

# CITY OF ALBUQUERQUE

Planning Department  
Brennon Williams, Director



Mayor Timothy M. Keller

February 5, 2021

David Soule, P.E.  
Rio Grande Engineering  
P.O. Box 93924  
Albuquerque, NM 87199

**RE: 5120 Northern Trails NW  
Grading and Drainage Plan  
Engineer's Stamp Date: 01/08/21  
Engineer's Certification Date: 02/02/21  
Hydrology File: F11D017A**

Dear Mr. Soule:

PO Box 1293

Based upon the information provided in your submittal received 02/05/2021, the Grading and Drainage Plan is approved for Building Permit and Building Pad Certification for 5120 Northern Trails NW. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

Albuquerque

Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

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:** 5120 NORTHERNTRAILS **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** \_\_\_\_\_  
**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_  
**Legal Description:** LOT 108 QUAKER HEIGHTS  
**City Address:** 5120 NORTHERNTRAILS

**Applicant:** GUSTAVO MALDONADO **Contact:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Other Contact:** RIO GRANDE ENGINEERING **Contact:** DAVID SOULE  
**Address:** PO BOX 93924 ALB NM 87199  
**Phone#:** 505.321.9099 **Fax#:** 505.872.0999 **E-mail:** david@riograndeengineering.com

**TYPE OF DEVELOPMENT:** \_\_\_ PLAT  RESIDENCE \_\_\_ DRB SITE \_\_\_ ADMIN SITE

Check all that Apply:

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

**TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**  
 BUILDING PERMIT APPROVAL  
 CERTIFICATE OF OCCUPANCY

**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?

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) \_\_\_\_\_

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

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

COA STAFF:

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

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

Weighted E Method

| Basin      | Area (sf) | Area (acres) | Treatment   |             |             |             | 100-Year, 6-hr. |        | 10-day |       |
|------------|-----------|--------------|-------------|-------------|-------------|-------------|-----------------|--------|--------|-------|
|            |           |              | Treatment A | Treatment B | Treatment C | Treatment D | Volume          | Flow   |        |       |
| ALLOWED    | 33913.00  | 0.779        | 100%        | 0.779       | 0%          | 0.000       | 0%              | 0.000  | 0.530  | 0.034 |
| PROPOSED   | 33913.00  | 0.779        | 10%         | 0.078       | 30%         | 0.234       | 31%             | 0.2413 | 29%    | 0.226 |
| COMPARISON |           |              |             |             |             |             |                 |        | 1.252  | 0.081 |
|            |           |              |             |             |             |             |                 |        | 0.047  | 2.47  |

Equations:

Weighted E =  $E_a * A_a + E_b * A_b + E_c * A_c + E_d * A_d / (\text{Total Area})$

Volume = Weighted D \* Total Area

Flow =  $Q_a * A_a + Q_b * A_b + Q_c * A_c + Q_d * A_d$

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

|          |          |
|----------|----------|
| Ea= 0.53 | Qa= 1.56 |
| Eb= 0.78 | Qb= 2.28 |
| Ec= 1.13 | Qc= 3.14 |
| Ed= 2.12 | Qd= 4.7  |

| ONSITE Conditions | FIRST FLUSH WATER QUALITY VOLUME INCREASE | TOTAL 100-YEAR, 6-HOUR | PROVIDED |
|-------------------|---|------------------------|----------|
| 100-YEAR 10DAY    | 0   | 4283                   | 4283     |
| FLOOD CONTROL     | 3352                                      | 3539                   | 4283     |

Narrative

This site is within a fully developed area of Albuquerque. The area does not have curb and gutter. The site lies within flood zone X. The site currently drains 1.21 cfs to the adjacent right of way. The proposed drainage solution retains the increase in developed storm water generated during the 100 year 10-day event. The site retains all the flow generated during the 6 hour event. The ponds are shallow and will overflow to the street in an emergency conditions

I, DAVID SOULE HAVE PERSONALLY INSPECTED THE SITE. I HEREBY CERTIFY THE PAD HAS BEEN CONSTRUCTED SUCH THAT IT IS IN SUBSTANTIAL CONFORMANCE TO THE APPROVED GRADING PLAN DATED 1/8/21



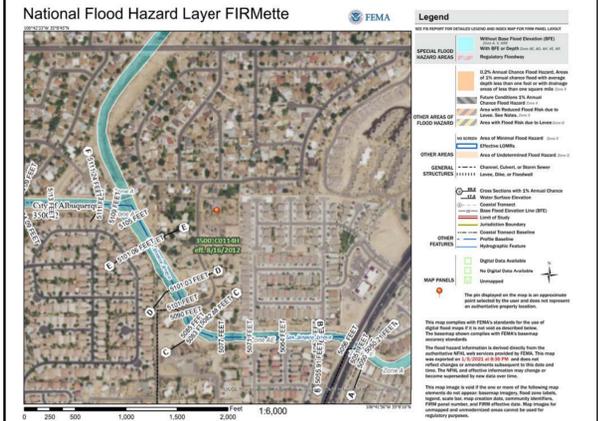
2/2/21

EROSION CONTROL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
- REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



VICINITY MAP: F-11-Z



FIRM MAP:

LEGAL DESCRIPTION:

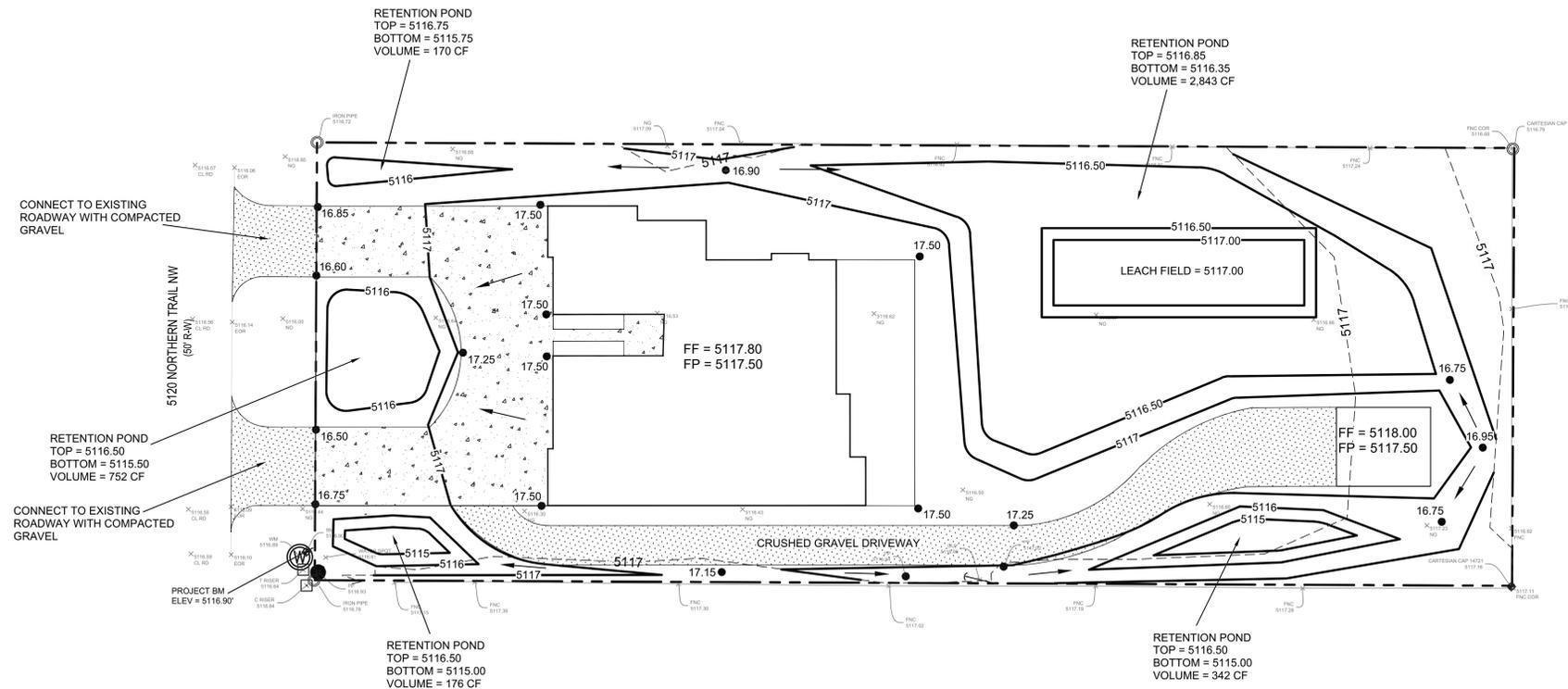
LOT 108 QUAKER HEIGHTS ADDN. CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

NOTES:

- ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
- ALL SLOPES SHALL BE 3:1 MAX. AND GRAVEL OR NATIVE SEEDING PRIOR TO CO.
- ANY PERIMETER WALLS MUST BE PERMITTED SEPARATELY ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.
- SURVEY INFORMATION PROVIDED BY COMMUNITY SCIENCES CORPORATION USING NAVD DATUM 1988.
- A PAD ELEVATION CERTIFICATION SHALL BE REQUIRED PRIOR TO RELEASE OF BUILDING PERMIT.

LEGEND

|                    |                          |
|--------------------|--------------------------|
| -----XXXX          | EXISTING CONTOUR         |
| - - - - -XXXX      | EXISTING INDEX CONTOUR   |
| -----XXXX          | PROPOSED CONTOUR         |
| - - - - -XXXX      | PROPOSED INDEX CONTOUR   |
| + XXXXX            | EXISTING SPOT ELEVATION  |
| ● XXXXX            | PROPOSED SPOT ELEVATION  |
| -----              | BOUNDARY                 |
| - - - - -          | ADJACENT BOUNDARY        |
| =====              | EXISTING CURB AND GUTTER |
| ----->             | PROPOSED FLOW DIRECTION  |
| [Gravel Pattern]   | PROPOSED GRAVEL          |
| [Concrete Pattern] | PROPOSED CONCRETE        |



**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.



|                            |  |                                 |
|----------------------------|--|---------------------------------|
| ENGINEER'S SEAL            | LOT 108 QUAKER HEIGHTS ADDN.<br>5120 NORTHERN TRAIL NW | DRAWN BY<br>DEM                 |
| DAVID SOULE<br>P.E. #14522 |  | DATE<br>1-7-21                  |
|                            | GRADING AND DRAINAGE PLAN                              | LOT 108 QUAKER HEIGHTS ADDN.dwg |
|                            | Rio Grande Engineering                                 | SHEET #<br>C1                   |
|                            | ALBUQUERQUE, NM 87199<br>(505) 321-8099                | JOB #                           |