CITY OF ALBUQUERQUE

January 8, 2009

Martin J. Garcia, P.E.
ABQ Engineering, INC.
6739 Academy Rd. NE, Ste. 130
Albuquerque, NM 87109

Re: Unser Blvd & Bluewater Road Development
Tracts L-1-C-1 & L-1-C-2 Atrisco Business Park,
Grading and Drainage Plan (Resubmittal)
Engineer's Stamp dated ~~11-05-08~~ (K-10/D023C1)
12-29-08

Dear Mr. Garcia,

Based upon the information provided in your resubmittal received 12-29-08, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. **Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.**

PO Box 1293

The above referenced plan is approved for an SO-19 permit. A copy of this approval letter must be on hand when applying for the excavation permit. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required. Be advised that no Certificate of Occupancy, temporary or permanent, will be released prior to inspection and approval of the storm drain connection / sidewalk culvert by the Storm Drain Maintenance department. Contact Duane Schmitz at 235-8016 to schedule an inspection.

Albuquerque
NM 87103

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. In addition to submitting an NOI to the EPA and preparing a Stormwater Pollution Prevention Plan (SWPPP), please send a copy of the SWPPP on a CD in .pdf format to the following address:

www.cabq.gov

Department of Municipal Development
Storm Drainage Division
P.O. Box 1293, One Civic Plaza, Rm. 301
Attn: Kathy Verhage
Albuquerque, NM 87103

If you have any questions regarding this permit please feel free to call the DMD Storm Drainage Design section at 768-3654 (Kathy Verhage).

CITY OF ALBUQUERQUE

If you have any questions, you can contact me at 924-3630.

Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: Duane Schmitz, DMD Street / Storm Maintenance (Pino Yards)
Antoinette Baldonado, Construction Services
Kathy Verhage, DMD Storm Drainage Design
File

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Unser Blvd & Bluewater Road development
DRB #: _____ EPC#: _____

ZONE MAP/DRG. FILE #: K-10 / D023C1
WORK ORDER#: _____

LEGAL DESCRIPTION: Tracts L-1-C-1 and L-1-C-2 Atrisco Business park
CITY ADDRESS: _____

ENGINEERING FIRM: ABQ Engineering
ADDRESS: 6739 Academy NE Suite 130
CITY, STATE: Albuquerque, NM

CONTACT: Martin J. Garcia
PHONE: 255-7802
ZIP CODE: 87109

OWNER: Empire Capital
ADDRESS: 2403 San Mateo Blvd. NE
CITY, STATE: Albuquerque, NM

CONTACT: Jack Clifford
PHONE:
ZIP CODE: 87110

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE:
ZIP CODE: _____

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, ***REQUIRES TCL or equal***
- ☒ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☒ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ 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 (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☒ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED

RECEIVED
DEC 29 2008
HYDROLOGY SECTION

DATE SUBMITTED: December 29, 2008

BY: Martin J. Garcia

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope ot the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.

ABQ Engineering, Inc.
Engineers ▪ Planners ▪ Construction Services

December 29, 2008

Mr. Nilo E. Salgado-Fernandez, P.E.
Senior Engineer, Planning Department
City of Albuquerque
Development Services
600 Second Street NW
Albuquerque, NM 87102

RE: Grading and Drainage Plan K-10/D023C1

Dear Mr. Salgado-Fernandez,

I am in receipt of your comments for this project dated November 13, 2008, and have made the appropriate changes required to the Grading and Drainage Plan which is submitted herewith. In addition, I offer the following responses to the questions raised with the comments:

1. Please quantify all flows entering the site from the North and East.
   The area to the North and East are part of other drainage basins that drain away from this site, and thus do not contribute any flows to this site.

2. Provide spot elevations at the trash enclosure to assure positive flow.
   The spot elevations have been added.

3. Show water block at Bluewater as stated on the drainage narrative.
   The water block has been added.

4. FEMA Panel number will be needed for the 100-year floodplain.
   The FEMA Panel has been added.

5. Information for the proposed new sidewalk culvert on Bluewater will need to be provided.
   The sidewalk culvert was removed the from the plan since it will now drain into Unser.

6. Invert elevations, and details for the 12 inch standpipe and connection will be needed.
   Additional information regarding the invert elevations was added. In addition, the standpipe was replaced with a 2 ft. by 2 ft. area inlet. The connection is as per COA standards, as called out on the plan.

7. Pipe calculations will be needed to substantiate that the pond will drain at the rate equivalent to the Historic runoff rate.
   The ahymo input, output and pond excel files have been included with this submittal. The discharge will be higher than the historic rate, but as per

6739 Academy Rd. NE, Suite 130 ▪ Albuquerque, New Mexico 87109 ▪ (505) 255-7802 ▪ Fax (505) 255-7902

conversation with Brad Bingham, are acceptable due to the fact that the storm drain in Unser has adequate capacity to accept the runoff from this site.

8. Will a cross lot drainage easement be needed with adjacent property to the North? Explain.
   A cross lot drainage easement is not required since the area to the north is part of a separate drainage basin that drains to the northeast off of this site.

With submittal, the plan is ready for approval from the City. If you have any questions or require additional information, please call me at 255-7802.

Sincerely,

Martin J. Garcia, PE
ABQ Engineering Inc.
28130

ahymo input pond

```
*                   ************************************
*                   Unser/Bluewater PONDING CALCS
*                   *100 YEAR 6 HOUR PROP CONDITIONS
*                   ************************************
START               TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-3
RAINFALL            TYPE=1 RAIN QUARTER=0.0
                    RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                    RAIN DAY=2.66 IN DT=0.0333 HRS
*                   ***********
COMPUTE NM HYD      ID=1 HYD NO=A1 DA=0.0028 SQ MI
                    PER A=0 PER B=21 PER C=0 PER D=78
                    TP=-0.1333 HR MASS RAIN=-1
*                   ***********
PRINT HYD           ID=1 CODE=1
*
*                   **********************
*                   Interim POnd 1
*                   **********************
ROUTE RESERVOIR     ID=200 HYD=POND1 INFLOW= ID=1 CODE=5
                    OUTFLOW(CFS)  STORAGE(AC FT)  ELEVATION (FT)
                       0              0.0              14.00
                       4.26           0.032            15.00
                       5.70           0.075            16.00

*
FINISH
```

```
↕←☼←0

        AHYMO PROGRAM (AHYMO_97) -                          - Version:  1997.02e
              RUN DATE (MON/DAY/YR) = 12/29/2008
              START TIME (HR:MIN:SEC) = 14:11:42     USER NO.= AHYMO-I-
9702a0100003C-SH
              INPUT FILE = K:\Projects\2008\28130\ahymo input pond.txt


     *                    ************************************
     *                    Unser/Bluewater PONDING CALCS
     *                    *100 YEAR 6 HOUR PROP CONDITIONS
     *                    ************************************
     START                TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-3
       RAINFALL             TYPE=1 RAIN QUARTER=0.0
                            RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                            RAIN DAY=2.66 IN DT=0.0333 HRS

                          COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2
- PEAK AT 1.40 HR.
                          DT =     .033300 HOURS        END TIME =     5.994000 HOURS
                             .0000   .0016   .0033   .0050   .0067   .0085   .0103
                             .0121   .0140   .0160   .0180   .0200   .0221   .0243
                             .0265   .0288   .0312   .0336   .0361   .0387   .0414
                             .0442   .0471   .0501   .0533   .0566   .0600   .0636
                             .0674   .0714   .0757   .0808   .0863   .0922   .1044
                             .1323   .1754   .2374   .3221   .4335   .5756   .7527
                             .9690  1.1767  1.2619  1.3336  1.3972  1.4551  1.5084
                            1.5579  1.6041  1.6474  1.6881  1.7266  1.7629  1.7973
                            1.8298  1.8607  1.8900  1.9178  1.9442  1.9515  1.9573
                            1.9627  1.9680  1.9729  1.9777  1.9823  1.9867  1.9909
                            1.9950  1.9990  2.0029  2.0066  2.0102  2.0137  2.0172
                            2.0205  2.0238  2.0269  2.0300  2.0331  2.0360  2.0389
                            2.0418  2.0446  2.0473  2.0500  2.0526  2.0552  2.0578
                            2.0603  2.0627  2.0651  2.0675  2.0698  2.0721  2.0744
                            2.0766  2.0788  2.0810  2.0832  2.0853  2.0873  2.0894
                            2.0914  2.0934  2.0954  2.0974  2.0993  2.1012  2.1031
                            2.1050  2.1068  2.1086  2.1104  2.1122  2.1140  2.1157
                            2.1174  2.1191  2.1208  2.1225  2.1242  2.1258  2.1274
                            2.1290  2.1306  2.1322  2.1338  2.1353  2.1369  2.1384
                            2.1399  2.1414  2.1429  2.1444  2.1459  2.1473  2.1487
                            2.1502  2.1516  2.1530  2.1544  2.1558  2.1571  2.1585
                            2.1599  2.1612  2.1625  2.1639  2.1652  2.1665  2.1678
                            2.1691  2.1703  2.1716  2.1729  2.1741  2.1754  2.1766
                            2.1778  2.1791  2.1803  2.1815  2.1827  2.1839  2.1850
                            2.1862  2.1874  2.1886  2.1897  2.1909  2.1920  2.1931
                            2.1943  2.1954  2.1965  2.1976  2.1987  2.1998

     *                    ***********
     COMPUTE NM HYD       ID=1 HYD NO=A1 DA=0.0028 SQ MI
                          PER A=0 PER B=21 PER C=0 PER D=78
                          TP=-0.1333 HR MASS RAIN=-1
          *****WARNING*****  SUM OF TREATMENT TYPES DOES NOT EQUAL 100 PERCENT
OR TOTAL AREA
```

K = .072649HR TP = .133300HR K/TP RATIO = .545000
SHAPE CONSTANT, N = 7.106429
UNIT PEAK = 8.7096 CFS UNIT VOLUME = .9980 B = 526.28 P60 = 1.8700
AREA = .002206 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .130992HR TP = .133300HR K/TP RATIO = .982685
SHAPE CONSTANT, N = 3.593447
UNIT PEAK = 1.4574 CFS UNIT VOLUME = .9911 B = 327.09 P60 = 1.8700
AREA = .000594 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

* **********
PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA A1

RUNOFF VOLUME = 1.69010 INCHES = .2524 ACRE-FEET
PEAK DISCHARGE RATE = 6.95 CFS AT 1.499 HOURS BASIN AREA = .0028 SQ. MI.

*
* **********
* Interim POnd 1
* **********
ROUTE RESERVOIR ID=200 HYD=POND1 INFLOW= ID=1 CODE=5

OUTFLOW(CFS)	STORAGE(AC FT)	ELEVATION (FT)
0	0.0	14.00
4.26	0.032	15.00
5.70	0.075	16.00

* * * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	14.00	.000	.00
.17	.00	14.00	.000	.00
.33	.00	14.00	.000	.00
.50	.00	14.00	.000	.00
.67	.00	14.00	.000	.00
.83	.00	14.00	.000	.00
1.00	.00	14.00	.000	.00
1.17	.02	14.00	.000	.00

1.33	1.89	14.19	.006	.80
1.50	6.95	15.06	.034	4.34
1.67	3.57	15.28	.044	4.66
1.83	2.23	14.77	.025	3.29
2.00	1.61	14.48	.015	2.04
2.16	.75	14.29	.009	1.25
2.33	.35	14.14	.004	.58
2.50	.22	14.06	.002	.26
2.66	.14	14.04	.001	.18
2.83	.10	14.03	.001	.12
3.00	.07	14.02	.001	.09
3.16	.06	14.02	.000	.06
3.33	.05	14.01	.000	.05
3.50	.04	14.01	.000	.05
3.66	.04	14.01	.000	.04
3.83	.04	14.01	.000	.04
4.00	.04	14.01	.000	.04
4.16	.04	14.01	.000	.04
4.33	.03	14.01	.000	.04
4.50	.03	14.01	.000	.03
4.66	.04	14.01	.000	.04
4.83	.04	14.01	.000	.04
5.00	.04	14.01	.000	.04
5.16	.04	14.01	.000	.04
5.33	.04	14.01	.000	.04
5.49	.04	14.01	.000	.04
5.66	.04	14.01	.000	.04
5.83	.04	14.01	.000	.04
5.99	.04	14.01	.000	.04
6.16	.02	14.01	.000	.03
6.33	.00	14.00	.000	.01
6.49	.00	14.00	.000	.00

PEAK DISCHARGE = 4.763 CFS - PEAK OCCURS AT HOUR 1.60
MAXIMUM WATER SURFACE ELEVATION = 15.349
MAXIMUM STORAGE = .0470 AC-FT INCREMENTAL TIME= .033300HRS

*
FINISH

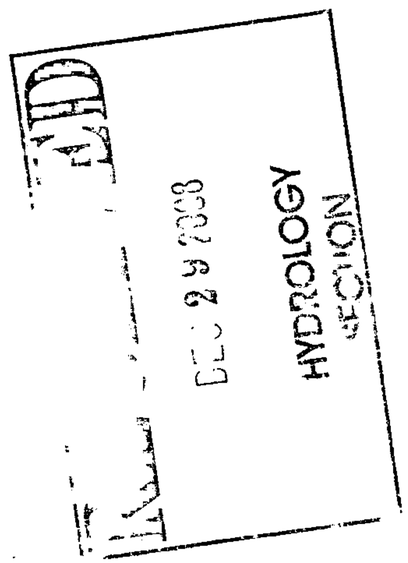
NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 14:11:42

↕←2

unser/bluewater
Drainage pond area computations:
28151 Pond 1
11/26/08

diameter = 1.0000
k= 0.6000
A= 0.7854
Inv el. = 5,113.7300

Height above pond bottom	Pond Elev.	Area (sf)	Average Storage Volume	Cumul. Storage	head	Q
0.0000	5,114.0000	1,195.5300	0.0000	0.0000	0.2700	0.0000
1.0000	5,115.0000	1,613.9700	0.0322	0.0322	1.2700	4.2617
2.0000	5,116.0000	2,100.3100	0.0426	0.0749	2.2700	5.6977



CITY OF ALBUQUERQUE

November 13, 2008

Martin J. Garcia, P.E.
ABQ Engineering, INC.
6739 Academy Rd. NE, Ste. 130
Albuquerque, NM 87109

Re: Unser Blvd & Bluewater Road Development
Tracts L-1-C-1 & L-1-C-2 Atrisco Business Park,
Grading and Drainage Plan
Engineer's Stamp dated 11-05-08 (K-10/D023C1)

Dear Mr. Garcia,

Based upon the information provided in your submittal received 11-06-08, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. Please quantify all offsite flows entering site from the North and East.
2. Provide spot elevations at the Trash Enclosure to assure positive flow.
3. Show water block at Bluewater as stated on Drainage Narrative.
4. FEMA Panel number will be needed for the 100-year floodplain.
5. Information for the proposed new sidewalk culvert on Bluewater will to be provided.
6. Invert elevations, and details for the 12" stand pipe and connection will be needed.
7. Pipe calculations will be needed to substantiate that the pond will drain at the rate equivalent to the Historic runoff rate
8. Will a cross lot drainage easement be needed with adjacent property to the North? Explain?

If you have any questions, you can contact me at 924-3630.

Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: File

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Unser Blvd & Bluewater Road development
DRB #: _____ EPC#: _____

ZONE MAP/DRG. FILE #: K-10 / D23C1
WORK ORDER#: _____

LEGAL DESCRIPTION: Tracts L-1-C-1 and L-1-C-2 Atrisco Business park
CITY ADDRESS: _____

ENGINEERING FIRM: ABQ Engineering
ADDRESS: 6739 Academy NE Suite 130
CITY, STATE: Albuquerque, NM

CONTACT: Martin J. Garcia
PHONE: 255-7802
ZIP CODE: 87109

OWNER: Empire Capital
ADDRESS: 2403 San Mateo Blvd. NE
CITY, STATE: Albuquerque, NM

CONTACT: Jack Clifford
PHONE:
ZIP CODE: 87110

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE:
ZIP CODE: _____

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☒ DRAINAGE PLAN 1st SUBMITTAL, ***REQUIRES TCL or equal***
- ☒ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☒ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER 5019

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ 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 (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

50' ROW

RECEIVED
NOV 05 2008
HYDROLOGY SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED

11/5/08

DATE SUBMITTED: November 5, 2008

BY: Nicholas Garcia

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope ot the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

ABQ Engineering, Inc.
Engineers ▪ Planners ▪ Construction Services

November 06, 2008

Mr. Brad Bingham
Planning Department, Hydrology Development
Plaza del Sol Building
600 2nd Street NW
Albuquerque, NM 87102

RE: Unser Boulevard and Bluewater Road Development (K-10/D023C1)
Grading and Drainage Plan

Dear Mr. Bingham:

Resubmitted for your review and approval is the grading and drainage plan for the development at Unser Boulevard and Bluewater Road. The grading and drainage plan previously approved has been modified to allow for discharge into the Unser storm drain system as per our conversation. Please review and approve the revised plan as soon as is possible.

If you have any questions or require any additional information, please call me at 255-7802.

Sincerely,

Ashley Tanner
Martin J. Garcia, PE
ABQ Engineering, Inc.
28130

RECEIVED
NOV 06 2008
HYDROLOGY SECTION