

# CITY OF ALBUQUERQUE

Planning Department  
Brennon Williams, Director



Mayor Timothy M. Keller

August 10, 2020

Jackie McDowell, PE  
McDowell Engineering, Inc.  
7820 Beverly Hills Ave NE  
Albuquerque, NM 87121

RE: **Lot 13 Block 9 Unit 22, S.A.D. 228**  
**Volcano Cliffs Subdivision**  
**6411 Petirrojo Rd. NW**  
**Grading and Drainage Plan**  
**Engineers Stamp Date 8/7/2020 Rev (D10D003Q13)**

Ms. McDowell,

Based upon the information provided in your submittal received 8/7/2020, this plan is approved for Grading Permit.

PO Box 1293

**Prior to Building permit approval a Pad Certification will be required, provided by the Engineer or a registered Land Surveyor.**

Albuquerque

Please inform the builder/owner to attach a copy of this approved plan to the construction sets in the permitting process prior to sign-off by Hydrology.

NM 87103

Reiterate to the Owner/Contractor that a separate permit for a garden/retaining wall must be obtained, with the approved G&D plan dated 7/28/2020.

www.cabq.gov

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist of this plan will be required.

If you have any questions, please contact me at 924-3986 or Rudy Rael at 924-3977.

Sincerely,

Ernest Armijo, P.E.  
Principal Engineer, Planning Dept.  
Development Review Services



# City of Albuquerque

Planning Department  
Development & Building Services Division

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

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

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

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

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

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

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

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

**Other Contact:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

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

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

**TYPE OF DEVELOPMENT:** \_\_\_\_\_ PLAT (# of lots) \_\_\_\_\_ 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) \_\_\_\_\_

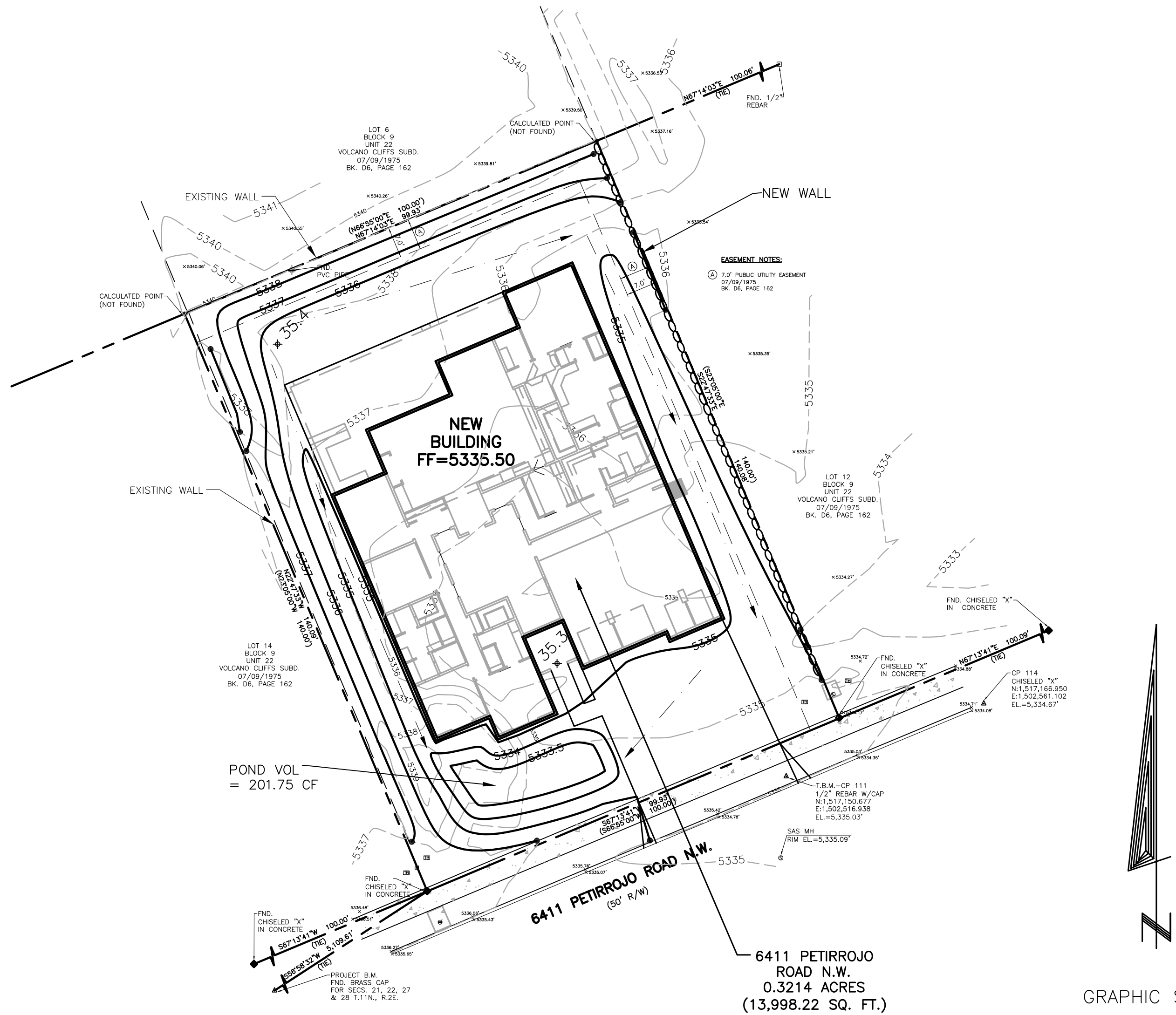
**DATE SUBMITTED:** \_\_\_\_\_ **By:** \_\_\_\_\_

COA STAFF:

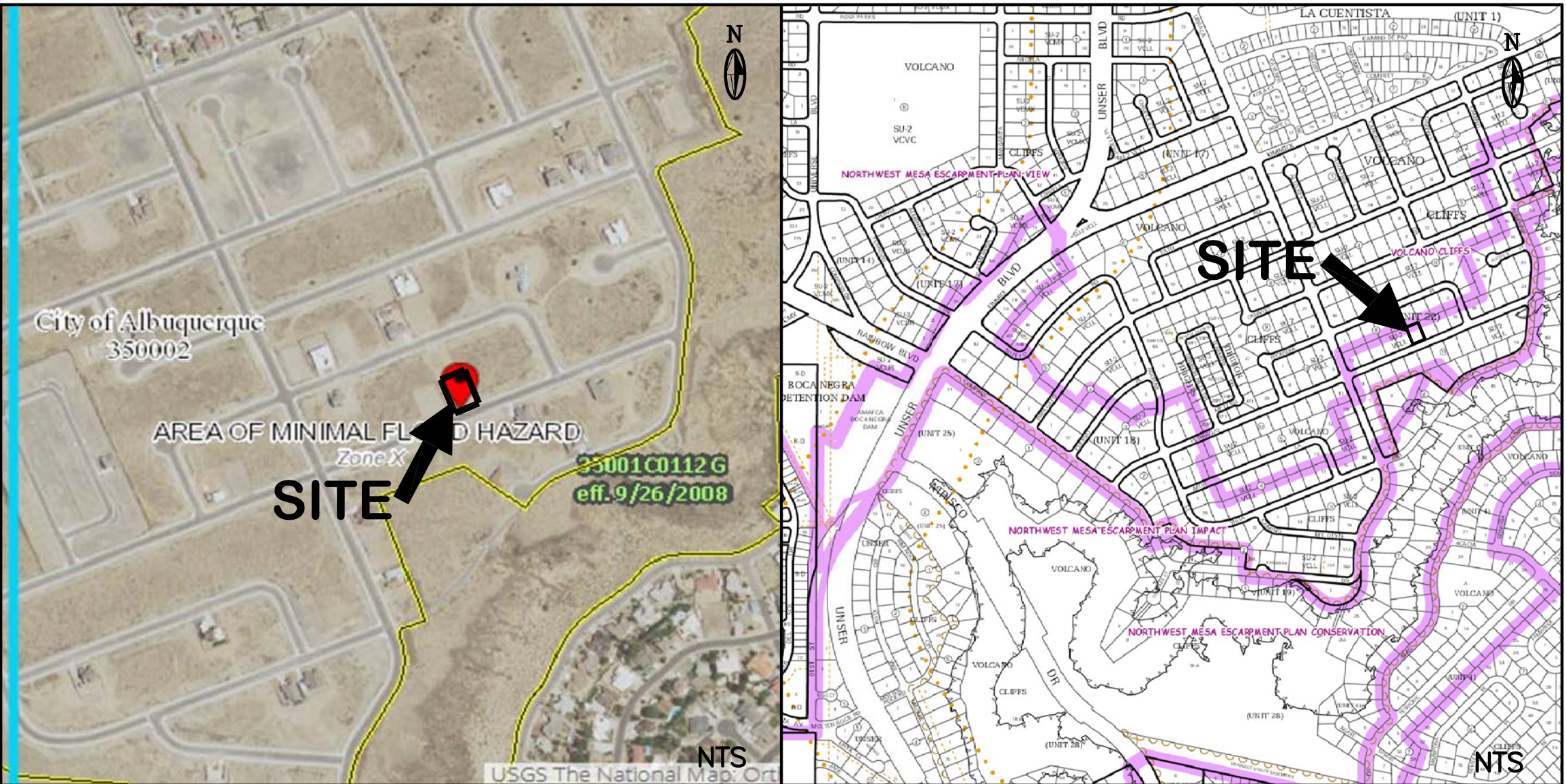
ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

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





**SURVEY NOTES:**  
**LEGAL DESCRIPTION**  
LOT 13, BLOCK 9, UNIT 22, VOLCANO CLIFFS SUBDIVISION FILED JULY 9, 1975 IN BOOK D6, PAGE 162.  
**PROJECT LOCATION**  
6411 PETIRROJO ROAD N.W., ALBUQUERQUE, NEW MEXICO  
**SURVEY INFORMATION**  
TOPOGRAPHIC SURVEY PERFORMED AND COMPILED BY TERRA LAND SURVEYS, LLC. CORRALES, NEW MEXICO JULY 2020.  
**PROJECT BENCHMARK**  
PROJECT BENCHMARK IS A CITY OF ALBUQUERQUE CONTROL STATION "S21, S22, S28, S27, T11N R2E, 1911" BEING A USGLO SECTION CORNER ELEVATION = 5,330.151 FEET (NAVD 1988 VERTICAL DATUM).  
**TEMPORARY PROJECT BENCHMARK**  
PROJECT BENCHMARK CP 100 IS A TERRA LAND SURVEY 1/2" REBAR WITH PLASTIC CAP STAMPED "TERRA CONTROL" ELEVATION = 5,335.03 FEET (NAVD 1988 VERTICAL DATUM).  
**NOTES**  
1. FIELD SURVEY PERFORMED IN JULY 2020.  
2. TOPOGRAPHIC SURVEY WAS COMPILED UTILIZING GRID COORDINATES REFERENCED TO NAD 1983 CENTRAL ZONE. PRIMARY HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED UTILIZING GPS RTK METHODS. COMBINED GROUND TO GRID FACTOR IS 0.999669939/1.000330170 SCALED AROUND 0.0.  
3. ELEVATIONS SHOWN FOR PIPES ARE INVERT ELEVATIONS UNLESS OTHERWISE SPECIFIED.  
4. CONTOURS SHOWN HEREON ARE AT A ONE FOOT INTERVAL REFERENCED TO THE NAVD 88 VERTICAL DATUM.  
5. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL OF THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.



FEMA FLOODWAY MAP PANEL #112G VICINITY MAP ZONE ATLAS D-10

This is the plan to be used for any garden walls and any openings in the walls shall be placed 3" above final grade in the rear yard to allow for cross lot drainage from west to east (upstream to downstream).

PROPERTY LINE WALLS AND GARDEN WALLS SHALL HAVE TURNED BLOCKS OR WEEP HOLES FOR DRAINAGE. ALL OPENINGS IN THE WALLS SHALL BE 3" ABOVE GRADE.

STANDARD GRADING NOTE: THE MAXIMUM GRADED SIDE SLOPE SHALL NOT EXCEED 3 FEET (HORIZONTALLY) TO 1 FOOT (VERTICALLY). AREAS DISTURBED BY GRADING WHICH WILL NOT BE TREATED WITH LANDSCAPING SHALL BE SEEDDED.

STANDARD WALL AND PAD CERTIFICATION NOTES:  
ALL PERMITTER GARDEN WALLS SHALL BE PERMITTED SEPARATELY.  
A PAD CERTIFICATION IS REQUIRED BEFORE THE BUILDING PERMIT IS RELEASED.

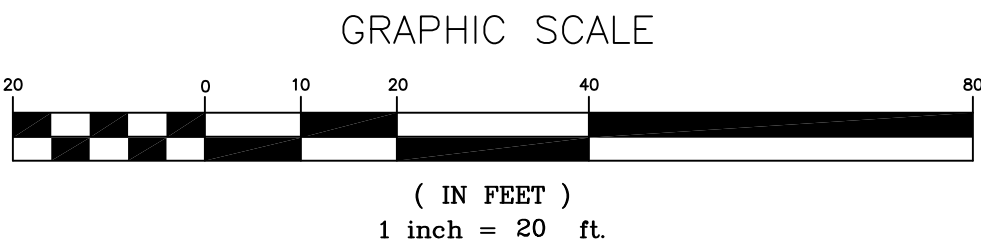
**SURVEY LEGEND**

- CONTROL MONUMENT (AS NOTED)
- FOUND REBAR (AS NOTED)
- FOUND CHISELED "X"
- WATER METER
- TELEPHONE RISER
- ELECTRIC BOX
- STREET SIGN
- SPOT ELEVATION
- BLOCK WALL
- CONCRETE HATCH
- COVERED PORCH

**LEGEND**

EXISTING PROPOSED

- CONTOUR --- 6045 --- 6045
- PROPERTY LINE ---
- ROAD ---
- SETBACK ---
- RETAINING WALL/WALL ---
- SPOT ELEVATION x5321.78



**DRAINAGE PLAN**

**SCOPE:**

Pursuant to the latest City of Albuquerque and Bernalillo County Ordinances, the Drainage Plan shown hereon outlines the drainage management criteria for controlling developed runoff on and exiting the project site. A single family home is proposed for the site with associated parking, access, landscaping, and utility improvements.

**EXISTING CONDITIONS:**

Presently, the 0.32 acre site is undeveloped. The site is bounded on the west, north, and east by private property, and on the south by Petirrojo Rd. NW. The site slopes gently from the northwest to the southeast. As shown on FEMA Panel #112G, the site is not located in a 100 year flood plain.

**PROPOSED CONDITIONS:**

Per the SAD 227 and 228 Drainage Reports by Wilson & Company, drainage from the lots have been master planned to be intercepted by drainage features downstream of the properties. First flush ponding is required on all developments. As shown by the plan, the building is located in the center of the lot. Negligible off-site flows enter the site due to existing grades from the north and will continue to be allowed to historically flow through the site. On site flows will drain around the structure to new grades and flow to the ponding area. All roof drainage will discharge from the roof to the lot and be directed around the structure to the drainage paths.

Supplemental calculations are shown as part of this Grading and Drainage plan.

**CALCULATIONS:**

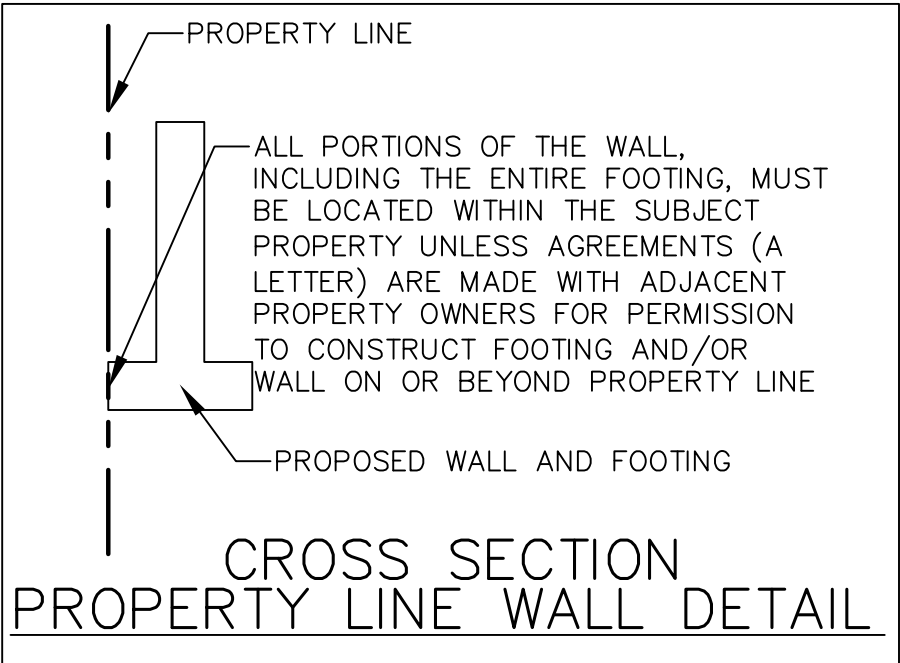
The calculations shown hereon define the 100 year-6 hour design storm falling within the project area under existing and developed conditions. The Hydrology is per "Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque, New Mexico in cooperation with Bernalillo County, New Mexico and the Albuquerque Metropolitan Arroyo Flood Control Authority.

**PROPERTY ADDRESS:**

6411 Petirrojo Rd. NW

**TOPOGRAPHY:**

Topographic information provided by Christopher Medina dated July, 2020.



ZONE 1		P(360) = 2.20 inches	
		P(10 day) = 3.67 inches	
Areas: (acres)	Existing	Proposed	
Treatment A	0.32	0.00	
Treatment B	0.00	0.08	
Treatment C	0.00	0.08	
Treatment D	0.00	0.16	
Total (acres) =	0.32	0.32	

POND VOLUME PROVIDED:		ELEV.		AREA	VOL. (CF)
		5334	541		201.75
		5333.5	266		

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.012	0.037	0.002	0.021	0.000	0.010
Volume (cubic feet) =	511	1,626	93	912	0	456

FIRST FLUSH REQUIRED POND VOL = 0.34"/(12"/FT)\*(0.16 AC \* 43560 SF/AC) = 197 CF

Total Q(p), cfs:	100 year Existing Q(p)*A	100 year Proposed Q(p)*A	10 year Existing Q(p)*A	10 year Proposed Q(p)*A	2 year Existing Q(p)*A	2 year Proposed Q(p)*A
Treatment A	0.41	0.00	0.08	0.00	0.00	0.00
Treatment B	0.00	0.16	0.00	0.06	0.00	0.00
Treatment C	0.00	0.23	0.00	0.12	0.00	0.04
Treatment D	0.00	0.70	0.00	0.46	0.00	0.27
Total Q (cfs) =	0.41	1.09	0.08	0.64	0.00	0.31

Jackie S. McDowell  
Professional Engineer  
7-28-20

8-7-20 rev. for zoning to lower 1'

**GENERAL DRAINAGE PLAN NOTES:**

- It is recommended that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
- This plan recommends positive drainage away from all structures to prohibit ponding of runoff adjacent to the structure. Future alterations of the grades next to the structures are not recommended.
- Irrigation within 10 feet of any proposed structure is not recommended. Irrigation water adjacent to the structures could cause settlement.
- This plan establishes on-site drainage and assumes no responsibility for subsurface analysis, foundation or structural design, or utility design.
- Local codes may require all footings to be placed in natural undisturbed soil. If the contractor plans to place footings on engineered fill, a certification by a registered Professional Engineer is recommended.
- It is recommended that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
- The property boundary shown on this plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey.
- All work shall be constructed in accordance with the City of Albuquerque Standard Specifications for Public Works Construction with updates.
- All work on this project shall be performed in accordance with applicable Federal, State, and Local laws, rules, and regulations concerning construction safety and health.
- Contact shall ensure that no site soils/sediment or silt enters the right-of-ways during construction.
- Areas disturbed due to construction shall be restored per City of Albuquerque Spec. 1012 native seed mix.

**ENGINEER'S CERTIFICATION:**

I, Jackie S. McDowell, hereby certify that I personally inspected the site shown on this plan on July 25, 2020 and as of that date it appeared that no filling, grading, or excavation had occurred thereon since completion of the topographic survey used to prepare this plan.

6411 PETIRROJO RD. NW, ALBUQUERQUE, NM 87120  
CITY OF ALBUQUERQUE, BERNALILLO COUNTY NEW MEXICO

LOT 13, BLOCK 9, UNIT 22  
VOLCANO CLIFFS SUBDIVISION

SOLIS, JAVIER - G & D PLAN

**McDowell Engineering, Inc.**  
7820 BEVERLY HILLS AVE. NE ALBUQUERQUE, NM 87122  
TELE: 505-828-2430 FAX: 505-821-4857

Designed JSM	Drawn STAFF	Checked JSM	Sheet of
File SOL0120L	Date JULY,2020		1 1