CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

January 12, 2023

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

RE: Lot 2 Block 9 Unit 20, S.A.D. 228
Volcano Cliffs Subdivision
6605 Petirrojo Dr. NW
Grading and Drainage Plan
Engineers Stamp Date 12/20/2022
Certificate of Occupancy Date: 1/10/2023 (D10D003I2)

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Ms. McDowell,

Based upon the information provided in your submittal received 1/11/2023, this plan is approved for Certificate of Occupancy by Hydrology

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

Sincerely,

Tiequan Chen

Tiequan Chen, P.E.
Principal Engineer, Hydrology
Planning Department, Development Review Services

RR/TC
C: D10D003I2

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)	100-Year, 6-hr. Volume (ac-ft)	100-Year, 6-hr. Flow cfs	24 hour Volume (ac-ft)
ALLOWED	27355.00	0.628	0%	0	20%	0.126	46%	0.2889	34%	0.214	1.259	0.066	2.02	0.074
PROPOSED	27355.00	0.628	0%	0	20%	0.126	34%	0.2135	46%	0.289	1.377	0.072	2.13	0.083
COMPARISON												0.006		0.009

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

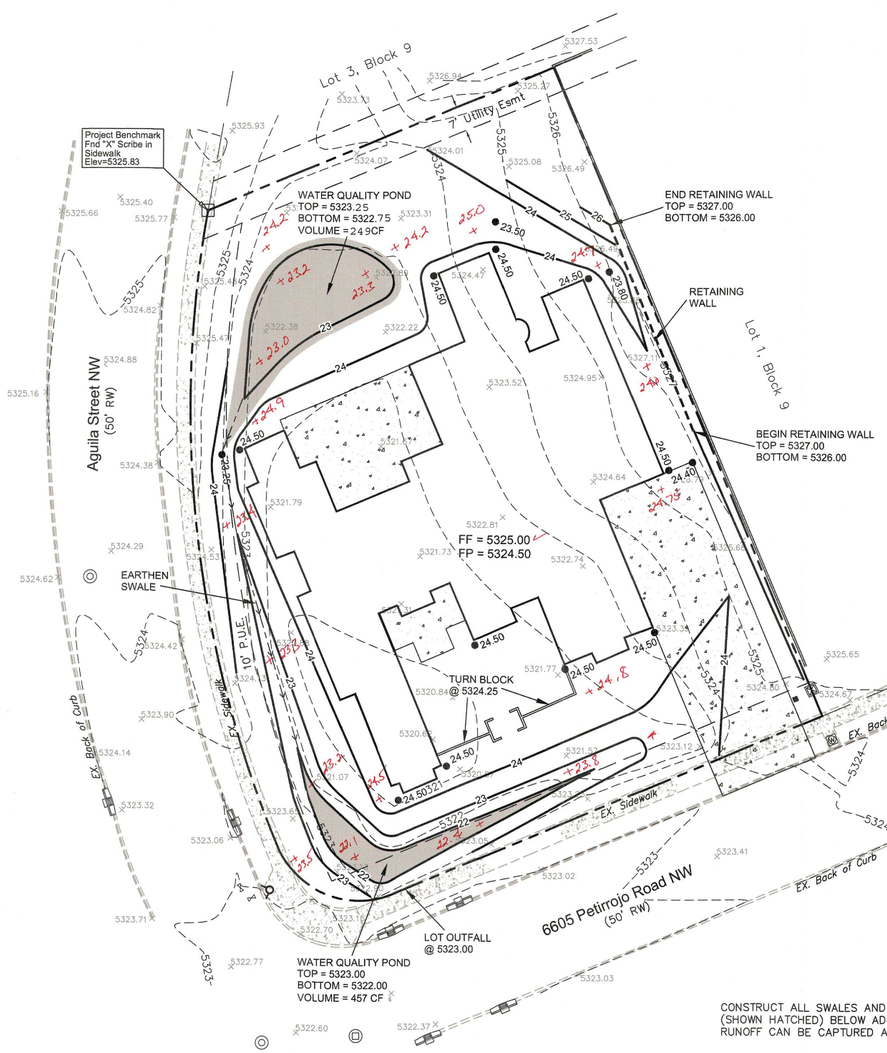
Ea= 0.44 Qa= 1.29
Eb= 0.67 Qb= 2.03
Ec= 0.99 Qc= 2.87
Ed= 1.97 Qd= 4.37

ONSITE Conditons
FIRST FLUSH WATER QUALITY VOLUME

	REQUIRED (CF)	PROVIDED (CF)
WATER QUALITY	0	706
FLOOD CONTROL	394	706

Narrative

This site is within the SAD 228 Master Drainage plan boundaries. The site is to maintain existing patterns and drain to the adjacent roadway. The site does exceed the SAD 228 developed conditions assumptions therefore ponding is required Upland flow has the ability to enter the site from the rear yard of the lot to the north and west, this flow is allowed to pass. This plan is in conformance to the master drainage plan



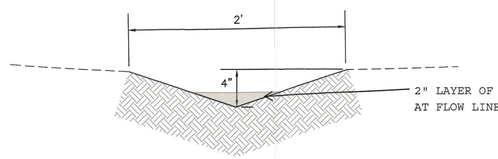
Elevations shown are based on field information taken on 12-5-22

12-12-22

ANTHONY L. HARRIS
STATE OF NEW MEXICO
#11463
REGISTERED PROFESSIONAL LAND SURVEYOR

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.

CONSTRUCT ALL SWALES AND EROSION PROTECTION (SHOWN HATCHED) BELOW ADJACENT GRADE TO ENDSURE RUNOFF CAN BE CAPTURED AND CONVEYED PROPERLY.



EARTHEN SWALE
NTS

SCALE: 1"=20'

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.

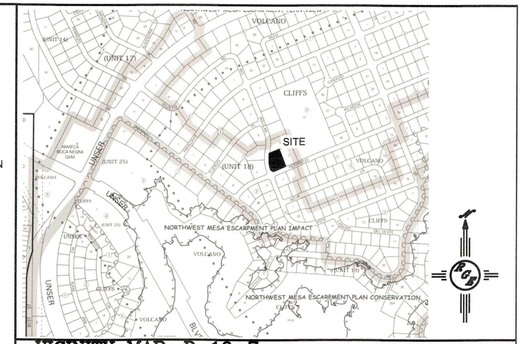
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

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

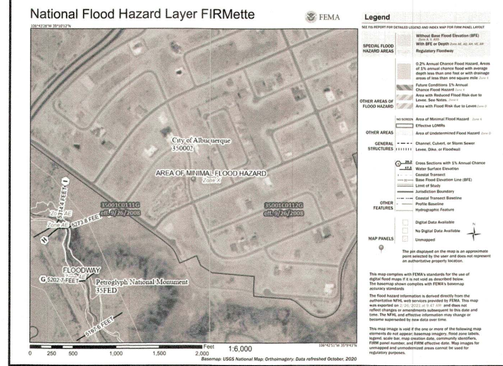
DRAINAGE CERTIFICATION FOR CERTIFICATE OF OCCUPANCY (CO) WITH SURVEY WORK BY PROFESSIONAL SURVEYOR
I, Jackie Mcdowell, NMPE #10903, of the firm McDowell Engineering, Inc., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 3-1-21, and pad certification dated 4-8-22 by David Soule. The record information edited onto the original design document has been obtained by Anthony Harris, NMPS #11463. I further certify that I have personally visited the project site on December 12, 2022 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Certificate of Occupancy. The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

JACKIE S. McDOWELL
NEW MEXICO
10903
REGISTERED PROFESSIONAL ENGINEER

AS-BUILT CERTIF. FOR CO, 12-13-22



VICINITY MAP: D-10-Z



FIRM MAP:

LEGAL DESCRIPTION:

LOT 02 BLOCK 09 UNIT 18 VOLCANO CLIFFS SUBDIVISON
CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

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.

4. SURVEY INFORMATION PROVIDED BY COMMUNITY SCIENCES CORPORATION USING NAVD DATUM 1988.

5. 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
XXXX	EXISTING SPOT ELEVATION
XXXX	PROPOSED SPOT ELEVATION
	BOUNDARY
	ADJACENT BOUNDARY
	EXISTING CURB AND GUTTER
	PROPOSED EARTHEN SWALE
	PROPOSED RETAINING WALL
	PROPOSED CONCRETE

ENGINEER'S SEAL
DAVID SOULE NEW MEXICO 14522 REGISTERED PROFESSIONAL ENGINEER
3/1/21
DAVID SOULE
P.E. #14522

LOT 02 BLK 09 UN 18 VC
6605 PETIRROJO ROAD NW

GRADING AND DRAINAGE PLAN

Rio Grande Engineering
PO BOX 93924
ALBUQUERQUE, NM 87199
(505) 321-9099

DRAWN BY DEM
DATE 2-27-21
Lot 02 Blk 09 Un 18 VC.DWG
SHEET # C1
JOB #

ZONE 1

Areas: (acres)	Existing	Proposed
Treatment A	0.63	0.00
Treatment B	0.00	0.13
Treatment C	0.00	0.25
Treatment D	0.00	0.25
Total (acres) =	0.63	0.63

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.023	0.069	0.004	0.037	0.000	0.018
Volume (cubic feet) =	1,006	3,002	183	1,628	0	767

FIRST FLUSH REQUIRED POND VOL = 0.34"/(12"/FT)*(0.25 AC * 43560 SF/AC) = 309 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	0.81	0.00	0.15	0.00	0.00	0.00
Treatment B	0.00	0.26	0.00	0.10	0.00	0.00
Treatment C	0.00	0.72	0.00	0.37	0.00	0.12
Treatment D	0.00	1.09	0.00	0.72	0.00	0.42
Total Q (cfs) =	0.81	2.07	0.15	1.19	0.00	0.54