DRAINAGE INFORMATION SHEET

PROJECT TITLE: Manzano Mesa Apartments ZONE MAP/DRG. FILE # L-21/D52
DRB #: _____ EPC#: 1000938 WORK ORDER#: _____

LEGAL DESCRIPTION: Tract G-3-A Manzano Mesa
CITY ADDRESS: SE corner of La Entrada (one Street south of Southern) and Eubank SE

ENGINEERING FIRM: Bohannan Huston, Inc. CONTACT: Bruce Stidworthy
ADDRESS: 7500 Jefferson NE PHONE: 823-1000
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: GSL Properties CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

ARCHITECT _____ CONTACT: _____
ADDRESS _____ PHONE: _____
CITY, STATE _____ ZIP CODE: _____

SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:
- X DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- ___ GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION
- ___ CLOMR/LOMR
- ___ OTHER

WAS A PRE-DESIGN CONFERENCE ATTENDED:
- X YES (informal discussion with Loren M.)
- ___ NO
- ___ COPY PROVIDED

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
- X BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- X WORK ORDER APPROVAL
- ___ OTHER (SPECIFY)
  Master Drainage Plan

DATE SUBMITTED: 8/28/01 BY: Bruce Stidworthy, Bohannan Huston, Inc.

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of 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.

RECEIVED
AUG 28 2001
HYDROLOGY SECTION

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 6, 2001

Bruce Stidworthy, PE
Bohannan Huston, Inc.
7500 Jefferson NE
Albuquerque, NM 87109

Re: Manzano Mesa Apartments, Phase 1 Drainage Report
Engineer's Stamp dated 8-24-01 (L21/D52)

Dear Mr. Stidworthy,

Based upon the information provided in your submittal dated 8-29-01, the above referenced plan is approved for Building Permit. Please be advised the that the work to be done in the public R/W will need to be achieved through the Work Order process.

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

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

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

Sincerely,

Bradley L. Bingham

Bradley L. Bingham, PE
Sr. Engineer, Hydrology

C: file

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

CLIENT/COURIER TRANSMITTAL

BOHANNAN HUSTON
Courtyard One
7500 JEFFERSON NE
Albuquerque
NEW MEXICO 87109
voice 505.823.1000
fax 505.798.7988

To: Brad Bingham, P.E.
Hydrology Department
City of Albuquerque
600 2nd Street NW, 2nd Floor

Phone: 924-3986

Job No.: 01 231

Requested By: Kevin Murtagh / ca

Date: August 28, 2001

Time Due: ☐ This A.M. ☒ This P.M.
☐ Rush ___ ☐ By Tomorrow

Job Name: Manzano Mesa Apartments

DELIVERY VIA

☒ Courier ☐ Federal Express
☐ Mail ☐ UPS
☐ Other _____

PICK UP

Item: _____
_____

ITEM NO.	QUANTITY	DESCRIPTION
1	1	Drainage Information Sheet
2	1	Drainage Report

COMMENTS / INSTRUCTIONS

REC'D BY: _____ RECEIVED AUG 28 2001 HYDROLOGY SECTION *DATE:* _____ *TIME:* _____

MANZANO MESA APARTMENTS – PHASE I DRAINAGE REPORT

BOHANNAN HUSTON

Courtyard One

7500 JEFFERSON NE

Albuquerque

NEW MEXICO 87109

voice 505.823.1000

fax 505.821 0892

August 24, 2001

PREPARED FOR:

GSL PROPERTIES
2164 S.W. PARK PLACE
PORTLAND, OR 97205-1125

DRAINAGE REPORT
FOR
MANZANO MESA
APARTMENTS – PHASE I

AUGUST 24, 2001

Prepared for:

GSL PROPERTIES
2164 S.W. PARK PLACE
PORTLAND, OR 97205-1125

Prepared by:

BOHANNAN HUSTON, INC.
COURTYARD I
7500 JEFFERSON NE
ALBUQUERQUE, NM 87109

RECEIVED
AUG 28 2001
HYDROLOGY SECTION

PREPARED BY:

BRUCE J. STIDWORTHY
NEW MEXICO
14523
REGISTERED PROFESSIONAL ENGINEER

Bruce Stidworthy, P. E. Date 8/24/01

P \01231\cdp\hydro\MMA_MDP doc

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APPENDIX B - INTERIM POND CALCULATIONS AND INTERIM BASIN MAP
APPENDIX C - LA ENTRADA CALCULATIONS
APPENDIX D - ONSITE HYDRAULIC CALCULATIONS

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EXHIBIT 1 - FINAL DRAINAGE/GRADING PLAN AND POND DETAILS
EXHIBIT 2 - ULTIMATE CONDITIONS BASIN MAP (INCLUDING POND DATA TABLE, INLET TABLE, ORIFICE TABLE, STORM DRAIN PIPE TABLE, BASIN TABLE)
EXHIBIT 3 - MANZANO MESA MDP BASIN MAP

I. PURPOSE

This report and the final grading plan are submitted for Hydrology Division review for the purpose of obtaining rough grading and building permit approval for Phase 1 (Tract G-3-A). No variances are requested with this submittal. This report also serves the purpose of providing detailed drainage criteria for the future development of Tracts G-3-B and H-1 (see plat enclosed with this report.)

II. INTRODUCTION

The purpose of this report is to provide a Drainage Master Plan for development of the Manzano Mesa Apartments. The site contains approximately 23.6 acres. The project has gone through the EPC for zone change approval and site plan approval. The DRB has approved the site plan and the replat for the project.

III. METHODOLOGIES AND REFERENCES

This report is prepared in accordance with City of Albuquerque Development Process Manual (DPM) criteria; specifically, the procedures outlined in DPM Section 22.2. An AHYMO analysis has been done for the site to determine detention pond sizes and pond outflows. This report references the approved Manzano Mesa Drainage Study (prepared by Smith Engineering, 1996).

IV. SITE LOCATION

The site is located on the east side of Eubank south of Southern. In its current condition, the majority of the site is undisturbed; portions of the site have been graded at some point in the past. The site currently drains to the west at a slope of just under 2%. The site is located within Zone Atlas Map #L-21, and Hydrologic Zone 3.

V. EXISTING HYDROLOGIC CONDITIONS

The basin map for the Manzano Mesa Master Drainage Study (enclosed with this report) serves as the existing conditions basin map for this report. An addendum to the existing Manzano Mesa Master Drainage Study (1996, Smith Engineering) identifies the site as Basins 601, 603, and 701. The tract boundaries from the original study did not match the current platting for the area; hence, the city requested that Smith Engineering provide an addendum to modify the study to match the current tract lines. The addendum indicates that Sub-basin 601 should drain to the east to the Manzano Mesa Park Pond. Basins 603 and 701 drain to the south and west. A copy of the most current basin map from that study is included with this report.

A city project (City Project # 4790.02) to construct a storm drain in Stephen Moody (the proposed storm drain will replace System "C" in the Manzano Mesa Master Drainage Study) is currently being designed by Smith Engineering. That storm drain is shown on the enclosed basin map "to be constructed" by others.

For the remainder of this report the existing sub-basins will be referred to by tract name or proposed basin name, as follows:

Sub-Basin 601, Tract G-3-B or Basin B & C; Sub-Basin 602, Tract I-1; Sub-Basin 603, Tract G-3-A or Basin A; Sub-Basin 701, Tract H-1 or Basin D

VI. PROPOSED HYDROLOGIC CONDITIONS

A. Ultimate Development

The proposed development will be in two phases. Phase 1 consists of all of Tract G-3-A and Phase 2 consists of all of Tract G-3-B. Each phase contains 14 apartment buildings with a footprint of approximately 6975 sf each, an office building, parking, driveways and play areas. All of the proposed drainage facilities described below were designed for the 100-year – 6-hour storm under fully developed conditions (unless

otherwise mentioned). As noted previously, this report requests building permit approval for Phase 1 only.

Detailed calculations for onsite drainage, including ponds and onsite storm drain are included in tables on the Ultimate Conditions Basin Map (Exhibit 2).

As the Basin Map indicates, Tract G-3-B, Tract G-3-A, and Tract H-1 are divided into Basins A, B, C, and D under proposed conditions. Specifically, Tract G-3-B is divided into Basins B and C. Tract G-3-A is Basin A, Tract H-1 is Basin D, and La Entrada R/W is Basin O. Due to the constraints imposed by the site topography, only a portion of existing Tract G-3-B (4.68 acres, Basin C) can drain to the Manzano Mesa Park Pond. Drainage is achieved through a series of inlets that drain to the Manzano Mesa Park Pond via a storm drain crossing under Stephen Moody.

Sub-basins B1 – B4 drain to the west side of the tract through a series of detention ponds and then across Basin A (the plat granted a cross drainage easement for the benefit of tract G-3-A). The remaining portion of Basin B drains to the southwest corner of the tract to a concrete ribbon channel. The channel outfalls to a drop inlet located in the southern portion of Tract G-3-A, which drains to the new Eubank storm drain.

Proposed Basin A contains all of Tract G-3-A, and is proposed to drain through detention ponds and drop inlets which outfall to the south in a new storm drain along Eubank (System "E"). The northern portion of Basin A will be graded to force this area to drain to the south thus minimizing the area which drains to the north. Because the total portion of the site that drains to the west and south is significantly larger than was anticipated by the Master Drainage Plan, ponding is required. Sufficient ponding volume to mitigate the peak flow discharged to the South Eubank Storm Drain, to 100 cfs has been provided (100 cfs is the allowable discharge given in the Manzano Mesa MDP; see Basins 603 and 701 on the Basin Map provided in Exhibit 3.

Proposed Basin D consists of all of Tract H-1, and will drain in the same manner indicated by the Master Drainage Plan. Ponding is not required to mitigate the peak developed flow of 54 cfs (due to routing through System "E"). See AHYMO summary sheets in Appendix A.

B. Offsite Development

The new storm drain (System "E") will run west of the right-of-way line and east of the utility poles along the east side of Eubank. It will tie into the South Eubank Storm Drain Phase 1 (System "A", constructed under CPN 4790.91) approximately 220 feet south of the Eubank and Stephen Moody intersection. A stub from this intersection to Tract H-1 will be provided.

Proposed Basin O consists of half of the La Entrada Right-of-Way and is not impacted by any upstream basins. Basin O will drain into inlets in the street and outfall to the storm drain described in Basin A. The storm drain downstream from the inlets in La Entrada will be public. A public drainage easement will have to be granted by paper document.

C. Interim Development

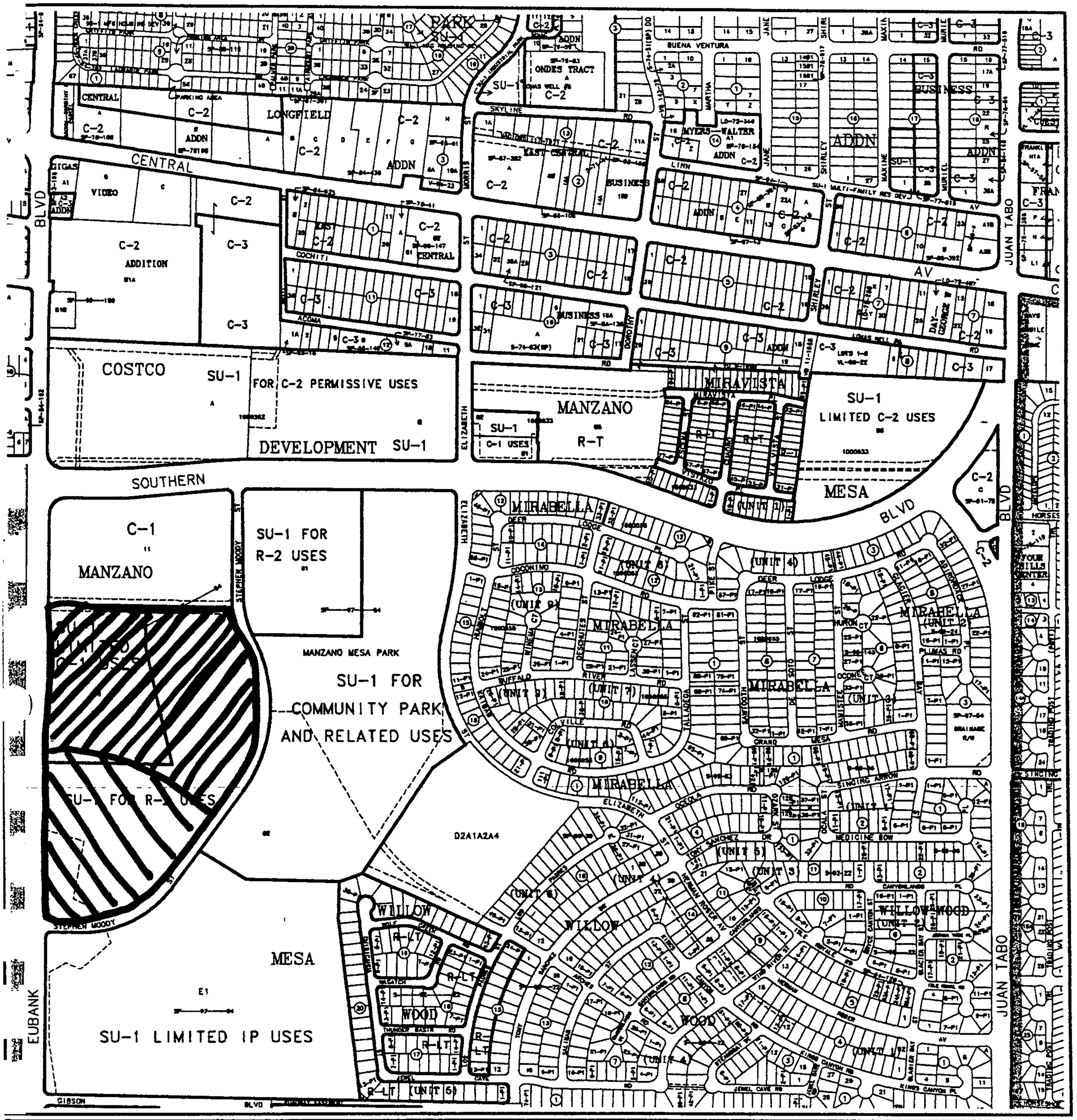
Interim Conditions refer to the portion of the site which is not being developed with Phase 1 but is being partially graded with the rest of the site. This area is Tract G-3-B. For interim conditions, Basin B was modeled as 80% 'A' and 20% 'C' land treatment. Temporary desiltation and detention ponds on Tract G-3-B are required. Those ponds will remove sediment and direct drainage to the areas of Tract G-3-A, which accept flows from G-3-B under developed conditions. The ponds will also mitigate flows to the peak rate allowable under developed conditions. See calculations in Appendix B.

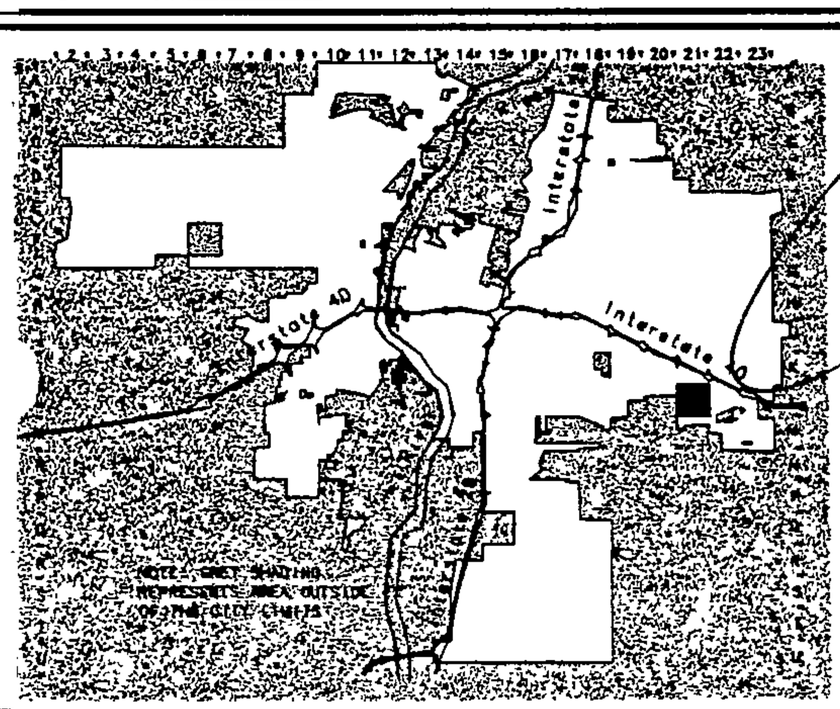
VII. CONCLUSION

This report has given a comprehensive drainage management plan for the proposed development that complies with the DPM and the drainage ordinance and the previously approved conceptual drainage plan. It is recommended that Building Permit approval be granted with this submittal. However, should the Hydrology Division have comments that must be addressed prior to building permit approval, GSL Homes requests rough grading approval prior to full building permit approval. This would allow rough grading operations to begin.

FIGURE 1

VICINITY MAP





700 CUBANO SE

CITY OF
Albuquerque

Albuquerque Geographic Information System
PLANNING DEPARTMENT

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GRAPHIC SCALE IN FEET
250 0 750 1000

Zone Atlas Page

L-21-Z

Map Amended through July 23, 2001

APPENDICES

APPENDIX A: PROPOSED CONDITIONS HYDROLOGY (AHYMO SUMMARY AND OUTPUT FILE)

APPENDIX B: INTERIM POND CALCULATIONS AND INTERIM BASIN MAP

APPENDIX C: LA ENTRADA CALCULATIONS

APPENDIX D: ONSITE HYDRAULIC CALCULATIONS

APPENDIX A

PROPOSED CONDITIONS HYDROLOGY
(AHYMO SUMMARY AND OUTPUT FILE)

```
AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) -                    - VERSION:  1997.02c      RUN DATE (MON/DAY/YR) =08/22/2001
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COMMAND       IDENTIFICATION  NO.   NO.     (SQ MI)     (CFS)       (AC-FT)    (INCHES)   (HOURS)    ACRE     NOTATION

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*S*                 JOB NO. 01231
*S*                 DATE: AUGUST 13, 2001
*S*
*S*                 INPUT FILE NAME: MMA.HYM
*S*                 OUTPUT FILE NAME: MMA.out
*S*                 FILES LOCATION: P:\CDP\01231\HYDRO\AHYMO
*S*   COMMENTS:
*S*                 6 HR,100 year storm event
*S*
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SEDIMENT BULK                                                                                        PK BF =    1.02
*S*****************************************************************
*S*
*S*****************************************************************
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COMPUTE NM HYD            B1   -     1        .00222        6.24        .233      1.97128    1.500    4.391 PER IMP=  70.00
*S*
*S*                 COMPUTE BASIN B2
COMPUTE NM HYD            B2   -     2        .00156        4.39        .164      1.97128    1.500    4.397 PER IMP=  70.00
*S**** ADD B1 AND B2 ****
ADD HYD                  B12  1& 2   3        .00378       10.63        .397      1.97115    1.500    4.394
*S*                 ROUTE THROUGH DETENTION POND
ROUTE RESERVOIR           P1    3   51        .00378        5.29        .397      1.97115    1.667    2.187 AC-FT=     .135
*S
*S*                 COMPUTE BASIN B3
COMPUTE NM HYD            B3   -     1        .00166        4.67        .175      1.97128    1.500    4.396 PER IMP=  70.00
*S*                 COMPUTE BASIN B4
COMPUTE NM HYD            B4   -     2        .00253        7.11        .266      1.97128    1.500    4.389 PER IMP=  70.00
*S**** ADD B3 AND B4 ****
ADD HYD                  B34  1& 2   3        .00419       11.78        .440      1.97116    1.500    4.392
*S**** ADD P1 AND B34 ****
ADD HYD                B34P1 51& 3   4        .00797       15.41        .838      1.97110    1.533    3.021
*S*                 ROUTE THROUGH DETENTION POND
ROUTE RESERVOIR           P2    4   52        .00797        9.73        .838      1.97110    1.767    1.907 AC-FT=     .196
*S*                 ROUTE THROUGH DETENTION POND
ROUTE RESERVOIR           P3   52   53        .00797        8.46        .838      1.97105    2.000    1.659 AC-FT=     .069
COMPUTE NM HYD            A6   -     6        .00116        3.27        .122      1.97128    1.500    4.403 PER IMP=  70.00
*S*                 ROUTE THROUGH DETENTION POND
ROUTE RESERVOIR           P4    6   54        .00116        1.36        .120      1.94626    1.733    1.834 AC-FT=     .059
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COMPUTE NM HYD          A7.4   -     2        .00077        2.18        .081      1.97128    1.500    4.416 PER IMP=  70.00
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*S*                 COMPUTE BASIN A7.1
COMPUTE NM HYD          A7.1   -     2        .00121        3.41        .127      1.97128    1.500    4.402 PER IMP=  70.00
*S*                       ADD A7.1 AND P3
ADD HYD               A7.1P3  2&53   4        .00918        9.86        .965      1.97104    1.633    1.678
*S*                       ADD A7.4P4 AND A7.1P3
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A-1

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
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S	COMPUTE BASIN A7.2									
COMPUTE NM HYD	A7.2	-	12	.00099	2.79	.104	1.97128	1.500	4.407	PER IMP= 70.00
S	COMPUTE BASIN B5									
COMPUTE NM HYD	B5	-	1	.00201	5.65	.211	1.97128	1.500	4.393	PER IMP= 70.00
S										
S	COMPUTE BASIN B6									
COMPUTE NM HYD	B6	-	2	.00122	3.44	.128	1.97128	1.500	4.402	PER IMP= 70.00
*S**** ADD B5 AND B6 ****										
ADD HYD	B56	1& 2	3	.00323	9.09	.340	1.97112	1.500	4.396	
S	ROUTE THROUGH DETENTION POND									
ROUTE RESERVOIR	P5	3	55	.00323	5.23	.340	1.97112	1.633	2.529	AC-FT= .099
*S										
S										
S	COMPUTE BASIN B7									
COMPUTE NM HYD	B7	-	2	.00120	3.38	.126	1.97128	1.500	4.402	PER IMP= 70.00
*S**** ADD P5 AND B7 ****										
ADD HYD	P5B7	55& 2	10	.00443	7.66	.466	1.97102	1.567	2.702	
*S**** ADD A7.2 AND B7P5 ****										
ADD HYD	A7.2B7P5	12&10	11	.00542	10.24	.570	1.97102	1.533	2.952	
*S**** ADD A7.2B7P5 AND A7.14P34 ****										
ADD HYD	A7.142P34B7P	11& 8	13	.01653	21.46	1.736	1.96929	1.600	2.028	
S	COMPUTE BASIN A7.3									
COMPUTE NM HYD	A7.3	-	3	.00065	1.84	.068	1.97129	1.500	4.424	PER IMP= 70.00
*S**** ADD A67.124B7P345 AND A7.3 ****										
ADD HYD	A7P34B7P5	13& 3	7	.01718	22.93	1.804	1.96935	1.567	2.085	
S	COMPUTE BASIN A10									
COMPUTE NM HYD	A10	-	1	.00050	1.55	.059	2.23063	1.500	4.838	PER IMP= 90.00
*S**** ADD A67B7P35 AND A10 ****										
ADD HYD	A10UP	7& 1	6	.01768	24.21	1.864	1.97672	1.567	2.139	
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COMPUTE NM HYD	A2	-	1	.00366	10.27	.385	1.97128	1.500	4.386	PER IMP= 70.00
S	ROUTE THROUGH DETENTION POND									
ROUTE RESERVOIR	P7	1	57	.00366	4.05	.385	1.97121	1.733	1.729	AC-FT= .158
S	COMPUTE BASIN A5									
COMPUTE NM HYD	A5	-	1	.00205	5.76	.216	1.97128	1.500	4.392	PER IMP= 70.00
ADD HYD	A5P7	1&57	3	.00571	8.44	.600	1.97105	1.533	2.309	
COMPUTE NM HYD	A8	-	2	.00074	2.09	.078	1.97128	1.500	4.416	PER IMP= 70.00
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ADD HYD	A85P7	2& 3	10	.00645	10.44	.678	1.97104	1.533	2.529	
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COMPUTE NM HYD	A3	-	3	.00121	3.41	.127	1.97128	1.500	4.402	PER IMP= 70.00
*S**** ADD A3 AND LE ****										
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COMPUTE NM HYD	A1	-	1	.00153	4.31	.161	1.97128	1.500	4.398	PER IMP= 70.00
S	COMPUTE BASIN A4									
COMPUTE NM HYD	A4	-	2	.00177	4.98	.186	1.97129	1.500	4.395	PER IMP= 70.00
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A-2

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*S**** ADD A58P7 AND P8 ****
ADD HYD               A58P7P8 10&58   5        .01233        26.02       1.315      1.99988    1.533    3.297
*S*                  ROUTE THROUGH DETENTION POND
ROUTE RESERVOIR           P9    5   59        .01233        24.70       1.315      1.99988    1.567    3.130 AC-FT=      .022
*S*                  COMPUTE BASIN A9
COMPUTE NM HYD            A9    -    2        .00100         2.82        .105      1.97128    1.500    4.407 PER IMP=   70.00
*S**** ADD P9 AND A9 ****
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*S**** ADD A9UP AND A10UP ****
ADD HYD                 TOTAL  5& 6   3        .03101        51.33       3.284      1.98575    1.533    2.586
*S*                  COMPUTE BASIN 701
COMPUTE NM HYD         701.00    -    1        .01762        53.87       2.096      2.23063    1.500    4.777 PER IMP=   90.00
ROUTE MCUNGE            RTTOT    3    4        .03101        51.16       3.279      1.98249    1.600    2.578 CCODE =      1.0
*S**** ADD RTTOT AND 701 ****
ADD HYD                 701UP  4& 1   2        .04863        99.47       5.375      2.07239    1.533    3.196
*S*
*S*
*S*
*S****TEMPORARY PONDS FOR UNDEVELOPED FLOWS FROM TRACT G-3-B****
*S*
*S*
*S*
COMPUTE NM HYD            B1A    -    1        .01185        15.87        .460       .72713    1.533    2.093 PER IMP=     .00
*S*                  ROUTE THROUGH DETENTION POND
ROUTE RESERVOIR           TP1    1   51        .01185         9.72        .460       .72712    1.667    1.281 AC-FT=      .155
*S*                  COMPUTE BASIN B1B
COMPUTE NM HYD            B1B    -    2        .00790        10.58        .306       .72713    1.533    2.093 PER IMP=     .00
*S*                  ROUTE THROUGH DETENTION POND
ROUTE RESERVOIR           TP2    2   52        .00790         7.65        .306       .72712    1.633    1.513 AC-FT=      .081
FINISH
```

A-3

```
AHYMO PROGRAM (AHYMO_97) -                          - Version:  1997.02c
     RUN DATE (MON/DAY/YR) = 08/22/2001
     START TIME (HR:MIN:SEC) = 15:50:36     USER NO.= AHYMO-S-9702c1BohanHu-AH
     INPUT FILE = MMA1.HYM


*S*                 PROJECT NAME: MANZANO MESA APARTMENTS
*S*                 JOB NO. 01231
*S*                 DATE: AUGUST 13, 2001
*S*
*S*                 INPUT FILE NAME: MMA.HYM
*S*                 OUTPUT FILE NAME: MMA.out
*S*                 FILES LOCATION: P:\CDP\01231\HYDRO\AHYMO
*S*   COMMENTS:
*
*S*                 6 HR,100 year storm event
*S*
RAINFALL             TYPE=1  RAIN QUARTER=0.0  RAIN ONE=2.07
                     RAIN SIX=2.55   RAIN DAY=0.00   DT=.033333

               COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
               DT =     .033333 HOURS        END TIME =     5.999940 HOURS
                  .0000   .0031   .0062   .0094   .0127   .0160   .0194
                  .0229   .0265   .0301   .0339   .0377   .0416   .0457
                  .0499   .0541   .0585   .0631   .0678   .0726   .0777
                  .0829   .0883   .0939   .0997   .1058   .1121   .1188
                  .1258   .1332   .1410   .1467   .1528   .1594   .1734
                  .2049   .2533   .3228   .4177   .5423   .7013   .8992
                 1.1407  1.3641  1.4576  1.5366  1.6068  1.6707  1.7295
                 1.7841  1.8351  1.8830  1.9280  1.9705  2.0106  2.0486
                 2.0846  2.1187  2.1511  2.1818  2.2110  2.2183  2.2253
                 2.2319  2.2383  2.2444  2.2503  2.2560  2.2615  2.2668
                 2.2720  2.2770  2.2818  2.2866  2.2912  2.2957  2.3001
                 2.3043  2.3085  2.3126  2.3167  2.3206  2.3245  2.3283
                 2.3320  2.3356  2.3392  2.3427  2.3462  2.3496  2.3530
                 2.3563  2.3595  2.3627  2.3659  2.3690  2.3721  2.3751
                 2.3781  2.3811  2.3840  2.3869  2.3897  2.3925  2.3953
                 2.3981  2.4008  2.4035  2.4061  2.4088  2.4114  2.4139
                 2.4165  2.4190  2.4215  2.4240  2.4264  2.4288  2.4312
                 2.4336  2.4360  2.4383  2.4406  2.4429  2.4452  2.4474
                 2.4497  2.4519  2.4541  2.4563  2.4584  2.4606  2.4627
                 2.4648  2.4669  2.4690  2.4711  2.4731  2.4752  2.4772
                 2.4792  2.4812  2.4832  2.4851  2.4871  2.4890  2.4910
                 2.4929  2.4948  2.4967  2.4985  2.5004  2.5022  2.5041
                 2.5059  2.5077  2.5095  2.5113  2.5131  2.5149  2.5167
                 2.5184  2.5202  2.5219  2.5236  2.5253  2.5270  2.5287
                 2.5304  2.5321  2.5338  2.5354  2.5371  2.5387  2.5404
                 2.5420  2.5436  2.5452  2.5468  2.5484  2.5500

SEDIMENT BULK            CODE=1 FACTOR=1.025
*
*S*****************************************************************
*S*
*S*****************************************************************
*S*                 COMPUTE BASIN B1
COMPUTE NM HYD       ID=1 HYD NO=B1 DA=0.00222
                     PER A=0  PER B=15 PER C=15 PER D=70
                                   TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   6.1353    CFS   UNIT VOLUME =    .9976       B =   526.28      P60 = 2.0700
     AREA =      .001554 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   1.7479    CFS   UNIT VOLUME =    .9925       B =   349.84      P60 = 2.0700
     AREA =      .000666 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD            ID=1 CODE=1
```

```
                                        HYDROGRAPH FROM AREA B1

    RUNOFF VOLUME =      1.97128 INCHES      =         .2334 ACRE-FEET
    PEAK DISCHARGE RATE =        6.24 CFS  AT   1.500 HOURS   BASIN AREA =   .0022 SQ. MI.


*S*
*S*                   COMPUTE BASIN B2
COMPUTE NM HYD         ID=2 HYD NO=B2 DA=0.00156
                       PER A=0  PER B=15 PER C=15 PER D=70
                                     TP=.1333 RAIN=-1

     K =    .072649HR    TP =    .133300HR    K/TP RATIO =    .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.3113    CFS   UNIT VOLUME =     .9965       B =   526.28      P60 = 2.0700
     AREA =       .001092 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

     K =    .120467HR    TP =    .133300HR    K/TP RATIO =    .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   1.2282    CFS   UNIT VOLUME =     .9899       B =   349.84      P60 = 2.0700
     AREA =       .000468 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD              ID=2 CODE=1

                                        HYDROGRAPH FROM AREA B2

    RUNOFF VOLUME =      1.97128 INCHES      =         .1640 ACRE-FEET
    PEAK DISCHARGE RATE =        4.39 CFS  AT   1.500 HOURS   BASIN AREA =   .0016 SQ. MI.


*
*S**** ADD B1 AND B2 ****
*
ADD HYD                ID=3 HYD=B12 ID I=1 ID II=2
PRINT HYD              ID=3 CODE=1

                                        HYDROGRAPH FROM AREA B12

    RUNOFF VOLUME =      1.97115 INCHES      =         .3974 ACRE-FEET
    PEAK DISCHARGE RATE =       10.63 CFS  AT   1.500 HOURS   BASIN AREA =   .0038 SQ. MI.


*
*S*                   ROUTE THROUGH DETENTION POND
*
ROUTE RESERVOIR              ID=51 HYD=P1  INFLOW ID=3  CODE=5
                                             OUTFLOW(CFS)     STORAGE(AC FT)  ELEV(FT)

                                             0                     0.0                    0

                                     1.8                .047              .5
                                           3.7                     .093                   1.0

                           5.5                          .14                1.5


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

    TIME       INFLOW     ELEV       VOLUME     OUTFLOW
    (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

     .00        .00        .00        .000        .00
     .17        .00        .00        .000        .00
     .33        .00        .00        .000        .00
```

				A.out
.50	.00	.00	.000	.00
.67	.00	.00	.000	.00
.83	.00	.00	.000	.00
1.00	.20	.01	.001	.04
1.17	.28	.03	.003	.12
1.33	2.89	.16	.015	.59
1.50	10.63	.93	.087	3.43
1.67	5.47	1.44	.135	5.29
1.83	3.37	1.31	.122	4.82
2.00	2.35	1.08	.100	3.98
2.17	1.10	.82	.077	3.02
2.33	.56	.56	.053	2.03
2.50	.35	.38	.036	1.37
2.67	.24	.26	.024	.92
2.83	.17	.17	.016	.63
3.00	.13	.12	.011	.43
3.17	.11	.08	.008	.30
3.33	.10	.06	.006	.22
3.50	.09	.05	.004	.17
3.67	.09	.04	.004	.14
3.83	.08	.03	.003	.12
4.00	.08	.03	.003	.10
4.17	.08	.03	.002	.09
4.33	.08	.02	.002	.09
4.50	.07	.02	.002	.08
4.67	.07	.02	.002	.08
4.83	.07	.02	.002	.08
5.00	.08	.02	.002	.08
5.17	.08	.02	.002	.08
5.33	.08	.02	.002	.08
5.50	.08	.02	.002	.08
5.67	.08	.02	.002	.08
5.83	.08	.02	.002	.08
6.00	.08	.02	.002	.08
6.17	.03	.02	.002	.07
6.33	.01	.01	.001	.05
6.50	.00	.01	.001	.03
6.67	.00	.01	.001	.02
6.83	.00	.00	.000	.01
7.00	.00	.00	.000	.01
7.17	.00	.00	.000	.00

```
PEAK DISCHARGE =          5.290 CFS - PEAK OCCURS AT HOUR    1.67
MAXIMUM WATER SURFACE ELEVATION =          1.442
MAXIMUM STORAGE =          .1345 AC-FT      INCREMENTAL TIME=     .033333HRS

*S
PRINT HYD                          ID=51 CODE=1

                                        HYDROGRAPH FROM AREA P1


    RUNOFF VOLUME =      1.97115 INCHES      =         .3974 ACRE-FEET
    PEAK DISCHARGE RATE =        5.29 CFS  AT   1.667 HOURS   BASIN AREA =   .0038 SQ. MI.


*
*
*S*                  COMPUTE BASIN B3
*
COMPUTE NM HYD        ID=1 HYD NO=B3 DA=0.00166
                      PER A=0  PER B=15  PER C=15   PER D=70
                                   TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.5876    CFS   UNIT VOLUME =    .9969       B =   526.28      P60 = 2.0700
     AREA =      .001162 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   1.3070    CFS   UNIT VOLUME =    .9899       B =   349.84      P60 = 2.0700
     AREA =      .000498 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333
```

```
    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD            ID=1 CODE=1

                                        HYDROGRAPH FROM AREA B3


    RUNOFF VOLUME =     1.97128 INCHES     =        .1745 ACRE-FEET
    PEAK DISCHARGE RATE =       4.67 CFS  AT   1.500 HOURS   BASIN AREA =   .0017 SQ. MI.


*
*
*S*                  COMPUTE BASIN B4
*
COMPUTE NM HYD        ID=2 HYD NO=B4 DA=0.00253
                      PER A=0  PER B=15  PER C=15   PER D=70
                                    TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   6.9920    CFS   UNIT VOLUME =    .9978       B =   526.28      P60 = 2.0700
     AREA =      .001771 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   1.9920    CFS   UNIT VOLUME =    .9938       B =   349.84      P60 = 2.0700
     AREA =      .000759 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD            ID=1 CODE=1

                                        HYDROGRAPH FROM AREA B3


    RUNOFF VOLUME =     1.97128 INCHES     =        .1745 ACRE-FEET
    PEAK DISCHARGE RATE =       4.67 CFS  AT   1.500 HOURS   BASIN AREA =   .0017 SQ. MI.


*
*S**** ADD B3 AND B4 ****
*
ADD HYD              ID=3 HYD=B34 ID I=1 ID II=2
*
PRINT HYD            ID=3 CODE=1

                                        HYDROGRAPH FROM AREA B34

    RUNOFF VOLUME =     1.97116 INCHES     =        .4405 ACRE-FEET
    PEAK DISCHARGE RATE =      11.78 CFS  AT   1.500 HOURS   BASIN AREA =   .0042 SQ. MI.


*
*
*
*S**** ADD P1 AND B34 ****
**
ADD HYD              ID=4 HYD=B34P1 ID I=51 ID II=3
*
PRINT HYD            ID=4 CODE=1

                                        HYDROGRAPH FROM AREA B34P1


    RUNOFF VOLUME =     1.97110 INCHES     =        .8378 ACRE-FEET
    PEAK DISCHARGE RATE =      15.41 CFS  AT   1.533 HOURS   BASIN AREA =   .0080 SQ. MI.
```

```
*
*S*                    ROUTE THROUGH DETENTION POND
*
ROUTE RESERVOIR              ID=52 HYD=P2  INFLOW ID=4  CODE=5
                                            OUTFLOW(CFS)    STORAGE(AC FT)  ELEV(FT)

                                            0                     0.0                    0

                                     3.3            .067                   0.5

                                            6.6                   .133                   1.0

                           9.9              .2                1.5

  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *
```

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.17	.00	.00	.000	.00
.33	.00	.00	.000	.00
.50	.00	.00	.000	.00
.67	.00	.00	.000	.00
.83	.00	.00	.000	.00
1.00	.26	.01	.001	.06
1.17	.43	.03	.004	.21
1.33	3.79	.14	.019	.95
1.50	15.21	.83	.110	5.47
1.67	11.35	1.43	.191	9.44
1.83	8.55	1.45	.193	9.55
2.00	6.59	1.29	.172	8.51
2.17	4.24	1.06	.140	6.97
2.33	2.65	.78	.104	5.13
2.50	1.76	.55	.074	3.63
2.67	1.19	.38	.052	2.54
2.83	.82	.27	.036	1.77
3.00	.58	.19	.025	1.23
3.17	.42	.13	.018	.86
3.33	.33	.09	.013	.62
3.50	.27	.07	.009	.46
3.67	.23	.05	.007	.36
3.83	.21	.04	.006	.29
4.00	.19	.04	.005	.24
4.17	.18	.03	.004	.21
4.33	.17	.03	.004	.19
4.50	.16	.03	.004	.18
4.67	.16	.03	.003	.17
4.83	.16	.03	.003	.17
5.00	.16	.02	.003	.16
5.17	.16	.02	.003	.16
5.33	.16	.02	.003	.16
5.50	.16	.02	.003	.16
5.67	.16	.02	.003	.16
5.83	.17	.02	.003	.16
6.00	.17	.03	.003	.17
6.17	.11	.02	.003	.16
6.33	.06	.02	.002	.12
6.50	.04	.01	.002	.08
6.67	.02	.01	.001	.05
6.83	.01	.01	.001	.04
7.00	.01	.00	.000	.02
7.17	.00	.00	.000	.01
7.33	.00	.00	.000	.01
7.50	.00	.00	.000	.01
7.67	.00	.00	.000	.00

```
 PEAK DISCHARGE =          9.725 CFS - PEAK OCCURS AT HOUR    1.77
 MAXIMUM WATER SURFACE ELEVATION =          1.474
 MAXIMUM STORAGE =           .1965 AC-FT      INCREMENTAL TIME=     .033333HRS

*
PRINT HYD                            ID=52 CODE=1
```

HYDROGRAPH FROM AREA P2

RUNOFF VOLUME = 1.97110 INCHES = .8378 ACRE-FEET
PEAK DISCHARGE RATE = 9.73 CFS AT 1.767 HOURS BASIN AREA = .0080 SQ. MI.

```
*
*S*                ROUTE THROUGH DETENTION POND
*
*
ROUTE RESERVOIR          ID=53 HYD=P3  INFLOW ID=52  CODE=5
                                         OUTFLOW(CFS)    STORAGE(AC FT)  ELEV(FT)

                                         0                     0.0                    0

                                   7.82                   .034                   .5

                                         8.46                  .069                   1.0

                                   9.06                   .103                   1.5

* * * * * * * * * * * * * * * * *
```

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.17	.00	.00	.000	.00
.33	.00	.00	.000	.00
.50	.00	.00	.000	.00
.67	.00	.00	.000	.00
.83	.00	.00	.000	.00
1.00	.06	.00	.000	.03
1.17	.21	.01	.001	.16
1.33	.95	.04	.003	.60
1.50	5.47	.24	.016	3.73
1.67	9.44	.56	.038	7.90
1.83	9.55	.87	.060	8.29
2.00	8.51	1.00	.069	8.46
2.17	6.97	.88	.060	8.30
2.33	5.13	.48	.033	7.52
2.50	3.63	.26	.018	4.14
2.67	2.54	.18	.012	2.87
2.83	1.77	.13	.009	2.00
3.00	1.23	.09	.006	1.39
3.17	.86	.06	.004	.97
3.33	.62	.04	.003	.69
3.50	.46	.03	.002	.51
3.67	.36	.02	.002	.39
3.83	.29	.02	.001	.31
4.00	.24	.02	.001	.26
4.17	.21	.01	.001	.22
4.33	.19	.01	.001	.20
4.50	.18	.01	.001	.18
4.67	.17	.01	.001	.17
4.83	.17	.01	.001	.17
5.00	.16	.01	.001	.16
5.17	.16	.01	.001	.16
5.33	.16	.01	.001	.16
5.50	.16	.01	.001	.16
5.67	.16	.01	.001	.16
5.83	.16	.01	.001	.16
6.00	.17	.01	.001	.16
6.17	.16	.01	.001	.16
6.33	.12	.01	.001	.13
6.50	.08	.01	.000	.09
6.67	.05	.00	.000	.06
6.83	.04	.00	.000	.04
7.00	.02	.00	.000	.03
7.17	.01	.00	.000	.02
7.33	.01	.00	.000	.01

```
    7.50        .01        .00        .000        .01
    7.67        .00        .00        .000        .00
 PEAK DISCHARGE =        8.460 CFS - PEAK OCCURS AT HOUR    2.00
 MAXIMUM WATER SURFACE ELEVATION =        1.000
 MAXIMUM STORAGE =         .0690 AC-FT      INCREMENTAL TIME=     .033333HRS

*
PRINT HYD                          ID=53 CODE=1

                                        HYDROGRAPH FROM AREA P3


    RUNOFF VOLUME =     1.97105 INCHES     =        .8378 ACRE-FEET
    PEAK DISCHARGE RATE =       8.46 CFS  AT   2.000 HOURS   BASIN AREA =   .0080 SQ. MI.


*
**S*                 COMPUTE BASIN A6
*
COMPUTE NM HYD        ID=6 HYD NO=A6 DA=0.00116
                      PER A=0  PER B=15  PER C=15   PER D=70
                                TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   3.2058    CFS   UNIT VOLUME =    .9961       B =   526.28      P60 = 2.0700
     AREA =      .000812 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   .91331    CFS   UNIT VOLUME =    .9852       B =   349.84      P60 = 2.0700
     AREA =      .000348 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD             ID=6 CODE=1

                                        HYDROGRAPH FROM AREA A6


    RUNOFF VOLUME =     1.97128 INCHES     =        .1220 ACRE-FEET
    PEAK DISCHARGE RATE =       3.27 CFS  AT   1.500 HOURS   BASIN AREA =   .0012 SQ. MI.


*
*S*                  ROUTE THROUGH DETENTION POND
*
*
ROUTE RESERVOIR             ID=54 HYD=P4  INFLOW ID=6  CODE=10
                                          OUTFLOW(CFS)    STORAGE(AC FT)  ELEV(FT)

                                          0                    0.0                    0

                                   .05                   .02                   0.5

                                          .09                  .04                    1.0

                         1.4              .06              1.5

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

  TIME       INFLOW     ELEV       VOLUME     OUTFLOW
  (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

   .00        .00        .00        .000       .00
   .33        .00        .00        .000       .00
   .67        .00        .00        .000       .00
  1.00        .06        .01        .000       .00
  1.33        .89        .15        .006       .02
  1.67       1.68       1.46        .059      1.31
  2.00        .72       1.35        .054      1.02
```

2.33	.17	1.13	.045	.43
2.67	.07	1.02	.041	.15
3.00	.04	.99	.039	.09
3.33	.03	.95	.038	.09
3.67	.03	.91	.036	.08
4.00	.02	.87	.035	.08
4.33	.02	.83	.033	.08
4.67	.02	.80	.032	.07
5.00	.02	.76	.031	.07
5.33	.02	.73	.029	.07
5.67	.02	.70	.028	.07
6.00	.02	.67	.027	.06
6.33	.00	.64	.026	.06
6.67	.00	.60	.024	.06
7.00	.00	.56	.022	.05
7.33	.00	.52	.021	.05
7.67	.00	.49	.020	.05
8.00	.00	.46	.018	.05
8.33	.00	.43	.017	.04
8.67	.00	.40	.016	.04
9.00	.00	.37	.015	.04
9.33	.00	.35	.014	.03
9.67	.00	.32	.013	.03
10.00	.00	.30	.012	.03
10.33	.00	.28	.011	.03
10.67	.00	.26	.011	.03
11.00	.00	.25	.010	.02
11.33	.00	.23	.009	.02
11.67	.00	.21	.009	.02
12.00	.00	.20	.008	.02
12.33	.00	.19	.007	.02
12.67	.00	.17	.007	.02
13.00	.00	.16	.006	.02
13.33	.00	.15	.006	.02
13.67	.00	.14	.006	.01
14.00	.00	.13	.005	.01
14.33	.00	.12	.005	.01
14.67	.00	.12	.005	.01
15.00	.00	.11	.004	.01
15.33	.00	.10	.004	.01
15.67	.00	.09	.004	.01
16.00	.00	.09	.003	.01
16.33	.00	.08	.003	.01
16.67	.00	.08	.003	.01
17.00	.00	.07	.003	.01
17.33	.00	.07	.003	.01
17.67	.00	.06	.002	.01
18.00	.00	.06	.002	.01
18.33	.00	.05	.002	.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
18.67	.00	.05	.002	.01
19.00	.00	.05	.002	.00

```
 PEAK DISCHARGE =          1.361 CFS - PEAK OCCURS AT HOUR    1.73
 MAXIMUM WATER SURFACE ELEVATION =        1.485
 MAXIMUM STORAGE =          .0594 AC-FT      INCREMENTAL TIME=     .033333HRS

*
PRINT HYD                          ID=54 CODE=1

                                        HYDROGRAPH FROM AREA P4


    RUNOFF VOLUME =     1.94626 INCHES     =        .1204 ACRE-FEET
    PEAK DISCHARGE RATE =       1.36 CFS  AT   1.733 HOURS   BASIN AREA =   .0012 SQ. MI.


*
*
*S*                 COMPUTE BASIN A7.4
*
```

```
COMPUTE NM HYD        ID=2 HYD NO=A7.4 DA=0.00077
                      PER A=0  PER B=15 PER C=15 PER D=70
                                   TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   2.1280    CFS   UNIT VOLUME =    .9941       B =   526.28      P60 = 2.0700
     AREA =      .000539 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   .60625    CFS   UNIT VOLUME =    .9785       B =   349.84      P60 = 2.0700
     AREA =      .000231 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD             ID=2 CODE=1

                                   HYDROGRAPH FROM AREA A7.4

    RUNOFF VOLUME =     1.97128 INCHES     =        .0810 ACRE-FEET
    PEAK DISCHARGE RATE =       2.18 CFS  AT   1.500 HOURS   BASIN AREA =   .0008 SQ. MI.


*
*
*S*                        ADD A7.4 AND P4
*
ADD HYD               ID=3 HYD=A7.4P4 ID I=2 ID II=54
*
PRINT HYD             ID=3 CODE=1

                                   HYDROGRAPH FROM AREA A7.4P4

    RUNOFF VOLUME =     1.95611 INCHES     =        .2013 ACRE-FEET
    PEAK DISCHARGE RATE =       2.55 CFS  AT   1.600 HOURS   BASIN AREA =   .0019 SQ. MI.


*
*
*
*S*                  COMPUTE BASIN A7.1
*
COMPUTE NM HYD        ID=2 HYD NO=A7.1 DA=0.00121
                      PER A=0  PER B=15 PER C=15 PER D=70
                                   TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   3.3440    CFS   UNIT VOLUME =    .9961       B =   526.28      P60 = 2.0700
     AREA =      .000847 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   .95268    CFS   UNIT VOLUME =    .9866       B =   349.84      P60 = 2.0700
     AREA =      .000363 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD             ID=2 CODE=1

                                   HYDROGRAPH FROM AREA A7.1

    RUNOFF VOLUME =     1.97128 INCHES     =        .1272 ACRE-FEET
    PEAK DISCHARGE RATE =       3.41 CFS  AT   1.500 HOURS   BASIN AREA =   .0012 SQ. MI.
```

```
*
*S*                        ADD A7.1 AND P3
*
ADD HYD              ID=4 HYD=A7.1P3 ID I=2 ID II=53
*
PRINT HYD            ID=4 CODE=1

                                   HYDROGRAPH FROM AREA A7.1P3


    RUNOFF VOLUME =     1.97104 INCHES     =        .9650 ACRE-FEET
    PEAK DISCHARGE RATE =       9.86 CFS  AT   1.633 HOURS   BASIN AREA =   .0092 SQ. MI.


*
*S*                        ADD A7.4P4 AND A7.1P3
*
ADD HYD              ID=8 HYD=A7.14P34 ID I=4 ID II=3
*
PRINT HYD            ID=8 CODE=1

                                   HYDROGRAPH FROM AREA A7.14P34


    RUNOFF VOLUME =     1.96845 INCHES     =       1.1664 ACRE-FEET
    PEAK DISCHARGE RATE =      12.36 CFS  AT   1.633 HOURS   BASIN AREA =   .0111 SQ. MI.


*
*
*S*                  COMPUTE BASIN A7.2
*
COMPUTE NM HYD        ID=12 HYD NO=A7.2 DA=0.00099
                      PER A=0  PER B=15 PER C=15 PER D=70
                                   TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   2.7360    CFS   UNIT VOLUME =    .9955       B =   526.28      P60 = 2.0700
     AREA =      .000693 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   .77946    CFS   UNIT VOLUME =    .9838       B =   349.84      P60 = 2.0700
     AREA =      .000297 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD            ID=12 CODE=1

                                   HYDROGRAPH FROM AREA A7.2


    RUNOFF VOLUME =     1.97128 INCHES     =        .1041 ACRE-FEET
    PEAK DISCHARGE RATE =       2.79 CFS  AT   1.500 HOURS   BASIN AREA =   .0010 SQ. MI.


*
*
*
*S*                  COMPUTE BASIN B5
*
COMPUTE NM HYD        ID=1 HYD NO=B5 DA=0.00201
                      PER A=0  PER B=15 PER C=15 PER D=70
                                   TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   5.5549    CFS   UNIT VOLUME =    .9973       B =   526.28      P60 = 2.0700
     AREA =      .001407 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
```

```
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
UNIT PEAK =   1.5825    CFS   UNIT VOLUME =    .9917       B =   349.84      P60 = 2.0700
AREA =      .000603 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD            ID=1 CODE=1

                                HYDROGRAPH FROM AREA B5

RUNOFF VOLUME =     1.97128 INCHES     =        .2113 ACRE-FEET
PEAK DISCHARGE RATE =       5.65 CFS  AT   1.500 HOURS   BASIN AREA =   .0020 SQ. MI.


*S*
*S*                  COMPUTE BASIN B6
*
*
COMPUTE NM HYD       ID=2 HYD NO=B6 DA=0.00122
                     PER A=0  PER B=15 PER C=15 PER D=70
                                  TP=.1333 RAIN=-1

K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
UNIT PEAK =   3.3716    CFS   UNIT VOLUME =    .9961       B =   526.28      P60 = 2.0700
AREA =      .000854 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
UNIT PEAK =   .96055    CFS   UNIT VOLUME =    .9866       B =   349.84      P60 = 2.0700
AREA =      .000366 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD            ID=2 CODE=1

                                HYDROGRAPH FROM AREA B6

RUNOFF VOLUME =     1.97128 INCHES     =        .1283 ACRE-FEET
PEAK DISCHARGE RATE =       3.44 CFS  AT   1.500 HOURS   BASIN AREA =   .0012 SQ. MI.


*
*S**** ADD B5 AND B6 ****
*
ADD HYD              ID=3 HYD=B56 ID I=1 ID II=2
*
PRINT HYD            ID=3 CODE=1

                                HYDROGRAPH FROM AREA B56

RUNOFF VOLUME =     1.97112 INCHES     =        .3396 ACRE-FEET
PEAK DISCHARGE RATE =       9.09 CFS  AT   1.500 HOURS   BASIN AREA =   .0032 SQ. MI.


*
*S*                  ROUTE THROUGH DETENTION POND
*
ROUTE RESERVOIR            ID=55 HYD=P5  INFLOW ID=3  CODE=5
                                          OUTFLOW(CFS)    STORAGE(AC FT)  ELEV(FT)

                                          0                     0.0                    0
```

1.7 .033 0.5

3.6 .067 1.0

5.3 .10 1.5

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.17	.00	.00	.000	.00
.33	.00	.00	.000	.00
.50	.00	.00	.000	.00
.67	.00	.00	.000	.00
.83	.00	.00	.000	.00
1.00	.17	.01	.001	.04
1.17	.24	.04	.003	.13
1.33	2.47	.18	.012	.63
1.50	9.09	1.01	.068	3.65
1.67	4.68	1.47	.098	5.20
1.83	2.88	1.22	.082	4.35
2.00	2.01	.93	.062	3.32
2.17	.94	.66	.044	2.32
2.33	.47	.42	.028	1.43
2.50	.30	.26	.017	.89
2.67	.20	.16	.011	.56
2.83	.14	.11	.007	.36
3.00	.11	.07	.005	.24
3.17	.09	.05	.003	.17
3.33	.08	.04	.002	.13
3.50	.08	.03	.002	.10
3.67	.07	.03	.002	.09
3.83	.07	.02	.002	.08
4.00	.07	.02	.001	.07
4.17	.07	.02	.001	.07
4.33	.07	.02	.001	.07
4.50	.06	.02	.001	.07
4.67	.06	.02	.001	.06
4.83	.06	.02	.001	.06
5.00	.06	.02	.001	.06
5.17	.06	.02	.001	.06
5.33	.07	.02	.001	.06
5.50	.07	.02	.001	.07
5.67	.07	.02	.001	.07
5.83	.07	.02	.001	.07
6.00	.07	.02	.001	.07
6.17	.03	.02	.001	.06
6.33	.01	.01	.001	.04
6.50	.00	.01	.000	.02
6.67	.00	.00	.000	.01
6.83	.00	.00	.000	.01
7.00	.00	.00	.000	.00

PEAK DISCHARGE = 5.228 CFS - PEAK OCCURS AT HOUR 1.63
MAXIMUM WATER SURFACE ELEVATION = 1.479
MAXIMUM STORAGE = .0986 AC-FT INCREMENTAL TIME= .033333HRS

*S
PRINT HYD ID=55 CODE=1

HYDROGRAPH FROM AREA P5

RUNOFF VOLUME = 1.97112 INCHES = .3396 ACRE-FEET
PEAK DISCHARGE RATE = 5.23 CFS AT 1.633 HOURS BASIN AREA = .0032 SQ. MI.

*
*
*
S
S COMPUTE BASIN B7

```
*
*
COMPUTE NM HYD          ID=2 HYD NO=B7 DA=0.0012
                        PER A=0  PER B=15 PER C=15 PER D=70
                                     TP=.1333 RAIN=-1

     K =    .072649HR    TP =    .133300HR    K/TP RATIO =    .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   3.3164    CFS   UNIT VOLUME =    .9961       B =   526.28      P60 = 2.0700
     AREA =       .000840 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =    .120467HR    TP =    .133300HR    K/TP RATIO =    .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   .94481    CFS   UNIT VOLUME =    .9866       B =   349.84      P60 = 2.0700
     AREA =       .000360 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD               ID=2 CODE=1

                                        HYDROGRAPH FROM AREA B7

    RUNOFF VOLUME =     1.97128 INCHES     =        .1262 ACRE-FEET
    PEAK DISCHARGE RATE =       3.38 CFS  AT   1.500 HOURS   BASIN AREA =   .0012 SQ. MI.


*
*
*S**** ADD P5 AND B7 ****
*
*
ADD HYD                 ID=10 HYD=P5B7 ID I=55 ID II=2
PRINT HYD               ID=10 CODE=1

                                        HYDROGRAPH FROM AREA P5B7

    RUNOFF VOLUME =     1.97102 INCHES     =        .4657 ACRE-FEET
    PEAK DISCHARGE RATE =       7.66 CFS  AT   1.567 HOURS   BASIN AREA =   .0044 SQ. MI.


*
*
*S**** ADD A7.2 AND B7P5 ****
*
*
ADD HYD                 ID=11 HYD=A7.2B7P5 ID I=12 ID II=10
PRINT HYD               ID=11 CODE=1
                                        HYDROGRAPH FROM AREA A7.2B7P5

    RUNOFF VOLUME =     1.97102 INCHES     =        .5698 ACRE-FEET
    PEAK DISCHARGE RATE =      10.24 CFS  AT   1.533 HOURS   BASIN AREA =   .0054 SQ. MI.


*
*S**** ADD A7.2B7P5 AND A7.14P34  ****
*
*
ADD HYD                 ID=13 HYD=A7.142P34B7P5 ID I=11 ID II=8
PRINT HYD               ID=13 CODE=1

                                        HYDROGRAPH FROM AREA A7.142P34B7P5

    RUNOFF VOLUME =     1.96929 INCHES     =       1.7361 ACRE-FEET
    PEAK DISCHARGE RATE =      21.46 CFS  AT   1.600 HOURS   BASIN AREA =   .0165 SQ. MI.
```

```
*
*S*                    COMPUTE BASIN A7.3
*
COMPUTE NM HYD         ID=3 HYD NO=A7.3 DA=0.00065
                       PER A=0  PER B=15 PER C=15 PER D=70
                                     TP=.1333 RAIN=-1

     K =    .072649HR    TP =    .133300HR    K/TP RATIO =    .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   1.7964    CFS   UNIT VOLUME =    .9933       B =   526.28      P60 = 2.0700
     AREA =       .000455 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =    .120467HR    TP =    .133300HR    K/TP RATIO =    .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   .51177    CFS   UNIT VOLUME =    .9740       B =   349.84      P60 = 2.0700
     AREA =       .000195 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.
PRINT HYD              ID=3 CODE=1

                                        HYDROGRAPH FROM AREA A7.3


    RUNOFF VOLUME =      1.97129 INCHES      =         .0683 ACRE-FEET
    PEAK DISCHARGE RATE =        1.84 CFS  AT   1.500 HOURS   BASIN AREA =   .0007 SQ. MI.


*
*
*S**** ADD A67.124B7P345 AND A7.3 ****
*
ADD HYD                ID=7 HYD=A7P34B7P5 ID I=13 ID II=3
PRINT HYD              ID=7 CODE=1

                                        HYDROGRAPH FROM AREA A7P34B7P5


    RUNOFF VOLUME =      1.96935 INCHES      =       1.8044 ACRE-FEET
    PEAK DISCHARGE RATE =       22.93 CFS  AT   1.567 HOURS   BASIN AREA =   .0172 SQ. MI.


*
*
*S*                    COMPUTE BASIN A10
*
COMPUTE NM HYD         ID=1 HYD NO=A10 DA=0.0005
                       PER A=0  PER B=5  PER C=5   PER D=90
                                     TP=.1333 RAIN=-1

     K =    .072649HR    TP =    .133300HR    K/TP RATIO =    .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   1.7766    CFS   UNIT VOLUME =    .9933       B =   526.28      P60 = 2.0700
     AREA =       .000450 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =    .120467HR    TP =    .133300HR    K/TP RATIO =    .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   .13122    CFS   UNIT VOLUME =    .8950       B =   349.84      P60 = 2.0700
     AREA =       .000050 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD              ID=1 CODE=1

                                        HYDROGRAPH FROM AREA A10


    RUNOFF VOLUME =      2.23063 INCHES      =         .0595 ACRE-FEET
```

```
    PEAK DISCHARGE RATE =        1.55 CFS  AT   1.500 HOURS   BASIN AREA =   .0005 SQ. MI.


*
*S**** ADD A67B7P35  AND A10 ****
*
ADD HYD                ID=6 HYD=A10UP ID I=7 ID II=1
PRINT HYD              ID=6 CODE=1

                                        HYDROGRAPH FROM AREA A10UP


    RUNOFF VOLUME =     1.97672 INCHES     =       1.8639 ACRE-FEET
    PEAK DISCHARGE RATE =       24.21 CFS  AT   1.567 HOURS   BASIN AREA =   .0177 SQ. MI.


*
*
*S*                   COMPUTE BASIN A2
*
COMPUTE NM HYD         ID=1 HYD NO=A2  DA=0.00366
                       PER A=0  PER B=15  PER C=15   PER D=70
                                   TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   10.115    CFS   UNIT VOLUME =    .9982       B =   526.28      P60 = 2.0700
     AREA =      .002562 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   2.8817    CFS   UNIT VOLUME =    .9959       B =   349.84      P60 = 2.0700
     AREA =      .001098 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD              ID=1 CODE=1

                                        HYDROGRAPH FROM AREA A2


    RUNOFF VOLUME =     1.97128 INCHES     =        .3848 ACRE-FEET
    PEAK DISCHARGE RATE =       10.27 CFS  AT   1.500 HOURS   BASIN AREA =   .0037 SQ. MI.


*
*
*S*                   ROUTE THROUGH DETENTION POND
*
*
*
ROUTE RESERVOIR            ID=57 HYD=P7  INFLOW ID=1  CODE=5
                                          OUTFLOW(CFS)    STORAGE(AC FT)  ELEV(FT)

                                          0                     0.0                    0

                                   1.3            .053                    .25

                                          2.8                   .107                   .50

                         4.1              .16              .75

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

    TIME       INFLOW     ELEV       VOLUME     OUTFLOW
    (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

      .00        .00        .00        .000       .00
      .17        .00        .00        .000       .00
      .33        .00        .00        .000       .00
```

				A.out
.50	.00	.00	.000	.00
.67	.00	.00	.000	.00
.83	.00	.00	.000	.00
1.00	.19	.01	.001	.03
1.17	.27	.02	.004	.09
1.33	2.79	.08	.016	.40
1.50	10.27	.43	.092	2.38
1.67	5.29	.72	.154	3.96
1.83	3.25	.73	.155	3.98
2.00	2.27	.66	.140	3.61
2.17	1.07	.55	.118	3.07
2.33	.54	.42	.091	2.35
2.50	.35	.32	.069	1.74
2.67	.24	.25	.052	1.28
2.83	.18	.19	.040	.97
3.00	.14	.14	.030	.74
3.17	.11	.11	.023	.56
3.33	.10	.08	.017	.43
3.50	.09	.06	.014	.33
3.67	.08	.05	.011	.26
3.83	.08	.04	.009	.21
4.00	.08	.03	.007	.17
4.17	.07	.03	.006	.14
4.33	.07	.02	.005	.12
4.50	.07	.02	.004	.11
4.67	.07	.02	.004	.10
4.83	.07	.02	.004	.09
5.00	.07	.02	.004	.09
5.17	.07	.02	.003	.08
5.33	.07	.02	.003	.08
5.50	.07	.02	.003	.08
5.67	.08	.01	.003	.08
5.83	.08	.01	.003	.08
6.00	.08	.01	.003	.08
6.17	.03	.01	.003	.07
6.33	.01	.01	.002	.06
6.50	.00	.01	.002	.04
6.67	.00	.01	.001	.03
6.83	.00	.00	.001	.02
7.00	.00	.00	.001	.02
7.17	.00	.00	.000	.01
7.33	.00	.00	.000	.01
7.50	.00	.00	.000	.01
7.67	.00	.00	.000	.00

```
PEAK DISCHARGE =        4.050 CFS - PEAK OCCURS AT HOUR    1.73
MAXIMUM WATER SURFACE ELEVATION =          .740
MAXIMUM STORAGE =         .1580 AC-FT      INCREMENTAL TIME=     .033333HRS

*
PRINT HYD                          ID=57 CODE=1

                                      HYDROGRAPH FROM AREA P7

RUNOFF VOLUME =     1.97121 INCHES     =        .3848 ACRE-FEET
PEAK DISCHARGE RATE =       4.05 CFS  AT   1.733 HOURS   BASIN AREA =   .0037 SQ. MI.


*
*S*                  COMPUTE BASIN A5
*
COMPUTE NM HYD        ID=1 HYD NO=A5 DA=0.00205
                      PER A=0  PER B=15  PER C=15   PER D=70
                                   TP=.1333 RAIN=-1

K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
UNIT PEAK =   5.6655    CFS   UNIT VOLUME =    .9973       B =   526.28      P60 = 2.0700
AREA =      .001435 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
UNIT PEAK =   1.6140    CFS   UNIT VOLUME =    .9925       B =   349.84      P60 = 2.0700
```

```
     AREA =       .000615 SQ MI    IA =     .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD            ID=1 CODE=1

                                        HYDROGRAPH FROM AREA A5


    RUNOFF VOLUME =     1.97128 INCHES     =        .2155 ACRE-FEET
    PEAK DISCHARGE RATE =       5.76 CFS  AT   1.500 HOURS   BASIN AREA =   .0021 SQ. MI.


*
*
**** ADD A5 AND P7****
*
ADD HYD              ID=3 HYD=A5P7 ID I=1 ID II=57
*
PRINT HYD            ID=3 CODE=1

                                        HYDROGRAPH FROM AREA A5P7


    RUNOFF VOLUME =     1.97105 INCHES     =        .6002 ACRE-FEET
    PEAK DISCHARGE RATE =       8.44 CFS  AT   1.533 HOURS   BASIN AREA =   .0057 SQ. MI.


*
**S*                 COMPUTE BASIN A8

COMPUTE NM HYD       ID=2 HYD NO=A8 DA=0.00074
                     PER A=0  PER B=15  PER C=15   PER D=70
                                  TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   2.0451    CFS   UNIT VOLUME =    .9941       B =   526.28      P60 = 2.0700
     AREA =       .000518 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   .58263    CFS   UNIT VOLUME =    .9785       B =   349.84      P60 = 2.0700
     AREA =       .000222 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD            ID=2 CODE=1

                                        HYDROGRAPH FROM AREA A8


    RUNOFF VOLUME =     1.97128 INCHES     =        .0778 ACRE-FEET
    PEAK DISCHARGE RATE =       2.09 CFS  AT   1.500 HOURS   BASIN AREA =   .0007 SQ. MI.


*
*
*S**** ADD A8 AND A5P7 ****
*
ADD HYD              ID=10 HYD=A85P7 ID I=2 ID II=3
PRINT HYD            ID=10 CODE=1

                                        HYDROGRAPH FROM AREA A85P7


    RUNOFF VOLUME =     1.97104 INCHES     =        .6780 ACRE-FEET
    PEAK DISCHARGE RATE =      10.44 CFS  AT   1.533 HOURS   BASIN AREA =   .0065 SQ. MI.
```

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*
*
*S*                    COMPUTE BASIN LE
*
*
COMPUTE NM HYD         ID=2 HYD NO=LE DA=0.00137
                       PER A=0  PER B=5  PER C=5   PER D=90
                                     TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.8679    CFS   UNIT VOLUME =    .9969       B =   526.28      P60 = 2.0700
     AREA =      .001233 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   .35955    CFS   UNIT VOLUME =    .9622       B =   349.84      P60 = 2.0700
     AREA =      .000137 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333
    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD              ID=2 CODE=1

                                    HYDROGRAPH FROM AREA LE

    RUNOFF VOLUME =     2.23063 INCHES     =        .1630 ACRE-FEET
    PEAK DISCHARGE RATE =       4.21 CFS  AT   1.500 HOURS   BASIN AREA =   .0014 SQ. MI.


*
*
*S*                    COMPUTE BASIN A3
*
COMPUTE NM HYD         ID=3 HYD NO=A3 DA=0.00121
                       PER A=0  PER B=15  PER C=15   PER D=70
                                     TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   3.3440    CFS   UNIT VOLUME =    .9961       B =   526.28      P60 = 2.0700
     AREA =      .000847 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   .95268    CFS   UNIT VOLUME =    .9866       B =   349.84      P60 = 2.0700
     AREA =      .000363 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333
    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD              ID=3 CODE=1

                                    HYDROGRAPH FROM AREA A3

    RUNOFF VOLUME =     1.97128 INCHES     =        .1272 ACRE-FEET
    PEAK DISCHARGE RATE =       3.41 CFS  AT   1.500 HOURS   BASIN AREA =   .0012 SQ. MI.


*
*S**** ADD A3 AND LE ****
*
ADD HYD                ID=15 HYD=A3LE ID I=2 ID II=3
PRINT HYD              ID=15 CODE=1

                                    HYDROGRAPH FROM AREA A3LE
```

```
    RUNOFF VOLUME =      2.10879 INCHES      =          .2902 ACRE-FEET
    PEAK DISCHARGE RATE =        7.62 CFS  AT   1.500 HOURS   BASIN AREA =   .0026 SQ. MI.


*
*
*S*                  COMPUTE BASIN A1
*
COMPUTE NM HYD        ID=1 HYD NO=A1 DA=0.00153
                      PER A=0  PER B=15  PER C=15   PER D=70
                                    TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.2284    CFS   UNIT VOLUME =    .9965       B =   526.28      P60 = 2.0700
     AREA =      .001071 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   1.2046    CFS   UNIT VOLUME =    .9889       B =   349.84      P60 = 2.0700
     AREA =      .000459 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD             ID=1 CODE=1

                                        HYDROGRAPH FROM AREA A1


    RUNOFF VOLUME =      1.97128 INCHES      =          .1609 ACRE-FEET
    PEAK DISCHARGE RATE =        4.31 CFS  AT   1.500 HOURS   BASIN AREA =   .0015 SQ. MI.


*
*S*                  COMPUTE BASIN A4
*
COMPUTE NM HYD        ID=2 HYD NO=A4 DA=0.00177
                      PER A=0  PER B=15  PER C=15   PER D=70
                                    TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.8916    CFS   UNIT VOLUME =    .9969       B =   526.28      P60 = 2.0700
     AREA =      .001239 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   1.3936    CFS   UNIT VOLUME =    .9909       B =   349.84      P60 = 2.0700
     AREA =      .000531 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD             ID=2 CODE=1

                                        HYDROGRAPH FROM AREA A4


    RUNOFF VOLUME =      1.97129 INCHES      =          .1861 ACRE-FEET
    PEAK DISCHARGE RATE =        4.98 CFS  AT   1.500 HOURS   BASIN AREA =   .0018 SQ. MI.


*
*
*S**** ADD A1 AND A4 ****
*
ADD HYD               ID=4 HYD=A14 ID I=1 ID II=2
PRINT HYD             ID=4 CODE=1

                                        HYDROGRAPH FROM AREA A14
```

```
    RUNOFF VOLUME =      1.97111 INCHES      =         .3469 ACRE-FEET
    PEAK DISCHARGE RATE =        9.29 CFS  AT   1.500 HOURS   BASIN AREA =   .0033 SQ. MI.


*
*
*S**** ADD A3LE AND A14 ****
*
ADD HYD              ID=9 HYD=A143LE ID I=15 ID II=4
PRINT HYD            ID=9 CODE=1

                                    HYDROGRAPH FROM AREA A143LE


    RUNOFF VOLUME =      2.03152 INCHES      =         .6371 ACRE-FEET
    PEAK DISCHARGE RATE =       16.90 CFS  AT   1.500 HOURS   BASIN AREA =   .0059 SQ. MI.


*
*
*S*                  ROUTE THROUGH DETENTION POND
*
*
*
ROUTE RESERVOIR            ID=58 HYD=P8  INFLOW ID=9  CODE=5
                                          OUTFLOW(CFS)    STORAGE(AC FT)  ELEV(FT)

                                          0                     0.0                     0

                                   15.494        .0108          .11
                                          15.667                .0212                  .22

                         15.82                     .032            .33

  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *
```

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.17	.00	.00	.000	.00
.33	.00	.00	.000	.00
.50	.00	.00	.000	.00
.67	.00	.00	.000	.00
.83	.00	.00	.000	.00
1.00	.33	.00	.000	.32
1.17	.46	.00	.000	.44
1.33	4.72	.03	.003	4.28
1.50	16.90	.14	.013	15.53
1.67	8.67	.06	.006	9.14
1.83	5.41	.04	.004	5.51
2.00	3.81	.03	.003	3.88
2.17	1.79	.01	.001	1.89
2.33	.89	.01	.001	.91
2.50	.56	.00	.000	.57
2.67	.37	.00	.000	.38
2.83	.27	.00	.000	.27
3.00	.21	.00	.000	.22
3.17	.18	.00	.000	.18
3.33	.16	.00	.000	.17
3.50	.15	.00	.000	.15
3.67	.14	.00	.000	.14
3.83	.14	.00	.000	.14
4.00	.13	.00	.000	.13
4.17	.13	.00	.000	.13
4.33	.13	.00	.000	.13
4.50	.12	.00	.000	.12
4.67	.12	.00	.000	.12
4.83	.12	.00	.000	.12
5.00	.12	.00	.000	.12

```
    5.17        .12        .00        .000        .12
    5.33        .13        .00        .000        .13
    5.50        .13        .00        .000        .13
    5.67        .13        .00        .000        .13
    5.83        .13        .00        .000        .13
    6.00        .13        .00        .000        .13
    6.17        .05        .00        .000        .06
    6.33        .01        .00        .000        .02
    6.50        .01        .00        .000        .01
 PEAK DISCHARGE =       15.578 CFS - PEAK OCCURS AT HOUR    1.53
 MAXIMUM WATER SURFACE ELEVATION =         .163
 MAXIMUM STORAGE =         .0158 AC-FT      INCREMENTAL TIME=     .033333HRS

*
PRINT HYD                          ID=58 CODE=10

                                       HYDROGRAPH FROM AREA P8

     TIME      FLOW            TIME      FLOW            TIME      FLOW            TIME      FLOW
TIME      FLOW
      HRS       CFS             HRS       CFS             HRS       CFS             HRS       CFS
 HRS       CFS
      .000        .0          1.333       4.3          2.667        .4          4.000        .1
5.333        .1
      .333        .0          1.667       9.1          3.000        .2          4.333        .1
5.667        .1
      .667        .0          2.000       3.9          3.333        .2          4.667        .1
6.000        .1
     1.000        .3          2.333        .9          3.667        .1          5.000        .1
6.333        .0

    RUNOFF VOLUME =     2.03152 INCHES     =        .6371 ACRE-FEET
    PEAK DISCHARGE RATE =      15.58 CFS  AT   1.533 HOURS   BASIN AREA =   .0059 SQ. MI.


*
*
*S**** ADD A58P7 AND P8 ****
*
ADD HYD               ID=5 HYD=A58P7P8 ID I=10 ID II=58
PRINT HYD             ID=5 CODE=1

                                       HYDROGRAPH FROM AREA A58P7P8


    RUNOFF VOLUME =     1.99988 INCHES     =       1.3151 ACRE-FEET
    PEAK DISCHARGE RATE =      26.02 CFS  AT   1.533 HOURS   BASIN AREA =   .0123 SQ. MI.


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*
*S*                  ROUTE THROUGH DETENTION POND
*
*
*
ROUTE RESERVOIR            ID=59 HYD=P9  INFLOW ID=5  CODE=5
                                          OUTFLOW(CFS)    STORAGE(AC FT)  ELEV(FT)

                                          0                     0.0                    0

                                   24.57          .014                   .11

                                          24.79                 .028                   .22

                         25.01                    .041             .33

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

    TIME       INFLOW     ELEV       VOLUME     OUTFLOW
    (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)
```

.00	.00	.00	.000	.00
.17	.00	.00	.000	.00
.33	.00	.00	.000	.00
.50	.00	.00	.000	.00
.67	.00	.00	.000	.00
.83	.00	.00	.000	.00
1.00	.49	.00	.000	.47
1.17	.74	.00	.000	.72
1.33	6.81	.03	.004	6.27
1.50	25.77	.13	.016	24.60
1.67	17.14	.07	.009	15.78
1.83	11.98	.05	.007	12.15
2.00	9.23	.04	.005	9.33
2.17	5.77	.03	.003	5.93
2.33	3.66	.02	.002	3.72
2.50	2.56	.01	.001	2.60
2.67	1.83	.01	.001	1.85
2.83	1.37	.01	.001	1.38
3.00	1.05	.00	.001	1.06
3.17	.82	.00	.000	.83
3.33	.67	.00	.000	.67
3.50	.55	.00	.000	.56
3.67	.47	.00	.000	.47
3.83	.41	.00	.000	.41
4.00	.36	.00	.000	.36
4.17	.33	.00	.000	.33
4.33	.31	.00	.000	.31
4.50	.29	.00	.000	.29
4.67	.28	.00	.000	.28
4.83	.27	.00	.000	.27
5.00	.27	.00	.000	.27
5.17	.26	.00	.000	.26
5.33	.26	.00	.000	.26
5.50	.26	.00	.000	.26
5.67	.26	.00	.000	.26
5.83	.27	.00	.000	.27
6.00	.27	.00	.000	.27
6.17	.16	.00	.000	.16
6.33	.08	.00	.000	.08
6.50	.05	.00	.000	.05
6.67	.03	.00	.000	.03
6.83	.02	.00	.000	.02
7.00	.02	.00	.000	.02
7.17	.01	.00	.000	.01
7.33	.01	.00	.000	.01
7.50	.01	.00	.000	.01
7.67	.00	.00	.000	.00

PEAK DISCHARGE = 24.701 CFS - PEAK OCCURS AT HOUR 1.57
MAXIMUM WATER SURFACE ELEVATION = .176
MAXIMUM STORAGE = .0223 AC-FT INCREMENTAL TIME= .033333HRS

*
PRINT HYD ID=59 CODE=10

HYDROGRAPH FROM AREA P9

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	2.000	9.3	4.000	.4	6.000	.3
.333	.0	2.333	3.7	4.333	.3	6.333	.1
.667	.0	2.667	1.9	4.667	.3	6.667	.0
1.000	.5	3.000	1.1	5.000	.3	7.000	.0
1.333	6.3	3.333	.7	5.333	.3	7.333	.0
1.667	15.8	3.667	.5	5.667	.3	7.667	.0
8.000	.0						
8.333	.0						

RUNOFF VOLUME = 1.99988 INCHES = 1.3151 ACRE-FEET
PEAK DISCHARGE RATE = 24.70 CFS AT 1.567 HOURS BASIN AREA = .0123 SQ. MI.

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*
*
*
*S*                    COMPUTE BASIN A9
*
COMPUTE NM HYD          ID=2 HYD NO=A9 DA=0.001
                        PER A=0  PER B=15  PER C=15   PER D=70
                                     TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   2.7636    CFS   UNIT VOLUME =    .9955       B =   526.28      P60 = 2.0700
     AREA =      .000700 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


     K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
     UNIT PEAK =   .78734    CFS   UNIT VOLUME =    .9838       B =   349.84      P60 = 2.0700
     AREA =      .000300 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD               ID=2 CODE=1

                                        HYDROGRAPH FROM AREA A9


    RUNOFF VOLUME =     1.97128 INCHES     =        .1051 ACRE-FEET
    PEAK DISCHARGE RATE =       2.82 CFS  AT   1.500 HOURS   BASIN AREA =   .0010 SQ. MI.


*
*S**** ADD P9 AND A9 ****
*
ADD HYD                 ID=5 HYD=A9UP ID I=59 ID II=2
*
PRINT HYD               ID=5 CODE=1

                                        HYDROGRAPH FROM AREA A9UP


    RUNOFF VOLUME =     1.99771 INCHES     =       1.4202 ACRE-FEET
    PEAK DISCHARGE RATE =      27.42 CFS  AT   1.500 HOURS   BASIN AREA =   .0133 SQ. MI.


*
*
*S**** ADD A9UP AND A10UP ****
*
ADD HYD                 ID=3 HYD=TOTAL ID I=5 ID II=6
*
PRINT HYD               ID=3 CODE=1

                                        HYDROGRAPH FROM AREA TOTAL


    RUNOFF VOLUME =     1.98575 INCHES     =       3.2841 ACRE-FEET
    PEAK DISCHARGE RATE =      51.33 CFS  AT   1.533 HOURS   BASIN AREA =   .0310 SQ. MI.


*
*
*
*S*                    COMPUTE BASIN 701
*
COMPUTE NM HYD          ID=1 HYD NO=701 DA=0.01762
                        PER A=0  PER B=5  PER C=5   PER D=90
                                     TP=.1333 RAIN=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
```

```
UNIT PEAK =   62.608    CFS   UNIT VOLUME =    .9992       B =   526.28      P60 = 2.0700
AREA =      .015858 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333


K =   .120467HR    TP =   .133300HR    K/TP RATIO =   .903729     SHAPE CONSTANT, N =  3.920589
UNIT PEAK =   4.6243    CFS   UNIT VOLUME =    .9976       B =   349.84      P60 = 2.0700
AREA =      .001762 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD            ID=1 CODE=1

                                HYDROGRAPH FROM AREA   701.00


RUNOFF VOLUME =     2.23063 INCHES     =       2.0962 ACRE-FEET
PEAK DISCHARGE RATE =      53.87 CFS  AT   1.500 HOURS   BASIN AREA =   .0176 SQ. MI.


*
*
COMPUTE RATING CURVE CID=1 VS NO=1 CODE=-1 SLP=0.006
                     DIAM=3.5 FT  N=0.013
```

RATING CURVE PIPE SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	MAX WIDTH FT
.00	.00	.00	.00
.18	.19	.41	1.56
.36	.53	1.77	2.14
.55	.96	4.13	2.54
.73	1.45	7.42	2.84
.91	1.99	11.59	3.07
1.09	2.57	16.53	3.25
1.28	3.17	22.15	3.37
1.46	3.80	28.31	3.45
1.64	4.43	34.90	3.49
1.82	5.07	41.77	3.50
2.01	5.70	48.77	3.50
2.19	6.33	55.72	3.50
2.37	6.94	62.45	3.50
2.55	7.52	68.76	3.50
2.74	8.07	74.40	3.50
2.92	8.57	79.09	3.50
3.10	9.01	82.45	3.50
3.28	9.37	83.83	3.50
3.50	9.62	83.83	3.50

```
*
ROUTE MCUNGE                ID=4 HYD NO=RTTOT INFLOW ID=3
                                DT=0.0 LENGTH=950 FT
                                NS=0 SLOPE=0.007 MATCODE=0
                                REGCODE=10 CCODE=1

          INFLOW END= 600            TABLE PTS= 19
          DT=  .033333               QMED=       25.66  CKMED=      9.9067
          WIDTH MED=        3.42     NREACH=  2         DX=      475.00

          DEPTH  AREA      Q      TRAVEL  WIDTH      Q-M     ck     VEL    C      D       C1     C2     C
3  FROUDE
            (FT)  (SQ FT) (CFS)   TIME(HR) (FT)     (CFS)    (FPS)  (FPS)
             .00     .0       .0    .168     .0        .2   3.88   1.01    .98    .02   .980   .000   .0
20   .00
             .18     .2       .4    .123    1.6       1.1   4.01   2.14   1.01    .04   .957   .028   .0
16  1.07
             .36     .5      1.8    .079    2.1       3.0   4.31   3.34   1.09    .09   .919   .081   .0
00  1.18
             .55    1.0      4.1    .061    2.5       5.8   4.52   4.29   1.14    .14   .875   .125   .0
00  1.23
             .73    1.5      7.4    .052    2.8       9.5   4.76   5.11   1.20    .20   .831   .169   .0
00  1.26
```

```
                .91    2.0     11.6    .045    3.1      14.1   5.01   5.81   1.27    .27   .789   .211    .0
00  1.27
               1.09    2.6     16.5    .041    3.2      19.3   5.28   6.43   1.33    .33   .750   .250    .0
00  1.27
               1.28    3.2     22.1    .038    3.4      25.2   5.55   6.98   1.40    .40   .714   .286    .0
00  1.27
               1.46    3.8     28.3    .035    3.5      31.6   5.82   7.46   1.47    .47   .680   .320    .0
00  1.25
               1.64    4.4     34.9    .034    3.5      38.3   6.10   7.88   1.54    .54   .649   .351    .0
00  1.23
               1.82    5.1     41.8    .032    3.5      45.3   6.37   8.24   1.61    .61   .621   .379    .0
00  1.21
               2.01    5.7     48.8    .031    3.5      52.2   6.64   8.55   1.68    .68   .596   .404    .0
00  1.18
               2.19    6.3     55.7    .030    3.5      59.1   6.88   8.80   1.74    .74   .575   .425    .0
00  1.15
               2.37    6.9     62.5    .029    3.5      65.6   7.10   9.00   1.79    .79   .557   .443    .0
00  1.13
               2.55    7.5     68.8    .029    3.5      71.6   7.30   9.14   1.84    .84   .543   .457    .0
00  1.10
               2.74    8.1     74.4    .029    3.5      76.7   7.46   9.22   1.88    .88   .531   .469    .0
00  1.07
               2.92    8.6     79.1    .029    3.5      80.8   7.58   9.23   1.92    .92   .522   .478    .0
00  1.04
               3.10    9.0     82.5    .029    3.5      83.1   3.83   9.15    .97   1.86   .027   .478    .4
95  1.00
               3.28    9.4     83.8    .030    3.5      83.1   3.83   8.94    .97   1.86   .027   .478    .4
95   .96
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   2 OCCURRED     140 TIMES.  AVERAGE NUMBER ITERATIONS
 =  1.1217
     Equations solved using the Fread correction to C1, C2 and C3
     PRINT HYD                      ID=4 CODE=1

                                   HYDROGRAPH FROM AREA RTTOT


         RUNOFF VOLUME =     1.98249 INCHES     =       3.2788 ACRE-FEET
         PEAK DISCHARGE RATE =      51.16 CFS  AT   1.600 HOURS   BASIN AREA =   .0310 SQ. MI.


     *
     *
     *S**** ADD RTTOT AND 701 ****
     *
     ADD HYD                ID=2 HYD=701UP ID I=4 ID II=1
     *
     PRINT HYD              ID=2 CODE=1

                                   HYDROGRAPH FROM AREA 701UP


         RUNOFF VOLUME =     2.07239 INCHES     =       5.3749 ACRE-FEET
         PEAK DISCHARGE RATE =      99.47 CFS  AT   1.533 HOURS   BASIN AREA =   .0486 SQ. MI.


     *
     *S*
     *S*
     *S*
     *
     *S****TEMPORARY PONDS FOR UNDEVELOPED FLOWS FROM TRACT G-3-B****
     *S*
     *S*
     *S*
     *
     **S*                  COMPUTE BASIN B1A
     *
     COMPUTE NM HYD         ID=1 HYD NO=B1A  DA=0.01185
                            PER A=80  PER B=0  PER C=20   PER D=0
                                          TP=.1333 RAIN=-1

          K =   .148538HR    TP =   .133300HR    K/TP RATIO =  1.114314     SHAPE CONSTANT, N =  3.173911
```

```
UNIT PEAK =   26.288    CFS   UNIT VOLUME =    .9995       B =   295.71      P60 = 2.0700
AREA =       .011850 SQ MI    IA =    .59000 INCHES    INF =   1.50200 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

BULKING FACTOR APPLIED TO HYDROGRAPH.  FACTOR =  1.02500 AT PEAK FLOW.

PRINT HYD            ID=1 CODE=1

                                    HYDROGRAPH FROM AREA B1A


RUNOFF VOLUME =       .72713 INCHES     =        .4595 ACRE-FEET
PEAK DISCHARGE RATE =      15.87 CFS  AT   1.533 HOURS   BASIN AREA =   .0119 SQ. MI.


*
*
*S*                 ROUTE THROUGH DETENTION POND
*
*
*
ROUTE RESERVOIR            ID=51A HYD=TP1  INFLOW ID=1  CODE=5
                                           OUTFLOW(CFS)    STORAGE(AC FT)  ELEV(FT)

                                           0                     0.0                    0

                                   3.25            .052                   .5

                                           6.5                   .104                   1.0

                         9.75              .156              1.5

 *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *
```

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.17	.00	.00	.000	.00
.33	.00	.00	.000	.00
.50	.00	.00	.000	.00
.67	.00	.00	.000	.00
.83	.00	.00	.000	.00
1.00	.00	.00	.000	.00
1.17	.00	.00	.000	.00
1.33	.52	.01	.001	.04
1.50	15.86	.83	.087	5.41
1.67	9.14	1.49	.155	9.72
1.83	3.17	1.10	.115	7.18
2.00	1.52	.65	.067	4.20
2.17	1.02	.38	.040	2.47
2.33	.70	.23	.024	1.52
2.50	.48	.15	.016	.97
2.67	.33	.10	.010	.63
2.83	.23	.07	.007	.42
3.00	.16	.04	.005	.29
3.17	.11	.03	.003	.19
3.33	.07	.02	.002	.13
3.50	.05	.01	.001	.09
3.67	.04	.01	.001	.06
3.83	.02	.01	.001	.04
4.00	.02	.00	.000	.03
4.17	.01	.00	.000	.02
4.33	.01	.00	.000	.01
4.50	.00	.00	.000	.01
4.67	.00	.00	.000	.00

```
PEAK DISCHARGE =        9.716 CFS - PEAK OCCURS AT HOUR    1.67
MAXIMUM WATER SURFACE ELEVATION =        1.495
MAXIMUM STORAGE =          .1555 AC-FT      INCREMENTAL TIME=     .033333HRS

*
PRINT HYD                          ID=51A CODE=1
```

HYDROGRAPH FROM AREA TP1

RUNOFF VOLUME = .72712 INCHES = .4595 ACRE-FEET
PEAK DISCHARGE RATE = 9.72 CFS AT 1.667 HOURS BASIN AREA = .0119 SQ. MI.

```
*
*S*                    COMPUTE BASIN B1B
*
COMPUTE NM HYD          ID=2 HYD NO=B1B  DA=0.0079
                        PER A=80  PER B=0  PER C=20   PER D=0
                                     TP=.1333 RAIN=-1
```

K = .148538HR TP = .133300HR K/TP RATIO = 1.114314 SHAPE CONSTANT, N = 3.173911
UNIT PEAK = 17.525 CFS UNIT VOLUME = .9993 B = 295.71 P60 = 2.0700
AREA = .007900 SQ MI IA = .59000 INCHES INF = 1.50200 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033333

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.02500 AT PEAK FLOW.

```
PRINT HYD               ID=2 CODE=1
```

HYDROGRAPH FROM AREA B1B

RUNOFF VOLUME = .72713 INCHES = .3064 ACRE-FEET
PEAK DISCHARGE RATE = 10.58 CFS AT 1.533 HOURS BASIN AREA = .0079 SQ. MI.

```
*
*
*S*                    ROUTE THROUGH DETENTION POND
*
*
*
ROUTE RESERVOIR             ID=52A HYD=TP2  INFLOW ID=2  CODE=5
                                            OUTFLOW(CFS)    STORAGE(AC FT)  ELEV(FT)

                                            0                     0.0                    0

                                     2.6            .027                   .50

                                            5.1                   .055                   1.0

                          7.7               .082            1.5
```

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.17	.00	.00	.000	.00
.33	.00	.00	.000	.00
.50	.00	.00	.000	.00
.67	.00	.00	.000	.00
.83	.00	.00	.000	.00
1.00	.00	.00	.000	.00
1.17	.00	.00	.000	.00
1.33	.34	.01	.000	..04
1.50	10.58	.93	.051	4.76
1.67	6.10	1.45	.079	7.43
1.83	2.11	.88	.048	4.51
2.00	1.01	.43	.023	2.22
2.17	.68	.23	.012	1.17
2.33	.47	.14	.007	.71
2.50	.32	.09	.005	.46
2.67	.22	.06	.003	.31
2.83	.15	.04	.002	.21
3.00	.10	.03	.002	.15
3.17	.07	.02	.001	.10

```
    3.33        .05        .01        .001        .07
    3.50        .03        .01        .000        .05
    3.67        .02        .01        .000        .03
    3.83        .02        .00        .000        .02
    4.00        .01        .00        .000        .02
    4.17        .01        .00        .000        .01
    4.33        .00        .00        .000        .00
 PEAK DISCHARGE =        7.647 CFS - PEAK OCCURS AT HOUR    1.63
 MAXIMUM WATER SURFACE ELEVATION =        1.490
 MAXIMUM STORAGE =         .0815 AC-FT      INCREMENTAL TIME=     .033333HRS

*
PRINT HYD                          ID=52A CODE=1

                                        HYDROGRAPH FROM AREA TP2


    RUNOFF VOLUME =       .72712 INCHES     =        .3064 ACRE-FEET
    PEAK DISCHARGE RATE =        7.65 CFS  AT   1.633 HOURS   BASIN AREA =   .0079 SQ. MI.


*

FINISH

    NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 15:50:37
```

APPENDIX B

INTERIM POND CALCULATIONS AND INTERIM BASIN MAP

Interim Pond Calculations

TempP1 - Q in = 15.87 cfs (from Hydro)
Q out = 9.72 cfs
$\forall$ = .155 ac-ft
= .155 ac-ft × 43560 ft²/ac

VOL REQD = 6752 ft³

VOL PROVIDED:
Area at 5479 contour
= 5959 ft²
× 1.5 ft deep
= 8938 ft³
> 6752

TempP1 - discharge
allowable Q out = 9.72 (from Ultimate cond. Hydro)

Use Manning eqn
Pipe size = 18"
S = 0.85%
n = .013

Q = 9.69 cfs ≈ 9.72 ALLOWED

TempP2 - Q in = 10.58 cfs
Q out = 7.65 cfs } from Hydro

VOL REQD = .081 ac-ft × 43560 ft²/ac = 3528 ft³

TempP2 dimensions
pyramid eqn. $\forall = \frac{1}{3} B h$ where $B = \frac{1}{2} L W$

$$LW = \frac{6\forall}{h} = \frac{6(3528\,ft^2)}{1.5\,ft} = 14113.44\,ft^2$$

DIMENSIONS PROVIDED ... L = 175, W = 120

175 × 120 = 21,000 > 14,113 OK → Temp P2 dimensions calcs

Bohannan ▲ Huston

PROJECT NAME MM Apts SHEET 1 OF 2
PROJECT NO. 01231 BY KJM DATE 8-22-01
SUBJECT Interim Pond calcs CH'D BJS DATE 8-22-01

ENGINEERS PLANNERS PHOTOGRAMMETRISTS SURVEYORS SOFTWARE DEVELOPERS

B-1

Temp P2 discharge calcs.

Q_{ALLOW} = 7.66 cfs from Hydro Ultimate cond

Use Mannings eqn.

pipe size = 12"

S = 1.15%

n = .013

Q = 3.82

use 2-12" pipes

Q = 7.64 cfs ≈ 7.66 cfs

Bohannan ▲ Huston

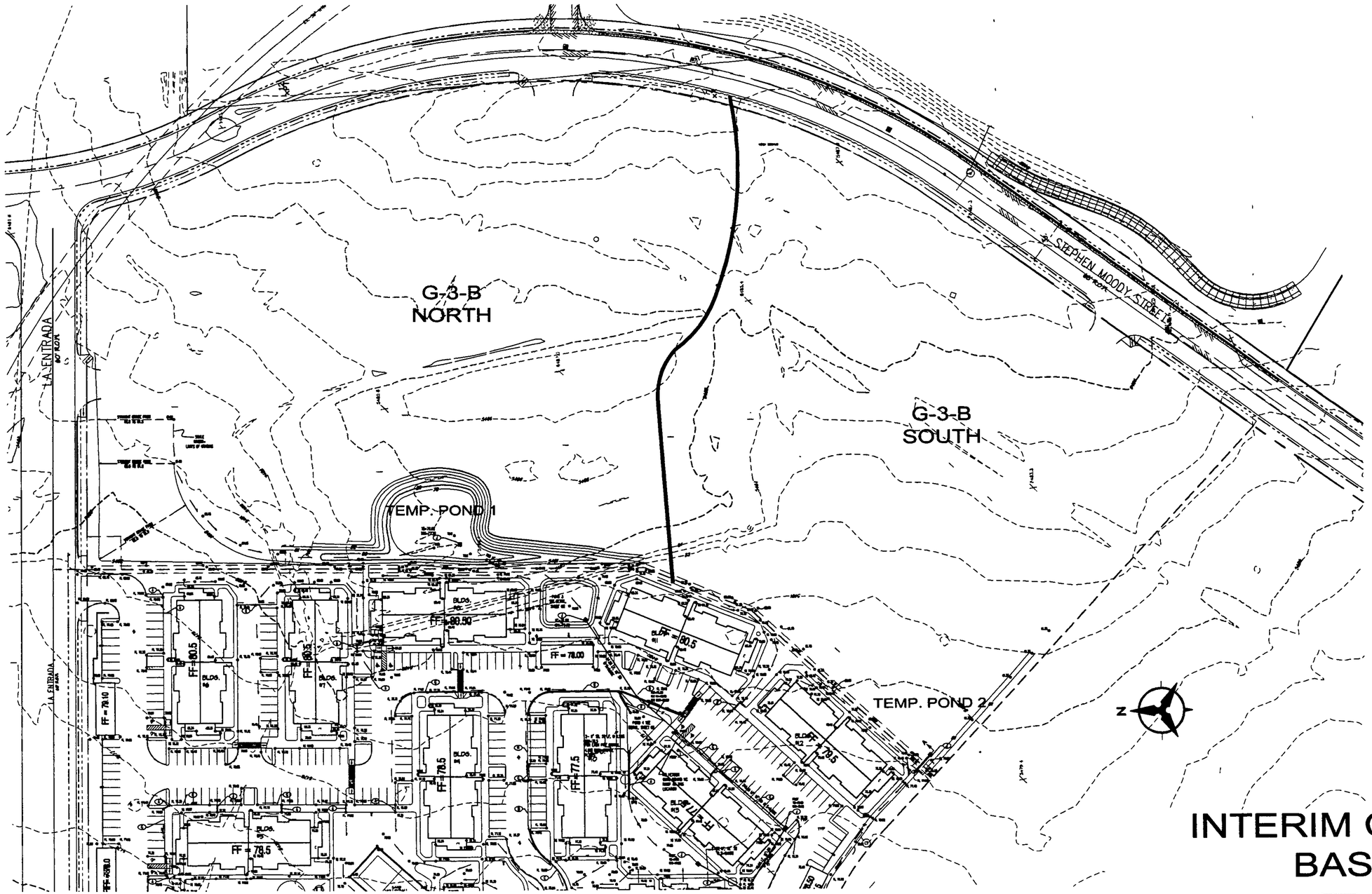
PROJECT NAME MM Apts SHEET 2 OF 2

PROJECT NO. 01231 BY KJM DATE 8-22-01

SUBJECT CH'D BJS DATE 8-22-01

ENGINEERS PLANNERS PHOTOGRAMMETRISTS SURVEYORS SOFTWARE DEVELOPERS

B-2



INTERIM CONDITIONS BASIN MAP B-3

INTERIM POND DATA						
Temp P1	0.155	5479.00	15.87	9.72	5480.50	4501
Temp P2	0.081	5479.25	10.58	7.65	5480.75	14113

EXISTING CONDITIONS BASIN TABLE TRACT G-3-B					
	% LAND				
BASIN	TREATMENT	SFT	AC	MI^2	Runoff
undeveloped-G-3-B - NORTH	A=80 B=0 C=20 D=0	181530	4.1673318	0.00651	15.87
undeveloped-G-3-B - SOUTH	A=80 B=0 C=20 D=1	368560	8.4609465	0.01322	10.58

P:\01231\cdp\general\INTERIMBmap.dwg
August 28, 2001 - 8:11am

Bohannan Huston
Courtyard One 7500 JEFFERSON NE Albuquerque NEW MEXICO 87109
ENGINEERS PLANNERS PHOTOGRAMMETRISTS SURVEYORS SOFTWARE DEVELOPERS

revisions

job title
MANZANO-MESA EAST
700 ELBANK S.E.
ALBUQUERQUE, NEW MEXICO 87123

PROJECT MANAGER	job no	date
NICK PIRKL	20048	7/30/01
sheet title		by

MARK E. STOWORTH NEW MEXICO 14523 REGISTERED PROFESSIONAL ENGINEER

de la torre architects, p.a. d/a
2400 louisiana blvd ne
building 3 / suite 110
albuquerque n.m. 87110 / 505 · 883 · 7918

sheet- C5 of-

APPENDIX C

LA ENTRADA CALCULATIONS

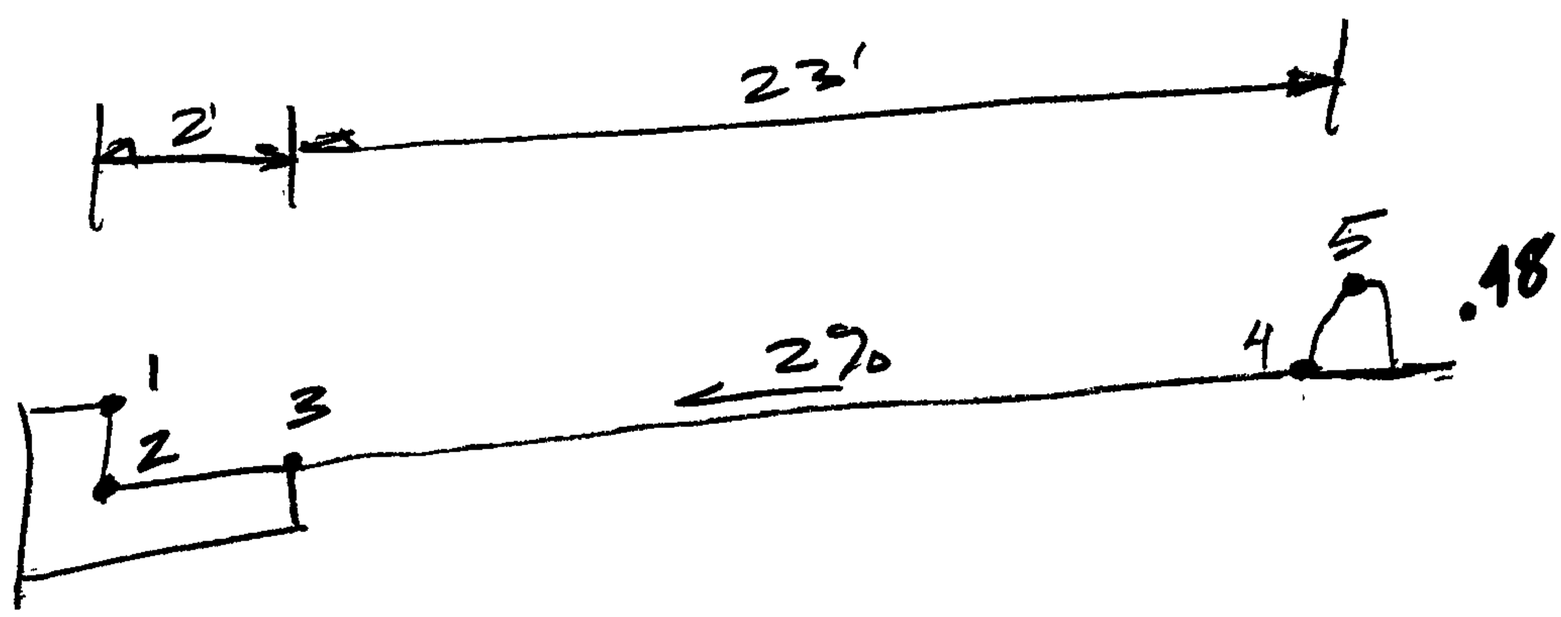
***** PC PROGRAM STREAM SEPTEMBER 1994 *****

la entrada S=1.00%

MANNING'S N= .017 SLOPE= .01

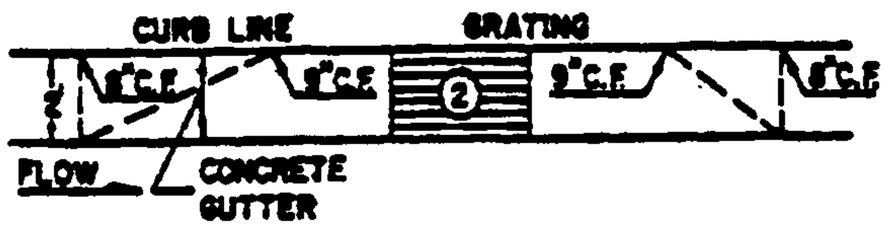
POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1	0.00	0.67	3	2.00	0.13	5	25.00	1.06
2	0.00	0.00	4	25.00	0.58	6	0.00	0.00

WSEL (FT)	DEPTH INC (FT)	FLOW AREA SQ.FT.	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOPWID (FT)	VEL HEAD (FT)	ENERGY HEAD (FT)
0.05	0.05	0.02	0.0	0.85	0.72	0.80	0.01	0.06
0.10	0.10	0.08	0.1	1.70	1.14	1.60	0.02	0.12
0.15	0.15	0.19	0.2	3.40	1.28	3.25	0.03	0.18
0.20	0.20	0.42	0.6	5.95	1.48	5.75	0.03	0.23
0.25	0.25	0.77	1.3	8.51	1.76	8.25	0.05	0.30
0.30	0.30	1.24	2.5	11.06	2.03	10.75	0.06	0.36
0.35	0.35	1.84	4.2	13.61	2.30	13.25	0.08	0.43
0.40	0.40	2.57	6.6	16.16	2.56	15.75	0.10	0.50
0.45	0.45	3.42	9.6	18.71	2.81	18.25	0.12	0.57
0.50	0.50	4.39	13.4	21.26	3.05	20.75	0.14	0.64
0.55	0.55	5.49	18.0	23.81	3.29	23.25	0.17	0.72
0.60	0.60	6.71	24.0	25.62	3.58	25.00	0.20	0.80
0.65	0.65	7.96	31.8	25.72	4.00	25.00	0.25	0.90
0.70	0.70	9.21	40.5	25.82	4.40	25.00	0.30	1.00
0.75	0.75	10.46	49.9	25.92	4.77	25.00	0.35	1.10
0.80	0.80	11.71	60.1	26.02	5.13	25.00	0.41	1.21
0.85	0.85	12.96	71.0	26.12	5.48	25.00	0.47	1.32
0.90	0.90	14.21	82.6	26.22	5.81	25.00	0.52	1.42
0.95	0.95	15.46	94.8	26.32	6.13	25.00	0.58	1.53
1.00	1.00	16.71	107.6	26.42	6.44	25.00	0.64	1.64
1.05	1.05	17.96	121.1	26.52	6.74	25.00	0.71	1.76
1.06	1.06	18.16	123.3	26.54	6.79	25.00	0.72	1.77

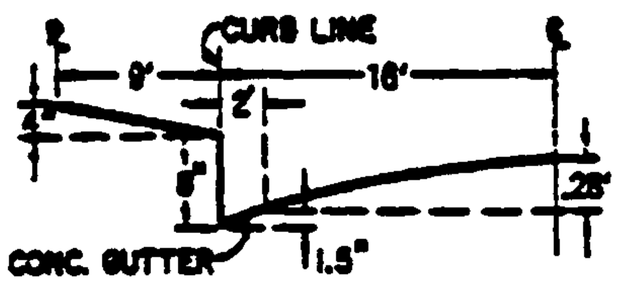


C.1

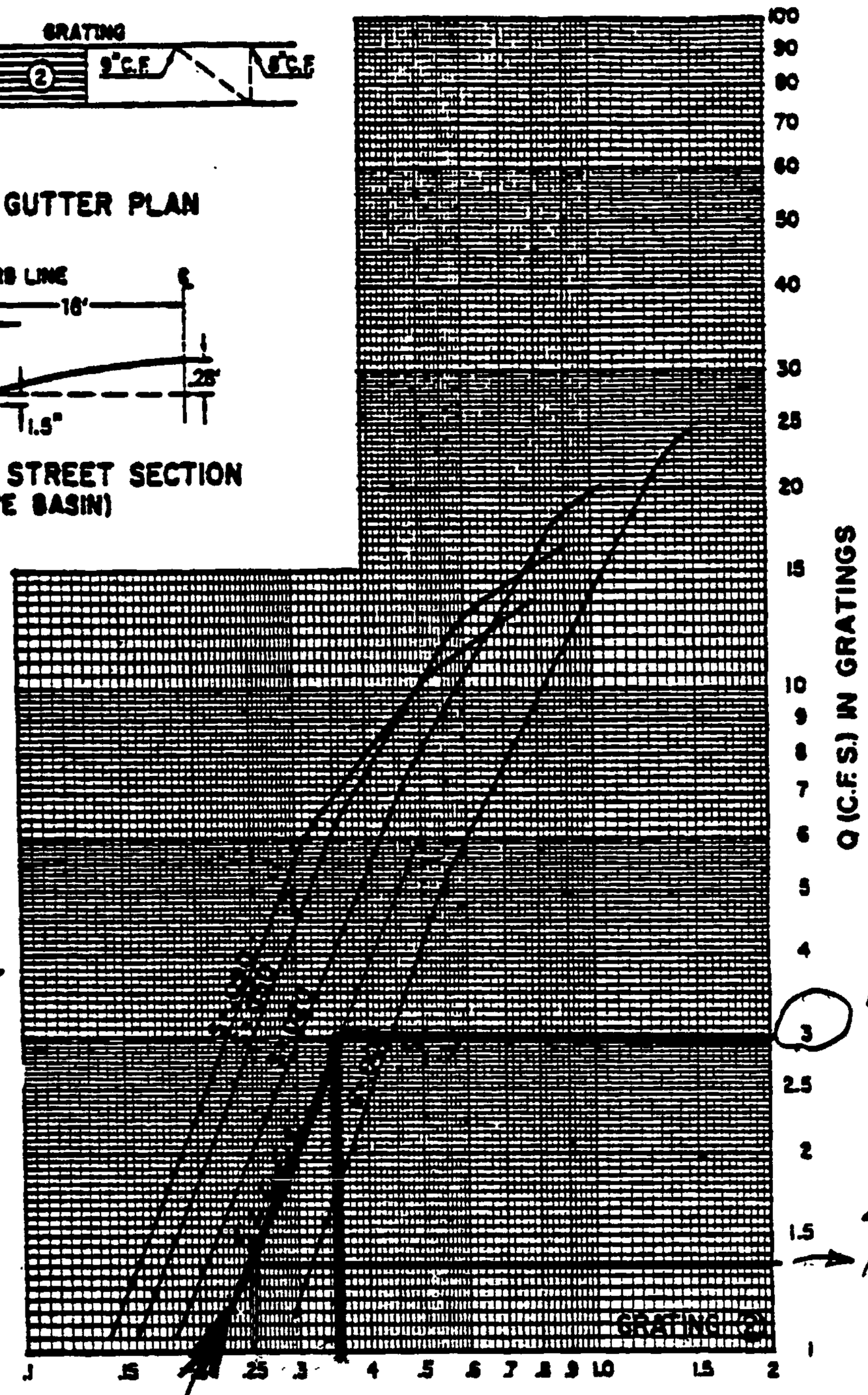
GRATING CAPACITIES FOR TYPE 'A' , 'C' and 'D'



GRATING & GUTTER PLAN



TYPICAL HALF STREET SECTION
(ABOVE BASIN)



1ST INLET

- Q = 4.2 CFS IN STREET
- Q_{INLET} = 3.0 CFS
- BYPASS = 1.2 CFS

2ND INLET

- Q_{INLET} = 1.2 CFS
- BYPASS = 0 CFS

1ST INLET

2ND INLET

1% SLOPE

PLATE 22.3 D-5

APPENDIX D

ONSITE HYDRAULIC CALCULATIONS

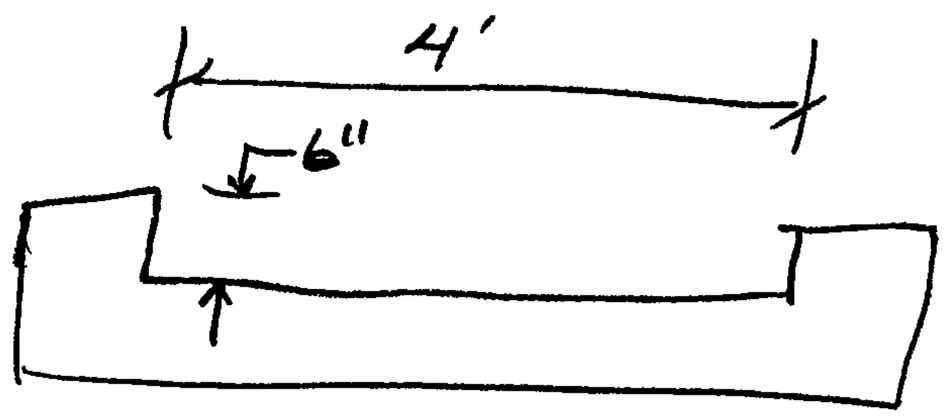
***** PC PROGRAM STREAM SEPTEMBER 1994 *****

MMA rib channel S=1.00%

MANNING'S N= .015 SLOPE= .01

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1	0.00	0.50	3	4.00	0.00			
2	0.00	0.00	4	4.00	0.50			

WSEL (FT)	DEPTH INC (FT)	FLOW AREA SQ.FT.	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOPWID (FT)	VEL HEAD (FT)	ENERGY HEAD (FT)
0.05	0.05	0.20	0.3	4.10	1.32	4.00	0.03	0.08
0.10	0.10	0.40	0.8	4.20	2.07	4.00	0.07	0.17
0.15	0.15	0.60	1.6	4.30	2.67	4.00	0.11	0.26
0.20	0.20	0.80	2.5	4.40	3.18	4.00	0.16	0.36
0.25	0.25	1.00	3.6	4.50	3.63	4.00	0.21	0.46
0.30	0.30	1.20	4.9	4.60	4.04	4.00	0.25	0.55
0.35	0.35	1.40	6.2	4.70	4.42	4.00	0.30	0.65
0.40	0.40	1.60	7.6	4.80	4.76	4.00	0.35	0.75
0.45	0.45	1.80	9.1	4.90	5.08	4.00	0.40	0.85
0.50	0.50	2.00	10.8	5.00	5.38	4.00	0.45	0.95



SLOPE = 1.0%

N = 0.015

D·1

* * * * *

EXHIBITS

EXHIBIT 1: FINAL DRAINAGE / GRADING PLAN AND POND DETAILS

EXHIBIT 2: ULTIMATE CONDITIONS BASIN MAP (INCLUDING POND DATA TABLE, INLET TABLE, ORIFICE TABLE, STORM DRAIN PIPE TABLE, BASIN TABLE)

EXHIBIT 3: MANZANO MESA MDP BASIN MAP

EXHIBIT 1

FINAL DRAINAGE / GRADING PLAN AND POND DETAILS

EXHIBIT 2

ULTIMATE CONDITIONS BASIN MAP

- POND DATA TABLE
- INLET TABLE
- ORIFICE TABLE
- STORM DRAIN PIPE TABLE
- BASIN TABLE

EXHIBIT 3

MANZANO MESA MDP BASIN MAP

BOHANNAN HUSTON, INC

Courtyard One

7500 JEFFERSON NE

Albuquerque

NEW MEXICO 87109-4335

voice 505.823.1000

fax 505.798.7988

www.bhinc.com

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 31, 2002

Bruce J. Stidworthy, PE
Bohannan Huston
Courtyard 1 7500 Jefferson NE
Rio Rancho, NM 87109

Re: Manzano Ridge Apartments Grading and Drainage Plan
Engineer's Stamp Dated 1-22-02, (L21/D52)

Dear Mr. Stidworthy,

Based on the information contained in your submittal dated 1-23-02, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

- The required zone map needs to be included on the plan.
- I am assuming this project is in Phase II based on the approved Phase I drainage report on file.
- Please be advised to make a minor correction to the registered stamp date reflecting the year 2002 instead of 2001.
- Phasing boundaries of the grading and drainage plan is highly recommended for individual phasing and Certificate of Occupancy approval. The plan shows that the entire site will be constructed at once.
- On your next submittal, please submit Final Plat.
- Please submit the drainage basin map for Phase II.
- Does Phase I have the capacity to accept flow from part of Phase II? Please show details of pond. Indicate pipe and inlet capacities for Phase I and for the downstream drainage system in Phase II. Also, provide us with Mannings Equation Calculations to justify capacities.
- Please provide more street grades and adjacent site grades along public right of way.

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

Sincerely,

Carlos A. Montoya, PE
Floodplain Administrator, PWD
Development and Building Services

c: Terri Martin, Hydrology
File (2)

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

Bohannan ▲ Huston

FACSIMILE TRANSMITTAL COVER SHEET

File: Manzano Mesa Apts.

BOHANNAN HUSTON
Courtyard One
7500 JEFFERSON NE
Albuquerque
NEW MEXICO 87109
voice 505.823.1000
fax 505.798.7988

Date: July 19, 2001

To: Chuck Atwood
Company: Albuquerque Public Schools
Fax No.: 768-1583

cc: Loren Meinz, COA, fax 924-3864
David Bantz, GSL Homes, fax (503) 223-4463
James Topmiller, BHI

L-21/D52

From: Bruce Stidworthy

Project No: 01 231 **Project Name:** GSL Apartment Project

Number of Pages (Including Cover): 03

Re: **GSL Apartment Project Drainage**

Comments:

Chuck -

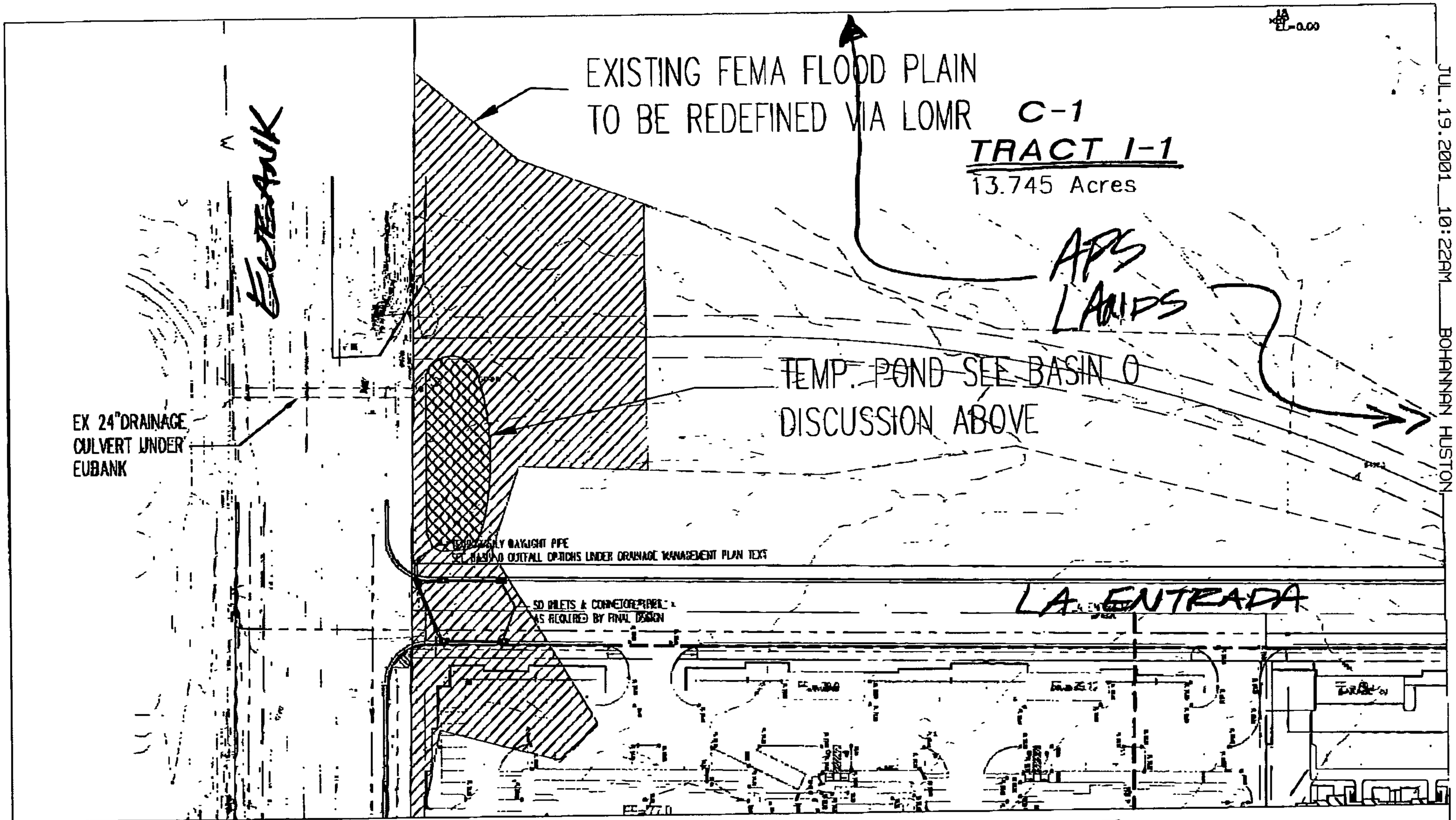
I need to talk with you about obtaining a temporary public drainage easement on the west end of Tract I-1 Manzano Mesa (southeast corner of Southern and Eubank). La Entrada Avenue drains to the west and then north onto Tract I-1. Once La Entrada is paved, its runoff will need to go into a temporary pond at the southwest corner of Tract I-1. That pond would also be required for the development of Tract I-1. The pond could be eliminated with the future construction of the Gibson storm drain.

Please call me at 823-1000 with any questions.

- Bruce

Original to Follow: ☐ **Yes**

If you do not receive all pages, please contact Anna at (505) 823-1000.

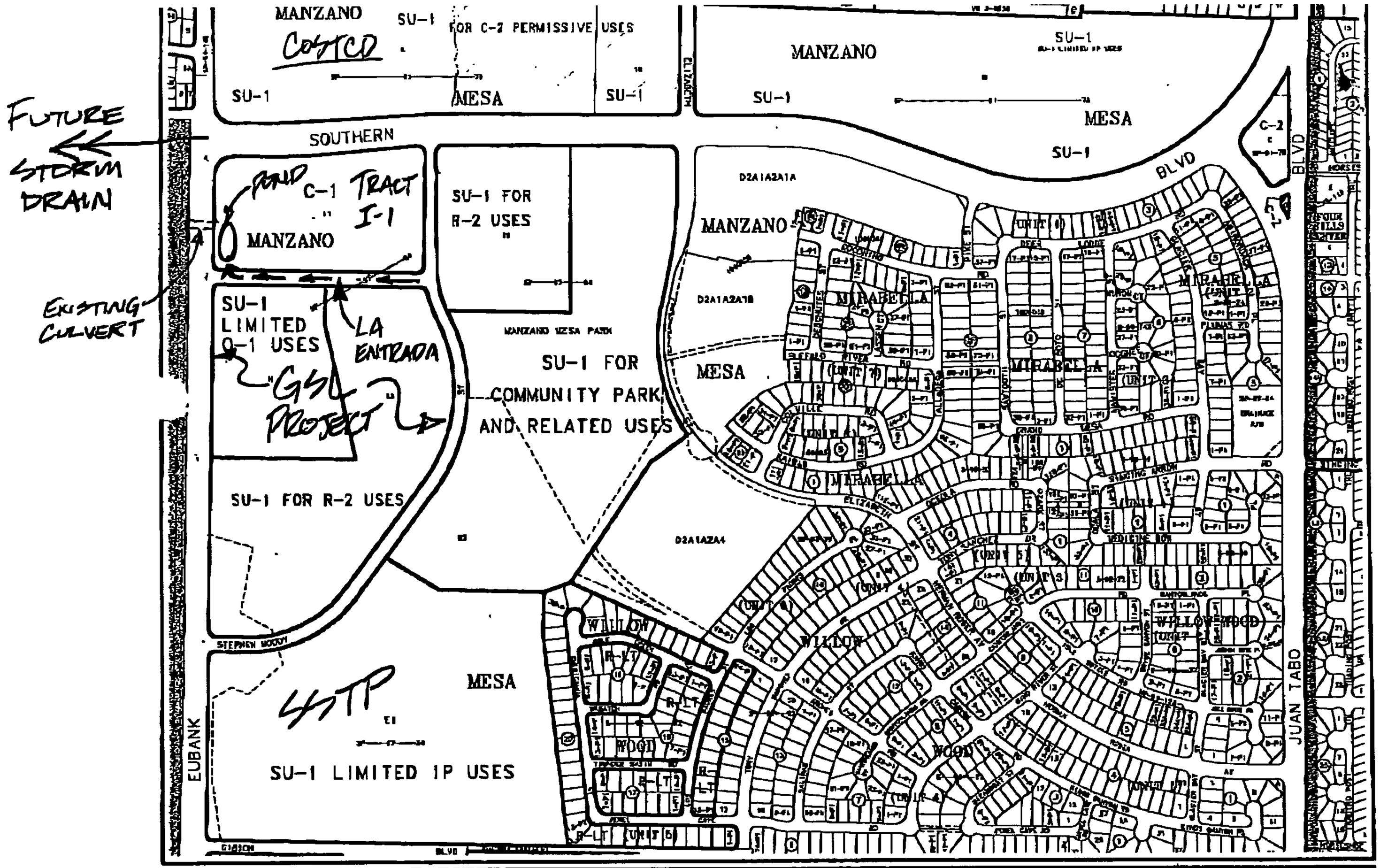


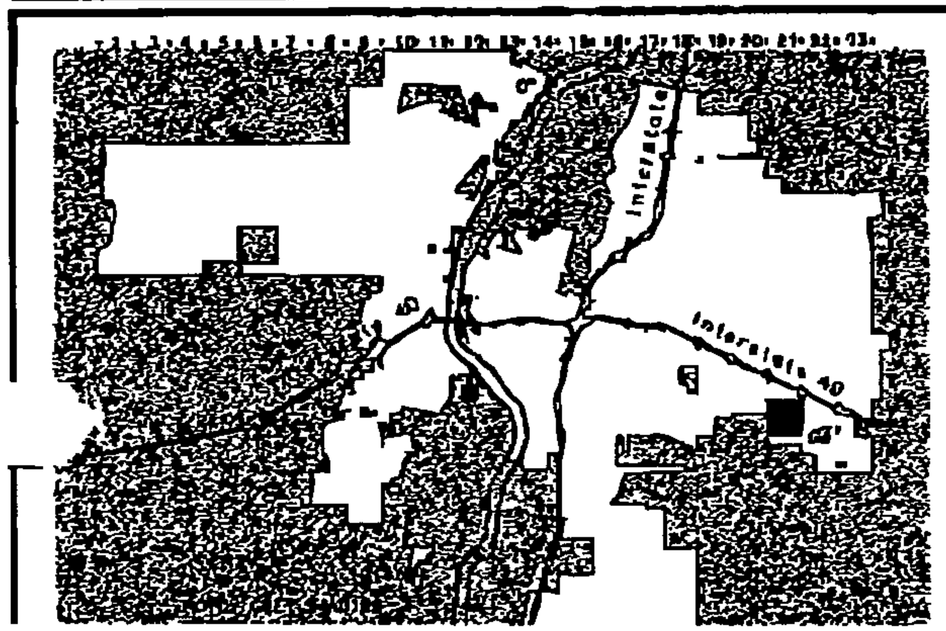
GSL APT. PROJECT

N

1"=100'

P:\01231\cdp\general\01231GD01.dwg
July 19, 2001 - 10:00am





CITY OF Albuquerque

Albuquerque Geographic Information System

PLANNING DEPARTMENT

GRAPHIC SCALE IN FEET

250 0 750 1000

Zone Atlas Page

L-21-Z

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 20, 2001

Bruce Stidworthy, P.E.
Bohannan-Huston, Inc.
7500 Jefferson NE
Albuquerque, NM 87109

RE: MANZANO MESA EAST APARTMENTS (L21-D52). Conceptual GRADING AND DRAINAGE PLAN FOR SITE DEVELOPMENT PLAN FOR SUBDIVISION AND BUILDING PERMIT APPROVALS, AND FOR FINAL PLAT APPROVAL. ENGINEER'S STAMP DATED MARCH 1, 2001.

Dear Mr. Stidworthy:

Based on the information provided on yourApril 11, 2001 submittal, the above referenced project is approved for Final Plat and for Site Development Plan for Subdivision and Building Permit.

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

Sincerely,

John P. Murray, P.E.
Hydrology

c: Terri Martin
File

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

Bohannan ▲ Huston

FACSIMILE TRANSMITTAL COVER SHEET

File Manzano Mesa Apts.

L21-D52

BOHANNAN HUSTON
Courtyard One
7500 JEFFERSON NE
Albuquerque
NEW MEXICO 87109
voice 505.823.1000
fax 505.798.7988

Date: June 12, 2001

To: Loren Meinz

Company: City of Albuquerque

Fax No.: 924-3864

From: Bruce Stidworthy

Project No: 01 231 **Project Name:** ~~Eubank~~ Apartments

Number of Pages to Follow (Including Cover): 5

Re: Portions of Conceptual Grading and Drainage Plan and Copy of Letter in response to comments of 6/7/01

Comments:

Original to Follow: ☐ **Yes**

If you do not receive all pages, please contact Carol at 823-1000.

June 12, 2001

BOHANNAN-HUSTON, INC

Courtyard One

7500 JEFFERSON NE

Albuquerque

NM 87109-4335

voice 505.823.1000

fax 505.821.0892

Mr. Loren Meinz, P.E.
Hydrology Project Engineer
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Response to Hydrology Comments Regarding the Manzano Mesa Apartments, L21/D52.

Dear Loren:

The following is in response to your comments in a letter dated June 7, 2001.

1. The area near the intersection of La Entrada and Eubank is in an existing floodplain. The attached revised plan addresses how the drainage in the vicinity of the floodplain will be handled. In addition, at your request we have added a LOMR for the floodplain to the infrastructure list.

2. The attached revised plan now shows an additional drainage basin for La Entrada. The plan identifies two options for discharge of the La Entrada Drainage. Modification to the floodplain should be able to be accomplished by raising the road within the floodplain area, and draining to an engineered pond (detention or retention) north of La Entrada.

3. The revised plan shows the storm drain in Stephen Moody which is currently under design by Smith Engineering on behalf of the city. That storm drain will be constructed by the city.

This letter and the attached revised plan effectively address all of your comments. With this submittal, please approve this project for site plan approval. Should you have any questions regarding this response, please contact me.

Sincerely,
Bohannan Huston, Inc.

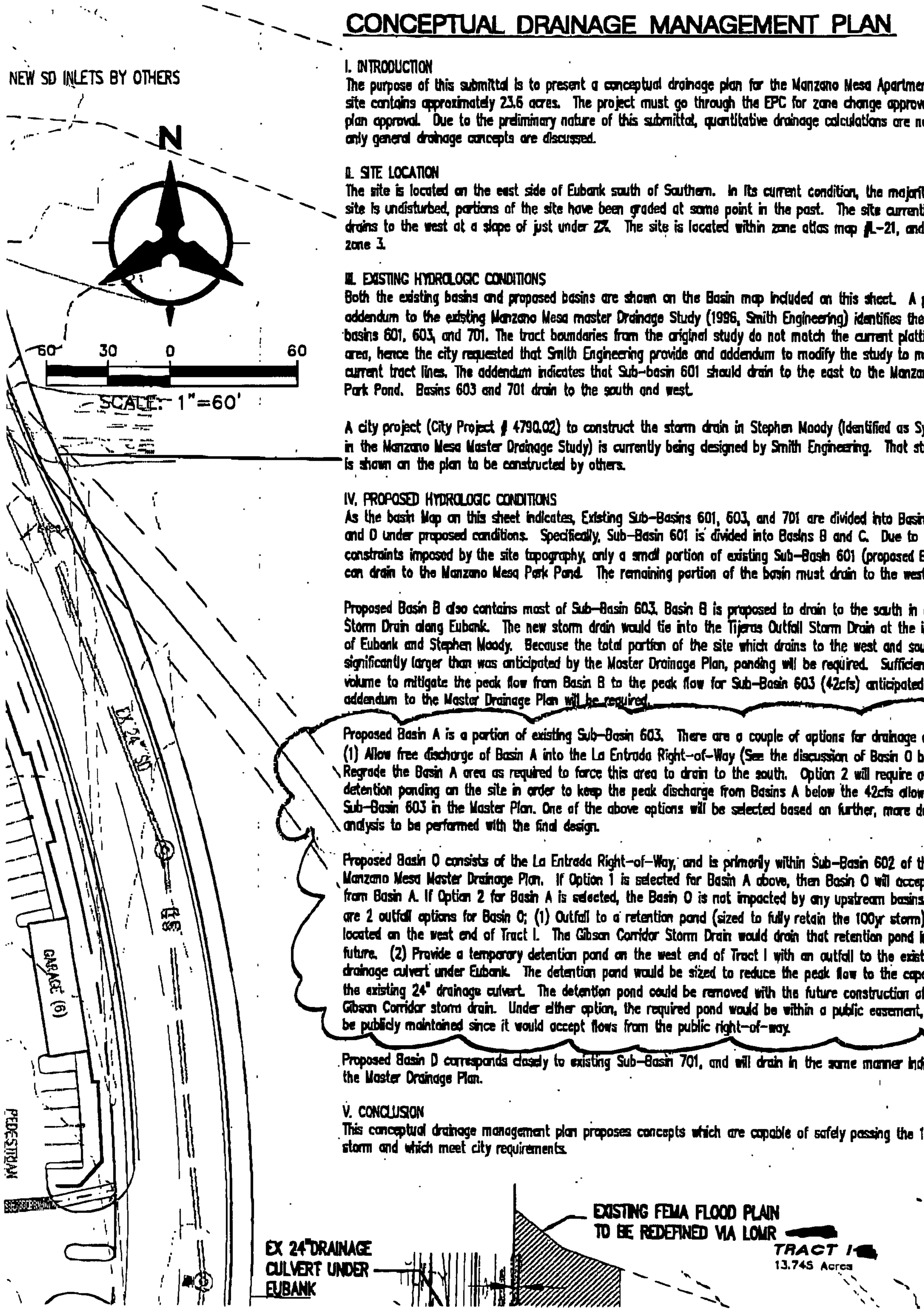
Bruce Stidworthy, P.E.
Community Development
and Planning Group

BS/ca
Enclosure

cc: David Bantz, GSL Properties
James Topmiller, BHI

P:\01231\cdp\corres\Meinz Response.doc

CONCEPTUAL DRAINAGE MANAGEMENT PLAN



I. INTRODUCTION

The purpose of this submittal is to present a conceptual drainage plan for the Manzano Mesa Apartments. The site contains approximately 23.6 acres. The project must go through the EPC for zone change approval and site plan approval. Due to the preliminary nature of this submittal, quantitative drainage calculations are not provided, only general drainage concepts are discussed.

II. SITE LOCATION

The site is located on the east side of Eubank south of Southern. In its current condition, the majority of the site is undisturbed, portions of the site have been graded at some point in the past. The site currently drains to the west at a slope of just under 2%. The site is located within zone atlas map #L-21, and hydrologic zone 3.

III. EXISTING HYDROLOGIC CONDITIONS

Both the existing basins and proposed basins are shown on the Basin map included on this sheet. A pending addendum to the existing Manzano Mesa master Drainage Study (1996, Smith Engineering) identifies the site as basins 601, 603, and 701. The tract boundaries from the original study do not match the current platting for the area, hence the city requested that Smith Engineering provide and addendum to modify the study to match the current tract lines. The addendum indicates that Sub-basin 601 should drain to the east to the Manzano Mesa Park Pond. Basins 603 and 701 drain to the south and west.

A city project (City Project # 4790.02) to construct the storm drain in Stephen Moody (Identified as System "C" in the Manzano Mesa Master Drainage Study) is currently being designed by Smith Engineering. That storm drain is shown on the plan to be constructed by others.

IV. PROPOSED HYDROLOGIC CONDITIONS

As the basin Map on this sheet indicates, Existing Sub-Basins 601, 603, and 701 are divided into Basins A, B, C, and D under proposed conditions. Specifically, Sub-Basin 601 is divided into Basins B and C. Due to the constraints imposed by the site topography, only a small portion of existing Sub-Basin 601 (proposed Basin C) can drain to the Manzano Mesa Park Pond. The remaining portion of the basin must drain to the west.

Proposed Basin B also contains most of Sub-Basin 603. Basin B is proposed to drain to the south in a new Storm Drain along Eubank. The new storm drain would tie into the Tijeras Outfall Storm Drain at the intersection of Eubank and Stephen Moody. Because the total portion of the site which drains to the west and south is significantly larger than was anticipated by the Master Drainage Plan, ponding will be required. Sufficient ponding volume to mitigate the peak flow from Basin B to the peak flow for Sub-Basin 603 (42cfs) anticipated by the addendum to the Master Drainage Plan will be required.

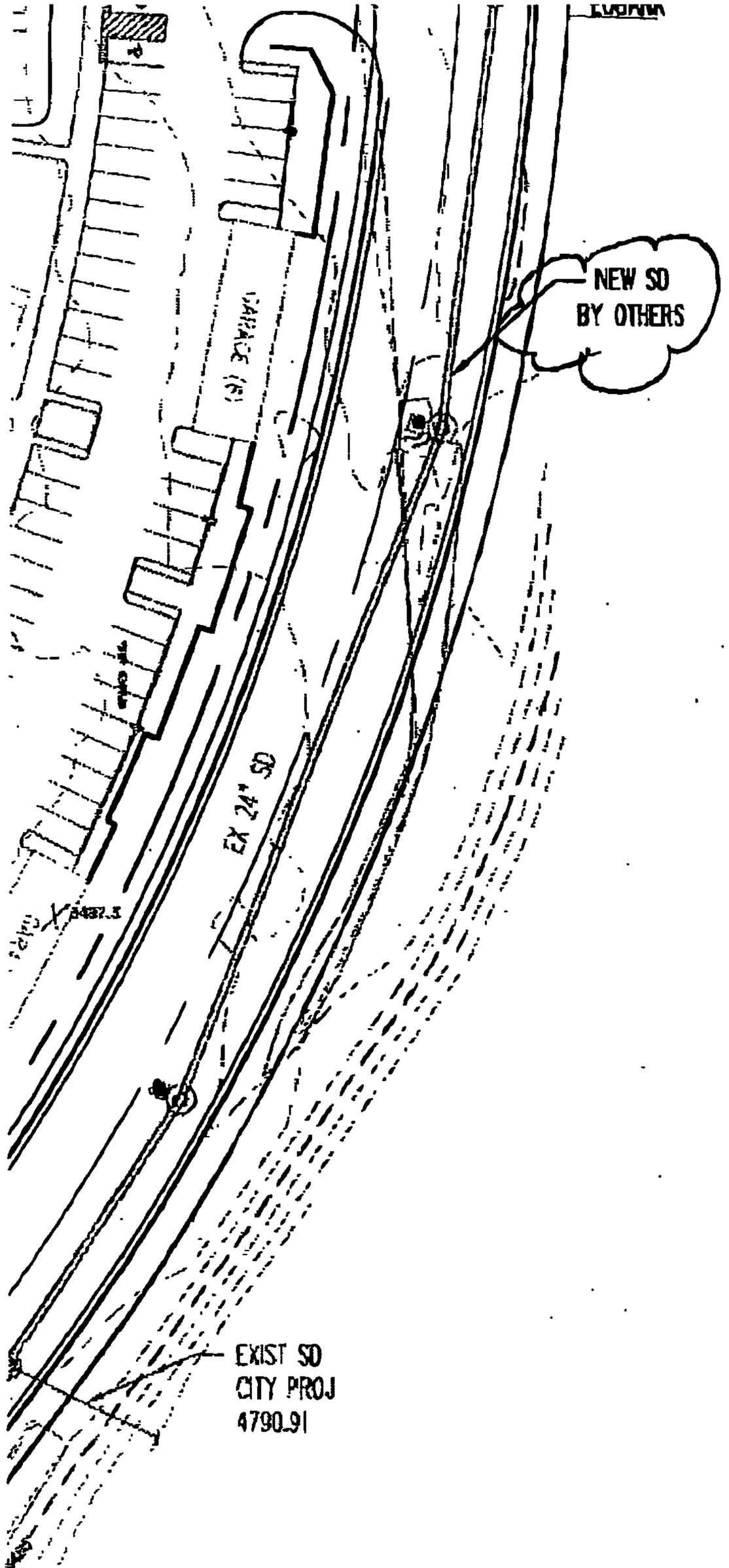
Proposed Basin A is a portion of existing Sub-Basin 603. There are a couple of options for drainage of basin A: (1) Allow free discharge of Basin A into the La Entrada Right-of-Way (See the discussion of Basin D below) (2) Regrade the Basin A area as required to force this area to drain to the south. Option 2 will require additional detention ponding on the site in order to keep the peak discharge from Basins A below the 42cfs allowed for Sub-Basin 603 in the Master Plan. One of the above options will be selected based on further, more detailed analysis to be performed with the final design.

Proposed Basin D consists of the La Entrada Right-of-Way, and is primarily within Sub-Basin 602 of the Manzano Mesa Master Drainage Plan. If Option 1 is selected for Basin A above, then Basin D will accept runoff from Basin A. If Option 2 for Basin A is selected, the Basin D is not impacted by any upstream basins. There are 2 outfall options for Basin D; (1) Outfall to a retention pond (sized to fully retain the 100yr storm) to be located on the west end of Tract I. The Gibson Corridor Storm Drain would drain that retention pond in the future. (2) Provide a temporary detention pond on the west end of Tract I with an outfall to the existing drainage culvert under Eubank. The detention pond would be sized to reduce the peak flow to the capacity of the existing 24" drainage culvert. The detention pond could be removed with the future construction of the Gibson Corridor storm drain. Under either option, the required pond would be within a public easement, and would be publicly maintained since it would accept flows from the public right-of-way.

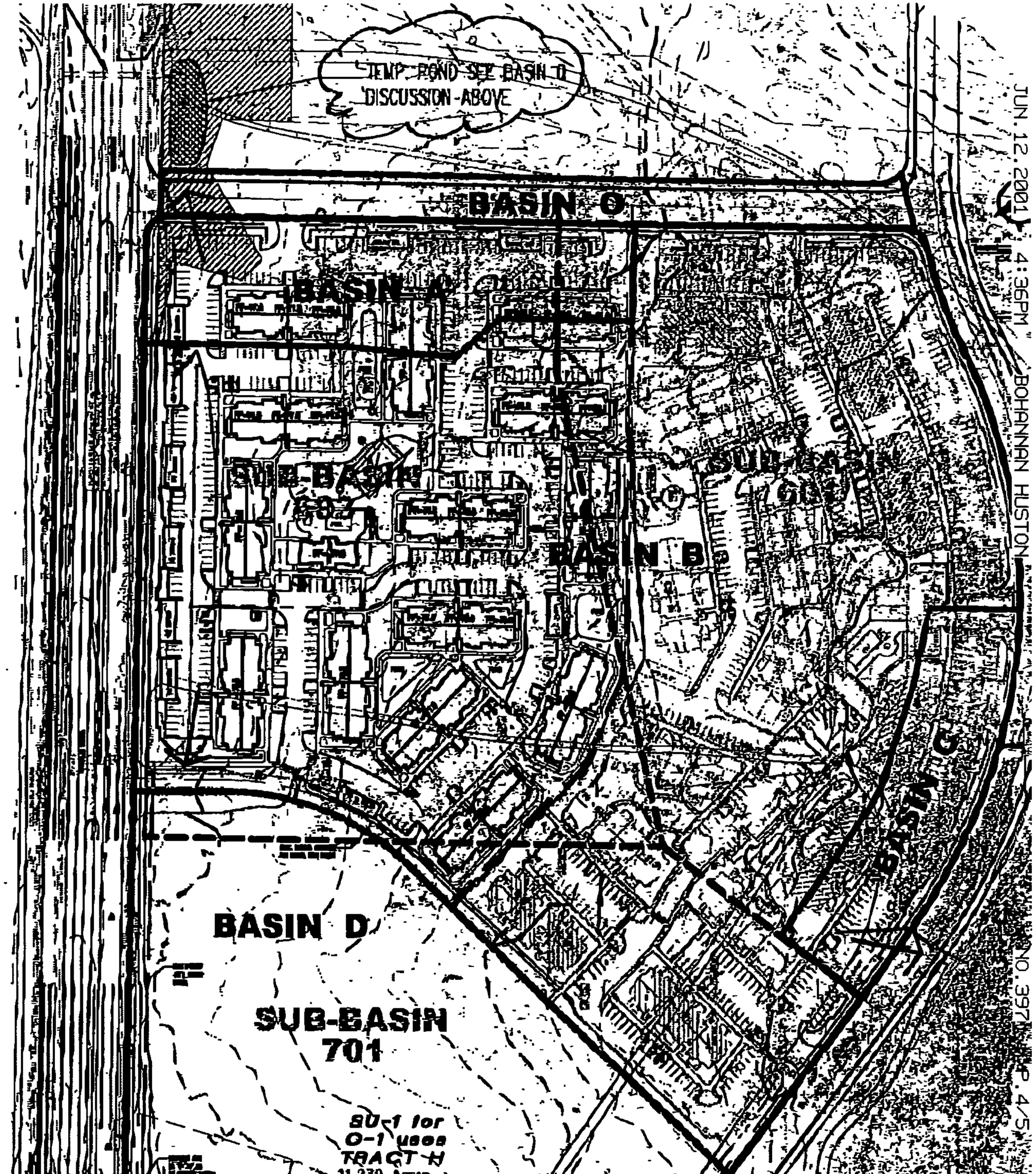
Proposed Basin D corresponds closely to existing Sub-Basin 701, and will drain in the same manner indicated by the Master Drainage Plan.

V. CONCLUSION

This conceptual drainage management plan proposes concepts which are capable of safely passing the 100 year storm and which meet city requirements.

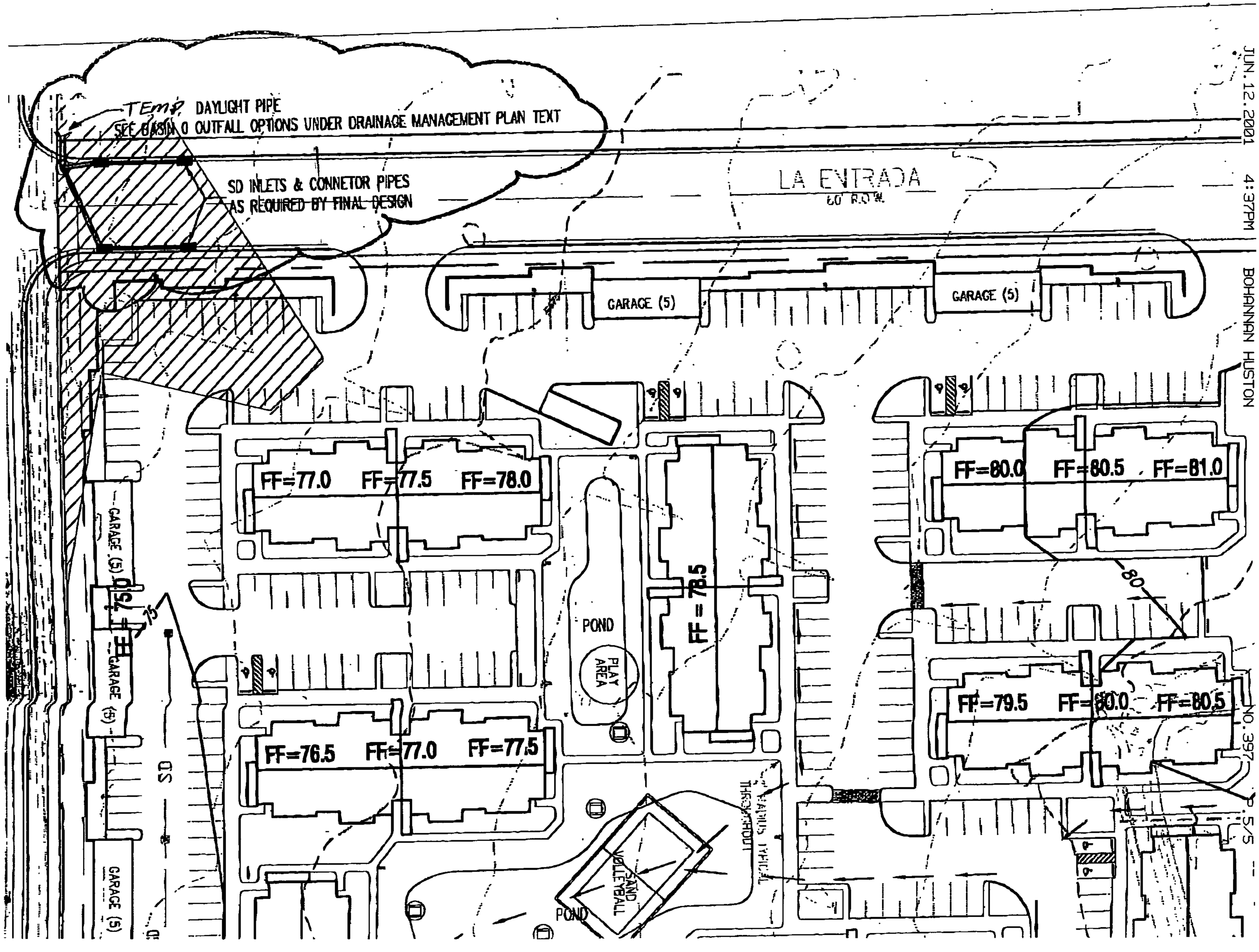


STUBOUT 24" @ 0.5% PERPENDICULAR TO STREET



BASIN MAP

JUN.12.2001 4:36PM BOHANNAN HUSTON NO.397 P.4/5


TEMP DAYLIGHT PIPE
SEE BASIN O OUTFALL OPTIONS UNDER DRAINAGE MANAGEMENT PLAN TEXT
SD INLETS & CONNETOR PIPES
AS REQUIRED BY FINAL DESIGN
LA ENTRADA
60' R.O.W.
GARAGE (5)
GARAGE (5)
GARAGE (5)
GARAGE (5)
GARAGE (5)
FF=77.0
FF=77.5
FF=78.0
FF=78.5
FF=76.5
FF=77.0
FF=77.5
FF=80.0
FF=80.5
FF=81.0
FF=79.5
FF=80.0
FF=80.5
POND
PLAY AREA
POND
SAND VOLLEYBALL
VARIOUS TYPICAL THROUGHOUT
SD
SD
75
80

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 21, 2001

Bruce Stidworthy, P.E.
Bohannan-Huston Engrs.
7500 Jefferson NE
Albuquerque, NM 87109

Re: Conceptual Master Drainage Plan for Manzano Mesa Apartments, L21/D52, Engineer stamp dated March 1, 2001, and revised dated 6/19/2001.

Dear Bruce,

I have received the revised referenced plan, and my previous comments contained in my letter dated June 7, 2001 have been satisfactorily addressed for a conceptual drainage plan. Please note that if a ponding option is used for the La Entrada/Eubank drainage, the pond will be a public drainage easement and will be privately maintained. I suggest that as part of final design, drainage contribution to this intersection be minimized by draining Basin A to the on-site storm drain system.

Also, some drainage improvements will be needed as part of the construction of the street improvements for Stephen Moody Rd., to be determined at DRC.

If you have questions contact me at 924-3980.

Sincerely,

Loren D. Meinz, P.E.
Hydrology Development

cc. Terri Martin
file

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

Corrected plan resubmitted
Revised 6/19/01

June 12, 2001

BOHANNAN-HUSTON, INC

Courtyard One

7500 JEFFERSON NE

Albuquerque

NM 87109-4335

voice 505 823.1000

fax 505 821 0892

Mr. Loren Meinz, P.E.
Hydrology Project Engineer
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Response to Hydrology Comments Regarding the Manzano Mesa Apartments, L21/D52.

Dear Loren:

The following is in response to your comments in a letter dated June 7, 2001.

1. The area near the intersection of La Entrada and Eubank is in an existing floodplain. The attached revised plan addresses how the drainage in the vicinity of the floodplain will be handled. In addition, at your request we have added a LOMR for the floodplain to the infrastructure list.

2. The attached revised plan now shows an additional drainage basin for La Entrada. The plan identifies two options for discharge of the La Entrada Drainage. Modification to the floodplain should be able to be accomplished by raising the road within the floodplain area, and draining to an engineered pond (detention or retention) north of La Entrada.

3. The revised plan shows the storm drain in Stephen Moody which is currently under design by Smith Engineering on behalf of the city. That storm ~~drain will be constructed by~~ the city. wrong.

This letter and the attached revised plan effectively address all of your comments. With this submittal, please approve this project for site plan approval. Should you have any questions regarding this response, please contact me.

Sincerely,
Bohannan Huston, Inc.

Bruce Stidworthy

Bruce Stidworthy, P.E.
Community Development
and Planning Group

RECEIVED
JUN 13 2001
HYDROLOGY SECTION

BS/ca
Enclosure

cc: David Bantz, GSL Properties
James Topmiller, BHI

P \01231\cdp\corres\Meinz Response doc

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 7, 2001

Bruce Stidworthy, P.E.
Bohannan-Huston Engrs.
7500 Jefferson NE
Albuquerque, NM 87109

Re: Conceptual Master Drainage Plan for Manzano Mesa Apartments, L21/D52, Engineer stamp dated March 1, 2001.

Dear Bruce,

Regarding the previous approval letter dated April 20, 2001 for the referenced project, upon further review of the plan submitted, there are several items that have not been addressed on the conceptual drainage plan. The following items need to be addressed before Hydrology can give final approval of the proposed Site Plan.

The proposed Master Drainage Plan shows a portion of the site draining to La Entrada Street near the intersection of La Entrada and Eubank Blvd. The Manzano Mesa Drainage Master Plan indicates that this intersection is currently in the 100 year floodplain, which the referenced apartment project drainage plan does not address. Also, the construction of La Entrada St. will impact this floodplain, which is also not addressed on the proposed plan. In addition, the plan needs to indicate drainage plan/improvements for Stephen Moody Drive, also not shown on the current plan.

These items must be addressed in the proposed Master Drainage Plan for the project, for both interim and future conditions, prior to Site Plan approval. Also, since this plan is a conceptual drainage plan, more detailed grading plans will be necessary for future DRC and Building Permit approval.

If you have questions contact me at 924-3980.

Sincerely,

Loren D. Meinz, P.E.
Hydrology Development

cc. Terri Martin
file

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 23, 2003

Bruce Stidworthy, P.E.
Bohannan Huston, Inc.
7500 Jefferson – Courtyard 1
Albuquerque, NM 87109

Re: Manzano Ridge Apartments, 701 Stephen Moody St. SE, Certificate of Occupancy

Engineer's Stamp dated 1-22-02 (L21/D52)

Certification dated 10-22-03

Dear Mr. Stidworthy,

Based upon the information provided in your submittal received 10-22-03, 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 924-3981.

Sincerely,

Kristal D. Metro
Engineering Associate, Planning Dept.
Development and Building Services

C: Phyllis Villanueva
file

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

L-21/D52

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/11/2002)

PROJECT TITLE: Manzano Ridge Apartments ZONE MAP/DRG. FILE # L-21-Z/D52
DRB #: 1000938 EPC#: WORK ORDER#:

LEGAL DESCRIPTION: Tract G-3-B

CITY ADDRESS: 701 Stephen Moody Street SE

ENGINEERING FIRM: Bohannan Huston, Inc. CONTACT: Bruce Stidworthy
ADDRESS: 7500 Jefferson NE – Courtyard I PHONE: (505) 823-1000
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: GSL Properties CONTACT:
ADDRESS: 2164 S.W. Park Place PHONE:
CITY, STATE: Portalnd OR ZIP CODE:

ARCHITECT: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

SURVEYOR: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

CONTRACTOR: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

CHECK TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL PLAN
- X 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
- X CERTIFICATE OF OCCUPANCY (PERM.)
- ____ CERTIFICATE OF OCCUPANCY (TEMP.)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

RECEIVED
OCT 22 2003
HYDROLOGY SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ____ YES
- ____ NO
- ____ COPY PROVIDED

DATE SUBMITTED: 10-22-2003 BY: Bruce Stidworthy

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope of 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.

Bohannan ▲ Huston INC.

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335
www.bhinc.com
voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

CLIENT/COURIER TRANSMITTAL

To: Brad Bingham
Project Administrator
City of Albuquerque
600 Second Street NW, 2nd Floor
Albuquerque, NM 87102

Requested by: Kelly Warren

Date: October 22, 2003

Time Due:
- ☐ **This A.M.**
- ☒ **This P.M.**
- ☐ **Rush** _____
- ☐ **By Tomorrow**

Phone: (505) 924-3986

Job No.: 020217.001

Job Name: Manzano Mesa Apartments

DELIVERY VIA

- ☒ **Courier**
- ☐ **Federal Express**
- ☐ **Mail**
- ☐ **UPS**
- ☐ **Other**

PICK UP

Item: _____

ITEM NO.	QUANTITY	DESCRIPTION
1	1	Drainage Info Sheet
2	1	Drainage Certification Sheet/ Engineer Stamped date 10/22/03

COMMENTS / INSTRUCTIONS

RECEIVED
OCT 22 2003
HYDROLOGY SECTION

REC'D BY: _____ ***DATE:*** _____ ***TIME:*** _____

ENGINEERING ▲
SPATIAL DATA ▲
ADVANCED TECHNOLOGIES ▲

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Planning Department
Transportation Development Services Section

October 16, 2003

Jorge de la Torre, Registered Architect
2400 Louisiana Ne, Bldg 3, ste 110
Albuquerque, NM 87110

Re: Certification Submittal for Final Building Certificate of Occupancy for
Manzano Ridge Apartments, Entire Site, [L-21 / D52]
701 Stephen Moody
Architect's Stamp Dated 10/16/03

Dear Mr. De La Torre:

The TCL / Letter of Certification submitted on October 16, 2003 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,

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

c: Engineer
Hydrology file
CO Clerk

L-21/0052

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: MANZANO RIDGE APARTMENTS ZONE MAP/DRG. FILE #: L-21-Z / D52
DRB #: 01450 00719 EPC#: 00128 01647 WORK ORDER#:

LEGAL DESCRIPTION: TRACT 6-3-B OF MANZANO MESA
CITY ADDRESS: 701 STEPHEN MOODY

ENGINEERING FIRM:
ADDRESS
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

OWNER: GSL PROPERTIES INC
ADDRESS: 2164 SW PARK PLACE
CITY, STATE: PORTLAND, OR
CONTACT: DAVID BAATZ
PHONE: 503-944-6503
ZIP CODE: 97205

ARCHITECT: de la TORRE Architects
ADDRESS: 2400 LOUISIANA NE, Bldg. 3, STE 110
CITY, STATE: ALB, NM
CONTACT: NICK PIRKL
PHONE: 505-883-7918
ZIP CODE: 87110

SURVEYOR:
ADDRESS
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

CONTRACTOR: GSL CONSTRUCTION
ADDRESS: 941 NW NAITO PARKWAY, Suite B-1
CITY, STATE: Portland, OR
CONTACT: JOE Caldera
PHONE: 505-459-6740
ZIP CODE: 97209

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)
- X 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
- X CERTIFICATE OF OCCUPANCY (PERM.)
- ____ CERTIFICATE OF OCCUPANCY (TEMP.)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

RECEIVED
OCT 16 2003
HYDROLOGY SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ____ YES
- ____ NO
- ____ COPY PROVIDED

DATE SUBMITTED: 10/15/03 BY:

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.

de la torre architects p.a. aia

October 15, 2003

City of Albuquerque
Transportation Division

Re: Manzano Ridge Apartments – 701 Stephen Moody SE Final Certificate of Occupancy for entire site

Zone Map:	L-21-Z
Project #:	1000938
UPC #:	102105609018030302
Legal Description:	Tract G-3-B of Manzano Mesa, T 10 N, R 4 E, S 28.

To Whom It May Concern:

I, Jorge de la Torre, P.A. AIA, licensed under the laws of the State of New Mexico, do hereby certify that this project was constructed in substantial compliance with the approved Traffic Circulation Layout (or Site Plan for Building Permit DRB) with no changes made in the field. I am requesting a final Certificate of Occupancy for the entire project indicated above.

If you have any questions or comments, please feel free to contact me.

Thanks,

Jorge de la Torre
de la Torre Architects

STATE OF NEW MEXICO
JORGE
DE LA TORRE
NO. 860
10-16-03
REGISTERED ARCHITECT

2400 louisiana n.e. building 3, suite 110 albuquerque nm 87110
505·883·7918 fax 505·883 5975

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Planning Department
Transportation Development Services Section

August 12, 2003

Jorge de la Torre, Registered Architect
De La Torre Architects
2400 Louisiana NE, Bldg 3, Ste 3
Albuquerque, NM 87110

Re: Approval of Temporary Certificate of Occupancy (C.O.) for
Manzano Ridge Apartments, [L-21/D52] Bldg 1, 8-14 & Rec'ng office
701 Stephen Moody
Stamp Dated 08/11/03

Dear Mr. De La Torre:

Based on the information provided on your submittal dated August 12, 2003, the above referenced project is approved for a Temporary C.O.

A Temporary C.O. has been issued allowing the issues (per provided site plan) to be completed. When these remaining issues have been fully completed, are in substantial compliance, and a final Certification for Transportation has been resubmitted to the City's Hydrology office for approval, a Permanent C.O. will be issued.

The Certification package for Final C.O. must include an ***exact*** copy of the approved TCL, or signed off D.R.B. Site Plan, which is in each of the two City Permit Plan Sets—the contractor's City field set and the City's plan set in the basement of the Plaza Del Sol building. Package also must include a letter of certification on designer's letterhead- stamped with his seal, signed, and dated. Submit package along with fully completed Drainage Information Sheet to front counter personnel for log in and evaluation by Transportation.

If you have any questions, please call me at 924-3620.

Sincerely,

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

c: Engineer
Hydrology file
CO Clerk

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

de la torre architects p.a. aia

August 11, 2003

City of Albuquerque
Transportation Division

Re: Manzano Ridge Apartments – 701 Stephen Moody SE (Buildings # 1, 8-14 and Recreation/office building only)

Zone Map:	L-21-Z
Project #:	1000938
UPC #:	102105609018030302
Legal Description:	Tract G-3-B of Manzano Mesa, T 10 N, R 4 E, S 28.

To Whom It May Concern:

I, Jorge de la Torre, P.A. AIA, licensed under the laws of the State of New Mexico, do hereby certify that this project was constructed in substantial compliance with the approved Traffic Circulation Layout (or Site Plan for Building Permit DRB) with no changes made in the field. I am requesting a temporary Certificate of Occupancy for the project indicated above.

If you have any questions or comments, please feel free to contact me.

Thanks,

Jorge de la Torre
de la Torre Architects

RECEIVED
AUG 12 2003
HYDROLOGY SECTION

STATE OF NEW MEXICO
JORGE
DE LA TORRE
NO. 860
8/11/03
REGISTERED ARCHITECT

2400 louisiana n.e building 3, suite 110 albuquerque nm 87110
505·883·7918 fax 505·883·5975

L-21/D52

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: MANZANO RIDGE APARTMENTS ZONE MAP/DRG. FILE #: L21B
DRB #: 01450 00719 EPC#: 00128 01647 WORK ORDER#:

LEGAL DESCRIPTION: TRACT G-3-B OF MANZANO MESA
CITY ADDRESS: 701 STEPHEN MOODY

ENGINEERING FIRM:
ADDRESS:
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

OWNER: GSL PROPERTIES INC
ADDRESS: 2164 SW PARK PLACE
CITY, STATE: PORTLAND, OR
CONTACT: DAVID BAATZ
PHONE: 503-944-6503
ZIP CODE: 97205

ARCHITECT: de la TORRE Architects
ADDRESS: 2400 LOUISIANA NE, Bldg. 3, STE 110
CITY, STATE: ALB, NM
CONTACT: NICK PIRKL
PHONE: 505-883-7918
ZIP CODE: 87110

SURVEYOR:
ADDRESS
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

CONTRACTOR: GSL CONSTRUCTION
ADDRESS: 941 NW NAITO PARKWAY, Suite B-1
CITY, STATE: Portland, OR
CONTACT: JOE Caldera
PHONE: 505-459-6740
ZIP CODE: 97209

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
- X TRAFFIC CIRCULATION LAYOUT (TCL)
- P 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.)
- X CERTIFICATE OF OCCUPANCY (TEMP.)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

RECEIVED
AUG 12 2003
HYDROLOGY SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ____ YES
- ____ NO
- ____ COPY PROVIDED

DATE SUBMITTED: 8/12/03 BY:

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.

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Planning Department
Transportation Development Services Section

December 24, 2002

Jorge de la Torre, Registered Architect
2400 Louisiana NE
Building 3, STE 110
Albuquerque, NM 87110

Re: Certification Submittal for Final Building Certificate of Occupancy for
Manzano Mesa Apt. (Bldg. 14,1,2,3,4,&Rec.), [L-21 / D52]
700 Eubank SE
Architect's Stamp Dated 12/23/02

Dear Mr. De La Torre:

The TCL / Letter of Certification submitted on December 23, 2002 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,

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

c: Engineer
Hydrology file
C.O. Clerk

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/11/2002)

(BLDG. 14, 1, 2, 3, 4, + REC.)

L-21/D52

PROJECT TITLE: MANZANO MESA APARTMENTS ZONE MAP/DRG. FILE #: M-21-Z
DRB #: 01450 00000 00716 EPC#: 00128 00000 01646 WORK ORDER#:

LEGAL DESCRIPTION: TRACT G-3-A of MANZANO MESA, T10N, R4E, S 28
CITY ADDRESS: 700 EURANK SE, ALB, NM, 87123

ENGINEERING FIRM:
ADDRESS:
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

OWNER: GSL PROPERTIES INC.
ADDRESS: 2164 S.W. PARK Place
CITY, STATE: Portland, OR
CONTACT: SKIP GROHOAC
PHONE: 503-224-2554
ZIP CODE: 97205

ARCHITECT: de la Torre Architects
ADDRESS: 2400 Louisiana NE, Bldg. 3, Suite 110
CITY, STATE: ALB, NM
CONTACT: NICK PIRKL
PHONE: 883-7918
ZIP CODE: 87110

SURVEYOR:
ADDRESS
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

CONTRACTOR:
ADDRESS:
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

CHECK TYPE OF SUBMITTAL:
- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ 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 23 2002
HYDROLOGY SECTION

DATE SUBMITTED: 12/23/02 BY: Nick A Pirkl

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
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

de la torre architects p.a. aia

December 20, 2002

City of Albuquerque
Transportation Division

Re: Manzano Mesa Apartments – 700 Eubank SE (Final Certification)

Zone Map:	L-21-Z
Project #:	1000938
UPC #:	102105603221630314
Legal Description:	Tract G-3-A of Manzano Mesa, T 10 N, R 4 E, S 28.

To Whom It May Concern:

I, Jorge de la Torre, P.A. AIA, licensed under the laws of the State of New Mexico, do hereby certify that this project was constructed in accordance with the approved Traffic Circulation Layout (or Site Plan for Building Permit DRB) with no changes made in the field. I am requesting a final Certificate of Occupancy for the project indicated above.

If you have any questions or comments, please feel free to contact me.

Thanks,

Jorge de la Torre
de la Torre Architects

STATE OF NEW MEXICO
JORGE
DE LA TORRE
NO. 860
12/23/02
REGISTERED ARCHITECT

RECEIVED
DEC 23 2002
HYDROLOGY SECTION

2400 louisiana n.e. building 3, suite 110 albuquerque n.m 87110
505·883 7918 fax 505·883·5975

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Planning Department
Transportation Development Services Section

October 9, 2002

Jorge De La Torre, Reg. Architect
De La Torre Architects, P.A., AIA
2400 Louisiana N.E.,
Building 3,
Albuquerque, NM 87110

Re: Approval of Temporary Certificate of Occupancy (C.O.) for
Manzano Mesa Apartments - Bldgs. 1,2,3,4,14 & Rec., [L-21 / D052]
700 Eubank S.E.
Architect's Stamp Dated 10/08/02

Dear Mr. De La Torre:

Based on the information provided on your submittal dated October 8, 2002, the above referenced project is approved for a 60-day Temporary C.O.

A Temporary C.O. has been issued allowing that outstanding issues described below be completed. When these issues have been fully addressed or completed, are in substantial compliance, and a Certification package (Cert) for Transportation has been resubmitted for evaluation and approval of these buildings, a Permanent C.O. will be issued. Additional buildings and parking lot areas or groups of buildings not mentioned on this Temp, but that are 100% complete, also ready for a Final C.O., can be added to the Letter of the Cert and shown on the TCL/(DRB) Site Plan.
Issues to be resolved within the stated time period are: 1) Removal of all construction fencing and all equipment and refuse/compactors, in the traffic/pedestrian circulation areas. 2) Removal of all landscape material (gravel, bark, etc.) from parking stalls. From the time of this Temp C.O., up to Certification for Final C.O., please make sure this material is contained in a single stall (or stalls) needed to hold landscape material, keeping the surrounding area clean of this material, to relieve liability. Since this Temp is one of multiple phases for this building permit, fencing or barricading will be required separating vehicles and pedestrians from subsequent phases, not completed or yet begun.

When this phase of the site is complete and a Final C.O. is needed, submit the Cert. to the counter at Planning with the Drainage and Transportation Information Sheet. For those parties who are closely associated or are otherwise interested, please allow 2 to 3 days following Cert submittal, then call the Building Safety Division at 924-3306 to verify acceptance or refusal.

If you have any questions, please call me at 924-3620.

Sincerely,

Mike Zamora, Commercial Plan Checker
Development and Building Services
Planning Department

c: Engineer
Hydrology file
Mike Zamora

de la torre architects pa aia

October 8, 2002

City of Albuquerque
Transportation Division

Re: Manzano Mesa Apartments – 700 Eubank SE (Buildings #14, 1, 2, 3, 4, & recreation building only)

Zone Map:	L-21-Z
Project #:	1000938
UPC #:	102105603221630314
Legal Description:	Tract G-3-A of Manzano Mesa, T 10 N, R 4 E, S 28.

To Whom It May Concern:

I, Jorge de la Torre, P.A. AIA, licensed under the laws of the State of New Mexico, do hereby certify that this project was constructed in accordance with the approved Traffic Circulation Layout (or Site Plan for Building Permit DRB) with no changes made in the field. I am requesting a temporary Certificate of Occupancy for the buildings indicated above.

If you have any questions or comments, please feel free to contact me.

Thanks,

Jorge de la Torre
de la Torre Architects

STATE OF NEW MEXICO
JORGE
DE LA TORRE
NO. 860
10/8/02
REGISTERED ARCHITECT

2400 louisiana n.e. building 3, suite 110 albuquerque nm 87110
505 883·7918 fax 505 883·5975

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/11/2002)

L-21/D52

PROJECT TITLE: MANZANO MESA APARTMENTS ZONE MAP/DRG. FILE #: [illegible]
DRB #: 01450 00000 00716 EPC#: 00128 00000 01646 WORK ORDER#:

LEGAL DESCRIPTION: TRACT G-3-A of MANZANO MESA, T10N, R4E, S 28
CITY ADDRESS: 700 EURANK SE, ALB, NM, 87123

ENGINEERING FIRM:
ADDRESS:
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

OWNER: GSL PROPERTIES INC.
ADDRESS: 2164 S.W. PARK Place
CITY, STATE: Portland, OR
CONTACT: SKIP GROHOAC
PHONE: 503-224-2554
ZIP CODE: 97205

ARCHITECT: de la Torre Architects
ADDRESS: 2400 Louisiana NE, Bldg. 3, Suite 110
CITY, STATE: ALB, NM
CONTACT: NICK PIRKL
PHONE: 883-7918
ZIP CODE: 87110

SURVEYOR:
ADDRESS
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

CONTRACTOR:
ADDRESS:
CITY, STATE:
CONTACT:
PHONE:
ZIP CODE:

CHECK TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ 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
OCT 08 2002
HYDROLOGY SECTION

DATE SUBMITTED: 10-8-02 BY [signature]

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
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

10/9/02 - cld in Got to Phyllis L.M.M; 10/10 - Sent letter (10/9); logged in - ✓
Reminded to Request Temp in letter. Contr. knows what's up. on future show of Cond Barricading on Apts.

de la torre p.a. aia architects

October 8, 2002

City of Albuquerque
Transportation Division

Re: Manzano Mesa Apartments – 700 Eubank SE (Buildings #14, 1, 2, 3, 4, & recreation building only)

Zone Map:	L-21-Z
Project #:	1000938
UPC #:	102105603221630314
Legal Description:	Tract G-3-A of Manzano Mesa, T 10 N, R 4 E, S 28.

To Whom It May Concern:

I, Jorge de la Torre, P.A. AIA, licensed under the laws of the State of New Mexico, do hereby certify that this project was constructed in accordance with the approved Traffic Circulation Layout (or Site Plan for Building Permit DRB) with no changes made in the field.

If you have any questions or comments, please feel free to contact me.

Thanks,

Jorge de la Torre
de la Torre Architects

RECEIVED
OCT 03 2002
HYDROLOGY SECTION

2400 louisiana ne. building 3, suite 110 albuquerque nm 87110
505·883·7918 fax 505 883 5975

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

December 26, 2002

Bruce Stidworthy, P.E.
Bohannan-Huston, Inc.
7500 Jefferson NE
Albuquerque, New Mexico 87109

RE: MANZANO MESA APARTMENTS- Bldgs. 5 thru 13 (L-21/D52)
(700 Eubank Blvd SE)
CERTIFICATE OF OCCUPANCY APPROVAL-*Temporary*
ENGINEERS CERTIFICATION DATED 12/23/2002

Dear Bruce:

Based on the information provided in your submittal dated 12/24/2002, the above referenced project is approved for a **TEMPORARY** Certificate of Occupancy for the above mentioned project.

A Temporary Certificate of Occupancy has been issued for 30 days, allowing the remaining issues, (as stated in your certification), to be completed within this time scope.

After corrections have been made to the outstanding drainage issues, a final submittal of the Engineers Certification will be required for issuance of a Permanent Certificate of Occupancy.

If I can be of further assistance, please feel free to contact me at 924-3981.

Sincerely,

Teresa A. Martin
Hydrology Plan Checker
Development and Building Services Division
BLB

c: Certificate of Occupancy Clerk, COA
Drainage file
Approval file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/11/2002)

BLDGS. 5-13

PROJECT TITLE: Manzano Mesa Apts Phase 1 (Eubank Apts) ZONE MAP/DRG. FILE # L-21/D52

DRB #: 1000352 EPC#: 1001155 WORK ORDER#:

LEGAL DESCRIPTION: Tract G-3-A Manzano Mesa

CITY ADDRESS: SE corner of La Entrada (one Street south of Southern) and Eubank SE

ENGINEERING FIRM: Bohannan Huston, Inc. CONTACT: Bruce Stidworthy

ADDRESS: 7500 Jefferson NE – Courtyard I PHONE: (505) 823-1000

CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: CONTACT:

ADDRESS: PHONE:

CITY, STATE: ZIP CODE:

ARCHITECT: CONTACT:

ADDRESS: PHONE:

CITY, STATE ZIP CODE:

SURVEYOR: CONTACT:

ADDRESS: PHONE:

CITY, STATE: ZIP CODE:

CONTRACTOR: CONTACT:

ADDRESS: PHONE:

CITY, STATE: ZIP CODE:

CHECK TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL PLAN
- X 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 (traffic)
- X CERTIFICATE OF OCCUPANCY (TEMP.- hydro)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (S.O. 19)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ____ YES
- ____ NO
- ____ COPY PROVIDED

RECEIVED DEC 24 2002 HYDROLOGY SECTION

DATE SUBMITTED: December 23, 2002 BY: BHI, Bruce Stidworthy

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope of 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.

Bohannan ^ Huston INC.

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335

www.bhinc.com

voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

December 23, 2002

Mr. Terri Martin
Project Administrator
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Manzano Mesa Apartments (L21/D52) – Partial Drainage Certification

Dear Terri:

Enclosed for your review is the engineer's grading and drainage certification for a portion of the referenced site. This certification is based on my personal inspection of the site as well as as-built survey data.

This grading and drainage plan for this project was split onto two sheets. The eastern half of the project (buildings 5 through 13) is very nearly complete and has been certified for temporary Certificate of Occupancy (C.O.) approval. The following items must be corrected prior to final C.O. approval:

1. The landscaping around pond # 3 must be completed.

2. The temporary sediment control (filter fabric) must be removed from the drop inlets.

When the contractor has corrected the above items, we will re-submit a final engineer's certification for permanent Certificate of Occupancy approval.

If you have any questions regarding this submittal, please call me at 823-1000.

Sincerely,
Bohannan Huston, Inc.

Bruce Stidworthy, P.E.
Community Development and Planning Group

BS/am
Enclosures

RECEIVED
DEC 24 2002
HYDROLOGY SECTION

ENGINEERING ▲
SPATIAL DATA ▲
ADVANCED TECHNOLOGIES ▲

Bohannan ▲ Huston INC.

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335
www.bhinc.com
voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

CLIENT/COURIER TRANSMITTAL

To: : Terri Martin
Project Administrator
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Requested By: Kelly Warren

Date: **December 23, 2002**

Time Due: ☒ **This A.M.** ☐ **This P.M.**
☐ **Rush ___** ☐ **By Tomorrow**

Job No.: 1010231

Job Name: Manzano Mesa Apartments (L21/D52)

DELIVERY VIA

☒ **Courier** ☐ **Federal Express**
☐ **Mail** ☐ **UPS**
☐ **Other** _____

PICK UP

Item: _____
_____

ITEM NO.	QUANTITY	DESCRIPTION
1.	1	Certification Grading & Drainage Plan
2.	1	Drainage & Transportation Information Sheet
3.	1	Letter

RECEIVED
DEC 24 2002
HYDROLOGY SECTION

COMMENTS / INSTRUCTIONS

ENGINEERING ®
SPATIAL DATA ®
ADVANCED TECHNOLOGIES ®

REC'D BY: _____ ***DATE:*** _____ ***TIME:*** _____

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 9, 2002

Bruce Stidworthy, P.E.
Bohannan-Huston, Inc.
7500 Jefferson NE
Albuquerque, New Mexico 87109

RE: MANZANO MESA APARTMENTS PHASE 1 (L-21/D52)
(700 Eubank Blvd SE)
CERTIFICATE OF OCCUPANCY APPROVAL-*Temporary*
ENGINEERS CERTIFICATION DATED 10/8/2002

Dear Bruce:

Based on the information provided in your submittal dated 10/8/2002, the above referenced project is approved for a **TEMPORARY** Certificate of Occupancy for the above mentioned project.

A Temporary Certificate of Occupancy has been issued for 30 days, allowing the remaining issues, (as stated in your letter dated 10/8/2002), to be completed within this time scope.

After corrections have been made to the outstanding drainage issues, a final submittal of the Engineers Certification will be required for issuance of a Permanent Certificate of Occupancy.

If I can be of further assistance, please feel free to contact me at 924-3981.

Sincerely,

Teresa A. Martin

Teresa A. Martin
Hydrology Plan Checker
Development and Building Services Division
BLB

c: Certificate of Occupancy Clerk, COA
Drainage file
Approval file

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

Bohannan ^ Huston INC.

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335

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facsimile: 505.798.7988
toll free: 800.877 5332

October 8, 2002

Mr. Terri Martin
Project Administrator
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Manzano Mesa Apartments (L21/D52) – Partial Drainage Certification

Dear Terri:

Enclosed for your review is the engineer's grading and drainage certification for a portion of the referenced site. This certification is based on my personal inspection of the site as well as as-built survey data.

This grading and drainage plan for this project was split onto two sheets. The western half of the project (buildings 1, 2, 3, 4, 14 and the office/recreation building) is very nearly complete and has been certified for temporary Certificate of Occupancy (C.O.) approval. The following items must be corrected prior to final C.O. approval:

1. The orifice plate must be installed over the end of the pipe in the drop inlet east of building #2.

2. The invert elevation of two manholes could not be verified. One of the manholes had been temporarily paved over, and the other was covered with dirt. I would expect that both of these issues will be corrected as the contractor finishes the paving and fine grading operations.

3. Miscellaneous fine grading.

When the contractor has corrected the above items, we will re-submit a final engineer's certification for permanent Certificate of Occupancy approval.

If you have any questions regarding this submittal, please call me at 823-1000.

Sincerely,
Bohannan Huston, Inc.

Bruce Stidworthy, P.E.
Community Development and Planning Group

BS/am
Enclosures

RECEIVED
OCT 0 8 2002
PWD/DESIGN REVIEW

P \01231\cdp\corres\Temp CO Submittal doc

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/11/2002)

PROJECT TITLE: Manzano Mesa Apts Phase 1 (Eubank Apts) ZONE MAP/DRG. FILE # L-21/D52
DRB #: 1000352 EPC#: 1001155 WORK ORDER#:

LEGAL DESCRIPTION: Tract G-3-A Manzano Mesa
CITY ADDRESS: SE corner of La Entrada (one Street south of Southern) and Eubank SE

ENGINEERING FIRM: Bohannan Huston, Inc. CONTACT: Bruce Stidworthy
ADDRESS: 7500 Jefferson NE – Courtyard I PHONE: (505) 823-1000
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

ARCHITECT: CONTACT:
ADDRESS: PHONE:
CITY, STATE ZIP CODE:

SURVEYOR: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

CONTRACTOR: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

CHECK TYPE OF SUBMITTAL:
- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL PLAN
- X 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 (traffic)
- X CERTIFICATE OF OCCUPANCY (TEMP.- hydro)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (S.O. 19)

WAS A PRE-DESIGN CONFERENCE ATTENDED:
- ____ YES
- ____ NO
- ____ COPY PROVIDED

RECEIVED
OCT 0 8 2002
PWD/DESIGN REVIEW

DATE SUBMITTED: October 7, 2002 BY: BHI, Bruce Stidworthy

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope of 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.

Bohannan ▲ Huston INC.

Courtyard I
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87109-4335
www.bhinc.com
voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

CLIENT/COURIER TRANSMITTAL

To: Terri Martin
COA Planning
600 2nd Street NW-2nd Floor

phone: 924-3981

Requested By: Bruce Stidworthy / am

Date: October 8, 2002

Time Due: ☒ **This A.M.** ☐ **This P.M.**
☐ **Rush** ___ ☐ **By Tomorrow**

Job No.: 01 231

Job Name: Manzano Mesa Apartments

DELIVERY VIA

☒ **Courier** ☐ **Federal Express**
☐ **Mail** ☐ **UPS**
☐ **Other** _____

PICK UP

Item: _____

_____

ITEM NO.	QUANTITY	DESCRIPTION
1	1	Letter dated 10/8/02 re: Manzano Mesa Apartments (L21/D52) – Partial Drainage Certification.

COMMENTS / INSTRUCTIONS

RECEIVED
OCT 0 8 2002
PWD/DESIGN REVIEW

REC'D BY: _____ ***DATE:*** _____ ***TIME:*** _____

ENGINEERING ▲
SPATIAL DATA ▲
ADVANCED TECHNOLOGIES ▲

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 21, 2001

Bruce Stidworthy, P.E.
Bohannan-Huston
7500 Jefferson NE
Courtyard one
Albuquerque New Mexico 87109-4335

RE: Grading and Drainage Plan for Manzano Ridge Apartments (L21-D52) Dated February 15, 2002

Dear Mr. Stidworthy:

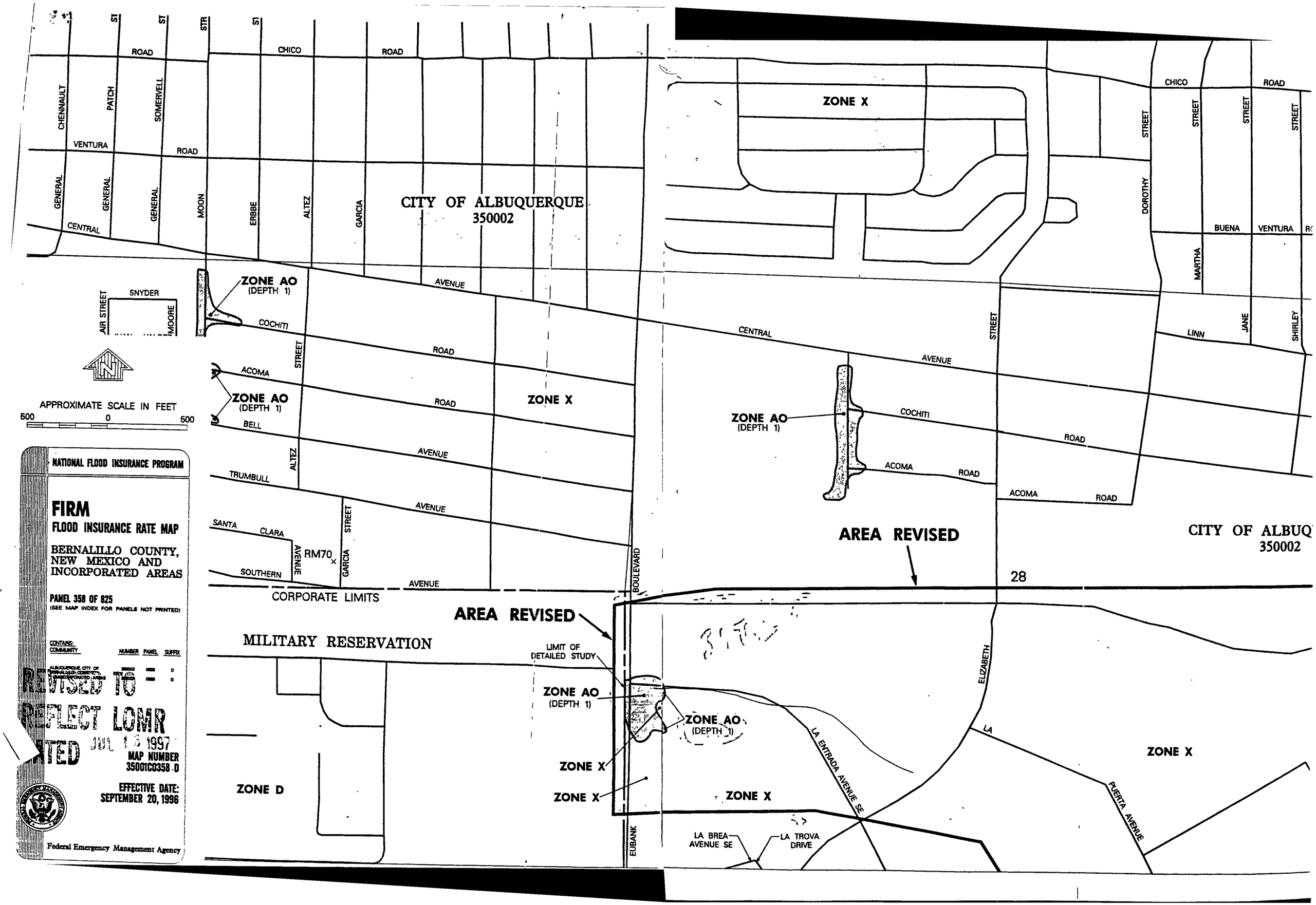
The above referenced drainage plan received February 14, 2001 is approved for building permit. Upon completion of the different phases please submit certification per the DPM for certificate of occupancy release.

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

Sincerely,

Carlos A. Montoya
City Floodplain Administrator

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER


CHICO ROAD
VENTURA ROAD
CENTRAL AVENUE
CHENNAULT
PATCH
SOMERVELL
GENERAL
MOON
ERBBE
ALTEZ
GARCIA
CITY OF ALBUQUERQUE
350002
ZONE X
DOROTHY
STREET
BUENA VENTURA
MARTHA
LINN
JANE
SHIRLEY
SNYDER
AIR STREET
MOORE
ZONE AO
(DEPTH 1)
COCHITI ROAD
ACOMA ROAD
BELL AVENUE
TRUMBULL AVENUE
SANTA CLARA AVENUE
SOUTHERN AVENUE
RM70
CORPORATE LIMITS
AREA REVISED
MILITARY RESERVATION
LIMIT OF DETAILED STUDY
BOULEVARD
EUBANK
ELIZABETH
LA ENTRADA AVENUE SE
LA BREA AVENUE SE
LA TROVA DRIVE
PUERTA AVENUE
ZONE D
28
APPROXIMATE SCALE IN FEET
500 0 500
NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS
PANEL 358 OF 825
(SEE MAP INDEX FOR PANELS NOT PRINTED)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
ALBUQUERQUE, CITY OF 350002 0358 D
BERNALILLO COUNTY, UNINCORPORATED AREAS 350001 0358 D
REVISED TO REFLECT LOMR
EFFECTIVE DATE JUL 16 1997
MAP NUMBER
35001C0358 D
EFFECTIVE DATE:
SEPTEMBER 20, 1996
Federal Emergency Management Agency

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 9, 2003

Bruce Stidworthy, P.E.
Bohannan Huston, Inc.
7500 Jefferson NE
Albuquerque, New Mexico 87109

RE: MANZANO MESA APARTMENTS PHASE 1 (L-21/D52)
(700 Eubank Blvd SE) (Buildings 1-14 & rec bldg.)
ENGINEERS CERTIFICATION FOR CERTIFICATE OF OCCUPANCY
ENGINEERS STAMP DATED 8/24/2001
ENGINEERS CERTIFICATION DATED 1/7/2003

Dear Mr. Stidworthy:

Based upon the information provided in your Engineers Certification submittal dated 1/7/2003, the above referenced site is approved for Permanent Certificate of Occupancy for Phase 1.

If I can be of further assistance, please contact me at 924-3981.

Sincerely,

Teresa A. Martin
Hydrology Plan Checker
Development & Bldg. Ser. Division
BLB

C: Certificate of Occupancy Clerk, COA
drainage file
approval file

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/11/2002)

PROJECT TITLE: Manzano Mesa Apts Phase 1 (Eubank Apts) ZONE MAP/DRG. FILE # L-21/D52
DRB #: 1000352 EPC#: 1001155 WORK ORDER#:

LEGAL DESCRIPTION: Tract G-3-A Manzano Mesa
CITY ADDRESS: SE corner of La Entrada (one Street south of Southern) and Eubank SE

ENGINEERING FIRM: Bohannan Huston, Inc. CONTACT: Bruce Stidworthy
ADDRESS: 7500 Jefferson NE – Courtyard I PHONE: (505) 823-1000
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

ARCHITECT: CONTACT:
ADDRESS: PHONE:
CITY, STATE ZIP CODE:

SURVEYOR: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

CONTRACTOR: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

CHECK TYPE OF SUBMITTAL:
- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL PLAN
- X 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 (traffic)
- X CERTIFICATE OF OCCUPANCY (PERM.- hydro)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (S.O. 19)

WAS A PRE-DESIGN CONFERENCE ATTENDED:
- ____ YES
- ____ NO
- ____ COPY PROVIDED

DATE SUBMITTED: January 7, 2003 BY: BHI, Bruce Stidworthy

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope of 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.

Bohannan ^ Huston INC.

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335

www.bhinc.com

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facsimile: 505.798.7988
toll free: 800.877.5332

January 7, 2003

Mr. Terri Martin
Project Administrator
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Manzano Mesa Apartments (L21/D52) – Final Drainage Certification for Permanent CO

Dear Terri:

Enclosed for your review is the engineer's grading and drainage certification for all of the building within the referenced site. This certification is based on my personal inspection of the site as well as as-built survey data.

All of the items identified in both of the previous temporary CO submittals have been corrected. One minor exception is that due to seasonal considerations, the permanent landscaping in Pond #3 has not been completed. However, cobble has been installed around the drop inlet, this serves the purpose with respect to drainage.

With this submittal we are requesting permanent certificate of occupancy approval. If you have any questions regarding this submittal, please call me at 823-1000.

Sincerely,
Bohannan Huston, Inc.

Bruce Stidworthy, P.E.
Community Development and Planning Group

BS/am
Enclosures

P \01231\cdp\corres\Perm CO Submittal doc

Bohannan Huston INC.

Courtyard I
7500 Jefferson St. NE
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87109-4335
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facsimile: 505.798.7988
toll free: 800.877.5332

CLIENT/COURIER TRANSMITTAL

To: : Terri Martin
Project Administrator
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Requested By: Kelly Warren

Date: **January 7, 2003**

Time Due: ☐ **This A.M.** ☒ **This P.M.**
☐ **Rush ___** ☐ **By Tomorrow**

Job No.: 01 231

Job Name: Manzano Mesa Apartments (L21/D52)

DELIVERY VIA

☒ **Courier** ☐ **Federal Express**
☐ **Mail** ☐ **UPS**
☐ **Other** _____

PICK UP

Item: _____
_____

ITEM NO.	QUANTITY	DESCRIPTION
1.	1	Drainage Certificate for Final Approval (Engineers stamp dated 1/7/03)
2.	1	Drainage & Transportation Information Sheet
3.	1	Letter

COMMENTS / INSTRUCTIONS

RECEIVED
JAN 0 7 2003
HYDROLOGY SECTION

ENGINEERING ®
SPATIAL DATA ®
ADVANCED TECHNOLOGIES ®

REC'D BY: _____ ***DATE:*** _____ ***TIME:*** _____

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Log In Computer & Book!

November 15, 2002

L-21/D52

Joseph A. Martinenza
PBS&J
12101 Indian Creek Court
Beltsville, Maryland 20705

RE: Request for a Conditional Letter of Map Revision for Manzano Mesa Apartments

City of Albuquerque, New Mexico, Community No. 350002, FIRM Panel 35001C0358E, 359E Effective Date April 2, 2002

Dear Mr. Martinenza,

The purpose of this submittal is to convey the documents in order to request a Conditional Letter of Map Revision based on proposed construction of roads, storm drain and retention pond to revise the 100-year floodplain.

Enclosed with this letter are the Drainage Report, Construction Drawings, and a check in the amount of $4,000.00.

As the City Floodplain Administrator, I have reviewed the response provided with this submittal. Our Community would greatly appreciate your prompt response and approval for this Conditional Letter of Map Revision.

If you have any questions, you can contact me at (505) 924-3982.

Sincerely,

Carlos A. Montoya
City/County Floodplain Administrator

C: Bill Blanton, Federal Emergency Management Agency Headquarters
Jack Quarles, FEMA Region VI
Craig W. Hoover, Bohannan Huston
Lynn Mazur, AMAFCA
Susan Calongne, Bernalillo County Floodplain Administrator

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Planning Department
Transportation Development Services Section

January 8, 2003

Jorge de la Torre, Registered Architect
2400 Louisiana NE
Building 3, STE 110
Albuquerque, NM 87110

Re: Certification Submittal for Final Building Certificate of Occupancy for
Manzano Mesa Apt. (Phase 1- /Whole Site.), [L-21 / D52]
700 Eubank SE
Architect's Stamp Dated 12/23/02

Dear Mr. De La Torre:

The TCL / Letter of Certification submitted on January 8, 2003 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,

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

c: Engineer
Hydrology file
C.O. Clerk

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Planning Department
Transportation Development Services Section

January 8, 2003

Jorge de la Torre, Registered Architect
2400 Louisiana NE
Building 3, STE 110
Albuquerque, NM 87110

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DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/11/2002)

L-21/D52

PH. 1

PROJECT TITLE: MANZANO MESA APTS. ZONE MAP/DRG. FILE #: L-21-Z
DRB #: 01DRB-00715, 00716 EPC#: WORK ORDER#:

LEGAL DESCRIPTION: ~~700 EUBANK SE~~ TRACT G-3-A MANZANO MESA, T10N, R4E, S28
CITY ADDRESS: 700 EUBANK SE

ENGINEERING FIRM: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

OWNER: GSC PROPERTIES CONTACT: DAVID BARTZ
ADDRESS: 2164 S.W. PARK PLACE PHONE: 503-224-7554
CITY, STATE: PORTLAND, OR ZIP CODE: 97205-1125

ARCHITECT: DE LA TORRE ARCHITECTS CONTACT: NICK PARK
ADDRESS: 2400 LOUISIANA NE, BLDG. 3, SUITE 110 PHONE: 883-7918
CITY, STATE: ALB, NM 87110 ZIP CODE: 87110

SURVEYOR: CONTACT:
ADDRESS PHONE:
CITY, STATE: ZIP CODE:

CONTRACTOR: GSC PROPERTIES CONTACT: DEREK MCMALIN
ADDRESS. 2164 S.W. PARK PLACE PHONE: 503-720-2801
CITY, STATE: PORTLAND OR. ZIP CODE: 97205-1125

CHECK TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL PLAN
- ____ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ____ CLOMR/LOMR
- X 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
- X CERTIFICATE OF OCCUPANCY (PERM.) (whole site)
- ____ 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
JAN 06 2003
HYDROLOGY SECTION

DATE SUBMITTED: 1/6/03 BY: [signature]

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
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

de la torre architects

December 20, 2002

City of Albuquerque
Transportation Division

Re: Manzano Mesa Apartments – 700 Eubank SE (Final Certification)

Zone Map:	L-21-Z
Project #:	1000938
UPC #:	102105603221630314
Legal Description:	Tract G-3-A of Manzano Mesa, T 10 N, R 4 E, S 28.

To Whom It May Concern:

I, Jorge de la Torre, P.A. AIA, licensed under the laws of the State of New Mexico, do hereby certify that this project was constructed in accordance with the approved Traffic Circulation Layout (or Site Plan for Building Permit DRB) with no changes made in the field. I am requesting a final Certificate of Occupancy for the project indicated above.

If you have any questions or comments, please feel free to contact me.

Thanks,

Jorge de la Torre
de la Torre Architects

STATE OF NEW MEXICO
JORGE
DE LA TORRE
NO. 860
12/23/02
REGISTERED ARCHITECT

2400 louisiana n.e. building 3. suite 110 albuquerque n.m. 87110
505 883 7918 fax 505·883·5975

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Planning Department
Transportation Development Services Section

January 8, 2003

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Development and Building Services
Planning Department

c: Engineer
Hydrology file
C.O. Clerk

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Log In computer & Book!

November 15, 2002

L-21/D52

Joseph A. Martinenza
PBS&J
12101 Indian Creek Court
Beltsville, Maryland 20705

RE: Request for a Conditional Letter of Map Revision for Manzano Mesa Apartments

City of Albuquerque, New Mexico, Community No. 350002, FIRM Panel 35001C0358E, 359E Effective Date April 2, 2002

Dear Mr. Martinenza,

The purpose of this submittal is to convey the documents in order to request a Conditional Letter of Map Revision based on proposed construction of roads, storm drain and retention pond to revise the 100-year floodplain.

Enclosed with this letter are the Drainage Report, Construction Drawings, and a check in the amount of $4,000.00.

As the City Floodplain Administrator, I have reviewed the response provided with this submittal. Our Community would greatly appreciate your prompt response and approval for this Conditional Letter of Map Revision.

If you have any questions, you can contact me at (505) 924-3982.

Sincerely,

Carlos A. Montoya
City/County Floodplain Administrator

C: Bill Blanton, Federal Emergency Management Agency Headquarters
Jack Quarles, FEMA Region VI
Craig W. Hoover, Bohannan Huston
Lynn Mazur, AMAFCA
Susan Calongne, Bernalillo County Floodplain Administrator

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 22, 2003

Bruce Stidworthy, PE
Bohannan Huston, Inc.
7500 Jefferson NE
Albuquerque, NM 87109

Re: Manzano Mesa Apartments, Engineer's Certification for Bldgs 1, 8-14
Engineer's Stamp dated 8-24-01
Certification dated 8-21-03 (L21/D52)

Dear Mr. Stidworthy,

Based upon the information provided in your submittal dated 8-21-03, the above referenced certification is approved for **30-day Temporary Certificate of Occupancy** for the buildings listed above. Once all the deficiencies have been rectified, please submit a certification for Permanent C.O.

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

Sincerely,

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

C: Certificate of Occupancy clerk, CoA
file

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/11/2002)

PROJECT TITLE: Manzano Ridge Apartments ZONE MAP/DRG. FILE # L-21-Z/D52
DRB #: 1000938 EPC#: WORK ORDER#:

LEGAL DESCRIPTION: Tract G-3-B

CITY ADDRESS: 701 Stephen Moody Street SE

ENGINEERING FIRM: Bohannan Huston, Inc. CONTACT: Bruce Stidworthy
ADDRESS: 7500 Jefferson NE – Courtyard I PHONE: (505) 823-1000
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: GSL Properties CONTACT:
ADDRESS: 2164 S.W. Park Place PHONE:
CITY, STATE: Portalnd OR ZIP CODE:

ARCHITECT: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

SURVEYOR: CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

CONTRACTOR: CONTACT:
ADDRESS: PHONE:
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- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEERS CERTIFICATION (TCL)
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- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:
- ____ YES
- ____ NO
- ____ COPY PROVIDED

RECEIVED
AUG 21 REC'D
DEVELOPMENT & BUILDING SERVICES

DATE SUBMITTED: 8-21-2003 BY: Bruce Stidworthy

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