PONDING VOLUME REQUIREMENTS (90TH PERCENTILE/FIRST FLUSH)

VOLUME REQUIRED = 0.34 INCHES x IMPERVIOUS AREA =
(0.34/12 x 47,094.52) = 1,334.34 CF

PONDING VOLUME CALCULATION

TOTAL POND AREA PROVIDED =
PONDING CALCULATIONS:

POND A:
AREA @ ELEV. 5126 = 1,376.46 SF
AREA @ ELEV. 5124 = 96.56 SF
POND VOLUME=(1,376.46+96.56)/2*2=1,473.02 CF

POND B:
AREA @ ELEV. 5134 = 567.83 SF
AREA @ ELEV. 5124 = 16.35 SF
POND VOLUME=(567.83+16.35)/2*2=584.18 CF

TOTAL PONDING VOLUME PROVIDED =
1,473.02 + 584.18 = 2,057.20 CF

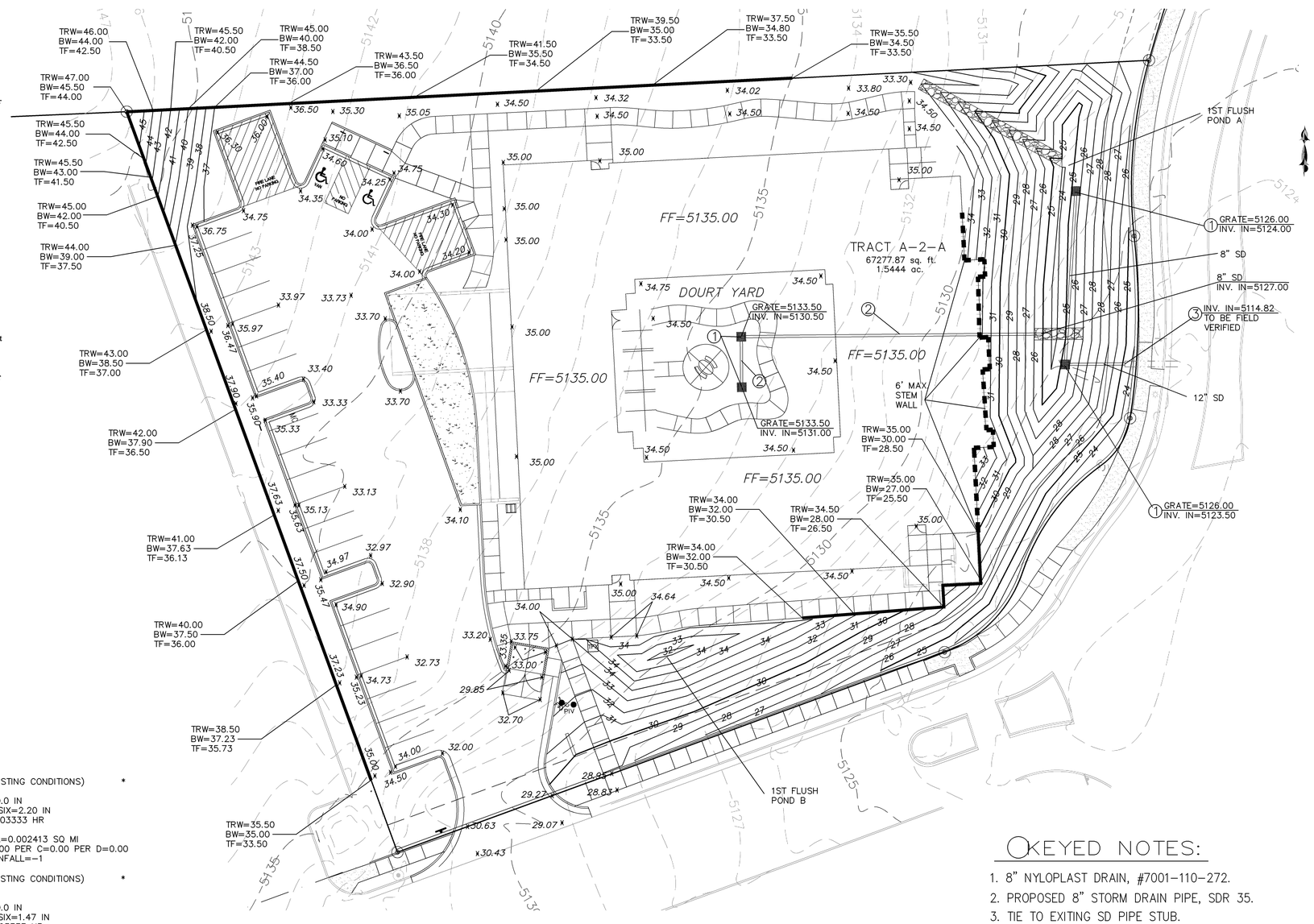
Location
TRACT A-2-A, Fountain Hills Subdivision is located at the northwest corner of Vista Fuente Road and Nunzio Avenue NW containing 1.5444 acre. See attached portion of Vicinity Map C-12-Z for exact location.

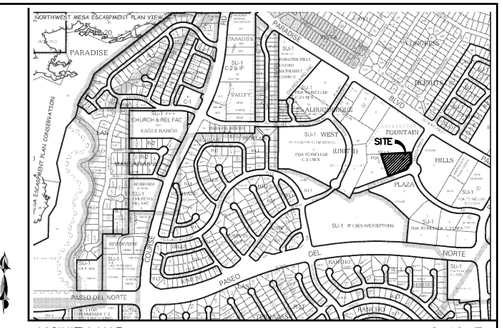
Purpose
The purpose of this drainage report is to present a grading and drainage solution for new building and improvements with this tract of land.

Existing Drainage Conditions
This site falls within Master Drainage Plan for Fountain Hills under the City project number C12-D003B. This project falls within Basin B-1-A. The site currently drain from northwest to southeast side of the site to Vista Fuente Road and Nunzio Avenue NW.

Proposed Conditions and On-Site Drainage Management Plan
We are proposing to pond the 90th Percentile/First Flush requirement (1,334.34 cf). Total retention volume provided (2,057.20 cf) exceeds the ponding requirement for First Flush (1,334.34 cf).

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





VICINITY MAP: C-12-Z

LEGAL DESCRIPTION:
TRACT A-2-A, FOUNTAIN HILLS PLAZA
CONTAINING 1.5444 ACRE
ZONING: SU-1 FOR PDA TO INCLUDE C-3 USES
ADDRESS: 4590 PARADISE BLVD NW

GENERAL NOTES:
1: CONTOUR INTERVAL IS HALF (1.00) FOOT.
2: ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE CONTROL STATION LSS_302, HAVING AN ELEVATION OF 5444.139 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.

LEGEND

5030	EXISTING CONTOUR (MAJOR)
5029	EXISTING CONTOUR (MINOR)
	BOUNDARY LINE
28.50	PROPOSED SPOT ELEVATION
5029.16	EXISTING GRADE
5075.65 FL	EXISTING FLOWLINE ELEVATION
	PROPOSED RETAINING WALL
BC=89.08	BOTTOM OF CHANEL
TC=28.50	TOP OF CURB
TA=28.00	TOP OF ASPHALT
HP	HIGH POINT
86.65 / 85.47	AS-BUILT GRADES
X 86.65	AS-BUILT SPOT ELEVATIONS

```
* ZONE 1
*
*        100-YEAR,  6-HR STORM (UNDER EXISTING CONDITIONS)        *
START              TIME=0.0
RAINFALL            TYPE=1 RAIN QUARTER=0.0 IN
                    RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                    RAIN DAY=2.66 IN DT=0.03333 HR
* ON-SITE
COMPUTE NM HYD     ID=1 HYD NO=101.0 AREA=0.002413 SQ MI
                    PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00
                    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=1.25 IN RAIN SIX=1.47 IN
                    RAIN DAY=1.77 IN DT=0.03333 HR
* ON-SITE
COMPUTE NM HYD     ID=1 HYD NO=111.0 AREA=0.002413 SQ MI
                    PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00
                    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=1.87 IN RAIN SIX=2.20 IN
                    RAIN DAY=2.66 IN DT=0.03333 HR
* ON-SITE
COMPUTE NM HYD     ID=1 HYD NO=103.1 AREA=0.002413 SQ MI
                    PER A=0.00 PER B=15.00 PER C=15.00 PER D=70.00
                    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=1.25 IN RAIN SIX=1.47 IN
                    RAIN DAY=1.77 IN DT=0.03333 HR
* ON-STIE
COMPUTE NM HYD     ID=1 HYD NO=111.1 AREA=0.002413 SQ MI
                    PER A=0.00 PER B=15.00 PER C=15.00 PER D=70.00
                    TP=0.1333 HR MASS RAINFALL=-1
*
FINISH
```

```
AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) -          - VERSION:  1997.02d      RUN DATE (MON/DAY/YR) =12/01/2017
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                                                                                                  PAGE =   1
                   FROM   TO                                                  TIME TO   CFS
                     ID   ID        AREA   PEAK DISCHARGE  RUNOFF VOLUME   RUNOFF  PEAK   PER
COMMAND   HYDROGRAPH IDENTIFICATION NO.  NO.   (SQ MI)   (CFS)   (AC-FT)  (INCHES) (HOURS)  ACRE    NOTATION
START                                                                                          TIME=     .00
RAINFALL  TYPE= 1                                                                              RAIN6=   2.200
COMPUTE NM HYD     101.00  -     1   .00241    2.01    .057    .43925   1.533   1.301 PER IMP=    .00
START                                                                                          TIME=     .00
RAINFALL  TYPE= 1                                                                              RAIN6=   1.470
COMPUTE NM HYD     111.00  -     1   .00241     .38    .011    .08264   1.533    .247 PER IMP=    .00
START                                                                                          TIME=     .00
RAINFALL  TYPE= 1                                                                              RAIN6=   2.200
COMPUTE NM HYD     103.10  -     1   .00241    5.87    .209   1.62054   1.500   3.800 PER IMP=   70.00
START                                                                                          TIME=     .00
RAINFALL  TYPE= 1                                                                              RAIN6=   1.470
COMPUTE NM HYD     111.10  -     1   .00241    3.64    .124    .96184   1.500   2.355 PER IMP=   70.00
FINISH
```

KEYED NOTES:

1. 8" NYLOPLAST DRAIN, #7001-110-272.
2. PROPOSED 8" STORM DRAIN PIPE, SDR 35.
3. TIE TO EXITING SD PIPE STUB.

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 NEW MEXICO ONE CALL FOR LOCATING SERVICE, 260-1990 OR "811", 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.

APPROVALS	NAME	DATE
INSPECTOR		

LAST REVISION: 12-7-2017

REZA AFAGHPOUR
NEW MEXICO
11814
LICENSED PROFESSIONAL ENGINEER
12/06/2017

REZA AFAGHPOUR
P.E. #11814

GRAPHIC SCALE
20 10 0 20
SCALE: 1"=20'

SBS CONSTRUCTION AND ENGINEERING, LLC
10209 SNOWFLAKE CT., NW
ALBUQUERQUE, NEW MEXICO 87114
(505)899-5570

FOUNTAIN HILLS PLAZA ASSISTED LIVING
GRADING PLAN

DRAWING:	DRAWN BY:	DATE:	SHEET #
201725-GD.DWG	SH-B	12-7-2017	4 OF 6