CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director

Mayor Timothy M. Keller

February 12, 2019

Richard Dourte, P.E.
RHD Engineering LLC
4305 Purple Sage Ave. NW
Albuquerque, New Mexico 87120

RE: **Lot 3 Block 3 Unit 22 SAD 228**
7912 Aguila St. NW
Volcano Cliffs Subdivision
Grading and Drainage Plan
Engineers Stamp Date 2/7/19 (D10D003I5)

Dear Mr. Dourte,

Based upon the information provided in your submittal received 2/11/19, this plan is approved for Grading Permit. Please inform the builder/owner to attach a copy of this approved plan and letter into 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 the approved G&D plan.

Prior to building permit approval a pad certification will be required. Place this statement on the plans under the general notes

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,

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

RR/JDH
C: File D10D003I5

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: 7912 Aguila st NW Building Permit #: _____ Hydrology File #: _____

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

Legal Description: Lot 6-A-1, BK 9, Volcano Cliffs subd Unit 19(SAD 228)

City Address: 7912 Aguila St. NW

Applicant: RHD Engineering, LLC Contact: Richard Dourte

Address: 4305 Purple Sage Ave. NW

Phone#: 505.288.1621 Fax#: _____ E-mail: rhdengineering@outlook.com

Other Contact: Candelaria Homes Contact: Diego Candelaria

Address: _____

Phone#: _____ Fax#: _____ E-mail: diego.candelariahomes@gmail.com

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) X RESIDENCE _____ DRB SITE ___ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes X No

DEPARTMENT _____ TRANSPORTATION X HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
____ CONCEPTUAL G & D PLAN
X 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:

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
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: Jan. 11, 2019 By: Richard Dourte

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

DRAINAGE NARRATIVE:

1. THIS SITE IS LOCATED WITHIN THE SAD 228 DRAINAGE MASTER PLAN AREA.
2. THIS SITE IS TO DRAIN IN A WESTERLY DIRECTION, PER THE SAD 228 DRAINAGE MASTER PLAN.
3. THE ALLOWABLE 100YR, 6HR FLOWS FROM THIS SITE IS 1.18CFS, THE FLOWS GENERATED BY THIS SITE IS 1.11CFS. THUS THE FLOWS GENERATED BY THIS SITE IS LESS THAN THE ALLOWABLE FLOW.
4. THE FIRST FLUSH POND REQUIRED VOLUME IS 147CF. THE VOLUME OF THE FIRST FLUSH POND IS 192CF, THUS THE VOLUME PROVIDED IS GREATER THAN THE VOLUME REQUIRED.
5. NO SIGNIFICANT OFFSITE FLOWS ENTER THIS SITE.

Project: 7912 Aguila St NW
Drainage Calculations - Zone 1

Total Lot Area (ac) = 0.3333

Total Offsite Flow Area (ac)= 0

Depth (inches) at 100yr Storm

Zone	P_{60}	P_{360}	P_{1440}	P_{4days}	P_{10days}
1	1.87	2.20	2.66	3.12	3.67

Excess Precipiation, E(inches) - 6 HR

	Treatment			
Zone	A	B	C	D
1	0.44	0.67	0.99	1.97

Weighted E= $((E_A*A_A)+(E_B*A_B)+(E_C*A_C)+(E_D*A_D))/(A_A+A_B+A_C+A_D)$

V_{360}=(Weighted E *P_{360})/12 in/ft

V_{1440}= $V_{360}+A_D*(P_{1440}-P_{360})/12in/ft$

$V_{4days}=V_{360}+A_D*(P_{4day}-P_{360})/12in/ft$

$V_{10days}=V_{360}+A_D*(P_{10days}-P_{360})/12in/ft$

Peak Discharge (CFS/ACRE) 100 YR

	Treatment			
Zone	A	B	C	D
1	1.29	2.03	2.87	4.37

**********SAD 228 Permittable Design Conditions**********

Area	SQ. FT	Acres
(0%)A=	0	0.000
(10%)B=	1452	0.033
(40%)C=	5807	0.133
(50%)D=	7259	0.167
Total	14519	0.333
Weighted E=		1.448

Design Flows (CFS)			
Area	SQ. FT	Acres	Peak Discharge (100 YR)
A=	0	0.000	0.00
B=	1451.9	0.033	0.07
C=	5807.4	0.133	0.38
D=	7259.3	0.167	0.73
Total (CFS)			1.18

	V_{360}	V_{1440}	V_{4days}	V_{10days}
Cubic feet	1751.9	2030.2	2308.4	2641.2
Acre-ft	0.04	0.05	0.05	0.06

**********PROPOSED CONDITIONS**********

Area	SQ. FT	Acres
A=	0	0.000
B=	1450	0.033
C=	7869	0.181
D=	5200	0.119
Total	14519	0.333
Weighted E=		1.309

Design Flows (CFS)			
Area	SQ. FT	Acres	Peak Discharge (100 YR)
A=	0	0.000	0.00
B=	1450	0.033	0.07
C=	7869	0.181	0.52
D=	5200	0.119	0.52
Total (CFS)			1.11

	V_{360}	V_{1440}	V_{4days}	V_{10days}
Cubic feet	1583.8	1783.2	1982.5	2220.8
Acre-ft	0.04	0.04	0.05	0.05

The 100 year peak flows for this developed site is 1.11 CFS and the SAD 228 permissible design flows are 1.18 CFS for an increase of -0.07 CFS.

First Flush Ponding Requirement = A_D *0.34 in/12in/ft = 147 CF

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.

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.

GENERAL NOTES:

1. THIS SITE IS NOT LOCATED IN A FEMA FLOOD HAZARD ZONE (REFER TO THE FIRM MAP 35001C0111G, EXCERPT ATTACHED).

2. RHD ENGINEERING, LLC RECOMMENDS THAT THE OWNER OBTAIN A GEOTECHNICAL REPORT PRIOR TO DESIGN OF BUILDING FOOTING/FOUNDATION.

3. SLOPE STABILAZATION SHALL BE USED ON SLOPES GREATER THAN A 3:1 SLOPE, PER MANUFACTURER RECOMMENDATIONS.

4. MODIFICATIONS OR ADJUSTMENTS TO EXISTING DRAINAGE STRUCTURES/EROSION MITIGIATION IMPROVEMENTS SHALL BE DONE IN THE SAME MANNER AS THE ORIGINAL IMPROVEMENT.

5. ALL SWPPP REQUIREMENTS SHALL BE ADHERED TO.

6. ALL WORK ON THIS PLAN SHALL BE DONE IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARDS. ALL APPLICABLE PERMITS SHALL BE OBTAINED PRIOR TO WORK COMMENCING.

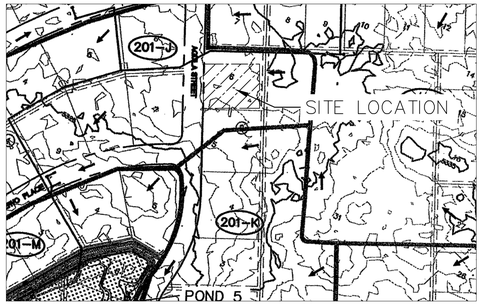
7. ALL WORK IN THE RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARDS.

8. THIS GRADING PLAN IS TO BE UTILIZED AND A COPY PROVIDED TO THE CITY WHEN APPLYING FOR THE CONSTRUCTION OF ANY GARDEN OR RETAINING WALLS, WITH RESPECT TO THIS SITE.

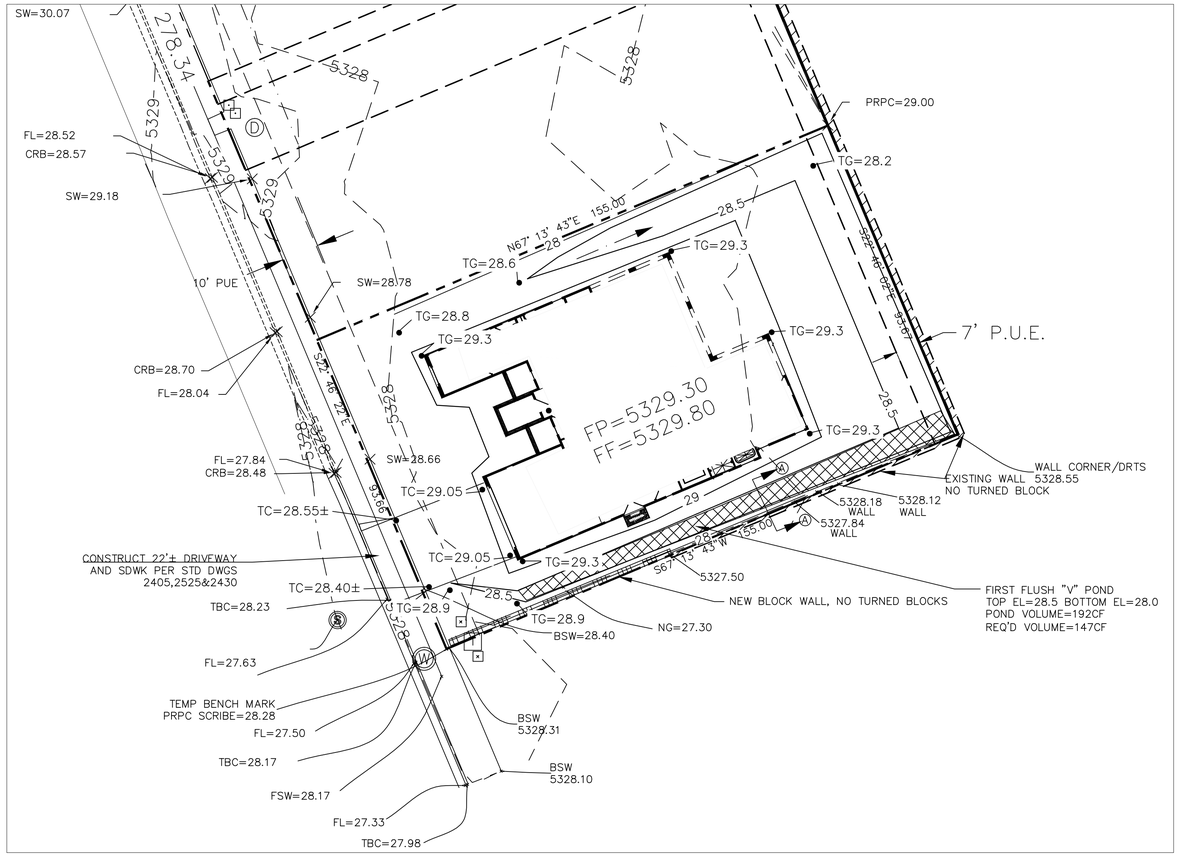
9. THE SURVEY INFORMATION WAS PROVIDED BYCONSTRUCTION SURVEYS TECHNOLOGIES, INC.

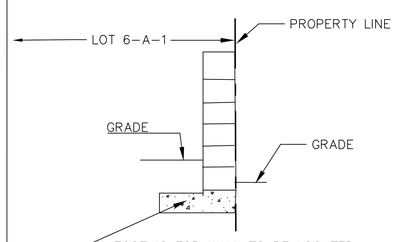
10. FOR SITE DIMENSIONS, BUILDING AND INFRASTRUCTURE LOCATION REFER TO THE SITE PLAN.

11. DO NOT PLACE ADDITIONAL FILL OR LOADING ON ADJACENT WALLS WITHOUT APPROVAL OF A STRUCTURAL ENGINEER. CONTACT A STRUCTURAL ENGINEER FOR ADEQUACY OF THE EXISTING PERIMETER WALLS W/RESPECT TO THIS GRADING PLAN.



EXCERPT FROM SAD 228 DRAINAGE REPORT

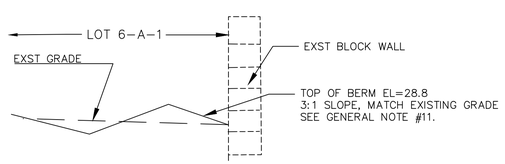




FOOTING FOR WALL TO BE LOCATED ONSITE, OTHERWISE A WRITTEN LETTER OF APPROVAL FROM ADJACENT/IMPACTED PROPERTY OWNER IS REQUIRED.

GARDEN WALL/RETAINING WALL DETAIL

1. ANY GARDEN WALL/RETAINING WALL IS TO BE BUILT ON-SITE (DESIGN OF THE GARDEN WALL/RETAINING WALL IS BY OTHERS).
2. A PERMIT IS REQUIRED FOR THE CONSTRUCTION OF THE RETAINING WALL AND ANY FUTURE GARDEN WALL. THIS IS THE PLAN TO FOLLOW WHEN APPLYING FOR A PERIMETER BLOCK WALL.

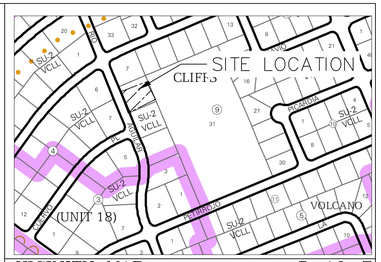


X SECTION A-A

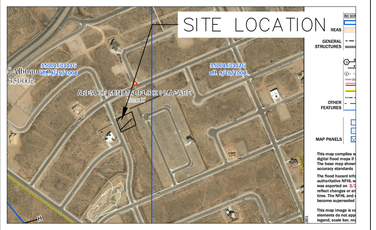
I, RICHARD DOURTE HAVE PERSONALLY INSPECTED THE PROPERTY ON 1-11-19. THE SITE IS CONSISTENT WITH THE TOPO SHOWN.

Richard Dourte

RICHARD DOURTE P.E. #10854
DATE



VICINITY MAP: D-10-Z



FIRM MAP: 35001C0111G

LEGAL DESCRIPTION:

LOT 6-A-1, BLK 9, VOLCANO CLIFFS SUB D, UNIT 19
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO

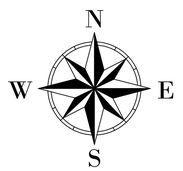
NOTES:

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

2. RETAIN THE FIRST .46" OF STORM RUNOFF FROM ENTIRE DEVELOPMENT TO CONFORM TO THE WATER QUALITY REQURIEMENTS

LEGEND

- 46.00 — PROPOSED SPOT ELEVATION
- TW=44.00 — TOP OF WALL ELEVATION, BOTTOM OF WALL ELEVATION
- 5601 — EXISTING CONTOUR
- 5600 — EXISTING INDEX CONTOUR
- 5601 — PROPOSED CONTOUR
- 5600 — PROPOSED INDEX CONTOUR
- LOT LINE
- RIGHT-OF-WAY
- PROPOSED RETAINING WALL
- PROPOSED WALL
- EXISTING CURB AND GUTTER
- PROPOSED EDGE OF CONCRETE
- PROPOSED FLOWLINE/ SWALE
- EXISTING WALL
- PROPOSED BASIN BOUNDARY



0 30 60 FEET

Scale 1" = 30'

ENGINEER'S SEAL

RICHARD H. DOURTE NEW MEXICO 10854 REGISTERED PROFESSIONAL ENGINEER

2-07-19

Richard Dourte P.E. #10854

Title
7912 Aguila St. NW

GRADING AND DRAINAGE PLAN

DRAWN BY

DATE

Dwng

SHEET #
1 of 1

JOB #

RHD Engineering, LLC
4305 Purple Sage Ave. NW
ALBUQUERQUE, NM 87120
(505) 288-1621