# CITY OF ALBUQUERQUE

*Planning Department*
Suzanne Lubar, Director

*Mayor Richard J. Berry*

October 19, 2017

David Soule, P.E.
Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

RE: **Lot 19 Block 4, Volcano Cliffs Unit 19, SAD 228**
**6539 Vista Del Prado NW**
**Grading and Drainage Plan**
**Engineers Stamp Date 10/16/17 (D10D003T19)**

Dear Mr. Soule,

Based upon the information provided in your submittal received 10/17/17, this plan is approved for Grading Permit.

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

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

Reiterate to the Owner/Contractor that a separate permit for a garden/retaining wall must be obtained, with an approved G&D plan and Pad Certification.

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

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

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Hydrology
Planning Department

RR/DP
C: File

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

# City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

**Project Title:** 6539 VISTA DEL PRADO NW Building Permit #: _____ City Drainage #: _____

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

Legal Description: lot 19 block 4 volcano cliffs UNIT 19

City Address: 6539 VISTA DEL PRADO NW

**Engineering Firm:** RIO GRANDE ENGINEERING Contact: DAVID SOULE

Address: PO BOX 93924, ALBUQUERQUE, NM 87199

Phone#: 505.321.9099 Fax#: 505.872.0999 E-mail: DAVID@RIOGRANDEENGINEERING.COM

**Owner:** MAESTAS Contact: _____

Address: 6539 VISTA DEL PRADO NW ALB NM 87120

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

**Architect:** none Contact: _____

Address: _____

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

**Other Contact:** _____ Contact: _____

Address: _____

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

Check all that Apply:

**DEPARTMENT:**

x HYDROLOGY/ DRAINAGE

_____ TRAFFIC/ TRANSPORTATION

_____ MS4/ EROSION & SEDIMENT CONTROL

**TYPE OF SUBMITTAL:**

_____ ENGINEER/ ARCHITECT CERTIFICATION

_____ CONCEPTUAL G & D PLAN

x GRADING PLAN

_____ DRAINAGE MASTER PLAN

_____ DRAINAGE REPORT

_____ CLOMR/LOMR

_____ TRAFFIC CIRCULATION LAYOUT (TCL)

_____ TRAFFIC IMPACT STUDY (TIS)

_____ EROSION & SEDIMENT CONTROL PLAN (ESC)

_____ OTHER (SPECIFY) _____

**CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

x 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

_____ PRE-DESIGN MEETING

_____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: _____ Yes x No

DATE SUBMITTED: 8/18/17 By: _____

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

**Weighted E Method**

| Basin | Area (sf) | Area (acres) | Treatment A % | Treatment A (acres) | Treatment B % | Treatment B (acres) | Treatment C % | Treatment C (acres) | Treatment D % | Treatment D (acres) | 100-Year, 6-hr. Weighted E (ac-ft) | Volume (ac-ft) | Flow cfs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UPLAND | 27131.00 | 0.623 | 0% | 0 | 10% | 0.062 | 40% | 0.2491 | 50% | 0.311 | 0.807 | 0.042 | 1.48 |
| ALLOWED | 14177.00 | 0.325 | 0% | 0 | 10% | 0.033 | 40% | 0.1302 | 50% | 0.163 | 1.448 | 0.039 | 1.15 |
| PROPOSED | 14177.00 | 0.325 | 0% | 0 | 38% | 0.124 | 32% | 0.1041 | 30% | 0.098 | 1.162 | 0.032 | 0.98 |
| total | | | | | | | | | | | | | |

**Equations:**

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Where for 100-year, 6-hour storm- zone 1

Ea= 0.44 Qa= 1.29
Eb= 0.67 Qb= 2.03
Ec= 0.99 Qc= 2.87
Ed= 1.97 Qd= 4.37

ONSITE Conditons
FIRST FLUSH WATER QUALITY VOLUME

| | REQUIRED (CF) | PROVIDED (CF) |
|---|---|---|
| WATER QUALITY | 121 | 999 |

Narrative

This site is within the SAD 226 Master Drainage plan boundaries. The site is to maintain existing patterns and drain to the the adjacent roadway lot to east per the master drainage plan. We are ponding the water harvest volume generated by the site there is not measurable upland flow. This plan has a shallow water harvest pond in excess of the drainage regulations.
This plan is in conformance to the master drainage plan

## TURNED BLOCKS

Weir Equation:

$$Q = CLH^{3/2}$$

drainage thru walls

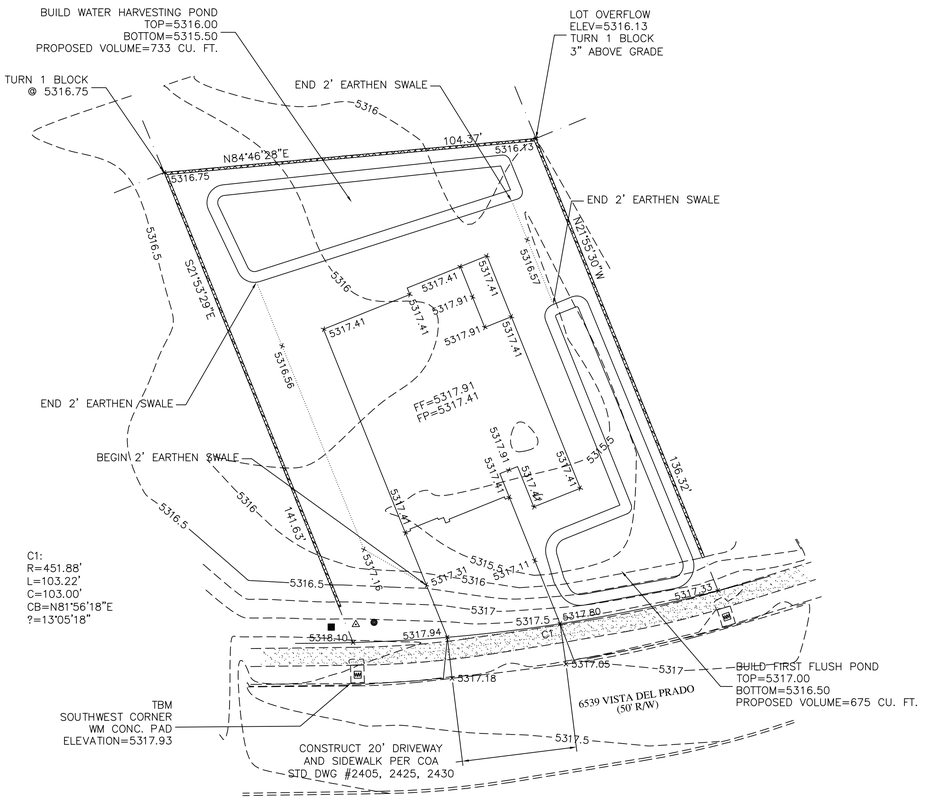
Q= 2.92 cfs
C = 2.95
H = 0.5 ft
L = Length of weir

$$Q = 2.95 * .5 * ((0.5)\text{^}(3/2))$$

**Each opening is 6"x6"**
**Each block has two openings**
**Each opening has .52 cfs capacity**

**UPLAND**
**Therefore 1.48 cfs requires 3 openings and 2 turned blocks**

**OUTFALL**
**Therefore 2.46 cfs requires 5 openings and 3 turned blocks**




## EROSION CONTROL NOTES:

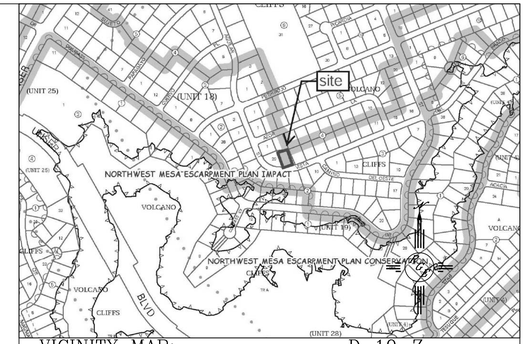
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.

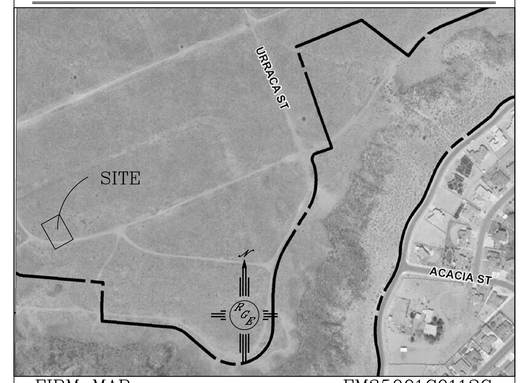
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.

4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.




VICINITY MAP: D-10-Z




FIRM MAP: FM35001C0112G

## LEGAL DESCRIPTION:

LOT 19, BLOCK 4 VOLCANO CLIFFS UNIT 19

## NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

2. ALL SLOPES SHALL BE 3:1 MAX. AND GRAVEL OR NATIVE SEEDING PRIOR TO CO.

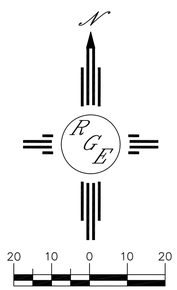
3. ANY PERIMETER WALLS MUST BE PERMITED SEPARATELY. ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.

## LEGEND

- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- SLOPE TIE
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- BOUNDARY
- CENTERLINE
- RIGHT-OF-WAY
- EXISTING CURB AND GUTTER
- PROPOSED CMU SCREEN WALL 24" MAX RETAINAGE (DESIGN BY OTHERS)

## CAUTION:

EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.




SCALE: 1"=20'

ENGINEER'S SEAL
DAVID SOULE NEW MEXICO 14522 REGISTERED PROFESSIONAL ENGINEER
10/16/17
DAVID SOULE P.E. #14522

6539 VISTA DEL PRADO MAESTAS RESIDENCE

GRADING AND DRAINAGE PLAN

Rio Grande Engineering
1606 CENTRAL AVENUE SE SUITE 201 ALBUQUERQUE, NM 87106 (505) 872-0999

DRAWN BY WCWJ
DATE 8-19-17
21779-LAYOUT-8-18-17
SHEET # —
JOB # 21779