the Engineer's Certification.

If you have any questions, please call me at 924-3982.

Sincerely,

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

c: Fred Aguirre, DRB-97-349
Keith MacDuffee, Ellis Realty
File



City

DRAINAGE INFORMATION SHEET

Mountain Breeze Subdivision

PROJECT TITLE: Grading and Drainage Plan ZONE ATLAS/DRNG. FILE #: F21/ D 71

LEGAL DESCRIPTION: Mountain Breeze Subdivision

CITY ADDRESS: SE Quadrant of Eubank Blvd and Lagrima de Oro Road, NE

ENGINEERING FIRM: Marvin R Kortum

CONTACT: Marvin R Kortum

ADDRESS: 1605 Speakman Dr. SE
Albuquerque, NM 87123

PHONE: (505) 299-0774

OWNER: Keith MacDuffee

CONTACT: _____

ADDRESS: Ellis Realty
3809 Eubank Blvd. N.E.
Albuquerque, N.M. 87111

PHONE: _____

ARCHITECT: _____

CONTACT: _____

ADDRESS: _____

PHONE: _____

SURVEYOR: Southwest Surveying Company

CONTACT: Dan Graney

ADDRESS: 333 Lomas Blvd. N.E.
Albuquerque, N.M. 87102

PHONE: (505) 247-4444

CONTRACTOR: _____

CONTACT: _____

ADDRESS: _____

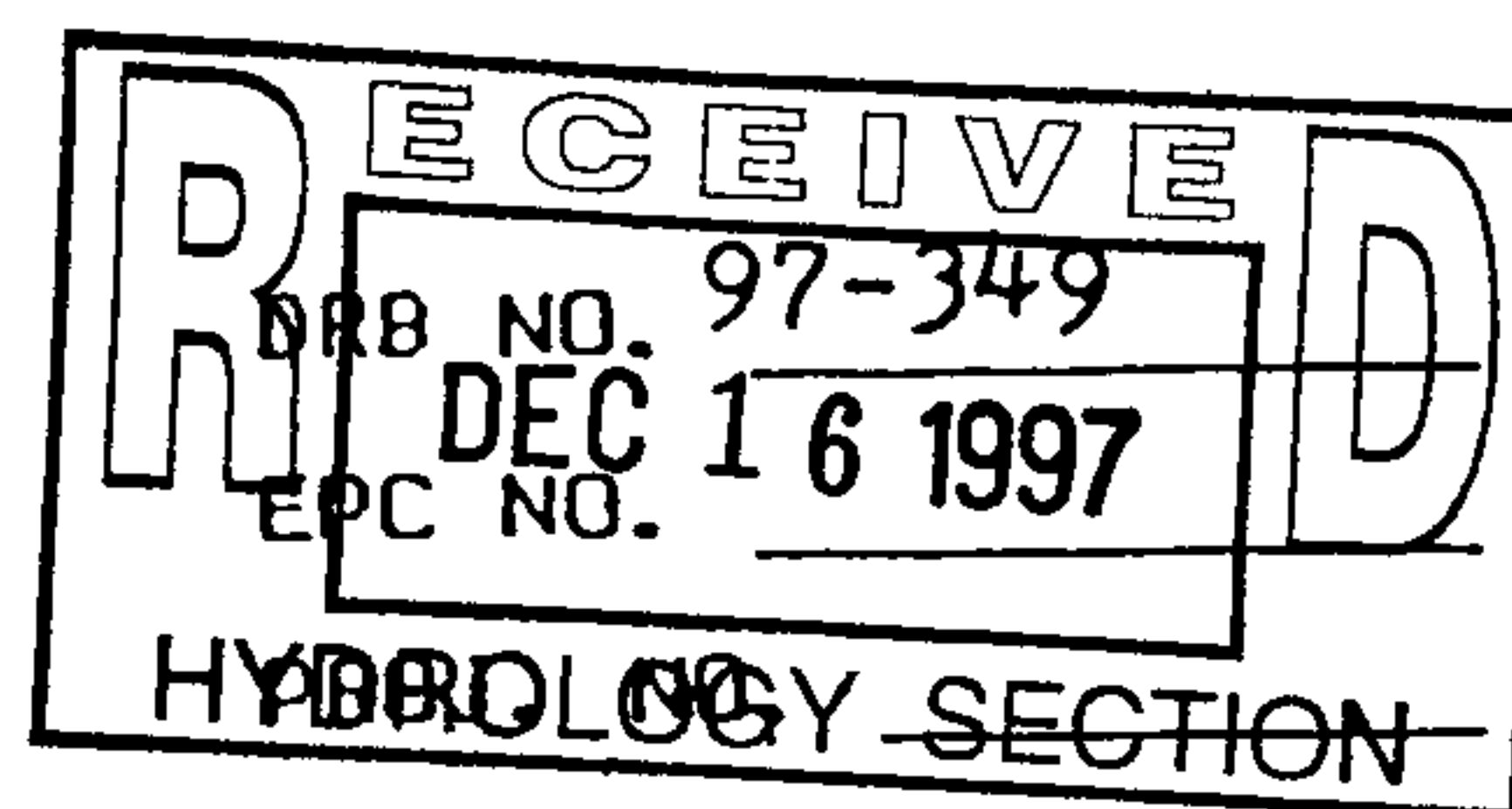
PHONE: _____

PRE-DESIGN MEETING:

☒ YES

☐ NO

☒ COPY OF CONFERENCE RECAP
SHEET PROVIDED



TYPE OF SUBMITTAL:

☐ 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

☐ BUILDING PERMIT APPROVAL

☐ FOUNDATION PERMIT APPROVAL

☐ CERTIFICATE OF OCCUPANCY APPROVAL

☐ ROUGH GRADING PERMIT APPROVAL

☐ GRADING/PAVING PERMIT APPROVAL

☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: DEC 15 1997

BY: Marvin R Kortum

Marvin R Kortum
1605 Speakman Drive SE
Albuquerque, New Mexico 87123
NMPE 6519
(505) 299-0774

December 15, 1997

City of Albuquerque
Hydrology Section
ATTN: Ms. Susan M. Calongne
Public Works Department
Albuquerque, New Mexico 87103
924-3982

REFERENCE: Grading and Drainage Plan for Mountain Breeze Subdivision, located at the southeast quadrant of the intersection of Eubank Boulevard and La Grima de Oro, NE, Albuquerque, New Mexico. (F21/D71)

Dear Susan:

This letter forwards a revised Grading and Drainage Plan for the referenced project for your review and approval. Specific revisions and answers to the comments in your December 4, 1997 letter are discussed below:

Comment 1 and 2: These comments are on the same subject and are discussed in this paragraph. The sub-surface drainage system within Eubank Boulevard was not constructed under SAD 204. According to the city Drainage Facilities Map, F-21, the system within Eubank Boulevard was constructed by Project 09-002-74, which was ten years before SAD 204, which was published in June 1984, and revised in August 1984. According to the SAD 204 document, the City of Albuquerque Hydrology Department participated in a decision to design the SAD 204 storm sewer system to carry the 10-year flood, and let the excess flow onto Montgomery and Eubank, provided the flow did not exceed the 100-year criteria of flow being 0.2" [this should probably read 0.2' (feet), or 2.4" (inches)] above the top of the curb. The SAD document then designs the storm sewer system to carry the 10-year storm runoff from north of La Grima de Oro Road and east of Pitt Street, making the following conclusions about flow on Eubank Boulevard:

100-year storm: There is an overflow of 80 CFS along La Grima de Oro Road from Pitt Street to Eubank Boulevard. The SAD 204 report is unclear on what is included in this 80 CFS, but it does not appear to include the La Grima de Oro townhouses, the Mountain Breeze site, or the street surfaces of La Grima de Oro and the east half of Eubank Boulevard. The 100-year storm estimates for the La Grima de Oro townhouses (Area J of SAD 204) is 9.2 CFS, and attached to this letter are Tables B-1, and B-4, which estimate the 100-year runoff for the Mountain Breeze site as 4.87 CFS, and the street areas as 9.37 CFS, for a total 100-year runoff on Eubank Boulevard of 103.44 CFS (80+9.2+4.87+9.37). Of this, the Mountain Breeze site contributes 4.7% of the total. The SAD documents

estimate the 100-year capacity of Eubank Boulevard as 132 CFS, so the downstream capacity of Eubank Boulevard is apparently not exceeded. The above estimates do not include the 2.3 CFS from the Esthetic Arts complex (F21/D69), which flows into the drain basins at Eubank and Dona Margerita Avenue from the north, and hence do not contribute to the stretch of Eubank Boulevard from La Grima de Oro Road to Dona Margerita Avenue, nor the runoff from the Lincoln Green Apartments (F21/D39), which enters the Eubank system through a sub-surface drain, or through controlled surface drains.

10-year storm: SAD 204 shows that the capacity of the east lanes of Eubank Boulevard from the intersection with La Grima de Oro Road to the catch basins is 1.4 CFS, using the criteria that one lane of the two north bound lanes must remain dry during the peak 10-year storm runoff (and all runoff from the east flowing on the east side of Eubank Boulevard). The SAD 204 documents give the estimated runoff from the Area J (La Grima de Oro townhouses) as 6.1 CFS, but does not address the Mountain Breeze site, nor the street surfaces. Tables B-1A and B-4A provide estimates for these latter two areas, as 3.25 CFS and 6.15 CFS, respectively, for a total flow within the east lanes of 15.5 CFS, well above the 1.4 allowed. Table C-2 shows an estimate of the depth and width of flow within the street for this runoff, which is a total depth at the curb of .524 feet, and a width of 26.2 feet. This means, that with the existing two lanes on Eubank Boulevard, that the one lane dry criteria can not be met. If the Mountain Breeze flows are completely removed, including that from the undeveloped site, the estimated runoff would be 11.75 CFS, with a depth of flow of .472 feet, and a width of 23.6 feet, which also does not meet the criteria of one dry lane. In both cases, the one lane dry criteria would be met when the temporary central median which presently exists is converted to a traffic lane. As conditions presently exist, the $5/8$ inch ($.524' - .472' = .052'$) of additional depth on Eubank Boulevard from the total 10-year storm runoff of the developed Mountain Breeze site should not be a significantly greater hazard than that which currently exists with the runoff from the street surfaces and existing townhouses.

The SAD 204 documents do not state why the Mountain Breeze site was not included in the SAD, or why the street surfaces were not included in the study. At the time the documents were prepared, the zoning for the site was SU-1. Sometime between then and now the zoning was changed to O-1. Table A-5 of Section 22.2 of the DPM shows that an O-1 zone (commercial) would be expected to have 90% impervious (land treatment D) area. There is no Drainage report on file concerning the re-zoning action. The present Mountain Breeze subdivision proposes 88.4% impervious area, which is slightly less than the estimated amount from the O-1 zoning. The referenced pages of the SAD documents have been copied and are attached, but the total document, calculation, and conclusions has not been personally verified.

Comment 3: Paved swales along the drainage easements within the rear and side yards are now shown on the drawings. My understanding is that back lot ponding can not be considered to alleviate an excess runoff condition. The arrows showing flow in opposite directions on the plan show drainage direction on two different sides of a wall, and are correct.

Comment 4: Additional notes have been added to the drawing showing where retaining walls are to be located.

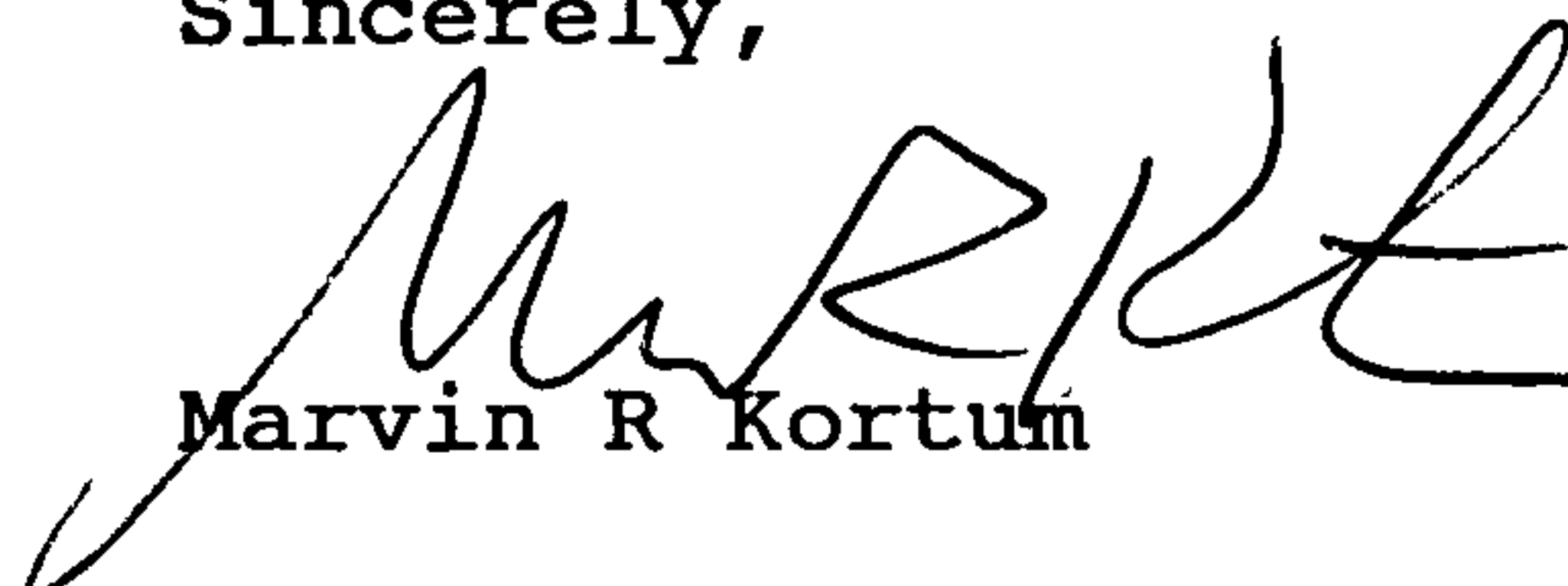
Comment 5: The allowable impervious areas for each lot are shown on Table A to the nearest one-hundredth of a square foot. The general locations of the landscaped and impervious areas are also shown on the drawings. The precise locations will depend in part on the actual house design, and its location, which are determined at the time of sale, all within the general location as shown on the drawings. Additional notes are now included on the drawings to attempt to make the drawings clear to the reviewing authorities. A cross section showing that the side yards are graded away from the house foundation are now shown on the drawings.

I request that the Grading and Drainage plan as submitted be approved. The conditions for the downstream flow for the 100-year storm runoff appear to be met, according to presentations within SAD 204 documents. The conditions as stated in the SAD documents for the 10-year storm are not met, even with no runoff from the Mountain Breeze site. There may be a plan for future improvements to Eubank Boulevard which will provide for additional capacity, particularly so since the city required an additional 9 feet of right-of-way from the property in addition to the existing 106 feet which presently exists.

Please call me if you have further questions.

Thank you.

Sincerely,



Marvin R Kortum

cc: Keith MacDuffee
Ellis Realty
3809 Eubank Blvd. NE
Albuquerque, NM 87111
298-8400, M: 250-9100

CITY OF ALBUQUERQUE

NEW MEXICO

REPORT OF DRAINAGE STUDY

SPECIAL ASSESSMENT DISTRICT 204

JUNE 1984

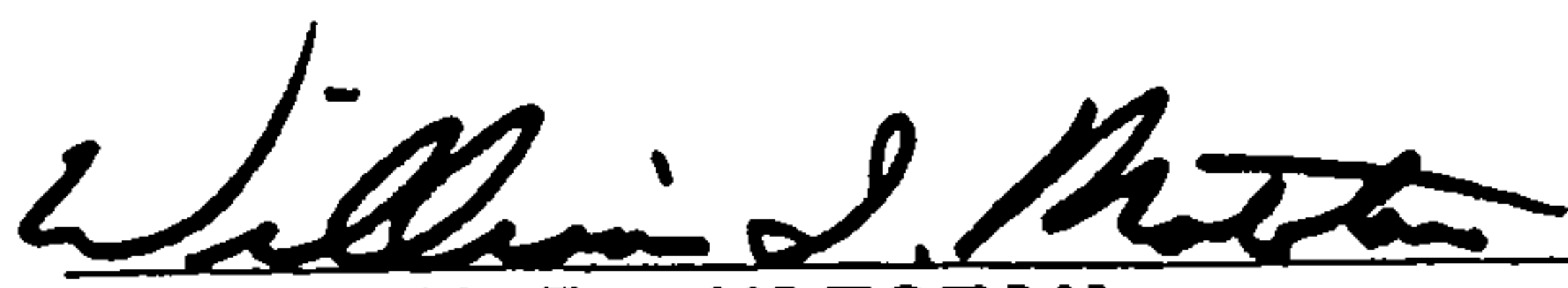
REVISED AUGUST, 1984

WILLIAM MATOTAN & ASSOCIATES, INC.

230 TRUMAN STREET, N.E.

ALBUQUERQUE, NEW MEXICO 87108




WILLIAM I. MATOTAN
N. M. P.E. No. 1593

VI. DOWNSTREAM CAPACITY (continued)

A meeting with the City of Albuquerque Hydrology Department was held to discuss the downstream problems. It was decided to design the storm sewer to carry the 10-year flood and let the excess flow into Montgomery and Eubank provided the flow did not exceed the 100-year criteria of flow being 0.2" above the top of curb.

VII. PROPOSED CONDITIONS

It is proposed to construct a storm sewer to handle runoff generated by the streets and adjacent tracts North of Lagrima De Oro. The storm sewer will begin about 113 feet East of the Intersection of Morris and Lagrima De Oro and run West to the Intersection of Lagrima De Oro and Pitt Street. There it would turn North on Pitt street and continue to the end of Pitt street; thence, it would continue North through a proposed 20-foot easement to Osuna street then turn Northeasterly and drain into Bear Canyon drainage channel. A temporary 60-foot construction easement should be obtained for construction purposes. Once the storm sewer is installed, the temporary easement should be abandoned. The storm sewer would be 42-inch diameter at the onset, handling 125 cfs. One thousand feet downstream to manhole 6, it would enlarge to 48-inch diameter to handle 167 cfs. At manhole no. 5, the storm sewer would pick up an additional 33 cfs. Total flow out of manhole no. 5 would be 200 cfs. From manhole no. 4 to Bear Canyon channel, the storm sewer would be 54-inch diameter. Due to the conditions imposed by existing slopes and the size of the storm drain, it

WILLIAM MATOTAN & ASSOCIATES, INC.
ENGINEERS
230 Truman Street, N.E. - Albuquerque, N.M. 87108
Telephone 265-8467

Project SAD 204 Sheet 10 of 43
Runoff Comps Job No. 698.1R
By J.L.G. Chk'd WLB Date 7/11/87

Drainage Area J

$$A = 2.2$$

Hydrologic Soil group B

$$C = .70 \quad (\text{assume full development})$$

$$T_c = 10 \text{ min}$$

$$I = 6.17 \text{ hr} (DPM 22.2 D-2)$$

$$Q_{100} = (.7)(6)(2.2)$$

$$= 9.2$$

$$Q_{10} = 6.1$$

$$V_{100} = \frac{(.7)(2.5)(43560)(2.2)}{12}$$

$$= 13975 \text{ c.f.}$$

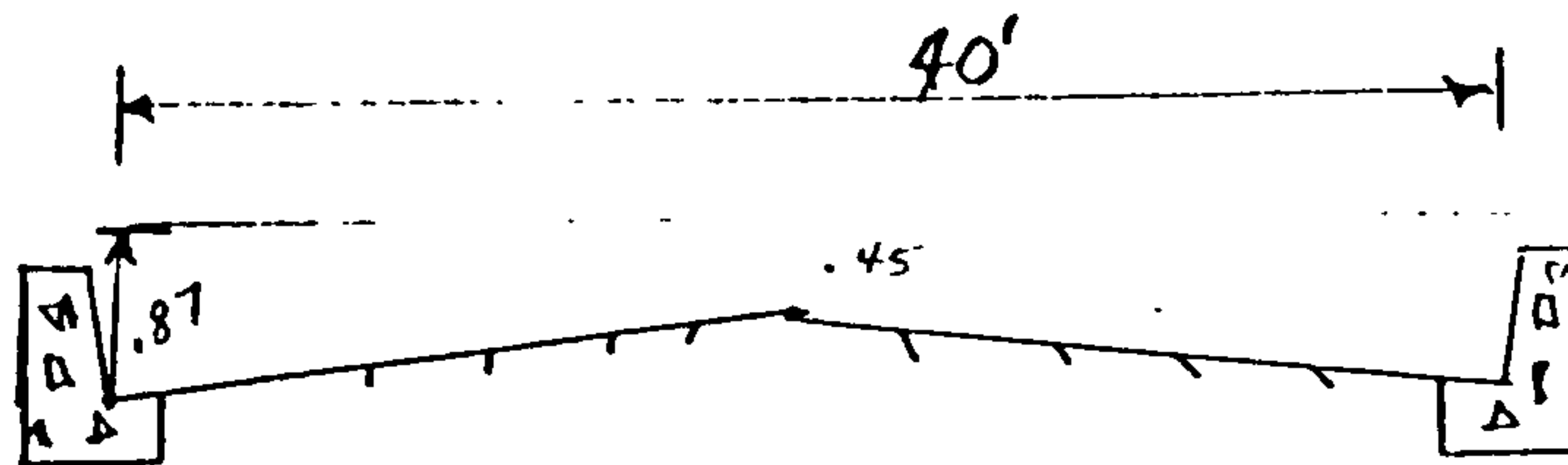
$$V_{10} = 9180 \text{ c.f.}$$

$$T_1 = \frac{2(13975)}{9.2} \div 60 = 50.6 \text{ min}$$

WILLIAM MATOTAN & ASSOCIATES, INC.
ENGINEERS
230 Truman Street, N.E. - Albuquerque, N.M. 87108
Telephone 265-8467

Project SAD 204 Sheet 19 A of 43
Subject: Street Capacity check Job No. 698.1R
Comp. by JLG Date Chk'd WLB Date 7/12/89

Lagrima De Oro from Pitt st. west to Eubank



$$S = .0277$$

$$n = .017 \quad d = .87$$

$$A = 26.4$$

$$WP = 41.7$$

$$R = .6325$$

$$Q = A V \quad V = \frac{1.486}{.017} R^{2/3} S^{1/2}$$

$$= (26.4)(10.7) = 10.7$$

$$= 283 \text{ cfs}$$

Lagrima De Oro from Inca to Pitt

$$S = .0043$$

Check depth for $Q = 33 \text{ cfs}$

$$\text{let } d = .6$$

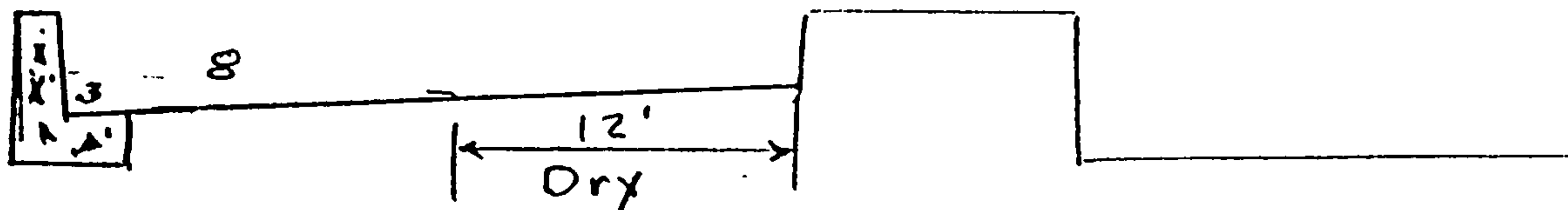
$$Q = A V \quad V = \frac{1.486}{.013} R^{2/3} S^{1/2}$$

$Q = 18 \text{ cfs}$ from Plate 22.3 D-2 for $1/2$ street width

WILLIAM MATOTAN & ASSOCIATES, INC.
ENGINEERS
230 Truman Street, N.E. - Albuquerque, N.M. 87108
Telephone 265-8467

Project SAD 204 Sheet 22 of 43
Subject: Eubank street ck Job No. 698.1R
Comp. by JLG Date _____ Chk'd WLB Date 7/12/89

Eubank street capacity check North of Lagrima De Oro, Keeping one lane dry.



Eubank Blvd North from Lagrima De Oro

$$Q = AV, \quad V = \frac{1.486}{.017} R^{2/3} S^{1/2}, \quad S = .0034$$

$$A = 1.20$$

$$WP = 8.3$$

$$R = .1445 \quad V = 1.4$$

$$Q = (1.4)(1.2) = 1.7 \text{ cfs}$$

Assume Eubank flowing 12 above curb

$$d = .87$$

$$Q = AV$$

$$A = 14.4$$

$$WP = 21.44$$

$$R = .6716$$

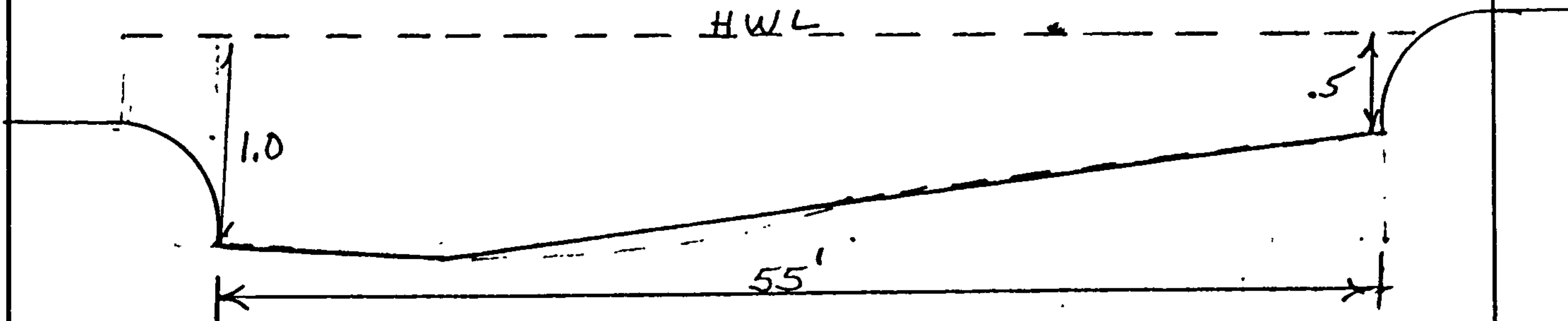
$$V = \frac{1.486}{.017} (.6716)^{2/3} (.0034)^{1/2} = 3.9$$

$$Q = AV = (14.4)(3.9) = 56.3 \text{ cfs}$$

WILLIAM MATOTAN & ASSOCIATES, INC.
ENGINEERS
230 Truman Street, N.E. - Albuquerque, N.M. 87108
Telephone 265-8467

Project SAD 204 Sheet 2.3 of 43
Subject: Eubank Weir Check Job No. 698.1R
Comp. by JLG Date _____ Chk'd WKS Date 7/12/89

Capacity of Eubank between medians at Doña Margarita
Assume median is acting like weir



$$L = 55, H = .75 \text{ (average)}$$

$$Q = C L H^{3/2} \quad \text{let } C = 3.69 - \text{King and Brater}$$

$$Q = (3.69)(55)(.75)^{3/2}$$

$$Q = 132 \text{ cfs}$$

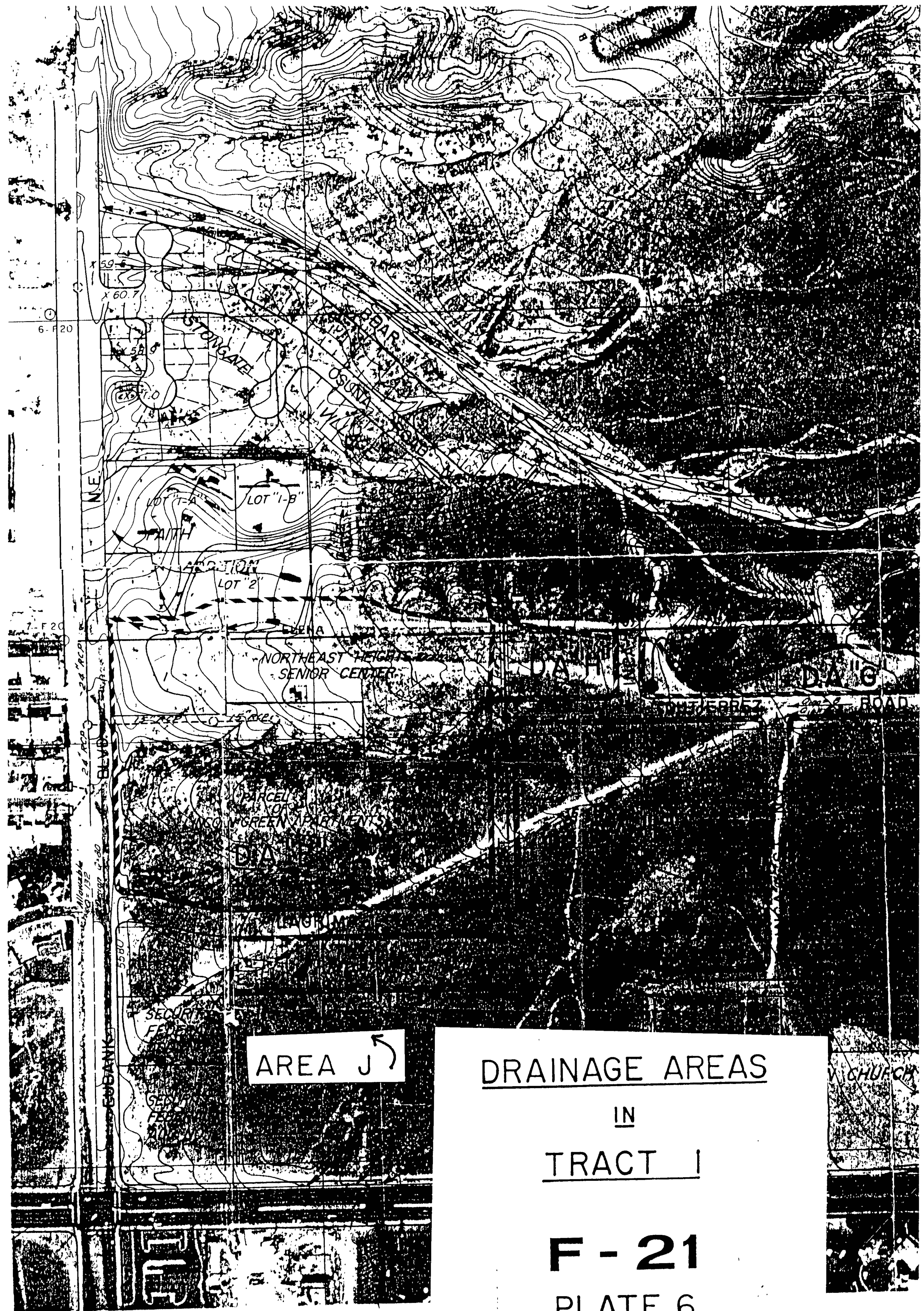
Assumptions:

1. Water is flowing at 0.87 depth in gutter
2. Weir is broad crested with both faces inclined approximating triangular weir with sloping faces.
3. C of 3.69 used for triangular weir

STORM DRAINAGE SYSTEM PRELIMINARY DESIGN DATA

Location of Design Point	Bosins	Length ft.	Inlet Time min.	Flow Time		Time of Concentration min.	Coefficient "C"	Intensity "I" in./hr.	Area "A" acre	Direct Runoff cfs	Other Runoff cfs	Summation Runoff cfs	Street		Pipe		Street		Pipe		Remarks	
				Street min.	Pipe min.								Slope %	Allowable Capacity cfs	Slope %	Size in.	Capacity cfs	Design cfs	Velocity fps	Design cfs		Velocity fps
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
AP-A	A	1310				10	.7	6	11.7			49.1										
AP-B	B	1270				10	.7	6	16.3			73.3										
AP-C	C					10	.7	6	11.7			49.1										
AP-D	D					10	.7	6	12.8			54										
AP-E	E					10	.7	6	7.7			32										
	F					10	.7	6	13.3			56										
	G					10	.55	6	1.9			6.3										
	H					10	.7	6	.92			3.8										
	I					10	.7	6	1.2			5										
	J					10	.7	6	2.2			9.2										
AP-C						10	.9	6	3.8			20.5										
AP-E						10	.9	6	2.5			13.1	.0415	346			188	13.1				
AP-E						10	.9	6	.86			4.6										
AP-D						10	.9	6	.7			3.7										
AP-G						10	.9	6	1.5			6										
AP-C						10	.9	6	1.2			6.3	.0195	4.5			60	3.4				
AP-D													.0043	62								
AP-E																						
												2.2										
												3.4										
MH-8																						
MH-6															.0186	42	137			125	14.5	MH-8 to MH-6
MH-6															.0181	48	193			167	15.4	MH-6 to MH-5
MH-5															.0235	48	203			200	16.2	MH-5 to MH-4
																				200	15.1	MH-4 to MH-1
																		7	12.1			L.D.Oro from Juan Tabo to AP-A
													.0354	320				112	11.6			L.D.Oro from AP-A to AP-B
													.0321	304				143	9.1			L.D.Oro from AP-B to AP-C
													.032	304				30	7.8			L.D.Oro from Morris to Inca
													.015	206				60	3.4			L.D.Oro from Inca to Pitt
													.0043	72				80	10.7			L.D.Oro from Pitt to Eubank
													.0277	283				63	4.6			Morris from L.D.Oro to Mont-
													.0054	139								gomery

FIGURE 6-1. TYPICAL FORM FOR STORM DRAINAGE SYSTEM PRELIMINARY DESIGN DATA



AREA J ↗

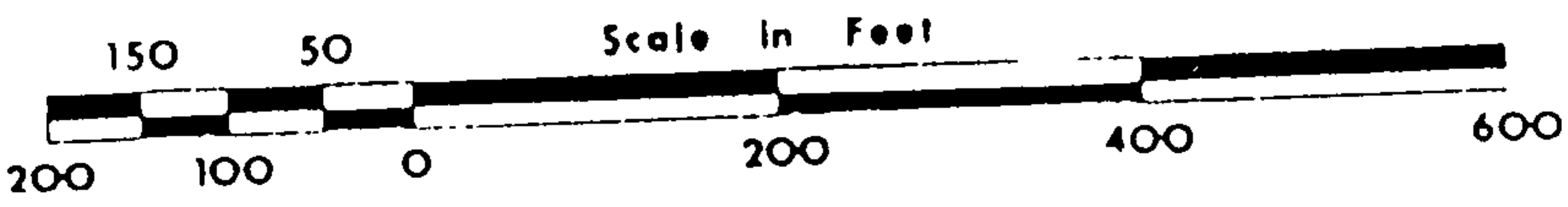
DRAINAGE AREAS

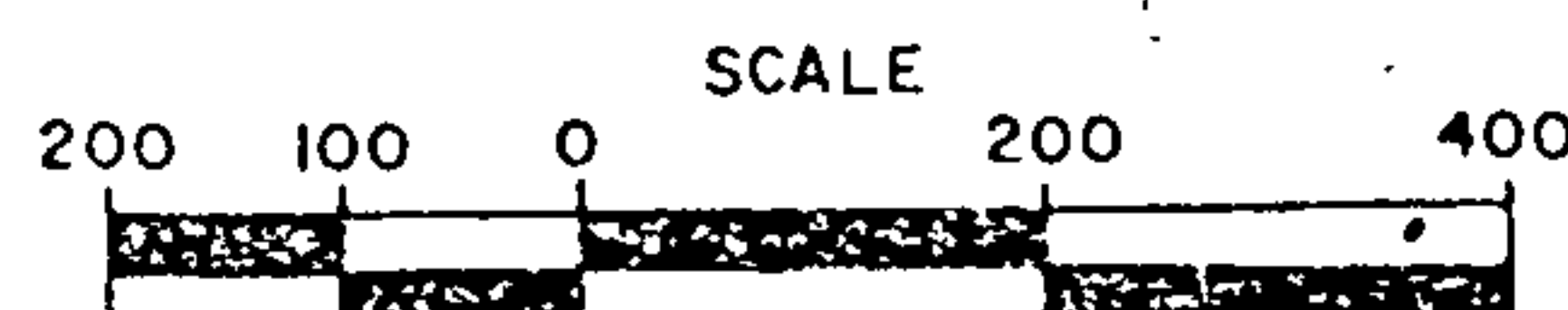
IN

TRACT 1





F - 21

PLATE 6





MAP GRID

LEGEND		NOTES	REVISIONS		MAP GRID
	STORM SEWER LINE	1. MANHOLE IDENTIFICATION REQUIRES BOTH THE MAP GRID & MANHOLE NO. 2. MANHOLE NUMBERS CARRIED FROM ADJACENT MAPS HAVE THE MAP	DATE	REMARKS	<div style="font-size: 2em; font-weight: bold;">F-21S</div>
	MANHOLE		8-8-83	OUTLET ON LAGRIMA DE ORO 1406	
	MANHOLE NUMBER		2-2-84	SD ON MORRIS 1634	
	STORM INLET		9-17-84	OSUNA RD IMPROVEMENTS 1452 <i>ut</i>	
			9-19-84	Montgomery & Eubank 26-1773-84 M.R.	

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: F21 DATE: 8-1-97

PLANNING DIVISION NOS: EPC: _____ DRB: _____

SUBJECT: Town houses on SE corner of Eubank + Laguna de Oro

STREET ADDRESS (IF KNOWN): _____

SUBDIVISION NAME: _____

APPROVAL REQUESTED:

____ PRELIMINARY PLAT

____ SITE DEVELOPMENT PLAN

____ OTHER _____

____ FINAL PLAT

____ BUILDING PERMIT

____ ROUGH GRADING

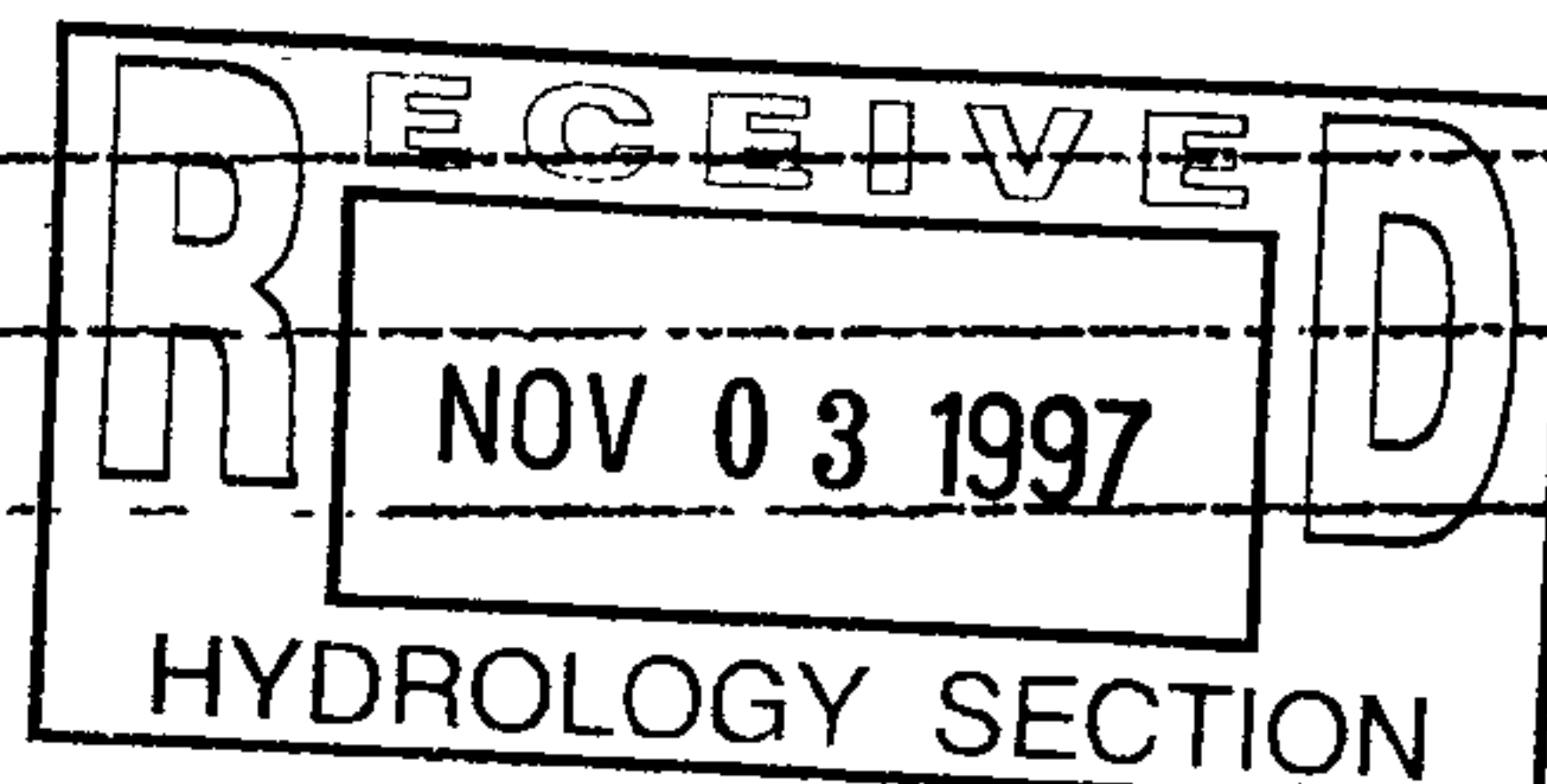
ATTENDANCE: ^{WHO}
Marcus Kortum
LISA MANWILL

REPRESENTING

COA

FINDINGS:

- ~ Determine an allowable discharge rate by computing downstream capacity (Street + storm drain).
- ~ Show high/low point in Eubank
- ~ Discuss flow path
- ~ DRB approval requested.



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

SIGNED: [Signature]

TITLE: _____

DATE: 8-1-97

SIGNED: [Signature]

TITLE: _____

DATE: Aug 1 1997

****NOTE**** PLEASE PROVIDE A COPY OF THIS RECAP WITH THE DRAINAGE SUBMITTAL