

CITY OF ALBUQUERQUE



May 17, 2006

Mr. Mark Goodwin, PE
MARK GOODWIN & ASSOCIATES
P.O. Box 90606
Albuquerque, NM 87199

Re: MONTANO RETAIL
6001 Winter Haven Road NW
Approval of Permanent Certificate of Occupancy (C.O.)
Engineer's Stamp dated 09/28/2005 (E-12/D3E)
Certification dated 05/11/2006

Dear Mark,

Based upon the information provided in your submittal received 05/11/2006, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3982.

Sincerely,

Arlene V. Portillo
Plan Checker, Planning Dept. - Hydrology
Development and Building Services

C: CO Clerk
File

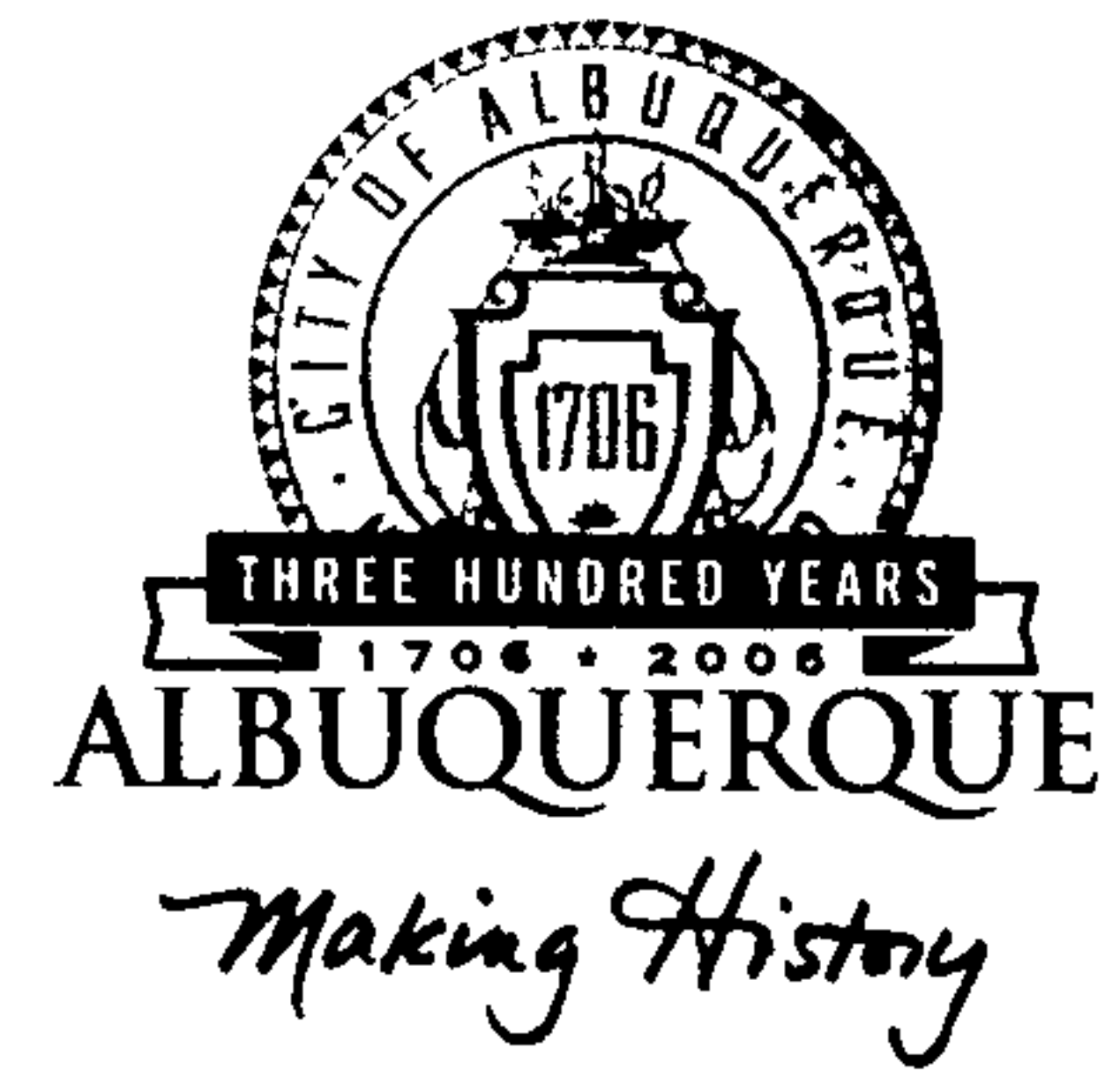
P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

CITY OF ALBUQUERQUE



September 20, 2005

John M. MacKenzie, PE.
Mark Goodwin & Associates, PA.
PO Box 90606
Albuquerque, NM 87199

**Re: Montano Retail Lands of Joel P. Taylor Tracts 5-A1-B1 & 5-A2-A1,
Grading and Drainage Plan
Engineer's Stamp dated 9-15-05 (E12-D3E)**

Dear Mr. MacKenzie,

P.O. Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov
Based upon the information provided in your submittal dated 9-14-05, the
above referenced plan is approved as Amended.

Prior to release of the Certificate Of Occupancy the following item needs to be
addressed.

- Provide an Engineers Certification of the Grading Plan per the DPM
checklist.

This project requires a National Pollutant Discharge Elimination System (NPDES)
permit. If you have any questions regarding this permit please feel free to call the
DMD Storm Drainage Design section at 768-3654 (Charles Caruso).

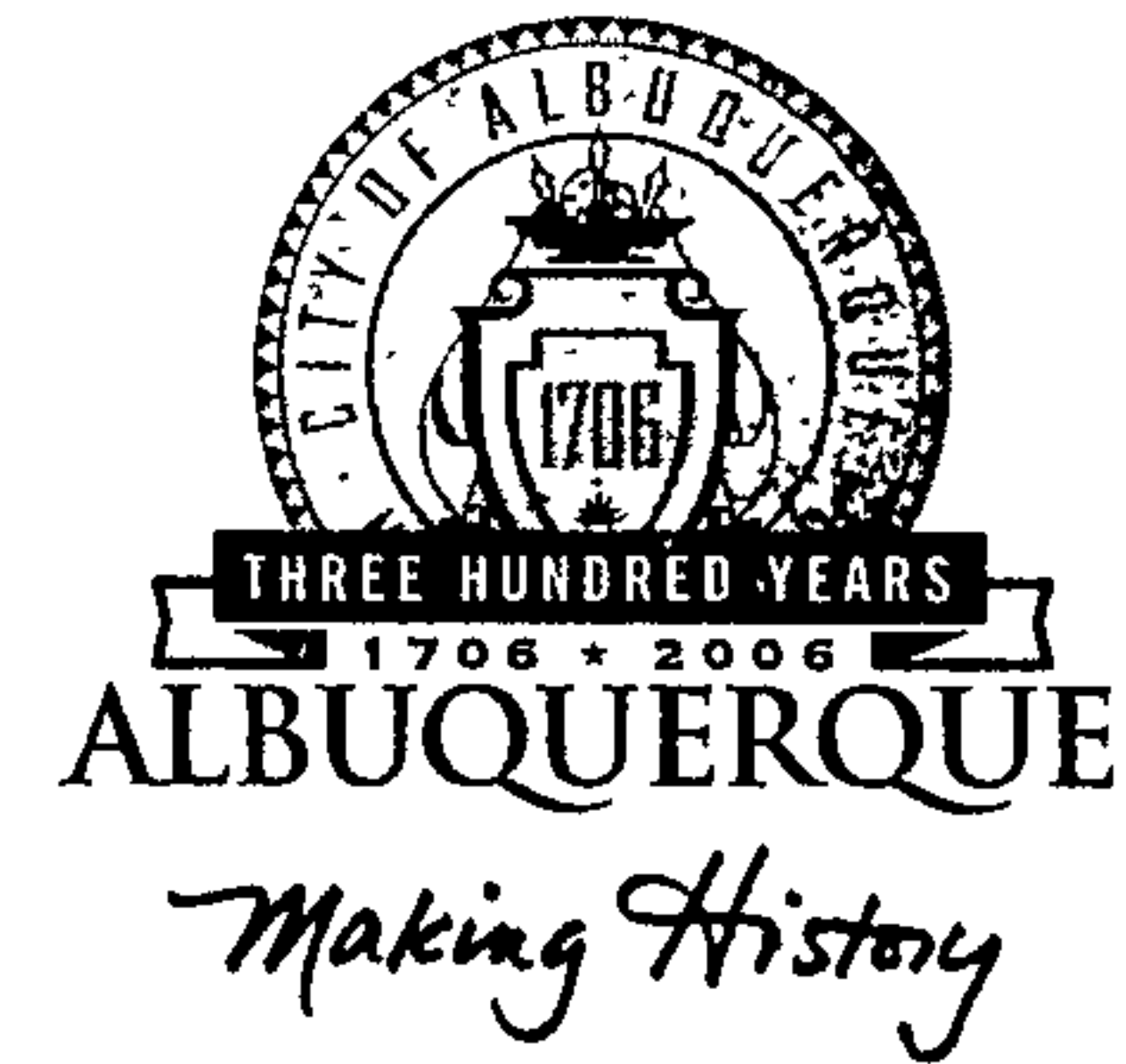
If you have any questions, you can contact me at 924-3695.

Sincerely,

Rudy E. Rael Associate Engineer
Planning Department.
Development and Building Services
βw

C: Chuck Carusso DMD
CC: file

CITY OF ALBUQUERQUE



February 4, 2005

D. Mark Goodwin, PE
Mark Goodwin & Associates
P.O. 90606
Albuquerque, NM 87199

Re: Montano Retail Drainage Report
Engineer's Stamp dated 1-27-05 (E12/D3E)

Dear Mr. Goodwin,

Based upon the information provided in your submittal dated 1-28-05, the above referenced report is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

The existing pond is in a public drainage easement and must be vacated and rededicated to fit the new configuration. Plus, the new pond must be incorporated into your lot or a three-party maintenance agreement must be executed. This must be done prior to C.O.

Also, prior to Certificate of Occupancy release, Engineer Certification of the grading plan per the DPM checklist will be required.

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

Sincerely,

Bradley L. Bingham, PE
Principal Engineer, Planning Dept
Development and Building Services

C: file

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE REPORT
for
Montaño Retail

Prepared for

*Maestas & Ward
Steve Maestas
7620 Jefferson NE
Albuquerque, NM 87109
(505) 878-0001*

Prepared by

*Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, NM 87199*

November 2004



PURPOSE

This report has been prepared in support of the development of a 3.42 acre, currently undeveloped, parcel located at the northwest corner of Montañó Road and Winter Haven Road on Albuquerque's west side. The site is a part of the Montañó Plaza Shopping Center, and as such, this development is proposed to be similar retail facilities.

EXISTING CONDITIONS

In the existing state, an approximate 1.5 ac-ft detention basin is located on this site. With vertical concrete sides, a portion of the pond extends along the southern boundary, while along the east side of the site, and additional extension of the pond with earthen sides parallels Winter Haven Road. Flows from the pond discharge into a 4' x 6' CBC extending from Montañó Road to the site at its southwest corner. The controlled outflow from the ponds to the box culvert is $Q = 25.48$ cfs (Appendix 1: Summary from 1987 Chavez-Grieves drainage report for Montañó Plaza Addition).

A 2' x 4' CBC storm drain system with grated openings currently traverses this site from the north to south where it outfalls into the detention pond described earlier. From earlier calculations presented in the Chavez-Grieves report, and from the Walgreens @ Coors & Montañó Drainage Report, 1999 Mark Goodwin & Associates, 36.09 cfs (100-yr, 6-hr) enters the site within the described system from the north. An additional 9.53 cfs is added to this system from lateral pipes extending west into the Walgreen's parking lot, and from surface flows originating from this site.

An estimated 18.38 cfs (100-yr, 6-hr) enters the pond from Winter Haven Road through an approximate 12' long grated drop inlet situated along the west curb line in the roadway.

The described pond on this site was originally designed to be a combination detention / sedimentation basin. At the time the pond was constructed, much of the upstream drainage basin was still undeveloped. Sediment laden storm waters would enter the pond, which was over-sized with a near flat earthen bottom. With the reduced velocity through the pond, sediments would settle to the bottom prior to the flood waters entering the 4' x 6' CBC outfall line which increases in size to a 10' x 6' CBC prior to discharging into the Rio Grande River.

PROPOSED CONDITIONS

Since the existing pond, with its dual reaches, encumbers a significant portion of this site, it is proposed that with the development of this site, the pond will be relocated to an undeveloped parcel, currently in the process of being purchased, immediately south of this site, adjacent to Montañó Road. As shown on the Grading & Drainage Plan, a landscaped, earthen sided pond with 3:1 maximum side slopes is planned along Montañó Road, and a 5.5' concrete flood wall separates the pond from this site.

The Grading & Drainage Plan also shows that in developing this site, the existing 2' x 4' CBC carrying a total of 45.62 cfs (100-yr, 6-hr) will remain in place. The southern portion will be re-aligned to enter the new pond on a more tangential alignment. All but the most northerly onsite grated opening will be removed and replaced with traffic rated covers. From the remaining grated inlet, south, the 2' x 4' CBC will be covered and paved over.

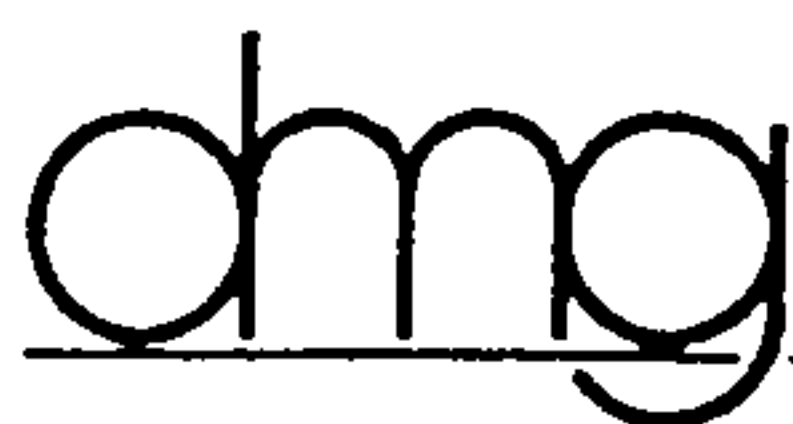
*Developed Drainage basin **B-1**, 1.85 acres, included the southern ½ of this site. Storm flows within **B-1** will sheet flow with the paved areas to concrete valley gutters. **B-1** flows, 7.30 cfs, will be routed to a concrete lined rundown along the north side of the new pond.*

*Storm flows within basin **B-2**, 6.19 cfs, will likewise sheet flow to concrete valley gutters that will route the flows to the remaining onsite grated inlet near the northwest entrance to the site. The onsite and offsite flows within the existing 2' x 4' CBC will discharge into the new pond at its northwest quadrant.*

Storm flows collected from the Winter Haven Road right-of-way will continue to be collected in the existing drop inlet along its west curb line. The drop inlet will be modified to discharge the accumulated flows to a new 24" RCP storm drain which will extend south along the sites east boundary. The new 24" storm drain will connect to the existing 4' x 6' CBS at the southeast corner of the site.

SUMMARY

The drainage management plan for the Montañó Retail site, as presented in this report, allows for the development of this long vacant parcel in a manner which will ensure that there are no adverse impacts downstream of the site.



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

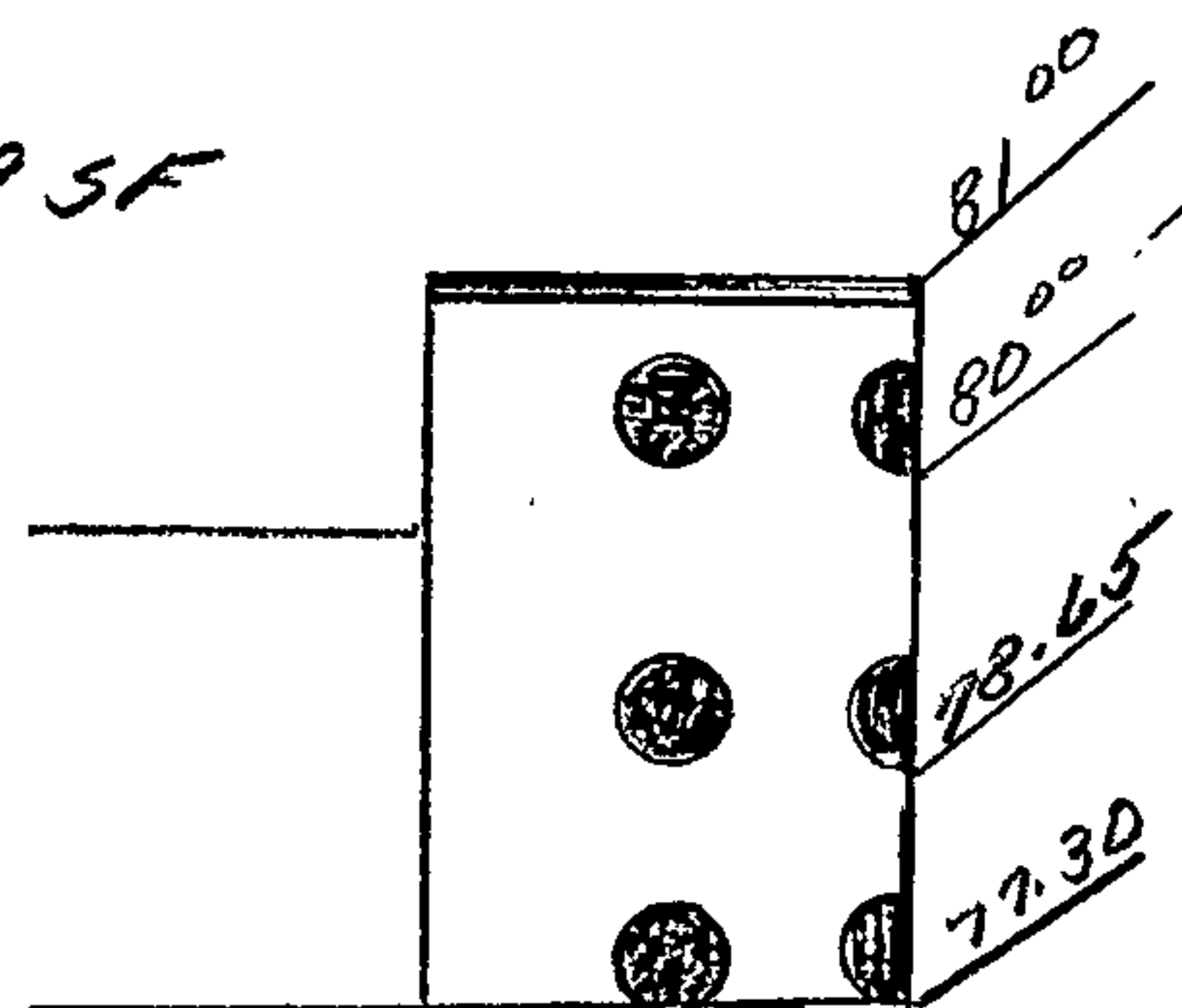
PROJECT Montano Retail
SUBJECT Culcs.
BY JSD DATE 11-8-04
CHECKED _____ DATE _____
SHEET _____ OF _____

MAX. WATER SURFACE ELEV. = 81.00
MAX. OUTFLOW ALLOWED FROM POND = 25.48 CFS
W/ 40% CLOG = 35.67 CFS

$$Q = CA(2GH)^{1/2}$$
$$C = .6 \text{ (SHARP EDGE)}$$

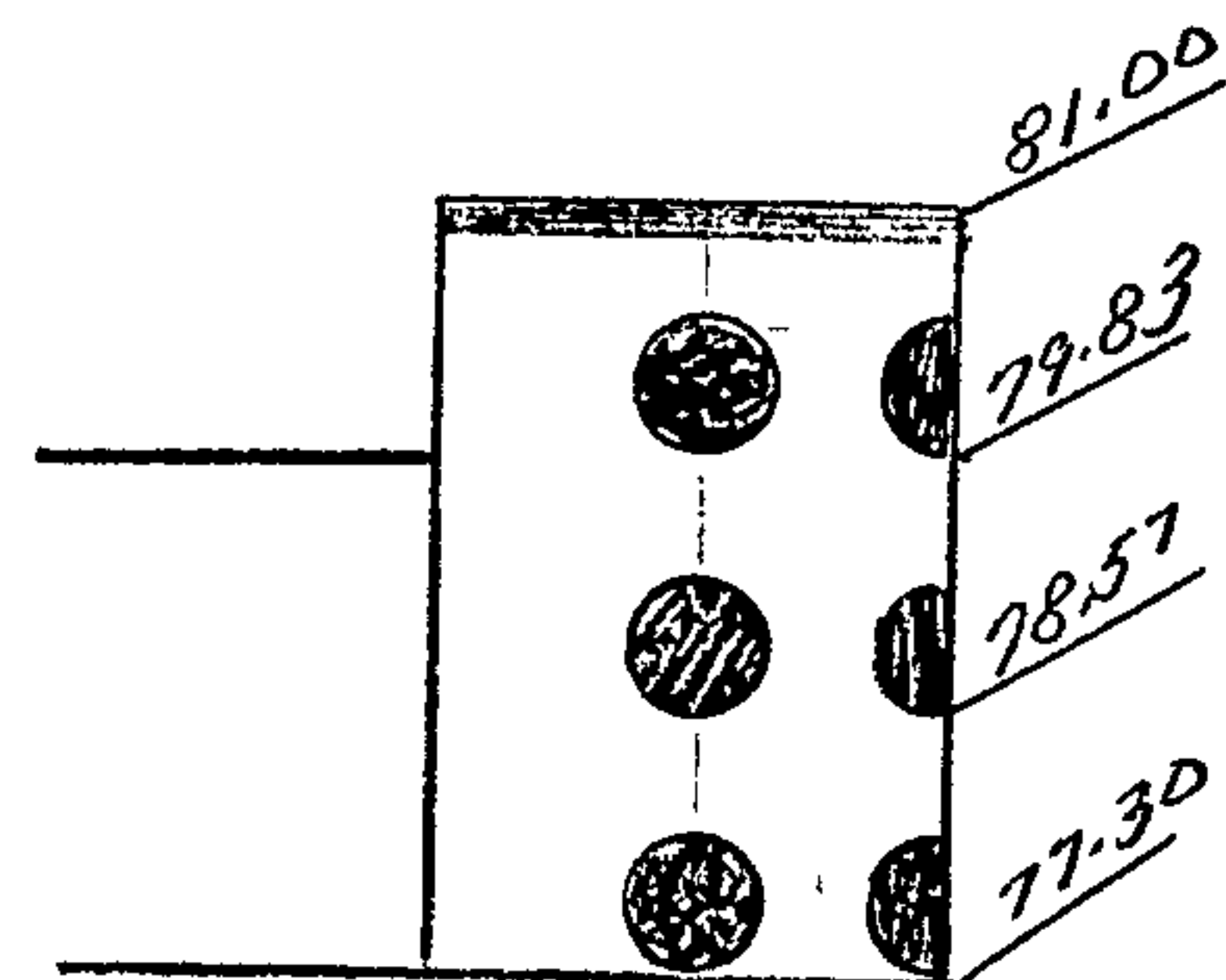
1. TRY (3) 6" HOLES PER ROW: $A = 3 \cdot .196 = .589 \text{ SF}$

| ELEV. | Q OUT (CFS) |
|-------|------------------------------|
| 77.80 | 2 |
| 79.15 | $3.85 + 2 = 5.85$ |
| 80.50 | $5.07 + 3.85 + 2 = 10.92$ |
| 81.00 | $5.46 + 4.35 + 2.84 = 12.65$ |



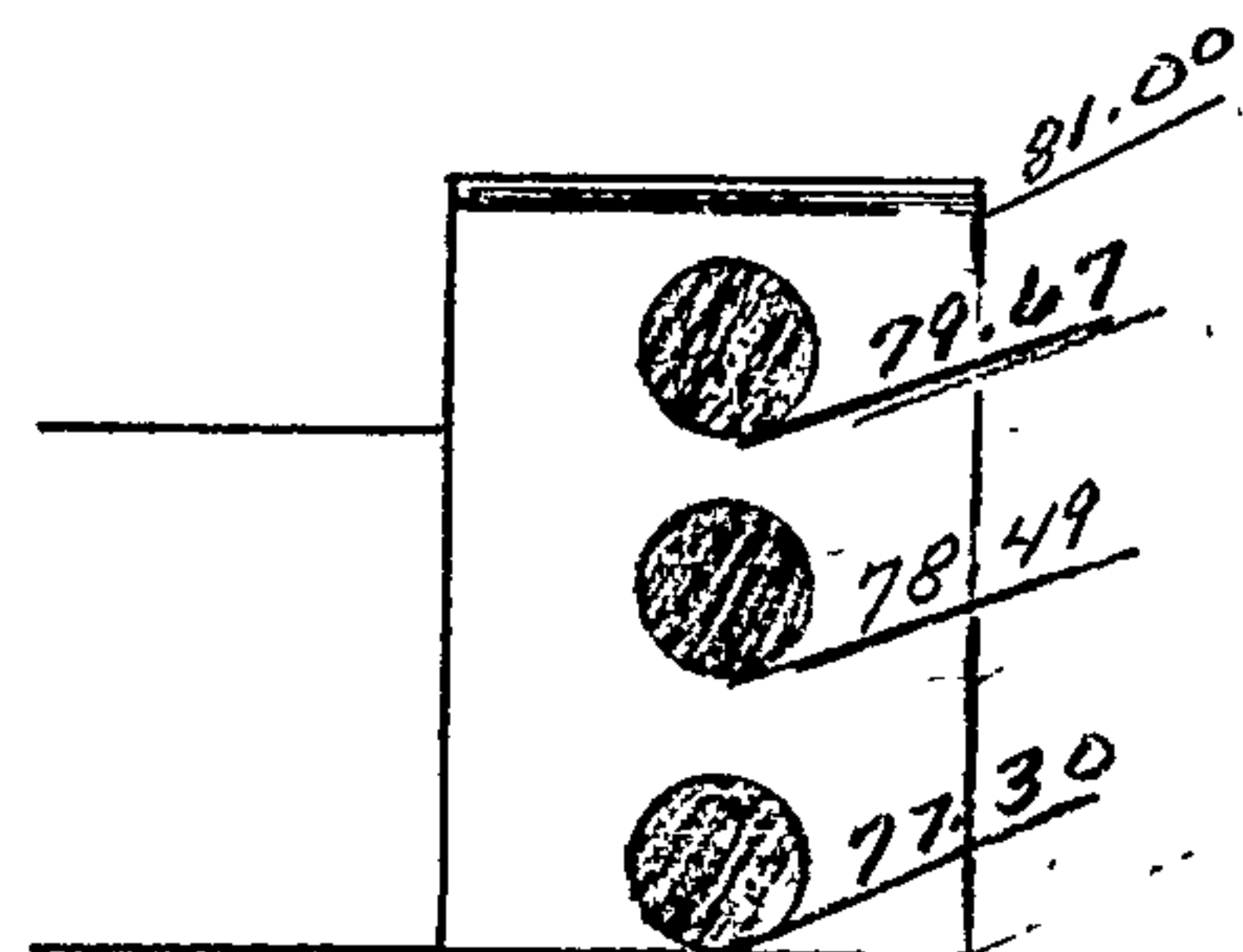
2. TRY (3) 8" HOLES PER ROW: $A = 3 \cdot .349 = 1.055 \text{ SF}$

| ELEV. | Q OUT (CFS) |
|-------|------------------------------|
| 77.97 | 4.14 |
| 79.24 | $7.04 + 4.14 = 11.18$ |
| 80.50 | $9.04 + 7.04 + 4.14 = 20.22$ |
| 81.00 | $9.72 + 7.88 + 5.47 = 23.07$ |



3. TRY (2) 10" HOLES PER ROW: $A = 2 \cdot 1.675 \text{ SF}$

| ELEV. | Q OUT (CFS) |
|-------|--|
| 78.13 | 7.34 |
| 79.32 | $11.43 + 7.34 = 18.77 \text{ CFS}$ |
| 80.50 | $14.38 + 11.43 + 7.34 = 33.15 \text{ CFS}$ |
| 81.00 | $15.47 + 12.74 + 9.27 = 37.48 \text{ CFS}$ |



∴ USE (2) 10" HOLES PER ROW
DESIGN ALLOWS FOR 32% Clogging Factor



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

PROJECT Montano Retail
SUBJECT Drainage Calc
BY JSD DATE 10-10-04
CHECKED _____ DATE _____
SHEET _____ OF _____

MONTANO RETAIL DETENTION POND SUMMARY

| ELEV. | AREA (SF) | VOL (AC-FT) | Σ VOL (AC-FT) | Q OUT (CFS) |
|-------|--------------|----------------|-------------------------|----------------|
| 76 | 8,028 | 0 | 0 | 0 |
| 78 | 10,635 | .43 | .43 | 6.73 |
| 80 | 13,200 | .55 | .98 | *28.37 |
| 81.0 | 14,135 | .63 | 1.18 | *37.48 |

* Using 32% clogging factor $Q_{out} = 37.48 - (.32 \cdot 37.48)$
 $= 25.49 \text{ cfs}$

W/ TOP OF WALL ELEV. @ 81.50, 0.5'
OF FREEBOARD IS AVAILABLE ABOVE
EMERGENCY SPILLWAY

CITY OF ALBUQUERQUE



**Planning Department
Transportation Development Services Section**

May 31, 2006

Mr. George Rainhart, Registered Architect
GEORGE RAINHART AND ASSOCIATES
2325 San Pedro Drive NE, STE 2B
Albuquerque, NM 87110

Re: Certification Submittal for Final Building Certificate of Occupancy for
MONTANO RETAIL, [E-12 / D3E]
6001 Winter Haven Road NE
Architect's Stamp Dated 05/30/2006

P.O. Box 1293

Dear Mr. Rainhart:

Albuquerque

The TCL / Letter of Certification submitted on May 31, 2006 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Sincerely,

New Mexico 87103

www.cabq.gov

Wilfred Gallegos, P.E.
Traffic Engineer
Development and Building Services
Planning Department

c: Engineer
Hydrology file
CO Clerk

TRAFFIC CERTIFICATION

I, GEORGE RAINHART, NMPE OR NMRA #580, OF
 THE FIRM GEORGE RAINHART & ASSOC., HEREBY CERTIFY THAT
 THIS PROJECT HAS IS IN DESIGN SUBSTANTIAL COMPLIANCE WITH AND IN
 ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED
8.29.05. THE RECORD INFORMATION EDITED ONTO THE
 ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY
William Suttles OF THE FIRM GEORGE RAINHART. I FURTHER
 CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON
MAY 30, 2006 AND HAVE DETERMINED BY VISUAL INSPECTION
 THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE
 CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY
 KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN
 SUPPORT OF A REQUEST FOR CERTIFICATE OF OCCUPANCY (C.O.)

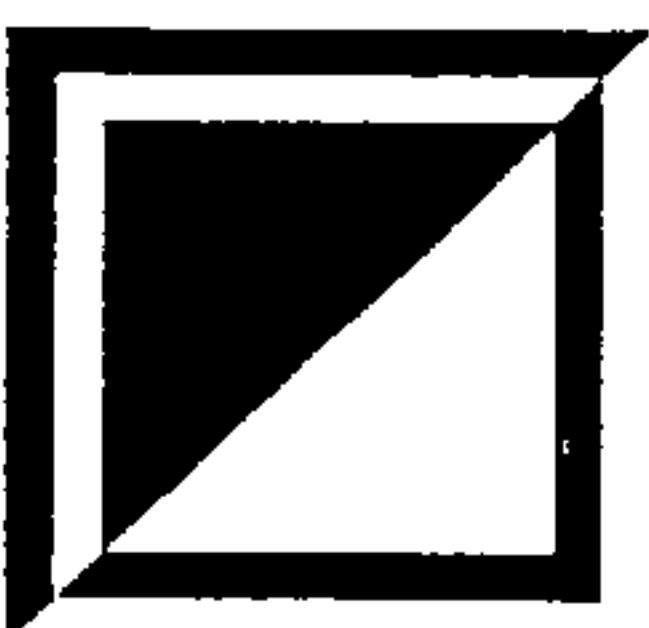
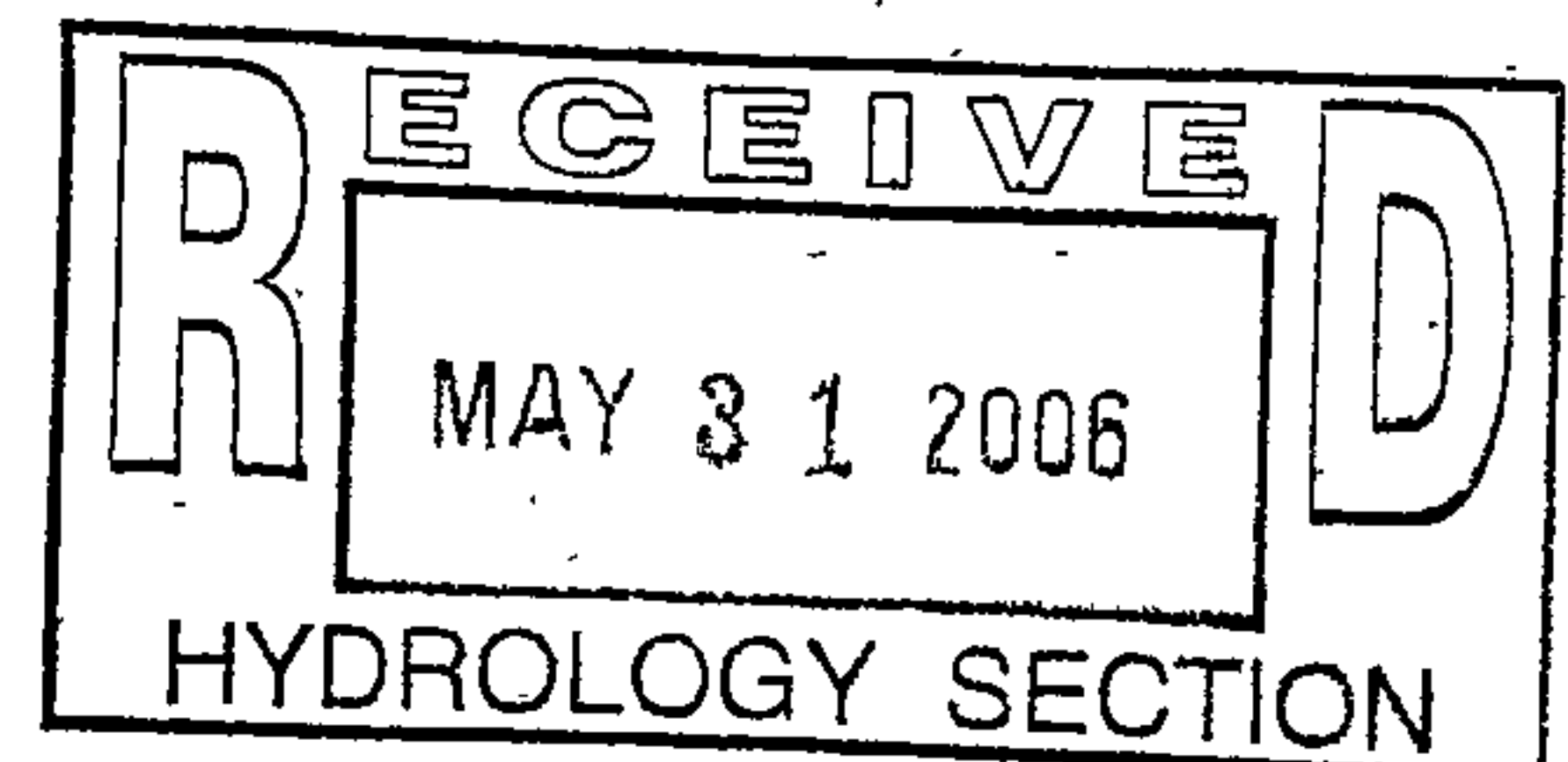
THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY
 COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE
 OF THE TRAFFIC ASPECTS OF THIS PROJECT. THOSE RELYING ON THE
 RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT
 VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER
 PURPOSE.



[Signature]
 Signature of Engineer or Architect

ENGINEER'S OR ARCHITECT'S STAMP

5.30.06
 Date



GEORGE RAINHART, ARCHITECT & ASSOCIATES P.C.
 2325 SAN PEDRO NE SUITE 2-B ■ ALBUQUERQUE, NEW MEXICO 87110
 PHONE: 505-884-9110 ■ FAX: 505-837-9877 ■ Email: graa@gra-arch.com

