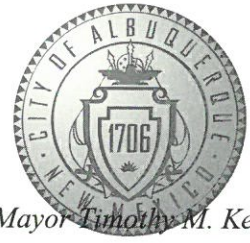


CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

October 5, 2018

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
6536 Papagayo NW
Volcano Cliffs Subdivision
Grading and Drainage Plan
Engineers Stamp Date; 7/25/18 (D10D003I17)
Pad Certification Date; 10/4/18**

Dear Mr. Dourte,

Based upon the information provided in your submittal received 10/4/18, this plan cannot be approved for Building Permit until the following comment is addressed.

- Remove the dirt from the street and the public sidewalk. Explain to the contractor that dirt curb ramps are not allowed in the street. Use lumber, gravel or a pavement base for this ramping.

If you have any questions, please contact me at 924-3995 or Rudy Rael at 924-3977.

Sincerely,

Renee Brissette, P.E.
Senior Engineer, Hydrology
Planning Department

RR/RB
C: File D10D003I17



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: 6536 Papagayo NW **Building Permit #:** _____ **Hydrology File #:** D10D00317
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Lot 7-A-1 & 6-A-1, Block 9, Unit 18, Volcano Cliffs Sub'd (SAD 228)
City Address: 6536 Papagayo NW

Applicant: RHD Engineering, LLC **Contact:** Richard Dourte
Address: 4305 Purple Sage Ave. NW
Phone#: 505.288.1621 **Fax#:** _____ **E-mail:** rhdenengineering@outlook.com

Other Contact: Candelaria Homes **Contact:** Diego Candelaria
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** diego.candelariahomes@gmail.com

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

IS THIS A RESUBMITTAL? ☒ Yes _____ No

DEPARTMENT _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

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?

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
☐ FLOODPLAIN DEVELOPMENT PERMIT
☐ OTHER (SPECIFY) _____

DATE SUBMITTED: October 4, 2018

By:

Richard Dourte

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

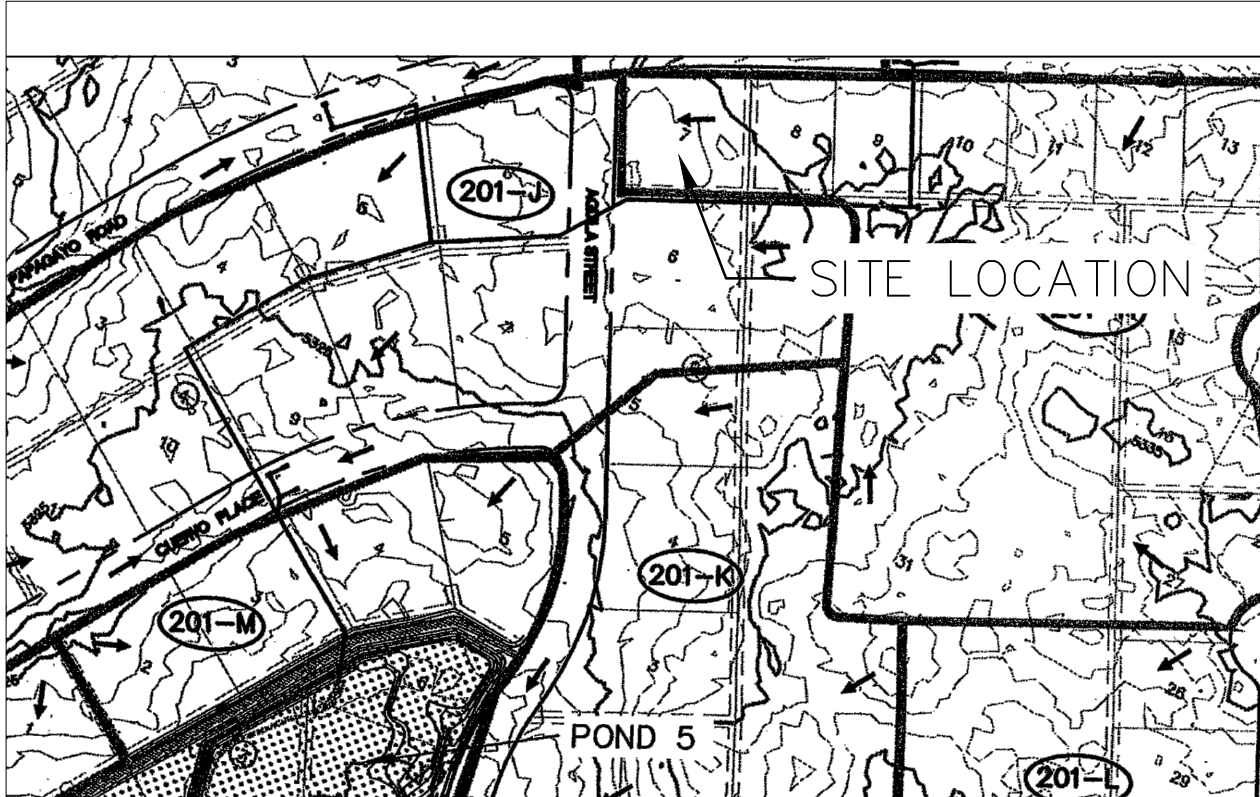
FEE PAID: _____

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 3.84CFS, THE FLOWS GENERATED BY THIS SITE IS 3.45CFS.
THE VOLUME OF THE FIRST FLOOD POND IS 690CF. THIS IS GREATER THAN THE REQUIRED PONDING OF 479CF
4. WEIR EQUATION FOR EACH CELL OF A 8" CMU BLOCK:
 $Q=C_L(H)^{1.5}$
 $C=3.21$
 $L=5'$
 $H=5'$
THUS $Q=0.36CFS$, OR .72CFS PER BLOCK.
5. THE OFFSITE FLOWS THAT THIS SITE IS REQUIRED TO ACCEPT IS FROM LOT 9, 0.36 AC AND THE PERMISSIBLE DEVELOPED FLOWS ARE 1.27 CFS, PER THE SAD 228 DRAINAGE PLAN. THE NUMBER OF CELLS NEEDED TO ALLOW THESE FLOWS TO PASS ARE 1.27/.72=1.76 BLOCKS THUS 2 BLOCKS (1.44CFS) NEED TO BE TURNED.

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.

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 STABILIZATION SHALL BE USED ON SLOPES GREATER THAN A 3:1 SLOPE, PER MANUFACTURER RECOMMENDATIONS.
4. MODIFICATIONS OR ADJUSTMENTS TO EXISTING DRAINAGE STRUCTURES/EROSION MITIGATION 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 BY CONSTRUCTION SURVEYS TECHNOLOGIES, INC.
10. FOR SITE DIMENSIONS, BUILDING AND INFRASTRUCTURE LOCATION REFER TO THE SITE PLAN.

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.



Project: 6366 Pagagayo					
Drainage Calculations - Zone 1					
		Total Lot Area (ac) = 1.0854			
		Total Offsite Flow Area (ac) = 0.36			
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

Weighted E = $((Ea \cdot Aa) + (Eb \cdot Ab) + (Ec \cdot Ac) + (Ed \cdot Ad)) / (Aa + Ab + Ac + Ad)$				
V ₃₆₀ = (Weighted E * P ₃₆₀) / 12 in/ft				
V ₁₄₄₀ = V ₃₆₀ + Ao * (P ₁₄₄₀ - P ₃₆₀) / 12 in/ft				
V _{4days} = V ₃₆₀ + Ao * (P _{4day} - P ₃₆₀) / 12 in/ft				
V _{10days} = V ₃₆₀ + Ao * (P _{10day} - P ₃₆₀) / 12 in/ft				

UPSTREAM FLOWS = (10%B+40%C+50%D)x area = 1.27CFS	
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*****SAD 228 Permittable Design Conditions*****					
Area	SQ. FT	Acres			
(0%)A=	0	0.000			
(10%)B=	4728	0.109			
(40%)C=	18912	0.434			
(50%)D=	23640	0.543			
Total	47280	1.085			
Weighted E=		1.448			

		V ₃₆₀	V ₁₄₄₀	V _{4days}	V _{10days}
Cubic feet		5705.1	6611.3	7517.5	8601.0
Acres-ft		0.13	0.15	0.17	0.20

*****PROPOSED CONDITIONS*****					
Area	SQ. FT	Acres			
A=	0	0.000			
B=	5000	0.115			
C=	29780	0.684			
D=	12500	0.287			
Total	47280	1.085			
Weighted E=		1.215			

		V ₃₆₀	V ₁₄₄₀	V _{4days}	V _{10days}
Cubic feet		4788.1	5267.3	5746.4	6319.4
Acres-ft		0.11	0.12	0.13	0.15

Excess Precipitation, E(inches) - 6 HR				
Treatment				
Zone	A	B	C	D
1	0.44	0.67	0.99	1.97

Peak Discharge (CFS/ACRE) 100 YR				
Treatment				
Zone	A	B	C	D
1	1.29	2.03	2.87	4.37

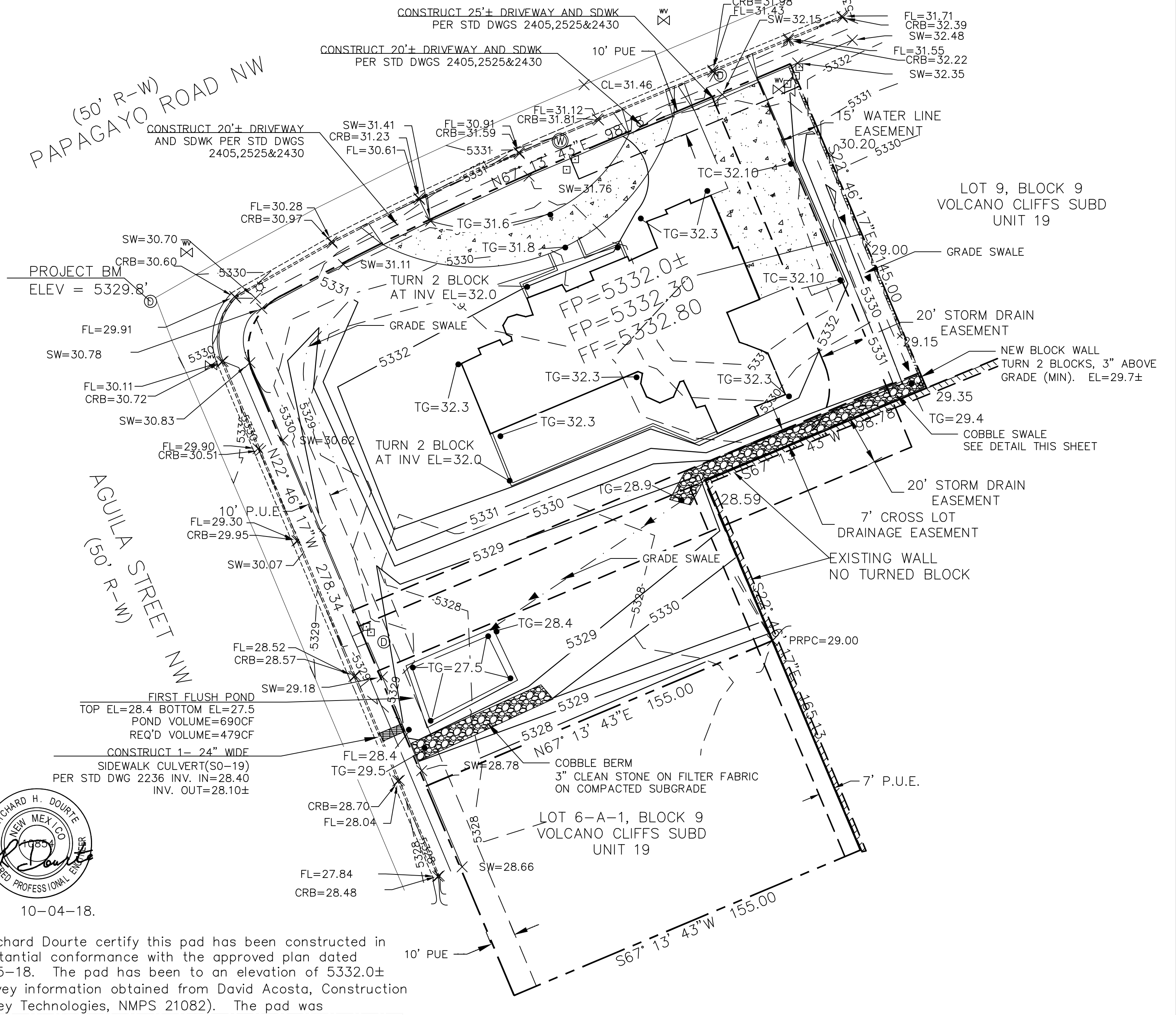
Design Flows (CFS)				
Area	SQ. FT	Acres	Peak Discharge (100 YR)	
A=	0	0.000	0.00	
B=	4728	0.109	0.22	
C=	18912	0.434	1.25	
D=	23640	0.543	2.37	
Total (CFS)			3.84	

Design Flows (CFS)				
Area	SQ. FT	Acres	Peak Discharge (100 YR)	
A=	0	0.000	0.00	
B=	5000	0.115	0.23	
C=	29780	0.684	1.96	
D=	12500	0.287	1.25	
Total (CFS)			3.45	

The 100 year peak flows for this developed site is 3.45 CFS and the SAD 228 permissible design flows are 3.84 CFS for an increase of -0.39 CFS.	
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First Flush Ponding Requirement = Ao * 0.46 in/12in/ft = 479 CF	
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1	AN EXCAVATION / CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF -WAY.
2	ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THRU UPDATE #8.
3	TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (CALL 811) FOR LOCATION OF EXISTING UTILITIES.
4	PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5	BACKFILL SOMPACTION SHALL BE ACCORDING TO TRAFFIC / STREET USE.
6	MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7	WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.
8	THE WORK IN THE CITY ROW MUST BE INSPECTED AND ACCEPTED. THE CONTRACTOR MUST CONTACT JASON RODRIGUEZ AT 235-8016 AND CONSTRUCTION COORDINATION AT 924-3416 TO SCHEDULE INSPECTIONS.

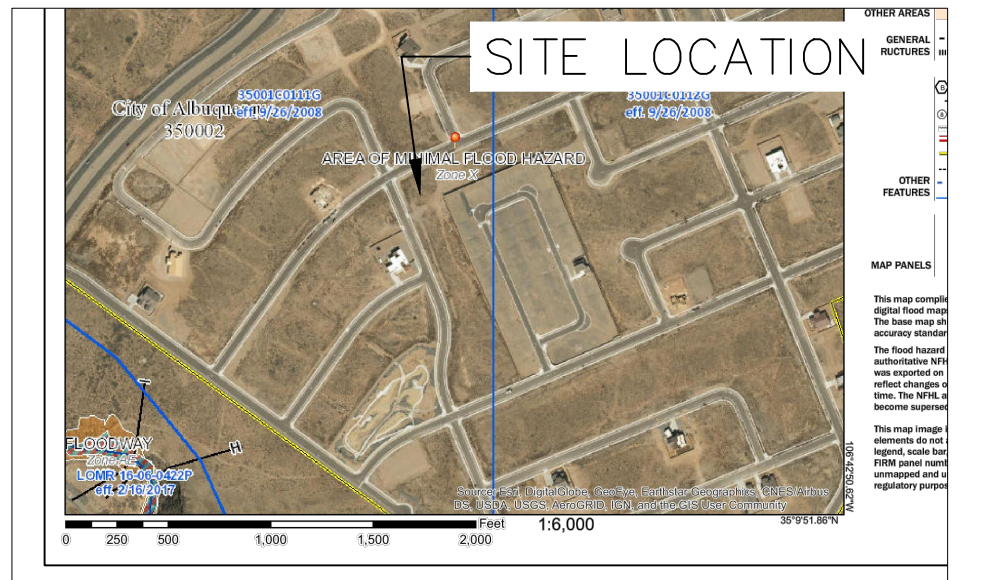


I, RICHARD DOURTE HAVE PERSONALLY INSPECTED THE PROPERTY ON
6-28-08 THE SITE IS CONSISTENT WITH THE TOPO SHOWN.

Richard Dourte
RICHARD DOURTE P.E. #10854
DATE



VICINITY MAP:	D-10-Z
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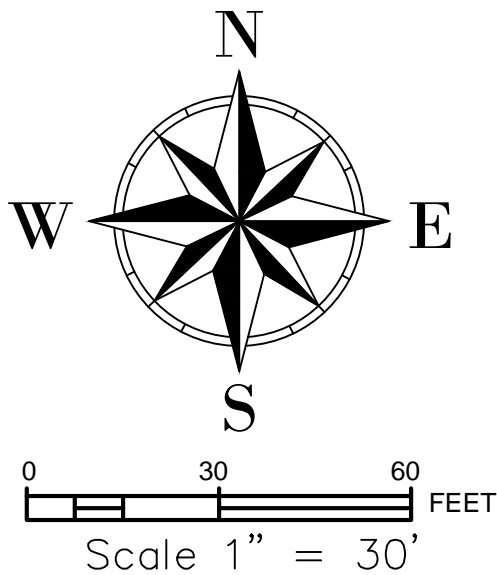



FIRM MAP:	35001C0111G
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LOT 7-A-1, BLK 9, VOLCANO CLIFFS SUB D, UNIT 19
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO

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 REQUIREMENTS

[illegible]

ENGINEER'S SEAL	Title 6536 PAPAGAYO NW	DRAWN BY
		DATE
7/25/18 Richard Dourte P.E. #10854	GRADING AND DRAINAGE PLAN	Day
	<i>RHD Engineering, LLC</i> 4305 Purple Sage Ave. NW ALBUQUERQUE, NM 87120 (505) 288-1621	SHEET # 1 of 1 JOB #

