CITY OF ALBUQUERQUE

March 21, 2018

Shawn Biazar
SBS Construction & Engineering, LLC.
10209 Snowflake Ct. NW
Albuquerque, NM 87114

RE: **417 Headingly Ave, N.E**
Grading Plan
Engineer's Stamp Date 3/18/18
Hydrology File: G14D090

Dear Mr. Biazar:

Based on the information provided in your submittal received 3/19/18, the Grading Plan is approved for Grading Permit.

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Prior to Building Permit:

1. A Private Facility Drainage Covenant is required for the stormwater ponds. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee ($25, payable to City of Albuquerque) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) or Madeline Carruthers (mtafoya@cabq.gov, 924-3997) regarding the routing and recording process for covenants.
2. The site will need to be graded and Pad Certifications will be required prior to Hydrology approving the residential Building Permits.

Prior to Certificate of Occupancy:

3. Engineer's Certification, per the DPM Checklist, will be required to ensure the ponds remained intact following home construction.
4. The Private Facility Drainage Covenant must be recorded with Bernalillo County and a copy included with the drainage certification.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Location
Lot 2-A, Block 10, Monkbridge Garden Addition, is located at 417 Headingly Ave., NW containing 0.1291 acre. See attached portion of Vicinity Map G-14-Z for exact location.

Purpose
The purpose of this drainage report is to present a grading and drainage solution for new buildings and improvement for Lot 2-A, Block 10, Monkbridge Garden Addition.

Existing Drainage Conditions
This lot is very flat and drains south into Headingly Ave., NW and no other offiste flows enters this site. There is existing block walls to the north and east property lines. There are existing gravel on site and some grading has been done.

Proposed Conditions and On-Site Drainage Management Plan
There are existing block walls to the north and east. A new block wall is proposed for west property line. We are porposing to retain all the developed flow minus the historical flow. The total volume requirement under this condition is 1,026.56 CF . We are proposing four ponds with total volume provided of 1,135.72 CF wich includes the first flush volume requirement of 106.14 CF.

VOLUME CALCULATIONS FOR 10 DAY STORM
(UNDER EXISTING CONDITIONS)

BASIN	*AREA (SF)*	*AREA (AC)*	*AREA (MI^2)*
ON-SITE	5,624.00	0.1291	0.007375

$E = \frac{EA(AA) + EB(AB) + EC(AC) + ED(AD)}{AA + AB + AC + AD}$

V-360 = E (AA + AB + AC + AD)

EA = 0.35
EB = 0.78
EC = 1.13
ED = 2.12

AA = 50.00%
AB = 50.00%
AC = 0.00%
AD = 0.00%

P-60 = 2.01
P-360 = 2.35
P-1440 = 2.75
P-10 Day = 3.95

E = 0.5650 IN
V-360 = 0.0061 AC-FT
AD = 0.0000 AC
V-10 DAY = 0.0061 AC-FT
V-10 DAY= 264.80 CF

VOLUME CALCULATIONS FOR 10 DAY STORM
(UNDER PROPOSED CONDITIONS)

BASIN	*AREA (SF)*	*AREA (AC)*	*AREA (MI^2)*
ON-SITE	5,624.00	0.1291	0.007375

$E = \frac{EA(AA) + EB(AB) + EC(AC) + ED(AD)}{AA + AB + AC + AD}$

V-360 = E (AA + AB + AC + AD)

EA = 0.35
EB = 0.78
EC = 1.13
ED = 2.12

AA = 0.00%
AB = 24.00%
AC = 10.00%
AD = 66.00%

P-60 = 2.01
P-360 = 2.35
P-1440 = 2.75
P-10 Day = 3.95

E = 1.6994 IN
V-360 = 0.0183 AC-FT
AD = 0.0852 AC
V-10 DAY = 0.2187 AC-FT
V-10 DAY= 1,291.71 CF

V (REQUIRED) = 1,291.36 - 264.80 = 1,026.56 CF

PONDING VOLUME REQUIREMENTS (90TH PERCENTILE/FIRST FLUSH)

VOLUME REQUIRED = 0.34 INCHES x IMPERVIOUS AREA =
(0.34/12 x 3,746.00) = 160.14 CF

PONDING VOLUME CALCULATION

TOTAL POND AREA PROVIDED =
PONDING CALCULATIONS:

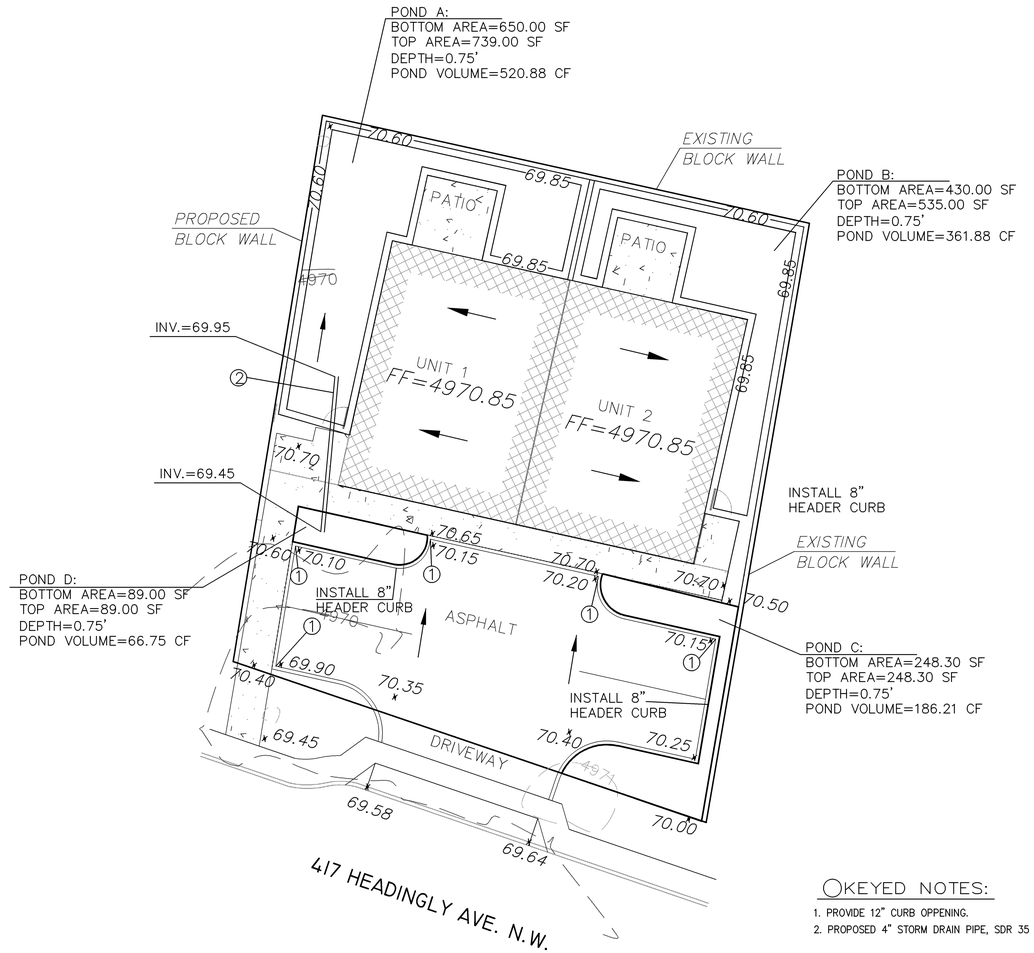
POND A:
AREA @ ELEV. 70.60 = 739.00 SF
AREA @ ELEV. 69.85 = 650.00 SF
POND VOLUME=(739.00+650.00)/2*0.75=520.88 CF

POND B:
AREA @ ELEV. 70.60 = 535.00 SF
AREA @ ELEV. 69.85 = 430.00 SF
POND VOLUME=(535.00+430.00)/2*0.75=361.88 CF

POND C:
AREA @ ELEV. 70.10 = 248.30 SF
AREA @ ELEV. 69.35 = 248.10 SF
POND VOLUME=(248.30+248.30)/2*0.75=186.22 CF

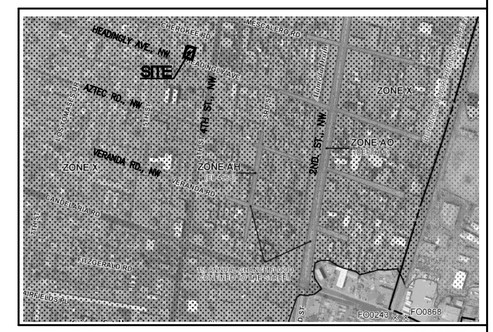
POND D:
AREA @ ELEV. 70.10 = 89.00 SF
AREA @ ELEV. 69.60 = 89.00 SF
POND VOLUME=(89.00+89.00)/2*0.75=66.75 CF

TOTAL PONDING VOLUME PROVIDED =
520.88 + 361.88 + 186.22 + 66.75 = 1,135.72 CF



VICINITY MAP: G-14-Z

FIRM MAP: FM35001C0332G



LEGAL DESCRIPTION:
LOT 2-B, BLOCK 10, MONKBRIDGE ADDITION

ADDRESS: 417 HEADINGLY AVE., NW

KEYED NOTES:

1. PROVIDE 12" CURB OPPENING.
2. PROPOSED 4" STORM DRAIN PIPE, SDR 35 OR SCHEDULE 40.

GENERAL NOTES:

1: CONTOUR INTERVAL IS HALF (1.00) FOOT.

2: ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE CONTROL STATION 20_G14, HAVING AN ELEVATION OF 4971.007 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 CON-SIDERATIONS.

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.

6: ADD 4900 TO ALL PROPOSED SPOT ELEVATIONS.

LEGEND

—— —5030— ——	EXISTING CONTOUR (MAJOR)
—— —5029— ——	EXISTING CONTOUR (MINOR)
———	BOUNDARY LINE
x 42.70	PROPOSED SPOT ELEVATION
× 5029.16	EXISTING GRADE
× 5075.65 FL	EXISTING FLOWLINE ELEVATION
▬ ▬ ▬ ▬	PROPOSED RETAINING WALL
BC=41.30	BOTTOM OF CHANEL
TF=42.00	TOP OF FOOTING
TRW=45.12	TOP OF RETAINING WALL
HP	HIGH POINT
42.40 ~~42.45~~	AS-BUILT GRADES
X 5141.50 ~~FF=5142.30~~ FP=5142.25	AS-BUILT SPOT ELEVATIONS

GRAPHIC SCALE
10 5 0 10
SCALE: 1"=10'

LAST REVISION: 2-2-2018

REZA AFAGHPOUR
NEW MEXICO
11814
3/18/2018
LICENSED PROFESSIONAL ENGINEER

REZA AFAGHPOUR
P.E. #11814

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

417 HEADINGLY AVE., NW GRADING PLAN

DRAWING:	DRAWN BY:	DATE:	SHEET #
201803-GD.DWG	SH-B	3-6-2018	1