

CITY OF ALBUQUERQUE



June 3, 2015

Reza Afaghpour, PE
SBS Construction and Engineering, LLC
10209 Snowflake Ct NW
Albuquerque, NM 87114

**Re: 17 Unit Townhouse Development
1120 Griegos Rd NW
Grading & Drainage Plan (F14D058)**

Dear Mr. Afaghpour,

Based upon the information provided in your submittal received 4/28/15, the above referenced plan is approved for Site Plan for Building Permit action by the DRB. However before this plan can be accepted by the Hydrology section for building permit the following comments must be addressed,

- Provide the roof flows.
- Label turn blocks at each wall or state typical opening for drainage.
- How are the flows handled to the east of this site?
- Extend the sidewalk culvert 1 foot passed the property line.
- An ESC plan is required and accepted by Curtis Cherne before BP approval.

PO Box 1293

Albuquerque

If you have any questions, you can contact me at 924-3695 or Rudy Rael at 924-3977.

New Mexico 87103

www.cabq.gov

Sincerely,

Rita Harmon, P.E.
Senior Engineer, Hydrology
Planning Department

C: RR/RH
email

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		

Location
Lots 3 and 4, Block 2, Sandia Plaza, contains +/- 0.3519 acres and is located at 203 Griegos Rd. N.W. 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
There is undeveloped. This site is fairly flat, and it drains to Griegos Road and 12th Street N.W. No offsite runoff enters the site. Based on the FIRM Map 35001C0119G (revised September 26, 2008) the site does not fall within a 100-year floodplain.

Proposed Conditions and On-Site Drainage Management Plan
The runoff generated from this site will be retained on-site. Several Ponds (A through D) are designed to hold nearly twice the volume of the 100-yr/6-day volume under the proposed conditions minus 100-yr/6-day volume under the historical conditions. Then when the ponds exceed their capacity the runoff will overflow into the parking lot and then to public street via sidewalk culverts. The allowable discharge in the Valley is 2.75 cfs/acre meaning a retention volume requirement of 0.50 inches times the area (638.74 cf). The 90th Percentile/First Flush ponding requirement is 0.34 inches times the impervious area (282.32 cf). Total retention volume provided (2,052.23 cf) far exceeds the ponding requirement in the Valley (638.74 cf) and First Flush (282.32 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=0.000550 SQ MI
PER A=0.00 PER B=100.00 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=1.34 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=0.000550 SQ MI
PER A=0.00 PER B=100.00 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=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=0.000550 SQ MI
PER A=0.00 PER B=10.00 PER C=15.00 PER D=65.00
TP=0.1333 HR MASS RAINFALL=-1

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

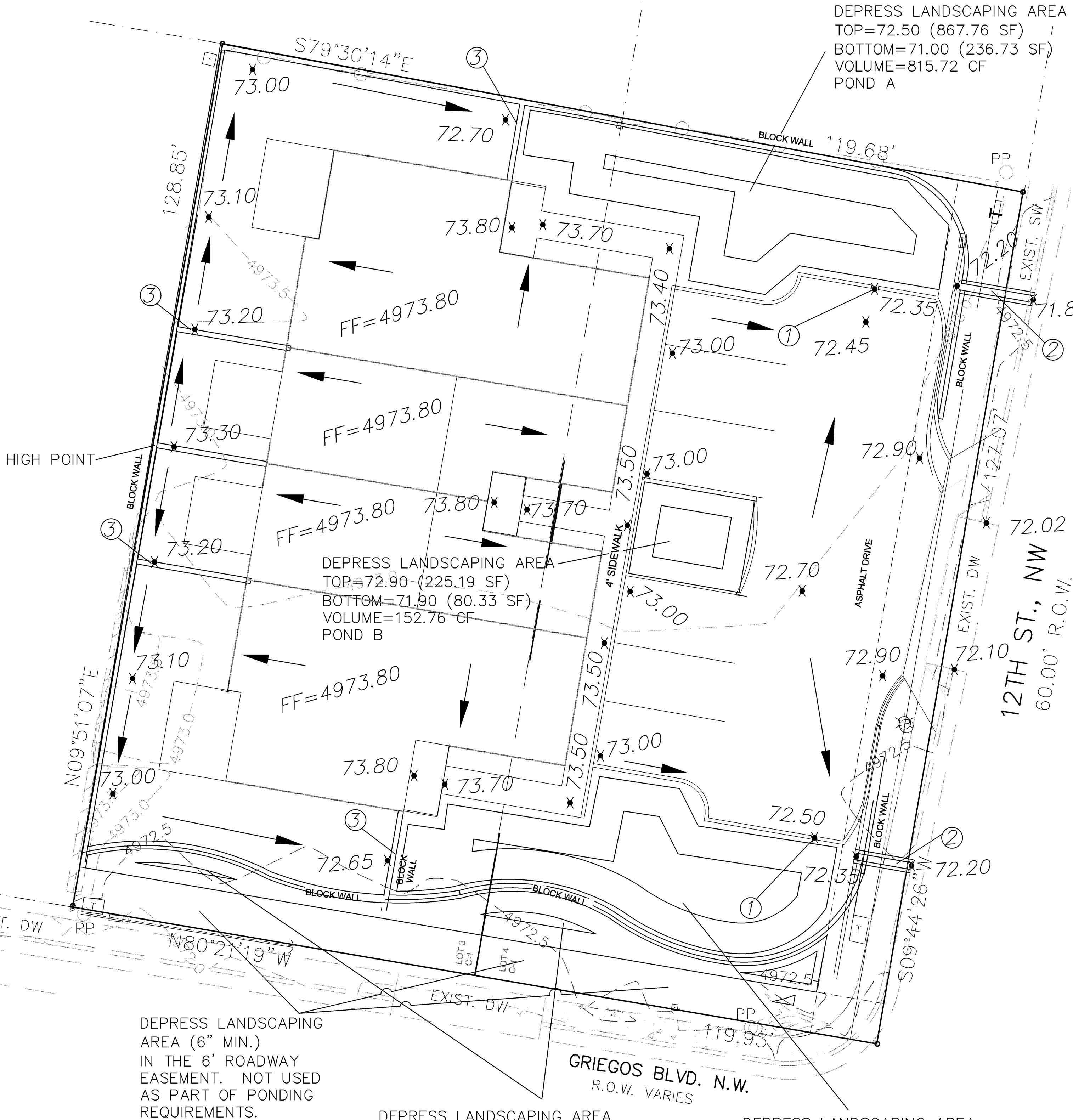
START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=1.34 IN RAIN SIX=1.57 IN
RAIN DAY=1.83 IN DT=0.03333 HR

* ON-SITE
COMPUTE NM HYD ID=1 HYD NO=110.1 AREA=0.000550 SQ MI
PER A=0.00 PER B=10.00 PER C=15.00 PER D=65.00
TP=0.1333 HR MASS RAINFALL=-1

FINISH

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) -
INPUT FILE = 12th.txt - VERSION: 1997.02d RUN DATE (MON/DAY/YR) =12/22/2014
USER NO.= AHYMO-I-9702c01000R31-AH

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 = 1
START	RAINFALL TYPE= 1									
COMPUTE NM HYD	100.00	-	1	.00055	.81	.023	.77821	1.533	2.301	PER IMP= 2.350
START	RAINFALL TYPE= 1									
COMPUTE NM HYD	110.00	-	1	.00055	.33	.008	.27828	1.533	.945	PER IMP= 1.570
START	RAINFALL TYPE= 1									
COMPUTE NM HYD	100.10	-	1	.00055	1.48	.053	1.79770	1.500	4.216	PER IMP= 2.350
START	RAINFALL TYPE= 1									
COMPUTE NM HYD	110.10	-	1	.00055	.93	.032	1.07842	1.500	2.650	PER IMP= 1.570
FINISH										



DEPRESS LANDSCAPING AREA (6" MIN.) IN THE 6' ROADWAY EASEMENT. NOT USED AS PART OF PONDING REQUIREMENTS.

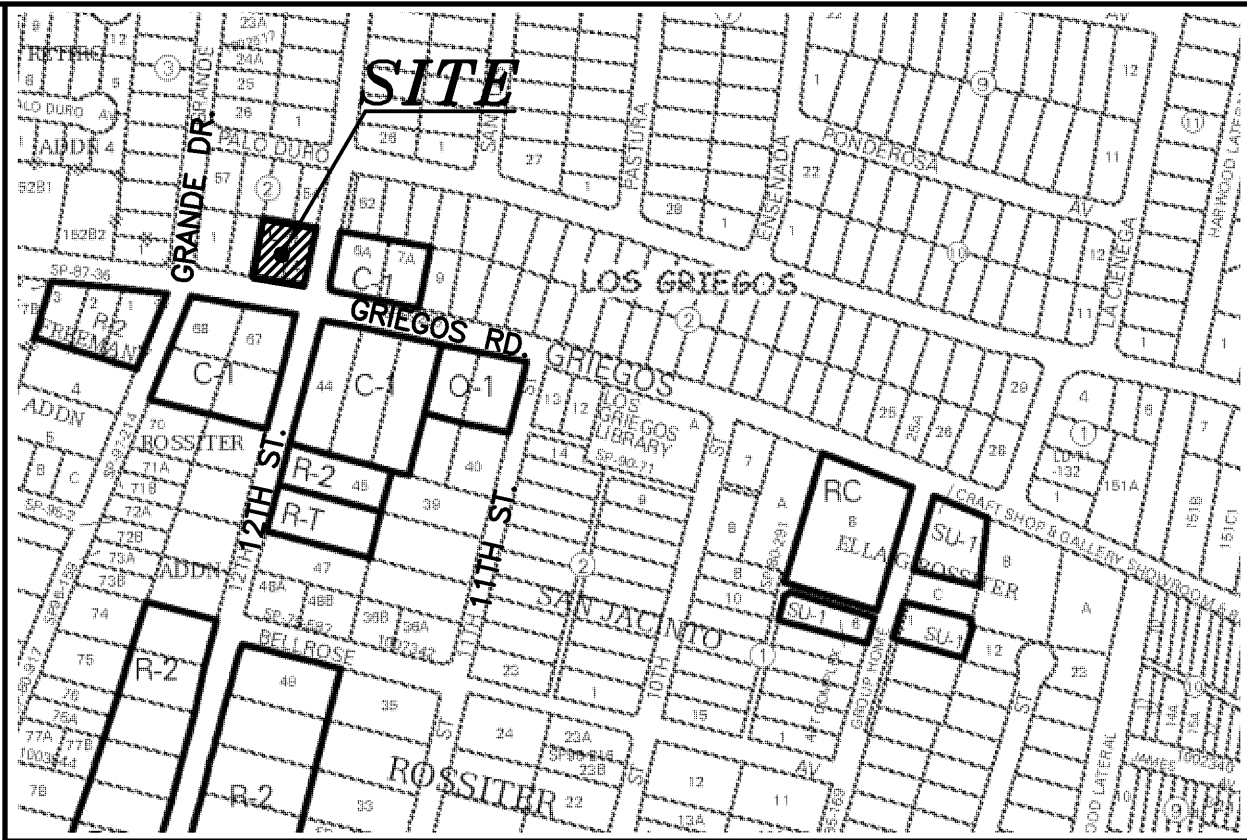
DEPRESS LANDSCAPING AREA
TOP=72.50 (436.96 SF)
BOTTOM=71.50 (25.37 SF)
VOLUME=231.17 CF
POND C

DEPRESS LANDSCAPING AREA
TOP=72.60 (893.48 SF)
BOTTOM=71.10 (243.30 SF)
VOLUME=852.59 CF
POND D

NOTES:

- PROVIDE 12" CURB OPENING
- 12" SIDEWALK CULRVET PER CITY STD DWG 2236 (TACK WELD PLATE AT THE BOLT)
- 6" WALL OPENING (OR TURN TWO BLOCKS) BUILD #4 REBAR AT 3" ON CENTER

POND CALCULATION
TOTAL POND AREA PROVIDED = POND A + B + C + D = 2,052.23 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 15,329.81) = 638.74 CF
TOTAL PONDING VOLUME REQUIRED (90TH PERCENTILE/FIRST FLUSH) = 0.34 INCHES x IMPERVIOUS AREA = (0.34/12 x 9,964.38) = 282.32 CF



VICINITY MAP: F-14-Z

LEGAL DESCRIPTION:
LOTS 3 AND 4, BLOCK 2, SANDIA PLAZA
CONTAINING 15,329.81 S.F. (0.3519 ACRE)
ZONING: C-1 USES

ADDRESS:
203 GRIEGOS ROAD N.W.

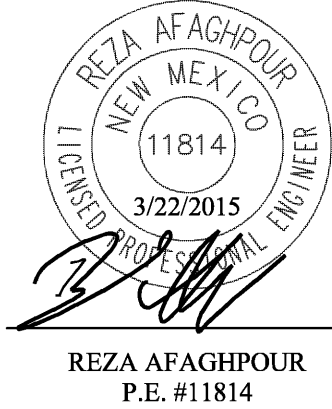
- GENERAL NOTES:**
- CONTOUR INTERVAL IS HALF (0.50) FOOT.
 - ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE CONTROL STATION LSS_206, HAVING AN ELEVATION OF 4976.652 FEET ABOVE SEA LEVEL.
 - UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND 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.
 - THIS IS NOT A BOUNDARY SURVEY, BEARINGS ARE ASSUMED, DISTANCES AND FOUND PROPERTY CORNERS ARE FOR INFORMATIONAL PURPOSES ONLY.
 - SLOPES ARE AT 3:1 MAXIMUM.

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LEGEND

- 5100--- EXISTING CONTOUR (MAJOR)
- 5102--- EXISTING CONTOUR (MINOR)
- BOUNDARY LINE
- x 85.46 PROPOSED SPOT ELEVATION
- x 5265.16 EXISTING GRADE
- x 5284.43 EXISTING FLOWLINE ELEVATION
- FL
- BC=89.08 BOTTOM OF CHANEL
- TRW=91.50 TOP OF RETAINING WALL
- TF=88.00 TOP OF FOOTING
- HP HIGH POINT



SBS CONSTRUCTION AND ENGINEERING, LLC

10209 SNOWFLAKE CT., NW
ALBUQUERQUE, NEW MEXICO 87114
(505)899-3570

GRAPHIC SCALE



LAST REVISION: 02/22/2015

4 UNIT TOWNHOUSE DEVELOPMENT GRADING AND DRAINAGE PLAN			
DRAWING:	DRAWN BY:	DATE:	SHEET #
201418-GR.DWG	SH-B	12-22-2014	