

NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

Location

Tract 338-B, M.R.G.C.D Map 35 contains +/- 1.3844 acre and is located at 1000 Rio Grande Boulevard. See attached portion of the Vicinity Map for exact location.

Purpose

The purpose of this drainage report is to present a grading and drainage solution to replace existing improvements with this new building.

Existing Drainage Conditions

The site was an existing service station. The portion to the east is undeveloped. Portion of the site fall with a Flood Plain Zone AH, Firm Map No. 35001C0331H (elevation 4961). The existing grades are more than 1' above Flood Plain Elevation. No offsite runoff enters the site.

Proposed Conditions and On-Site Drainage Management Plan

The finished floor of the building are going to be 2' above the flood plain elevation. The site drain to a series of inlets and then will overflow through a curb opening at the entrance from Rio Grande Boulevard. Ponds A and B will overflow to Pond C. Pond C, D and E are connected via 6" SD pipe and will function as one big pond. The total pond volume provided is 5,996.77 CF and ponding volume required is 2,512.76 CF.

Calculations

City of Albuquerque, Development Process Manual, Section 22.2, Hydrology Section, was used for runoff calculations. See this plan for AHYMO input and Summary output files.

* ZONE 2

* 100-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS) *

START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=2.01 IN RAIN SIX=2.35 IN
RAIN DAY=2.75 IN DT=0.03333 HR
* ON-SITE
COMPUTE NM HYD ID=1 HYD NO=100.0 AREA=0.002163 SQ MI
PER A=20.00 PER B=20.00 PER C=20.00 PER D=40.00
TP=0.1333 HR MASS RAINFALL=-1

* 10-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS) *

START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=1.34 IN RAIN SIX=1.57 IN
RAIN DAY=1.83 IN DT=0.03333 HR
* ON-SITE
COMPUTE NM HYD ID=1 HYD NO=110.0 AREA=0.002163 SQ MI
PER A=20.00 PER B=20.00 PER C=20.00 PER D=40.00
TP=0.1333 HR MASS RAINFALL=-1

* 100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=2.01 IN RAIN SIX=2.35 IN
RAIN DAY=2.75 IN DT=0.03333 HR
* ON-SITE
COMPUTE NM HYD ID=1 HYD NO=100.1 AREA=0.002163 SQ MI
PER A=0.00 PER B=10.00 PER C=10.00 PER D=80.00
TP=0.1333 HR MASS RAINFALL=-1

* 10-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=1.34 IN RAIN SIX=1.57 IN
RAIN DAY=1.83 IN DT=0.03333 HR
* ON-SITE
COMPUTE NM HYD ID=1 HYD NO=110.1 AREA=0.002163 SQ MI
PER A=0.00 PER B=10.00 PER C=10.00 PER D=80.00
TP=0.1333 HR MASS RAINFALL=-1

FINISH

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) -
INPUT FILE = RIO.TXT

- VERSION: 1997.02d

RUN DATE (MON/DAY/YR) =03/26/2015
USER NO.= AHYMO-I-9702c01000R31-AH

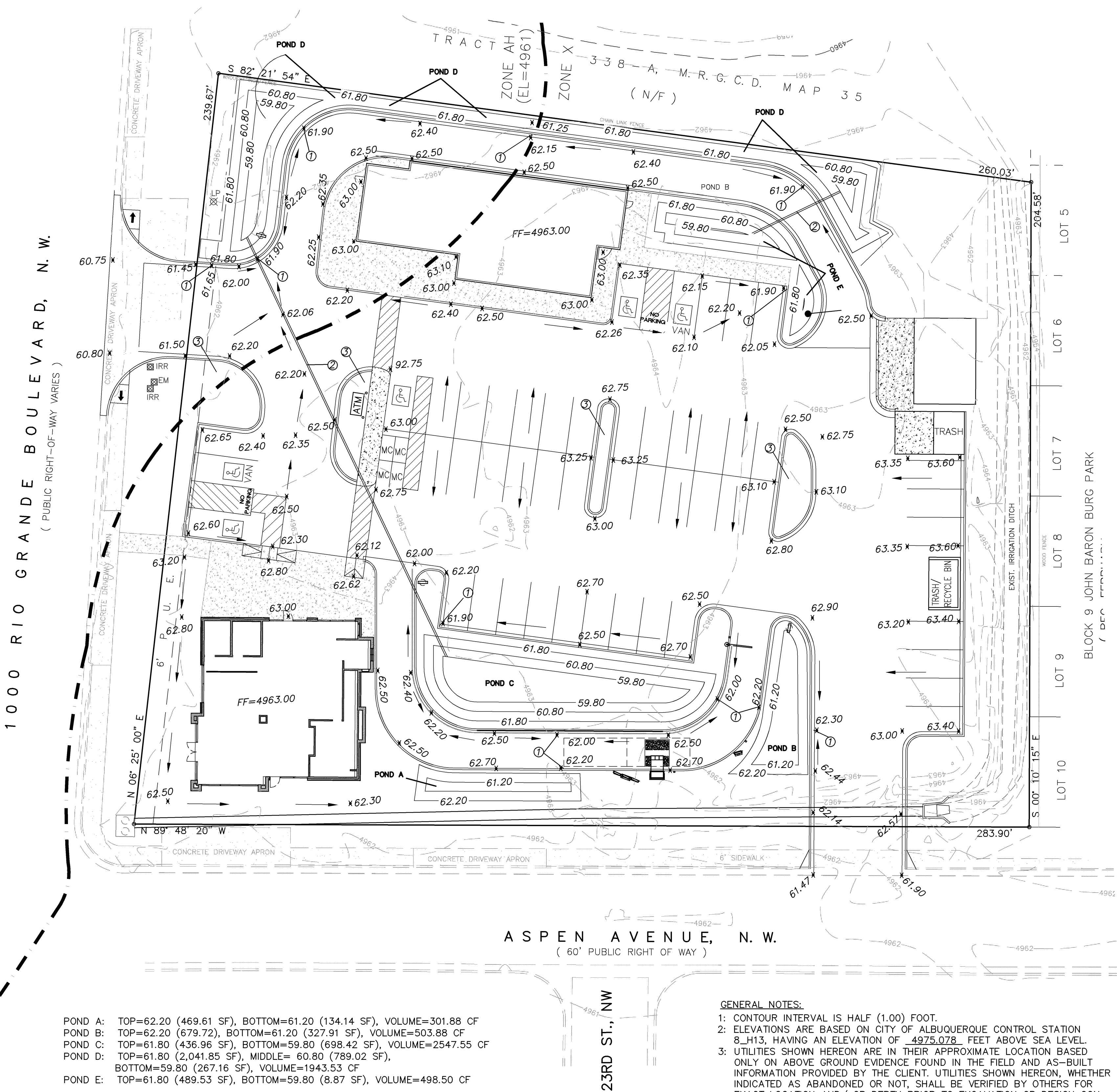
COMMAND	HYDROGRAPH IDENTIFICATION	FROM NO.	TO NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
START	RAINFALL TYPE= 1									TIME= .00
COMPUTE NM HYD		100.00	-	1	.00216	4.50	.151	1.31307	1.500	3.249 PER IMP= 2.350
START	RAINFALL TYPE= 1									TIME= .00
COMPUTE NM HYD		110.00	-	1	.00216	2.48	.081	.70203	1.500	1.790 PER IMP= 1.570
START	RAINFALL TYPE= 1									TIME= .00
COMPUTE NM HYD		100.10	-	1	.00216	5.97	.217	1.87962	1.500	4.311 PER IMP= 2.350
START	RAINFALL TYPE= 1									TIME= .00
COMPUTE NM HYD		110.10	-	1	.00216	3.80	.132	1.14633	1.500	2.748 PER IMP= 1.570
FINISH										80.00

POND CALCULATION A

BOTTOM AREA = 134.14 SF, TOP AREA = 469.61 SF, DEPTH = 1.0'
VOLUME PROVIDED = (134.14 + 469.61)/2 X 1 = 301.88 CF

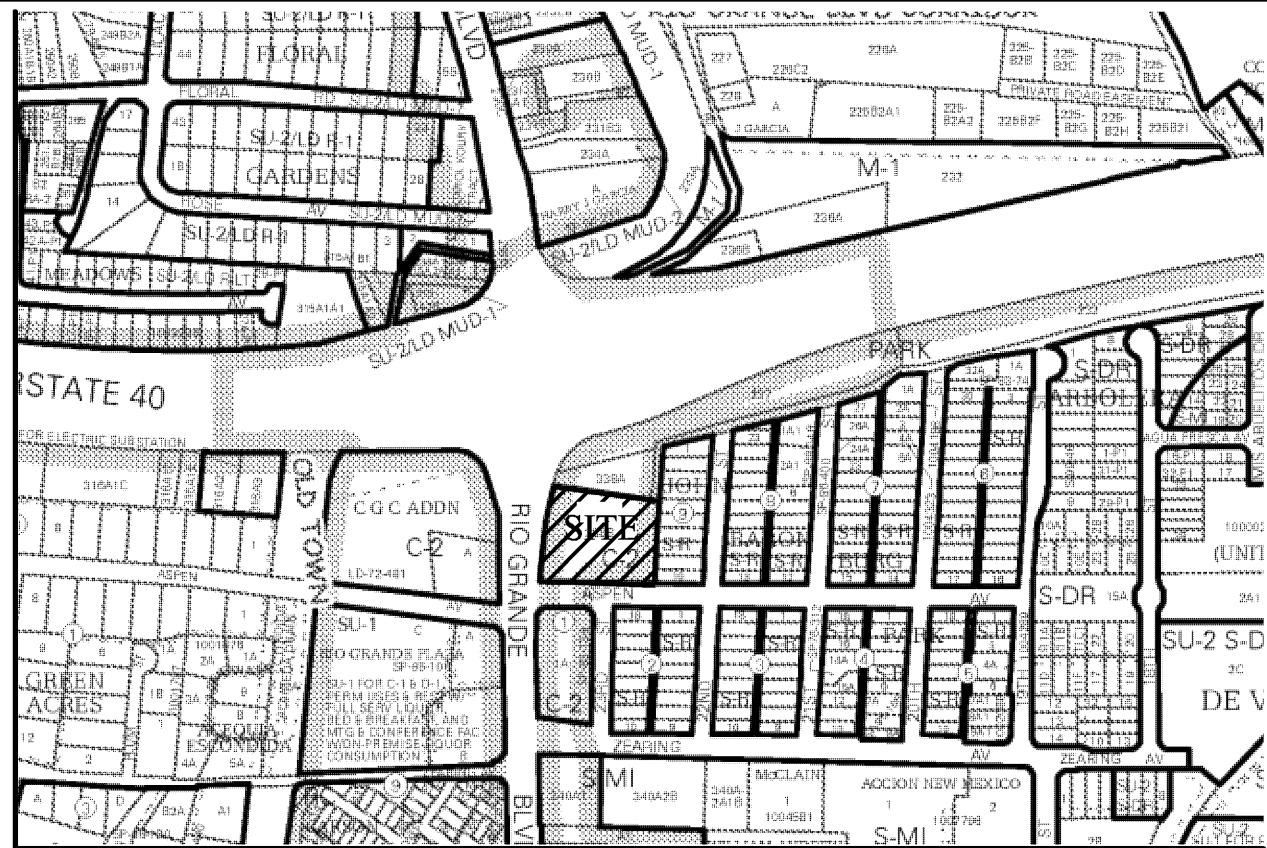
POND CALCULATION

TOTAL POND AREA PROVIDED = POND A + B + C + D + E = 5,996.77 CF
TOTAL PONDING VOLUME REQUIRED = VOL. PROPOSED CONDITIONS - VOL. EXISTING CONDITIONS
= 0.053 - 0.023 = 0.03 AC-FT = 1,306.80 CF
TOTAL PONDING VOLUME REQUIRED (VALLEY)= 0.5 INCHES x AREA = (0.5/12 x 60,306.32) = 2,512.76 CF
TOTAL PONDING VOLUME REQUIRED (90TH PERCENTILE/FIRST FLUSH) = 0.34 INCHES x IMPERVIOUS AREA = (0.34/12 x 48,245.06) = 1,366.94 CF



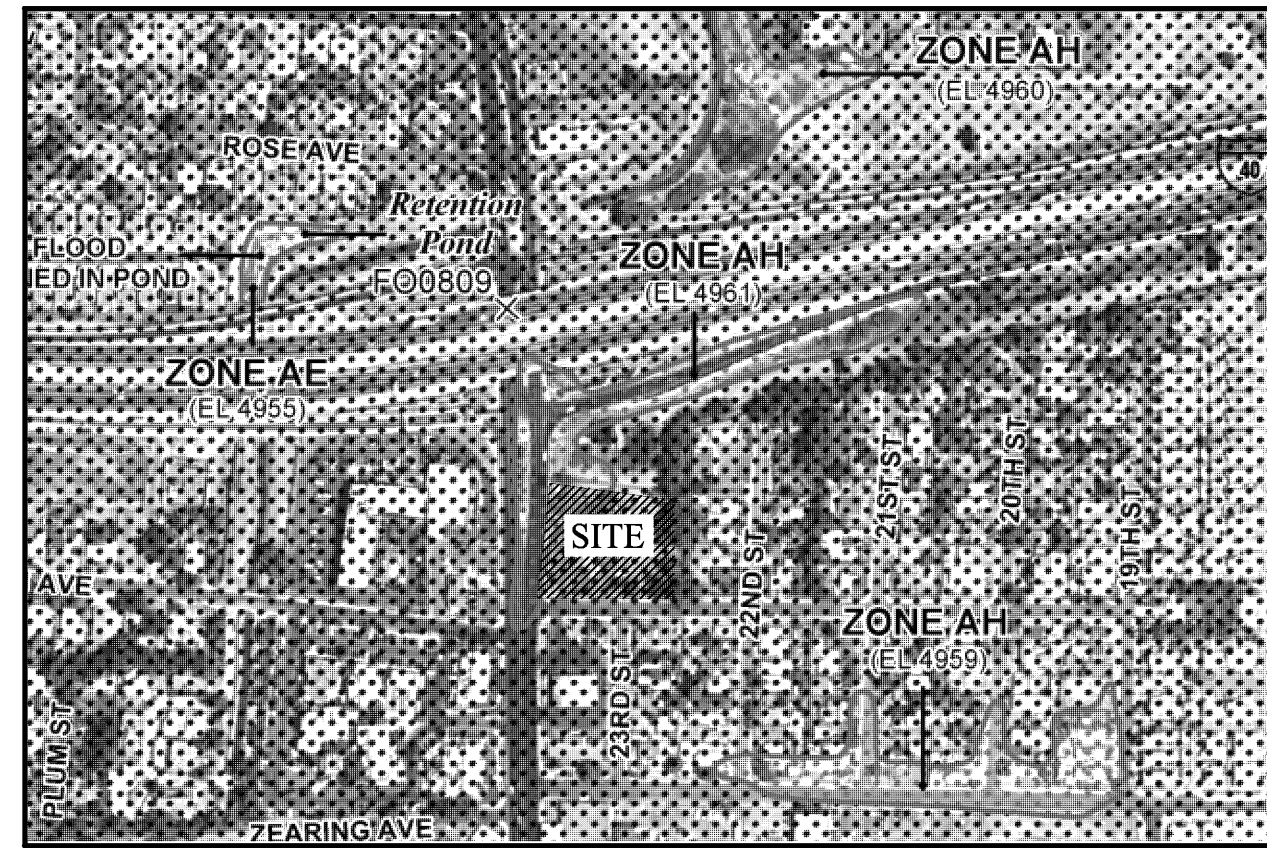
GENERAL NOTES:

1. CONTOUR INTERVAL IS HALF (1.00) FOOT.
2. ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE CONTROL STATION 8+113, HAVING AN ELEVATION OF 4975.078 FEET ABOVE SEA LEVEL.
3. UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/ OR DEPTH PRIOR TO EXCAVATION OR DESIGN CONSIDERATIONS.
4. THIS IS NOT A BOUNDARY SURVEY, BEARINGS ARE ASSUMED, DISTANCES AND FOUND PROPERTY CORNERS ARE FOR INFORMATIONAL PURPOSES ONLY.
5. SLOPES ARE AT 3:1 MAXIMUM.



VICINITY MAP:

H-13-Z



FIRM MAP:

35001C0331H

LEGAL DESCRIPTION:

TRACT 338-B, M.R.G.C.D MAP 35
CONTAINING 60,306.32 S.F. (1.3844 ACRE)
ZONING: C-2

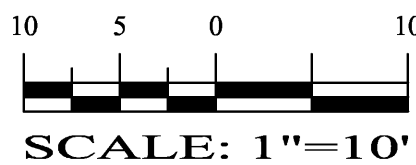
NOTES:

1. PROVIDE 6" CURB OPENING
2. 6" STORM DRAIN PIPE, CONNNECT TWO PONDS
3. DEPRESSED LANDSCAPING AREA, MINIMUM 6" DEEP.

LEGEND

- 5100 — EXISTING CONTOUR (MAJOR)
- 5102 — EXISTING CONTOUR (MINOR)
- BOUNDARY LINE
- ✱ 85.46 PROPOSED SPOT ELEVATION

GRAPHIC SCALE



SCALE: 1"=10'



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GRADING AND DRAINAGE PLAN

DRAWING:	DRAWN BY:	DATE:	SHEET #
201309-GD.DWG	SH-B	10-25-2014	2