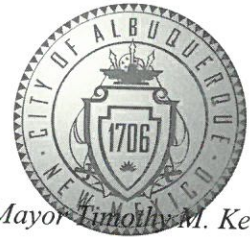


CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

May 1, 2018

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

RE: **Lot 7 Block 4 Unit 19 SAD 228**
65323 Azor Ln. NW
Volcano Cliffs Subdivision
Grading and Drainage Plan
Engineers Stamp Date 5/7/18 (D10D003T7)

Dear Mr. Dourte,

Based upon the information provided in your submittal received 5/7/18, this plan is approved for Grading Permit.

Prior to building permit approval a pad certification will be required.

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 D10D003T7

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2016)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

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

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

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

Other Contact: _____ **Contact:** _____

Address: _____

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

diego.candelariahomes@gmail.com

Check all that Apply:

DEPARTMENT:

☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION

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)

☐ 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

☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☒ No

DATE SUBMITTED: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

DRAINAGE CALCULATION

Project: 6532 Azor NW					
Drainage Calculations - Zone 1					
Total Lot Area (ac) = 0.3214					

Depth (inches) at 100yr Storm					
Zone	P60	P360	P1440	P4days	P10days
1	1.87	2.20	2.66	3.12	3.67

Weighted E= ((Ea*Aa)+(Eb*Ab)+(Ec*Ac)+(Ed*Ad))/(Aa+Ab+Ac+Ad)	
V360=(Weighted E *P360)/12 in/ft	
V1440= V360+Ad*(P1440-P360)/12in/ft	
V4days=V360+Ad*(P4day-P360)/12in/ft	
V10days=V360+Ad*(P10days-P360)/12in/ft	

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

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

Area	SQ. FT	Acres
(0%)A=	0	0.000
(10%)B=	1400	0.032
(40%)C=	5600	0.129
(50%)D=	7000	0.161
Total	14000	0.321
Weighted E=	1.448	

Design Flows (CFS)			
Area	SQ. FT	Acres	Peak Discharge (100 YR)
A=	0	0.000	0.00
B=	1400	0.032	0.07
C=	5600.1	0.129	0.37
D=	7000.1	0.161	0.70
Total (CFS)	1.14		

V360		V1440		V4days		V10days	
Cubic feet		1689.3		1957.7		2226.0	
Acre-ft		0.04		0.04		0.05	

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

Area	SQ. FT	Acres
A=	0	0.000
B=	1400	0.032
C=	7250	0.166
D=	5350	0.123
Total	14000	0.321
Weighted E=	1.333	

Design Flows (CFS)			
Area	SQ. FT	Acres	Peak Discharge (100 YR)
A=	0	0.000	0.00
B=	1400	0.032	0.07
C=	7250	0.166	0.48
D=	5350	0.123	0.54
Total (CFS)	1.08		

V360		V1440		V4days		V10days	
Cubic feet		1554.6		1759.7		1964.8	
Acre-ft		0.04		0.04		0.05	

The 100 year peak flows for this developed site is 1.08 CFS and the SAD 228 permissible design flows are 1.14 CFS for an increase of -0.06 CFS.

First Flush Ponding Requirement = Ao *0.46 in/12in/ft = 205 CF

GENERAL NOTES:

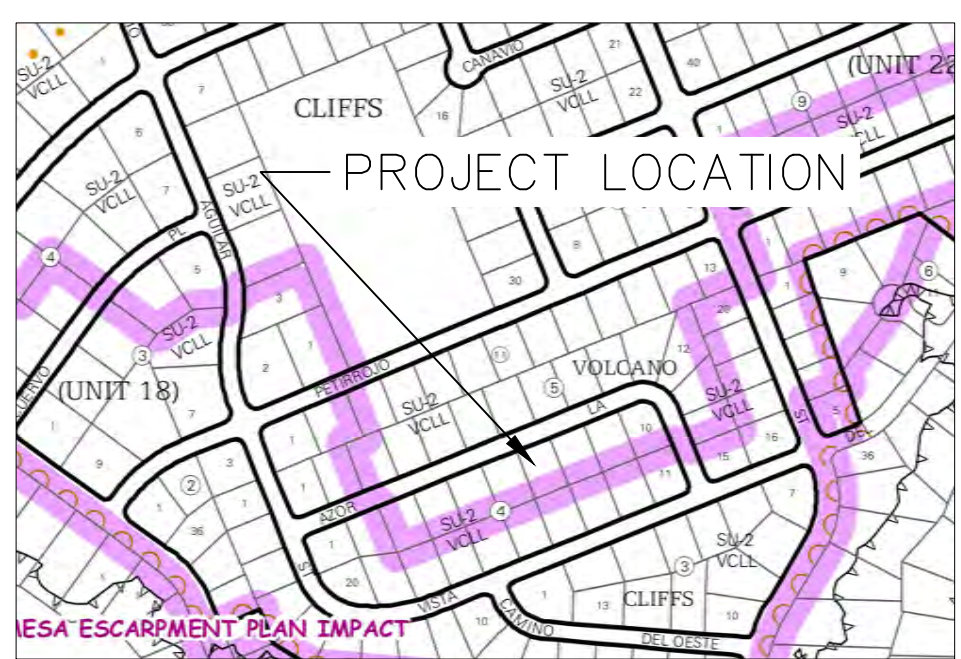
- THIS SITE IS NOT LOCATED IN A FEMA FLOOD HAZARD ZONE (REFER TO THE FIRM MAP 35001C0112G.(EXCERPT ATTACHED).
- RHD ENGINEERING, LLC RECOMMENDS THAT THE OWNER OBTAIN A GEOTECHNICAL REPORT PRIOR TO DESIGN OF BUILDING FOOTING/FOUNDATION.
- SLOPE STABILAZATION SHALL BE USED ON SLOPES GREATER THAN A 3:1 SLOPE, PER MANUFACTURER RECOMMENDATIONS.
- MODIFICATIONS OR ADJUSTMENTS TO EXISTING DRAINAGE STRUCTURES/EROSION MITIGATION IMPROVEMENTS SHALL BE DONE IN THE SAME MANNER AS THE ORIGINAL IMPROVEMENT.
- ALL SWPPP REQUIREMENTS SHALL BE ADHERED TO.
- 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.
- ALL WORK IN THE RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARDS.
- 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.
- THE SURVEY INFORMATION WAS PROVIDED BY CONSTRUCTION SURVEYS TECHNOLOGIES, INC.
- FOR SITE DIMENSIONS, BUILDING AND INFRASTRUCTURE LOCATION REFER TO THE SITE PLAN.

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.

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.



VICINITY MAP: D-10-Z



FIRM MAP: 35001C0112G

LEGAL DESCRIPTION:

LOT 7, BLOCK 4, VOLCANO CLIFF, UNIT 19
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO

NOTES:

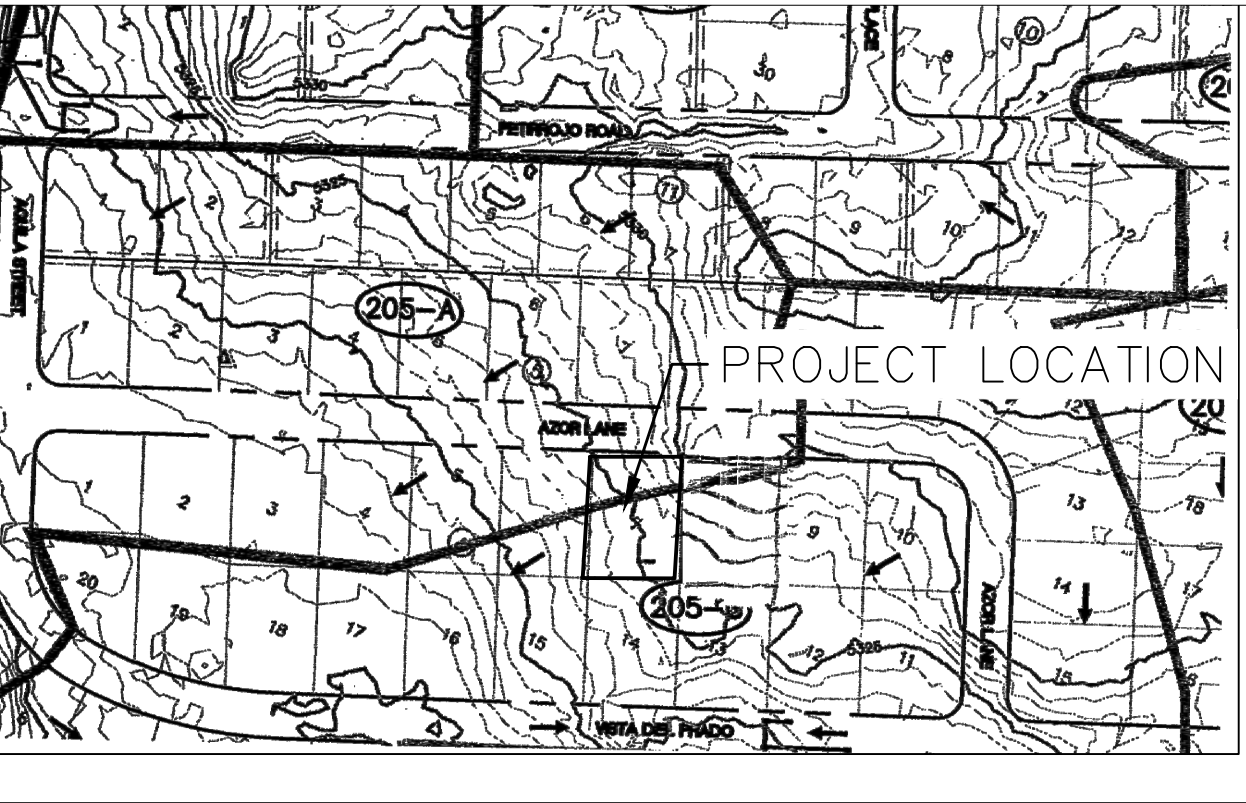
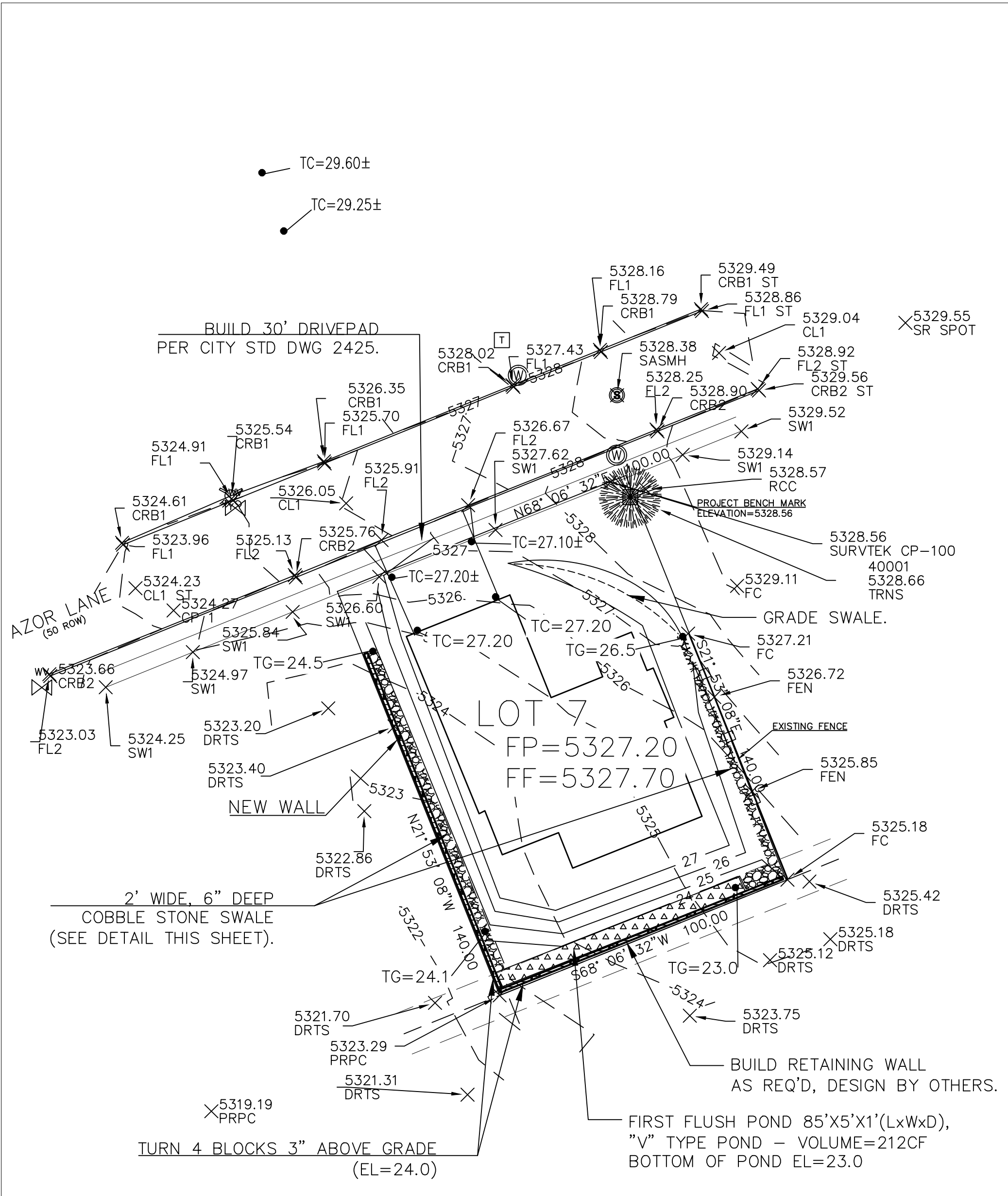
- ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
- RETAIN THE FIRST .46" OF STORM RUNOFF FROM ENTIRE DEVELOPMENT TO CONFORM TO THE WATER QUALITY REQUIREMENTS

LEGEND

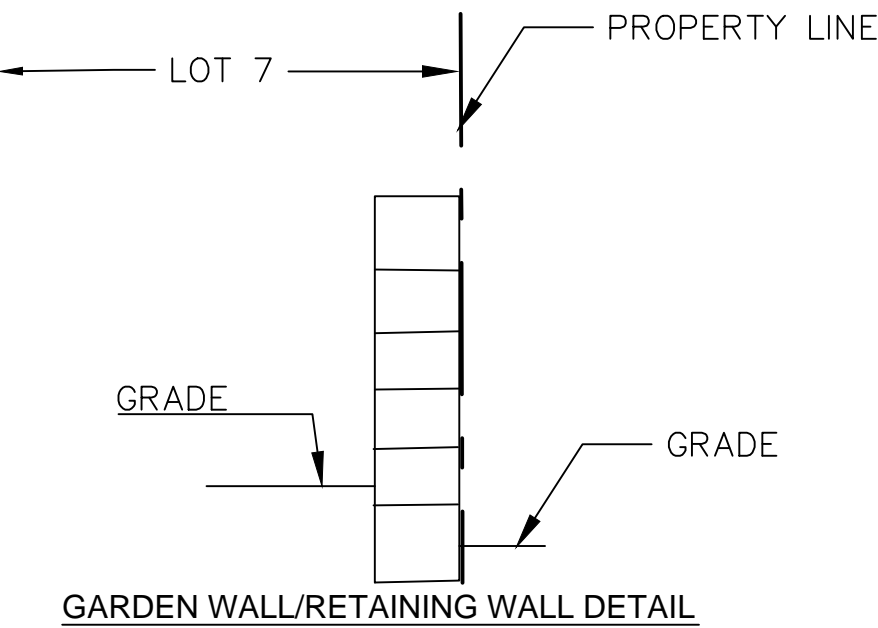
- 46.00
TW=44.00
PROPOSED SPOT ELEVATION
- TOP OF WALL ELEVATION
BOTTOM OF WALL ELEVATION
- 5601-----
EXISTING CONTOUR
- 5600-----
EXISTING INDEX CONTOUR
- 5601-----
PROPOSED CONTOUR
- 5600-----
PROPOSED INDEX CONTOUR
- LOT LINE
- RIGHT-OF-WAY
- PROPOSED RETAINING WALL
- PROPOSED ROCK FACE WALL
- EXISTING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

DRAINAGE NARRATIVE:

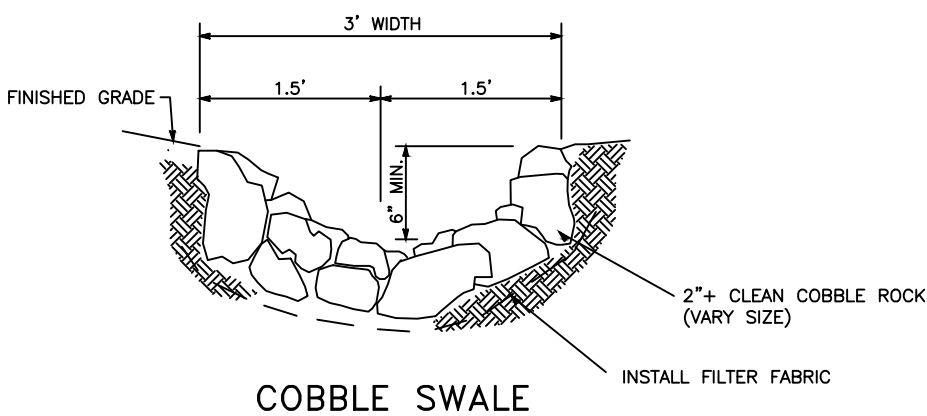
- THIS SITE IS LOCATED WITHIN THE SAD 228 DRAINAGE MASTER PLAN AREA.
- THIS SITE IS TO DRAIN IN A SOUTH WEST DIRECTION, PER THE SAD 228 DRAINAGE MASTER PLAN.
- THE VOLUMES OF THE FIRST FLUSH POND IS 212CF, THIS IS GREATER THAN THE REQUIRED PONDING OF 205CF.



EXCERPT FROM SAD 228 DRAINAGE REPORT



- ANY GARDEN WALL/RETAINING WALL IS TO BE BUILT ON-SITE (DESIGN OF THE GARDEN WALL/RETAINING WALL IS BY OTHERS).
- 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.



I, RICHARD DOURTE HAVE PERSONALLY INSPECTED THE PROPERTY ON MAY 1, 2018. NO EARTHWORK HAS BEEN PERFORMED AND THE SITE IS CONSISTENT WITH THE INFO SHOWN.
Richard Dourte
RICHARD DOURTE P.E. #10854
DATE

	ENGINEER'S SEAL	Title 6532 AZOR LANE NE	DRAWN BY
			DATE
		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 #