

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Director



Mayor Timothy M. Keller

May 30, 2023

Mark H. Burak, P.E.  
1512 Sagebrush Trail SE  
Albuquerque, NM 87123

**RE: La Cueva View  
Grading and Drainage Plans  
Engineer's Stamp Date: 05/02/23  
Hydrology File: C19D071**

Dear Mr. Burak:

Based upon the information provided in your submittal received 05/10/2023, the Grading & Drainage Plans are approved for Grading Permit, and for action by the Development Hearing Officer (DHO) on Preliminary/Final Plat.

PO Box 1293

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, [jhughes@cabq.gov](mailto:jhughes@cabq.gov), 924-3420) 14 days prior to any earth disturbance.

Albuquerque

NM 87103

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@cabq.gov).

www.cabq.gov

Sincerely,

Renée C. Brissette, P.E. CFM  
Senior Engineer, Hydrology  
Planning Department



# City of Albuquerque

Planning Department  
Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

**Project Title:** La Cueva View Subd. Building Permit#: \_\_\_\_\_ Hydrology File#: \_\_\_\_\_  
DRB#: \_\_\_\_\_ EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_  
Legal Description: Lot 17, Block 4, Unit 3, Tract 2, North Albuquerque Acres  
City Address: 7571 Signal Avenue NE, Albuquerque, NM

**Applicant** Burak Consulting Contact: Mark Burak, PE  
Address: 1512 Sagebrush Tr SE, 87123  
Phone#: (505) 235-2256 Fax#: \_\_\_\_\_ E-mail: mburak@comcast.net

**Other Contact:** Luxury Design Builders, LLC Contact: Gary Padilla  
Address: \_\_\_\_\_  
Phone#: (505) 269-1269 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

**TYPE OF DEVELOPMENT :**  PLAT (# of lots) 3 RESIDENCE \_\_\_\_\_ DRB SITE \_\_\_\_\_ ADMIN SITE \_\_\_\_\_

IS THIS A RESUBMITTAL? \_\_\_\_\_ Yes  No

**DEPARTMENT** \_\_\_\_\_ TRANSPORTATION  HYDROLOGY/DRAINAGE

Check all that Apply:

**TYPE OF SUBMITTAL:**

- ENGINEER/ARCHITECT CERTIFICATION
- PAD CERTIFICATION
- CONCEPTUAL G & D PLAN
- GRADING PLAN
- DRAINAGE REPORT
- DRAINAGE MASTER PLAN
- FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- ELEVATION CERTIFICATE
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL)
- TRAFFIC IMPACT STUDY (TIS)
- STREET LIGHT LAYOUT
- OTHER (SPECIFY) \_\_\_\_\_
- PRE-DESIGN MEETING?

**TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

- BUILDING PERMIT APPROVAL
- CERTIFICATE OF OCCUPANCY
- PRELIMINARY PLAT APPROVAL
- SITE PLAN FOR SUB'D APPROVAL
- SITE PLAN FOR BLDG. PERMIT APPROVAL
- FINAL PLAT APPROVAL
- SIA/ RELEASE OF FINANCIAL GUARANTEE
- FOUNDATION PERMIT APPROVAL
- GRADING PERMIT APPROVAL
- SO-19 APPROVAL
- PAVING PERMIT APPROVAL
- GRADING/ PAD CERTIFICATION
- WORK ORDER APPROVAL
- CLOMR/LOMR
- FLOODPLAIN DEVELOPMENT PERMIT
- OTHER (SPECIFY) \_\_\_\_\_

DATE SUBMITTED: May 4, 2023 By: Mark Burak

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \$0

# LA CUEVA VIEW SUBDIVISION GRADING & DRAINAGE PLAN

7571 Signal Ave NE

May 2023

## Notes

**Site Location** - As shown by the Vicinity Map, the 0.61-acre site is located on the north side of Signal Avenue NE, on the west side of Wyoming Boulevard across from La Cueva High School. At present, the site is undeveloped and drains roughly from east to west to an existing garden wall then south to Signal Avenue. The purpose of this project is to develop the property to construct three separate residential structures with a 143-foot long private roadway.

**Legal Description** - 7571 Signal Avenue NE 87113. Lot 17, Block 4, Unit 3, Tract 2 North Albuquerque Acres, New Mexico. UPC 101906425433420216

**Flood Zone** - As shown by Panel 141G of 825 of the National Flood Insurance Program Flood Insurance Rate Maps (FIRM) for Bernalillo County, New Mexico, dated September 26, 2008, this site does not lie within a designated flood hazard zone.

**Existing Conditions** - Currently, the site is undeveloped. Previous grading has been conducted on the property and it is relatively level with no native vegetation. Runoff from upstream comprises a quarter-acre strip of bare property between the proposed subdivision and the west Wyoming sidewalk. The offsite upstream watershed is about one-quarter acre in size and currently discharges approximately 0.8-cfs onto the property from the east. The subject property currently discharges 2.3-cfs onto Signal to the south and west.

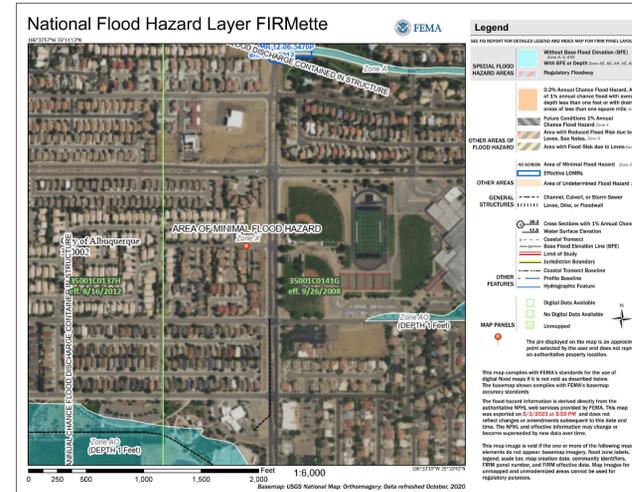
**Hydrologic Methods** - The drainage calculations estimate the potential runoff from the project site to assess the peak flow rate at the outfall of the project site culminating at the southwestern property boundary at Signal Avenue. The calculations which appear herein analyze both the existing and fully developed conditions for the 100-year, 6-hour rainfall event. One offsite basin and fifteen on-site basins were assessed. See attached spreadsheet for calculations.

**First Flush / Water Quality Management** - The first flush has been mitigated based on 18,000 sf of the project site to be impervious. This equates to an area of 9,300\*0.61/12 or 922 cubic feet. This storage has been provided on the plan by implementing a shallow retention basin into the front landscaped area of the property and an additional larger basin north of the garden wall. The offsite Basin A will retain up to 6,600 cubic feet within itself. Basins B, C, & D all drain into a retention area in the rear yards of Lots 2 and 3 with a total available retention volume of 1,020 cubic feet. Basins E and P individual retention areas will have a capacity of 524 cubic feet and 234 cubic feet respectively. The rear portion of Lot 1 will drain into its own back yard to retain up to a maximum of 250 cubic feet. Any excess runoff is to be directed to the proposed roadway through single turned blocks in the garden walls.

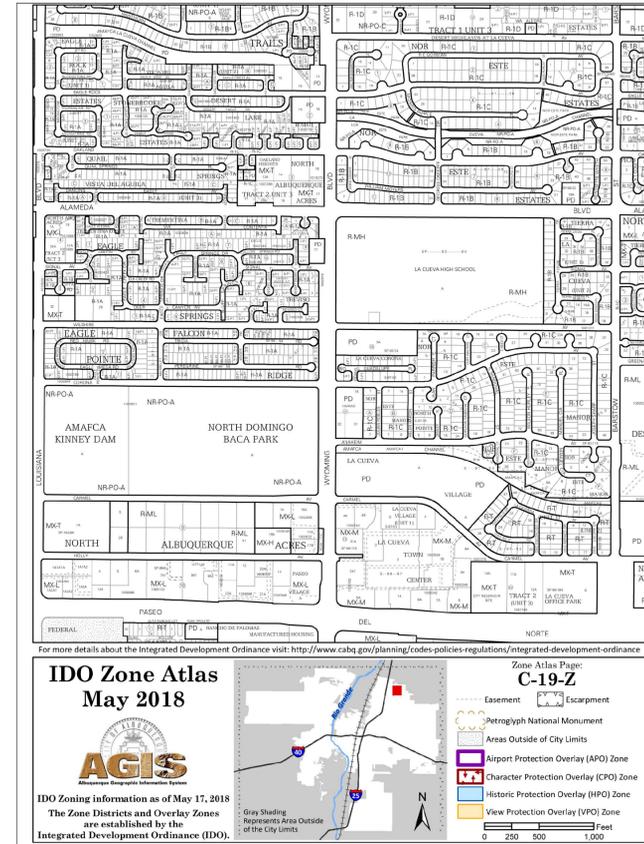
**Proposed Conditions** - All three residences are to be constructed with finished floor elevation of 5,393 feet. To provide adequate pad sites that will drain to the retention areas and/or Signal Avenue, between one to four feet of fill material will be required for the two northern lots. This will allow for a one percent slope for the east gutter of the proposed roadway to ensure adequate drainage capacity.

The existing homes adjacent to the west are about six feet lower than the ground of the subject property. A retaining wall is located along the western property boundary. To retain additional material along the western property, either the existing retaining wall will need to be extended or a new retaining wall will need to be constructed adjacent to the existing one. Since the curb and gutter for the new roadway is adjacent to the existing wall, the new retaining wall will be placed beneath the new curb and gutter. Only between one to three feet will need to be retained beneath the curb and gutter along the western reach of the roadway. The footing will be located at the outside edge of the

## FEMA Map 141G



## Zone Atlas C-19



wall so that the two walls will butt up against each other at the property. The western wall on Lot 2 will also butt up against the existing wall and may be raised with a garden wall on top of the retaining segment.

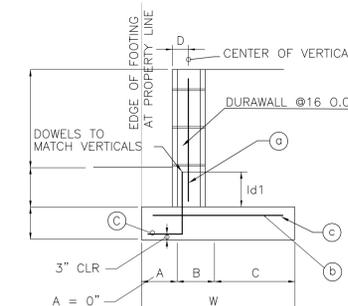
Signal Avenue is currently completed except for the property frontage. This reach will require a new curb, gutter, and five foot sidewalk to connect to the existing handicap ramp located at the Wyoming/Signal intersection. The roadway is currently sloped at 4.32 percent from east to west. The proposed sidewalk slope was increased to five percent to allow for a flatter handicap ramp at the east side of the new intersection. The handicap ramp is located at the vertical juncture between the one percent north/south curb and gutter and the new Signal curb and gutter. The bottom of the handicap ramp is level at the curb return. The western portion of the new roadway will transition from one percent to two percent towards the south. To obtain a flat handicap ramp access from the roadway, the new road slope will need to increase to four percent for a short reach.

The front yard landscaped areas adjacent to the driveway will be depressed about one foot to obtain a maximum retention capacity of 524 cubic feet in the Lot 2 and 3 pond and 234 cubic feet of runoff volume in the Lot 1 pond. These depressed areas will be landscaped and the front portions of the properties and a portion of the roof drainage will discharge into these areas. The ponding area will overflow into the driveway. The overflow runoff will continue south along the new roadway and will discharge into Signal Avenue.

The rear and side yards are to be graded away from the houses to discharge into one of the water quality basins. The rear yards within the garden wall may be sodded since the retention areas are limited to only one foot of depth. The side yard areas are to be graveled and landscaped with native plantings. All graded and disturbed areas within the property are to be reseeded and revegetated in accordance with City of Albuquerque Guidelines for Sustainability.

The concept of this development is to blend harmoniously into the existing environment. The area within the garden wall will be graded to a minimum slope to ensure that any runoff impacting the area will be spread into sheet flow to minimize discharge, depths and velocities associated with the design rainfall event.

## Retaining Wall Detail



RETAINING WALL DIMENSIONS & REINFORCEMENT										
MIN. DIMENSIONS					STEEL REINFORCEMENT					
H	T	A	B	C	D	W	a	b	c	Id1
2'	1'-0"	0'-6"	0'-8"	0'-10"	5 1/4"	2'-0"	#5@24" o.c.	#5@16"	#4@16"	1'-6"
3'	1'-0"	0'-6"	0'-8"	1'-3"	5 1/4"	2'-5"	#5@16" o.c.	#5@16"	#4@16"	1'-6"
4'	1'-0"	1'-0"	0'-8"	1'-2"	6 1/4"	2'-10"	#5@16" o.c.	#5@16"	#4@16"	1'-6"
5'	1'-0"	1'-0"	0'-8"	1'-9"	6 1/4"	3'-5"	#5@8" o.c.	#5@16"	#4@16"	1'-6"
6'	1'-0"	1'-0"	0'-8"	2'-6"	6 1/4"	4'-2"	#5@8" o.c.	#5@16"	#4@16"	1'-6"

DESIGNED BY: M.H.B.	DATE: 05/20/23
DRAWN BY: T.D.S.	REVISION:



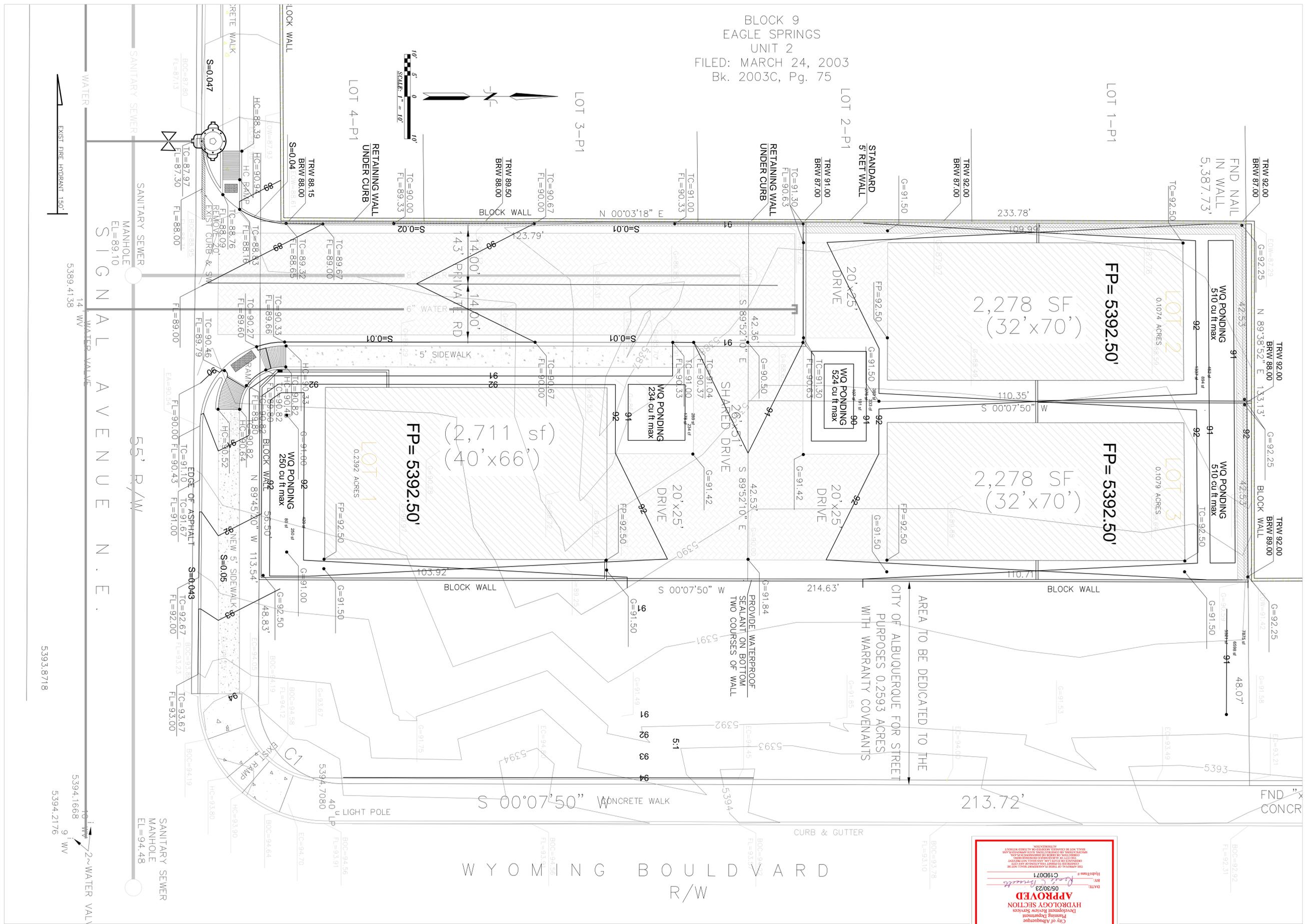
Mark H. Burak, P.E.  
1512 Sagebrush Trail SE  
Albuquerque, New Mexico, 87123  
(505) 235-2256  
mburak@comcast.net



La Cueva View Subdivision  
COVER / NOTES  
7571 Signal Ave NE

DRAWING NUMBER  
**C1**

BLOCK 9  
EAGLE SPRINGS  
UNIT 2  
FILED: MARCH 24, 2003  
Bk. 2003C, Pg. 75



City of Albuquerque  
Planning Department  
Hydrology Section  
Development Review Services  
**APPROVED**  
DATE: 06/30/23  
BY: *David C. Brinkley*  
C190071

2 OF 3

**C2**

La Cueva View Subdivision

GRADING PLAN  
7571 Signal Ave NE

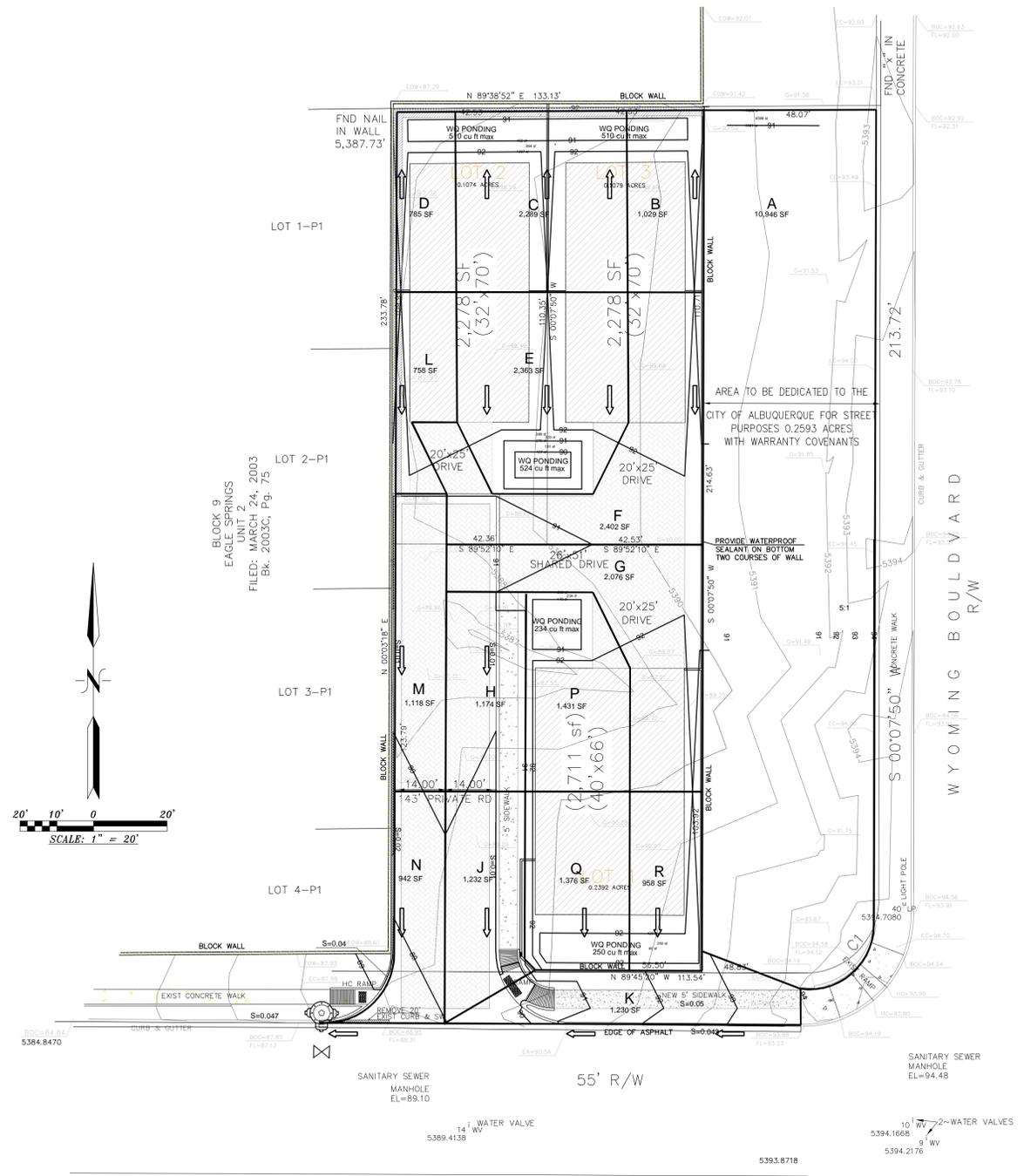
Mark H. Burak, P.E.  
1512 Sagebrush Trail SE  
Albuquerque, New Mexico, 87123  
(505) 235-2256  
mburak@comcast.net

DESIGNED BY: M.H.B.  
DRAWN BY: T.D.S.

REVISION

BY DATE MARK





Hydrologic Calculations - COA DPM Ch 6 (100-Year, 6-Hour Storm)											
Burak Consulting						La Cueva View Subdivision					
Zone 3						Zone 3					
Precipitation (DPM Ch6 Table 6.2)						Precipitation (DPM Ch6 Table 6.2)					
P60	P360	P1440	P4days	P10days		P60	P360	P1440	P4days	P10days	
1.84	2.43	2.84	3.20	4.1		1.84	2.43	2.84	3.20	4.1	
Excess (DPM Ch6 Table 6.7)						Excess (DPM Ch6 Table 6.7)					
0.86 inches-A 1.09 inches-B 2.58 inches-C 2.58 inches-D						0.86 inches-A 1.09 inches-B 2.58 inches-C 2.58 inches-D					
Peak (DPM Ch6 Table 6.8)						Peak (DPM Ch6 Table 6.8)					
1.84 cfs/ac-A 2.49 cfs/ac-B 3.17 cfs/ac-C 4.49 cfs/ac-D						1.84 cfs/ac-A 2.49 cfs/ac-B 3.17 cfs/ac-C 4.49 cfs/ac-D					
Discharge						Discharge					
1.84 cfs/ac-A 2.49 cfs/ac-B 3.17 cfs/ac-C 4.49 cfs/ac-D						1.84 cfs/ac-A 2.49 cfs/ac-B 3.17 cfs/ac-C 4.49 cfs/ac-D					
Drainage Areas											
Land Treatments - Existing Conditions						Land Treatments - Fully Developed Conditions					
Basin	A	B	C	D	Area (sf)	Basin	A	B	C	D	Area (sf)
Basin A	0.00	0%	0.00	0%	0.25	100%	0.00	0%	0.25	100%	10,946
Basin B	0.00	0%	0.00	0%	0.02	100%	0.00	0%	0.02	100%	1,029
Basin C	0.00	0%	0.00	0%	0.05	100%	0.00	0%	0.05	100%	2,289
Basin D	0.00	0%	0.00	0%	0.02	100%	0.00	0%	0.02	100%	785
Basin E	0.00	0%	0.00	0%	0.05	100%	0.00	0%	0.05	100%	2,283
Basin F	0.00	0%	0.00	0%	0.06	100%	0.00	0%	0.06	100%	2,402
Basin G	0.00	0%	0.00	0%	0.05	100%	0.00	0%	0.05	100%	2,076
Basin H	0.00	0%	0.00	0%	0.03	100%	0.00	0%	0.03	100%	1,174
Basin I	0.00	0%	0.00	0%	0.03	100%	0.00	0%	0.03	100%	1,232
Basin K	0.00	0%	0.00	0%	0.03	100%	0.00	0%	0.03	100%	1,230
Basin L	0.00	0%	0.00	0%	0.02	100%	0.00	0%	0.02	100%	758
Basin M	0.00	0%	0.00	0%	0.03	100%	0.00	0%	0.03	100%	1,118
Basin N	0.00	0%	0.00	0%	0.02	100%	0.00	0%	0.02	100%	942
Basin P	0.00	0%	0.00	0%	0.03	100%	0.00	0%	0.03	100%	1,431
Basin Q	0.00	0%	0.00	0%	0.03	100%	0.00	0%	0.03	100%	1,376
Basin R	0.00	0%	0.00	0%	0.02	100%	0.00	0%	0.02	100%	958
											17,988.55
Discharge											
Peak Flow Rate - Existing Conditions						Peak Flow Rate - Developed Conditions					
Basin	A	B	C	D	Q (cfs)	Basin	A	B	C	D	Q (cfs)
Basin A	0.00	0.00	0.80	0.00	0.8	Basin A	0.00	0.00	0.80	0.00	0.8
Basin B	0.00	0.00	0.07	0.00	0.1	Basin B	0.00	0.01	0.00	0.09	0.1
Basin C	0.00	0.00	0.17	0.00	0.2	Basin C	0.00	0.02	0.00	0.20	0.2
Basin D	0.00	0.00	0.06	0.00	0.1	Basin D	0.00	0.01	0.00	0.07	0.1
Basin E	0.00	0.00	0.17	0.00	0.2	Basin E	0.00	0.02	0.00	0.21	0.2
Basin F	0.00	0.00	0.17	0.00	0.2	Basin F	0.00	0.02	0.00	0.21	0.2
Basin G	0.00	0.00	0.16	0.00	0.2	Basin G	0.00	0.02	0.00	0.18	0.2
Basin H	0.00	0.00	0.09	0.00	0.1	Basin H	0.00	0.01	0.00	0.10	0.1
Basin I	0.00	0.00	0.09	0.00	0.1	Basin I	0.00	0.01	0.00	0.11	0.1
Basin J	0.00	0.00	0.09	0.00	0.1	Basin J	0.00	0.01	0.00	0.11	0.1
Basin K	0.00	0.00	0.09	0.00	0.1	Basin K	0.00	0.01	0.00	0.11	0.1
Basin L	0.00	0.00	0.06	0.00	0.1	Basin L	0.00	0.00	0.01	0.07	0.1
Basin M	0.00	0.00	0.08	0.00	0.1	Basin M	0.00	0.01	0.00	0.10	0.1
Basin N	0.00	0.00	0.07	0.00	0.1	Basin N	0.00	0.01	0.00	0.08	0.1
Basin P	0.00	0.00	0.10	0.00	0.1	Basin P	0.00	0.01	0.00	0.13	0.1
Basin Q	0.00	0.00	0.10	0.00	0.1	Basin Q	0.00	0.01	0.00	0.12	0.1
Basin R	0.00	0.00	0.07	0.00	0.1	Basin R	0.00	0.01	0.00	0.08	0.1
					2.3						2.8
Total Generated											
Volume											
Runoff Volume - Existing Conditions						Runoff Volume - Developed Conditions					
Six Hour Storm Event						Six Hour Storm Event					
Basin	A	B	C	D	V (cu-ft)	Basin	A	B	C	D	V (cu-ft)
Basin A	0	0	994	0	994	Basin A	0	0	994	0	994
Basin B	0	0	93	0	93	Basin B	0	11	0	188	199
Basin C	0	0	208	0	208	Basin C	0	25	0	418	443
Basin D	0	0	71	0	71	Basin D	0	8	0	143	152
Basin E	0	0	215	0	215	Basin E	0	25	0	432	457
Basin F	0	0	218	0	218	Basin F	0	26	0	439	465
Basin G	0	0	189	0	189	Basin G	0	22	0	379	402
Basin H	0	0	107	0	107	Basin H	0	13	0	215	227
Basin I	0	0	112	0	112	Basin I	0	13	0	225	238
Basin J	0	0	112	0	112	Basin J	0	13	0	225	238
Basin K	0	0	69	0	69	Basin K	0	10	0	138	148
Basin L	0	0	102	0	102	Basin L	0	12	0	204	216
Basin M	0	0	86	0	86	Basin M	0	10	0	172	182
Basin N	0	0	86	0	86	Basin N	0	10	0	172	182
Basin P	0	0	130	0	130	Basin P	0	15	0	262	277
Basin Q	0	0	125	0	125	Basin Q	0	15	0	251	266
Basin R	0	0	87	0	87	Basin R	0	10	0	175	185
					1,902						2,118
Retention Provided						Retention Provided					
6598						6598					
Available						Available					
1,902 cu.ft.						1,902 cu.ft.					
Volume											
Runoff Volume - Existing Conditions						Runoff Volume - Developed Conditions					
Ten Day Storm Event						Ten Day Storm Event					
Basin	A	B	C	D	V (cu-ft)	Basin	A	B	C	D	V (cu-ft)
Basin A	0	0	994	0	994	Basin A	0	0	994	0	994
Basin B	0	0	93	0	93	Basin B	0	11	0	188	199
Basin C	0	0	208	0	208	Basin C	0	25	0	418	443
Basin D	0	0	71	0	71	Basin D	0	8	0	143	152
Basin E	0	0	215	0	215	Basin E	0	25	0	432	457
Basin F	0	0	218	0	218	Basin F	0	26	0	439	465
Basin G	0	0	189	0	189	Basin G	0	22	0	379	402
Basin H	0	0	107	0	107	Basin H	0	13	0	215	227
Basin I	0	0	112	0	112	Basin I	0	13	0	225	238
Basin J	0	0	112	0	112	Basin J	0	13	0	225	238
Basin K	0	0	69	0	69	Basin K	0	10	0	138	148
Basin L	0	0	102	0	102	Basin L	0	12	0	204	216
Basin M	0	0	86	0	86	Basin M	0	10	0	172	182
Basin N	0	0	86	0	86	Basin N	0	10	0	172	182
Basin P	0	0	130	0	130	Basin P	0	15	0	262	277
Basin Q	0	0	125	0	125	Basin Q	0	15	0	251	266
Basin R	0	0	87	0	87	Basin R	0	10	0	175	185
					1,902						2,118
Retention Provided						Retention Provided					
6598						6598					
Available						Available					
1,902 cu.ft.						1,902 cu.ft.					

City of Albuquerque  
 Planning Department  
 Development Review Services  
**HYDROLOGY SECTION**  
**APPROVED**  
 DATE: 05/30/23  
 BY: *Renee C. Branstetter*  
 HydroTrans # C19D071

THE APPROVAL OF THESE PLANS DOES NOT BE  
 CONSIDERED AN ENDORSEMENT OF THE CITY  
 OR THE CITY OF ALBUQUERQUE'S DESIGN OR  
 CONSTRUCTION, OR ENDORSEMENT OF ANY  
 SPECIFIC MATERIALS OR METHODS. THESE APPROVALS  
 SHALL NOT BE CONSIDERED VALID WITHOUT  
 THE SIGNATURE OF THE APPROVING OFFICIAL.

DESIGNED BY: M.H.B.  
 DRAWN BY: T.D.S.

STATE OF NEW MEXICO  
 PROFESSIONAL ENGINEER  
 No. 19997  
 Mark H. Burak  
 May 24, 2003

Mark H. Burak, P.E.  
 1512 Sagebrush Trail SE  
 Albuquerque, New Mexico, 87123  
 (505) 235-2256  
 mburak@comcast.net

La Cueva View Subdivision  
**DRAINAGE PLAN**  
 7571 Signal Ave NE

DRAWING NUMBER  
**C3**

3 OF 3