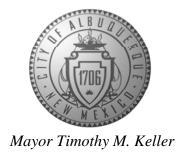
Planning Department
David Campbell, Director



August 31, 2018

Åsa Nilsson-Weber, P.E. Isaacson & Arfman, P.A. 128 Monroe St. N.E Albuquerque, NM 87108

**RE: Bosque Antigua** 

**Gabaldon Dr NW** 

Grading Plan Stamp Date: 8/27/18 Drainage Report Stamp Date: 8/27/18

Hydrology File: J12D015

Dear Ms. Nilsson-Weber:

PO Box 1293

Based on the submittal received on 8/27/18 the above-referenced submittal is approved for Preliminary Plat Only. J12D015 is the correct file number for this project; the previous letter heading was incorrect.

Albuquerque

#### **Prior to Grading Permit:**

NM 87103

1. Pond A WSE is shown as 4957.5', but described in the drainage report as 4957.0'. Pond B WSE is shown as 4957.0', but described in the drainage report as 4957.5'. Pond B capacity is shown as 865cy, but described in the drainage report as 876cy Please correct.

2. This project requires an ESC Plan, submitted to the Stormwater Quality Engineer (Curtis Cherne PE, ccherne@cabq.gov or 924-3420).

www.cabq.gov

#### Prior to Work Order (For Information):

3. The easements for ponds D and E will need to be recorded.

#### Prior to Building Permit (For Information):

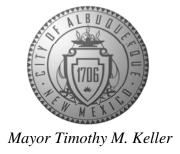
4. Engineer's Certification (Pad Certifications), per the DPM Chapter 22.7: *Engineer's Certification Checklist For Subdivision* is required.

#### Prior to Release of Financial Guarantee (For Information):

- 5. Engineer's Certification (All Private Grading), per the DPM Chapter 22.7: *Engineer's Certification Checklist For Subdivision* is required.
- 6. The (2) agreement and covenants for ponds D and E will need to be recorded.

Planning Department
David Campbell, Director

Sincerely,



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

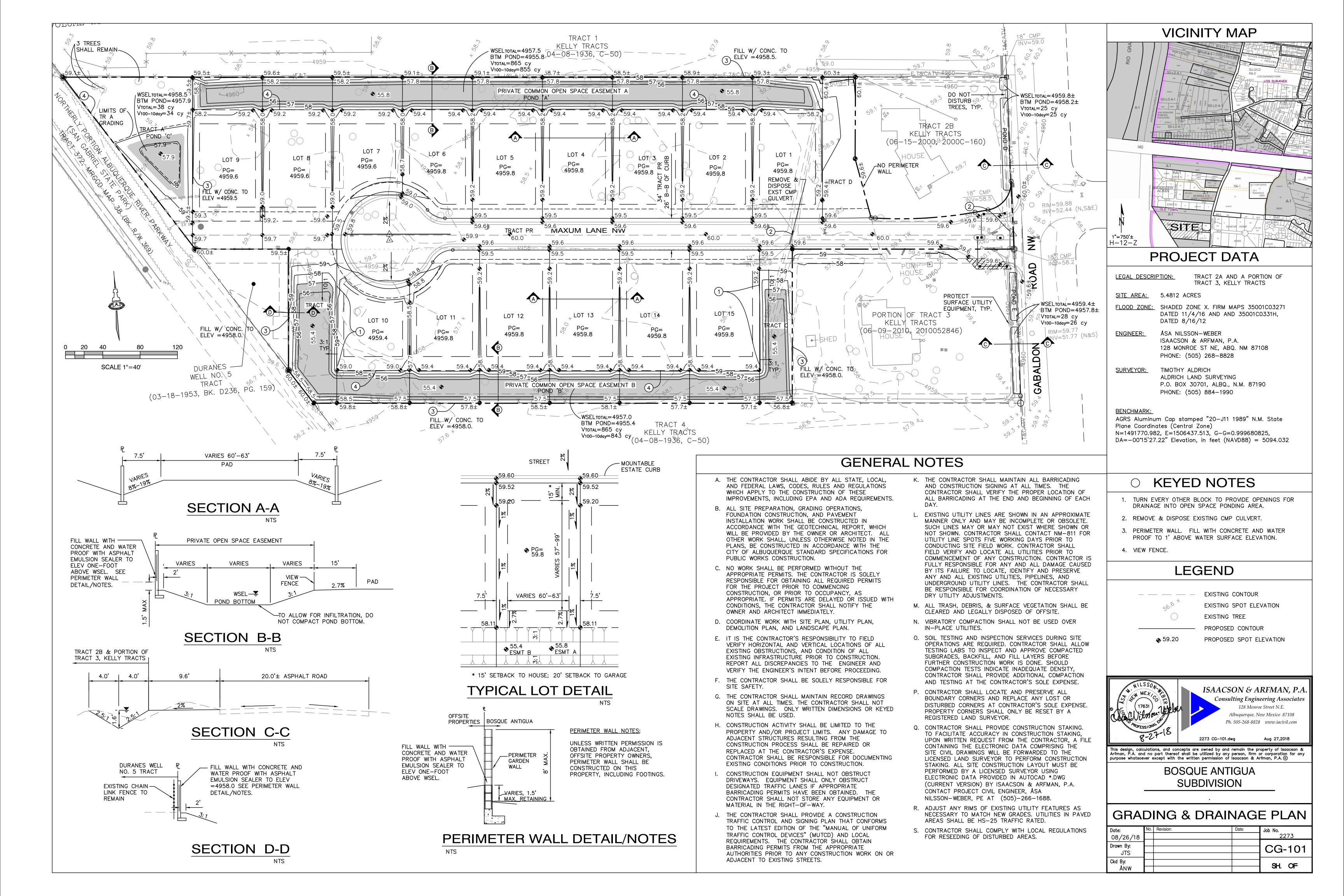
Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov





### PROPERTY CORNERS

- FOUND 5/8" REBAR WITH CAP "LS 3516"
- © FOUND 1" or 1 1/2" PIPE WITH TAG "LS 3516"
- ☐ FOUND 1/2" REBAR WITH CAP "LS 6446"
- O FOUND 5/8" REBAR WITH CAP "LS 7719"

### LINE TABLE

LINE	DIRECTION	DISTANCE
L1	N32°52'36"W (N32°53'13"W)	<b>43.99'</b> (44.06')
L2	N04°38'43"E (N04°39'29"E)	130.22' (130.14')
L3	N85°21'17"W (N85°39'00"W)	100.08' (100.00')

### **VICINITY MAP**

	CURVE TABLE							
CURVE	LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD LENGTH	TANGEN		
C1	21.52'	24.00'	51°22'37"	S 59'39'58" E	20.81'	11.54'		
C2	267.12	52.00'	294°19'40"	S 1°08'29" E	56.39'	33.56'		
С3	26.37	24.00'	62 <b>°</b> 57'03"	S 63°10'12" W	25.06'	14.69'		

- (1) EXISTING 10' UNDERGROUND PNM & M.S.T.&T EASEMENT (10-30-1989, 1989093670)
- ② EXISTING 10' OVERHEAD PNM & M.S.T.&T EASEMENT (05-07-1993, 1993046988)

**EXISTING EASEMENTS** 

- ③ EXISTING 10' OVERHEAD PNM & M.S.T.&T EASEMENT (05-07-1993, 1993046989)
- 4 EXISTING 10' PRIVATE ACCESS, PRIVATE UTILITY AND PUBLIC UTILITY EASEMENT (01-24-1991, 1991005396)
- (5) EXISTING 15' ABCWUA CONSTRUCTION, OPERATION, MAINTENANCE, PIPE LINE AND PUBLIC UTILITY EASEMENT (03-18-1953, BK. D236, PG. 160)
- (6) EXISTING 15' ABCWUA INGRESS AND EGRESS EASEMENT (03-18-1953, BK. D236, PG. 161)
- (7) EXISTING 20' ABCWUA WATERLINE EASEMENT (06-15-2000, 2000C-160)
- 8 EXISTING COA PRIVATE FACILITY DRAINAGE COVENANT (01-12-2000, 2000003389) (TRACT 2)
- (9) EXISTING PRIVATE ACCESS EASEMENT FOR USE OF AND TO BE MAINTAINED BY TRACT 2A & 2B (06-15-2000, 2000C-160) (HATCHED AREA)

## EXISTING EASEMENTS 2, 4-7 & 9 LOCATED WITHIN THE SUBDIVISION BOUNDARY SHALL BE VACATED BY FINAL PLAT AND REPLACED WITH NEW EASEMENTS AS NOTED ON THIS SHEET.

### PROPOSED EASEMENTS

- A PRIVATE COMMON OPEN SPACE AND DRAINAGE EASEMENTS, INCLUDING CROSS LOT DRAINAGE, 'A' AND 'B' (HATCHED AREAS) GRANTED FOR THE BENEFIT OF LOTS 1-15, BOSQUE ANTIGUA, TRACT 2B, KELLY TRACTS AND PORTION OF TRACT 3 KELLY TRACTS. EASEMENTS SHALL BE MAINTAINED BY THE HOMEOWNERS' ASSOCIATION. SEE SHEET 2 FOR DRAINAGE EASEMENT NOTE.
- PRIVATE ACCESS AND PUBLIC EMERGENCY ACCESS EASEMENT OVER ALL OF TRACT PR GRANTED FOR THE BENEFIT OF LOTS 1-15, BOSQUE ANTIGUA, TRACT 2B, KELLY TRACTS, PORTION OF TRACT 3 KELLY TRACTS AND DURANES WELL NO. 5 TRACT; PUBLIC WATER AND SANITARY SEWER LINE EASEMENT OVER ALL OF TRACT PR SHALL BE GRANTED TO ABCWUA. EASEMENT SHALL BE MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
- © PRIVATE ACCESS EASEMENT GRANTED FOR THE BENEFIT OF LOTS 8 0 20 40 & 9 AND DURANES WELL NO. 5; PUBLIC WATER AND SANITARY SEWER AND ACCESS EASEMENT GRANTED TO ABCWUA. EASEMENT SHALL BE MAINTAINED BY THE HOMEOWNERS' ASSOCIATION.
- (D) PUBLIC WATER METER EASEMENT SHALL BE GRANTED TO ABCWUA.
- (E) 10' PUE.

### LEGAL DESCRIPTION

A tract of land situate, within the Town of Albuquerque Grant, projected Section 13, Township 10 North, Range 2 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, within MRGCD Map No. 38, being all of TRACT 2A, KELLY TRACTS, as the same is shown and designated on said plat, filed for record in the office of the County Clerk of Bernalillo County, New Mexico on June 15, 2000, in Plat Book 2000C, Page 160, together with a PORTION OF TRACT 3, KELLY TRACTS, as the same is shown and designated on said plat, filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on April 8, 1936, in Volume C, Folio 50, and containing 5.4812 acres more or less.

## PRELIMINARY PLAT FOR

## BOSQUE ANTIGUA

### BEING A REPLAT OF TRACT 2A AND A PORTION OF TRACT 3. KELLY TRACTS

WITHIN THE TOWN OF ALBUQUERQUE GRANT PROJECTED SECTION 13. T. 10 N. R. 2 E. NMPM. MRGCD MAP 38

### CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO

## JULY, 2018

## SITE DATA

SCALE 1"=40'

- TOTAL LAND AREA = 5.4812 ACRES. NUMBER OF EXISTING TRACTS IS 2.
- NUMBER OF PROPOSED RESIDENTIAL LOTS IS 15.
- NUMBER OF PROPOSED TRACTS IS 5.
- CURRENT ZONING: R-A CLUSTER DEVELOPMENT PRIVATE COMMON OPEN SPACE EASEMENTS A & B; AREA=1.6448 AC. (>30% OF TOTAL).
- G. THE STREET (TRACT PR) WILL BE PRIVATE BY PLAT DEDICATION AND MAINTAINED BY THE HOMEOWNERS' ASSOCIATION OF BOSQUE ANTIGUA. NO LOT SHALL HAVE DIRECT ACCESS TO GABALDON
- ROAD NW. WATER AND SANITARY SEWER SERVICES TO THIS DEVELOPMENT WILL BE VERIFIED AND COORDINATED WITH ALBUQUERQUE BERNALILLO
- COUNTY WATER UTILITY AUTHORITY (ABCWUA). THERE IS A DRB SITE PLAN WHICH MUST BE APPROVED PRIOR TO OR CONCURRENTLY WITH THE PRELIMINARY PLAT.

## NOTES

- 1. FIELD SURVEY PERFORMED IN AUGUST 1998 AND JUNE 2018 BY ALDRICH LAND SURVEYING
- 2. BEARINGS ARE NEW MEXICO STATE PLANE GRID BEARINGS (CENTRAL ZONE).
- ALL DISTANCES ARE GROUND DISTANCES: U.S. SURVEY FOOT. 4. BASIS OF BOUNDARY ARE THE FOLLOWING PLATS AND DOCUMENTS OF RECORD ENTITLED: "TRACT 2A AND 2B, KELLY TRACTS", (06-15-2000, 2000C-160) "KELLY TRACTS", (04-08-1936, C-50) "ALBUQUERQUE RIVER PARKWAY", (R/W 369) ALL BEING RECORDS
- OF BERNALILLO COUNTY, NEW MEXICO. 5. BOUNDARY WILL BE TIED TO THE NEW MEXICO STATE PLANE COORDINATE SYSTEM AS SHOWN.
- 6. LOT AREAS LISTED IN PARENTHESES ARE NET AREAS (GROSS AREA
- LESS ACCESS EASEMENT AND PRIVATE OPEN SPACE EASEMENT). MANHOLES WILL BE OFFSET AT ALL POINTS OF CURVATURE. POINTS OF TANGENCY, STREET INTERSECTIONS AND ALL OTHER ANGLE
- POINTS TO ALLOW USE OF CENTERLINE MONUMENTATION. 8. SEE SHEET 2 FOR SETBACK INFORMATION AND ROADWAY SECTIONS.

## FLOOD NOTES

BASED UPON SCALING, THIS PROPERTY LIES WITHIN SHADED FLOOD ZONE X WHICH IS DEFINED AS AREAS OF 0.2% ANNUAL CHANCE; AREA OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREA WITH REDUCED FLOOD RISK DUE TO LEVEE AS DETERMINED BY F.E.M.A. AND SHOWN ON FLOOD INSURANCE RATE MAP NO. 35001C03271, DATE 11/4/2016 AND MAP NO. 35001C0331H. DATE 8/16/12.

## **ACS BENCHMARK**

AGRS Aluminum Cap stamped "20-J11 1989" N.M. State Plane

Coordinates (Central Zone) N=1491770.982, E=1506437.513, G-G=0.999680825, DA=-0015'27.22" Elevation, in feet (NAVD88) = 5094.032

## LEGEND

N 85°21'32" W 848.89' BEARING AND DISTANCE RECORD BEARING AND DISTANCE (N 85°39'00" W) (848.81')

> CENTERLINE MONUMENT - 4" ALUMINUM DISK "LS 7719"

APPROVED FOR MONUMENTATION AND STREET NAMES

CITY SURVEYOR

DATE

## **OWNERSHIP**

T. Scott Ashcraft, President LAS VENTANASCHM, INC.

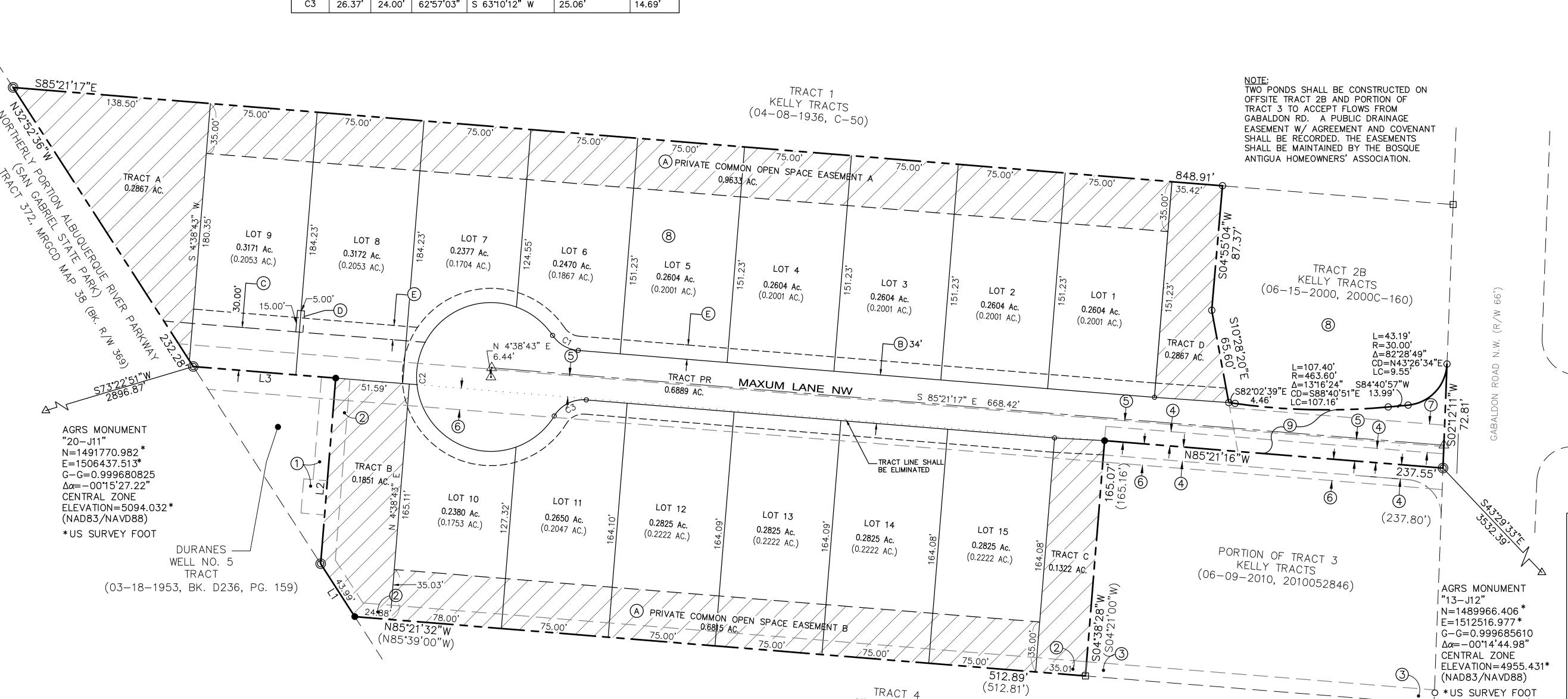
IDO 14-16-1-9(C) PROHIBITION ON RESTRICTIONS ON THE INSTALLATION OF SOLAR COLLECTORS

"THE CITY MAY NOT APPROVE ANY SUBDIVISION APPLICATION FOR PROPERTY ON WHICH THERE ARE ANY DEED RESTRICTIONS, COVENANTS, OR BINDING AGREEMENTS PROHIBITING SOLAR COLLECTORS FROM BEING INSTALLED ON BUILDINGS OR ERECTED ON THE LOTS OR PARCELS WITHIN THE APPLICATION."

SHEET 1 OF 2

→ \*US SURVEY FOOT

ISAACSON & ARFMAN, P.A Consulting Engineering Associates 128 Monroe Street N.E. Albuquerque, New Mexico 87108 Ph. 505-268-8828 Fax. 505-268-2632 2273 C-701-PRELIM PLAT.dwg Aug 27,2018



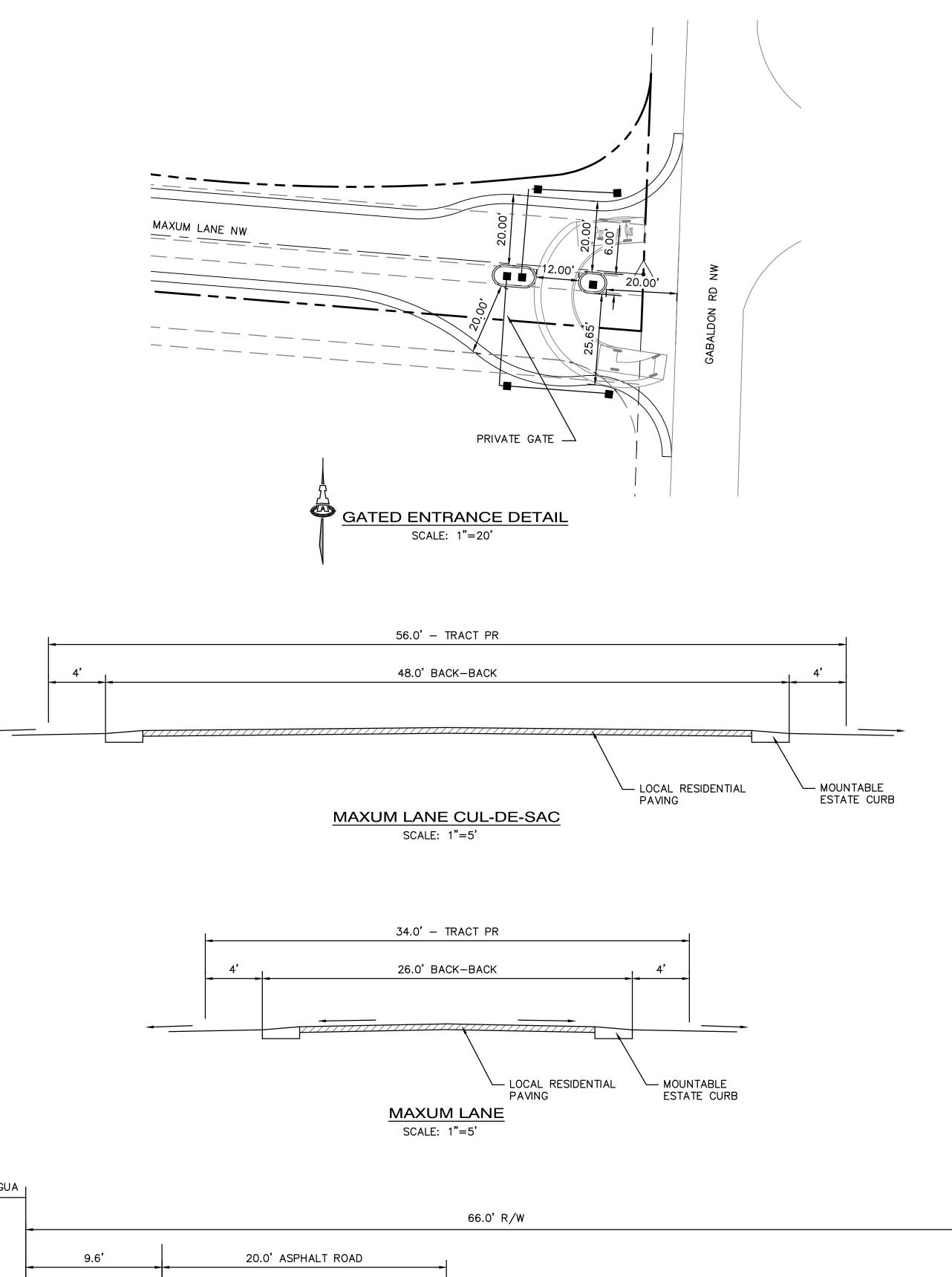
KELLY TRACTS

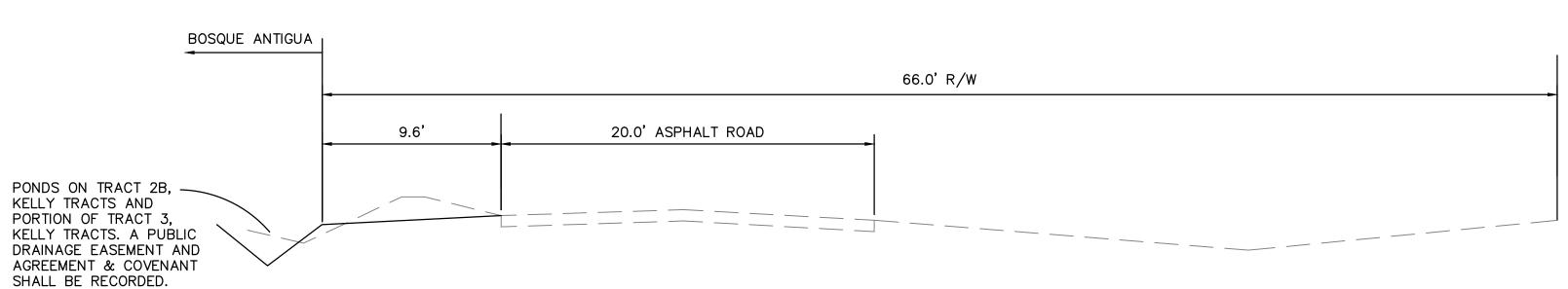
(04-08-1936, C-50)

### Drainage Facilities Maintained by the Homeowners' Association

Areas designated on the accompanying plat as "drainage easements" for storm water ponding are hereby dedicated by the owner as a perpetual easement for the common use and benefit of the various lots within the subdivisions for the purpose of permitting the conveyance of storm water runoff and the constructing and maintaining of drainage facilities for storm water ponding in accordance with standards prescribed by the City of Albuquerque. No fence, wall, planting, building or other obstruction may be placed or maintained in easement area without approval of the City Engineer of the City of Albuquerque. There also shall be no alteration of the grades or contours in said easement area without the approval of the City Engineer. It shall be the duty of the Homeowners' Association of this subdivision to maintain said drainage easement and facilities at their cost in accordance with standards prescribed by the City of Albuquerque. The City shall have the right to enter periodically to inspect the facilities. In the event said lot owners fail to adequately and properly maintain drainage easement and facilities, at any time following fifteen (15) days written notice to said lot owners, the City may enter upon said area, perform said maintenance, and the cost of performing said maintenance shall be paid by the Homeowners' Association. In the event the Homeowners' Association fail to pay the cost of maintenance within thirty (30) days after demand for payment made by the City, the City may file a lien against all lots in the subdivision for which proportionate payment has not been made. The obligations imposed herein shall be binding upon the owner, his heirs, and assigns and shall run with all lots within this subdivision.

The Grantor agrees to defend, indemnify, and hold harmless, the City, its officials, agents and employees from and against any and all claims, actions, suits, or proceedings of any kind brought against said parties for or on account of any matter arising from the drainage facility provided for herein or the Grantor's failure to construct, maintain, or modify said drainage facility.





GABALDON ROAD
LOOKING NORTH
SCALE: 1"=5'

PRELIMINARY PLAT FOR

BOSQUE ANTIGUA

BEING A REPLAT OF TRACT 2A AND A PORTION OF TRACT 3, KELLY TRACTS

WITHIN THE TOWN OF ALBUQUERQUE GRANT PROJECTED SECTION 13, T. 10 N, R. 2 E, NMPM, MRGCD MAP 38

CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO

JULY, 2018



AUGUST 27, 2018

## DRAINAGE REPORT

**FOR** 

## **BOSQUE ANTIGUA**

A 15-DWELLING UNIT SINGLE-DETACHED RESIDENTIAL PRIVATE COMMONS DEVELOPMENT

ALBUQUERQUE, NEW MEXICO

BY



## ISAACSON & ARFMAN, P.A.

Consulting Engineering Associates

Thomas O. Isaacson, PE & LS Fred C. Arfman, PE Åsa Nilsson-Weber, PE

I&A Project No. 2273

### **TABLE OF CONTENTS**

#### VICINITY MAP

#### FIRM MAP

- I. PROJECT INFORMATION
- II. INTRODUCTION
- III. EXISTING CONDITIONS
- IV. PROPOSED CONDITIONS
- **v.** SUMMARY & CONCLUSIONS

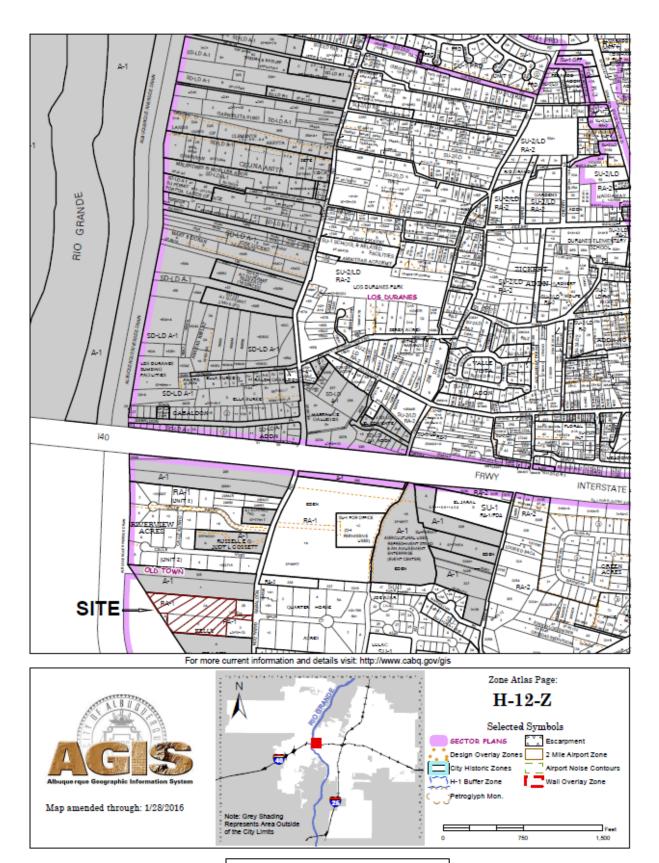
#### **APPENDICES**

**APPENDIX A:** Basin Area and Land Treatment Table

Drainage Basin Map Drainage Calculations Pond Volume Exhibit

#### **POCKET**

**Grading Plan** 



**VICINITY MAP H-12-Z** 

## National Flood Hazard Layer FIRMette

35001C0327J

1,000

1.500

eff. 11/4/2016

4838 FEET

250

500



Eemalillo County

Bernalii lo County

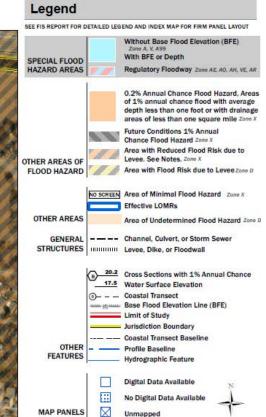
Bernalillo County

FIRM MAP

City of Albuquerque

350 002

2,000



This map compiles with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6,12/2018 at 6:45:20 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

#### I. PROJECT INFORMATION

PROPOSED LEGAL DESCRIPTION:

Bosque Antigua

EXISTING LEGAL DESCRIPTION:

Tract 2A and a Portion of Tract 3, Kelly Tracts

ENGINEER: Isaacson & Arfman, P.A.

128 Monroe Street NE Albuquerque, NM 87108

(505) 268-8828

Attn: Åsa Nilsson-Weber

SURVEYOR: Aldrich Land Surveying

(505) 884-1990

Attn: Timothy Aldrich., NMPLS No. 7719

DEVELOPER: Las Ventanas, NM, Inc.

(505) 362-6824

Attn: Scott Ashcraft

NUMBER OF PROPOSED DWELLING UNITS: 15

TOTAL AREA: 5.4812 Ac.

FLOOD PLAIN: This property lies within shaded flood Zone X which is defined as areas of

0.2% annual chance; area of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and area with reduced flood risk due to levee as determined by FEMA and shown on flood

insurance rate map no. 35001C03271, date 11/4/2016 and map no.

35001C0331H, date 8/16/12.

#### II. INTRODUCTION

This site is comprised of two vacant lots located west of Gabaldon Rd. NW and south of I-40 and is bound on the west by the Bio Park (San Gabriel State Park), on the east by two private residences and on the north and south by private residences, and at the southwest corner by a Water Authority well site. The site is zoned R-A and will be re-developed as a cluster development with 15 detached residential homes with two open space area easements that will be utilized for drainage ponds.

#### III. EXISTING CONDITIONS

The site is undeveloped. The site is flat and drainage ponds on the property. Gabaldon Rd. is a rural-type road with no curb and gutter or sidewalks. There is a roadside ditch at the east end of the property and an existing 18-inch culvert under the existing drive to the two existing residences and a secondary culvert south of the existing drive. The residence northeast of the site utilizes water in this ditch for irrigation. This existing culvert has been plugged at the south end.

#### IV. PROPOSED CONDITIONS

The site will be developed as a gated residential cluster development. The two existing residences will be included in the gated community. Easements A and B will be granted as open space (private commons areas) that will be used for ponding the 100-year, 10-day volumes. Maxum Ln. (Tract PR) will be crowned and slope to the north and to the south directing the flows to the retention ponds in the private commons open space easements. The road will have mountable estate curb and no sidewalks. There will be a view fence along the open space easements in the back yards to allow drainage to pass to the ponds. The elevation of the road was set to approximately existing grade to maintain cover over an existing 16-inch waterline in the road that will remain.

Gabaldon Rd. will remain as a rural-type road with no curb and gutter or sidewalks. An existing culvert under the existing drive and to the south will be removed.

The grading & drainage plan is included in the back pocket of this report.

#### LAND TREATMENTS & BASIN AREAS

Land treatment percent D was calculated for the developed area based on the building pad, driveway and roadway areas, and the remaining area was split between land treatments B and C. See Appendix A for land treatment calculations and basin area table.

#### HYDROLOGY

Appendix A includes a Drainage Basin Exhibit and the 100-year, 10-day pond volume calculations using the equations from the Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993.

#### PONDING IN OPEN SPACE EASEMENTS A & B

Pond A in easement A has a capacity of 865 cy at a water surface elevation of 4957, which exceeds the required 10-day storm volume of 855 cy; Pond B in easement B has a capacity of 876 cy at a water surface elevation of 4957.5, which exceeds the required volume of 843 cy; Pond C in Tract A has a capacity of 38 cy at a water surface elevation of 4958.5, which exceeds the required volume of 36 cy. The ponding capacity was calculated using AutoCAD Civil 3D by creating a composite comparison surface with the proposed ground surface and a top-of-pond surface at the water surface elevation (see Appendix A for a pond volume exhibit).

#### PONDING ON TRACT 2B, KELLY TRACTS AND PORTION OF TRACT 3, KELLY TRACTS

A v-ditch shall be graded on the two offsite properties to store the 100-yr., 10-day volume from Gabaldon Rd. Tract 2B uses water in the ditch for irrigation, but the existing culvert under the drive has been plugged since many years back so that no flows enter the ditch on Portion of Tract 3. Therefore, the culvert shall be removed. The pond volumes were calculated by the cross-sectional area of the ditch and the length (see pond volume exhibit in Appendix A). A public drainage easement and agreement & covenant shall be recorded. The easements shall be maintained by the Homeowners' Association.

#### FIRST FLUSH REQUIREMENTS

The first flush requirement will be met by directing flows to the pond areas in the private common open space easements.

#### V. SUMMARY & CONCLUSIONS

The site will be developed with 15 detached residential homes and a private, gated road. Open space easements A & B will be designated as a private commons area with private ponding areas for flows from the subdivision.

Based on this report, it is recommended that the following improvements be constructed:

- Paved street with crown and mountable estate curb.
- Retention ponds in easements A & B.
- Retention ponds on offsite Tract 2B, Kelly Tracts and Portion of Tract 3, Kelly Tracts with public drainage easement and agreement & covenant.
- Perimeter walls that are concrete filled and water proofed to one foot above the water surface elevation, where applicable.

# **APPENDIX A**

Basin Area and Land Treatment Table
Drainage Basin Exhibit
Drainage Calculations
Pond Volume Calcs Exhibit

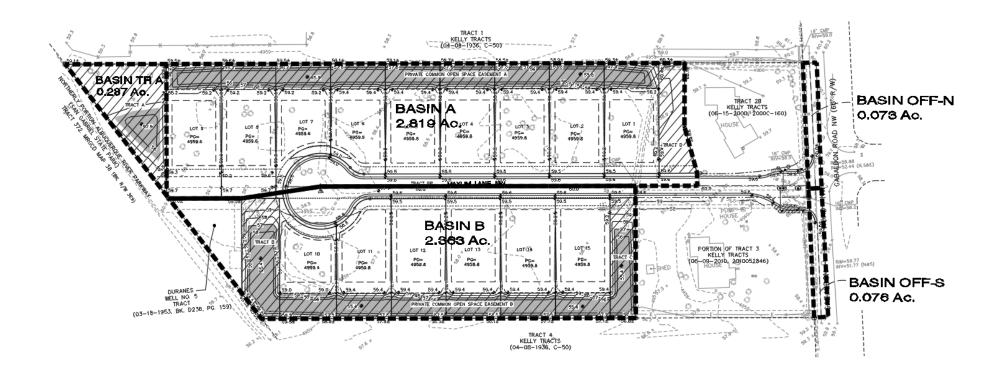
### **BOSQUE ANTIGUA**

#### BASIN AREA AND LAND TREATMENT TABLE--PROPOSED CONDITIONS

BASIN	AREA		LAND TREATMENT (%)			Required V100-10 day	Required V100-10 day	Provided V100-10 day	
	SF	AC.	Α	В	С	D	CF	CY	CY
Α	122,810	2.819	0	24	29	47	23,086	855	865
В	102,911	2.363	0	18	21	61	22,764	843	876
TR A	12,489	0.287	0	70	30	0	921	34	38
TOTAL	238,210	5.469					46,771	1,732	1,779
OFF-N	3,188	0.073	0	22	22	56	672	25	25
OFF-S	3,308	0.076	0	18	21	61	705	26	28

IMPERVIOUS ARE A CALCULATION						
BASIN	TOT. ARE A	ROAD	PAD	DRIVEWAY	TOTAL IMP	%D
Α	122,810	9,315	44,226	3,600	57,141	47%
В	102,911	28,486	32,376	2,400	63,262	61%
OFF-N	3,188	1,813			1,813	57%
OFF-S	3,308	1,929			1,929	58%

### **DRAINAGE BASIN EXHIBIT**



Job Name:	Bosque Antigu				
Client	Las Ventanas NN	1			
Date Prepared:	6/26/2018				
Date Modified: Precipitation Zone:	8/26/2018				
riecipitation Zoile.	2				
	For Zone 2				
	EA =	0.53	On A	1.56	
	ER =	0.78	QpA = QpB =	2.28	
	EC =	1.13	QpC =	3.14	
	ED =	2.12	QpC = QpD =	4.70	
	ED -	2,12	QpD =	4.70	
BASIN NO. A		DESCRIPT	ION		
Area of basin flows =	122810	SF	=	2.8 Ac.	
The following calculatio			in table to the right		REATMENT
		ed Excess Precipitation		A =	0%
	Weighted E		1.51 in	B =	24%
	Sub-basin Volum	e of Runoff (see formula	a above)	C =	29%
	V <sub>360</sub>	=	15467 CF	D =	47%
		ischarge Rate: (see forn	nula above)		
	$Q_P$	=	10.3 cfs		
BASIN NO. B	- Cr	DESCRIPT			
Area of basin flows =	102911	SF	=	2.4 Ac.	
The following calculatio		atment areas as shown i	in table to the right	LAND TE	REATMENT
_		ed Excess Precipitation		A =	0%
	Weighted E	=	1.67 in.	B =	18%
		of Runoff (see formula		C =	21%
	V <sub>360</sub>		14329 CF	D =	61%
		ischarge Rate: (see forn	nula above)		
	Qp	=	9.3 cfs		
BASIN NO. TR A	Q <sub>P</sub>	DESCRIPT	-,-		
Area of basin flows =	12489	DESCRIPT SF	ION =	0.3 Ac.	
	12489	DESCRIPT SF	ION =		REATMENT
Area of basin flows =	12489 ns are based on Tre	DESCRIPT SF	in table to the right		REATMENT 0%
Area of basin flows =	12489 ns are based on Tre Sub-basin Weight Weighted E	DESCRIPT  SF atment areas as shown is ed Excess Precipitation =	in table to the right (see formula above) 0.89 in	LAND TE	
Area of basin flows =	12489 ns are based on Tre Sub-basin Weight Weighted E Sub-basin Volum	DESCRIPT SF atment areas as shown i	in table to the right (see formula above) 0.89 in	LAND TI A =	0%
Area of basin flows =	12489 ns are based on Tre Sub-basin Weight Weighted E	DESCRIPT  SF atment areas as shown is ed Excess Precipitation =	in table to the right (see formula above) 0.89 in	A = B =	0% 70%
Area of basin flows =	12489 ns are based on Tre Sub-basin Weighte d E Sub-basin Volum V <sub>360</sub>	DESCRIPT  SF atment areas as shown is led Excess Precipitation  = e of Runoff (see formula)	in table to the right (see formula above) 0.89 in a above) 921 CF	A = B = C =	0% 70% 30%
Area of basin flows = The following calculation	12489 ns are based on Tre Sub-basin Weighte d E Sub-basin Volum V <sub>360</sub>	DESCRIPT  SF atment areas as shown is ed Excess Precipitation  = e of Runoff (see formula = ischarge Rate; (see form	in table to the right (see formula above) 0.89 in a above) 921 CF	A = B = C =	0% 70% 30%
Area of basin flows = The following calculation  BASIN OFF-	12489 ns are based on Tre Sub-basin Weighted E Sub-basin Volum V <sub>360</sub> Sub-basin Peak D Q <sub>P</sub>	DESCRIPT  SF atment areas as shown is ed Excess Precipitation = e of Runoff (see formula = ischarge Rate: (see formula = DESCRIPT)	in table to the right (see formula above) 0.89 in a above) 921 CF nula above) 0.7 cfs	A = B = C =	0% 70% 30%
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#### Pond in Easement A

Note: For ponds which hold water for longer than 6 hours, longer duration storms are required to establish runoff volumes. Since the additional precipitation is assumed to occur over a long period, the additional volume is based on the runoff from the impervious areas only.

V <sub>360</sub> (from previous calculation)	15467
Area Treatment D (SF)	57141
Zone	2

#### For 10 Day Storms:

$$V_{10day} = V_{360} + A_D * (P_{10day} - P_{360})*43560 SF/AC$$

V <sub>360</sub>	=	15467
A <sub>D</sub> (SF)	=	57141
Zone	=	2
$P_{10day}$	=	3.95
P <sub>360</sub>	=	2.35

V <sub>360</sub>	=	15467
+ imp. area	=	7619

Total Pond Volume (V <sub>10 day</sub> )	=	23086
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#### Pond in Easement B

Note: For ponds which hold water for longer than 6 hours, longer duration storms are required to establish runoff volumes. Since the additional precipitation is assumed to occur over a long period, the additional volume is based on the runoff from the impervious areas only.

V <sub>360</sub> (from previous calculation)	14329
Area Treatment D (SF)	63262
Zone	2

#### For 10 Day Storms:

$$V_{10day} = V_{360} + A_D * (P_{10day} - P_{360})*43560 SF/AC$$

$V_{360}$	=	14329
$A_{D}$ (SF)	=	63262
Zone	Ш	2
$P_{10day}$	Ш	3.95
P <sub>360</sub>	Ш	2.35

$V_{360}$	=	14329
+ imp. area	=	8435

Total Pond Volume $(V_{10 \text{ day}})$ = 22764
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#### Pond in OFF-N

Note: For ponds which hold water for longer than 6 hours, longer duration storms are required to establish runoff volumes. Since the additional precipitation is assumed to occur over a long period, the additional volume is based on the runoff from the impervious areas only.

V <sub>360</sub> (from previous calculation)	430
Area Treatment D (SF)	1817
Zone	2

#### For 10 Day Storms:

$$V_{10\text{day}} = V_{360} + A_D * (P_{10\text{day}} - P_{360})*43560 \text{ SF/AC}$$

$V_{360}$	=	430
$A_{D}$ (SF)	=	1817
Zone	II	2
$\mathbf{P}_{10\mathrm{day}}$	Ш	3.95
P <sub>360</sub>	=	2.35

V <sub>360</sub>	=	430
+ imp. area	=	242

Total Pond Volume (V <sub>10 day</sub> )	=	672

#### Pond in OFF-S

Note: For ponds which hold water for longer than 6 hours, longer duration storms are required to establish runoff volumes. Since the additional precipitation is assumed to occur over a long period, the additional volume is based on the runoff from the impervious areas only.

V <sub>360</sub> (from previous calculation)	450
Area Treatment D (SF)	1919
Zone	2

#### For 10 Day Storms:

$$V_{10day} = V_{360} + A_D * (P_{10day} - P_{360})*43560 SF/AC$$

V <sub>360</sub>	=	450
A <sub>D</sub> (SF)	=	1919
Zone	Ш	2
$\mathbf{P}_{10\mathrm{day}}$	Ш	3.95
P <sub>360</sub>	=	2.35

$V_{360}$	=	450
+ imp. area	=	256

|--|

### AUTOCAD CIVIL 3D POND VOLUME CALCS EXHIBIT

NORTH POND A VOLUME WSEL AT 57.5 865 Cu. Yd.

TRACT A POND C VOLUME WSEL AT 58.5 38 Cu. Yd.

SOUTH POND B VOLUME WSEL AT 57.0 876 Cu. Yd.

TRACT 4 KELLY TRACTS (04-08-1936, C-50) N=59.77 L=117 LF N=51.77 (NS)117\*6.4=749 CF



Thomas O. Isaacson, PE(RET.) & LS(RET.) . Fred C. Arfman, PE . Asa Nilsson-Weber, PE

August 27, 2018

Mr. Dana Peterson, PE Senior Engineer, Planning Dept. City of Albuquerque 600 2<sup>nd</sup> Street NW Albuquerque, NM 87103

RE: G11D071 – Bosque Antigua Revised Grading Plan & Drainage Report Zone Atlas Map: G-11

Dear Mr. Peterson:

Note that zone atlas for this site is H12—is the Hydrology File No. you referenced incorrect?

Please see attached for a revised drainage report and grading & drainage plan addressing your comments from July 27, 2018 (attached).

- 1. A ditch is shown on the two existing properties to retain 100-yr, 10-day volumes from Gabaldon Rd. Calculations are included in report.
- 2. Finish floor elevations are shown for the two existing residences. Buildings are elevated two feet min. from the pond water surface elevations.
- 3. Three cottonwoods will remain in Tract A—as noted on grading plan.
- 4. Pond labeling has been modified.
- 5. There will be a perimeter wall along the east line of Tract C, and there will be a perimeter wall along the south line of Tract C. The wall will be filled with concrete to one foot above water surface elevation and water proofed.
- 6. A perimeter wall detail was added along with notes stating that wall will need to be constructed on this property, including footings, unless written permission from adjacent property owner is obtained to construct wall on property line.
- 7. Hatch of water surface was "moved to back" so existing contours show up.
- 8. The plat drainage easement was added on the preliminary plat.
- 9. Noted.
- 10. Preliminary plat is attached.

Mr. Dana Peterson August 27, 2018 Page 2

The drainage covenant on Tract 2 and 2B has been provided. The easement document that created the two easements labeled 4 was provided to Doug Hughes at DRB—easements were described as two separate 10' easements in the same document.

The two ponds along Gabaldon will be on private property (two existing residences). I will note on the preliminary plat and on the infrastructure list that a public drainage easement and an agreement and covenant shall be recorded.

If you have questions regarding this submittal, please call me at 268-8828 or email me at <a href="mailto:asaw@iacivil.com">asaw@iacivil.com</a>. I will be out of the office from 8/29/18, returning 9/13/18. If there are any outstanding comments that will need to be addressed prior to preliminary plat approval, please contact Genny Donart at <a href="mailto:gennyd@iacivil.com">gennyd@iacivil.com</a>. She will attend the site plan/preliminary plat hearing for this project on September 12.

Thank you.

Sincerely,

**ISAACSON & ARFMAN** 

La Coloron-Weller

Åsa Nilsson-Weber

Attachments

Planning Department
David Campbell, Director



July 27, 2018

Åsa Nilsson-Weber, P.E. Isaacson & Arfman, P.A. 128 Monroe St. N.E Albuquerque, NM 87108

RE: Bosque Antigua
Gabaldon Dr NW
Grading and Drainage Plan
Engineer's Stamp Date 6/26/18

Hydrology File: G11D071

Dear Ms. Nilsson-Weber:

PO Box 1293

Based on the submittal received on 7/20/18 the above-referenced submittal cannot be approved until the following are corrected:

#### Prior to Preliminary Plat/ Grading Permit:

Albuquerque

1. Show the frontage improvements required for this project. The existing ditch will need to be cleaned-out and excavated to provide 100-yr, 10-day ponding for the frontage of Gabaldon half-street draining to it. Include supporting calculations.

NM 87103

2. Provide the floor elevations of the two existing residences; ensure they are adequately elevated above the proposed water surface.

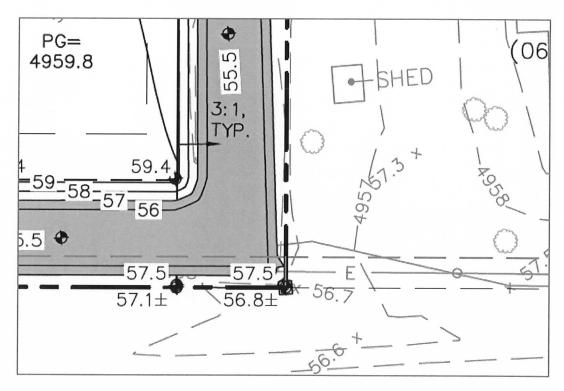
www.cabq.gov

- 3. Will the mature cottonwoods be removed? There are quite a few that would encroach on the proposed ponds if they remain. This would be acceptable, but the grading plan will need to be adapted to account for grading around them and still provide adequate storage volume.
- 4. The labeling on the ponds is unclear. Annotate the total pond volume and the  $V_{100-10day}$  volume; label that the WSEL shown/provided is for the total pond volume.
- 5. There is a low spot at the southeast corner of the south pond where the water surface will likely spill over into the neighbors to the east and south. Provide a solution for this (i.e: floodwall, berm, or fill-in the hole with their written permission):

Planning Department
David Campbell, Director



Mayor Timothy M. Keller



PO Box 1293

Albuquerque

6. Section B-B shows a new garden wall on the property line. Either inset all new walls (and their footers) from the property lines or provide written and signed permission from the neighbor for the encroachment.

NM 87103

7. Please reduce the hatch density of the water surface so the existing contours can be seen (or change the existing contours to something more visible).

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- 8. Include the <u>Plat Drainage Easement</u> Note on the preliminary plat. Use of this note removes the need to provide a separate covenant for the ponds.
- 9. This project requires an ESC Plan, submitted to the Stormwater Quality Engineer (Curtis Cherne PE, ccherne@cabq.gov or 924-3420).
- 10. Please include a copy of the proposed plat with the resubmittal.
- 11. For Information. Hydrology and Transportation files are available online through the City's GIS Viewer 2.0: <a href="https://www.cabq.gov/gis/advanced-map-viewer">https://www.cabq.gov/gis/advanced-map-viewer</a>. Turn on the *HydroTrans* layer: *Operational Layers > Albuquerque Layers > Sites > HydroTrans*. Select the desired polygon from the map and click *Link to Project Documents*.

Planning Department
David Campbell, Director



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

Sincerely,

Dana Peterson, P.E.

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# DEVELOPMENT REVIEW BOARD HYDROLOGY SECTION

Dana Peterson, Senior Engineer 924-3995 <a href="mailto:dpeterson@cabq.gov">dpeterson@cabq.gov</a>

DRB Project Number	1001228		_ Hearii	ng Date:	8-22-2018		
Project:	Kelly Tracts		_ Agenda It	Agenda Item No:			
TYPE OF REQUEST:							
☐ Sketch Plat	☐ Minor Preliminary Final Plat	∨ / ⊠ Prelimina	ary Plat	☐ Final F	'lat		
☐ Temp Sidewalk Deferral		☐ Site Plan Permit	for Building	☐ Site PI Subdiv			
☐ SIA Extension (2yr)	☐ SIA Extension - Sidewalk			☐ Vacation	on of Public of Way		
ENGINEERING COM	MENTS:						
<ul> <li>An approved Grad</li> <li>Why are there two</li> <li>Pond A and Pond</li> <li>Pond A and Pond the 'Open Space'</li> <li>The infrastructure <ul> <li>Pond A an</li> <li>Ditch/pond</li> <li>easement</li> </ul> </li> </ul>	B need to include the B need to include croeasements. needs to include draind Pond B ling along Gabaldon (note, if it's on private infrastructure may be	n is required.  Plat Drainage Eass lot drainage eanage improvemer may need drainage property).	asement Not asements (m nts: ge easemen	nay be inco	ainage		
RESOLUTION/COMM	MENTS:						
Parks & Rec:							
Water:							
Transportation:							
Planning:							
	DELEGATED TO:   Delegated For:  SIGNED:   I.L.   SI  DEFERRED TO		□ WUA	□ PRKS - PLAT	□ PLNG		