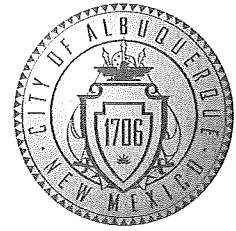


CITY OF ALBUQUERQUE



August 19, 2011

Lawrence D. Read, P.E.
Larry Read & Associates, Inc
2430 Midtown Pl NE Suite C
Albuquerque, NM 87107

Re: Paradise RV – Phase 1 Preliminary Drainage Report
Engineer's Stamp date 8-10-11 (K08/D003)

Dear Mr. Read,

Based upon the information provided in your submittal received 8-10-11 and the e-mail received 8-16-11, the above referenced report and e-mail are approved for Site Plan for Building Permit action by the DRB.

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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Sincerely,

Curtis A. Cherne, P.E.
Principal Engineer, Planning Dept.
Development and Building Services

Copy: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Paradise RV Park

DRB #: 1008830

EPC#: _____

ZONE MAP/DRG. FILE #: K-8/D003

WORK ORDER#: _____

LEGAL DESCRIPTION: Lot 3E, Town of Atrisco Grant, Row 2, Unit A

CITY ADDRESS: _____

ENGINEERING FIRM: Larry Read & Associates, Inc.

ADDRESS: 2430 Midtown Pl. NE Suite C

CITY, STATE: Albuquerque, NM

CONTACT: Larry Read

PHONE: 237-8421

ZIP CODE: 87107

OWNER: Adil Rizvi

ADDRESS: 4001 Juan Tabo Blvd. NE

CITY, STATE: Albuquerque, NM

CONTACT: Adil Rizvi

PHONE: 315-6484

ZIP CODE: 87111

ARCHITECT: _____

ADDRESS: _____

CITY, STATE: _____

CONTACT: _____

PHONE: _____

ZIP CODE: _____

SURVEYOR: _____

ADDRESS: _____

CITY, STATE: _____

CONTACT: _____

PHONE: _____

ZIP CODE: _____

CONTRACTOR: _____

ADDRESS: _____

CITY, STATE: _____

CONTACT: _____

PHONE: _____

ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

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

CHECK TYPE OF APPROVAL SOUGHT:

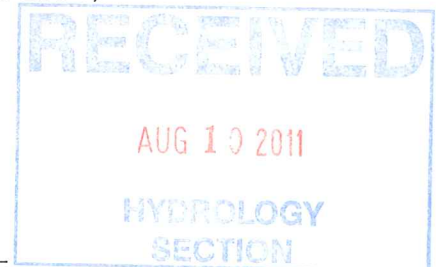
- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☒ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
- ☐ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: 11 August 2011

BY: Larry D. Read, P.E.



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.

Cherne, Curtis

Part of Drainage Report

From: Larry Read [lread@readengineering.com]

Sent: Tuesday, August 16, 2011 12:02 PM

To: Cherne, Curtis

Cc: 'Adil R'

Subject: Paradise RV Park

Curtis

I added Basin 950 which includes the truck wash and Leonidas Lane. The total area is 4.2 acres and I modeled it using A=0%, B=8%, C=7%. And D=85%. The total discharge is 22.6 cfs.

Putting that into the storm drain model, the pipe from the south corner of the truck wash south to Volcano Rd will be a 24" storm drain (sized as gravity flow – HGL is at the crown of the pipe). The distance is 600'.

The 42" from Volcano/Leonidas Lane intersection to the pond has sufficient additional capacity for the extra 22.6 cfs so that size is still valid.

If you have any questions, please let me know.

Larry D. Read, P.E.
Larry Read & Associates, Inc.
2430 Midtown Place, N.E.
Suite C
Albuquerque, New Mexico

Voice (505) 237-8421
Fax (505) 237-8422

8/16/2011

Cherne, Curtis

From: Penttila, Roland V.
Sent: Thursday, August 04, 2011 2:40 PM
To: Cherne, Curtis
Cc: Eisenberg, Jame J.
Subject: Re: Amole Del Norte Dam

After reviewing both the developer's plan to install a new inflow storm drain into the northwest corner of the Amole Del Norte system and checking this plan against the master plan of drainage that created the Amole Del Norte Dam, the two are essentially the same. Therefore, in my opinion this new installation is in accordance with the original design plans for this facility and is acceptable to the Engineering Division Stormwater Management Section.

It will be DMD's responsibility after construction to notify the Office of the State Engineer, Dam Safety Bureau that this work has been completed.

Roland Penttila, P.E.
Manager, Storm Drainage Design Section
Engineering Division, City of Albuquerque
505-768-2778

www.keeptheriogrande.org
"SCOOP THE POOP"

8-5-11 mts w/ Larry Reed



PARADISE RV PARK
BASIN COMPARISON
SCALE 1":800'

LEGEND
— THIS REPORT
— GREINER 1995

Greiner June 1995

Tables showing undeveloped and developed contributing basins and their characteristics are shown below.

ULTIMATE DEVELOPMENT BASIN INFORMATION						
Basin	Area (Sq. Mi.)	Time of Concentration (hours)	Ultimate Land Treatment			
			A	B	C	D
(percent)						
101	0.0260	0.20	0	100*	0	0
102	0.2810	0.30	15	30*	24	31
108.1	0.1713	0.20	0	17	13	70
108.2	0.1710	0.24	0	18	19	63
108.3	0.1478	0.26	0	21	22	57
108.4	0.1426	0.20	0	15	15	70
109	0.0720	0.21	0	5	13	82
109.1	0.0495	0.20	0	3	12	85**

* Undeveloped land with slopes steeper than 10%.

** Land treatments based on preliminary construction plans.

EXISTING BASIN INFORMATION						
Basin	Area (Sq. Mi.)	Time of Concentration (hours)	Existing Land Treatment			
			A	B	C	D
(percent)						
101	0.0260	0.20	0	100*	0	0
102	0.2810	0.30	15	30*	24	31
108.1	0.1467	0.20	98	0	0	2
108.2	0.1631	0.20	98	0	0	2
108.3	0.1942	0.32	75	0	15	10
108.4	0.0644	0.20	55	0	30	15
109	0.1803	0.29	95	0	0	5

PRELIMINARY DRAINAGE REPORT

for

PARADISE RV PARK - PHASE I

ALBUQUERQUE, NEW MEXICO

June 2011

Revised August 2011



Prepared by
Larry D. Read, P.E.
2430 Midtown Place, NE
Suite C
Albuquerque, New Mexico 87107
(505) 237-8421



PRELIMINARY DRAINAGE REPORT

for

PARADISE RV PARK - PHASE I

ALBUQUERQUE, NEW MEXICO

June, 2011

Revise August 2011

LOCATION & DESCRIPTION

The proposed Phase I site is approximately a 4.61 acre parcel located north of Volcano Road NE and west of Leonidas Lane NW as shown on the Vicinity Map. The 'L' shaped parcel is proposed to provide 66 RV parking spaces (for rent) and a community center/office building. Phase II of this development will be west of the Phase I development (on Lot 5) and adjacent to the future 102nd Street NW.

EXISTING DRAINAGE

The existing slope is from northwest to southeast at approximately 2.5 to 3% slopes. The drainage scheme is predominantly shallow sheet flow with minor rivulets starting to form as the flows concentrate in the lower sections of the drainage basins.

Previous preliminary designs (prepared by Raymond Macy, PE in 1998 Appendix F) placed a retention basin at the south end of the constructed portion of Leonidas Lane. This pond not only holds the runoff from Leonidas Lane south of Avalon but also the runoff from a small arroyo that, in the undeveloped state, collects runoff from Basin 300 and Basin 900.

In addition to this small pond, a two cell, regional pond (98th Street Pond) was built on the south side of Volcano south of this site . The pond was built as part of the Amole del Norte Storm Diversion Facilities, Tierra Bayita Project as designed by Greiner Engineering (COA Project # 407692) in 1995. Most of the runoff from this project site and Basins 300 thru 900 will ultimately be directed to this pond via storm drains.

Currently the runoff generated on site sheet flow to the east southeast where it crosses Leonidas Lane generally toward the Amole del Norte ponds discussed above. There currently is no infrastructure is Volcano Road.

In order to reconcile the drainage basin boundaries and hydrologic analyses in this report to previous drainage master plans, we compared the basins to those presented in both the Amole Channel "Future Developed Conditions" Drainage Basin Map prepared by Mark Goodwin & Associates in 2004 (Appendix E) and the Amole Hubbell Drainage Management Plan prepared by Greiner Engineering in 1995 (Appendix D). In the case of the Mark Goodwin report (Appendix E), the western boundary of Basin 600 in this report matched very closely. In the case of the Greiner report, all Basins in this report very closely match Greiner's (Appendix D) except they are cut off at Interstate 40 due to the construction of the I-40 pond system which eliminated contributory runoff from north of I-40. See the Drainage Basin Comparison Map in Appendix D.

The land treatment percentages used in this report were extracted from the Greiner report (March 1995). Using the Goodwin (7-3-04) report, the land treatment percentages used were based on the existing A-1 zoning changing to RA-1 (residential agricultural) with a density of 2 du/acre (Figure II-1 and Table II-4). These land treatment percentages seem appropriate for the proposed zoning.

PROPOSED CONDITIONS

The proposed drainage scheme for Phase I of the Paradise RV Park generally follows the existing direction. The runoff is conveyed in the proposed gravel and paved streets in a northwest to southeast direction. The proposed development intends to complete construction of Leonidas Lane from it's current termination at the north side of this site south of connect to Volcano Road at the southeast corner of this site. A proposed inlet system where the south access to the RV Park meets Leonidas Lane will intercept most of the runoff generated onsite and convey it to the Amole del Norte ponds south of Volcano Road and this site. The intent is to direct the developed runoff from this site into the landscape areas along Leonidas Lane to allow some infiltration before the flow overtop the curb and are intercepted in the proposed inlet system in Leonidas Lane.

Since the existing onsite pond will no longer be needed to handle flows from Leonidas Lane once the road is completed, we propose to relocate to the northwest (in the Phase II area - Parcel 5) along the small arroyo flowline to intercept offsite flows before they enter the Phase I development area.

Due to large runoff generated offsite, a storm drain system is anticipated to collect the runoff and convey it to the Amole del Norte ponds to the south of this site. Although the full routing of this system is beyond the scope of this report, a portion of the storm drain system will undoubtedly be required in Volcano Road along the southern boundary of this site. As such, this report has located and sized a trunk storm drain line in Volcano Road from the future 110th Street to the Amole del Norte ponds based on the drainage basins shown on the Drainage Basin Map. In addition, it has modeled north/south sections of future storm drains in 102nd, 106th, and 100th Streets between Volcano and Avalon. *110th*

FLOODPLAIN STATUS

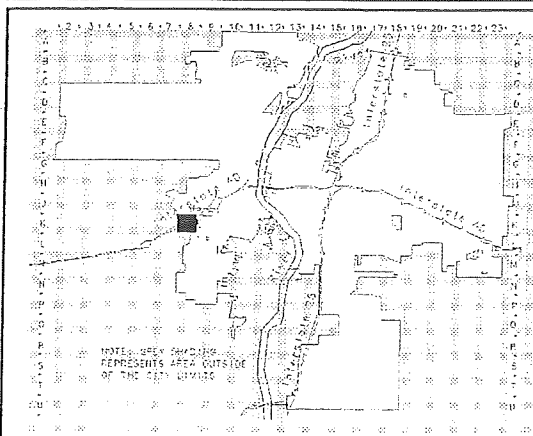
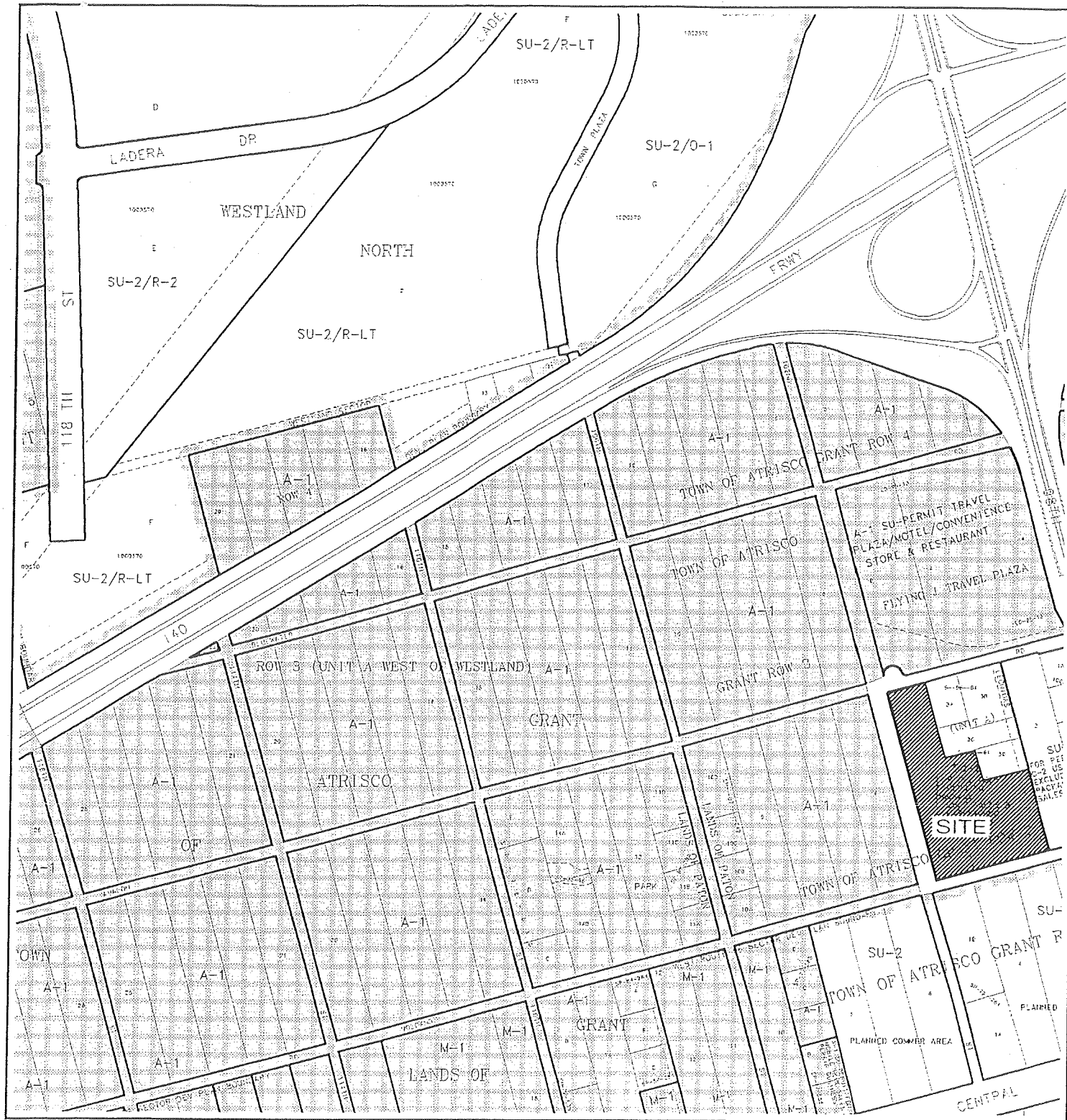
This project, as shown on FEMA Flood Insurance Rate Map Panel 35001C0328 G, September 26, 2008, shows that this site is in a Zone X, areas of 100-year flooding with average depths of less than 1 foot or with drainage areas of less than 1 square mile.

METHODOLOGY

The hydrology for this project was analyzed using the 2009 release of the AHYMO-S4.01a computer modeling program as developed by Anderson Hydro. All procedures are in accordance with those shown in the January 1993 release of the City of Albuquerque Development Process Manual, Section 22.2.

The specific values used for this analysis are as follows:

- Precipitation Zone 1
- Design Storm 100-year, 6-hour duration
i = 2.20 inches



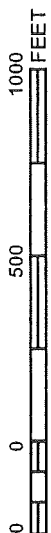
A **G** **I** **S**
PLANNING DEPARTMENT
 © Copyright 2004



Zone Atlas Page
K-8-Z

Map Amended through March 08, 2005

MAP SCALE 1" = 500'



NFP

PANEL 0328G

FIRM

FLOOD INSURANCE RATE MAP
BERNALILLO COUNTY,
NEW MEXICO
AND INCORPORATED AREAS

PANEL 328 OF 825

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ALBUQUERQUE CITY OF	350002	0328	G
BERNALILLO COUNTY	350001	0328	G
UNINCORPORATED AREAS			

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

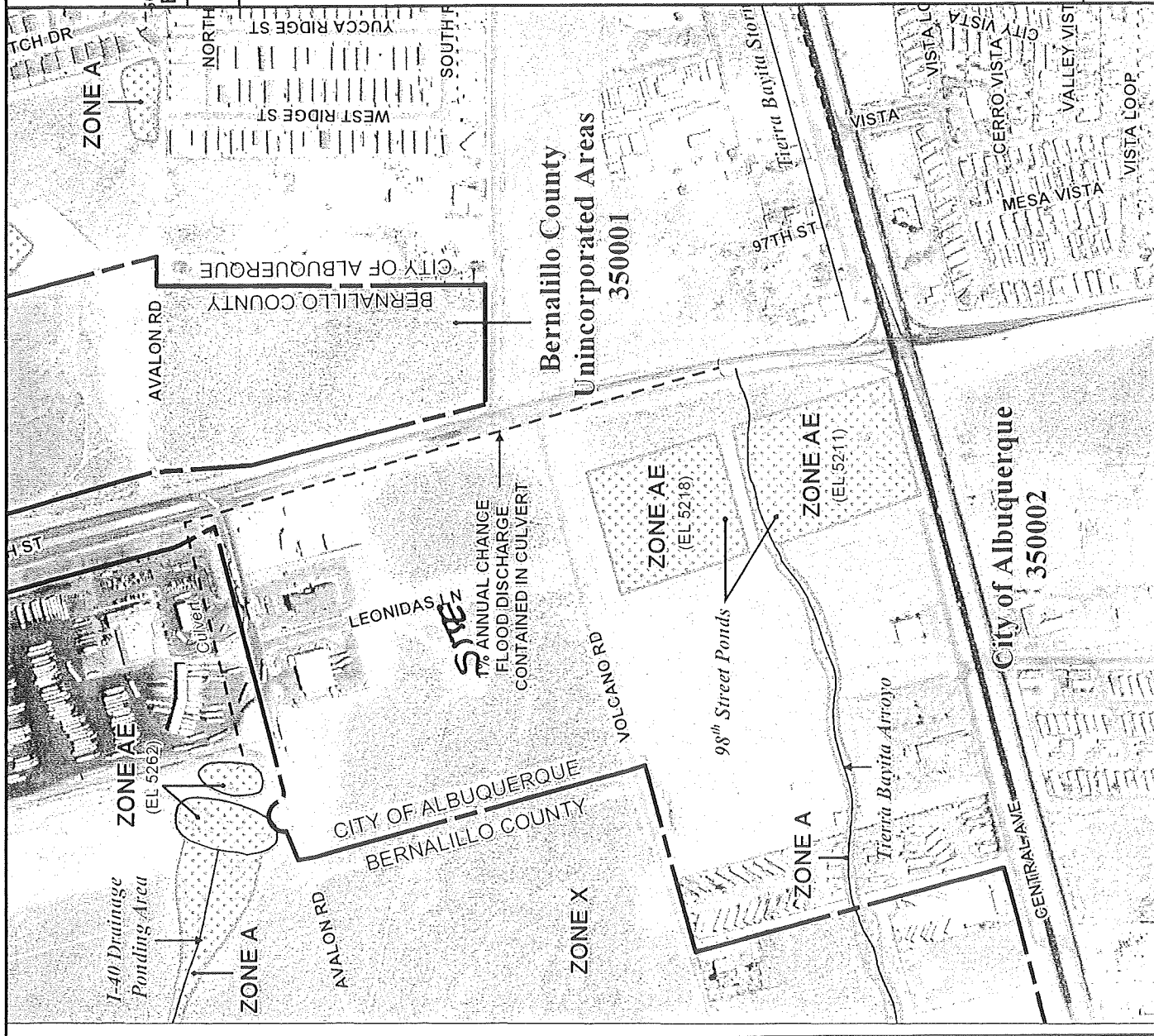


MAP NUMBER
35001C0328G

MAP REVISED
SEPTEMBER 26, 2008

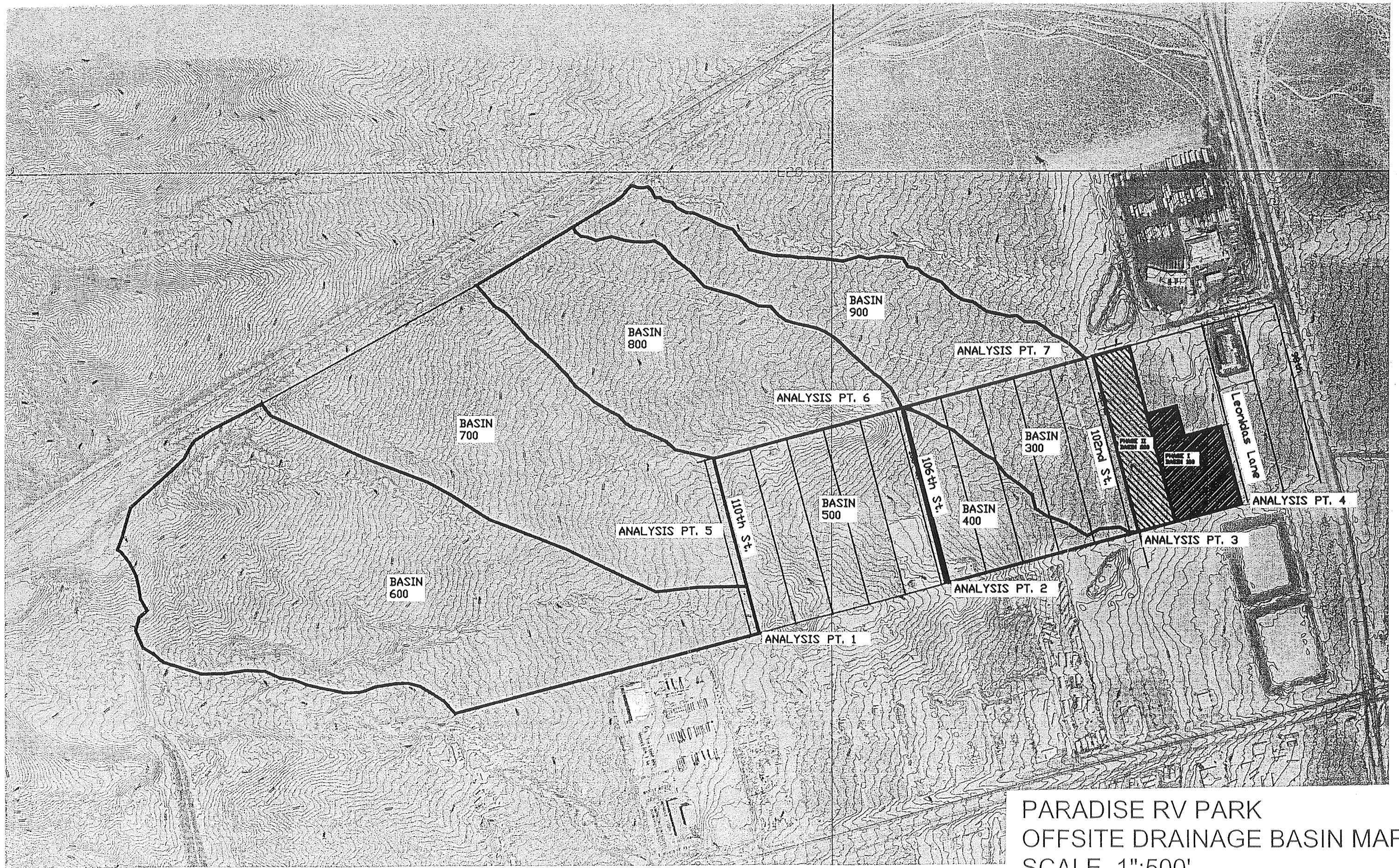
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



APPENDIX A

Drainage Basin Map



PARADISE RV PARK
OFFSITE DRAINAGE BASIN MAP
SCALE 1":500'

APPENDIX B

AHYMO Analysis

AHYMO PROGRAM (AHYMO-S4)

- Version: S4.01a - Rel: 01a

RUN DATE (MON/DAY/YR) = 08/08/2011
 START TIME (HR:MIN:SEC) = 12:12:51
 INPUT FILE = C:\acad projects\Rizvy\RV Park - Avalon\input2.dat

USER NO. = AHYMO Temp User:20122010
 HYMO PER JAN 1993 DPM REVISIONS

TIME=0 PUNCH=0 PRINT LINES=-6
 COMPUTE 100 YR. 6 HR. HYDROGRAPHS FOR PARADISE RV PARK
 AHYMO INPUT.DAT - HYMO PER JAN 1993 DPM REVISIONS

TYPE=-1 RAIN QUAR=0 RAIN ONE=1.87 RAIN SIX=2.20
 RAIN DAY=2.66 DT=0.03

6-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE AREAS (NM & AZ) - D1
 DT = 0.030000 HOURS END TIME = 6.000000 HOURS

COMPUTE RUNOFF FOR UNDEVELOPED CONDITIONS ON-SITE BASINS

*S BASIN 100 PHASE I

COMPUTE NM HYD
 ID=1 HYD NO= 100.0 DA=0.00715 SQ MI
 PER A=100 PER B=0 PER C=0 PER D=0 TP=-.13
 RAIN=-1

K = 0.159632HR TP = 0.130000HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899626
 UNIT PEAK = 15.045 CFS UNIT VOLUME = 0.9987 B = 273.54 P60 = 1.8700
 AREA = 0.007150 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=1 CODE=10

PARTIAL HYDROGRAPH 100.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	0.900	0.0	2.700	0.2
0.300	0.0	1.200	0.0	3.000	0.1
0.600	0.0	1.500	7.9	3.300	0.1
				4.200	0.0

RUNOFF VOLUME = 0.64271 INCHES = 0.2451 ACRE-FEET
 PEAK DISCHARGE RATE = 8.35 CFS AT 1.530 HOURS BASIN AREA = 0.0072 SQ. MI.

*S BASIN 200 PHASE II
 COMPUTE NM HYD

ID=2 HYD NO= 200.0 DA=0.00798 SQ MI
 PER A=100 PER B=0 PER C=0 PER D=0 TP=-.13
 RAIN=-1

K = 0.159632HR TP = 0.130000HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899626
 UNIT PEAK = 16.791 CFS UNIT VOLUME = 0.9988 B = 273.54 P60 = 1.8700
 AREA = 0.007980 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=2 CODE=10

PARTIAL HYDROGRAPH 200.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	0.900	0.0	1.800	2.5
0.300	0.0	1.200	0.0	2.100	0.7
0.600	0.0	1.500	8.9	2.400	0.4

TIME HRS	FLOW CFS
2.700	0.2
3.600	0.0
3.900	0.1
4.200	0.0

RUNOFF VOLUME = 0.64271 INCHES = 0.2735 ACRE-FEET
PEAK DISCHARGE RATE = 9.31 CFS AT 1.530 HOURS BASIN AREA = 0.0080 SQ. MI.

*S COMPUTE RUNOFF FROM UNDEVELOPED CONDITIONS OFF-SITE BASINS
*S
*S
*S
*S

*S BASIN 300
COMPUTE NM HYD

ID=3 HYD NO= 300.0 DA=0.0232 SQ MI
PER A=100 PER B=0 PER C=0 PER D=0 TP=-.22
RAIN=-1

K = 0.270146HR TP = 0.220000HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899626
UNIT PEAK = 28.846 CFS UNIT VOLUME = 0.9994 B = 273.54 P60 = 1.8700
AREA = 0.023200 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=3 CODE=10

HYDROGRAPH FROM AREA 300.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.500	12.1	3.000	0.8
0.300	0.0	1.800	11.8	3.300	0.5
0.600	0.0	2.100	3.9	3.600	0.4
0.900	0.0	2.400	1.6	3.900	0.3
1.200	0.0	2.700	1.1	4.200	0.2

TIME HRS	FLOW CFS
4.500	0.1
4.800	0.1
5.100	0.1
5.400	0.0
5.700	0.0

RUNOFF VOLUME = 0.64271 INCHES = 0.7952 ACRE-FEET
PEAK DISCHARGE RATE = 17.56 CFS AT 1.620 HOURS BASIN AREA = 0.0232 SQ. MI.

*S
*S BASIN 400
COMPUTE NM HYD
ID=4 HYD NO= 400.0 DA=0.0168 SQ MI
PER A=100 PER B=0 PER C=0 PER D=0 TP=-.171
RAIN=-1

K = 0.209977HR TP = 0.171000HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899626
 UNIT PEAK = .26.874 CFS UNIT VOLUME = 0.9993 B = 273.54 P60 = 1.8700
 AREA = 0.016800 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=4 CODE=10

HYDROGRAPH FROM AREA 400.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.200	0.0	2.400	0.2
0.300	0.0	1.500	13.2	2.700	0.6
0.600	0.0	1.800	7.3	3.000	0.4
0.900	0.0	2.100	1.8	3.300	0.2
				4.500	0.1
				5.400	0.0

RUNOFF VOLUME = 0.64271 INCHES = 0.5759 ACRE-Feet
 PEAK DISCHARGE RATE = 15.73 CFS AT 1.560 HOURS BASIN AREA = 0.0168 SQ. MI.

*S BASIN 500
 COMPUTE NM HYD

ID=5 HYD NO= 500.0 DA=0.0393 SQ MI
 PER A=100 PER B=0 PER C=0 PER D=0 TP=-.16
 RAIN=-1

K = 0.196470HR TP = 0.160000HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899626
 UNIT PEAK = 67.188 CFS UNIT VOLUME = 0.9997 B = 273.54 P60 = 1.8700
 AREA = 0.039300 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=5 CODE=10

OUTFLOW HYDROGRAPH RESERVOIR 500.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.200	0.0	2.400	0.3
0.300	0.0	1.500	33.8	2.700	0.2
0.600	0.0	1.800	16.0	3.000	0.1
0.900	0.0	2.100	4.0	3.300	0.5
				4.500	0.1
				5.700	0.0

RUNOFF VOLUME = 0.64271 INCHES = 1.3471 ACRE-Feet
 PEAK DISCHARGE RATE = 39.01 CFS AT 1.560 HOURS BASIN AREA = 0.0393 SQ. MI.

*S BASIN 600
 COMPUTE NM HYD

ID=6 HYD NO= 600.0 DA=0.1191 SQ MI
 PER A=100 PER B=0 PER C=0 PER D=0 TP=-.13
 RAIN=-1

K = 0.153027HR TP = 0.130000HR K/TP RATIO = 1.177133 SHAPE CONSTANT, N = 3.014069
 UNIT PEAK = 259.25 CFS UNIT VOLUME = 0.9999 B = 282.97 P60 = 1.8700
 AREA = 0.119100 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=6 CODE=10

HYDROGRAPH FROM AREA 600.00							
TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.200	0.0	2.400	5.6	3.600	0.4
0.300	0.0	1.500	135.8	2.700	2.9	3.900	0.2
0.600	0.0	1.800	36.3	3.000	1.5	4.200	0.1
0.900	0.0	2.100	10.8	3.300	0.8	4.500	0.1

RUNOFF VOLUME = 0.64271 INCHES = 4.0824 ACRE-FEET
 PEAK DISCHARGE RATE = 142.64 CFS AT 1.530 HOURS BASIN AREA = 0.1191 SQ. MI.

*S
 *S BASIN 700
 COMPUTE NM HYD

ID=7 HYD NO= 700.0 DA=0.0744 SQ MI
 PER A=100 PER B=0 PER C=0 PER D=0 TP=-.50
 RAIN=-1

K = 0.608627HR TP = 0.500000HR K/TP RATIO = 1.217254 SHAPE CONSTANT, N = 2.922704
 UNIT PEAK = 40.989 CFS UNIT VOLUME = 0.9996 B = 275.46 P60 = 1.8700
 AREA = 0.074400 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=7 CODE=10

HYDROGRAPH FROM AREA 700.00							
TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	3.000	5.5	6.000	0.6	9.000	0.1
0.300	0.0	3.300	3.3	6.300	0.5	9.300	0.1
0.600	0.0	3.600	2.4	6.600	0.5	9.600	0.1
0.900	0.0	3.900	2.0	6.900	0.4	9.900	0.1
1.200	0.0	4.200	1.7	7.200	0.3	10.200	0.1
1.500	6.9	4.500	1.4	7.500	0.3	10.500	0.1
1.800	25.1	4.800	1.2	7.800	0.2	10.800	0.0
2.100	23.0	5.100	1.0	8.100	0.2	11.100	0.0
2.400	14.7	5.400	0.9	8.400	0.2	11.400	0.0
2.700	9.0	5.700	0.7	8.700	0.1	11.700	0.0

RUNOFF VOLUME = 0.64271 INCHES = 2.5502 ACRE-FEET
 PEAK DISCHARGE RATE = 26.08 CFS AT 1.890 HOURS BASIN AREA = 0.0744 SQ. MI.

*S
*S BASIN 800
COMPUTE NM HYD

ID=8 HYD NO= 800.0 DA=0.0570 SQ MI
PER A=100 PER B=0PER C=0 PER D=0 TP=-.216
RAIN=-1

K = 0.265234HR TP = 0.216000HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899626
UNIT PEAK = 72.184 CFS UNIT VOLUME = 0.9997 B = 273.54 P60 = 1.8700
AREA = 0.057000 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=8 CODE=10

HYDROGRAPH FROM AREA 800.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.800	28.9	3.600	0.9
0.300	0.0	2.100	9.4	3.900	0.6
0.600	0.0	2.400	3.9	4.200	0.4
0.900	0.0	2.700	2.7	4.500	0.3
1.200	0.0	3.000	1.8	4.800	0.2
1.500	30.8	3.300	1.3	5.100	0.1

RUNOFF VOLUME = 0.64271 INCHES = 1.9538 ACRE-FEET
PEAK DISCHARGE RATE = 43.83 CFS AT 1.620 HOURS BASIN AREA = 0.0570 SQ. MI.

*S
*S BASIN 900
COMPUTE NM HYD

ID=9 HYD NO= 900.0 DA=0.0389 SQ MI
PER A=100 PER B=0 PER C=0 PER D=0 TP=-.293
RAIN=-1

K = 0.359785HR TP = 0.293000HR K/TP RATIO = 1.227936 SHAPE CONSTANT, N = 2.899626
UNIT PEAK = 36.316 CFS UNIT VOLUME = 0.9996 B = 273.54 P60 = 1.8700
AREA = 0.038900 SQ MI IA = 0.65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=9 CODE=10

HYDROGRAPH FROM AREA 900.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	2.100	9.5	4.200	0.5
0.300	0.0	2.400	4.1	4.500	0.4
0.600	0.0	2.700	2.1	4.800	0.3
0.900	0.0	3.000	1.6	5.100	0.2
1.200	0.0	3.300	1.2	5.400	0.2
1.500	11.8	3.600	0.9	5.700	0.1
1.800	20.4	3.900	0.7	6.000	0.1

RUNOFF VOLUME = 0.64271 INCHES = 1.3334 ACRE-FEET
PEAK DISCHARGE RATE = 22.62 CFS AT 1.680 HOURS BASIN AREA = 0.0389 SQ. MI.

*S COMPUTE RUNOFF FOR DEVELOPED CONDITIONS ON-SITE BASINS

*S BASIN 100 PHASE I
COMPUTE NM HYD ID=11 HYD NO= 101.0 DA=0.00715 SQ MI = 41.58 ac
PER A=0 PER B=5 PER C=76 PER D=19 TP=-.13
RAIN=-1

K = 0.070850HR TP = 0.130000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 5.4996 CFS UNIT VOLUME = 0.9980 B = 526.28 P60 = 1.8700
AREA = 0.001359 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

K = 0.104758HR TP = 0.130000HR K/TP RATIO = 0.805834 SHAPE CONSTANT, N = 4.441710
UNIT PEAK = 17.090 CFS UNIT VOLUME = 0.9994 B = 383.62 P60 = 1.8700
AREA = 0.005792 SQ MI IA = 0.35926 INCHES INF = 0.85593 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=11 CODE=10

PARTIAL HYDROGRAPH 101.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.500	15.5	3.000	0.1
0.300	0.0	1.800	3.8	3.300	0.0
0.600	0.0	2.100	1.0	3.600	0.0
0.900	0.0	2.400	0.4	3.900	0.0
1.200	0.6	2.700	0.1	4.200	0.0

RUNOFF VOLUME = 1.23690 INCHES = 0.4717 ACRE-FEET
PEAK DISCHARGE RATE = 15.75 CFS AT 1.530 HOURS BASIN AREA = 0.0072 SQ. MI.

*S BASIN 200 PHASE II
COMPUTE NM HYD ID=12 HYD NO= 201.0 DA=0.00798 SQ MI
PER A=0 PER B=5 PER C=76 PER D=19 TP=-.13
RAIN=-1

K = 0.070850HR TP = 0.130000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 6.1380 CFS UNIT VOLUME = 0.9983 B = 526.28 P60 = 1.8700
AREA = 0.001516 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

K = 0.104758HR TP = 0.130000HR K/TP RATIO = 0.805834 SHAPE CONSTANT, N = 4.441710
 UNIT PEAK = 19.074 CFS UNIT VOLUME = 0.9995 B = 383.62 P60 = 1.8700
 AREA = 0.006464 SQ MI IA = 0.35926 INCHES INF = 0.85593 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=12 CODE=10

PARTIAL HYDROGRAPH 201.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.500	17.3	3.000	0.1	4.500	0.0
0.300	0.0	1.800	4.2	3.300	0.0	4.800	0.0
0.600	0.0	2.100	1.1	3.600	0.0	5.100	0.0
0.900	0.0	2.400	0.4	3.900	0.0	5.400	0.0
1.200	0.7	2.700	0.1	4.200	0.0	5.700	0.0

RUNOFF VOLUME = 1.23690 INCHES = 0.5264 ACRE-FEET
 PEAK DISCHARGE RATE = 17.57 CFS AT 1.530 HOURS BASIN AREA = 0.0080 SQ. MI.

*S DEVELOPED FLOW TO LEONIDAS LANE
 *S ANALYSIS POINT 4
 *S

ADD HYD ID=24 HYD NO = 240 ID I = 11 ID II = 12
 PRINT HYD ID=24 CODE = 10

PARTIAL HYDROGRAPH 240.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.500	32.9	3.000	0.1	4.500	0.0
0.300	0.0	1.800	8.0	3.300	0.0	4.800	0.0
0.600	0.0	2.100	2.2	3.600	0.0	5.100	0.0
0.900	0.0	2.400	0.8	3.900	0.0	5.400	0.0
1.200	1.3	2.700	0.3	4.200	0.0	5.700	0.0

RUNOFF VOLUME = 1.23686 INCHES = 0.9981 ACRE-FEET
 PEAK DISCHARGE RATE = 33.32 CFS AT 1.530 HOURS BASIN AREA = 0.0151 SQ. MI.

15.757 17.57-33.32

*S
 *S
 *S COMPUTE RUNOFF FROM DEVELOPED CONDITIONS OFF-SITE BASINS
 *S

778 BASIN 300 108.2 3700

*S WITHIN BASIN 801.2 GREINER 1995
 COMPUTE NM HYD 109 ID=13 HYD NO= 301.0 DA=0.0232 SQ MI
 PER A=0 PER B=18 PER C=19 PER D=63 TP=-.22

RAIN=-1

K = 0.119900HR TP = 0.220000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 34.964 CFS UNIT VOLUME = 0.9997 B = 526.28 P60 = 1.8700
AREA = 0.014616 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

K = 0.194897HR TP = 0.220000HR K/TP RATIO = 0.885895 SHAPE CONSTANT, N = 4.004627
UNIT PEAK = 13.870 CFS UNIT VOLUME = 0.9991 B = 355.48 P60 = 1.8700
AREA = 0.008584 SQ MI IA = 0.42297 INCHES INF = 1.03432 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=13 CODE=10

HYDROGRAPH FROM AREA 301.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.800	26.8	3.600	0.3	5.400	0.2
0.300	0.0	2.100	8.4	3.900	0.2	5.700	0.2
0.600	0.0	2.400	3.6	4.200	0.1	6.000	0.2
0.900	0.0	2.700	1.6	4.500	0.1	6.300	0.1
1.200	3.8	3.000	0.8	4.800	0.1	6.600	0.0
1.500	31.6	3.300	0.4	5.100	0.1	6.900	0.0

RUNOFF VOLUME = 1.58678 INCHES = 1.9634 ACRE-Feet
PEAK DISCHARGE RATE = 45.61 CFS AT 1.620 HOURS BASIN AREA = 0.0232 SQ. MI.

*S BASIN 400 700 1000
*S WITHIN BASIN 301.2 GREINER 1996
COMPUTE NM HYD ID=14 HYD NO= 401.0 DA=0.0168 SQ MI
PER A=0 PER B=18 PER C=19 PER D=63 TP=-.171
RAIN=-1

K = 0.093195HR TP = 0.171000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 32.574 CFS UNIT VOLUME = 0.9997 B = 526.28 P60 = 1.8700
AREA = 0.010584 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

K = 0.151488HR TP = 0.171000HR K/TP RATIO = 0.885895 SHAPE CONSTANT, N = 4.004627
UNIT PEAK = 12.922 CFS UNIT VOLUME = 0.9990 B = 355.48 P60 = 1.8700
AREA = 0.006216 SQ MI IA = 0.42297 INCHES INF = 1.03432 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=14 CODE=10

HYDROGRAPH FROM AREA 401.00

TIME	FLOW	TIME	FLOW	TIME	FLOW
------	------	------	------	------	------

HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
0.000	0.0	1.500	32.7	3.000	0.3	4.500	0.1	6.000	0.2
0.300	0.0	1.800	15.1	3.300	0.2	4.800	0.1	6.300	0.0
0.600	0.0	2.100	4.7	3.600	0.1	5.100	0.1	6.600	0.0
0.900	0.0	2.400	1.9	3.900	0.1	5.400	0.1	6.900	0.0
1.200	3.7	2.700	0.7	4.200	0.1	5.700	0.1	7.200	0.0

RUNOFF VOLUME = 1.58678 INCHES = 1.4217 ACRE-FEET
 PEAK DISCHARGE RATE = 37.60 CFS AT 1.560 HOURS BASIN AREA = 0.0168 SQ. MI.

 *S DEVELOPED FLOW TO ANALYSIS POINT 3 BASINS 300 AND 400
 *S
 ADD HYD ID=25 HYD NO = 250 ID I = 13 ID II = 14
 PRINT HYD ID=25 CODE = 10

PARTIAL HYDROGRAPH 250.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.800	41.9	3.600	0.4	5.400	0.3
0.300	0.0	2.100	13.1	3.900	0.2	5.700	0.3
0.600	0.0	2.400	5.5	4.200	0.2	6.000	0.4
0.900	0.1	2.700	2.4	4.500	0.2	6.300	0.1
1.200	7.5	3.000	1.2	4.800	0.2	6.600	0.0
1.500	64.3	3.300	0.6	5.100	0.2	6.900	0.0

RUNOFF VOLUME = 1.58676 INCHES = 3.3851 ACRE-FEET
 PEAK DISCHARGE RATE = 81.71 CFS AT 1.590 HOURS BASIN AREA = 0.0400 SQ. MI.

 *S BASIN 500
 *S WITHIN BASIN 801.2 GREINER 1995
 COMPUTE NM HYD ID=15 HYD NO= 501.0 DA=0.0393 SQ MI
 PER A=0 PER B=3 PER C=30 PER D=67 TP=-.16
 RAIN=-1

K = 0.087200HR TP = 0.160000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
 UNIT PEAK = 86.608 CFS UNIT VOLUME = 0.9999 B = 526.28 P60 = 1.8700
 AREA = 0.026331 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

K = 0.129814HR TP = 0.160000HR K/TP RATIO = 0.811334 SHAPE CONSTANT, N = 4.408176
 UNIT PEAK = 30.925 CFS UNIT VOLUME = 0.9996 B = 381.52 P60 = 1.8700
 AREA = 0.012969 SQ MI IA = 0.36364 INCHES INF = 0.86818 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=15 CODE=10

OUTFLOW HYDROGRAPH RESERVOIR 501.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.500	86.2	4.500	0.2
0.300	0.0	1.800	34.6	4.800	0.2
0.600	0.0	2.100	10.7	5.100	0.3
0.900	0.1	2.400	4.3	5.400	0.3
1.200	9.8	2.700	1.5	5.700	0.3

RUNOFF VOLUME = 1.65978 INCHES = 3.4789 ACRE-Feet
 PEAK DISCHARGE RATE = 94.30 CFS AT 1.560 HOURS BASIN AREA = 0.0393 SQ. MI.

*S BASIN 600
 *S IS BASIN 801.3 GREINER 1995
 COMPUTE NM HYD ID=16 HYD NO= 601.0 DA=0.1191 SQ MI
 PER A=0 PER B=21 PER C=22 PER D=57 TP=-.13
 RAIN=-1

K = 0.071786HR TP = 0.130000HR K/TP RATIO = 0.552203 SHAPE CONSTANT, N = 6.988081
 UNIT PEAK = 271.91 CFS UNIT VOLUME = 1.000 B = 520.69 P60 = 1.8700
 AREA = 0.067887 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

K = 0.113773HR TP = 0.130000HR K/TP RATIO = 0.875175 SHAPE CONSTANT, N = 4.057445
 UNIT PEAK = 141.42 CFS UNIT VOLUME = 1.000 B = 358.98 P60 = 1.8700
 AREA = 0.051213 SQ MI IA = 0.42326 INCHES INF = 1.03512 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=16 CODE=10

HYDROGRAPH FROM AREA 601.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.500	288.9	4.500	0.5
0.300	0.0	1.800	80.3	4.800	0.6
0.600	0.0	2.100	23.6	5.100	0.7
0.900	0.9	2.400	9.2	5.400	0.8
1.200	29.6	2.700	2.9	5.700	0.9

RUNOFF VOLUME = 1.52689 INCHES = 9.6987 ACRE-Feet
 PEAK DISCHARGE RATE = 290.28 CFS AT 1.530 HOURS BASIN AREA = 0.1191 SQ. MI.

*S BASIN 700
 *S WITHIN BASIN 108.2 GREINER 1995

COMPUTE NM HYD

ID=17 HYD NO= 701.0 DA=0.0744 SQ MI
PER A=0 PER B=18 PER C=19 PER D=63 TP=-.50
RAIN=-1

K = 0.273257HR TP = 0.500000HR K/TP RATIO = 0.546515 SHAPE CONSTANT, N = 7.081213
UNIT PEAK = 49.224 CFS UNIT VOLUME = 0.9998 B = 525.09 P60 = 1.8700
AREA = 0.046872 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

K = 0.441787HR TP = 0.500000HR K/TP RATIO = 0.883574 SHAPE CONSTANT, N = 4.016033
UNIT PEAK = 19.613 CFS UNIT VOLUME = 0.9993 B = 356.24 P60 = 1.8700
AREA = 0.027528 SQ MI IA = 0.42297 INCHES INF = 1.03432 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=17 CODE=10

HYDROGRAPH FROM AREA 701.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	2.400	33.4	4.800	1.4	7.200	0.2
0.300	0.0	2.700	15.7	5.100	1.2	7.500	0.1
0.600	0.0	3.000	8.8	5.400	1.0	7.800	0.1
0.900	0.0	3.300	5.9	5.700	1.0	8.100	0.1
1.200	1.6	3.600	4.2	6.000	0.9	8.400	0.0
1.500	18.9	3.900	3.1	6.300	0.8	8.700	0.0
1.800	80.6	4.200	2.3	6.600	0.5	9.000	0.0
2.100	69.5	4.500	1.8	6.900	0.3	9.300	0.0

RUNOFF VOLUME = 1.58678 INCHES = 6.2963 ACRE-FEET
PEAK DISCHARGE RATE = 87.05 CFS AT 1.890 HOURS BASIN AREA = 0.0744 SQ. MI.

*S BASIN 800
*S WITHIN BASIN 108.1 GREINER 1995
COMPUTE NM HYD

ID=18 HYD NO= 801.0 DA=0.0570 SQ MI
PER A=0 PER B=17 PER C=13 PER D=70 TP=-.216
RAIN=-1

K = 0.117720HR TP = 0.216000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 97.215 CFS UNIT VOLUME = 0.9998 B = 526.28 P60 = 1.8700
AREA = 0.039900 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

K = 0.194618HR TP = 0.216000HR K/TP RATIO = 0.901008 SHAPE CONSTANT, N = 3.933025
UNIT PEAK = 27.763 CFS UNIT VOLUME = 0.9996 B = 350.68 P60 = 1.8700
AREA = 0.017100 SQ MI IA = 0.43500 INCHES INF = 1.06800 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD ID=18 CODE=10

HYDROGRAPH FROM AREA 801.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.800	66.6	5.400	0.4
0.300	0.0	2.100	21.3	5.700	0.5
0.600	0.0	2.400	9.0	6.000	0.6
0.900	0.1	2.700	4.0	6.300	0.2
1.200	10.7	3.000	2.0	6.600	0.1
1.500	82.7	3.300	1.0	6.900	0.0

RUNOFF VOLUME = 1.65042 INCHES = 5.0173 ACRE-FEET
 PEAK DISCHARGE RATE = 116.45 CFS AT 1.620 HOURS BASIN AREA = 0.0570 SQ. MI.

*S

*S BASIN 900

*S WITHIN BASIN 108.1 GREINER 1995

COMPUTE NM HYD ID=19 HYD NO= 901.0 DA=0.0389 SQ MI

PER A=0 PER B=17 PER C=13 PER D=70 TP=-.293

RAIN=-1

K = 0.159685HR TP = 0.293000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
 UNIT PEAK = 48.909 CFS UNIT VOLUME = 0.9998 B = 526.28 P60 = 1.8700
 AREA = 0.027230 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

K = 0.263995HR TP = 0.293000HR K/TP RATIO = 0.901008 SHAPE CONSTANT, N = 3.933025
 UNIT PEAK = 13.968 CFS UNIT VOLUME = 0.9990 B = 350.68 P60 = 1.8700
 AREA = 0.011670 SQ MI IA = 0.43500 INCHES INF = 1.06800 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.030000

PRINT HYD

ID=19 CODE=10

HYDROGRAPH FROM AREA 901.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	1.800	56.7	5.400	0.3
0.300	0.0	2.100	20.6	5.700	0.3
0.600	0.0	2.400	8.4	6.000	0.4
0.900	0.0	2.700	4.3	6.300	0.2
1.200	4.3	3.000	2.4	6.600	0.1
1.500	33.2	3.300	1.4	6.900	0.0

RUNOFF VOLUME = 1.65042 INCHES = 3.4241 ACRE-FEET
 PEAK DISCHARGE RATE = 67.22 CFS AT 1.680 HOURS BASIN AREA = 0.0389 SQ. MI.

*S


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- Ver. S4.01a, Rel: 01a
  RUN DATE (MON/DAY/YR) =08/08/2011
  USER NO.= AHYMO Temp User::20122010

  AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4)
  INPUT FILE = C:\acad projects\Rizvy\RV Park - Avalon\input2.dat

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COMMAND	HYDROGRAPH IDENTIFICATION	FROM TO ID ID	AREA NO. NO.	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1
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START
TIME= 0.00
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*S COMPUTE 100 YR. 6 HR. HYDROGRAPHS FOR PARADISE RV PARK
 *S AHYMO INPUT.DAT - HYMO PER JAN 1993 DPM REVISIONS

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+ $ -----
+ $ -----
RAINFALL TYPE= 1 NOAA 14

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RAIN6= 2.200

3
2
*S COMPUTE RUNOFF FOR UNDEVELOPED CONDITIONS ON-SITE BASINS

*S BASIN 100 PHASE I

COMPUTE NM HYD	100.00	-	1	0.00715	8.35	0.245	0.64271	1.530	1.824	PER IMP=	0.00
----------------	--------	---	---	---------	------	-------	---------	-------	-------	----------	------

* S BASIN 200 PHASE II

COMPUTE NM HYD	200.00	-	2	0.00798	9.31	0.274	0.64271	1.530	1.824 PER IMP=	0.00
----------------	--------	---	---	---------	------	-------	---------	-------	----------------	------

* S
* S
* S

BASIN 300

COMPUTE NM HYD	300.00	-	3	0.02320	17.56	0.795	0.64271	1.620	1.183	PER TMP=	0.00
----------------	--------	---	---	---------	-------	-------	---------	-------	-------	----------	------

54

*S BASIN 400

COMPUTE NM HYD
40

S BASIN 500
COMPLETE NM HYD

	-	39.01	0.64271	1.347	1.360	1.551 PER IMP#	0.00
CORPORATE NET LTD		300.00	0.03930				+ \$

* S BASIN 600

COMPUTE NM HYD	600.00	-	6	0.11910	142.64	4.082	0.64271	1.530	1.871 PER IMP=	0.00
----------------	--------	---	---	---------	--------	-------	---------	-------	----------------	------

502

[illegible]

+ S. COMPUTE NM HYL

* S BASIN 800

COMPUTE NM HYD	800.00	-	8	0.05700
5 BASIN 000				

* S EASIN 900
COMPUTE NM HYD

COMPUTE NM HYD	101.00	-	11	0.00715	15.75	0.472	1.23690	1.530	3.441	PER IMP=	19.00
*S BASIN 200 PHASE II											
COMPUTE NM HYD	201.00	-	12	0.00798	17.57	0.526	1.23690	1.530	3.441	PER IMP=	19.00
*S DEVELOPED FLOW TO LEONIDAS LANE											
*S ANALYSIS POINT 4											
ADD HYD	240.00	11&12	24	0.01513	33.32	0.998	1.23686	1.530	3.441		
*S COMPUTE RUNOFF FROM DEVELOPED CONDITIONS OFF-SITE BASINS											
*S BASIN 300											
*S WITHIN BASIN 801.2 GREINER 1995											
COMPUTE NM HYD	301.00	-	13	0.02320	45.61	1.963	1.58678	1.620	3.072	PER IMP=	63.00
*S BASIN 400											
*S WITHIN BASIN 801.2 GREINER 1996											
COMPUTE NM HYD	401.00	-	14	0.01680	37.60	1.422	1.58678	1.560	3.497	PER IMP=	63.00
*S DEVELOPED FLOW TO ANALYSIS POINT 3 BASINS 300 AND 400											
ADD HYD	250.00	13&14	25	0.04000	81.71	3.385	1.58676	1.590	3.192		
*S											

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	PAGE = 2
*S	BASIN 500									
*S	WITHIN BASIN 801.2 GREINER 1995									
COMPUTE NM HYD	501.00	-	15	0.03930	94.30	3.479	1.65978	1.560	3.749 PER IMP=	67.00
*S	BASIN 600									
*S	IS BASIN 801.3 GREINER 1995									
COMPUTE NM HYD	601.00	-	16	0.11910	290.28	9.699	1.52689	1.530	3.808 PER IMP=	57.00
*S	BASIN 700									
*S	WITHIN BASIN 108.2 GREINER 1995									
COMPUTE NM HYD	701.00	-	17	0.07440	87.05	6.296	1.58678	1.890	1.828 PER IMP=	63.00
*S	BASIN 800									
*S	WITHIN BASIN 108.1 GREINER 1995									
COMPUTE NM HYD	801.00	-	18	0.05700	116.45	5.017	1.65042	1.620	3.192 PER IMP=	70.00
*S	BASIN 900									
*S	WITHIN BASIN 108.1 GREINER 1995									
COMPUTE NM HYD	901.00	-	19	0.03890	67.22	3.424	1.65042	1.680	2.700 PER IMP=	70.00
*S	-----									
*S	-----									
*S	RUNOFF TO TEMPORARY POND ON PHASE II SITE									
*S	-----									
ADD HYD	202.00	2& 3	21	0.03118	25.55	1.069	0.64270	1.590	1.280	
ADD HYD	201.00	21& 8	22	0.08818	68.81	3.023	0.64270	1.590	1.219	
ADD HYD	203.00	22& 9	23	0.12708	89.98	4.356	0.64270	1.620	1.106	
*S	-----									
FINISH										

PROJECT: _____

LARRY READ & ASSOCIATES, Inc. CALCULATIONS

Civil Engineers

DATE: _____

By: _____ Pg: ____ of ____

Basin 100 - Phase 1 Use $t_c = 12 \text{ min} > t_p = 0.13 \text{ hrs}$ Basin 200 - Phase 2 Use $t_c = 12 \text{ min} > t_p = 0.13 \text{ hrs}$ Basin 300 - $\Delta e/cv = 44'$ $L = 1478$ $S = 0.0298$

$$t_c = (L/v) / 3600$$

$$v = 10 * K * \sqrt{S} \quad K = 0.7$$

$$v = 10 * 0.7 * \sqrt{0.0298} = 1.21$$

$$t_c = (1478 / 1.21) / 3600 = 0.339 \text{ hrs}$$

$$t_p = 2/3 t_c = 0.224 \text{ hrs}$$

Basin 400 $\Delta e/cv = 46'$ $L = 1250$ $S = 0.0368$

$$v = 10 * 0.7 * \sqrt{0.0368} = 1.34$$

$$t_c = (1250 / 1.34) / 3600 = 0.259$$

$$t_p = 2/3 t_c = 0.171 \text{ hrs}$$

Basin 500 $\Delta e/cv = 34'$ $L = 1085$ $S = 0.0313$

$$v = 10 * 0.7 * \sqrt{0.0313} = 1.24$$

$$t_c = (1085 / 1.24) / 3600 = 0.243$$

$$t_p = 2/3 t_c = 0.16 \text{ hrs}$$

PROJECT: _____

LARRY READ & ASSOCIATES, Inc. CALCULATIONS

Civil Engineers

DATE: _____

By: _____ Pg: _____ of _____

$$\text{Basin 600 } \Delta \text{ elev} = 180' \quad L = 3575 \quad S = 0.050$$

$$V = 10 * 3 * \sqrt{0.050} = 6.71$$

$$t_c = (3575 / 6.71) / 3600 = 0.148$$

$$t_p = 2/3 t_c = 0.096 \text{ hrs} - 1 \text{ sec } 0.13 \text{ hrs}$$

$$\text{Basin 700 } \Delta \text{ elev} = 138' \quad L = 2712 \quad S = 0.051$$

$$V = 10 * 1 * \sqrt{0.051} = 2.26$$

$$t_c = (2712 / 2.26) / 3600 = 0.753$$

$$t_p = 2/3 t_c = 0.50 \text{ hrs}$$

$$\text{Basin 800 } \Delta \text{ elev} = 102' \quad L = 2416 \quad S = 0.042$$

$$V = 10 * 1 * \sqrt{0.042} = 2.05$$

$$t_c = (2416 / 2.05) / 3600 = 0.327$$

$$t_p = 2/3 t_c = 0.216 \text{ hrs}$$

$$\text{Basin 900 } \Delta \text{ elev} = 96' \quad L = 2914 \quad S = 0.033$$

$$V = 10 * 1 * \sqrt{0.033} = 1.82$$

$$t_c = (2914 / 1.82) / 3600 = 0.445$$

$$t_p = 2/3 t_c = 0.293 \text{ hrs}$$

PROJECT: _____

LARRY READ & ASSOCIATES, Inc. CALCULATIONS
Civil Engineers

DATE: _____

By: _____ Pg: _____ of _____

100

200

300 - 0.0232 $\frac{\text{sg}}{\text{mi}}$

400 - 0.0368 $\frac{\text{sg}}{\text{mi}}$

500 - 0.0393 $\frac{\text{sg}}{\text{mi}}$

600 0.1191 $\frac{\text{sg}}{\text{mi}}$

700 0.0744 $\frac{\text{sg}}{\text{mi}}$

800 0.0570 $\frac{\text{sg}}{\text{mi}}$

900 0.0389 $\frac{\text{sg}}{\text{mi}}$

APPENDIX C

Storm Drain Analysis

Chapter 22 - Drainage, Flood Control and Erosion Control

Diagram illustrating the gutter installation details. The gutter is 4" wide and is installed on a 9' curb. The distance from the curb face to the centerline is 16'. The gutter is 2' from the curb face. The gutter is 1.5" from the curb face. The gutter is 28' from the curb face.

GRATINGS

GUTTER PLAN

STREET SECTION

SEE NOTE NO. 1

GRATINGS ① = ②

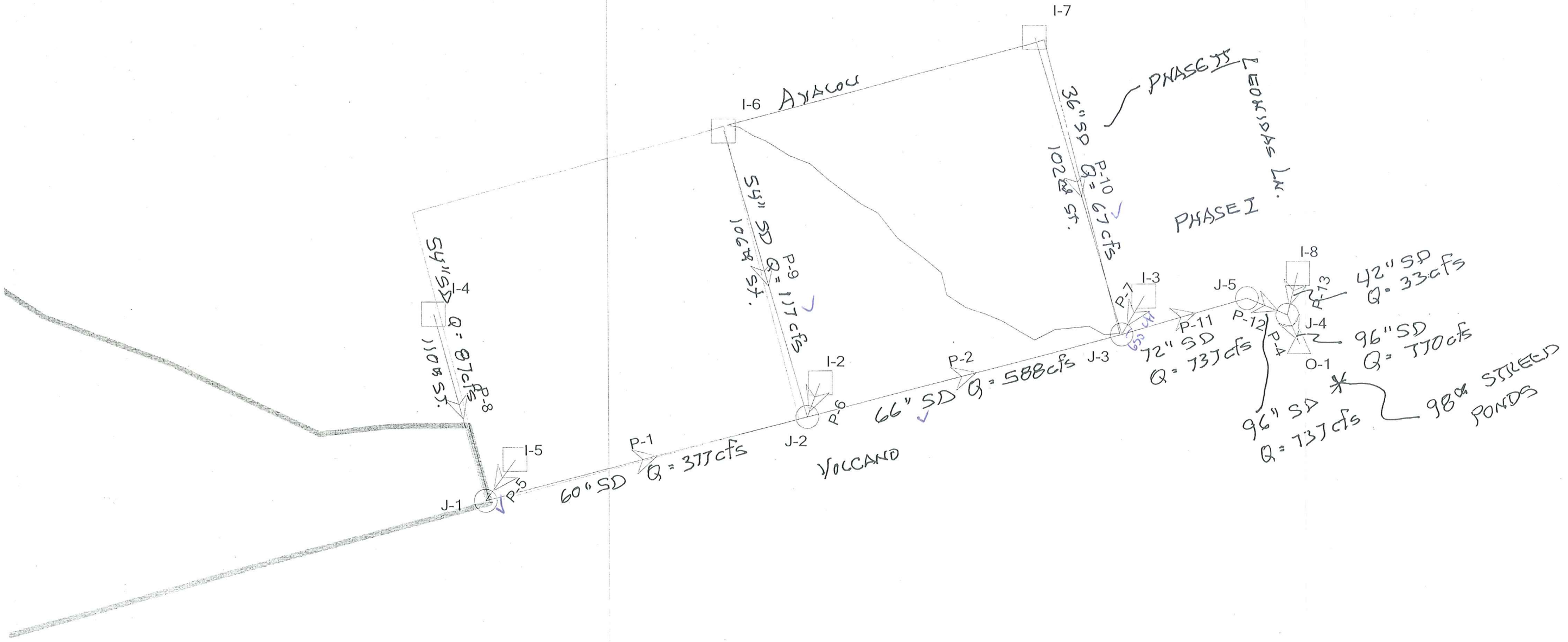
10.5 c.f.s.

PLATE 22.3 D-6

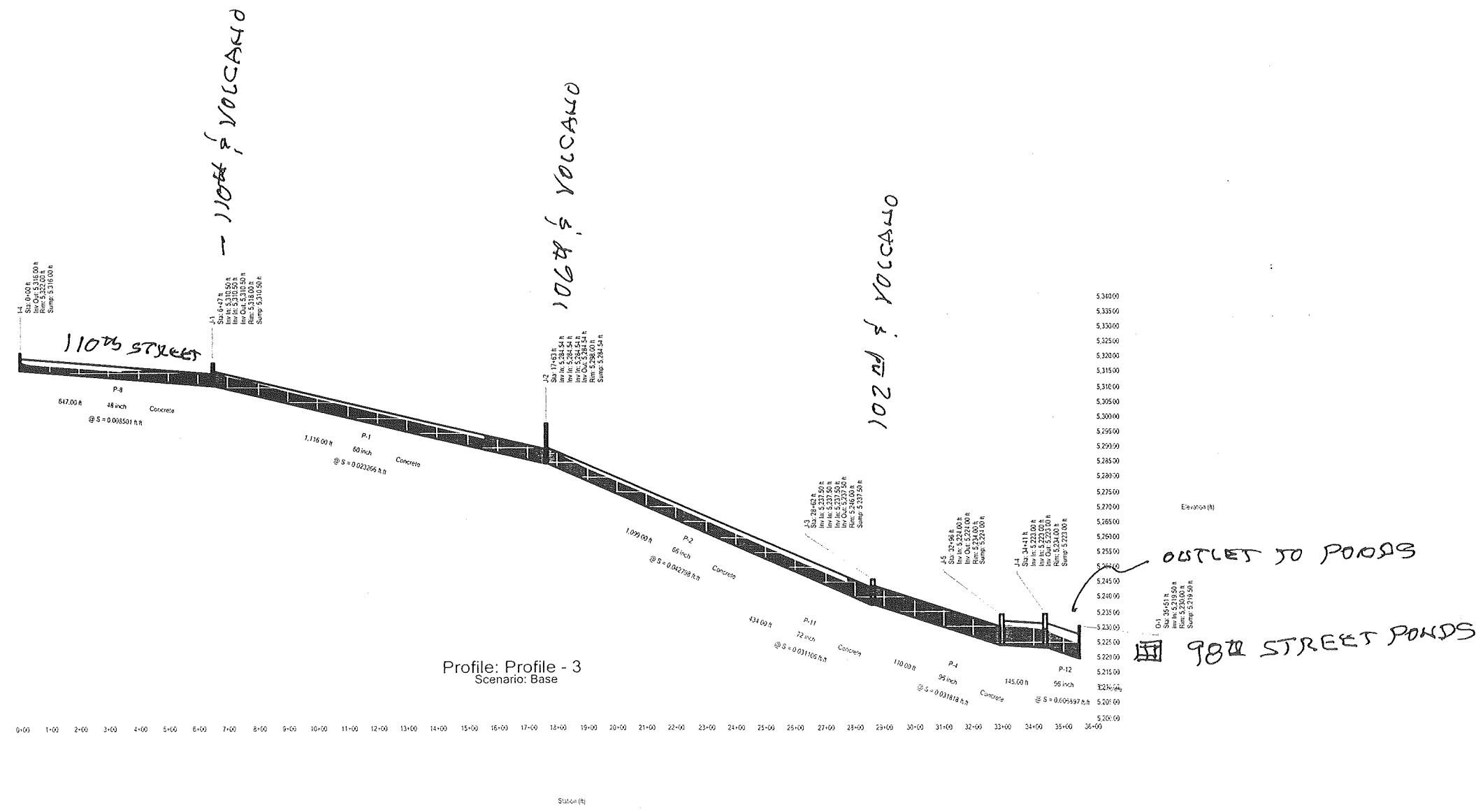
Roadway $S = 1.7\%$ hys.
 Qint. $\approx 18.5 \text{ cfs} \Rightarrow 2 \text{ double "C"}$
 Cragging $\approx 50\%$ - Use 4 double "C"
 June 1997

June 1997

Scenario: Base



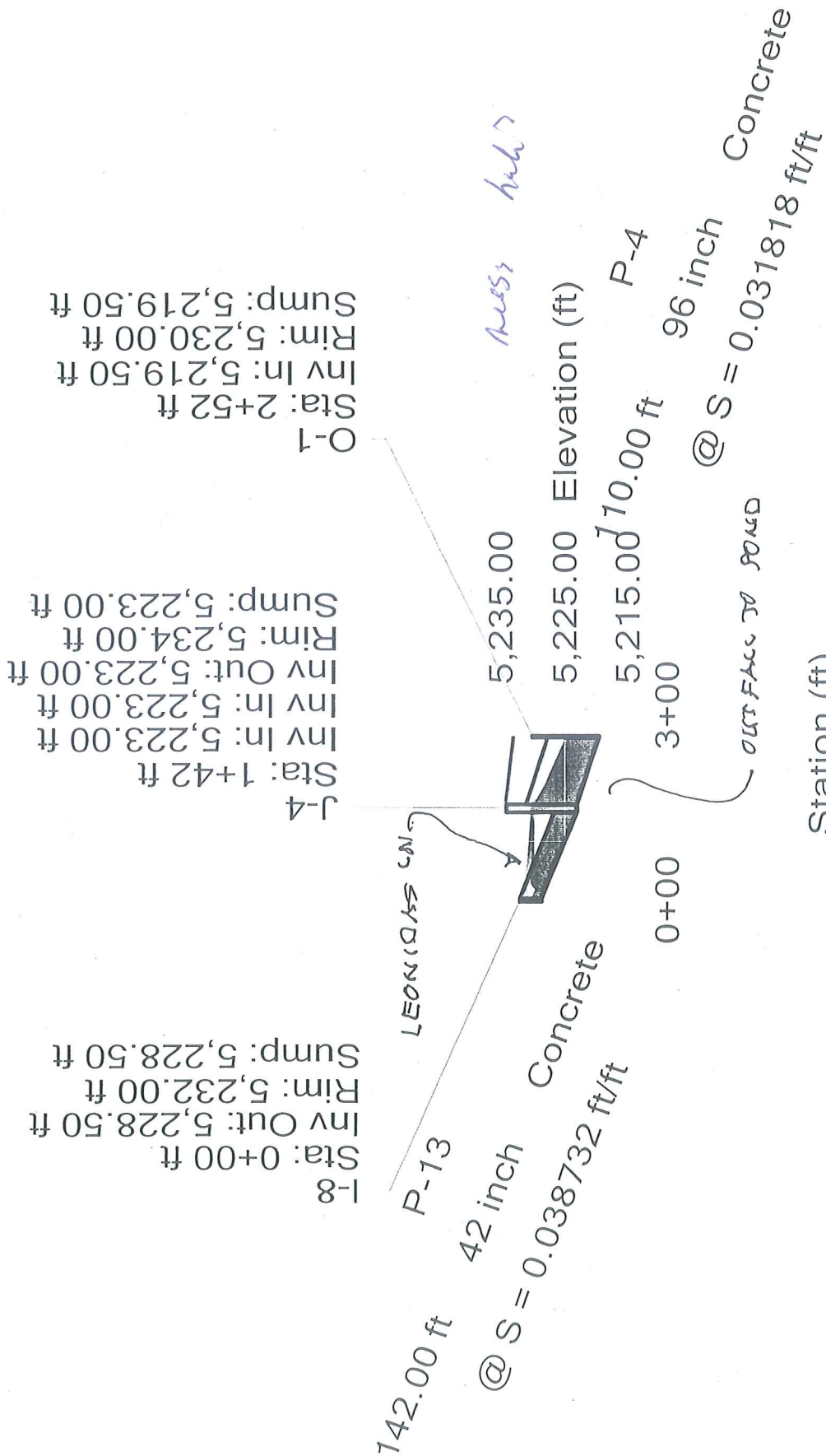
Profile
Scenario: Base



Profile
Scenario: Base

Profile: Profile - 4

Scenario: Base



Profile
Scenario: Base

Profile: Profile - 5

Scenario: Base

I-6
Sta: 0+00 ft
Inv Out: 5,289.50 ft
Rim: 5,296.00 ft
Sump: 5,289.50 ft

106th STREET

P-9

993.00 ft 54 inch Concrete

@ S = 0.005000 ft/ft

AVACAN

AVACAN

J-2
Sta: 9+93 ft
Inv In: 5,284.54 ft
Inv In: 5,284.54 ft
Inv In: 5,284.54 ft
Inv Out: 5,284.54 ft
Rim: 5,298.00 ft
Sump: 5,284.54 ft

5,300.00

5,290.00 Elevation (ft)

5,280.00

0+00 2+00 4+00 6+00 8+00 10+00

Station (ft)

Profile
Scenario: Base

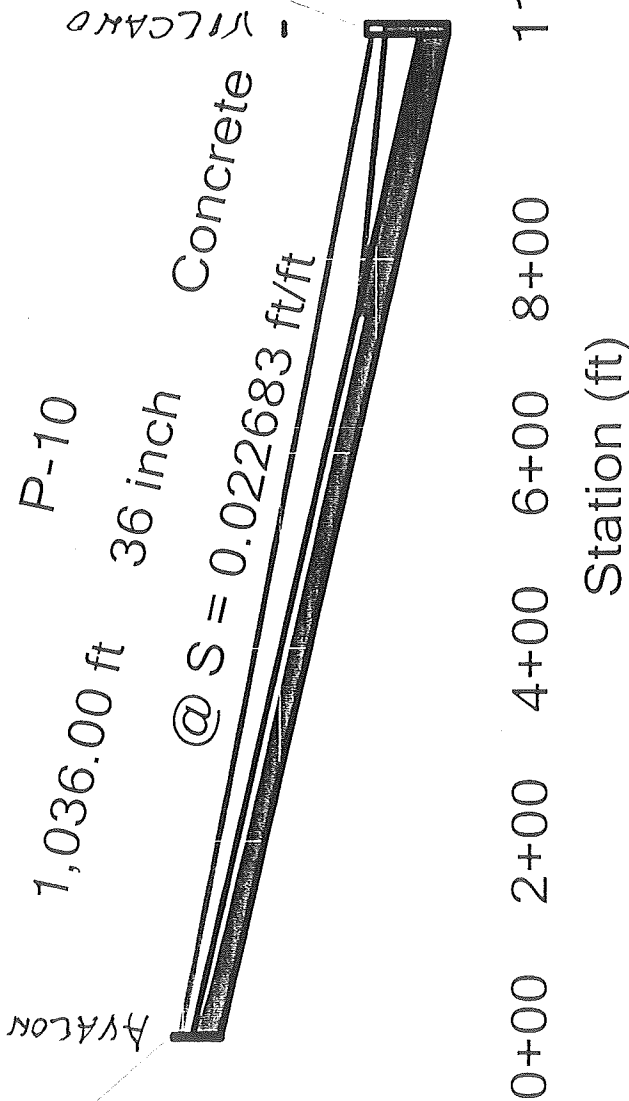
Profile: Profile - 6

Scenario: Base

I-7
Sta: 0+00 ft
Inv Out: 5,261.00 ft
Rim: 5,266.00 ft
Sump: 5,261.00 ft

J-3
Sta: 10+36 ft
Inv In: 5,237.50 ft
Inv In: 5,237.50 ft
Inv In: 5,237.50 ft
Inv Out: 5,237.50 ft
Rim: 5,246.00 ft
Sump: 5,237.50 ft

102nd STREET



5,270.00
5,265.00
5,255.00
5,245.00
5,235.00

Elevation (ft)

Scenario: Base

Combined Pipe\Node Report

Label	Up. Node	Dn. Node	L (ft)	Size	Q Full (cfs)	Avg. v (ft/s)	Up. Invert (ft)	Dn. Invert (ft)	S (ft/ft)
P-4	J-4	O-1	110.00	96 inch	1,626.84	31.92	5,223.00	5,219.50	.031818
P-1	J-1	J-2	1,116.00	60 inch	397.24	23.02	5,310.50	5,284.54	.023266
P-2	J-2	J-3	1,099.00	66 inch	694.67	32.80	5,284.54	5,237.50	.042798
P-5	I-5	J-1	170.00	60 inch	410.56	22.67	5,313.00	5,310.50	.014706
P-6	I-2	J-2	115.00	48 inch	475.74	29.48	5,292.00	5,284.54	.064913
P-7	I-3	J-3	149.00	48 inch	186.05	6.50	5,240.00	5,237.50	.016779
P-8	I-4	J-1	647.00	48 inch	132.43	11.25	5,316.00	5,310.50	.008501
P-9	I-6	J-2	993.00	54 inch	139.04	9.79	5,289.50	5,284.54	.005000
P-10	I-7	J-3	1,036.00	36 inch	100.45	15.23	5,261.00	5,237.50	.022683
P-11	J-3	J-5	434.00	72 inch	746.90	26.07	5,237.50	5,224.00	.031106
P-12	J-5	J-4	145.00	96 inch	757.40	17.17	5,224.00	5,223.00	.006897
P-13	I-8	J-4	142.00	42 inch	197.99	15.26	5,228.50	5,223.00	.038732

Scenario: Base

Node Report

Label	Known Flow (cfs)	Total System Flow (cfs)	Ground Elevation (ft)	Rim Elevation (ft)	Hydraulic Grade Line In (ft)	Hydraulic Grade Line Out (ft)	Local Intensity (in/hr)	Local Rational Flow (cfs)
O-1		770.10	5,230.00	5,230.00	5,223.00	5,223.00		
J-4		770.10	5,234.00	5,234.00	5,229.95	5,229.95		
J-5		737.10	5,234.00	5,234.00	5,230.83	5,230.83		
J-1		377.40	5,318.00	5,318.00	5,315.36	5,315.36		
J-2		588.20	5,298.00	5,298.00	5,289.96	5,289.96		
J-3		737.10	5,246.00	5,246.00	5,243.98	5,243.98		
I-5	290.30	290.30	5,320.00	5,320.00	5,317.63	5,317.63	0.00	0.00
I-2	94.30	94.30	5,298.00	5,298.00	5,294.94	5,294.94	0.00	0.00
I-3	81.70	81.70	5,246.00	5,246.00	5,244.46	5,244.46	0.00	0.00
I-4	87.10	87.10	5,322.00	5,322.00	5,318.83	5,318.83	0.00	0.00
I-6	116.50	116.50	5,296.00	5,296.00	5,293.02	5,293.02	0.00	0.00
I-7	67.20	67.20	5,266.00	5,266.00	5,263.62	5,263.62	0.00	0.00
I-8	33.00	33.00	5,232.00	5,232.00	5,230.28	5,230.28	0.00	0.00

Scenario: Base

Pipe Report

Label	Upstream Node	Downstream Node	Total System Flow (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section Size	Mannings n	Full Capacity (cfs)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Upstream Ground Elevation (ft)	Downstream Ground Elevation (ft)	Upstream Cover (ft)	Downstream Cover (ft)	Hydraulic Grade Line In (ft)	Hydraulic Grade Line Out (ft)	Description	Velocity In (ft/s)
P-4	J-4	O-1	770.10	110.00	0.031818	96 inch	0.013	1,626.84	5,223.00	5,219.50	5,234.00	5,230.00	3.00	2.50	5,229.95	5,224.47		16.61
P-1	J-1	J-2	377.40	1,116.00	0.023266	60 inch	0.013	397.24	5,310.50	5,284.54	5,318.00	5,298.00	2.50	8.47	5,315.36	5,289.96		19.38
P-2	J-2	J-3	588.20	1,099.00	0.042798	66 inch	0.013	694.67	5,284.54	5,237.50	5,298.00	5,246.00	7.97	3.00	5,289.96	5,243.98		24.82
P-5	I-5	J-1	290.30	170.00	0.014706	60 inch	0.010	410.56	5,313.00	5,310.50	5,320.00	5,318.00	2.00	2.50	5,317.63	5,315.36		15.29
P-6	I-2	J-2	94.30	115.00	0.064913	48 inch	0.010	475.74	5,292.00	5,284.54	5,298.00	5,298.00	2.00	9.47	5,294.94	5,289.96		9.51
P-7	I-3	J-3	81.70	149.00	0.016779	48 inch	0.013	186.05	5,240.00	5,237.50	5,246.00	5,246.00	2.00	4.50	5,244.46	5,243.98		6.50
P-8	I-4	J-1	87.10	647.00	0.008501	48 inch	0.013	132.43	5,316.00	5,310.50	5,322.00	5,318.00	2.00	3.50	5,318.83	5,315.36		9.17
P-9	I-6	J-2	116.50	993.00	0.005000	54 inch	0.013	139.04	5,289.50	5,284.54	5,296.00	5,298.00	2.00	8.97	5,293.02	5,289.96		8.73
P-10	I-7	J-3	67.20	1,036.00	0.022683	36 inch	0.013	100.45	5,261.00	5,237.50	5,266.00	5,246.00	2.00	5.50	5,263.62	5,243.98		10.27
P-11	J-3	J-5	737.10	434.00	0.031106	72 inch	0.013	746.90	5,237.50	5,224.00	5,246.00	5,234.00	2.50	4.00	5,243.98	5,230.83		26.07
P-12	J-5	J-4	737.10	145.00	0.006897	96 inch	0.013	757.40	5,224.00	5,223.00	5,234.00	5,234.00	2.00	3.00	5,230.83	5,229.95		16.13
P-13	I-8	J-4	33.00	142.00	0.038732	42 inch	0.013	197.99	5,228.50	5,223.00	5,232.00	5,234.00	0.00	7.50	5,230.28	5,229.95		6.72

P-14

APPENDIX D

*Amole del Norte Diversion Facilities
Tierra Bayita Drainage Facilities
Greiner Engineering 1995*



PARADISE RV PARK
BASIN COMPARISON
SCALE 1":800'

LEGEND
— THIS REPORT
— GREINER 1995

Greiner June 1995

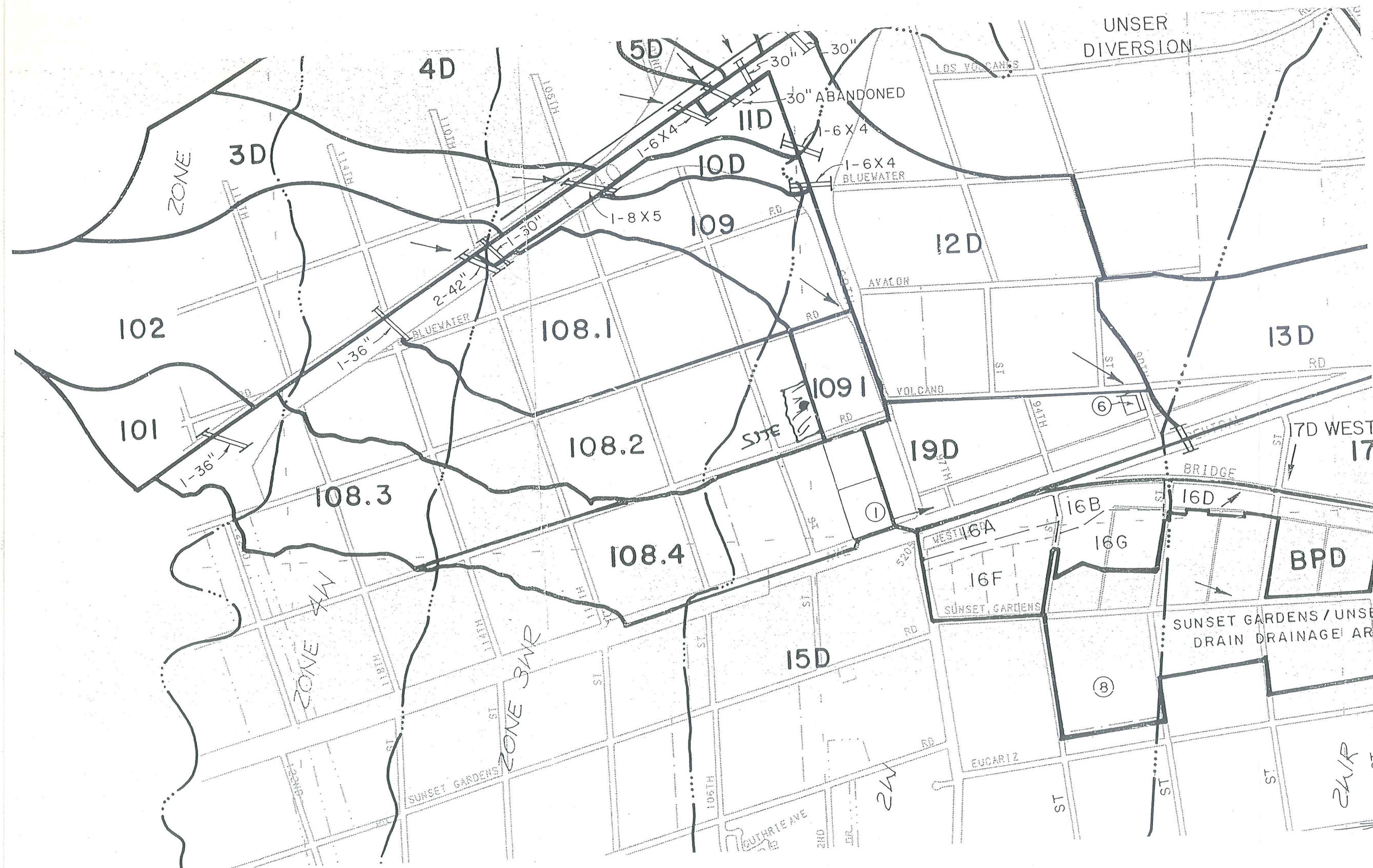
Tables showing undeveloped and developed contributing basins and their characteristics are shown below.

ULTIMATE DEVELOPMENT BASIN INFORMATION						
Basin	Area (Sq. Mi.)	Time of Concentration (hours)	Ultimate Land Treatment			
			A	B	C	D
(percent)						
101	0.0260	0.20	0	100*	0	0
102	0.2810	0.30	15	30*	24	31
108.1	0.1713	0.20	0	17	13	70
108.2	0.1710	0.24	0	18	19	63
108.3	0.1478	0.26	0	21	22	57
108.4	0.1426	0.20	0	15	15	70
109	0.0720	0.21	0	5	13	82
109.1	0.0495	0.20	0	3	12	85**

* Undeveloped land with slopes steeper than 10%.

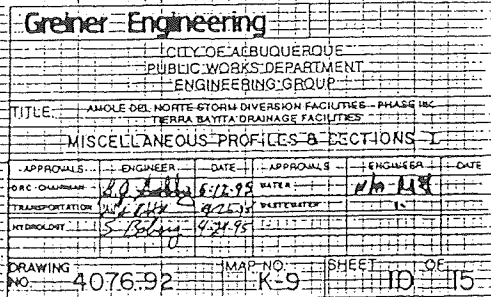
** Land treatments based on preliminary construction plans.

EXISTING BASIN INFORMATION						
Basin	Area (Sq. Mi.)	Time of Concentration (hours)	Existing Land Treatment			
			A	B	C	D
(percent)						
101	0.0260	0.20	0	100*	0	0
102	0.2810	0.30	15	30*	24	31
108.1	0.1467	0.20	98	0	0	2
108.2	0.1631	0.20	98	0	0	2
108.3	0.1942	0.32	75	0	15	10
108.4	0.0644	0.20	55	0	30	15
109	0.1803	0.29	95	0	0	5



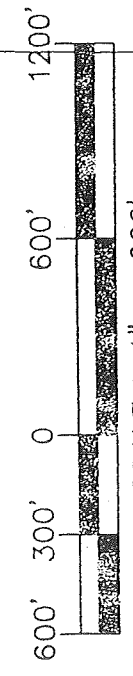
651,479 A2
15AL

NO	DATE	BY	DATE
ORIGINAL SURVEY	REVIEWED	BY	DATE
PLANNED	REVIEWED	BY	DATE
REPLACEMENT	REVIEWED	BY	DATE
REPAIRS	REVIEWED	BY	DATE
REPAIRS CHECKED	REVIEWED	BY	DATE



APPENDIX E

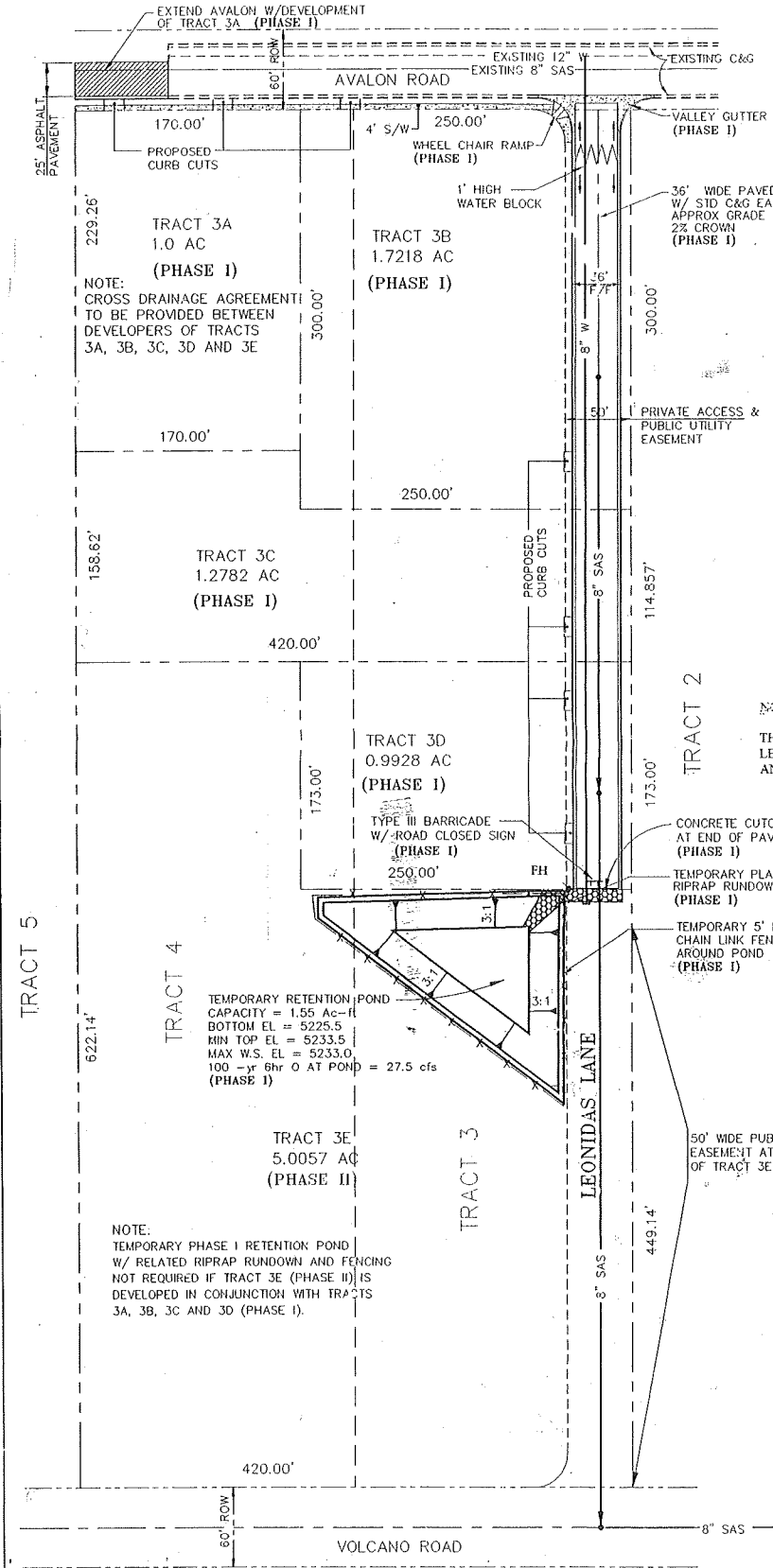
Amole Hubbell Drainage Management Plan
Amole Channel Drainage Basin Map



SCALE: 1" = 600'

APPENDIX F

*Ray Macy Developement Plan
1998*



- SITE PLAN NOTES:**
- PROPOSED USES**
TRACT 3A-RESTAURANT OR SERVICE STATION AND CONVENIENCE STORE OR OTHER ACCEPTABLE C-2 USE.
TRACT 3B-MOTEL OR OTHER ACCEPTABLE C-2 USE.
TRACT 3C-TRUCK WASH, CAR WASH OR OTHER ACCEPTABLE C-2 USE.
TRACT 3E-RV CAMPGROUND OR OTHER ACCEPTABLE C-2 USE.
 - ACCESS**
VEHICULAR INGRESS AND EGRESS TO TRACTS 3A, 3B, 3C AND 3D FROM EITHER AVOLON OR THE PRIVATE ACCESS EASEMENT VIA AVOLON AT LOCATION SHOWN. CROSS ACCESS EASEMENTS WILL BE GRANTED BETWEEN TRACTS 3A, 3B, 3C AND 3D WHEN SUBDIVIDED. ACCESS TO TRACT 3E WILL BE FROM THE 50' PRIVATE ACCESS EASEMENT AT THE EAST SIDE OF THE PROPERTY. VEHICULAR ACCESS TO THE TRACT 3E PRIVATE ACCESS EASEMENT WILL BE FROM EITHER AVOLON RD. OR VOLCANO RD.
 - PEDESTRIAN INGRESS AND EGRESS** SHALL BE PROVIDED IN THE SITE PLAN FOR BUILDING PERMIT WITH EACH LOT TO MINIMIZE CONFLICT WITH VEHICULAR TRAFFIC.
 - MAXIMUM BUILDING HEIGHT** BUILDINGS WILL NOT EXCEED 26' IN HEIGHT EXCEPT IN ACCORDANCE WITH SECTION 14-16-2-15(C) OF THE ZONING CODE.
 - MINIMUM BUILDING SETBACK** THERE SHALL BE A FRONT AND A CORNER SIDE YARD SETBACK OF NOT LESS THAN FIVE FEET AND A SETBACK OF 11 FEET FROM THE JUNCTION OF A DRIVEWAY OR ALLEY AND A PUBLIC SIDEWALK OR PLANNED PUBLIC SIDEWALK LOCATION.
 - MAXIMUM TOTAL DWELLING UNITS**
TRACT 3A NOT APPLICABLE
TRACT 3B NOT APPLICABLE
TRACT 3C NOT APPLICABLE
TRACT 3D NOT APPLICABLE
TRACT 3E NOT APPLICABLE
 - MAXIMUM FLOOR AREA RATIO**
EXACT FLOOR AREA RATIOS WILL BE DETERMINED WITH THE SITE PLAN FOR BUILDING PERMIT FOR EACH TRACT. THE FOLLOWING FLOOR AREA RATIOS ARE CONSIDERED REPRESENTATIVE:
TRACT 3A: 0.20
TRACT 3B: 0.45
TRACT 3C: 0.60
TRACT 3D: 0.15
TRACT 3E: 0.10 (EXCLUDES RV UNITS)

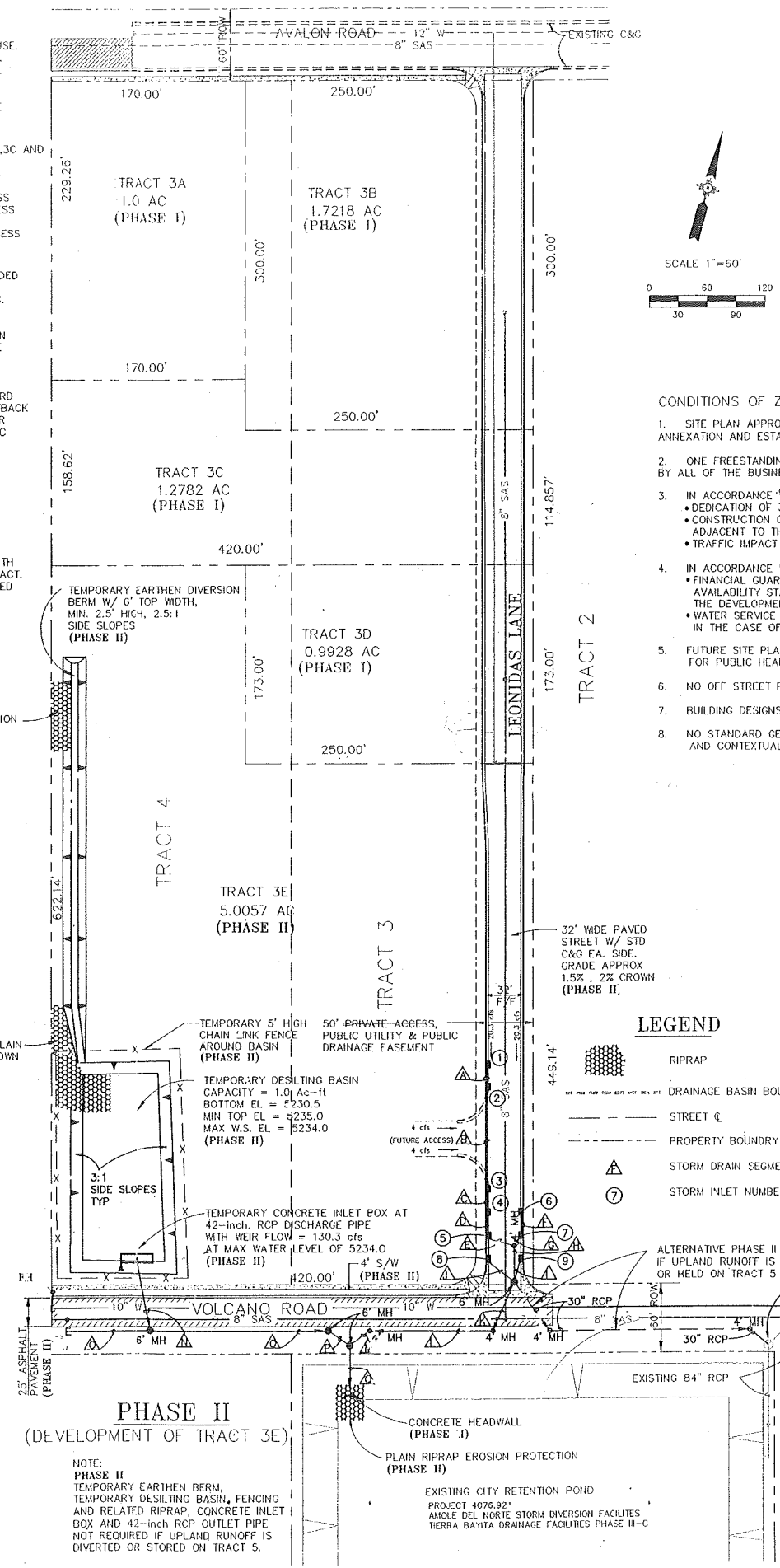
NOTE:
THE 50' PUBLIC UTILITY EASEMENT COINCIDENT WITH LEONIDAS LANE SHALL BE SHOWN AS A 50' PUBLIC WATER AND PUBLIC SEWER EASEMENT ON THE FINAL PLAT

PIPE SEGMENT	DIA	Q (cfs)
A	18	7.3
B	21	14.9
C	24	22.5
D	24	29.0
E	27	33.4
F	18	9.9
G	18	9.9
H	30	43.3
I	18	2.5
J	18	2.5
K	30	48.3
L	33	48.3
M	30	48.3
N	42	130.3
O	66	350
P	66	350
Q	66	350

INLET NO.	TYPE
1	A
2	2-C
3	2-C
4	2-C
5	2-C
6	A
7	2-C
8	2-C
9	2-C

PHASE II STORM DRAINS AND INLETS

EXTEND SEWER AND TIE TO EXISTING SEWER 1.98 TH STREET



LEGEND

- RIPPAP
- DRAINAGE BASIN BOUNDARY
- STREET C
- PROPERTY BOUNDARY
- STORM DRAIN SEGMENT I.D.
- STORM INLET NUMBER I.D.

Development Review Board Member Approval

Michael Don
Transportation Development
Date: 5-12-98

Roger A. Green
Utility Development
Date: 5-12-98

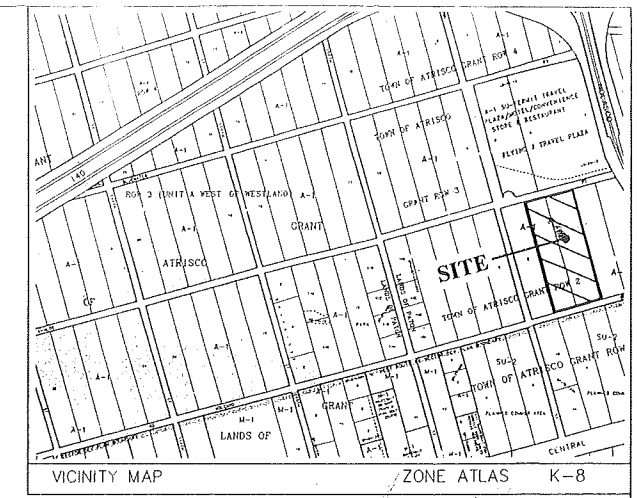
Edward A. Haring
Parks & General Services
Date: 5-12-98

Paul J. Hagan
City Engineer/AM/CA
Date: 9-29-98

Kim L. Dini
DRB Chairman
Date: 9/29/98

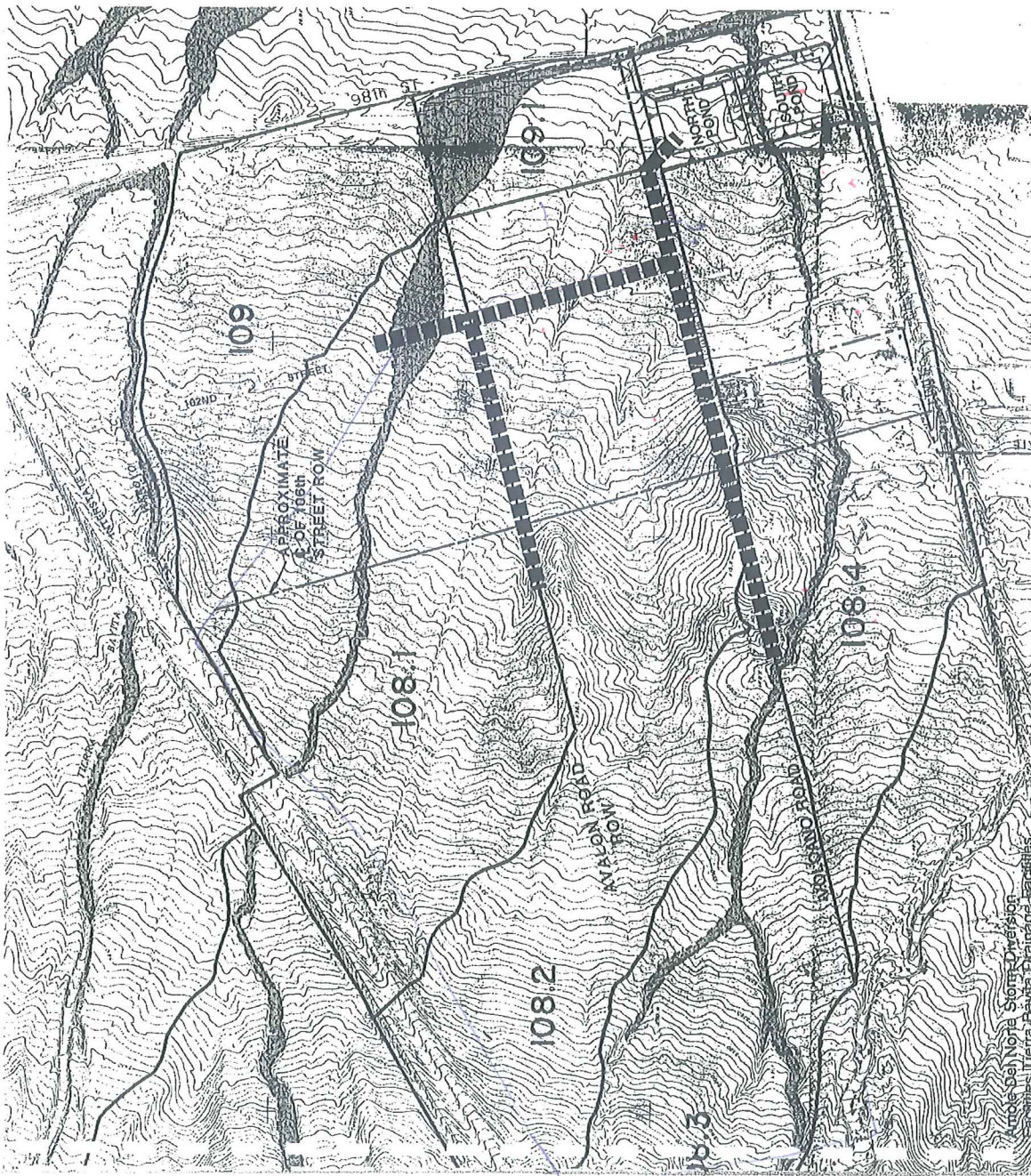


**SITE PLAN FOR SUBDIVISION
PHASED DEVELOPMENT (PHASES I & II)
SU-1 FOR C-2 USES AND CAMPGROUND
TRACTS 3A, 3B, 3C, 3D AND 3E, ROW 2, UNIT A,
WEST OF WESTLAND
TOWN OF ATRISCO GRANT**



CONDITIONS OF Z-97-83/AX-97-5

- SITE PLAN APPROVAL IS CONTINGENT UPON CITY COUNCIL APPROVAL OF THE COMPANION REQUEST FOR ANNEXATION AND ESTABLISHMENT OF SU-1 ZONING FOR C-2 USES AND A CAMPGROUND.
- ONE FREESTANDING SIGN THAT IS LIMITED TO 26 FEET IN HEIGHT AND 75 FEET IN SIGN AREA TO BE SHARED BY ALL OF THE BUSINESSES ON THE SITE IS ALLOWED.
- IN ACCORDANCE WITH COMMENTS OF THE PUBLIC WORKS DEPARTMENT TRANSPORTATION DEVELOPMENT OFFICE:
• DEDICATION OF 30 FEET OF RIGHT-OF-WAY FROM THE EXISTING CENTERLINE ON VOLCANO AND AVOLON ROADS
• CONSTRUCTION OF 25 FEET OF PAVEMENT, STANDARD CURB AND GUTTER, AND A 4' SIDEWALK, TO BE PLACED ADJACENT TO THE PROPERTY LINE, FOR VOLCANO AND AVOLON ROADS
• TRAFFIC IMPACT STUDY WITH THE APPLICATION FOR ANY SITE PLAN FOR BUILDING PERMIT REQUESTS.
- IN ACCORDANCE WITH COMMENTS OF THE PUBLIC WORKS DEPARTMENT UTILITY DEVELOPMENT OFFICE:
• FINANCIAL GUARANTEES ARE REQUIRED FOR PUBLIC INFRASTRUCTURE IDENTIFIED IN THE WATER AND SEWER AVAILABILITY STATEMENT OF APRIL 28, 1997 AS A CONDITION OF SITE PLAN AND/OR PLAT APPROVAL BY THE DEVELOPMENT REVIEW BOARD.
• WATER SERVICE SHALL BE LIMITED TO STRUCTURES WITH FINISH FLOOR ELEVATIONS BELOW 5255' MSL. IN THE CASE OF MULTI-STORY BUILDINGS, THE HIGHEST FLOOR MUST BE BELOW 5255' MSL.
- FUTURE SITE PLANS FOR BUILDING PERMITS SHALL BE DELEGATED TO THE DEVELOPMENT REVIEW BOARD FOR PUBLIC HEARING.
- NO OFF STREET PREMISE SIGNS SHALL BE PERMITTED.
- BUILDING DESIGNS AND MATERIALS SHALL BE ARCHITECTURALLY COORDINATE.
- NO STANDARD GENERIC FRANCHISE DESIGN BUILDINGS SHALL BE PERMITTED. DESIGN SHALL BE INNOVATED AND CONTEXTUAL TO SOUTHWESTERN ARCHITECTURE PER THE WESTSIDE STRATEGIC PLAN.



NORTH

SCALE: 1" 500'

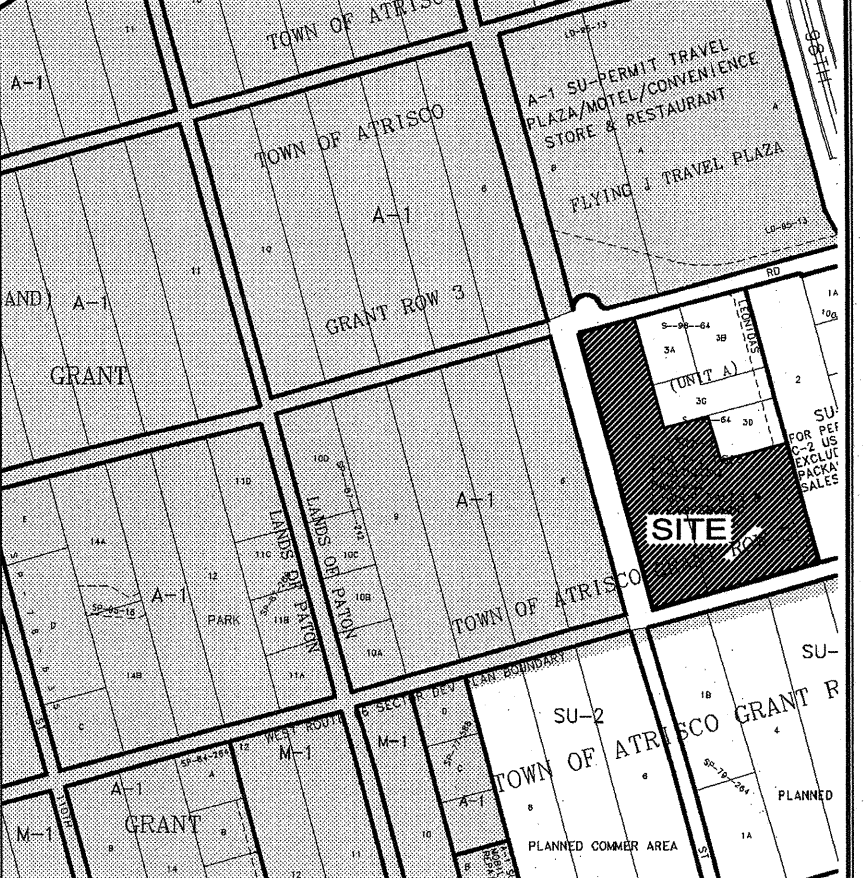
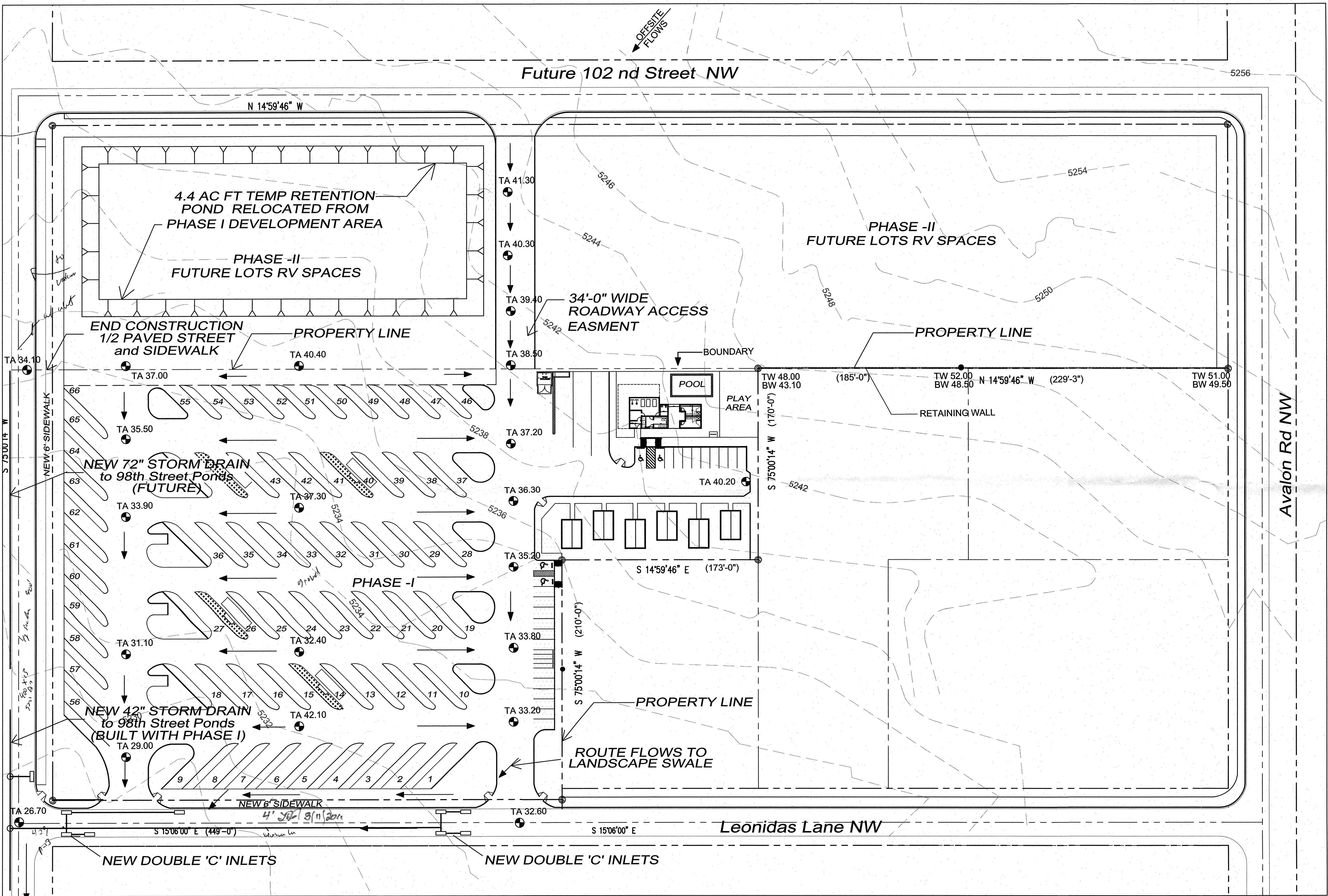
LEGEND

- BASIN BOUNDARY (ULTIMATE)
- 109 BASIN IDENTIFICATION
- ▬ FUTURE STORM DRAIN TRUNK LINES-ASSUMED FOR DESIGN (DESIGNED FOR Q100)

FUTURE STORM DRAIN LAYOUT

EXHIBIT 2

Green 1995



VICINITY MAP ZONE ATLAS K-8

- KEYED NOTES**
- LEGEND**
- PROPERTY LINE
 - TW - TOP OF WALL
 - BW - BOTTOM OF WALL
 - PROPOSED DIRECTION OF FLOW
 - SPOT ELEVATION (5245)
 - EXISTING CONTOUR LINE
 - RETAINING WALL
 - PROPOSED CURB + GUTTER



CONCEPTUAL GRADING PLAN

Afra Construction & Design
2501 Yale Blvd, Suite 102
Albuquerque, New Mexico 87106
Tel: 505.242.1745
Fax: 505.242.1737

Paradise RV Park
Avalon Rd/ Leonidas Ln, NW
Albuquerque, NM 87120

REV	DATE	DESCRIPTION	APVD
1			
2			
3			
4			

C-01

05.05.2011

CONCEPTUAL GRADING PLAN

SCALE: 1"=40'-0"

GRAPHIC SCALE

0' 10' 20' 40'

N

RECEIVED
AUG 13 2011
HYDROLOGY
SECTION