

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Interim Director



Mayor Timothy M. Keller

November 24, 2021

Robert Fierro, P.E.  
Fierro & Company  
6300 Montano Rd. NW  
Albuquerque, NM 87120

**RE: Luna Residence  
9115 Riverdale Lane NW  
Grading and Drainage Plan  
Engineer's Stamp Date: 11/18/21  
Hydrology File: C13D027G**

Dear Mr. Luehring:

PO Box 1293

Based upon the information provided in your submittal received 11/19/2021, the Grading and Drainage Plan is approved for Grading Permit (earthwork can get started for the earth pad on the house).

Albuquerque

**PRIOR TO BUILDING PERMIT:**

NM 87103

1. Once the grading is complete (the earth pad is done for the house), please attach a **site photo** with the Hydrology submittal for Pad Certification and Building Permit approval.
2. An Engineer's Certification of the compacted pad and grading (Pad Certification), per the DPM Part 6-14 (G): Engineer's Certification Checklist for Subdivision and Part 6-14 (H): Required Certification Language is required prior to issuing Building Permit.

www.cabq.gov

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@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 11/2018)

**Project Title:** \_\_\_\_\_ **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** \_\_\_\_\_

**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_

**Legal Description:** \_\_\_\_\_

**City Address:** \_\_\_\_\_

**Applicant:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Owner:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**TYPE OF SUBMITTAL:** \_\_\_\_\_ PLAT (\_\_\_\_# OF LOTS) \_\_\_\_\_ RESIDENCE \_\_\_\_\_ DRB SITE \_\_\_\_\_ ADMIN SITE

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

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

Check all that Apply:

### TYPE OF SUBMITTAL:

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

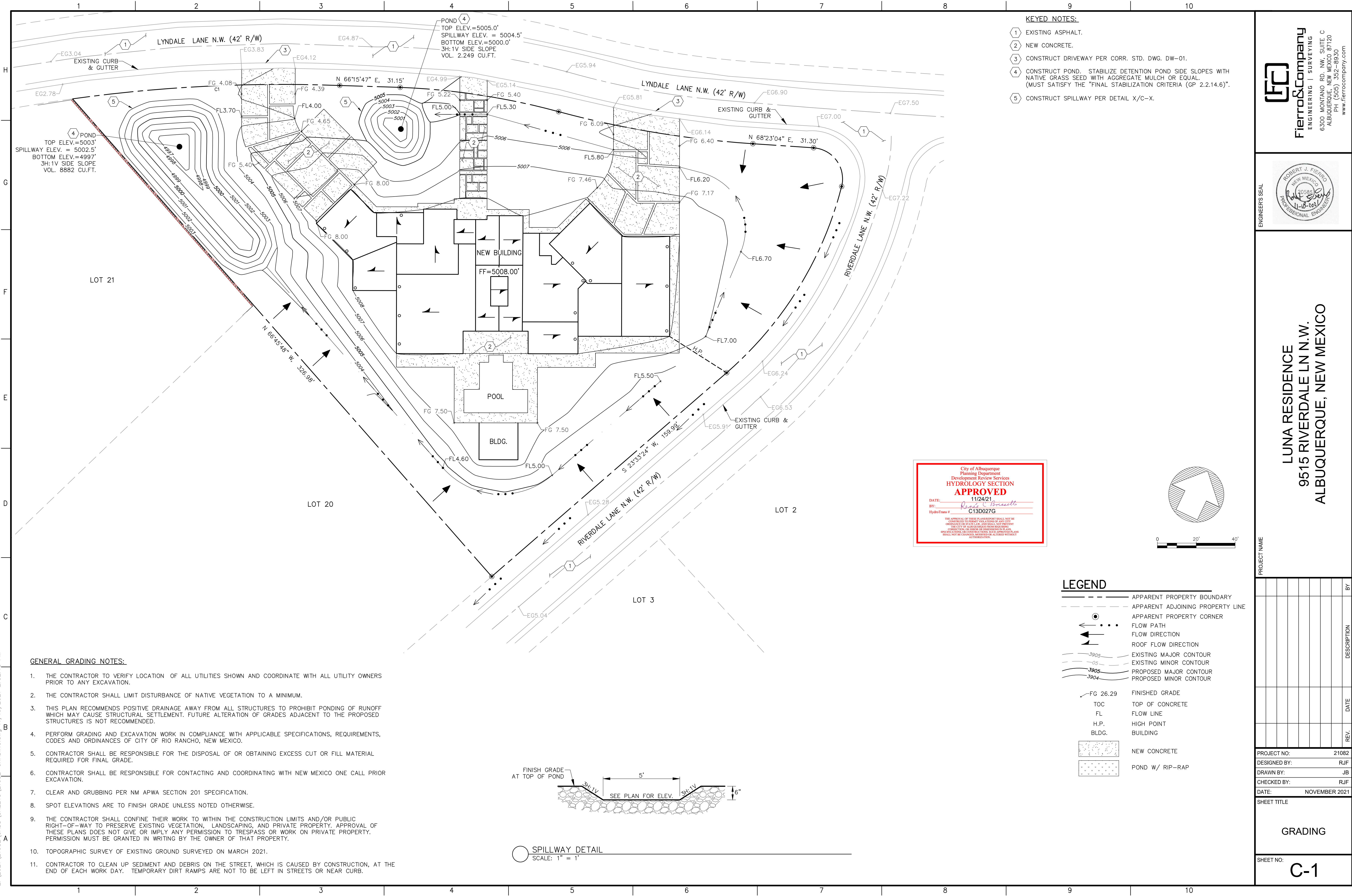
**DATE SUBMITTED:** \_\_\_\_\_ **By:** \_\_\_\_\_

COA STAFF:

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

FEE PAID: \_\_\_\_\_

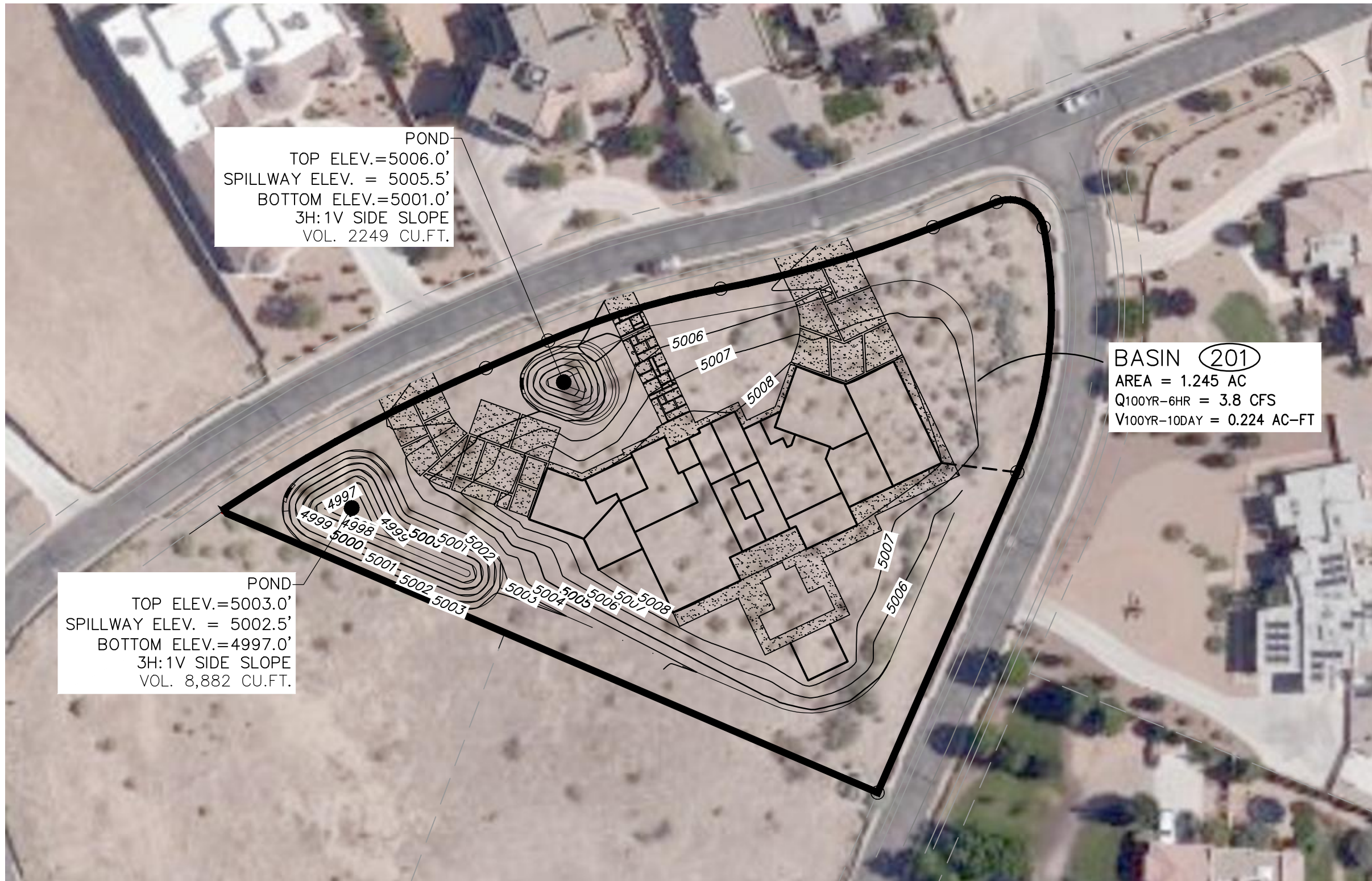
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EXISTING BASIN MAP



PROPOSED BASIN MAP



HYDROLOGY SUMMARY										
Basin	Total Area (acres)	Land Treatment (%)				Q <sub>100</sub> (cfs)	V <sub>100yr-6hr</sub> (ac-ft)	V <sub>100yr-24hr</sub> (ac-ft)	V <sub>100yr-4day</sub> (ac-ft)	V <sub>100yr-10day</sub> (ac-ft)
		A	B	C	D					
100	1.245	90.0	0.0	10.0	0.0	2.1	0.061	0.061	0.061	0.061
200	1.245	0.0	55.0	0.0	45.0	3.8	0.146	0.161	0.191	0.227

#### HYDROLOGY SUMMARY

TOTAL NEW LAND TREATMENT "D" AREA = 2,700 SQ.FT.  
WATER QUALITY STORAGE REQ. (NEW DEVELOPMENT)=24,412 SQ.FT.\*(.42")\*(1'/12")=854 CU.FT.=0.0196 AC.FT.

#### STORMWATER QUALITY VOLUME POND (0.62" STORM)

TOTAL RETENTION POND VOL. REQUIRED =  $SWQV + \Delta V_{100-YR, 10-DAY}$   
= 854 CU.FT. + 9892 CU.FT = 10,746 CU.FT.

TOTAL DETENTION POND VOL. PROVIDED = POND 1(VOL.) + POND 2(VOL.)  
= 8882 + 2249 = 11,131 CU.FT.

PROVIDED VOL. EXCEEDS REQUIRED RETENTION VOLUME.

#### DETENTION POND SUMMARY

POND No. 1 WSEL = 5002.5'  
POND NO. 2 WSEL = 5005.5'

#### WATER SURFACE ELEVATION

#### Introduction

The site is 1.25 acres and is Lot 19 of Black Farm Estates. Lot 19 is located at the intersection of Lyndale Lane and Riverdale Lane. Proposed improvements include a residential building with a footprint of 10,000 sq.ft., two driveways with connections to Lyndale Lane, and two ponds. The purpose of this Grading & Drainage Plan is to 1) provide hydrologic and hydraulic analysis of the existing and proposed condition, 2) satisfy the requirements from the approved Black Farms Drainage Report, 3) satisfy the Stormwater Quality Volume requirement, and 3) seek approval from City of Albuquerque's Hydrology Department.

#### Methodology

Hydrologic procedures presented in Chapter 6 of City of Albuquerque's the Development Process Manual, effective as of June 8, 2020 were followed.

#### Existing Condition

Lot 19 is vacant. The lot isn't flat and has a slope of approximately 1% from the high point at the northeast corner to the lowest elevation at the most westerly corner of the site, which is caused by Riverdale being higher in elevation than Lyndale Road. Due to the flat grading scheme of Black Farms runoff from the road may enter the site during the 100-year, 10-day storm.

#### Proposed Condition

Proposed improvements include a residential building with a footprint of 10,000 sq.ft., two driveways with connections to Lyndale Lane, and two ponds. The site will retain the combined runoff volume from the 100-year, 10-day storm and storm water quality volume within two ponds located along Lyndale Lane. Runoff from the backyard will flow to the front yard to one of the two ponds. The flat grading scheme does not work on Lot 19, since Riverdale is higher in elevation than Lyndale Road. Due to the difference in road elevations, runoff from the front yard cannot drain to the back yard. The ponds are located as designated in Black Farms master drainage plan. The proposed impervious improvement is approximately 35%; however, the site will retain the site's 100-year, 10-day storm with the imperious cover at 45%. Runoff from Pond 2 will overtop and flow to Pond 1. Runoff from precipitation greater than the 100-year, 10-day storm will overtop Pond 1 and flow to Lyndale Lane.

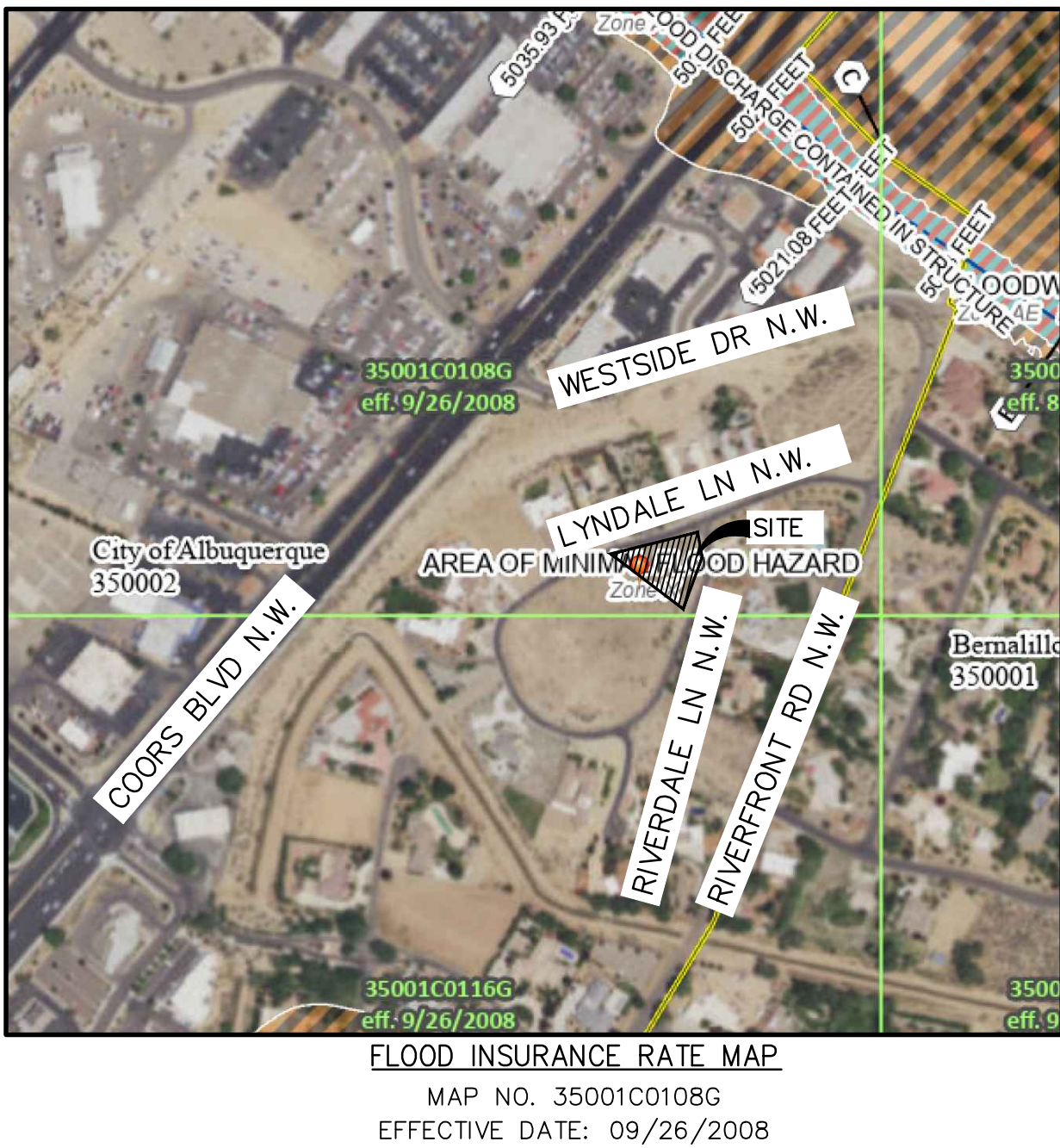
#### Conclusion

The proposed development meets the drainage requirements from Black Farms Drainage Master Plan and the City's Stormwater Quality Volume. This drainage report seeks COA's Hydrology and approval.

#### DRAINAGE REPORT

#### LEGEND

—	PROPERTY BOUNDARY
→	FLOW PATH
→	ROOF FLOW
→	SURFACE DRAINAGE
- - -	UTILITY EASEMENT LINE
—	FLOWLINE
—	EXISTING MAJOR CONTOUR
—	EXISTING MINOR CONTOUR
—	PROPOSED MAJOR CONTOUR
—	PROPOSED MINOR CONTOUR
—	PROPOSED BASIN
—	EXISTING BASIN



REV.	DATE	DESCRIPTION	BY

PROJECT NO:	21082
DESIGNED BY:	RJF
DRAWN BY:	JB
CHECKED BY:	RJF
DATE:	NOVEMBER 2021