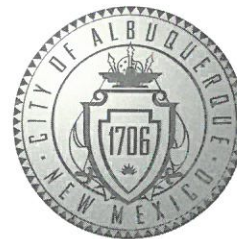


CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

April 22, 2019

Jesse J Luehring, P.E.
Critical View Engineering
11501 Modesto Ave NE
Albuquerque, New Mexico 87122

RE: **Lot 19, Block 6, Unit 22 S.A.D. 227**
8000 Camino Alto Ct. NW
Grading and Drainage Plan
Engineers Stamp Date 6/13/19 (D10D003B19)

Mr. Luehring,

Based upon the information provided in your submittal received 6/14/19, this plan is approved for Grading Permit.

A pad certification is required before concrete is poured, either by a letter from you stating that the pad is built according to the plan submitted or by an as-built with elevations plotted.

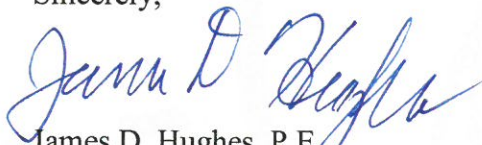
Please attach a copy of this approved plan to the construction sets in the permitting process prior to sign-off by Hydrology.

Also, please advise the owner/contractor that a separate wall permit must be obtained and this approved grading plan dated 6/13/19 must be provided with the wall permit application.

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist 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 D10D003B19



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

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:** _____

Surveyor: _____ **Contact:** _____

Address: _____

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

Contractor : _____ **Contact:** _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

- ☐ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ ARCHITECT CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ OTHER (SPECIFY) _____

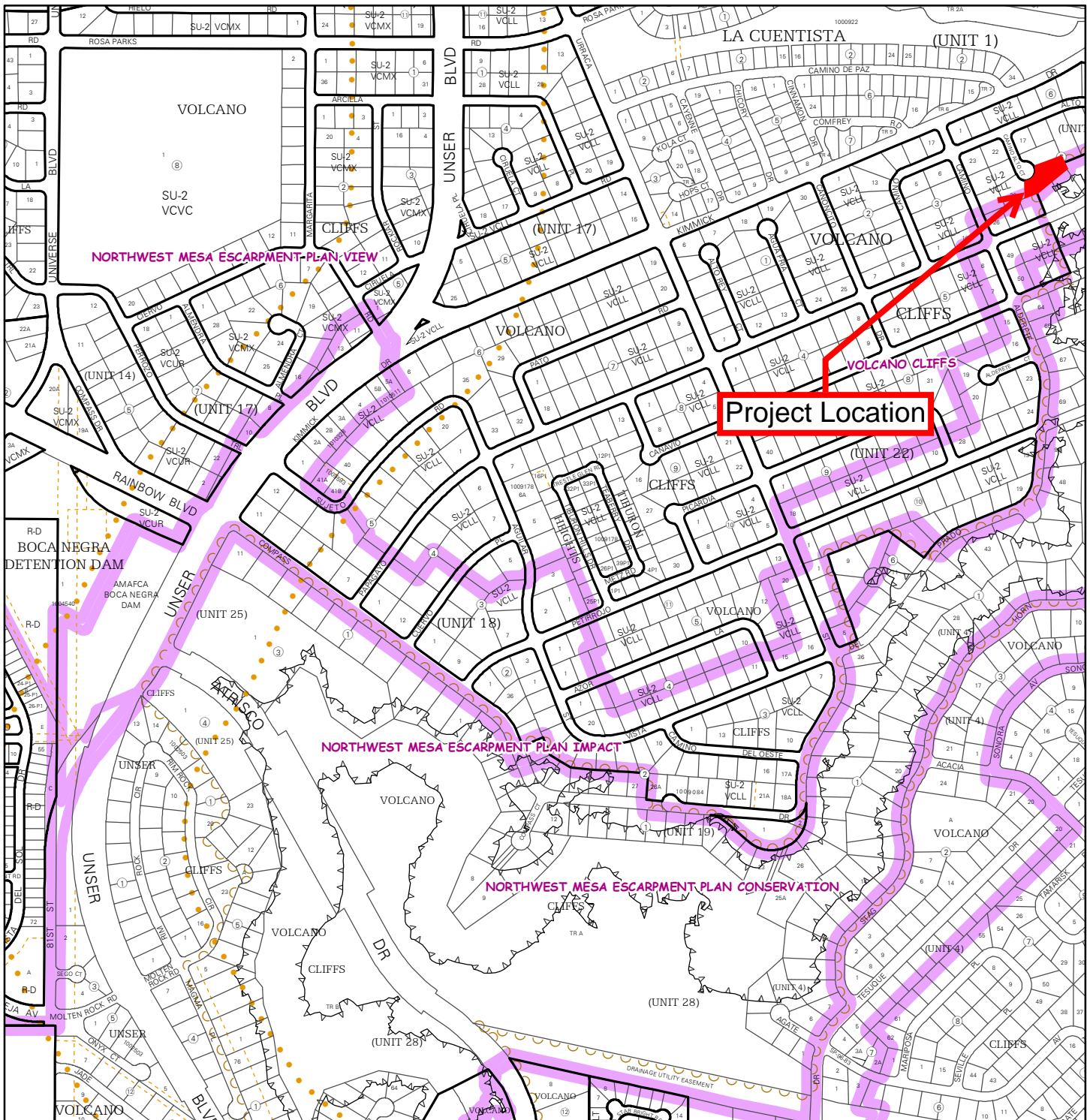
CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ 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) _____

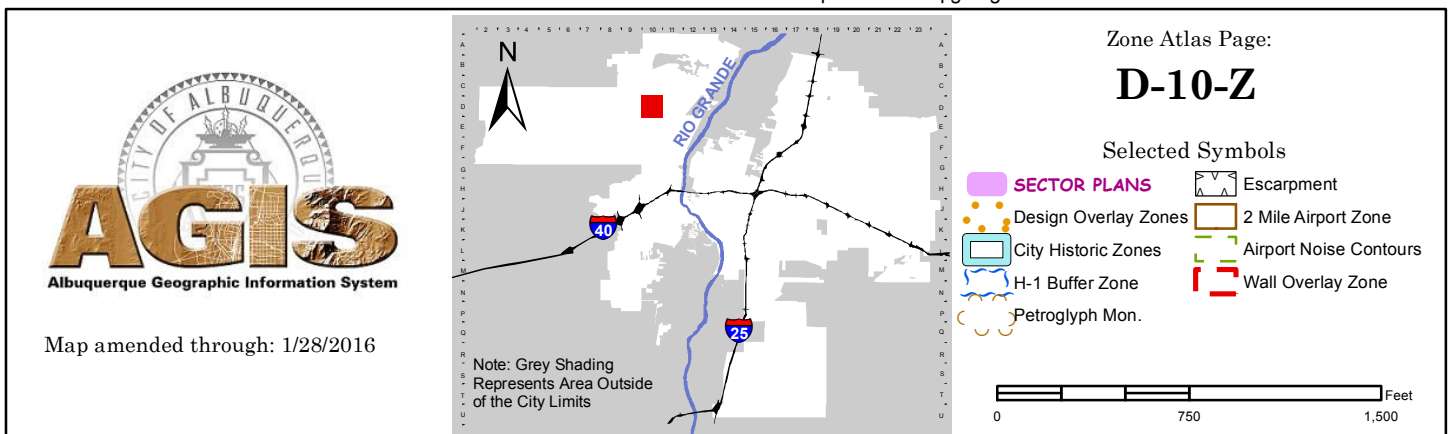
IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

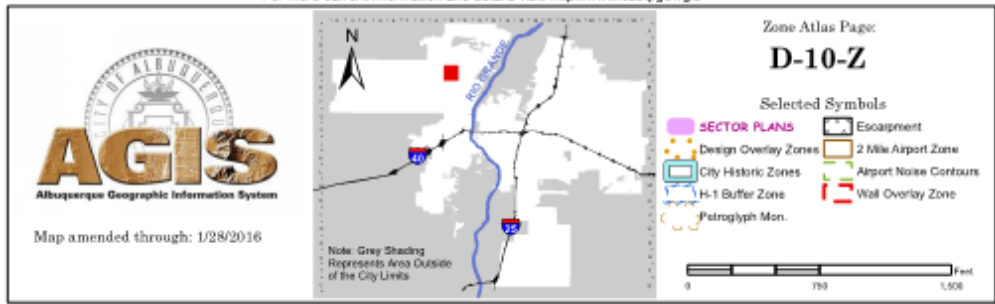
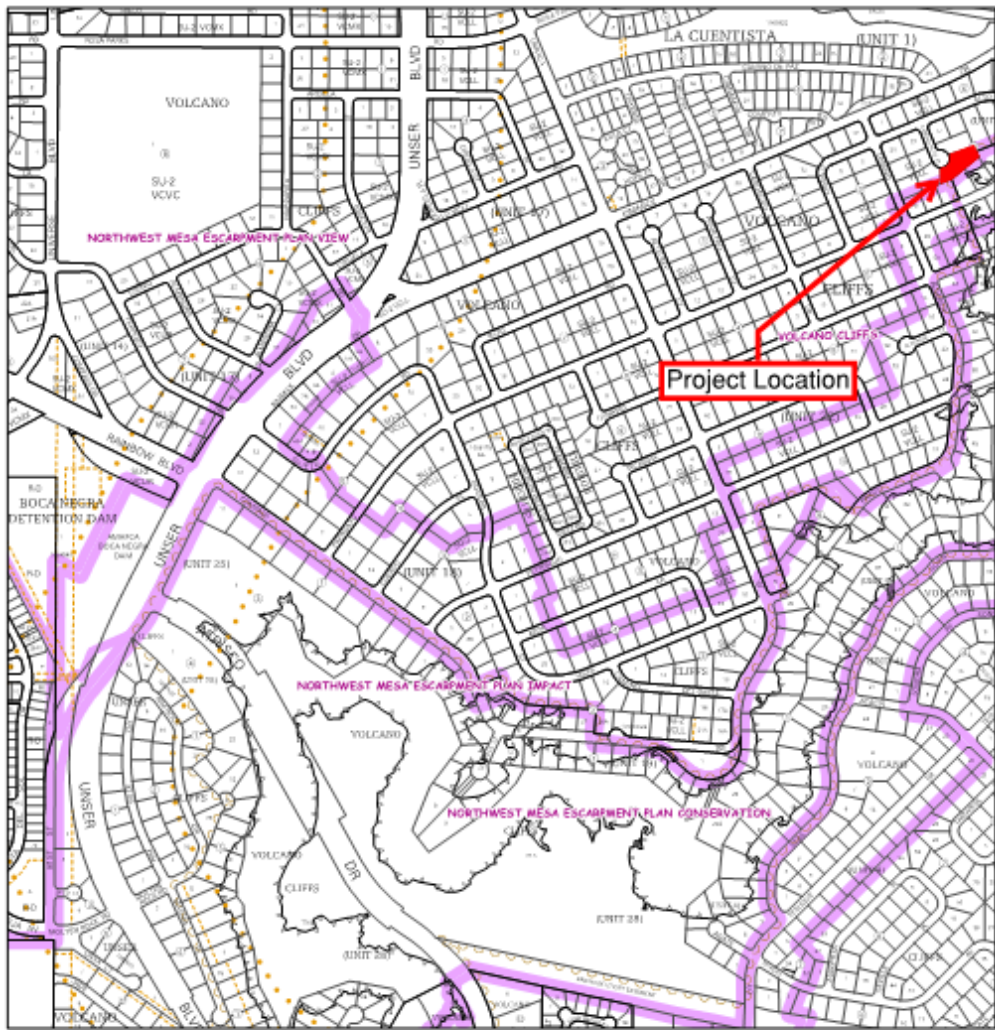
DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



For more current information and details visit: <http://www.cabq.gov/gis>



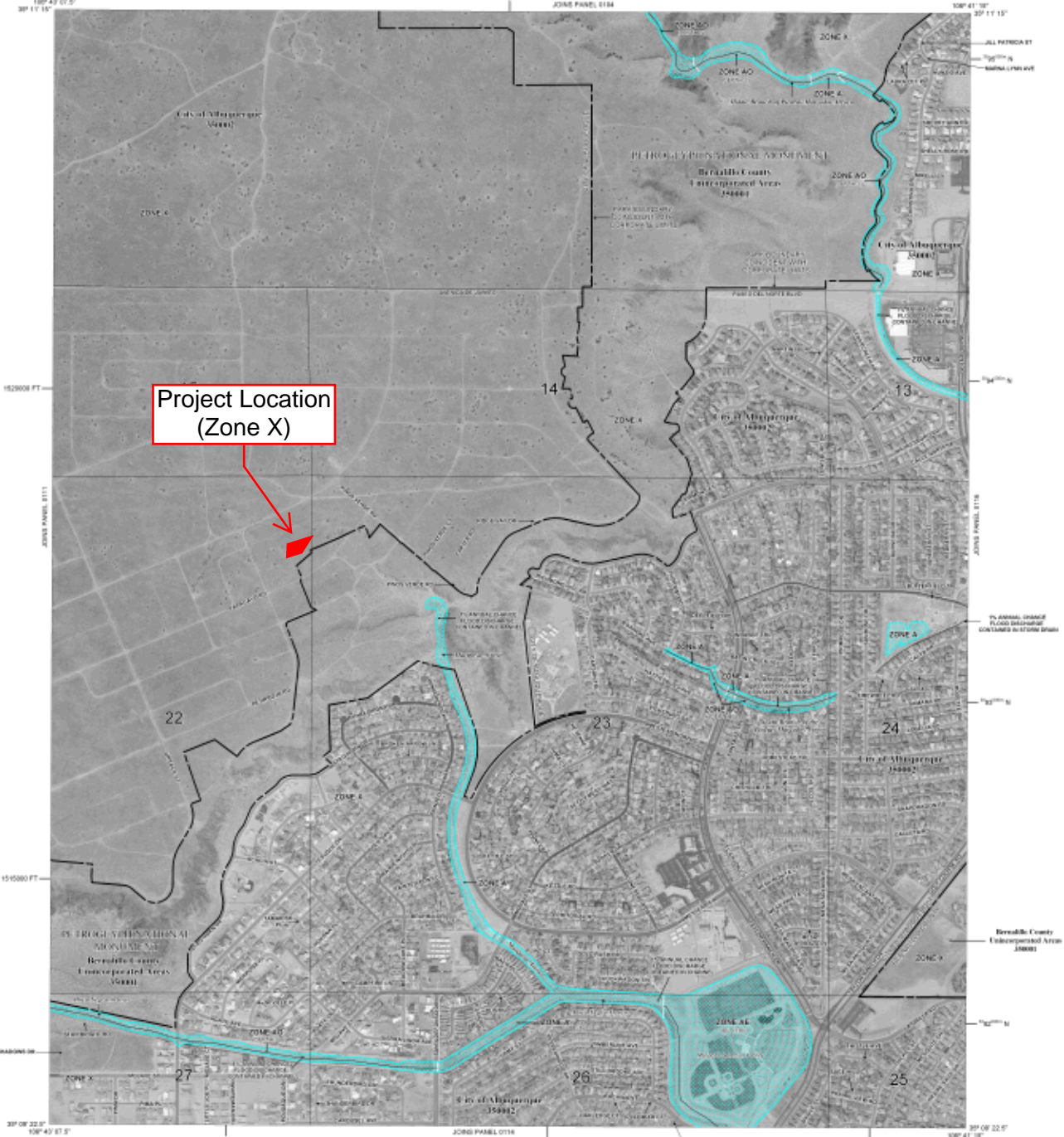


Vicinity Map

Narrative

This is a grading and drainage plan for the construction of the building pad and general grading for the Lot at address 8000 Camino Alto Ct. NW (Lot #19, Block #6, Volcano Cliffs Subdivision Unit 22, a part of Special Assessment District 228)

The purpose of this plan is to establish the first floor elevation, house layout, retaining wall locations, and general lot drainage of the site. This drainage plan has been prepared in accordance with the latest revision to the City of Albuquerque Development Process Manual, and in accordance with Plate 3 of the SAD 228 Drainage Report dated November 2011. This front portion of this lot (referred to as 'Basin A' in this plan) is designed to drain to the street and eventually to Pond 7 (Basin 204 in SAD 228 drainage report), while the back portion (referred to as 'Basin B' in this plan) is intended to free discharge to the south national monument. There are negligible offsite flows on this property, as the norther adjacent lot detains all runoff on site. The site is located in rainfall 'Zone 1' per the DPM.



FEMA Flood Map

First Flush

The initial 'First Flush' to be managed on this lot is 0.44" less 0.10" initial abstraction, resulting in a net of 0.34" rainfall. This results in a required storage volume of 289 Cu. Ft. in Basin A (draining to the street), and 82 Cu. Ft. in Basin B. These storage volumes will be collected on site and held in the small ponds shown on the Plan.

Engineer's Certification

I, Jesse Luehring, hereby certify that I have inspected the site, and that all existing grades are accurately reflected in the topographic survey obtained to develop this grading and drainage plan.

GRADING AND DRAINAGE PLAN
8000 CAMINO ALTO NW
LOT #19, BLOCK #6, VOLCANO CLIFFS UNIT #22

Critical View
Engineering, LLC
11501 Modesto Ave NE
Albuquerque NM, 87122
505-321-5917

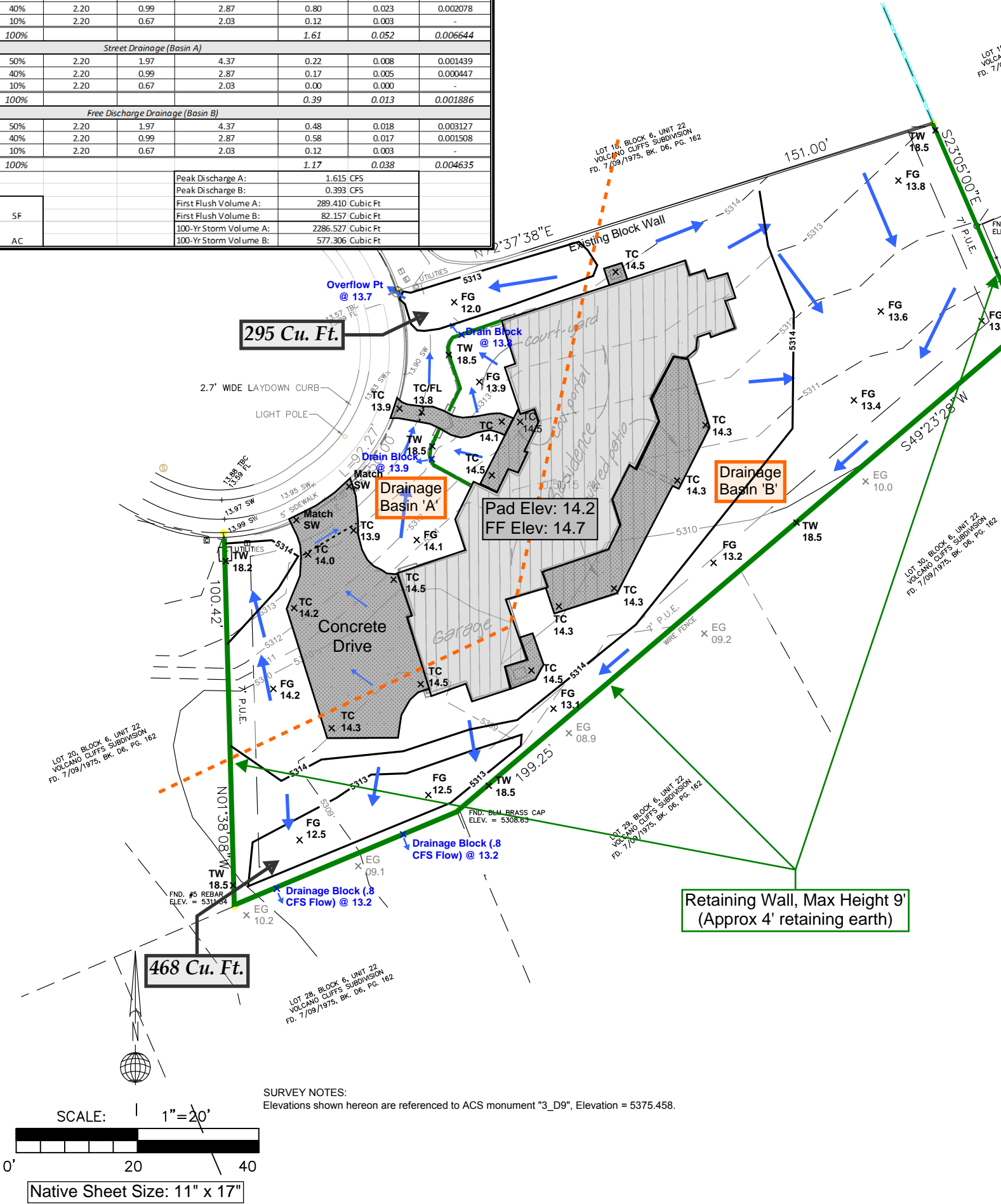


6/3/19



Drainage Calculations

Lot 19, Block 6, Volcano Cliffs Unit 22									
Land Type	Area Lot (SF)	Property Area %	SAD 228 DMP %	100-Yr Storm Inch Depth (6 hr)	Excess Precip (In)	Peak Discharge CFS/AC	Peak Rate of Discharge (CFS)	100-Yr Storm Volume (Ac-Ft)	First Flush Volume (Ac-Ft)
Total Property Area									
Type D	7020	33%	50%	2.20	1.97	4.37	0.70	0.026	0.004566
Type C	12068	56%	40%	2.20	0.99	2.87	0.80	0.023	0.002078
Type B	2480	11%	10%	2.20	0.67	2.03	0.12	0.003	-
TOTAL	21568	100%	100%				1.61	0.052	0.006644
Street Drainage (Basin A)									
Type D	2213	40%	50%	2.20	1.97	4.37	0.22	0.008	0.001439
Type C	2594	47%	40%	2.20	0.99	2.87	0.17	0.005	0.000447
Type B	0	0%	10%	2.20	0.67	2.03	0.00	0.000	-
TOTAL	5523	87%	100%				0.39	0.013	0.001886
Free Discharge Drainage (Basin B)									
Type D	4807	30%	50%	2.20	1.97	4.37	0.48	0.018	0.003127
Type C	8758	55%	40%	2.20	0.99	2.87	0.58	0.017	0.001508
Type B	2480	15%	10%	2.20	0.67	2.03	0.12	0.003	-
16045		100%	100%				1.17	0.038	0.004635
Total Drainage Basin Area:						Peak Discharge A:	1.615 CFS		
						Peak Discharge B:	0.393 CFS		
						First Flush Volume A:	289.410 Cubic Ft		
						First Flush Volume B:	82.157 Cubic Ft		
						100-Yr Storm Volume A:	2286.527 Cubic Ft		
						100-Yr Storm Volume B:	577.306 Cubic Ft		
	21505	SF							
	0.4937	AC							



General Notes

1. All perimeter walls shall be permitted separately
2. No grading shall be allowed on adjacent properties
3. A pad certification is required before the building permit is issued
4. An as-built certification is required before certificate of occupancy is issued.
5. All disturbed areas shall be stabilized with concrete, gravel, asphalt, or native seed mix
6. It is recommended to contract with a licensed geotechnical engineer for all aspects of earthwork and engineered fill material
7. Driveway cutout not shown, but shall comply with NM Standard Specs for Public Works Construction, specifically Std Detail 2425

Drainage Intent:

Existing Conditions: This lot is an 0.4937 Acre property, that is bound to the North by a developed lot which detains all flows. To the West and East the lot is bounded by undeveloped lots, with open space to the South. The lot generally drains to the Southwest, with negligible offsite flows. The SAD 228 DMP assumes partial flows from this lot to the North ('Basin A') and partial flows to the South ('Basin B'). The North drainage flow to the street, which is eventually collected in Pond 7 on Camino Alto St. The south end drainage discharges to the open space.

Proposed Conditions: Improvements to the lot include a new residence and concrete driveway that will add approximately 7020 SF of impervious area, or 33% of the property area (SAD 228 DMP allows up to 50%).

Two water quality retention ponds with a combined volume of 763 Cu. Ft. are designed to capture the 'first flush' of approximately 371 CF (289 CF in Basin 'A' and 82 CF in Basin 'B'). The existing sandy loam soils at the site are well drained (hydrologic soil group 'B') which will ensure a short retention time.

Additional improvements will include the construction of approximately 258 LF of varying height, retaining site garden wall (designed by others). These walls may retain up to 4' of soil.

The Basin B flows traversing through this wall will be conveyed through 2 separate CMU blocks turned sideways, which will allow 0.8 CFS of flow each, enough to accommodate the Q max of 1.17 CFS.

Flows in the front of the property (Basin 'A') will flow to a water quality pond at the NW end to the lot, and overflow to the street in heavy rainfall events.

GRADING AND DRAINAGE PLAN

8000 CAMINO ALTO NW
LOT #19, BLOCK #6, VOLCANO CLIFFS UNIT #22

Critical View
Engineering, LLC
11501 Modesto Ave NE
Albuquerque NM, 87122
505-321-5917



6/3/19



SAD 228 Drainage Master Plan



Proposed Conditions Model-Sub-Basin Data				
Basin	Area (ac)	cfs/ac	Q ₁₀₀ (cfs)	V ₁₀₀₋₂₄ (ac-ft)
Basin 200 (Discharge to Pond 4)				
200	13.12	2.44	32.02	1.546
Basin 201 (Discharge to Pond 5)				
201-A	7.48	1.97	14.72	0.965
201-B	6.62	1.97	13.03	0.854
201-C	5.12	1.97	10.08	0.661
201-D	2.47	1.97	4.86	0.319
201-E	1.53	1.97	3.01	0.197
201-F	8.73	1.97	17.18	1.127
201-G	8.54	1.97	16.81	1.102
201-H	8.88	1.97	17.47	1.146
201-I	6.09	1.97	11.98	0.786
201-J	8.51	1.97	16.75	1.098
201-K	3.75	1.97	7.38	0.484
201-L	11.78	1.97	23.18	1.520
201-M	5.17	1.97	10.17	0.667
201-N	5.27	1.97	10.37	0.680
201-O	3.16	1.97	6.22	0.408
201-P	2.20	1.97	4.33	0.284
Total	95.30		187.54	12.300
Basin 202 (Discharge to La Cuentista Pond)				
202-A	8.57	3.20	27.44	1.104
202-B	10.72	3.20	34.32	1.382
Total	19.29		61.76	2.486
202-C	1.33	2.62	3.50	0.235
Basin 203 (Discharge to Pond 8)				
203-A	6.51	2.99	19.47	0.841
203-B	9.99	2.99	29.87	1.290
203-C	5.24	2.99	15.67	0.677
203-D	4.18	2.99	12.50	0.540
203-E	9.89	2.99	29.57	1.277
203-F	3.02	2.99	9.03	0.390
Total	38.83		116.11	5.014
Basin 204 (Discharge to Pond 7)				
204	8.98	3.20	28.73	1.156
Basin 205 (Discharge to Pond 6)				
205-A	10.29	2.73	28.11	1.328
205-B	10.06	2.73	27.49	1.298
205-C	5.66	2.73	15.46	0.730
205-D	3.22	2.73	8.80	0.416
205-E	5.75	2.73	15.71	0.742
205-F	6.88	2.73	18.80	0.888
Total	41.86		114.37	5.402
Basin 206-A (Discharge to Pond 9)				
206-A	4.01	3.19	12.79	0.514
Basin 206-B (Free Discharge)				
206-B	1.01	3.19	3.22	0.130
Total	5.02		16.01	0.644
Basin 207 (Free Discharge)				
207	1.85	3.22	5.96	0.240

**WILSON
& COMPANY**
4800 LANG AVE. NE
ALBUQUERQUE, NM 87109
(505) 348-4000

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

SAD 228
DRAINAGE REPORT

PROPOSED SUB-BASIN BOUNDARY PLAN
UNIT 18, 19 & 20

City of Albuquerque Planning Department
One Stop Shop – Development and Building Services

06/12/2019 Issued By: E08375 364897

Permit Number: 2018 061 215

Category Code 970

Application Number: 18REV-61215, Review: Drain Plan-Lomr-Traffic Impact

Address:

Location Description: 8000 CAMINO ALTO

Project Number: null

Applicant
CRITICAL VIEW ENGINEERING

Agent / Contact
CRITICAL VIEW ENGINEERING

11501 MODESTO AVE NE
NM

11501 MODESTO AVE NE

Application Fees

REV Actions \$160.00

TOTAL: \$160.00



Date: 6/12/2019
Office: ANNEX Cashier: TRSRMS
Batch: 10406 Tran #: 34

=====

4:37 PM REV Station ID
Office ANNEX
Receipt #: 00575570
Permit: 2018061215
Trans Amt: \$160.00

0909 REV Actions \$160.00
Payment Total: \$160.00
=====

Transaction Total: \$160.00
VISA Tendered : \$160.00

Thank you for your payment.
Have a nice day!

City of Albuquerque Treasury
Date: 6/12/2019 Office: ANNEX
Stat ID: Cashier: TRSRMS
Batch: 10406 Tran #: 34
Permit: 2018061215
Receipt Num 00575570
Payment Total: \$160.00
0909 REV Actions
VISA Tendered : \$160.00