CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director

Mayor Timothy M. Keller

March 22, 2019

Philip Clark
Clark Consulting Engineers
19 Ryan Road
Edgewood, NM 87015

RE: **323 Jefferson Apartments**
323 Jefferson SE
Grading Plan Stamp Date: 2/28/19
Hydrology File: K17D116

Dear Mr. Clark:

Based on the submittal received on 3/6/19 the above-referenced Grading Plan cannot be approved for Building Permit until the following are corrected:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Prior to Building Permit:

1. Provide a section through the west property line showing the grades on both sides of the property line and existing wall. Provide existing and proposed spot elevations along the property line. No additional fill may be placed against the existing wall.

2. Show the 100-yr Water Surface Elevation and the Storm Water Quality WSE. Ensure 1' freeboard is maintained along the south and west property lines, determined from the Q100 WSE. Because the sidewalk culvert invert is at 42.6' the Storm Water Quality WSE is 42.6', not 42.3'.

3. Provide a section through the pond and south property line and adjoining building. Special care needs to be taken here to ensure no water or saturated soil ponds against the adjacent building. A buried, waterproofed retaining wall/floodwall is likely needed to keep from damaging the adjacent building and get the pond to overflow to Jefferson via the sidewalk culvert. A cutoff wall with no footer is not acceptable, the retaining wall needs to be designed for saturated conditions and provided in the resubmittal. The type of waterproofing material must be specified.

4. Provide hydraulic calculations for the sidewalk culvert (primary outfall), sized for the 100-yr peak inflow; provide pond volume and routing calculations for the Stormwater Quality Volume and 100-yr storm. The weir equation with coefficient "C" =3 for a broad-crested weir must be used, not the orifice equation.

5. The pond will also need an emergency overflow sized for the 100-yr peak inflow, or you could provide 2x capacity on the sidewalk culverts. The driveway transition slab cannot encroach on the sidewalk culverts. Use the current SO-19 notes, as found on the Hydrology website.

Prior to Certificate of Occupancy (For Information):

6. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.

7. The sidewalk culverts must be inspected and approved by storm drain maintenance (Jason Rodriguez, jtrodriguez@cabq.gov or 857-8607).

8. A Bernalillo County Recorded Drainage Covenant (No Public Easement) is required for the stormwater control pond. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee ($25, payable to Bernalillo County) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) or Madeline Carruthers (mtafoya@cabq.gov, 924-3997) regarding the routing and recording process for covenants. The routing and recording process for covenants can take a month or longer; Hydrology recommends beginning this process as soon as possible as to not delay approval for certificate of occupancy.

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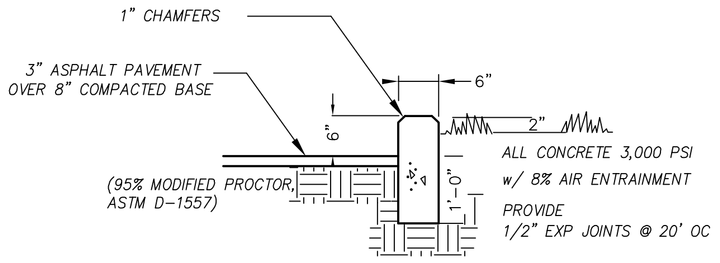
If you have any questions, I can be contacted at 924-3695 or dpeterson@cabq.gov.

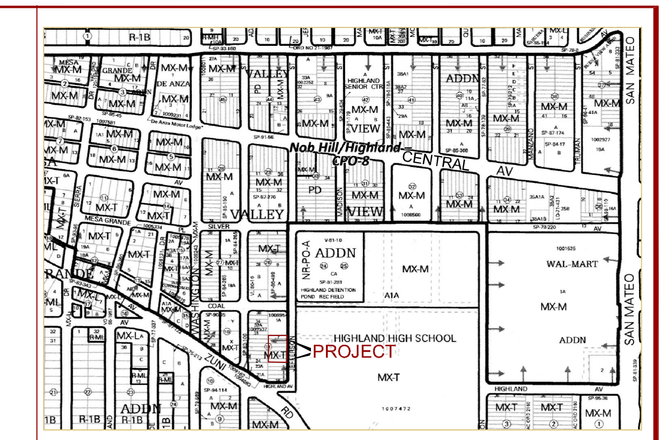
Sincerely,

Dana Peterson
Senior Engineer, Planning Dept.
Development Review Services



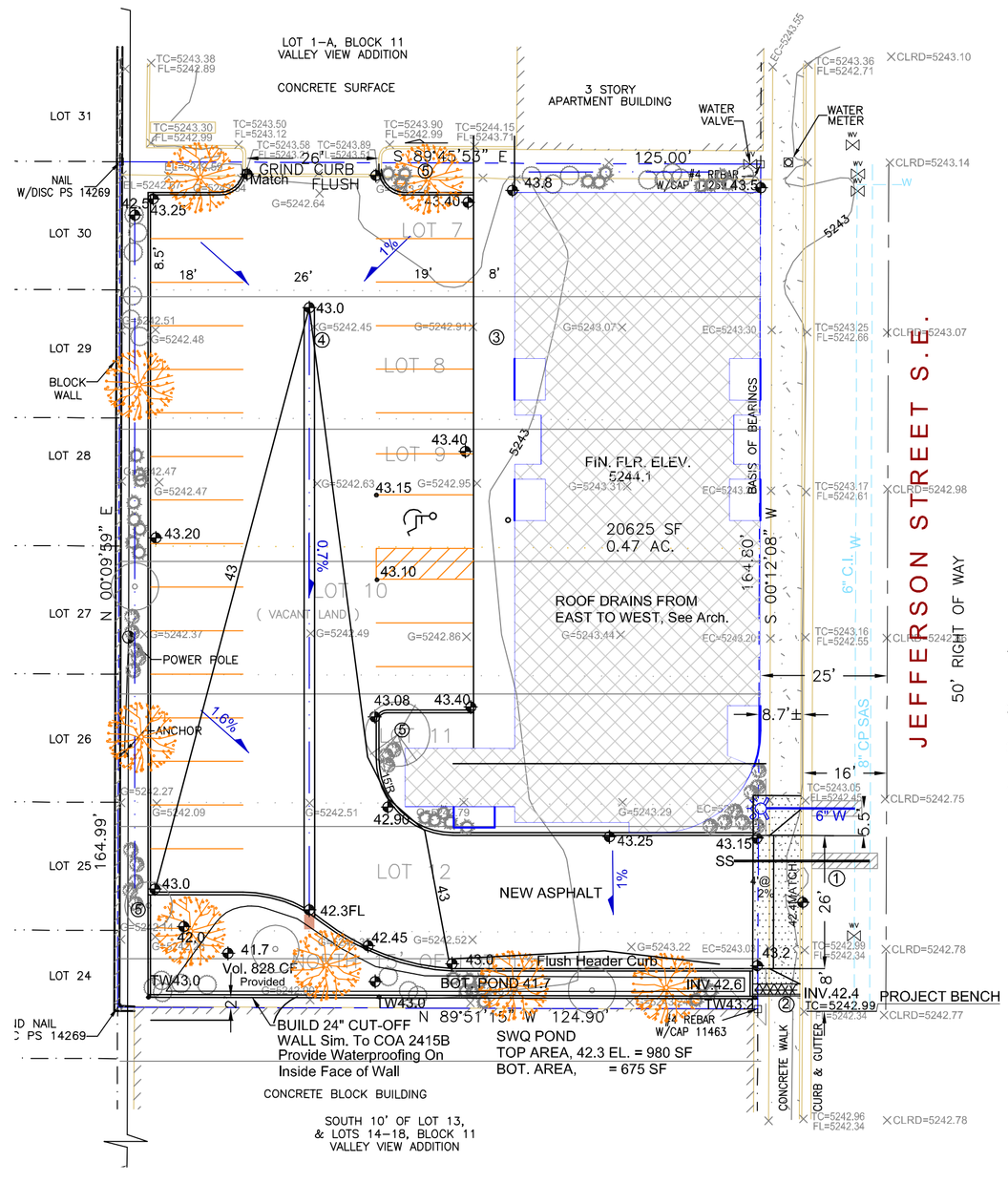
CONCRETE HEADER CURB

NTS



VICINITY MAP

ZONE K-17



Scale: 1" = 20'

NOTES

1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 1986, 9TH UPDATE.
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL/GRAVEL CRUSHER FINES.
5. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
6. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1012, NATIVE SEED MIX.
7. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.

GRADING & DRAINAGE PLAN

THE RESIDENTIAL APARTMENT BUILDING PROJECT IS LOCATED IN THE KNOB HILL AREA OF ALBUQUERQUE APPROXIMATELY 3 MILES EAST OF THE DOWNTOWN CORE. THE GRADING & DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE CITY FLOOD HAZARD ORDINANCE, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND EXISTING IMPROVEMENTS: INCLUDING EXISTING SIDEWALK, AND STREET IMPROVEMENTS.
2. PROPOSED IMPROVEMENTS: 5735 SQUARE FOOT BUILDING FOOTPRINT, PARKING, ASPHALT DRIVES, NEW GRADE ELEVATIONS, ADA ACCESS AND LANDSCAPING.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION AND ACCEPTANCE OF ALL ON-SITE FLOWS WHICH CONTRIBUTE TO THE DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS.

THE PURPOSE OF THE PLAN IS TO ESTABLISH CRITERIA FOR CONTROLLING STORM RUNOFF AND EROSION, AND ESSENTIALLY ALLOWING HISTORIC FLOWS TO CONTINUE TO DRAIN THROUGH THE PROPERTY. PRESENTLY, THE SITE IS BOUNDED ON THE NORTH AND SOUTH BY DEVELOPED MX-T PROPERTY. JEFFERSON ST. ON THE EAST IS PAVED WITH CURB AND SIDEWALK, AND MAINTAINED BY THE CITY OF ALBUQUERQUE. THE SITE CURRENTLY DRAINS AT 1% FROM EAST TO WEST. HISTORICAL SITE RUNOFF OUTFALL LOCATIONS WILL REMAIN UNCHANGED. ONLY MINIMAL GRADING (DRIVEWAY CONSTRUCTION) IS PROPOSED WITHIN THE CITY R.O.W. THE SITE IS NOT IMPACTED ADVERSELY BY ANY OFF-SITE DRAINAGE FLOWS.

NOTICE TO CONTRACTORS - "SO-19 PERMIT"

Private Drainage Facilities within City R.O.W.

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NM ONE CALL 260-1990 (OR DIAL 811), FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS 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.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HR. BASIS.
8. CONTRACTOR MUST CONTACT JASON RODRIGUEZ (CURRENTLY) @ 235-8016 AND CONSTRUCTION COORDINATION AT 924-3416 TO SCHEDULE AN INSPECTION.

APPROVAL	NAME (STREET MAINTENANCE)	DATE

KEYED NOTES

1. BUILD DRIVEWAY PER COA STD. DWG 2425. REMOVE/REPLACE SDWK. TO NEAREST JOINT PER DWG. 2430.
2. BUILD 24" WIDE SIDEWALK CULVERT PER COA ST'D DWG. 2236, AND S.O. 19 NOTICE.
3. BUILD P.C.C. TURNED DOWN SLAB PER DETAIL SHT. C-2.
4. BUILD P.C.C. ALLEY GUTTER SIMILAR TO COA STD. DWG. 2415.
5. FINISH GRADE WITHIN PLANTER AREAS SHALL BE A MIN. OF 2" BELOW TOP OF CURB.

LEGEND

EXIST. SPOT ELEVATION	+24.0
EXIST. CONTOUR	10
NEW SPOT ELEVATION	24.0
NEW CONTOUR	12
NEW SWALE	
DRAINAGE DIRECTION, EXISTING	
NEW CONCRETE CURB (0.5' HEIGHT)	
NEW P.C.C., CONCRETE	
FLOWLINE	FL
EXISTING POWER POLE	P.P.
EDGE OF ASPHALT	EA
TYPE 'VVL' RIPRAP, 6" BURY (AVG. DIA. 4",)	
STORM WATER QUALITY	SWQ

CALCULATIONS

DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM)
REVISED JANUARY 1993 FOR CITY OF ALBUQUERUQUE ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: Q=QPEAK x AREA.."Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: VOLUME = EWeighted x AREA
P100 = 2.35 Inches, Zone 2 Time of Concentration, TC = 12 Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [ ] = 10 YEAR VALUES

EXISTING CONDITIONS

LOT AREA = 0.47 ACRES, WHERE EXCESS PRECIP. 'C' =1.13 In. [0.52]
PEAK DISCHARGE, Q100 = 1.5 CFS [0.8], WHERE UNIT PEAK DISCHARGE 'C' = 3.1 CFS/AC. [1.7]
THEREFORE: VOLUME 100 = 1928 CF [887]

DEVELOPED CONDITIONS

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE

FOR STUDY AREA	AREA	LAND TREATM'T	Q Peak	E
UNDEVELOPED	0.00 Ac.(0%)	A	1.56[0.38]	0.53[0.13]
LANDSCAPING/POND	0.09 Ac.(19%)	B	2.28[0.95]	0.78[0.28]
GRAVEL & COMPACTED SOIL	0.00 Ac.(0%)	C	3.14[1.71]	1.13[0.52]
ROOF - PAVEMENT	0.38 Ac.(81%)	D	4.70[3.14]	2.12[1.34]
	0.47 Ac.			

THEREFORE: E Weighted = 1.86 In.[0.xx] & VOLUME 100 = 3173 CF
Q100 = 1.99 CFS VOLUME 10= xx.x
Q10 = xx CFS
INCREASE IN DISCHARGE Q = 0.4 CFS
DEVELOPMENT INCREASE IN VOLUME - 1245 CF

SIZE REQUIRED STORM WATER QUALITY POND

1.) HARVEST DEVELOPED POINT RAINFALL, THROUGH SOFT, DEPRESSED LANDSCAPING 3-AREAS ...TOTAL AREA X 1-INCH = 400 CF±

2.) CHECK REQUIRED "FIRST FLUSH" VOLUME OF... 0.34 INCHES X 0.38 AC.(43560 SF)/12 = 469 CF

SIZE OUTLET: $Q = CA\sqrt{2gH}$ Where: C = 0.7, g = 32 f/s
SDWK CULVERT Q = 2.6 CFS 1' W. SDWK. CULV. = 1'x7"
A = 0.58 SF, H=0.625'

PROJECT DATA

LEGAL DESCRIPTION

LOTS 7-13, BLOCK 11, VALLEY VIEW ADDITION
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

PROJECT BENCHMARK

TOP OF CURB, PROJECTED SE CORNER: ELEVATION = 5242.99, SEE PLAN. NGVD88. TIED FROM ACS "6-K18-A" (5249.99).

TOPOGRAPHIC DESIGN SURVEY

PROVIDED BY THE SURVEY OFFICE. DATED MARCH 2018, TONY HARRIS, PLS 11463.

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

PHILIP W. CLARK NMPE #10265

12/24/18 PHILIP W. CLARK NEW MEXICO 10265 REGISTERED PROFESSIONAL ENGINEER 2/28/19

Clark Consulting Engineers
19 Ryan Road
Edgewood, New Mexico 87015
Tele: (505) 281-2444 Cell: (505) 264-6042

DATE	REVISION
12/24/18	Addr. COA Com.
2/28/19	Remove Refuse
	Re-Grade/Pond

LOTS 7-13, BLOCK 11, VALLEY VIEW ADDITION ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

323 JEFFERSON ST., SE
3-STORY APARTMENTS

GRADING & DRAINAGE PLAN

DESIGNED BY: PWC	DRAWN BY: CCE	JOB #: GRUM_JEFF	C-1 OF 1
CHECKED BY: PWC	DATE: NOV 2018	FILE #: G/D	