CITY OF
Albuquerque

September 9, 1997

Martin J. Chávez, Mayor

Roger Martinez, Jr.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, NM 87102

RE: RIO GRAND TITLE COMPANY PARKING LOT (J18-D1A). GRADING AND DRAINAGE PLAN FOR PAVING PERMIT. ENGINEER'S STAMP DATED AUGUST 20, 1997.

Dear Mr. Martinez:

Based on the information provided on your August 20, 1997 submittal, City Hydrology has the following comments:

1. It appears that some flow from this site is directed over the sidewalk (area between retaining wall). A sidewalk culvert and SO #19 permit will be required.

2. Is the area between the retaining walls concrete?

3. Provide existing contours. I can follow the flow pattern to the trash enclosure. Where does the flow exit the site?

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

Sincerely,

Lisa Ann Manwill, P.E.
Hydrology

c: Andrew Garcia
File

DRAINAGE INFORMATION SHEET

01A

PROJECT TITLE: RIO GRANDE TITLE COMPANY ZONE ATLAS/DRNG,FILE#: J-18

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

LEGAL DESCRIPTION: TRACTS A-1 AND 1A BEVERLY-WOOD ADDITION

CITY ADDRESS: 6400 INDIAN SCHOOL RD, ALBQ, NM 87110

ENGINEERING FIRM: D. MARK GOODWIN & ASSOCIATES CONTACT: Roger Martinez

ADDRESS: 8916 Adams NE, ALBQ, NM 87109 PHONE: 828-2200

OWNER: Rio Grande Title CONTACT: Mike Salvador

ADDRESS: 6400 INDIAN SCHOOL RD, ALBQ, NM 87110 PHONE: 884-9110

ARCHITECT: Rainhart Architects CONTACT: Mike Salvador

ADDRESS: 2325 San Pedro NE, Ste 2B Albq, NM 87110 PHONE: 884-9110

SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT

__X__ DRAINAGE PLAN

CONCEPTUAL GRADING & DRAINAGE PLAN

__X__ GRADING PLAN

____ EROSION CONTROL PLAN

____ ENGINEER'S CERTIFICATION

____ OTHER

PRE-DESIGN MEETING:

____ YES

__X__ 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

__X__ PAVING PERMIT APPROVAL

____ S.A.D. DRAINAGE REPORT

____ DRAINAGE REQUIREMENTS

____ OTHER _____ (Specify)

DATE SUBMITTED: 20 August 97

BY: Roger Martinez

RECEIVED
AUG 20 1997
HYDROLOGY SECTION

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

August 19, 1997

Hydrology Section, City of Albuquerque
Plaza Del Sol
200 Lomas NW
Albuquerque, NM 87102

RE: *RIO GRANDE TITLE COMPANY PARKING LOT IMPROVEMENTS*

To Whom It May Concern:

Attached, please find the drainage calculations, grading and drainage plan for the Rio Grande Title Company located at the southwest intersection of Indian School Road and Americas Parkway.

The site is currently an existing landscaped area in an existing commercial site. The proposed construction for this site is an additional parking lot in the existing landscaped area. The proposed improvements will increase the impervious area and increase the existing storm runoff. The increase in the 100yr-6hr storm runoff is Q=0.34 cfs. This is a negligible increase and can readily be conveyed by existing drainage improvements. AHYMO was used and fully developed conditions were assumed to calculate and obtain the developed flows in accordance with current city standards and ordinances(see attached sheets).

If you have any questions concerning this site or the submittal, please contact me at 828-2200.

Sincerely,

D. MARK GOODWIN & ASSOCIATES, P.A.

Roger Martinez, Jr.

Attachments

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START                   TIME=0.0

*****   HYDROGRAPH FOR RIO GRANDE TITLE COMPANY PARKING LOT.
*****   SOUTHWEST CORNER OF INDIAN SCHOOL AND AMERICAS PARKWAY
*****   INTERSECTION.

RAINFALL                TYPE=1 RAIN QUARTER=0.0 IN
                        RAIN ONE=2.14 IN RAIN SIX=2.60 IN
                        RAIN DAY=3.10 IN DT=0.03333 HR

*HYDROGRAPH FOR EXISTING CONDITIONS
COMPUTE NM HYD          ID=1 HYD NO=101.1 AREA=0.0003 SQ MI
                        PER A=0.0 PER B=50.0 PER C=50.0 PER D=0.00
                        TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD               ID=1 CODE=1

*HYDROGRAPH FOR PROPOSED CONDITIONS
COMPUTE NM HYD          ID=2 HYD NO=101.2 AREA=0.0003 SQ MI
                        PER A=0.0 PER B=7.50 PER C=7.50 PER D=85.0
                        TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD               ID=2 CODE=1

FINISH
```

.19 acres

Qex = .50
QP = .96

.05

.37

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     AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
          RUN DATE (MON/DAY/YR) = 08/16/1997
          START TIME (HR:MIN:SEC) = 09:20:25     USER NO.= M_GOODWN.I01
          INPUT FILE = RIOGRNDE.DAT

START                    TIME=0.0

*****    HYDROGRAPH FOR RIO GRANDE TITLE COMPANY PARKING LOT.
*****    SOUTHWEST CORNER OF INDIAN SCHOOL AND AMERICAS PARKWAY
*****    INTERSECTION.

RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=2.14 IN RAIN SIX=2.60 IN
                         RAIN DAY=3.10 IN DT=0.03333 HR

                    COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS
2 - PEAK AT 1.40 HR.
DT =     .033330 HOURS          END TIME =     5.999400 HOURS
   .0000   .0027   .0055   .0084   .0113   .0143   .0173
   .0204   .0236   .0269   .0302   .0337   .0372   .0408
   .0445   .0484   .0523   .0564   .0606   .0649   .0694
   .0741   .0789   .0839   .0892   .0946   .1003   .1063
   .1126   .1192   .1262   .1322   .1385   .1452   .1597
   .1922   .2422   .3139   .4119   .5407   .7049   .9093
  1.1588  1.3904  1.4871  1.5687  1.6414  1.7074  1.7683
  1.8247  1.8775  1.9270  1.9735  2.0174  2.0589  2.0982
  2.1354  2.1707  2.2041  2.2359  2.2661  2.2737  2.2807
  2.2875  2.2939  2.3001  2.3060  2.3117  2.3172  2.3226
  2.3277  2.3328  2.3376  2.3423  2.3470  2.3514  2.3558
  2.3601  2.3643  2.3683  2.3723  2.3762  2.3801  2.3838
  2.3875  2.3911  2.3947  2.3982  2.4016  2.4050  2.4083
  2.4115  2.4147  2.4179  2.4210  2.4241  2.4271  2.4301
  2.4330  2.4359  2.4388  2.4416  2.4444  2.4472  2.4499
  2.4526  2.4553  2.4579  2.4605  2.4631  2.4656  2.4681
  2.4706  2.4731  2.4755  2.4779  2.4803  2.4827  2.4850
  2.4873  2.4896  2.4919  2.4942  2.4964  2.4986  2.5008
  2.5030  2.5052  2.5073  2.5094  2.5115  2.5136  2.5157
  2.5177  2.5198  2.5218  2.5238  2.5258  2.5277  2.5297
  2.5317  2.5336  2.5355  2.5374  2.5393  2.5412  2.5430
  2.5449  2.5467  2.5486  2.5504  2.5522  2.5540  2.5557
  2.5575  2.5593  2.5610  2.5627  2.5645  2.5662  2.5679
  2.5696  2.5713  2.5729  2.5746  2.5762  2.5779  2.5795
  2.5811  2.5828  2.5844  2.5860  2.5876  2.5891  2.5907
  2.5923  2.5938  2.5954  2.5969  2.5984  2.6000

*HYDROGRAPH FOR EXISTING CONDITIONS

COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.0003 SQ MI
```

PER A=0.0 PER B=50.0 PER C=50.0 PER D=0.00

TP=0.1333 HR MASS RAINFALL=-1

K = .121284HR TP = .133300HR K/TP RATIO = .909858
SHAPE CONSTANT, N = 3.892621
UNIT PEAK = .78307 CFS UNIT VOLUME = .9834 B = 347.95 P60 = 2.1400
AREA = .000300 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = 1.09062 INCHES = .0174 ACRE-FEET
PEAK DISCHARGE RATE = .59 CFS AT 1.500 HOURS BASIN AREA = .0003 SQ. MI.

*HYDROGRAPH FOR PROPOSED CONDITIONS

COMPUTE NM HYD ID=2 HYD NO=101.2 AREA=0.0003 SQ MI

PER A=0.0 PER B=7.50 PER C=7.50 PER D=85.0

TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000
SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 1.0068 CFS UNIT VOLUME = .9881 B = 526.28 P60 = 2.1400
AREA = .000255 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .121284HR TP = .133300HR K/TP RATIO = .909858
SHAPE CONSTANT, N = 3.892621
UNIT PEAK = .11746 CFS UNIT VOLUME = .8838 B = 347.95 P60 = 2.1400
AREA = .000045 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=2 CODE=1

PARTIAL HYDROGRAPH 101.20

RUNOFF VOLUME = 2.16558 INCHES = .0346 ACRE-FEET
PEAK DISCHARGE RATE = .93 CFS AT 1.500 HOURS BASIN AREA = .0003 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 09:20:26

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994 RUN DATE (MON/DAY/YR) =08/16/1997
INPUT FILE = RIOGRNDE.DAT USER NO.= M_GOODWN.I01

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION	
START										TIME=	.00
RAINFALL TYPE= 1										RAIN6=	2.600
COMPUTE NM HYD	101.10	-	1	.00030	.59	.017	1.09062	1.500	3.066	PER IMP=	.00
COMPUTE NM HYD	101.20	-	2	.00030	.93	.035	2.16558	1.500	4.825	PER IMP=	85.00
FINISH											