# CITY OF ALBUQUERQUE



May 16, 2018

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

RE: 417 Headingly Ave, N.E

Grading Plan Stamp Date 3/18/18 Engineer's Certification Date: 4/22/18

**Hydrology File: G14D090** 

Dear Mr. Biazar:

Based on the information provided in your submittal received 4/24/18, the engineer's certification is approved for Building Permit.

PO Box 1293

#### Prior to Certificate of Occupancy:

1. Engineer's Certification, per the DPM Checklist, will be required to ensure the ponds remained intact following home construction.

Albuquerque

2. The Private Facility Drainage Covenant must be recorded with Bernalillo County and a copy included with the drainage certification.

NM 87103

A new engineer's certification will need to be resubmitted, reflecting the corrective actions. If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

www.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.

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 (MI²)
ON-SITE	5,624.00	0.1291	0.007375

E = EA(AA) + EB(AB) + EC(AC) + ED(AD)

#### AA + AB + AC + ADV-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	

P-10 Day = 3.950.5650 IN V-360 =0.0061 AC-FT 0.0000 AC V-10 DAY = 0.0061 AC-FTV-10 DAY= 264.80 CF

# (UNDER PROPOSED CONDITIONS)

**VOLUME CALCULATIONS FOR 10 DAY STORM** 

BASIN	AREA	(SF)	AREA	(AC)	AREA	(MI²)
ON-SITE	5,624	4.00	0.12	291	0.00	7375

E = 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 = 3.9	95	
E = V-360 = AD =	1.6994 IN 0.0183 A 0.0852 A	C-FT

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 =  $(0.34/12 \times 3,746.00) = 160.14 \text{ CF}$ 

### PONDING VOLUME CALCULATION

TOTAL POND AREA PROVIDED = PONDING CALCULATIONS: 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 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 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

### DRAINAGE CERTIFICATION

520.88 + 361.88 + 186.22 + 66.75 = 1,135.72 CF

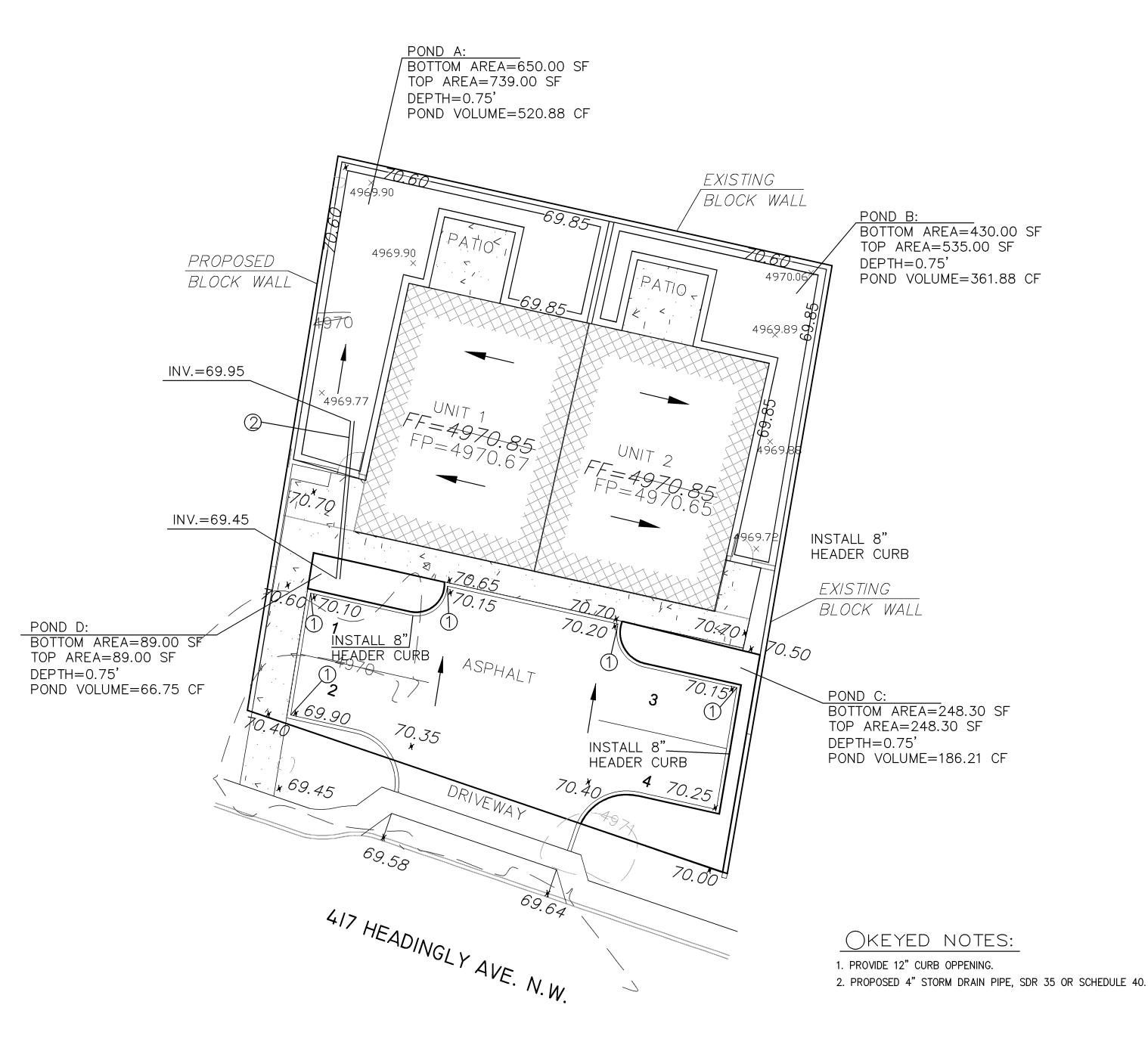
TOTAL PONDING VOLUME PROVIDED =

I, REZA AFAGHPOUR , NMPE 11814, OF SBS CONSTRUCTION AND ENGINEERING, LLC , HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN . THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DATED 03-18-2018 DESIGN DOCUMENT HAS BEEN OBTAINED BY NMPS 9801 LEONARD MARTINEZ, OF SBS CONSTRUCTION AND ENGINEERING . I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR FINISH PAD CERTIFICATE .

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

DATE

04-22-2018 REZA AFAGHPOUR, NMPE 11814



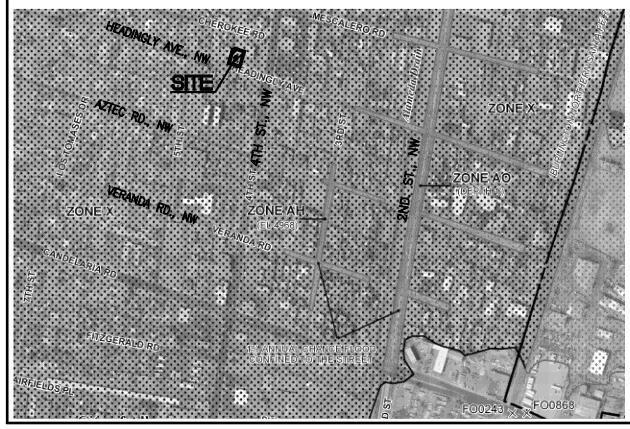
## **GENERAL NOTES:**

- 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.



VICINITY MAP:

G-14-Z



FIRM MAP:

FM35001C0332G

#### LEGAL DESCRIPTION:

ADDRESS: 417 HEADINGLY AVE., NW

LOT 2-B, BLOCK 10, MONKBRIDGE ADDITION

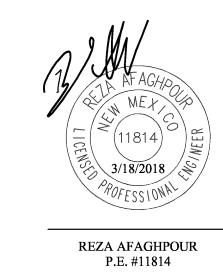
#### LEGEND

	EXISTING CONTOUR (MAJOR)  EXISTING CONTOUR (MINOR)  BOUNDARY LINE  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** X 5141.50 FF=5142.30 FP=5142.25

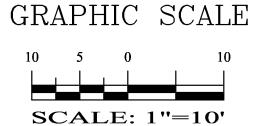
AS-BUILT SPOT ELEVATIONS

AS-BUILT GRADES



SBS CONSTRUCTION AND ENGINEERING, LLC

> 10209 SNOWFLAKE CT., NW ALBUQUERQUE, NEW MEXICO 87114 (505)899-5570



## 417 HEADINGLY AVE., NW **GRADING PLAN**

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









