CITY OF ALBUQUERQUE

August 31, 2017

James Lopez, P.E.
Wilson & CO
4900 Lang Ave NE
Albuquerque, New Mexico 87121

RE: **Lot 6-A Block 12 Unit 5 Volcano Cliffs SAD 227**
6520 Jade Dr NW
Grading and Drainage Plan
Engineers Stamp Date 8/17/17 (D10D032)

Dear Mr. Lopez,

Based upon the information provided in your submittal received 8/30/17, this plan cannot be approved for Grading Permit until the following comments are addressed.

- Provide elevations in and around the site.
- Provide street elevations.
- A pad was not visible at the time of my field inspection.

If you wish to leave the note of pad certification along with your signature this will be fine. However, I still need elevation points in and around the site to make sure the home will not get flooded.

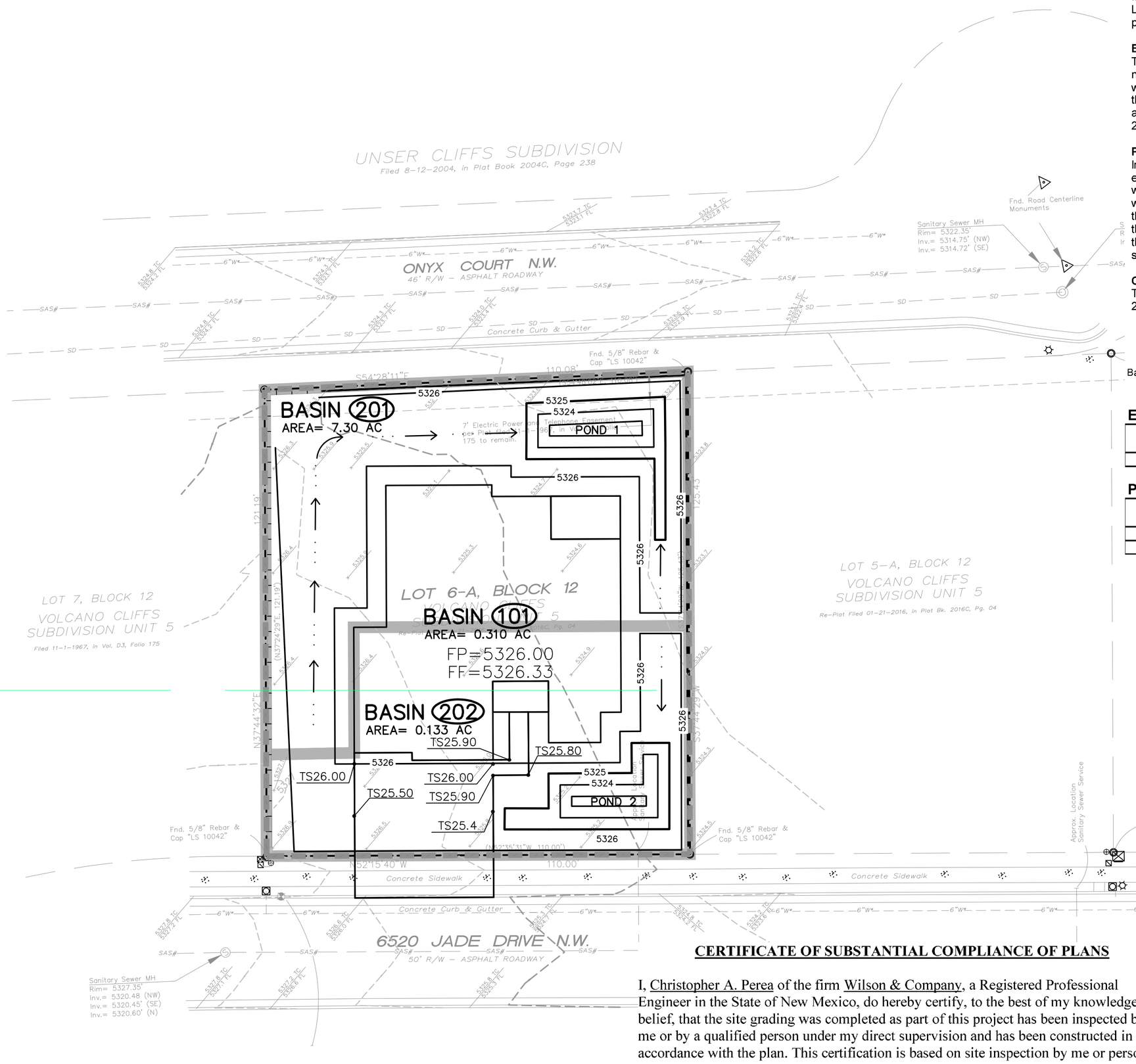
If you have any questions, please contact me at 924-3986 or Rudy Rael at 924-3977.

Sincerely,

James D. Hughes, P.E.
Principal Engineer, Hydrology
Planning Department

RR/JDH
C: File

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov



Drainage Report

Introduction
Lots 6-A shown hereon is a residential lot located on 6520 Jade Drive Albuquerque, NM. The drainage report has been prepared in accordance with the latest revision to Volume 2 Section 22.2 of the City of Albuquerque Process Manual.

Existing Conditions
The site is an undeveloped 0.31 acre lot. The site is bounded by Jade Drive to the southwest, Onyx Court to the northeast, and undeveloped residential lots to the northwest and southeast. The northwest boundary has a CMU block wall between the properties.The lot was graded when the lot was subdivided and has minimal vegitation. The runoff on this lot runs from the west corner to the east corner of the lot and contines to flow to the undeveloped lot to the southeast and eventually onto Onyx Court. The site is not located in a flood plain (see firm map #35001C0111G Revised March 25, 2010). No offsite runoff contributes to the lot.

Proposed Conditions
Improvements to Lot 6-A includes a new residence being built within a 3,890 square foot building envelope. The building envalope, driveway, and sidewalk have a total land treatment D area of 5325 square feet. The majority of onsite runoff will now flow from northeast to southwest. The lot will have a series of small retention ponds as well as a new CMU block wall which will prevent flows from discharging to the southeast lot. Two ponds will be placed along the southeast edge of the lot and will capture the runoff. In accordance with the MS4 permitting the existing detention pond will have to store the first 0.44" of rainfall. SInce the site is retaining the runoff the MS4 requirements are being met. The ponds will have the capacity to hold the 10- day event. Based on NRCS soil survey data, the Madurez-Wink association gently sloping soil at the site are deep and well-drained, which will increase infiltration and reduce ponding time.

Calculations
The Calculations shown below represent the flows for a 100-year 6-hour design event. The hydrology is per the "Section 22.2 of the Development Process Manual for the City of Albuquerque, New Mexico, latest revision.

Basin Data: COA Zone: 1
Precip, in: 2.2

Existing Conditions

Basin	Total Area (Ac)	A %	A Ac	B %	B Ac	C %	C Ac	D %	D Ac	Peak Discharge, Q	Excess Precip. (Weighted)	Volume (6_{hr}, acre-ft)	Volume (24_{hr}, acre-ft)	Volume (10_{day}, acre-ft)
101	0.310	0	0	0	0	100	0.31	0	0.00	0.9	0.99	0.0256	0.0256	0.0256

Proposed Conditions

Basin	Total Area	A %	A Ac	B %	B Ac	C %	C Ac	D %	D Ac	Peak Discharge, Q	Excess Precip. (Weighted)	Volume (6_{hr}, acre-ft)	Volume (24_{hr}, acre-ft)	Volume (10_{day}, acre-ft)
201	0.179	0	0.00	0	0.00	72	0.13	28	0.05	0.6	1.26	0.0189	0.0208	0.0250
202	0.133	0	0.00	0	0.00	45	0.06	55	0.07	0.5	1.53	0.0169	0.0198	0.0259

POND 1					
Elevation (ft)	Depth (ft)	Area (sq ft)	Area (ac)	ΔVolume (ac-ft)	Total Volume (ac-ft)
5326	0	78	0.002	0	0.000
5327	1	279	0.006	0.004	0.004
5328	2	610	0.014	0.010	0.014
5329	3	1425	0.033	0.023	0.038

POND 2					
Elevation (ft)	Depth (ft)	Area (sq ft)	Area (ac)	ΔVolume (ac-ft)	Total Volume (ac-ft)
5326	0	50	0.001	0	0.000
5327	1	247	0.006	0.003	0.003
5328	2	534	0.012	0.009	0.012
5329	3	1145	0.026	0.019	0.032

CERTIFICATE OF SUBSTANTIAL COMPLIANCE OF PLANS

I, Christopher A. Perea of the firm Wilson & Company, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the site grading was completed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plan. This certification is based on site inspection by me or personnel under my direction.

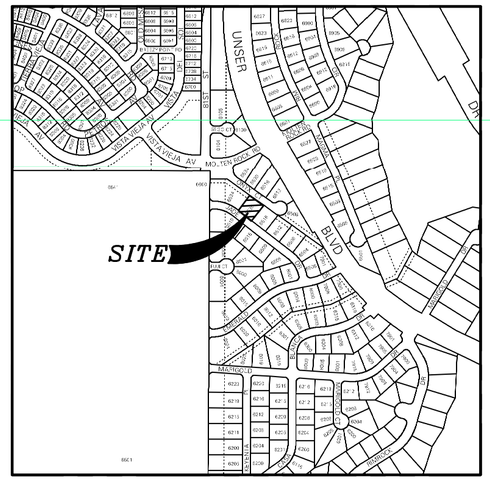
Christopher A. Perea, P.E. NM 13686 — Date: 8/30/17

LEGEND

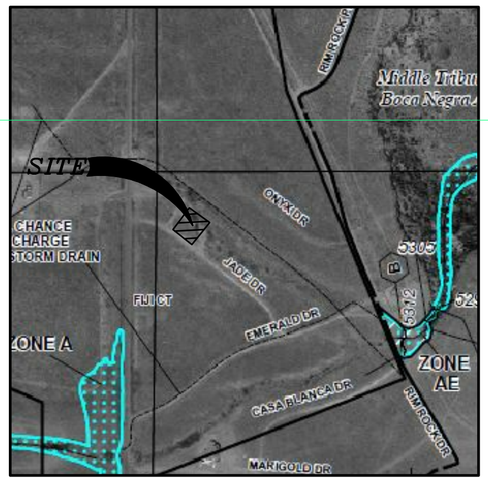
- PROPOSED INTERMEDIATE CONTOUR
- 5450 PROPOSED INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- 5440 EXISTING INDEX CONTOUR
- EXISTING PROPERTY LINE
- FF=XXXX.XX FINISHED FLOOR
- FP=XXXX.XX FINISHED PAD
- TS=XXXX.XX TOP OF SIDEWALK
- EXISTING BASIN
- PROPOSED BASIN
- DIRECTION OF FLOW
- PROPOSED CMU BLOCK WALL

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

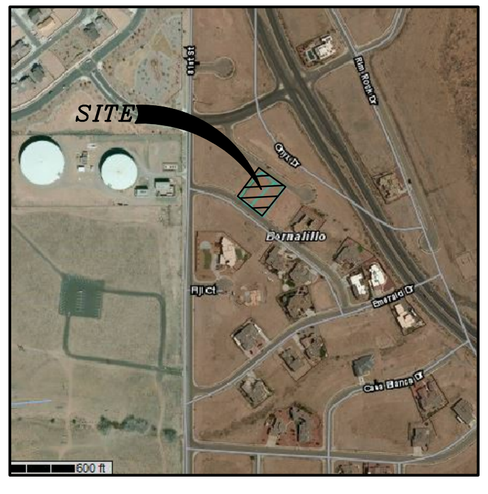
NOTES:
1. GRADING ACTIVITIES ON ADJACENT PROPERTIES OR RIGHT-OF-WAY WITHOUT WRITTEN PERMISSION FROM THE OWNER IS NOT PERMITTED.
2. UNPROTECTED SLOPES SHALL BE NO STEEPER THAN 4H:1V PER CORR CODE. IF THERE IS SUFFICIENT SLOPE PROTECTION (I.E. PLANTINGS, ROCK COVER, SHOTCRETE/CONCRETE) SLOPES MAY BE NO STEEPER THAN 3H:1V.
3. A SEPARATE WALL PERMIT MUST BE OBTAINED FROM CORR BUILDING DEPARTMENT.
4. POND SLOPES SHALL BE TREATED FOR SLOPE PROTECTION, USE XERISCAPE TREATMENT.



VICINITY MAP
ZONE ATLAS MAP NO. D-10/E-10



FEMA FLOODPLAIN
FIRM #35001C0111G



SOILS MAP
NRCS WEB SOIL SURVEY, BERNALILLO COUNTY

AS BUILT INFORMATION
CONTRACTOR — DATE
WORK STAKED BY — DATE
INSPECTOR'S ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES BY — DATE
NO.

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

ENGINEER'S SEAL
CHRISTOPHER A. PEREA
13686
8/17/17
LICENSED PROFESSIONAL ENGINEER

BENCH MARK
LOT 6-A, BLOCK 12
PK NAIL WITH ALUMINUM DISK STAMPED "SURV-TEK-CONTROL"
Y=1513575.28, X=1497832.75,
ELEV=5327.25'

LEGAL DESCRIPTION
LOT NUMBERED SIX-A (6-A) IN BLOCK NUMBERED TWELVE (12), VOLCANO CLIFFS UNIT 5, A SUBDIVISION OF A TRACT OF LAND SITUATE IN SECTION 27, TOWNSHIP 11 NORTH, RANGE 2 EAST, N.M.P.M., BERNALILLO COUNTY, NEW MEXICO, AS THE SAME ARE SHOWN AND DESIGNATED ON THE PLAT THEREOF, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON NOVEMBER 1, 1967, IN VOLUME D3, FOLIO 175.

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY: JEL — DATE:
DRAWN BY: JEL — DATE:
CHECKED BY: CAP — DATE:

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DEVELOPMENT DIVISION

TITLE: 1620 JADE DRIVE NW
GRADING & DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
—	D10/E10	1	1