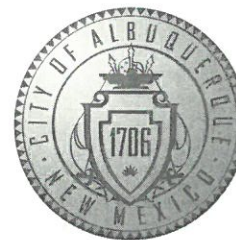


CITY OF ALBUQUERQUE

Planning Department
Suzanne Lubar, Director



Mayor Richard J. Berry

August 14, 2017

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

**RE: Lot 4 Block 6 Unit 18, S.A.D. 228
Volcano Cliffs Subdivision
6616 Kimmick Dr. NW
Grading and Drainage Plan
Engineers Stamp Date 7-27-17 (D10D00M4)**

PO Box 1293

Dear Ms. McDowell,

Albuquerque

Based upon the information provided in your submittal received 7/27/17, this plan is approved for Grading Permit. Please be advised that, before the building permit can be issued a PAD Certification must be approved

New Mexico 87103

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

www.cabq.gov

If you have any questions, please contact me at 924-3695 or Rudy Rael at 924-3977.

Sincerely,

James D. Hughes, P.E.
Principal Engineer, Hydrology
Planning Department

RR/JDH
C: File



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: _____ Building Permit #: _____ City Drainage #: _____

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: _____

City Address: _____

Engineering Firm: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Owner: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Architect: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Surveyor: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

- _____ DRAINAGE REPORT
- _____ DRAINAGE PLAN 1st SUBMITTAL
- _____ DRAINAGE PLAN RESUBMITTAL
- _____ CONCEPTUAL G & D PLAN
- _____ GRADING PLAN
- _____ EROSION & SEDIMENT CONTROL PLAN (ESC)
- _____ ENGINEER'S CERT (HYDROLOGY)
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ ENGINEER'S CERT (TCL)
- _____ ENGINEER'S CERT (DRB SITE PLAN)
- _____ ENGINEER'S CERT (ESC)
- _____ SO-19
- _____ OTHER (SPECIFY) **PAD CERTIFICATION**

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- _____ SIA/FINANCIAL GUARANTEE RELEASE
- _____ PRELIMINARY PLAT APPROVAL
- _____ S. DEV. PLAN FOR SUB'D APPROVAL
- _____ S. DEV. FOR BLDG. PERMIT APPROVAL
- _____ SECTOR PLAN APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY (PERM)
- _____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- _____ FOUNDATION PERMIT APPROVAL
- _____ BUILDING PERMIT APPROVAL
- _____ GRADING PERMIT APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ WORK ORDER APPROVAL
- _____ GRADING CERTIFICATION
- _____ SO-19 APPROVAL
- _____ ESC PERMIT APPROVAL
- _____ ESC CERT. ACCEPTANCE
- _____ OTHER (SPECIFY) **PAD CERTIFICATION**

WAS A PRE-DESIGN CONFERENCE ATTENDED: _____ Yes _____ No _____ Copy Provided

DATE SUBMITTED: _____ By: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

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 SEEDED.

STANDARD WALL AND PAD CERTIFICATION NOTES:

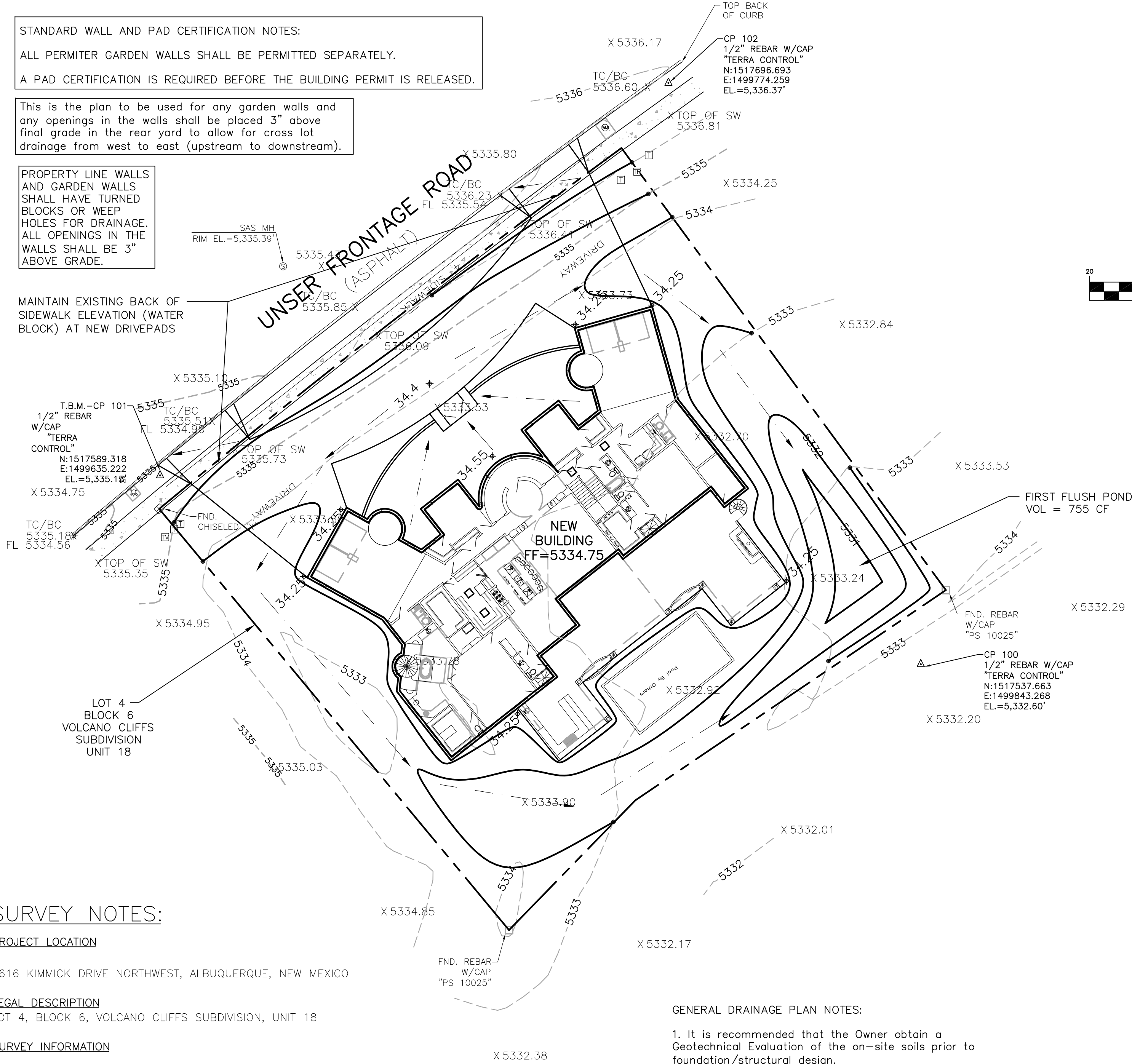
ALL PERMITER GARDEN WALLS SHALL BE PERMITTED SEPARATELY.

A PAD CERTIFICATION IS REQUIRED BEFORE THE BUILDING PERMIT IS RELEASED.

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.

MAINTAIN EXISTING BACK OF SIDEWALK ELEVATION (WATER BLOCK) AT NEW DRIVEPADS



SURVEY NOTES:

PROJECT LOCATION

6616 KIMMICK DRIVE NORTHWEST, ALBUQUERQUE, NEW MEXICO

LEGAL DESCRIPTION

LOT 4, BLOCK 6, VOLCANO CLIFFS SUBDIVISION, UNIT 18

SURVEY INFORMATION

TOPOGRAPHIC SURVEY PERFORMED AND COMPILED BY TERRA LAND SURVEYS, LLC. CORRALES, NEW MEXICO JULY 2017.

PROJECT BENCHMARK

PROJECT BENCHMARK IS A USGLO SECTION CORNER DISC SET IN A 12 INCH CONCRETE POST POURED AROUND THE ORIGINAL IRON PIPE 1 FOOT ABOVE GROUND STAMPED, "S21, S22, S28, S27, T11, R2E, 1911." TO REACH THE STATION BENCHMARK FROM THE INTERSECTION OF MONTANO ROAD AND UNSER BOULEVARD NORTHWEST, TRAVEL NORTHWEST ON UNSER BOULEVARD 0.78 MILES TO MOLTEN ROCK ROAD NORTHWEST, TURN LEFT AND TRAVEL 320 FEET TO 81ST STREET NORTHWEST AND THE STATION IS LOCATED ON THE SOUTHEAST QUADRANT OF THE INTERSECTION. ELEVATION = 5,330.151 FEET.

TEMPORARY BENCHMARK

TEMPORARY BENCHMARK IS CP 101 A SET 1/2 INCH REBAR WITH CAP STAMPED "TERRA CONTROL." ELEVATION=5,335.15 FEET (NAVD 1988 VERTICAL DATUM).

NOTES

1. FIELD SURVEY PERFORMED IN JULY 2017.

2. TOPOGRAPHIC SURVEY WAS COMPILED UTILIZING GROUND COORDINATES REFERENCED TO THE NAD 83 NEW MEXICO CENTRAL ZONE COORDINATE SYSTEM. PRIMARY HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED UTILIZING GPS RTK METHODS (COMBINED GROUND TO GRID FACTOR = 0.999671106 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. THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNER AND PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY. BOUNDARY DATA SHOWN IS FROM A RECORD DOCUMENT.

GENERAL DRAINAGE PLAN NOTES:

1. It is recommended that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.

2. 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.

3. Irrigation within 10 feet of any proposed structure is not recommended. Irrigation water adjacent to the structures could cause settlement.

4. This plan establishes on-site drainage and assumes no responsibility for subsurface analysis, foundation or structural design, or utility design.

5. 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.

6. It is recommended that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.

7. 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.

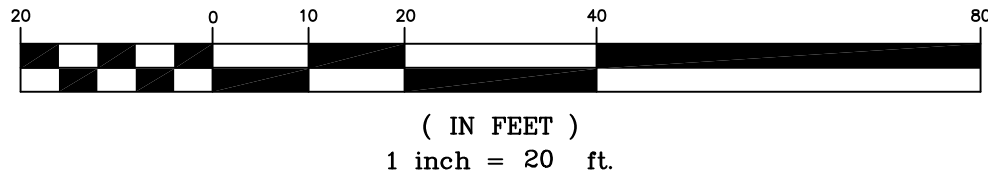
8. All work shall be constructed in accordance with the City of Albuquerque Standard Specifications for Public Works Construction with updates.

9. 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.

10. Contactor shall ensure that no site soils/sediment or silt enters the right-of-ways during construction.

11. Areas disturbed due to construction shall be restored per City of Albuquerque Spec. 1012 native seed mix.

GRAPHIC SCALE



FEMA FLOODWAY MAP

PANEL #111G

VICINITY MAP

ZONE ATLAS D-10

| ZONE 1 | | | | | | |
|---|--|--------------------------|--------------------------|-------------------------|-------------------------|------------------------|
| Areas: (acres) | | Existing | Proposed | POND VOLUME PROVIDED: | | |
| | | | | ELEV. | AREA | VOL. (CF) |
| Treatment A | | 0.53 | 0.00 | 5332 | 1264 | 755 |
| Treatment B | | 0.00 | 0.23 | | | |
| Treatment C | | 0.00 | 0.00 | 5331 | 246 | |
| Treatment D | | 0.00 | 0.30 | | | |
| Total (acres) = | | 0.53 | 0.53 | | | |
| | | | | | | |
| Volume | | 100 year Existing | 100 year Proposed | 10 year Existing | 10 year Proposed | 2 year Existing |
| | | | | | | 2 year Proposed |
| Volume (acre-feet) = | | 0.019 | 0.062 | 0.004 | 0.035 | 0.000 |
| Volume (cubic feet) = | | 847 | 2,705 | 154 | 1,534 | 0 |
| FIRST FLUSH REQUIRED POND VOL = 0.34"/(12"/FT)*(0.53 AC * 43560 SF/AC) = 654 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 | | 0.68 | 0.00 | 0.13 | 0.00 | 0.00 |
| Treatment B | | 0.00 | 0.47 | 0.00 | 0.17 | 0.00 |
| Treatment C | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Treatment D | | 0.00 | 1.31 | 0.00 | 0.87 | 0.00 |
| Total Q (cfs) = | | 0.68 | 1.78 | 0.13 | 1.04 | 0.00 |

LEGEND

| | EXISTING | PROPOSED |
|----------------|--------------|--------------|
| CONTOUR | --- 6045 --- | --- 6045 --- |
| PROPERTY LINE | --- | --- |
| ROAD | --- | --- |
| SETBACK | --- | --- |
| WALL | | ===== |
| SPOT ELEVATION | X 5333.53 | *XXX* |

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 0.53 acre site is undeveloped. The site is bounded on the northwest by Unser Frontage Rd/Kimmick Dr. NW and on the northeast, southeast, and southwest by private property. The site is relatively level in the center and has a gentle slope from the northwest to the southeast. Site topography slopes to the southeast. As shown on FEMA Panel #111G, the site is not located in a 100 year flood plain.

PROPOSED CONDITIONS:

Per the SAD 228 Drainage Report by Wilson & Company, drainage from the lots have been master planned to be intercepted by drainage features downstream of the properties. Current COA Drainage Ordinance requires that ponds must be provided to handle the First Flush volume which has been calculated and is included on this plan. As shown by the plan, the building is located in the center of the lot. No off-site flows enter the site due to existing grades on adjacent lots which transport offsite runoff to public streets around the site. On site flows will drain around the structure via swales, and flow to the southeast to the first flush retention pond. All roof drainage will discharge from the roof to the lot and be directed around the structure to the drainage paths and pond.

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:

6616 Kimmick Drive NW

TOPOGRAPHY:

Topographic information provided by Christopher Medina dated July, 2017.



ENGINEER'S CERTIFICATION:

I, Jackie S. McDowell, hereby certify that I personally inspected the site shown on this plan on July 11, 2017 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.

| | | | |
|---|-------------|----------------|----------|
| CITY OF ALBUQUERQUE, BERNALILLO COUNTY | | NEW MEXICO | |
| LOT 4, BLOCK 6, UNIT 18 VOLCANO CLIFFS SUBDIVISION | | | |
| CANDELARIA — GONZALES — GRADING & DRAINAGE 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 CAN0217L | | Date JULY,2017 | 1 1 |