CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



May 30, 2018

Jake Bordenave, P.E. Bordenave Designes PO Box 91194 Albuquerque, New Mexico 87109

RE: Worthan Residence
7908 Shiprock Ct. NW
Lot 21 Block 7 Volcano Cliffs Sub. SAD 227
Grading and Drainage Plan
Engineers Stamp Date 5/25/18 (E10D046)

Dear Mr. Bordenave,

Based upon the information provided in your submittal received 5/30/2018, the above referenced Grading and Drainage Plan cannot be approved for Grading Permit until the following comments are addressed.

PO Box 1293

- Provide a note 10 in the SW yard wall.
- Remove the Engineers Certification block or draw an X signifying this block is omitted.
- Provide sheet 13 of the architectural plans for review.

NM 87103

Albuquerque

If you have any questions please contact me at 924-3986 or Rudy Rael at 924-3977

www.cabq.gov

Sincerely,

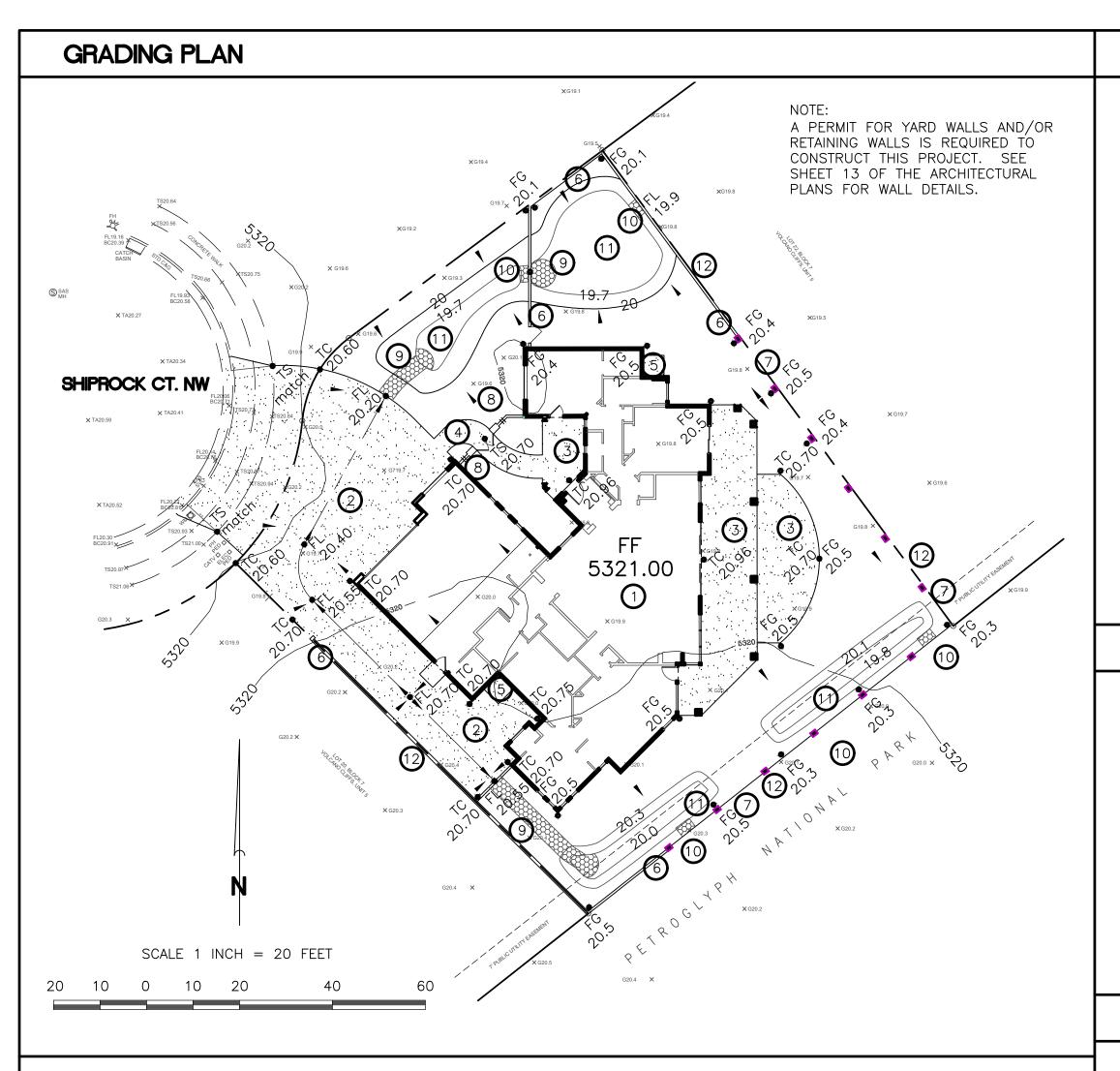
James D. Hughes, P.E. P

Principal Engineer, Hydrology

Planning Department

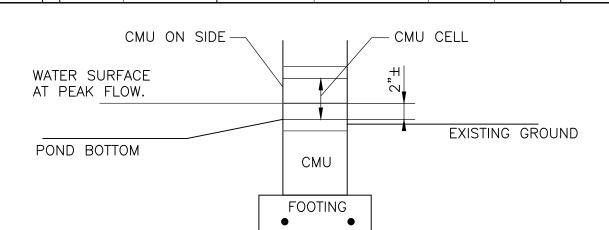
RR/JDH

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DRAINAGE DATA

CONDITION	В	STORM	TREATMENT	TREATMENT	EXCESS	PEAK	RUNOFF	RUNOF
	Α	RETURN	TYPE	AREA	PRECIPITATION	RUNOFF	VOLUME	RATE
	S	PERIOD						
	1							
	N		(table 4)		(table 8)	(table 9)		
-	•	year	-	sq. ft.	in.	cfs/acre	cu. ft.	cfs
EXISTING	S	10	Α	13500	0.08	0.24	90	0.0
	I		В	0	0.22	0.76	0	0.0
	Т		С	0	0.44	1.49	0	0.0
	Ε		D	0	1.24	2.89	0	0.0
			TOTAL	13500			90	0.0
		100	Α	13500	0.44	1.29	495	0.4
			В	0	0.67	2.03	0	0.0
			С	0	0.99	2.87	0	0.0
			D	0	1.97	4.37	0	0.0
			TOTAL	13500	200 000 0000	18. 50.040.00	495	0.4
DEVELOPED	S	10	Α	0	0.08	0.24	0	0.0
	1	180, 000	В	5616	0.22	0.76	103	0.1
	Т		С	0	0.44	1.49	0	0.0
	Е		D	7884	1.24	2.89	815	0.5
			TOTAL	13500		2 130 241 341	918	0.6
		100	Α	0	0.44	1.29	0	0.0
			В	5616	0.67	2.03	314	0.2
			С	0	0.99	2.87	0	0.0
			D	7884	1.97	4.37	1294	0.7
			TOTAL	13500			1608	1.0
	Α	100	В	1381	0.67	2.03	77	0.0
			D	2898	1.97	4.37	476	0.2
			TOTAL	4279			553	0.3
	В	100	В	1476	0.67	2.03	82	0.0
			D	949	1.97	4.37	156	0.1
			TOTAL	2425			238	0.1
	C	100	В	1707	0.67	2.03	95	0.0
			D	1966	1.97	4.37	323	0.2
			TOTAL	3673			418	0.2
		100	Б	4050	0.07	2.00		0 /
	D	100	В	1052	0.67	2.03	59	0.0
			D	2071	1.97	4.37	340	0.2
			TOTAL	3123			399	0.2



WATER HARVESTING PONDS

BASIN A REQ'D. VOLUME = (2898)(0.44-0.10)/12 = 82 CF

DEPTH 0.30 FT. VOL. = 53 CF

PROVIDED VOLUME TOP 400 SF, BOTTOM 137 SF

OVERFLOW TO B

<u>BASIN B</u>

REQ'D. VOLUME = (949)(0.44-0.10)/12 = 27 C.F.

PROVIDED VOLUME TOP 670 SF, BOTTOM 454 SF DEPTH 0.3 FT. VOL. = 112 CF BASIN C

REQ'D. VOLUME = (1966)(0.44-0.10)/12 = 56 C.F

PROVIDED VOLUME; TOP 306 SF, BOTTOM 124 SF DEPTH 0.30 FT., VOLUME = 64 CF

<u>BASIN D</u>

REQ'D. VOLUME = (2071)(0.44-0.10)/12 = 59 C.F. PROVIDED VOLUME;

TOP 293 SF, BOTTOM 131 SF DEPTH 0.30 FT., VOLUME = 63 CF

POND OVERFLOW OUTLETS (SEE SKETCH BELOW LEFT)

SET CMU SO THAT PEAK FLOW IS 2" DEEP. THEREFORE EACH CMU WILL DISCHARGE A MAXIMUM OF Q = $CLH*_{\frac{3}{2}}^{\frac{3}{2}}$ = 0.17 CFS WHERE WEIR C=2.8 AND $L=0.90\bar{6}$ FT.

<u>BASIN A</u>

PEAK FLOW = 0.36 CFS, USE 2 CMU'S ON EDGE

<u>BASIN B</u>

PEAK FLOW = 0.52 CFS, USE 4 CMU'S ON EDGE

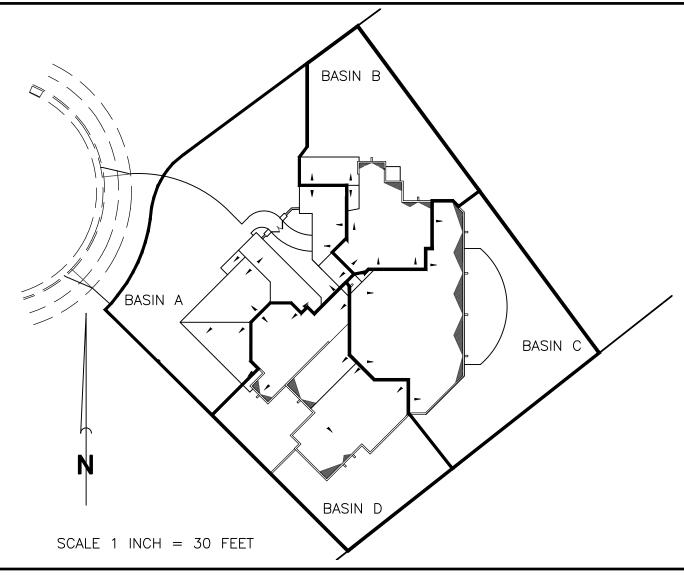
<u>BASIN A</u> PEAK FLOW = 0.28 CFS,

<u>BASIN A</u>

PEAK FLOW = 0.26 CFS, USE 2 CMU'S ON EDGE

USE 2 CMU'S ON EDGE

BASINS



ENGINEER'S CERTIFICATION

WATER HARVESTING POND

I, Jean J. Bordenave NM PE&PS No. 5110, of the firm Bordenave Designs, 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 00/00/00. The record information edited onto the original design document has been under my supervision and i true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Certificate of Occupancy.

Exceptions and/or Qualifications:

The record information presented on this edited design document in not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on the edited design document are advised to obtain independent verification of the accuracy of its accuracy before using it for any other

DRAINAGE NOTES

KEYED NOTES

3. CONCRETE PATIO/PORCH.

5. 4'x4' CONCRETE A/C PAD.

8. 2-3" PVC PIPES THRU WALL FOR DRAINAGE.

9. DRY STREAM w/ EROSION CONTROL PAD. SEE DETAIL THIS SHEET

OPENING AT ELEVATION 20.1 IN POND C AND 20.3 IN POND D.

10. INSTALL 2-CMU's ON EDGE TO PROVIDE DRAINAGE THRU WALL. BOTTOM OF

12. SEE SHEET 13 OF ARCHITECTURAL PLANS FOR YARD WALL DETAILS. PROVIDE 2" PVC PIPE THRU PERIMETER YARD WALLS AT 4' ON CENTER AT 3" ABOVE

CELL OPENING AT ELEVATION 19.8 IN PONDS A AND B. BOTTOM OF CELL

1. NEW RESIDENCE

2. CONCRETE DRIVE.

4. CONCRETE WALK.

6. CMU YARD WALL.

7. WROUGHT IRON FENCE.

11. WATER HARVESTING POND.

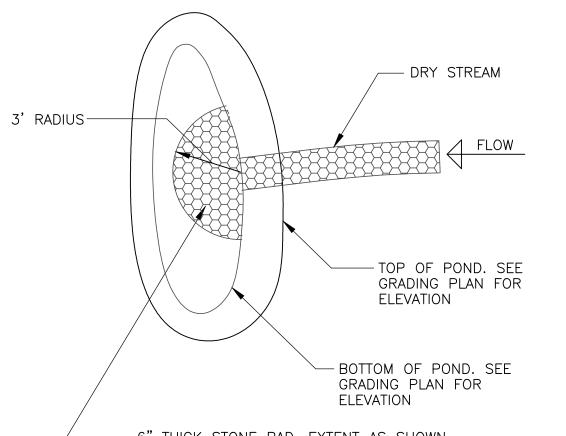
. THE SITE IS PRESENTLY IN IT'S NATURAL STATE AND RELATIVELY FLAT. THE SITE ABUTS THE PETROGLYPH NATIONAL PARK AND IS APPROXIMATELY 250 FEET WEST OF THE LAVA ESCARPMENT.

2. THERE IS A FLOW INCREASE OF 0.55 AND 0.65 CFS FOR THE 10 YEAR AND 100 YEAR STORMS RESPECTIVELY AND THE 6 HOUR RUNOFF VOLUMES FOR THE 10 YEAR AND 100 YEAR STORM INCREASE BY 828 AND 1113 CUBIC FEET RESPECTIVELY. THERE ARE NO RUNOFF CONVEYANCE SYSTEMS IN THE AREA. THE SITE IS DESIGNED TO SELF CONTAIN THE STORM WATER GENERATED ONSITE BY THE 90th PERCENTILE STORM.

3. THE SITE IS LOCATED IN A 'ZONE X' PER FEMA FIRM MAP NO. 113-G, DATED SEPTEMBER 26, 2008.

4. TOPO SURVEY DATA SHOWN ON THIS DRAWING WAS PREPARED BY HARRIS SURVEYING, INC. DATED MARCH, 2018.

GRADING NOTES



6" THICK STONE PAD. EXTENT AS SHOWN ON GRADING PLAN. SEE GRADATION IN DRY STREAM DETAIL THIS SHEET. DO NOT PLACE STONE ON BANKS OR BOTTOM OF POND EXCEPT AS SHOWN.

- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTÁCT THE NM811 FOR LOCATION OF EXISTING UTILITIES. DIAL 811 TO SUBMIT REQUEST OR 505-260-1165 WITH QUESTIONS.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.

4. ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY THE CONSTRUCTION OF TEMPORARY SOIL BERMS OR SILT FENCES AT PROPERTY LINES AND WETTING SOIL TO PREVENT IT FROM BLOWING.

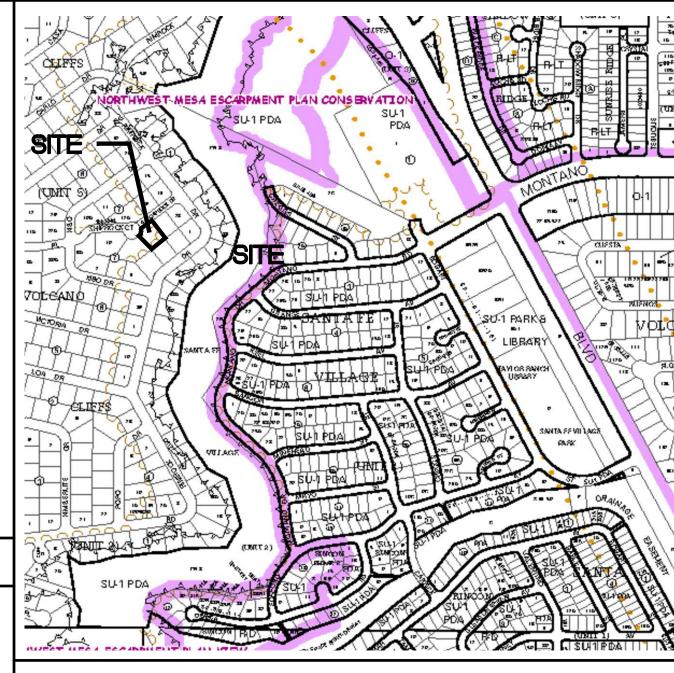
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING TRACKED DOWN THE STREET.

PP

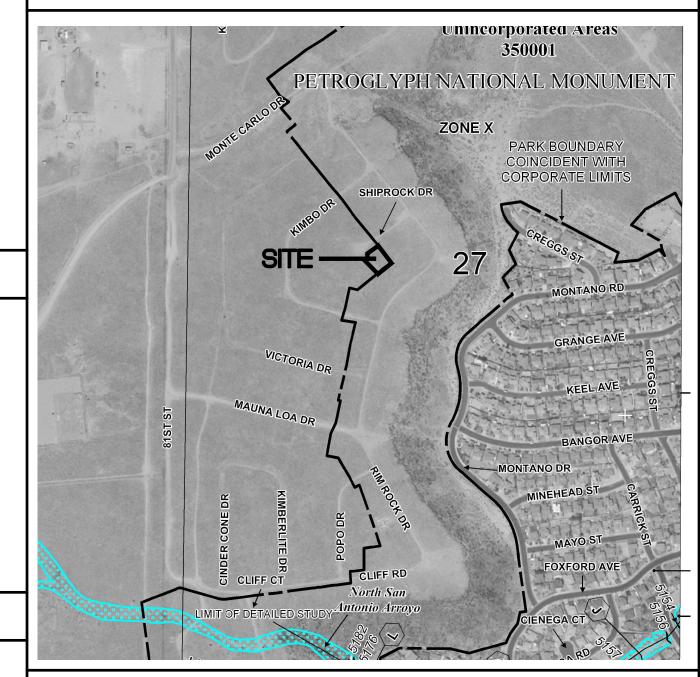
PED

-XX.XX-

VICINITY MAP E-14



FEMA FIRM PANEL NO. 113-G



LEGAL DESCRIPTION

LOT 21, BLOCK 7, VOLCANO CLIFFS SUBDIVISION, UNIT 5

DRY STREAM

CONSTRUCTION NOTES:	PERCENT BY VOL.	PERCENT BY VOL.
BOTTOM AND BANK WIDTHS SHALL VARY TO SIMULATE A NATURAL	> 6"	0-5
STREAM. STONES GREATER THAN 6" SHALL BE LIMITED TO BANK AREA.	3"-6"	40-60
	1"-3"	10-30
	3/8"-1"	10-15

< 3/8"

0-5

TW

FΗ

WM

WV

МН

CB

GV

VARIES VARIES 8" MIN. 'BOTTOM WIDTH' SHOWN 8" MIN. ON PLAN MINIMUM GRAVEL (UNCRUSHED) PER CHART — FILTER FABRIC — FINISH GRADE OF ADJACENT EARTH

LEGEND TBM TEMPORARY BENCHMARK

FINISH FLOOR FG FINISH GRADE FLOWLINE TOP OF ASPHALT TOP OF CONCRETE SLAB TOP/BACK OF CURB TP TOP OF EARTH PAD TS TOP OF SIDEWALK

TOP OF WALL FIRE HYDRANT WATER METER

GAS VALVE

LIGHT POLE

MANHOLE CATCH BASIN GRATE

WATER VALVE GAS MATER

FEMA FLOODPLAIN BOUNDARY DRAINAGE BASIN BOUNDARY EROSION SETBACK LINE EXISTING CONTOUR

RECORD SPOT ELEVATION

> PROPOSED CONTOUR EXISTING SPOT ELEVATION PROPOSED SPOT ELEVATION XX.XX

POWER POLE

ELEC. OR TEL. PEDESTAL

DIRECTION OF FLOW

GUY WIRE

RD OR C▶ ROOF DRAIN OR CANALE

PERMANENT BENCHMARK

ACS 22-E10 ELEVATION 5318.435 (NAVD 1988)

date REVISIONS



WORTHEN RESIDENCE 7908 SHIPROCK CT. NW ALBUQUERQUE, NM

GRADING AND DRAINAGE PLAN design by

project no. JJB 1802 METO 05/25/18 BORDENAVE DESIGNS sheet P.O. BOX 91194. ALBUQUERQUE. NM 87199

ph (505)823-1344 cell (505)480-6812 of fax(505)821-9105 email jakebordenave@comcast.net



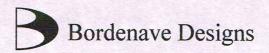
City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 10/2015)

Project Title: Worthan Rasid	an Building Pern	nit #: Hydrology File #:		
DRB#:	EPC#	11/ 1 0 1 1/		
Legal Description: Lot 21 Black	prock CH	olcano Cliffs, Unit 5		
Address: P.O. 130% 91196	1. ALL NI	Contact: JAKE		
Phone#: 505-823-1344	Fax#:	E-mail: jakbordana		
Other Contact:		comcas		
Address:		Contact:		
Phone#:	Fax#:	E-mail:		
Check all that Apply:				
DEPARTMENT: HYDROLOGY/ DRAINAGE TRAFFIC/ TRANSPORTATION MS4/ EROSION & SEDIMENT CONTR	OL	TYPE OF APPROVAL/ACCEPTANCE SOUGHT: BUILDING PERMIT APPROVAL CERTIFICATE OF OCCUPANCY		
TYPE OF SUBMITTAL:ENGINEER/ARCHITECT CERTIFICATI	ON	PRELIMINARY PLAT APPROVAL SITE PLAN FOR SUB'D APPROVAL SITE PLAN FOR BLDG. PERMIT APPROVAL		
CONCEPTUAL G & D PLAN GRADING PLAN		FINAL PLAT APPROVAL		
DRAINAGE MASTER PLAN DRAINAGE REPORT CLOMR/LOMR		SIA/ RELEASE OF FINANCIAL GUARANTEE FOUNDATION PERMIT APPROVAL GRADING PERMIT APPROVAL SO-19 APPROVAL PAVING PERMIT APPROVAL GRADING/ PAD CERTIFICATION WORK ORDER APPROVAL		
TRAFFIC CIRCULATION LAYOUT (TC TRAFFIC IMPACT STUDY (TIS) EROSION & SEDIMENT CONTROL PL				
OTHER (SPECIFY)		CLOMR/LOMR		
		PRE-DESIGN MEETING?		
S THIS A RESUBMITTAL?: _X_Yes	No	OTHER (SPECIFY)		
DATE SUBMITTED: 05/26/18	Ву:	Phundre		



May 25, 2018

City of Albuquerque Hydrology, Planning Dept. PO Box 1293 Albuquerque, NM 87103

Attn: James D. Hughes, P.E.

Re: E10D046

The following is written in response to your comments (dated 05/01/18) on the subject project. The responses are in the same order as your comments.

- 1. A sentence has been added to the wall construction note to install 2" PVC pipes thru the wall at four feet on center horizontally and three inches above the yard grade.
- 2. All construction on the Open Space area has been eliminated.
- 3. The house designer has added a sheet to the plans defining the relationship between the yard wall and the property line.
- 4. A note has been added to plan portion of the sheet as well as to the Keyed Notes stating that a wall permit is required in order to obtain a building permit for the residence.

Thank you for your review and comments.

Sincerely,

Jéan J.(Jake) Bordenave